

**1TX Antenna 2 MODE**

<b>Test Engineer:</b>	16080 ZS
<b>Test Date:</b>	8/11/2021

**Limits**

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	1.50	30.00	30	36	30.00
Mid 6	2437	1.50	30.00	30	36	30.00
High 11	2462	1.50	30.00	30	36	30.00

**Results**

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	15.89	15.89	30.00	-14.11
Mid 6	2437	16.01	16.01	30.00	-13.99
High 11	2462	16.32	16.32	30.00	-13.68

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

<b>Test Engineer:</b>	16080 ZS
<b>Test Date:</b>	8/11/2021

**Limits**

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC/ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	1.76	30.00	36	30.00
Mid 6	2437	1.76	30.00	36	30.00
High 11	2462	1.76	30.00	36	30.00

**Results**

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	13.28	13.80	16.56	30.00	-13.44
Mid 6	2437	13.38	13.64	16.52	30.00	-13.48
High 11	2462	13.13	13.81	16.49	30.00	-13.51

## **9.5. POWER SPECTRAL DENSITY**

### **LIMITS**

FCC §15.247 (e)

RSS-247 (5.2) (b)

The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

### **RESULTS**

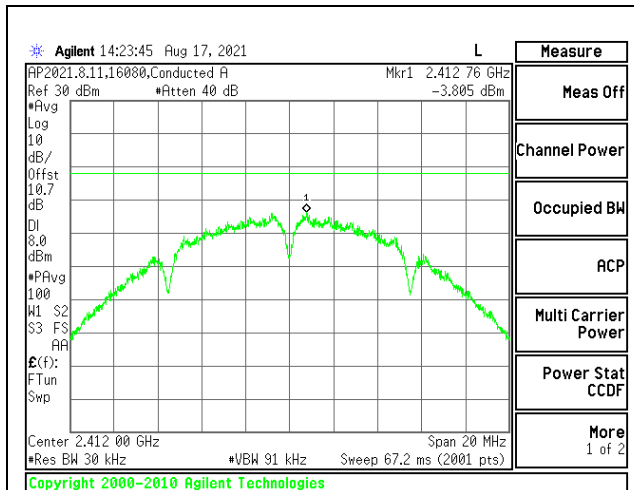
### 9.5.1. 802.11b MODE

#### 1TX Antenna 1 MODE

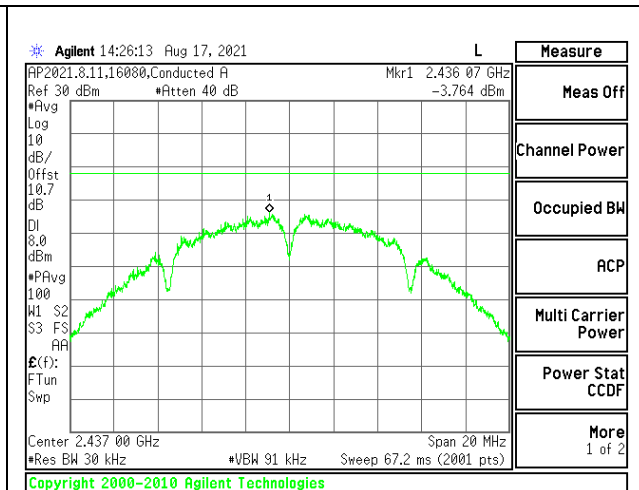
<b>Duty Cycle CF (dB)</b>	0.00	<b>Included in Calculations of Corr'd PSD</b>
---------------------------	------	---

#### PSD Results

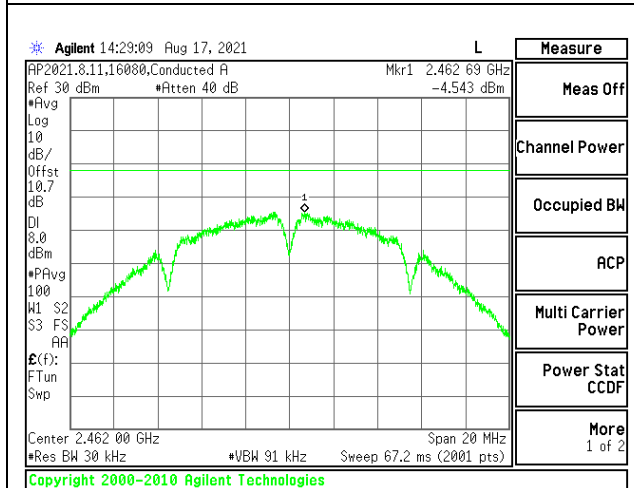
Channel	Frequency (MHz)	Antenna 1 Meas (dBm/30kHz)	Total Corr'd PSD (dBm/30kHz)	Limit (dBm/3kHz)	Margin (dB)
Low 1	2412	-3.805	-3.81	8.0	-11.8
Mid 6	2437	-3.764	-3.76	8.0	-11.8
High 11	2462	-4.543	-4.54	8.0	-12.5



**LOW CHANNEL 1**



**MID CHANNEL 6**



**HIGH CHANNEL 11**

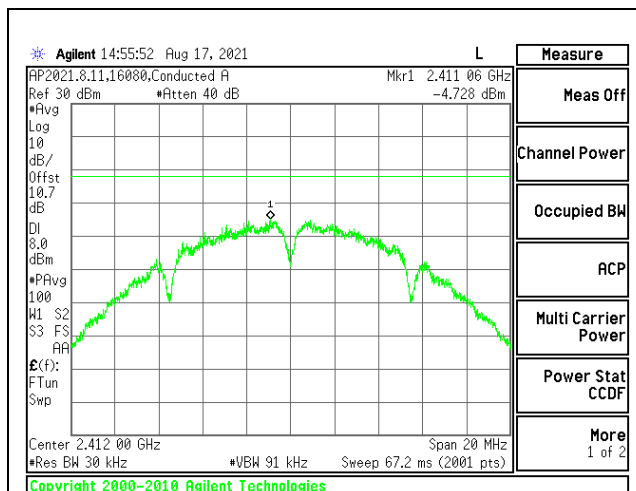
**Intentionally left blank**

**1TX Antenna 2 MODE**

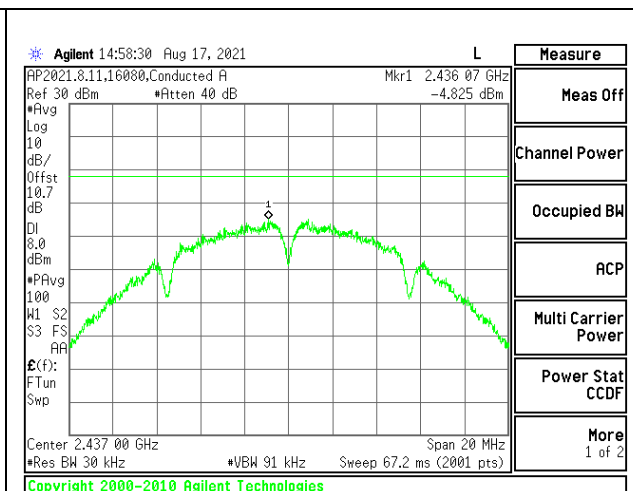
<b>Duty Cycle CF (dB)</b>	0.00	<b>Included in Calculations of Corr'd PSD</b>
---------------------------	------	---

**PSD Results**

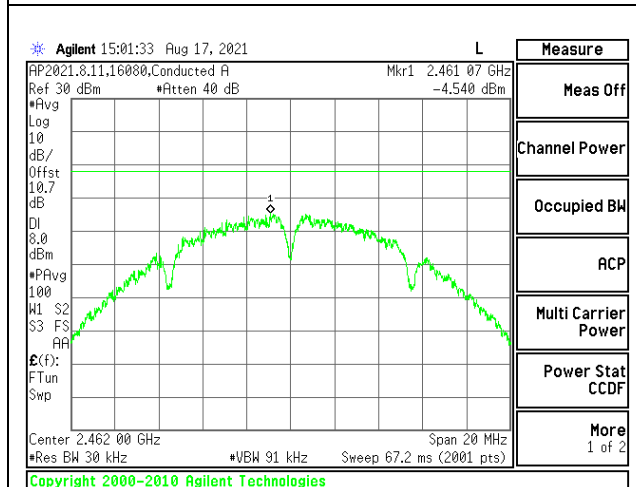
Channel	Frequency (MHz)	Antenna 2 Meas (dBm/30kHz)	Total Corr'd PSD (dBm/30kHz)	Limit (dBm/3kHz)	Margin (dB)
Low 1	2412	-4.728	-4.73	8.0	-12.7
Mid 6	2437	-4.825	-4.83	8.0	-12.8
High 11	2462	-4.540	-4.54	8.0	-12.5



**LOW CHANNEL 1**



**MID CHANNEL 6**



**HIGH CHANNEL 11**

**Intentionally left blank**

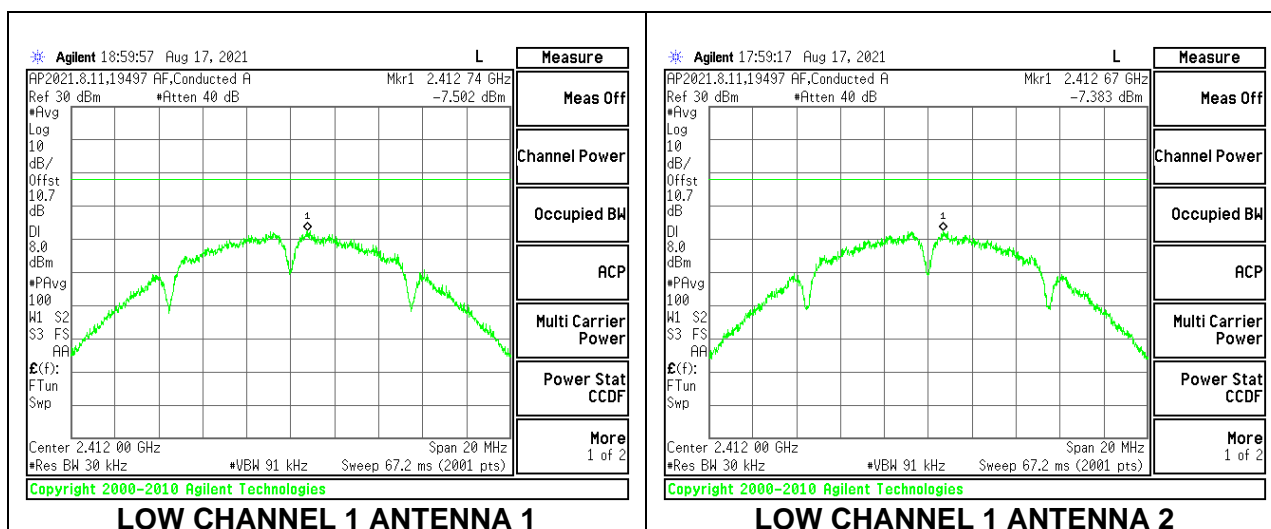
**2TX Antenna 1 + Antenna 2 CDD MODE**

<b>Duty Cycle CF (dB)</b>	0.00	<b>Included in Calculations of Corr'd PSD</b>
---------------------------	------	---

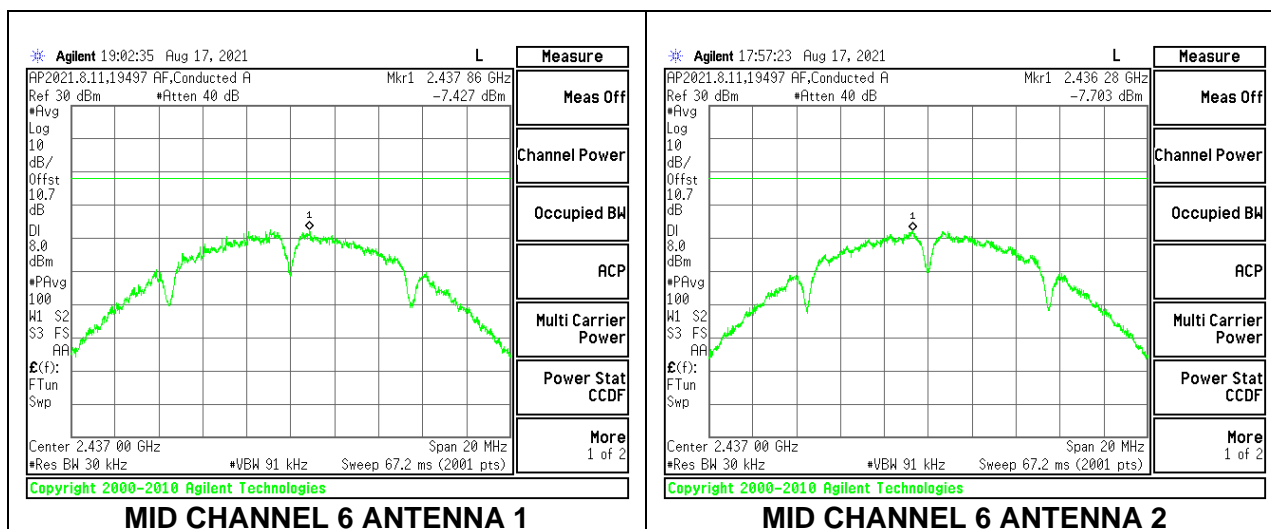
**PSD Results**

Channel	Frequency (MHz)	Antenna 1 Meas (dBm/30kHz)	Antenna 2 Meas (dBm/30kHz)	Total Corr'd PSD (dBm/30kHz)	Limit (dBm/3kHz)	Margin (dB)
Low 1	2412	-7.502	-7.383	-4.43	8.0	-12.4
Mid 6	2437	-7.427	-7.703	-4.55	8.0	-12.6
High 11	2462	-7.887	-7.382	-4.62	8.0	-12.6

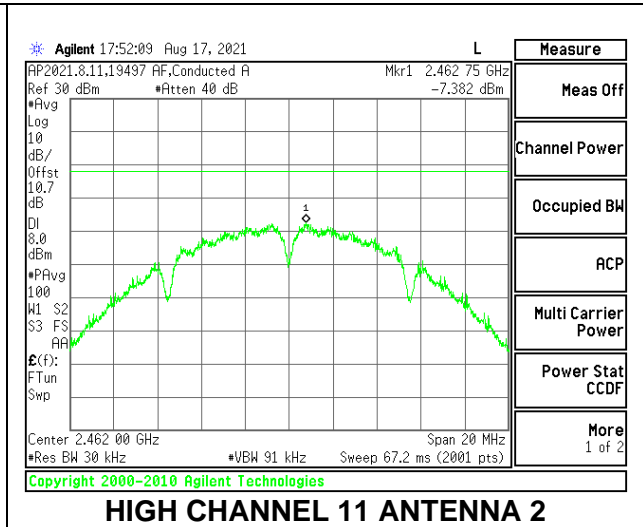
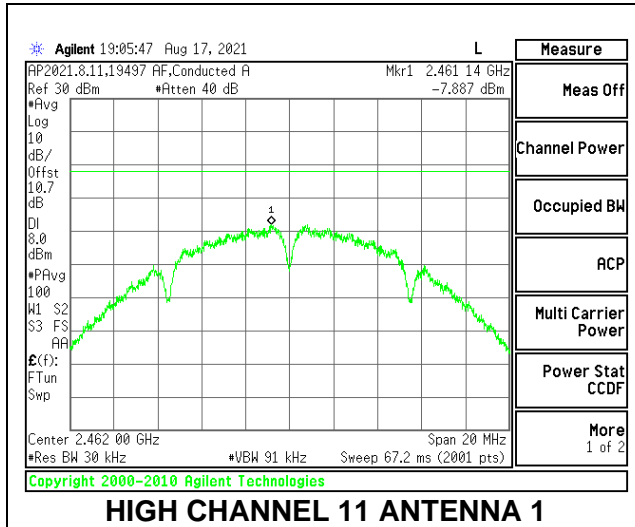
**LOW CHANNEL 1**



**MID CHANNEL 6**



### HIGH CHANNEL 11



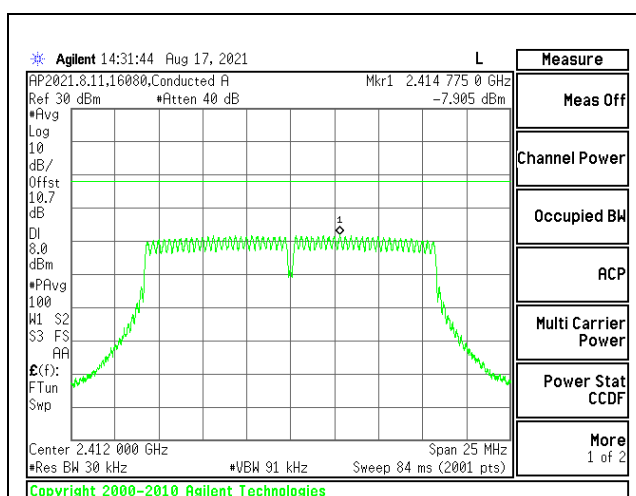
### 9.5.2. 802.11g MODE

#### 1TX Antenna 1 MODE

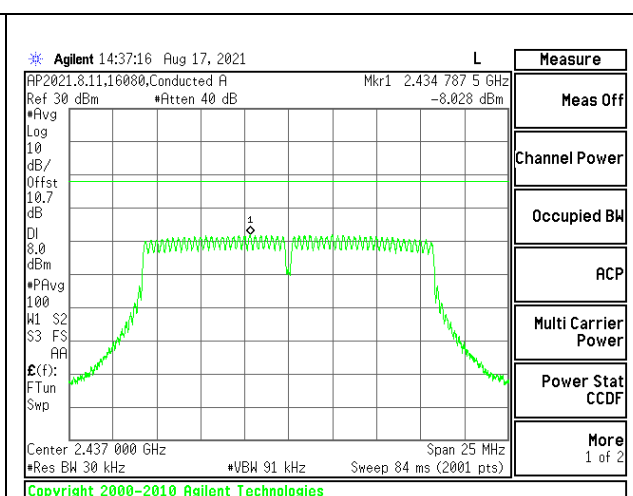
<b>Duty Cycle CF (dB)</b>	0.00	<b>Included in Calculations of Corr'd PSD</b>
---------------------------	------	---

#### PSD Results

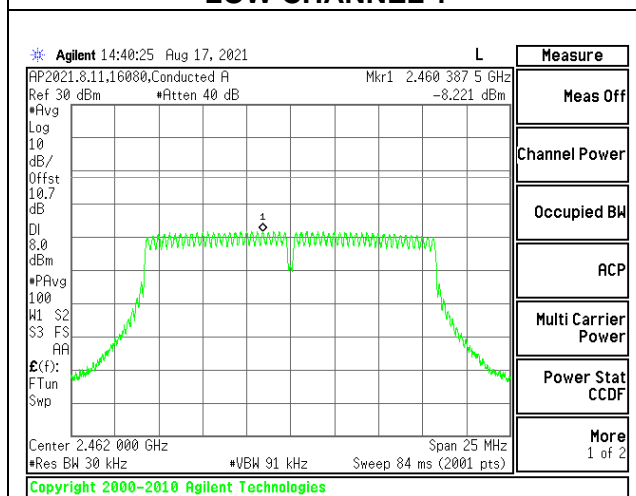
Channel	Frequency (MHz)	Antenna 1 Meas (dBm/30kHz)	Total Corr'd PSD (dBm/30kHz)	Limit (dBm/3kHz)	Margin (dB)
Low 1	2412	-7.905	-7.91	8.0	-15.9
Mid 6	2437	-8.028	-8.03	8.0	-16.0
High 11	2462	-8.221	-8.22	8.0	-16.2



**LOW CHANNEL 1**



**MID CHANNEL 6**



**HIGH CHANNEL 11**

Intentionally left blank

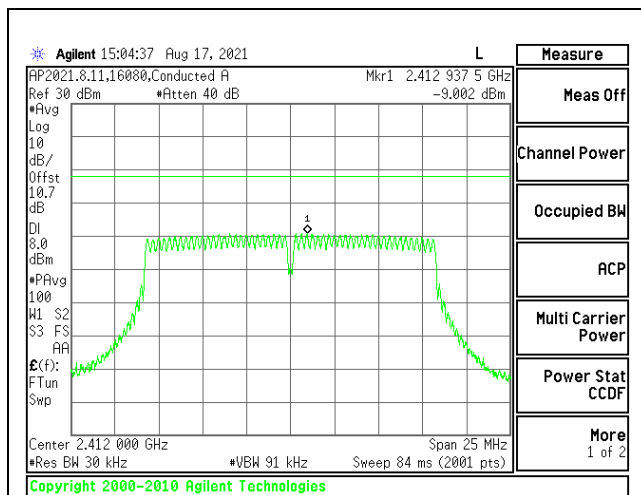


**1TX Antenna 2 MODE**

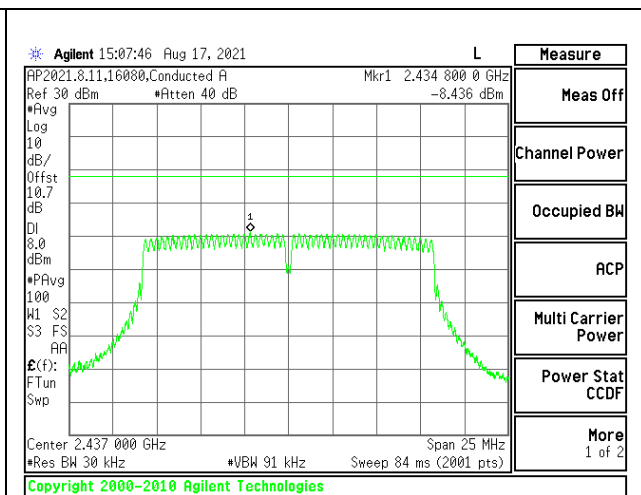
<b>Duty Cycle CF (dB)</b>	0.00	<b>Included in Calculations of Corr'd PSD</b>
---------------------------	------	---

**PSD Results**

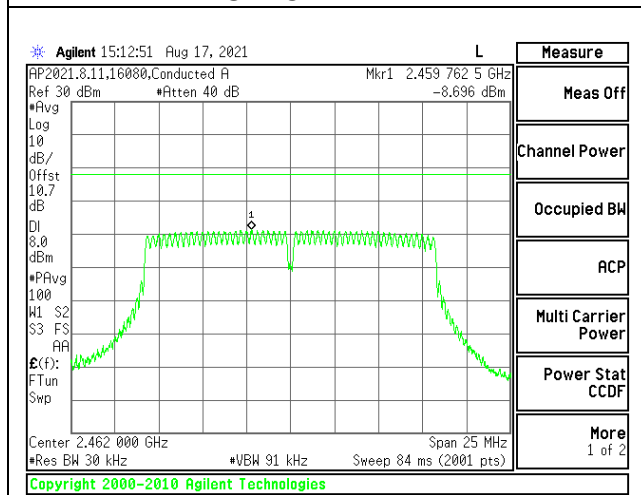
Channel	Frequency (MHz)	Antenna 2 Meas (dBm/30kHz)	Total Corr'd PSD (dBm/30kHz)	Limit (dBm/3kHz)	Margin (dB)
Low 1	2412	-9.002	-9.00	8.0	-17.0
Mid 6	2437	-8.436	-8.44	8.0	-16.4
High 11	2462	-8.696	-8.70	8.0	-16.7



