TEST REPORT

Report Number. : 13179116-E5V1 & E6V1

Applicant	:	APPLE, INC. 1 APPLE PARK WAY CUPERTINO, CA 95014, U.S.A.
Model	:	A2172
FCC ID	:	BCG-E3542A
IC	:	579C-E3542A
EUT Description	:	SMARTPHONE
Test Standard(s)	:	FCC 47 CFR PART 15 SUBPART E ISED RSS-247 ISSUE 2 ISED RSS-GEN ISSUE 5

Date Of Issue:
August 26, 2020

Prepared by:
UL Verification Services Inc.
47173 Benicia Street
Fremont, CA 94538 U.S.A.
TEL: (510) 319-4000
FAX: (510) 661-0888

NVLAP TESTING

NVLAP Lab code: 200065-0

REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	8/26/2020	Initial Revision	Chin Pang

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

TABLE OF CONTENTS

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 12
1.1.3. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.2 GHz BAND 20
1.1.4. TX ABOVE 1 GHz 802.11ax HE20 MODE IN THE 5.2 GHz BAND 28
1.1.5. TX ABOVE 1 GHz 802.11ax HE40 MODE IN THE 5.2 GHz BAND 44
1.1.6. TX ABOVE 1 GHz 802.11ax HE80 MODE IN THE 5.2 GHz BAND 60
1.1.7. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.3 GHz BAND 76
1.1.8. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.3 GHz BAND 84
1.1.9. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.3 GHz BAND 92
1.1.10. TX ABOVE 1 GHz 802.11ax HE20 MODE IN THE 5.3 GHz BAND 100
1.1.11. TX ABOVE 1 GHz 802.11ax HE40 MODE IN THE 5.3 GHz BAND 116
1.1.12. TX ABOVE 1 GHz 802.11ax HE80 MODE IN THE 5.3 GHz BAND 132
1.1.13. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.6 GHz BAND 148
1.1.14. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.6 GHz BAND 162
1.1.15. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.6 GHz BAND 176
1.1.16. TX ABOVE 1 GHz 802.11ax HE20 MODE IN THE 5.6 GHz BAND 184
1.1.17. TX ABOVE 1 GHz 802.11ax HE40 MODE IN THE 5.6 GHz BAND 212
1.1.18. TX ABOVE 1 GHz 802.11ax HE80 MODE IN THE 5.6 GHz BAND 240
1.1.19. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND 256
1.1.20. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND 270
1.1.21. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.8 GHz BAND 284
1.1.22. TX ABOVE 1 GHz 802.11ax HE20 MODE IN THE 5.8 GHz BAND 298
1.1.23. TX ABOVE 1 GHz 802.11ax HE40 MODE IN THE 5.8 GHz BAND 326
1.1.24. TX ABOVE 1 GHz 802.11ax HE80 MODE IN THE 5.8 GHz BAND 354

1.2. WORST CASE BELOW 1 GHZ 382

1.3. WORST CASE 18-26 GHZ 384

1.4. WORST CASE 26-40 GHZ 386

2. AC POWER LINE CONDUCTED EMISSIONS 388

2.1. AC Power Line Host 389

2.2. AC Power Line Norm 391

3. SETUP PHOTOS 393

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1. RADIATED TEST RESULTS

LIMITS

FCC §15.205 and §15.209 -Restriced bands
FCC §15.407(b)(1-3) -Un-Restriced bands

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 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.

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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.

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

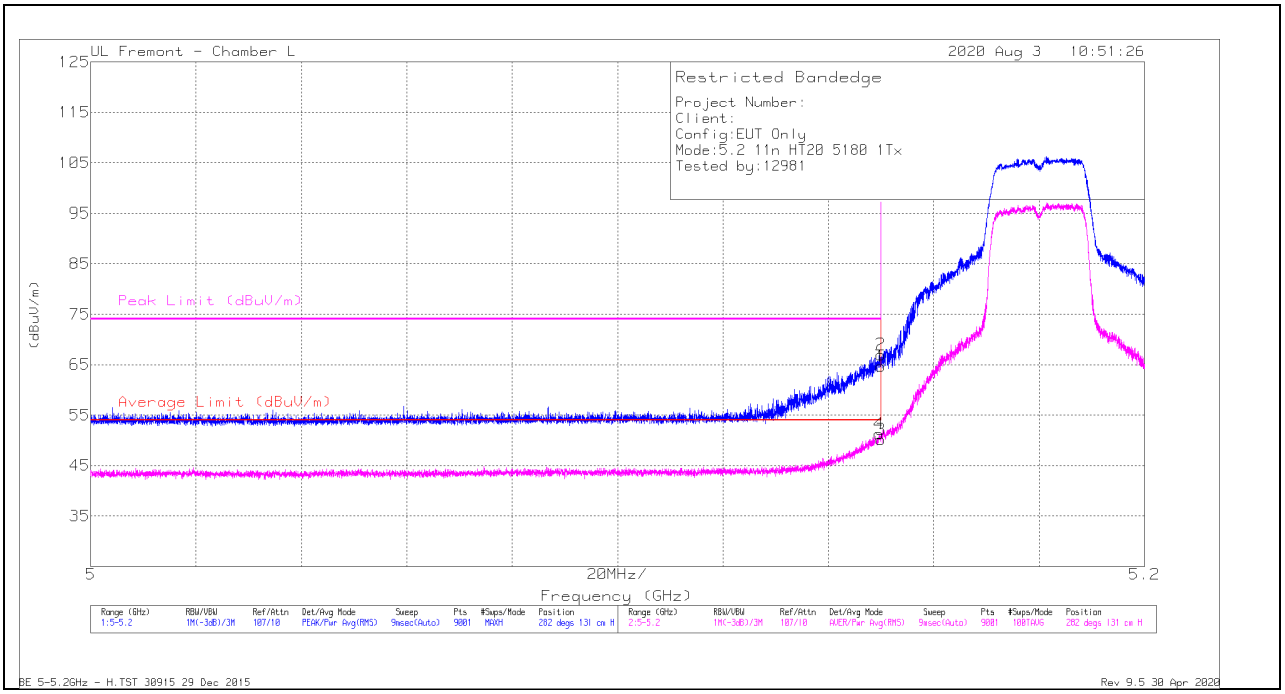
1.1. TRANSMITTER ABOVE 1 GHz

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

1TX Antenna 5 MODE, MCS 7

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT

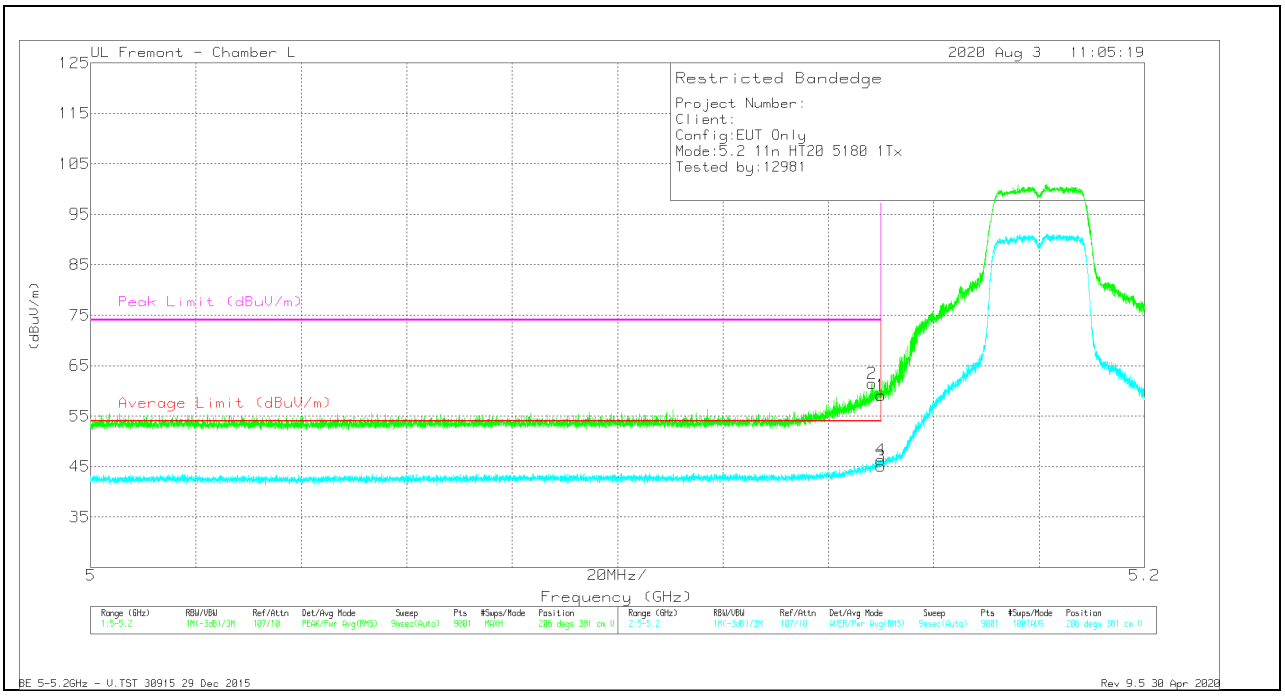


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	47.87	Pk	34.3	-17.5	0	64.67	-	-	74	-9.33	282	131	H
2	* 5.14991	50.19	Pk	34.3	-17.5	0	66.99	-	-	74	-7.01	282	131	H
3	* 5.15	33.07	RMS	34.3	-17.5	0.36	50.23	54	-3.77	-	-	282	131	H
4	* 5.1496	34.11	RMS	34.3	-17.5	0.36	51.27	54	-2.73	-	-	282	131	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	42.36	Pk	34.3	-17.5	0	59.16	-	-	74	-14.84	206	381	V
2	* 5.14824	44.67	Pk	34.3	-17.5	0	61.47	-	-	74	-12.53	206	381	V
3	* 5.15	28.26	RMS	34.3	-17.5	0.36	45.42	54	-8.58	-	-	206	381	V
4	* 5.14991	29.55	RMS	34.3	-17.5	0.36	46.71	54	-7.29	-	-	206	381	V

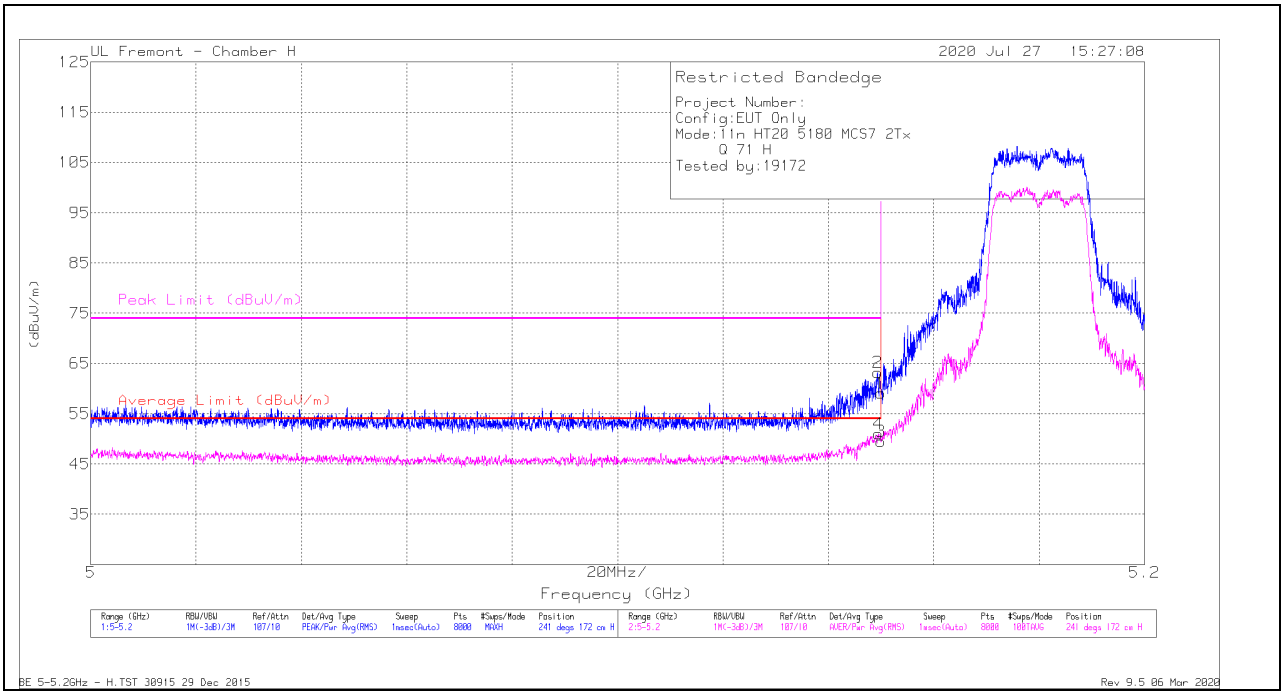
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

2TX Antenna 5 + Antenna 6 CDD MODE

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT

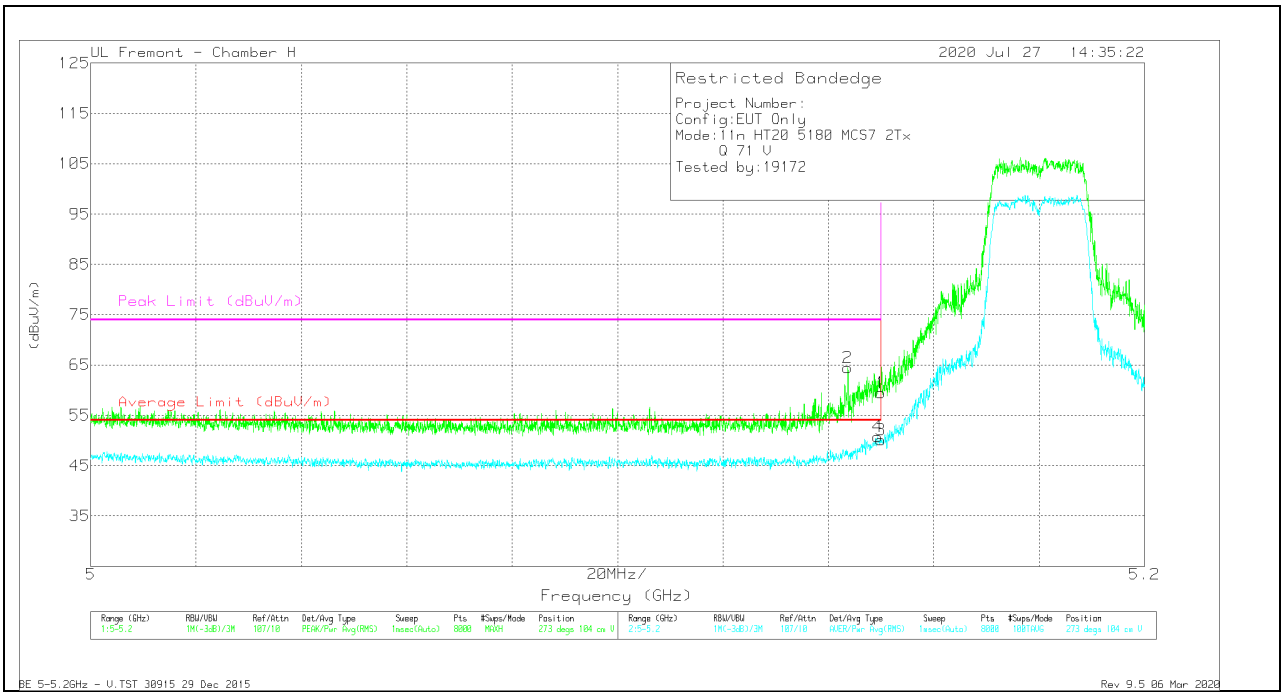


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	46.03	Pk	34.4	-21.3	0	59.13	-	-	74	-14.87	241	172	H
2	* 5.14937	50.16	Pk	34.4	-21.3	0	63.26	-	-	74	-10.74	241	172	H
3	* 5.14999	35.87	RMS	34.4	-21.3	0.36	49.33	54	-4.67	-	-	241	172	H
4	* 5.14954	37.35	RMS	34.4	-21.3	0.36	50.81	54	-3.19	-	-	241	172	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



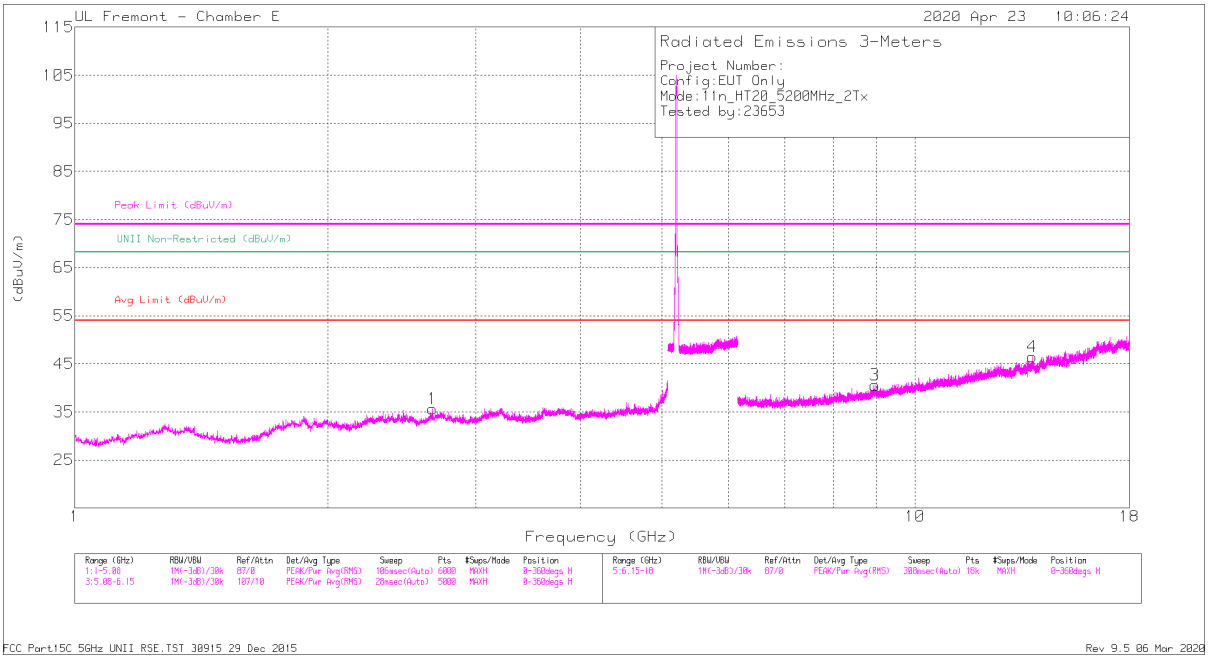
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	46.38	Pk	34.4	-21.3	0	59.48	-	-	74	-14.52	273	104	V
2	* 5.14372	51.57	Pk	34.3	-21.4	0	64.47	-	-	74	-9.53	273	104	V
3	* 5.14999	36.39	RMS	34.4	-21.3	0.36	49.85	54	-4.15	-	-	273	104	V
4	* 5.14937	37.06	RMS	34.4	-21.3	0.36	50.52	54	-3.48	-	-	273	104	V

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

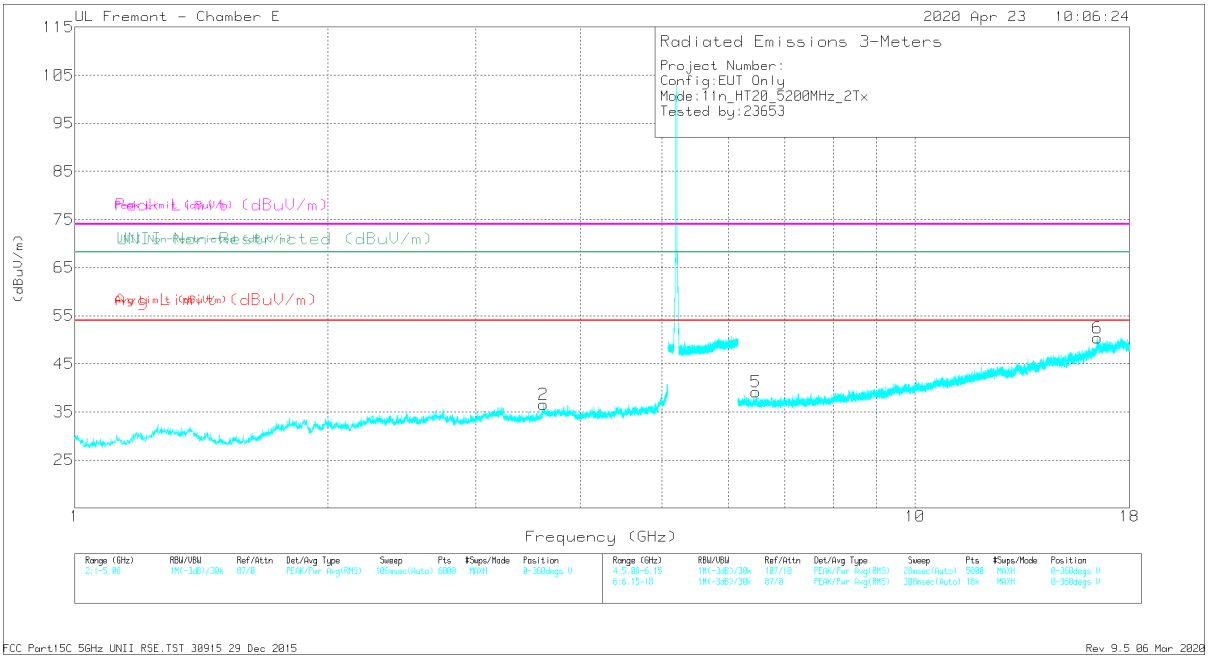
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (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	* 2.66388	45.23	PK-U	32.7	-35.8	42.13	-	-	74	-31.87	-	-	169	240	H
	* 2.66386	33.14	ADR	32.7	-35.8	30.04	54	-23.96	-	-	-	-	169	240	H
2	* 3.61674	43.1	PK-U	33.7	-34.2	42.6	-	-	74	-31.4	-	-	227	170	V
	* 3.61482	31.49	ADR	33.7	-34.3	30.89	54	-23.11	-	-	-	-	227	170	V
5	6.46407	37.66	PK-U	35.7	-28.5	44.86	-	-	-	-	68.2	-23.34	246	144	V
3	8.9623	36.15	PK-U	36.1	-26	46.25	-	-	-	-	68.2	-21.95	94	124	H
4	13.78603	35.95	PK-U	38.4	-21.7	52.65	-	-	-	-	68.2	-15.55	300	162	H
6	16.49441	34.34	PK-U	41.4	-19.6	56.14	-	-	-	-	68.2	-12.06	323	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

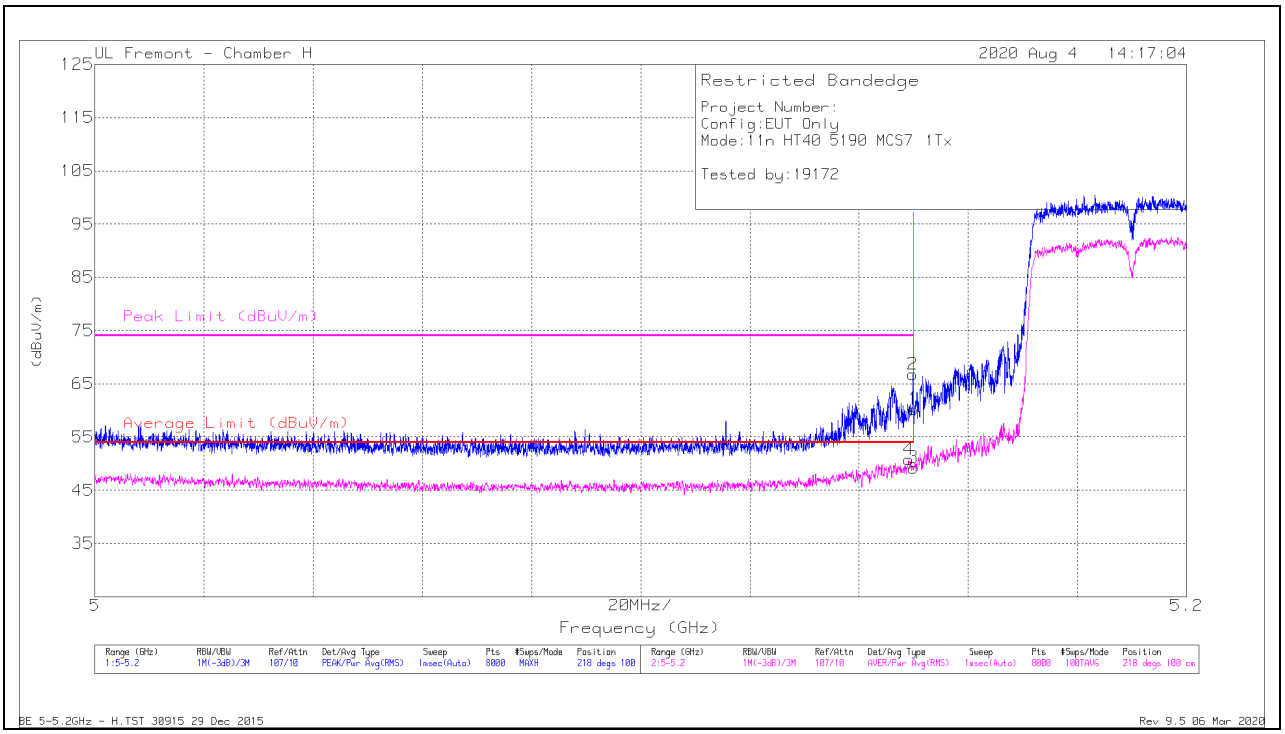
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

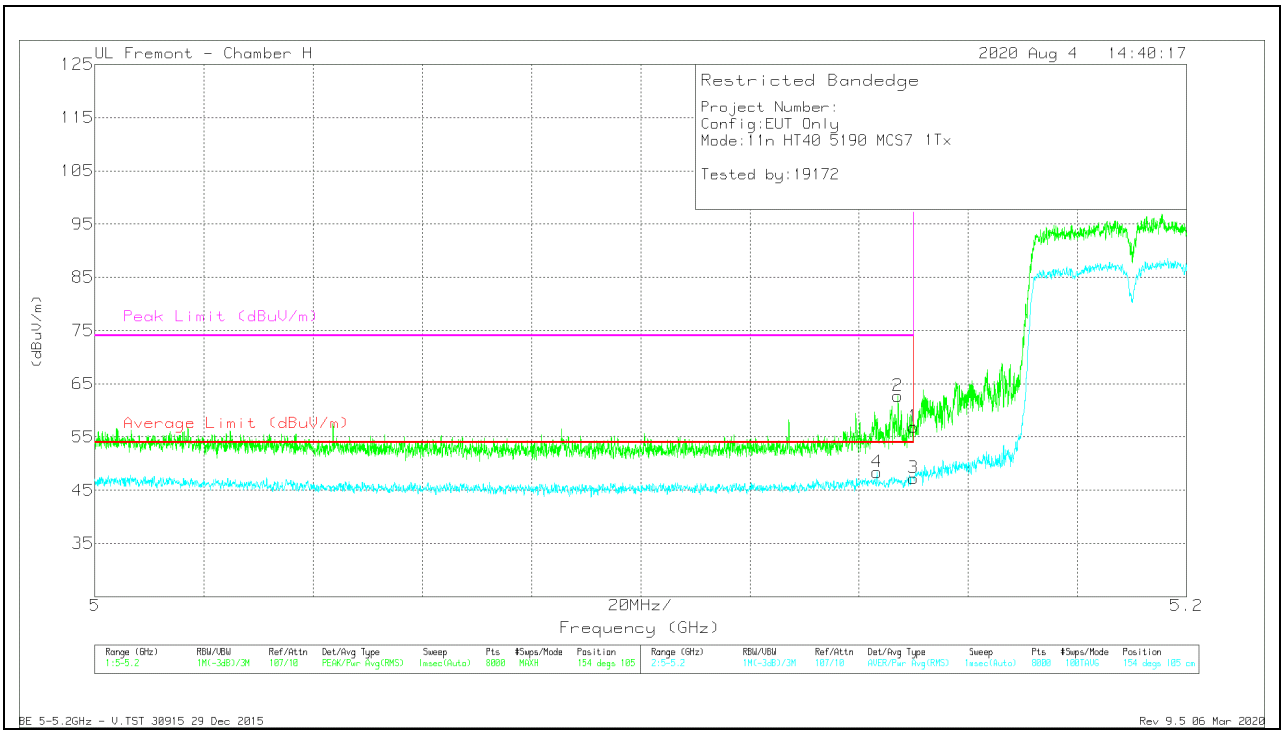


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	47.1	Pk	34.4	-21.3	0	60.2	-	-	74	-13.8	218	100	H
2	* 5.14984	53.67	Pk	34.4	-21.3	0	66.77	-	-	74	-7.23	218	100	H
3	* 5.14999	35.48	RMS	34.4	-21.3	0.61	49.19	54	-4.81	-	-	218	100	H
4	* 5.14912	37.02	RMS	34.4	-21.3	0.61	50.73	54	-3.27	-	-	218	100	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.14999	43.84	Pk	34.4	-21.3	0	56.94	-	-	74	-17.06	154	105	V
2	* 5.14712	49.82	Pk	34.3	-21.4	0	62.72	-	-	74	-11.28	154	105	V
3	* 5.14999	33.56	RMS	34.4	-21.3	0.61	47.27	54	-6.73	-	-	154	105	V
4	* 5.14329	34.78	RMS	34.3	-21.3	0.61	48.39	54	-5.61	-	-	154	105	V

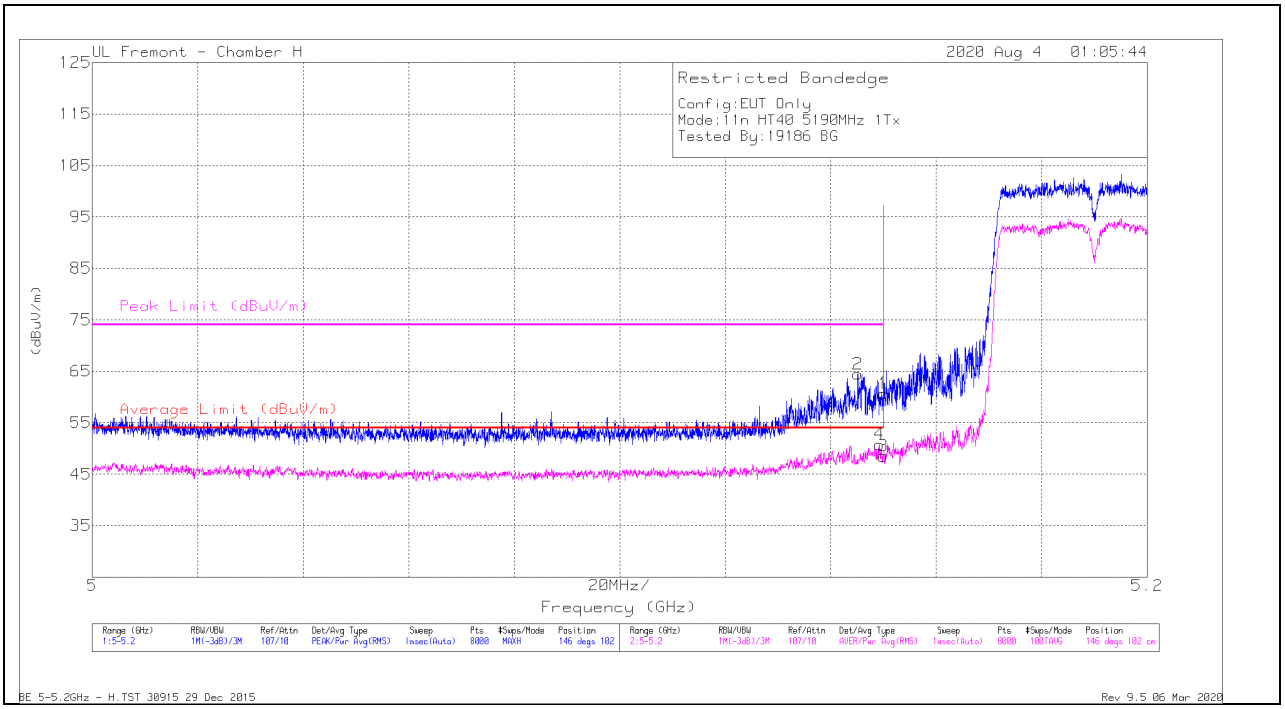
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1TX Antenna 6 MODE

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT

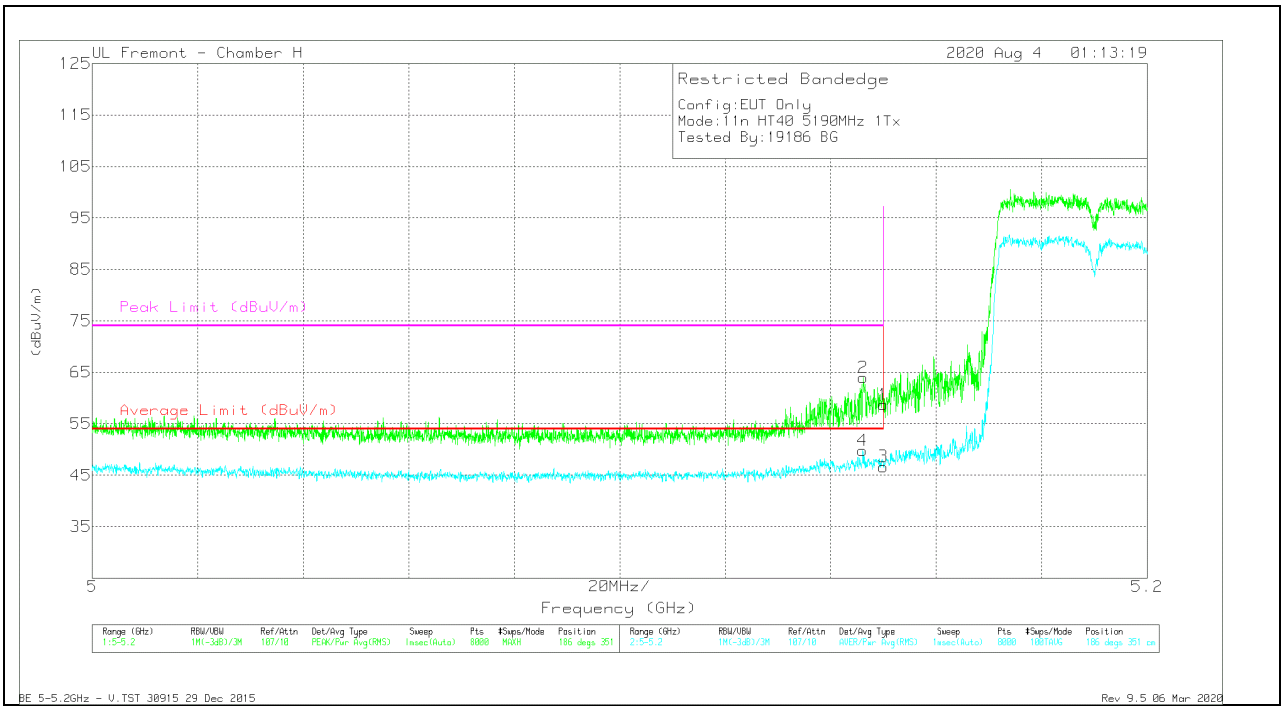


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	47.59	Pk	34.4	-21.3	0	60.69	-	-	74	-13.31	146	102	H
2	* 5.14512	51.56	Pk	34.3	-21.4	0	64.46	-	-	74	-9.54	146	102	H
3	* 5.14999	35.34	RMS	34.4	-21.3	.61	49.05	54	-4.95	-	-	146	102	H
4	* 5.14922	37.62	RMS	34.4	-21.3	.61	51.33	54	-2.67	-	-	146	102	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.14999	45.62	Pk	34.4	-21.3	0	58.72	-	-	74	-15.28	186	351	V
2	* 5.14614	51.06	Pk	34.3	-21.4	0	63.96	-	-	74	-10.04	186	351	V
3	* 5.14999	33.46	RMS	34.4	-21.3	.61	47.17	54	-6.83	-	-	186	351	V
4	* 5.14607	36.79	RMS	34.3	-21.4	.61	50.3	54	-3.7	-	-	186	351	V

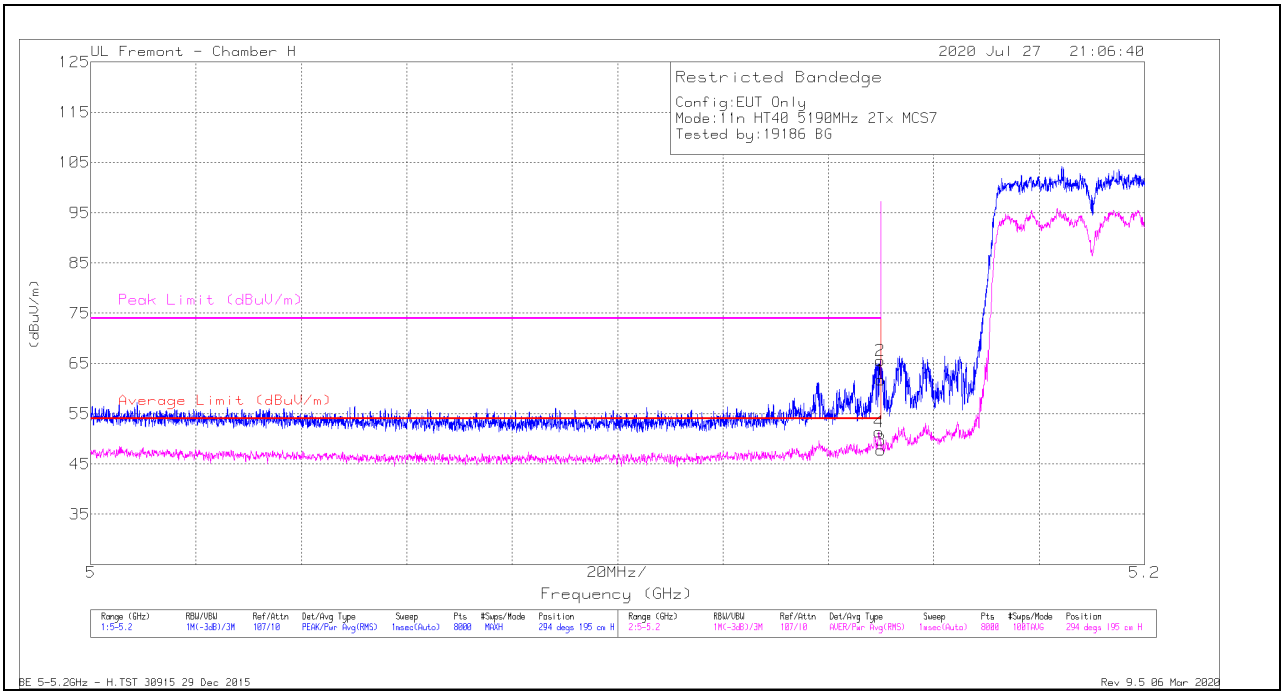
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

2TX Antenna 5 + Antenna 6 CDD MODE

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT

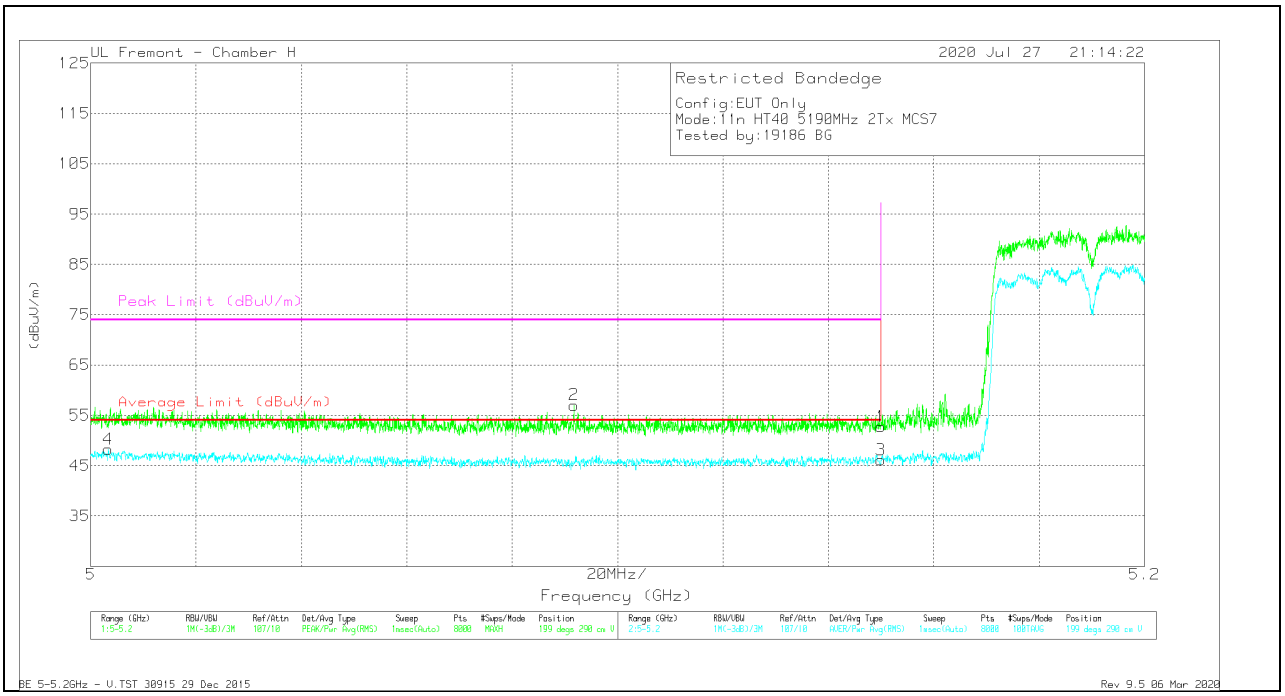


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	48.58	Pk	34.4	-21.3	0	61.68	-	-	74	-12.32	294	195	H
2	* 5.14984	52.51	Pk	34.4	-21.3	0	65.61	-	-	74	-8.39	294	195	H
3	* 5.14999	33.82	RMS	34.4	-21.3	0.61	47.53	54	-6.47	-	-	294	195	H
4	* 5.14959	37.35	RMS	34.4	-21.3	0.61	51.06	54	-2.94	-	-	294	195	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



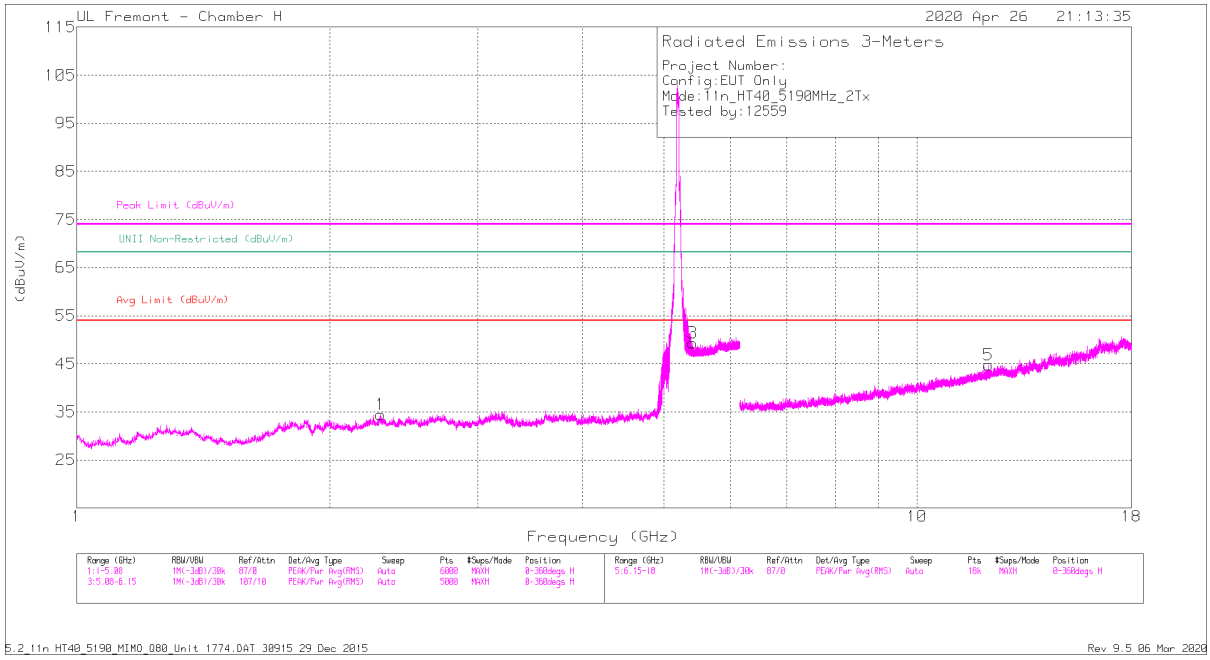
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	39.61	Pk	34.4	-21.3	0	52.71	-	-	74	-21.29	199	290	V
2	* 5.09174	44.15	Pk	34.3	-21.4	0	57.05	-	-	74	-16.95	199	290	V
3	* 5.14999	32.16	RMS	34.4	-21.3	0.61	45.87	54	-8.13	-	-	199	290	V
4	* 5.00333	34.52	RMS	34.3	-21.5	0.61	47.93	54	-6.07	-	-	199	290	V

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

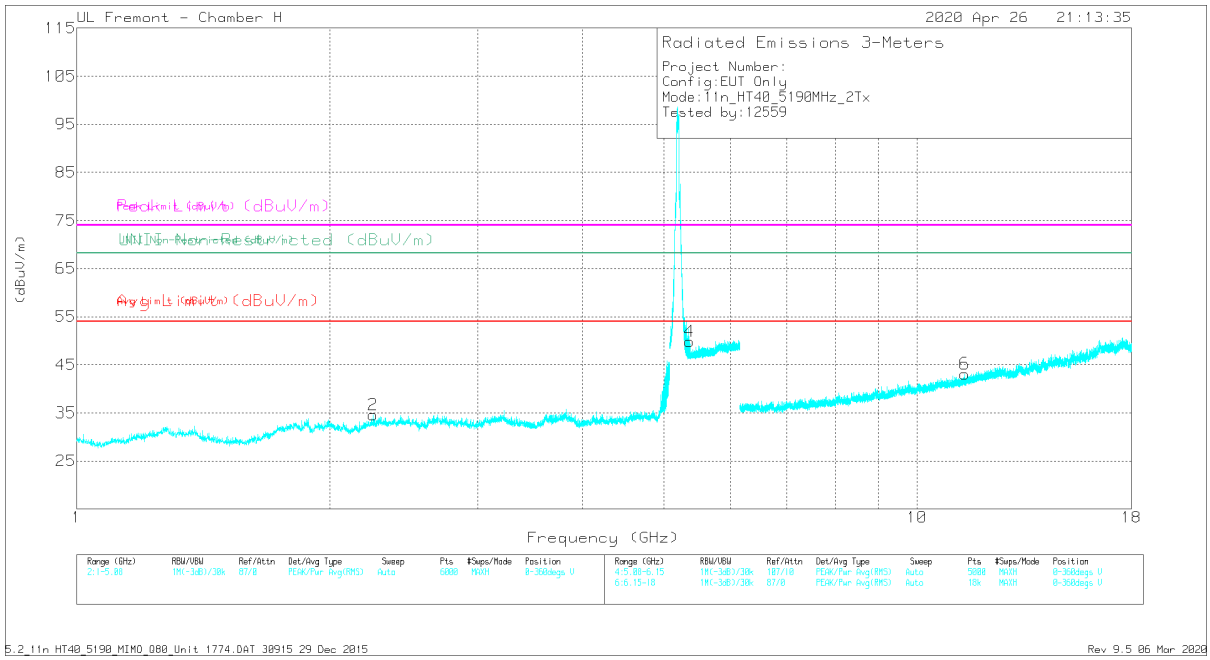
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (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)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.24171	45.04	PK-U	31.7	-35.5	0	41.24	-	-	74	-32.76	174	143	H
	* 2.23541	33.05	ADR	31.8	-35.6	.09	29.34	54	-24.66	-	-	174	143	H
2	* 2.25396	45.16	PK-U	31.8	-35.7	0	41.26	-	-	74	-32.74	260	113	V
	* 2.25236	33	ADR	31.8	-35.6	.09	29.29	54	-24.71	-	-	260	113	V
3	* 5.40958	44.71	PK-U	34.5	-21.7	0	57.51	-	-	74	-16.49	219	159	H
	* 5.41263	31.11	ADR	34.6	-21.8	.09	44	54	-10	-	-	219	159	H
4	* 5.36185	41.93	PK-U	34.5	-21.8	0	54.63	-	-	74	-19.37	310	213	V
	* 5.36434	30.26	ADR	34.5	-21.8	.09	43.05	54	-10.95	-	-	310	213	V
5	* 12.16057	35.03	PK-U	38.8	-23.5	0	50.33	-	-	74	-23.67	195	267	H
	* 12.16127	24.14	ADR	38.8	-23.5	.09	39.53	54	-14.47	-	-	195	267	H
6	* 11.39498	35.72	PK-U	37.9	-24.4	0	49.22	-	-	74	-24.78	104	207	V
	* 11.39488	24.56	ADR	37.9	-24.4	.09	38.15	54	-15.85	-	-	104	207	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

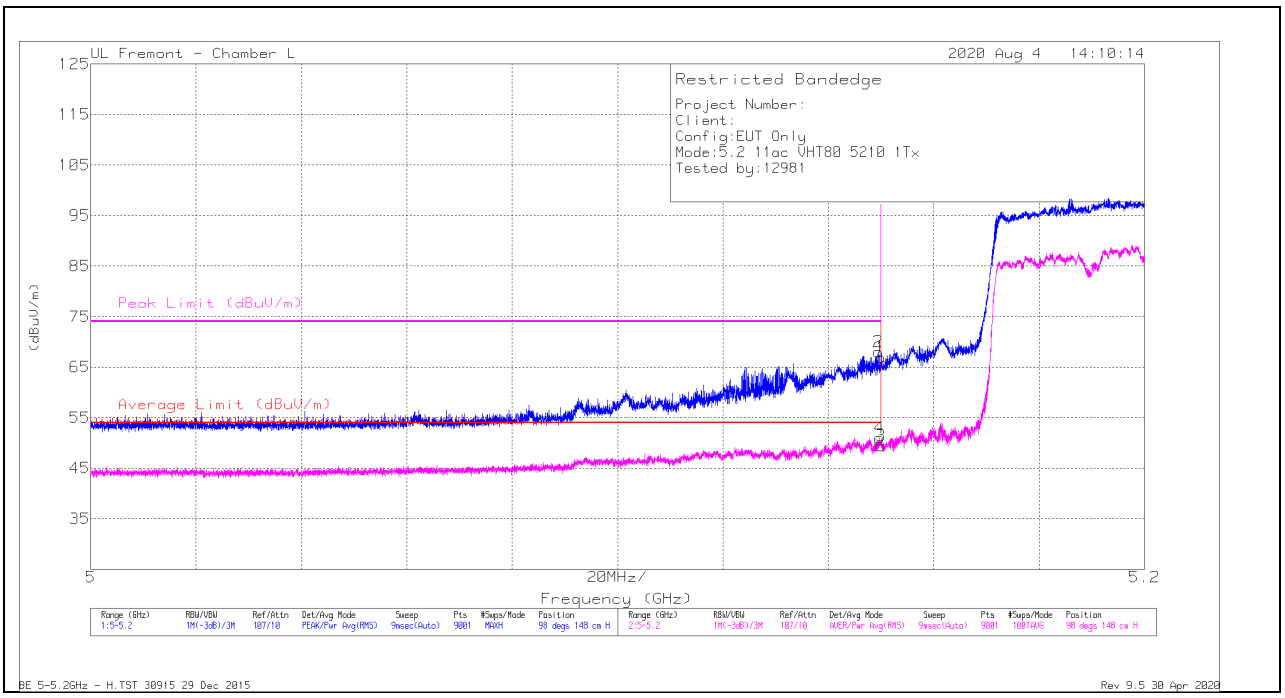
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

1TX Antenna 5 MODE, MCS 9

BANDEDGE (MID CHANNEL)

