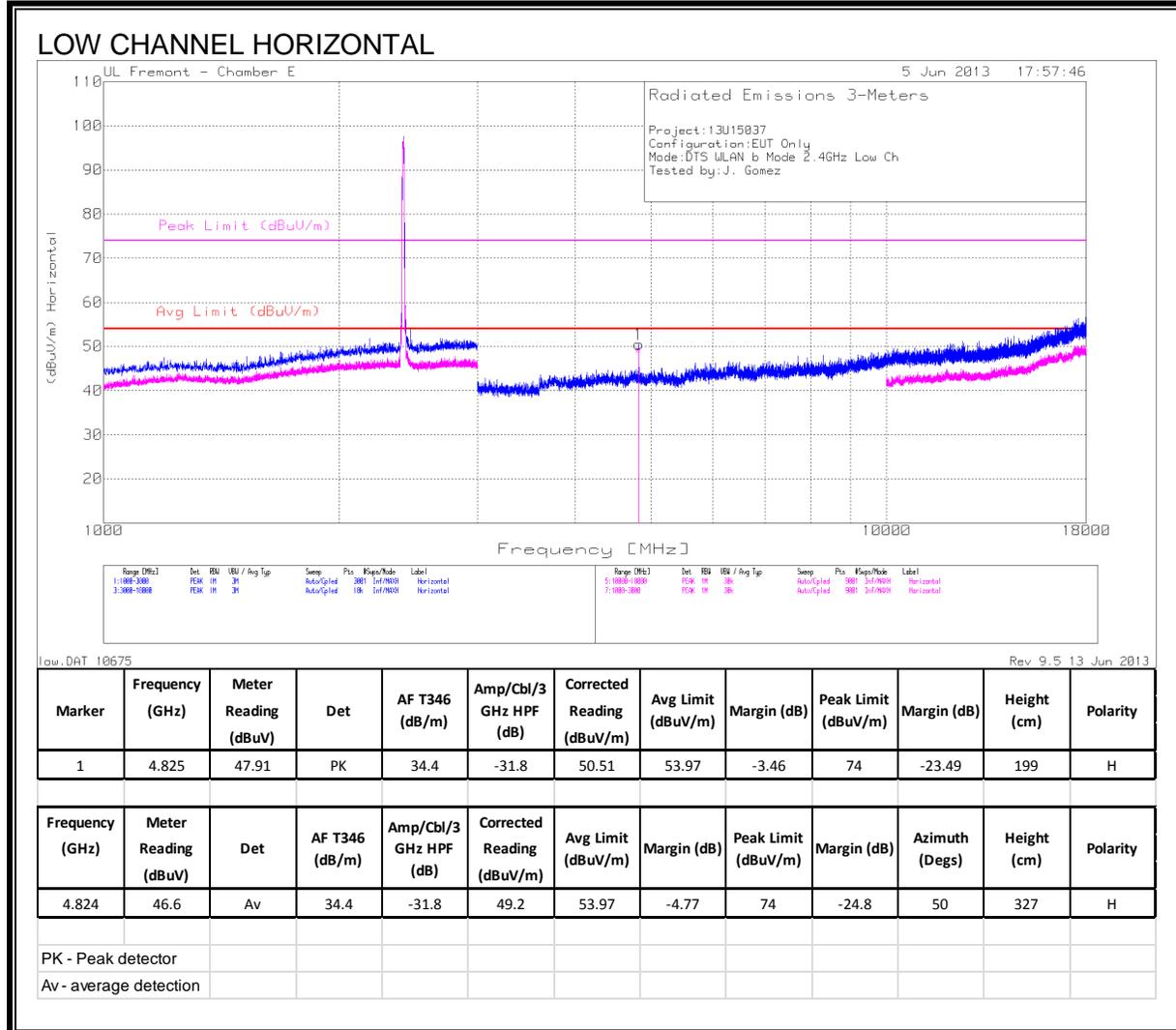
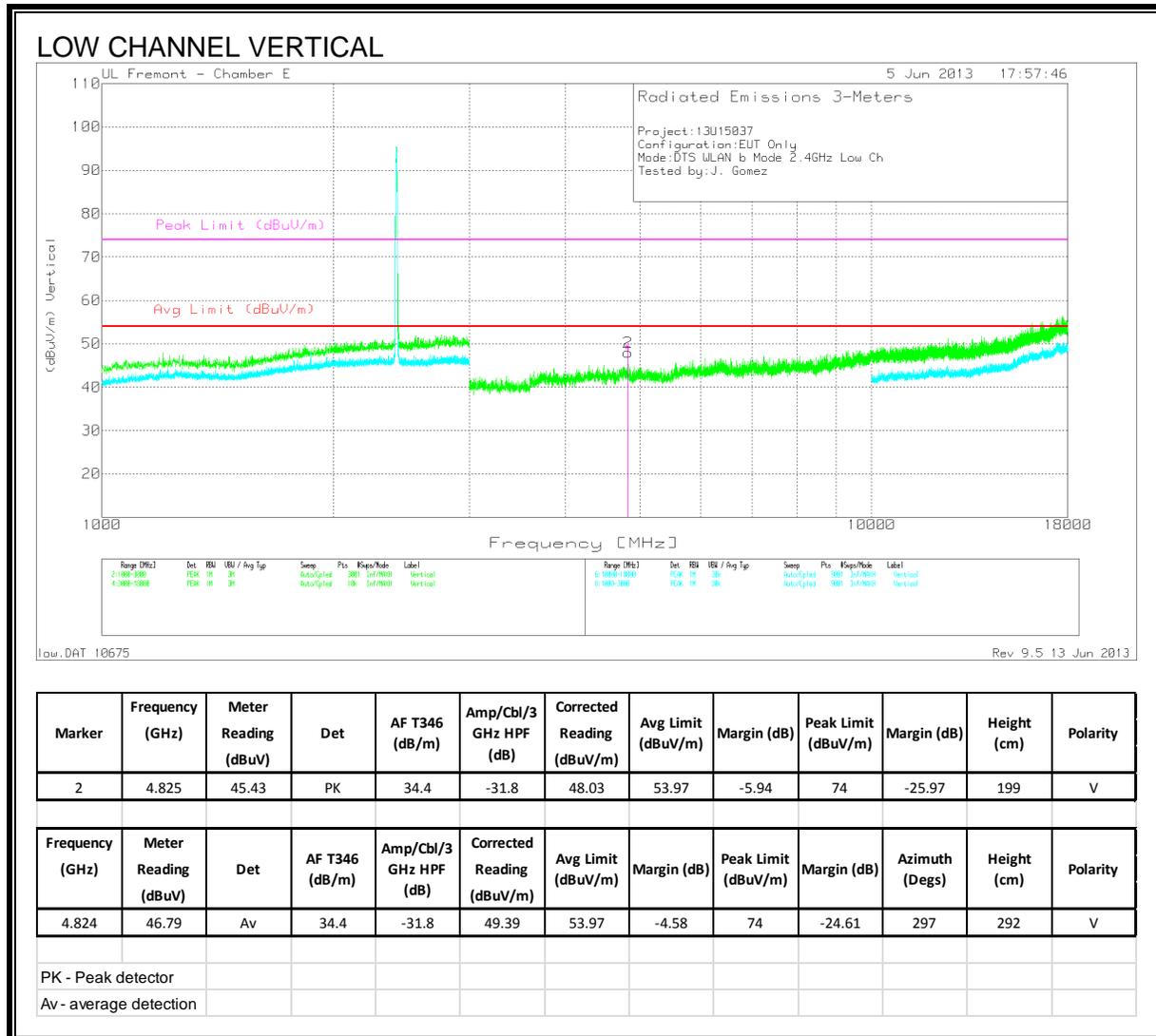
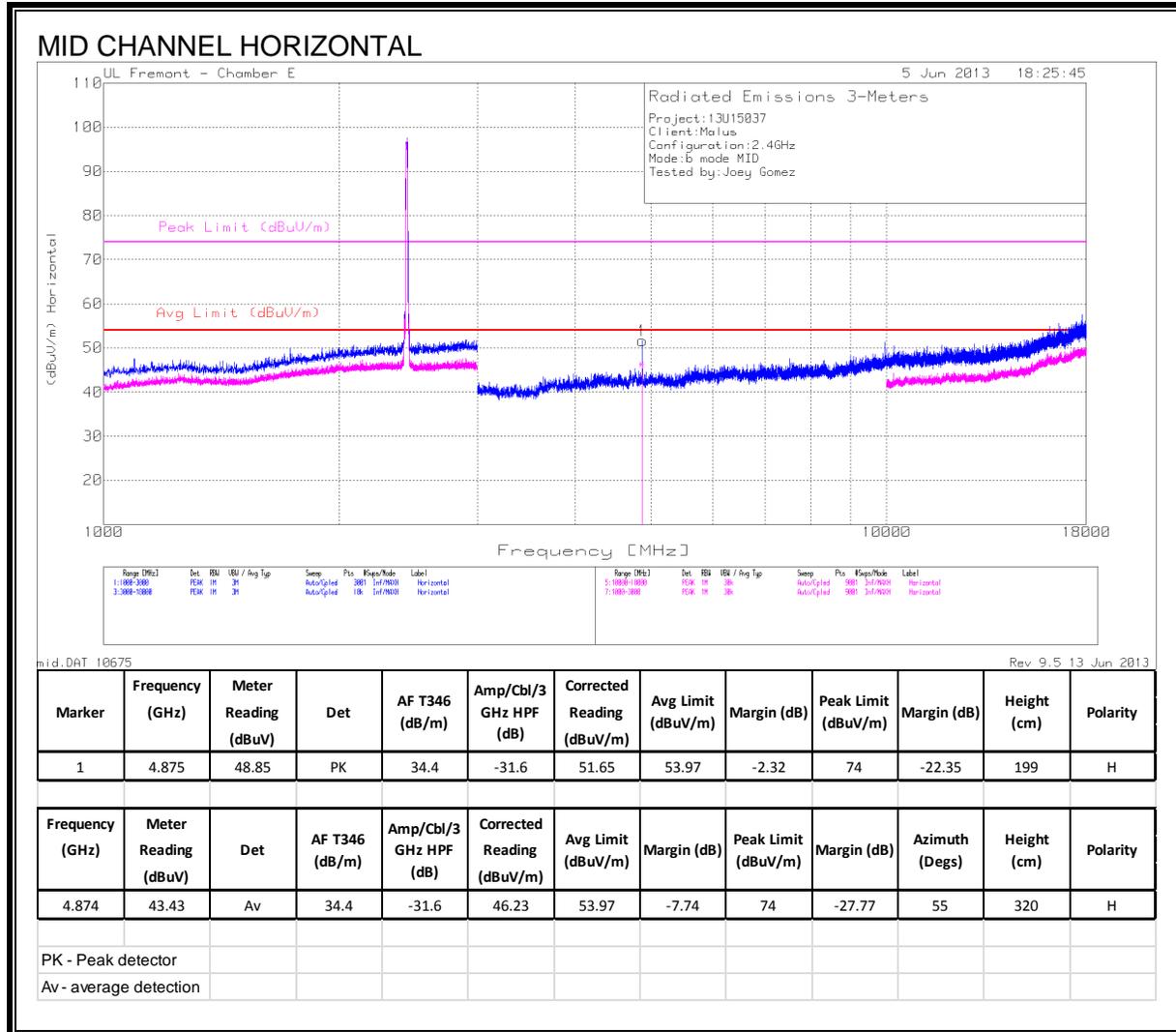
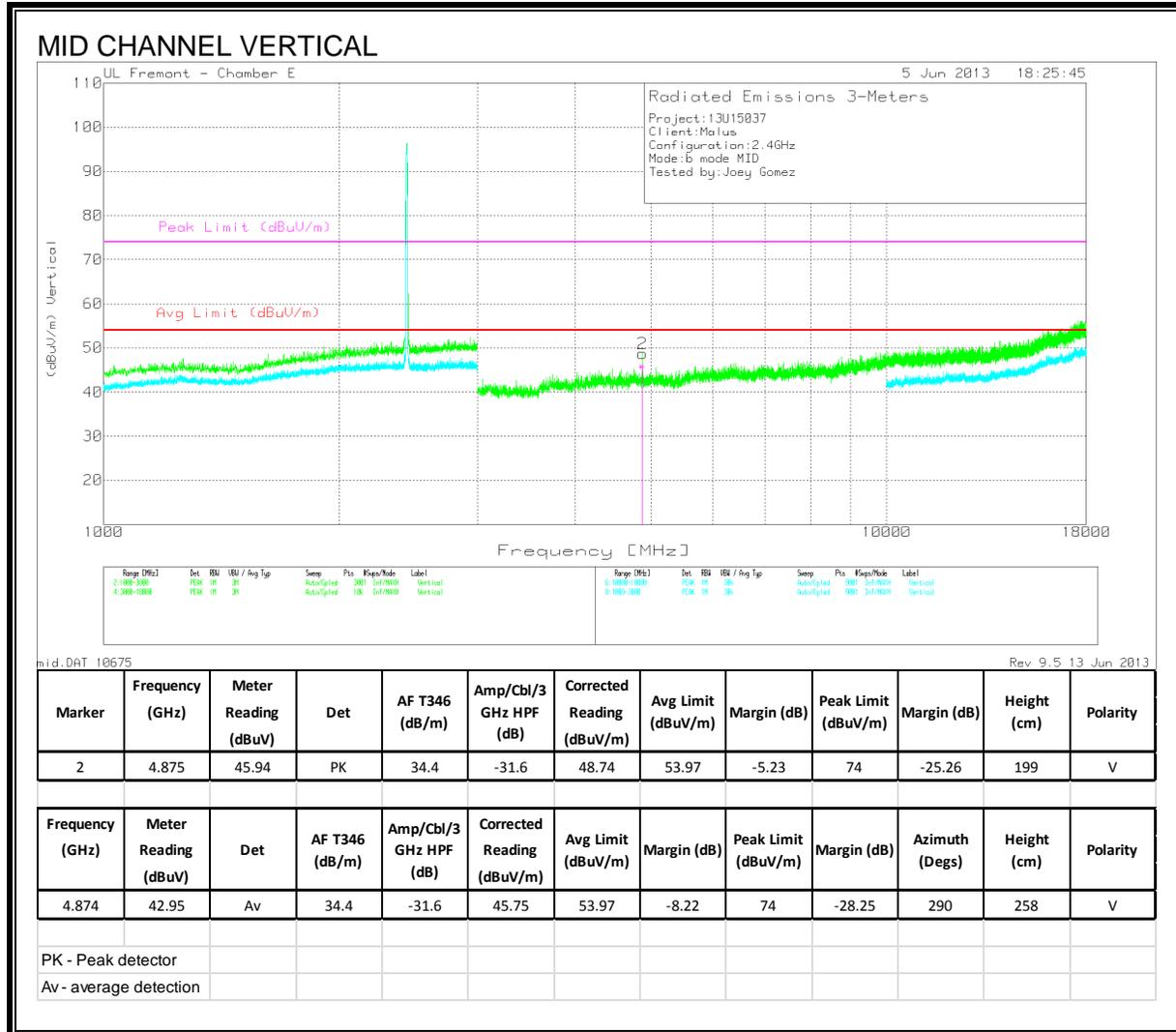


