CERTIFICATION TEST REPORT

Report Number. : 12607346-E4V1

Applicant	:	APPLE, INC. 1 APPLE PARK WAY CUPERTINO, CA 95014, U.S.A.
Model	:	A2160, A2216, A2217
FCC ID	:	BCG-E3305A
EUT Description	:	SMARTPHONE
Test Standard(s)	:	FCC 47 CFR PART 15 SUBPART E

Date Of Issue:
August 08, 2019

Prepared by:
UL Verification Services Inc.
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NVLAP Lab code: 200065-0

REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	8/8/2019	Initial Issue	Francisco Guarnero

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TABLE OF CONTENTS

REPORT REVISION HISTORY 2

TABLE OF CONTENTS 3

1. RADIATED TEST RESULTS 4

1.1. TRANSMITTER ABOVE 1 GHz 6
1.1.1. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND 6
1.1.2. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND 18
1.1.3. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.2 GHz BAND 28
1.1.4. TX ABOVE 1 GHz 802.11ax HE20 MODE IN THE 5.2 GHz BAND 36
1.1.5. TX ABOVE 1 GHz 802.11ax HE40 MODE IN THE 5.2 GHz BAND 60
1.1.6. TX ABOVE 1 GHz 802.11ax HE80 MODE IN THE 5.2 GHz BAND 80
1.1.7. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.3 GHz BAND 96
1.1.8. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.3 GHz BAND 108
1.1.9. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.3 GHz BAND 118
1.1.10. TX ABOVE 1 GHz 802.11ax HE20 MODE IN THE 5.3 GHz BAND 126
1.1.11. TX ABOVE 1 GHz 802.11ax HE40 MODE IN THE 5.3 GHz BAND 150
1.1.12. TX ABOVE 1 GHz 802.11ax HE80 MODE IN THE 5.3 GHz BAND 170
1.1.13. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.6 GHz BAND 186
1.1.14. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.6 GHz BAND 206
1.1.15. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.6 GHz BAND 226
1.1.16. TX ABOVE 1 GHz 802.11ax HE20 MODE IN THE 5.6 GHz BAND 238
1.1.17. TX ABOVE 1 GHz 802.11ax HE40 MODE IN THE 5.6 GHz BAND 278
1.1.18. TX ABOVE 1 GHz 802.11ax HE80 MODE IN THE 5.6 GHz BAND 318
1.1.19. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND 342
1.1.20. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND 360
1.1.21. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.8 GHz BAND 376
1.1.22. TX ABOVE 1 GHz 802.11ax HE20 MODE IN THE 5.8 GHz BAND 390
1.1.23. TX ABOVE 1 GHz 802.11ax HE40 MODE IN THE 5.8 GHz BAND 426
1.1.24. TX ABOVE 1 GHz 802.11ax HE80 MODE IN THE 5.8 GHz BAND 458

1.2. WORST CASE BELOW 1 GHZ 486

1.3. WORST CASE 18-26 GHZ 488

1.4. WORST CASE 26-40 GHZ 490

2. AC POWER LINE CONDUCTED EMISSIONS 492

2.1. AC Power Line Host 493

2.2. AC Power Line Norm 495

3. SETUP PHOTOS 497

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1. RADIATED TEST RESULTS

LIMITS

FCC §15.205 and §15.209 -Restriced bands

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

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

TEST PROCEDURE

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

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

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

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

The spectrum from 30 MHz to 1GHz and 18GHz to 40 GHz is investigated with the transmitter set to transmit at the channel with highest output power as worst-case scenario. 1GHz to 18GHz was set to the lowest, middle, and highest channels in the 5 GHz bands.

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

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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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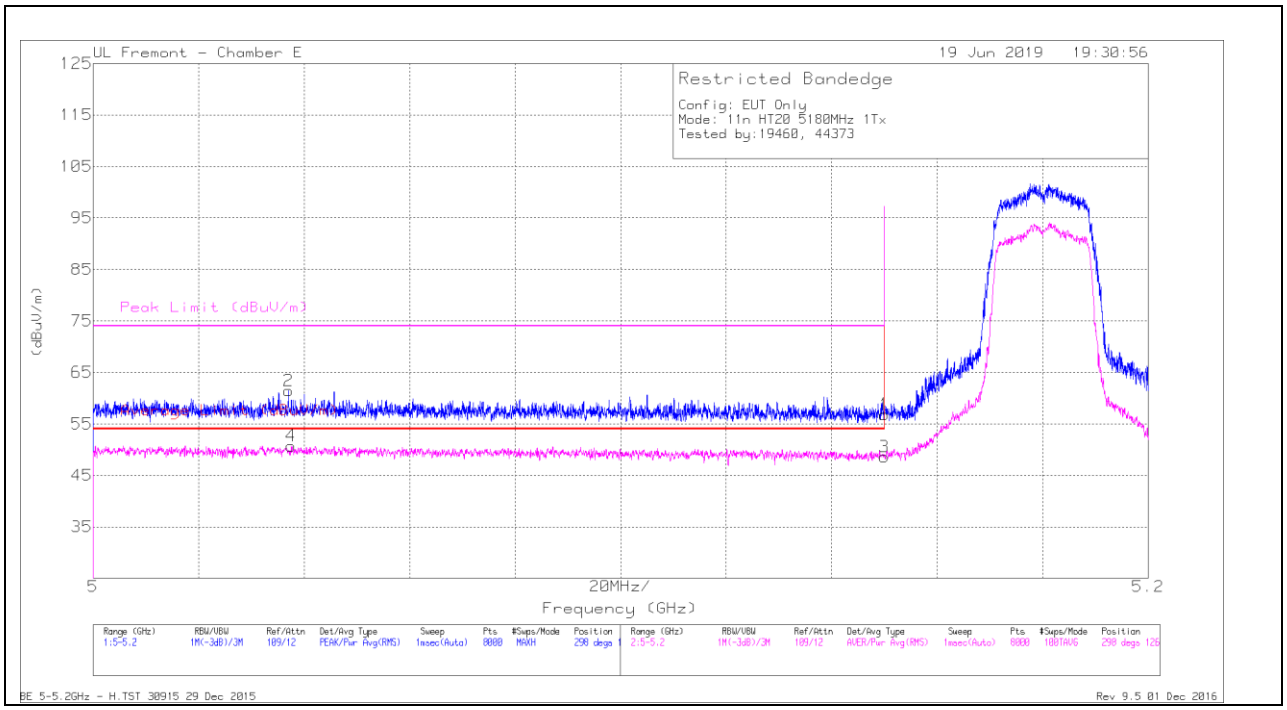
1.1. TRANSMITTER ABOVE 1 GHz

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

1TX Antenna 5 MODE

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	39.12	Pk	34.3	-16.6	56.82	-	-	74	-17.18	298	126	H
2	* 5.037	43.45	Pk	34.2	-16.2	61.45	-	-	74	-12.55	298	126	H
3	* 5.15	30.9	RMS	34.3	-16.6	48.6	54	-5.4	-	-	298	126	H
4	* 5.038	32.72	RMS	34.2	-16.2	50.72	54	-3.28	-	-	298	126	H

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

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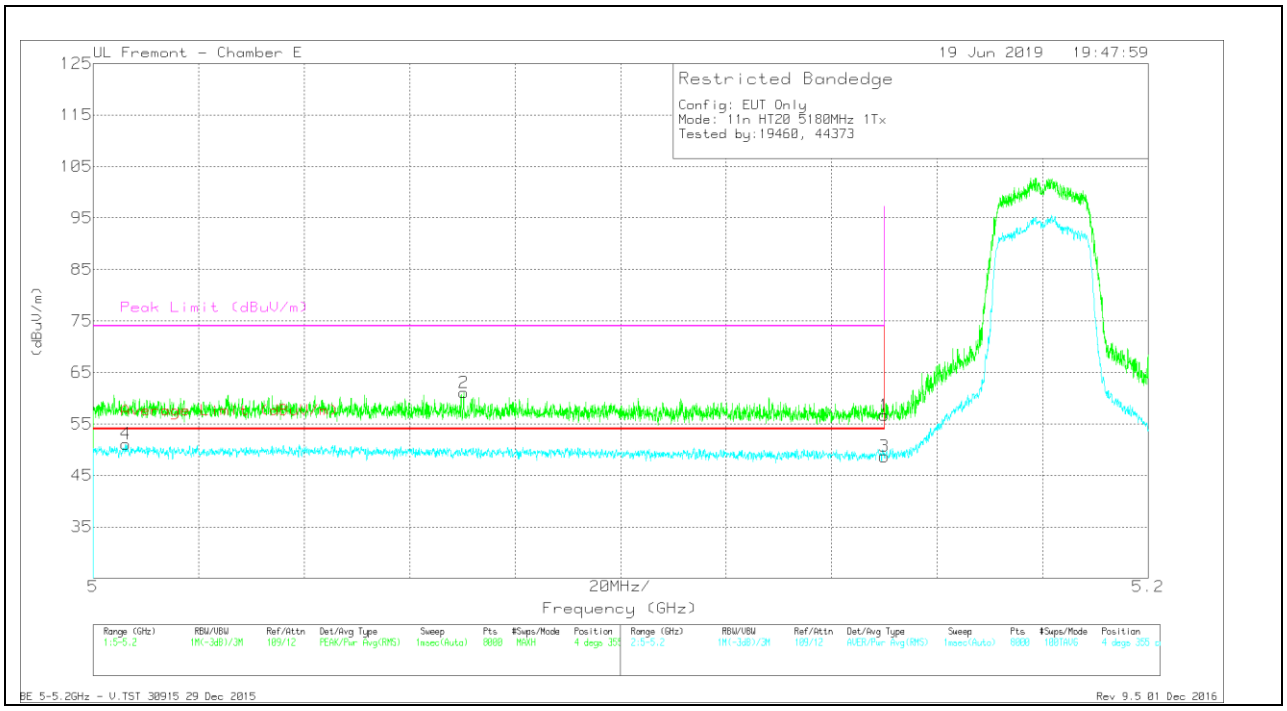
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	38.96	Pk	34.3	-16.6	56.66	-	-	74	-17.34	4	355	V
2	* 5.07	43.25	Pk	34.1	-16.3	61.05	-	-	74	-12.95	4	355	V
3	* 5.15	30.99	RMS	34.3	-16.6	48.69	54	-5.31	-	-	4	355	V
4	* 5.006	33.1	RMS	34.1	-16.1	51.1	54	-2.9	-	-	4	355	V

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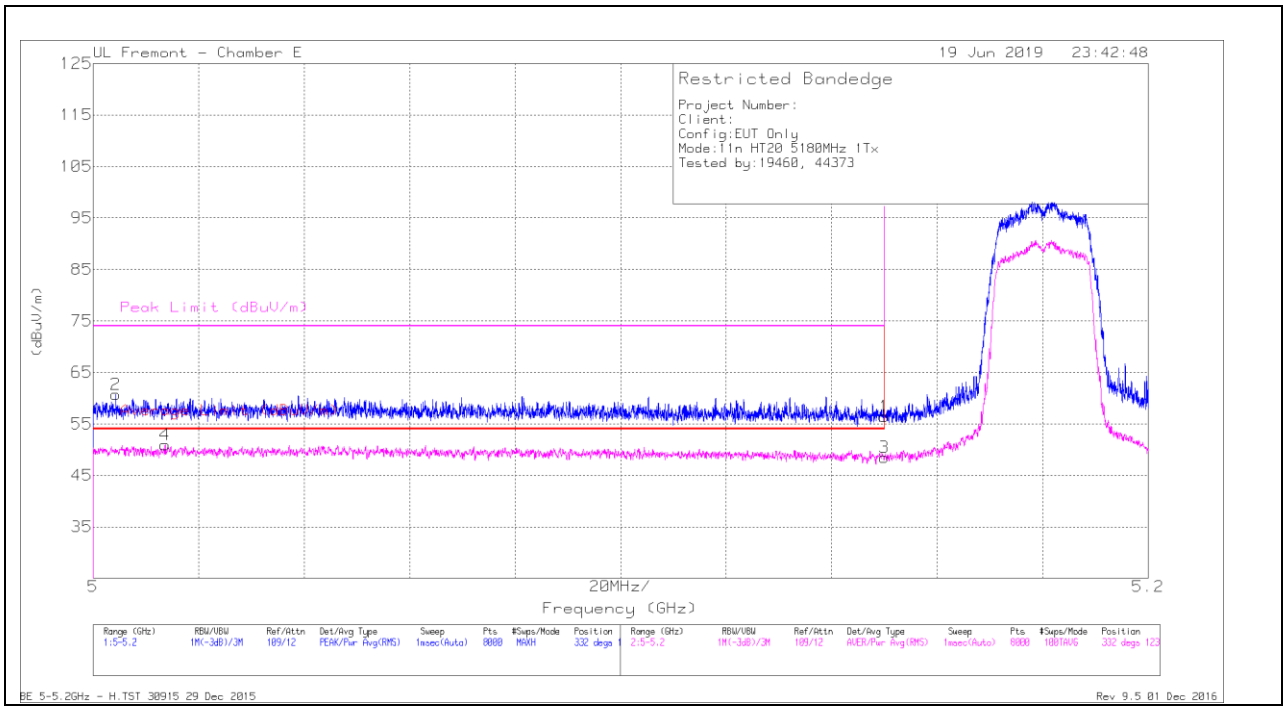
1TX Antenna 6 MODE

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	38.71	Pk	34.3	-16.6	56.41	-	-	74	-17.59	332	123	H
2	* 5.004	42.78	Pk	34.1	-16.2	60.68	-	-	74	-13.32	332	123	H
3	* 5.15	30.76	RMS	34.3	-16.6	48.46	54	-5.54	-	-	332	123	H
4	* 5.014	33.02	RMS	34.2	-16.3	50.92	54	-3.08	-	-	332	123	H

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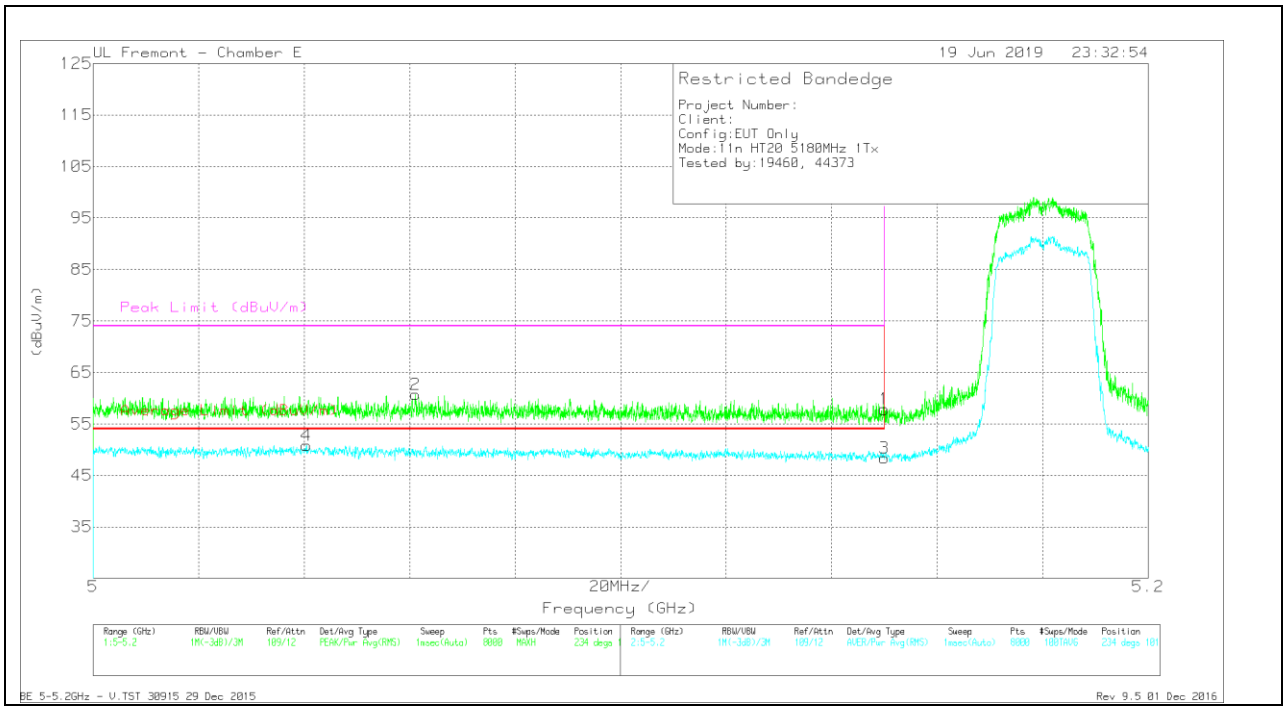
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	40.16	Pk	34.3	-16.6	57.86	-	-	74	-16.14	234	101	V
2	* 5.061	42.81	Pk	34.2	-16.3	60.71	-	-	74	-13.29	234	101	V
3	* 5.15	30.67	RMS	34.3	-16.6	48.37	54	-5.63	-	-	234	101	V
4	* 5.04	32.81	RMS	34.2	-16.2	50.81	54	-3.19	-	-	234	101	V

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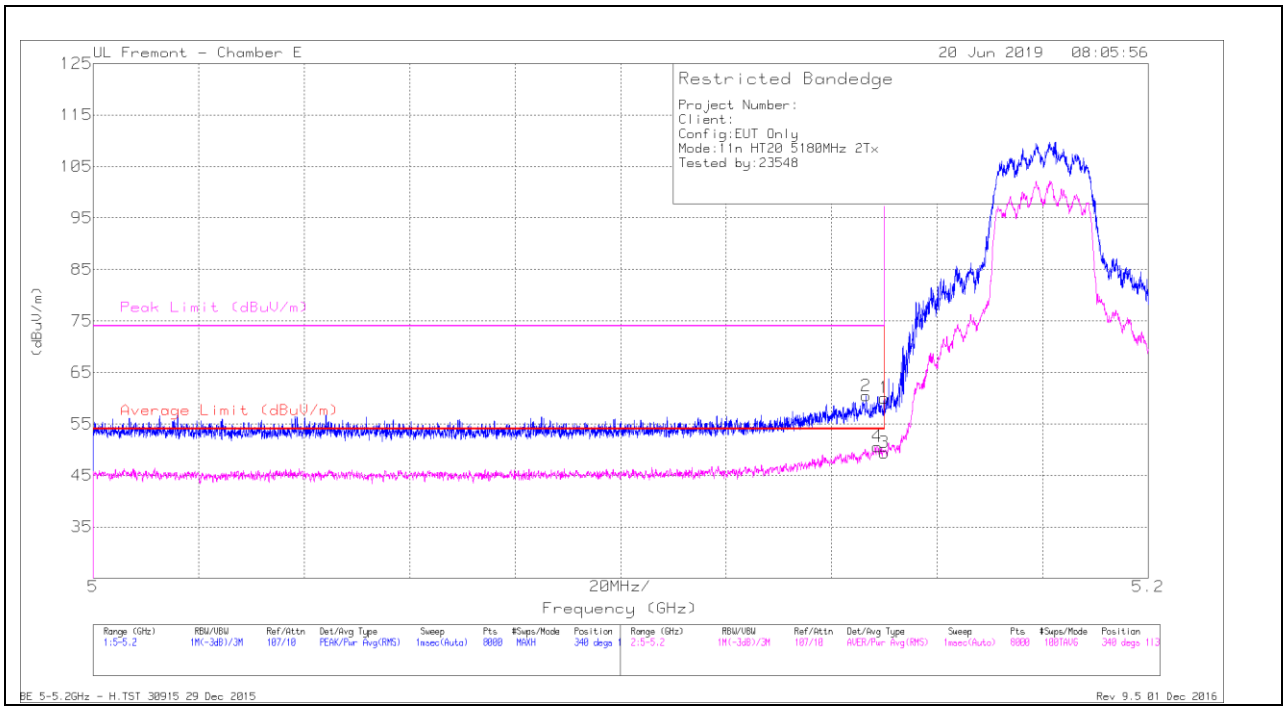
2TX Antenna 5 + Antenna 6 CDD MODE

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	47.76	Pk	34.3	-22	60.06	-	-	74	-13.94	340	113	H
2	* 5.147	48.14	Pk	34.3	-22	60.44	-	-	74	-13.56	340	113	H
3	* 5.15	37.13	RMS	34.3	-22	49.43	54	-4.57	-	-	340	113	H
4	* 5.149	38.31	RMS	34.3	-22	50.61	54	-3.39	-	-	340	113	H

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RMS - RMS detection

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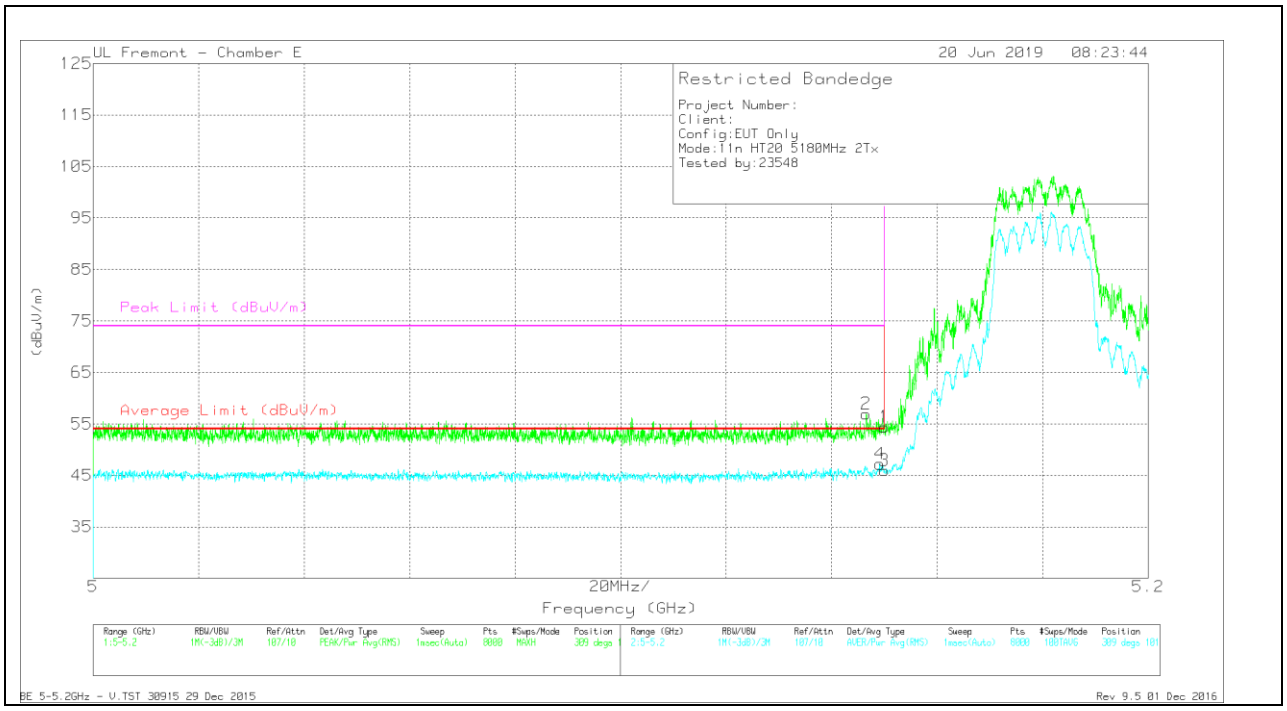
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	42.11	Pk	34.3	-22	54.41	-	-	74	-19.59	309	101	V
2	* 5.147	44.66	Pk	34.3	-22	56.96	-	-	74	-17.04	309	101	V
3	* 5.15	33.65	RMS	34.3	-22	45.95	54	-8.05	-	-	309	101	V
4	* 5.149	34.92	RMS	34.3	-22	47.22	54	-6.78	-	-	309	101	V

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

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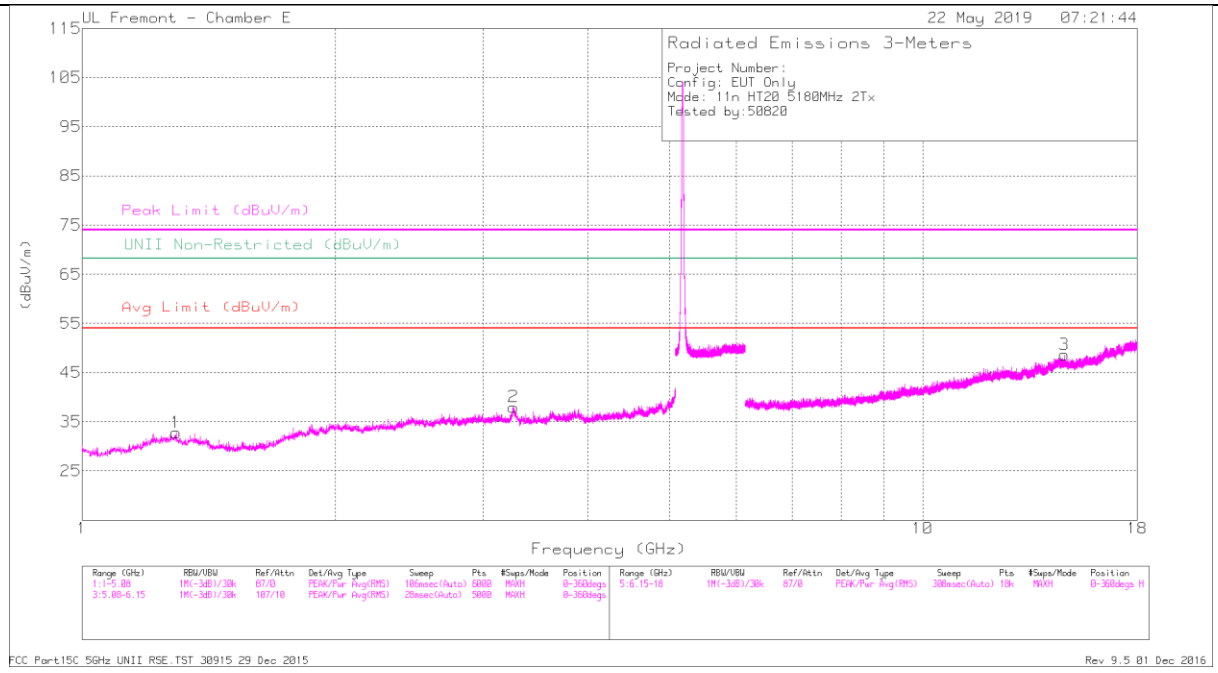
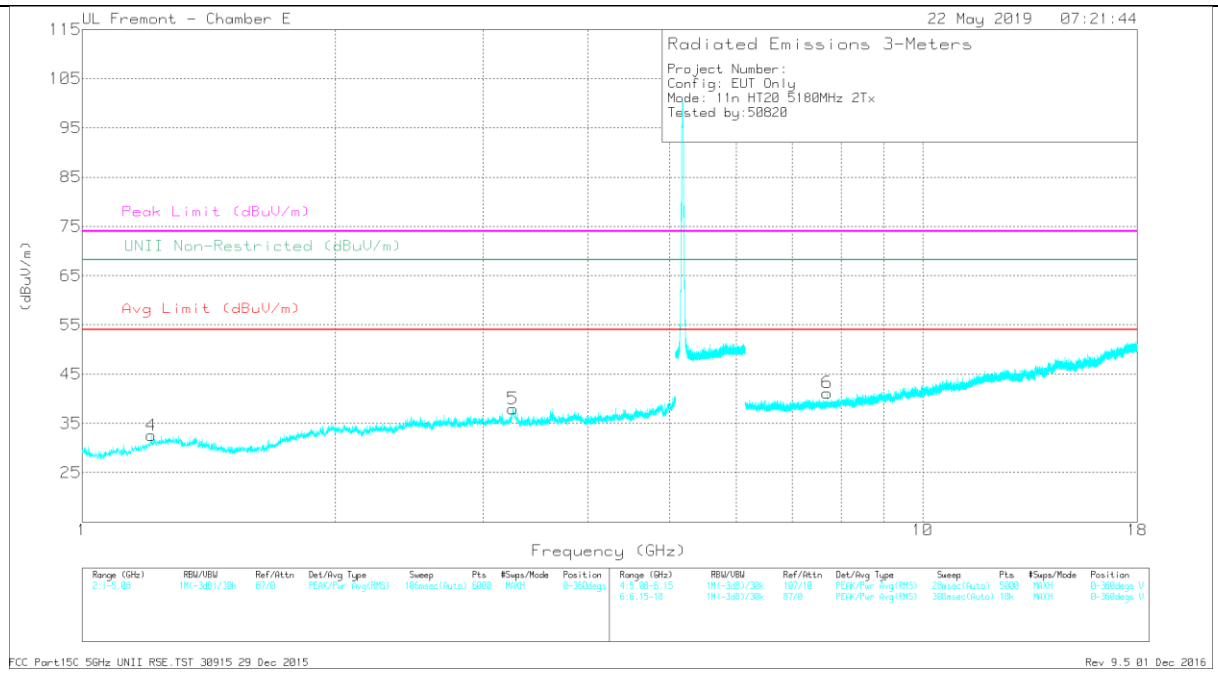
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (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	* 1.293	45.1	PK-U	30	-35.4	39.7	-	-	74	-34.3	-	-	263	123	H
	* 1.296	33.08	ADR	29.8	-35.4	27.48	54	-26.52	-	-	-	-	263	123	H
2	* 3.262	44.94	PK-U	35.1	-34.5	45.54	-	-	74	-28.46	-	-	283	153	H
	* 3.26	32.77	ADR	35.1	-34.5	33.37	54	-20.63	-	-	-	-	283	153	H
3	14.731	35.57	PK-U	40	-20.6	54.97	-	-	-	-	68.2	-13.23	0	323	H
	14.734	23.9	ADR	40.1	-20.7	43.3	-	-	-	-	-	-	0	323	H
4	* 1.209	45.04	PK-U	29.5	-35.4	39.14	-	-	74	-34.86	-	-	295	265	V
	* 1.209	32.94	ADR	29.5	-35.4	27.04	54	-26.96	-	-	-	-	295	265	V
5	3.253	45.19	PK-U	34.6	-34.5	45.29	-	-	-	-	68.2	-22.91	167	252	V
6	* 7.697	38.62	PK-U	35.8	-28.1	46.32	-	-	74	-27.68	-	-	111	247	V
	* 7.699	27.24	ADR	35.8	-28.1	34.94	54	-19.06	-	-	-	-	111	247	V

