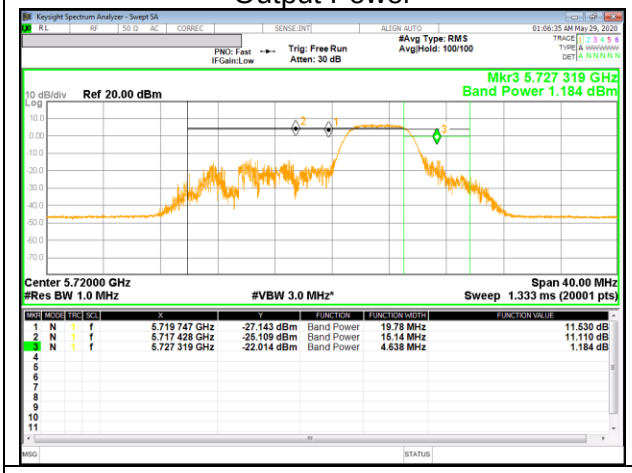
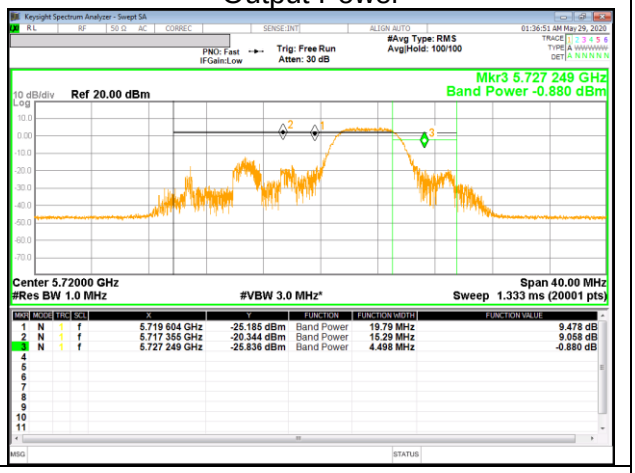
UNII Straddle Ch. IEEE 802.11ax HE20(39RU) SISO mode Output Power and PSD

ANT1	ANT2
Output Power	Output Power
	
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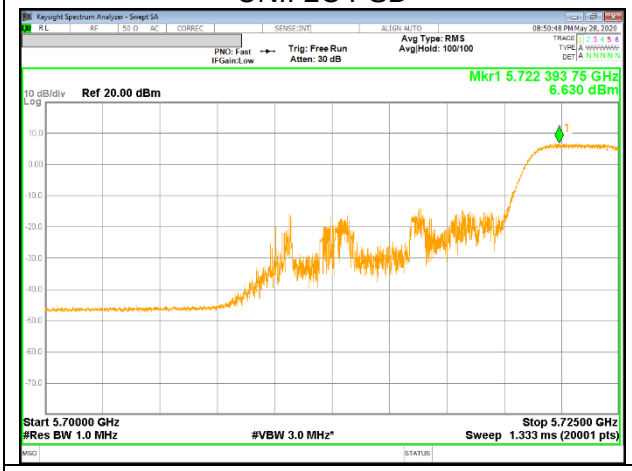	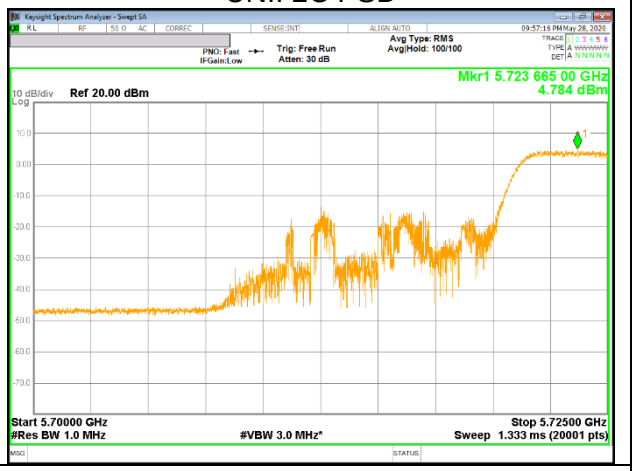
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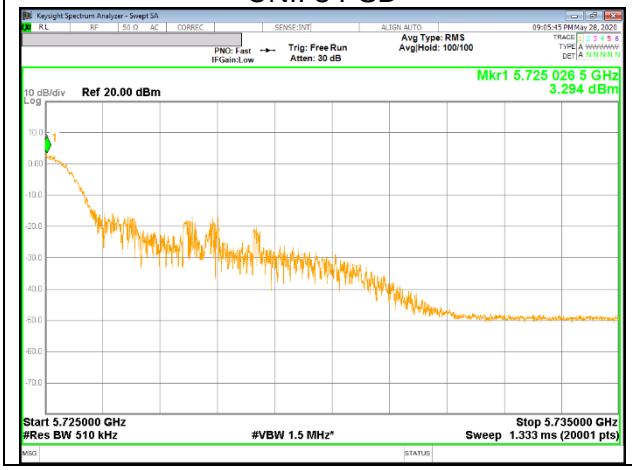
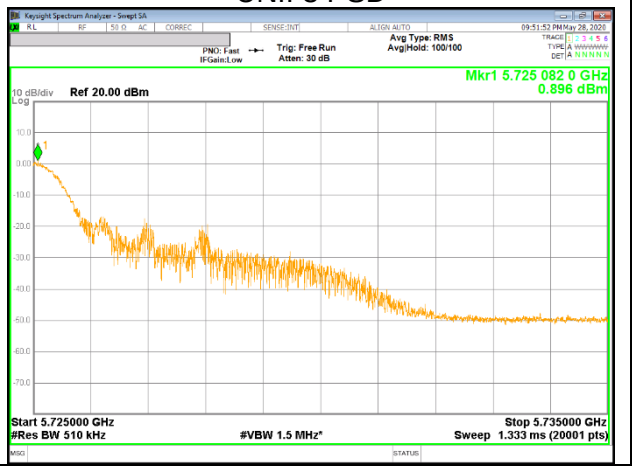
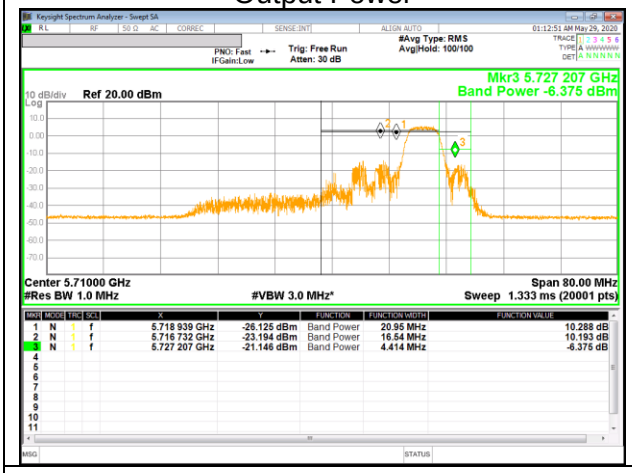
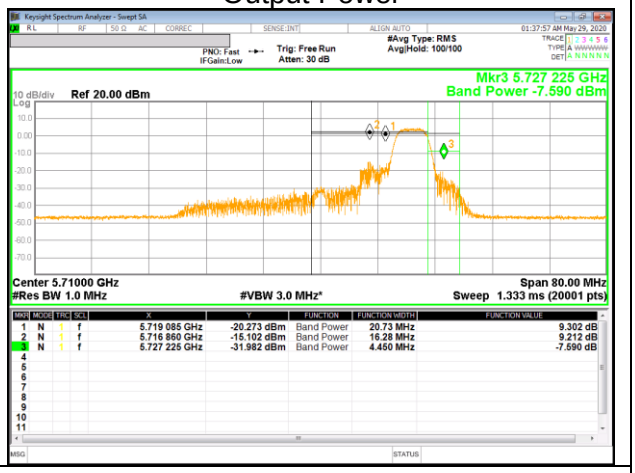
	

UNII Straddle Ch. IEEE 802.11ax HE40(43RU) SISO mode Output Power and PSD

ANT1	ANT2
Output Power	Output Power
	
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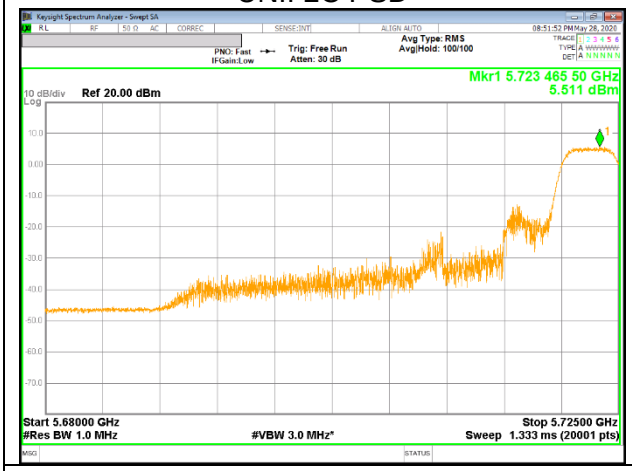
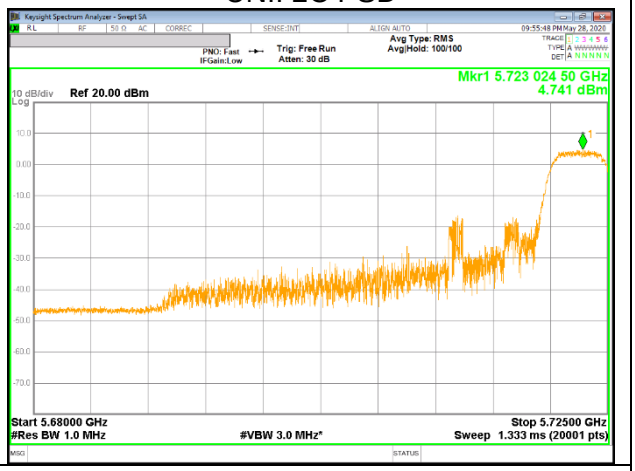
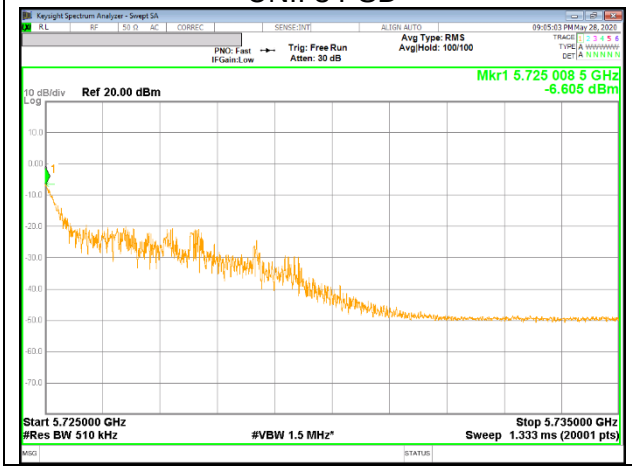
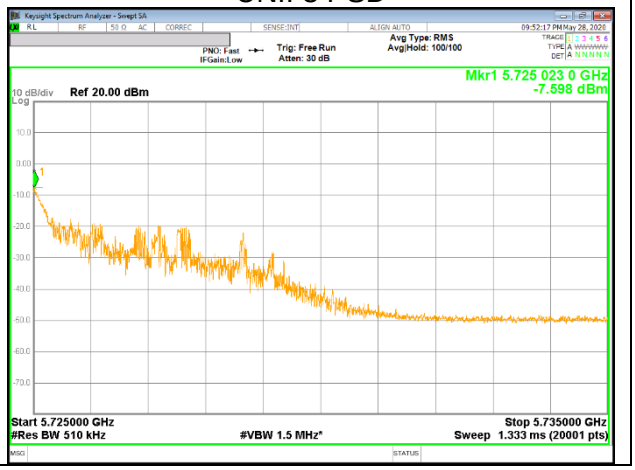
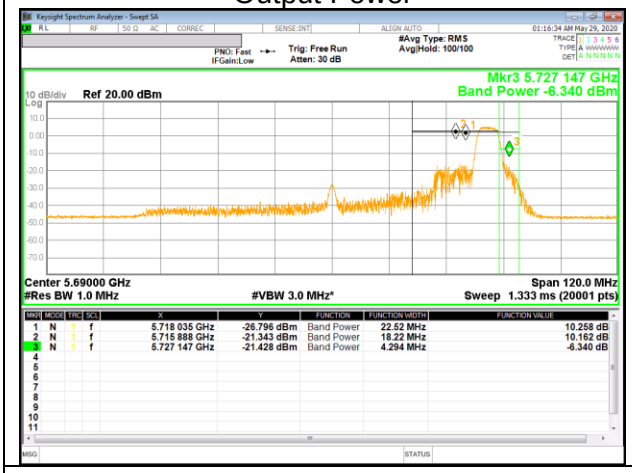
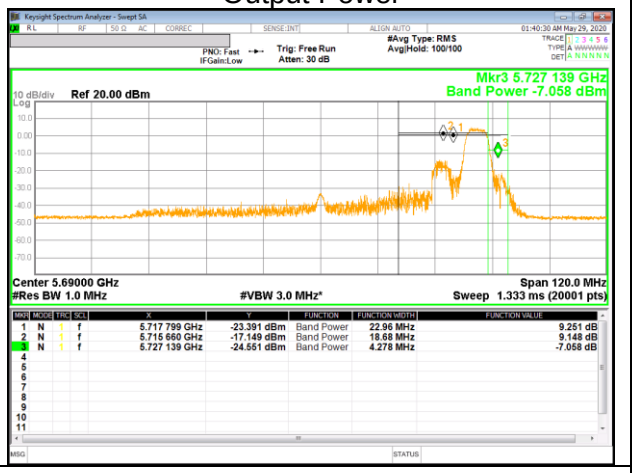
	
