

8.6.3. 802.11n HT20 MODE



9. RADIATED TEST RESULTS

LIMITS

FCC §15.205 and §15.209

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 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

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

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

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

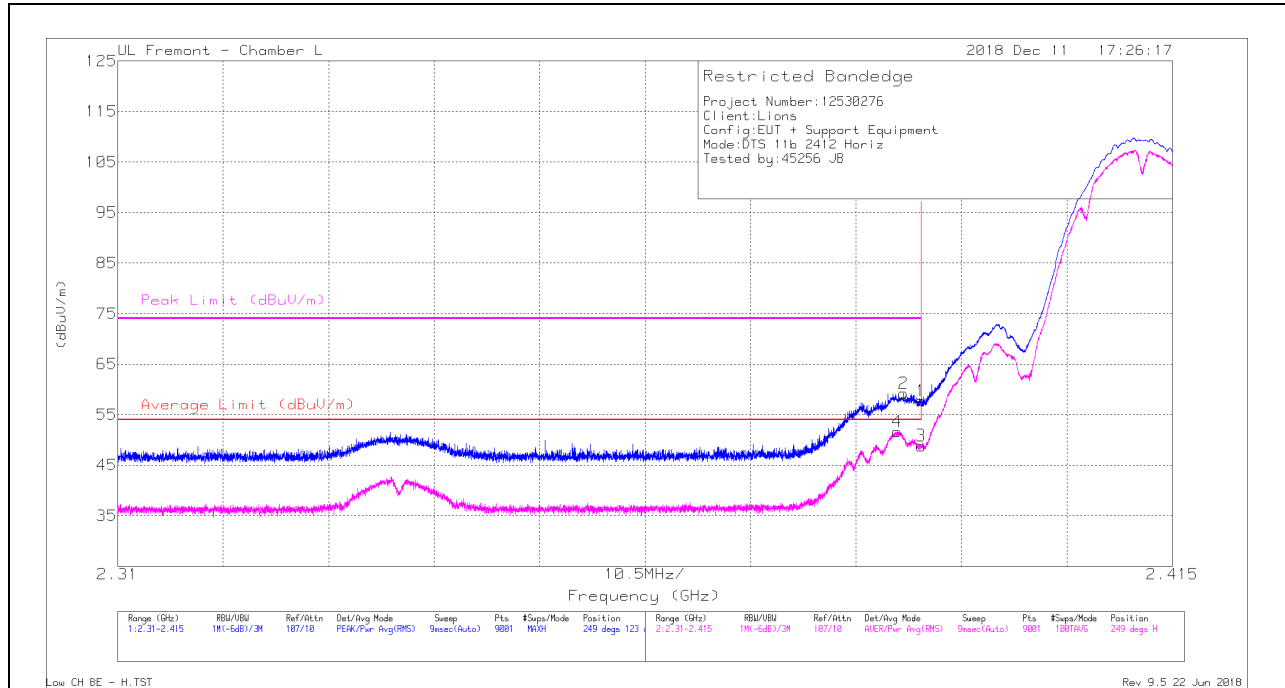
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

9.1. TRANSMITTER ABOVE 1 GHz

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

BANDEDGE (LOW CHANNEL, CH 1)

HORIZONTAL RESULT



Trace Markers

*

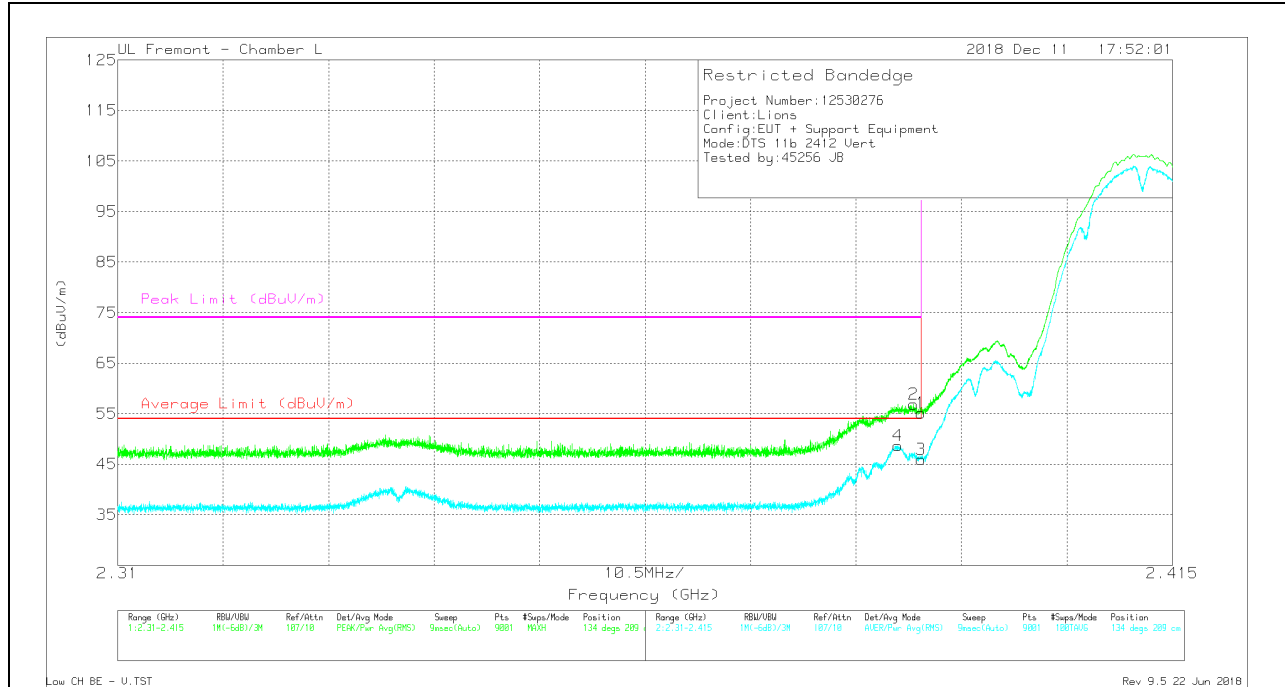
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	* 2.39	48.84	Pk	31.8	-22.9	0	57.74	-	-	74	-16.26	249	123	H
2	* 2.388	50.35	Pk	31.8	-22.9	0	59.25	-	-	74	-14.75	249	123	H
3	* 2.39	39.96	RMS	31.8	-22.9	0	48.86	54	-5.14	-	-	249	123	H
4	* 2.388	42.78	RMS	31.8	-22.9	0	51.68	54	-2.32	-	-	249	123	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Ch/Flt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	* 2.39	46.25	Pk	31.8	-22.9	0	55.15	-	-	74	-18.85	134	209	V
2	* 2.389	48.01	Pk	31.8	-22.9	0	56.91	-	-	74	-17.09	134	209	V
3	* 2.39	37.01	RMS	31.8	-22.9	0	45.91	54	-8.09	-	-	134	209	V
4	* 2.388	39.77	RMS	31.8	-22.9	0	48.67	54	-5.33	-	-	134	209	V

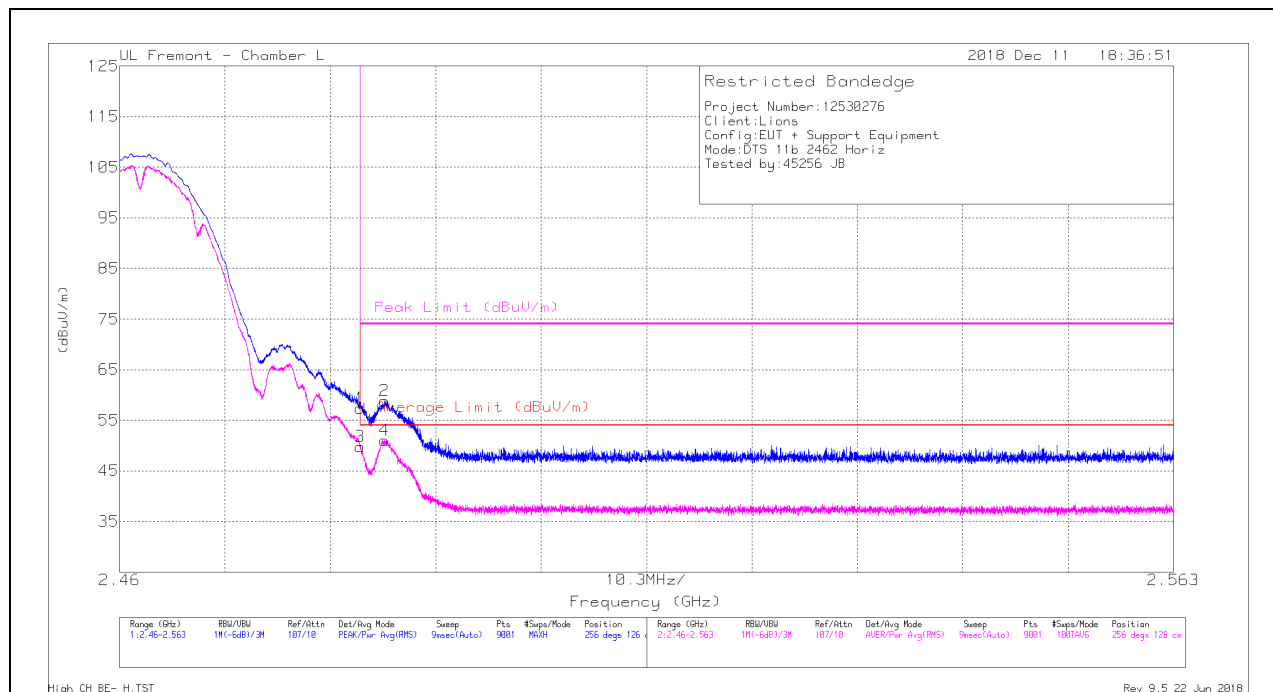
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 11)

HORIZONTAL RESULT



Trace Markers

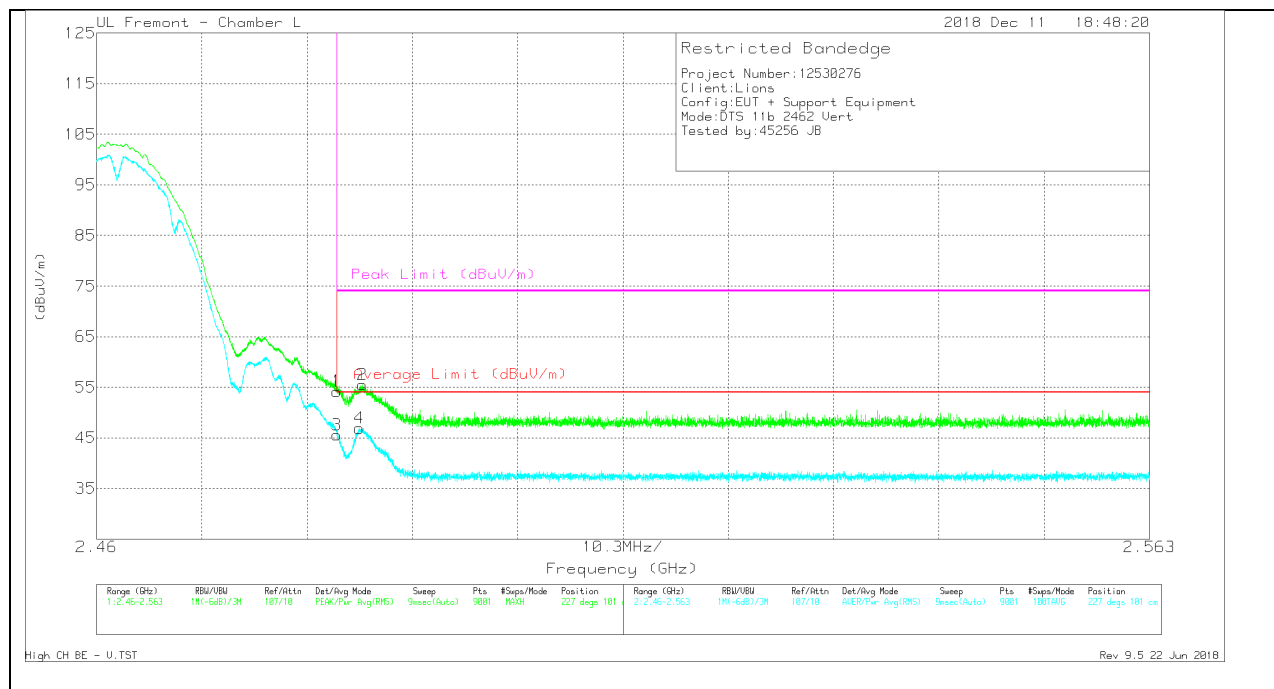
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	47.77	Pk	32.3	-22.7	57.37	-	-	74	-16.63	256	126	H
2	* 2.486	49.26	Pk	32.3	-22.7	58.86	-	-	74	-15.14	256	126	H
3	* 2.484	40.22	RMS	32.3	-22.7	49.82	54	-4.18	-	-	256	126	H
4	* 2.486	41.47	RMS	32.3	-22.7	51.07	54	-2.93	-	-	256	126	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Ch/Flt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	* 2.484	44.6	Pk	32.3	-22.7	0	54.2	-	-	74	-19.8	227	101	V
2	* 2.486	45.85	Pk	32.3	-22.7	0	55.45	-	-	74	-18.55	227	101	V
3	* 2.484	35.99	RMS	32.3	-22.7	0	45.59	54	-8.41	-	-	227	101	V
4	* 2.486	37.28	RMS	32.3	-22.7	0	46.88	54	-7.12	-	-	227	101	V

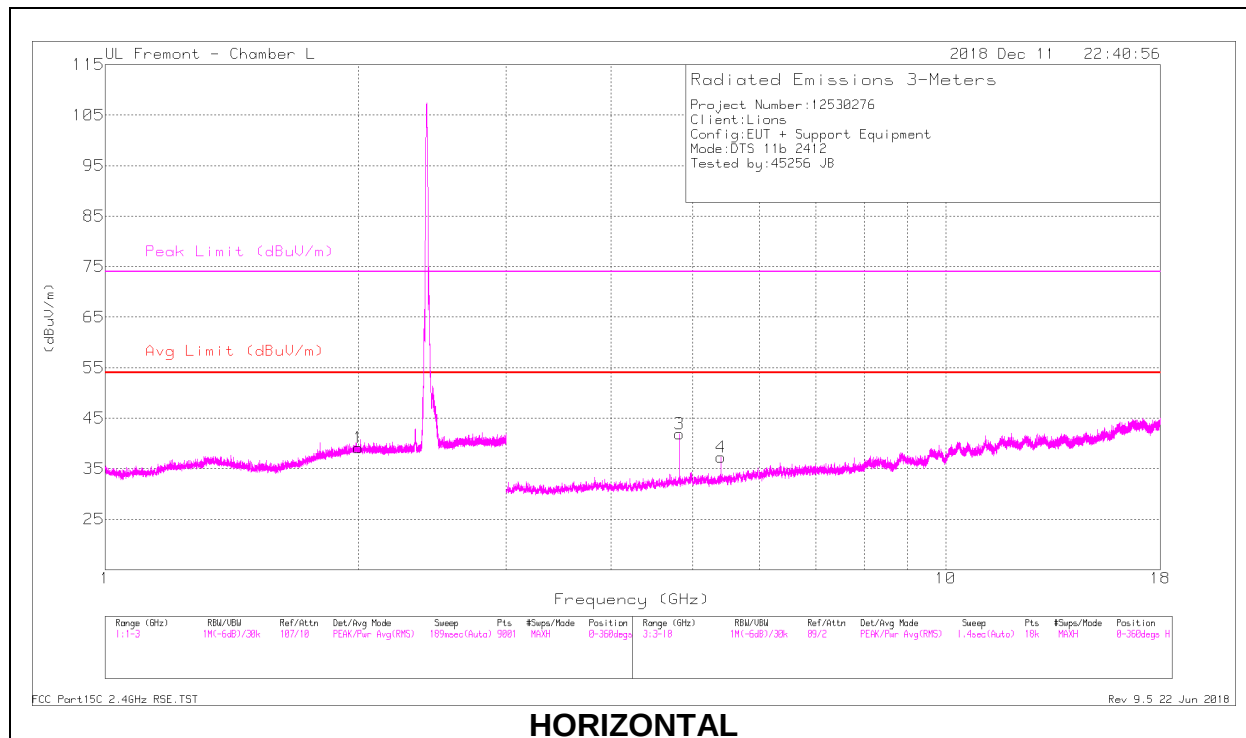
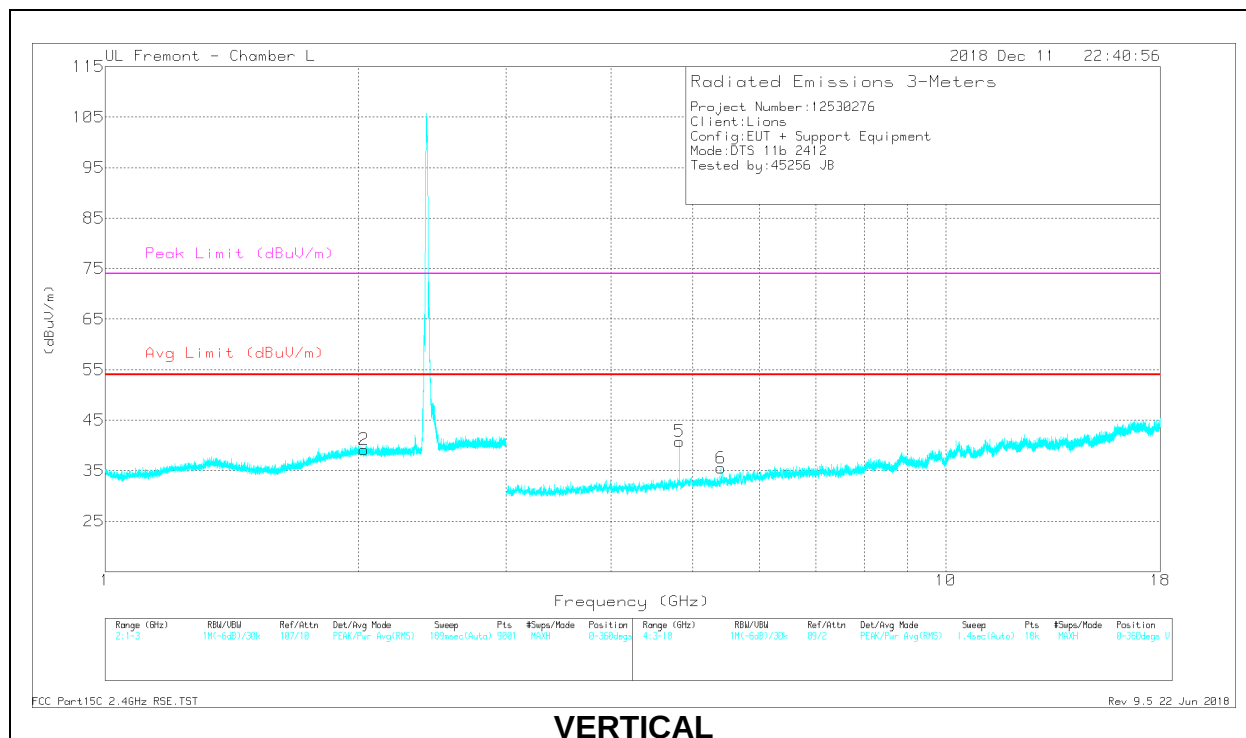
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, CH 1 RESULTS