**LOW CHANNEL 1**



**MID CHANNEL 6**



**HIGH CHANNEL 11**

**Intentionally left blank**

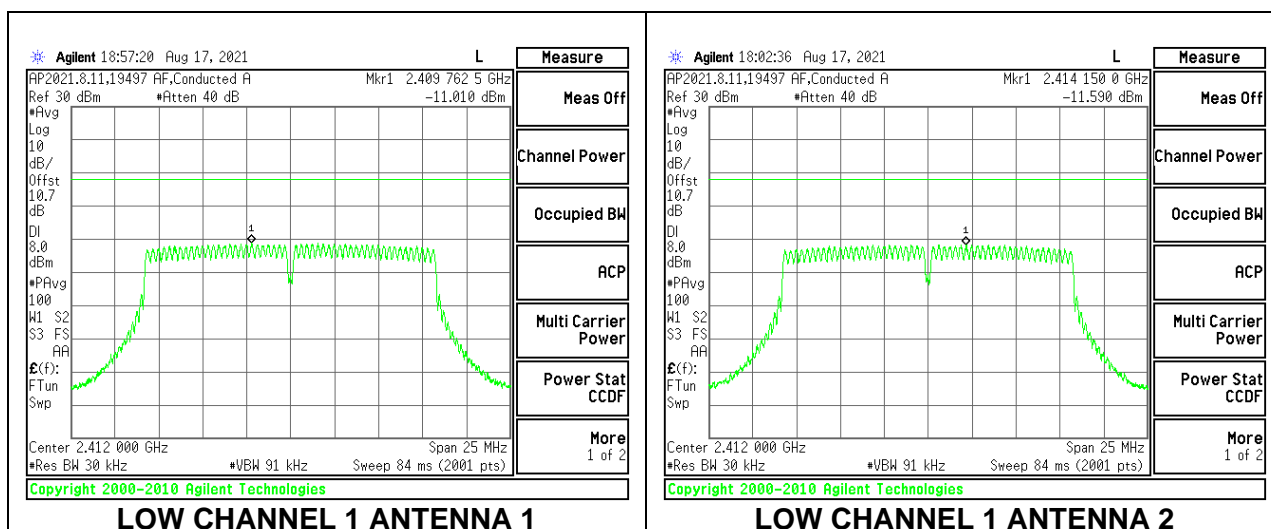
**2TX Antenna 1 + Antenna 2 CDD MODE**

<b>Duty Cycle CF (dB)</b>	0.00	<b>Included in Calculations of Corr'd PSD</b>
---------------------------	------	---

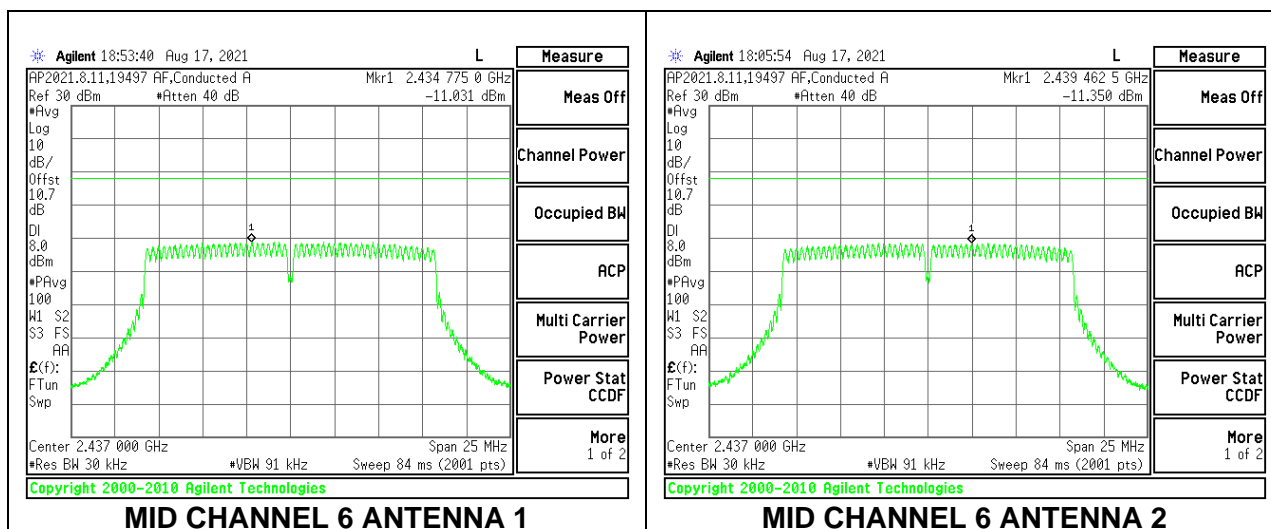
**PSD Results**

Channel	Frequency (MHz)	Antenna 1 Meas (dBm/30kHz)	Antenna 2 Meas (dBm/30kHz)	Total Corr'd PSD (dBm/30kHz)	Limit (dBm/3kHz)	Margin (dB)
Low 1	2412	-11.010	-11.590	-8.28	8.0	-16.3
Mid 6	2437	-11.031	-11.350	-8.18	8.0	-16.2
High 11	2462	-11.181	-11.248	-8.20	8.0	-16.2

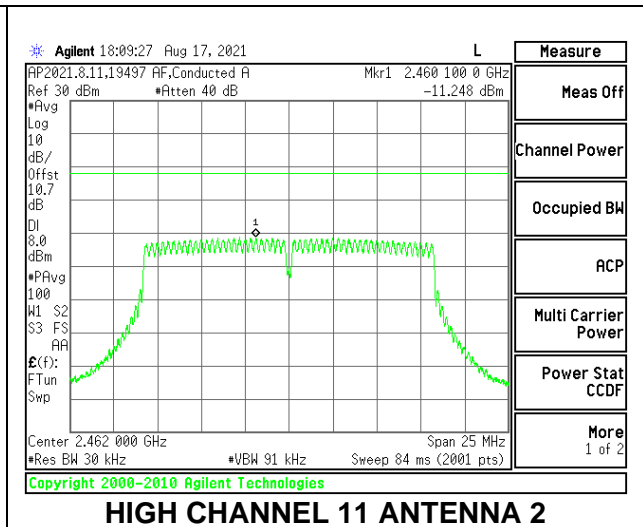
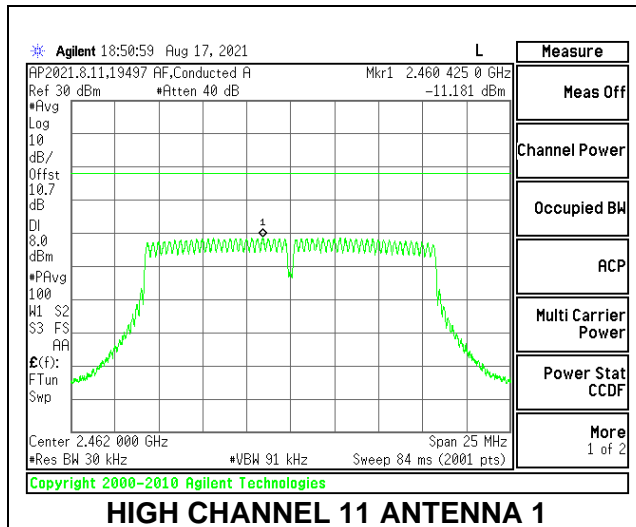
**LOW CHANNEL 1**



**MID CHANNEL 6**



### HIGH CHANNEL 11



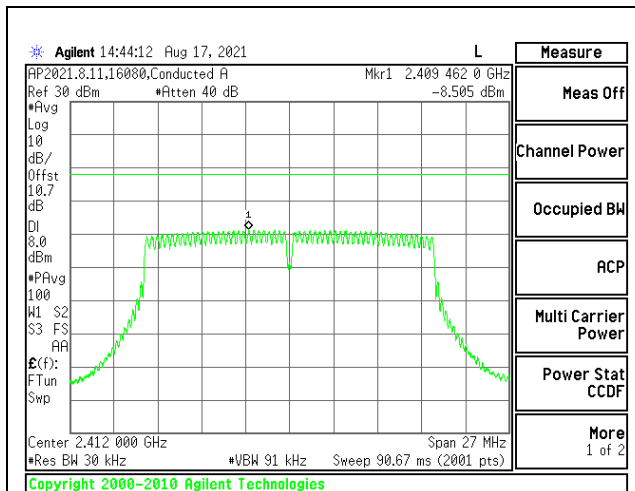
### 9.5.3. 802.11n HT20 MODE

#### 1TX Antenna 1 MODE

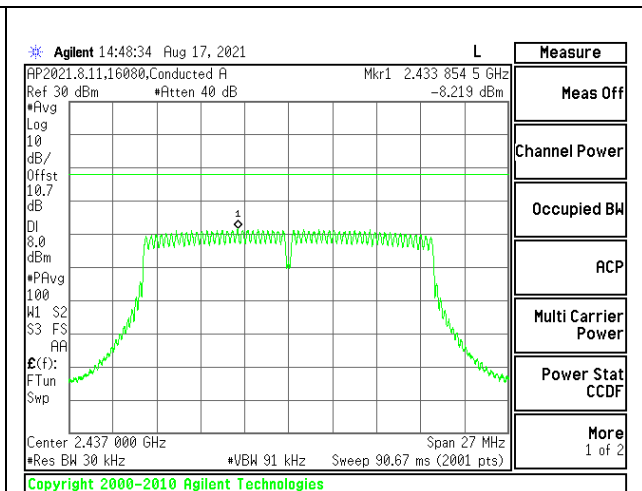
<b>Duty Cycle CF (dB)</b>	0.00	<b>Included in Calculations of Corr'd PSD</b>
---------------------------	------	---

#### PSD Results

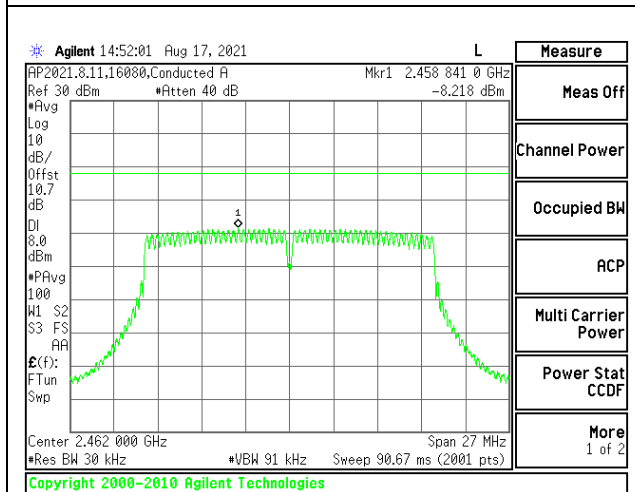
Channel	Frequency (MHz)	Antenna 1 Meas (dBm/30kHz)	Total Corr'd PSD (dBm/30kHz)	Limit (dBm/3kHz)	Margin (dB)
Low 1	2412	-8.505	-8.51	8.0	-16.5
Mid 6	2437	-8.219	-8.22	8.0	-16.2
High 11	2462	-8.218	-8.22	8.0	-16.2



**LOW CHANNEL 1**



**MID CHANNEL 6**



**HIGH CHANNEL 11**

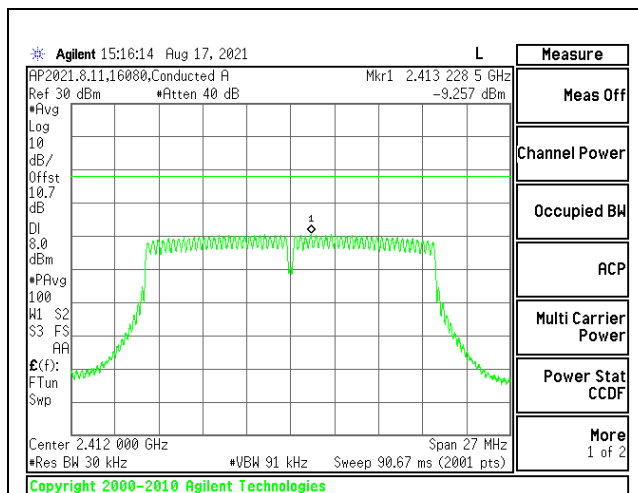
**Intentionally left blank**

**1TX Antenna 2 MODE**

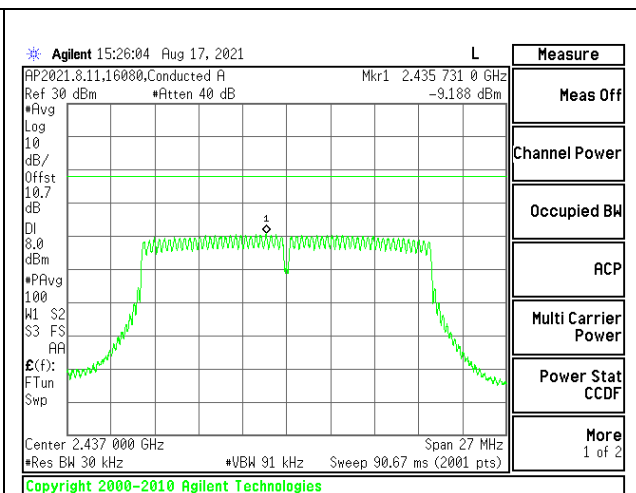
<b>Duty Cycle CF (dB)</b>	0.00	<b>Included in Calculations of Corr'd PSD</b>
---------------------------	------	---

**PSD Results**

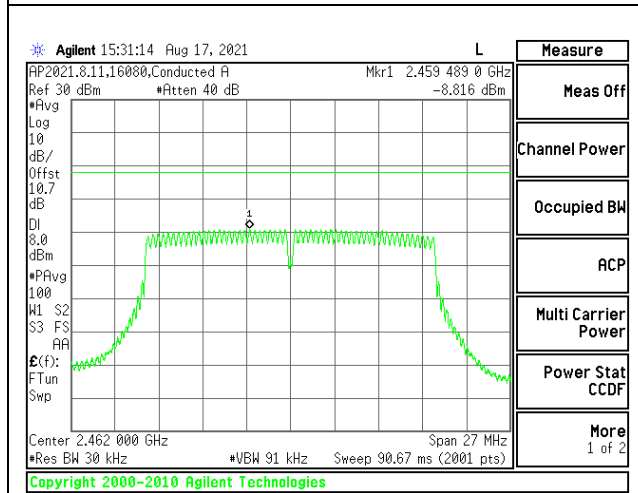
Channel	Frequency (MHz)	Antenna 1 Meas (dBm/30kHz)	Total Corr'd PSD (dBm/30kHz)	Limit (dBm/3kHz)	Margin (dB)
Low 1	2412	-9.257	-9.26	8.0	-17.3
Mid 6	2437	-9.188	-9.19	8.0	-17.2
High 11	2462	-8.816	-8.82	8.0	-16.8



**LOW CHANNEL 1**



**MID CHANNEL 6**



**HIGH CHANNEL 11**

**Intentionally left blank**

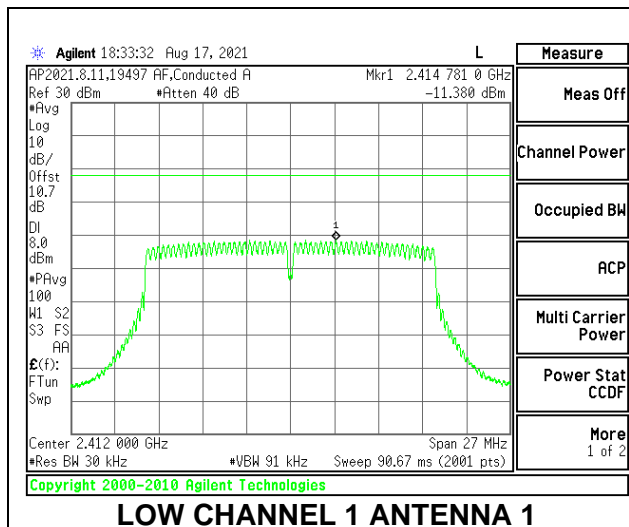
**2TX Antenna 1 + Antenna 2 CDD MODE**

<b>Duty Cycle CF (dB)</b>	0.00	<b>Included in Calculations of Corr'd PSD</b>
---------------------------	------	---

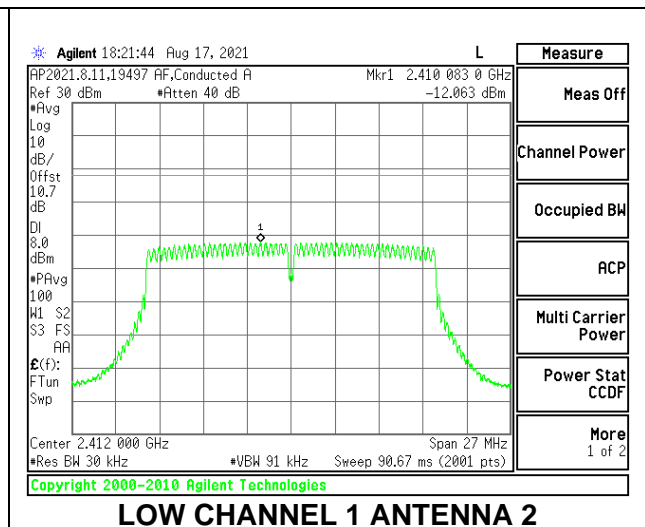
**PSD Results**

Channel	Frequency (MHz)	Antenna 1 Meas (dBm/30kHz)	Antenna 2 Meas (dBm/30kHz)	Total Corr'd PSD (dBm/30kHz)	Limit (dBm/3kHz)	Margin (dB)
Low 1	2412	-11.380	-12.063	-8.70	8.0	-16.7
Mid 6	2437	-11.468	-11.781	-8.61	8.0	-16.6
High 11	2462	-11.650	-11.761	-8.69	8.0	-16.7

**LOW CHANNEL 1**

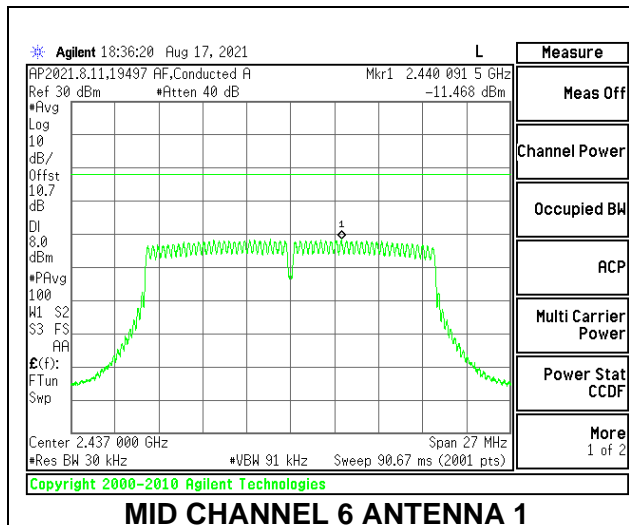


**LOW CHANNEL 1 ANTENNA 1**

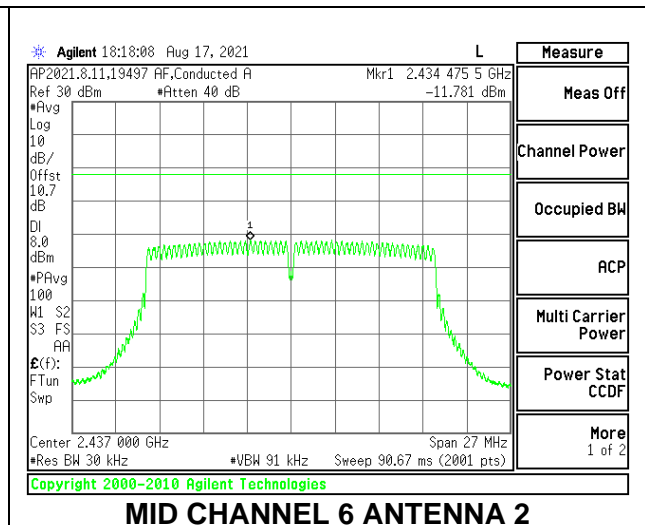


**LOW CHANNEL 1 ANTENNA 2**

**MID CHANNEL 6**

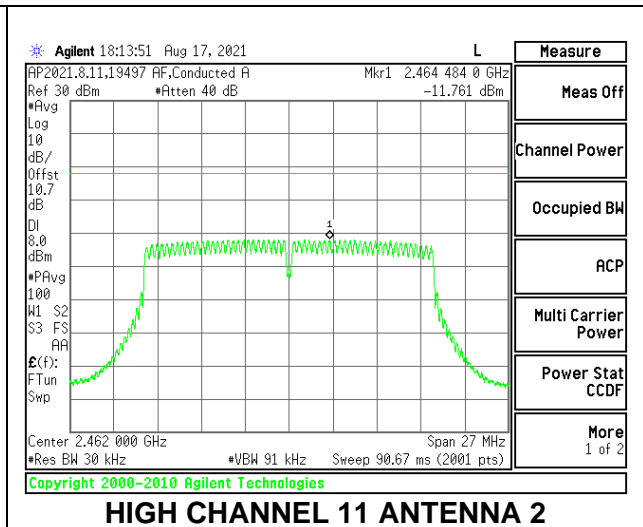
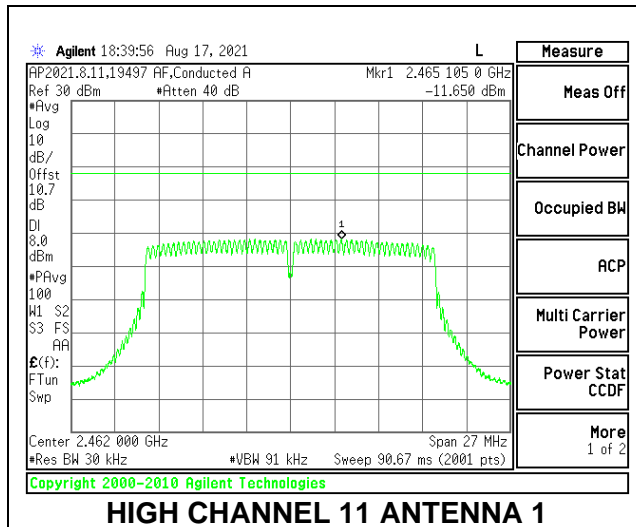


**MID CHANNEL 6 ANTENNA 1**



**MID CHANNEL 6 ANTENNA 2**

### HIGH CHANNEL 11



## **9.6. CONDUCTED SPURIOUS EMISSIONS**

### **LIMITS**

FCC §15.247 (d)

RSS-247 5.5

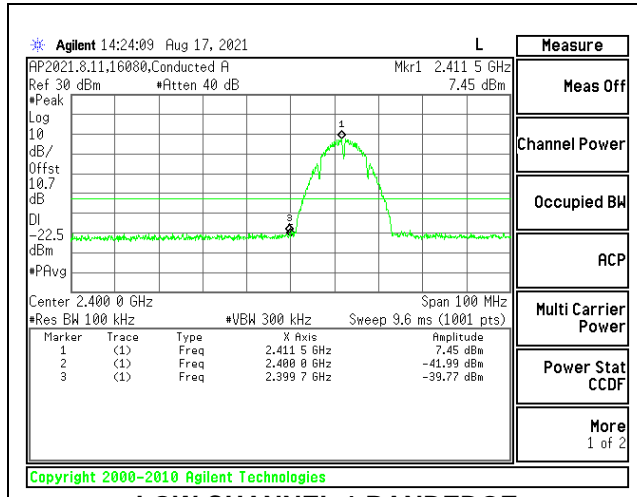
Output power was measured based on the use of gated average measurement; therefore, the required attenuation is 30 dB.