UNII 3 PSD	UNII 3 PSD
	

UNII Straddle Ch. IEEE 802.11ax HE80(51RU) SISO mode Output Power and PSD

ANT1	ANT2
Output Power	Output Power
	
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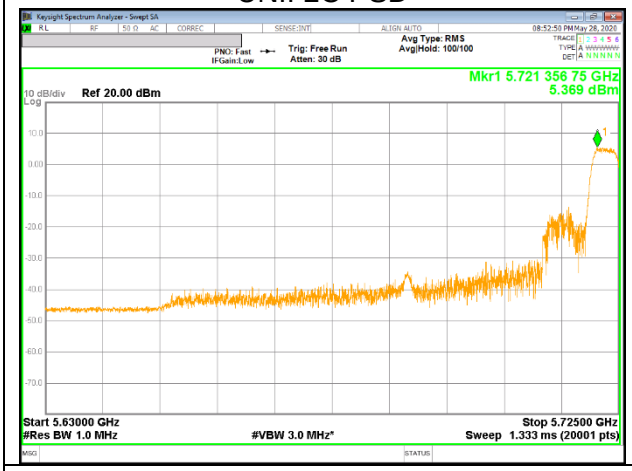	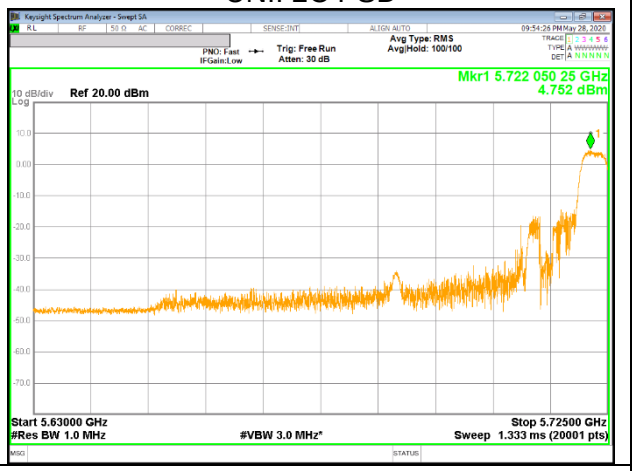
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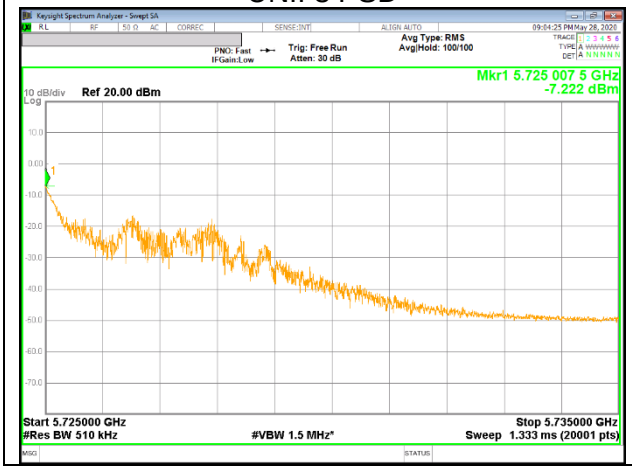
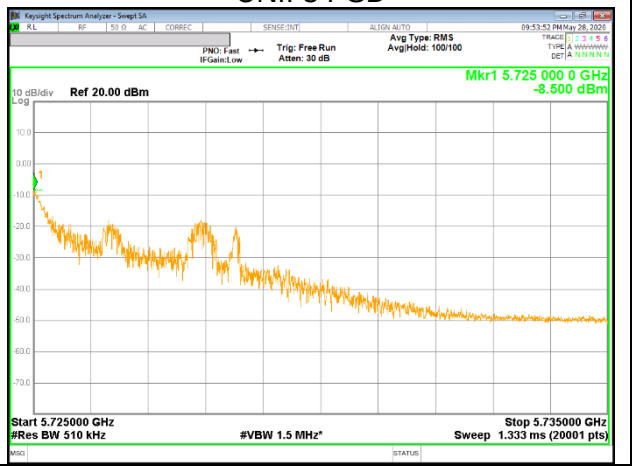
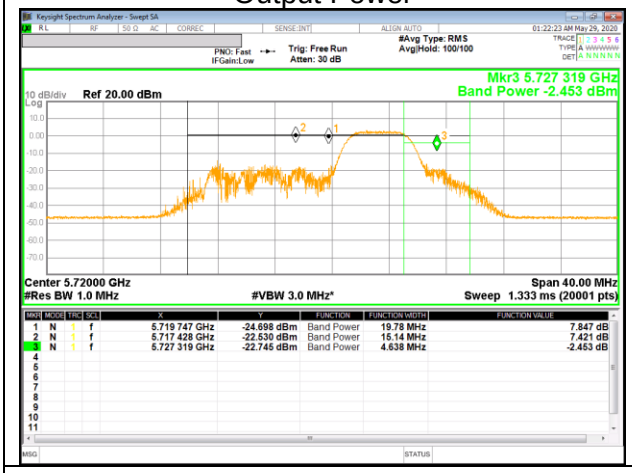
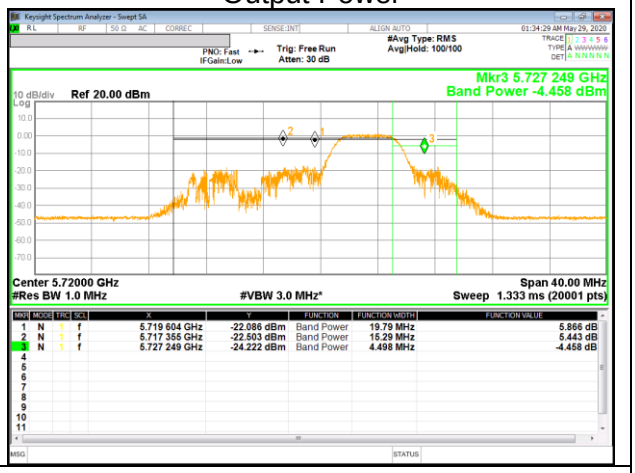
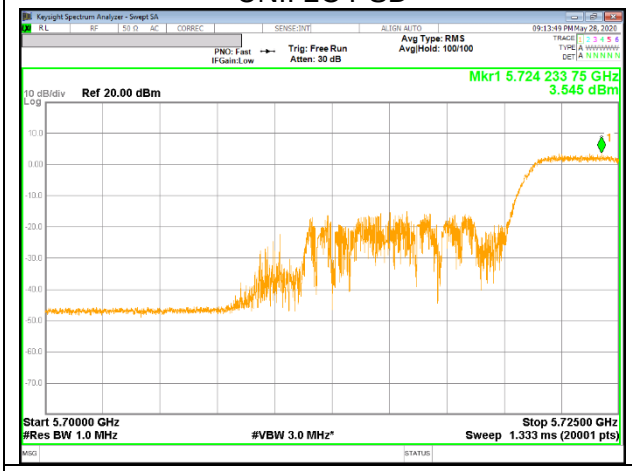
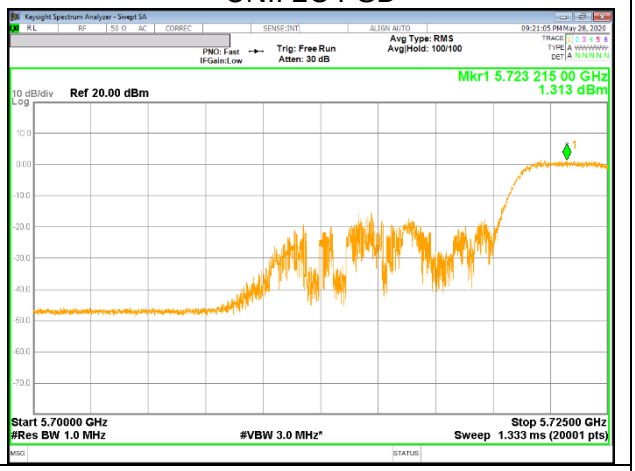
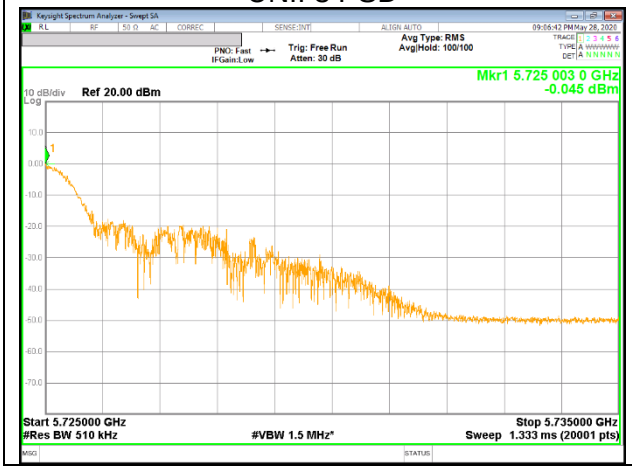
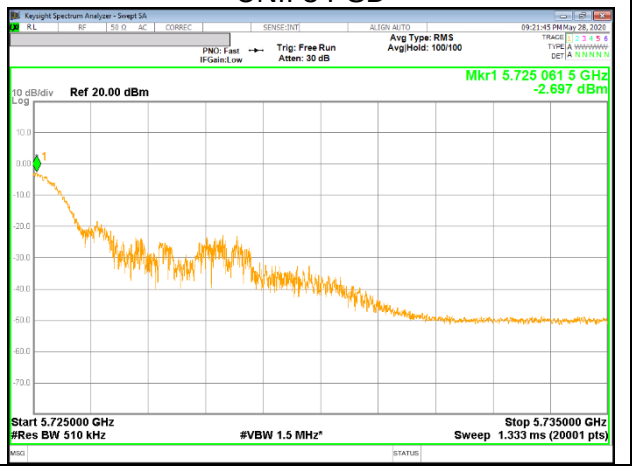
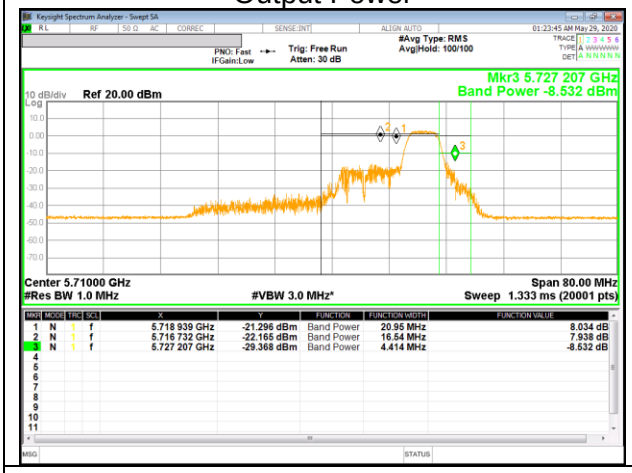
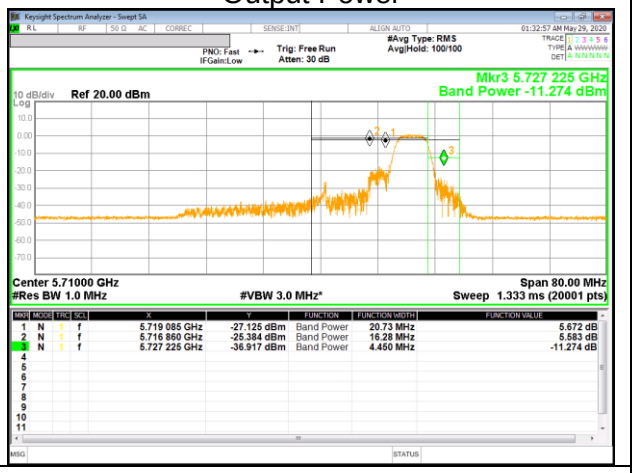
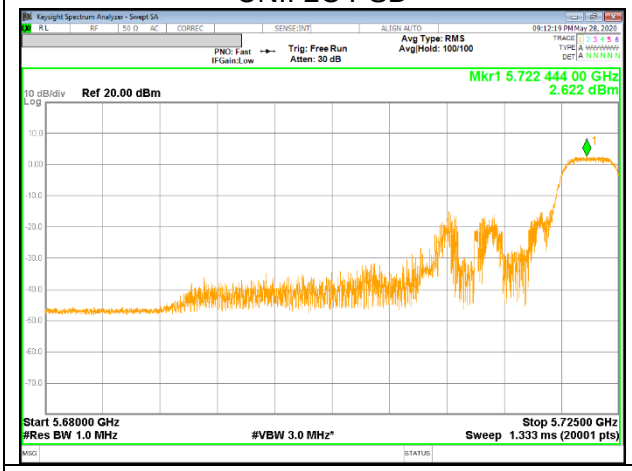
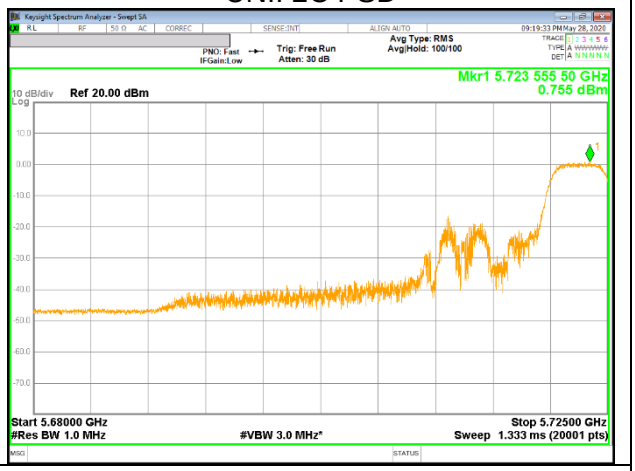
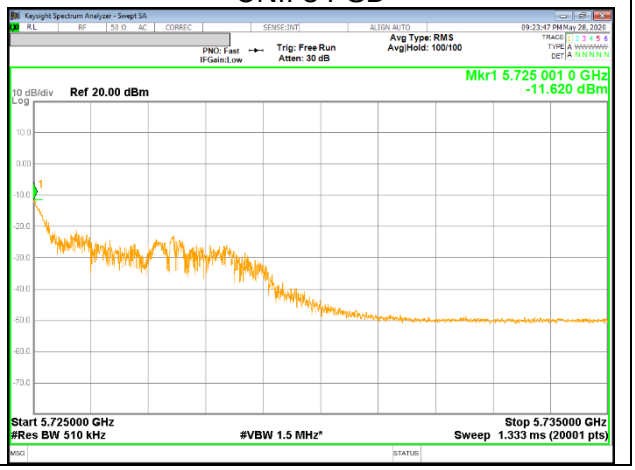
	

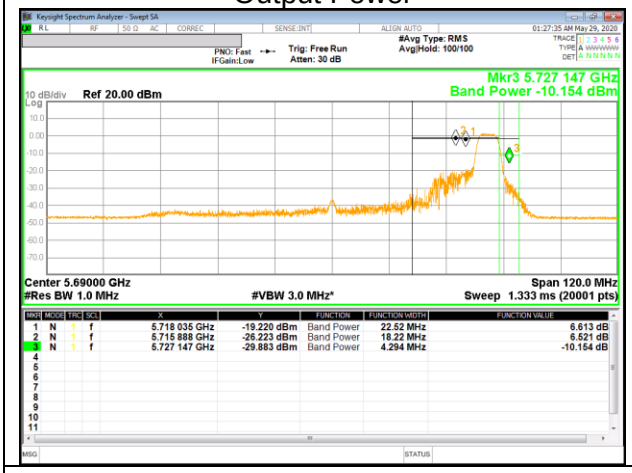
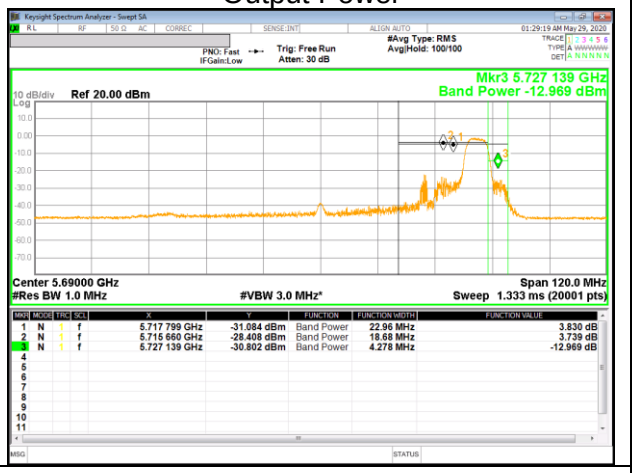
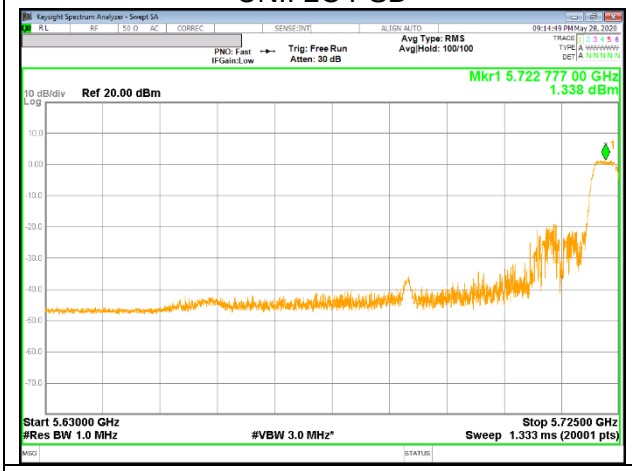
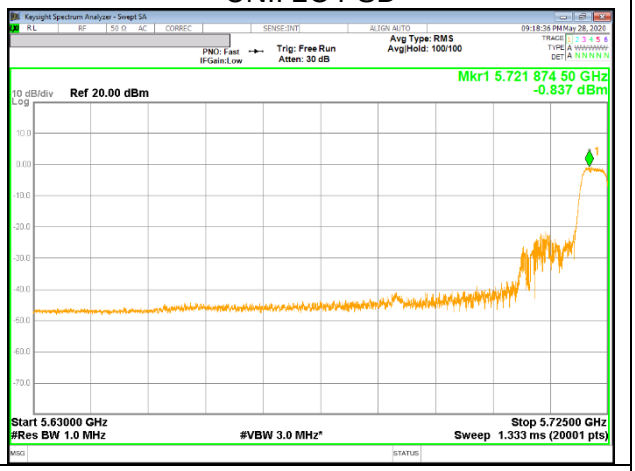
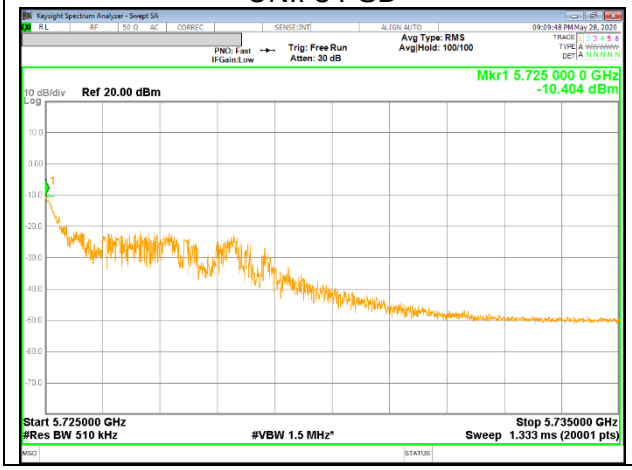
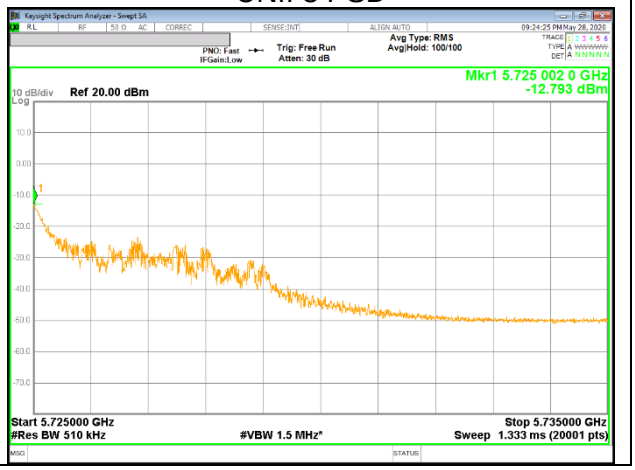
UNII Straddle Ch. IEEE 802.11ax HE20(39RU) MIMO mode Output Power and PSD

ANT1	ANT2
Output Power	Output Power
	
UNII 2C PSD	UNII 2C PSD
	
UNII 3 PSD	UNII 3 PSD
	

UNII Straddle Ch. IEEE 802.11ax HE40(43RU) MIMO mode Output Power and PSD

ANT1	ANT2
Output Power	Output Power
	
UNII 2C PSD	UNII 2C PSD
	
UNII 3 PSD	UNII 3 PSD
	

UNII Straddle Ch. IEEE 802.11ax HE80(51RU) MIMO mode Output Power and PSD

ANT1	ANT2
Output Power	Output Power
	
UNII 2C PSD	UNII 2C PSD
	
UNII 3 PSD	UNII 3 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 in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

(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[dBuV/m] = EIRP[dBm] + 95.2 = -27dBm + 95.2 = 68.2dBuV/m

E[dBuV/m] = EIRP[dBm] + 95.2 = -17dBm + 95.2 = 78.2dBuV/m

UL Korea, Ltd. Suwon Laboratory FORM ID: FCC_15E(04)
218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

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.

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 are 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.