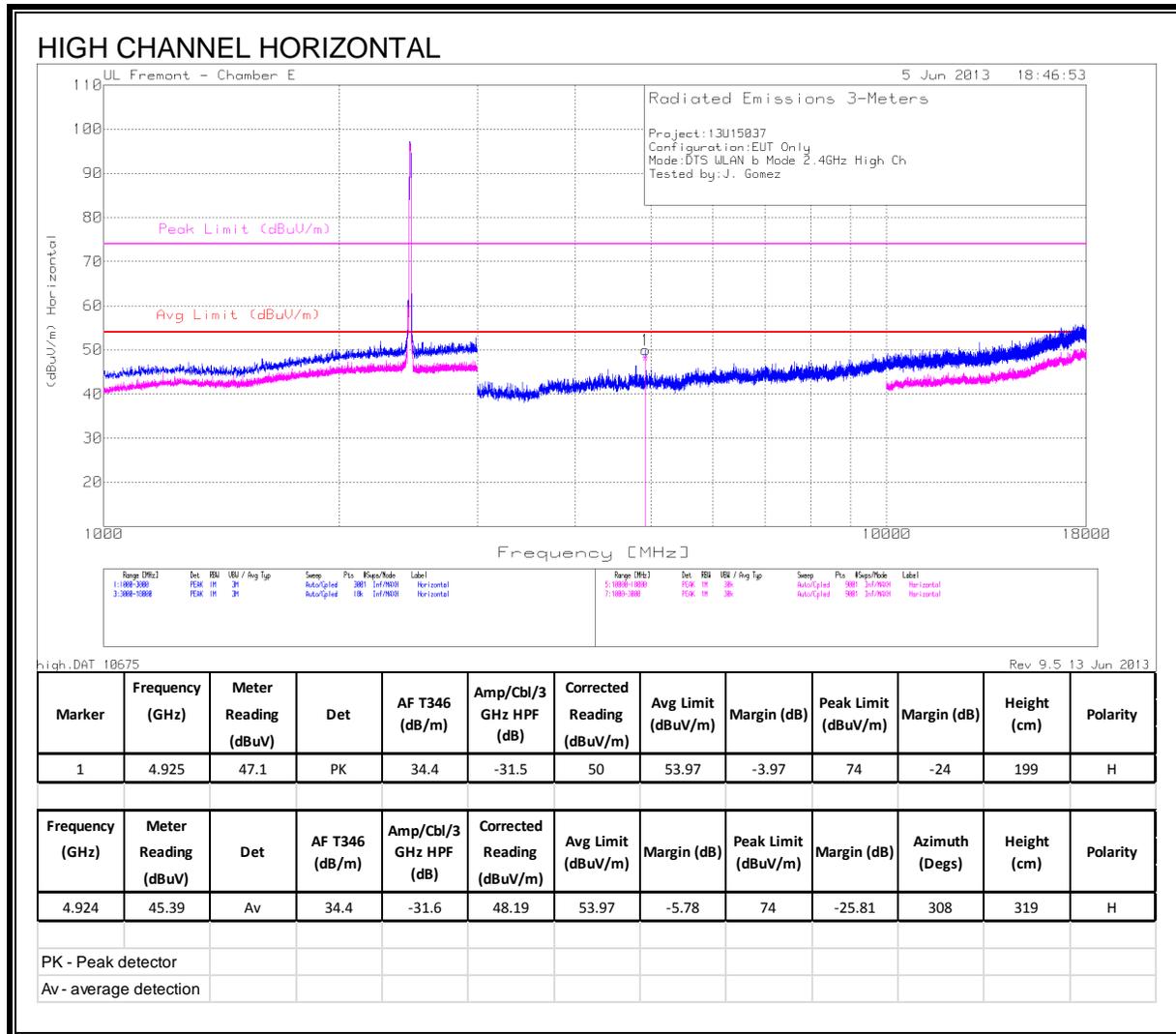
**HARMONICS AND SPURIOUS EMISSIONS**

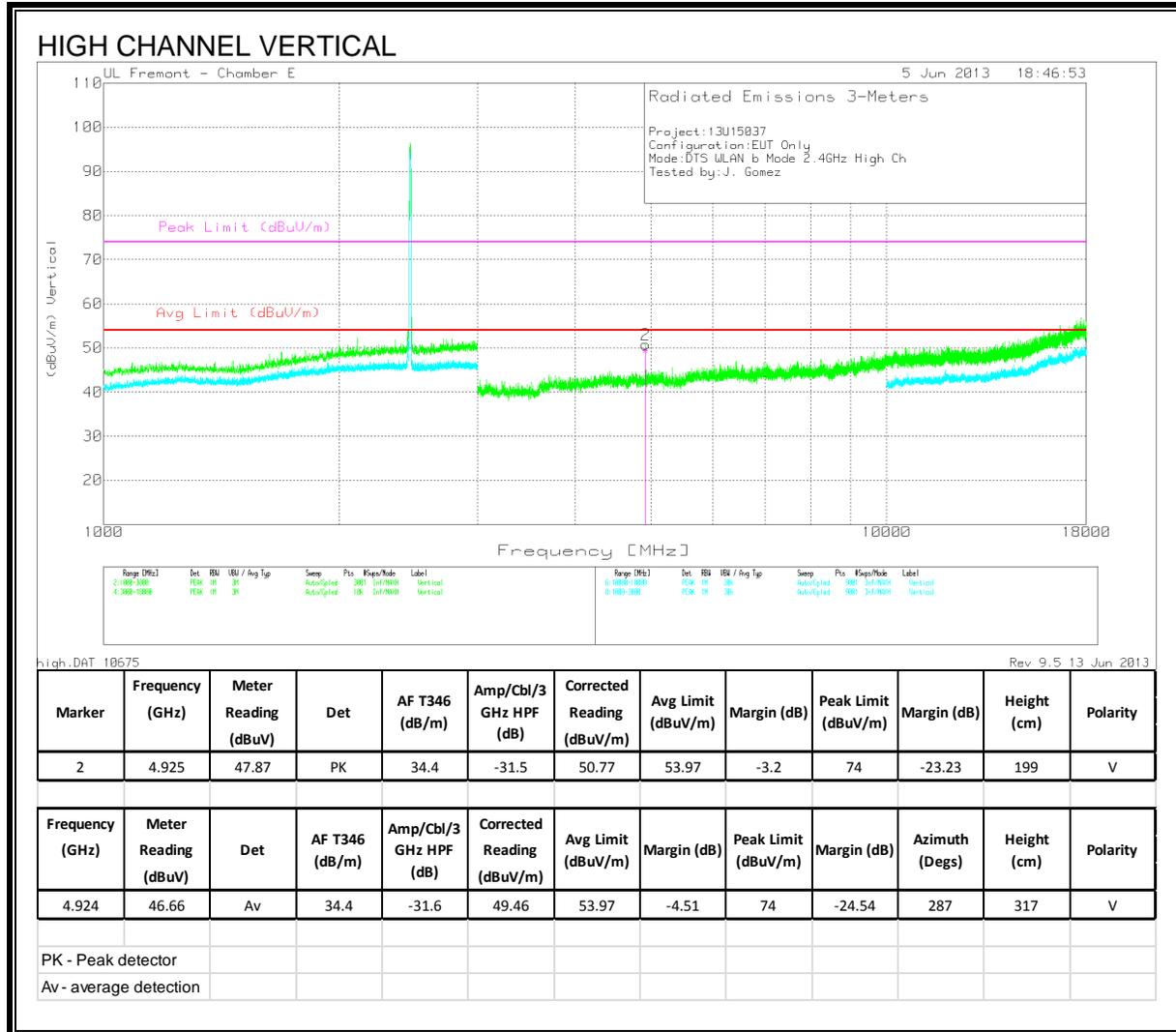






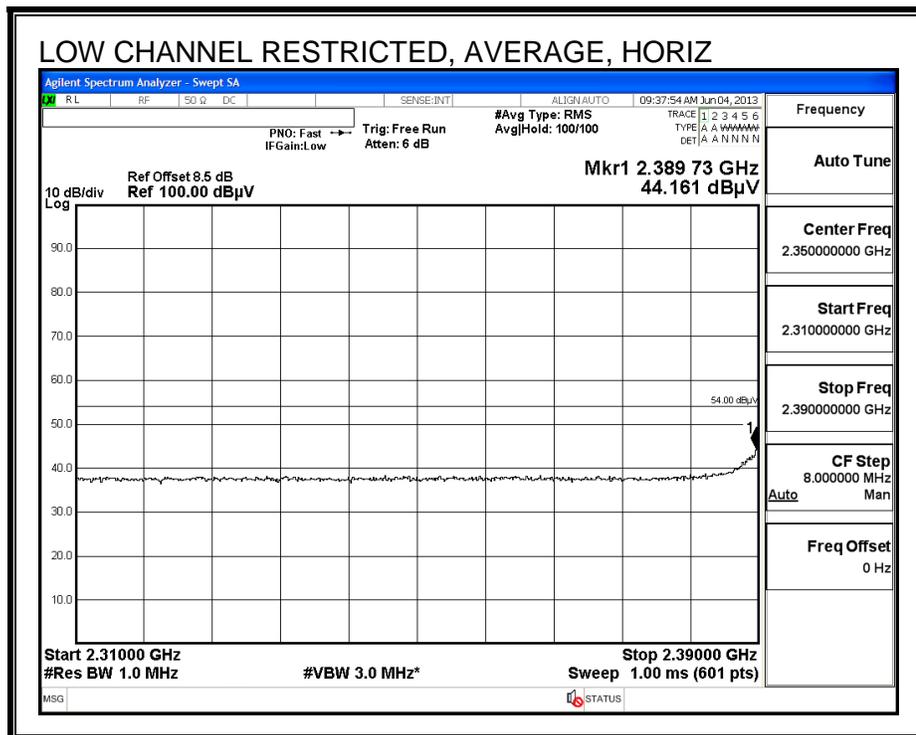
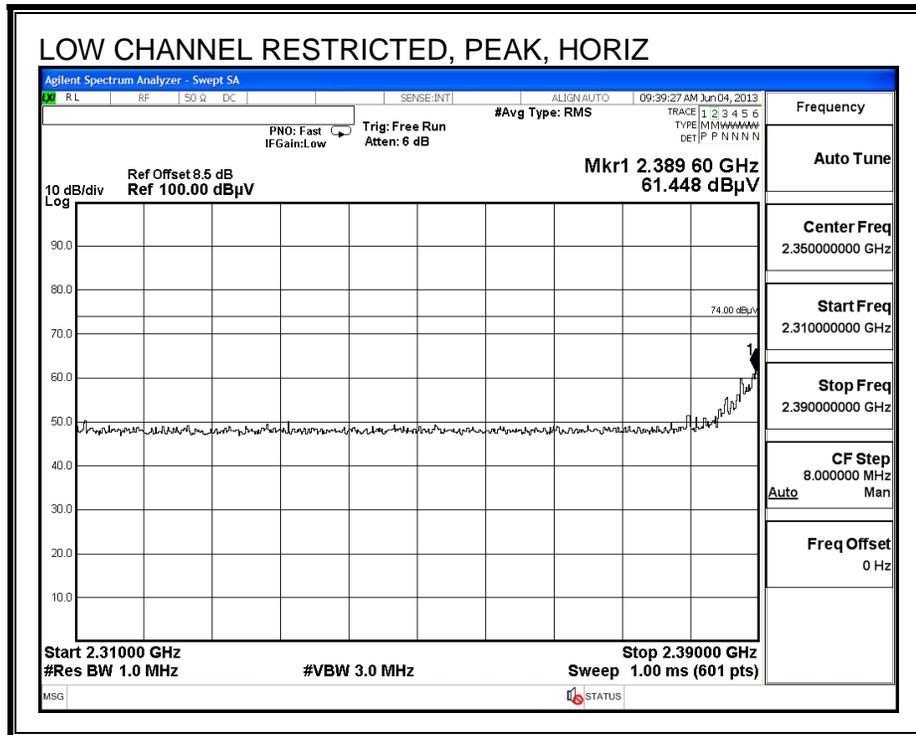


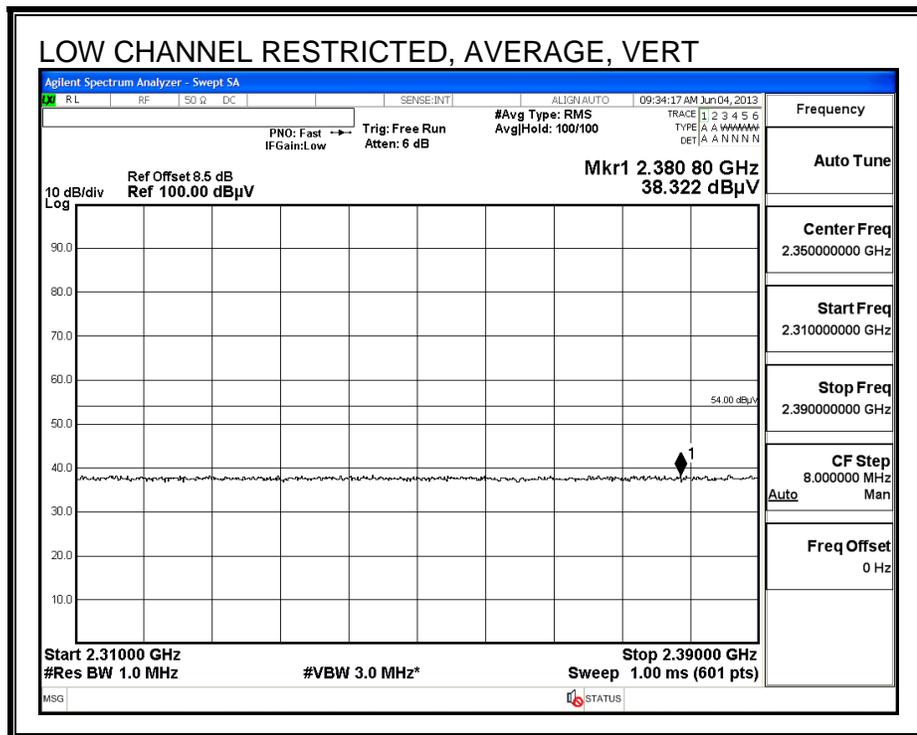
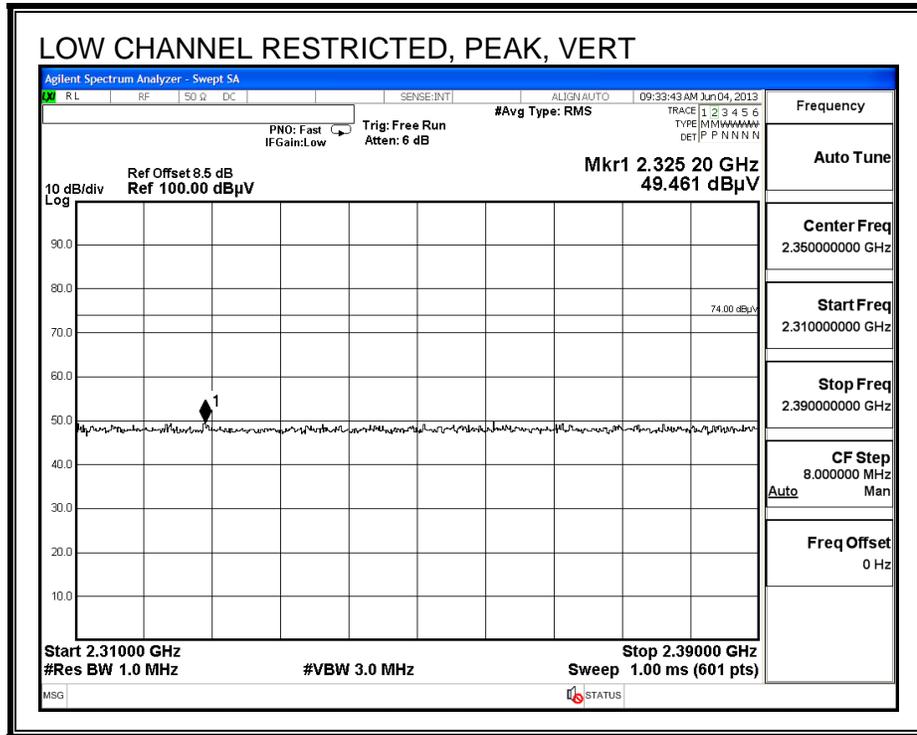




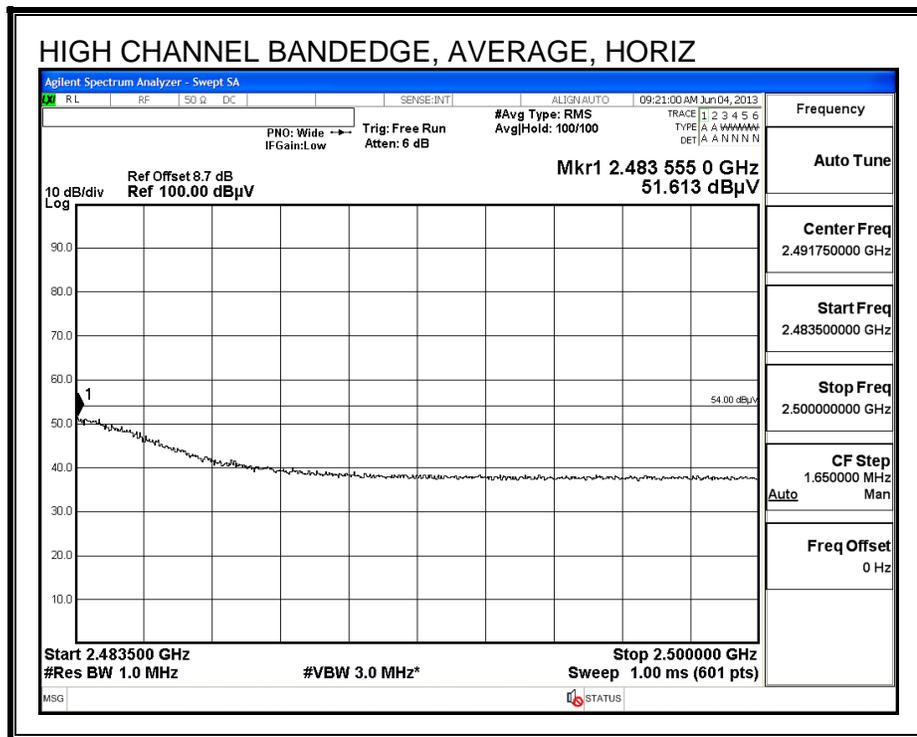
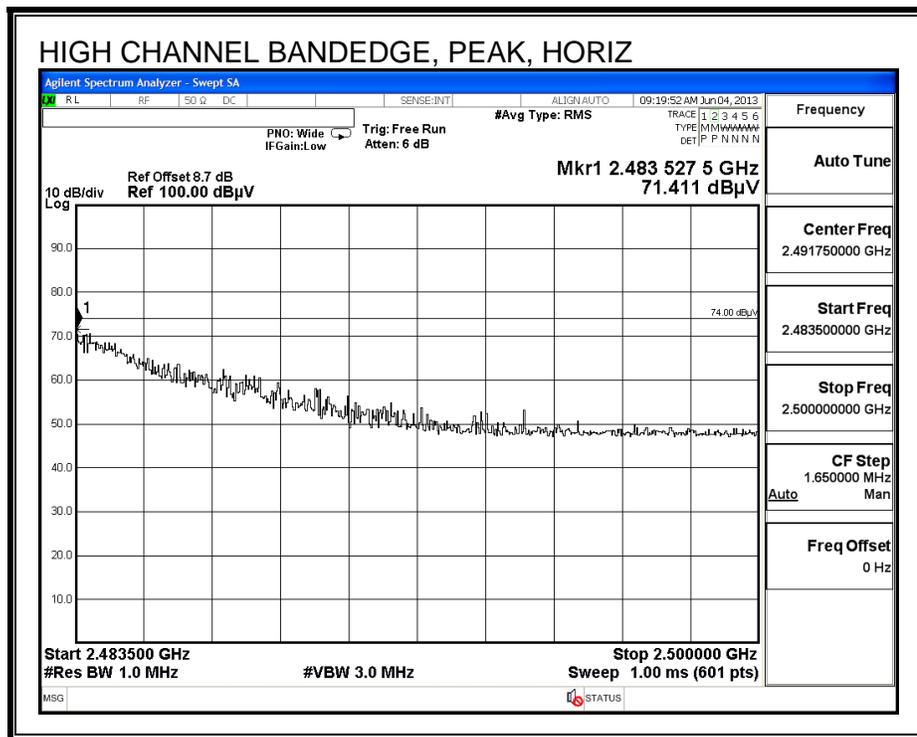
### 8.4. TX ABOVE 1 GHz 802.11g MODE IN THE 2.4 GHz BAND

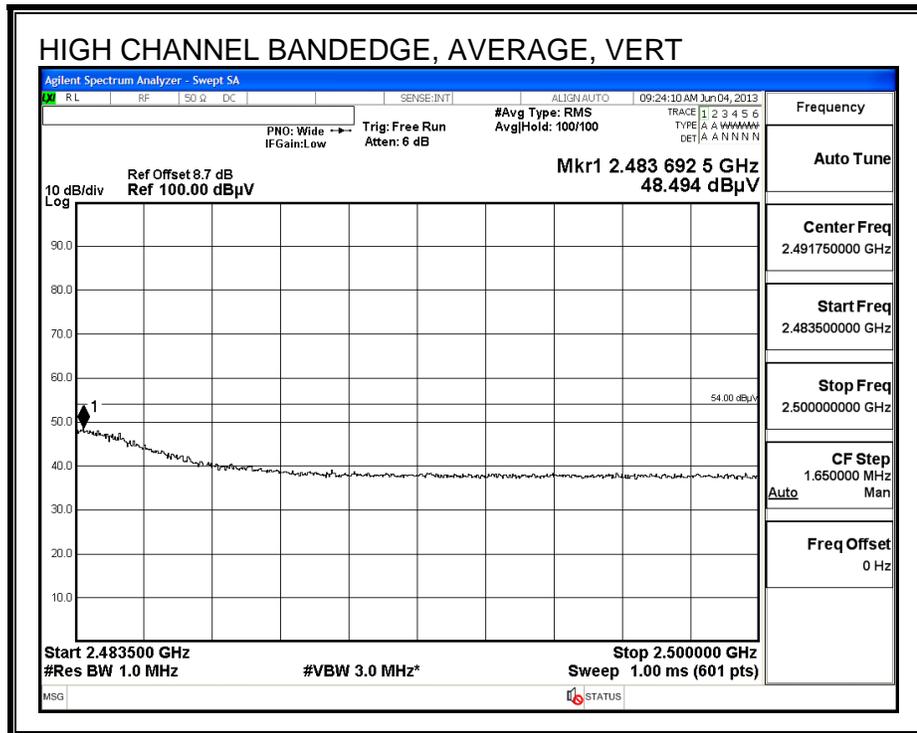
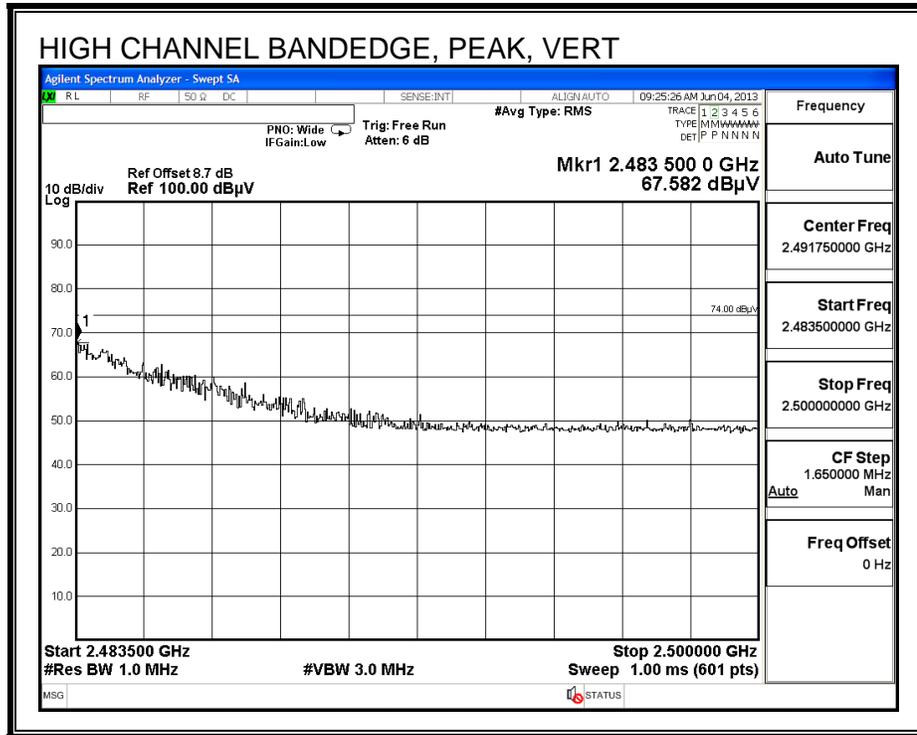
#### RESTRICTED BANDEDGE (LOW CHANNEL)





