8.5.14. 802.11ac VHT160 MODE IN THE 5.6 GHz BAND

2TX Antenna 1 + Antenna 2 SDM MODE (FCC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Mid	5570	166.00	6.45	6.45	23.55	10.55

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5570	12.81	13.14	15.99	23.55	-7.56

PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Mid	5570	-6.02	-6.22	-3.11	10.55	-13.66

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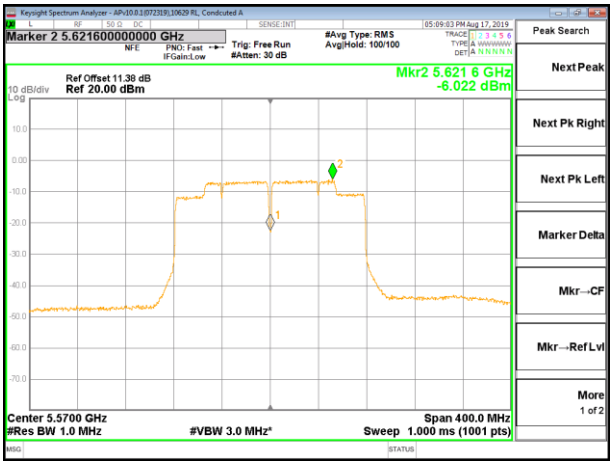
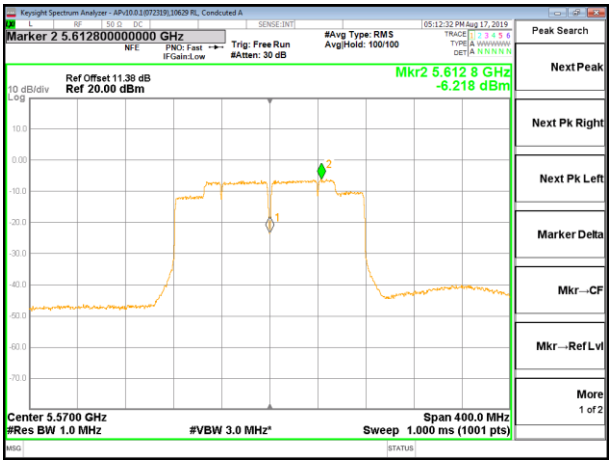
MID CHANNEL



LOW CHANNEL CHAIN 0



LOW CHANNEL CHAIN 1

2TX Antenna 1 + Antenna 2 SDM MODE (IC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5570	153.56	6.45	6.45	23.55	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

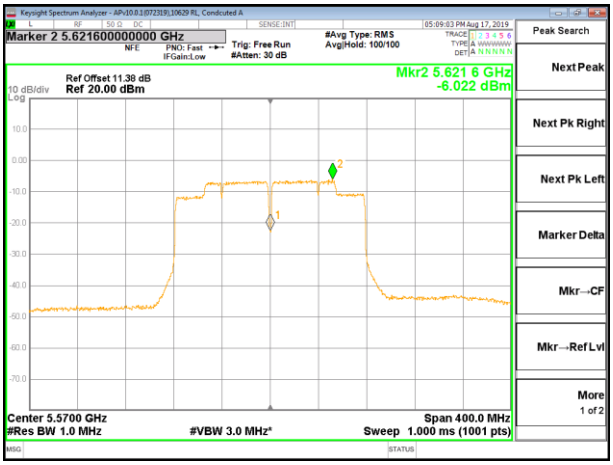
Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5570	12.81	13.14	15.99	23.55	-7.56

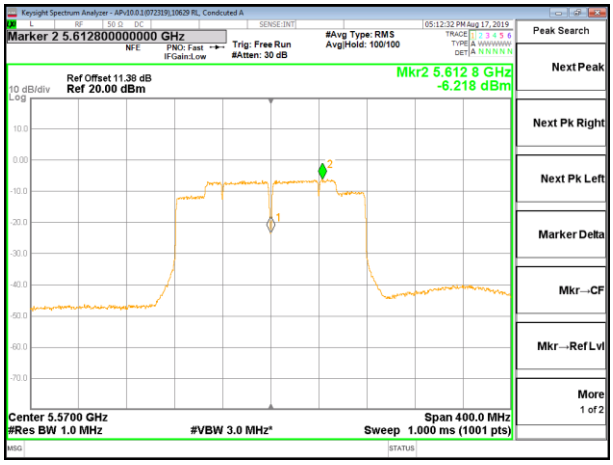
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5570	-6.02	-6.22	-3.11	11.00	-14.11

MID CHANNEL



LOW CHANNEL CHAIN 0



LOW CHANNEL CHAIN 1

8.5.15. 802.11a MODE IN THE 5.8 GHz BAND

2TX Antenna 1 + Antenna 2 CDD MODE (FCC)

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain For Power (dBi)	Directional Gain For PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 500KHz)
Low	5745	6.83	9.66	29.17	26.34
Mid	5785	6.83	9.66	29.17	26.34
High	5825	6.83	9.66	29.17	26.34

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

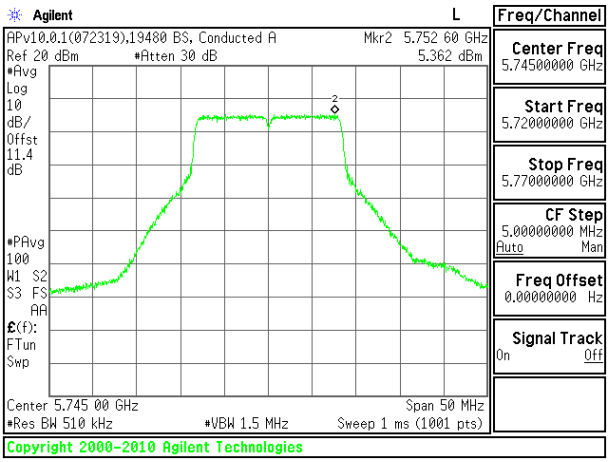
Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	18.40	18.58	21.50	29.17	-7.67
Mid	5785	18.17	18.53	21.36	29.17	-7.81
High	5825	18.28	18.16	21.23	29.17	-7.94

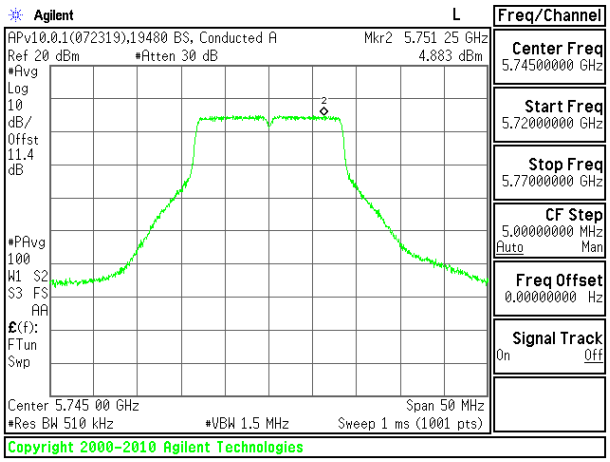
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 500KHz)	Antenna 2 Meas PSD (dBm/ 500KHz)	Total Corr'd PSD (dBm/ 500KHz)	PSD Limit (dBm/ 500KHz)	PSD Margin (dB)
Low	5745	5.36	4.88	8.14	26.34	-18.20
Mid	5785	5.29	5.36	8.33	26.34	-18.01
High	5825	5.15	5.01	8.09	26.34	-18.25

LOW CHANNEL

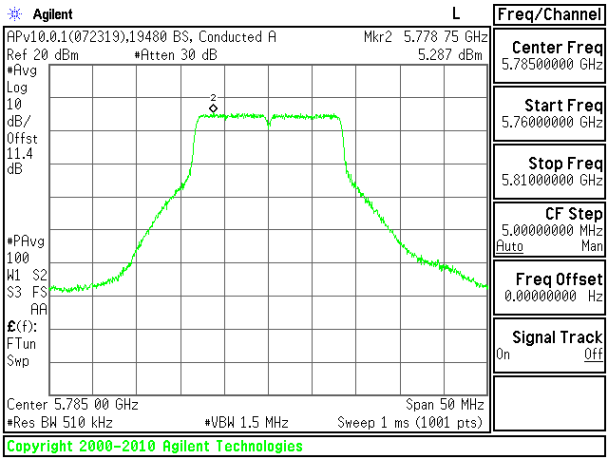


LOW CHANNEL CHAIN 0



LOW CHANNEL CHAIN 1

MID CHANNEL



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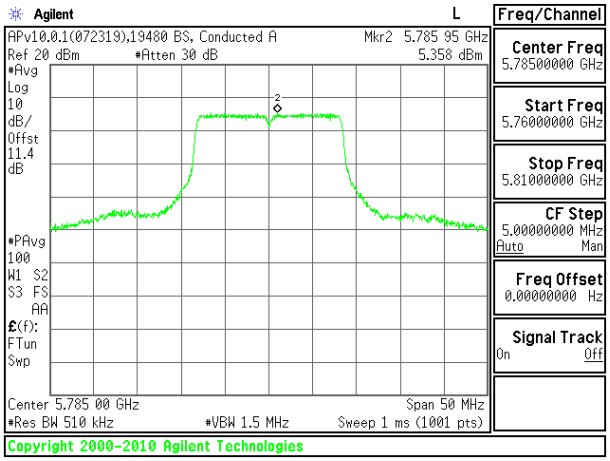
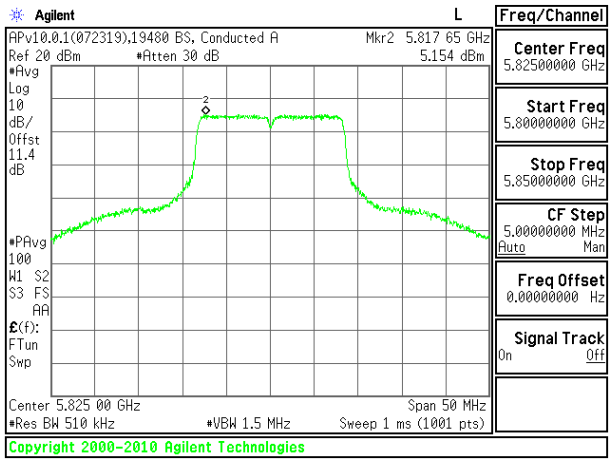
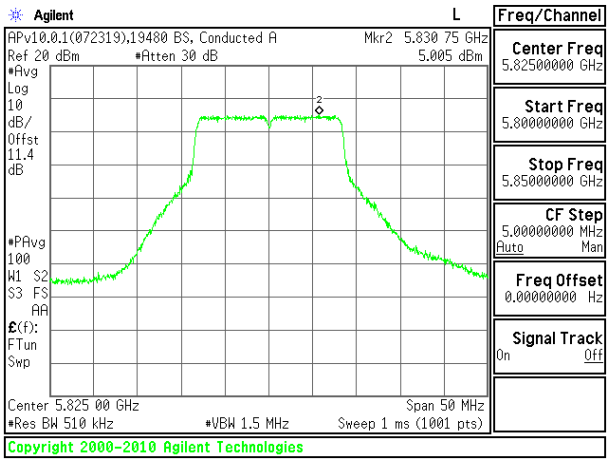


MID CHANNEL CHAIN 1

HIGH CHANNEL



HIGH CHANNEL CHAIN 0



HIGH CHANNEL CHAIN 1

2TX Antenna 1 + Antenna 2 CDD MODE (IC)

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain For Power (dBi)	Directional Gain For PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 500KHz)
Low	5745	6.83	9.66	29.17	26.34
Mid	5785	6.83	9.66	29.17	26.34
High	5825	6.83	9.66	29.17	26.34

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

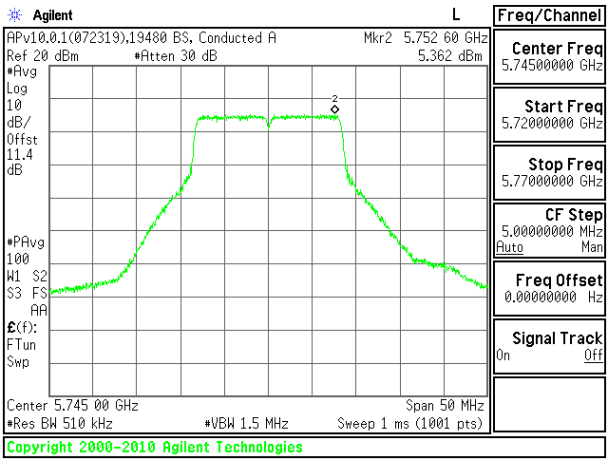
Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	18.40	18.58	21.50	29.17	-7.67
Mid	5785	18.17	18.53	21.36	29.17	-7.81
High	5825	18.28	18.16	21.23	29.17	-7.94

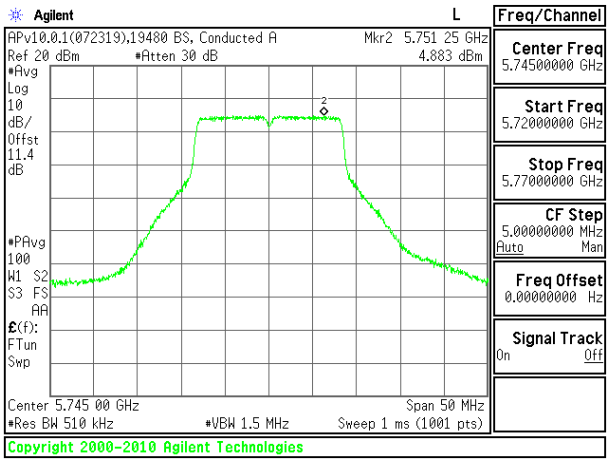
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 500KHz)	Antenna 2 Meas PSD (dBm/ 500KHz)	Total Corr'd PSD (dBm/ 500KHz)	PSD Limit (dBm/ 500KHz)	PSD Margin (dB)
Low	5745	5.36	4.88	8.14	26.34	-18.20
Mid	5785	5.29	5.36	8.33	26.34	-18.01
High	5825	5.15	5.01	8.09	26.34	-18.25