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Filt/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	31.04	Pk	31.7	-23.6	0	39.14	-	-	-	-	0-360	200	H
2	2.032	31.06	Pk	31.6	-23.5	0	39.16	-	-	-	-	0-360	101	V
3	* 4.823	36.66	Pk	34.2	-29	0	41.86	-	-	74	-32.14	0-360	200	H
4	* 5.399	30.47	Pk	34.4	-27.6	0	37.27	-	-	74	-36.73	0-360	101	H
5	* 4.823	35.6	Pk	34.2	-29	0	40.8	-	-	74	-33.2	0-360	200	V
6	* 5.4	28.71	Pk	34.4	-27.6	0	35.51	-	-	74	-38.49	0-360	101	V

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

Pk - Peak detector

Radiated Emissions

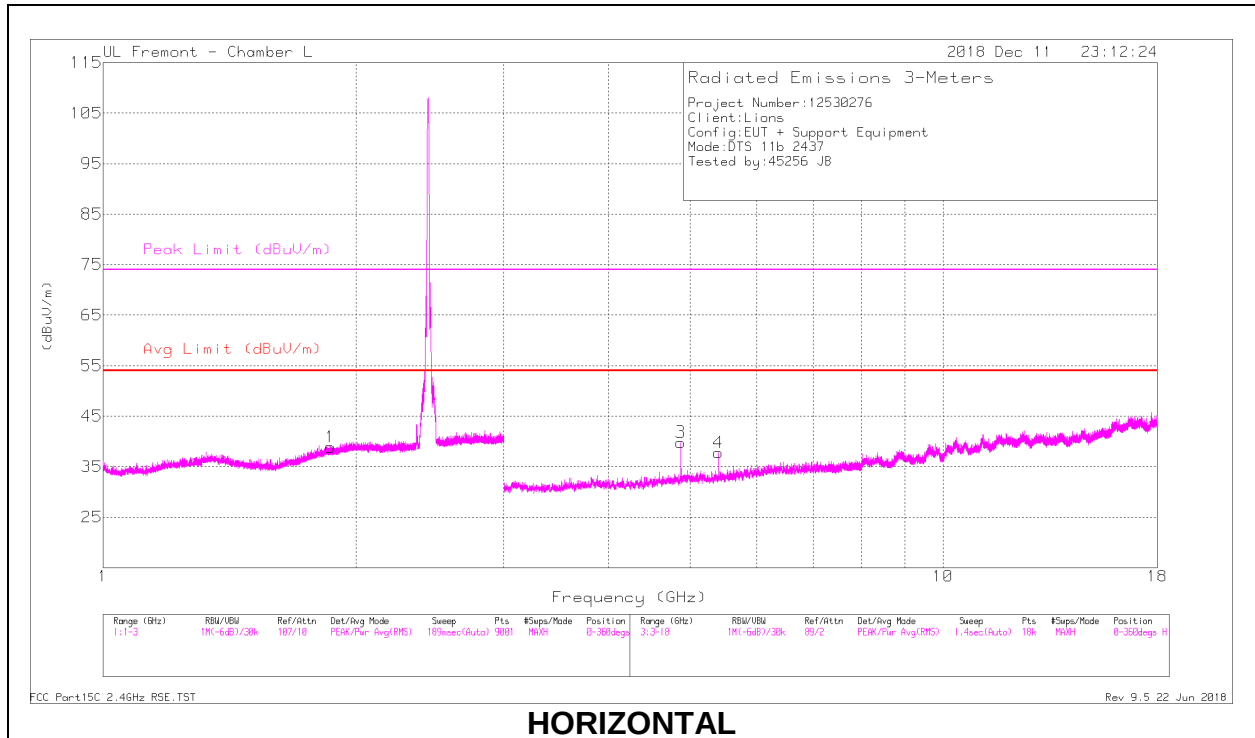
Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.824	40.61	PK2	34.2	-29	0	45.81	-	-	74	-28.19	112	147	H
* 4.824	34.17	MAV1	34.2	-29	0	39.37	54	-14.63	-	-	112	147	H
* 5.4	36.94	PK2	34.4	-27.6	0	43.74	-	-	74	-30.26	243	104	H
* 5.4	31.15	MAV1	34.4	-27.6	0	37.95	54	-16.05	-	-	243	104	H
* 4.824	39.94	PK2	34.2	-29	0	45.14	-	-	74	-28.86	128	194	V
* 4.824	32.7	MAV1	34.2	-29	0	37.9	54	-16.1	-	-	128	194	V
* 5.4	36.33	PK2	34.4	-27.6	0	43.13	-	-	74	-30.87	186	160	V
* 5.4	30.34	MAV1	34.4	-27.6	0	37.14	54	-16.86	-	-	186	160	V

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

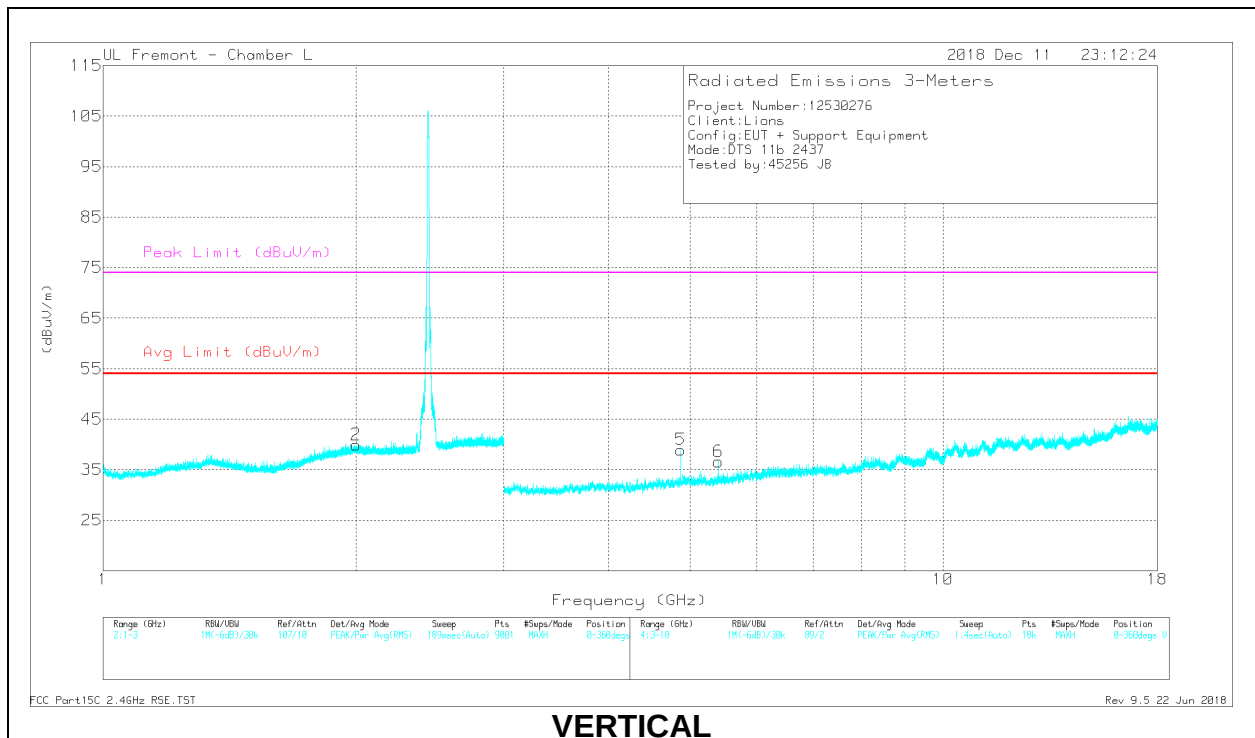
PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL, CH 6 RESULTS



HORIZONTAL



VERTICAL

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/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
1	1.865	31.66	Pk	30.9	-23.7	0	38.86	-	-	-	-	0-360	200	H
2	2.001	31.72	Pk	31.7	-23.5	0	39.92	-	-	-	-	0-360	101	V
3	* 4.873	34.7	Pk	34.2	-29.1	0	39.8	-	-	74	-34.2	0-360	101	H
4	* 5.399	30.98	Pk	34.4	-27.6	0	37.78	-	-	74	-36.22	0-360	101	H
5	* 4.874	33.86	Pk	34.2	-29.1	0	38.96	-	-	74	-35.04	0-360	200	V
6	* 5.4	29.81	Pk	34.4	-27.6	0	36.61	-	-	74	-37.39	0-360	101	V

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

Pk - Peak detector

Radiated Emissions

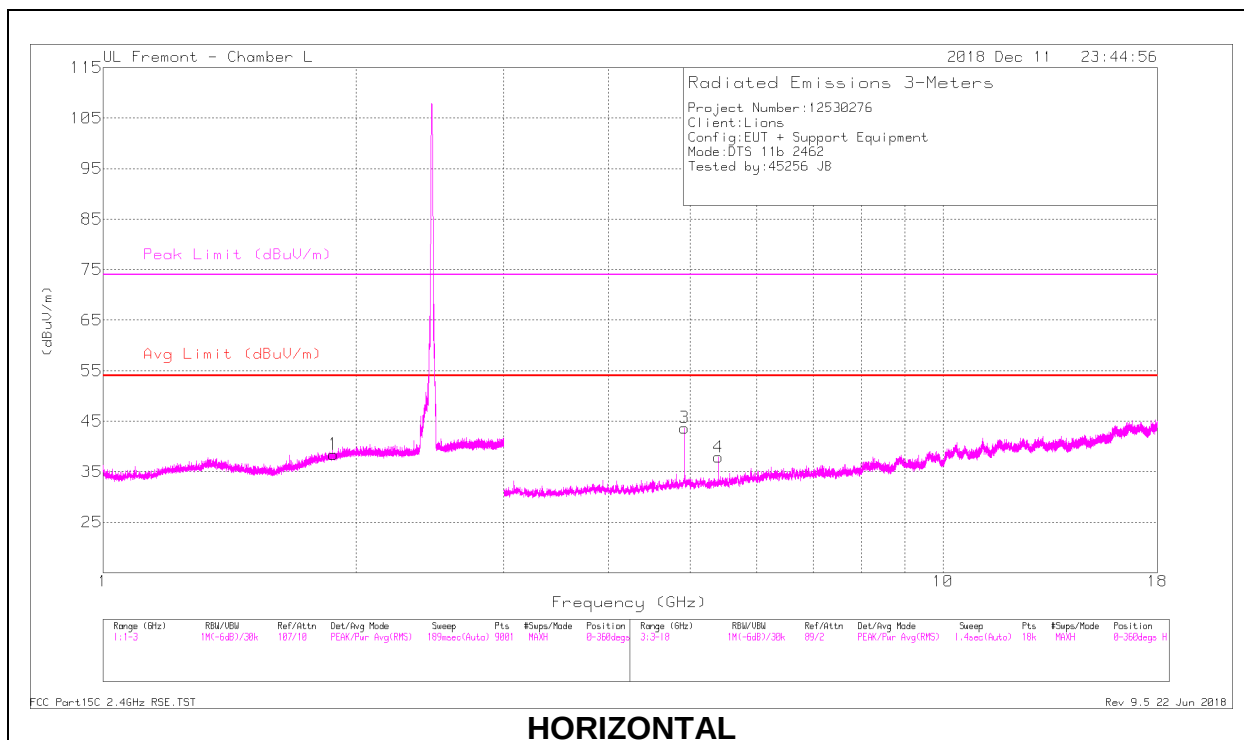
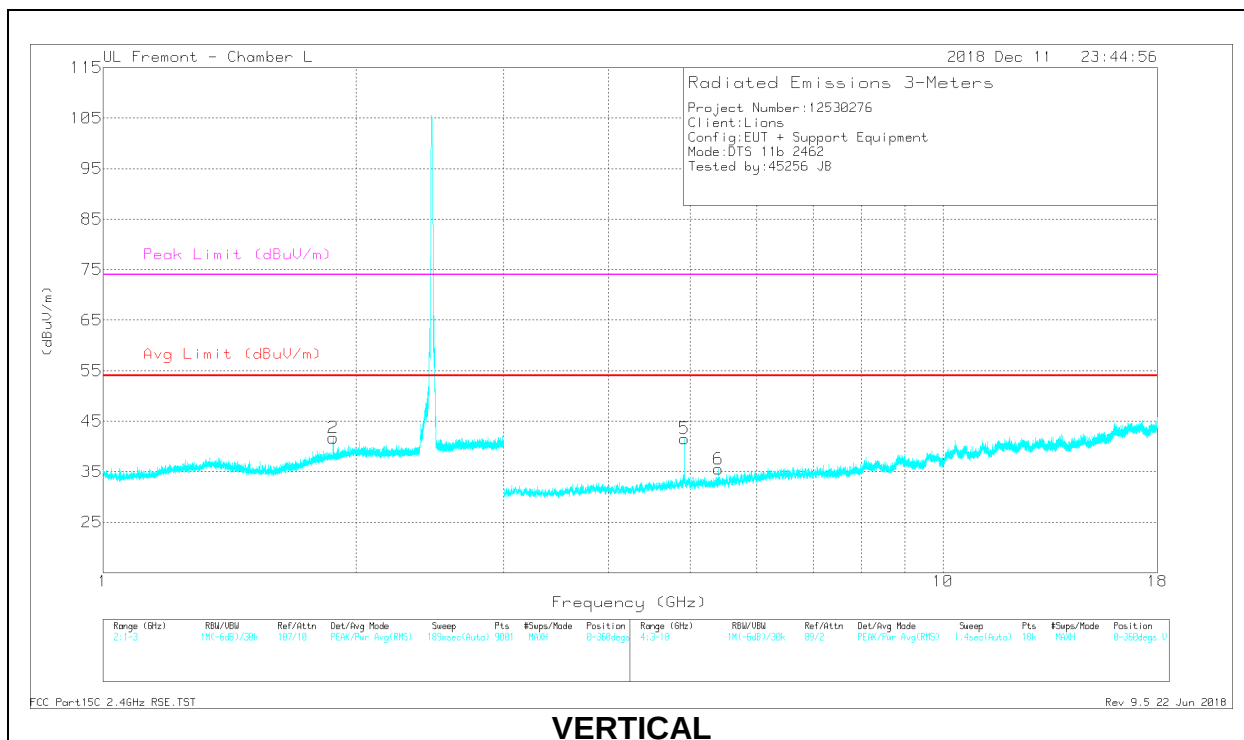
Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.874	40.35	PK2	34.2	-29.1	0	45.45	-	-	74	-28.55	115	143	H
* 4.874	32.89	MAv1	34.2	-29.1	0	37.99	54	-16.01	-	-	115	143	H
* 5.4	36.13	PK2	34.4	-27.6	0	42.93	-	-	74	-31.07	245	110	H
* 5.4	30.77	MAv1	34.4	-27.6	0	37.57	54	-16.43	-	-	245	110	H
* 4.874	40.18	PK2	34.2	-29.1	0	45.28	-	-	74	-28.72	131	238	V
* 4.874	31.44	MAv1	34.2	-29.1	0	36.54	54	-17.46	-	-	131	238	V
* 5.4	36.24	PK2	34.4	-27.6	0	43.04	-	-	74	-30.96	236	194	V
* 5.4	29.06	MAv1	34.4	-27.6	0	35.86	54	-18.14	-	-	236	194	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL, CH 11 RESULTS