HORIZONTAL RESULT

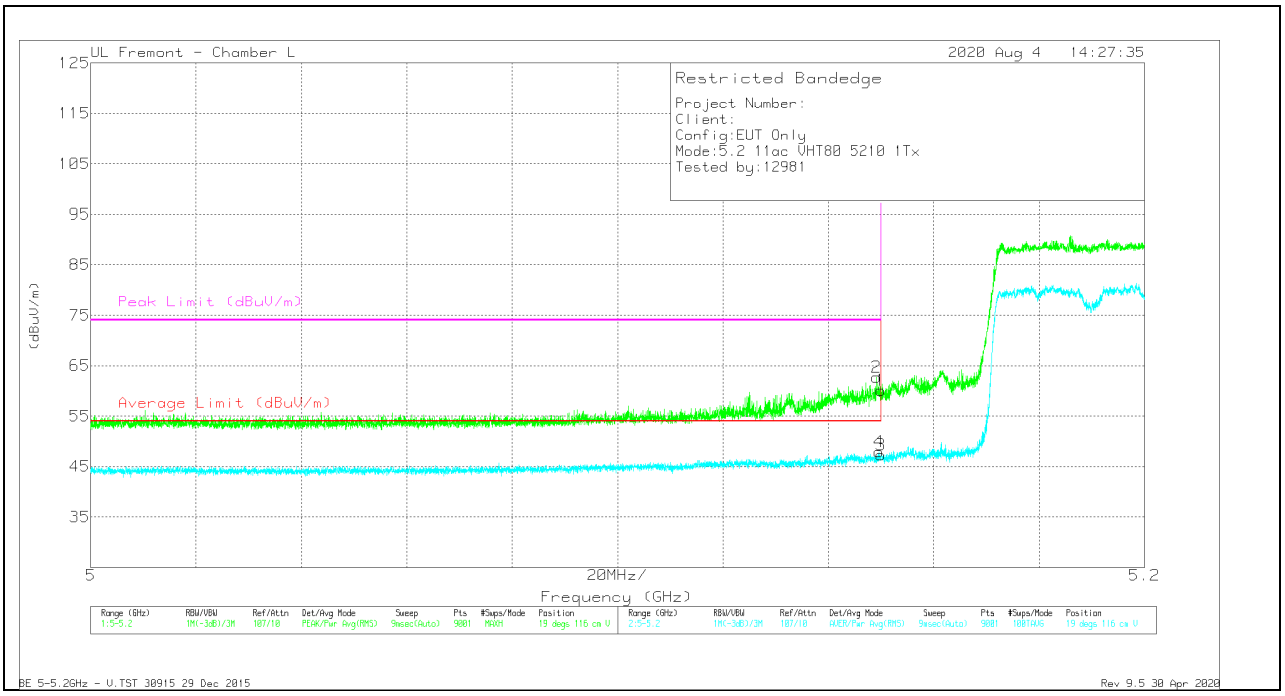


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	50.15	Pk	34.3	-17.5	0	66.95	-	-	74	-7.05	98	148	H
2	* 5.14944	51.24	Pk	34.3	-17.5	0	68.04	-	-	74	-5.96	98	148	H
3	* 5.15	31.51	RMS	34.3	-17.5	1.06	49.37	54	-4.63	-	-	98	148	H
4	* 5.14971	33.16	RMS	34.3	-17.5	1.06	51.02	54	-2.98	-	-	98	148	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	43.33	Pk	34.3	-17.5	0	60.13	-	-	74	-13.87	19	116	V
2	* 5.14913	45.91	Pk	34.3	-17.5	0	62.71	-	-	74	-11.29	19	116	V
3	* 5.15	29.43	RMS	34.3	-17.5	1.06	47.29	54	-6.71	-	-	19	116	V
4	* 5.1496	30.04	RMS	34.3	-17.5	1.06	47.9	54	-6.1	-	-	19	116	V

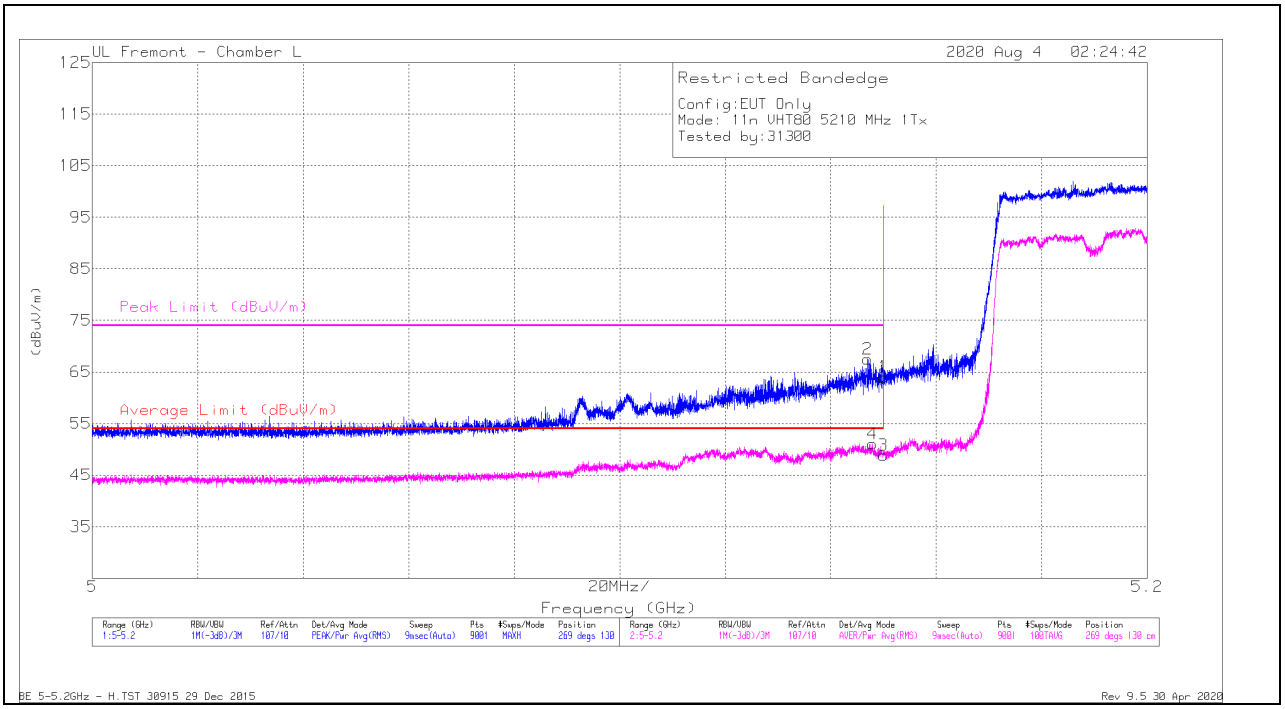
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1TX Antenna 6 MODE. MCS 9

BANDEDGE (MID CHANNEL)

HORIZONTAL RESULT

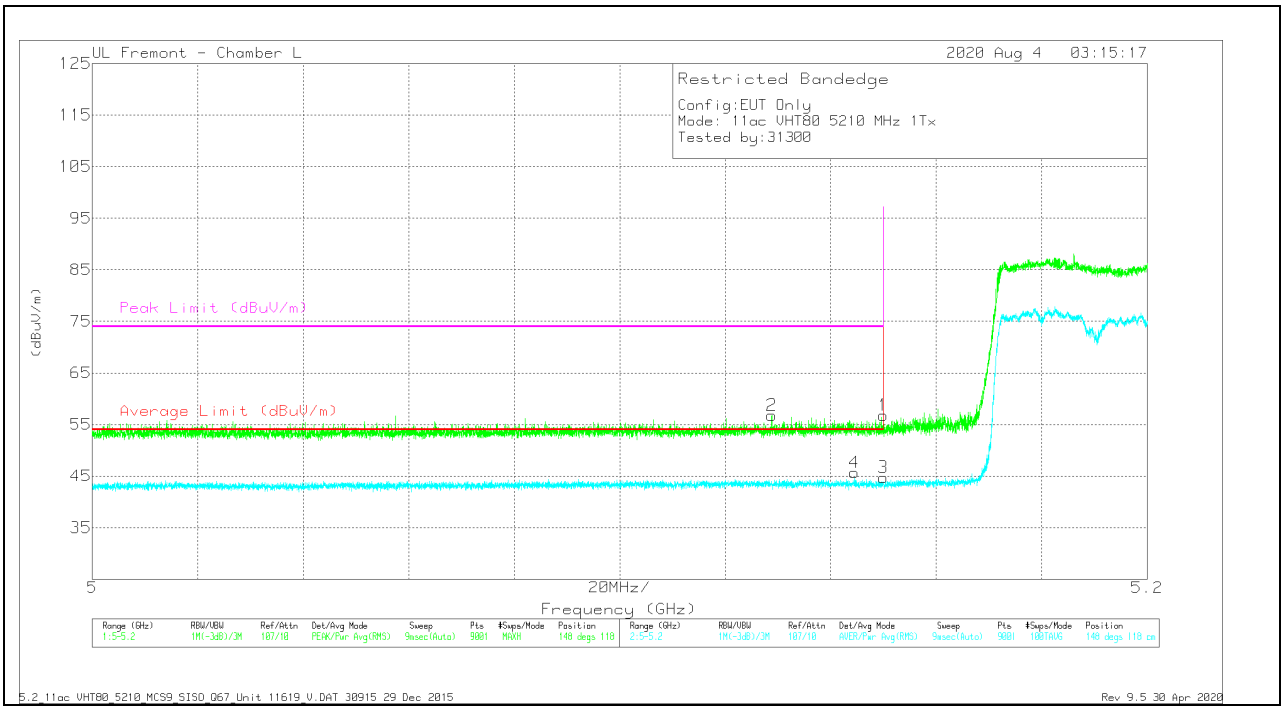


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	47.19	Pk	34.3	-17.5	0	63.99	-	-	74	-10.01	269	130	H
2	* 5.14702	50.69	Pk	34.3	-17.5	0	67.49	-	-	74	-6.51	269	130	H
3	* 5.15	30.96	RMS	34.3	-17.5	1.06	48.82	54	-5.18	-	-	269	130	H
4	* 5.14793	33.16	RMS	34.3	-17.5	1.06	51.02	54	-2.98	-	-	269	130	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	39.98	Pk	34.3	-17.5	0	56.78	-	-	74	-17.22	148	118	V
2	* 5.12882	39.88	Pk	34.3	-17.4	0	56.78	-	-	74	-17.22	148	118	V
3	* 5.15	26.86	RMS	34.3	-17.5	1.06	44.72	54	-9.28	-	-	148	118	V
4	* 5.14451	27.81	RMS	34.3	-17.5	1.06	45.67	54	-8.33	-	-	148	118	V

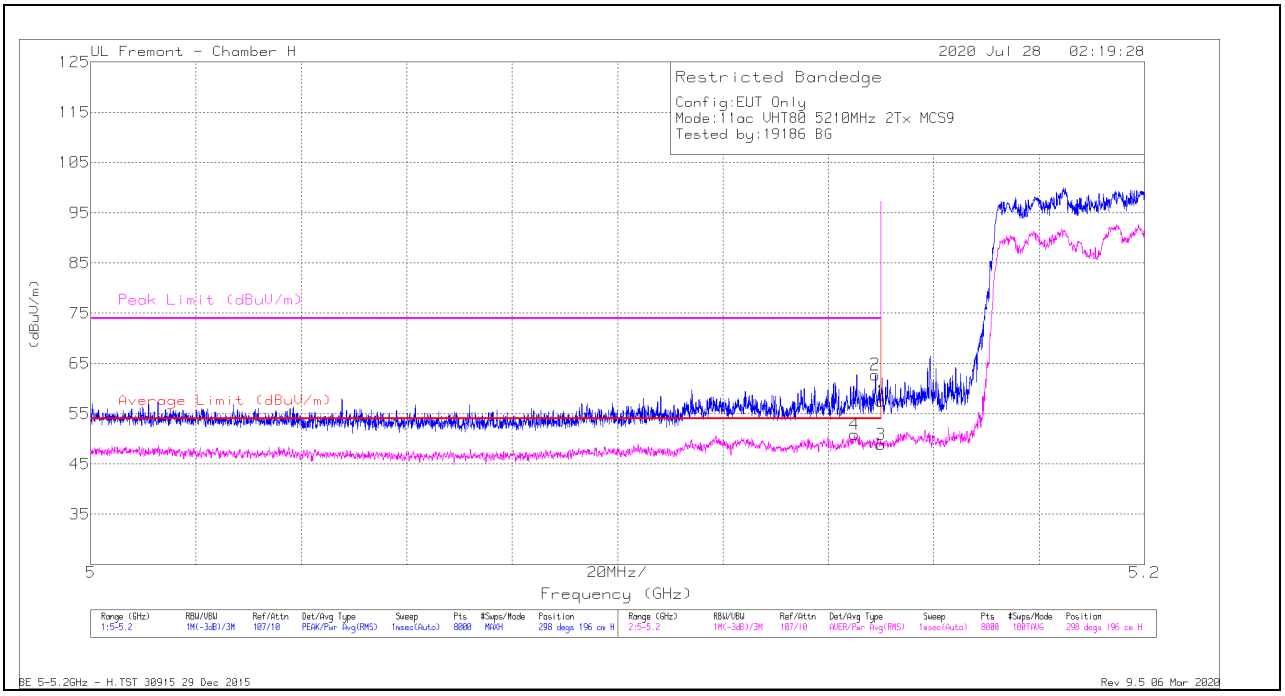
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

2TX Antenna 5 + Antenna 6 CDD MODE

BANDEDGE (MID CHANNEL)

HORIZONTAL RESULT

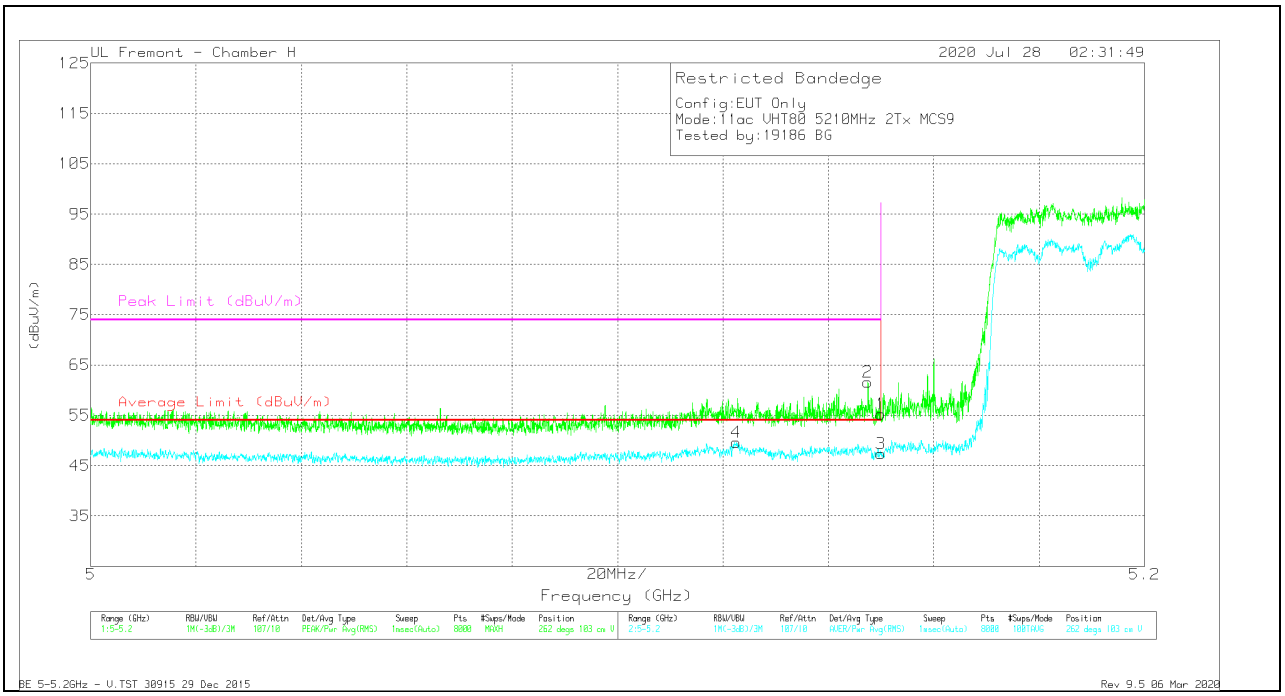


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	44.39	Pk	34.4	-21.3	0	57.49	-	-	74	-16.51	298	196	H
2	* 5.14894	49.68	Pk	34.4	-21.3	0	62.78	-	-	74	-11.22	298	196	H
3	* 5.14999	34.44	RMS	34.4	-21.3	1.06	48.6	54	-5.4	-	-	298	196	H
4	* 5.14497	36.72	RMS	34.3	-21.4	1.06	50.68	54	-3.32	-	-	298	196	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



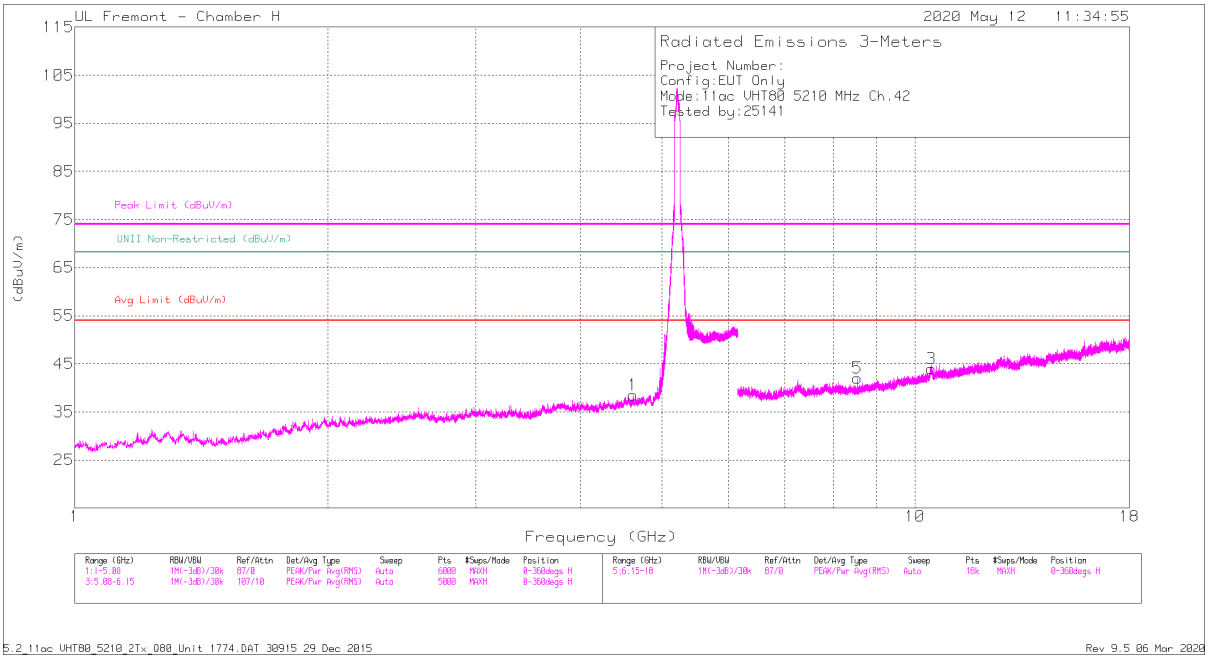
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	42.16	Pk	34.4	-21.3	0	55.26	-	-	74	-18.74	262	103	V
2	* 5.14752	48.65	Pk	34.3	-21.4	0	61.55	-	-	74	-12.45	262	103	V
3	* 5.14999	33.03	RMS	34.4	-21.3	1.06	47.19	54	-6.81	-	-	262	103	V
4	* 5.12254	35.21	RMS	34.4	-21.3	1.06	49.37	54	-4.63	-	-	262	103	V

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

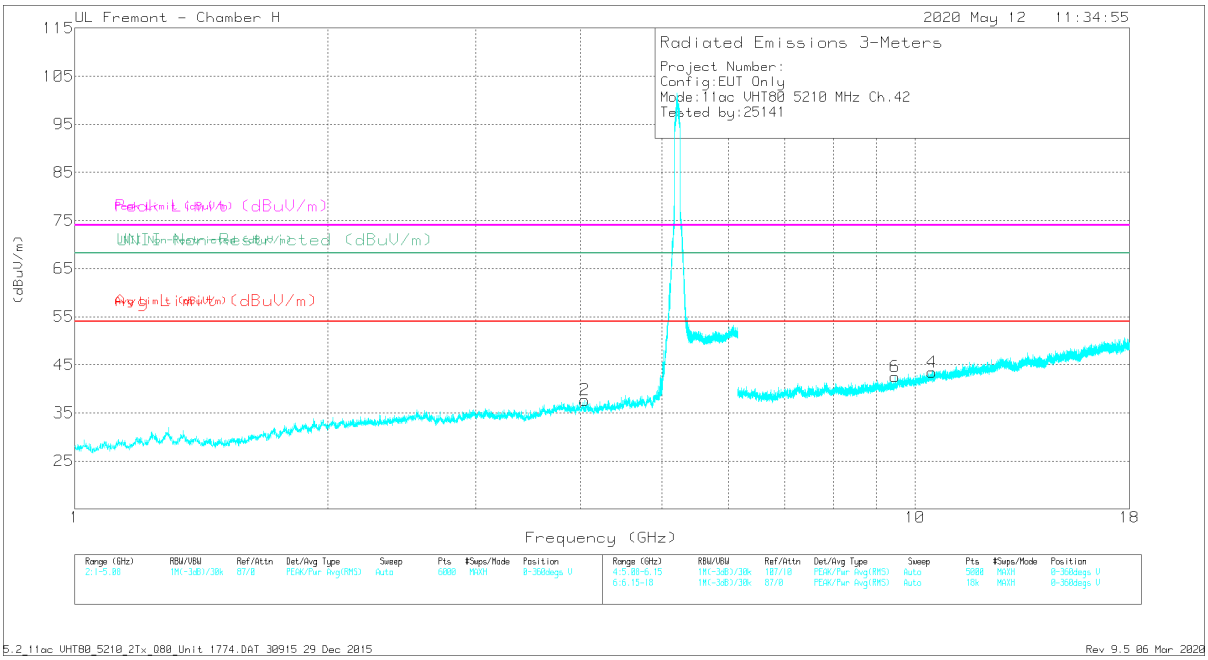
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 4.62134	41.83	PK-U	34.3	-31	0	45.13	-	-	74	-28.87	-	-	150	330	H
	* 4.61844	30.19	ADR	34.3	-30.9	.19	33.78	54	-20.22	-	-	-	-	150	330	H
2	* 4.05038	42.72	PK-U	33.5	-32.1	0	44.12	-	-	74	-29.88	-	-	141	237	V
	* 4.05157	31.02	ADR	33.5	-32	.19	32.71	54	-21.29	-	-	-	-	141	237	V
6	* 9.46904	38.88	PK-U	36.6	-25.9	0	49.58	-	-	74	-24.42	-	-	241	187	V
	* 9.46836	26.17	ADR	36.7	-25.9	.19	37.16	54	-16.84	-	-	-	-	241	187	V
5	8.53483	37.88	PK-U	36	-26.9	0	46.98	-	-	-	-	68.2	-21.22	22	271	H
	8.53713	26.35	ADR	36	-26.9	.19	35.64	-	-	-	-	-	-	22	271	H
4	10.4336	37.72	PK-U	37.4	-24.5	0	50.62	-	-	-	-	68.2	-17.58	310	193	V
	10.444	25.73	ADR	37.4	-24.5	.19	38.82	-	-	-	-	-	-	310	193	V
3	10.4453	39.79	PK-U	37.4	-24.5	0	52.69	-	-	-	-	68.2	-15.51	253	113	H
	10.44954	28.29	ADR	37.4	-24.6	.19	41.28	-	-	-	-	-	-	253	113	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

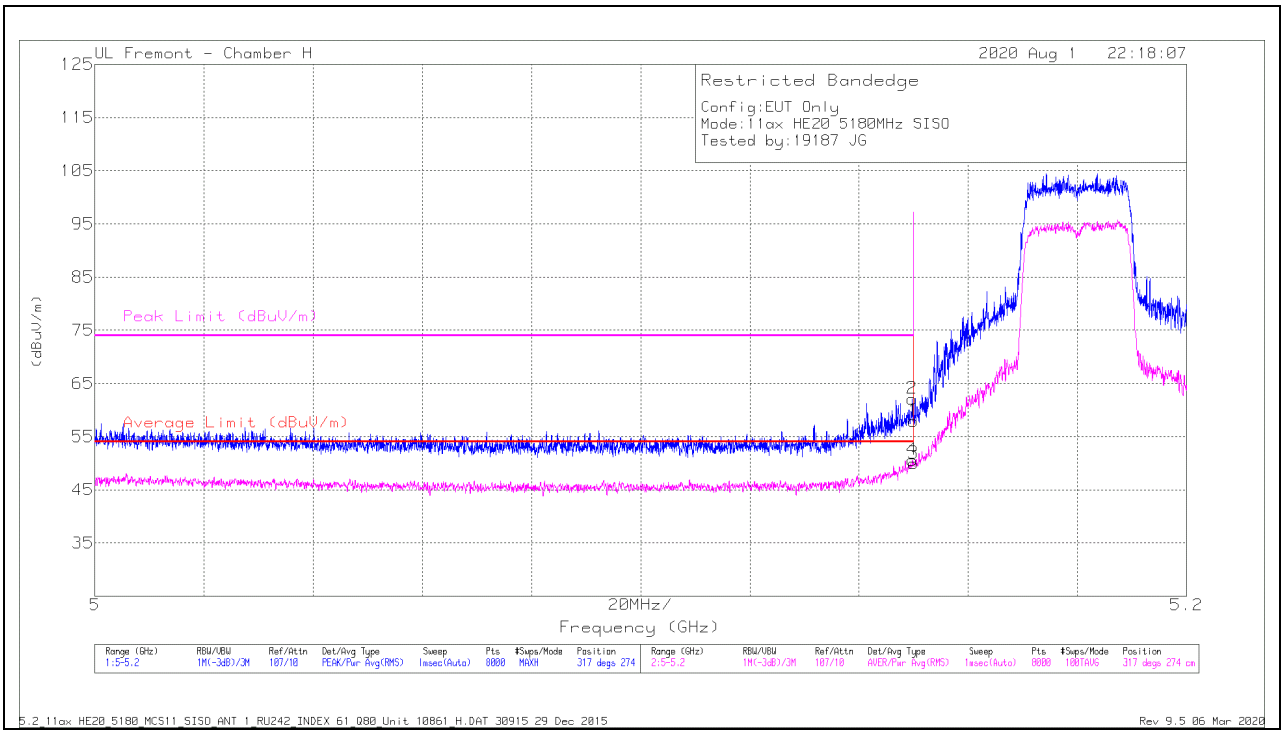
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1.1.4. TX ABOVE 1 GHz 802.11ax HE20 MODE IN THE 5.2 GHz BAND

1TX Antenna 5 MODE –MCS 11, 242 Tones, RU Index 61

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT

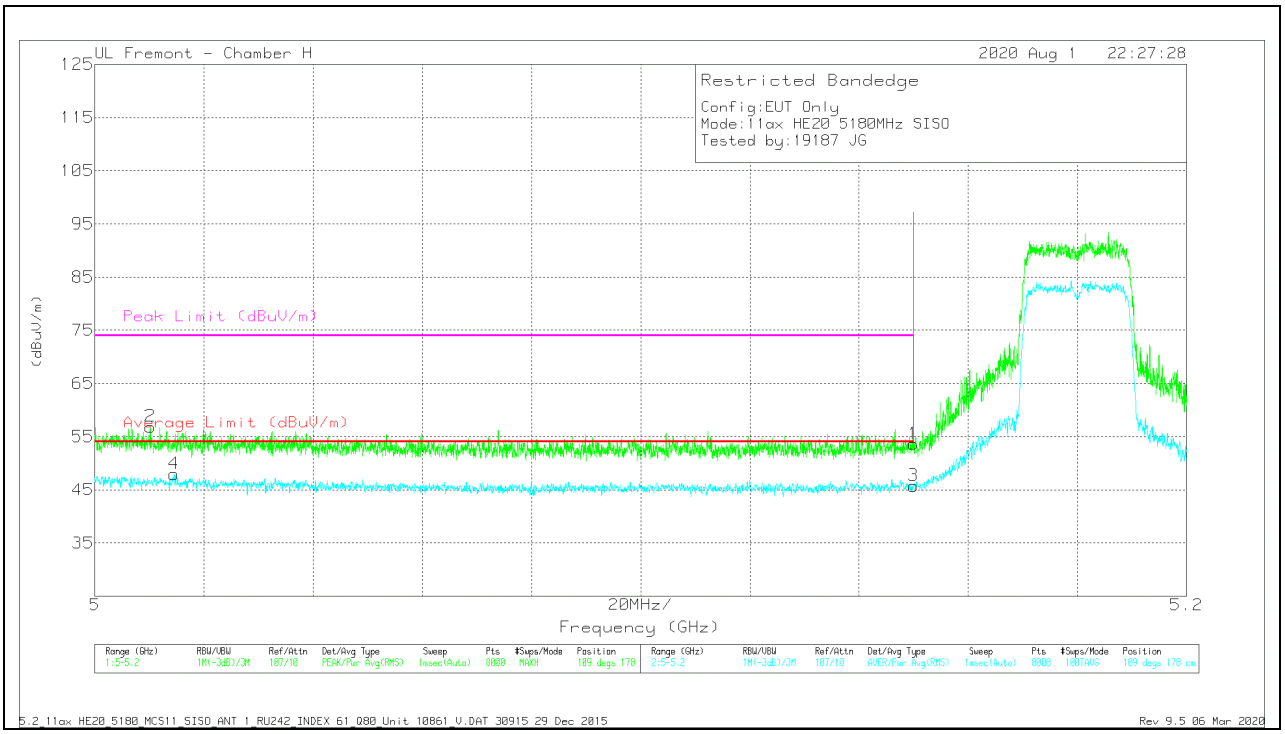


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	44.87	Pk	34.4	-21.3	0	57.97	-	-	74	-16.03	317	274	H
2	* 5.14974	49.03	Pk	34.4	-21.3	0	62.13	-	-	74	-11.87	317	274	H
3	* 5.14999	36.42	RMS	34.4	-21.3	0	49.52	54	-4.48	-	-	317	274	H
4	* 5.14977	37.07	RMS	34.4	-21.3	0	50.17	54	-3.83	-	-	317	274	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.14999	40.53	Pk	34.4	-21.3	0	53.63	-	-	74	-20.37	109	178	V
2	* 5.01018	44.18	Pk	34.2	-21.5	0	56.88	-	-	74	-17.12	109	178	V
3	* 5.14999	32.19	RMS	34.4	-21.3	0	45.29	54	-8.71	-	-	109	178	V
4	* 5.01455	34.6	RMS	34.3	-21.4	0	47.5	54	-6.5	-	-	109	178	V

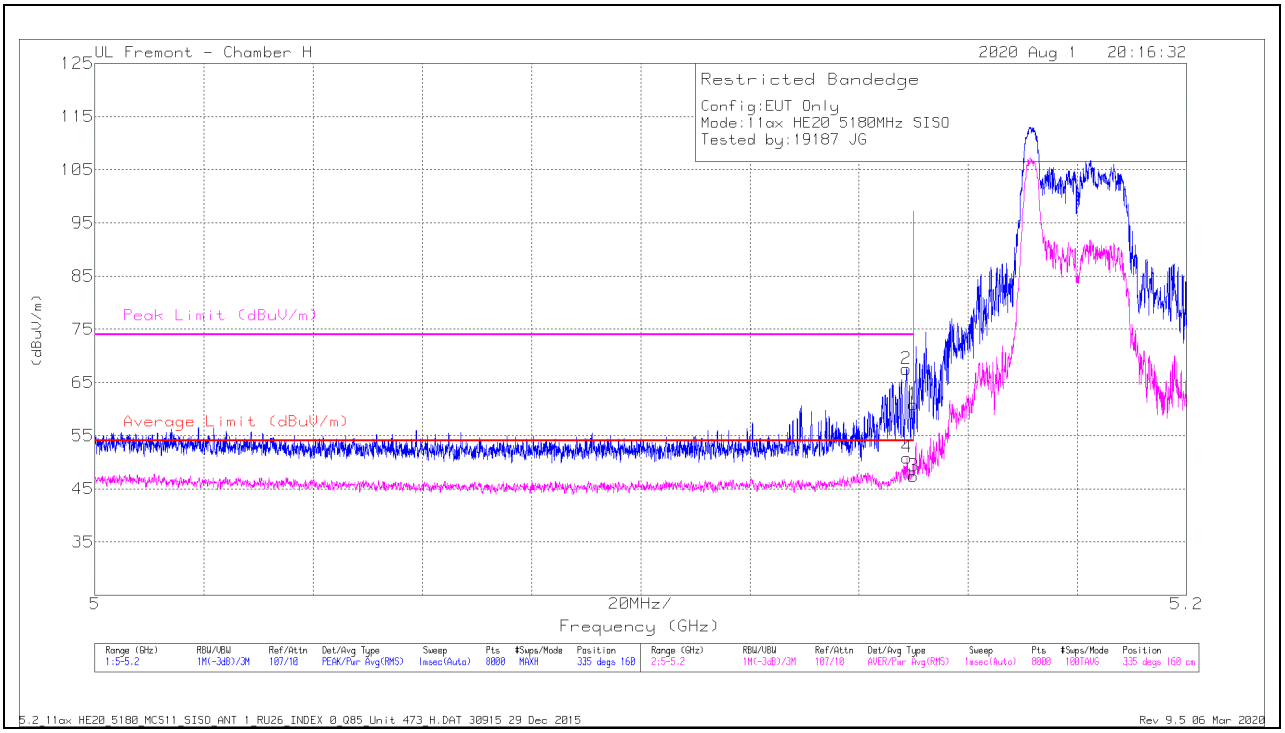
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1TX Antenna 5 MODE – MCS 11, 26 Tones, RU Index 0

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT

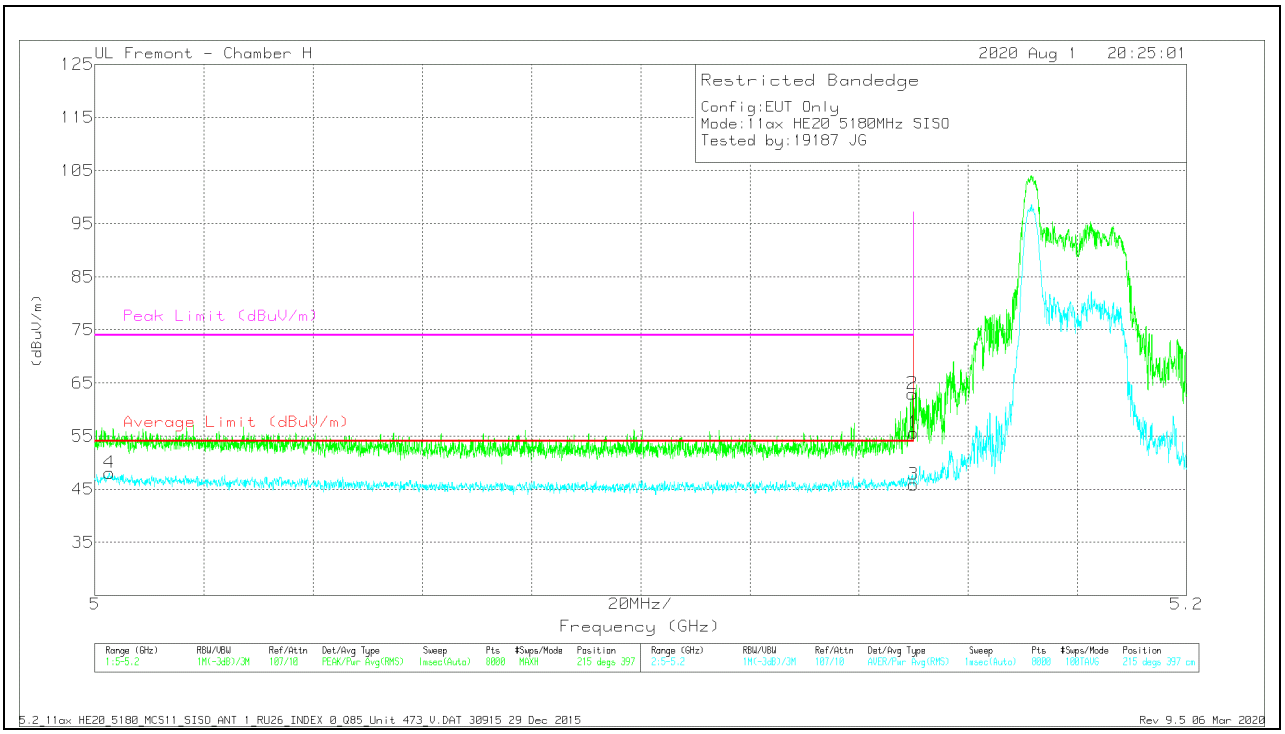


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	47.8	Pk	34.4	-21.3	0	60.9	-	-	74	-13.1	335	160	H
2	* 5.14864	54.55	Pk	34.3	-21.3	0	67.55	-	-	74	-6.45	335	160	H
3	* 5.14999	33.84	RMS	34.4	-21.3	0	46.94	54	-7.06	-	-	335	160	H
4	* 5.14879	37.42	RMS	34.3	-21.3	0	50.42	54	-3.58	-	-	335	160	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.14999	42.5	Pk	34.4	-21.3	0	55.6	-	-	74	-18.4	215	397	V
2	* 5.14977	49.85	Pk	34.4	-21.3	0	62.95	-	-	74	-11.05	215	397	V
3	* 5.14999	32.32	RMS	34.4	-21.3	0	45.42	54	-8.58	-	-	215	397	V
4	* 5.00268	34.81	RMS	34.3	-21.5	0	47.61	54	-6.39	-	-	215	397	V

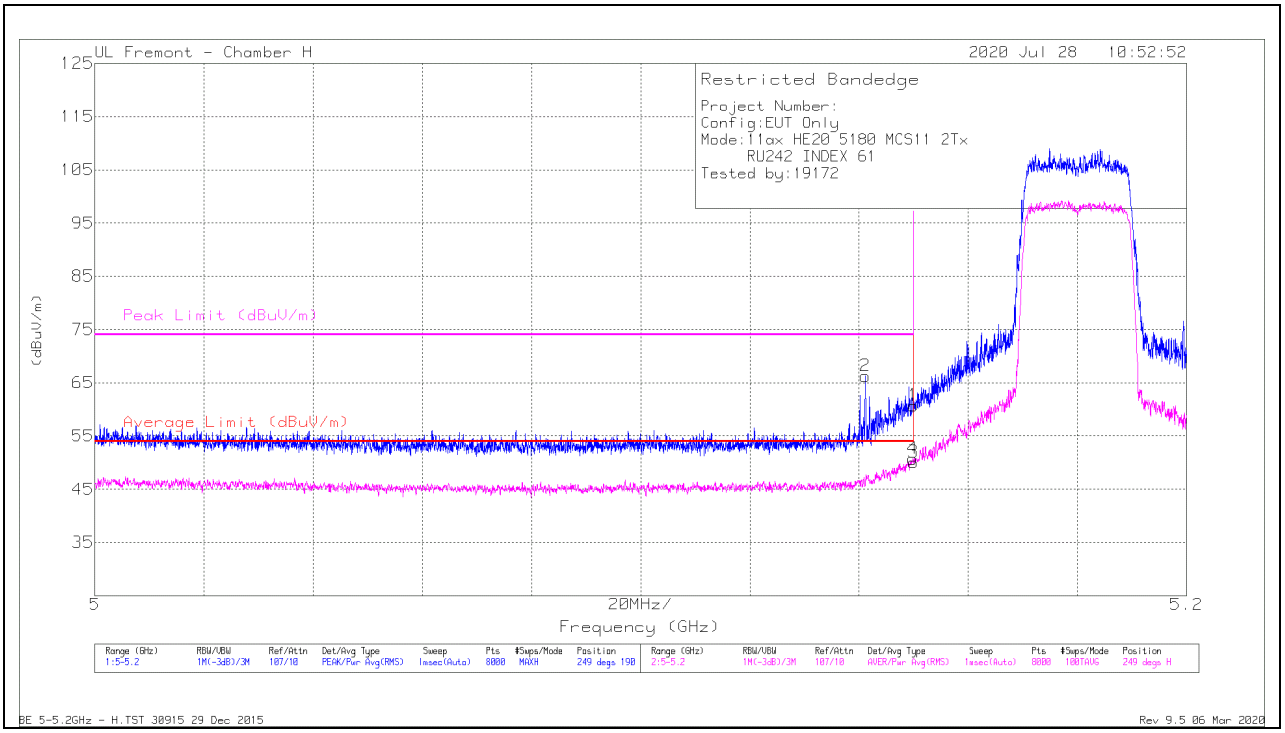
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT

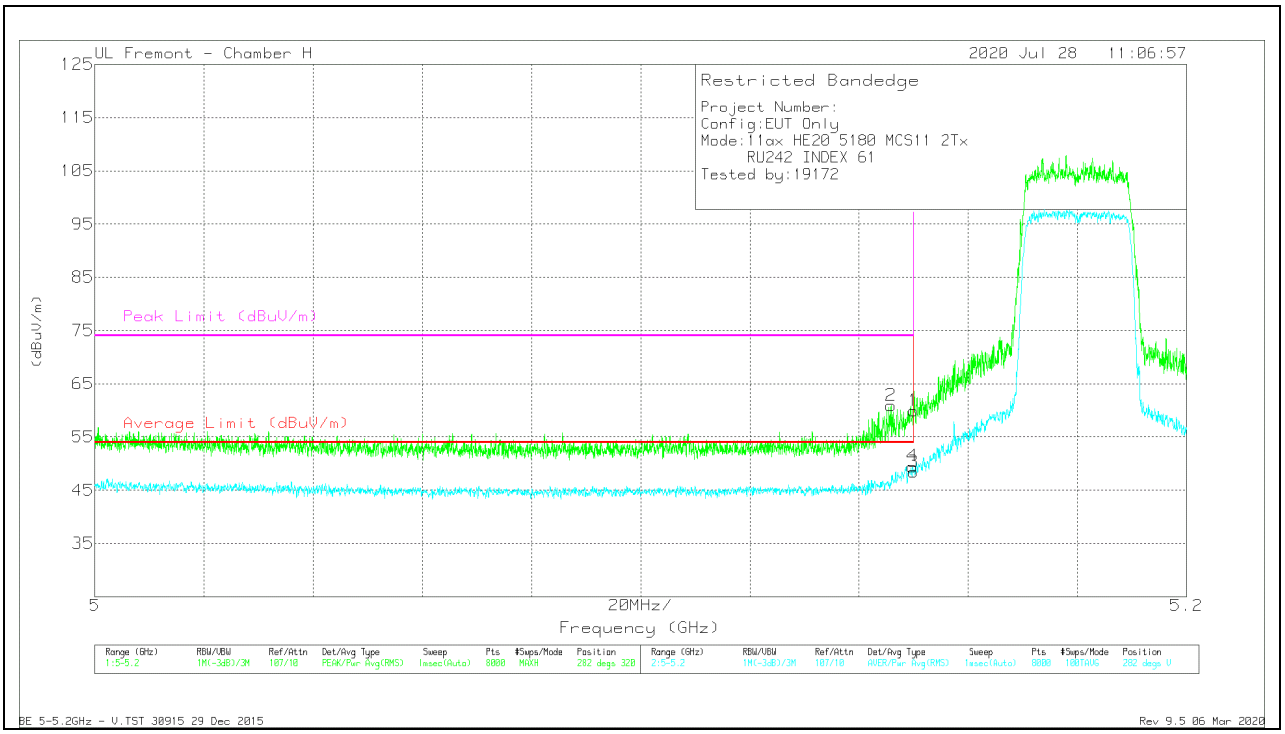


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.14114	53.16	Pk	34.4	-21.3	66.26	-	-	74	-7.74	249	190	H
4	* 5.14987	37.64	RMS	34.4	-21.3	50.74	54	-3.26	-	-	249	190	H
1	* 5.14999	47.62	Pk	34.4	-21.3	60.72	-	-	74	-13.28	249	190	H
3	* 5.14999	36.97	RMS	34.4	-21.3	50.07	54	-3.93	-	-	249	190	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.14999	46.84	Pk	34.4	-21.3	59.94	-	-	74	-14.06	282	320	V
2	* 5.14584	48.02	Pk	34.3	-21.4	60.92	-	-	74	-13.08	282	320	V
3	* 5.14999	35.34	RMS	34.4	-21.3	48.44	54	-5.56	-	-	282	320	V
4	* 5.14979	36.38	RMS	34.4	-21.3	49.48	54	-4.52	-	-	282	320	V

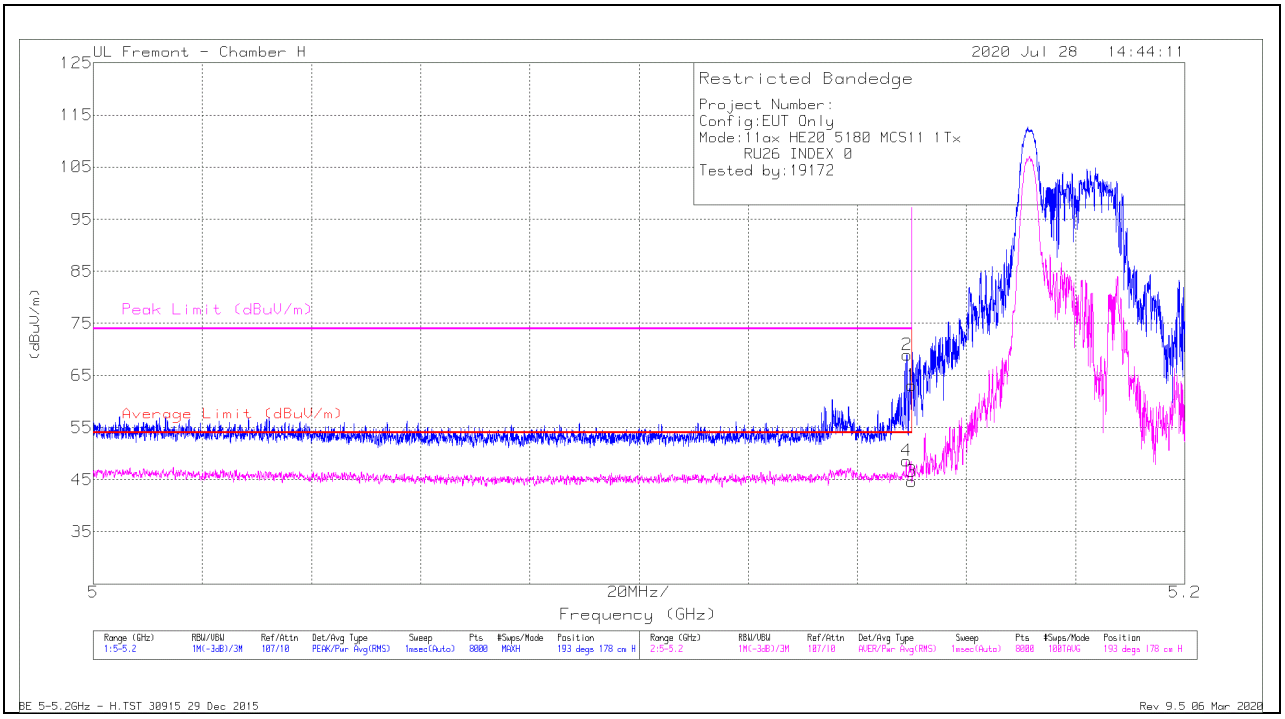
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT

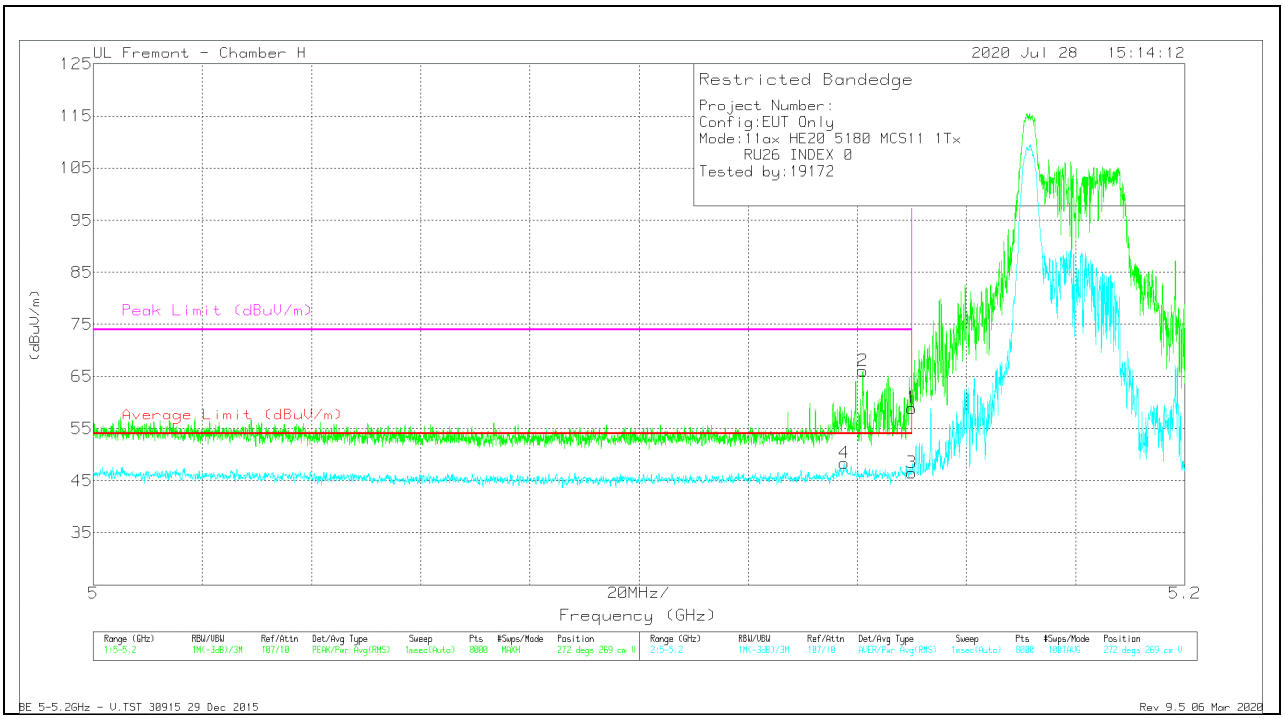


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	50.04	Pk	34.4	-21.3	63.14	-	-	74	-10.86	193	178	H
2	* 5.14909	55.89	Pk	34.4	-21.3	68.99	-	-	74	-5.01	193	178	H
3	* 5.14999	31.58	RMS	34.4	-21.3	44.68	54	-9.32	-	-	193	178	H
4	* 5.14897	35.57	RMS	34.4	-21.3	48.67	54	-5.33	-	-	193	178	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.14999	45.82	Pk	34.4	-21.3	58.92	-	-	74	-15.08	272	269	V
2	* 5.14099	53.02	Pk	34.4	-21.3	66.12	-	-	74	-7.88	272	269	V
3	* 5.14999	33.44	RMS	34.4	-21.3	46.54	54	-7.46	-	-	272	269	V
4	* 5.13759	35.33	RMS	34.4	-21.3	48.43	54	-5.57	-	-	272	269	V

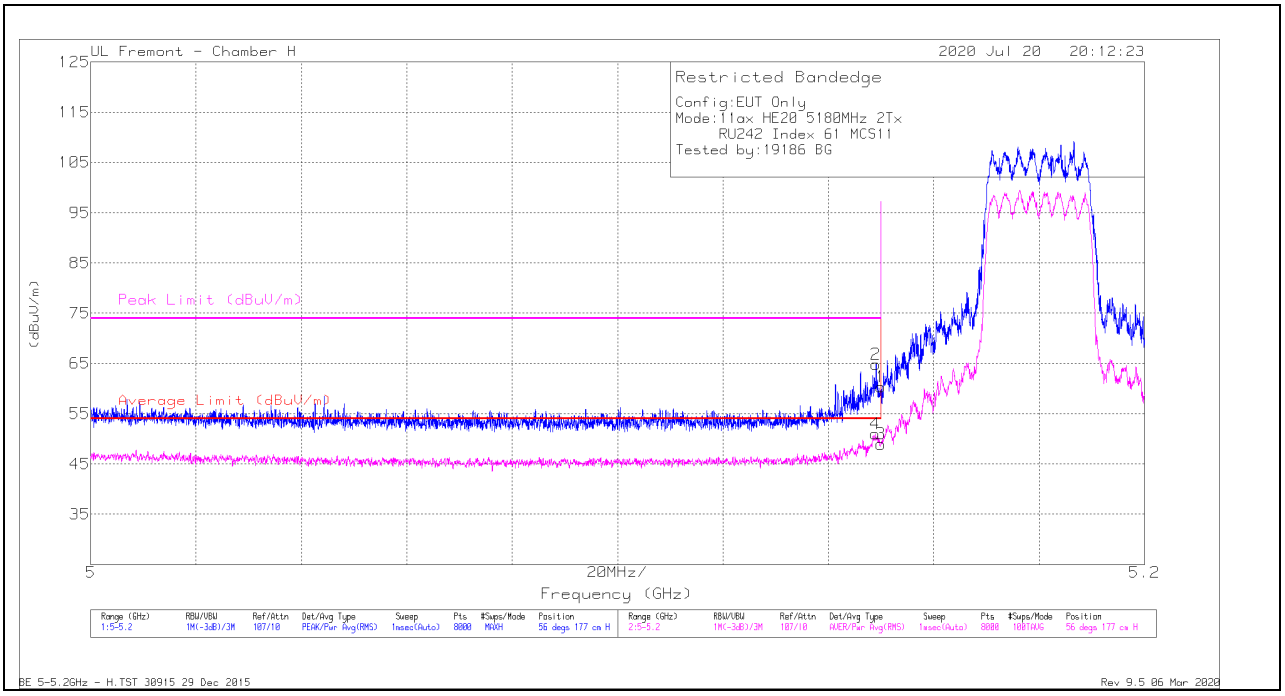
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT

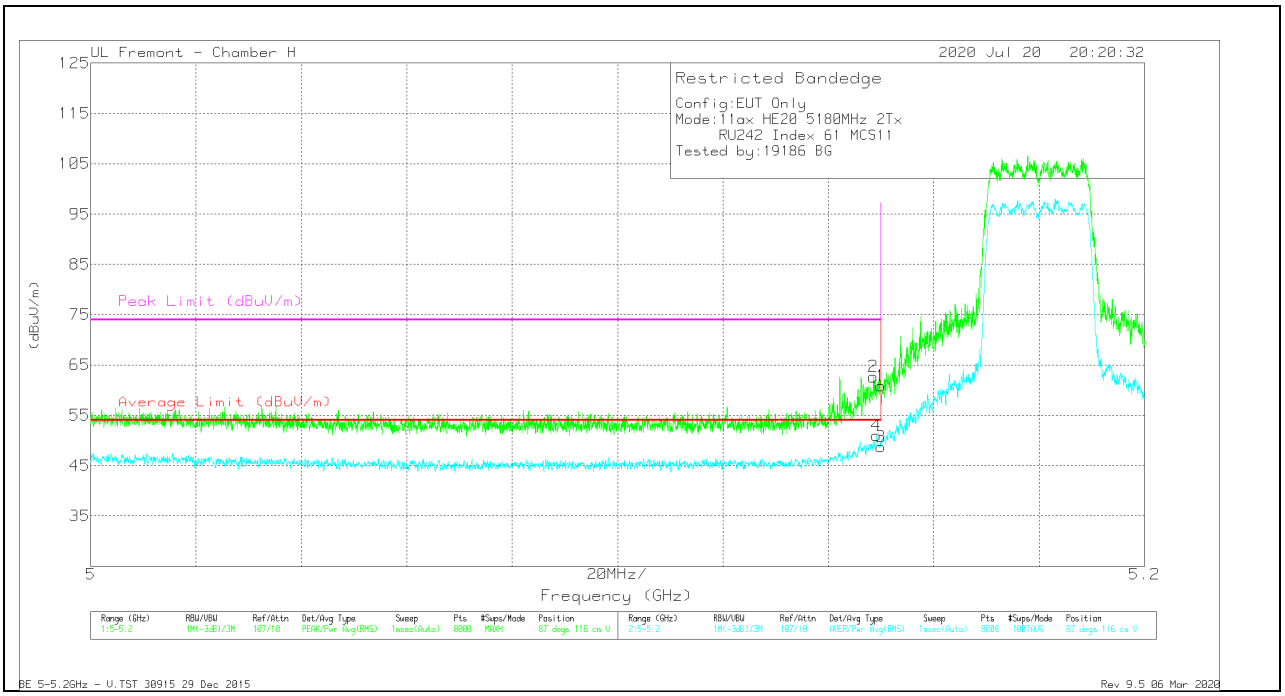


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	47.27	Pk	34.4	-21.3	60.37	-	-	74	-13.63	56	177	H
2	* 5.14907	51.7	Pk	34.4	-21.3	64.8	-	-	74	-9.2	56	177	H
3	* 5.14999	35.76	RMS	34.4	-21.3	48.86	54	-5.15	-	-	56	177	H
4	* 5.14887	37.91	RMS	34.3	-21.3	50.88	54	-3.12	-	-	56	177	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



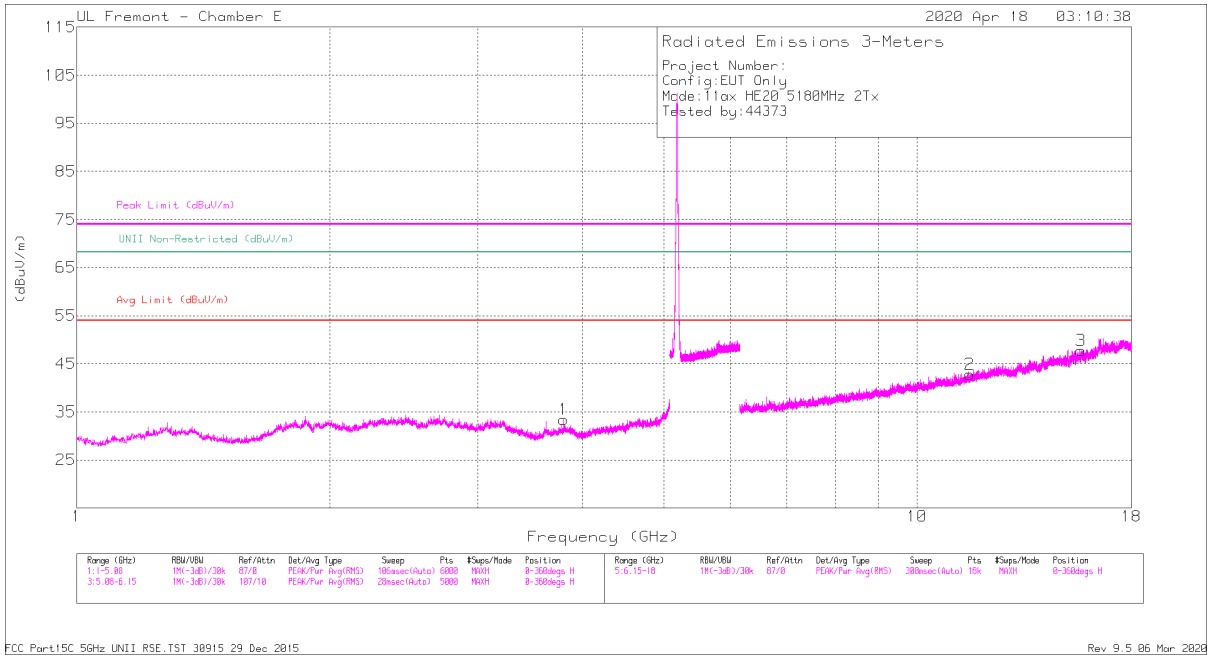
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	47.77	Pk	34.4	-21.3	60.87	-	-	74	-13.13	87	116	V
2	* 5.14854	49.66	Pk	34.3	-21.3	62.66	-	-	74	-11.34	87	116	V
3	* 5.14999	35.52	RMS	34.4	-21.3	48.62	54	-5.37	-	-	87	116	V
4	* 5.14914	37.86	RMS	34.4	-21.3	50.96	54	-3.04	-	-	87	116	V

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

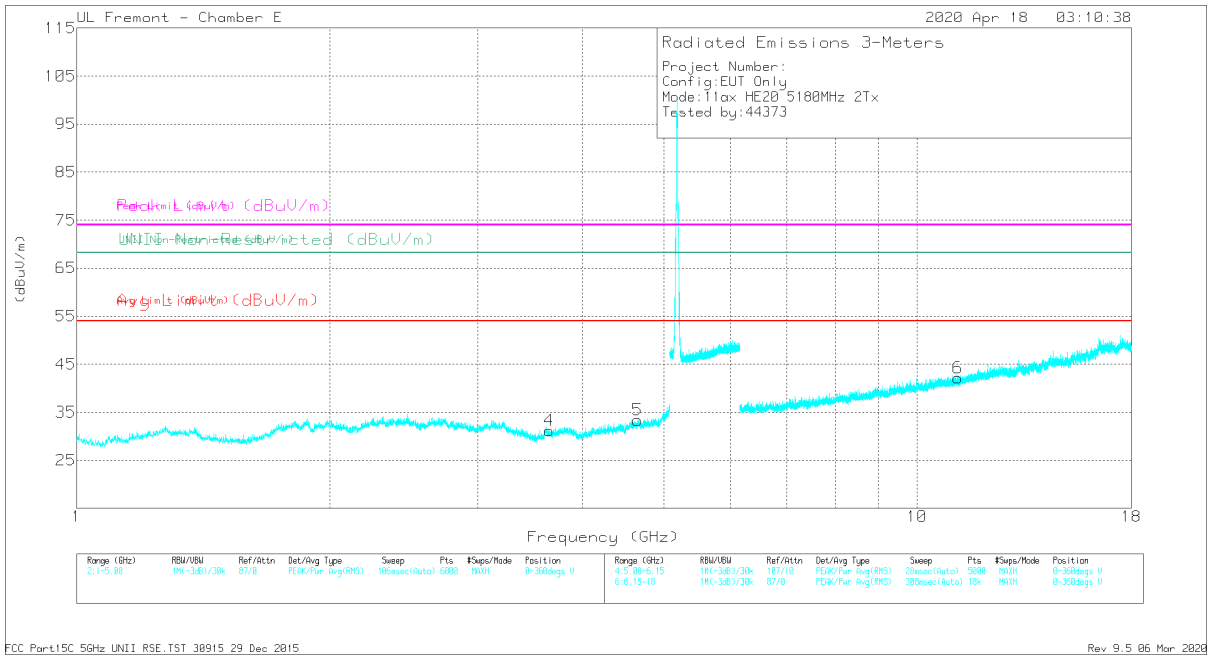
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

HARMONICS AND SPURIOUS EMISSIONS

242 Tones, RU Index 61 RESULTS



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

Radiated Emissions

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (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	* 3.80049	38.03	PK-U	33.6	-32.6	39.03	-	-	74	-34.97	-	-	360	200	H
	* 3.80049	27.02	ADR	33.6	-32.6	28.02	54	-25.98	-	-	-	-	360	200	H
4	* 3.65412	38.86	PK-U	33.1	-34	37.96	-	-	74	-36.04	-	-	360	101	V
	* 3.65421	28.03	ADR	33.1	-34	27.13	54	-26.87	-	-	-	-	360	101	V
5	* 4.65255	38.36	PK-U	34.2	-30.9	41.66	-	-	74	-32.34	-	-	360	200	V
	* 4.65519	26.56	ADR	34.2	-30.8	29.96	54	-24.04	-	-	-	-	360	200	V
2	* 11.55454	35.81	PK-U	38.1	-24.2	49.71	-	-	74	-24.29	-	-	360	200	H
	* 11.55386	24.77	ADR	38.1	-24.2	38.67	54	-15.33	-	-	-	-	360	200	H
3	* 15.67572	35.25	PK-U	40.3	-21.1	54.45	-	-	74	-19.55	-	-	360	200	H
	* 15.67573	24.39	ADR	40.3	-21.1	43.59	54	-10.41	-	-	-	-	360	200	H
6	* 11.18823	35.61	PK-U	37.7	-24.7	48.61	-	-	74	-25.39	-	-	360	101	V
	* 11.19073	25.06	ADR	37.7	-24.7	38.06	54	-15.94	-	-	-	-	360	101	V

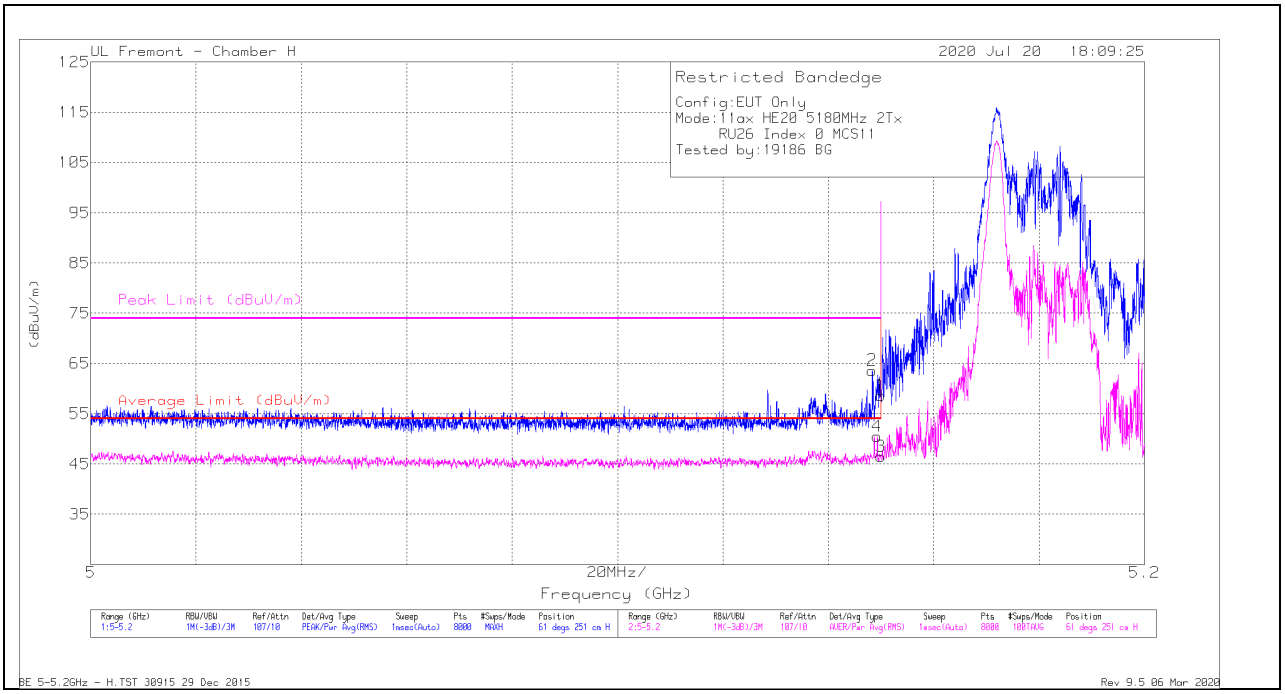
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

2TX Antenna 5 + Antenna 6 OFDMA MODE – 26 Tones, RU Index 0

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT

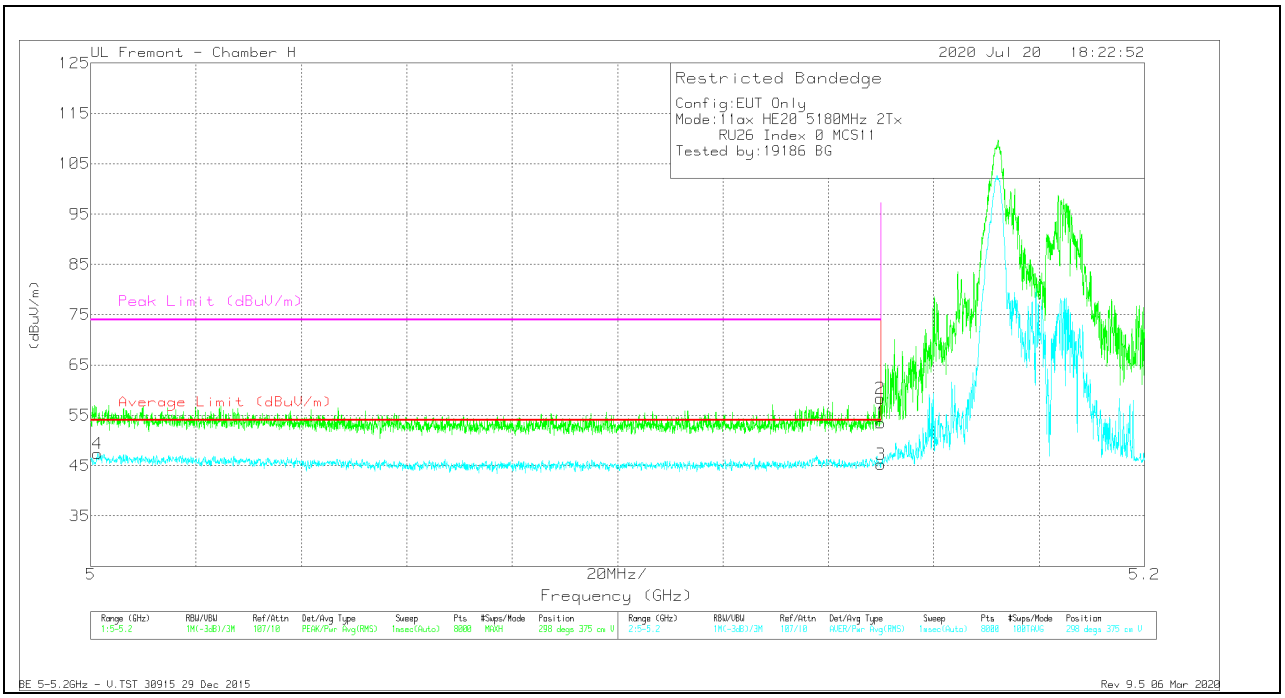


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	45.57	Pk	34.4	-21.3	58.67	-	-	74	-15.33	61	251	H
2	* 5.14834	50.65	Pk	34.3	-21.3	63.65	-	-	74	-10.35	61	251	H
3	* 5.14999	33.3	RMS	34.4	-21.3	46.4	54	-7.6	-	-	61	251	H
4	* 5.14929	37.37	RMS	34.4	-21.3	50.47	54	-3.53	-	-	61	251	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



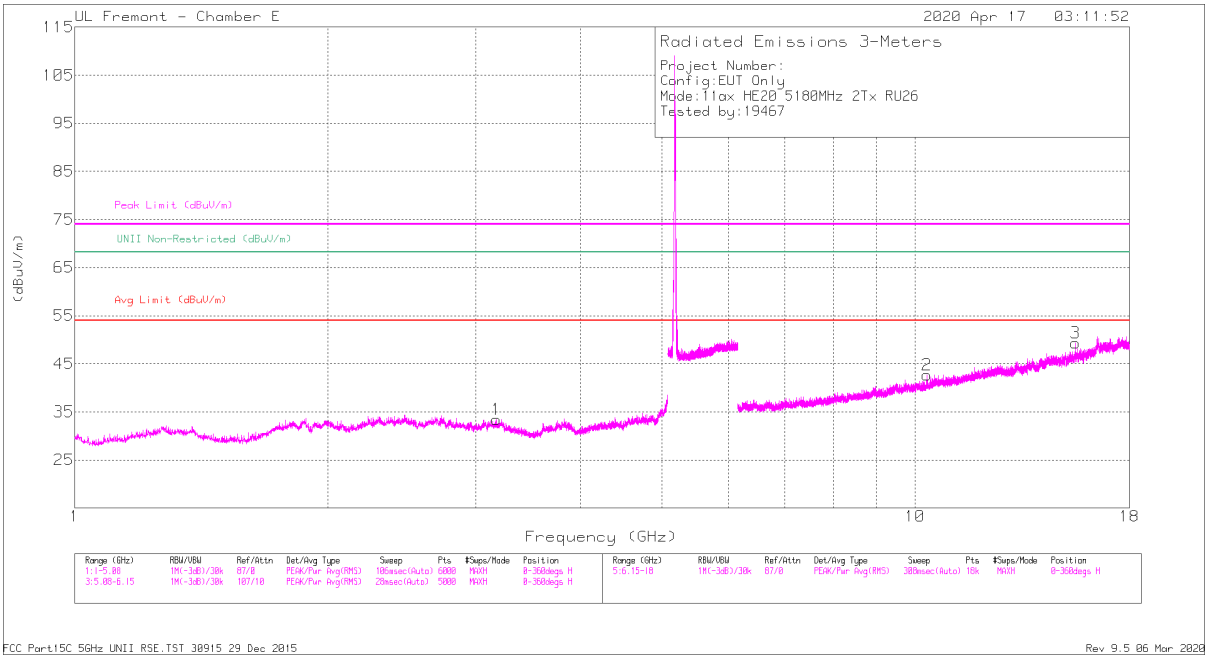
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	40.34	Pk	34.4	-21.3	53.44	-	-	74	-20.56	298	375	V
2	* 5.14984	45.23	Pk	34.4	-21.3	58.33	-	-	74	-15.67	298	375	V
3	* 5.14999	32.19	RMS	34.4	-21.3	45.2	54	-8.8	-	-	298	375	V
4	* 5.00135	34.73	RMS	34.3	-21.6	47.34	54	-6.66	-	-	298	375	V

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

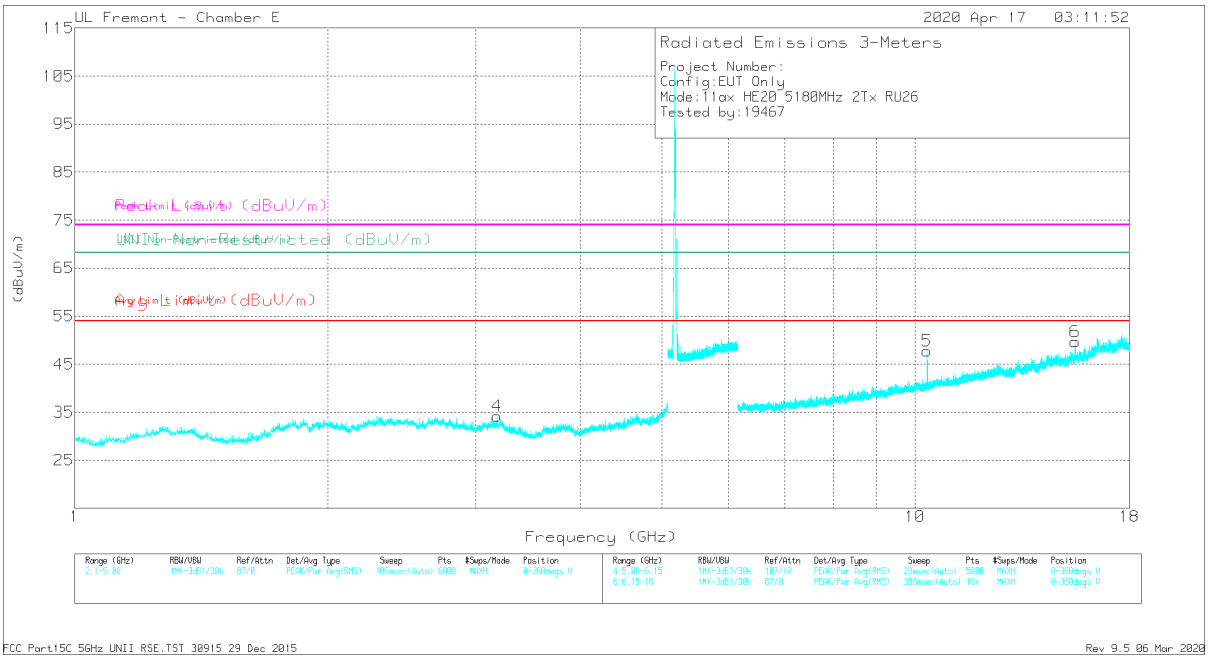
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

HARMONICS AND SPURIOUS EMISSIONS

26 TONES, RU Index 0 RESULTS



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (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
3	* 15.5152	36.21	PK-U	40.3	-21.3	55.21	-	-	74	-18.79	-	-	20	102	H
	* 15.51468	24.28	ADR	40.3	-21.3	43.28	54	-10.72	-	-	-	-	20	102	H
6	* 15.51369	39.78	PK-U	40.3	-21.2	58.88	-	-	74	-15.12	-	-	184	108	V
	* 15.51425	26.73	ADR	40.3	-21.3	45.73	54	-8.27	-	-	-	-	184	108	V
1	3.17418	30.76	ADR	33	-34.9	28.86	-	-	-	-	-	-	360	101	H
	3.17481	42.6	PK-U	33	-34.9	40.7	-	-	-	-	68.2	-27.5	360	101	H
4	3.18218	43.09	PK-U	33	-34.8	41.29	-	-	-	-	68.2	-26.91	360	101	V
	3.18246	30.62	ADR	33	-34.8	28.82	-	-	-	-	-	-	360	101	V
2	10.34308	41.27	PK-U	37.3	-26	52.57	-	-	-	-	68.2	-15.63	107	114	V
	10.34312	31.57	ADR	37.3	-26	42.87	-	-	-	-	-	-	107	114	V
5	10.34326	29.01	ADR	37.3	-26	40.31	-	-	-	-	-	-	112	102	H
	10.34355	40.18	PK-U	37.3	-26	51.48	-	-	-	-	68.2	-16.72	112	102	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

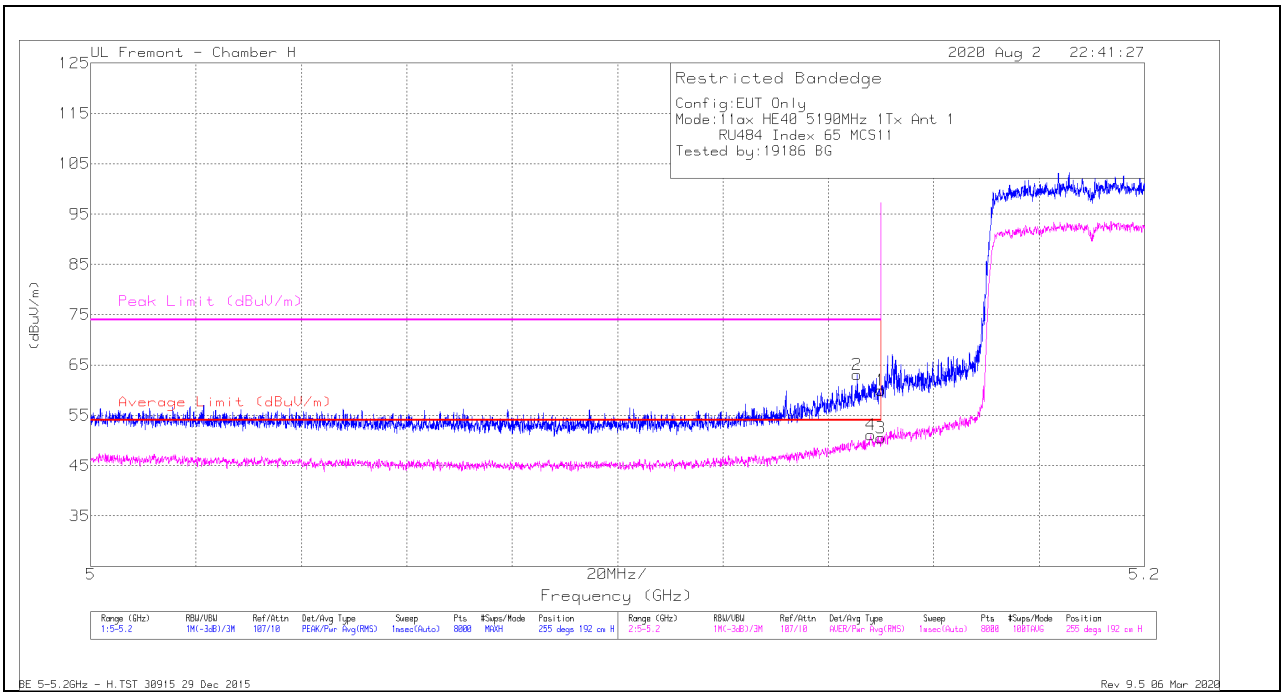
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

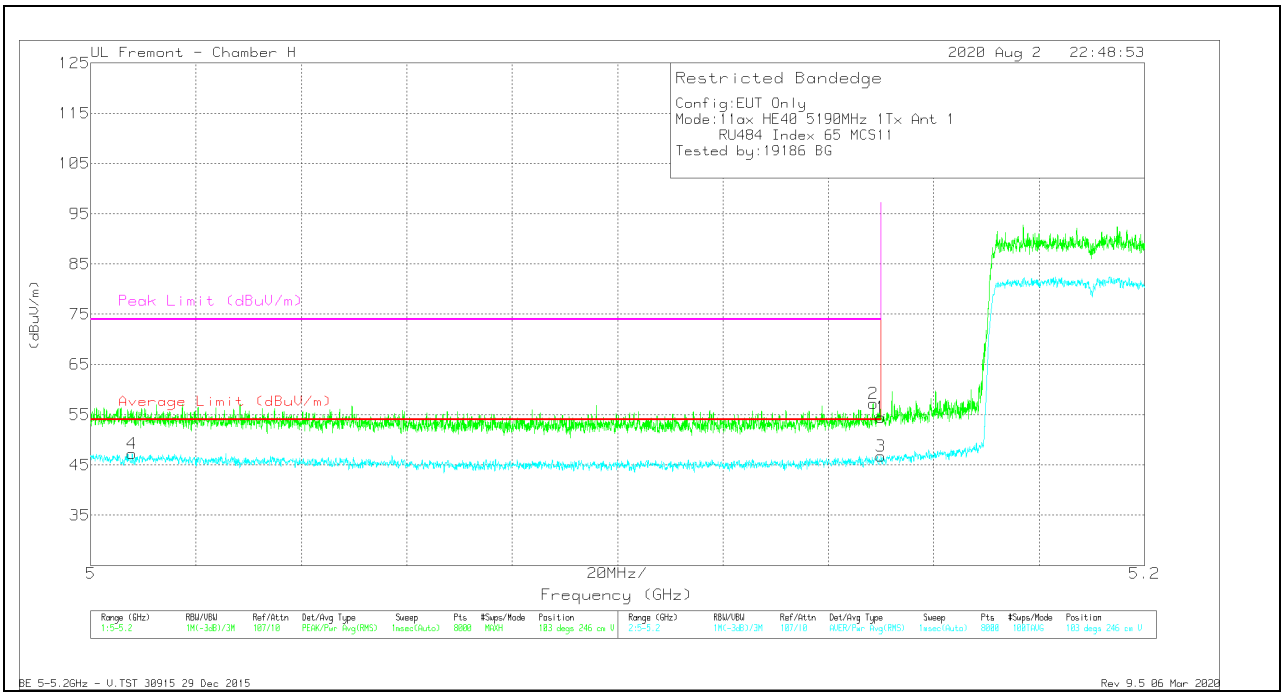


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	46.89	Pk	34.4	-21.3	59.99	-	-	74	-14.01	255	192	H
2	* 5.14547	50.14	Pk	34.3	-21.4	63.04	-	-	74	-10.96	255	192	H
3	* 5.14999	37.35	RMS	34.4	-21.3	50.45	54	-3.55	-	-	255	192	H
4	* 5.14804	38.23	RMS	34.3	-21.4	51.13	54	-2.87	-	-	255	192	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.14999	41.38	Pk	34.4	-21.3	54.48	-	-	74	-19.52	103	246	V
2	* 5.14849	44.25	Pk	34.3	-21.3	57.25	-	-	74	-16.75	103	246	V
3	* 5.14999	33.61	RMS	34.4	-21.3	46.71	54	-7.29	-	-	103	246	V
4	* 5.00788	34.62	RMS	34.2	-21.5	47.32	54	-6.68	-	-	103	246	V

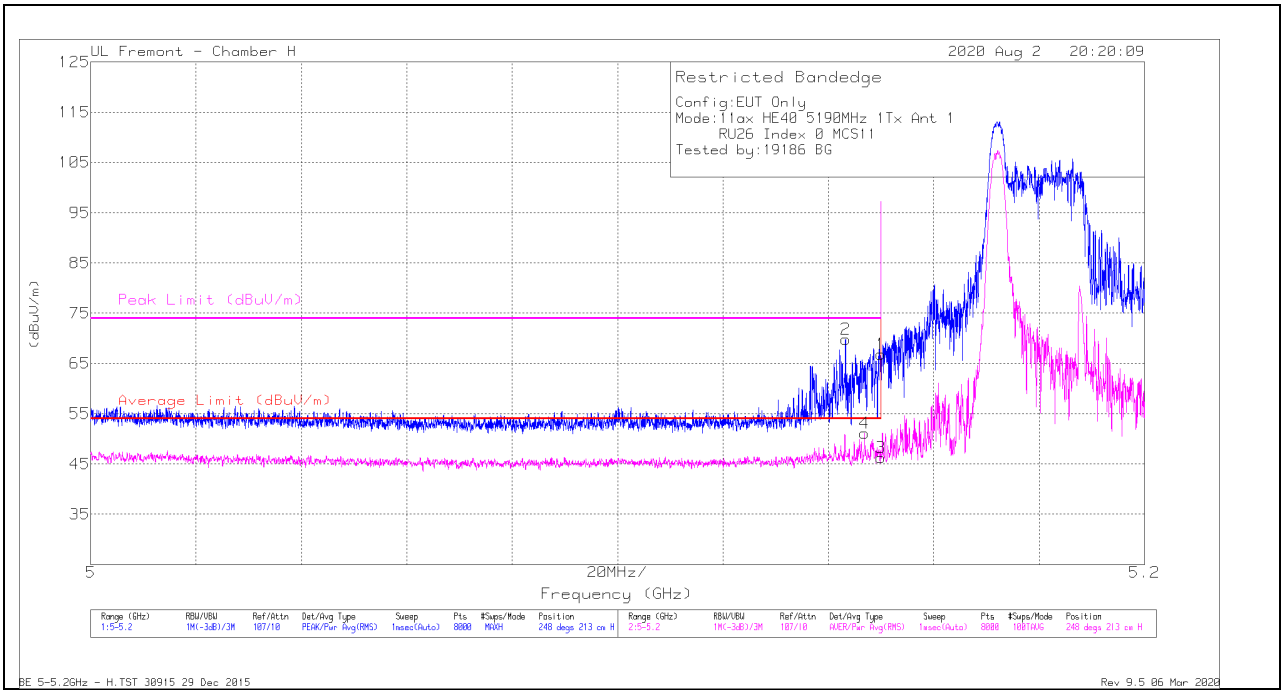
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT

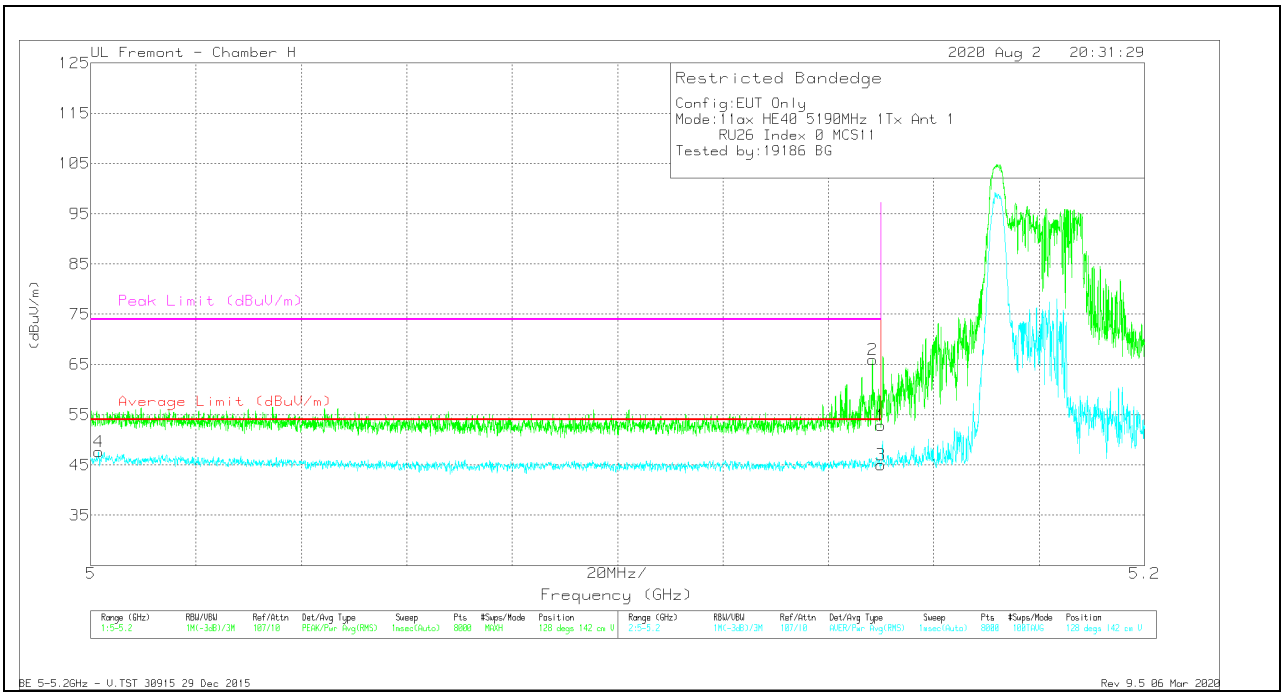


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	53.75	Pk	34.4	-21.3	66.85	-	-	74	-7.15	248	213	H
2	* 5.14327	56.79	Pk	34.3	-21.3	69.79	-	-	74	-4.21	248	213	H
3	* 5.14999	33.16	RMS	34.4	-21.3	46.26	54	-7.74	-	-	248	213	H
4	* 5.14687	38.19	RMS	34.3	-21.4	51.09	54	-2.91	-	-	248	213	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.14999	39.72	Pk	34.4	-21.3	52.82	-	-	74	-21.18	128	142	V
2	* 5.14839	53	Pk	34.3	-21.3	66	-	-	74	-8	128	142	V
3	* 5.14999	31.97	RMS	34.4	-21.3	45.07	54	-8.93	-	-	128	142	V
4	* 5.00148	34.9	RMS	34.3	-21.6	47.6	54	-6.4	-	-	128	142	V

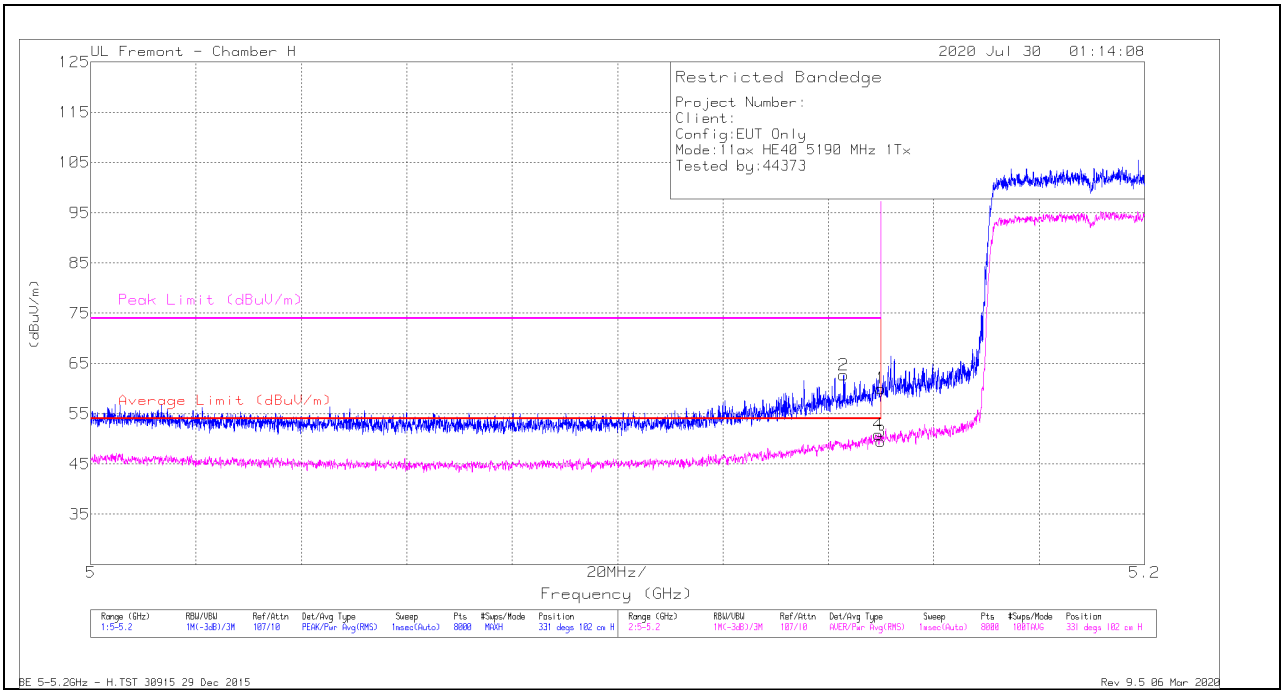
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1TX Antenna 6 MODE – MCS 11, 484 Tones, RU Index 65

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT

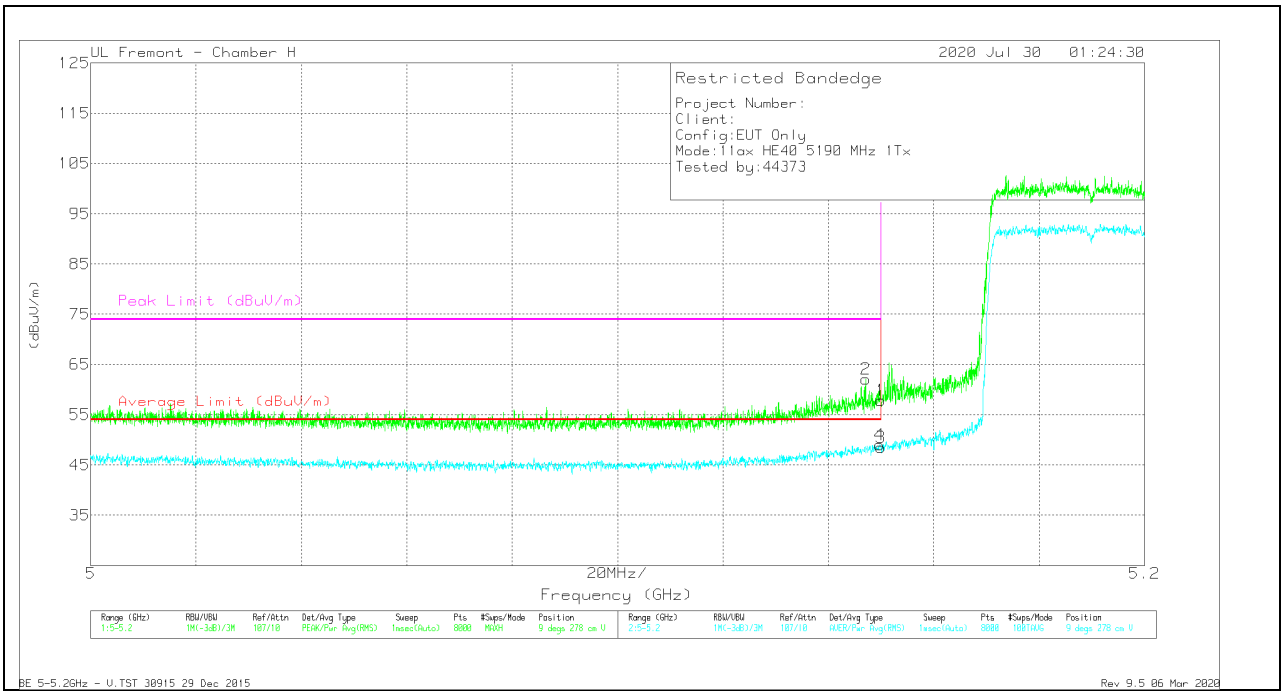


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	46.94	Pk	34.4	-21.3	60.04	-	-	74	-13.96	331	102	H
2	* 5.14289	49.74	Pk	34.3	-21.3	62.74	-	-	74	-11.26	331	102	H
3	* 5.14999	36.4	RMS	34.4	-21.3	49.5	54	-4.5	-	-	331	102	H
4	* 5.14944	37.77	RMS	34.4	-21.3	50.87	54	-3.13	-	-	331	102	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.14999	44.8	Pk	34.4	-21.3	57.9	-	-	74	-16.1	9	278	V
2	* 5.14709	49.16	Pk	34.3	-21.4	62.06	-	-	74	-11.94	9	278	V
3	* 5.14999	35.4	RMS	34.4	-21.3	48.5	54	-5.5	-	-	9	278	V
4	* 5.14972	35.92	RMS	34.4	-21.3	49.02	54	-4.98	-	-	9	278	V

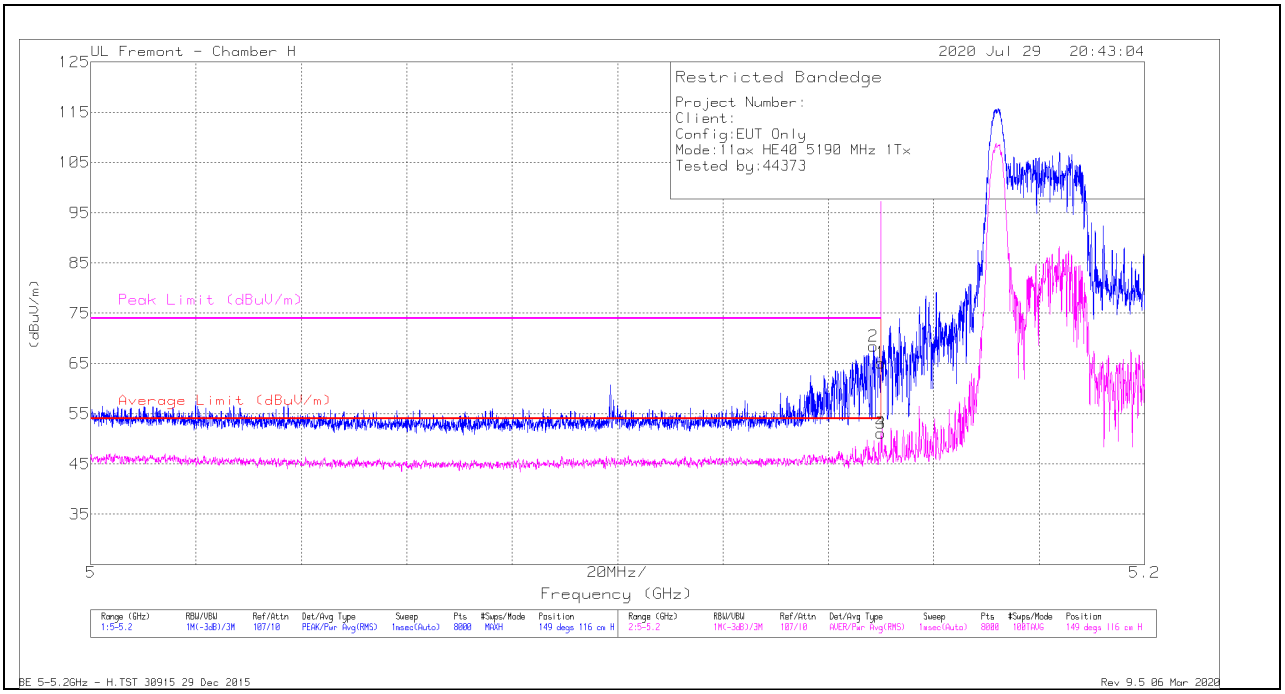
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT

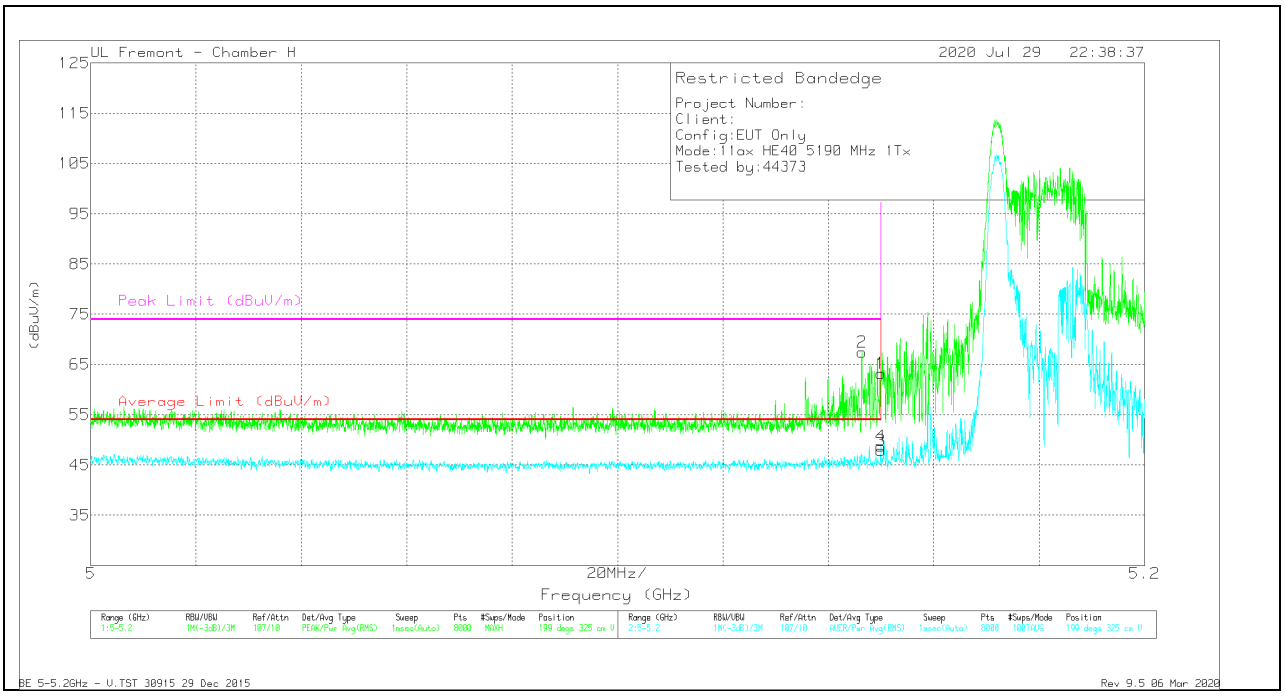


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	52.05	Pk	34.4	-21.3	65.15	-	-	74	-8.85	149	116	H
2	* 5.14857	55.49	Pk	34.3	-21.3	68.49	-	-	74	-5.51	149	116	H
3	* 5.14999	37.99	RMS	34.4	-21.3	51.09	54	-2.91	-	-	149	116	H
4	* 5.14997	38.09	RMS	34.4	-21.3	51.19	54	-2.81	-	-	149	116	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.14999	50.11	Pk	34.4	-21.3	63.21	-	-	74	-10.79	199	325	V
2	* 5.14637	54.58	Pk	34.3	-21.4	67.48	-	-	74	-6.52	199	325	V
3	* 5.14999	34.84	RMS	34.4	-21.3	47.94	54	-6.06	-	-	199	325	V
4	* 5.14997	35.63	RMS	34.4	-21.3	48.73	54	-5.27	-	-	199	325	V

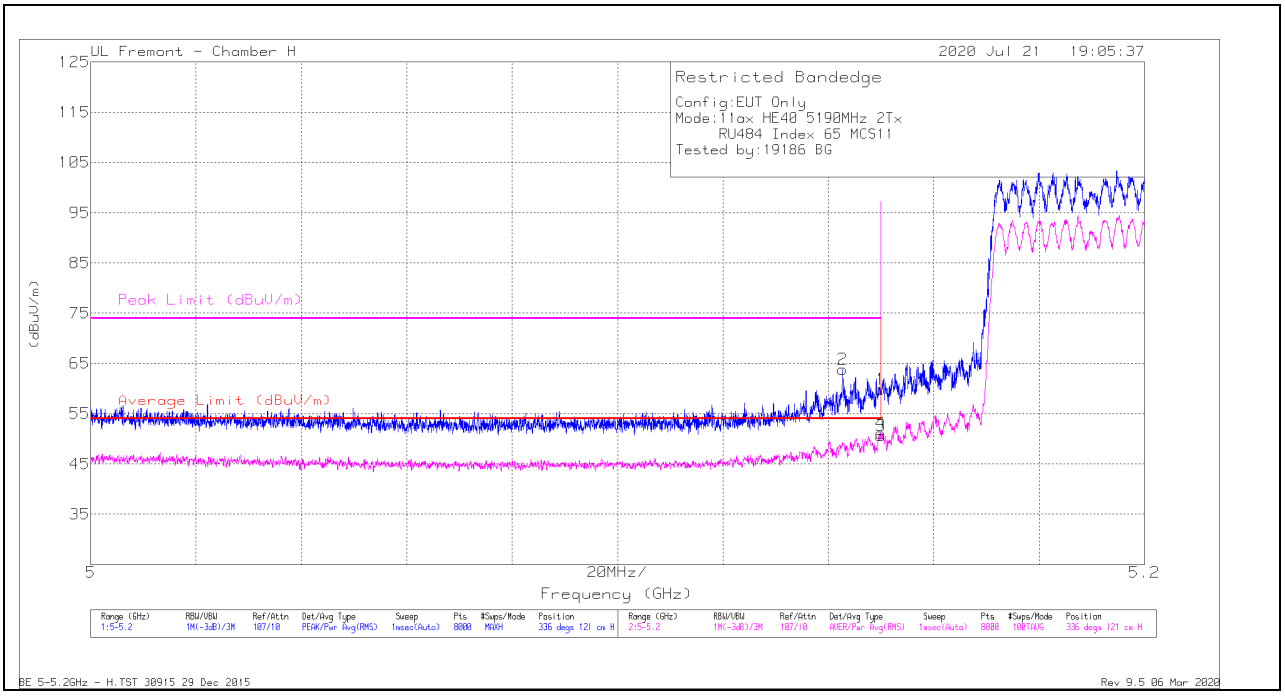
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT

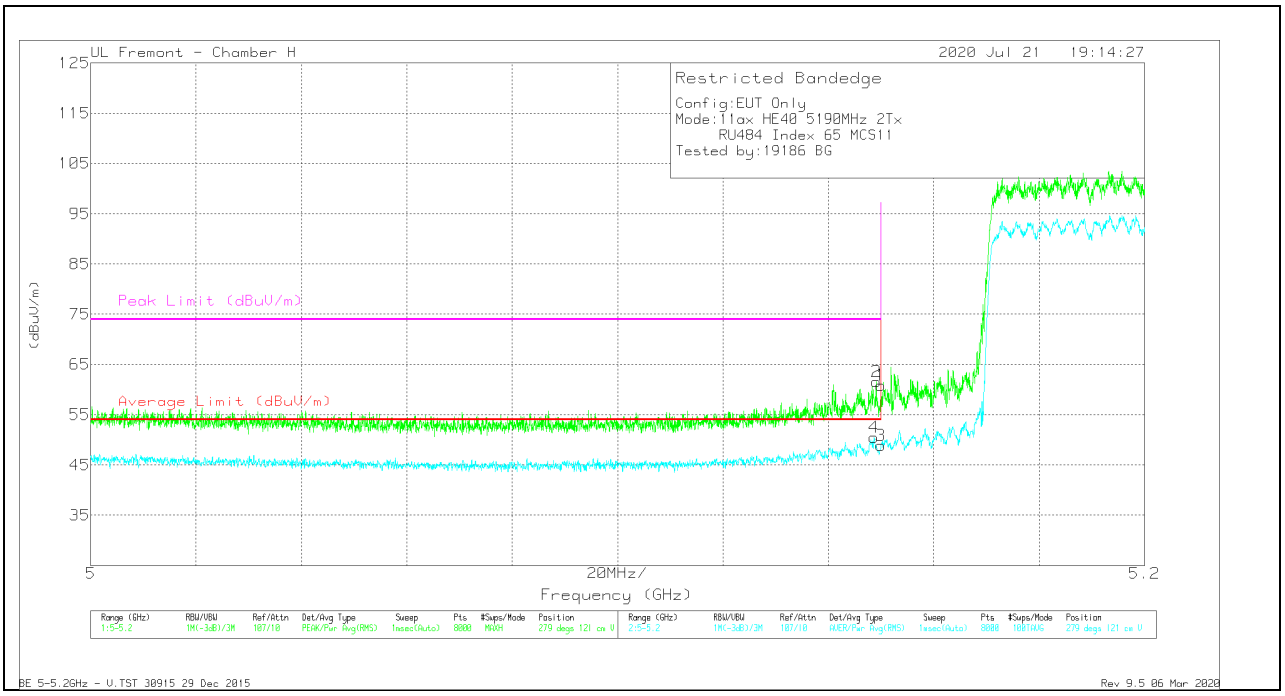


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	46.74	Pk	34.4	-21.3	59.84	-	-	74	-14.16	336	121	H
2	* 5.14272	50.85	Pk	34.3	-21.3	63.85	-	-	74	-10.15	336	121	H
3	* 5.14999	37.57	RMS	34.4	-21.3	50.67	54	-3.33	-	-	336	121	H
4	* 5.14992	38	RMS	34.4	-21.3	51.1	54	-2.9	-	-	336	121	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



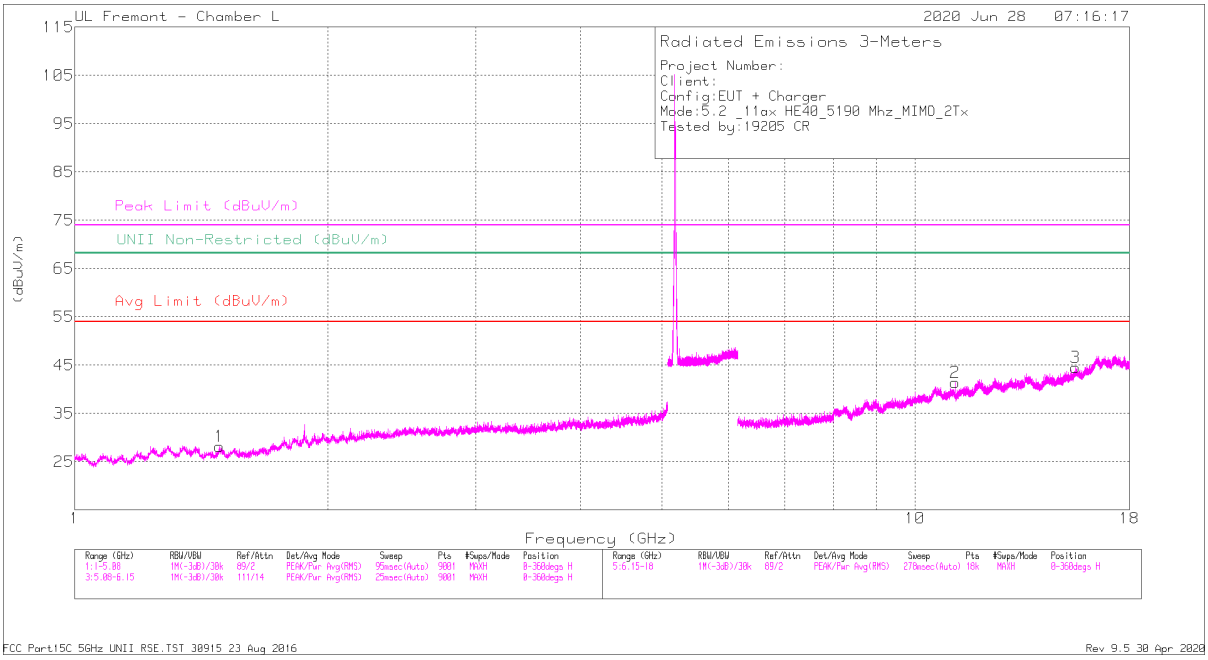
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	47.78	Pk	34.4	-21.3	60.88	-	-	74	-13.12	279	121	V
2	* 5.14912	48.46	Pk	34.4	-21.3	61.56	-	-	74	-12.44	279	121	V
3	* 5.14999	35.76	RMS	34.4	-21.3	48.86	54	-5.14	-	-	279	121	V
4	* 5.14867	37.49	RMS	34.3	-21.3	50.49	54	-3.51	-	-	279	121	V

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

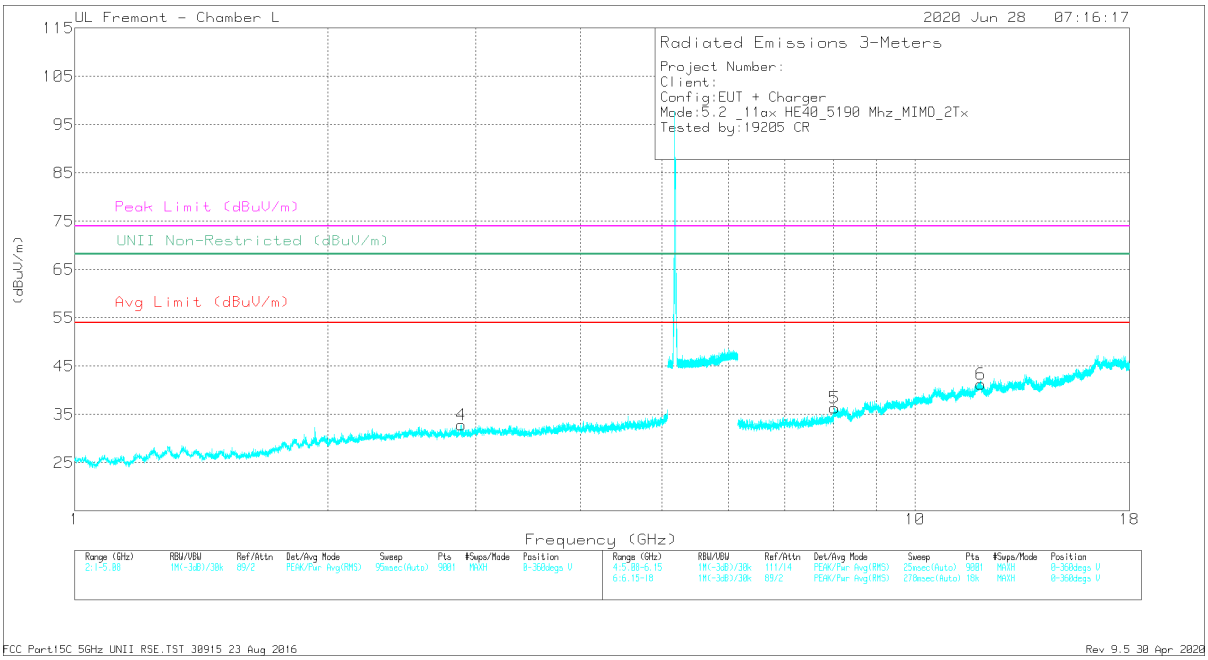
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

HARMONICS AND SPURIOUS EMISSIONS

484 Tones, RU Index 65 RESULTS



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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
* 1.48619	41.04	PK-U	28.3	-32.7	36.64	-	-	74	-37.36	-	-	349	128	H
* 1.48809	30.6	ADR	28.2	-32.7	26.1	54	-27.9	-	-	-	-	349	128	H
* 2.88467	37.39	PK-U	32.4	-29.8	39.99	-	-	74	-34.01	-	-	343	346	V
* 2.88113	27.41	ADR	32.4	-29.7	30.11	54	-23.89	-	-	-	-	343	346	V
* 11.16164	29.74	PK-U	38	-19.8	47.94	-	-	74	-26.06	-	-	343	356	H
* 11.15809	19.51	ADR	38	-19.8	37.71	54	-16.29	-	-	-	-	343	356	H
* 15.52705	29.08	PK-U	40.9	-18.5	51.48	-	-	74	-22.52	-	-	343	152	H
* 15.52761	19.04	ADR	41	-18.5	41.54	54	-12.46	-	-	-	-	343	152	H
8.02131	31.89	PK-U	35.7	-22.2	45.39	-	-	-	-	68.2	-22.81	351	350	V
8.0232	21.86	ADR	35.7	-22.1	35.46	-	-	-	-	-	-	351	350	V
* 11.98476	29.59	PK-U	38.7	-19.6	48.69	-	-	74	-25.31	-	-	277	164	V
* 11.98446	19.74	ADR	38.7	-19.6	38.84	54	-15.16	-	-	-	-	277	164	V

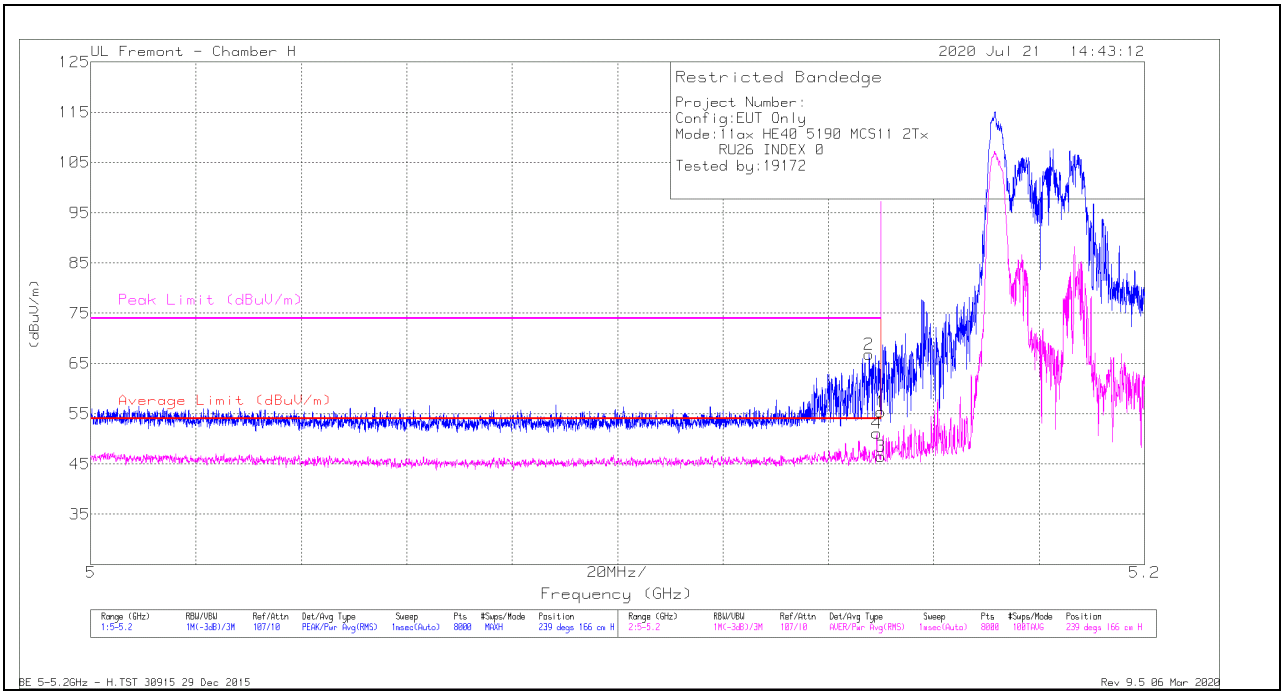
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

2TX Antenna 5 + Antenna 6 OFDMA MODE – 26 Tones, RU Index 0

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT

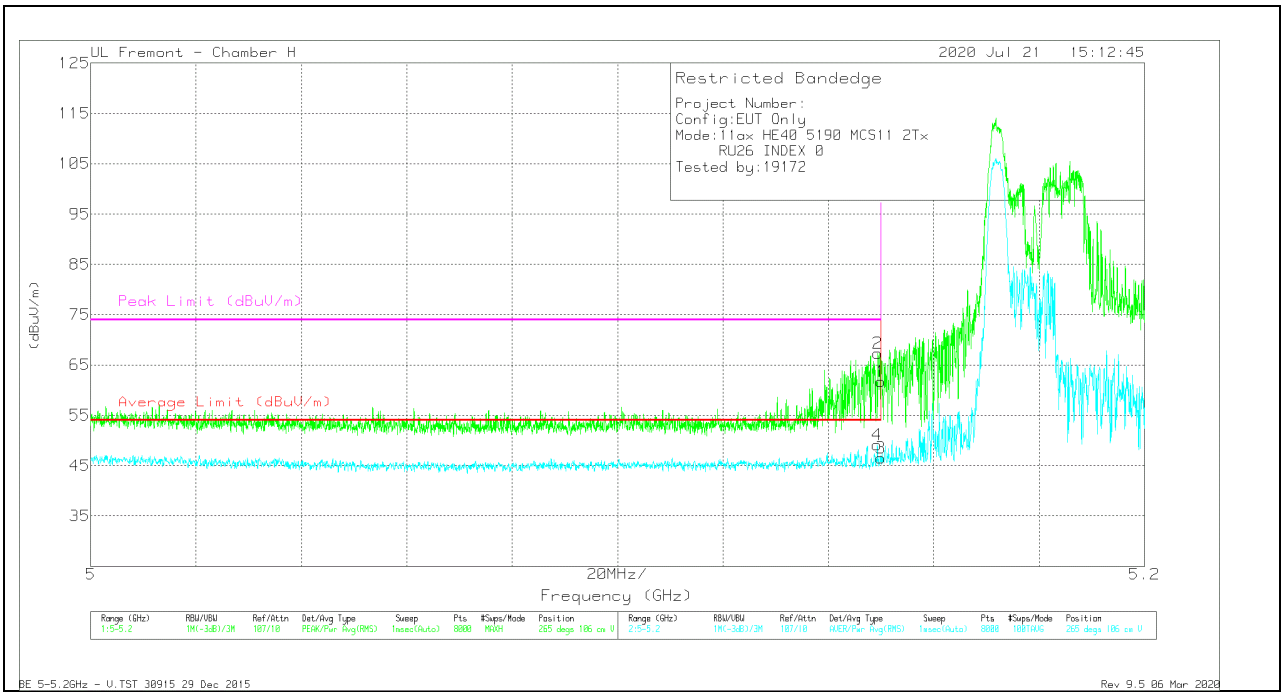


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	42.22	Pk	34.4	-21.3	55.32	-	-	74	-18.68	239	166	H
2	* 5.14774	53.89	Pk	34.3	-21.4	66.79	-	-	74	-7.21	239	166	H
3	* 5.14999	33.41	RMS	34.4	-21.3	46.51	54	-7.49	-	-	239	166	H
4	* 5.14919	38.05	RMS	34.4	-21.3	51.15	54	-2.85	-	-	239	166	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



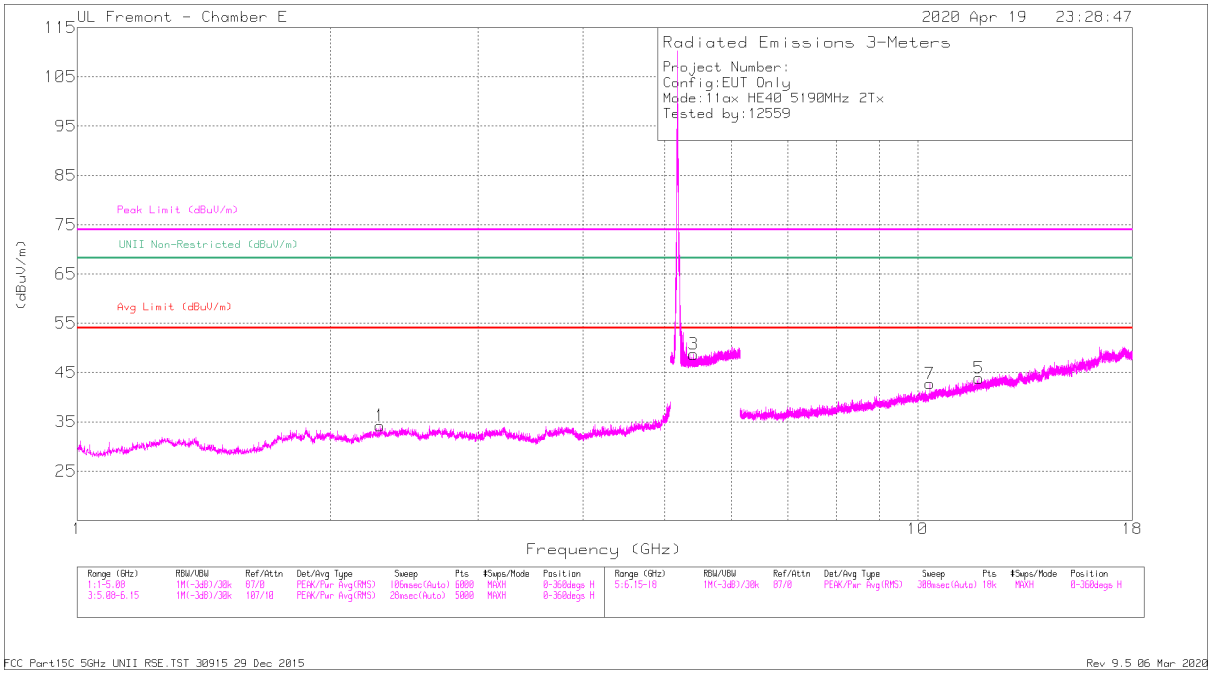
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	48.61	Pk	34.4	-21.3	61.71	-	-	74	-12.29	265	106	V
2	* 5.14942	54.28	Pk	34.4	-21.3	67.38	-	-	74	-6.62	265	106	V
3	* 5.14999	33.39	RMS	34.4	-21.3	46.49	54	-7.51	-	-	265	106	V
4	* 5.14929	35.99	RMS	34.4	-21.3	49.09	54	-4.91	-	-	265	106	V

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

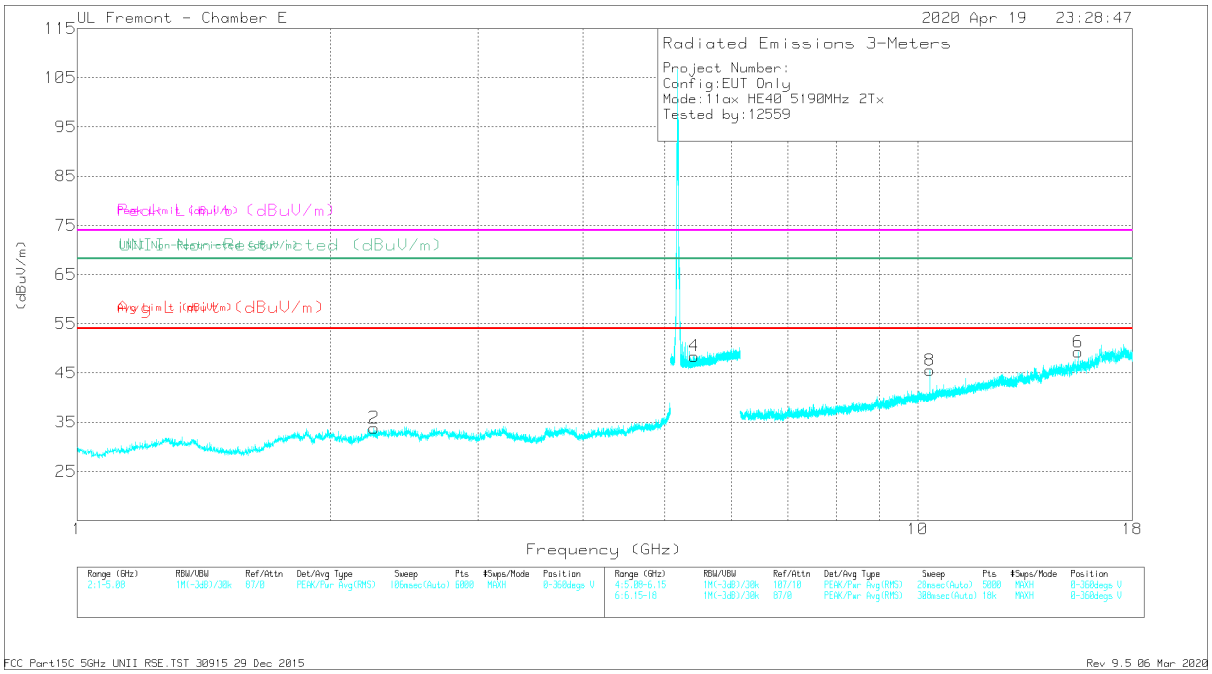
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

HARMONICS AND SPURIOUS EMISSIONS

26 Tones, RU 0 RESULT



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

RADIATED EMISSIONS

Marker	Frequency(GHz)	MeterReading(dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	CorrectedReading(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	* 2.29046	45.21	PK-U	31.9	-35.5	41.61	-	-	74	-32.39	-	-	245	177	H
	* 2.28991	32.85	ADR	31.9	-35.5	29.25	54	-24.75	-	-	-	-	245	177	H
2	* 2.25653	45.02	PK-U	31.8	-35.7	41.12	-	-	74	-32.88	-	-	65	293	V
	* 2.25619	32.96	ADR	31.8	-35.7	29.06	54	-24.94	-	-	-	-	65	293	V
3	* 5.41006	42.2	PK-U	34.5	-21.8	54.9	-	-	74	-19.1	-	-	227	249	H
	* 5.41063	31.05	ADR	34.6	-21.8	43.85	54	-10.15	-	-	-	-	227	249	H
4	* 5.41827	41.9	PK-U	34.5	-21.8	54.6	-	-	74	-19.4	-	-	138	188	V
	* 5.41803	30.33	ADR	34.5	-21.8	43.03	54	-10.97	-	-	-	-	138	188	V
5	* 11.82634	35.95	PK-U	38.4	-23.8	50.55	-	-	74	-23.45	-	-	56	128	H
	* 11.82602	24.4	ADR	38.4	-23.8	39	54	-15	-	-	-	-	56	128	H
6	* 15.51585	40.46	PK-U	40.3	-21.3	59.46	-	-	74	-14.54	-	-	281	101	V
	* 15.51581	27.09	ADR	40.3	-21.3	46.09	54	-7.91	-	-	-	-	281	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

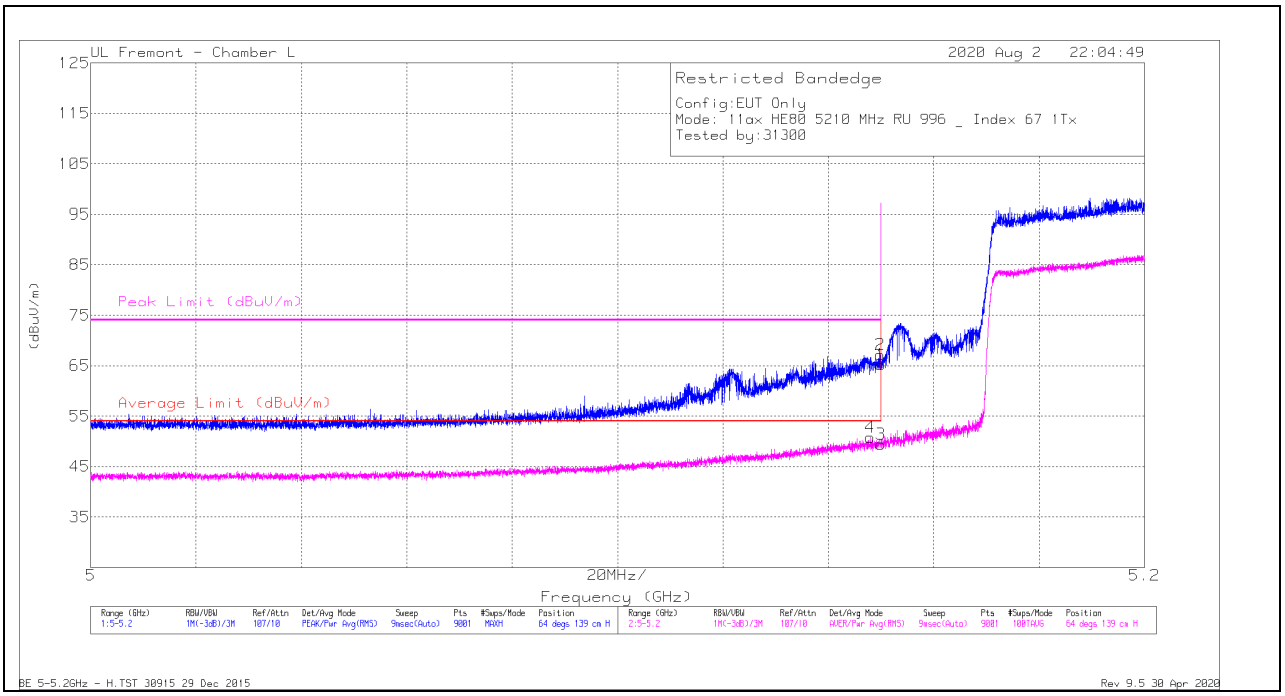
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1.1.6. TX ABOVE 1 GHz 802.11ax HE80 MODE IN THE 5.2 GHz BAND

1TX Antenna 5 MODE – MCS 11, 996 Tones, RU Index 67

BANDEDGE (MID CHANNEL)

HORIZONTAL RESULT

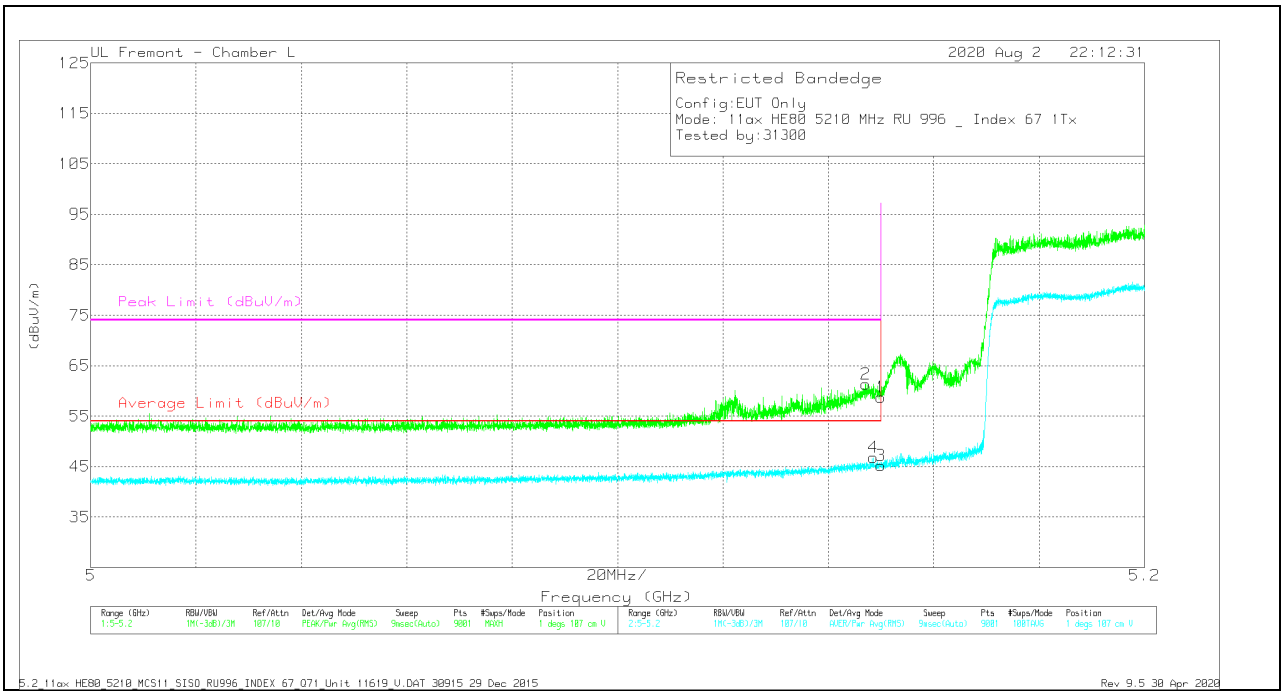


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	48.34	Pk	34.3	-17.5	0	65.14	-	-	74	-8.86	64	139	H
2	* 5.14989	50.35	Pk	34.3	-17.5	0	67.15	-	-	74	-6.85	64	139	H
3	* 5.15	32.45	RMS	34.3	-17.5	0	49.25	54	-4.75	-	-	64	139	H
4	* 5.148	33.8	RMS	34.3	-17.5	0	50.6	54	-3.4	-	-	64	139	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	41.97	Pk	34.3	-17.5	0	58.77	-	-	74	-15.23	1	107	V
2	* 5.14713	44.54	Pk	34.3	-17.5	0	61.34	-	-	74	-12.66	1	107	V
3	* 5.15	28.23	RMS	34.3	-17.5	0	45.03	54	-8.97	-	-	1	107	V
4	* 5.14853	29.9	RMS	34.3	-17.5	0	46.7	54	-7.3	-	-	1	107	V

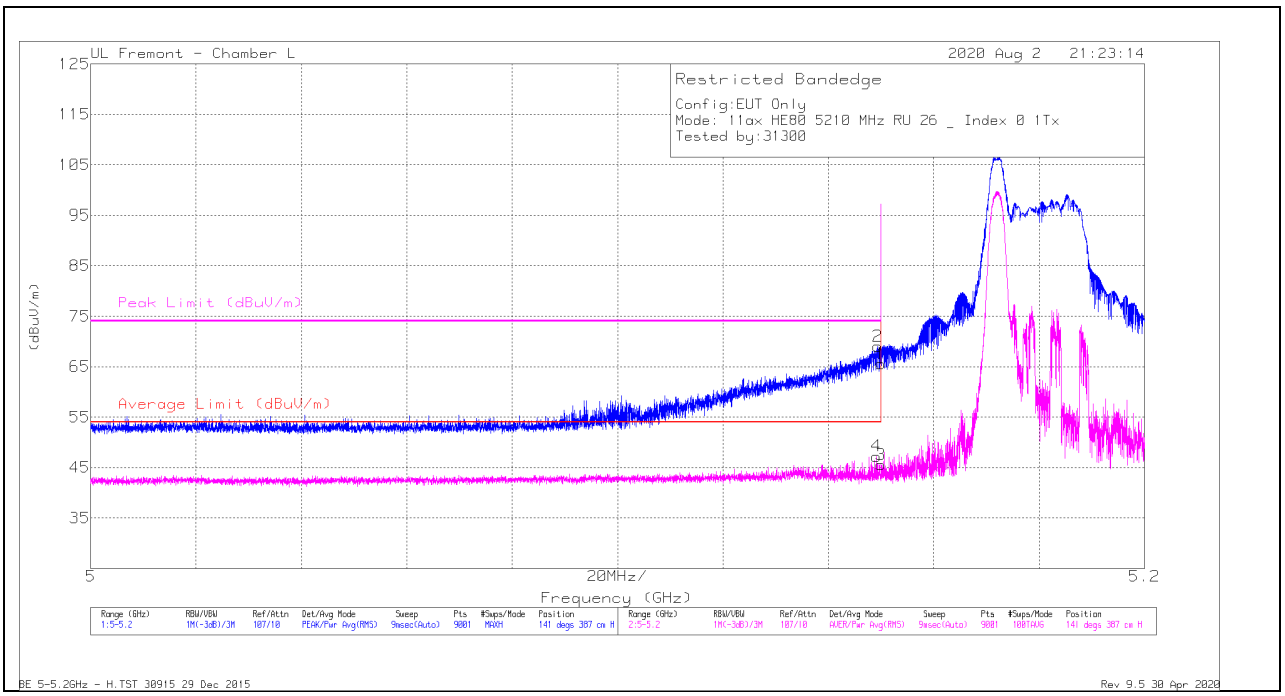
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1TX Antenna 5 MODE –MCS 11, 26 Tones, RU Index 0

BANDEDGE (MID CHANNEL)

HORIZONTAL RESULT

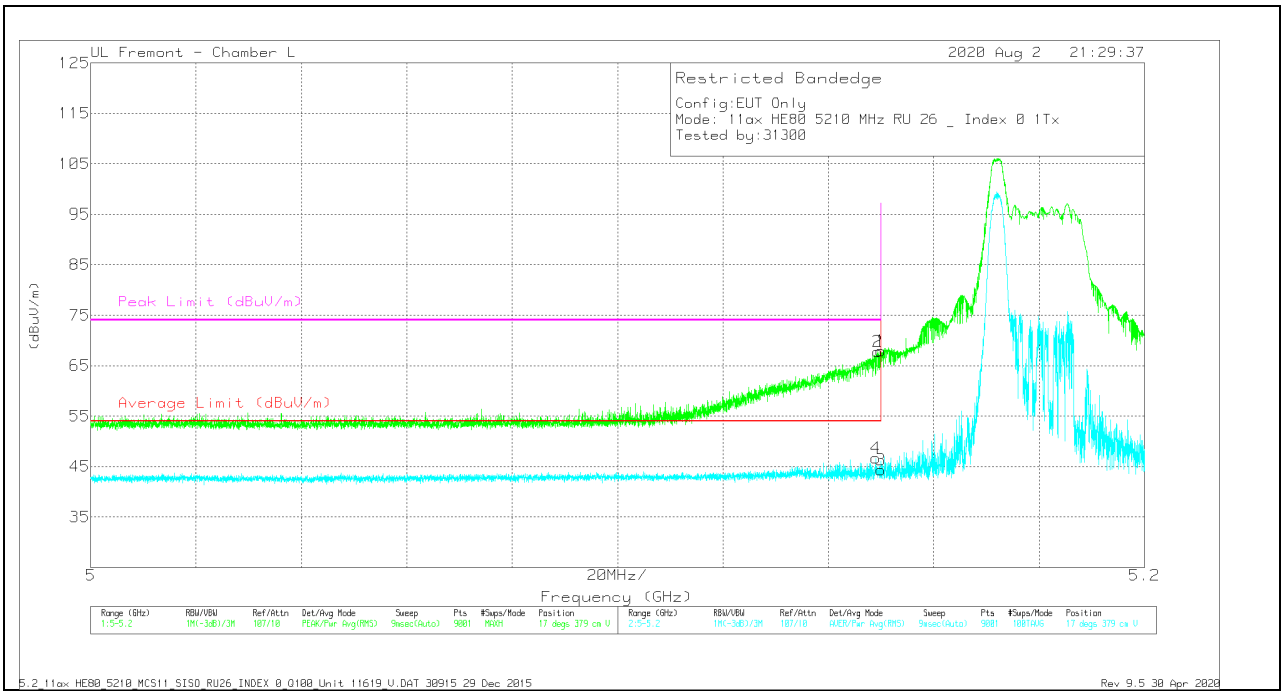


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	48.77	Pk	34.3	-17.5	0	65.57	-	-	74	-8.43	141	387	H
2	* 5.1494	52.24	Pk	34.3	-17.5	0	69.04	-	-	74	-4.96	141	387	H
3	* 5.15	28.69	RMS	34.3	-17.5	0	45.49	54	-8.51	-	-	141	387	H
4	* 5.14915	30.34	RMS	34.3	-17.5	0	47.14	54	-6.86	-	-	141	387	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	51.1	Pk	34.3	-17.5	0	67.9	-	-	74	-6.1	17	379	V
2	* 5.14942	50.96	Pk	34.3	-17.5	0	67.76	-	-	74	-6.24	17	379	V
3	* 5.15	27.39	RMS	34.3	-17.5	0	44.19	54	-9.81	-	-	17	379	V
4	* 5.14904	29.79	RMS	34.3	-17.5	0	46.59	54	-7.41	-	-	17	379	V

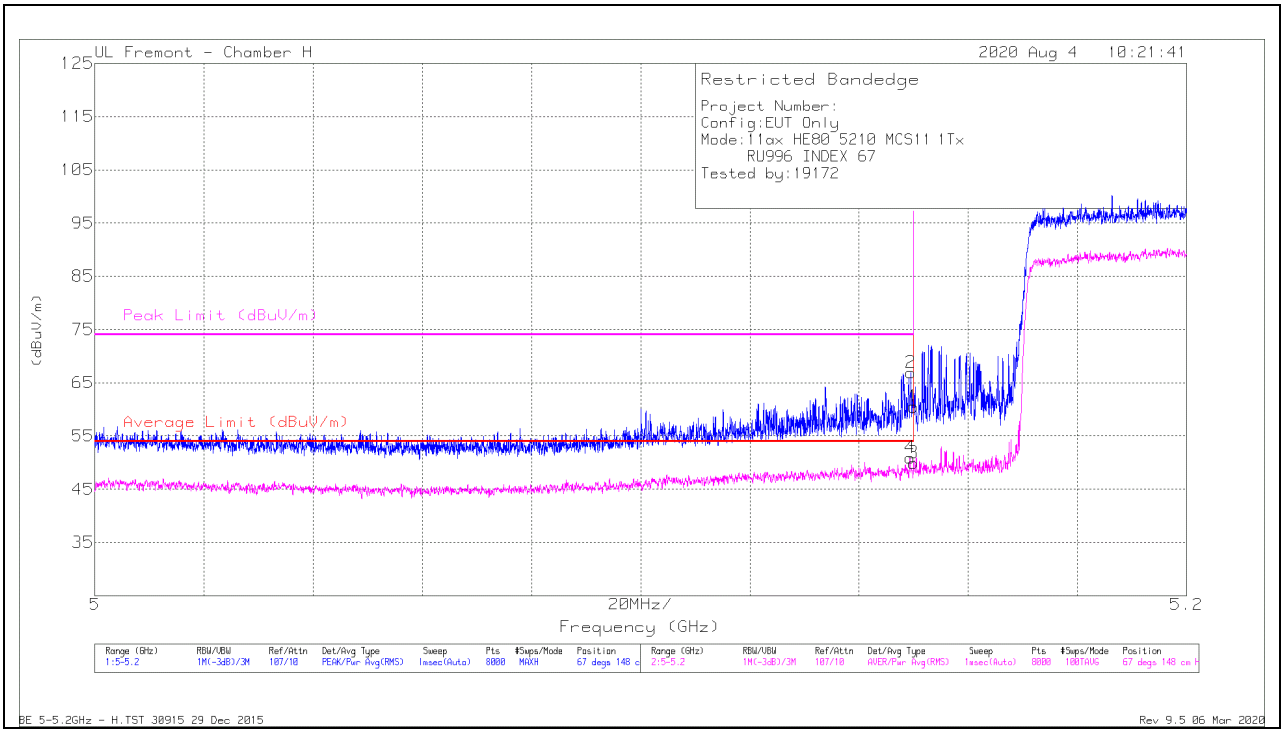
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1TX Antenna 6 MODE – 996 Tones, RU Index 67

BANDEDGE (MID CHANNEL)

HORIZONTAL RESULT

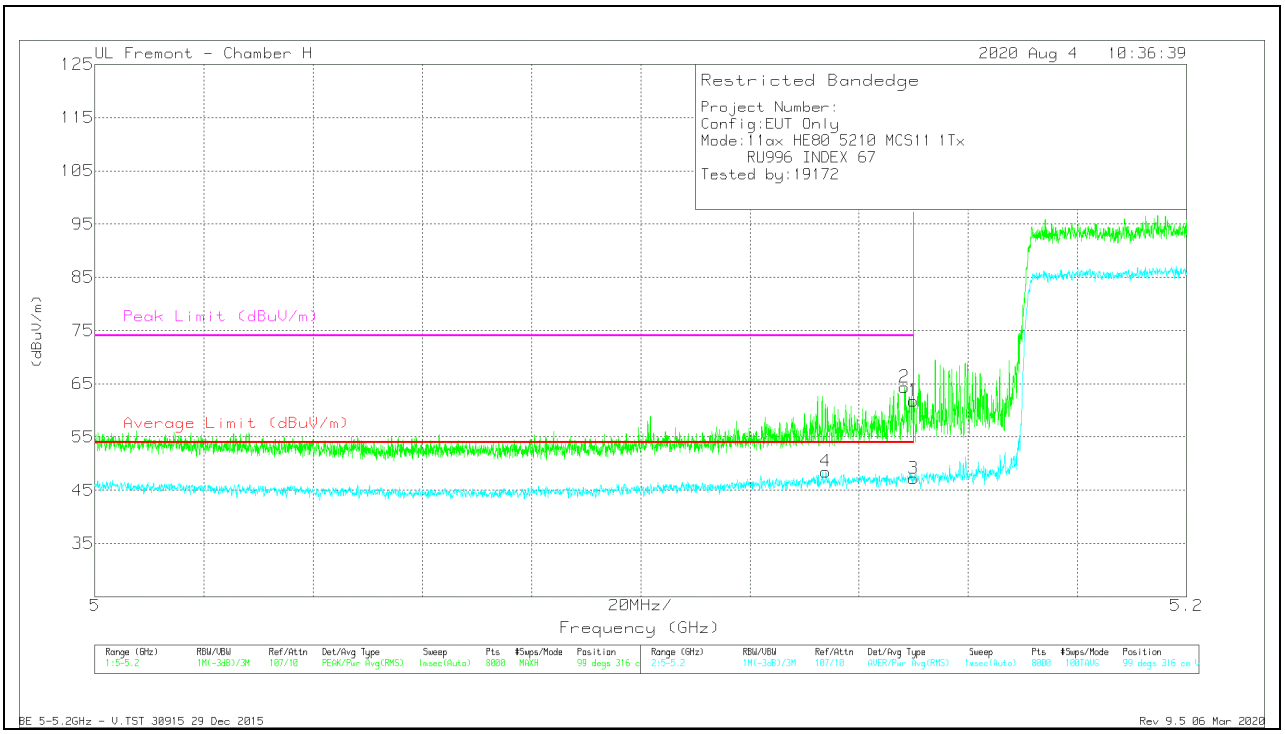


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	47.42	Pk	34.4	-21.3	60.52	-	-	74	-13.48	67	148	H
2	* 5.14947	53.8	Pk	34.4	-21.3	66.9	-	-	74	-7.1	67	148	H
3	* 5.14999	36.84	RMS	34.4	-21.3	49.94	54	-4.06	-	-	67	148	H
4	* 5.14932	37.8	RMS	34.4	-21.3	50.9	54	-3.1	-	-	67	148	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.14999	48.69	Pk	34.4	-21.3	61.79	-	-	74	-12.21	99	316	V
2	* 5.14832	51.35	Pk	34.3	-21.3	64.35	-	-	74	-9.65	99	316	V
3	* 5.14999	34.12	RMS	34.4	-21.3	47.22	54	-6.78	-	-	99	316	V
4	* 5.13392	35.51	RMS	34.4	-21.4	48.51	54	-5.49	-	-	99	316	V

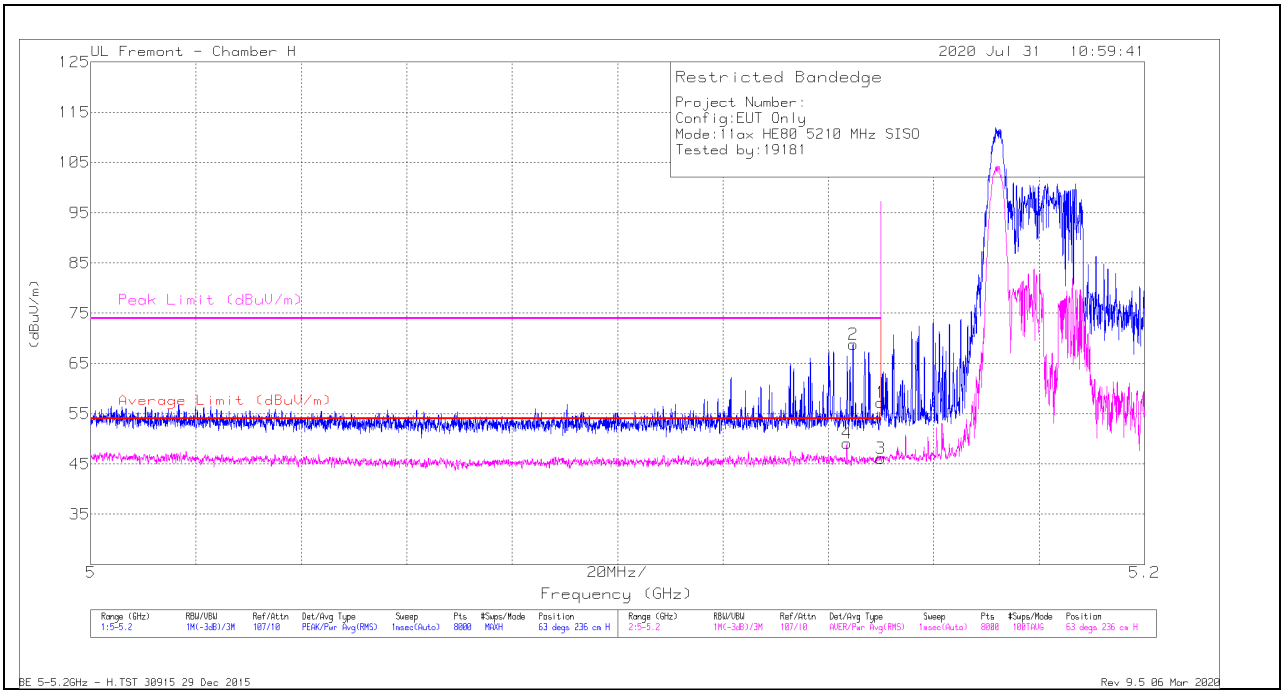
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1TX Antenna 6 MODE – MCS 11, 26 Tones, RU Index 0

BANDEDGE (MID CHANNEL)

HORIZONTAL RESULT

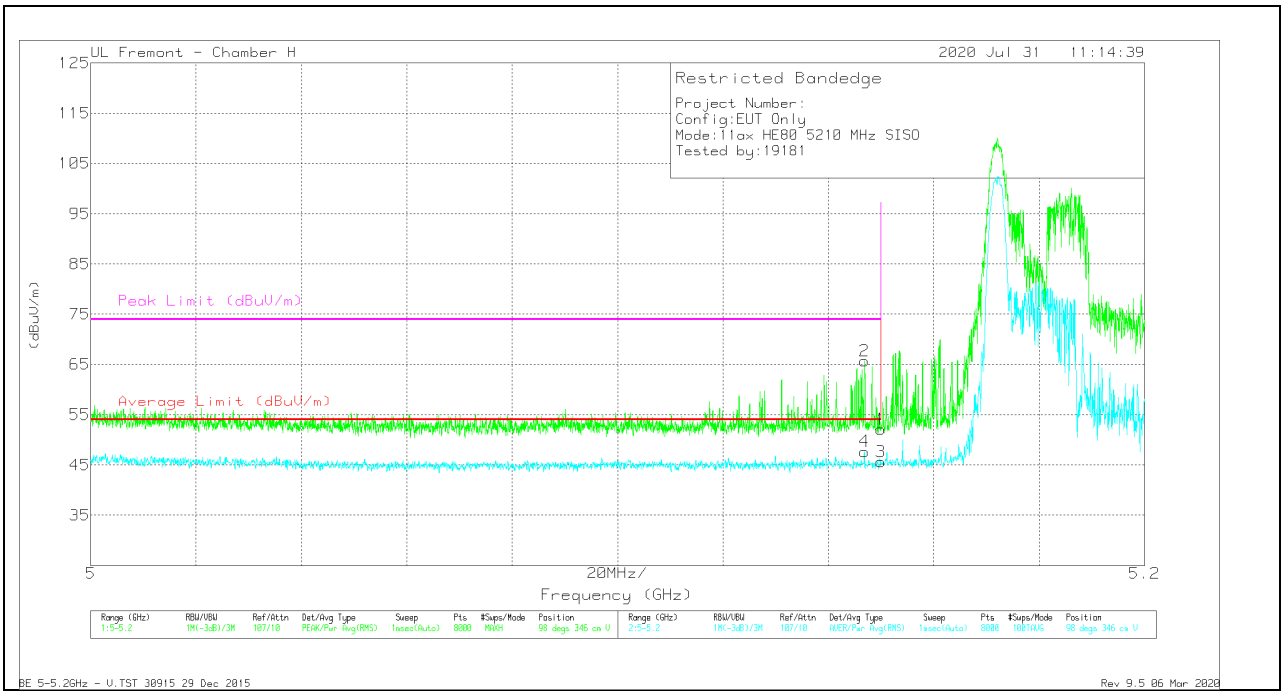


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	44.12	Pk	34.4	-21.3	0	57.22	-	-	74	-16.78	63	236	H
2	* 5.14469	55.93	Pk	34.3	-21.4	0	68.83	-	-	74	-5.17	63	236	H
3	* 5.14999	33.04	RMS	34.4	-21.3	.11	46.25	54	-7.75	-	-	63	236	H
4	* 5.14349	36.13	RMS	34.3	-21.3	.11	49.24	54	-4.76	-	-	63	236	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.14999	39.02	Pk	34.4	-21.3	0	52.12	-	-	74	-21.88	98	346	V
2	* 5.14689	52.8	Pk	34.3	-21.4	0	65.7	-	-	74	-8.3	98	346	V
3	* 5.14999	32.56	RMS	34.4	-21.3	.11	45.77	54	-8.23	-	-	98	346	V
4	* 5.14682	34.8	RMS	34.3	-21.4	.11	47.81	54	-6.19	-	-	98	346	V

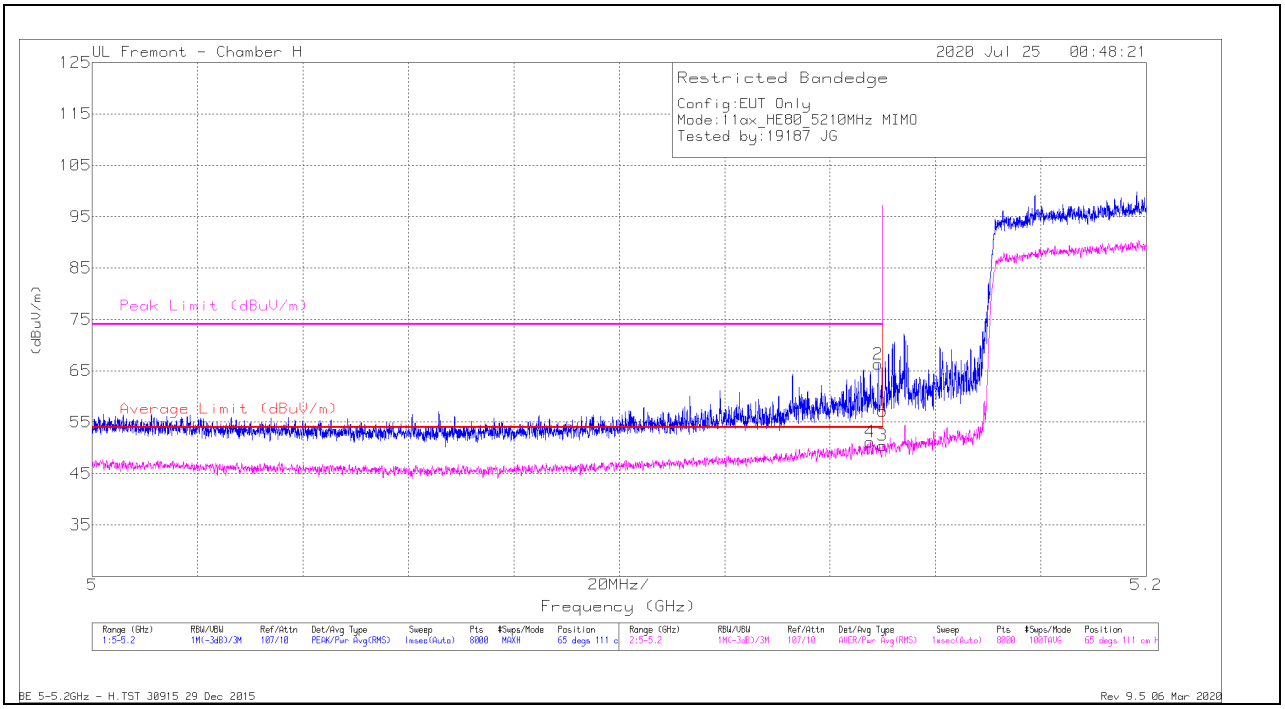
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