### **RESULTS**

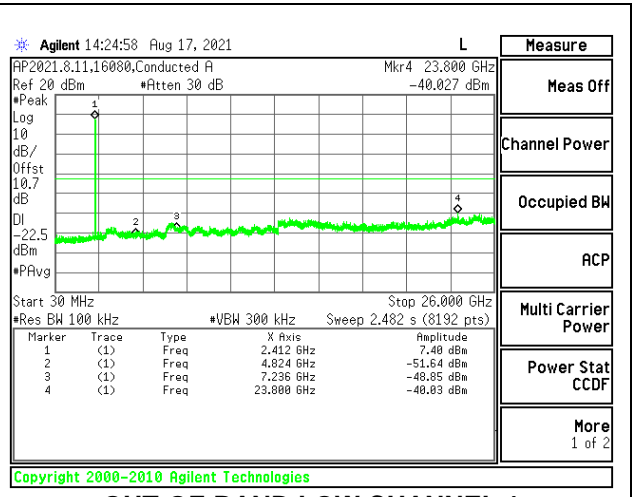


### 9.6.1. 802.11b MODE

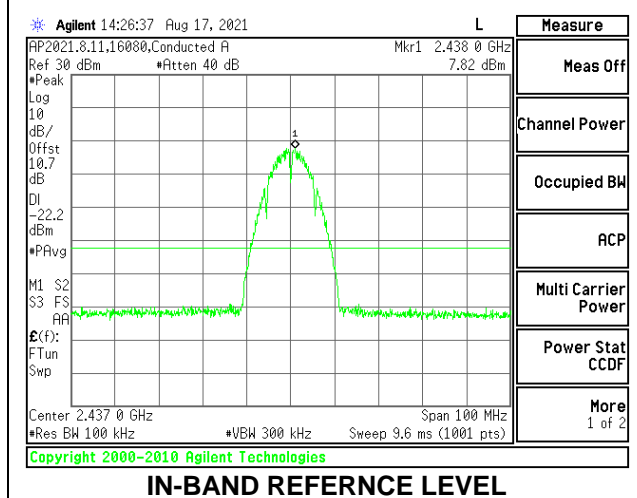
#### 1TX Antenna 1 MODE



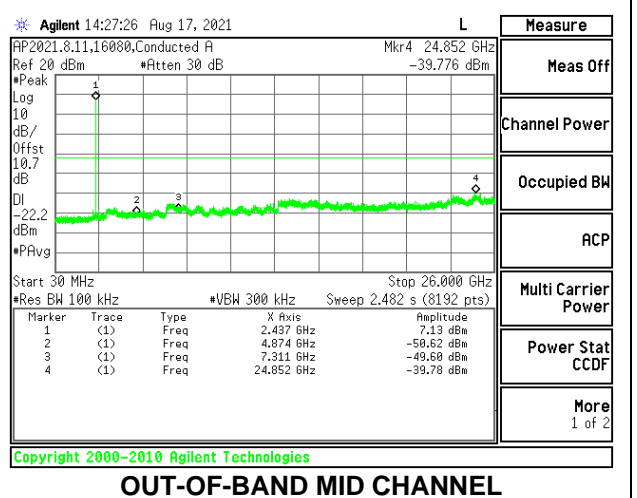
LOW CHANNEL 1 BANDEDGE



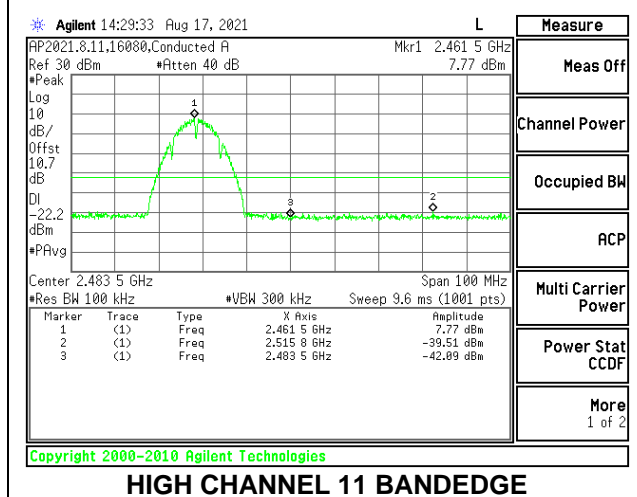
OUT-OF-BAND LOW CHANNEL 1



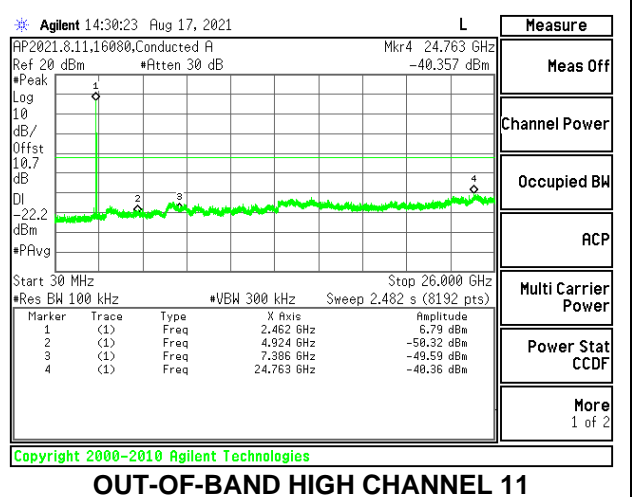
IN-BAND REFERENCE LEVEL



OUT-OF-BAND MID CHANNEL

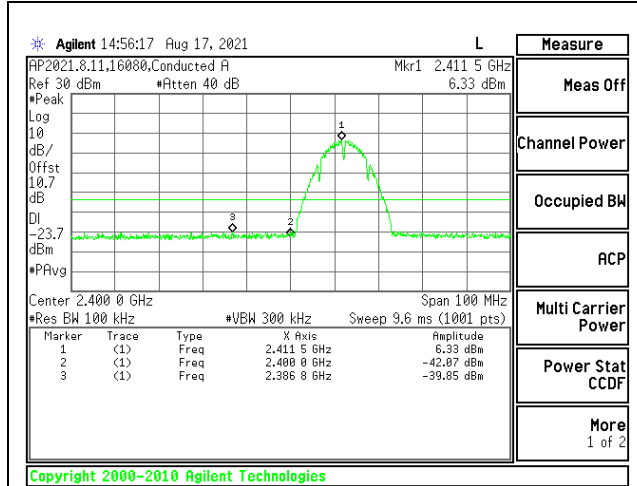


HIGH CHANNEL 11 BANDEDGE

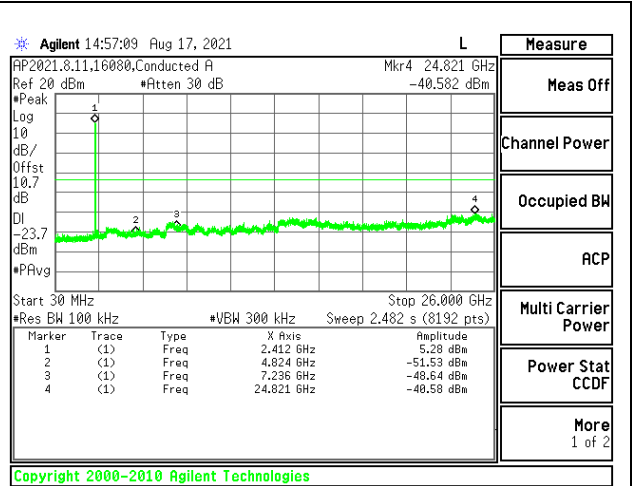


OUT-OF-BAND HIGH CHANNEL 11

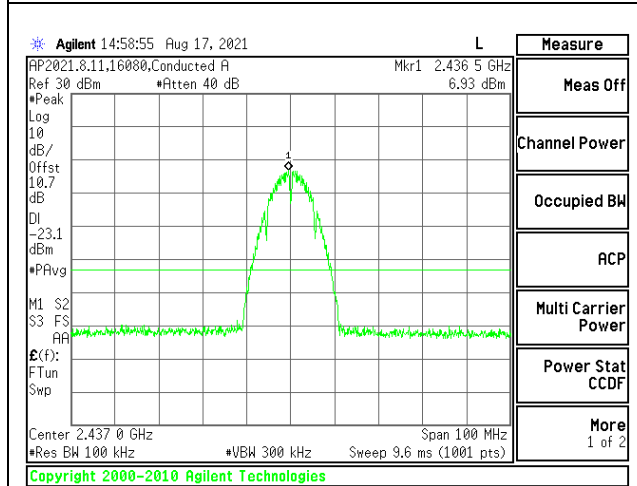
**1TX Antenna 2 MODE**



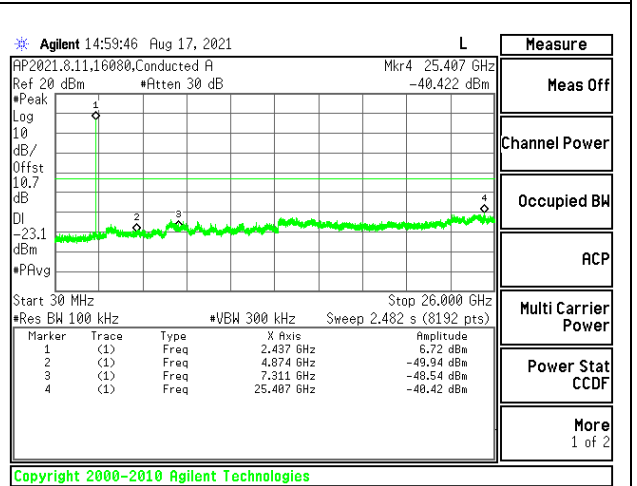
**LOW CHANNEL 1 BANDEDGE**



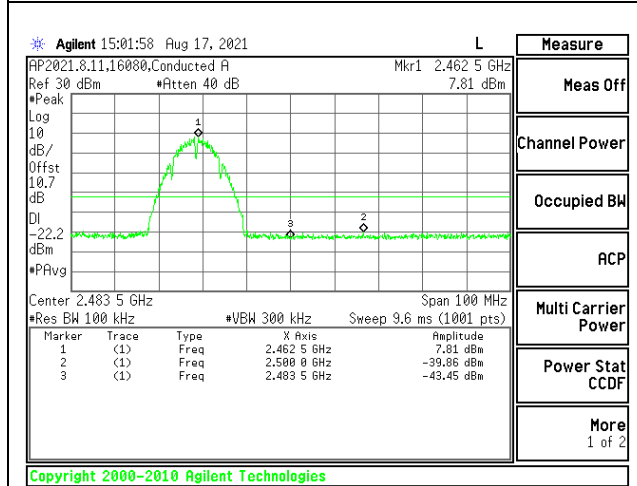
**OUT-OF-BAND LOW CHANNEL 1**



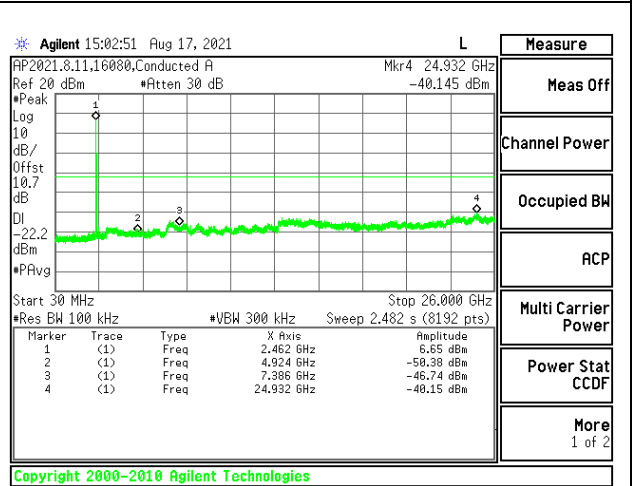
**IN-BAND REFERENCE LEVEL**



**OUT-OF-BAND MID CHANNEL**

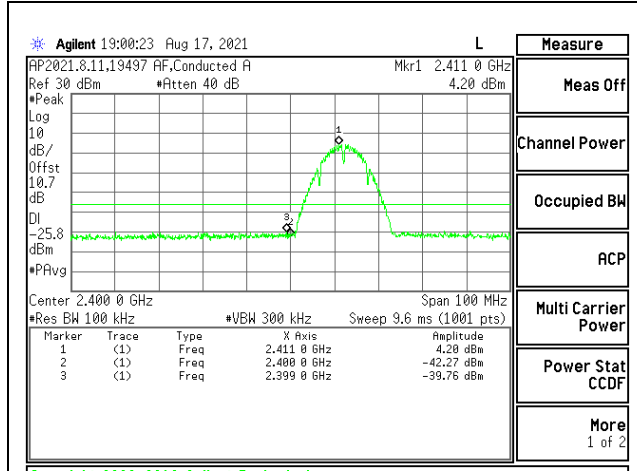


**HIGH CHANNEL 11 BANDEDGE**

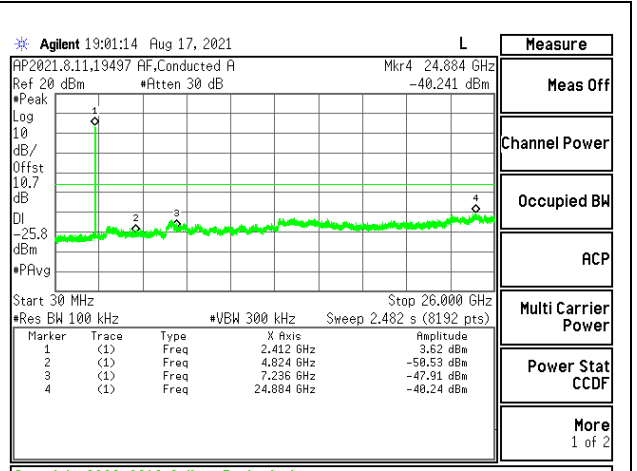


**OUT-OF-BAND HIGH CHANNEL 11**

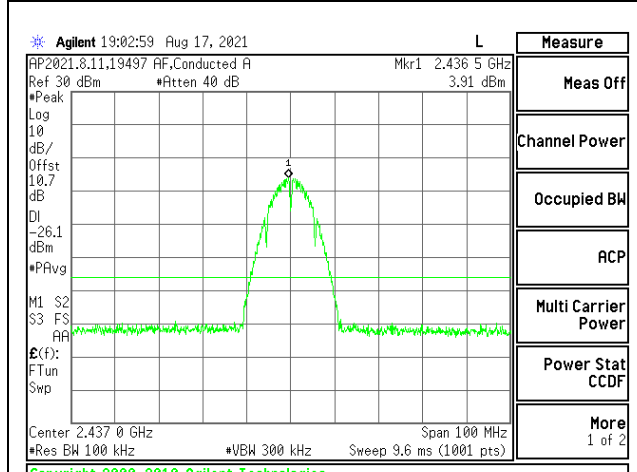
**2TX Antenna 1 + Antenna 2 CDD MODE**



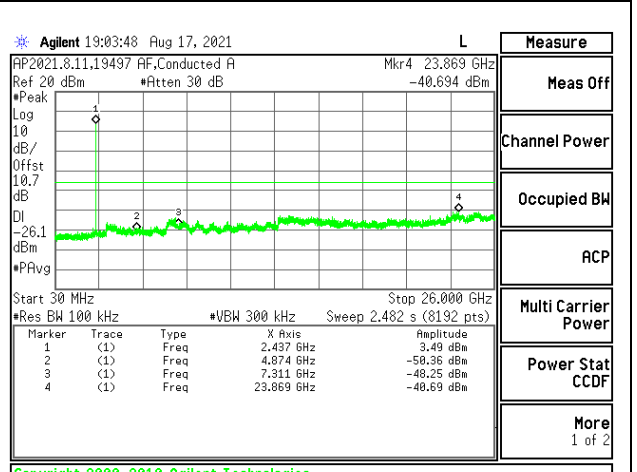
**LOW CHANNEL 1 BANDEDGE ANTENNA 1**



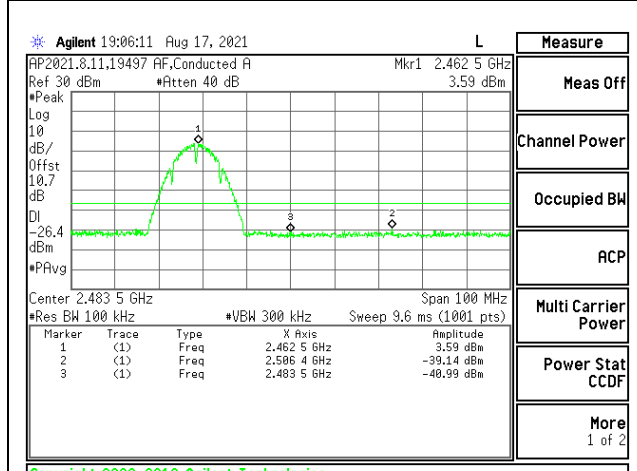
**OUT-OF-BAND LOW CHANNEL 1 ANTENNA 1**



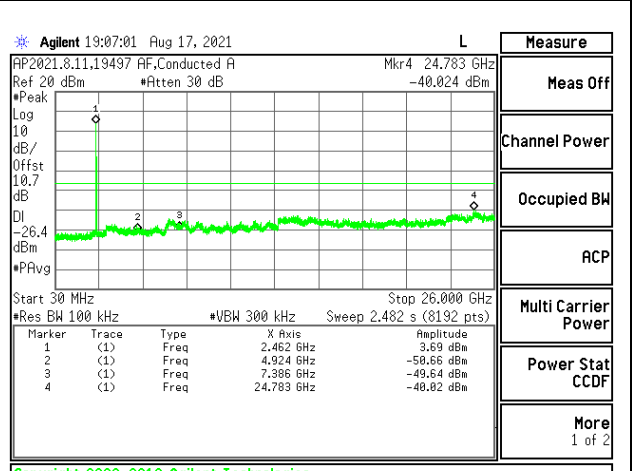
**IN-BAND REFERENCE LEVEL ANTENNA 1**



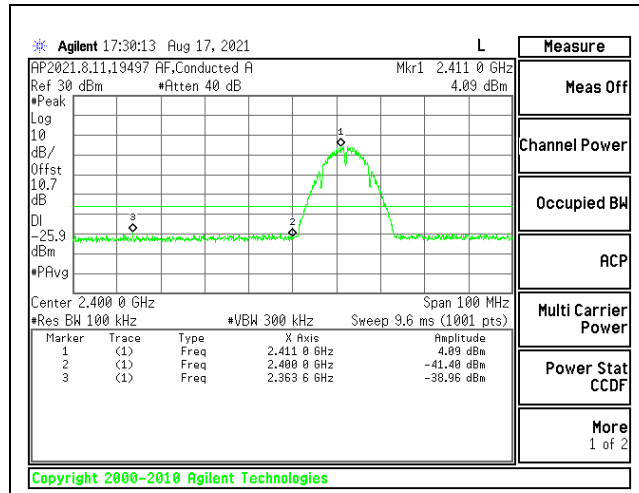
**OUT-OF-BAND MID CHANNEL ANTENNA 1**



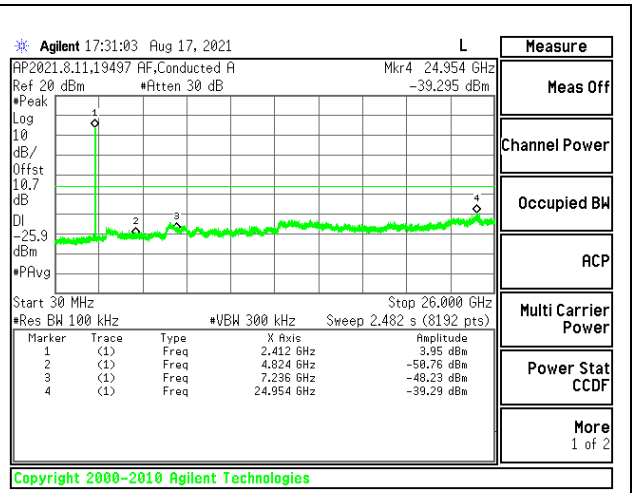
**HIGH CHANNEL 11 BANDEDGE ANTENNA 1**



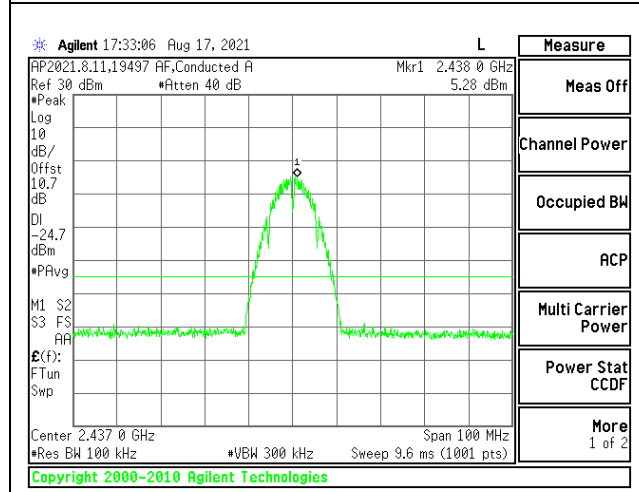
**OUT-OF-BAND HIGH CHANNEL 11 ANTENNA 1**