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Ftr/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	1.88	31.15	Pk	31	-23.7	0	38.45	-	-	-	-	0-360	200	H
2	1.879	34.43	Pk	31	-23.7	0	41.73	-	-	-	-	0-360	200	V
3	* 4.923	37.29	Pk	34.2	-27.8	0	43.69	-	-	74	-30.31	0-360	100	H
4	* 5.399	31.07	Pk	34.4	-27.6	0	37.87	-	-	74	-36.13	0-360	100	H
5	* 4.923	35.15	Pk	34.2	-27.8	0	41.55	-	-	74	-32.45	0-360	200	V
6	* 5.4	28.74	Pk	34.4	-27.6	0	35.54	-	-	74	-38.46	0-360	101	V

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

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Ftr/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
* 4.924	40.75	PK2	34.2	-27.9	0	47.05	-	-	74	-26.95	111	125	H
* 4.924	37.22	MAv1	34.2	-27.9	0	43.52	54	-10.48	-	-	111	125	H
* 5.4	36.79	PK2	34.4	-27.6	0	43.59	-	-	74	-30.41	241	104	H
* 5.4	31.44	MAv1	34.4	-27.6	0	38.24	54	-15.76	-	-	241	104	H
* 4.924	39.34	PK2	34.2	-27.9	0	45.64	-	-	74	-28.36	128	175	V
* 4.924	34.57	MAv1	34.2	-27.9	0	40.87	54	-13.13	-	-	128	175	V
* 5.4	35.94	PK2	34.4	-27.6	0	42.74	-	-	74	-31.26	188	278	V
* 5.4	29.97	MAv1	34.4	-27.6	0	36.77	54	-17.23	-	-	188	278	V

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

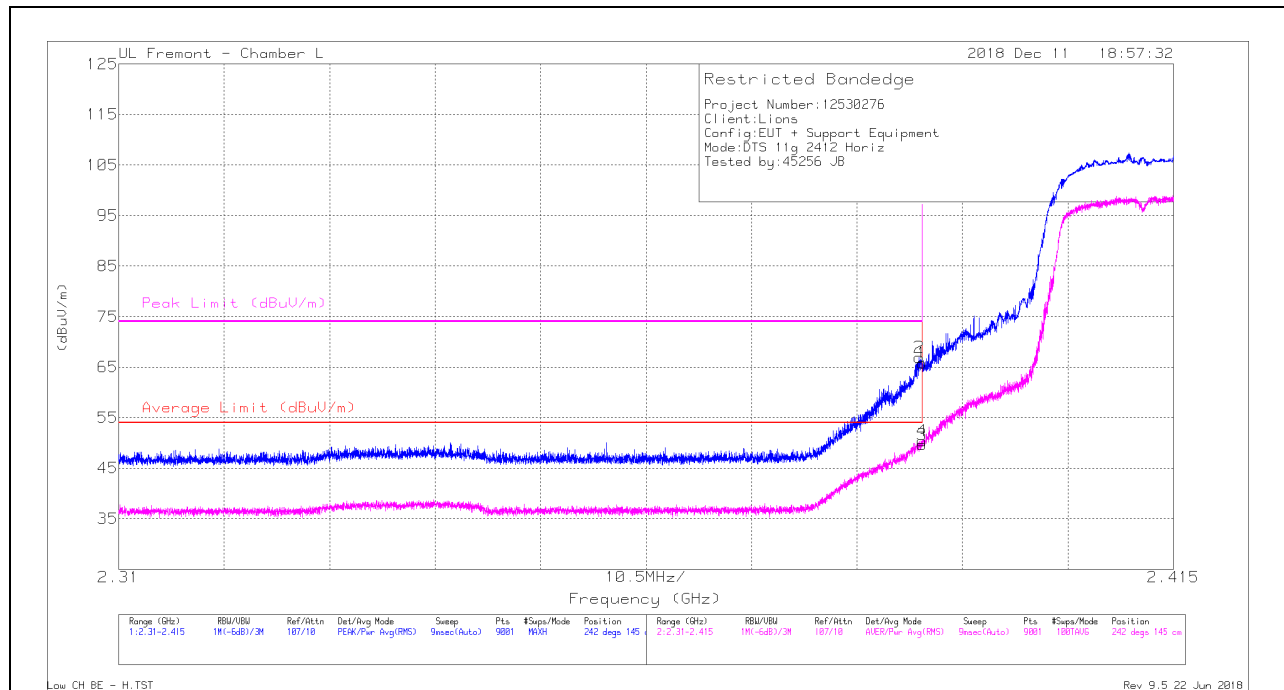
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

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

BANDEDGE (LOW CHANNEL, CH 1)

HORIZONTAL RESULT



Trace Markers

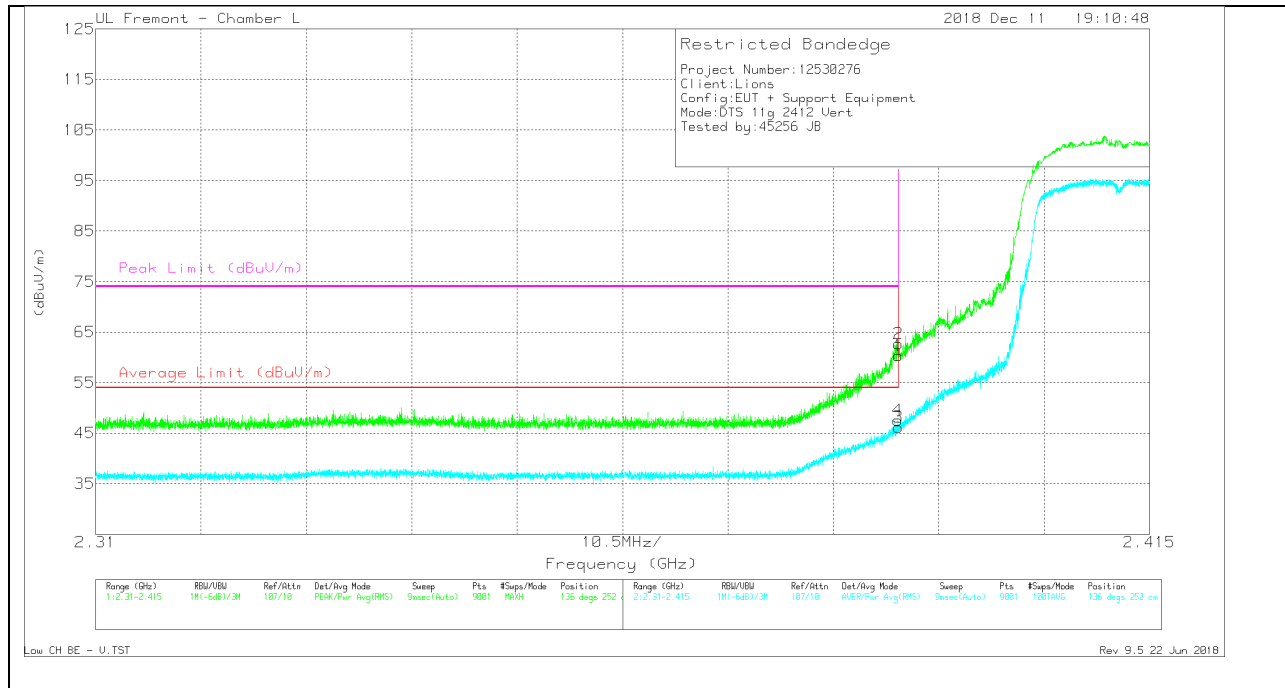
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Ch/Flt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	* 2.39	56.86	Pk	31.8	-22.9	0	65.76	-	-	74	-8.24	242	145	H
2	* 2.39	58.02	Pk	31.8	-22.9	0	66.92	-	-	74	-7.08	242	145	H
3	* 2.39	40.7	RMS	31.8	-22.9	-11	49.71	54	-4.29	-	-	242	145	H
4	* 2.39	41.41	RMS	31.8	-22.9	-11	50.42	54	-3.58	-	-	242	145	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Chl/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Asimuth (Degs)	Height (cm)	Polarity
1	* 2.39	51.49	Pk	31.8	-22.9	0	60.39	-	-	74	-13.61	136	252	V
2	* 2.39	53.83	Pk	31.8	-22.9	0	62.73	-	-	74	-11.27	136	252	V
3	* 2.39	37.14	RMS	31.8	-22.9	.11	46.15	54	-7.85	-	-	136	252	V
4	* 2.39	38.6	RMS	31.8	-22.9	.11	47.61	54	-6.39	-	-	136	252	V

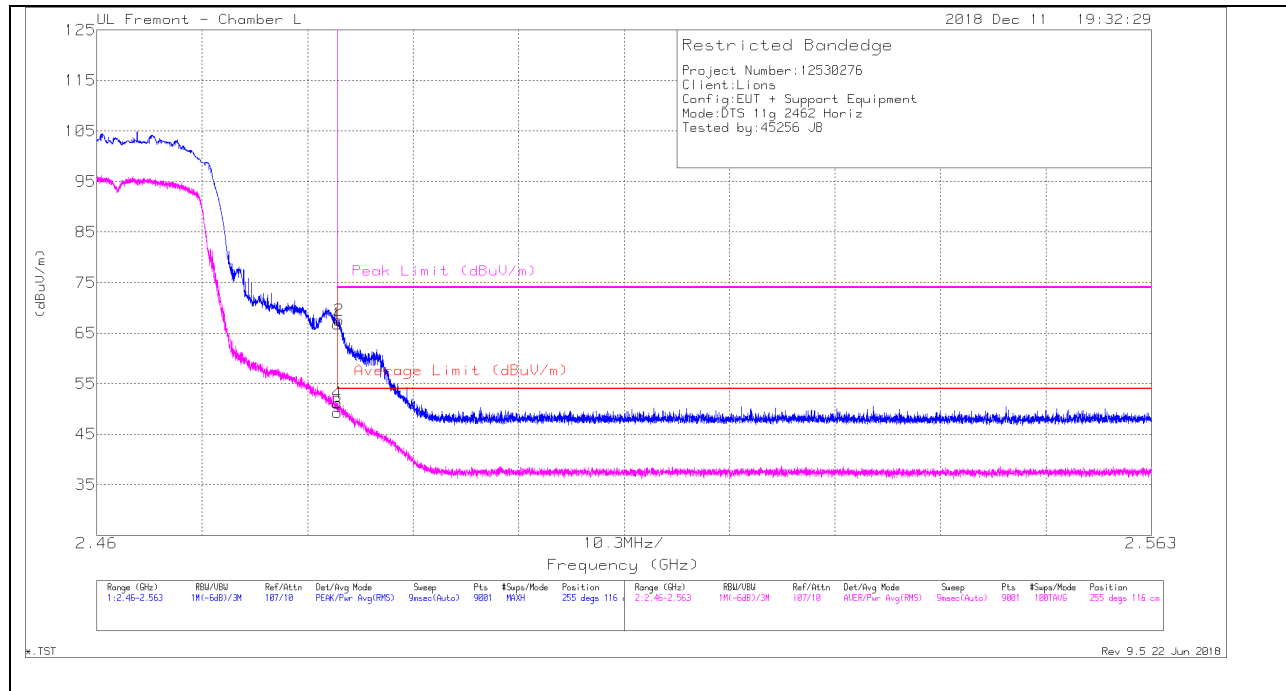
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 11)

HORIZONTAL RESULT



Trace Markers

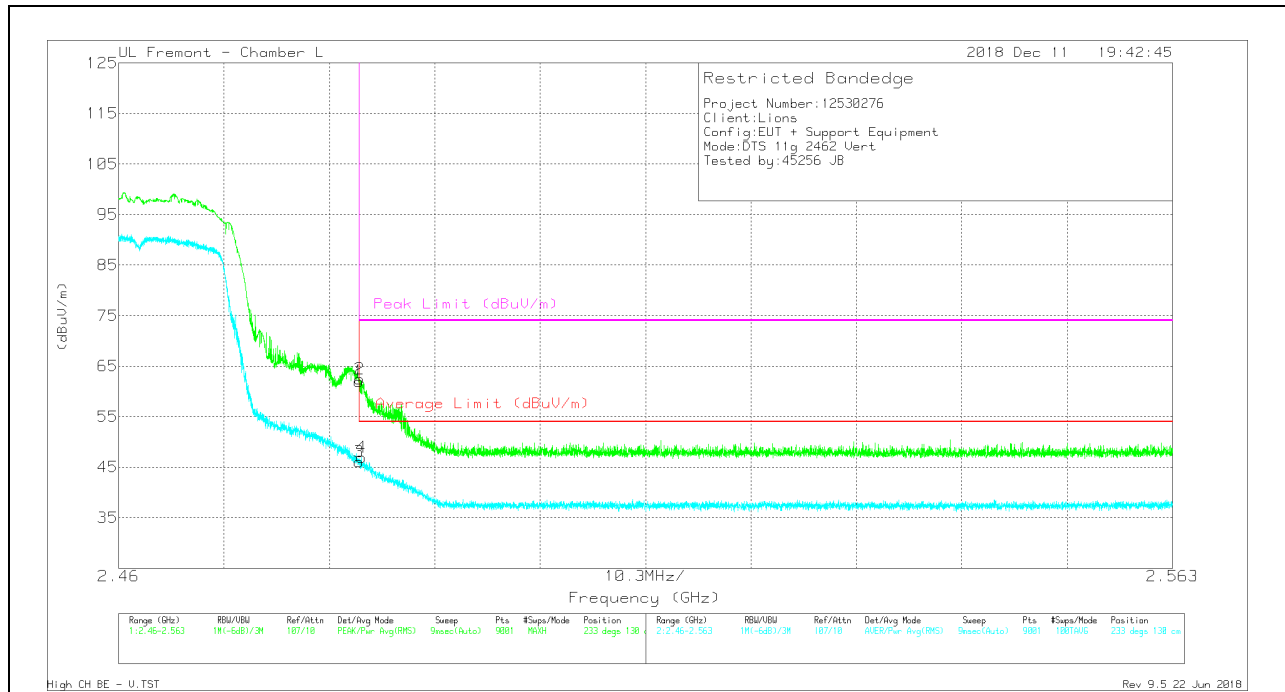
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1	* 2.484	57.25	Pk	32.3	-22.7	0	66.85	-	-	74	-7.15	255	116	H
2	* 2.484	57.99	Pk	32.3	-22.7	0	67.59	-	-	74	-6.41	255	116	H
3	* 2.484	39.56	RMS	32.3	-22.7	.11	49.27	54	-4.73	-	-	255	116	H
4	* 2.484	41.5	RMS	32.3	-22.7	.11	51.21	54	-2.79	-	-	255	116	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Chl/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Asimuth (Degs)	Height (cm)	Polarity
1	* 2.484	52.42	Pk	32.3	-22.7	0	62.02	-	-	74	-11.98	233	130	V
2	* 2.484	52.89	Pk	32.3	-22.7	0	62.49	-	-	74	-11.51	233	130	V
3	* 2.484	36.38	RMS	32.3	-22.7	.11	46.09	54	-7.91	-	-	233	130	V
4	* 2.484	37.28	RMS	32.3	-22.7	.11	46.99	54	-7.01	-	-	233	130	V