2TX Antenna 5 + Antenna 6 OFDMA MODE – MCS 11, 996 Tones, RU Index 67

BANDEDGE (MID CHANNEL)

HORIZONTAL RESULT

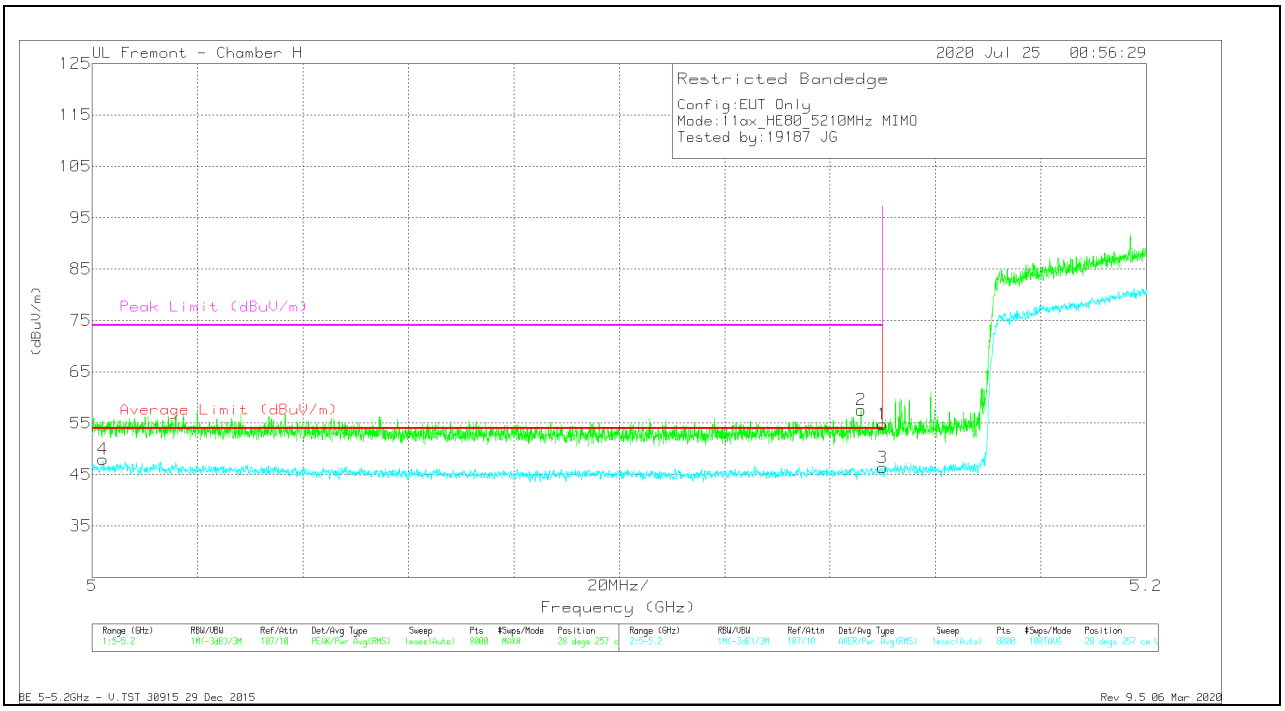


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	44.12	Pk	34.4	-21.3	0	57.22	-	-	74	-16.78	65	111	H
2	* 5.14912	53.2	Pk	34.4	-21.3	0	66.3	-	-	74	-7.7	65	111	H
3	* 5.14999	36.9	RMS	34.4	-21.3	0	50	54	-4	-	-	65	111	H
4	* 5.14759	37.78	RMS	34.3	-21.4	0	50.68	54	-3.32	-	-	65	111	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



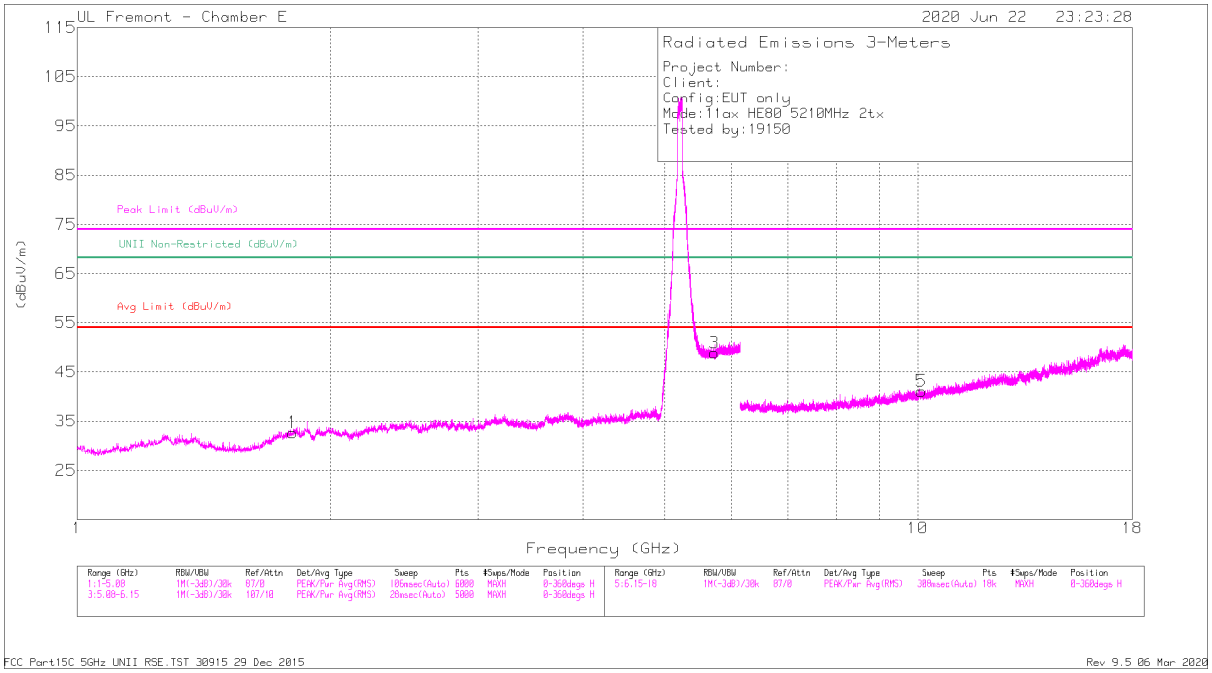
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	41.7	Pk	34.4	-21.3	0	54.8	-	-	74	-19.2	28	257	V
2	* 5.14587	44.68	Pk	34.3	-21.4	0	57.58	-	-	74	-16.42	28	257	V
3	* 5.14999	32.77	RMS	34.4	-21.3	0	45.87	54	-8.13	-	-	28	257	V
4	* 5.00205	34.72	RMS	34.3	-21.5	0	47.52	54	-6.48	-	-	28	257	V

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

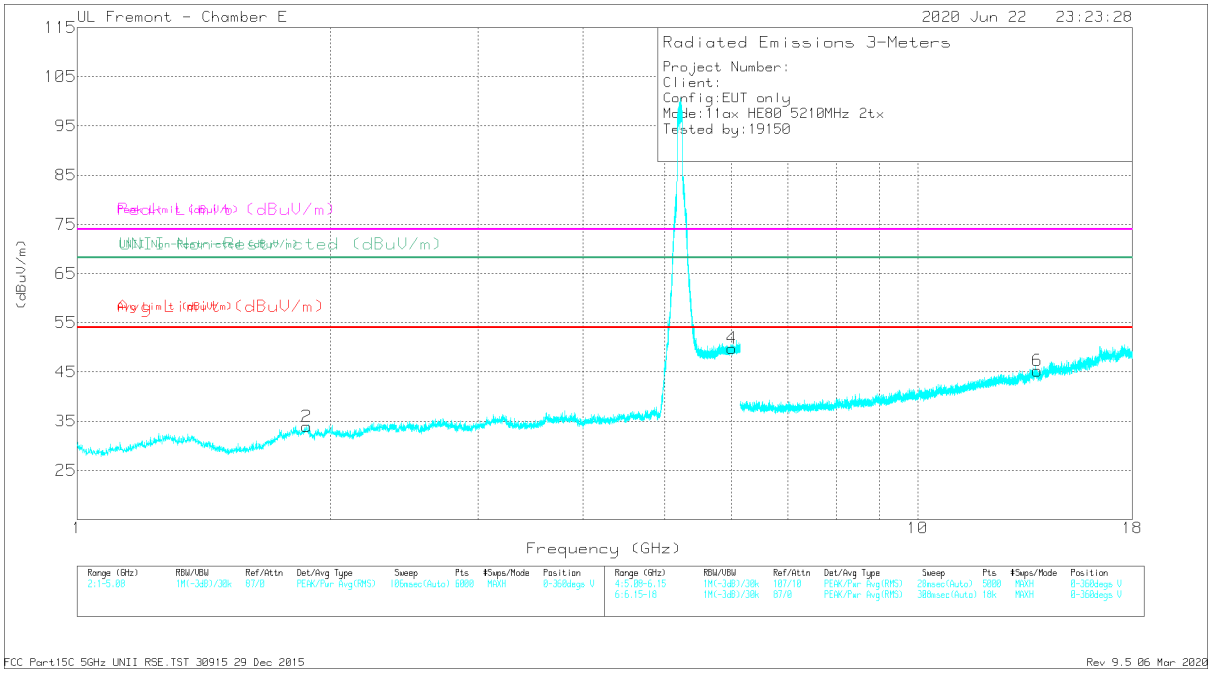
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

HARMONICS AND SPURIOUS EMISSIONS

996 Tones, RU Index 67 RESULTS



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

RADIATED EMISSIONS

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.80443	45.71	PK-U	30.5	-35	41.21	68.2	-26.99	0	101	H
2	1.87624	45.36	PK-U	31.2	-35.1	41.46	68.2	-26.74	0	101	V
3	5.7269	43.17	PK-U	34.7	-21.2	56.67	68.2	-11.53	0	101	H
4	6.01008	43.51	PK-U	35.2	-20.8	57.91	68.2	-10.29	0	101	V
5	10.10337	37.48	PK-U	37	-26	48.48	68.2	-19.72	0	101	H
6	13.883	36.4	PK-U	38.5	-22.5	52.4	68.2	-15.8	0	101	V

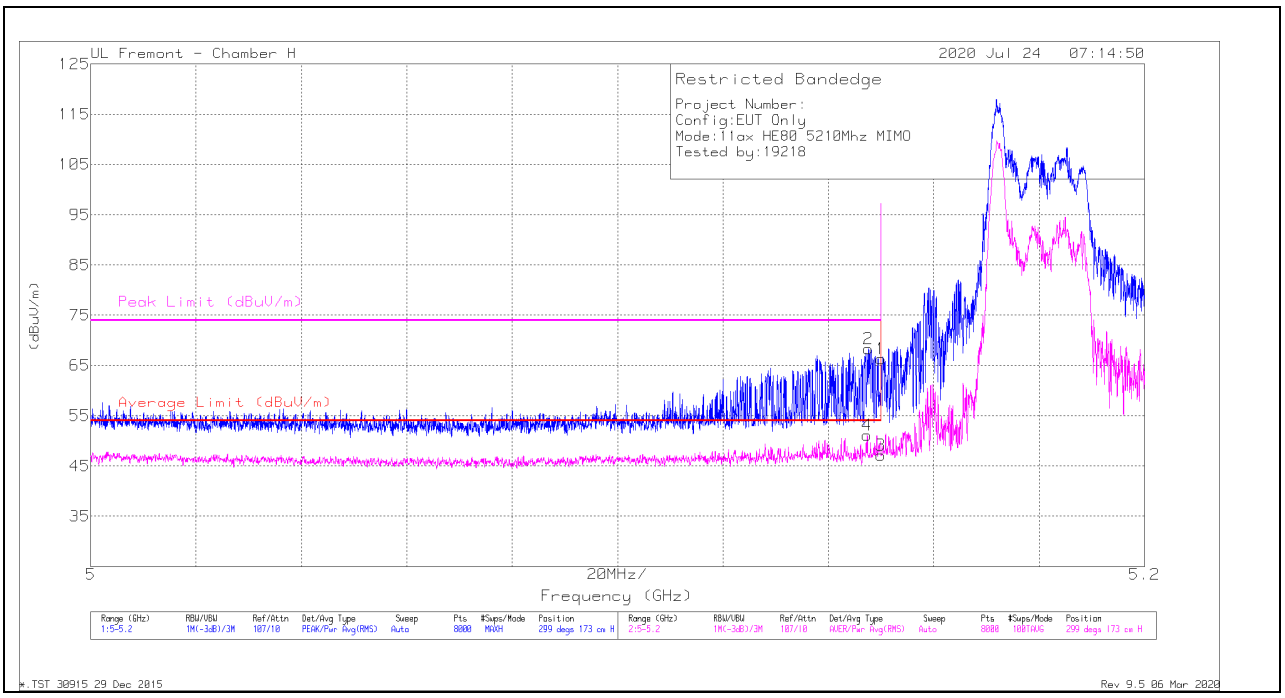
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

2TX Antenna 5 + Antenna 6 OFDMA MODE – 26 Tones, RU Index 0

BANDEDGE (MID CHANNEL)

HORIZONTAL RESULT

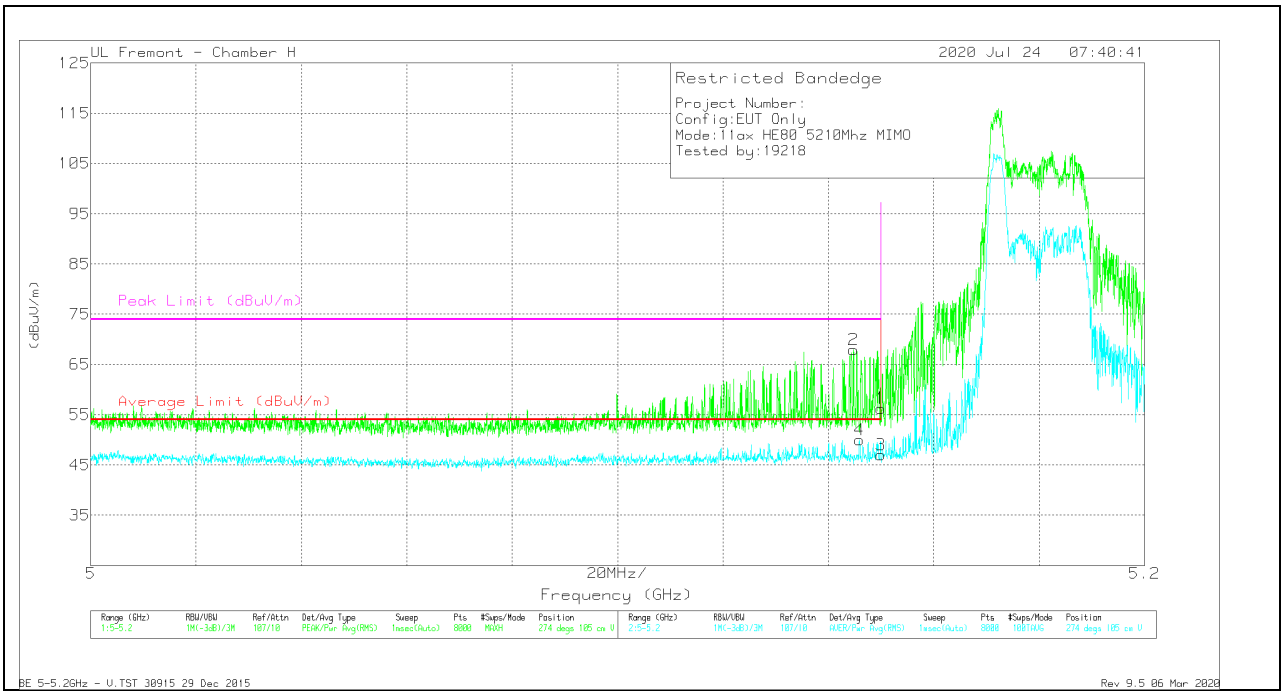


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	53.18	Pk	34.4	-21.3	0	66.28	-	-	74	-7.72	299	173	H
2	* 5.14764	55.38	Pk	34.3	-21.4	0	68.28	-	-	74	-5.72	299	173	H
3	* 5.14999	33.56	RMS	34.4	-21.3	0	46.66	54	-7.34	-	-	299	173	H
4	* 5.14739	37.71	RMS	34.3	-21.4	0	50.61	54	-3.39	-	-	299	173	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



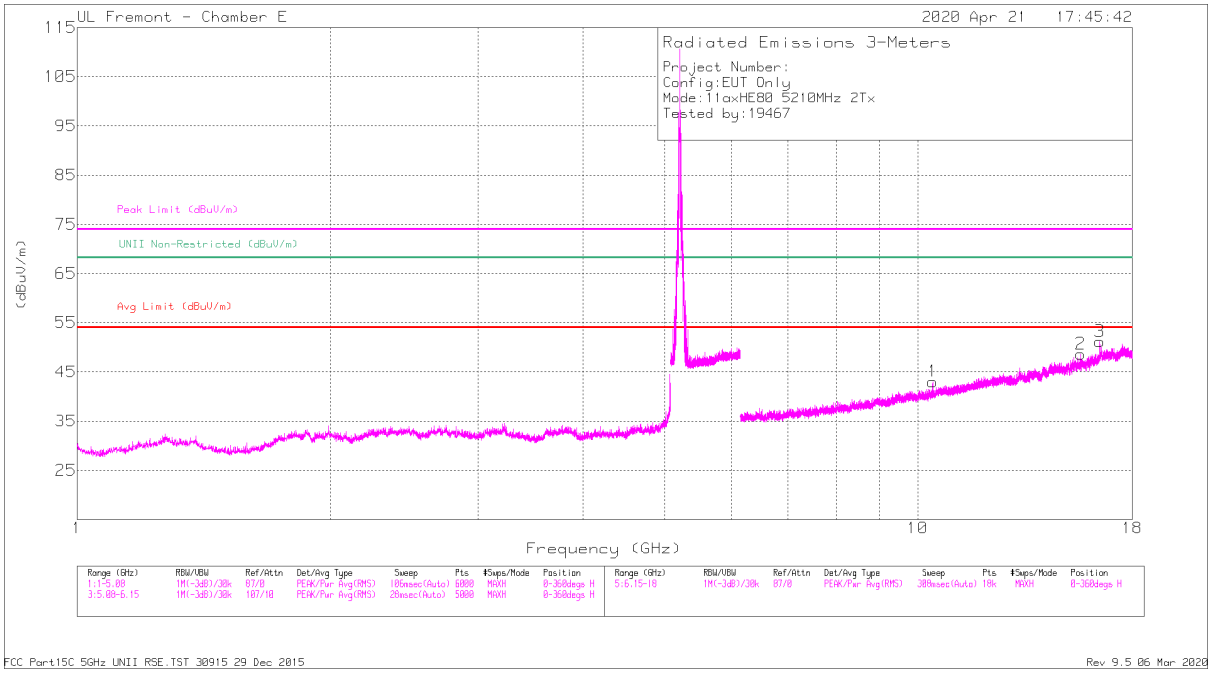
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14999	43.2	Pk	34.4	-21.3	0	56.3	-	-	74	-17.7	274	105	V
2	* 5.14479	55.1	Pk	34.3	-21.4	0	68	-	-	74	-6	274	105	V
3	* 5.14999	33.42	RMS	34.4	-21.3	0	46.52	54	-7.48	-	-	274	105	V
4	* 5.14594	36.63	RMS	34.3	-21.4	0	49.53	54	-4.47	-	-	274	105	V

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

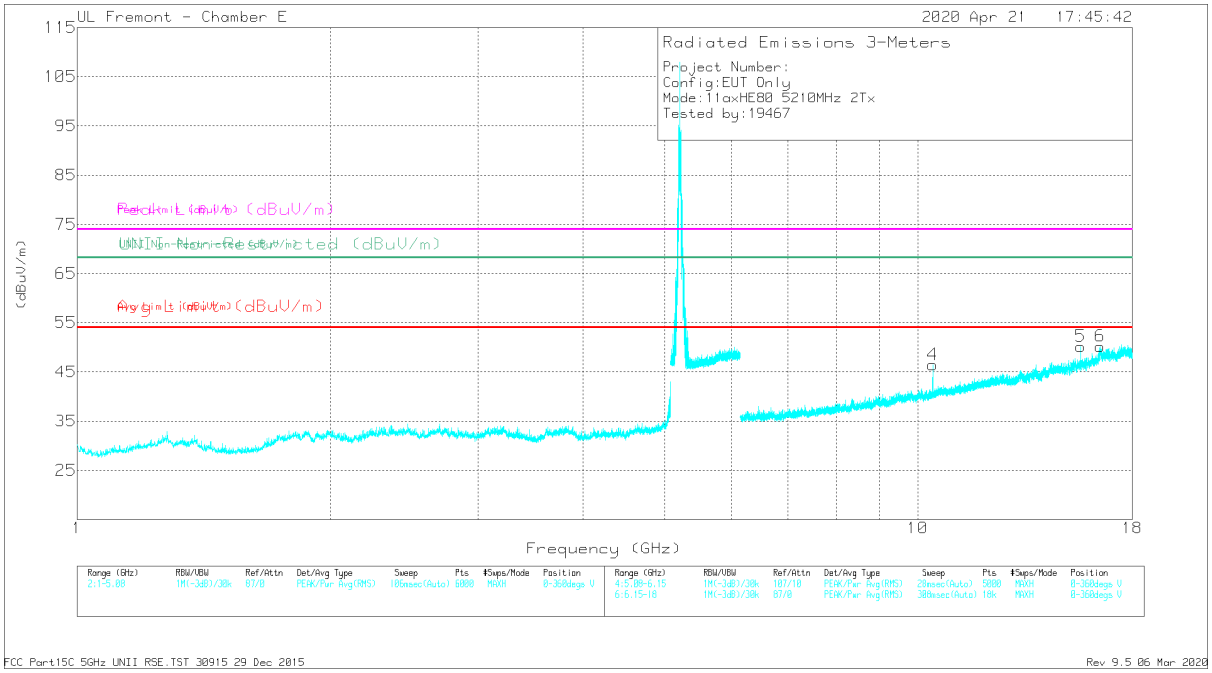
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

HARMONICS AND SPURIOUS EMISSIONS

26 Tones, RU Index 0 RESULTS



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (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
2	* 15.63138	35.01	PK-U	40.3	-21.6	53.71	-	-	74	-20.29	-	-	97	273	H
	* 15.62923	23.55	ADR	40.3	-21.4	42.45	54	-11.55	-	-	-	-	97	273	H
5	* 15.63038	35.01	PK-U	40.2	-21.5	53.71	-	-	74	-20.29	-	-	129	318	V
	* 15.62947	23.38	ADR	40.3	-21.5	42.18	54	-11.82	-	-	-	-	129	318	V
1	10.41878	25.43	ADR	37.4	-26.4	36.43	-	-	-	-	-	-	213	101	V
	10.41884	39.24	PK-U	37.4	-26.4	50.24	-	-	-	-	68.2	-17.96	96	112	H
4	10.42025	37.31	PK-U	37.4	-26.4	48.31	-	-	-	-	68.2	-19.89	213	101	V
	10.42046	28.3	ADR	37.4	-26.4	39.3	-	-	-	-	-	-	96	112	H
3	16.46736	23.57	ADR	41.3	-18.6	46.27	-	-	-	-	-	-	97	200	H
	16.46841	34.68	PK-U	41.4	-18.6	57.48	-	-	-	-	68.2	-10.72	97	200	H
6	16.47336	23.53	ADR	41.4	-18.6	46.33	-	-	-	-	-	-	129	200	V
	16.47405	34.53	PK-U	41.4	-18.6	57.33	-	-	-	-	68.2	-10.87	129	200	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

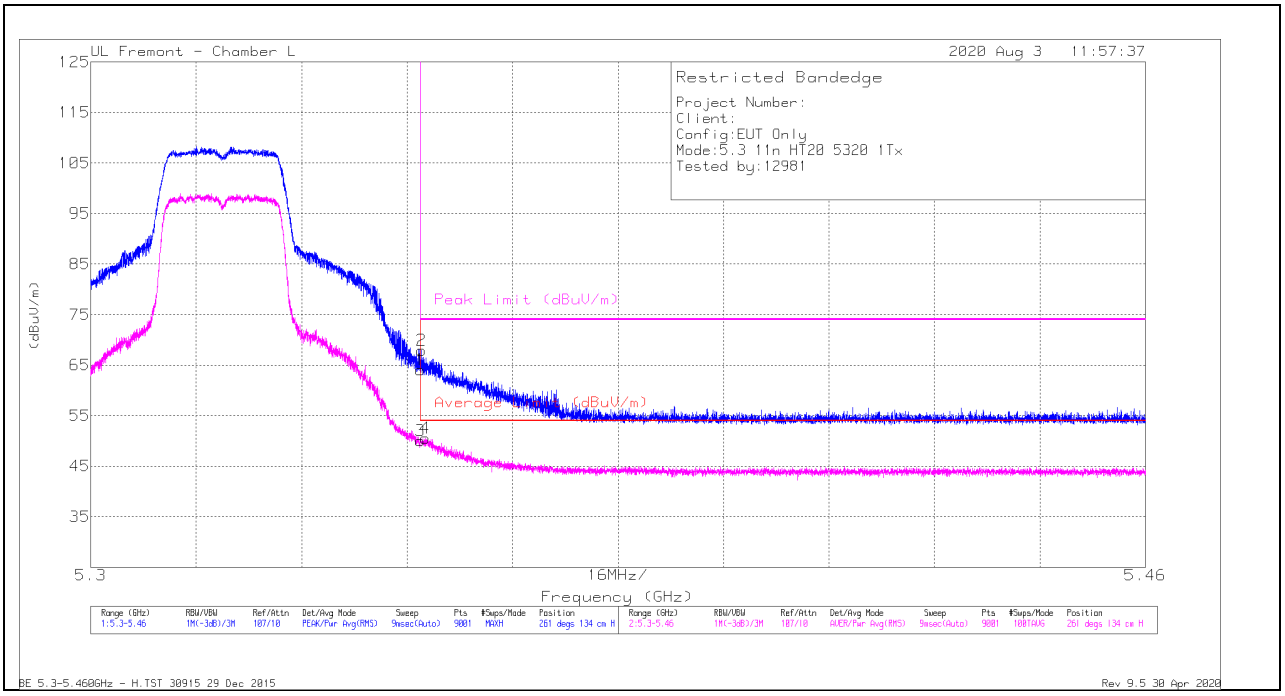
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1.1.7. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.3 GHz BAND

1TX Antenna 5 MODE, MCS 7

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT

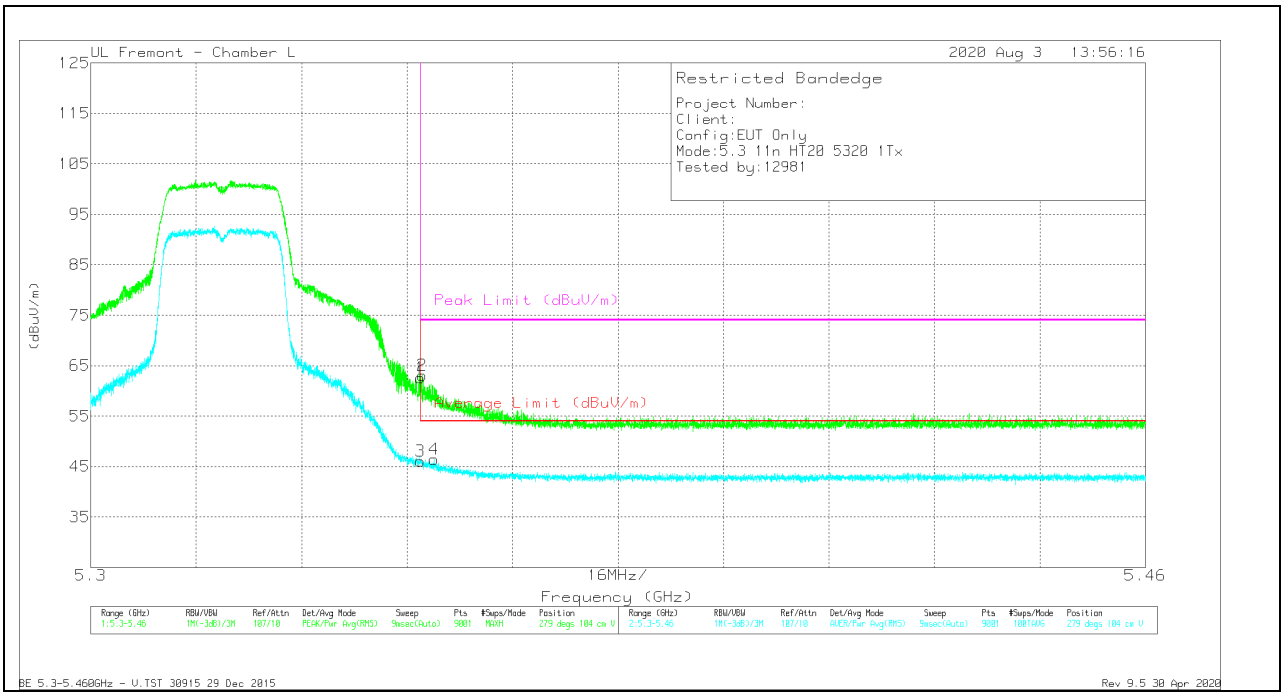


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	46.71	Pk	34.5	-17.1	0	64.11	-	-	74	-9.89	261	134	H
2	* 5.35019	50.55	Pk	34.5	-17.1	0	67.95	-	-	74	-6.05	261	134	H
3	* 5.35001	32.34	RMS	34.5	-17.1	0.36	50.1	54	-3.9	-	-	261	134	H
4	* 5.35076	32.77	RMS	34.5	-17.1	0.36	50.53	54	-3.47	-	-	261	134	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (dB/m)	Amp/Cbl/Filtr/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	* 5.35001	45.17	Pk	34.5	-17.1	0	62.57	-	-	74	-11.43	279	104	V
2	* 5.35026	45.69	Pk	34.5	-17.1	0	63.09	-	-	74	-10.91	279	104	V
3	* 5.35001	28.34	RMS	34.5	-17.1	0.36	46.1	54	-7.9	-	-	279	104	V
4	* 5.35213	28.74	RMS	34.5	-17.1	0.36	46.5	54	-7.5	-	-	279	104	V

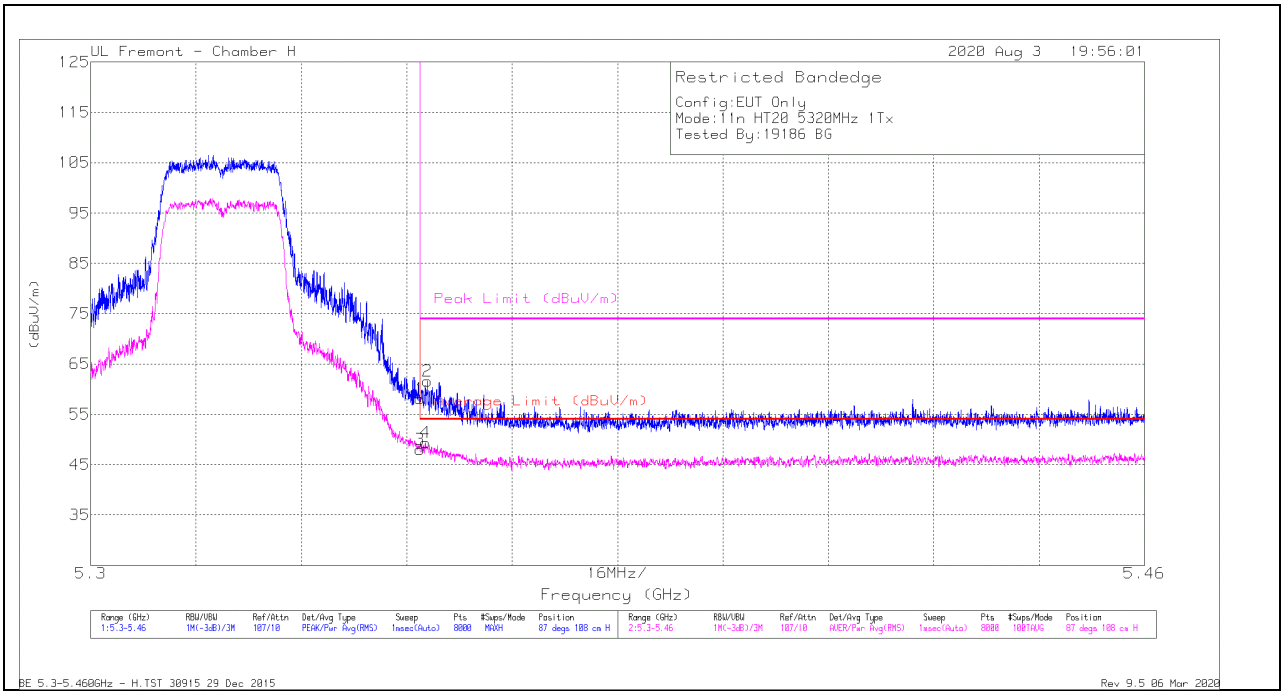
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1TX Antenna 6 MODE, MCS 7

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT

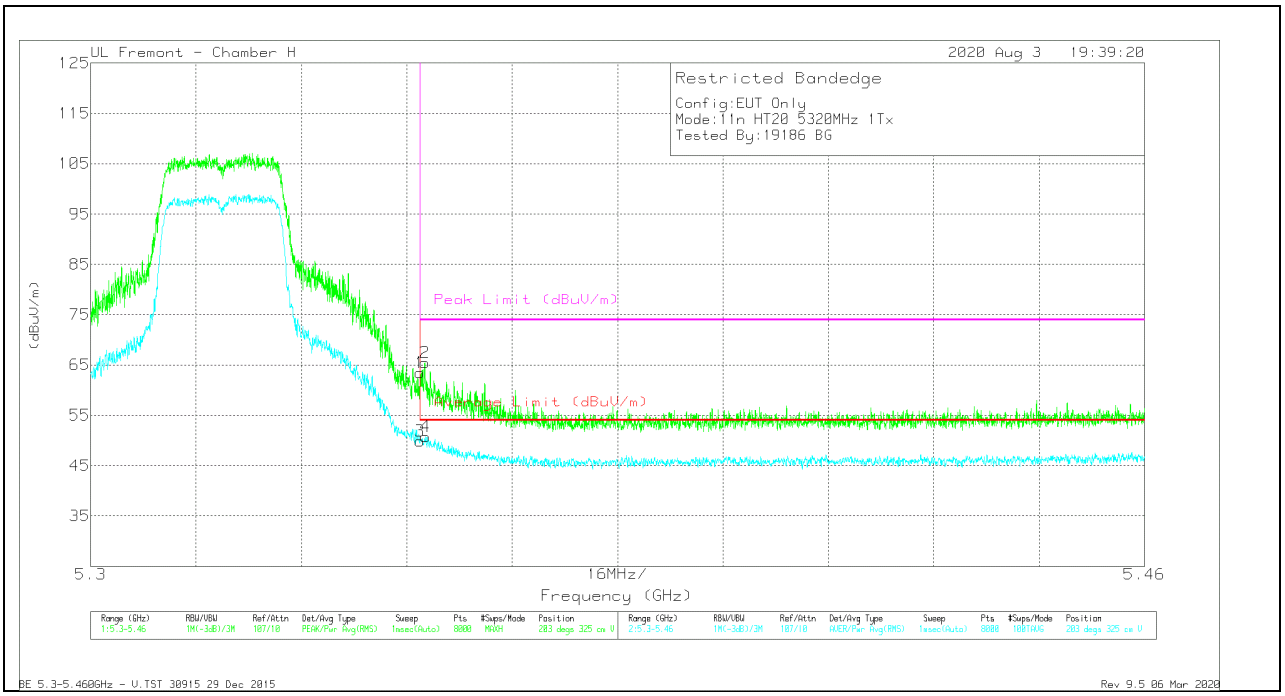


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	44.09	Pk	34.9	-20.9	0	58.09	-	-	74	-15.91	87	108	H
2	* 5.35115	47.56	Pk	34.9	-20.9	0	61.56	-	-	74	-12.44	87	108	H
3	* 5.35001	34.01	RMS	34.9	-20.9	0.36	48.37	54	-5.63	-	-	87	108	H
4	* 5.35081	35.34	RMS	34.9	-20.9	0.36	49.7	54	-4.3	-	-	87	108	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.35001	49.41	Pk	34.9	-20.9	0	63.41	-	-	74	-10.59	203	325	V
2	* 5.35073	51.46	Pk	34.9	-20.9	0	65.46	-	-	74	-8.54	203	325	V
3	* 5.35001	35.88	RMS	34.9	-20.9	0.36	50.24	54	-3.76	-	-	203	325	V
4	* 5.35089	36.71	RMS	34.9	-20.9	0.36	51.07	54	-2.93	-	-	203	325	V

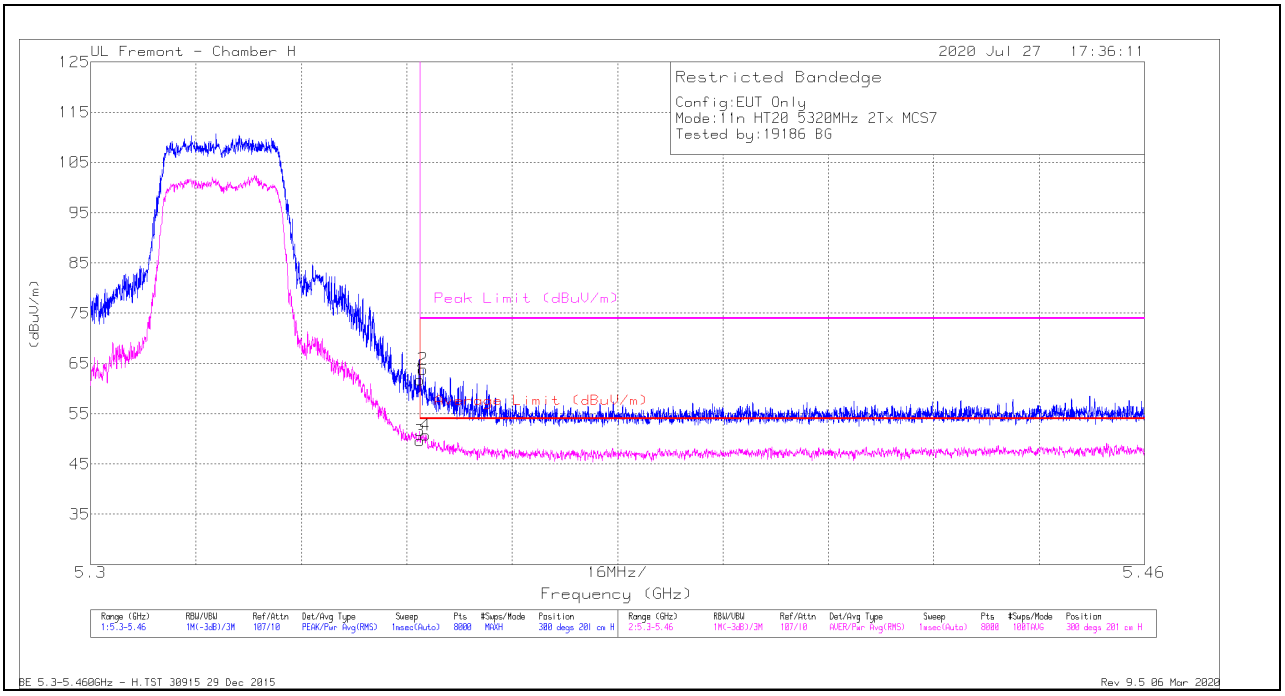
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

2TX Antenna 5 + Antenna 6 CDD MODE

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT

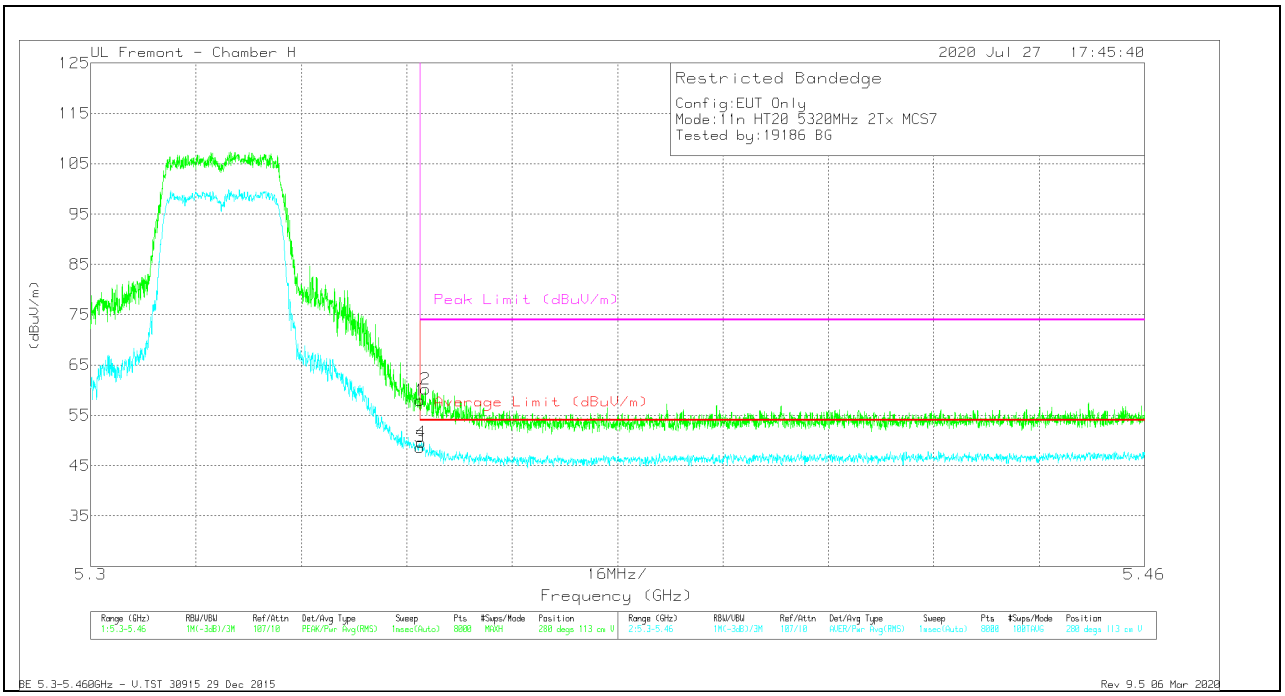


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	47.69	Pk	34.9	-20.9	0	61.69	-	-	74	-12.31	300	201	H
2	* 5.35047	49.9	Pk	34.9	-20.9	0	63.9	-	-	74	-10.1	300	201	H
3	* 5.35001	35.03	RMS	34.9	-20.9	0.36	49.39	54	-4.61	-	-	300	201	H
4	* 5.35089	36.22	RMS	34.9	-20.9	0.36	50.58	54	-3.42	-	-	300	201	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



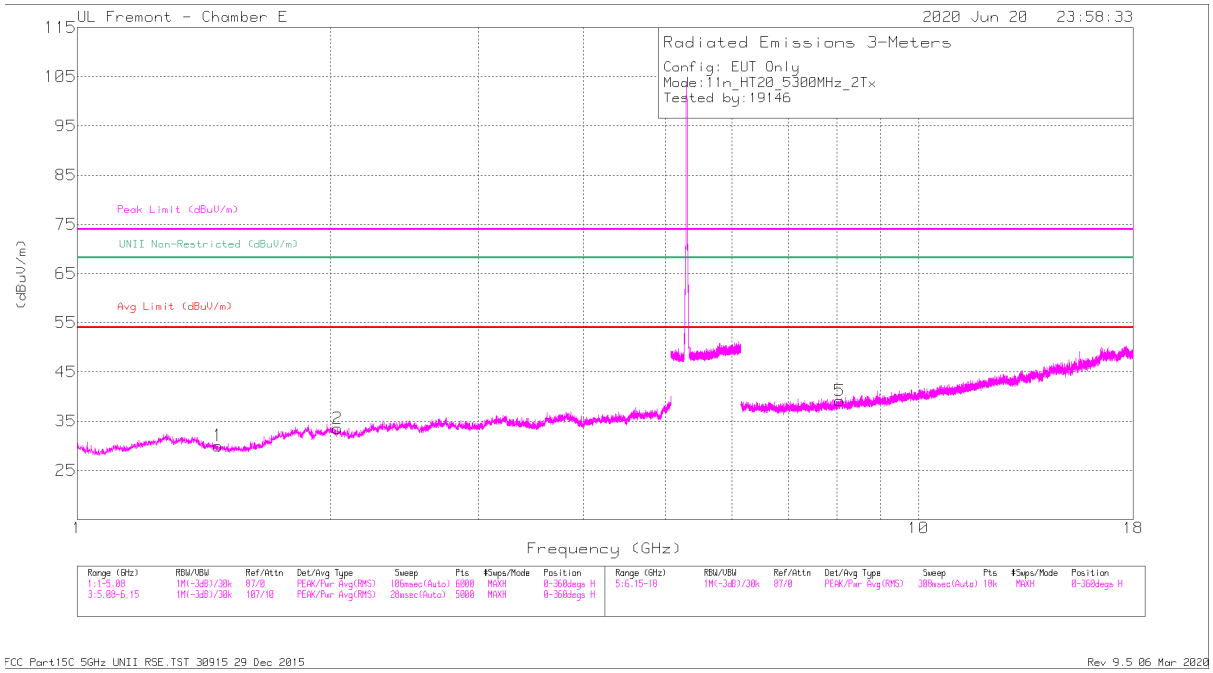
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	44.02	Pk	34.9	-20.9	0	58.02	-	-	74	-15.98	280	113	V
2	* 5.35083	46.28	Pk	34.9	-20.9	0	60.28	-	-	74	-13.72	280	113	V
3	* 5.35001	34.11	RMS	34.9	-20.9	0.36	48.47	54	-5.53	-	-	280	113	V
4	* 5.35021	35.09	RMS	34.9	-20.9	0.36	49.45	54	-4.55	-	-	280	113	V

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

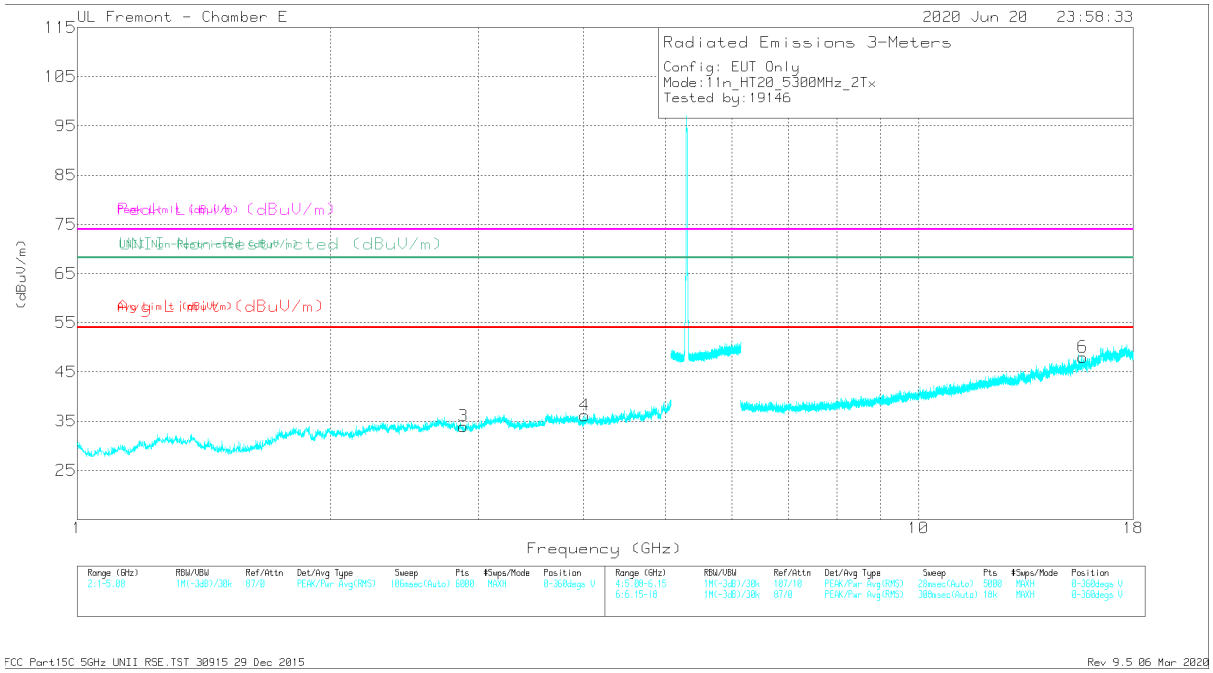
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

RADIATED EMISSIONS

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (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	* 1.47198	44.38	PK-U	28.3	-35.7	36.98	-	-	74	-37.02	-	-	0	101	H
	* 1.46867	32.98	ADR	28.3	-35.8	25.48	54	-28.52	-	-	-	-	0	101	H
3	* 2.87378	45.28	PK-U	32.6	-35.7	42.18	-	-	74	-31.82	-	-	0	101	V
	* 2.87391	33.63	ADR	32.6	-35.7	30.53	54	-23.47	-	-	-	-	0	101	V
4	* 4.01105	42.06	PK-U	33.5	-33	42.56	-	-	74	-31.44	-	-	0	199	V
	* 4.01393	30.86	ADR	33.5	-33	31.36	54	-22.64	-	-	-	-	0	199	V
5	* 8.06337	38.28	PK-U	35.8	-28	46.08	-	-	74	-27.92	-	-	0	101	H
	* 8.06205	27.05	ADR	35.9	-28	34.95	54	-19.05	-	-	-	-	0	101	H
6	* 15.67903	35.67	PK-U	40.3	-21.1	54.87	-	-	74	-19.13	-	-	0	200	V
	* 15.67802	24.34	ADR	40.3	-21.1	43.54	54	-10.46	-	-	-	-	0	200	V
2	2.0377	45.51	PK-U	31.6	-36.2	40.91	-	-	-	-	68.2	-27.29	0	199	H
	2.03982	33.73	ADR	31.6	-36.2	29.13	-	-	-	-	-	-	0	199	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

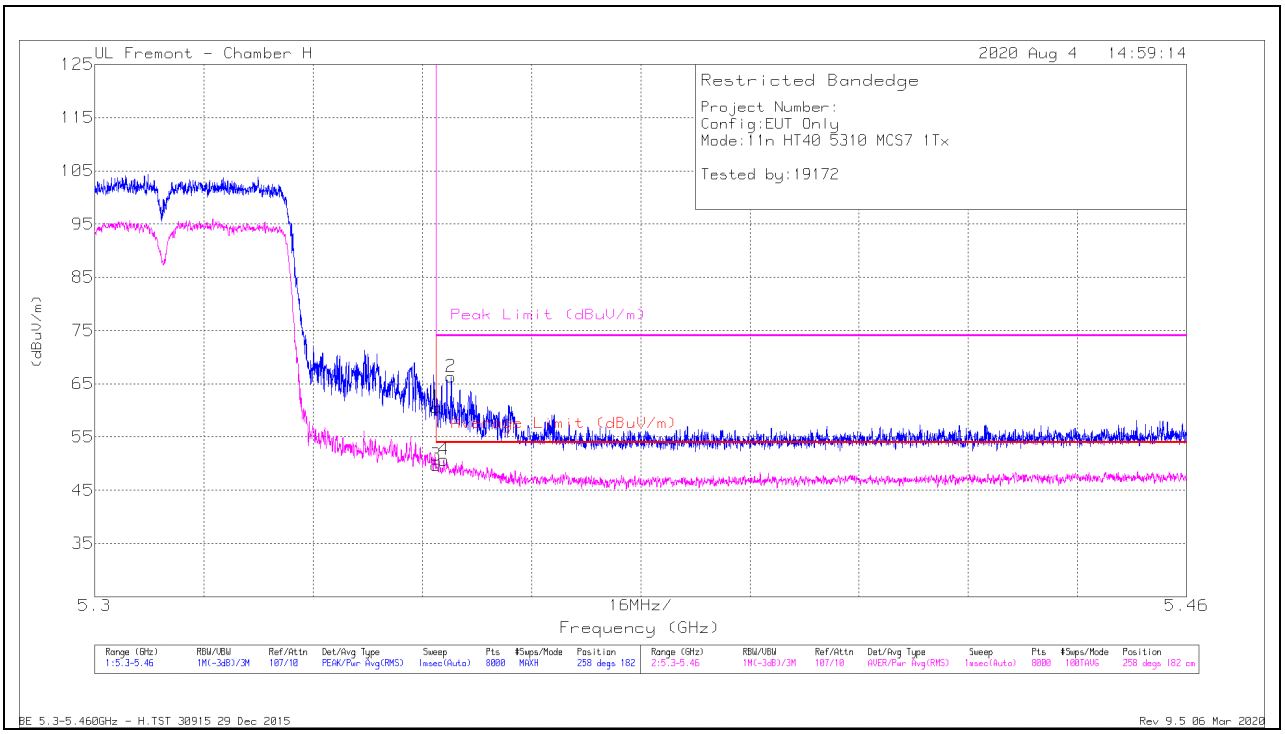
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1.1.8. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.3 GHz BAND

