

## 9. RADIATED TEST RESULTS

### 9.1. LIMITS AND PROCEDURE

#### 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
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. The antenna to EUT distance is 3 meters.

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

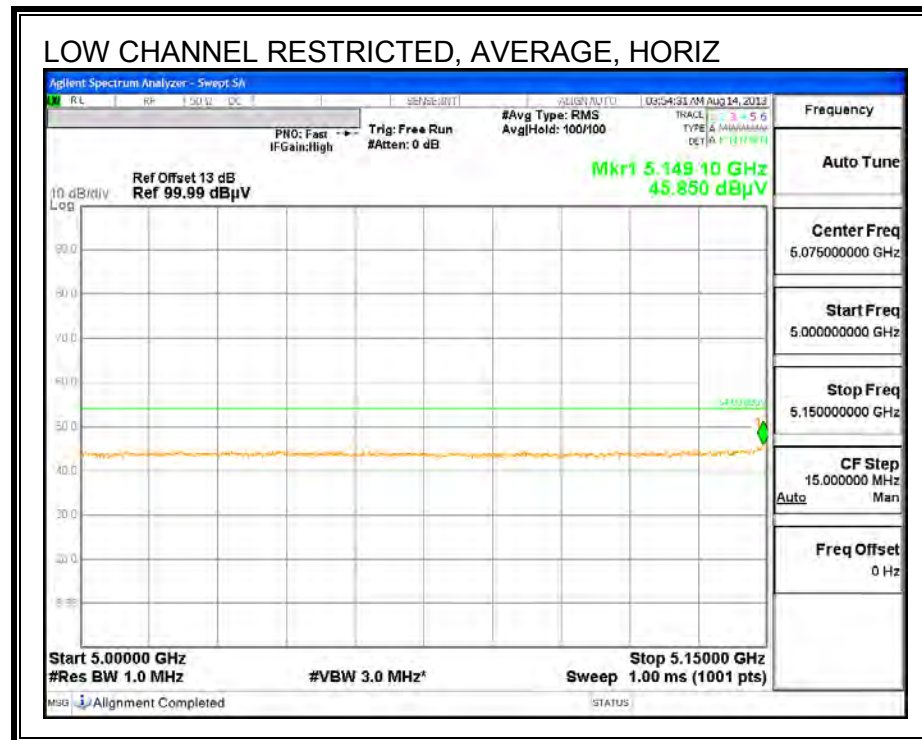
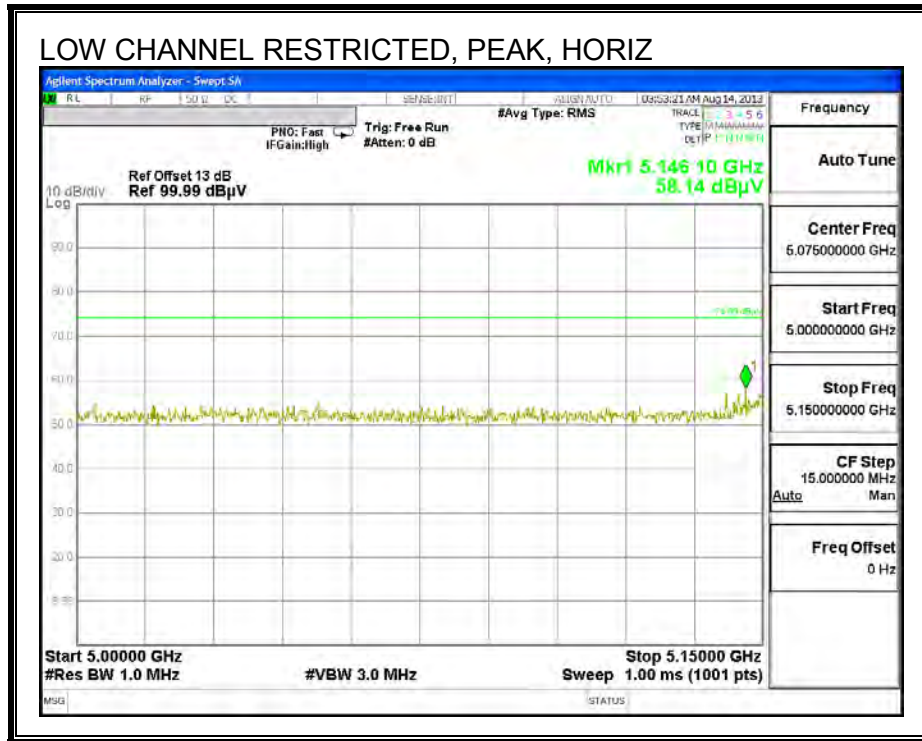
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

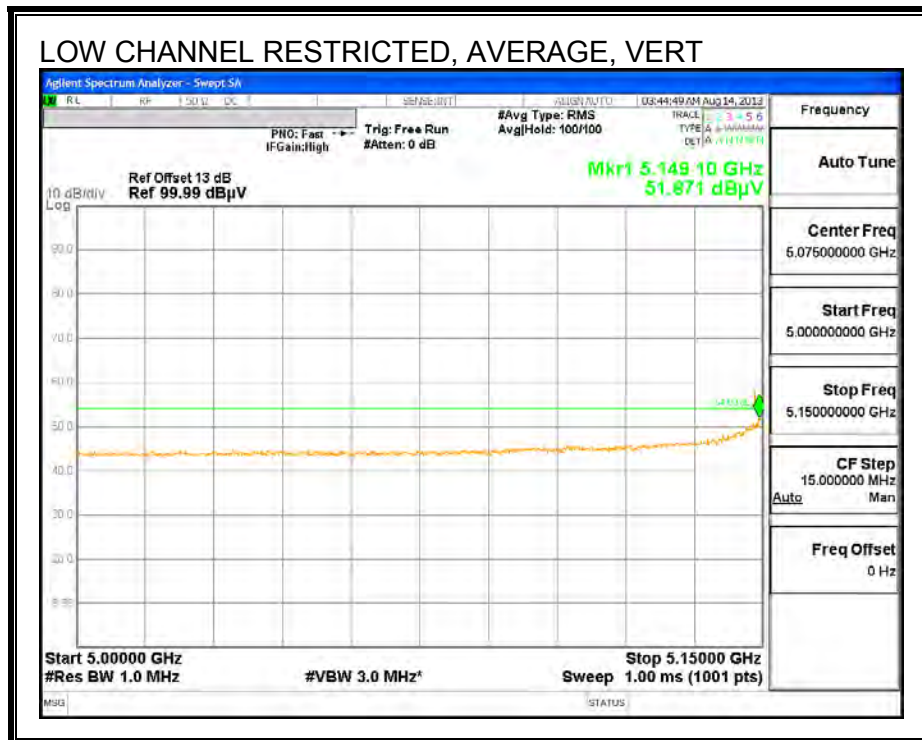
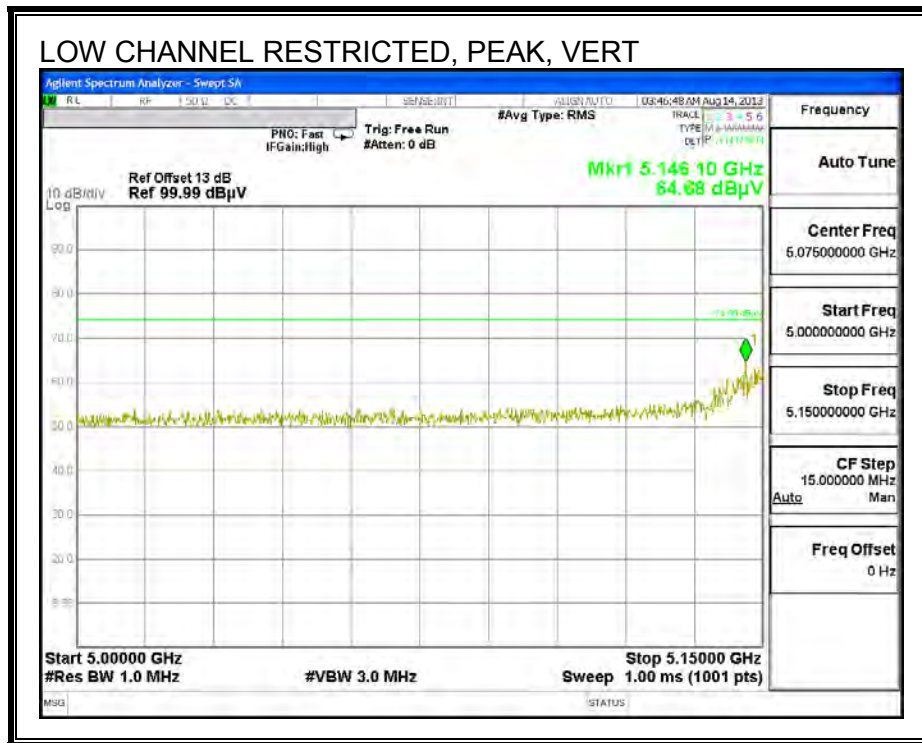
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

## 9.2. TRANSMITTER ABOVE 1 GHz

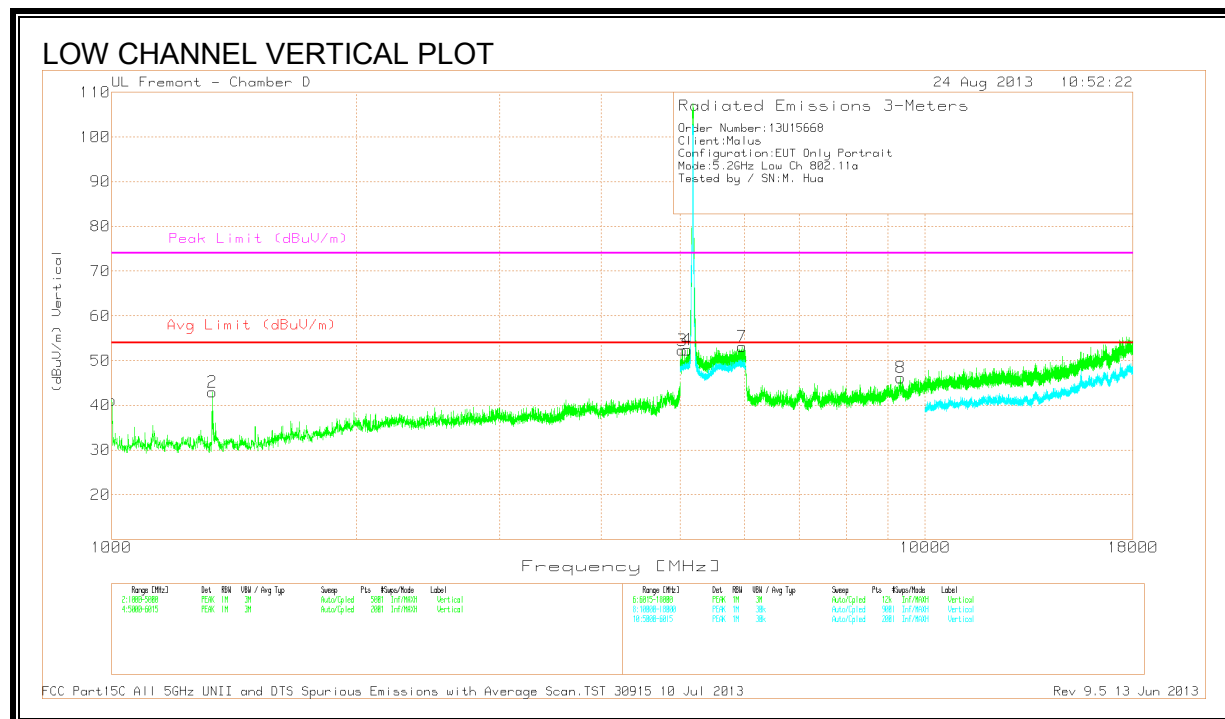
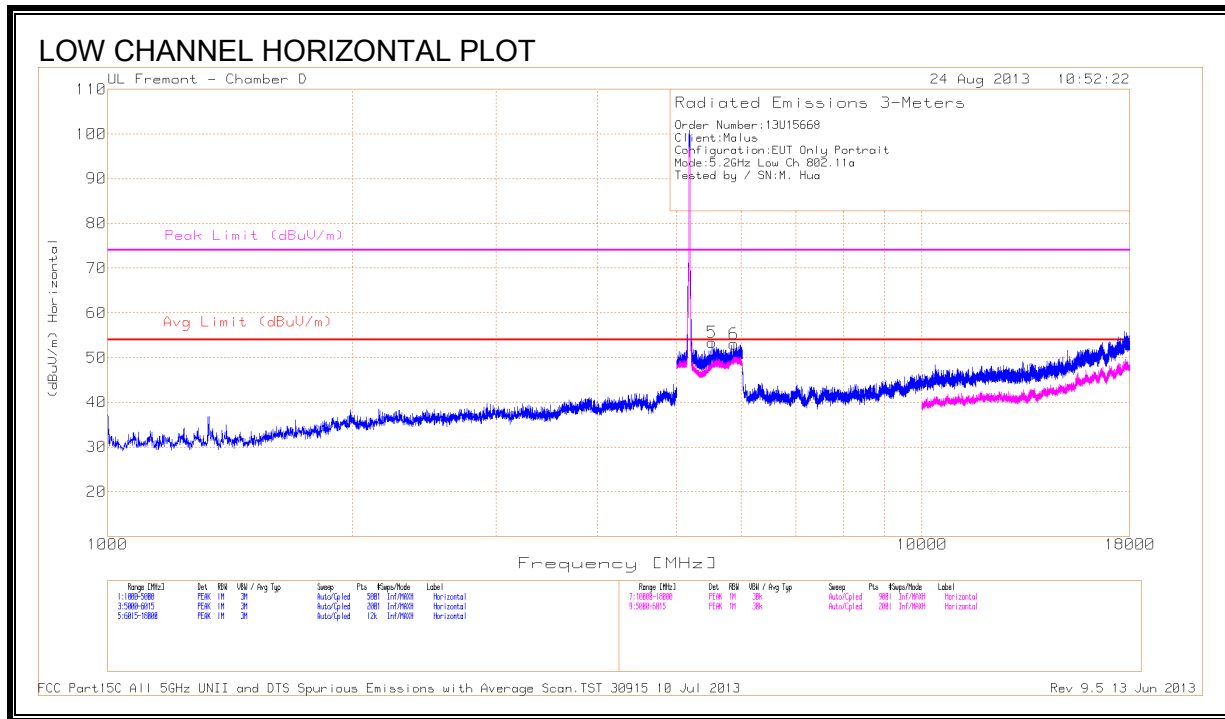
### 9.2.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.2 GHz BAND

#### RESTRICTED BANDEDGE (LOW CHANNEL)





**HARMONICS AND SPURIOUS EMISSIONS**

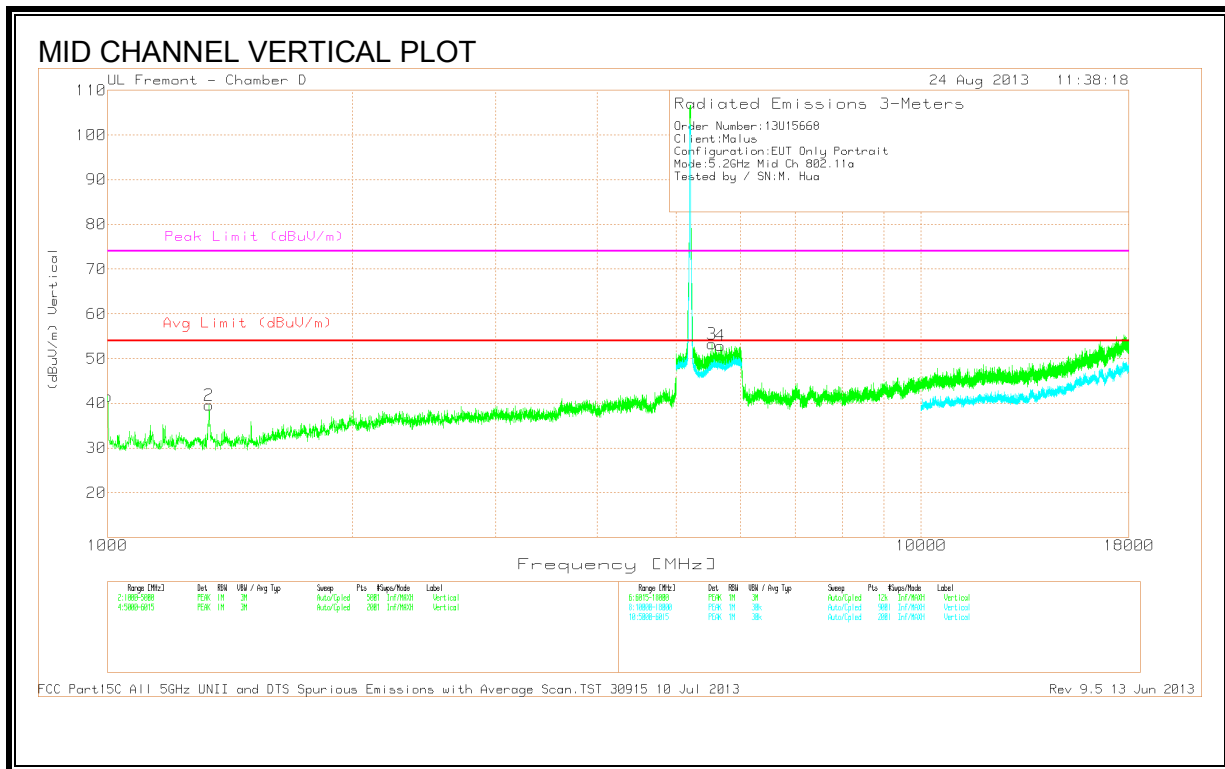
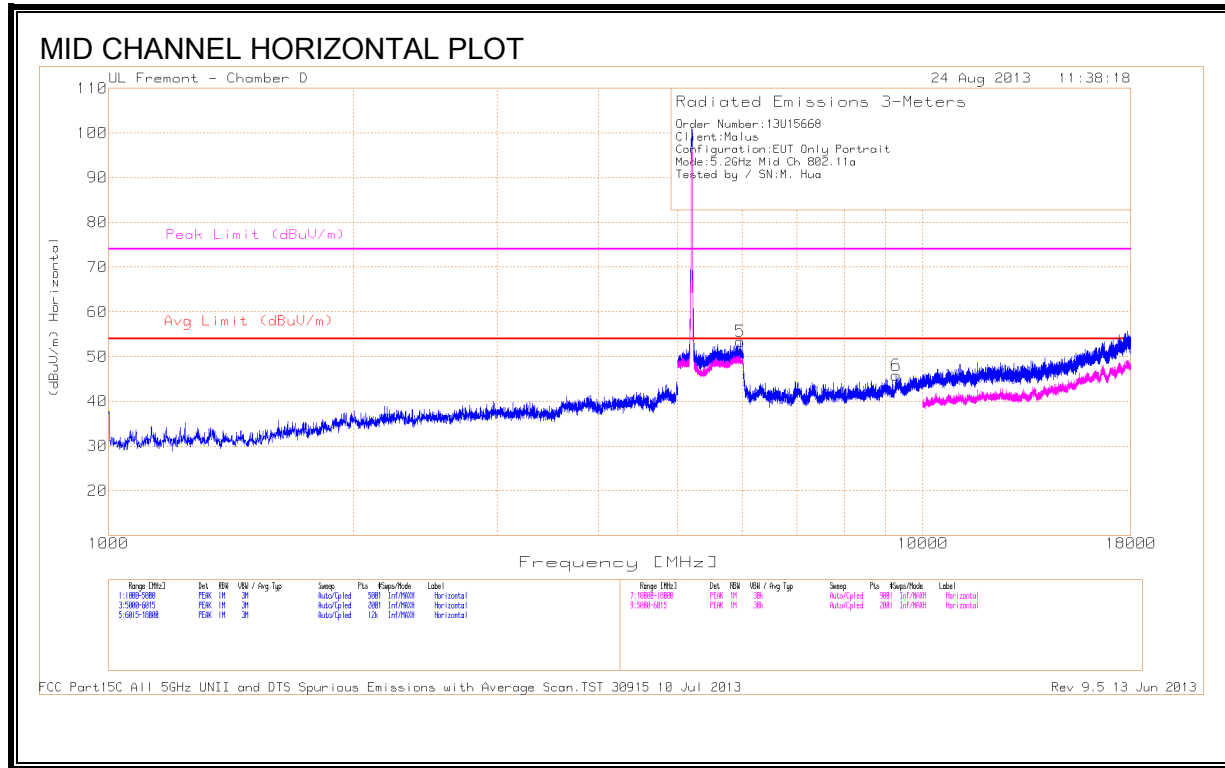


**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	49.05	PK	27.7	-35.6	41.15	53.97	-12.82	74	-32.85	201	V
2	1.33	49.19	PK	28.5	-34.7	42.99	53.97	-10.98	74	-31.01	100	V
*5	5.522	40.08	PK	34.8	-21.5	53.38	--	--	68.2	-14.82	100	H
*6	5.874	38.66	PK	35.5	-21.1	53.06	--	--	68.2	-15.14	100	H
3	5.029	40.22	PK	34.3	-22.2	52.32	--	--	74	-21.68	100	V
	5.029	35.12 (VB)	PK	34.3	-22.2	47.22	53.97	-6.75	74	-21.68	100	V
4	5.099	39.71	PK	34.5	-21.8	52.41	--	--	74	-15.79	201	V
	5.099	35.31 (VB)	PK	34.5	-21.8	48.01	53.97	-5.96	74	-15.79	201	V
*7	5.956	38.48	PK	35.6	-20.9	53.18	--	--	68.2	-15.02	100	V
8	9.333	35.18	PK	37	-26	46.18	53.97	-7.79	74	-27.82	100	V

Notes: \*: Not in restricted band

PK - Peak detector



**DATA**

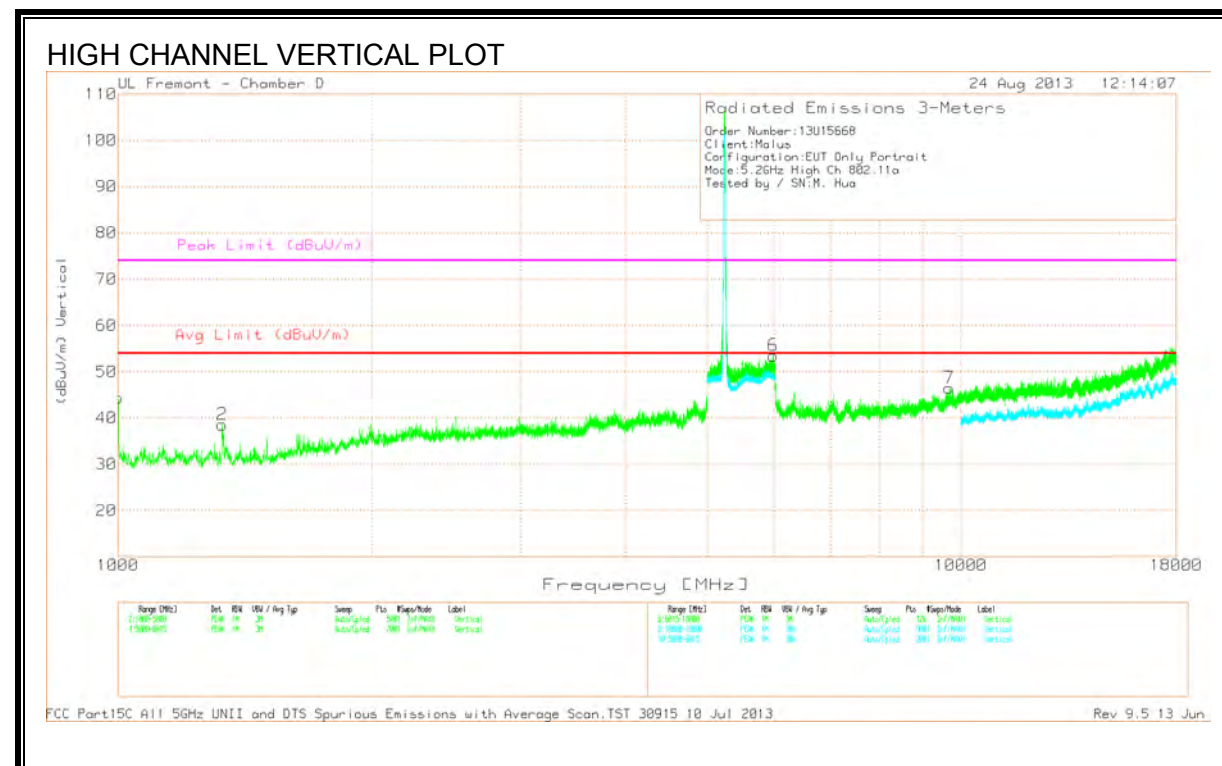
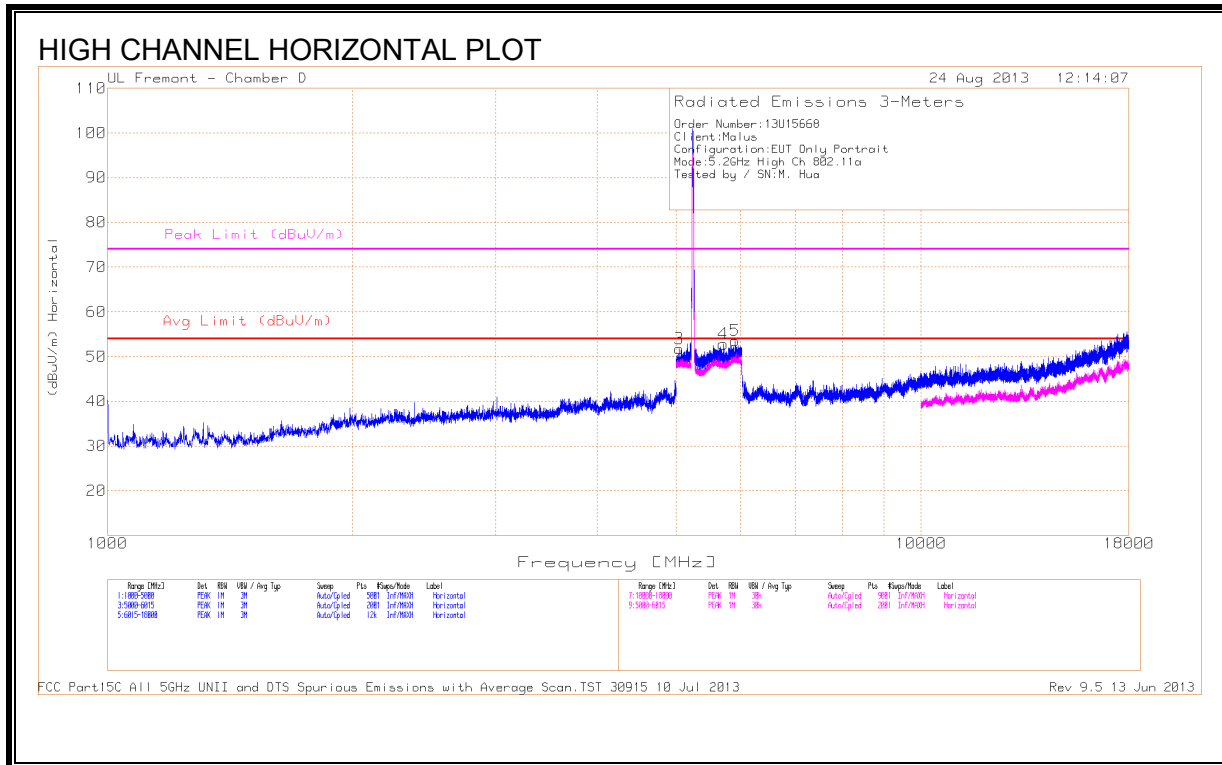
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	49.46	PK	27.7	-35.6	41.56	53.97	-12.41	74	-32.44	200	V
2	1.332	45.78	PK	28.5	-34.7	39.58	53.97	-14.39	74	-34.42	200	V
5	5.968	38.68	PK	35.6	-20.9	53.38	53.97	-0.59	74	-20.62	100	H
3	5.531	39.74	PK	34.9	-21.4	53.24	53.97	-0.73	74	-20.76	201	V
4	5.666	39.31	PK	35.1	-21.5	52.91	53.97	-1.06	74	-21.09	201	V
6	9.274	35.39	PK	36.9	-26.5	45.79	53.97	-8.18	74	-28.21	100	H

PK - Peak detector

**Radiated Emissions**

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.967	28.07	MAv1	35.6	-20.9	42.77	53.97	-11.2	-	-	326	225	H
5.529	28.32	MAv1	34.9	-21.4	41.82	53.97	-12.15	-	-	13	284	V
5.663	28.03	MAv1	35.1	-21.5	41.63	53.97	-12.34	-	-	164	191	V

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average





**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	52.29	PK	27.7	-35.6	44.39	53.97	-9.58	74	-29.61	201	V
2	1.329	44.77	PK	28.5	-34.7	38.57	53.97	-15.4	74	-35.43	201	V
3	5.043	39.59	PK	34.4	-22.2	51.79	53.97	-2.18	74	-22.21	100	H
4	5.714	39.3	PK	35.2	-21.7	52.8	53.97	-1.17	74	-21.2	201	H
5	5.908	38.77	PK	35.6	-20.8	53.57	53.97	-0.4	74	-20.43	100	H
6	5.987	38.69	PK	35.7	-20.9	53.49	53.97	-0.48	74	-20.51	100	V
7	9.686	34.89	PK	37.3	-25.7	46.49	53.97	-7.48	74	-27.51	201	V

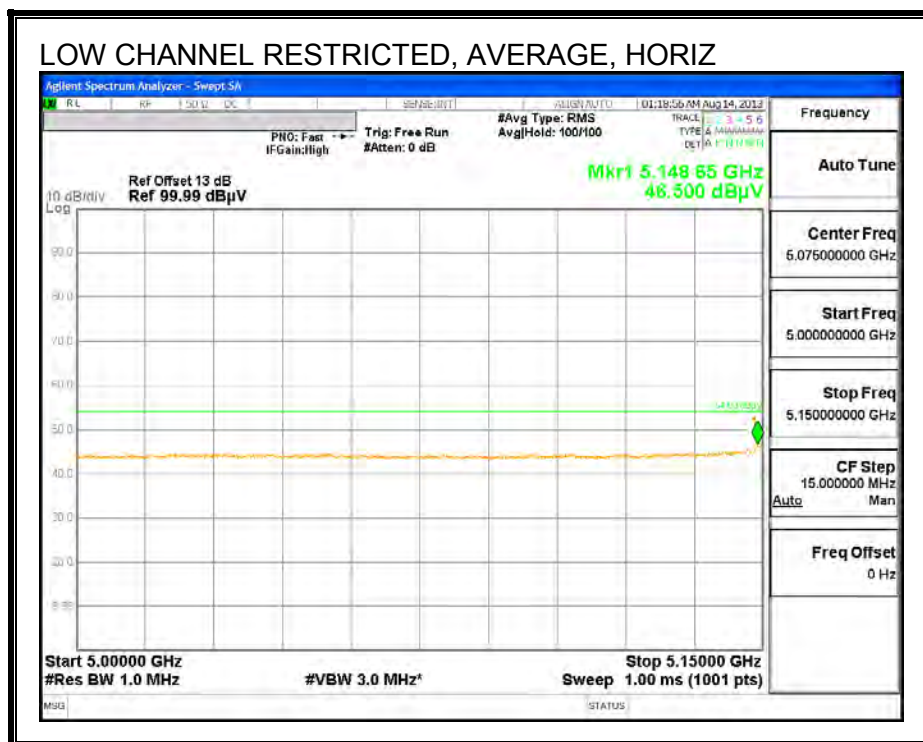
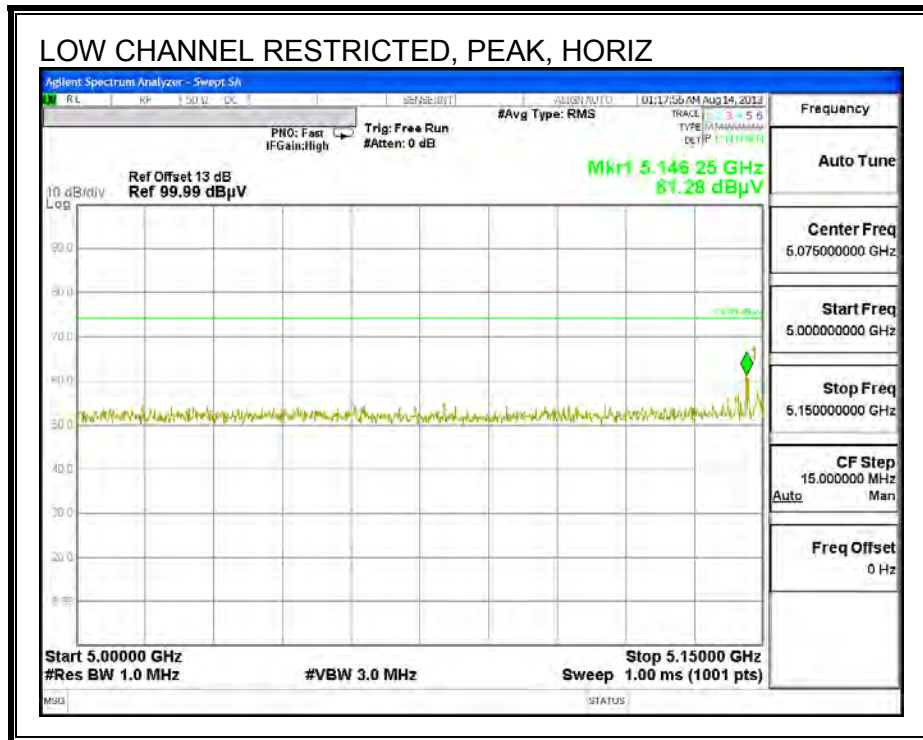
PK - Peak detector

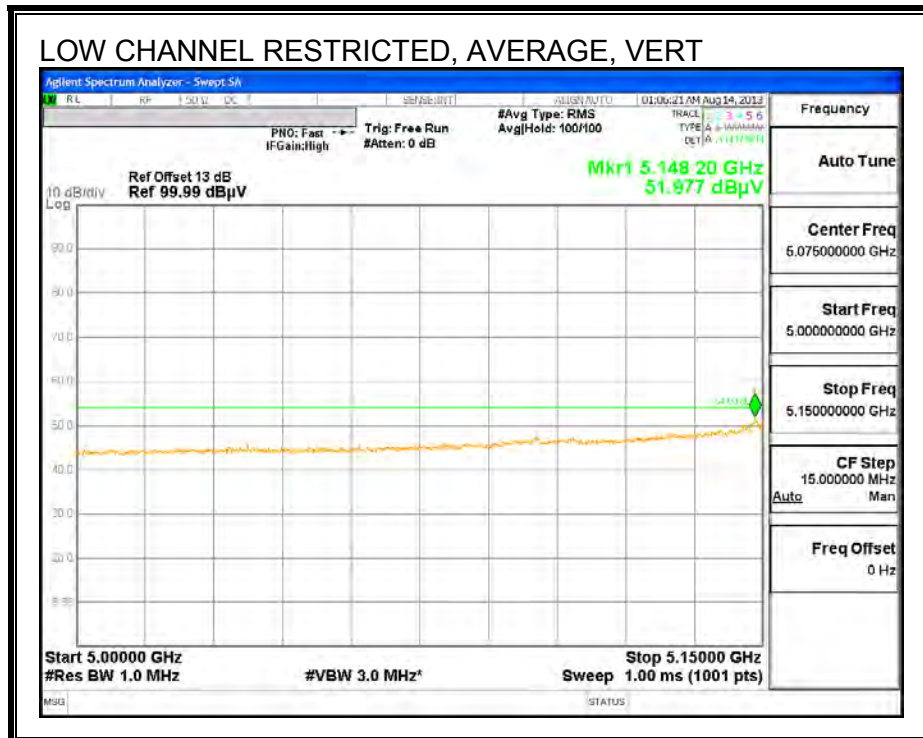
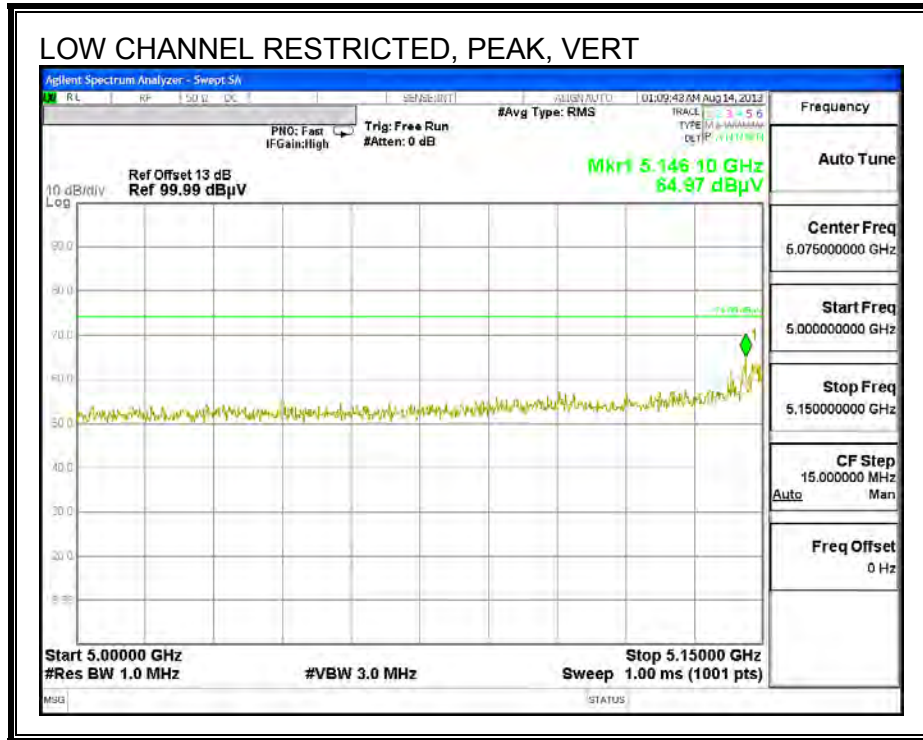
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.044	28.76	MAv1	34.4	-22.2	40.96	53.97	-13.01	-	-	113	184	H
5.711	28	MAv1	35.2	-21.7	41.5	53.97	-12.47	-	-	101	338	H
5.912	28.19	MAv1	35.6	-20.8	42.99	53.97	-10.98	-	-	284	385	H
5.984	28	MAv1	35.7	-20.9	42.8	53.97	-11.17	-	-	132	100	V

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average

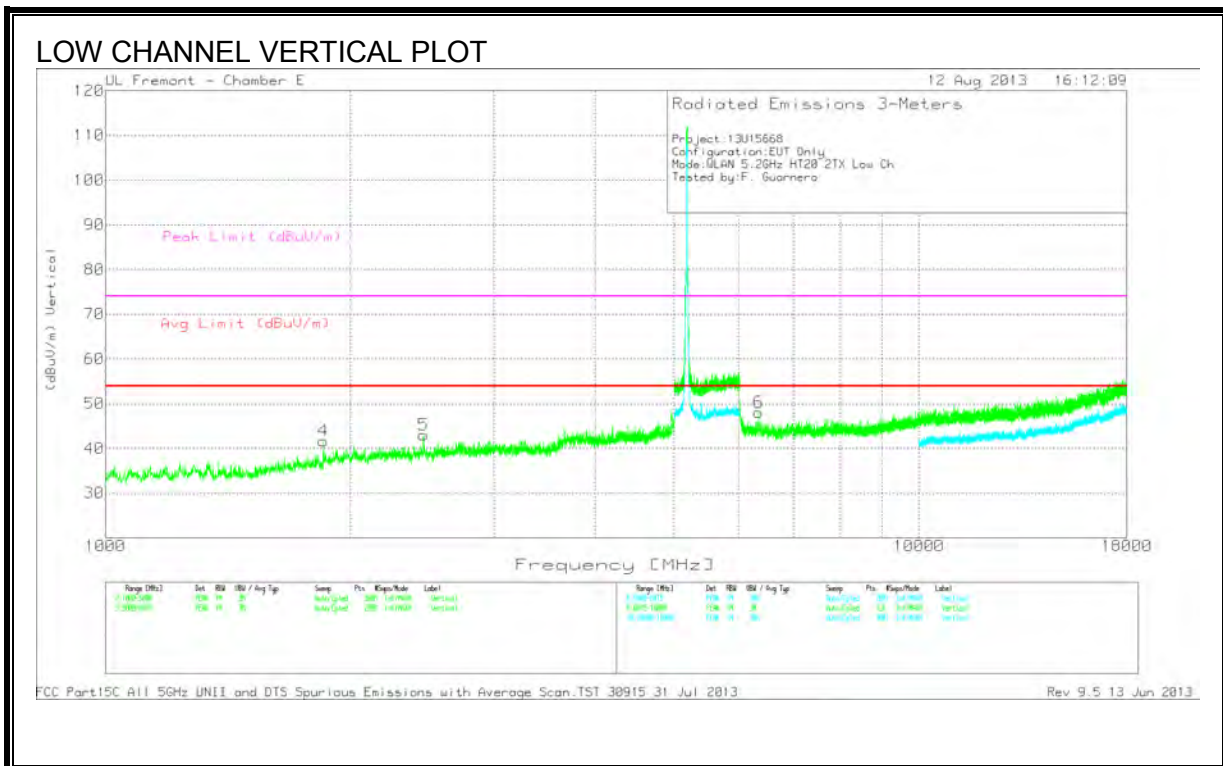
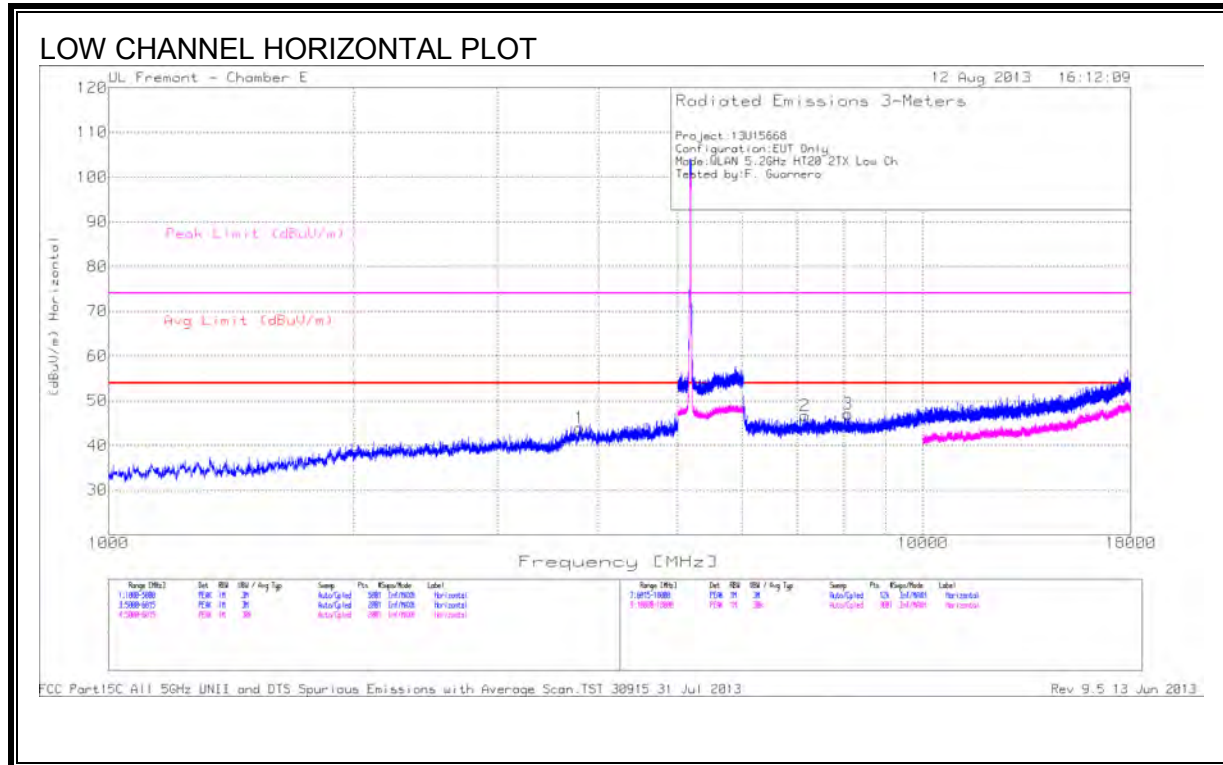
### 9.2.2. TX ABOVE 1 GHz 802.11n HT20 2TX CDD MODE IN THE 5.2 GHz BAND

#### RESTRICTED BANDEDGE (LOW CHANNEL)





**HARMONICS AND SPURIOUS EMISSIONS**



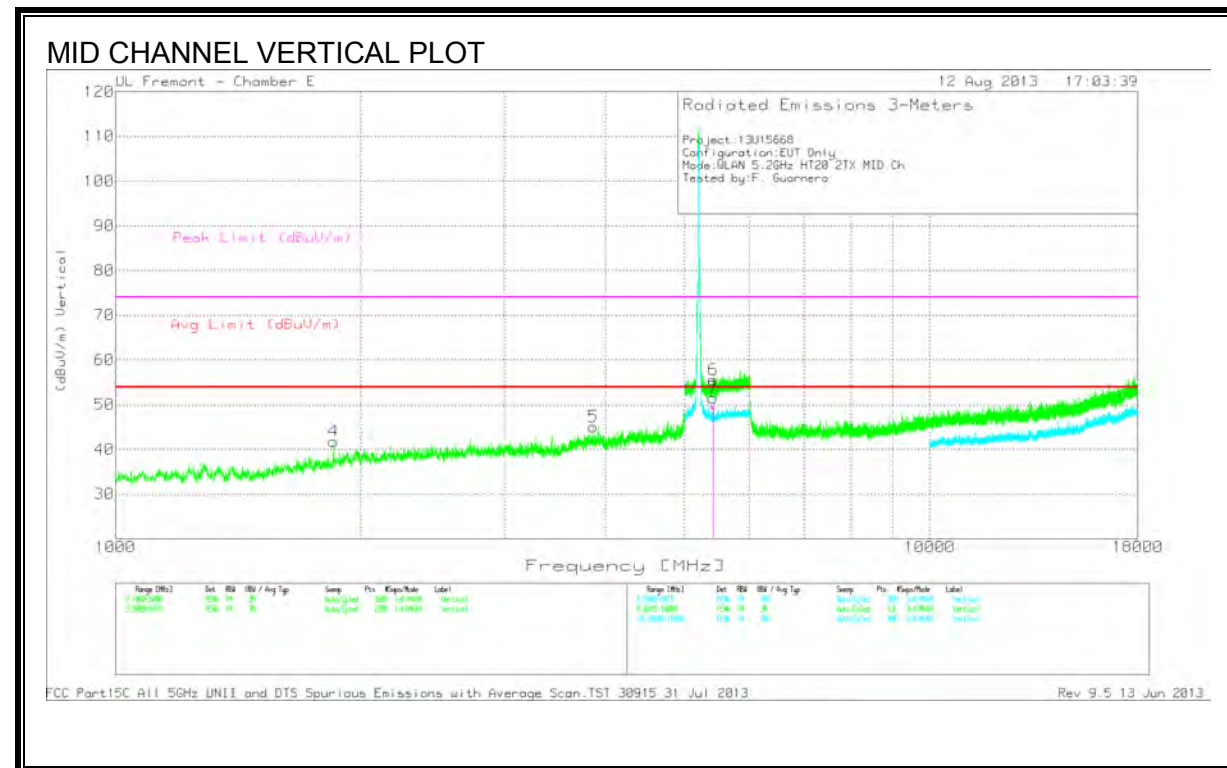
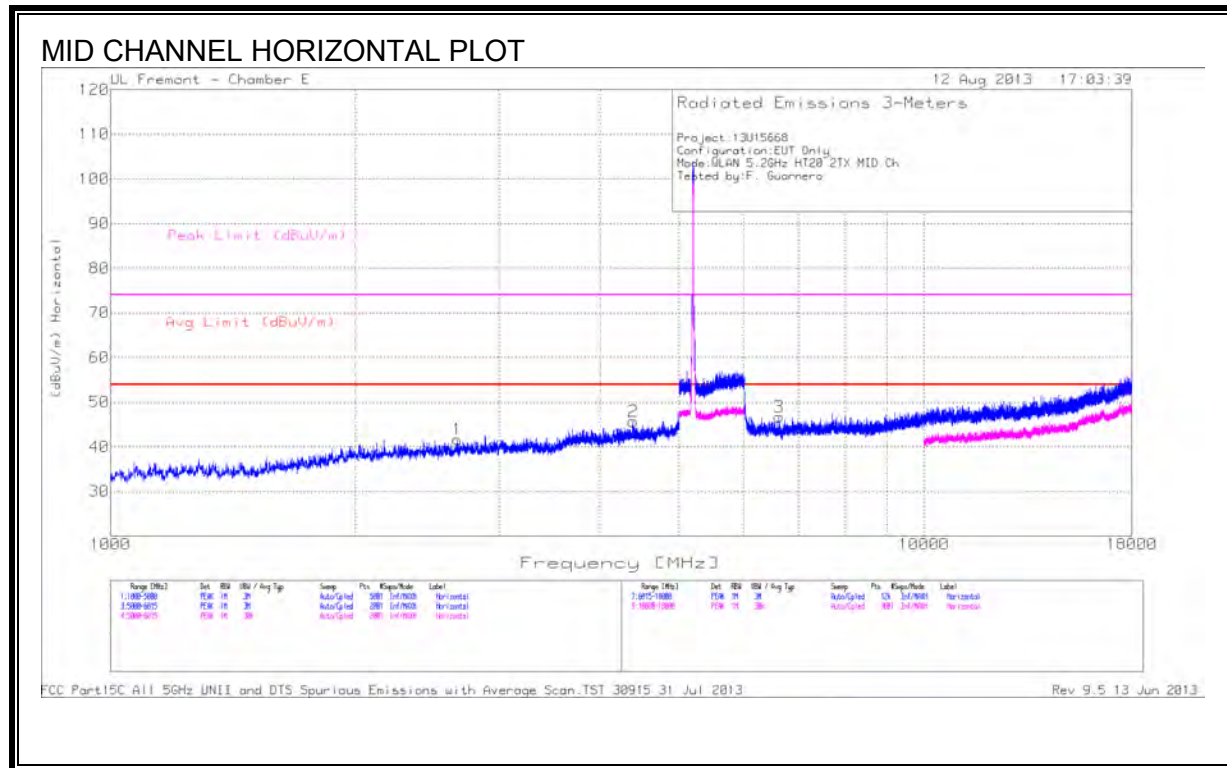
**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl 5GHz LPF dB	DC Corr [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	3.789	42.82	PK	33.7	-32.6	0	43.92	53.97	-10.05	74	-30.08	200	H
2	7.164	40.28	PK	36	-29.6	0	46.68	53.97	-7.29	74	-27.32	100	H
3	8.088	39.37	PK	36.2	-28.5	0	47.07	53.97	-6.9	74	-26.93	100	H

PK - Peak detector

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl /6GHz HPF (dB)	DC Corr [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
4	1.852	44.9	PK	31.2	-34.4	0	41.7	53.97	-12.27	74	-32.3	100	V
5	2.46	43.65	PK	32.7	-33.3	0	43.05	53.97	-10.92	74	-30.95	100	V
6	6.352	41.27	PK	35.9	-29.1	0	48.07	53.97	-5.9	74	-25.93	100	V

PK - Peak detector



**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl 5GHz LPF dB	DC Corr [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	2.668	42.07	PK	33	-33.4	0	41.67	53.97	-12.3	74	-32.33	199	H
2	4.39	43.39	PK	34.2	-31.9	0	45.69	53.97	-8.28	74	-28.31	99	H
3	6.632	40.48	PK	35.8	-29.6	0	46.68	53.97	-7.29	74	-27.32	100	H

PK - Peak detector

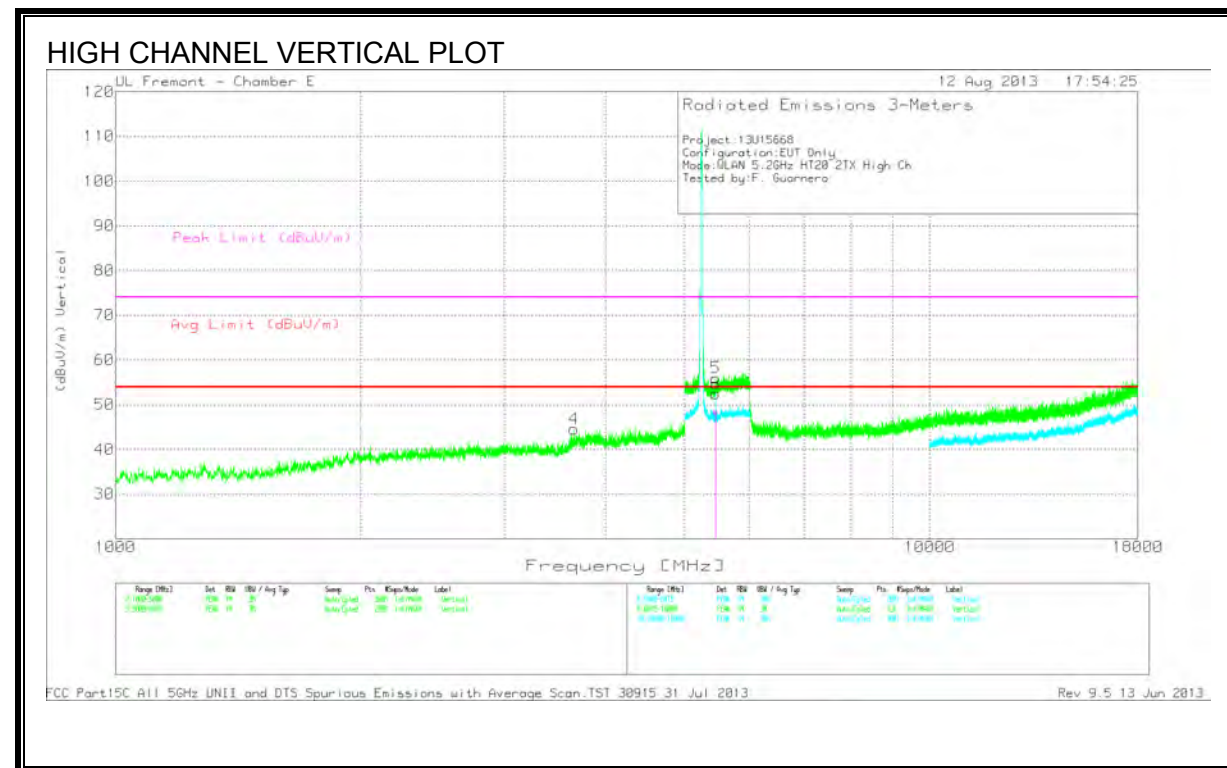
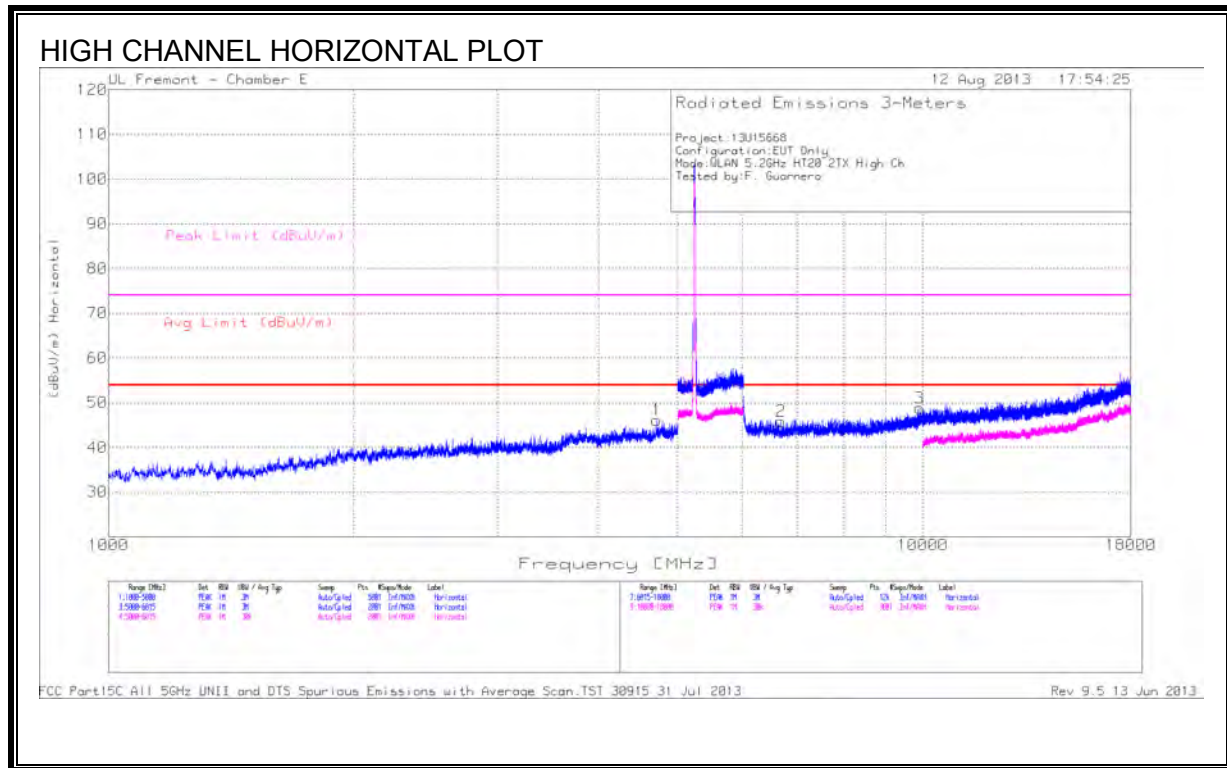
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl /10dB Pad (dB)	DC Corr [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
4	1.852	45.03	PK	31.2	-34.4	0	41.83	53.97	-12.14	74	-32.17	200	V
5	3.864	42.98	PK	33.7	-31.6	0	45.08	53.97	-8.89	74	-28.92	200	V
6	5.418	42.8	PK	34.8	-22	0	55.6	-	-	74	-18.4	199	V
7	5.417	38.75	PK (VB)	34.8	-22	0	51.55	53.97	-2.42	-	-	199	V

PK - Peak detector

**Radiated Emissions**

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl /10dB Pad (dB)	DC Corr [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.417	36.54	RMS	34.8	-22	0	49.34	53.97	-4.63	-	-	40	190	V

RMS - RMS detection





**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl 5GHz LPF dB	DC Corr [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	4.712	42.92	PK	34.4	-31.2	0	46.12	53.97	-7.85	74	-27.88	199	H
2	6.696	40.04	PK	35.8	-30	0	45.84	53.97	-8.13	74	-28.16	199	H
3	9.908	36.7	PK	37.9	-25.8	0	48.8	53.97	-5.17	74	-25.2	100	H