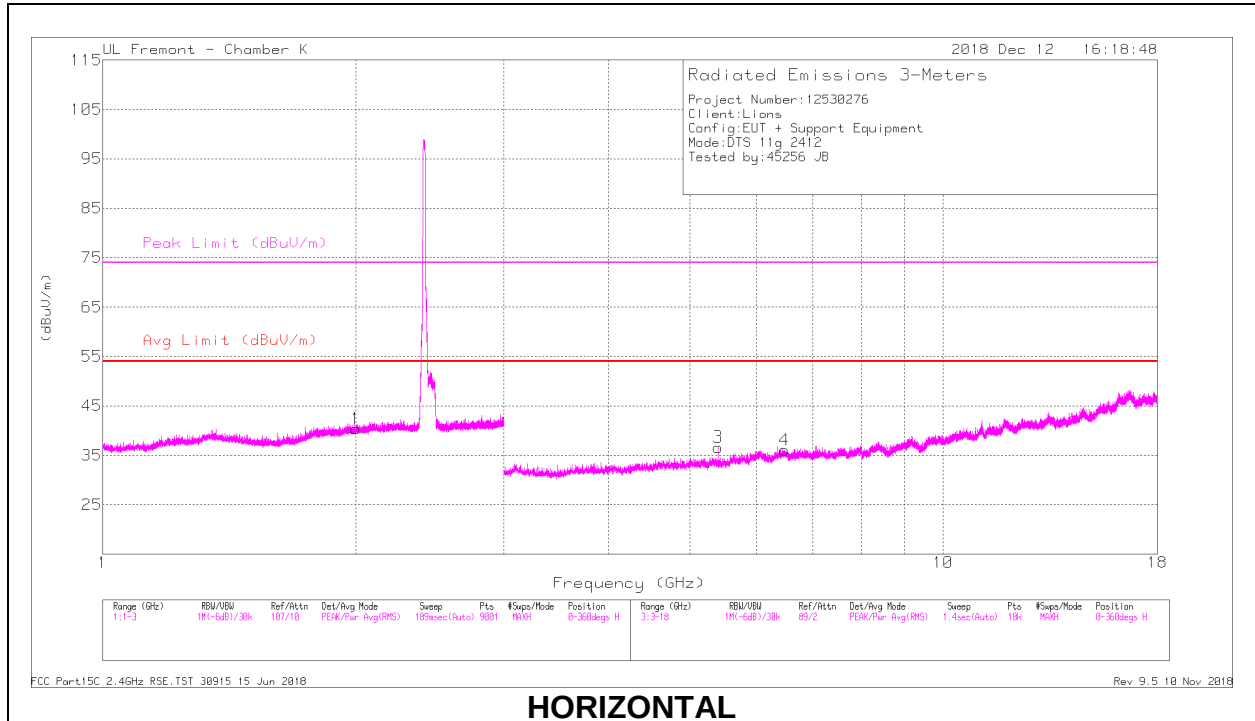
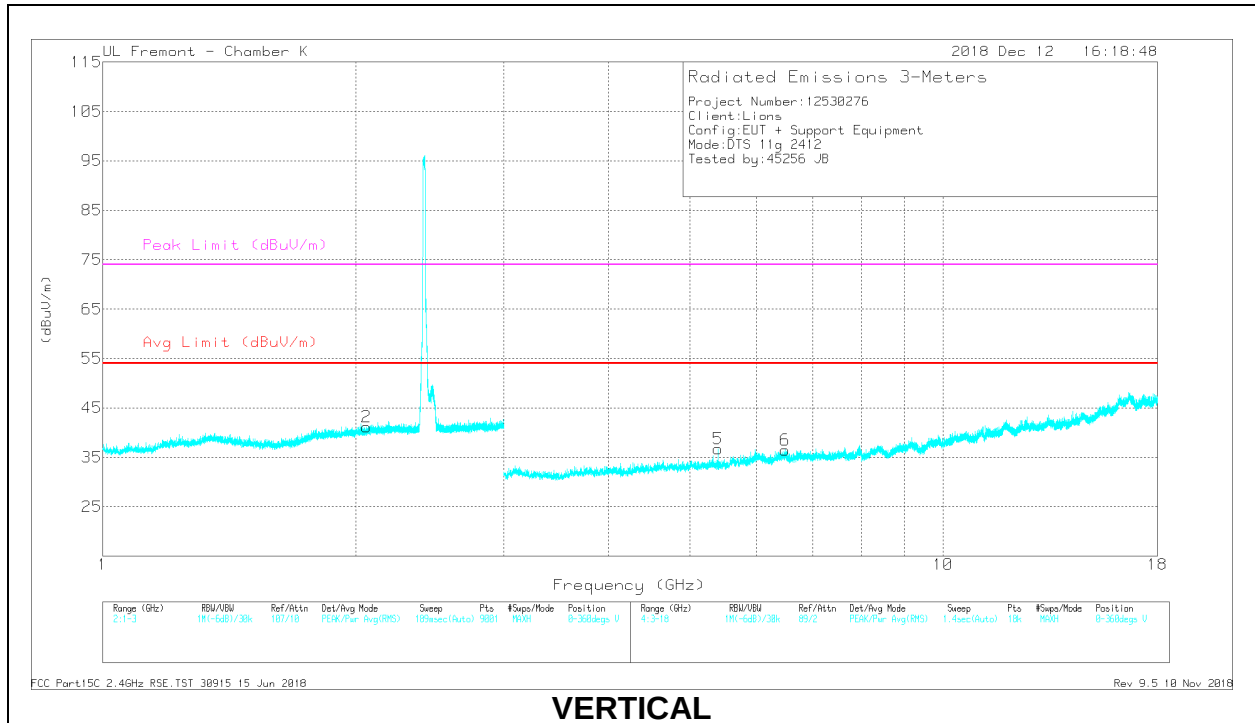
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, CH 1 RESULTS



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dBm)	Amp/Cbl/Filr/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	33.75	Pk	31	-24.3	0	40.45	-	-	-	-	0-360	200	H
2	2.061	34.38	Pk	31.3	-24.5	0	41.18	-	-	-	-	0-360	101	V
3	* 5.399	31.55	Pk	34.6	-29.5	0	36.65	-	-	74	-37.35	0-360	101	H
4	6.478	27.2	Pk	35.4	-26.5	0	36.1	-	-	-	-	0-360	200	H
5	* 5.4	31.51	Pk	34.6	-29.4	0	36.71	-	-	74	-37.29	0-360	100	V
6	6.489	27.42	Pk	35.4	-26.4	0	36.42	-	-	-	-	0-360	200	V

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

Pk - Peak detector

Radiated Emissions

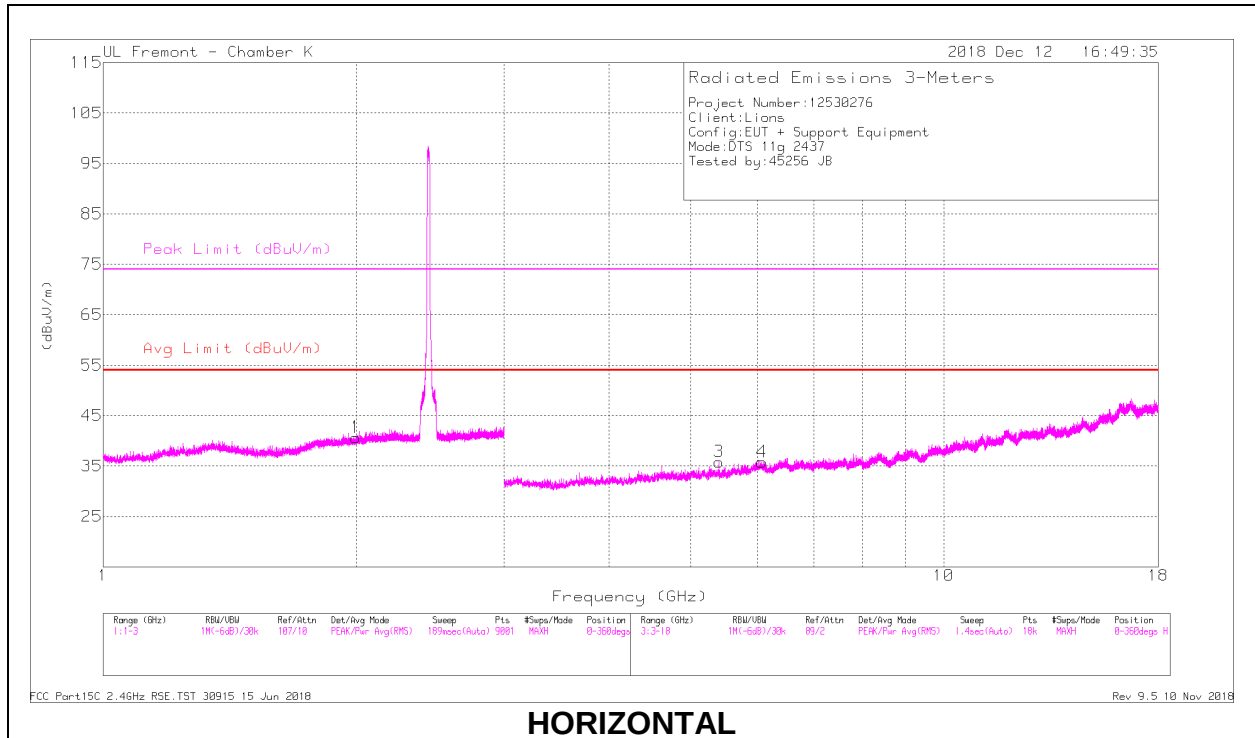
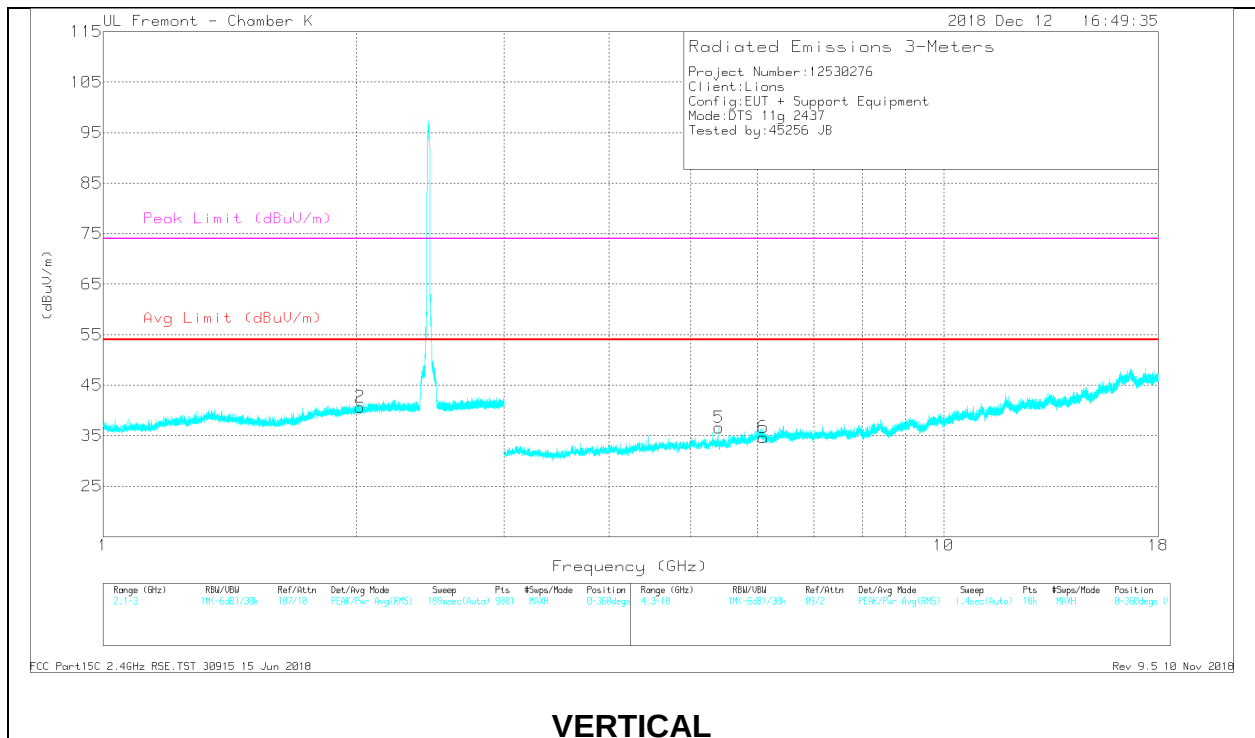
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.4	36.8	PK2	34.6	-29.5	0	41.9	-	-	74	-32.1	220	200	H
* 5.4	30.28	MAv1	34.6	-29.5	.11	35.49	54	-18.51	-	-	220	200	H
* 5.4	37.79	PK2	34.6	-29.4	0	42.99	-	-	74	-31.01	167	103	V
* 5.4	31.67	MAv1	34.6	-29.5	.11	36.88	54	-17.12	-	-	167	103	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL, CH 6 RESULTS



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dBm)	Amp/Cbl/Ftr/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	1.996	34.08	Pk	31	-24.4	0	40.68	-	-	-	-	0-360	101	H
2	2.022	33.99	Pk	31.1	-24.4	0	40.69	-	-	-	-	0-360	200	V
3	* 5.4	30.64	Pk	34.6	-29.4	0	35.84	-	-	74	-38.16	0-360	100	H
4	6.078	27.59	Pk	35.3	-27.1	0	35.79	-	-	-	-	0-360	200	H
5	* 5.4	31.42	Pk	34.6	-29.4	0	36.62	-	-	74	-37.38	0-360	100	V
6	6.099	26.7	Pk	35.3	-27.3	0	34.7	-	-	-	-	0-360	100	V

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

Pk - Peak detector

Radiated Emissions

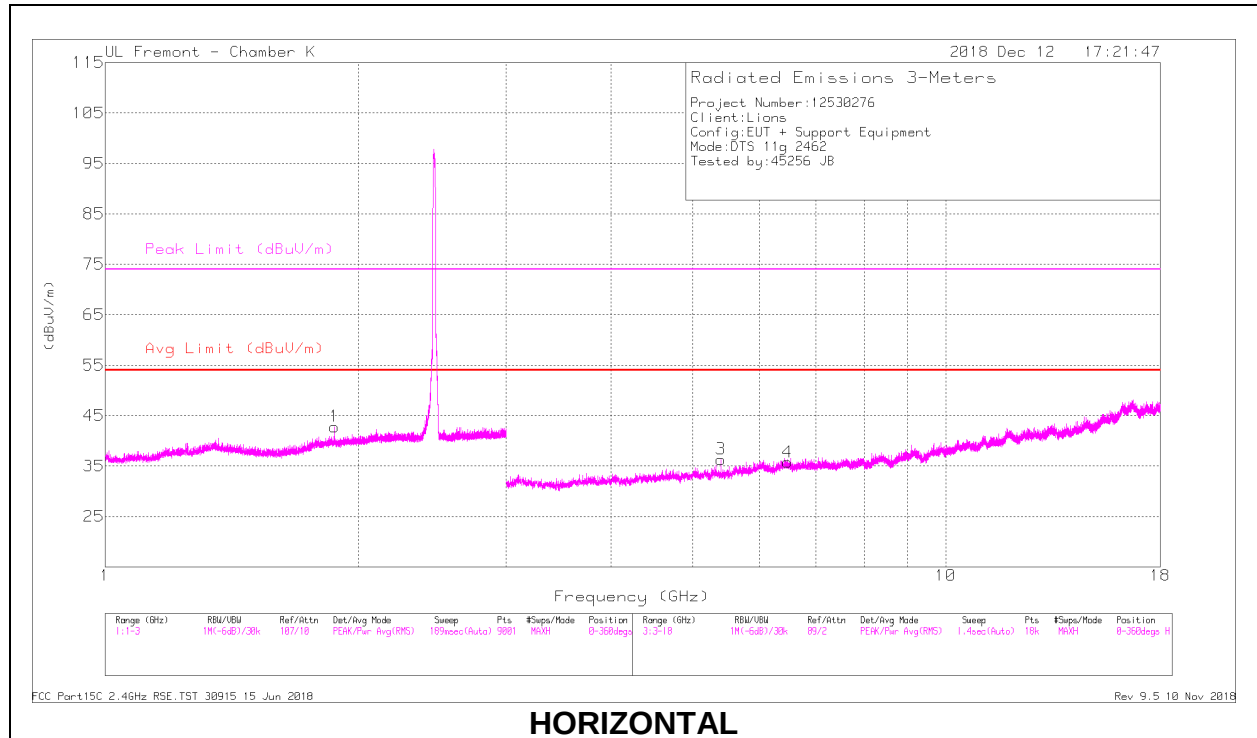
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.4	37.52	PK2	34.6	-29.5	0	42.62	-	-	74	-31.38	218	104	H
* 5.4	31.04	MAV1	34.6	-29.5	.11	36.25	54	-17.75	-	-	218	104	H
* 5.4	37.76	PK2	34.6	-29.5	0	42.86	-	-	74	-31.14	165	104	V
* 5.4	31.3	MAV1	34.6	-29.5	.11	36.51	54	-17.49	-	-	165	104	V