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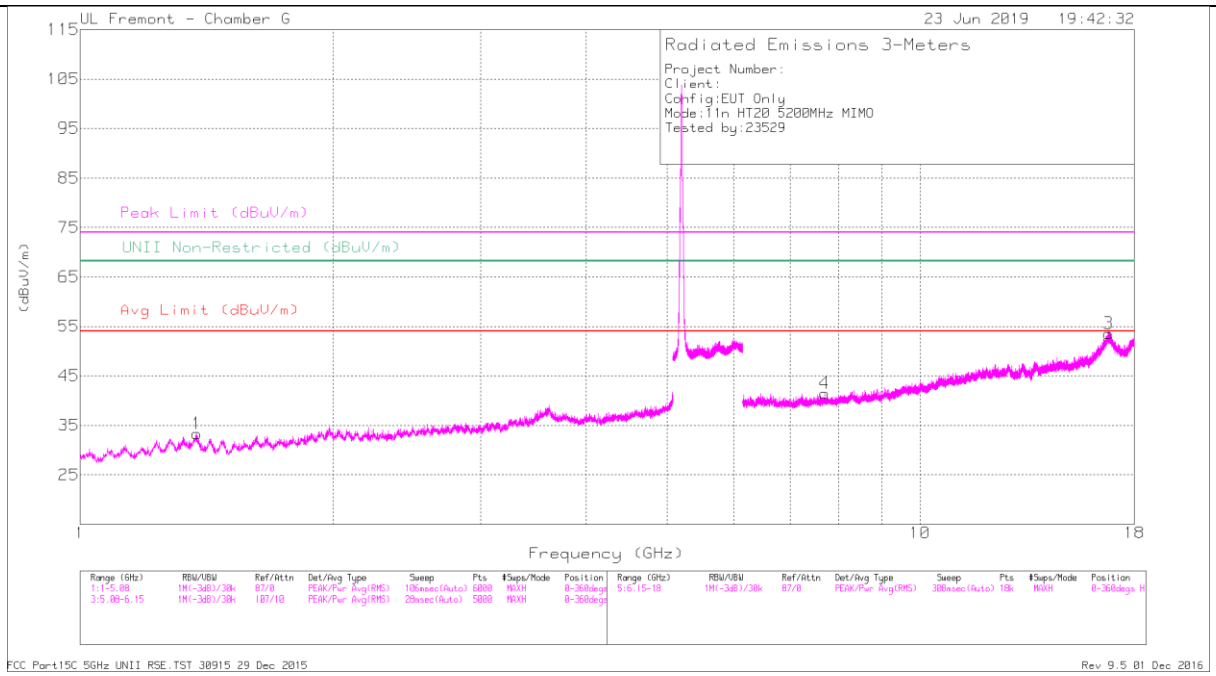
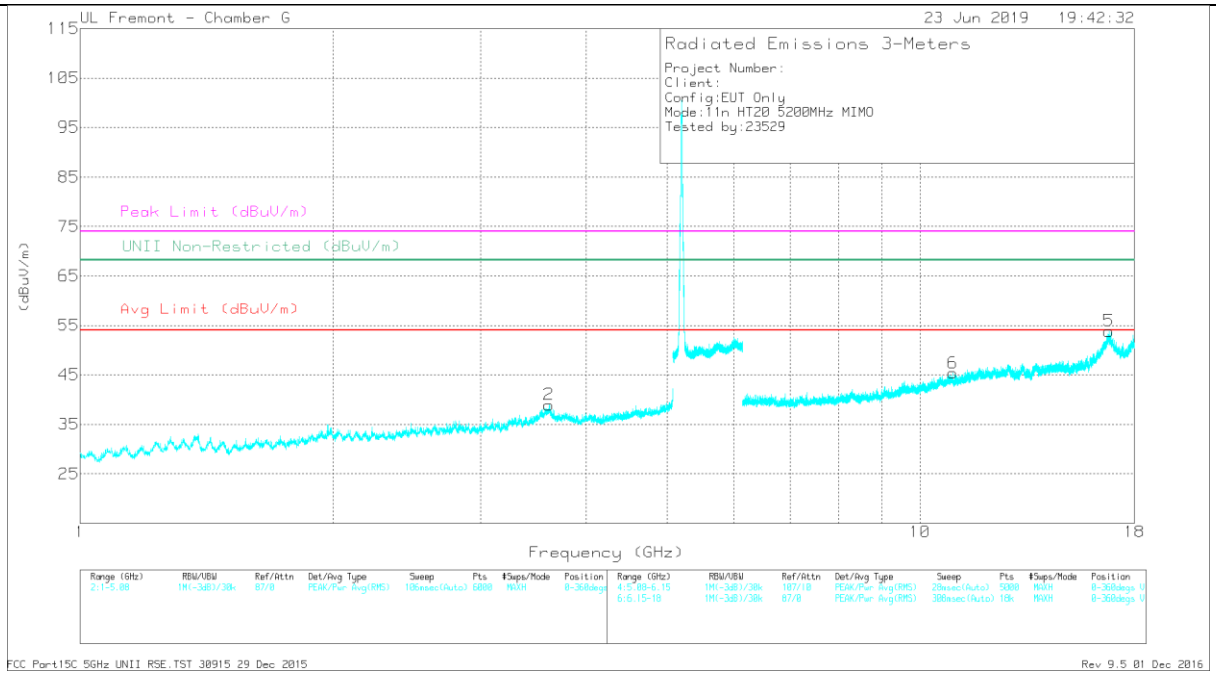
MID CHANNEL RESULTS



HORIZONTAL



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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Fltr/Pad (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	* 1.376	43.02	PK-U	29.6	-32.1	40.52	-	-	74	-33.48	-	-	0	101	H
	* 1.377	31.3	ADR	29.6	-32.1	28.8	54	-25.2	-	-	-	-	0	101	H
2	* 3.615	41.15	PK-U	35.5	-30.3	46.35	-	-	74	-27.65	-	-	0	101	V
	* 3.615	29.33	ADR	35.5	-30.3	34.53	54	-19.47	-	-	-	-	0	101	V
3	16.78	36.19	PK-U	41.7	-16.9	60.99	-	-	-	-	68.2	-7.21	0	101	H
4	* 7.697	39.72	PK-U	36	-27.1	48.62	-	-	74	-25.38	-	-	0	101	H
	* 7.696	27.8	ADR	36	-27.1	36.7	54	-17.3	-	-	-	-	0	101	H
5	16.786	35.91	PK-U	41.7	-16.9	60.71	-	-	-	-	68.2	-7.49	0	101	V
6	* 10.937	36.35	PK-U	38.3	-23.6	51.05	-	-	74	-22.95	-	-	0	101	V
	* 10.937	25.63	ADR	38.3	-23.6	40.33	54	-13.67	-	-	-	-	0	101	V

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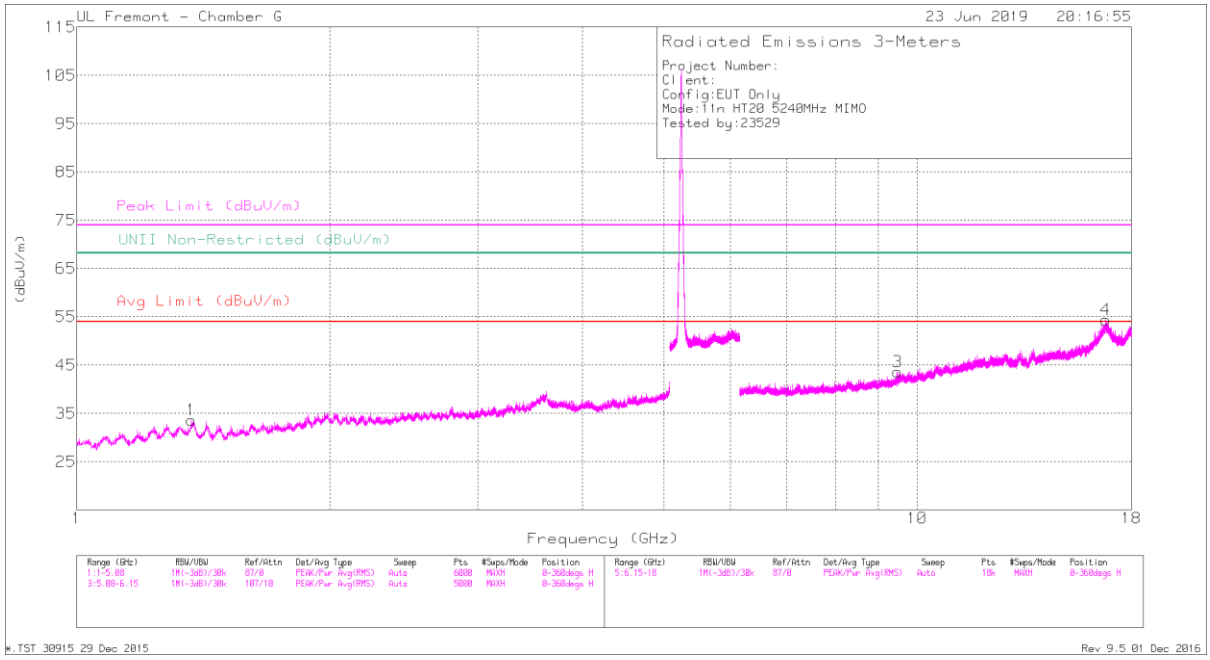
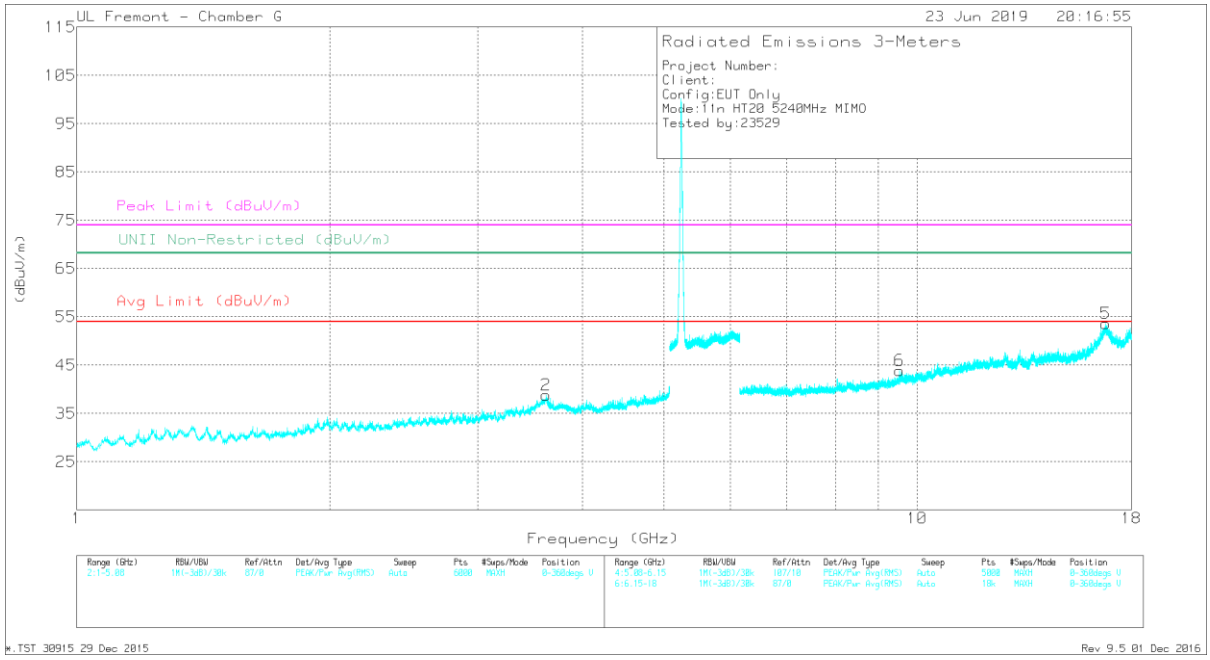
HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Fltr/Pad (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	* 1.373	42.85	PK-U	29.8	-32.1	40.55	-	-	74	-33.45	-	-	0	101	H
	* 1.374	31.23	ADR	29.7	-32.1	28.83	54	-25.17	-	-	-	-	0	101	H
2	* 3.619	40.48	PK-U	35.7	-30.3	45.88	-	-	74	-28.12	-	-	0	101	V
	* 3.617	29.17	ADR	35.7	-30.3	34.57	54	-19.43	-	-	-	-	0	101	V
3	* 9.478	38.58	PK-U	37.2	-25.6	50.18	-	-	74	-23.82	-	-	0	101	H
	* 9.478	27.08	ADR	37.2	-25.6	38.68	54	-15.32	-	-	-	-	0	101	H
4	16.787	36.27	PK-U	41.7	-16.9	61.07	-	-	-	-	68.2	-7.13	0	101	H
5	16.776	35.44	PK-U	41.8	-16.9	60.34	-	-	-	-	68.2	-7.86	0	101	V
6	9.535	37.35	PK-U	37.3	-24.9	49.75	-	-	-	-	68.2	-18.45	0	101	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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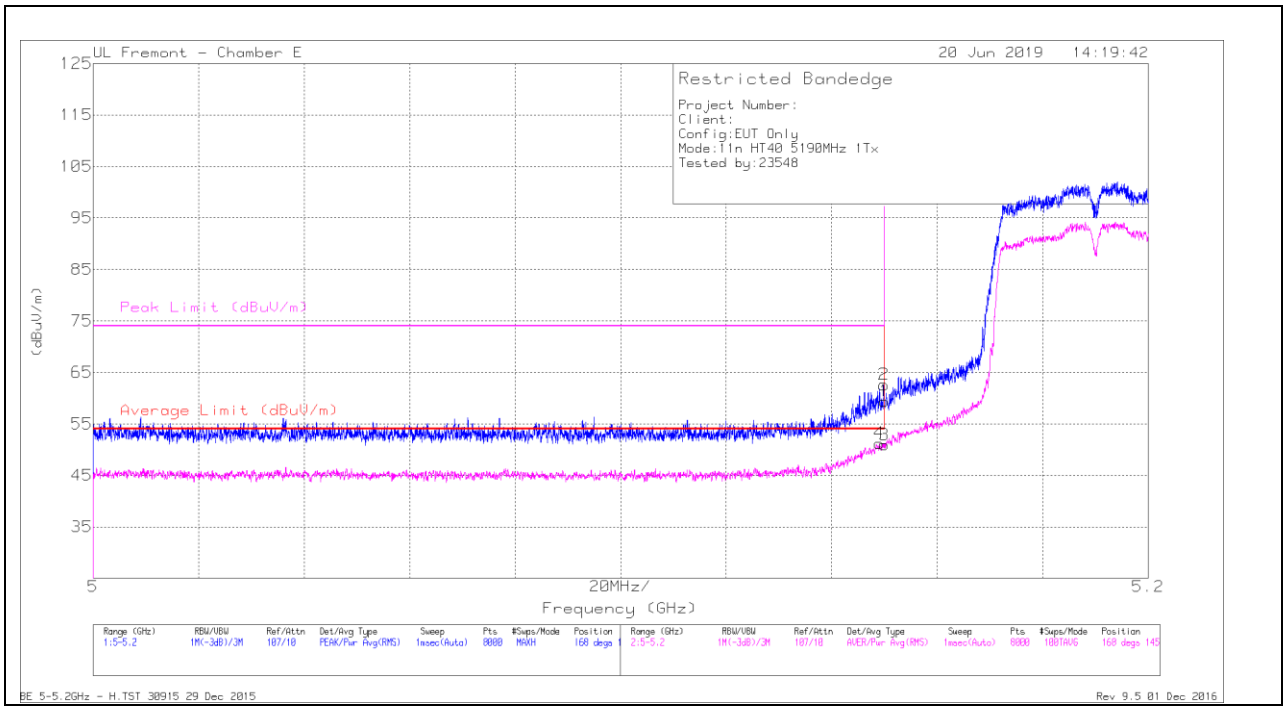
1.1.2. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND

1TX Antenna 5 MODE

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr	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	47.12	Pk	34.3	-22	0	59.42	-	-	74	-14.58	168	145	H
2	* 5.15	50.31	Pk	34.3	-22	0	62.61	-	-	74	-11.39	168	145	H
3	* 5.15	38.64	RMS	34.3	-22	.09	51.03	54	-2.97	-	-	168	145	H
4	* 5.149	38.93	RMS	34.3	-22	.09	51.32	54	-2.68	-	-	168	145	H

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

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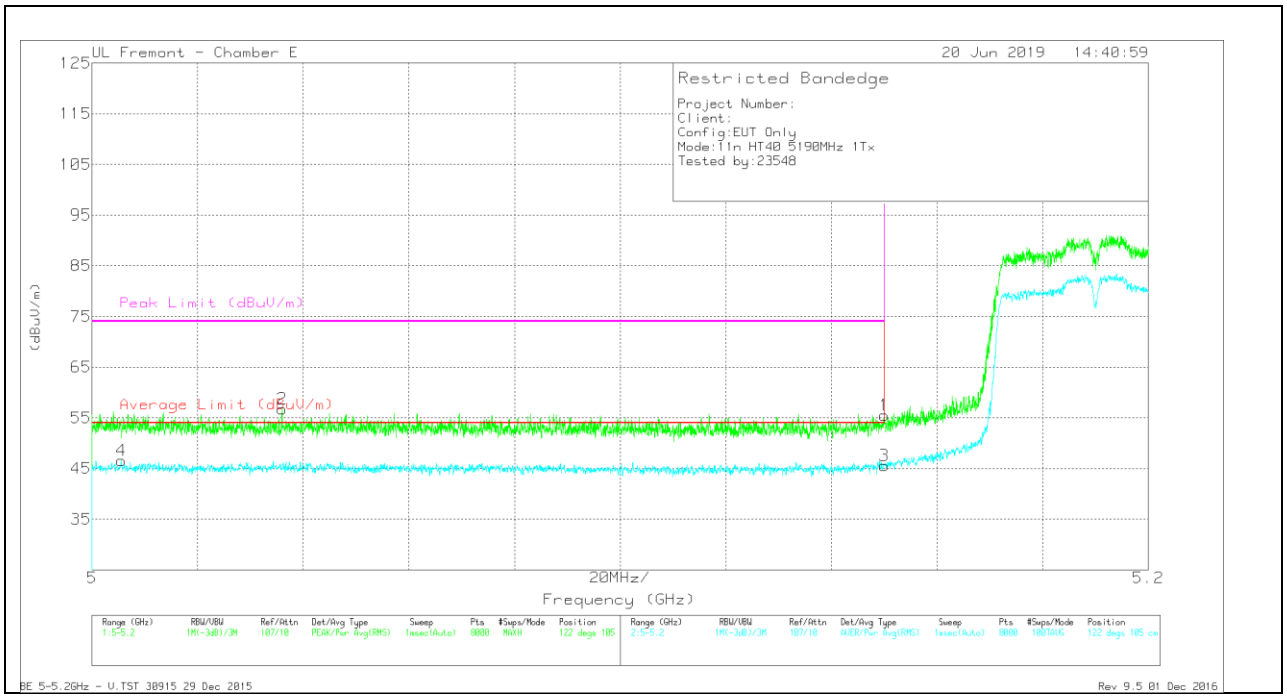
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr	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	43.18	Pk	34.3	-22	0	55.48	-	-	74	-18.52	122	105	V
2	* 5.036	44.36	Pk	34.2	-21.8	0	56.76	-	-	74	-17.24	122	105	V
3	* 5.15	33.33	RMS	34.3	-22	.09	45.72	54	-8.28	-	-	122	105	V
4	* 5.006	34.22	RMS	34.1	-21.8	.09	46.61	54	-7.39	-	-	122	105	V

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

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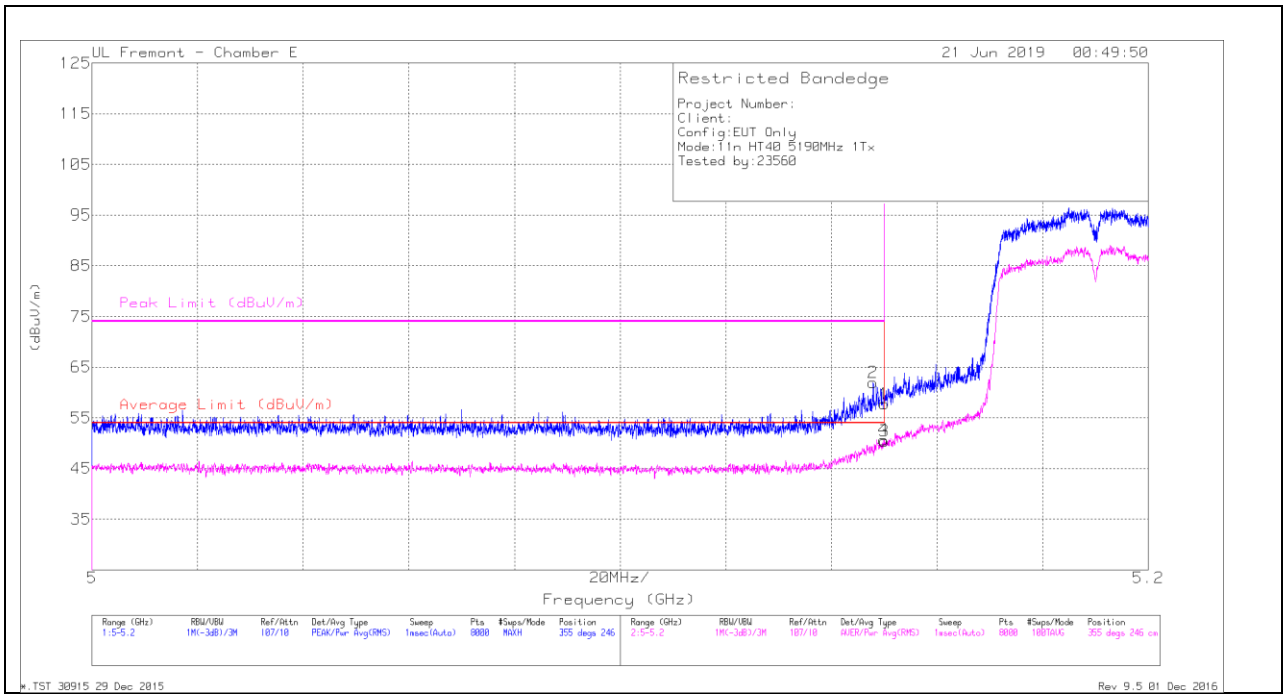
1TX Antenna 6 MODE

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr	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	45.46	Pk	34.3	-22	0	57.76	-	-	74	-16.24	355	246	H
2	* 5.148	49.67	Pk	34.3	-22	0	61.97	-	-	74	-12.03	355	246	H
3	* 5.15	38.07	RMS	34.3	-22	.09	50.46	54	-3.54	-	-	355	246	H
4	* 5.15	38.38	RMS	34.3	-22	.09	50.77	54	-3.23	-	-	355	246	H

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

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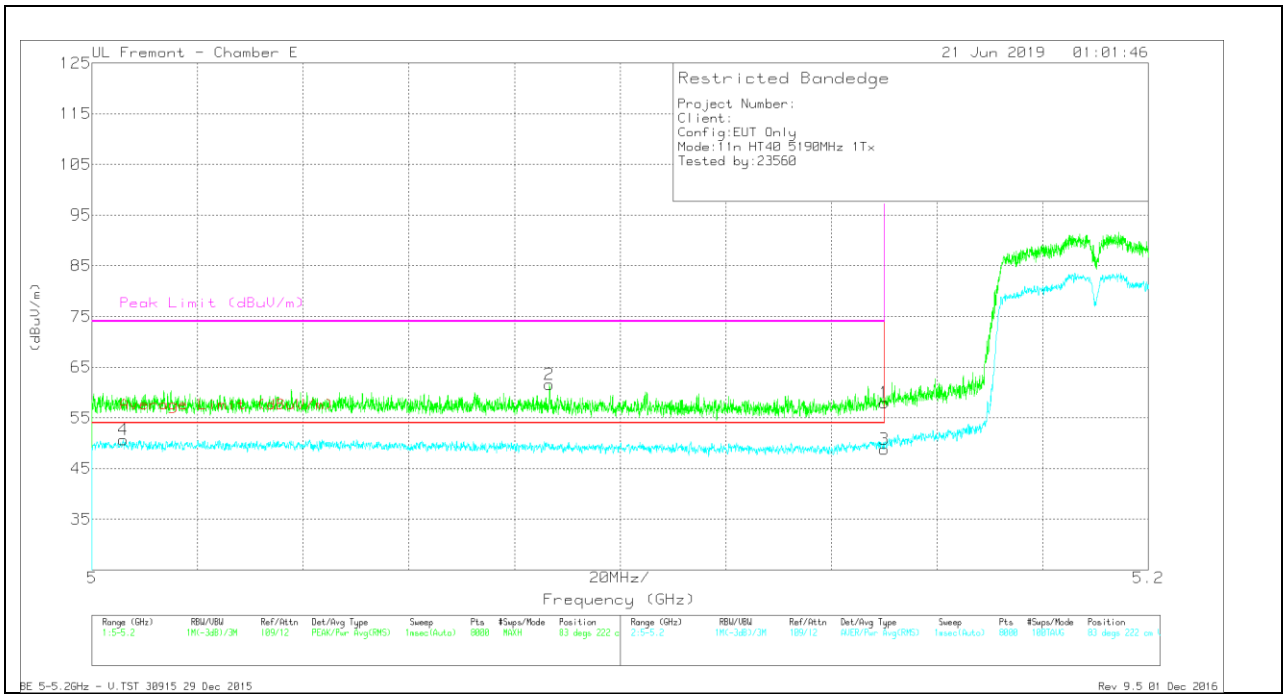
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr	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	40.3	Pk	34.3	-16.6	0	58	-	-	74	-16	83	222	V
2	* 5.087	43.71	Pk	34.2	-16.3	0	61.61	-	-	74	-12.39	83	222	V
3	* 5.15	31.09	RMS	34.3	-16.6	.09	48.88	54	-5.12	-	-	83	222	V
4	* 5.006	32.72	RMS	34.1	-16.1	.09	50.81	54	-3.19	-	-	83	222	V

