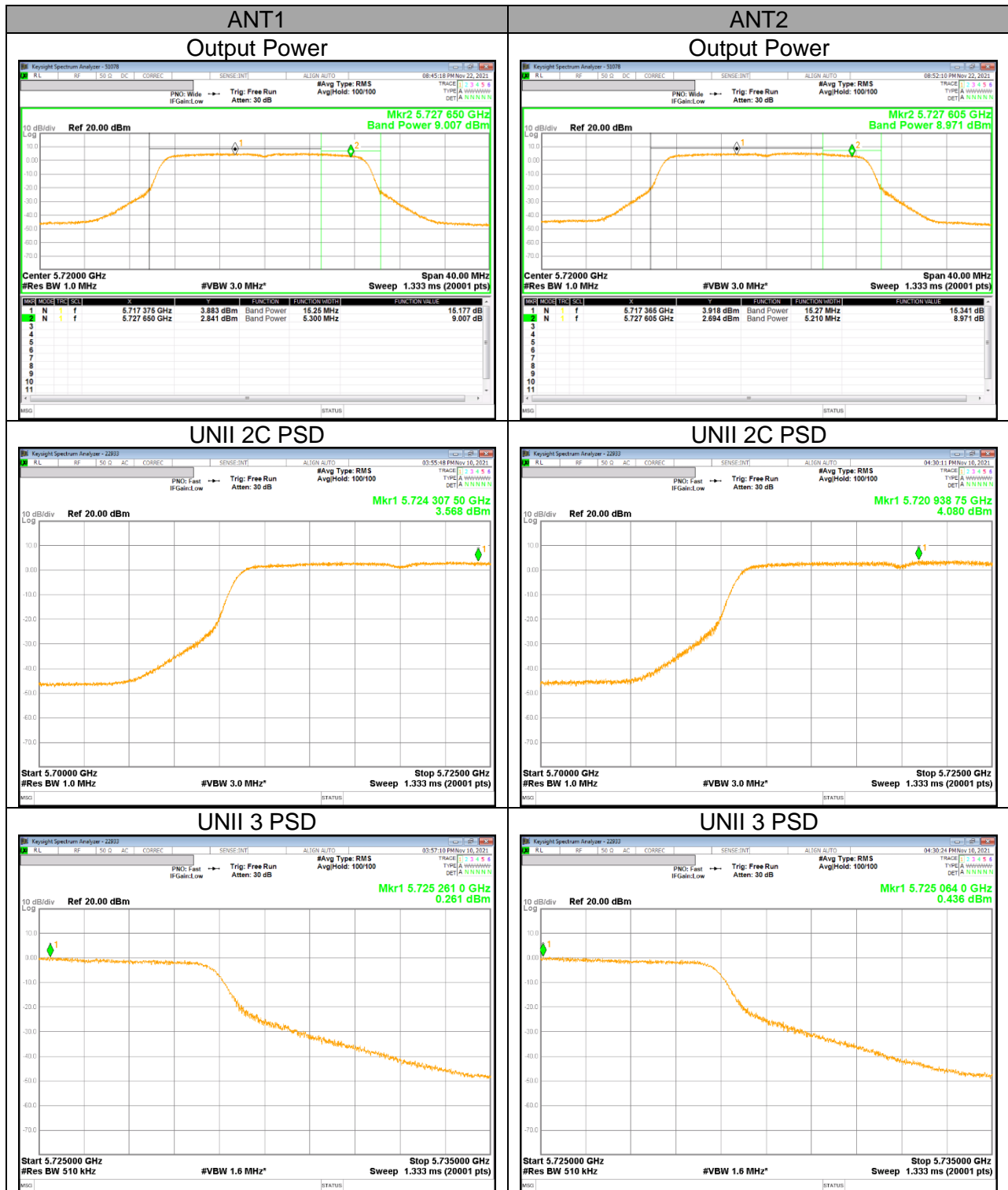
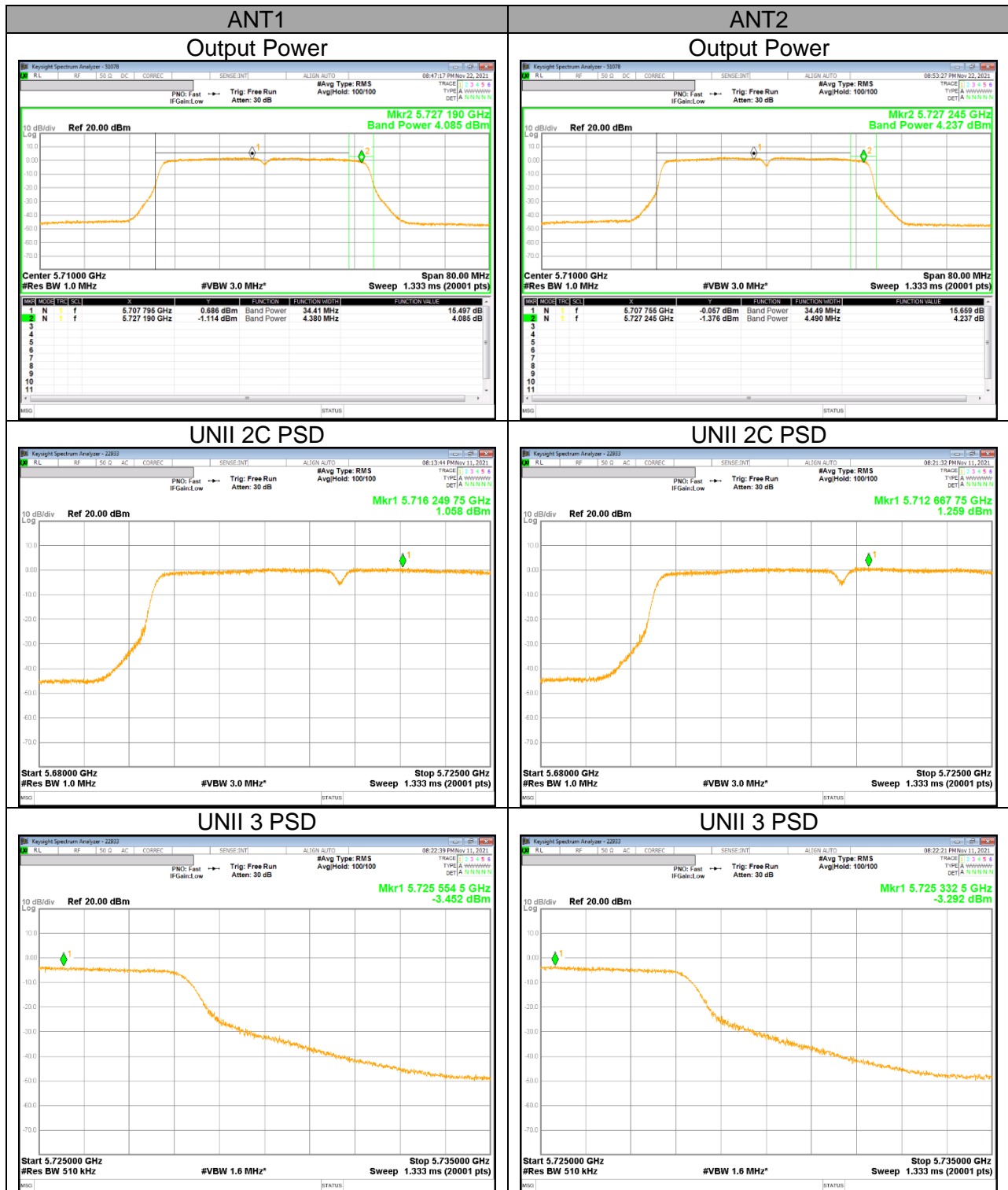


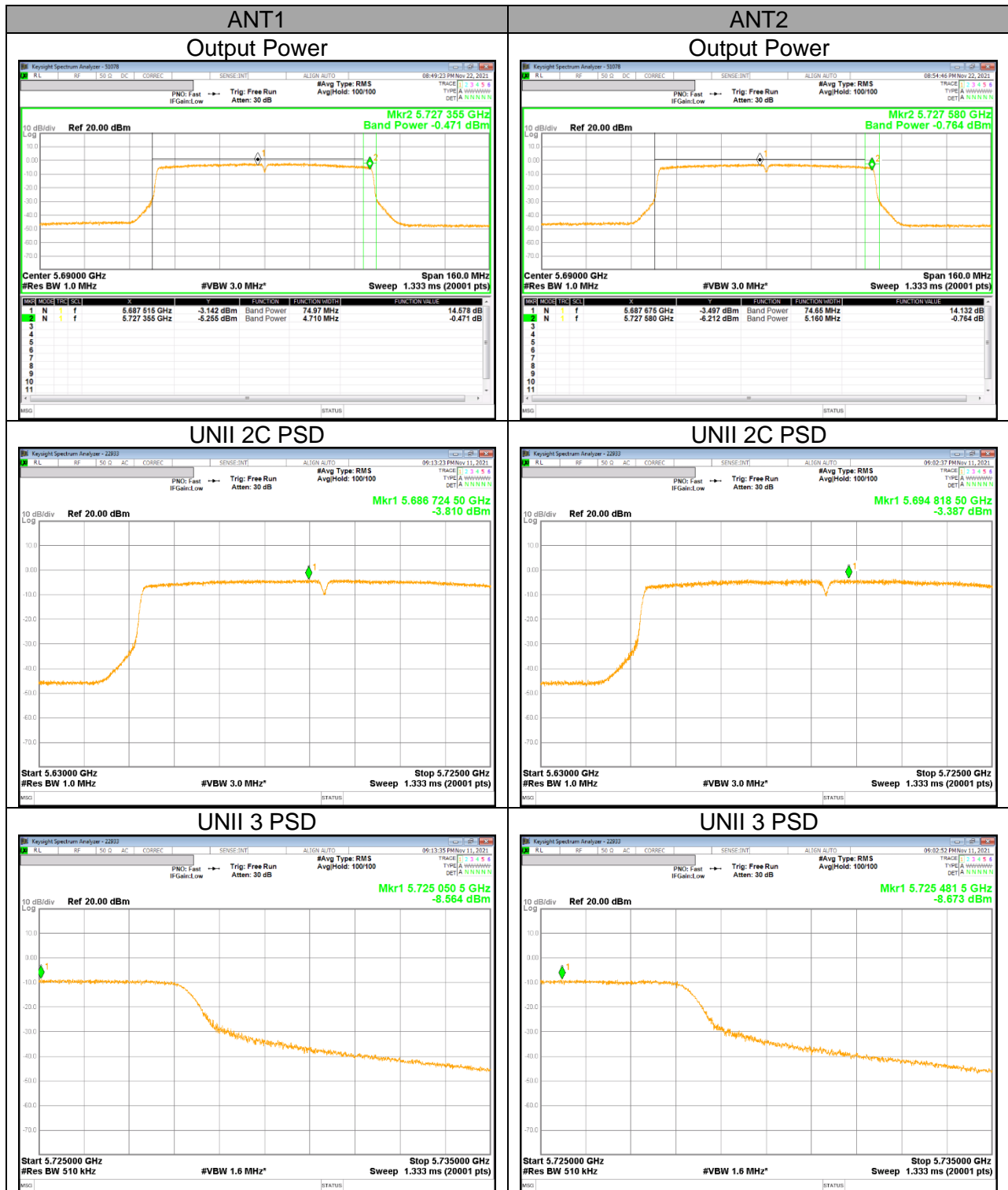
**UNII Straddle Ch. IEEE 802.11n HT20 mode Output Power and PSD**



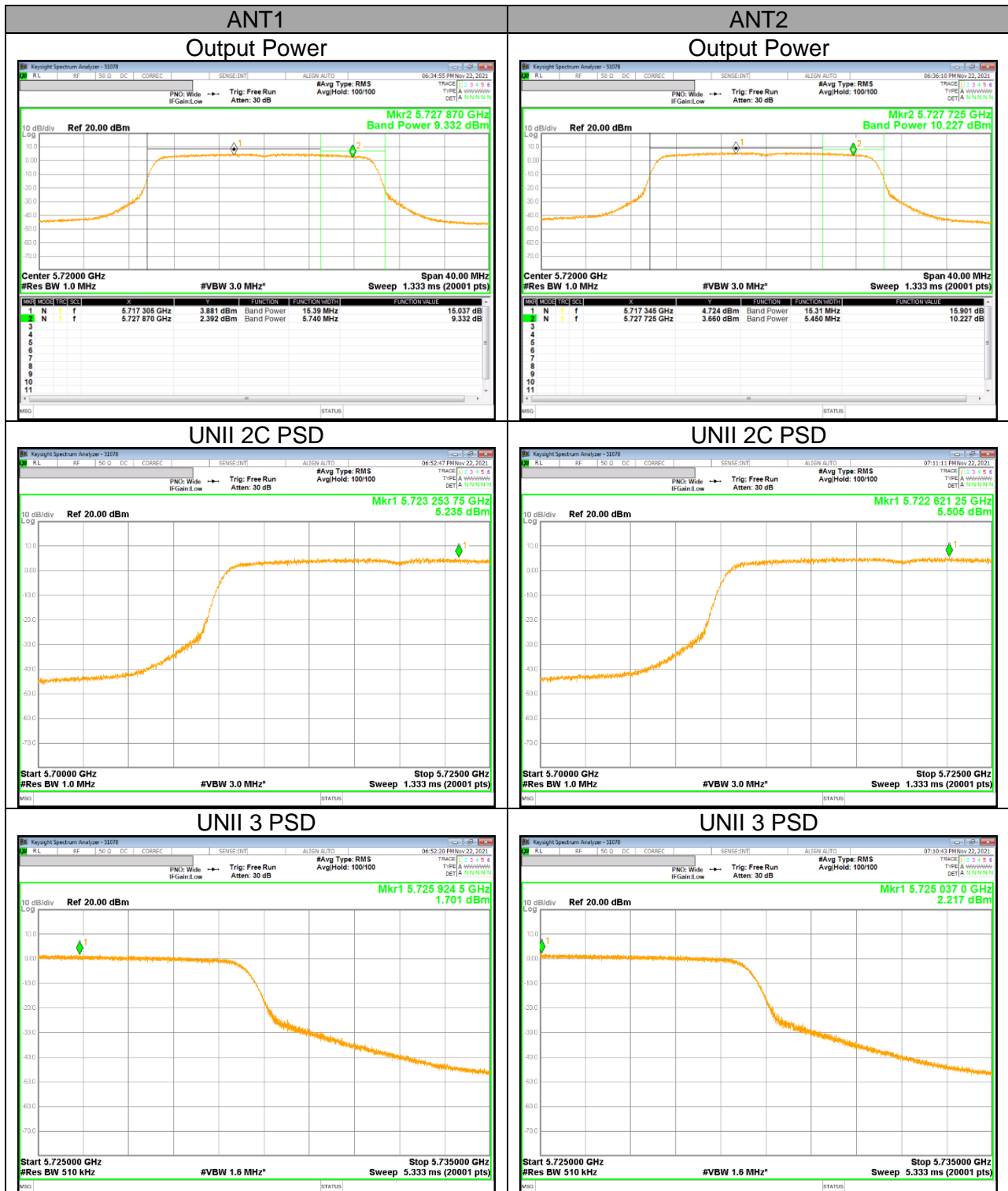
**UNII Straddle Ch. IEEE 802.11n HT40 mode Output Power and PSD**



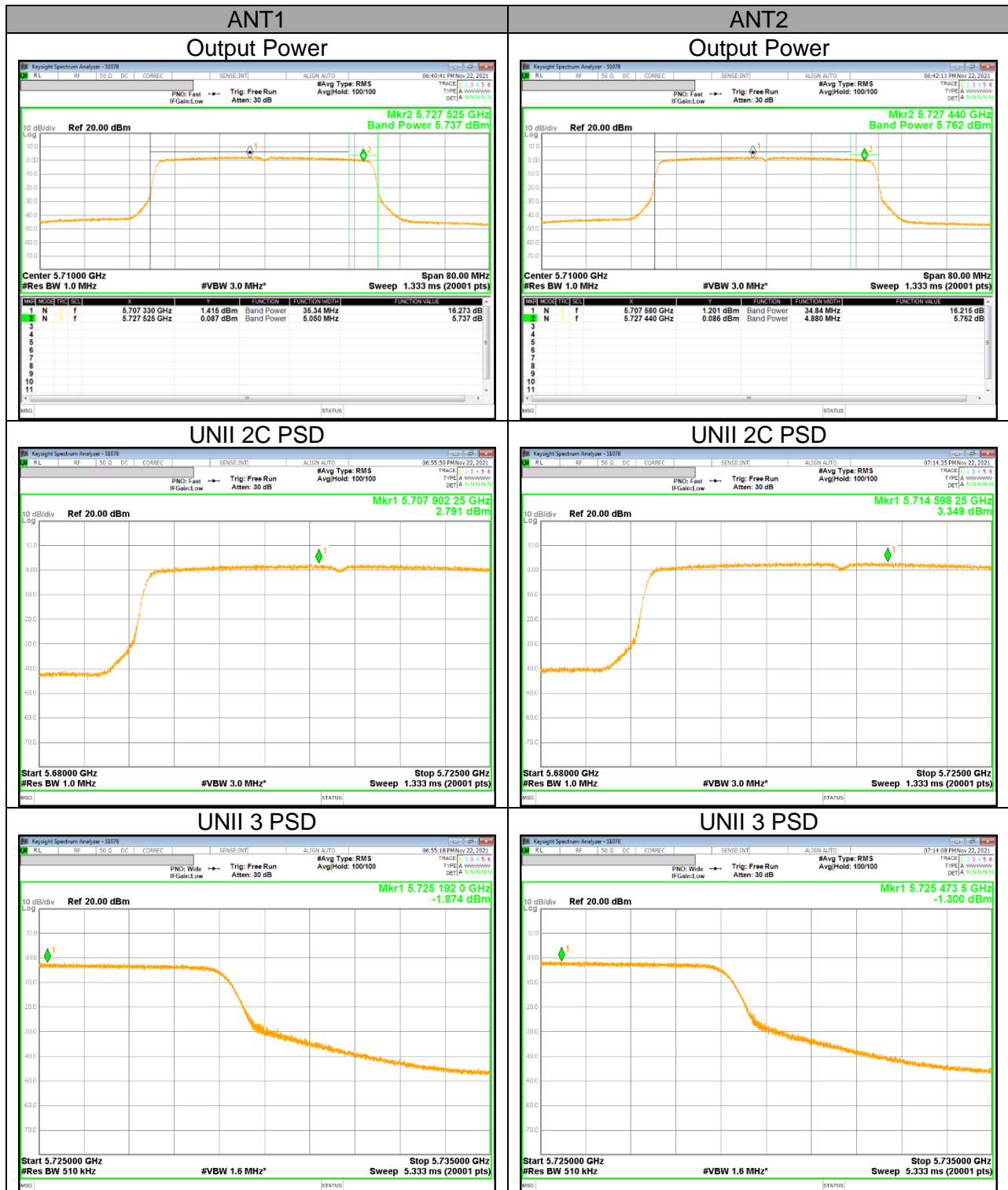
**UNII Straddle Ch. IEEE 802.11ac VHT80 mode Output Power and PSD**