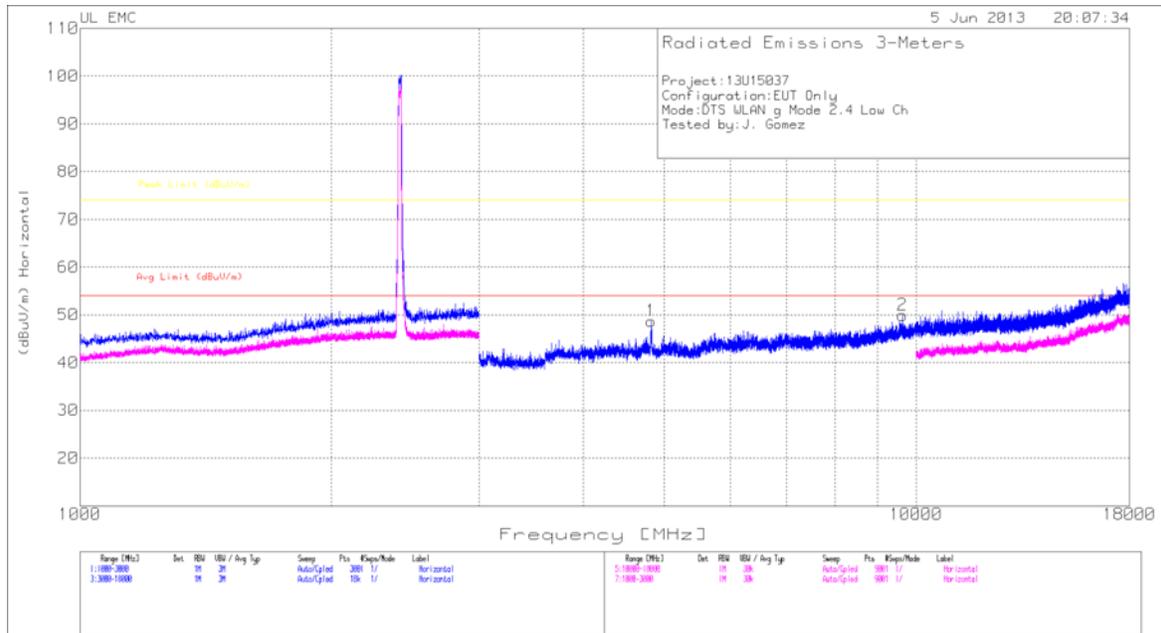
**AUTHORIZED BANDEDGE (HIGH CHANNEL)**





**HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL HORIZONTAL**

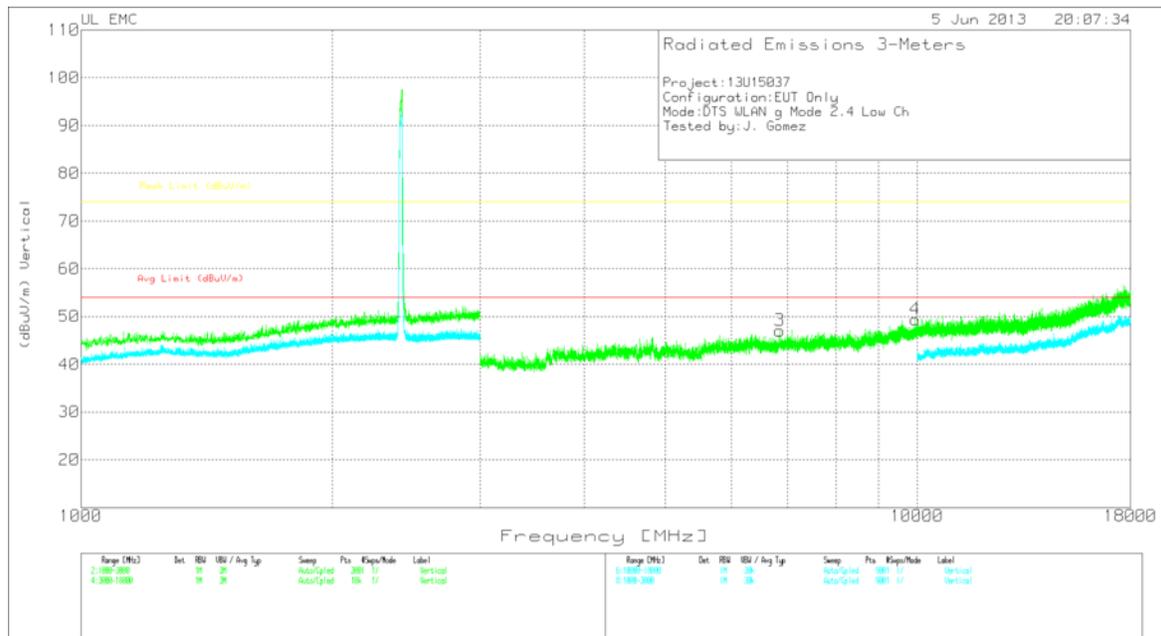


File: A31\_MLON\_2.DAT

Horizontal	3000 -	18000MHz													
Marker No.	Test Frequency	Meter Reading (dBuV)	Detector	AF T346 (dB/m)	Amp/Cbl HPF (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity			
1	4824.899	46.08	PK	34.4	-31.8	48.68	53.97	-5.29	74	-25.32	199	Horz			
2	9637.965	37.61	PK	37.6	-25.3	49.91	53.97	-4.06	74	-24.09	199	Horz			

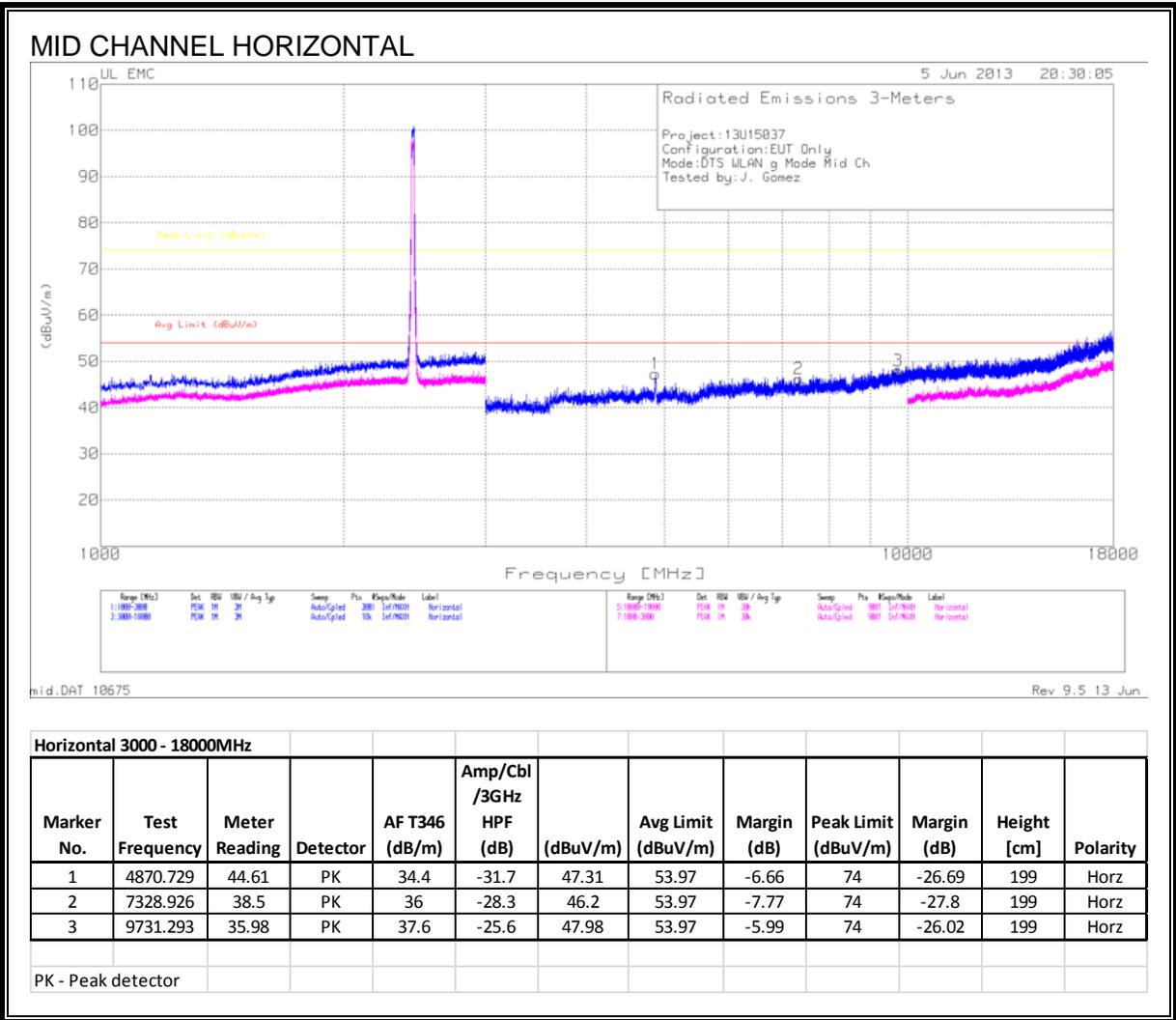
PK - Peak detector

LOW CHANNEL VERTICAL

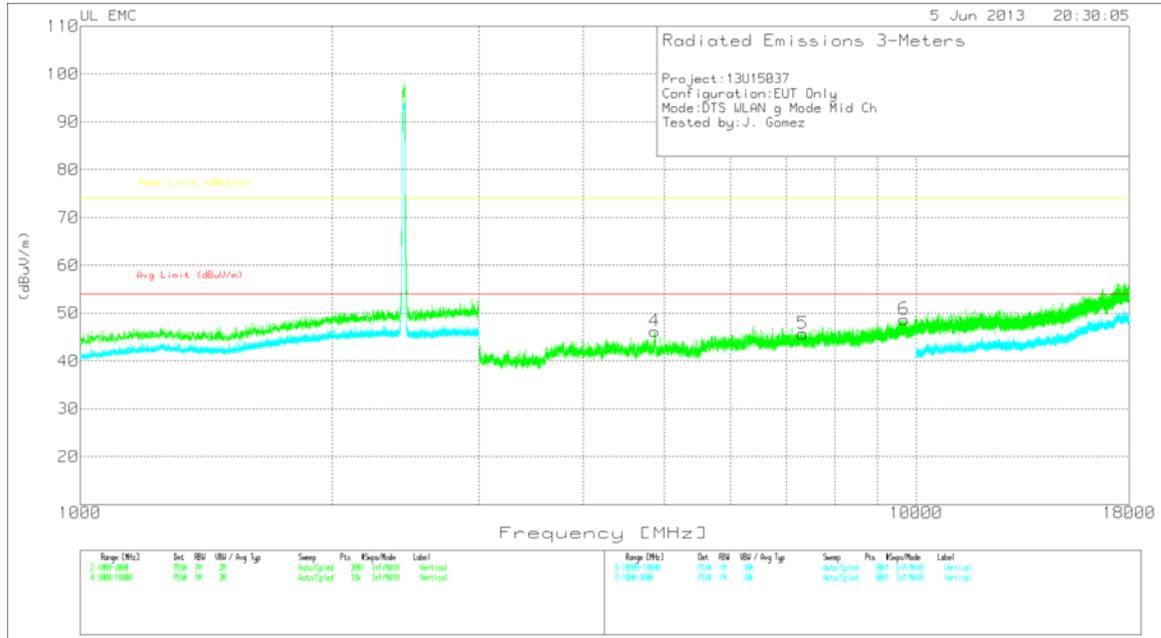


File: A31 MLAN 2.DAT

Vertical	3000-18000MHz	Marker No.	Test Frequency	Meter Reading (dBuV)	Detector	AF T346 (dB/m)	Amp/Cbl /3GHz HPF (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
		3	6854.786	41.45	PK	35.9	-30.3	47.05	53.97	-6.92	74	-26.95	199	Vert
		4	9953.78	36.51	PK	38	-25.1	49.41	53.97	-4.56	74	-24.59	199	Vert
PK - Peak detector														



MID CHANNEL VERTICAL

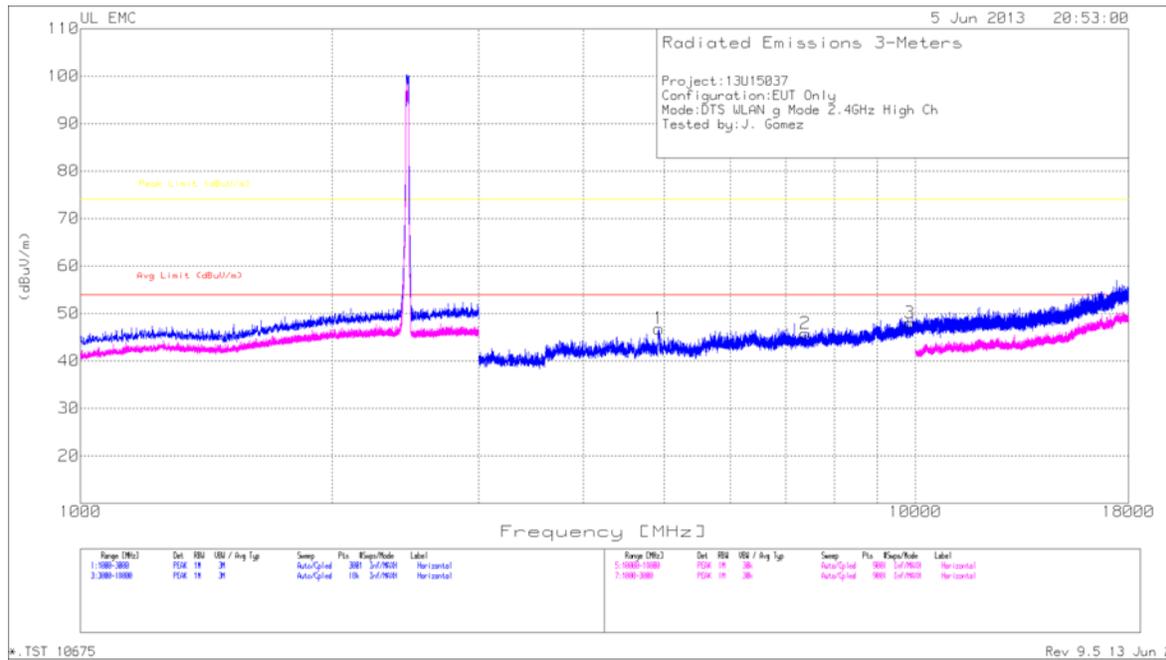


mid.DAT 10675 Rev 9.5 13 Jun

Vertical 3000 - 18000MHz												
Marker No.	Test Frequency	Meter Reading	Detector	AF T346 (dB/m)	Amp/Cbl /3GHz HPF (dB)	(dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
4	4867.396	43.61	PK	34.4	-31.8	46.21	53.97	-7.76	74	-27.79	199	Vert
5	7319.76	38.23	PK	36	-28.5	45.73	53.97	-8.24	74	-28.27	199	Vert
6	9682.129	36.31	PK	37.6	-25.2	48.71	53.97	-5.26	74	-25.29	199	Vert

PK - Peak detector

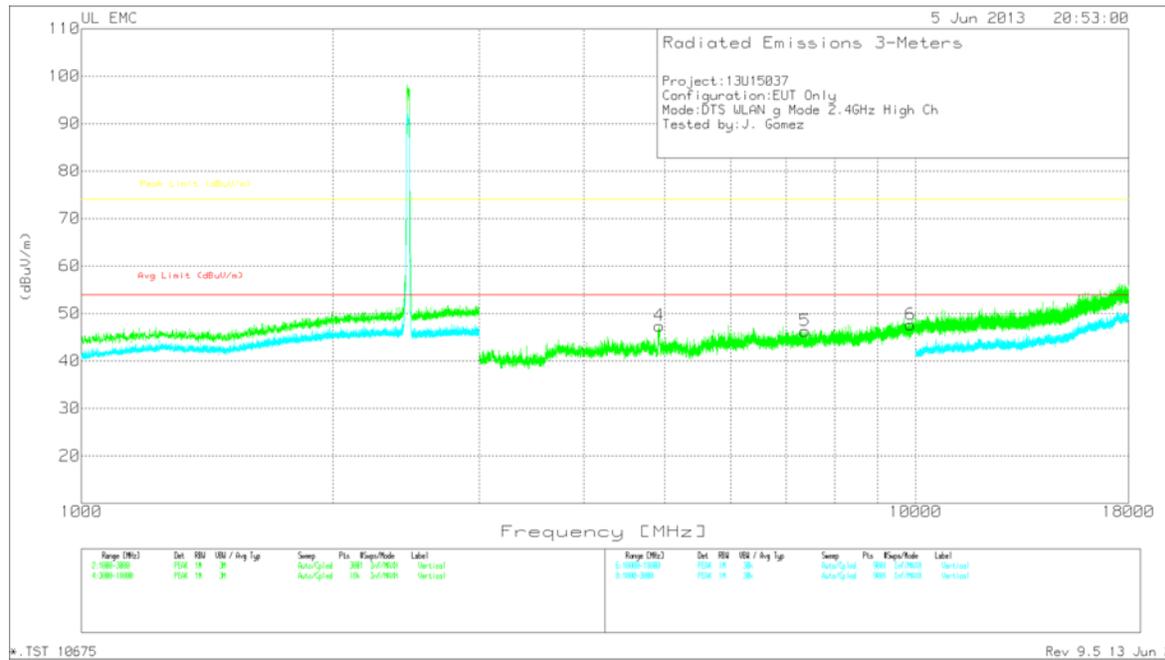
### HIGH CHANNEL HORIZONTAL



Marker No.	Test Frequency	Meter Reading (dBuV)	Detector	AFT346 (dB/m)	Amp/Cbl /3GHz HPF (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
1	4824.899	46.08	PK	34.4	-31.8	48.68	53.97	-5.29	74	-25.32	199	Horz
2	7110.605	39.53	PK	36	-29.3	46.23	53.97	-7.74	74	-27.77	199	Horz
3	9637.965	37.61	PK	37.6	-25.3	49.91	53.97	-4.06	74	-24.09	199	Horz

PK - Peak detector

### HIGH CHANNEL VERTICAL

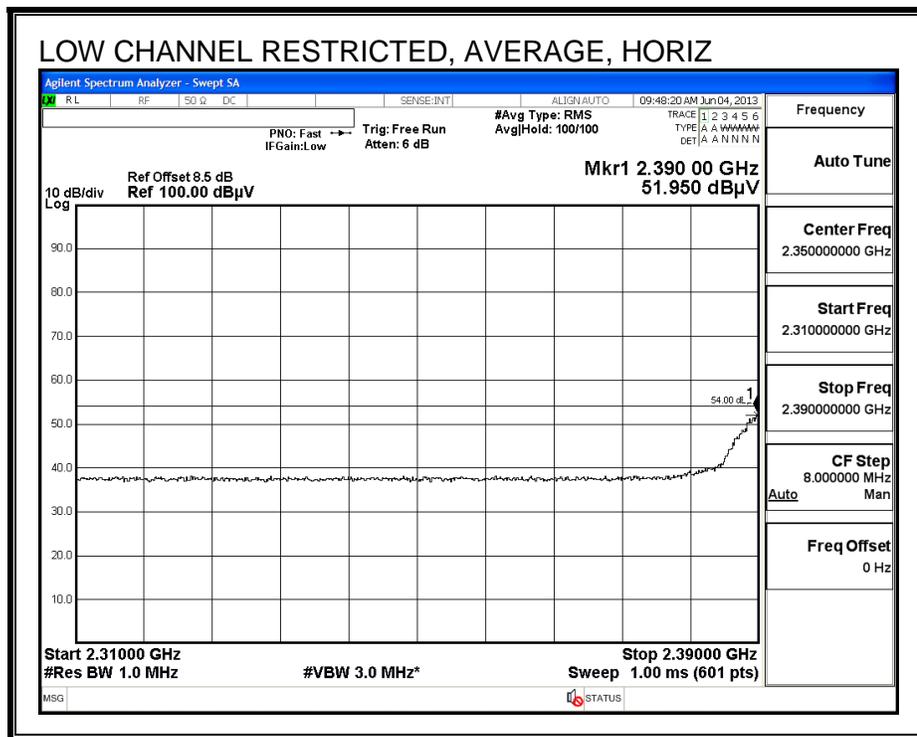
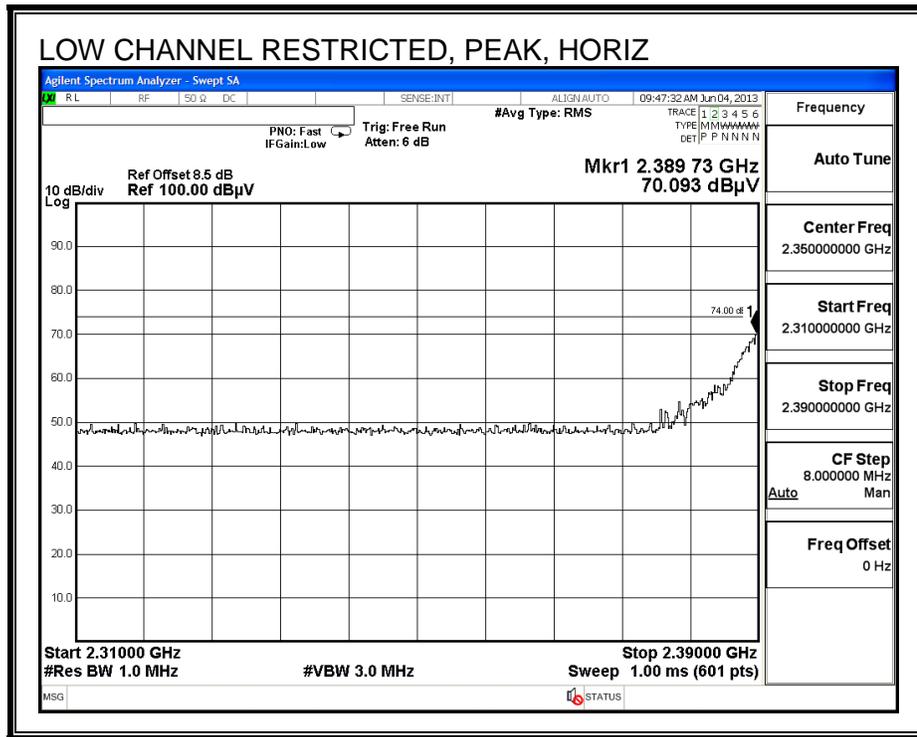