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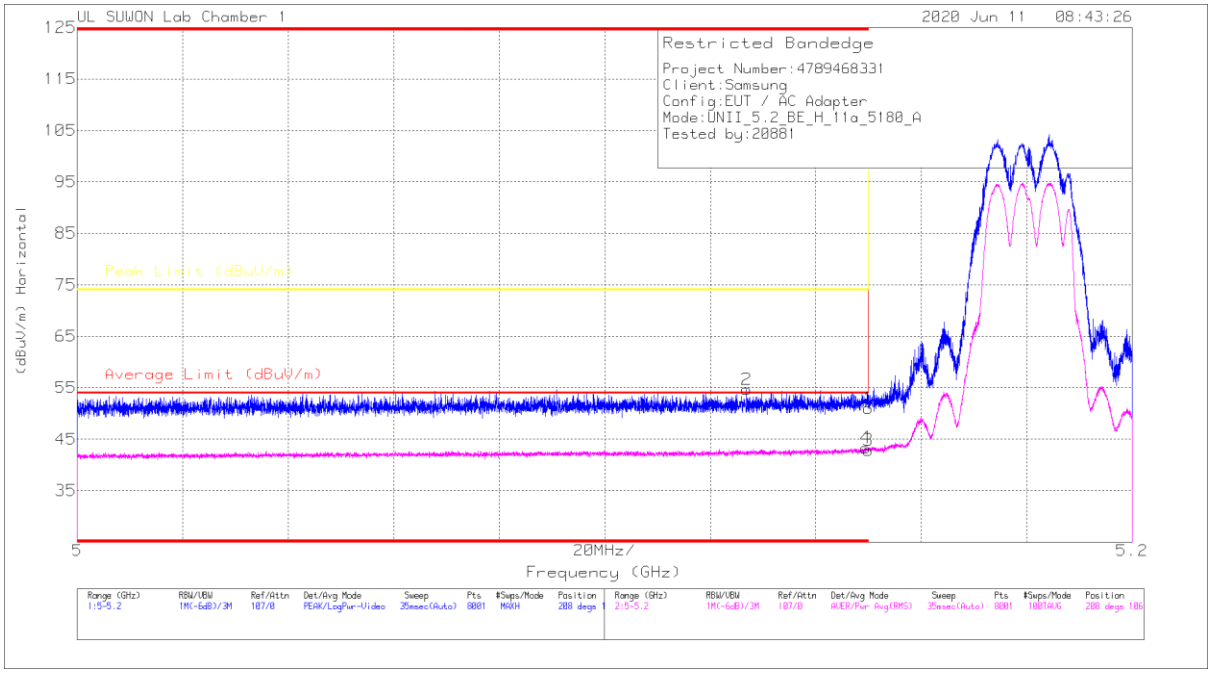
11.1. 5.2 GHz

11.1.1. TX ABOVE 1GHz 802.11a 2Tx MODE IN THE 5.2GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE DATA

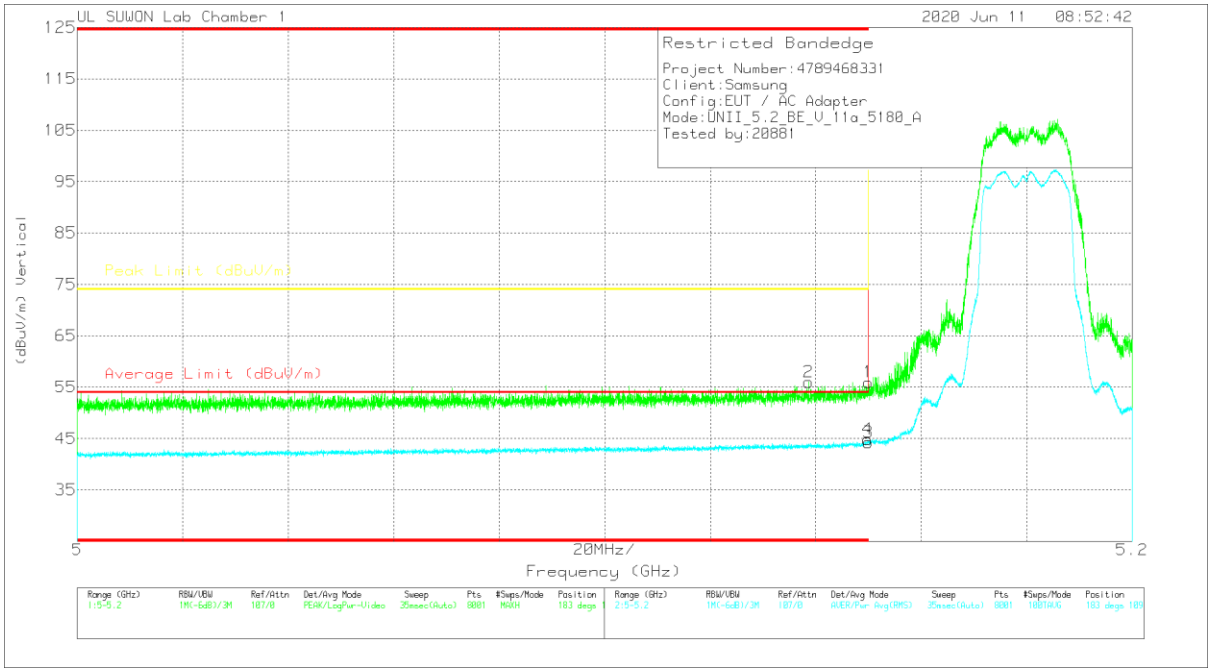


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.15	38.29	Pk	34.5	-21.8	0	50.99	-	-	74	-23.01	208	106	H
2	* 5.1269	41.97	Pk	34.4	-21.7	0	54.67	-	-	74	-19.33	208	106	H
3	5.15	30	RMS	34.5	-21.8	.15	42.85	54	-11.15	-	-	208	106	H
4	* 5.14948	30.59	RMS	34.4	-21.8	.15	43.34	54	-10.66	-	-	208	106	H

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

VERTICAL PEAK AND AVERAGE DATA



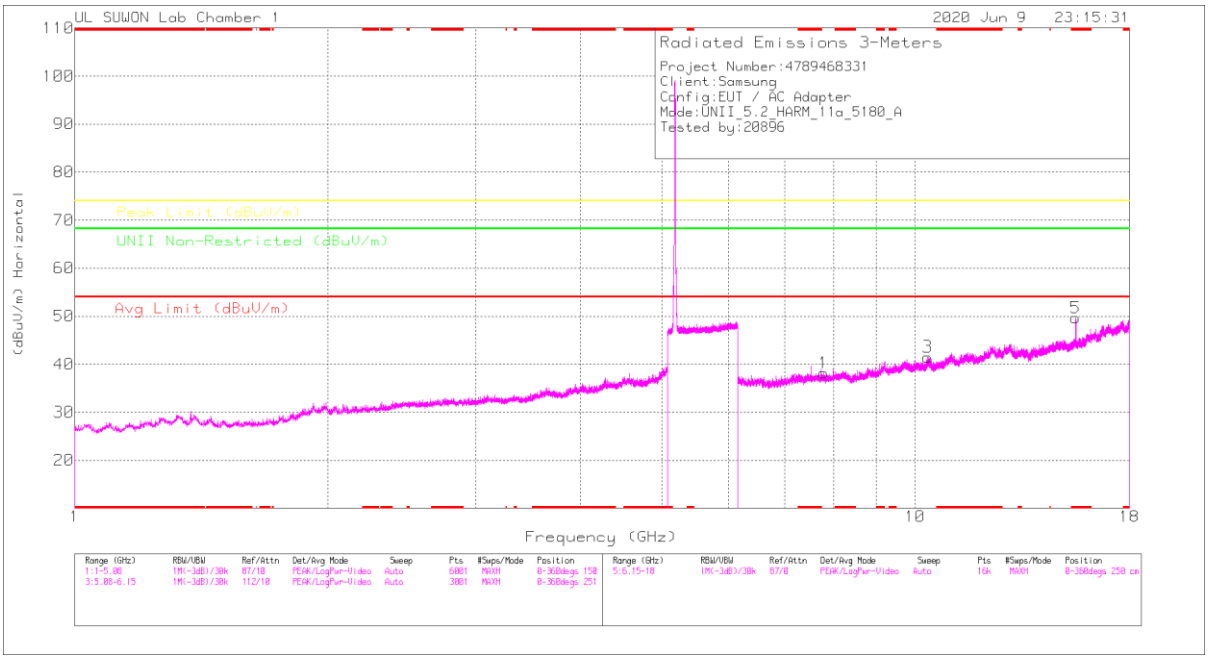
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.15	43.27	Pk	34.5	-21.8	0	55.97	-	-	74	-18.03	183	109	V
2	* 5.13863	43.28	Pk	34.4	-21.7	0	55.98	-	-	74	-18.02	183	109	V
3	5.15	31.41	RMS	34.5	-21.8	.15	44.26	54	-9.74	-	-	183	109	V
4	* 5.14988	32.1	RMS	34.4	-21.8	.15	44.85	54	-9.15	-	-	183	109	V

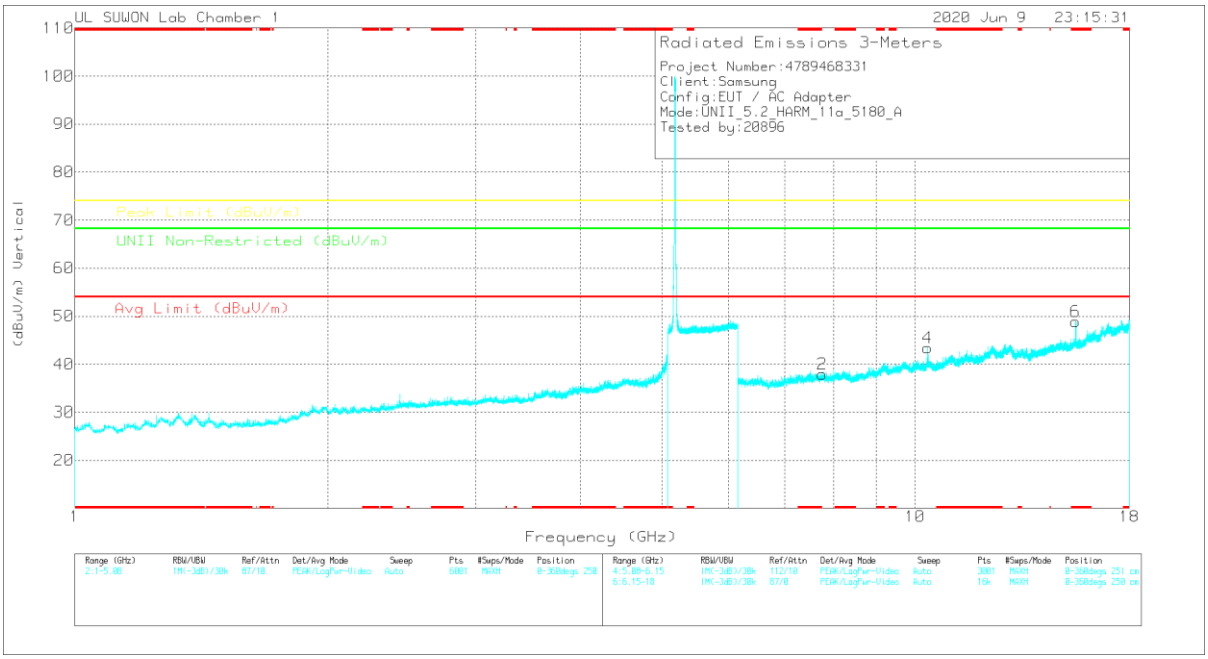
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL 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.

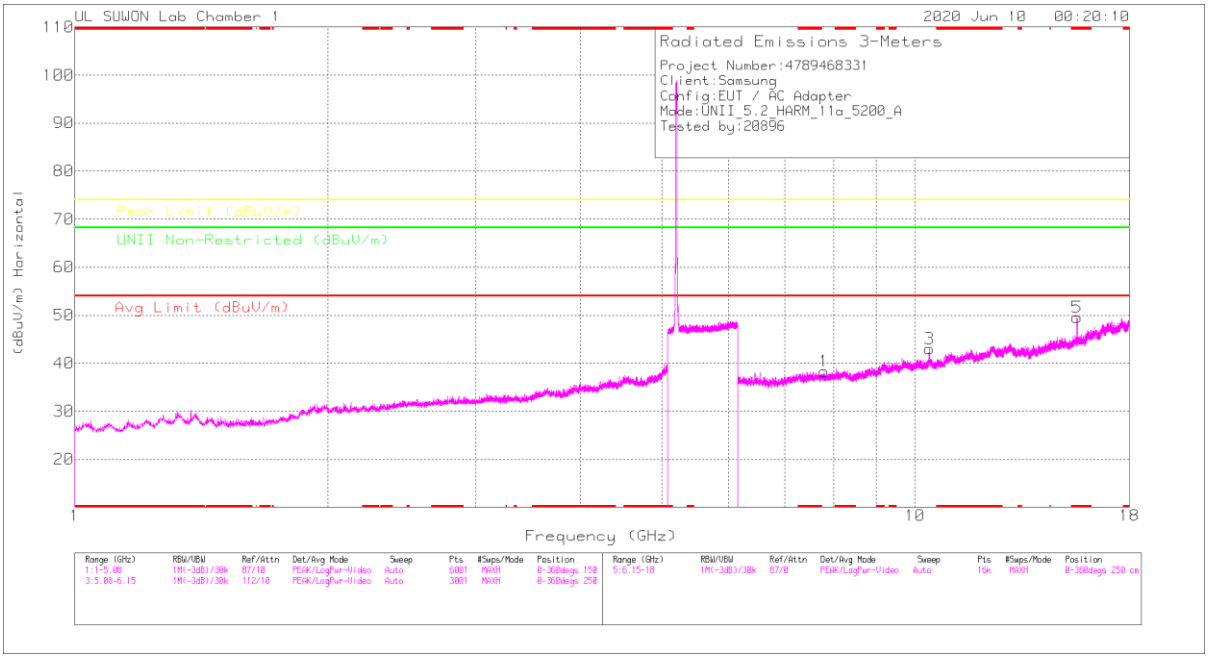
LOW CHANNEL DATA

Radiated Emissions

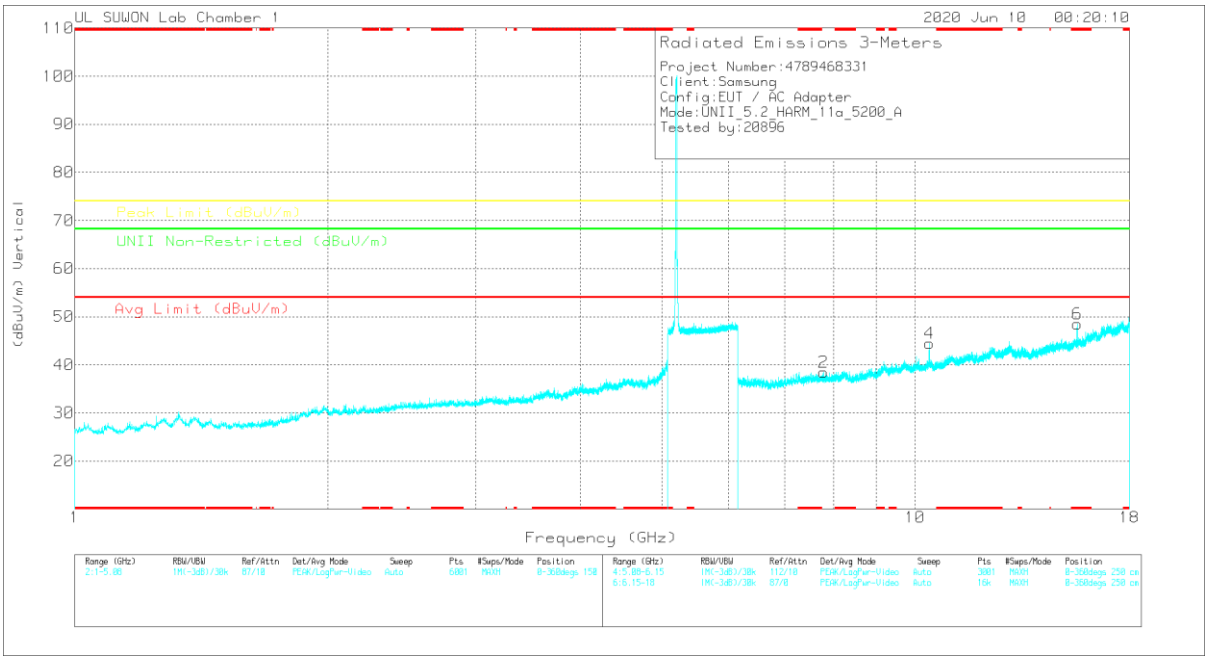
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	6GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.78329	38.62	PK-U	35.9	-26.6	0	47.92	-	-	-	-	68.2	-20.28	360	100	H
7.78371	39	PK-U	35.9	-26.6	0	48.3	-	-	-	-	68.2	-19.9	360	100	V
10.35989	38.98	PK-U	37.6	-22.3	0	54.28	-	-	-	-	68.2	-13.92	123	378	H
10.35493	42.92	PK-U	37.6	-22.3	0	58.22	-	-	-	-	68.2	-9.98	190	102	V
* 15.53433	43.49	PK-U	40.2	-21	0	62.69	-	-	74	-11.31	-	-	189	100	V
* 15.5396	29.11	ADR	40.2	-20.9	.15	48.56	54	-5.44	-	-	-	-	189	100	V
* 15.54474	43.28	PK-U	40.2	-21	0	62.48	-	-	74	-11.52	-	-	124	108	H
* 15.53962	29.14	ADR	40.2	-20.9	.15	48.59	54	-5.41	-	-	-	-	124	108	H

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

MID CHANNEL HORIZONTAL



MID CHANNEL 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.

