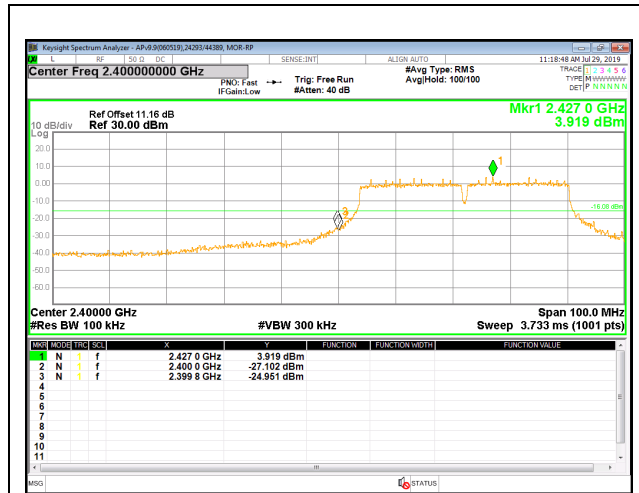
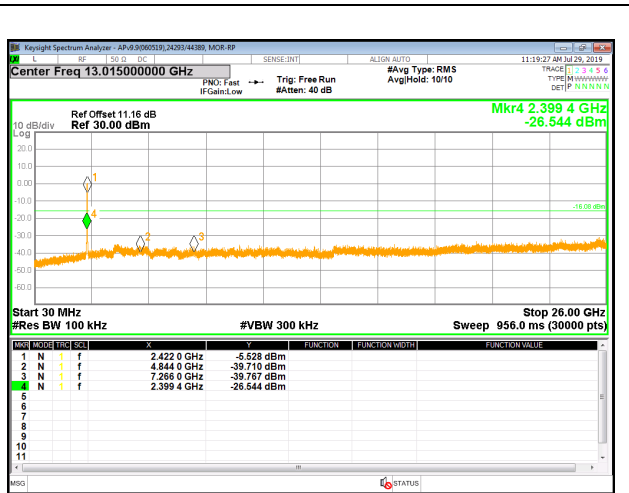


9.7.4. 802.11n HT40 MODE

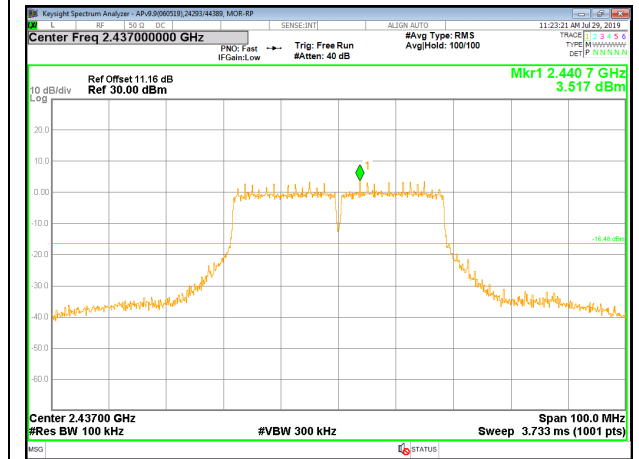
2TX Chain 0 + Chain 1 SDM MODE



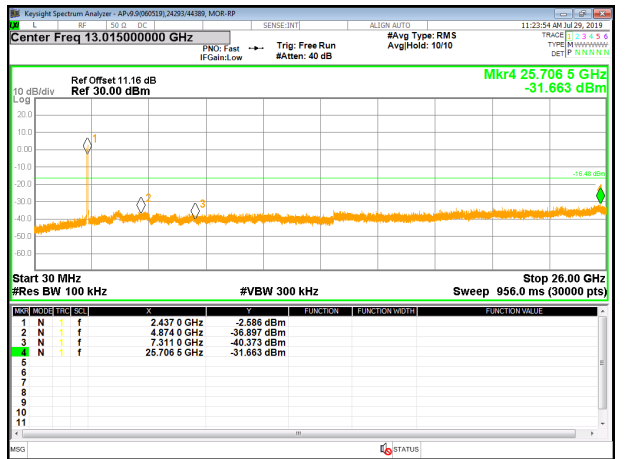
LOW CHANNEL 3 BANDEDGE CHAIN 0
 Note – Low channel tested at max. power setting (mid channel).



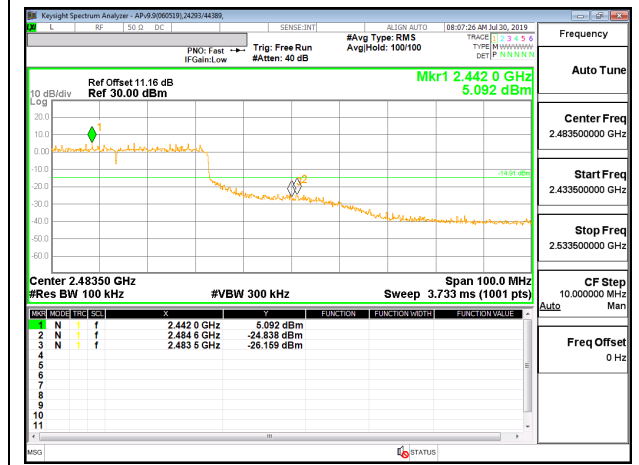
OUT-OF-BAND LOW CHANNEL 3 CHAIN 0



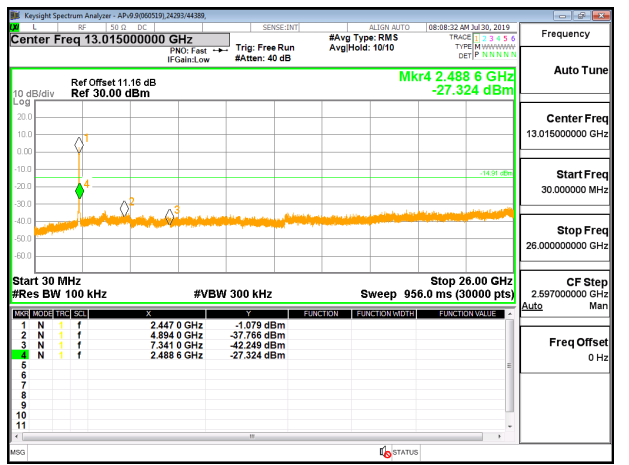
IN-BAND REFERENCE LEVEL CHAIN 0



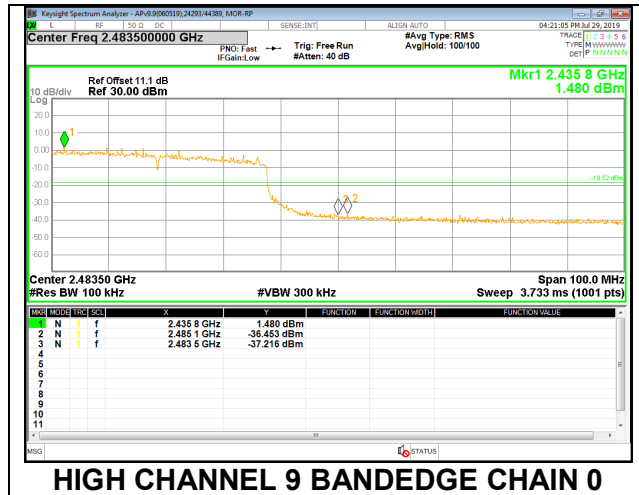
OUT-OF-BAND MID CHANNEL CHAIN 0



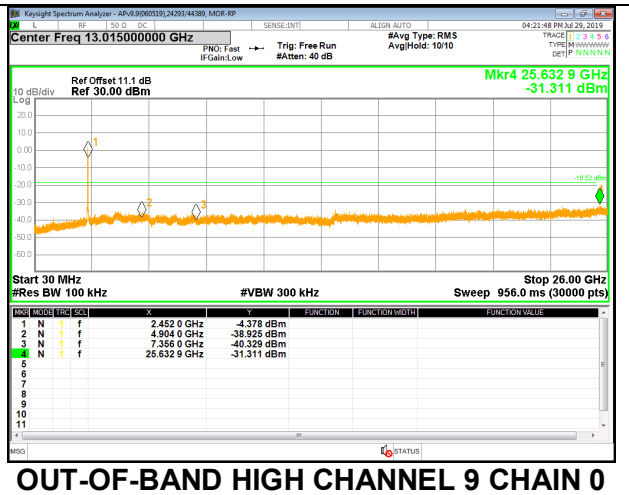
HIGH CHANNEL 8 BANDEDGE CHAIN 0



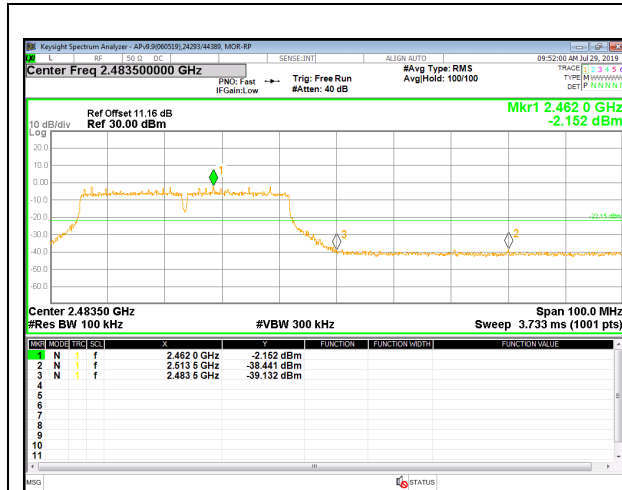
OUT-OF-BAND HIGH CHANNEL 8 CHAIN 0



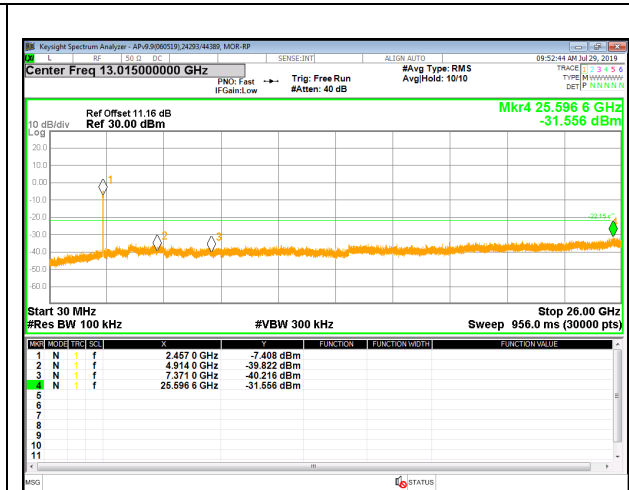
HIGH CHANNEL 9 BANDEDGE CHAIN 0



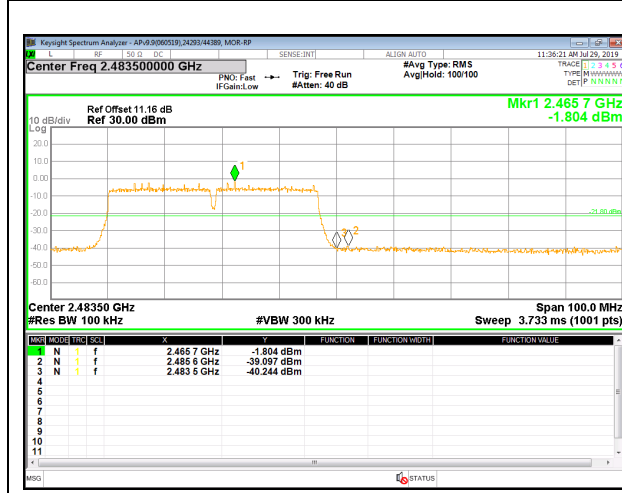
OUT-OF-BAND HIGH CHANNEL 9 CHAIN 0



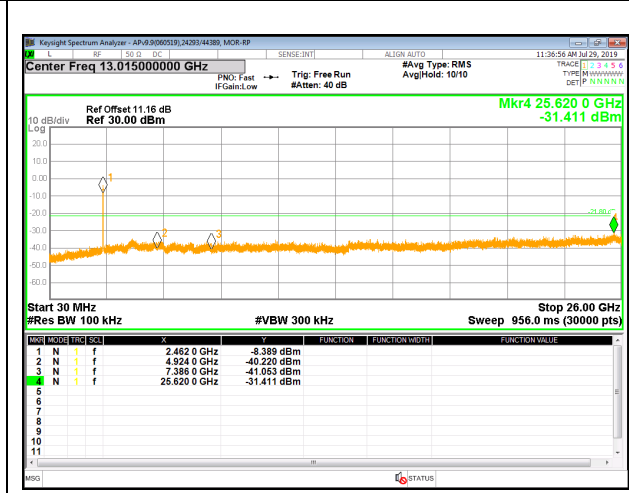
HIGH CHANNEL 10 BANDEDGE CHAIN 0



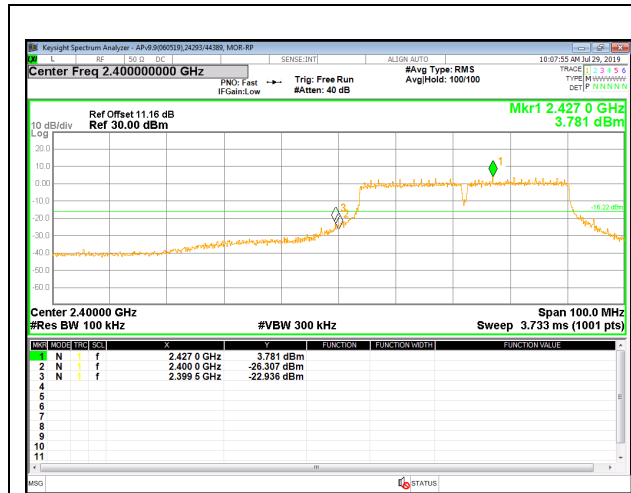
OUT-OF-BAND HIGH CHANNEL 10 CHAIN 0



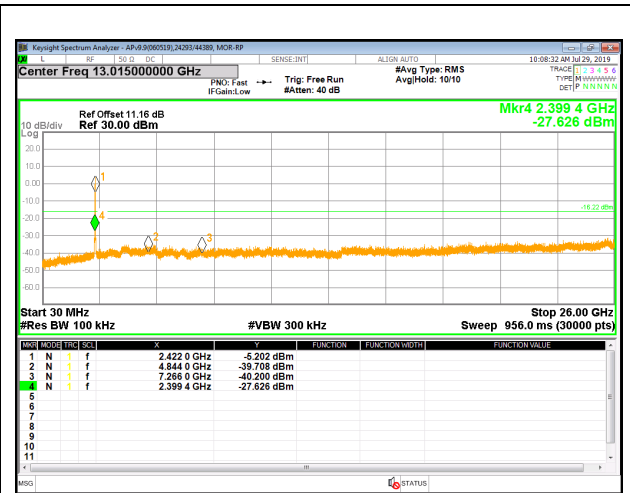
HIGH CHANNEL 11 BANDEDGE CHAIN 0



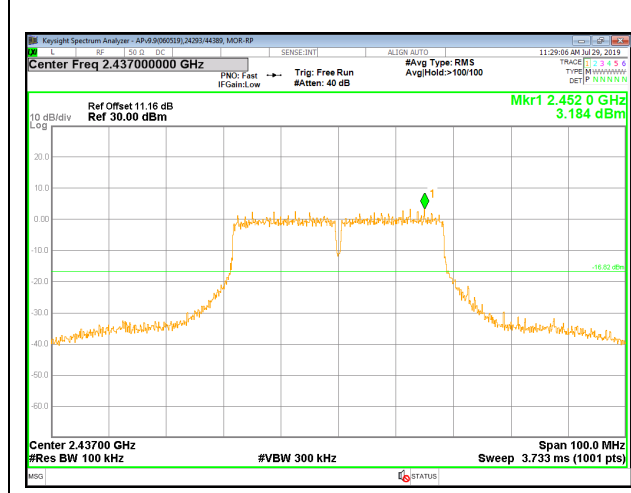
OUT-OF-BAND HIGH CHANNEL 11 CHAIN 0



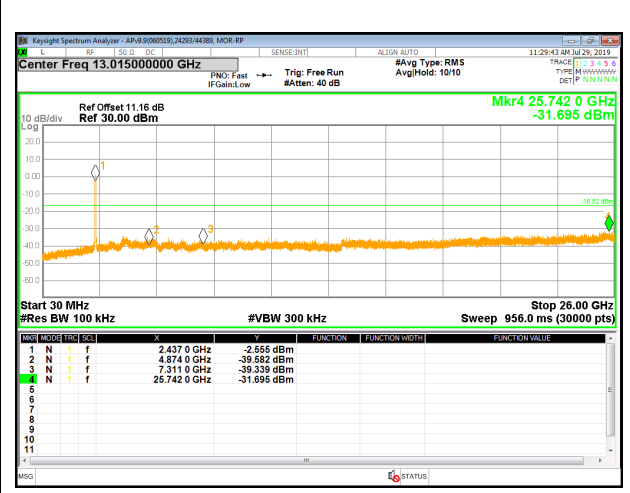
LOW CHANNEL 3 BANDEDGE CHAIN 1
 Note – Low channel tested at max. power setting (mid channel).



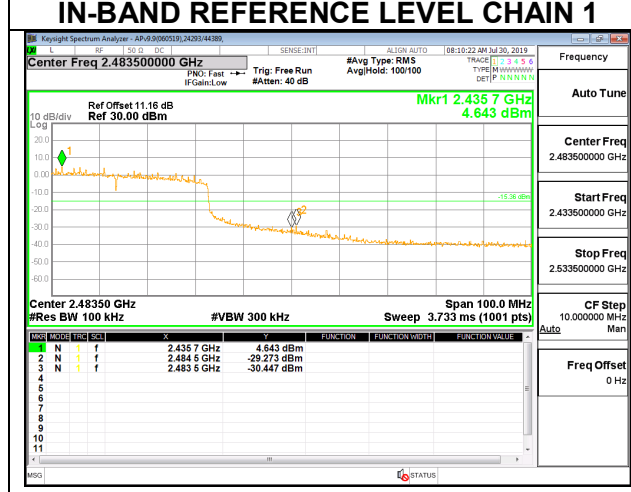
OUT-OF-BAND LOW CHANNEL 3 CHAIN 1



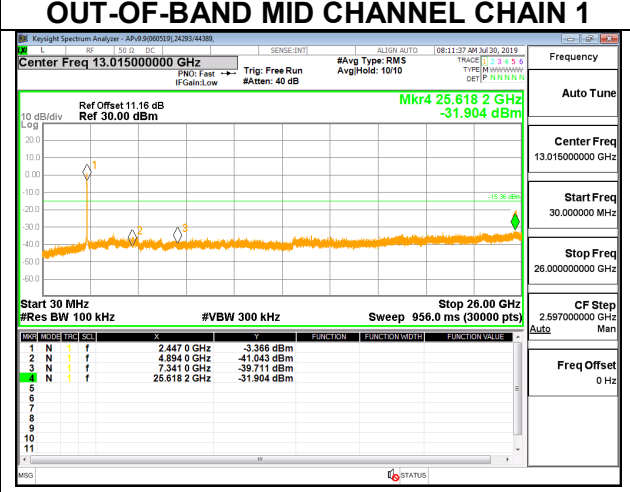
IN-BAND REFERENCE LEVEL CHAIN 1



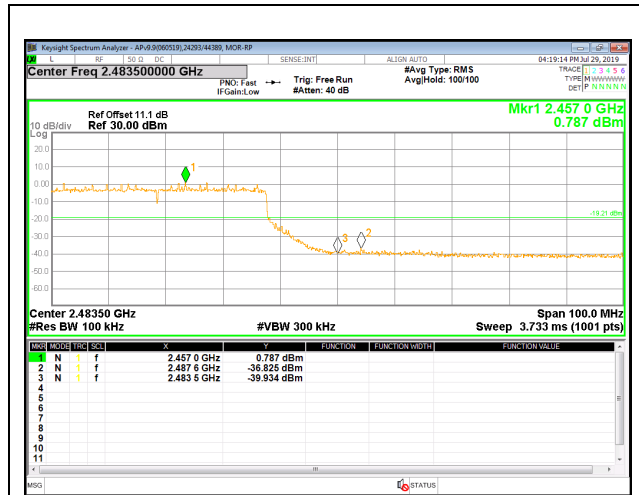
OUT-OF-BAND MID CHANNEL CHAIN 1



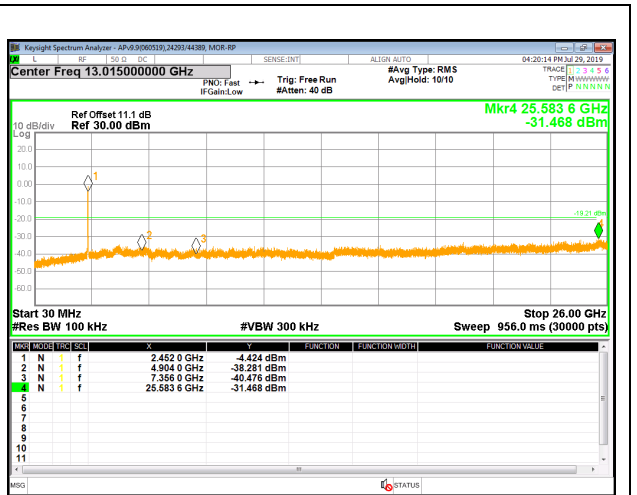
HIGH CHANNEL 8 BANDEDGE CHAIN 1



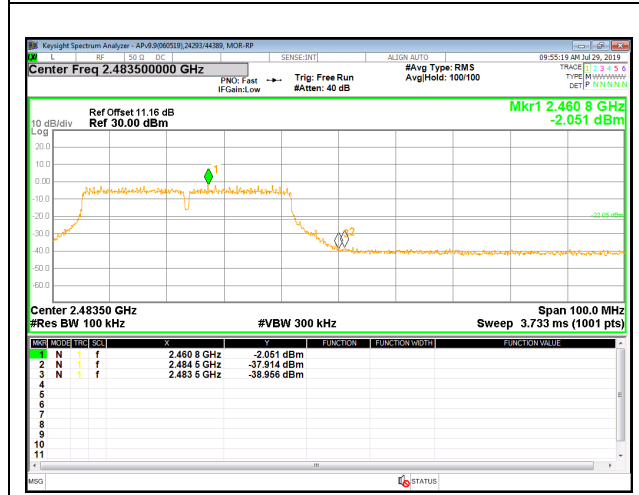
OUT-OF-BAND HIGH CHANNEL 8 CHAIN 1



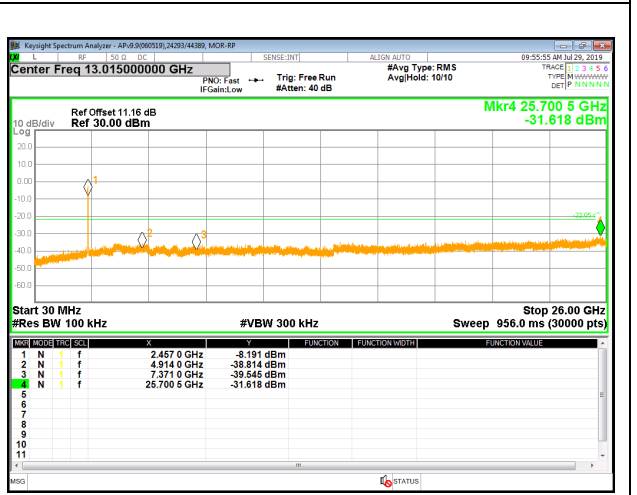
HIGH CHANNEL 9 BANDEDGE CHAIN 1



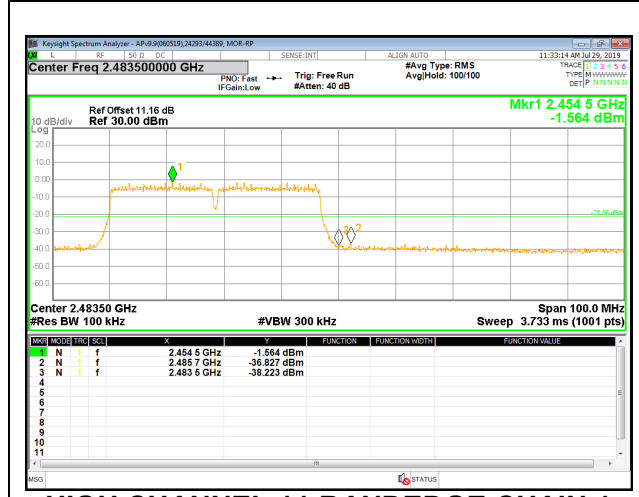
OUT-OF-BAND HIGH CHANNEL 9 CHAIN 1



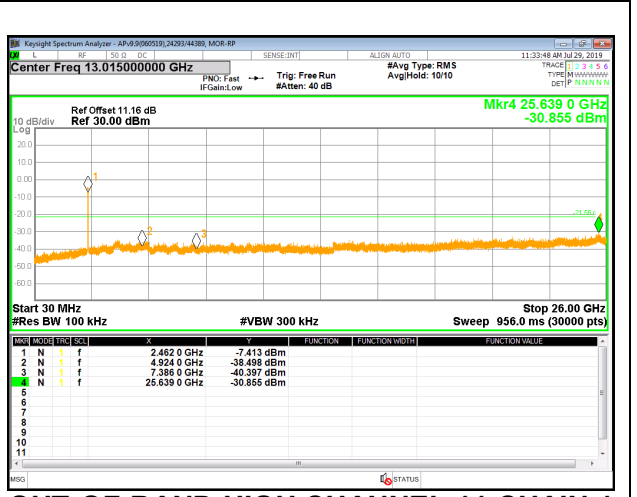
HIGH CHANNEL 10 BANDEDGE CHAIN 1



OUT-OF-BAND HIGH CHANNEL 10 CHAIN 1



HIGH CHANNEL 11 BANDEDGE CHAIN 1



OUT-OF-BAND HIGH CHANNEL 11 CHAIN 1

10. RADIATED TEST RESULTS

LIMITS

FCC §15.205 and §15.209

RSS-GEN, Section 8.9 and 8.10

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
0.009-0.490	2400/F(kHz) @ 300 m	-
0.490-1.705	24000/F(kHz) @ 30 m	-
1.705 - 30	30 @ 30m	-
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 120 kHz for peak and/or quasi-peak detection measurements in the 30-1000MHz range, 9kHz for peak and/or quasi-peak detection measurements in the 0.15-30MHz range and 200Hz for peak and/or quasi-peak detection measurements in the 9 to 150kHz range. 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. For average measurements above 1GHz, the resolution bandwidth and video bandwidth are set as described in ANSI C63.10:2013 for the applicable measurement. The particular averaging method used for this test program was RMS.

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

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

3D antenna use - For below 30MHz testing, investigation was done on three antenna orientations (parallel, perpendicular, and ground-parallel).

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.

