



**FCC 47 CFR PART 15 SUBPART E  
INDUSTRY CANADA RSS-210 ISSUE 8**

**C2PC CERTIFICATION TEST REPORT**

**FOR**

**GSM/CDMA/WCDMA/LTE Phone + Bluetooth &  
WLAN (2.4GHz & 5GHz) and NFC**

**MODEL NUMBER: LG-D820, LGD820 and D820**

**FCC ID: ZNFD820**

**IC: 2703C-D820**

**REPORT NUMBER: 13U15778-5, Revision C  
ISSUE DATE: September 23, 2013**

*Prepared for*

**LG ELECTRONICS MOBILECOMM U.S.A., INC.  
1000 SYLVAN AVENUE  
ENGLEWOOD CLIFFS, NJ 07632**

*Prepared by*

**UL VERIFICATION SERVICES INC.  
47173 BENICIA STREET  
FREMONT, CA 94538, U.S.A.  
TEL: (510) 771-1000  
FAX: (510) 661-0888**



**NVLAP LAB CODE 200065-0**

Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
	08/21/13	Initial Issue	P. Kim
A	9/12/13	Updated Section 5.4 Software and Firmware	AAumentado
B	9/17/13	Updated Section 9 investigate frequency range; Section 5.2 output power target; Section 9.5 BE for 5.8 band	P.Kim
C	9/23/13	Updated the power summary table	P.Kim

## TABLE OF CONTENTS

<b>1. ATTESTATION OF TEST RESULTS .....</b>	<b>5</b>
<b>2. TEST METHODOLOGY .....</b>	<b>6</b>
<b>3. FACILITIES AND ACCREDITATION .....</b>	<b>6</b>
<b>4. CALIBRATION AND UNCERTAINTY .....</b>	<b>6</b>
4.1. <i>MEASURING INSTRUMENT CALIBRATION .....</i>	<i>6</i>
4.2. <i>SAMPLE CALCULATION .....</i>	<i>6</i>
4.3. <i>MEASUREMENT UNCERTAINTY.....</i>	<i>6</i>
<b>5. EQUIPMENT UNDER TEST .....</b>	<b>7</b>
5.1. <i>DESCRIPTION OF EUT .....</i>	<i>7</i>
5.2. <i>MAXIMUM OUTPUT POWER.....</i>	<i>7</i>
5.3. <i>DESCRIPTION OF AVAILABLE ANTENNAS .....</i>	<i>7</i>
5.4. <i>SOFTWARE AND FIRMWARE.....</i>	<i>7</i>
5.5. <i>WORST-CASE CONFIGURATION AND MODE.....</i>	<i>8</i>
5.6. <i>DESCRIPTION OF TEST SETUP.....</i>	<i>9</i>
<b>6. TEST AND MEASUREMENT EQUIPMENT .....</b>	<b>11</b>
<b>7. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS .....</b>	<b>12</b>
7.1. <i>ON TIME AND DUTY CYCLE RESULTS.....</i>	<i>12</i>
7.2. <i>DUTY CYCLE PLOTS .....</i>	<i>12</i>
<b>8. MEASUREMENT METHOD.....</b>	<b>15</b>
<b>9. TRANSMITTER ABOVE 1 GHz.....</b>	<b>16</b>
9.1. <i>LIMITS AND PROCEDURE .....</i>	<i>16</i>
9.2. <i>5.2 GHz .....</i>	<i>18</i>
9.2.1. <i>TX ABOVE 1 GHz 802.11a MODE IN THE 5.2 GHz BAND .....</i>	<i>18</i>
9.2.2. <i>TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND.....</i>	<i>26</i>
9.2.3. <i>TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND.....</i>	<i>34</i>
9.2.4. <i>TX ABOVE 1 GHz 802.11ac HT20 MODE IN THE 5.2 GHz BAND.....</i>	<i>40</i>
9.2.5. <i>TX ABOVE 1 GHz 802.11ac HT40 MODE IN THE 5.2 GHz BAND.....</i>	<i>48</i>
9.2.6. <i>TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.2 GHz BAND.....</i>	<i>54</i>
9.3. <i>5.3 GHz .....</i>	<i>58</i>
9.3.1. <i>TX ABOVE 1 GHz 802.11a MODE IN THE 5.3 GHz BAND .....</i>	<i>58</i>
9.3.3. <i>TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.3 GHz BAND.....</i>	<i>66</i>
9.3.5. <i>TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.3 GHz BAND.....</i>	<i>74</i>
9.3.7. <i>TX ABOVE 1 GHz 802.11ac HT20 MODE IN THE 5.3 GHz BAND.....</i>	<i>80</i>
9.3.9. <i>TX ABOVE 1 GHz 802.11ac HT40 MODE IN THE 5.3 GHz BAND.....</i>	<i>88</i>
9.3.11. <i>TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.3 GHz BAND.....</i>	<i>94</i>
9.4. <i>5.5-5.6 GHz .....</i>	<i>99</i>

---

9.4.1.	TX ABOVE 1 GHz 802.11a MODE IN THE 5.5 GHz BAND .....	99
9.4.3.	TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.5 GHz BAND.....	109
9.4.5.	TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.5 GHz BAND.....	119
9.4.7.	TX ABOVE 1 GHz 802.11ac HT20 MODE IN THE 5.5 GHz BAND.....	129
9.4.9.	TX ABOVE 1 GHz 802.11ac HT40 MODE IN THE 5.5 GHz BAND.....	139
9.4.11.	TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.5 GHz BAND.....	149
9.5.	5.8 GHz .....	153
9.5.1.	TX ABOVE 1 GHz 802.11a MODE IN THE 5.8 GHz BAND .....	153
9.5.2.	TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND.....	161
9.5.3.	TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND.....	169
9.5.4.	TX ABOVE 1 GHz 802.11ac HT20 MODE IN THE 5.8 GHz BAND.....	176
9.5.1.	TX ABOVE 1 GHz 802.11ac HT40 MODE IN THE 5.8 GHz BAND.....	184
9.5.1.	TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.8 GHz BAND.....	190
<b>10.</b>	<b>WORST-CASE BELOW 1 GHz (in the 5.3 GHz Band).....</b>	<b>194</b>
<b>11.</b>	<b>SETUP PHOTOS.....</b>	<b>197</b>

# 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** LG ELECTRONICS MOBLILECOMM USA,INC.  
1000 SYLVAN AVENUE  
ENGLEWOOD, NJ 07632, USA

**EUT DESCRIPTION:** GSM/CDMA/WCDMA/LTE Phone + Bluetooth &  
WLAN (2.4GHz & 5GHz) and NFC

**MODEL:** LG-D820, LGD820 and D820

**SERIAL NUMBER:** (01EEE7E020C97E30) RADIATED #1  
(01EB815C20C97E15) RADIATED #2

**DATE TESTED:** July 29 – Sep 17, 2013

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart E	Pass
INDUSTRY CANADA RSS-210 Issue 8 Annex 8	Pass
INDUSTRY CANADA RSS-GEN Issue 3	Pass

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

**Note:** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For  
UL Verification Services Inc. By:

Tested By:



PHILIP KIM  
WiSE PROGRAM MANAGER  
UL Verification Services Inc.

STEVEN TRAN  
Wise LAB TECHNICIAN  
UL Verification Services Inc.

## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, FCC 06-96, FCC KDB 789033, ANSI C63.10-2009, RSS-GEN Issue 3, FCC KDB 644545 D01, FCC KDB644545 D02 (802.11ac alternative guide V01) and RSS-210 Issue 8.

## 3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://www.ccsemc.com>.

## 4. CALIBRATION AND UNCERTAINTY

### 4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

### 4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$$\begin{aligned} \text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamp Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m} \end{aligned}$$

### 4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 1000 MHz	4.94 dB

Uncertainty figures are valid to a confidence level of 95%.

## 5. EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF EUT

The EUT is a Dual Band phone that also supports BLUETOOTH, WLAN and NFC.

### 5.2. OUTPUT POWER

The transmitter has an maximum conducted output power as follows:

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5170-5250	802.11a	11.88	15.42
5170-5250	802.11n HT20	10.75	11.89
5170-5250	802.11n HT40	9.84	9.64
5170-5250	802.11ac HT20	10.86	12.19
5170-5250	802.11ac HT40	9.52	8.95
5170-5250	802.11ac HT80	8.39	6.90
5250-5330	802.11a	13.3	21.38
5250-5330	802.11n HT20	12.49	17.74
5250-5330	802.11n HT40	11.07	12.79
5250-5330	802.11ac HT20	12.31	17.02
5250-5330	802.11ac HT40	10.75	11.89
5250-5330	802.11ac HT80	10.4	10.96
5490-5730	802.11a	13.24	21.09
5490-5730	802.11n HT20	12.26	16.83
5490-5730	802.11n HT40	11.54	14.26
5490-5730	802.11ac HT20	12.19	16.56
5490-5730	802.11ac HT40	11.22	13.24
5490-5730	802.11ac HT80	13.63	23.07
5735-5835	802.11a	16.63	46.03
5735-5835	802.11n HT20	15.71	37.24
5735-5835	802.11n HT40	15.29	33.81
5735-5835	802.11ac HT20	13.76	23.77
5735-5835	802.11ac HT40	13.15	20.65
5735-5815	802.11ac HT80	14.83	30.41

### 5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an FPCB antenna, with a maximum gain of -3.26 dBi.

### 5.4. SOFTWARE AND FIRMWARE

Android OS Version: 3.40-gbab8bca-00002-gd1a7716.  
 Kernel Version: M8974A-0.0.19.0.05.

---

## **5.5. WORST-CASE CONFIGURATION AND MODE**

Radiated emission and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

The fundamental of the EUT was investigated in three orthogonal orientations X,Y,Z, it was determined that the X orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in the X orientation.

Based on the baseline scan, the worst-case data rates were:

802.11a mode: 6 Mbps  
802.11n HT20mode: MCS0  
802.11n HT40mode: MCS0



## 5.6. DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	LG	MCS.01WR	EAY62768913	N/A
Earphone	QuadBeat	LE 410	EAB62729001	N/A

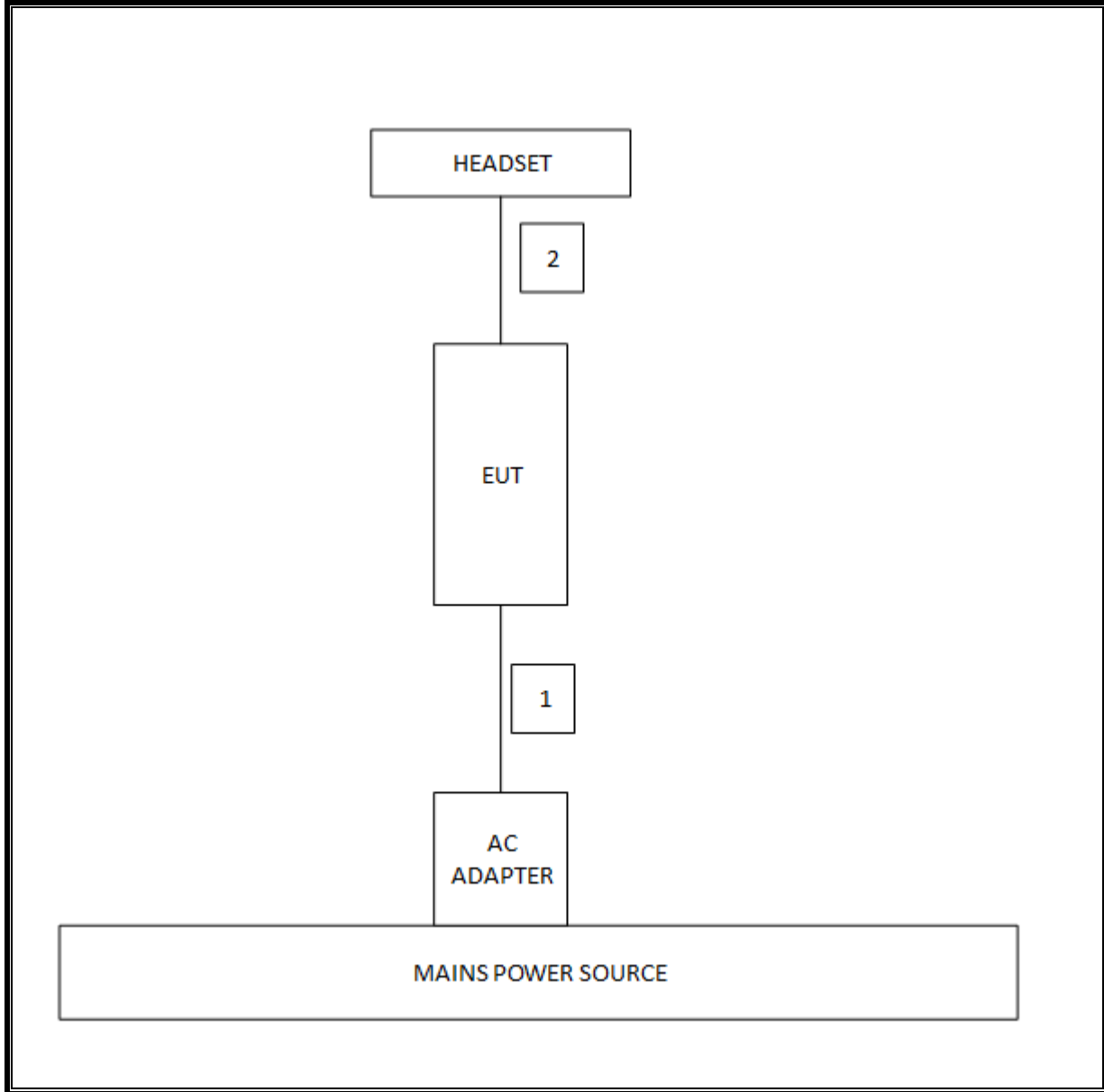
### I/O CABLES

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC Power	1	Mini-USB	Shielded	1.2m	N/A
2	Audio	1	Mini-Jack	Unshielded	1.0m	N/A

### TEST SETUP

The EUT is setup as a stand-alone device.

**SETUP DIAGRAM FOR TESTS**



## 6. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment List				
Description	Manufacturer	Model	Asset	Cal Due
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C00986	4/1/2014
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01179	2/26/2014
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	8/15/2014
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00580	1/28/2014
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01063	10/22/2013
Preamplifier, 40 GHz	Miteq	NSP4000-SP2	C00990	8/2/2014
Antenna, Bilog, 30MHz-1 GHz	Sunol Sciences	JB1	N/A	3/6/2014
Antenna, Horn, 18 GHz	ETS	3117	C01022	2/21/2014
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	C00589	12/17/2013
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/2013
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/2013
LISN, 30 MHz	FCC	50/250-25-2	C00626	01/14/14
Reject Filter, 5.725-5.825 GHz	Micro-Tronics	BRC13192	N02676	CNR

## 7. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

### LIMITS

None; for reporting purposes only.

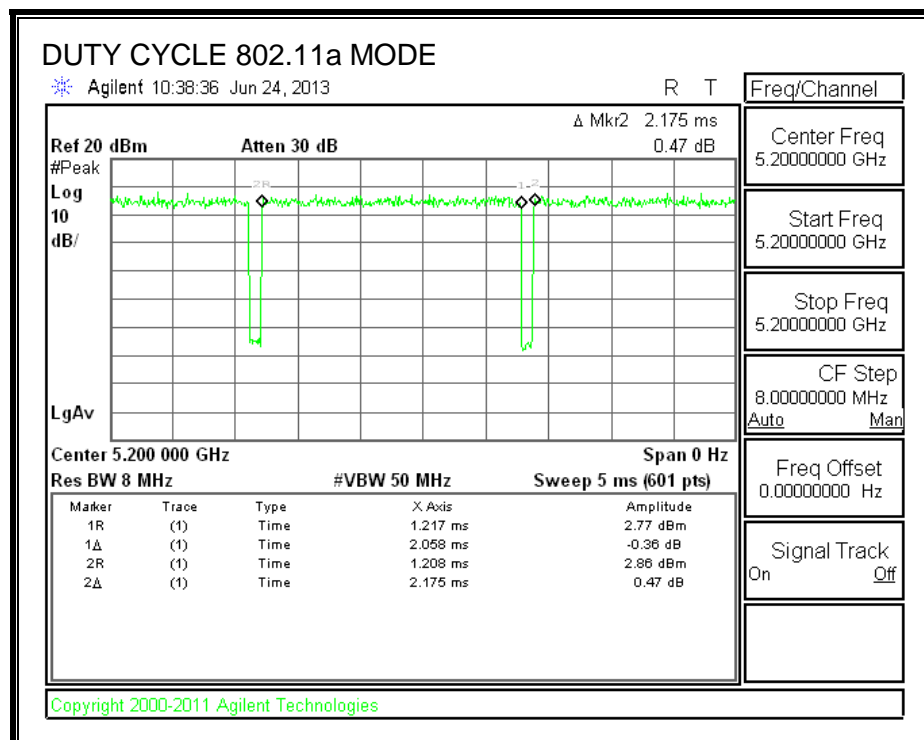
### PROCEDURE

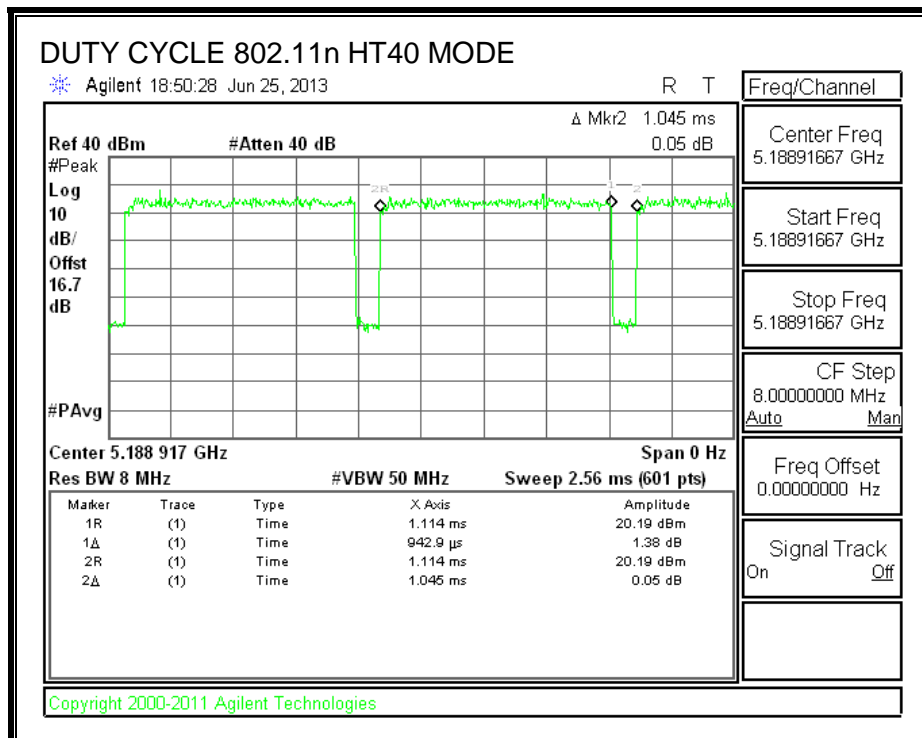
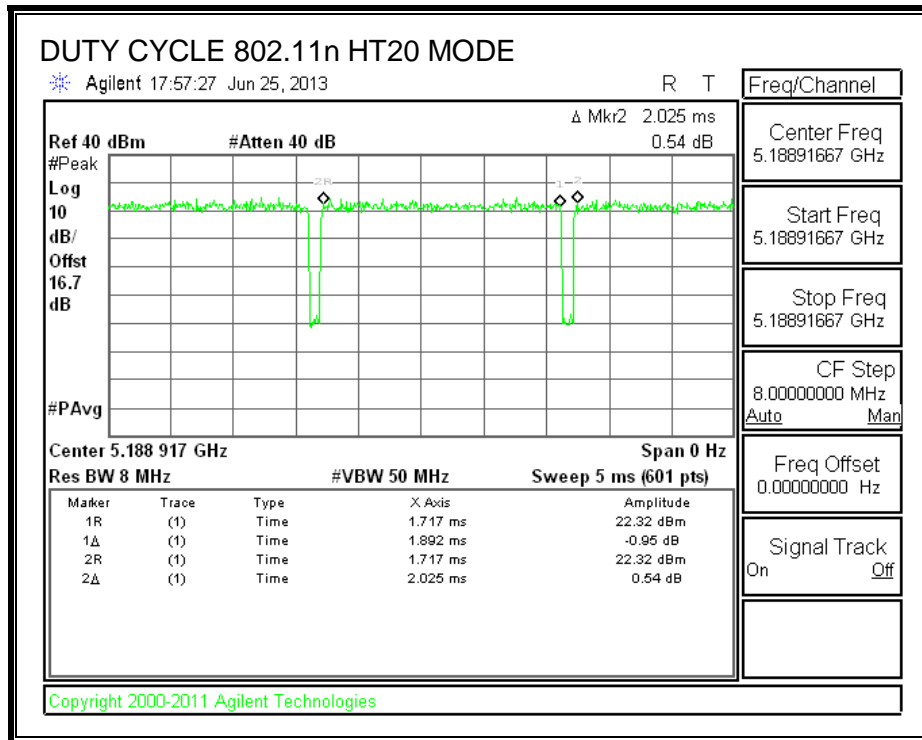
KDB 789033 Zero-Span Spectrum Analyzer Method.

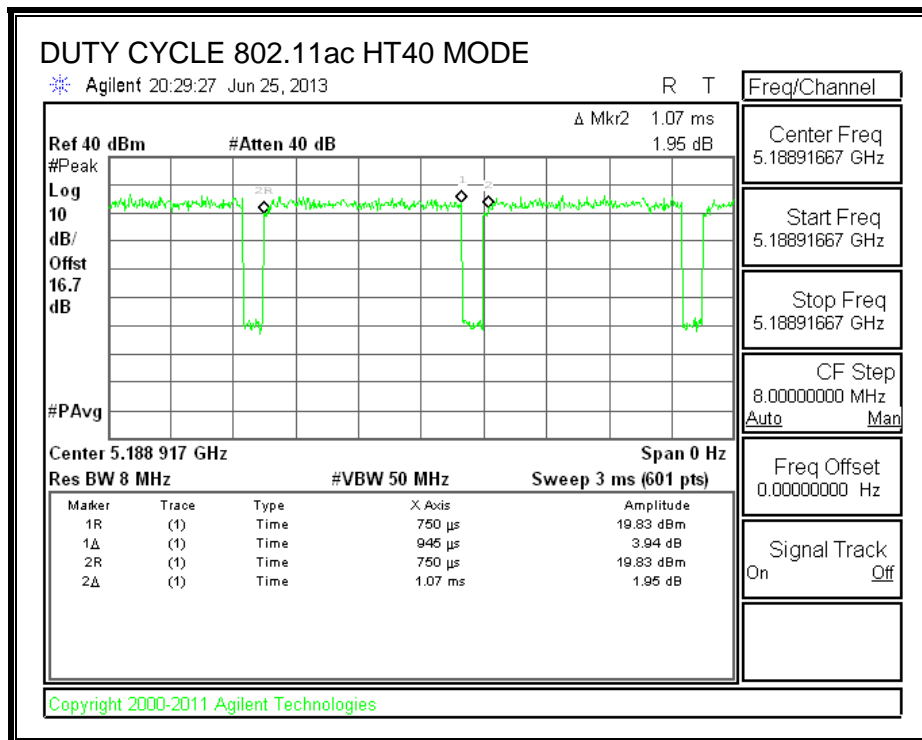
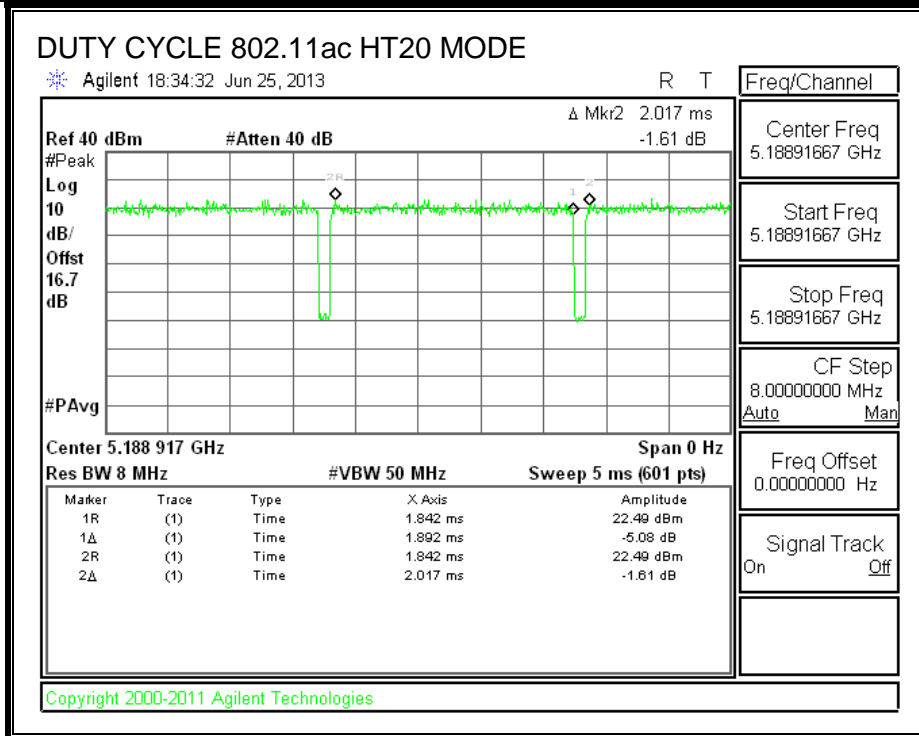
### 7.1. ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.05	2.17	0.946	94.6%	0.24	0.488
802.11ac HT20	1.93	2	0.951	95.1%	0.22	0.517
802.11ac HT40	0.94	1	0.886	88.6%	0.52	1.070
802.11ac HT80	0.46	1	0.811	81.1%	0.91	2.193
802.11n HT20	1.91	2	0.948	94.8%	0.23	0.524
802.11n HT40	0.94	1	0.900	90.0%	0.46	1.064

### 7.2. DUTY CYCLE PLOTS







## 8. MEASUREMENT METHOD

The Duty Cycle is less than 98% and consistent therefore KDB 789033 Method SA-2 is used for power and PPSD

The Duty Cycle is less than 98% and consistent, KDB 789033 Method AD with Power RMS Averaging and duty cycle correction is used.

## 9. TRANSMITTER ABOVE 1 GHZ

### 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.

Reference to KDB 789033 UNII part H) 6) d) Method AD:

For restricted band edge measurements, when doing peak, above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz and set detector to peak, sweep time to auto, and trace mode to max hold.

For restricted band edge measurements, when doing average, above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz and set detector to RMS, averaging type is set to power or linear voltage averaging, and trace average of 100. The duty correction factor is calculated as  $20\log(1/x)$ , where x is the duty cycle. Please refer to the below table that shows the Duty Cycle Corrector Factors.

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.05	2.17	0.946	94.6%	0.24	0.488
802.11ac HT20	1.93	2	0.951	95.1%	0.22	0.517
802.11ac HT40	0.94	1	0.886	88.6%	0.52	1.070
802.11ac HT80	0.46	1	0.811	81.1%	0.91	2.193
802.11n HT20	1.91	2	0.948	94.8%	0.23	0.524
802.11n HT40	0.94	1	0.900	90.0%	0.46	1.064



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.

Please note that Peak and Average plots were taken in 2 different chambers. Due to that the reference offset values are not the same."

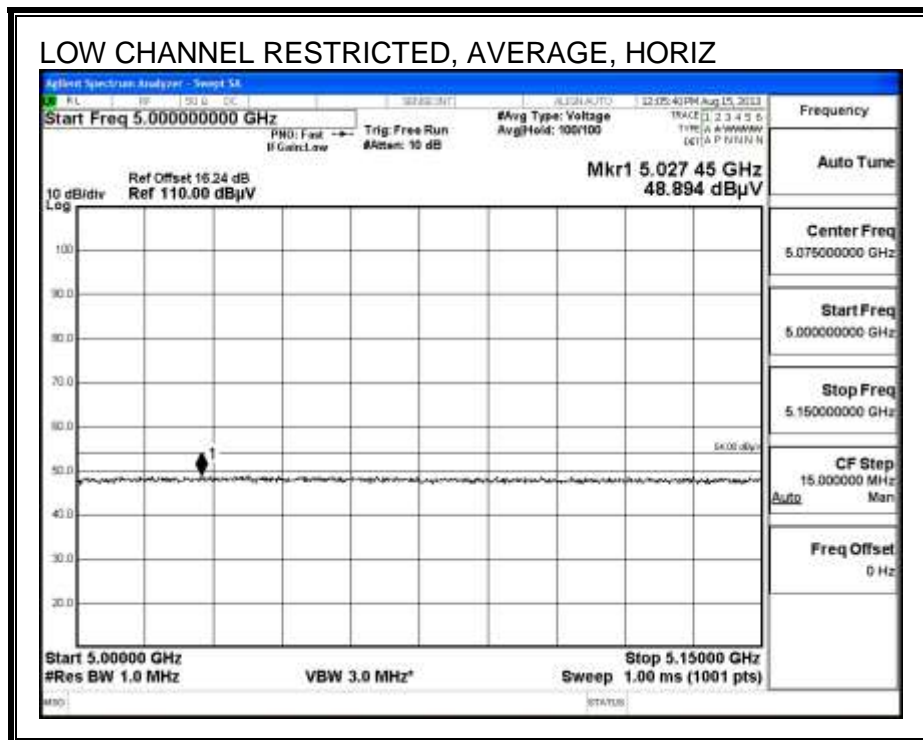
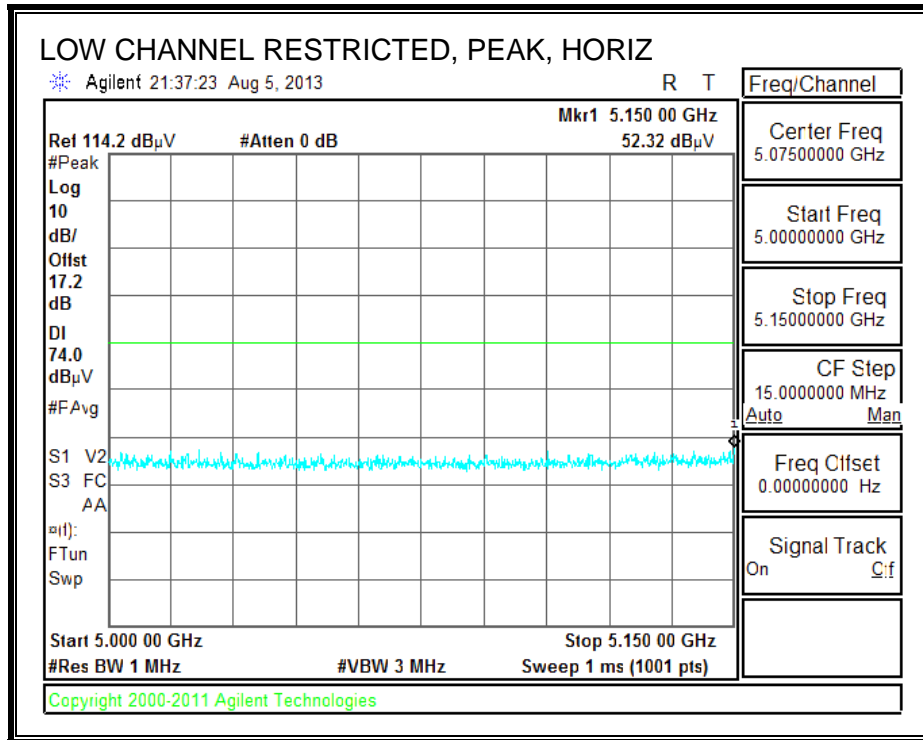
For BAND EDGE at 5725 and 5825/5850:

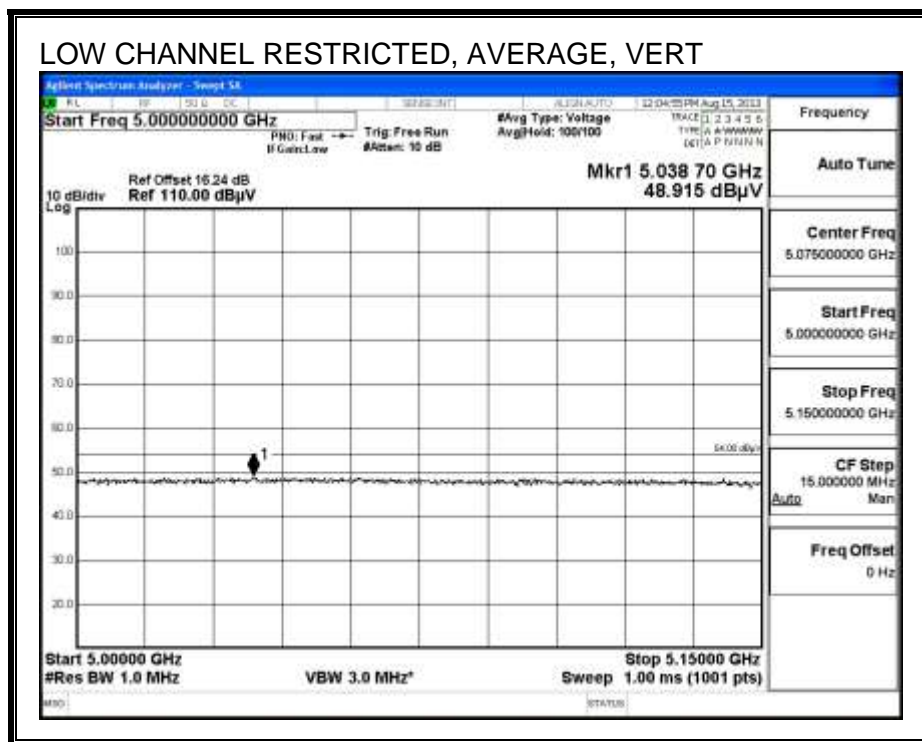
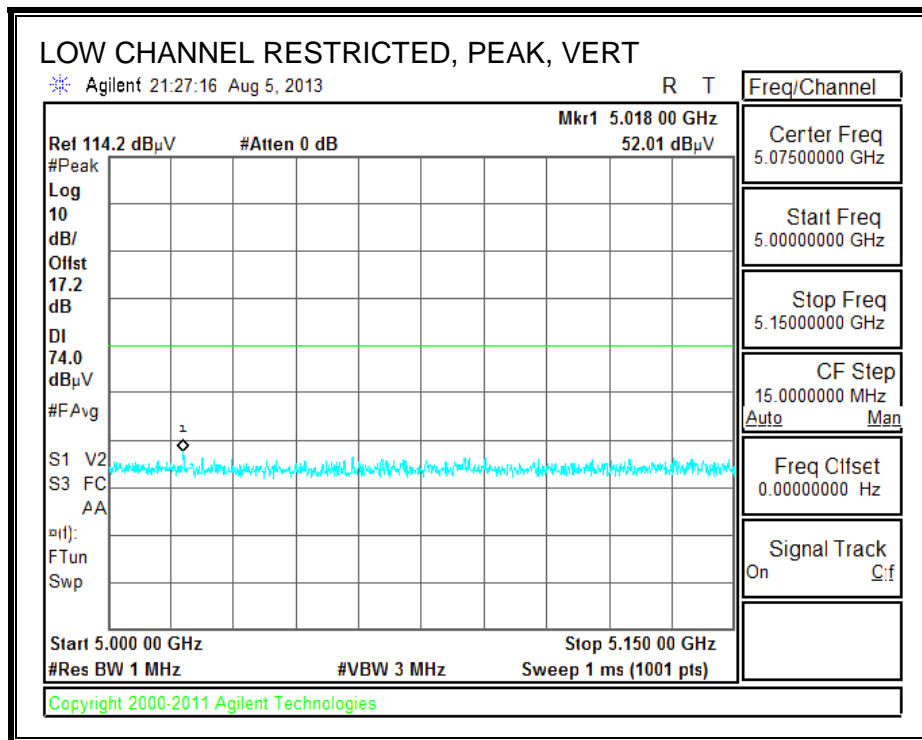
TEST	DONE	RBW	VBW	FREQ	SPAN	LIMIT	NOTES
DIRECT METHOD – RESTRICTED BAND / BANDEDGE RADIATED FIELD STRENGTH							
ADJACENT RESTRICTED BAND LOW (PEAK)		1 MHz	3 MHz	EUT = LOW	5350 to 5470 MHz	5350 to 5460 74 dBuV/m Peak  5460 to 5470 -27 dBm/MHz EIRP Peak= 68.2 dBuV/m Peak	Peak Detector; 1001 Points ; AMPLITUDE UNITS = dBuV; Atten = 0 dB; RL Offset = AF + Cable - Distance Factor Download Limit Line; Max Hold;
BANDEDGE HIGH (PEAK)		1 MHz	3 MHz	EUT = HIGH	5725 to 5825 MHz	EIRP: 5725 to 5825 -27 dBm/MHz EIRP Peak	Peak Detector; 1001 Points ; AMPLITUDE UNITS = dBm Atten = 0 dB; RL Offset = AF + Cable - Distance Factor + 11.8; Display Line = -27 dBm; Max Hold;

Note: Site factor = +107 (to convert dBm to dBuV) + AF + CL - PA gain (to convert dBuV to dBuV/m) -95.23 (to convert dBuV/m at 3m to dBm eirp) = AF + CL - PA gain +11.8dB

**9.2. 5.2 GHz**

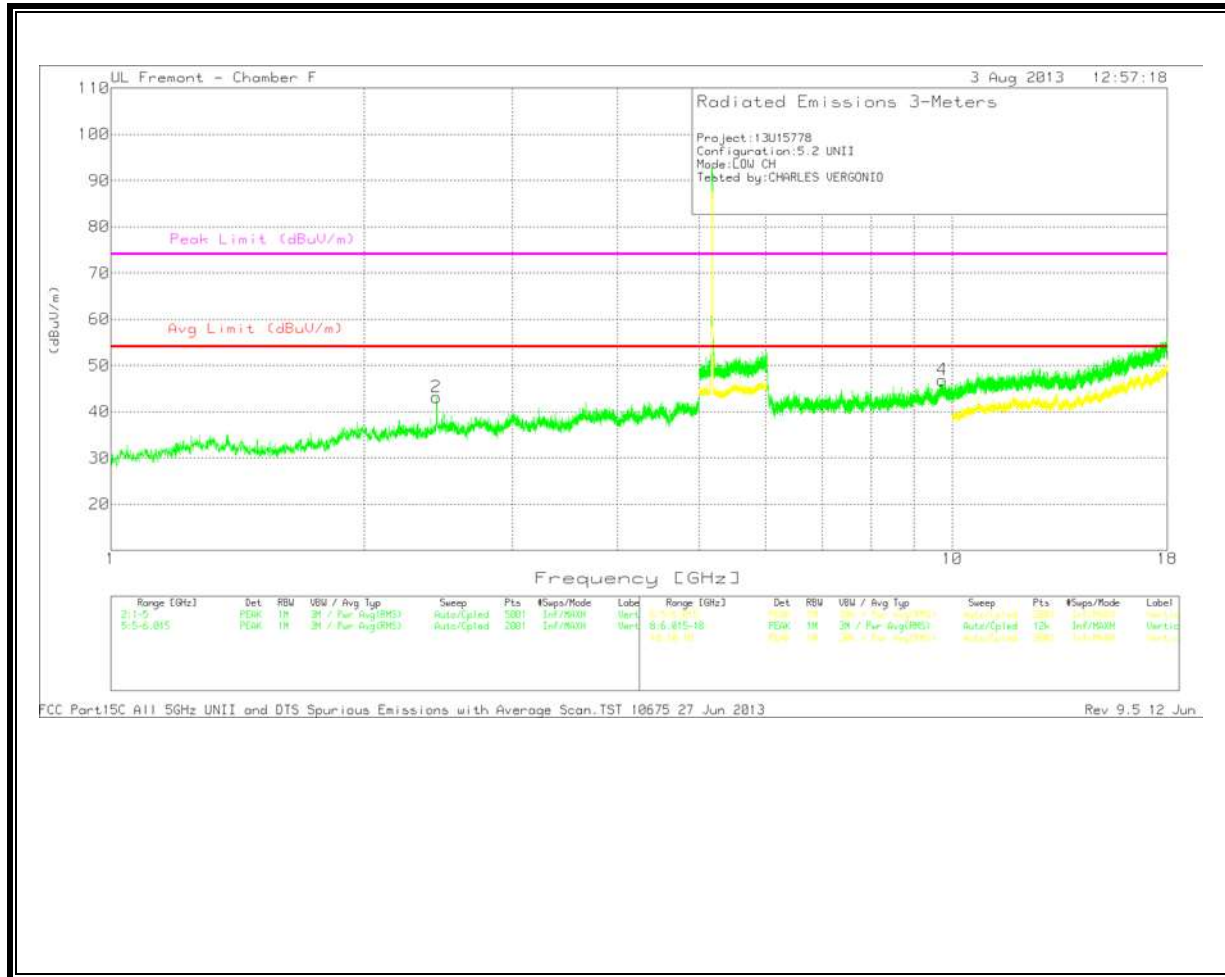
**9.2.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.2 GHz BAND  
 RESTRICTED BANDEDGE (LOW CHANNEL)**





### HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL  
 VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/C b/Filtr/ Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.438	44.26	PK	32.3	-33.4	43.16	53.97	-10.81	74	-30.84	0-360	201	V
4	9.721	35.16	PK	37.4	-25.7	46.86	53.97	-7.11	74	-27.14	0-360	101	V

MID CHANNEL  
HORIZONTAL

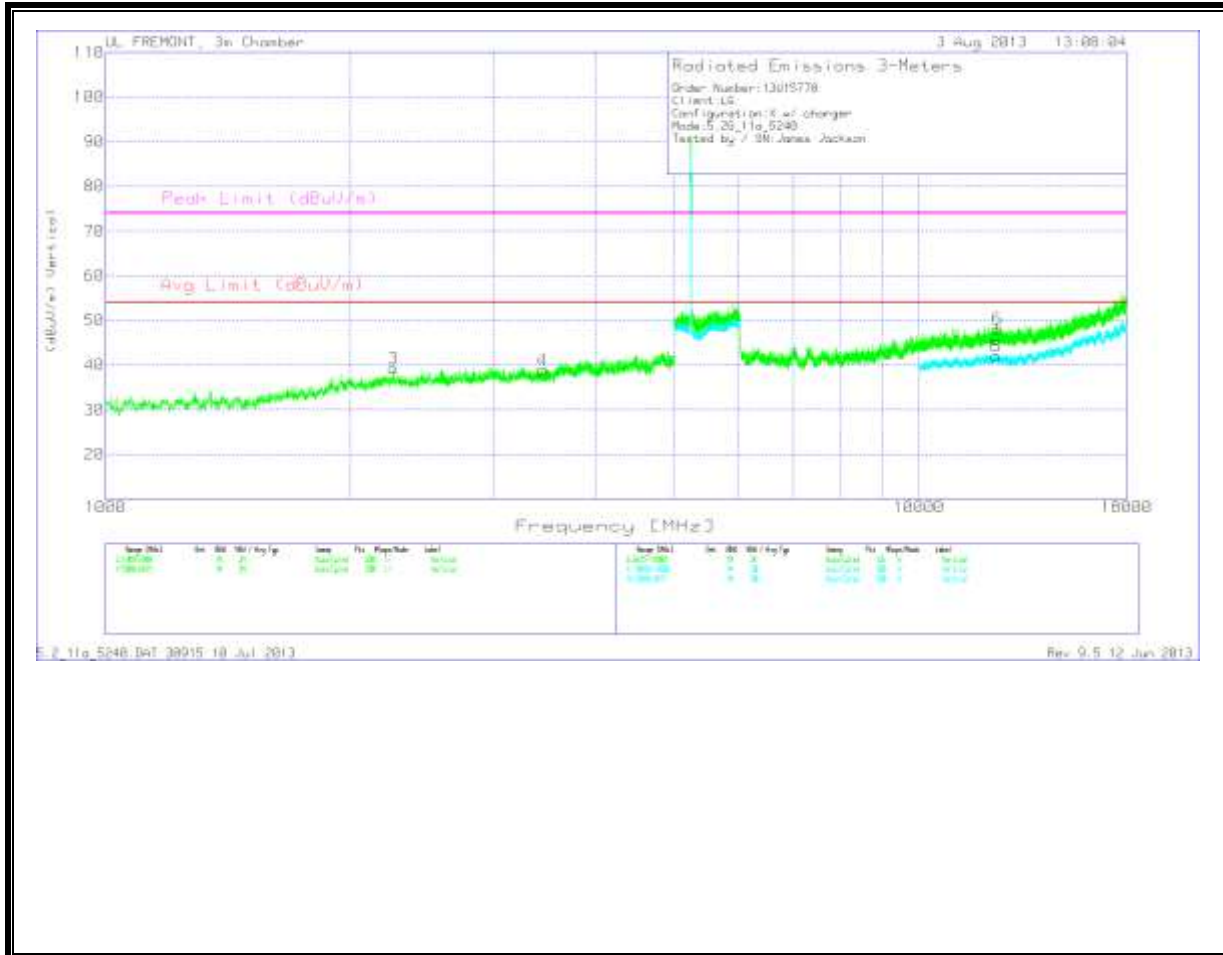


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

## MID CHANNEL DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cb/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
2.742	38.16	PK	32.9	-32.7	38.36	53.97	-15.61	74	-35.64	201	H
4.446	40.49	PK	34.1	-31.2	43.39	53.97	-10.58	74	-30.61	201	H
7.884	36.54	PK	36	-28.2	44.34	53.97	-9.63	74	-29.66	100	H
14.921	29.98	PK	40	-26.5	43.48	53.97	-10.49	74	-30.52	100	H
15.692	29.07	PK	41.2	-25	45.27	53.97	-8.7	74	-28.73	100	H