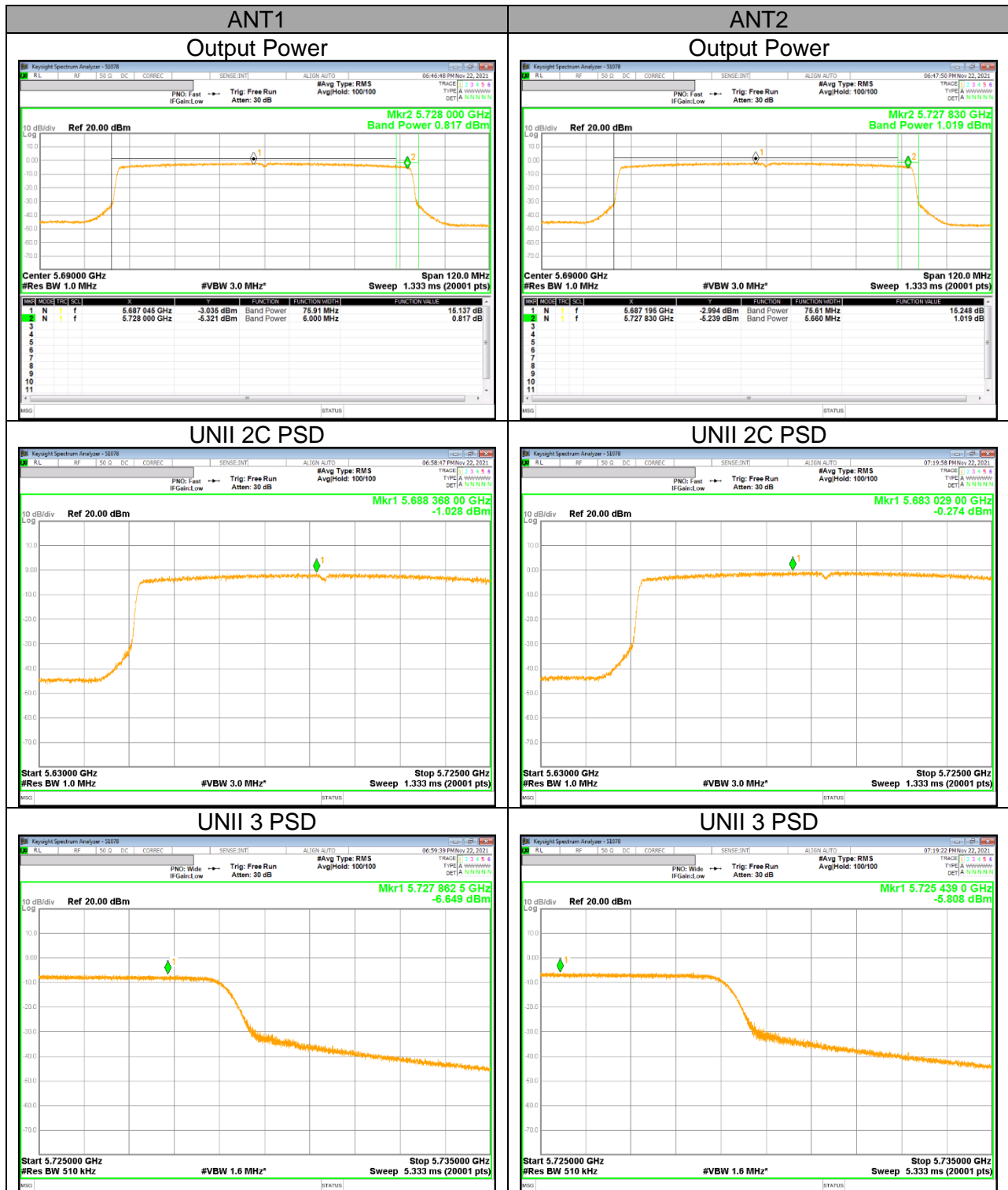
**UNII Straddle Ch. IEEE 802.11ax HE20(SU) mode PSD**



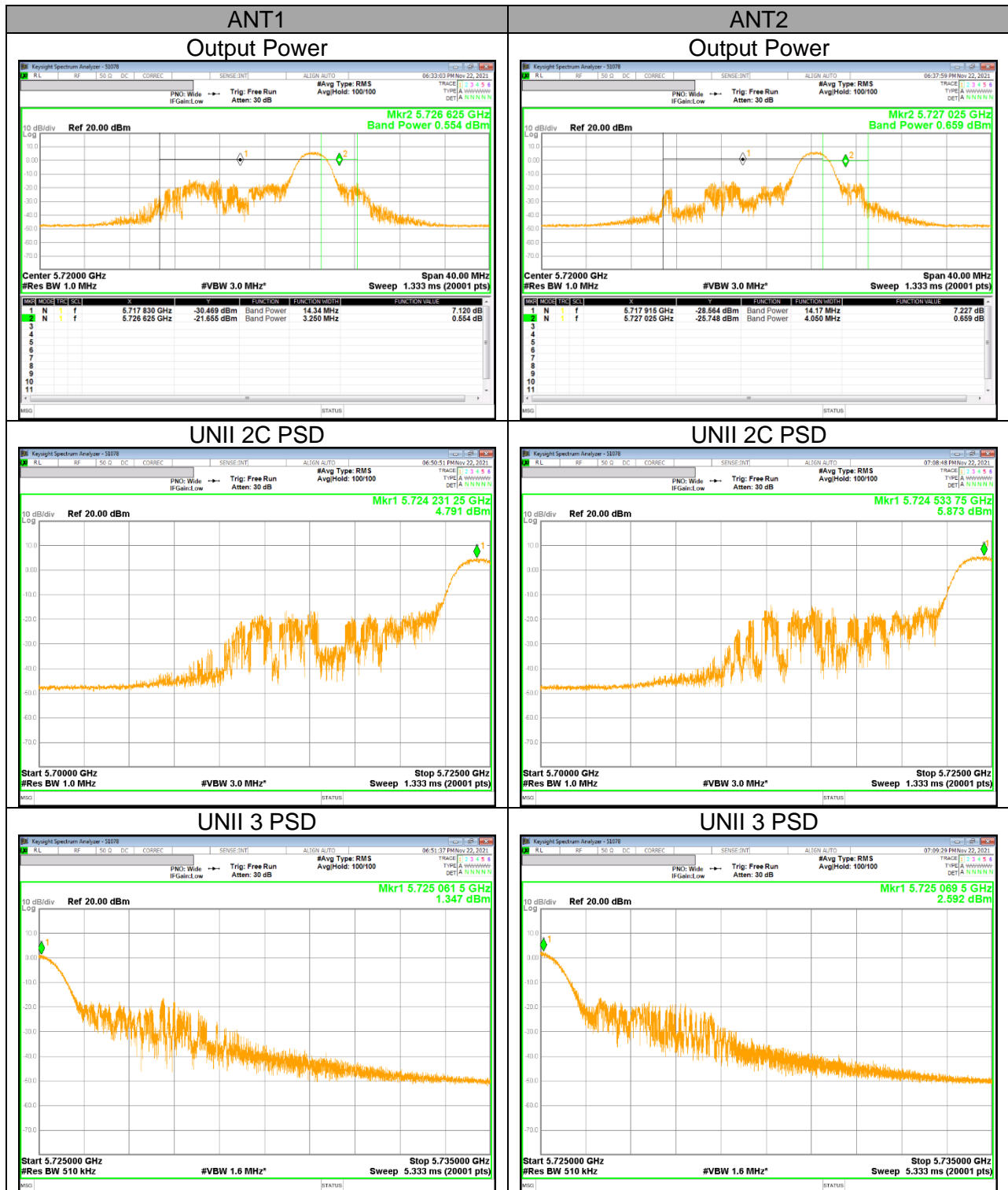
**UNII Straddle Ch. IEEE 802.11ax HE40(SU) mode PSD**



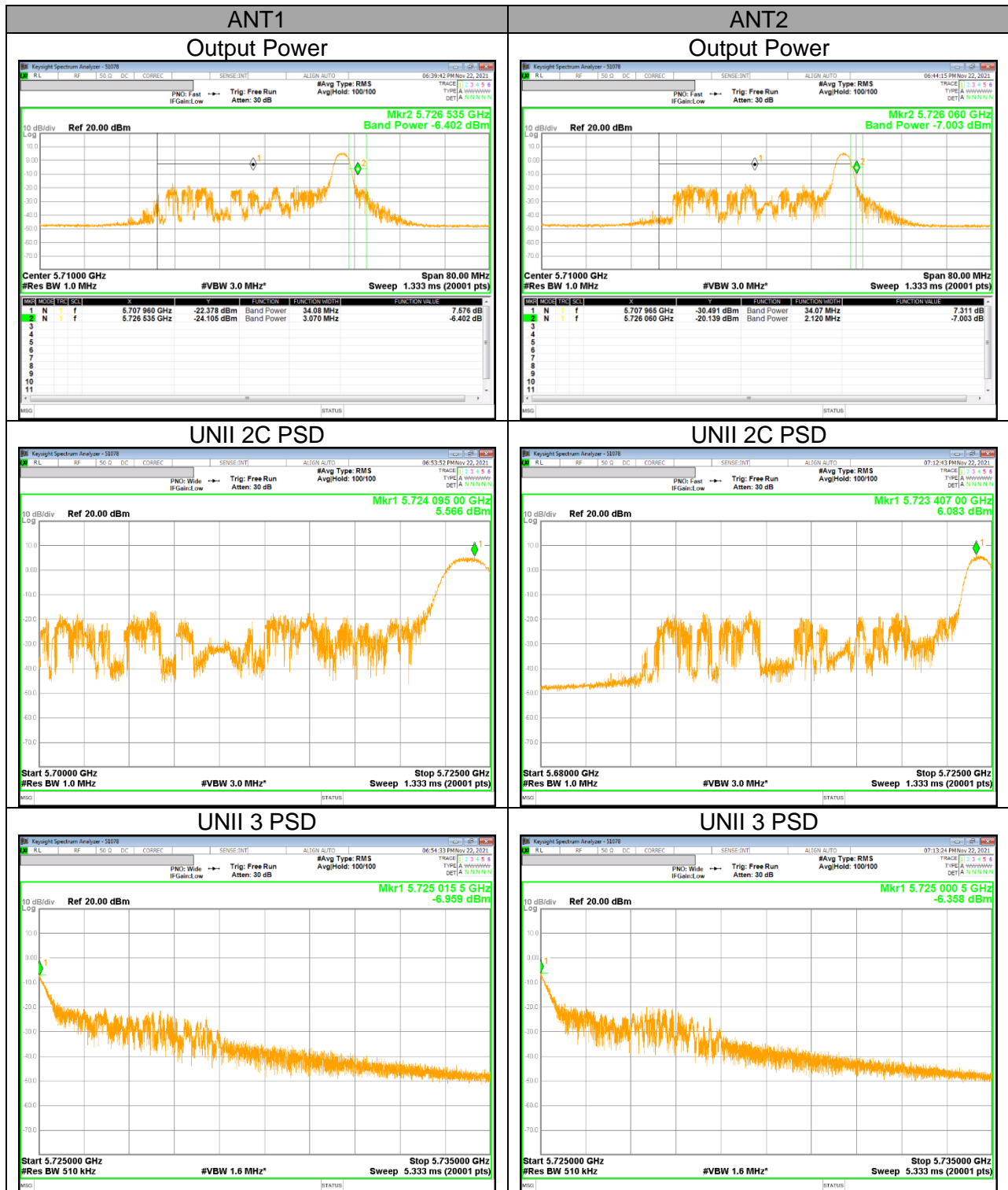
**UNII Straddle Ch. IEEE 802.11ax HE80(SU) mode PSD**



**UNII Straddle Ch. IEEE 802.11ax HE20(6RU) mode PSD**

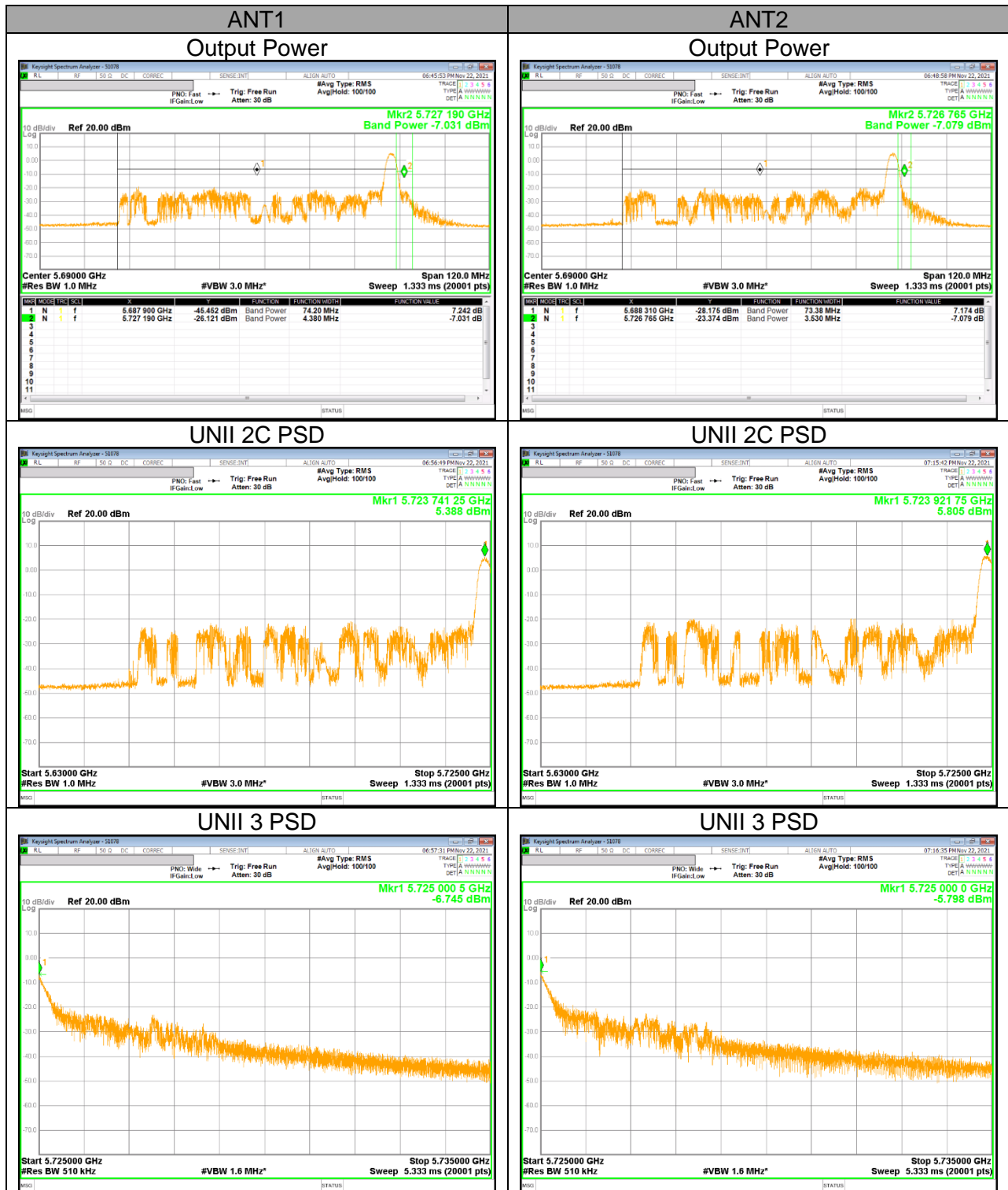


**UNII Straddle Ch. IEEE 802.11ax HE40(15RU) mode PSD**





**UNII Straddle Ch. IEEE 802.11ax HE80(34RU) mode PSD**



## 11. TRANSMITTER ABOVE 1 GHz

### LIMITS

FCC §15.205 and §15.209

Limits for radiated disturbance of an intentional radiator		
Frequency range (MHz)	Limits (µV/m)	Measurement Distance (m)
0.009 – 0.490	2400 / F (kHz)	300
0.490 – 1.705	24000 / F (kHz)	30
1.705 – 30.0	30	30
30 – 88	100**	3
88 - 216	150**	3
216 – 960	200**	3
Above 960	500	3

\*\* Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g. §§ 15.231 and 15.241.