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

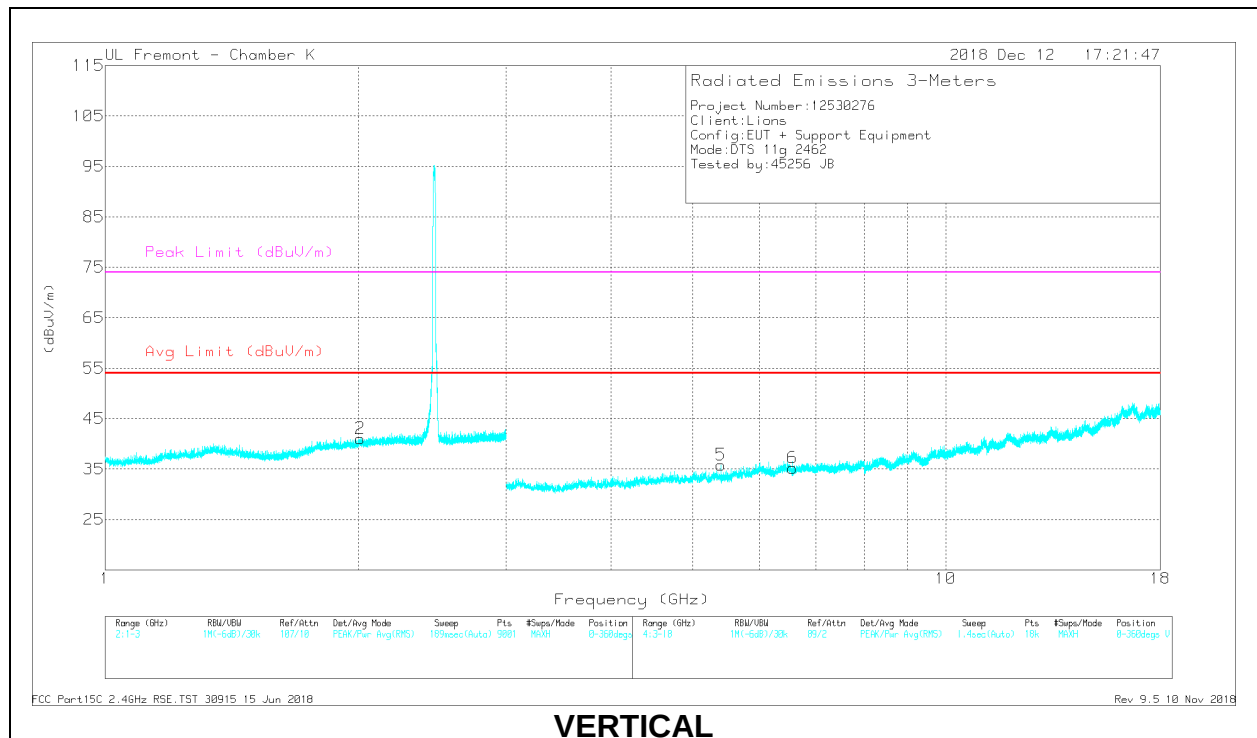
PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL, CH 11 RESULTS



HORIZONTAL



VERTICAL

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dBm)	Amp/Cbl/Ftr/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	1.873	36.51	Pk	30.4	-24.1	0	42.81	-	-	-	-	0-360	101	H
2	2.011	34.24	Pk	31.1	-24.3	0	41.04	-	-	-	-	0-360	200	V
3	* 5.399	31.24	Pk	34.6	-29.5	0	36.34	-	-	74	-37.66	0-360	100	H
4	6.484	26.76	Pk	35.4	-26.4	0	35.76	-	-	-	-	0-360	200	H
5	* 5.4	30.62	Pk	34.6	-29.4	0	35.82	-	-	74	-38.18	0-360	100	V
6	6.571	27.03	Pk	35.4	-27.2	0	35.23	-	-	-	-	0-360	200	V

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

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dBm)	Amp/Cbl/Ftr/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
* 5.4	36.84	PK2	34.6	-29.5	0	41.94	-	-	74	-32.06	157	126	H
* 5.4	30.28	MAv1	34.6	-29.5	.11	35.49	54	-18.51	-	-	157	126	H
* 5.4	37.7	PK2	34.6	-29.5	0	42.8	-	-	74	-31.2	163	117	V
* 5.4	31.2	MAv1	34.6	-29.5	.11	36.41	54	-17.59	-	-	163	117	V

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

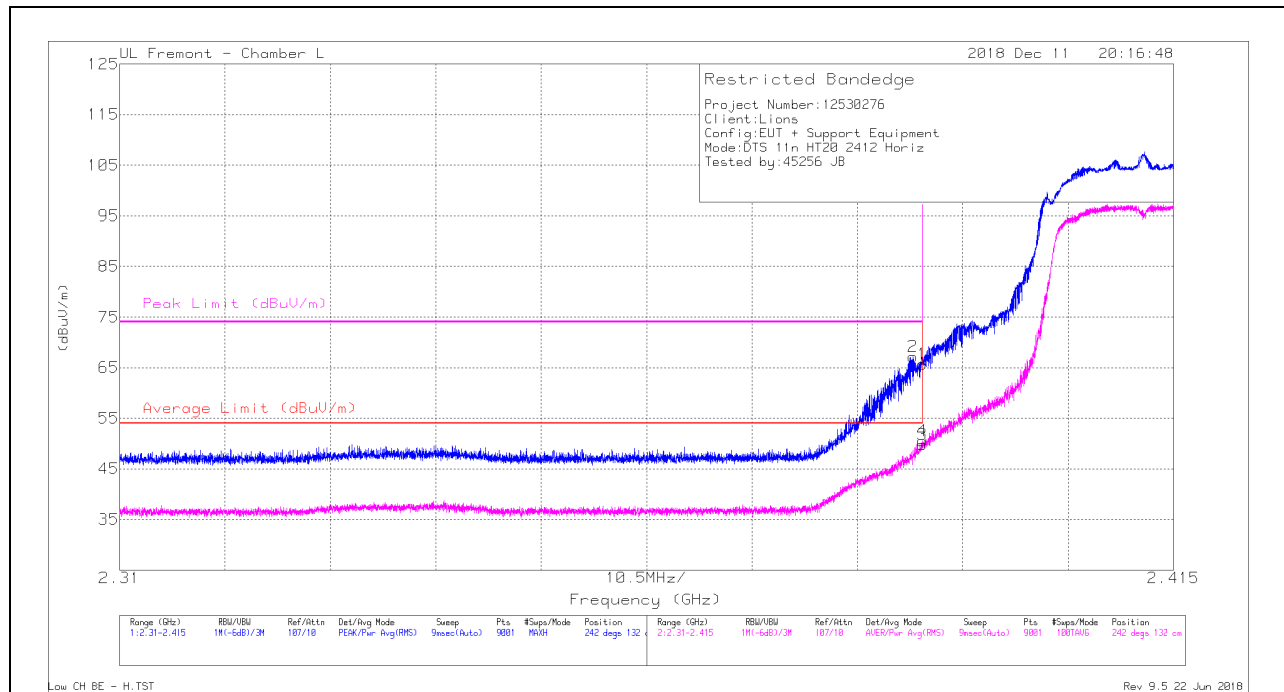
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

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

BANDEDGE (LOW CHANNEL, CH 1)

HORIZONTAL RESULT



Trace Markers

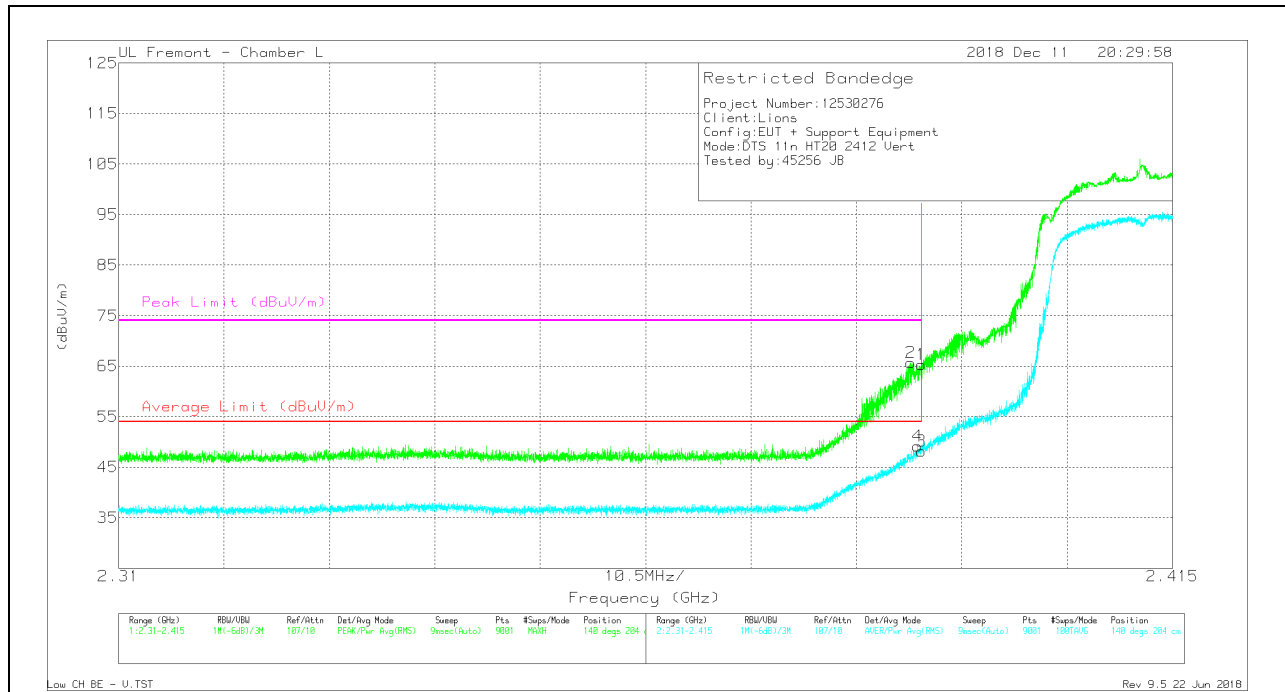
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Chl/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Asimuth (Degs)	Height (cm)	Polarity
1	* 2.39	56.81	Pk	31.8	-22.9	0	65.71	-	-	74	-8.29	242	132	H
2	* 2.389	58.31	Pk	31.8	-22.9	0	67.21	-	-	74	-6.79	242	132	H
3	* 2.39	40.79	RMS	31.8	-22.9	.12	49.81	54	-4.19	-	-	242	132	H
4	* 2.39	41.47	RMS	31.8	-22.9	.12	50.49	54	-3.51	-	-	242	132	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Chl/Filt/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	56.45	Pk	31.8	-22.9	0	65.35	-	-	74	-8.65	140	204	V
2	* 2.389	56.79	Pk	31.8	-22.9	0	65.69	-	-	74	-8.31	140	204	V
3	* 2.39	39.2	RMS	31.8	-22.9	.12	48.22	54	-5.78	-	-	140	204	V
4	* 2.39	40.19	RMS	31.8	-22.9	.12	49.21	54	-4.79	-	-	140	204	V

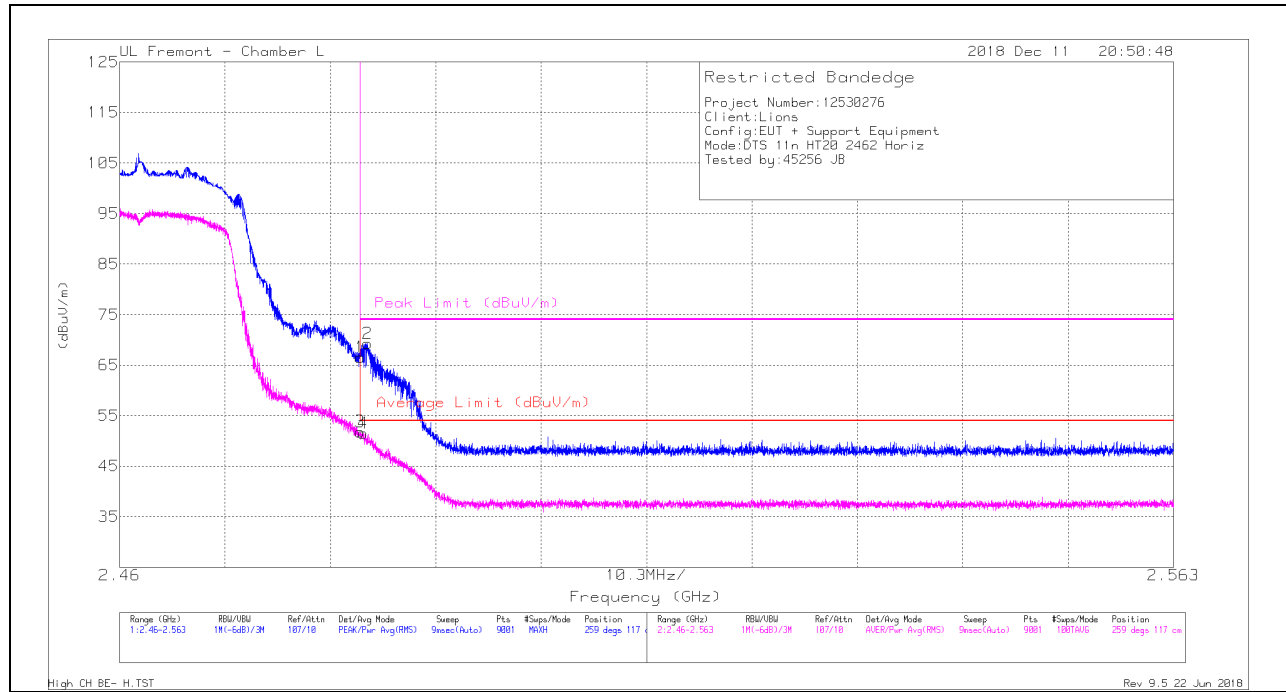
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL, CH 11)

HORIZONTAL RESULT



Trace Markers

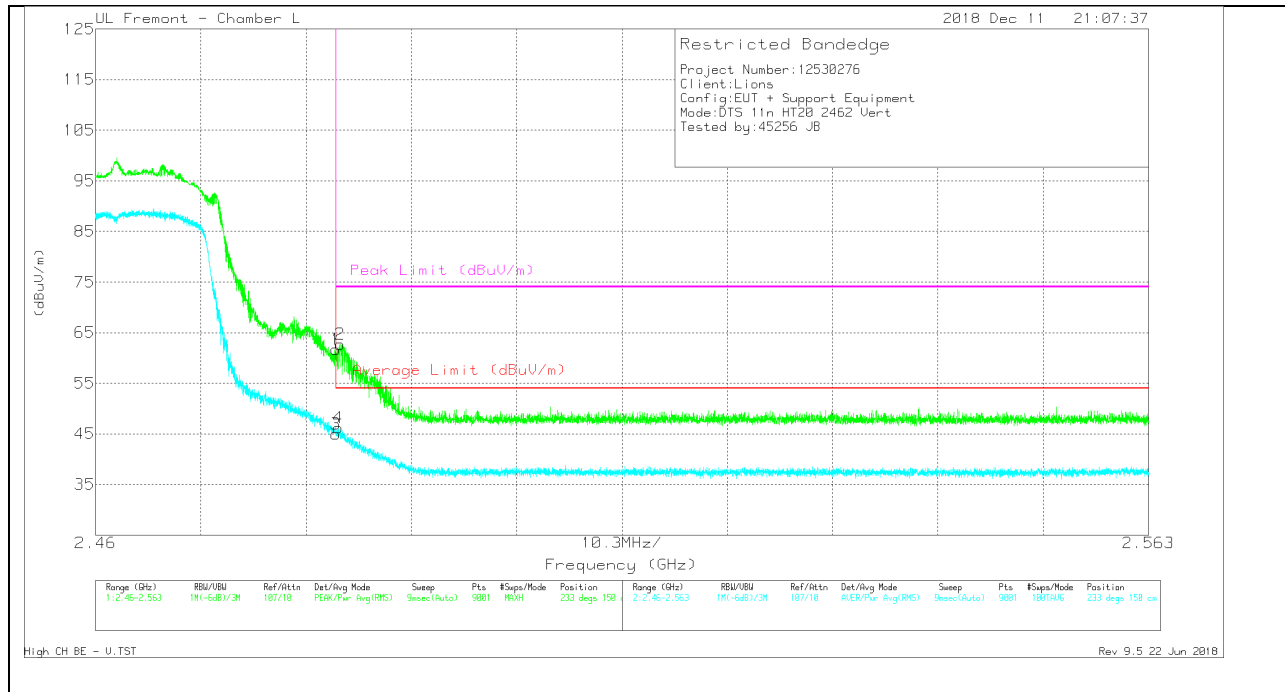
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cb/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	56.97	PK	32.3	-22.7	0	66.57	-	-	74	-7.43	259	117	H
2	* 2.484	59.7	PK	32.3	-22.7	0	69.3	-	-	74	-4.7	259	117	H
3	* 2.484	42.12	RMS	32.3	-22.7	.12	51.84	54	-2.16	-	-	259	117	H
4	* 2.484	41.86	RMS	32.3	-22.7	.12	51.58	54	-2.42	-	-	259	117	H