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

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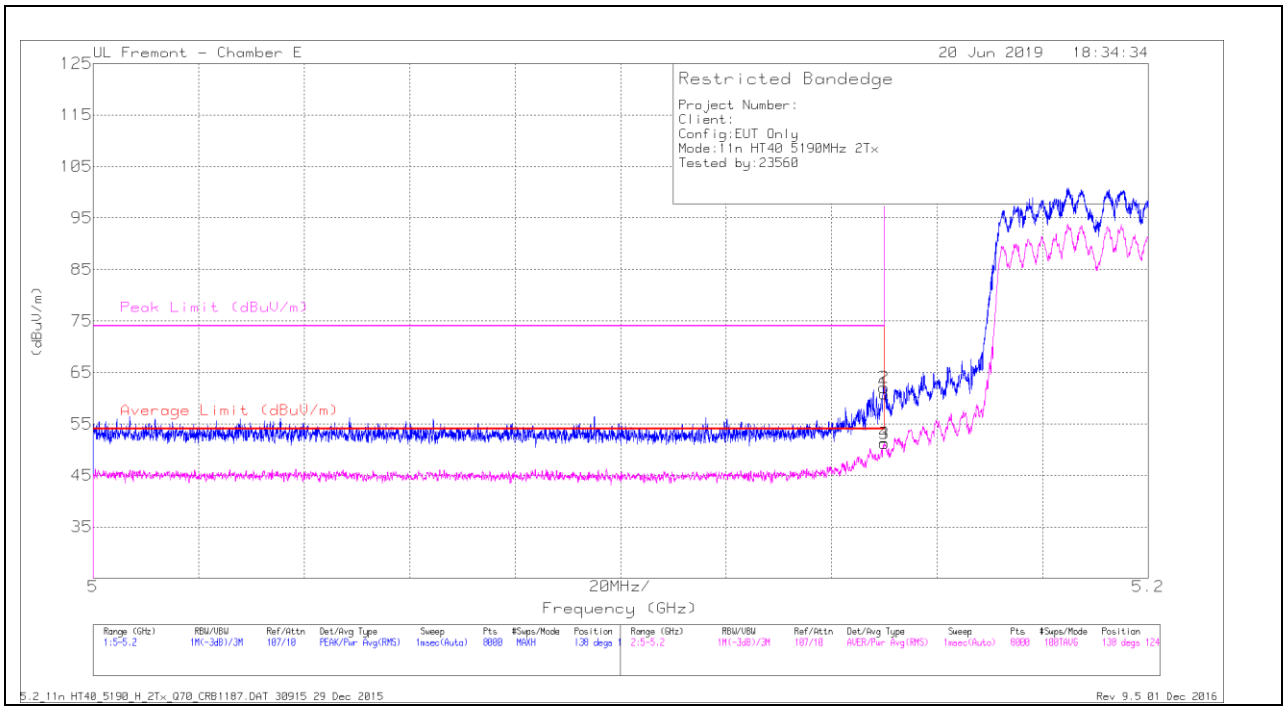
2TX Antenna 5 + Antenna 6 CDD MODE

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr	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	48.5	Pk	34.3	-22	0	60.8	-	-	74	-13.2	138	124	H
2	* 5.15	49.76	Pk	34.3	-22	0	62.06	-	-	74	-11.94	138	124	H
3	* 5.15	38.87	RMS	34.3	-22	.09	51.26	54	-2.74	-	-	138	124	H
4	* 5.15	38.96	RMS	34.3	-22	.09	51.35	54	-2.65	-	-	138	124	H

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

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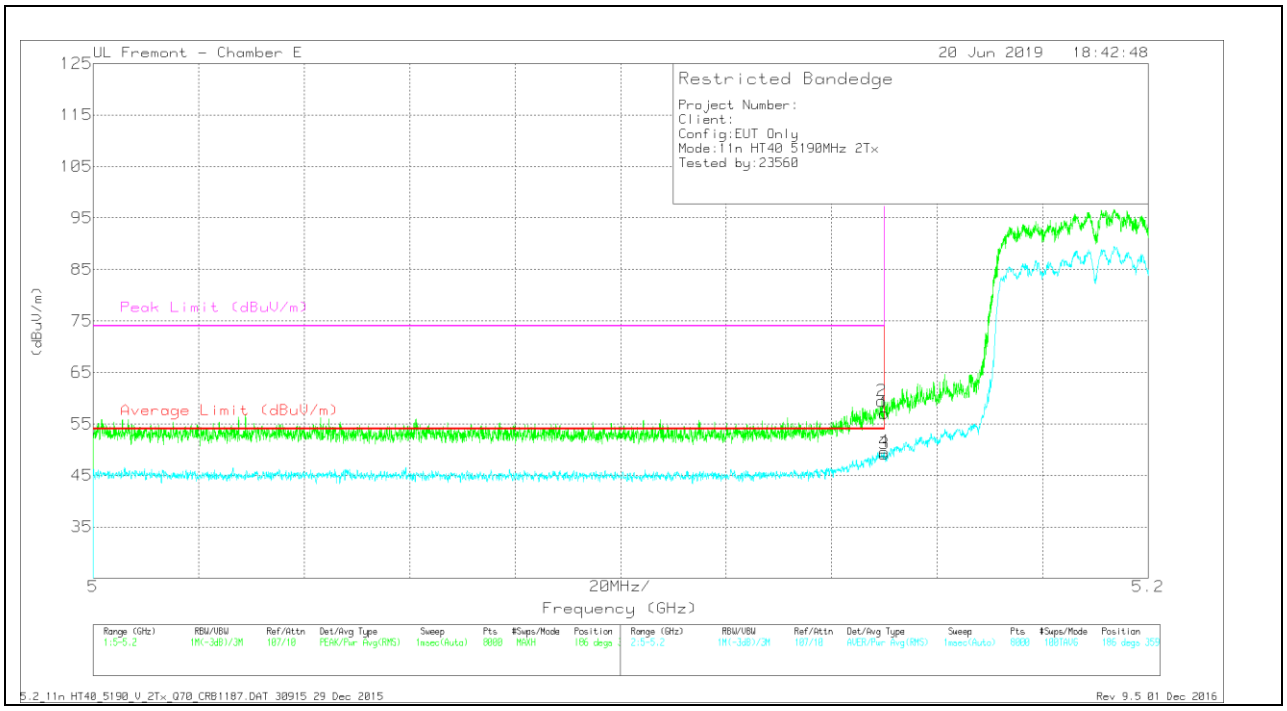
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr	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	44.79	Pk	34.3	-22	0	57.09	-	-	74	-16.91	186	359	V
2	* 5.15	47.14	Pk	34.3	-22	0	59.44	-	-	74	-14.56	186	359	V
3	* 5.15	36.86	RMS	34.3	-22	.09	49.25	54	-4.75	-	-	186	359	V
4	* 5.15	37.32	RMS	34.3	-22	.09	49.71	54	-4.29	-	-	186	359	V

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

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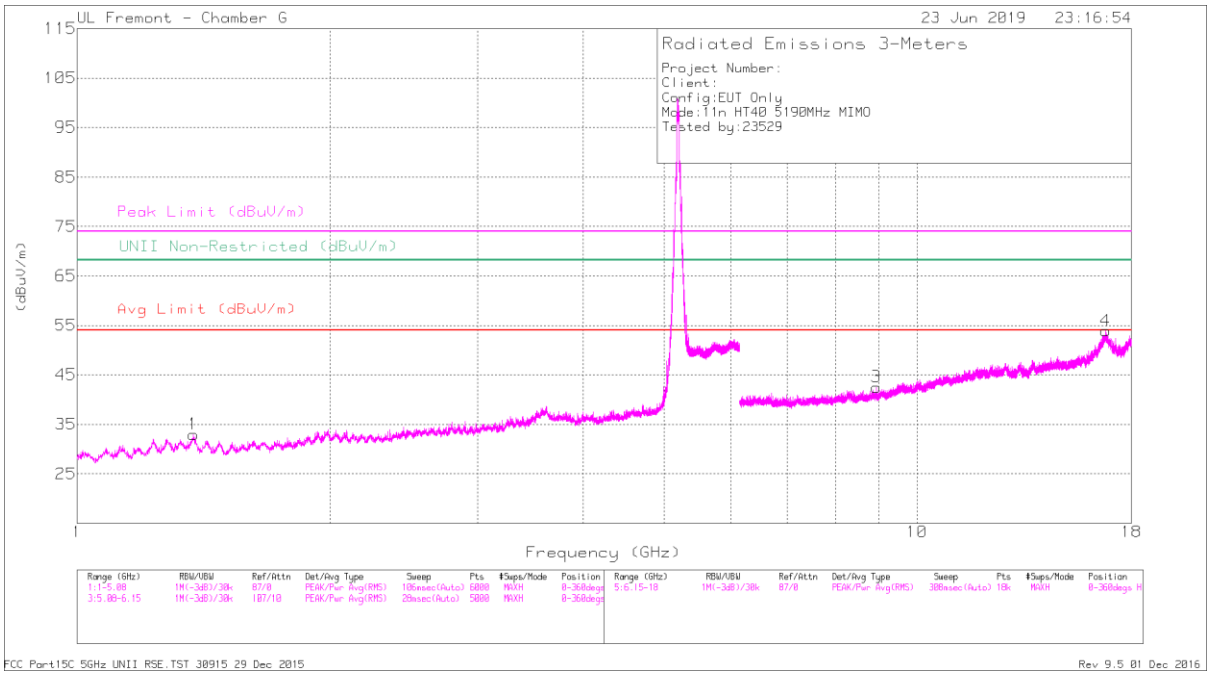
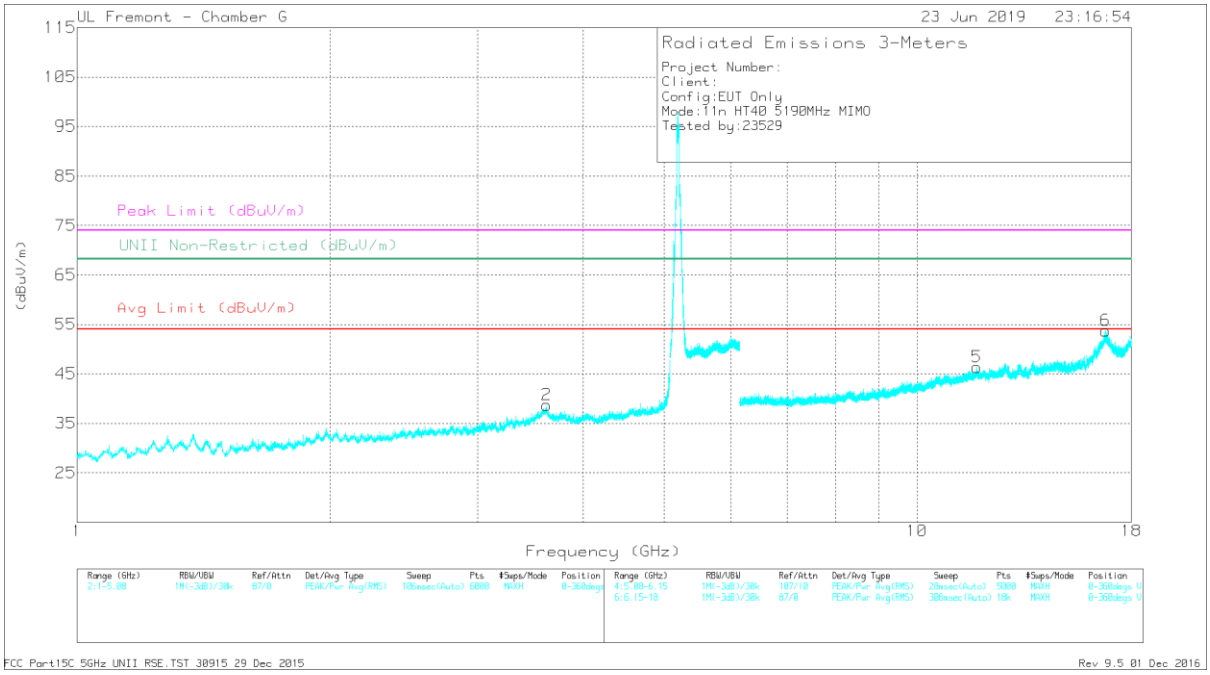
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (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	* 1.375	42.8	PK-U	29.7	-32.1	0	40.4	-	-	74	-33.6	-	-	0	101	H
	* 1.377	31.05	ADR	29.6	-32.1	.09	28.64	54	-25.36	-	-	-	-	0	101	H
2	* 3.625	40.34	PK-U	35.5	-30.3	0	45.54	-	-	74	-28.46	-	-	0	101	V
	* 3.625	29	ADR	35.5	-30.3	.09	34.29	54	-19.71	-	-	-	-	0	101	V
3	8.942	38.65	PK-U	36.4	-26.2	0	48.85	-	-	-	-	68.2	-19.35	0	101	H
4	16.781	36.56	PK-U	41.8	-16.9	0	61.46	-	-	-	-	68.2	-6.74	0	101	H
5	* 11.788	36.09	PK-U	39.3	-22.7	0	52.69	-	-	74	-21.31	-	-	0	101	V
	* 11.788	24.89	ADR	39.3	-22.7	.09	41.58	54	-12.42	-	-	-	-	0	101	V
6	16.781	35.69	PK-U	41.8	-16.9	0	60.59	-	-	-	-	68.2	-7.61	0	101	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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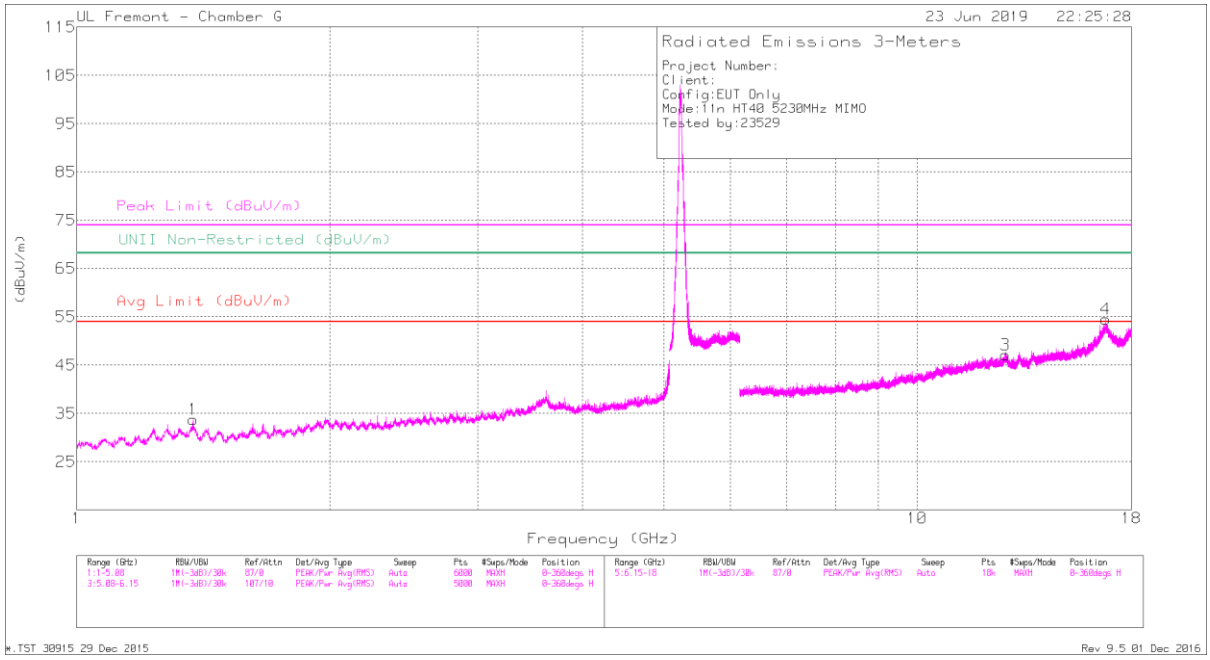
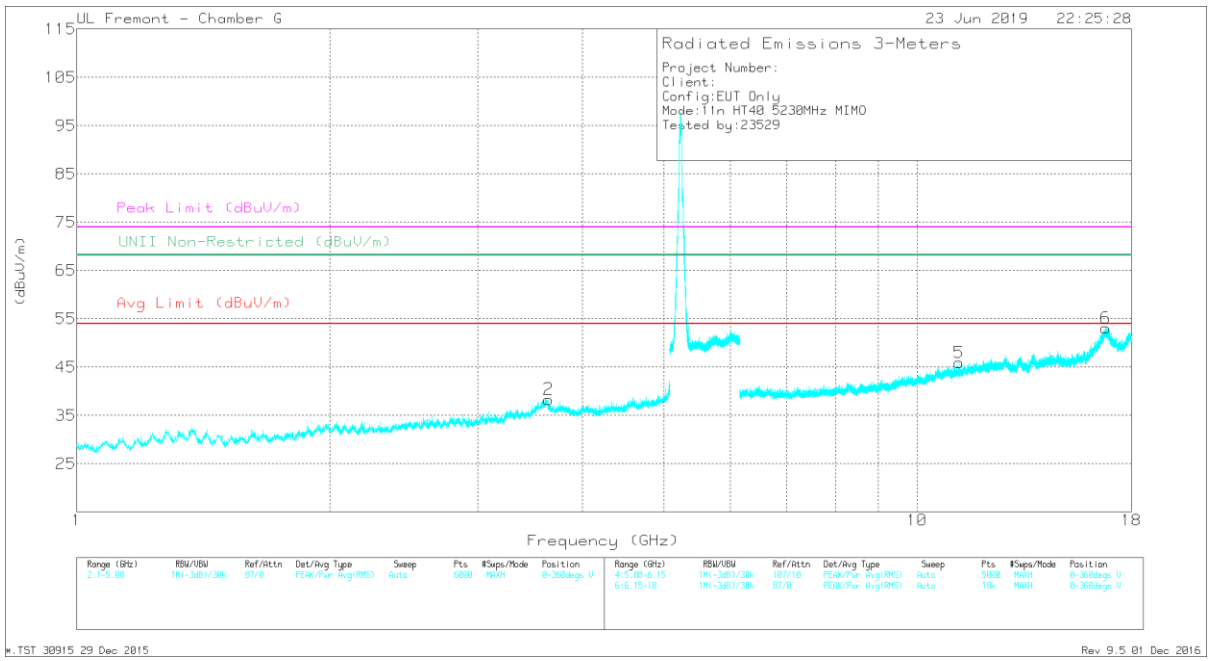
HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (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	* 1.377	42.99	PK-U	29.6	-32.1	0	40.49	-	-	74	-33.51	-	-	0	101	H
	* 1.374	31.3	ADR	29.7	-32.1	.09	28.99	54	-25.01	-	-	-	-	0	101	H
2	* 3.642	40.27	PK-U	34.7	-30.1	0	44.87	-	-	74	-29.13	-	-	0	101	V
	* 3.64	28.8	ADR	34.7	-30.1	.09	33.49	54	-20.51	-	-	-	-	0	101	V
3	12.736	36.61	PK-U	39.6	-21.3	0	54.91	-	-	-	-	68.2	-13.29	0	101	H
4	16.78	36.13	PK-U	41.7	-16.9	0	60.93	-	-	-	-	68.2	-7.27	0	101	H
5	* 11.224	36.69	PK-U	38.5	-23.4	0	51.79	-	-	74	-22.21	-	-	0	101	V
	* 11.225	25.47	ADR	38.5	-23.4	.09	40.66	54	-13.34	-	-	-	-	0	101	V
6	16.789	35.17	PK-U	41.7	-16.9	0	59.97	-	-	-	-	68.2	-8.23	0	101	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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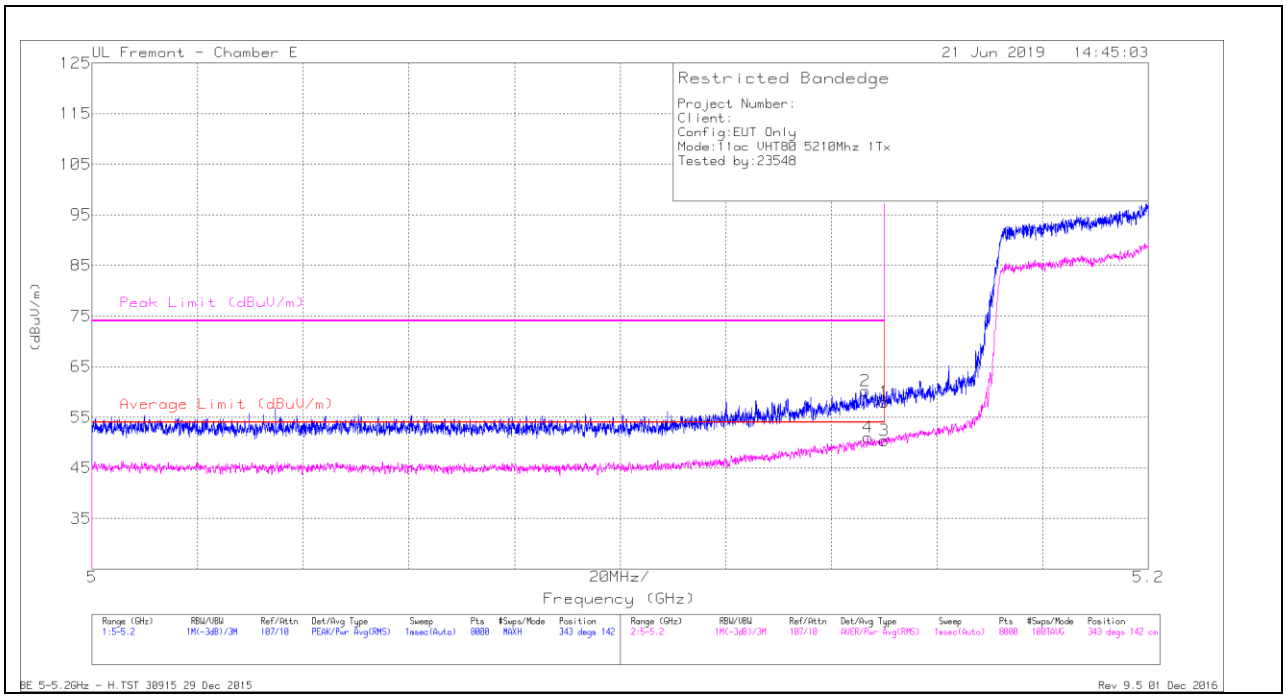
1.1.3. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

1TX Antenna 5 MODE

BANDEDGE (MID CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr	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	45.71	Pk	34.3	-22	0	58.01	-	-	74	-15.99	343	142	H
2	* 5.146	47.87	Pk	34.3	-22	0	60.17	-	-	74	-13.83	343	142	H
3	* 5.15	38.17	RMS	34.3	-22	.19	50.66	54	-3.34	-	-	343	142	H
4	* 5.147	38.75	RMS	34.3	-22	.19	51.24	54	-2.76	-	-	343	142	H

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

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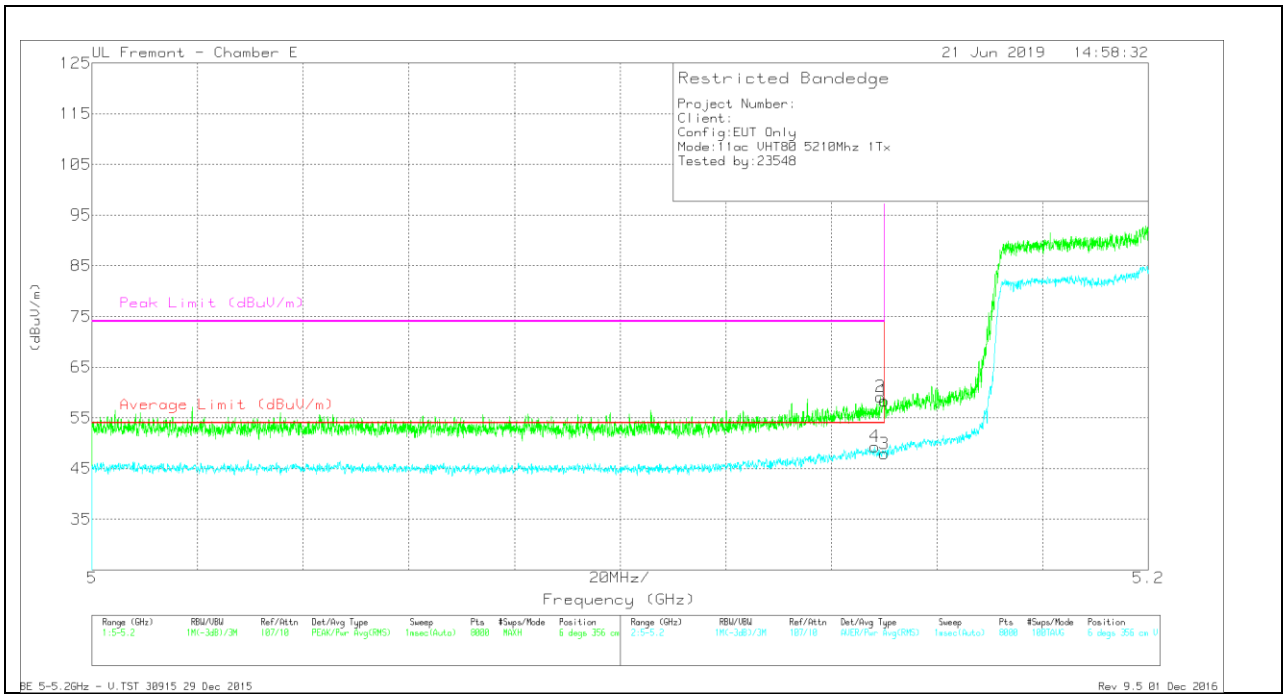
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr	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	46.06	Pk	34.3	-22	0	58.36	-	-	74	-15.64	6	356	V
2	* 5.149	46.87	Pk	34.3	-22	0	59.17	-	-	74	-14.83	6	356	V
3	* 5.15	35.68	RMS	34.3	-22	.19	48.17	54	-5.83	-	-	6	356	V
4	* 5.148	37.06	RMS	34.3	-22	.19	49.55	54	-4.45	-	-	6	356	V