LOW CHANNEL

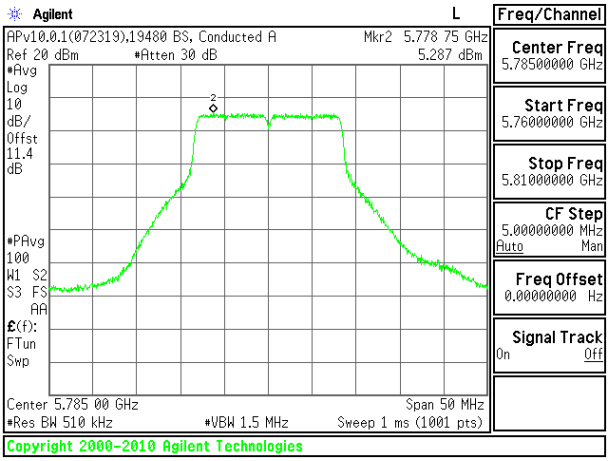


LOW CHANNEL CHAIN 0

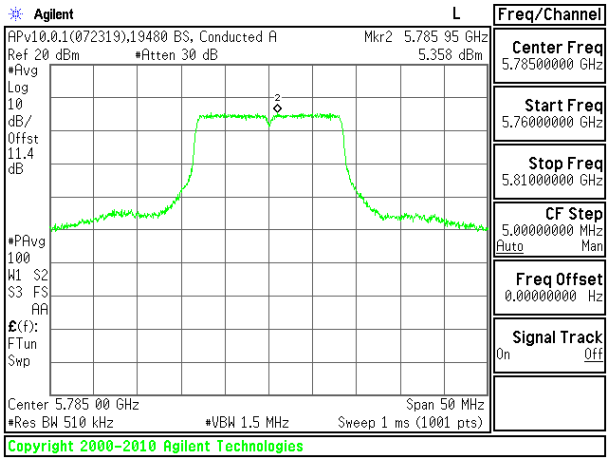


LOW CHANNEL CHAIN 1

MID CHANNEL

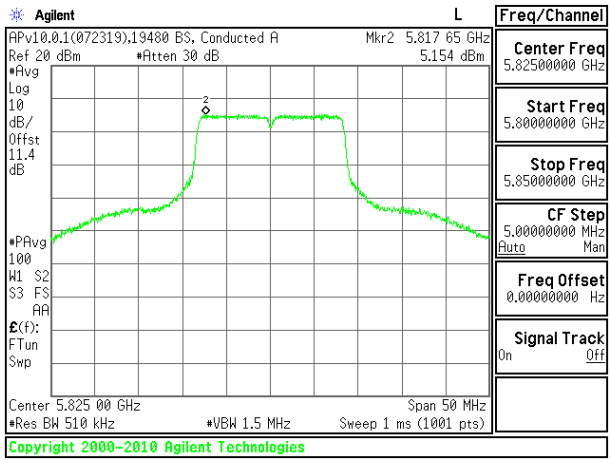


MID CHANNEL CHAIN 0

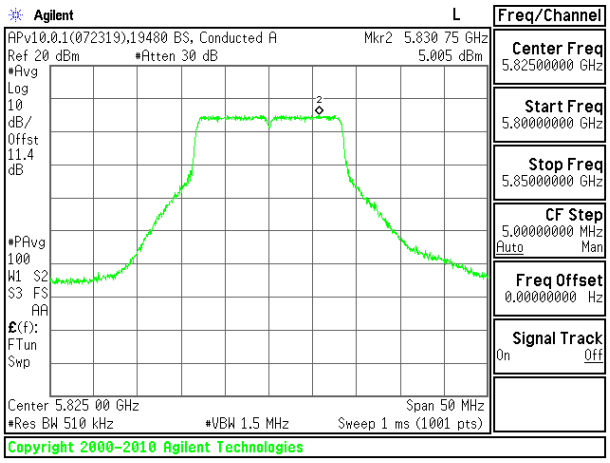


MID CHANNEL CHAIN 1

HIGH CHANNEL



HIGH CHANNEL CHAIN 0



HIGH CHANNEL CHAIN 1

8.5.16. 802.11n HT20 MODE IN THE 5.8 GHz BAND

2TX Antenna 1 + Antenna 2 SDM MODE (FCC)

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain For Power (dBi)	Directional Gain For PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 500KHz)
Low	5745	6.83	6.83	29.17	29.17
Mid	5785	6.83	6.83	29.17	29.17
High	5825	6.83	6.83	29.17	29.17

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

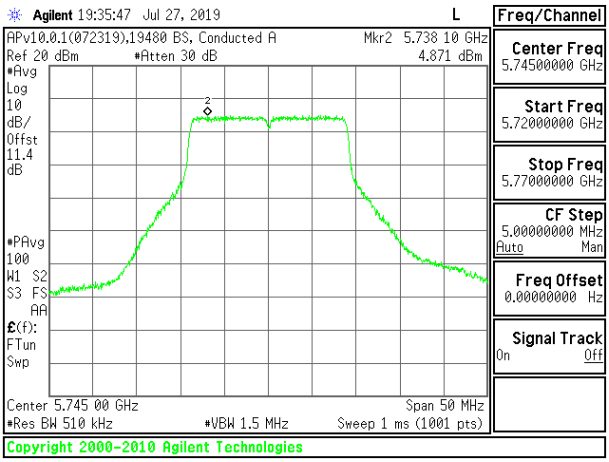
Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	18.35	18.63	21.50	29.17	-7.67
Mid	5785	18.12	18.42	21.28	29.17	-7.89
High	5825	18.21	17.96	21.10	29.17	-8.07

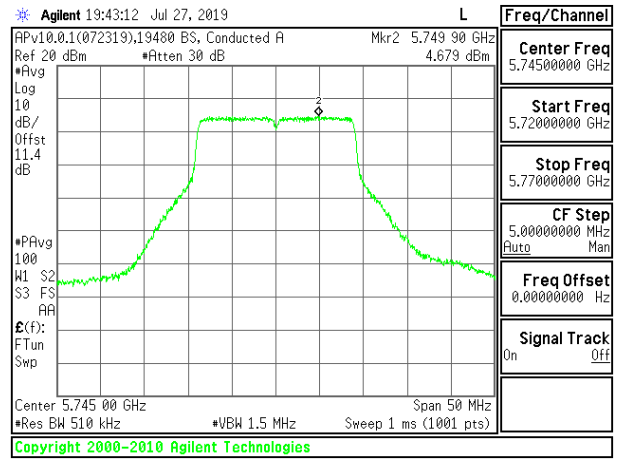
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 500KHz)	Antenna 2 Meas PSD (dBm/ 500KHz)	Total Corr'd PSD (dBm/ 500KHz)	PSD Limit (dBm/ 500KHz)	PSD Margin (dB)
Low	5745	4.87	4.68	7.79	29.17	-21.38
Mid	5785	4.94	4.87	7.91	29.17	-21.26
High	5825	5.12	5.03	8.09	29.17	-21.08

LOW CHANNEL

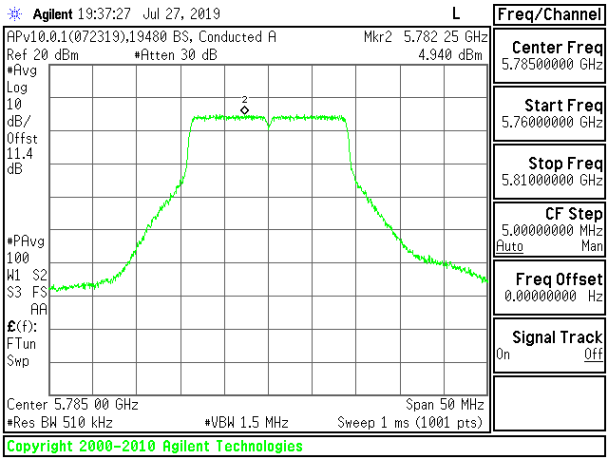


LOW CHANNEL CHAIN 0

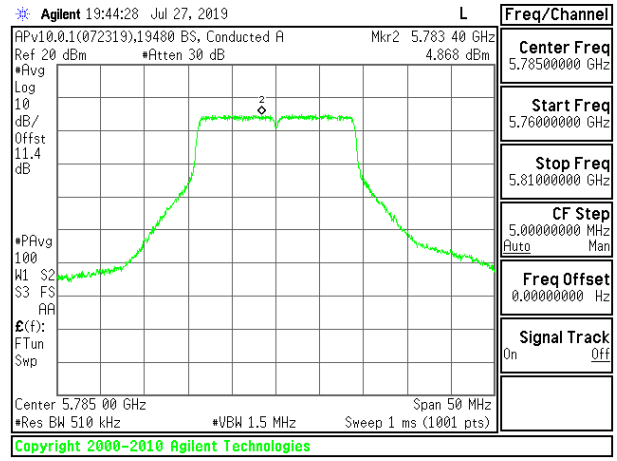


LOW CHANNEL CHAIN 1

MID CHANNEL

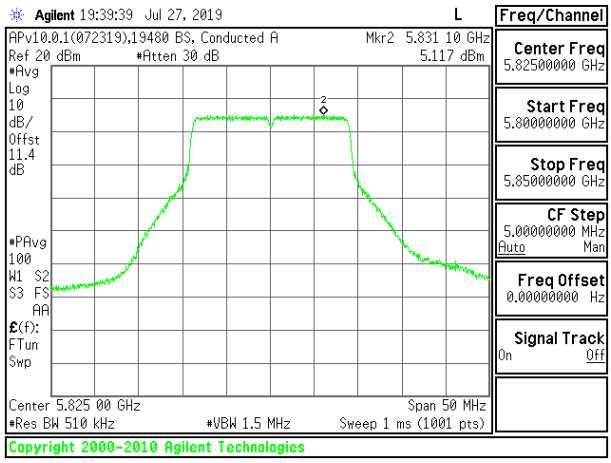


MID CHANNEL CHAIN 0

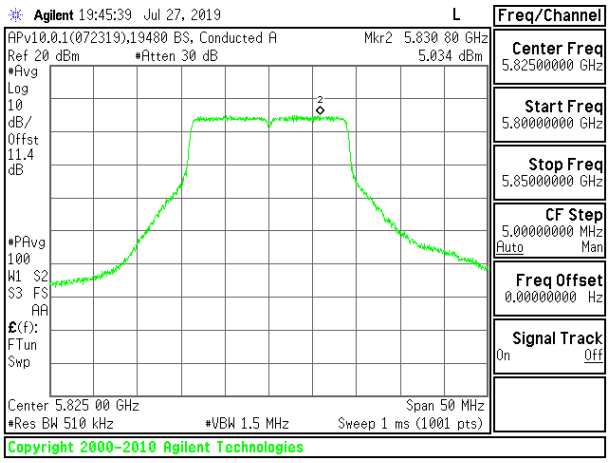


MID CHANNEL CHAIN 1

HIGH CHANNEL



HIGH CHANNEL CHAIN 0



HIGH CHANNEL CHAIN 1

2TX Antenna 1 + Antenna 2 SDM MODE (IC)

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain For Power (dBi)	Directional Gain For PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 500KHz)
Low	5745	6.83	6.83	29.17	29.17
Mid	5785	6.83	6.83	29.17	29.17
High	5825	6.83	6.83	29.17	29.17

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

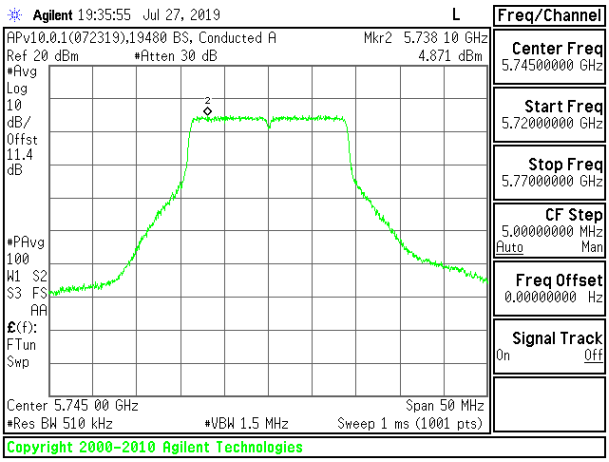
Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	18.35	18.63	21.50	29.17	-7.67
Mid	5785	18.12	18.42	21.28	29.17	-7.89
High	5825	18.21	17.96	21.10	29.17	-8.07

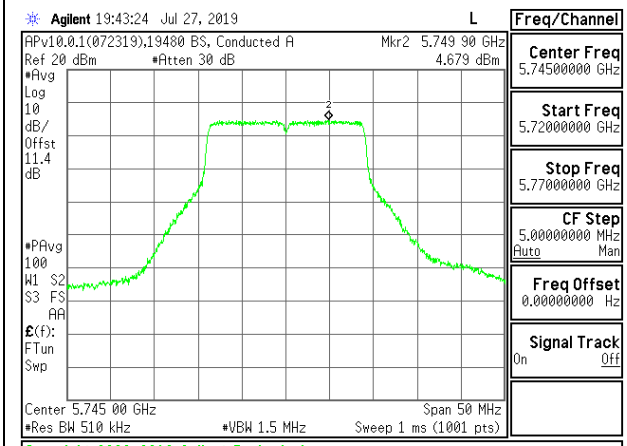
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 500KHz)	Antenna 2 Meas PSD (dBm/ 500KHz)	Total Corr'd PSD (dBm/ 500KHz)	PSD Limit (dBm/ 500KHz)	PSD Margin (dB)
Low	5745	4.87	4.68	7.79	29.17	-21.38
Mid	5785	4.94	4.87	7.91	29.17	-21.26
High	5825	5.12	5.03	8.09	29.17	-21.08

LOW CHANNEL

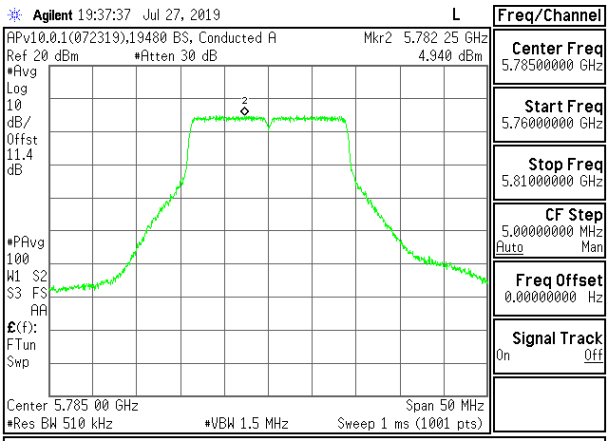


LOW CHANNEL CHAIN 0

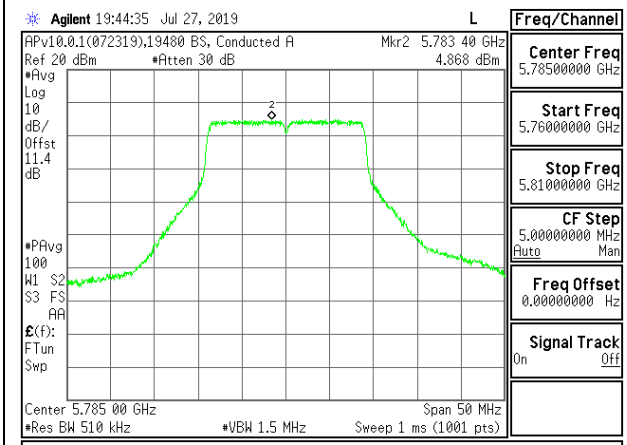


LOW CHANNEL CHAIN 1

MID CHANNEL

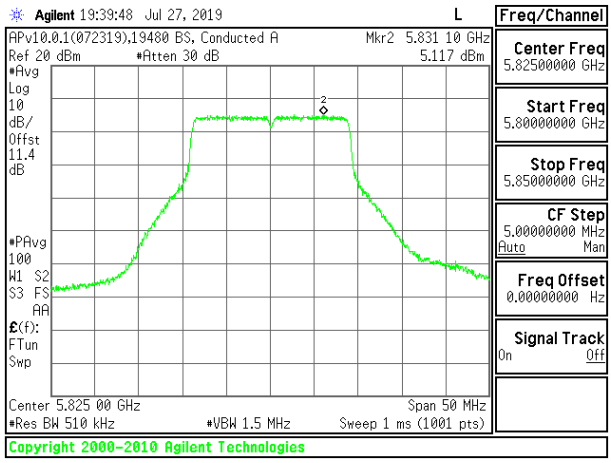


MID CHANNEL CHAIN 0

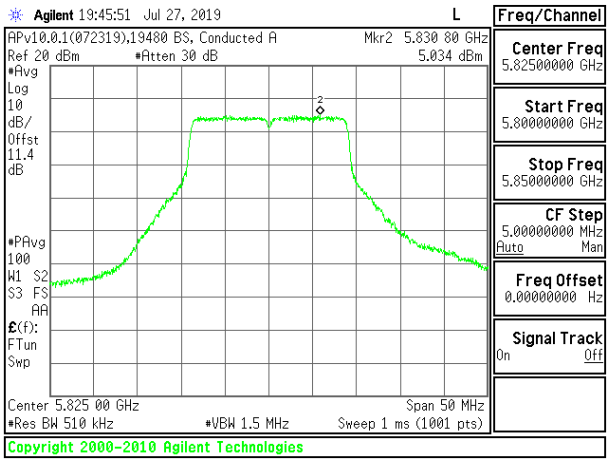


MID CHANNEL CHAIN 1

HIGH CHANNEL



HIGH CHANNEL CHAIN 0



HIGH CHANNEL CHAIN 1

8.5.17. 802.11n HT40 MODE IN THE 5.8 GHz BAND

2TX Antenna 1 + Antenna 2 SDM MODE (FCC)

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain For Power (dBi)	Directional Gain For PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 500KHz)
Low	5755	6.83	6.83	29.17	29.17
High	5795	6.83	6.83	29.17	29.17