HIGH CHANNEL  
VERTICAL



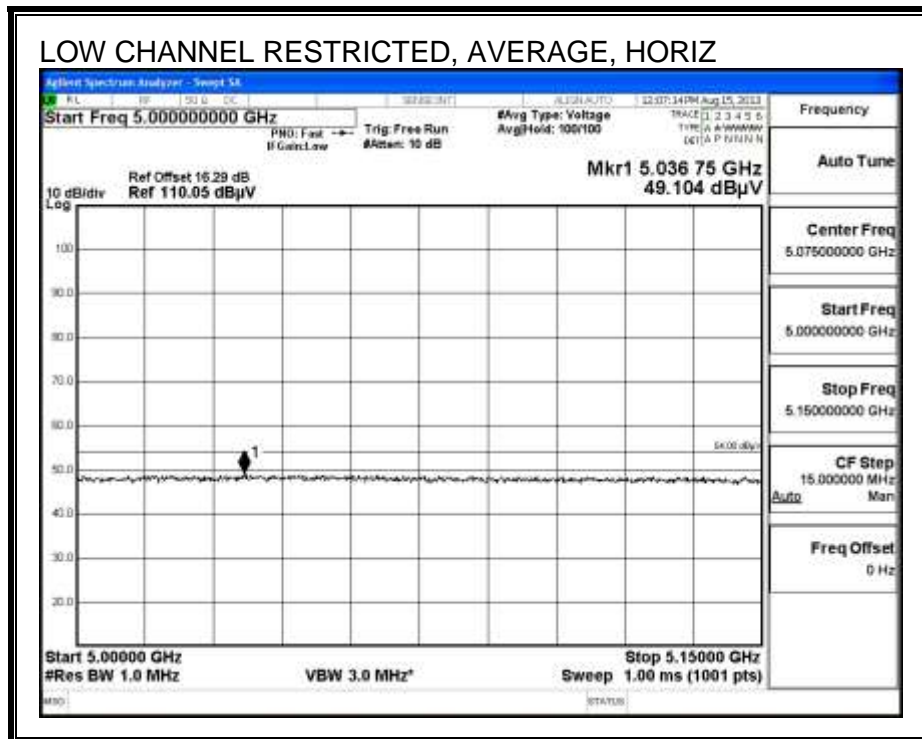
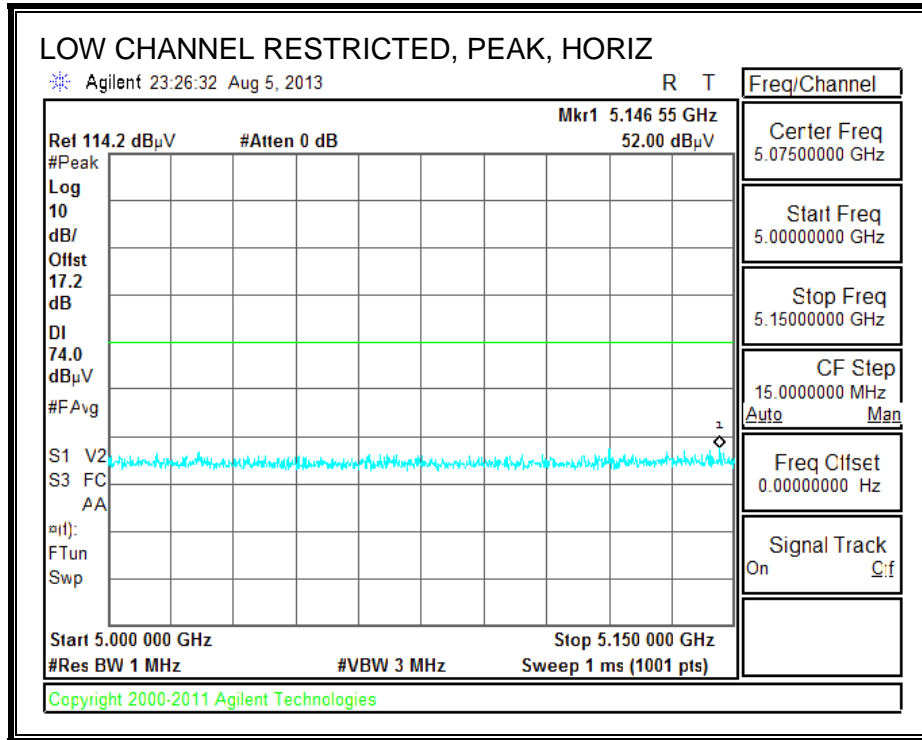
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

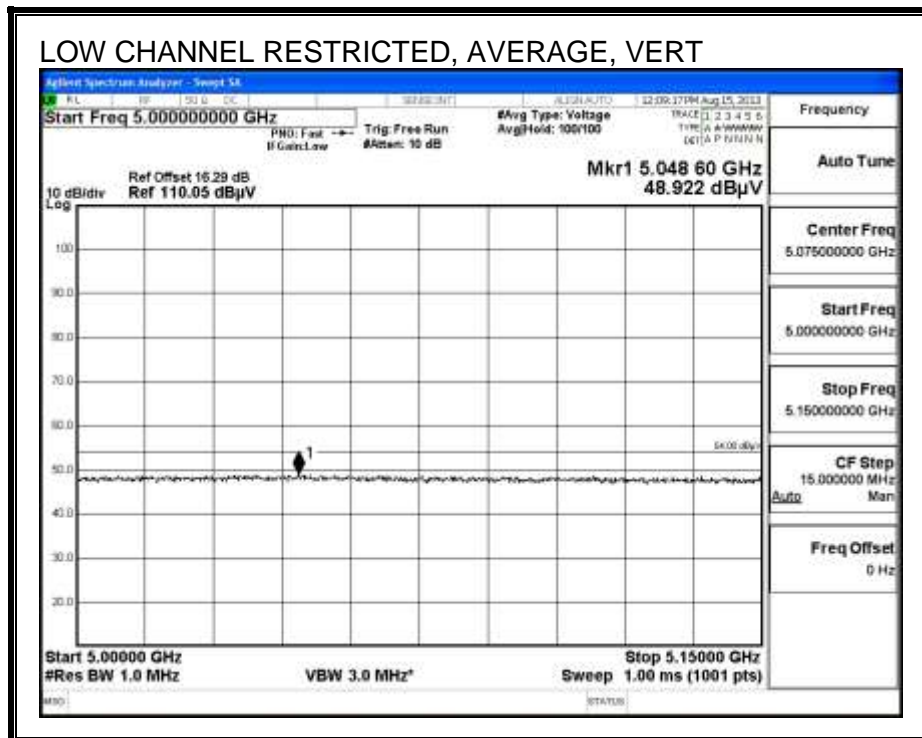
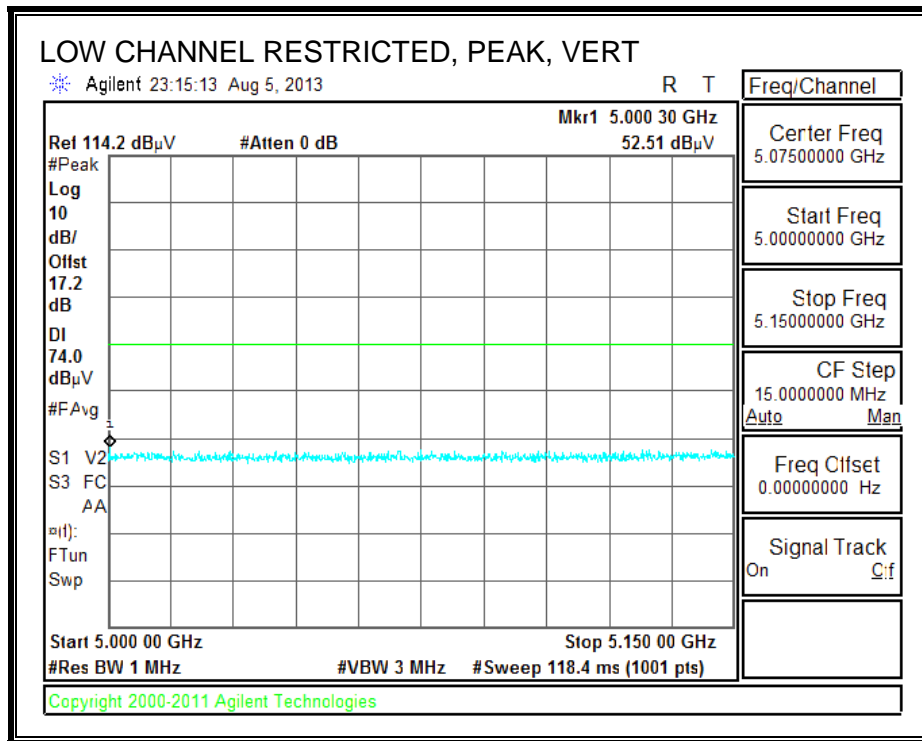


HIGH CHANNEL DATA

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
2.26	40.17	PK	32.4	-33.3	39.27	53.97	-14.7	74	-34.73	100	V
3.445	38.33	PK	33.3	-32.8	38.83	53.97	-15.14	74	-35.17	100	V
12.444	28	PK	39.2	-25.2	42	53.97	-11.97	74	-32	100	V

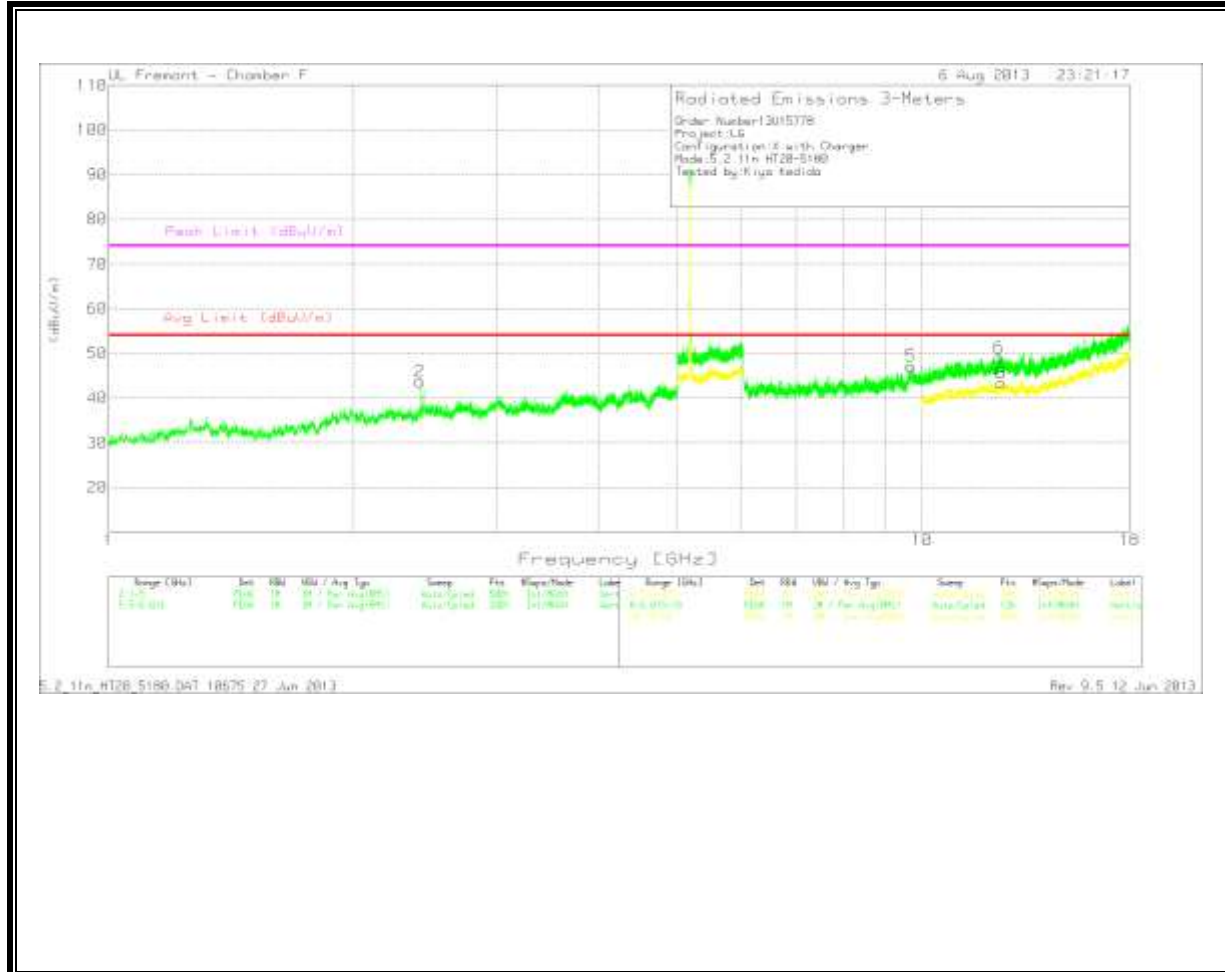
**9.2.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND  
 RESTRICTED BANDEDGE (LOW CHANNEL)**





**HARMONICS AND SPURIOUS EMISSIONS**

LOW CHANNEL  
 VERTICAL

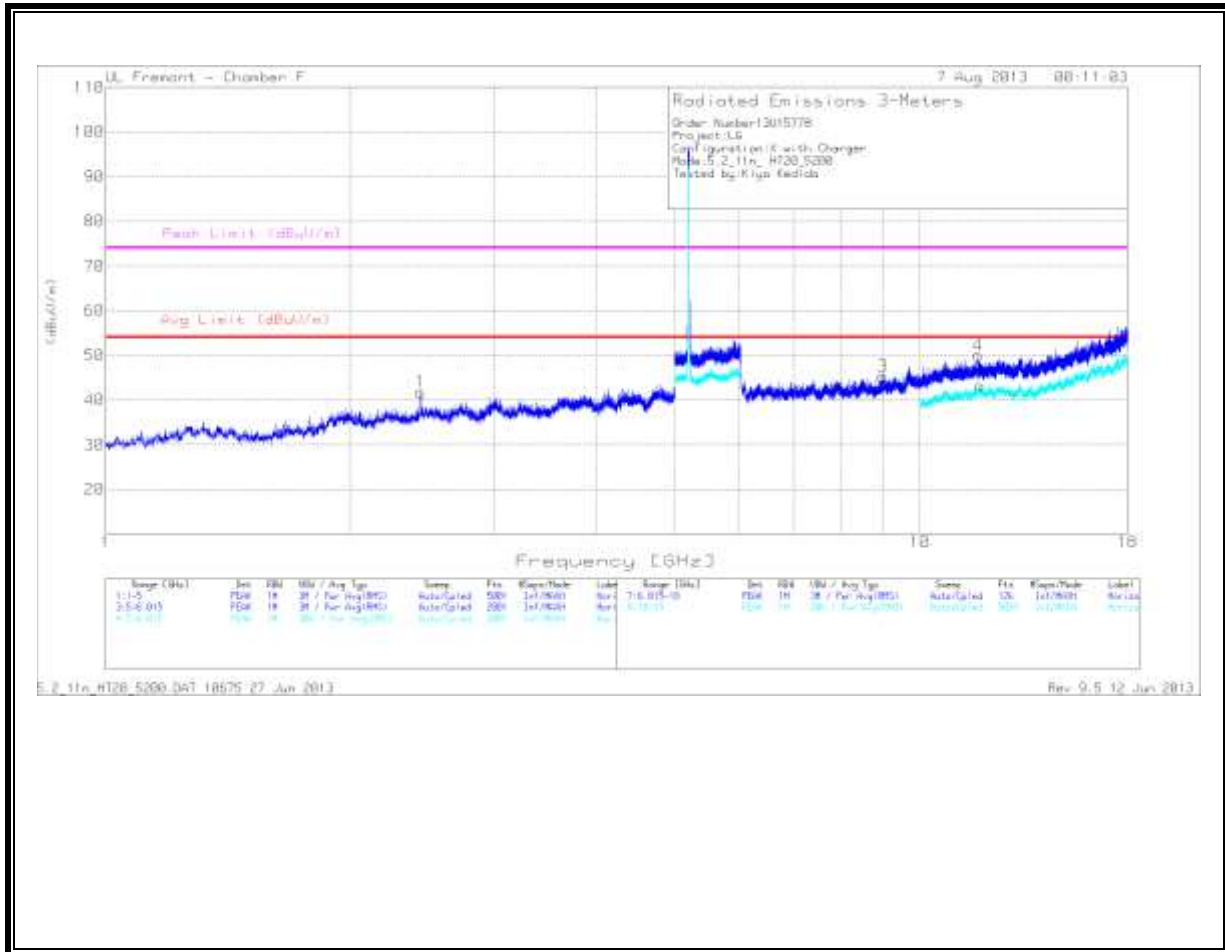


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

## LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/C b/Filtr/ Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.414	45.21	PK	32.2	-33.7	43.71	53.97	-10.26	74	-30.29	0-360	200	V
5	9.694	35.33	PK	37.4	-25.6	47.13	53.97	-6.84	74	-26.87	0-360	101	V
8	12.496	29.05	PK	39.4	-25.1	43.35	53.97	-10.62	74	-30.65	0-360	101	V

MID CHANNEL  
HORIZONTAL

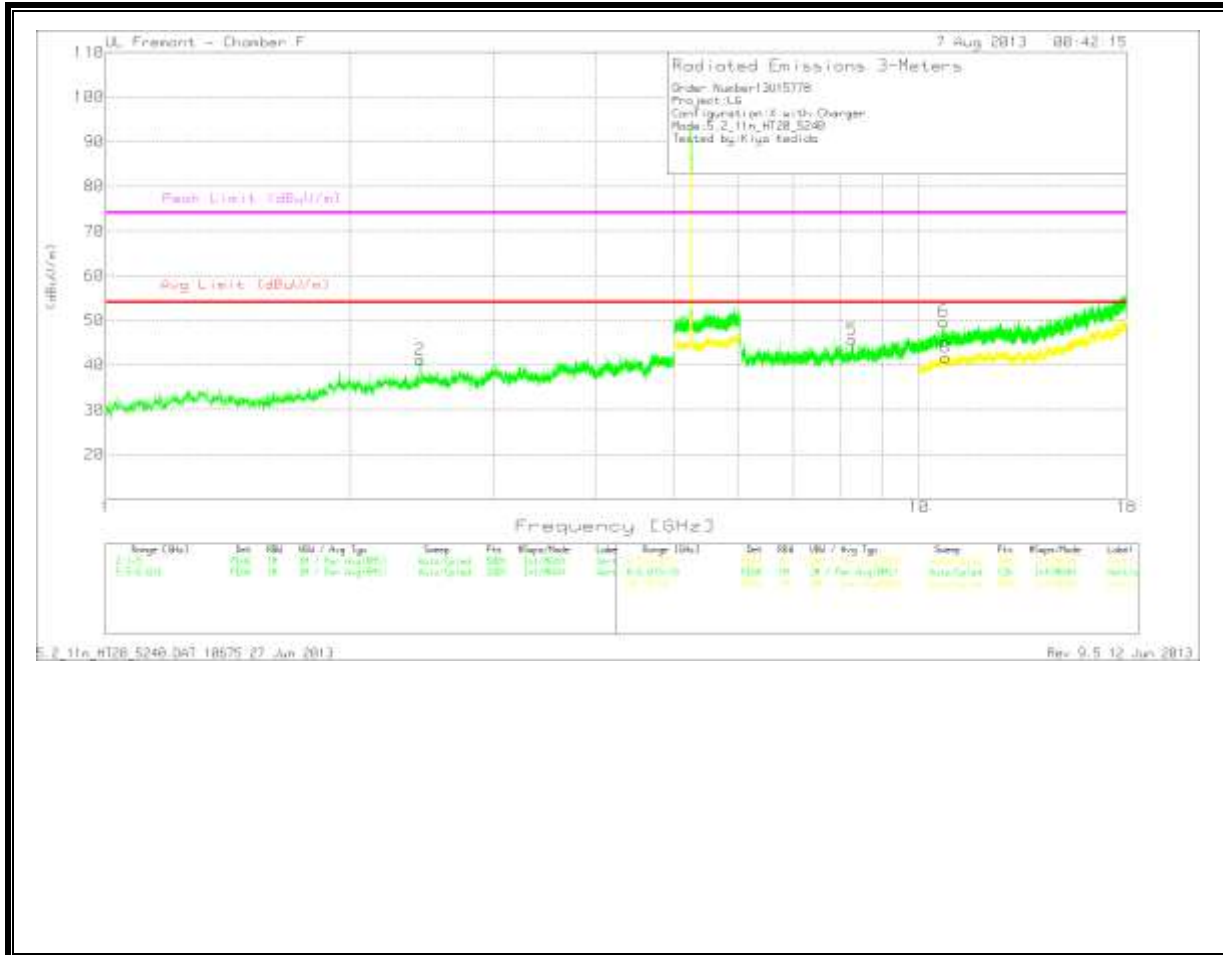


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/C b/Filtr/ Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.437	42.93	PK	32.3	-33.4	41.83	53.97	-12.14	74	-32.17	0-360	199	H
3	9.009	35.87	PK	36.4	-26.9	45.37	53.97	-8.6	74	-28.63	0-360	100	H
7	11.852	28.81	PK	39.3	-24.9	43.21	53.97	-10.76	74	-30.79	0-360	199	H

HIGH CHANNEL  
VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

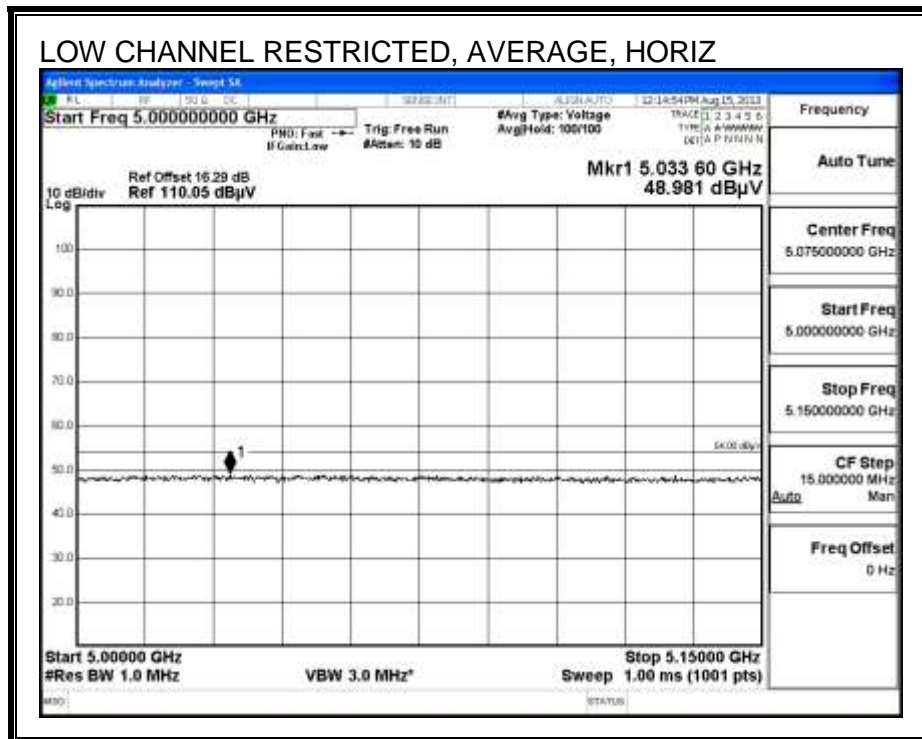
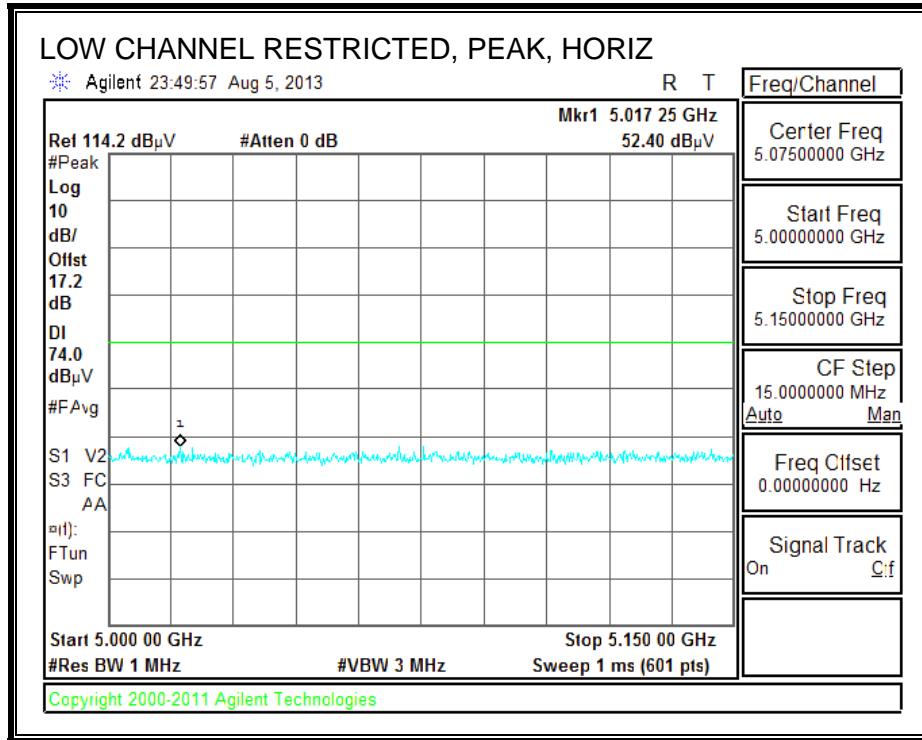


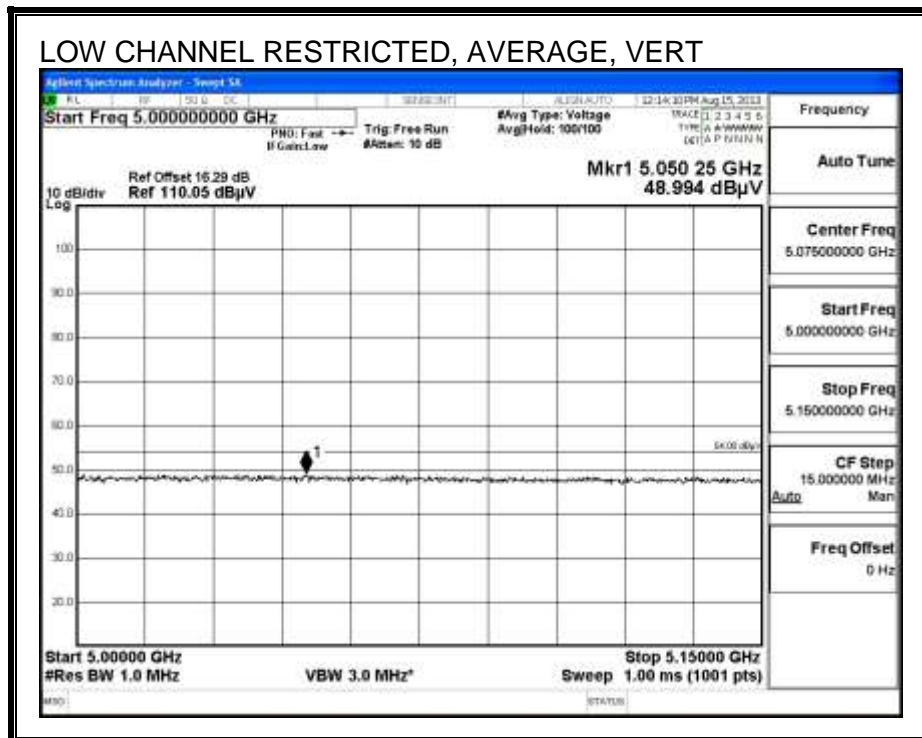
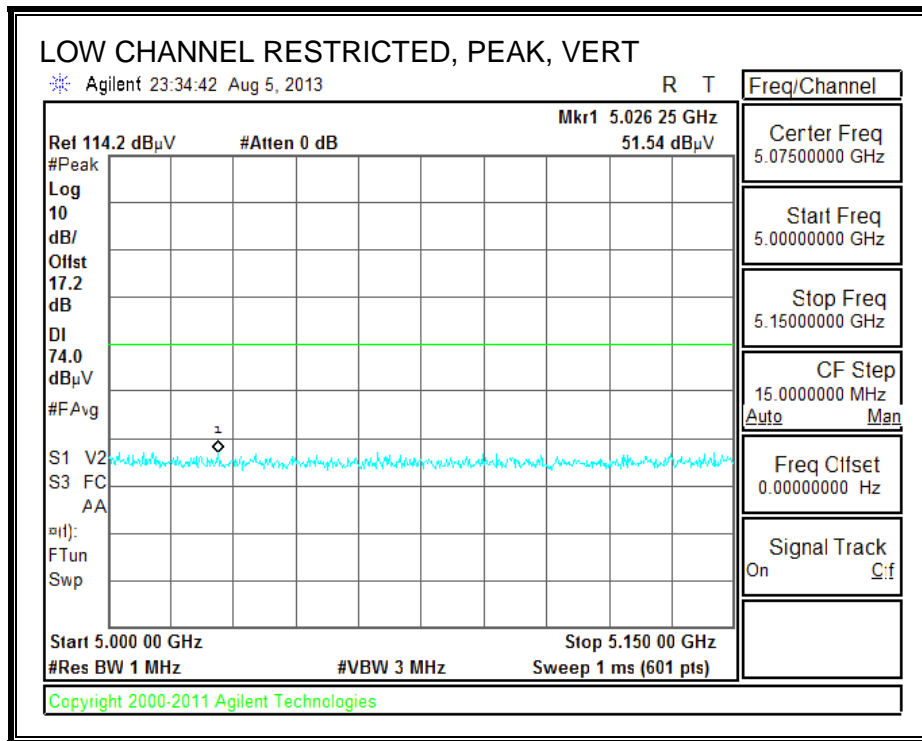
HIGH CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cb/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.437	42.32	PK	32.3	-33.4	41.22	53.97	-12.75	74	-32.78	0-360	201	V
5	8.271	37.59	PK	36	-27.9	45.69	53.97	-8.28	74	-28.31	0-360	201	V
8	10.784	28.37	PK	38.7	-25.3	41.77	53.97	-12.2	74	-32.23	0-360	101	V

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

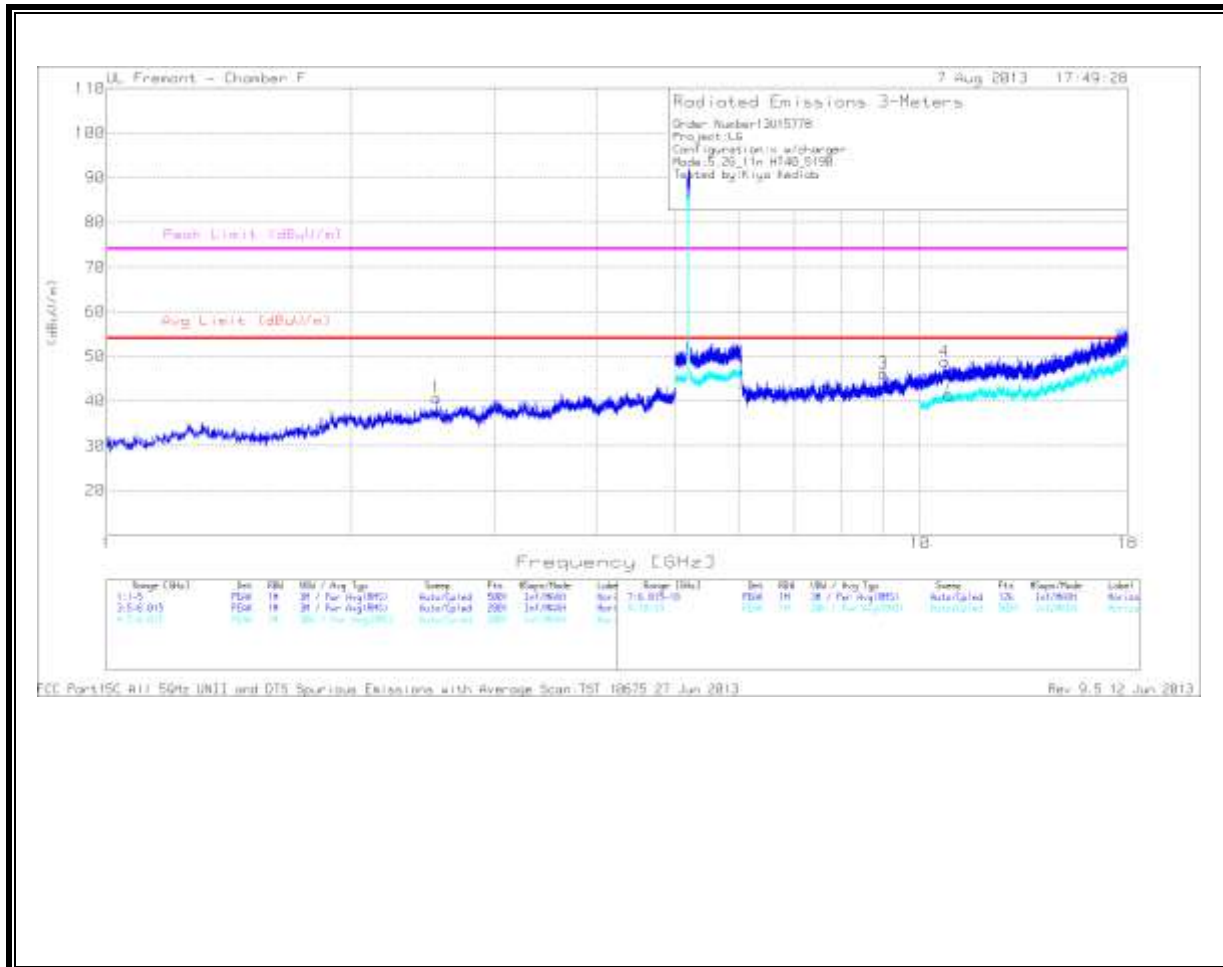
*RESTRICTED BANDEGE (LOW CHANNEL)*





### HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL  
 HORIZONTAL



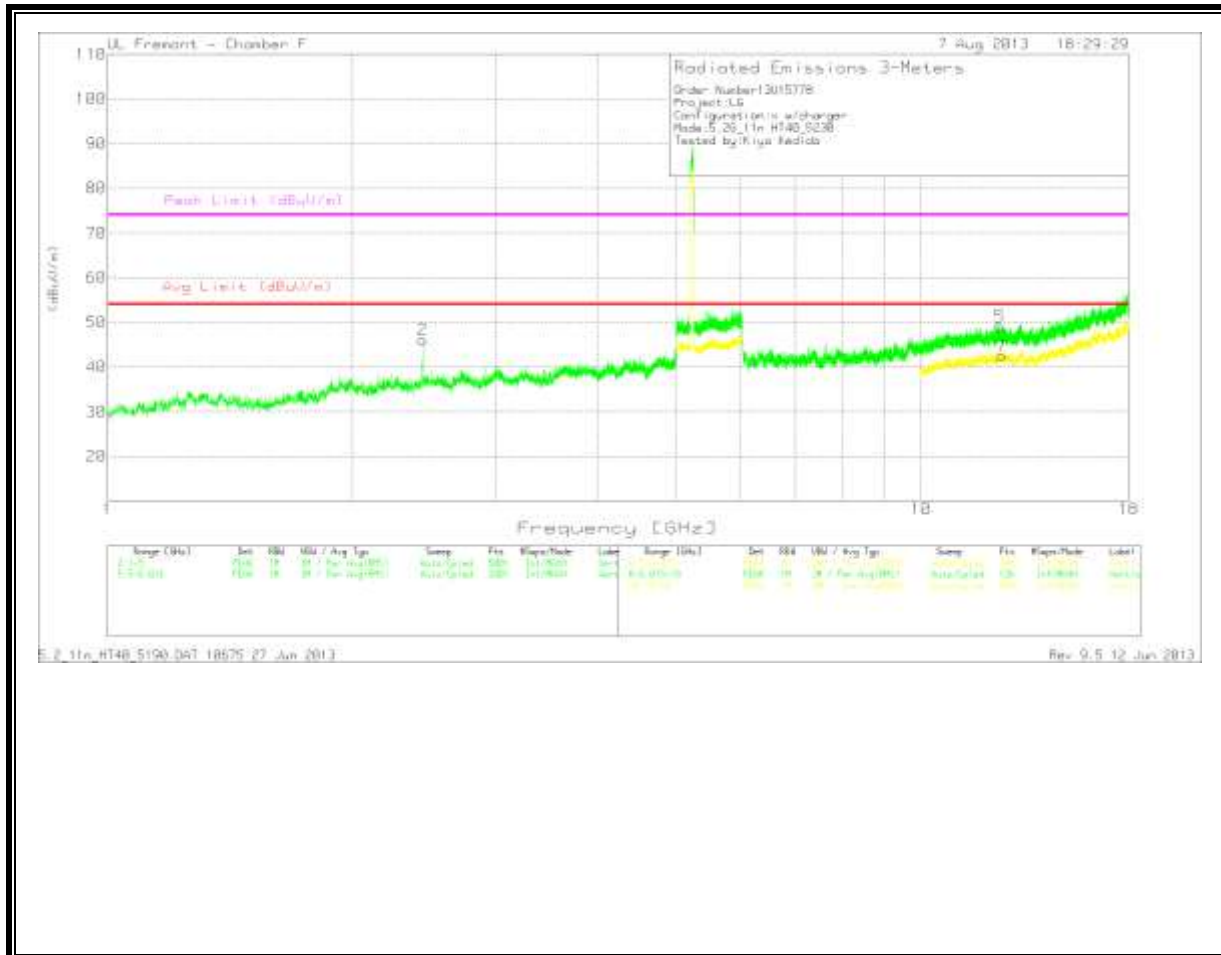
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

## LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cb/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.546	41.27	PK	32.6	-33.2	40.67	53.97	-13.3	74	-33.33	0-360	101	H
3	9.015	36.84	PK	36.4	-27	46.24	53.97	-7.73	74	-27.76	0-360	101	H
7	10.841	28.4	PK	38.7	-25.7	41.4	53.97	-12.57	74	-32.6	0-360	101	H

MID CHANNEL

VERTICAL

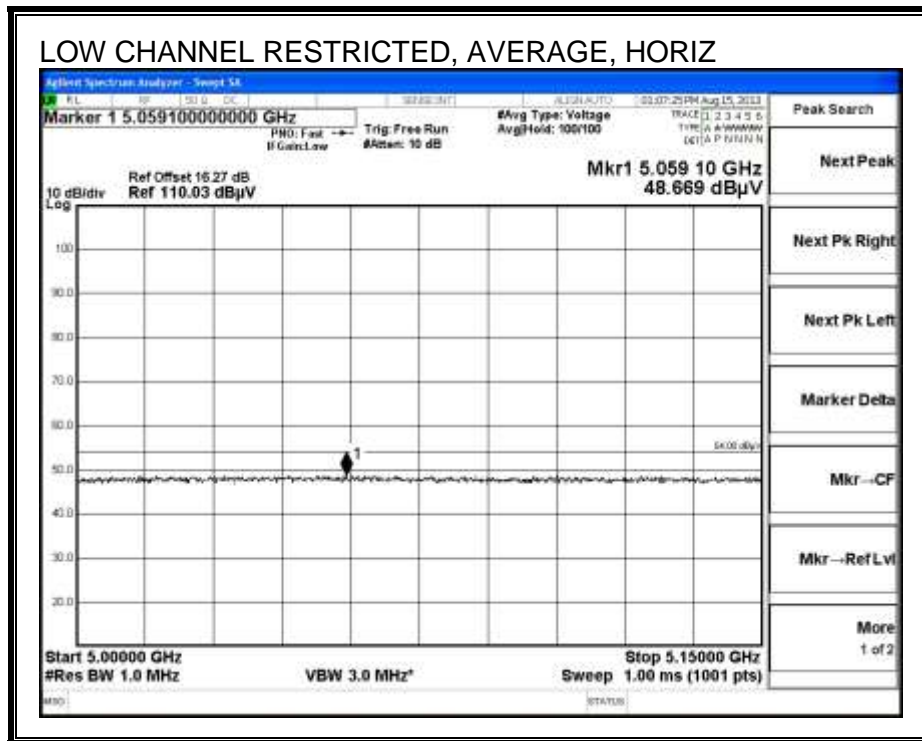
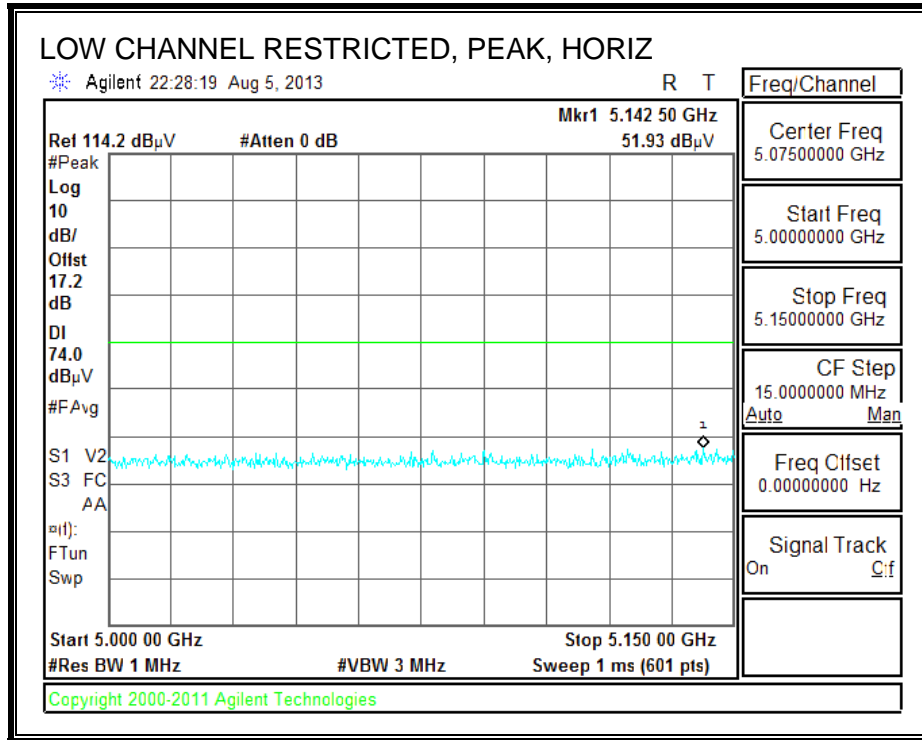


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

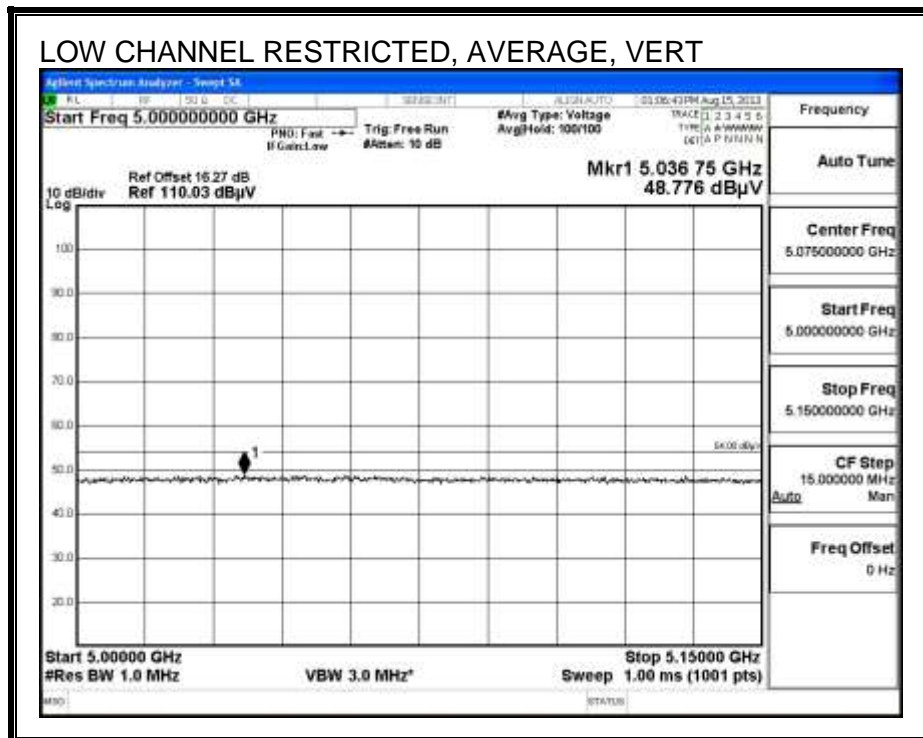
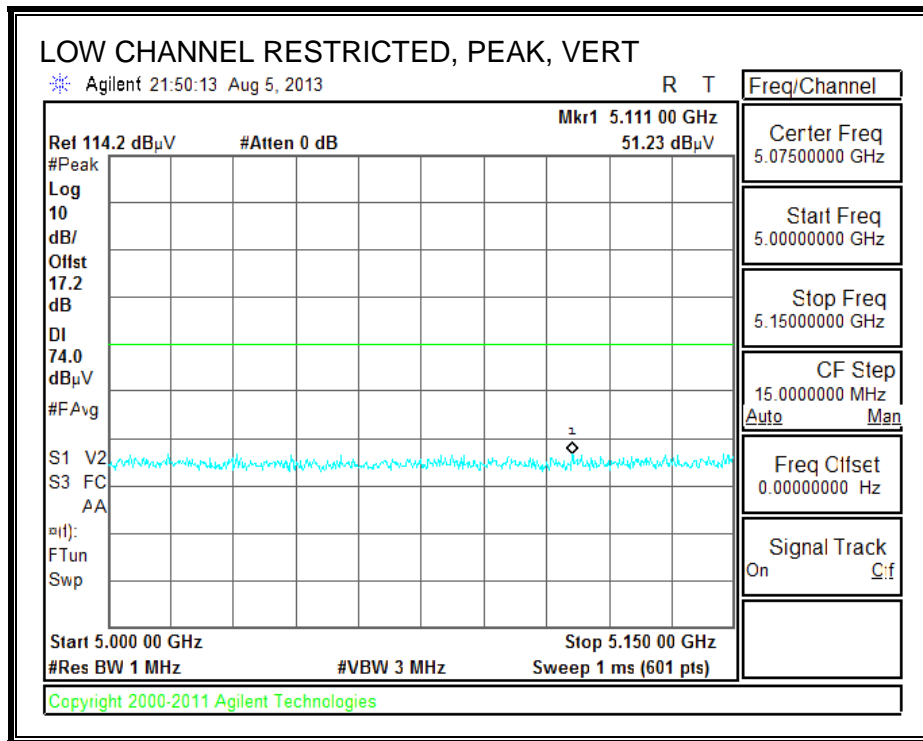
MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/C b/Filtr/ Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.44	47.18	PK	32.3	-33.4	46.08	53.97	-7.89	74	-27.92	0-360	101	V
7	12.566	29.01	PK	39.4	-26	42.41	53.97	-11.56	74	-31.59	0-360	101	V