FCC Part 15.205 (a) : Only spurious emissions are permitted in any of the frequency bands listed below :

MHz	MHz	MHz	MHz	GHz	GHz
0.009 ~ 0.110	8.41425 ~ 8.41475	108 ~ 121.94	1300 ~ 1427	4.5 ~ 5.15	14.47 ~ 14.5
0.495 ~ 0.505	12.29 ~ 12.293	123 ~ 138	1435 ~ 1626.5	5.35 ~ 5.46	15.35 ~ 16.2
2.1735 ~ 2.1905	12.51975 ~ 12.52025	149.9 ~ 150.05	1645.5 ~ 1646.5	7.25 ~ 7.75	17.7 ~ 21.4
4.125 ~ 4.128	12.57675 ~ 12.57725	156.52475 ~ 156.52525	1660 ~ 1710	8.025 ~ 8.5	22.01 ~ 23.12
4.17725 ~ 4.17775	13.36 ~ 13.41	156.7 ~ 156.9	1718.8 ~ 1722.2	9.0 ~ 9.2	23.6 ~ 24.0
4.20725 ~ 4.20775	16.42 ~ 16.423	162.0125 ~ 167.17	2200 ~ 2300	9.3 ~ 9.5	31.2 ~ 31.8
6.215 ~ 6.218	16.69475 ~ 16.69525	167.72 ~ 173.2	2310 ~ 2390	10.6 ~ 12.7	36.43 ~ 36.5
6.26775 ~ 6.26825	16.80425 ~ 16.80475	240 ~ 285	2483.5 ~ 2500	13.25 ~ 13.4	Above 38.6
6.31175 ~ 6.31225	25.5 ~ 25.67	322 ~ 335.4	2655 ~ 2900		
8.291 ~ 8.294	37.5 ~ 38.25	399.90 ~ 410	3260 ~ 3267		
8.362 ~ 8.366	73 ~ 74.6	608 ~ 614	3332 ~ 3339		
8.37625 ~ 8.38675	74.8 ~ 75.2	960 ~ 1240	3345.8 ~ 3358 3600 ~ 4400		

▪ FCC Part 15.205(b) : The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in §15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in §15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in §15.35 apply to these measurements.

**FCC §15.407 (b)**

(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating solely in the 5.850-5.895 GHz band or operating on a channel that spans across 5.725-5.895 GHz:

(iii) For a client device or indoor access point or subordinate device, all emissions below 5.725 GHz shall not exceed an e.i.r.p. of -27 dBm/MHz at 5.65 GHz increasing linearly to 10 dBm/MHz at 5.7 GHz, and from 5.7 GHz increasing linearly to a level of 15.6 dBm/MHz at 5.72 GHz, and from 5.72 GHz increasing linearly to a level of 27 dBm/MHz at 5.725 GHz

- (5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary,  
provided the measured energy is integrated to show the total power over 1 MHz.
- (6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.
- (7) The provisions of §15.205 apply to intentional radiators operating under this section.
- (8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

**Note**

- Limit translation to field strength level (FCC §15.407)

$$E[\text{dBuV/m}] = \text{EIRP}[\text{dBm}] + 95.2 = -27\text{dBm} + 95.2 = 68.2\text{dBuV/m}$$

$$E[\text{dBuV/m}] = \text{EIRP}[\text{dBm}] + 95.2 = -17\text{dBm} + 95.2 = 78.2\text{dBuV/m}$$

## **TEST PROCEDURE**

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz and 100 cm for 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.

Reference to KDB 789033 D02 v02r01 UNII part G) 6) c) Method AD:

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor to the reading offset for average measurements. In UNII-4, unwanted emissions outside of restricted bands are measured with an RMS detector.

Pre-scans to detect harmonic and spurious emissions, the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 kHz for peak measurements.

The spectrum from 1GHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

(From 30MHz to 1GHz, test was performed with the EUT set to transmit at the channel with highest output power)

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.

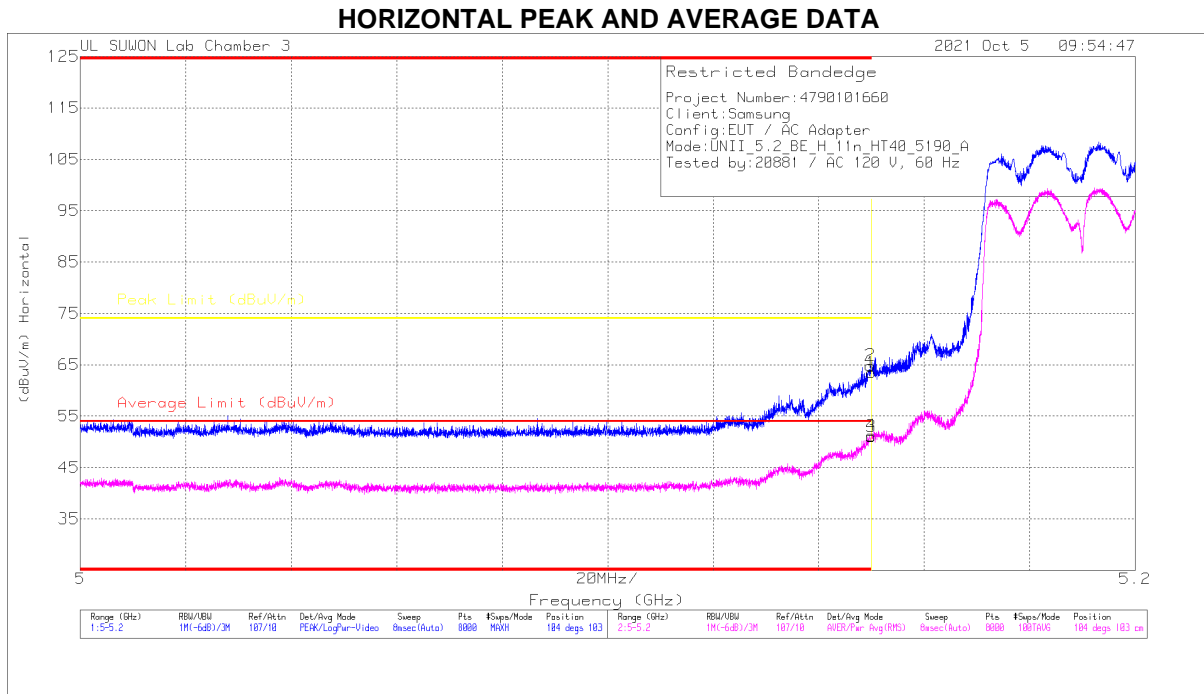
Note : Emission was pre-scanned from 9kHz to 30MHz; No emissions were detected which was at least 20dB below the specification limit (consider distance correction factor).  
Per FCC part 15.31(o), test results were not reported.

Although these tests were performed other than open field test site, adequate comparison measurements were confirmed against 30 m open area test site.

Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the one of tests made in an open field based on KDB 414788.

## 11.1. TX ABOVE 1GHz 2Tx MODE IN THE 5.2GHz BAND

### BANDEDGE (WORST CASE: 802.11n HT40 / 5190 MHz)



### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Acimuh (Degs)	Height (cm)	Polarity
1	* 5.14999	49.89	Pk	34.8	-21.2	0	63.49	-	-	74	-10.51	104	103	H
2	* 5.14979	51.27	Pk	34.8	-21.2	0	64.87	-	-	74	-9.13	104	103	H
3	* 5.14999	37.46	RMS	34.8	-21.2	.17	51.23	54	-2.77	-	-	104	103	H
4	* 5.14992	37.62	RMS	34.8	-21.2	.17	51.39	54	-2.61	-	-	104	103	H

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

Pk - Peak detector

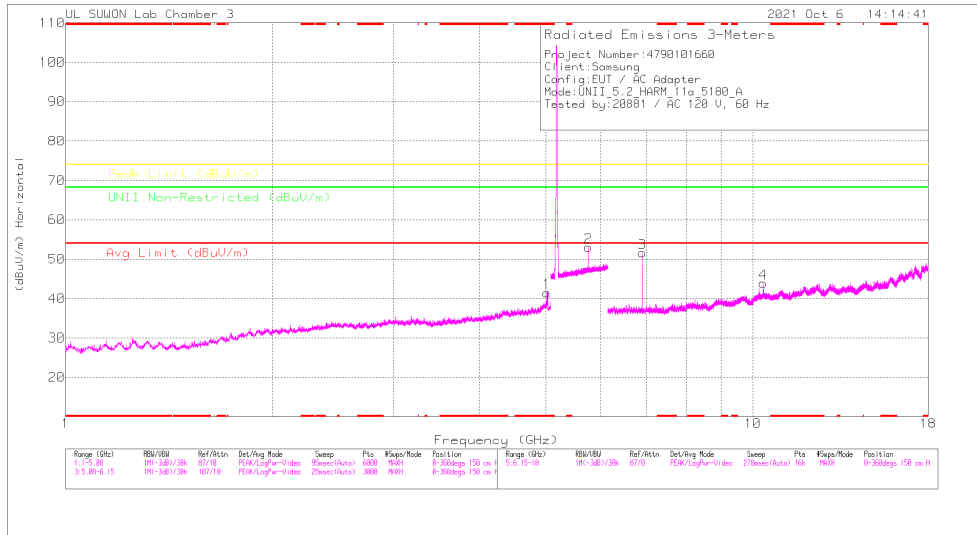
RMS - RMS detection

**BANDEDGE TEST DATA**

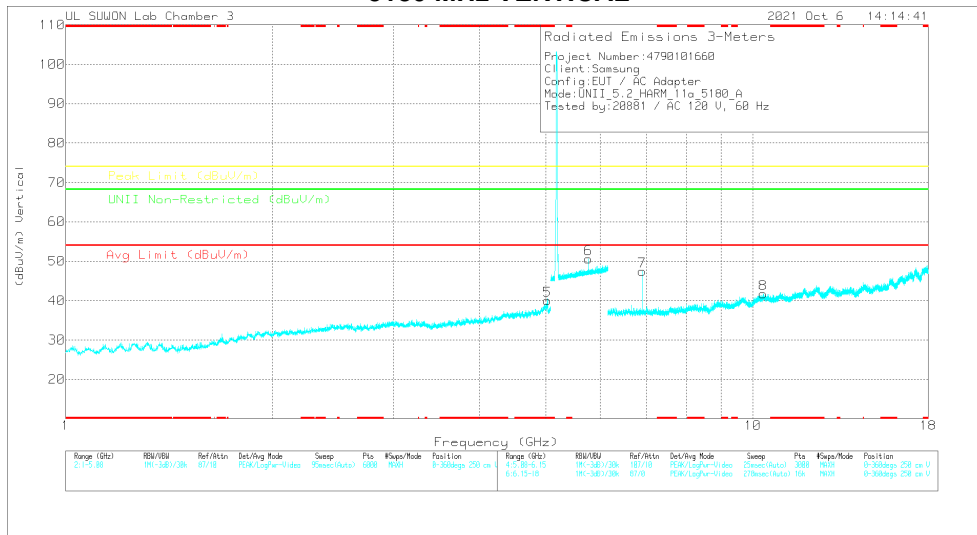
Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity		
802.11a	5180	MIMO	* 5.14999	42.60	Pk	34.80	-21.20	0.00	56.20	-	-	74.00	-17.80	106	113	H		
			* 5.14934	44.26	Pk	34.80	-21.20	0.00	57.90	-	-	74.00	-16.04	106	113	H		
			* 5.14999	29.68	RMS	34.80	-21.20	0.15	43.43	54.00	-10.57	-	-	-	-	106	113	H
			* 5.14742	30.20	RMS	34.80	-21.10	0.15	44.05	54.00	-9.95	-	-	-	-	106	113	H
			* 5.14999	41.90	Pk	34.80	-21.20	0.00	55.50	-	-	74.00	-18.50	91	100	V		
			* 5.14897	44.73	Pk	34.80	-21.10	0.00	58.43	-	-	74.00	-15.57	91	100	V		
			* 5.14999	29.84	RMS	34.80	-21.20	0.15	43.59	54.00	-10.41	-	-	-	-	91	100	V
* 5.14897	30.69	RMS	34.80	-21.10	0.15	44.54	54.00	-9.46	-	-	-	-	91	100	V			
802.11n (HT20)	5180	MIMO	* 5.14999	43.50	Pk	34.80	-21.20	0.00	57.10	-	-	74.00	-16.90	72	183	H		
			* 5.14972	43.13	Pk	34.80	-21.20	0.00	56.73	-	-	74.00	-17.27	72	183	H		
			* 5.14999	30.33	RMS	34.80	-21.20	0.17	44.10	54.00	-9.90	-	-	-	72	183	H	
			* 5.14994	30.64	RMS	34.80	-21.20	0.17	44.41	54.00	-9.59	-	-	-	-	72	183	H
			* 5.14999	42.96	Pk	34.80	-21.20	0.00	56.56	-	-	74.00	-17.44	86	134	V		
			* 5.14987	43.86	Pk	34.80	-21.20	0.00	57.46	-	-	74.00	-16.54	86	134	V		
			* 5.14999	29.77	RMS	34.80	-21.20	0.17	43.54	54.00	-10.46	-	-	-	-	86	134	V
* 5.14969	31.20	RMS	34.80	-21.20	0.17	44.97	54.00	-9.03	-	-	-	-	86	134	V			
802.11n (HT40)	5190	MIMO	* 5.14999	49.89	Pk	34.80	-21.20	0.00	63.49	-	-	74.00	-10.51	104	103	H		
			* 5.14979	51.27	Pk	34.80	-21.20	0.00	64.87	-	-	74.00	-9.13	104	103	H		
			* 5.14999	37.46	RMS	34.80	-21.20	0.17	51.23	54.00	-2.77	-	-	-	104	103	H	
			* 5.14992	37.62	RMS	34.80	-21.20	0.17	51.39	54.00	-2.61	-	-	-	-	104	103	H
			* 5.14999	47.11	Pk	34.80	-21.20	0.00	60.71	-	-	74.00	-13.29	86	130	V		
			* 5.14974	50.49	Pk	34.80	-21.20	0.00	64.09	-	-	74.00	-9.91	86	130	V		
			* 5.14999	35.93	RMS	34.80	-21.20	0.17	49.70	54.00	-4.30	-	-	-	-	86	130	V
* 5.14827	36.50	RMS	34.80	-21.10	0.17	50.37	54.00	-3.63	-	-	-	-	86	130	V			
802.11ac (VHT80)	5210	MIMO	* 5.14999	47.15	Pk	34.80	-21.20	0.00	60.75	-	-	74.00	-13.25	104	103	H		
			* 5.14492	47.92	Pk	34.80	-21.20	0.00	61.52	-	-	74.00	-12.48	104	103	H		
			* 5.14999	34.79	RMS	34.80	-21.20	0.24	48.63	54.00	-5.37	-	-	-	104	103	H	
			* 5.14734	36.11	RMS	34.80	-21.10	0.24	50.05	54.00	-3.95	-	-	-	-	104	103	H
			* 5.14999	46.18	Pk	34.80	-21.20	0.00	59.78	-	-	74.00	-14.22	87	101	V		
			* 5.14499	49.07	Pk	34.80	-21.20	0.00	62.67	-	-	74.00	-11.33	87	101	V		
			* 5.14999	35.74	RMS	34.80	-21.20	0.24	49.58	54.00	-4.42	-	-	-	-	87	100	V
* 5.14689	36.52	RMS	34.80	-21.10	0.24	50.46	54.00	-3.54	-	-	-	-	87	100	V			
802.11ac (VHT160)	5250 Lower	MIMO	* 5.14999	48.14	Pk	34.80	-21.20	0.00	61.74	-	-	74.00	-12.26	109	111	H		
			* 5.12742	49.83	Pk	34.80	-21.10	0.00	63.53	-	-	74.00	-10.47	109	111	H		
			* 5.14999	36.39	RMS	34.80	-21.20	0.29	50.28	54.00	-3.72	-	-	-	109	111	H	
			* 5.14622	37.11	RMS	34.80	-21.10	0.29	51.10	54.00	-2.90	-	-	-	-	109	111	H
			* 5.14999	47.91	Pk	34.80	-21.20	0.00	61.51	-	-	74.00	-12.49	86	102	V		
			* 5.12754	49.83	Pk	34.80	-21.10	0.00	63.53	-	-	74.00	-10.47	86	102	V		
			* 5.14999	35.55	RMS	34.80	-21.20	0.29	49.44	54.00	-4.56	-	-	-	-	86	102	V
* 5.13774	37.34	RMS	34.80	-21.20	0.29	51.23	54.00	-2.77	-	-	-	-	86	102	V			
802.11ax (HE20)	5180	MIMO	* 5.14999	38.40	Pk	34.80	-21.20	0.00	52.00	-	-	74.00	-22.00	109	113	H		
			* 5.14822	40.84	Pk	34.80	-21.10	0.00	54.54	-	-	74.00	-19.46	109	113	H		
			* 5.14999	28.63	RMS	34.80	-21.20	0.00	42.23	54.00	-11.77	-	-	-	109	113	H	
			* 5.00777	29.02	RMS	34.70	-21.20	0.00	42.52	54.00	-11.48	-	-	-	-	109	113	H
			* 5.14999	39.32	Pk	34.80	-21.20	0.00	52.92	-	-	74.00	-21.08	92	103	V		
			* 5.0015	40.55	Pk	34.70	-21.20	0.00	54.05	-	-	74.00	-19.95	92	103	V		
			* 5.14999	27.42	RMS	34.80	-21.20	0.00	41.02	54.00	-12.98	-	-	-	-	92	103	V
* 5.00423	29.11	RMS	34.70	-21.20	0.00	42.61	54.00	-11.39	-	-	-	-	92	103	V			
802.11ax (HE40)	5190	MIMO	* 5.14999	46.88	Pk	34.80	-21.20	0.00	60.48	-	-	74.00	-13.52	109	113	H		
			* 5.14967	47.75	Pk	34.80	-21.20	0.00	61.35	-	-	74.00	-12.65	109	113	H		
			* 5.14999	34.18	RMS	34.80	-21.20	0.00	47.78	54.00	-6.22	-	-	-	109	113	H	
			* 5.14894	34.30	RMS	34.80	-21.10	0.00	48.00	54.00	-6.00	-	-	-	-	109	113	H
			* 5.14999	45.61	Pk	34.80	-21.20	0.00	59.21	-	-	74.00	-14.79	94	100	V		
			* 5.14994	49.01	Pk	34.80	-21.20	0.00	62.61	-	-	74.00	-11.39	94	100	V		
			* 5.14999	33.66	RMS	34.80	-21.20	0.00	47.26	54.00	-6.74	-	-	-	-	94	100	V
* 5.14987	34.20	RMS	34.80	-21.20	0.00	47.80	54.00	-6.20	-	-	-	-	94	100	V			
802.11ax (HE80)	5210	MIMO	* 5.14999	46.92	Pk	34.80	-21.20	0.00	60.52	-	-	74.00	-13.48	109	113	H		
			* 5.14459	48.95	Pk	34.80	-21.20	0.00	62.55	-	-	74.00	-11.45	109	113	H		
			* 5.14999	35.67	RMS	34.80	-21.20	0.00	49.27	54.00	-4.73	-	-	-	109	113	H	
			* 5.14924	35.98	RMS	34.80	-21.20	0.00	49.58	54.00	-4.42	-	-	-	-	109	113	H
			* 5.14999	47.50	Pk	34.80	-21.20	0.00	61.10	-	-	74.00	-12.90	93	100	V		
			* 5.14764	48.95	Pk	34.80	-21.10	0.00	62.65	-	-	74.00	-11.35	93	100	V		
			* 5.14999	34.19	RMS	34.80	-21.20	0.00	47.79	54.00	-6.21	-	-	-	-	93	100	V
* 5.14909	35.88	RMS	34.80	-21.10	0.00	49.38	54.00	-4.62	-	-	-	-	93	100	V			
802.11ax (HE160)	5250 Lower	MIMO	* 5.14999	45.86	Pk	34.80	-21.20	0.00	59.46	-	-	74.00	-14.54	107	114	H		
			* 5.11711	48.94	Pk	34.80	-21.10	0.00	62.64	-	-	74.00	-11.36	107	114	H		
			* 5.14999	35.83	RMS	34.80	-21.20	0.00	49.43	54.00	-4.57	-	-	-	107	114	H	
			* 5.14204	36.30	RMS	34.80	-21.10	0.00	50.00	54.00	-4.00	-	-	-	-	107	114	H
			* 5.14999	46.81	Pk	34.80	-21.20	0.00	60.41	-	-	74.00	-13.59	91	101	V		
			* 5.13574	48.74	Pk	34.80	-21.20	0.00	62.34	-	-	74.00	-11.66	91	101	V		
			* 5.14999	35.91	RMS	34.80	-21.20	0.00	49.51	54.00	-4.49	-	-	-	-	91	100	V
* 5.13387	36.42	RMS	34.80	-21.10	0.00	50.12	54.00	-3.88	-	-	-	-	91	100	V			