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

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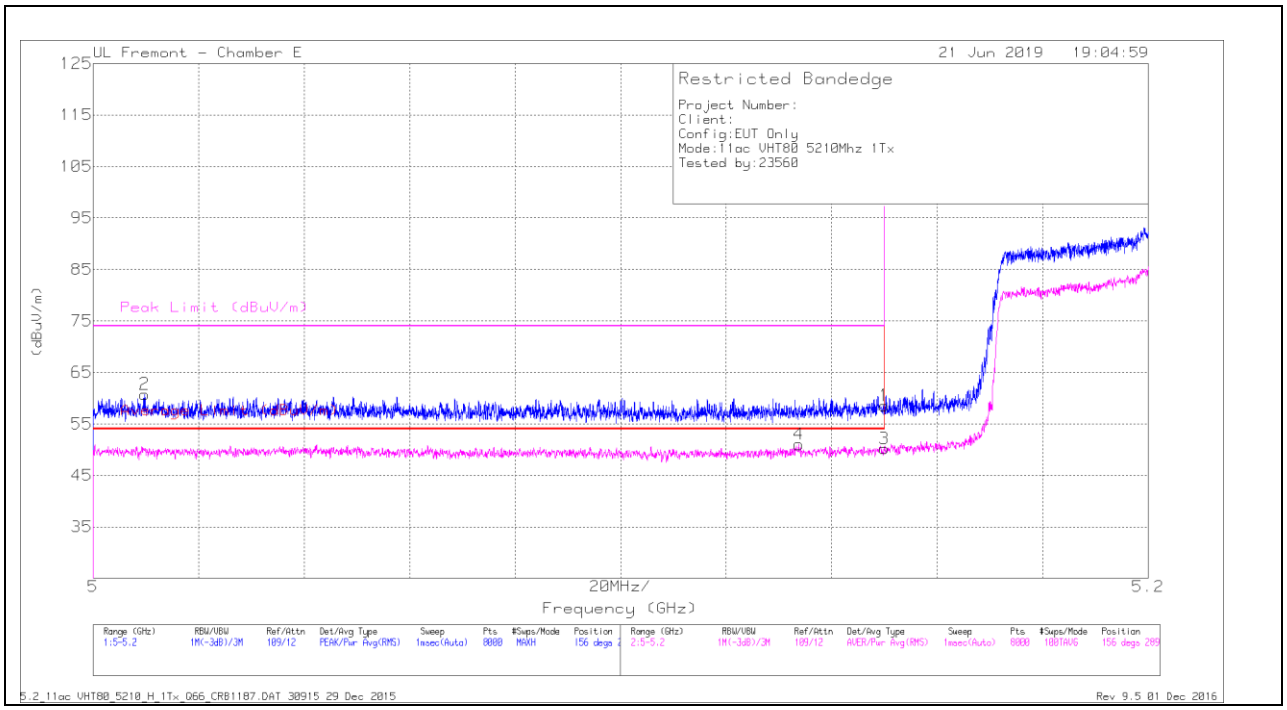
1TX Antenna 6 MODE

BANDEDGE (MID CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr	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	40.86	Pk	34.3	-16.6	0	58.56	-	-	74	-15.44	156	289	H
2	* 5.01	42.86	Pk	34.1	-16.2	0	60.76	-	-	74	-13.24	156	289	H
3	* 5.15	32.48	RMS	34.3	-16.6	.19	50.37	54	-3.63	-	-	156	289	H
4	* 5.134	33.31	RMS	34.3	-16.6	.19	51.20	54	-2.80	-	-	156	289	H

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

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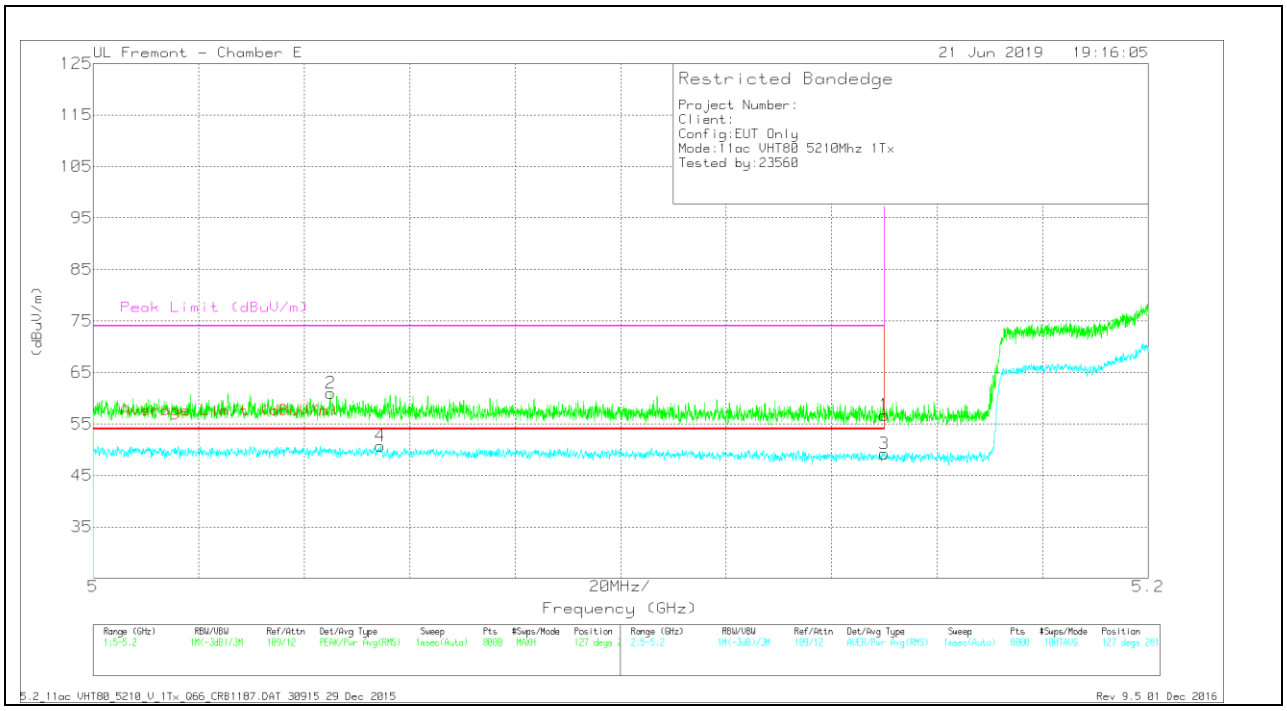
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr	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	39.01	Pk	34.3	-16.6	0	56.71	-	-	74	-17.29	127	281	V
2	* 5.045	42.97	Pk	34.2	-16.2	0	60.97	-	-	74	-13.03	127	281	V
3	* 5.15	31.49	RMS	34.3	-16.6	.19	49.38	54	-4.62	-	-	127	281	V
4	* 5.054	32.92	RMS	34.1	-16.3	.19	50.91	54	-3.09	-	-	127	281	V

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

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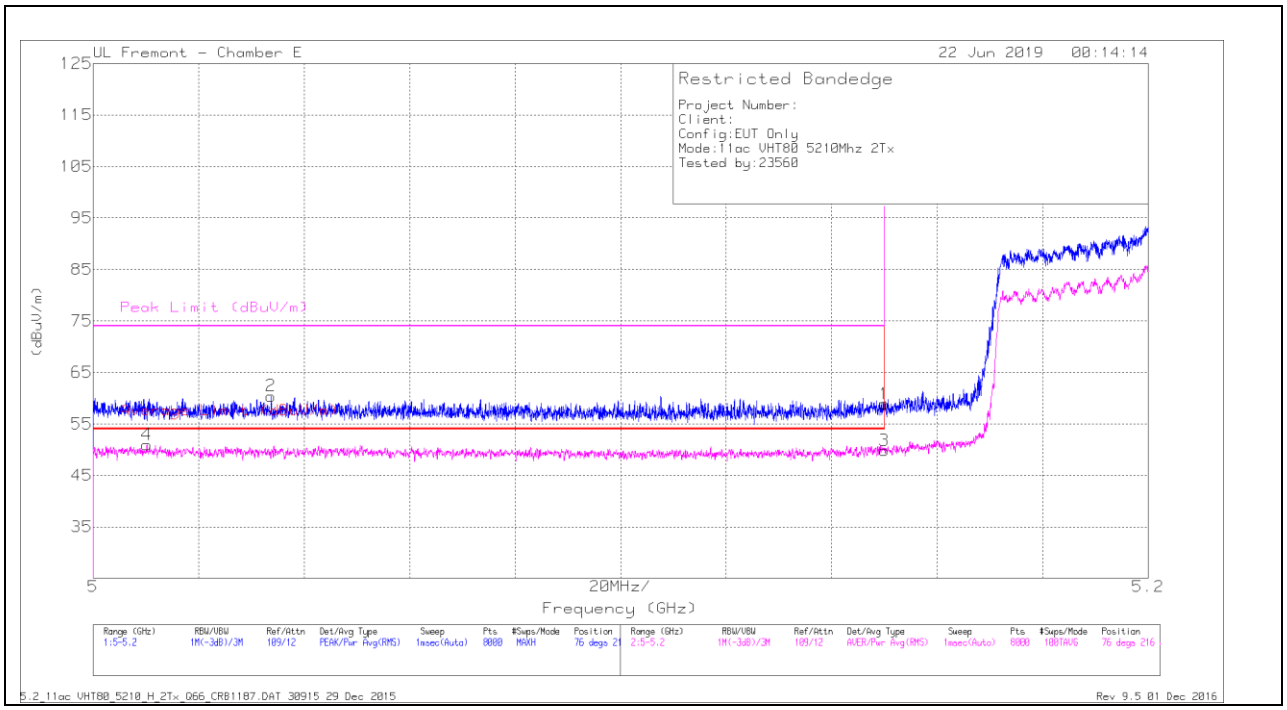
2TX Antenna 5 + Antenna 6 CDD MODE

BANDEDGE (MID CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr	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	41.19	Pk	34.3	-16.6	0	58.89	-	-	74	-15.11	76	216	H
2	* 5.034	42.51	Pk	34.1	-16.2	0	60.41	-	-	74	-13.59	76	216	H
3	* 5.15	32.12	RMS	34.3	-16.6	.19	50.01	54	-4.18	-	-	76	216	H
4	* 5.01	33.07	RMS	34.1	-16.2	.19	51.16	54	-2.84	-	-	76	216	H

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

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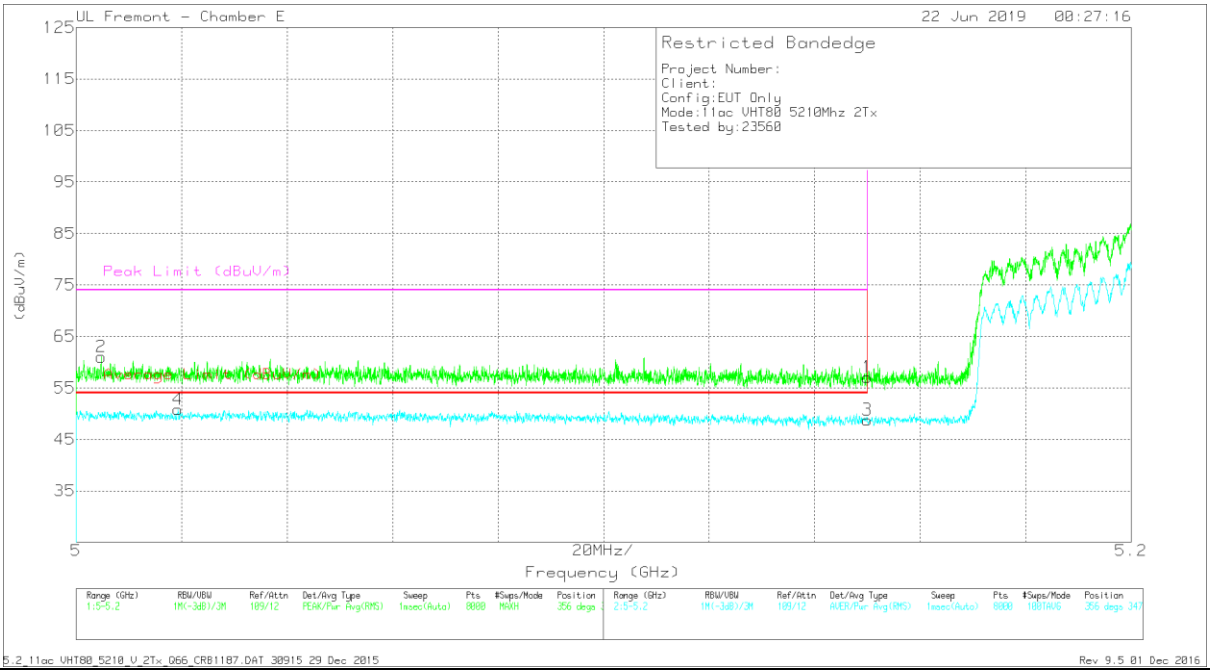
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr	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	39.37	Pk	34.3	-16.6	0	57.07	-	-	74	-16.93	356	347	V
2	* 5.005	43.03	Pk	34.1	-16.1	0	61.03	-	-	74	-12.97	356	347	V
3	* 5.15	31.07	RMS	34.3	-16.6	.19	48.96	54	-5.04	-	-	356	347	V
4	* 5.019	33.02	RMS	34.1	-16.3	.19	51.01	54	-2.99	-	-	356	347	V

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

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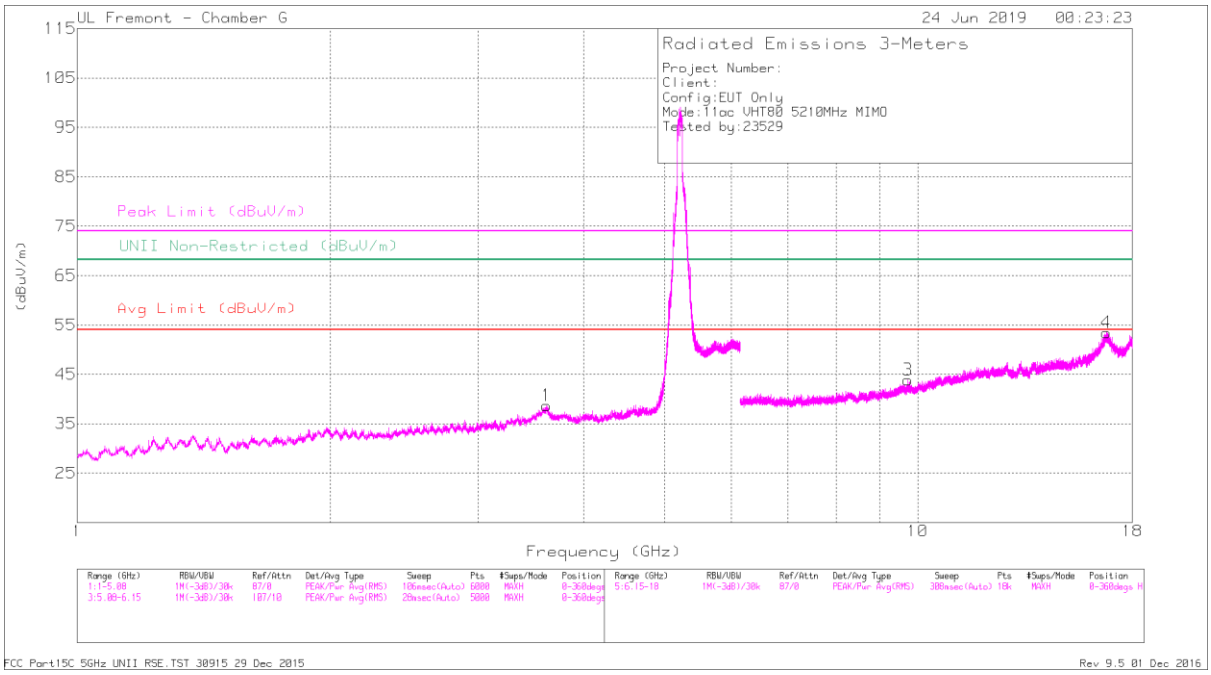
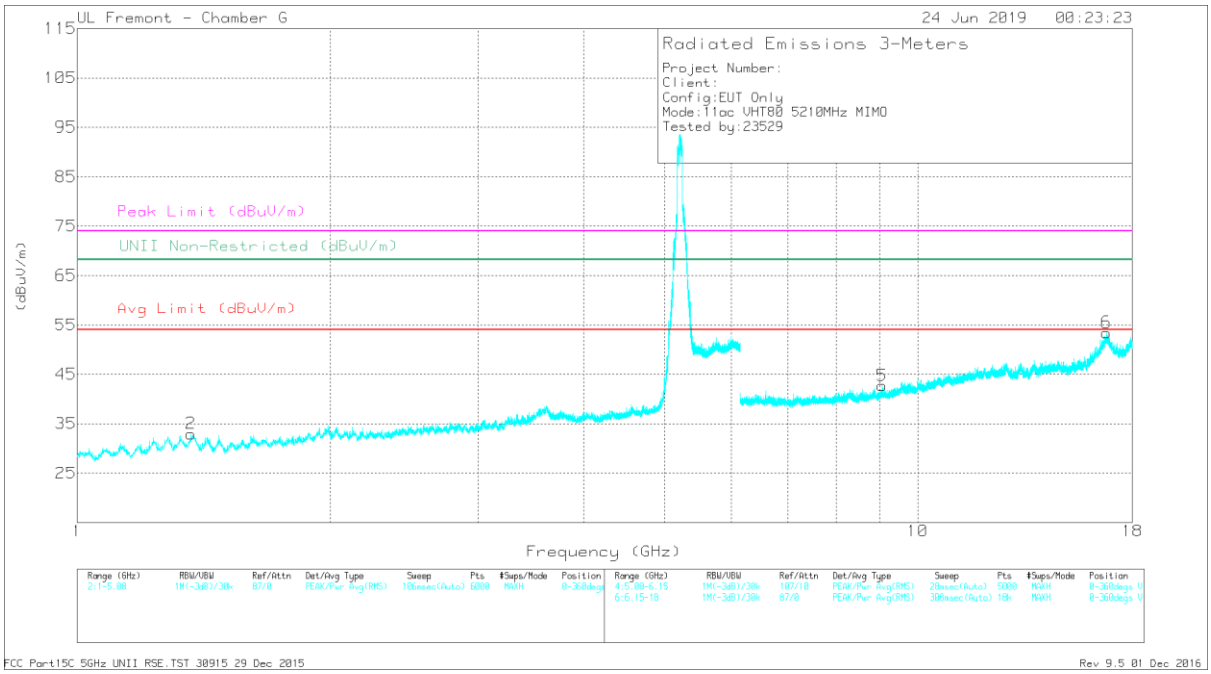
HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (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	* 3.617	40.65	PK-U	35.7	-30.3	0	46.05	-	-	74	-27.95	-	-	0	101	H
	* 3.617	29.19	ADR	35.7	-30.3	.19	34.78	54	-19.22	-	-	-	-	0	101	H
2	* 1.366	40.56	PK-U	30	-32.2	0	38.36	-	-	74	-35.64	-	-	0	101	V
	* 1.366	29.3	ADR	30	-32.2	.19	27.29	54	-26.71	-	-	-	-	0	101	V
3	9.727	38.32	PK-U	37.4	-25.2	0	50.52	-	-	-	-	68.2	-17.68	0	101	H
4	16.773	36.15	PK-U	41.8	-17	0	60.95	-	-	-	-	68.2	-7.25	0	101	H
5	* 9.075	37.69	PK-U	36.5	-25.1	0	49.09	-	-	74	-24.91	-	-	0	101	V
	* 9.076	26.91	ADR	36.5	-25.1	.19	38.5	54	-15.5	-	-	-	-	0	101	V
6	16.778	35.9	PK-U	41.7	-16.9	0	60.7	-	-	-	-	68.2	-7.5	0	101	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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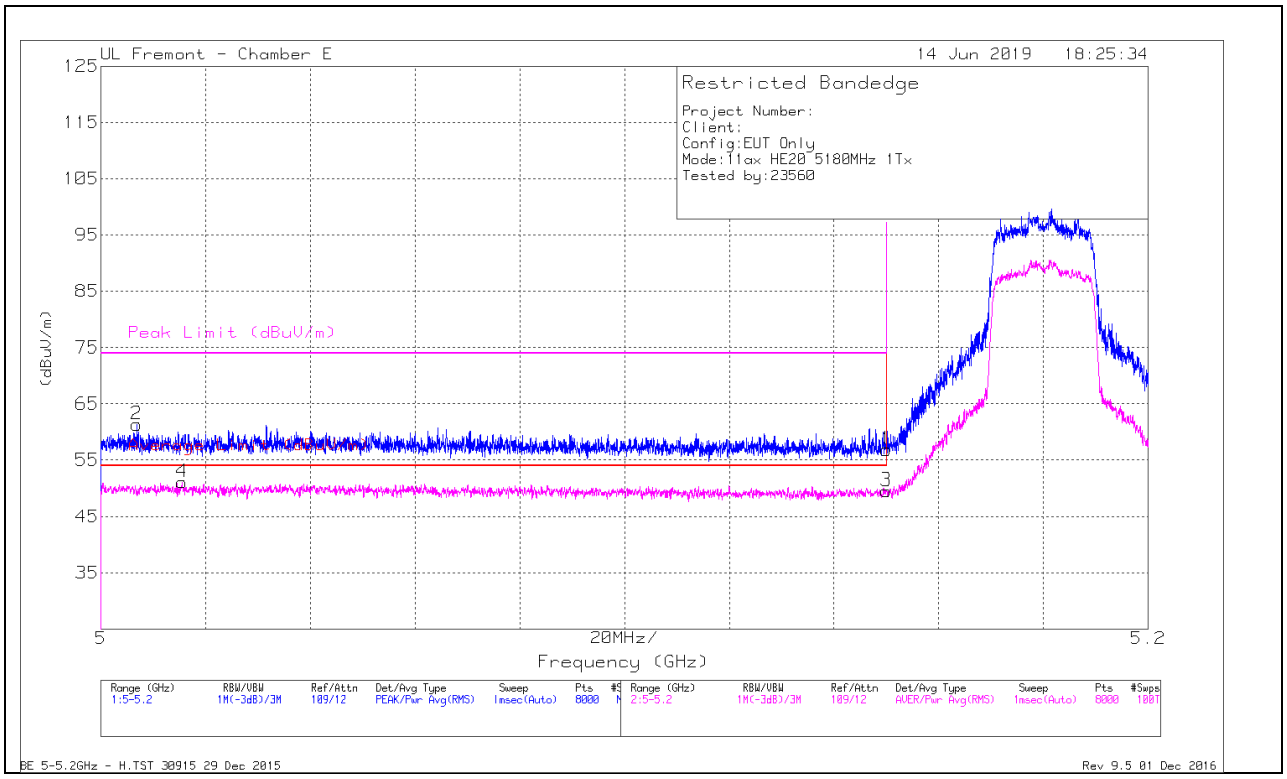
1.1.4. TX ABOVE 1 GHz 802.11ax HE20 MODE IN THE 5.2 GHz BAND

1TX Antenna 5 MODE – 242 Tones, RU Index 61

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	39.17	Pk	34.3	-16.6	56.87	-	-	74	-17.13	129	331	H
2	* 5.007	43.3	Pk	34.1	-16.1	61.3	-	-	74	-12.7	129	331	H
3	* 5.15	31.81	RMS	34.3	-16.6	49.51	54	-4.49	-	-	129	331	H
4	* 5.016	33.22	RMS	34.2	-16.3	51.12	54	-2.88	-	-	129	331	H

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

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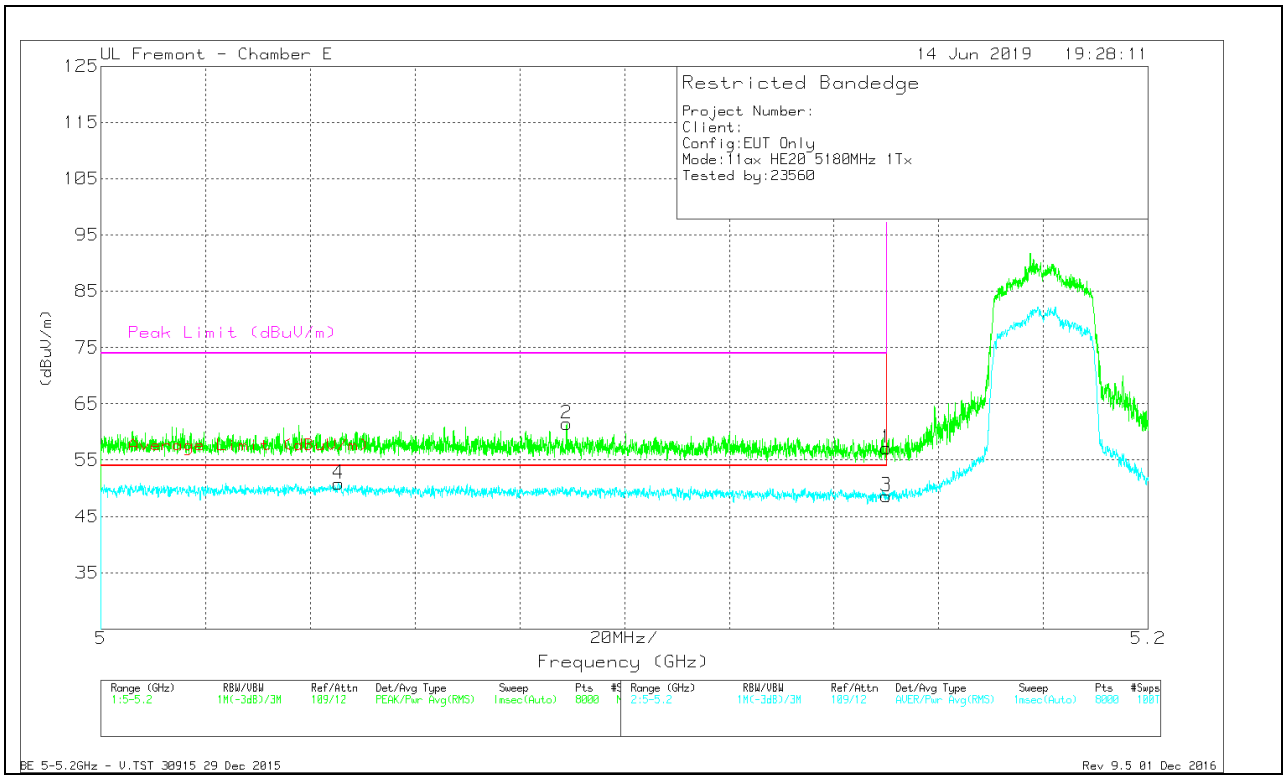
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	39.46	Pk	34.3	-16.6	57.16	-	-	74	-16.84	34	287	V
2	* 5.089	43.57	Pk	34.2	-16.3	61.47	-	-	74	-12.53	34	287	V
3	* 5.15	30.91	RMS	34.3	-16.6	48.61	54	-5.39	-	-	34	287	V
4	* 5.045	32.85	RMS	34.2	-16.2	50.85	54	-3.15	-	-	34	287	V

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

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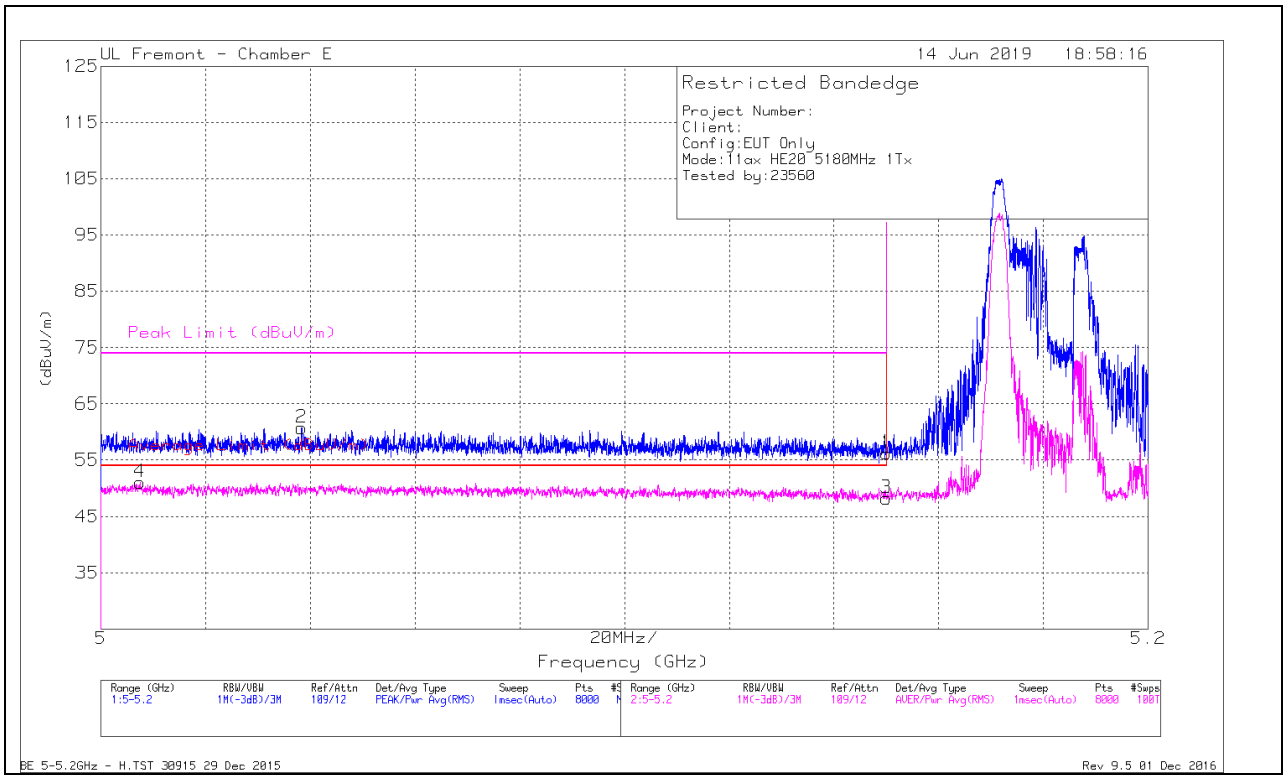
1TX Antenna 5 MODE – 26 Tones, RU Index 0