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

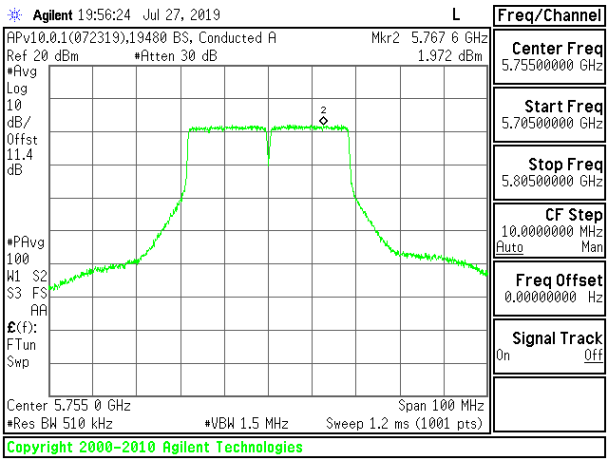
Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	18.51	18.47	21.50	29.17	-7.67
High	5795	18.35	18.42	21.40	29.17	-7.77

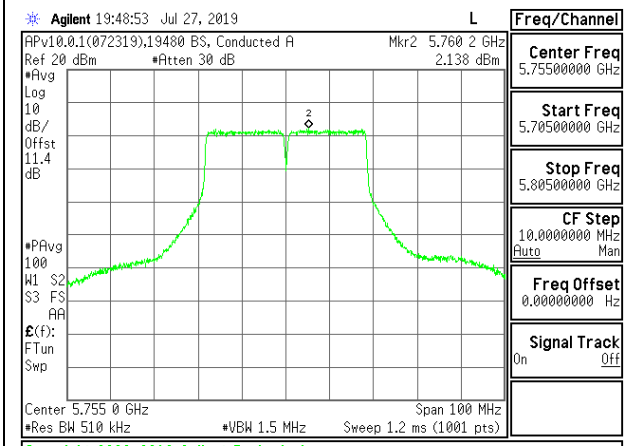
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 500KHz)	Antenna 2 Meas PSD (dBm/ 500KHz)	Total Corr'd PSD (dBm/ 500KHz)	PSD Limit (dBm/ 500KHz)	PSD Margin (dB)
Low	5755	1.97	2.14	5.07	29.17	-24.10
High	5795	1.83	2.11	4.98	29.17	-24.19

LOW CHANNEL

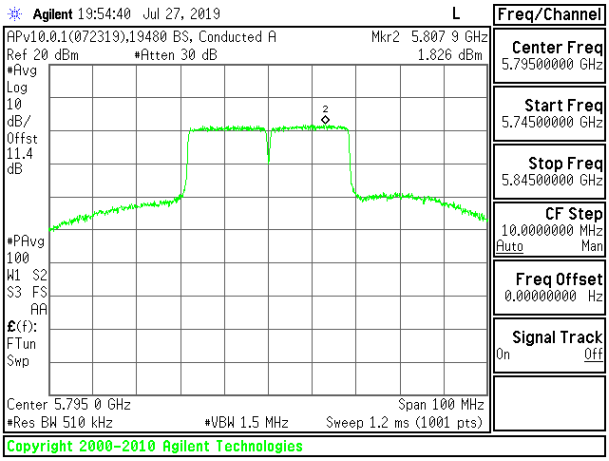


LOW CHANNEL CHAIN 0

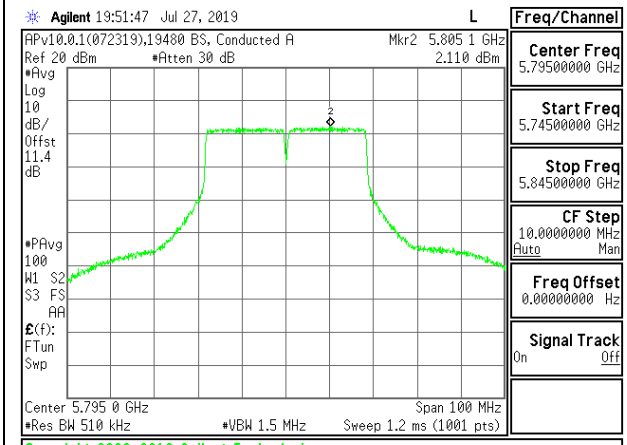


LOW CHANNEL CHAIN 1

HIGH CHANNEL



HIGH CHANNEL CHAIN 0



HIGH CHANNEL CHAIN 1

2TX Antenna 1 + Antenna 2 SDM MODE (IC)

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain For Power (dBi)	Directional Gain For PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 500KHz)
Low	5755	6.83	6.83	29.17	29.17
High	5795	6.83	6.83	29.17	29.17

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

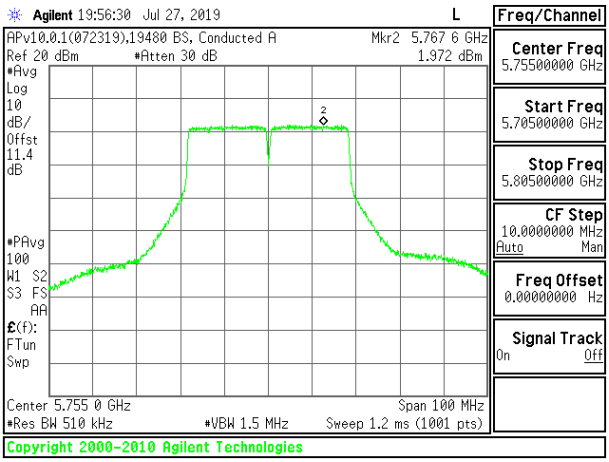
Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	18.51	18.47	21.50	29.17	-7.67
High	5795	18.35	18.42	21.40	29.17	-7.77

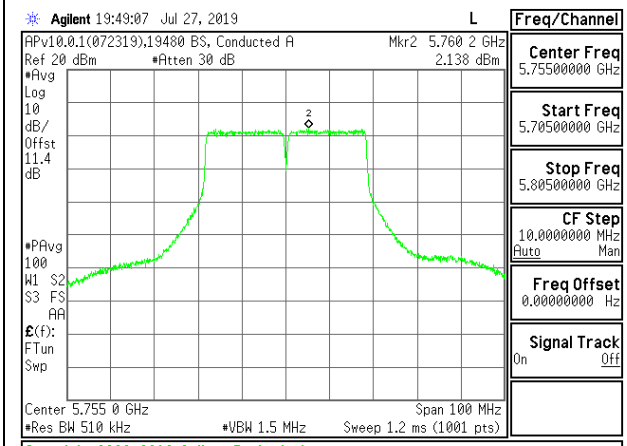
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 500KHz)	Antenna 2 Meas PSD (dBm/ 500KHz)	Total Corr'd PSD (dBm/ 500KHz)	PSD Limit (dBm/ 500KHz)	PSD Margin (dB)
Low	5755	1.97	2.14	5.07	29.17	-24.10
High	5795	1.83	2.11	4.98	29.17	-24.19

LOW CHANNEL

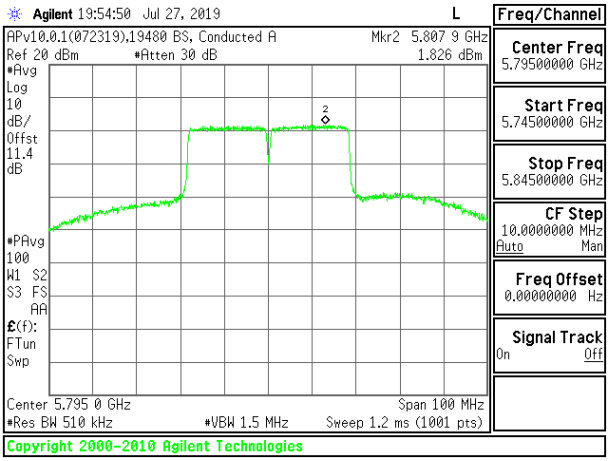


LOW CHANNEL CHAIN 0

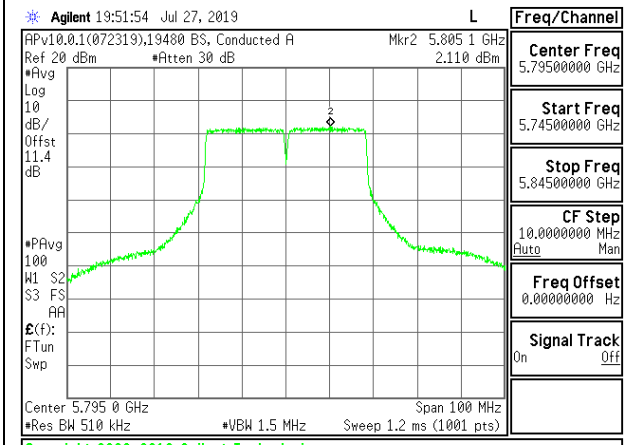


LOW CHANNEL CHAIN 1

HIGH CHANNEL



HIGH CHANNEL CHAIN 0



HIGH CHANNEL CHAIN 1

8.5.18. 802.11ac VHT80 MODE IN THE 5.8 GHz BAND

2TX Antenna 1 + Antenna 2 SDM MODE (FCC)

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain For Power (dBi)	Directional Gain For PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 500KHz)
Mid	5755	6.83	6.83	29.17	29.17

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

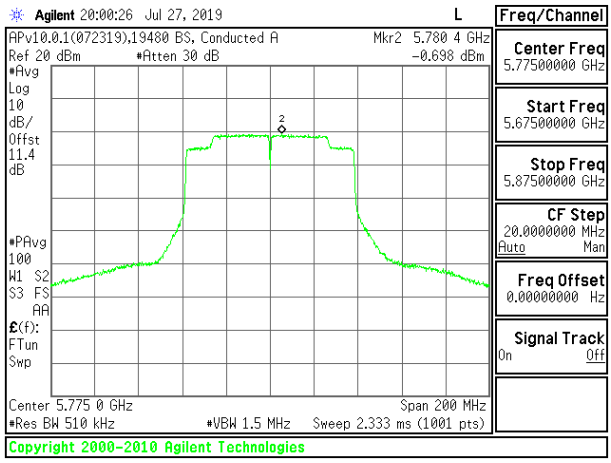
Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5755	19.35	18.47	21.94	29.17	-7.23

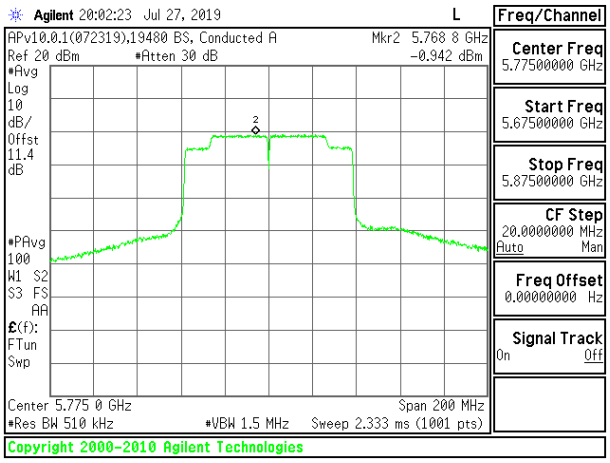
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 500KHz)	Antenna 2 Meas PSD (dBm/ 500KHz)	Total Corr'd PSD (dBm/ 500KHz)	PSD Limit (dBm/ 500KHz)	PSD Margin (dB)
Mid	5775	-0.70	-0.94	2.19	29.17	-26.98

MID CHANNEL



MID CHANNEL CHAIN 0



MID CHANNEL CHAIN 1

2TX Antenna 1 + Antenna 2 SDM MODE (IC)

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain For Power (dBi)	Directional Gain For PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 500KHz)
Mid	5755	6.83	6.83	29.17	29.17

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5755	19.35	18.47	21.94	29.17	-7.23

PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 500KHz)	Antenna 2 Meas PSD (dBm/ 500KHz)	Total Corr'd PSD (dBm/ 500KHz)	PSD Limit (dBm/ 500KHz)	PSD Margin (dB)
Mid	5775	-0.70	-0.94	2.19	29.17	-26.98

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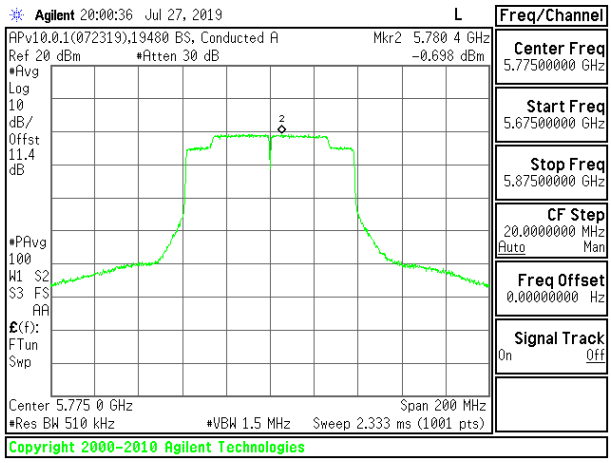
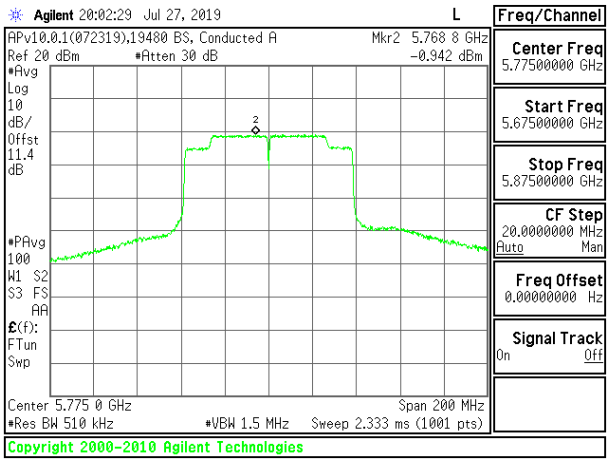
MID CHANNEL



MID CHANNEL CHAIN 0



MID CHANNEL CHAIN 1

9. RADIATED TEST RESULTS

LIMITS

FCC §15.205 and §15.209 -Restriced bands

FCC §15.407(b)(1-3) -Un-Restriced bands

After January 01, 2019 for Outside of the Restricted Bands Emissions

RSS 247 Issue 2 Sections
6.2.1.2 (for 5150-5250 MHz band)
6.2.2.2 (for 5250-5350 MHz band)
6.2.3.2 (for 5470-5600 MHz and 5650-5725 MHz bands)
6.2.4.2 (for 5725-5850 MHz band)

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

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

For final measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and as applicable for average measurements.