**9.2.4. TX ABOVE 1 GHz 802.11ac HT20 MODE IN THE 5.2 GHz BAND**  
**RESTRICTED BANDEGE (LOW CHANNEL)**

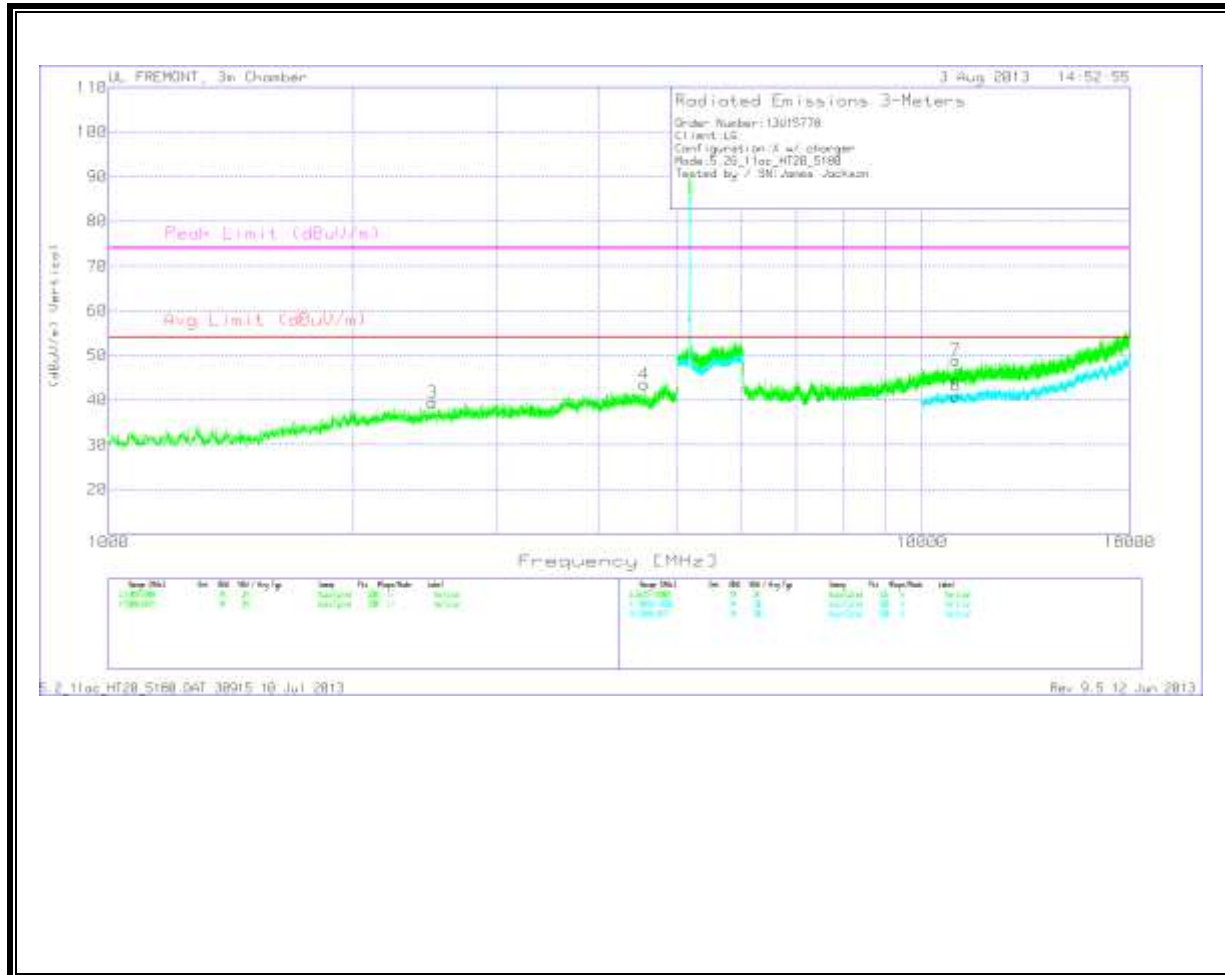






### HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL  
VERTICAL

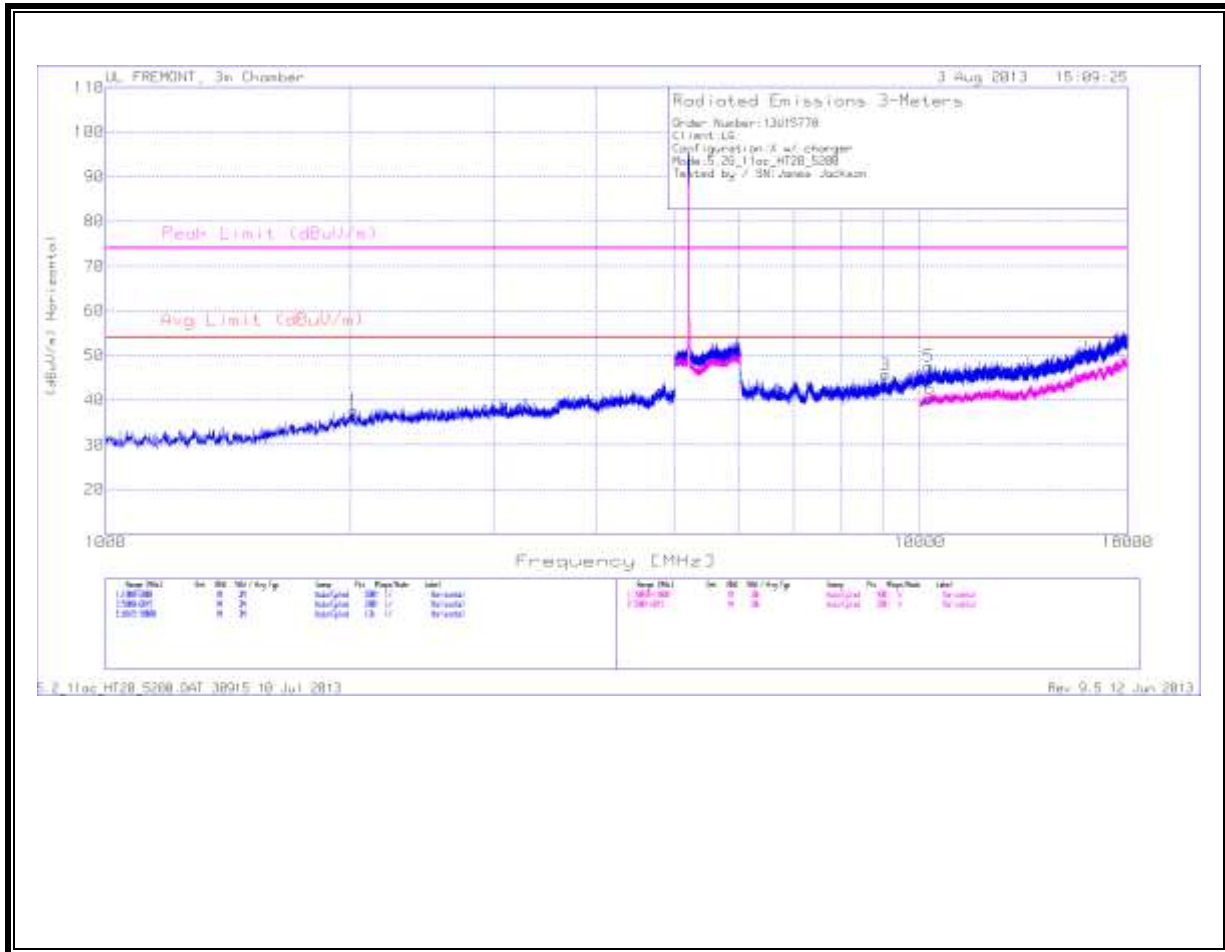


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

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
2.503	40.29	PK	32.4	-33.2	39.49	53.97	-14.48	74	-34.51	201	V
4.553	40.76	PK	34.2	-31.4	43.56	53.97	-10.41	74	-30.44	100	V
11.002	27.97	PK	38.4	-25.4	40.97	53.97	-13	74	-33.03	201	V

MID CHANNEL  
HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

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
2.016	39.56	PK	31.7	-33.6	37.66	53.97	-16.31	74	-36.34	100	H
9.077	35.77	PK	36.8	-26.9	45.67	53.97	-8.3	74	-28.33	100	H
10.264	35.59	PK	38.2	-26.2	47.59	53.97	-6.38	74	-26.41	201	H
10.287	28.02	PK	38.2	-25.8	40.42	53.97	-13.55	74	-33.58	201	H

HIGH CHANNEL  
VERTICAL

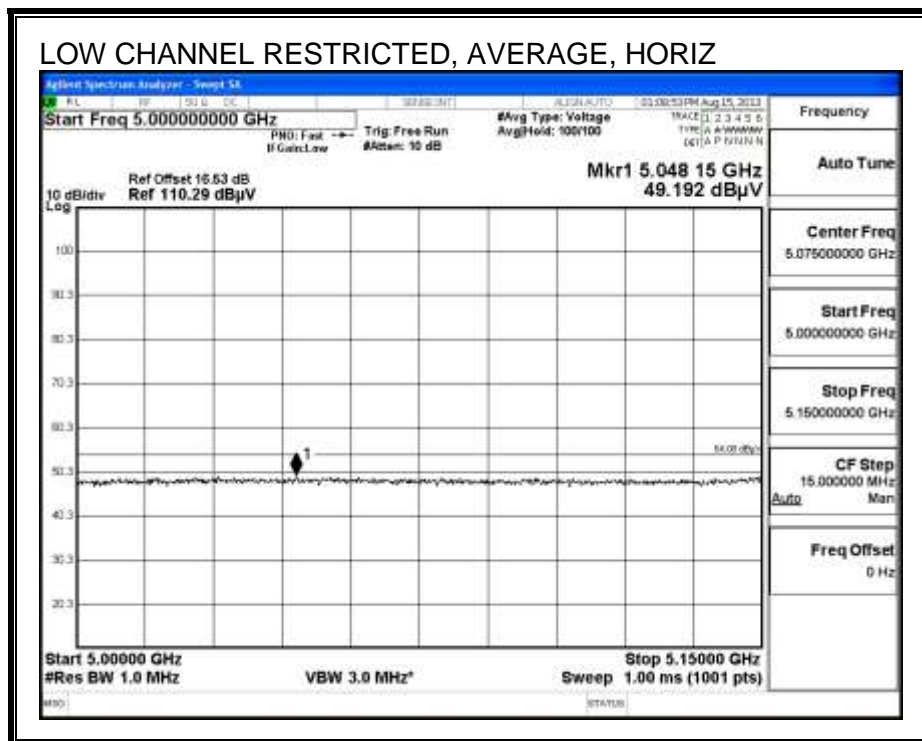
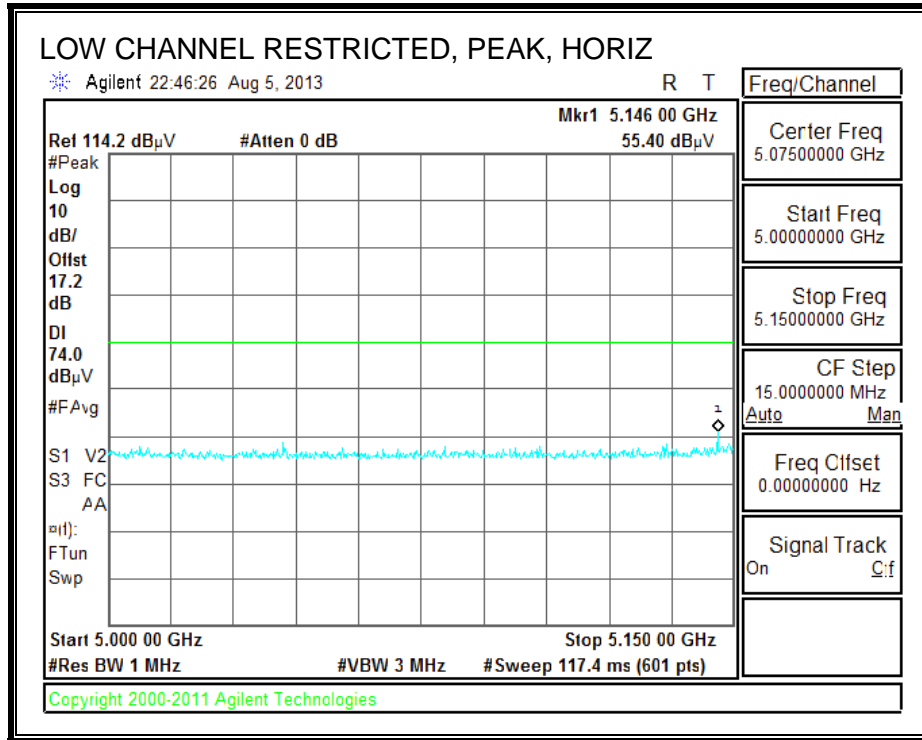


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

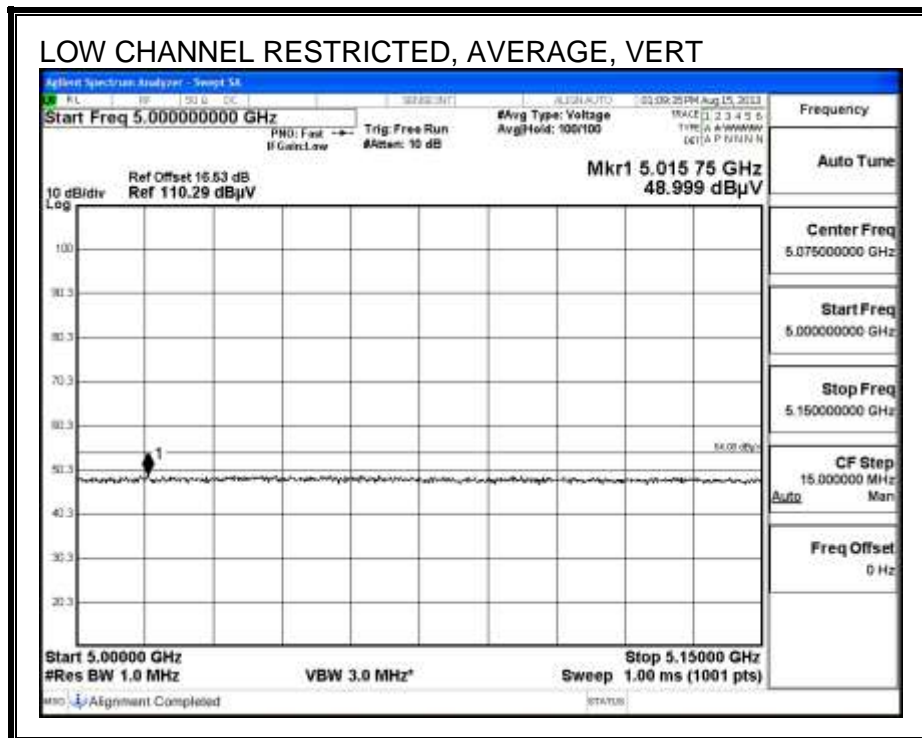
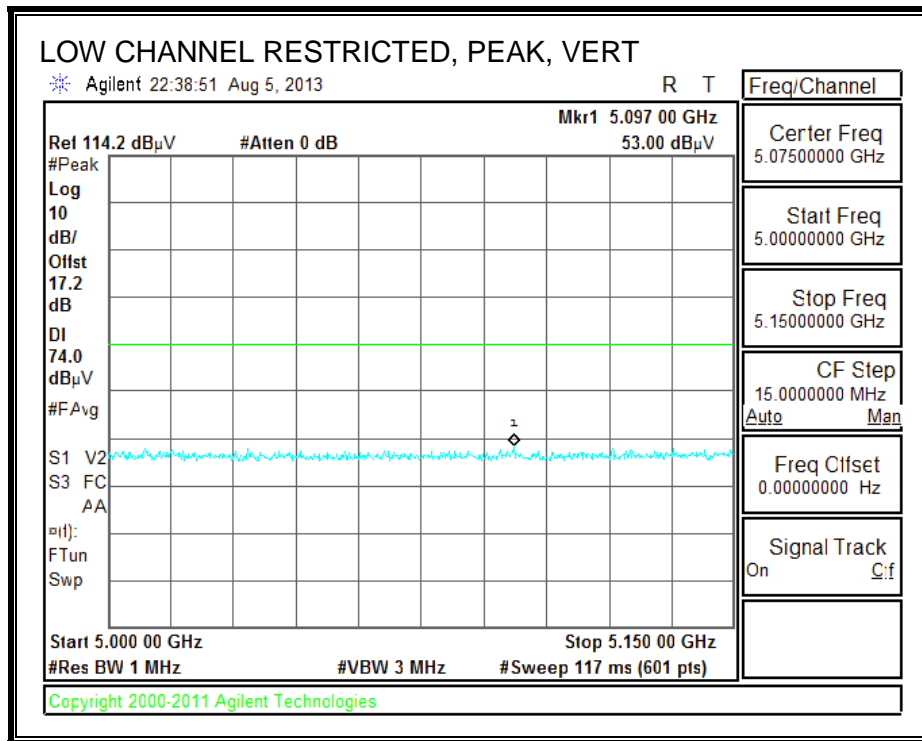
## HIGH CHANNEL DATA

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
3.907	39.66	PK	33.8	-31.5	41.96	53.97	-12.01	74	-32.04	201	V
1.802	39.3	PK	30.4	-34.8	34.9	53.97	-19.07	74	-39.1	201	V
9.675	35.96	PK	37.3	-25.7	47.56	53.97	-6.41	74	-26.44	201	V
11.134	27.89	PK	38.4	-25.2	41.09	53.97	-12.88	74	-32.91	100	V

**9.2.5. TX ABOVE 1 GHz 802.11ac HT40 MODE IN THE 5.2 GHz BAND**  
**RESTRICTED BANDEGE (LOW CHANNEL)**







### HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL  
VERTICAL

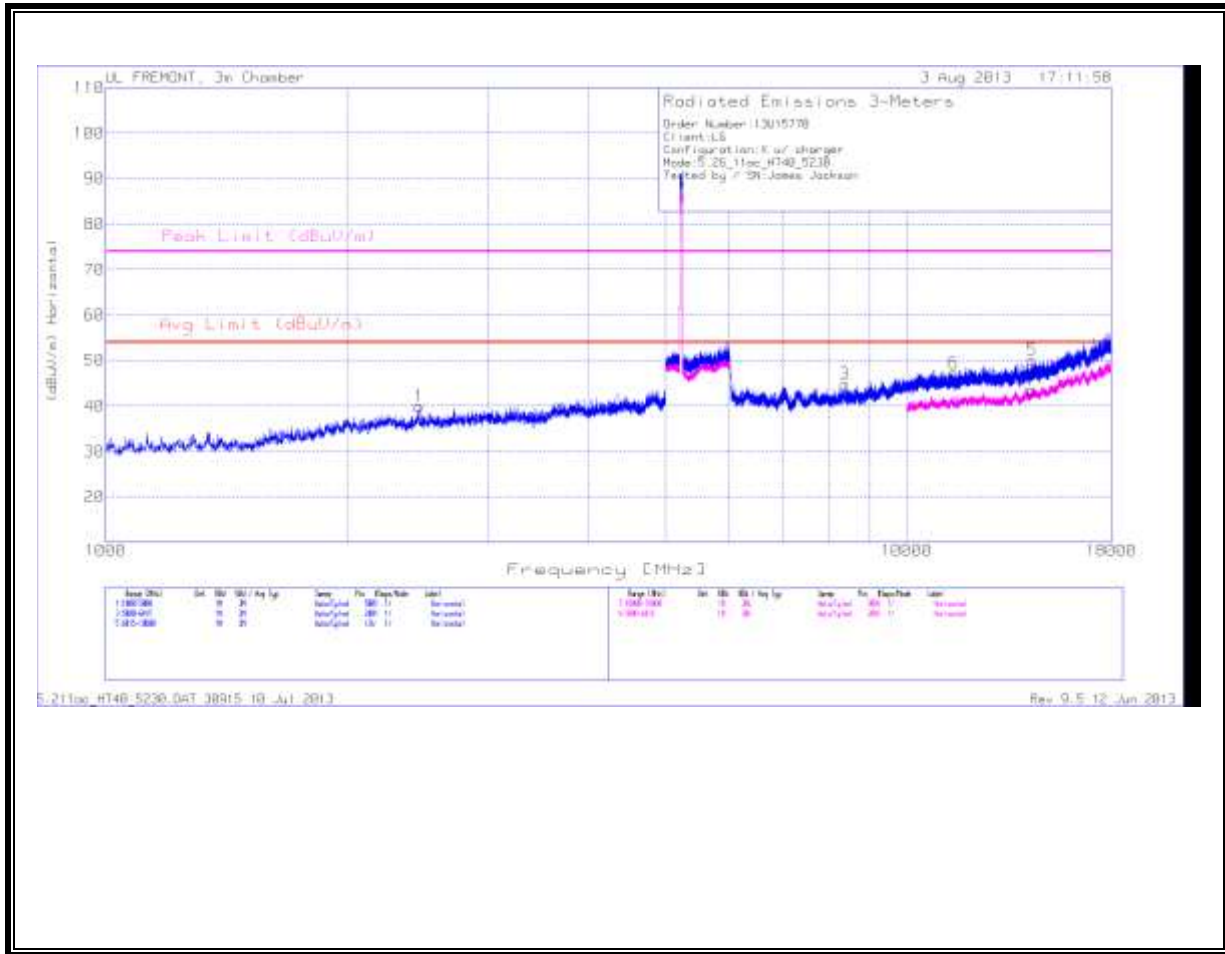


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

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
3.734	40.35	PK	33.8	-32.7	41.45	53.97	-12.52	74	-32.55	201	V
8.358	36.57	PK	36.1	-28.1	44.57	53.97	-9.4	74	-29.43	200	V
11.521	34.62	PK	38.7	-25.5	47.82	53.97	-6.15	74	-26.18	200	V
11.51	28.12	PK	38.7	-25.6	41.22	53.97	-12.75	74	-32.78	100	V

MID CHANNEL  
HORIZONTAL

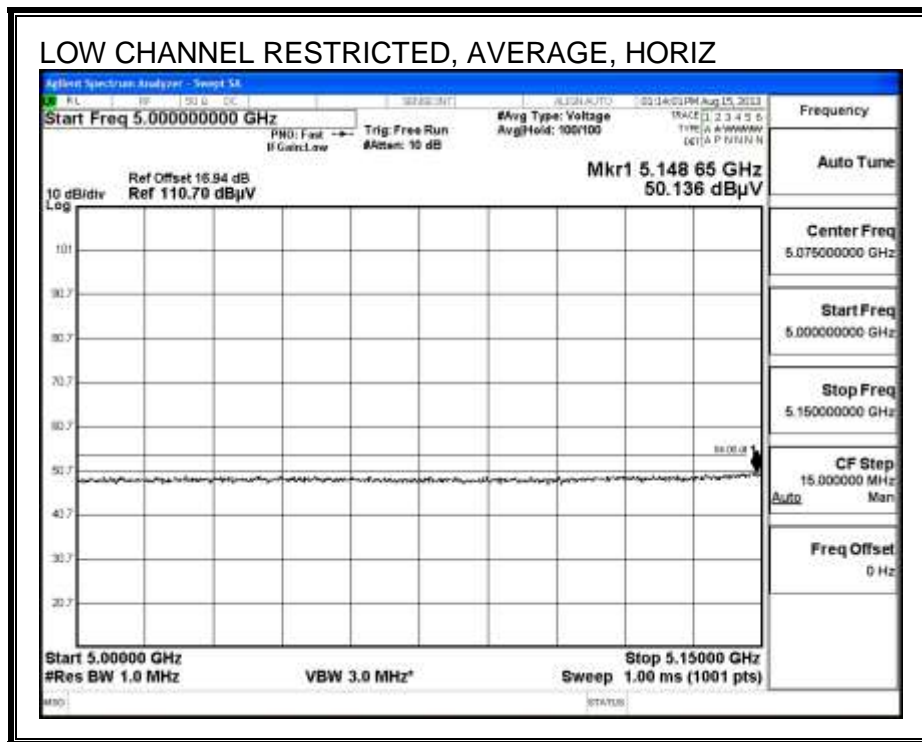
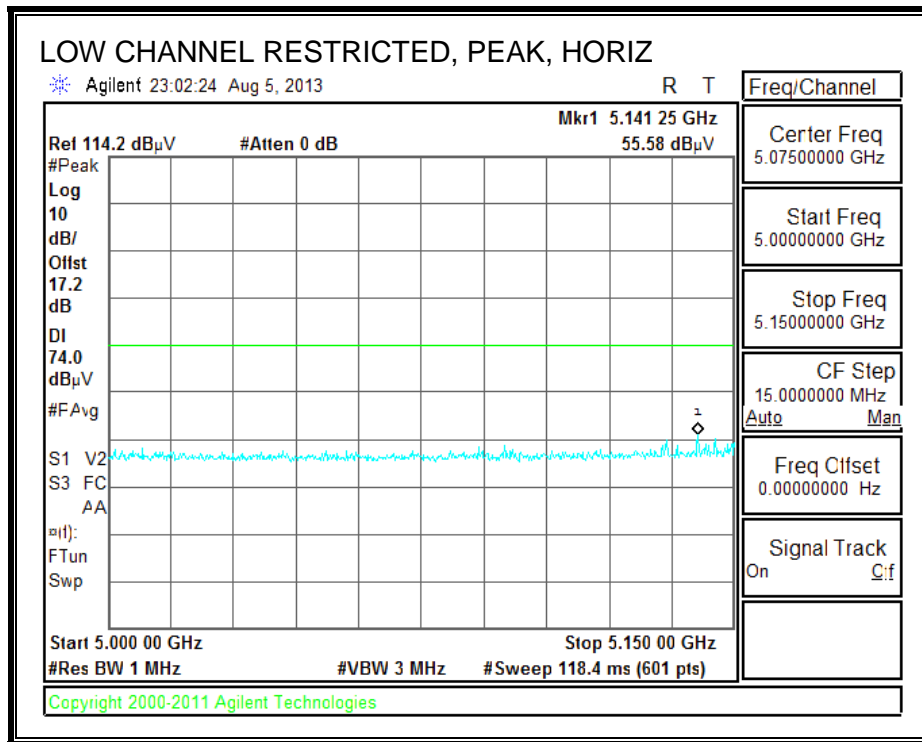


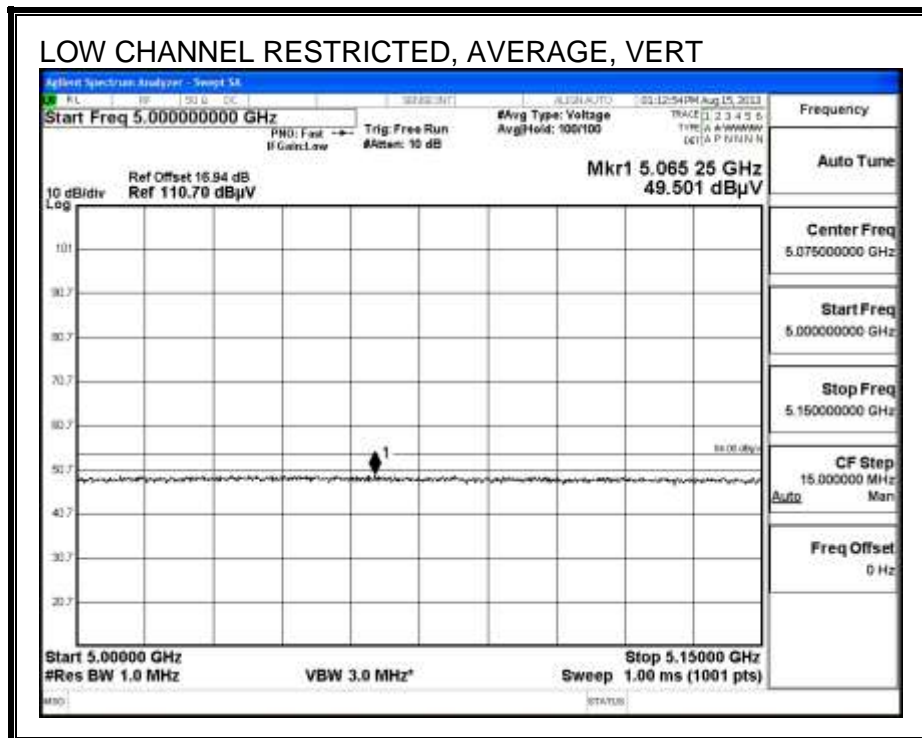
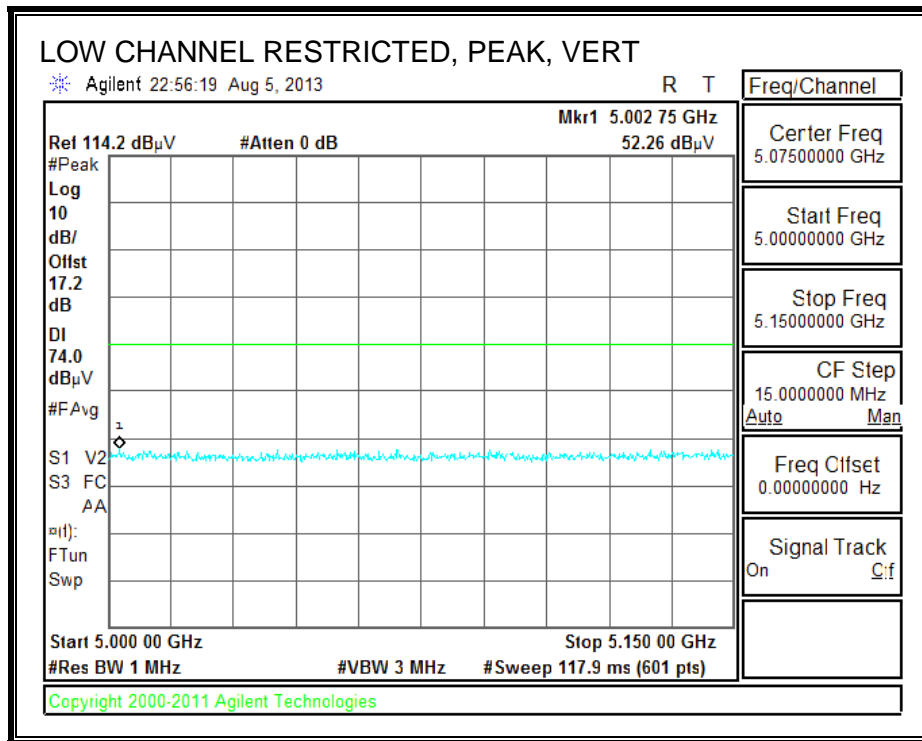
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

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
2.462	40.7	PK	32.4	-33.2	39.9	53.97	-14.07	74	-34.1	201	H
8.376	36.87	PK	36.1	-28.2	44.77	53.97	-9.2	74	-29.23	201	H
11.444	34.27	PK	38.6	-25.6	47.27	53.97	-6.7	74	-26.73	201	H
14.331	30.47	PK	39.8	-26.8	43.47	53.97	-10.5	74	-30.53	201	H

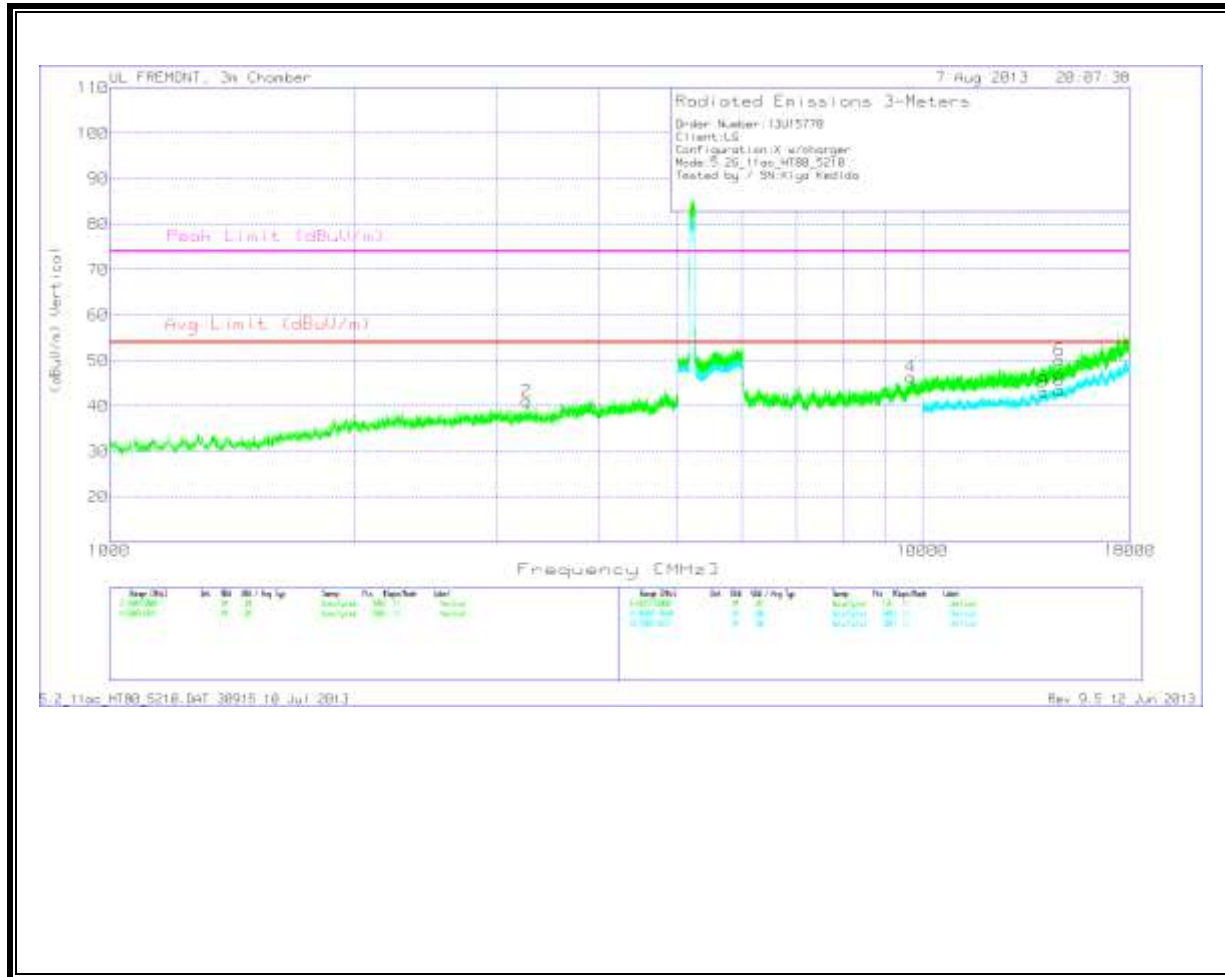
**9.2.6. TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.2 GHz BAND**  
**RESTRICTED BANDEGE (LOW CHANNEL)**





### HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL  
 VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

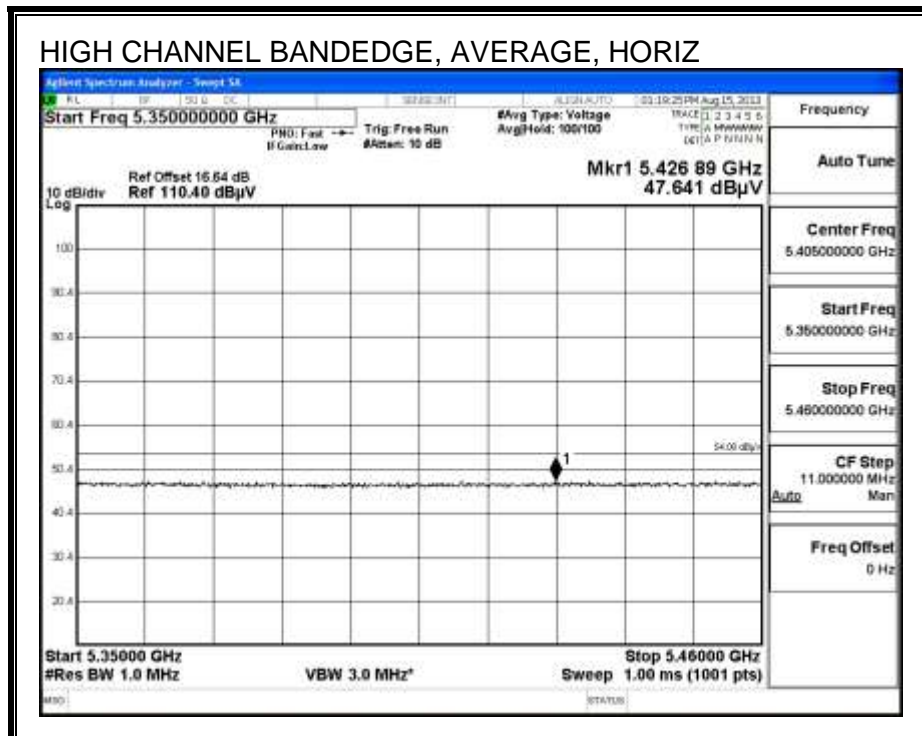
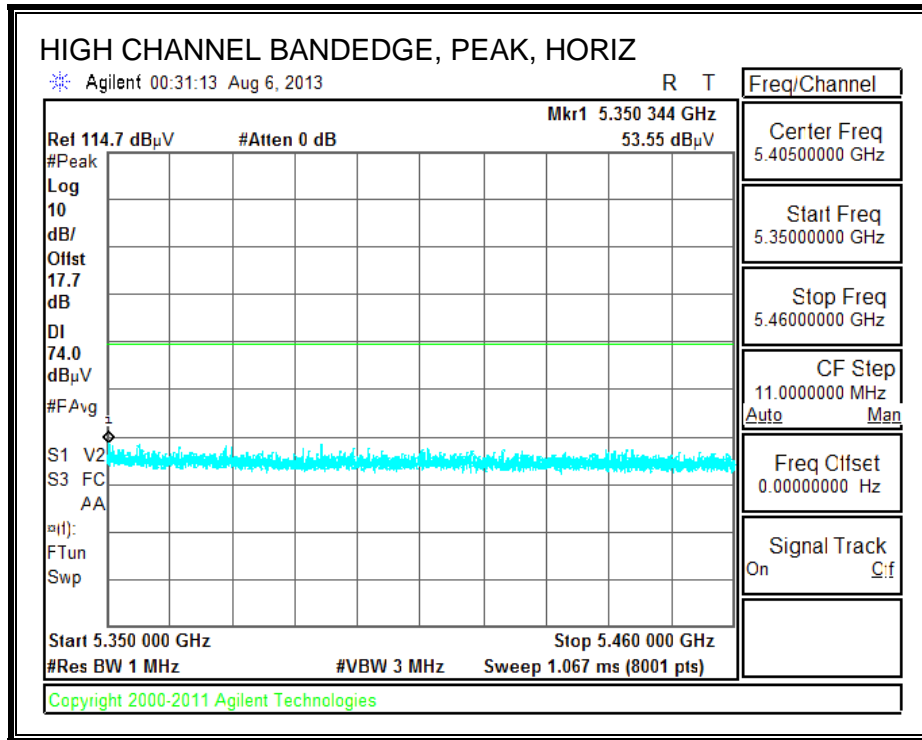


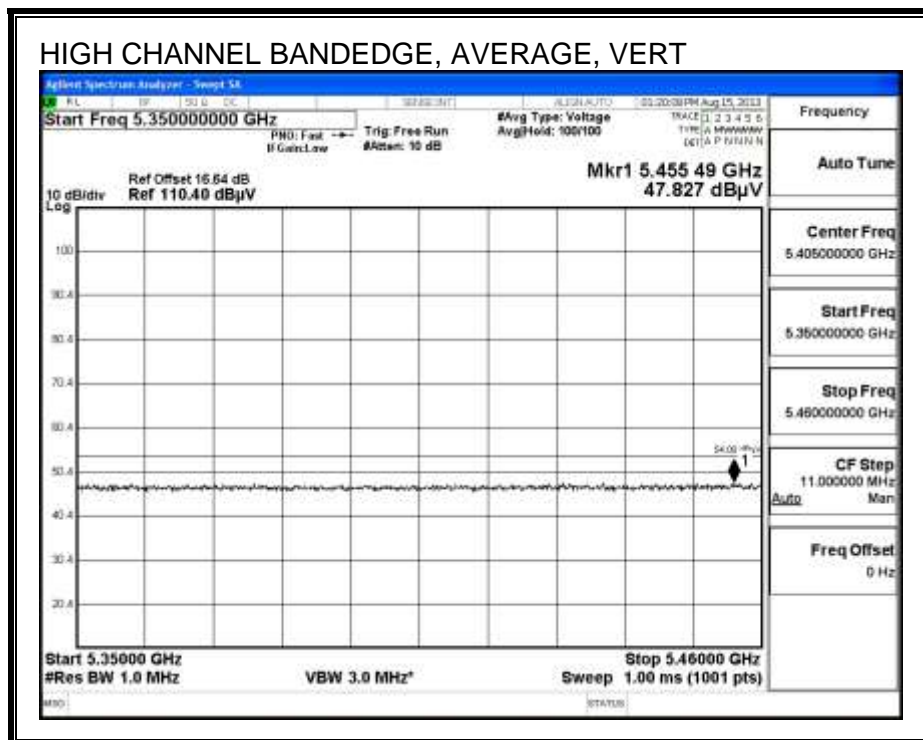
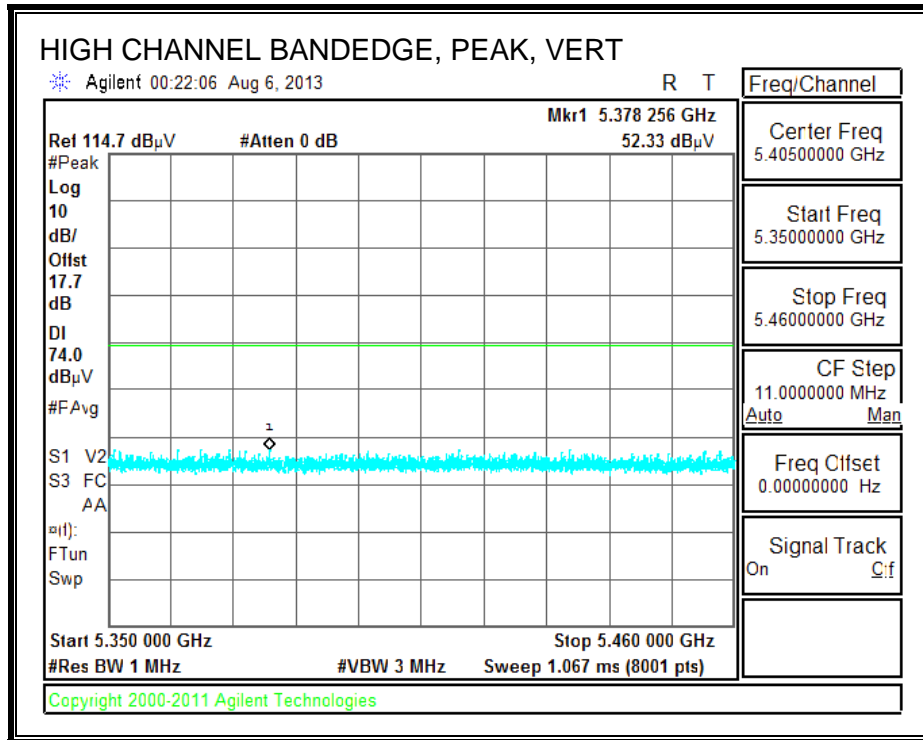
LOW CHANNEL DATA

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
3.262	40.09	PK	33.3	-32.3	41.09	53.97	-12.88	74	-32.91	100	V
9.681	34.96	PK	37.3	-25.9	46.36	53.97	-7.61	74	-27.64	100	V
14.759	29.42	PK	39.9	-25.9	43.42	53.97	-10.55	74	-30.58	100	V
14.101	30.05	PK	39.5	-26.4	43.15	53.97	-10.82	74	-30.85	100	V

### 9.3. 5.3 GHz

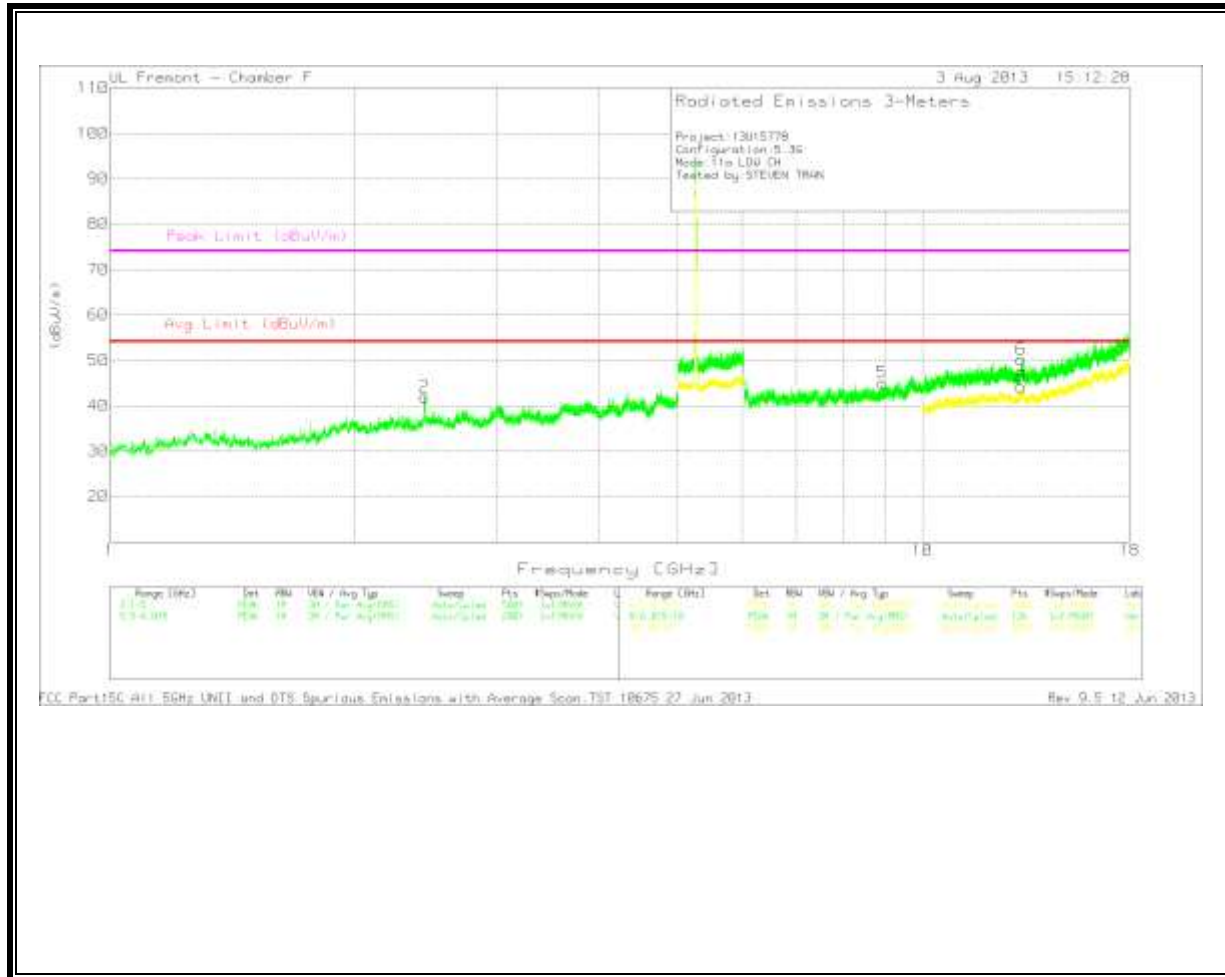
#### 9.3.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)





### HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL  
 VERTICAL

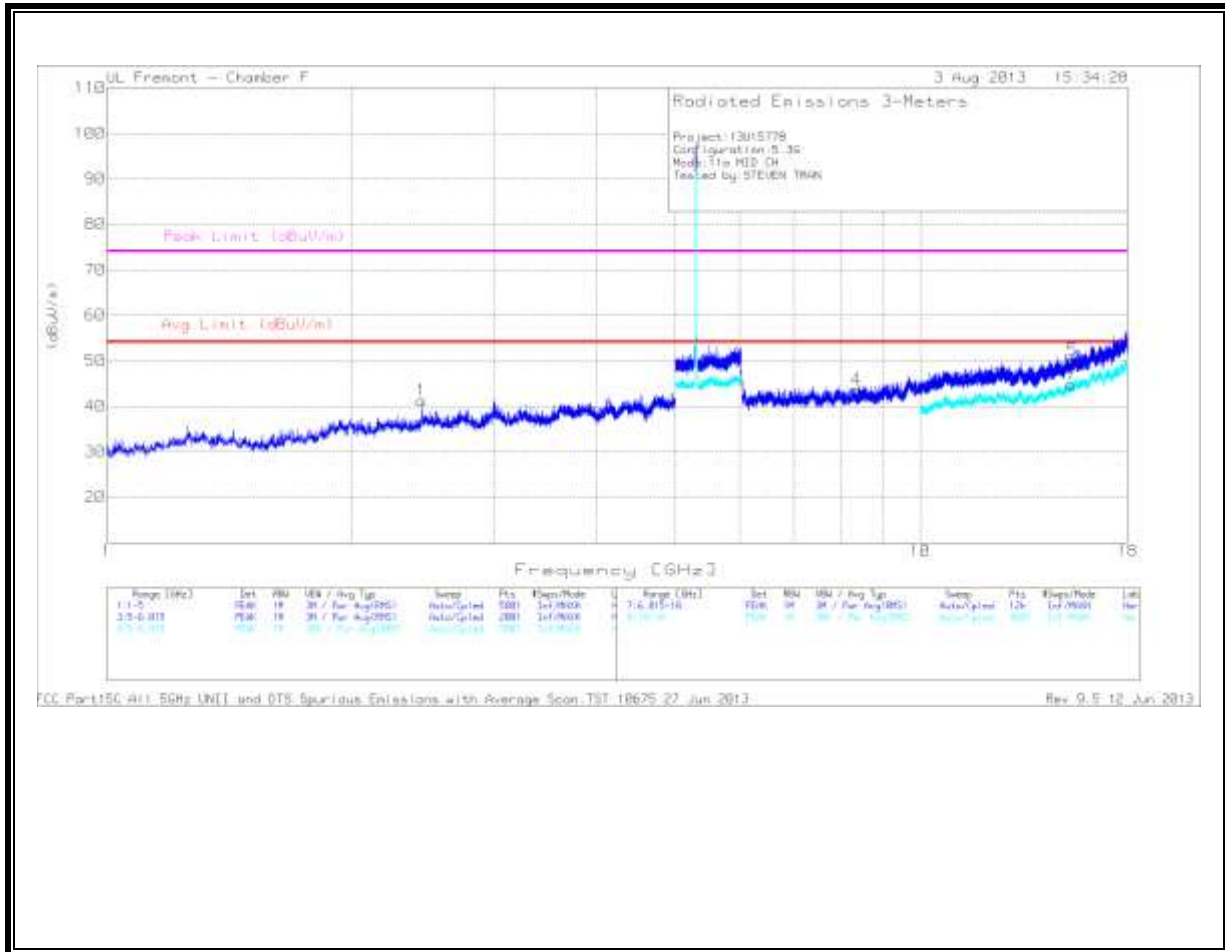


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cb/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Av Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.442	43.04	PK	32.3	-33.4	41.94	54	-12.06	74	-32.06	0-360	200	V
5	8.923	35.99	PK	36.3	-27.2	45.09	54	-8.91	74	-28.91	0-360	200	V
8	13.233	30.98	PK	39.2	-26	44.18	54	-9.82	74	-29.82	0-360	101	V

MID CHANNEL  
HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cb/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Av Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.439	42.29	PK	32.3	-33.4	41.19	54	-12.81	74	-32.81	0-360	199	H
4	8.356	35.72	PK	36	-28.1	43.62	54	-10.38	74	-30.38	0-360	100	H
7	15.332	29.87	PK	40.5	-25.6	44.77	54	-9.23	74	-29.23	0-360	199	H

HIGH CHANNEL  
VERTICAL



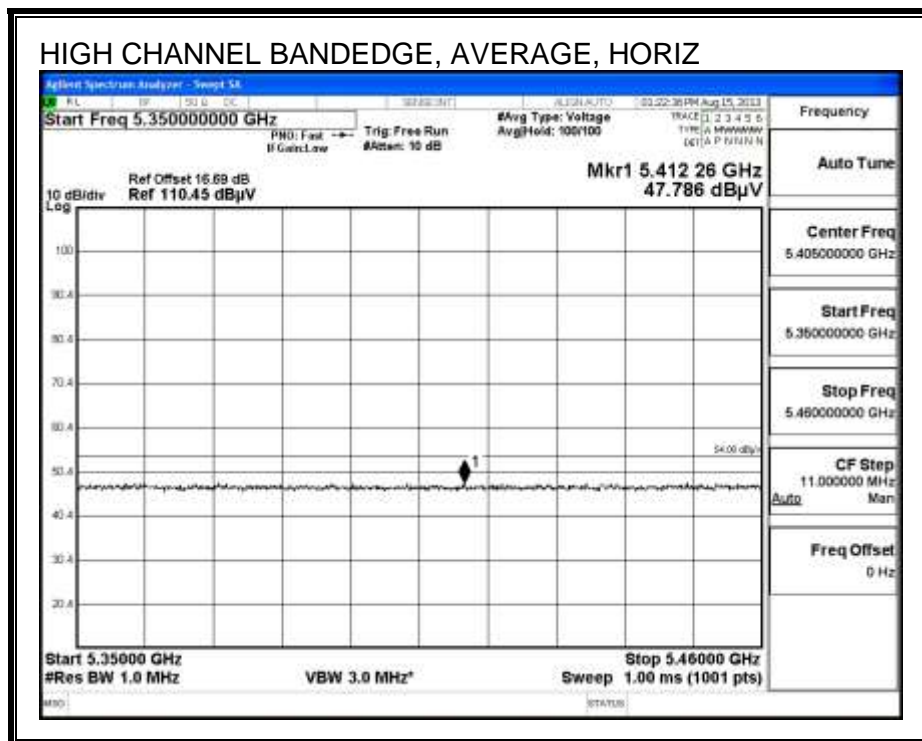
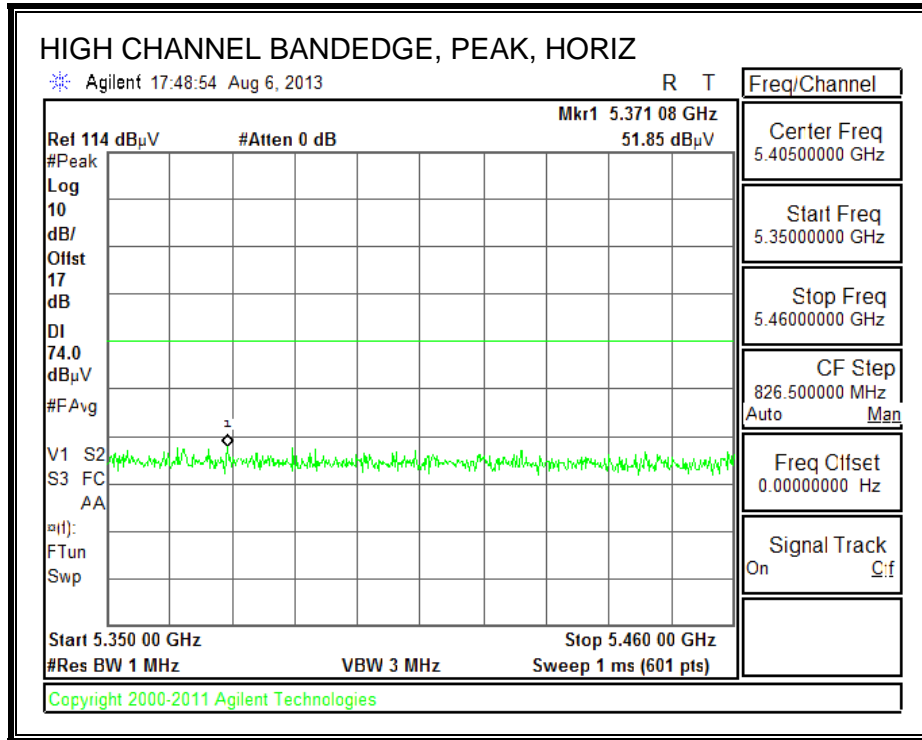
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

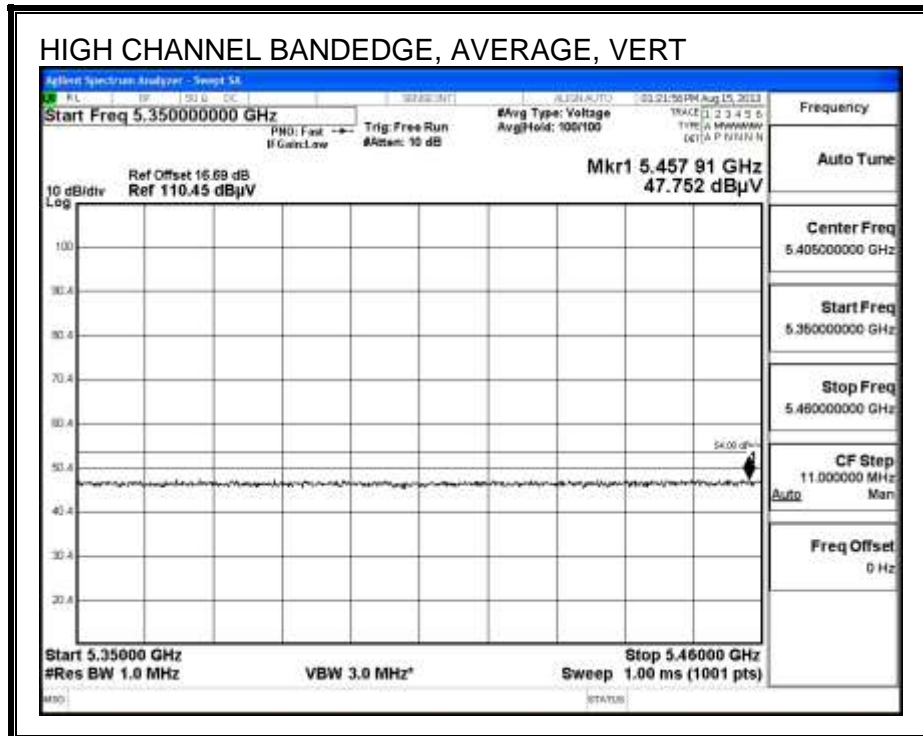
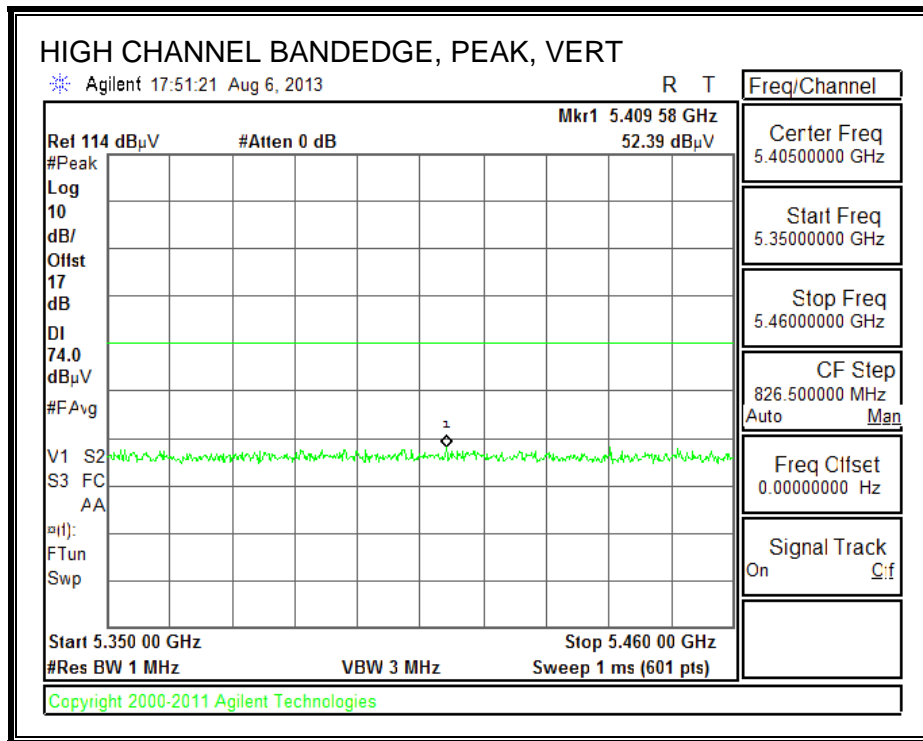


## HIGH CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cb/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.456	41.5	PK	32.3	-33.4	40.4	53.97	-13.57	74	-33.6	0-360	100	V
5	7.378	37.97	PK	35.7	-28.6	45.07	53.97	-8.9	74	-28.93	0-360	201	V
8	11.699	28.65	PK	39.1	-25.7	42.05	53.97	-11.92	74	-31.95	0-360	201	V

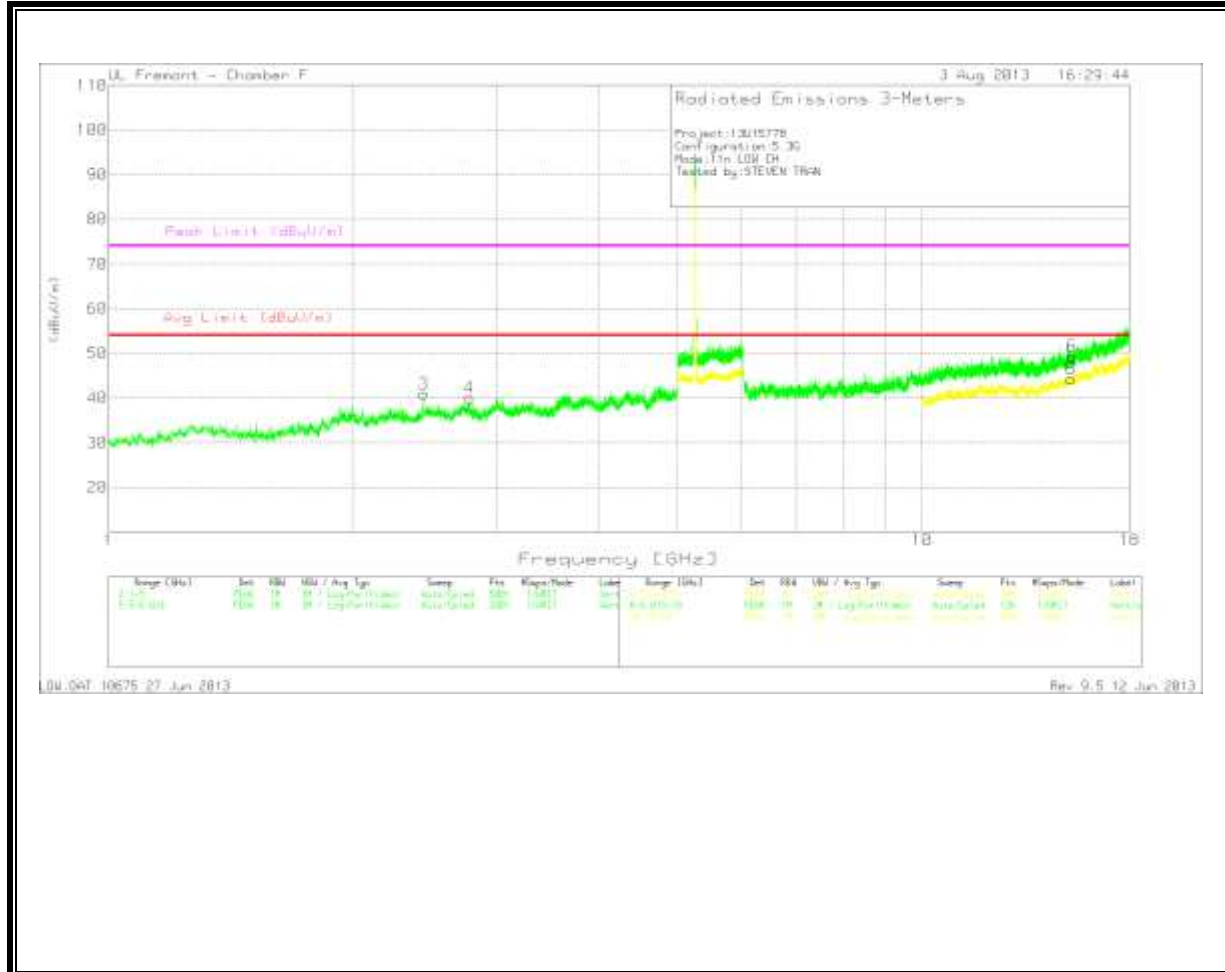
### 9.3.3. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)





**HARMONICS AND SPURIOUS EMISSIONS**

LOW CHANNEL  
VERTICAL

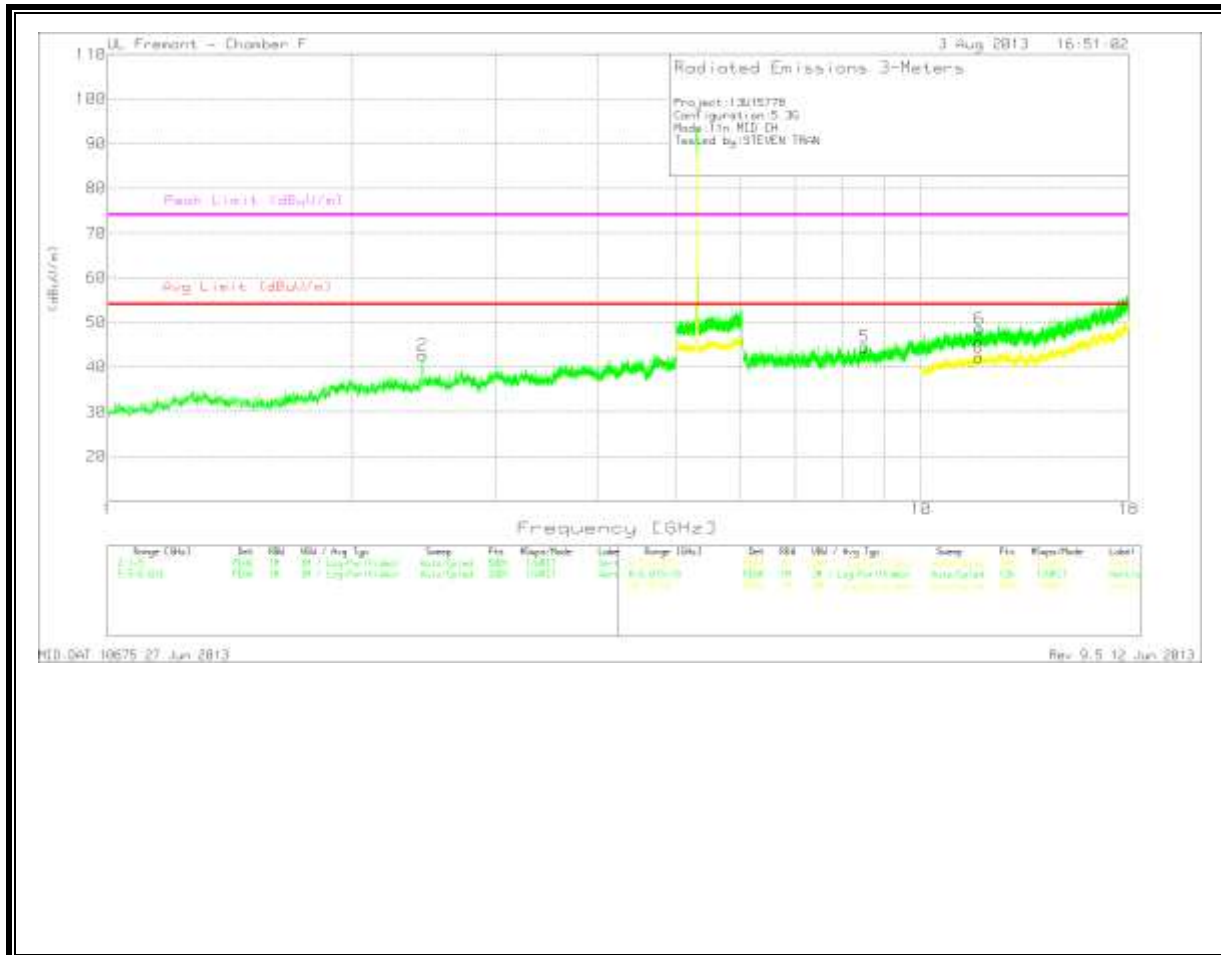


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/C b/Filtr/ Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	2.44	42	PK	32.3	-33.4	40.9	53.97	-13.07	74	-33.1	0-360	100	V
4	2.777	40.34	PK	32.7	-33	40.04	53.97	-13.93	74	-33.96	0-360	100	V
8	15.251	29.54	PK	40.4	-25.6	44.34	53.97	-9.63	74	-29.66	0-360	101	V

MID CHANNEL  
VERTICAL

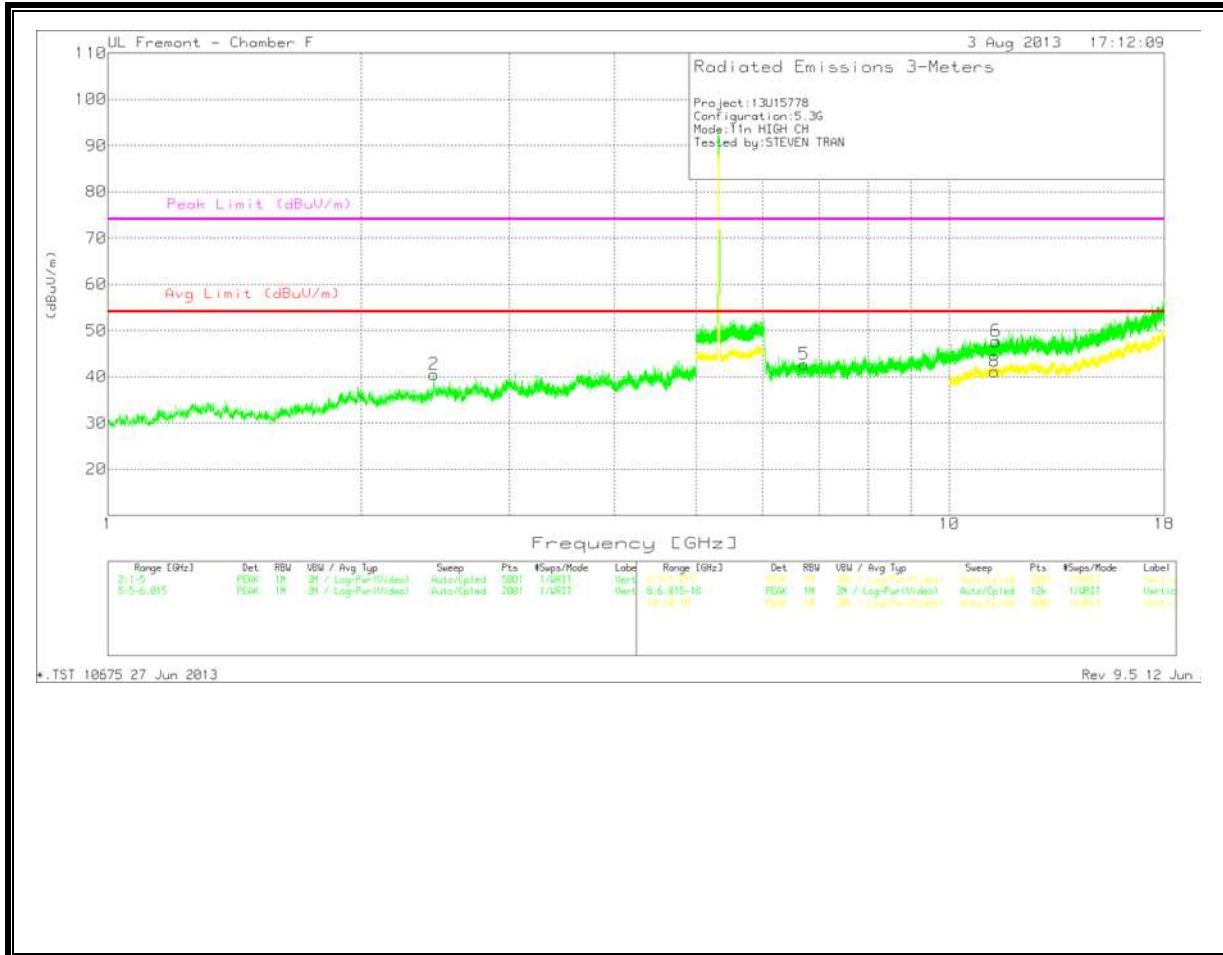


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (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
2	2.439	43.8	PK	32.3	-33.4	42.7	53.97	-11.27	74	-31.3	0-360	100	V
5	8.52	35.83	PK	36	-27.3	44.53	53.97	-9.44	74	-29.47	0-360	101	V
8	11.772	28.44	PK	39.2	-25.4	42.24	53.97	-11.73	74	-31.76	0-360	201	V

HIGH CHANNEL  
VERTICAL



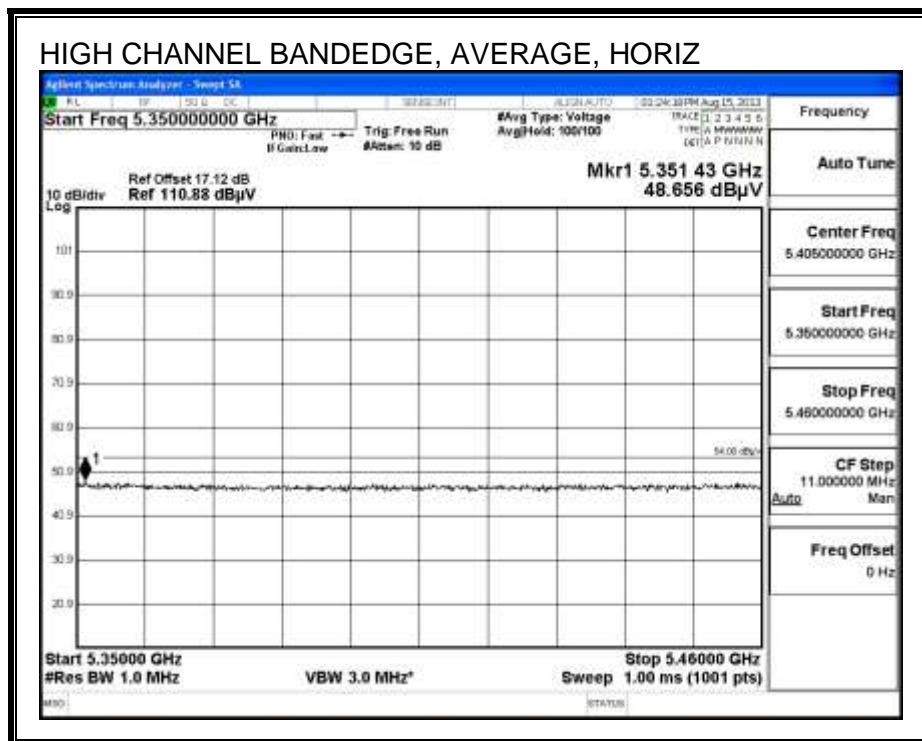
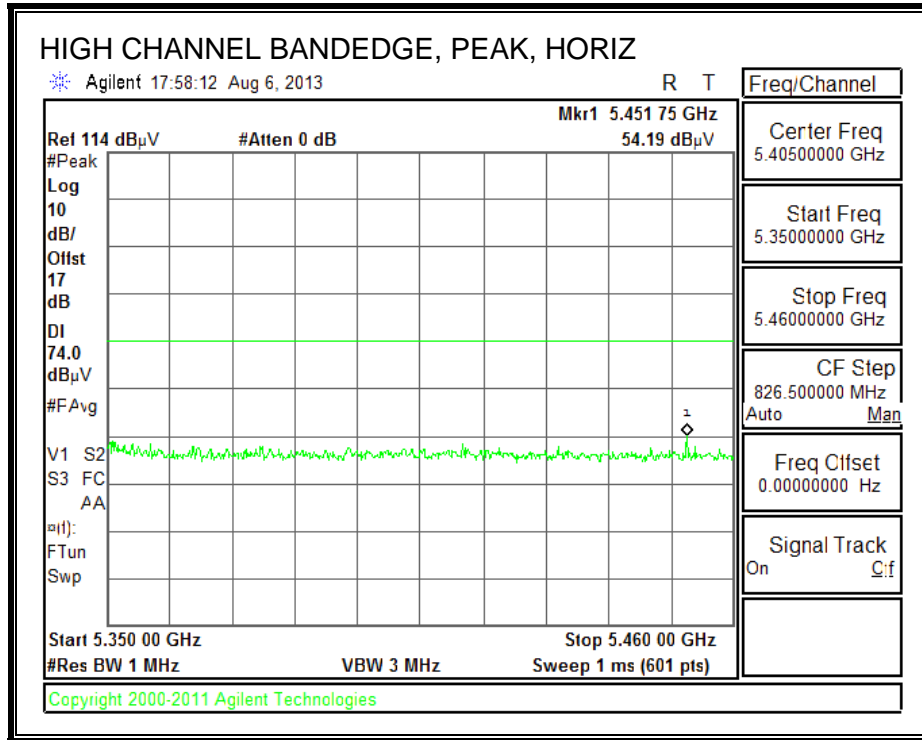
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

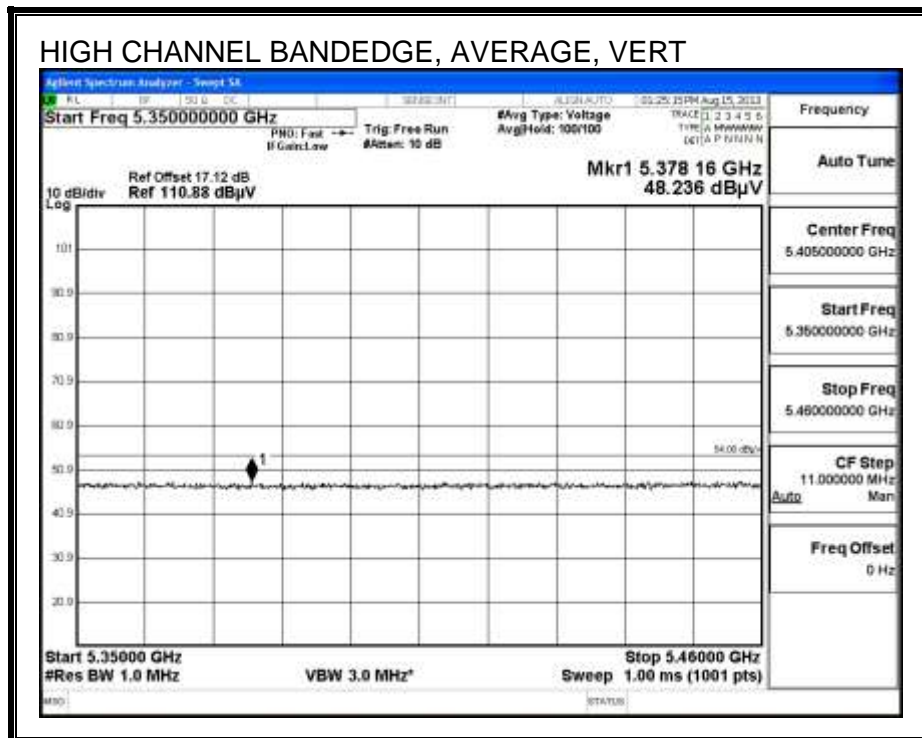
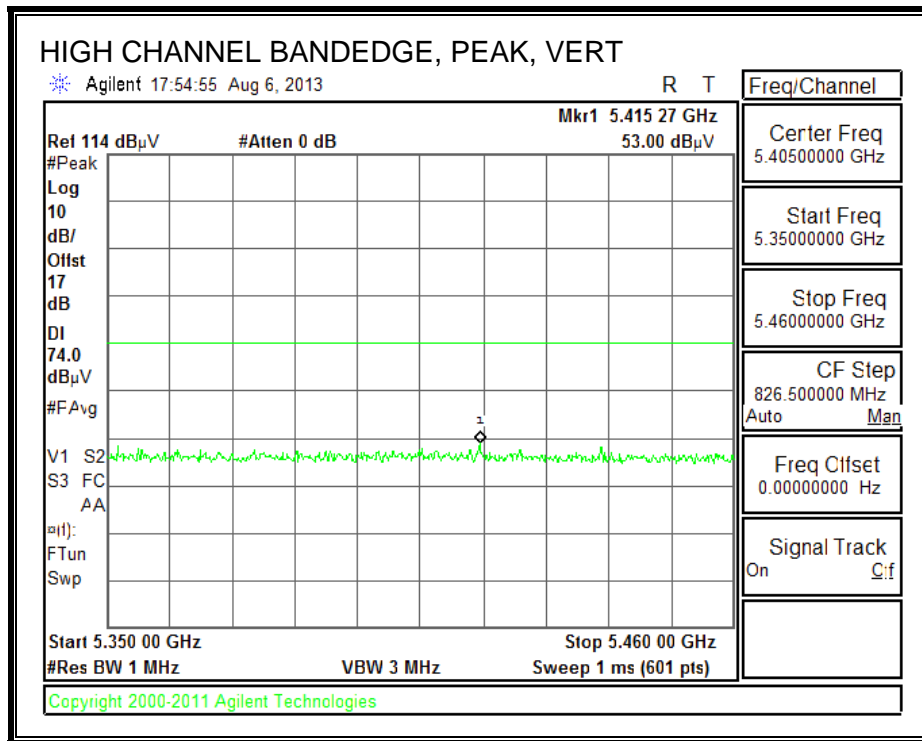


## HIGH CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cb/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.448	38.33	PK	32.3	-33.4	37.23	53.97	-16.74	74	-36.77	0-360	100	H
3	6.24	36.43	PK	35.5	-30.1	41.83	53.97	-12.14	74	-32.17	0-360	100	H
7	11.772	28.46	PK	39.2	-25.4	42.26	53.97	-11.71	74	-31.74	0-360	199	H

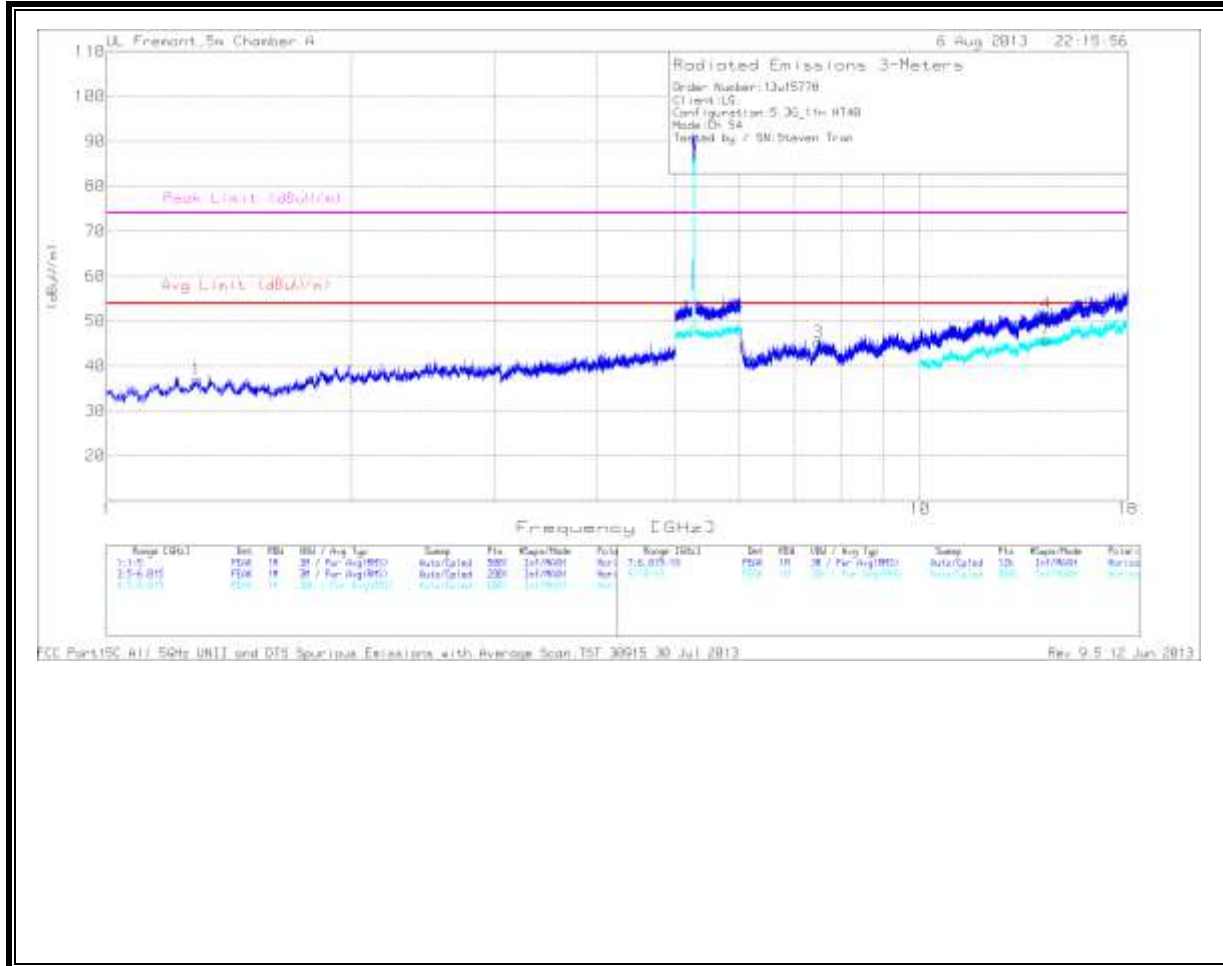
**9.3.5. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.3 GHz BAND  
 AUTHORIZED BANDEDGE (HIGH CHANNEL)**





**HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL  
 HORIZONTAL**

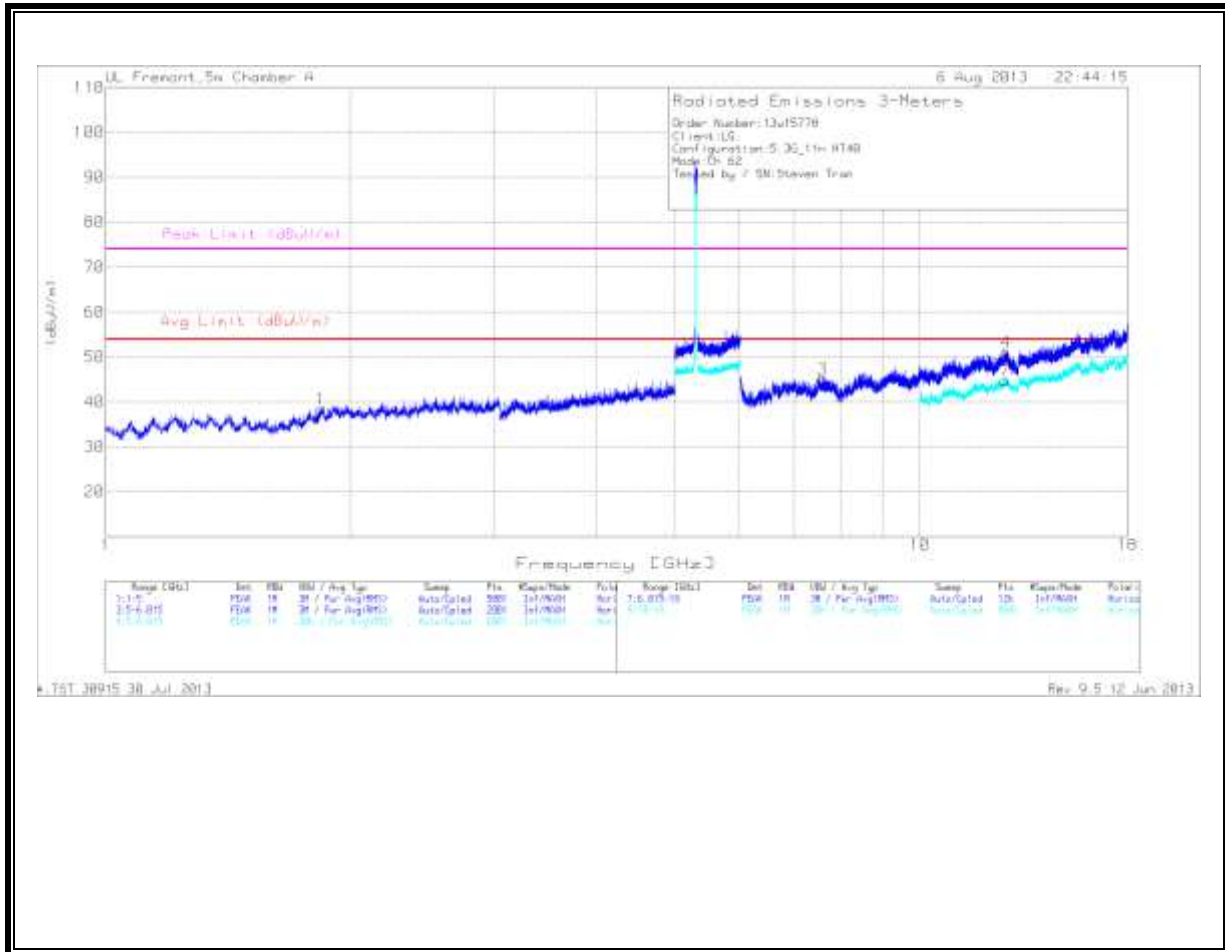


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (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
1.29	41.94	PK	30.2	-35.3	36.84	53.97	-17.13	74	-37.16	0-360	100	H
7.502	34.61	PK	35.4	-24.8	45.21	53.97	-8.76	74	-28.79	0-360	100	H
14.294	29.18	PK	39.6	-22.8	45.98	53.97	-7.99	74	-28.02	0-360	100	H

MID CHANNEL  
HORIZONTAL

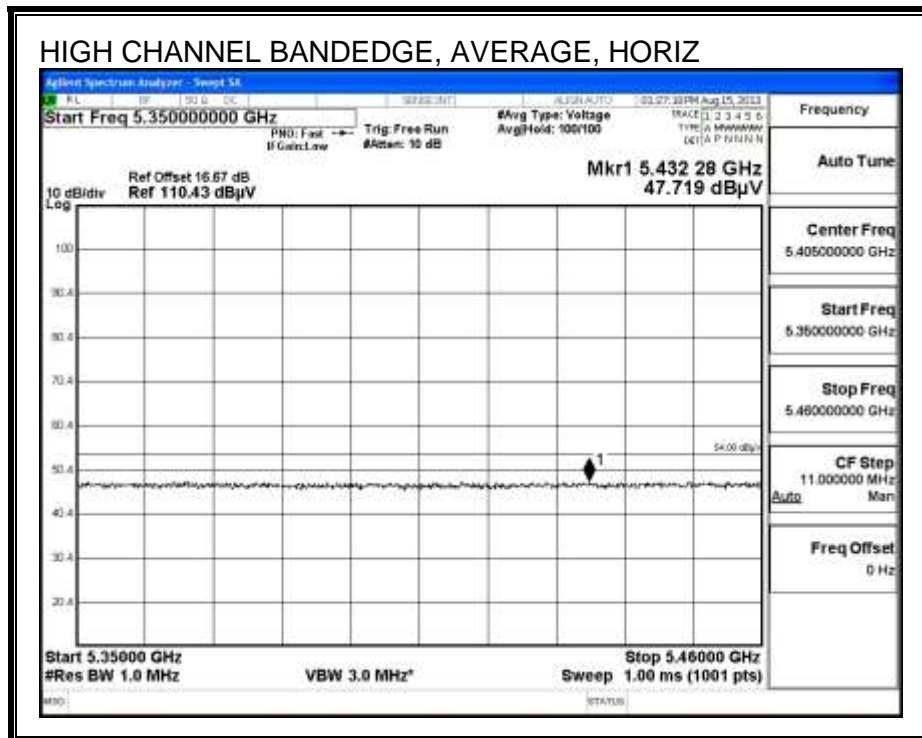
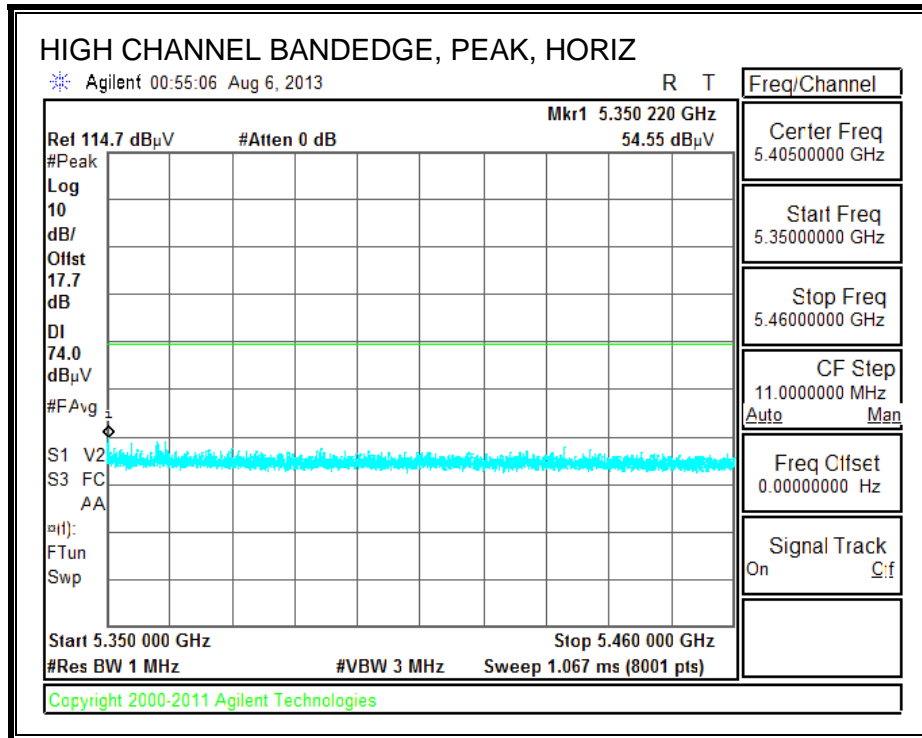