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	38.5	Pk	34.3	-16.6	56.2	-	-	74	-17.8	129	331	H
2	* 5.038	42.74	Pk	34.2	-16.2	60.74	-	-	74	-13.26	129	331	H
3	* 5.15	30.54	RMS	34.3	-16.6	48.24	54	-5.76	-	-	129	331	H
4	* 5.007	33.05	RMS	34.1	-16.1	51.05	54	-2.95	-	-	129	331	H

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

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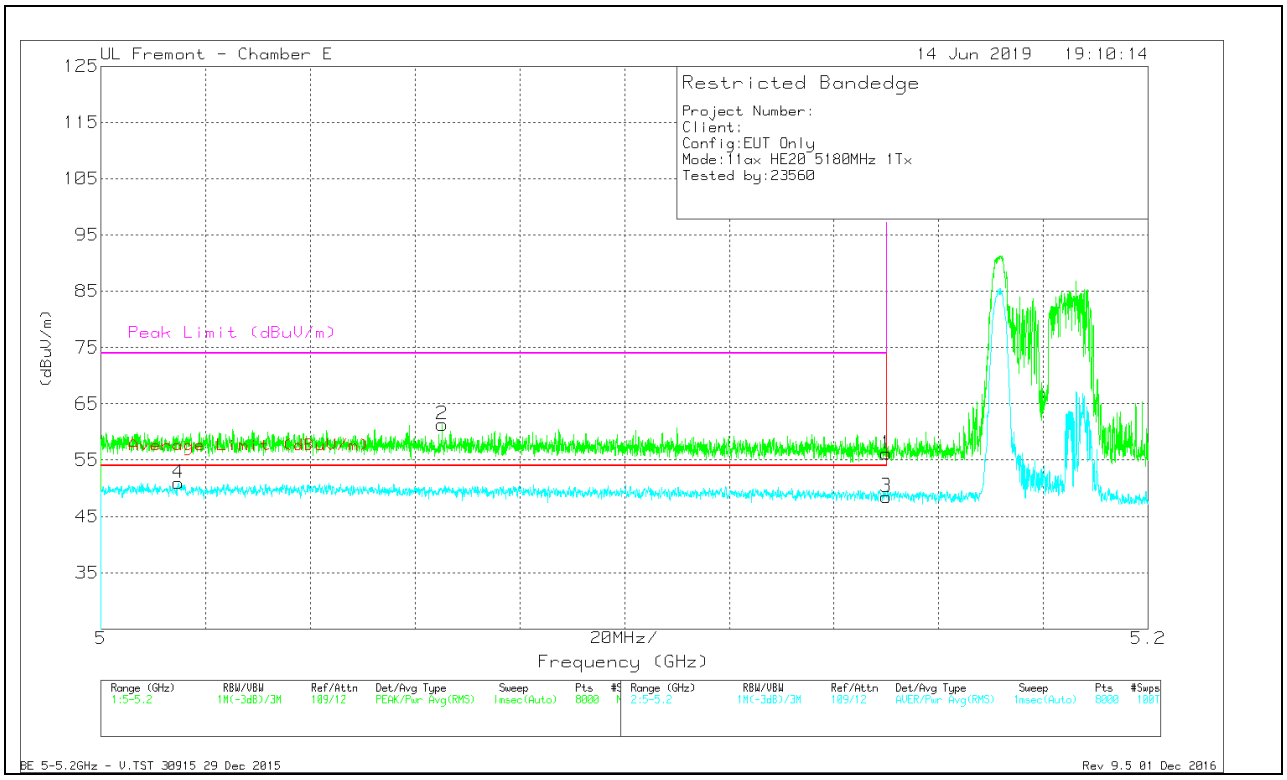
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	38.49	Pk	34.3	-16.6	56.19	-	-	74	-17.81	14	189	V
2	* 5.065	43.55	Pk	34.1	-16.3	61.35	-	-	74	-12.65	14	189	V
3	* 5.15	30.75	RMS	34.3	-16.6	48.45	54	-5.55	-	-	14	189	V
4	* 5.015	33.06	RMS	34.2	-16.3	50.96	54	-3.04	-	-	14	189	V

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

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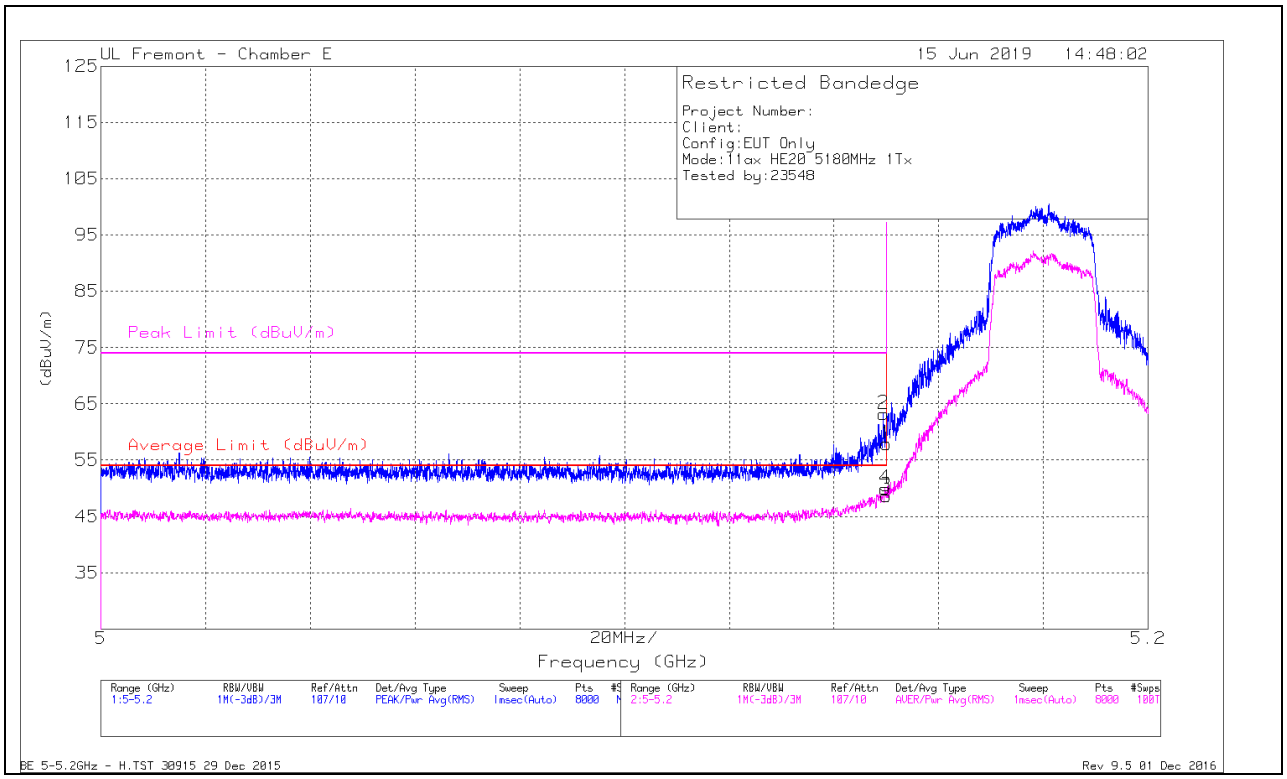
1TX Antenna 6 MODE – 242 Tones, RU Index 61

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	45.59	Pk	34.3	-22	57.89	-	-	74	-16.11	267	270	H
2	* 5.149	50.91	Pk	34.3	-22	63.21	-	-	74	-10.79	267	270	H
3	* 5.15	36.32	RMS	34.3	-22	48.62	54	-5.38	-	-	267	270	H
4	* 5.15	37.65	RMS	34.3	-22	49.95	54	-4.05	-	-	267	270	H

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

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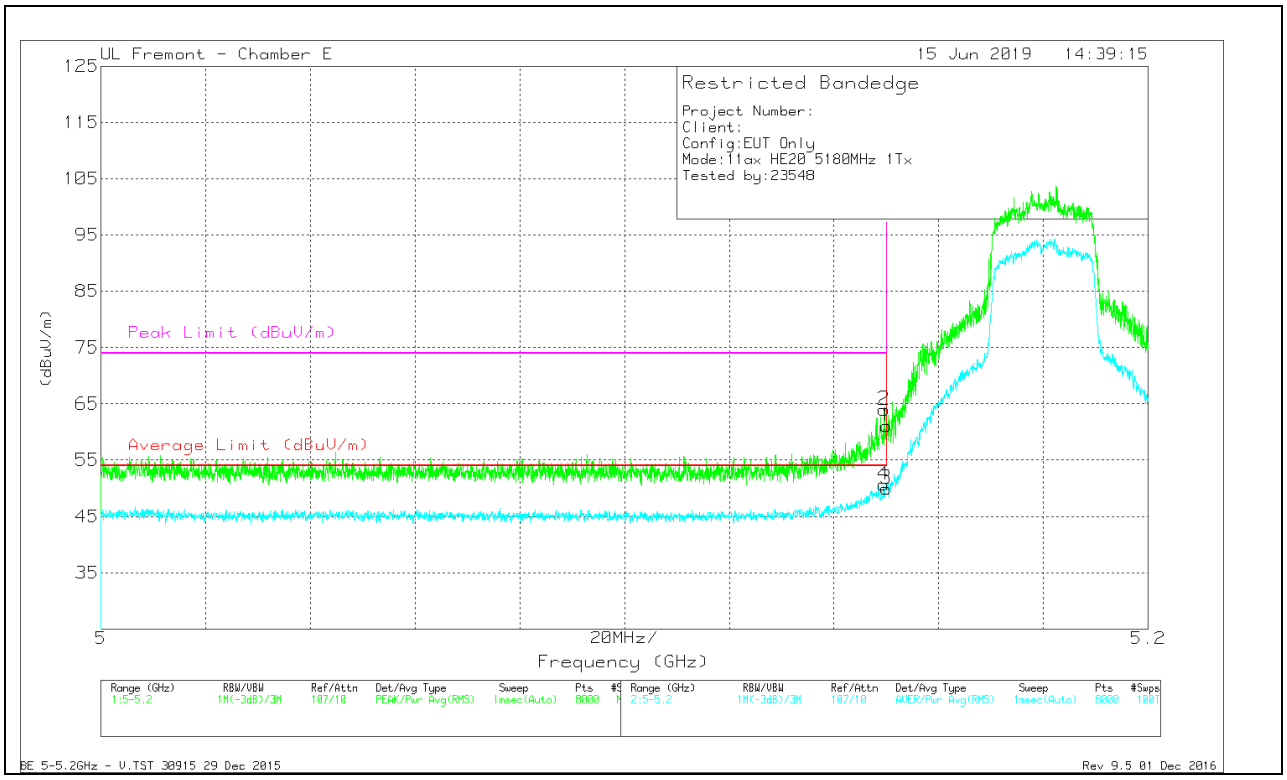
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	48.78	Pk	34.3	-22	61.08	-	-	74	-12.92	142	324	V
2	* 5.15	51.65	Pk	34.3	-22	63.95	-	-	74	-10.05	142	324	V
3	* 5.15	37.65	RMS	34.3	-22	49.95	54	-4.05	-	-	142	324	V
4	* 5.149	38.35	RMS	34.3	-22	50.65	54	-3.35	-	-	142	324	V

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

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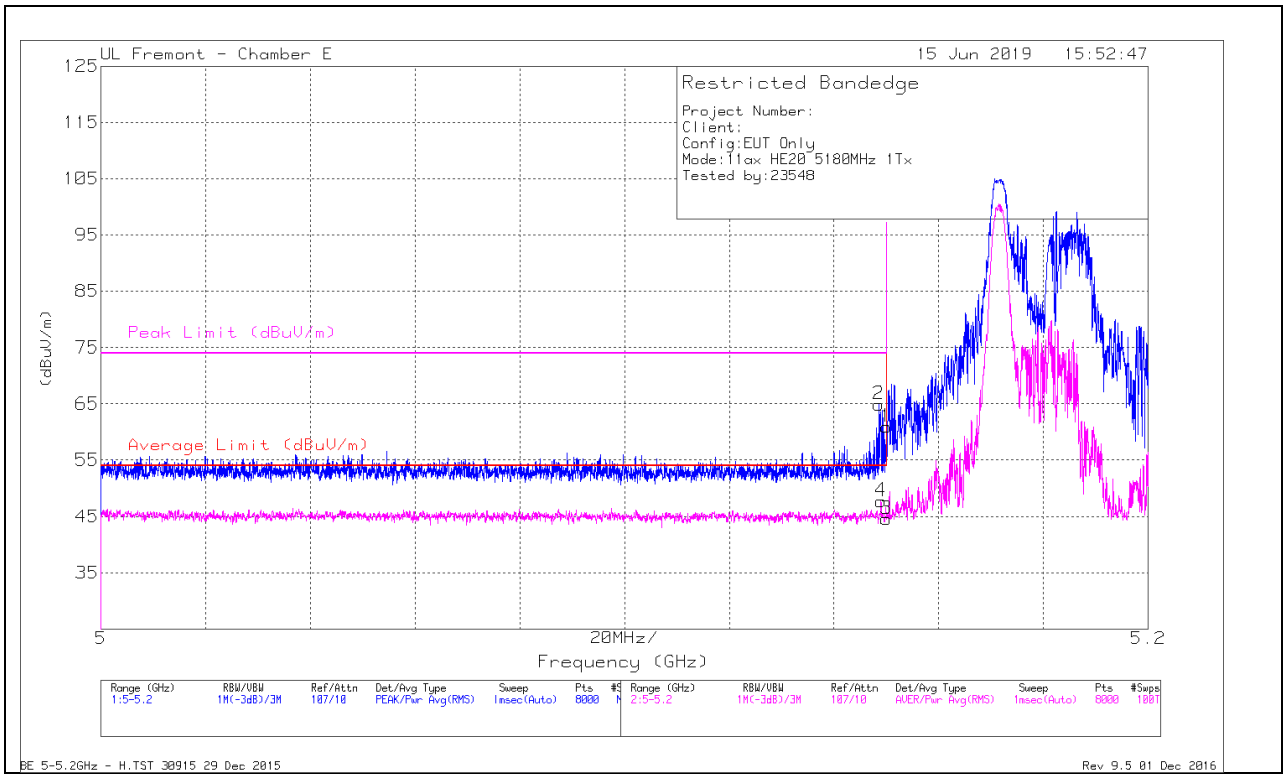
1TX Antenna 6 MODE – 26 Tones, RU Index 0

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	48.64	Pk	34.3	-22	60.94	-	-	74	-13.06	267	270	H
2	* 5.149	52.57	Pk	34.3	-22	64.87	-	-	74	-9.13	267	270	H
3	* 5.15	32.27	RMS	34.3	-22	44.57	54	-9.43	-	-	267	270	H
4	* 5.149	35.42	RMS	34.3	-22	47.72	54	-6.28	-	-	267	270	H

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

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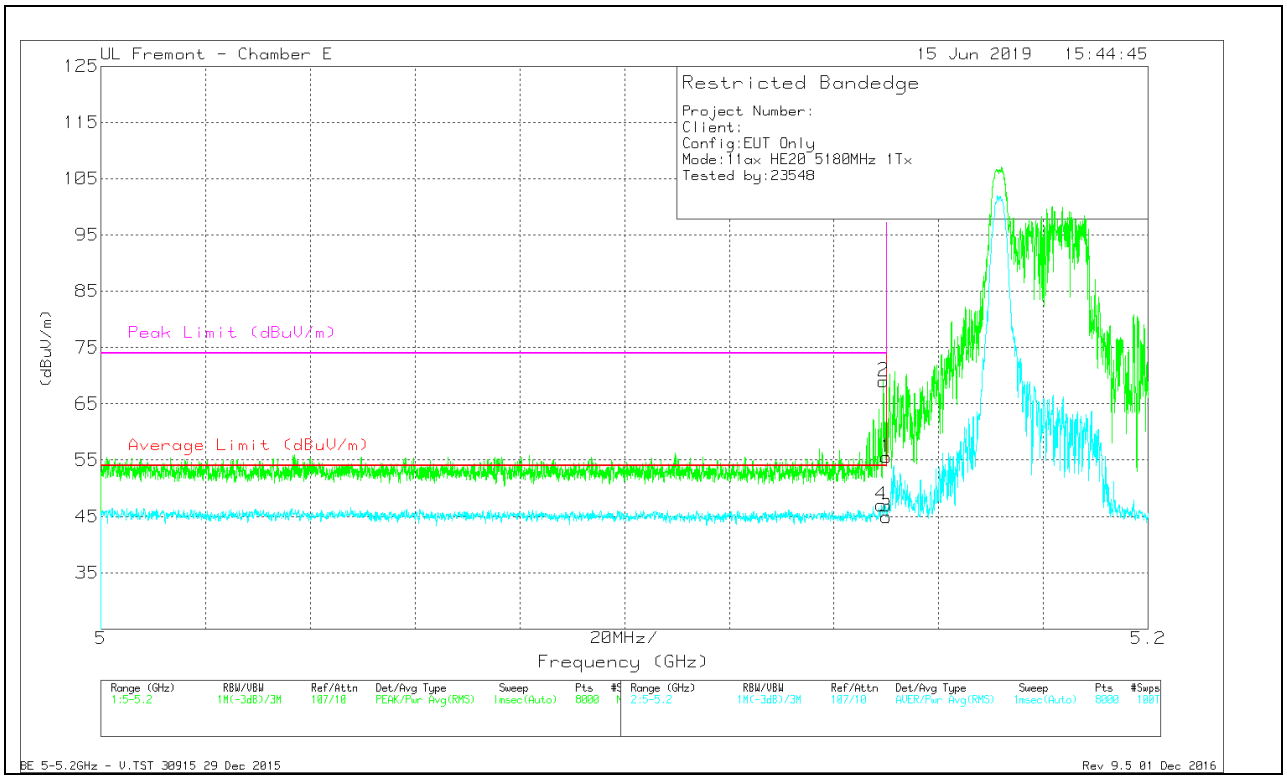
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	43.26	Pk	34.3	-22	55.56	-	-	74	-18.44	141	324	V
2	* 5.149	56.71	Pk	34.3	-22	69.01	-	-	74	-4.99	141	324	V
3	* 5.15	32.64	RMS	34.3	-22	44.94	54	-9.06	-	-	141	324	V
4	* 5.149	34.71	RMS	34.3	-22	47.01	54	-6.99	-	-	141	324	V

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

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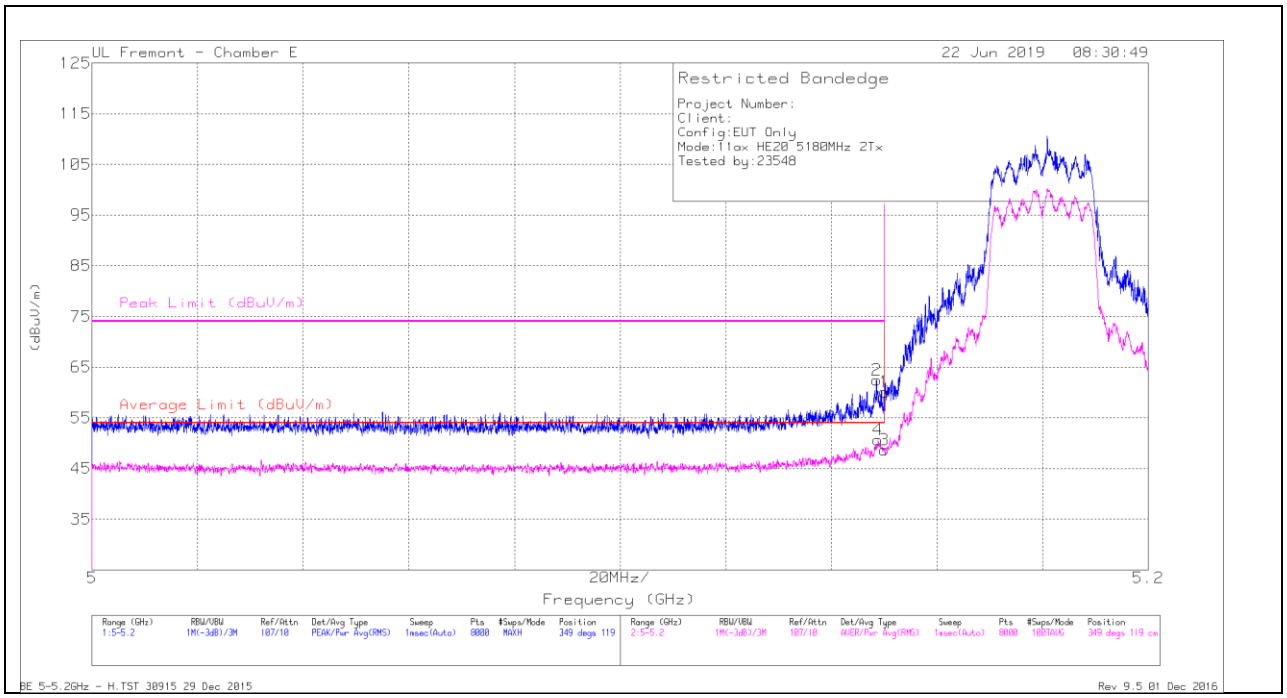
2TX Antenna 5 + Antenna 6 OFDMA MODE – 242 Tones, RU Index 61

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	47.8	Pk	34.3	-22	60.1	-	-	74	-13.9	349	119	H
2	* 5.149	50.18	Pk	34.3	-22	62.48	-	-	74	-11.52	349	119	H
3	* 5.15	36.33	RMS	34.3	-22	48.63	54	-5.37	-	-	349	119	H
4	* 5.149	38.42	RMS	34.3	-22	50.72	54	-3.28	-	-	349	119	H

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

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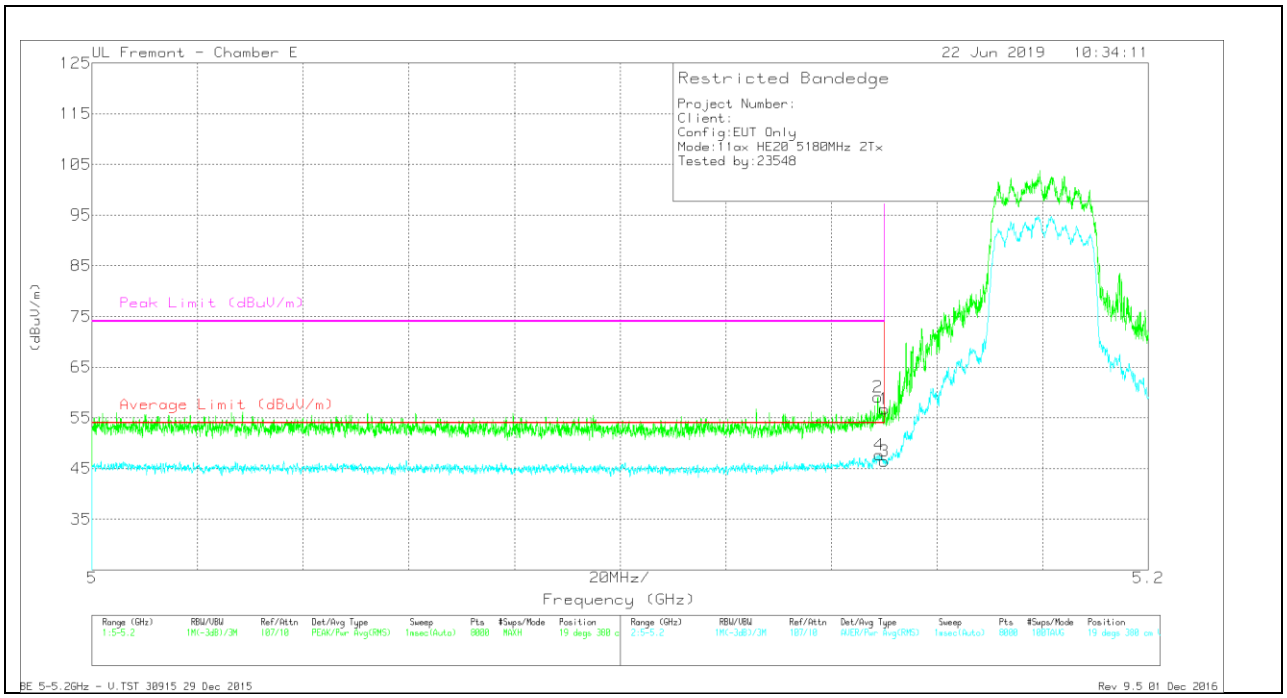
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	44.47	Pk	34.3	-22	56.77	-	-	74	-17.23	19	380	V
2	* 5.149	46.78	Pk	34.3	-22	59.08	-	-	74	-14.92	19	380	V
3	* 5.15	34.11	RMS	34.3	-22	46.41	54	-7.59	-	-	19	380	V
4	* 5.149	35.35	RMS	34.3	-22	47.65	54	-6.35	-	-	19	380	V