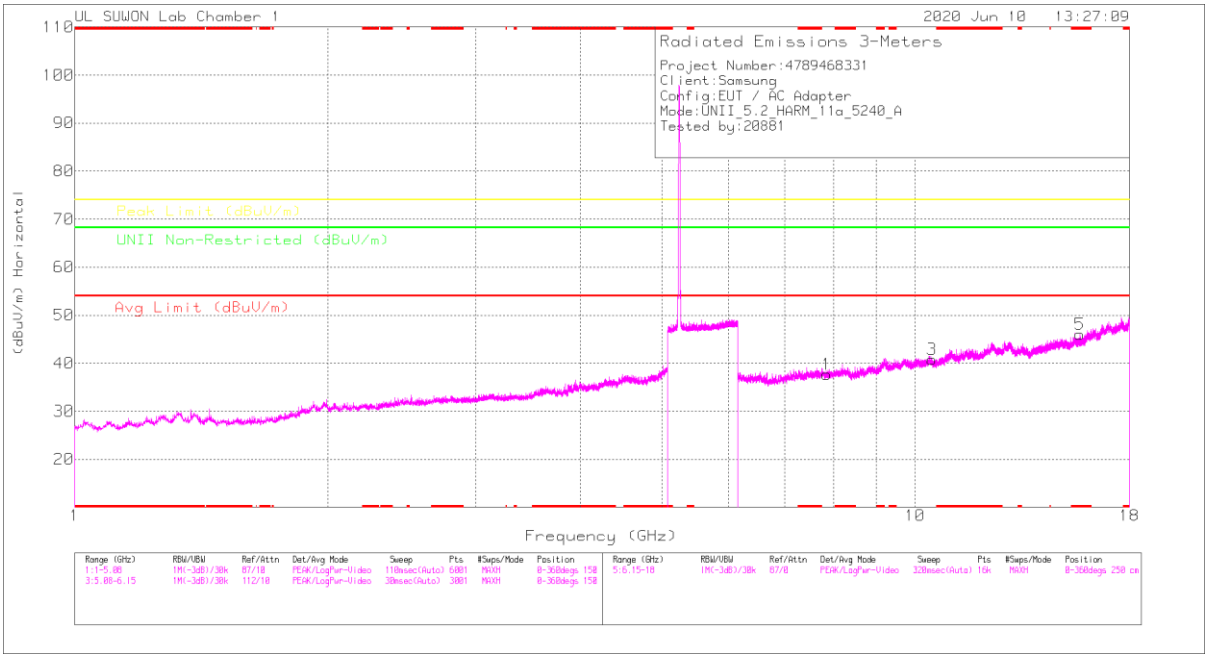
MID CHANNEL DATA

Radiated Emissions

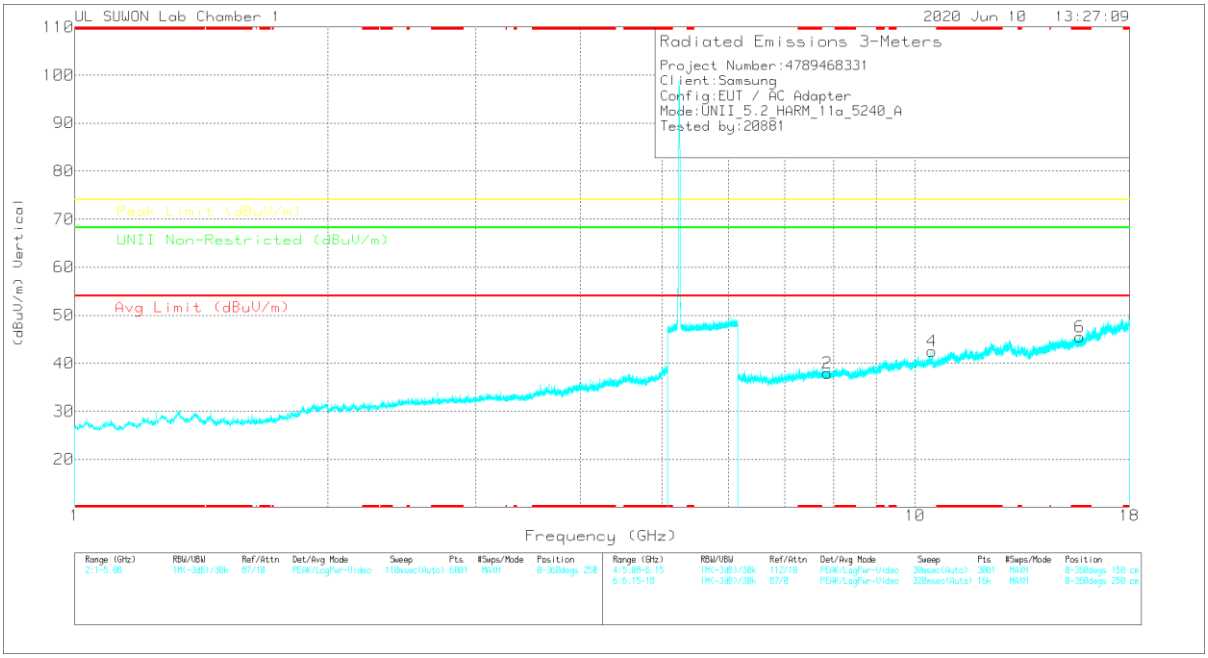
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	6GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.79342	38.74	PK-U	35.9	-26.7	0	47.94	-	-	-	-	68.2	-20.26	0	100	H
7.79169	38.33	PK-U	35.9	-26.7	0	47.53	-	-	-	-	68.2	-20.67	0	100	V
10.40516	42.57	PK-U	37.6	-21.6	0	58.57	-	-	-	-	68.2	-9.63	192	105	V
10.4054	39.96	PK-U	37.6	-21.6	0	55.96	-	-	-	-	68.2	-12.24	242	349	H
* 15.5942	41.25	PK-U	40.2	-21.5	0	59.95	-	-	74	-14.05	-	-	119	100	H
* 15.59916	26.86	ADR	40.2	-21.3	.15	45.91	54	-8.09	-	-	-	-	119	100	H
* 15.59392	45.24	PK-U	40.2	-21.4	0	64.04	-	-	74	-9.96	-	-	208	100	V
* 15.59906	29.41	ADR	40.2	-21.3	.15	48.46	54	-5.54	-	-	-	-	208	100	V

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

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL 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.

HIGH CHANNEL DATA

Radiated Emissions

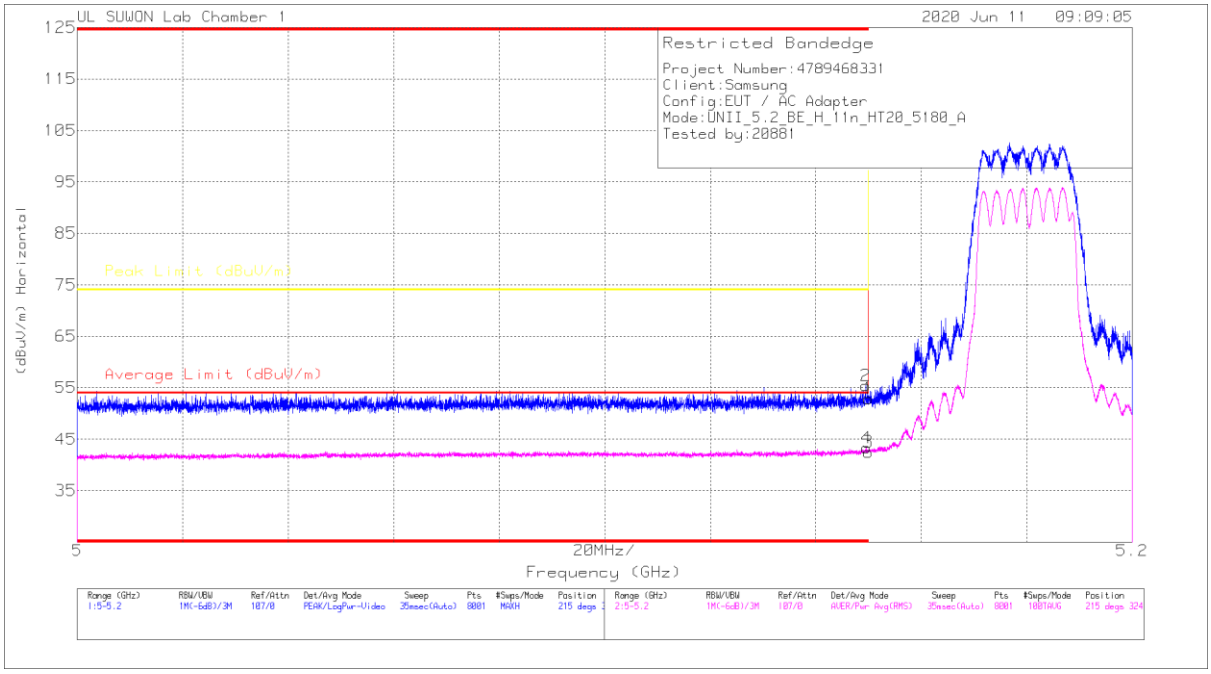
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	6GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.85767	39.36	PK-U	35.9	-26.8	0	48.46	-	-	-	-	68.2	-19.74	360	100	H
7.85825	39.59	PK-U	35.9	-26.8	0	48.69	-	-	-	-	68.2	-19.51	360	100	V
10.47939	39.46	PK-U	37.7	-22.4	0	54.76	-	-	-	-	68.2	-13.44	252	367	H
10.46975	41.13	PK-U	37.7	-22.3	0	56.53	-	-	-	-	68.2	-11.67	190	100	V
* 15.71418	41.17	PK-U	40.4	-21.2	0	60.37	-	-	74	-13.63	-	-	124	105	H
* 15.71954	26.86	ADR	40.4	-21.2	.15	46.21	54	-7.79	-	-	-	-	124	105	H
* 15.71926	46.69	PK-U	40.4	-21.2	0	65.89	-	-	74	-8.11	-	-	209	100	V
* 15.71956	29.51	ADR	40.4	-21.2	.15	48.86	54	-5.14	-	-	-	-	209	100	V

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

11.1.2. TX ABOVE 1GHz 802.11n HT20 2Tx MODE IN THE 5.2GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE DATA

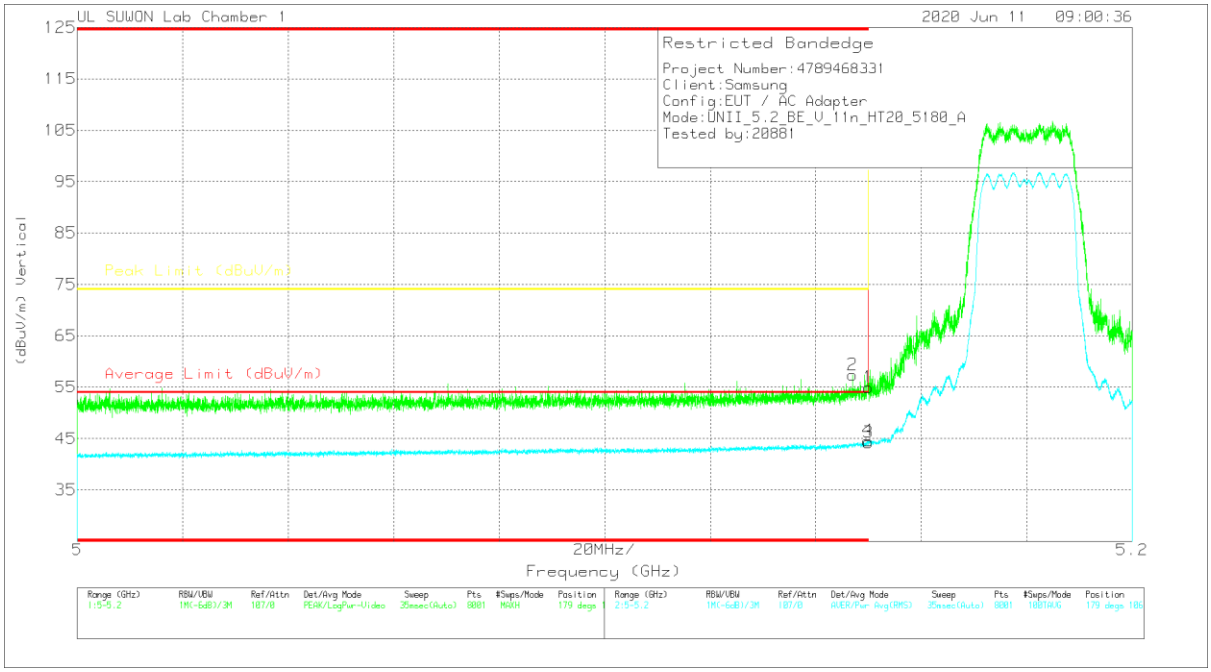


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.15	40.17	Pk	34.5	-21.8	0	52.87	-	-	74	-21.13	215	324	H
2	* 5.14945	42.79	Pk	34.4	-21.8	0	55.39	-	-	74	-18.61	215	324	H
3	5.15	29.8	RMS	34.5	-21.8	0	42.5	54	-11.5	-	-	215	324	H
4	* 5.14958	30.7	RMS	34.4	-21.8	0	43.3	54	-10.7	-	-	215	324	H

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

VERTICAL PEAK AND AVERAGE DATA



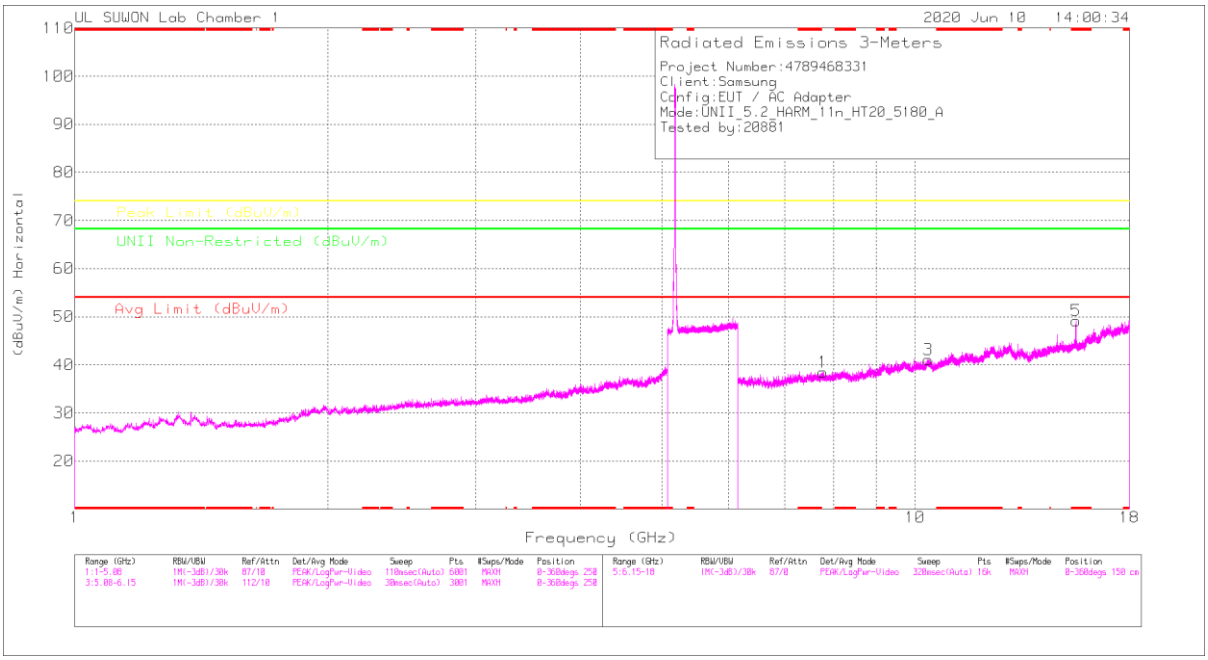
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.15	42.29	Pk	34.5	-21.8	0	54.99	-	-	74	-19.01	179	106	V
2	* 5.147	44.79	Pk	34.4	-21.8	0	57.39	-	-	74	-16.61	179	106	V
3	5.15	31.55	RMS	34.5	-21.8	0	44.25	54	-9.75	-	-	179	106	V
4	* 5.1499	31.99	RMS	34.4	-21.8	0	44.59	54	-9.41	-	-	179	106	V

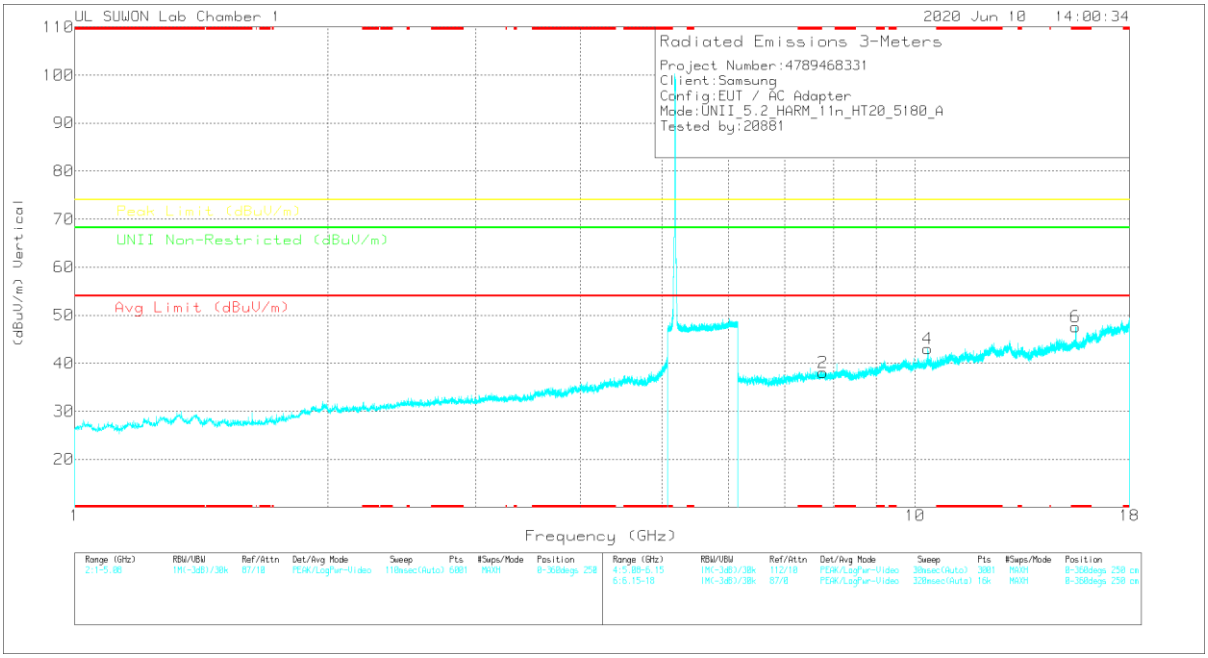
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL 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.