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

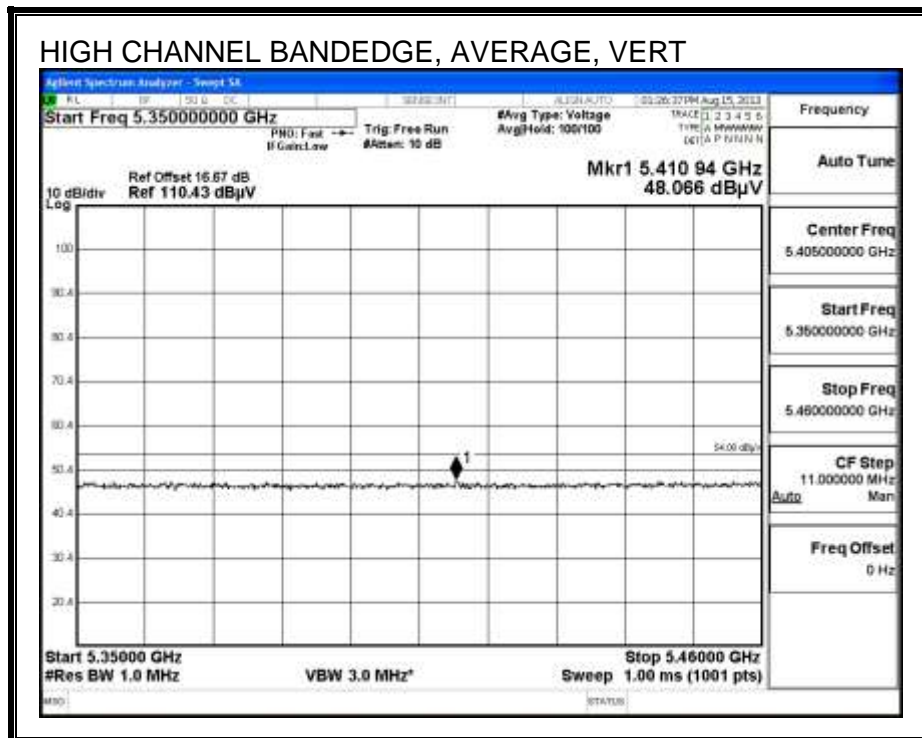
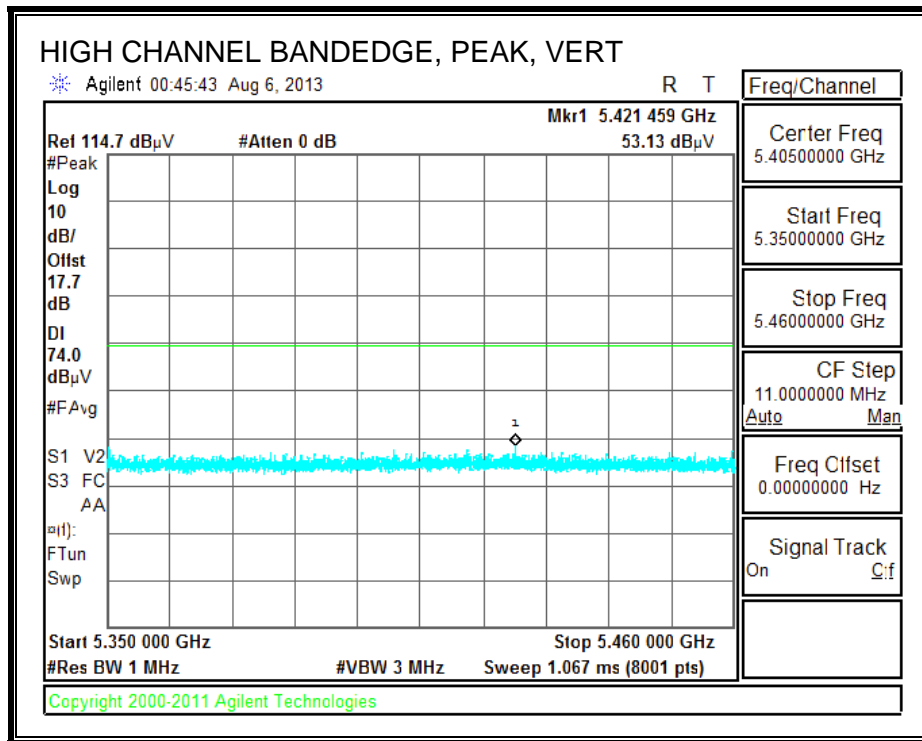
MID CHANNEL DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cb/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.837	40.78	PK	30.9	-33.3	38.38	53.97	-15.59	74	-35.62	0-360	200	H
7.59	35.38	PK	35.5	-25.8	45.08	53.97	-8.89	74	-28.92	0-360	100	H
12.724	27.55	PK	39.2	-22	44.75	53.97	-9.22	74	-29.25	0-360	200	H

### 9.3.7. TX ABOVE 1 GHz 802.11ac HT20 MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)

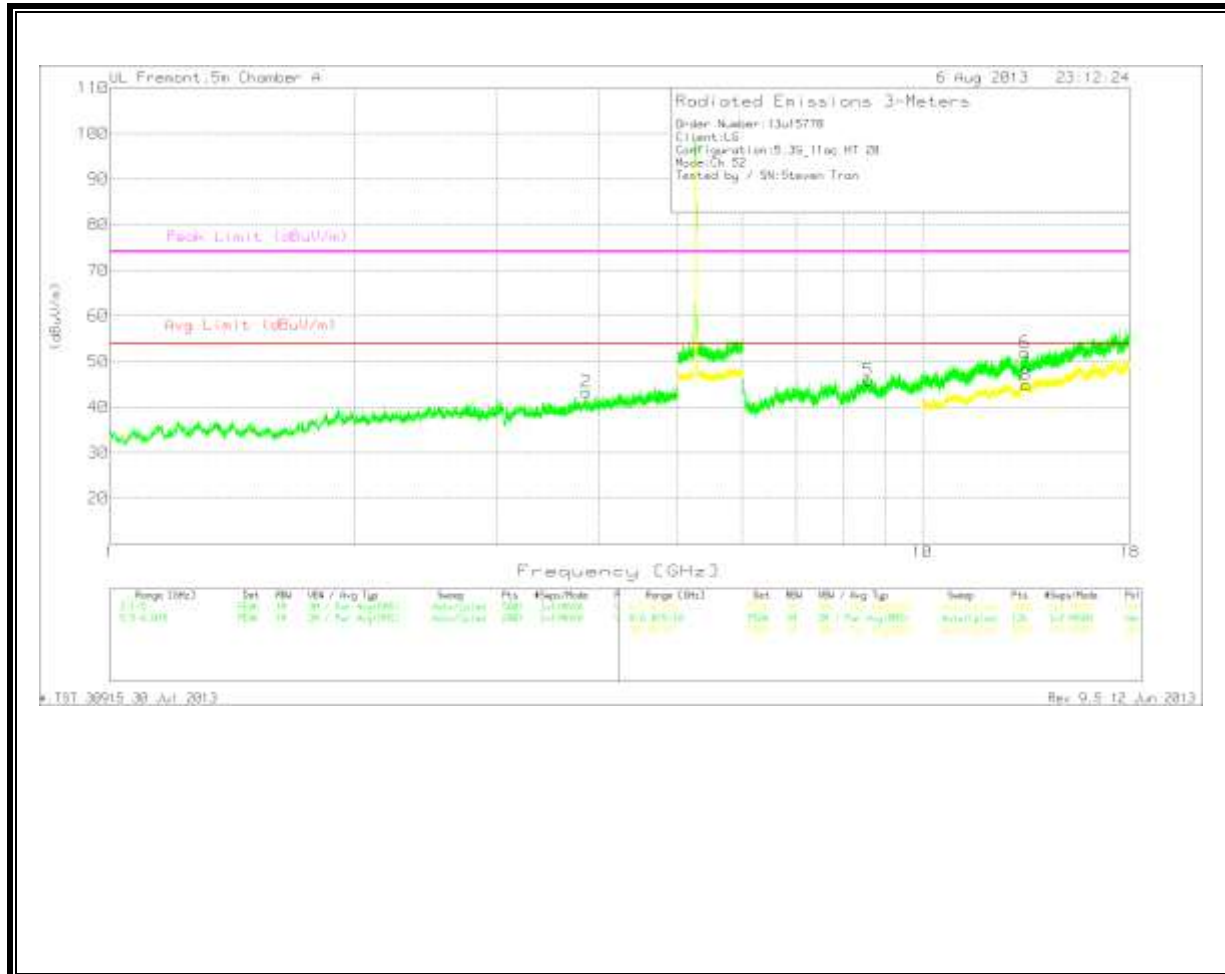






**HARMONICS AND SPURIOUS EMISSIONS**

LOW CHANNEL  
 VERTICAL

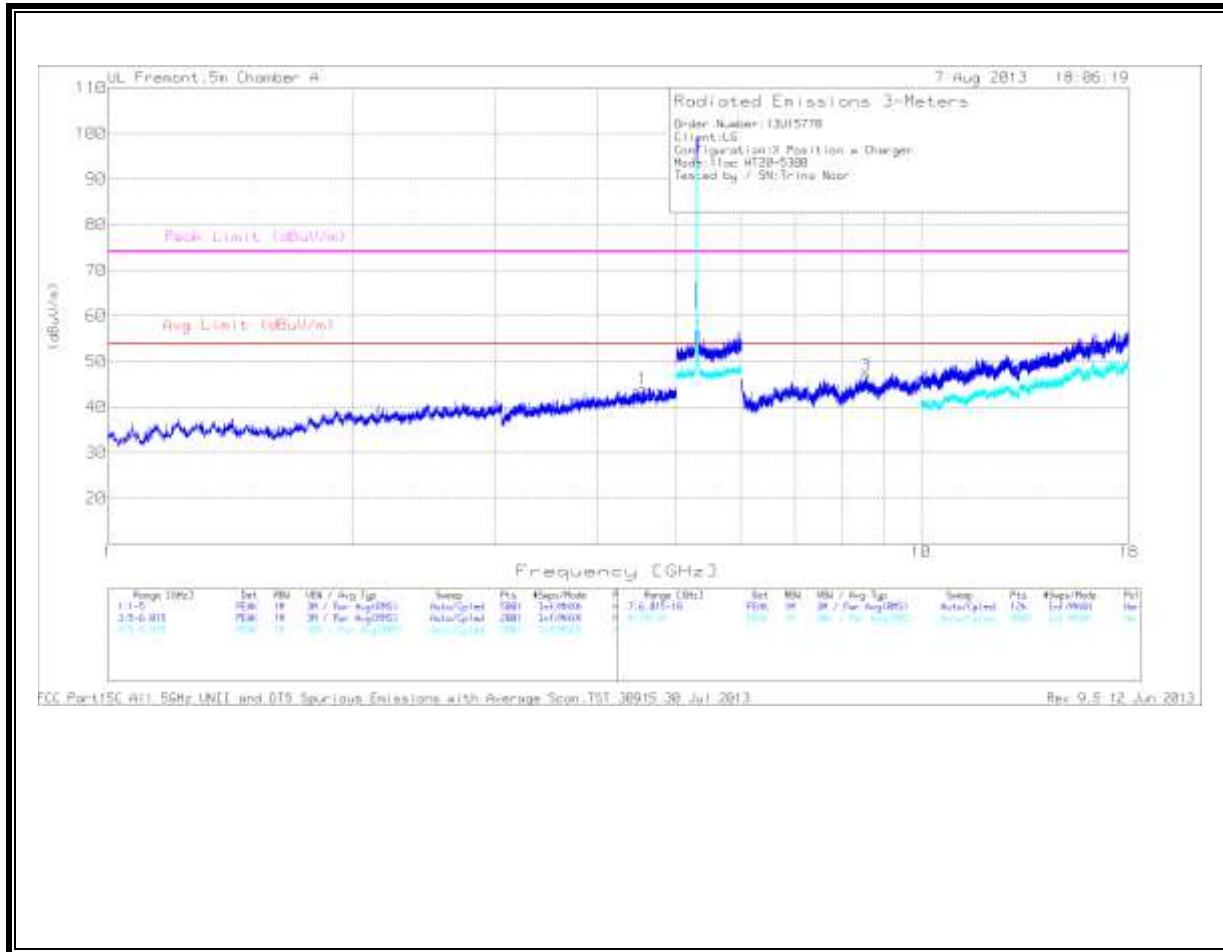


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

## LOW CHANNEL DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cb/FI tr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3.859	40.03	PK	33.6	-30.3	43.33	53.97	-10.64	74	-30.67	0-360	100	V
8.578	36.03	PK	35.7	-25.8	45.93	53.97	-8.04	74	-28.07	0-360	200	V
13.417	28.36	PK	39.1	-22.6	44.86	53.97	-9.11	74	-29.14	0-360	200	V

MID CHANNEL  
HORIZONTAL

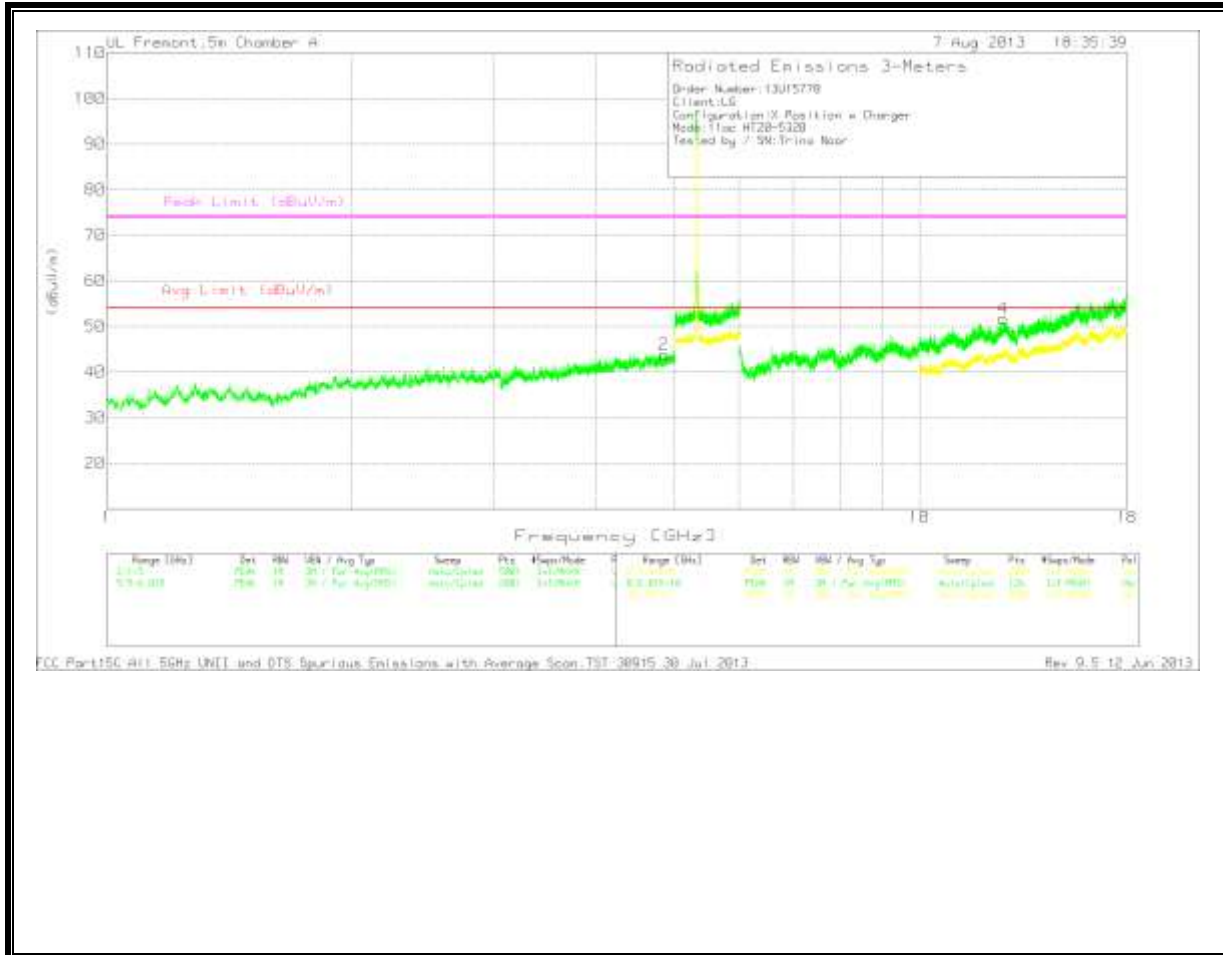


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cb/FI tr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4.548	39.01	PK	33.8	-28.9	43.91	53.97	-10.06	74	-30.09	0-360	100	H
8.556	36.58	PK	35.7	-25.4	46.88	53.97	-7.09	74	-27.12	0-360	100	H

HIGH CHANNEL  
VERTICAL

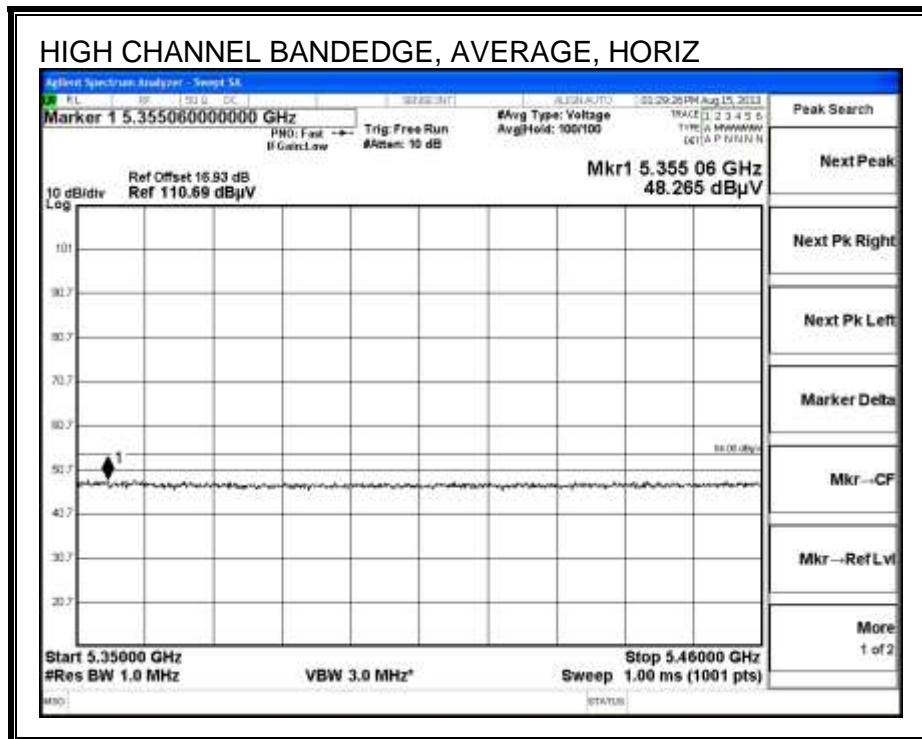
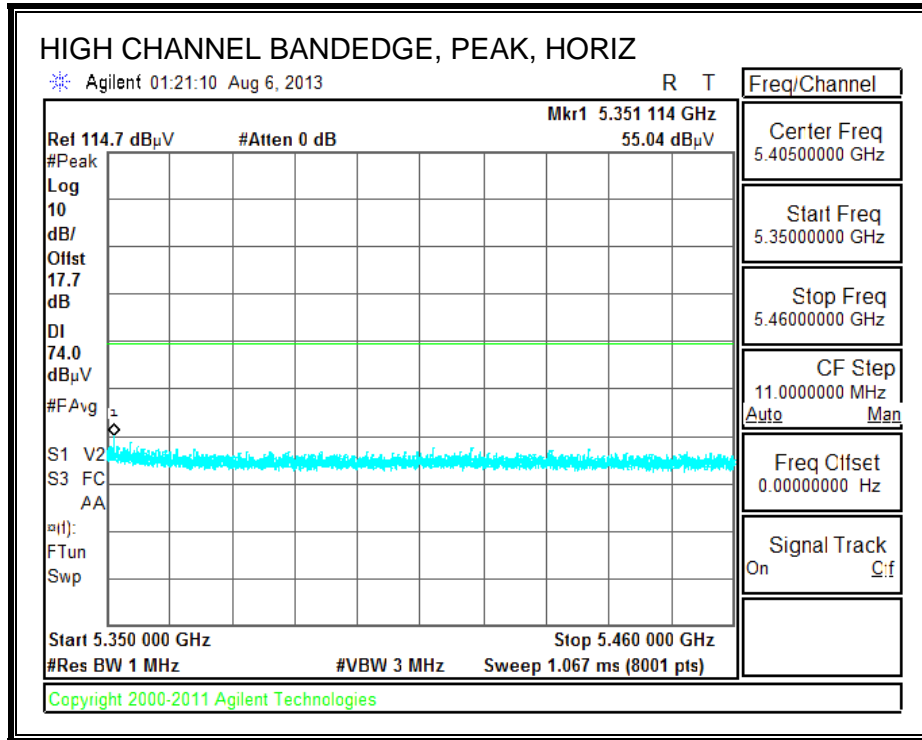


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

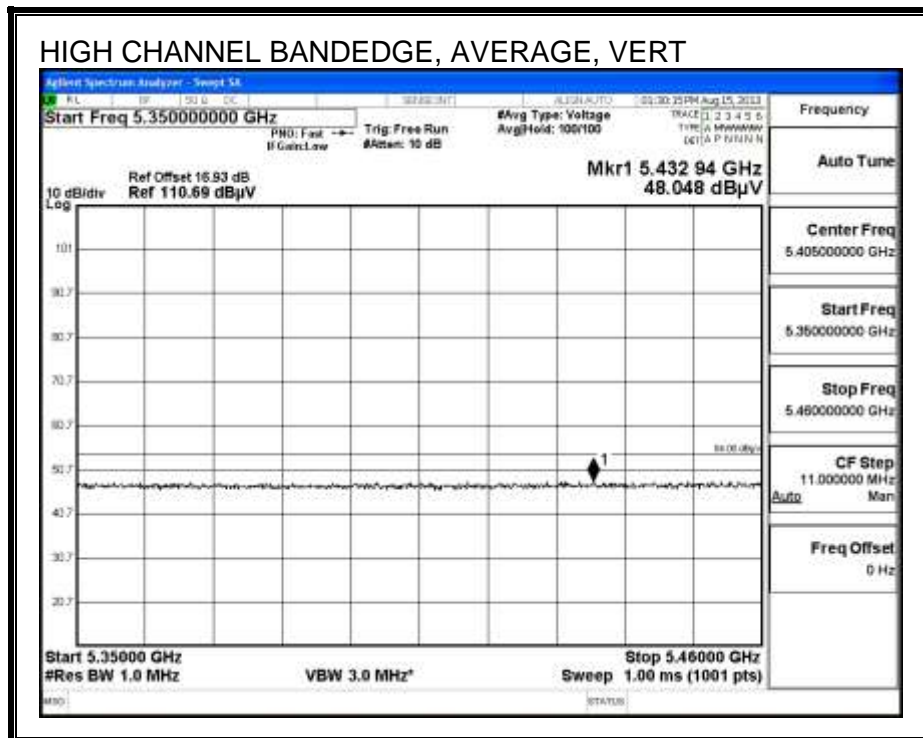
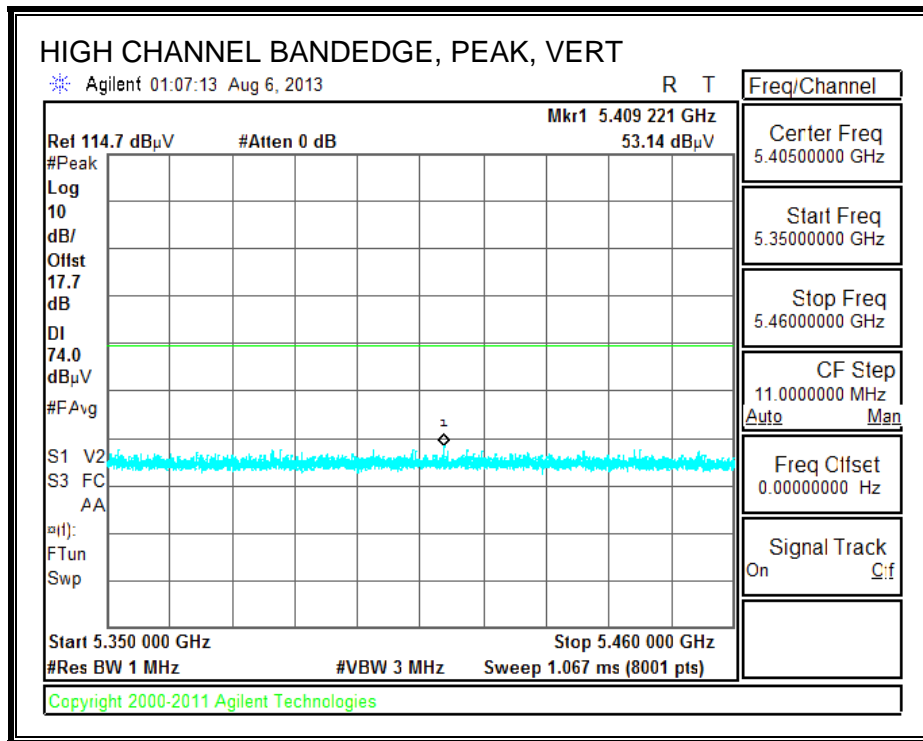
HIGH CHANNEL DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cb/FI tr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4.849	37.47	PK	33.9	-27.6	43.77	53.97	-10.2	74	-30.23	0-360	200	V
12.675	34.92	PK	39.2	-22.4	51.72	53.97	-2.25	74	-22.28	0-360	200	V

### 9.3.9. TX ABOVE 1 GHz 802.11ac HT40 MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)

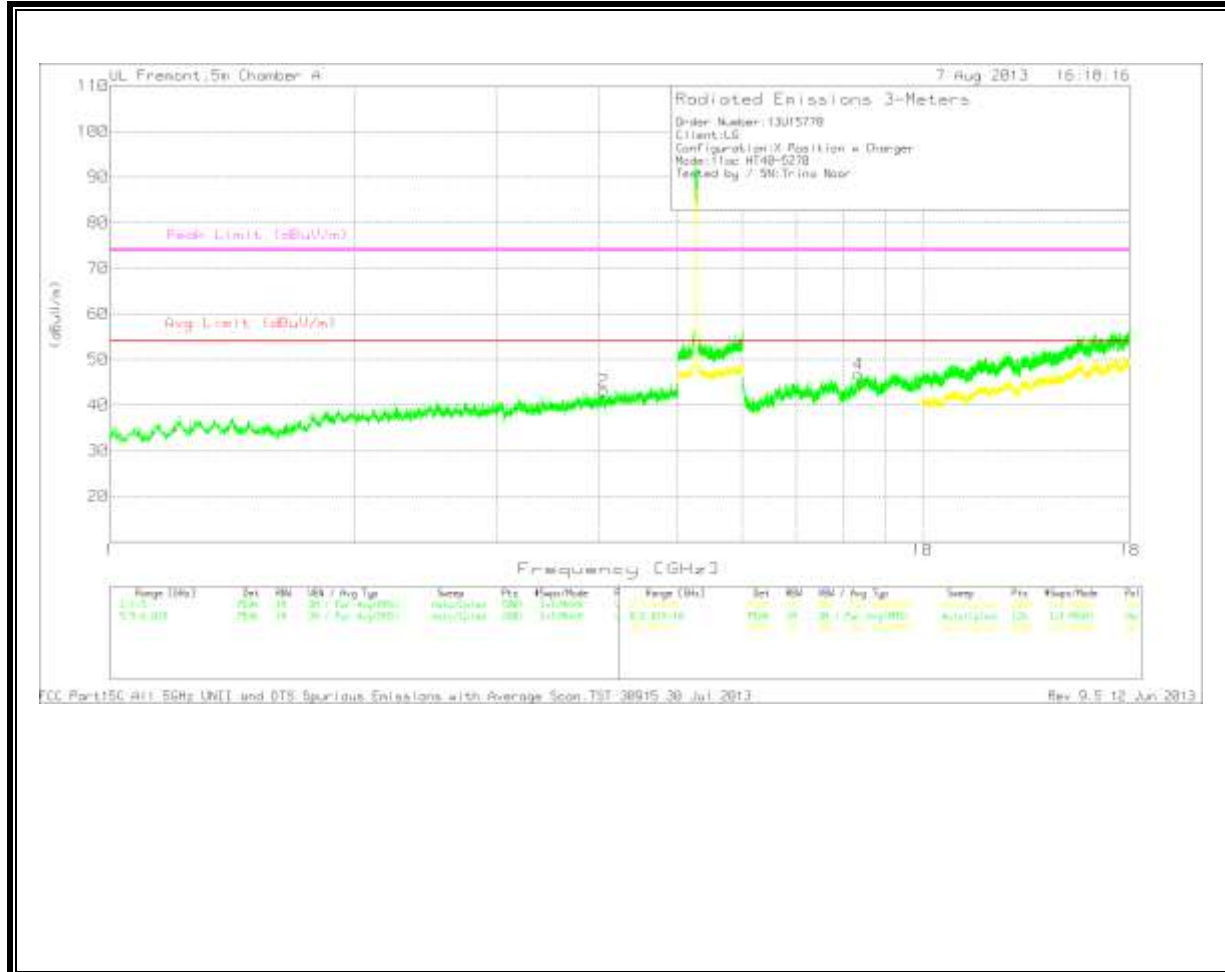






**HARMONICS AND SPURIOUS EMISSIONS**

LOW CHANNEL  
 VERTICAL



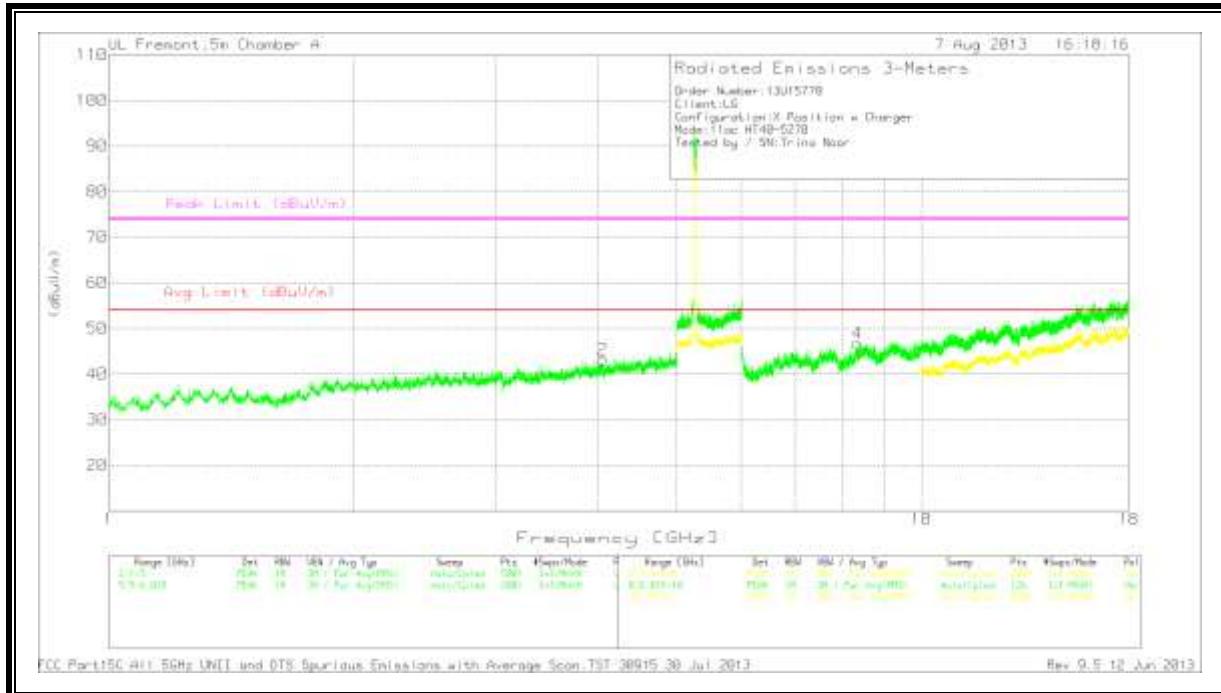
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (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
4.057	39.13	PK	33.8	-29.8	43.13	53.97	-10.84	74	-30.87	0-360	200	V
8.353	36.63	PK	35.7	-25.6	46.73	53.97	-7.24	74	-27.27	0-360	100	V

MID CHANNEL

VERTICAL

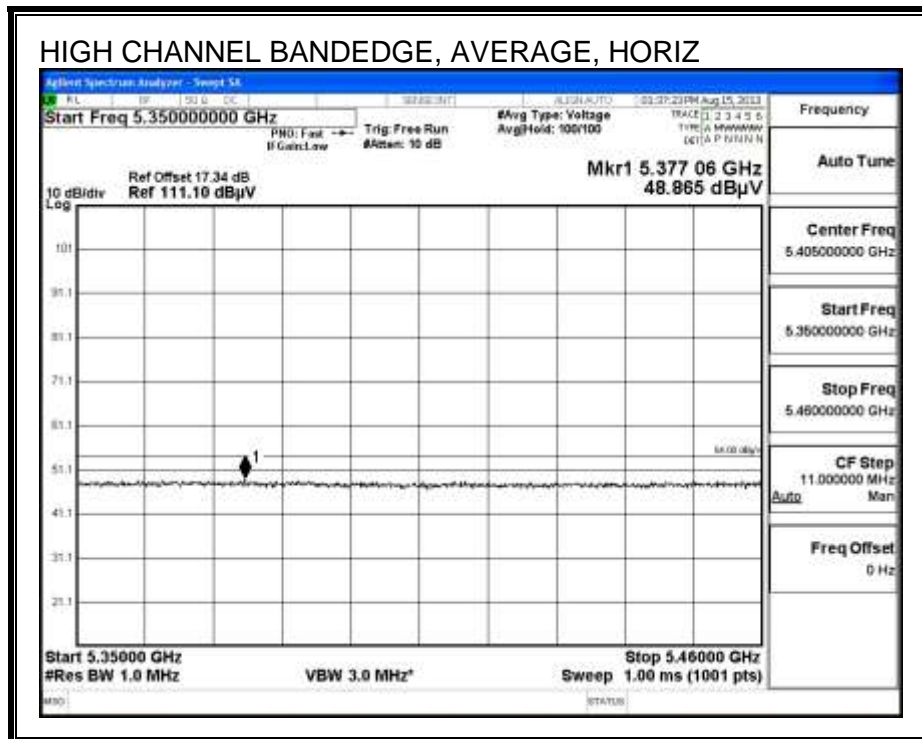
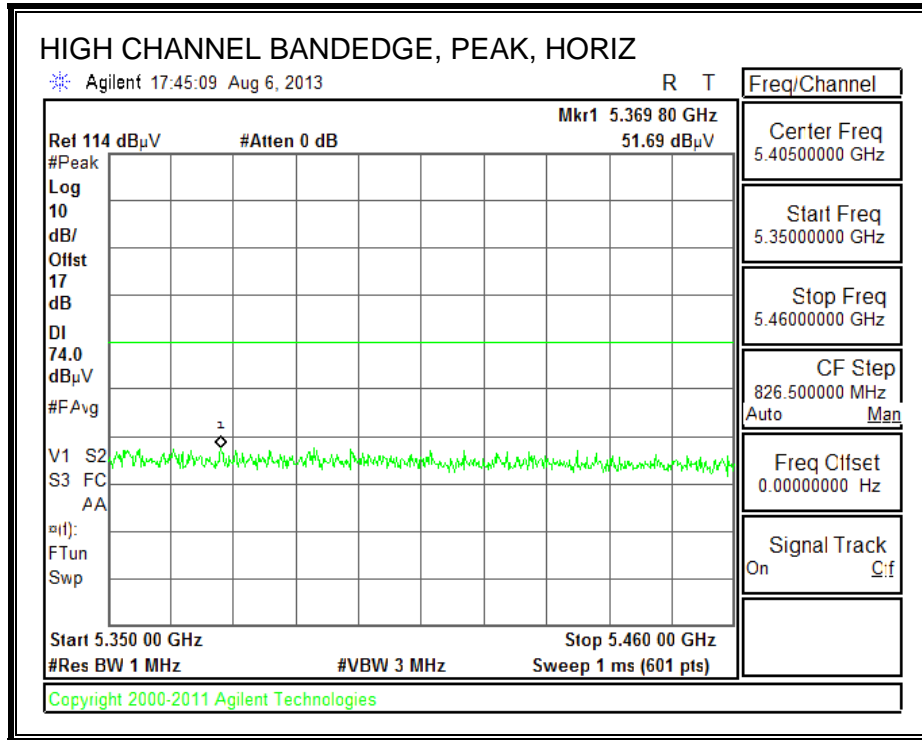


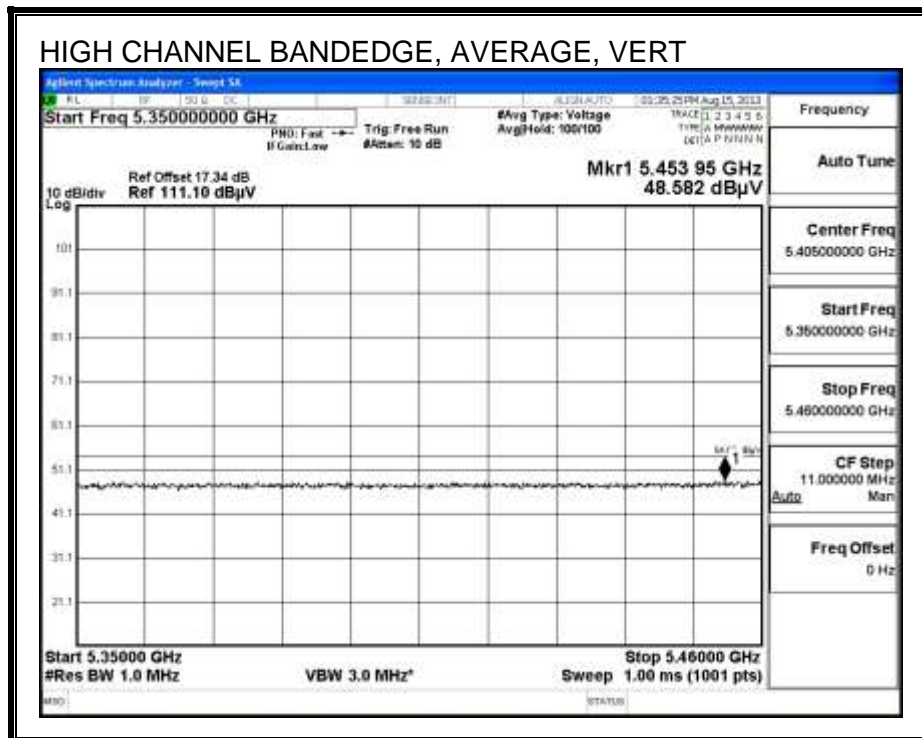
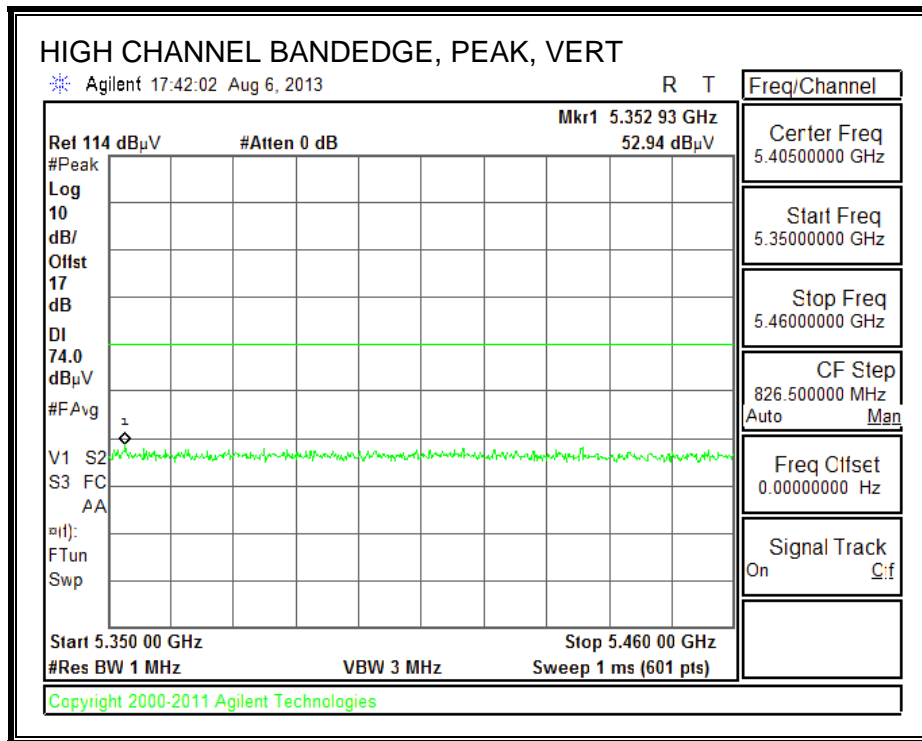
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (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
4.057	39.13	PK	33.8	-29.8	43.13	53.97	-10.84	74	-30.87	0-360	200	V
8.353	36.63	PK	35.7	-25.6	46.73	53.97	-7.24	74	-27.27	0-360	100	V

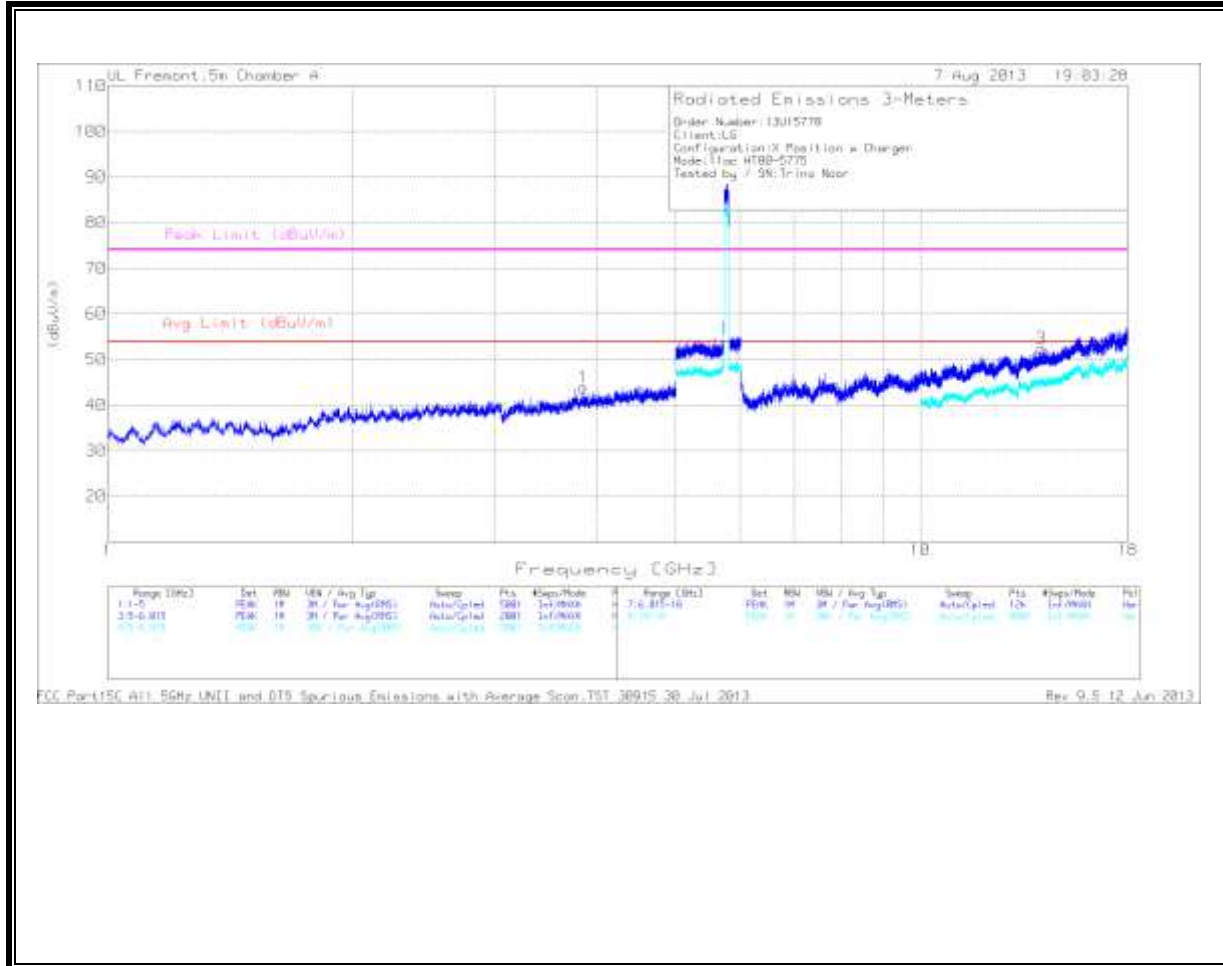
**9.3.11. TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.3 GHz BAND  
 AUTHORIZED BANDEDGE (HIGH CHANNEL)**





**HARMONICS AND SPURIOUS EMISSIONS**

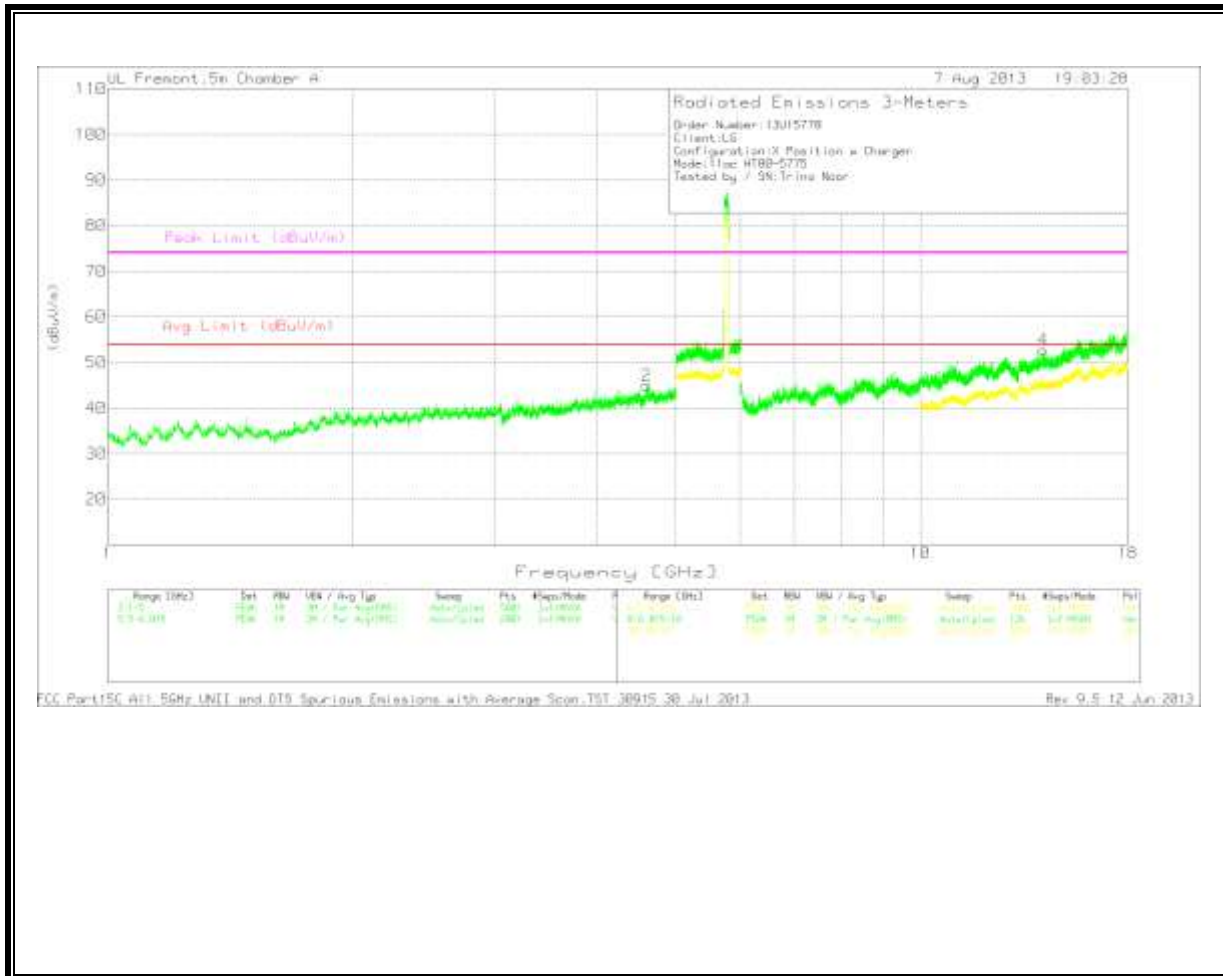
LOW CHANNEL  
 HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.