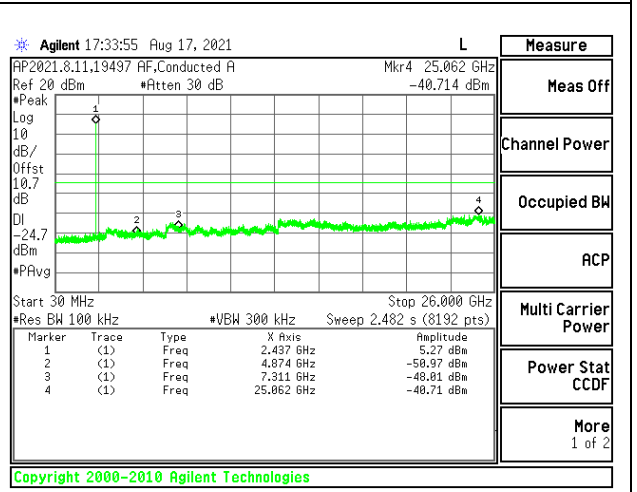
LOW CHANNEL 1 BANDEDGE ANTENNA 2



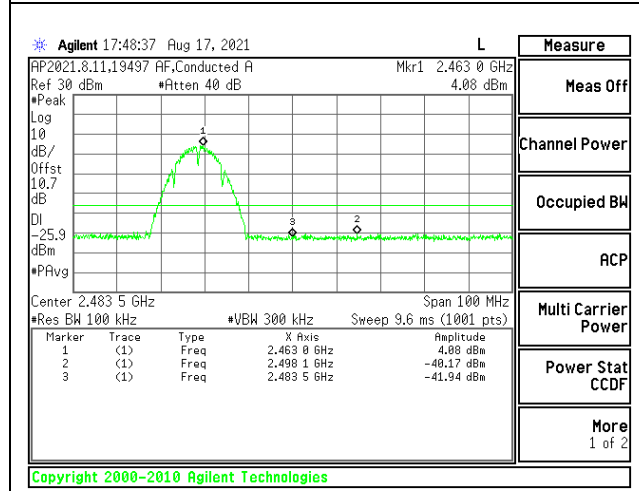
OUT-OF-BAND LOW CHANNEL 1 ANTENNA 2



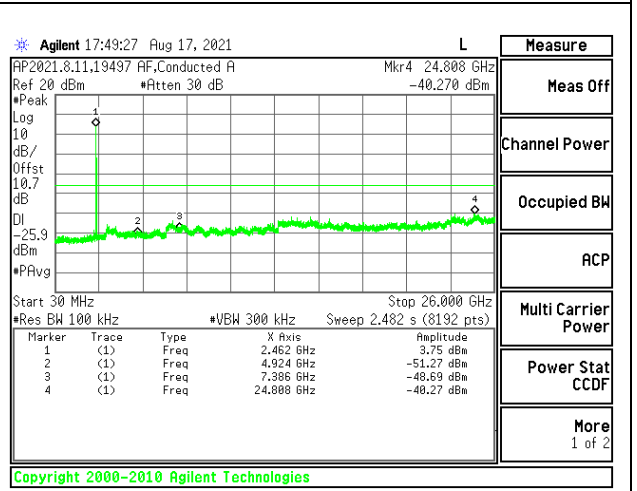
IN-BAND REFERENCE LEVEL ANTENNA 2



OUT-OF-BAND MID CHANNEL ANTENNA 2



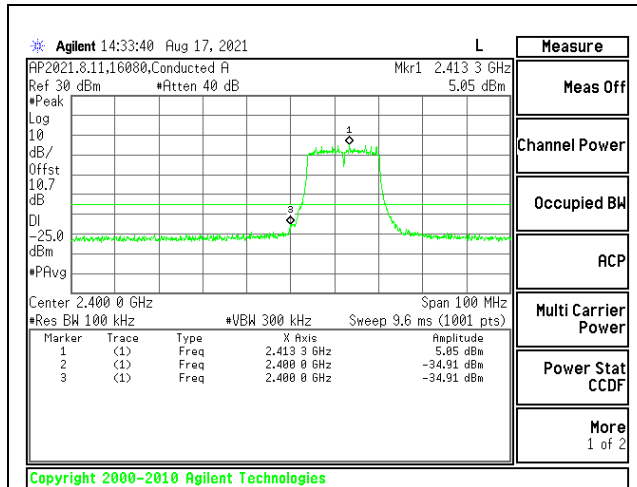
HIGH CHANNEL 11 BANDEDGE ANTENNA 2



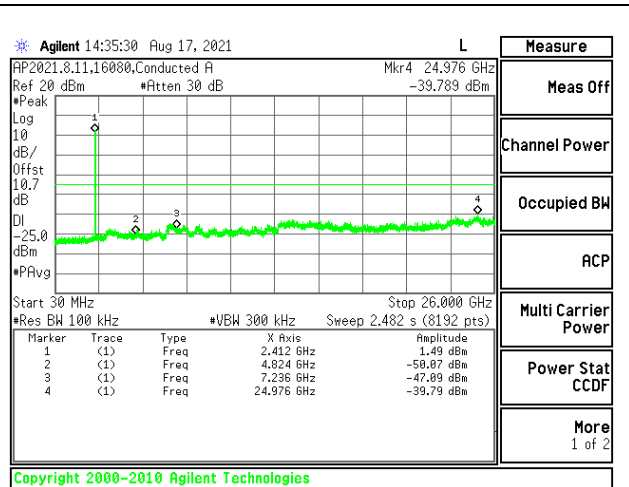
OUT-OF-BAND HIGH CHANNEL 11 ANTENNA 2

### 9.6.2. 802.11g MODE

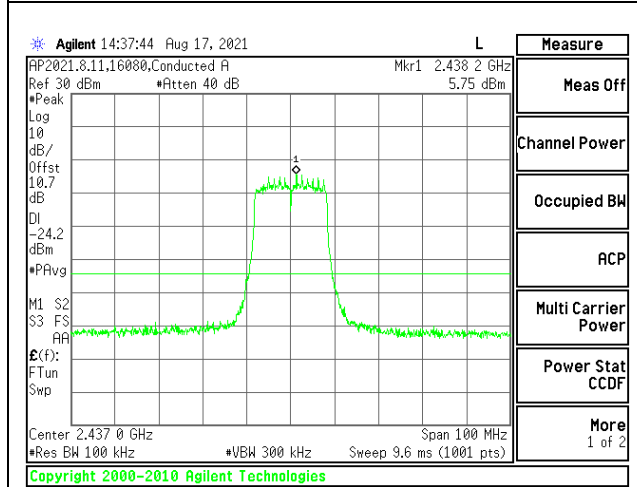
#### 1TX Antenna 1 MODE



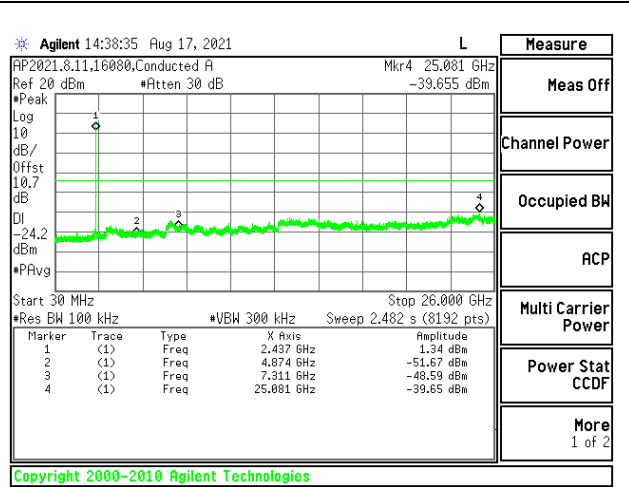
LOW CHANNEL 1 BANDEDGE



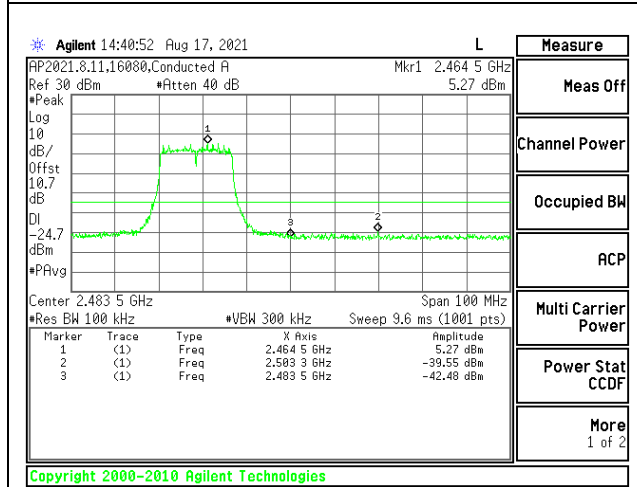
OUT-OF-BAND LOW CHANNEL 1



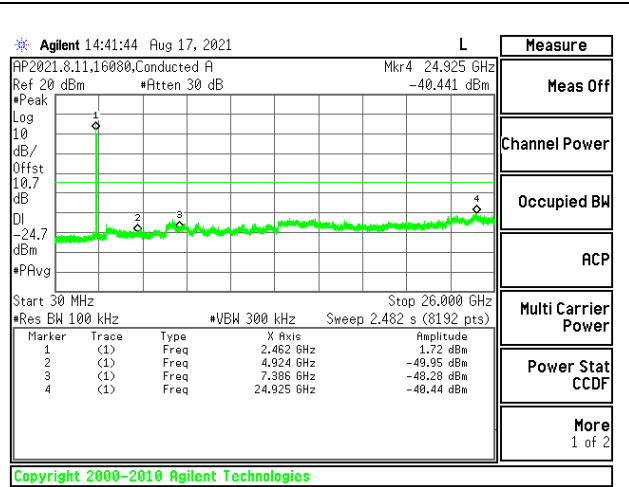
IN-BAND REFERENCE LEVEL



OUT-OF-BAND MID CHANNEL

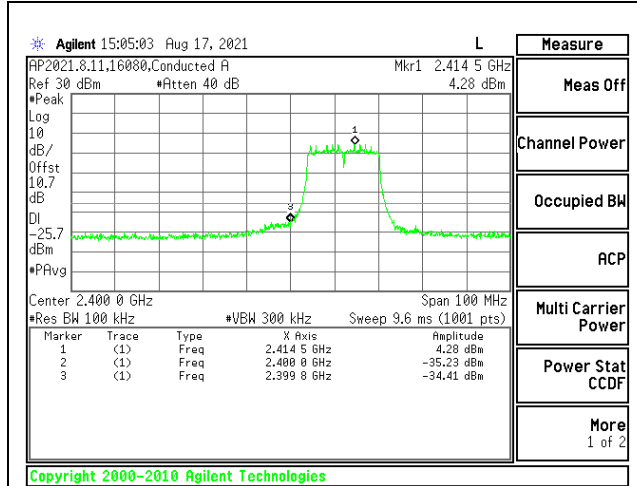


HIGH CHANNEL 11 BANDEDGE

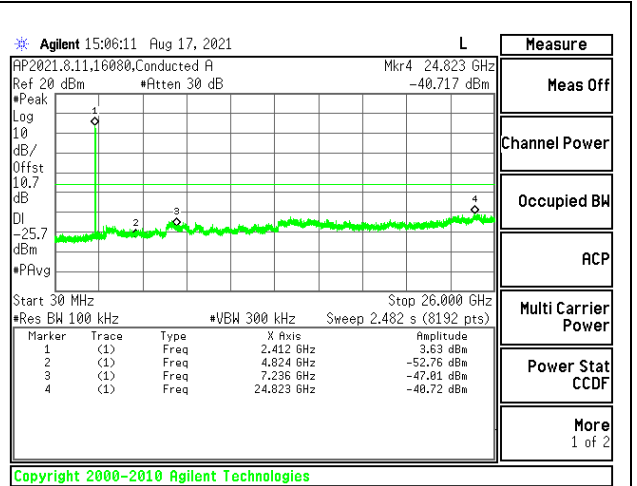


OUT-OF-BAND HIGH CHANNEL 11

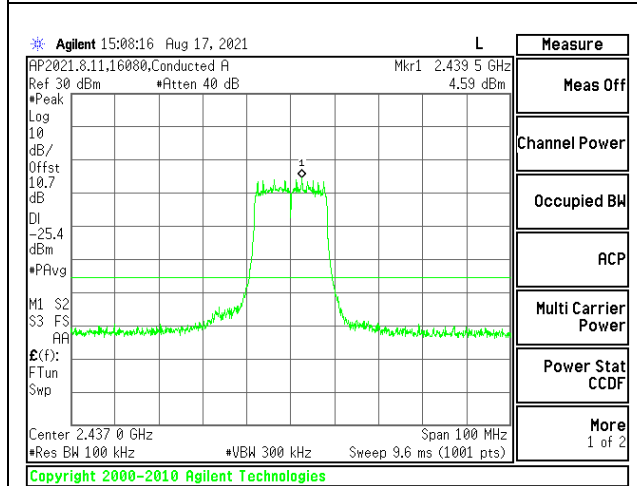
**1TX Antenna 2 MODE**



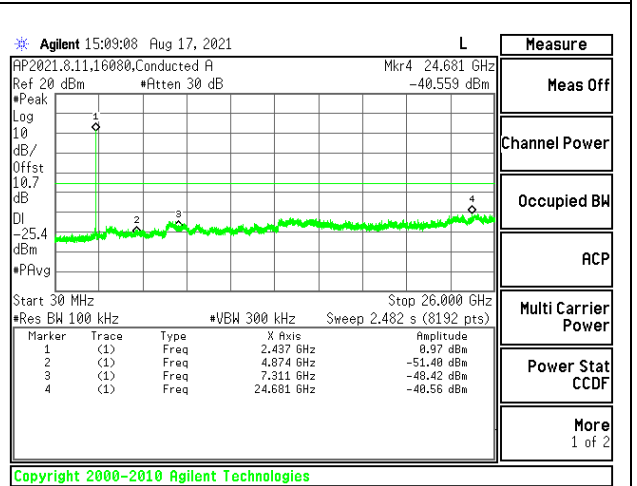
**LOW CHANNEL 1 BANDEDGE**



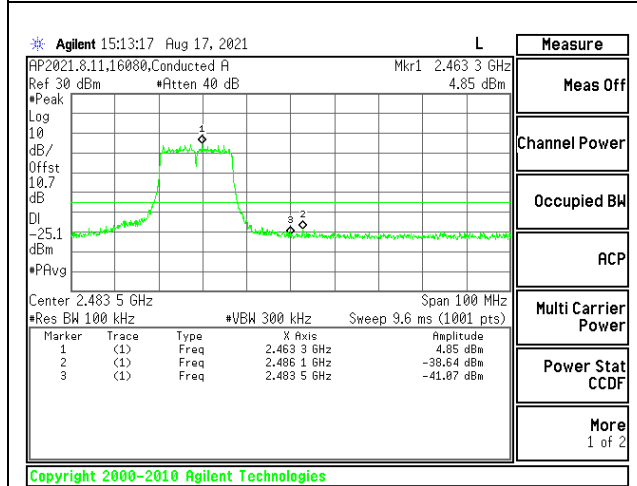
**OUT-OF-BAND LOW CHANNEL 1**



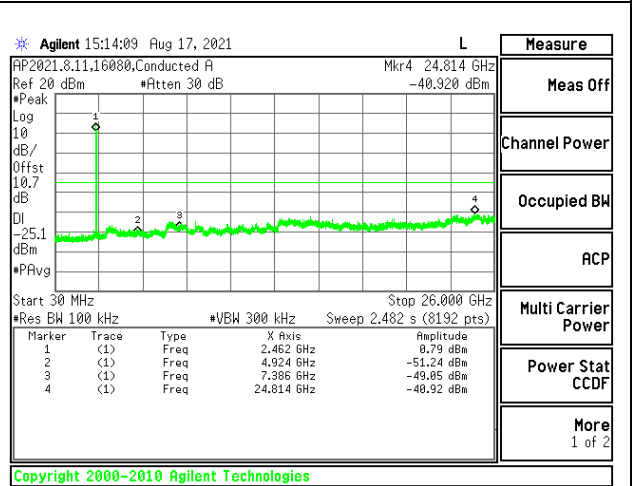
**IN-BAND REFERENCE LEVEL**



**OUT-OF-BAND MID CHANNEL**

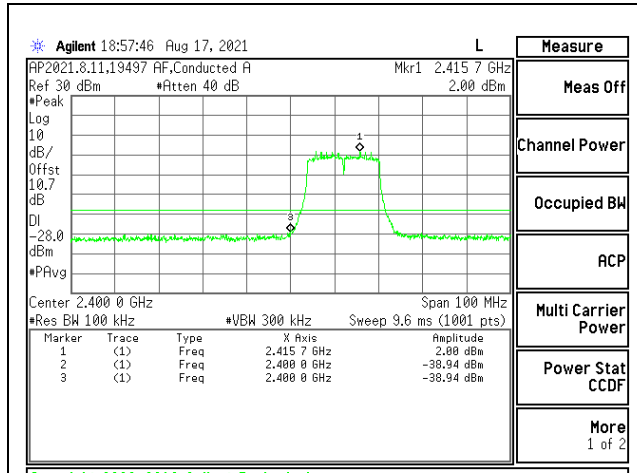


**HIGH CHANNEL 11 BANDEDGE**

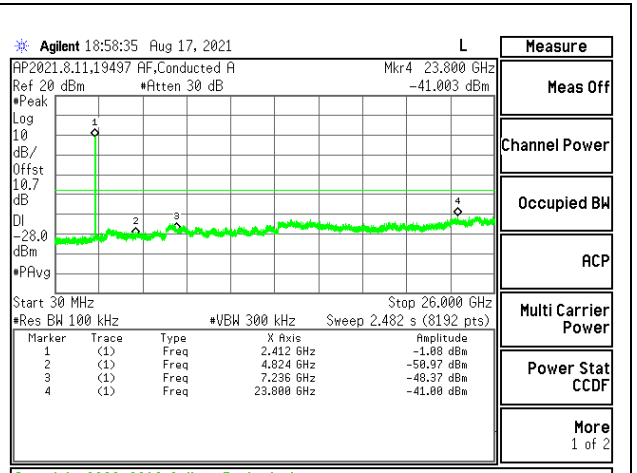


**OUT-OF-BAND HIGH CHANNEL 11**

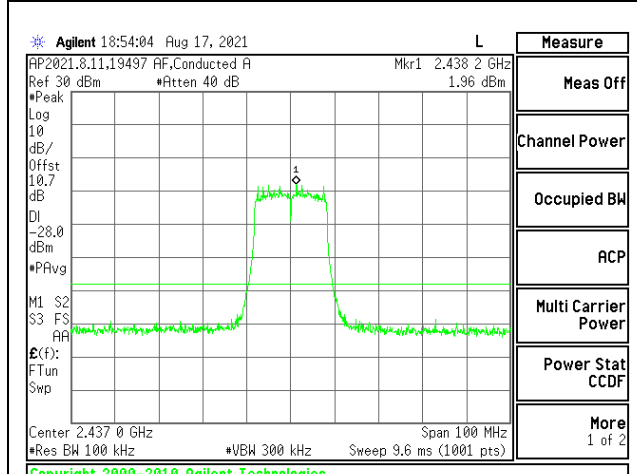
**2TX Antenna 1 + Antenna 2 CDD MODE**



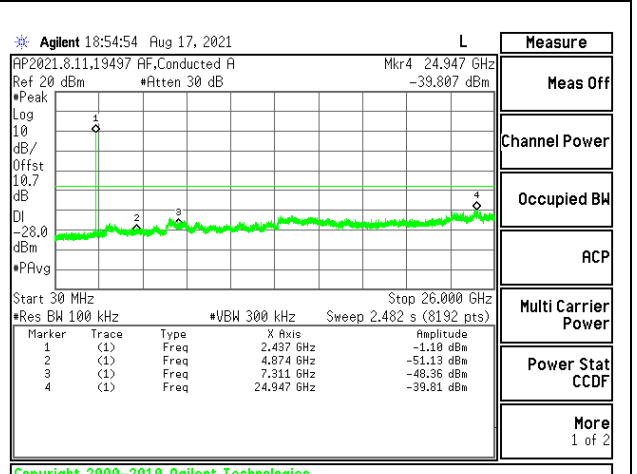
**LOW CHANNEL 1 BANDEDGE ANTENNA 1**



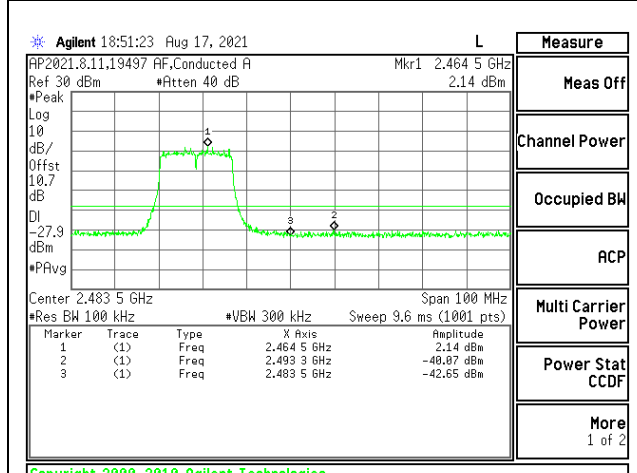
**OUT-OF-BAND LOW CHANNEL 1 ANTENNA 1**



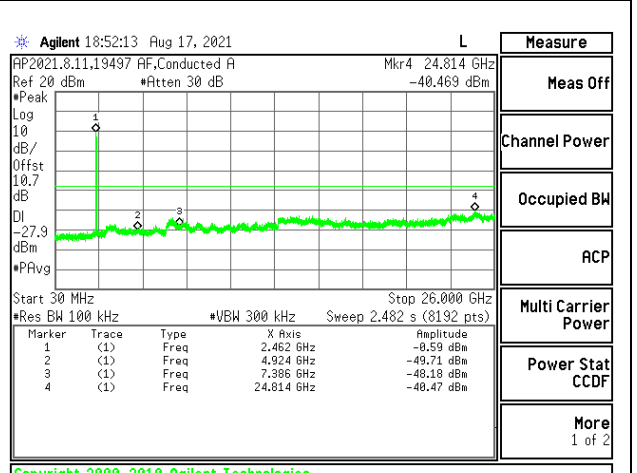
**IN-BAND REFERENCE LEVEL ANTENNA 1**



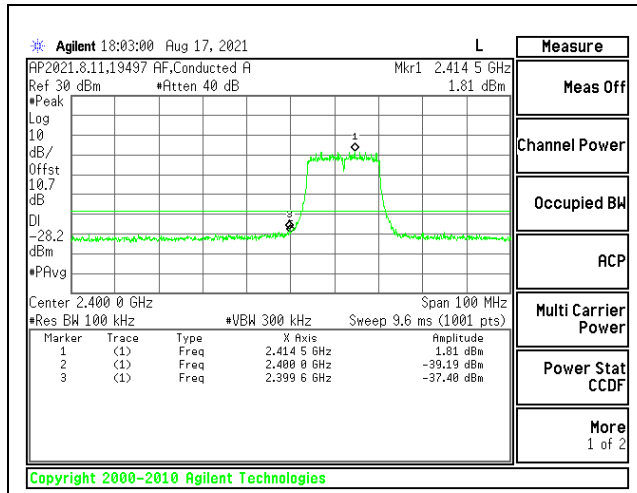
**OUT-OF-BAND MID CHANNEL ANTENNA 1**



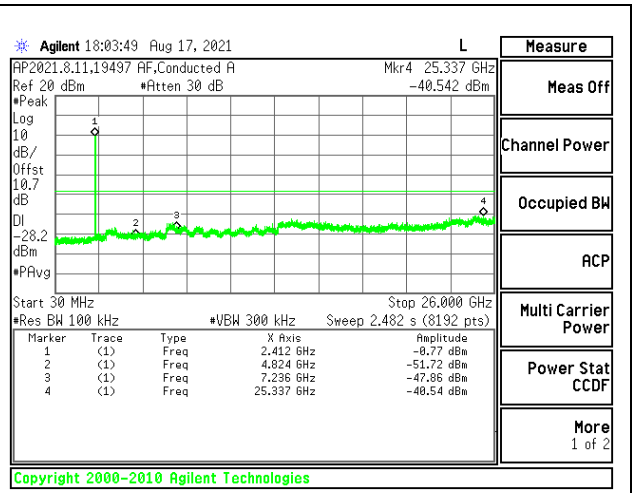
**HIGH CHANNEL 11 BANDEDGE ANTENNA 1**



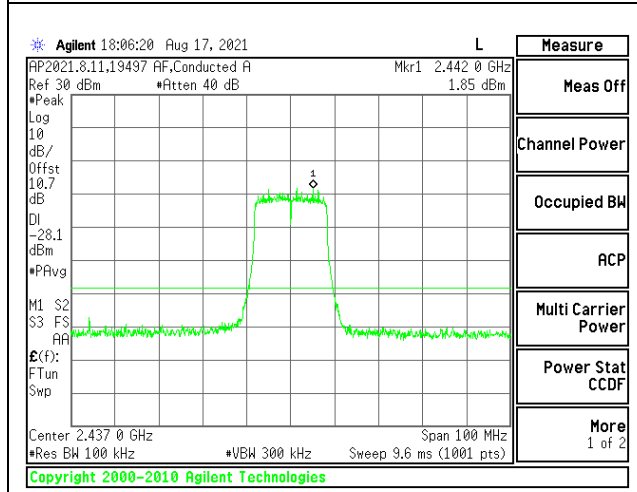
**OUT-OF-BAND HIGH CHANNEL 11 ANTENNA 1**