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

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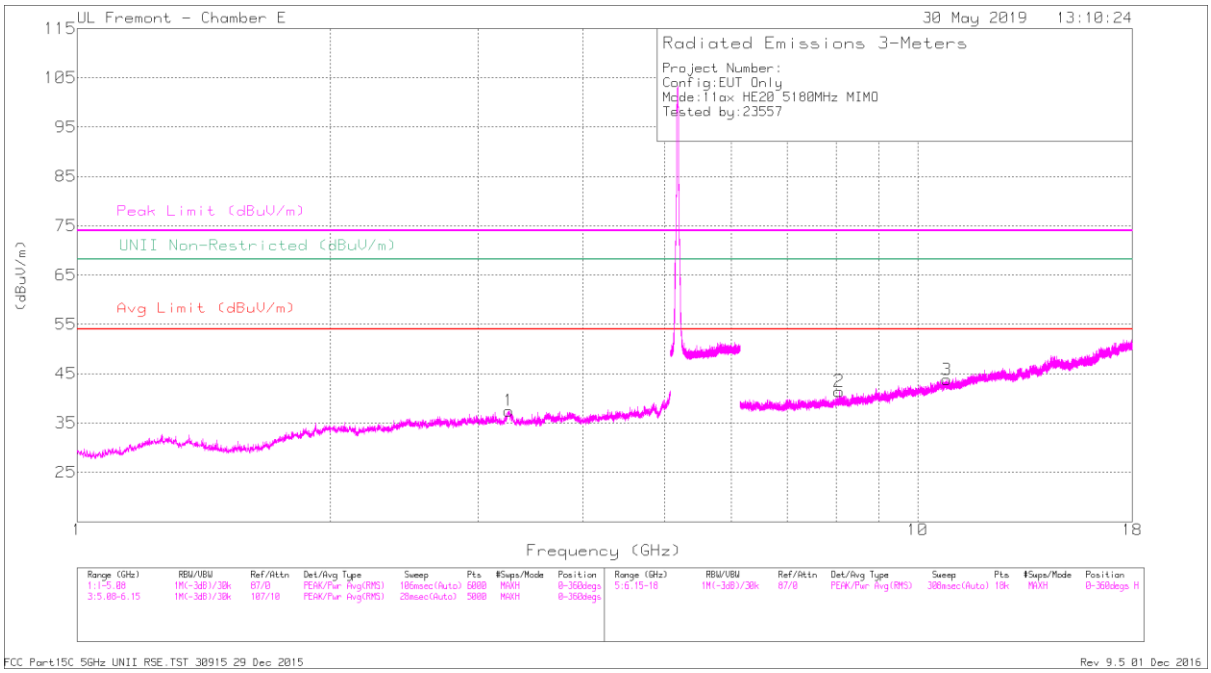
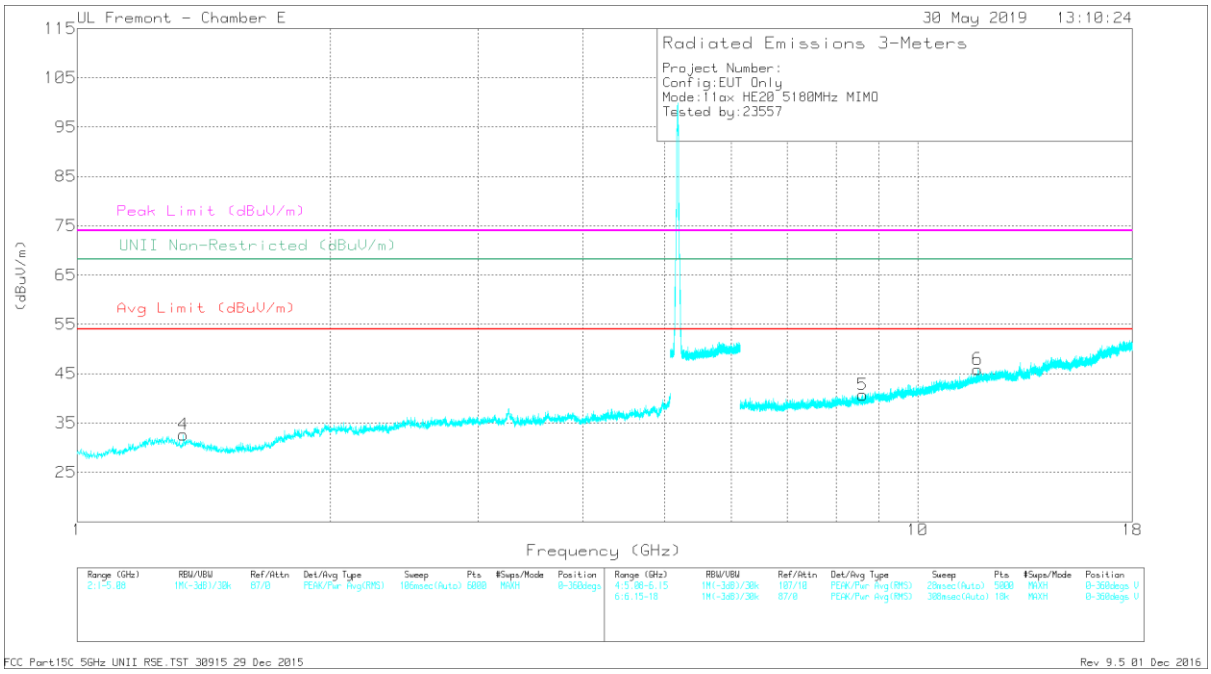
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (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	* 3.262	44.59	PK-U	35.1	-34.5	45.19	-	-	74	-28.81	-	-	180	201	H
	* 3.261	32.77	ADR	35.1	-34.5	33.37	54	-20.63	-	-	-	-	180	201	H
2	* 8.064	38.7	PK-U	35.9	-27.5	47.1	-	-	74	-26.9	-	-	359	249	H
	* 8.062	26.9	ADR	35.9	-27.5	35.3	54	-18.7	-	-	-	-	359	249	H
3	* 10.83	36.95	PK-U	37.9	-25	49.85	-	-	74	-24.15	-	-	14	190	H
	* 10.828	25.67	ADR	37.9	-25	38.57	54	-15.43	-	-	-	-	14	190	H
4	* 1.339	44.95	PK-U	29.6	-35.5	39.05	-	-	74	-34.95	-	-	354	300	V
	* 1.34	32.87	ADR	29.6	-35.5	26.97	54	-27.03	-	-	-	-	354	300	V
6	* 11.789	36.26	PK-U	38.8	-23.1	51.96	-	-	74	-22.04	-	-	5	190	V
	* 11.789	24.35	ADR	38.8	-23.1	40.05	54	-13.95	-	-	-	-	5	190	V
5	8.596	38.41	PK-U	35.8	-26.3	47.91	-	-	-	-	68.2	-20.29	92	387	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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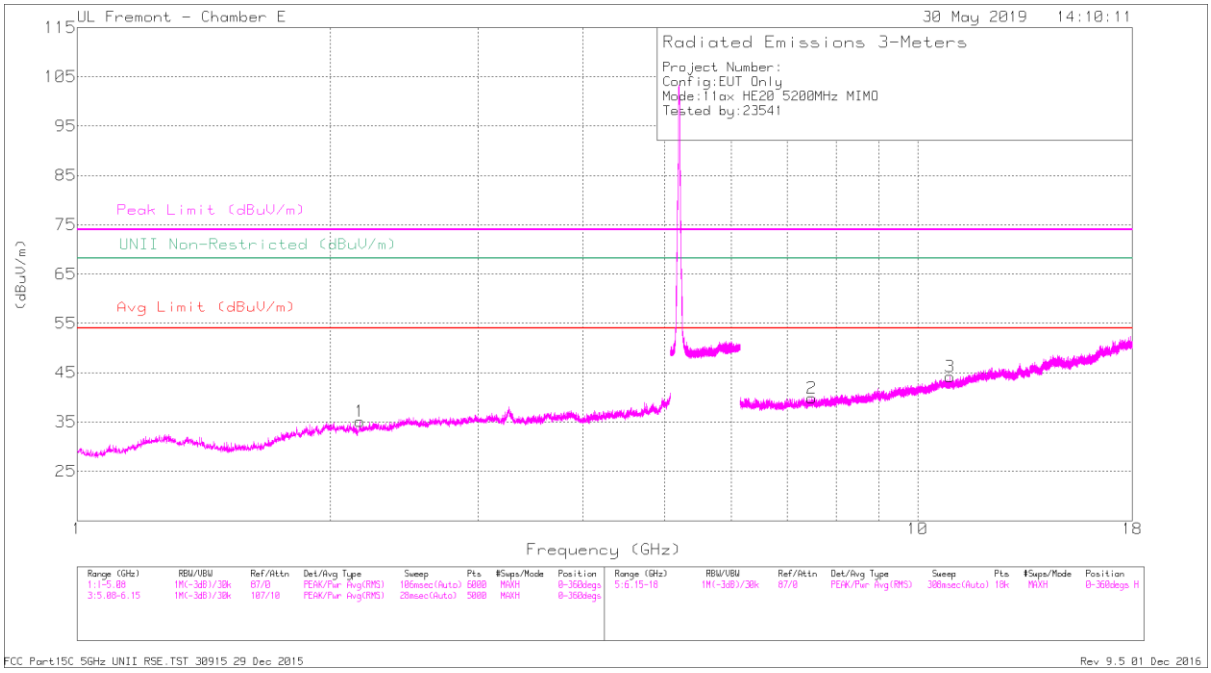
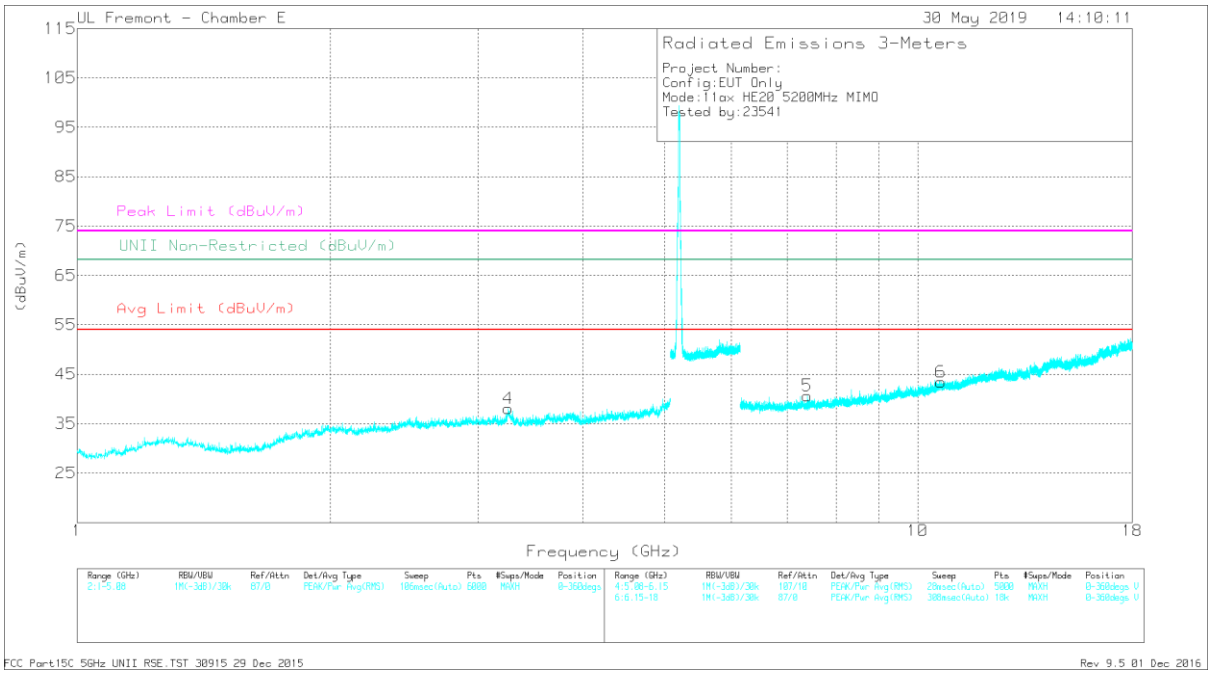
MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (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	2.169	45.73	PK-U	31.6	-35.5	41.83	-	-	-	-	68.2	-26.37	49	215	H
2	* 7.483	38.39	PK-U	35.7	-27.6	46.49	-	-	74	-27.51	-	-	304	346	H
	* 7.481	26.9	ADR	35.7	-27.7	34.9	54	-19.1	-	-	-	-	304	346	H
3	* 10.919	36.25	PK-U	37.9	-24.6	49.55	-	-	74	-24.45	-	-	256	173	H
	* 10.917	25.21	ADR	37.9	-24.6	38.51	54	-15.49	-	-	-	-	256	173	H
4	* 3.266	44.87	PK-U	35	-34.5	45.37	-	-	74	-28.63	-	-	296	114	V
	* 3.261	32.78	ADR	35.1	-34.5	33.38	54	-20.62	-	-	-	-	296	114	V
5	* 7.392	38.98	PK-U	35.6	-28.2	46.38	-	-	74	-27.62	-	-	53	215	V
	* 7.392	27.1	ADR	35.6	-28.2	34.5	54	-19.5	-	-	-	-	53	215	V
6	* 10.656	37.63	PK-U	37.9	-25.3	50.23	-	-	74	-23.77	-	-	332	171	V
	* 10.658	25.81	ADR	37.9	-25.3	38.41	54	-15.59	-	-	-	-	332	171	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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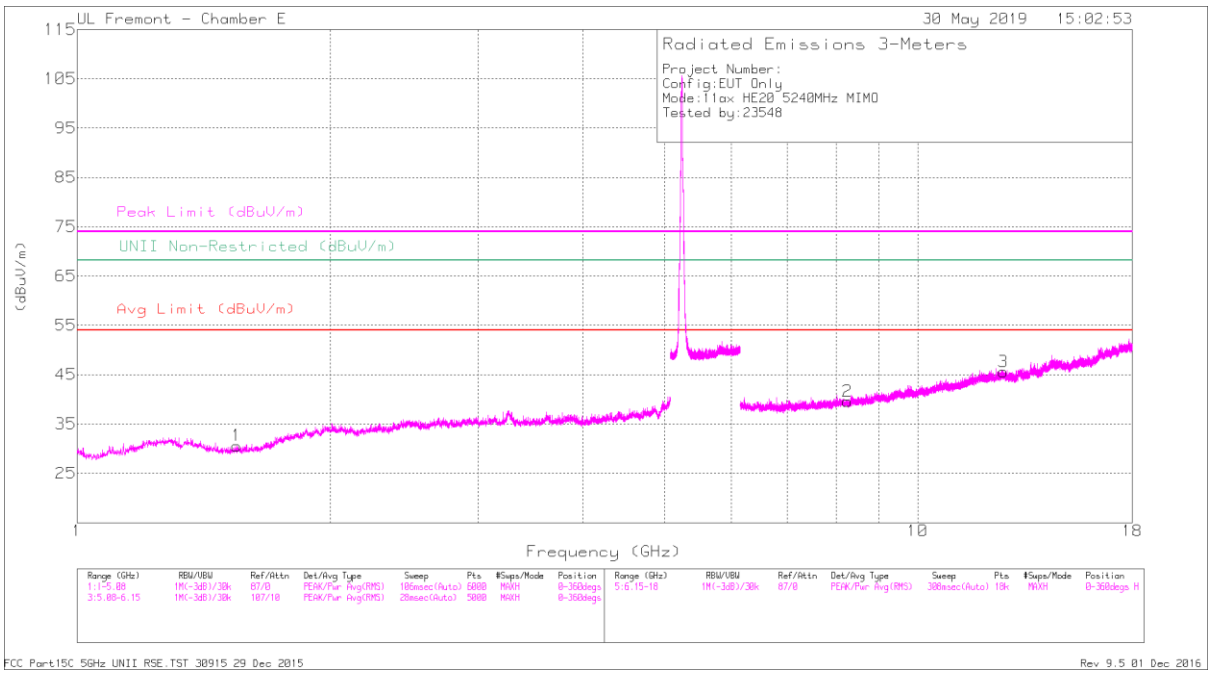
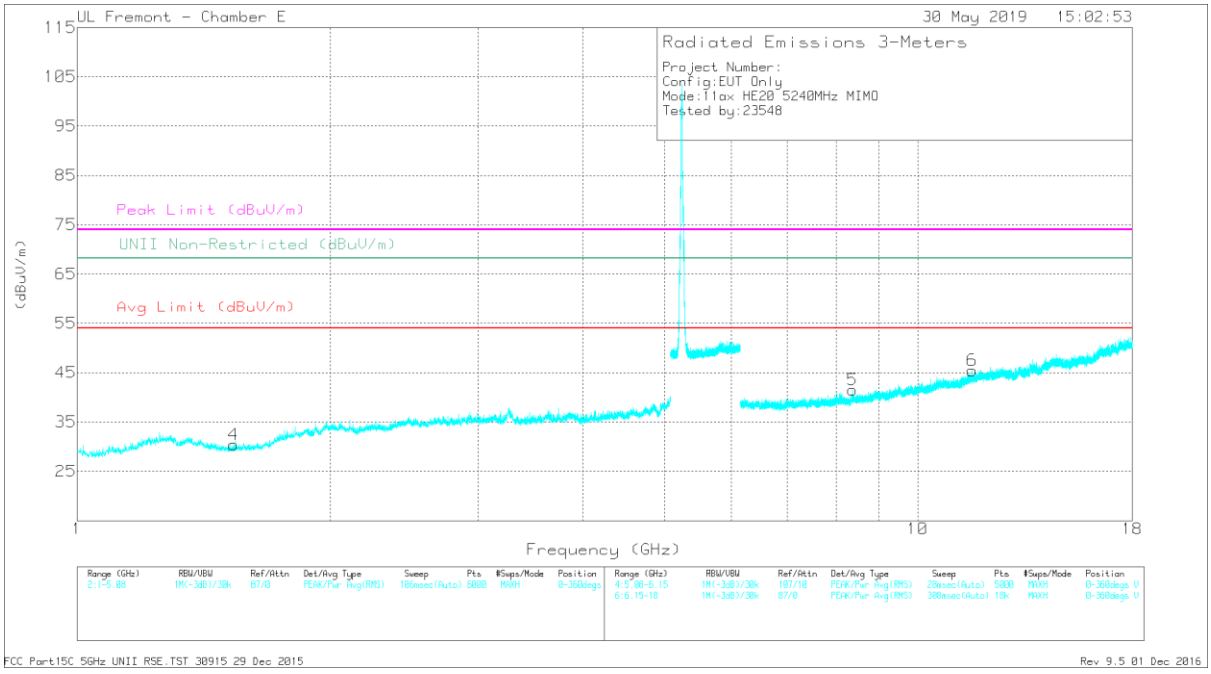
HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

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Radiated Emissions

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (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	* 1.548	45.37	PK-U	28.1	-35.6	37.87	-	-	74	-36.13	-	-	101	141	H
	* 1.55	33.34	ADR	28.1	-35.6	25.84	54	-28.16	-	-	-	-	101	141	H
2	* 8.247	38.42	PK-U	35.9	-27.3	47.02	-	-	74	-26.98	-	-	10	323	H
	* 8.249	26.53	ADR	35.9	-27.3	35.13	54	-18.87	-	-	-	-	10	323	H
3	* 12.64	35.17	PK-U	39.1	-21.9	52.37	-	-	74	-21.63	-	-	93	305	H
	* 12.641	23.74	ADR	39.1	-21.9	40.94	54	-13.06	-	-	-	-	93	305	H
4	* 1.534	45.81	PK-U	27.9	-35.6	38.11	-	-	74	-35.89	-	-	158	123	V
	* 1.533	33.38	ADR	27.9	-35.5	25.78	54	-28.22	-	-	-	-	158	123	V
5	* 8.366	38	PK-U	35.8	-26.7	47.1	-	-	74	-26.9	-	-	302	210	V
	* 8.368	26.63	ADR	35.8	-26.7	35.73	54	-18.27	-	-	-	-	302	210	V
6	* 11.611	35.75	PK-U	38.6	-23.2	51.15	-	-	74	-22.85	-	-	314	327	V
	* 11.612	24.31	ADR	38.6	-23.2	39.71	54	-14.29	-	-	-	-	314	327	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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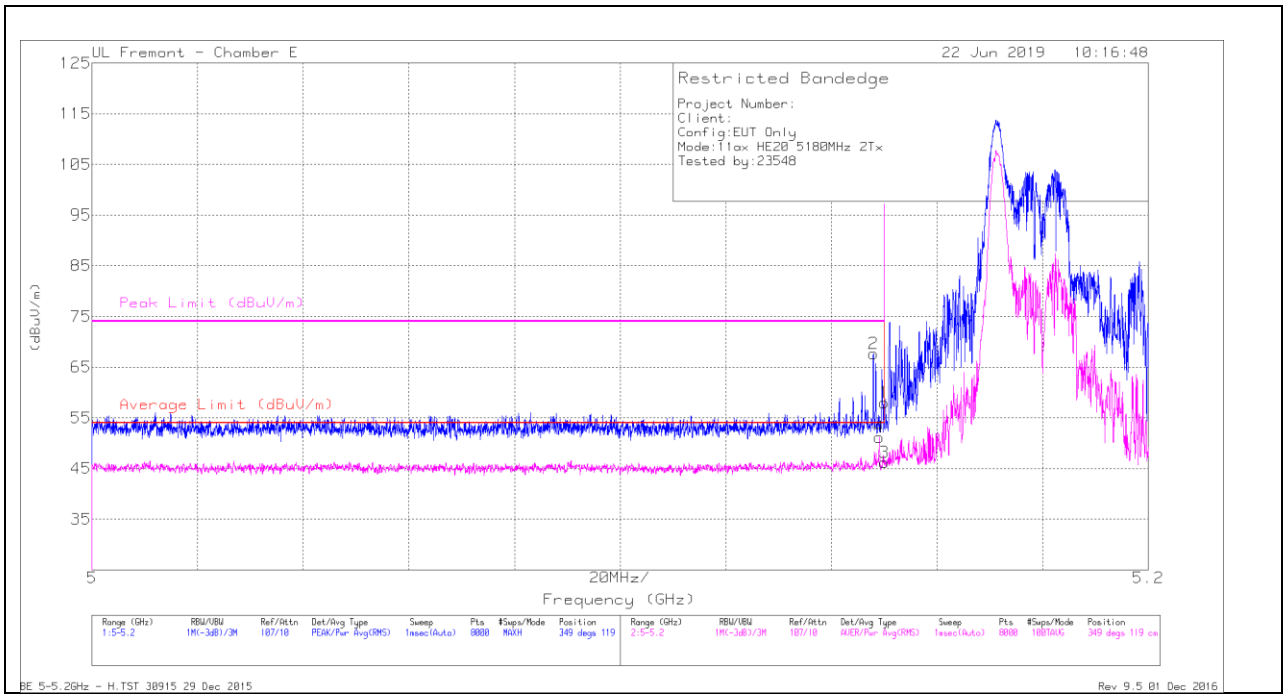
2TX Antenna 5 + Antenna 6 OFDMA MODE – 26 Tones, RU Index 0

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	45.71	Pk	34.3	-22	58.01	-	-	74	-15.99	349	119	H
2	* 5.148	55.35	Pk	34.3	-22	67.65	-	-	74	-6.35	349	119	H
3	* 5.15	33.93	RMS	34.3	-22	46.23	54	-7.77	-	-	349	119	H
4	* 5.149	38.9	RMS	34.3	-22	51.2	54	-2.8	-	-	349	119	H

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

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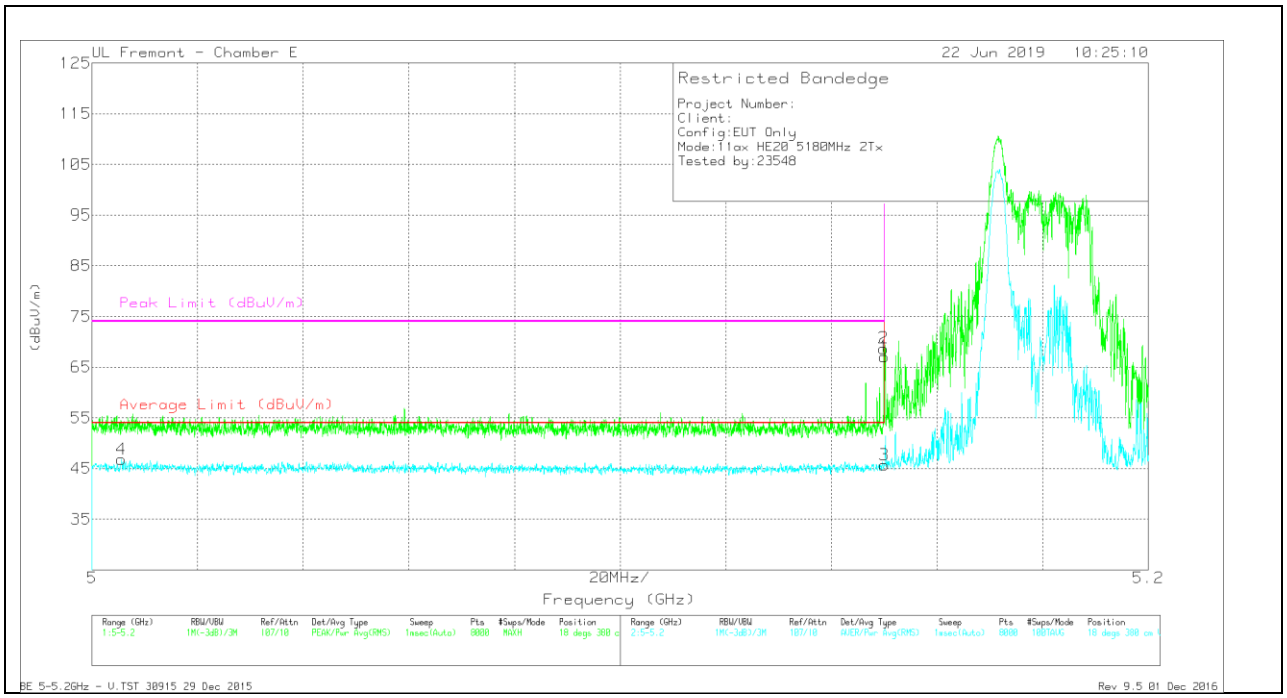
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	54.81	Pk	34.3	-22	67.11	-	-	74	-6.89	18	380	V
2	* 5.15	56.43	Pk	34.3	-22	68.73	-	-	74	-5.27	18	380	V
3	* 5.15	33.38	RMS	34.3	-22	45.68	54	-8.32	-	-	18	380	V
4	* 5.006	34.55	RMS	34.1	-21.8	46.85	54	-7.15	-	-	18	380	V