VERTICAL



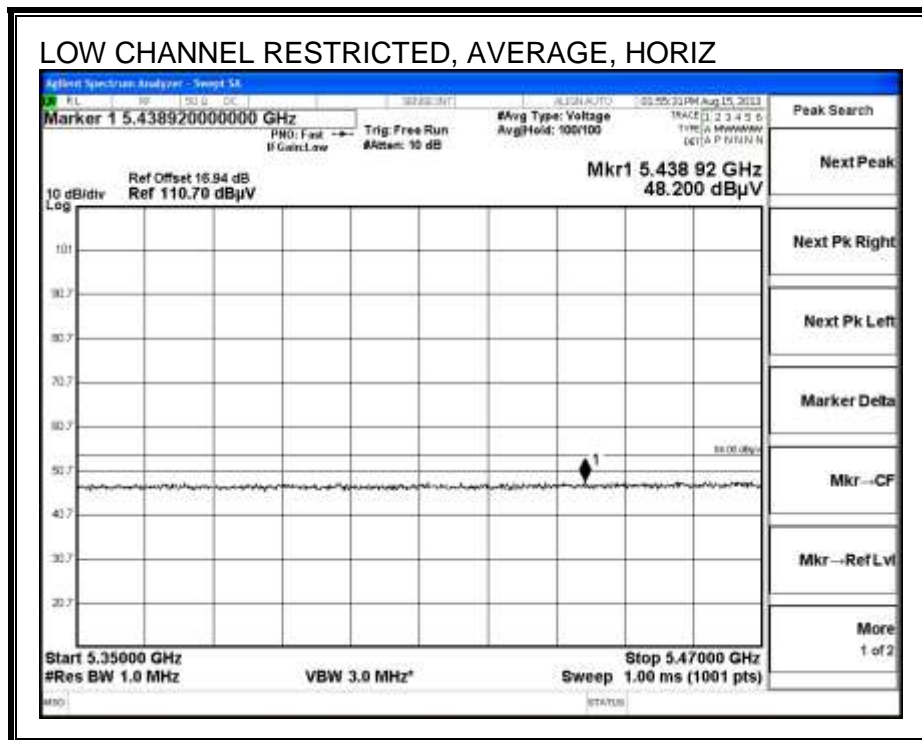
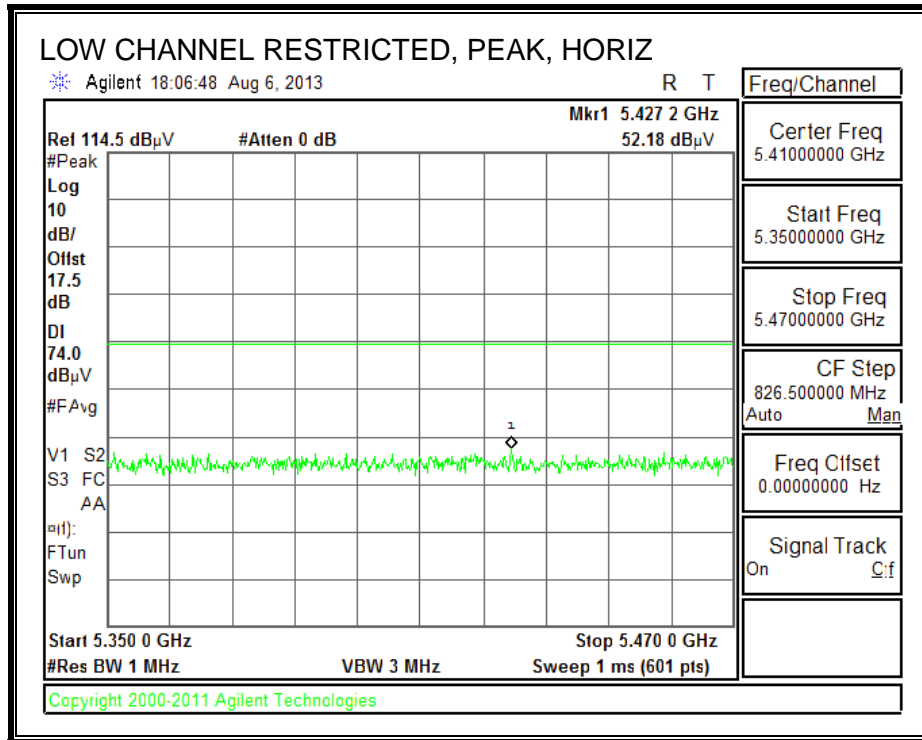
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

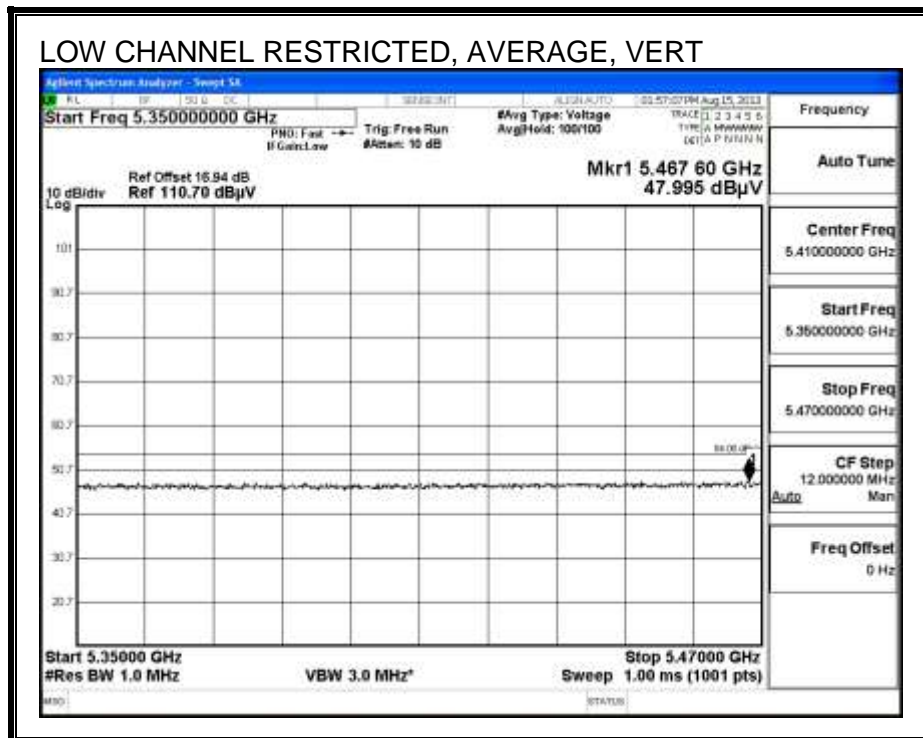
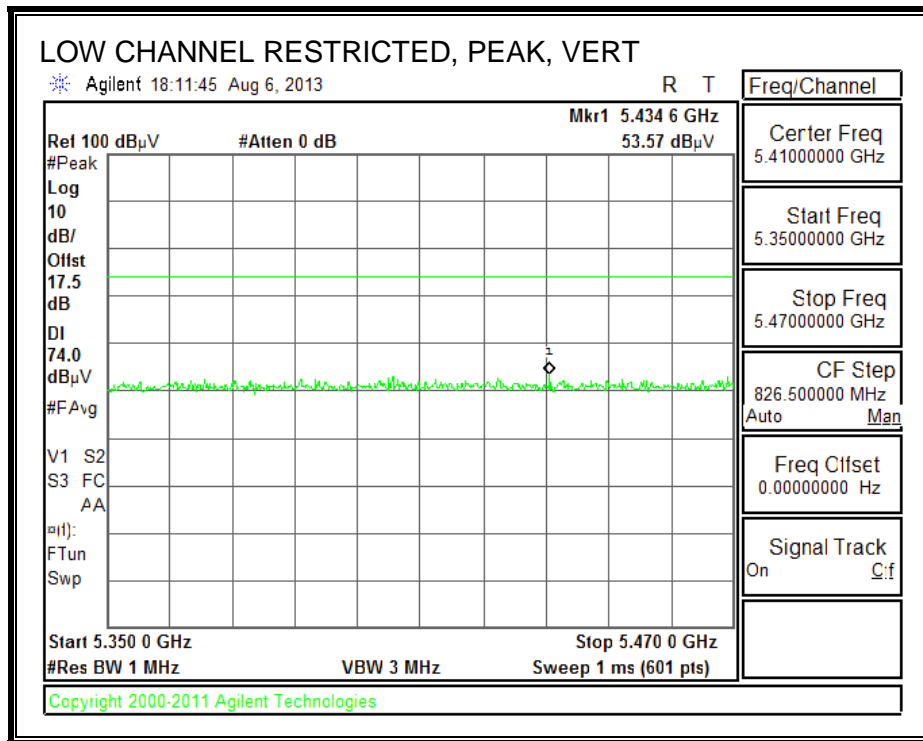
LOW CHANNEL DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cb/FI tr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3.85	40.53	PK	33.6	-30.3	43.83	53.97	-10.14	74	-30.17	0-360	200	H
4.608	38.82	PK	33.9	-27.8	44.92	53.97	-9.05	74	-29.08	0-360	100	V
14.094	35.6	PK	39.2	-22.5	52.3	53.97	-1.67	74	-21.7	0-360	100	H
14.165	35.69	PK	39.3	-22.3	52.69	53.97	-1.28	74	-21.31	0-360	100	V

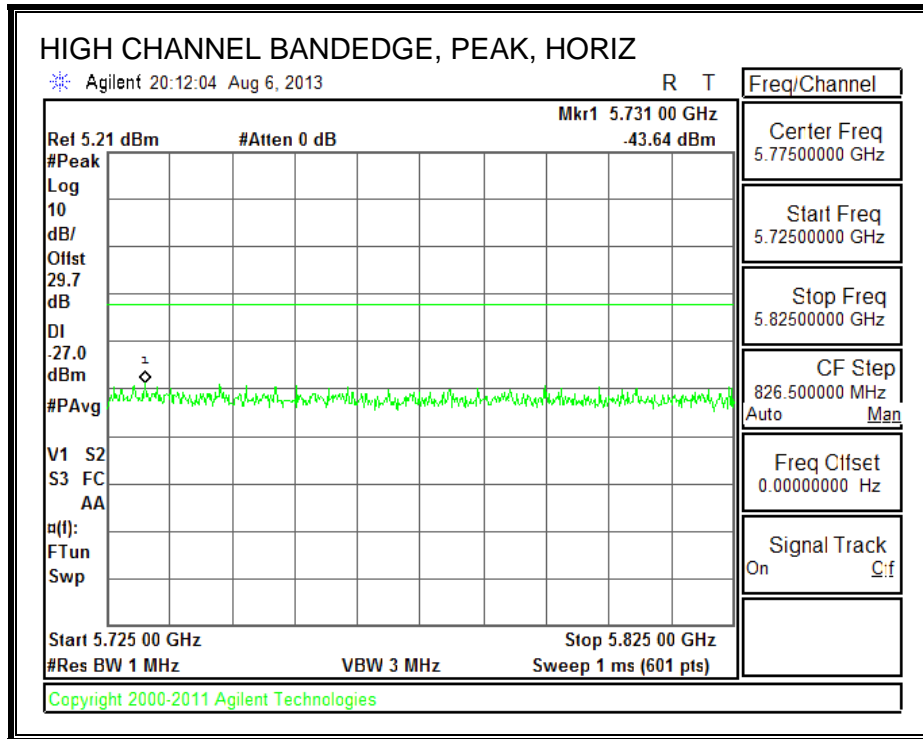
**9.4. 5.5-5.6 GHz**

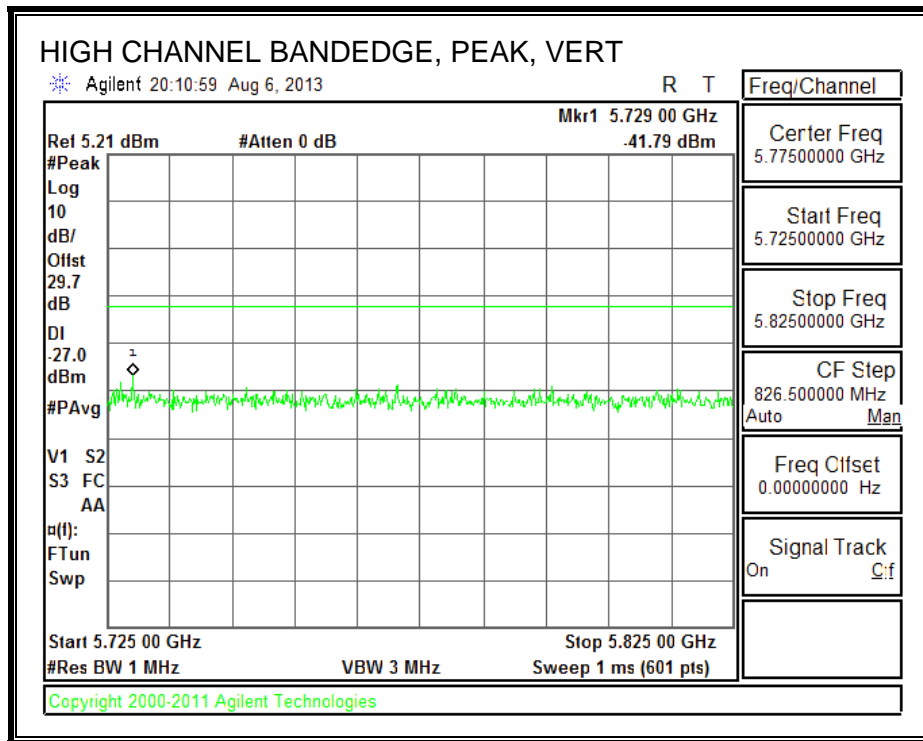
**9.4.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.5 GHz BAND  
 RESTRICTED BANDEDGE (LOW CHANNEL)**





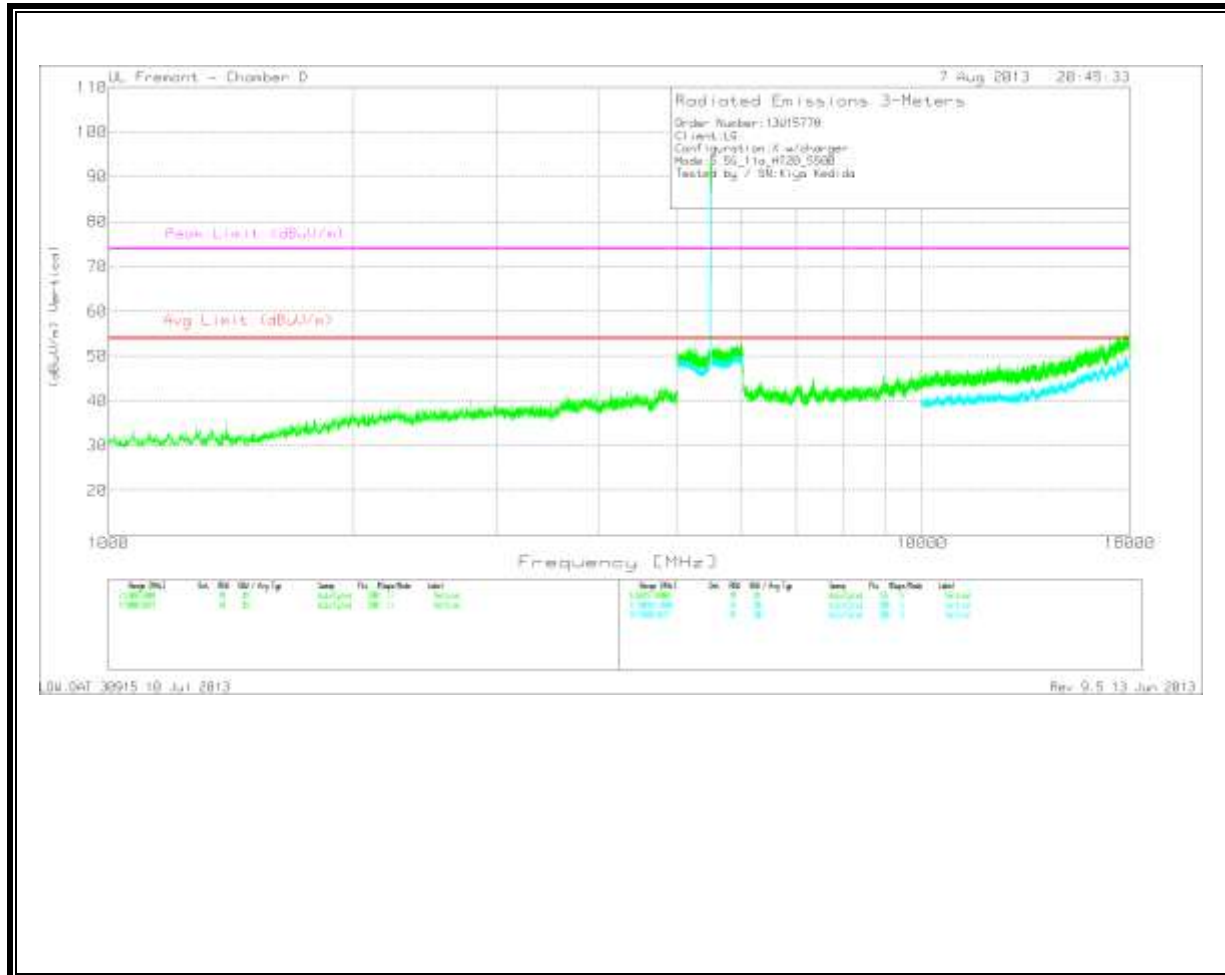
**AUTHORIZED BANDEDGE (HIGH CHANNEL)**





### HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL  
VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

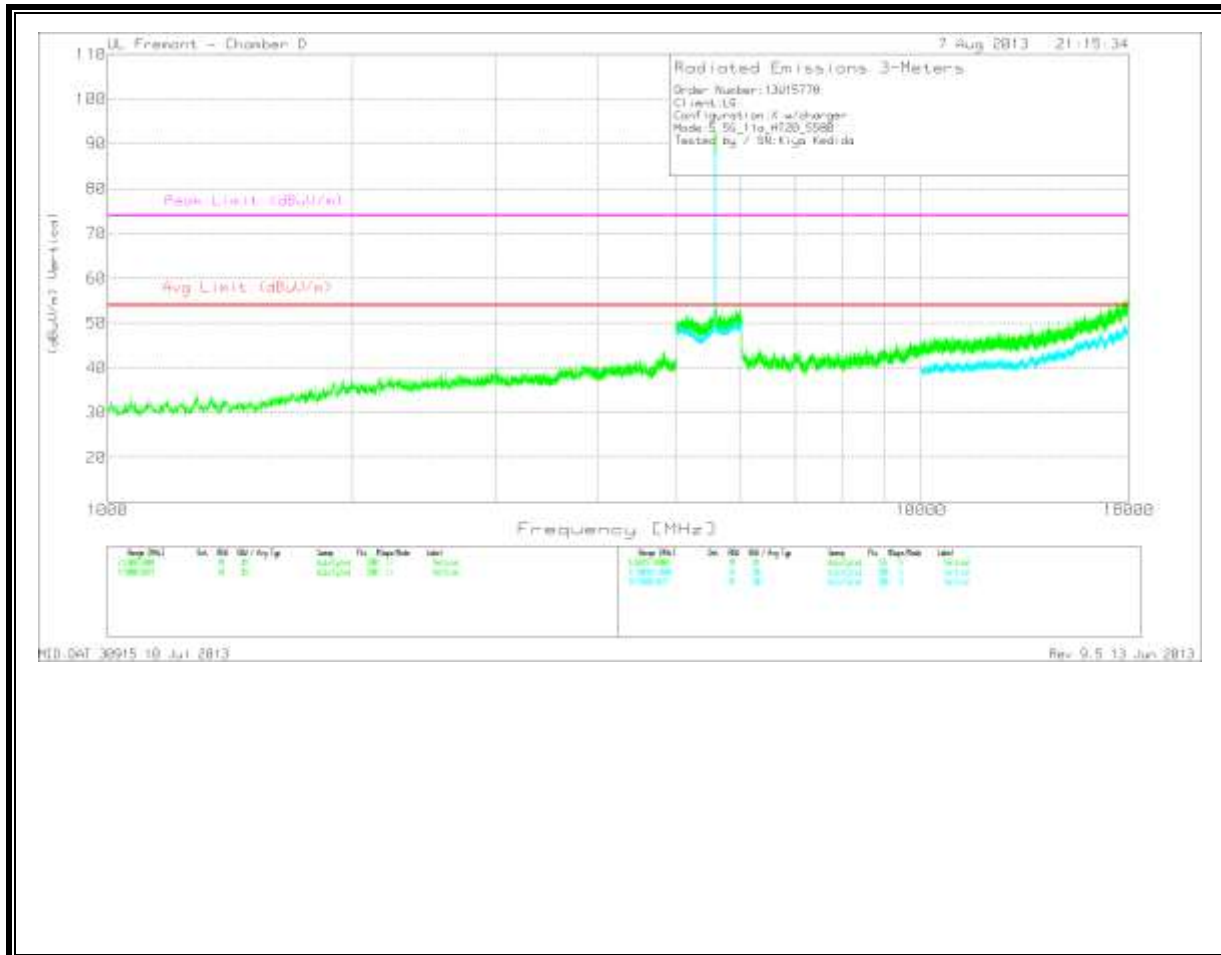
LOW CHANNEL DATA

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
2.79	40.35	PK	32.9	-33.1	40.15	53.97	-13.82	74	-33.85	201	V
9.322	35.14	PK	37	-26.1	46.04	53.97	-7.93	74	-27.96	100	V
12.407	27.59	PK	39.2	-25.7	41.09	53.97	-12.88	74	-32.91	201	V



MID CHANNEL

VERTICAL



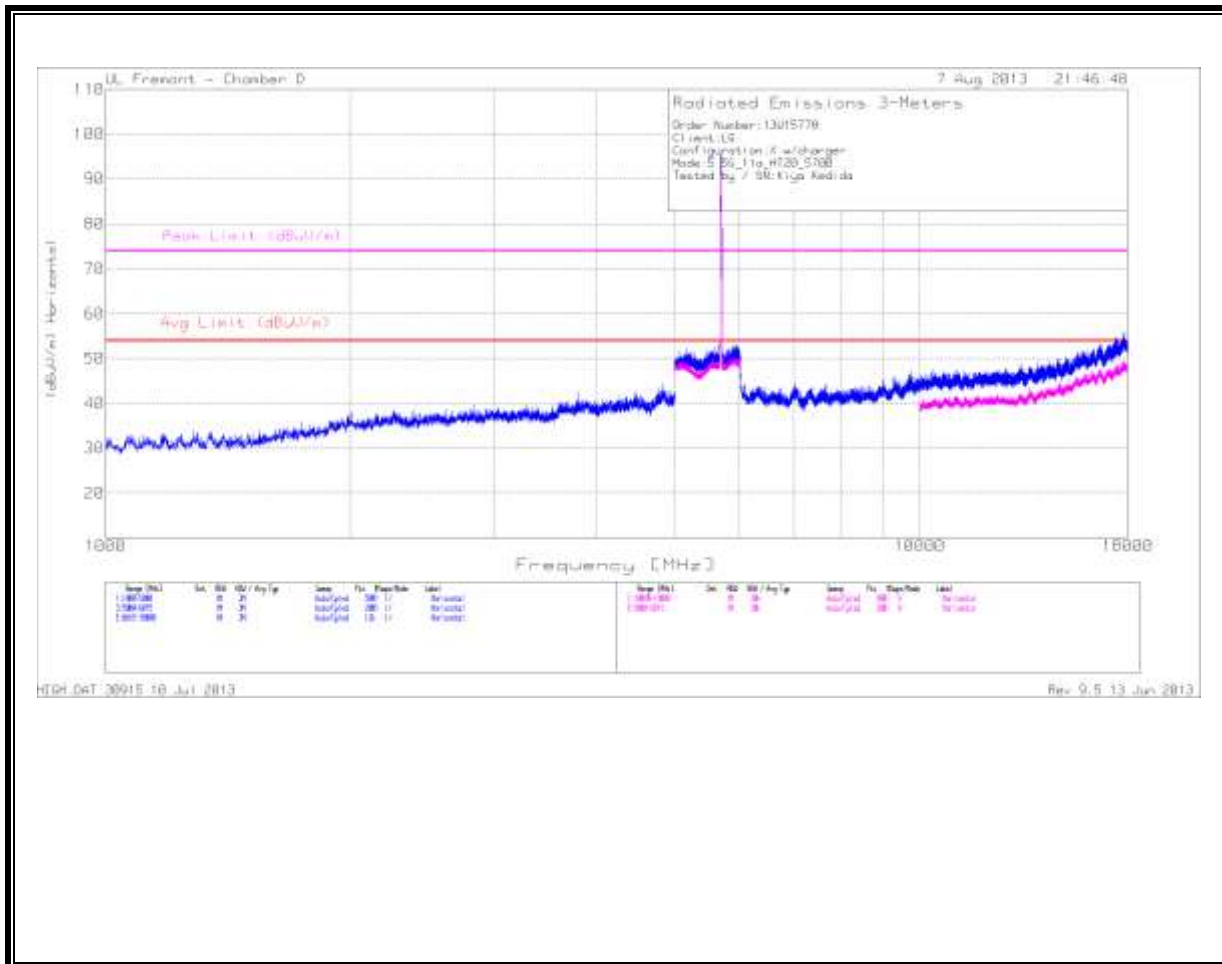
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cb/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
3.026	39.47	PK	33.1	-32.3	40.27	53.97	-13.7	74	-33.73	201	V
8.582	36.04	PK	36.3	-27.5	44.84	53.97	-9.13	74	-29.16	201	V
14.375	29.8	PK	39.8	-26.3	43.3	53.97	-10.67	74	-30.7	100	V

HIGH CHANNEL

HORIZONTAL

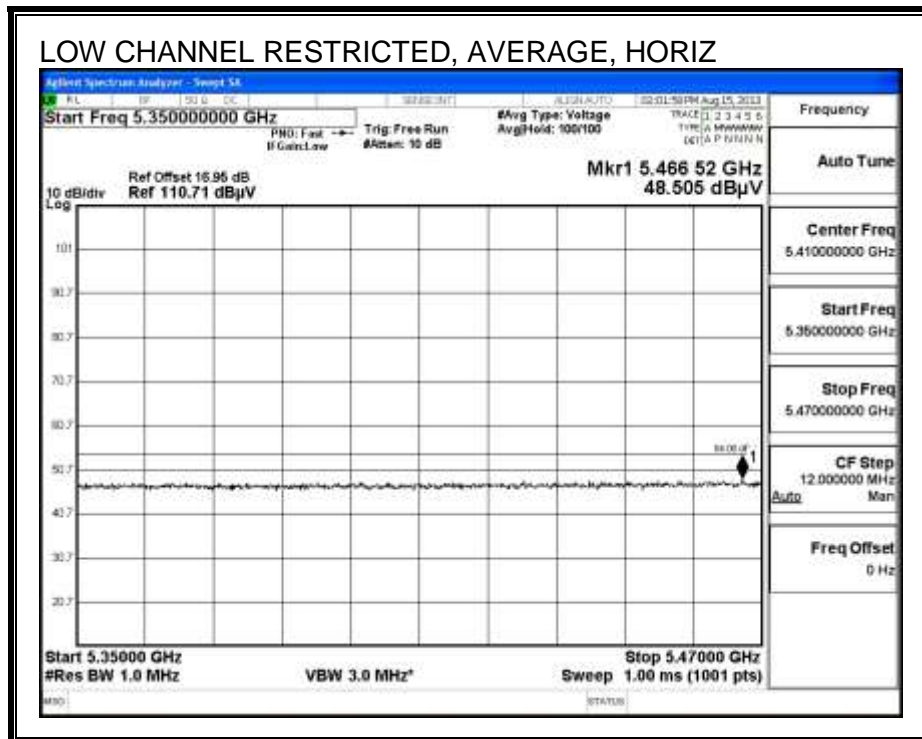
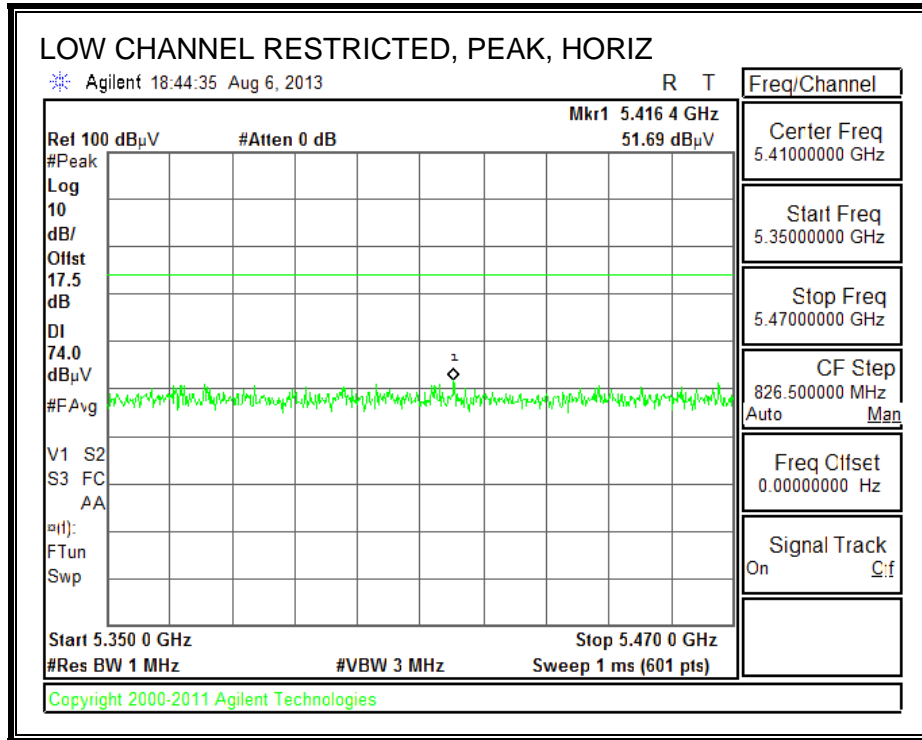


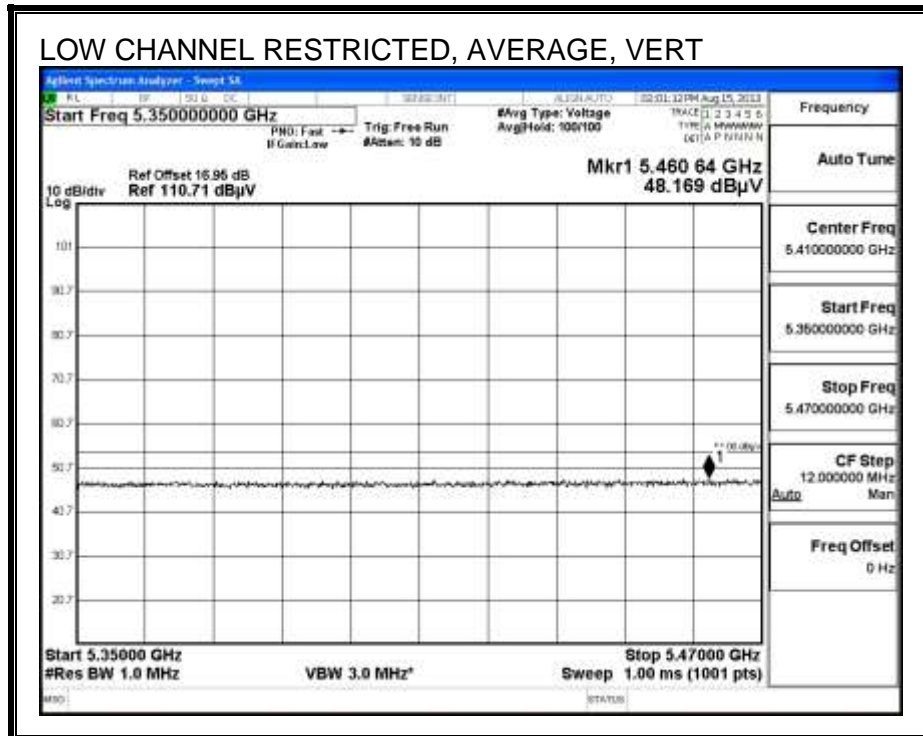
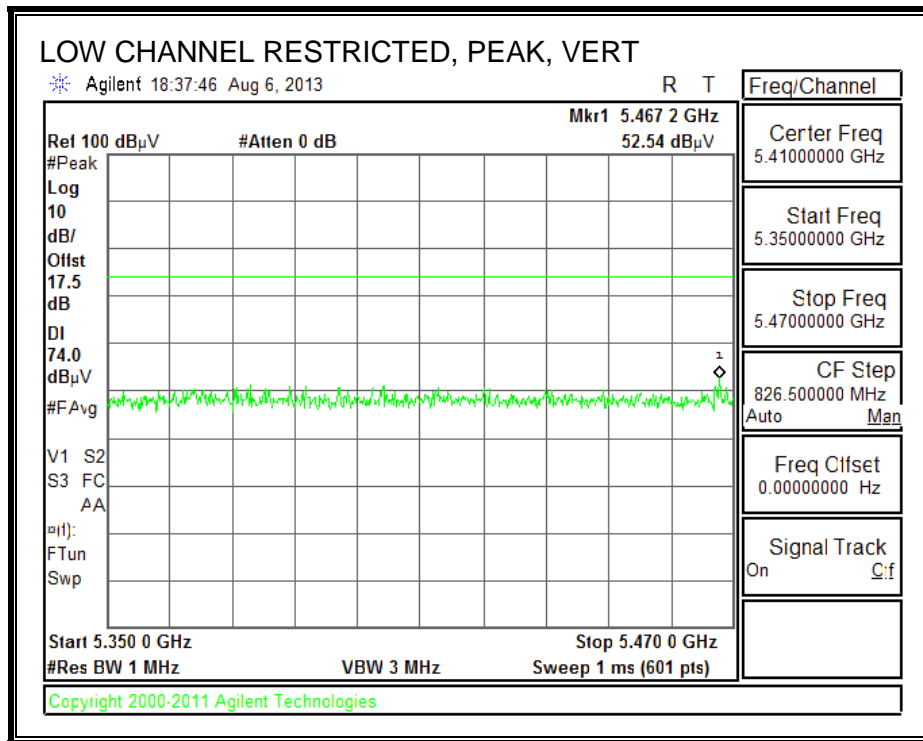
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

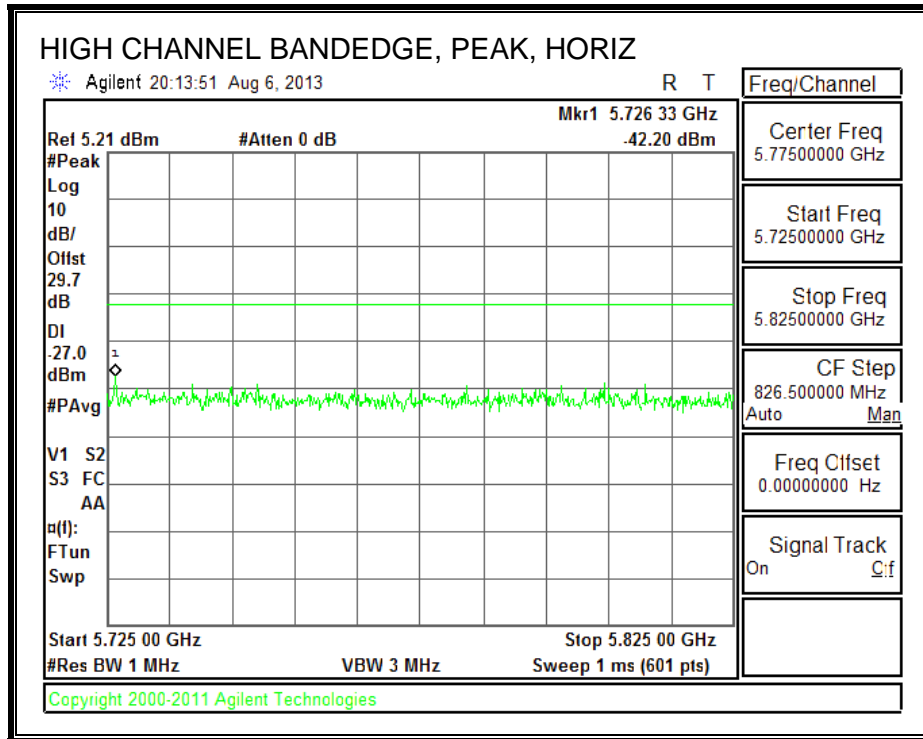
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cb/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
3.801	41.15	PK	33.8	-32.4	42.55	53.97	-11.42	74	-31.45	100	H
7.019	37.74	PK	35.9	-29	44.64	53.97	-9.33	74	-29.36	201	H
12.348	28.18	PK	39.2	-26.1	41.28	53.97	-12.69	74	-32.72	100	H

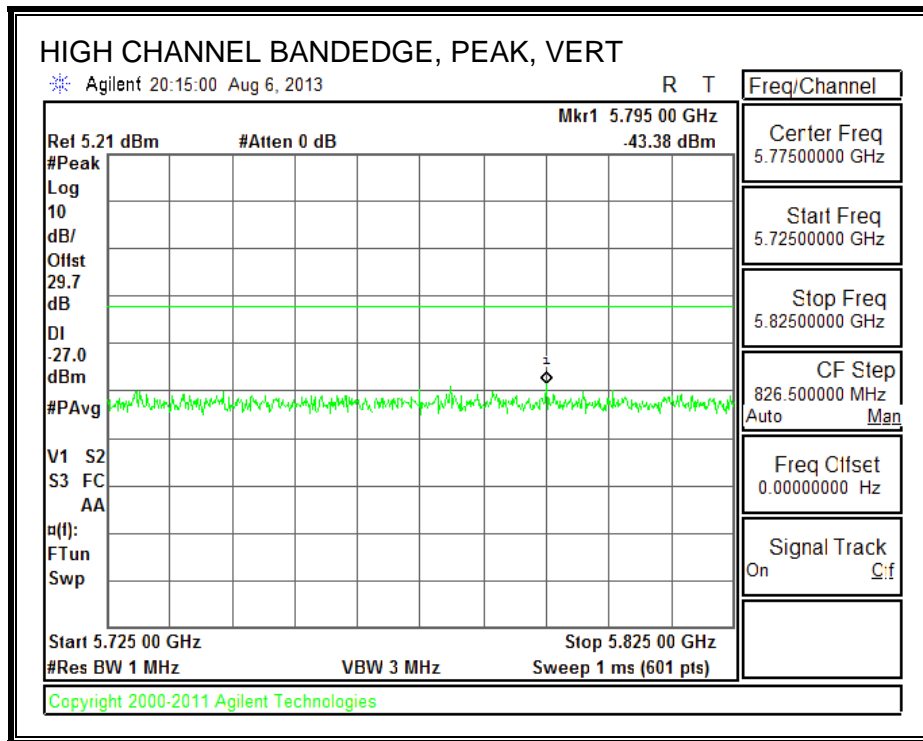
### 9.4.3. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.5 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)