Note1. Pk - Peak detector, RMS - RMS detector  
 Note2. \* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

**HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 5180 MHz)**  
**5180 MHz HORIZONTAL**



**5180 MHz VERTICAL**



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

**5180 MHz DATA**

**Radiated Emissions**

Frequency (GHz)	Max Reading (dBuV)	Det	3117_00218957	GHz_LPF(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.02374	45.7	PK-U	34.7	-28.4	0	52	-	-	74	-22	-	-	68	132	H
* 5.02234	44.38	PK-U	34.7	-28.3	0	50.75	-	-	74	-23.22	-	-	68	133	V
* 5.02426	35.17	ADR	34.7	-28.4	-15	41.62	54	-13.38	-	-	-	-	68	133	H
* 5.02228	33.71	ADR	34.7	-28.3	-15	40.26	54	-13.74	-	-	-	-	91	158	V

Frequency (GHz)	Max Reading (dBuV)	Det	3117_00218957	10dB_ATT(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.75999	44.08	PK-U	35.7	-19.9	0	59.88	-	-	-	-	68.2	-8.32	106	121	H
5.76032	43.71	PK-U	35.7	-19.9	0	59.51	-	-	-	-	68.2	-8.69	86	100	V

Frequency (GHz)	Max Reading (dBuV)	Det	3117_00218957	GHz_HPF(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6.90665	46.46	PK-U	36.2	-26.8	0	55.66	-	-	-	-	68.2	-12.34	104	132	H
6.90679	44.02	PK-U	36.2	-26.9	0	53.32	-	-	-	-	68.2	-14.88	86	214	V
10.36081	37.22	PK-U	38.1	-21.3	0	54.02	-	-	-	-	68.2	-14.18	101	136	H
10.35948	36.52	PK-U	38.1	-21.3	0	53.32	-	-	-	-	68.2	-14.68	337	123	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

**HARMONICS AND SPURIOUS EMISSIONS TEST DATA**

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity	
802.11a	5180	MIMO	* 5.02374	45.70	PK-U	34.70	-28.40	0.00	52.00	-	-	74.00	-22.00	-	-	68	132	H	
			* 5.02224	44.38	PK-U	34.70	-28.30	0.00	50.78	-	-	74.00	-23.22	-	-	91	158	V	
			* 5.02426	35.17	ADR	34.70	-28.40	0.15	41.62	54.00	-12.38	-	-	-	-	68	133	H	
			* 5.02228	33.71	ADR	34.70	-28.30	0.15	40.26	54.00	-13.74	-	-	-	-	91	158	V	
			5.760	44.08	PK-U	35.70	-19.90	0.00	59.88	-	-	-	-	68.20	-8.32	106	121	H	
			5.760	43.71	PK-U	35.70	-19.90	0.00	59.51	-	-	-	-	68.20	-8.69	86	100	V	
			6.907	46.46	PK-U	36.20	-26.80	0.00	55.86	-	-	-	-	68.20	-12.34	104	132	H	
			6.907	44.02	PK-U	36.20	-26.90	0.00	53.32	-	-	-	-	68.20	-14.88	86	214	V	
	10.361	37.22	PK-U	38.10	-21.30	0.00	54.02	-	-	-	-	68.20	-14.18	101	136	H			
	10.359	36.52	PK-U	38.10	-21.30	0.00	53.32	-	-	-	-	68.20	-14.88	337	123	V			
	802.11a	5200	MIMO	* 5.04776	45.44	PK-U	34.70	-29.00	0.00	51.14	-	-	74.00	-22.86	-	-	68	202	H
				* 5.05188	44.21	PK-U	34.70	-29.00	0.00	49.91	-	-	74.00	-24.09	-	-	92	152	V
				* 5.05316	34.18	ADR	34.70	-29.00	0.15	40.03	54.00	-13.97	-	-	-	-	68	202	H
				* 5.05233	33.44	ADR	34.70	-28.90	0.15	39.39	54.00	-14.61	-	-	-	-	92	152	V
				5.760	42.16	PK-U	35.70	-19.90	0.00	57.96	-	-	-	-	68.20	-10.24	0	100	H
				5.761	41.30	PK-U	35.70	-20.00	0.00	57.00	-	-	-	-	68.20	-11.20	0	100	V
6.933				45.13	PK-U	36.20	-26.70	0.00	54.63	-	-	-	-	68.20	-13.57	101	122	H	
6.933				44.45	PK-U	36.20	-26.70	0.00	53.95	-	-	-	-	68.20	-14.25	87	214	V	
10.401		37.37	PK-U	38.10	-21.40	0.00	54.07	-	-	-	-	68.20	-14.13	99	132	H			
10.402		34.82	PK-U	38.10	-21.40	0.00	51.52	-	-	-	-	68.20	-16.68	338	396	V			
802.11a		5240	MIMO	* 5.07852	43.57	PK-U	34.80	-27.30	0.00	51.07	-	-	74.00	-22.93	-	-	104	258	H
				* 5.07937	42.95	PK-U	34.80	-27.10	0.00	50.65	-	-	74.00	-23.35	-	-	86	111	V
				* 5.07953	32.65	ADR	34.80	-27.10	0.15	40.50	54.00	-13.50	-	-	-	-	104	258	H
				* 5.07937	31.86	ADR	34.80	-27.10	0.15	39.71	54.00	-14.29	-	-	-	-	86	111	V
				5.760	41.08	PK-U	35.70	-19.90	0.00	56.88	-	-	-	-	68.20	-11.32	0	100	H
				5.760	41.27	PK-U	35.70	-19.90	0.00	57.07	-	-	-	-	68.20	-11.13	0	100	V
	6.987			45.03	PK-U	36.20	-26.40	0.00	54.83	-	-	-	-	68.20	-13.37	103	125	H	
	6.987			43.71	PK-U	36.20	-26.40	0.00	53.51	-	-	-	-	68.20	-14.69	88	217	V	
	10.480	38.77	PK-U	38.20	-21.50	0.00	55.47	-	-	-	-	68.20	-12.73	101	134	H			
	10.480	35.44	PK-U	38.20	-21.50	0.00	52.14	-	-	-	-	68.20	-16.06	335	119	V			
	802.11n (HT20) Spot-Check	5180	MIMO	* 5.02256	45.30	PK-U	34.70	-28.30	0.00	51.70	-	-	74.00	-22.30	-	-	68	120	H
				* 5.02232	44.60	PK-U	34.70	-28.30	0.00	51.00	-	-	74.00	-23.00	-	-	89	101	V
				* 5.02224	34.90	ADR	34.70	-28.30	0.17	41.47	54.00	-12.53	-	-	-	-	68	120	H
				* 5.02172	34.07	ADR	34.70	-28.40	0.17	40.54	54.00	-13.46	-	-	-	-	89	101	V
				5.760	41.79	PK-U	35.70	-19.90	0.00	57.59	-	-	-	-	68.20	-10.61	0	100	H
				5.767	41.79	PK-U	35.70	-19.80	0.00	57.69	-	-	-	-	68.20	-10.51	0	100	V
6.907				45.56	PK-U	36.20	-26.90	0.00	54.86	-	-	-	-	68.20	-13.34	76	116	H	
6.907				45.09	PK-U	36.20	-26.90	0.00	54.39	-	-	-	-	68.20	-13.81	89	212	V	
10.360		38.22	PK-U	38.10	-21.30	0.00	55.02	-	-	-	-	68.20	-13.18	103	137	H			
10.361		35.44	PK-U	38.10	-21.30	0.00	52.24	-	-	-	-	68.20	-15.96	333	399	V			
802.11n (HT40) Spot-Check		5190	MIMO	* 5.05229	45.24	PK-U	34.70	-28.90	0.00	51.04	-	-	74.00	-22.96	-	-	67	121	H
				* 5.05127	34.27	ADR	34.70	-29.10	0.17	40.04	54.00	-13.96	-	-	-	-	67	121	H
				* 5.05125	44.64	PK-U	34.70	-29.10	0.00	50.24	-	-	74.00	-23.76	-	-	97	162	V
				* 5.04987	33.68	ADR	34.70	-29.00	0.17	39.55	54.00	-14.45	-	-	-	-	97	162	V
				5.757	41.47	PK-U	35.70	-19.80	0.00	57.37	-	-	-	-	68.20	-10.83	0	100	H
				5.763	41.50	PK-U	35.70	-19.90	0.00	57.30	-	-	-	-	68.20	-10.90	0	100	V
	6.920			45.76	PK-U	36.20	-26.80	0.00	55.16	-	-	-	-	68.20	-13.04	73	120	H	
	6.920			44.21	PK-U	36.20	-26.80	0.00	53.61	-	-	-	-	68.20	-14.59	88	213	V	
	10.375	34.57	PK-U	38.10	-21.30	0.00	51.37	-	-	-	-	68.20	-16.83	0	100	H			
	10.389	34.91	PK-U	38.10	-21.40	0.00	51.61	-	-	-	-	68.20	-16.59	0	100	V			
	802.11ac (VHT80) Spot-Check	5210	MIMO	6.947	44.96	PK-U	36.20	-26.50	0.00	54.66	-	-	-	-	68.20	-13.54	105	118	H
				6.947	43.63	PK-U	36.20	-26.50	0.00	53.33	-	-	-	68.20	-14.87	89	211	V	
				10.412	34.15	PK-U	38.10	-21.50	0.00	50.75	-	-	-	68.20	-17.45	0	100	H	
				10.415	34.28	PK-U	38.10	-21.40	0.00	50.98	-	-	-	68.20	-17.22	0	100	V	
				* 15.62095	34.56	PK-U	40.30	-21.60	0.00	53.26	-	-	74.00	-20.74	-	-	0	100	H
				* 15.63155	34.19	PK-U	40.40	-21.60	0.00	52.99	-	-	74.00	-21.01	-	-	0	100	V
5.760				41.01	PK-U	35.70	-19.90	0.00	56.81	-	-	-	-	68.20	-11.39	0	100	H	
5.752				41.33	PK-U	35.70	-20.00	0.00	57.03	-	-	-	-	68.20	-11.17	0	100	V	
802.11ac (VHT160) Spot-Check	5250	MIMO	7.000	45.29	PK-U	36.20	-26.30	0.00	55.19	-	-	-	-	68.20	-13.01	104	122	H	
			7.000	43.70	PK-U	36.20	-26.30	0.00	53.60	-	-	-	68.20	-14.60	92	213	V		
			10.496	34.25	PK-U	38.20	-21.50	0.00	50.95	-	-	-	68.20	-17.25	0	100	H		
			10.498	33.96	PK-U	38.20	-21.50	0.00	50.66	-	-	-	68.20	-17.54	0	100	V		
			* 5.02549	48.59	PK-U	34.70	-28.40	0.00	54.89	-	-	74.00	-19.11	-	-	109	136	H	
			* 5.02571	37.66	ADR	34.70	-28.40	0.00	43.96	54.00	-10.04	-	-	-	-	109	136	H	
			* 5.02543	47.28	PK-U	34.70	-28.40	0.00	53.58	-	-	74.00	-20.42	-	-	82	253	V	
			* 5.02557	35.54	ADR	34.70	-28.40	0.00	41.84	54.00	-12.16	-	-	-	-	82	253	V	
802.11ax (HE20) 4RU Spot-Check	5180	MIMO	5.760	43.98	PK-U	35.70	-19.90	0.00	59.78	-	-	-	-	68.20	-8.42	106	113	H	
			5.760	43.84	PK-U	35.70	-19.90	0.00	59.64	-	-	-	-	68.20	-8.56	91	100	V	
			6.907	45.77	PK-U	36.20	-26.80	0.00	55.17	-	-	-	-	68.20	-13.03	123	104	H	
			6.907	46.76	PK-U	36.20	-26.80	0.00	56.16	-	-	-	-	68.20	-12.24	95	115	V	
			10.361	34.70	PK-U	38.10	-21.30	0.00	51.50	-	-	-	-	68.20	-16.70	0	100	H	
			10.367	34.68	PK-U	38.10	-21.30	0.00	51.48	-	-	-	-	68.20	-16.72	0	100	V	