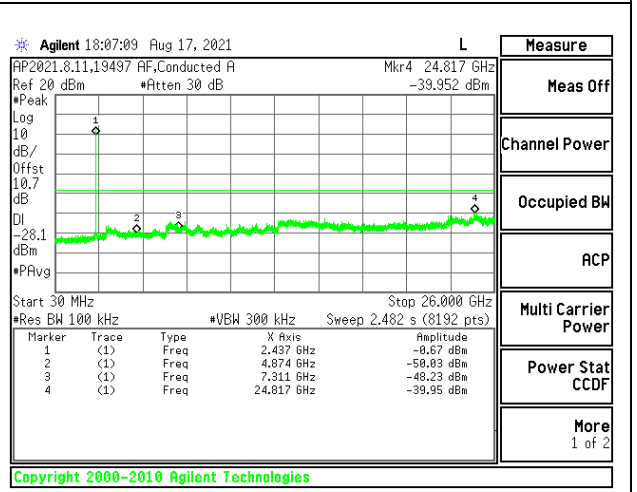
LOW CHANNEL 1 BANDEDGE ANTENNA 2



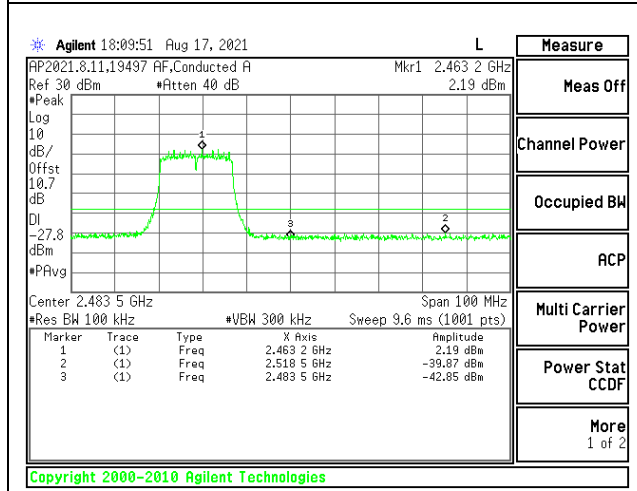
OUT-OF-BAND LOW CHANNEL 1 ANTENNA 2



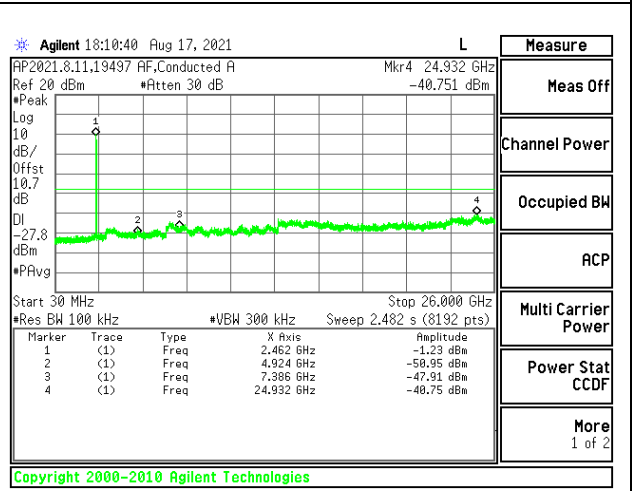
IN-BAND REFERENCE LEVEL ANTENNA 2



OUT-OF-BAND MID CHANNEL ANTENNA 2



HIGH CHANNEL 11 BANDEDGE ANTENNA 2

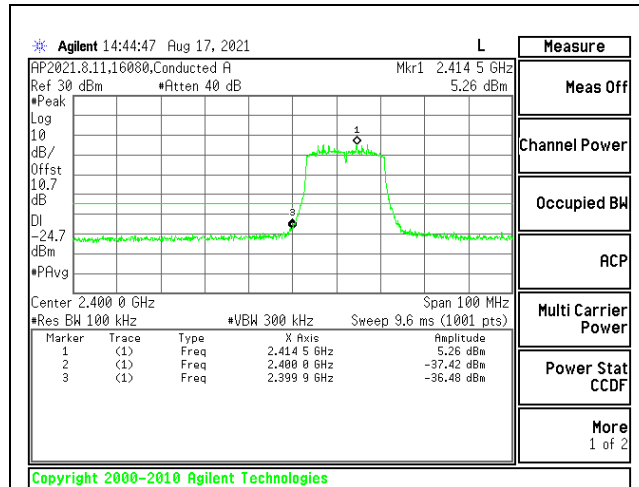


OUT-OF-BAND HIGH CHANNEL 11 ANTENNA 2

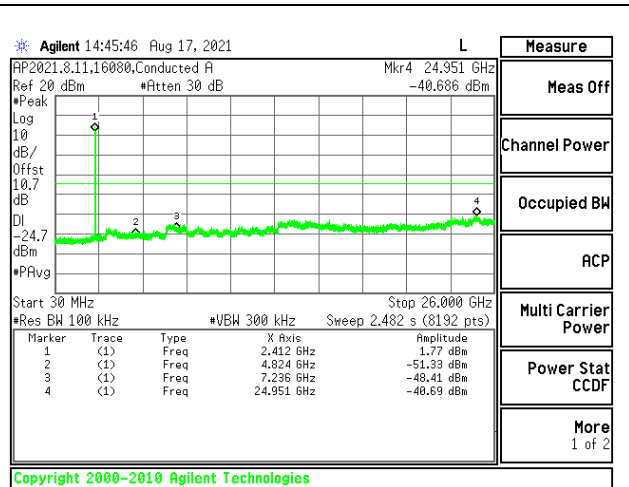


### 9.6.3. 802.11n HT20 MODE

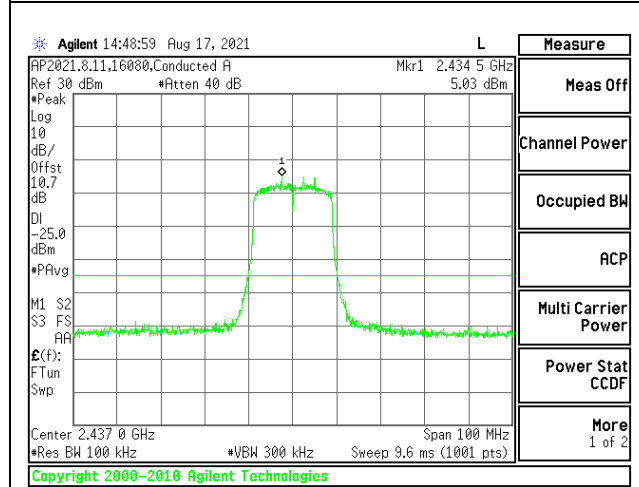
#### 1TX Antenna 1 MODE



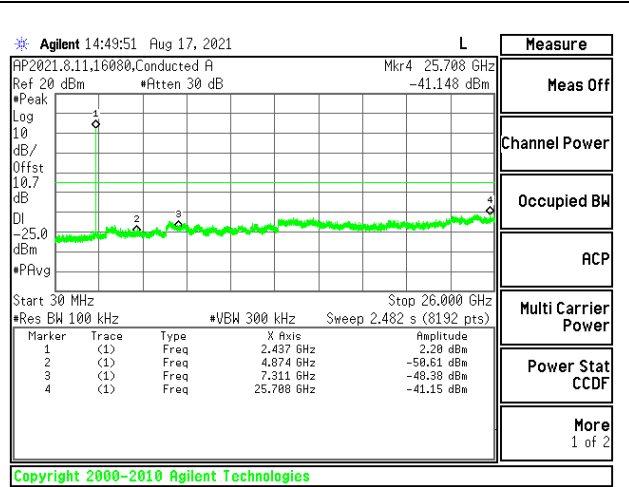
LOW CHANNEL 1 BANDEDGE



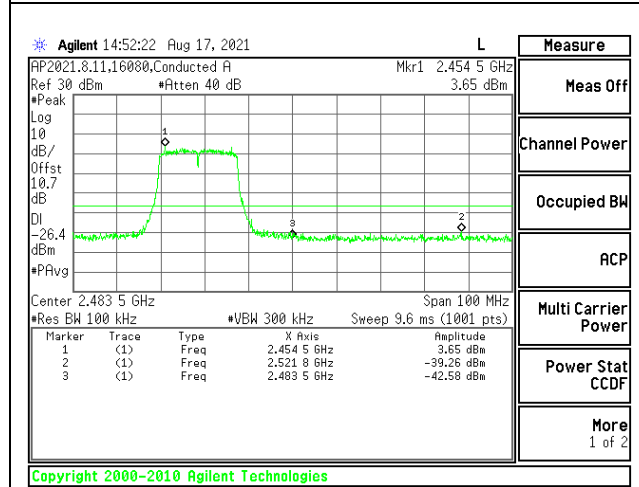
OUT-OF-BAND LOW CHANNEL 1



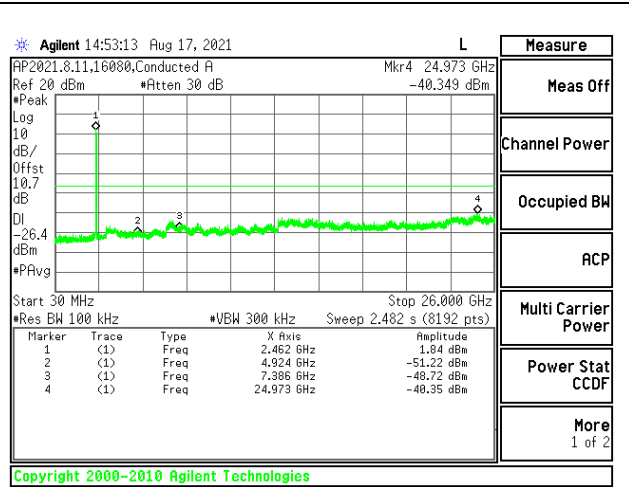
IN-BAND REFERENCE LEVEL



OUT-OF-BAND MID CHANNEL

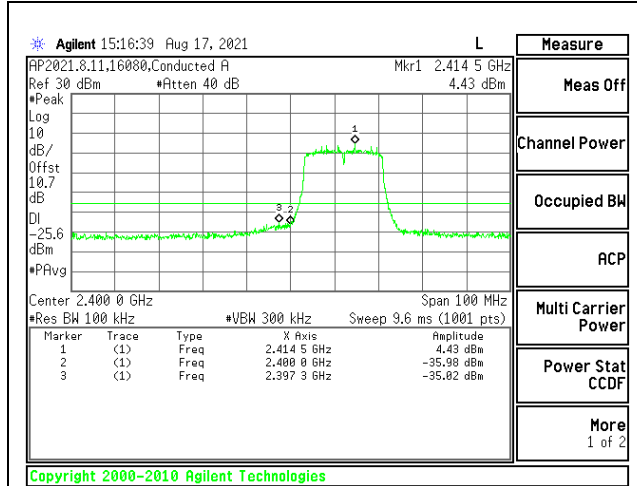


HIGH CHANNEL 11 BANDEDGE

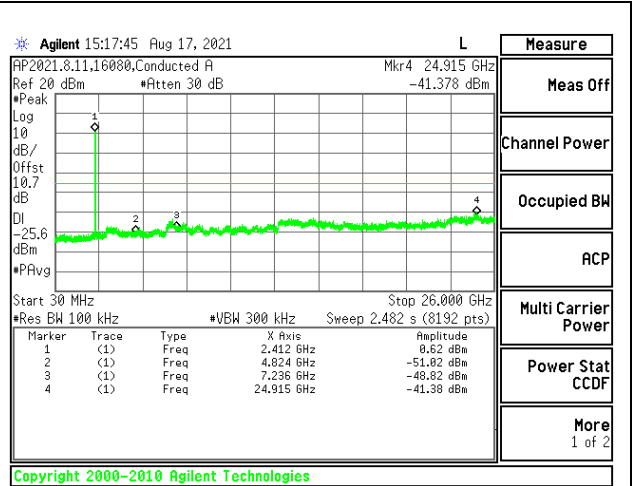


OUT-OF-BAND HIGH CHANNEL 11

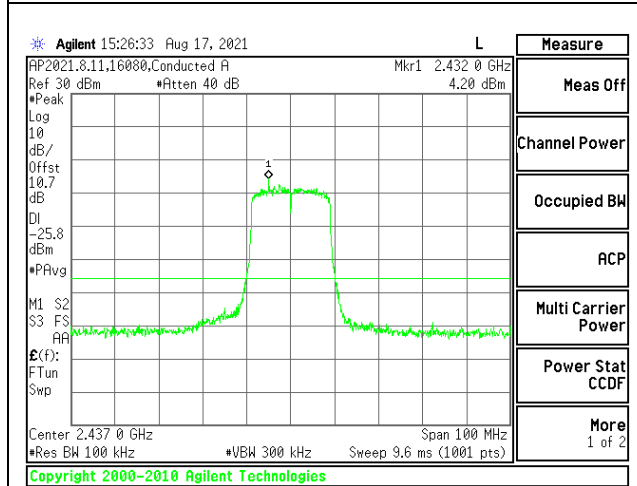
**1TX Antenna 2 MODE**



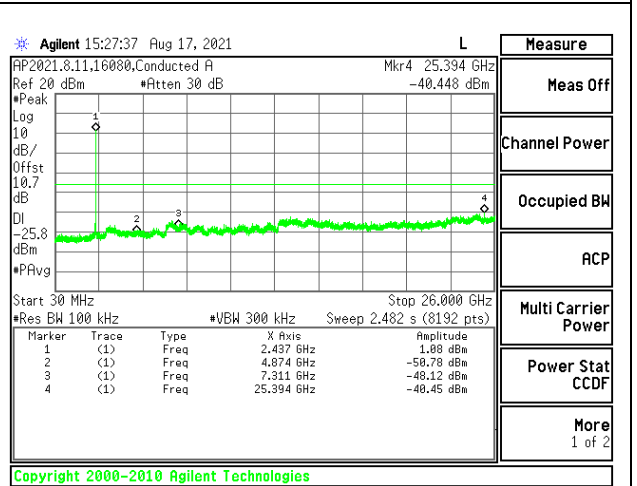
**LOW CHANNEL 1 BANDEDGE**



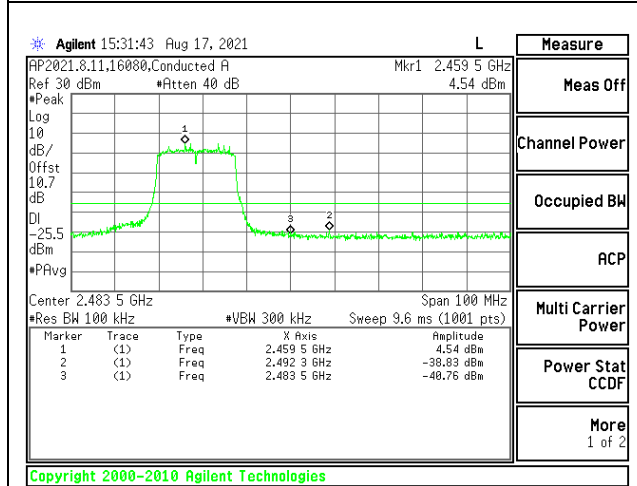
**OUT-OF-BAND LOW CHANNEL 1**



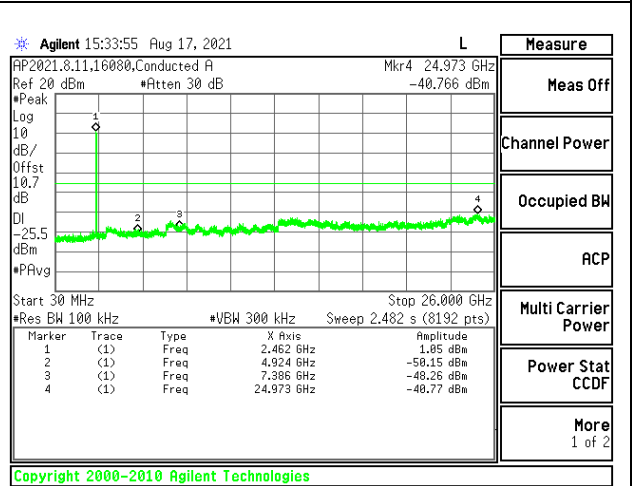
**IN-BAND REFERENCE LEVEL**



**OUT-OF-BAND MID CHANNEL**

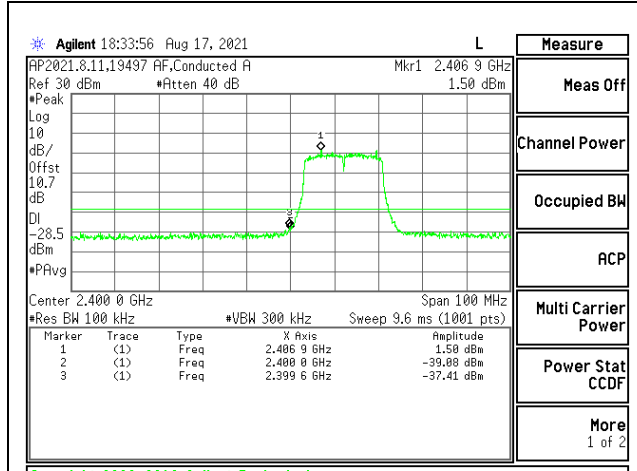


**HIGH CHANNEL 11 BANDEDGE**

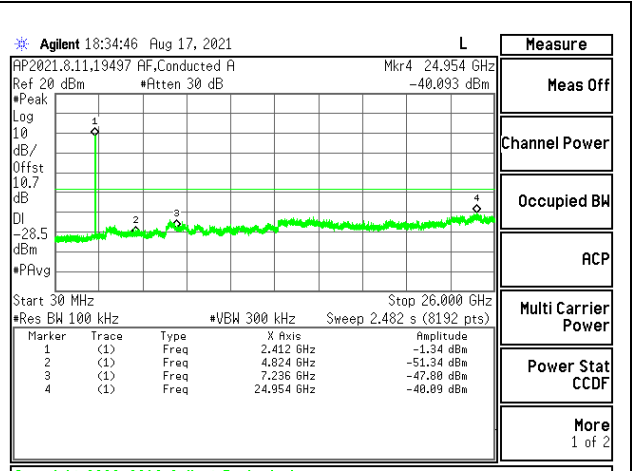


**OUT-OF-BAND HIGH CHANNEL 11**

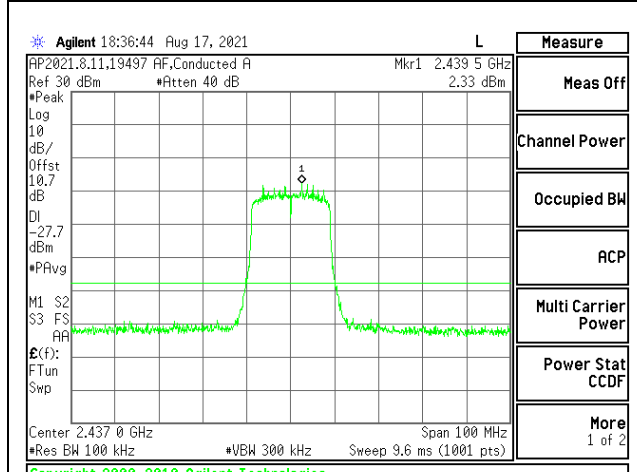
**2TX Antenna 1 + Antenna 2 CDD MODE**



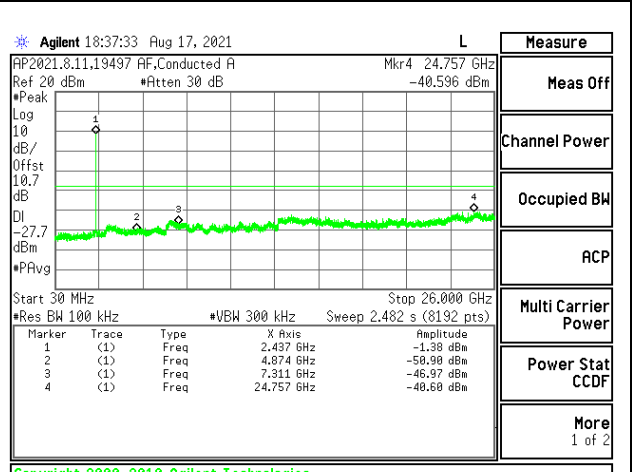
**LOW CHANNEL 1 BANDEDGE ANTENNA 1**



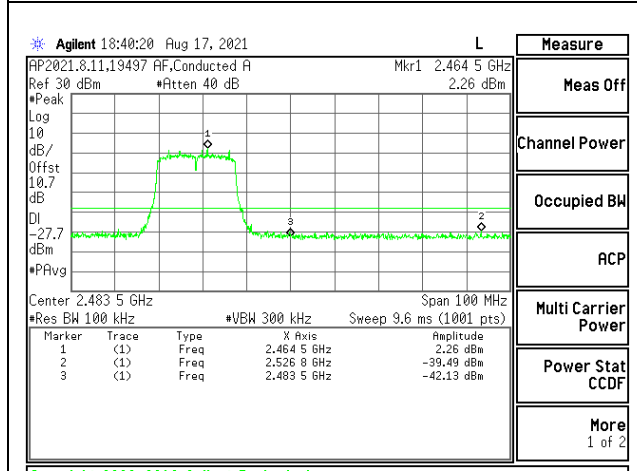
**OUT-OF-BAND LOW CHANNEL 1 ANTENNA 1**



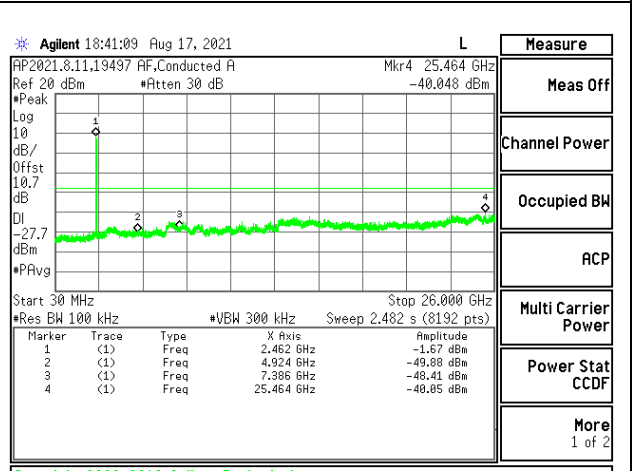
**IN-BAND REFERENCE LEVEL ANTENNA 1**



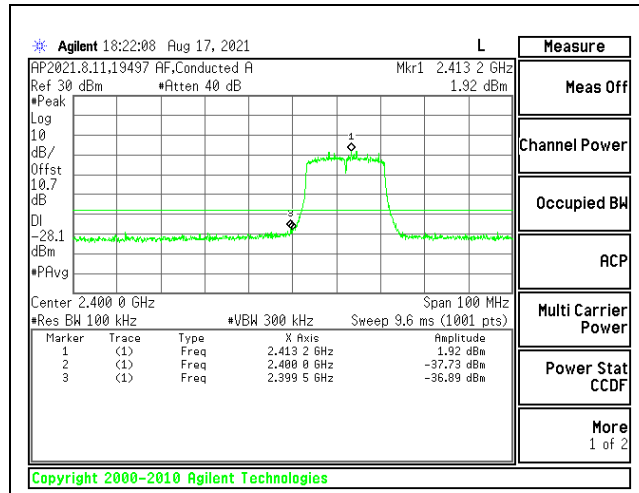
**OUT-OF-BAND MID CHANNEL ANTENNA 1**



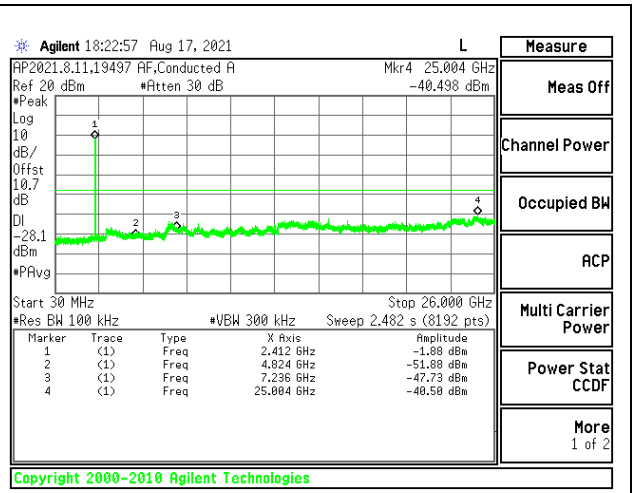
**HIGH CHANNEL 11 BANDEDGE ANTENNA 1**



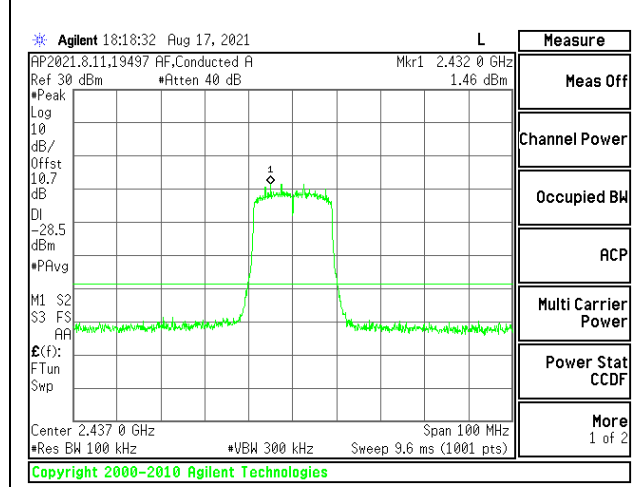
**OUT-OF-BAND HIGH CHANNEL 11 ANTENNA 1**



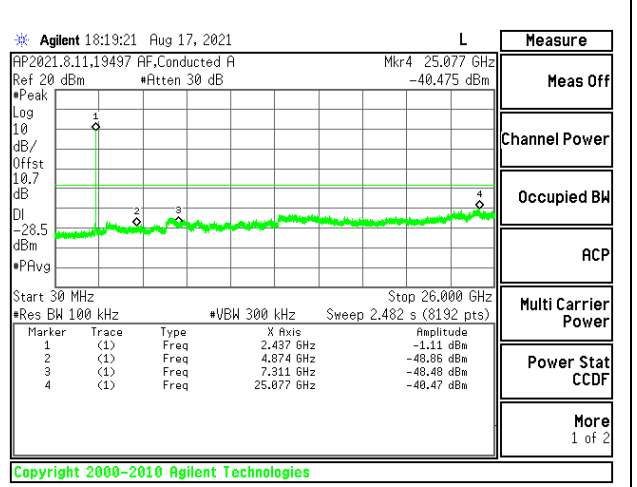
LOW CHANNEL 1 BANDEDGE ANTENNA 2



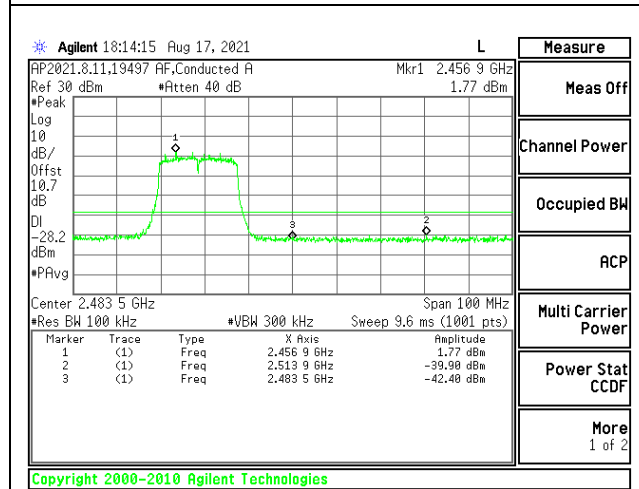
OUT-OF-BAND LOW CHANNEL 1 ANTENNA 2



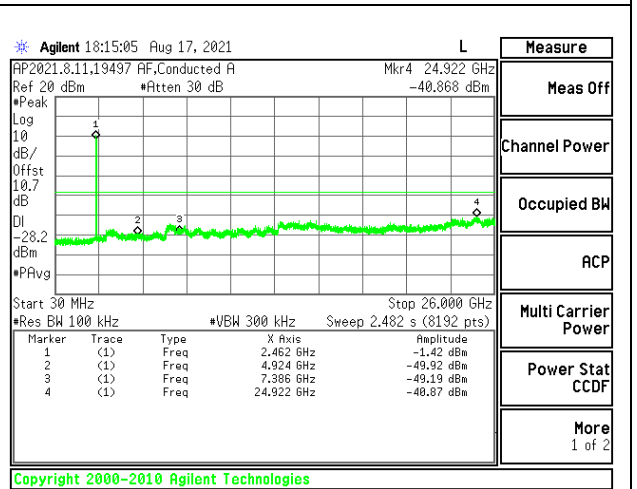
IN-BAND REFERENCE LEVEL ANTENNA 2



OUT-OF-BAND MID CHANNEL ANTENNA 2



HIGH CHANNEL 11 BANDEDGE ANTENNA 2



OUT-OF-BAND HIGH CHANNEL 11 ANTENNA 2

## 10. RADIATED TEST RESULTS

### LIMITS

FCC §15.205 and §15.209

RSS-GEN, Section 8.9 and 8.10

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 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 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 output power 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.