**AUTHORIZED BANDEDGE (HIGH CHANNEL)**

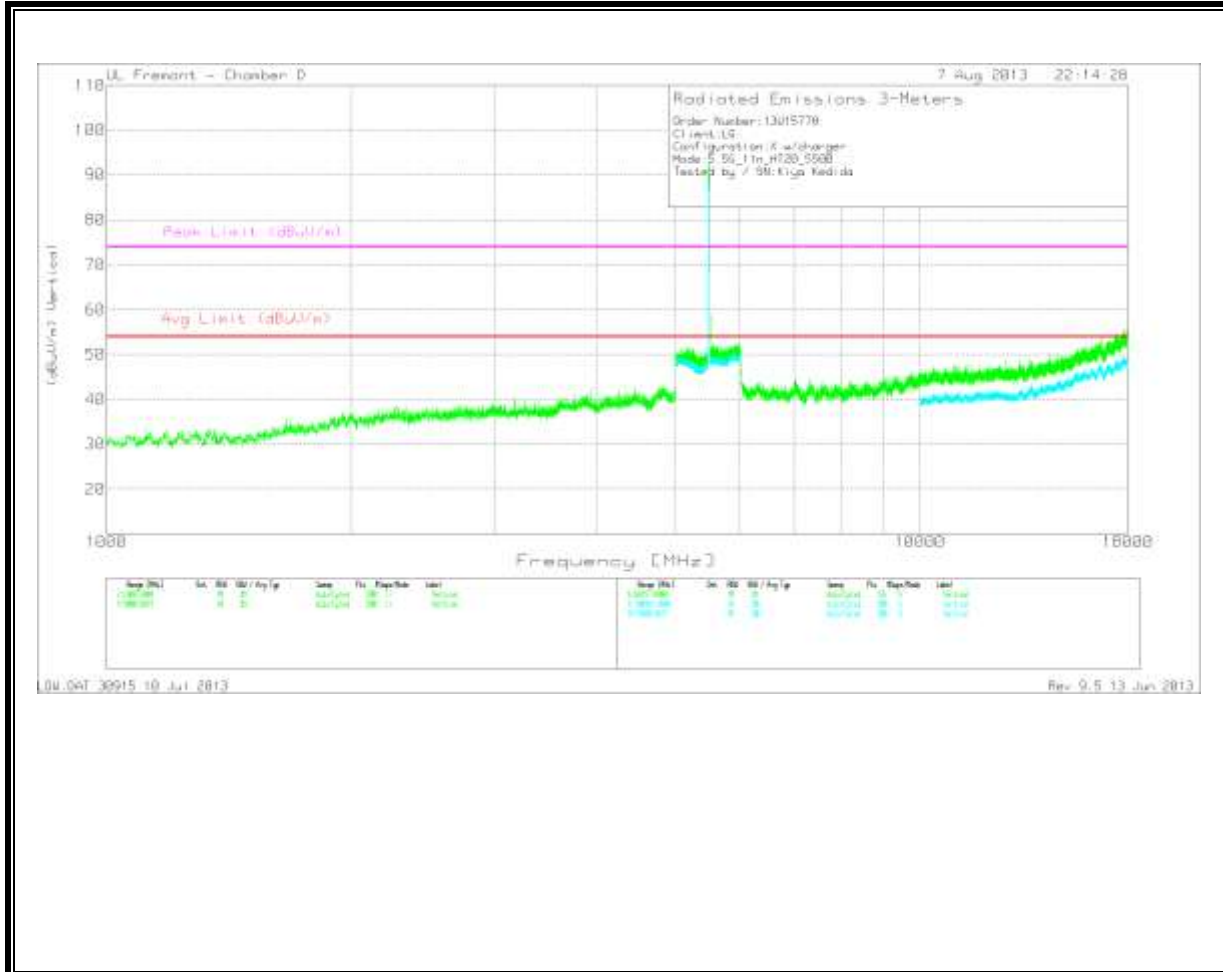






**HARMONICS AND SPURIOUS EMISSIONS**

LOW CHANNEL  
VERTICAL

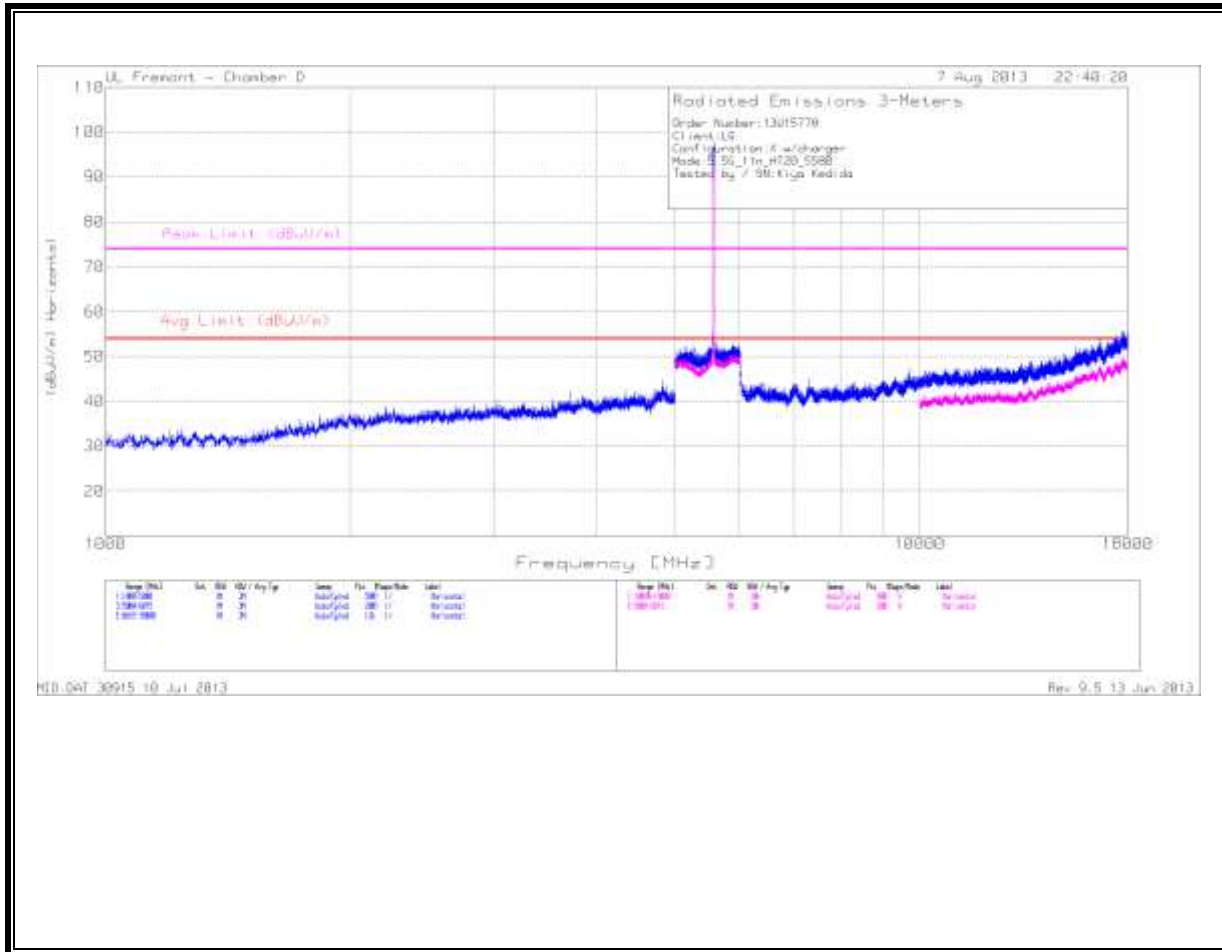


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

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
3.178	40.86	PK	33.2	-33.4	40.66	53.97	-13.31	74	-33.34	100	V
7.316	37.14	PK	35.9	-28.7	44.34	53.97	-9.63	74	-29.66	200	V
14.31	30.16	PK	39.7	-26.7	43.16	53.97	-10.81	74	-30.84	100	V

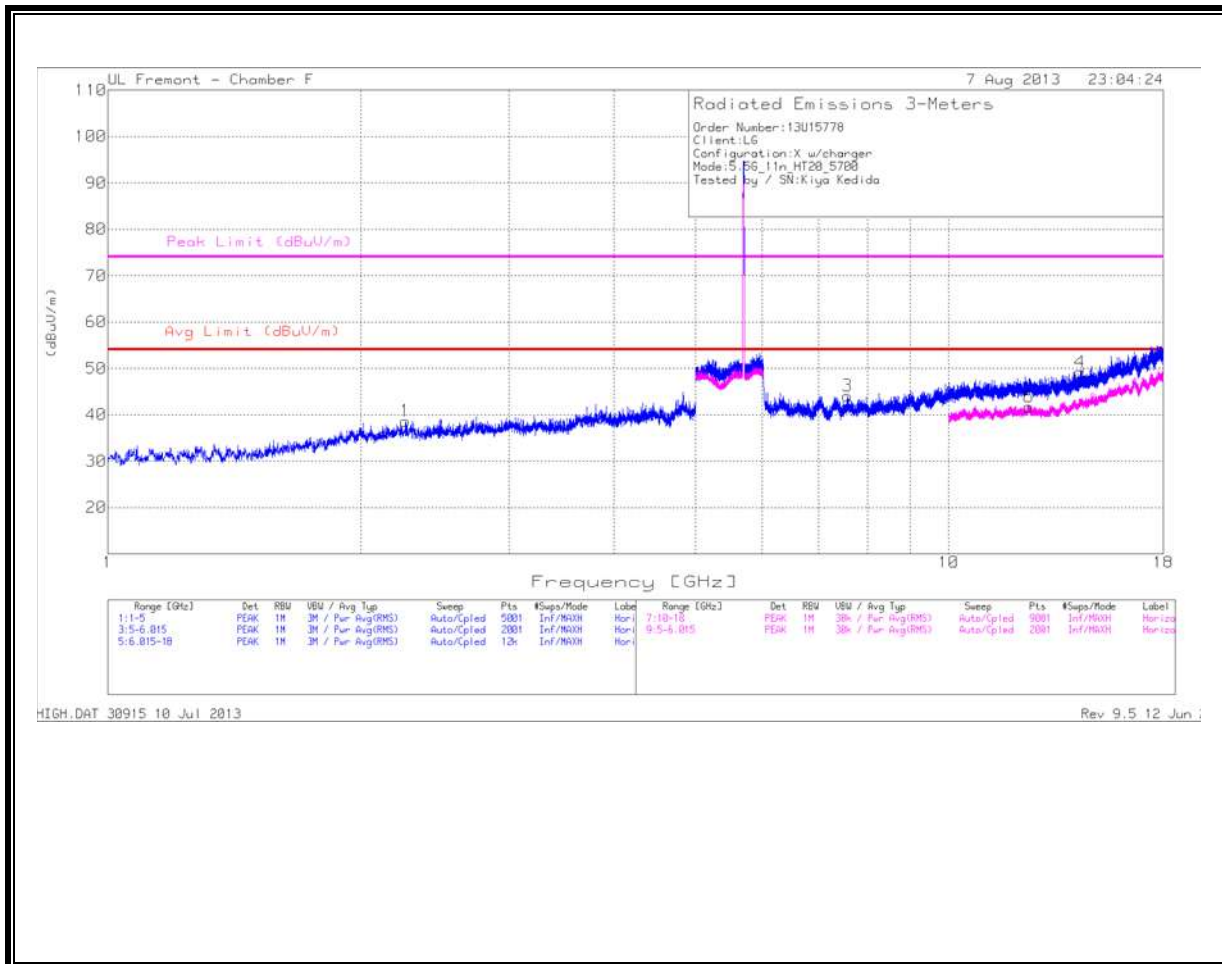
MID CHANNEL  
HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cb/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
3.721	40.79	PK	33.7	-32.4	42.09	53.97	-11.88	74	-31.91	100	H
7.313	37.99	PK	35.9	-28.8	45.09	53.97	-8.88	74	-28.91	201	H
13.696	29.7	PK	39.2	-26.4	42.5	53.97	-11.47	74	-31.5	100	H
11.77	28.12	PK	38.9	-25.4	41.62	53.97	-12.35	74	-32.38	100	H

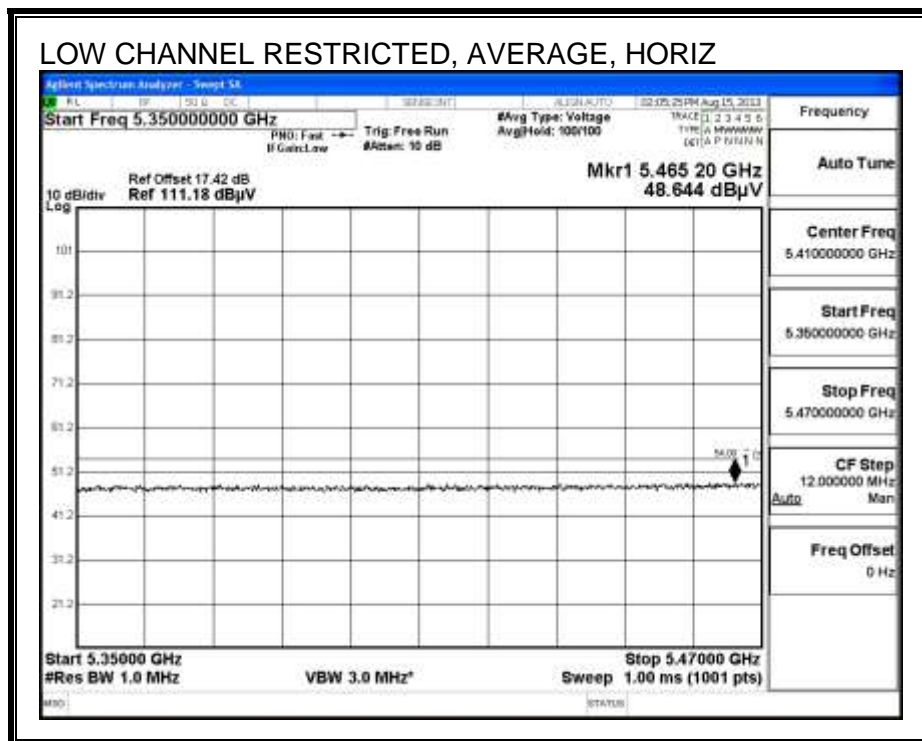
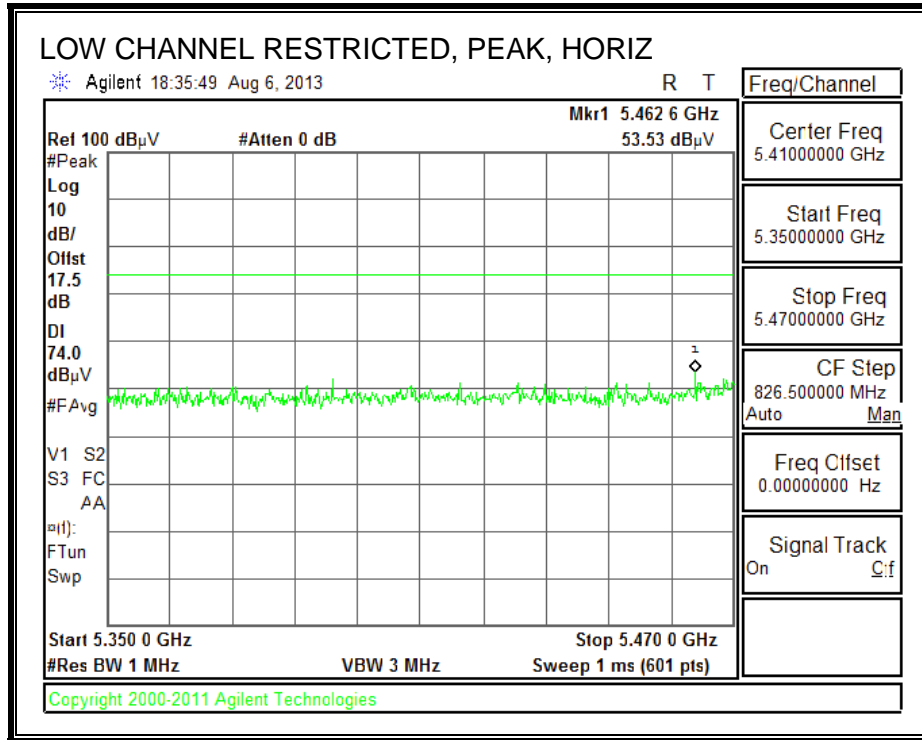


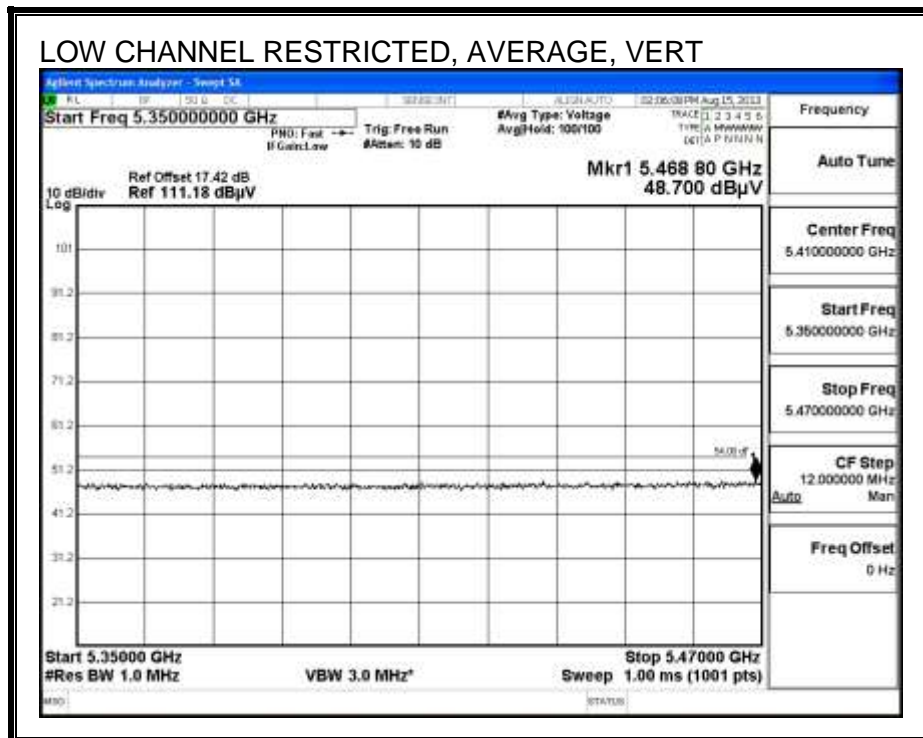
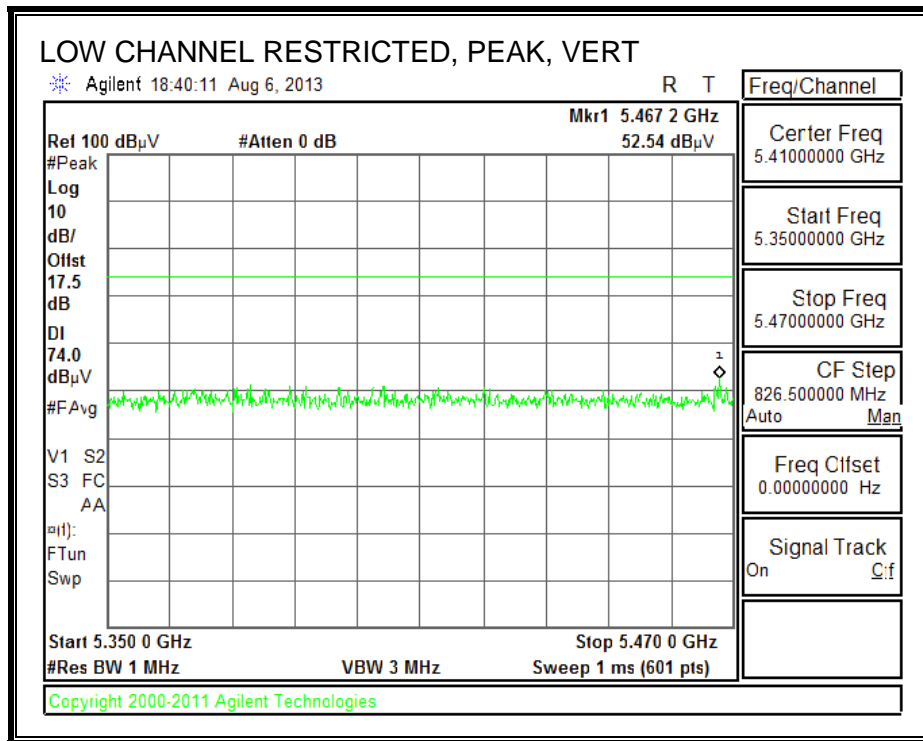
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cb l/Fitr/Pa d (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.259	39.51	PK	32.4	-33.3	38.61	53.97	-15.36	74	-35.39	0-360	100	H
3	7.58	37.03	PK	36	-29	44.03	53.97	-9.94	74	-29.97	0-360	201	H
6	12.462	27.64	PK	39.2	-25.1	41.74	53.97	-12.23	74	-32.26	0-360	100	H

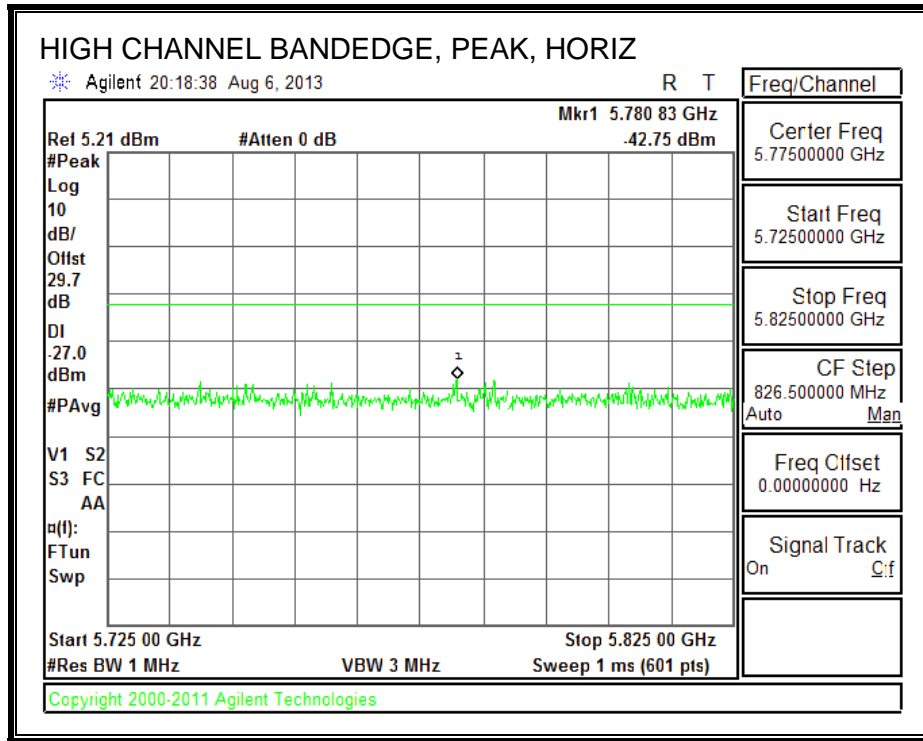
### 9.4.5. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.5 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

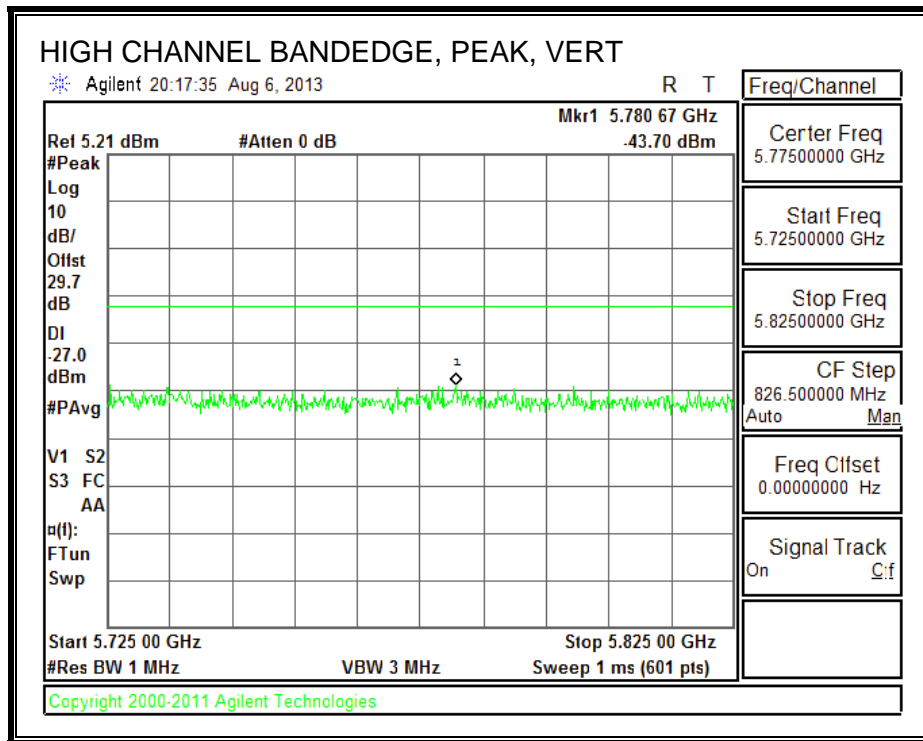






**AUTHORIZED BANDEDGE (HIGH CHANNEL)**





**HARMONICS AND SPURIOUS EMISSIONS**

LOW CHANNEL  
VERTICAL

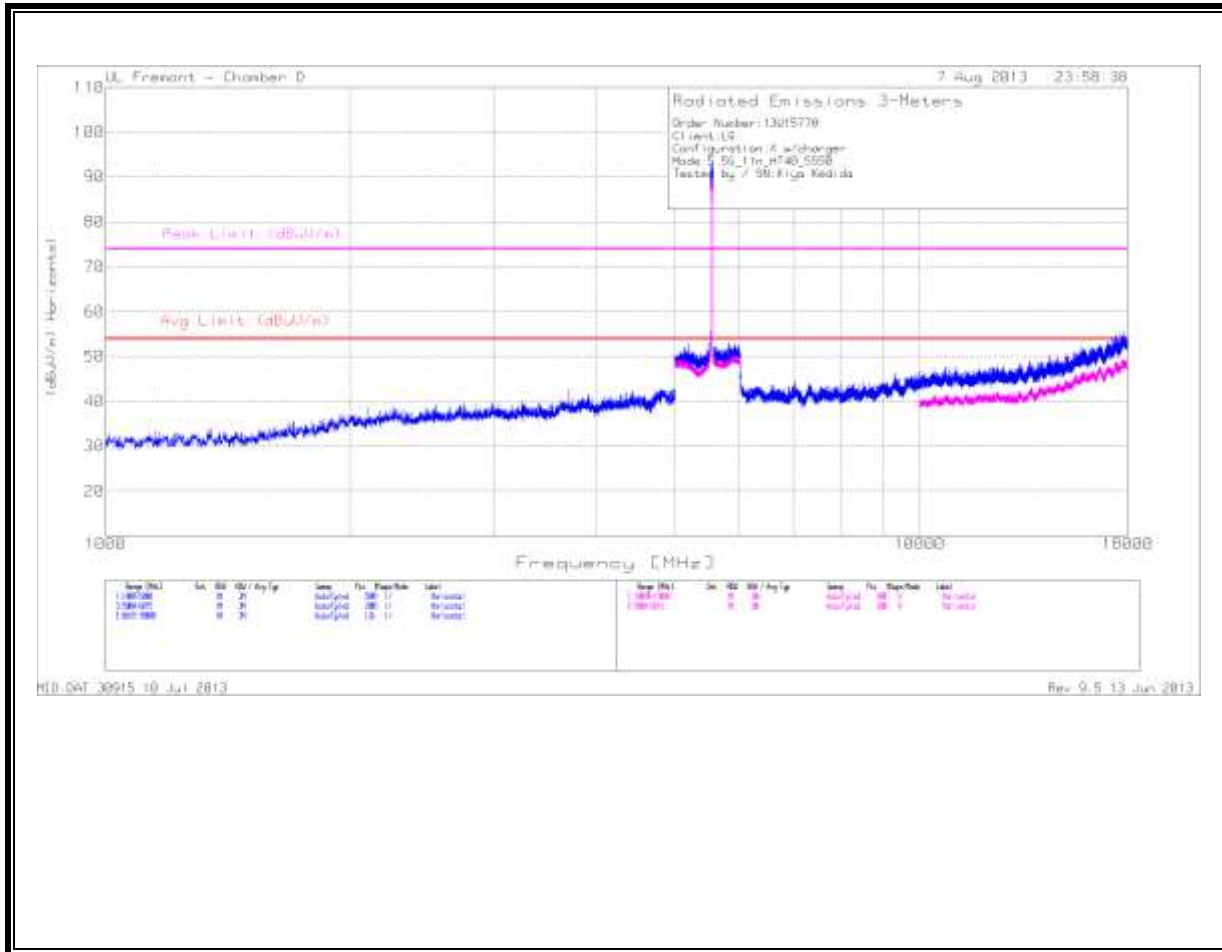


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

## LOW CHANNEL DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cb/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
3.706	40.04	PK	33.7	-32.3	41.44	53.97	-12.53	74	-32.56	201	V
9.054	35.73	PK	36.7	-27	45.43	53.97	-8.54	74	-28.57	100	V
13.731	29.62	PK	39.2	-26.6	42.22	53.97	-11.75	74	-31.78	201	V

MID CHANNEL  
HORIZONTAL



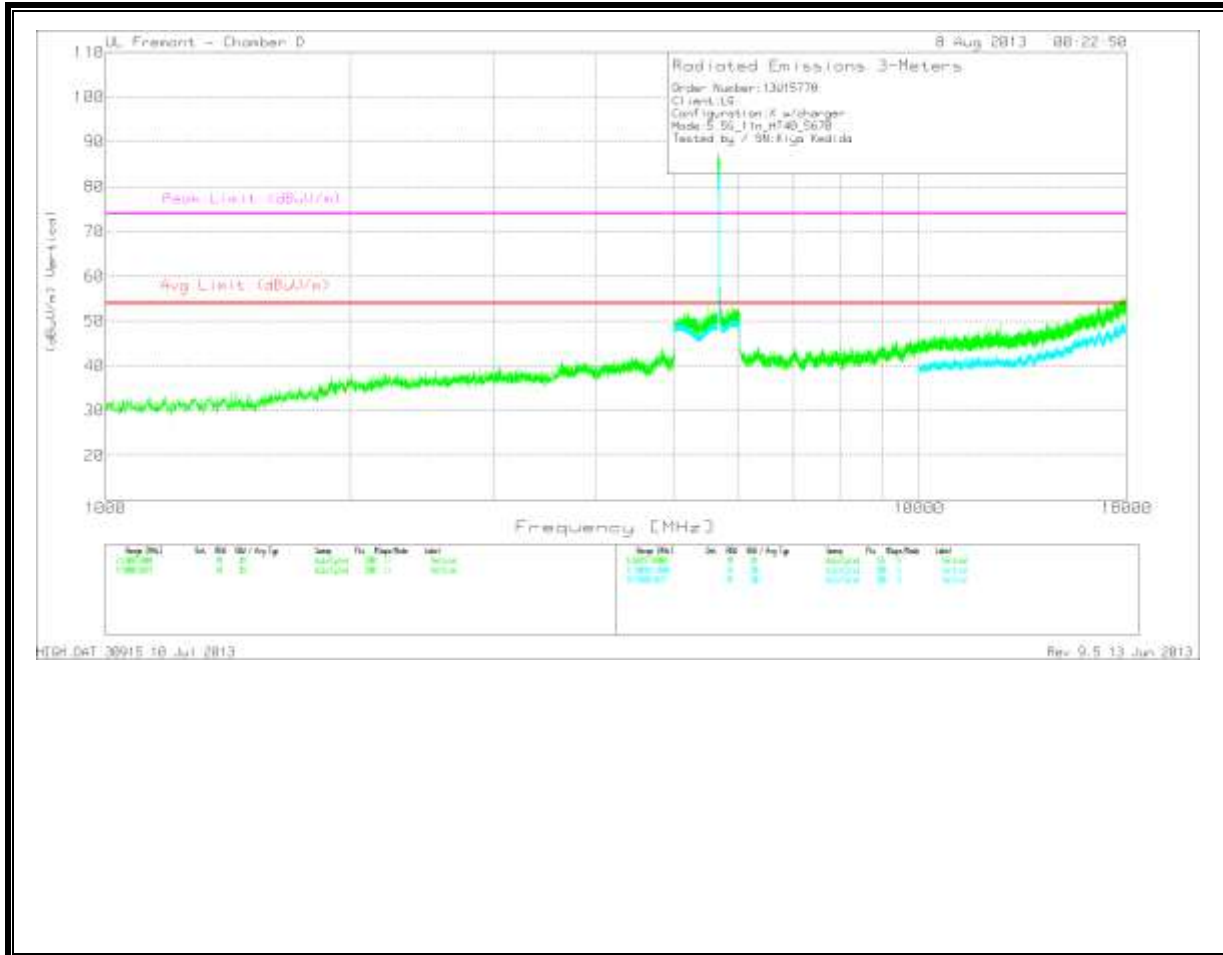
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cb/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
3.701	41.2	PK	33.7	-32.2	42.7	53.97	-11.27	74	-31.3	201	H
9.322	35.65	PK	37	-26.1	46.55	53.97	-7.42	74	-27.45	200	H
12.463	27.86	PK	39.2	-25.1	41.96	53.97	-12.01	74	-32.04	201	H

HIGH CHANNEL

VERTICAL



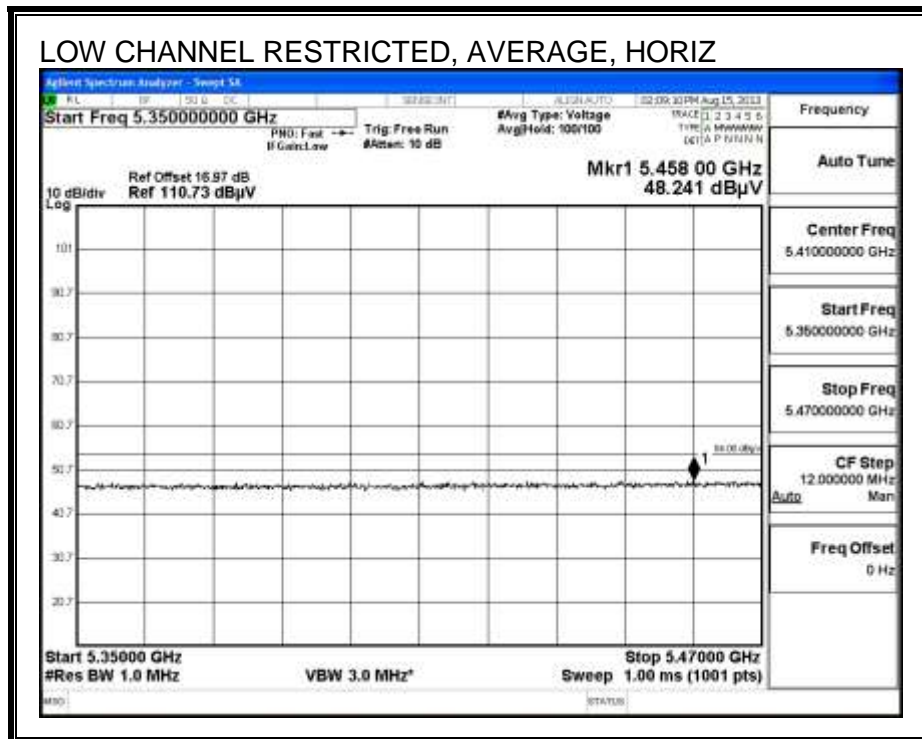
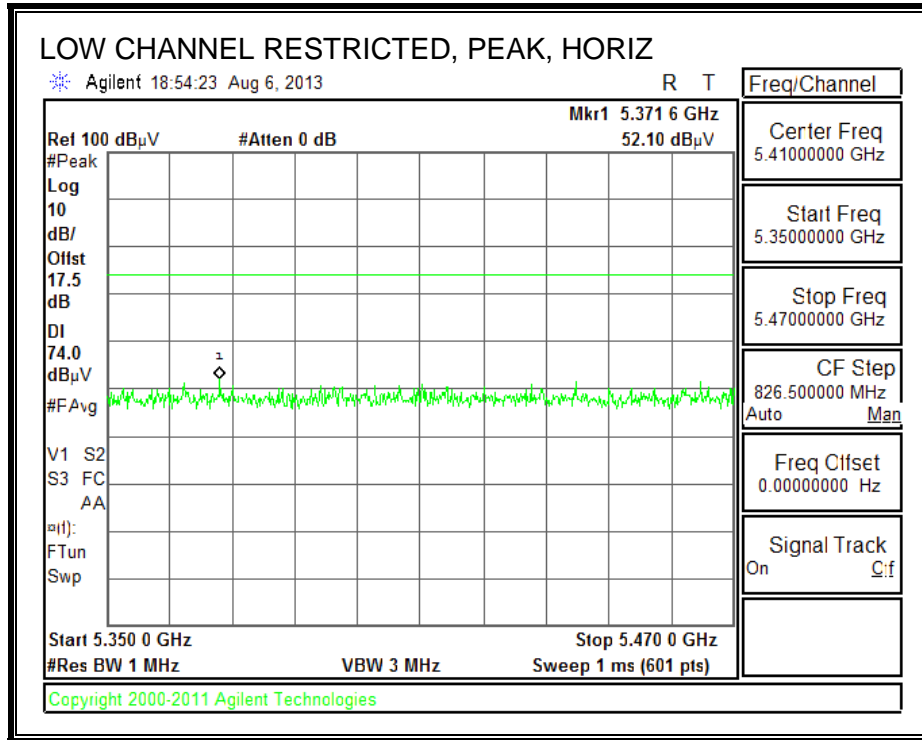
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

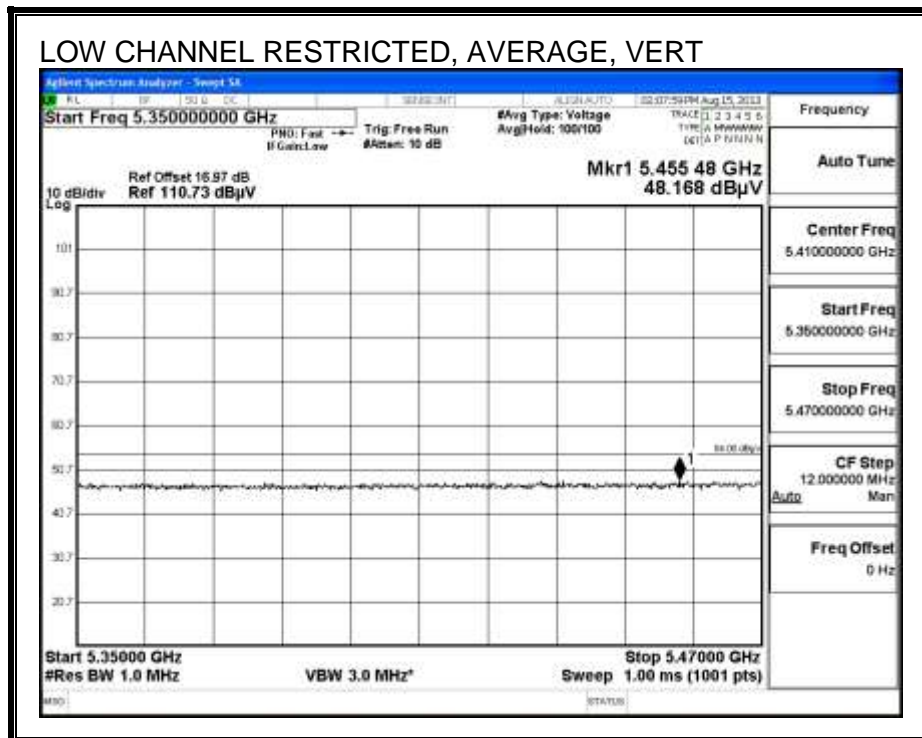
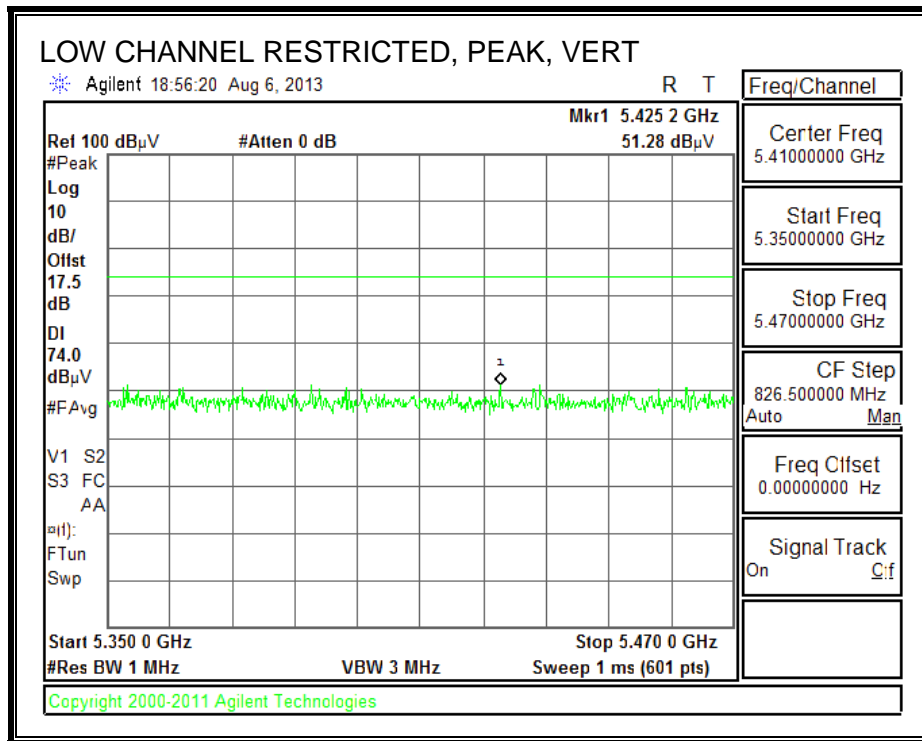
HIGH CHANNEL DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (db/m)	Amp/Cb/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
3.048	39.33	PK	33.1	-32.5	39.93	53.97	-14.04	74	-34.07	201	V
8.085	36.63	PK	36	-28.5	44.13	53.97	-9.84	74	-29.87	201	V

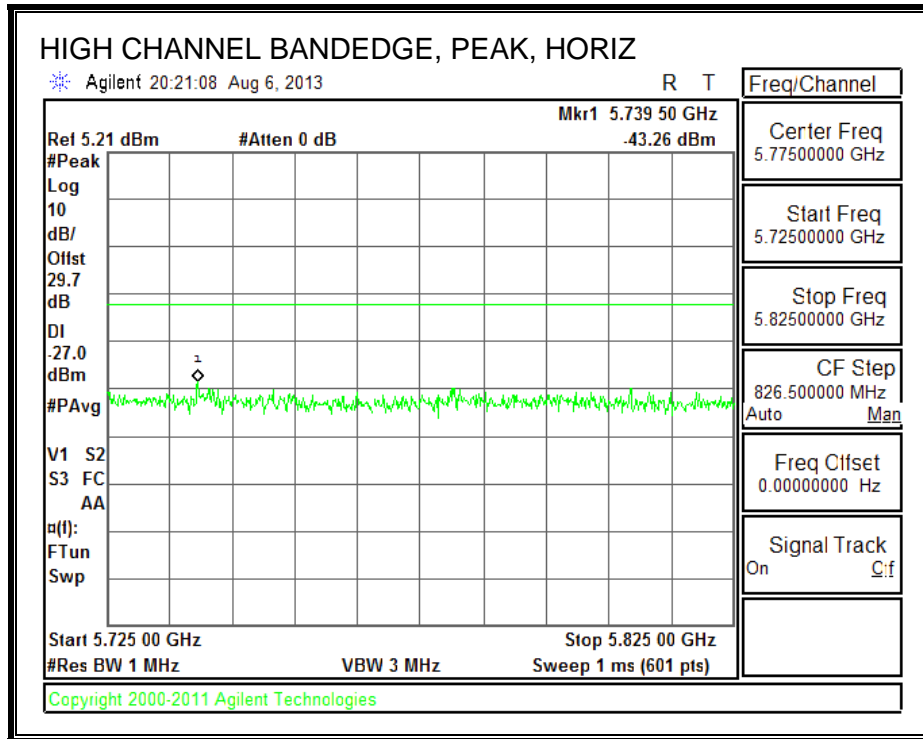


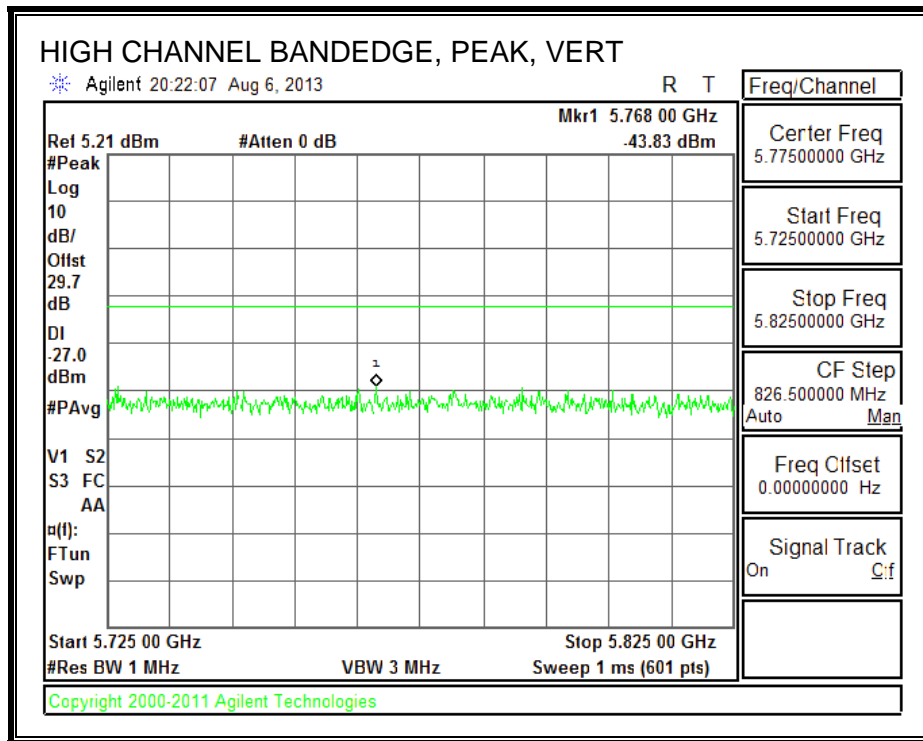
### 9.4.7. TX ABOVE 1 GHz 802.11ac HT20 MODE IN THE 5.5 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)