The spectrum from 1 GHz to 18 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band. Below 30MHz, below 1GHz and above 18GHz emissions, the channel with the highest output power was tested.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

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

KDB 414788 Open Field Site(OFS) and Chamber Correlation Justification

Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

OFS and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

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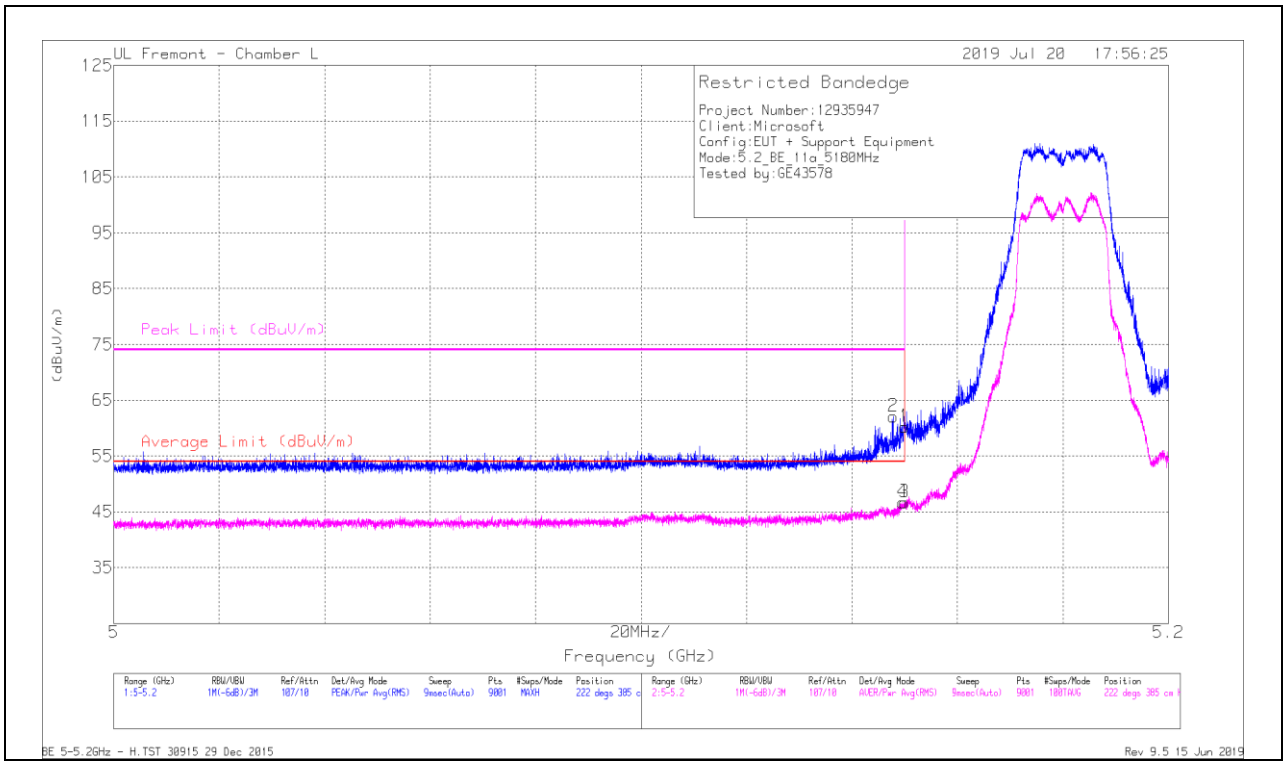
9.1. TRANSMITTER ABOVE 1 GHz

9.1.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.2 GHz BAND

2TX Antenna 1 + Antenna 2 CDD MODE

BANDEDGE (LOW CHANNEL)

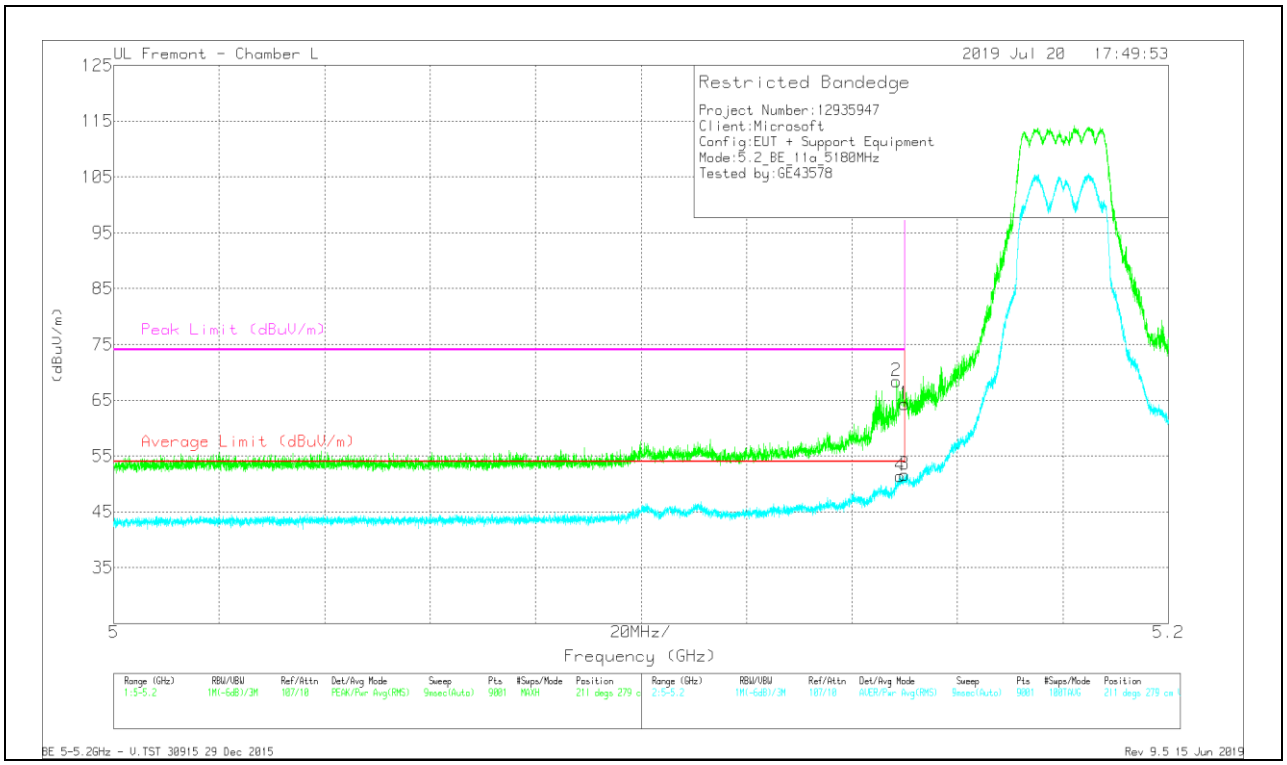
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Fltr/Pad (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	43.38	Pk	34.3	-17.5	0	60.18	-	-	74	-13.82	222	385	H
2	*5.14782	45.26	Pk	34.3	-17.5	0	62.06	-	-	74	-11.94	222	385	H
3	*5.15	29.8	RMS	34.3	-17.5	0	46.69	54	-7.31	-	-	222	385	H
4	*5.14955	29.75	RMS	34.3	-17.5	0	46.64	54	-7.36	-	-	222	385	H

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

VERTICAL RESULT

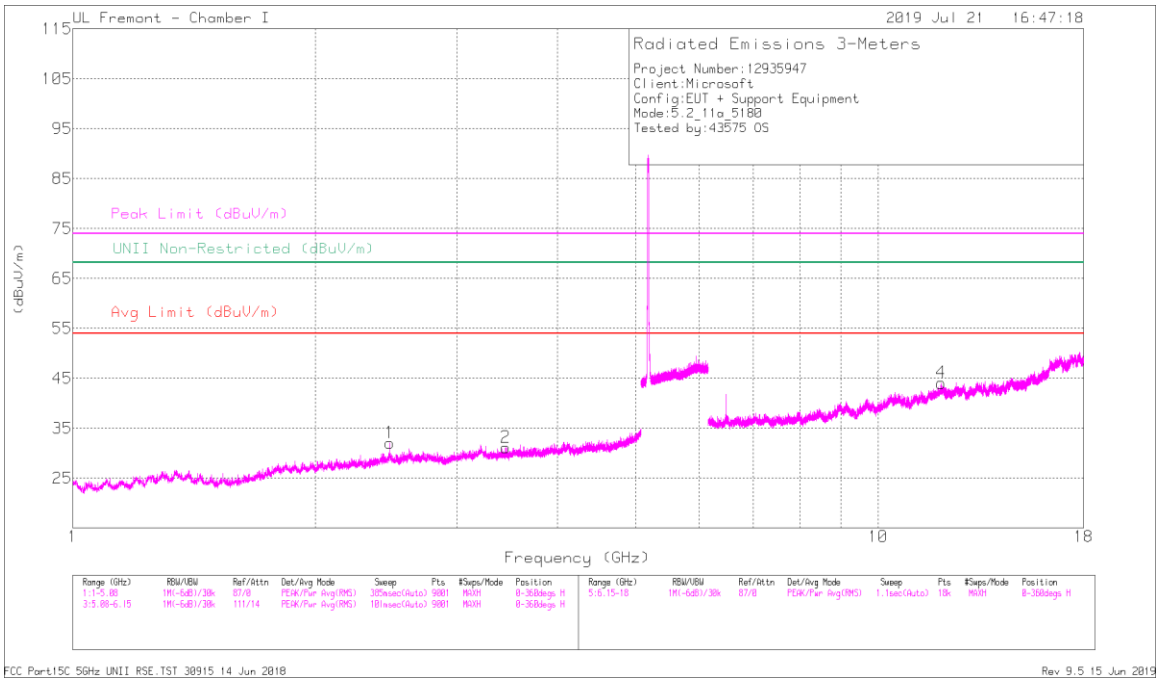


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*5.15	47.47	Pk	34.3	-17.5	0	64.27	-	-	74	-9.73	211	279	V
2	*5.14842	51.64	Pk	34.3	-17.5	0	68.44	-	-	74	-5.56	211	279	V
3	*5.15	34.77	RMS	34.3	-17.5	0	51.66	54	-2.34	-	-	211	279	V
4	*5.14915	34.55	RMS	34.3	-17.5	0	51.44	54	-2.56	-	-	211	279	V

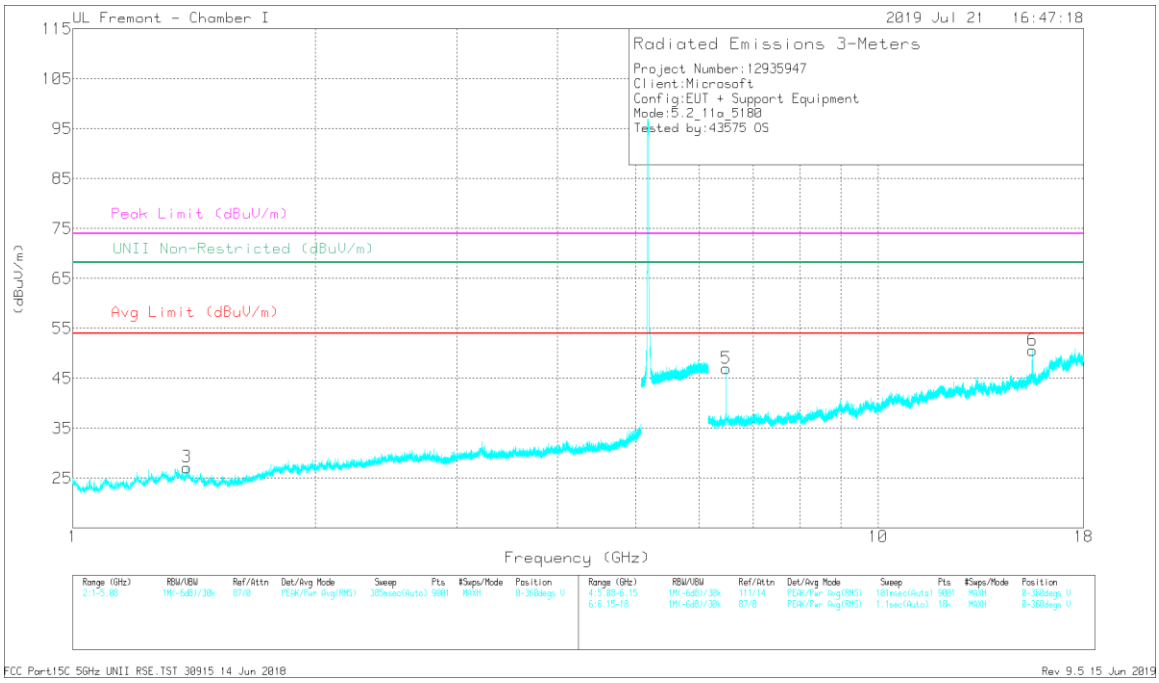
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.47604	36.13	PK-U	32.3	-31.5	0	36.93	-	-	-	-	68.2	-31.27	349	157	H
	2.47452	26.58	ADR	32.3	-31.5	0	27.47	-	-	-	-	-	-	349	157	H
2	3.45362	34.69	PK-U	32.8	-30.4	0	37.09	-	-	-	-	68.2	-31.11	326	174	H
	3.4523	25.69	ADR	32.8	-30.4	0	28.18	-	-	-	-	-	-	326	174	H
3	* 1.38592	37.07	PK-U	29.1	-33.5	0	32.67	-	-	74	-41.33	-	-	52	178	V
	* 1.38462	27.93	ADR	29.1	-33.5	0	23.62	54	-30.38	-	-	-	-	52	178	V
4	* 11.98397	28.3	PK-U	38.8	-16.3	0	50.8	-	-	74	-23.2	-	-	297	196	H
	* 11.98517	18.16	ADR	38.8	-16.2	0	40.85	54	-13.15	-	-	-	-	297	196	H
5	6.4761	36.5	PK-U	35.7	-21.1	0	51.1	-	-	-	-	68.2	-17.1	216	193	V
	6.47606	27.96	ADR	35.7	-21.1	0	42.65	-	-	-	-	-	-	216	193	V
6	* 15.54678	35.06	PK-U	40.1	-14.1	0	61.06	-	-	74	-12.94	-	-	216	294	V
	* 15.54572	24.62	ADR	40.1	-14.1	0	50.71	54	-3.29	-	-	-	-	216	294	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

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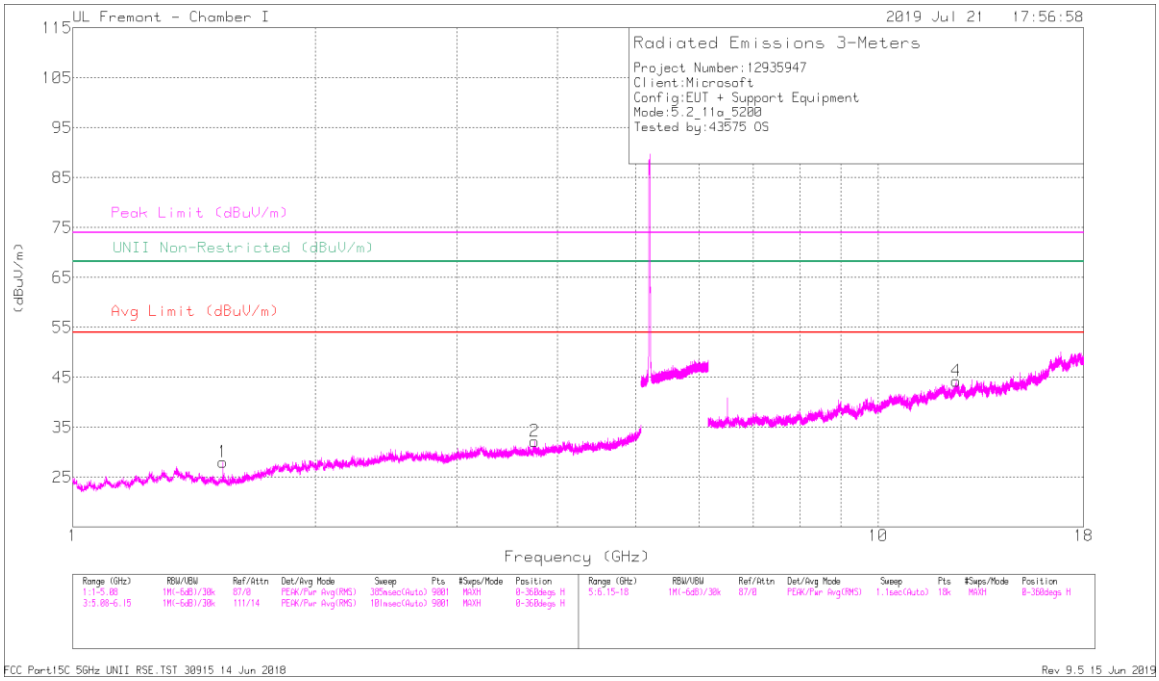
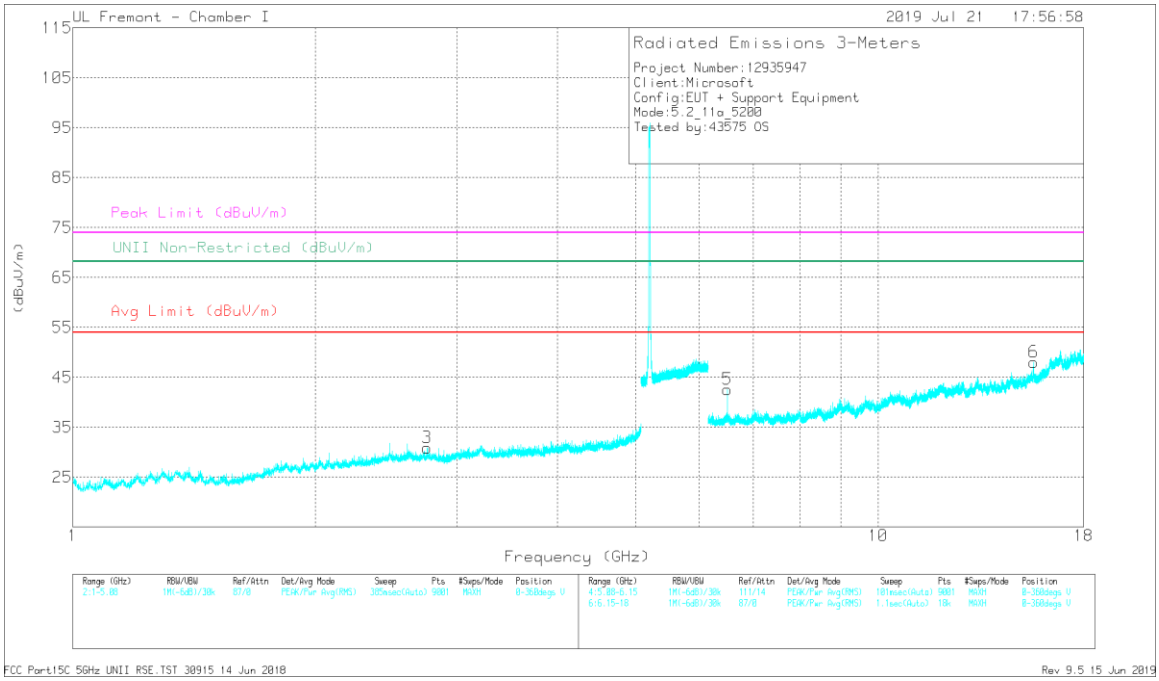
MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.53659	38.77	PK-U	28.1	-33.3	0	33.57	-	-	74	-40.43	-	-	170	124	H
	* 1.53604	30.18	ADR	28.1	-33.3	0	24.98	54	-29.02	-	-	-	-	170	124	H
2	* 3.74758	34.36	PK-U	33	-29.1	0	38.26	-	-	74	-35.74	-	-	47	172	H
	* 3.7496	24.22	ADR	33	-29.2	0	28.02	54	-25.98	-	-	-	-	47	172	H
3	* 2.75502	36.57	PK-U	32.5	-30.9	0	38.17	-	-	74	-35.83	-	-	357	325	V
	* 2.75523	26.15	ADR	32.5	-30.9	0	27.75	54	-26.25	-	-	-	-	357	325	V
4	* 12.50248	27.57	PK-U	39.1	-16.1	0	50.57	-	-	74	-23.43	-	-	67	100	H
	* 12.50324	17.87	ADR	39.1	-16.1	0	40.87	54	-13.13	-	-	-	-	67	100	H
5	6.5011	36.04	PK-U	35.6	-20.6	0	51.04	-	-	-	-	68.2	-17.16	220	193	V
6	* 15.59559	33.17	PK-U	40.1	-14.2	0	59.07	-	-	74	-14.93	-	-	214	265	V
	* 15.59522	23.37	ADR	40.1	-14.2	0	49.27	54	-4.73	-	-	-	-	214	265	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