LOW CHANNEL DATA

Radiated Emissions

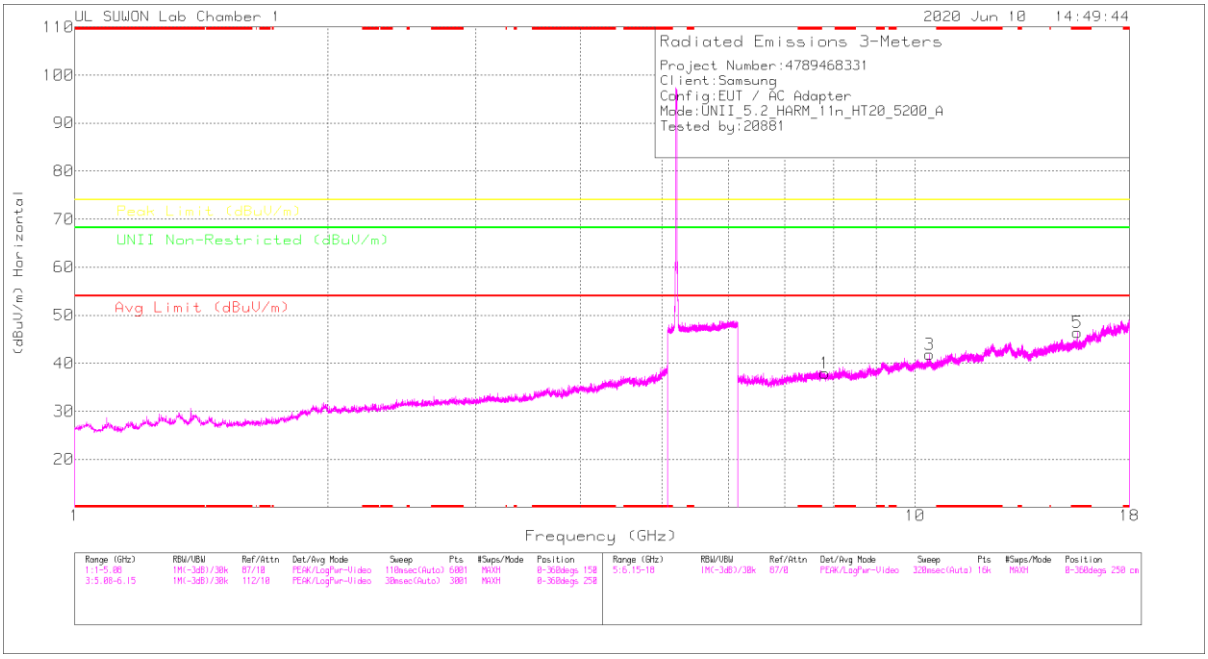
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	6GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degic)	Height (cm)	Polarity
7.77099	38.63	PK-U	35.9	-26.7	0	47.83	-	-	-	-	68.2	-20.37	360	100	H
7.77219	38.58	PK-U	35.9	-26.7	0	47.78	-	-	-	-	68.2	-20.42	360	100	V
10.35774	43.46	PK-U	37.6	-22.3	0	58.76	-	-	-	-	68.2	-9.44	184	102	V
10.35742	39.82	PK-U	37.6	-22.3	0	55.12	-	-	-	-	68.2	-13.08	247	356	H
* 15.5473	42.52	PK-U	40.2	-21	0	61.72	-	-	74	-12.28	-	-	123	100	H
* 15.53972	27.82	ADR	40.2	-20.9	0	47.12	54	-6.88	-	-	-	-	123	100	H
* 15.54716	45.71	PK-U	40.2	-21	0	64.91	-	-	74	-9.09	-	-	126	108	V
* 15.5422	30.16	ADR	40.2	-20.9	0	49.46	54	-4.54	-	-	-	-	126	108	V

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

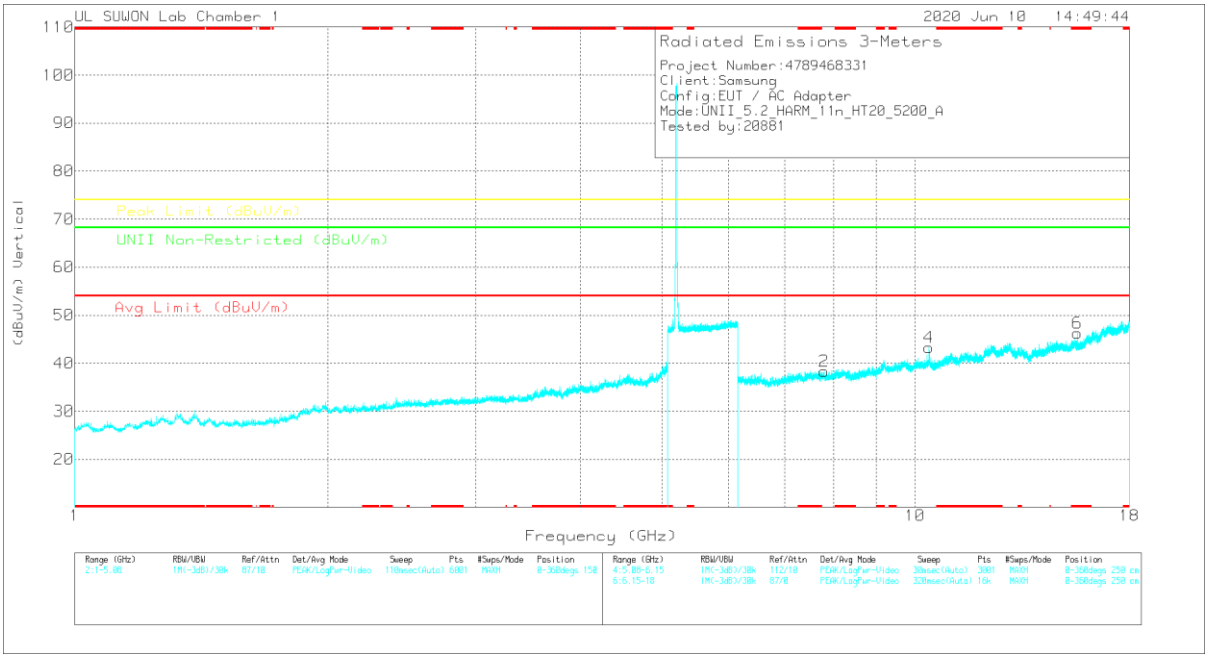
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

MID CHANNEL HORIZONTAL



MID CHANNEL 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.

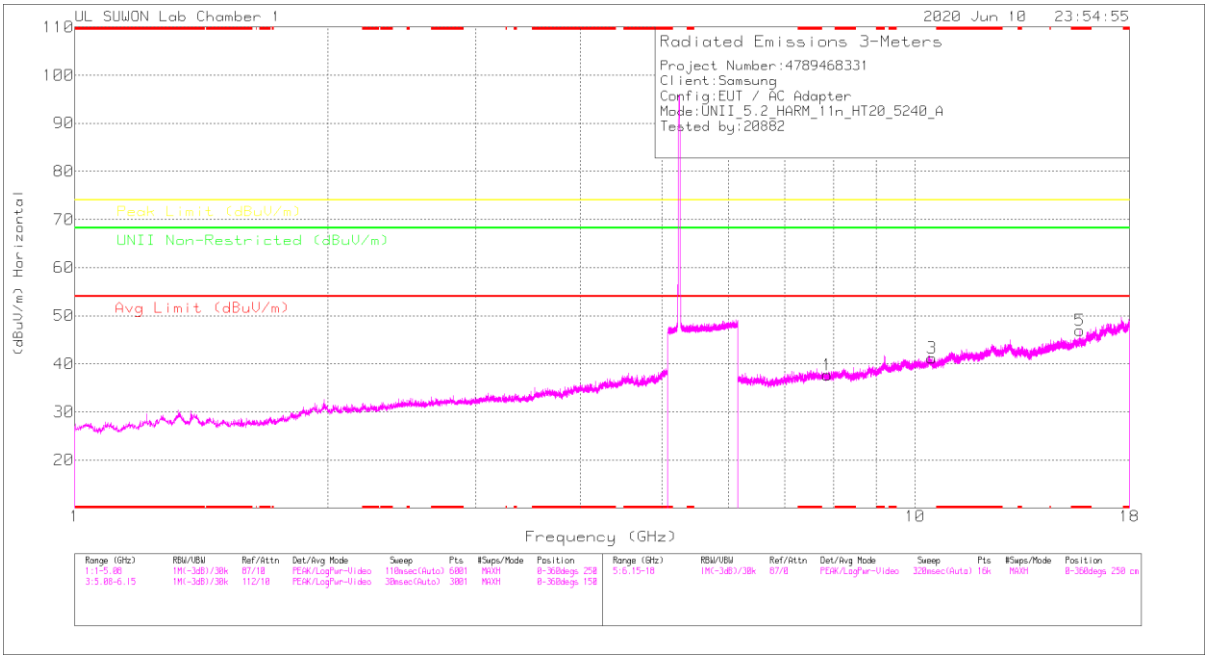
MID CHANNEL DATA

Radiated Emissions

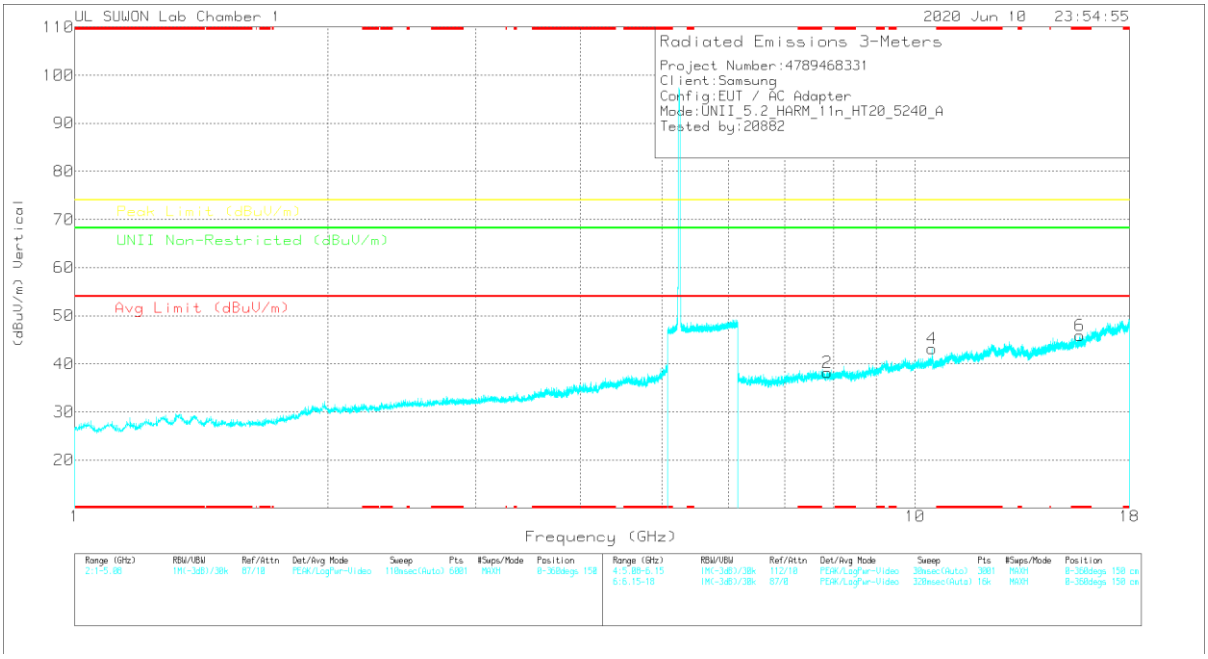
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	6GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.80636	38.47	PK-U	35.9	-26.5	0	47.87	-	-	-	-	68.2	-20.33	0	100	H
7.80874	38.58	PK-U	35.9	-26.6	0	47.88	-	-	-	-	68.2	-20.32	0	100	V
10.39991	38.59	PK-U	37.6	-21.6	0	54.59	-	-	-	-	68.2	-13.61	102	394	H
10.40231	41.57	PK-U	37.6	-21.6	0	57.57	-	-	-	-	68.2	-10.63	192	101	V
* 15.60186	42.18	PK-U	40.2	-21.4	0	60.98	-	-	74	-13.02	-	-	124	108	H
* 15.60196	27.65	ADR	40.2	-21.3	0	46.55	54	-7.45	-	-	-	-	124	108	H
* 15.60718	46.2	PK-U	40.2	-21.1	0	65.3	-	-	74	-8.7	-	-	208	102	V
* 15.59958	30.62	ADR	40.2	-21.3	0	49.52	54	-4.48	-	-	-	-	208	102	V

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

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL 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.

HIGH CHANNEL DATA

Radiated Emissions

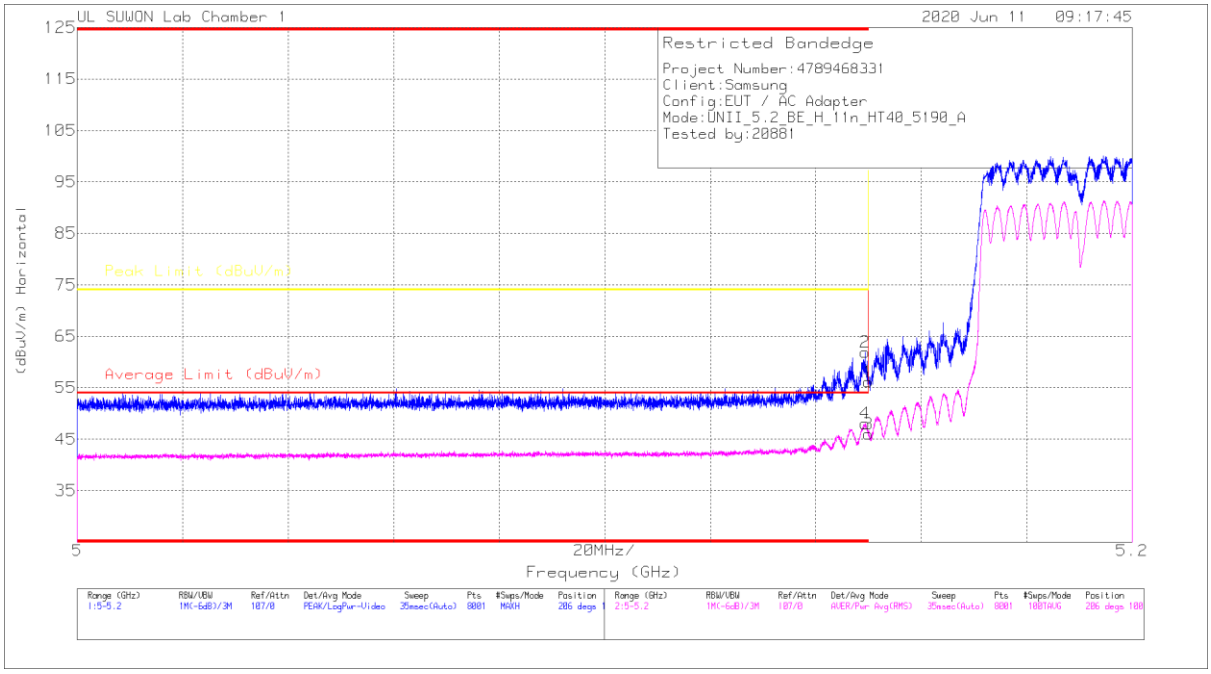
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	6GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.86383	38.79	PK-U	35.9	-26.7	0	47.99	-	-	-	-	68.2	-20.21	0	100	H
7.86054	38.95	PK-U	35.9	-26.8	0	48.05	-	-	-	-	68.2	-20.15	0	100	V
10.48011	38.44	PK-U	37.7	-22.4	0	53.74	-	-	-	-	68.2	-14.46	105	387	H
10.48273	40.95	PK-U	37.7	-22.4	0	56.25	-	-	-	-	68.2	-11.95	190	100	V
* 15.72147	36.59	PK-U	40.4	-21.1	0	55.89	-	-	74	-18.11	-	-	0	100	H
* 15.71935	36.46	PK-U	40.4	-21.2	0	55.66	-	-	74	-18.34	-	-	0	100	V

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

11.1.3. TX ABOVE 1GHz 802.11n HT40 2Tx MODE IN THE 5.2GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE DATA

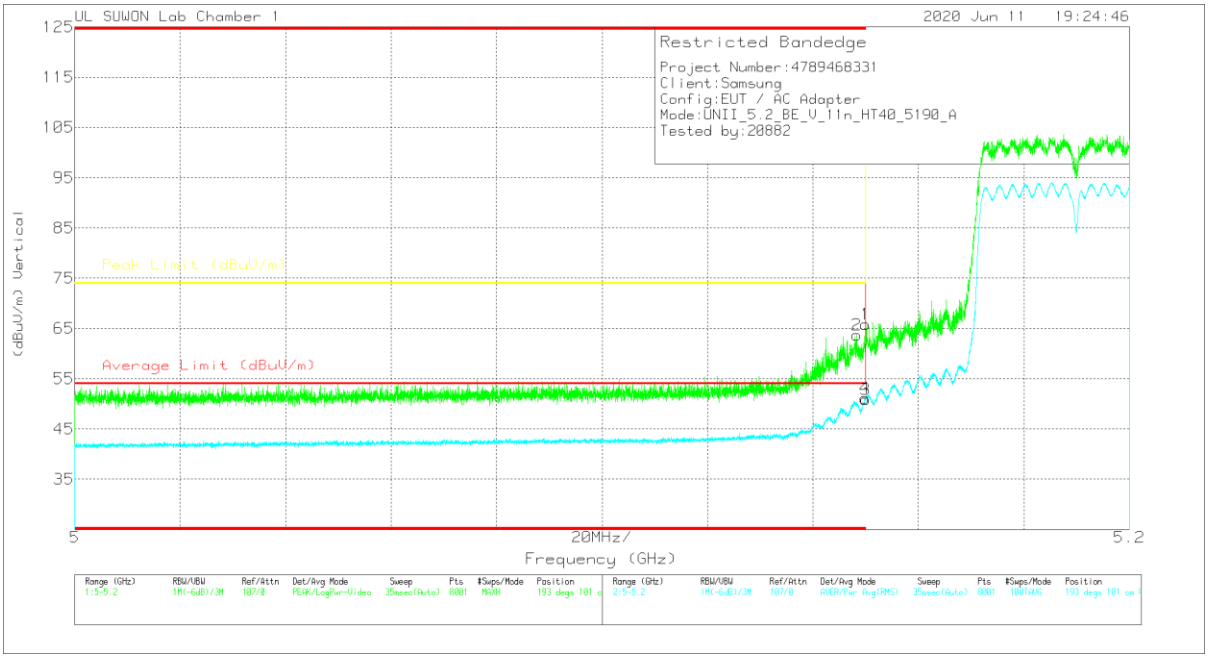


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.15	43.44	Pk	34.5	-21.8	0	56.14	-	-	74	-17.86	206	100	H
2	* 5.14938	49.29	Pk	34.4	-21.8	0	61.89	-	-	74	-12.11	206	100	H
3	5.15	33.16	RMS	34.5	-21.8	.12	45.98	54	-8.02	-	-	206	100	H
4	* 5.1494	35.33	RMS	34.4	-21.8	.12	48.05	54	-5.95	-	-	206	100	H