NOTE: Throughout this section, please note that
Antenna 1 = Chain 0
Antenna 2 = Chain 1

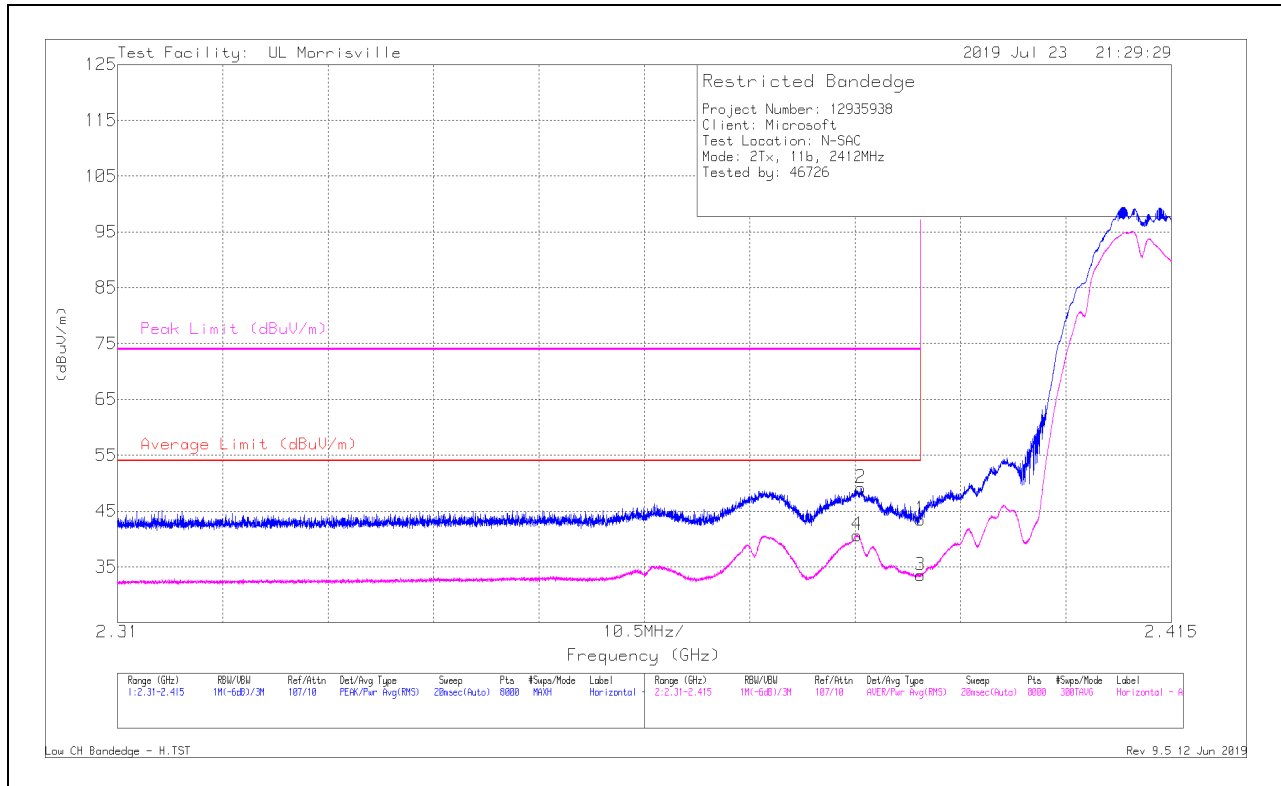
10.1. TRANSMITTER ABOVE 1 GHz

10.1.1. TX ABOVE 1 GHz 802.11b MODE IN THE 2.4 GHz BAND

2TX Chain 0 + Chain 1 CDD MODE

BANDEDGE (LOW CHANNEL, CH 1)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	* ** 2.39	35.91	Pk	32	-24.4	43.51	-	-	74	-30.49	236	400	H
2	* ** 2.38406	41.55	Pk	32	-24.4	49.15	-	-	74	-24.85	236	400	H
3	* ** 2.39	25.87	RMS	32	-24.4	33.47	54	-20.53	-	-	236	400	H
4	* ** 2.38368	33.09	RMS	32	-24.4	40.69	54	-13.31	-	-	236	400	H

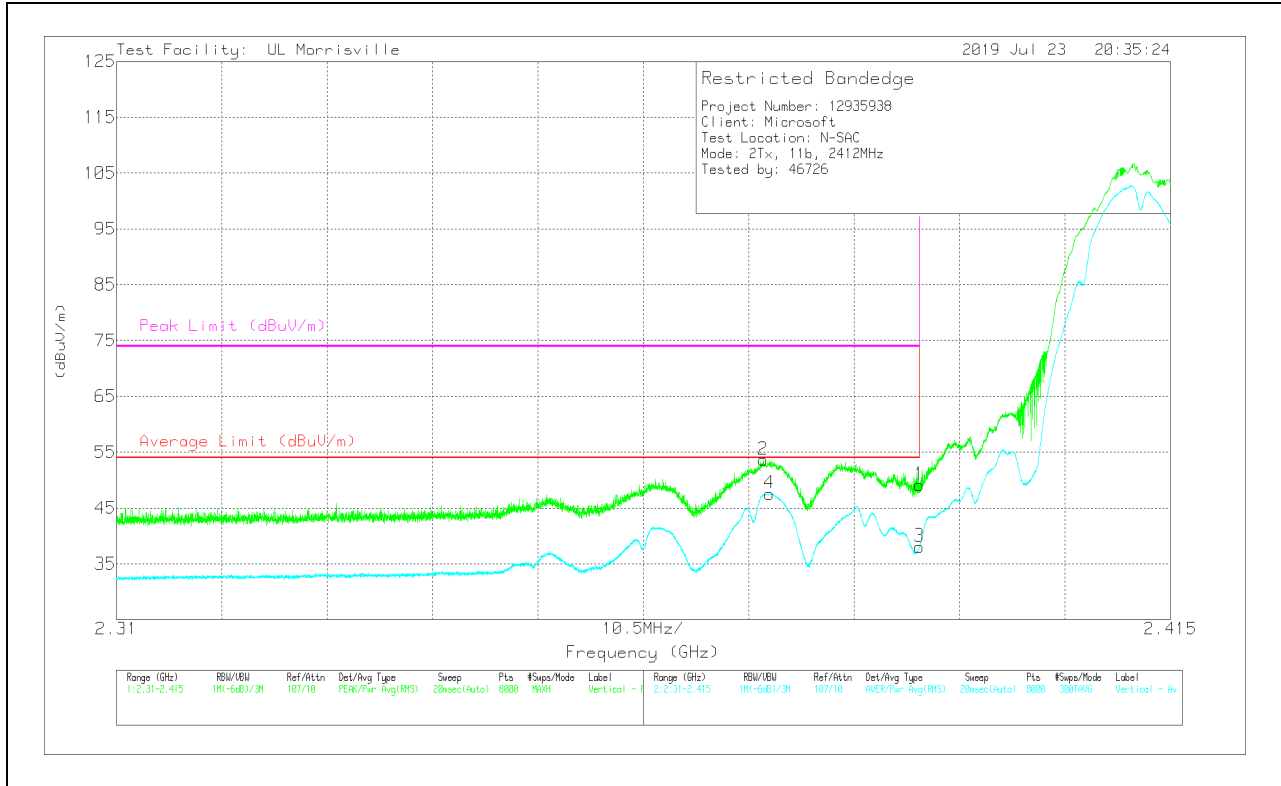
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

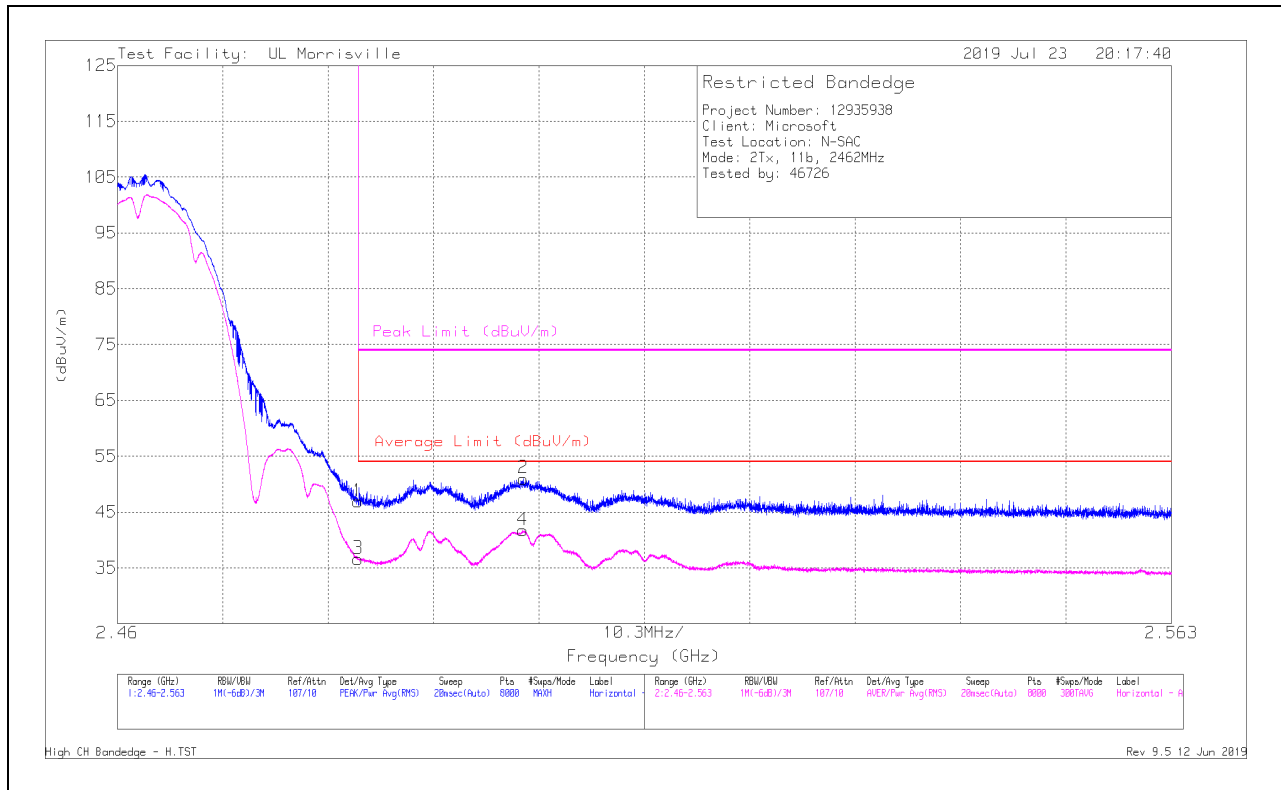


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.39	41.55	Pk	32	-24.4	49.15	-	-	74	-24.85	8	322	V
2	* ** 2.37443	46.13	Pk	31.9	-24.4	53.63	-	-	74	-20.37	8	322	V
3	* ** 2.39	30.49	RMS	32	-24.4	38.09	54	-15.91	-	-	8	322	V
4	* ** 2.37506	40.08	RMS	31.9	-24.4	47.58	54	-6.42	-	-	8	322	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 11)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	*** 2.4835	38.78	Pk	32.4	-24.3	46.88	-	-	74	-27.12	20	331	H
2	*** 2.49966	42.82	Pk	32.5	-24.3	51.02	-	-	74	-22.98	20	331	H
3	*** 2.4835	28.51	RMS	32.4	-24.3	36.61	54	-17.39	-	-	20	331	H
4	*** 2.49962	33.51	RMS	32.5	-24.3	41.71	54	-12.29	-	-	20	331	H

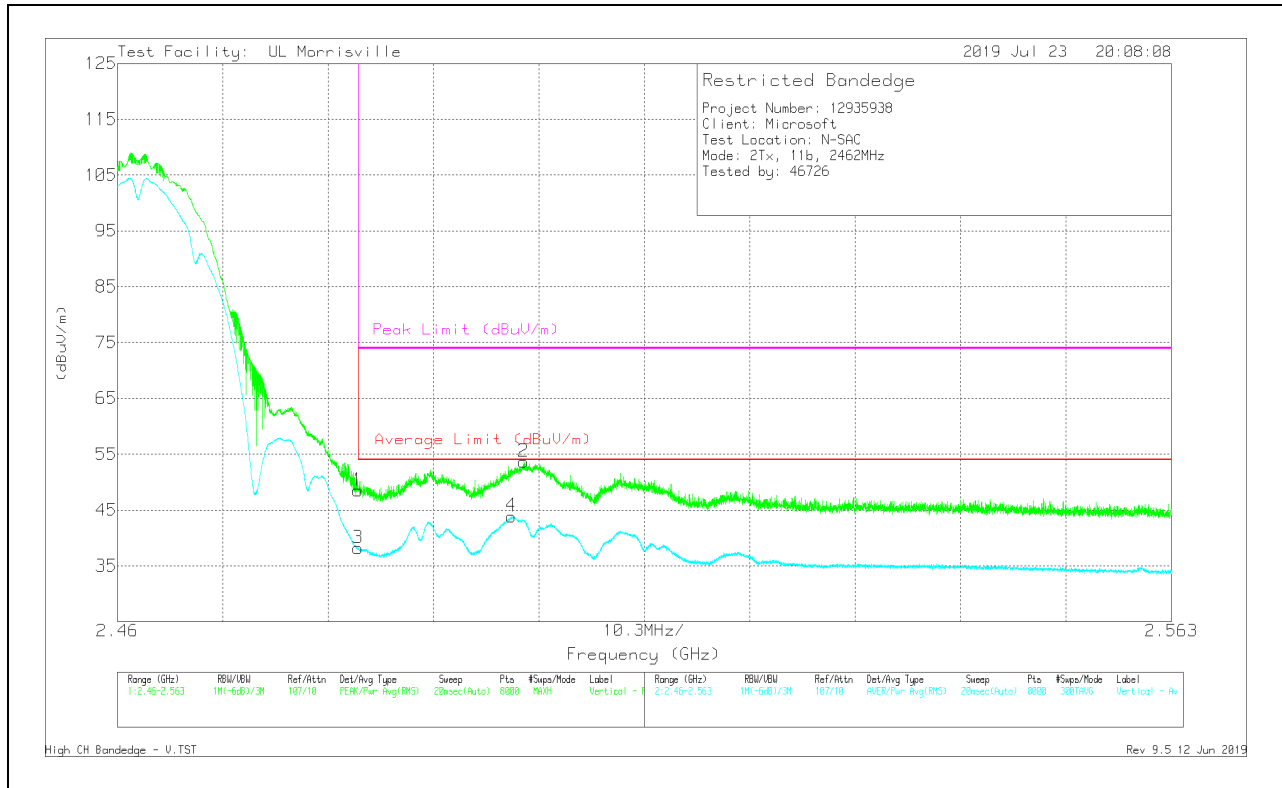
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

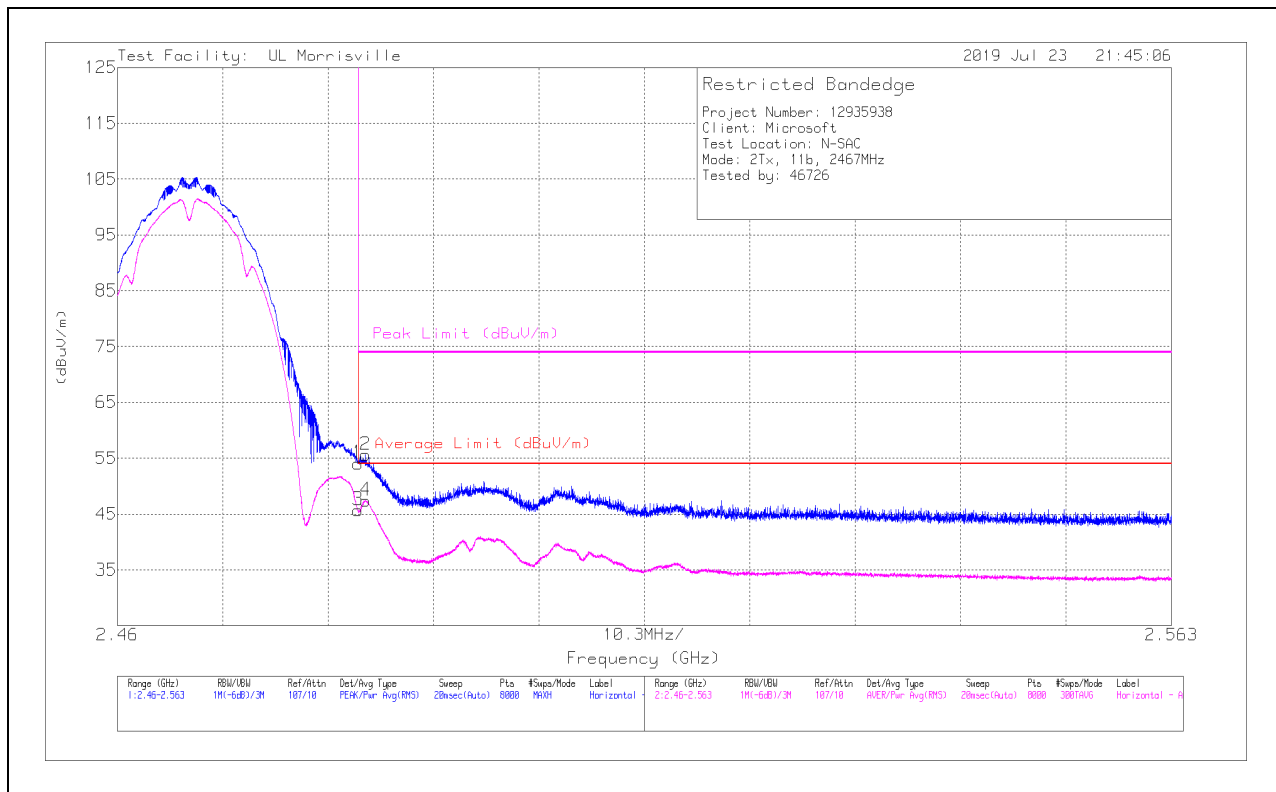


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.4835	40.4	Pk	32.4	-24.3	48.5	-	-	74	-25.5	4	330	V
2	*** 2.49969	45.47	Pk	32.5	-24.3	53.67	-	-	74	-20.33	4	330	V
3	*** 2.4835	30.05	RMS	32.4	-24.3	38.15	54	-15.85	-	-	4	330	V
4	** 2.49849	35.68	RMS	32.5	-24.3	43.88	54	-10.12	-	-	4	330	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 12)

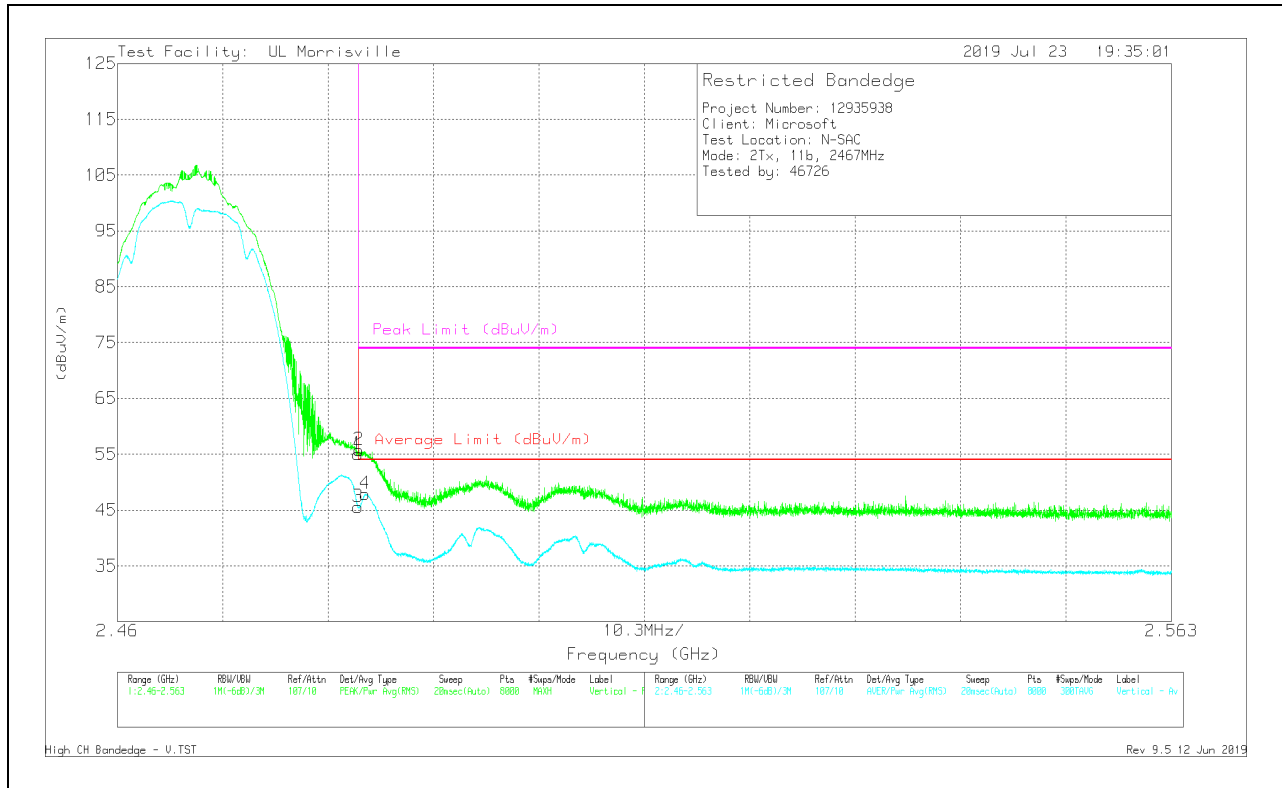
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	* ** 2.4835	45.97	Pk	32.4	-24.3	54.07	-	-	74	-19.93	95	356	H
2	* ** 2.48424	47.53	Pk	32.4	-24.3	55.63	-	-	74	-18.37	95	356	H
3	* ** 2.4835	37.62	RMS	32.4	-24.3	45.72	54	-8.28	-	-	95	356	H
4	* ** 2.48425	39.33	RMS	32.4	-24.3	47.43	54	-6.57	-	-	95	356	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 RMS - RMS detection

VERTICAL RESULT

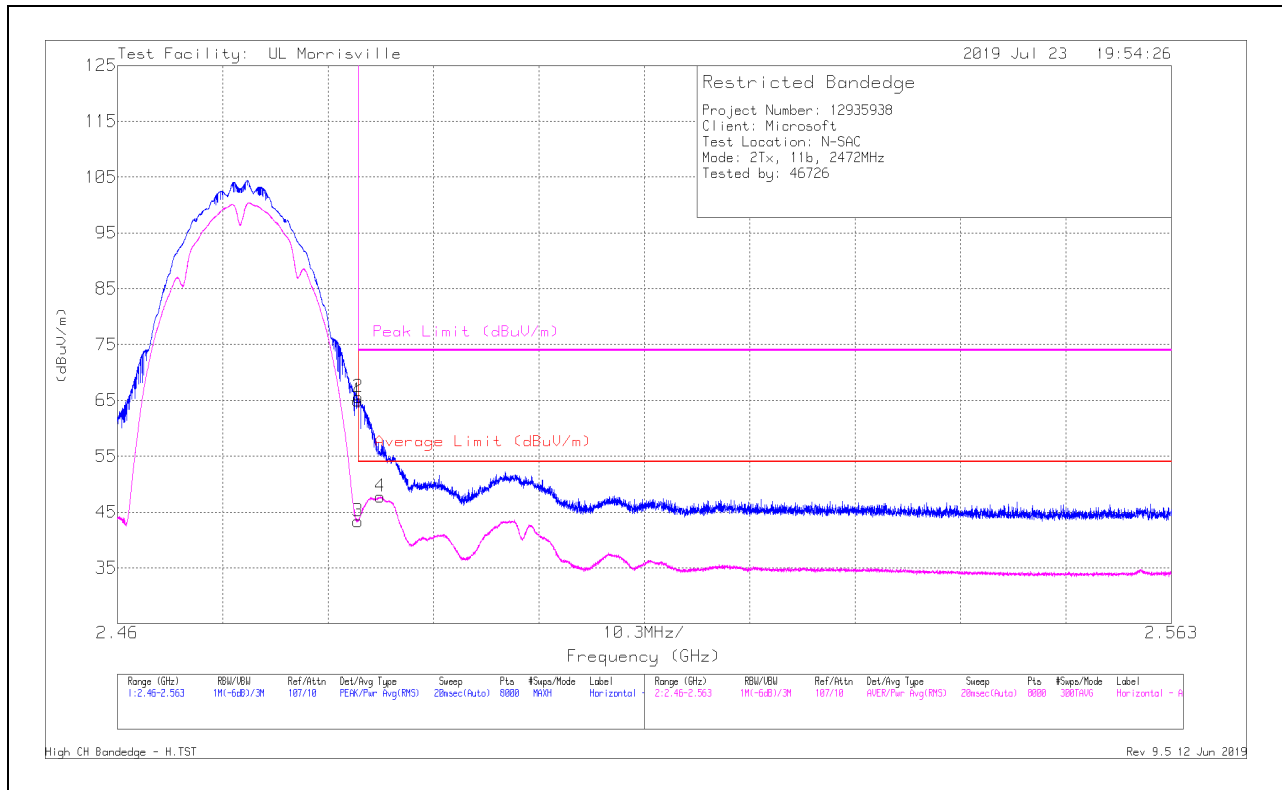


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.4835	46.91	Pk	32.4	-24.3	55.01	-	-	74	-18.99	336	292	V
2	* ** 2.48362	47.65	Pk	32.4	-24.3	55.75	-	-	74	-18.25	336	292	V
3	* ** 2.4835	37.44	RMS	32.4	-24.3	45.54	54	-8.46	-	-	336	292	V
4	* ** 2.48422	39.77	RMS	32.4	-24.3	47.87	54	-6.13	-	-	336	292	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 13)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	*** 2.4835	56.87	Pk	32.4	-24.3	64.97	-	-	74	-9.03	19	371	H
2	*** 2.48351	57.45	Pk	32.4	-24.3	65.55	-	-	74	-8.45	19	371	H
3	*** 2.4835	35.21	RMS	32.4	-24.3	43.31	54	-10.69	-	-	19	371	H
4	*** 2.48569	39.63	RMS	32.4	-24.3	47.73	54	-6.27	-	-	19	371	H

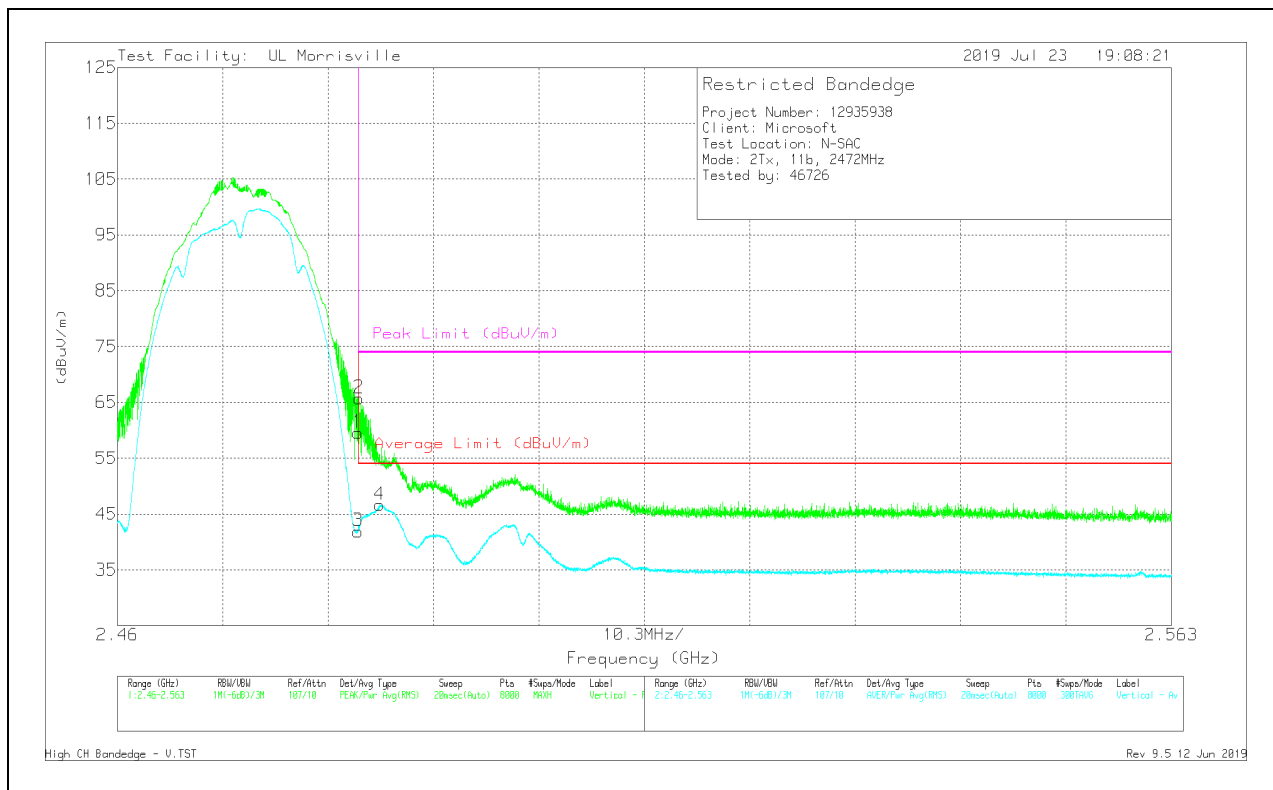
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	* ** 2.4835	51.51	Pk	32.4	-24.3	59.61	-	-	74	-14.39	344	291	V
2	* ** 2.48362	57.65	Pk	32.4	-24.3	65.75	-	-	74	-8.25	344	291	V
3	* ** 2.4835	33.82	RMS	32.4	-24.3	41.92	54	-12.08	-	-	344	291	V
4	* ** 2.48564	38.55	RMS	32.4	-24.3	46.65	54	-7.35	-	-	344	291	V