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

Pk - Peak detector

RMS - RMS detection

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Chl/Ftr/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	* 2.484	52.11	Pk	32.3	-22.7	0	61.71	-	-	74	-12.29	233	150	V
2	* 2.484	53.12	Pk	32.3	-22.7	0	62.72	-	-	74	-11.28	233	150	V
3	* 2.484	35.19	RMS	32.3	-22.7	.12	44.91	54	-9.09	-	-	233	150	V
4	* 2.484	36.51	RMS	32.3	-22.7	.12	46.23	54	-7.77	-	-	233	150	V

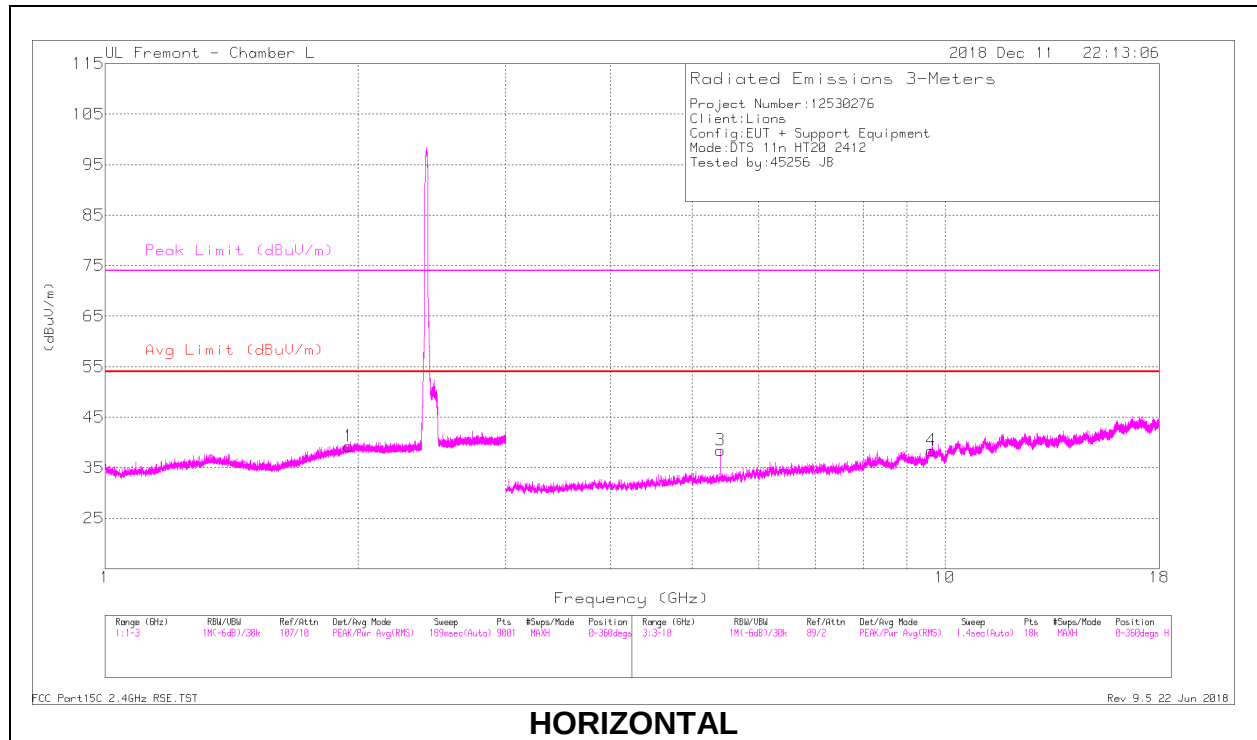
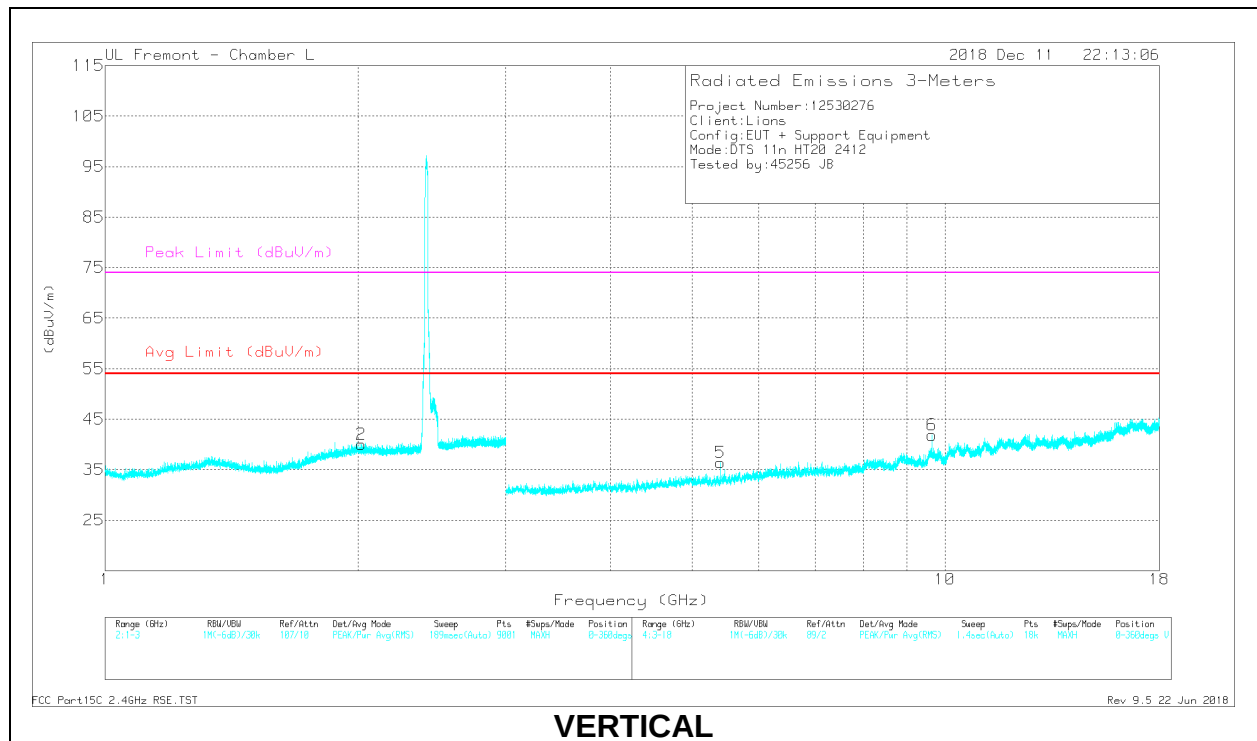
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL, CH 1 RESULTS



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/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
1	1.95	31.38	Pk	31.5	-23.6	0	39.28	-	-	-	-	0-360	200	H
2	2.019	31.9	Pk	31.6	-23.5	0	40	-	-	-	-	0-360	200	V
3	* 5.399	31.66	Pk	34.4	-27.6	0	38.46	-	-	74	-35.54	0-360	101	H
4	9.637	22.11	Pk	37	-20.7	0	38.41	-	-	-	-	0-360	101	H
5	* 5.399	29.6	Pk	34.4	-27.6	0	36.4	-	-	74	-37.6	0-360	101	V
6	9.648	25.55	Pk	37	-20.7	0	41.85	-	-	-	-	0-360	200	V

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

Pk - Peak detector

Radiated Emissions

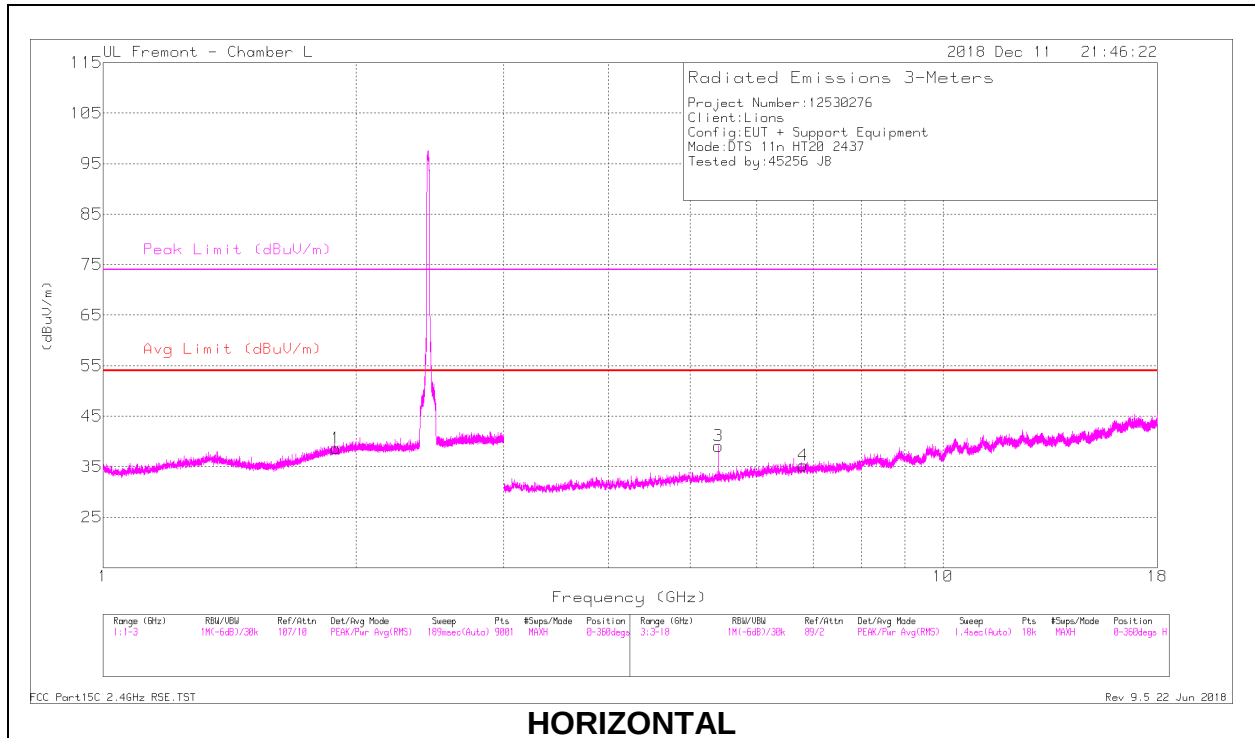
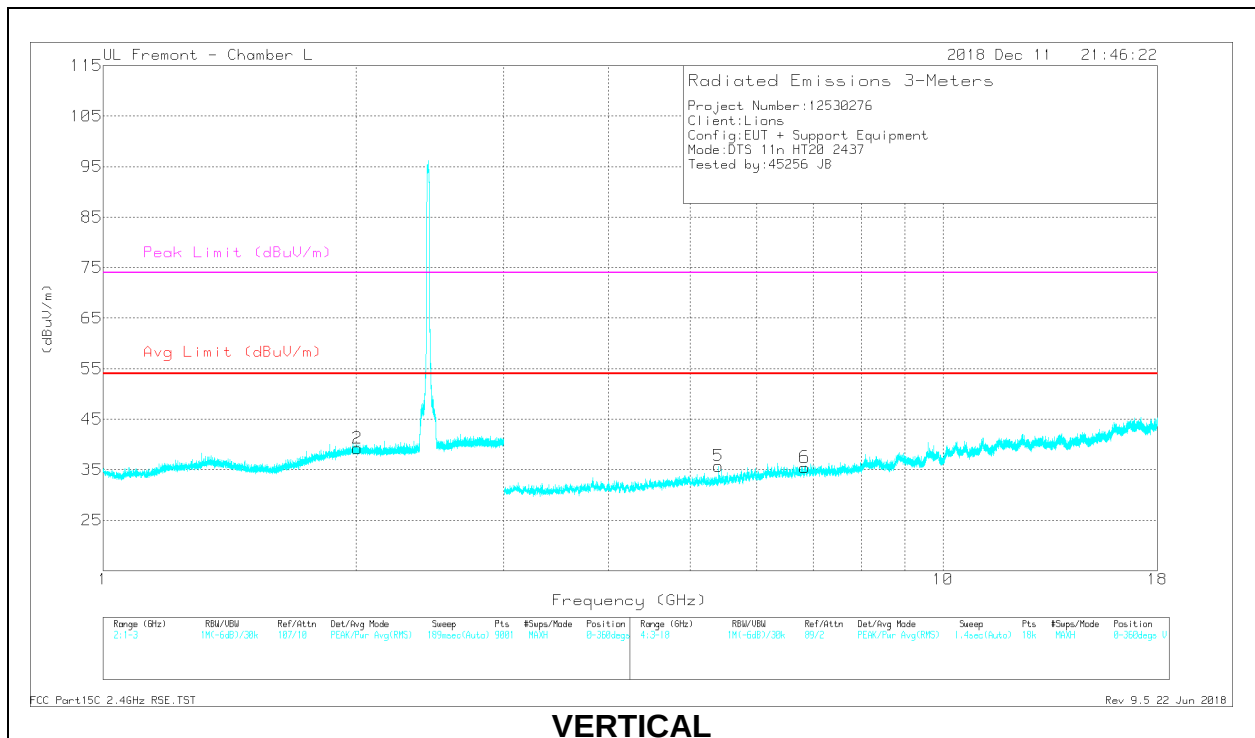
Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.4	37.51	PK2	34.4	-27.6	0	44.31	-	-	74	-29.69	222	104	H
* 5.4	32.19	MAV1	34.4	-27.6	.12	39.11	54	-14.89	-	-	222	104	H
* 5.4	36.27	PK2	34.4	-27.6	0	43.07	-	-	74	-30.93	187	155	V
* 5.4	30.05	MAV1	34.4	-27.6	.12	36.97	54	-17.03	-	-	187	155	V

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

PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL, CH 6 RESULTS



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/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
1	1.893	31.32	Pk	31	-23.7	0	38.62	-	-	-	-	0-360	200	H
2	2.008	31.02	Pk	31.7	-23.5	0	39.22	-	-	-	-	0-360	200	V
3	* 5.4	32.3	Pk	34.4	-27.6	0	39.1	-	-	74	-34.9	0-360	101	H
4	6.813	25.54	Pk	35.6	-25.9	0	35.24	-	-	-	-	0-360	101	H
5	* 5.4	28.93	Pk	34.4	-27.6	0	35.73	-	-	74	-38.27	0-360	101	V
6	6.845	25.85	Pk	35.6	-26	0	35.45	-	-	-	-	0-360	200	V