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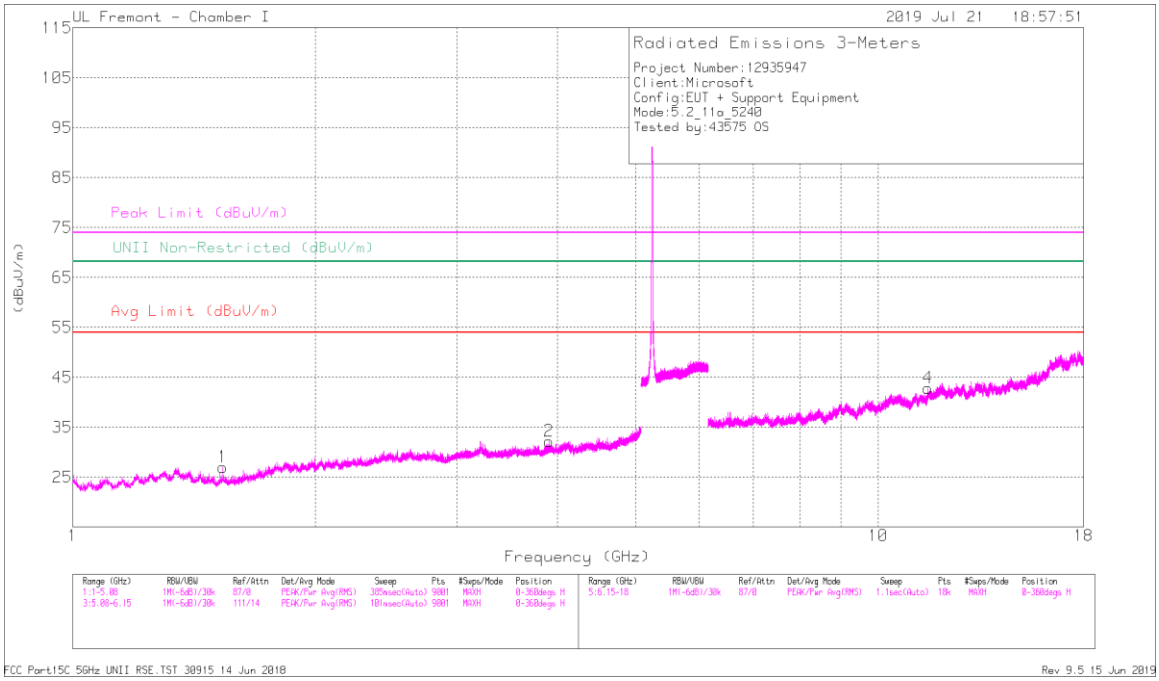
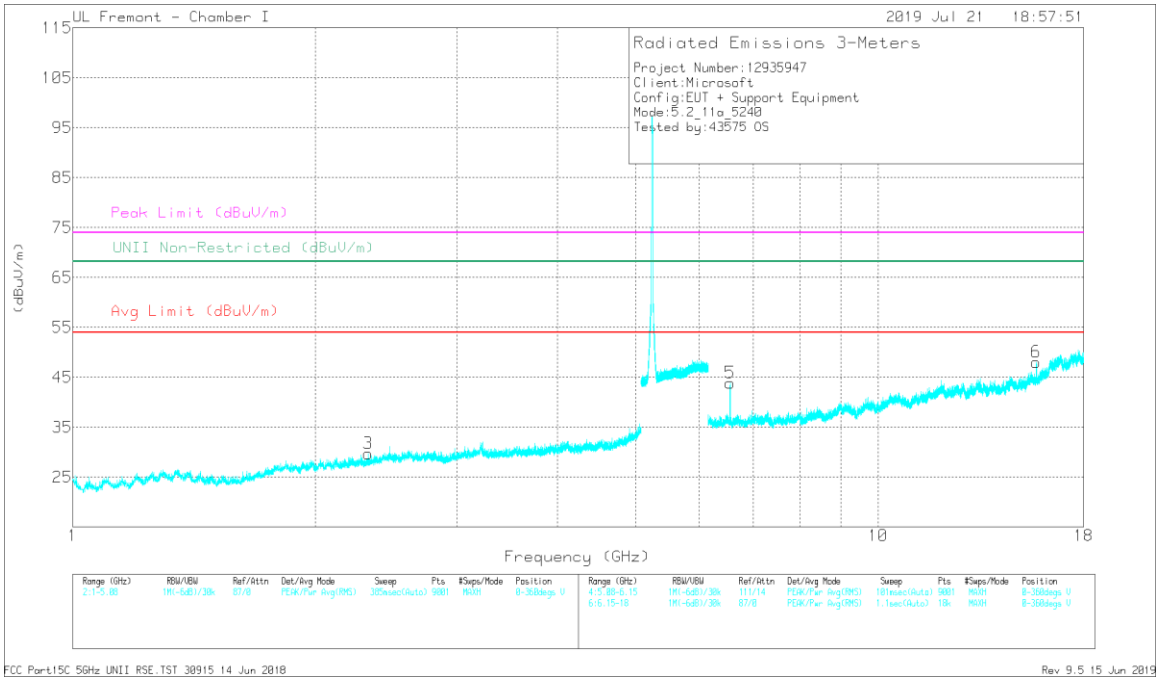
HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.53562	38.82	PK-U	28.1	-33.3	0	33.62	-	-	74	-40.38	-	-	141	131	H
	* 1.53601	29.84	ADR	28.1	-33.3	0	24.64	54	-29.36	-	-	-	-	141	131	H
2	* 3.90177	33.23	PK-U	33.2	-28.8	0	37.63	-	-	74	-36.37	-	-	273	157	H
	* 3.90107	24.32	ADR	33.2	-28.8	0	28.72	54	-25.28	-	-	-	-	273	157	H
3	* 2.32972	35.23	PK-U	31.5	-31.9	0	34.83	-	-	74	-39.17	-	-	124	103	V
	* 2.32617	26.76	ADR	31.5	-32	0	26.26	54	-27.74	-	-	-	-	124	103	V
4	* 11.54107	27.25	PK-U	38.4	-16.7	0	48.95	-	-	74	-25.05	-	-	247	349	H
	* 11.53945	17.04	ADR	38.3	-16.7	0	38.64	54	-15.36	-	-	-	-	247	349	H
5	6.55106	35.44	PK-U	35.6	-21.4	0	49.64	-	-	-	-	68.2	-18.56	218	201	V
6	* 15.72055	33.68	PK-U	40	-13.9	0	59.78	-	-	74	-14.22	-	-	209	298	V
	* 15.72118	23.9	ADR	40	-13.9	0	50	54	-4	-	-	-	-	209	298	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

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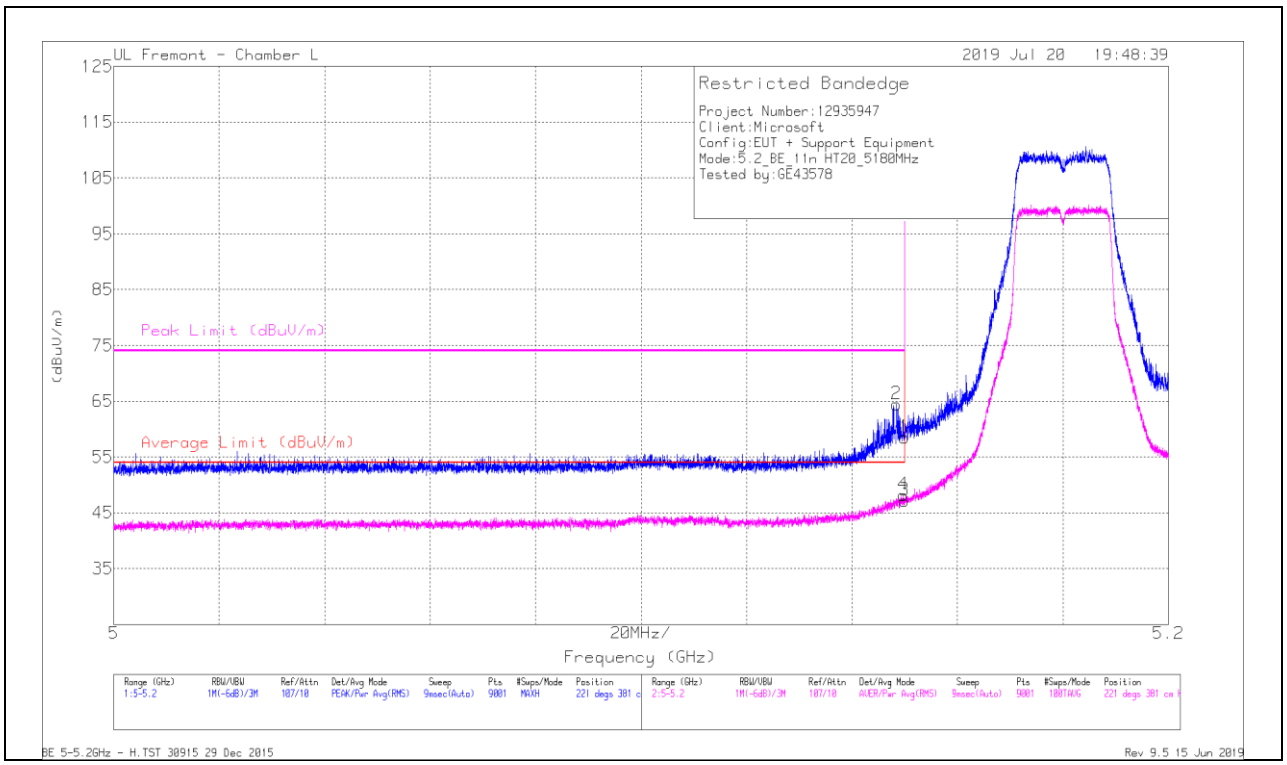
9.1.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND

2TX Antenna 1 + Antenna 2 SDM MODE

BANDEDGE (LOW CHANNEL)

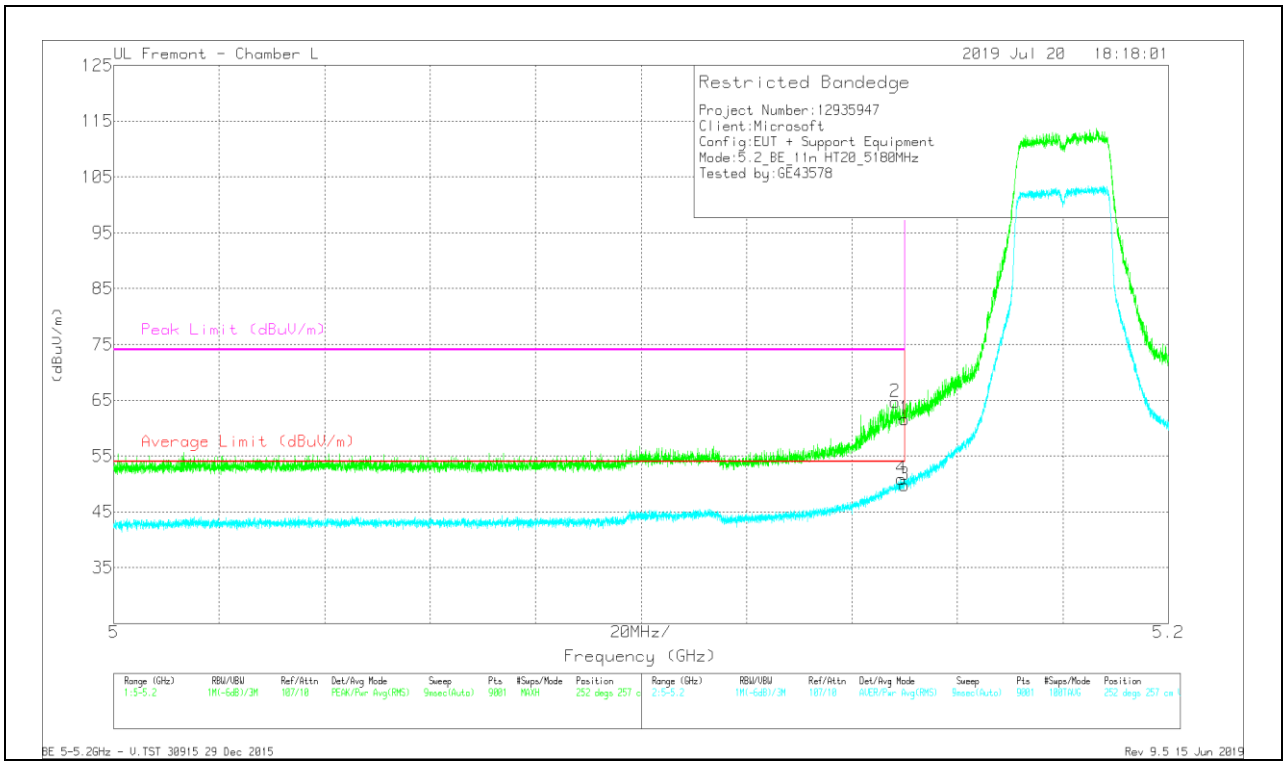
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AFT120 (dB/m)	Amp/Cbl/Fltr/Pad (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	41.72	Pk	34.3	-17.5	0	58.52	-	-	74	-15.48	221	381	H
2	*5.14847	47.69	Pk	34.3	-17.5	0	64.49	-	-	74	-9.51	221	381	H
3	*5.15	30.43	RMS	34.3	-17.5	0	47.23	54	-6.77	-	-	221	381	H
4	*5.14971	31.43	RMS	34.3	-17.5	0	48.23	54	-5.77	-	-	221	381	H