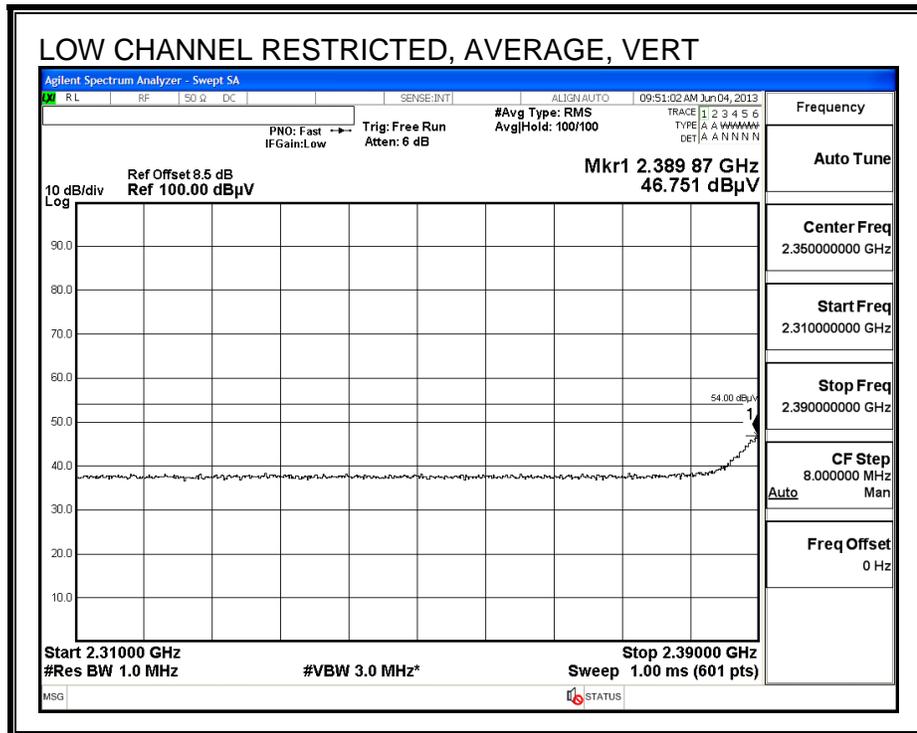
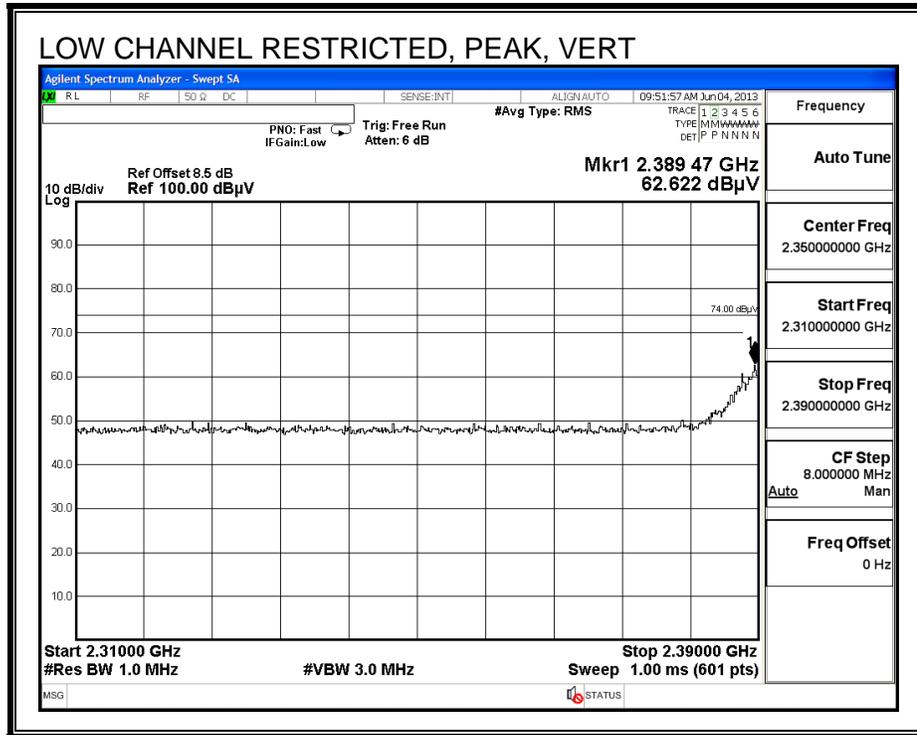
Vertical	3000 - 18000MHz	Marker No.	Test Frequency	Meter Reading(d BuV)	Detector	AF T346 (dB/m)	Amp/Cbl /3GHz HPF (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
		4	4826.565	42.96	PK	34.4	-31.7	45.66	53.97	-8.31	74	-28.34	199	Vert
		5	7081.44	40.08	PK	36	-28.9	47.18	53.97	-6.79	74	-26.82	199	Vert
		6	9953.78	36.51	PK	38	-25.1	49.41	53.97	-4.56	74	-24.59	199	Vert

PK - Peak detector

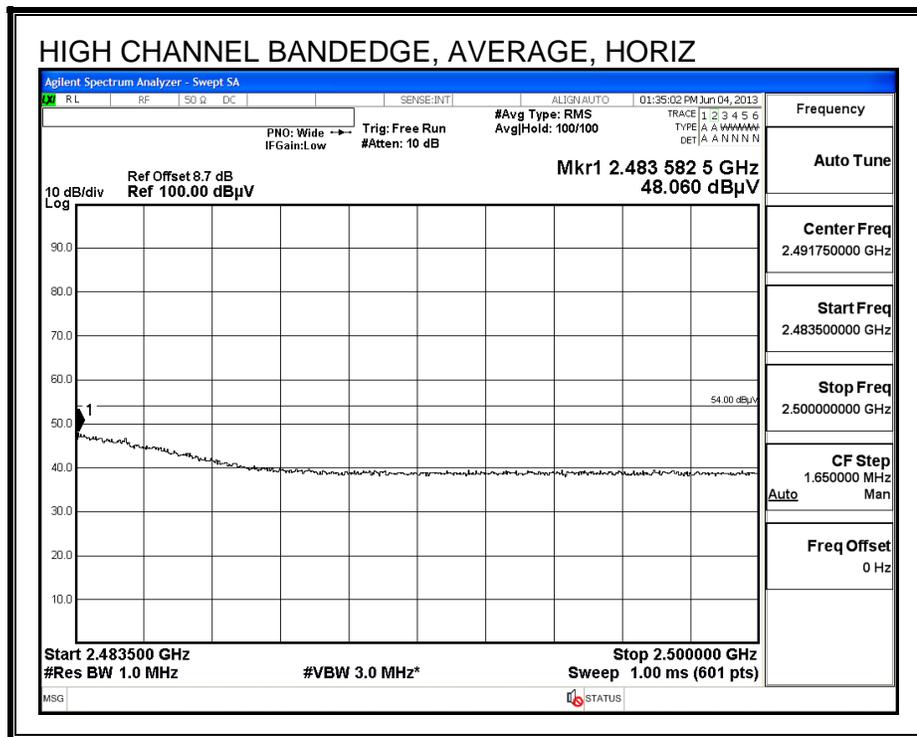
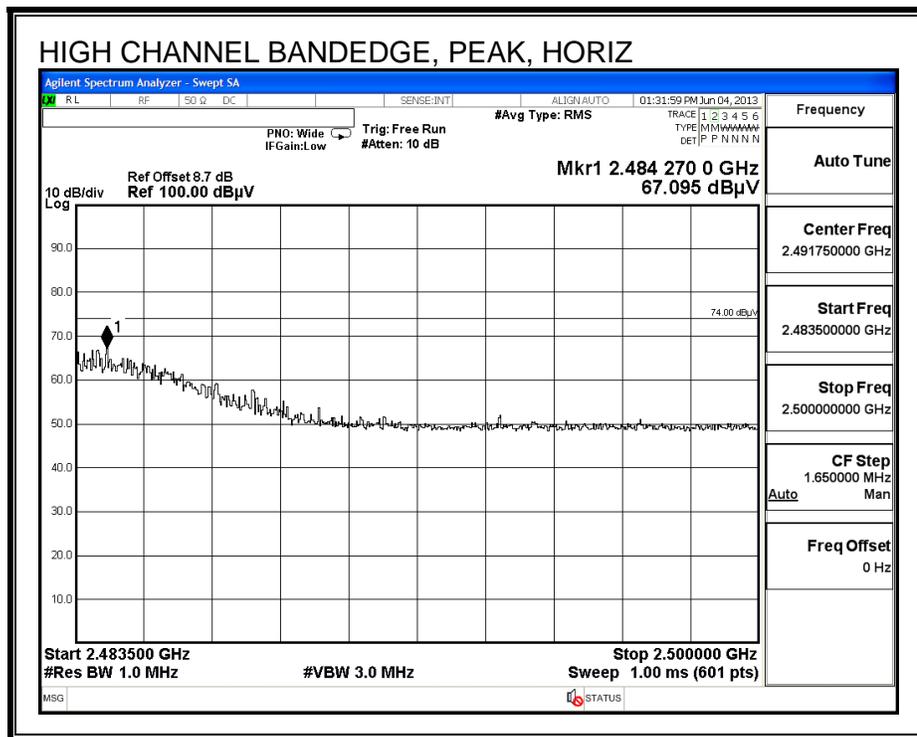
### 8.5. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 2.4 GHz BAND

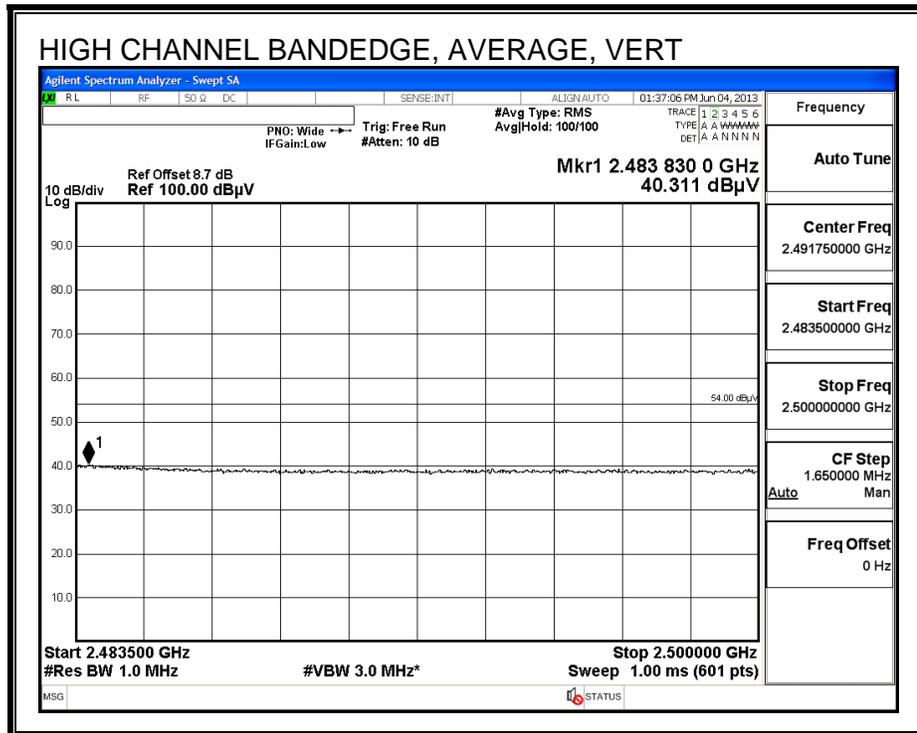
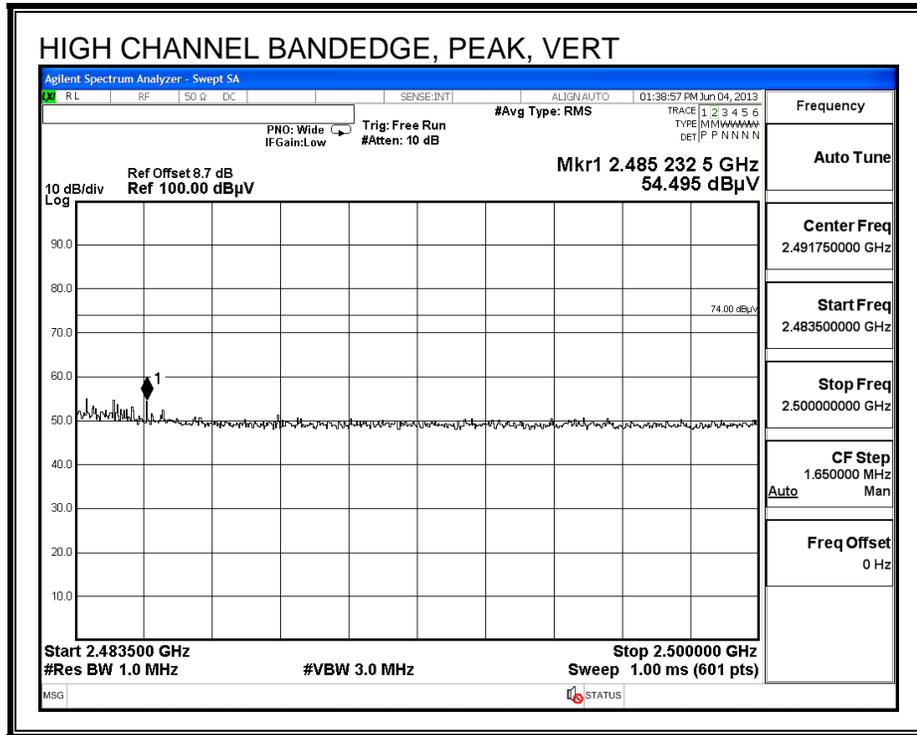
#### RESTRICTED BANDEDGE (LOW CHANNEL)



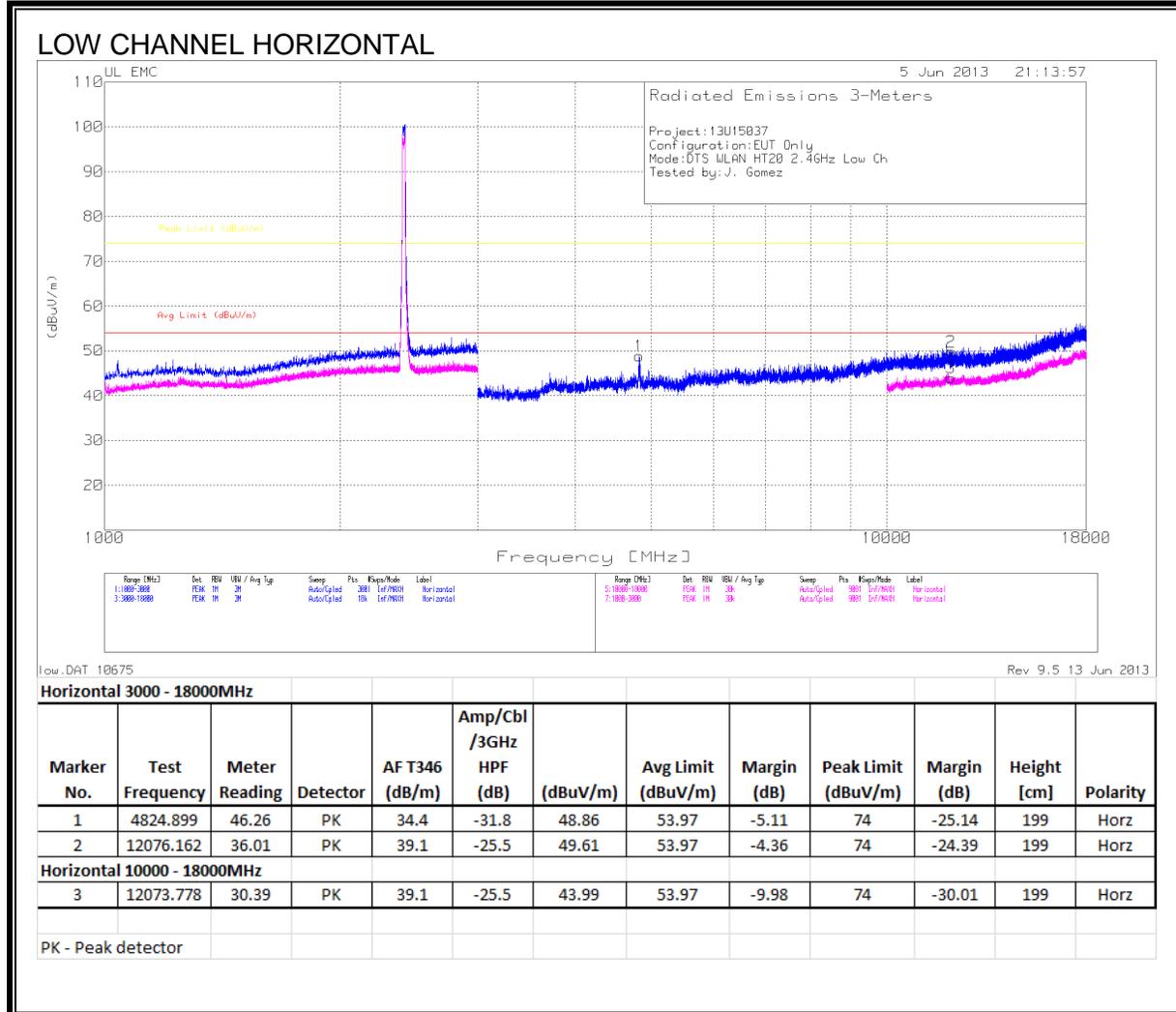


**AUTHORIZED BANDEDGE (HIGH CHANNEL)**

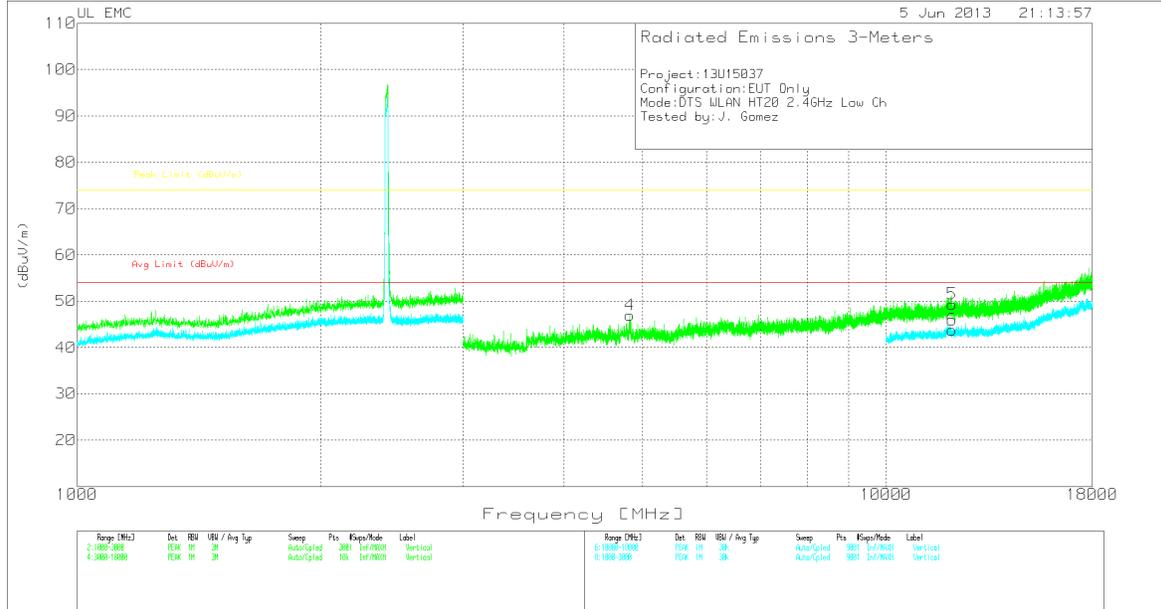




**HARMONICS AND SPURIOUS EMISSIONS**



**LOW CHANNEL VERTICAL**



low\_DAT 10675

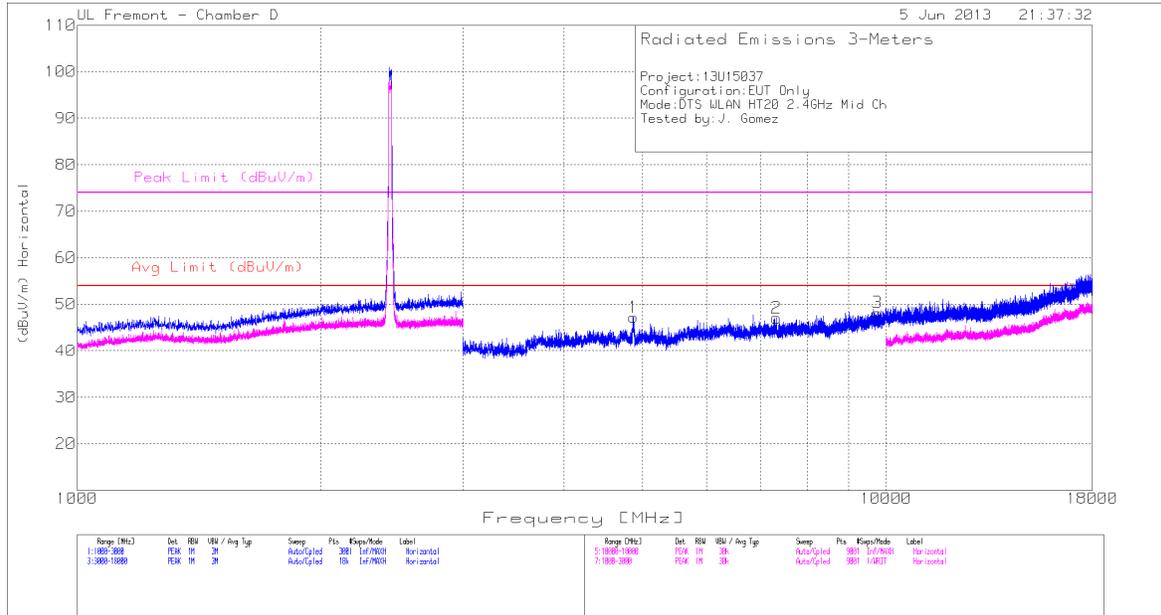
Rev 9.5 13 Jun 2013

**Vertical 3000 - 18000MHz**

Marker No.	Test Frequency	Meter Reading	Detector	AFT346 (dB/m)	Amp/Cbl /3GHz HPF (dB)	(dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
4	4824.899	44.37	PK	34.4	-31.8	46.97	53.97	-7	74	-27.03	199	Vert
5	12056.997	37.76	PK	39.1	-25.7	51.16	53.97	-2.81	74	-22.84	199	Vert
<b>Vertical 10000 - 18000MHz</b>												
6	12072	30.3	PK	39.1	-25.6	43.8	53.97	-10.17	74	-30.2	199	Vert