PK - Peak detector

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl /10dB Pad (dB)	DC Corr [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
4	3.657	42.98	PK	33.5	-31.9	0	44.58	53.97	-9.39	74	-29.42	100	V
5	5.458	42.98	PK	34.8	-21.8	0	55.98	-	-	74	-18.02	100	V
6	5.458	39.52	PK (VB)	34.8	-21.8	0	52.52	53.97	-1.45	-	-	200	V

PK - Peak detector

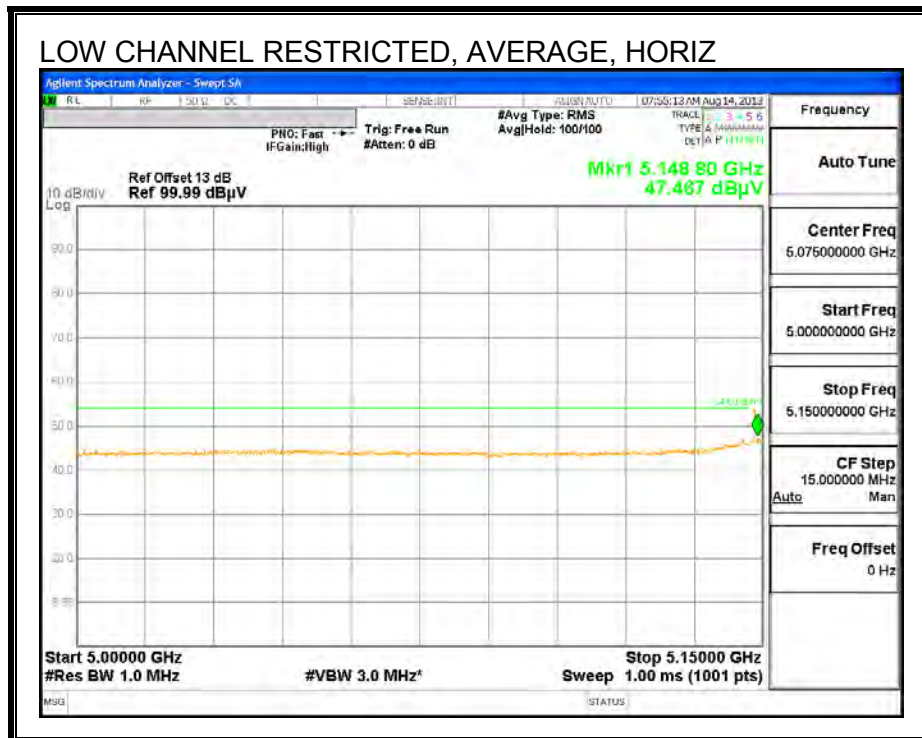
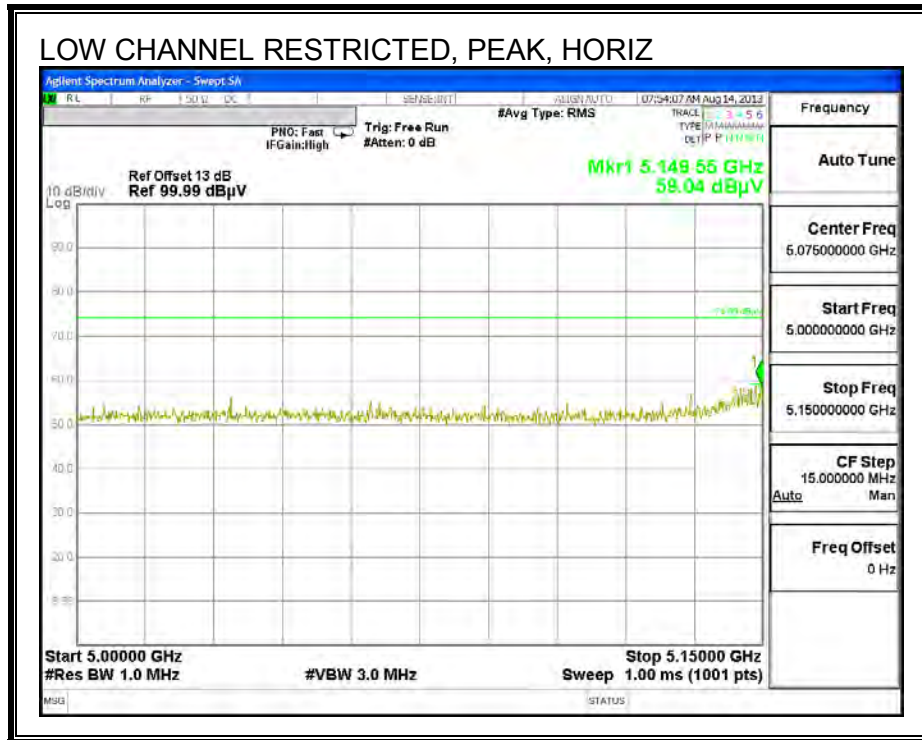
**Radiated Emissions**

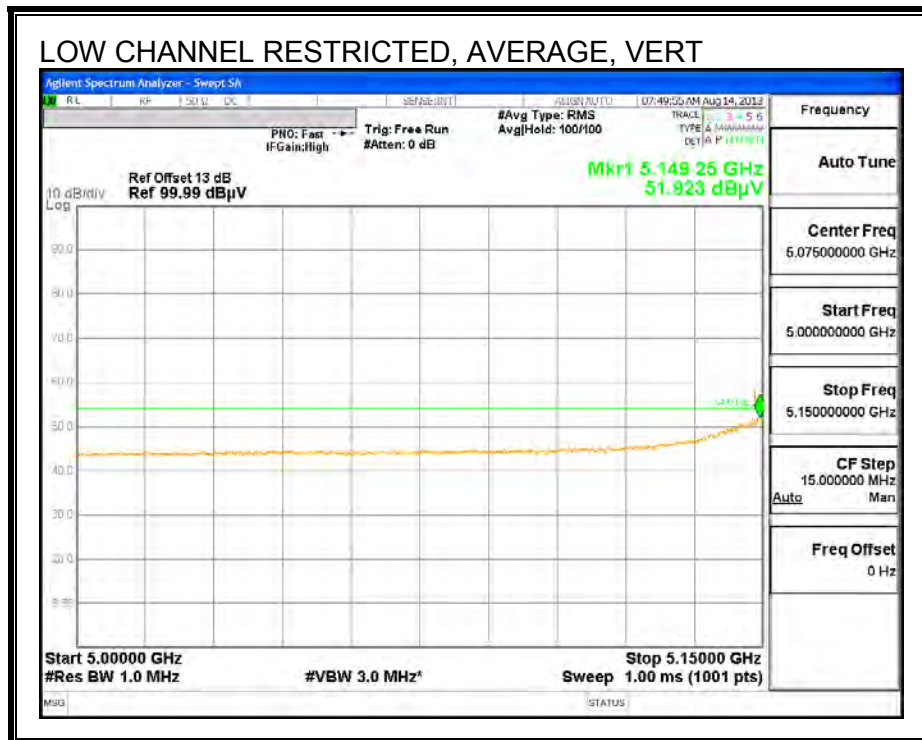
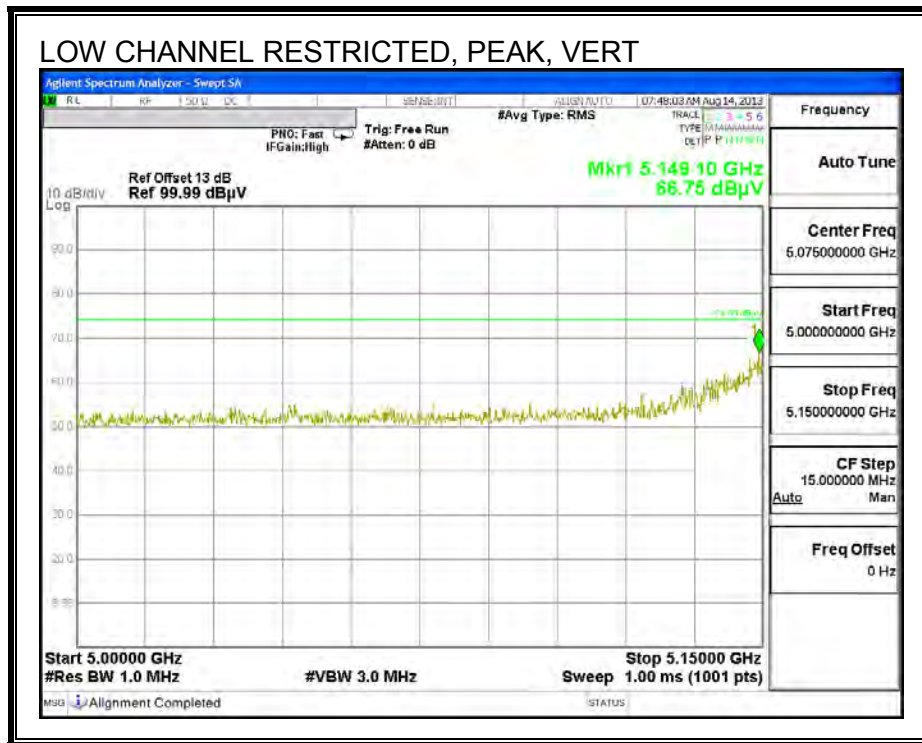
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl /10dB Pad (dB)	DC Corr [dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.458	35.25	RMS	34.8	-21.8	0	48.25	53.97	-5.72	-	-	21	180	V

RMS - RMS detection

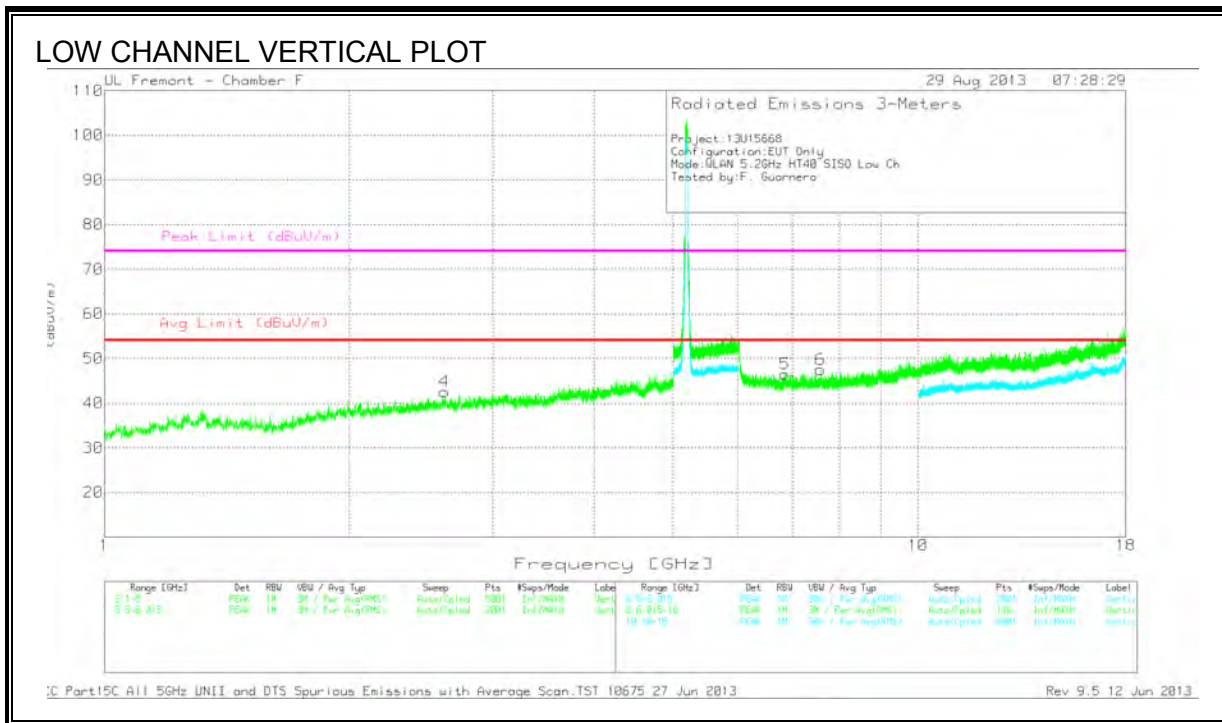
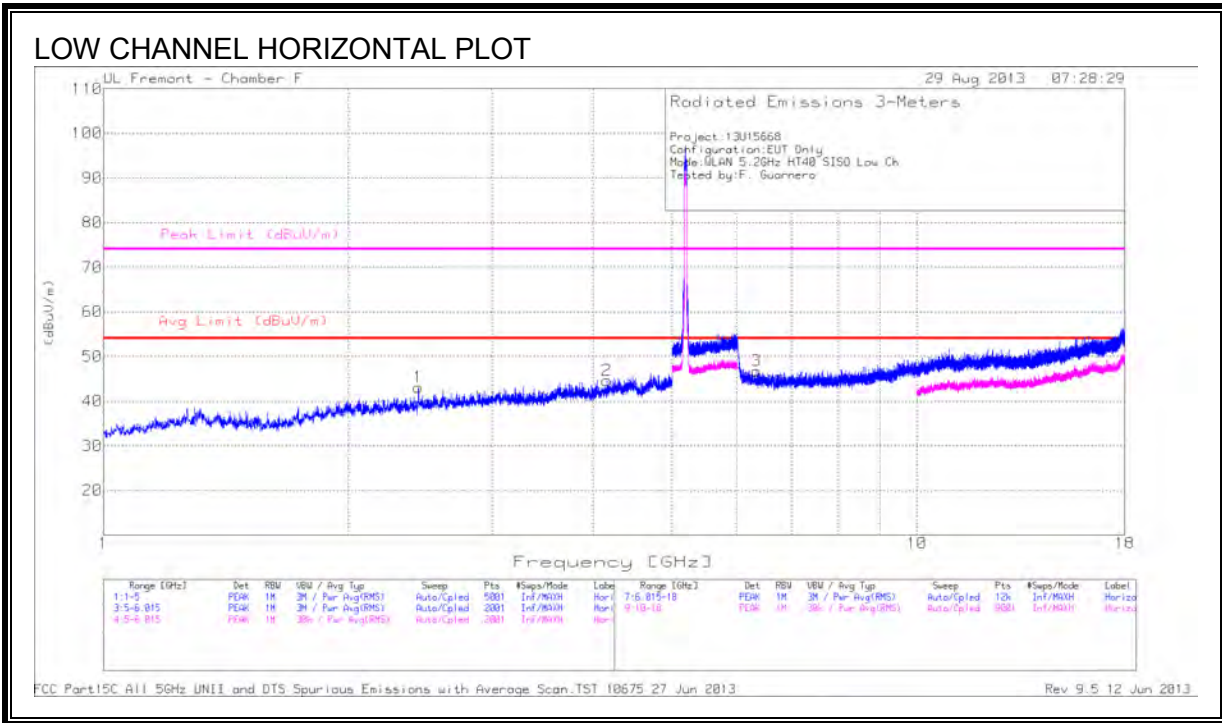
### 9.2.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND

#### RESTRICTED BANDEDGE (LOW CHANNEL)





**HARMONICS AND SPURIOUS EMISSIONS**



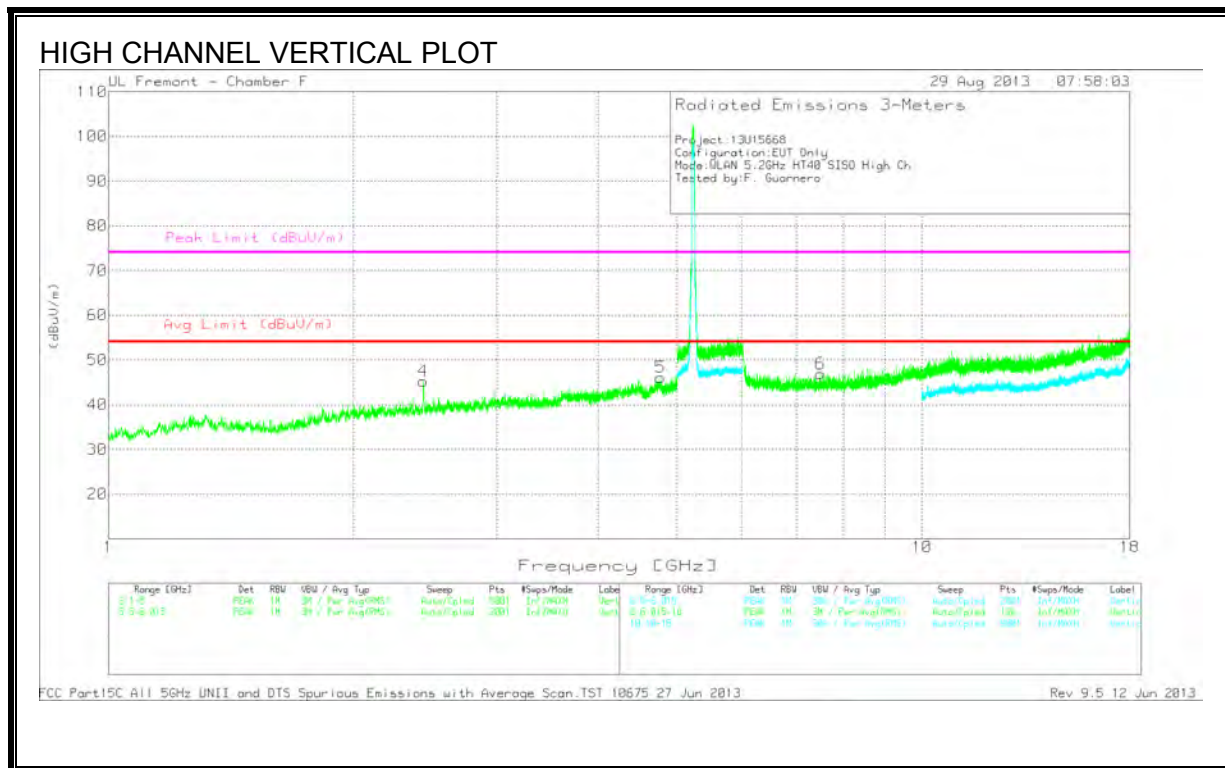
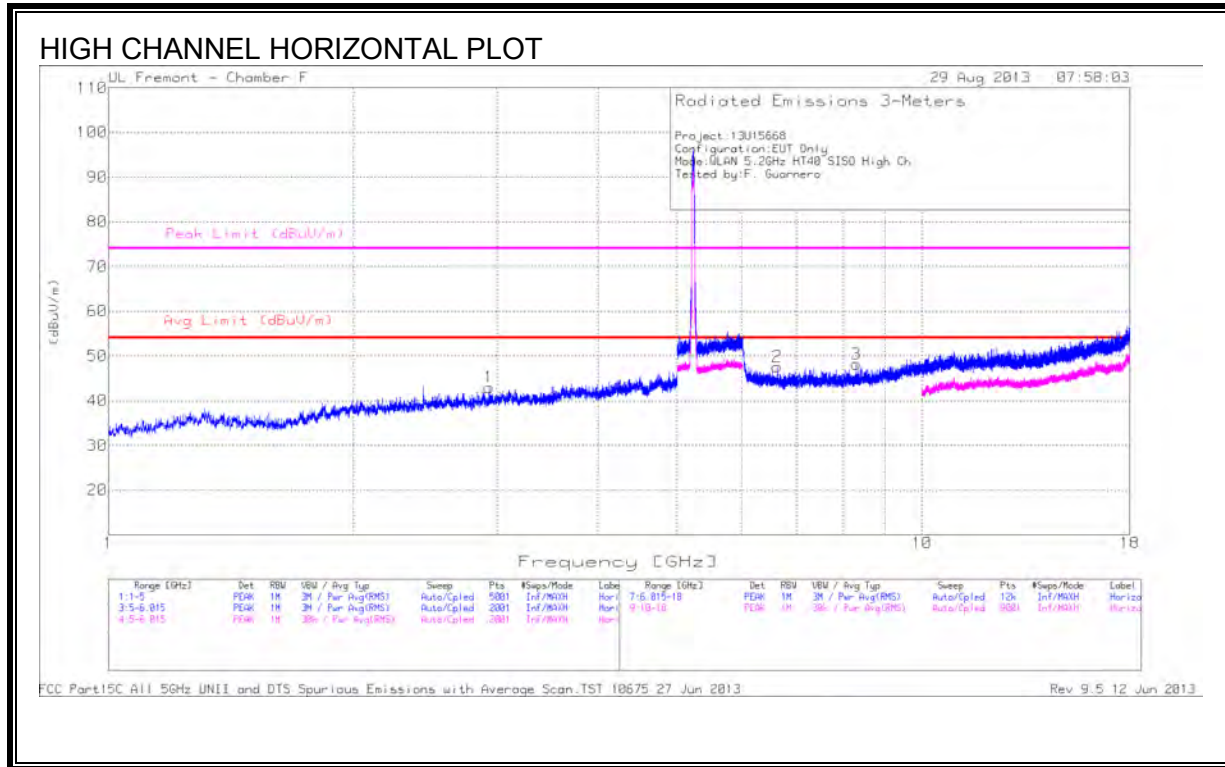
**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl /5GHz LPF	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.438	41.55	PK	32.3	-30.7	43.15	53.97	-10.82	74	-30.85	0-360	200	H
2	4.157	40.45	PK	33.4	-29.2	44.65	53.97	-9.32	74	-29.35	0-360	200	H
3	6.347	37.71	PK	35.6	-26.5	46.81	53.97	-7.16	74	-27.19	0-360	101	H

PK - Peak detector

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl /6GHz HPF	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.618	39.99	PK	32.6	-30	42.59	53.97	-11.38	74	-31.41	0-360	199	V
5	6.86	37.35	PK	35.7	-26.5	46.55	53.97	-7.42	74	-27.45	0-360	100	V
6	7.588	36.82	PK	35.9	-25.2	47.52	53.97	-6.45	74	-26.48	0-360	199	V

PK - Peak detector



**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl /5GHz LPF	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.936	40.09	PK	33	-30.1	42.99	53.97	-10.98	74	-31.01	0-360	98	H
2	6.635	37.7	PK	35.8	-25.9	47.6	53.97	-6.37	74	-26.4	0-360	199	H
3	8.305	37.3	PK	36	-25.1	48.2	53.97	-5.77	74	-25.8	0-360	199	H

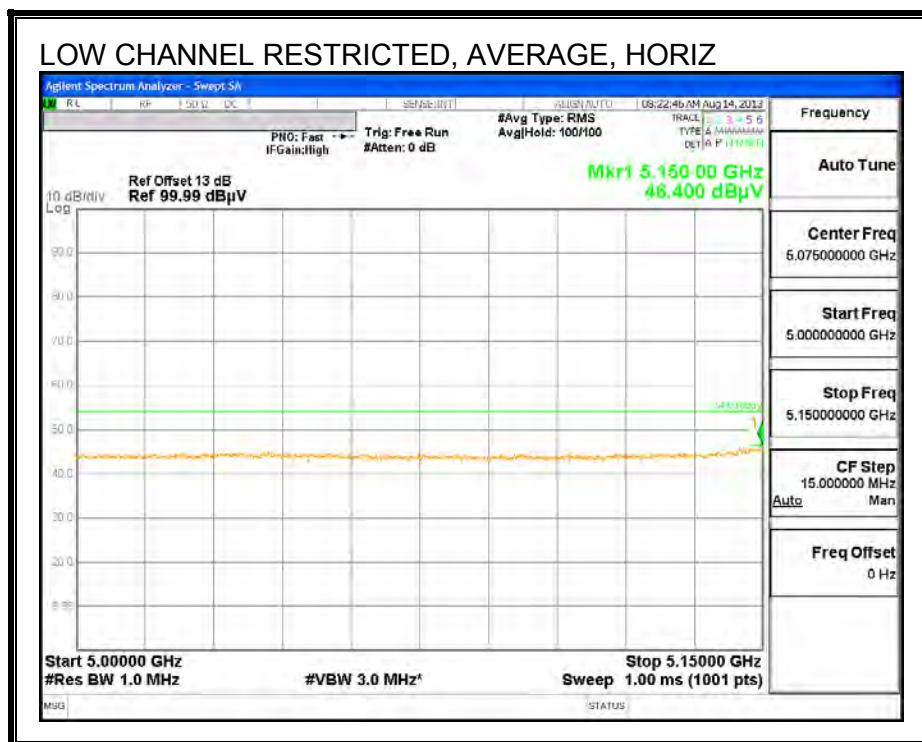
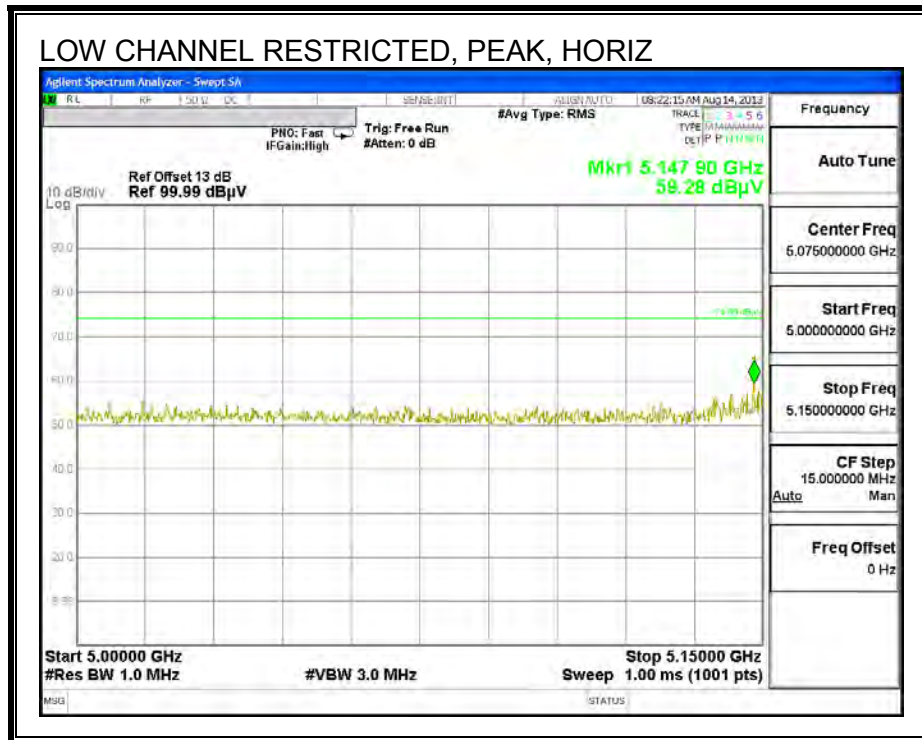
PK - Peak detector

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl /6GHz HPF	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.437	43.68	PK	32.3	-30.7	45.28	53.97	-8.69	74	-28.72	0-360	101	V
5	4.77	39.74	PK	34.1	-27.7	46.14	53.97	-7.83	74	-27.86	0-360	101	V
6	7.502	37.01	PK	35.8	-25.9	46.91	53.97	-7.06	74	-27.09	0-360	201	V

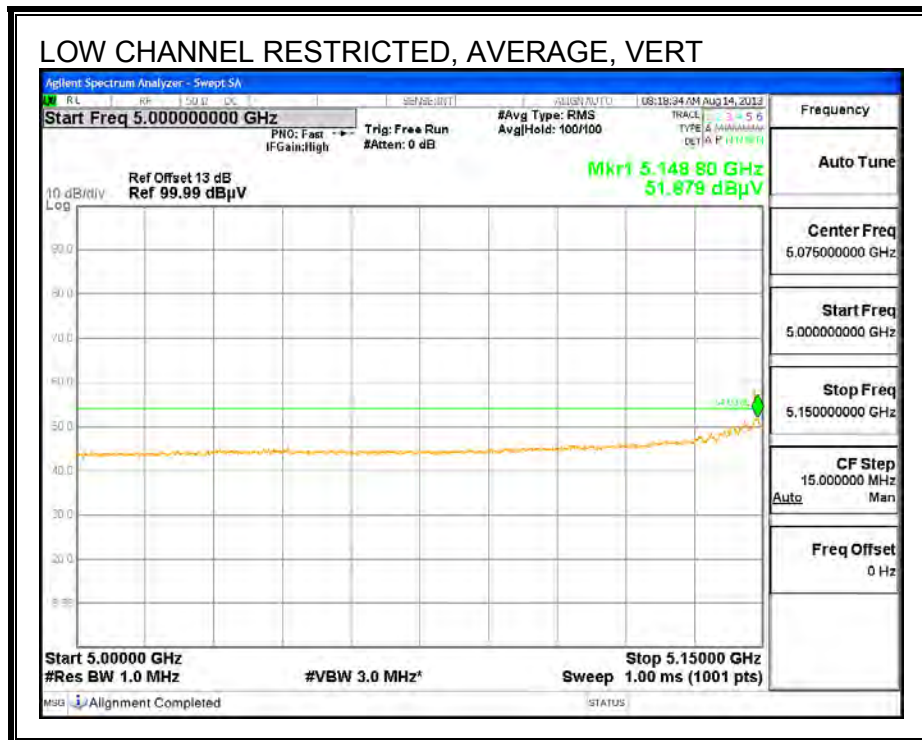
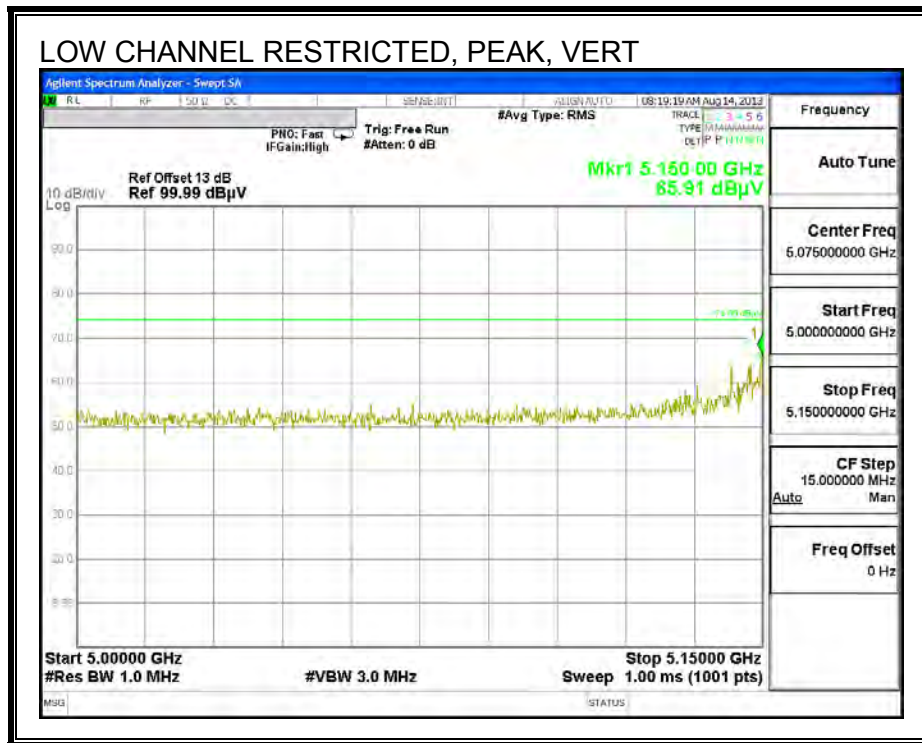
PK - Peak detector

### 9.2.4. TX ABOVE 1 GHz 802.11n HT40 2TX CDD MODE IN THE 5.2 GHz BAND

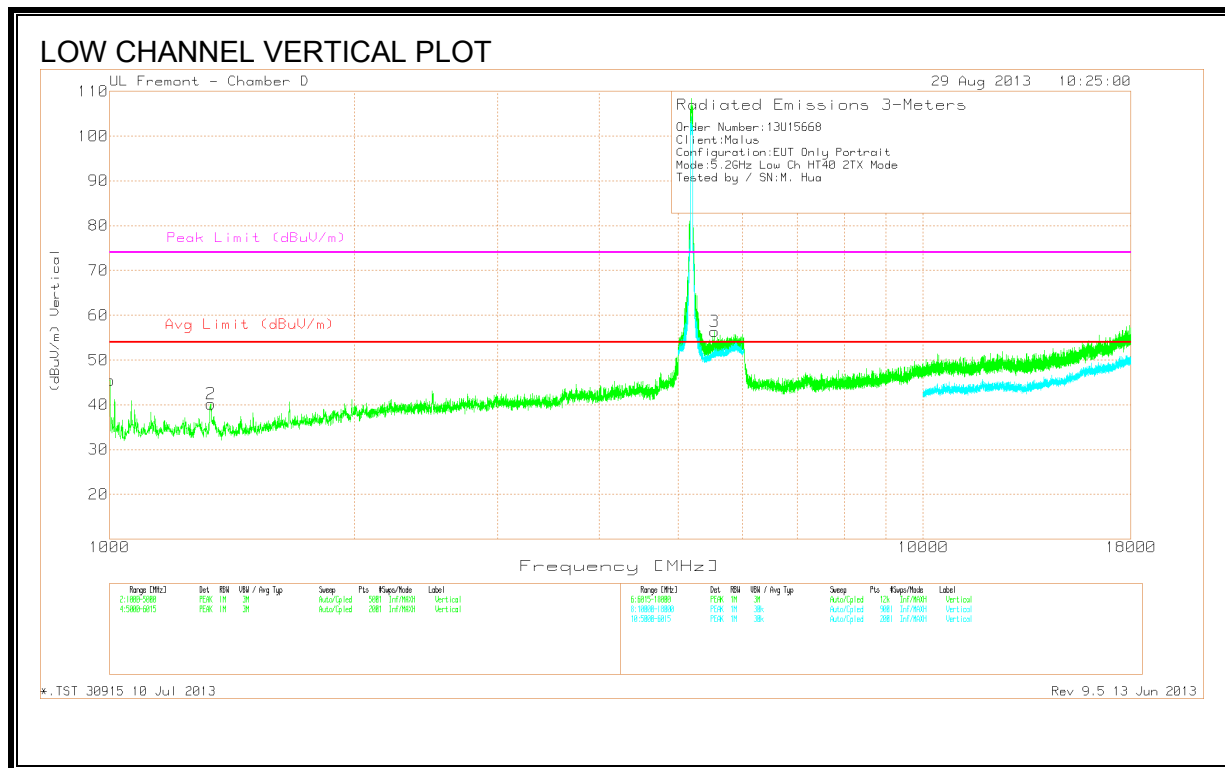
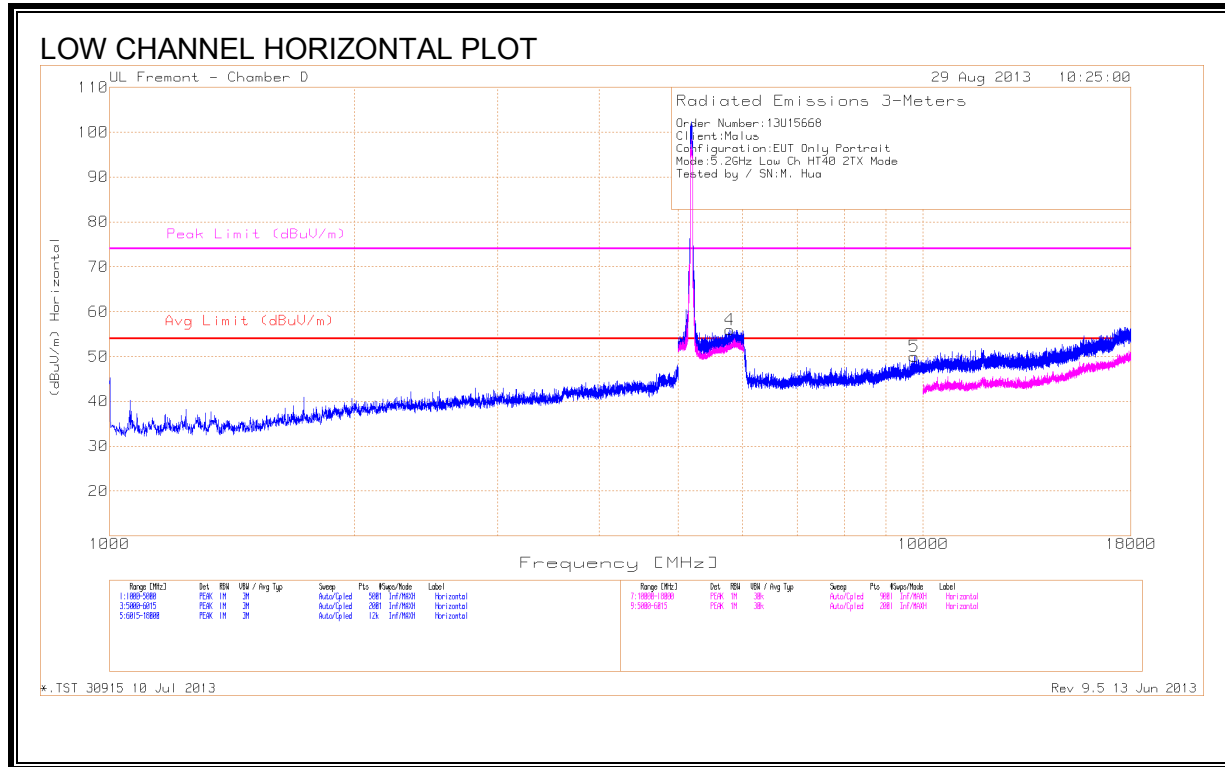
#### RESTRICTED BANDEDGE (LOW CHANNEL)







**HARMONICS AND SPURIOUS EMISSIONS**



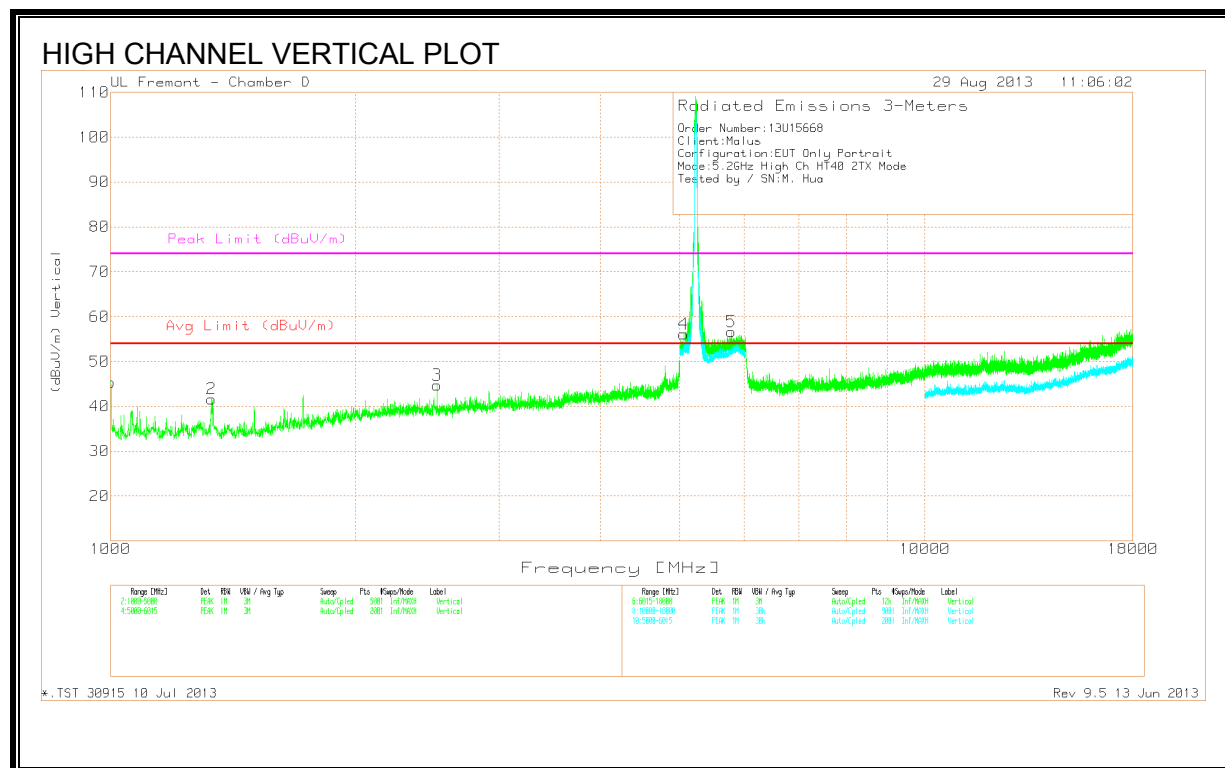
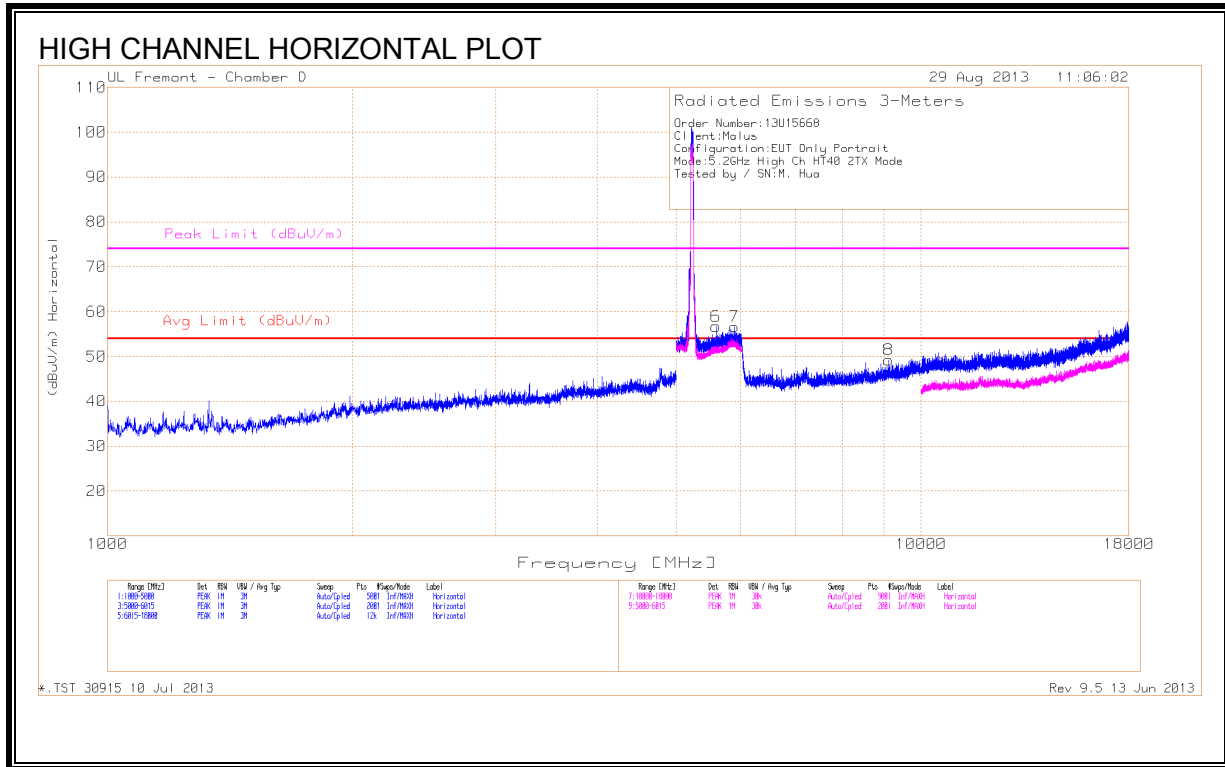
**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Fitr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1.001	50.4	PK	27.7	-32.6	45.5	53.97	-8.47	74	-28.5	200	V
2	1.333	43.32	PK	28.5	-31.6	40.22	53.97	-13.75	74	-33.78	200	V
3	5.54	39.77	PK	34.9	-18.3	56.37	-	-	74	-17.63	100	V
4	5.784	38.17	PK	35.4	-17.6	55.97	-	-	74	-18.03	100	H
5	9.753	35.02	PK	37.4	-22.4	50.02	53.97	-3.95	74	-23.98	100	H

PK - Peak detector

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Fitr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.535	28	MAv1	34.9	-18.3	44.6	53.97	-9.37	-	-	81	330	V
5.783	27.5	MAv1	35.4	-17.6	45.3	53.97	-8.67	-	-	191	116	H
9.755	24.17	MAv1	37.4	-22.4	39.17	53.97	-14.8	-	-	36	199	V

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average



**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Filtr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	50.27	PK	27.7	-32.6	45.37	53.97	-8.6	74	-28.63	201	V
2	1.33	44.76	PK	28.5	-31.6	41.66	53.97	-12.31	74	-32.34	201	V
3	2.518	42.82	PK	32.4	-30.5	44.72	53.97	-9.25	74	-29.28	201	V
4	5.056	40.01	PK	34.4	-18.3	56.11	-	-	74	-17.89	100	V
5	5.788	38.73	PK	35.4	-17.5	56.63	-	-	74	-17.37	201	V
6	5.595	39.81	PK	35	-18.1	56.71	-	-	74	-17.29	201	H
7	5.897	38.39	PK	35.5	-17.2	56.69	-	-	74	-17.31	201	H
8	9.121	35.16	PK	36.8	-22.7	49.26	53.97	-4.71	74	-24.74	201	H

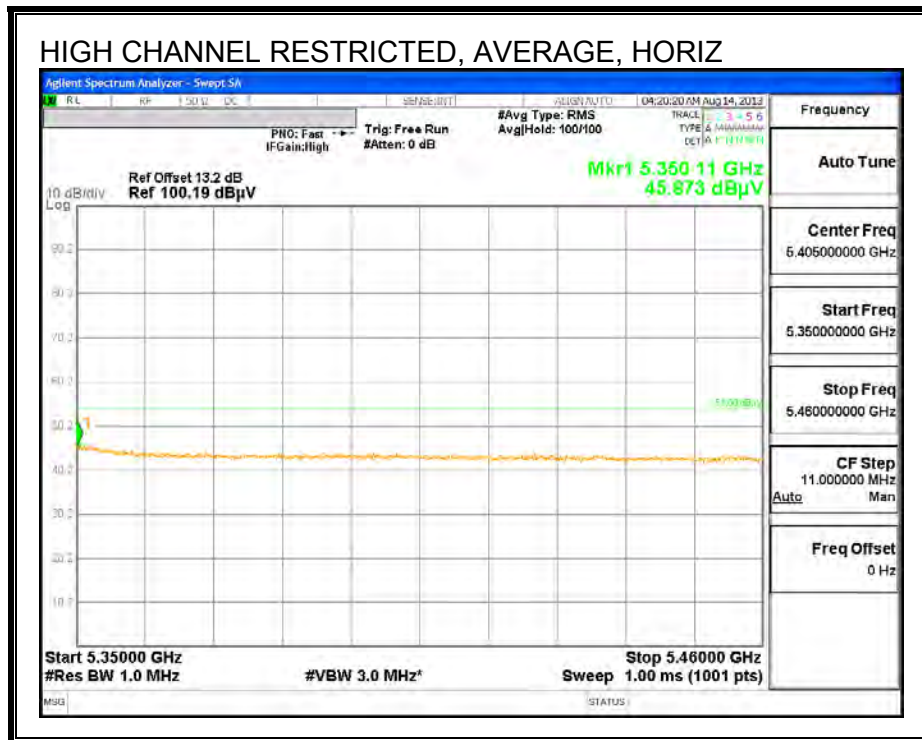
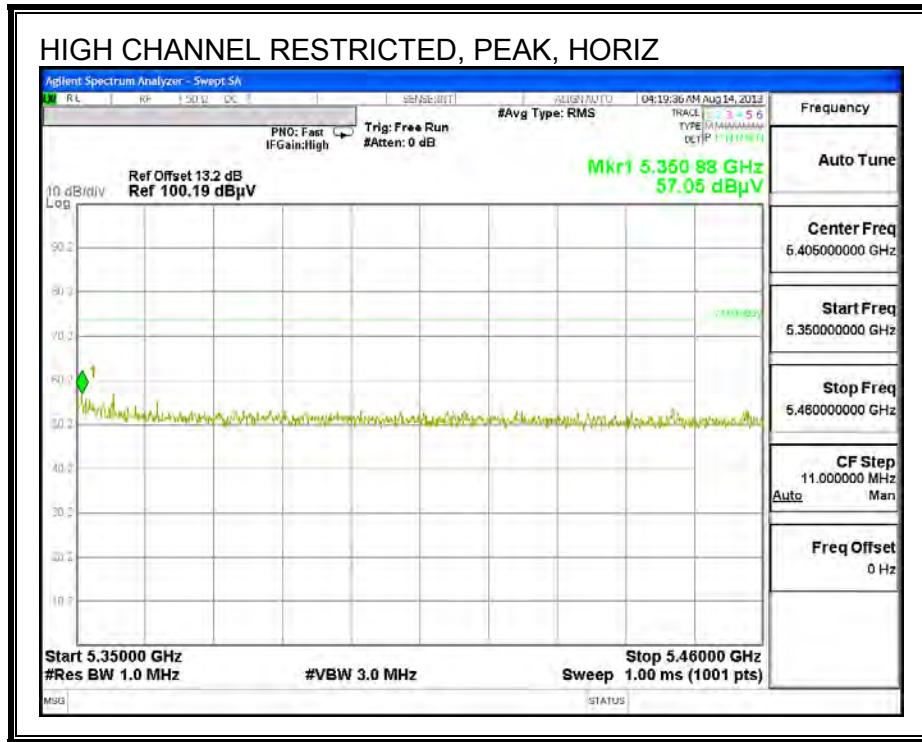
PK - Peak detector

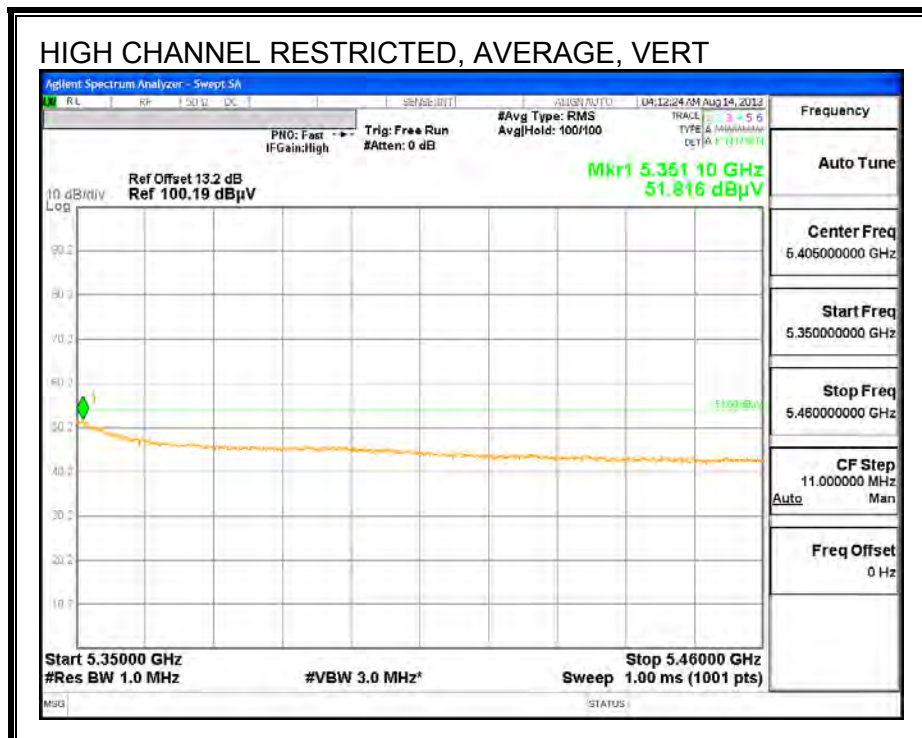
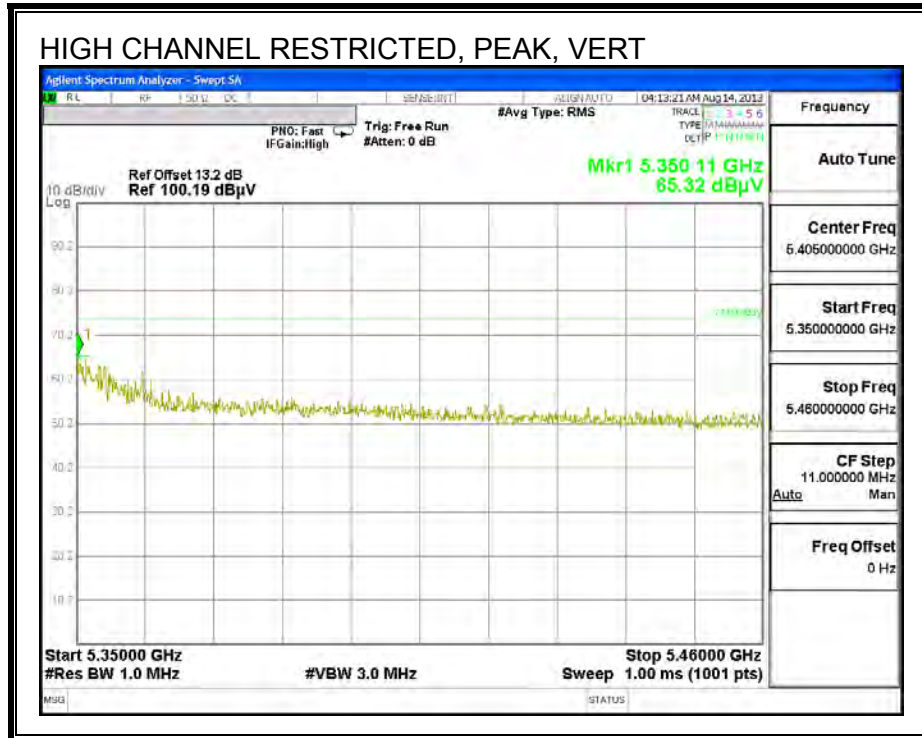
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Filtr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.057	29.5	MAv1	34.4	-18.3	45.6	53.97	-8.37	-	-	78	359	V
5.599	27.8	MAv1	35	-18.1	44.7	53.97	-9.27	-	-	287	387	H
5.788	27.5	MAv1	35.4	-17.5	45.4	53.97	-8.57	-	-	358	112	V
5.895	27.45	MAv1	35.5	-17.2	45.75	53.97	-8.22	-	-	115	140	H
9.12	24.07	MAv1	36.8	-22.8	38.07	53.97	-15.9	-	-	50	150	H

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average

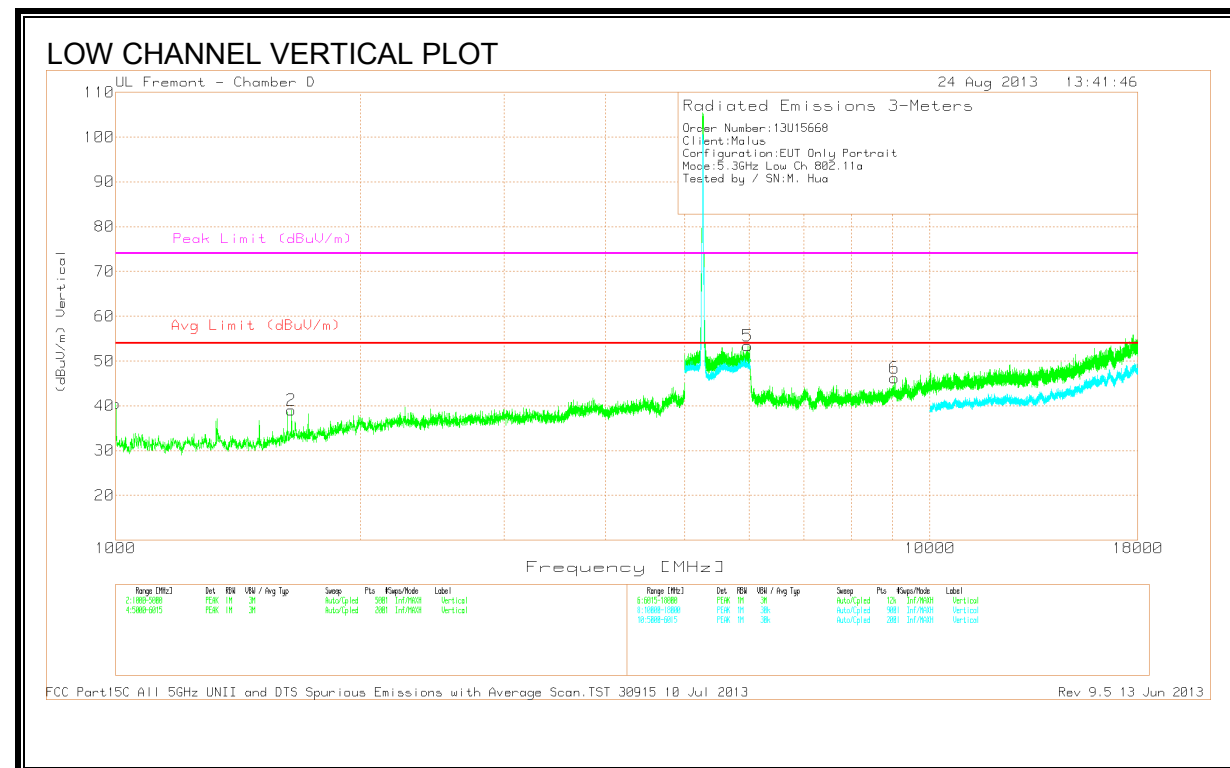
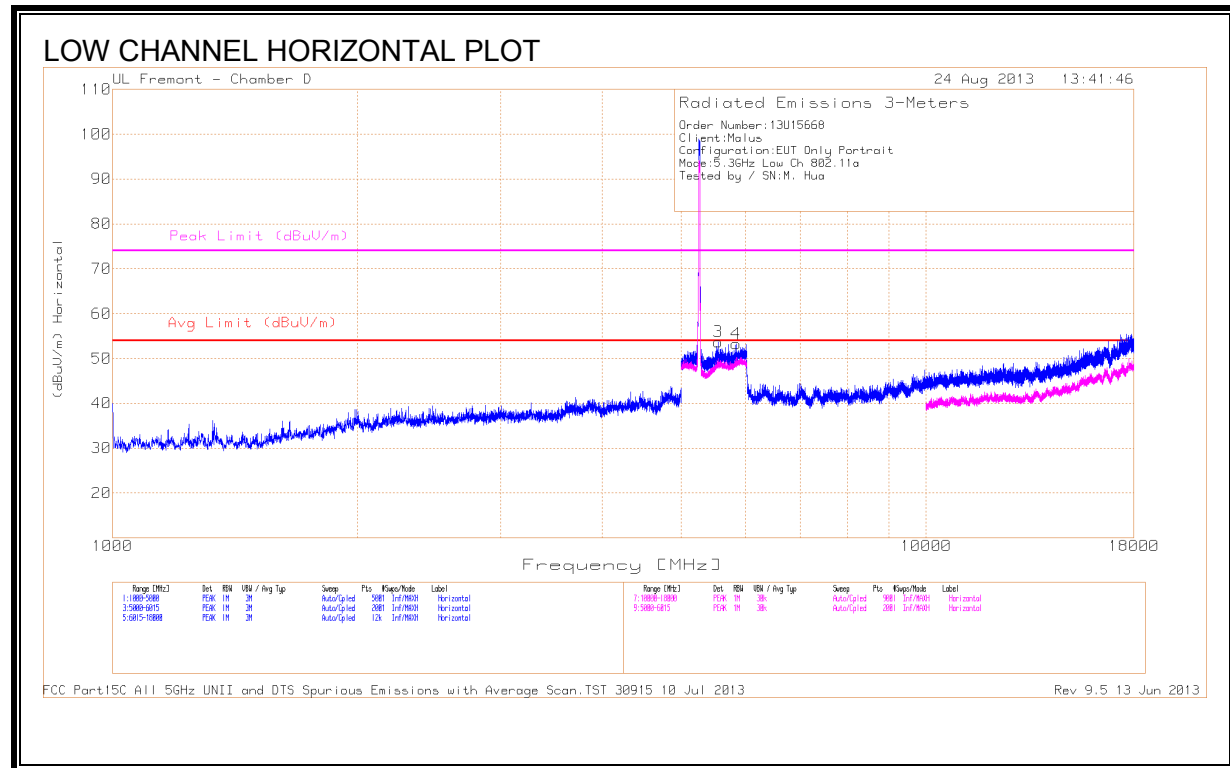
### 9.2.5. TX ABOVE 1 GHz 802.11a MODE IN THE 5.3 GHz BAND