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

VERTICAL RESULT

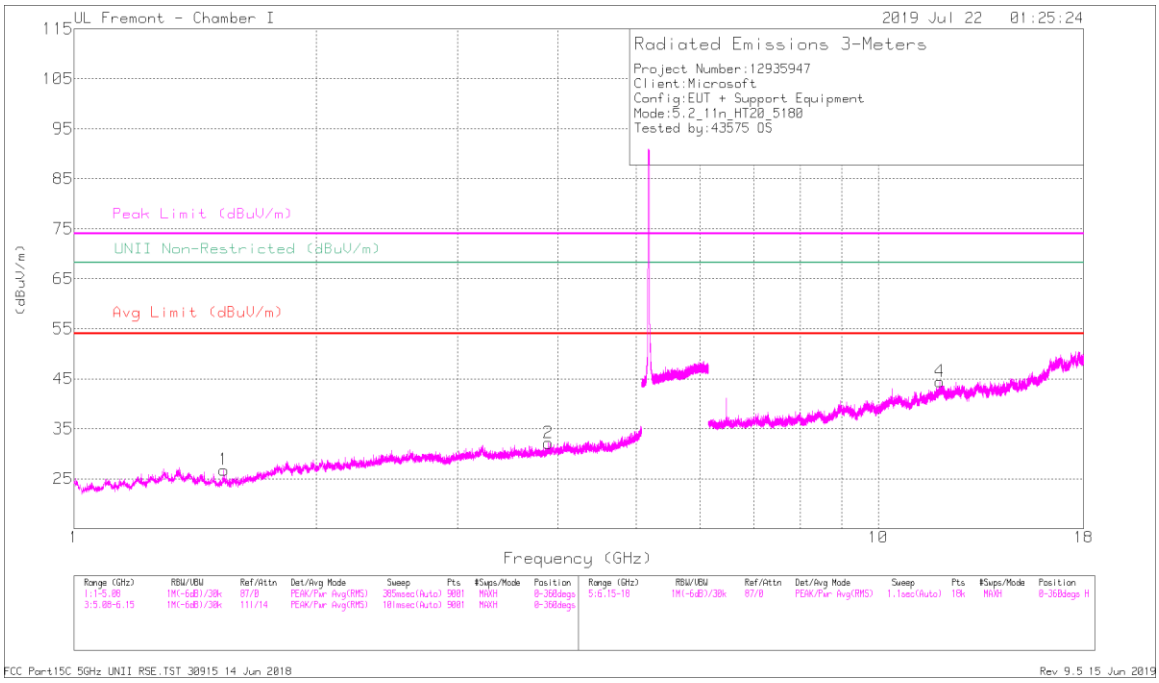


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*5.15	44.85	Pk	34.3	-17.5	0	61.65	-	-	74	-12.35	252	257	V
2	*5.1482	47.9	Pk	34.3	-17.5	0	64.7	-	-	74	-9.3	252	257	V
3	*5.15	33.03	RMS	34.3	-17.5	0	49.83	54	-4.17	-	-	252	257	V
4	*5.14942	34.14	RMS	34.3	-17.5	0	50.94	54	-3.06	-	-	252	257	V

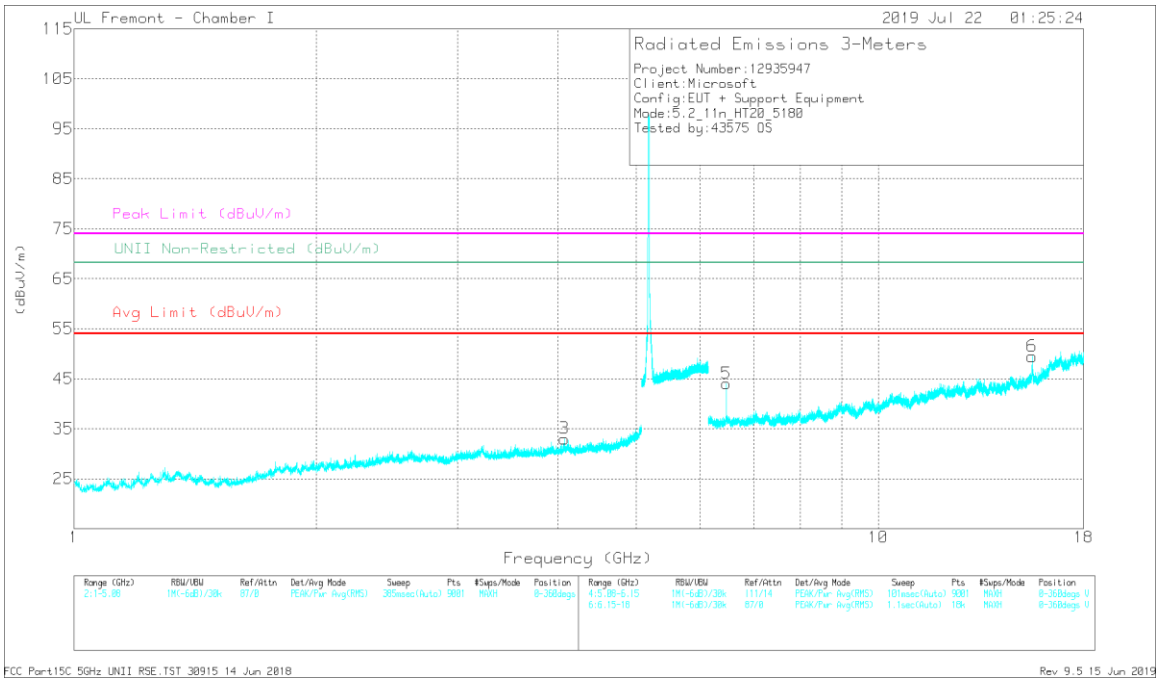
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 3.89223	34.11	PK-U	33.1	-28.7	0	38.51	-	-	74	-35.49	-	-	2	184	H
	* 3.89226	24.59	ADR	33.1	-28.7	0	28.99	54	-25.01	-	-	-	-	2	184	H
1	* 1.53602	38.38	PK-U	28.1	-33.3	0	33.18	-	-	74	-40.82	-	-	150	148	H
	* 1.53603	29.45	ADR	28.1	-33.3	0	24.25	54	-29.75	-	-	-	-	150	148	H
3	* 4.07197	34.04	PK-U	33.4	-28.6	0	38.84	-	-	74	-35.16	-	-	58	100	V
	* 4.0701	24.39	ADR	33.4	-28.6	0	29.19	54	-24.81	-	-	-	-	58	100	V
4	* 11.91995	27.82	PK-U	38.6	-16.5	0	49.92	-	-	74	-24.08	-	-	289	138	H
	* 11.92184	18.74	ADR	38.7	-16.4	0	41.04	54	-12.96	-	-	-	-	289	138	H
6	* 15.53752	30.83	PK-U	40.1	-14.1	0	56.83	-	-	74	-17.17	-	-	196	315	V
	* 15.5364	21.58	ADR	40.1	-14	0	47.68	54	-6.32	-	-	-	-	196	315	V
5	6.47611	36.43	PK-U	35.7	-21.1	0	51.03	-	-	-	-	68.2	-17.17	220	192	V
	6.47607	29.33	ADR	35.7	-21.1	0	43.93	-	-	-	-	-	-	220	192	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

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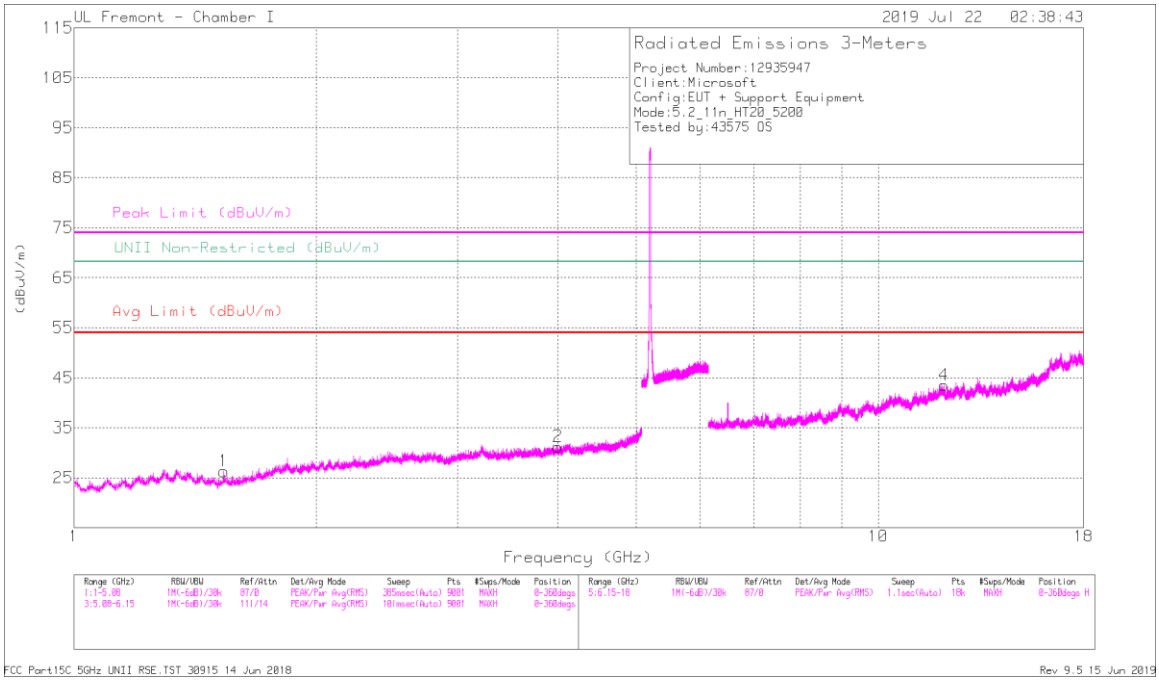
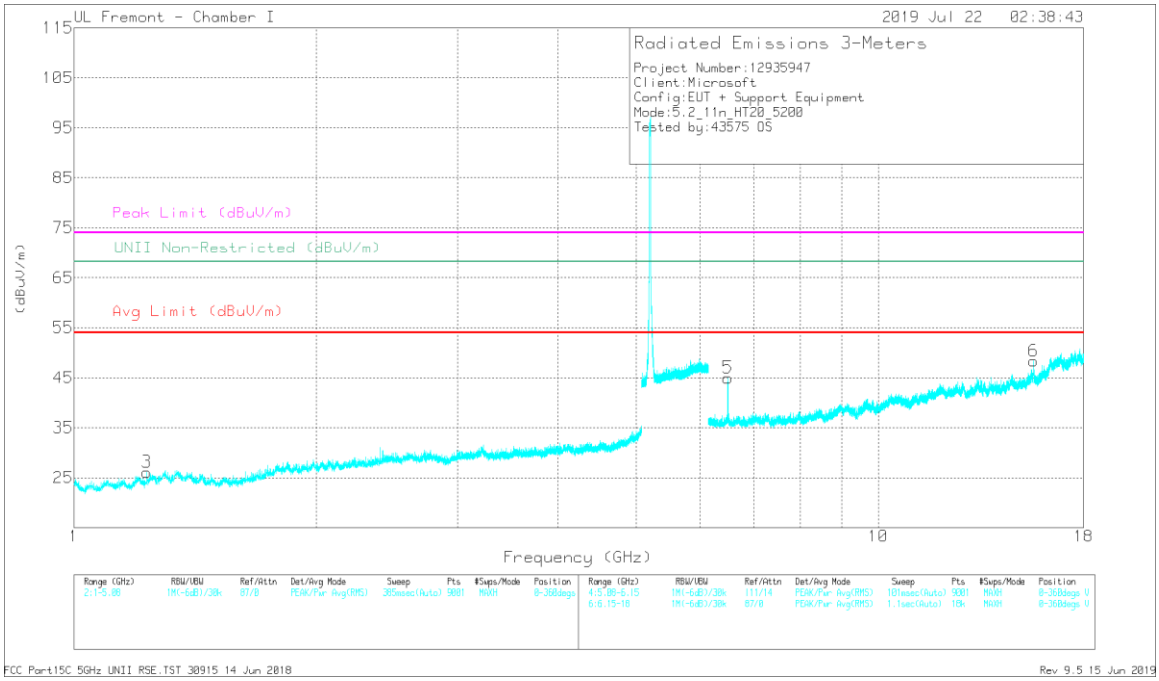
MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 3.99879	34.96	PK-U	33.3	-29.7	0	38.56	-	-	74	-35.44	-	-	125	109	H
	* 3.99882	25.09	ADR	33.3	-29.7	0	28.69	54	-25.31	-	-	-	-	125	109	H
1	* 1.5363	39.27	PK-U	28.1	-33.3	0	34.07	-	-	74	-39.93	-	-	164	148	H
	* 1.53596	30.71	ADR	28.1	-33.3	0	25.51	54	-28.49	-	-	-	-	164	148	H
3	* 1.23002	37.83	PK-U	28.7	-34.1	0	32.43	-	-	74	-41.57	-	-	236	117	V
	* 1.22951	27.94	ADR	28.7	-34.1	0	22.54	54	-31.46	-	-	-	-	236	117	V
4	* 12.07117	27.35	PK-U	38.9	-16.5	0	49.75	-	-	74	-24.25	-	-	143	235	H
	* 12.07124	17.57	ADR	38.9	-16.5	0	39.97	54	-14.03	-	-	-	-	143	235	H
6	* 15.59919	32.28	PK-U	40.1	-14.1	0	58.28	-	-	74	-15.72	-	-	221	298	V
	* 15.60117	23.02	ADR	40.1	-14.1	0	49.02	54	-4.98	-	-	-	-	221	298	V
5	6.50106	36.43	PK-U	35.6	-20.6	0	51.43	-	-	-	-	68.2	-16.77	215	246	V
	6.50108	28.44	ADR	35.6	-20.6	0	43.44	-	-	-	-	-	-	215	246	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