1TX Antenna 5 MODE

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT

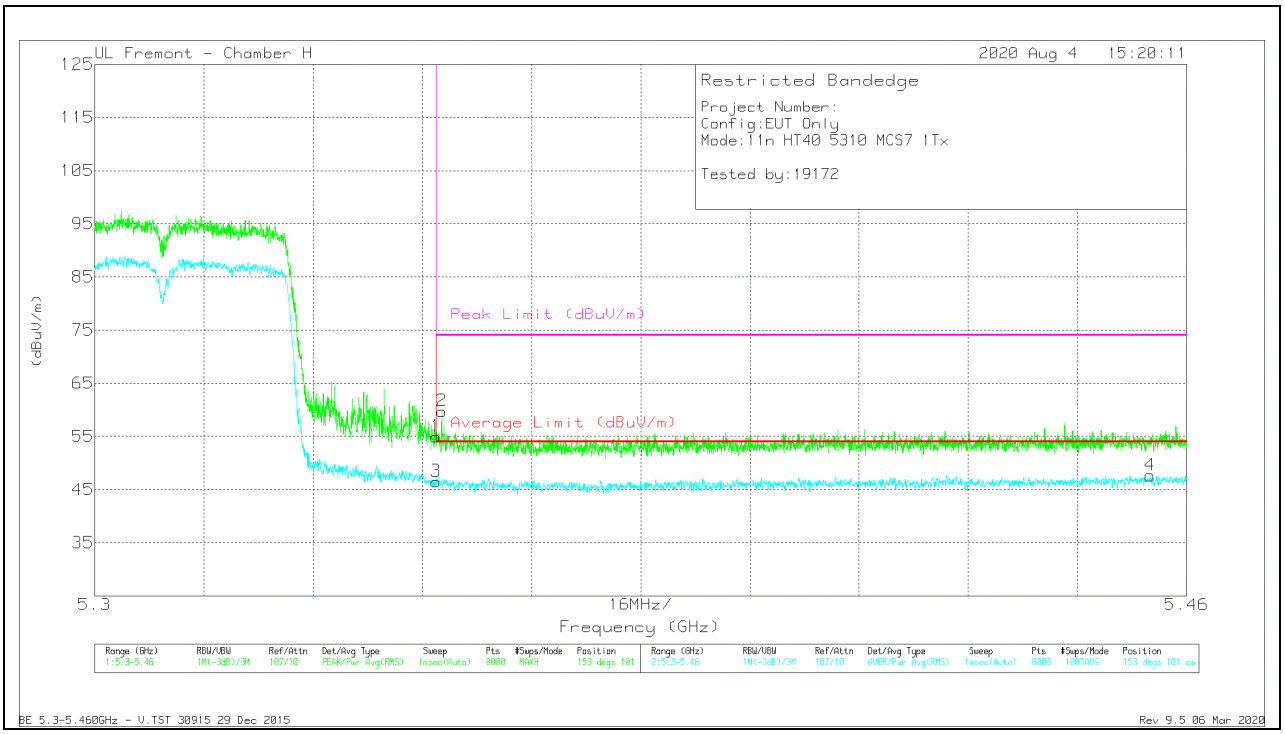


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	46.57	Pk	34.9	-20.9	0	60.57	-	-	74	-13.43	258	182	H
2	* 5.35223	52.44	Pk	34.9	-21	0	66.34	-	-	74	-7.66	258	182	H
3	* 5.35001	35.07	RMS	34.9	-20.9	0.61	49.68	54	-4.32	-	-	258	182	H
4	* 5.35115	36.11	RMS	34.9	-20.9	0.61	50.72	54	-3.28	-	-	258	182	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.35001	40.97	Pk	34.9	-20.9	0	54.97	-	-	74	-19.03	153	101	V
2	* 5.35085	45.76	Pk	34.9	-20.9	0	59.76	-	-	74	-14.24	153	101	V
3	* 5.35001	31.91	RMS	34.9	-20.9	0.61	46.52	54	-7.48	-	-	153	101	V
4	* 5.45466	32.74	RMS	35.2	-20.9	0.61	47.65	54	-6.35	-	-	153	101	V

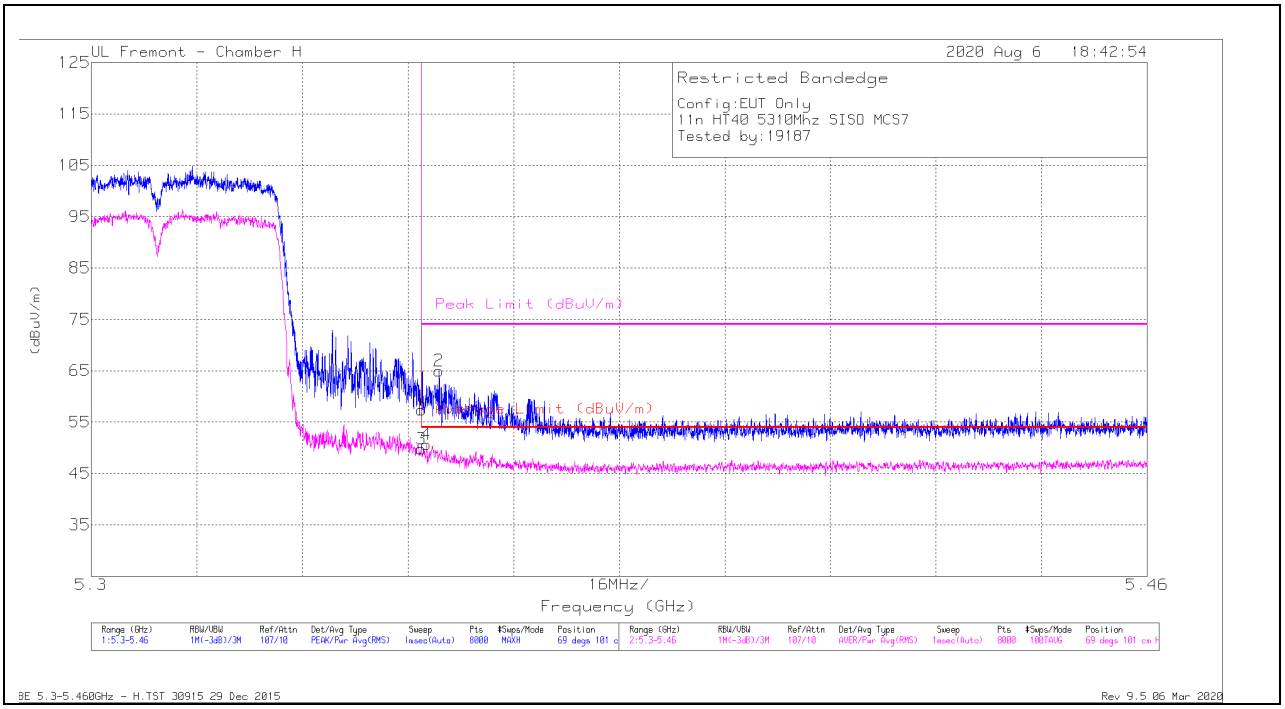
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1TX Antenna 6 MODE

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT

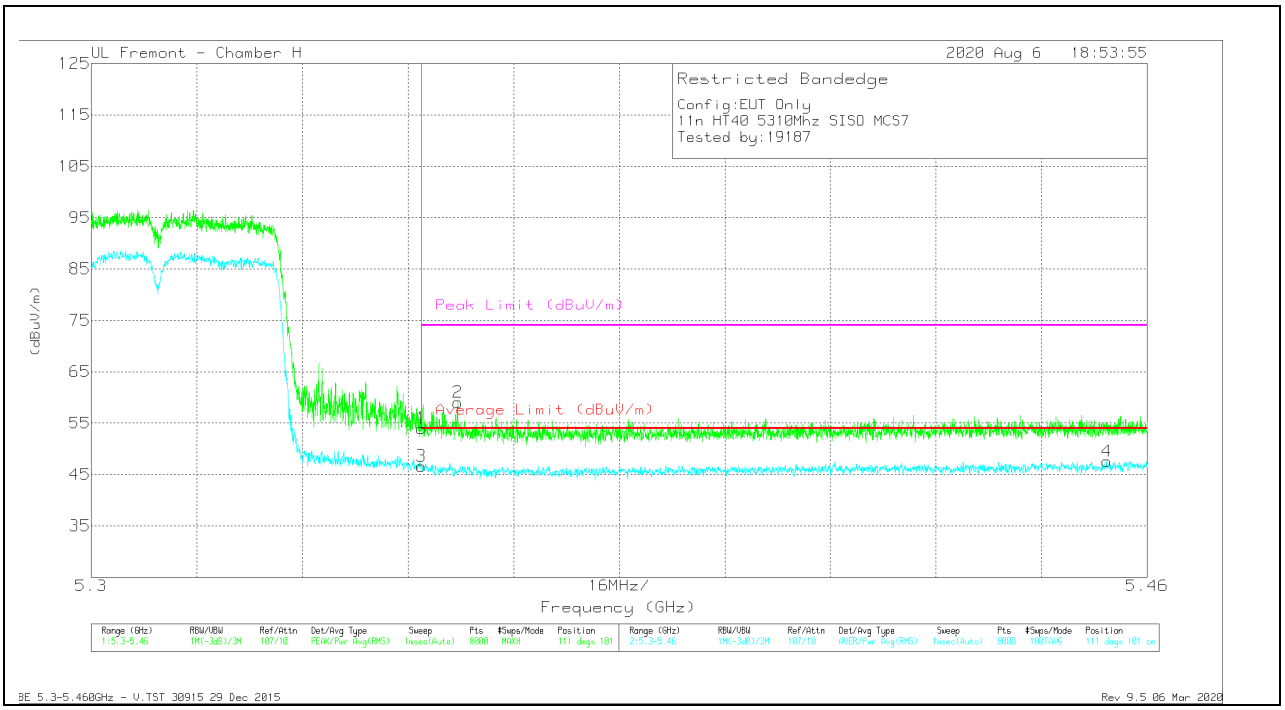


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	43.37	Pk	34.9	-20.9	0	57.37	-	-	74	-16.63	69	101	H
2	* 5.35271	51.09	Pk	34.9	-21	0	64.99	-	-	74	-9.01	69	101	H
3	* 5.35001	35.16	RMS	34.9	-20.9	.62	49.78	54	-4.22	-	-	69	101	H
4	* 5.35077	36.03	RMS	34.9	-20.9	.62	50.65	54	-3.35	-	-	69	101	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.35001	39.98	Pk	34.9	-20.9	0	53.98	-	-	74	-20.02	111	101	V
2	* 5.35553	45.03	Pk	34.9	-20.9	0	59.03	-	-	74	-14.97	111	101	V
3	* 5.35001	32.02	RMS	34.9	-20.9	.62	46.64	54	-7.36	-	-	111	101	V
4	* 5.45386	32.65	RMS	35.2	-20.9	.62	47.57	54	-6.43	-	-	111	101	V

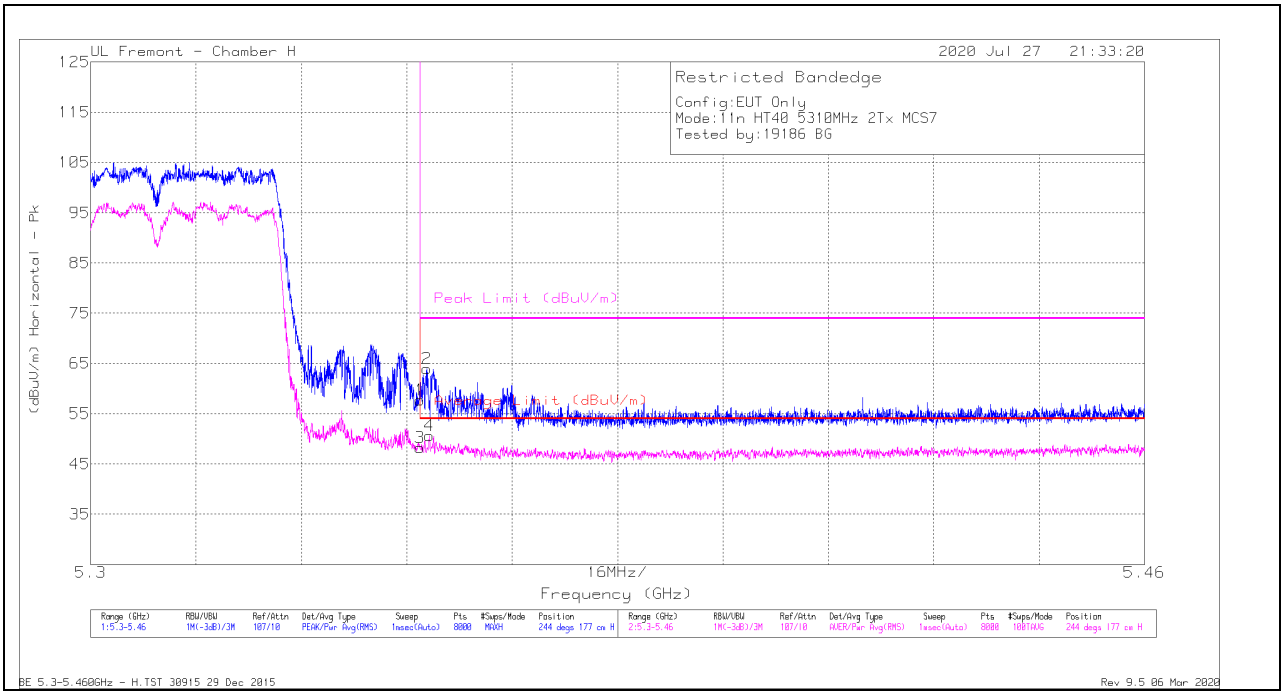
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

2TX Antenna 5 + Antenna 6 CDD MODE

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT

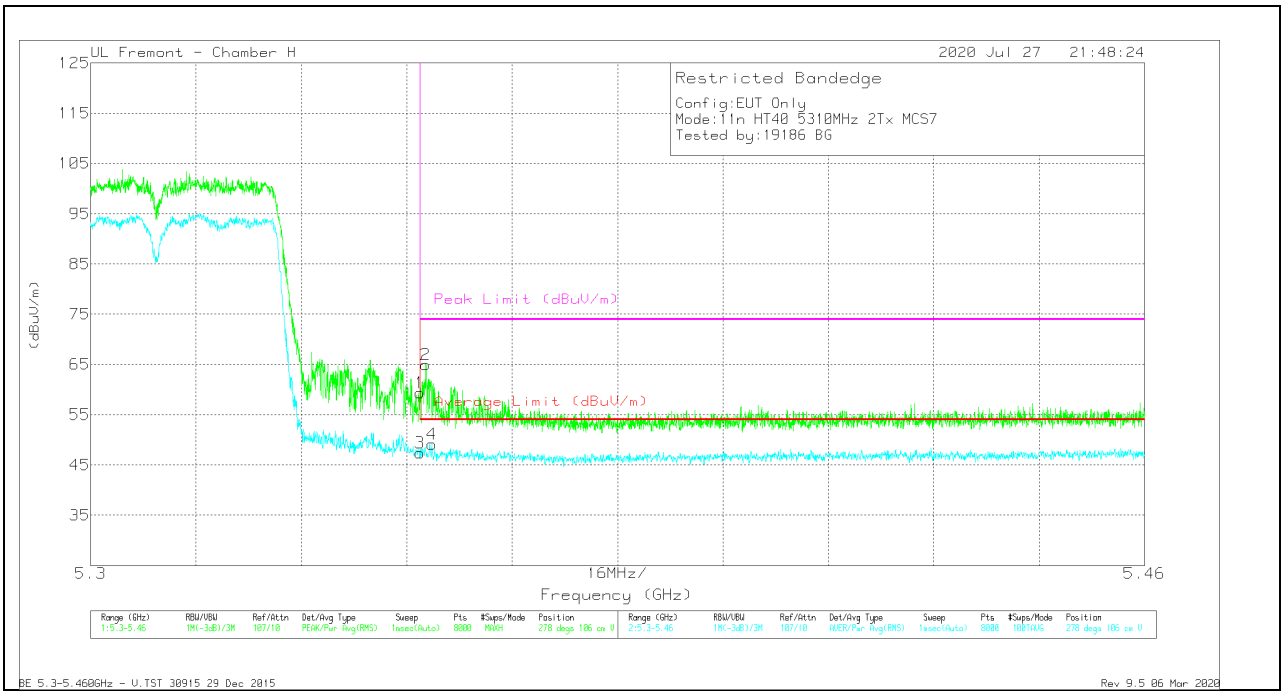


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	43.74	Pk	34.9	-20.9	0	57.74	-	-	74	-16.26	244	177	H
2	* 5.35101	49.95	Pk	34.9	-20.9	0	63.95	-	-	74	-10.05	244	177	H
3	* 5.35001	33.34	RMS	34.9	-20.9	0.61	47.95	54	-6.05	-	-	244	177	H
4	* 5.35143	35.78	RMS	34.9	-20.9	0.61	50.39	54	-3.61	-	-	244	177	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



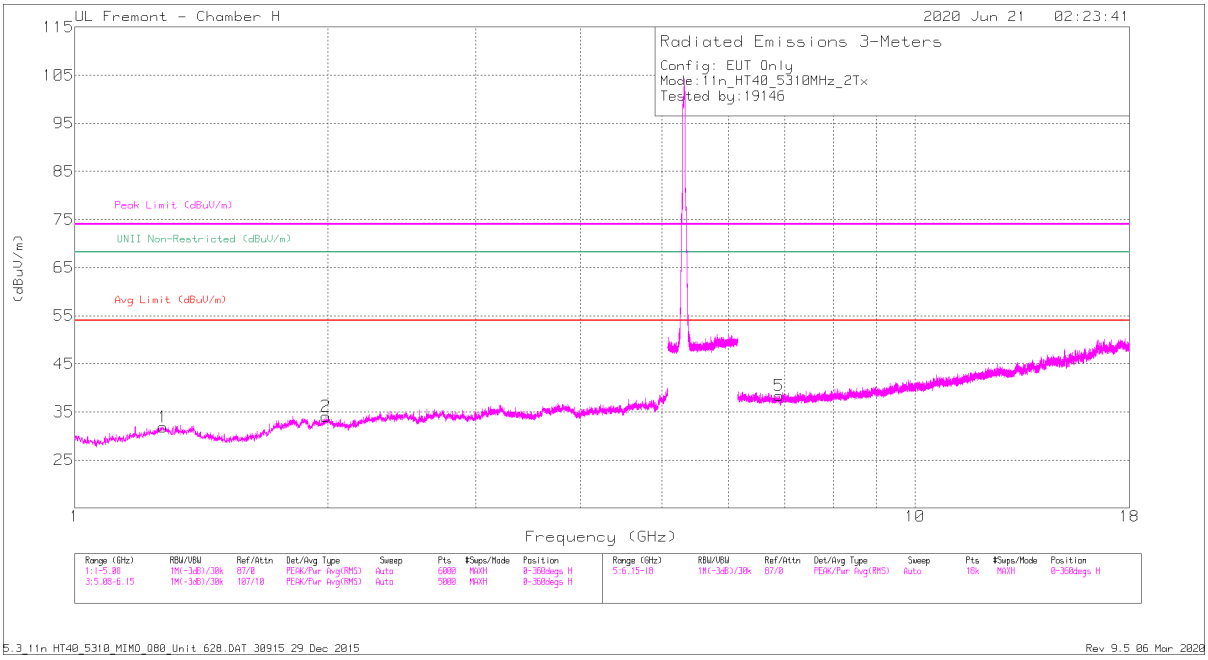
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	45.34	Pk	34.9	-20.9	0	59.34	-	-	74	-14.66	278	106	V
2	* 5.35089	50.91	Pk	34.9	-20.9	0	64.91	-	-	74	-9.09	278	106	V
3	* 5.35001	32.55	RMS	34.9	-20.9	0.61	47.16	54	-6.84	-	-	278	106	V
4	* 5.35181	34.35	RMS	34.9	-21	0.61	48.86	54	-5.14	-	-	278	106	V

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

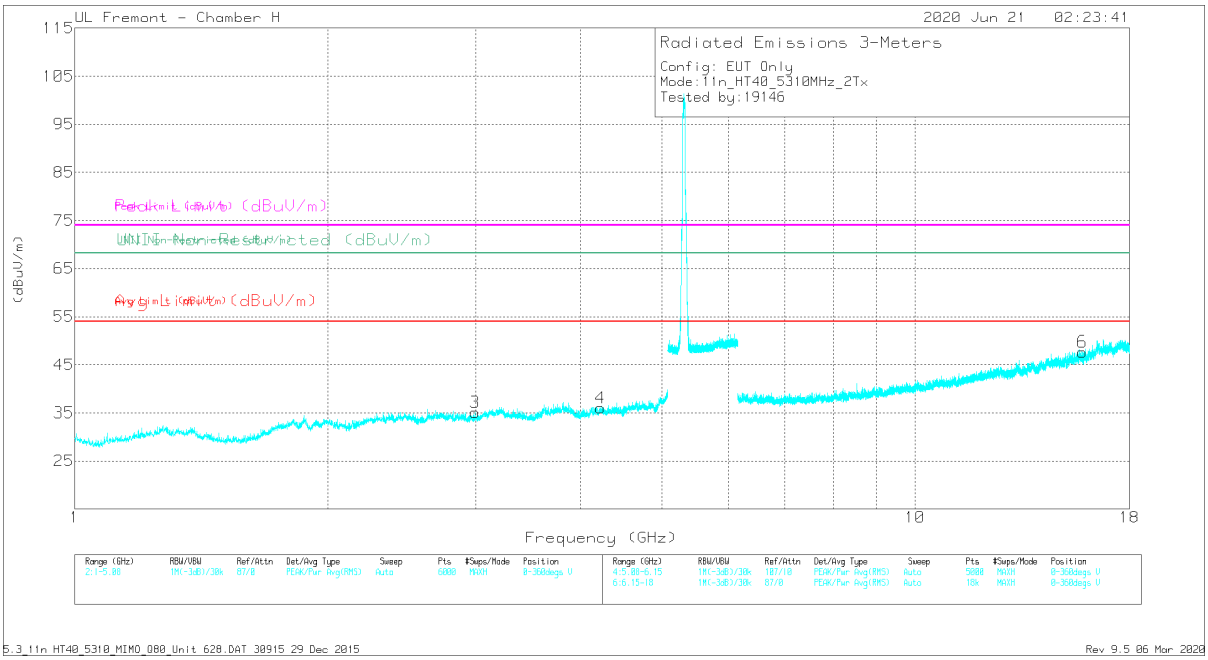
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

HARMONICS AND SPURIOUS EMISSIONS

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (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	* 1.27551	44.93	PK-U	29.7	-34.8	0	39.83	-	-	74	-34.17	-	-	0	200	H
	* 1.2734	33.39	ADR	29.7	-34.8	.09	28.38	54	-25.62	-	-	-	-	0	200	H
4	* 4.22096	42.11	PK-U	33.5	-32.3	0	43.31	-	-	74	-30.69	-	-	0	101	V
	* 4.22156	30.76	ADR	33.5	-32.3	.09	32.05	54	-21.95	-	-	-	-	0	101	V
6	* 15.81616	35.03	PK-U	40.2	-21.3	0	53.93	-	-	74	-20.07	-	-	0	101	V
	* 15.81806	24.05	ADR	40.2	-21.3	.09	43.04	54	-10.96	-	-	-	-	0	101	V
2	1.99089	34.08	ADR	31.7	-35.9	.09	29.97	-	-	-	-	-	-	0	200	H
	1.99189	45.74	PK-U	31.7	-35.8	0	41.64	-	-	-	-	68.2	-26.56	0	200	H
3	2.99526	45.06	PK-U	32.9	-35.5	0	42.46	-	-	-	-	68.2	-25.74	0	200	V
	2.99592	32.96	ADR	32.9	-35.5	.09	30.45	-	-	-	-	-	-	0	200	V
5	6.88541	27.45	ADR	35.7	-28.8	.09	34.44	-	-	-	-	-	-	0	101	H
	6.88757	38.17	PK-U	35.7	-28.8	0	45.07	-	-	-	-	68.2	-23.13	0	101	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

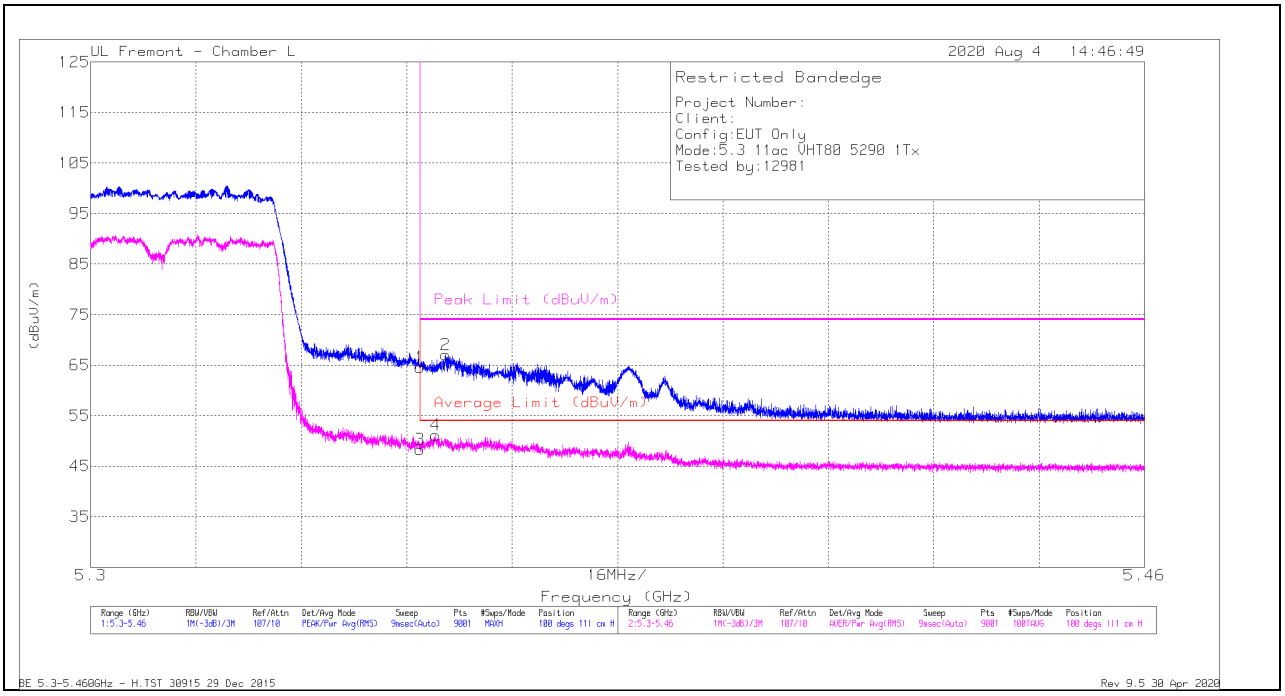
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1.1.9. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.3 GHz BAND

1TX Antenna 5 MODE, MCS 9

BANDEDGE (MID CHANNEL)

HORIZONTAL RESULT

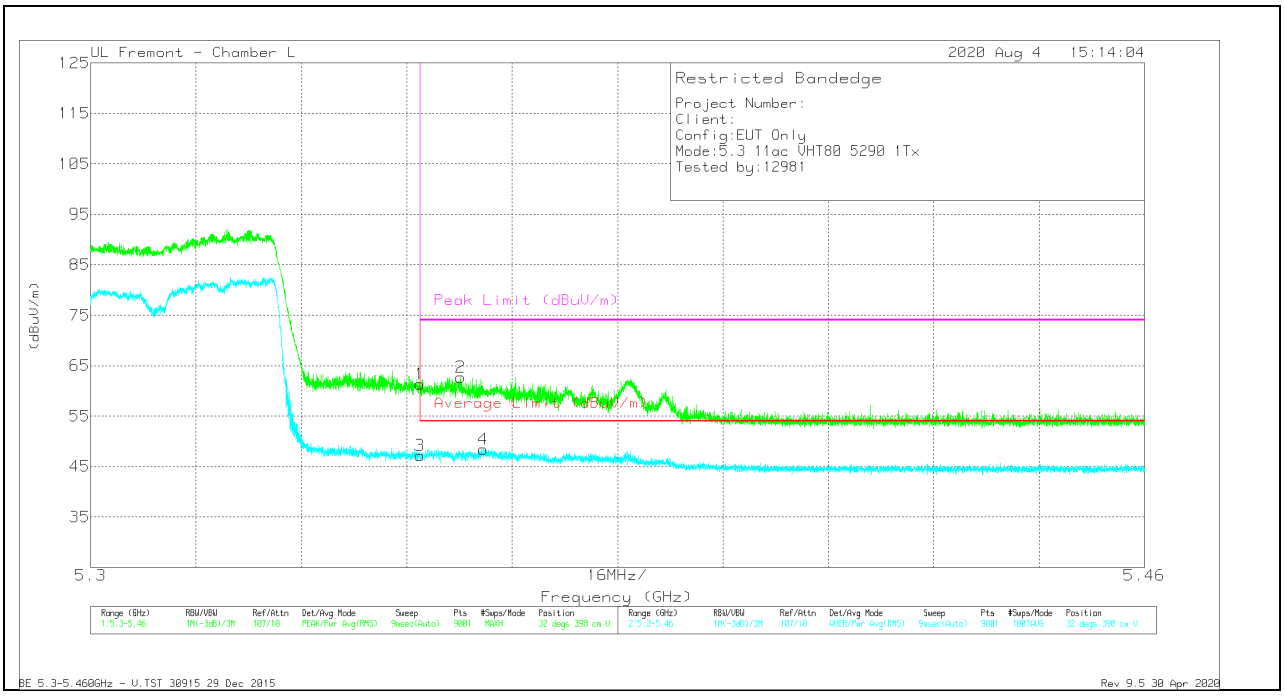


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	47.18	Pk	34.5	-17.1	0	64.58	-	-	74	-9.42	100	111	H
2	* 5.35389	49.63	Pk	34.5	-17.1	0	67.03	-	-	74	-6.97	100	111	H
3	* 5.35001	29.8	RMS	34.5	-17.1	1.06	48.26	54	-5.74	-	-	100	111	H
4	* 5.35239	32.68	RMS	34.5	-17.1	1.06	51.14	54	-2.86	-	-	100	111	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (dB/m)	Amp/Cbl/Filtr/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	* 5.35001	43.97	Pk	34.5	-17.1	0	61.37	-	-	74	-12.63	32	398	V
2	* 5.35616	45.3	Pk	34.5	-17.1	0	62.7	-	-	74	-11.3	32	398	V
3	* 5.35001	28.67	RMS	34.5	-17.1	1.06	47.13	54	-6.87	-	-	32	398	V
4	* 5.35956	30.01	RMS	34.5	-17.1	1.06	48.47	54	-5.53	-	-	32	398	V

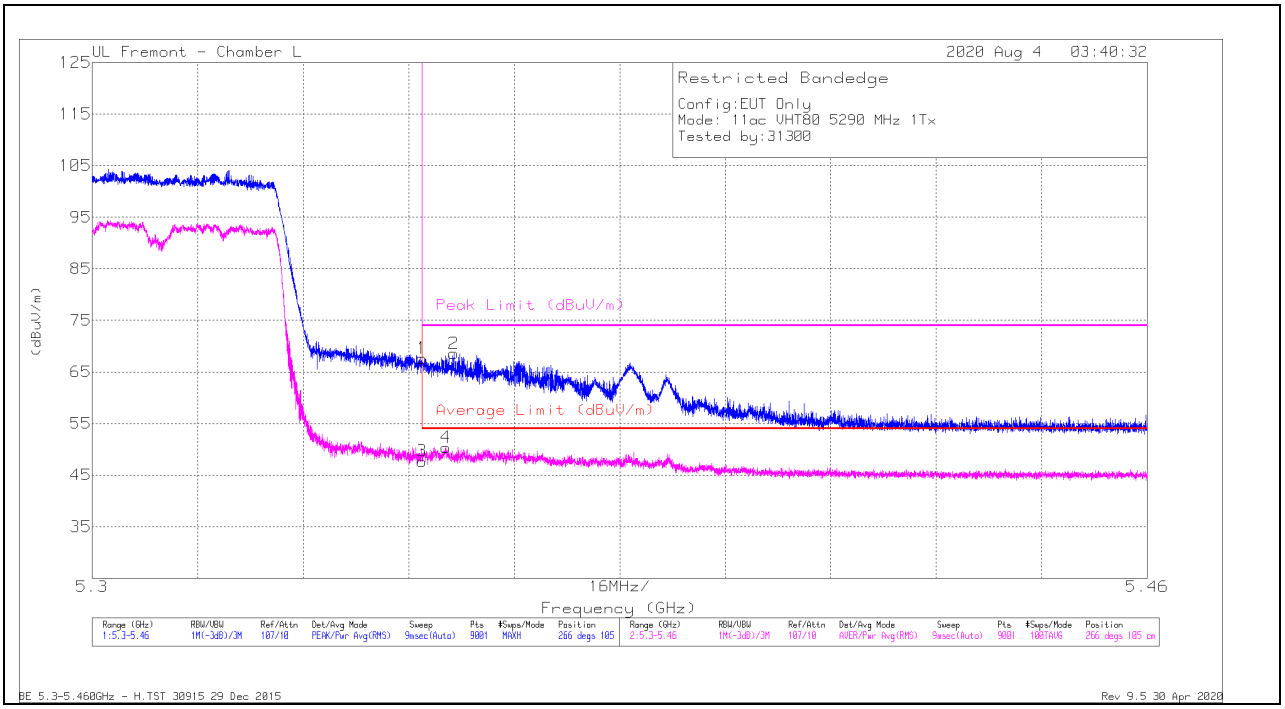
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1TX Antenna 6 MODE

BANDEDGE (MID CHANNEL)

HORIZONTAL RESULT

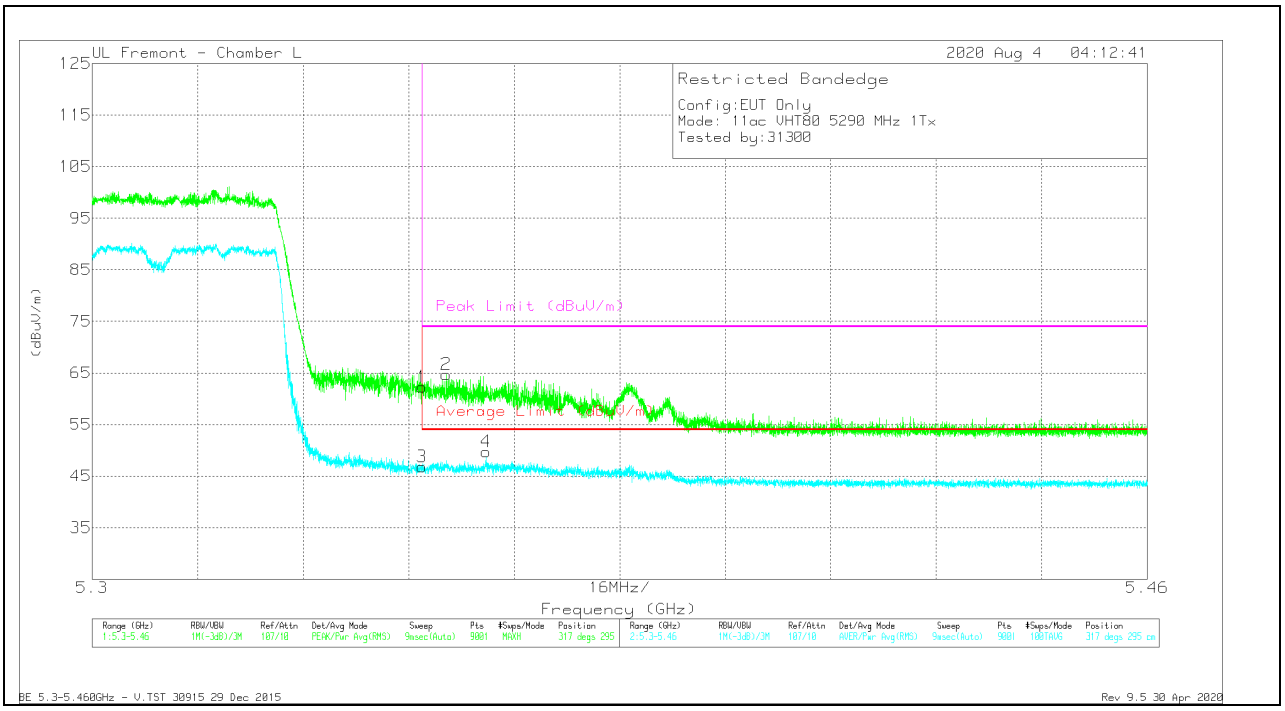


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	50.23	Pk	34.5	-17.1	0	67.63	-	-	74	-6.37	266	105	H
2	* 5.35483	51.17	Pk	34.5	-17.1	0	68.57	-	-	74	-5.43	266	105	H
3	* 5.35001	29.23	RMS	34.5	-17.1	1.06	47.69	54	-6.31	-	-	266	105	H
4	* 5.35365	31.89	RMS	34.5	-17.1	1.06	50.35	54	-3.65	-	-	266	105	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	* 5.35001	44.86	Pk	34.5	-17.1	0	62.26	-	-	74	-11.74	317	295	V
2	* 5.35369	47.34	Pk	34.5	-17.1	0	64.74	-	-	74	-9.26	317	295	V
3	* 5.35001	28.34	RMS	34.5	-17.1	1.06	46.80	54	-7.20	-	-	317	295	V
4	* 5.35975	31.27	RMS	34.5	-17.1	1.06	49.73	54	-4.27	-	-	317	295	V

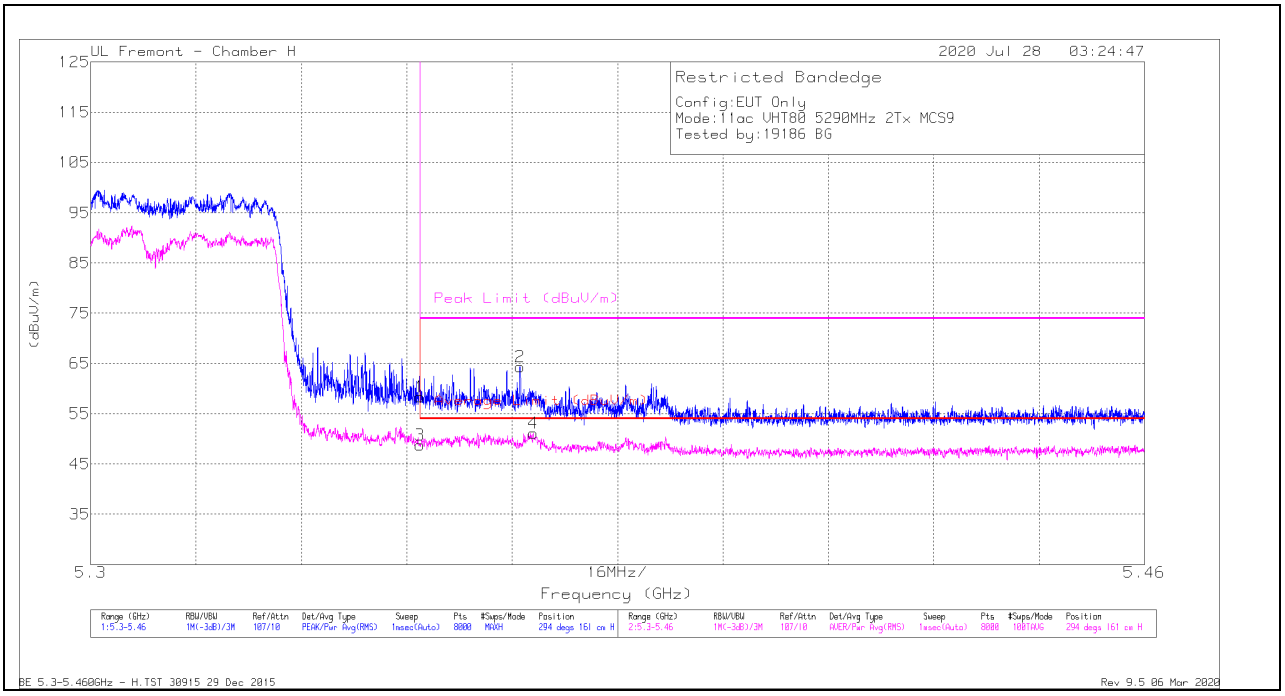
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

2TX Antenna 5 + Antenna 6 CDD MODE

BANDEDGE (MID CHANNEL)

HORIZONTAL RESULT

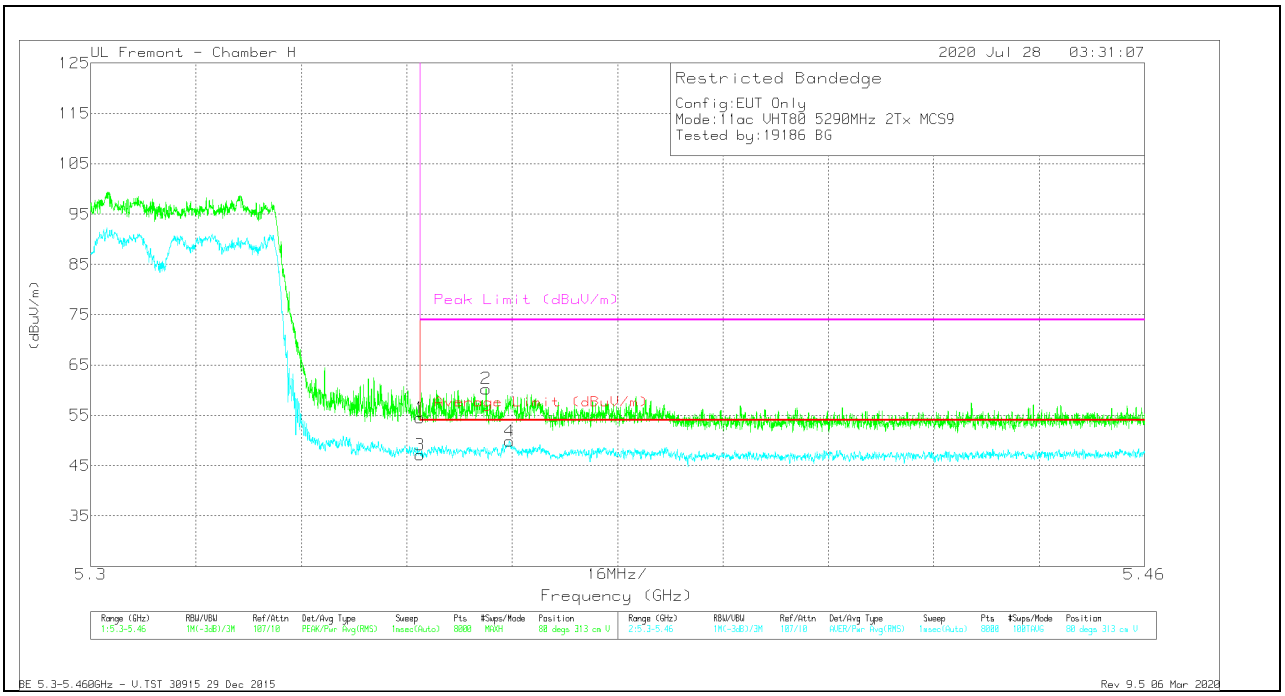


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	44.31	Pk	34.9	-20.9	0	58.31	-	-	74	-15.69	294	161	H
2	* 5.36523	50.22	Pk	35	-20.9	0	64.32	-	-	74	-9.68	294	161	H
3	* 5.35001	33.5	RMS	34.9	-20.9	1.06	48.56	54	-5.44	-	-	294	161	H
4	* 5.36719	35.79	RMS	35	-20.9	1.06	50.95	54	-3.05	-	-	294	161	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



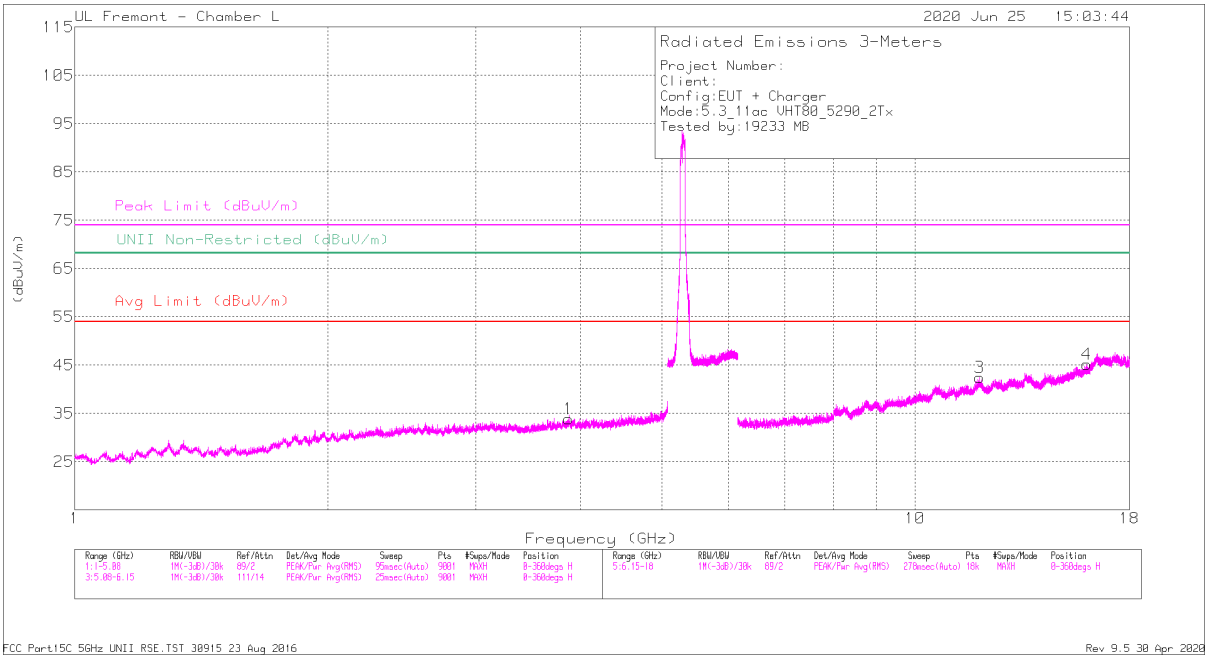
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	40.44	Pk	34.9	-20.9	0	54.44	-	-	74	-19.56	80	313	V
2	* 5.36003	46.29	Pk	34.9	-20.9	0	60.29	-	-	74	-13.71	80	313	V
3	* 5.35001	31.8	RMS	34.9	-20.9	1.06	46.86	54	-7.14	-	-	80	313	V
4	* 5.36355	34.57	RMS	34.9	-20.9	1.06	49.63	54	-4.37	-	-	80	313	V

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

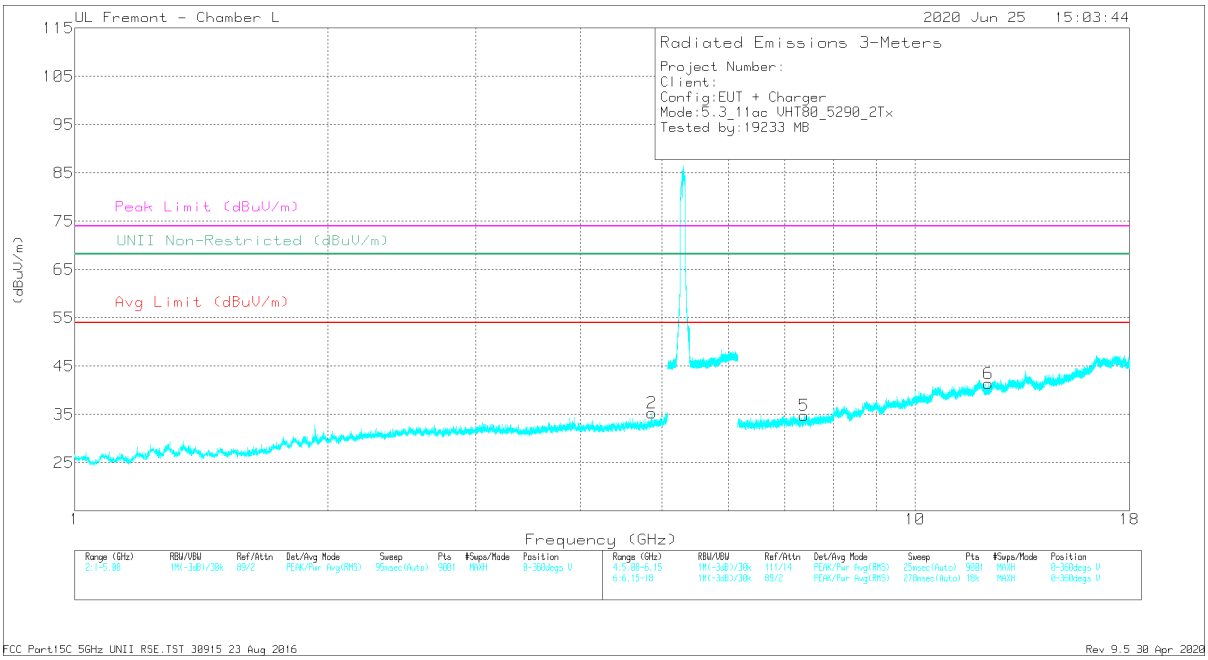
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 344 (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	* 3.87192	37.49	PK-U	33.5	-28.2	0	42.79	-	-	74	-31.21	-	-	257	339	H
	* 3.87319	27.2	ADR	33.5	-28.2	.19	32.69	54	-21.31	-	-	-	-	257	339	H
2	* 4.86095	37.11	PK-U	34.2	-26.3	0	45.01	-	-	74	-28.99	-	-	268	358	V
	* 4.8577	26.06	ADR	34.2	-26.4	.19	34.05	54	-19.95	-	-	-	-	268	358	V
3	* 11.92933	31.59	PK-U	38.6	-19.6	0	50.59	-	-	74	-23.41	-	-	309	360	H
	* 11.92978	21.21	ADR	38.6	-19.5	.19	40.5	54	-13.5	-	-	-	-	309	360	H
4	* 16.01925	29.81	PK-U	41.2	-18.6	0	52.41	-	-	74	-21.59	-	-	134	347	H
	* 16.02181	20.41	ADR	41.2	-18.6	.19	43.2	54	-10.8	-	-	-	-	134	347	H
5	* 7.3868	32.54	PK-U	35.5	-23.2	0	44.84	-	-	74	-29.16	-	-	143	355	V
	* 7.3869	23.08	ADR	35.5	-23.2	.19	35.57	54	-18.43	-	-	-	-	143	355	V
6	* 12.2312	29.87	PK-U	38.9	-19.7	0	49.07	-	-	74	-24.93	-	-	301	367	V
	* 12.23341	19.88	ADR	38.9	-19.7	.19	39.27	54	-14.73	-	-	-	-	301	367	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