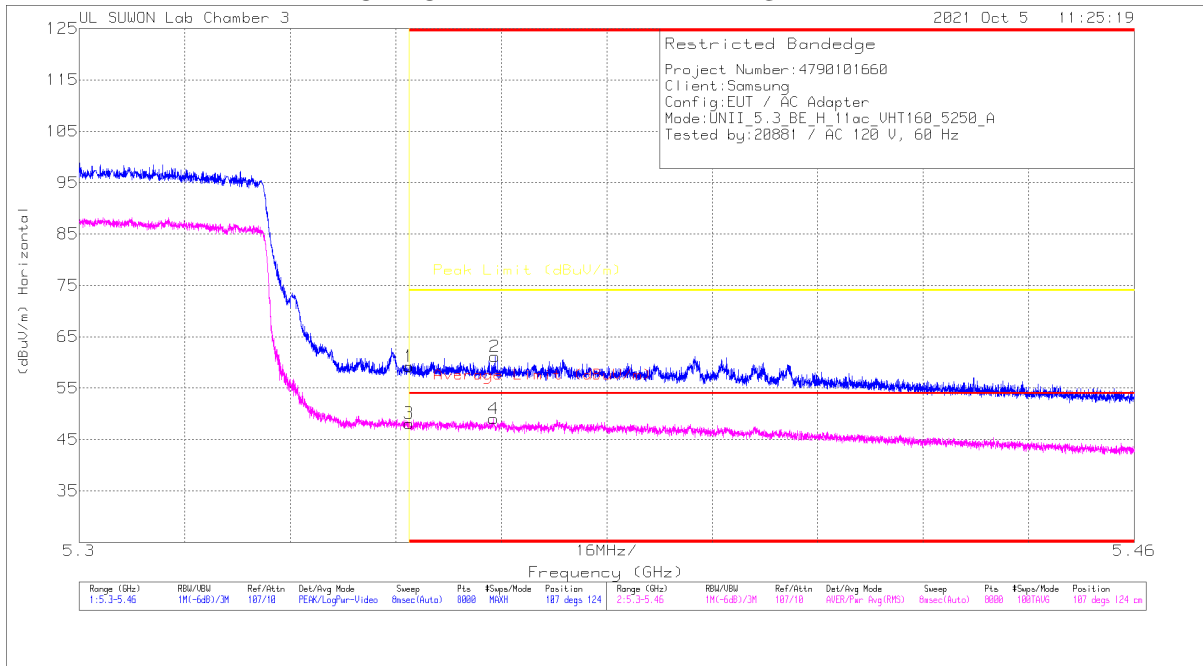
Note1. PK-U - U-NII: Maximum Peak  
 Note2. \* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band



## 11.2. TX ABOVE 1GHz 2Tx MODE IN THE 5.3GHz BAND

### BANDEDGE (WORST CASE: 802.11ac VHT160 / 5250 MHz UPPER SIDE)

#### HORIZONTAL PEAK AND AVERAGE DATA



#### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Cor (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	44.82	Pk	35.1	-20.7	0	29.22	-	-	74	-14.78	107	124	H
2	* 5.36303	46.74	Pk	35.1	-20.7	0	61.14	-	-	74	-12.86	107	124	H
3	* 5.35001	33.44	RMS	35.1	-20.7	29	48.13	54	-5.87	-	-	107	124	H
4	* 5.36283	34.35	RMS	35.1	-20.7	29	49.04	54	-4.96	-	-	107	124	H

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

Pk - Peak detector

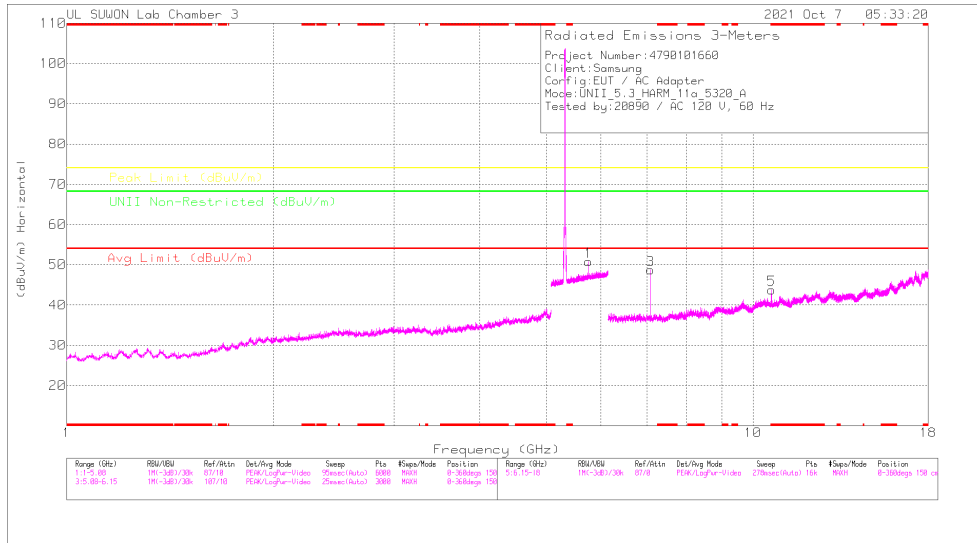
RMS - RMS detection

**BANDEDGE TEST DATA**

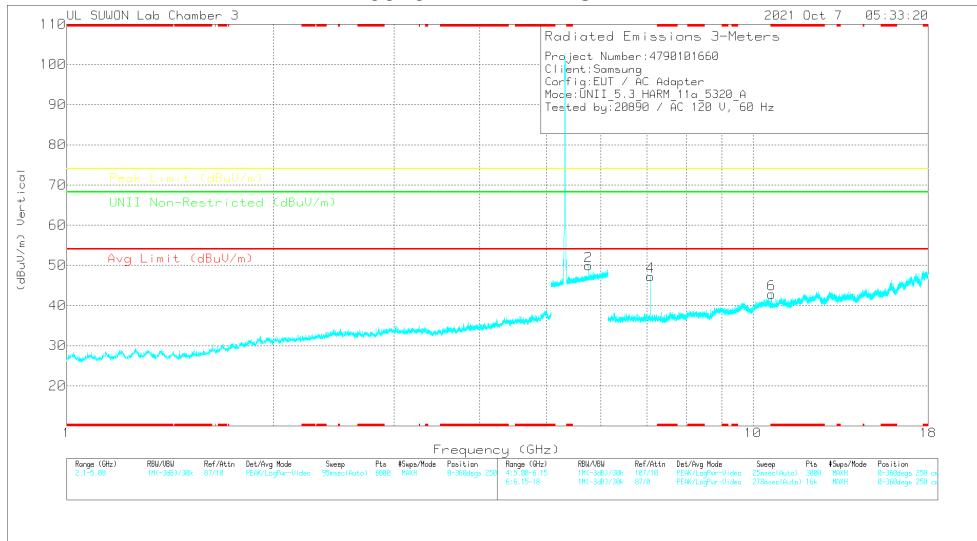
Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity	
802.11a	5320	MIMO	* 5.35001	39.75	Pk	35.10	-20.70	0.00	54.15	-	-	74.00	-19.85	107	102	H	
			* 5.35079	42.29	RMS	35.10	-20.70	0.00	56.68	-	-	74.00	-17.91	107	102	H	
			* 5.35001	28.13	RMS	35.10	-20.70	0.15	42.68	54.00	-11.32	-	-	-	107	102	H
			* 5.35051	29.75	RMS	35.10	-20.70	0.15	44.30	54.00	-9.70	-	-	-	107	102	H
			* 5.35001	41.12	Pk	35.10	-20.70	0.00	55.52	-	-	74.00	-18.48	91	142	V	
			* 5.35007	41.39	Pk	35.10	-20.70	0.00	55.79	-	-	74.00	-18.21	91	142	V	
			* 5.35001	28.78	RMS	35.10	-20.70	0.15	43.33	54.00	-10.67	-	-	-	91	142	V
			* 5.35109	29.82	RMS	35.10	-20.80	0.15	44.27	54.00	-9.73	-	-	-	91	142	V
			802.11n (HT20)	5320	MIMO	* 5.35001	40.91	Pk	35.10	-20.70	0.00	55.31	-	-	74.00	-18.69	71
* 5.35013	42.49	Pk				35.10	-20.70	0.00	56.89	-	-	74.00	-17.11	71	155	H	
* 5.35001	29.38	RMS				35.10	-20.70	0.17	43.95	54.00	-10.05	-	-	-	71	155	H
* 5.35015	29.68	RMS				35.10	-20.70	0.17	44.25	54.00	-9.75	-	-	-	71	155	H
* 5.35001	39.25	Pk				35.10	-20.70	0.00	53.65	-	-	74.00	-20.35	85	117	V	
* 5.41554	40.50	Pk				35.20	-20.70	0.00	55.00	-	-	74.00	-19.00	85	117	V	
* 5.35001	28.59	RMS				35.10	-20.70	0.17	43.16	54.00	-10.84	-	-	-	85	117	V
* 5.35037	29.11	RMS				35.10	-20.70	0.17	43.68	54.00	-10.32	-	-	-	85	117	V
802.11n (HT40)	5310	MIMO				* 5.35001	44.26	Pk	35.10	-20.70	0.00	58.66	-	-	74.00	-15.34	71
			* 5.35005	44.82	Pk	35.10	-20.70	0.00	59.22	-	-	74.00	-14.78	71	155	H	
			* 5.35001	32.36	RMS	35.10	-20.70	0.17	46.93	54.00	-7.07	-	-	-	71	155	H
			* 5.35017	33.26	RMS	35.10	-20.70	0.17	47.83	54.00	-6.17	-	-	-	71	155	H
			* 5.35001	43.75	Pk	35.10	-20.70	0.00	58.15	-	-	74.00	-15.85	87	117	V	
			* 5.35031	44.96	Pk	35.10	-20.70	0.00	59.36	-	-	74.00	-14.64	87	117	V	
			* 5.35001	30.78	RMS	35.10	-20.70	0.17	45.35	54.00	-8.65	-	-	-	87	117	V
			* 5.35023	31.55	RMS	35.10	-20.70	0.17	46.12	54.00	-7.88	-	-	-	87	117	V
			802.11ac (VHT80)	5290	MIMO	* 5.35001	43.39	Pk	35.10	-20.70	0.00	57.79	-	-	74.00	-16.21	107
* 5.35011	44.87	Pk				35.10	-20.70	0.00	59.27	-	-	74.00	-14.73	107	126	H	
* 5.35001	32.06	RMS				35.10	-20.70	0.24	46.70	54.00	-7.30	-	-	-	107	126	H
* 5.35389	32.58	RMS				35.10	-20.70	0.24	47.22	54.00	-6.78	-	-	-	107	126	H
* 5.35001	40.85	Pk				35.10	-20.70	0.00	55.25	-	-	74.00	-18.75	89	101	V	
* 5.35027	43.52	Pk				35.10	-20.70	0.00	57.92	-	-	74.00	-16.08	89	101	V	
* 5.35001	30.87	RMS				35.10	-20.70	0.24	45.51	54.00	-8.49	-	-	-	89	100	V
* 5.35337	31.14	RMS				35.10	-20.70	0.24	45.78	54.00	-8.22	-	-	-	89	100	V
802.11ac (VHT160)	5250 Upper	MIMO				* 5.35001	44.82	Pk	35.10	-20.70	0.00	59.22	-	-	74.00	-14.78	107
			* 5.36303	46.74	Pk	35.10	-20.70	0.00	61.14	-	-	74.00	-12.86	107	124	H	
			* 5.35001	33.44	RMS	35.10	-20.70	0.29	48.13	54.00	-5.87	-	-	-	107	124	H
			* 5.36283	34.35	RMS	35.10	-20.70	0.29	49.04	54.00	-4.96	-	-	-	107	124	H
			* 5.35001	44.10	Pk	35.10	-20.70	0.00	58.50	-	-	74.00	-15.50	93	101	V	
			* 5.35481	45.93	Pk	35.10	-20.70	0.00	60.33	-	-	74.00	-13.67	93	101	V	
			* 5.35001	32.45	RMS	35.10	-20.70	0.29	47.14	54.00	-6.86	-	-	-	93	100	V
			* 5.37081	33.73	RMS	35.10	-20.70	0.29	48.42	54.00	-5.58	-	-	-	93	100	V
			802.11ax (HE20)	5320	MIMO	* 5.35001	42.96	Pk	35.10	-20.70	0.00	57.36	-	-	74.00	-16.64	108
* 5.35003	44.28	Pk				35.10	-20.70	0.00	58.68	-	-	74.00	-15.32	108	124	H	
* 5.35001	29.60	RMS				35.10	-20.70	0.00	44.00	54.00	-10.00	-	-	-	108	124	H
* 5.35079	30.26	RMS				35.10	-20.70	0.00	44.66	54.00	-9.34	-	-	-	108	124	H
* 5.35001	42.21	Pk				35.10	-20.70	0.00	56.61	-	-	74.00	-17.39	92	101	V	
* 5.35019	43.51	Pk				35.10	-20.70	0.00	57.91	-	-	74.00	-16.09	92	101	V	
* 5.35001	29.28	RMS				35.10	-20.70	0.00	43.69	54.00	-10.31	-	-	-	92	100	V
* 5.35039	29.94	RMS				35.10	-20.70	0.00	44.34	54.00	-9.66	-	-	-	92	100	V
802.11ax (HE40)	5310	MIMO				* 5.35001	44.39	Pk	35.10	-20.70	0.00	58.79	-	-	74.00	-15.21	107
			* 5.35239	47.02	Pk	35.10	-20.80	0.00	61.32	-	-	74.00	-12.68	107	111	H	
			* 5.35001	32.23	RMS	35.10	-20.70	0.00	46.63	54.00	-7.37	-	-	-	107	111	H
			* 5.35045	33.40	RMS	35.10	-20.70	0.00	47.80	54.00	-6.20	-	-	-	107	111	H
			* 5.35001	45.30	Pk	35.10	-20.70	0.00	59.70	-	-	74.00	-14.30	92	100	V	
			* 5.35037	46.62	Pk	35.10	-20.70	0.00	61.02	-	-	74.00	-12.98	92	100	V	
			* 5.35001	31.23	RMS	35.10	-20.70	0.00	45.63	54.00	-8.37	-	-	-	92	100	V
			* 5.35037	32.45	RMS	35.10	-20.70	0.00	46.85	54.00	-7.15	-	-	-	92	100	V
			802.11ax (HE80)	5290	MIMO	* 5.35001	45.07	Pk	35.10	-20.70	0.00	59.47	-	-	74.00	-14.53	107
* 5.35589	48.30	Pk				35.10	-20.70	0.00	62.70	-	-	74.00	-11.30	107	115	H	
* 5.35001	32.68	RMS				35.10	-20.70	0.00	47.08	54.00	-6.92	-	-	-	107	115	H
* 5.35269	34.21	RMS				35.10	-20.80	0.00	48.51	54.00	-5.49	-	-	-	107	115	H
* 5.35001	43.74	Pk				35.10	-20.70	0.00	58.14	-	-	74.00	-15.86	88	101	V	
* 5.36361	47.69	Pk				35.10	-20.70	0.00	62.09	-	-	74.00	-11.91	88	101	V	
* 5.35001	32.14	RMS				35.10	-20.70	0.00	46.54	54.00	-7.46	-	-	-	88	100	V
* 5.35341	33.50	RMS				35.10	-20.70	0.00	47.90	54.00	-6.10	-	-	-	88	100	V
802.11ax (HE160)	5250 Upper	MIMO				* 5.35001	43.17	Pk	35.10	-20.70	0.00	57.57	-	-	74.00	-16.43	108
			* 5.37787	46.76	Pk	35.20	-20.80	0.00	61.16	-	-	74.00	-12.84	108	115	H	
			* 5.35001	33.63	RMS	35.10	-20.70	0.00	48.03	54.00	-5.97	-	-	-	108	115	H
			* 5.36965	34.31	RMS	35.10	-20.70	0.00	48.71	54.00	-5.29	-	-	-	108	115	H
			* 5.35001	43.52	Pk	35.10	-20.70	0.00	57.92	-	-	74.00	-16.08	89	101	V	
			* 5.35759	47.58	Pk	35.10	-20.70	0.00	61.98	-	-	74.00	-12.02	89	101	V	
			* 5.35001	33.17	RMS	35.10	-20.70	0.00	47.57	54.00	-6.43	-	-	-	89	100	V
			* 5.35285	33.93	RMS	35.10	-20.70	0.00	48.33	54.00	-5.67	-	-	-	89	100	V

Note1. Pk - Peak detector, RMS - RMS detector  
 Note2. \* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

**HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 5320 MHz)**  
**5320 MHz HORIZONTAL**



**5320 MHz VERTICAL**



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

**5320 MHz DATA**

**Radiated Emissions**

Frequency (GHz)	Meas Reading (dBuV)	Det	3117_00218957	10dB_AT70dB	DC Cor (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.76113	42.41	PK-U	35.7	-20	0	58.11	-	-	-	-	68.2	-10.09	0	100	H
5.76897	41.02	PK-U	35.7	-19.8	0	56.92	-	-	-	-	68.2	-11.28	0	100	V

Frequency (GHz)	Meas Reading (dBuV)	Det	3117_00218957	dBHz_FPSdB	DC Cor (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.09325	43.47	PK-U	36.2	-26.4	0	53.27	-	-	-	-	68.2	-14.93	103	115	H
7.09333	42.95	PK-U	36.2	-26.4	0	52.76	-	-	-	-	68.2	-15.44	93	214	V
* 10.64113	35.92	PK-U	38.3	-21.5	0	56.72	-	-	74	-17.28	-	-	101	127	H
* 10.64077	28.51	ADR	38.3	-21.5	.15	45.46	54	-8.54	-	-	-	-	101	127	H
* 10.64093	36.32	PK-U	38.3	-21.5	0	53.12	-	-	74	-20.88	-	-	50	100	V
* 10.64055	24.56	ADR	38.3	-21.5	.15	41.51	54	-12.49	-	-	-	-	50	100	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