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

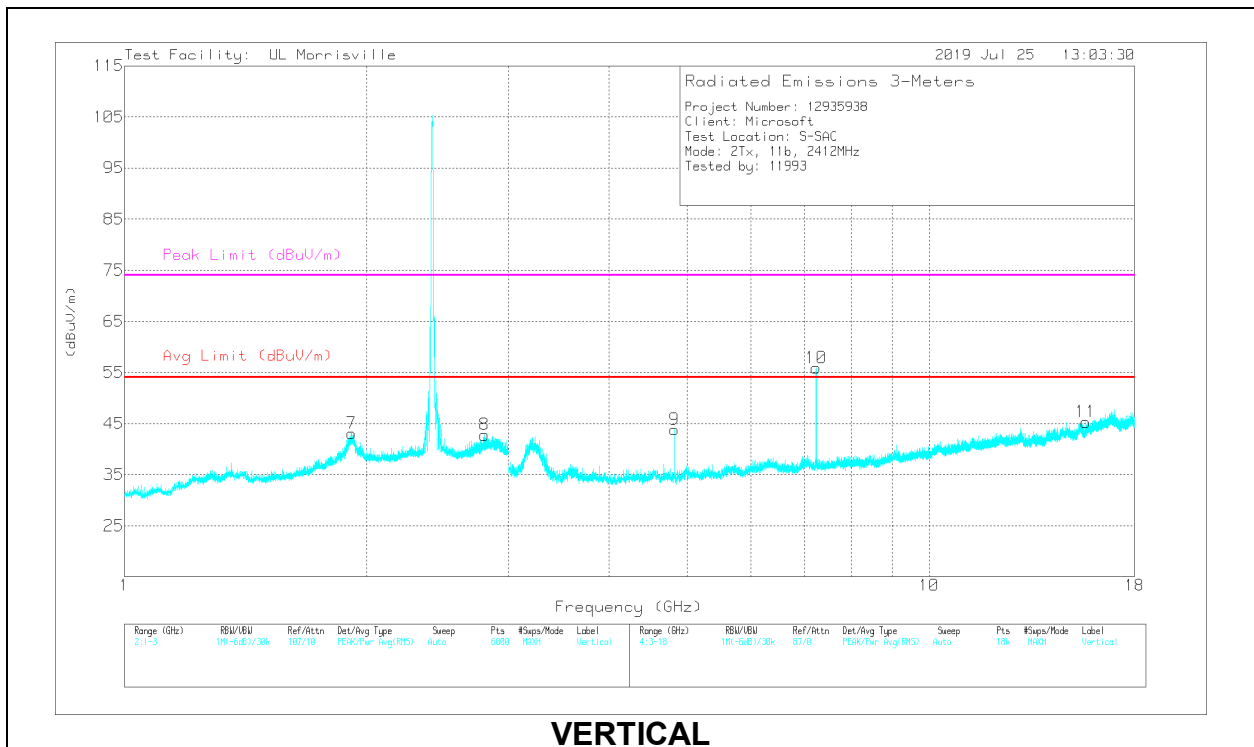
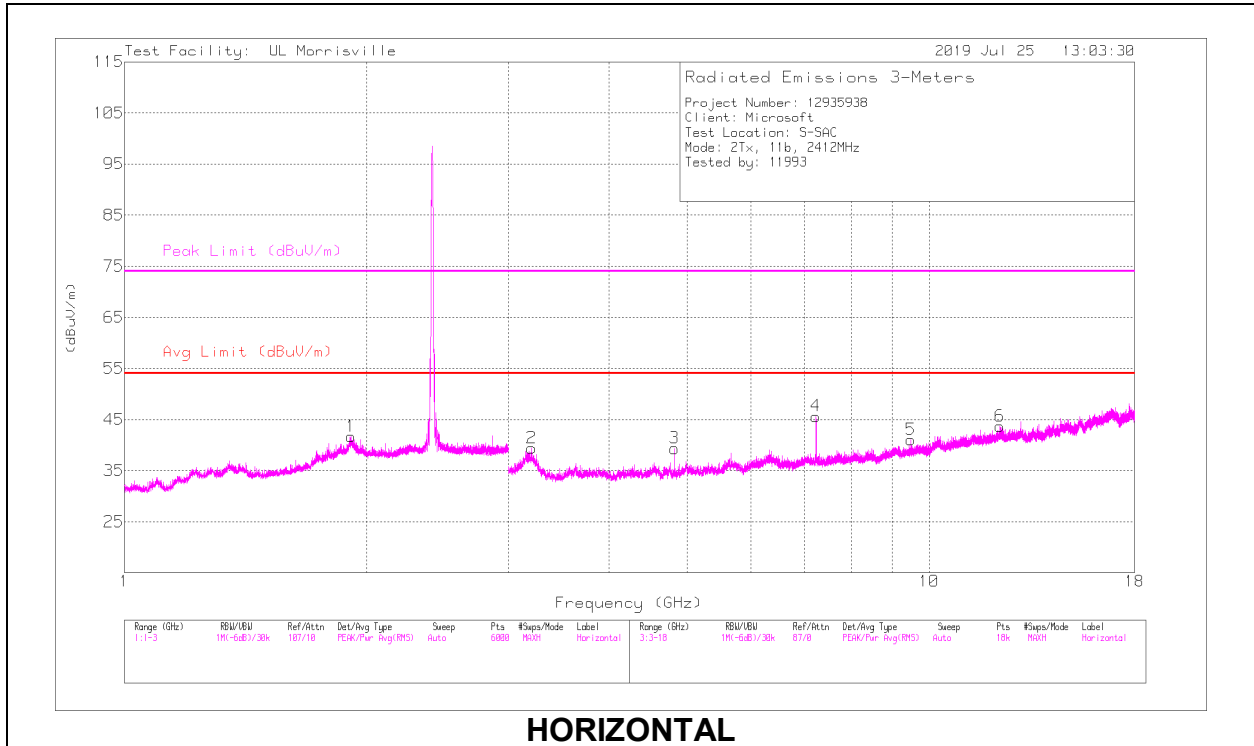
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, CH 1 RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	** 1.91308	40.51	PK2	31.1	-22.4	49.21	-	-	74	-24.79	323	131	H
	** 1.91429	28.4	MAv1	31.1	-22.4	37.1	54	-16.9	-	-	323	131	H
7	** 1.91447	43.64	PK2	31.1	-22.4	52.34	-	-	74	-21.66	90	230	V
	** 1.91454	31.46	MAv1	31.1	-22.4	40.16	54	-13.84	-	-	90	230	V
8	*** 2.80162	44.22	PK2	32.2	-25.8	50.62	-	-	74	-23.38	104	211	V
	*** 2.80091	32.8	MAv1	32.2	-25.8	39.2	54	-14.8	-	-	104	211	V
3	*** 4.8239	41.79	PK2	34.1	-30.9	44.99	-	-	74	-29.01	329	272	H
	*** 4.82401	34.16	MAv1	34.1	-30.9	37.36	54	-16.64	-	-	329	272	H
5	*** 9.48808	35.3	PK2	37	-26.1	46.2	-	-	74	-27.8	88	165	H
	*** 9.48669	23.36	MAv1	37	-26.1	34.26	54	-19.74	-	-	88	165	H
6	*** 12.24052	34	PK2	38.9	-23.6	49.3	-	-	74	-24.7	284	132	H
	*** 12.2402	22.28	MAv1	38.9	-23.6	37.58	54	-16.42	-	-	284	132	H
9	*** 4.82382	43.52	PK2	34.1	-30.9	46.72	-	-	74	-27.28	40	298	V
	*** 4.82398	39	MAv1	34.1	-30.9	42.2	54	-11.8	-	-	40	298	V
11	*** 15.66418	33.54	PK2	40.1	-22.8	50.84	-	-	74	-23.16	187	101	V
	*** 15.66325	22	MAv1	40.1	-22.8	39.3	54	-14.7	-	-	187	101	V
2	3.20668	39.02	Pk	33.1	-32.7	39.42	-	-	-	-	0-360	101	H
4	7.2344	37.85	Pk	35.7	-27.9	45.65	-	-	-	-	0-360	199	H
10	7.2369	48.1	Pk	35.7	-27.9	55.9	-	-	-	-	0-360	199	V

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

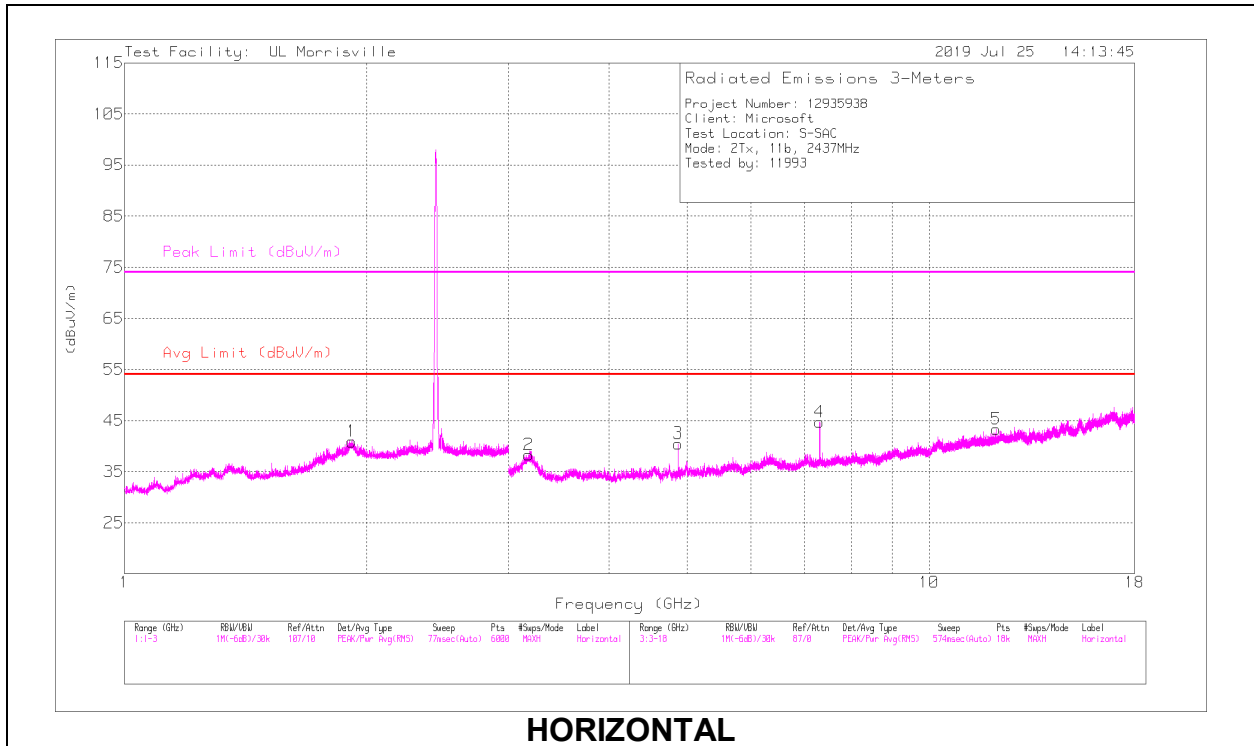
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2 - Maximum Peak

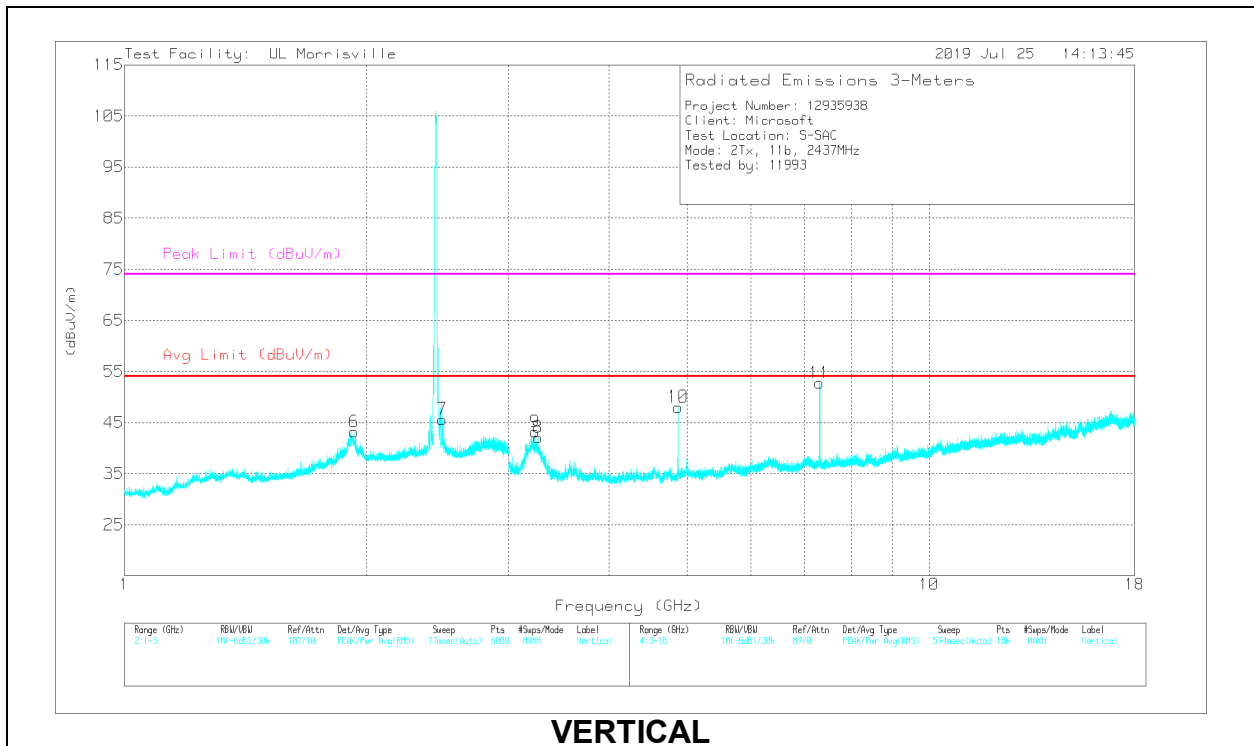
MAv1 - Maximum RMS Average

Pk - Peak detector

MID CHANNEL, CH 6 RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	** 1.91698	40.31	PK2	31.2	-22.4	49.11	-	-	74	-24.89	328	164	H
	** 1.91753	27.93	MAv1	31.2	-22.4	36.73	54	-17.27	-	-	328	164	H
6	** 1.92714	41.65	PK2	31.2	-22.4	50.45	-	-	74	-23.55	94	262	V
	** 1.92619	29.69	MAv1	31.2	-22.4	38.49	54	-15.51	-	-	94	262	V
7	*** 2.48492	44.46	PK2	32.3	-24.5	52.26	-	-	74	-21.74	222	219	V
	*** 2.48533	33.81	MAv1	32.3	-24.5	41.61	54	-12.39	-	-	222	219	V
3	*** 4.87411	42.65	PK2	34	-30.7	45.95	-	-	74	-28.05	326	259	H
	*** 4.87398	36.55	MAv1	34	-30.7	39.85	54	-14.15	-	-	326	259	H
4	*** 7.31148	40.61	PK2	35.7	-27.5	48.81	-	-	74	-25.19	43	304	H
	*** 7.31173	32.38	MAv1	35.7	-27.5	40.58	54	-13.42	-	-	43	304	H
5	*** 12.11229	33.83	PK2	38.8	-23.8	48.83	-	-	74	-25.17	30	385	H
	*** 12.11245	21.91	MAv1	38.8	-23.8	36.91	54	-17.09	-	-	30	385	H
8	*** 3.26448	48.91	PK2	33	-33	48.91	-	-	74	-25.09	111	191	V
	*** 3.26468	36.68	MAv1	33	-33	36.68	54	-17.32	-	-	111	191	V
10	*** 4.87405	48.49	PK2	34	-30.7	51.79	-	-	74	-22.21	46	235	V
	*** 4.87405	45.7	MAv1	34	-30.7	49	54	-5	-	-	46	235	V
11	*** 7.31034	47.11	PK2	35.7	-27.5	55.31	-	-	74	-18.69	345	218	V
	*** 7.30965	41.41	MAv1	35.7	-27.5	49.61	54	-4.39	-	-	345	218	V
2	3.17918	37.58	Pk	33.1	-32.4	38.28	-	-	-	-	0-360	101	H
9	3.23751	42.96	Pk	33.1	-32.9	43.16	-	-	-	-	0-360	199	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

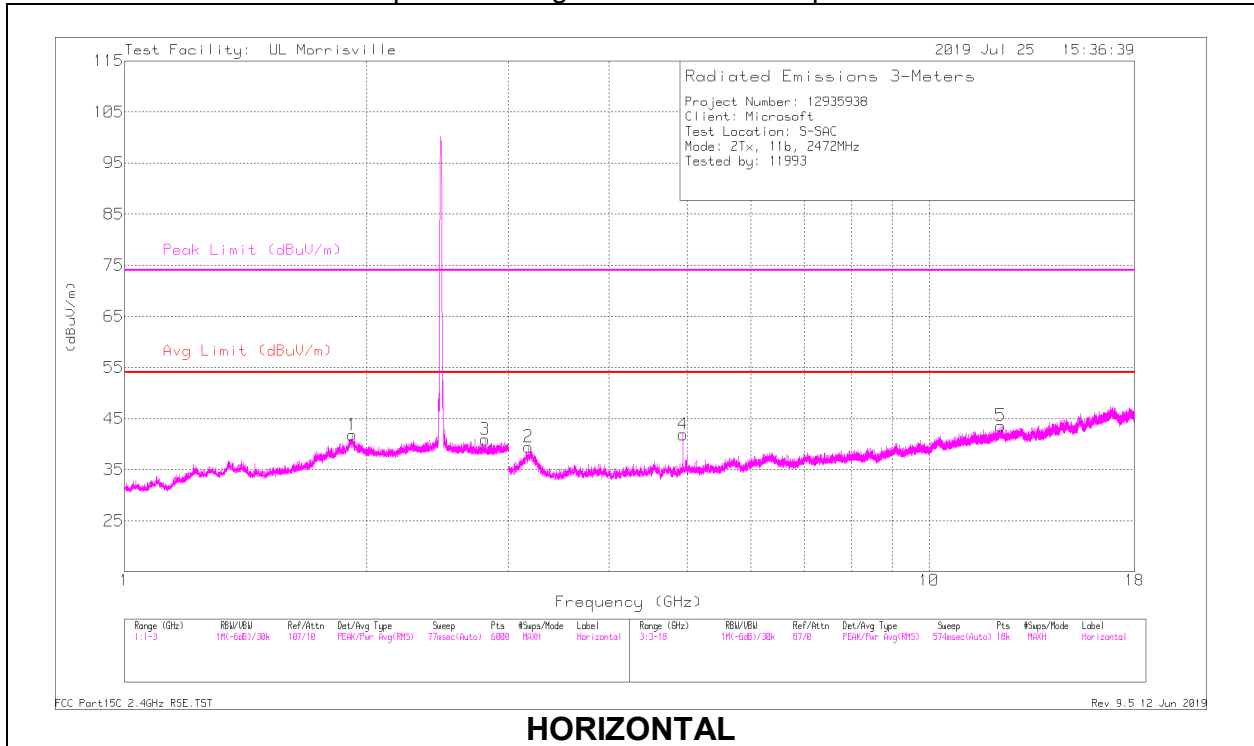
PK2 - Maximum Peak

MAv1 - Maximum RMS Average

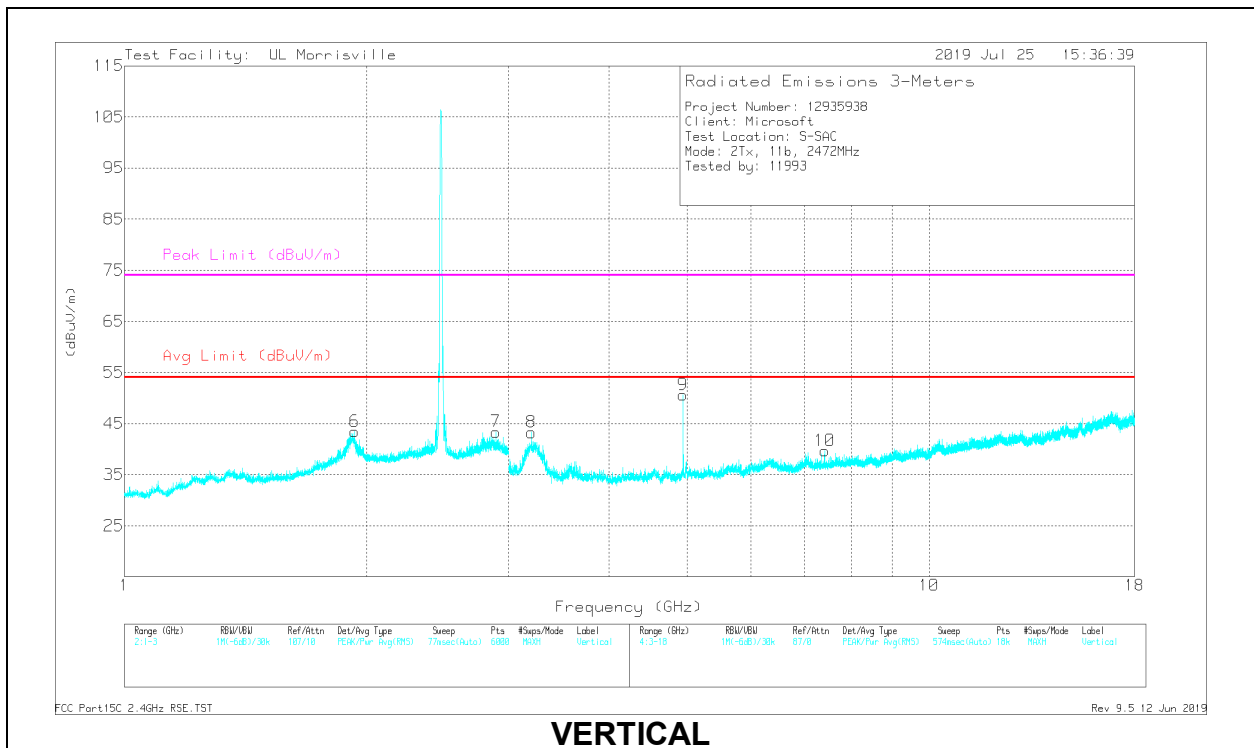
Pk - Peak detector

HIGH CHANNEL, CH 13 RESULTS

Note – Channel 13 set for max. power setting for the Radiated Spurious emissions test.



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	** 1.91755	40.65	PK2	31.2	-22.4	49.45	-	-	74	-24.55	328	132	H
	** 1.91685	28.73	MAv1	31.2	-22.4	37.53	54	-16.47	-	-	328	132	H
3	*** 2.80776	40.41	PK2	32.1	-25.9	46.61	-	-	74	-27.39	70	107	H
	*** 2.80596	28.28	MAv1	32.2	-25.9	34.58	54	-19.42	-	-	70	107	H
6	** 1.93096	41.77	PK2	31.2	-22.4	50.57	-	-	74	-23.43	91	235	V
	** 1.93134	29.62	MAv1	31.2	-22.4	38.42	54	-15.58	-	-	91	235	V
7	*** 2.89183	42.83	PK2	32.6	-25.9	49.53	-	-	74	-24.47	110	219	V
	*** 2.89183	30.43	MAv1	32.6	-25.9	37.13	54	-16.87	-	-	110	219	V
4	*** 4.94406	43.33	PK2	34.1	-30.9	46.53	-	-	74	-27.47	330	110	H
	*** 4.94407	38.04	MAv1	34.1	-30.9	41.24	54	-12.76	-	-	330	110	H
5	*** 12.27118	34.43	PK2	38.9	-23.7	49.63	-	-	74	-24.37	78	112	H
	*** 12.27144	22.27	MAv1	38.9	-23.7	37.47	54	-16.53	-	-	78	112	H
10	*** 7.41525	38.62	PK2	35.8	-27.7	46.72	-	-	74	-27.28	20	236	V
	*** 7.41521	28.49	MAv1	35.8	-27.7	36.59	54	-17.41	-	-	20	236	V
9	*** 4.94404	50.39	PK2	34.1	-30.9	53.59	-	-	74	-20.41	43	274	V
	*** 4.94399	47.5	MAv1	34.1	-30.9	50.7	54	-3.3	-	-	43	274	V

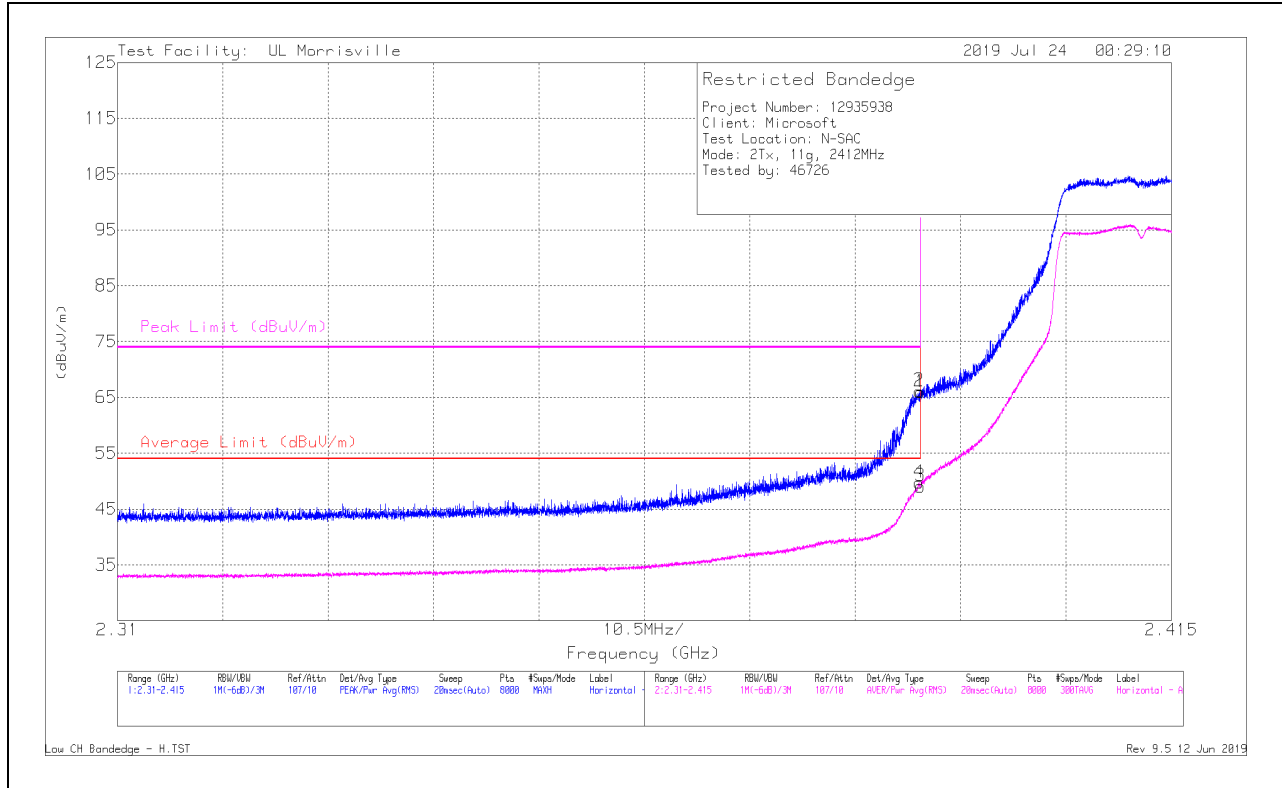
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 PK2 - Maximum Peak
 MAv1 - Maximum RMS Average
 Pk - Peak detector

10.1.2. TX ABOVE 1 GHz 802.11g MODE IN THE 2.4 GHz BAND

2TX Chain 0 + Chain 1 CDD MODE

BANDEDGE (LOW CHANNEL, CH 1)