#### RESTRICTED BANDEDGE (HIGH CHANNEL)





**HARMONICS AND SPURIOUS EMISSIONS**





**DATA**

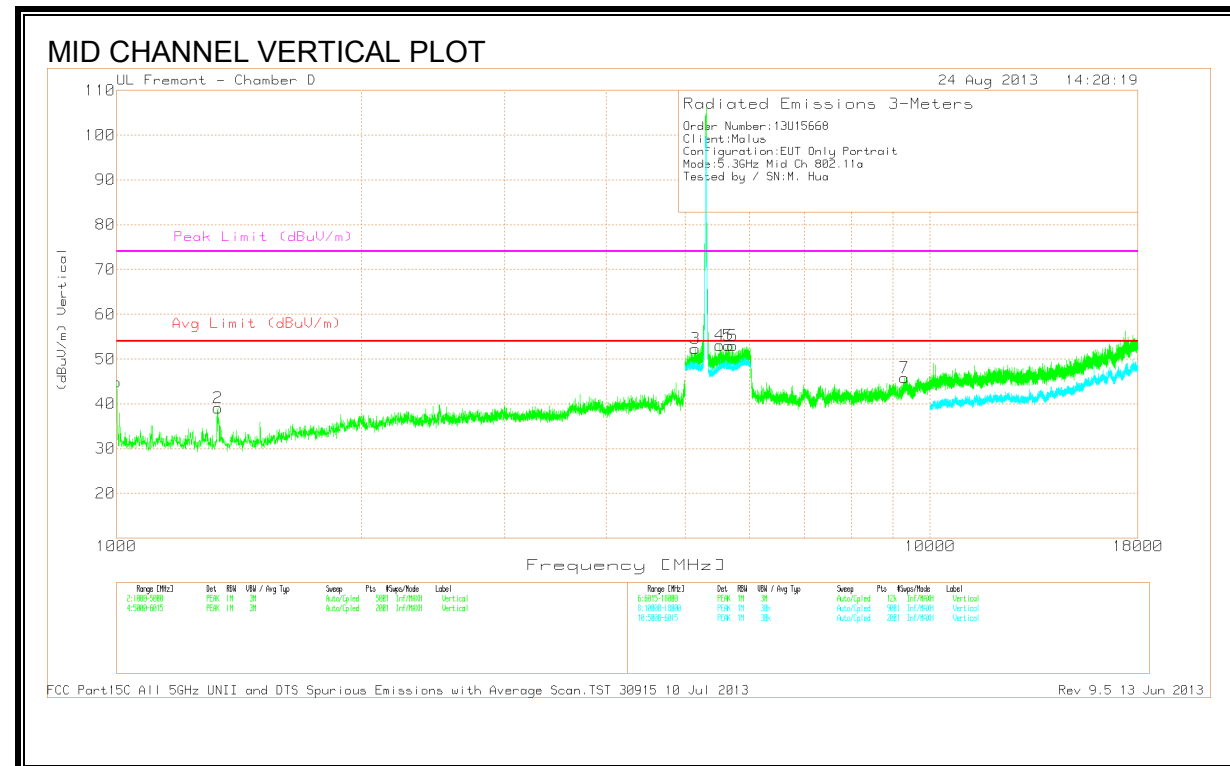
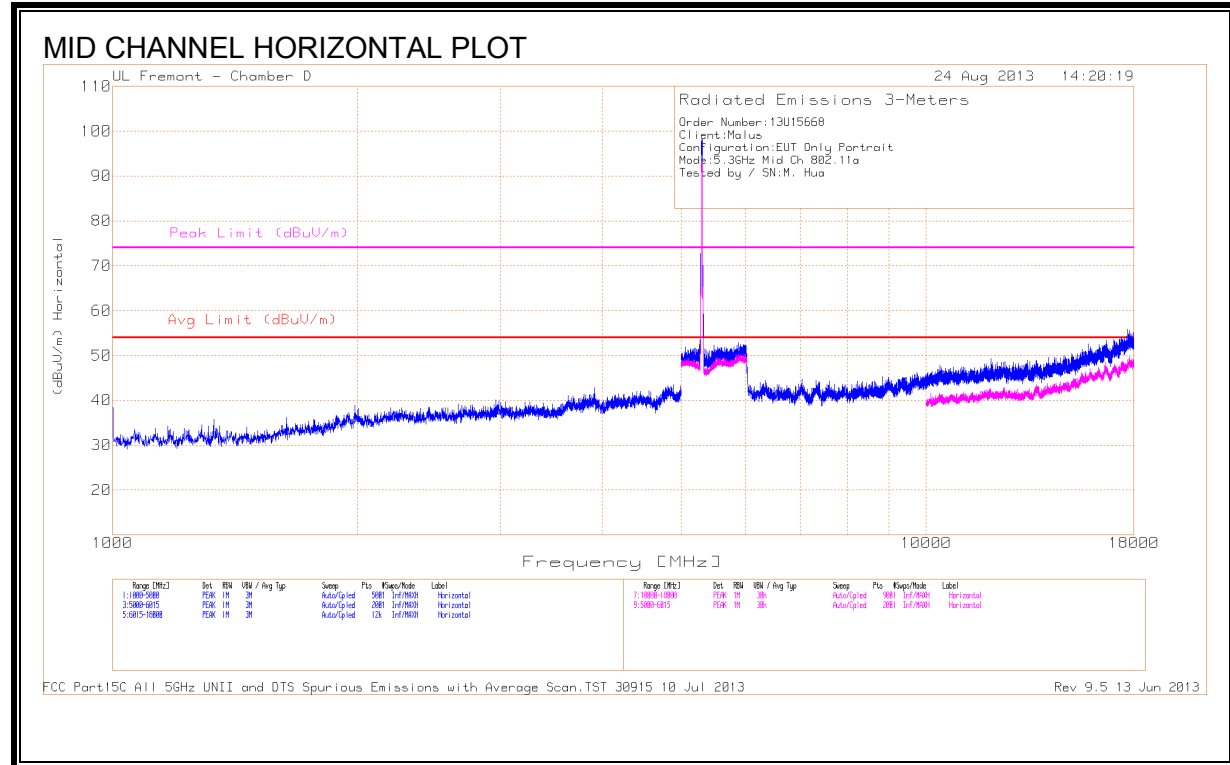
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	48.45	PK	27.7	-35.6	40.55	53.97	-13.42	74	-33.45	201	V
2	1.644	44.02	PK	29.2	-34.2	39.02	53.97	-14.95	74	-34.98	201	V
3	5.554	40.12	PK	34.9	-21.3	53.72	-	-	74	-20.28	100	H
4	5.84	39.29	PK	35.4	-21.4	53.29	-	-	74	-20.71	200	H
5	5.973	38.69	PK	35.7	-21	53.39	-	-	74	-20.61	100	V
6	9.043	36.62	PK	36.7	-27.1	46.22	53.97	-7.75	74	-27.78	201	V

PK - Peak detector

**Radiated Emissions**

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.556	28.4	MAv1	34.9	-21.3	42	53.97	-11.97	-	-	0	308	H
5.838	27.93	MAv1	35.4	-21.4	41.93	53.97	-12.04	-	-	188	135	H
5.978	28.11	MAv1	35.7	-20.9	42.91	53.97	-11.06	-	-	58	110	V

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average



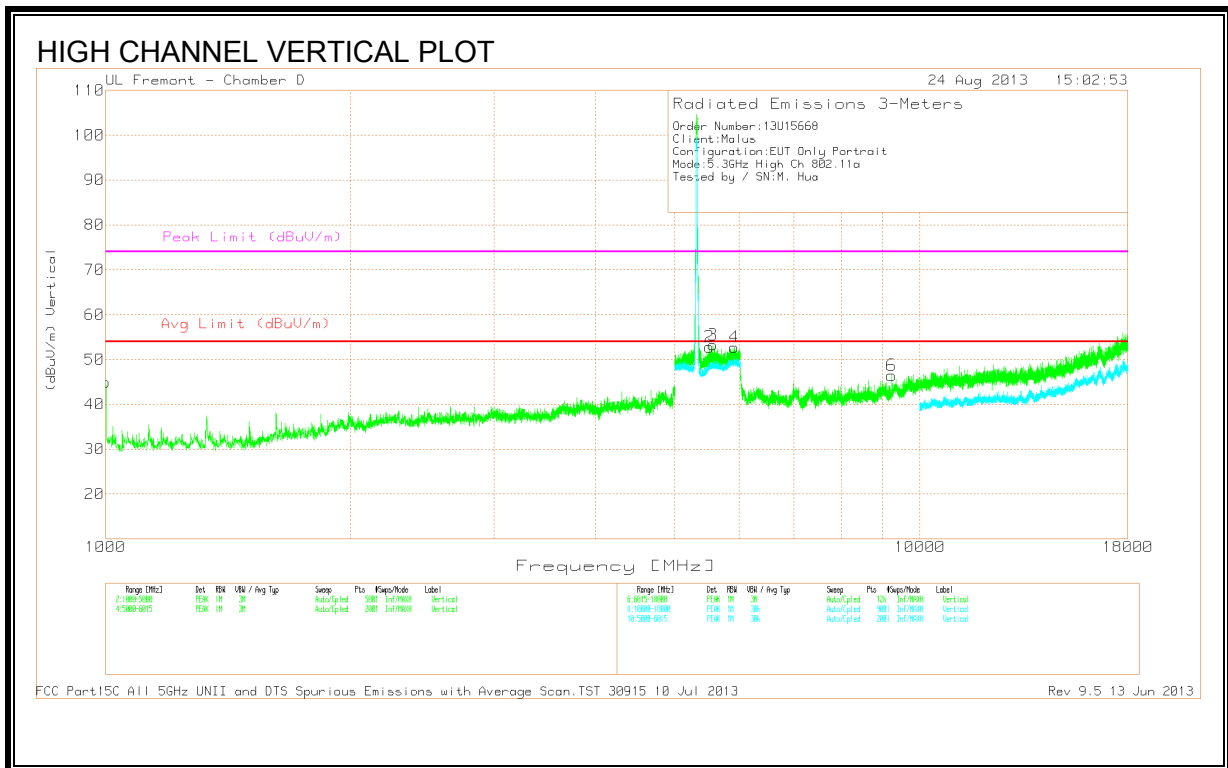
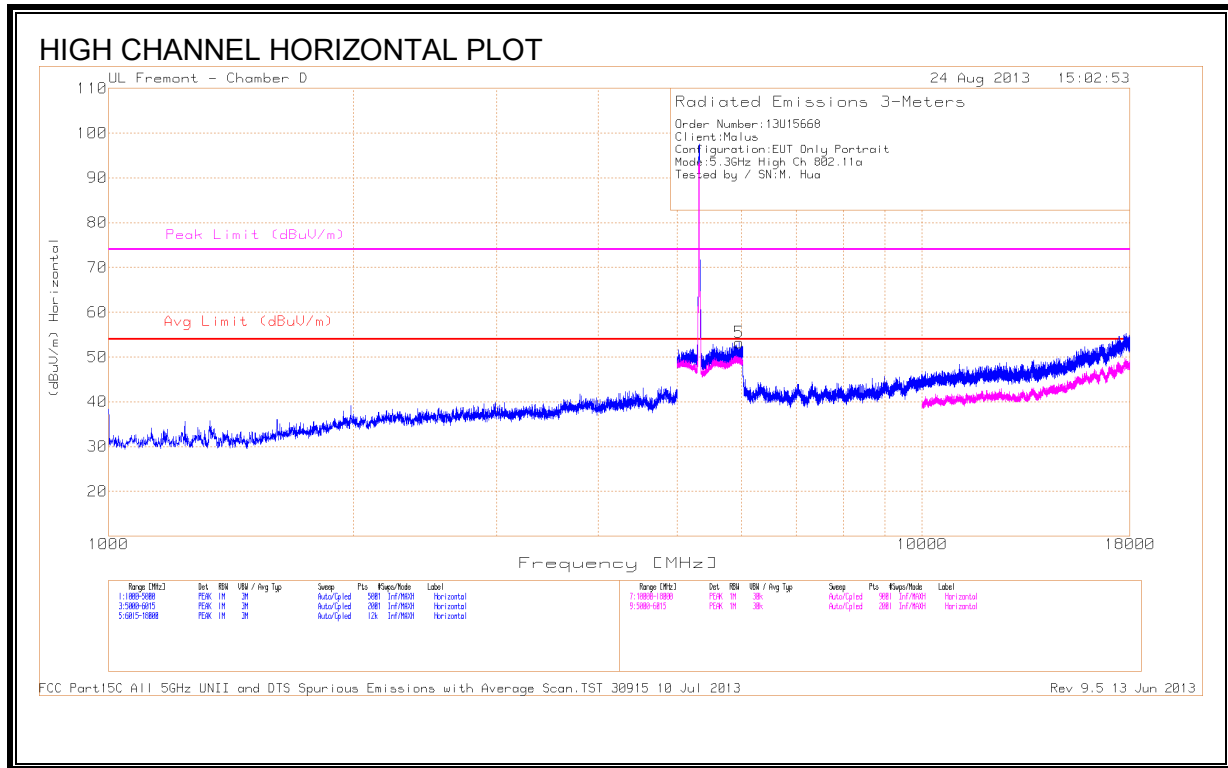
**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	52.77	PK	27.7	-35.6	44.87	53.97	-9.1	74	-29.13	200	V
2	1.332	45.3	PK	28.5	-34.7	39.1	53.97	-14.87	74	-34.9	200	V
3	5.145	39.45	PK	34.5	-21.6	52.35	-	-	74	-21.65	201	V
4	5.513	39.85	PK	34.8	-21.6	53.05	-	-	74	-20.95	201	V
5	5.651	39.41	PK	35.1	-21.5	53.01	-	-	74	-20.99	100	V
6	5.72	39.64	PK	35.2	-21.8	53.04	-	-	74	-20.96	100	V
7	9.3	34.89	PK	37	-26.1	45.79	53.97	-8.18	74	-28.21	100	V

PK - Peak detector

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.144	28.65	MAv1	34.5	-21.6	41.55	53.97	-12.42	-	-	359	396	V
5.512	28.28	MAv1	34.8	-21.6	41.48	53.97	-12.49	-	-	232	289	V
5.647	28.11	MAv1	35.1	-21.5	41.71	53.97	-12.26	-	-	30	124	V
5.717	27.97	MAv1	35.2	-21.7	41.47	53.97	-12.5	-	-	241	244	V

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average



**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	52.86	PK	27.7	-35.6	44.96	53.97	-9.01	74	-29.04	201	V
5	5.957	38.53	PK	35.6	-20.9	53.23	-	-	74	-20.77	201	H
2	5.512	39.61	PK	34.8	-21.6	52.81	-	-	74	-21.19	100	V
3	5.571	39.75	PK	34.9	-21.4	53.25	-	-	74	-20.75	201	V
4	5.915	38.05	PK	35.6	-20.9	52.75	-	-	74	-21.25	100	V
6	9.231	36.23	PK	36.9	-26.7	46.43	53.97	-7.54	74	-27.57	200	V

PK - Peak detector

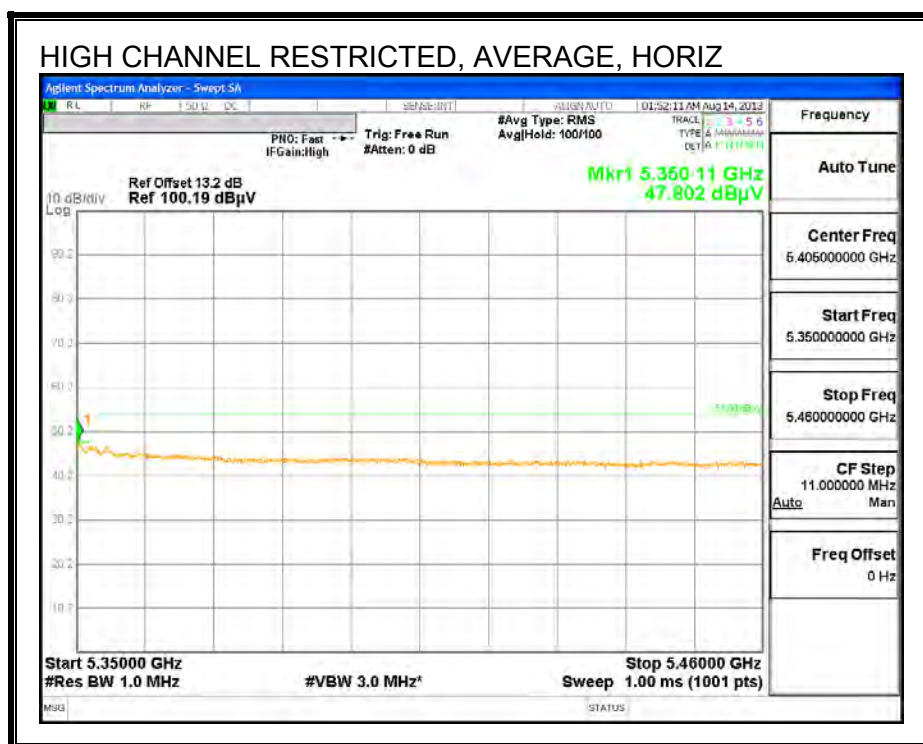
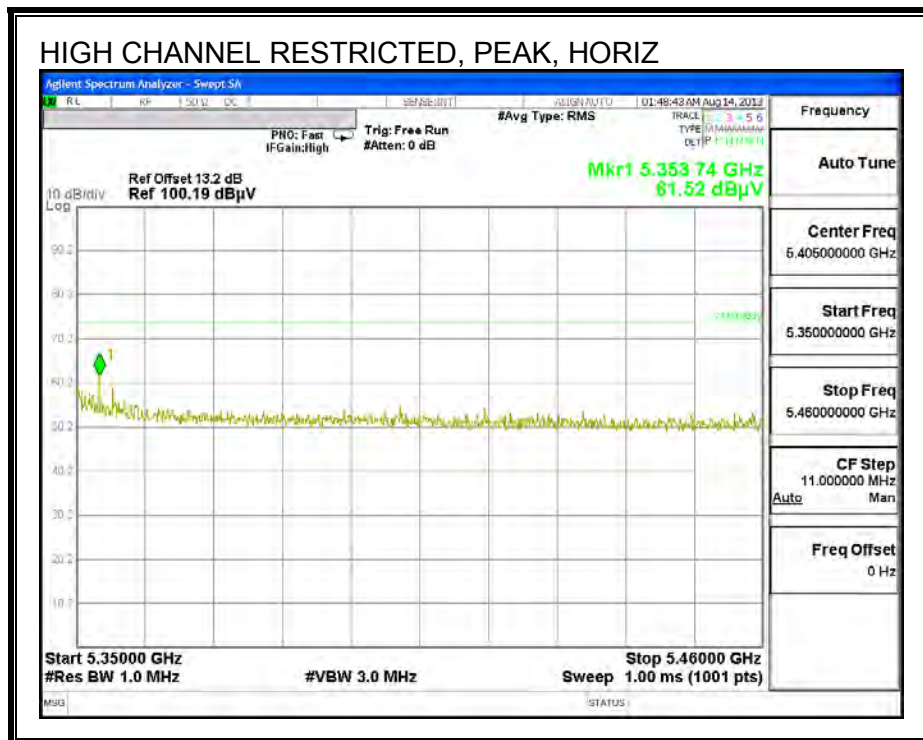
**Radiated Emissions**

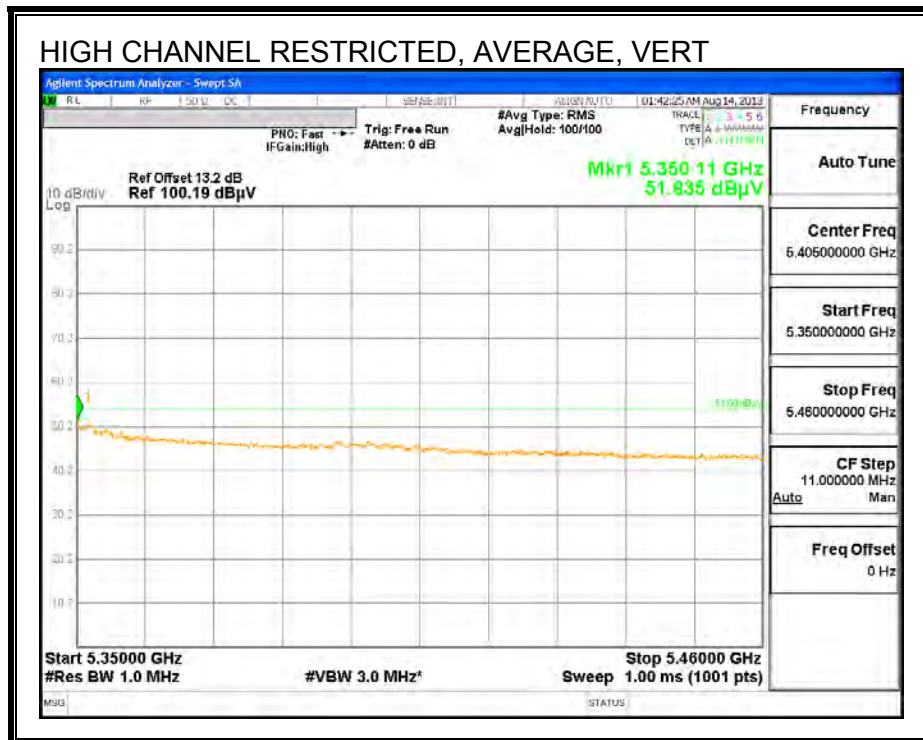
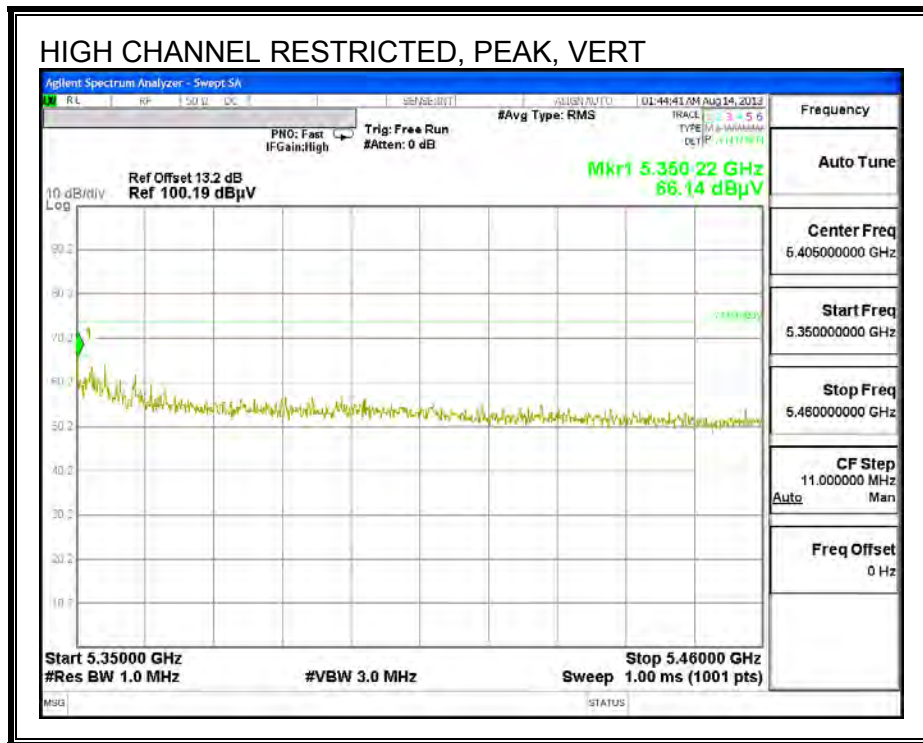
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.956	28.04	MAv1	35.6	-20.9	42.74	53.97	-11.23	-	-	0	204	H
5.511	29.12	MAv1	34.8	-21.6	42.32	53.97	-11.65	-	-	94	300	V
5.575	28.48	MAv1	34.9	-21.4	41.98	53.97	-11.99	-	-	174	335	V
5.92	28.05	MAv1	35.6	-20.9	42.75	53.97	-11.22	-	-	60	305	V

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average

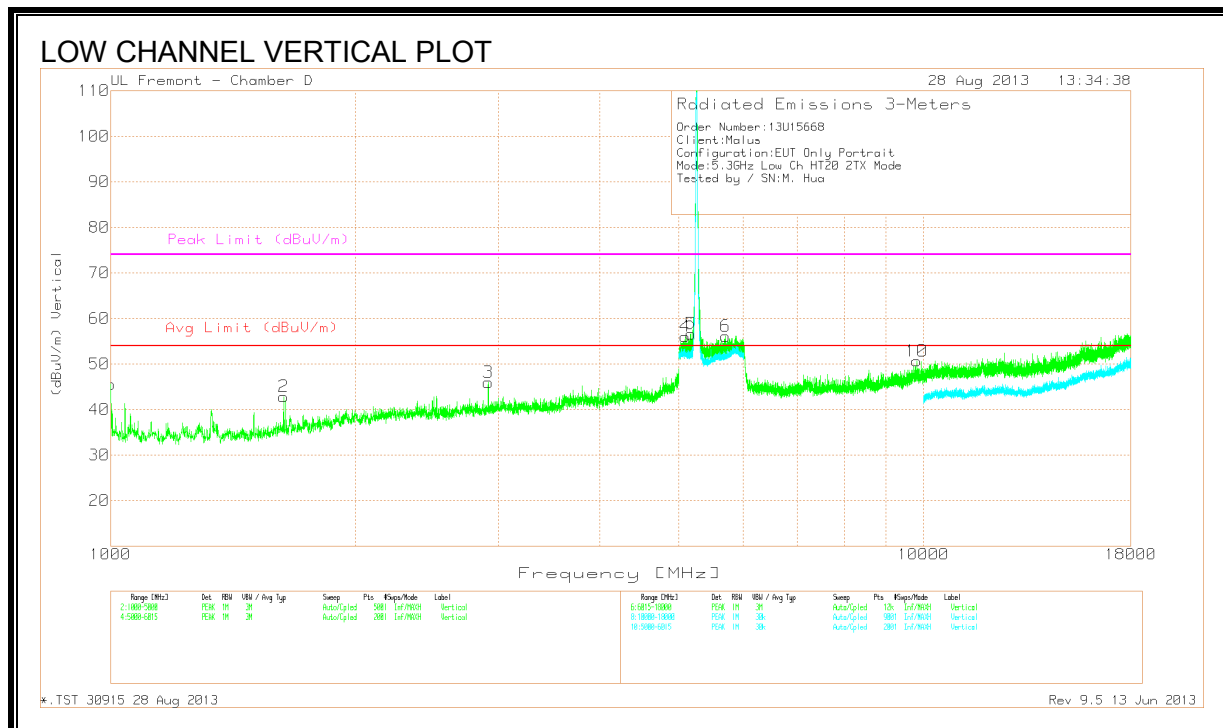
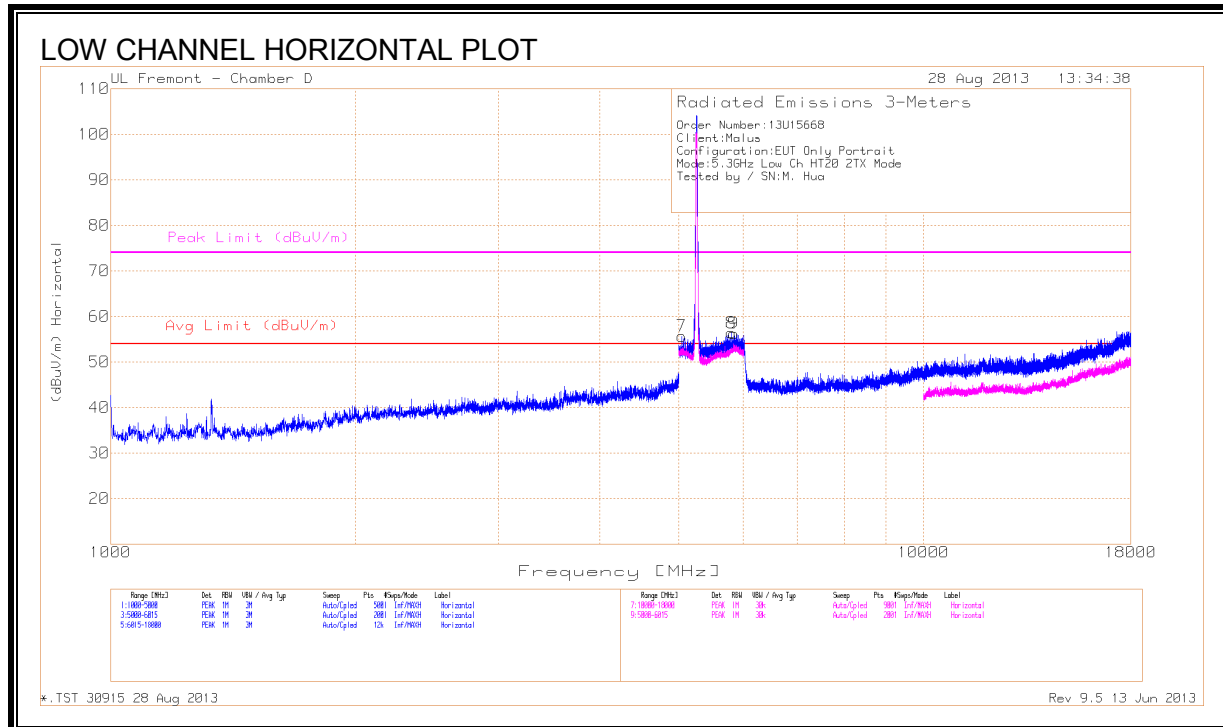
### 9.2.6. TX ABOVE 1 GHz 802.11n HT20 2TX CDD MODE IN THE 5.3 GHz BAND

#### RESTRICTED BANDEDGE (HIGH CHANNEL)





**HARMONICS AND SPURIOUS EMISSIONS**





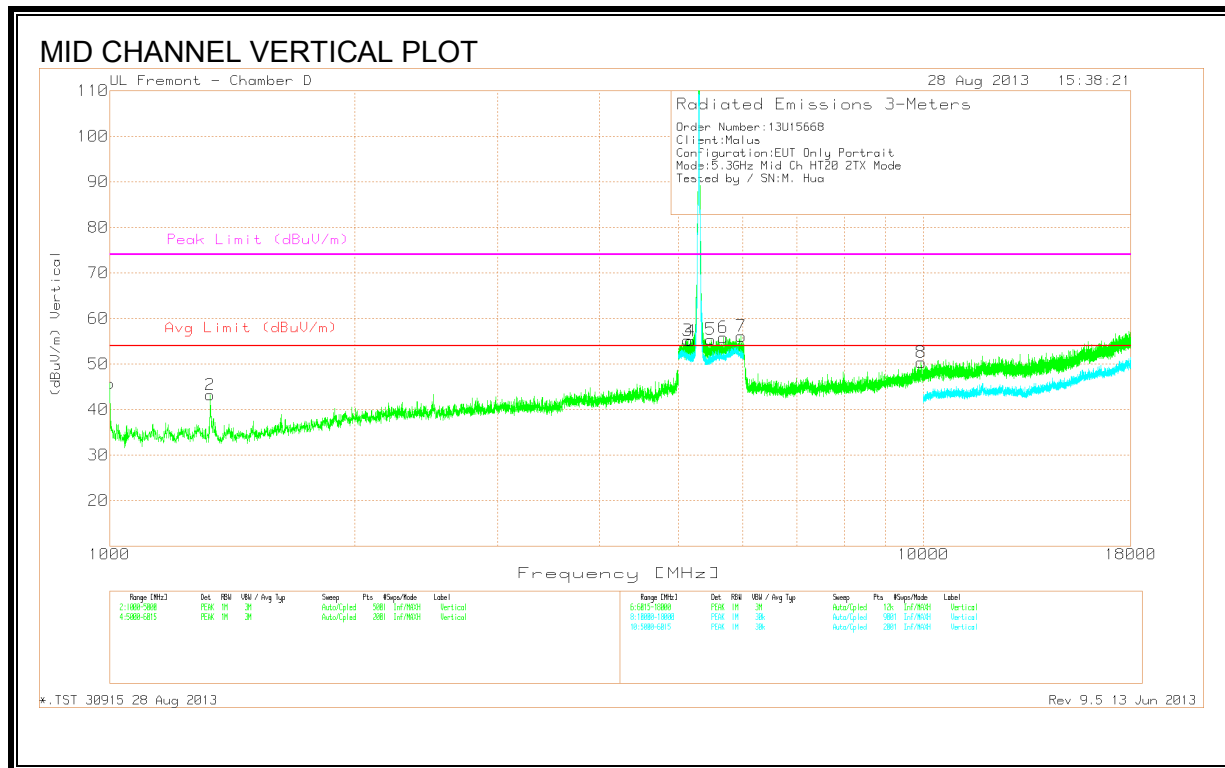
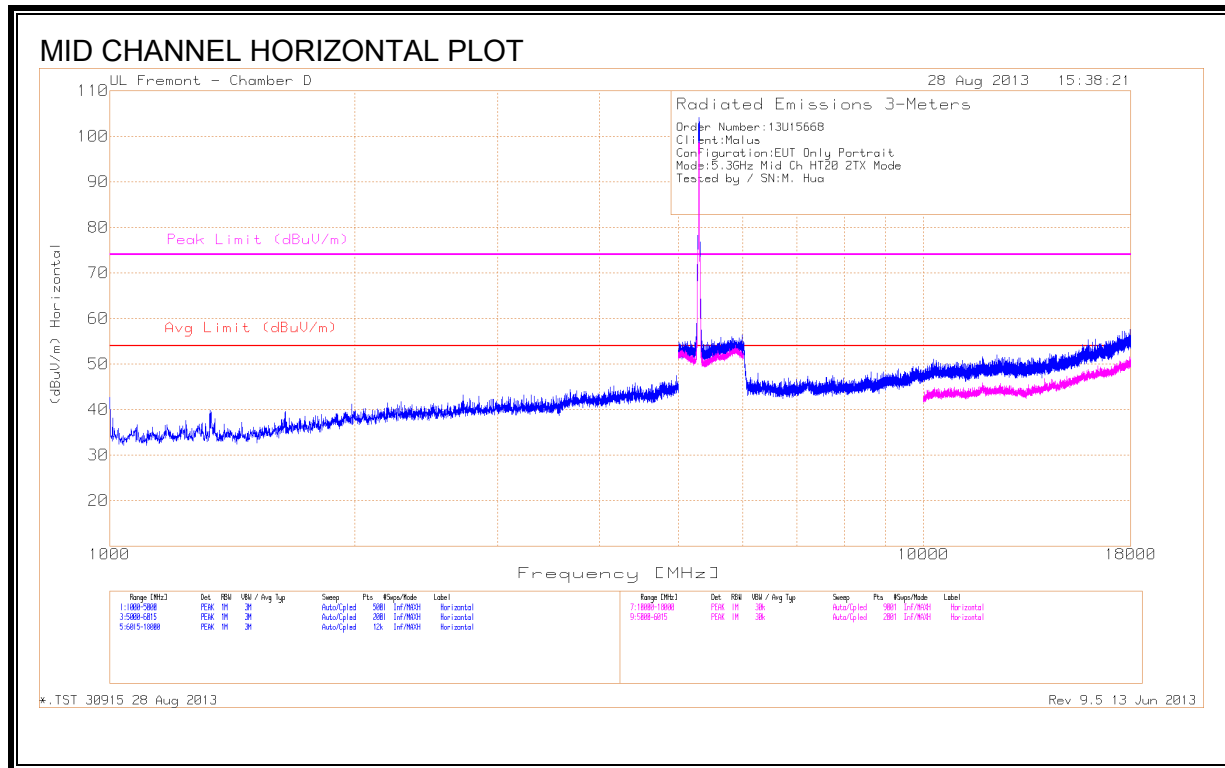
**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Filtr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	50.45	PK	27.7	-32.6	45.55	53.97	-8.42	74	-28.45	201	V
2	1.633	45.02	PK	29.2	-31.4	42.82	53.97	-11.15	74	-31.18	201	V
3	2.916	43.34	PK	33	-30.4	45.94	53.97	-8.03	74	-28.06	201	V
4	5.092	39.79	PK	34.4	-18.2	55.99	-	-	74	-18.01	201	V
5	5.176	40.5	PK	34.6	-18.5	56.6	-	-	74	-17.4	100	V
6	5.712	39.08	PK	35.2	-18.2	56.08	-	-	74	-17.92	201	V
7	5.045	39.54	PK	34.4	-18.3	55.64	-	-	74	-18.36	100	H
8	5.806	38.47	PK	35.4	-17.5	56.37	-	-	74	-17.63	201	H
9	5.844	37.96	PK	35.5	-17.2	56.26	-	-	74	-17.74	100	H
10	9.816	35.34	PK	37.5	-22.2	50.64	53.97	-3.33	74	-23.36	100	V

PK - Peak detector

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.84	27.37	MAv1	35.4	-17.3	45.47	53.97	-8.5	-	-	214	393	H
5.041	28.66	MAv1	34.4	-18.3	44.76	53.97	-9.21	-	-	78	342	H
5.807	27.59	MAv1	35.4	-17.5	45.49	53.97	-8.48	-	-	196	388	H
5.846	27.57	MAv1	35.5	-17.2	45.87	53.97	-8.1	-	-	14	276	H
5.092	28.78	MAv1	34.4	-18.2	44.98	53.97	-8.99	-	-	179	375	V
5.181	31.77	MAv1	34.6	-18.5	47.87	53.97	-6.1	-	-	133	307	V
5.711	28.08	MAv1	35.2	-18.2	45.08	53.97	-8.89	-	-	275	292	V
9.818	24.04	MAv1	37.5	-22.2	39.34	53.97	-14.63	-	-	151	213	V

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average



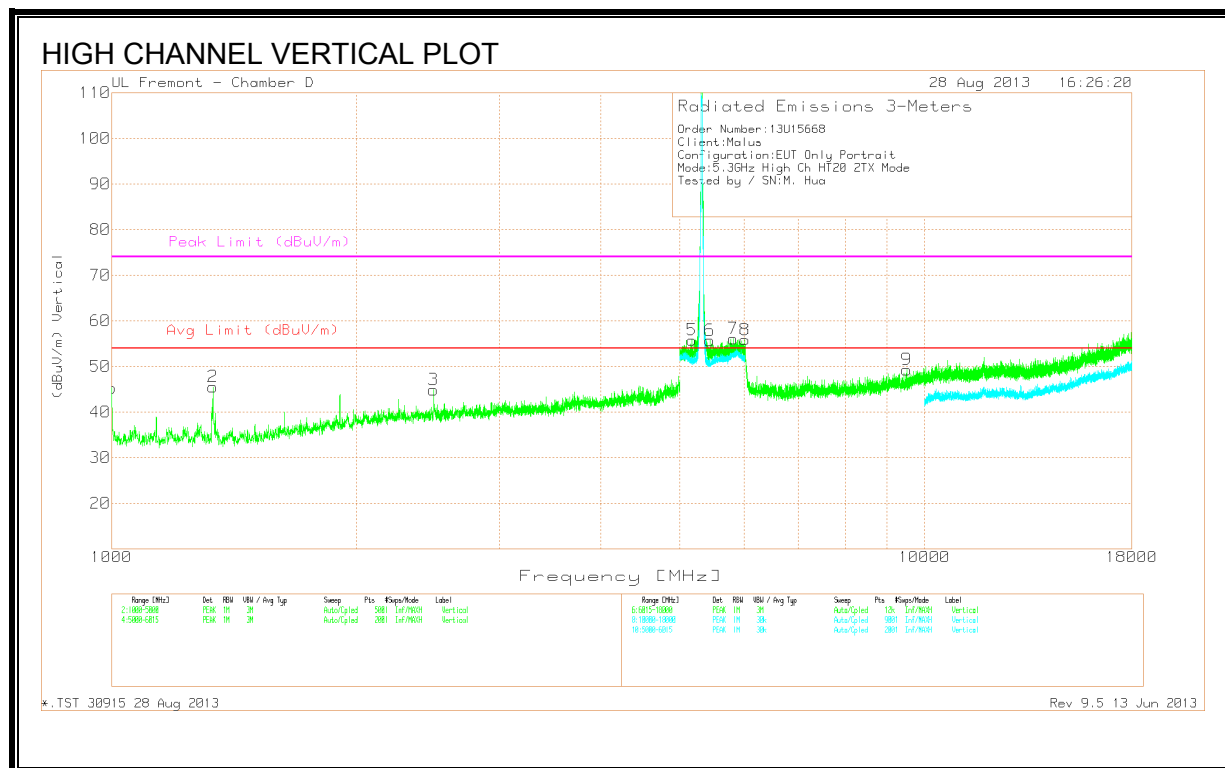
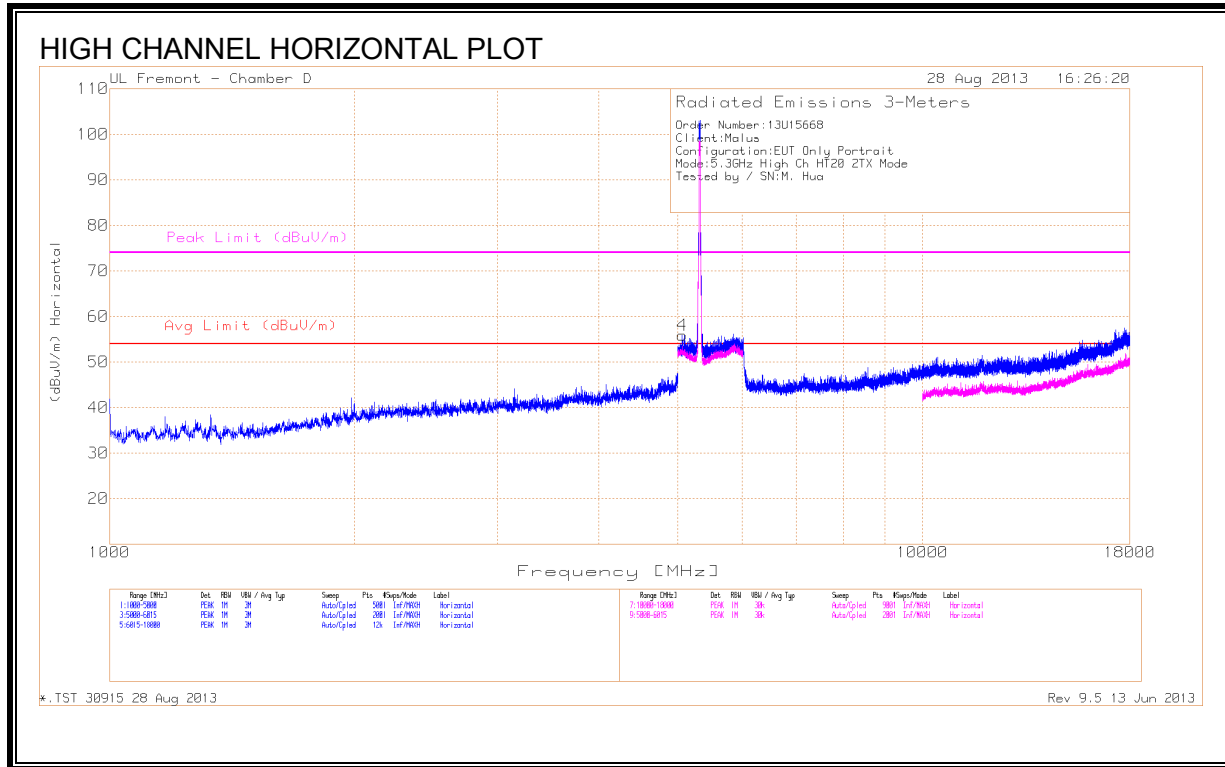
**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Filtr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	50.66	PK	27.7	-32.6	45.76	53.97	-8.21	74	-28.24	100	V
2	1.329	46.29	PK	28.5	-31.6	43.19	53.97	-10.78	74	-30.81	201	V
3	5.139	39.18	PK	34.5	-18.5	55.18	-	-	74	-18.82	100	V
4	5.183	38.95	PK	34.6	-18.5	55.05	-	-	74	-18.95	100	V
5	5.483	39.05	PK	34.8	-18.5	55.35	-	-	74	-18.65	201	V
6	5.68	38.81	PK	35.2	-18.2	55.81	-	-	74	-18.19	100	V
7	5.975	38.16	PK	35.7	-17.8	56.06	-	-	74	-17.94	201	V
8	9.945	34.42	PK	37.8	-21.9	50.32	-	-	74	-23.68	100	V

PK - Peak detector

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.142	29.52	MAv1	34.5	-18.5	45.52	53.97	-8.45	-	-	145	170	V
5.187	29.97	MAv1	34.6	-18.5	46.07	53.97	-7.9	-	-	144	330	V
5.482	28.26	MAv1	34.8	-18.5	44.56	53.97	-9.41	-	-	286	109	V
5.677	27.77	MAv1	35.2	-18.1	44.87	53.97	-9.1	-	-	77	229	V
5.978	27.62	MAv1	35.7	-17.8	45.52	53.97	-8.45	-	-	257	244	V
9.941	23.91	MAv1	37.8	-22	39.71	53.97	-14.26	-	-	103	171	V

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average



**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Filtr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	50.19	PK	27.7	-32.6	45.29	53.97	-8.68	74	-28.71	201	V
2	1.333	48.6	PK	28.5	-31.6	45.5	53.97	-8.47	74	-28.5	201	V
3	2.49	42.77	PK	32.4	-30.3	44.87	53.97	-9.1	74	-29.13	201	V
4	5.065	39.64	PK	34.4	-18.2	55.84	-	-	74	-18.16	100	H
5	5.177	39.66	PK	34.6	-18.5	55.76	-	-	74	-18.24	201	V
6	5.446	39.5	PK	34.8	-18.6	55.7	-	-	74	-18.3	100	V
7	5.821	37.98	PK	35.4	-17.3	56.08	-	-	74	-17.92	100	V
8	6.015	34.54	PK	35.7	-14.4	55.84	-	-	74	-18.16	201	V
9	9.514	35.18	PK	37.2	-23.1	49.28	-	-	74	-24.72	100	V

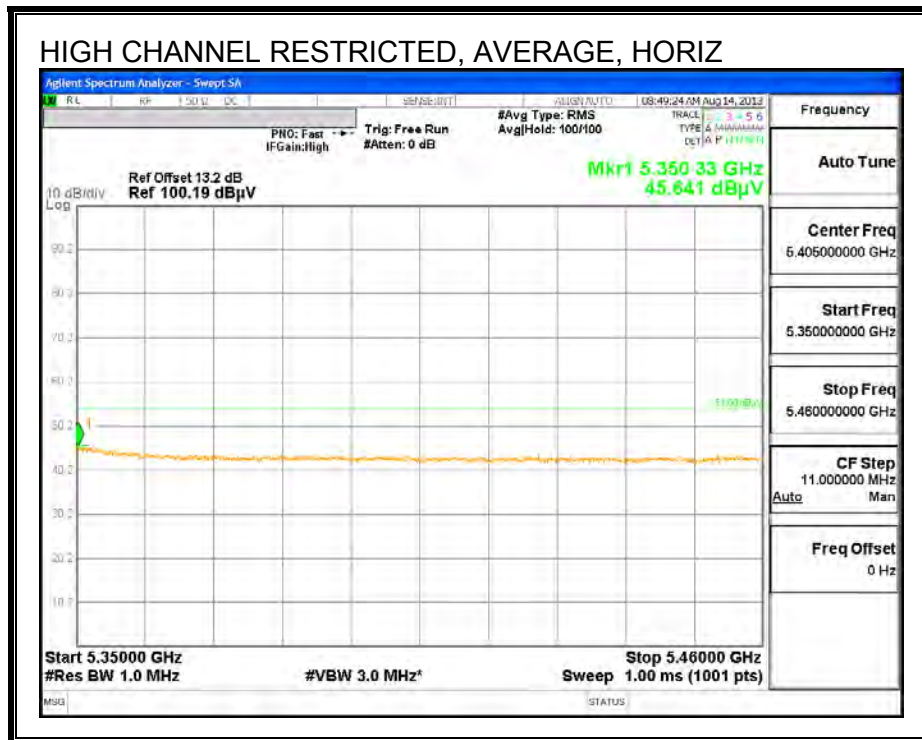
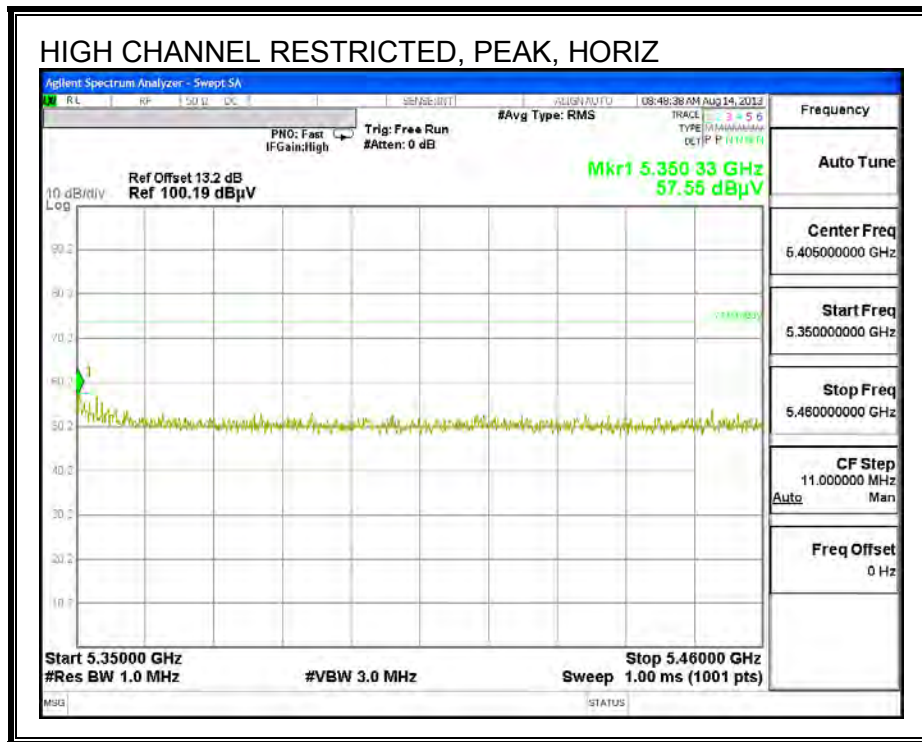
PK - Peak detector

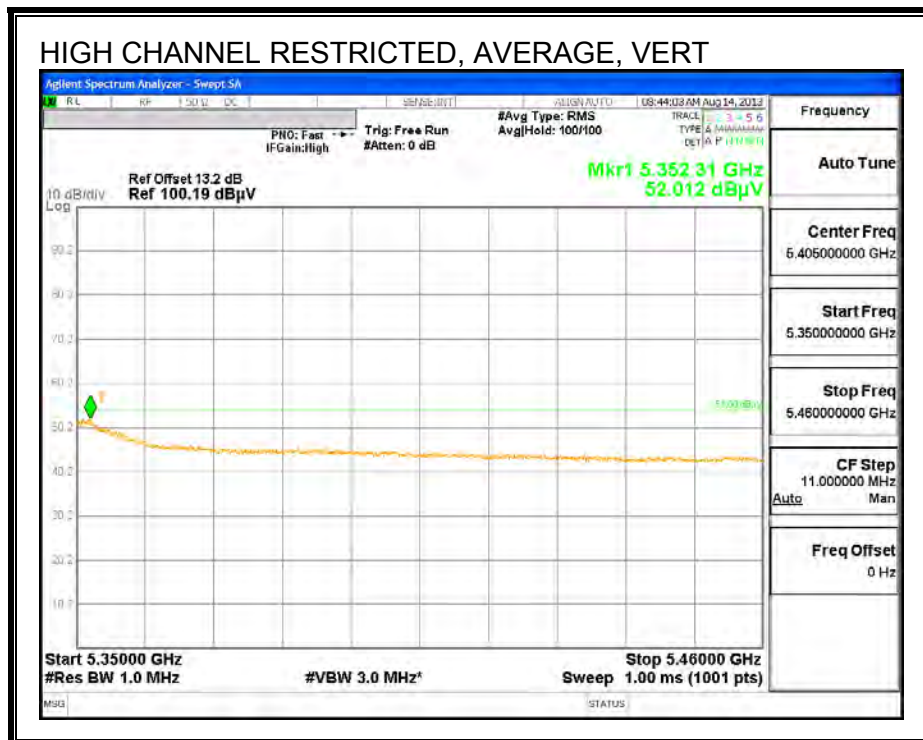
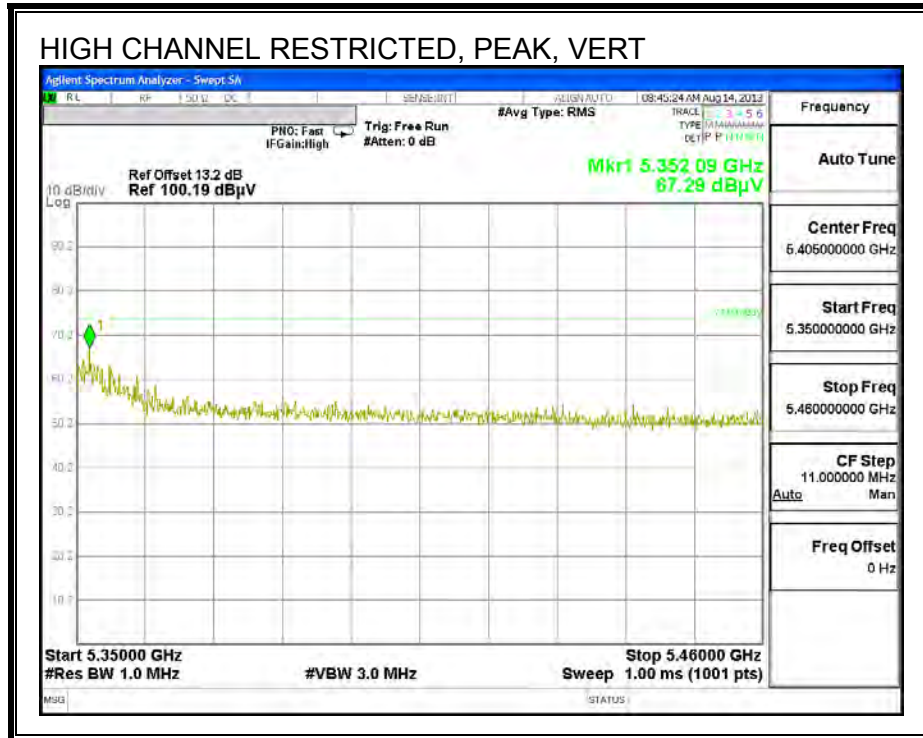
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.063	28.35	MAv1	34.4	-18.3	44.45	53.97	-9.52	-	-	170	195	H
6.014	27.66	MAv1	35.7	-17.8	45.56	53.97	-8.41	-	-	141	311	V
5.174	30.34	MAv1	34.6	-18.5	46.44	53.97	-7.53	-	-	105	210	V
5.445	28.18	MAv1	34.8	-18.6	44.38	53.97	-9.59	-	-	256	138	V
5.823	27.45	MAv1	35.4	-17.3	45.55	53.97	-8.42	-	-	202	274	V
9.519	24.14	MAv1	37.2	-23.2	38.14	53.97	-15.83	-	-	347	351	V