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

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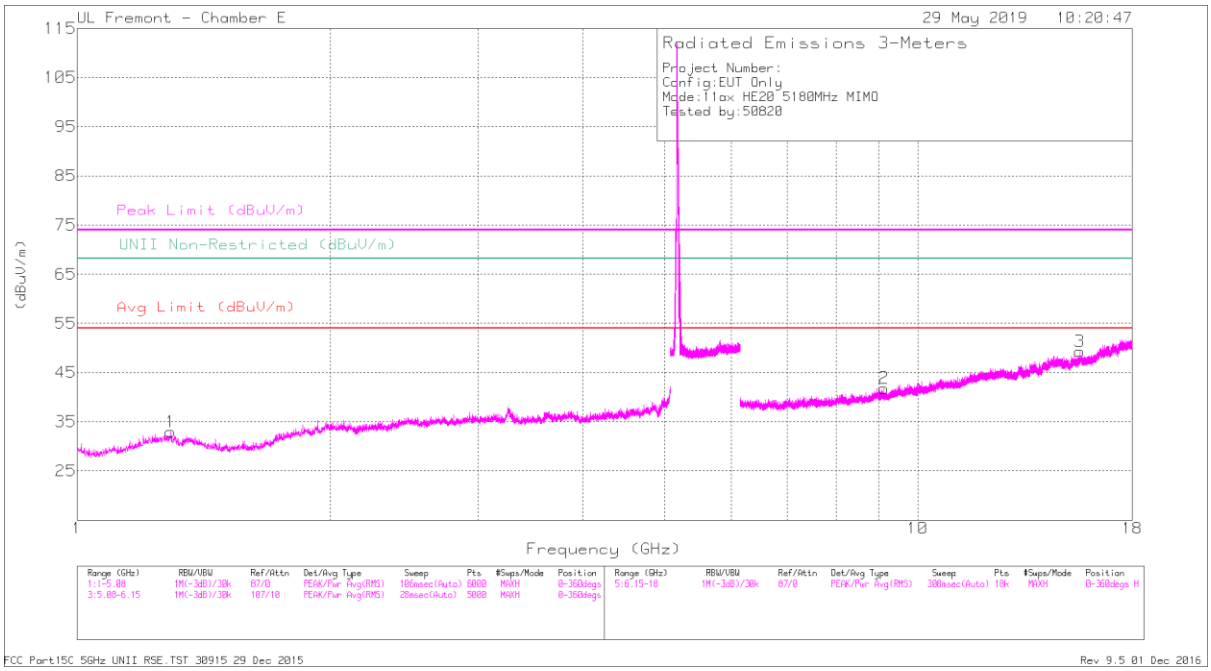
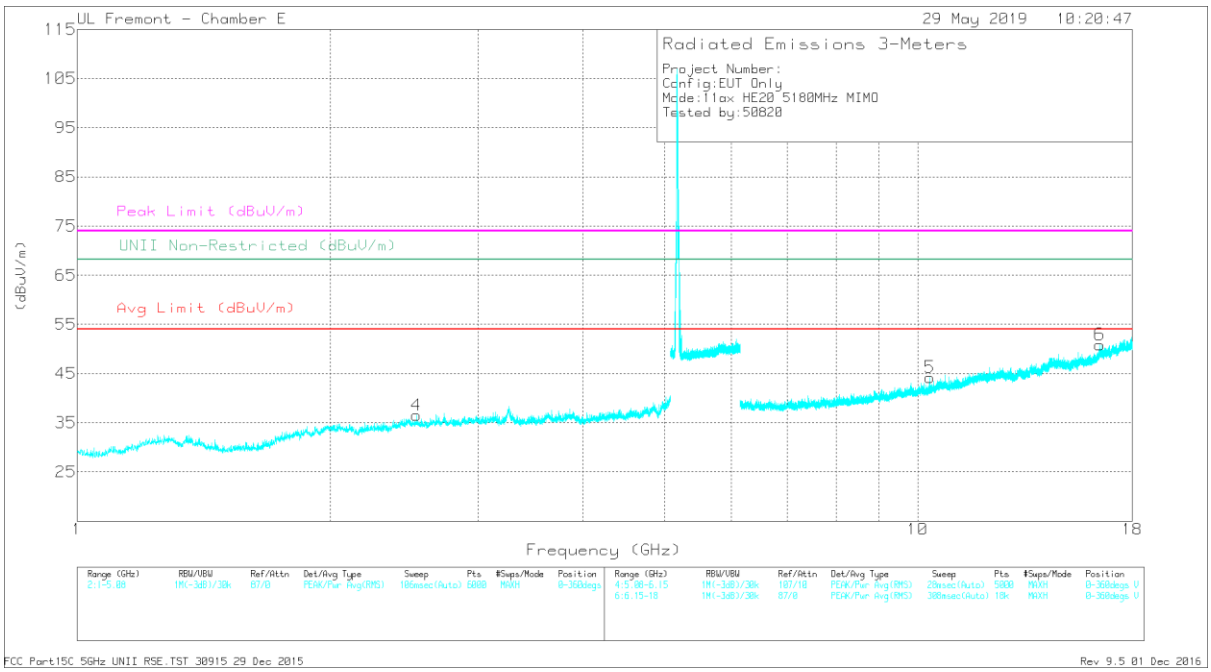
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (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	* 1.291	44.89	PK-U	30	-35.4	39.49	-	-	74	-34.51	-	-	294	217	H
	* 1.291	33.08	ADR	30	-35.4	27.68	54	-26.32	-	-	-	-	294	217	H
2	* 9.123	37.58	PK-U	36.2	-25.4	48.38	-	-	74	-25.62	-	-	206	165	H
	* 9.123	25.47	ADR	36.2	-25.4	36.27	54	-17.73	-	-	-	-	206	165	H
3	* 15.589	35.44	PK-U	40.3	-20.6	55.14	-	-	74	-18.86	-	-	273	357	H
	* 15.589	23.92	ADR	40.3	-20.6	43.62	54	-10.38	-	-	-	-	273	357	H
4	2.534	45.47	PK-U	32.9	-35.6	42.77	-	-	-	-	68.2	-25.43	263	387	V
5	10.343	40.05	PK-U	37.5	-25.4	52.15	-	-	-	-	68.2	-16.05	196	110	V
6	16.466	34.76	PK-U	41	-18.8	56.96	-	-	-	-	68.2	-11.24	67	193	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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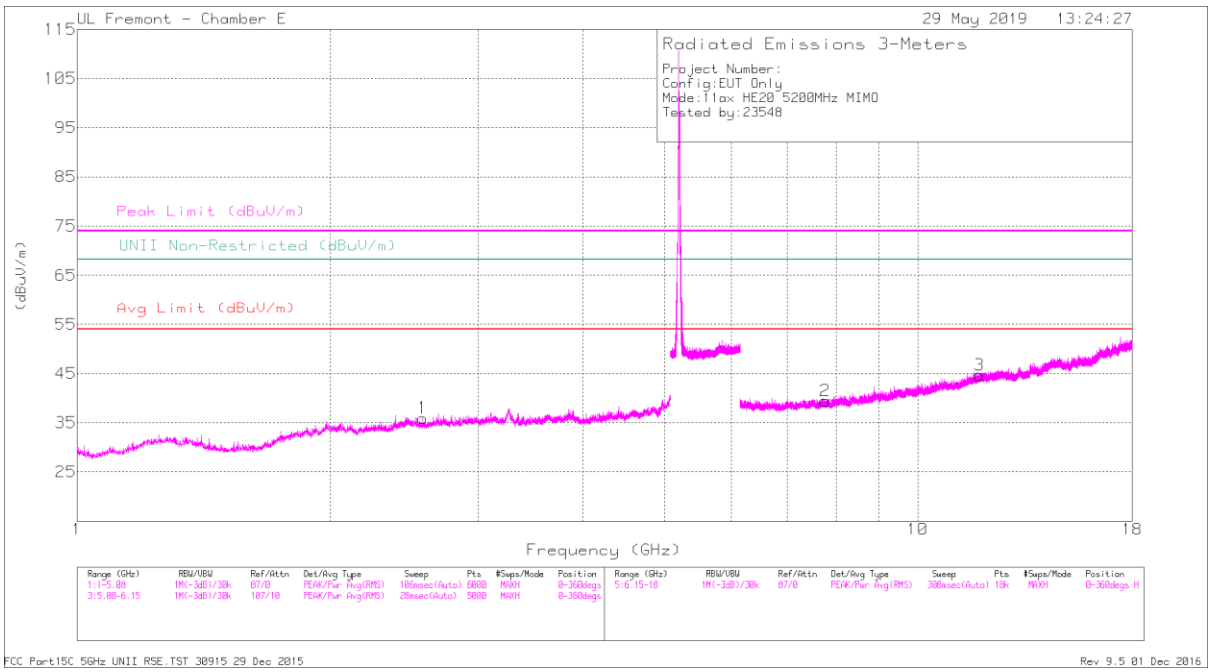
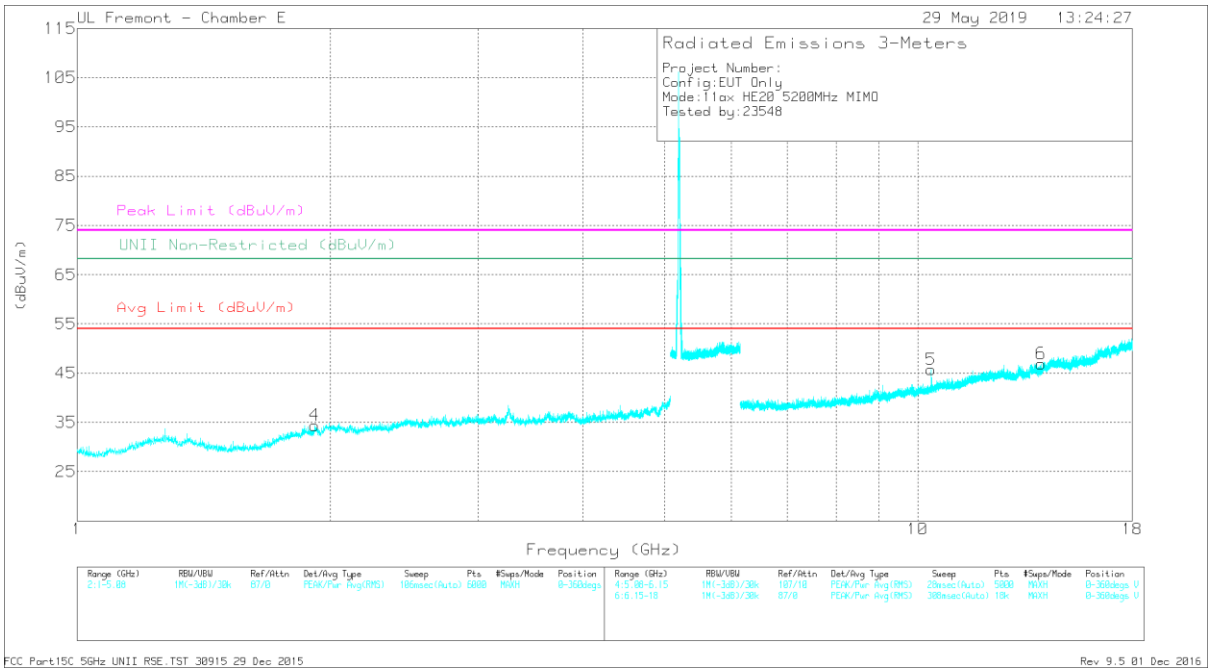
MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (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	2.577	45.77	PK-U	32.8	-35.5	43.07	-	-	-	-	68.2	-25.13	122	355	H
2	7.762	38.98	PK-U	35.8	-28	46.78	-	-	-	-	68.2	-21.42	162	223	H
3	* 11.849	35.91	PK-U	38.9	-23	51.81	-	-	74	-22.19	-	-	75	206	H
	* 11.846	24.25	ADR	38.9	-23.1	40.05	54	-13.95	-	-	-	-	75	206	H
4	1.919	46.11	PK-U	31.4	-35.4	42.11	-	-	-	-	68.2	-26.09	88	346	V
5	10.382	40.6	PK-U	37.5	-25.5	52.6	-	-	-	-	68.2	-15.6	207	108	V
6	14.032	36.05	PK-U	38.7	-21.5	53.25	-	-	-	-	68.2	-14.95	235	274	V

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

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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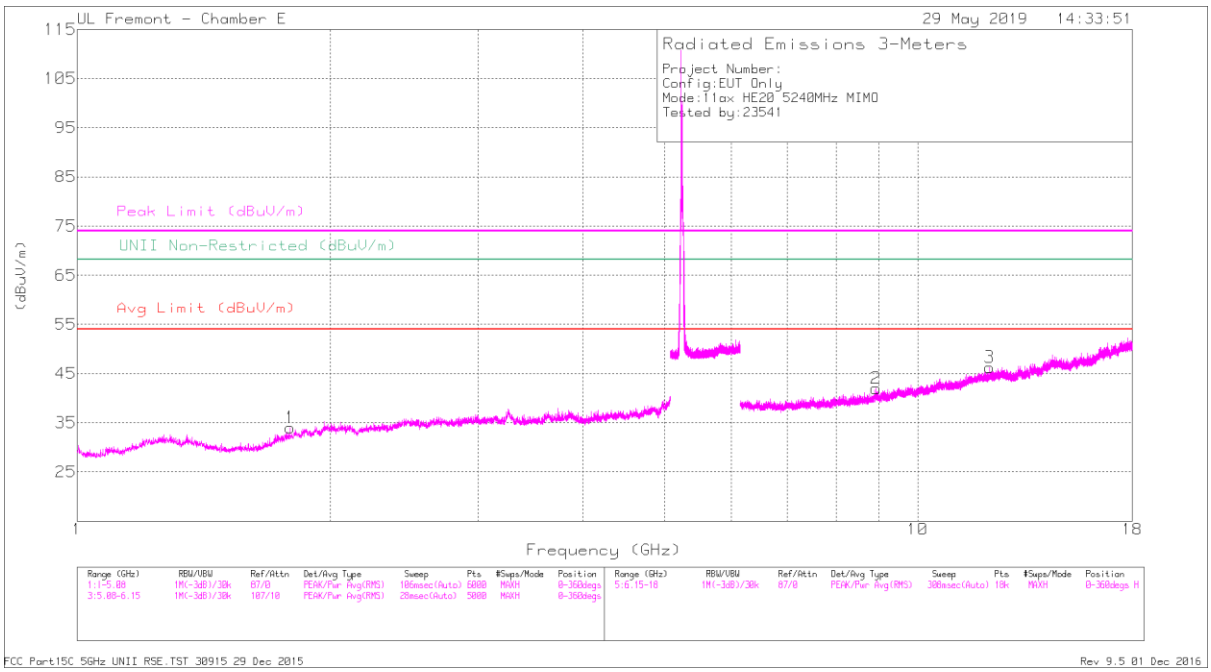
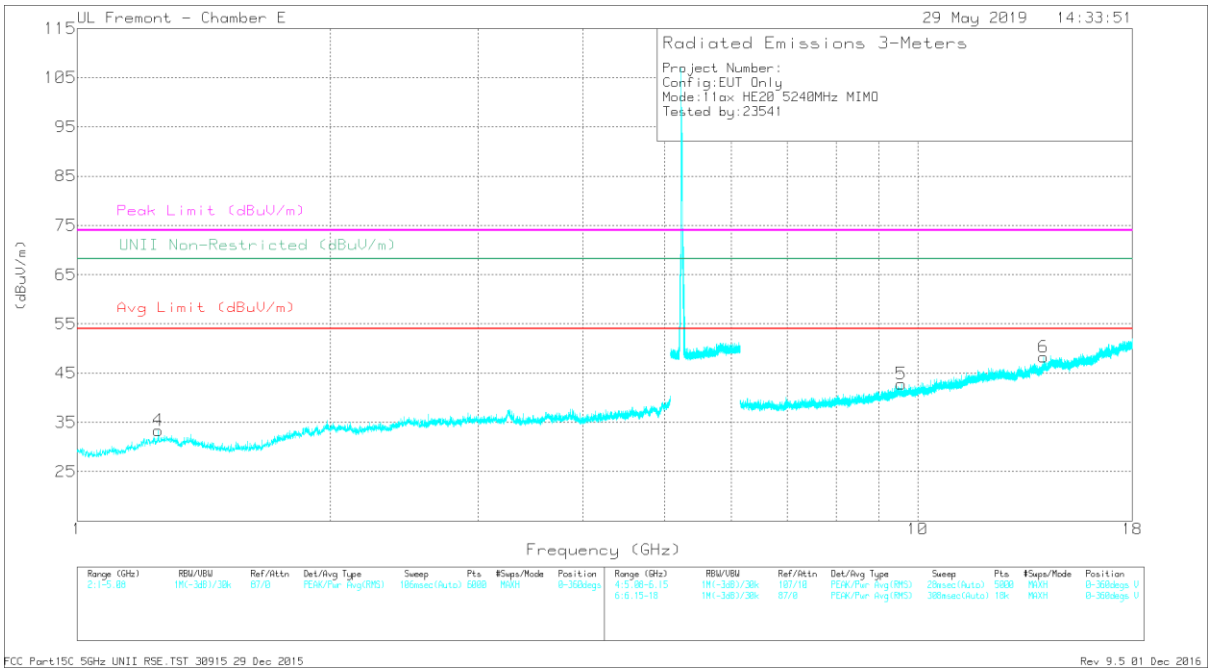
HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (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	1.792	45.54	PK-U	30.3	-35.3	40.54	-	-	-	-	68.2	-27.66	333	243	H
2	8.925	37.12	PK-U	36.1	-25.3	47.92	-	-	-	-	68.2	-20.28	232	132	H
3	* 12.182	35.87	PK-U	39	-22.2	52.67	-	-	74	-21.33	-	-	58	162	H
	* 12.184	23.91	ADR	39	-22.2	40.71	54	-13.29	-	-	-	-	58	162	H
4	* 1.249	44.96	PK-U	29.9	-35.4	39.46	-	-	74	-34.54	-	-	296	165	V
	* 1.25	32.86	ADR	29.9	-35.4	27.36	54	-26.64	-	-	-	-	296	165	V
5	9.562	37.29	PK-U	36.8	-25.5	48.59	-	-	-	-	68.2	-19.61	340	400	V
6	14.109	35.75	PK-U	38.9	-20.7	53.95	-	-	-	-	68.2	-14.25	251	244	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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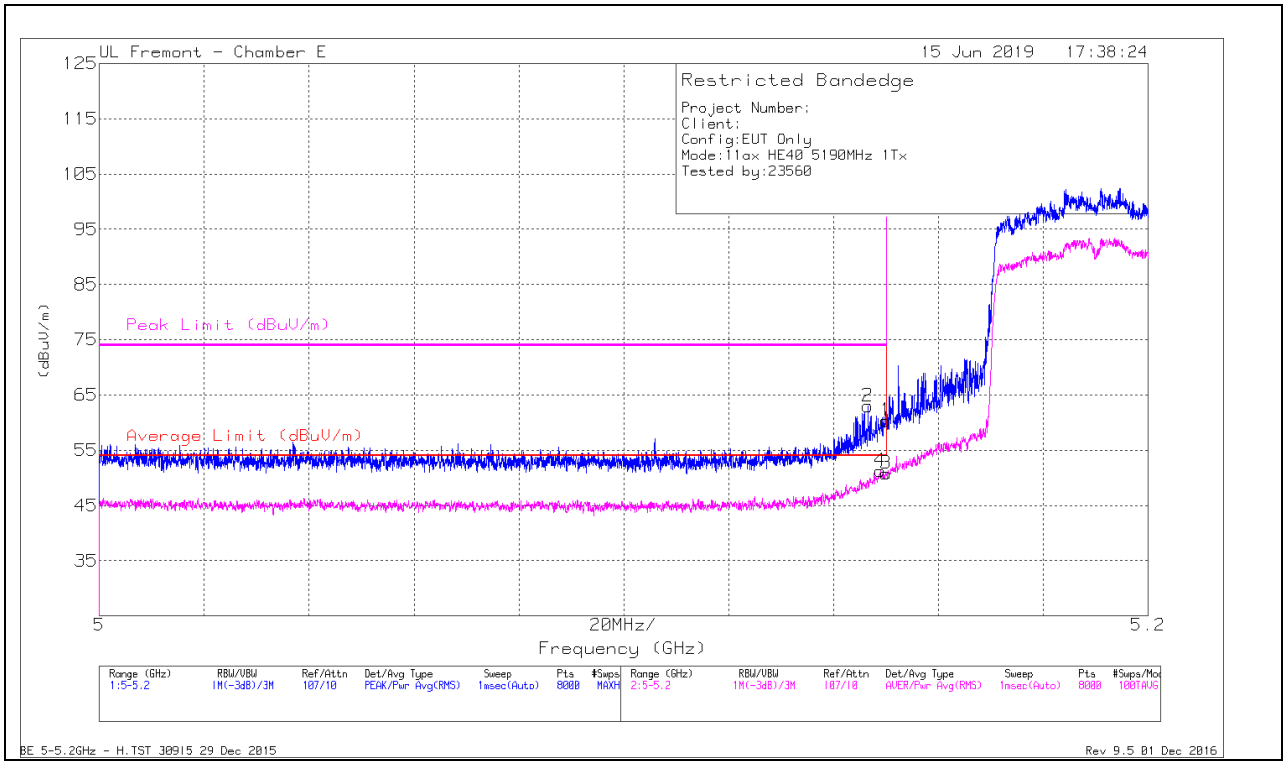
1.1.5. TX ABOVE 1 GHz 802.11ax HE40 MODE IN THE 5.2 GHz BAND

1TX Antenna 5 MODE – 484 Tones, RU Index 65

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	48.05	Pk	34.3	-22	60.35	-	-	74	-13.65	157	124	H
2	* 5.147	50.69	Pk	34.3	-22	62.99	-	-	74	-11.01	157	124	H
3	* 5.15	38.46	RMS	34.3	-22	50.76	54	-3.24	-	-	157	124	H
4	* 5.149	38.96	RMS	34.3	-22	51.26	54	-2.74	-	-	157	124	H

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

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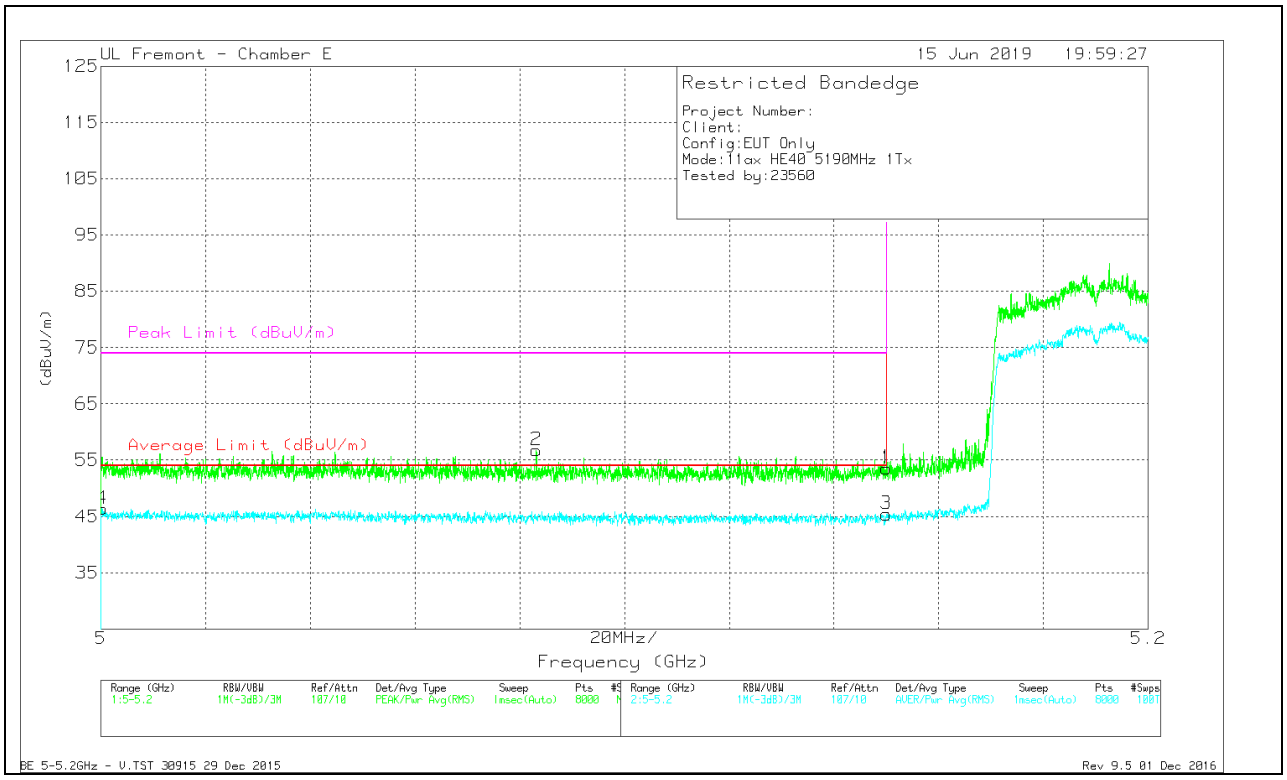
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	41.24	Pk	34.3	-22	53.54	-	-	74	-20.46	351	170	V
2	* 5.083	44.46	Pk	34.2	-21.9	56.76	-	-	74	-17.24	351	170	V
3	* 5.15	33.12	RMS	34.3	-22	45.42	54	-8.58	-	-	351	170	V
4	* 5	34.06	RMS	34.1	-21.8	46.36	54	-7.64	-	-	351	170	V

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

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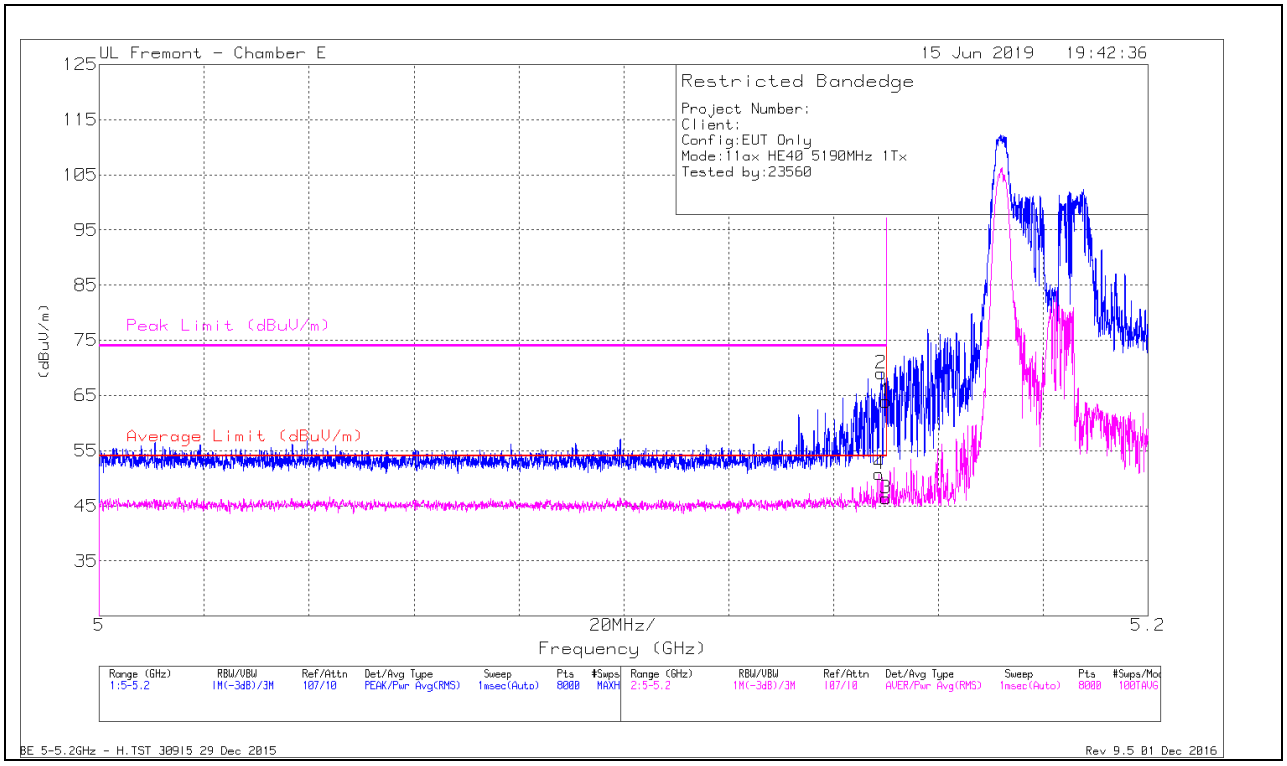
1TX Antenna 5 MODE – 26 Tones, RU Index 0

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	51.63	Pk	34.3	-22	63.93	-	-	74	-10.07	157	124	H
2	* 5.149	56.75	Pk	34.3	-22	69.05	-	-	74	-4.95	157	124	H
3	* 5.15	34.07	RMS	34.3	-22	46.37	54	-7.63	-	-	157	124	H
4	* 5.149	38.47	RMS	34.3	-22	50.77	54	-3.23	-	-	157	124	H

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

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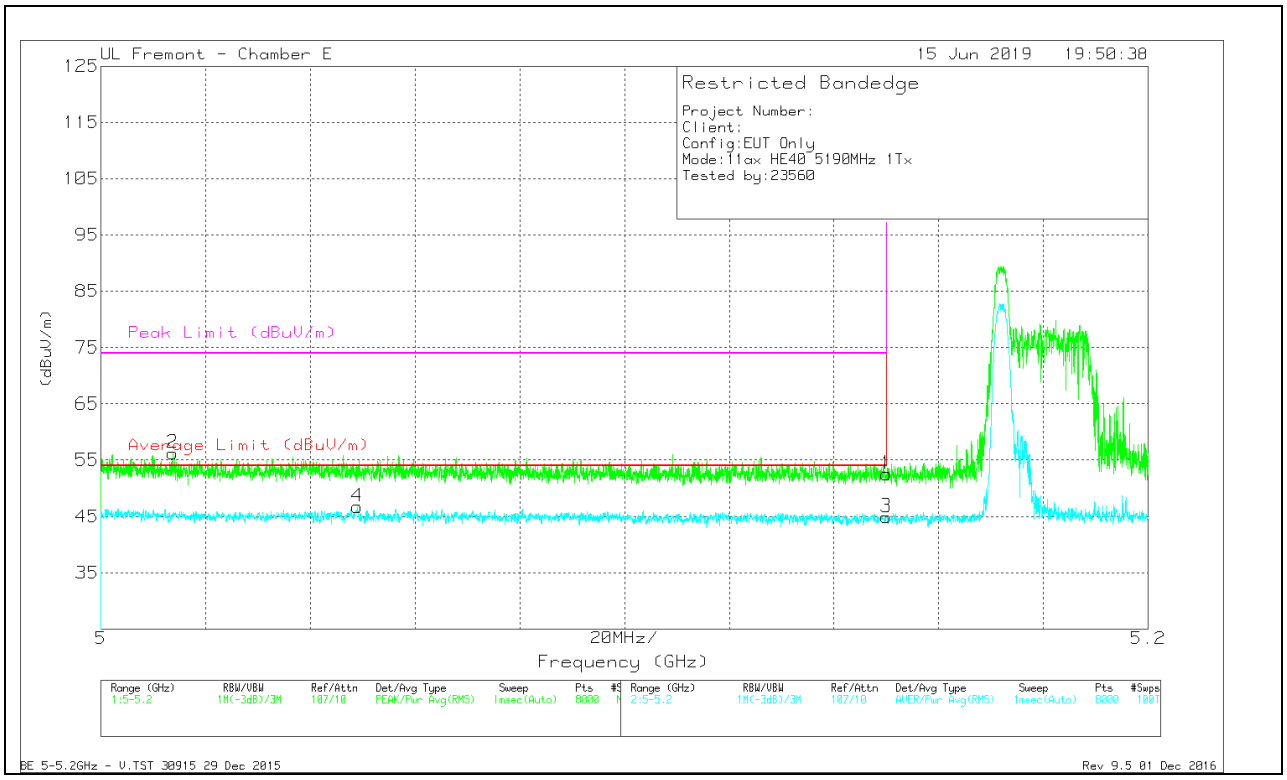
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	40.25	Pk	34.3	-22	52.55	-	-	74	-21.45	15	140	V
2	* 5.014	43.93	Pk	34.2	-21.9	56.23	-	-	74	-17.77	15	140	V
3	* 5.15	32.6	RMS	34.3	-22	44.9	54	-9.1	-	-	15	140	V
4	* 5.049	34.32	RMS	34.2	-21.8	46.72	54	-7.28	-	-	15	140	V