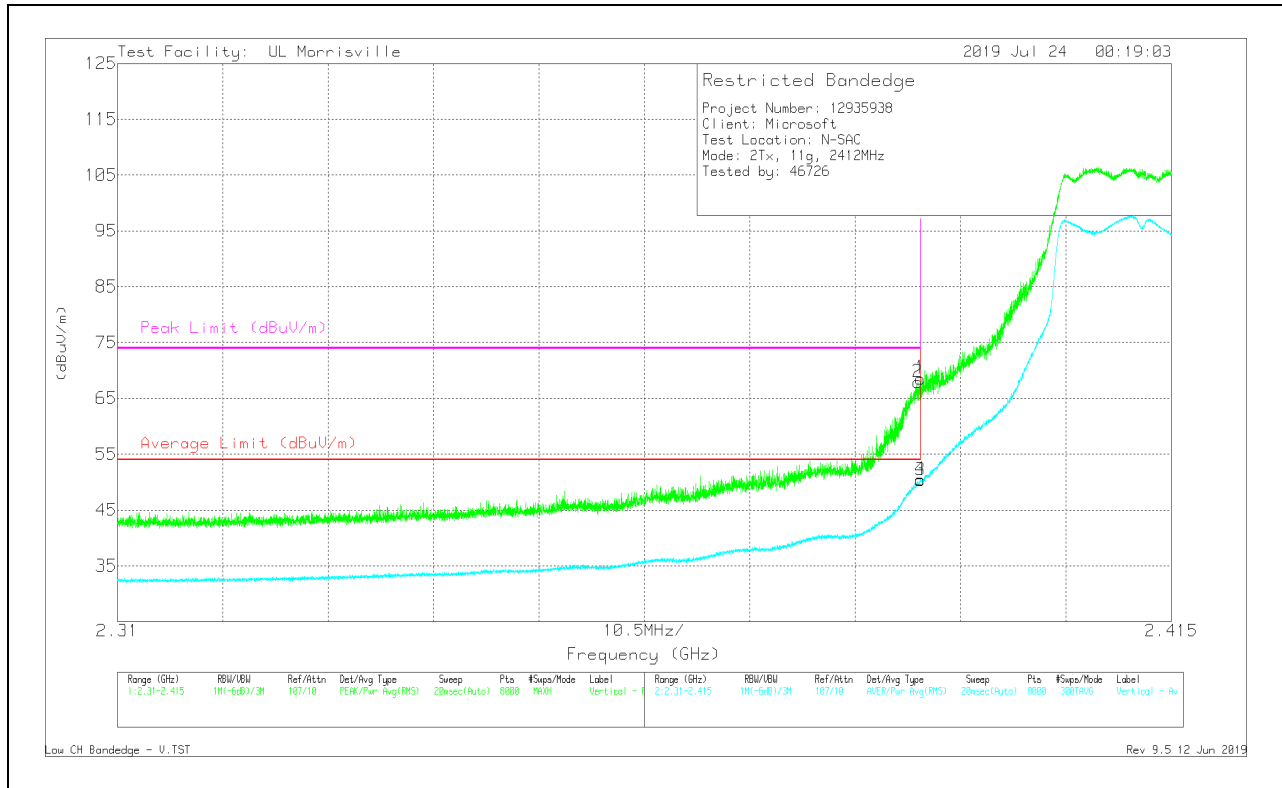
HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	*** 2.39	58.33	Pk	32	-24.4	0	65.93	-	-	74	-8.07	14	358	H
2	*** 2.38988	58.51	Pk	32	-24.4	0	66.11	-	-	74	-7.89	14	358	H
3	*** 2.39	41.38	RMS	32	-24.4	.09	49.07	54	-4.93	-	-	14	358	H
4	*** 2.38985	42	RMS	32	-24.4	.09	49.69	54	-4.31	-	-	14	358	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	*** 2.39	60.98	Pk	32	-24.4	0	68.58	-	-	74	-5.42	4	363	V
2	*** 2.38972	60.31	Pk	32	-24.4	0	67.91	-	-	74	-6.09	4	363	V
3	*** 2.39	42.66	RMS	32	-24.4	.09	50.35	54	-3.65	-	-	4	363	V
4	*** 2.38998	42.79	RMS	32	-24.4	.09	50.48	54	-3.52	-	-	4	363	V

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

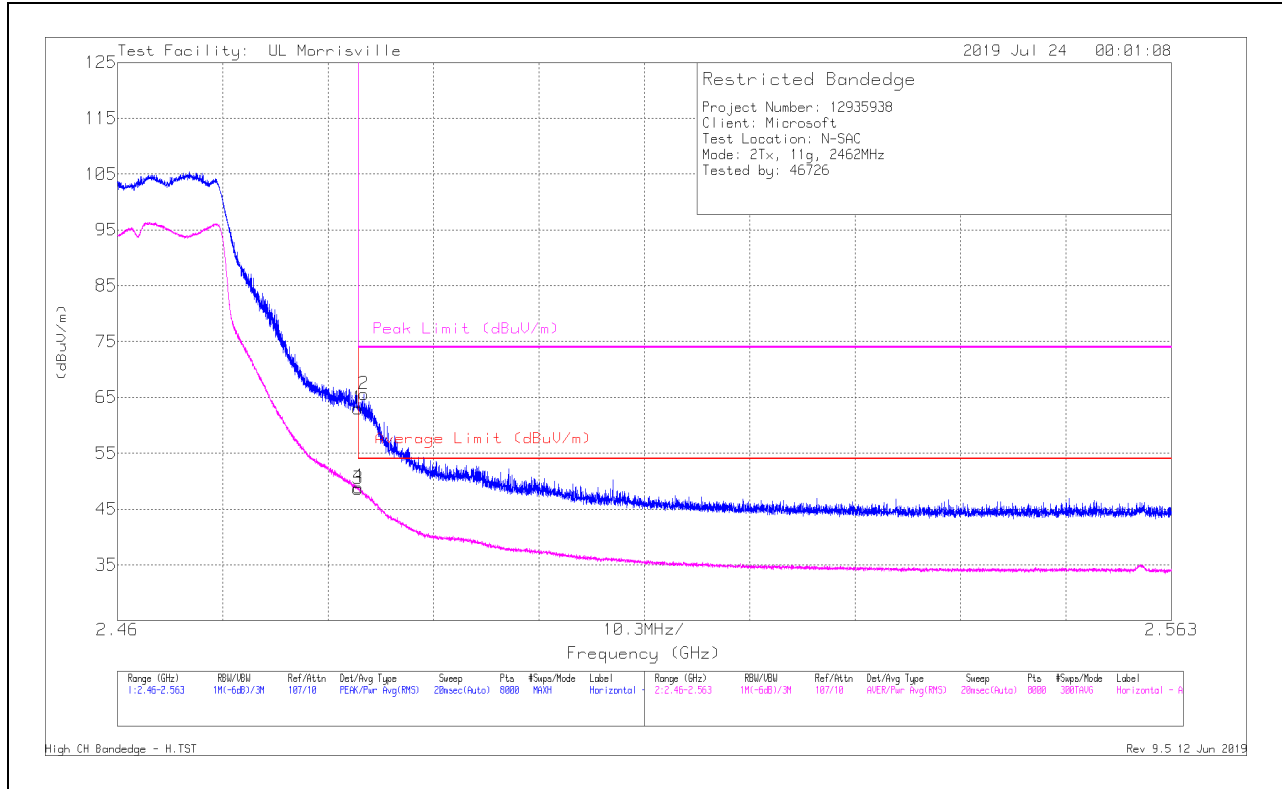
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 11)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	*** 2.4835	54.89	Pk	32.4	-24.3	0	62.99	-	-	74	-11.01	15	367	H
2	*** 2.48411	57.46	Pk	32.4	-24.3	0	65.56	-	-	74	-8.44	15	367	H
3	*** 2.4835	40.42	RMS	32.4	-24.3	.09	48.61	54	-5.39	-	-	15	367	H
4	*** 2.48351	40.73	RMS	32.4	-24.3	.09	48.92	54	-5.08	-	-	15	367	H

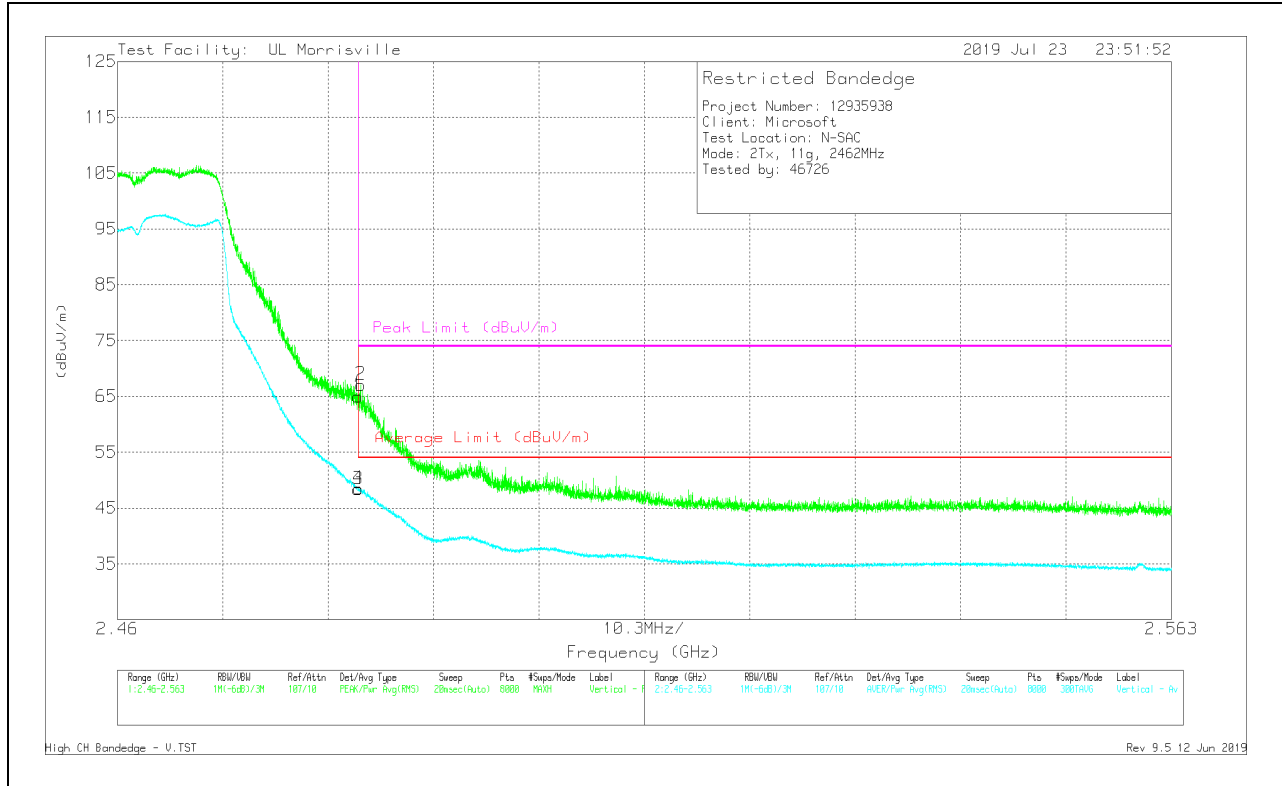
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	*** 2.4835	56.88	Pk	32.4	-24.3	0	64.98	-	-	74	-9.02	352	375	V
2	*** 2.48376	59	Pk	32.4	-24.3	0	67.1	-	-	74	-6.9	352	375	V
3	*** 2.4835	40.21	RMS	32.4	-24.3	.09	48.4	54	-5.6	-	-	352	375	V
4	*** 2.48351	40.32	RMS	32.4	-24.3	.09	48.51	54	-5.49	-	-	352	375	V

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

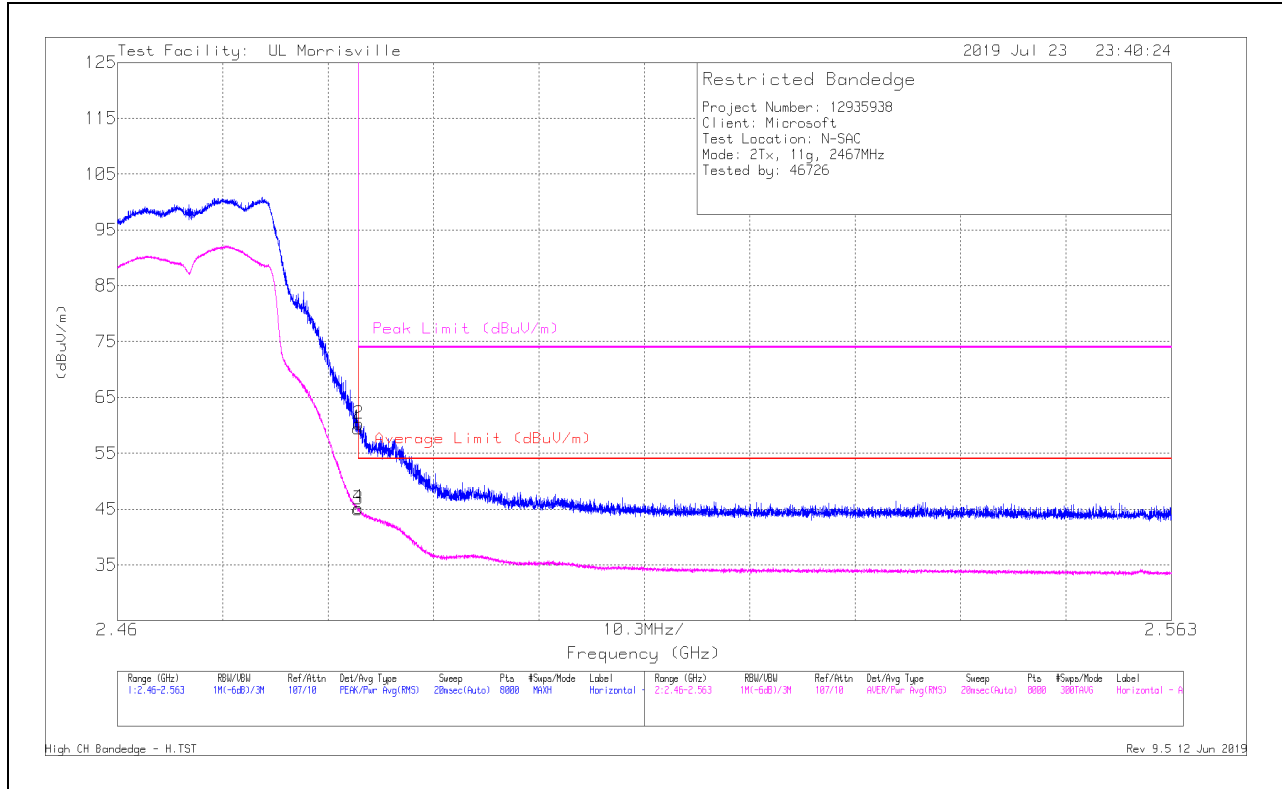
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 12)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	*** 2.4835	51.39	Pk	32.4	-24.3	0	59.49	-	-	74	-14.51	82	359	H
2	*** 2.48358	52.19	Pk	32.4	-24.3	0	60.29	-	-	74	-13.71	82	359	H
3	*** 2.4835	36.78	RMS	32.4	-24.3	.09	44.97	54	-9.03	-	-	82	359	H
4	*** 2.48353	37.05	RMS	32.4	-24.3	.09	45.24	54	-8.76	-	-	82	359	H

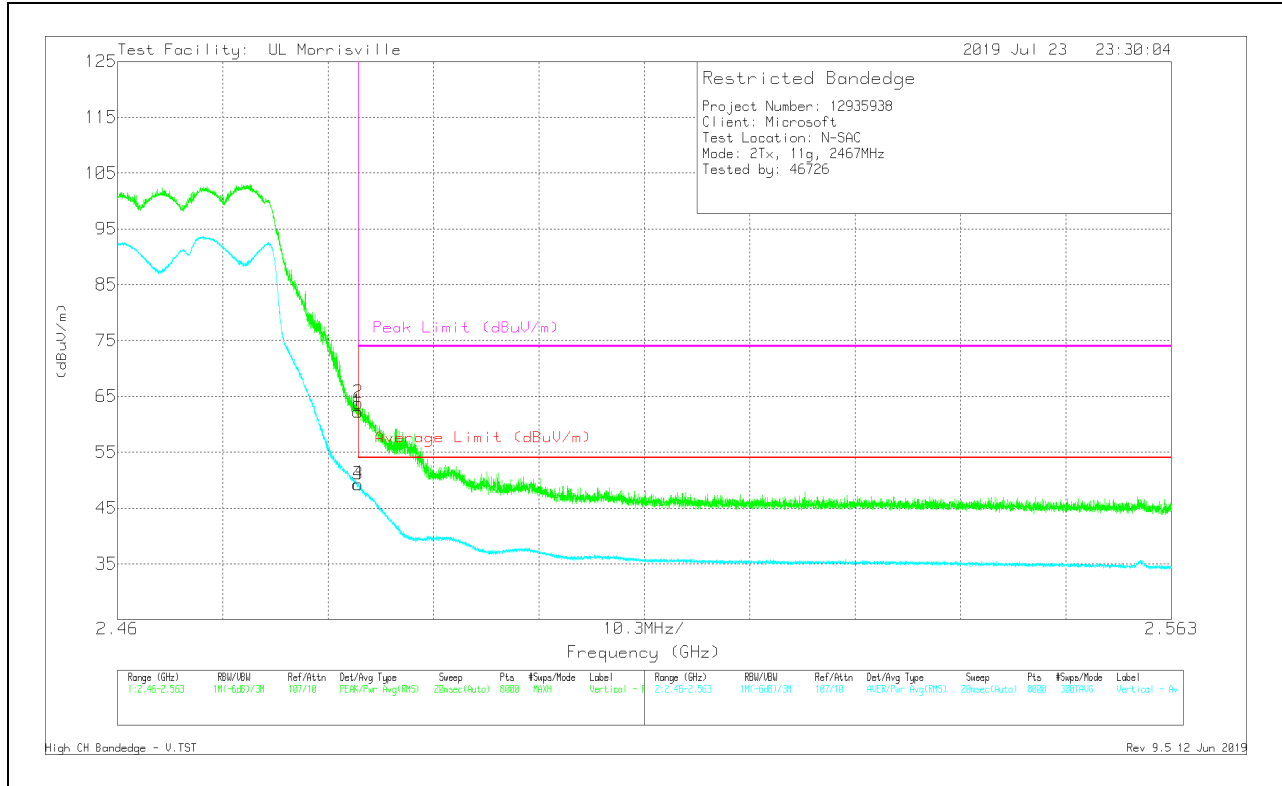
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	*** 2.4835	54.14	Pk	32.4	-24.3	0	62.24	-	-	74	-11.76	356	282	V
2	*** 2.48355	55.72	Pk	32.4	-24.3	0	63.82	-	-	74	-10.18	356	282	V
3	** 2.4835	41.01	RMS	32.4	-24.3	.09	49.2	54	-4.8	-	-	356	282	V
4	** 2.48351	41.09	RMS	32.4	-24.3	.09	49.28	54	-4.72	-	-	356	282	V

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

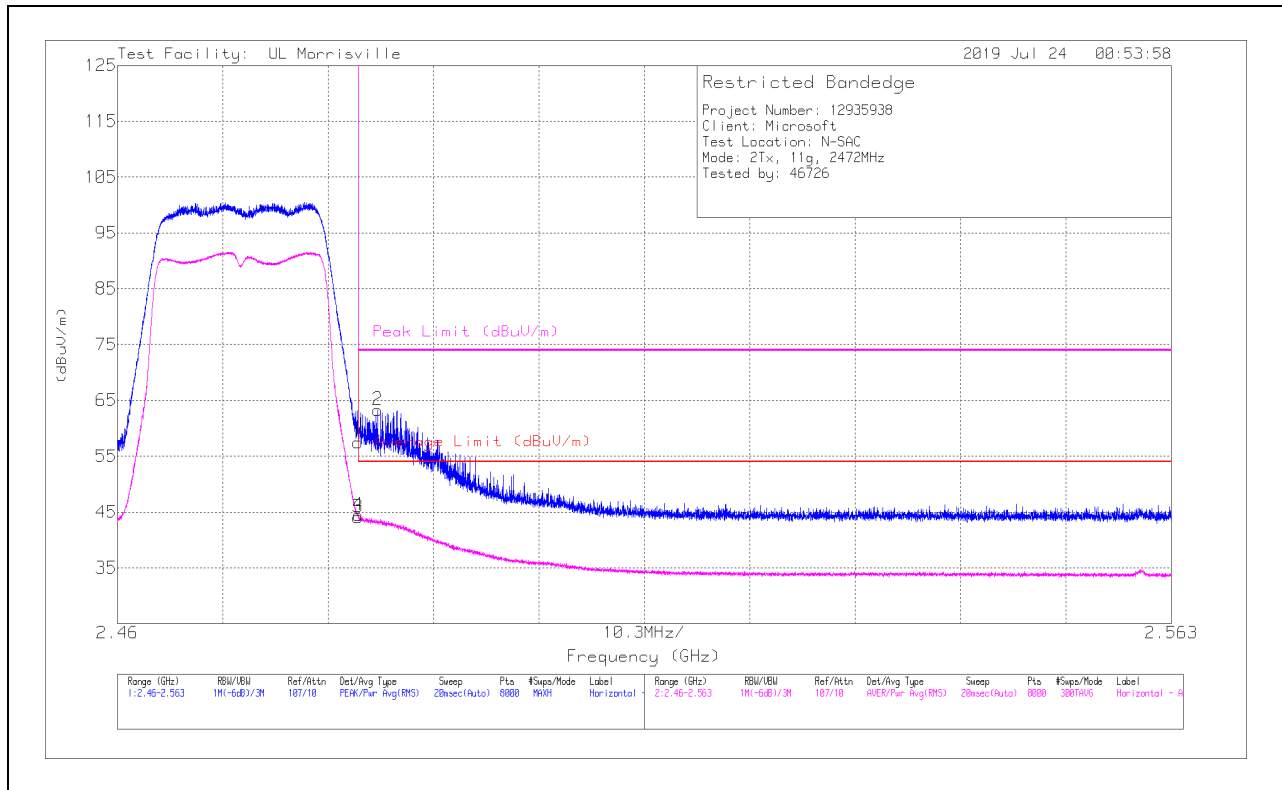
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection

BANEDGE (HIGH CHANNEL, CH 13)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	*** 2.4835	49.38	Pk	32.4	-24.3	0	57.48	-	-	74	-16.52	100	364	H
2	*** 2.48543	55.18	Pk	32.4	-24.3	0	63.28	-	-	74	-10.72	100	364	H
3	*** 2.4835	35.91	RMS	32.4	-24.3	.09	44.1	54	-9.9	-	-	100	364	H
4	*** 2.48351	36.23	RMS	32.4	-24.3	.09	44.42	54	-9.58	-	-	100	364	H

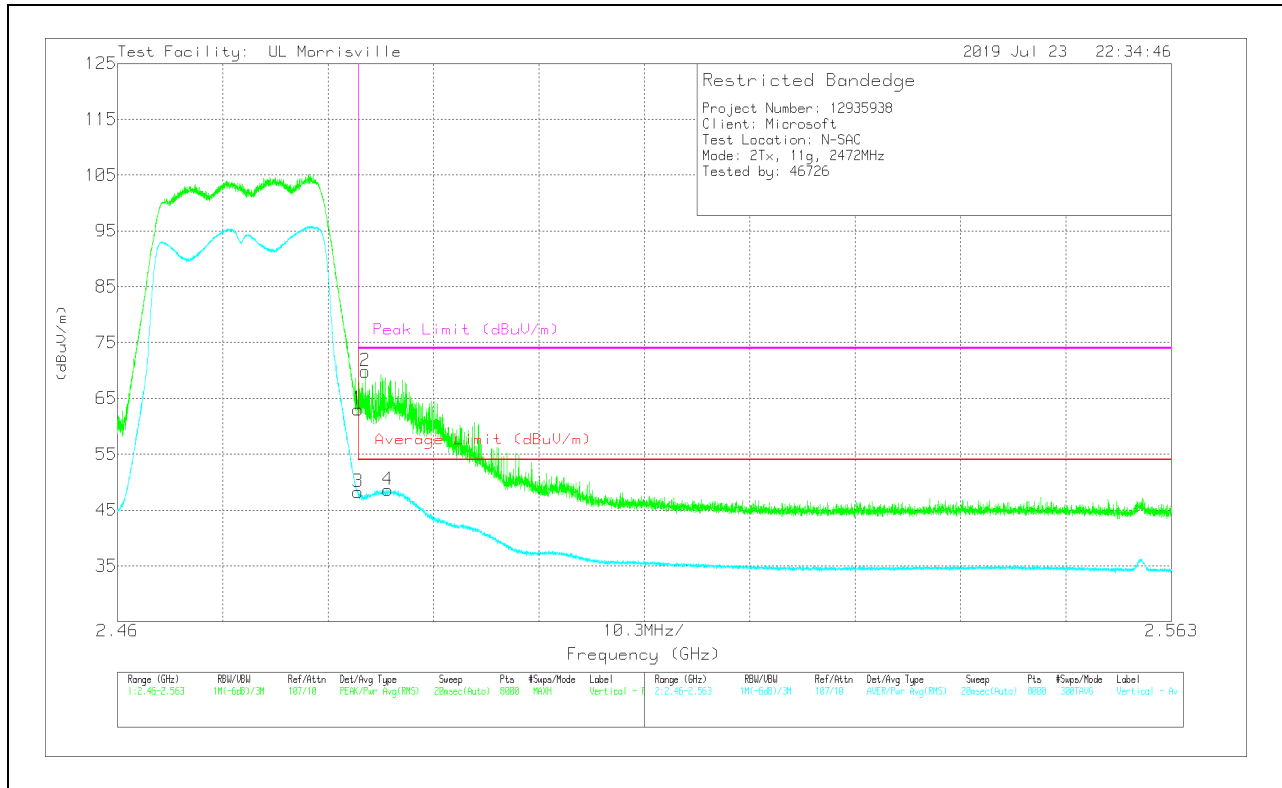
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	*** 2.4835	54.94	Pk	32.4	-24.3	0	63.04	-	-	74	-10.96	6	344	V
2	*** 2.48422	61.74	Pk	32.4	-24.3	0	69.84	-	-	74	-4.16	6	344	V
3	*** 2.4835	40.09	RMS	32.4	-24.3	.09	48.28	54	-5.72	-	-	6	344	V
4	*** 2.48644	40.46	RMS	32.4	-24.3	.09	48.65	54	-5.35	-	-	6	344	V

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

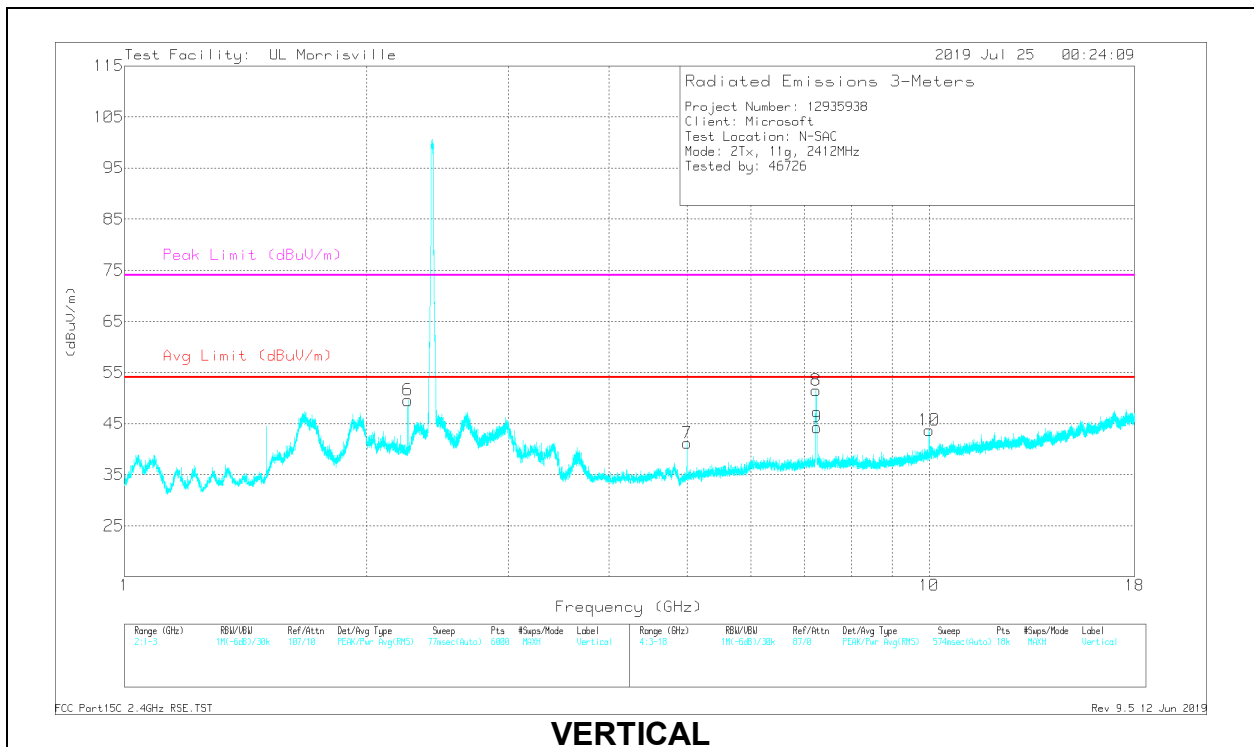
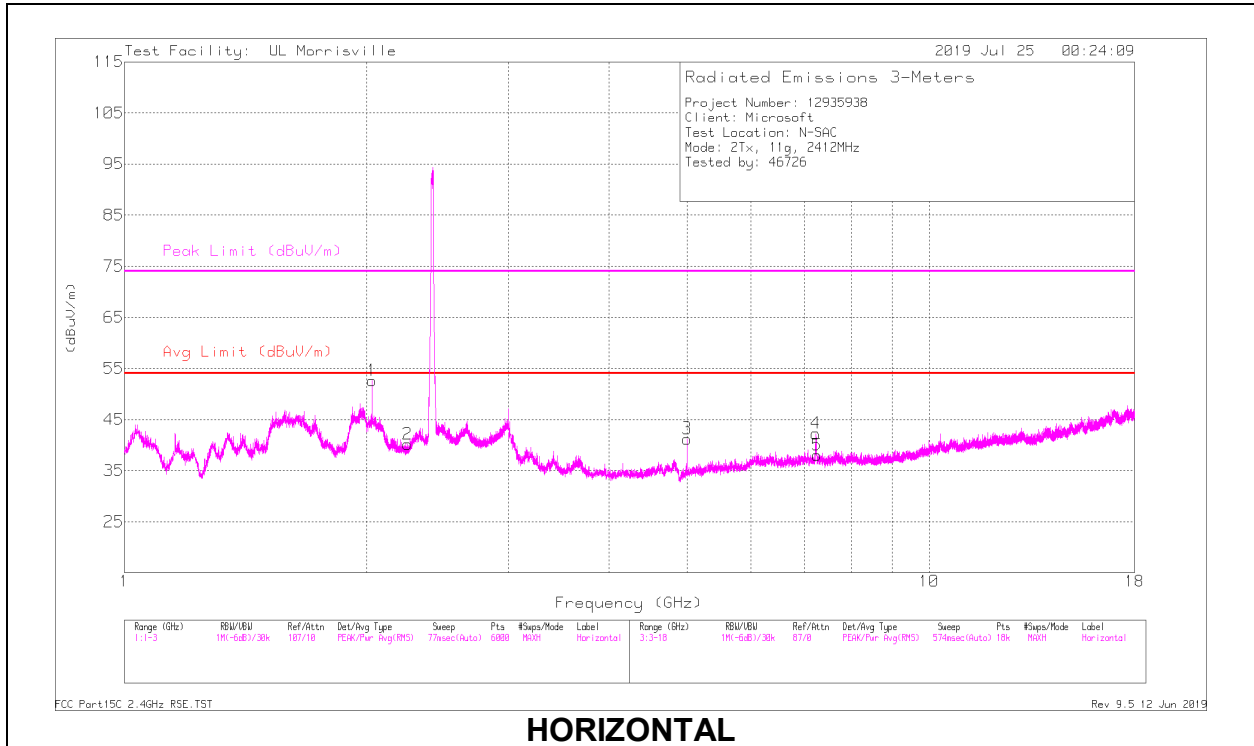
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, CH 1 RESULTS