PK - Peak detector

### MID CHANNEL HORIZONTAL



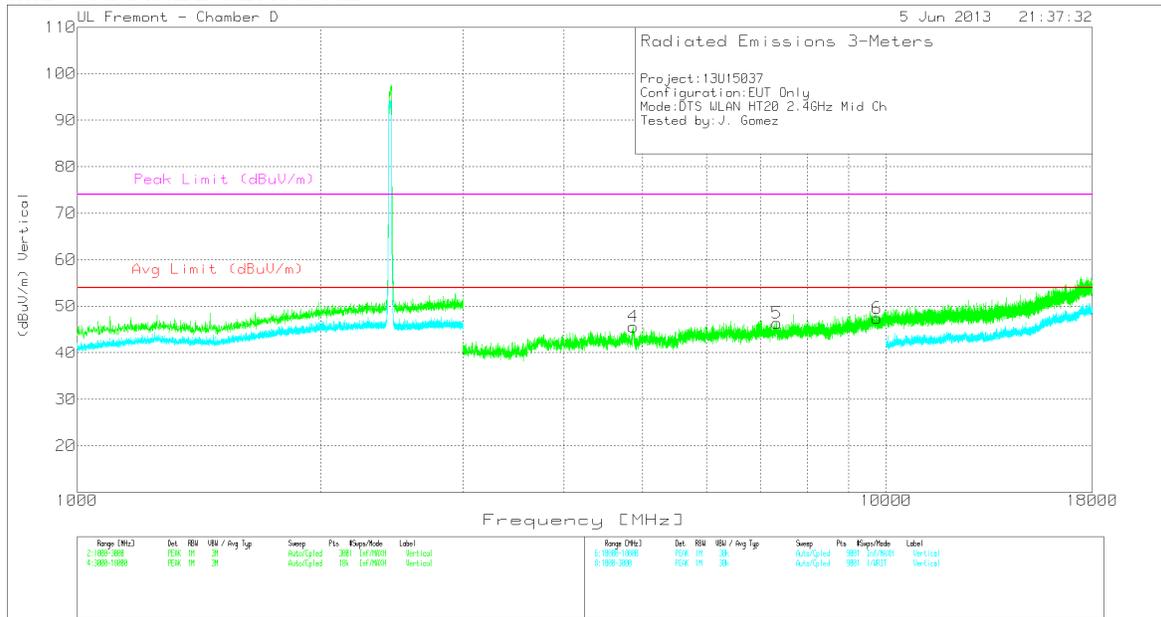
File: mid.DAT

#### Horizontal 3000 - 18000MHz

Marker No.	Test Frequency	Meter Reading	Detector	AF T346 (dB/m)	Amp/Cbl /3GHz HPF (dB)	(dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
1	4873.229	44.41	PK	34.4	-31.6	47.21	53.97	-6.76	74	-26.79	199	Horz
2	7321.427	39.45	PK	36	-28.4	47.05	53.97	-6.92	74	-26.95	199	Horz
3	9759.624	36.46	PK	37.6	-25.9	48.16	53.97	-5.81	74	-25.84	199	Horz

PK - Peak detector

MID CHANNEL VERTICAL

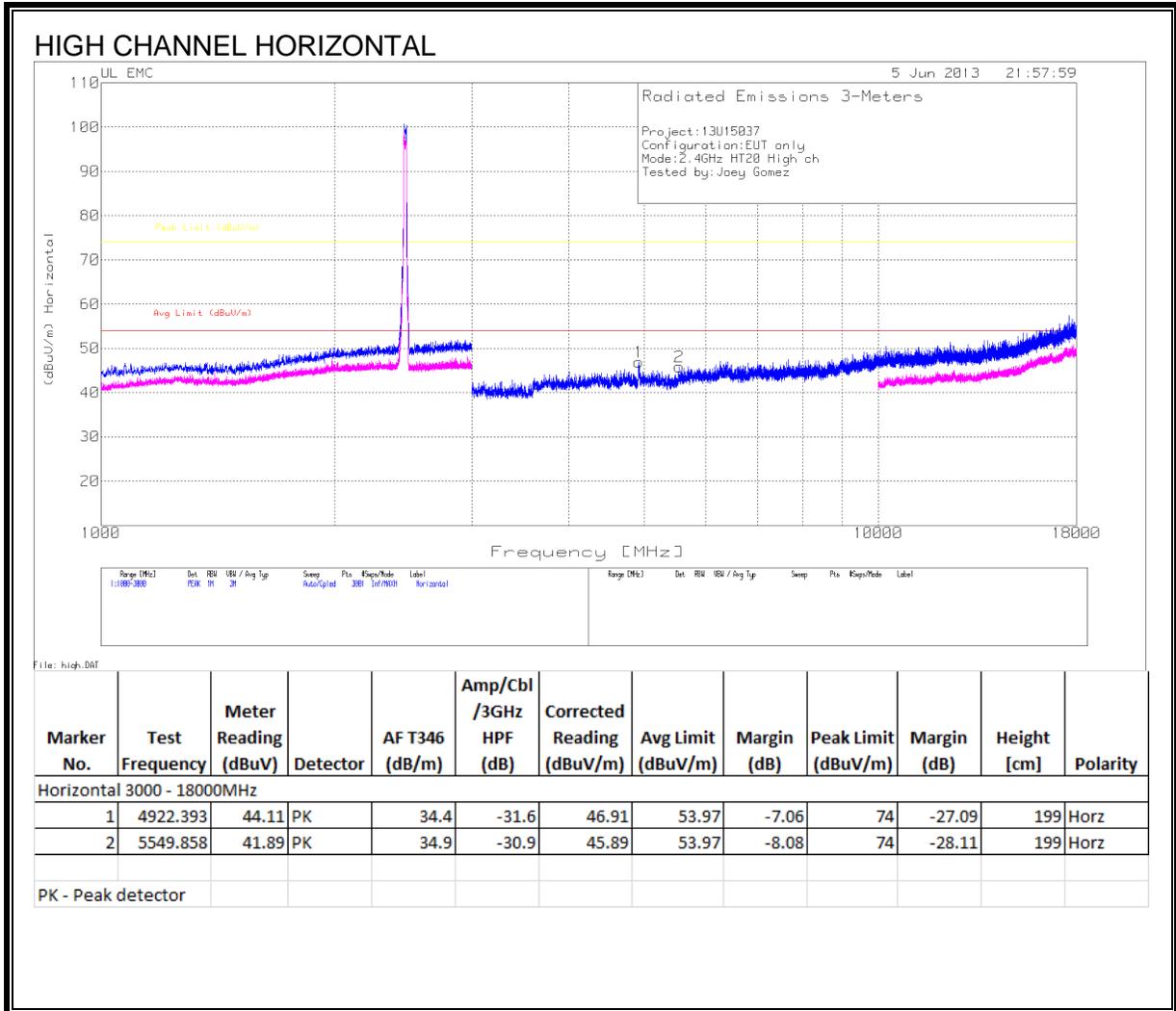


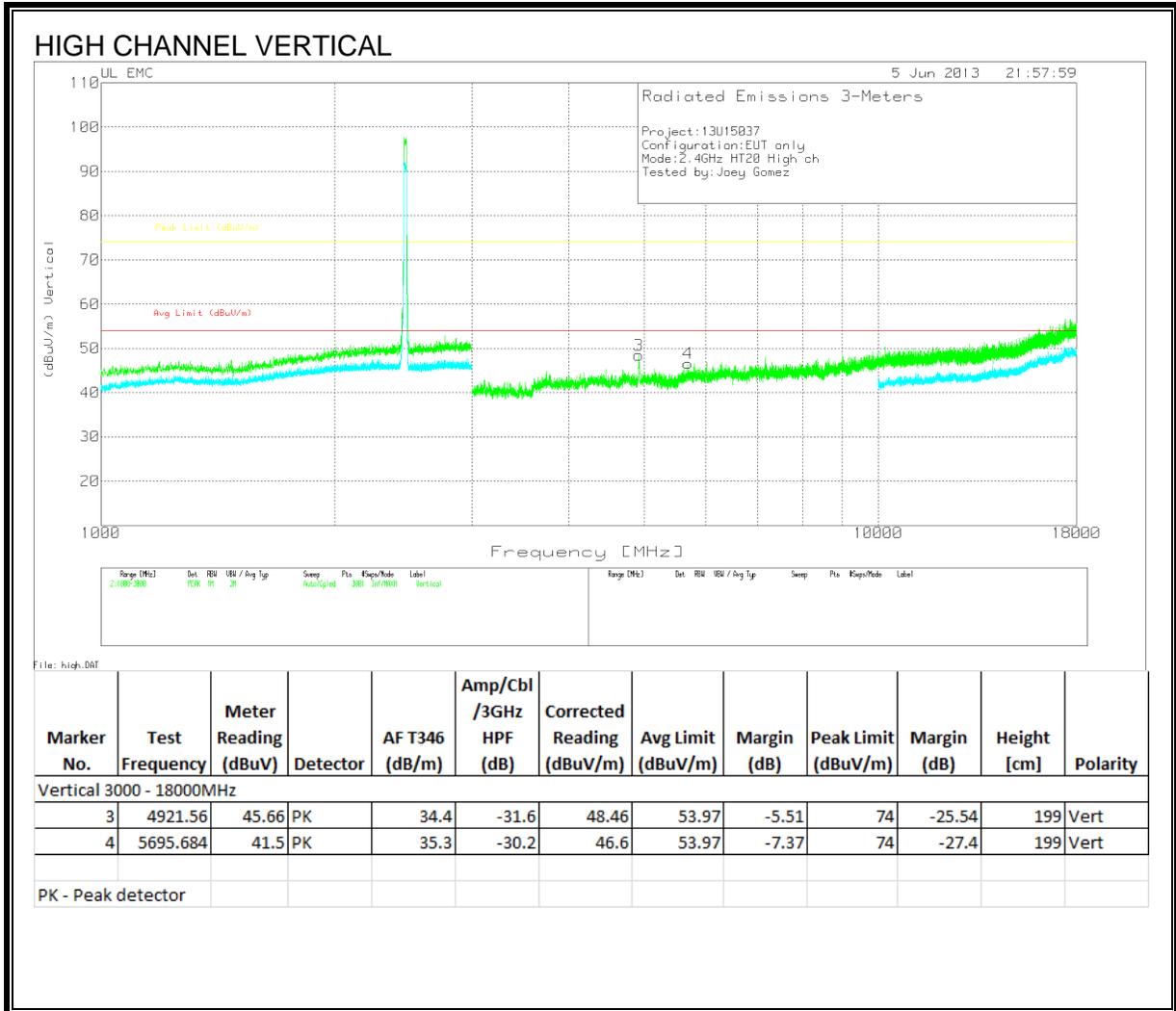
File: mid.DAT

Vertical 3000 - 18000MHz

Marker No.	Test Frequency	Meter Reading	Detector	AF T346 (dB/m)	Amp/Cbl /3GHz HPF (dB)	(dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
4	4872.396	42.92	PK	34.4	-31.7	45.62	53.97	-8.35	74	-28.38	199	Vert
5	7693.906	40.21	PK	36.2	-28.2	48.21	53.97	-5.76	74	-25.79	199	Vert
6	9722.96	36.2	PK	37.6	-25.5	48.3	53.97	-5.67	74	-25.7	199	Vert