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

VERTICAL PEAK AND AVERAGE DATA



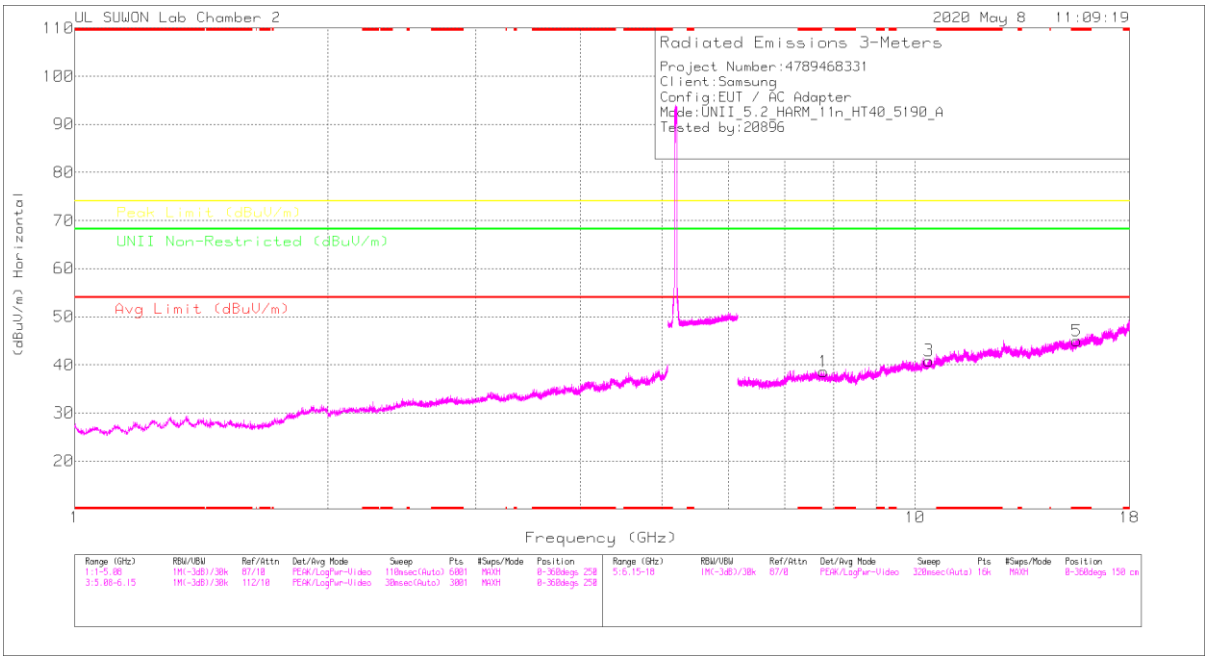
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.15	53.08	Pk	34.5	-21.8	0	65.78	-	-	74	-8.22	193	101	V
2	* 5.14835	51.22	Pk	34.4	-21.9	0	63.72	-	-	74	-10.28	193	101	V
3	5.15	38.06	RMS	34.5	-21.8	.12	50.88	54	-3.12	-	-	193	101	V
4	* 5.14983	38.4	RMS	34.4	-21.8	.12	51.12	54	-2.88	-	-	193	101	V

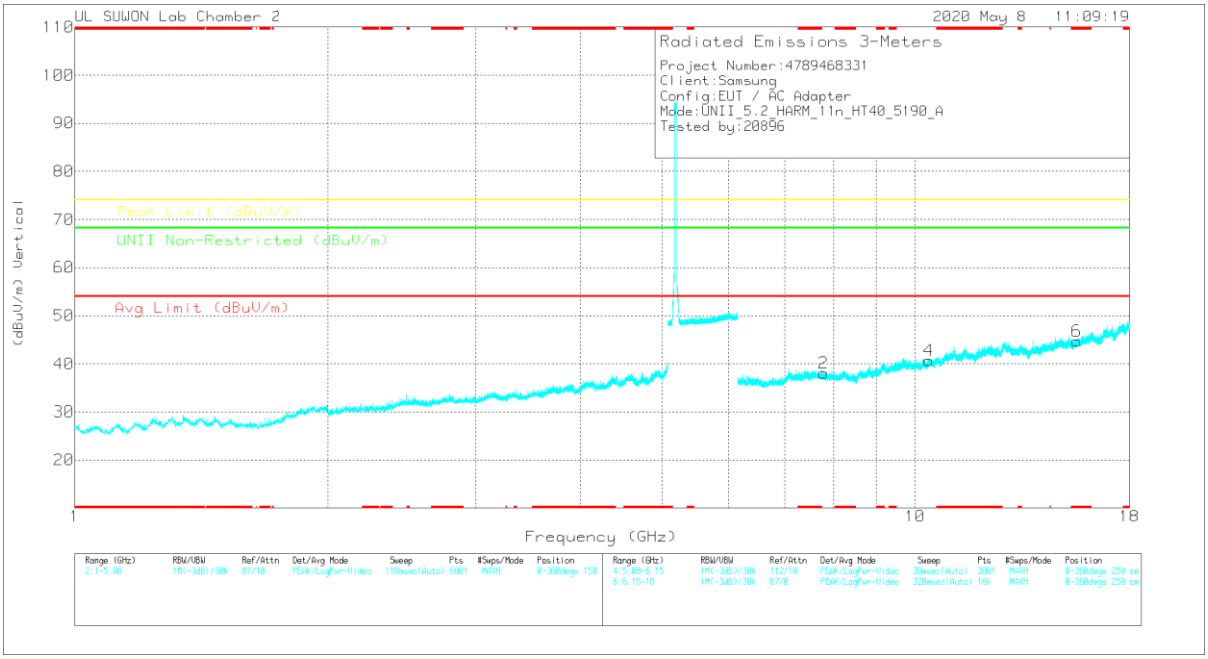
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL 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.

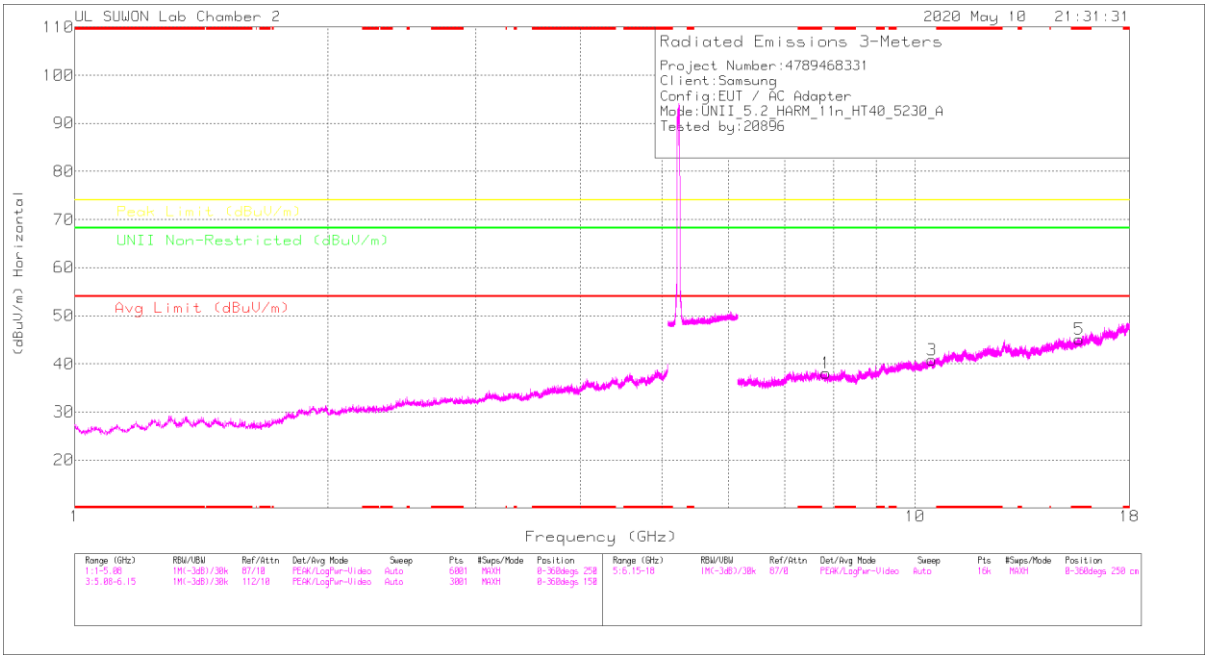
LOW CHANNEL DATA

Radiated Emissions

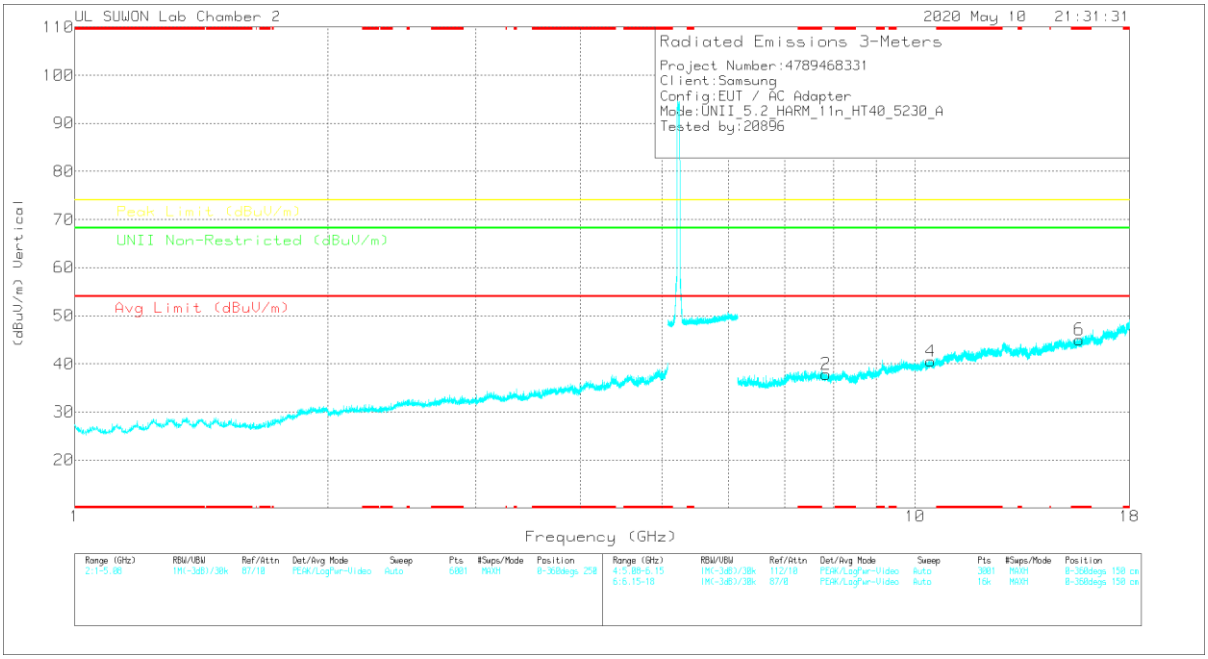
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	6GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.78215	35.96	PK-U	36	-23.6	0	48.36	-	-	-	-	68.2	-19.84	360	100	H
7.78402	36.21	PK-U	36	-23.6	0	48.61	-	-	-	-	68.2	-19.59	360	100	V
10.37962	33.81	PK-U	37.6	-20.8	0	50.61	-	-	-	-	68.2	-17.59	360	100	H
10.3825	33.34	PK-U	37.6	-20.8	0	50.14	-	-	-	-	68.2	-18.06	360	100	V
* 15.57616	34.44	PK-U	40	-19.6	0	54.84	-	-	74	-19.16	-	-	360	100	H
* 15.57448	34.84	PK-U	40	-19.6	0	55.24	-	-	74	-18.76	-	-	360	100	V

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

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL 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.

HIGH CHANNEL DATA

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	6GHz_HP[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
7.83511	36.26	PK-U	36	-24.2	0	48.06	-	-	-	-	68.2	-20.14	360	100	H
7.83592	36.39	PK-U	36	-24.2	0	48.19	-	-	-	-	68.2	-20.01	360	100	V
10.47486	33.55	PK-U	37.7	-20.4	0	50.85	-	-	-	-	68.2	-17.35	360	100	H
10.47806	33.73	PK-U	37.7	-20.4	0	51.03	-	-	-	-	68.2	-17.17	360	100	V
* 15.6746	34.6	PK-U	40.1	-19.7	0	55	-	-	74	-19	-	-	360	100	H
* 15.67635	34.63	PK-U	40.1	-19.7	0	55.03	-	-	74	-18.97	-	-	360	100	V

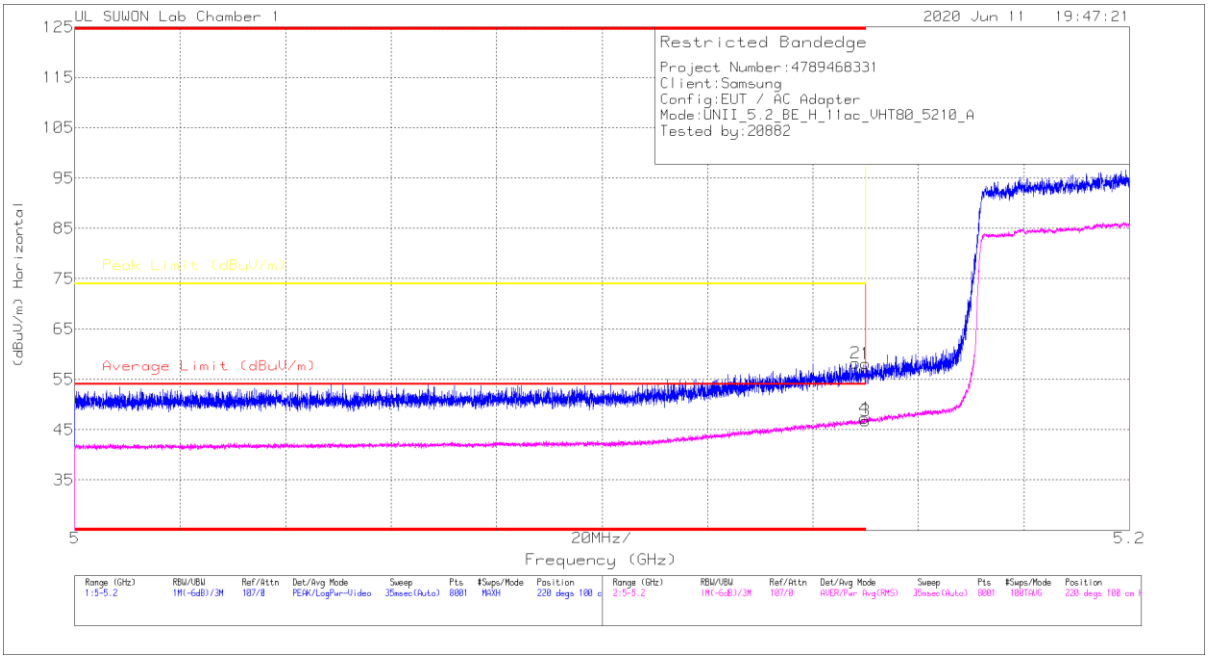
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

11.1.4. TX ABOVE 1GHz 802.11ac VHT80 2Tx MODE IN THE 5.2GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE DATA

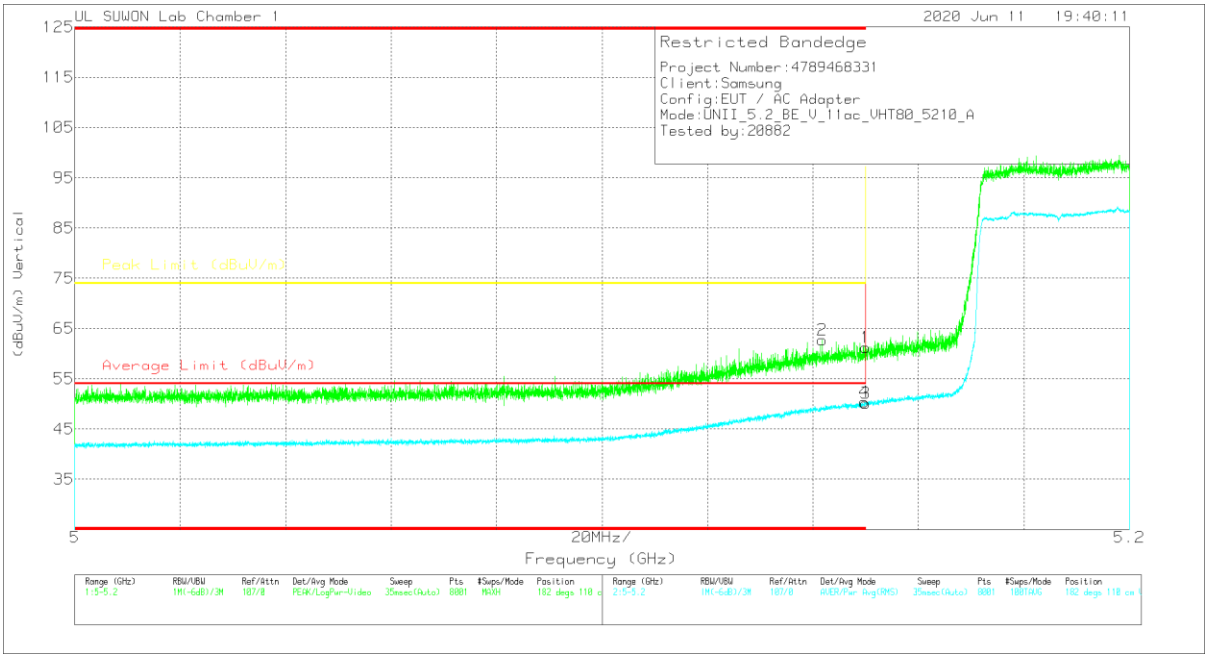


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.15	45.37	Pk	34.5	-21.8	0	58.07	-	-	74	-15.93	220	100	H
2	* 5.14803	45.7	Pk	34.4	-21.9	0	58.2	-	-	74	-15.8	220	100	H
3	5.15	33.91	RMS	34.5	-21.8	.20	46.81	54	-7.19	-	-	220	100	H
4	* 5.14978	34.52	RMS	34.4	-21.8	.20	47.32	54	-6.68	-	-	220	100	H