RADIATED EMISSIONS

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/m)	Amp/Cbl/Filtr/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
2	*** 2.24412	38.7	PK2	31.8	-24.4	0	46.1	-	-	74	-27.9	255	176	H
	*** 2.24385	26.83	MAv1	31.8	-24.4	.09	34.32	54	-19.86	-	-	255	176	H
6	*** 2.25003	45.18	PK2	31.8	-24.4	0	52.58	-	-	74	-21.42	8	274	V
	*** 2.25005	29.22	MAv1	31.8	-24.4	.09	36.71	54	-17.47	-	-	8	274	V
3	*** 5.00013	45.11	PK2	34	-32.6	0	46.51	-	-	74	-27.49	232	115	H
	*** 5.00004	38.47	MAv1	34	-32.6	.09	39.96	54	-14.22	-	-	232	115	H
5	*** 7.2547	44.36	PK2	35.6	-29.5	0	50.46	-	-	74	-23.54	242	343	H
	*** 7.25466	29.7	MAv1	35.6	-29.5	.09	35.89	54	-18.29	-	-	242	343	H
7	*** 5.00008	44.63	PK2	34	-32.6	0	46.03	-	-	74	-27.97	37	323	V
	*** 5.00013	37.07	MAv1	34	-32.6	.09	38.56	54	-15.62	-	-	37	323	V
9	*** 7.25033	50.43	PK2	35.6	-29.5	0	56.53	-	-	74	-17.47	275	233	V
	*** 7.25034	32.31	MAv1	35.6	-29.5	.09	38.50	54	-15.68	-	-	275	233	V
1	2.03117	45.49	Pk	31.5	-24.4	0	52.59	-	-	-	-	0-360	199	H
4	7.2344	36.26	Pk	35.6	-29.6	0	42.26	-	-	-	-	0-360	199	H
8	7.23607	45.48	Pk	35.6	-29.6	0	51.48	-	-	-	-	0-360	199	V
10	9.99956	33.9	Pk	37.1	-27.3	0	43.7	-	-	-	-	0-360	199	V

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

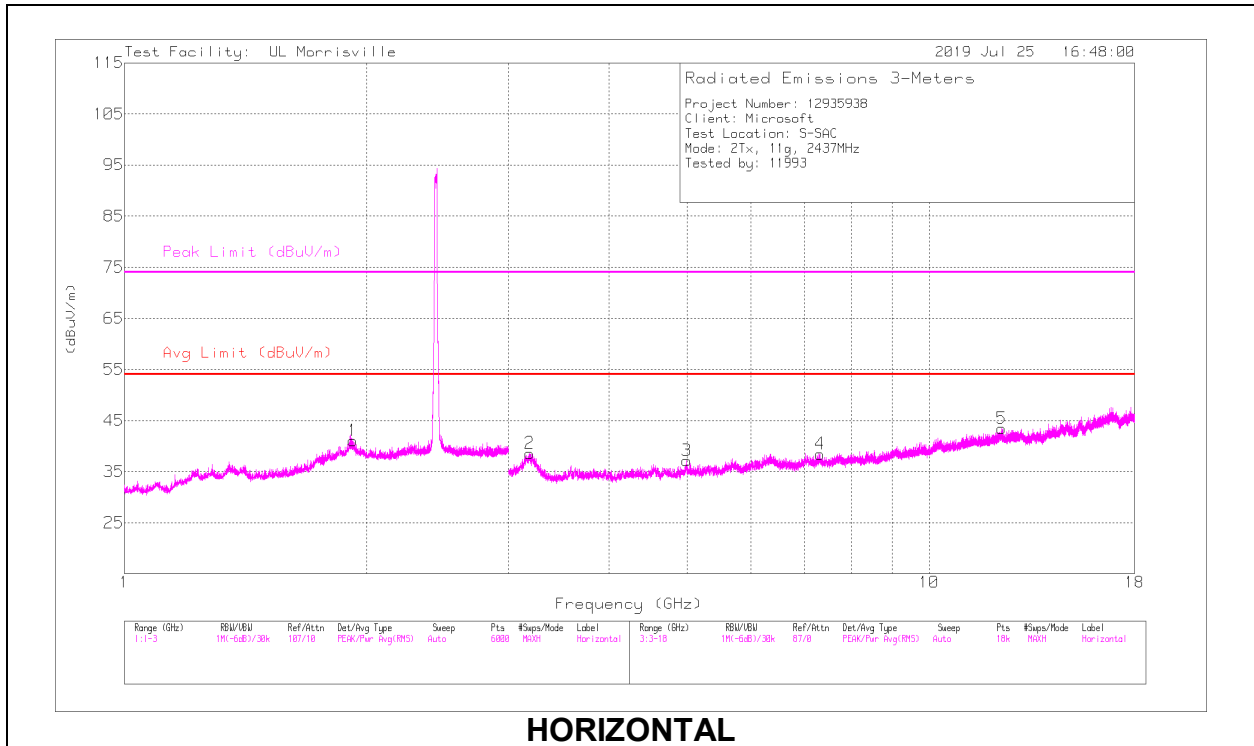
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2 - Maximum Peak

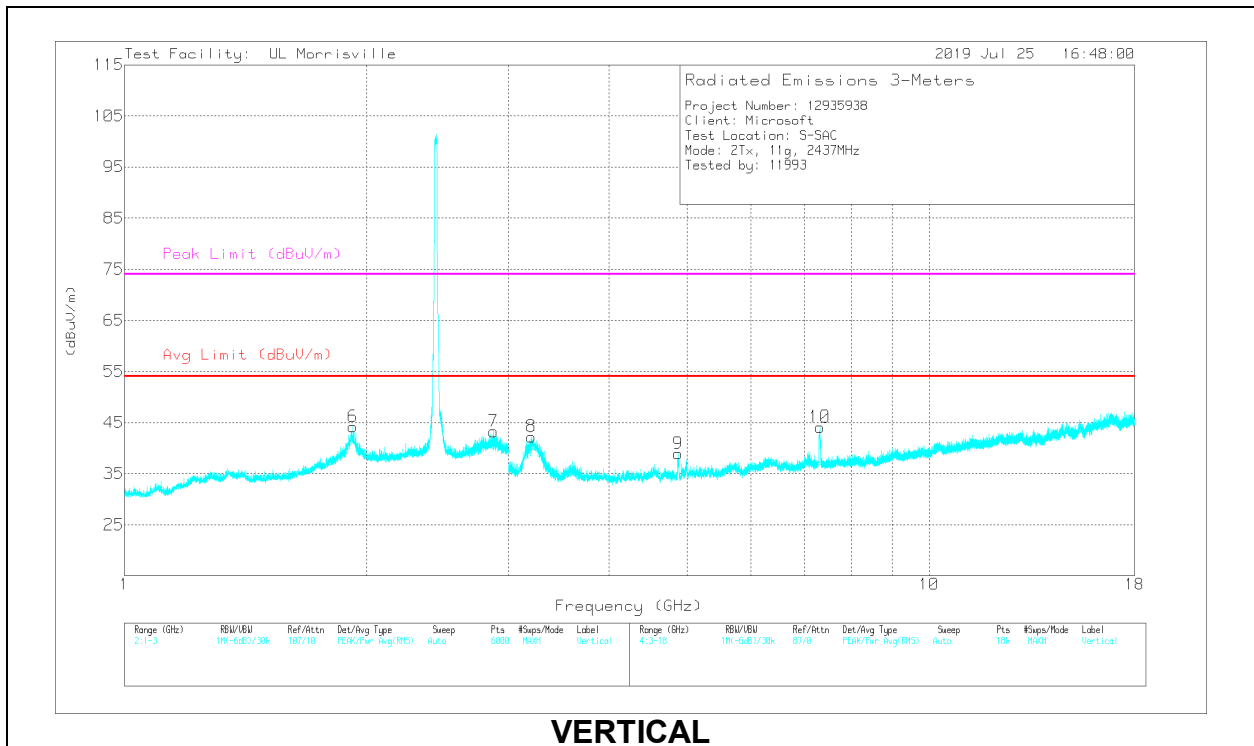
MAv1 - Maximum RMS Average

Pk - Peak detector

MID CHANNEL, CH 6 RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Fitr/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	** 1.91979	40.61	PK2	31.2	-22.4	0	49.41	-	-	74	-24.59	325	131	H
	** 1.91972	28.42	MAv1	31.2	-22.4	.09	37.31	54	-16.69	-	-	325	131	H
6	** 1.92149	41.79	PK2	31.2	-22.4	0	50.59	-	-	74	-23.41	82	218	V
	** 1.92113	30.06	MAv1	31.2	-22.4	.09	38.95	54	-15.05	-	-	82	218	V
7	*** 2.87605	43.26	PK2	32.5	-25.9	0	49.86	-	-	74	-24.14	106	224	V
	*** 2.87429	31.37	MAv1	32.4	-25.9	.09	37.96	54	-16.04	-	-	106	224	V
3	*** 4.99771	41.63	PK2	34.2	-31.1	0	44.73	-	-	74	-29.27	1	116	H
	*** 4.99896	28.7	MAv1	34.2	-31.1	.09	31.89	54	-22.11	-	-	1	116	H
4	*** 7.31353	37.35	PK2	35.7	-27.5	0	45.55	-	-	74	-28.45	1	382	H
	*** 7.31166	25.23	MAv1	35.7	-27.5	.09	33.52	54	-20.48	-	-	1	382	H
5	*** 12.30209	33.92	PK2	38.8	-23.6	0	49.12	-	-	74	-24.88	279	118	H
	*** 12.30215	22.24	MAv1	38.8	-23.6	.09	37.53	54	-16.47	-	-	279	118	H
9	*** 4.87525	42.51	PK2	34	-30.6	0	45.91	-	-	74	-28.09	42	277	V
	*** 4.87523	30.47	MAv1	34	-30.6	.09	33.96	54	-20.04	-	-	42	277	V
10	*** 7.31091	45.44	PK2	35.7	-27.5	0	53.64	-	-	74	-20.36	344	208	V
	*** 7.31175	31.88	MAv1	35.7	-27.5	.09	40.17	54	-13.83	-	-	344	208	V
2	3.18751	37.98	Pk	33.1	-32.5	0	38.58	-	-	-	-	0-360	101	H
8	3.20501	41.84	Pk	33.1	-32.7	0	42.24	-	-	-	-	0-360	199	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

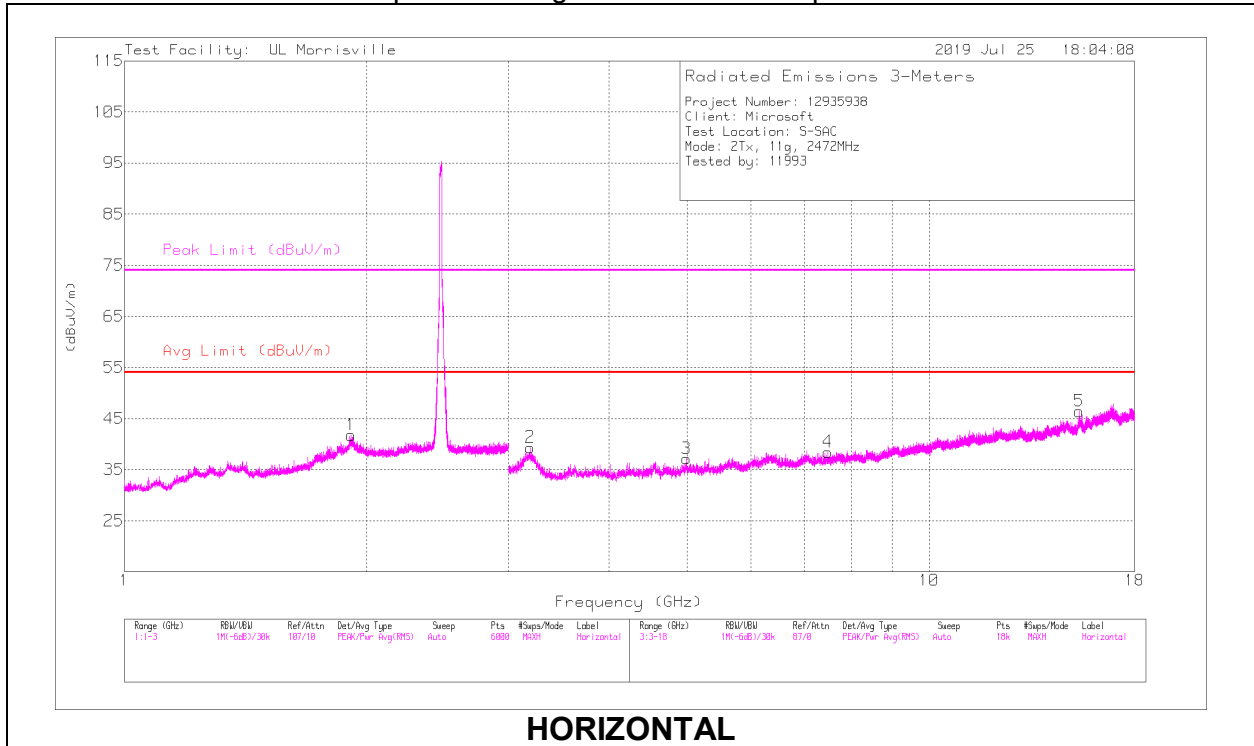
PK2 - Maximum Peak

MAv1 - Maximum RMS Average

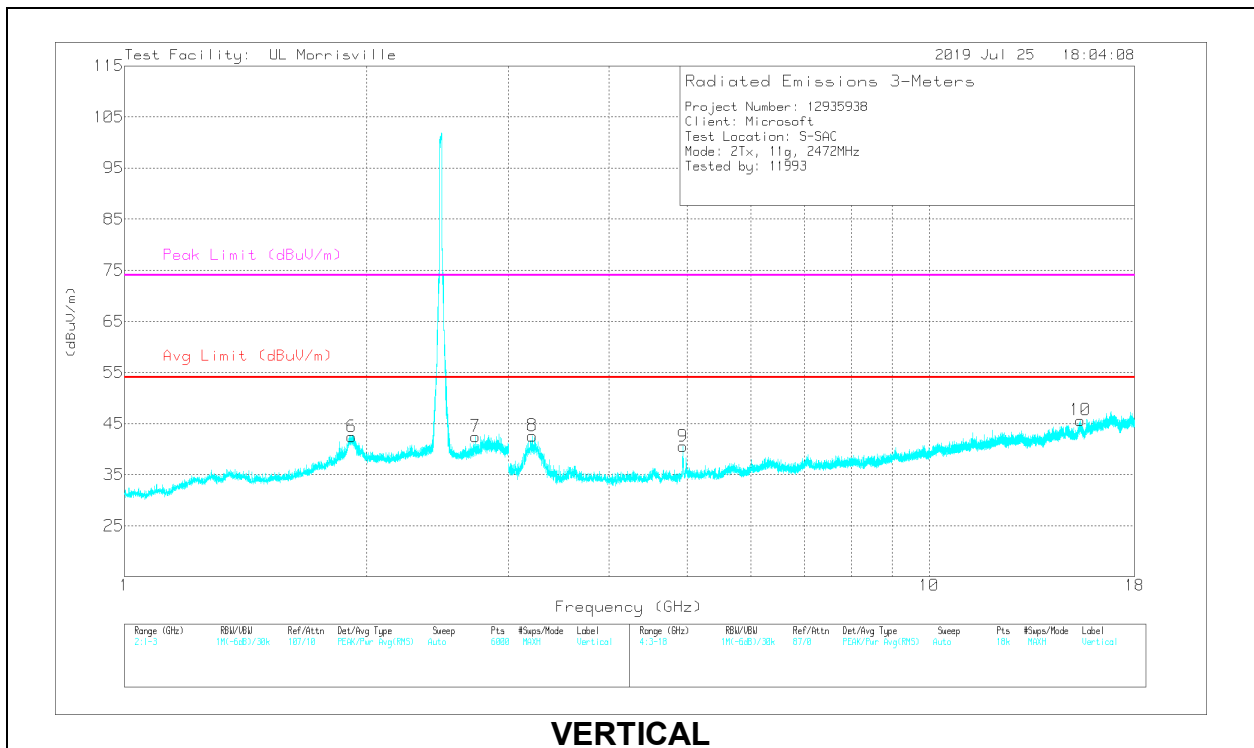
Pk - Peak detector

HIGH CHANNEL, CH 13 RESULTS

Note – Channel 13 set for max. power setting for the Radiated Spurious emissions test.



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Fitr/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	** 1.91377	40.8	PK2	31.1	-22.4	0	49.5	-	-	74	-24.5	330	145	H
	** 1.91364	28.22	MAv1	31.1	-22.4	.09	37.01	54	-16.99	-	-	330	145	H
6	** 1.91413	43.04	PK2	31.1	-22.4	0	51.74	-	-	74	-22.26	86	240	V
	** 1.91391	30.91	MAv1	31.1	-22.4	.09	39.7	54	-14.3	-	-	86	240	V
7	*** 2.73003	42.56	PK2	32.3	-25.7	0	49.16	-	-	74	-24.84	101	218	V
	*** 2.73067	30.42	MAv1	32.3	-25.7	.09	37.11	54	-16.89	-	-	101	218	V
3	*** 4.99606	42.25	PK2	34.2	-31.1	0	45.35	-	-	74	-28.65	3	130	H
	*** 4.99668	28.55	MAv1	34.2	-31.1	.09	31.74	54	-22.26	-	-	3	130	H
4	*** 7.47947	36.63	PK2	35.8	-27.9	0	44.53	-	-	74	-29.47	53	261	H
	*** 7.47947	24.11	MAv1	35.8	-27.9	.09	32.1	54	-21.9	-	-	53	261	H
5	*** 15.36671	34.2	PK2	39.9	-21.9	0	52.2	-	-	74	-21.8	213	247	H
	*** 15.36678	21.91	MAv1	39.9	-21.9	.09	40	54	-14	-	-	213	247	H
9	*** 4.944	49.06	PK2	34.1	-30.9	0	52.26	-	-	74	-21.74	46	287	V
	*** 4.944	35.46	MAv1	34.1	-30.9	.09	38.75	54	-15.25	-	-	46	287	V
10	*** 15.41457	33.92	PK2	39.9	-21.7	0	52.12	-	-	74	-21.88	173	313	V
	*** 15.41509	21.71	MAv1	39.9	-21.7	.09	40	54	-14	-	-	173	313	V
2	3.19334	38.75	Pk	33.1	-32.5	0	39.35	-	-	-	-	0-360	101	H
8	3.21251	42.32	Pk	33.1	-32.8	0	42.62	-	-	-	-	0-360	199	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2 - Maximum Peak

MAv1 - Maximum RMS Average

Pk - Peak detector

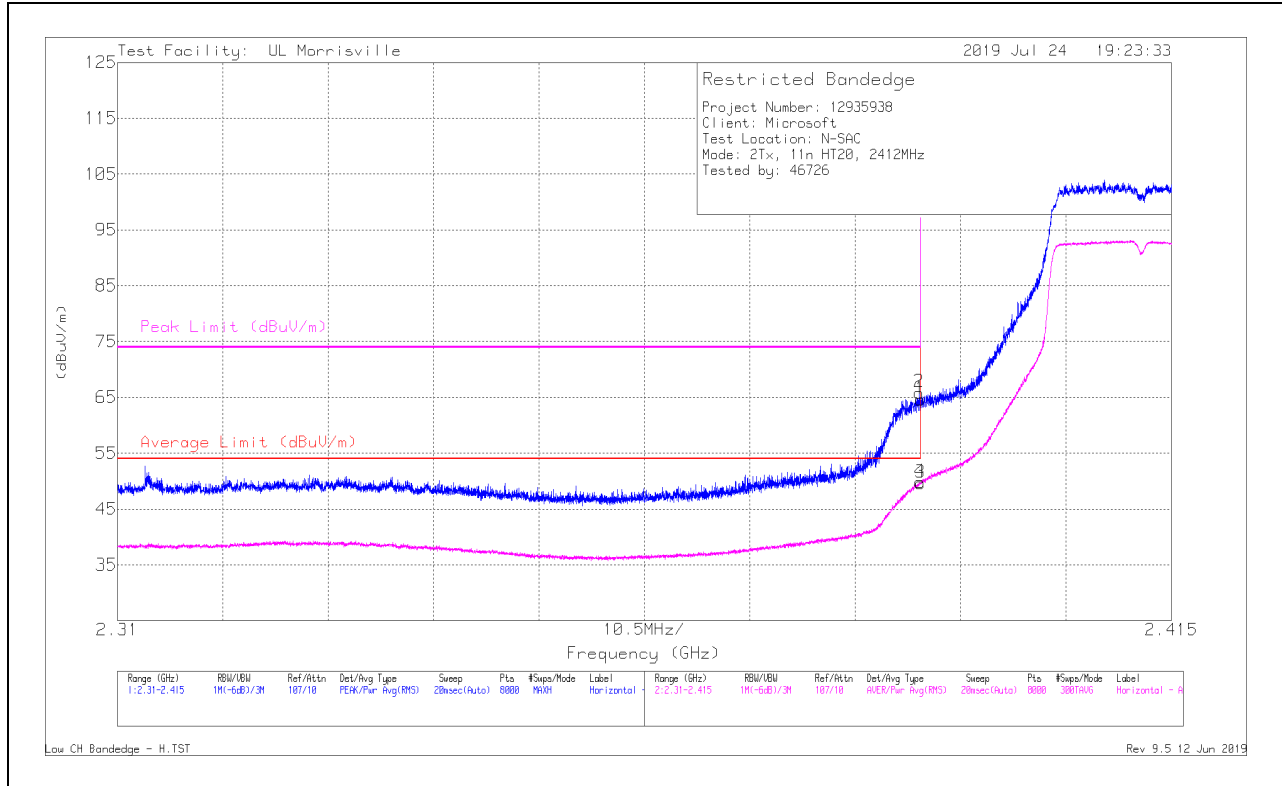
10.1.3. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 2.4 GHz BAND

2TX Chain 0 + Chain 1 SDM MODE

Note - Radiated spurious emissions 1-18 GHz for 802.11n HT20 and 802.11 nHT40 is covered by using the 802.11ax HE20 and 802.11ax HE40 radiated spurious emissions 1-18 GHz from UL report number R12935938-E4.