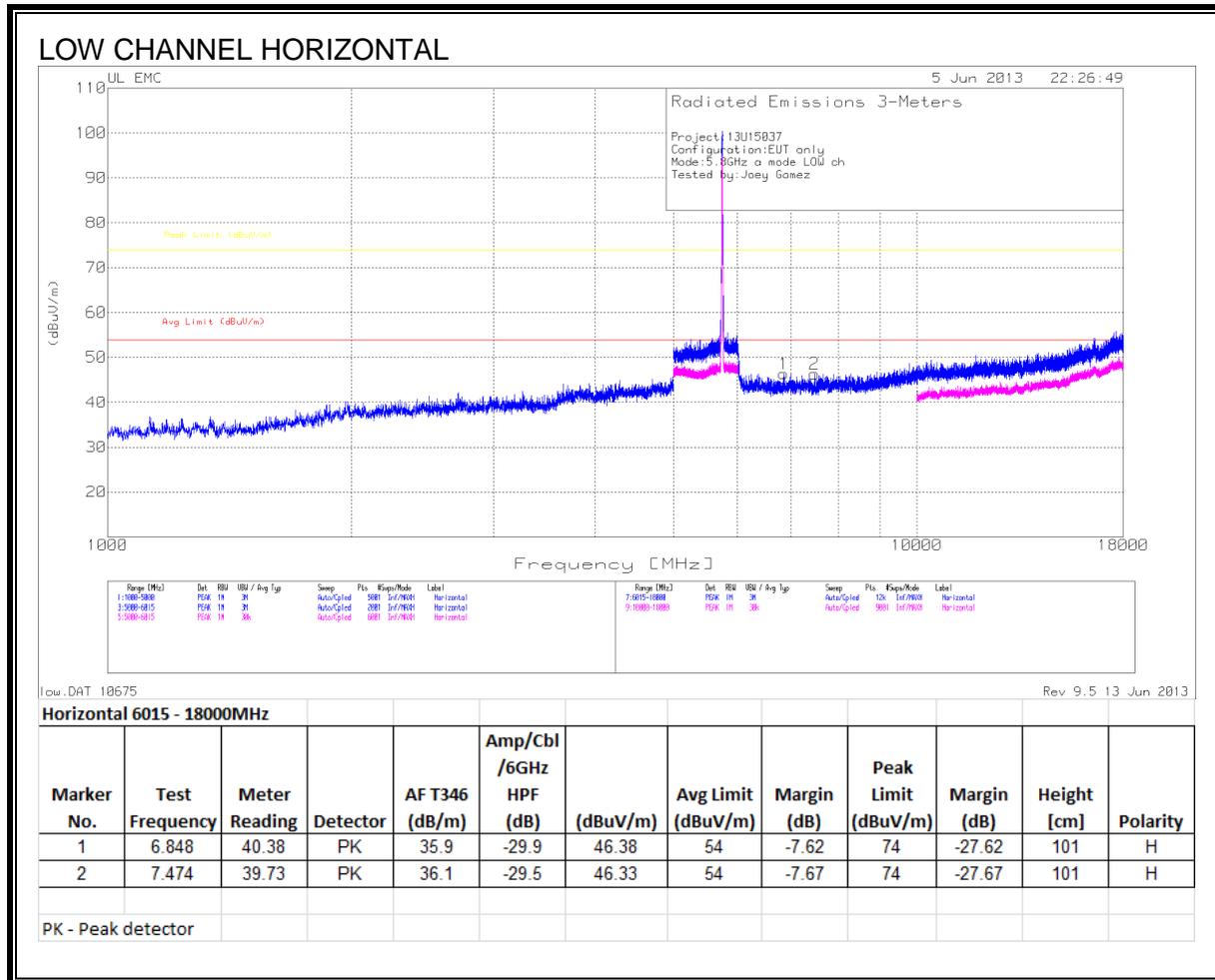
PK - Peak detector

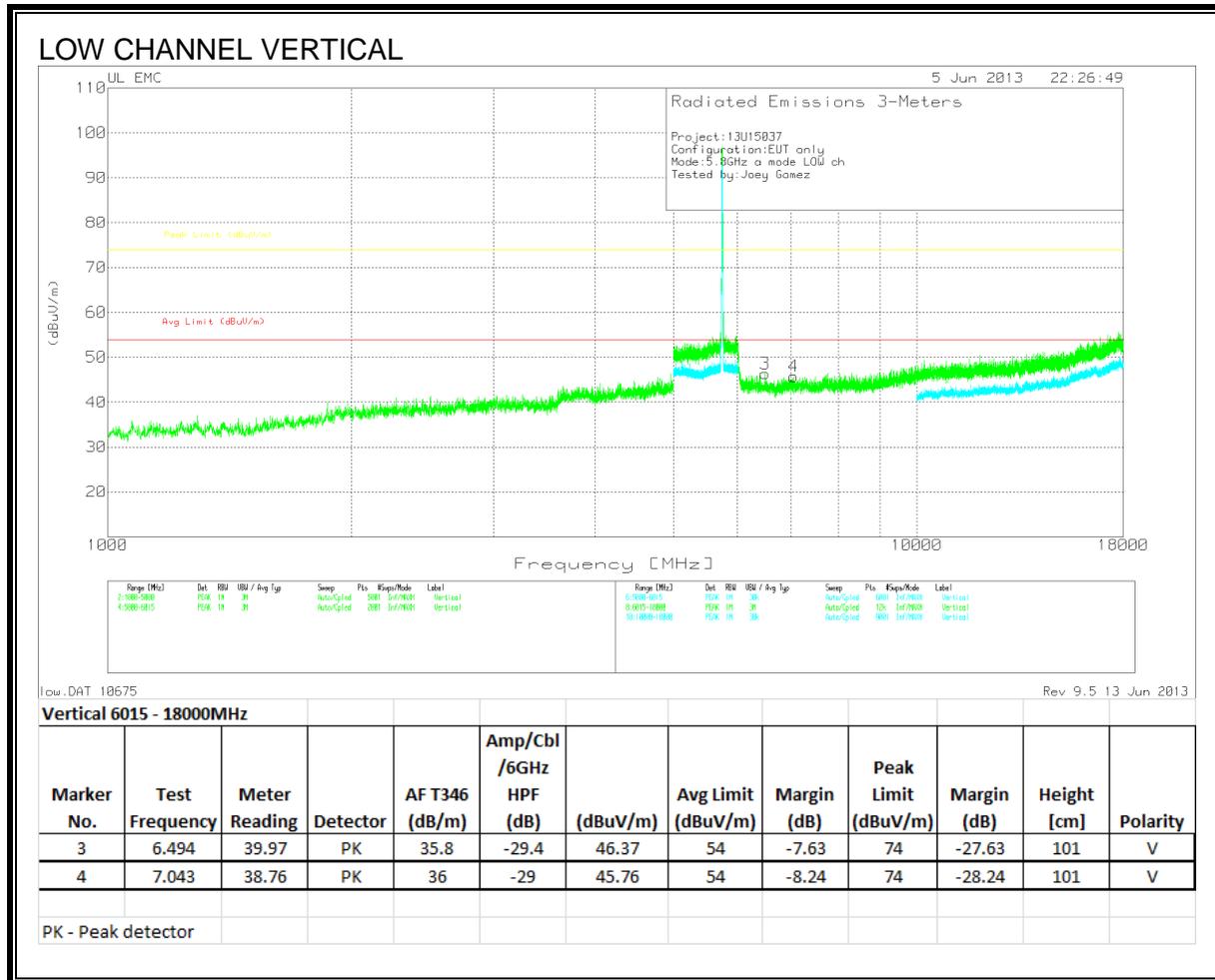


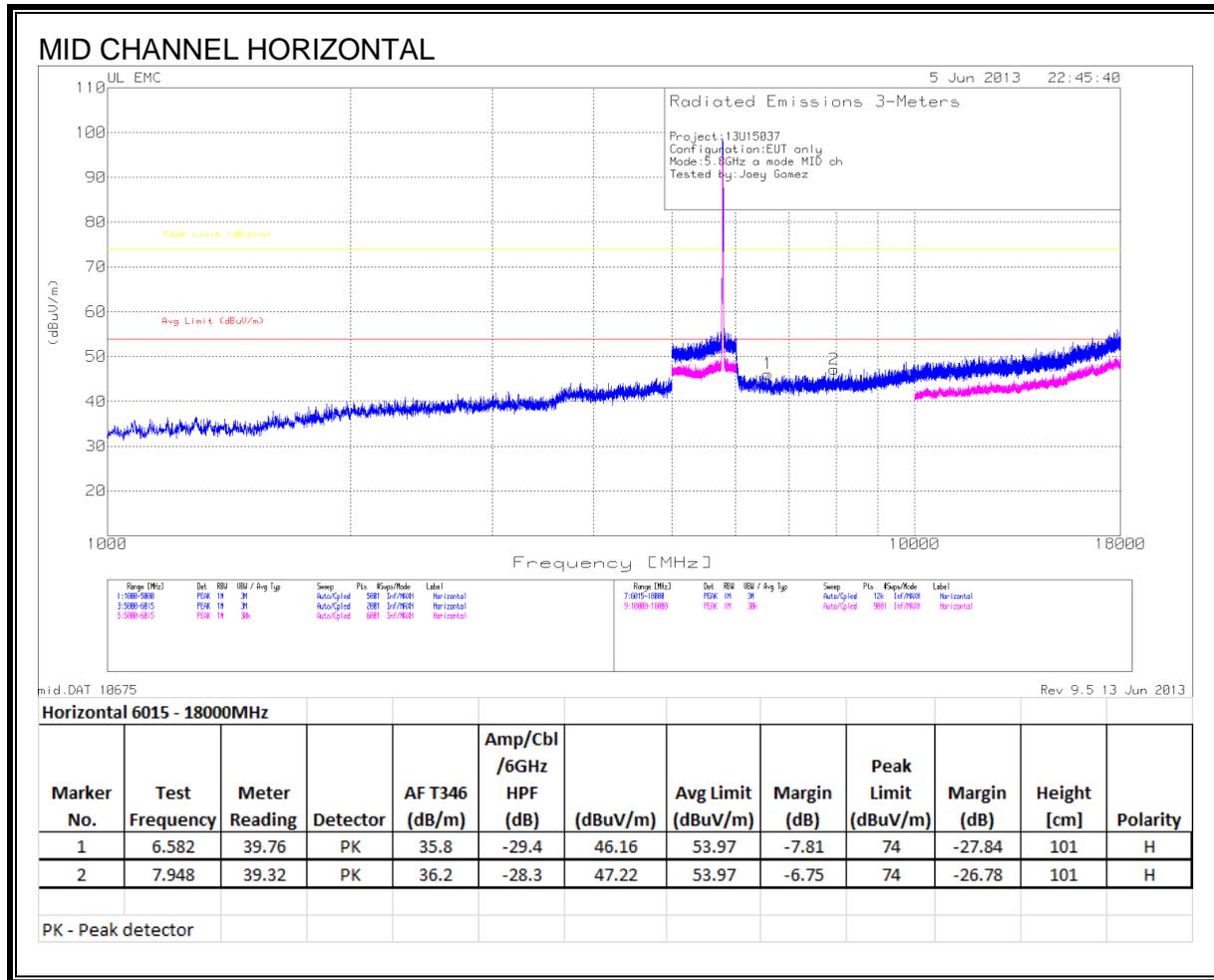


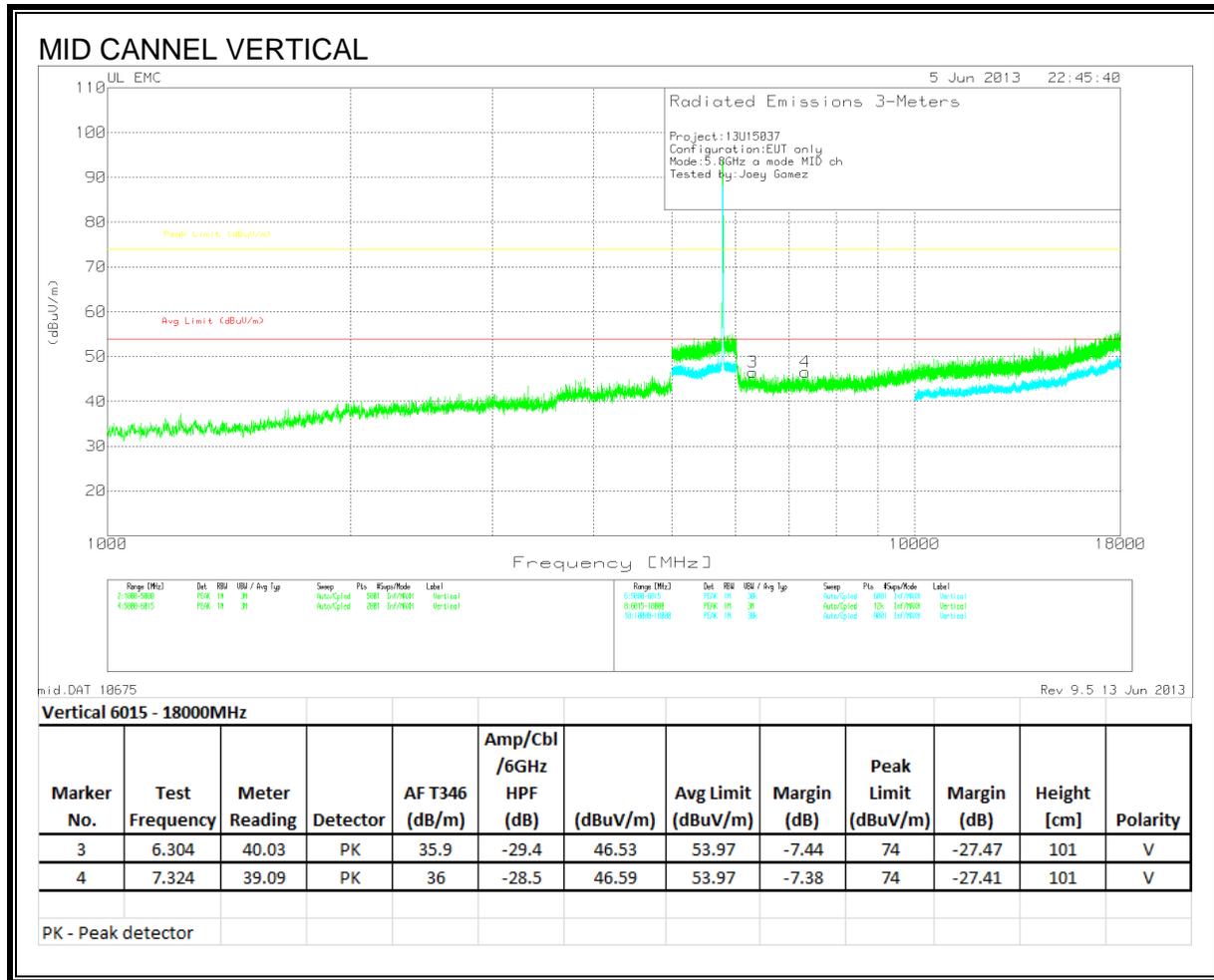
## 8.6. TX ABOVE 1 GHz 802.11a MODE IN THE 5.8 GHz BAND