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.

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.

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.

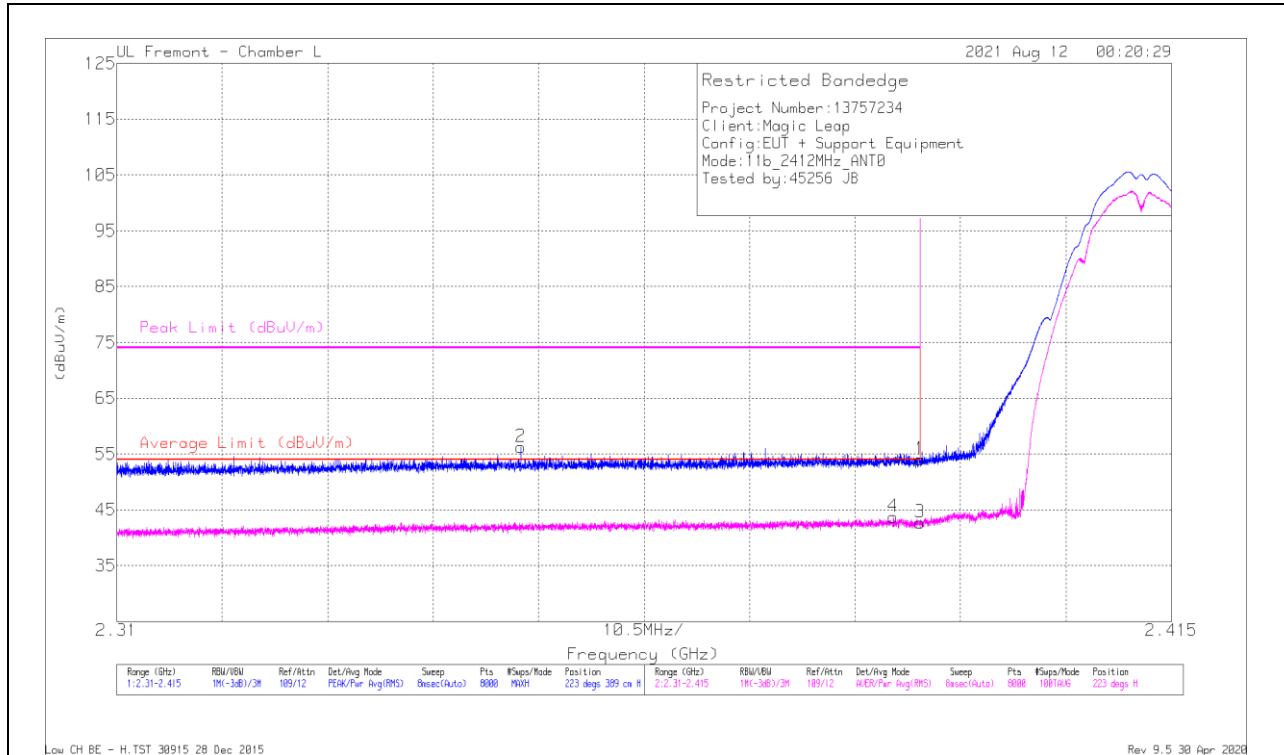
## 10.1. TRANSMITTER ABOVE 1 GHz

### 10.1.1. TX ABOVE 1 GHz 802.11b MODE IN THE 2.4 GHz BAND

#### 1TX Antenna 1 MODE

#### BANDEDGE (LOW CHANNEL, CH 1)

#### HORIZONTAL RESULT



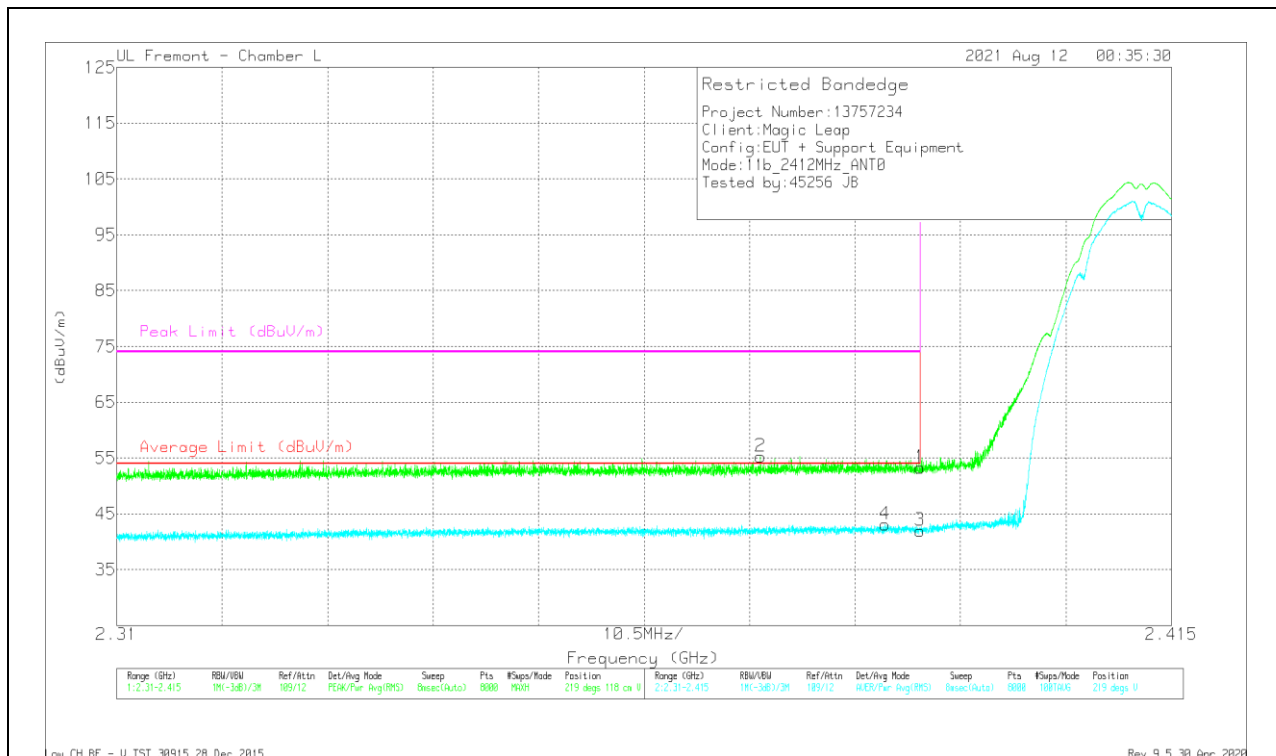
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	33.46	Pk	32	-11.5	53.96	-	-	74	-20.04	223	389	H
2	* 2.35022	35.72	Pk	32	-11.5	56.22	-	-	74	-17.78	223	389	H
3	* 2.39	22.18	RMS	32	-11.5	42.68	54	-11.32	-	-	223	389	H
4	* 2.38729	23.09	RMS	32.1	-11.5	43.69	54	-10.31	-	-	223	389	H

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

Pk - Peak detector

RMS - RMS detection

### VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fitr/Pad (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	32.73	Pk	32	-11.5	53.23	-	-	74	-20.77	219	118	V
2	* 2.3741	34.63	Pk	32.1	-11.5	55.23	-	-	74	-18.77	219	118	V
3	* 2.39	21.49	RMS	32	-11.5	41.99	54	-12.01	-	-	219	118	V
4	* 2.38649	22.49	RMS	32.1	-11.5	43.09	54	-10.91	-	-	219	118	V

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

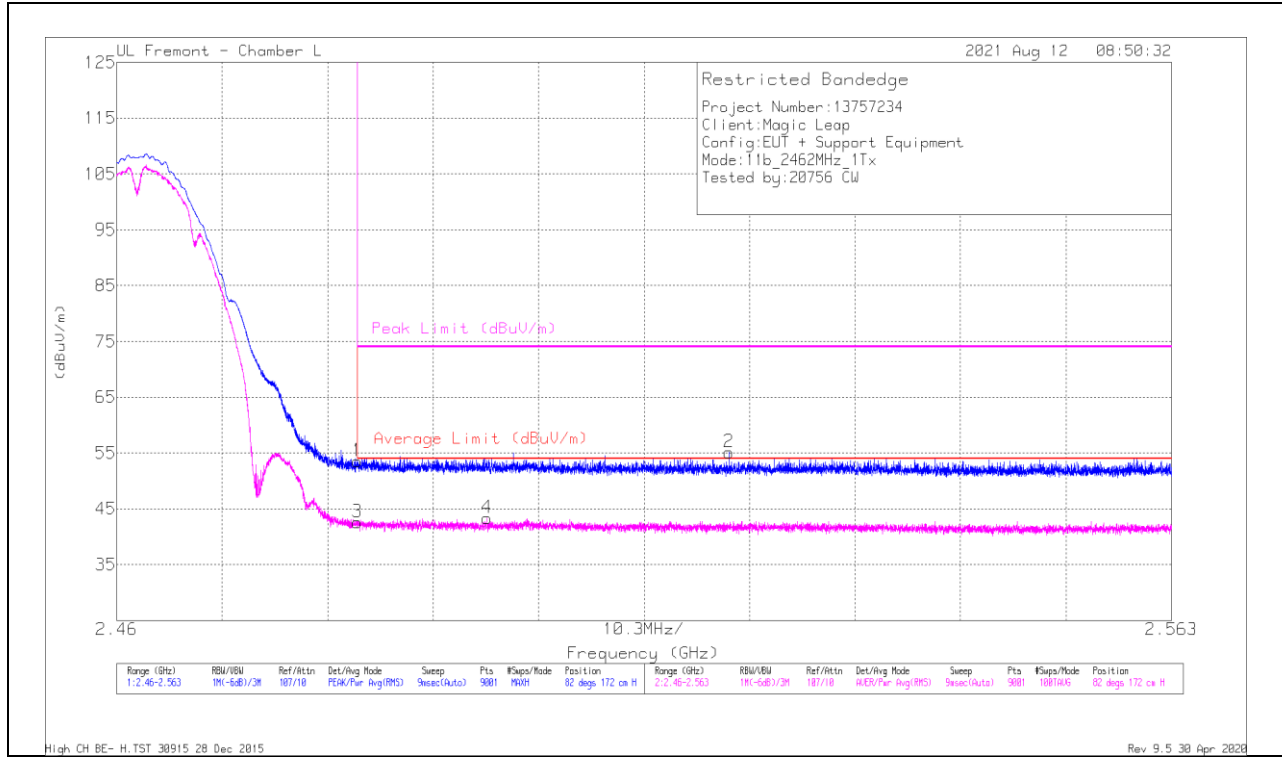
Pk - Peak detector

RMS - RMS detection



# BANDEDGE (HIGH CHANNEL, CH 11)

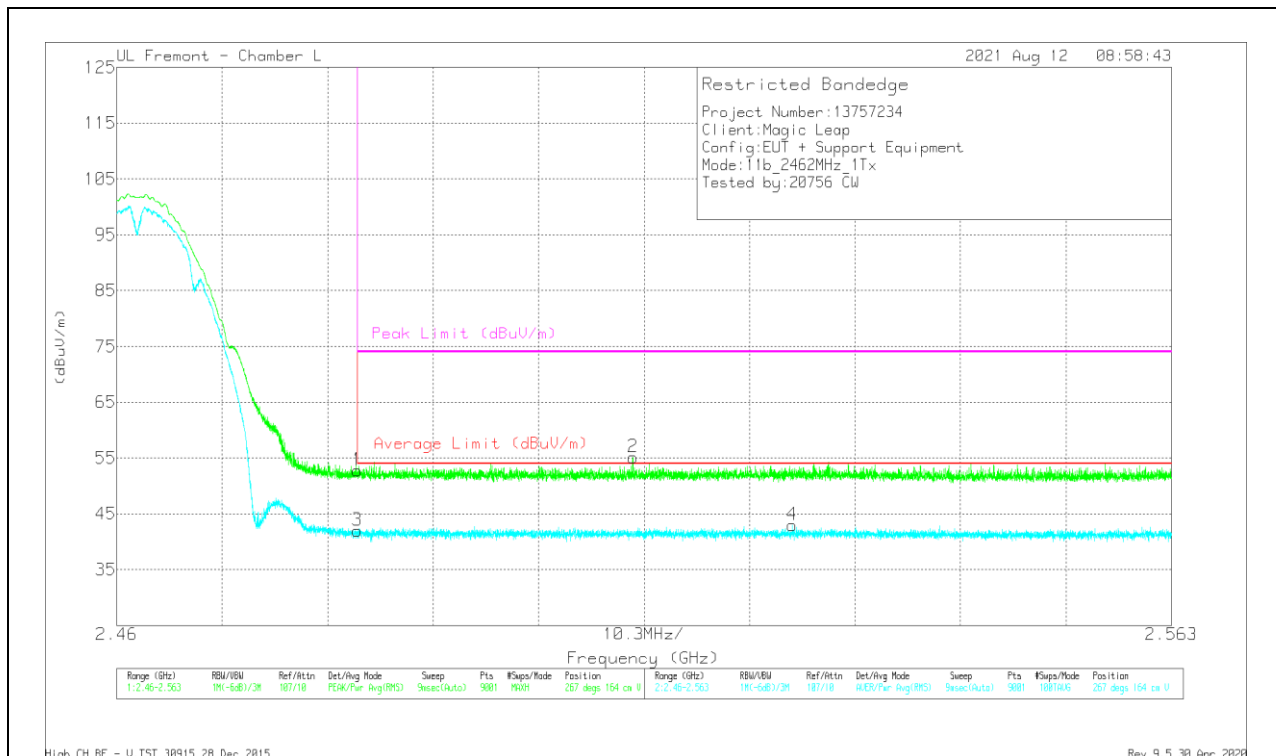
## HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb1/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	40.19	Pk	32.3	-19	53.49	-	-	74	-20.51	82	172	H
2	2.51979	41.79	Pk	32.4	-19	55.19	-	-	74	-18.81	82	172	H
3	* 2.48351	29.2	RMS	32.3	-19	42.5	54	-11.5	-	-	82	172	H
4	* 2.49616	29.9	RMS	32.4	-19.1	43.2	54	-10.8	-	-	82	172	H

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

### VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	39.46	Pk	32.3	-19	52.76	-	-	74	-21.24	267	164	V
2	2.5104	41.7	Pk	32.4	-19	55.1	-	-	74	-18.9	267	164	V
3	* 2.48351	28.6	RMS	32.3	-19	41.9	54	-12.1	-	-	267	164	V
4	2.52596	29.43	RMS	32.4	-19	42.83	54	-11.17	-	-	267	164	V

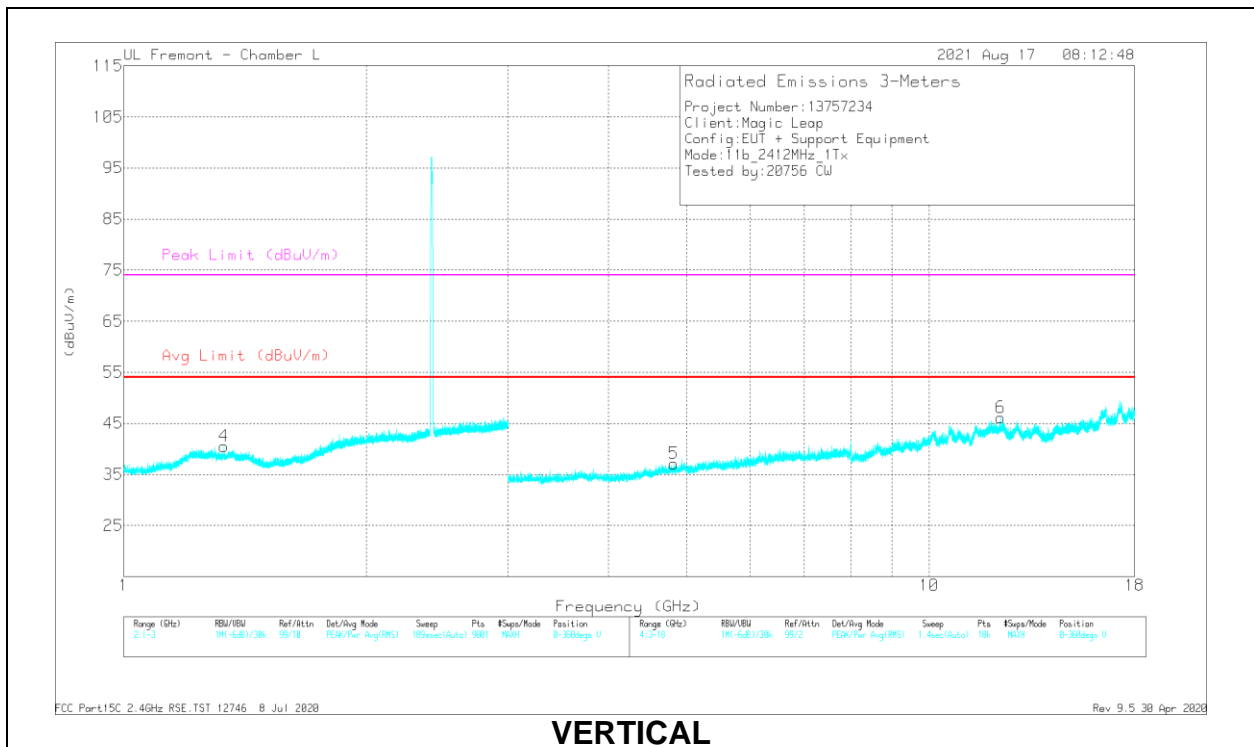
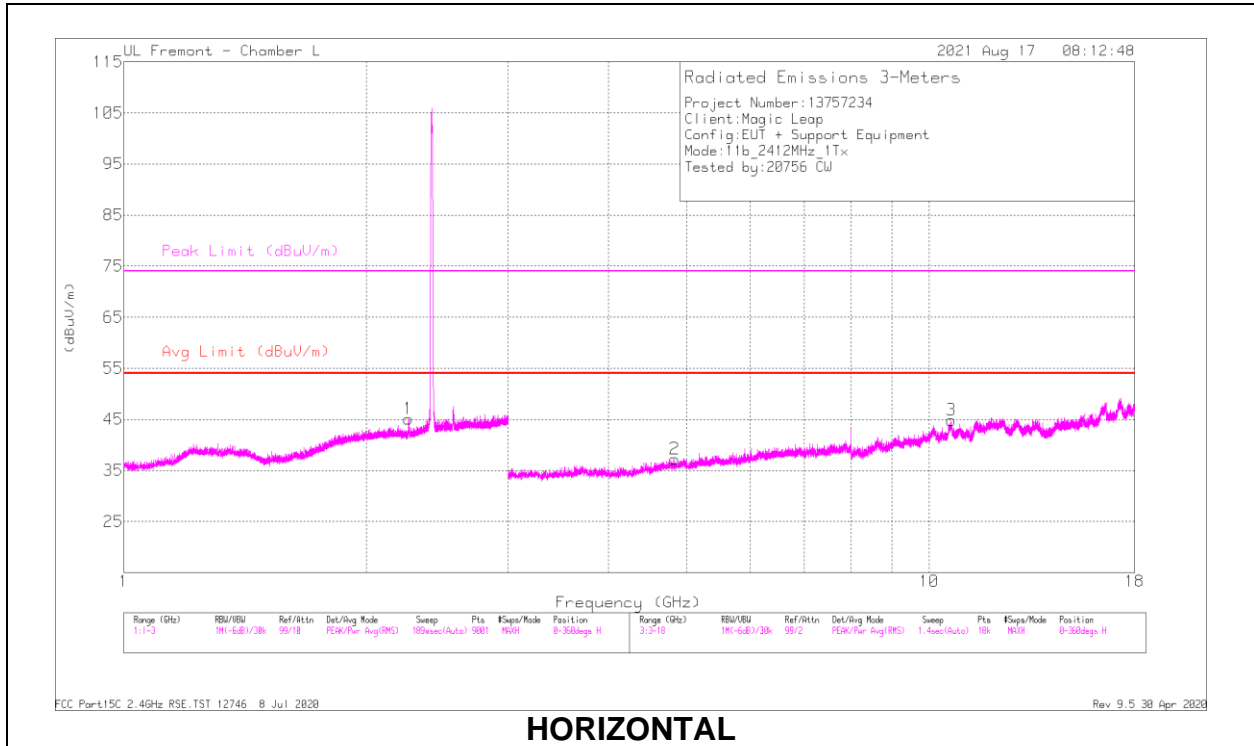
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

# HARMONICS AND SPURIOUS EMISSIONS

## LOW CHANNEL, CH 1 RESULTS



**RADIATED EMISSIONS**

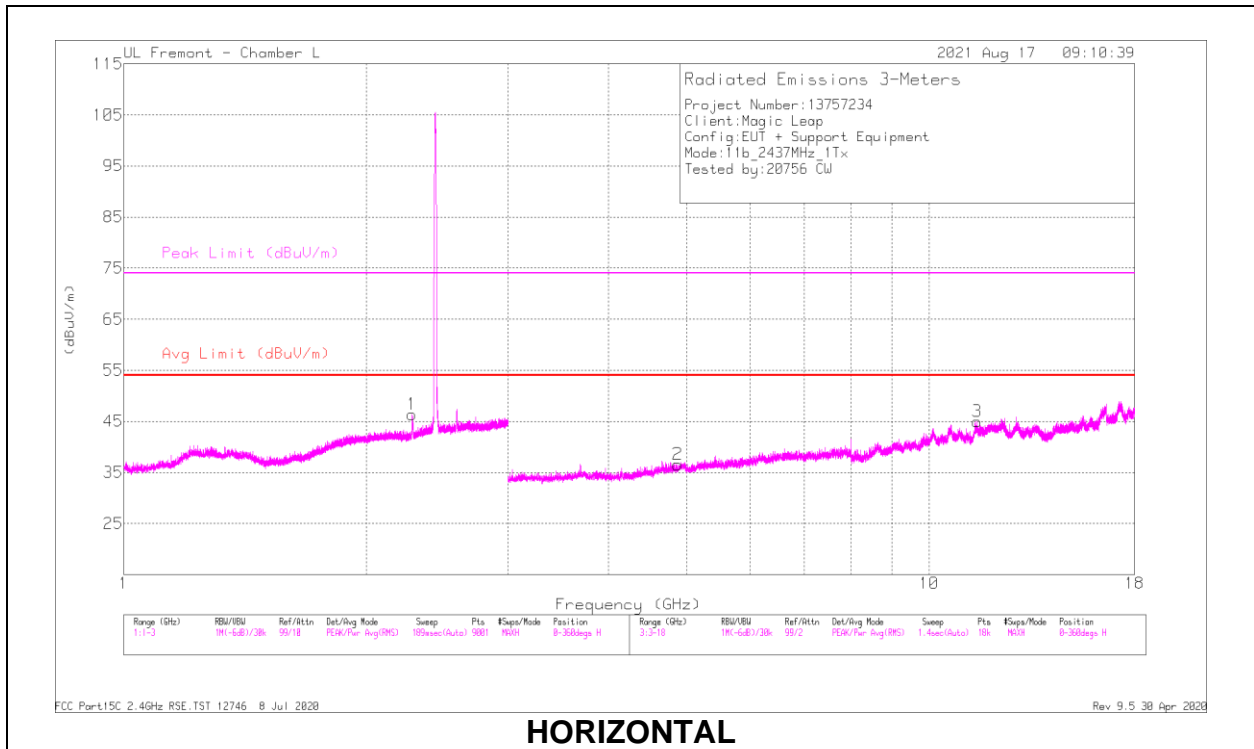
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/Fitr/P ad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.25921	41.41	PK2	31.2	-19.7	52.91	-	-	74	-21.09	207	260	H
	* 2.25766	30.39	MAv1	31.2	-19.8	41.79	54	-12.21	-	-	207	260	H
4	* 1.33042	39.8	PK2	29.5	-22.7	46.6	-	-	74	-27.4	274	334	V
	* 1.33261	28.75	MAv1	29.6	-22.7	35.65	54	-18.35	-	-	274	334	V
2	* 4.83541	34.84	PK2	34.2	-24.6	44.44	-	-	74	-29.56	192	165	H
	* 4.83388	22.42	MAv1	34.2	-24.6	32.02	54	-21.98	-	-	192	165	H
3	* 10.65801	26.99	PK2	37.8	-14.2	50.59	-	-	74	-23.41	221	130	H
	* 10.65976	15.68	MAv1	37.8	-14.2	39.28	54	-14.72	-	-	221	130	H
5	* 4.82065	35.62	PK2	34.2	-24.6	45.22	-	-	74	-28.78	167	121	V
	* 4.82189	23.38	MAv1	34.2	-24.6	32.98	54	-21.02	-	-	167	121	V
6	* 12.27792	30.14	PK2	39.1	-16.4	52.84	-	-	74	-21.16	290	340	V
	* 12.27791	17.82	MAv1	39.1	-16.4	40.52	54	-13.48	-	-	290	340	V