**HARMONICS AND SPURIOUS EMISSIONS TEST DATA**

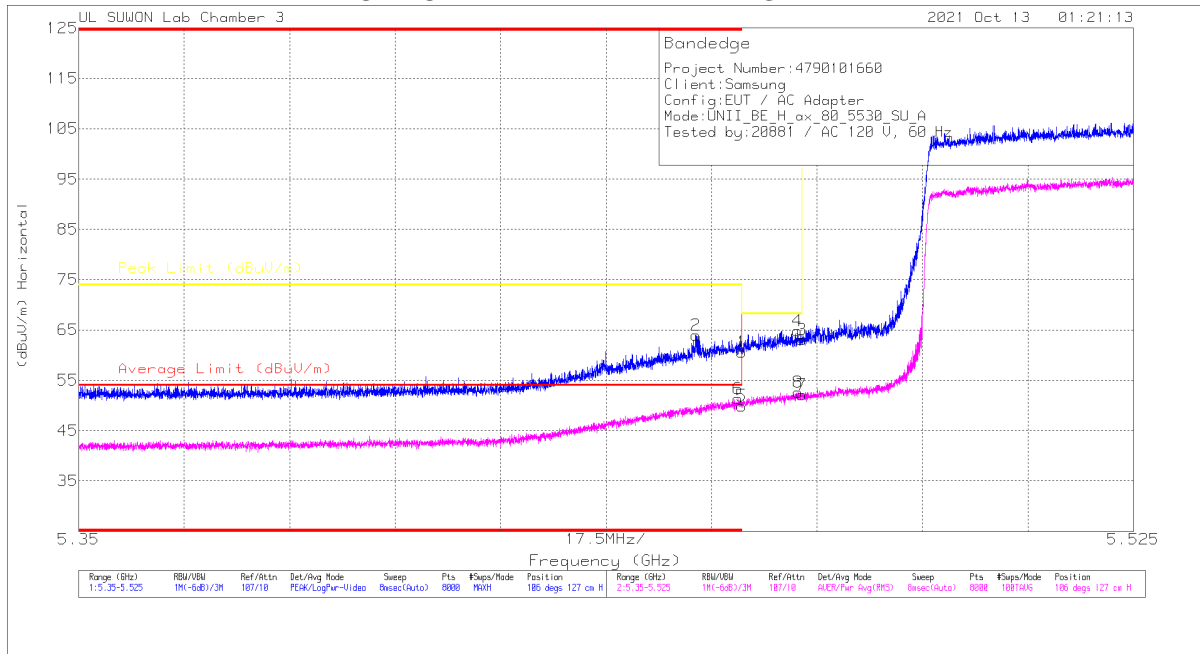
Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11a	5260	MIMO	5.755	41.28	PK-U	35.70	-19.80	0.00	57.18	-	-	-	-	68.20	-11.02	360	100	H
			5.762	41.50	PK-U	35.70	-19.90	0.00	57.30	-	-	-	-	68.20	-10.90	360	100	V
			7.013	43.28	PK-U	36.20	-26.20	0.00	53.28	-	-	-	-	68.20	-14.92	102	115	H
			7.013	42.72	PK-U	36.20	-26.20	0.00	52.72	-	-	-	-	68.20	-15.48	90	209	V
			10.521	38.97	PK-U	38.20	-21.40	0.00	55.77	-	-	-	-	68.20	-12.43	101	132	H
			10.521	35.74	PK-U	38.20	-21.40	0.00	52.54	-	-	-	-	68.20	-15.66	20	100	V
	5300	MIMO	5.767	41.30	PK-U	35.70	-19.90	0.00	57.10	-	-	-	-	68.20	-11.10	0	100	H
			5.769	40.96	PK-U	35.70	-19.80	0.00	56.86	-	-	-	-	68.20	-11.34	0	100	V
			7.066	43.71	PK-U	36.20	-26.20	0.00	53.71	-	-	-	-	68.20	-14.49	105	115	H
			7.067	43.13	PK-U	36.20	-26.20	0.00	53.13	-	-	-	-	68.20	-15.07	92	214	V
			10.600	40.32	PK-U	38.30	-21.50	0.00	57.12	-	-	-	-	68.20	-11.08	101	123	H
			10.600	36.42	PK-U	38.30	-21.50	0.00	53.22	-	-	-	-	68.20	-14.98	49	100	V
	5320	MIMO	5.761	42.41	PK-U	35.70	-20.00	0.00	58.11	-	-	-	-	68.20	-10.09	0	100	H
			5.767	41.02	PK-U	35.70	-19.80	0.00	56.92	-	-	-	-	68.20	-11.28	0	100	V
			7.093	43.47	PK-U	36.20	-26.40	0.00	53.27	-	-	-	-	68.20	-14.93	103	115	H
			7.093	42.96	PK-U	36.20	-26.40	0.00	52.76	-	-	-	-	68.20	-15.44	93	214	V
			* 10.64113	39.92	PK-U	38.30	-21.50	0.00	56.72	-	-	74.00	-17.28	-	-	101	127	H
			* 10.64077	28.51	ADR	38.30	-21.50	0.15	45.46	54.00	-8.54	-	-	-	-	101	127	H
802.11n (HT20) Spot-Check	5300	MIMO	* 10.64093	36.32	PK-U	38.30	-21.50	0.00	53.12	-	-	74.00	-20.88	-	-	50	100	V
			* 10.64055	24.56	ADR	38.30	-21.50	0.15	41.51	54.00	-12.49	-	-	-	-	50	100	V
			5.757	41.20	PK-U	35.70	-19.80	0.00	57.10	-	-	-	-	68.20	-11.10	0	100	H
			5.764	41.01	PK-U	35.70	-19.80	0.00	56.91	-	-	-	-	68.20	-11.29	0	100	V
			7.067	44.54	PK-U	36.20	-26.20	0.00	54.54	-	-	-	-	68.20	-13.66	106	120	H
			7.067	43.29	PK-U	36.20	-26.20	0.00	53.29	-	-	-	-	68.20	-14.91	91	207	V
802.11n (HT40) Spot-Check	5310	MIMO	10.600	40.86	PK-U	38.30	-21.50	0.00	57.66	-	-	-	-	68.20	-10.54	101	125	H
			10.600	36.82	PK-U	38.30	-21.50	0.00	53.62	-	-	-	-	68.20	-14.58	35	100	V
			5.760	41.30	PK-U	35.70	-19.90	0.00	57.10	-	-	-	-	68.20	-11.10	0	100	H
			5.764	41.17	PK-U	35.70	-19.90	0.00	56.97	-	-	-	-	68.20	-11.23	0	100	V
			7.080	44.30	PK-U	36.20	-26.30	0.00	54.20	-	-	-	-	68.20	-14.00	107	118	H
			7.080	43.10	PK-U	36.20	-26.30	0.00	53.00	-	-	-	-	68.20	-15.20	85	208	V
802.11ac (VHT80) Spot-Check	5290	MIMO	* 10.62321	33.98	PK-U	38.30	-21.50	0.00	50.78	-	-	74.00	-23.22	-	-	0	100	H
			* 10.60658	33.87	PK-U	38.30	-21.50	0.00	50.67	-	-	74.00	-23.33	-	-	0	100	V
			5.760	41.82	PK-U	35.70	-19.90	0.00	57.62	-	-	-	-	68.20	-10.58	0	100	H
			5.760	40.89	PK-U	35.70	-19.90	0.00	56.69	-	-	-	-	68.20	-11.51	0	100	V
			7.053	44.44	PK-U	36.20	-26.20	0.00	54.44	-	-	-	-	68.20	-13.76	74	115	H
			7.053	43.86	PK-U	36.20	-26.20	0.00	53.86	-	-	-	-	68.20	-14.34	92	209	V
802.11ax (HE20) 4RU Spot-Check	5320	MIMO	10.576	33.57	PK-U	38.30	-21.50	0.00	50.37	-	-	-	-	68.20	-17.83	0	100	H
			10.585	33.62	PK-U	38.30	-21.50	0.00	50.42	-	-	-	-	68.20	-17.78	0	100	V
			5.753	41.64	PK-U	35.70	-19.90	0.00	57.44	-	-	-	-	68.20	-10.76	0	100	H
			5.769	41.15	PK-U	35.70	-19.80	0.00	57.05	-	-	-	-	68.20	-11.15	0	100	V
			7.093	48.93	PK-U	36.20	-26.40	0.00	58.73	-	-	-	-	68.20	-9.47	105	121	H
			7.093	46.30	PK-U	36.20	-26.40	0.00	56.10	-	-	-	-	68.20	-12.10	93	110	V
* 10.6375	33.28	PK-U	38.30	-21.50	0.00	50.08	-	-	74.00	-23.92	-	-	0	100	H			
* 10.62854	33.16	PK-U	38.30	-21.50	0.00	49.96	-	-	74.00	-24.04	-	-	0	100	V			

Note1. PK-U - U-NII: Maximum Peak / ADR - U-NII AD primary method, RMS average  
 Note2. \* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

### 11.3. TX ABOVE 1GHz 2Tx MODE IN THE 5.5 GHz BAND

#### BANDEDGE (WORST CASE: 802.11ax HE80 / 5530 MHz LOWER SIDE)

#### HORIZONTAL PEAK AND AVERAGE DATA



#### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Cor (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.45998	45.93	Pk	35.3	-20.6	0	65.53	-	-	74	-13.37	106	127	H
2	* 5.45245	49.28	Pk	35.3	-20.6	0	63.98	-	-	74	-10.02	106	127	H
3	5.46998	48.43	Pk	35.3	-20.6	0	63.13	-	-	68.2	-5.07	106	127	H
4	5.4693	50.17	Pk	35.3	-20.6	0	64.87	-	-	68.2	-3.33	106	127	H
5	* 5.45998	35.24	RMS	35.3	-20.6	0	49.94	54	-4.06	-	-	106	127	H
6	5.45937	36.53	RMS	35.3	-20.5	0	51.33	54	-2.67	-	-	106	127	H
7	5.46998	37.41	RMS	35.3	-20.6	0	52.11	-	-	-	-	106	127	H
8	5.46939	37.96	RMS	35.3	-20.6	0	52.68	-	-	-	-	106	127	H

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

Pk - Peak detector

RMS - RMS detection

**BANDEDGE TEST DATA**

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity		
802.11a	5500	MIMO	* 5.45998	37.79	Pk	35.30	-20.60	0.00	52.49	-	-	74.00	-21.51	106	113	H		
			* 5.43815	40.49	Pk	35.30	-20.50	0.00	55.29	-	-	74.00	-18.71	106	113	H		
			5.46998	38.56	Pk	35.30	-20.60	0.00	53.26	-	-	68.20	-14.94	106	113	H		
			5.46685	42.34	Pk	35.30	-20.60	0.00	57.04	-	-	68.20	-11.16	106	113	H		
			* 5.45998	27.48	RMS	35.30	-20.60	0.15	42.33	54.00	-11.67	-	-	-	-	106	113	H
			* 5.35346	29.41	RMS	35.10	-20.70	0.15	43.96	54.00	-10.04	-	-	-	-	106	113	H
			5.46998	27.76	RMS	35.30	-20.60	0.15	42.61	-	-	-	-	-	-	106	113	H
			5.46678	29.08	RMS	35.30	-20.60	0.15	43.93	-	-	-	-	-	-	106	113	H
			* 5.45998	38.65	Pk	35.30	-20.60	0.00	53.35	-	-	74.00	-20.65	86	100	V		
			* 5.37842	40.59	Pk	35.20	-20.80	0.00	54.99	-	-	74.00	-19.01	86	100	V		
			5.46998	38.00	Pk	35.30	-20.60	0.00	52.70	-	-	68.20	-15.50	86	100	V		
			5.46989	41.92	Pk	35.30	-20.60	0.00	56.62	-	-	68.20	-11.58	86	100	V		
	* 5.45998	27.50	RMS	35.30	-20.60	0.15	42.35	54.00	-11.65	-	-	-	-	86	100	V		
	* 5.35042	28.91	RMS	35.10	-20.70	0.15	43.46	54.00	-10.54	-	-	-	-	86	100	V		
	5.46998	27.81	RMS	35.30	-20.60	0.15	42.66	-	-	-	-	-	-	86	100	V		
	5.46899	28.85	RMS	35.30	-20.60	0.15	43.70	-	-	-	-	-	-	86	100	V		
	5700	MIMO	5.72500	43.36	Pk	35.70	-20.00	0.00	59.06	-	-	68.20	-9.14	107	155	H		
			5.72510	44.65	Pk	35.70	-20.00	0.00	60.35	-	-	68.20	-7.85	107	155	H		
			5.72500	41.86	Pk	35.70	-20.00	0.00	57.56	-	-	68.20	-10.64	85	100	V		
			5.72747	45.69	Pk	35.70	-20.00	0.00	61.39	-	-	68.20	-6.81	85	100	V		
			* 5.45998	37.57	Pk	35.30	-20.60	0.00	52.27	-	-	74.00	-21.73	107	100	H		
			* 5.45456	40.34	Pk	35.30	-20.60	0.00	55.04	-	-	74.00	-18.96	107	100	H		
	802.11n (HT20)	5500	MIMO	5.46998	41.40	Pk	35.30	-20.60	0.00	56.10	-	-	68.20	-12.10	107	100	H	
				5.46996	41.92	Pk	35.30	-20.60	0.00	56.62	-	-	68.20	-11.58	107	100	H	
* 5.45998				26.70	RMS	35.30	-20.60	0.17	41.57	54.00	-12.43	-	-	-	107	100	H	
* 5.35007				29.36	RMS	35.10	-20.70	0.17	43.93	54.00	-10.07	-	-	-	107	100	H	
5.46998				29.18	RMS	35.30	-20.60	0.17	44.05	-	-	-	-	-	-	107	100	H
5.46967				29.66	RMS	35.30	-20.60	0.17	44.53	-	-	-	-	-	-	107	100	H
* 5.45998				37.52	Pk	35.30	-20.60	0.00	52.22	-	-	74.00	-21.78	89	139	V		
* 5.39557				40.37	Pk	35.20	-20.60	0.00	54.97	-	-	74.00	-19.03	89	139	V		
5.46998				39.30	Pk	35.30	-20.60	0.00	54.00	-	-	68.20	-14.20	89	139	V		
5.46983				41.37	Pk	35.30	-20.60	0.00	56.07	-	-	68.20	-12.13	89	139	V		
* 5.45998				27.87	RMS	35.30	-20.60	0.17	42.74	54.00	-11.26	-	-	-	-	89	139	V
* 5.45974				28.53	RMS	35.30	-20.60	0.17	43.40	54.00	-10.60	-	-	-	-	89	139	V
5.46998		28.83	RMS	35.30	-20.60	0.17	43.70	-	-	-	-	-	-	89	139	V		
5.46886		29.21	RMS	35.30	-20.60	0.17	44.08	-	-	-	-	-	-	89	139	V		
5700		MIMO	5.72500	42.76	Pk	35.70	-20.00	0.00	58.46	-	-	68.20	-9.74	105	155	H		
			5.72849	45.59	Pk	35.70	-20.00	0.00	61.29	-	-	68.20	-6.91	105	155	H		
			5.72500	41.45	Pk	35.70	-20.00	0.00	57.15	-	-	68.20	-11.05	86	116	V		
			5.72653	44.05	Pk	35.70	-20.00	0.00	59.75	-	-	68.20	-8.45	86	116	V		
			* 5.45998	42.04	Pk	35.30	-20.60	0.00	56.74	-	-	74.00	-17.26	106	100	H		
			* 5.45976	42.19	Pk	35.30	-20.60	0.00	56.89	-	-	74.00	-17.11	106	100	H		
802.11n (HT40)		5510	MIMO	5.46998	49.98	Pk	35.30	-20.60	0.00	64.68	-	-	68.20	-3.52	106	100	H	
				5.46959	50.72	Pk	35.30	-20.60	0.00	65.42	-	-	68.20	-2.78	106	100	H	
				* 5.45998	30.15	RMS	35.30	-20.60	0.17	45.02	54.00	-8.98	-	-	-	106	100	H
				* 5.45985	30.87	RMS	35.30	-20.60	0.17	45.74	54.00	-8.26	-	-	-	106	100	H
	5.46998			36.24	RMS	35.30	-20.60	0.17	51.11	-	-	-	-	-	-	106	100	H
	5.46967			37.58	RMS	35.30	-20.60	0.17	52.45	-	-	-	-	-	-	106	100	H
	* 5.45998			41.12	Pk	35.30	-20.60	0.00	55.82	-	-	74.00	-18.18	87	138	V		
	* 5.45972			41.72	Pk	35.30	-20.60	0.00	56.42	-	-	74.00	-17.59	87	138	V		
	5.46998			47.08	Pk	35.30	-20.60	0.00	61.78	-	-	68.20	-6.42	87	138	V		
	5.46974			49.36	Pk	35.30	-20.60	0.00	64.06	-	-	68.20	-4.14	87	138	V		
	* 5.45998			29.34	RMS	35.30	-20.60	0.17	44.21	54.00	-9.79	-	-	-	-	87	138	V
	* 5.45967			30.24	RMS	35.30	-20.60	0.17	45.11	54.00	-8.89	-	-	-	-	87	138	V
	5.46998	34.71	RMS	35.30	-20.60	0.17	49.58	-	-	-	-	-	-	87	138	V		
	5.46950	35.84	RMS	35.30	-20.60	0.17	50.71	-	-	-	-	-	-	87	138	V		
	5670	MIMO	5.72500	39.07	Pk	35.70	-20.00	0.00	54.77	-	-	68.20	-13.43	106	146	H		
			5.72675	41.67	Pk	35.70	-20.00	0.00	57.37	-	-	68.20	-10.83	106	146	H		
			5.72500	40.28	Pk	35.70	-20.00	0.00	55.98	-	-	68.20	-12.22	84	100	V		
			5.72752	42.18	Pk	35.70	-20.00	0.00	57.88	-	-	68.20	-10.32	84	100	V		
			* 5.45998	46.64	Pk	35.30	-20.60	0.00	61.34	-	-	74.00	-12.66	106	121	H		
			* 5.45488	48.68	Pk	35.30	-20.60	0.00	63.38	-	-	74.00	-10.62	106	121	H		
	802.11ac (VHT80)	5530	MIMO	5.46998	46.54	Pk	35.30	-20.60	0.00	61.24	-	-	68.20	-6.96	106	121	H	
				5.46873	50.13	Pk	35.30	-20.60	0.00	64.83	-	-	68.20	-3.37	106	121	H	
				* 5.45998	34.43	RMS	35.30	-20.60	0.24	49.37	54.00	-4.63	-	-	-	106	121	H
				* 5.45943	35.61	RMS	35.30	-20.60	0.24	50.55	54.00	-3.45	-	-	-	106	121	H
5.46998				37.03	RMS	35.30	-20.60	0.24	51.97	-	-	-	-	-	-	106	121	H
5.46989				37.08	RMS	35.30	-20.60	0.24	52.02	-	-	-	-	-	-	106	121	H
* 5.45998				45.29	Pk	35.30	-20.60	0.00	59.99	-	-	74.00	-14.01	89	100	V		
* 5.45843				49.24	Pk	35.30	-20.60	0.00	63.94	-	-	74.00	-10.06	89	100	V		
5.46998				48.16	Pk	35.30	-20.60	0.00	62.86	-	-	68.20	-5.34	89	100	V		
5.46738				50.71	Pk	35.30	-20.60	0.00	65.41	-	-	68.20	-2.79	89	100	V		
* 5.45998				32.91	RMS	35.30	-20.60	0.24	47.85	54.00	-6.15	-	-	-	-	89	100	V
* 5.45937				34.41	RMS	35.30	-20.50	0.24	49.45	54.00	-4.55	-	-	-	-	89	100	V
5.46998		35.14	RMS	35.30	-20.60	0.24	50.08	-	-	-	-	-	-	89	100	V		
5.46978		35.88	RMS	35.30	-20.60	0.24	50.82	-	-	-	-	-	-	89	100	V		
5610		MIMO	5.72500	37.58	Pk	35.70	-20.00	0.00	53.28	-	-	68.20	-14.92	105	130	H		
			5.82039	39.69	Pk	35.80	-19.80	0.00	55.69	-	-	68.20	-12.51	105	130	H		
			5.72500	37.88	Pk	35.70	-20.00	0.00	53.58	-	-	68.20	-14.62	91	101	V		
			5.72650	40.47	Pk	35.70	-20.00	0.00	56.17	-	-	68.20	-12.03	91	101	V		