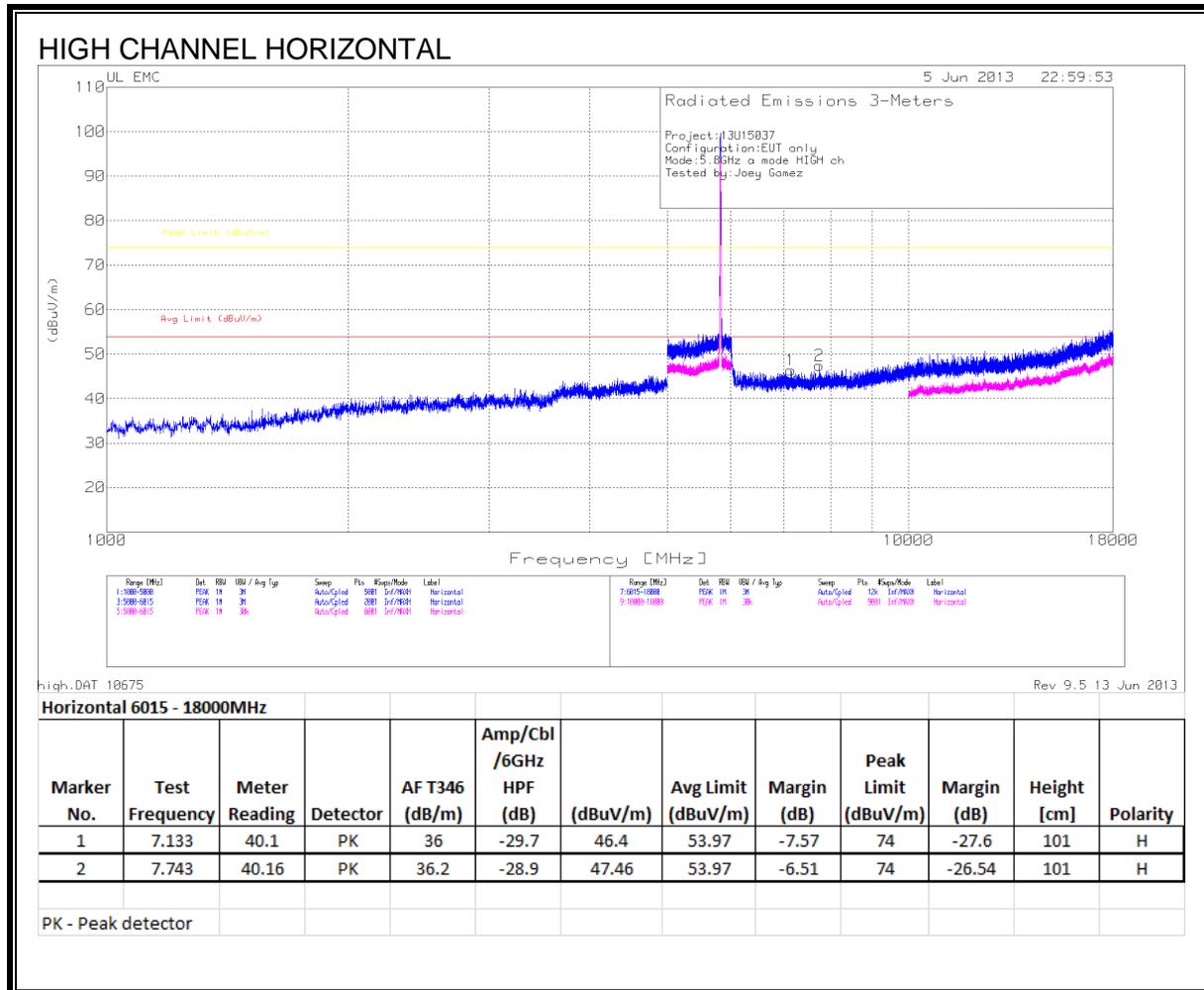
### HARMONICS AND SPURIOUS EMISSIONS

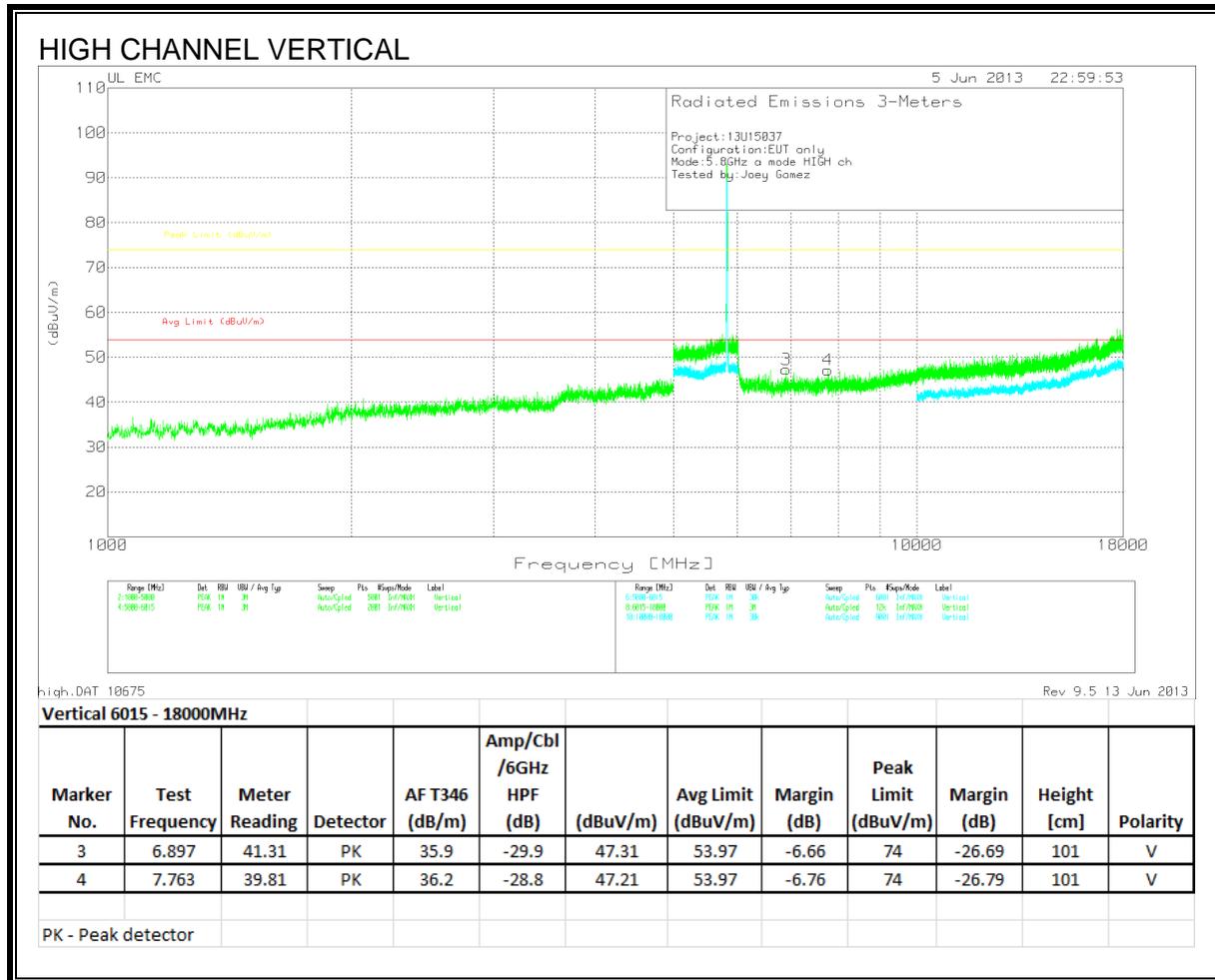






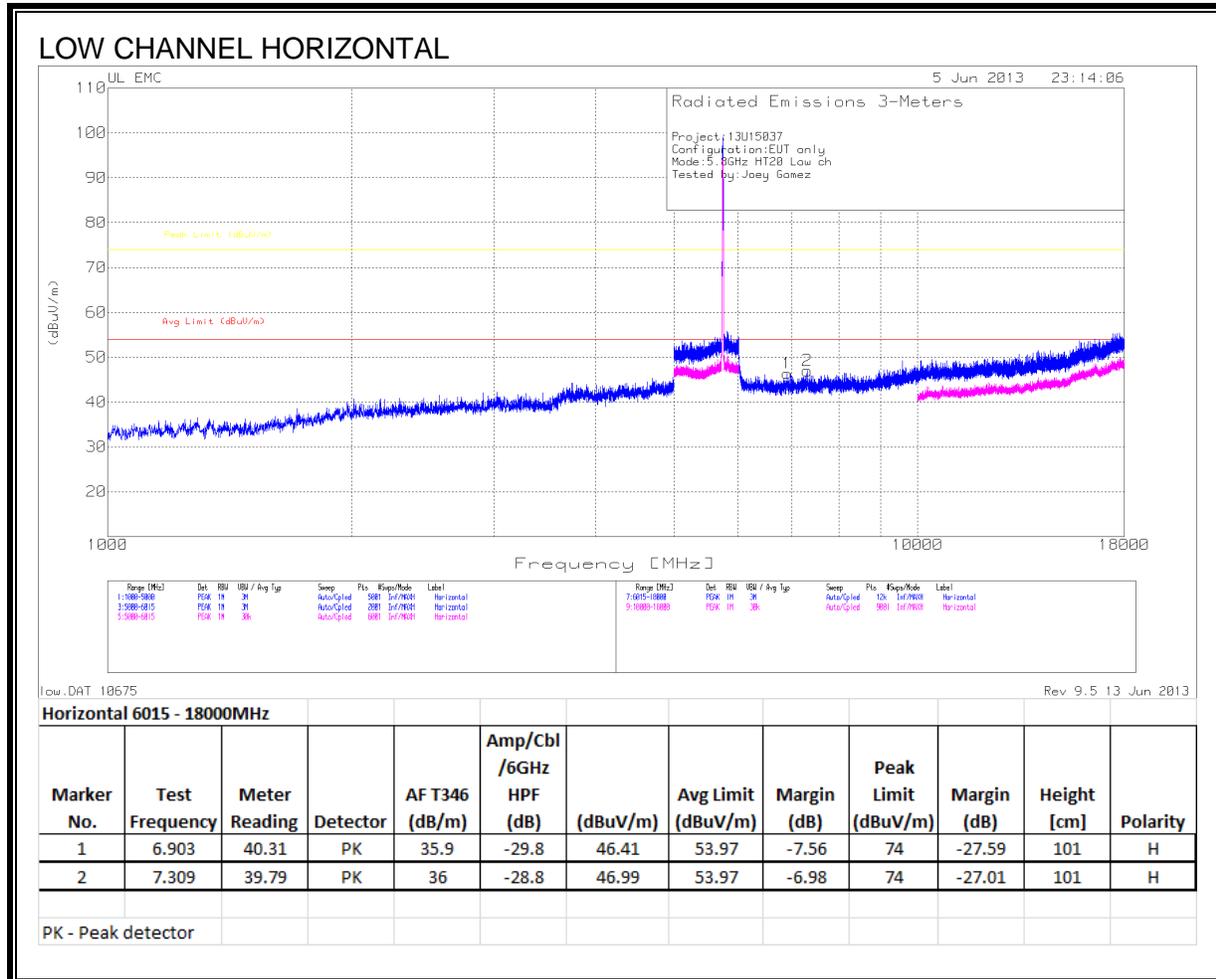


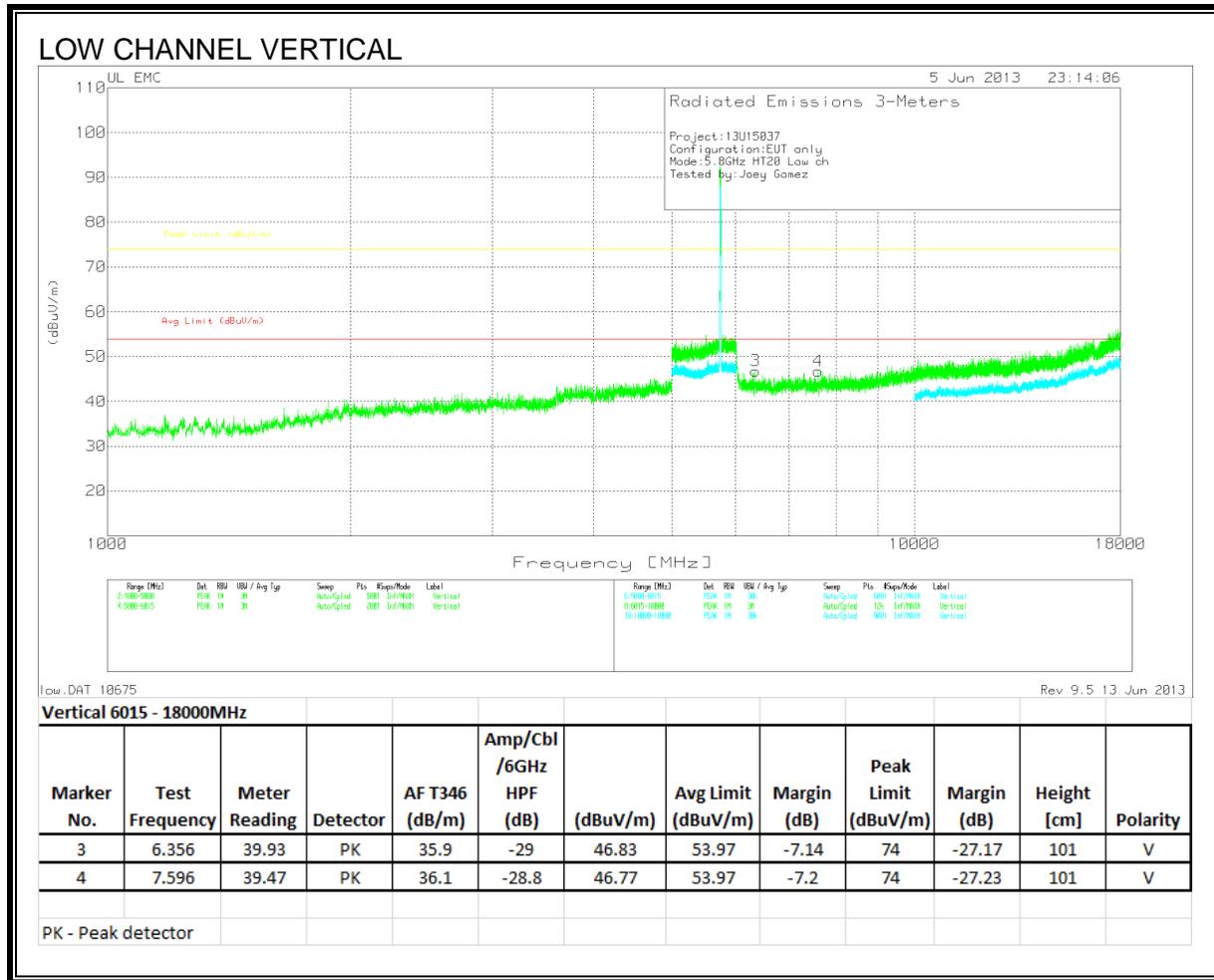


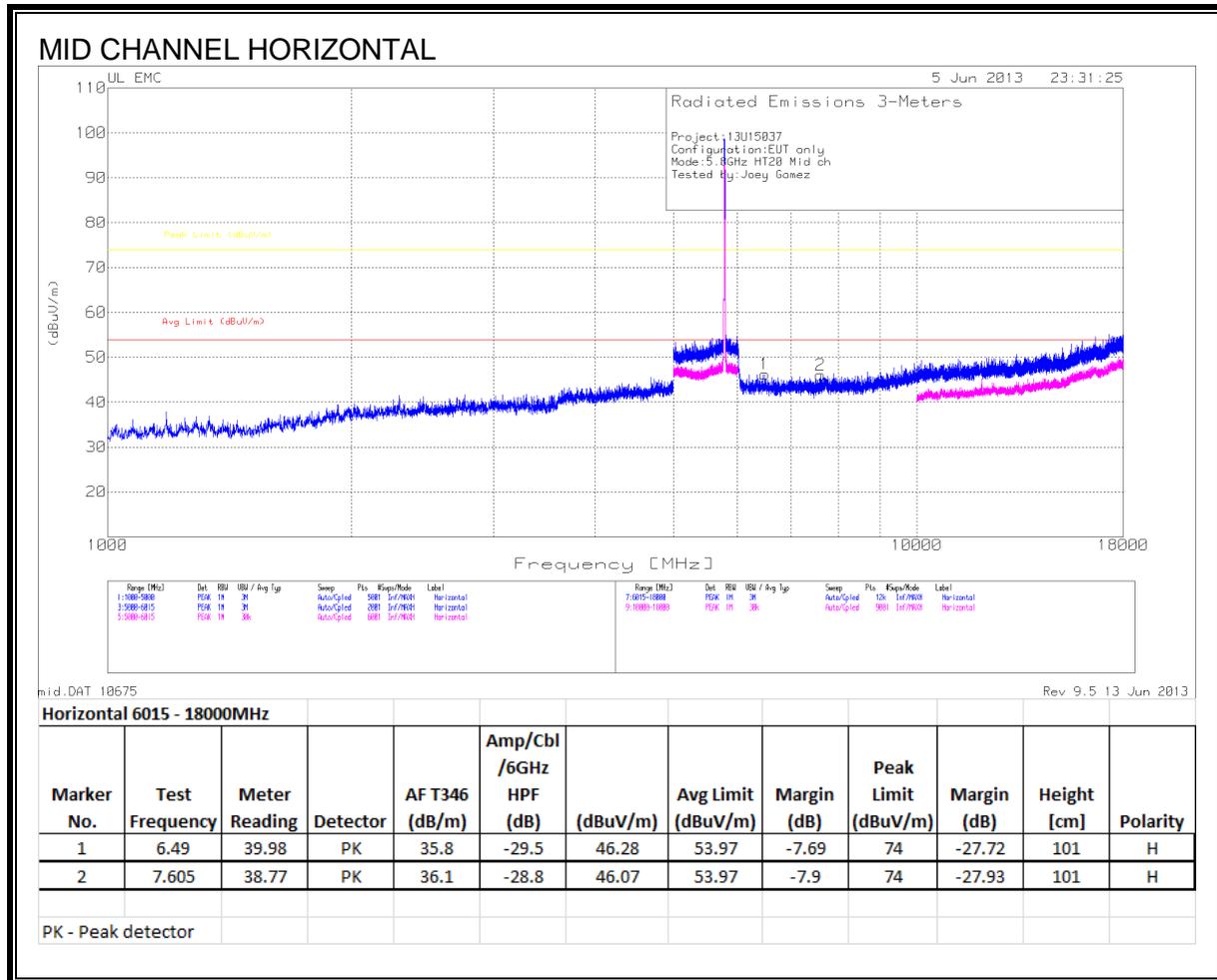


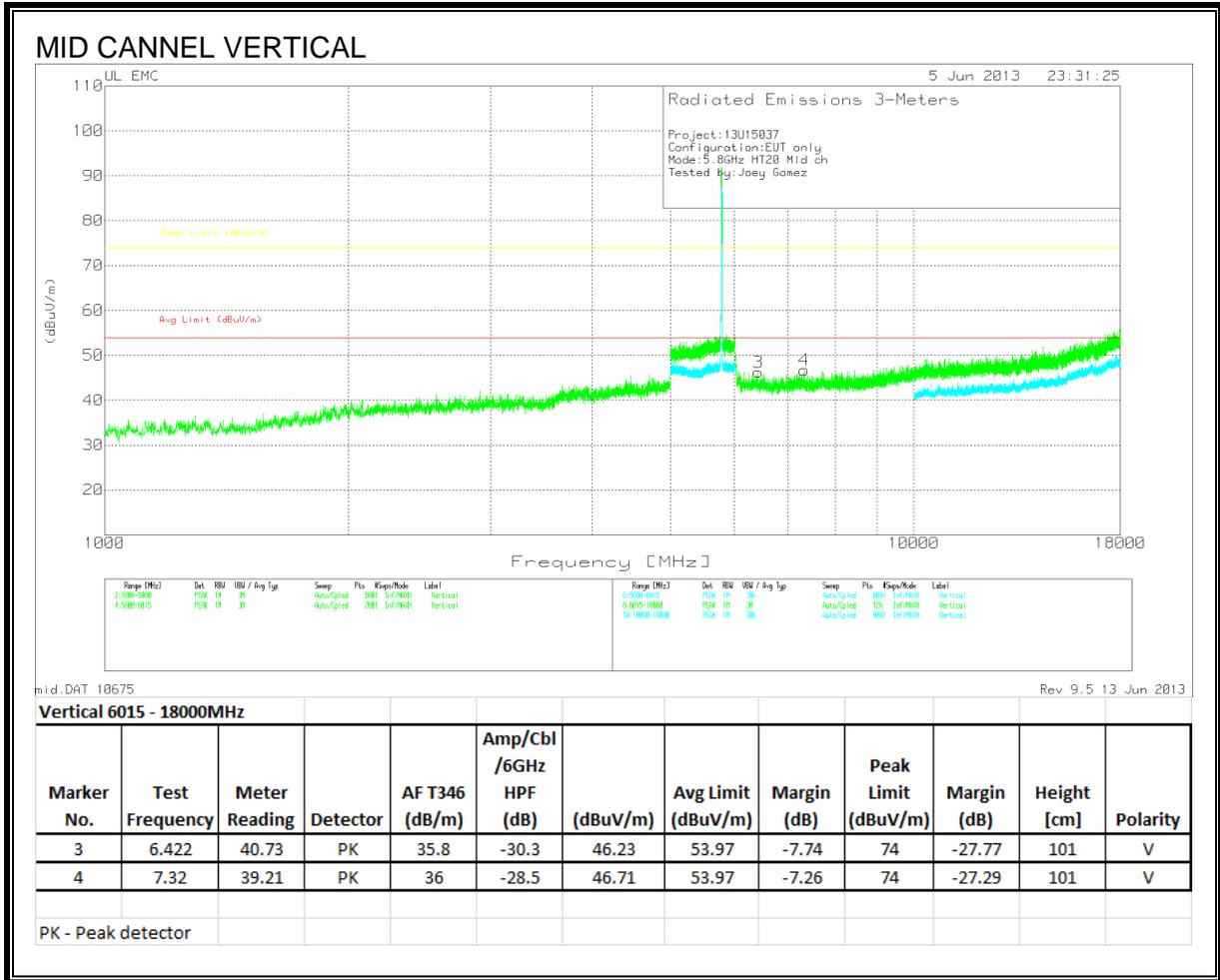
### 8.7. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND

#### HARMONICS AND SPURIOUS EMISSIONS

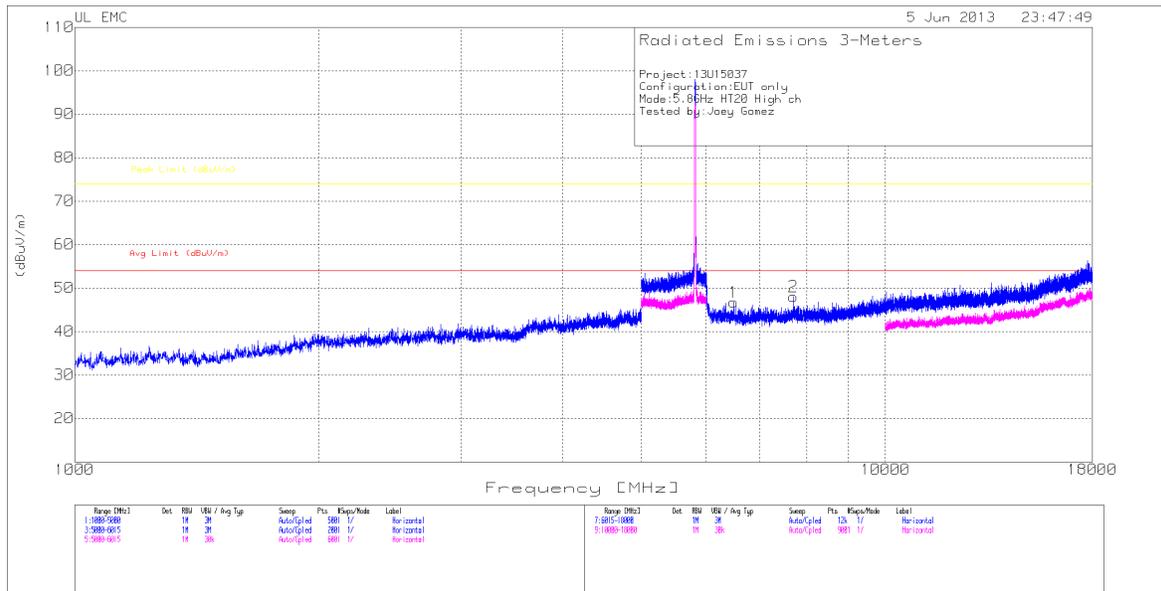








### HIGH CHANNEL HORIZONTAL



high.DAT 10675

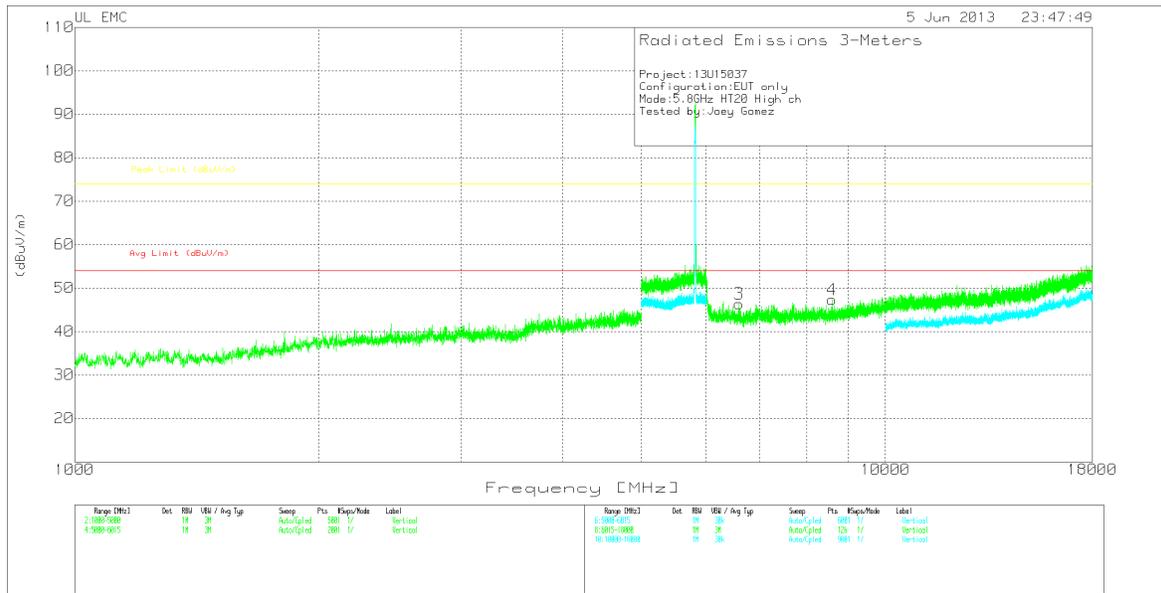
Rev 9.5 13 Jun 2013

#### Horizontal 6015 - 18000MHz

Marker No.	Test Frequency	Meter Reading	Detector	AF T346 (dB/m)	Amp/Cbl /6GHz HPF (dB)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
1	6.494	40.34	PK	35.8	-29.4	46.74	53.97	74	-7.23	101	H
2	7.704	40.21	PK	36.2	-28.4	48.01	53.97	74	-5.96	101	H

PK - Peak detector

### HIGH CHANNEL VERTICAL



high.DAT 10675

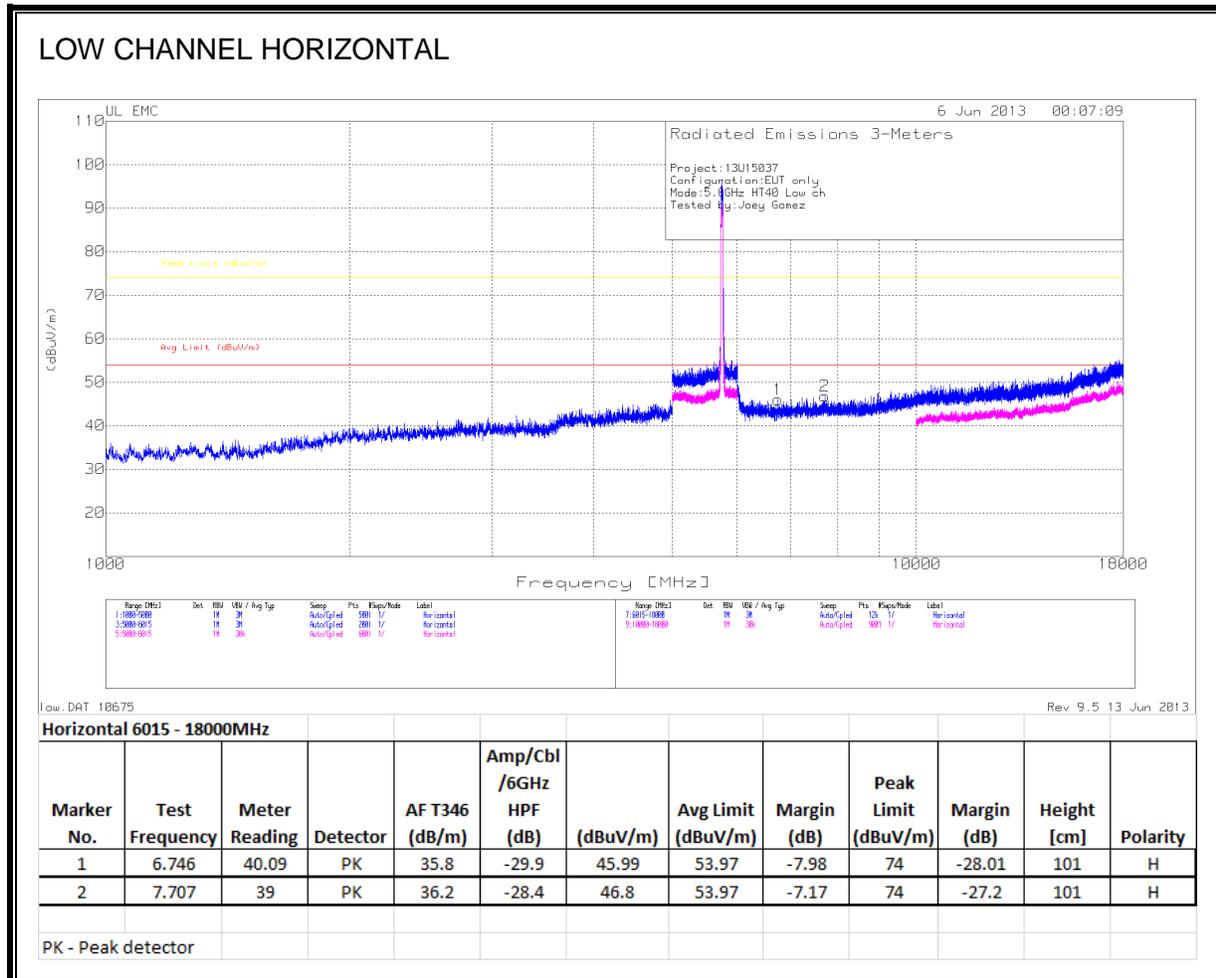
Rev 9.5 13 Jun 2013

#### Vertical 6015 - 18000MHz

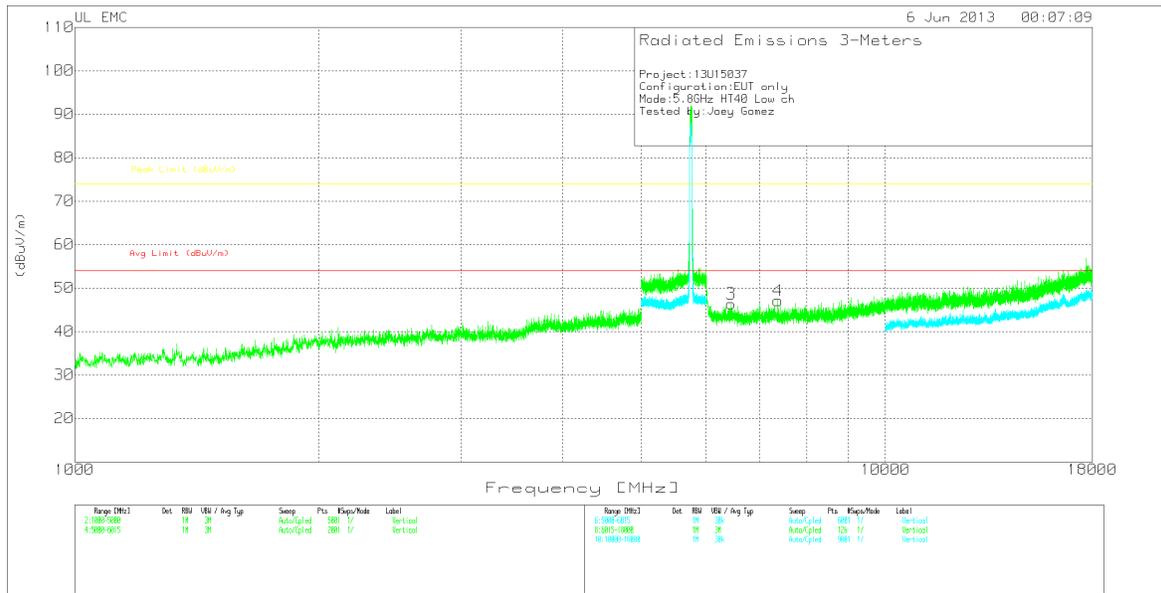
Marker No.	Test Frequency	Meter Reading	Detector	AF T346 (dB/m)	Amp/Cbl /6GHz HPF (dB)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
3	6.595	39.86	PK	35.8	-29.3	46.36	53.97	74	-7.61	101	V
4	8.595	38.43	PK	36.4	-27.5	47.33	53.97	74	-26.67	101	V
PK - Peak detector											