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average

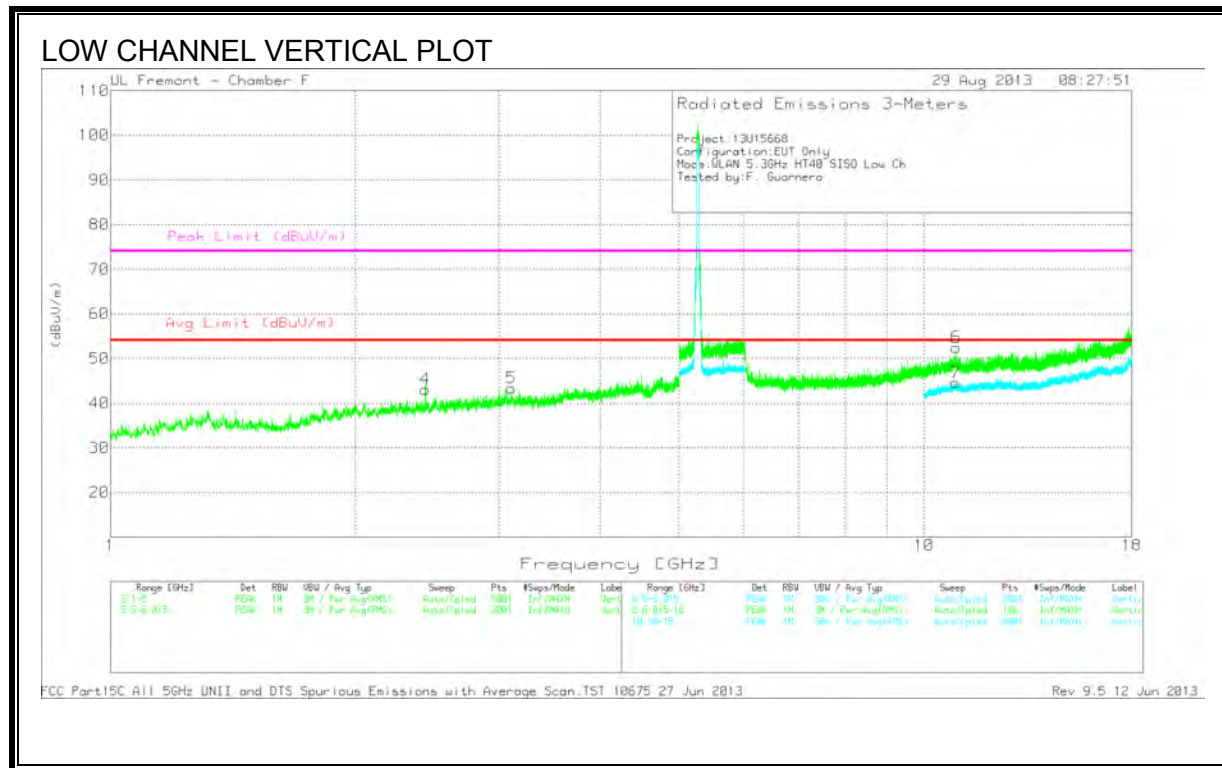
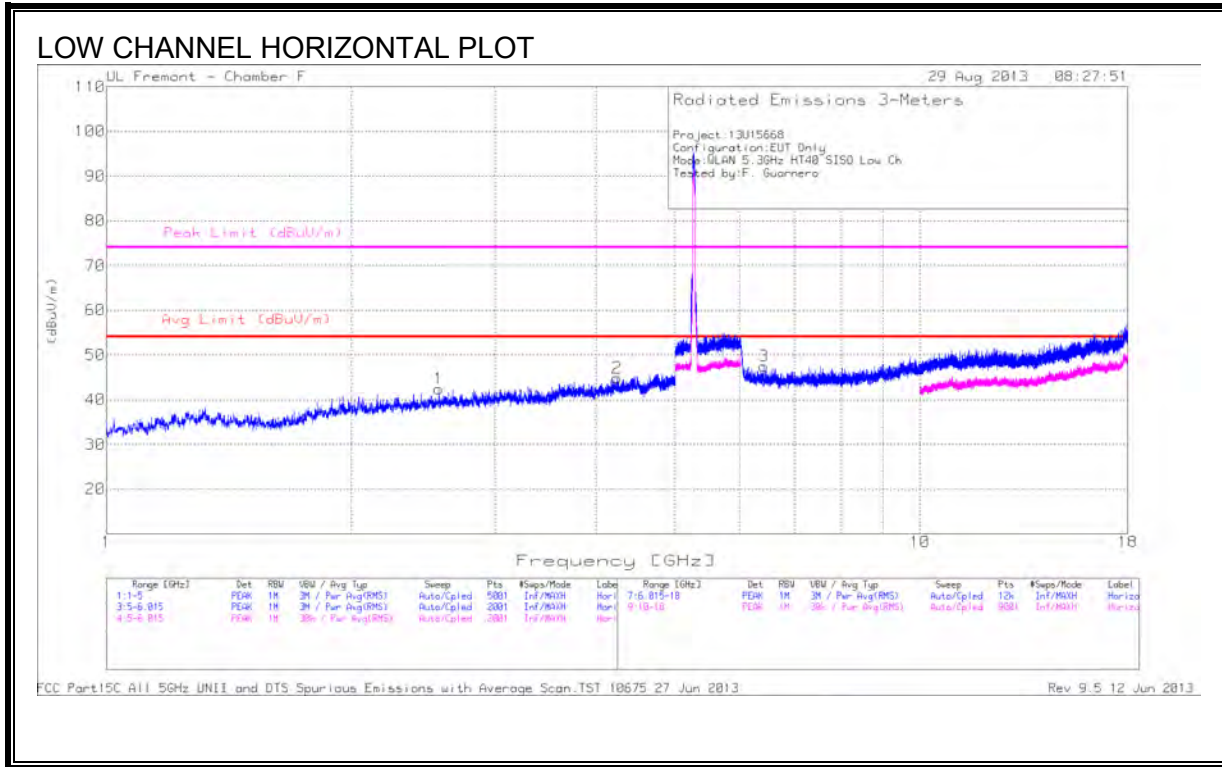
### 9.2.7. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.3 GHz BAND

#### RESTRICTED BANDEDGE (HIGH CHANNEL)





**HARMONICS AND SPURIOUS EMISSIONS**





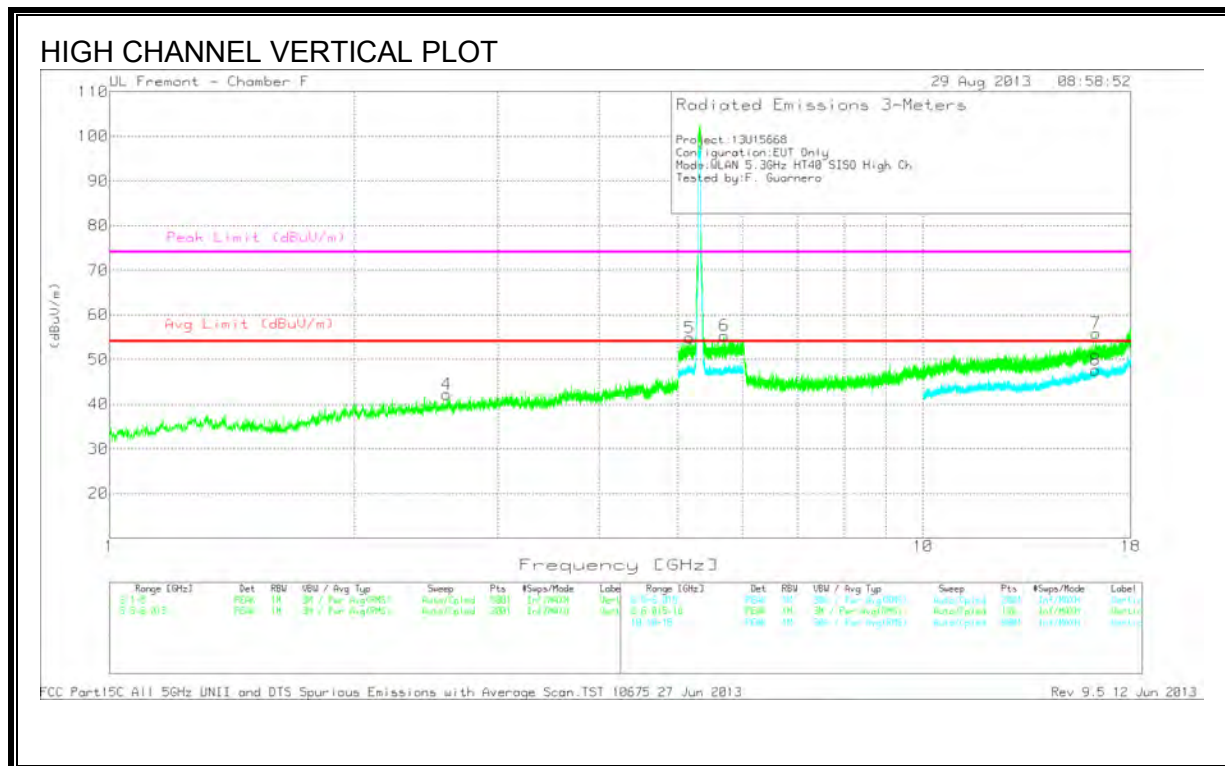
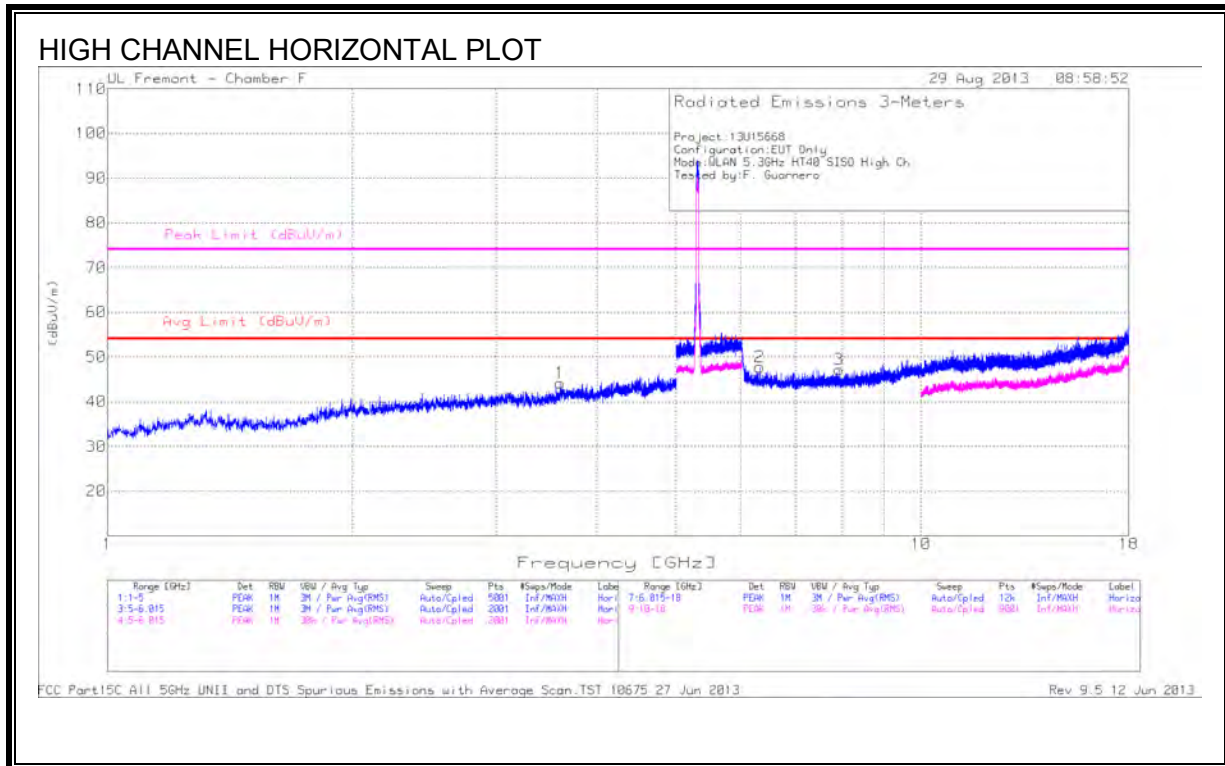
**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl /5GHz LPF	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.56	40.36	PK	32.6	-30.5	42.46	53.97	-11.51	74	-31.54	0-360	199	H
2	4.243	38.95	PK	33.4	-27.5	44.85	53.97	-9.12	74	-29.15	0-360	100	H
3	6.423	38.5	PK	35.7	-26.7	47.5	53.97	-6.47	74	-26.5	0-360	100	H

PK - Peak detector

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl /6GHz HPF	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.438	41.51	PK	32.3	-30.7	43.11	53.97	-10.86	74	-30.89	0-360	200	V
5	3.11	39.41	PK	33.3	-29.3	43.41	53.97	-10.56	74	-30.59	0-360	200	V
6	10.952	35.89	PK	38.7	-22.1	52.49	-	-	74	-21.51	0-360	100	V
7	10.934	27.88	PK (VB)	38.7	-22	44.58	53.97	-9.39	-	-	0-360	100	V

PK - Peak detector



**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl /5GHz LPF	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.601	39.8	PK	33.8	-29.4	44.2	53.97	-9.77	74	-29.8	0-360	199	H
2	6.334	38.68	PK	35.6	-26.5	47.78	53.97	-6.19	74	-26.22	0-360	199	H
3	7.927	37.31	PK	35.9	-26	47.21	53.97	-6.76	74	-26.79	0-360	100	H

PK - Peak detector

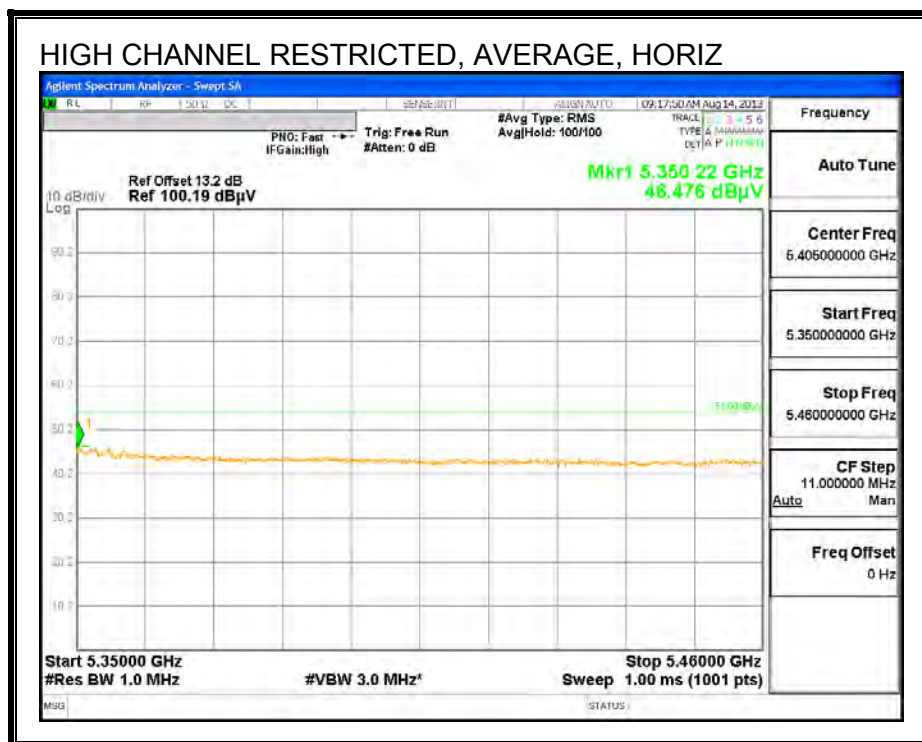
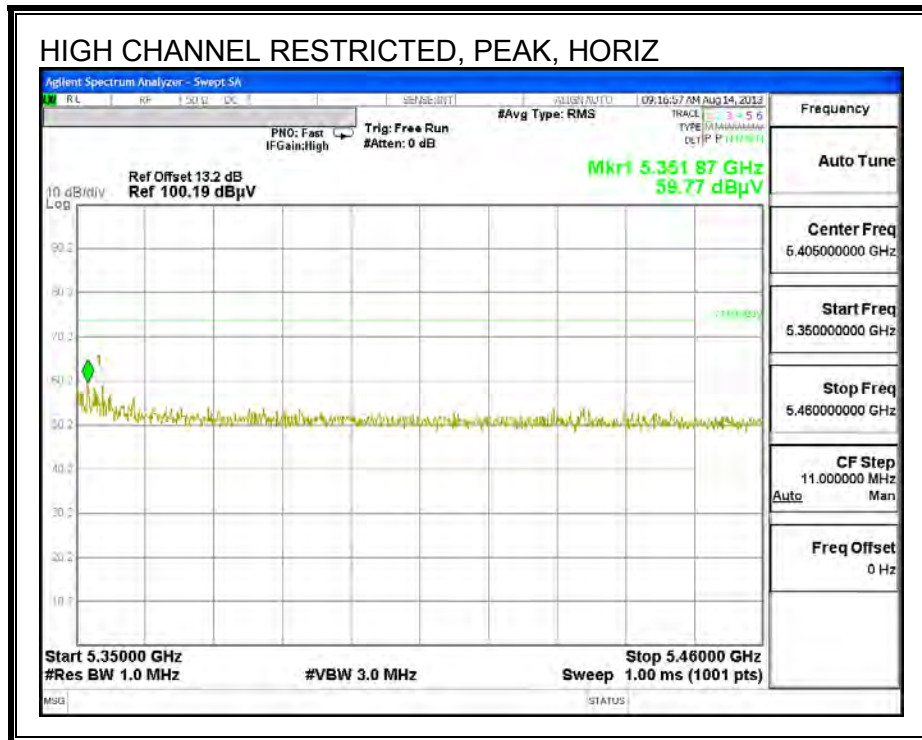
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl /10dB Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.598	39.62	PK	32.6	-30	42.22	53.97	-11.75	74	-31.78	0-360	200	V
*5	5.164	39.26	PK	34.3	-18.7	54.86	-	-	68.2	-13.34	0-360	199	V
*6	5.699	39.38	PK	34.8	-18.8	55.38	-	-	68.2	-12.82	0-360	199	V
7	16.317	37.23	PK	41.3	-22.6	55.93	-	-	74	-18.07	0-360	201	V
8	16.29	29.28	PK (VB)	41.2	-22.8	47.68	53.97	-6.29	-	-	0-360	101	V

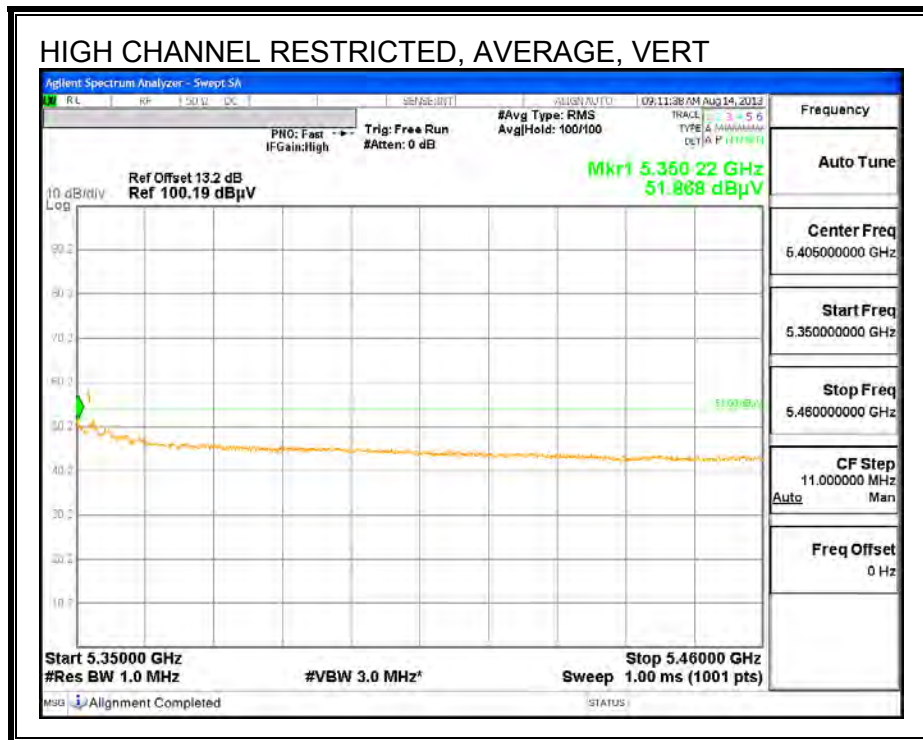
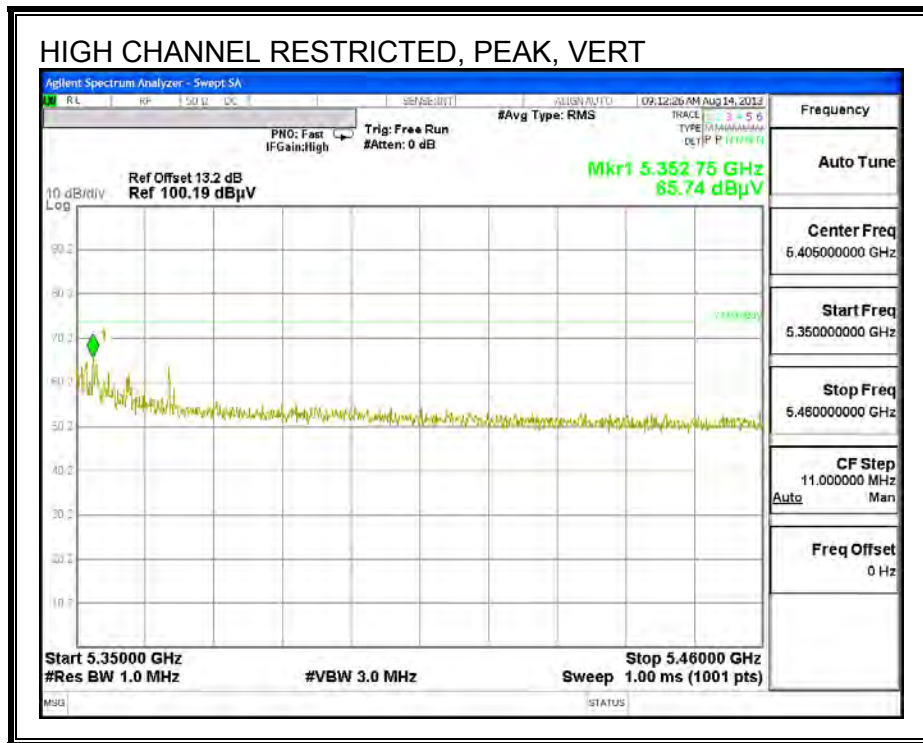
PK - Peak detector

\*Not in Restricted Band

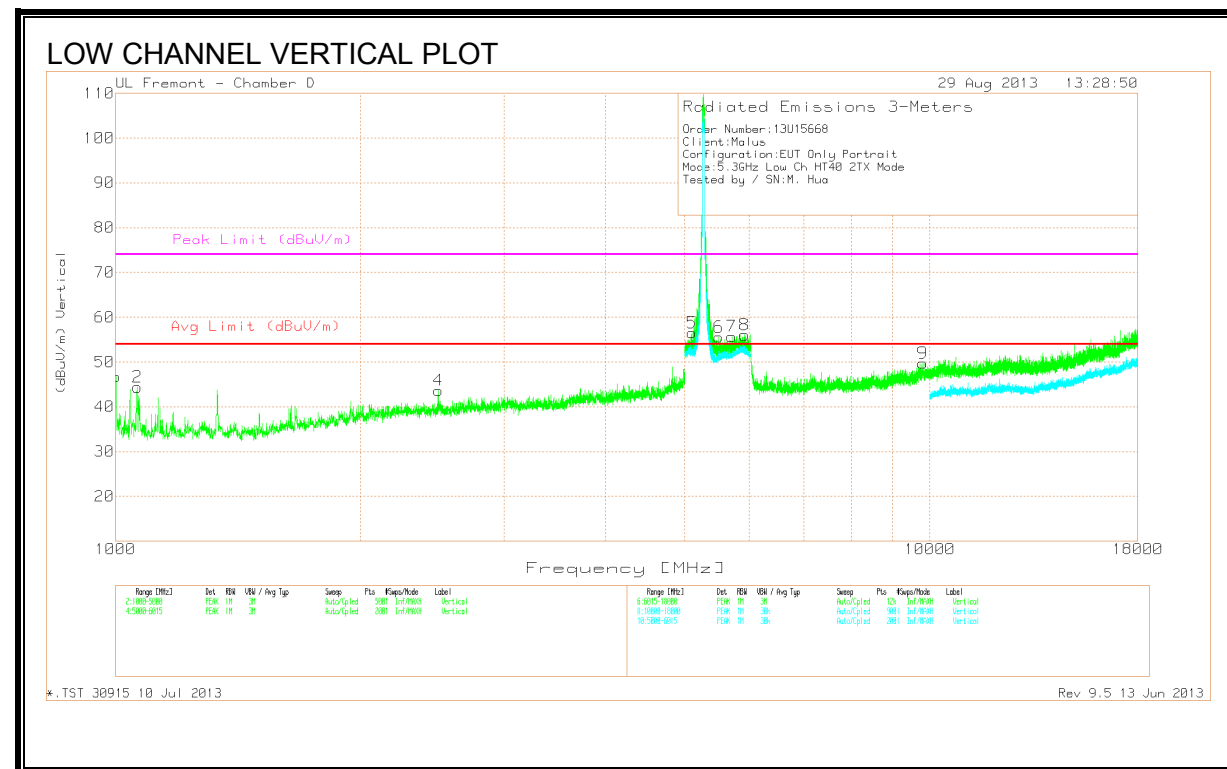
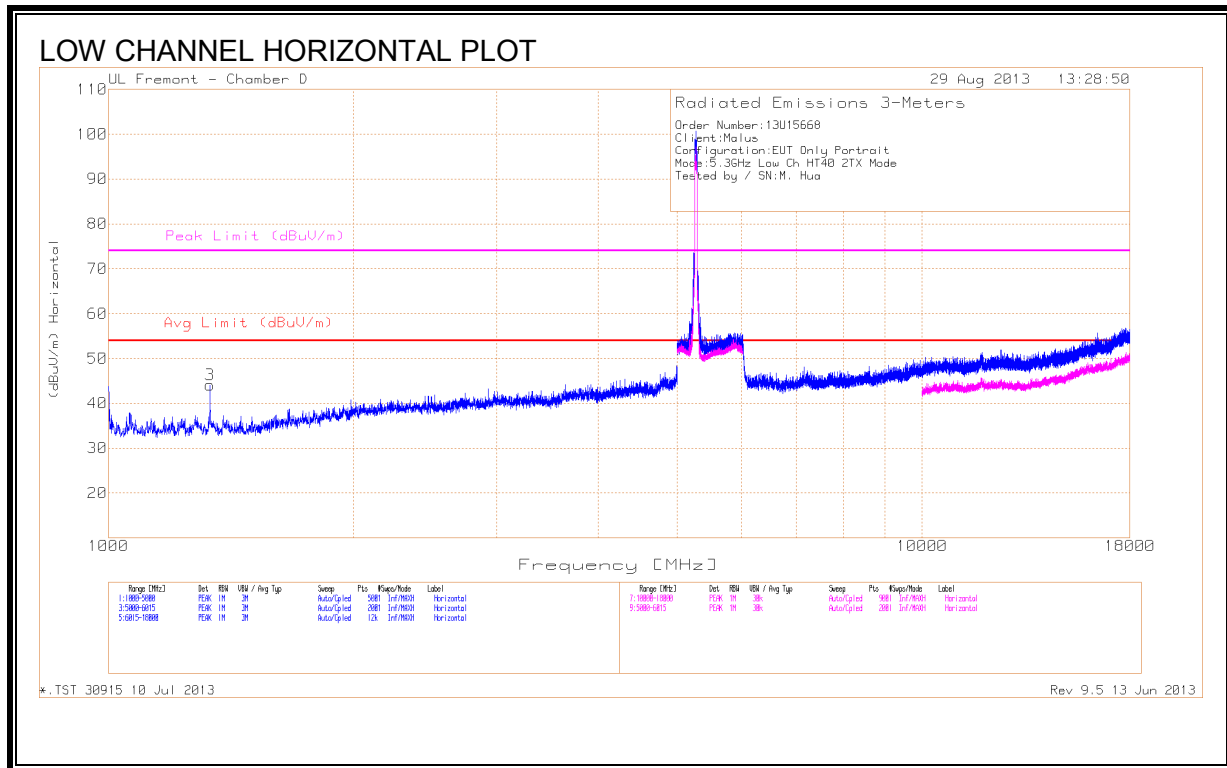
### 9.2.8. TX ABOVE 1 GHz 802.11n HT40 2TX CDD MODE IN THE 5.3 GHz BAND

#### RESTRICTED BANDEDGE (HIGH CHANNEL)





**HARMONICS AND SPURIOUS EMISSIONS**



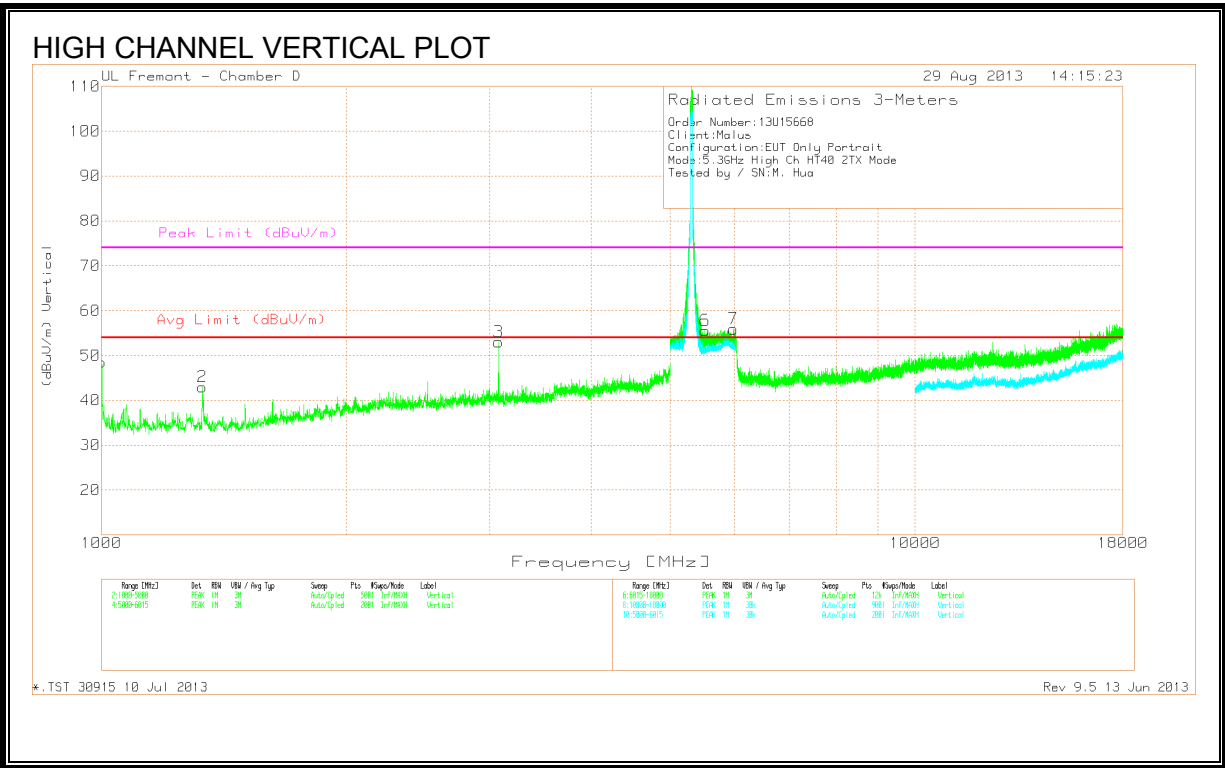
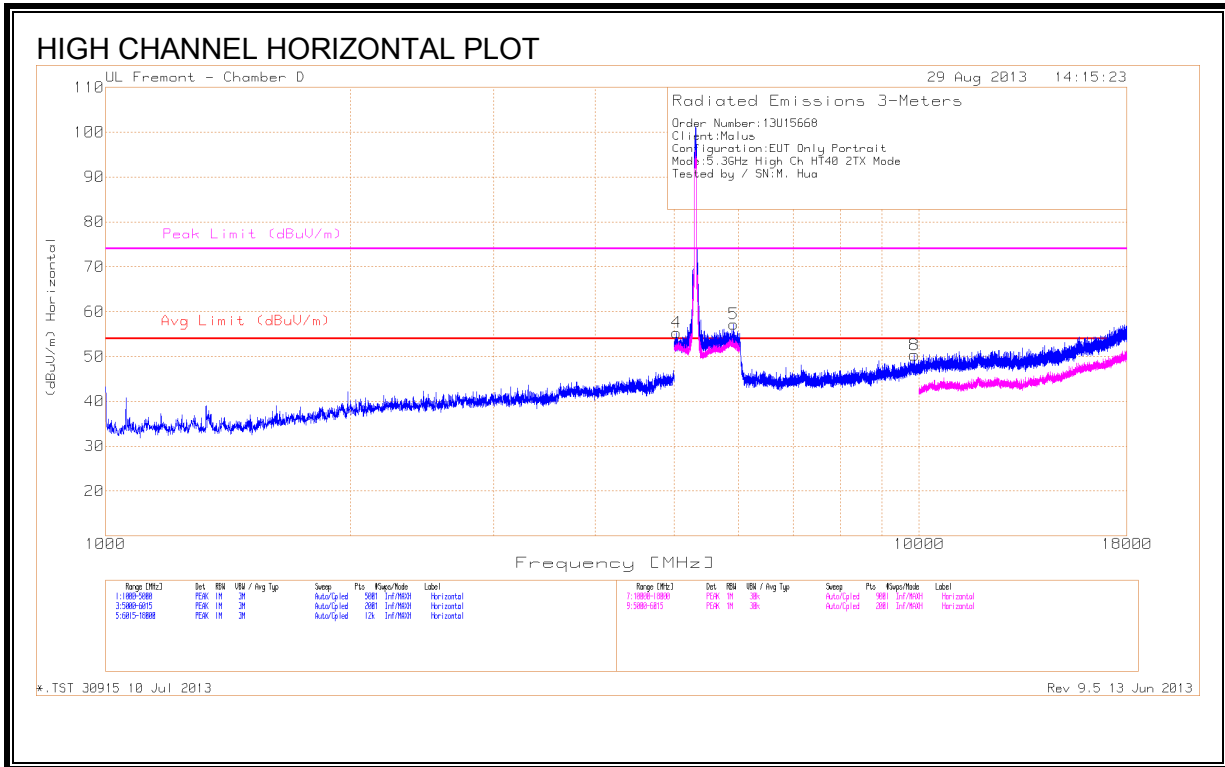
**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Ftr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1.001	51.65	PK	27.7	-32.6	46.75	53.97	-7.22	74	-27.25	201	V
2	1.064	48.92	PK	27.9	-32.4	44.42	53.97	-9.55	74	-29.58	201	V
3	1.332	47.21	PK	28.5	-31.6	44.11	53.97	-9.86	74	-29.89	201	H
4	2.491	41.58	PK	32.4	-30.3	43.68	53.97	-10.29	74	-30.32	100	V
5	5.105	40.23	PK	34.5	-18.2	56.53	-	-	74	-17.47	201	V
6	5.503	39.28	PK	34.8	-18.5	55.58	-	-	74	-18.42	100	V
7	5.711	38.75	PK	35.2	-18.2	55.75	-	-	74	-18.25	201	V
8	5.921	37.88	PK	35.6	-17.4	56.08	-	-	74	-17.92	201	V
9	9.803	34.64	PK	37.5	-22.4	49.74	53.97	-4.23	74	-24.26	201	V

PK - Peak detector

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Ftr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.11	30.2	MAv1	34.5	-18.3	46.4	53.97	-7.57	-	-	143	224	V
5.501	27.91	MAv1	34.8	-18.5	44.21	53.97	-9.76	-	-	360	169	V
5.707	28.04	MAv1	35.2	-18.2	45.04	53.97	-8.93	-	-	53	347	V
5.925	27.48	MAv1	35.6	-17.4	45.68	53.97	-8.29	-	-	49	123	V
9.804	24.26	MAv1	37.5	-22.4	39.36	53.97	-14.61	-	-	260	322	V

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average





**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Fitr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	53.45	PK	27.7	-32.6	48.55	53.97	-5.42	74	-25.45	201	V
2	1.33	46.11	PK	28.5	-31.6	43.01	53.97	-10.96	74	-30.99	201	V
3	3.076	49.35	PK	33.2	-29.5	53.05	53.97	-.92	74	-20.95	201	V
4	5.031	39.24	PK	34.4	-18.3	55.34	-	-	74	-18.66	201	H
5	5.917	39.05	PK	35.6	-17.4	57.25	-	-	74	-16.75	100	H
6	5.518	39.26	PK	34.8	-18.5	55.56	-	-	74	-18.44	100	V
7	5.976	38.03	PK	35.7	-17.8	55.93	-	-	74	-18.07	100	V
8	9.866	35.15	PK	37.6	-22.4	50.35	53.97	-3.62	74	-23.65	200	H

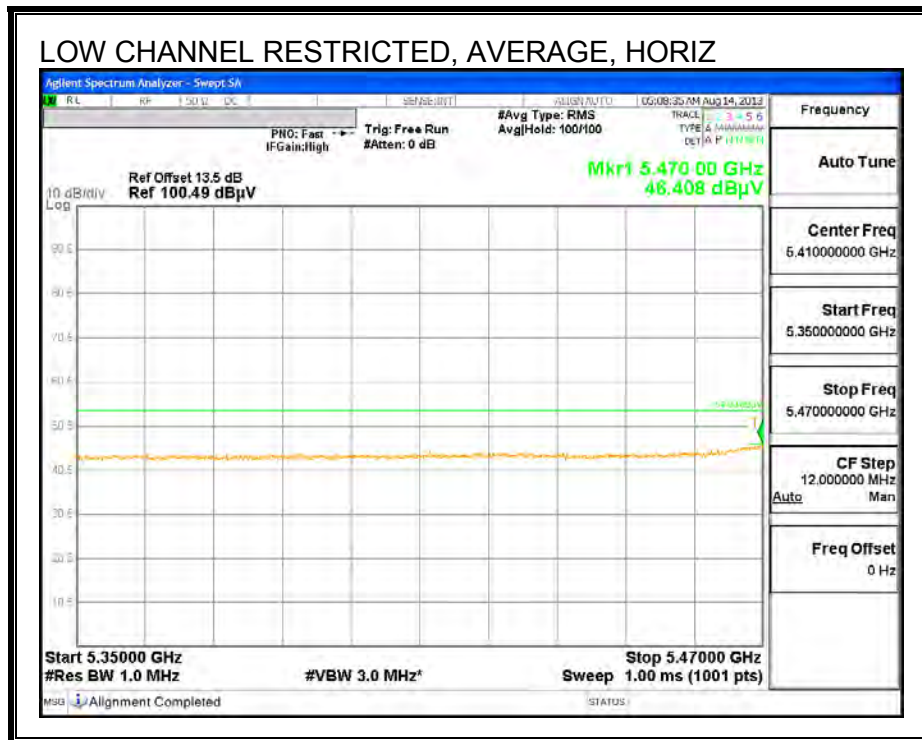
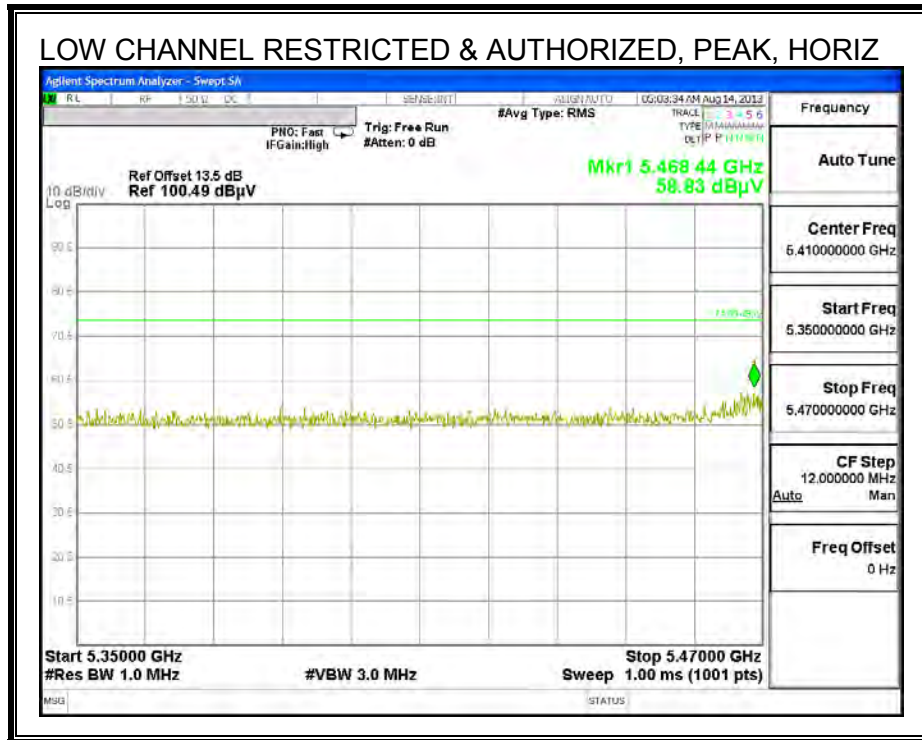
PK - Peak detector

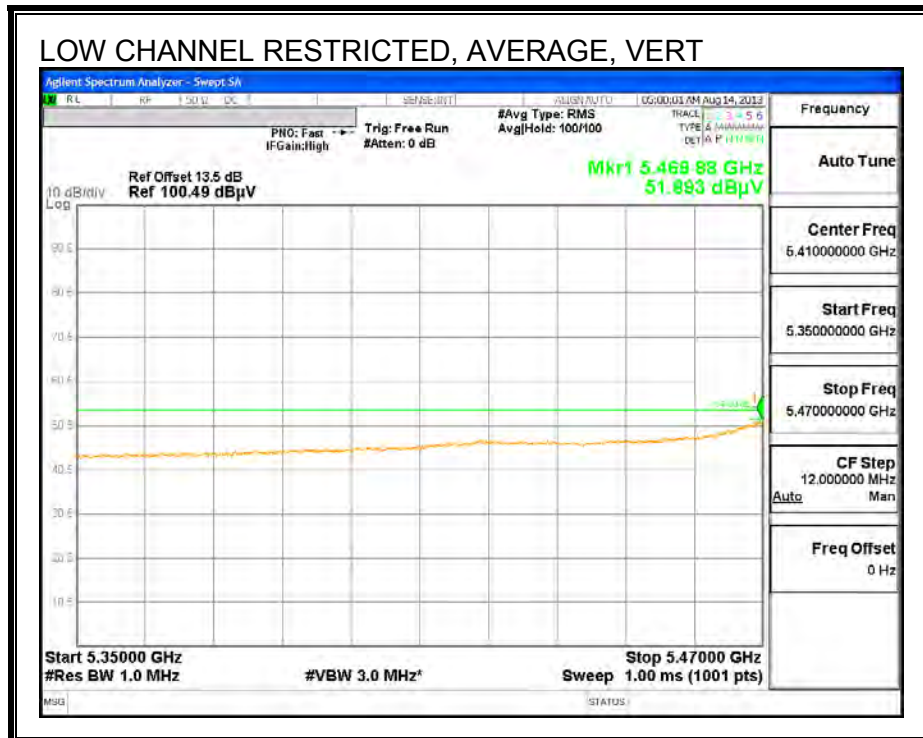
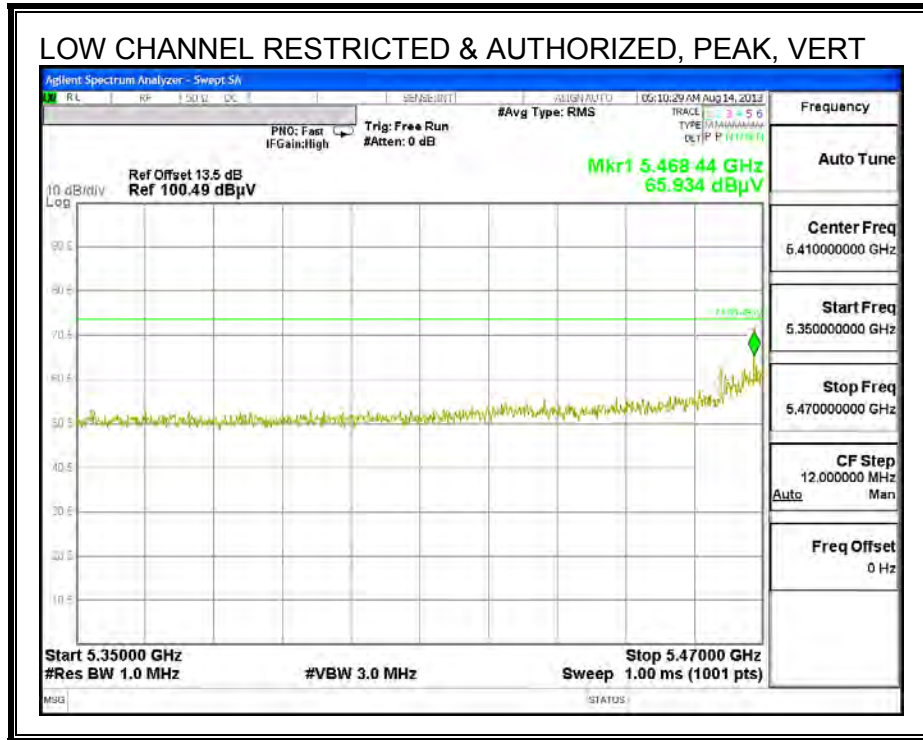
Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Fitr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3.081	28.57	MAv1	33.2	-29.6	32.17	53.97	-21.8	-	-	47	126	V
5.035	28.28	MAv1	34.4	-18.3	44.38	53.97	-9.59	-	-	235	144	H
5.914	27.49	MAv1	35.6	-17.3	45.79	53.97	-8.18	-	-	202	182	H
5.516	29.52	MAv1	34.8	-18.5	45.82	53.97	-8.15	-	-	97	227	V
5.977	27.49	MAv1	35.7	-17.8	45.39	53.97	-8.58	-	-	148	152	V
9.866	23.68	MAv1	37.6	-22.4	38.88	53.97	-15.09	-	-	323	323	H

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average

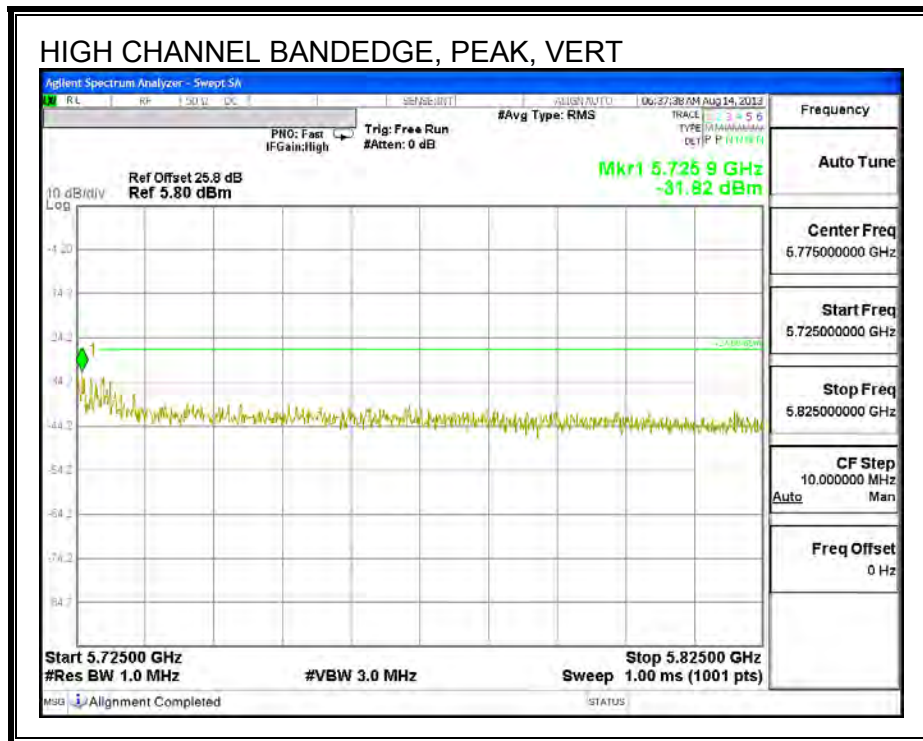
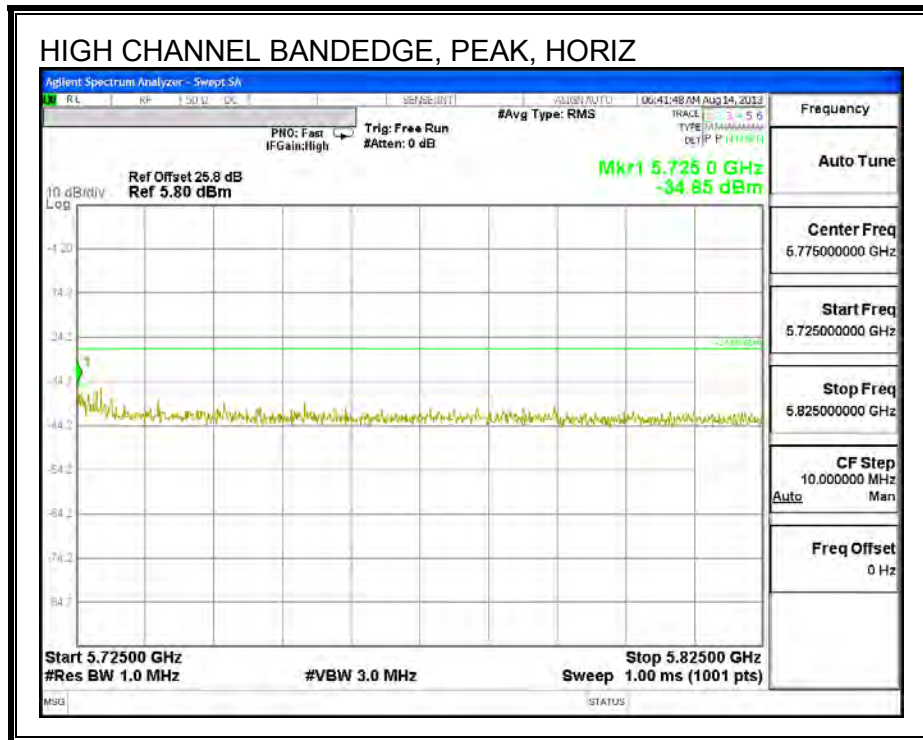
### 9.2.9. TX ABOVE 1 GHz 802.11a MODE IN THE 5.6 GHz BAND

#### RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL)

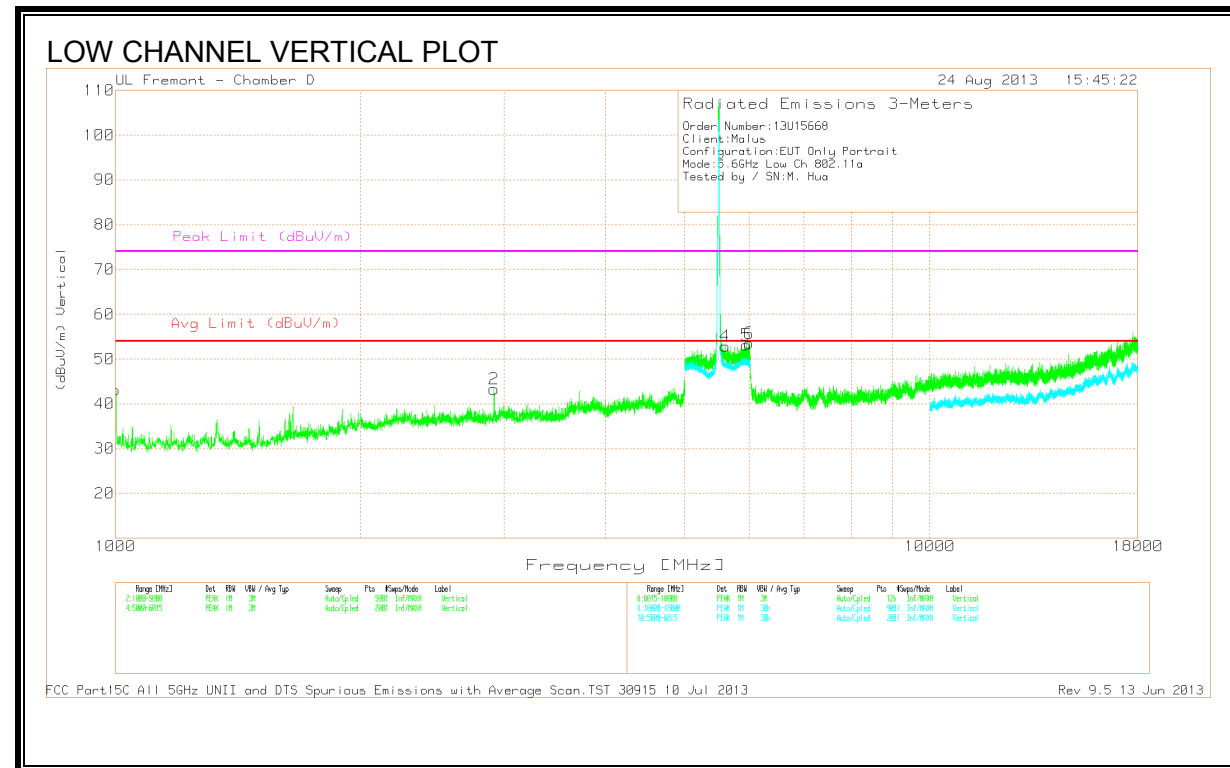
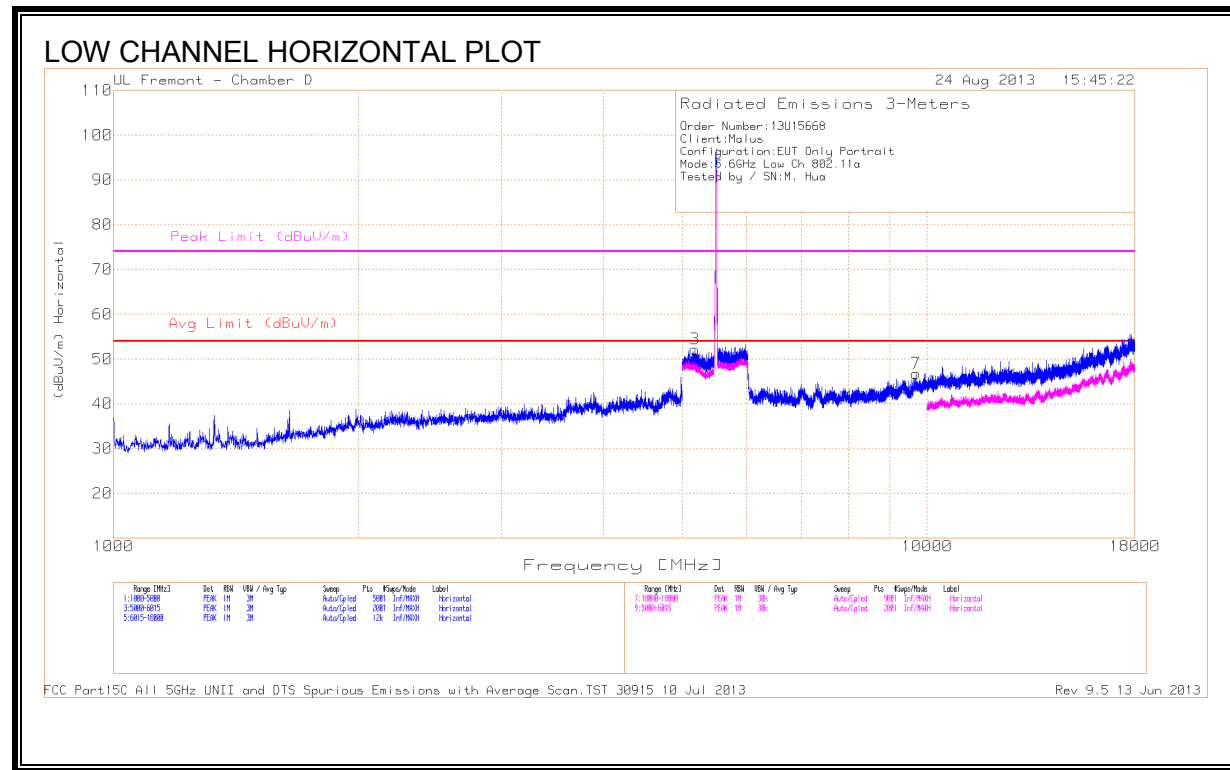




**AUTHORIZED BANDEDGE (HIGH CHANNEL)**



**HARMONICS AND SPURIOUS EMISSIONS**



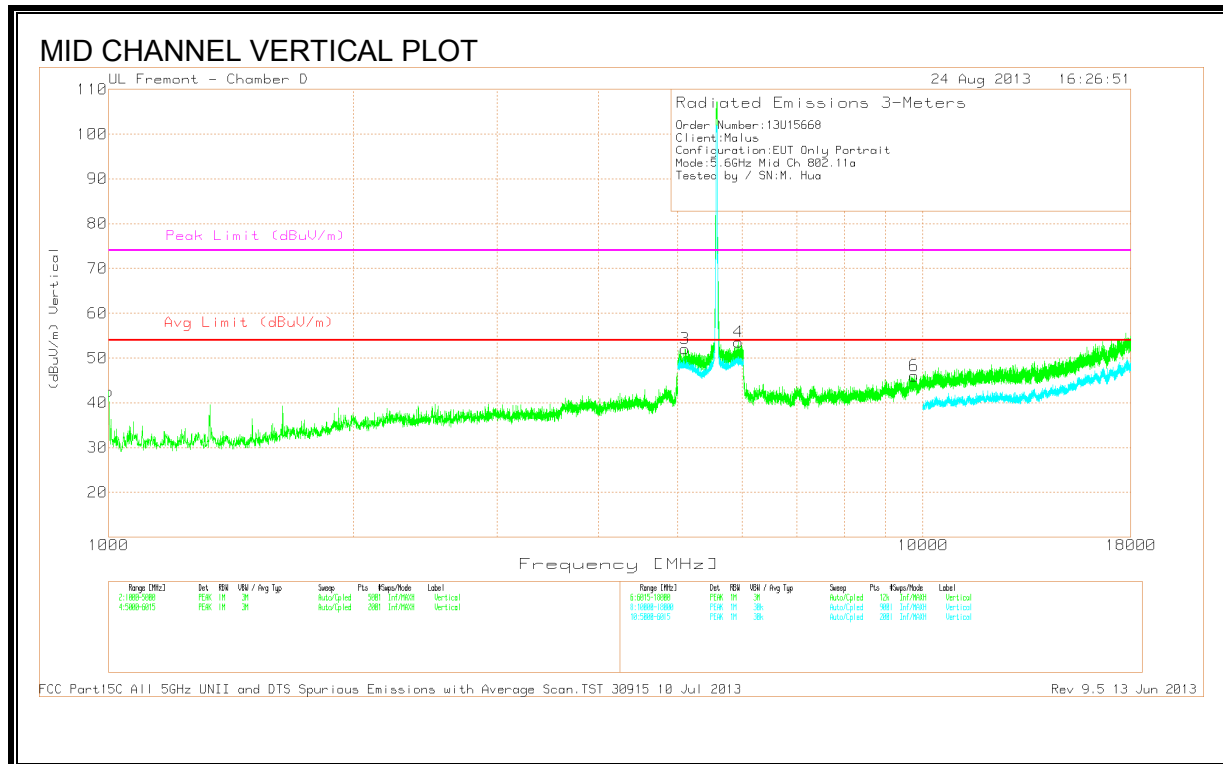
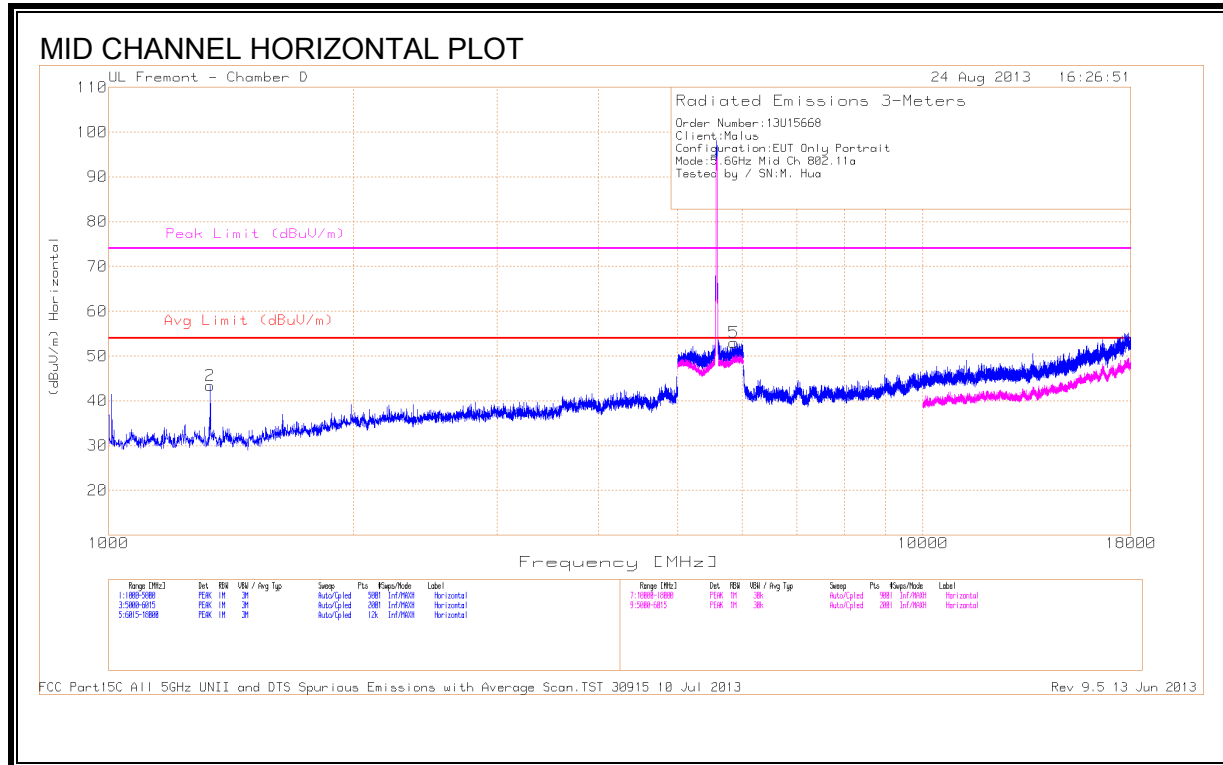
**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Ftr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	51.02	PK	27.7	-35.6	43.12	53.97	-10.85	74	-30.88	201	V
2	2.915	43.81	PK	33	-33.5	43.31	53.97	-10.66	74	-30.69	100	V
3	5.183	39.22	PK	34.6	-21.6	52.22	-	-	74	-21.78	201	H
4	5.606	39.28	PK	35	-21.4	52.88	-	-	74	-21.12	100	V
5	5.953	38.53	PK	35.6	-21	53.13	-	-	74	-20.87	100	V
6	6.001	38.81	PK	35.7	-21	53.51	-	-	74	-20.49	200	V
7	9.695	34.94	PK	37.4	-25.6	46.74	53.97	-7.23	74	-27.26	100	H