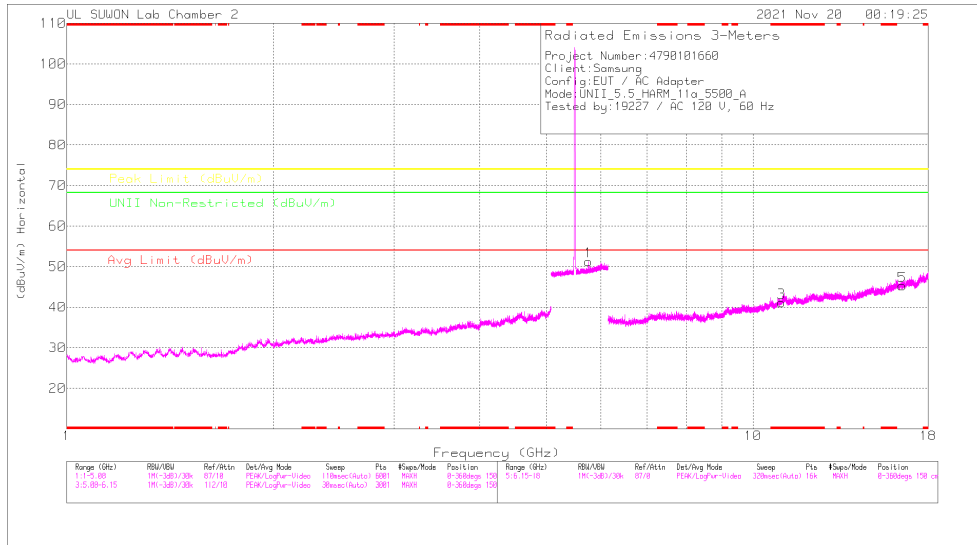
Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result dBuV/m	AV Limit dBuV/m	AV Margin [dB]	PK Limit dBuV/m	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity	
802.11ac (VHT160)	5570 Lower	MIMO	* 5.45998	44.57	Pk	35.30	-20.60	0.00	59.27	-	-	74.00	-14.73	107	110	H	
			* 5.43616	49.05	Pk	35.30	-20.60	0.00	63.75	-	-	74.00	-10.25	107	110	H	
			5.46998	43.66	Pk	35.30	-20.60	0.00	58.36	-	-	68.20	-9.84	107	110	H	
			5.46455	46.61	Pk	35.30	-20.50	0.00	61.41	-	-	68.20	-6.79	107	110	H	
			* 5.45998	33.02	RMS	35.30	-20.60	0.29	48.01	54.00	-5.99	-	-	-	107	110	H
			* 5.44644	34.72	RMS	35.30	-20.60	0.29	49.71	54.00	-4.29	-	-	-	107	110	H
			5.46998	33.33	RMS	35.30	-20.60	0.29	48.32	-	-	-	-	-	107	110	H
			5.46939	34.70	RMS	35.30	-20.60	0.29	49.69	-	-	-	-	-	107	110	H
			* 5.45998	42.92	Pk	35.30	-20.60	0.00	57.62	-	-	74.00	-16.38	89	100	V	
			* 5.44714	46.94	Pk	35.30	-20.60	0.00	61.64	-	-	74.00	-12.36	89	100	V	
	5.46998	42.82	Pk	35.30	-20.60	0.00	57.52	-	-	68.20	-10.68	89	100	V			
	5.46827	44.71	Pk	35.30	-20.60	0.00	59.41	-	-	68.20	-6.79	89	100	V			
	* 5.45998	31.84	RMS	35.30	-20.60	0.29	46.83	54.00	-7.17	-	-	-	89	100	V		
	* 5.45786	33.13	RMS	35.30	-20.60	0.29	48.12	54.00	-5.88	-	-	-	89	100	V		
	5.46998	32.00	RMS	35.30	-20.60	0.29	46.99	-	-	-	-	-	89	100	V		
	5.46989	33.29	RMS	35.30	-20.60	0.29	48.28	-	-	-	-	-	89	100	V		
	5.72500	38.56	Pk	35.70	-20.00	0.00	54.26	-	-	68.20	-13.94	110	180	H			
	5.77790	39.79	Pk	35.80	-19.80	0.00	55.79	-	-	68.20	-12.41	110	180	H			
	5.72500	36.78	Pk	35.70	-20.00	0.00	52.48	-	-	68.20	-15.72	15	224	V			
	5.78099	39.44	Pk	35.80	-19.80	0.00	55.44	-	-	68.20	-12.76	15	224	V			
802.11ax (HE20)	5500	MIMO	* 5.45998	38.15	Pk	35.30	-20.60	0.00	52.85	-	-	74.00	-21.15	106	118	H	
			* 5.4176	40.42	Pk	35.20	-20.60	0.00	55.02	-	-	74.00	-18.98	106	118	H	
			5.46998	40.00	Pk	35.30	-20.60	0.00	54.70	-	-	68.20	-13.50	106	118	H	
			5.46985	41.74	Pk	35.30	-20.60	0.00	56.44	-	-	68.20	-11.76	106	118	H	
			* 5.45998	27.01	RMS	35.30	-20.60	0.00	41.71	54.00	-12.29	-	-	-	106	118	H
			* 5.35422	28.85	RMS	35.10	-20.70	0.00	43.25	54.00	-10.75	-	-	-	106	118	H
			5.46998	29.42	RMS	35.30	-20.60	0.00	44.12	-	-	-	-	-	106	118	H
			5.46928	29.71	RMS	35.30	-20.60	0.00	44.41	-	-	-	-	-	106	118	H
			* 5.45998	37.47	Pk	35.30	-20.60	0.00	52.17	-	-	74.00	-21.83	92	228	V	
			* 5.4325	39.84	Pk	35.30	-20.60	0.00	54.54	-	-	74.00	-19.46	92	228	V	
	5.46998	39.31	Pk	35.30	-20.60	0.00	54.01	-	-	68.20	-14.19	92	228	V			
	5.46952	41.78	Pk	35.30	-20.60	0.00	56.48	-	-	68.20	-11.72	92	228	V			
	* 5.45998	26.69	RMS	35.30	-20.60	0.00	41.39	54.00	-12.61	-	-	-	92	228	V		
	* 5.45967	28.24	RMS	35.30	-20.50	0.00	43.04	54.00	-10.96	-	-	-	92	228	V		
	5.46998	28.41	RMS	35.30	-20.60	0.00	43.11	-	-	-	-	-	92	228	V		
	5.46878	29.05	RMS	35.30	-20.60	0.00	43.75	-	-	-	-	-	92	228	V		
	5.72500	46.00	Pk	35.70	-20.00	0.00	61.70	-	-	68.20	-6.50	106	126	H			
	5.72566	47.38	Pk	35.70	-20.00	0.00	63.08	-	-	68.20	-5.12	106	126	H			
	5.72500	45.79	Pk	35.70	-20.00	0.00	61.49	-	-	68.20	-6.71	88	100	V			
	5.72524	46.86	Pk	35.70	-20.00	0.00	62.56	-	-	68.20	-5.64	88	100	V			
802.11ax (HE40)	5510	MIMO	* 5.45998	41.17	Pk	35.30	-20.60	0.00	55.87	-	-	74.00	-18.13	108	104	H	
			* 5.45701	41.52	Pk	35.30	-20.60	0.00	56.22	-	-	74.00	-17.78	108	104	H	
			5.46998	46.13	Pk	35.30	-20.60	0.00	60.83	-	-	68.20	-7.37	108	104	H	
			5.46989	47.78	Pk	35.30	-20.60	0.00	62.48	-	-	68.20	-5.72	108	104	H	
			* 5.45998	29.27	RMS	35.30	-20.60	0.00	43.97	54.00	-10.03	-	-	-	108	104	H
			* 5.45972	30.66	RMS	35.30	-20.60	0.00	45.36	54.00	-8.64	-	-	-	108	104	H
			5.46998	33.16	RMS	35.30	-20.60	0.00	47.86	-	-	-	-	-	108	104	H
			5.46934	35.12	RMS	35.30	-20.60	0.00	49.82	-	-	-	-	-	108	104	H
			* 5.45998	40.30	Pk	35.30	-20.60	0.00	55.00	-	-	74.00	-19.00	88	100	V	
			* 5.45847	42.42	Pk	35.30	-20.60	0.00	57.12	-	-	74.00	-16.88	88	100	V	
	5.46998	46.26	Pk	35.30	-20.60	0.00	60.96	-	-	68.20	-7.24	88	100	V			
	5.46814	48.78	Pk	35.30	-20.60	0.00	63.48	-	-	68.20	-4.72	88	100	V			
	* 5.45998	29.55	RMS	35.30	-20.60	0.00	44.25	54.00	-9.75	-	-	-	88	100	V		
	* 5.45932	30.08	RMS	35.30	-20.50	0.00	44.88	54.00	-9.12	-	-	-	88	100	V		
	5.46998	34.08	RMS	35.30	-20.60	0.00	48.79	-	-	-	-	-	88	100	V		
	5.46945	34.78	RMS	35.30	-20.60	0.00	49.48	-	-	-	-	-	88	100	V		
	5.72500	39.17	Pk	35.70	-20.00	0.00	54.87	-	-	68.20	-13.33	105	117	H			
	5.72658	42.44	Pk	35.70	-20.00	0.00	58.14	-	-	68.20	-10.06	105	117	H			
	5.72500	39.04	Pk	35.70	-20.00	0.00	54.74	-	-	68.20	-13.46	89	100	V			
	5.73214	41.25	Pk	35.70	-19.90	0.00	57.05	-	-	68.20	-11.15	89	100	V			
802.11ax (HE80)	5530	MIMO	* 5.45998	45.93	Pk	35.30	-20.60	0.00	60.63	-	-	74.00	-13.37	106	127	H	
			* 5.45245	49.28	Pk	35.30	-20.60	0.00	63.98	-	-	74.00	-10.02	106	127	H	
			5.46998	48.43	Pk	35.30	-20.60	0.00	63.13	-	-	68.20	-5.07	106	127	H	
			5.46930	50.17	Pk	35.30	-20.60	0.00	64.87	-	-	68.20	-3.33	106	127	H	
			* 5.45998	35.24	RMS	35.30	-20.60	0.00	49.94	54.00	-4.06	-	-	-	106	127	H
			* 5.45937	36.53	RMS	35.30	-20.50	0.00	51.33	54.00	-2.67	-	-	-	106	127	H
			5.46998	37.41	RMS	35.30	-20.60	0.00	52.11	-	-	-	-	-	106	127	H
			5.46939	37.98	RMS	35.30	-20.60	0.00	52.68	-	-	-	-	-	106	127	H
			* 5.45998	46.05	Pk	35.30	-20.60	0.00	60.75	-	-	74.00	-13.25	91	100	V	
			* 5.45217	48.80	Pk	35.30	-20.60	0.00	63.50	-	-	74.00	-10.50	91	100	V	
	5.46998	48.12	Pk	35.30	-20.60	0.00	62.82	-	-	68.20	-5.38	91	100	V			
	5.46891	49.98	Pk	35.30	-20.60	0.00	64.68	-	-	68.20	-3.52	91	100	V			
	* 5.45998	33.63	RMS	35.30	-20.60	0.00	48.33	54.00	-5.67	-	-	-	91	100	V		
	* 5.45937	35.13	RMS	35.30	-20.50	0.00	49.93	54.00	-4.07	-	-	-	91	100	V		
	5.46998	36.08	RMS	35.30	-20.60	0.00	50.78	-	-	-	-	-	91	100	V		
	5.46698	36.90	RMS	35.30	-20.60	0.00	51.60	-	-	-	-	-	91	100	V		
	5.72500	37.64	Pk	35.70	-20.00	0.00	53.34	-	-	68.20	-14.86	106	115	H			
	5.80523	40.00	Pk	35.80	-19.90	0.00	55.90	-	-	68.20	-12.30	106	115	H			
	5.72500	37.89	Pk	35.70	-20.00	0.00	53.59	-	-	68.20	-14.61	89	103	V			
	5.76377	40.17	Pk	35.70	-19.90	0.00	55.97	-	-	68.20	-12.23	89	103	V			

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result dBuV/m	AV Limit dBuV/m	AV Margin [dB]	PK Limit dBuV/m	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity			
802.11ax (HE160)	5570 Lower	MIMO	* 5.45998	43.22	Pk	35.30	-20.60	0.00	57.92	-	-	74.00	-16.08	106	129	H			
			* 5.4369	48.52	Pk	35.30	-20.70	0.00	63.12	-	-	74.00	-10.88	106	129	H			
			5.46998	42.78	Pk	35.30	-20.60	0.00	57.48	-	-	68.20	-10.72	106	129	H			
			5.46753	45.23	Pk	35.30	-20.60	0.00	59.93	-	-	68.20	-8.27	106	129	H			
			* 5.45998	32.51	RMS	35.30	-20.60	0.00	47.21	54.00	-6.79	-	-	-	-	106	129	H	
			* 5.44629	33.20	RMS	35.30	-20.60	0.00	47.90	54.00	-6.10	-	-	-	-	106	129	H	
			5.46998	32.73	RMS	35.30	-20.60	0.00	47.43	-	-	-	-	-	-	106	129	H	
			5.46740	33.77	RMS	35.30	-20.60	0.00	48.47	-	-	-	-	-	-	106	129	H	
			* 5.45998	41.43	Pk	35.30	-20.60	0.00	56.13	-	-	74.00	-17.87	-	-	91	100	V	
			* 5.43797	44.42	Pk	35.30	-20.60	0.00	59.12	-	-	74.00	-14.88	-	-	91	100	V	
			5.46998	41.54	Pk	35.30	-20.60	0.00	56.24	-	-	68.20	-11.96	-	-	91	100	V	
			5.46556	44.88	Pk	35.30	-20.60	0.00	59.58	-	-	68.20	-8.62	-	-	91	100	V	
			* 5.45998	32.05	RMS	35.30	-20.60	0.00	46.75	54.00	-7.25	-	-	-	-	91	100	V	
			* 5.45845	31.74	RMS	35.30	-20.60	0.00	46.44	54.00	-7.56	-	-	-	-	91	100	V	
			5.46998	31.20	RMS	35.30	-20.60	0.00	45.90	-	-	-	-	-	-	91	100	V	
			5.46683	31.97	RMS	35.30	-20.60	0.00	46.67	-	-	-	-	-	-	91	100	V	
			5570 Upper	MIMO	5.72500	42.59	Pk	35.70	-20.00	0.00	58.29	-	-	-	68.20	-9.91	107	139	H
					5.72799	45.37	Pk	35.70	-20.00	0.00	61.07	-	-	-	68.20	-7.13	107	139	H
	5.72500	41.40			Pk	35.70	-20.00	0.00	57.10	-	-	-	68.20	-11.10	88	105	V		
	5.72657	45.80			Pk	35.70	-20.00	0.00	61.50	-	-	-	68.20	-6.70	88	105	V		