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

Pk - Peak detector

Radiated Emissions

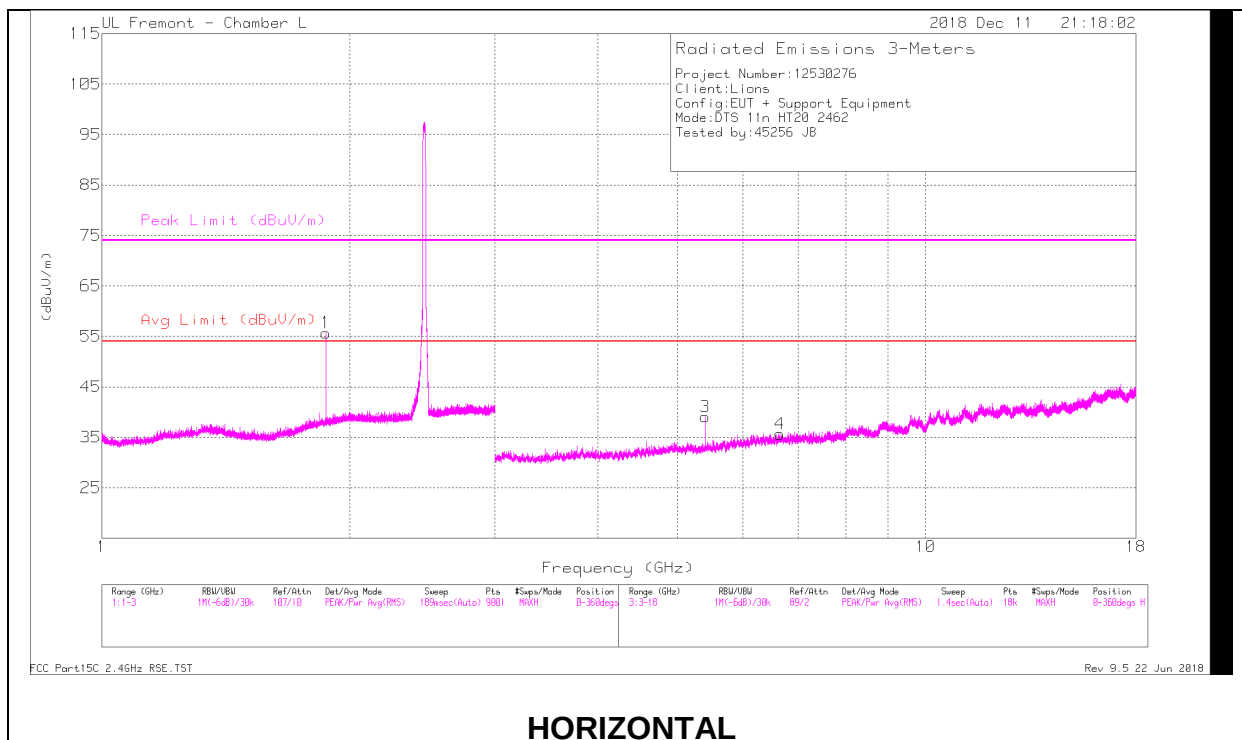
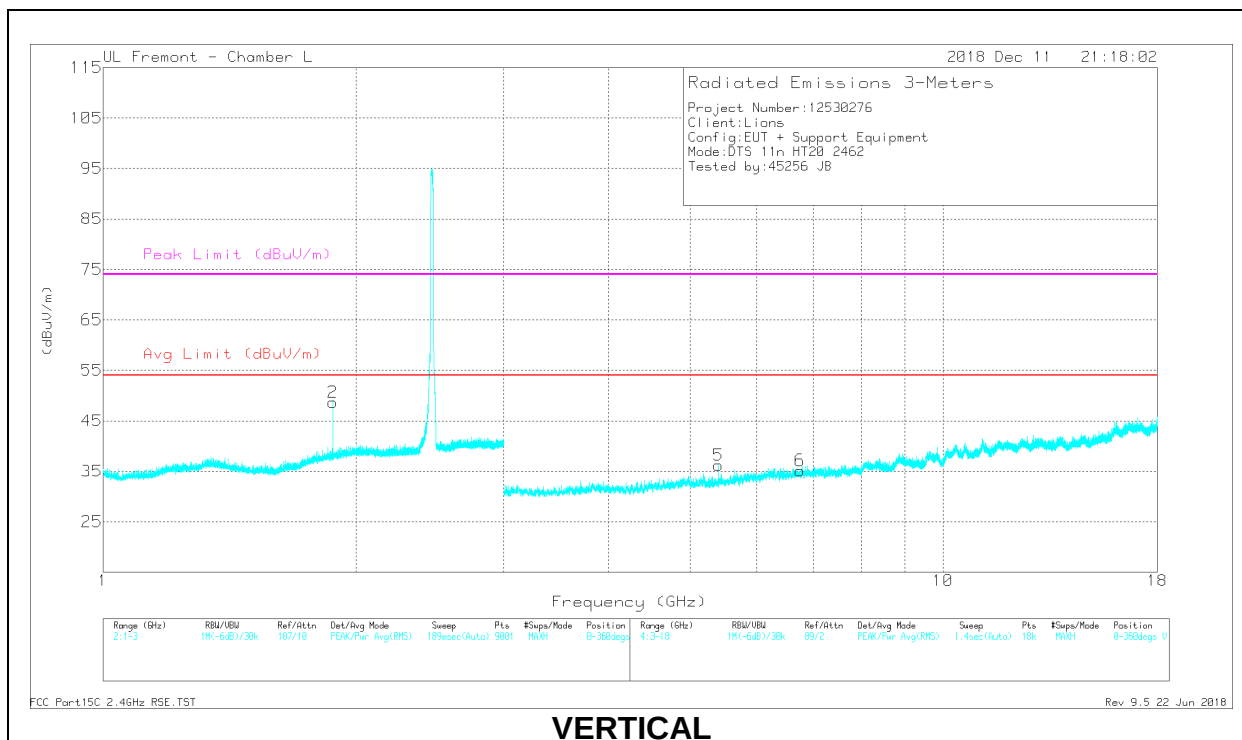
Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.4	37.16	PK2	34.4	-27.6	0	43.96	-	-	74	-30.04	221	102	H
* 5.4	31.95	MAv1	34.4	-27.6	.12	38.75	54	-15.25	-	-	221	102	H
* 5.4	36.58	PK2	34.4	-27.6	0	43.38	-	-	74	-30.62	188	276	V
* 5.4	29.76	MAv1	34.4	-27.6	.12	36.56	54	-17.44	-	-	188	276	V

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

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL, CH 11 RESULTS



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/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
1	1.87	48.5	Pk	30.9	-23.7	0	55.7	-	-	-	-	0-360	200	H
2	1.877	41.34	Pk	31	-23.7	0	48.64	-	-	-	-	0-360	101	V
3	* 5.399	32.26	Pk	34.4	-27.6	0	39.06	-	-	74	-34.94	0-360	101	H
4	6.654	25.67	Pk	35.6	-25.6	0	35.67	-	-	-	-	0-360	200	H
5	* 5.4	29.41	Pk	34.4	-27.6	0	36.21	-	-	74	-37.79	0-360	200	V
6	6.761	25.51	Pk	35.7	-26.1	0	35.11	-	-	-	-	0-360	200	V

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

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF EMC4294 (dB/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
* 5.4	36.92	PK2	34.4	-27.6	0	43.72	-	-	74	-30.28	224	106	H
* 5.4	31.63	MAv1	34.4	-27.6	.12	38.43	54	-15.57	-	-	224	106	H
* 5.4	35.42	PK2	34.4	-27.6	0	42.22	-	-	74	-31.78	233	148	V
* 5.4	29.16	MAv1	34.4	-27.6	.12	35.96	54	-18.04	-	-	233	148	V

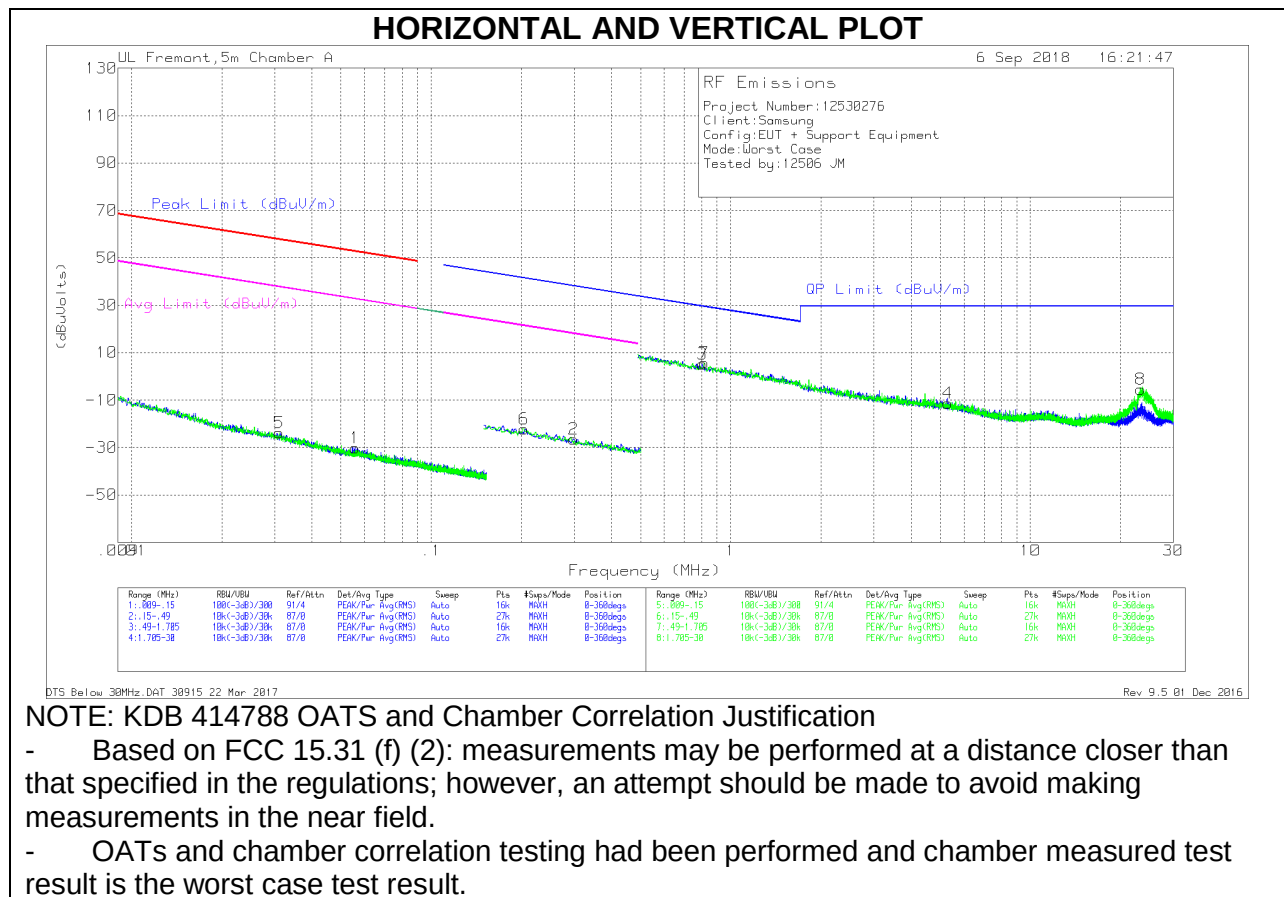
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

9.2. Worst Case Below 30 MHz

SPURIOUS EMISSIONS 9 kHz TO 30 MHz (WORST-CASE CONFIGURATION)



Below 30 MHz Data

Trace Markers

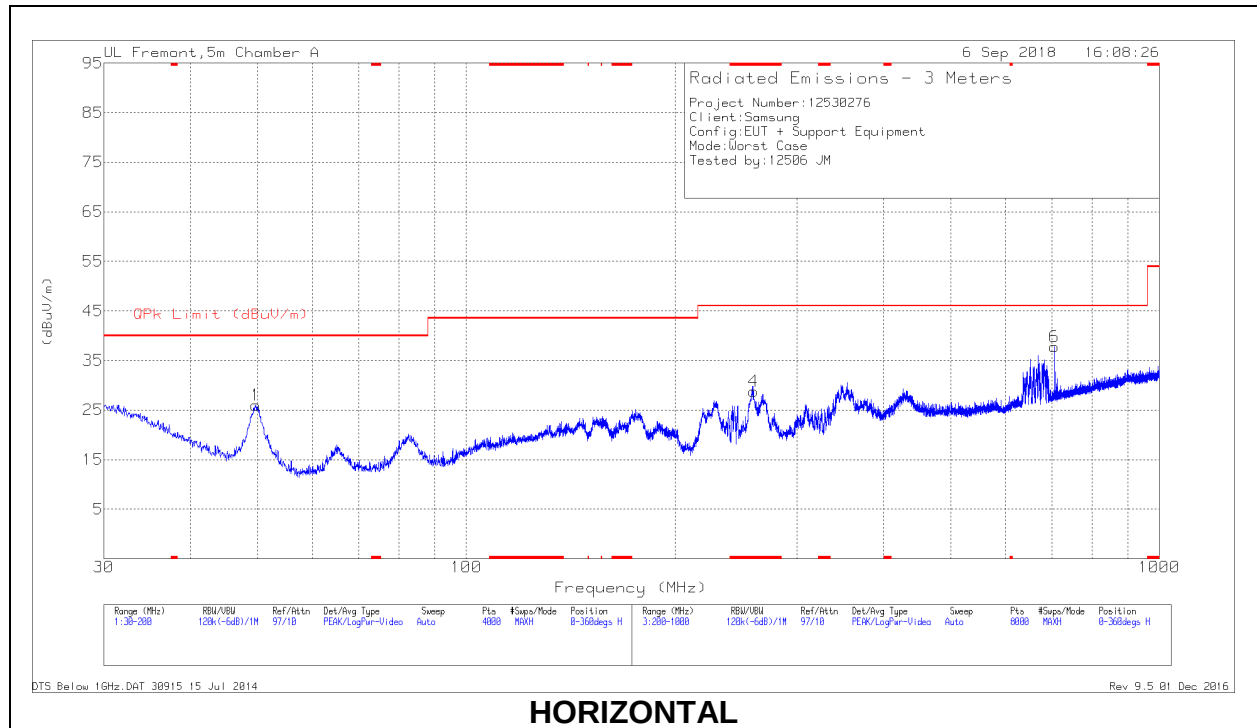
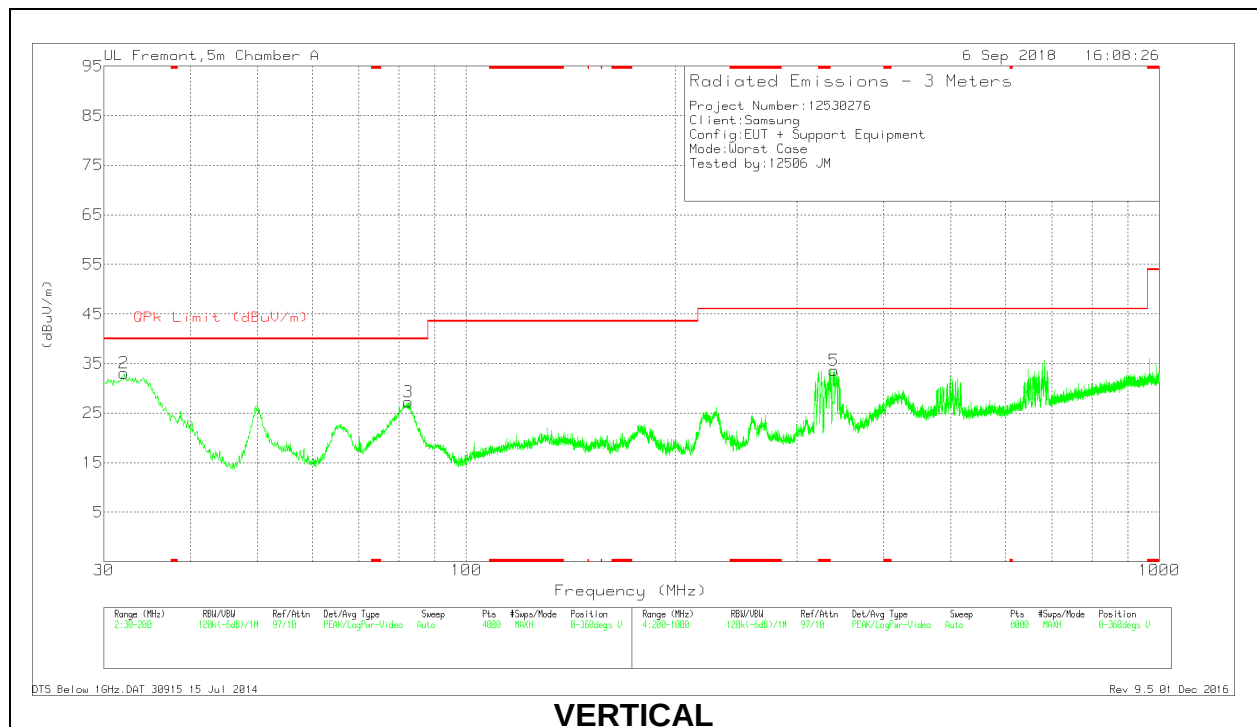
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
5	.03109	42.48	Pk	13.7	.1	-80	-23.72	57.73	-81.45	37.73	-61.45	-	-	-	-	0-360
1	.05575	37.88	Pk	11.8	.1	-80	-30.22	52.66	-82.88	32.66	-62.88	-	-	-	-	0-360
6	.20402	46.78	Pk	11	.1	-80	-22.12	-	-	-	-	41.42	-63.54	21.42	-43.54	0-360
2	.29844	42.65	Pk	10.9	.1	-80	-26.35	-	-	-	-	38.11	-64.46	18.11	-44.46	0-360