PK - Peak detector

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Ftr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.185	28.39	MAv1	34.6	-21.6	41.39	53.97	-12.58	-	-	214	136	H
5.601	29.16	MAv1	35	-21.3	42.86	53.97	-11.11	-	-	96	149	V
5.958	28.18	MAv1	35.6	-20.9	42.88	53.97	-11.09	-	-	107	193	V
5.996	27.79	MAv1	35.7	-20.9	42.59	53.97	-11.38	-	-	177	379	V

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average



**DATA**

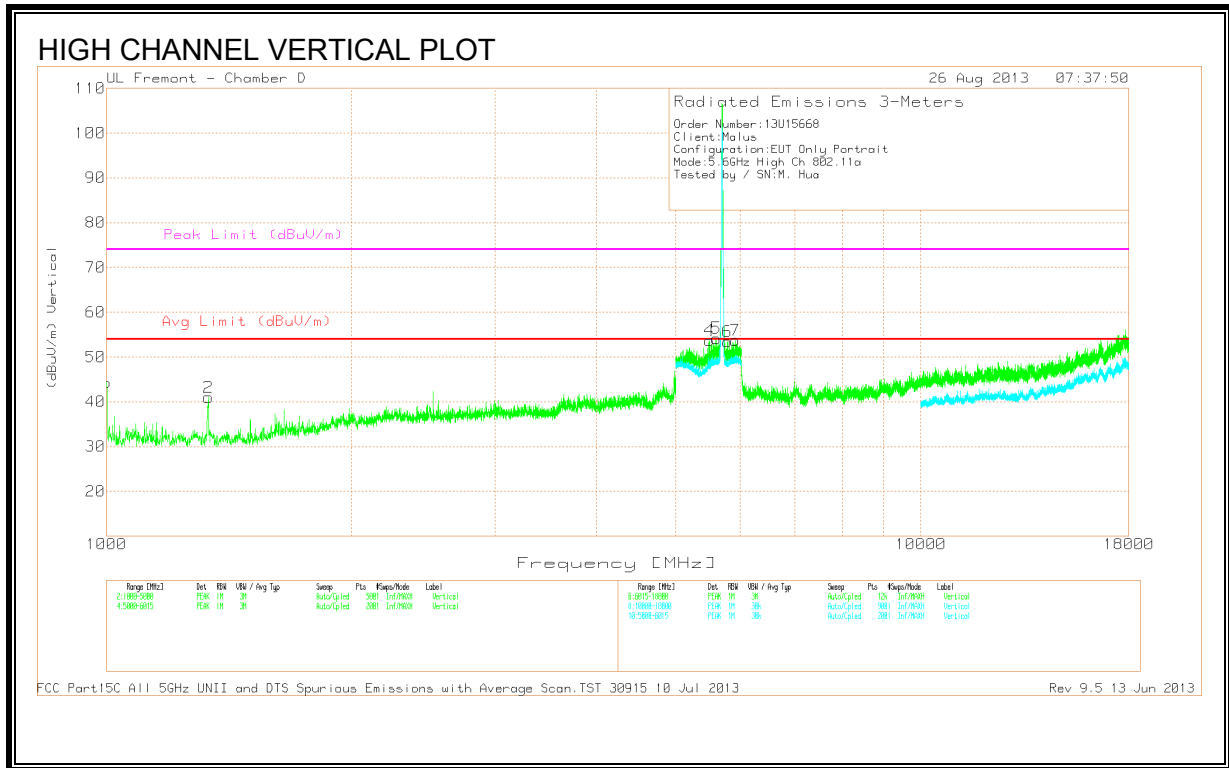
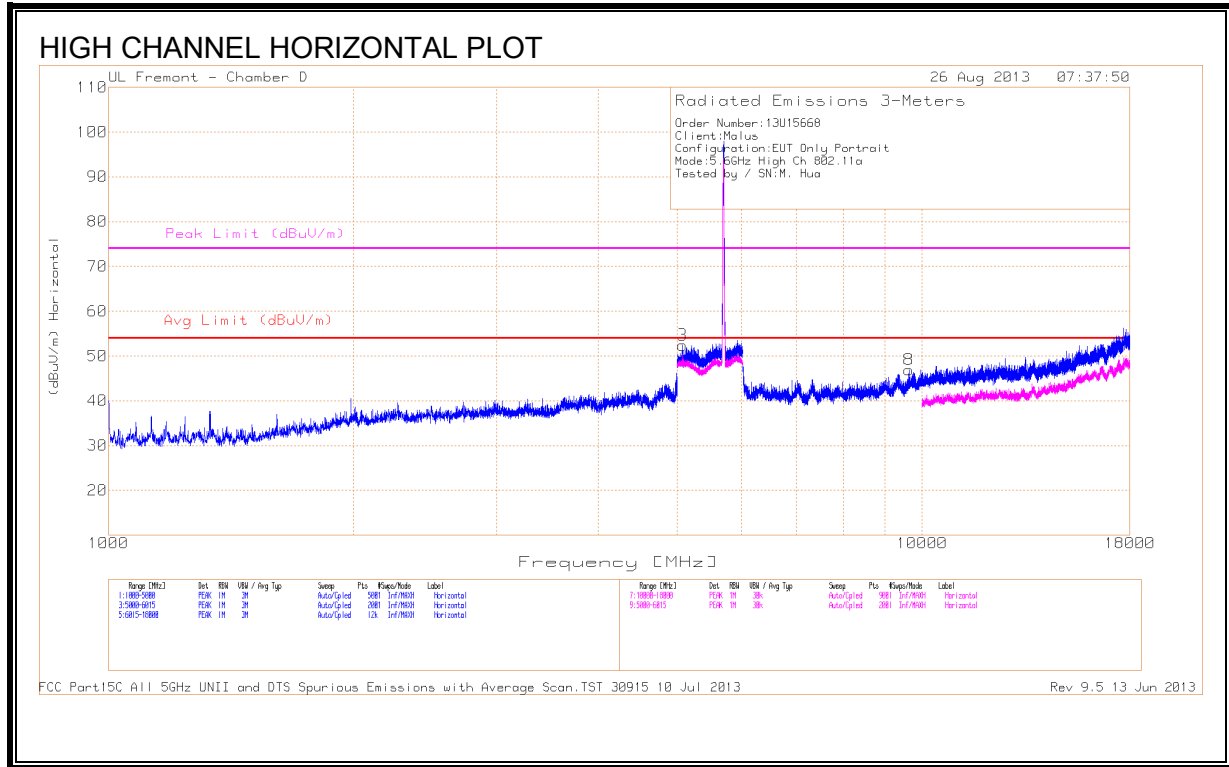
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	50.48	PK	27.7	-35.6	42.58	53.97	-11.39	74	-31.42	201	V
2	1.332	49.6	PK	28.5	-34.7	43.4	53.97	-10.57	74	-30.6	200	H
3	5.105	39.4	PK	34.5	-21.8	52.1	-	-	74	-21.9	100	V
4	5.938	38.97	PK	35.6	-21	53.57	-	-	74	-20.43	100	V
5	5.861	38.72	PK	35.5	-21.2	53.02	-	-	74	-20.98	100	H
6	9.758	34.55	PK	37.4	-25.9	46.05	53.97	-7.92	74	-27.95	201	V

PK - Peak detector

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.856	28.06	MAv1	35.5	-21.2	42.36	53.97	-11.61	-	-	73	156	H
5.103	28.55	MAv1	34.5	-21.8	41.25	53.97	-12.72	-	-	250	229	V
5.934	28.12	MAv1	35.6	-21	42.72	53.97	-11.25	-	-	280	194	V

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average





**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	52.27	PK	27.7	-35.6	44.37	53.97	-9.6	74	-29.63	200	V
2	1.334	47.2	PK	28.5	-34.7	41	53.97	-12.97	74	-33	200	V
3	5.078	39.9	PK	34.4	-21.9	52.4	-	-	74	-21.6	200	H
4	5.499	40.57	PK	34.8	-21.7	53.67	-	-	74	-20.33	100	V
5	5.612	40.65	PK	35	-21.5	54.15	-	-	74	-19.85	100	V
6	5.786	39.86	PK	35.4	-21.8	53.46	-	-	74	-20.54	201	V
7	5.916	39.03	PK	35.6	-20.9	53.73	-	-	74	-20.27	201	V
8	9.632	35.85	PK	37.3	-26.2	46.95	53.97	-7.02	74	-27.05	100	H

PK - Peak detector

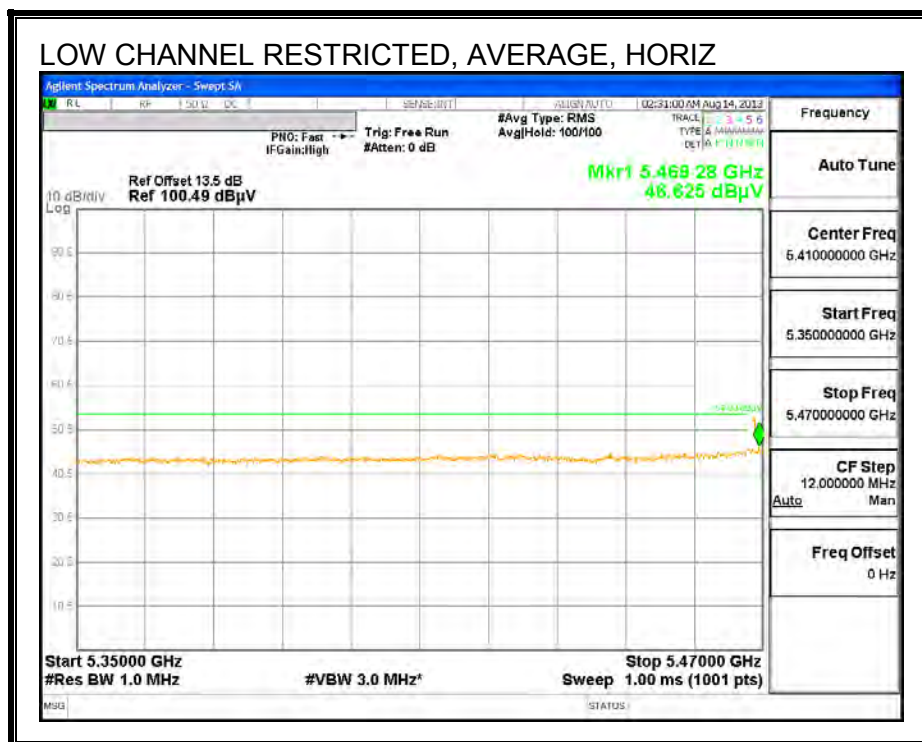
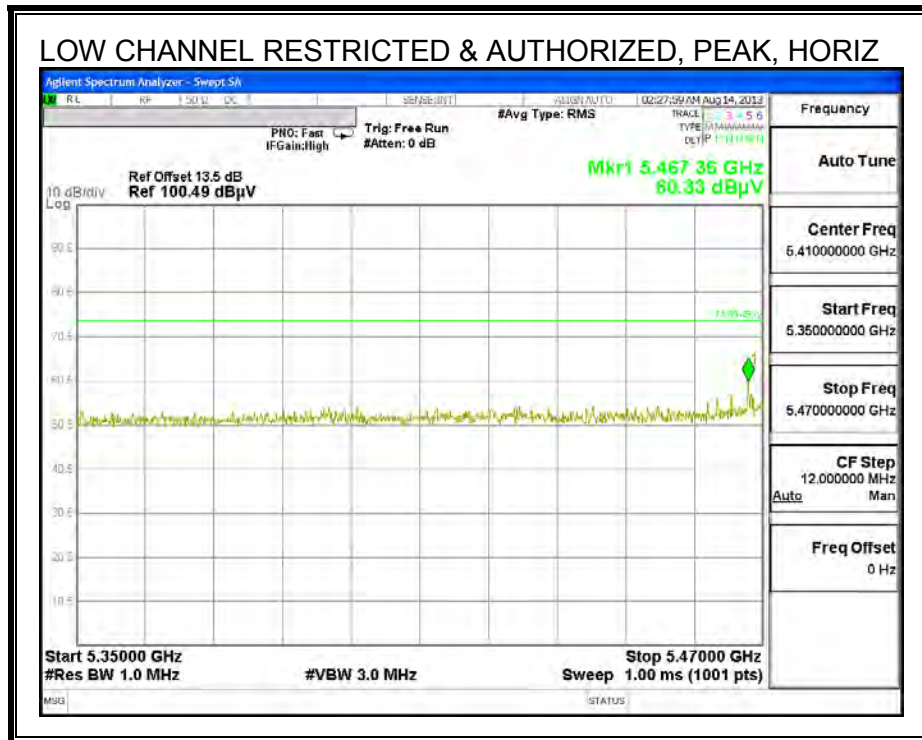
**Radiated Emissions**

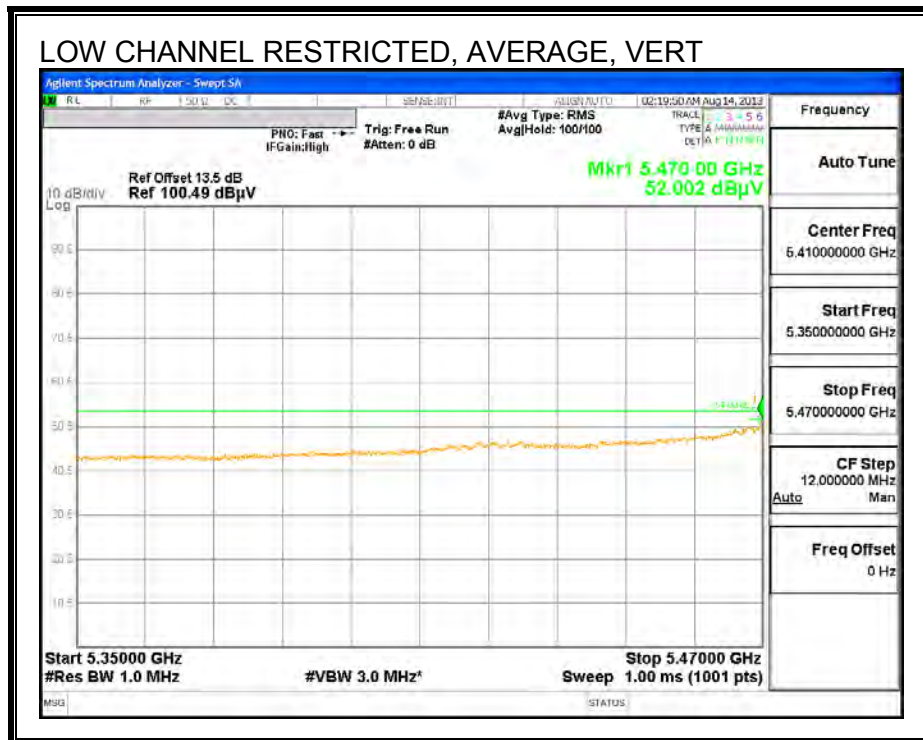
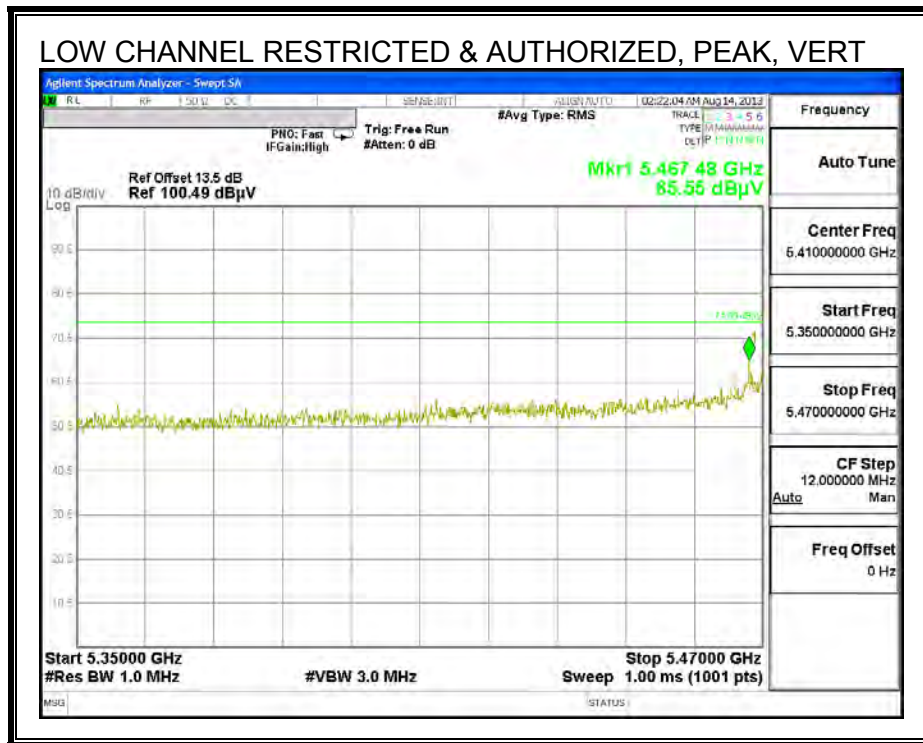
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.079	28.72	MAv1	34.4	-21.9	41.22	53.97	-12.75	-	-	145	255	H
5.502	28.23	MAv1	34.8	-21.7	41.33	53.97	-12.64	-	-	215	120	V
5.616	29.34	MAv1	35	-21.5	42.84	53.97	-11.13	-	-	151	365	V
5.784	28.45	MAv1	35.4	-21.8	42.05	53.97	-11.92	-	-	64	381	V
5.917	28.26	MAv1	35.6	-20.9	42.96	53.97	-11.01	-	-	301	190	V

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average

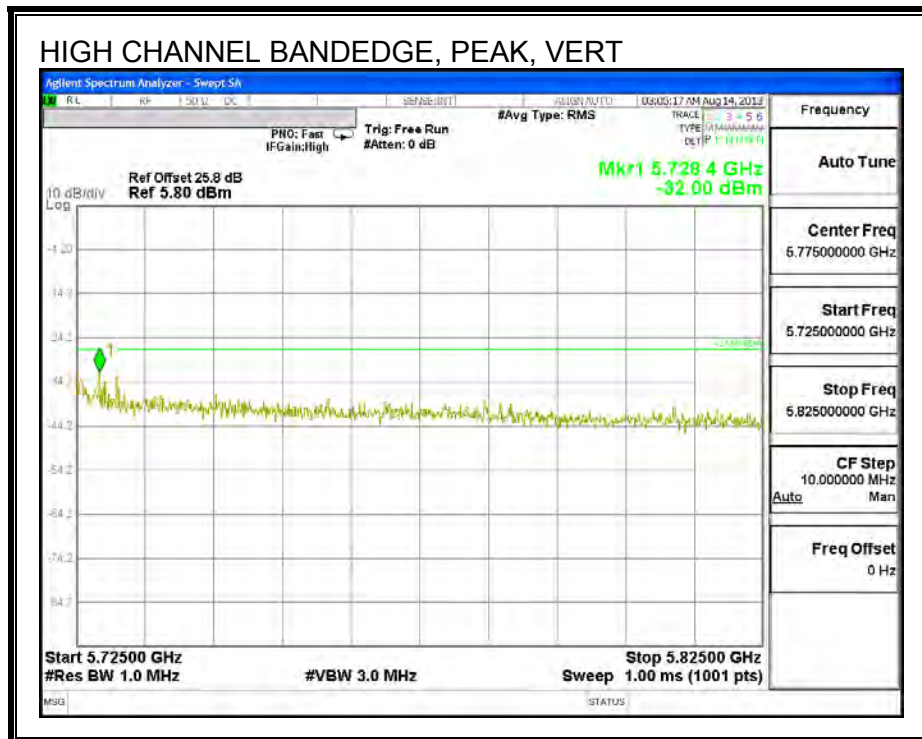
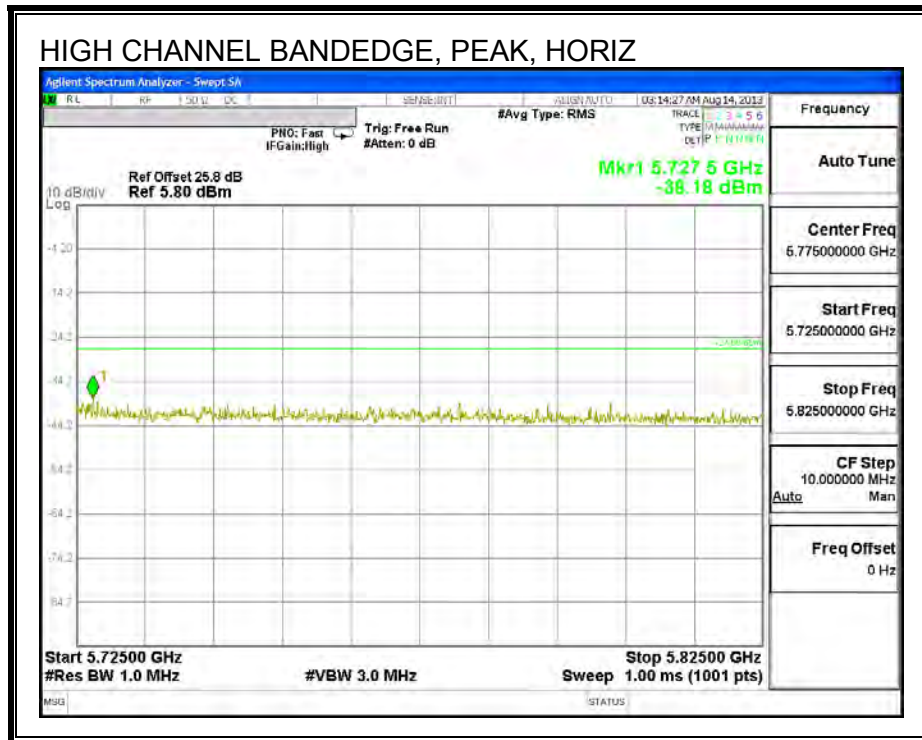
### 9.2.10. TX ABOVE 1 GHz 802.11n HT20 2TX CDD MODE IN THE 5.6 GHz BAND

#### RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL)

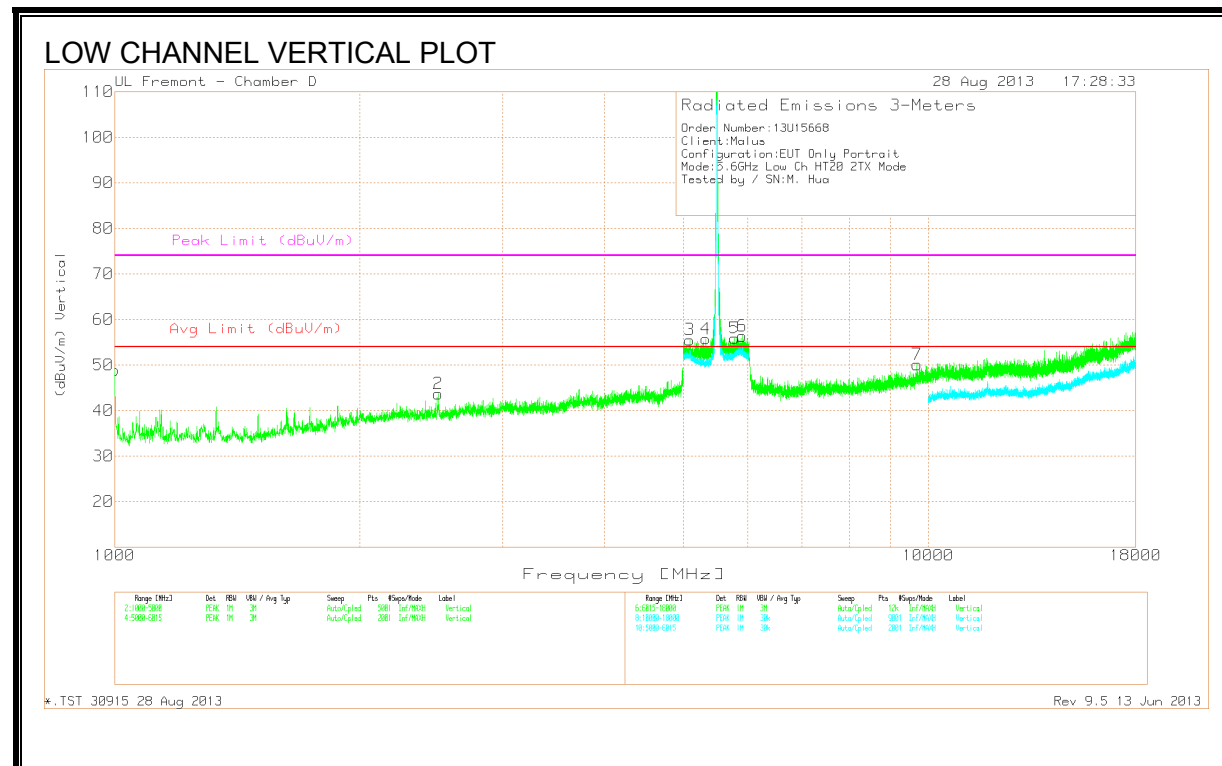
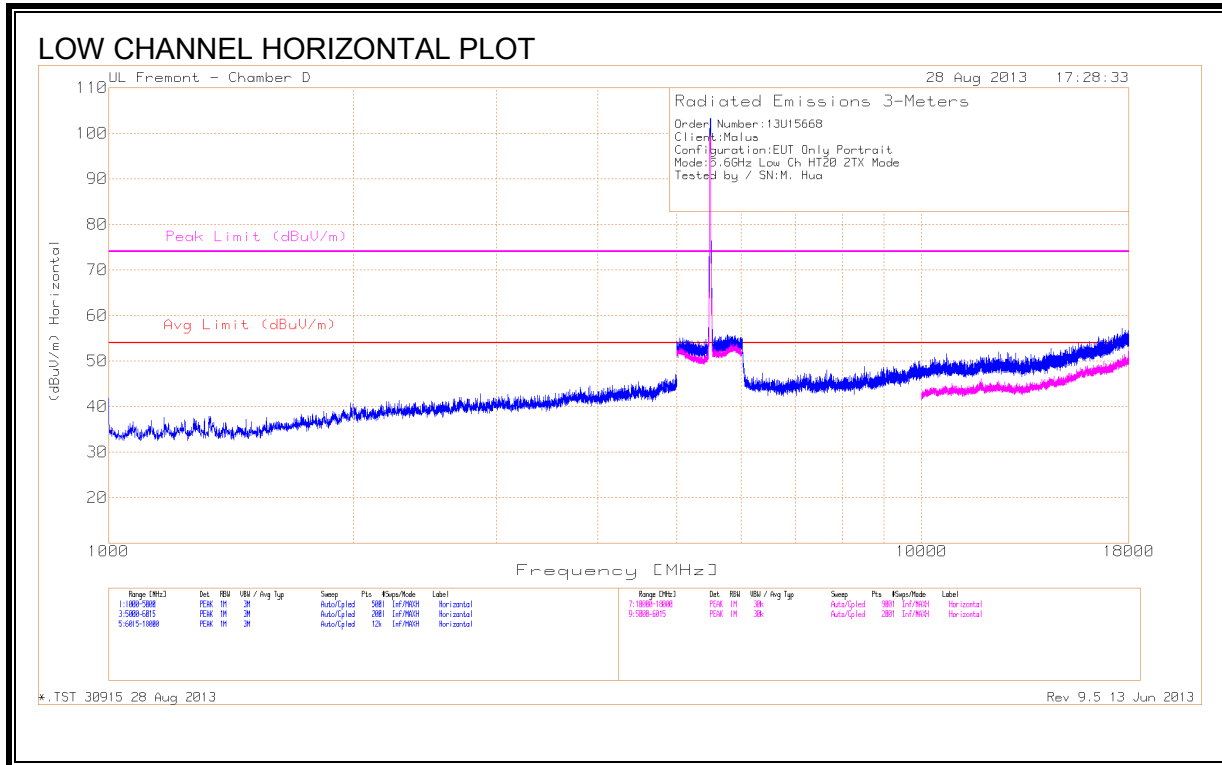




**AUTHORIZED BANDEDGE (HIGH CHANNEL)**



**HARMONICS AND SPURIOUS EMISSIONS**



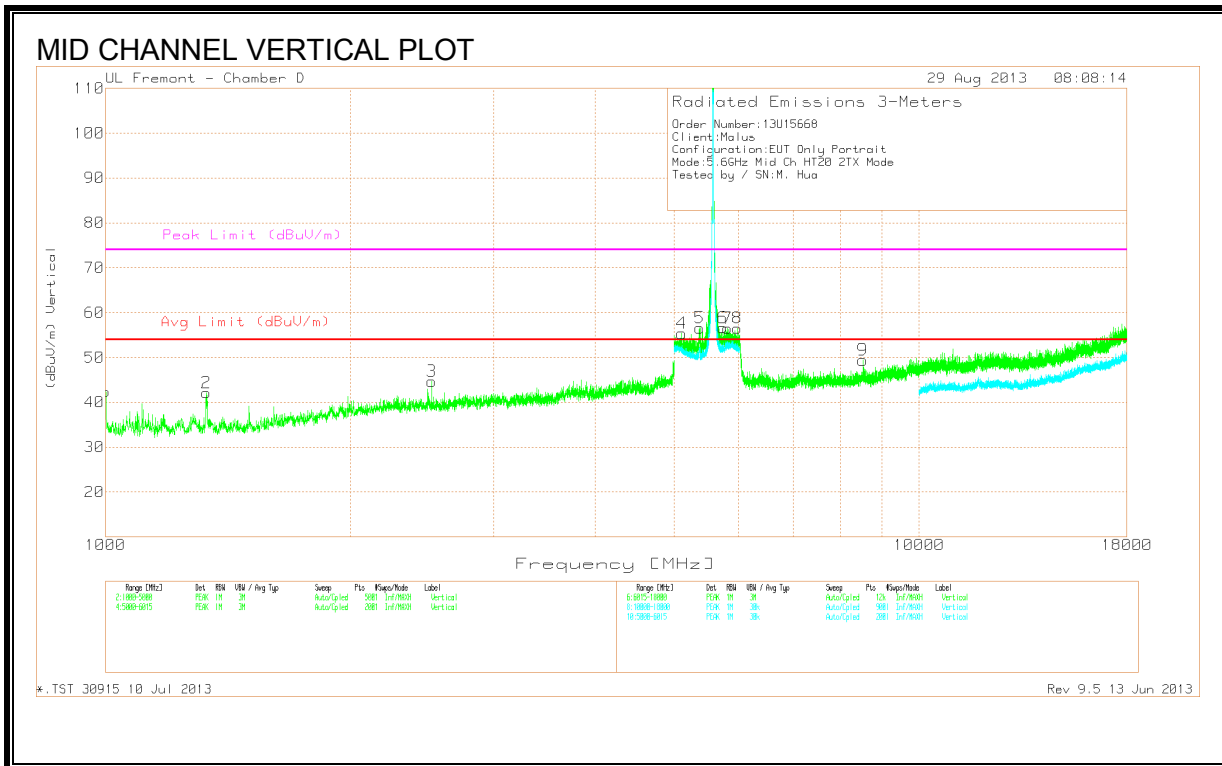
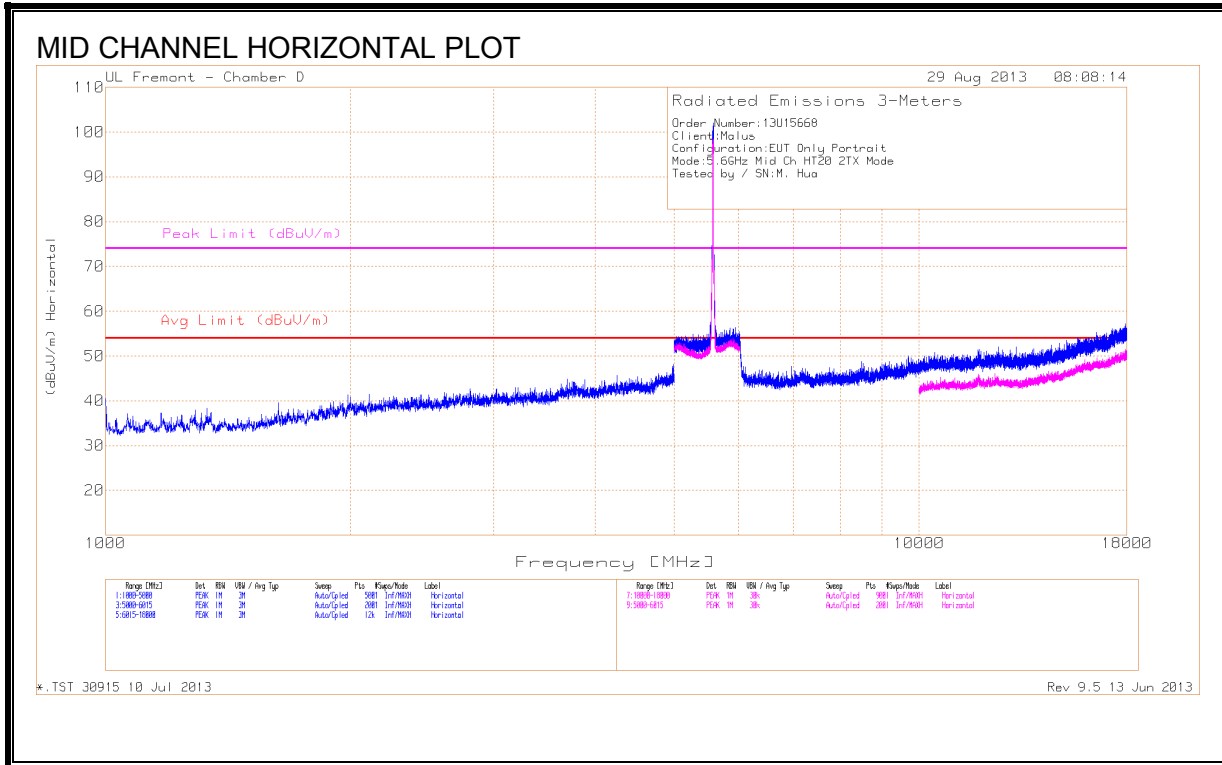
**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Filtr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	53.79	PK	27.7	-32.6	48.89	53.97	-5.11	74	-25.11	201	V
2	2.5	41.58	PK	32.4	-30.3	43.68	53.97	-10.29	74	-30.32	201	V
3	5.093	39.28	PK	34.4	-18.2	55.48	-	-	74	-18.52	201	V
4	5.332	39.02	PK	34.7	-18	55.72	-	-	74	-18.28	100	V
5	5.783	38.06	PK	35.4	-17.6	55.86	-	-	74	-18.14	201	V
6	5.912	38.06	PK	35.6	-17.3	56.36	-	-	74	-17.64	100	V
7	9.691	34.89	PK	37.4	-22.2	50.09	-	-	74	-23.91	200	V

PK - Peak detector

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.378	28	MAv1	34.8	-18.3	44.5	53.97	-9.47	-	-	80	357	V
5.096	28.58	MAv1	34.5	-18.2	44.88	53.97	-9.09	-	-	358	140	V
5.334	29.06	MAv1	34.7	-18	45.76	53.97	-8.21	-	-	92	261	V
5.78	27.56	MAv1	35.3	-17.6	45.26	53.97	-8.71	-	-	75	368	V
5.91	27.8	MAv1	35.6	-17.3	46.1	53.97	-7.87	-	-	347	374	V
9.688	24.07	MAv1	37.4	-22.3	39.17	53.97	-14.8	-	-	163	326	V

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average





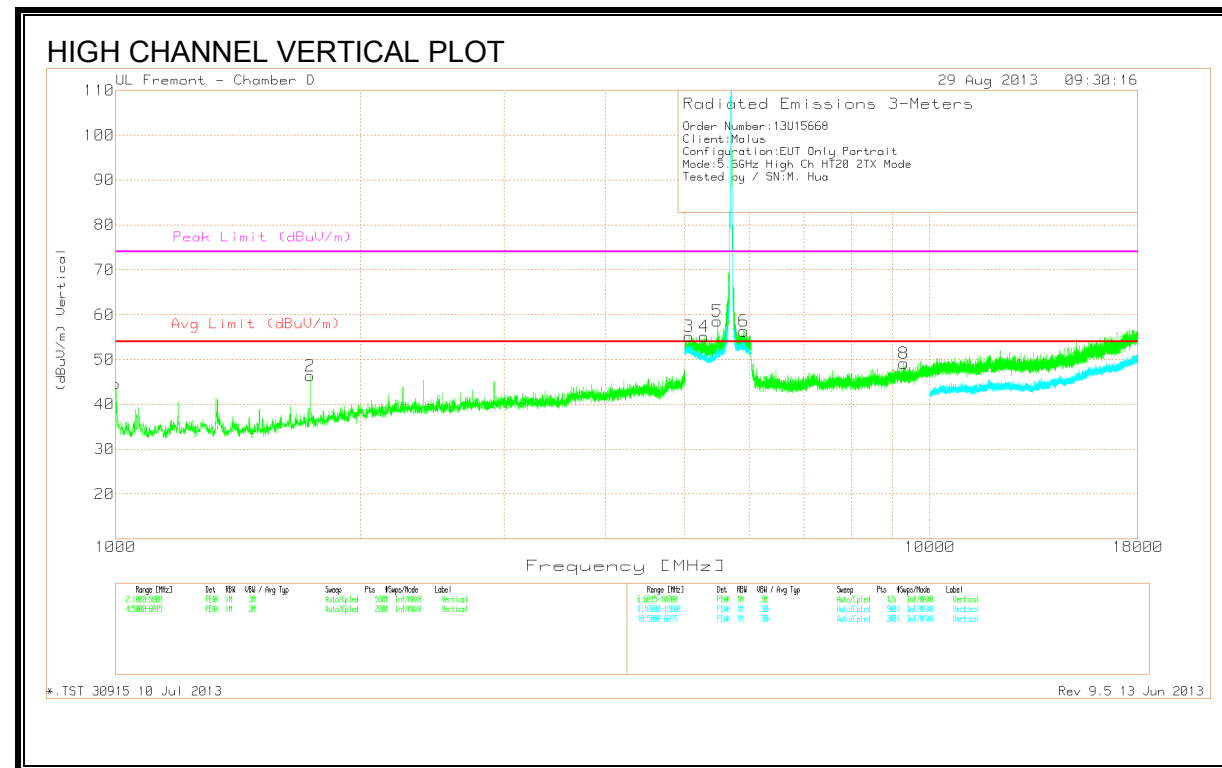
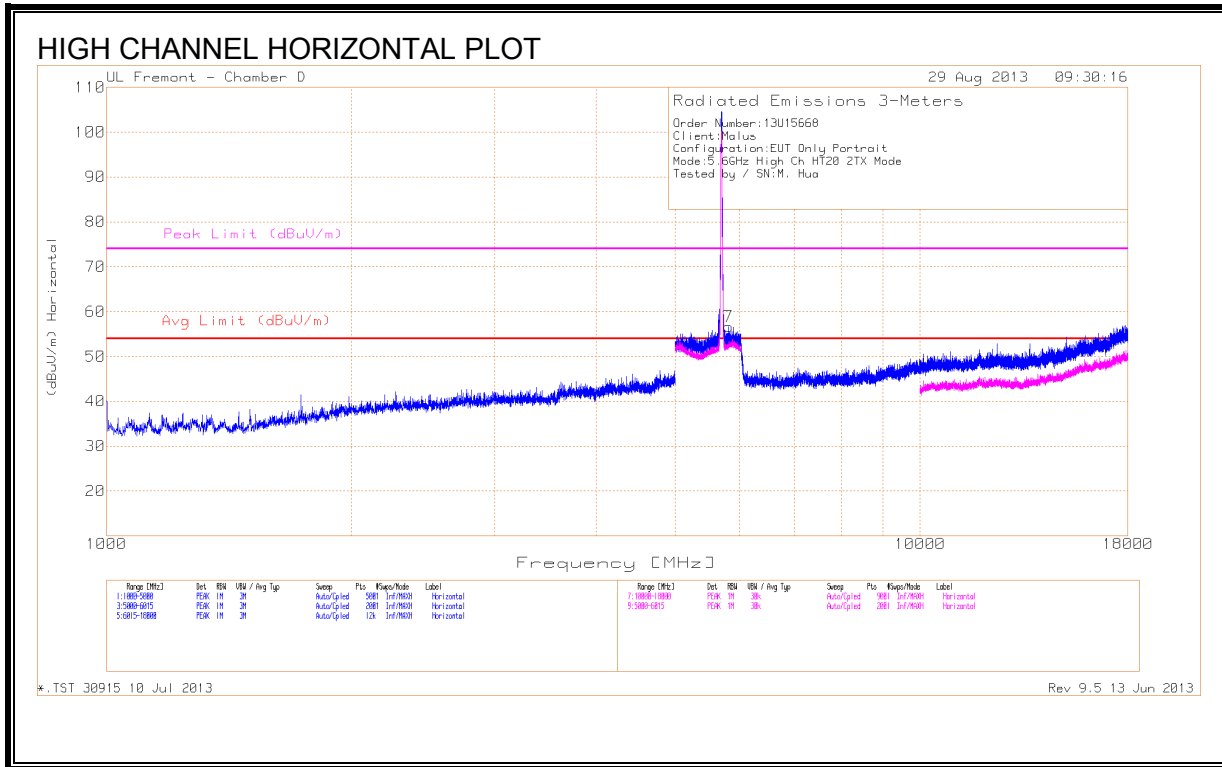
**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Filtr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	47.37	PK	27.7	-32.6	42.47	53.97	-11.5	74	-31.53	200	V
2	1.33	45.25	PK	28.5	-31.6	42.15	53.97	-11.82	74	-31.85	100	V
3	2.518	42.78	PK	32.4	-30.5	44.68	53.97	-9.29	74	-29.32	200	V
4	5.107	39.08	PK	34.5	-18.2	55.38	-	-	74	-18.62	100	V
5	5.372	40.11	PK	34.7	-18.2	56.61	-	-	74	-17.39	100	V
6	5.738	39.44	PK	35.3	-18.1	56.64	-	-	74	-17.36	201	V
7	5.818	38.4	PK	35.4	-17.3	56.5	-	-	74	-17.5	201	V
8	5.979	38.67	PK	35.7	-17.8	56.57	-	-	74	-17.43	100	V
9	8.528	36.81	PK	36.2	-23.6	49.41	-	-	74	-24.59	201	V

PK - Peak detector

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.11	28.33	MAv1	34.5	-18.3	44.53	53.97	-9.44	-	-	359	213	V
5.368	32.57	MAv1	34.7	-18.2	49.07	53.97	-4.9	-	-	103	243	V
5.738	28.06	MAv1	35.3	-18.1	45.26	53.97	-8.71	-	-	203	237	V
5.813	28.1	MAv1	35.4	-17.3	46.2	53.97	-7.77	-	-	108	359	V
5.981	27.73	MAv1	35.7	-17.8	45.63	53.97	-8.34	-	-	185	119	V
8.528	25.23	MAv1	36.2	-23.6	37.83	53.97	-16.14	-	-	117	212	V

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average



**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Filtr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	49.5	PK	27.7	-32.6	44.6	53.97	-9.37	74	-29.4	201	V
2	1.733	48.06	PK	29.9	-31.6	46.36	53.97	-7.61	74	-27.64	201	V
3	5.057	39.05	PK	34.4	-18.3	55.15	-	-	74	-18.85	201	V
4	5.28	38.31	PK	34.7	-17.9	55.11	-	-	74	-18.89	100	V
5	5.482	42.27	PK	34.8	-18.5	58.57	-	-	74	-15.43	201	V
6	5.909	38.04	PK	35.6	-17.3	56.34	-	-	74	-17.66	201	V
7	5.816	38.57	PK	35.4	-17.3	56.67	-	-	74	-17.33	201	H
8	9.289	35.54	PK	36.9	-23.3	49.14	-	-	74	-24.86	200	V

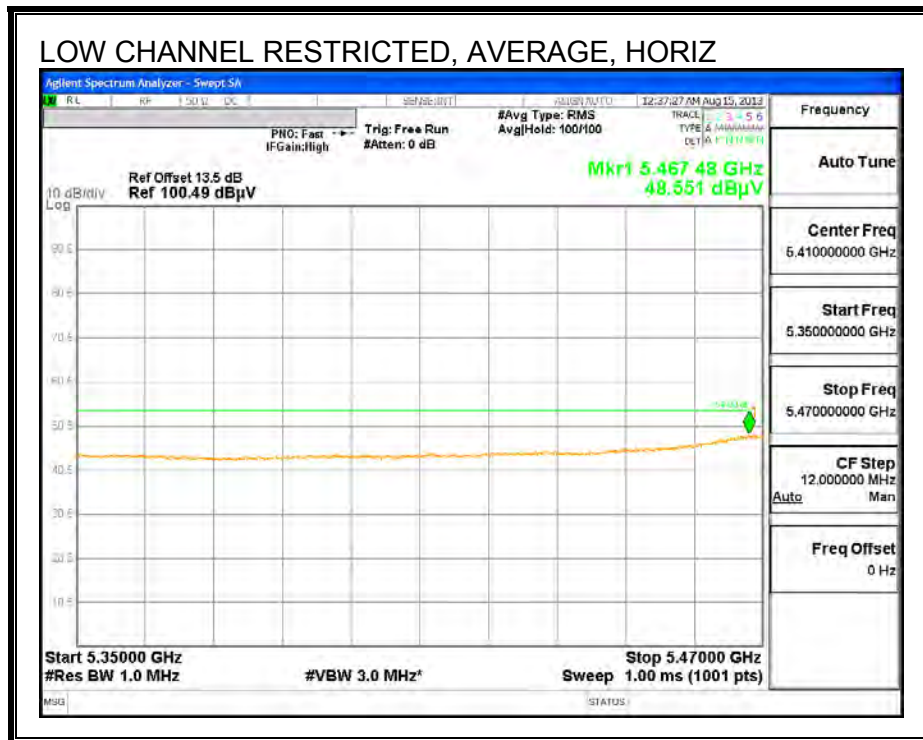
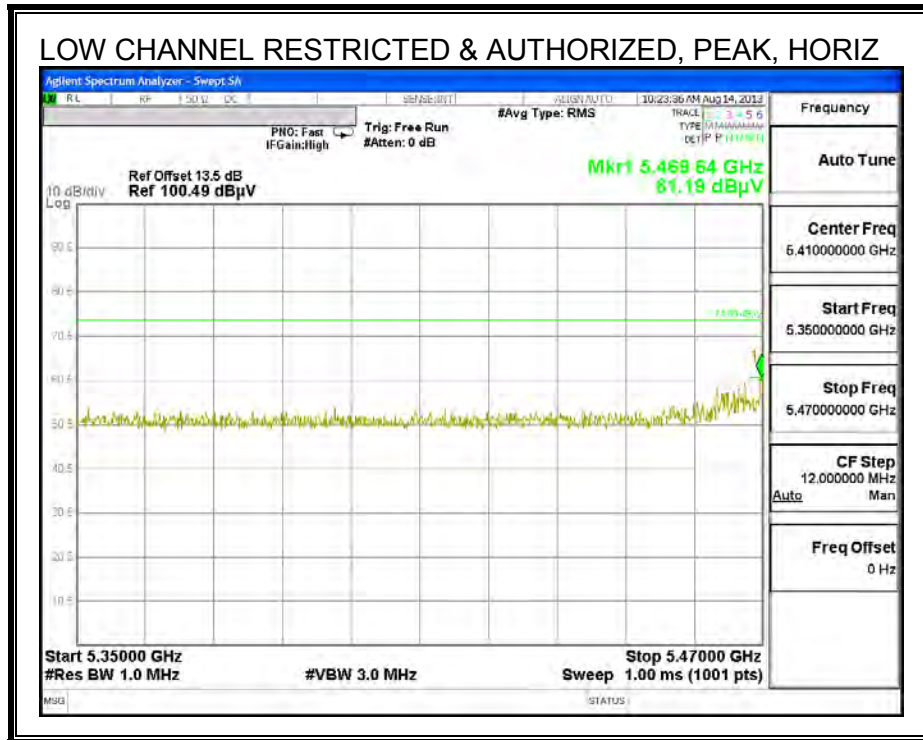
PK - Peak detector

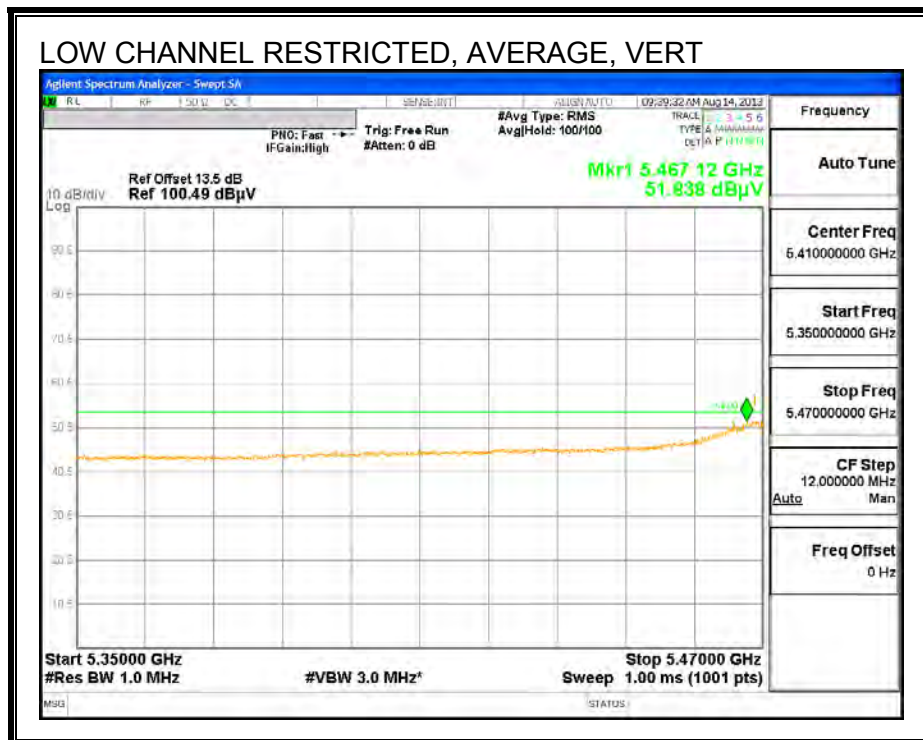
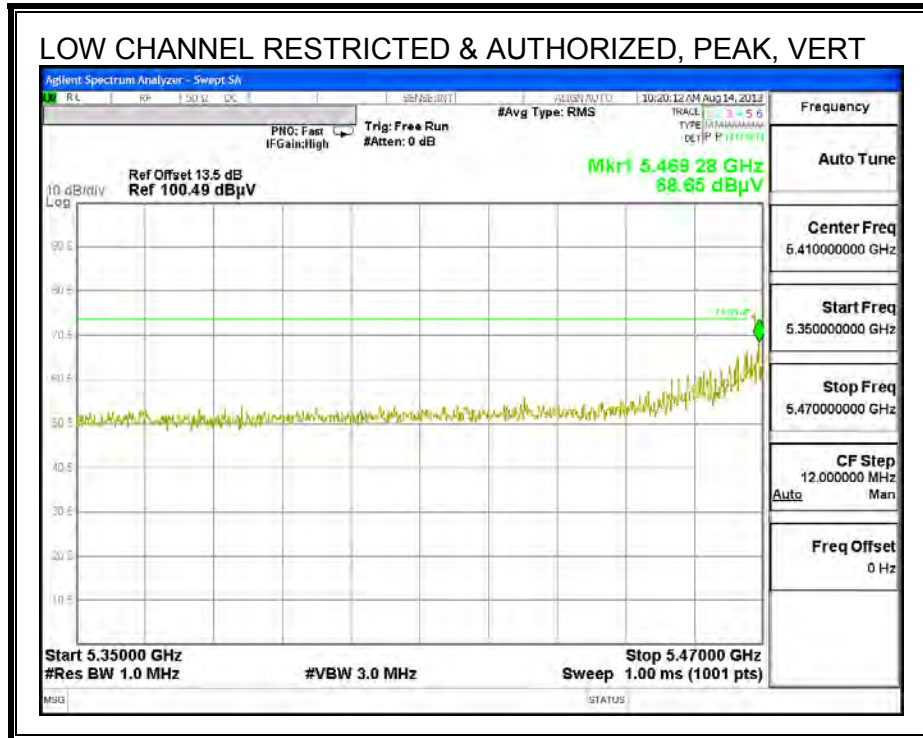
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.817	27.53	MAv1	35.4	-17.3	45.63	53.97	-8.34	-	-	22	272	H
5.055	28.29	MAv1	34.4	-18.3	44.39	53.97	-9.58	-	-	130	309	V
5.279	27.31	MAv1	34.7	-17.9	44.11	53.97	-9.86	-	-	214	173	V
5.484	28.79	MAv1	34.8	-18.5	45.09	53.97	-8.88	-	-	199	227	V
5.911	29.18	MAv1	35.6	-17.3	47.48	53.97	-6.49	-	-	92	136	V
9.292	24.47	MAv1	37	-23.3	38.17	53.97	-15.8	-	-	74	400	V

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average

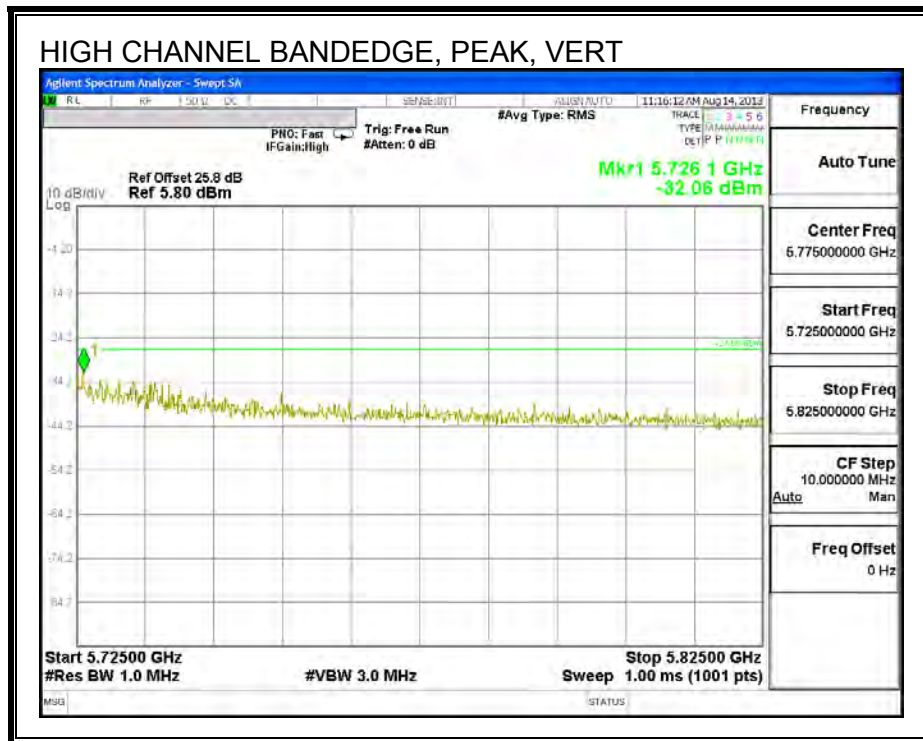
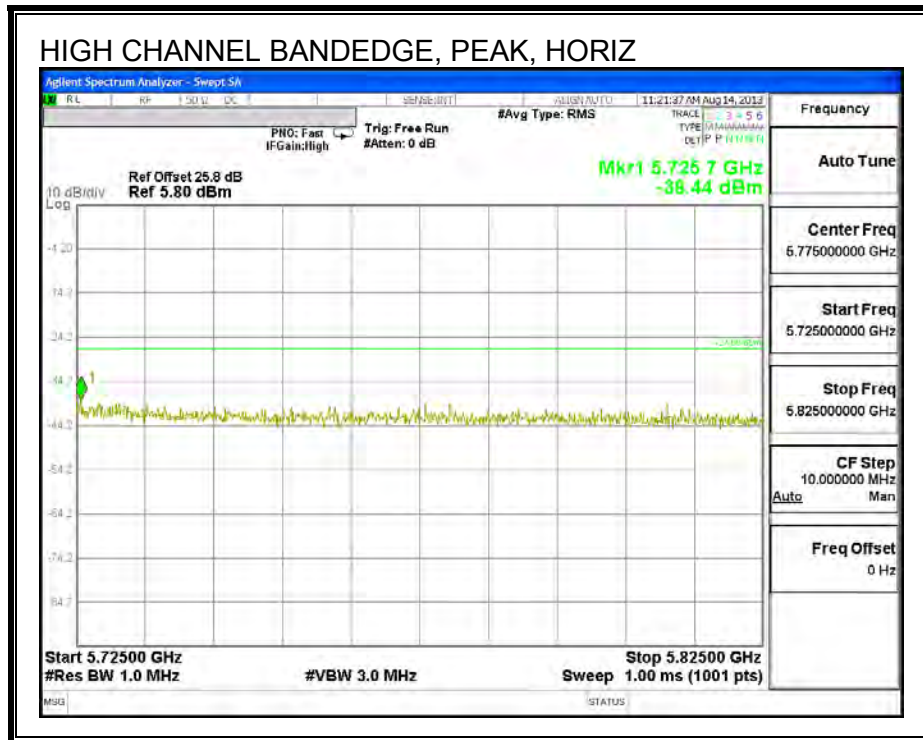
**9.2.11. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.6 GHz BAND**

**RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL)**

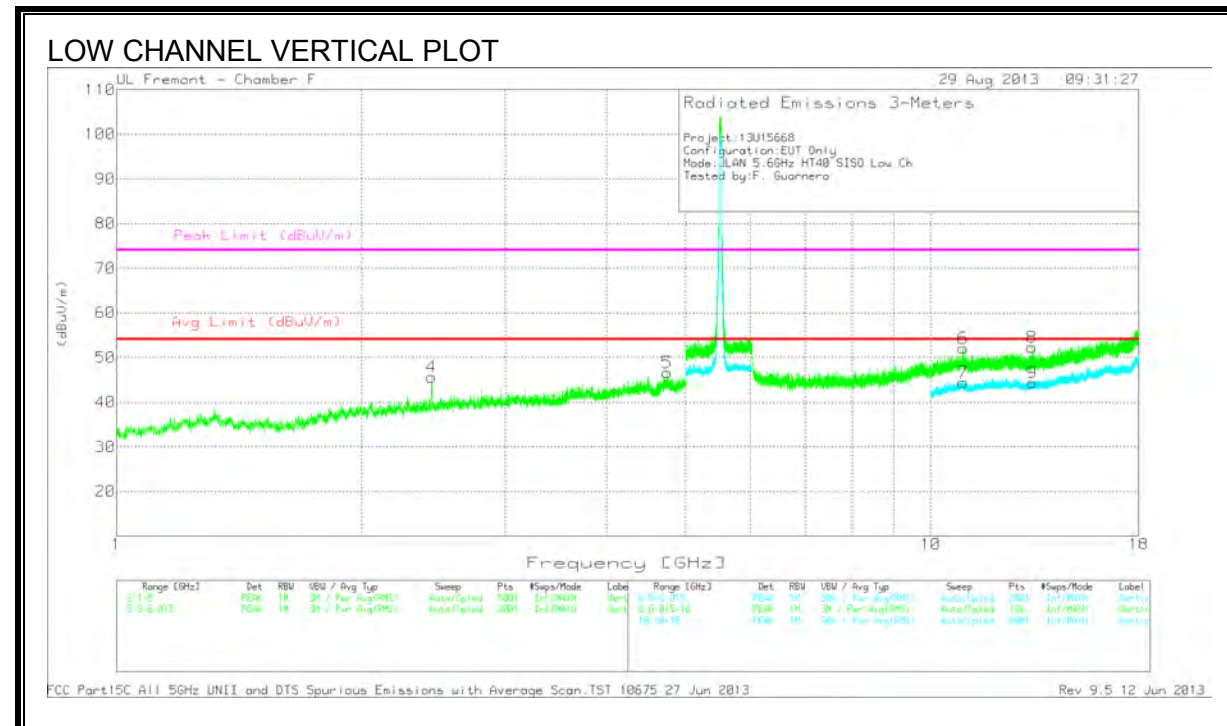
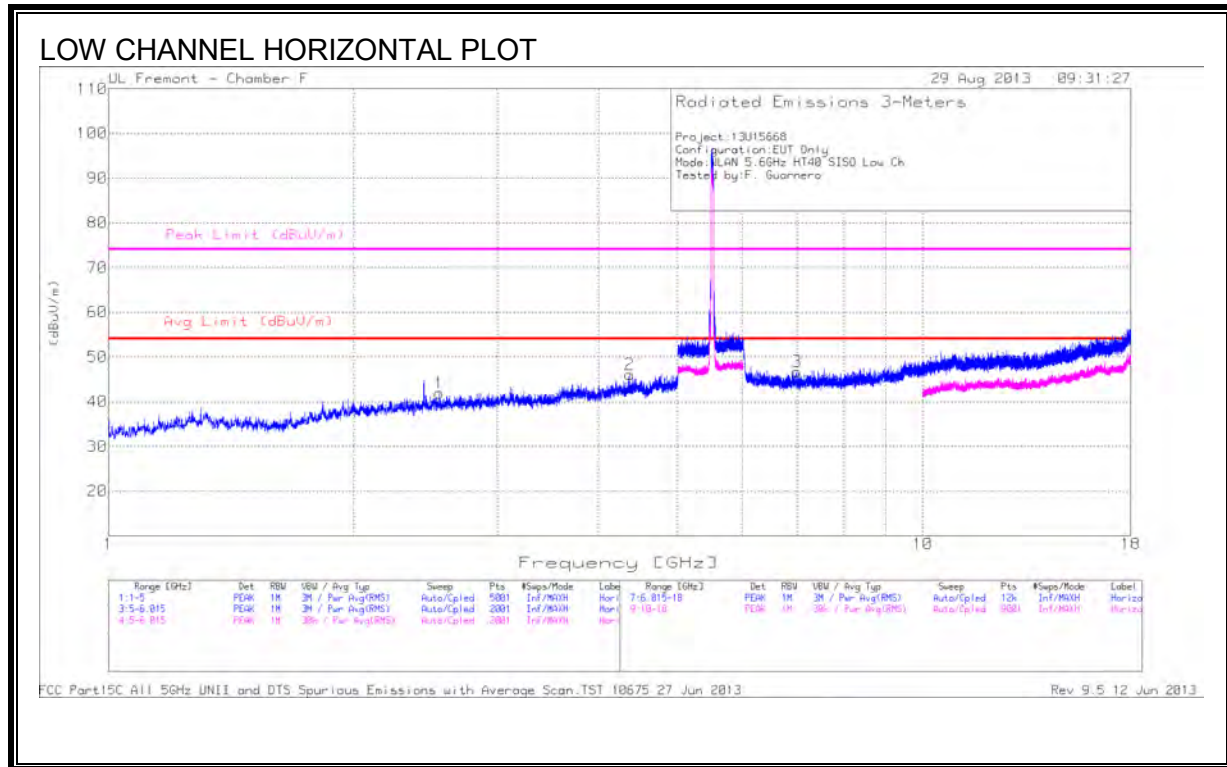




**AUTHORIZED BANDEDGE (HIGH CHANNEL)**



**HARMONICS AND SPURIOUS EMISSIONS**



**DATA**

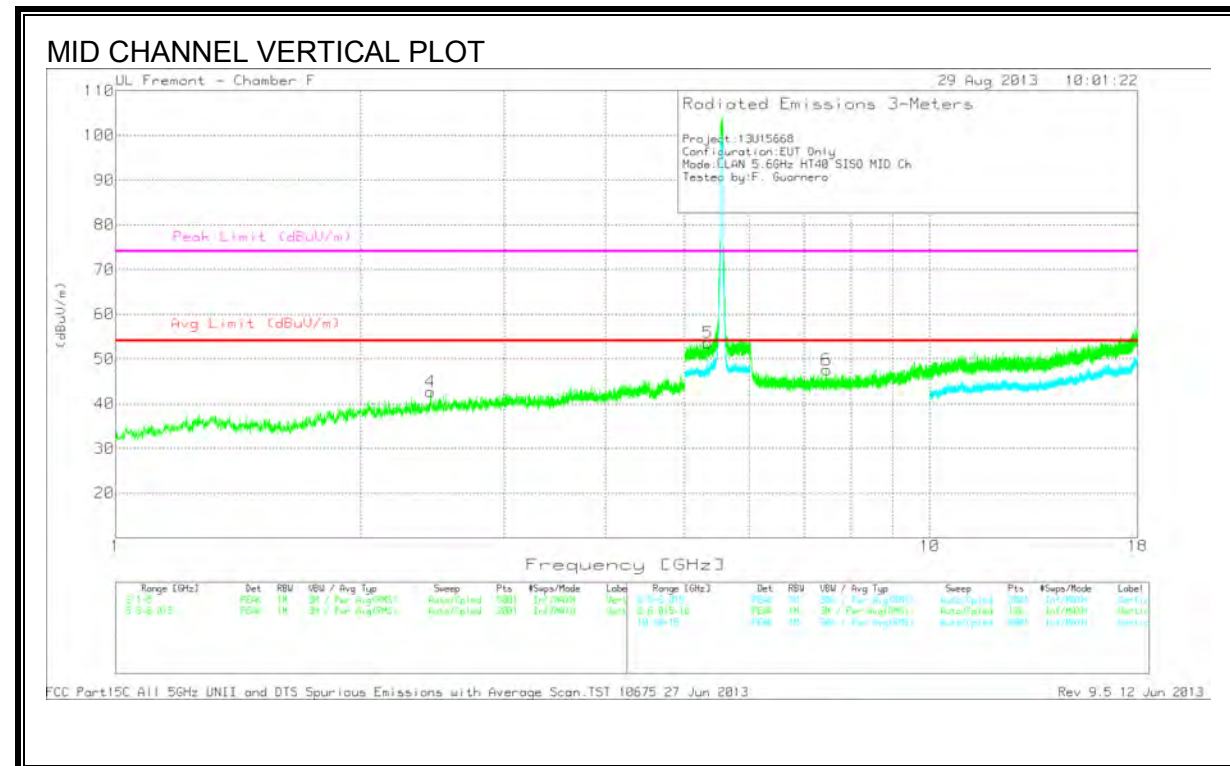
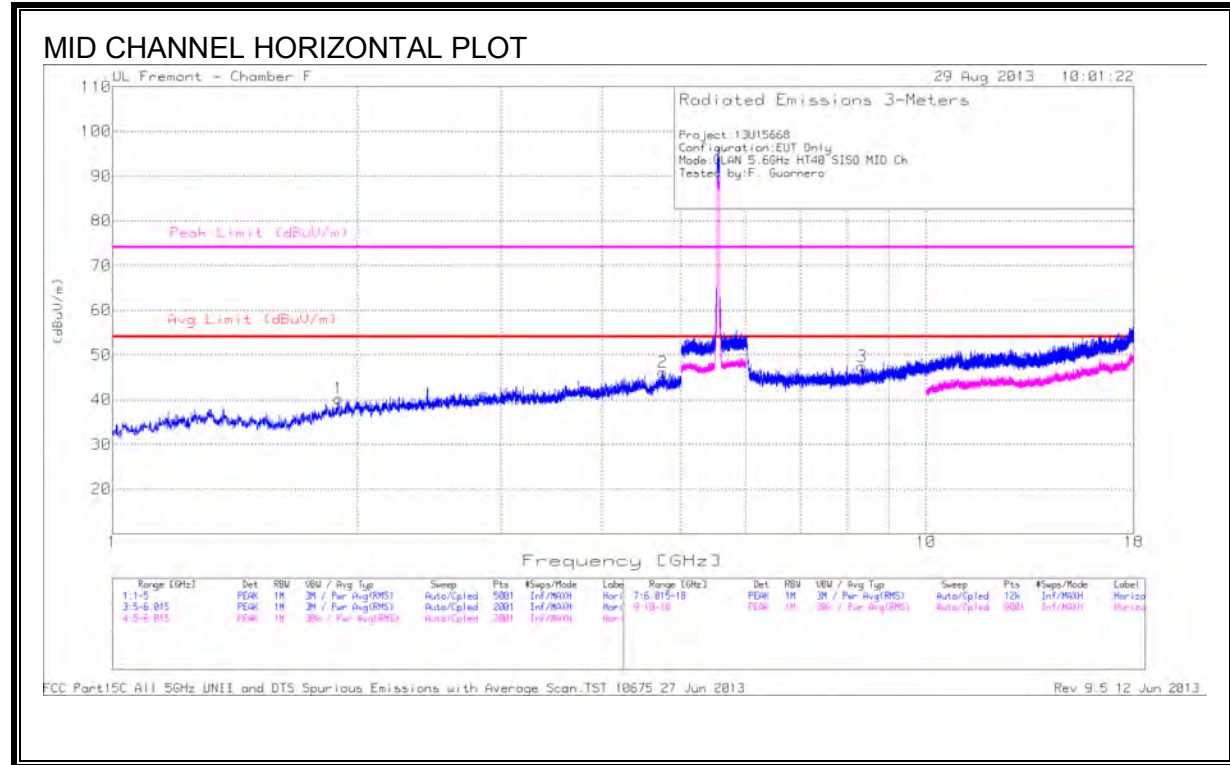
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl /5GHz LPF	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.547	39.83	PK	32.6	-30.5	41.93	53.97	-12.04	74	-32.07	0-360	199	H
2	4.362	41.58	PK	33.6	-29.1	46.08	53.97	-7.89	74	-27.92	0-360	199	H
3	7	36.92	PK	35.7	-25.9	46.72	53.97	-7.25	74	-27.28	0-360	199	H

PK - Peak detector

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl /6GHz HPF	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.437	44.05	PK	32.3	-30.7	45.65	53.97	-8.32	74	-28.35	0-360	201	V
5	4.742	40.22	PK	34.1	-27.7	46.62	53.97	-7.35	74	-27.38	0-360	201	V
6	10.957	35.66	PK	38.7	-22.3	52.06	-	-	74	-21.94	0-360	201	V
7	10.957	28.03	PK (VB)	38.7	-22.3	44.43	53.97	-9.54	-	-	0-360	201	V
8	13.308	37.18	PK	39.3	-24.2	52.28	-	-	74	-21.72	0-360	201	V
9	13.319	29.27	PK (VB)	39.3	-24.2	44.37	53.97	-9.6	-	-	0-360	101	V

PK - Peak detector





**DATA**

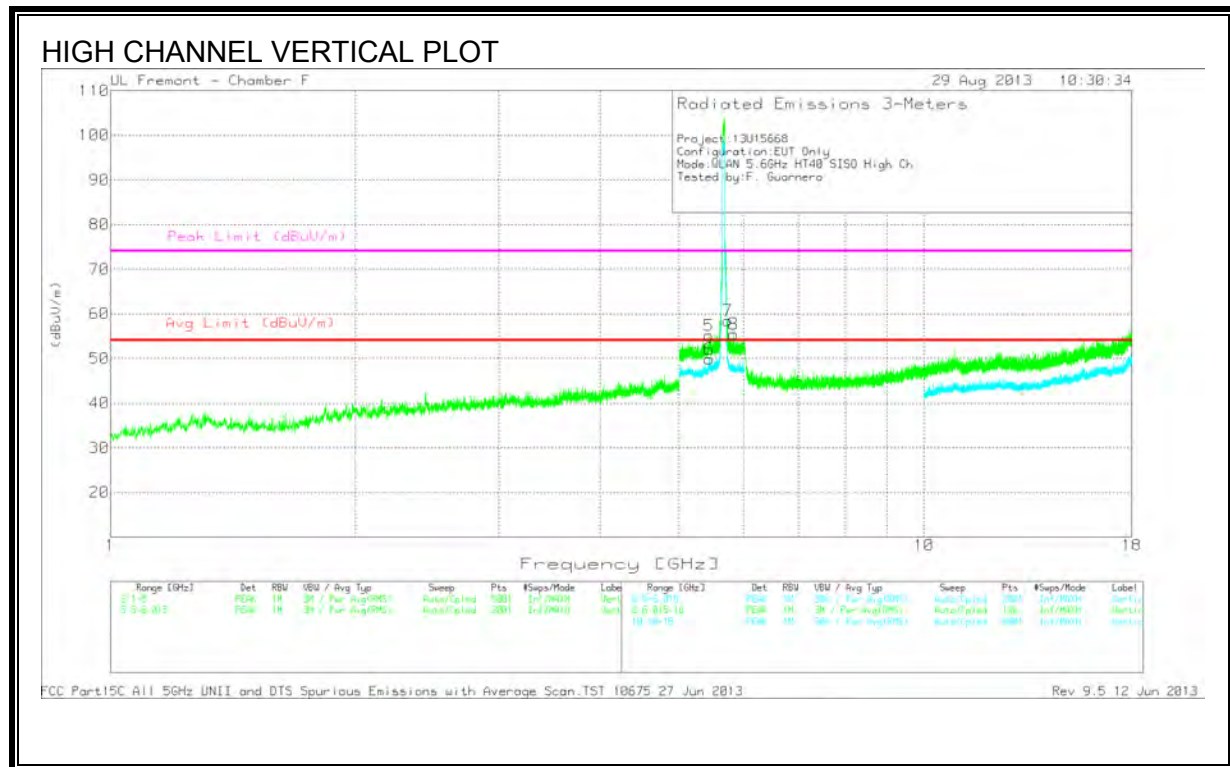
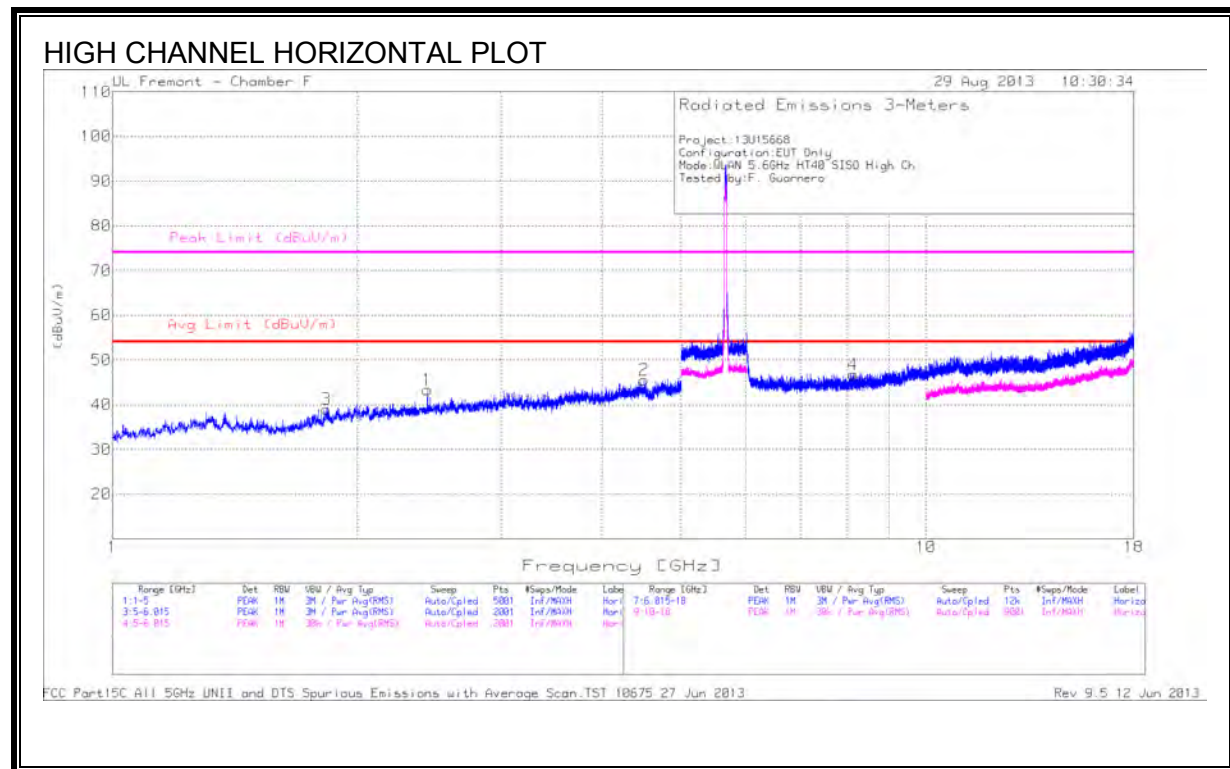
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl /5GHz LPF	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.895	40.49	PK	31.1	-31.3	40.29	53.97	-13.68	74	-33.71	0-360	199	H
2	4.747	39.73	PK	34.1	-27.7	46.13	53.97	-7.84	74	-27.87	0-360	100	H
3	8.34	36.33	PK	36	-24.9	47.43	53.97	-6.54	74	-26.57	0-360	199	H

PK - Peak detector

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl /10dB Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.438	41.08	PK	32.3	-30.7	42.68	53.97	-11.29	74	-31.32	0-360	201	V
*5	5.336	38.43	PK	34.5	-19.3	53.63	-	-	68.2	-14.57	0-360	199	V
6	7.467	37.87	PK	35.8	-26.1	47.57	53.97	-6.4	74	-26.43	0-360	201	V

PK - Peak detector

\*Not in Restricted Band



**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl /5GHz LPF	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.438	41.77	PK	32.3	-30.7	43.37	53.97	-10.6	74	-30.63	0-360	199	H
2	4.502	39.16	PK	33.9	-27.5	45.56	53.97	-8.41	74	-28.44	0-360	100	H
3	1.831	39.41	PK	30.5	-30.9	39.01	53.97	-14.96	74	-34.99	0-360	199	H
4	8.134	36.35	PK	36	-25.6	46.75	53.97	-7.22	74	-27.25	0-360	100	H

PK - Peak detector

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl /10dB Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	5.439	40.13	PK	34.7	-19.7	55.13	-	-	74	-18.87	0-360	200	V
6	5.445	34.97	PK (VB)	34.7	-19.8	49.87	53.97	-4.1	-	-	0-360	201	V
*7	5.737	42.26	PK	34.9	-18.7	58.46	-	-	68.2	-9.74	0-360	100	V
*8	5.832	38.85	PK	35.1	-18.5	55.45	-	-	68.2	-12.75	0-360	100	V

PK - Peak detector

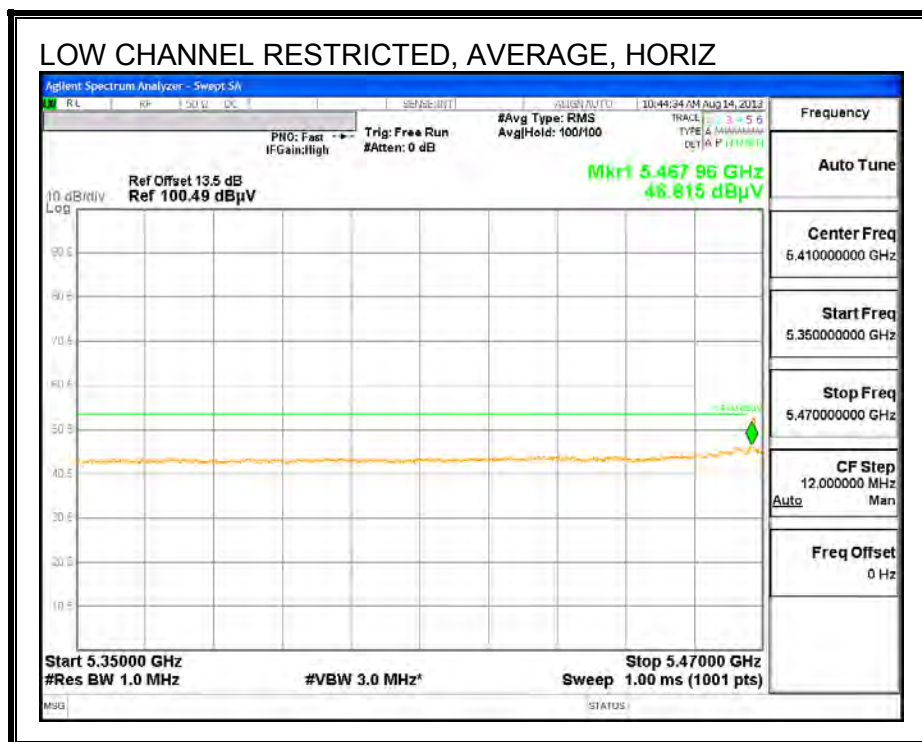
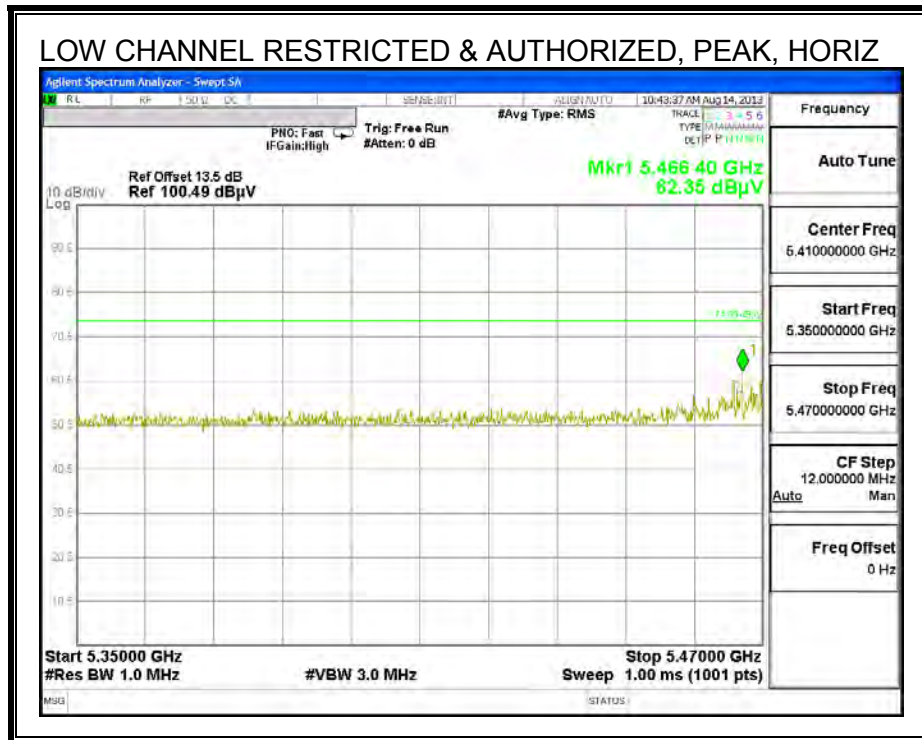
\*Not in Restricted Band

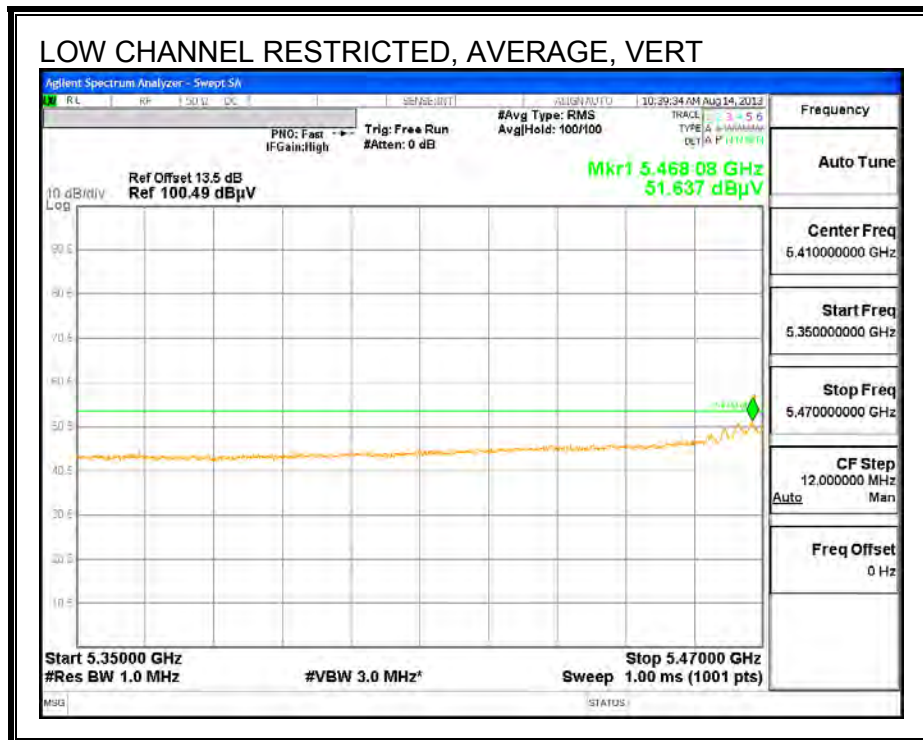
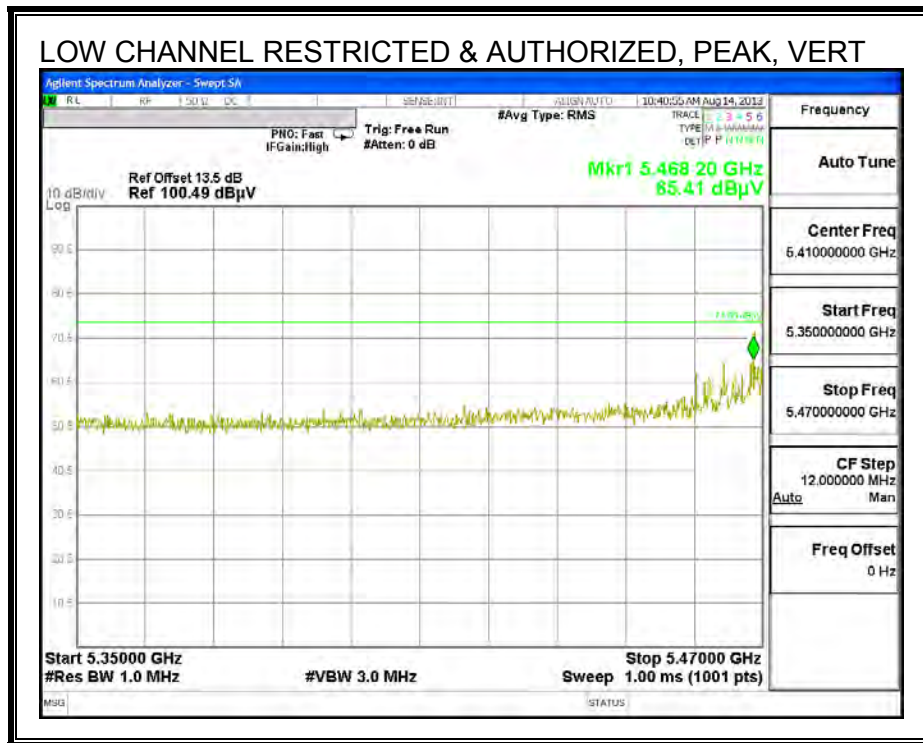
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/ 10dB Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.447	31.77	MAV1	34.7	-19.8	46.67	53.97	-7.3	-	-	254	363	V

MAV1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average

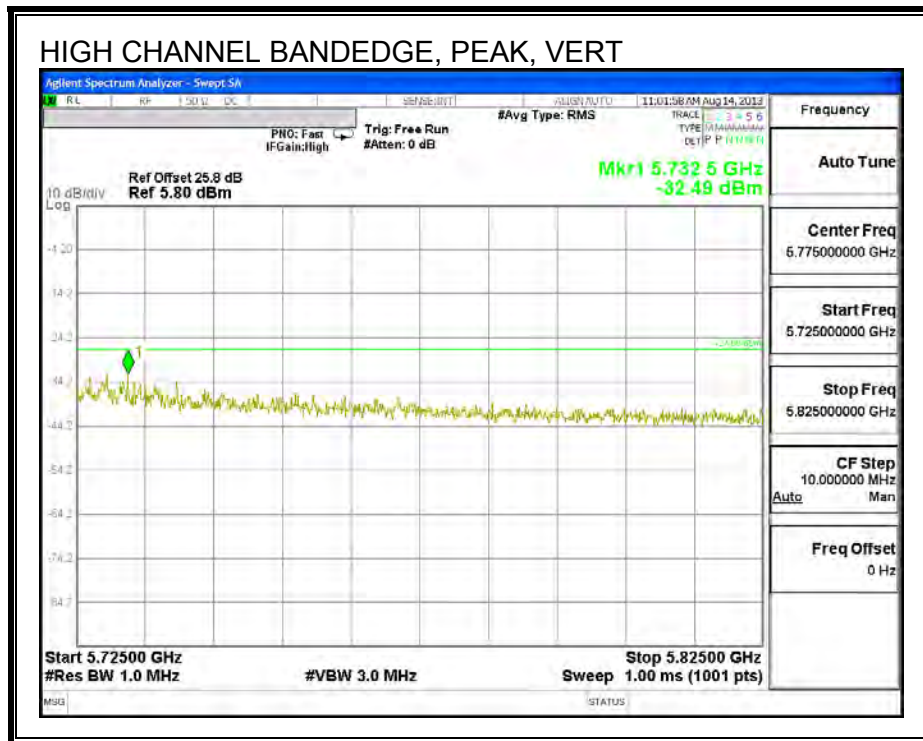
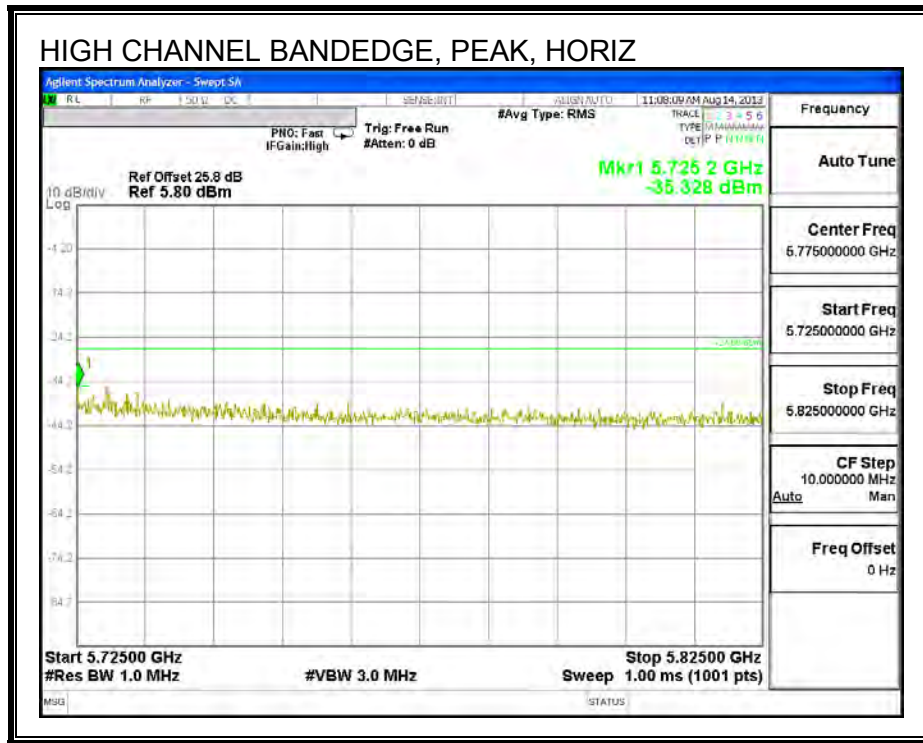
### 9.2.12. TX ABOVE 1 GHz 802.11n HT40 2TX CDD MODE IN THE 5.6 GHz BAND

#### RESTRICTED & AUTHORIZED BANDEDGE (LOW CHANNEL)

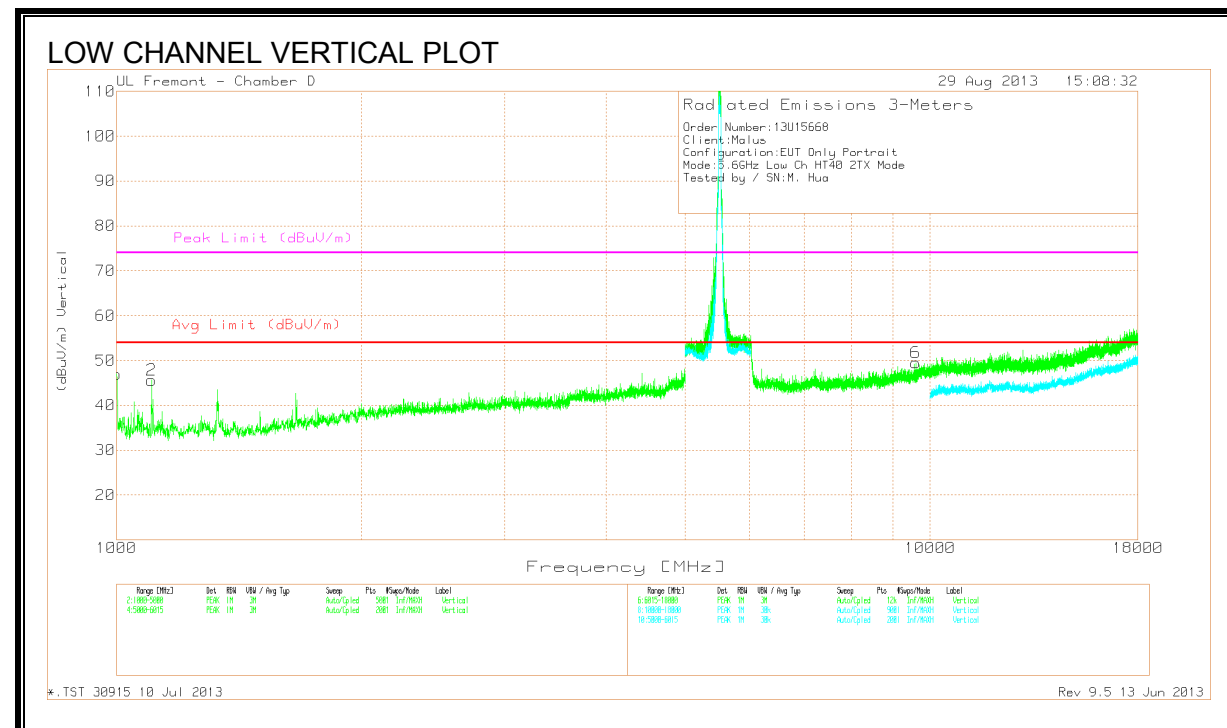
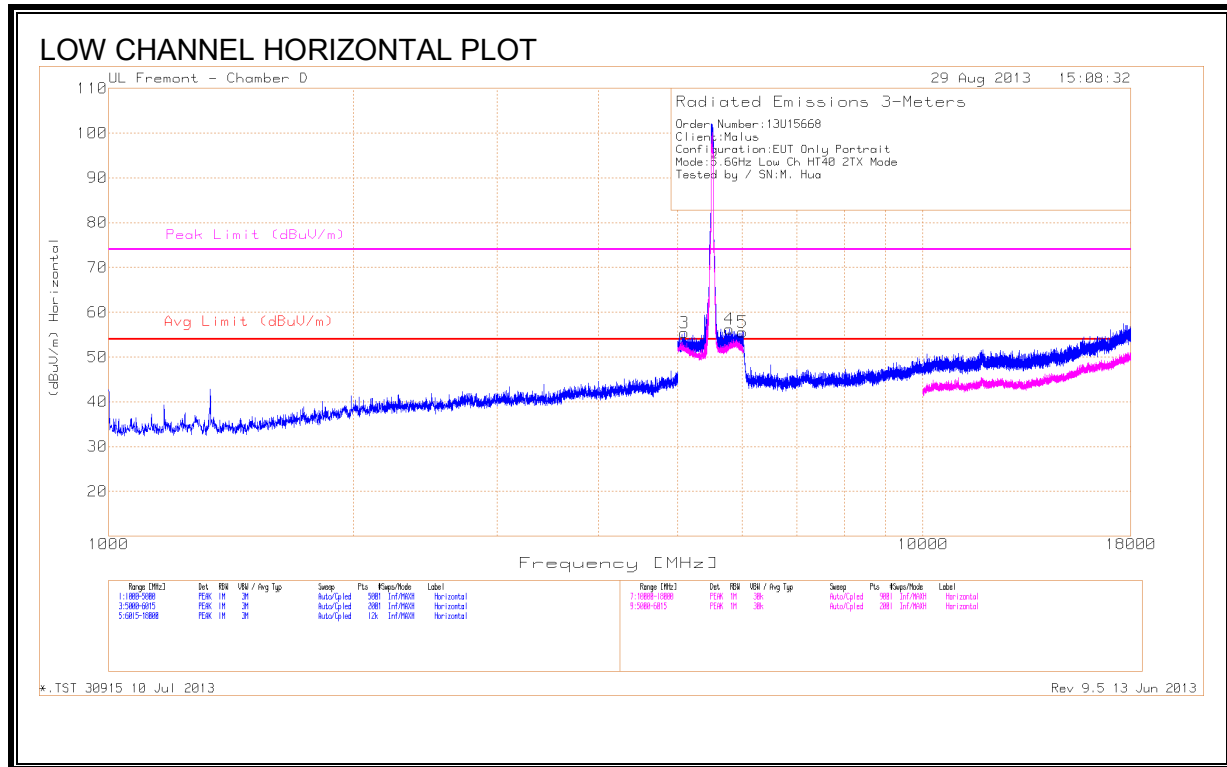




**AUTHORIZED BANDEDGE (HIGH CHANNEL)**



**HARMONICS AND SPURIOUS EMISSIONS**





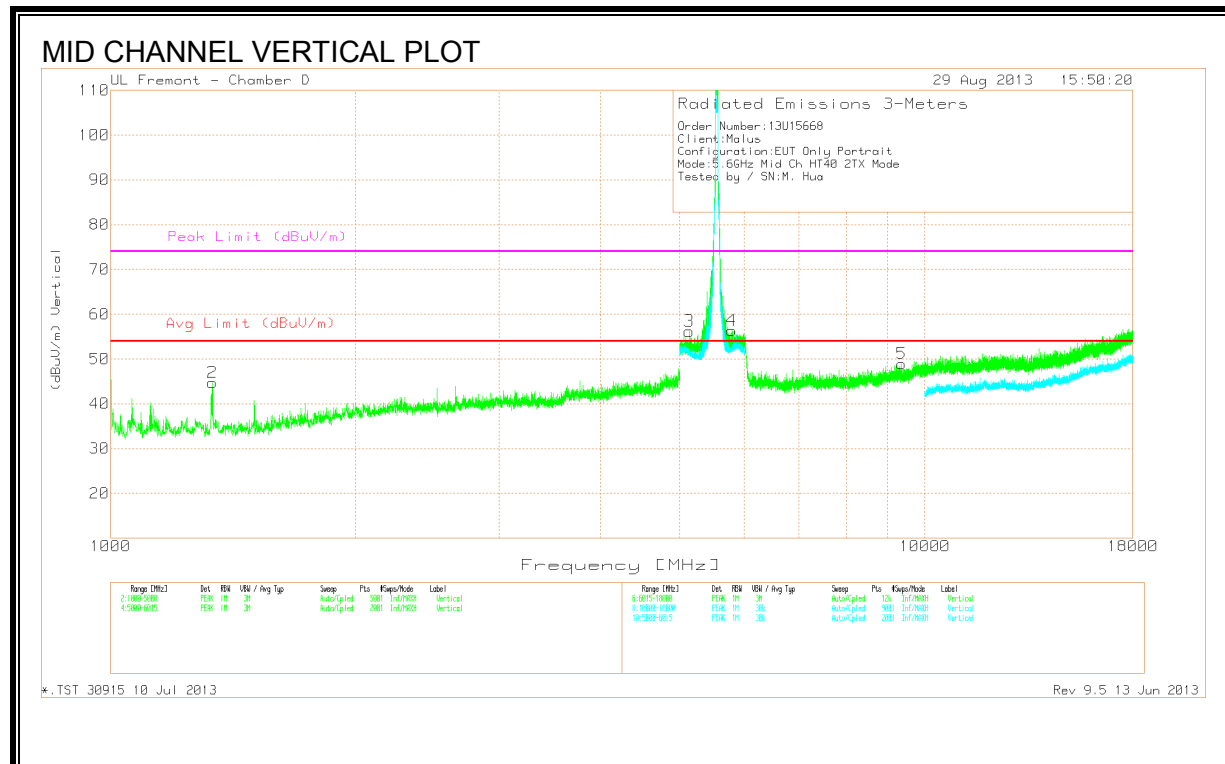
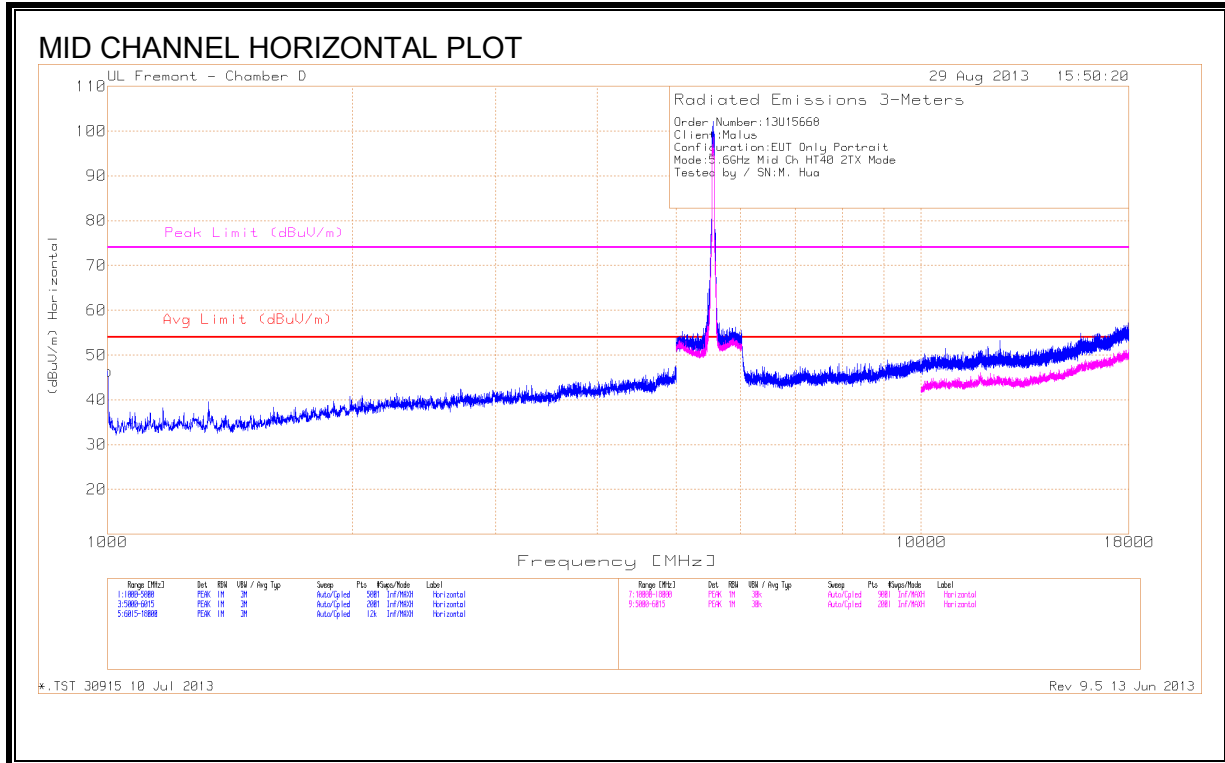
**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Fitr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	51.88	PK	27.7	-32.6	46.98	53.97	-6.99	74	-27.02	201	V
2	1.104	50.12	PK	28.1	-32.6	45.62	53.97	-8.35	74	-28.38	201	V
3	5.093	39.22	PK	34.4	-18.2	55.42	-	-	74	-18.58	201	H
4	5.787	38.35	PK	35.4	-17.5	56.25	-	-	74	-17.75	201	H
5	6.003	37.67	PK	35.7	-17.8	55.57	-	-	74	-18.43	201	H
6	9.6	35.43	PK	37.3	-23.2	49.53	53.97	-4.44	74	-24.47	200	V

PK - Peak detector

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Fitr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.09	28.43	MAv1	34.4	-18.2	44.63	53.97	-9.34	-	-	235	180	H
5.786	27.86	MAv1	35.4	-17.5	45.76	53.97	-8.21	-	-	224	200	H
5.998	27.43	MAv1	35.7	-17.8	45.33	53.97	-8.64	-	-	180	203	H
9.599	24.36	MAv1	37.3	-23.1	38.56	53.97	-15.41	-	-	146	232	V

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average



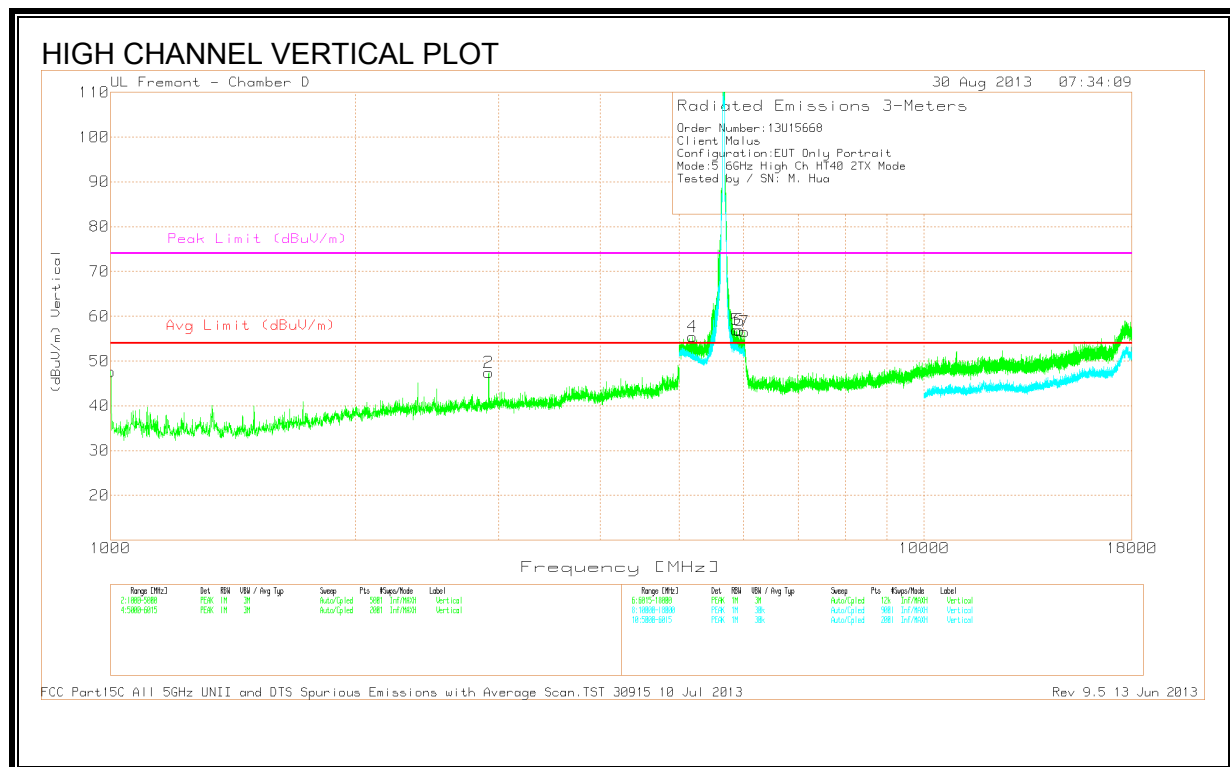
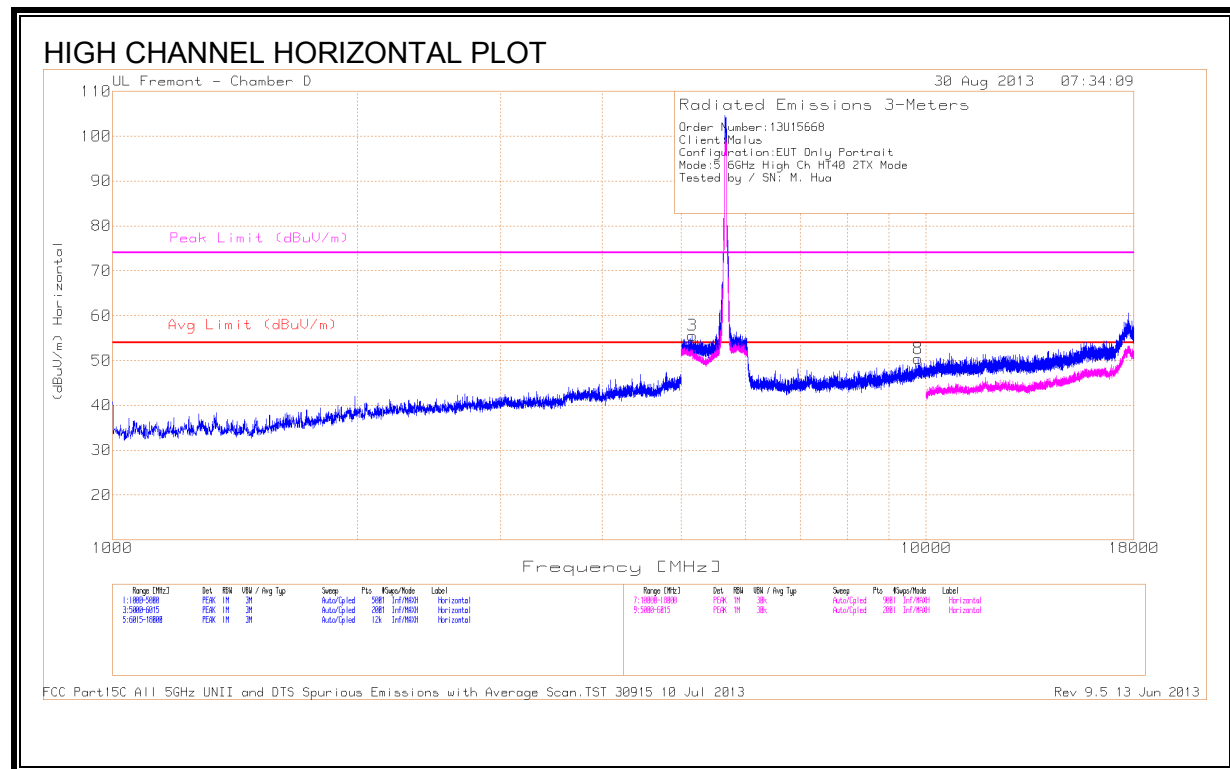
**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Filtr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	51.35	PK	27.7	-32.6	46.45	53.97	-7.52	74	-27.55	201	H
2	1.334	47.86	PK	28.5	-31.6	44.76	53.97	-9.21	74	-29.24	200	V
3	5.134	40.1	PK	34.5	-18.4	56.2	-	-	74	-17.8	201	V
4	5.791	38.5	PK	35.4	-17.5	56.4	-	-	74	-17.6	100	V
5	9.365	34.98	PK	37	-23	48.98	53.97	-4.99	74	-25.02	100	V

PK - Peak detector

Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Filtr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.139	28.55	MAv1	34.5	-18.5	44.55	53.97	-9.42	-	-	133	274	V
5.788	27.69	MAv1	35.4	-17.5	45.59	53.97	-8.38	-	-	226	368	V
9.362	24.26	MAv1	37	-23	38.26	53.97	-15.71	-	-	167	304	V

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average



**DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Ftr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	1	52.44	PK	27.7	-32.5	47.64	53.97	-6.33	74	-26.36	200	V
2	2.916	44.75	PK	33	-30.3	47.45	53.97	-6.52	74	-26.55	200	V
3	5.16	39.21	PK	34.6	-18.2	55.61	-	-	74	-18.39	200	H
4	5.19	38.93	PK	34.6	-18.1	55.43	-	-	74	-18.57	200	V
5	5.882	38.77	PK	35.5	-17.3	56.97	-	-	74	-17.03	200	V
6	5.932	38.87	PK	35.6	-17.6	56.87	-	-	74	-17.13	100	V
7	6.015	35.47	PK	35.7	-14.6	56.57	-	-	74	-17.43	201	V
8	9.771	35.3	PK	37.4	-22.3	50.4	53.97	-3.57	74	-23.6	100	H

PK - Peak detector

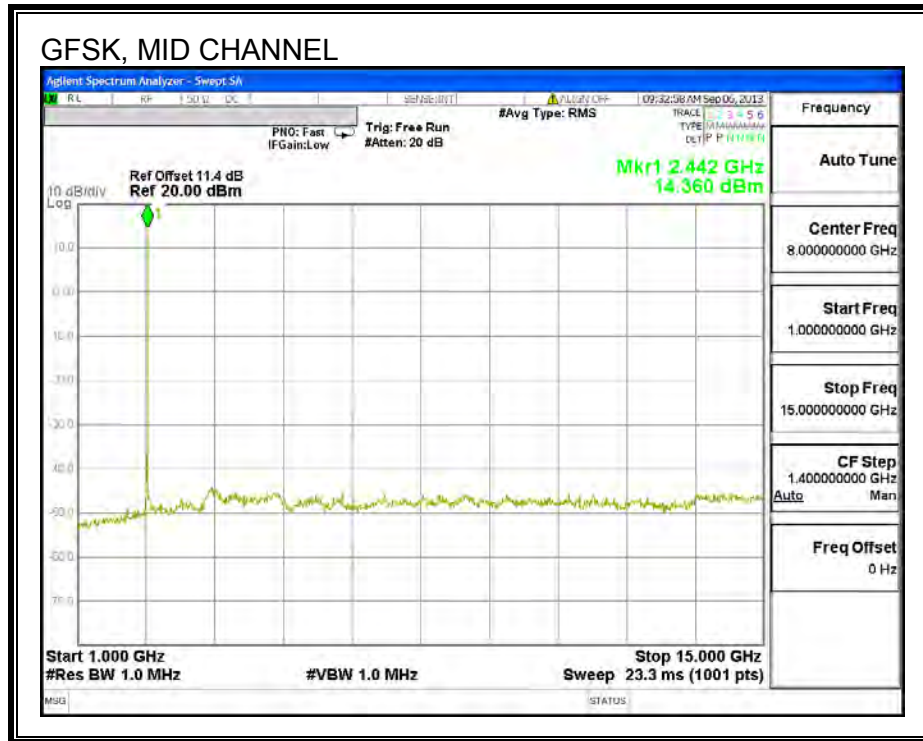
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl/ Ftr/Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5.158	28.2	MAv1	34.6	-18.2	44.6	53.97	-9.37	-	-	152	265	H
5.188	28.02	MAv1	34.6	-18.2	44.42	53.97	-9.55	-	-	226	239	V
5.88	29.2	MAv1	35.5	-17.3	47.4	53.97	-6.57	-	-	173	263	V
5.933	27.71	MAv1	35.6	-17.7	45.61	53.97	-8.36	-	-	131	376	V
6.022	25.49	MAv1	35.7	-16.4	44.79	53.97	-9.18	-	-	246	335	V
9.77	24.15	MAv1	37.4	-22.2	39.35	53.97	-14.62	-	-	208	219	H

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average

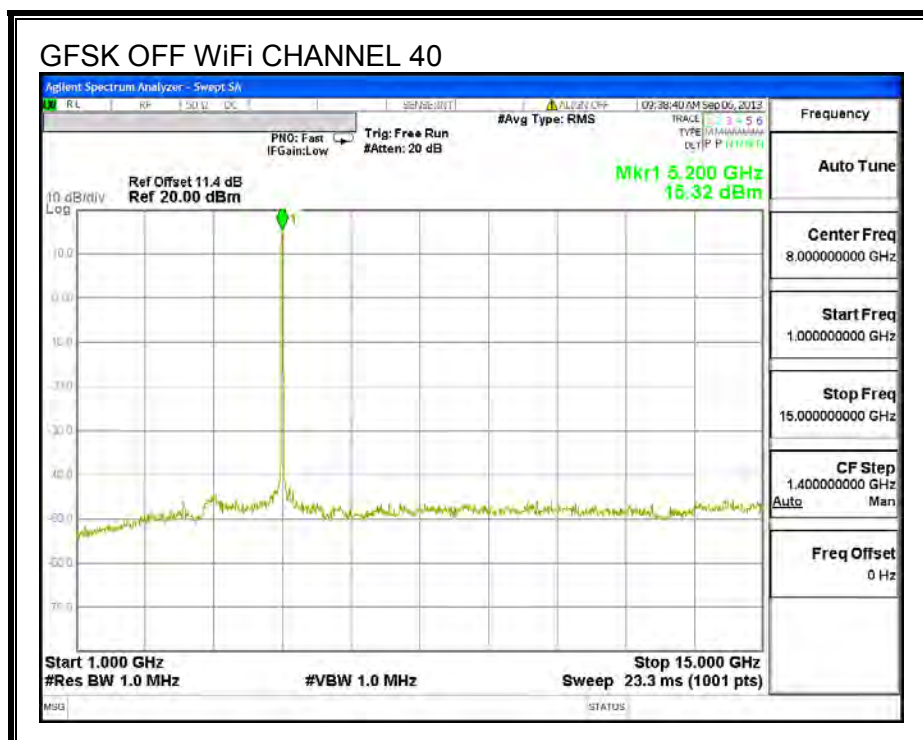
### 9.2.13. WORST-CASE 2.4GHZ & 5GHZ BAND CO-LOCATION

ANTENNA PORT:

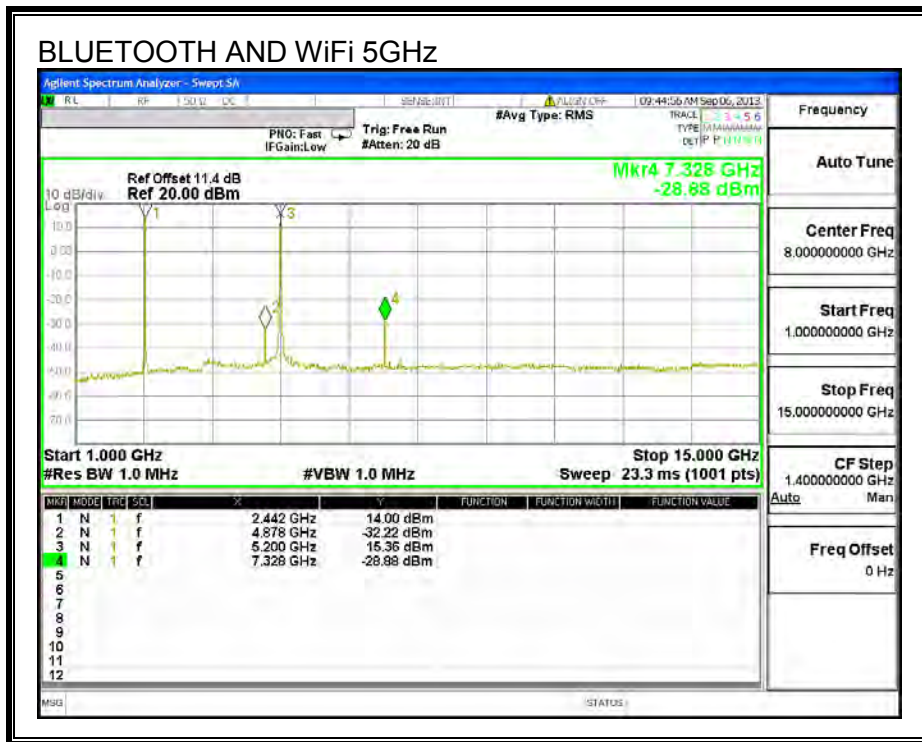
BLUETOOTH ON



BLUETOOTH OFF WiFi ON



**BLUETOOTH AND WiFi CO-LOCATION**



**RADIATED HARMONICS AND SPURIOUS EMISSIONS**

**RESULTS**

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl /Pad	Corrected Reading (dBuVolts)	Peak Limit (dBuV/ m)	Margin (dB)	Class B Avg Limit (dBuV/m)	Margin (dB)	Polarity
4.882	51.095	PK	34.3	-27.3	44.095	74	-28.079	-29.905	-	V
7.325	56.488	PK	35.9	-26.4	46.988	74	-28.343	-27.012	-	V

PK - Peak detector

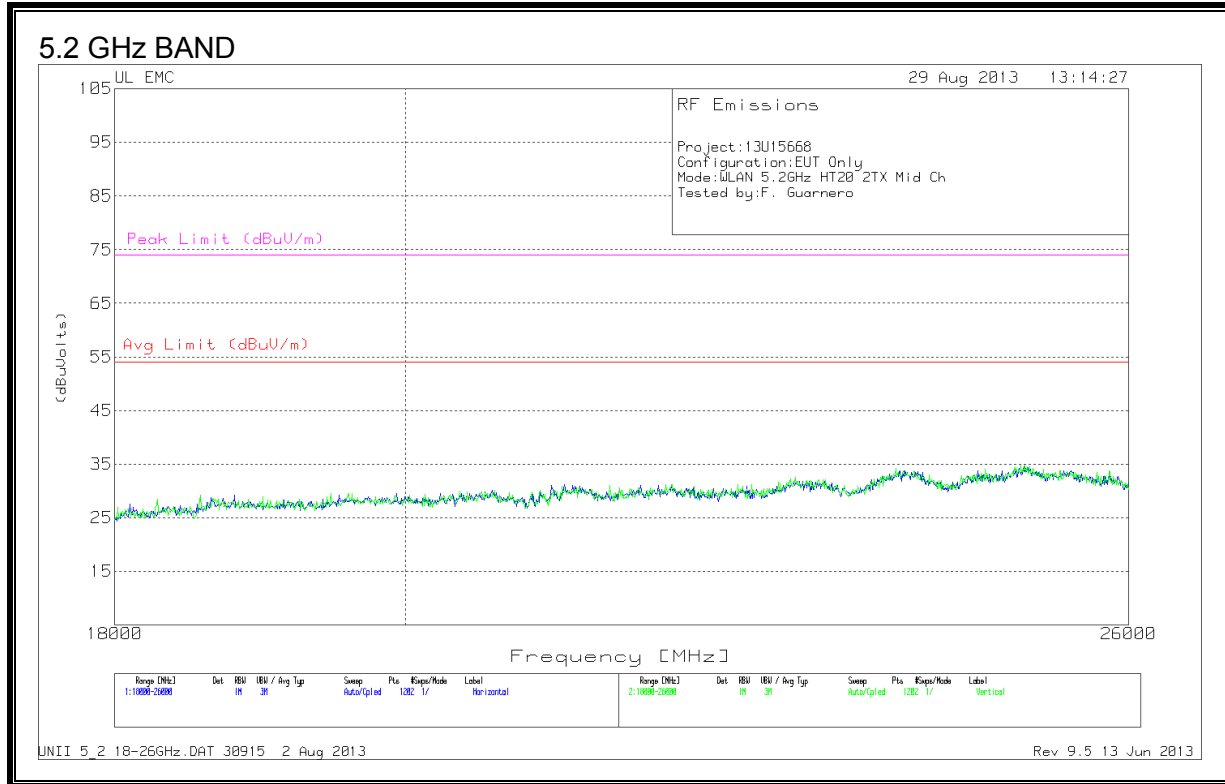
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cbl /Filtr/Pad	Corrected Reading (dBuVolts)	Peak Limit (dBuV/ m)	Margin (dB)	Class B Avg Limit (dBuV/m)	Margin (dB)	Polarity
4.883	41.916	AV	34.3	-27.3	34.916	-	-	54	-19.084	V
7.325	51.144	AV	35.9	-26.4	41.644	-	-	54	-12.356	V

AV – Average RMS detector

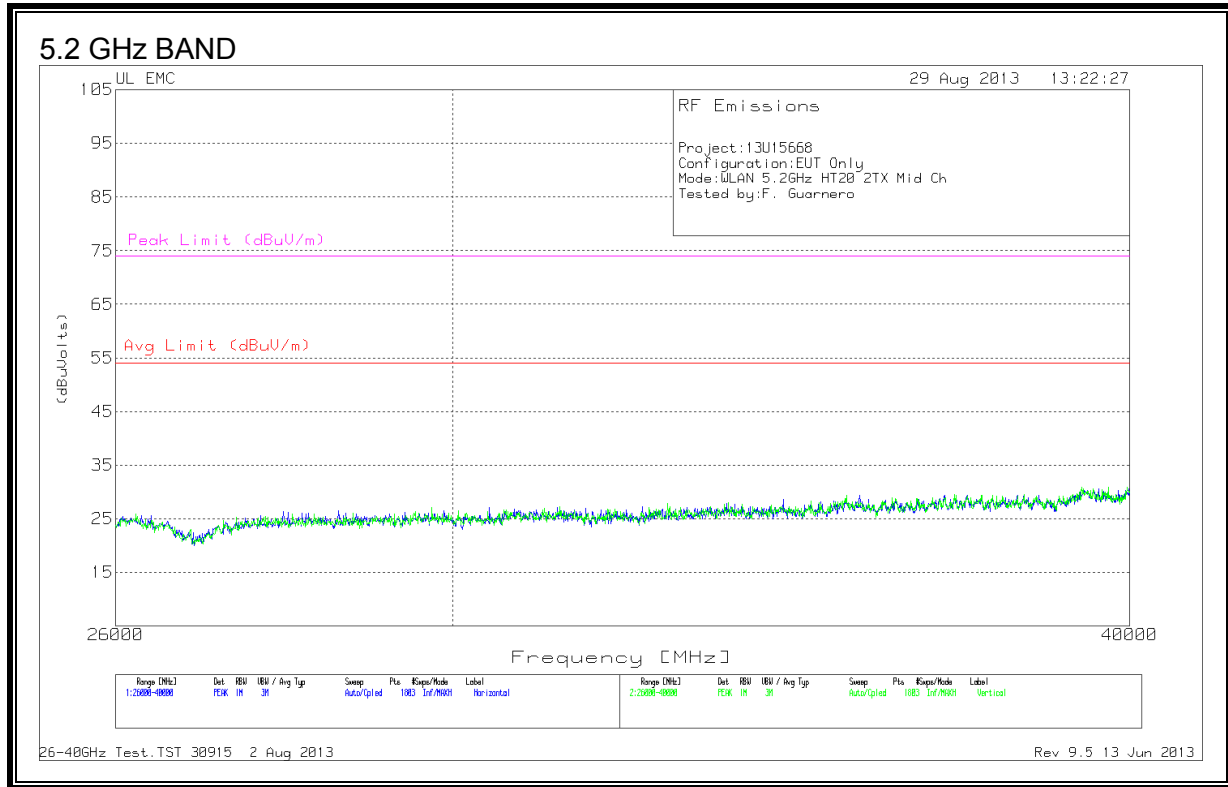


### 9.3. WORST-CASE ABOVE 18 GHZ

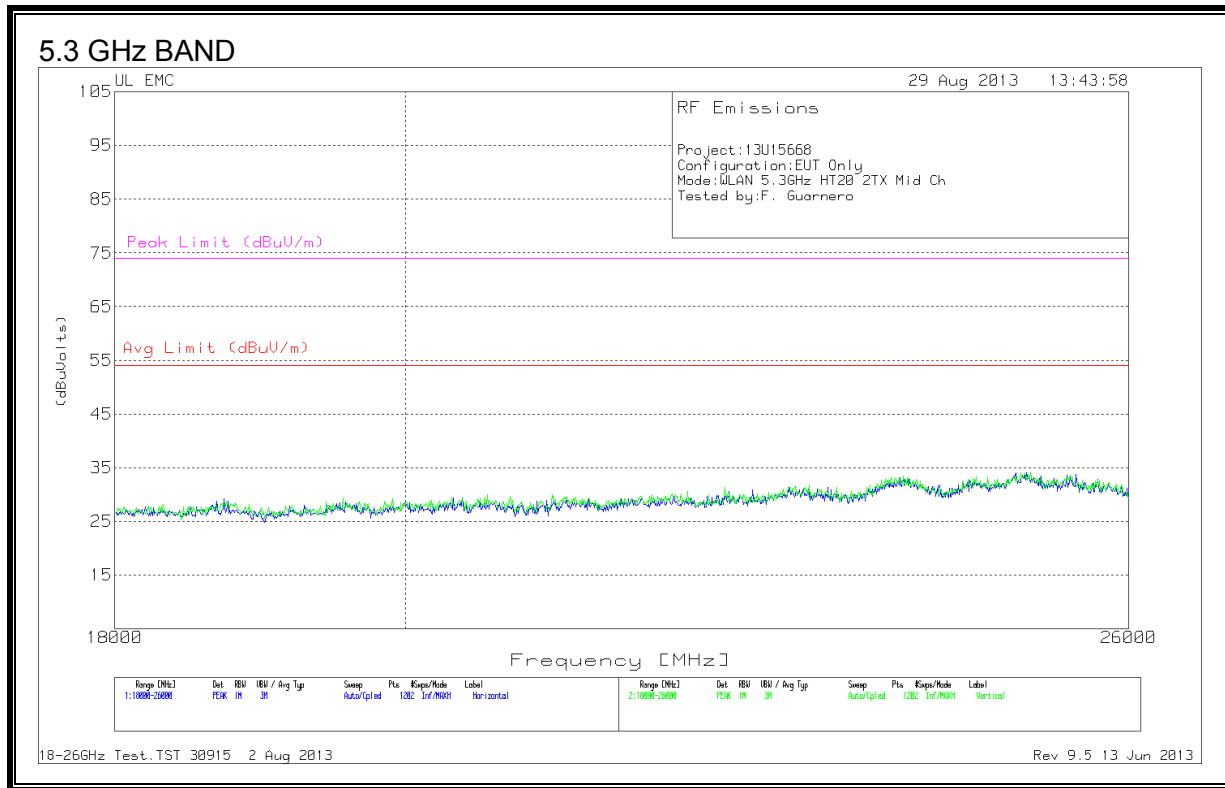
#### SPURIOUS EMISSIONS 18 TO 26 GHz (WORST-CASE CONFIGURATION, HORIZONTAL & VERTICAL)



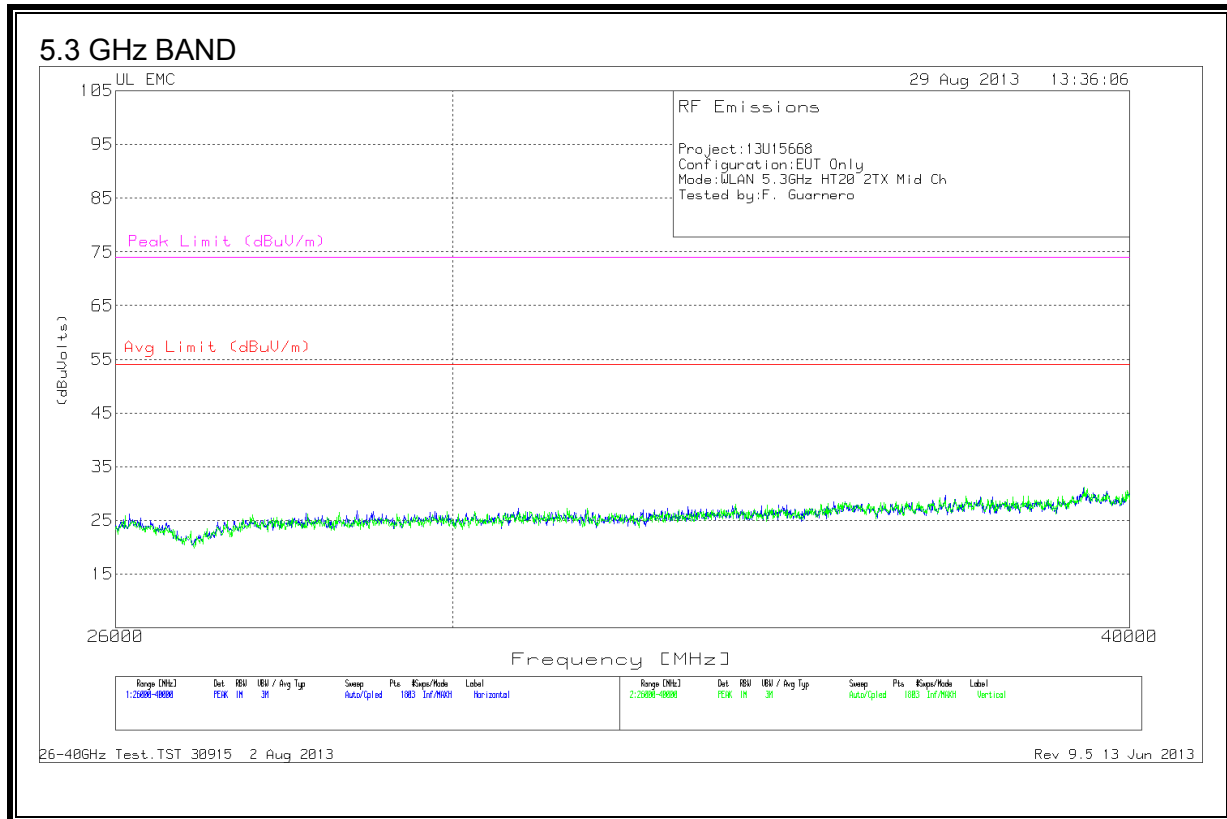
**SPURIOUS EMISSIONS 26 TO 40 GHz (WORST-CASE CONFIGURATION, HORIZONTAL & VERTICAL)**



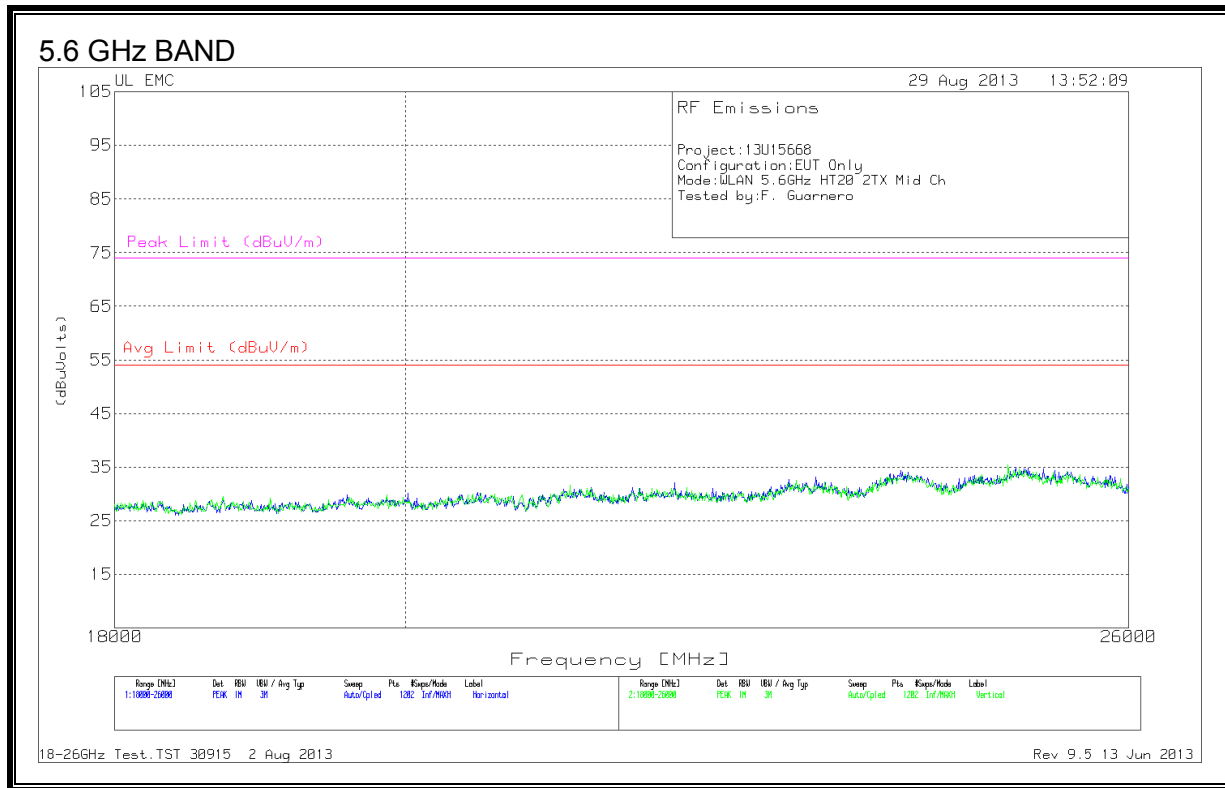
**SPURIOUS EMISSIONS 18 TO 26 GHz (WORST-CASE CONFIGURATION, HORIZONTAL & VERTICAL)**



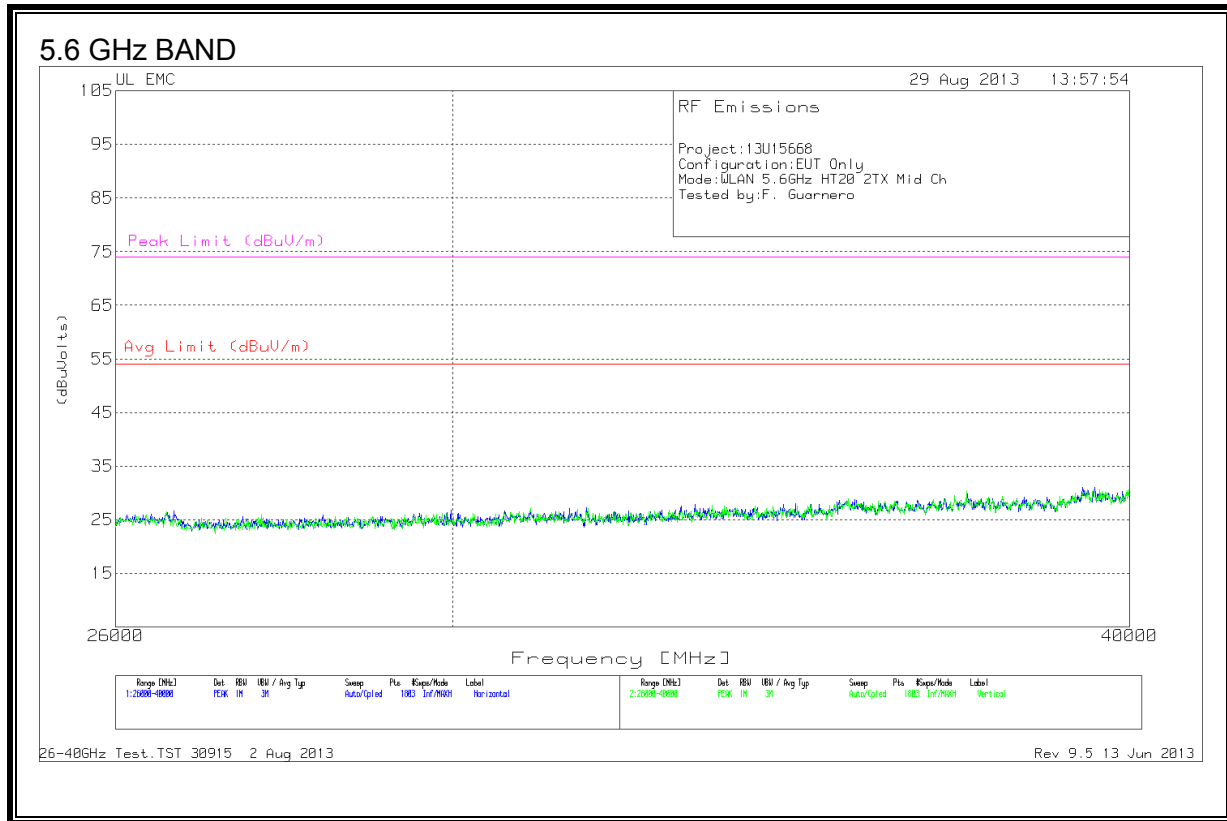
**SPURIOUS EMISSIONS 26 TO 40 GHz (WORST-CASE CONFIGURATION, HORIZONTAL & VERTICAL)**



**SPURIOUS EMISSIONS 18 TO 26 GHz (WORST-CASE CONFIGURATION, HORIZONTAL & VERTICAL)**

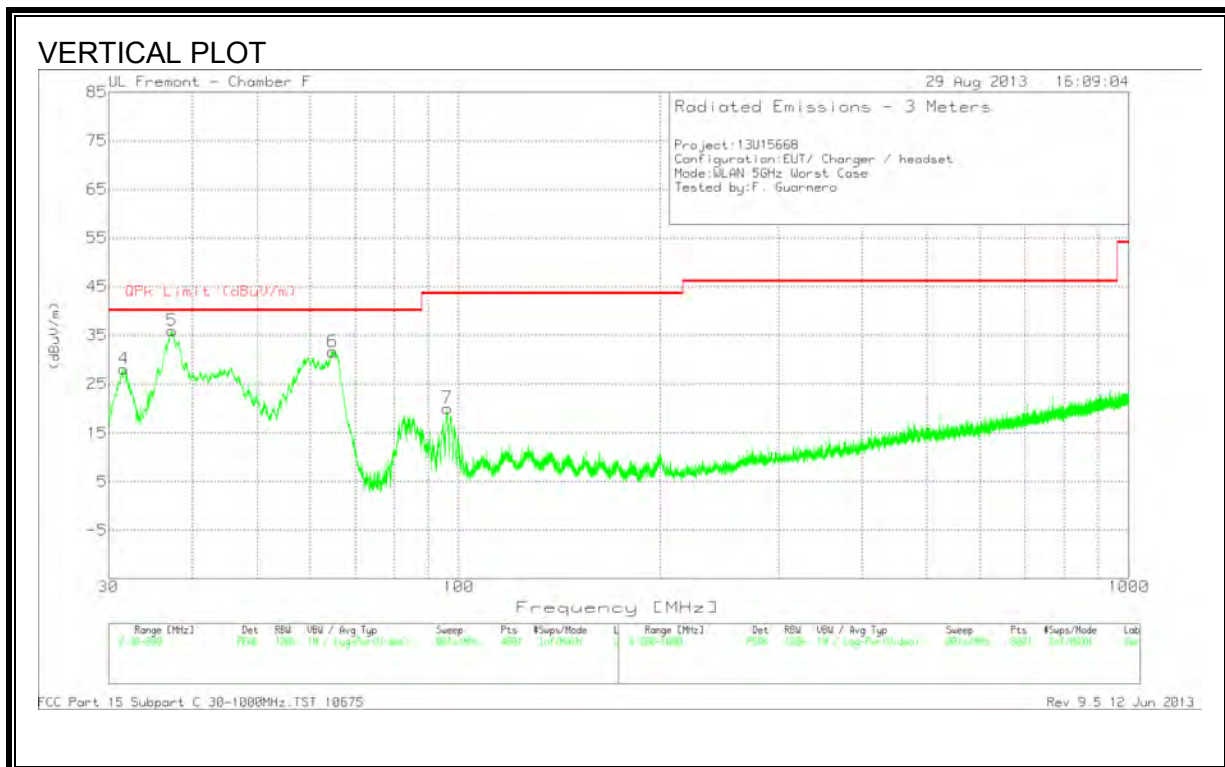
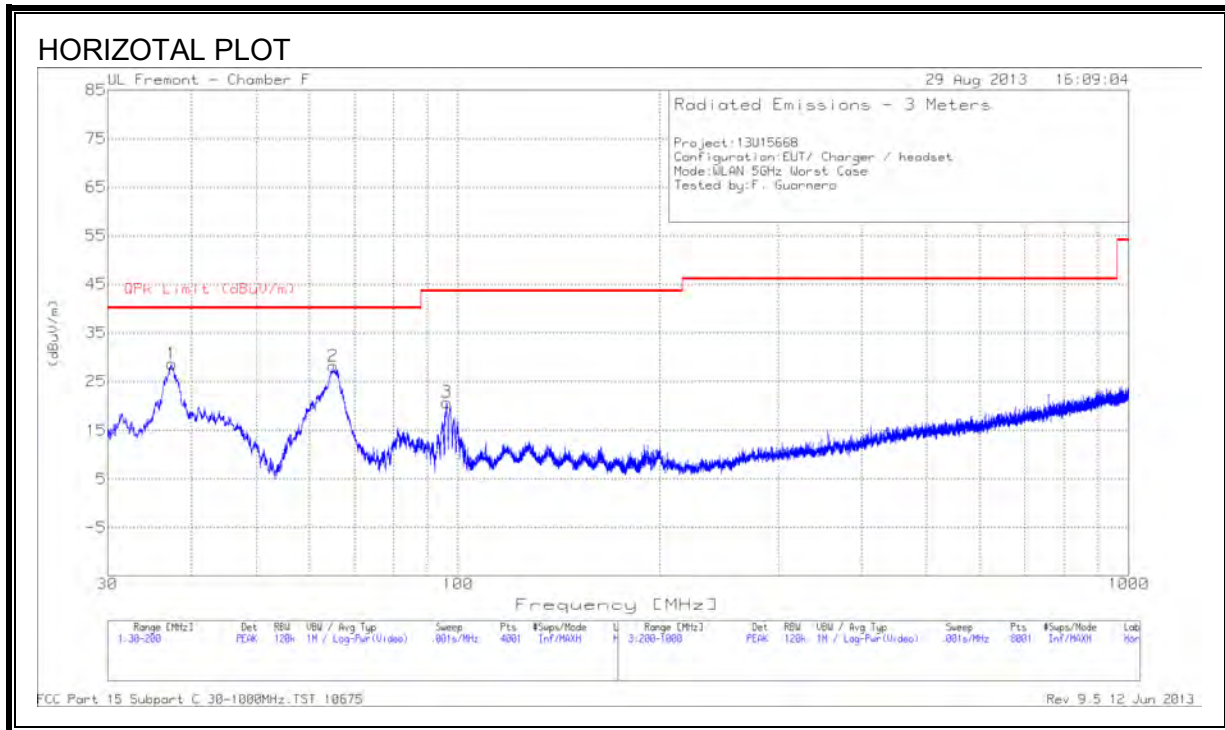


**SPURIOUS EMISSIONS 26 TO 40 GHz (WORST-CASE CONFIGURATION, HORIZONTAL & VERTICAL)**



### 9.4. WORST-CASE BELOW 1 GHz

#### SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)



**DATA**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T122 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	37.395	44.78	PK	15.8	-32	28.58	40	-11.42	0-360	400	H
2	65.105	52.13	PK	7.8	-31.8	28.13	40	-11.87	0-360	300	H
3	96.0875	43.14	PK	9.3	-31.7	20.74	43.52	-22.78	0-360	300	H
4	31.615	40.05	PK	20.1	-32.1	28.05	40	-11.95	0-360	100	V
5	37.31	52.03	PK	15.9	-32	35.93	40	-4.07	0-360	100	V
6	64.765	55.62	PK	7.8	-31.8	31.62	40	-8.38	0-360	100	V
7	96.0875	42.47	PK	9.3	-31.7	20.07	43.52	-23.45	0-360	100	V

PK - Peak detector

**Radiated Emissions**

Frequency (MHz)	Meter Reading (dBuV)	Det	AF T122 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
37.2681	48.09	QP	15.9	-32	31.99	40	-8.01	103	100	V

QP - Quasi-Peak detector



## 10. AC POWER LINE CONDUCTED EMISSIONS

### LIMITS

FCC §15.207 (a)

Frequency of Emission (MHz)	Conducted Limit (dB $\mu$ V)	
	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

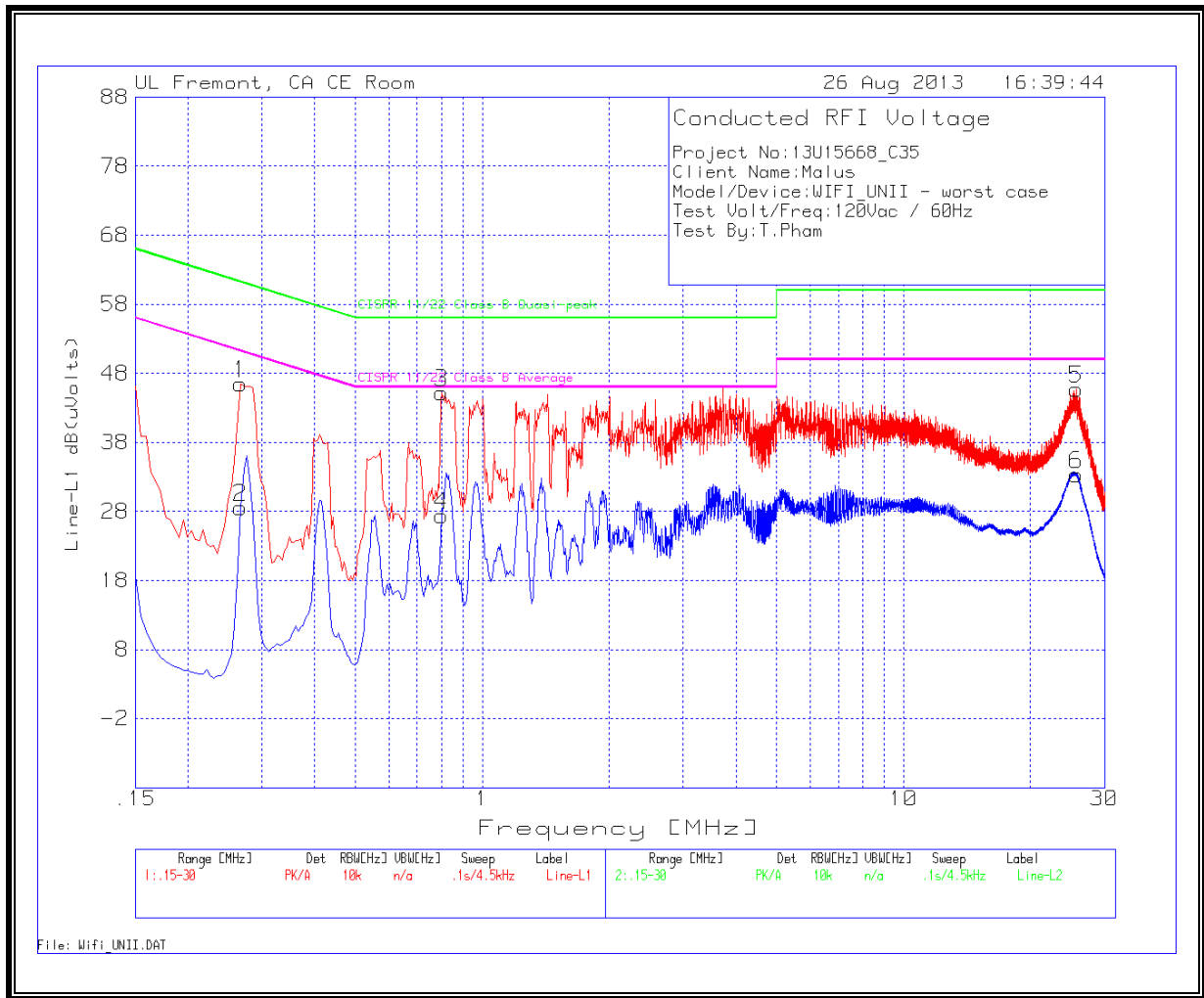
The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4.

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

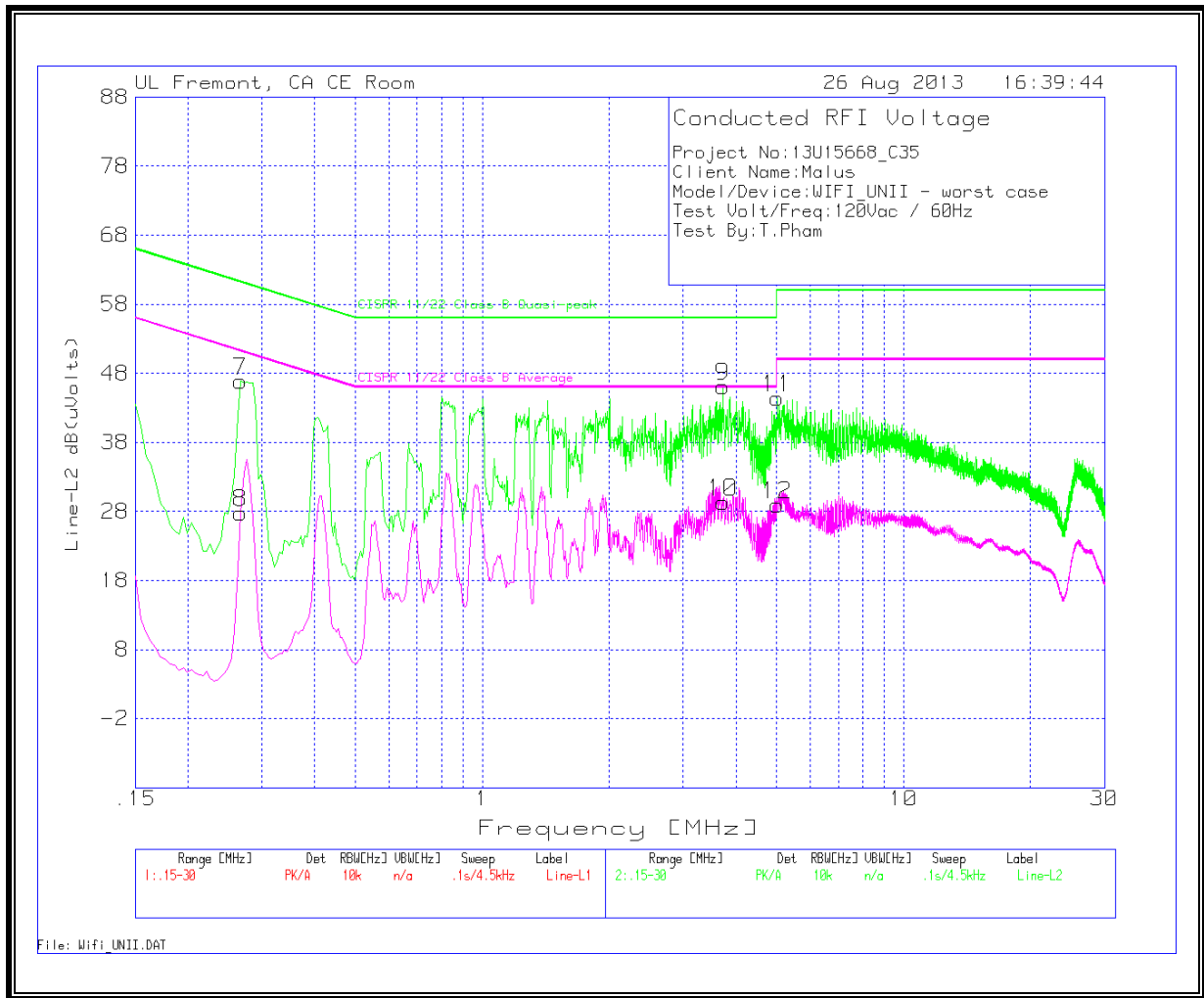
**LINE 1 RESULTS**



**WORST EMISSIONS DATA**

<b>Trace Markers</b>										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1 (dB)	LC Cables 1&3 (dB)	Corrected Reading dB(uVolts)	CISPR 11/22 Class B Quasi-peak	Margin to Limit (dB)	CISPR 11/22 Class B Average	Margin to Limit (dB)
1	.267	46.38	PK	.1	0	46.48	61.2	-14.72	-	-
2	.267	28.5	Av	.1	0	28.6	-	-	51.2	-22.6
3	.8025	45.05	PK	.1	0	45.15	56	-10.85	-	-
4	.8025	27.35	Av	.1	0	27.45	-	-	46	-18.55
5	25.7235	44.9	PK	.5	.3	45.7	60	-14.3	-	-
6	25.7235	32.55	Av	.5	.3	33.35	-	-	50	-16.65

**LINE 2 RESULTS**



**WORST EMISSIONS DATA**

<b>Trace Markers</b>										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2 (dB)	LC Cables 2&3 (dB)	Corrected Reading dB(uVolts)	CISPR 11/22 Class B Quasi-peak	Margin to Limit (dB)	CISPR 11/22 Class B Average	Margin to Limit (dB)
7	.267	46.78	PK	.1	0	46.88	61.2	-14.32	-	-
8	.267	27.74	Av	.1	0	27.84	-	-	51.2	-23.36
9	3.723	45.9	PK	.1	.1	46.1	56	-9.9	-	-
10	3.723	29.15	Av	.1	.1	29.35	-	-	46	-16.65
11	5.01225	44.24	PK	.1	.1	44.44	60	-15.56	-	-
12	5.01225	28.79	Av	.1	.1	28.99	-	-	50	-21.01

PK - Peak detector  
 Av - average detection

---

## 11. DYNAMIC FREQUENCY SELECTION

### 11.1. OVERVIEW

#### 11.1.1. LIMITS

##### FCC

§15.407 (h) and FCC 06-96 APPENDIX "COMPLIANCE MEASUREMENT PROCEDURES FOR UNLICENSED-NATIONAL INFORMATION INFRASTRUCTURE DEVICES OPERATING IN THE 5250-5350 MHz AND 5470-5725 MHz BANDS INCORPORATING DYNAMIC FREQUENCY SELECTION".

**Table 1: Applicability of DFS requirements prior to use of a channel**

Requirement	Operational Mode		
	Master	Client (without radar detection)	Client (with radar detection)
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
Uniform Spreading	Yes	Not required	Not required

**Table 2: Applicability of DFS requirements during normal operation**

Requirement	Operational Mode		
	Master	Client (without DFS)	Client (with DFS)
DFS Detection Threshold	Yes	Not required	Yes
Channel Closing Transmission Time	Yes	Yes	Yes
Channel Move Time	Yes	Yes	Yes

**Table 3: Interference Threshold values, Master or Client incorporating In-Service Monitoring**

Maximum Transmit Power	Value (see note)
≥ 200 milliwatt	-64 dBm
< 200 milliwatt	-62 dBm

Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna  
 Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.

**Table 4: DFS Response requirement values**

Parameter	Value
<i>Non-occupancy period</i>	30 minutes
<i>Channel Availability Check Time</i>	60 seconds
<i>Channel Move Time</i>	10 seconds
<i>Channel Closing Transmission Time</i>	200 milliseconds + approx. 60 milliseconds over remaining 10 second period

The instant that the *Channel Move Time* and the *Channel Closing Transmission Time* begins is as follows:  
 For the Short pulse radar Test Signals this instant is the end of the *Burst*.  
 For the Frequency Hopping radar Test Signal, this instant is the end of the last radar burst generated.  
 For the Long Pulse radar Test Signal this instant is the end of the 12 second period defining the radar transmission.  
 The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate channel changes (an aggregate of approximately 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

**Table 5 – Short Pulse Radar Test Waveforms**

Radar Type	Pulse Width (Microseconds)	PRI (Microseconds)	Pulses	Minimum Percentage of Successful Detection	Minimum Trials
1	1	1428	18	60%	30
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120

**Table 6 – Long Pulse Radar Test Signal**

Radar Waveform	Bursts	Pulses per Burst	Pulse Width (µsec)	Chirp Width (MHz)	PRI (µsec)	Minimum Percentage of Successful Detection	Minimum Trials
5	8-20	1-3	50-100	5-20	1000-2000	80%	30

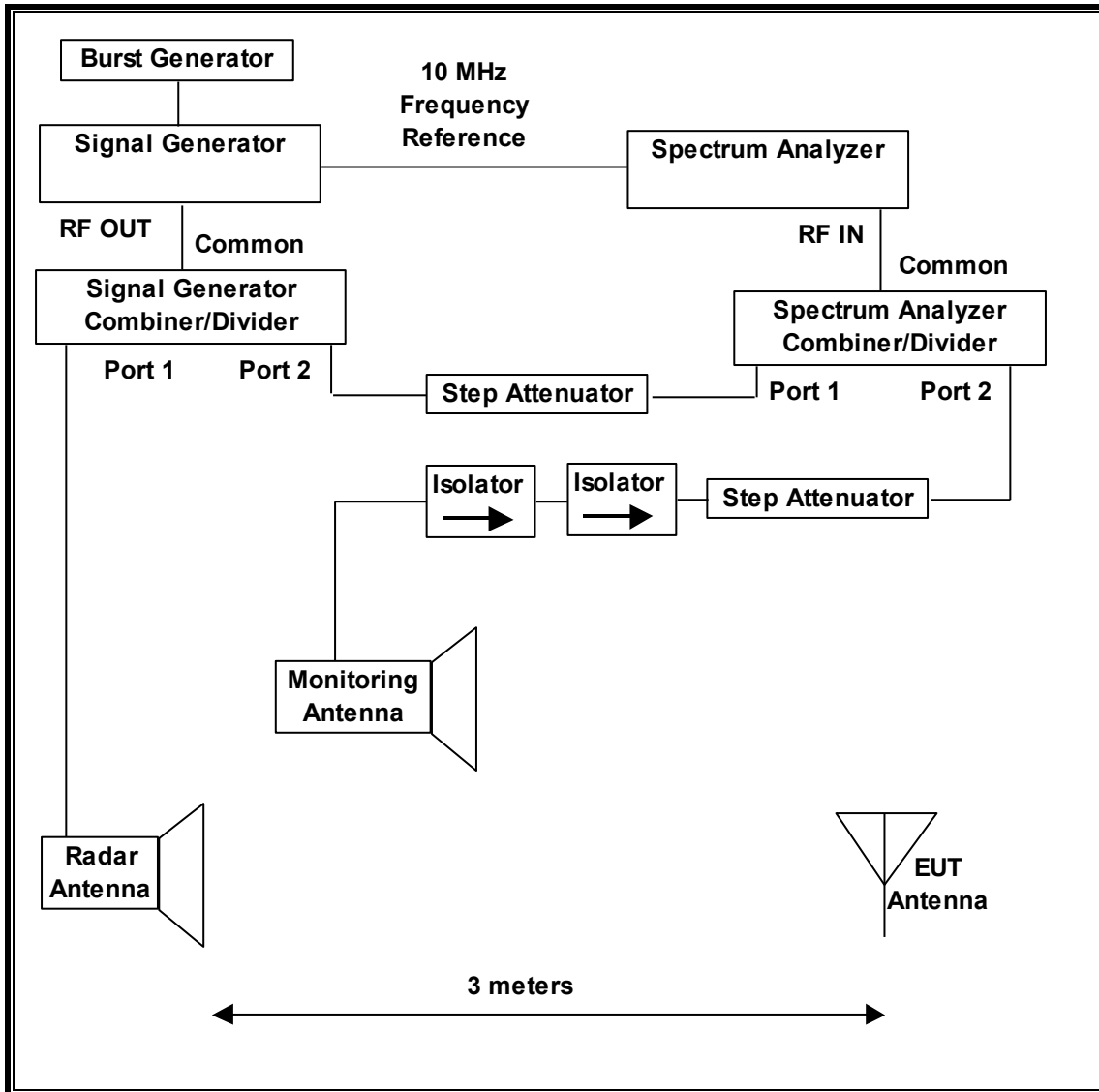
**Table 7 – Frequency Hopping Radar Test Signal**

Radar Waveform	Pulse Width (µsec)	PRI (µsec)	Burst Length (ms)	Pulses per Hop	Hopping Rate (kHz)	Minimum Percentage of Successful Detection	Minimum Trials
6	1	333	300	9	.333	70%	30



### 11.1.2. TEST AND MEASUREMENT SYSTEM

#### RADIATED METHOD SYSTEM BLOCK DIAGRAM



## **SYSTEM OVERVIEW**

The short pulse and long pulse signal generating system utilizes the NTIA software. The Vector Signal Generator has been validated by the NTIA. The hopping signal generating system utilizes the CCS simulated hopping method and system, which has been validated by the DoD, FCC and NTIA. The software selects waveform parameters from within the bounds of the signal type on a random basis using uniform distribution.

The short pulse types 2, 3 and 4, and the long pulse type 5 parameters are randomized at run-time.

The hopping type 6 pulse parameters are fixed while the hopping sequence is based on the August 2005 NTIA Hopping Frequency List. The initial starting point randomized at run-time and each subsequent starting point is incremented by 475. Each frequency in the 100-length segment is compared to the boundaries of the EUT Detection Bandwidth and the software creates a hopping burst pattern in accordance with Section 7.4.1.3 Method #2 Simulated Frequency Hopping Radar Waveform Generating Subsystem of FCC 06-96 APPENDIX. The frequency of the signal generator is incremented in 1 MHz steps from  $F_L$  to  $F_H$  for each successive trial. This incremental sequence is repeated as required to generate a minimum of 30 total trials and to maintain a uniform frequency distribution over the entire Detection Bandwidth.

The signal monitoring equipment consists of a spectrum analyzer. The aggregate ON time is calculated by multiplying the number of bins above a threshold during a particular observation period by the dwell time per bin, with the analyzer set to peak detection and max hold.

## **SYSTEM CALIBRATION**

A 50-ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to a horn antenna via a coaxial cable, with the reference level offset set to (horn antenna gain – coaxial cable loss). The signal generator is set to CW mode. The amplitude of the signal generator is adjusted to yield a level of –64 dBm as measured on the spectrum analyzer.

Without changing any of the instrument settings, the spectrum analyzer is reconnected to the Common port of the Spectrum Analyzer Combiner/Divider. The Reference Level Offset of the spectrum analyzer is adjusted so that the displayed amplitude of the signal is –64 dBm.

The spectrum analyzer displays the level of the signal generator as received at the antenna ports of the Master Device. The interference detection threshold may be varied from the calibrated value of –64 dBm and the spectrum analyzer will still indicate the level as received by the Master Device.

**ADJUSTMENT OF DISPLAYED TRAFFIC LEVEL**

A link is established between the Master and Slave and the distance between the units is adjusted as needed to provide a suitable received level at the Master and Slave devices. The video test file is streamed to generate WLAN traffic. The monitoring antenna is adjusted so that the WLAN traffic level, as displayed on the spectrum analyzer, is at lower amplitude than the radar detection threshold.

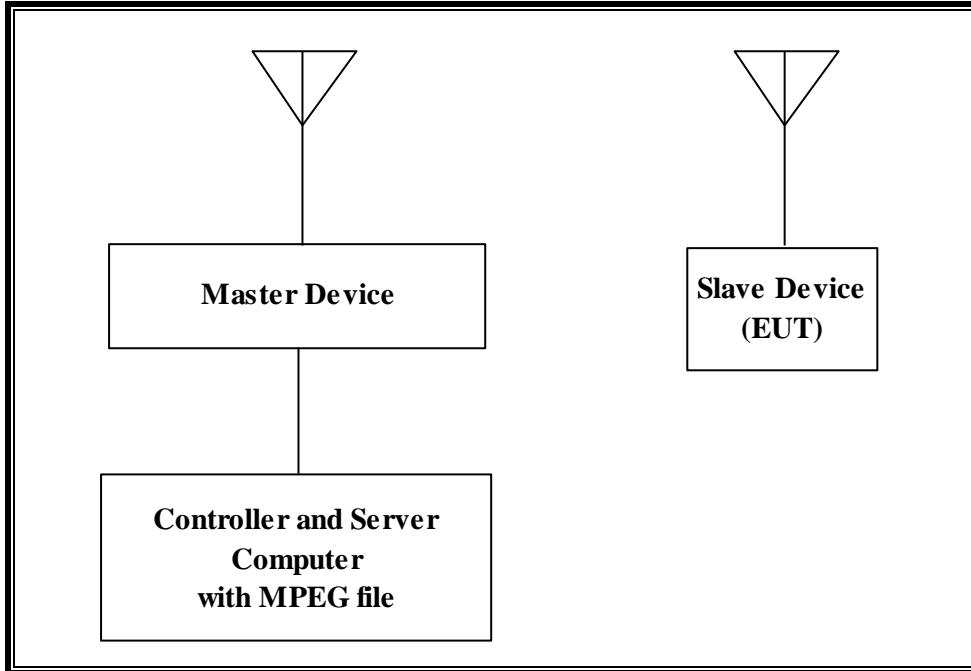
**TEST AND MEASUREMENT EQUIPMENT**

The following test and measurement equipment was utilized for the DFS tests documented in this report:

<b>TEST EQUIPMENT LIST</b>				
<b>Description</b>	<b>Manufacturer</b>	<b>Model</b>	<b>Asset Number</b>	<b>Cal Due</b>
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01178	09/18/13
Vector Signal Generator, 20GHz	Agilent / HP	E8267C	C01066	11/20/13

**11.1.3. SETUP OF EUT (CLIENT MODE)**

**RADIATED METHOD EUT TEST SETUP**



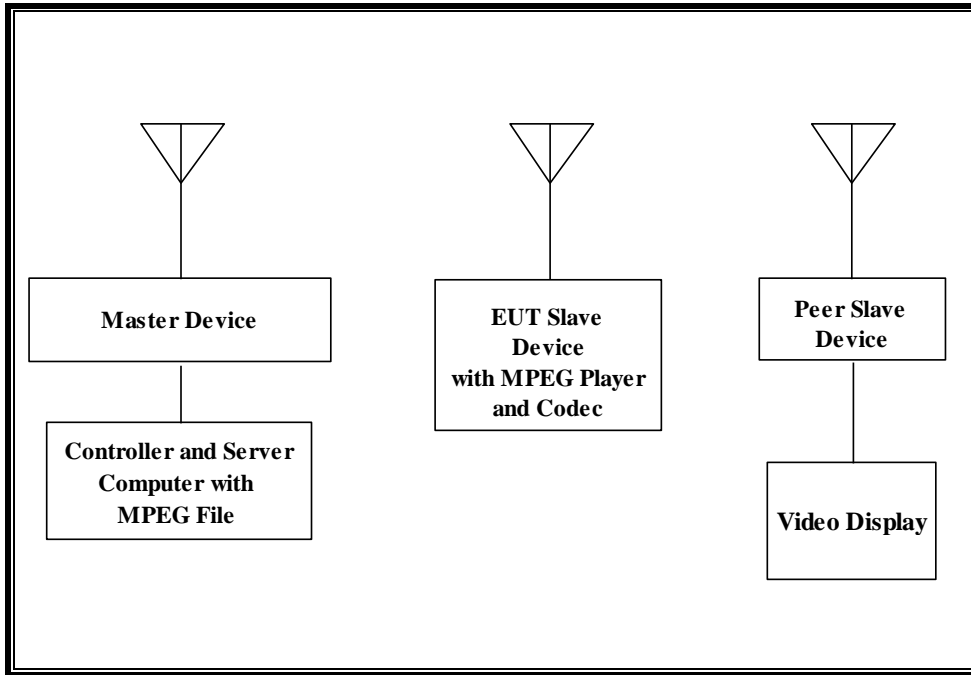
**SUPPORT EQUIPMENT**

The following support equipment was utilized for the DFS tests documented in this report:

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	Manufacturer	Model	Serial Number	FCC ID
Wireless Access Point (Master Device)	Cisco	AIR-AP1252AG-A-K9	FTX130390D9	LDK102061
AC Adapter (AP)	Delta Electronics	EADP-45BB B	DTH1049902N	DoC
Notebook PC (Controller/Server)	Apple	MacBook Pro A1150	AOU257941	DoC
AC Adapter (Controller/Server PC)	Delta Electronics	A1330	MV952157KAGKA	DoC

**11.1.4. SETUP OF EUT (CLIENT-TO-CLIENT COMMUNICATIONS MODE)**

**RADIATED METHOD EUT TEST SETUP**



**SUPPORT EQUIPMENT**

The following support equipment was utilized for the DFS tests documented in this report:

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	Manufacturer	Model	Serial Number	FCC ID
Wireless Access Point (Master Device)	Cisco	AIR-AP1252AG-A-K9	FTX130390D9	LDK102061
AC Adapter (AP)	Delta Electronics	EADP-45BB B	DTH1049902N	DoC
Notebook PC (Controller/Server)	Apple	MacBook Pro A1150	AOU257941	DoC
AC Adapter (Controller/Server PC)	Delta Electronics	A1330	MV952157KAGKA	DoC
Apple TV (Peer Slave)	Apple	A1469	V07JV1Z7FF54	BCGA1469
Video Display	Dell	U2410f	CN-0FJ525N-72872-1B5-AGAL	DoC

### **11.1.5. DESCRIPTION OF EUT**

The EUT operates over the 5250-5350 MHz and 5470-5725 MHz ranges.

The EUT is a Slave Device without Radar Detection.

The highest power level within these bands is 24.32 dBm EIRP in the 5250-5350 MHz band and 24.59 dBm EIRP in the 5470-5725 MHz band.

The only antenna assembly consists of 2 antennas with individual gains of 0.75 dBi and 3.26 dBi in the 5250-5350 MHz band and 2.43 dBi and 4.29 dBi in the 5470-5725 MHz band.

The rated output power of the Master unit is > 23dBm (EIRP). Therefore the required interference threshold level is -64 dBm. After correction for procedural adjustments, the required radiated threshold at the antenna port is  $-64 + 1 = -63$  dBm.

The calibrated radiated DFS Detection Threshold level is set to -64 dBm. The tested level is lower than the required level hence it provides margin to the limit.

The EUT uses two transmitter/receiver chains connected to antennas to perform radiated tests.

WLAN traffic is generated by streaming the video file TestFile.mp2 "6 ½ Magic Hours" from the Master to the Slave in full motion video mode using Safari web browser.

TPC is not required since the maximum EIRP is less than 500 mW (27 dBm).

The EUT utilizes the 802.11a/n architecture. Two nominal channel bandwidths of 20 MHz and 40 MHz are implemented.

The software installed in the EUT is 11B443.

### **UNIFORM CHANNEL SPREADING**

This requirement is not applicable to Slave radio devices.

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**OVERVIEW OF MASTER DEVICE WITH RESPECT TO §15.407 (h) REQUIREMENTS**

The Master Device is a Cisco Access Point, FCC ID: LDK102061. The minimum antenna gain for the Master Device is 3.5 dBi.

The rated output power of the Master unit is  $> 23\text{dBm}$  (EIRP). Therefore the required interference threshold level is  $-64\text{ dBm}$ . After correction for procedural adjustments, the required radiated threshold at the antenna port is  $-64 + 1 = -63\text{ dBm}$ .

The calibrated radiated DFS Detection Threshold level is set to  $-64\text{ dBm}$ . The tested level is lower than the required level hence it provides margin to the limit.

The software installed in the access point is 12.4(25d)JA1.

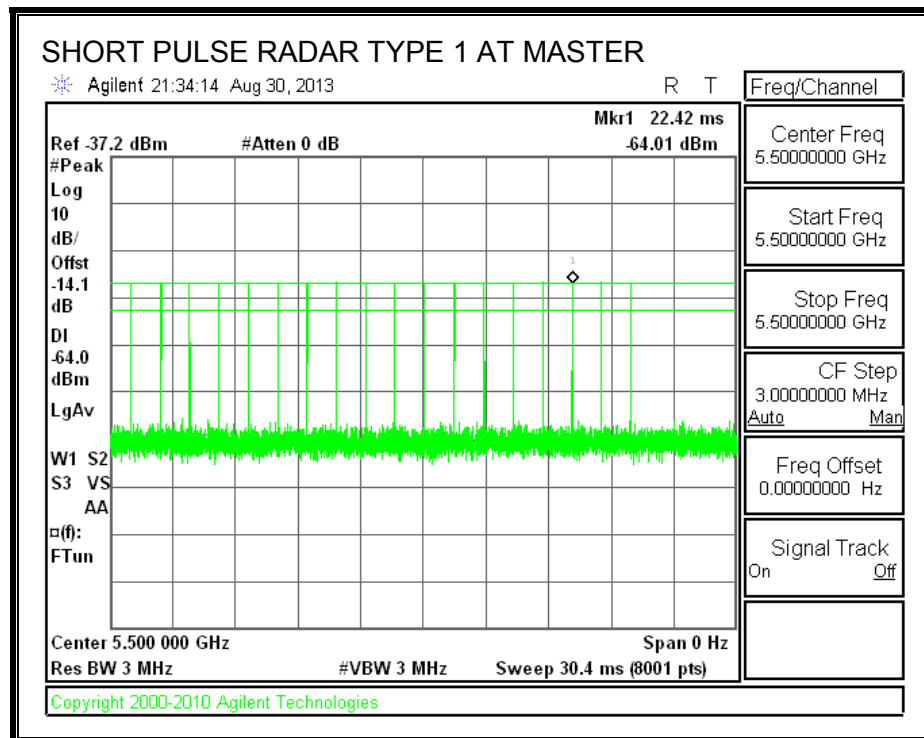
## 11.2. CLIENT MODE RESULTS FOR 20 MHz BANDWIDTH

### 11.2.1. TEST CHANNEL

All tests were performed at a channel center frequency of 5500 MHz.