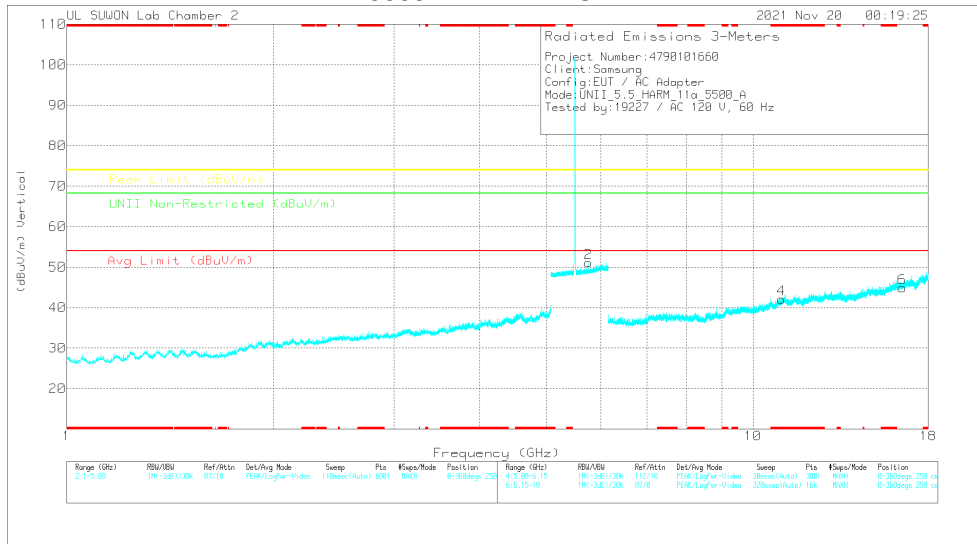
Note1. Pk - Peak detector, RMS - RMS detector  
 Note2. \* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band



**HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / 5500 MHz)**  
**5500 MHz HORIZONTAL**



**5500 MHz VERTICAL**



Note. Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

**5500 MHz DATA**

**Radiated Emissions**

Frequency (GHz)	Meas Reading (dBuV)	Det	3117_0168724	10dB_ATTH(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Asmth (Degs)	Height (cm)	Polarity
5.7597	44.31	PK-U	34.7	-17.3	0	61.71	-	-	-	-	68.2	-6.49	287	100	H
5.7598	43.76	PK-U	34.7	-17.3	0	61.16	-	-	-	-	68.2	-7.04	272	100	V

Frequency (GHz)	Meas Reading (dBuV)	Det	3117_0168724	@GHz_HF(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Asmth (Degs)	Height (cm)	Polarity
* 10.99885	34.23	PK-U	38.2	-20.4	0	52.03	-	-	74	-21.97	-	-	360	100	V
* 10.99921	34.57	PK-U	38.2	-20.4	0	52.37	-	-	74	-21.63	-	-	360	100	H
16.49842	34.48	PK-U	40.8	-19.6	0	55.68	-	-	-	-	68.2	-12.52	360	100	H
16.50207	34.95	PK-U	40.8	-19.6	0	56.15	-	-	-	-	68.2	-12.05	360	100	V

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 PK-U - U-NII: Maximum Peak

**HARMONICS AND SPURIOUS EMISSIONS TEST DATA**

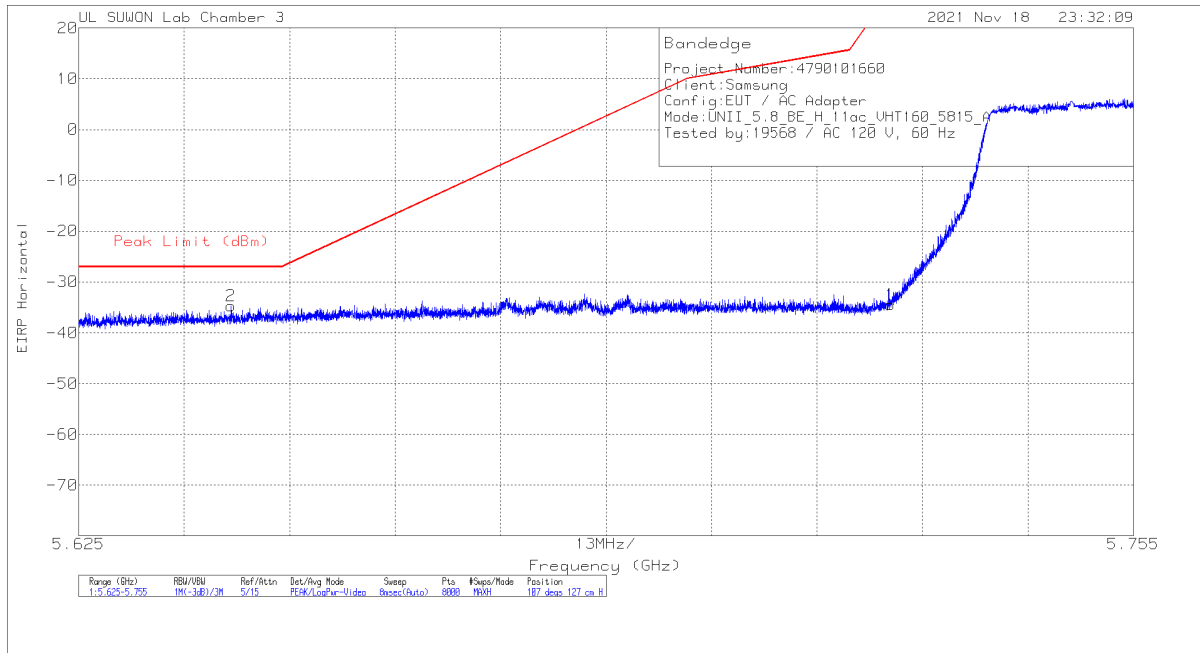
Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity		
802.11a	5500	MIMO	5.760	44.31	PK-U	34.70	-17.30	0.00	61.71	-	-	-	-	68.20	-6.49	287	100	H		
			5.760	43.76	PK-U	34.70	-17.30	0.00	61.16	-	-	-	-	-	68.20	-7.04	272	136	V	
			* 10.99865	34.23	PK-U	38.20	-20.40	0.00	52.03	-	-	-	74.00	-21.97	-	-	-	360	100	V
			* 10.99821	34.57	PK-U	38.20	-20.40	0.00	52.37	-	-	-	74.00	-21.63	-	-	-	360	100	H
			16.498	34.48	PK-U	40.80	-19.60	0.00	56.68	-	-	-	-	-	-	68.20	-12.52	360	100	H
			16.502	34.95	PK-U	40.80	-19.60	0.00	56.15	-	-	-	-	-	-	68.20	-12.05	360	100	V
	5580	MIMO	* 8.36285	37.66	PK-U	36.30	-25.30	0.00	48.66	-	-	-	74.00	-25.34	-	-	-	360	100	H
			* 8.37494	37.94	PK-U	36.30	-25.40	0.00	48.84	-	-	-	74.00	-25.16	-	-	-	360	100	V
			* 11.16297	36.82	PK-U	38.40	-22.30	0.00	52.92	-	-	-	74.00	-21.08	-	-	-	360	100	H
			* 11.16641	37.04	PK-U	38.40	-22.20	0.00	53.24	-	-	-	74.00	-20.76	-	-	-	360	100	V
			16.735	34.22	PK-U	41.50	-17.40	0.00	58.32	-	-	-	-	-	-	68.20	-9.88	360	100	H
			16.748	34.26	PK-U	41.60	-17.40	0.00	58.46	-	-	-	-	-	-	68.20	-9.74	360	100	V
	5700	MIMO	8.548	37.49	PK-U	36.20	-24.50	0.00	49.19	-	-	-	-	-	68.20	-19.01	360	100	H	
			8.547	37.18	PK-U	36.20	-24.50	0.00	48.88	-	-	-	-	-	68.20	-19.32	360	100	V	
			* 11.40221	36.28	PK-U	38.40	-21.90	0.00	52.78	-	-	-	74.00	-21.22	-	-	-	360	100	H
			* 11.39279	35.83	PK-U	38.40	-21.90	0.00	52.33	-	-	-	74.00	-21.67	-	-	-	360	100	V
			17.100	34.74	PK-U	41.50	-17.40	0.00	58.84	-	-	-	-	-	-	68.20	-9.36	360	100	H
			17.101	34.19	PK-U	41.50	-17.40	0.00	58.29	-	-	-	-	-	-	68.20	-9.91	360	100	V
	5720	MIMO	8.571	34.43	PK-U	36.50	-23.30	0.00	47.63	-	-	-	-	-	68.20	-20.57	360	100	H	
			8.571	34.71	PK-U	36.50	-23.30	0.00	47.91	-	-	-	-	-	68.20	-20.29	360	100	V	
			* 11.44439	33.59	PK-U	38.60	-21.70	0.00	50.49	-	-	-	74.00	-23.51	-	-	-	360	100	H
			* 11.44167	33.75	PK-U	38.60	-21.70	0.00	50.65	-	-	-	74.00	-23.35	-	-	-	360	100	V
			17.157	33.09	PK-U	42.20	-18.40	0.00	56.89	-	-	-	-	-	-	68.20	-11.31	360	100	H
			17.154	32.86	PK-U	42.20	-18.50	0.00	56.56	-	-	-	-	-	-	68.20	-11.64	360	100	V
802.11n (HT20) Spot-Check	5500	MIMO	5.760	47.58	PK-U	35.00	-20.90	0.00	61.68	-	-	-	-	68.20	-6.52	102	125	H		
			5.760	46.69	PK-U	35.00	-20.90	0.00	60.79	-	-	-	-	-	68.20	-7.41	85	242	V	
			* 10.99204	35.01	PK-U	38.50	-21.60	0.00	51.91	-	-	-	74.00	-22.09	-	-	-	0	102	H
			* 11.00544	34.25	PK-U	38.50	-21.70	0.00	51.05	-	-	-	74.00	-22.95	-	-	-	0	102	V
			16.511	33.52	PK-U	42.00	-19.60	0.00	56.92	-	-	-	-	-	-	68.20	-12.28	0	102	H
			16.513	33.53	PK-U	42.00	-19.60	0.00	56.93	-	-	-	-	-	-	68.20	-12.27	0	102	V
802.11ax (HE20) 4RU Spot-Check	5500	MIMO	5.769	41.70	PK-U	35.70	-19.80	0.00	57.60	-	-	-	-	68.20	-10.60	0	100	H		
			5.757	41.76	PK-U	35.70	-19.90	0.00	57.56	-	-	-	-	-	68.20	-10.64	0	100	V	
			6.600	38.91	PK-U	36.50	-26.60	0.00	48.81	-	-	-	-	-	68.20	-19.39	71	115	H	
			6.600	38.62	PK-U	36.50	-26.60	0.00	48.52	-	-	-	-	-	68.20	-19.68	95	129	V	
			* 10.99902	33.89	PK-U	38.50	-21.70	0.00	50.69	-	-	-	74.00	-23.31	-	-	-	0	100	H
			* 10.99427	33.60	PK-U	38.50	-21.70	0.00	50.40	-	-	-	74.00	-23.60	-	-	-	0	100	V

Note1. PK-U - U-NII: Maximum Peak / ADR - U-NII AD primary method, RMS average  
 Note2. \* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

### 11.4. TX ABOVE 1GHz 2Tx MODE IN THE 5.8 GHz BAND

#### BANDEDGE (WORST CASE: 802.11ac VHT160 LOWER SIDE / 5815 MHz)

#### HORIZONTAL PEAK DATA



#### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	3117_00218957	10dB_ATT[dB]	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	-61.88	Pk	35.6	-20	11.8	0	-34.48	27	-61.48	107	127	H
2	5.64379	-61.73	Pk	35.5	-20.3	11.8	0	-34.73	-27	-7.73	107	127	H

Pk - Peak detector

**BANDEDGE TEST DATA**

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBm]	Detector Mode	ANT Factor	Loss [dB]	Conv. F [dB]	DC Corr [dB]	Result [dBm]	PK Limit [dBm]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity	
802.11a	5745	MIMO	5.72500	-54.86	Pk	35.60	-20.00	11.80	0.00	-27.46	27.00	-54.46	106	110	H	
			5.64473	-63.87	Pk	35.50	-20.30	11.80	0.00	-36.87	-27.00	-9.87	106	110	H	
			5.72500	-52.94	Pk	35.60	-20.00	11.80	0.00	0.00	-25.54	27.00	-52.54	87	100	V
			5.63753	-62.93	Pk	35.50	-20.30	11.80	0.00	0.00	-35.93	-27.00	-8.93	87	100	V
802.11n (HT20)	5745	MIMO	5.72500	-57.71	Pk	35.60	-20.00	11.80	0.00	-30.31	27.00	-57.31	107	173	H	
			5.63654	-63.46	Pk	35.50	-20.30	11.80	0.00	-36.46	-27.00	-9.46	107	173	H	
			5.72500	-58.05	Pk	35.60	-20.00	11.80	0.00	0.00	-30.65	27.00	-57.65	91	136	V
			5.64327	-63.64	Pk	35.50	-20.30	11.80	0.00	0.00	-36.64	-27.00	-9.64	91	136	V
802.11n (HT40)	5755	MIMO	5.72500	-52.98	Pk	35.60	-20.00	11.80	0.00	-25.58	27.00	-52.58	105	173	H	
			5.62931	-63.38	Pk	35.50	-20.30	11.80	0.00	-36.38	-27.00	-9.38	105	173	H	
			5.72500	-53.47	Pk	35.60	-20.00	11.80	0.00	0.00	-26.07	27.00	-53.07	85	127	V
			5.64665	-63.44	Pk	35.50	-20.30	11.80	0.00	0.00	-36.44	-27.00	-9.44	85	127	V
802.11ac (VHT80)	5775	MIMO	5.72500	-58.51	Pk	35.60	-20.00	11.80	0.00	-31.11	27.00	-58.11	107	134	H	
			5.64481	-62.90	Pk	35.50	-20.30	11.80	0.00	-35.90	-27.00	-8.90	107	134	H	
			5.72500	-59.00	Pk	35.60	-20.00	11.80	0.00	0.00	-31.60	27.00	-58.60	87	100	V
			5.62950	-63.14	Pk	35.50	-20.30	11.80	0.00	0.00	-36.14	-27.00	-9.14	87	100	V
802.11ac (VHT160)	5815 Lower	MIMO	5.72500	-61.88	Pk	35.60	-20.00	11.80	0.00	-34.48	27.00	-61.48	107	127	H	
			5.64379	-61.73	Pk	35.50	-20.30	11.80	0.00	-34.73	-27.00	-7.73	107	127	H	
			5.72500	-62.22	Pk	35.60	-20.00	11.80	0.00	0.00	-34.82	27.00	-61.82	89	103	V
			5.64634	-62.42	Pk	35.50	-20.30	11.80	0.00	0.00	-35.42	-27.00	-8.42	89	103	V
802.11ax (HE20)	5745	MIMO	5.72500	-51.15	Pk	35.60	-20.00	11.80	0.00	-23.75	27.00	-50.75	106	128	H	
			5.64879	-63.75	Pk	35.50	-20.30	11.80	0.00	-36.75	-27.00	-9.75	106	128	H	
			5.72500	-50.08	Pk	35.60	-20.00	11.80	0.00	0.00	-22.68	27.00	-49.68	91	100	V
			5.65029	-63.28	Pk	35.50	-20.20	11.80	0.00	0.00	-36.18	-26.79	-9.39	91	100	V
802.11ax (HE40)	5755	MIMO	5.72500	-50.18	Pk	35.60	-20.00	11.80	0.00	-22.78	27.00	-49.78	109	136	H	
			5.63815	-63.45	Pk	35.50	-20.30	11.80	0.00	-36.45	-27.00	-9.45	109	136	H	
			5.72500	-48.83	Pk	35.60	-20.00	11.80	0.00	0.00	-21.43	27.00	-48.43	89	100	V
			5.62663	-63.39	Pk	35.50	-20.30	11.80	0.00	0.00	-36.39	-27.00	-9.39	89	100	V
802.11ax (HE80)	5775	MIMO	5.72500	-54.68	Pk	35.60	-20.00	11.80	0.00	-27.28	27.00	-54.28	109	135	H	
			5.62658	-63.23	Pk	35.50	-20.30	11.80	0.00	-36.23	-27.00	-9.23	109	135	H	
			5.72500	-53.17	Pk	35.60	-20.00	11.80	0.00	0.00	-25.77	27.00	-52.77	89	100	V
			5.63168	-63.14	Pk	35.50	-20.30	11.80	0.00	0.00	-36.14	-27.00	-9.14	89	100	V
802.11ax (HE160)	5815 Lower	MIMO	5.72500	-62.32	Pk	35.60	-20.00	11.80	0.00	-34.92	27.00	-61.92	108	136	H	
			5.65050	-61.52	Pk	35.50	-20.20	11.80	0.00	-34.42	-26.63	-7.79	108	136	H	
			5.72500	-62.06	Pk	35.60	-20.00	11.80	0.00	0.00	-34.66	27.00	-61.66	92	100	V
			5.64086	-62.42	Pk	35.50	-20.40	11.80	0.00	0.00	-35.52	-27.00	-8.52	92	100	V

Note. Pk - Peak detector