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

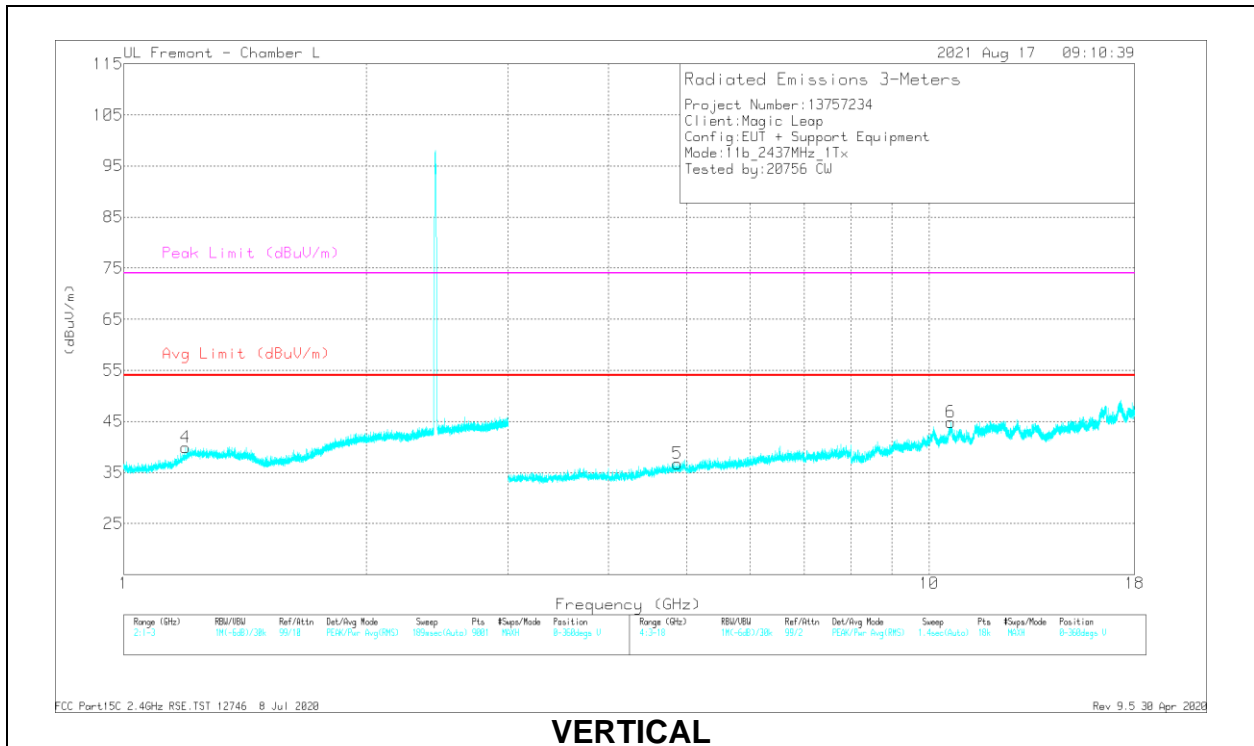
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

### MID CHANNEL, CH 6 RESULTS



**HORIZONTAL**



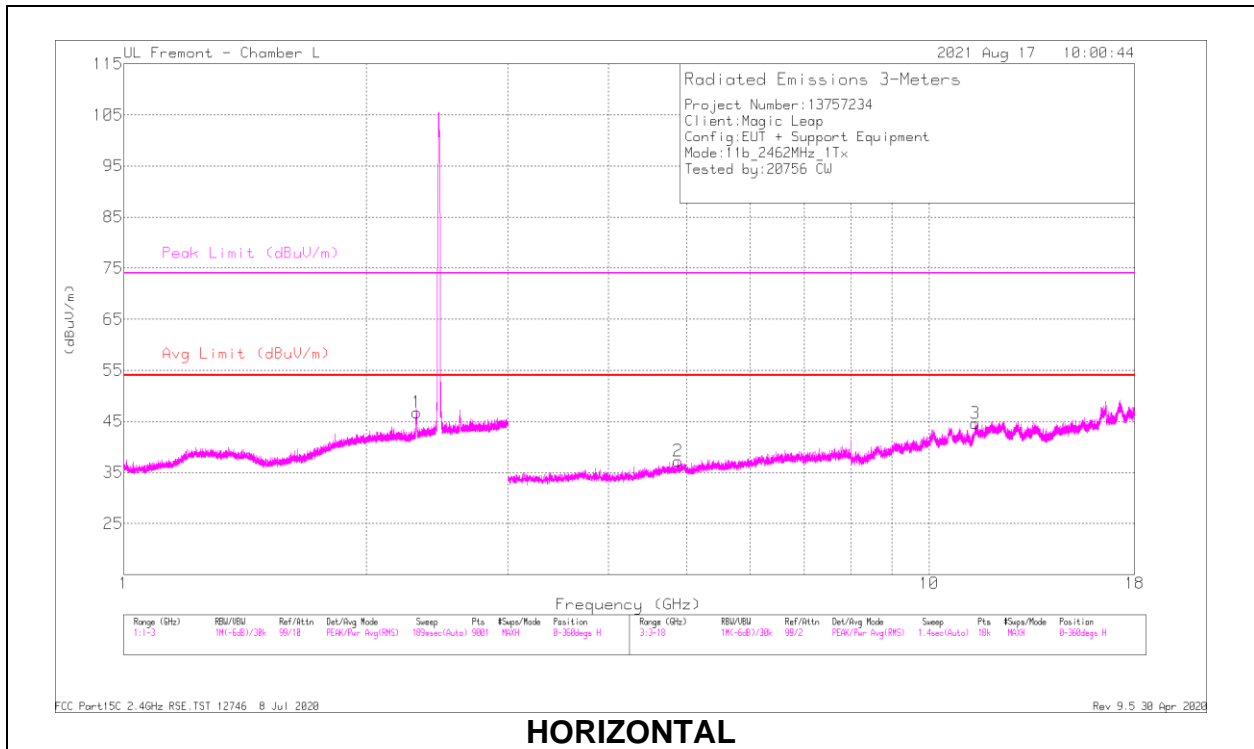
**VERTICAL**

**RADIATED EMISSIONS**

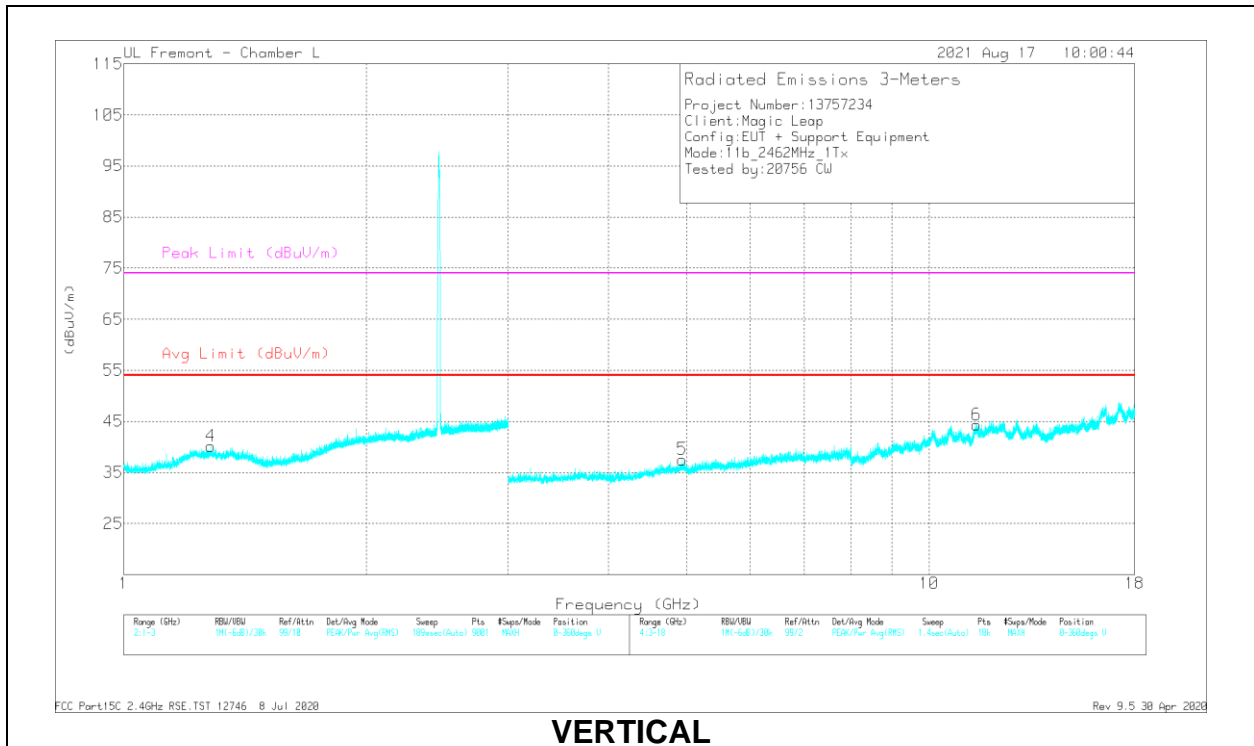
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.28272	41.35	PK2	31.4	-19.7	53.05	-	-	74	-20.95	172	103	H
	* 2.28268	31.8	MAv1	31.4	-19.7	43.5	54	-10.5	-	-	172	103	H
4	* 1.19371	40.65	PK2	29.4	-23.2	46.85	-	-	74	-27.15	211	199	V
	* 1.19511	29.46	MAv1	29.5	-23.2	35.76	54	-18.24	-	-	211	199	V
2	* 4.87669	34.35	PK2	34.2	-24.4	44.15	-	-	74	-29.85	131	112	H
	* 4.8752	22.85	MAv1	34.2	-24.5	32.55	54	-21.45	-	-	131	112	H
3	* 11.47232	29.08	PK2	38.5	-15.6	51.98	-	-	74	-22.02	61	109	H
	* 11.47181	17.52	MAv1	38.5	-15.6	40.42	54	-13.58	-	-	61	109	H
5	* 4.87484	33.8	PK2	34.2	-24.5	43.5	-	-	74	-30.5	80	134	V
	* 4.87144	22.79	MAv1	34.2	-24.6	32.39	54	-21.61	-	-	80	134	V
6	* 10.64526	28.13	PK2	37.8	-14.2	51.73	-	-	74	-22.27	150	166	V
	* 10.64457	16.37	MAv1	37.8	-14.2	39.97	54	-14.03	-	-	150	166	V

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

### HIGH CHANNEL, CH 11 RESULTS



**HORIZONTAL**



**VERTICAL**

**RADIATED EMISSIONS**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/Fitr/P ad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.31132	42.56	PK2	31.6	-19.6	54.56	-	-	74	-19.44	207	152	H
	* 2.31004	33.97	MAv1	31.6	-19.6	45.97	54	-8.03	-	-	207	152	H
4	* 1.28268	40.16	PK2	30	-22.9	47.26	-	-	74	-26.74	160	268	V
	* 1.28326	28.71	MAv1	30	-22.9	35.81	54	-18.19	-	-	160	268	V
2	* 4.87729	34.67	PK2	34.2	-24.4	44.47	-	-	74	-29.53	29	163	H
	* 4.87769	23.72	MAv1	34.2	-24.4	33.52	54	-20.48	-	-	29	163	H
3	* 11.41127	28.42	PK2	38.4	-15.2	51.62	-	-	74	-22.38	50	121	H
	* 11.41155	17.34	MAv1	38.4	-15.2	40.54	54	-13.46	-	-	50	121	H
5	* 4.93811	34.6	PK2	34.2	-23.2	45.6	-	-	74	-28.4	138	136	V
	* 4.93992	23.04	MAv1	34.2	-23.2	34.04	54	-19.96	-	-	138	136	V
6	* 11.4588	29.35	PK2	38.5	-15.5	52.35	-	-	74	-21.65	131	182	V
	* 11.45779	17.27	MAv1	38.5	-15.5	40.27	54	-13.73	-	-	131	182	V

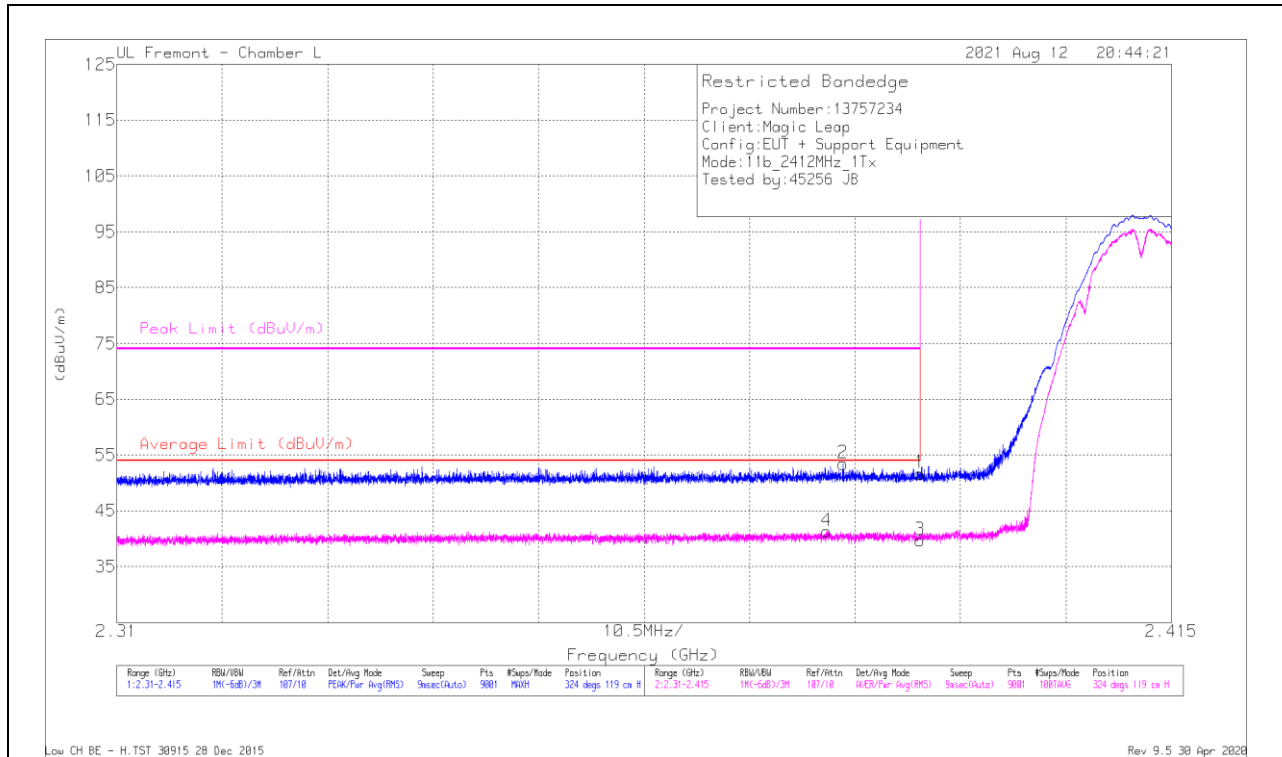
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 PK2 - KDB558074 Method: Maximum Peak  
 MAv1 - KDB558074 Option 1 Maximum RMS Average



**1TX Antenna 2 MODE**

**BANDEDGE (LOW CHANNEL, CH 1)**

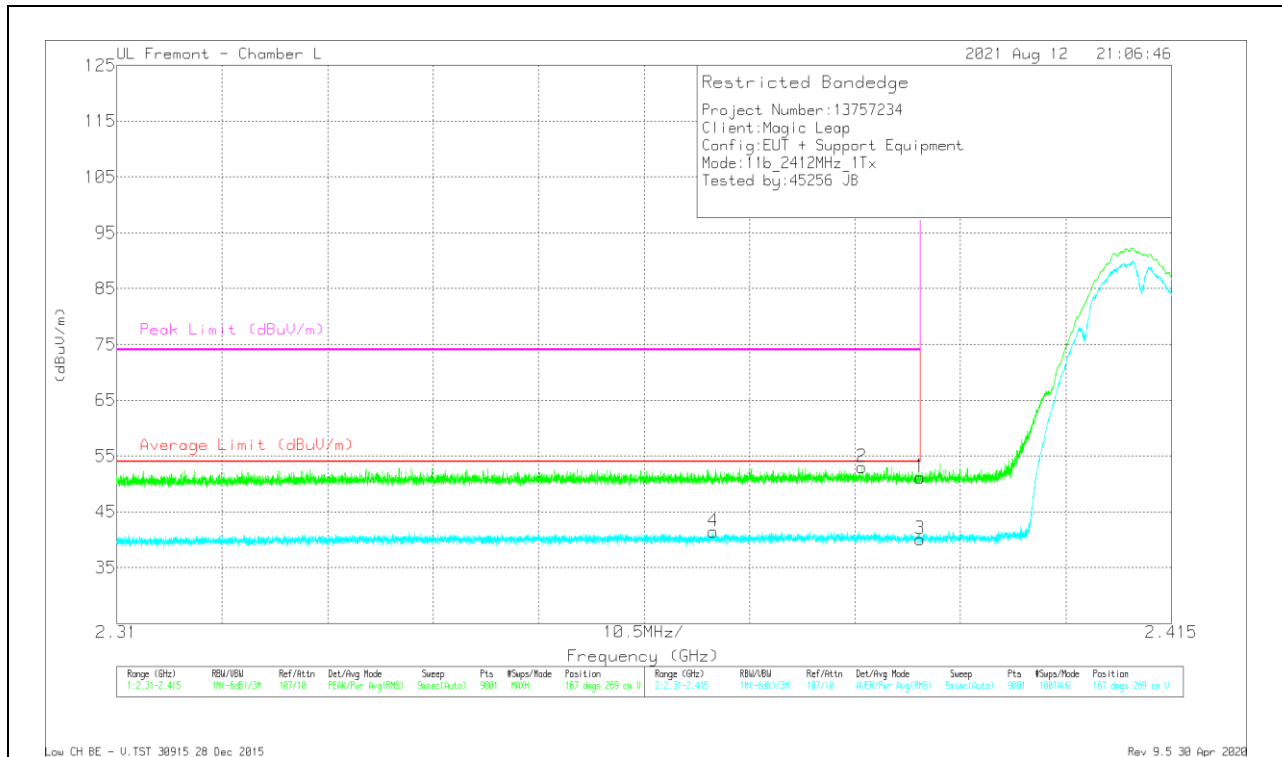
**HORIZONTAL RESULT**



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	39.02	Pk	32	-19.3	51.72	-	-	74	-22.28	324	119	H
2	* 2.38232	40.76	Pk	32.1	-19.4	53.46	-	-	74	-20.54	324	119	H
3	* 2.38999	27.08	RMS	32	-19.3	39.78	54	-14.22	-	-	324	119	H
4	* 2.38066	28.68	RMS	32.1	-19.4	41.38	54	-12.62	-	-	324	119	H

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

### VERTICAL RESULT

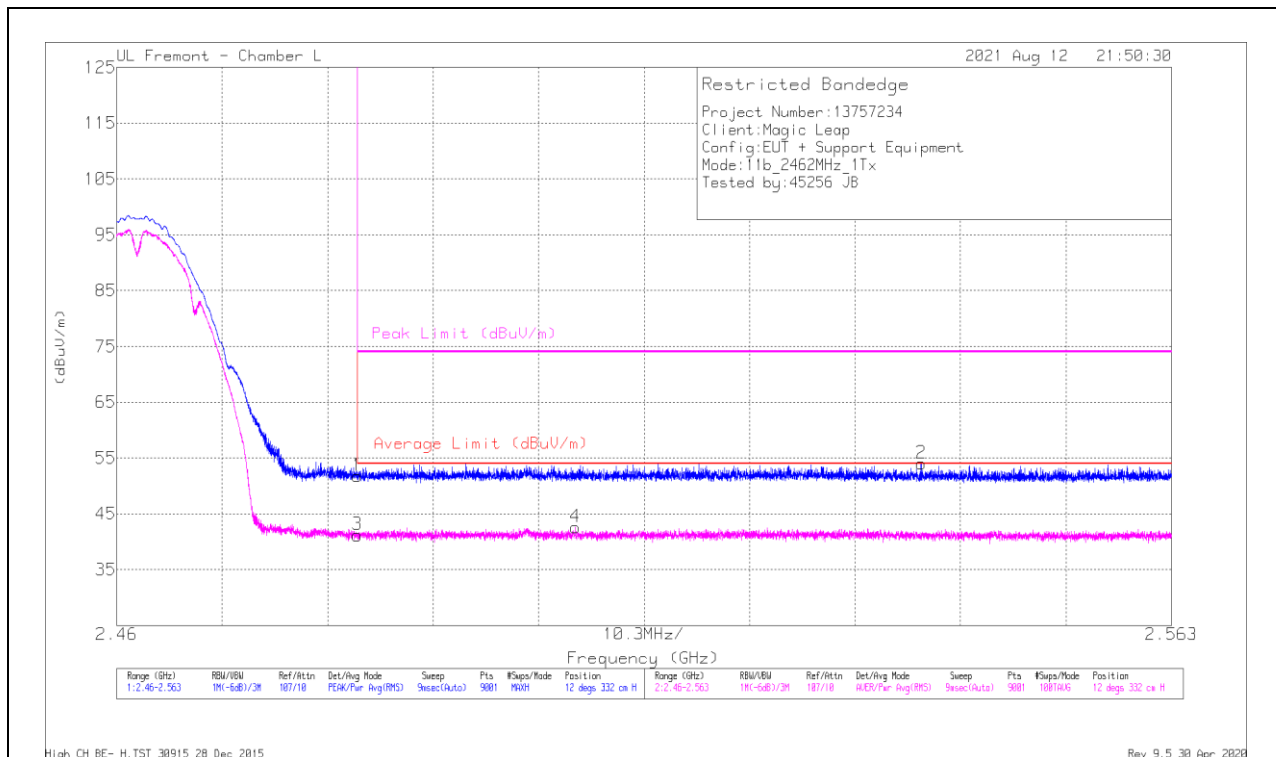


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.38999	38.52	Pk	32	-19.3	51.22	-	-	74	-22.78	167	269	V
2	* 2.38417	40.21	Pk	32.1	-19.3	53.01	-	-	74	-20.99	167	269	V
3	* 2.38999	27.36	RMS	32	-19.3	40.06	54	-13.94	-	-	167	269	V
4	* 2.36936	28.89	RMS	32	-19.4	41.49	54	-12.51	-	-	167	269	V