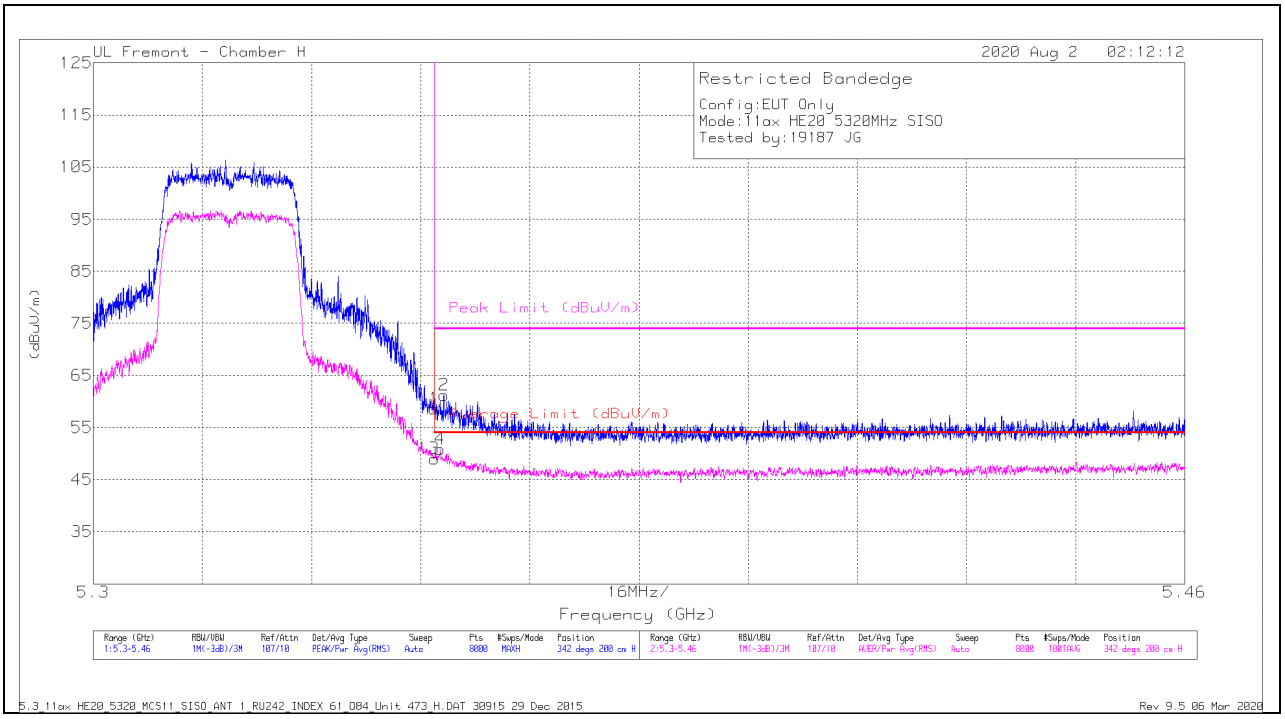
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1.1.10. TX ABOVE 1 GHz 802.11ax HE20 MODE IN THE 5.3 GHz BAND

1TX Antenna 5 MODE – MCS 11, 242 Tones, RU Index 61

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT

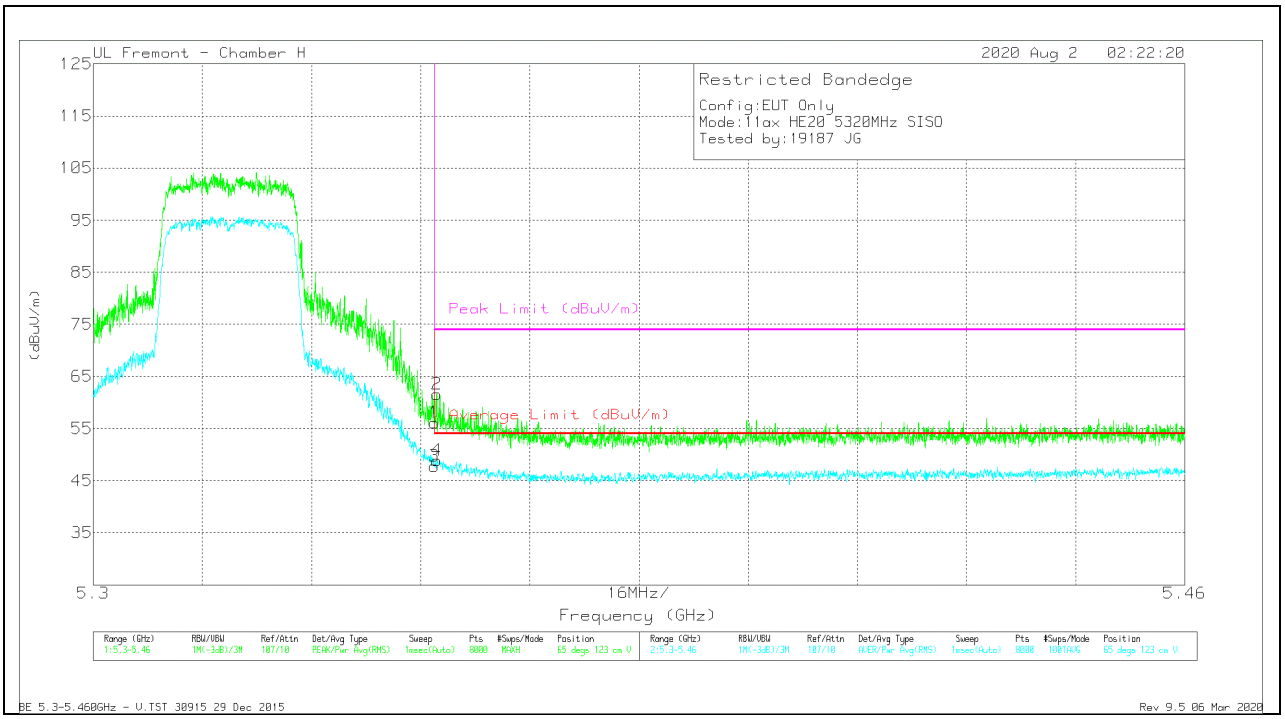


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	44.59	Pk	34.9	-20.9	0	58.59	-	-	74	-15.41	342	200	H
2	* 5.35139	47.21	Pk	34.9	-20.9	0	61.21	-	-	74	-12.79	342	200	H
3	* 5.35001	34.59	RMS	34.9	-20.9	0	48.59	54	-5.41	-	-	342	200	H
4	* 5.35085	36.38	RMS	34.9	-20.9	0	50.38	54	-3.62	-	-	342	200	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.35001	42.07	Pk	34.9	-20.9	0	56.07	-	-	74	-17.93	65	123	V
2	* 5.35035	47.57	Pk	34.9	-20.9	0	61.57	-	-	74	-12.43	65	123	V
3	* 5.35001	33.27	RMS	34.9	-20.9	0	47.27	54	-6.73	-	-	65	123	V
4	* 5.35041	34.47	RMS	34.9	-20.9	0	48.47	54	-5.53	-	-	65	123	V

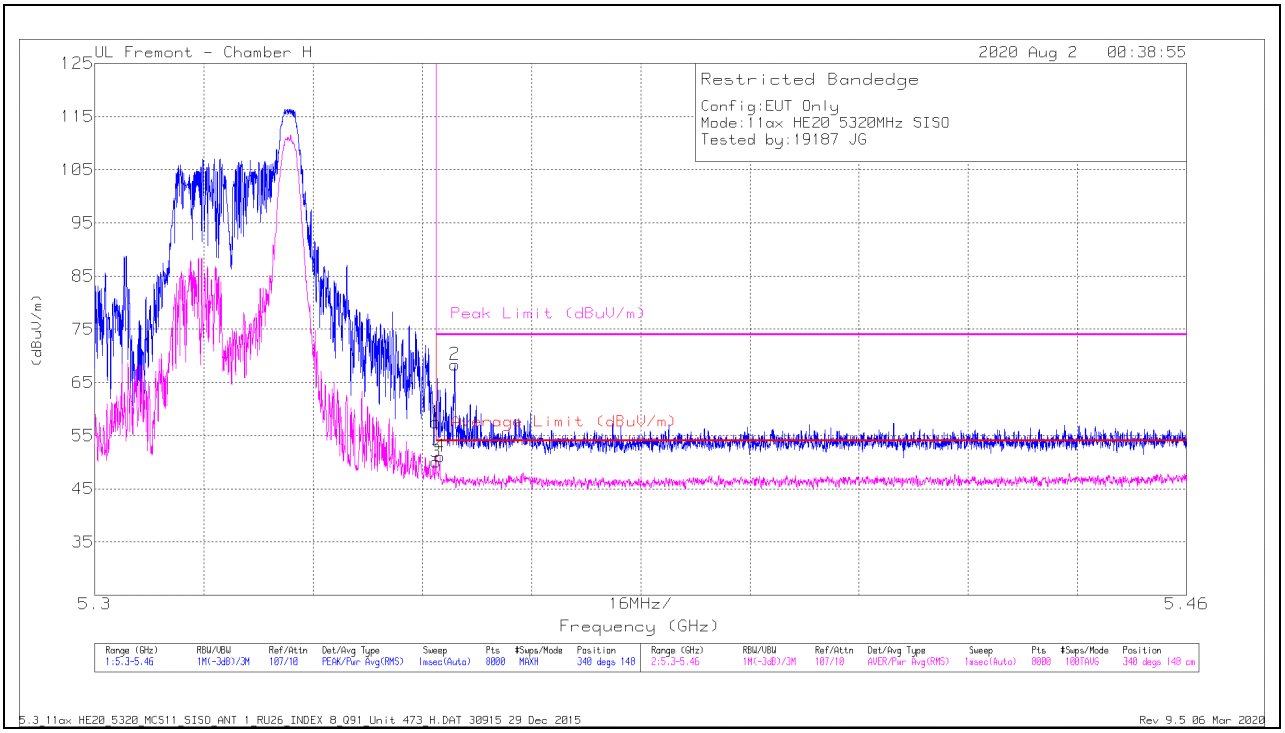
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1TX Antenna 5 MODE – MCS 11, 26 Tones, RU Index 8

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT

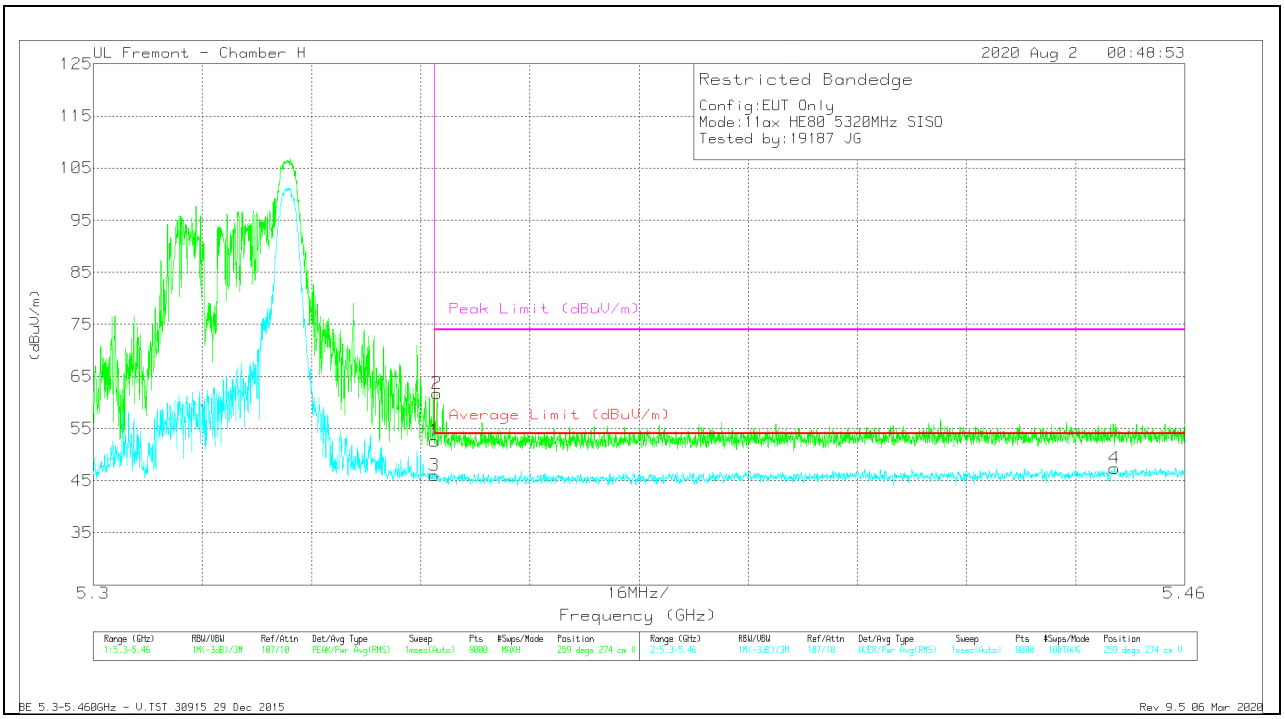


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	43.51	Pk	34.9	-20.9	0	57.51	-	-	74	-16.49	340	148	H
2	* 5.35275	54.46	Pk	34.9	-21	0	68.36	-	-	74	-5.64	340	148	H
3	* 5.35001	35.64	RMS	34.9	-20.9	0	49.64	54	-4.36	-	-	340	148	H
4	* 5.35059	36.64	RMS	34.9	-20.9	0	50.64	54	-3.36	-	-	340	148	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.35001	38.63	Pk	34.9	-20.9	0	52.63	-	-	74	-21.37	259	274	V
2	* 5.35039	47.77	Pk	34.9	-20.9	0	61.77	-	-	74	-12.23	259	274	V
3	* 5.35001	31.56	RMS	34.9	-20.9	0	45.56	54	-8.44	-	-	259	274	V
4	* 5.44968	32.66	RMS	35.1	-20.8	0	46.96	54	-7.04	-	-	259	274	V

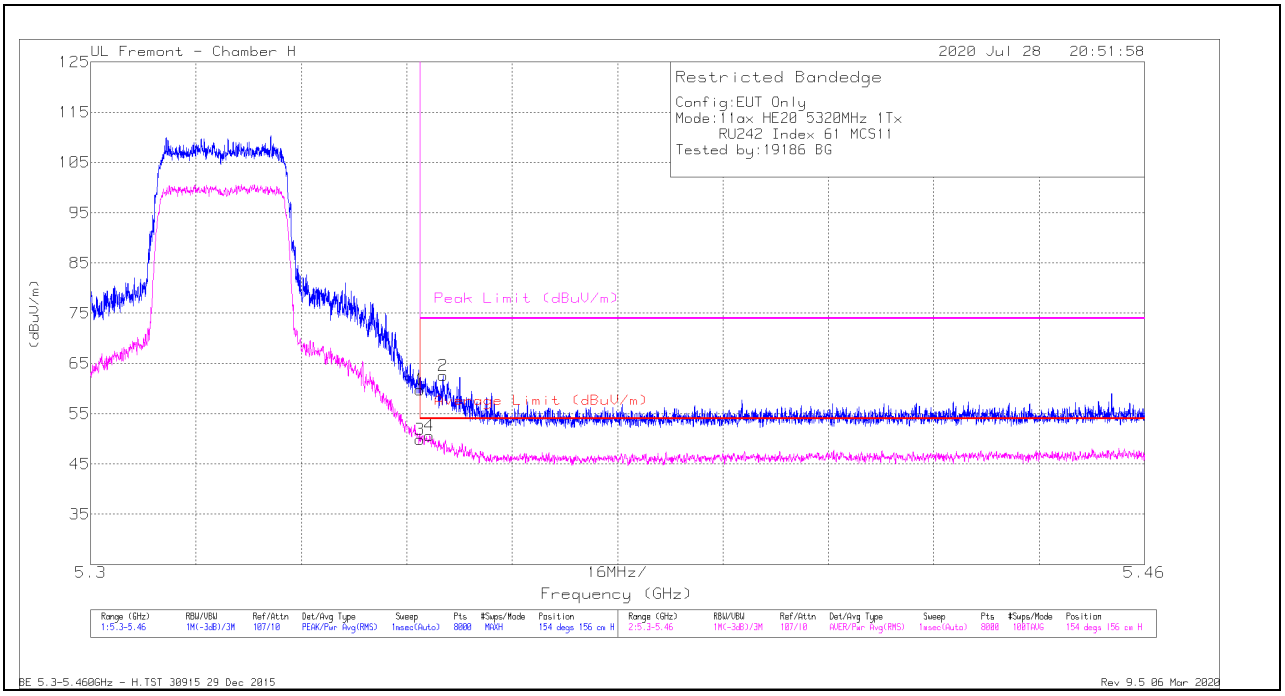
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT

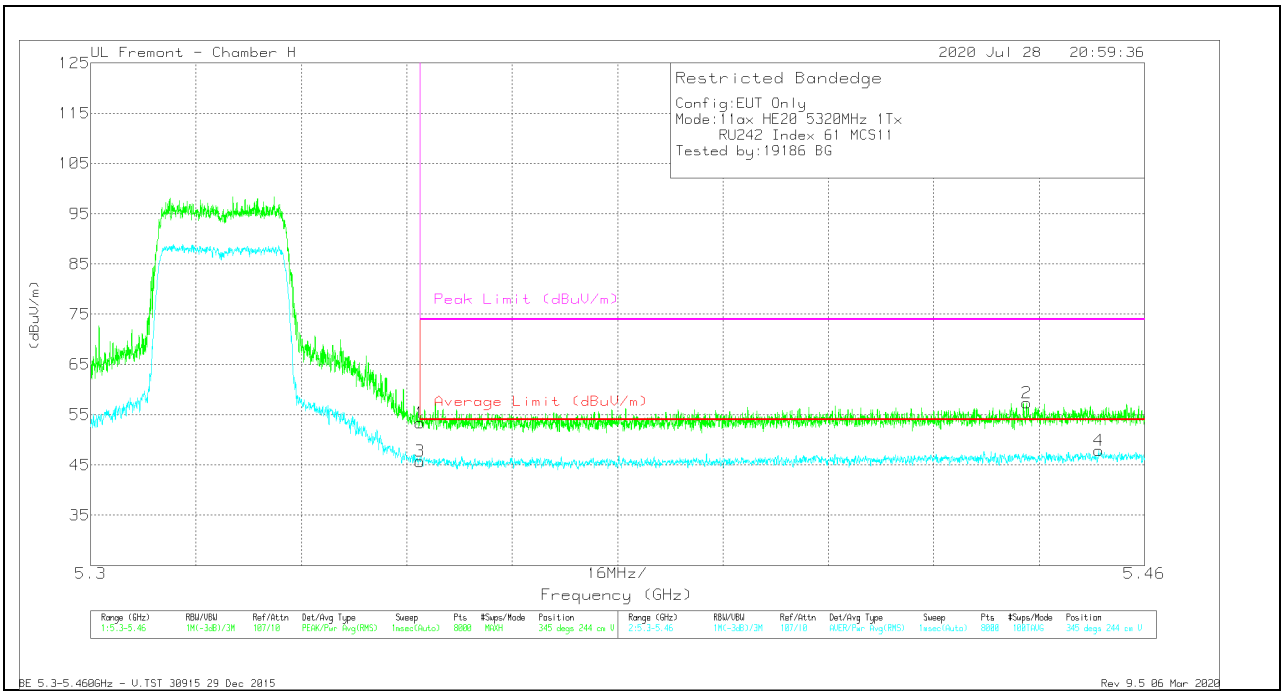


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	45.79	Pk	34.9	-20.9	59.79	-	-	74	-14.21	154	156	H
2	* 5.35349	48.73	Pk	34.9	-21	62.63	-	-	74	-11.37	154	156	H
3	* 5.35001	35.86	RMS	34.9	-20.9	49.86	54	-4.14	-	-	154	156	H
4	* 5.35147	36.67	RMS	34.9	-20.9	50.67	54	-3.33	-	-	154	156	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.35001	39.35	Pk	34.9	-20.9	53.35	-	-	74	-20.65	345	244	V
2	* 5.4421	43.13	Pk	35.1	-20.9	57.33	-	-	74	-16.67	345	244	V
3	* 5.35001	31.71	RMS	34.9	-20.9	45.71	54	-8.29	-	-	345	244	V
4	* 5.45304	33.55	RMS	35.2	-20.9	47.85	54	-6.15	-	-	345	244	V

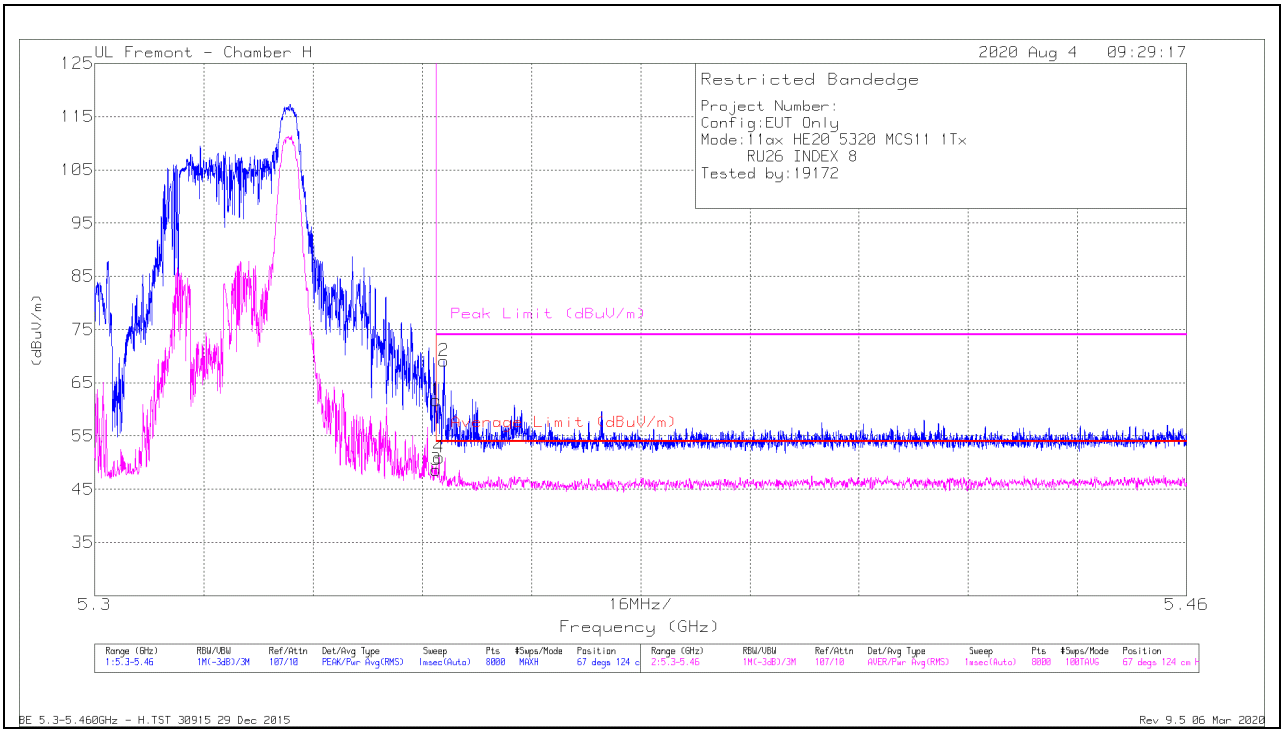
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1TX Antenna 6 MODE – 26 Tones, RU Index 8

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT

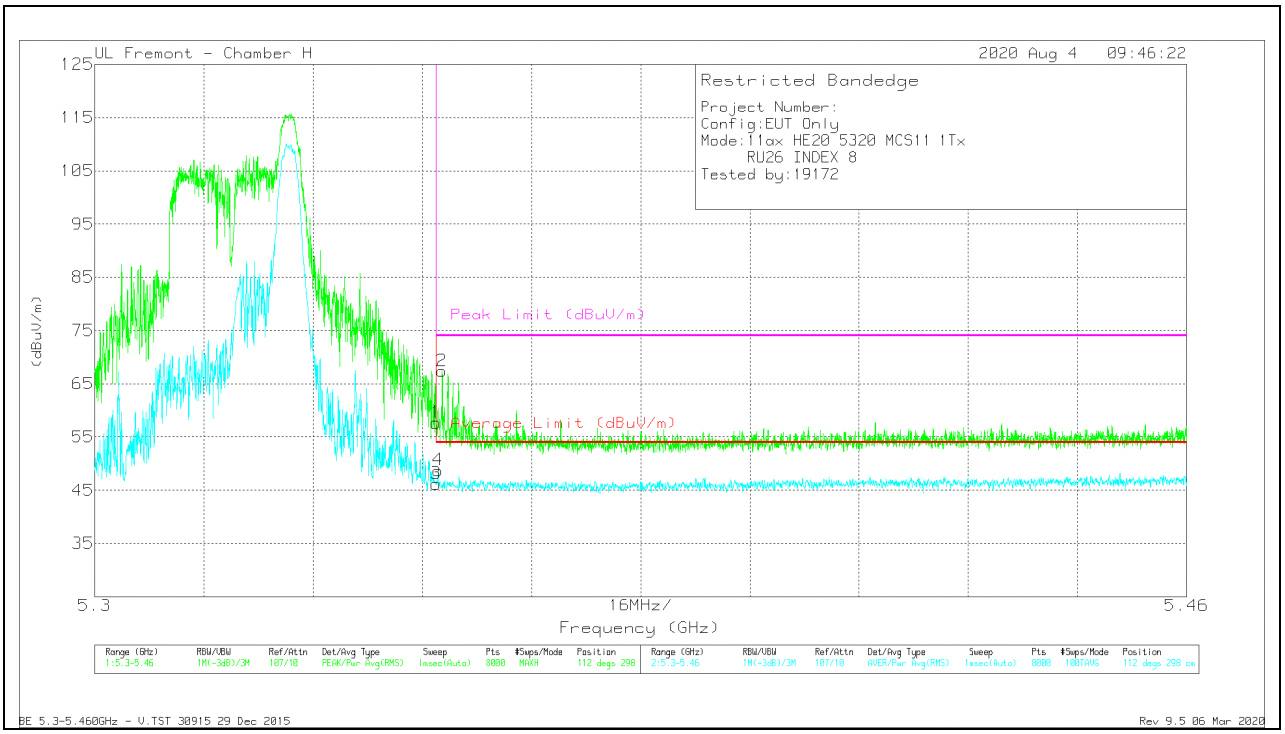


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	47.72	Pk	34.9	-20.9	61.72	-	-	74	-12.28	67	124	H
2	* 5.35117	55.12	Pk	34.9	-20.9	69.12	-	-	74	-4.88	67	124	H
3	* 5.35001	34.66	RMS	34.9	-20.9	48.66	54	-5.34	-	-	67	124	H
4	* 5.35045	36.97	RMS	34.9	-20.9	50.97	54	-3.03	-	-	67	124	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.35001	43.7	Pk	34.9	-20.9	57.7	-	-	74	-16.3	112	298	V
2	* 5.35091	53.38	Pk	34.9	-20.9	67.38	-	-	74	-6.62	112	298	V
3	* 5.35001	32.2	RMS	34.9	-20.9	46.2	54	-7.8	-	-	112	298	V
4	* 5.35031	34.75	RMS	34.9	-20.9	48.75	54	-5.25	-	-	112	298	V

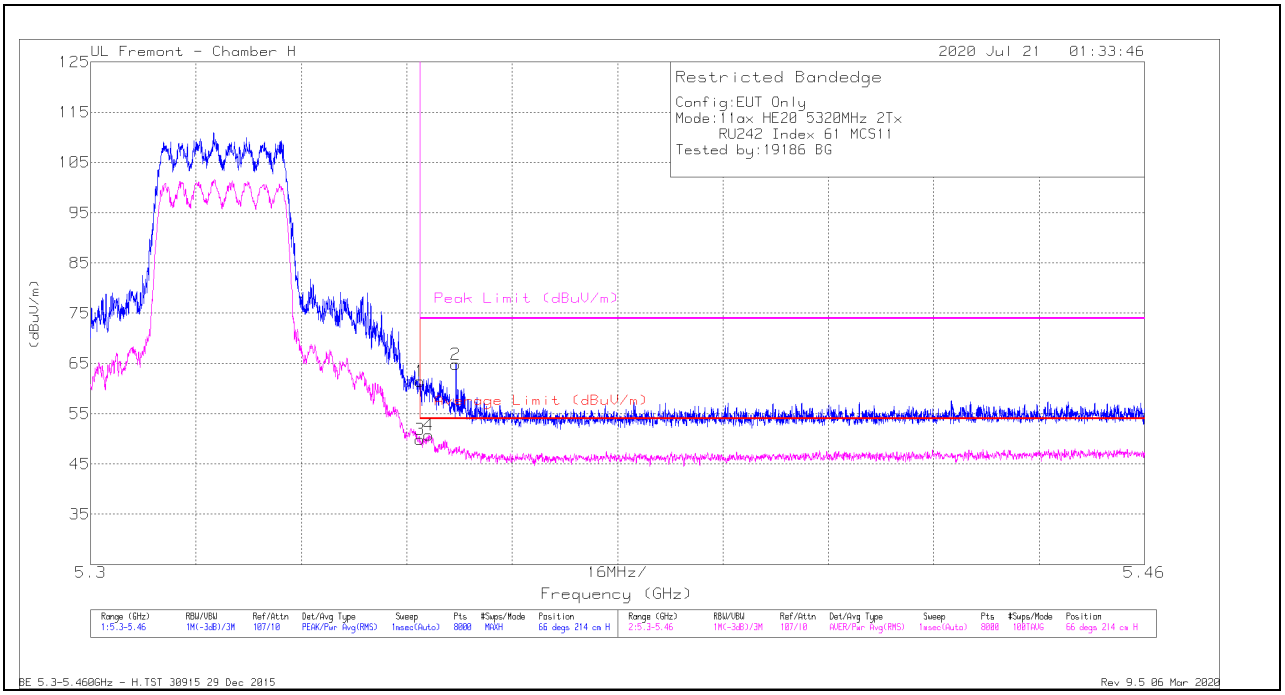
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT

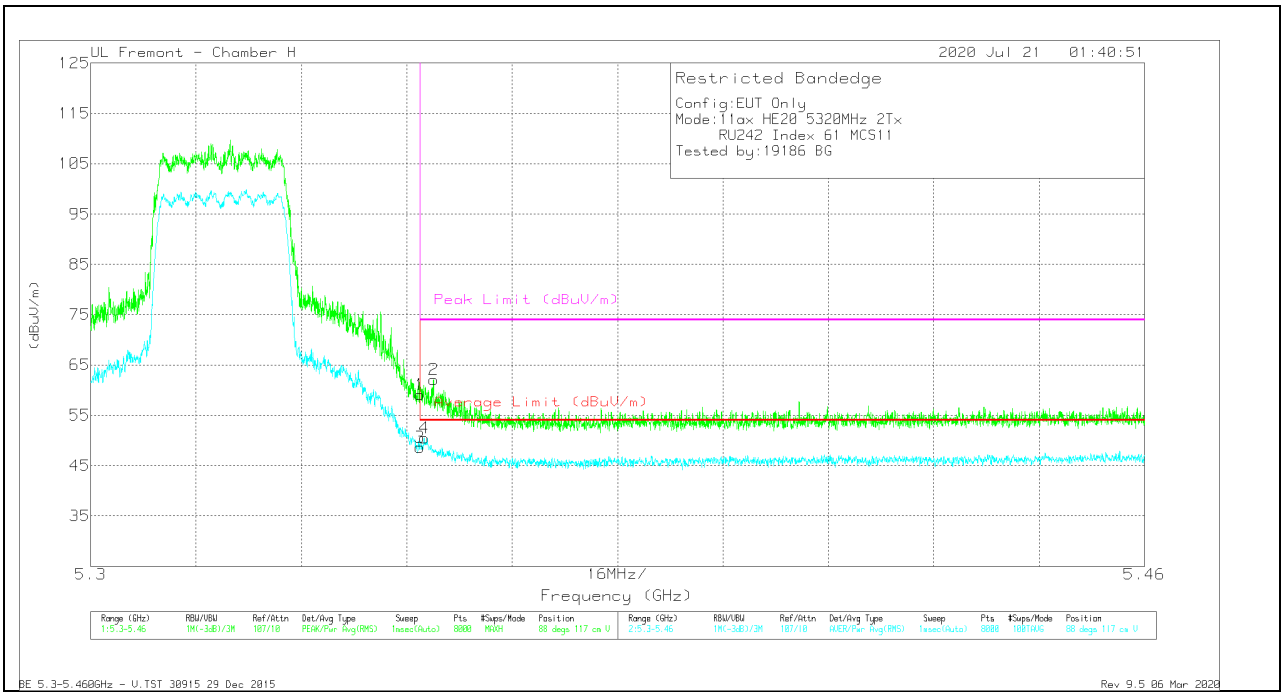


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	47.45	Pk	34.9	-20.9	61.45	-	-	74	-12.55	66	214	H
2	* 5.35545	50.84	Pk	34.9	-20.9	64.84	-	-	74	-9.16	66	214	H
3	* 5.35001	35.75	RMS	34.9	-20.9	49.75	54	-4.25	-	-	66	214	H
4	* 5.35135	36.67	RMS	34.9	-20.9	50.67	54	-3.33	-	-	66	214	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



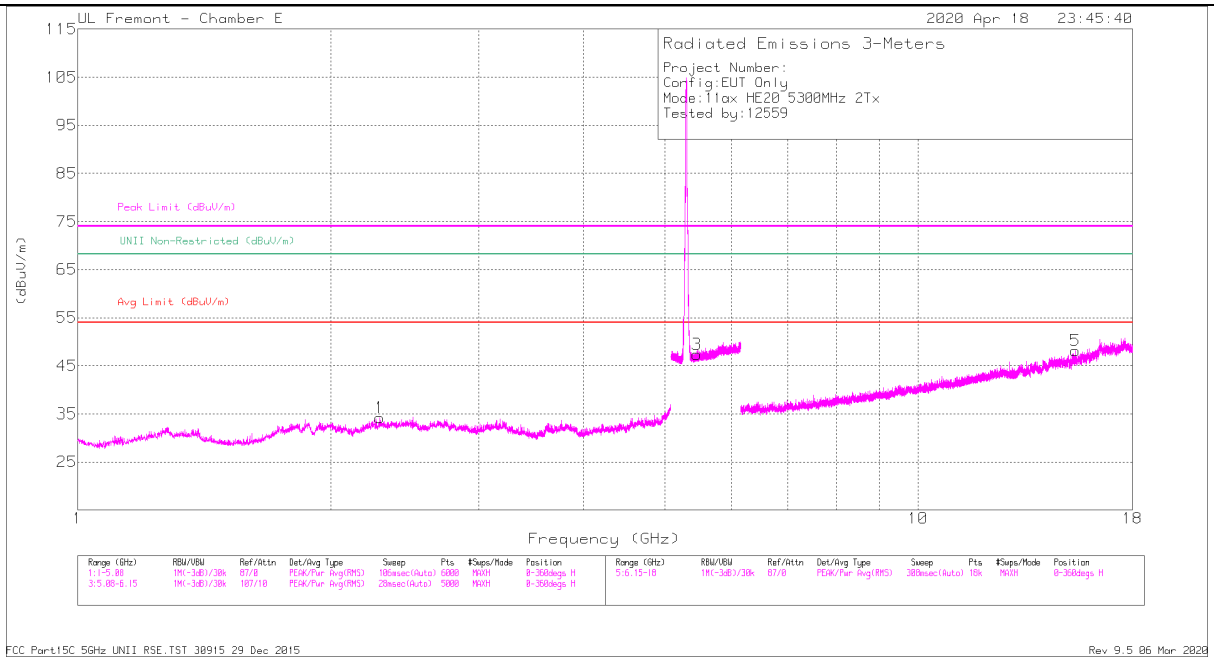
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	45.16	Pk	34.9	-20.9	59.16	-	-	74	-14.84	88	117	V
2	* 5.35205	48.17	Pk	34.9	-21	62.07	-	-	74	-11.93	88	117	V
3	* 5.35001	34.52	RMS	34.9	-20.9	48.52	54	-5.48	-	-	88	117	V
4	* 5.35063	36.39	RMS	34.9	-20.9	50.39	54	-3.61	-	-	88	117	V

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

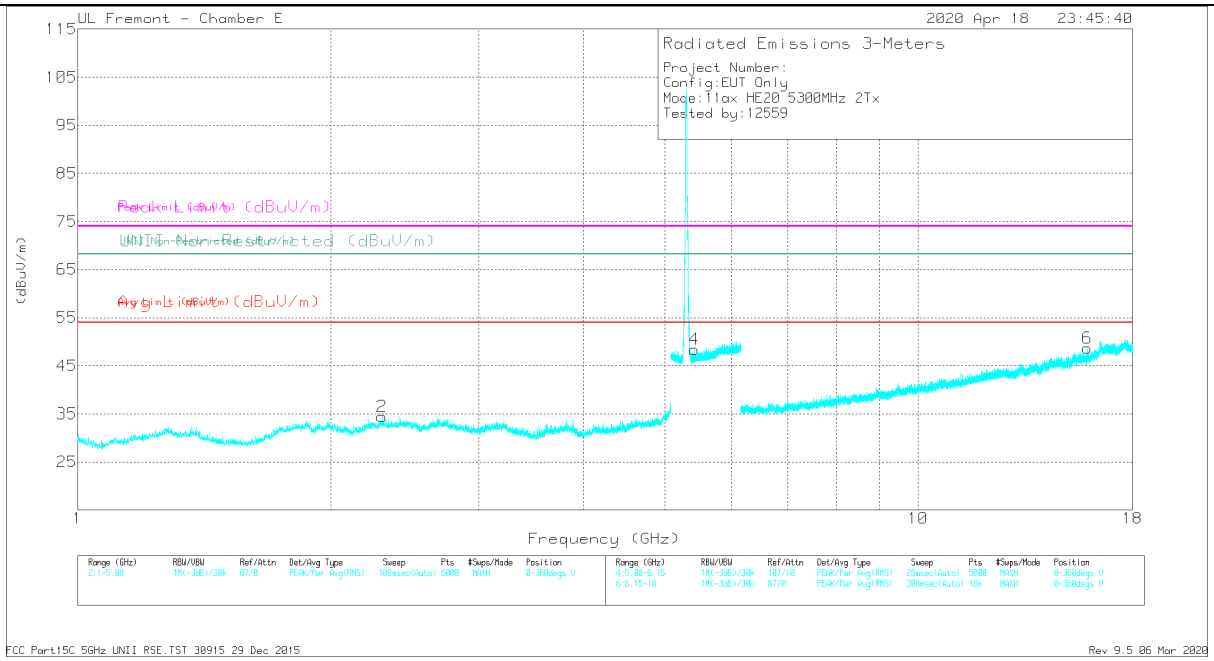
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

HARMONICS AND SPURIOUS EMISSIONS

242 Tones, RU Index 61 RESULTS



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (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	* 2.28878	45.25	PK-U	31.9	-35.5	41.65	-	-	74	-32.35	-	-	128	263	H
	* 2.29136	32.9	ADR	31.9	-35.5	29.3	54	-24.7	-	-	-	-	128	263	H
2	* 2.29972	44.94	PK-U	32	-35.4	41.54	-	-	74	-32.46	-	-	167	252	V
	* 2.24141	33.39	ADR	31.7	-35.5	29.59	54	-24.41	-	-	-	-	167	252	V
3	* 5.45491	42.65	PK-U	34.6	-21.7	55.55	-	-	74	-18.45	-	-	133	257	H
	* 5.45472	30.97	ADR	34.6	-21.7	43.87	54	-10.13	-	-	-	-	133	257	H
4	* 5.42048	42.54	PK-U	34.5	-21.8	55.24	-	-	74	-18.76	-	-	261	373	V
	* 5.42101	31.58	ADR	34.5	-21.8	44.28	54	-9.72	-	-	-	-	261	373	V
5	* 15.39333	35.2	PK-U	40.2	-20.9	54.5	-	-	74	-19.5	-	-	130	259	H
	* 15.39279	23.9	ADR	40.2	-20.9	43.2	54	-10.8	-	-	-	-	130	259	H
6	* 15.90074	34.86	PK-U	40.3	-20.3	54.86	-	-	74	-19.14	-	-	312	103	V
	* 15.90295	23.76	ADR	40.3	-20.3	43.76	54	-10.24	-	-	-	-	312	103	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

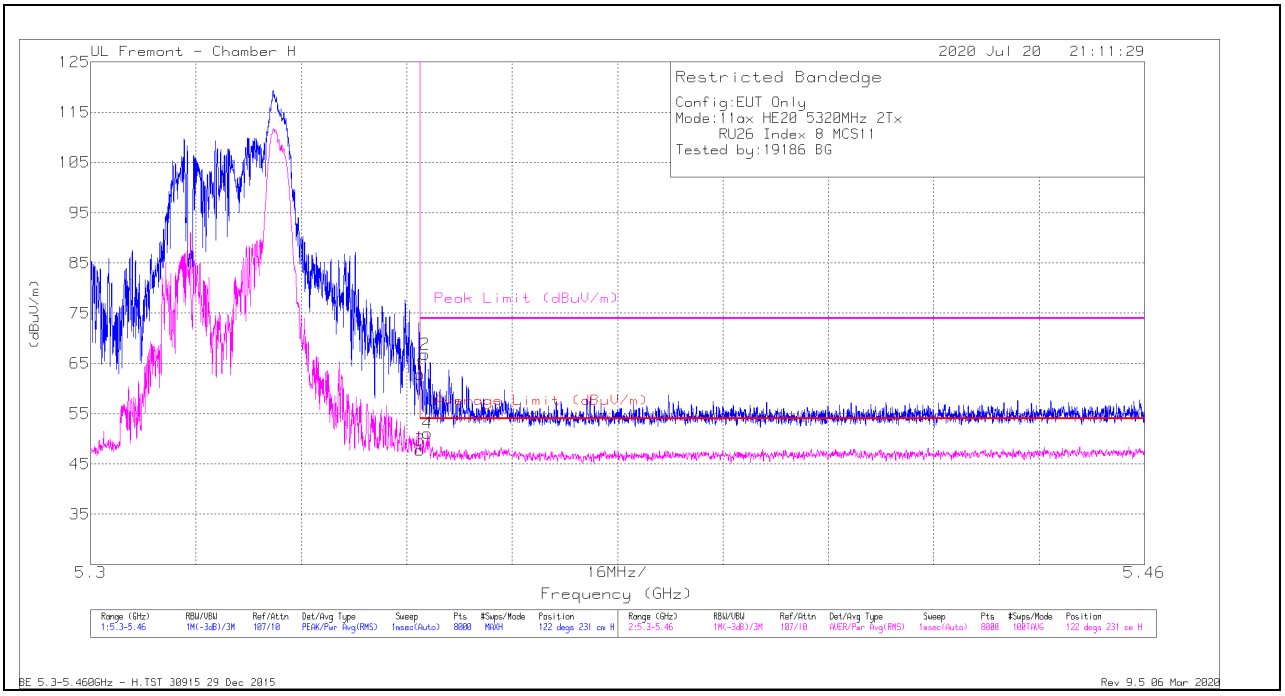
FCC Part15C 5GHz UNII RSE.TST 30915 29 Dec 2015
Rev 9.5 06 Mar 2020

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

2TX Antenna 5 + Antenna 6 OFDMA MODE – 26 Tones, RU Index 8

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT

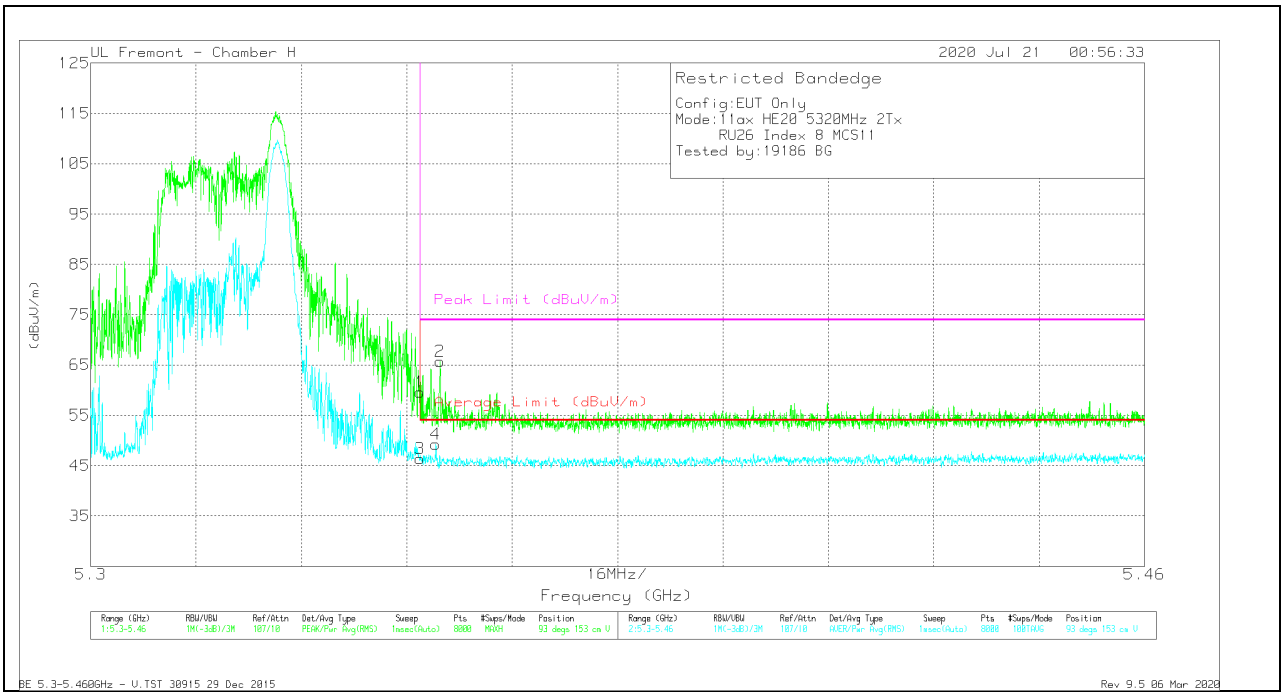


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	48.87	Pk	34.9	-20.9	62.87	-	-	74	-11.13	122	231	H
2	* 5.35077	52.87	Pk	34.9	-20.9	66.87	-	-	74	-7.13	122	231	H
3	* 5.35001	33.73	RMS	34.9	-20.9	47.73	54	-6.27	-	-	122	231	H
4	* 5.35117	37.09	RMS	34.9	-20.9	51.09	54	-2.91	-	-	122	231	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



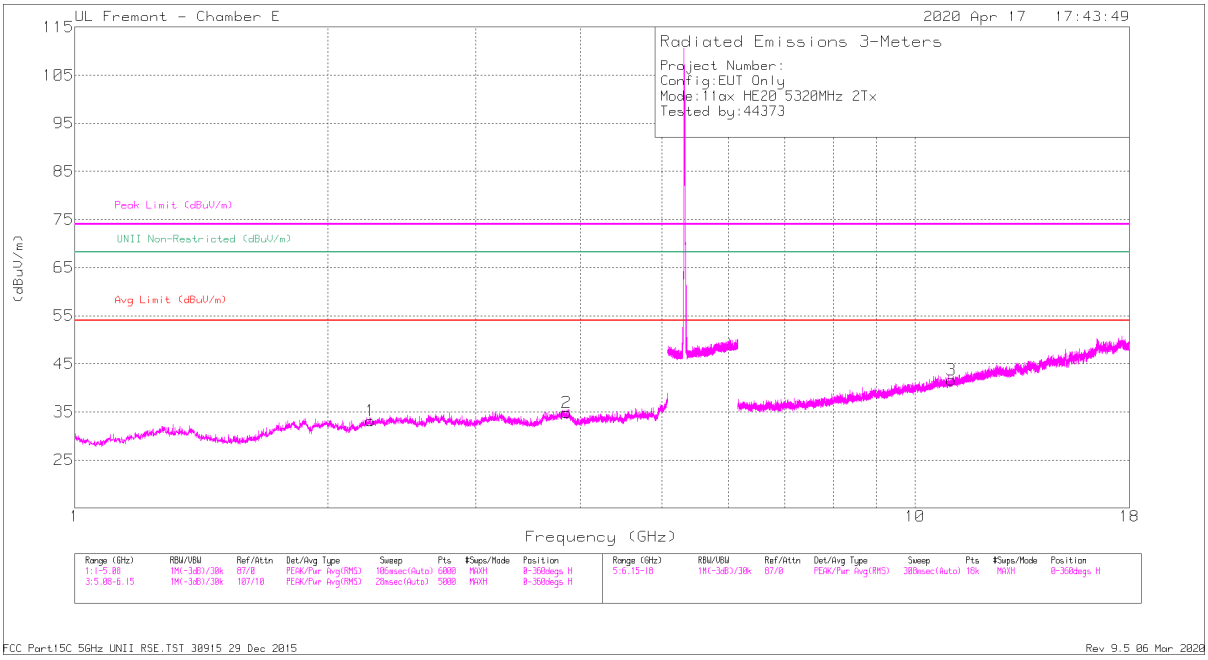
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	45.58	Pk	34.9	-20.9	59.58	-	-	74	-14.42	93	153	V
2	* 5.35305	51.8	Pk	34.9	-21	65.7	-	-	74	-8.3	93	153	V
3	* 5.35001	32.34	RMS	34.9	-20.9	46.34	54	-7.55	-	-	93	153	V
4	* 5.35241	35.26	RMS	34.9	-21	49.16	54	-4.84	-	-	93	153	V

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

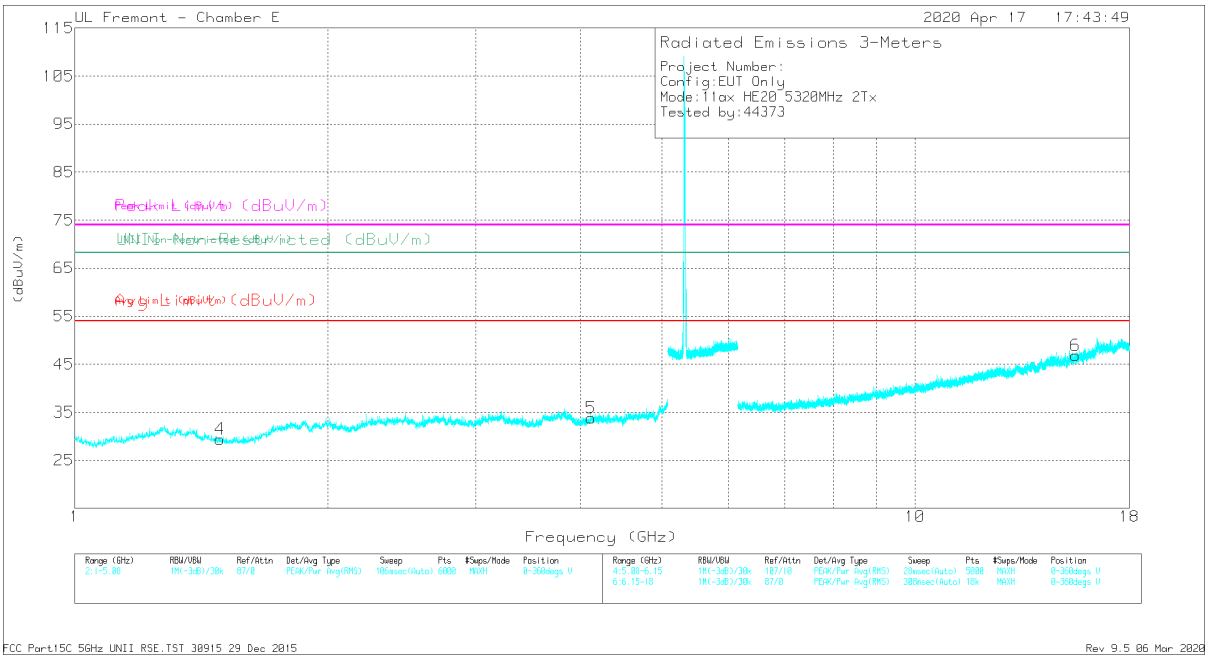
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

HARMONICS AND SPURIOUS EMISSIONS

26 Tones, RU Index 8 RESULTS



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (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	* 2.251	44.57	PK-U	31.8	-35.6	40.77	-	-	74	-33.23	-	-	0	200	H
	* 2.25074	33.2	ADR	31.8	-35.6	29.4	54	-24.6	-	-	-	-	0	200	H
2	* 3.85199	41.38	PK-U	33.6	-33	41.98	-	-	74	-32.02	-	-	0	101	H
	* 3.85394	30.11	ADR	33.6	-33	30.71	54	-23.29	-	-	-	-	0	101	H
4	* 1.48743	45.01	PK-U	28.3	-35.8	37.51	-	-	74	-36.49	-	-	0	101	V
	* 1.48757	33.34	ADR	28.3	-35.8	25.84	54	-28.16	-	-	-	-	0	101	V
5	* 4.11737	40.49	PK-U	33.7	-32.4	41.79	-	-	74	-32.21	-	-	0	101	V
	* 4.11806	29.19	ADR	33.6	-32.4	30.39	54	-23.61	-	-	-	-	0	101	V
3	* 11.04605	36.04	PK-U	37.6	-25.4	48.24	-	-	74	-25.76	-	-	0	200	H
	* 11.04764	25.26	ADR	37.7	-25.4	37.56	54	-16.44	-	-	-	-	0	200	H
6	* 15.53092	34.76	PK-U	40.3	-21.4	53.66	-	-	74	-20.34	-	-	0	200	V
	* 15.52923	23.96	ADR	40.3	-21.4	42.86	54	-11.14	-	-	-	-	0	200	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