BANDEDGE (LOW CHANNEL, CH 1)

HORIZONTAL RESULT



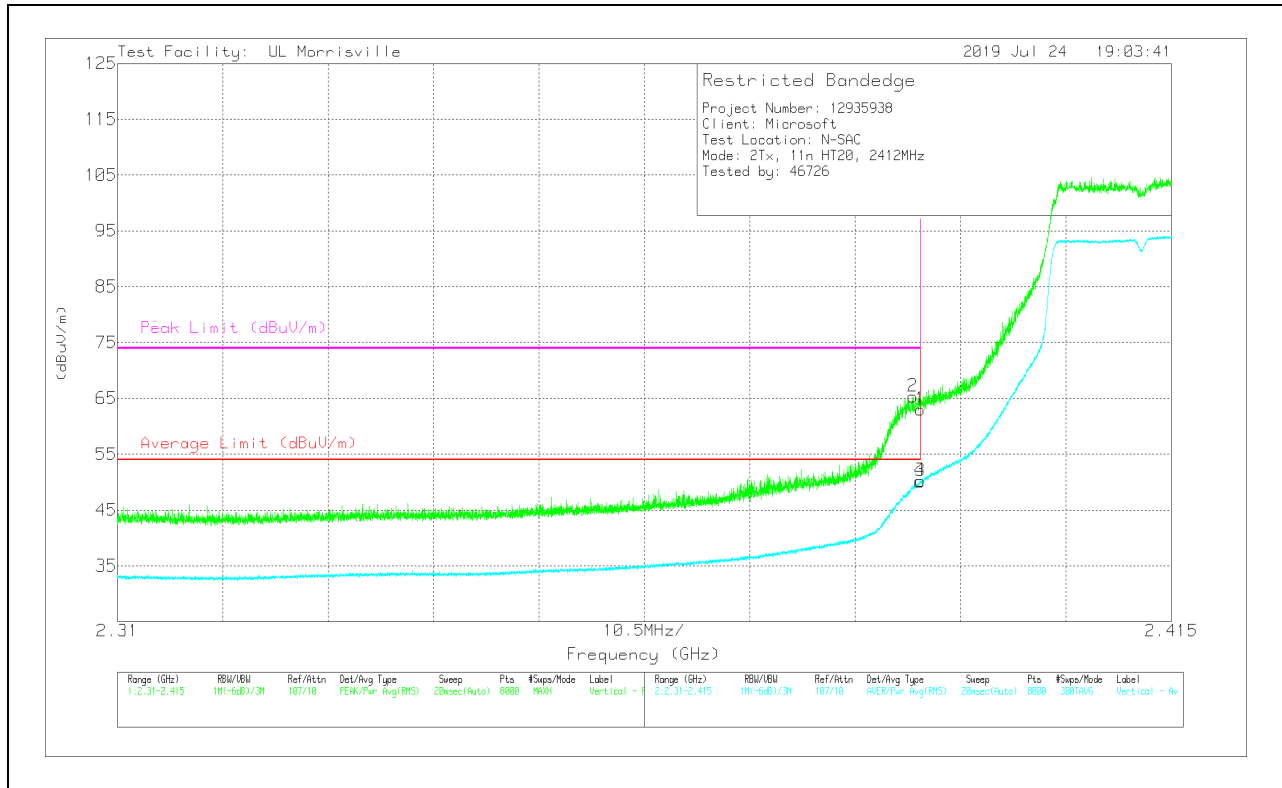
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	57.06	Pk	32	-24.4	64.66	-	-	74	-9.34	24	363	H
2	* 2.38988	58.29	Pk	32	-24.4	65.89	-	-	74	-8.11	24	363	H
3	* 2.39	42.07	RMS	32	-24.4	49.67	54	-4.33	-	-	24	363	H
4	* 2.38996	42.27	RMS	32	-24.4	49.87	54	-4.13	-	-	24	363	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

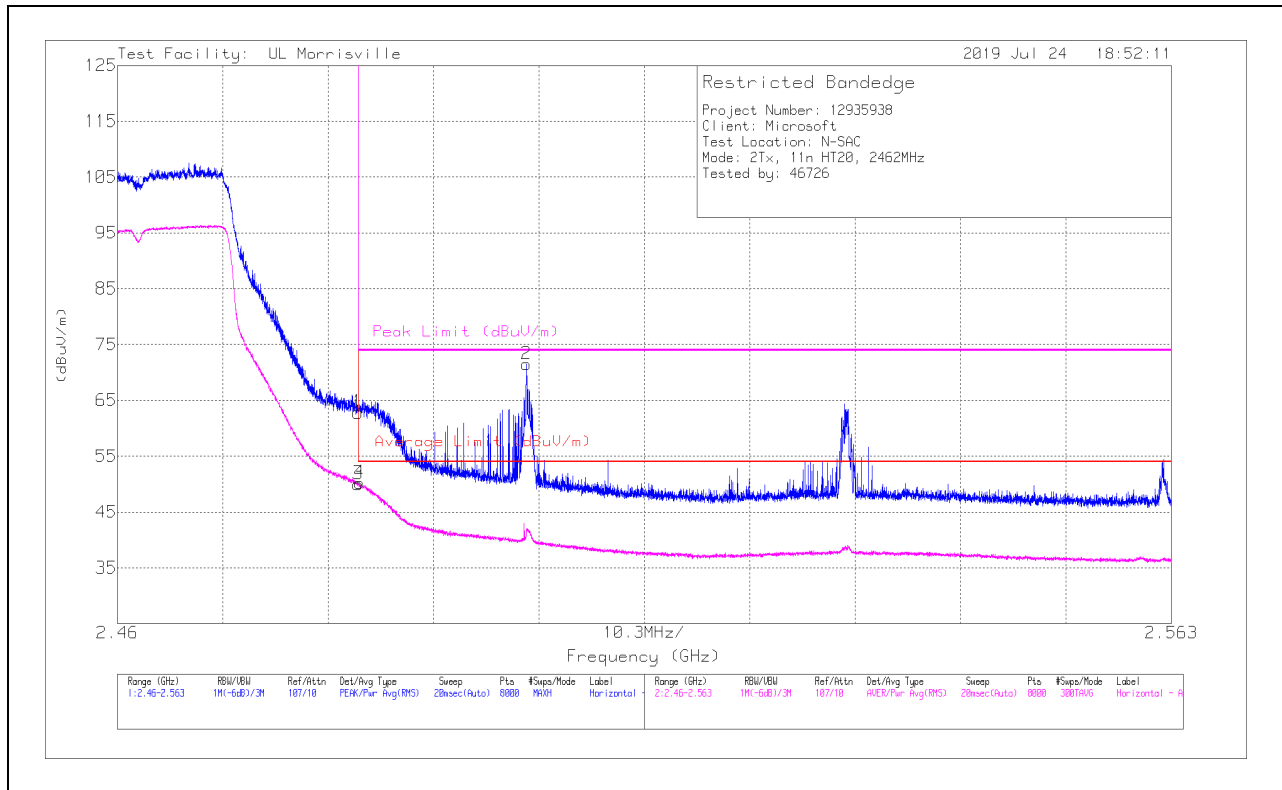


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.39	55.4	Pk	32	-24.4	63	-	-	74	-11	107	138	V
2	* ** 2.38925	57.73	Pk	32	-24.4	65.33	-	-	74	-8.67	107	138	V
3	* ** 2.39	42.62	RMS	32	-24.4	50.22	54	-3.78	-	-	107	138	V
4	* ** 2.38996	42.57	RMS	32	-24.4	50.17	54	-3.83	-	-	107	138	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 11)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	* ** 2.4835	54.73	Pk	32.4	-24.3	62.83	-	-	74	-11.17	11	375	H
2	* ** 2.49997	63.31	Pk	32.5	-24.3	71.51	-	-	74	-2.49	11	375	H
3	* ** 2.4835	41.92	RMS	32.4	-24.3	50.02	54	-3.98	-	-	11	375	H
4	* ** 2.48363	42.09	RMS	32.4	-24.3	50.19	54	-3.81	-	-	11	375	H

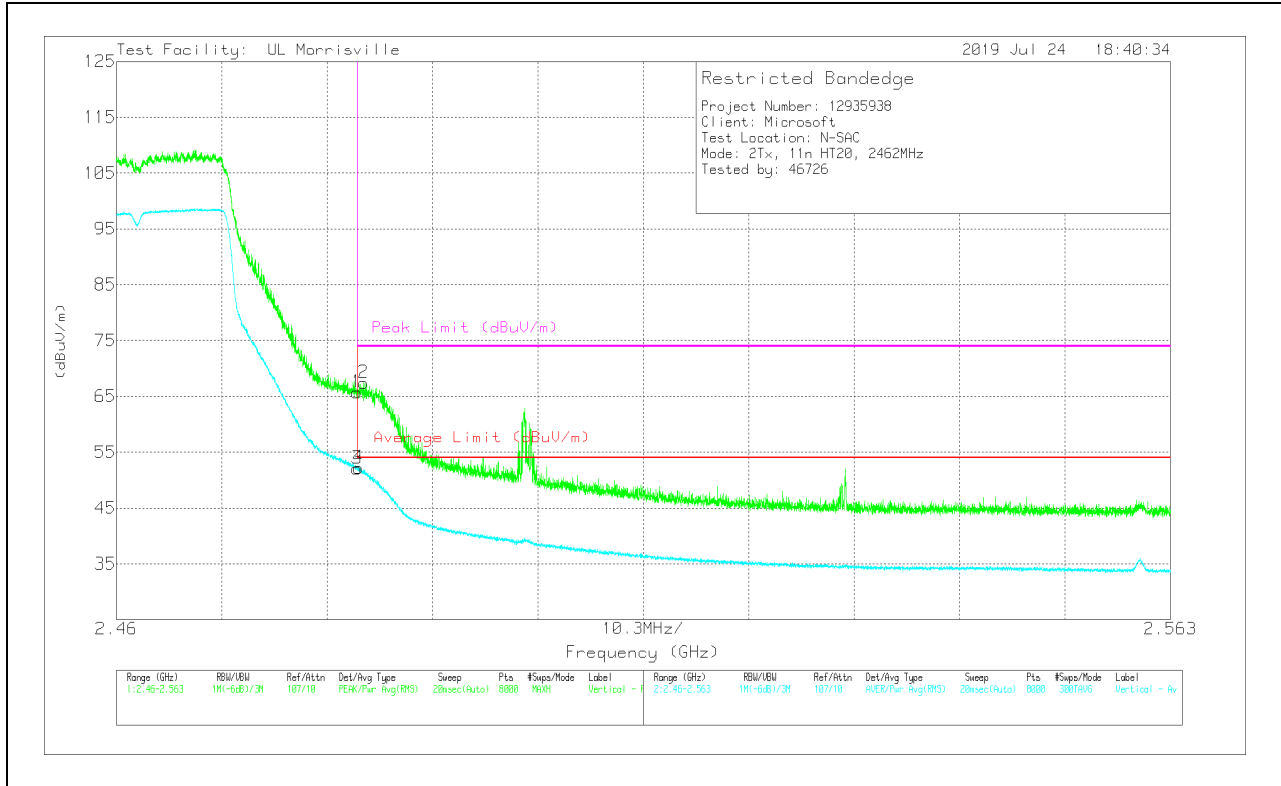
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

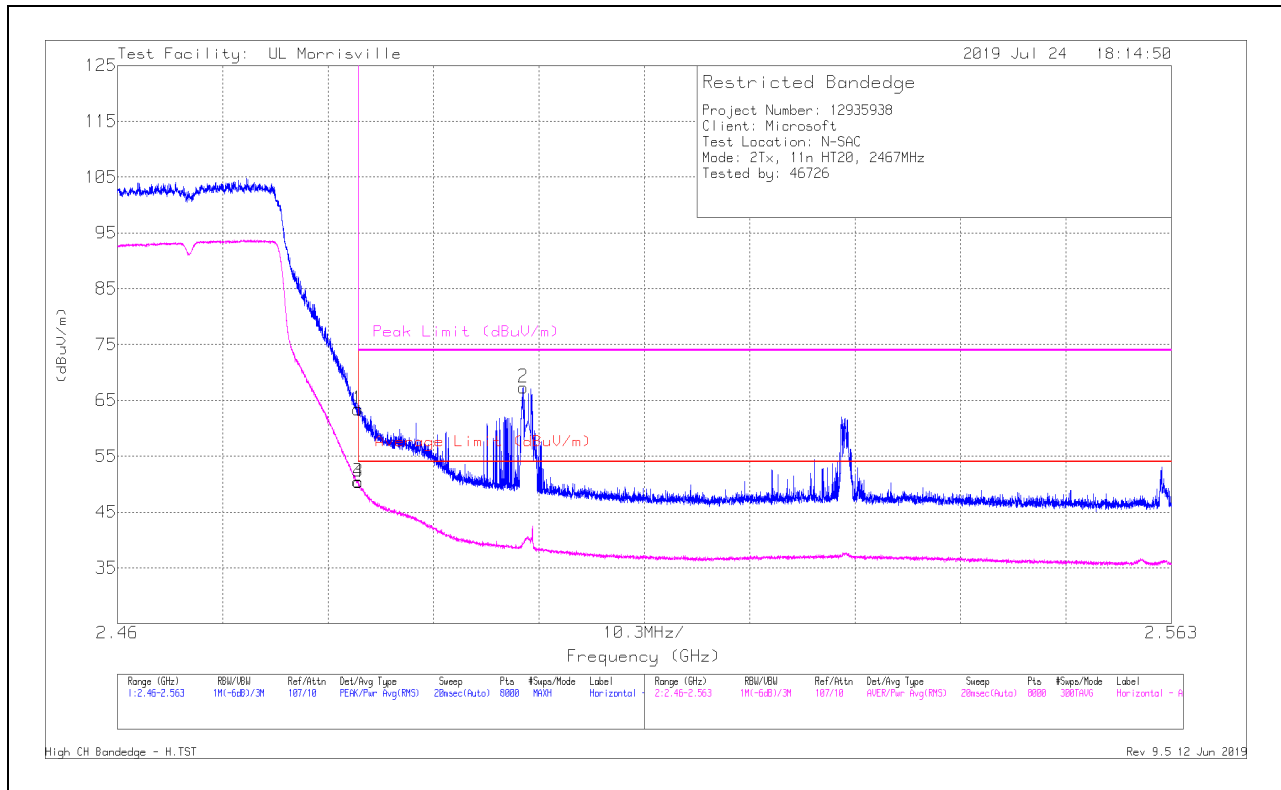


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.4835	57.6	Pk	32.4	-24.3	65.7	-	-	74	-8.3	6	382	V
2	* ** 2.48416	59.29	Pk	32.4	-24.3	67.39	-	-	74	-6.61	6	382	V
3	* ** 2.4835	43.99	RMS	32.4	-24.3	52.09	54	-1.91	-	-	6	382	V
4	* ** 2.48366	44.08	RMS	32.4	-24.3	52.18	54	-1.82	-	-	6	382	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 RMS - RMS detection

BANEDGE (HIGH CHANNEL, CH 12)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	* ** 2.4835	55.34	Pk	32.4	-24.3	63.44	-	-	74	-10.56	7	378	H
2	* ** 2.49964	59.15	Pk	32.5	-24.3	67.35	-	-	74	-6.65	7	378	H
3	* ** 2.4835	42.34	RMS	32.4	-24.3	50.44	54	-3.56	-	-	7	378	H
4	* ** 2.48353	42.27	RMS	32.4	-24.3	50.37	54	-3.63	-	-	7	378	H

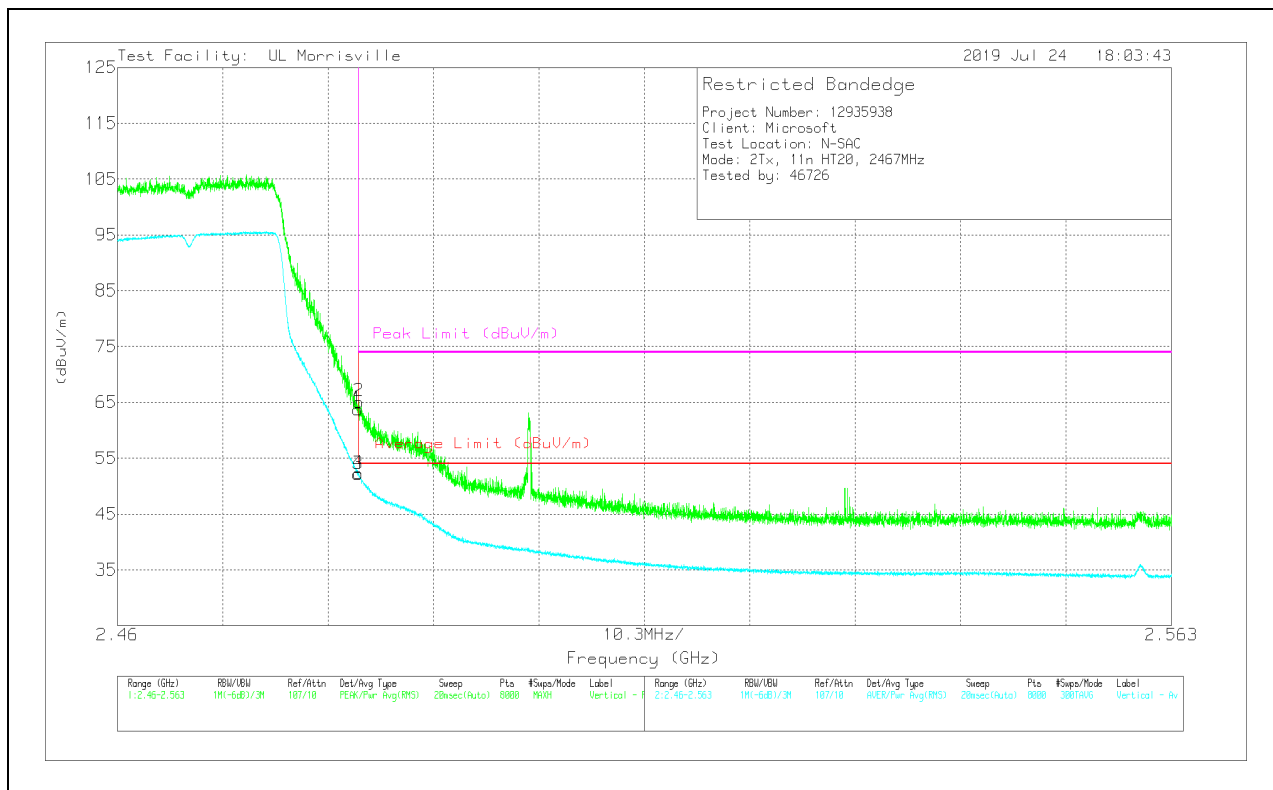
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	* ** 2.4835	55.7	Pk	32.4	-24.3	63.8	-	-	74	-10.2	10	382	V
2	* ** 2.48358	57.05	Pk	32.4	-24.3	65.15	-	-	74	-8.85	10	382	V
3	* ** 2.4835	44.11	RMS	32.4	-24.3	52.21	54	-1.79	-	-	10	382	V
4	* ** 2.48355	44.2	RMS	32.4	-24.3	52.3	54	-1.7	-	-	10	382	V

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

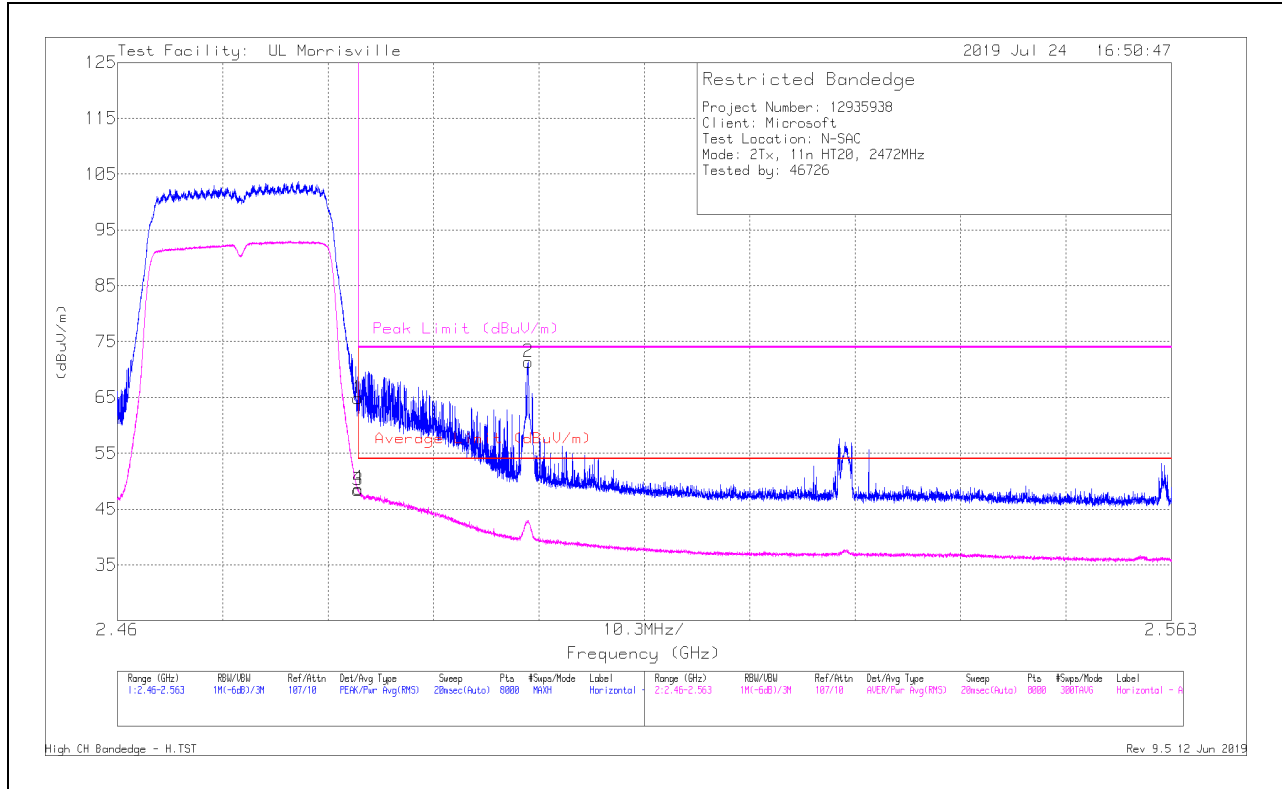
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 13)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	* ** 2.4835	56.76	Pk	32.4	-24.3	64.86	-	-	74	-9.14	17	336	H
2	** 2.50013	63.14	Pk	32.5	-24.3	71.34	-	-	74	-2.66	17	336	H
3	* ** 2.4835	40.29	RMS	32.4	-24.3	48.39	54	-5.61	-	-	17	336	H
4	* ** 2.48354	40.57	RMS	32.4	-24.3	48.67	54	-5.33	-	-	17	336	H

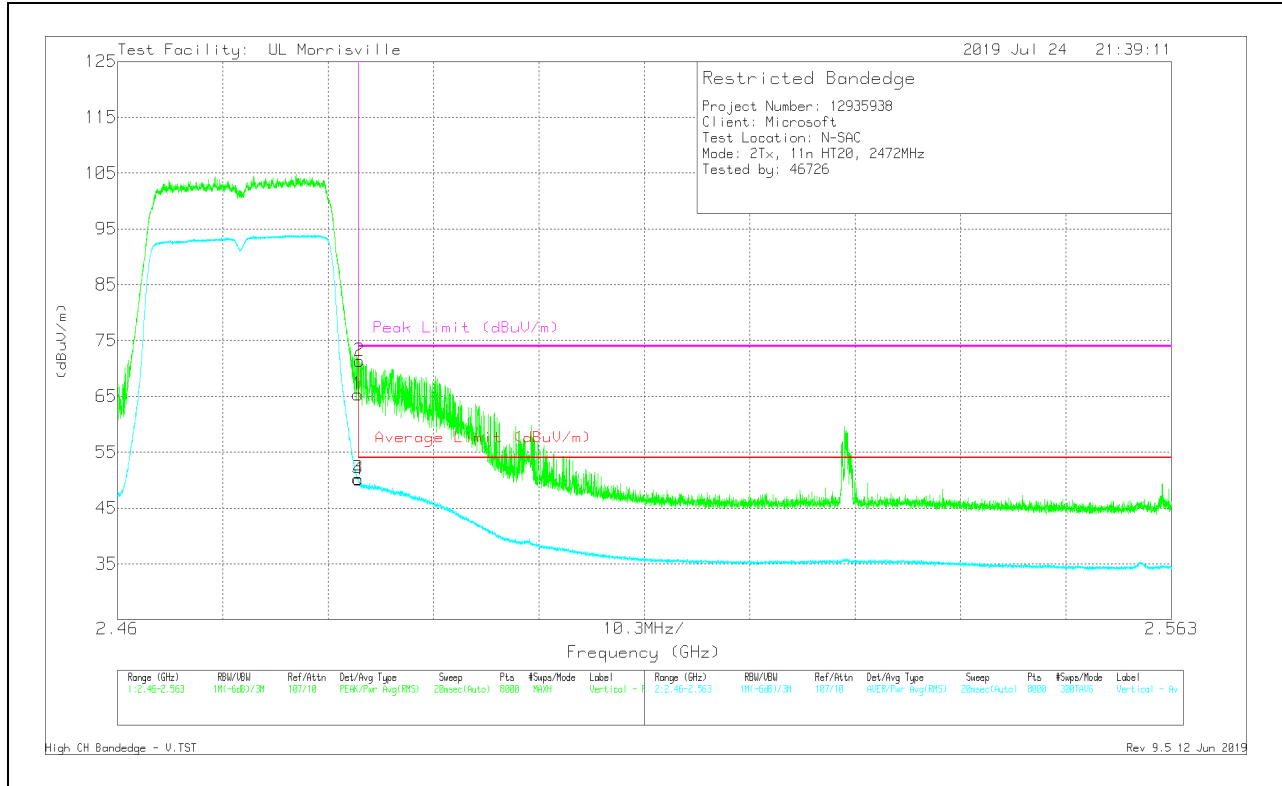
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	* ** 2.4835	57.26	Pk	32.4	-24.3	65.36	-	-	74	-8.64	4	333	V
2	* ** 2.48367	63.25	Pk	32.4	-24.3	71.35	-	-	74	-2.65	4	333	V
3	* ** 2.4835	42.18	RMS	32.4	-24.3	50.28	54	-3.72	-	-	4	333	V
4	* ** 2.48354	42.02	RMS	32.4	-24.3	50.12	54	-3.88	-	-	4	333	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 RMS - RMS detection

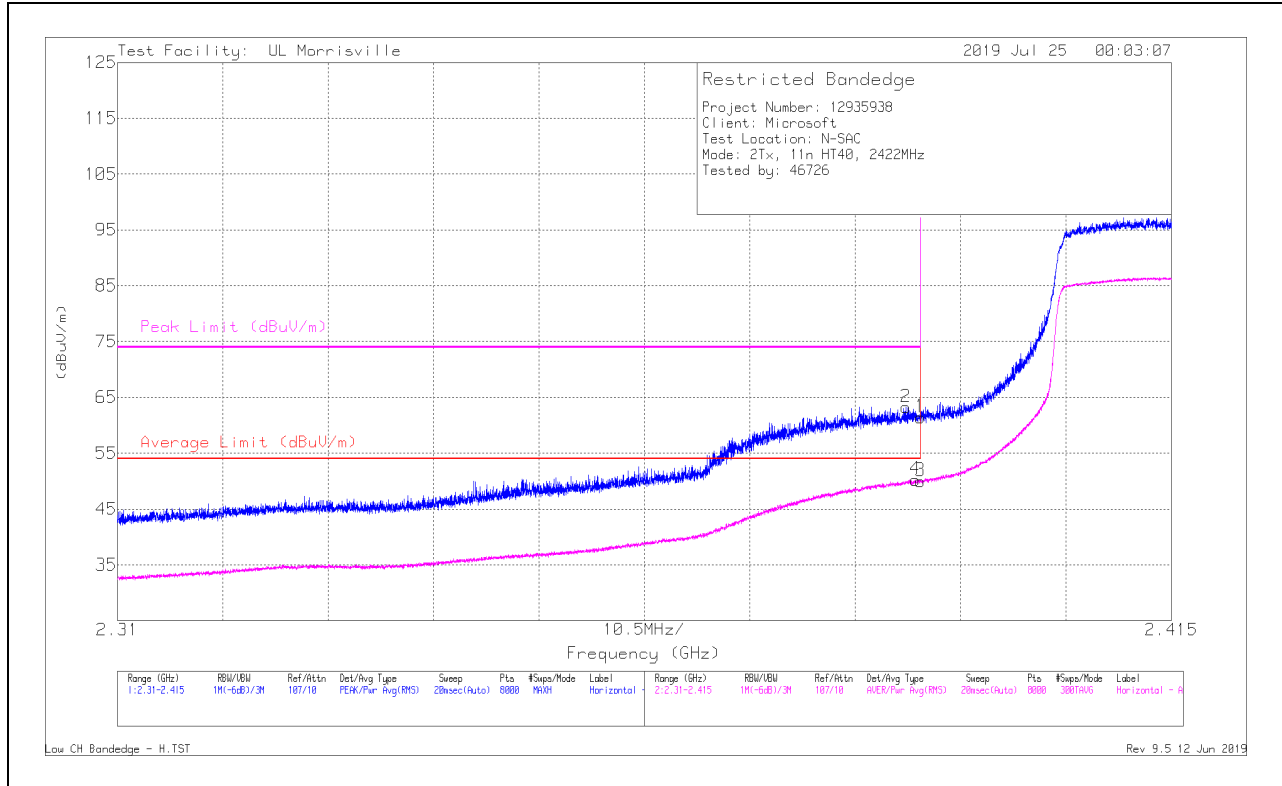
10.1.4. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 2.4 GHz BAND

2TX Chain 0 + Chain 1 SDM MODE

Note - Radiated spurious emissions 1-18 GHz for 802.11n HT20 and 802.11 nHT40 is covered by using the 802.11ax HE20 and 802.11ax HE40 radiated spurious emissions 1-18 GHz from UL report number R12935938-E4.

BANDEDGE (LOW CHANNEL, CH 3)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	* ** 2.39	53.86	Pk	32	-24.4	61.46	-	-	74	-12.54	84	389	H
2	* ** 2.38855	55.64	Pk	32	-24.4	63.24	-	-	74	-10.76	84	389	H
3	* ** 2.39	42.42	RMS	32	-24.4	50.02	54	-3.98	-	-	84	389	H
4	* ** 2.38948	42.68	RMS	32	-24.4	50.28	54	-3.72	-	-	84	389	H

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

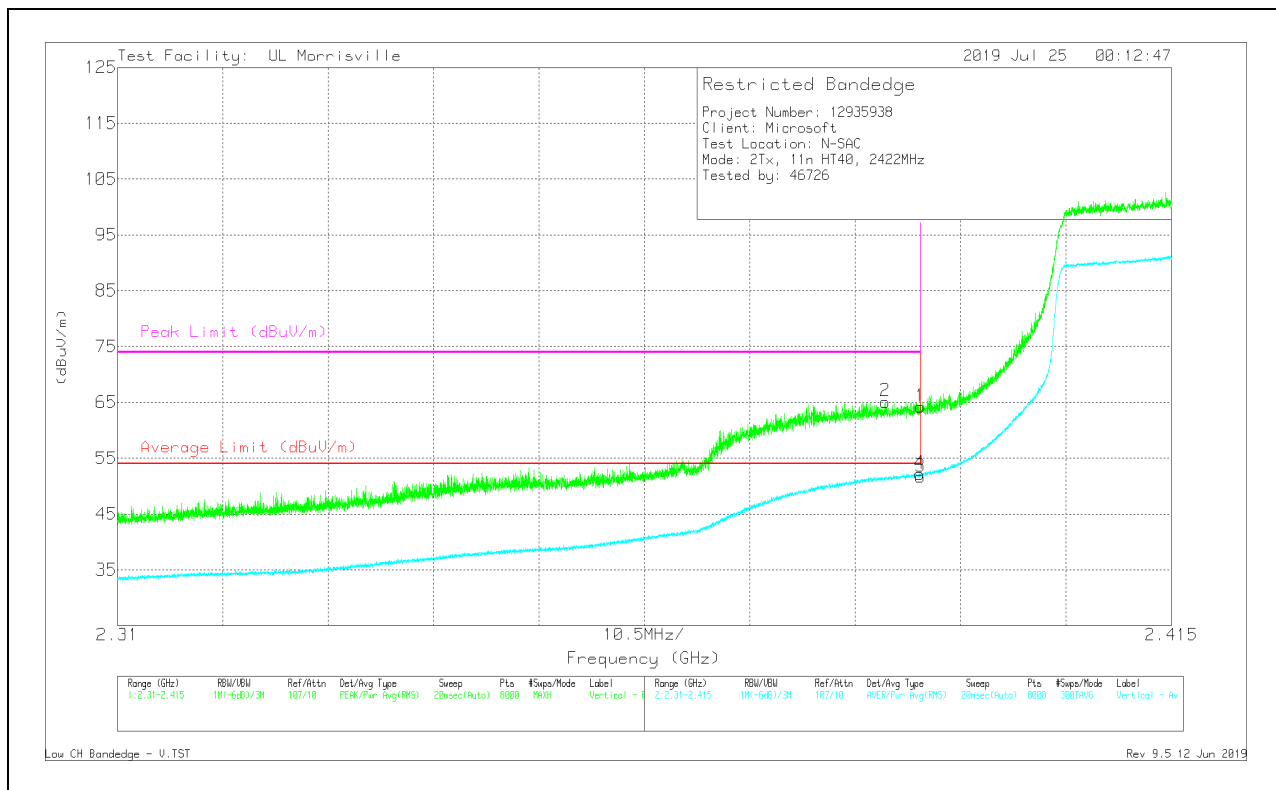
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection

Note – Channel 2422 MHz was tested at mid channel power setting (max.).