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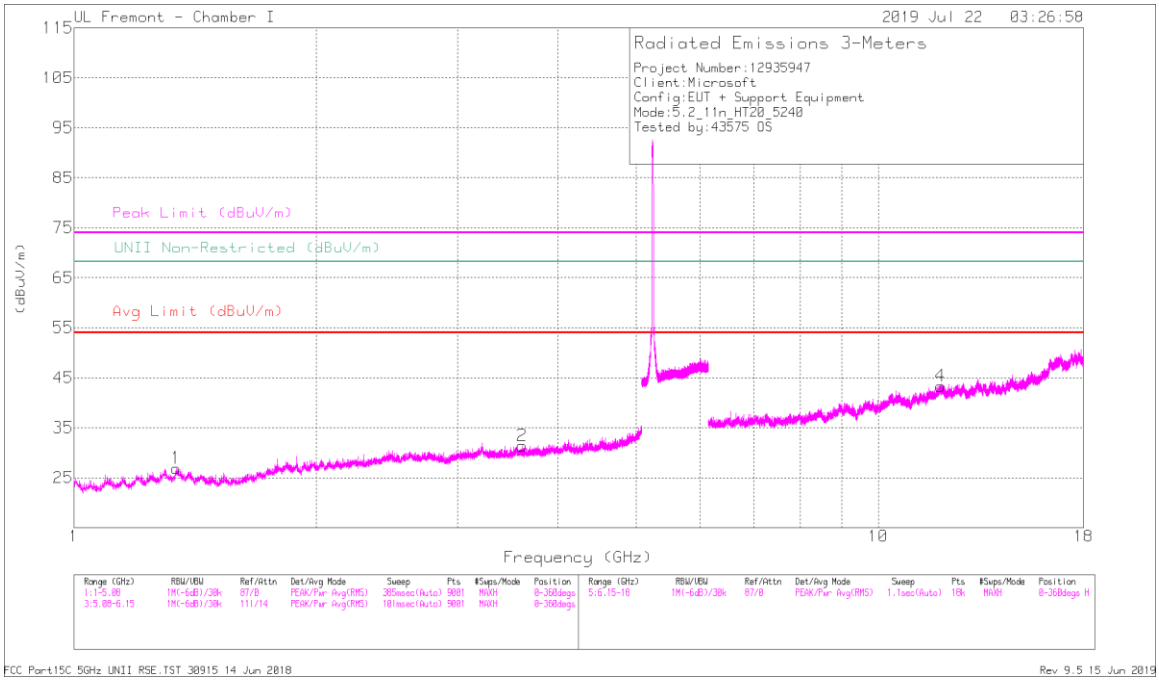
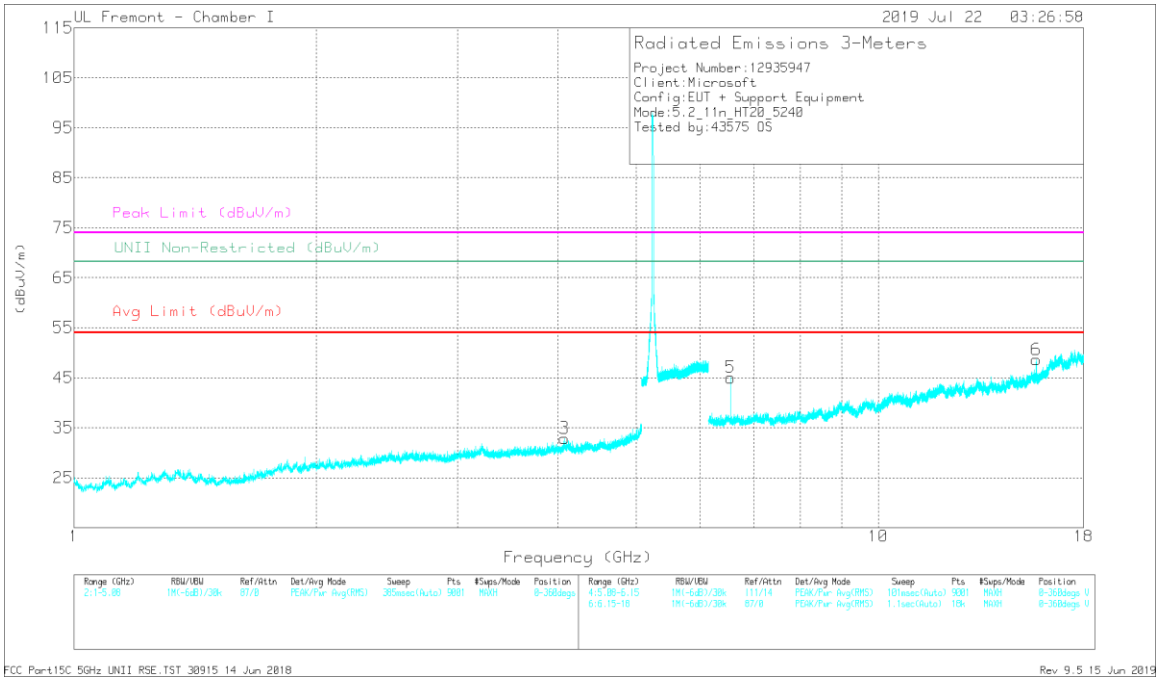
HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 3.60911	33.8	PK-U	33.1	-30.4	0	36.5	-	-	74	-37.5	-	-	297	211	H
	* 3.61	24.9	ADR	33.1	-30.4	0	27.6	54	-26.4	-	-	-	-	297	211	H
1	* 1.33754	38.02	PK-U	29.4	-33.6	0	33.82	-	-	74	-40.18	-	-	225	180	H
	* 1.34109	28.03	ADR	29.5	-33.7	0	23.83	54	-30.17	-	-	-	-	225	180	H
3	* 4.07183	35.42	PK-U	33.4	-28.6	0	40.22	-	-	74	-33.78	-	-	3	173	V
	* 4.07041	24.32	ADR	33.4	-28.6	0	29.12	54	-24.88	-	-	-	-	3	173	V
4	* 11.95581	28.43	PK-U	38.7	-16.3	0	50.83	-	-	74	-23.17	-	-	132	154	H
	* 11.95614	18.13	ADR	38.7	-16.3	0	40.53	54	-13.47	-	-	-	-	132	154	H
6	* 15.72326	34.45	PK-U	40.1	-14	0	60.55	-	-	74	-13.45	-	-	217	301	V
	* 15.72561	24.41	ADR	40	-14	0	50.41	54	-3.59	-	-	-	-	217	301	V
5	6.55116	34.14	PK-U	35.6	-21.5	0	48.24	-	-	-	-	68.2	-19.96	215	268	V
	6.55106	25.62	ADR	35.6	-21.4	0	39.82	-	-	-	-	-	-	215	268	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

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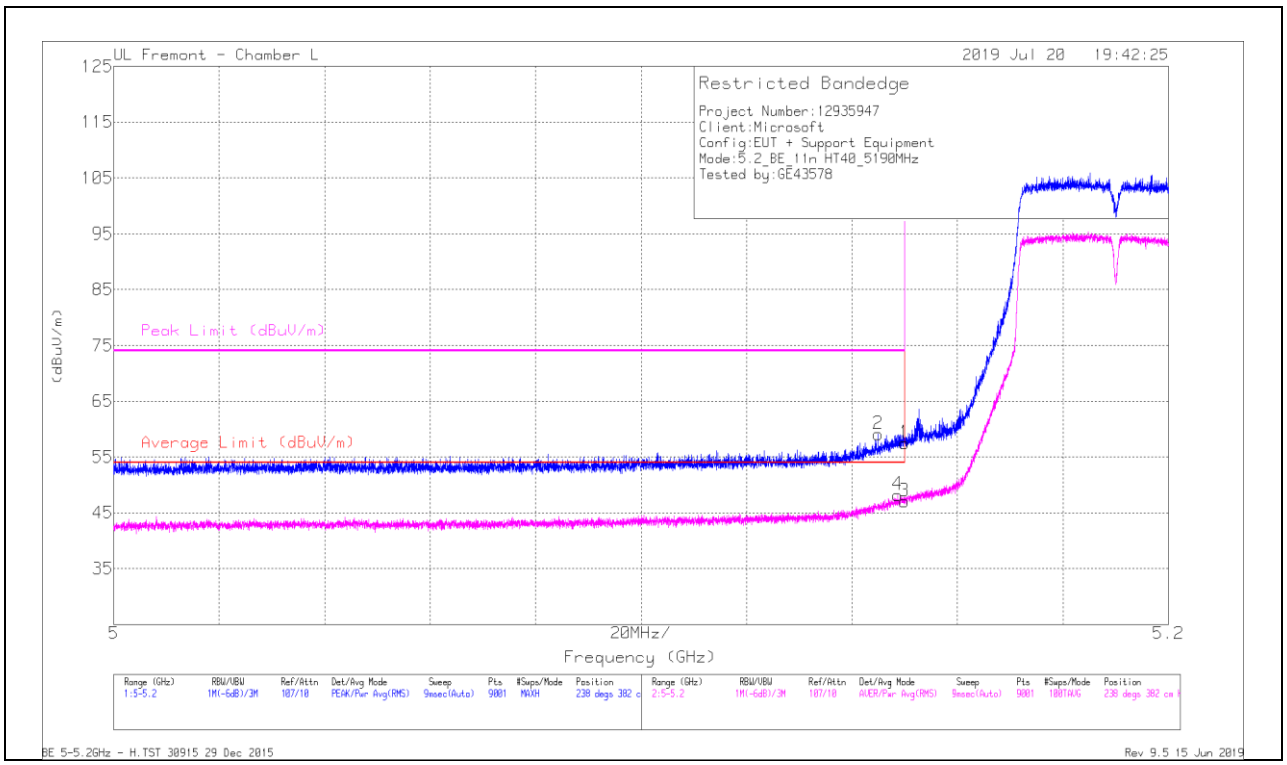
9.1.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND

2TX Antenna 1 + Antenna 2 SDM MODE

BANDEDGE (LOW CHANNEL)

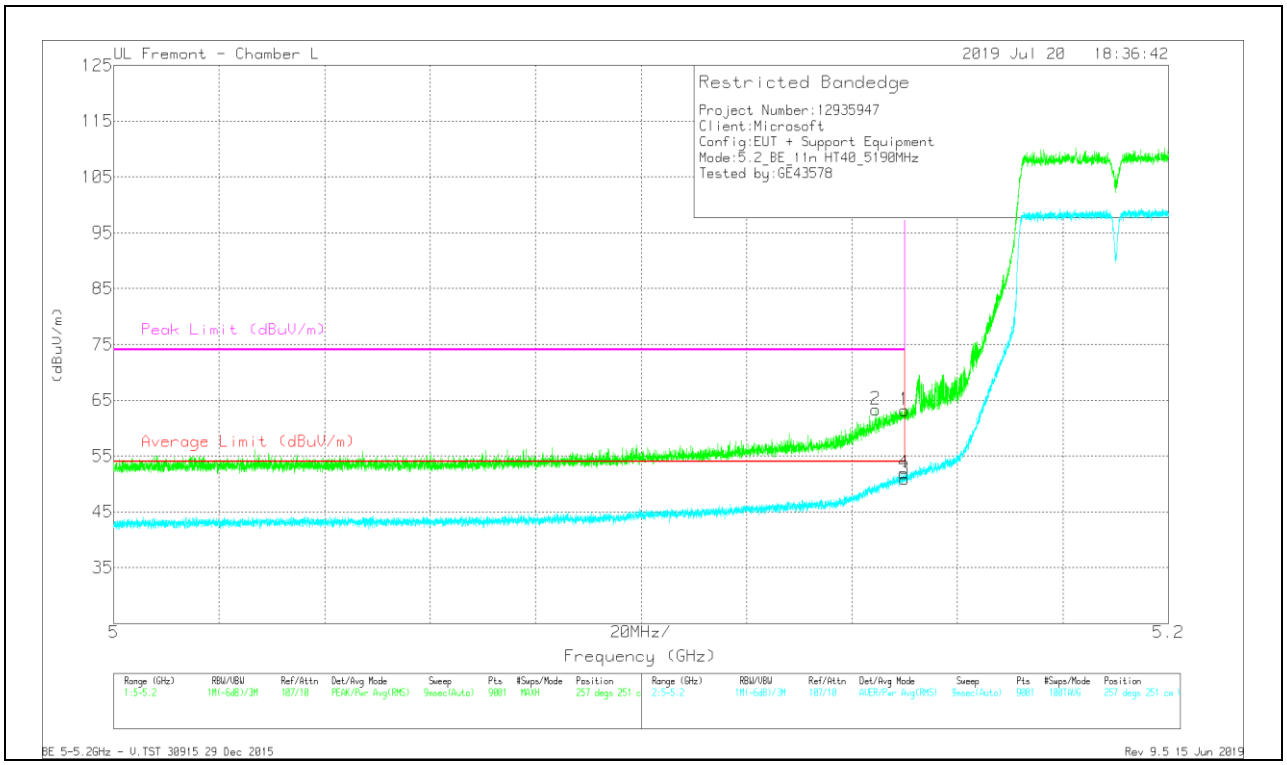
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AFT120 (dB/m)	Amp/Cbl/Fltr/Pad (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	40.7	Pk	34.3	-17.5	0	57.5	-	-	74	-16.5	238	382	H
2	*5.145	42.26	Pk	34.3	-17.5	0	59.06	-	-	74	-14.94	238	382	H
3	*5.15	30.23	RMS	34.3	-17.5	0	47.03	54	-6.97	-	-	238	382	H
4	*5.14869	31.44	RMS	34.3	-17.5	0	48.24	54	-5.76	-	-	238	382	H

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

VERTICAL RESULT

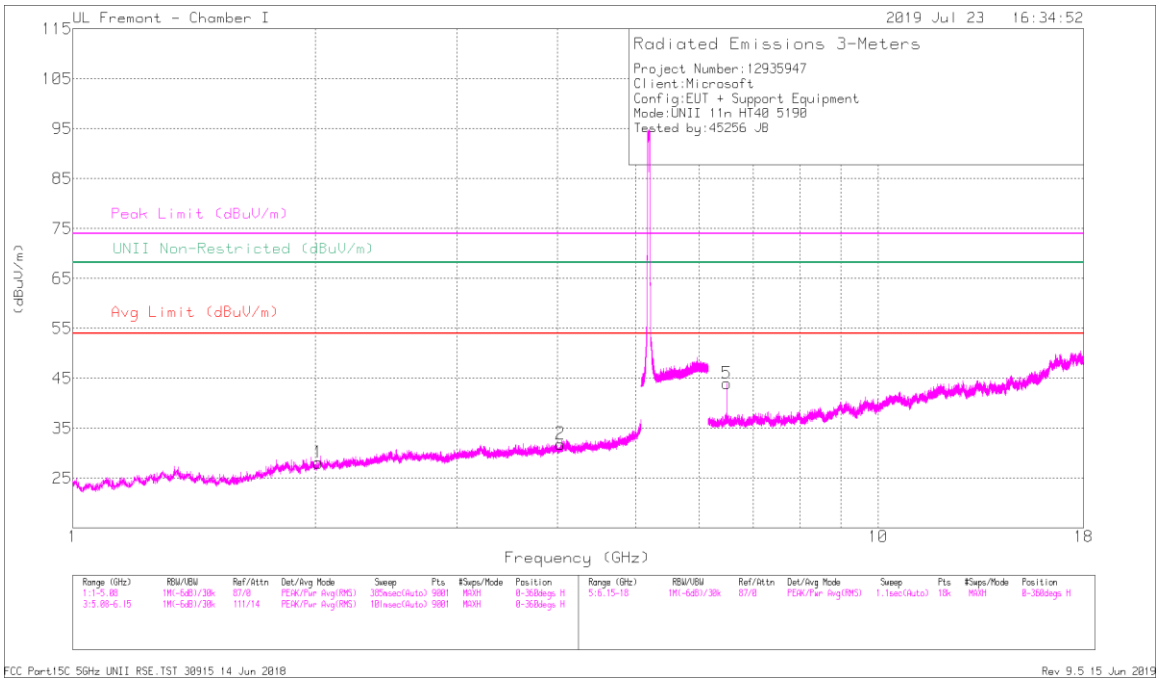


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*5.15	46.35	Pk	34.3	-17.5	0	63.15	-	-	74	-10.85	257	251	V
2	*5.14453	46.54	Pk	34.3	-17.5	0	63.34	-	-	74	-10.66	257	251	V
3	*5.15	34.15	RMS	34.3	-17.5	0	50.95	54	-3.05	-	-	257	251	V
4	*5.14987	35.05	RMS	34.3	-17.5	0	51.85	54	-2.15	-	-	257	251	V