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

VERTICAL PEAK AND AVERAGE DATA



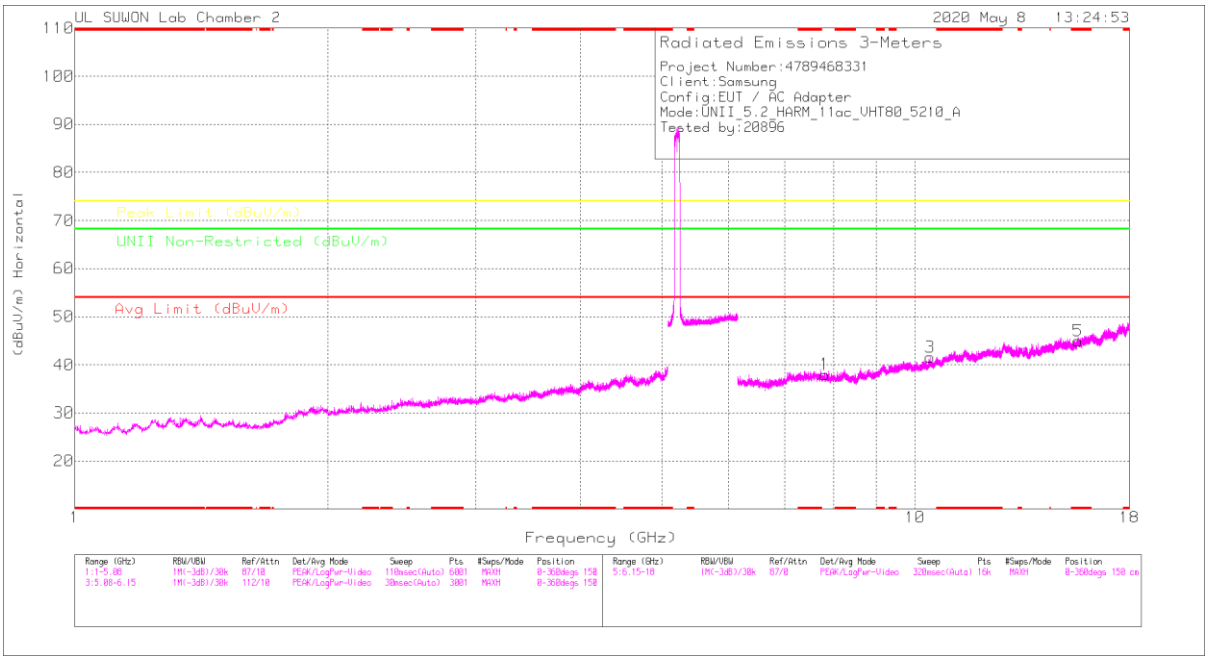
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.15	48.56	Pk	34.5	-21.8	0	61.26	-	-	74	-12.74	182	110	V
2	* 5.14178	50.12	Pk	34.4	-21.8	0	62.72	-	-	74	-11.28	182	110	V
3	5.15	37.18	RMS	34.5	-21.8	.2	50.08	54	-3.92	-	-	182	110	V
4	* 5.14978	37.56	RMS	34.4	-21.8	.2	50.36	54	-3.64	-	-	182	110	V

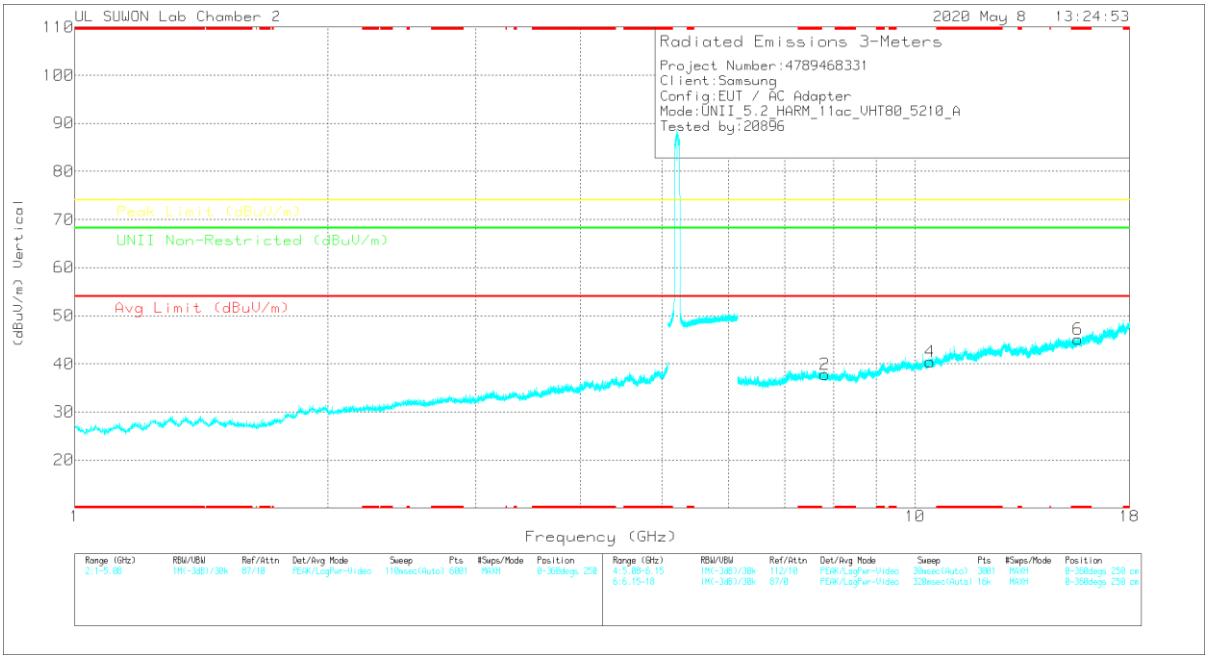
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL HORIZONTAL



MID CHANNEL 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.

MID CHANNEL DATA

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	6GHz_HP[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
7.81555	36.15	PK-U	36	-23.9	0	48.25	-	-	-	-	68.2	-19.95	360	100	H
7.81521	36.03	PK-U	36	-24	0	48.03	-	-	-	-	68.2	-20.17	360	100	V
10.42142	33.79	PK-U	37.6	-20.6	0	50.79	-	-	-	-	68.2	-17.41	360	100	H
10.42419	34.04	PK-U	37.6	-20.6	0	51.04	-	-	-	-	68.2	-17.16	360	100	V
* 15.62255	34.69	PK-U	40.1	-19.6	0	55.19	-	-	74	-18.81	-	-	360	100	H
* 15.62255	25.83	PK-U	40.1	-19.6	0	46.33	-	-	74	-27.67	-	-	360	100	V

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

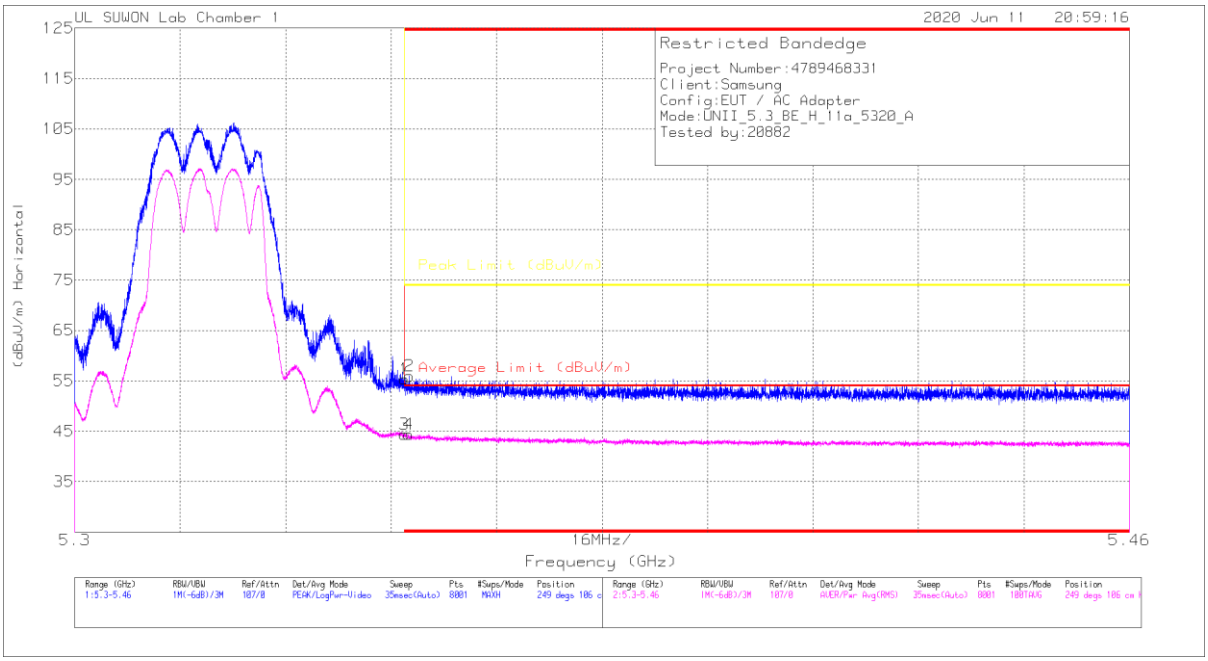
PK-U - U-NII: Maximum Peak

11.2. 5.3 GHz

11.2.1. TX ABOVE 1 GHz 802.11a 2Tx MODE IN THE 5.3 GHz BAND

RESTRICTED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE DATA

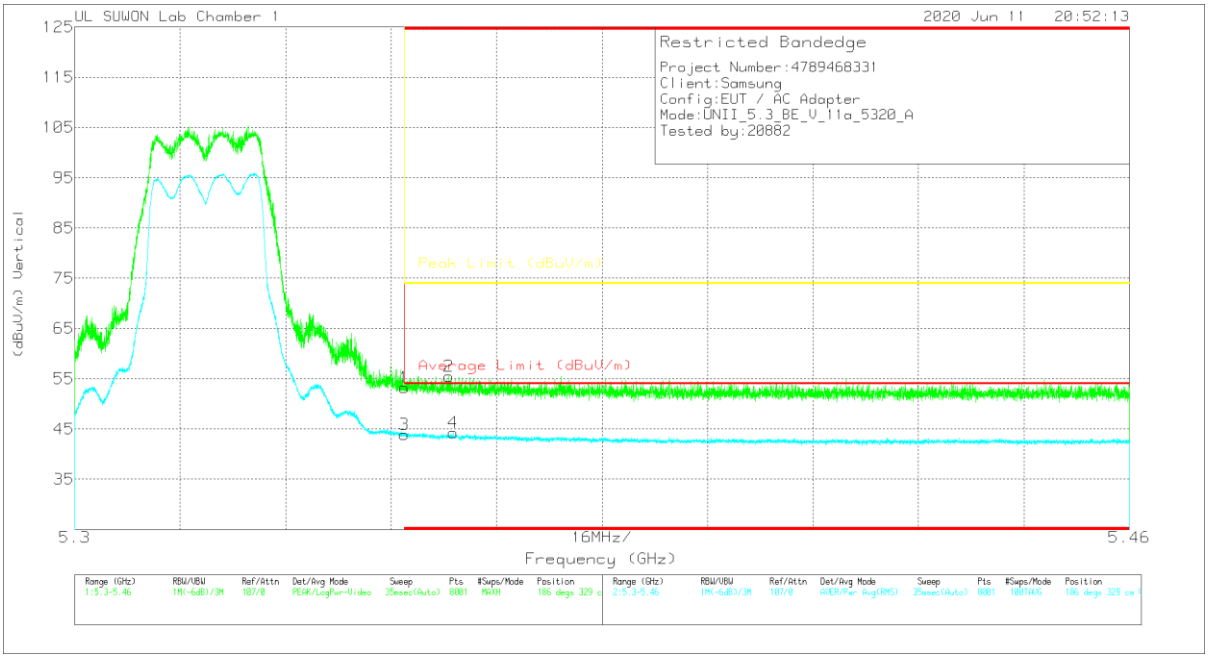


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35002	42.25	Pk	34.7	-21.6	0	55.35	-	-	74	-18.65	249	106	H
2	* 5.35072	42.83	Pk	34.7	-21.6	0	55.93	-	-	74	-18.07	249	106	H
3	* 5.35002	31.11	RMS	34.7	-21.6	.15	44.36	54	-9.64	-	-	249	106	H
4	* 5.35062	31.15	RMS	34.7	-21.6	.15	44.4	54	-9.6	-	-	249	106	H

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

VERTICAL PEAK AND AVERAGE DATA



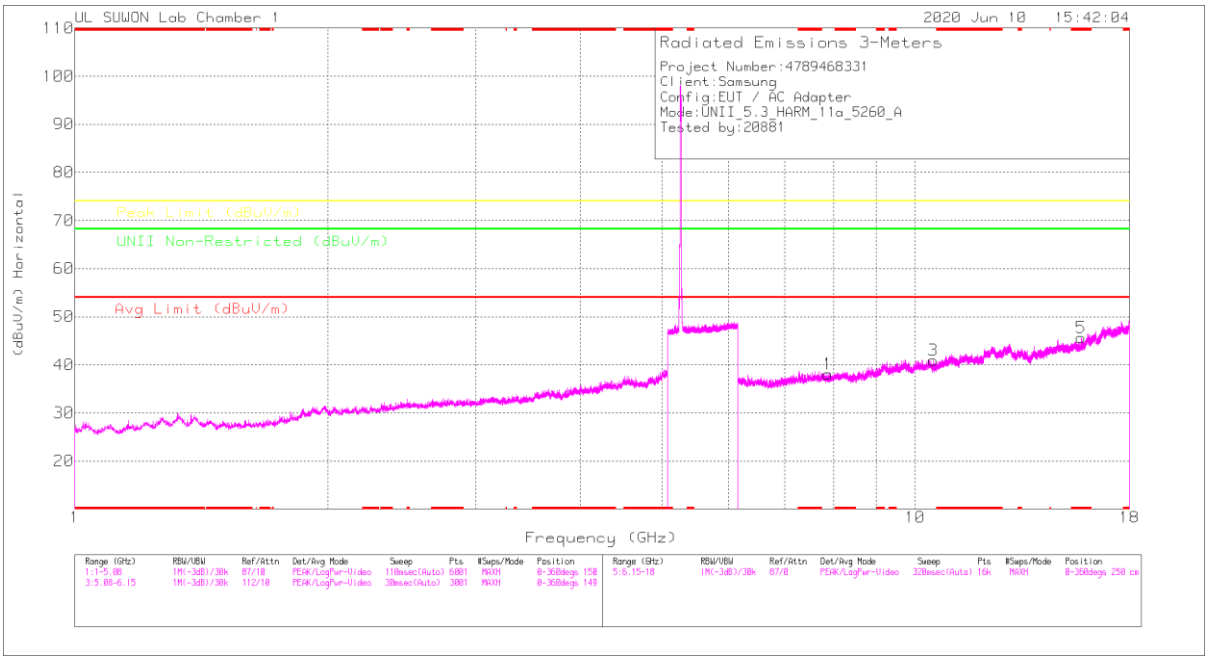
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35002	40.19	Pk	34.7	-21.6	0	53.29	-	-	74	-20.71	186	329	V
2	* 5.35678	42.43	Pk	34.7	-21.6	0	55.53	-	-	74	-18.47	186	329	V
3	* 5.35002	30.6	RMS	34.7	-21.6	.15	43.85	54	-10.15	-	-	186	329	V
4	* 5.3574	30.96	RMS	34.7	-21.5	.15	44.31	54	-9.69	-	-	186	329	V

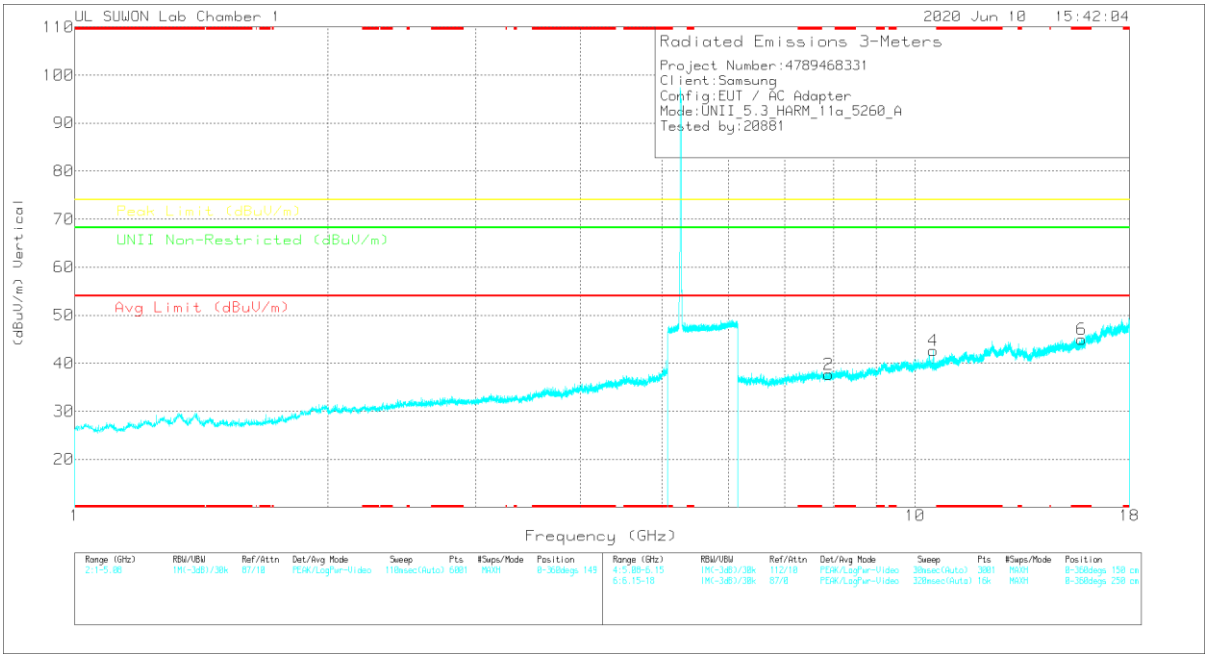
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL 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.