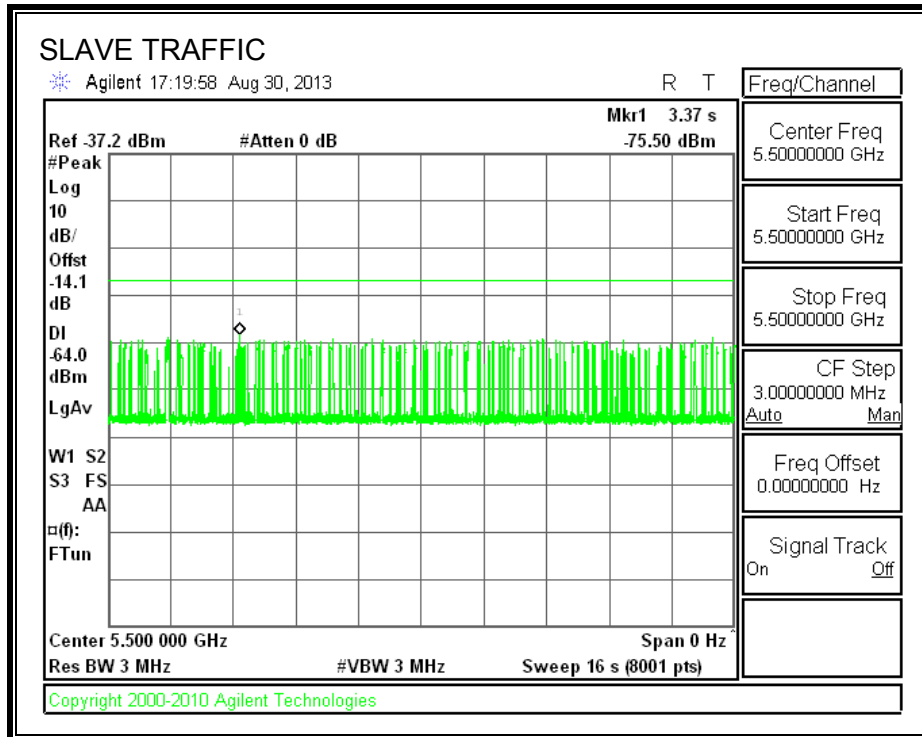
### 11.2.2. RADAR WAVEFORM AND TRAFFIC

#### RADAR WAVEFORM





**TRAFFIC**



**11.2.3. OVERLAPPING CHANNEL TESTS**

**RESULTS**

These tests are not applicable.

**11.2.4. MOVE AND CLOSING TIME**

**REPORTING NOTES**

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =  
 (Number of analyzer bins showing transmission) \* (dwell time per bin)

The observation period over which the FCC aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

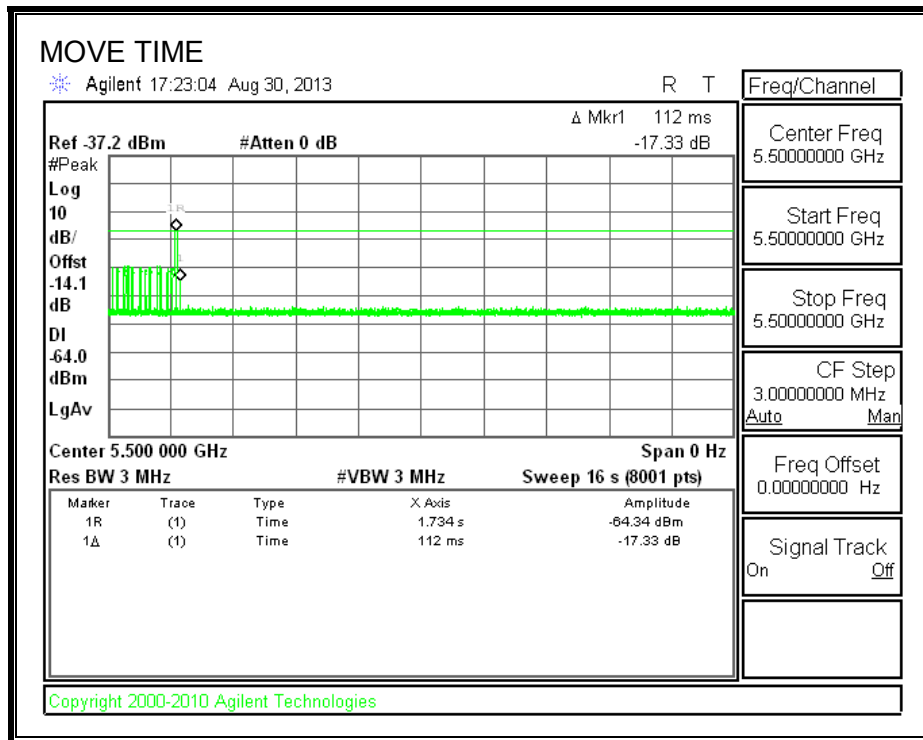
The observation period over which the IC aggregate time is calculated begins at (Reference Marker) and ends no earlier than (Reference Marker + 10 sec).

**RESULTS**

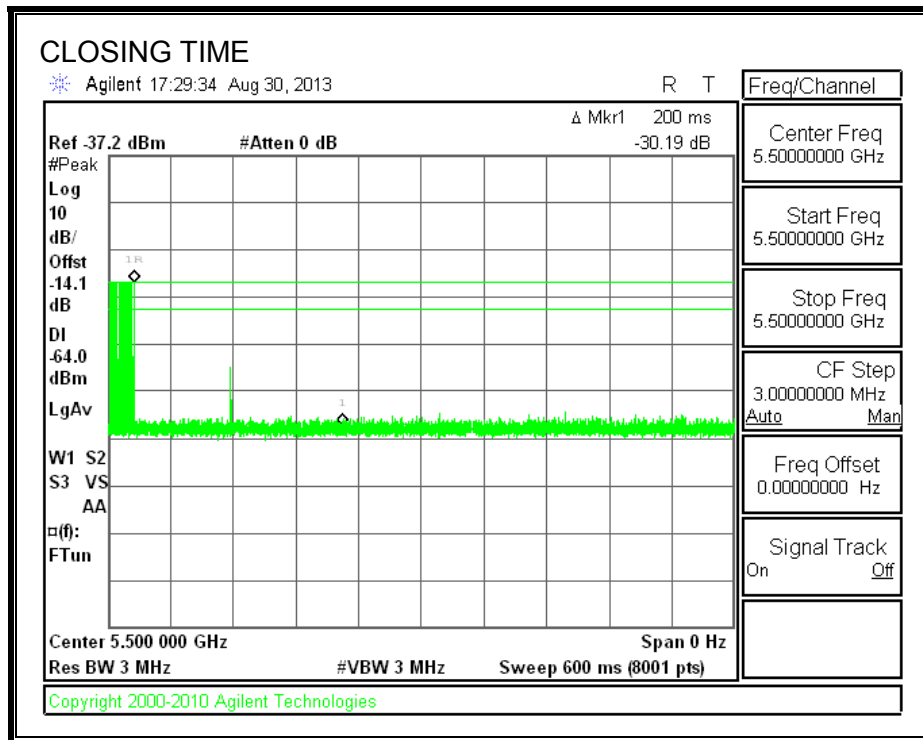
Agency	Channel Move Time (sec)	Limit (sec)
FCC / IC	0.112	10

Agency	Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
FCC	2.0	60
IC	8.0	260

**MOVE TIME**

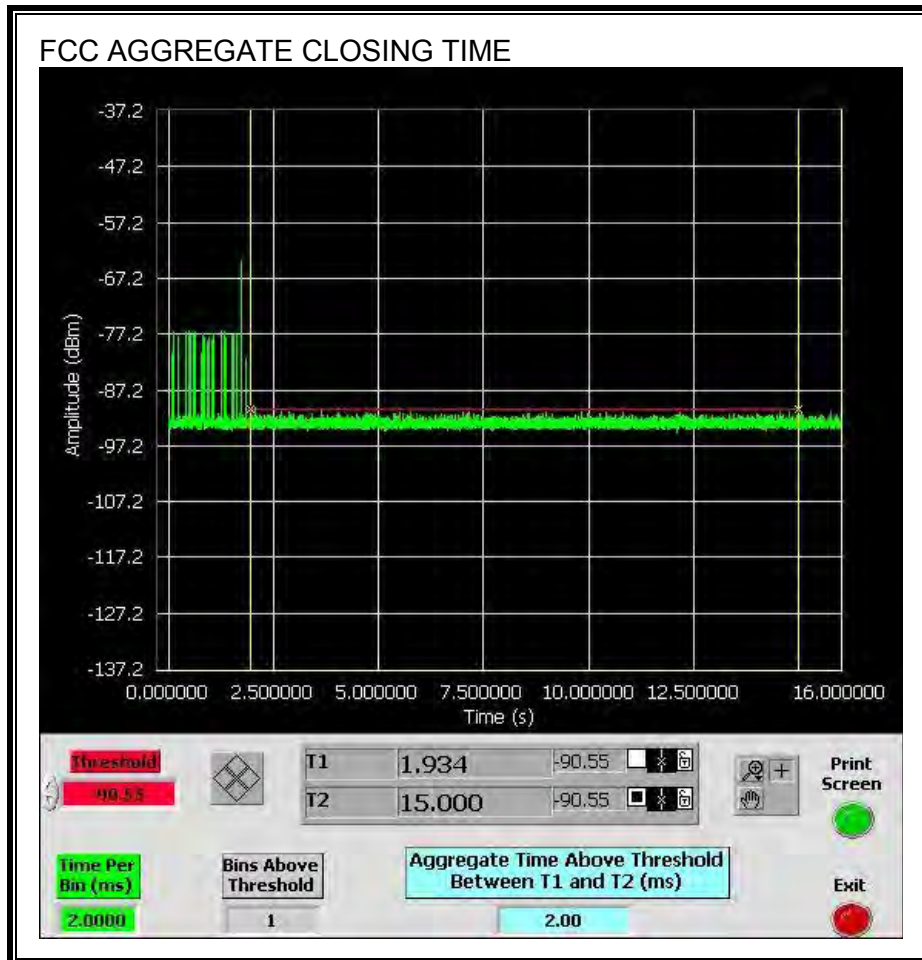


**CHANNEL CLOSING TIME**

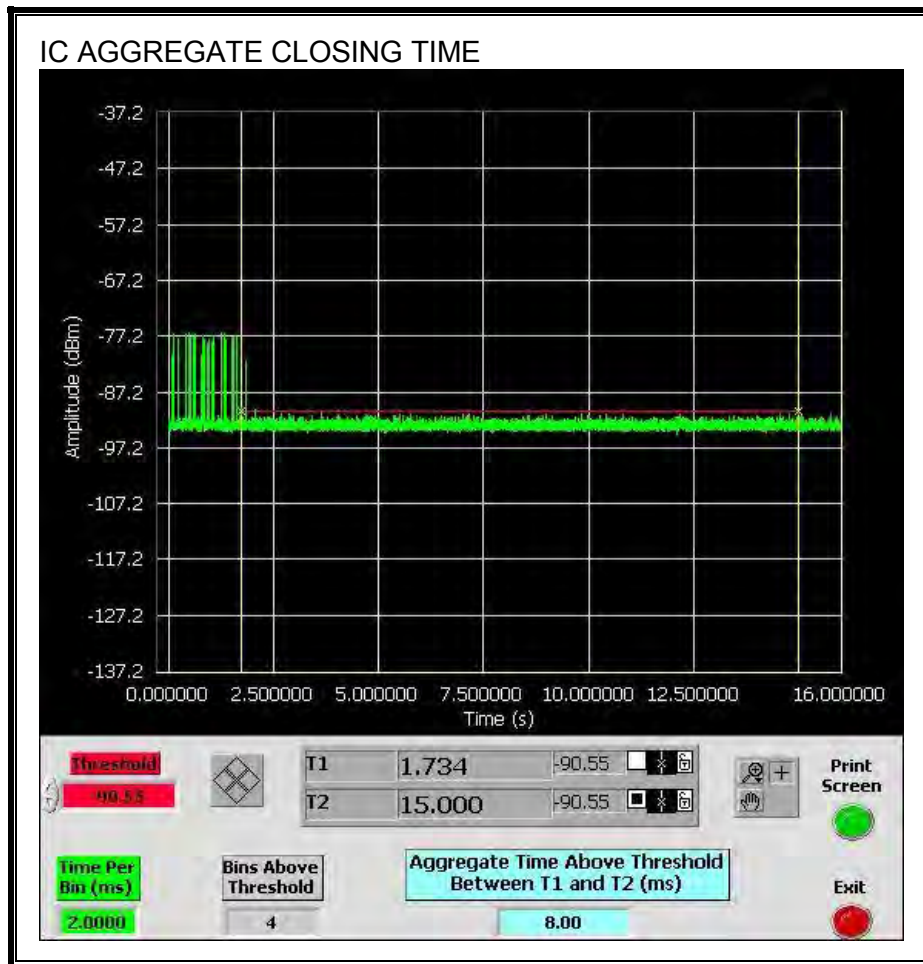


**AGGREGATE CHANNEL CLOSING TRANSMISSION TIME**

No transmissions are observed during the FCC aggregate monitoring period.



Only intermittent transmissions are observed during the IC aggregate monitoring period.



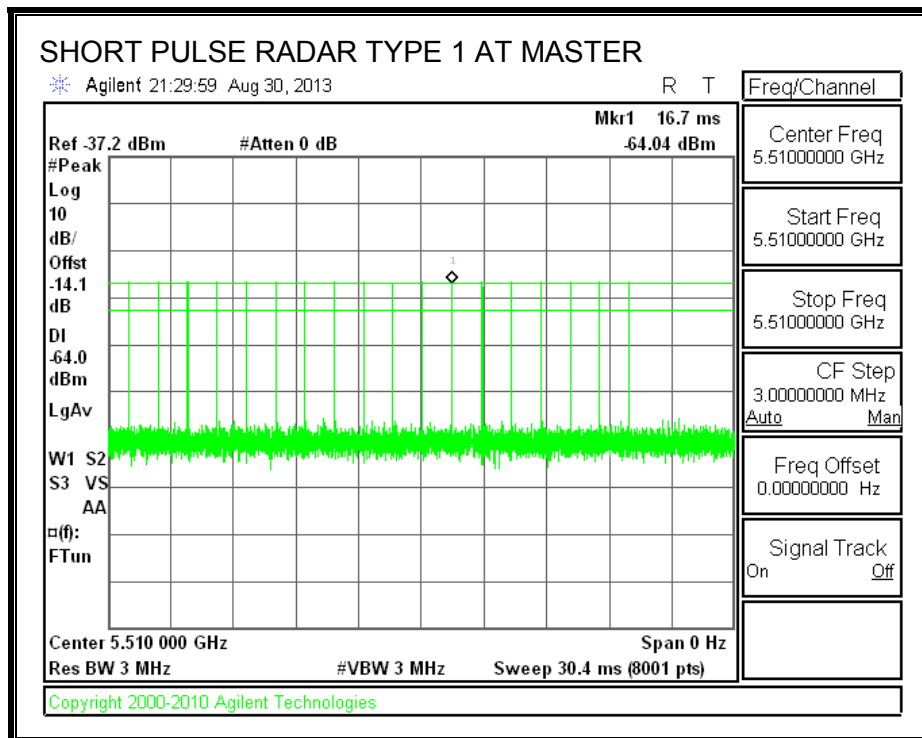
### 11.3. CLIENT MODE RESULTS FOR 40 MHz BANDWIDTH

#### 11.3.1. TEST CHANNEL

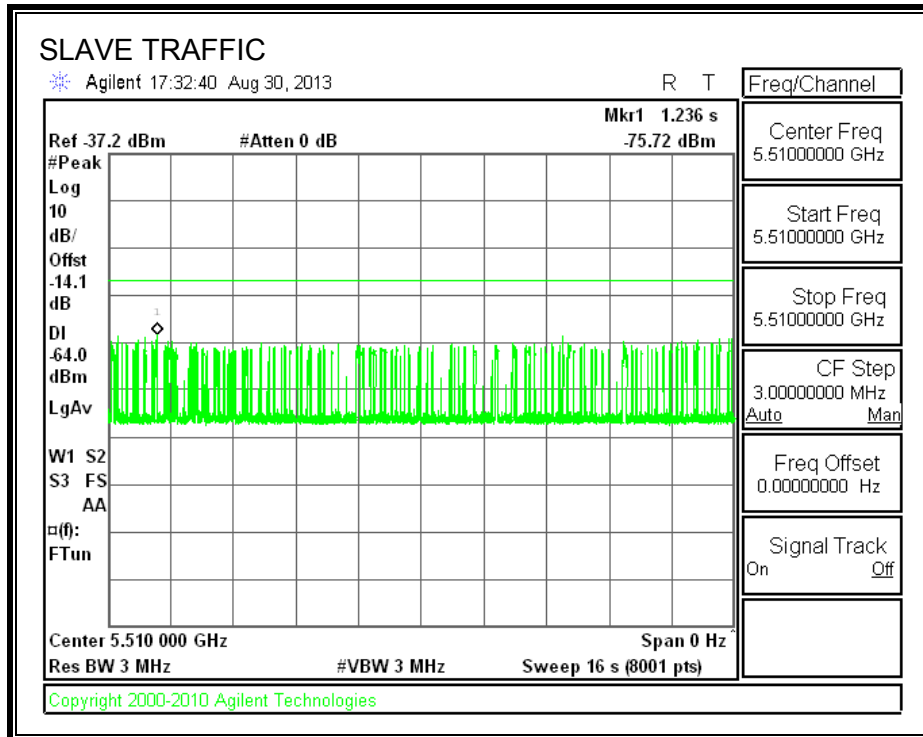
All tests were performed at a channel center frequency of 5510 MHz.

#### 11.3.2. RADAR WAVEFORM AND TRAFFIC

##### RADAR WAVEFORM



**TRAFFIC**





**11.3.3. OVERLAPPING CHANNEL TESTS**

**RESULTS**

These tests are not applicable.

**11.3.4. MOVE AND CLOSING TIME**

**REPORTING NOTES**

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =  
 (Number of analyzer bins showing transmission) \* (dwell time per bin)

The observation period over which the FCC aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

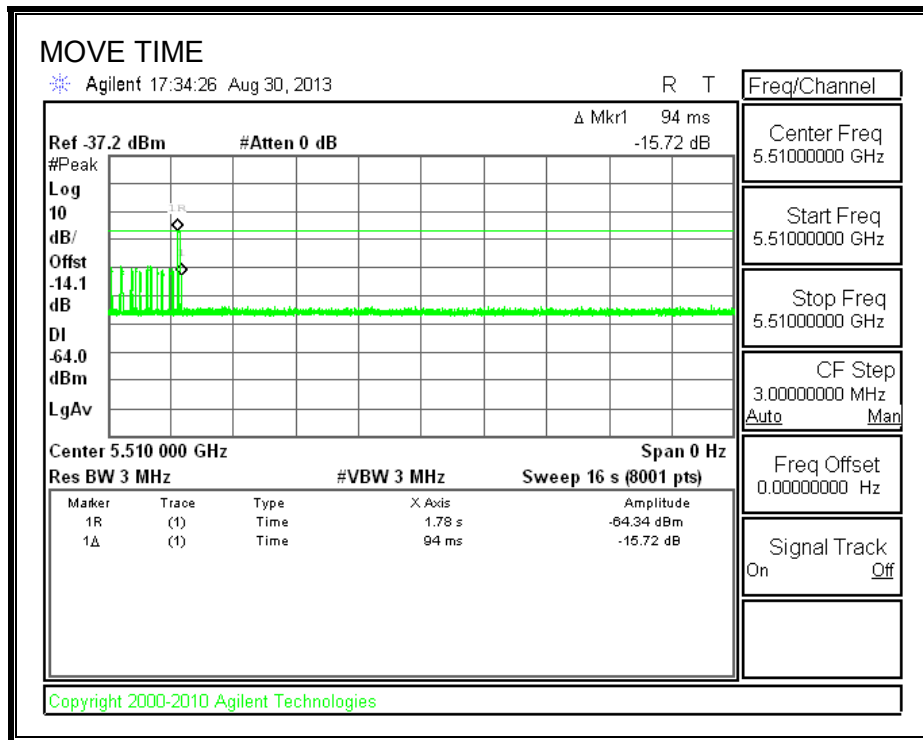
The observation period over which the IC aggregate time is calculated begins at (Reference Marker) and ends no earlier than (Reference Marker + 10 sec).

**RESULTS**

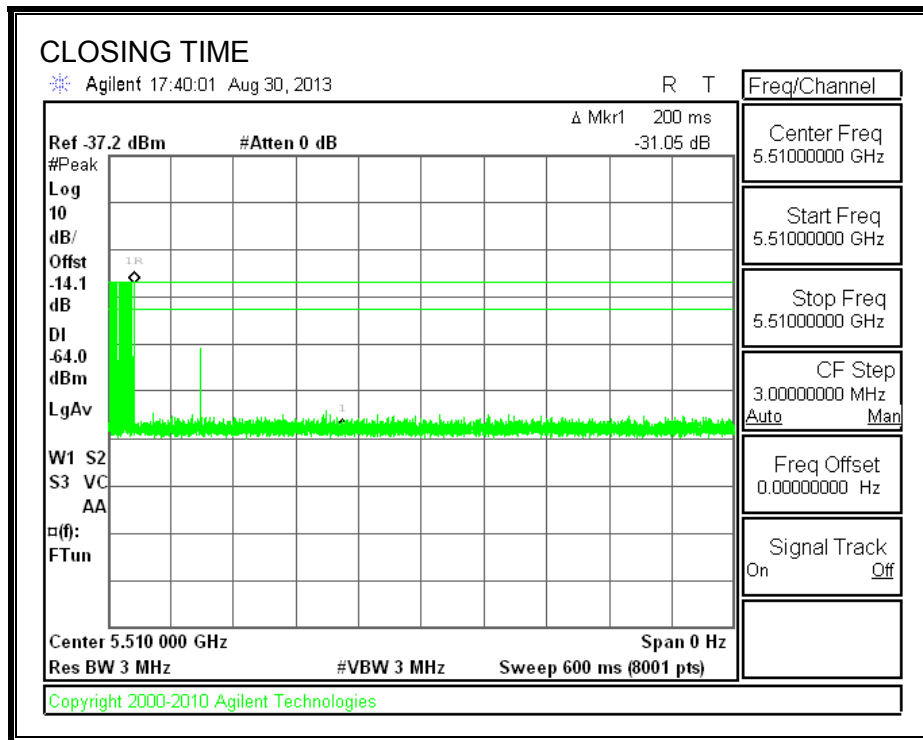
Agency	Channel Move Time (sec)	Limit (sec)
FCC / IC	0.094	10

Agency	Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
FCC	0.0	60
IC	20.0	260

**MOVE TIME**

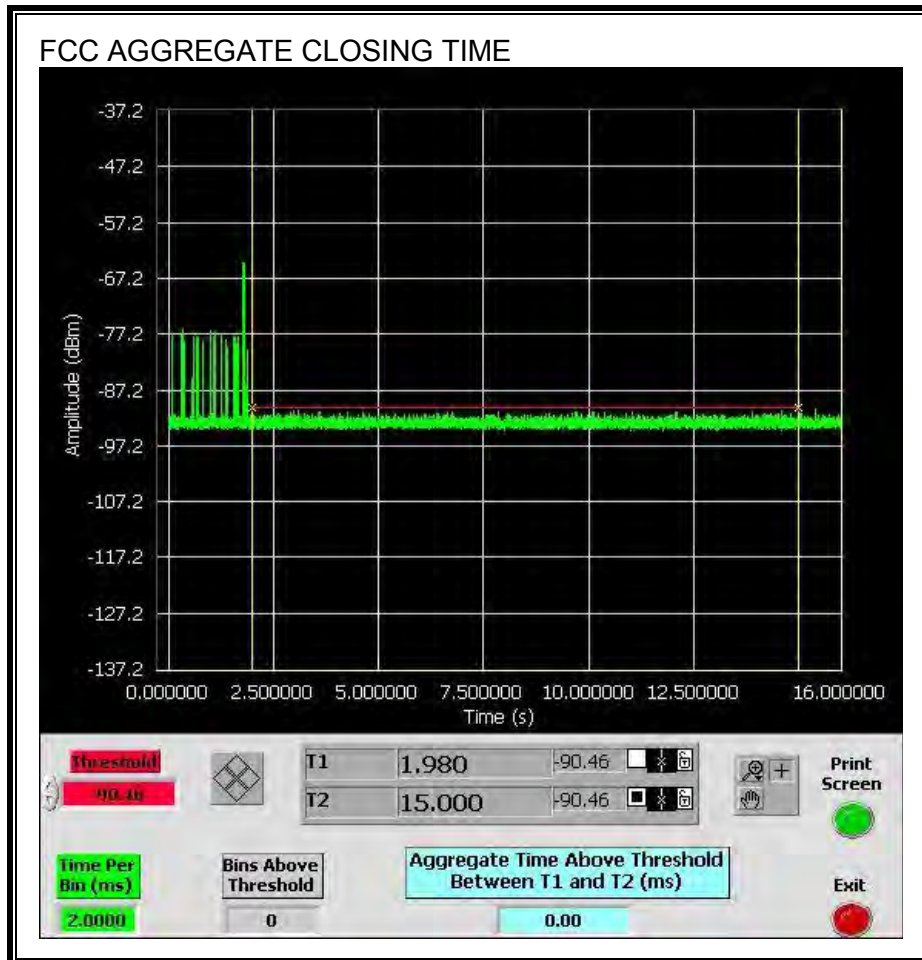


**CHANNEL CLOSING TIME**

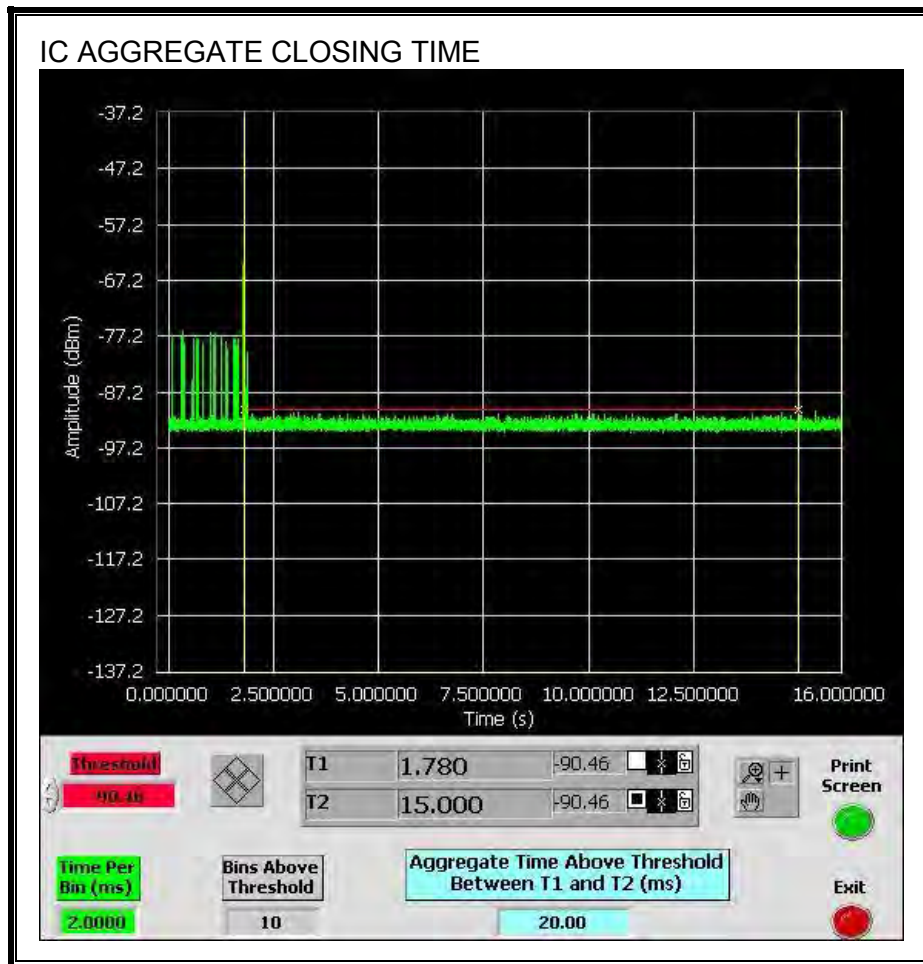


**AGGREGATE CHANNEL CLOSING TRANSMISSION TIME**

No transmissions are observed during the FCC aggregate monitoring period.



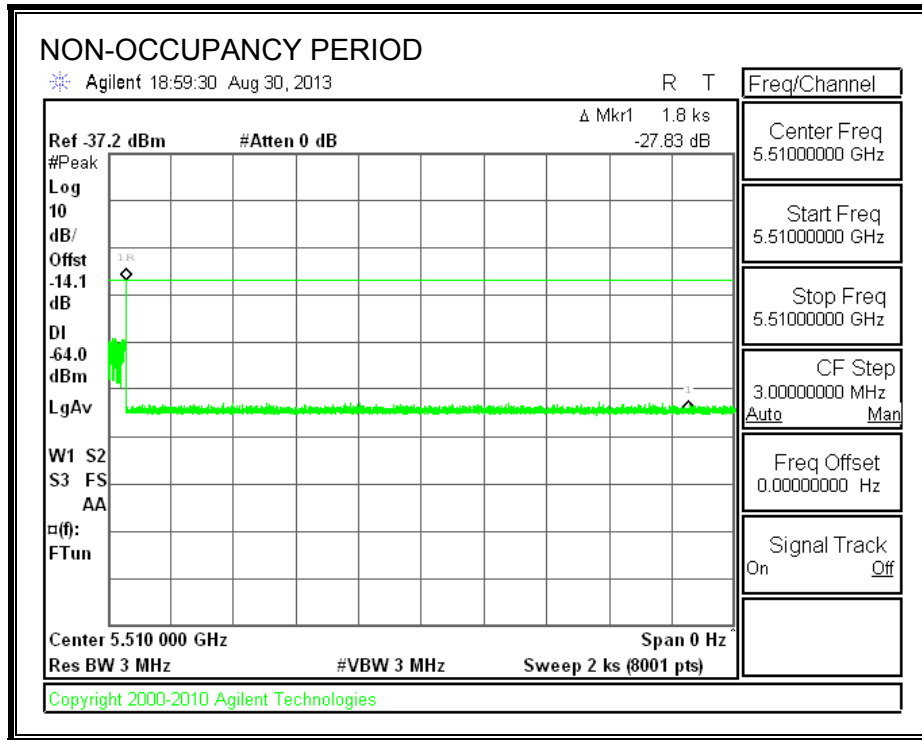
Only intermittent transmissions are observed during the IC aggregate monitoring period.



### 11.3.5. NON-OCCUPANCY PERIOD

#### RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.



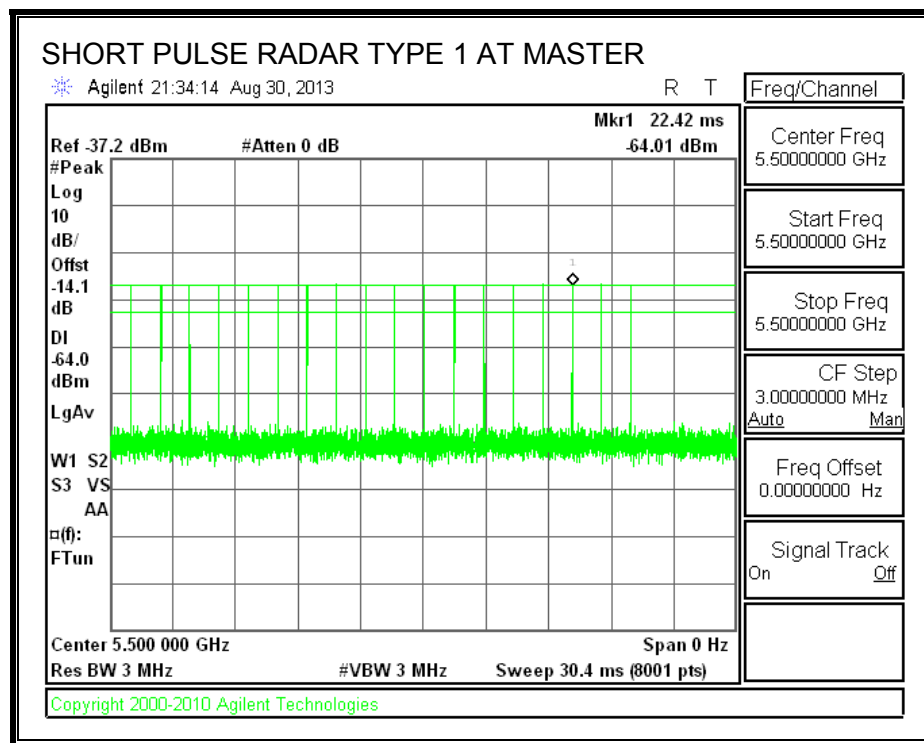
## 11.4. CLIENT-TO-CLIENT COMMUNICATIONS MODE RESULTS FOR 20 MHz BANDWIDTH

### 11.4.1. TEST CHANNEL

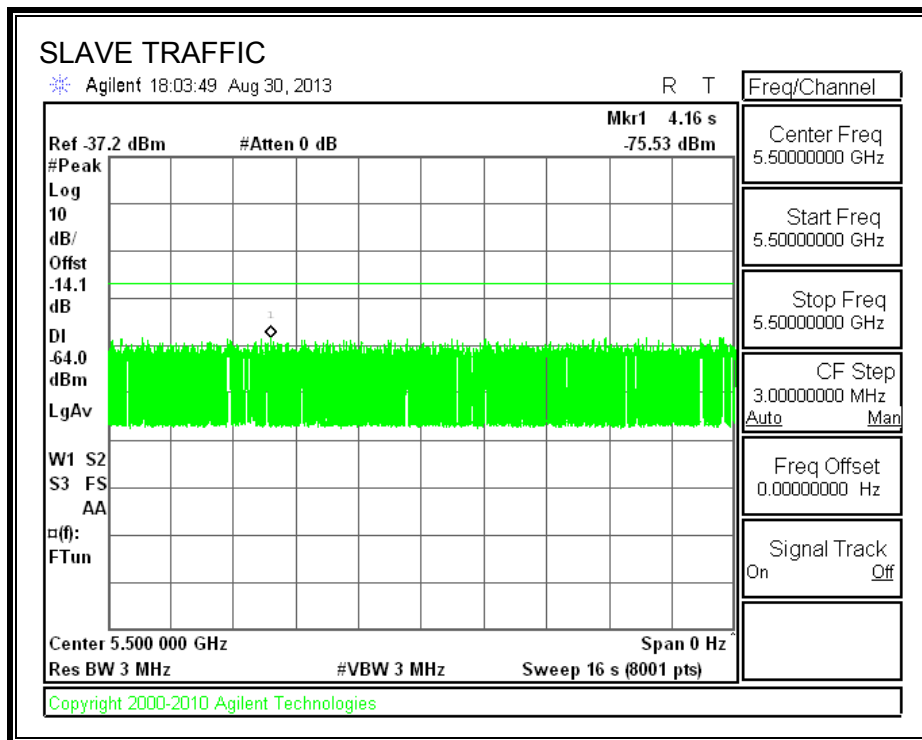
All tests were performed at a channel center frequency of 5500 MHz.

### 11.4.2. RADAR WAVEFORM AND TRAFFIC

#### RADAR WAVEFORM



**TRAFFIC**





### 11.4.3. OVERLAPPING CHANNEL TESTS

#### RESULTS

These tests are not applicable.

### 11.4.4. MOVE AND CLOSING TIME

#### REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =  
(Number of analyzer bins showing transmission) \* (dwell time per bin)

The observation period over which the FCC aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

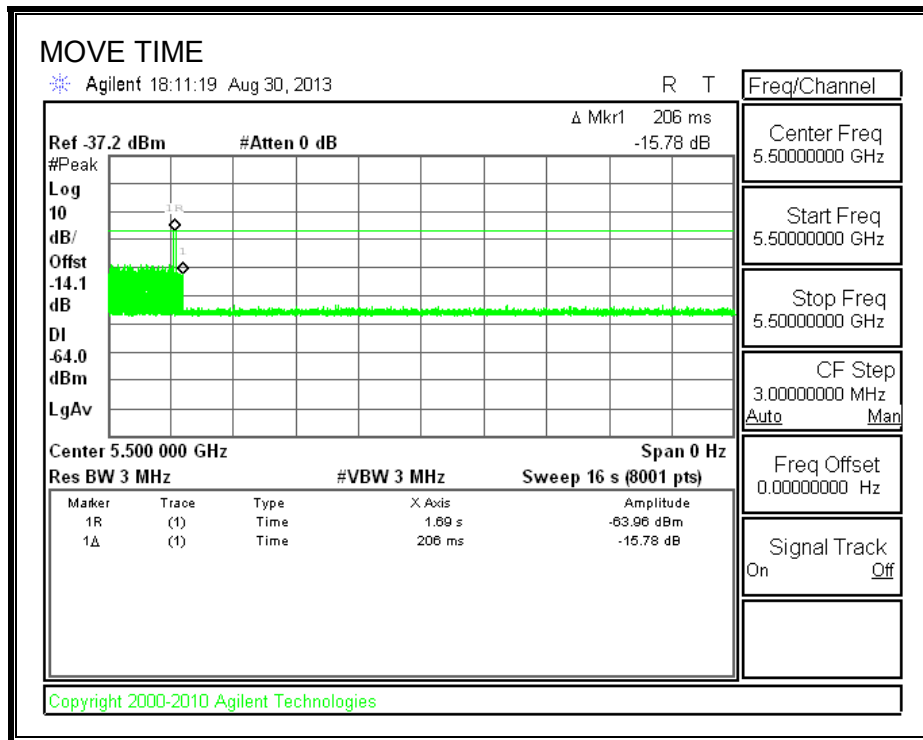
The observation period over which the IC aggregate time is calculated begins at (Reference Marker) and ends no earlier than (Reference Marker + 10 sec).

#### RESULTS

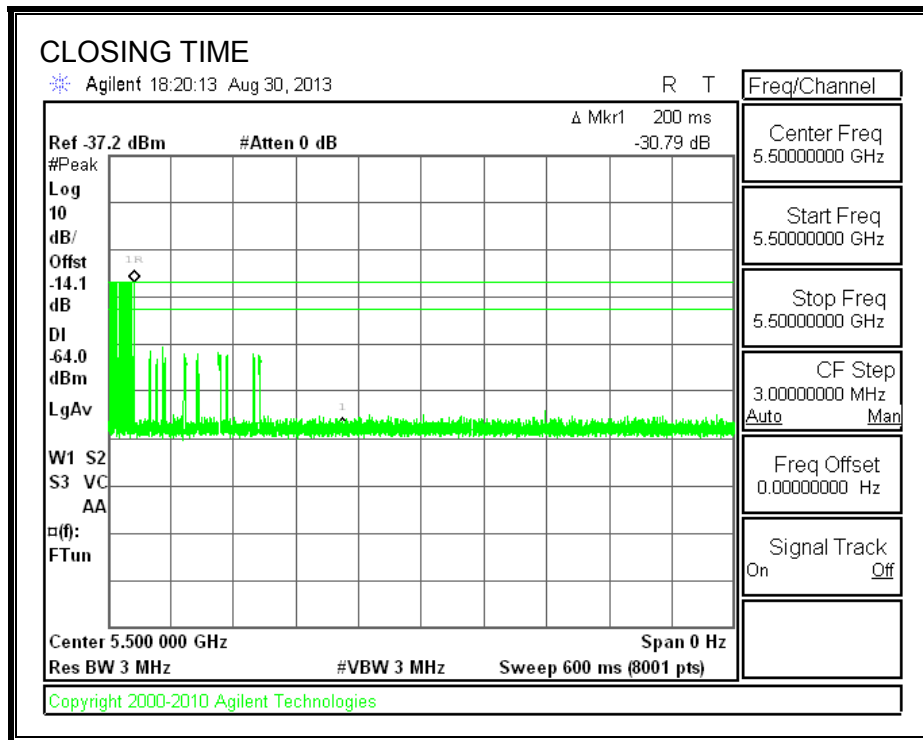
Agency	Channel Move Time (sec)	Limit (sec)
FCC / IC	0.206	10

Agency	Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
FCC	2.0	60
IC	52.0	260

**MOVE TIME**

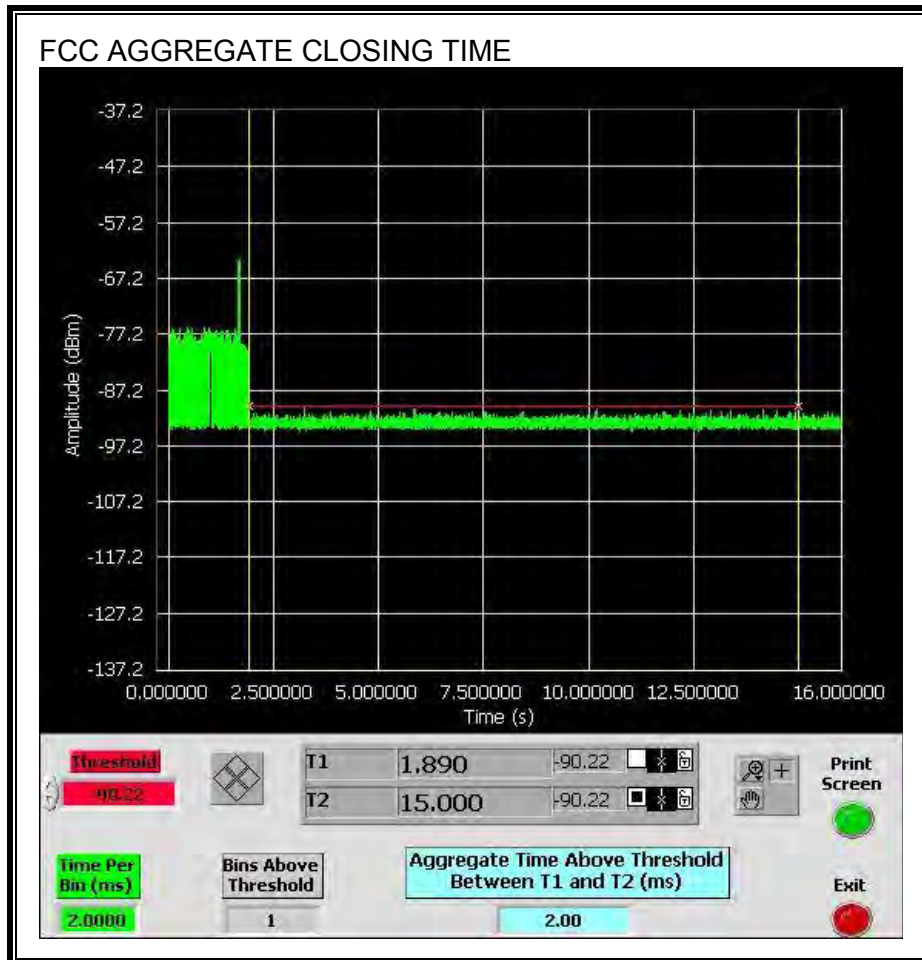


**CHANNEL CLOSING TIME**

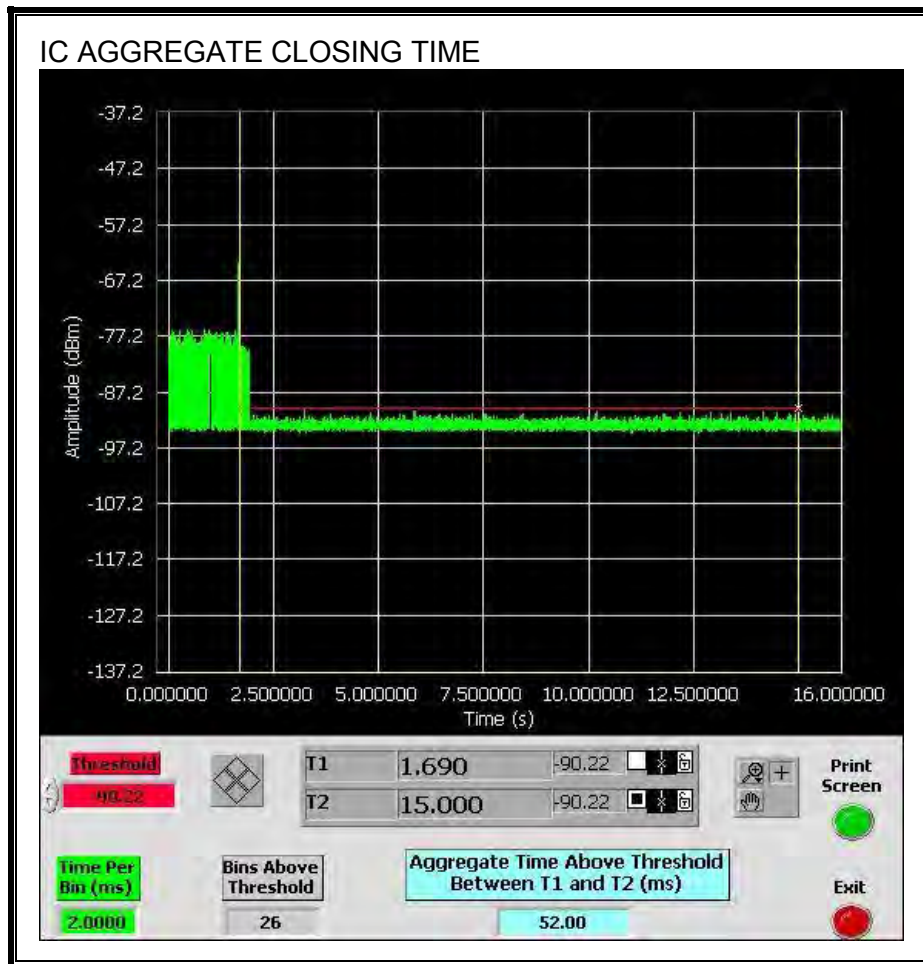


**AGGREGATE CHANNEL CLOSING TRANSMISSION TIME**

No transmissions are observed during the FCC aggregate monitoring period.



Only intermittent transmissions are observed during the IC aggregate monitoring period.



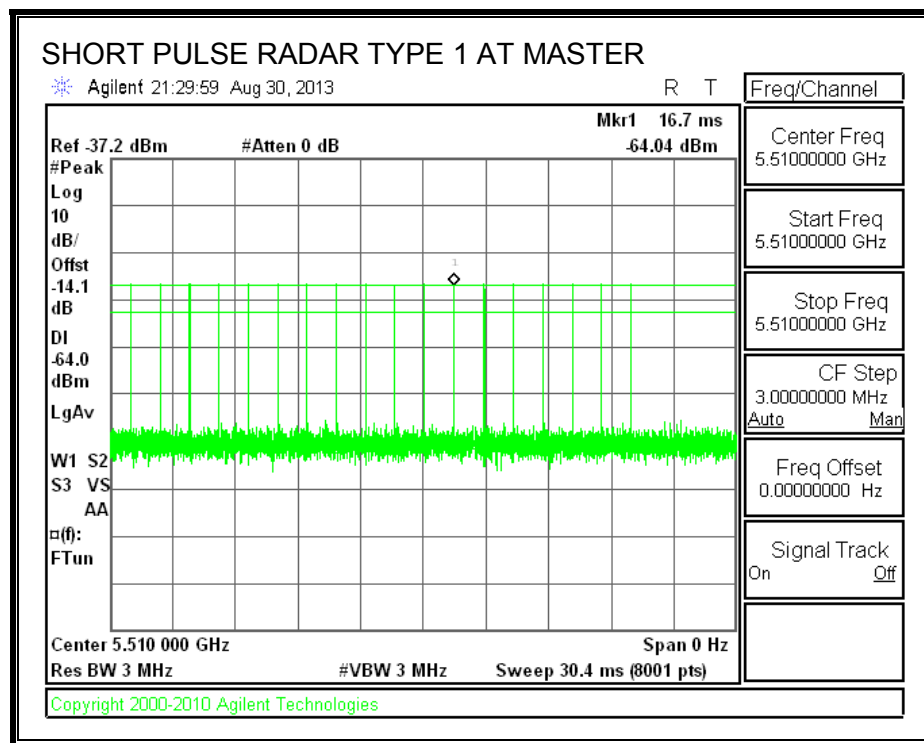
## 11.5. CLIENT-TO-CLIENT COMMUNICATIONS MODE RESULTS FOR 40 MHz BANDWIDTH

### 11.5.1. TEST CHANNEL

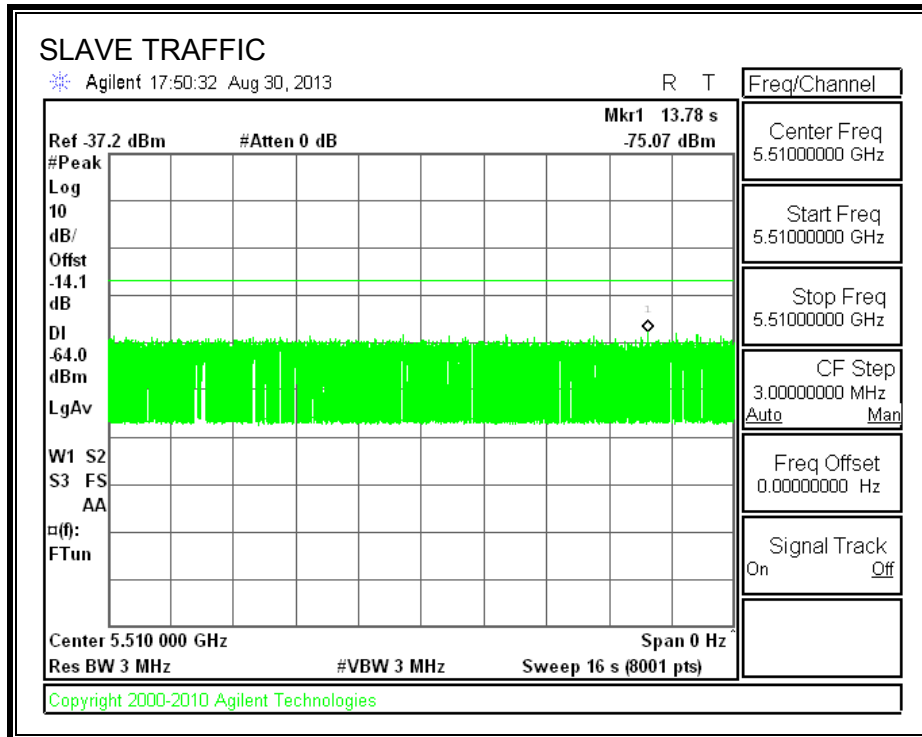
All tests were performed at a channel center frequency of 5510 MHz.

### 11.5.2. RADAR WAVEFORM AND TRAFFIC

#### RADAR WAVEFORM



**TRAFFIC**



**11.5.3. OVERLAPPING CHANNEL TESTS**

**RESULTS**

These tests are not applicable.

**11.5.4. MOVE AND CLOSING TIME**

**REPORTING NOTES**

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =  
 (Number of analyzer bins showing transmission) \* (dwell time per bin)

The observation period over which the FCC aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

The observation period over which the IC aggregate time is calculated begins at (Reference Marker) and ends no earlier than (Reference Marker + 10 sec).

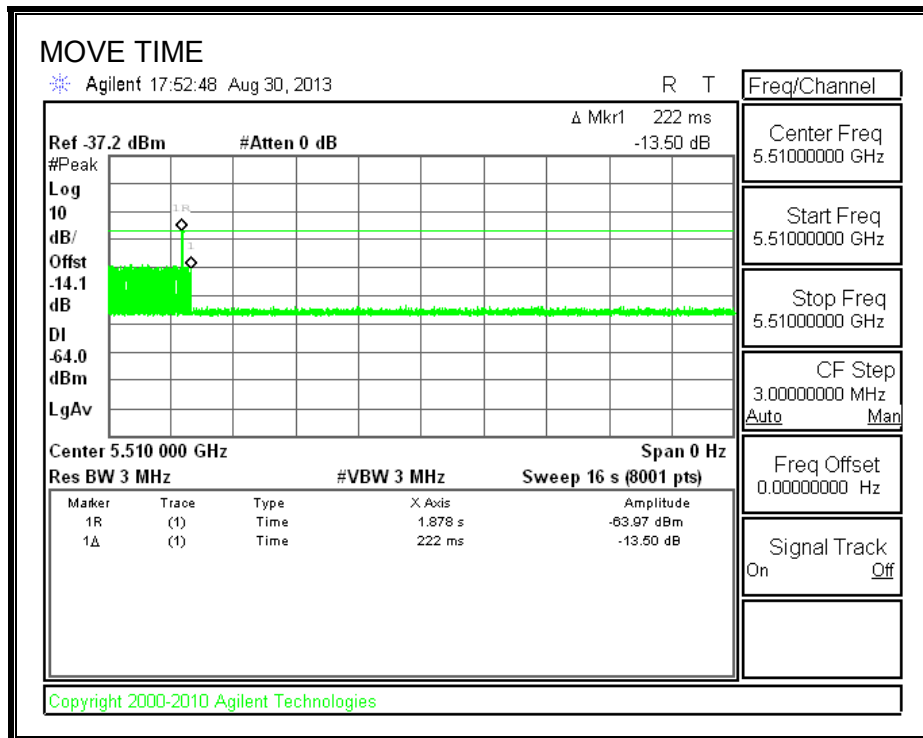
**RESULTS**

Agency	Channel Move Time (sec)	Limit (sec)
FCC / IC	0.222	10

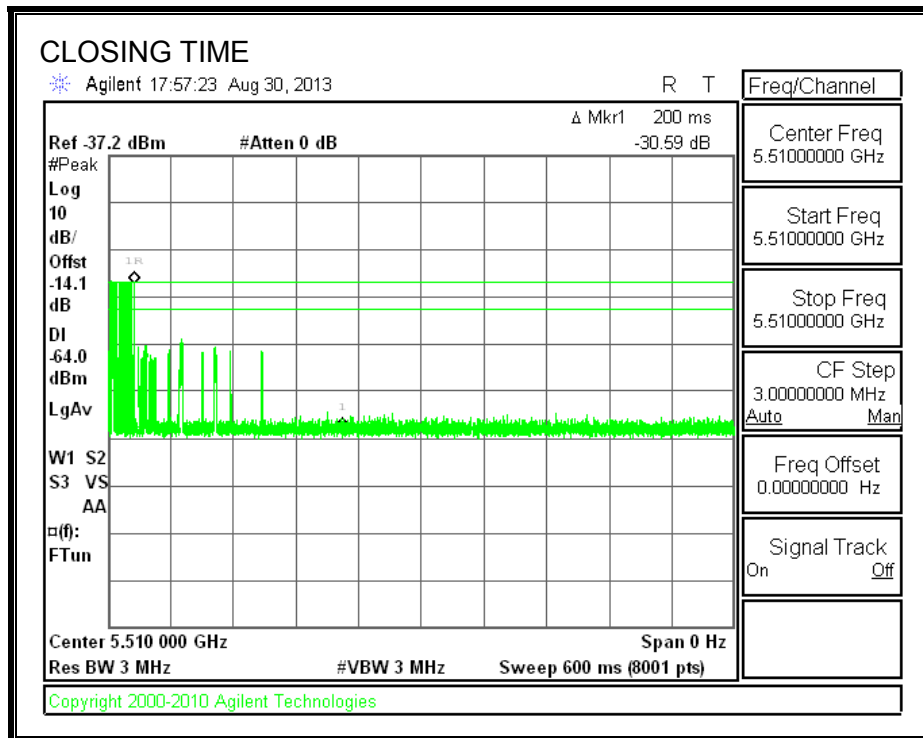
Agency	Aggregate Channel Closing Transmission Time (msec)	Limit (msec)
FCC	4.0	60
IC	68.0	260



**MOVE TIME**

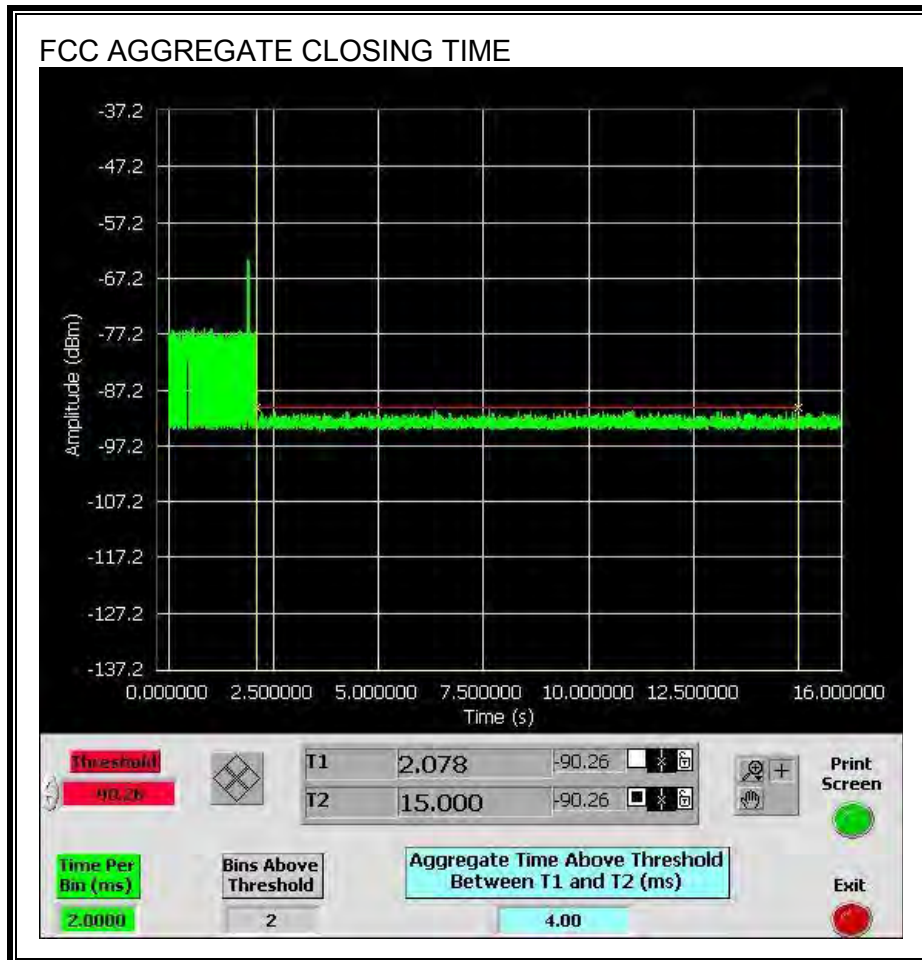


**CHANNEL CLOSING TIME**



**AGGREGATE CHANNEL CLOSING TRANSMISSION TIME**

No transmissions are observed during the FCC aggregate monitoring period.



Only intermittent transmissions are observed during the IC aggregate monitoring period.