### 8.8. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND

#### HARMONICS AND SPURIOUS EMISSIONS



LOW CHANNEL VERTICAL



low\_DAT 18675

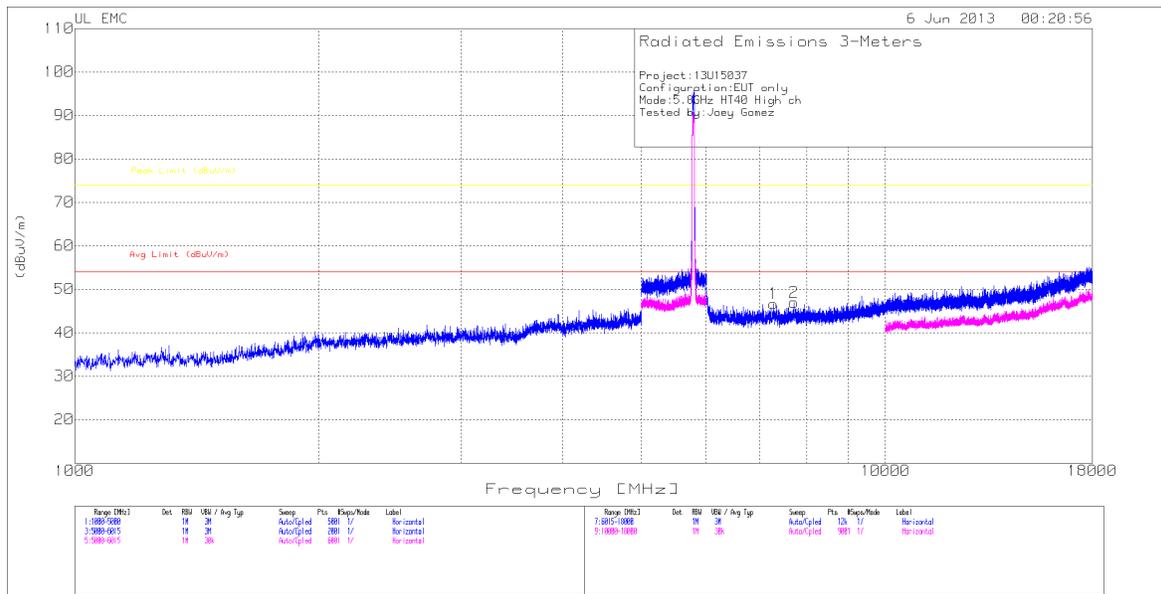
Rev 9.5 13 Jun 2013

Vertical 6015 - 18000MHz

Marker No.	Test Frequency	Meter Reading	Detector	AF T346 (dB/m)	Amp/Cbl /6GHz HPF (dB)	Avg Limit (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
3	6.455	40.77	PK	35.8	-30.2	46.37	53.97	-7.6	74	-27.63	101	V
4	7.37	39.79	PK	36	-28.7	47.09	53.97	-6.88	74	-26.91	101	V

PK - Peak detector

### HIGH CHANNEL HORIZONTAL



high.DAT 10675

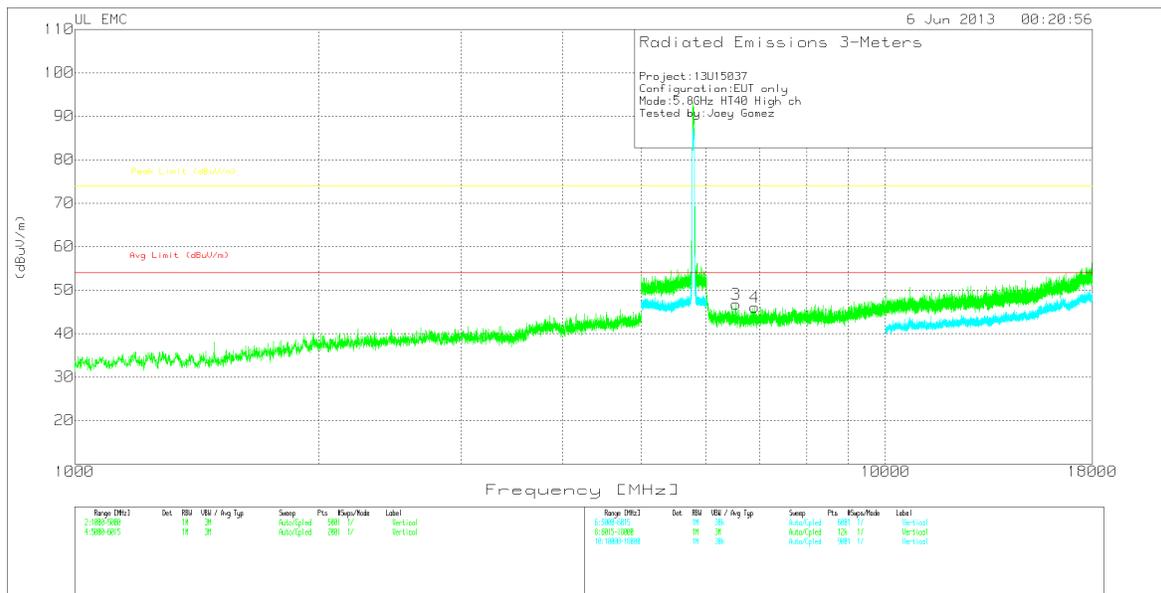
Rev 9.5 13 Jun 2013

#### Horizontal 6015 - 18000MHz

Marker No.	Test Frequency	Meter Reading	Detector	AF T346 (dB/m)	Amp/Cbl /6GHz HPF (dB)	(dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
1	7.28	39.46	PK	36	-28.8	46.66	53.97	-7.31	74	-27.34	101	H
2	7.714	39.25	PK	36.2	-28.5	46.95	53.97	-7.02	74	-27.05	101	H

PK - Peak detector

### HIGH CHANNEL VERTICAL



high.DAT 10675

Rev 9.5 13 Jun 2013

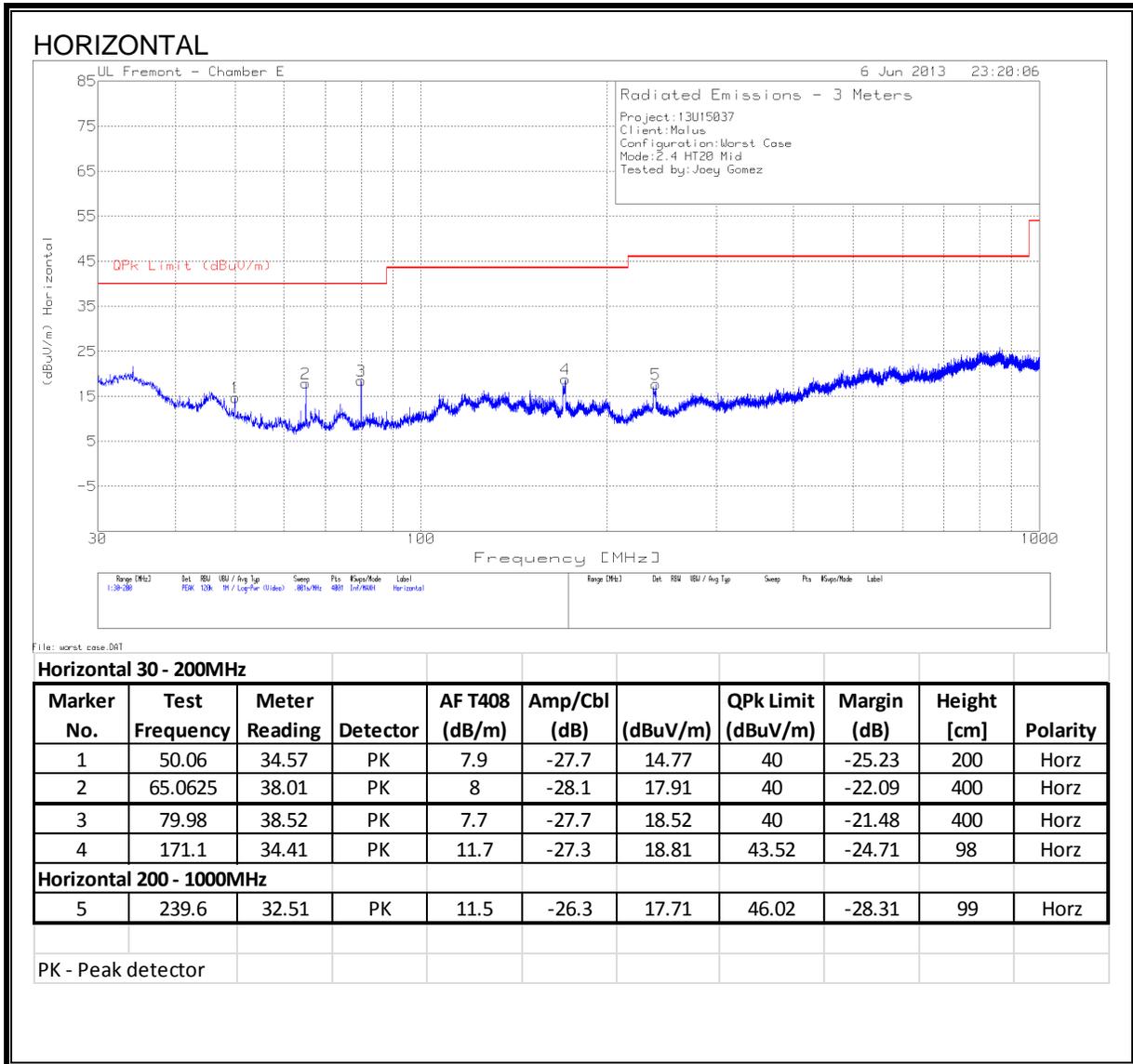
#### Vertical 6015 - 18000MHz

Marker No.	Test Frequency	Meter Reading	Detector	AF T346 (dB/m)	Amp/Cbl /6GHz HPF (dB)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height [cm]	Polarity
3	6.542	40.12	PK	35.8	-29.2	46.72	-7.25	74	-27.28	101	V
4	6.896	40.02	PK	35.9	-29.9	46.02	-7.95	74	-27.98	101	V

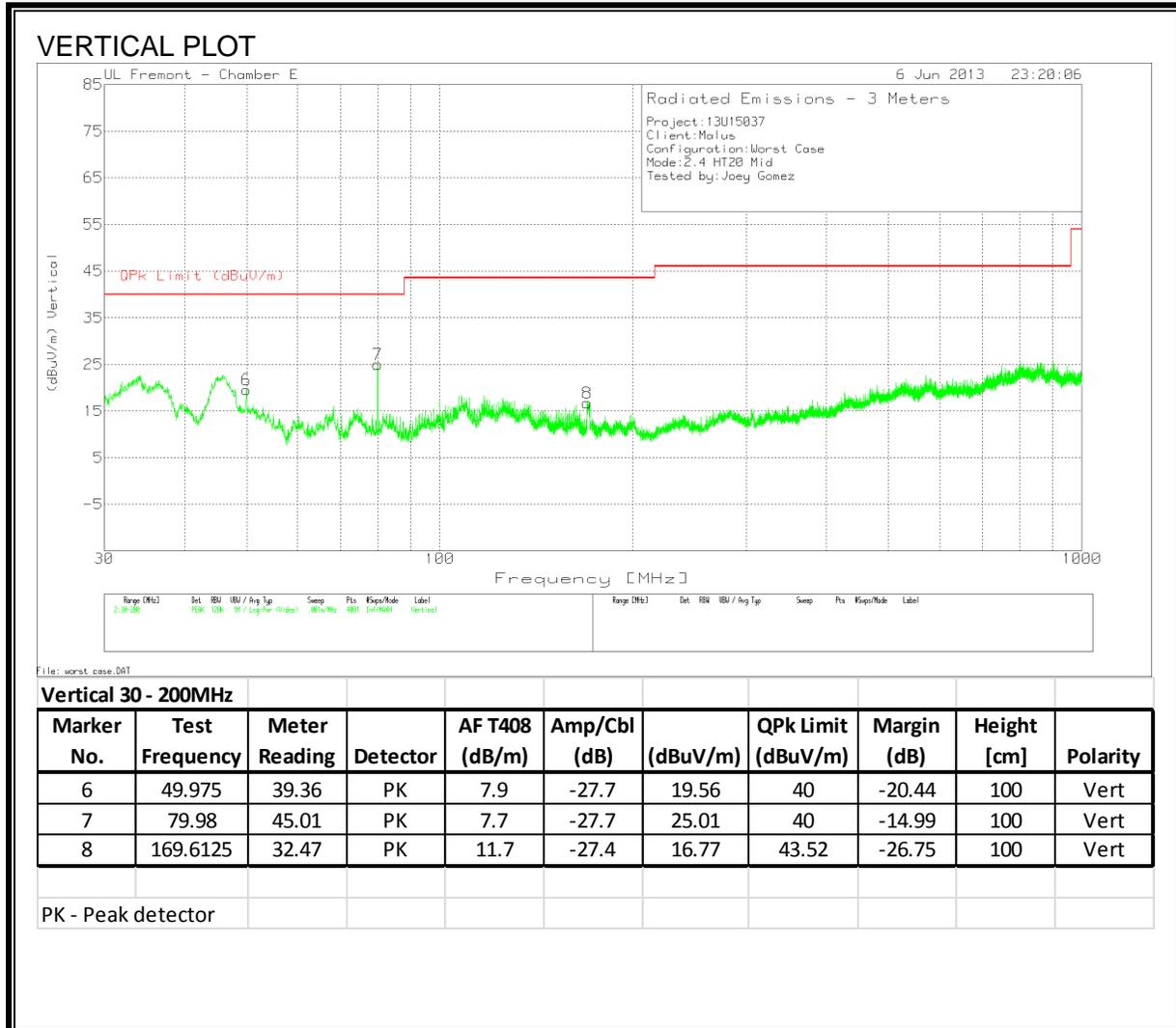
PK - Peak detector

### 8.9. WORST-CASE BELOW 1 GHz

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



**SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)**



## 9. AC POWER LINE CONDUCTED EMISSIONS

### LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

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

\*Decreases with the logarithm of the frequency.

### TEST PROCEDURE

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

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**

**6 WORST EMISSIONS**

**Line-L1 .15 - 30MHz**

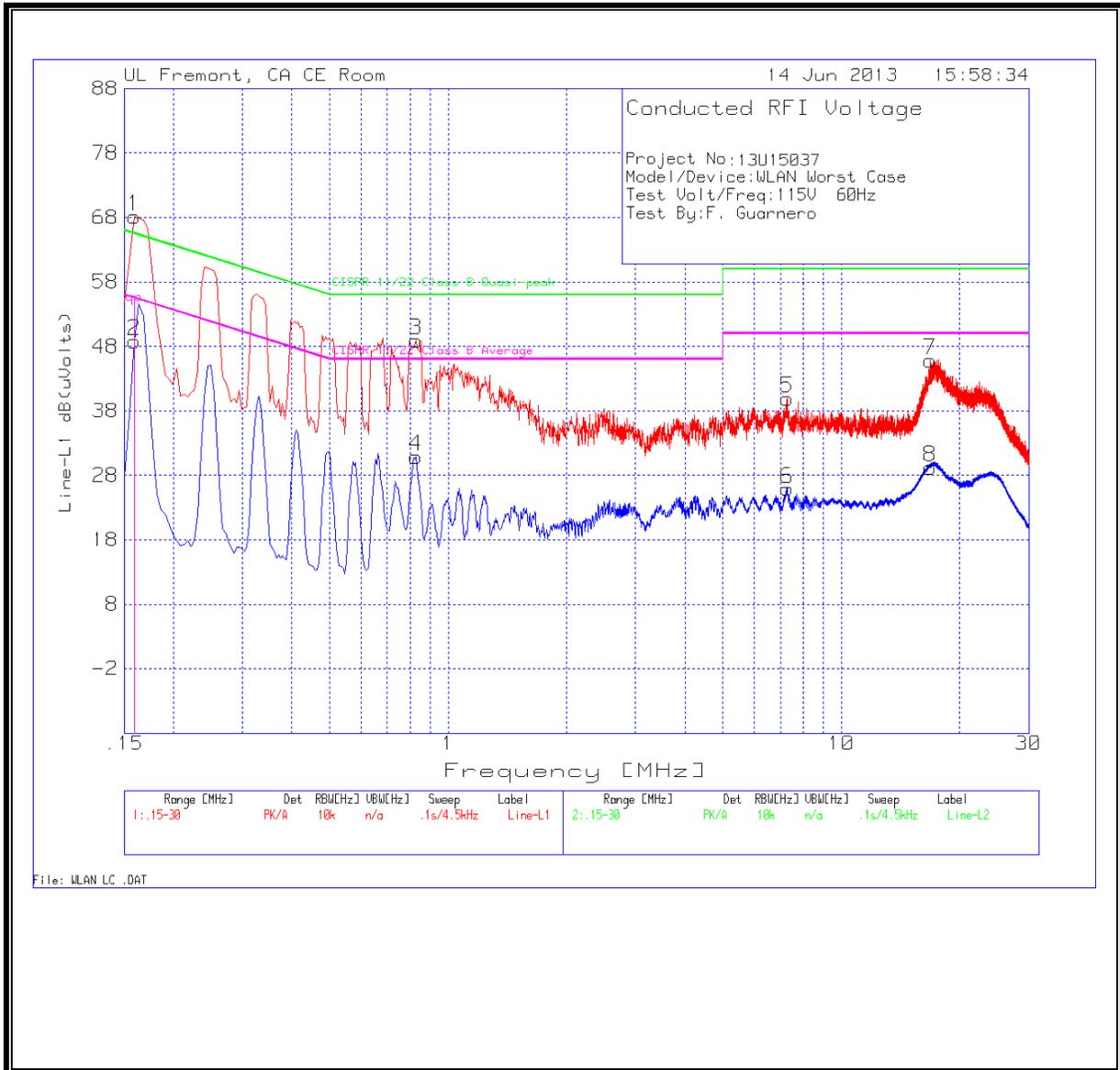
Test Frequency	Meter Reading	Detector	T24 IL L1.TXT (dB)	LC Cables 1&3.TXT (dB)	dB(uVolts)	CISPR 11/22 Class B Quasi-peak	Margin	CISPR 11/22 Class B Average	Margin
0.159	54.38	QP	0.1	0	54.48	65.52	-11.04	-	-
0.159	48.7	Av	0.1	0	48.8	-	-	55.5	-6.7
0.8295	48.8	PK	0.1	0	48.9	56	-7.1	-	-
0.8295	30.76	Av	0.1	0	30.86	-	-	46	-15.14
7.278	39.71	PK	0.1	0.1	39.91	60	-20.09	-	-
7.278	25.72	Av	0.1	0.1	25.92	-	-	50	-24.08
16.854	45.42	PK	0.2	0.2	45.82	60	-14.18	-	-
16.854	28.85	Av	0.2	0.2	29.25	-	-	50	-20.75

**Line-L2 .15 - 30MHz**

Test Frequency	Meter Reading	Detector	T24 IL L2.TXT (dB)	LC Cables 2&3.TXT (dB)	dB(uVolts)	CISPR 11/22 Class B Quasi-peak	Margin	CISPR 11/22 Class B Average	Margin
0.1545	54.75	PK	0.1	0	54.85	65.8	-10.95	-	-
0.1545	40.25	Av	0.1	0	40.35	-	-	55.8	-15.45
0.78	42.3	PK	0.1	0	42.4	56	-13.6	-	-
0.78	24.89	Av	0.1	0	24.99	-	-	46	-21.01
2.4585	35.55	PK	0.1	0.1	35.75	56	-20.25	-	-
2.4585	22.07	Av	0.1	0.1	22.27	-	-	46	-23.73
17.5425	42	PK	0.2	0.2	42.4	60	-17.6	-	-
17.5425	29.72	Av	0.2	0.2	30.12	-	-	50	-19.88

PK - Peak detector  
 QP - Quasi-Peak detector  
 Av - Average detector

**LINE 1 RESULTS**



**LINE 2 RESULTS**