LOW CHANNEL DATA

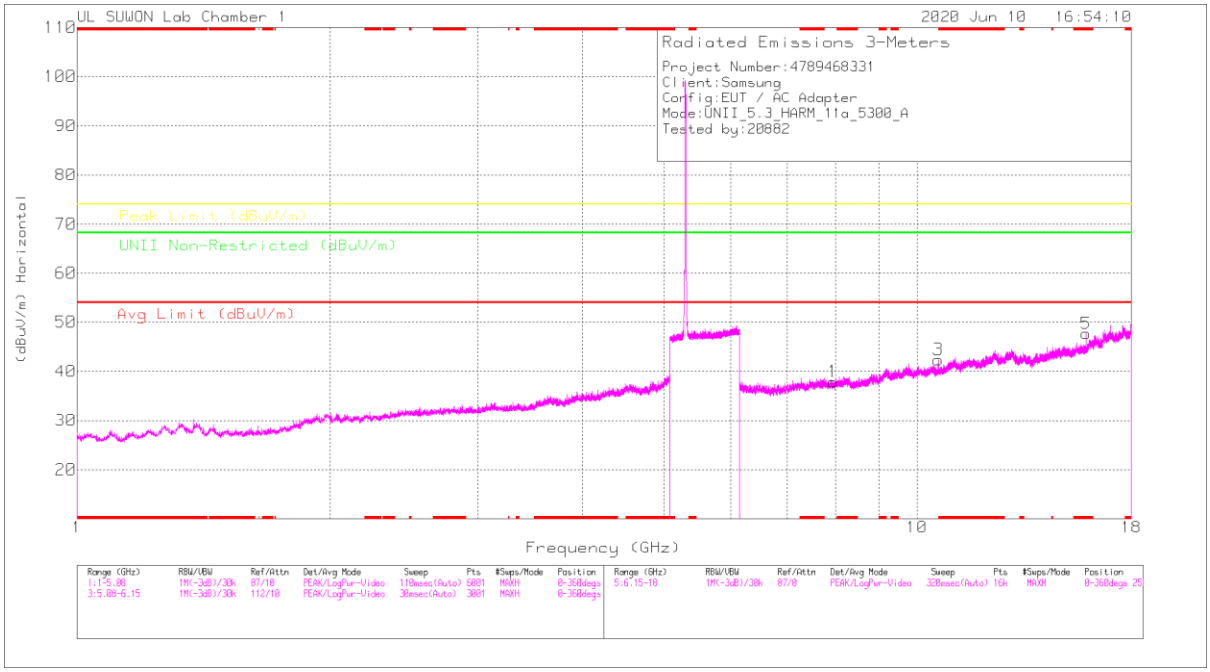
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	6GHz_HP[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
7.88557	38.51	PK-U	36	-26.5	0	48.01	-	-	-	-	68.2	-20.19	360	100	H
7.8855	39.01	PK-U	36	-26.5	0	48.51	-	-	-	-	68.2	-19.69	360	100	V
10.51898	39.71	PK-U	37.7	-22.6	0	54.81	-	-	-	-	68.2	-13.39	107	383	H
10.52586	42.06	PK-U	37.7	-22.7	0	57.06	-	-	-	-	68.2	-11.14	189	102	V
* 15.77731	36.64	PK-U	40.5	-21.2	0	55.94	-	-	74	-18.06	-	-	0	100	H
* 15.77857	36.32	PK-U	40.5	-21.2	0	55.62	-	-	74	-18.38	-	-	0	100	V

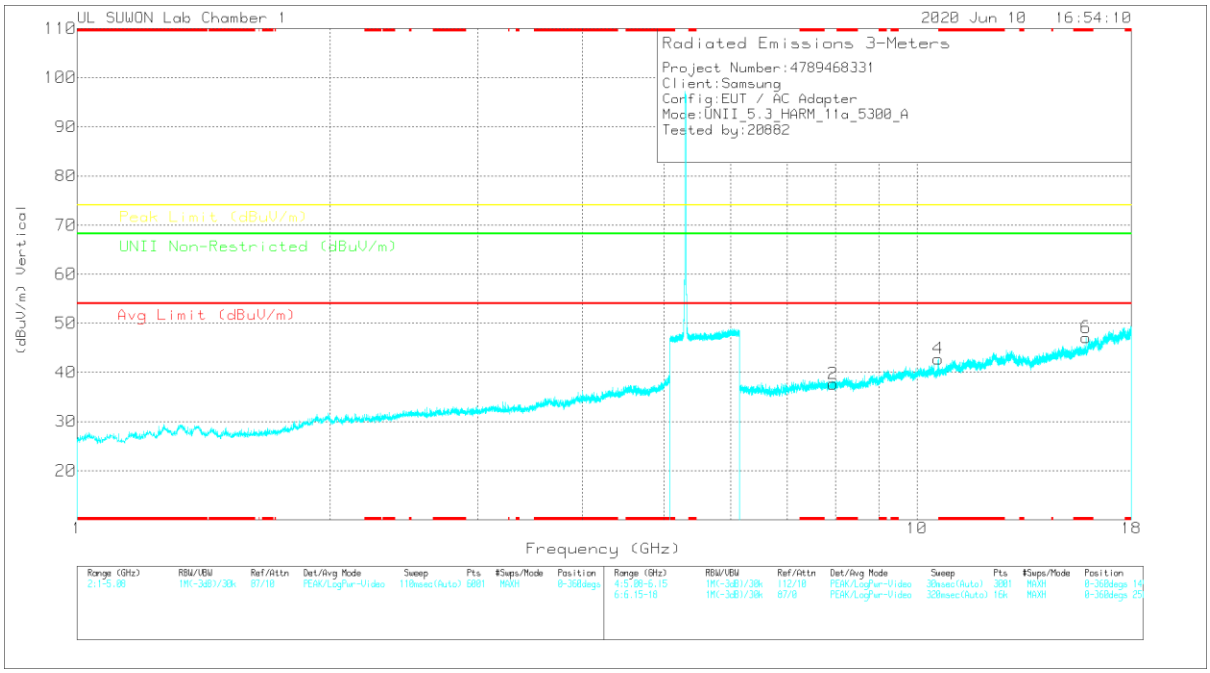
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

MID CHANNEL HORIZONTAL



MID CHANNEL 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.

MID CHANNEL DATA

Radiated Emissions

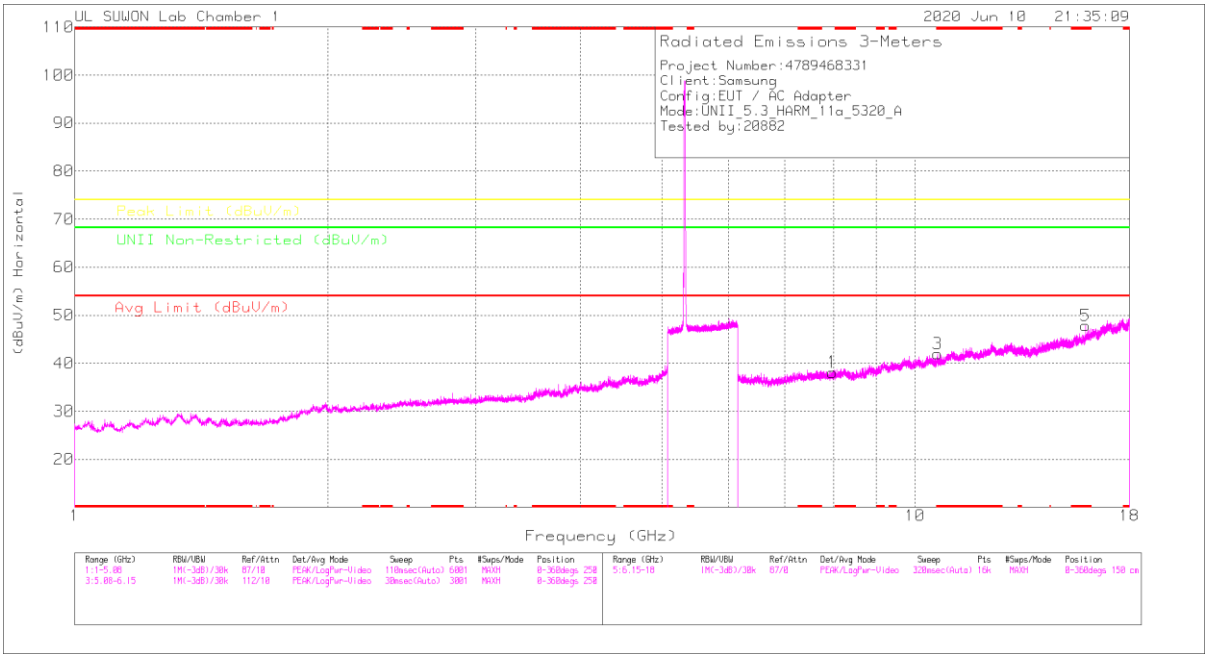
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	6GHz_HP[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.94564	38.69	PK-U	36	-26.2	0	48.49	-	-	-	-	68.2	-19.71	360	100	H
7.94347	38.59	PK-U	36	-26.2	0	48.39	-	-	-	-	68.2	-19.81	360	100	V
* 10.6042	37.51	PK-U	37.8	-22.7	0	52.61	-	-	74	-21.39	-	-	106	399	H
* 10.6042	26.4	ADR	37.8	-22.7	.15	41.65	54	-12.35	-	-	-	-	106	399	H
* 10.6042	39.88	PK-U	37.8	-22.7	0	54.98	-	-	74	-19.02	-	-	204	108	V
10.6	28.86	ADR	37.8	-22.8	.15	44.01	54	-9.99	-	-	-	-	204	108	V
* 15.89436	40.76	PK-U	40.6	-21.2	0	60.16	-	-	74	-13.84	-	-	115	398	H
* 15.8994	26.8	ADR	40.6	-21.2	.15	46.35	54	-7.65	-	-	-	-	115	398	H
* 15.89434	45.5	PK-U	40.6	-21.2	0	64.9	-	-	74	-9.1	-	-	125	106	V
* 15.89904	29.62	ADR	40.6	-21.2	.15	49.17	54	-4.83	-	-	-	-	125	106	V

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

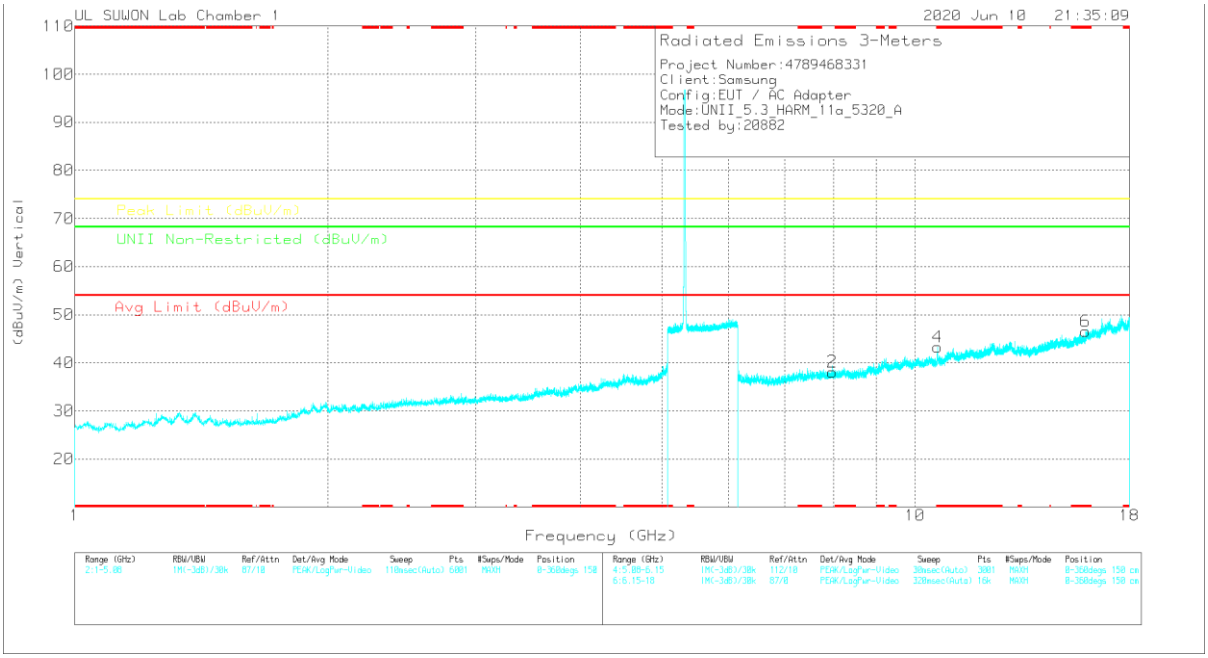
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL 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.

HIGH CHANNEL DATA

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	6GHz_HP[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
7.97857	38.42	PK-U	36	-26.2	0	48.22	-	-	-	-	68.2	-19.98	360	100	H
7.97791	39.2	PK-U	36	-26.2	0	49	-	-	-	-	68.2	-19.2	360	100	V
* 10.63934	39.04	PK-U	37.8	-22.1	0	54.74	-	-	74	-19.26	-	-	133	106	H
* 10.63942	26.21	ADR	37.8	-22.1	.15	42.06	54	-11.94	-	-	-	-	133	106	H
* 10.63877	42.47	PK-U	37.8	-22.2	0	58.07	-	-	74	-15.93	-	-	199	100	V
* 10.63947	29.13	ADR	37.8	-22.1	.15	44.98	54	-9.02	-	-	-	-	199	100	V
* 15.9628	43.37	PK-U	40.7	-20.8	0	63.27	-	-	74	-10.73	-	-	149	289	H
* 15.95838	27.76	ADR	40.7	-20.9	.15	47.71	54	-6.29	-	-	-	-	149	289	H
* 15.95838	44.42	PK-U	40.7	-20.9	0	64.22	-	-	74	-9.78	-	-	126	100	V
* 15.95812	29.19	ADR	40.7	-20.9	.15	49.14	54	-4.86	-	-	-	-	126	100	V

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

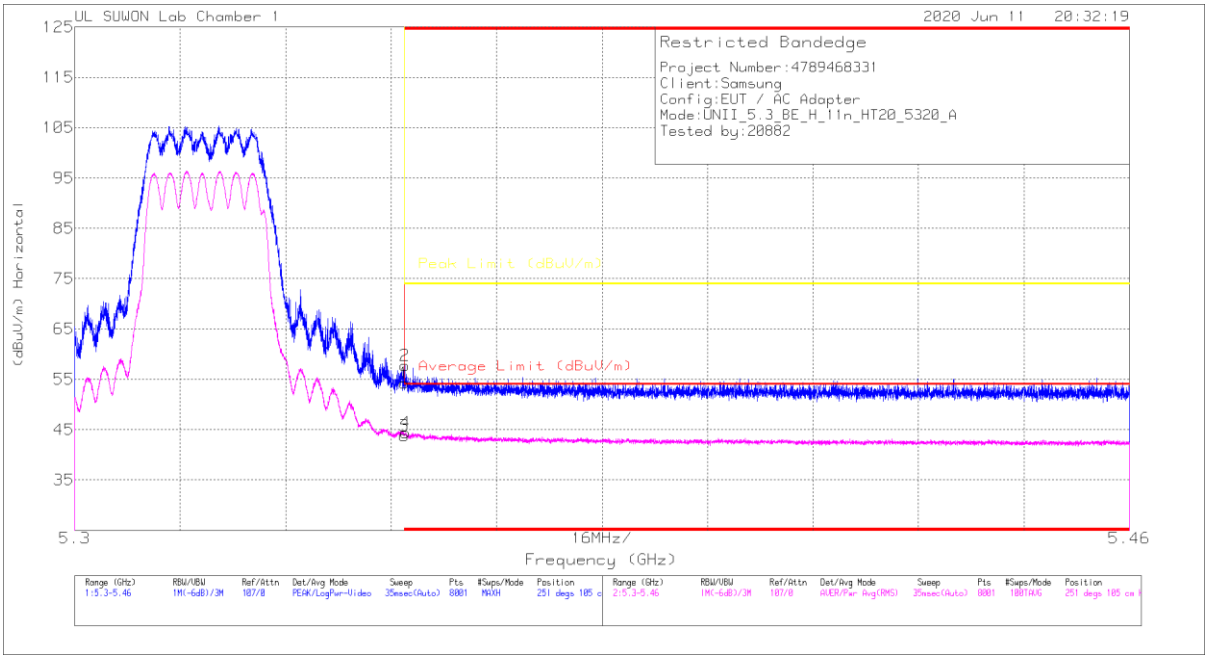
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

11.2.2.TX ABOVE 1GHz 802.11n HT20 2Tx MODE IN THE 5.3GHz BAND

RESTRICTED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168717	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*5.35002	41.2	Pk	34.7	-21.6	0	54.3	-	-	74	-19.7	251	105	H
2	*5.35006	44.6	Pk	34.7	-21.6	0	57.7	-	-	74	-16.3	251	105	H
3	*5.35002	30.66	RMS	34.7	-21.6	0	43.76	54	-10.24	-	-	251	105	H
4	*5.35016	31.26	RMS	34.7	-21.6	0	44.36	54	-9.64	-	-	251	105	H

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