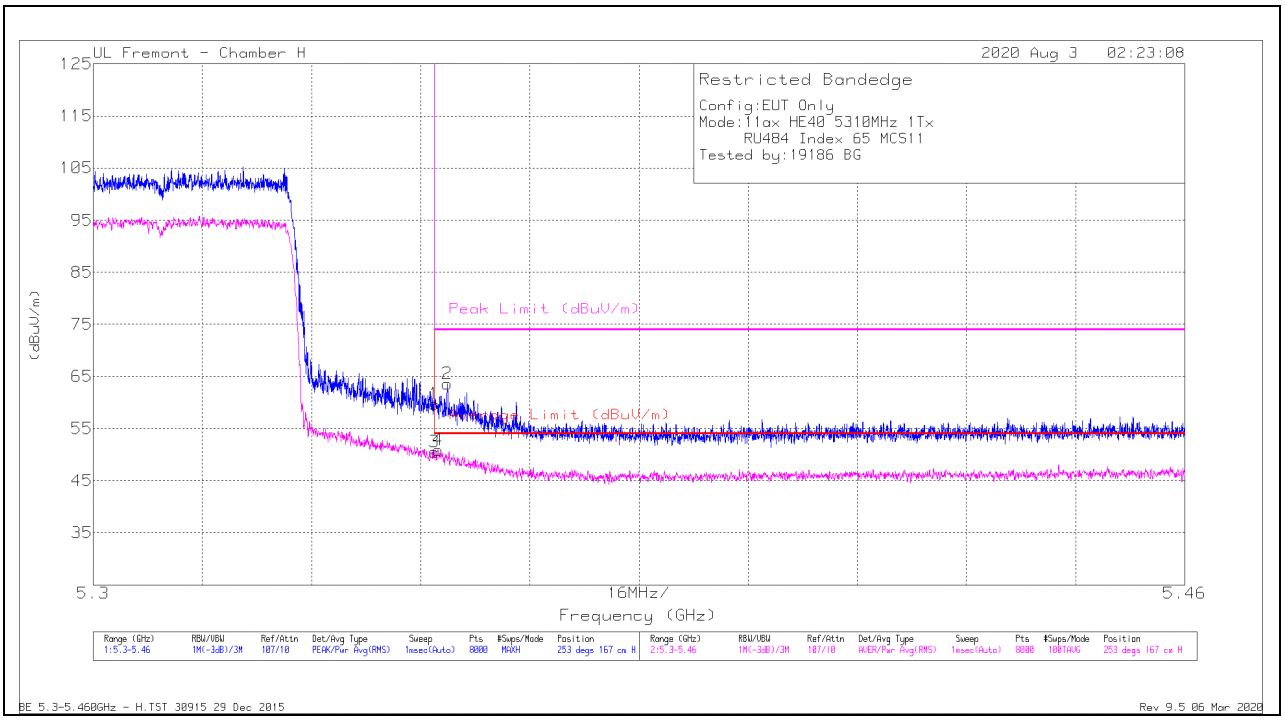
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1.1.11. TX ABOVE 1 GHz 802.11ax HE40 MODE IN THE 5.3 GHz BAND

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

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT

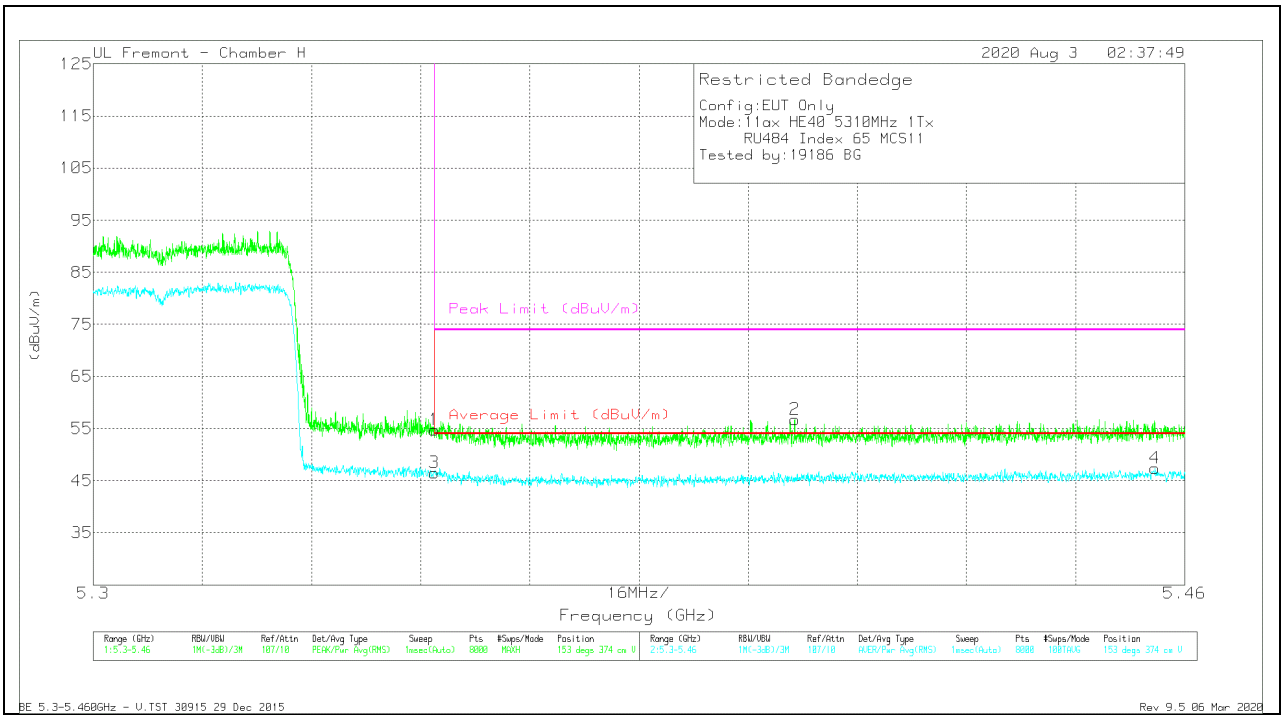


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	45.77	Pk	34.9	-20.9	59.77	-	-	74	-14.23	253	167	H
3	* 5.35001	36.47	RMS	34.9	-20.9	50.47	54	-3.53	-	-	253	167	H
4	* 5.35053	36.87	RMS	34.9	-20.9	50.87	54	-3.13	-	-	253	167	H
2	* 5.35191	49.67	Pk	34.9	-21	63.57	-	-	74	-10.43	253	167	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.35001	40.77	Pk	34.9	-20.9	54.77	-	-	74	-19.23	153	374	V
2	* 5.40282	42.55	Pk	35	-20.8	56.75	-	-	74	-17.25	153	374	V
3	* 5.35001	32.48	RMS	34.9	-20.9	46.48	54	-7.52	-	-	153	374	V
4	* 5.45562	33.02	RMS	35.3	-20.9	47.42	54	-6.58	-	-	153	374	V

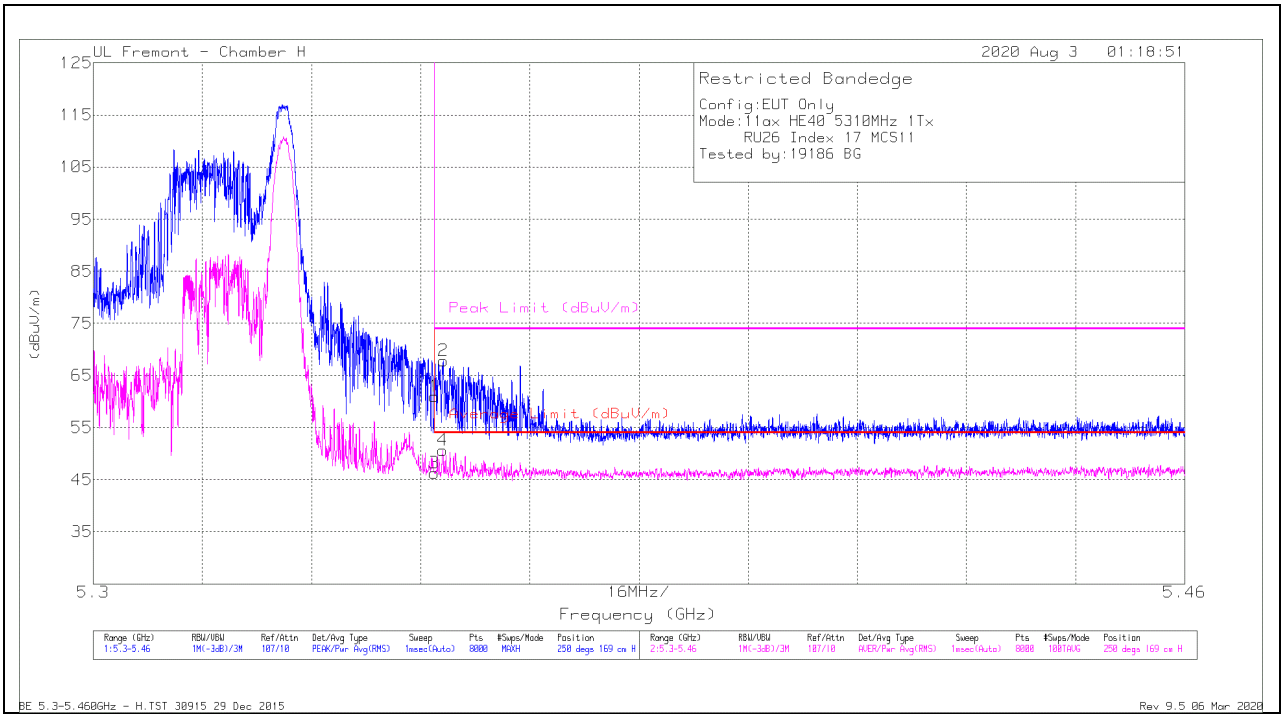
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1TX Antenna 5 MODE – 26 Tones, RU Index 17

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT

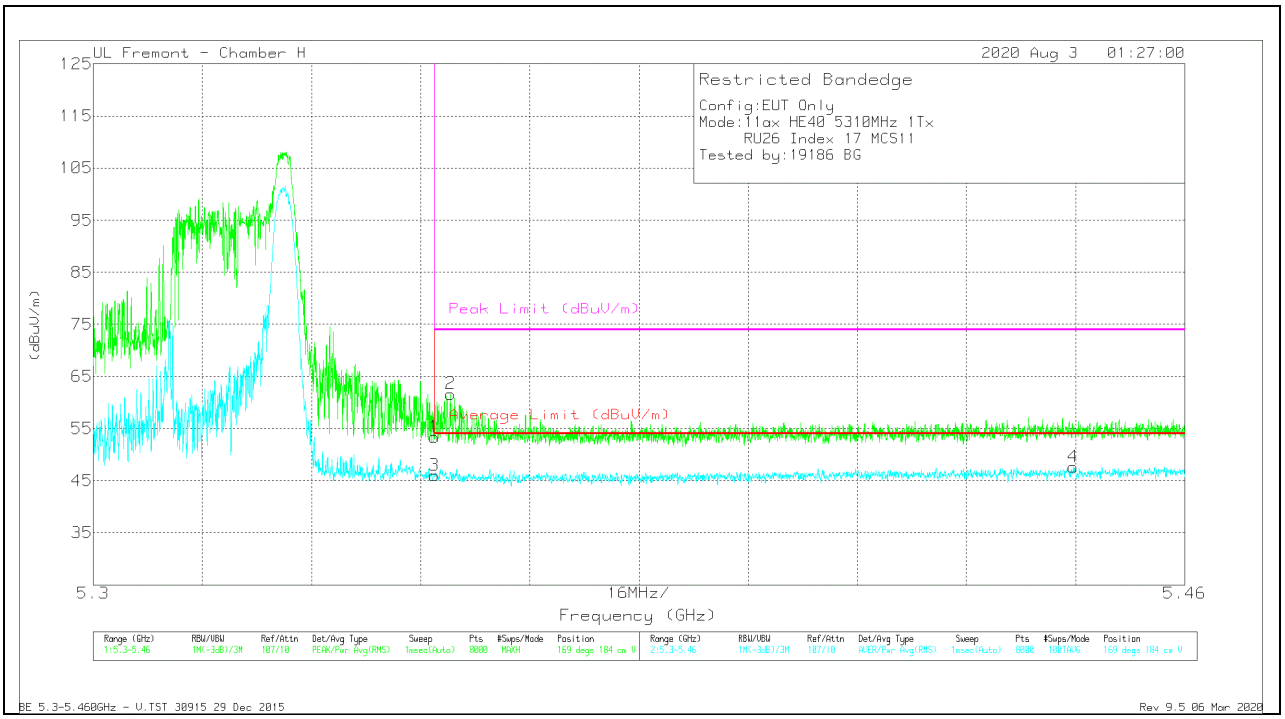


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	46.99	Pk	34.9	-20.9	60.99	-	-	74	-13.01	250	169	H
2	* 5.35133	53.79	Pk	34.9	-20.9	67.79	-	-	74	-6.21	250	169	H
3	* 5.35001	32.32	RMS	34.9	-20.9	46.32	54	-7.68	-	-	250	169	H
4	* 5.35125	36.62	RMS	34.9	-20.9	50.62	54	-3.38	-	-	250	169	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.35001	39.35	Pk	34.9	-20.9	53.35	-	-	74	-20.65	169	184	V
2	* 5.35235	47.76	Pk	34.9	-21	61.66	-	-	74	-12.34	169	184	V
3	* 5.35001	32	RMS	34.9	-20.9	46	54	-8	-	-	169	184	V
4	* 5.44366	33.39	RMS	35.1	-20.8	47.69	54	-6.31	-	-	169	184	V

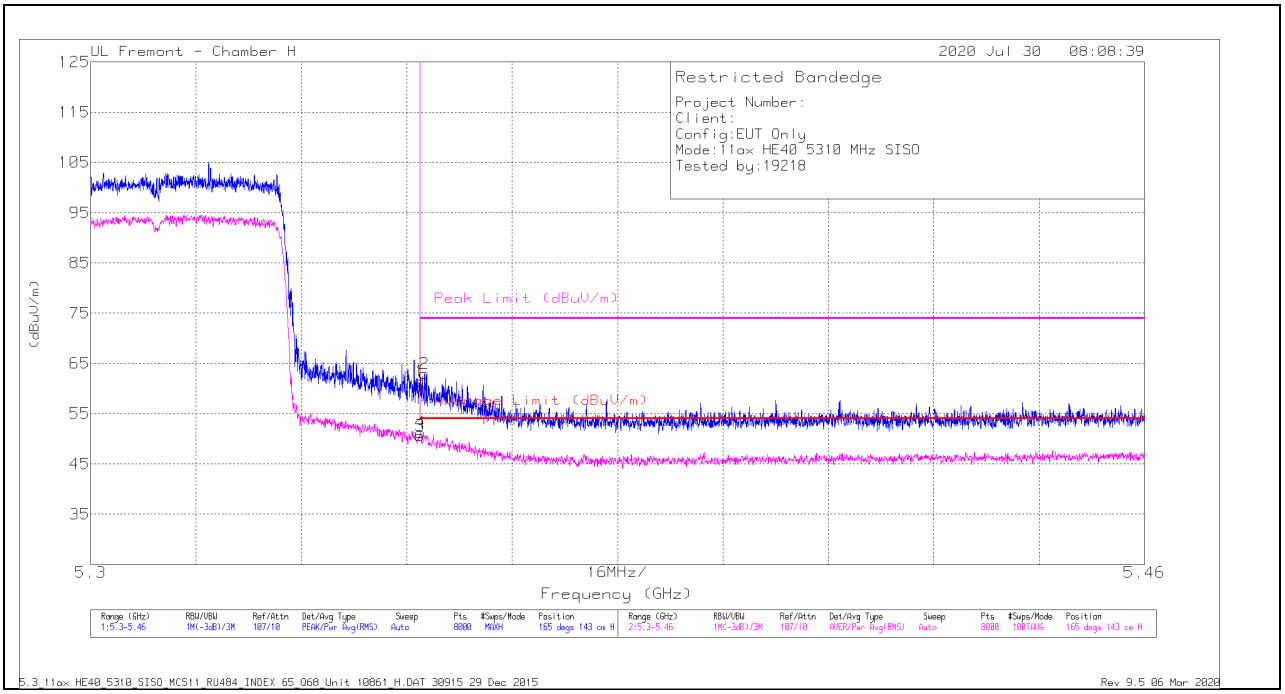
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT

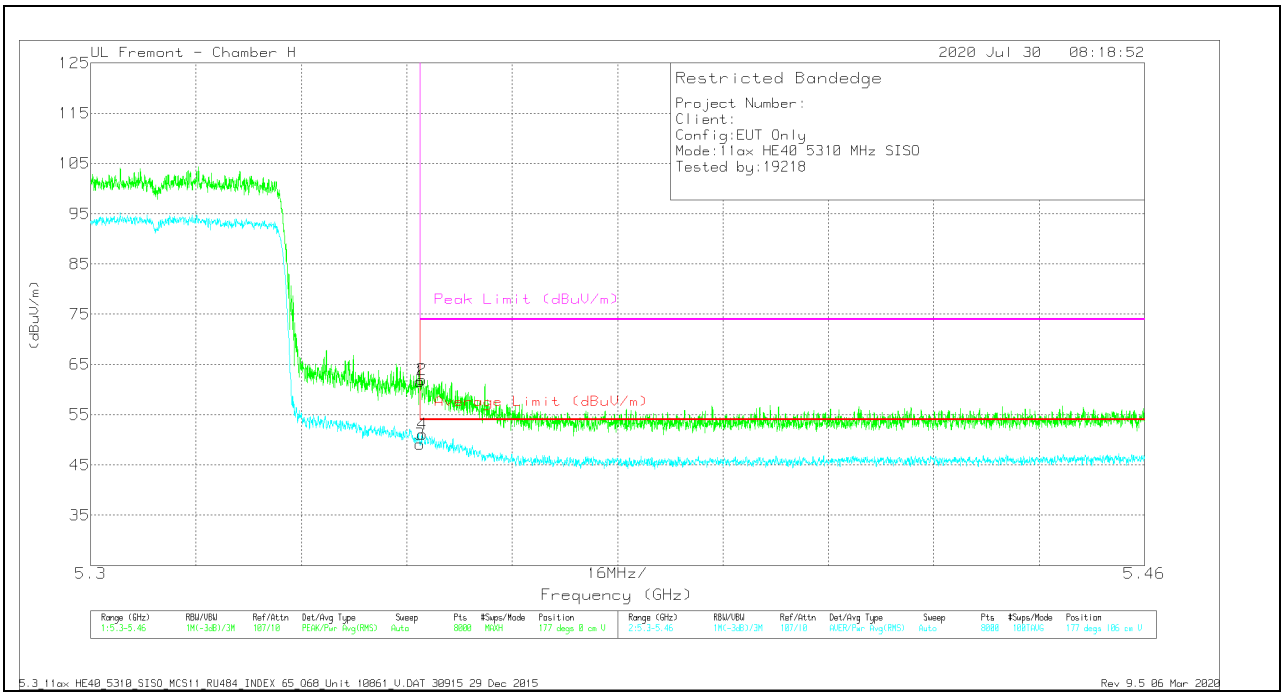


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	47.45	Pk	34.9	-20.9	61.45	-	-	74	-12.55	165	143	H
2	* 5.35071	48.94	Pk	34.9	-20.9	62.94	-	-	74	-11.06	165	143	H
3	* 5.35001	36.61	RMS	34.9	-20.9	50.61	54	-3.39	-	-	165	143	H
4	* 5.35011	37.28	RMS	34.9	-20.9	51.28	54	-2.72	-	-	165	143	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.35001	47.61	Pk	34.9	-20.9	61.61	-	-	74	-12.39	177	106	V
2	* 5.35025	47.92	Pk	34.9	-20.9	61.92	-	-	74	-12.08	177	106	V
3	* 5.35001	35.11	RMS	34.9	-20.9	49.11	54	-4.89	-	-	177	106	V
4	* 5.35035	37.13	RMS	34.9	-20.9	51.13	54	-2.87	-	-	177	106	V

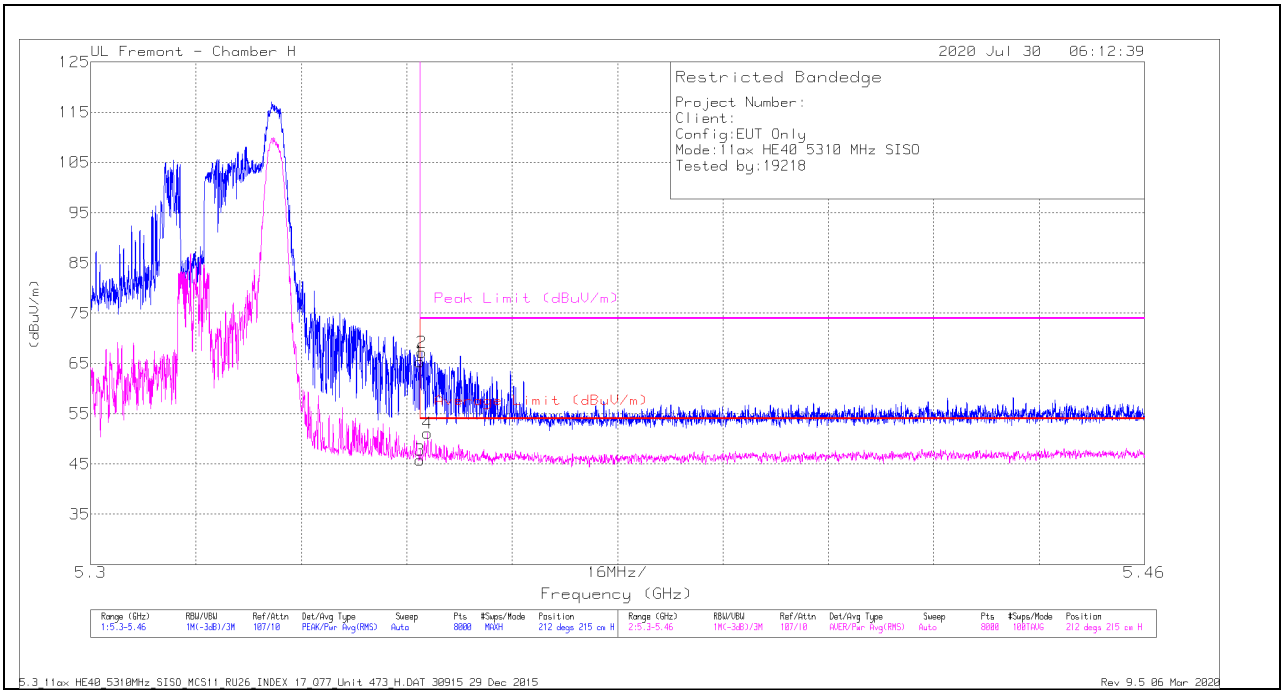
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1TX Antenna 6 MODE – MCS 11, 26 Tones, RU Index 17

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT

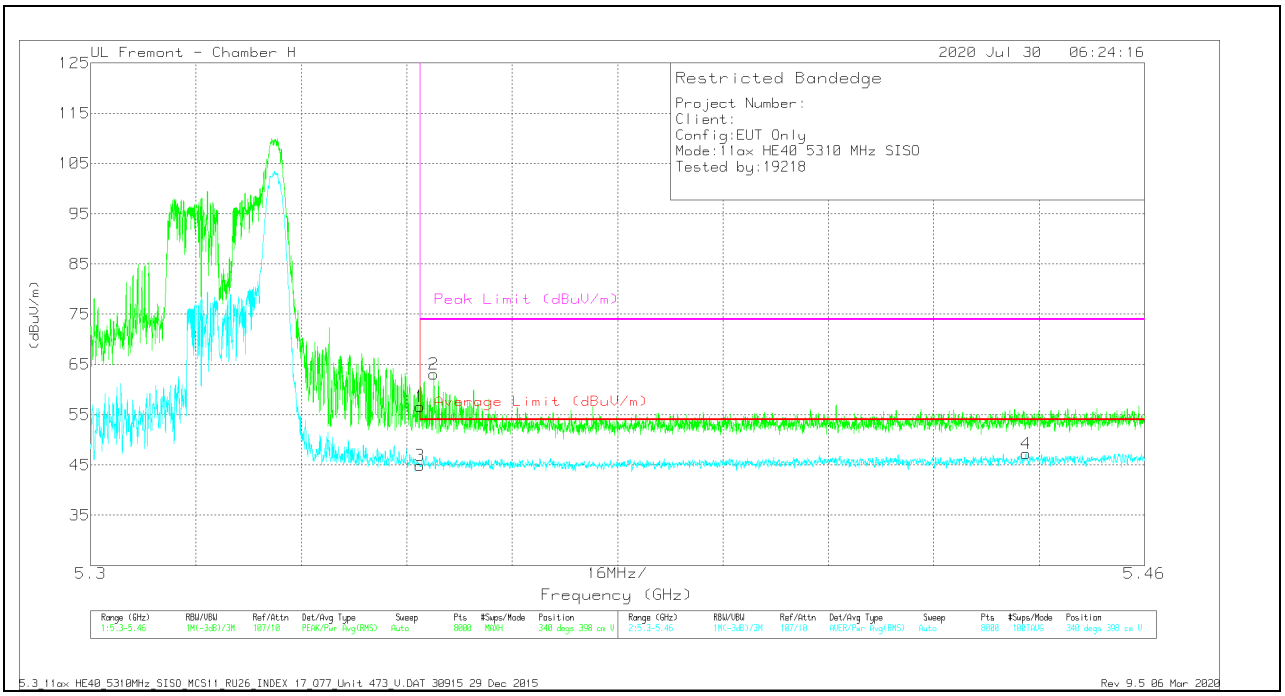


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	51.32	Pk	34.9	-20.9	65.32	-	-	74	-8.68	212	215	H
2	* 5.35029	53.26	Pk	34.9	-20.9	67.26	-	-	74	-6.74	212	215	H
3	* 5.35001	31.74	RMS	34.9	-20.9	45.74	54	-8.26	-	-	212	215	H
4	* 5.35115	37.08	RMS	34.9	-20.9	51.08	54	-2.92	-	-	212	215	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	* 5.35001	42.67	Pk	34.9	-20.9	56.67	-	-	74	-17.33	340	398	V
2	* 5.35209	49.15	Pk	34.9	-21	63.05	-	-	74	-10.95	340	398	V
3	* 5.35001	30.86	RMS	34.9	-20.9	44.86	54	-9.14	-	-	340	398	V
4	* 5.442	33.08	RMS	35.1	-20.9	47.28	54	-6.72	-	-	340	398	V

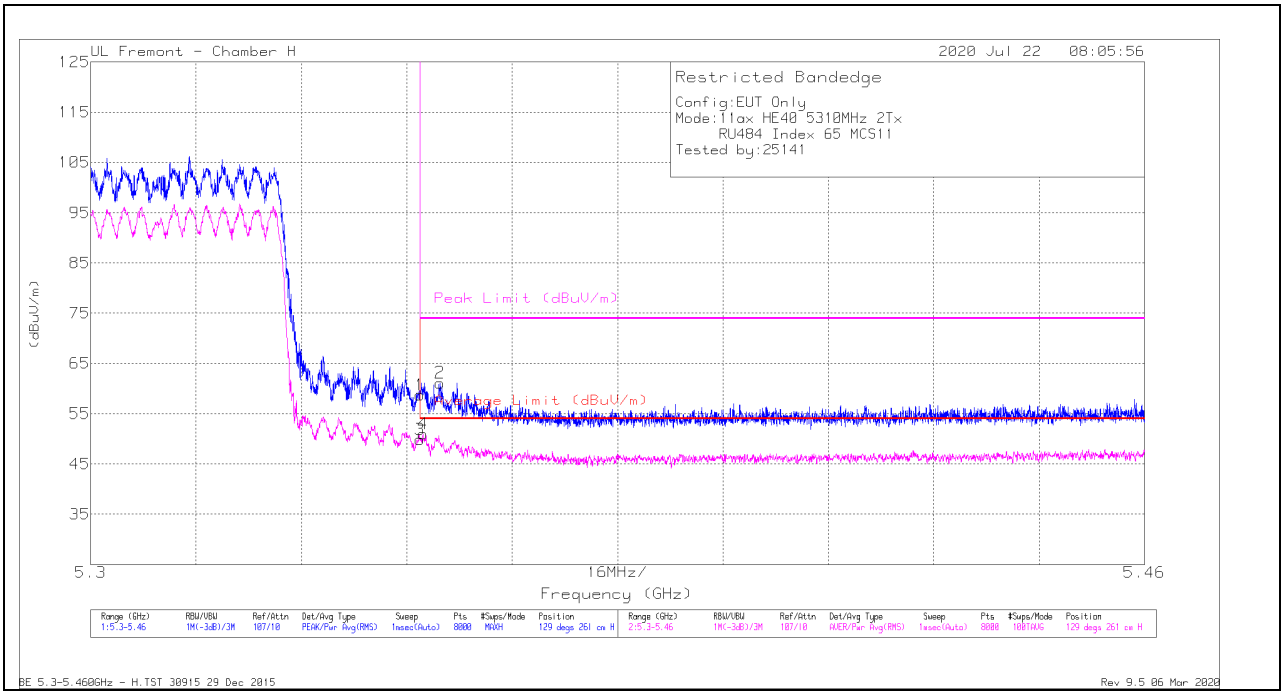
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT

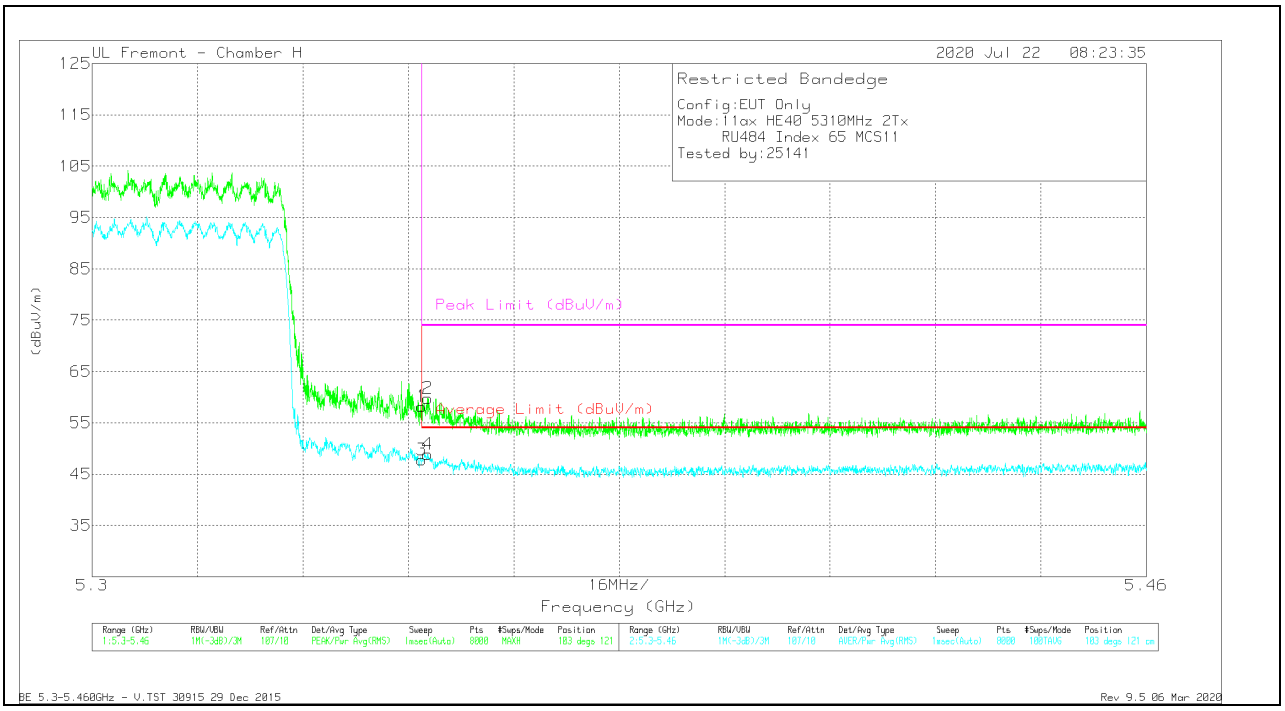


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	44.68	Pk	34.9	-20.9	58.68	-	-	74	-15.32	129	261	H
2	* 5.35305	47.26	Pk	34.9	-21	61.16	-	-	74	-12.84	129	261	H
3	* 5.35001	35.83	RMS	34.9	-20.9	49.83	54	-4.17	-	-	129	261	H
4	* 5.35045	37.01	RMS	34.9	-20.9	51.01	54	-2.99	-	-	129	261	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



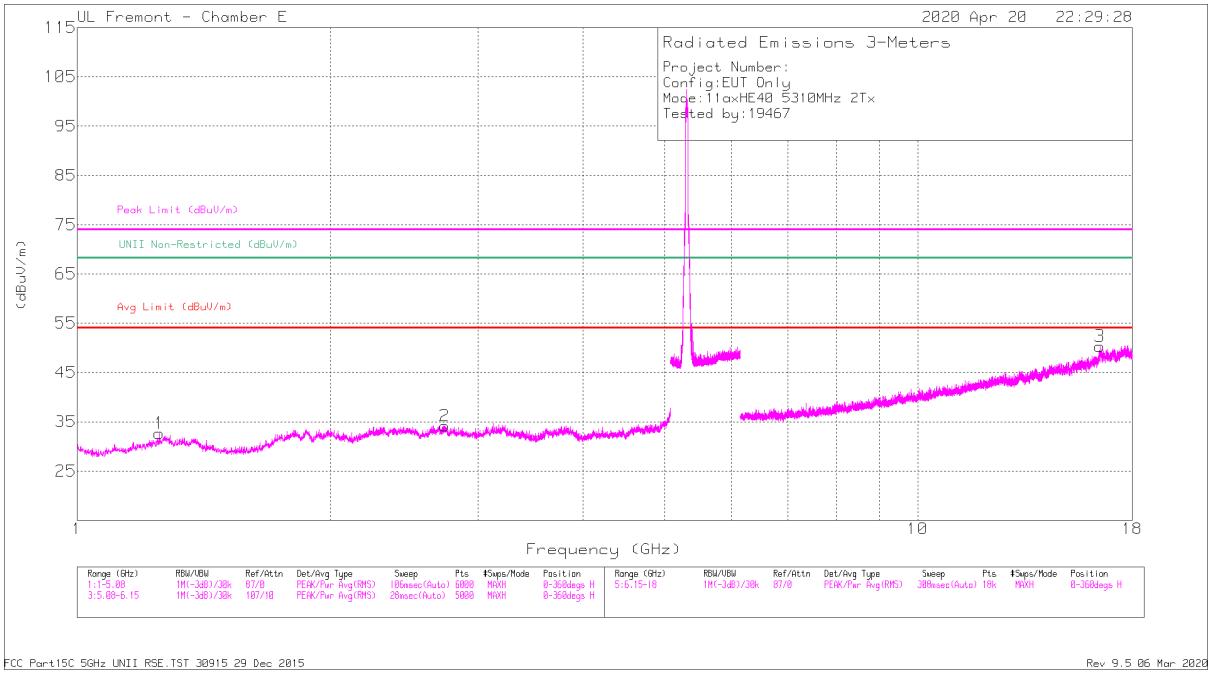
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	44.21	Pk	34.9	-20.9	58.21	-	-	74	-15.79	103	121	V
2	* 5.35093	45.79	Pk	34.9	-20.9	59.79	-	-	74	-14.21	103	121	V
3	* 5.35001	33.8	RMS	34.9	-20.9	47.8	54	-6.2	-	-	103	121	V
4	* 5.35093	34.88	RMS	34.9	-20.9	48.88	54	-5.12	-	-	103	121	V

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

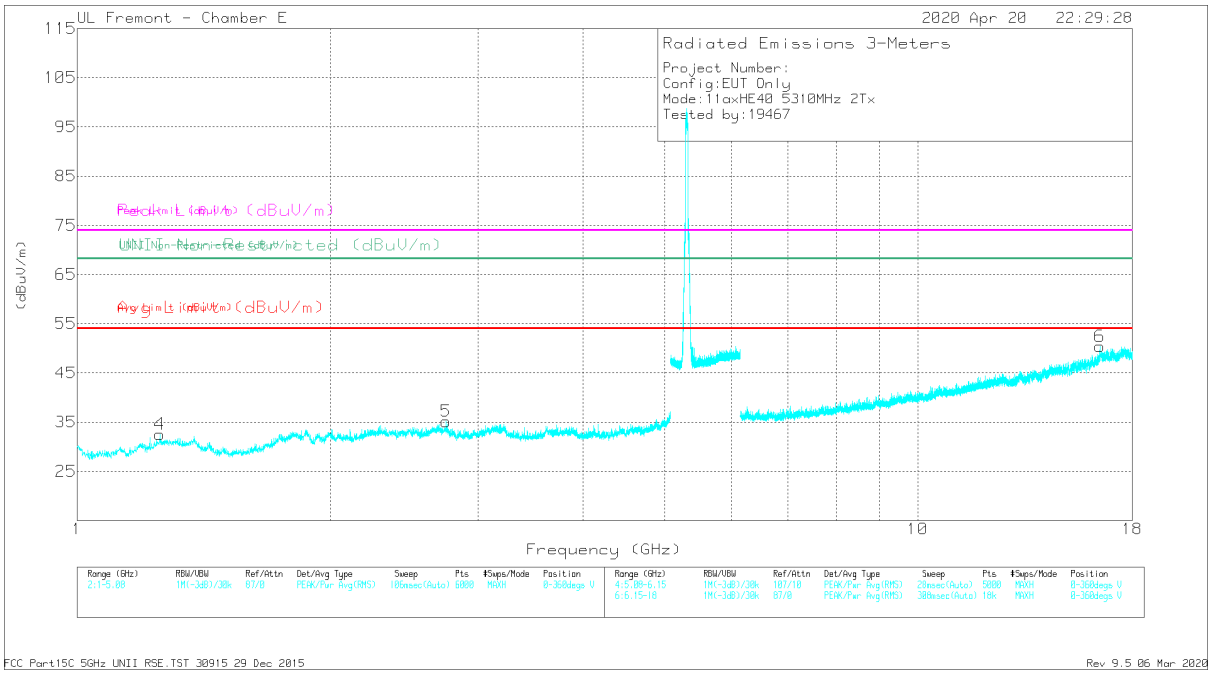
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

HARMONICS AND SPURIOUS EMISSIONS

484 Tones, RU Index 65 RESULTS



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (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	* 1.25286	44.4	PK-U	29.2	-34.9	38.7	-	-	74	-35.3	-	-	360	200	H
	* 1.25132	33.28	ADR	29.2	-34.9	27.58	54	-26.42	-	-	-	-	360	200	H
2	* 2.73892	44.84	PK-U	32.6	-35.4	42.04	-	-	74	-31.96	-	-	360	101	H
	* 2.73848	32.94	ADR	32.7	-35.4	30.24	54	-23.76	-	-	-	-	360	101	H
4	* 1.25485	44.59	PK-U	29.3	-34.8	39.09	-	-	74	-34.91	-	-	360	200	V
	* 1.25485	33.19	ADR	29.3	-34.8	27.69	54	-26.31	-	-	-	-	360	200	V
5	* 2.74779	44.5	PK-U	32.6	-35.4	41.7	-	-	74	-32.3	-	-	360	101	V
	* 2.74951	32.75	ADR	32.6	-35.4	29.95	54	-24.05	-	-	-	-	360	101	V
6	16.46744	23.04	ADR	41.3	-18.6	45.74	-	-	-	-	-	-	100	180	V
	16.46986	34.31	PK-U	41.4	-18.6	57.11	-	-	-	-	68.2	-11.09	100	180	V
3	16.47009	23	ADR	41.4	-18.6	45.8	-	-	-	-	-	-	87	199	H
	16.47045	34.89	PK-U	41.4	-18.6	57.69	-	-	-	-	68.2	-10.51	87	199	H

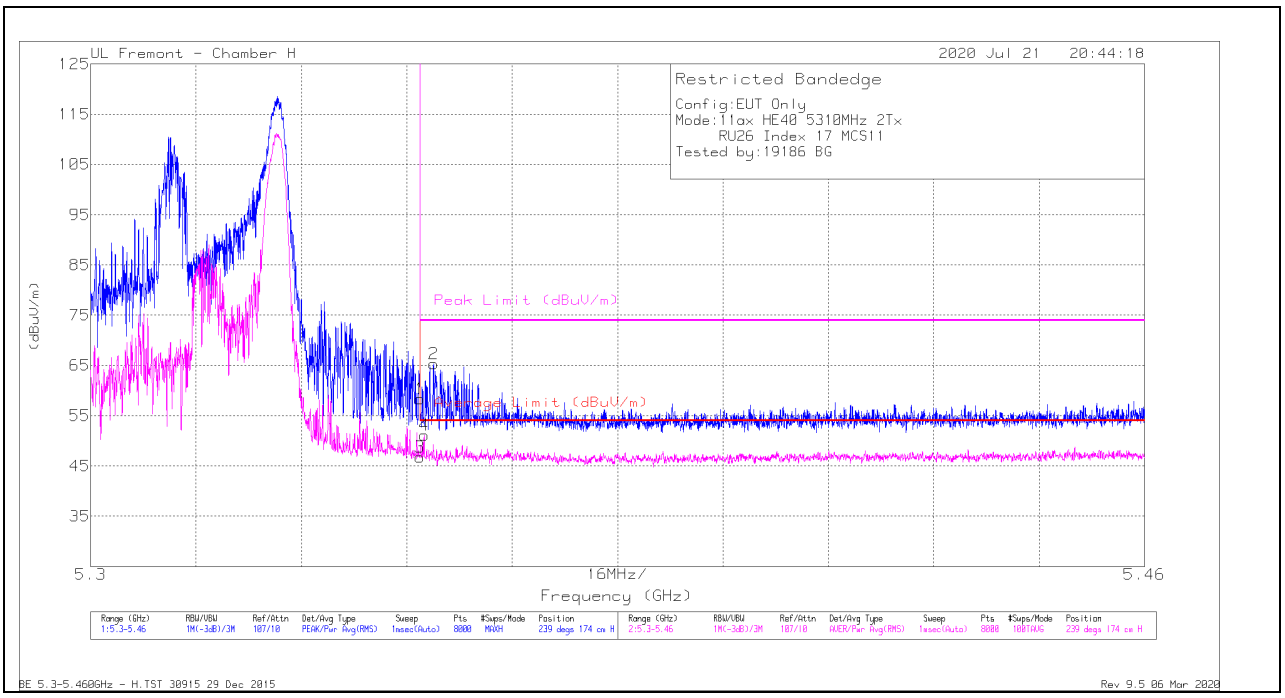
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

2TX Antenna 5 + Antenna 6 OFDMA MODE – 26 Tones, RU Index 17

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT

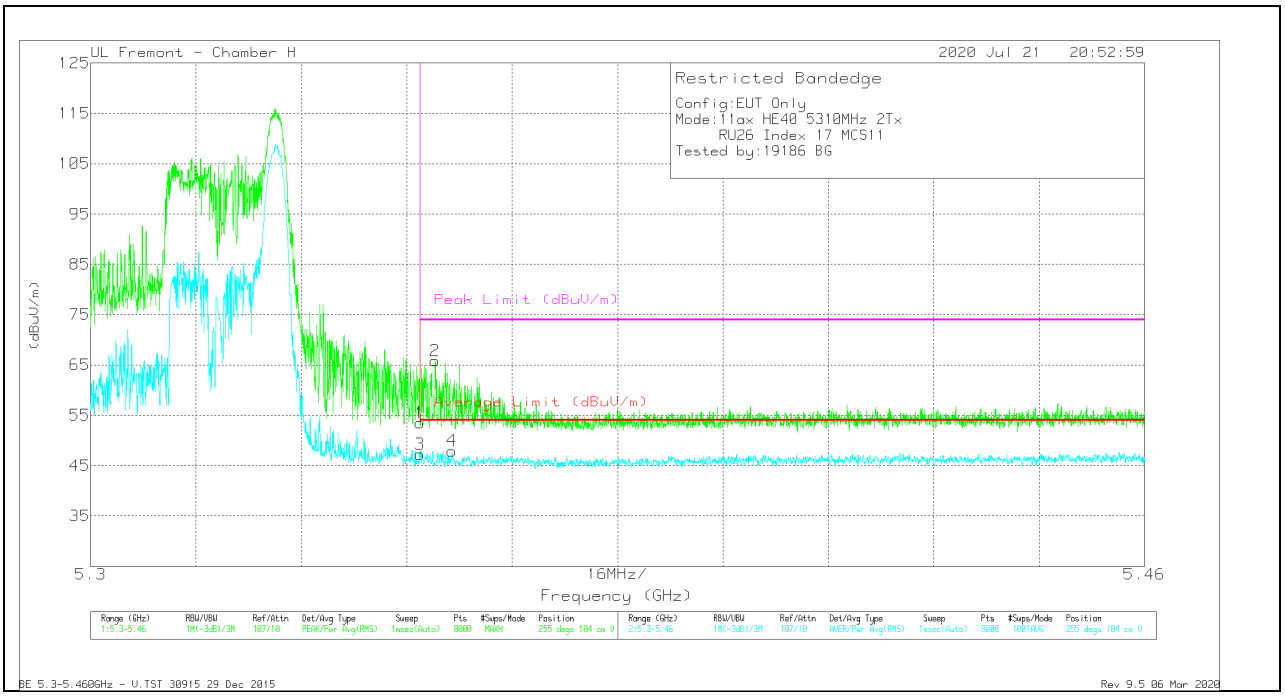


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	44.3	Pk	34.9	-20.9	58.3	-	-	74	-15.7	239	174	H
2	* 5.35205	51.42	Pk	34.9	-21	65.32	-	-	74	-8.68	239	174	H
3	* 5.35001	32.76	RMS	34.9	-20.9	47.76	54	-7.24	-	-	239	174	H
4	* 5.35063	37.11	RMS	34.9	-20.9	51.11	54	-2.89	-	-	239	174	H

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

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

VERTICAL RESULT



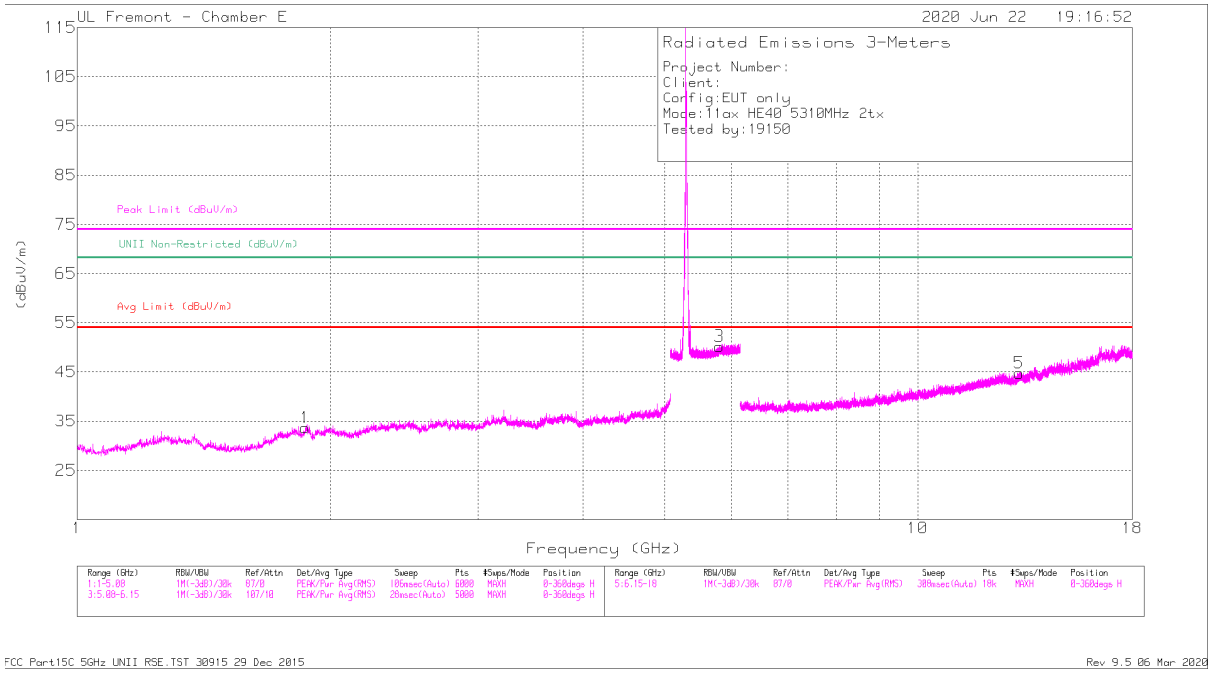
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	39.45	Pk	34.9	-20.9	53.45	-	-	74	-20.55	255	104	V
2	* 5.35231	51.95	Pk	34.9	-21	65.85	-	-	74	-8.15	255	104	V
3	* 5.35001	33.27	RMS	34.9	-20.9	47.27	54	-6.73	-	-	255	104	V
4	* 5.35487	33.95	RMS	34.9	-20.9	47.95	54	-6.05	-	-	255	104	V

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

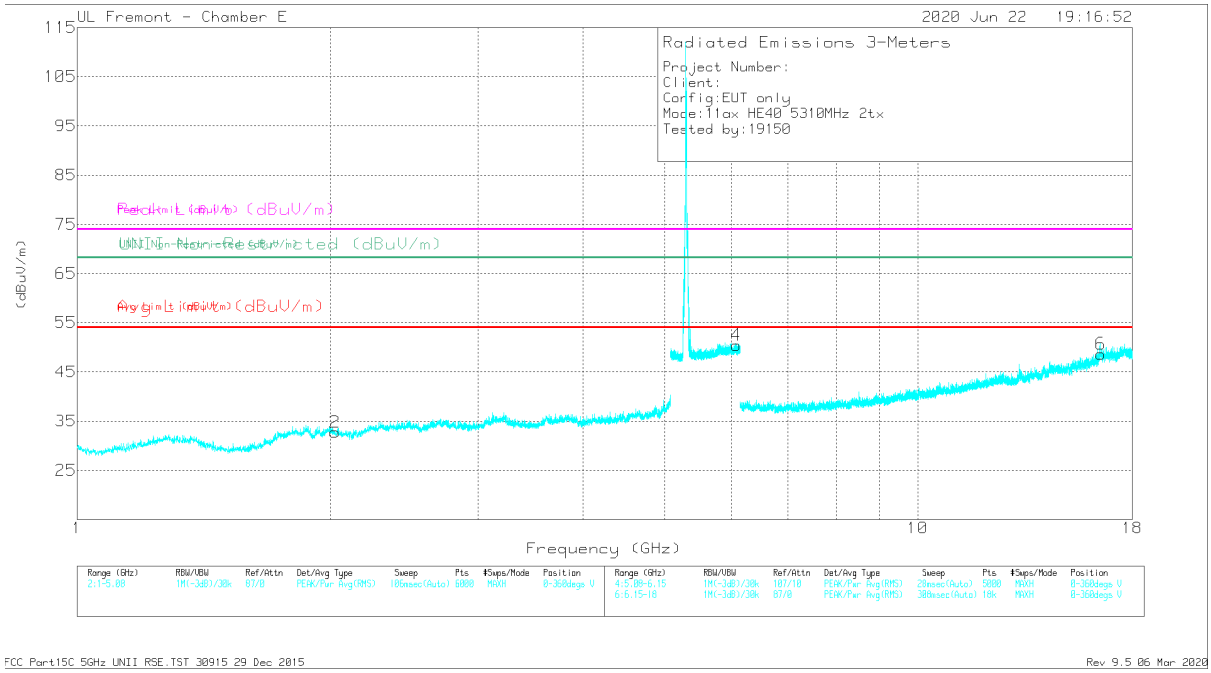
UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

HARMONICS AND SPURIOUS EMISSIONS

26 Tones, RU Index 17 RESULTS



HORIZONTAL



VERTICAL

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

RADIATED EMISSIONS

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.86843	45.42	PK-U	31.1	-35	41.52	-26.68	0	101	H
2	2.02695	45.48	PK-U	31.7	-36.2	40.98	-27.22	0	101	V
3	5.80716	43.16	PK-U	35	-20.7	57.46	-10.74	0	101	H
4	6.08334	42.41	PK-U	35.4	-20.6	57.21	-10.99	0	101	V
5	13.20286	35.01	PK-U	39.1	-22.5	51.61	-16.59	0	101	H
6	16.5227	35.04	PK-U	41.5	-20.1	56.44	-11.76	0	101	V

PK-U - U-NII: Maximum Peak
ADR - U-NII AD primary method, RMS average

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.