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

### BANDEDGE (HIGH CHANNEL, CH 11)

### HORIZONTAL RESULT



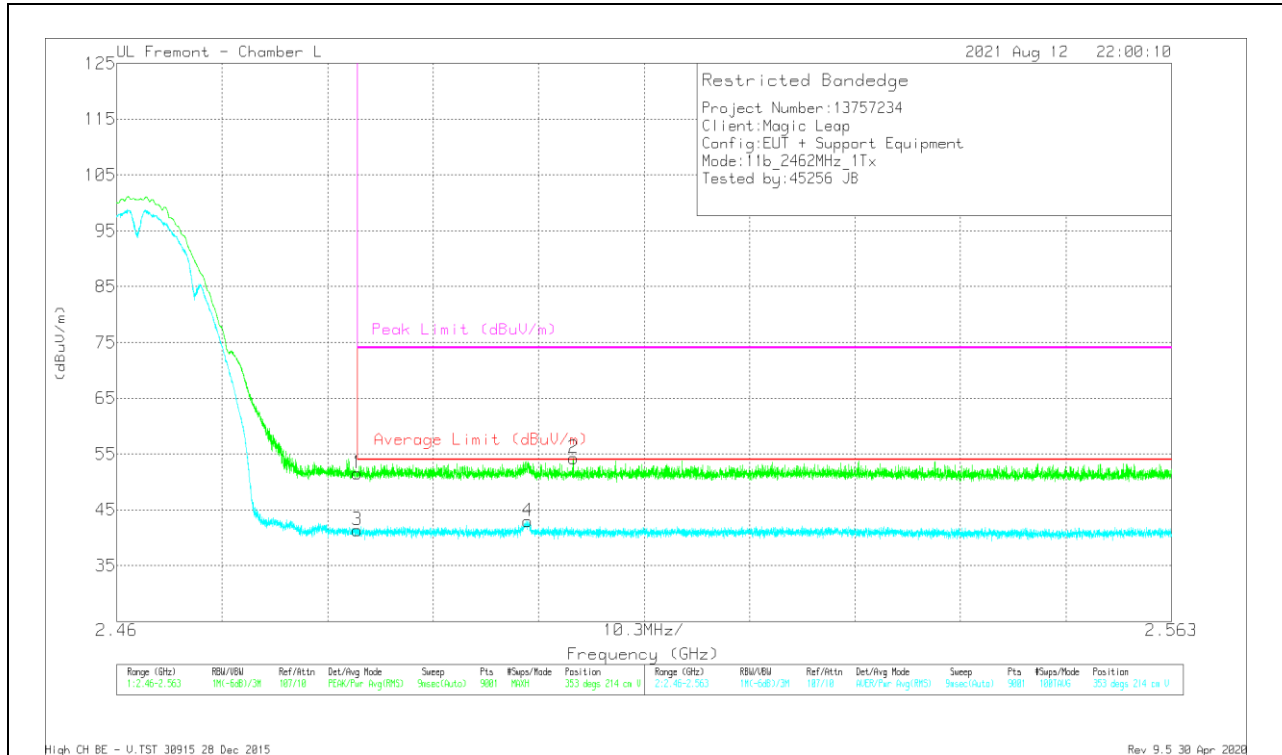
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/Filt/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	38.46	Pk	32.3	-19	51.76	-	-	74	-22.24	12	332	H
2	2.53855	40.77	Pk	32.3	-19	54.07	-	-	74	-19.93	12	332	H
3	* 2.48351	27.87	RMS	32.3	-19	41.17	54	-12.83	-	-	12	332	H
4	2.5048	29.24	RMS	32.4	-19.1	42.54	54	-11.46	-	-	12	332	H

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

Pk - Peak detector

RMS - RMS detection

### VERTICAL RESULT

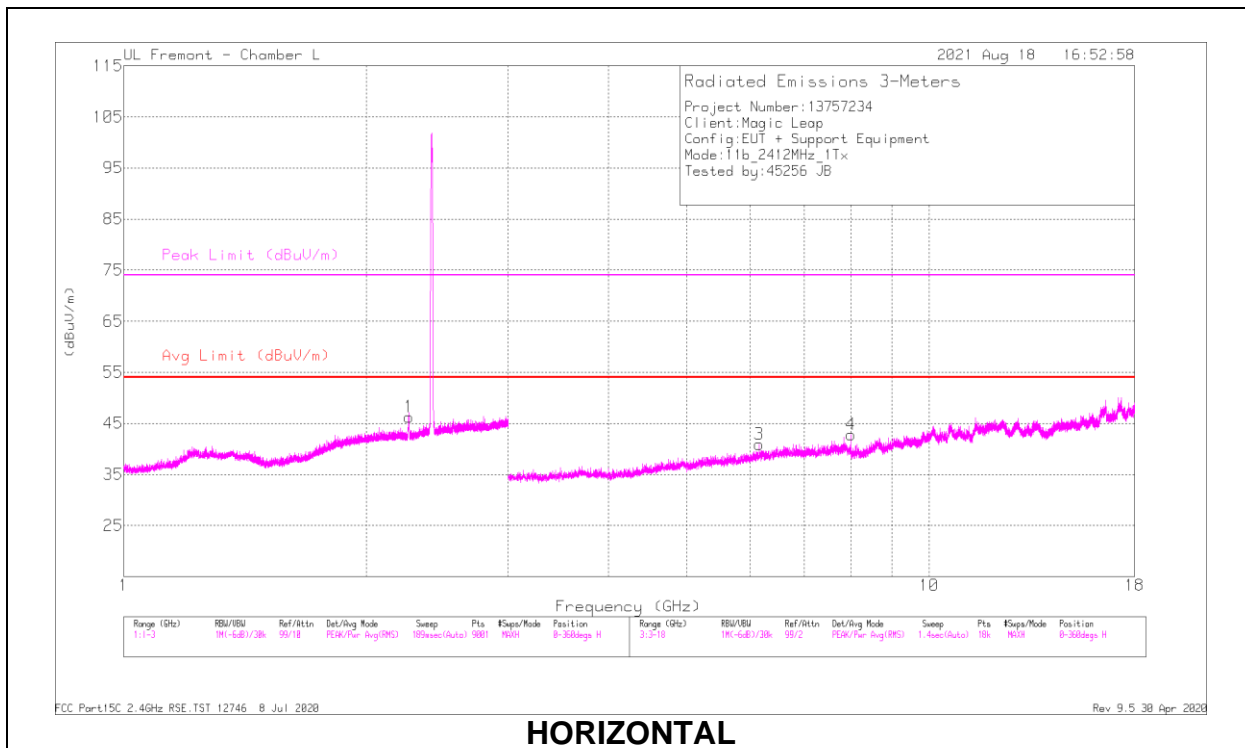


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	38.24	Pk	32.3	-19	51.54	-	-	74	-22.46	353	214	V
2	2.50459	40.93	Pk	32.4	-19.1	54.23	-	-	74	-19.77	353	214	V
3	* 2.48351	28.09	RMS	32.3	-19	41.39	54	-12.61	-	-	353	214	V
4	2.50012	29.71	RMS	32.4	-19.1	43.01	54	-10.99	-	-	353	214	V

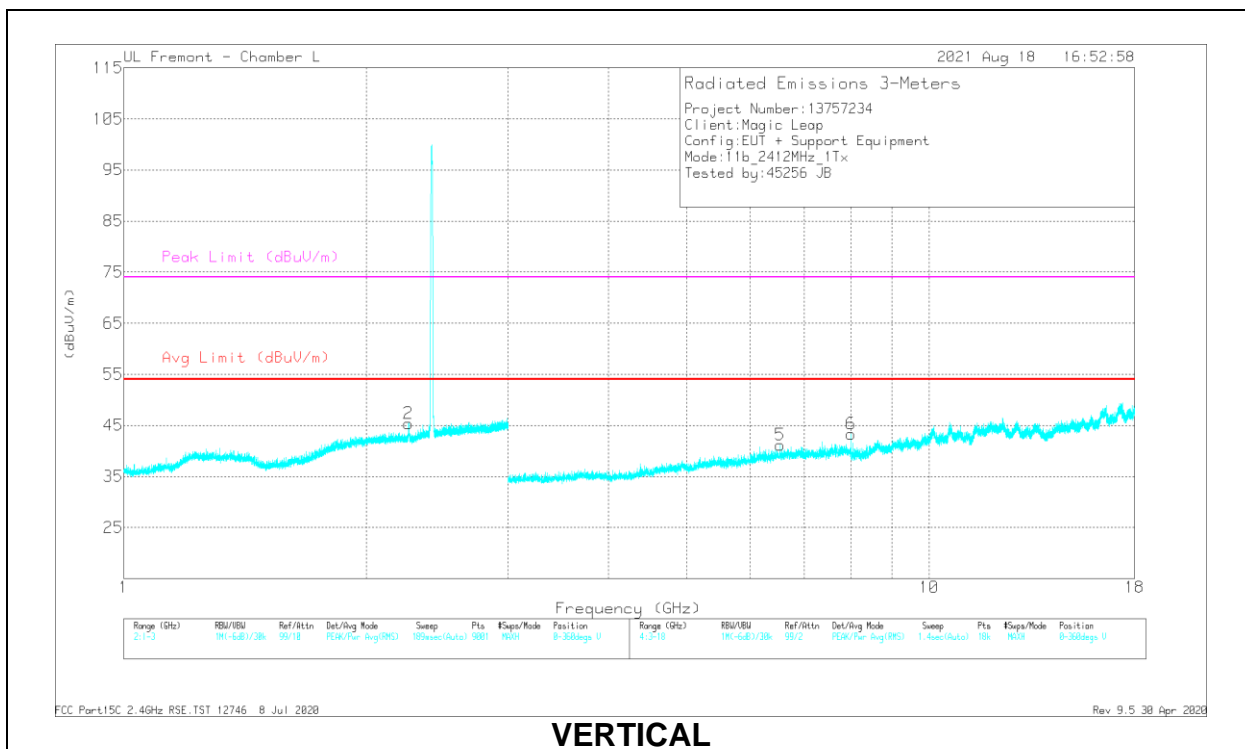
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 Pk - Peak detector  
 RMS - RMS detection

### HARMONICS AND SPURIOUS EMISSIONS

#### LOW CHANNEL, CH 1 RESULTS



**HORIZONTAL**



**VERTICAL**

### RADIATED EMISSIONS

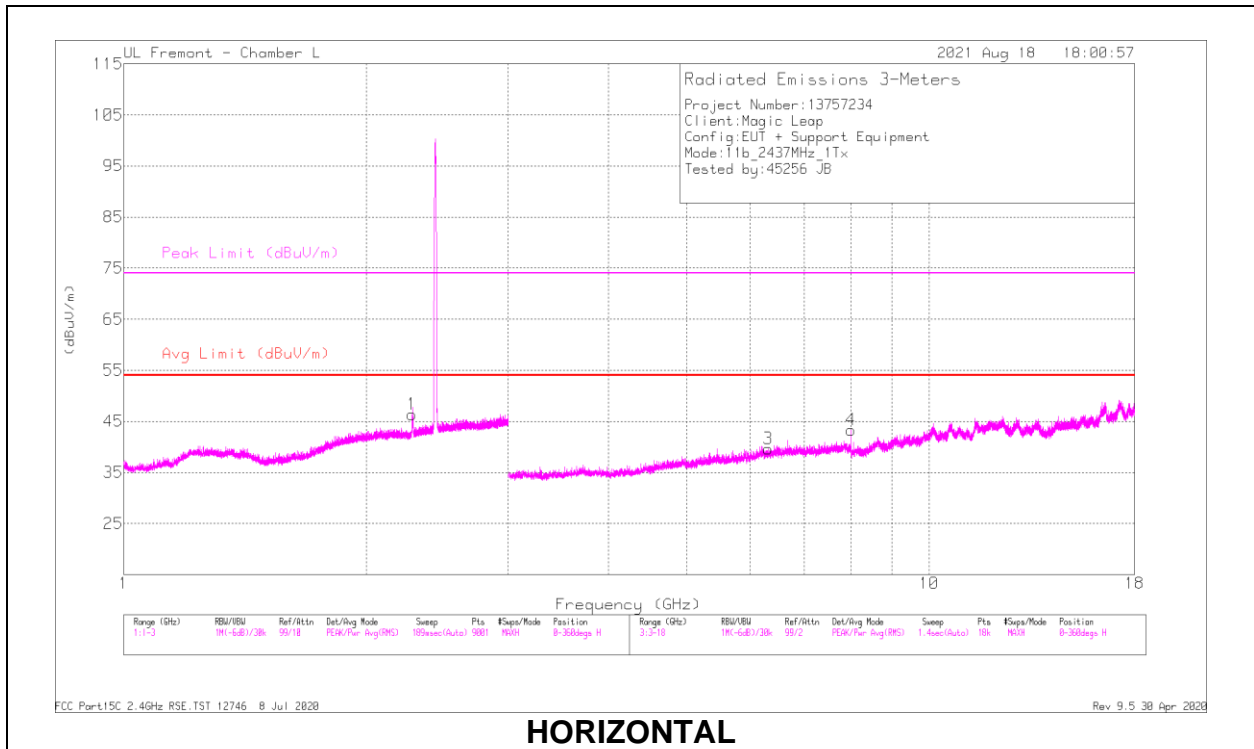
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.25931	43.21	PK2	31.2	-19.7	54.71	-	-	74	-19.29	349	328	H
	* 2.2592	35.37	MAv1	31.2	-19.7	46.87	54	-7.13	-	-	349	328	H
2	* 2.25744	41.27	PK2	31.2	-19.8	52.67	-	-	74	-21.33	230	229	V
	* 2.25759	33.08	MAv1	31.2	-19.8	44.48	54	-9.52	-	-	230	229	V
3	6.15351	26.83	Pk	35.5	-21.4	40.93	-	-	-	-	0-360	101	H
4	8.00023	33.75	PK2	35.8	-19.2	50.35	-	-	-	-	270	109	H
5	6.5377	26.93	Pk	35.8	-21.6	41.13	-	-	-	-	0-360	101	V
6	7.99996	32.12	PK2	35.8	-19.2	48.72	-	-	-	-	339	117	V

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

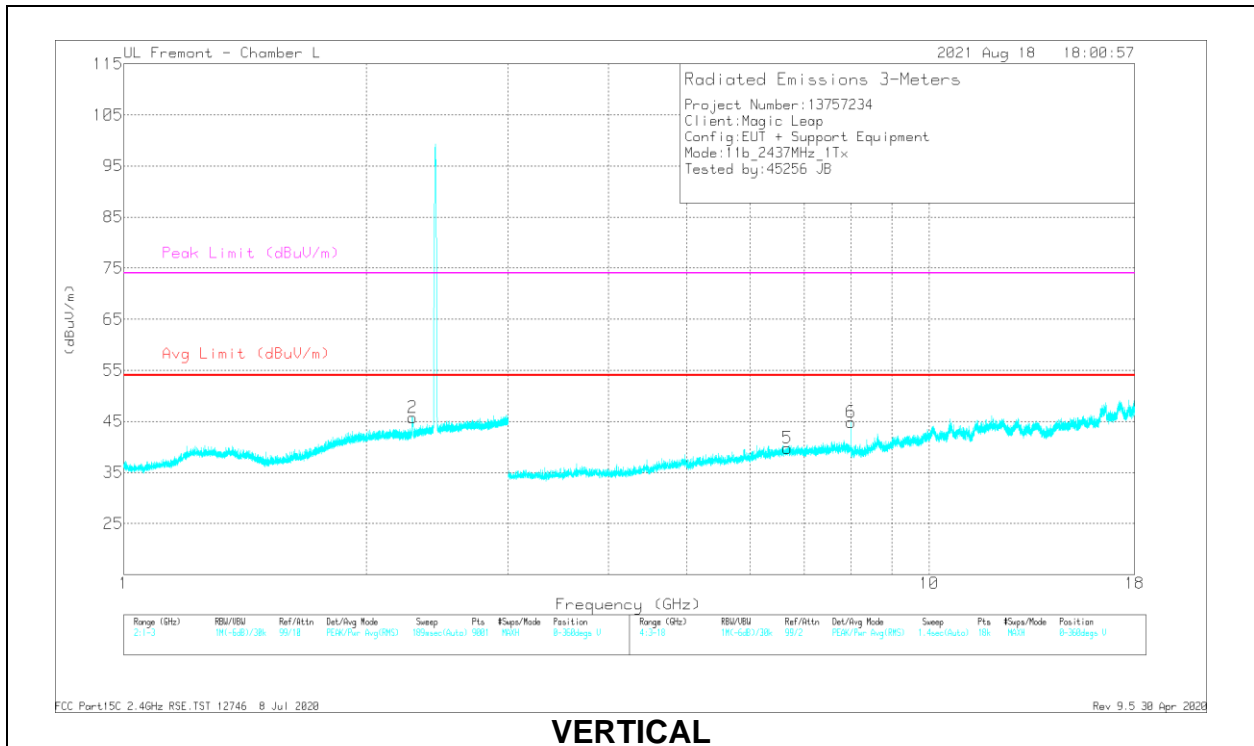
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

### MID CHANNEL, CH 6 RESULTS



**HORIZONTAL**



**VERTICAL**

**RADIATED EMISSIONS**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.28196	42.69	PK2	31.4	-19.7	54.39	-	-	74	-19.61	218	254	H
	* 2.28193	33.09	MAv1	31.4	-19.7	44.79	54	-9.21	-	-	218	254	H
	* 2.28489	41.27	PK2	31.4	-19.7	52.97	-	-	74	-21.03	165	285	V
2	* 2.28222	32.31	MAv1	31.4	-19.7	44.01	54	-9.99	-	-	165	285	V
	6.30935	26.11	Pk	35.6	-22.1	39.61	-	-	-	-	0-360	200	H
4	8.00007	32.66	PK2	35.8	-19.2	49.26	-	-	-	-	340	200	H
	6.67437	24.7	Pk	35.8	-20.7	39.8	-	-	-	-	0-360	200	V
6	8.00012	32.56	PK2	35.8	-19.2	49.16	-	-	-	-	351	102	V

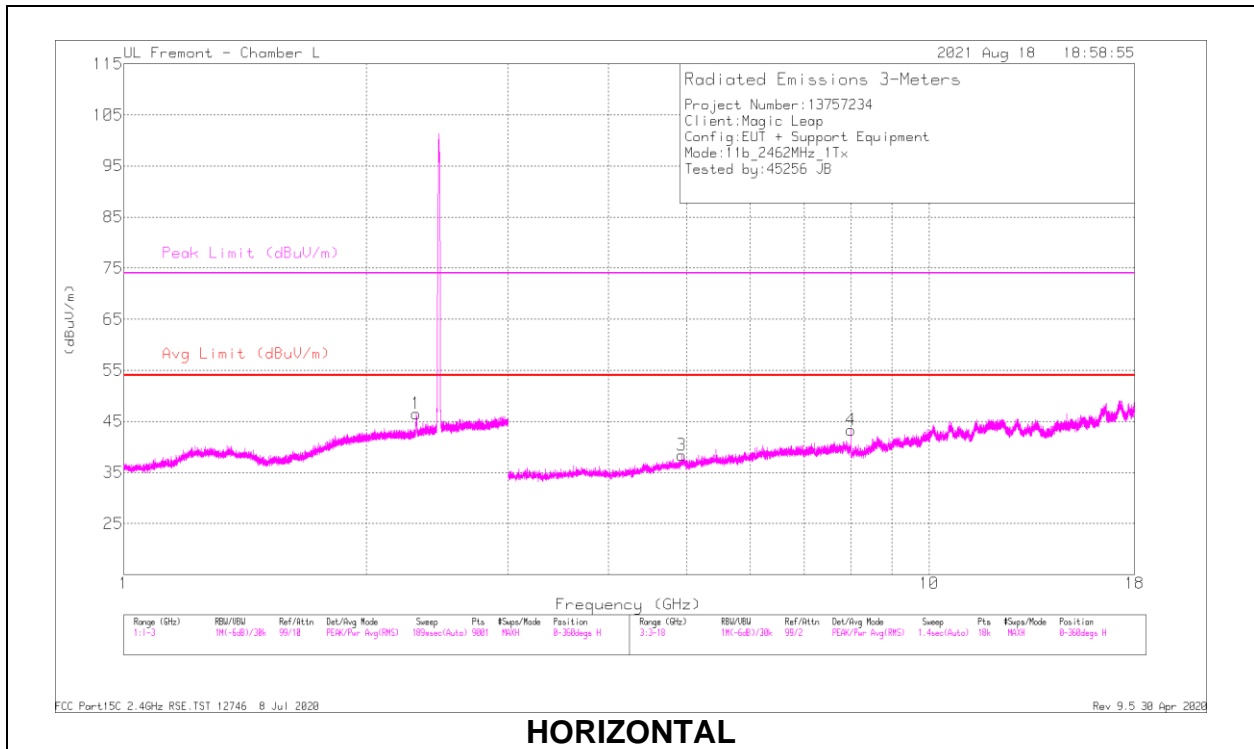
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK2 - KDB558074 Method: Maximum Peak

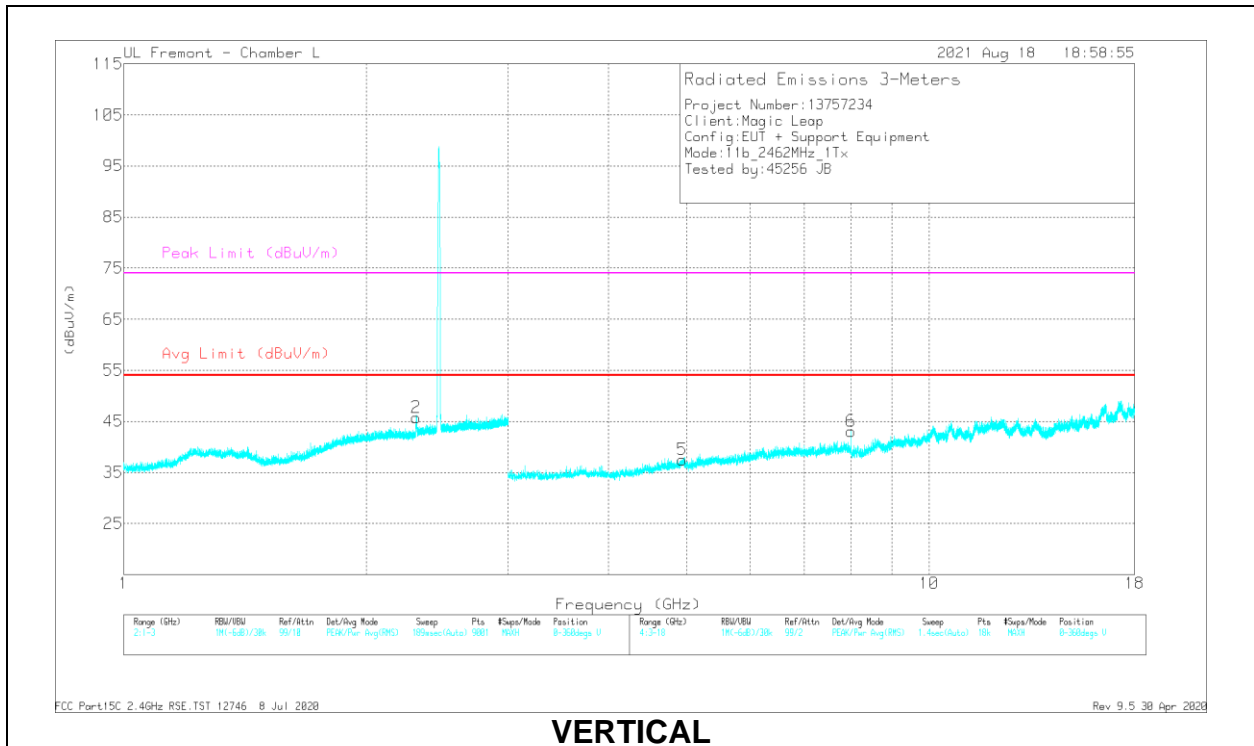
MAv1 - KDB558074 Option 1 Maximum RMS Average



### HIGH CHANNEL, CH 11 RESULTS



**HORIZONTAL**



**VERTICAL**

### RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fitr/Prod (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.30738	43.7	PK2	31.6	-19.6	55.7	-	-	-	-	350	283	H
2	2.3087	40.29	PK2	31.6	-19.6	52.29	-	-	-	-	40	295	V
3	* 4.92882	34.27	PK2	34.2	-23.4	45.07	-	-	74	-28.93	231	119	H
	* 4.93108	22.98	MAv1	34.2	-23.3	33.88	54	-20.12	-	-	231	119	H
4	8.00001	31.33	PK2	35.8	-19.2	47.93	-	-	-	-	262	235	H
5	* 4.94122	34.37	PK2	34.2	-23.2	45.37	-	-	74	-28.63	38	105	V
	* 4.94248	23.25	MAv1	34.2	-23.1	34.35	54	-19.65	-	-	38	105	V
6	7.99998	31.1	PK2	35.8	-19.2	47.7	-	-	-	-	360	238	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average