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	* ** 2.39	56.59	Pk	32	-24.4	64.19	-	-	74	-9.81	115	176	V
2	* ** 2.3865	57.55	Pk	32	-24.4	65.15	-	-	74	-8.85	115	176	V
3	* ** 2.39	44.1	RMS	32	-24.4	51.7	54	-2.3	-	-	115	176	V
4	* ** 2.38992	44.62	RMS	32	-24.4	52.22	54	-1.78	-	-	115	176	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

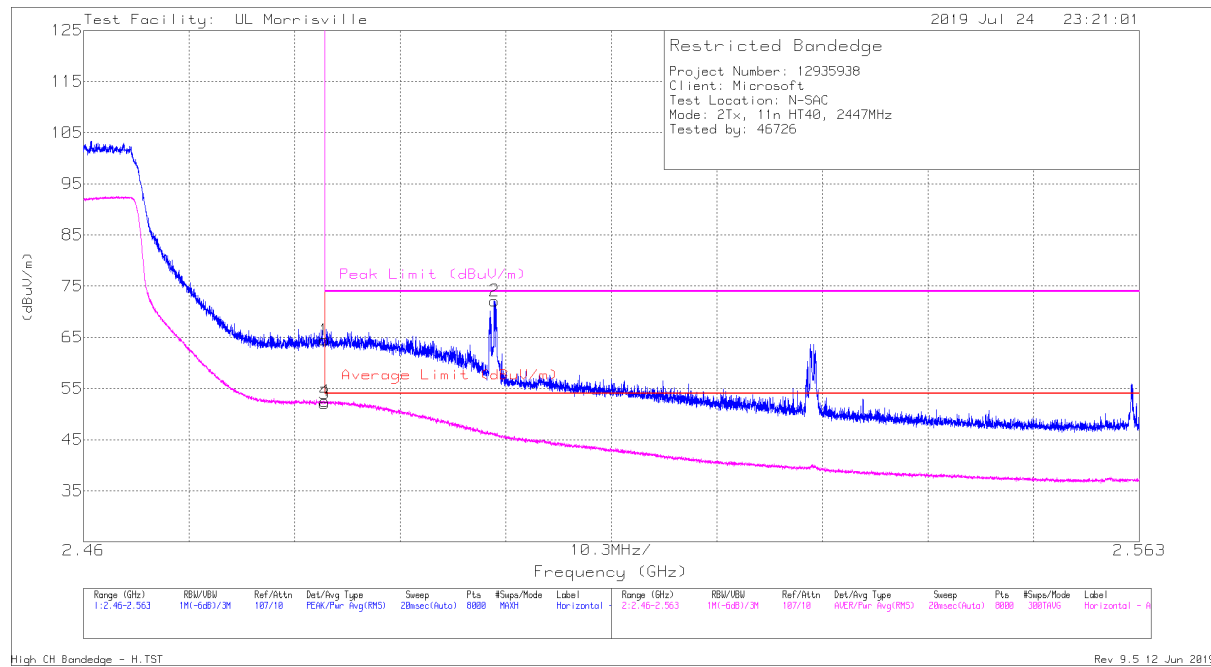
Pk - Peak detector

RMS - RMS detection

Note – Channel 2422 MHz was tested at mid channel power setting (max.).

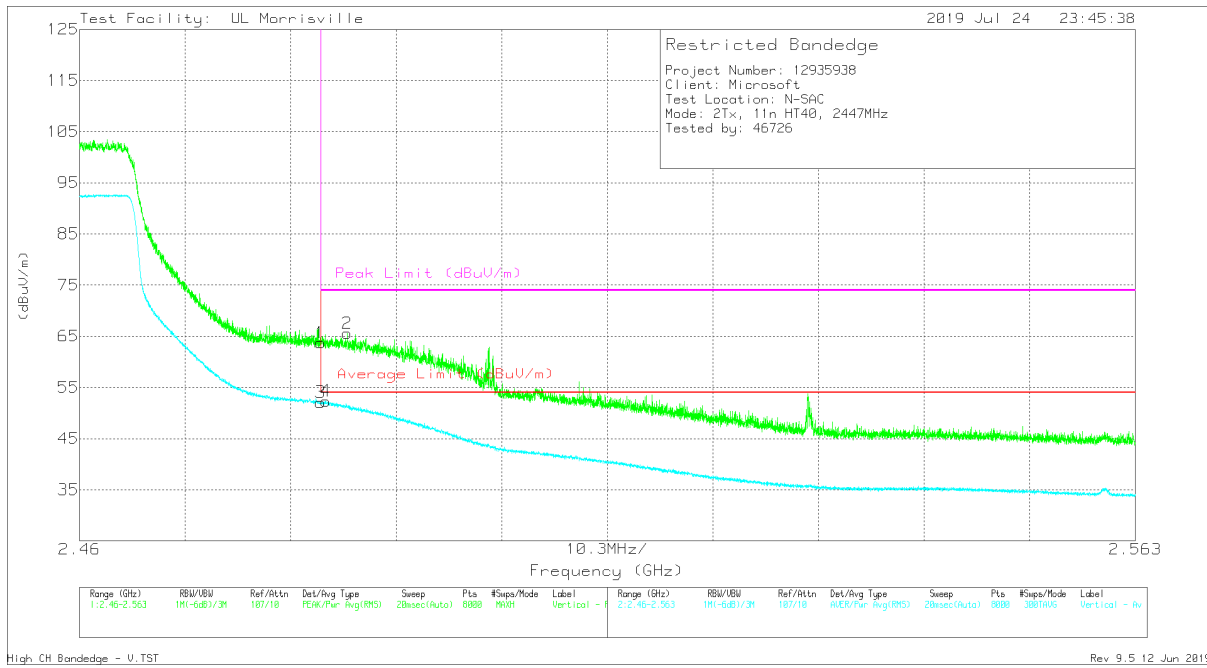
BANDEDGE (HIGH CHANNEL, CH 8)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	*** 2.4835	56.38	Pk	32.4	-24.3	64.48	-	-	74	-9.52	15	370	H
2	** 2.50007	63.93	Pk	32.5	-24.3	72.13	-	-	74	-1.87	15	370	H
3	*** 2.4835	43.94	RMS	32.4	-24.3	52.04	54	-1.96	-	-	15	370	H
4	*** 2.48353	44.4	RMS	32.4	-24.3	52.5	54	-1.5	-	-	15	370	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 RMS - RMS detection

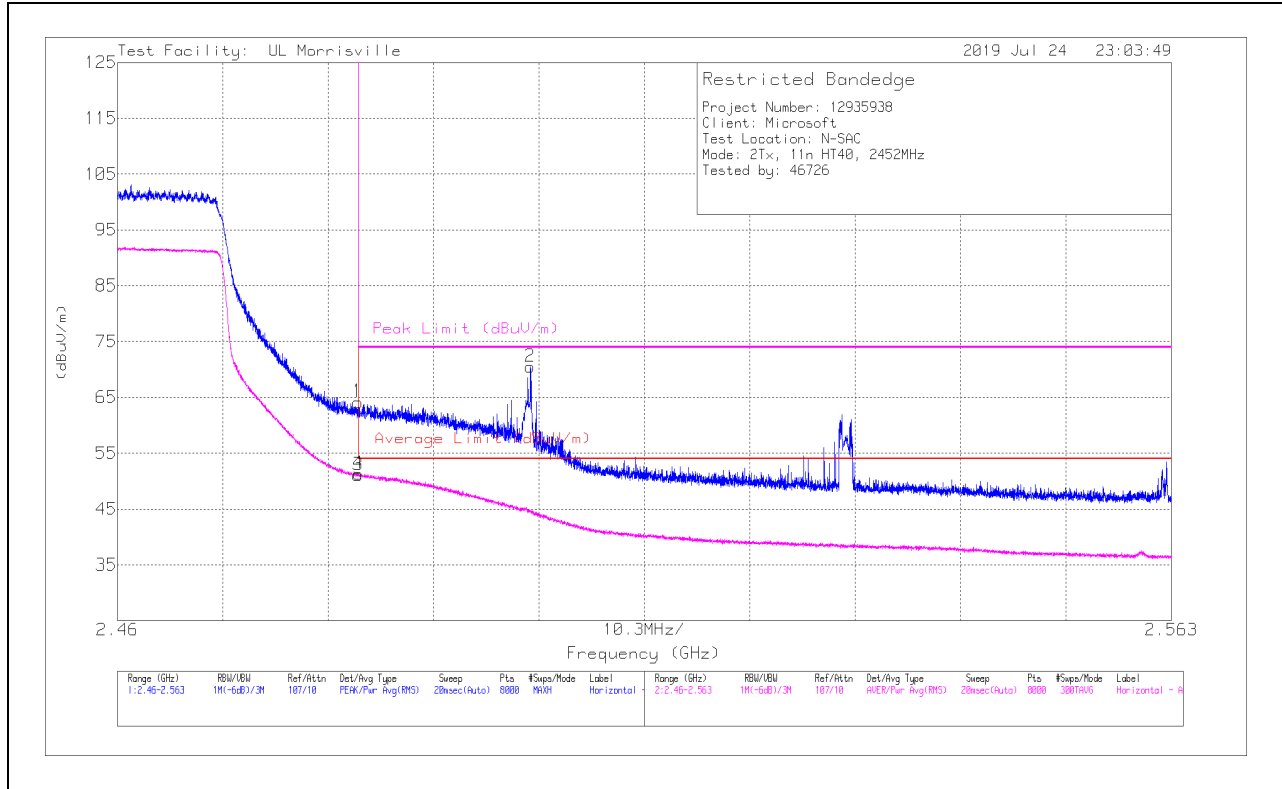


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.4835	55.65	Pk	32.4	-24.3	63.75	-	-	74	-10.25	360	381	V
2	*** 2.48613	57.51	Pk	32.4	-24.3	65.61	-	-	74	-8.39	360	381	V
3	*** 2.4835	44	RMS	32.4	-24.3	52.1	54	-1.9	-	-	360	381	V
4	*** 2.48403	44.25	RMS	32.4	-24.3	52.35	54	-1.65	-	-	360	381	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 9)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	* ** 2.4835	56.06	Pk	32.4	-24.3	64.16	-	-	74	-9.84	14	380	H
2	** 2.50034	62.26	Pk	32.5	-24.3	70.46	-	-	74	-3.54	14	380	H
3	* ** 2.4835	42.99	RMS	32.4	-24.3	51.09	54	-2.91	-	-	14	380	H
4	* ** 2.48351	43.23	RMS	32.4	-24.3	51.33	54	-2.67	-	-	14	380	H

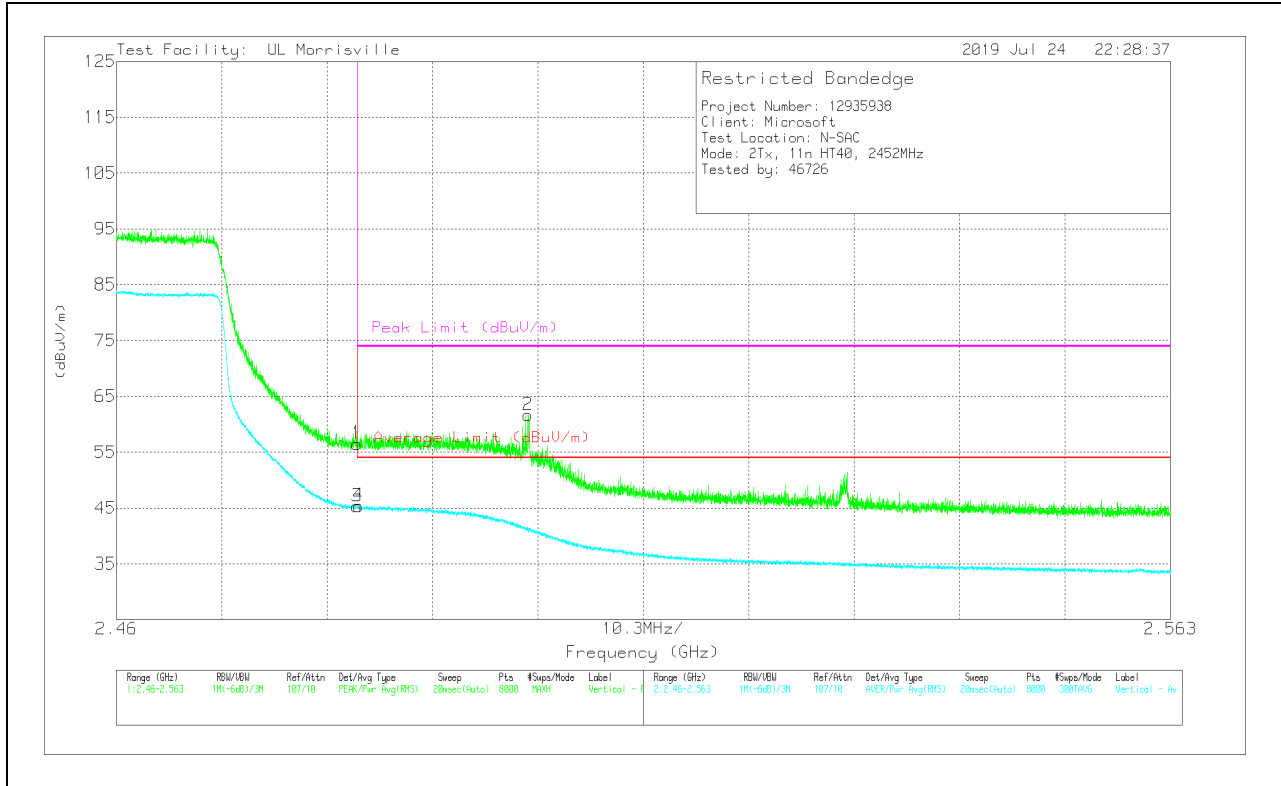
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

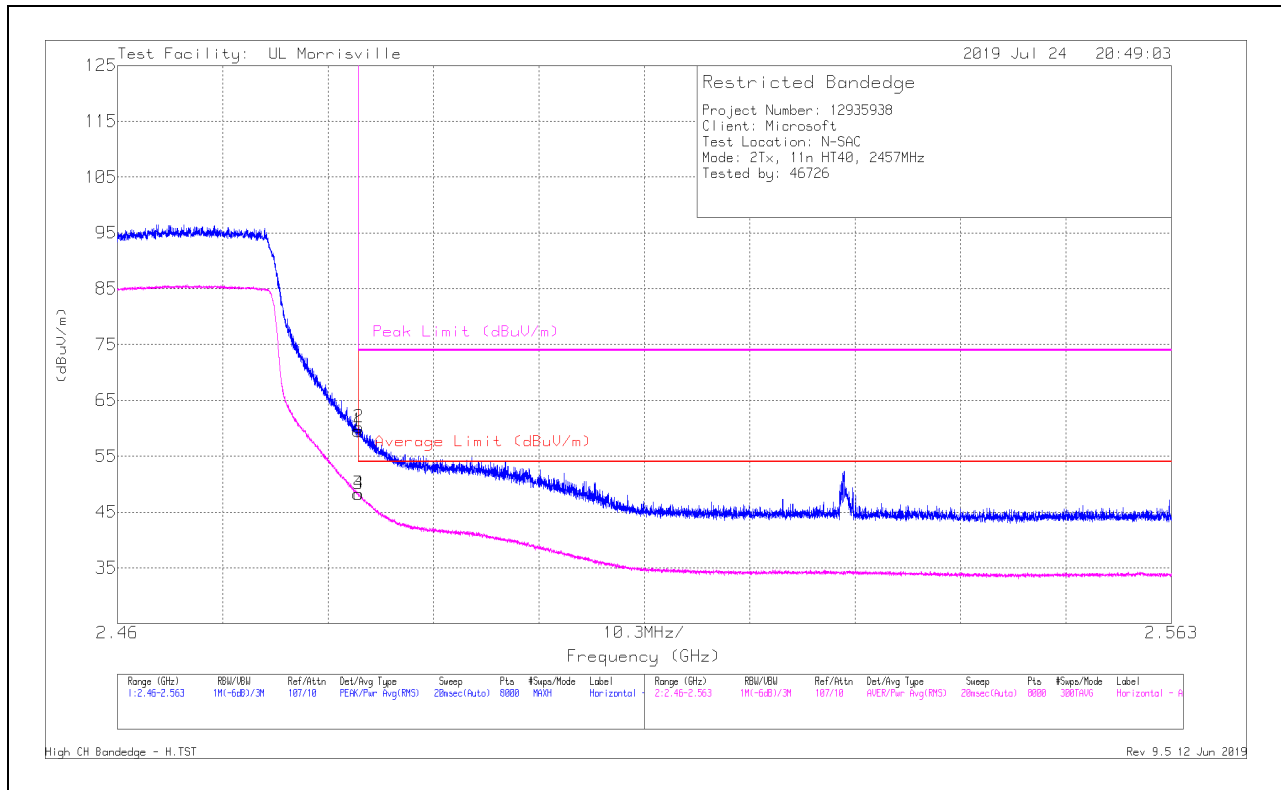


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.4835	48.42	Pk	32.4	-24.3	56.52	-	-	74	-17.48	209	301	V
2	** 2.50023	53.47	Pk	32.5	-24.3	61.67	-	-	74	-12.33	209	301	V
3	* ** 2.4835	37.17	RMS	32.4	-24.3	45.27	54	-8.73	-	-	209	301	V
4	* ** 2.48364	37.27	RMS	32.4	-24.3	45.37	54	-8.63	-	-	209	301	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 10)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	* ** 2.4835	51.47	Pk	32.4	-24.3	59.57	-	-	74	-14.43	353	371	H
2	* ** 2.48358	52.08	Pk	32.4	-24.3	60.18	-	-	74	-13.82	353	371	H
3	* ** 2.4835	40.13	RMS	32.4	-24.3	48.23	54	-5.77	-	-	353	371	H
4	* ** 2.4836	40.13	RMS	32.4	-24.3	48.23	54	-5.77	-	-	353	371	H

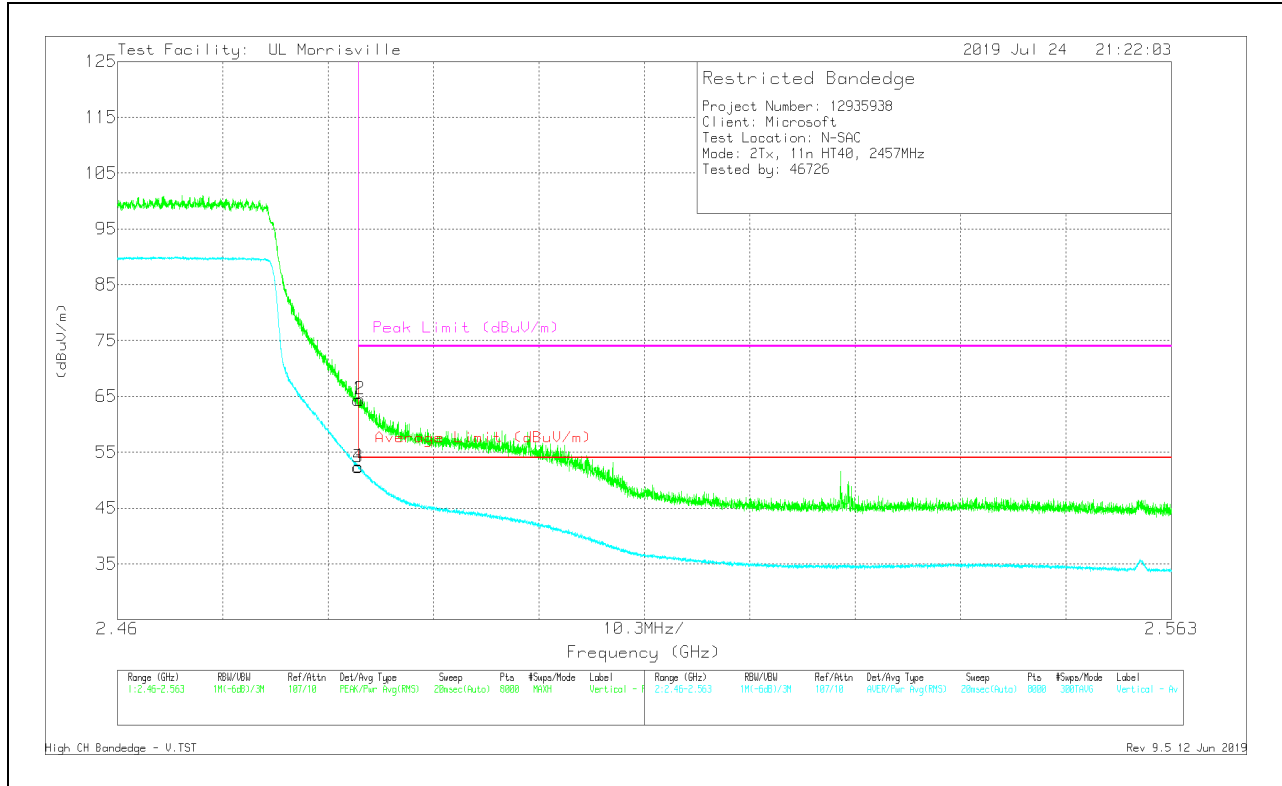
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT

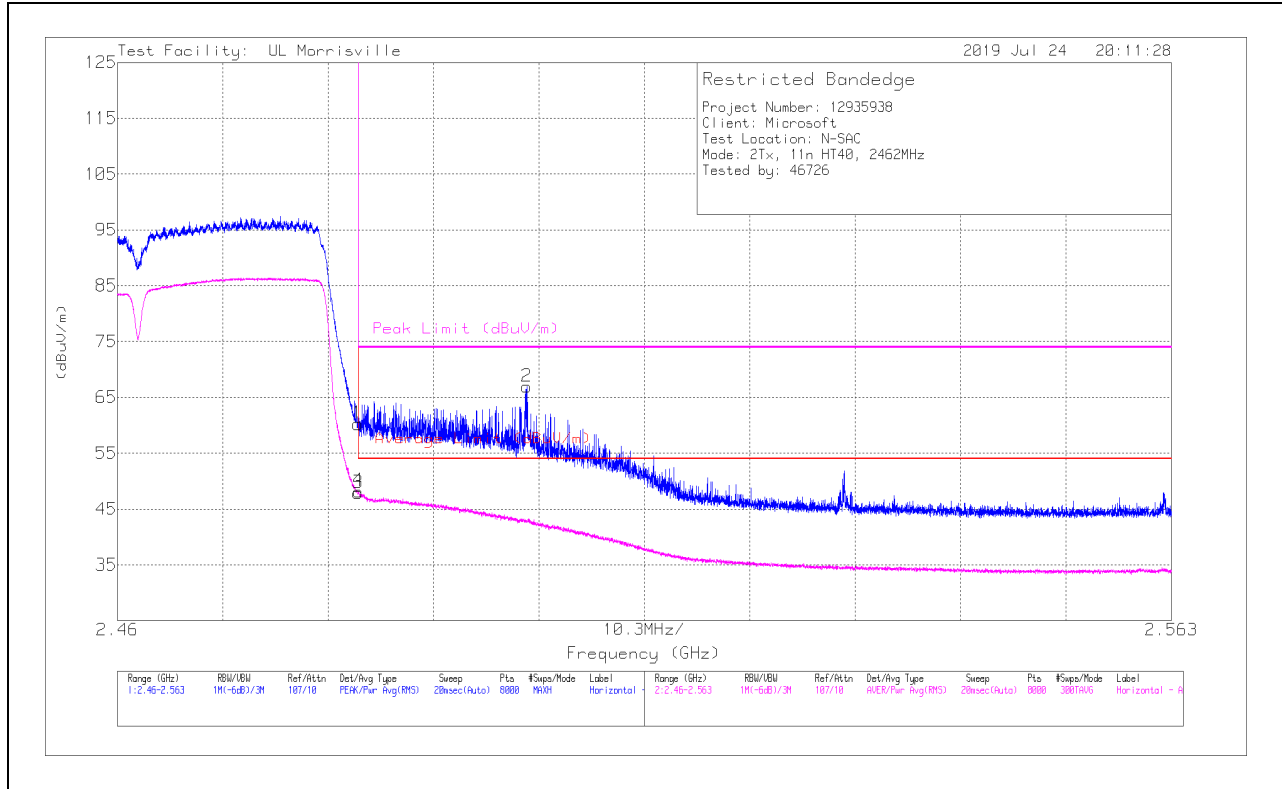


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.4835	56.32	Pk	32.4	-24.3	64.42	-	-	74	-9.58	356	378	V
2	* ** 2.48372	56.33	Pk	32.4	-24.3	64.43	-	-	74	-9.57	356	378	V
3	* ** 2.4835	44.21	RMS	32.4	-24.3	52.31	54	-1.69	-	-	356	378	V
4	* ** 2.48351	44.36	RMS	32.4	-24.3	52.46	54	-1.54	-	-	356	378	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 11)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	* ** 2.4835	52.15	Pk	32.4	-24.3	60.25	-	-	74	-13.75	89	397	H
2	* ** 2.5	58.73	Pk	32.5	-24.3	66.93	-	-	74	-7.07	89	397	H
3	* ** 2.4835	39.81	RMS	32.4	-24.3	47.91	54	-6.09	-	-	89	397	H
4	* ** 2.48353	40.08	RMS	32.4	-24.3	48.18	54	-5.82	-	-	89	397	H

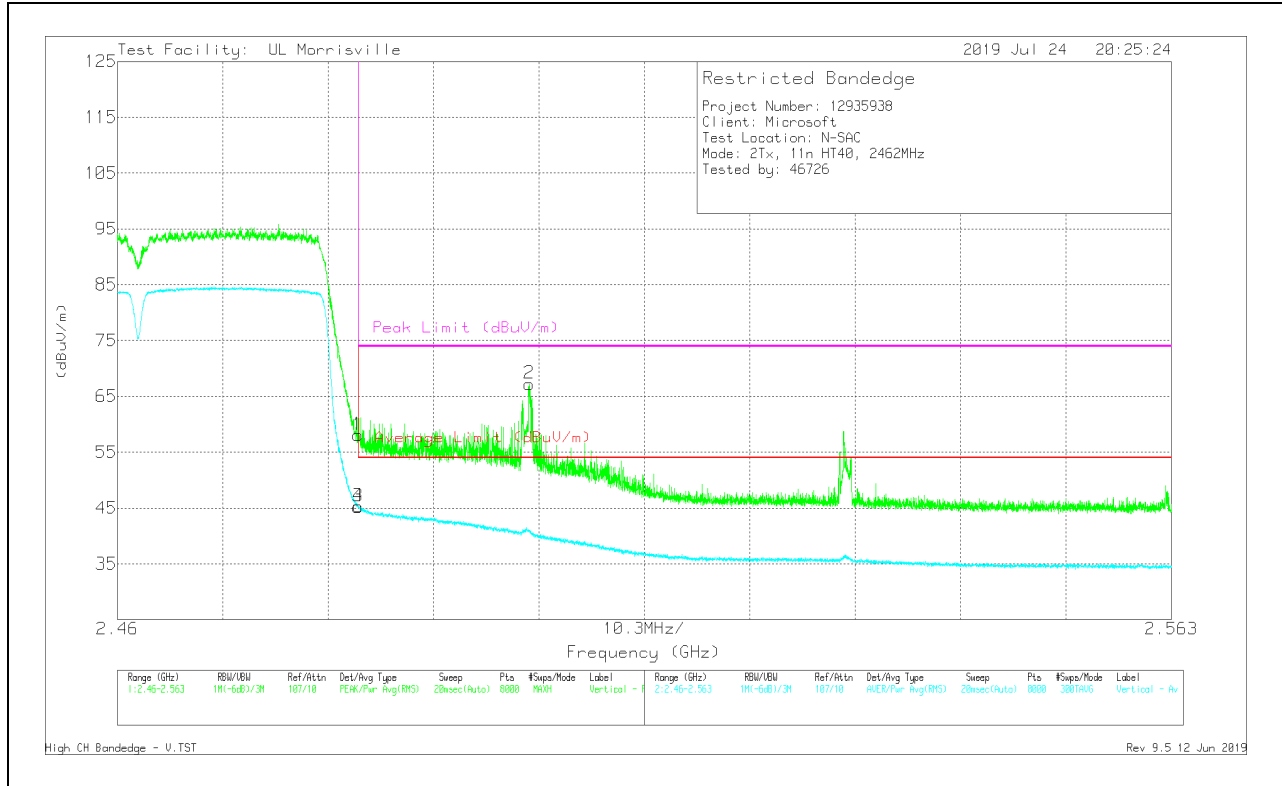
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 AF (dBuV/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	* ** 2.4835	49.98	Pk	32.4	-24.3	58.08	-	-	74	-15.92	278	260	V
2	** 2.50024	59.04	Pk	32.5	-24.3	67.24	-	-	74	-6.76	278	260	V
3	* ** 2.4835	37.15	RMS	32.4	-24.3	45.25	54	-8.75	-	-	278	260	V
4	* ** 2.48355	37.2	RMS	32.4	-24.3	45.3	54	-8.7	-	-	278	260	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