Pk - Peak detector

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Cbl (dB)	Dist Corr 30m	Corrected Reading (dBuVolts)	QP Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
3	.80255	34.08	Pk	11	.1	-40	5.18	29.53	-24.35	-	-	-	-	0-360
7	.81608	34.6	Pk	11	.1	-40	5.7	29.38	-23.68	-	-	-	-	0-360
4	5.31326	17.2	Pk	11.2	.3	-40	-11.3	29.5	-40.8	-	-	-	-	0-360
8	23.29537	23.33	Pk	10.6	.7	-40	-5.37	29.5	-34.87	-	-	-	-	0-360

Pk - Peak detector

9.3. Worst Case Below 1 GHz



Below 1GHz DATA

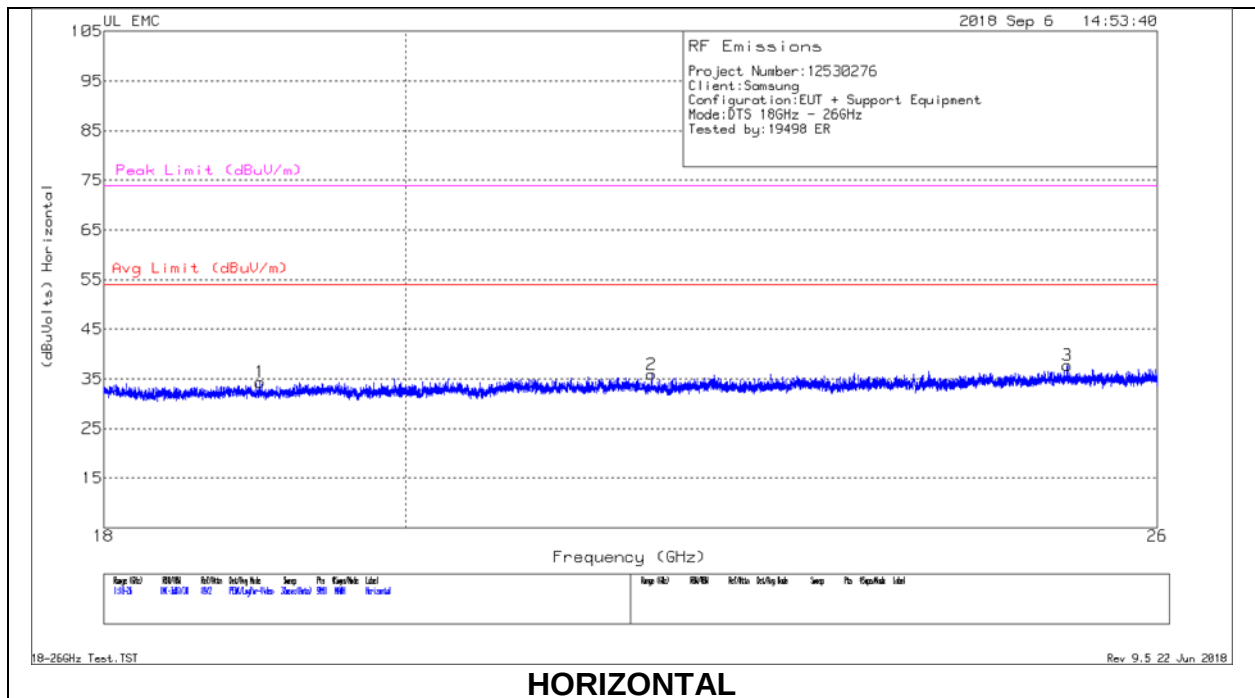
Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T130 (dB/m)	Amp/Cbl (dB/m)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 259.6077	37.57	Pk	16	-24.8	28.77	46.02	-17.25	0-360	101	H
2	32.083	36.63	Pk	23.7	-27.3	33.03	40	-6.97	0-360	100	V
1	49.7039	41.32	Pk	11.7	-27	26.02	40	-13.98	0-360	400	H
3	82.4586	42.46	Pk	11.4	-26.6	27.26	40	-12.74	0-360	100	V
5	339.6181	40.24	Pk	18	-24.7	33.54	46.02	-12.48	0-360	200	V
6	705.8658	37.91	Pk	24.3	-24.4	37.81	46.02	-8.21	0-360	101	H

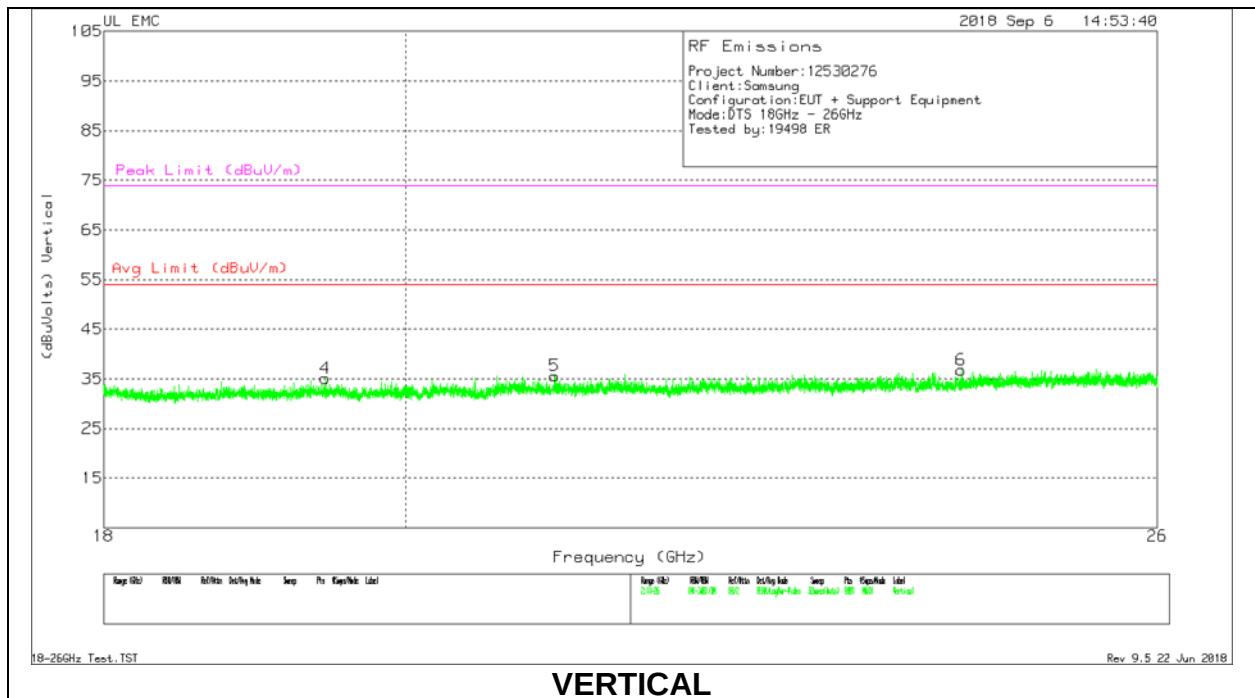
Pk - Peak detector

Qp - Quasi-Peak detector

9.4. Worst Case 18-26 GHz



HORIZONTAL



VERTICAL

18 – 26GHz DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T448 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	19.011	68.68	Pk	32.5	-57.3	-9.5	34.38	54	-19.62	74	-39.62
2	21.794	69.33	Pk	33.2	-57.1	-9.5	35.93	54	-18.07	74	-38.07
3	25.196	67.61	Pk	34.7	-55.1	-9.5	37.71	54	-16.29	74	-36.29
4	19.449	68.79	Pk	32.7	-56.9	-9.5	35.09	54	-18.91	74	-38.91
5	21.068	68.48	Pk	33.3	-56.7	-9.5	35.58	54	-18.42	74	-38.42
6	24.279	68.74	Pk	33.9	-56.4	-9.5	36.74	54	-17.26	74	-37.26

Pk - Peak detector

10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

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.

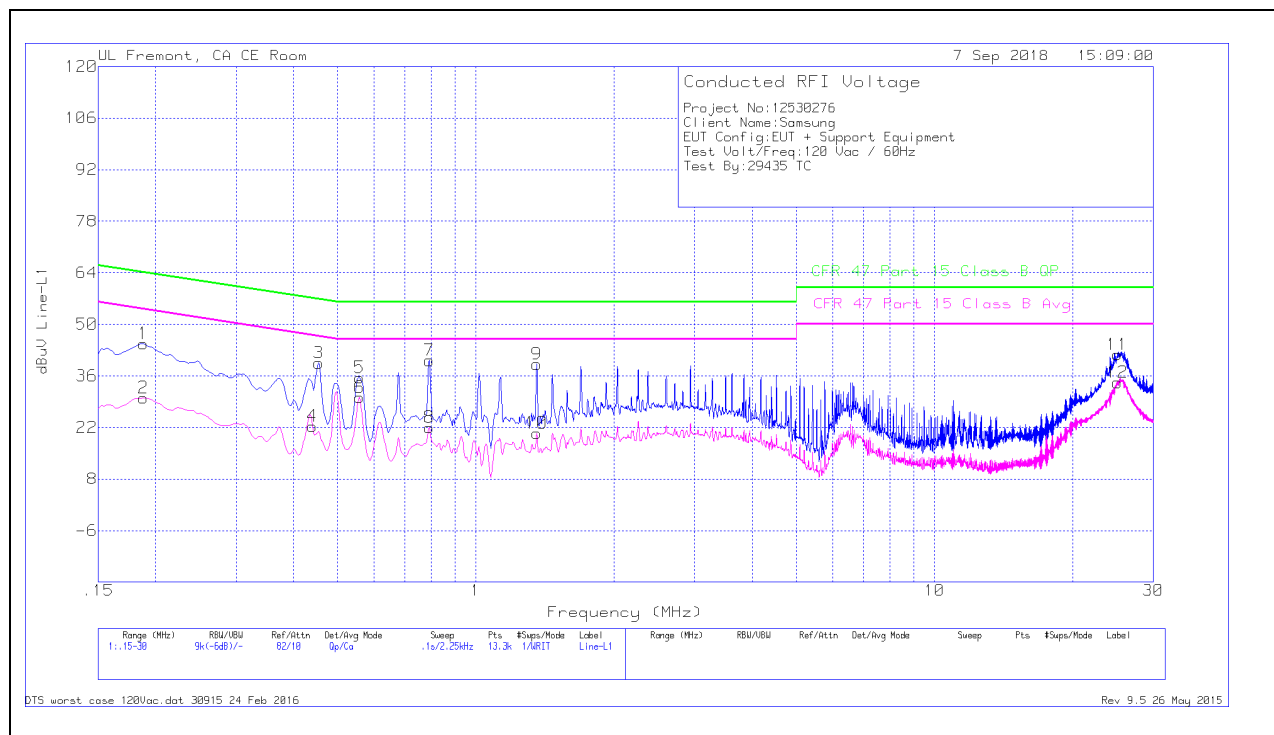
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

10.1.1. AC Power Line Norm

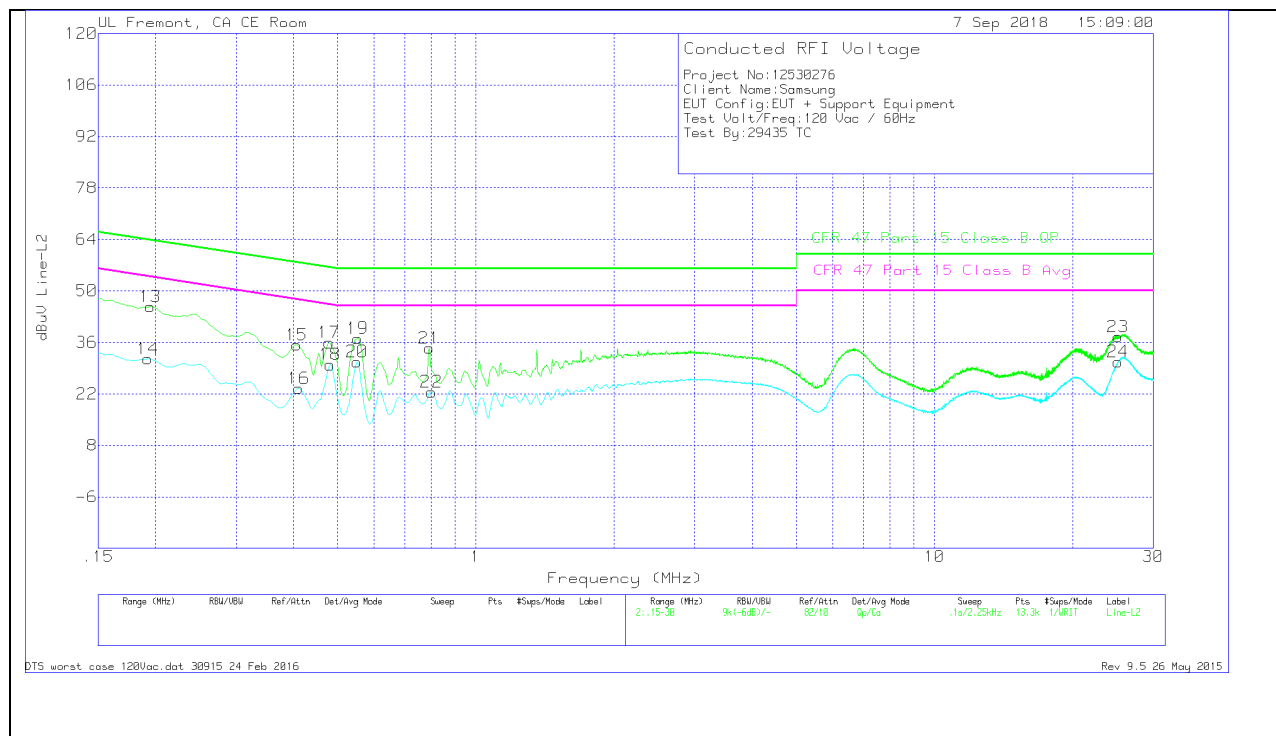
LINE 1 RESULTS



Range 1: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN L1	LC Cables C1&C3	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR) Margin (dB)
1	.18825	34.65	Qp	0	0	10.1	44.75	64.11	-19.36	-	-
2	.18825	19.93	Ca	0	0	10.1	30.03	-	-	54.11	-24.08
3	.45375	29.41	Qp	0	0	10.1	39.51	56.81	-17.3	-	-
4	.44025	12.24	Ca	0	0	10.1	22.34	-	-	47.06	-24.72
5	.55725	25.41	Qp	0	0	10.1	35.51	56	-20.49	-	-
6	.55725	20.09	Ca	0	0	10.1	30.19	-	-	46	-15.81
7	.79125	30.09	Qp	0	0	10.1	40.19	56	-15.81	-	-
8	.79125	11.92	Ca	0	0	10.1	22.02	-	-	46	-23.98
9	1.356	28.97	Qp	0	.1	10.1	39.17	56	-16.83	-	-
10	1.356	10.29	Ca	0	.1	10.1	20.49	-	-	46	-25.51
11	25.04625	30.89	Qp	.1	.3	10.5	41.79	60	-18.21	-	-
12	25.04625	23.31	Ca	.1	.3	10.5	34.21	-	-	50	-15.79

Qp - Quasi-Peak detector
Ca - CISPR average detection

LINE 2 RESULTS



Range 2: Line-L2 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN L2	LC Cables C2&C3	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR) Margin (dB)
13	.195	35.61	Qp	0	0	10.1	45.71	63.82	-18.11	-	-
14	.19275	21.43	Ca	0	0	10.1	31.53	-	-	53.92	-22.39
15	.4065	25.21	Qp	0	0	10.1	35.31	57.72	-22.41	-	-
16	.411	13.41	Ca	0	0	10.1	23.51	-	-	47.63	-24.12
17	.4785	25.83	Qp	0	0	10.1	35.93	56.37	-20.44	-	-
18	.48075	19.84	Ca	0	0	10.1	29.94	-	-	46.33	-16.39
19	.55275	26.93	Qp	0	0	10.1	37.03	56	-18.97	-	-
20	.5505	20.61	Ca	0	0	10.1	30.71	-	-	46	-15.29
21	.79125	24.32	Qp	0	0	10.1	34.42	56	-21.58	-	-
22	.80025	12.41	Ca	0	0	10.1	22.51	-	-	46	-23.49
23	25.12275	26.58	Qp	.1	.3	10.5	37.48	60	-22.52	-	-
24	25.13625	19.81	Ca	.1	.3	10.5	30.71	-	-	50	-19.29

Qp - Quasi-Peak detector

Ca - CISPR average detection