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

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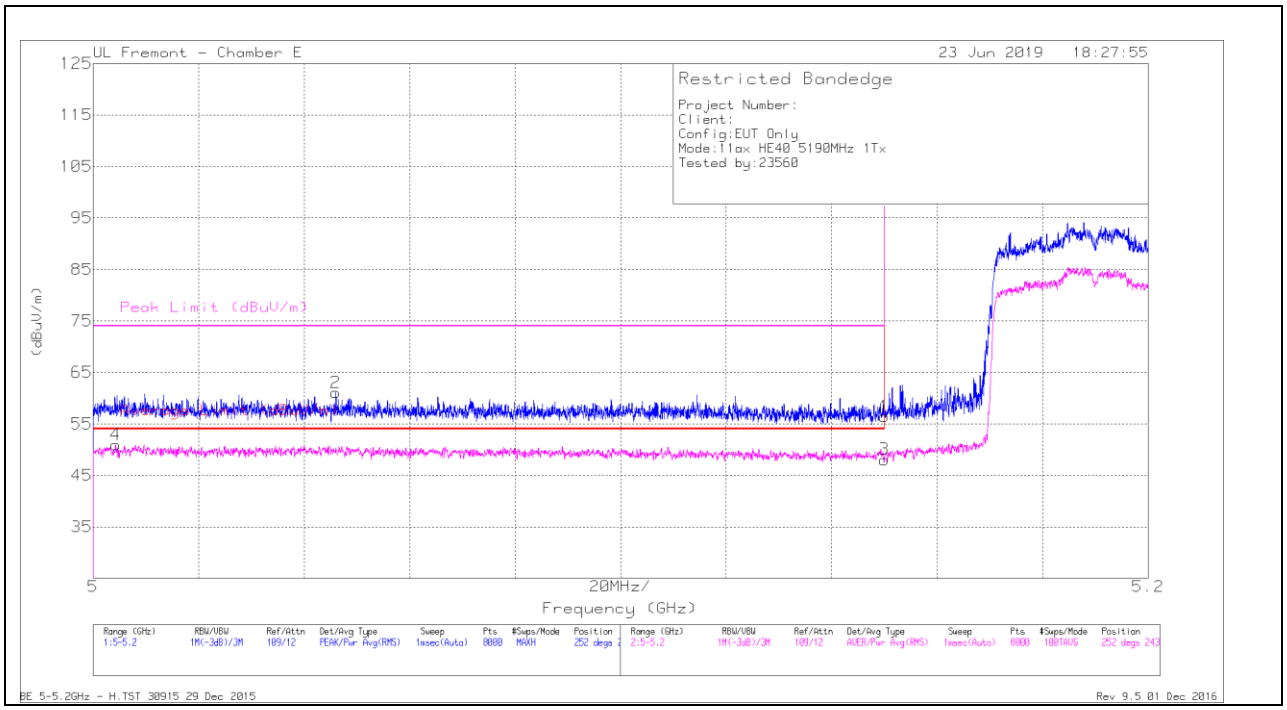
1TX Antenna 6 MODE – 484 Tones, RU Index 65

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	38.71	Pk	34.3	-16.6	56.41	-	-	74	-17.59	252	243	H
2	* 5.046	43.09	Pk	34.2	-16.2	61.09	-	-	74	-12.91	252	243	H
3	* 5.15	30.37	RMS	34.3	-16.6	48.07	54	-5.93	-	-	252	243	H
4	* 5.004	33.06	RMS	34.1	-16.2	50.96	54	-3.04	-	-	252	243	H

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

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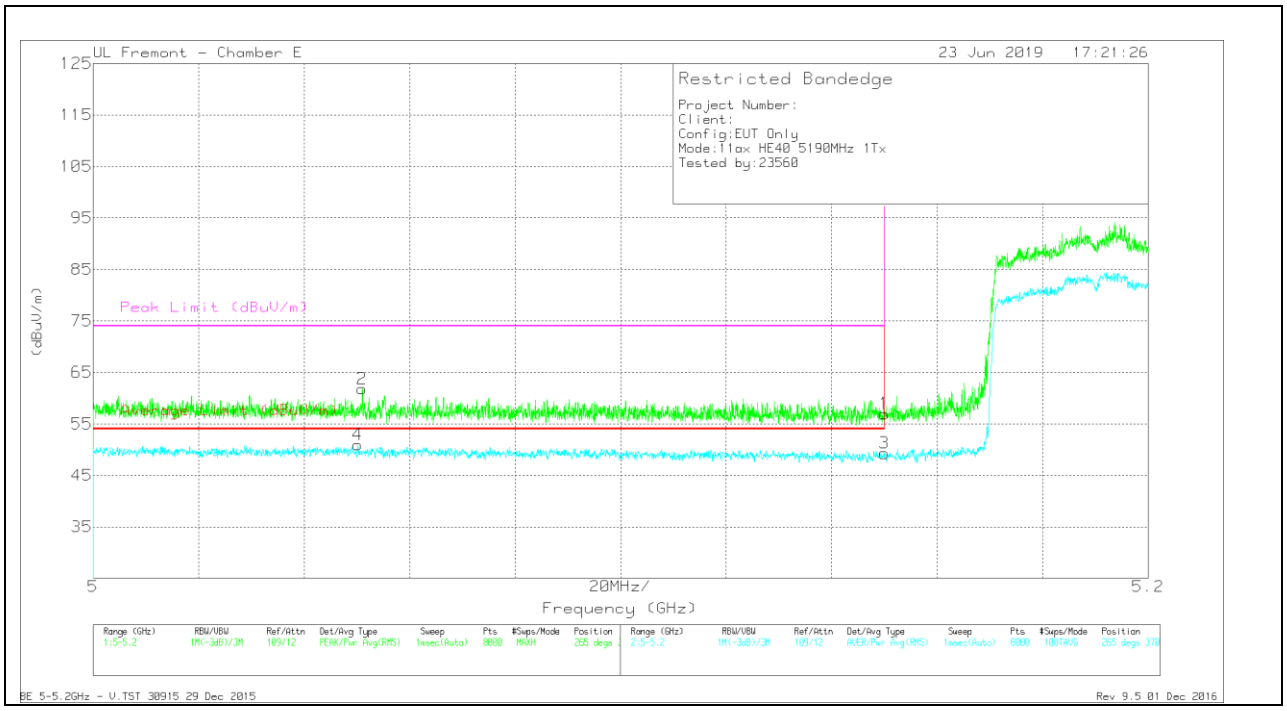
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	39.27	Pk	34.3	-16.6	56.97	-	-	74	-17.03	265	370	V
2	* 5.051	43.92	Pk	34.1	-16.2	61.82	-	-	74	-12.18	265	370	V
3	* 5.15	31.6	RMS	34.3	-16.6	49.3	54	-4.7	-	-	265	370	V
4	* 5.05	32.97	RMS	34.2	-16.2	50.97	54	-3.03	-	-	265	370	V

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

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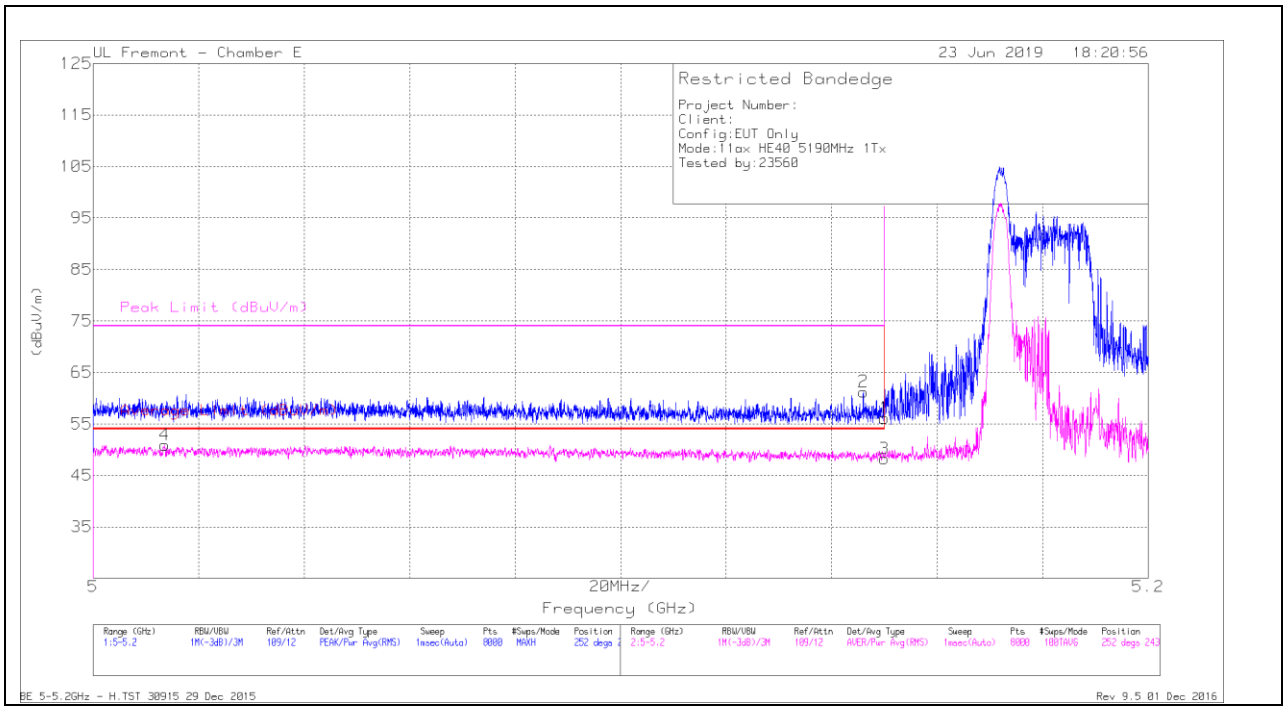
1TX Antenna 6 MODE – 26 Tones, RU Index 0

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	38.45	Pk	34.3	-16.6	56.15	-	-	74	-17.85	252	243	H
2	* 5.146	43.65	Pk	34.3	-16.7	61.25	-	-	74	-12.75	252	243	H
3	* 5.15	30.54	RMS	34.3	-16.6	48.24	54	-5.76	-	-	252	243	H
4	* 5.014	33	RMS	34.2	-16.3	50.9	54	-3.1	-	-	252	243	H

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

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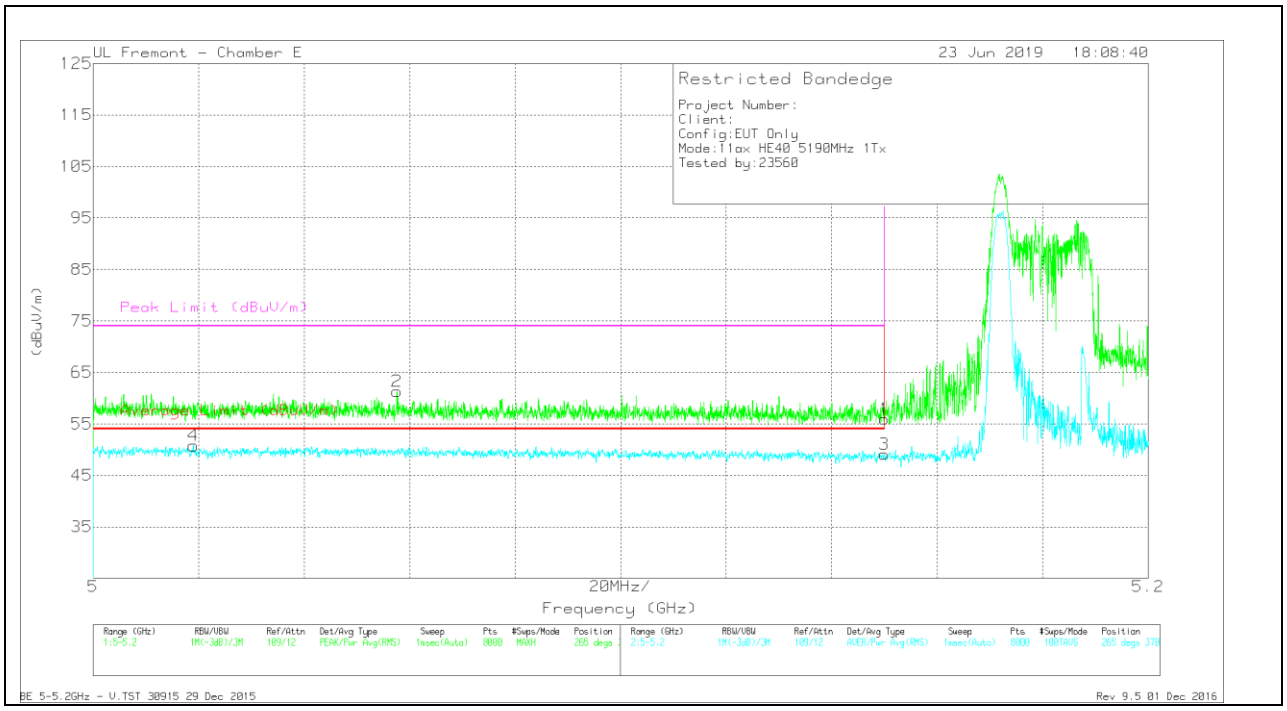
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	38.24	Pk	34.3	-16.6	55.94	-	-	74	-18.06	265	370	V
2	* 5.058	43.49	Pk	34.1	-16.3	61.29	-	-	74	-12.71	265	370	V
3	* 5.15	31.39	RMS	34.3	-16.6	49.09	54	-4.91	-	-	265	370	V
4	* 5.019	32.97	RMS	34.1	-16.3	50.77	54	-3.23	-	-	265	370	V

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

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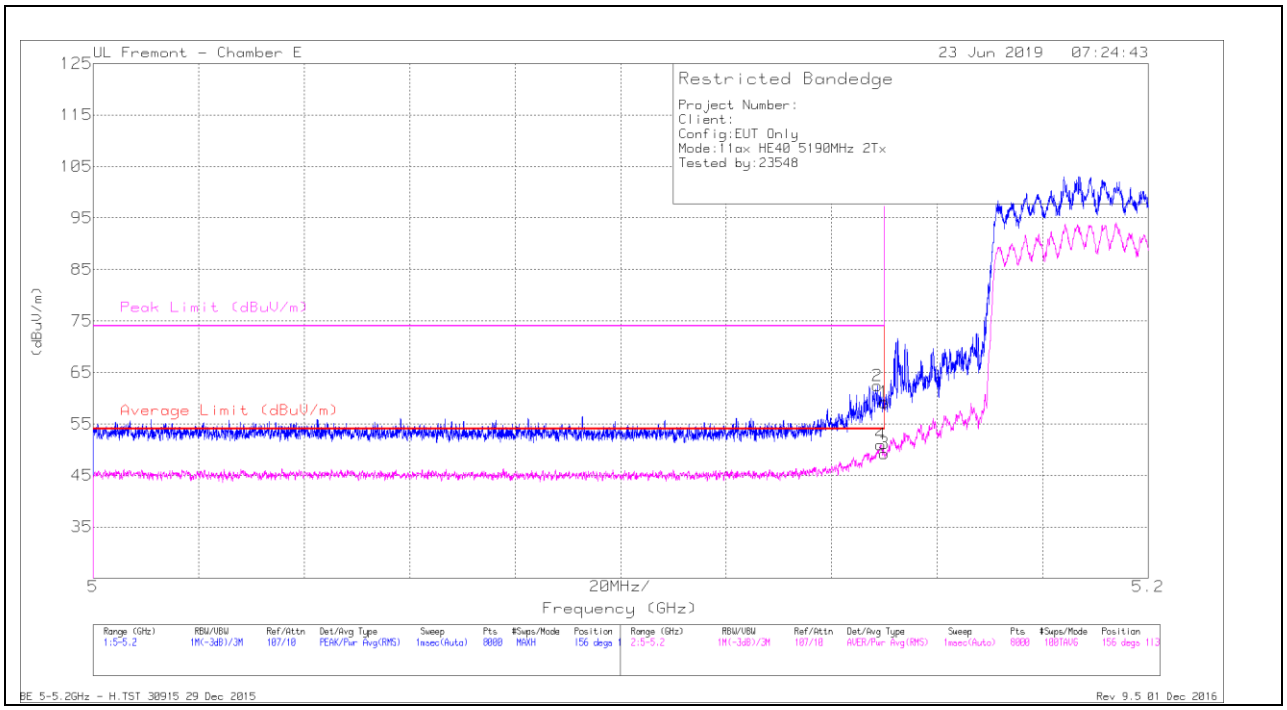
2TX Antenna 5 + Antenna 6 OFDMA MODE – 484 Tones, RU Index 65

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	46.9	Pk	34.3	-22	59.2	-	-	74	-14.8	156	113	H
2	* 5.149	50.12	Pk	34.3	-22	62.42	-	-	74	-11.58	156	113	H
3	* 5.15	36.96	RMS	34.3	-22	49.26	54	-4.74	-	-	156	113	H
4	* 5.149	38.69	RMS	34.3	-22	50.99	54	-3.01	-	-	156	113	H

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

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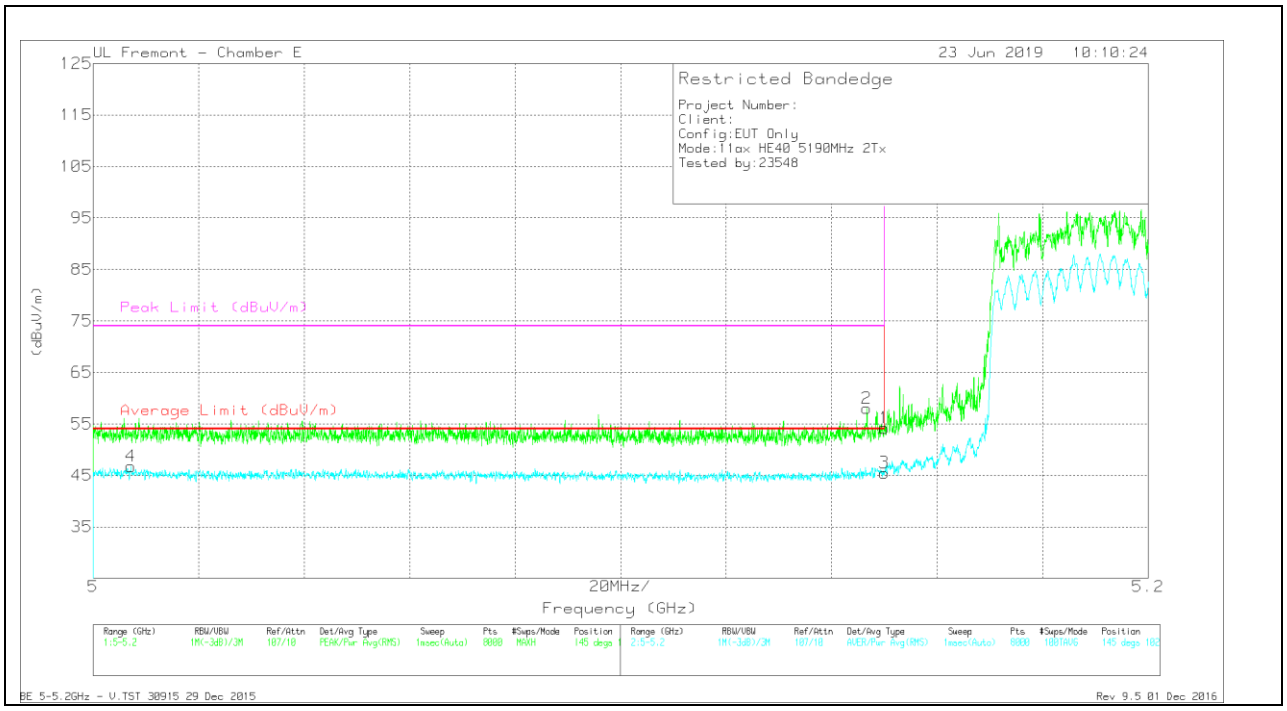
VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	41.88	Pk	34.3	-22	54.18	-	-	74	-19.82	145	102	V
2	* 5.147	45.72	Pk	34.3	-22	58.02	-	-	74	-15.98	145	102	V
3	* 5.15	33.18	RMS	34.3	-22	45.48	54	-8.52	-	-	145	102	V
4	* 5.007	34.44	RMS	34.1	-21.8	46.74	54	-7.26	-	-	145	102	V

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

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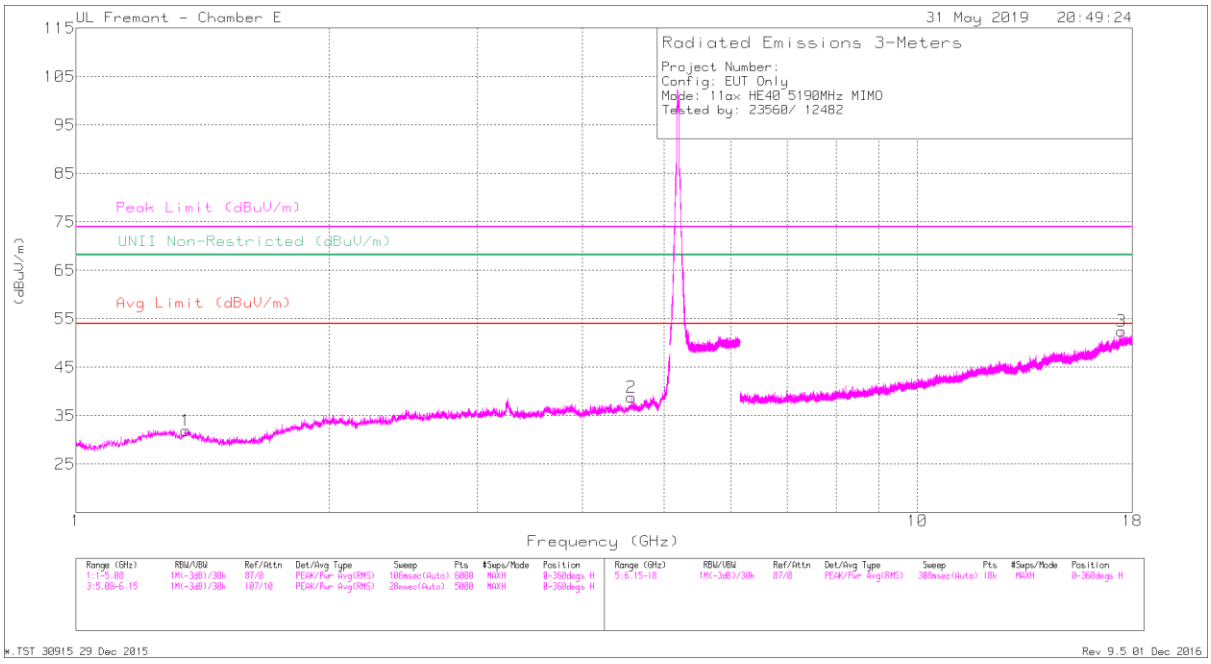
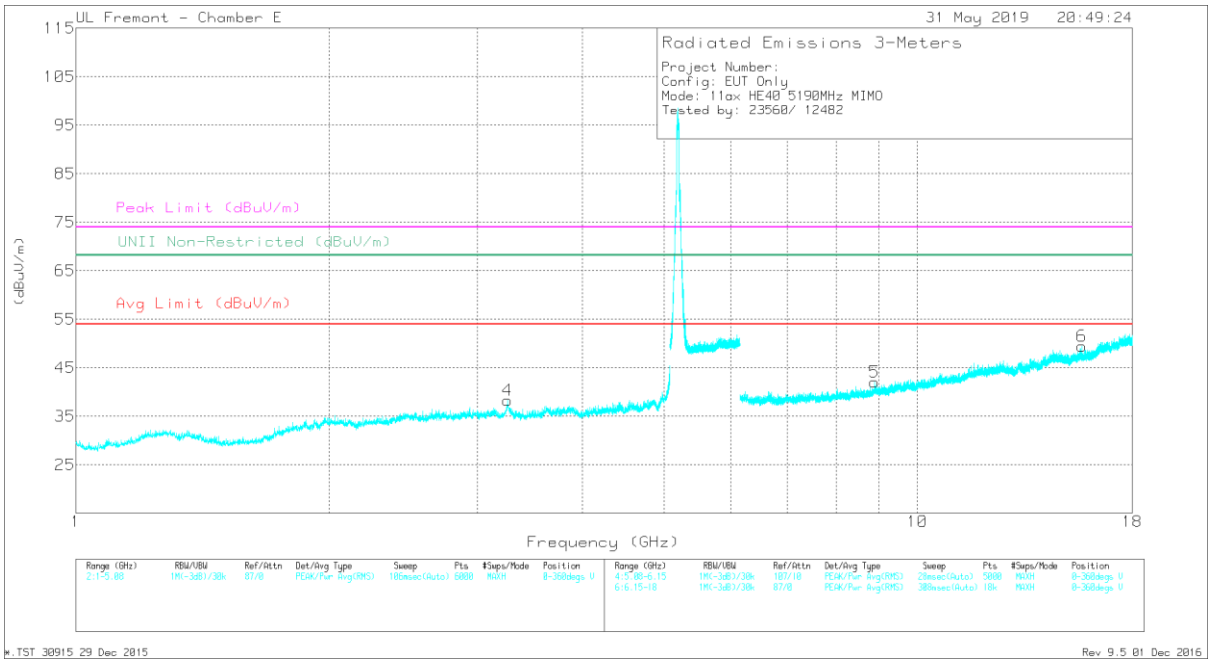
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

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RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (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	* 1.352	45.05	PK-U	29.7	-35.6	39.15	-	-	74	-34.85	-	-	25	212	H
	* 1.352	33.67	ADR	29.7	-35.7	27.67	54	-26.33	-	-	-	-	25	212	H
2	* 4.571	42.15	PK-U	34.2	-31.5	44.85	-	-	74	-29.15	-	-	151	124	H
	* 4.569	30.86	ADR	34.2	-31.5	33.56	54	-20.44	-	-	-	-	151	124	H
6	* 15.684	35.92	PK-U	40.3	-20.8	55.42	-	-	74	-18.58	-	-	248	126	V
	* 15.685	24.67	ADR	40.3	-20.8	44.17	54	-9.83	-	-	-	-	248	126	V
4	3.255	44.64	PK-U	34.7	-34.6	44.74	-	-	-	-	68.2	-23.46	297	275	V
5	8.894	37.06	PK-U	36.1	-25.2	47.96	-	-	-	-	68.2	-20.24	0	147	V
3	17.469	35.98	PK-U	41.5	-19.2	58.28	-	-	-	-	68.2	-9.92	327	305	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

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