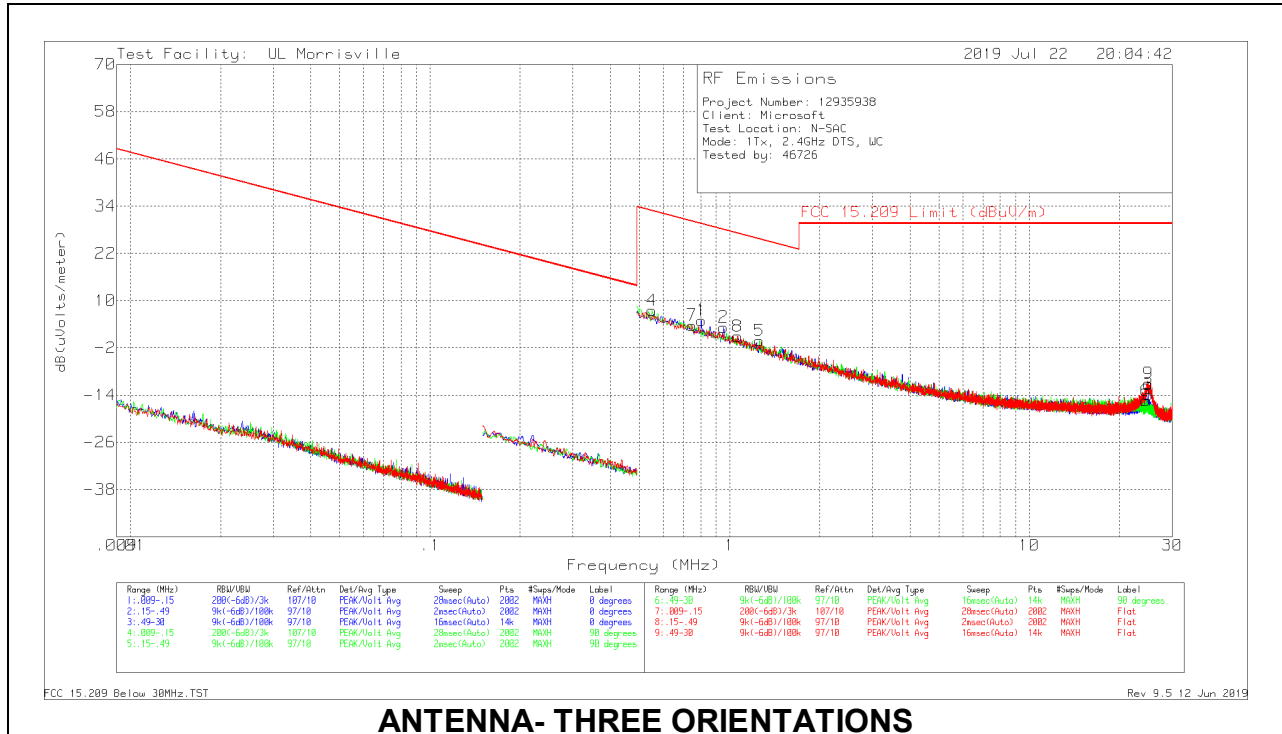
Pk - Peak detector

RMS - RMS detection

10.2. WORST CASE BELOW 30MHZ

SPURIOUS EMISSIONS BELOW 30 MHz (WORST-CASE CONFIGURATION)

Note: All measurements were made at a test distance of 3 m. The measured data was extrapolated from the test distance (3m) to the specification distance (300 m from 9-490 kHz and 30 m from 490 kHz – 30 MHz) to clearly show the relative levels of fundamental and spurious emissions and demonstrate compliance with the requirement that the level of any spurious emissions be below the level of the intentionally transmitted signal. The extrapolation factor for the limits were 40*Log (test distance / specification distance).



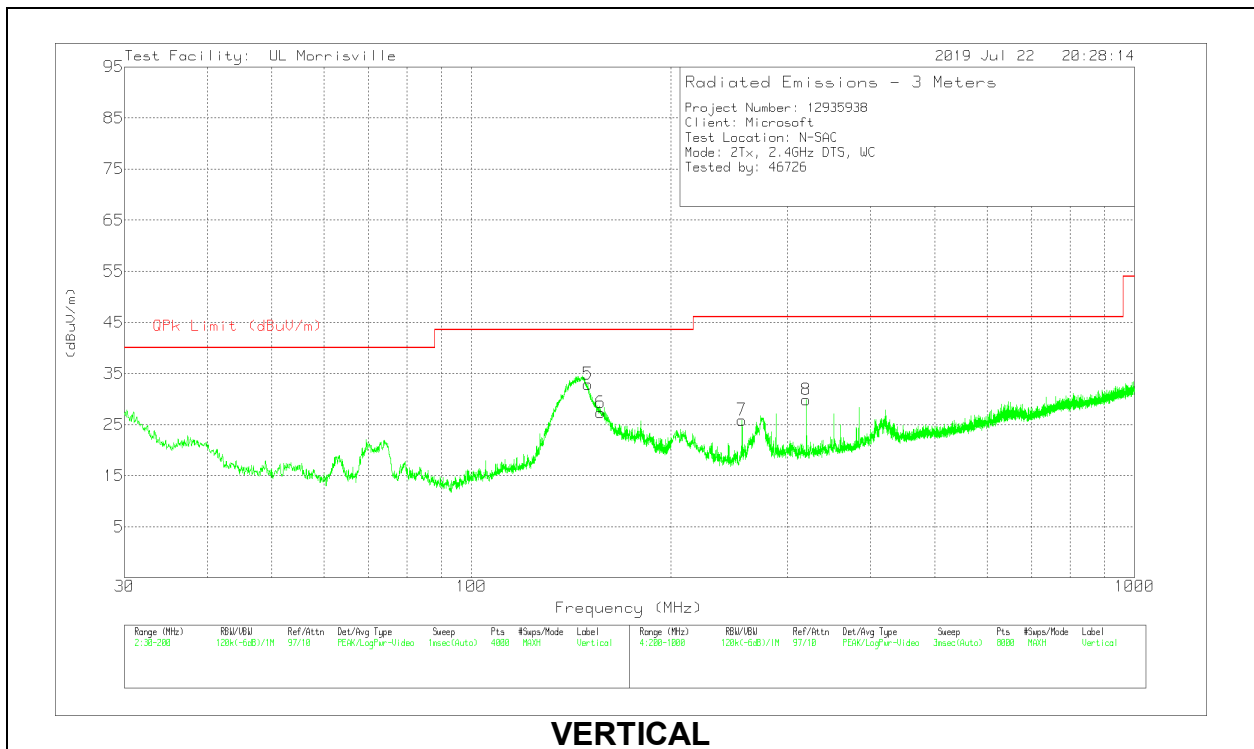
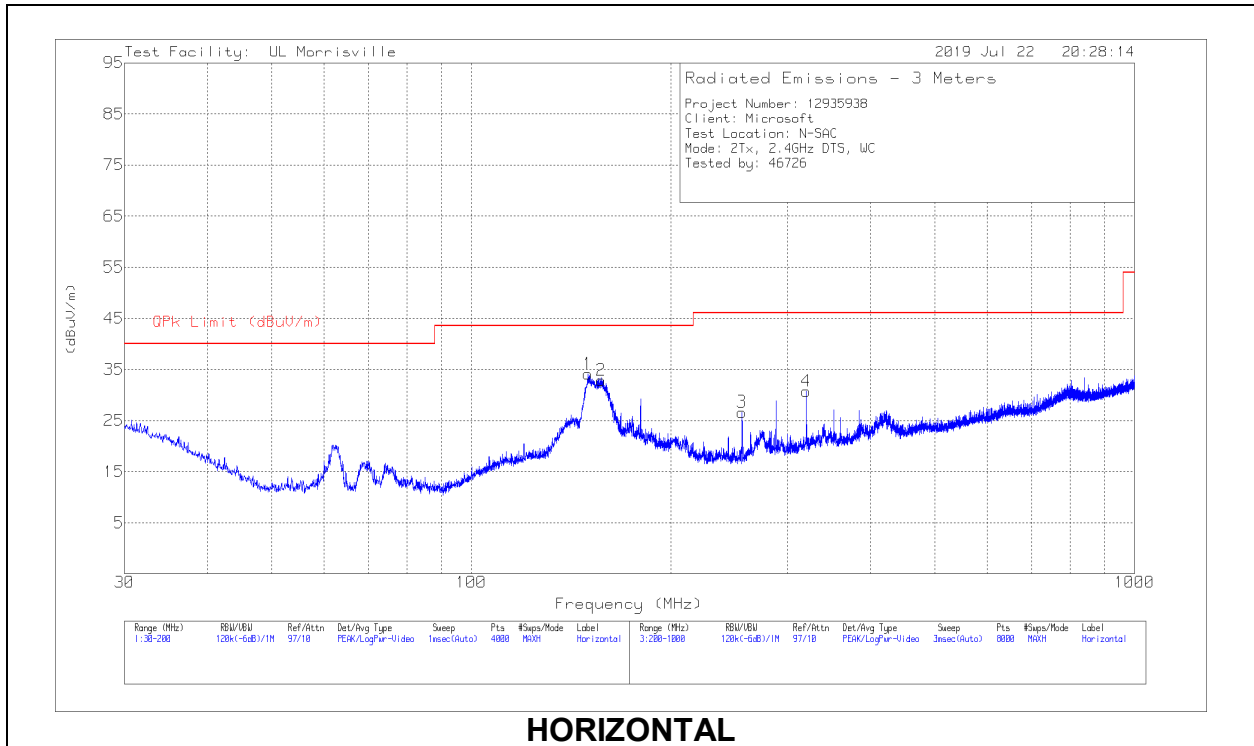
ANTENNA- THREE ORIENTATIONS

Below 30MHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0059 (dB/m)	Cbl (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	FCC 15.209 Avg/QP Limit (dBuV/m)	FCC 15.209 Pk Limit (dBuV/m)	Worst-case Margin (dB)	Azimuth (Degs)
4	.55113	36.98	Pk	10.4	.1	-40	7.48	32.78	-	-25.3	0-360
7	.74823	33.21	Pk	10.4	.1	-40	3.71	30.12	-	-26.41	0-360
1	.80409	34.58	Pk	10.3	.1	-40	4.98	29.5	-	-24.52	0-360
2	.95587	32.53	Pk	10.5	.2	-40	3.23	28	-	-24.77	0-360
8	1.06338	30.14	Pk	10.6	.2	-40	.94	27.07	-	-26.13	0-360
5	1.25731	28.98	Pk	10.6	.2	-40	-.22	25.62	-	-25.84	0-360
6	24.4959	14.34	Pk	9.5	.8	-40	-15.36	29.54	-	-44.9	0-360
3	24.91434	15.94	Pk	9.3	.9	-40	-13.86	29.54	-	-43.4	0-360
9	24.97231	18.71	Pk	9.3	.9	-40	-11.09	29.54	-	-40.63	0-360

Pk - Peak detector

10.3. WORST CASE BELOW 1 GHZ

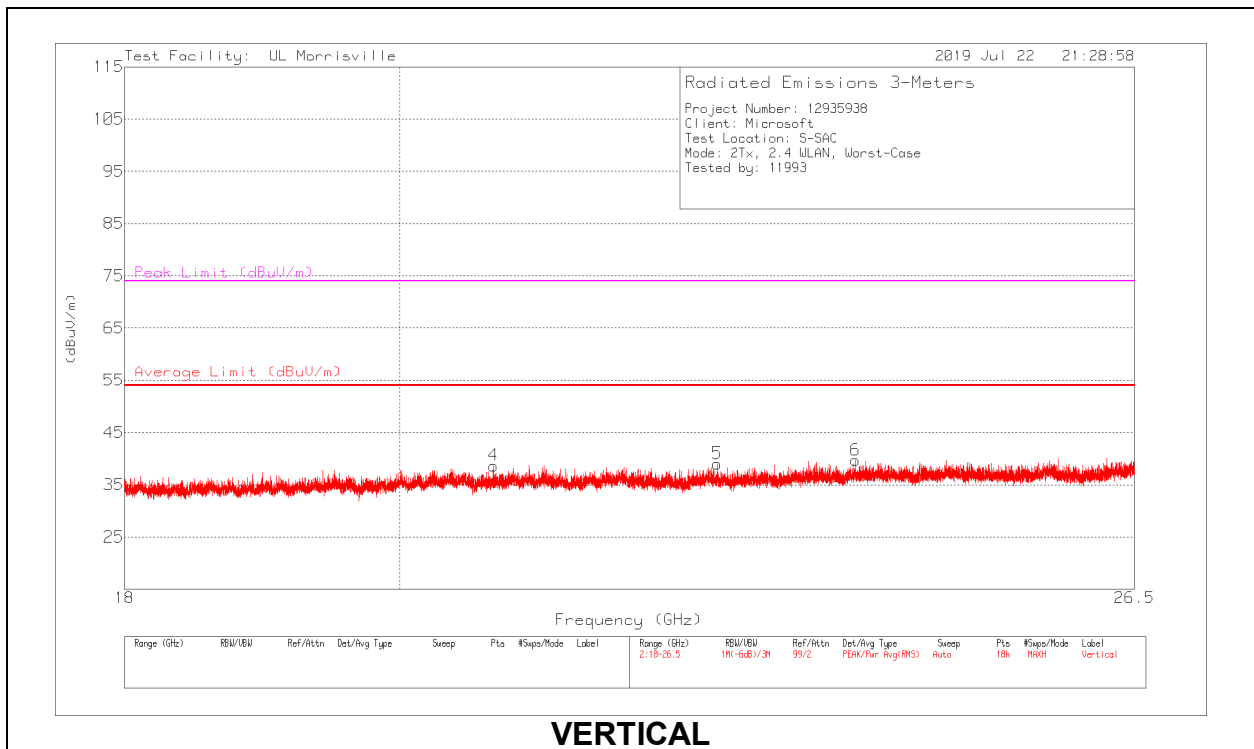
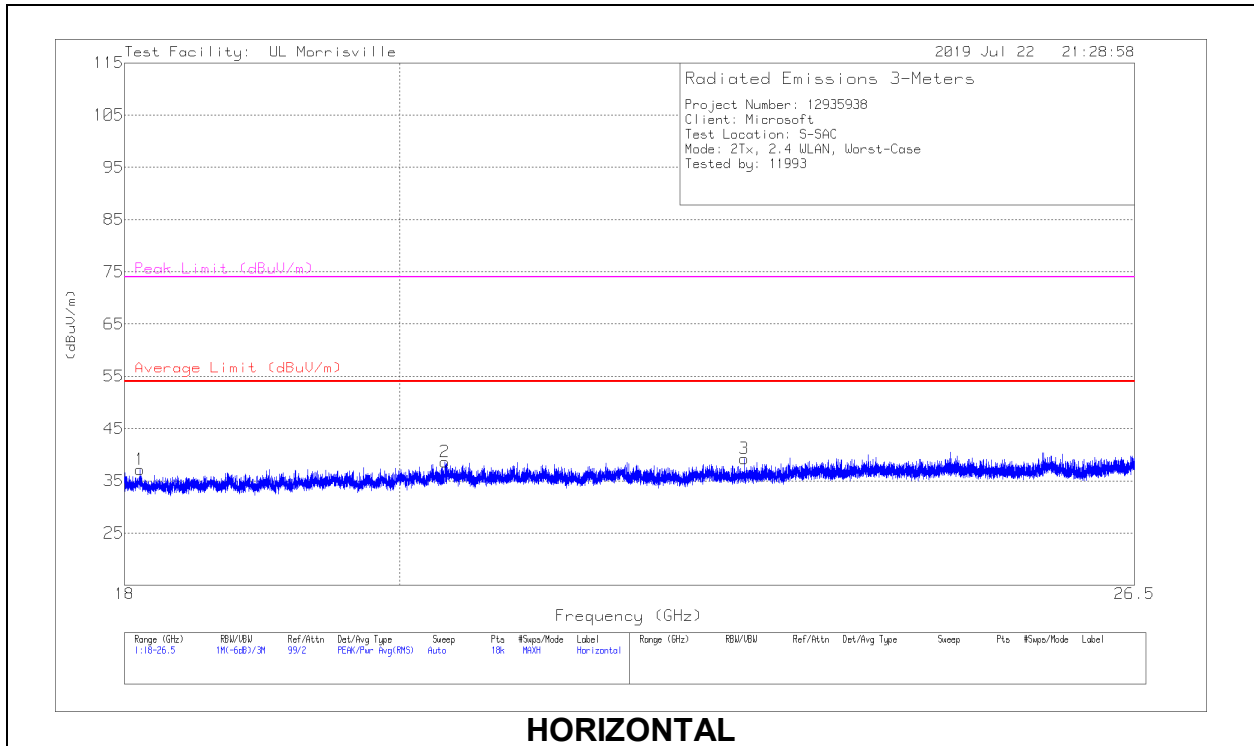


Below 1GHz DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0073 ACF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 150.0086	45.59	Pk	19	-30.5	34.09	43.52	-9.43	0-360	199	H
2	* ** 156.8528	44.46	Pk	18.8	-30.4	32.86	43.52	-10.66	0-360	199	H
5	* ** 150.0086	44.43	Pk	19	-30.5	32.93	43.52	-10.59	0-360	102	V
6	* ** 156.7678	38.97	Pk	18.8	-30.4	27.37	43.52	-16.15	0-360	102	V
3	* ** 256.0073	37.94	Pk	18.4	-29.7	26.64	46.02	-19.38	0-360	102	H
7	* ** 256.0073	37.18	Pk	18.4	-29.7	25.88	46.02	-20.14	0-360	199	V
4	320.0156	39.53	Pk	20.6	-29.4	30.73	46.02	-15.29	0-360	102	H
8	320.0156	38.63	Pk	20.6	-29.4	29.83	46.02	-16.19	0-360	199	V

Pk - Peak detector

10.4. WORST CASE 18-26 GHZ



18 – 26GHz DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0076 AF (dB/m)	Cbl/Amp (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 18.1072	43.86	Pk	32.5	-39.2	37.16	54	-16.84	74	-36.84	0-360	199	H
2	*** 20.34896	43.94	Pk	33	-38.3	38.64	54	-15.36	74	-35.36	0-360	101	H
3	*** 22.81976	43.31	Pk	33.6	-37.7	39.21	54	-14.79	74	-34.79	0-360	101	H
4	*** 20.73384	43.98	Pk	33	-38.3	38.68	54	-15.32	74	-35.32	0-360	201	V
5	*** 22.58695	43.34	Pk	33.4	-37.7	39.04	54	-14.96	74	-34.96	0-360	201	V
6	*** 23.81621	43.04	Pk	34	-37.3	39.74	54	-14.26	74	-34.26	0-360	151	V

Pk - Peak detector

11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

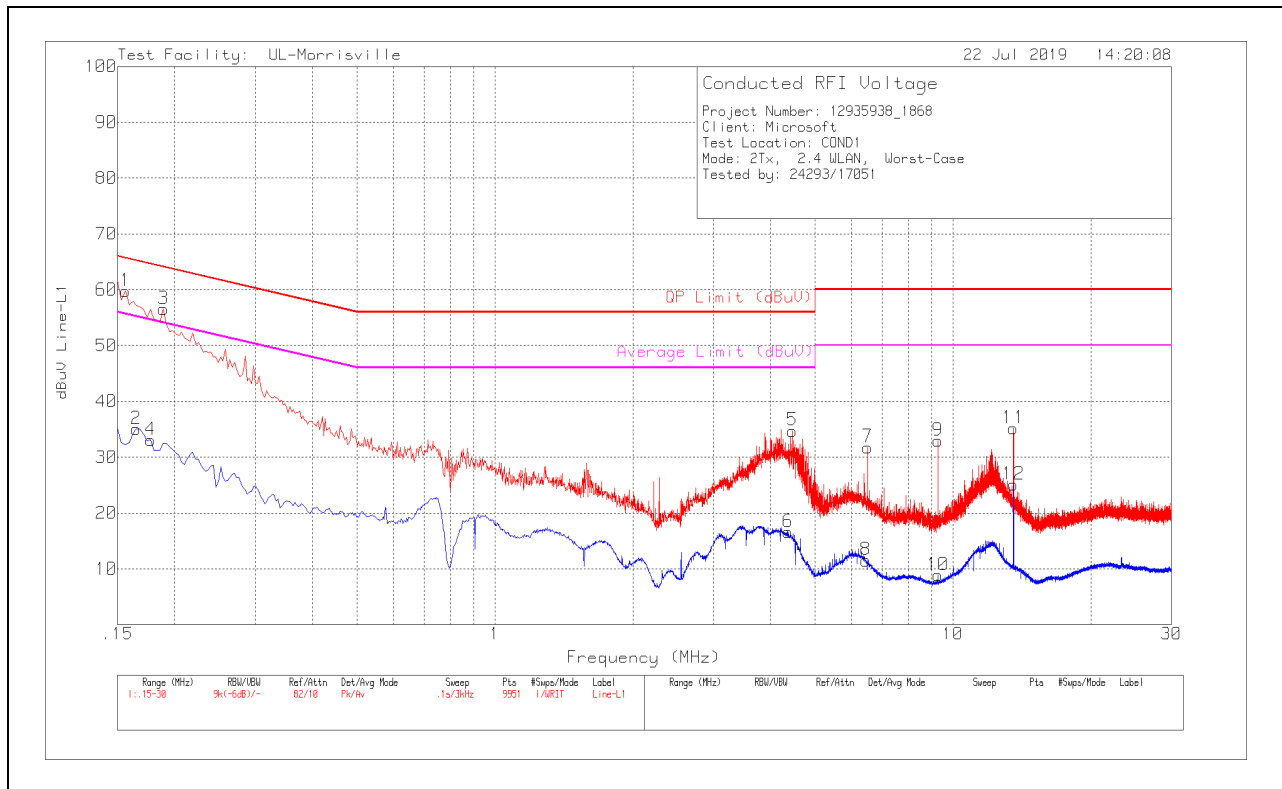
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

11.1.1. AC Power Line Host

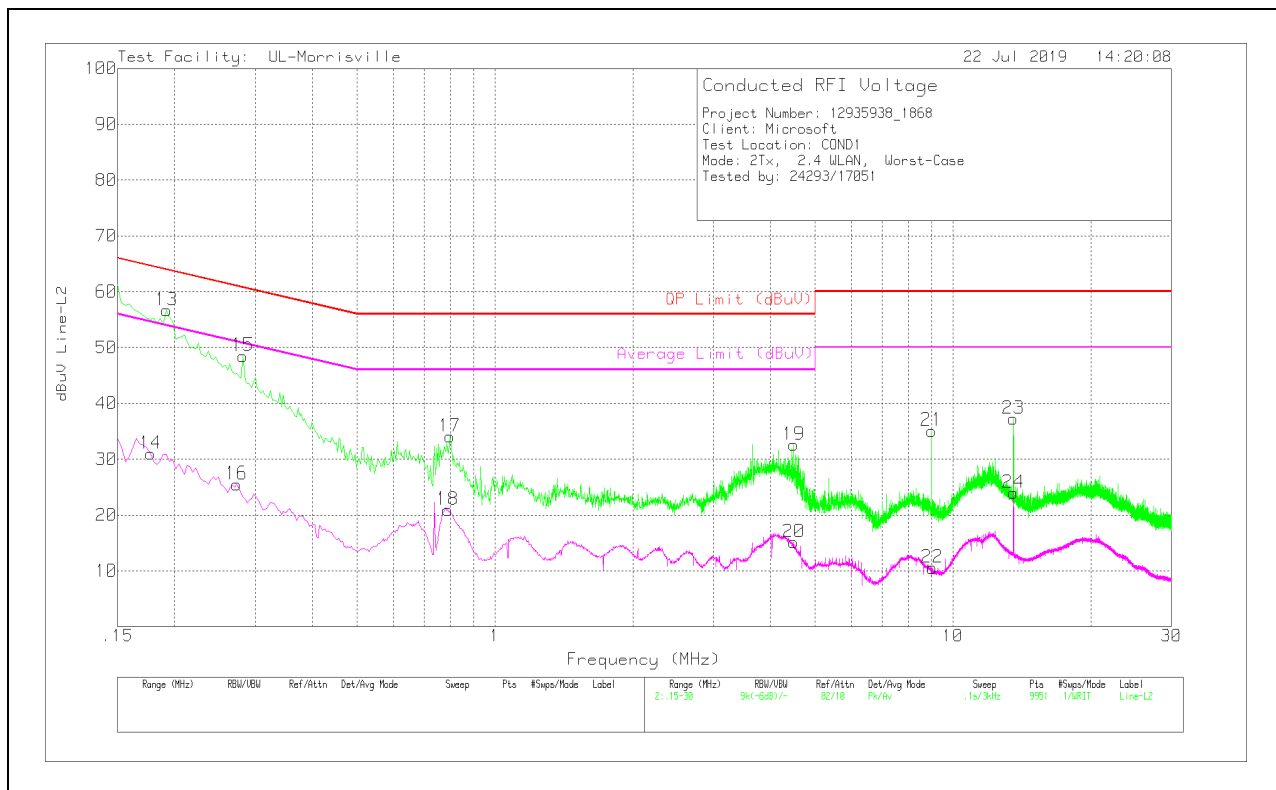
LINE 1 RESULTS



Range 1: Line-L1 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
1	.15074	45.43	Qp	.2	10	55.63	65.96	-10.33	-	-
2	.15074	20.92	Av	.2	10	31.12	-	-	55.96	-24.84
3	.189	46.38	Pk	.2	10	56.58	64.08	-7.5	-	-
4	.177	22.85	Av	.2	10	33.05	-	-	54.63	-21.58
5	4.467	24.55	Pk	0	10.2	34.75	56	-21.25	-	-
6	4.365	6.4	Av	0	10.2	16.6	-	-	46	-29.4
7	6.519	21.47	Pk	.1	10.2	31.77	60	-28.23	-	-
8	6.447	1.23	Av	.1	10.2	11.53	-	-	50	-38.47
9	9.288	22.55	Pk	.1	10.3	32.95	60	-27.05	-	-
10	9.27	-1.54	Av	.1	10.3	8.86	-	-	50	-41.14
11	13.563	24.68	Pk	.1	10.4	35.18	60	-24.82	-	-
12	13.56	14.62	Av	.1	10.4	25.12	-	-	50	-24.88

Pk - Peak detector
 Av - Average detector

LINE 2 RESULTS



Range 2: Line-L2 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
13	.192	46.48	Pk	.2	10	56.68	63.95	-7.27	-	-
14	.177	20.81	Av	.2	10	31.01	-	-	54.63	-23.62
15	.282	38.39	Pk	.1	10	48.49	60.76	-12.27	-	-
16	.273	15.41	Av	.1	10	25.51	-	-	51.03	-25.52
17	.798	24.07	Pk	0	10	34.07	56	-21.93	-	-
18	.789	10.95	Av	0	10	20.95	-	-	46	-25.05
19	4.497	22.36	Pk	0	10.2	32.56	56	-23.44	-	-
20	4.497	4.91	Av	0	10.2	15.11	-	-	46	-30.89
21	8.988	24.7	Pk	.1	10.3	35.1	60	-24.9	-	-
22	9.015	.14	Av	.1	10.3	10.54	-	-	50	-39.46
23	13.56	26.77	Pk	.1	10.4	37.27	60	-22.73	-	-
24	13.56	13.52	Av	.1	10.4	24.02	-	-	50	-25.98

Pk - Peak detector
 Av - Average detector

12. SETUP PHOTOS

Please refer to R12935938-EP1 for setup photos.

END OF TEST REPORT