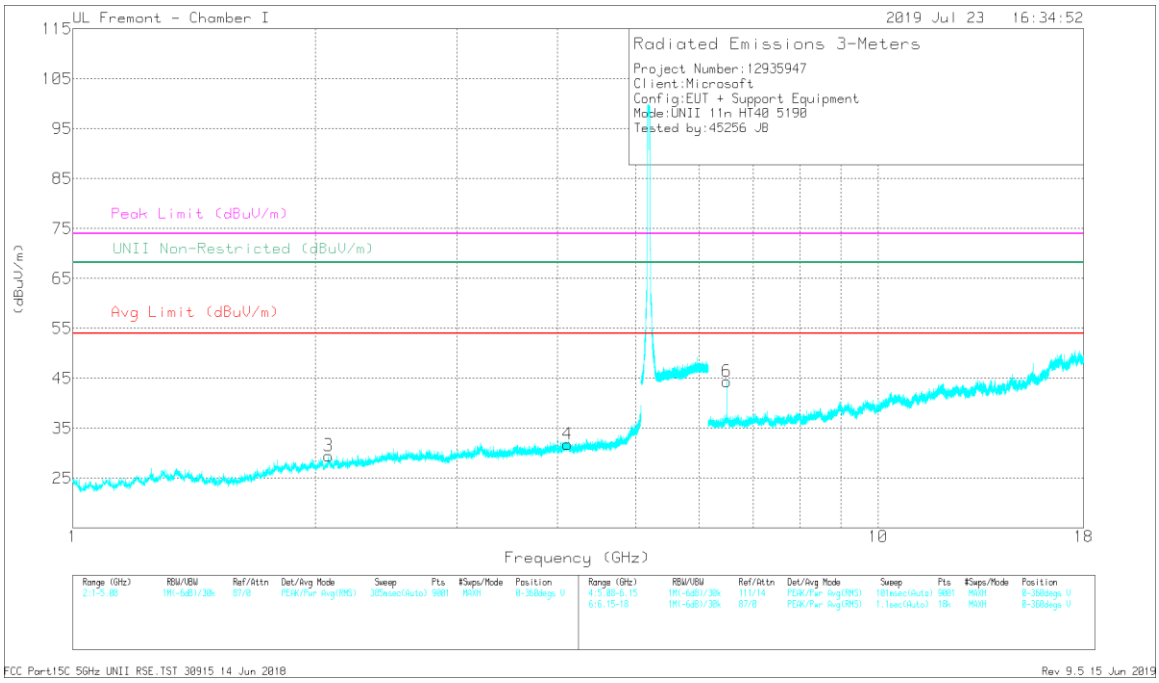
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.03359	35.63	PK-U	33.4	-29.9	0	39.13	-	-	74	-34.87		-	351	166	H
	* 4.03293	25.5	ADR	33.4	-29.9	0	29	54	-25	-	-	-	-	351	166	H
1	2.01643	36.13	PK-U	30.9	-32.1	0	34.93	-	-	-	-	68.2	-33.27	270	159	H
4	* 4.11722	34.33	PK-U	33.3	-27.8	0	39.83	-	-	74	-34.17	-	-	113	158	V
	* 4.11631	24.44	ADR	33.3	-27.8	0	29.94	54	-24.06	-	-	-	-	113	158	V
3	2.07964	37.23	PK-U	31.1	-32.2	0	36.13	-	-	-	-	68.2	-32.07	187	189	V
5	6.48704	28.87	PK-U	35.7	-21	0	43.57	-	-	-	-	68.2	-24.63	333	167	H
6	6.48632	29.12	PK-U	35.7	-21	0	43.82	-	-	-	-	68.2	-24.38	2	216	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

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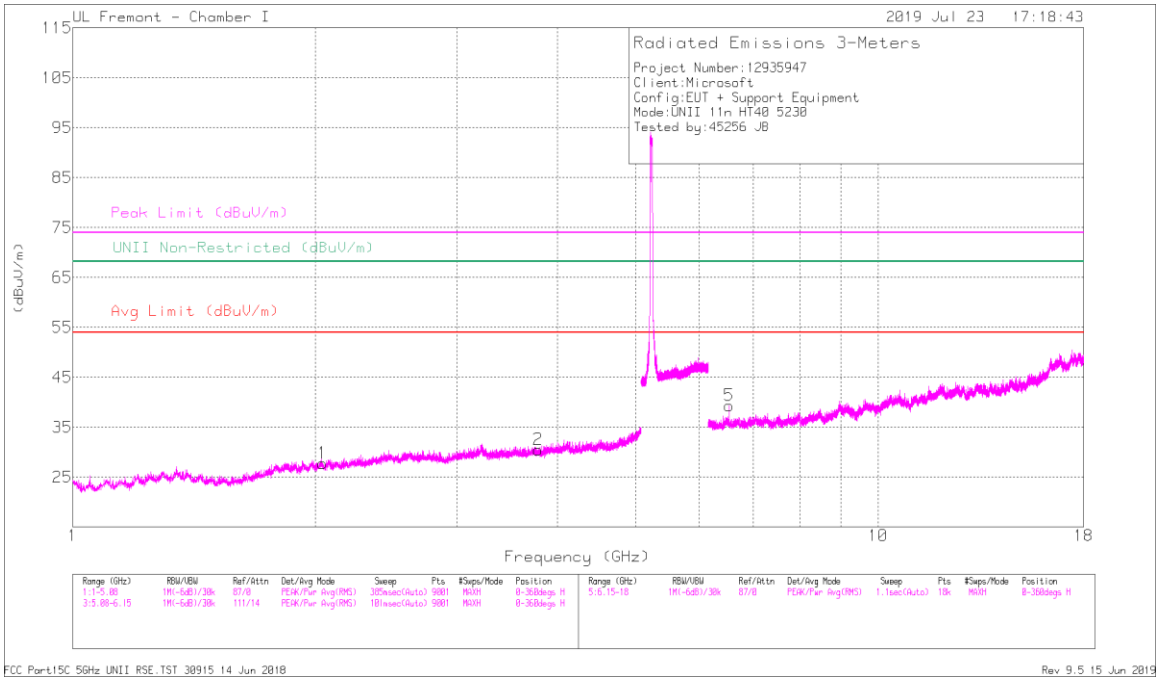
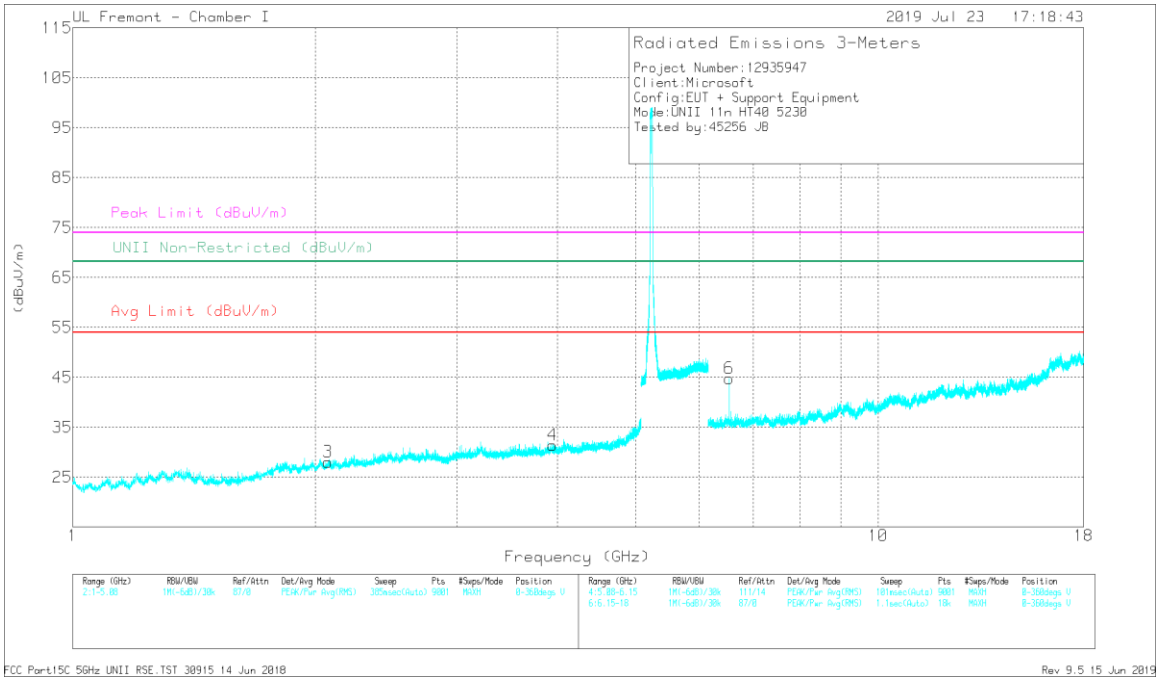
HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 3.78035	34.64	PK-U	33	-29.5	0	38.14	-	-	74	-35.86		-	278	104	H
	* 3.78369	25.03	ADR	33	-29.6	0	28.43	54	-25.57	-	-	-	-	278	104	H
1	2.03986	36.56	PK-U	31.1	-32.2	0	35.46	-	-	-	-	68.2	-32.74	131	101	H
4	* 3.9432	34.2	PK-U	33.3	-29	0	38.5	-	-	74	-35.5	-	-	226	132	V
	* 3.94179	24.32	ADR	33.3	-29	0	28.62	54	-25.38	-	-	-	-	226	132	V
3	2.07536	37.59	PK-U	31.1	-32.2	0	36.49	-	-	-	-	68.2	-31.71	194	156	V
5	6.53538	28.83	PK-U	35.5	-21.2	0	43.13	-	-	-	-	68.2	-25.07	131	134	H
6	6.53753	28.94	PK-U	35.6	-21.2	0	43.34	-	-	-	-	68.2	-24.86	252	152	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

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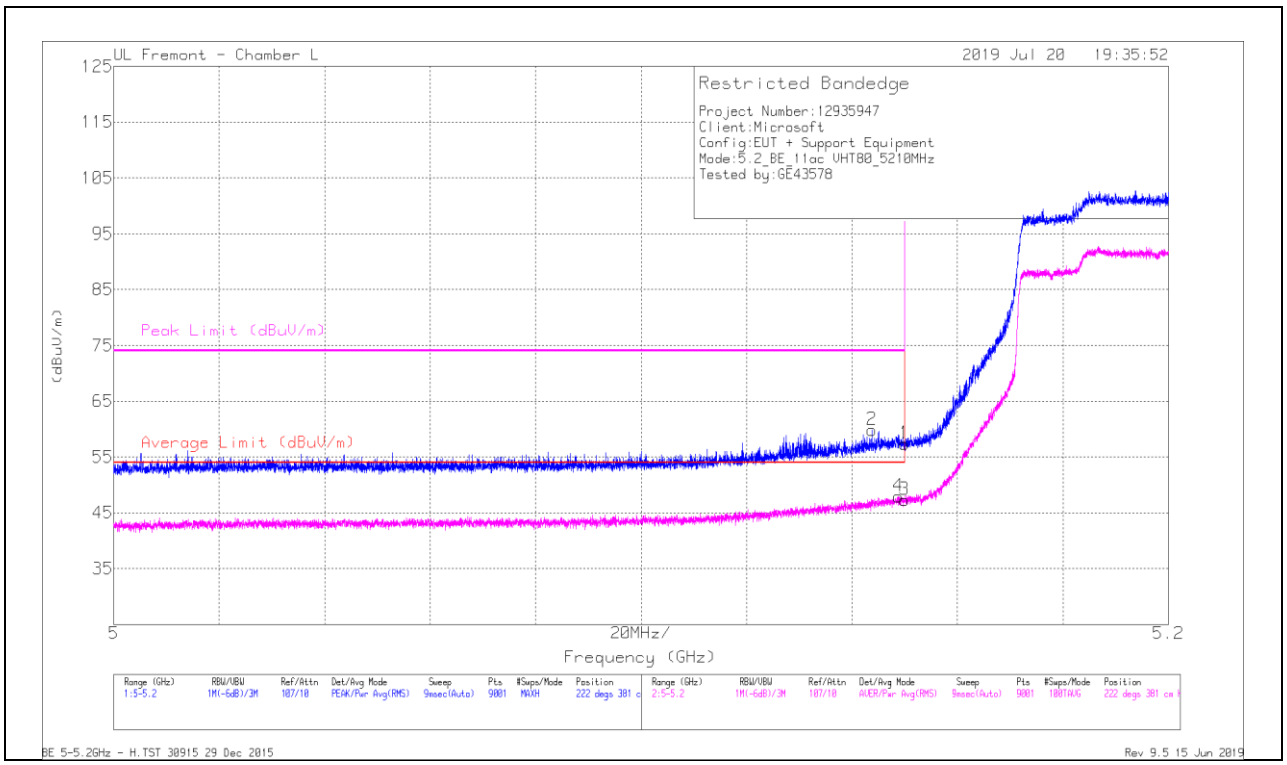
9.1.4. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

2TX Antenna 1 + Antenna 2 SDM MODE

BANDEDGE (MID CHANNEL)

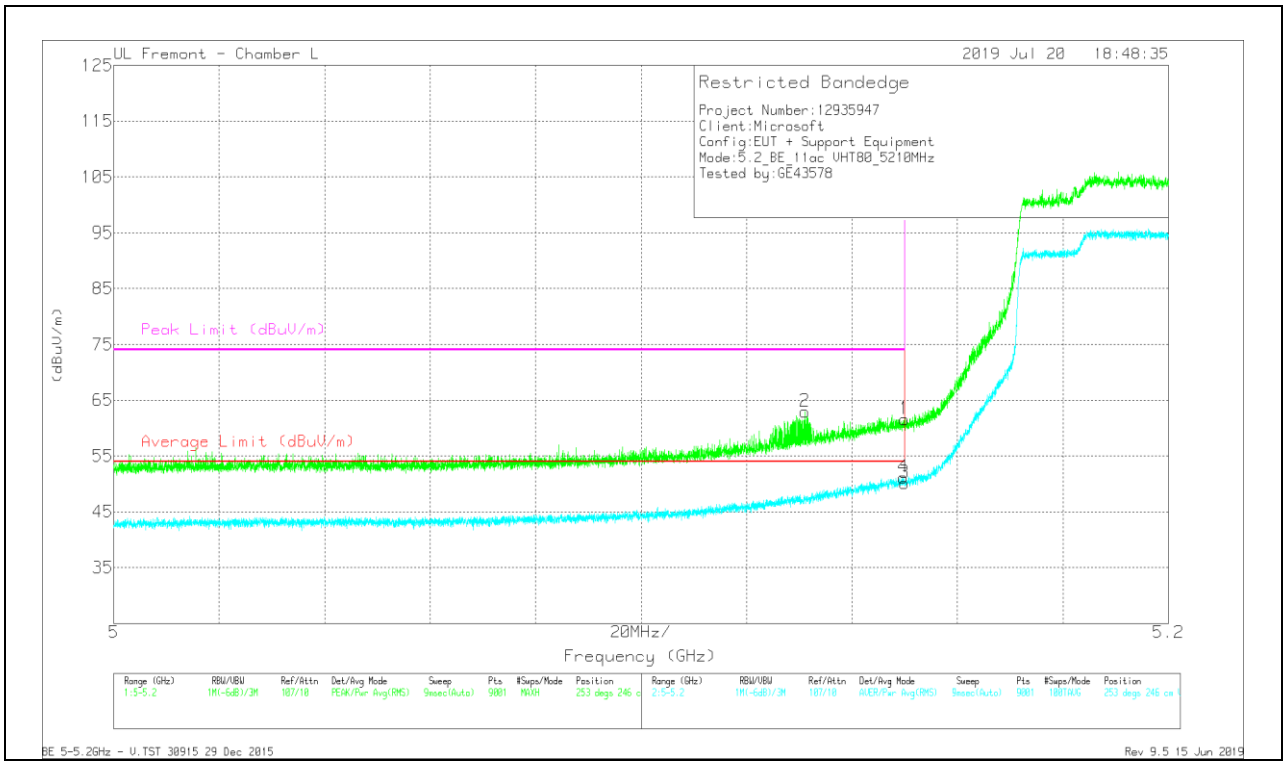
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AFT120 (dB/m)	Amp/Cbl/Fltr/Pad (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	40.57	Pk	34.3	-17.5	0	57.37	-	-	74	-16.63	222	381	H
2	*5.14375	43.1	Pk	34.3	-17.5	0	59.9	-	-	74	-14.1	222	381	H
3	*5.15	30.55	RMS	34.3	-17.5	0	47.35	54	-6.65	-	-	222	381	H
4	*5.14873	31.09	RMS	34.3	-17.5	0	47.89	54	-6.11	-	-	222	381	H

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

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Fltr/Pad (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	44.76	Pk	34.3	-17.5	0	61.56	-	-	74	-12.44	253	246	V
2	*5.13109	46.11	Pk	34.3	-17.5	0	62.91	-	-	74	-11.09	253	246	V
3	*5.15	33.42	RMS	34.3	-17.5	0	50.22	54	-3.78	-	-	253	246	V
4	*5.14978	34.31	RMS	34.3	-17.5	0	51.11	54	-2.89	-	-	253	246	V

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