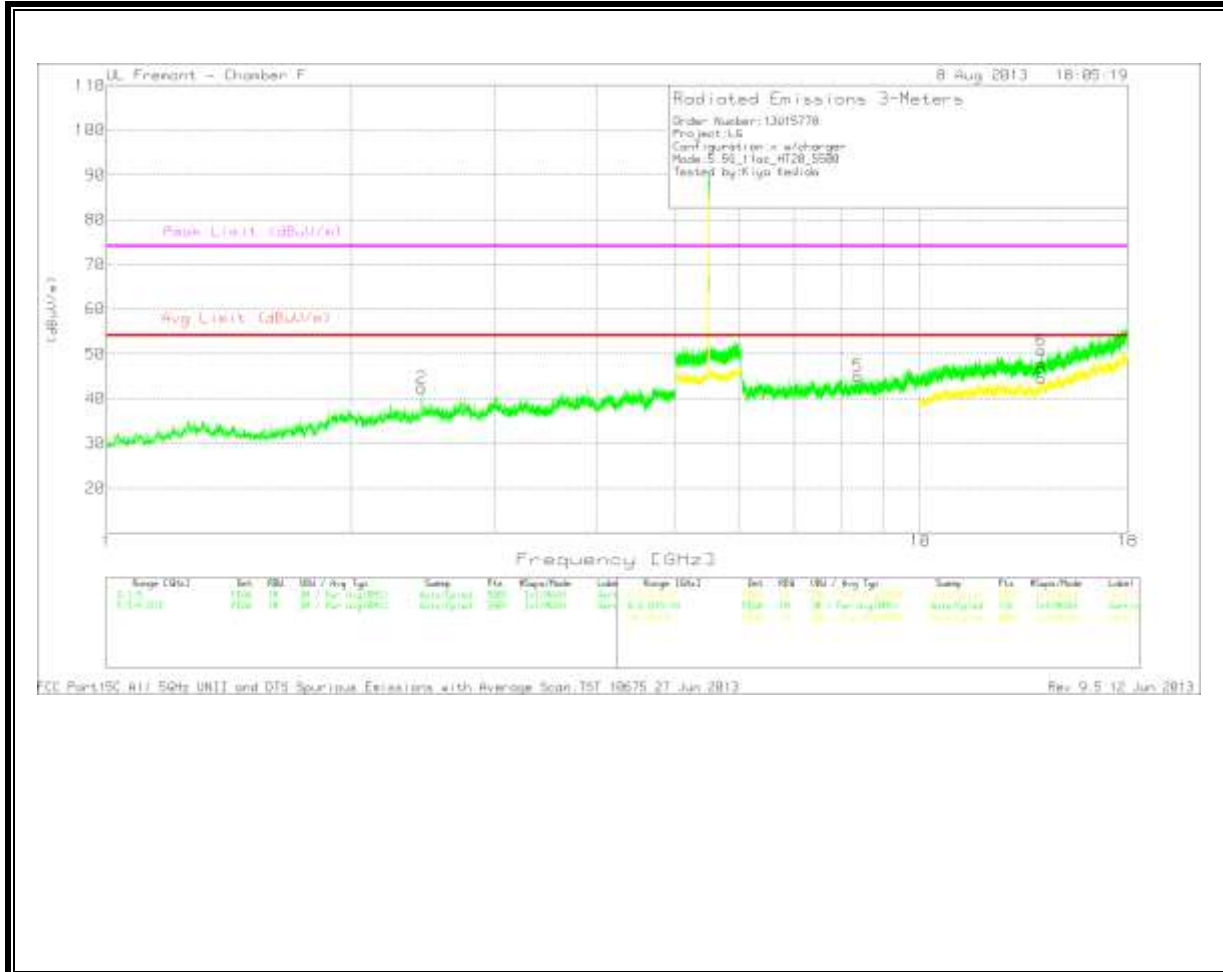
**AUTHORIZED BANDEDGE (HIGH CHANNEL)**





**HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL  
 VERTICAL**



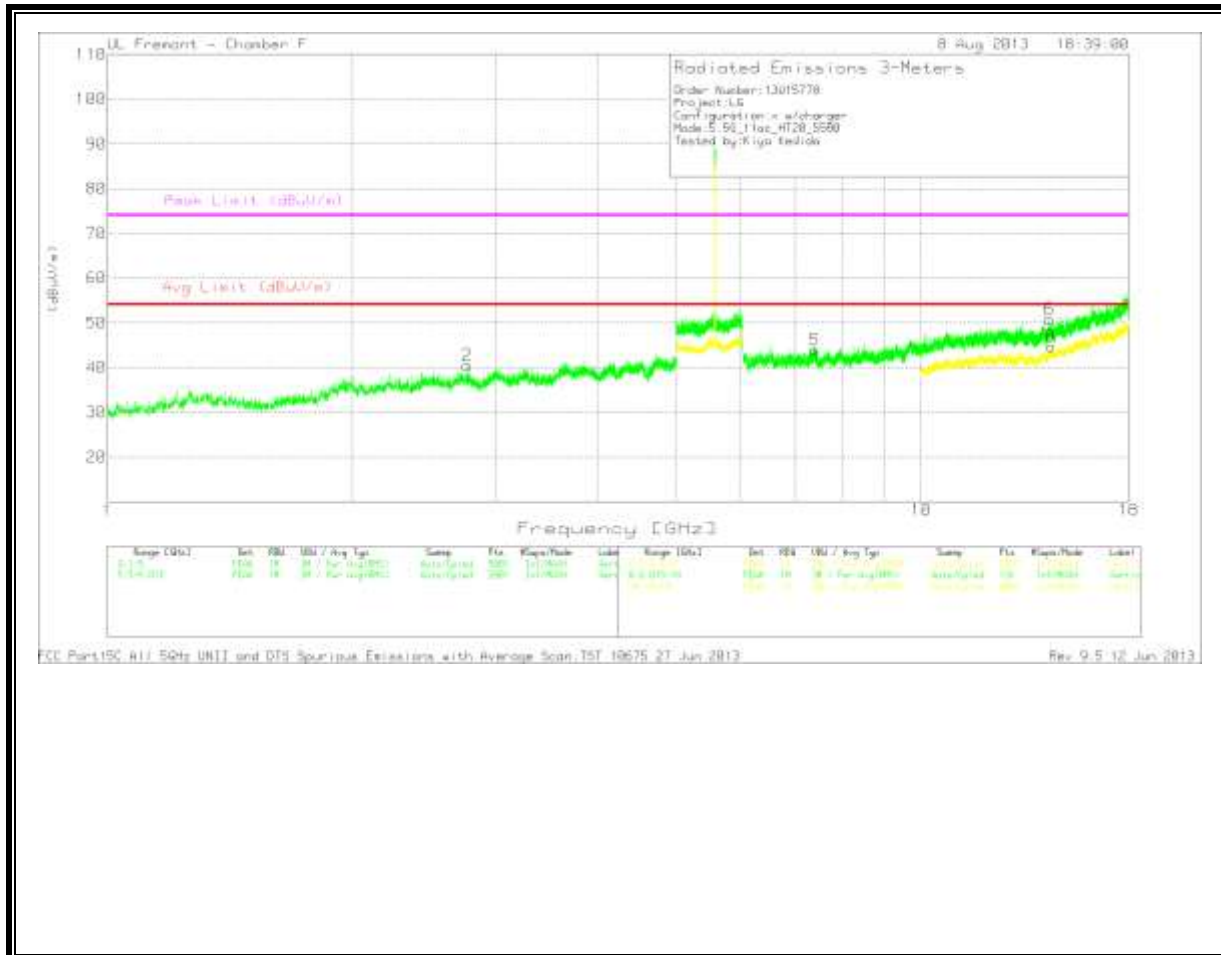
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cb/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.439	43.58	PK	32.3	-33.4	42.48	53.97	-11.49	74	-31.52	0-360	199	V
5	8.38	37.18	PK	36	-28.2	44.98	53.97	-8.99	74	-29.02	0-360	100	V
8	14.102	31.51	PK	39.4	-26.4	44.51	53.97	-9.46	74	-29.49	0-360	100	V

MID CHANNEL

VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/C b/Filtr/ Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.769	40.66	PK	32.7	-32.9	40.46	53.97	-13.51	74	-33.54	0-360	101	V
5	7.398	37.05	PK	35.7	-28.8	43.95	53.97	-10.02	74	-30.05	0-360	101	V
8	14.44	31.35	PK	39.9	-26.5	44.75	53.97	-9.22	74	-29.25	0-360	200	V



HIGH CHANNEL  
VERTICAL

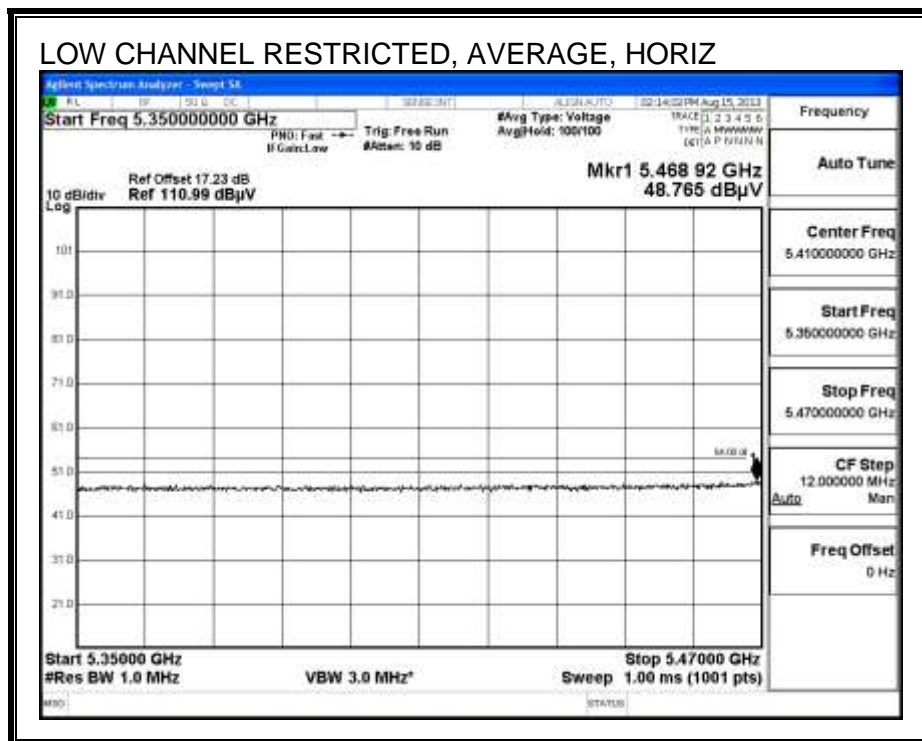
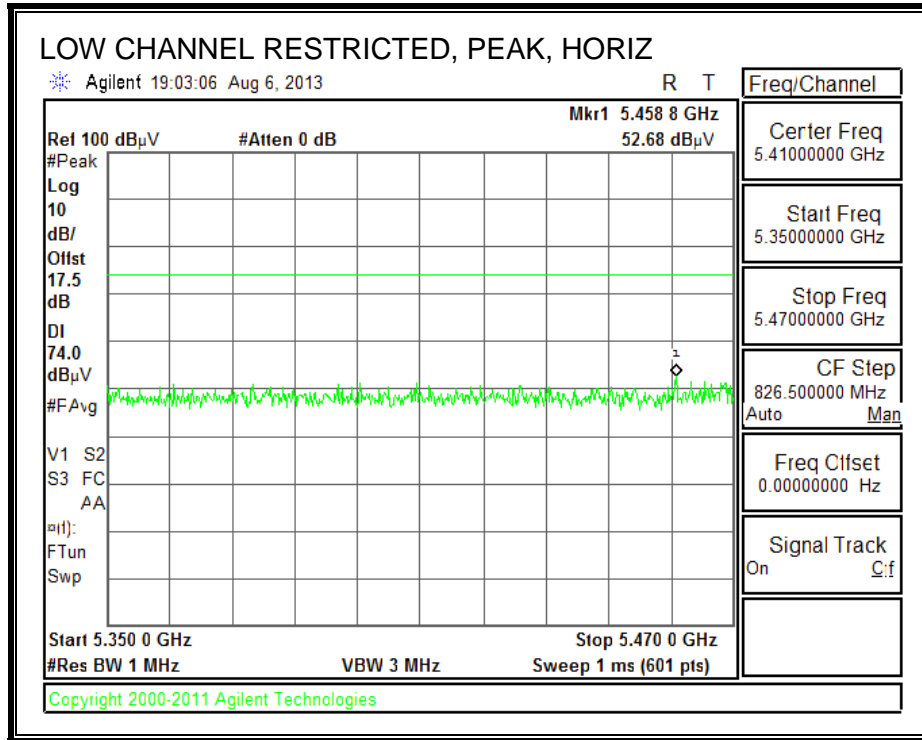


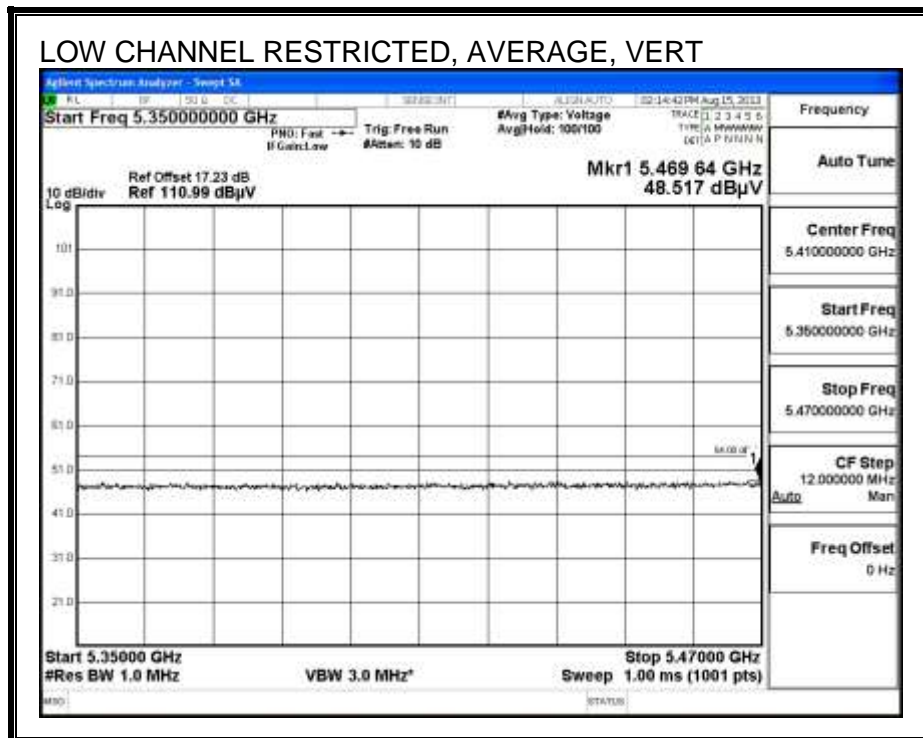
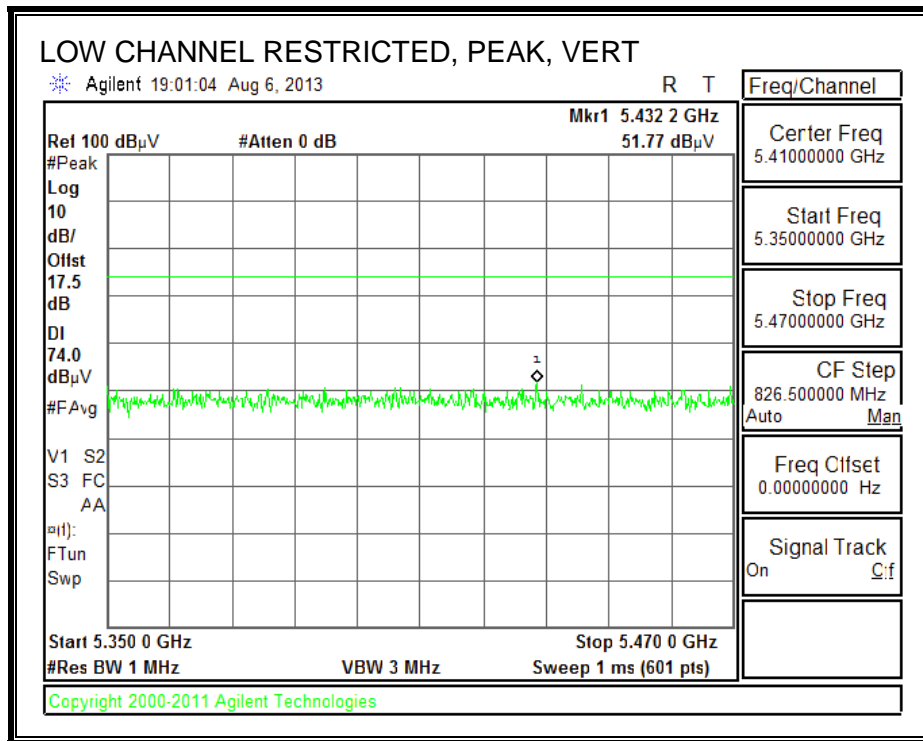
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

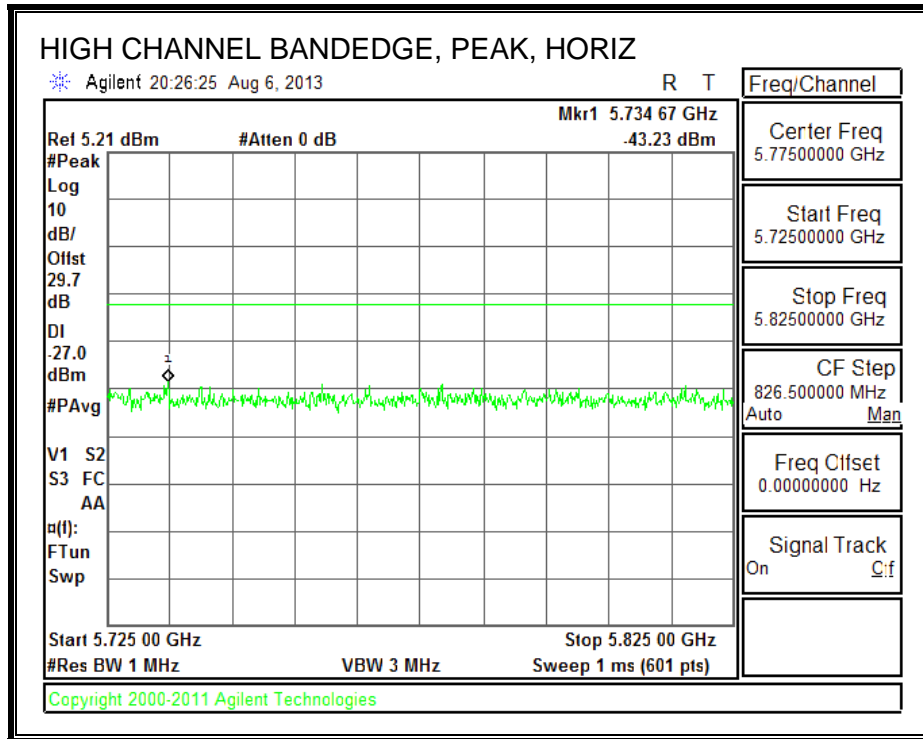
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/C b/Filtr/ Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.438	43.53	PK	32.3	-33.4	42.43	53.97	-11.54	74	-31.57	0-360	101	V
5	9.708	35.57	PK	37.4	-25.8	47.17	53.97	-6.8	74	-26.83	0-360	100	V
8	14.759	30.22	PK	40.1	-25.9	44.42	53.97	-9.55	74	-29.58	0-360	201	V

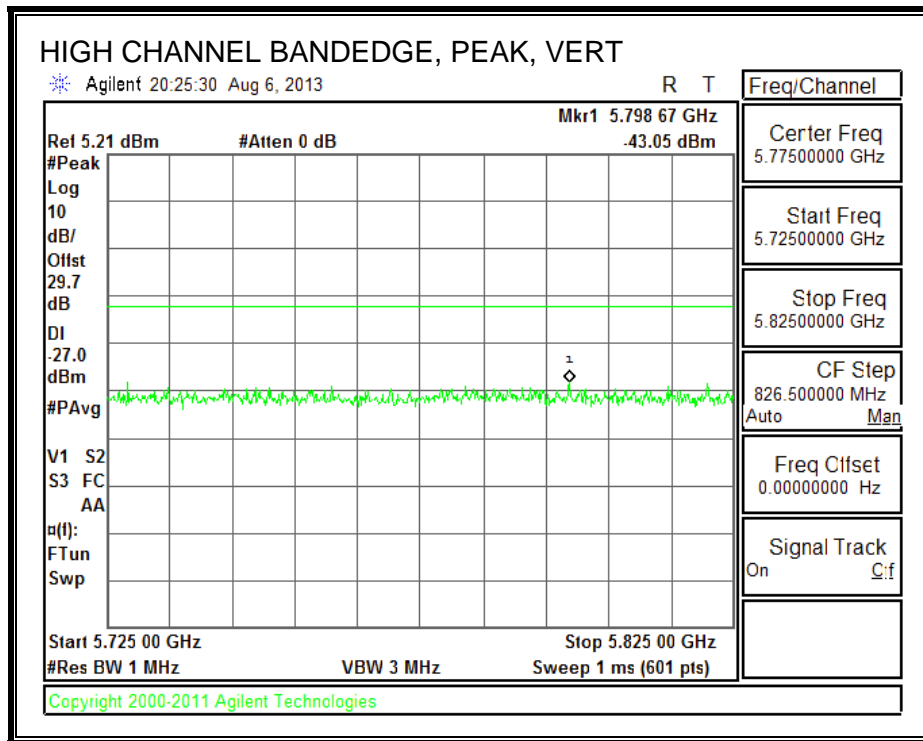
### 9.4.9. TX ABOVE 1 GHz 802.11ac HT40 MODE IN THE 5.5 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)





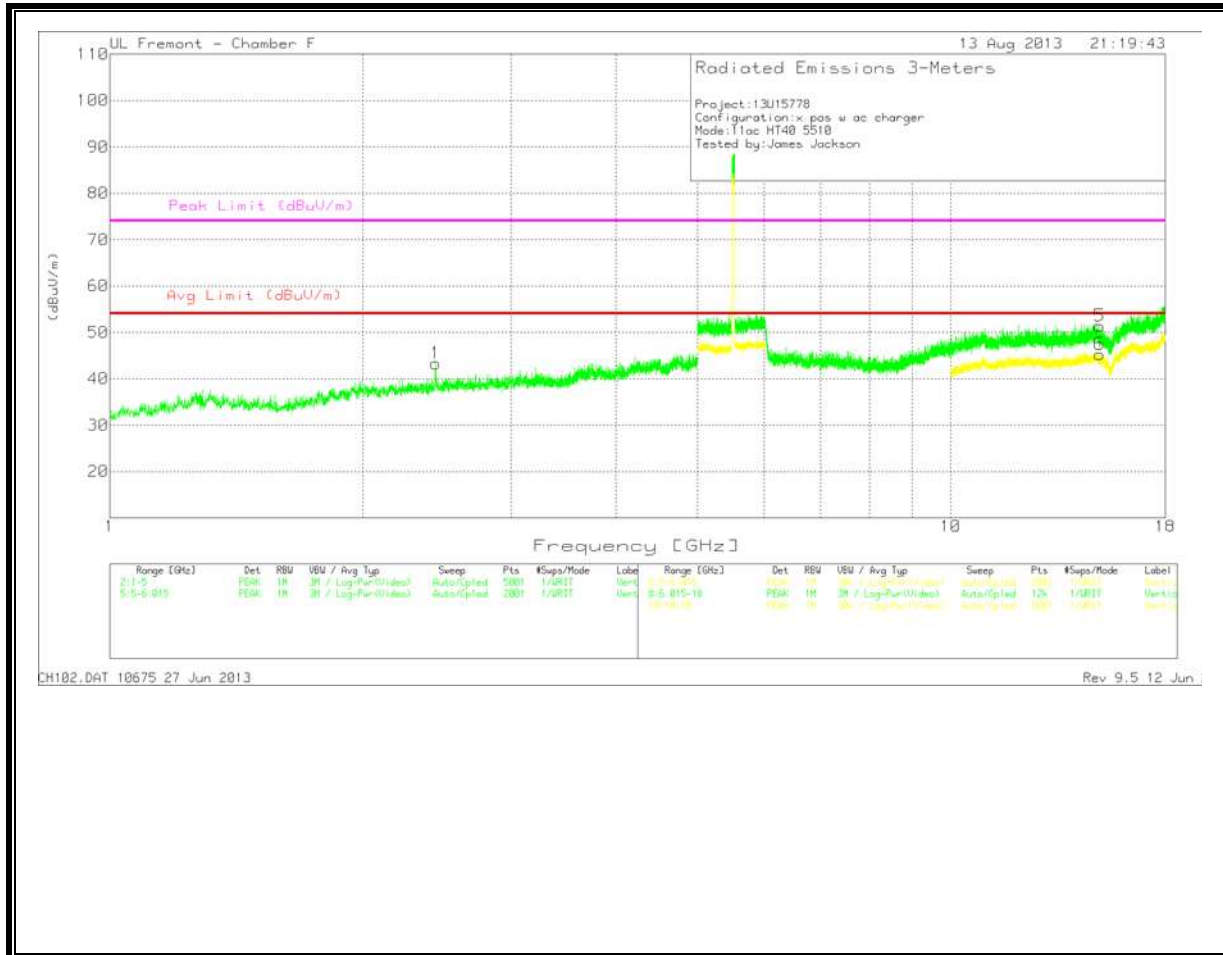
**AUTHORIZED BANDEDGE (HIGH CHANNEL)**





**HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL  
 VERTICAL**



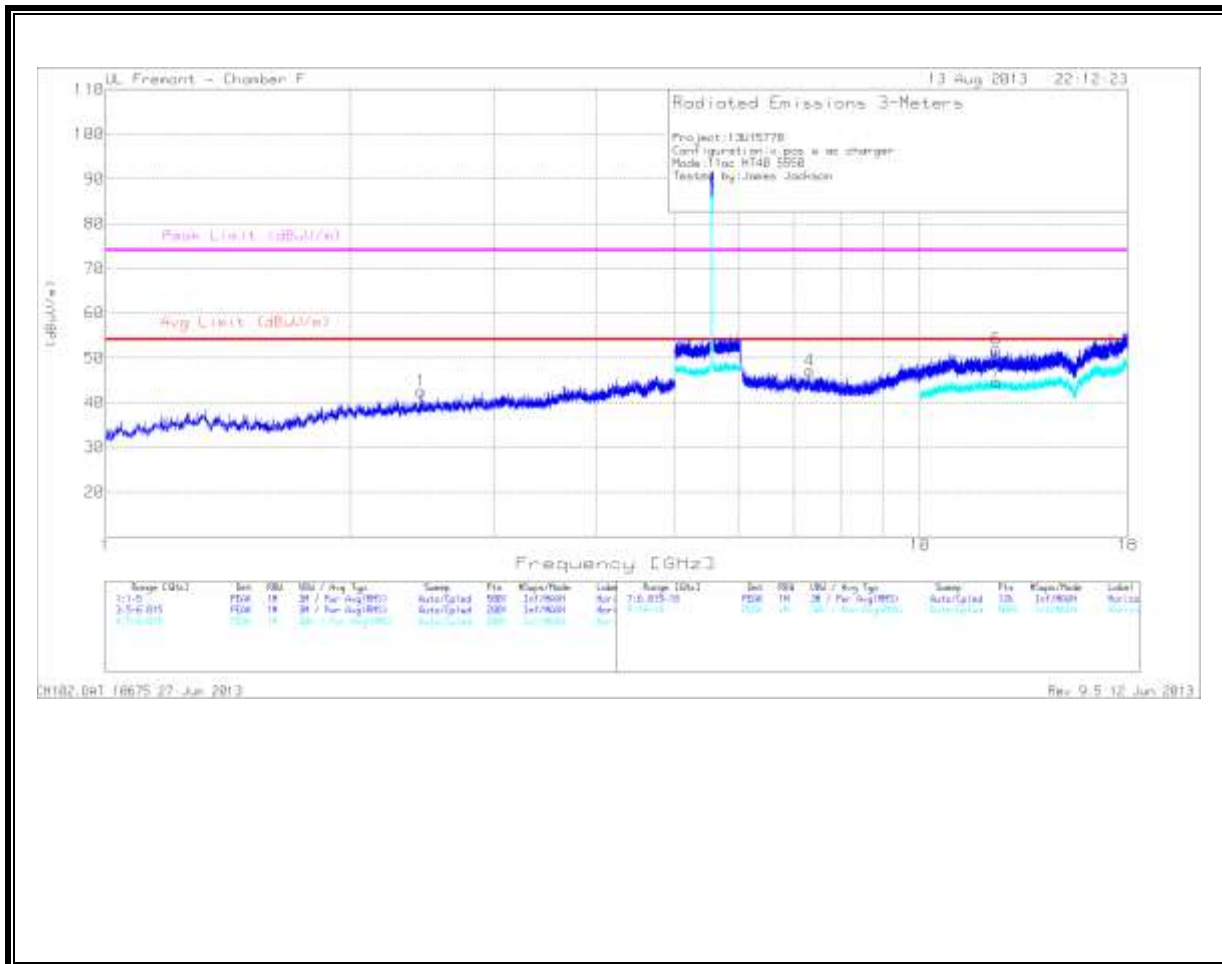
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/C b/Filtr/ Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.44	42.01	PK	32.3	-31	43.31	53.97	-10.66	74	-30.69	0-360	201	V
6	15.036	30.38	PK	40.1	-25.2	45.28	53.97	-8.69	74	-28.72	0-360	201	V



MID CHANNEL  
HORIZONTAL

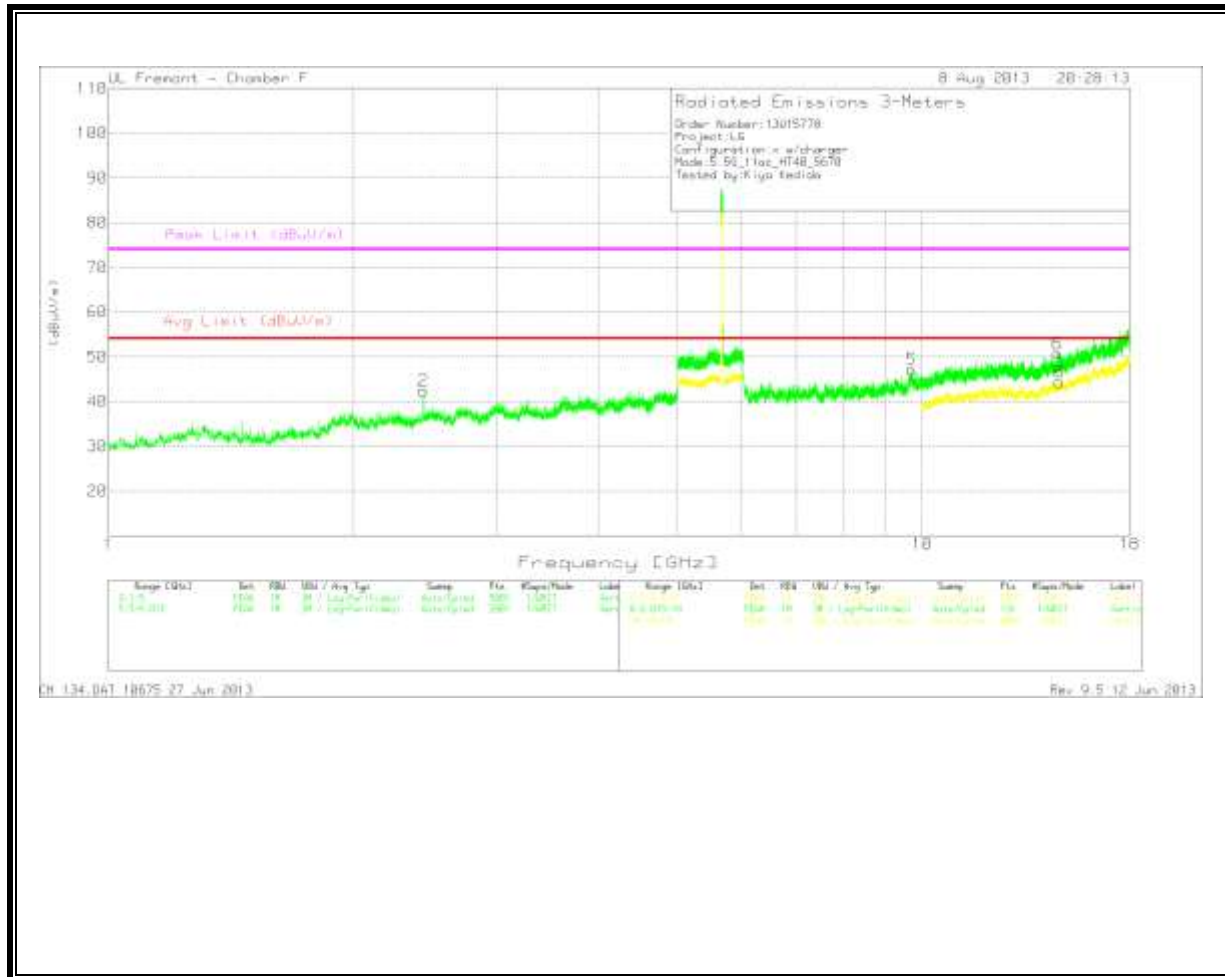


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (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
1	2.439	41.29	PK	32.3	-31	42.59	53.97	-11.38	74	-31.41	0-360	199	H
4	7.324	37.72	PK	35.7	-26.3	47.12	53.97	-6.85	74	-26.88	0-360	199	H
7	12.425	28.65	PK	39.3	-23.3	44.65	53.97	-9.32	74	-29.35	0-360	100	H

HIGH CHANNEL  
 VERTICAL

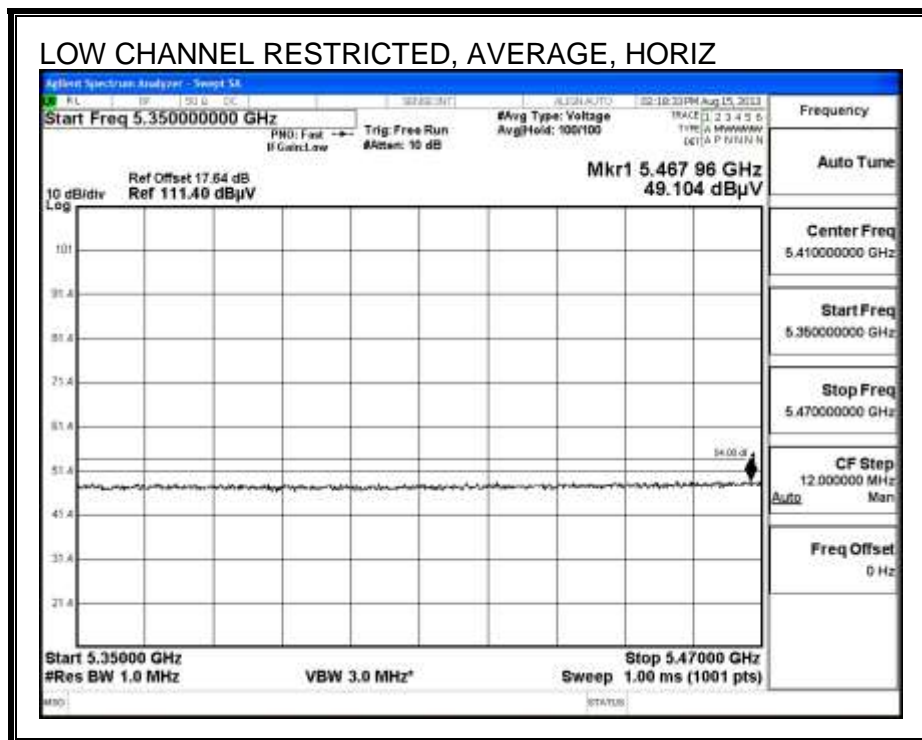
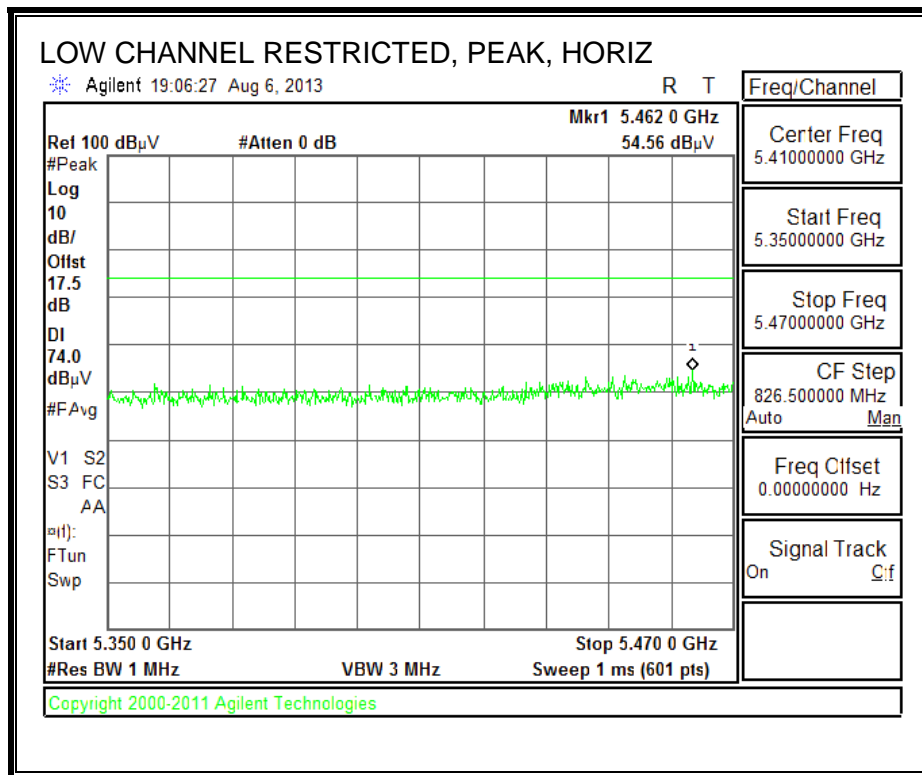


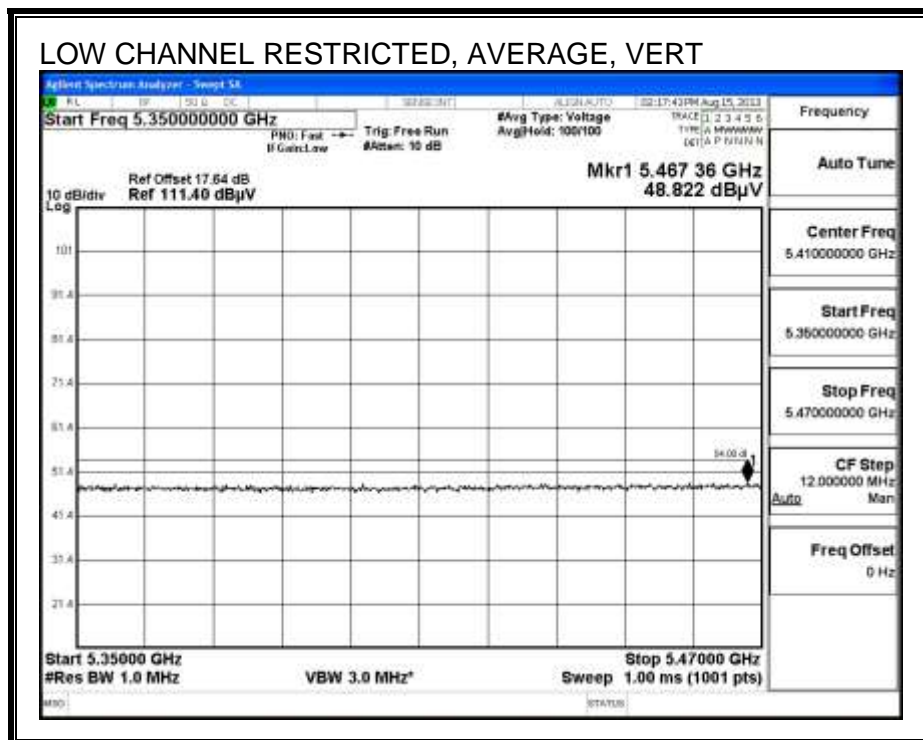
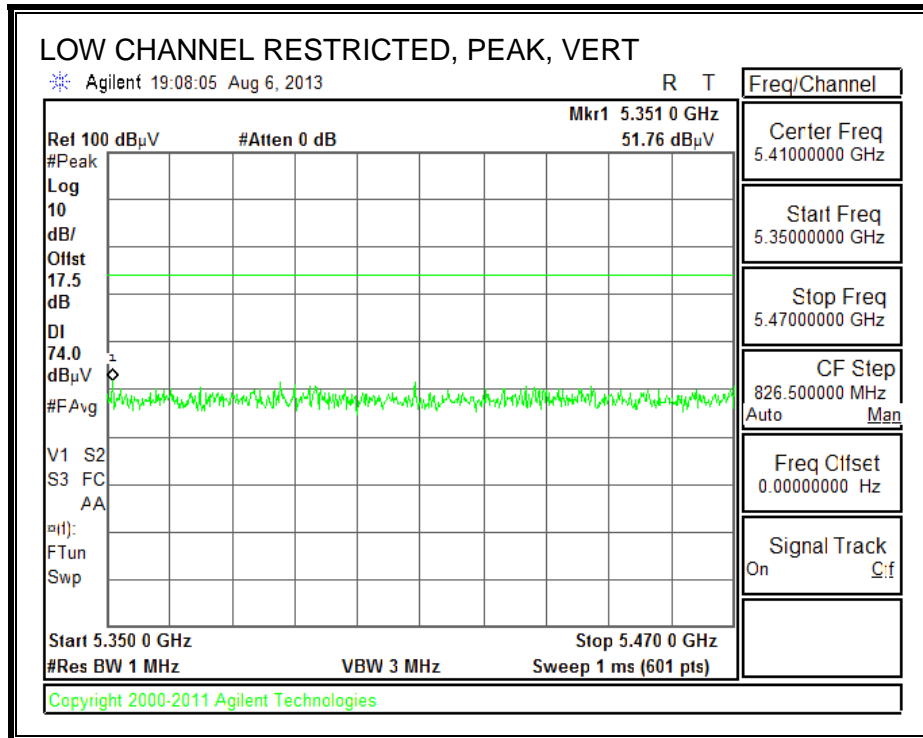
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cb/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.438	43.53	PK	32.3	-33.4	42.43	53.97	-11.54	74	-31.57	0-360	101	V
5	9.708	35.57	PK	37.4	-25.8	47.17	53.97	-6.8	74	-26.83	0-360	100	V
8	14.759	30.22	PK	40.1	-25.9	44.42	53.97	-9.55	74	-29.58	0-360	201	V

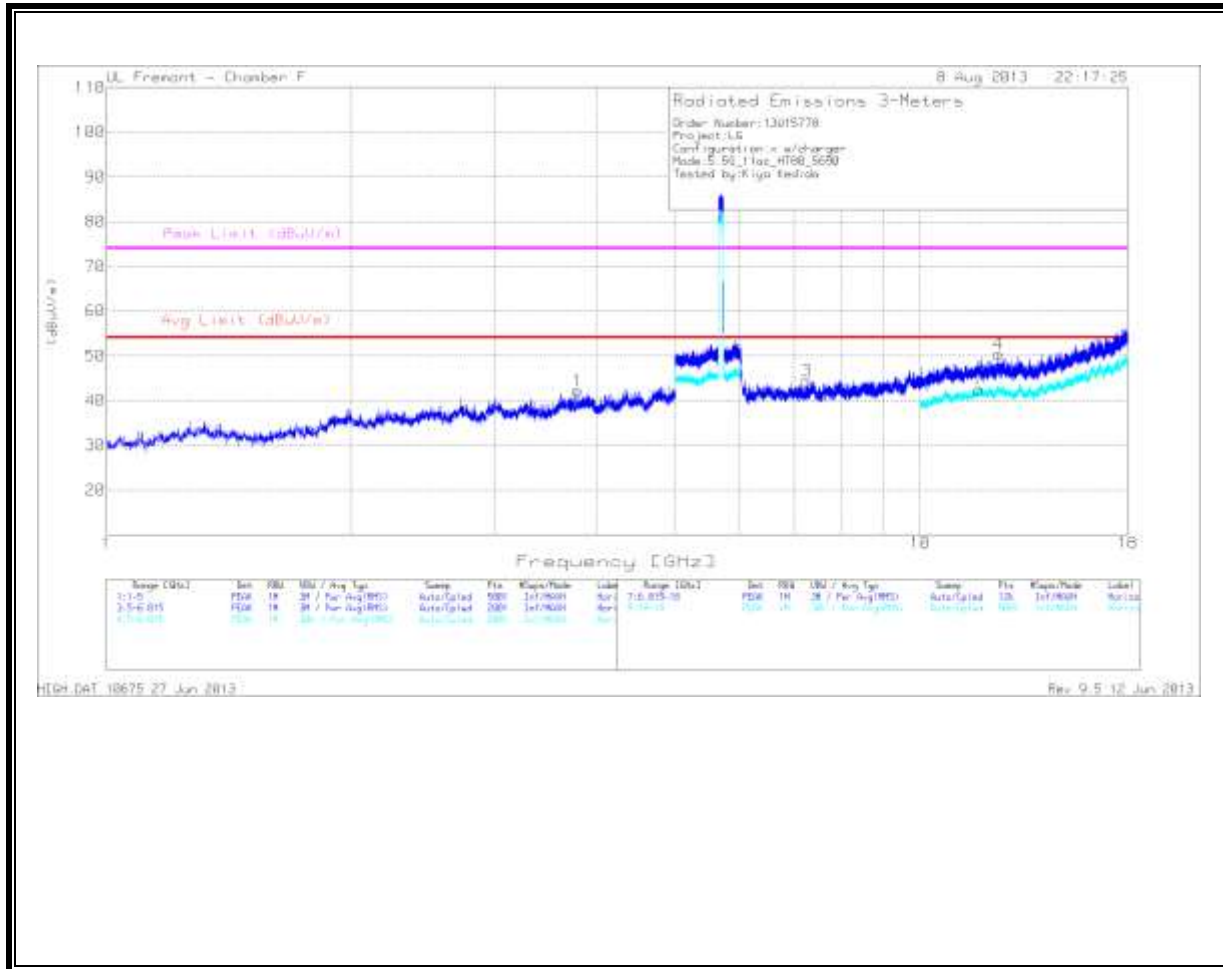
**9.4.11. TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.5 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)**





**HARMONICS AND SPURIOUS EMISSIONS**

LOW CHANNEL  
 HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

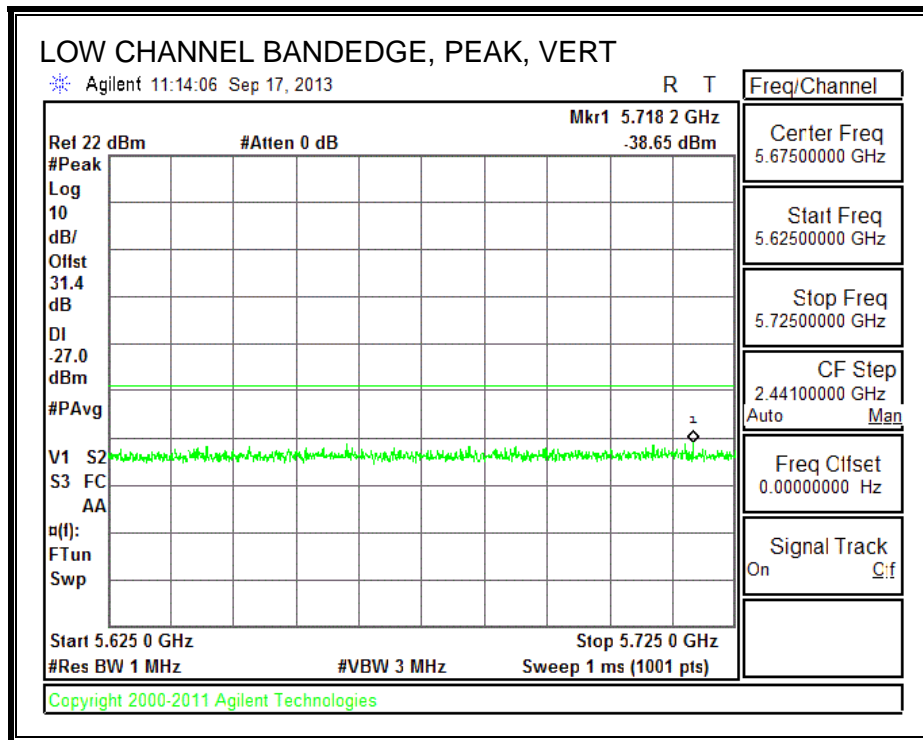
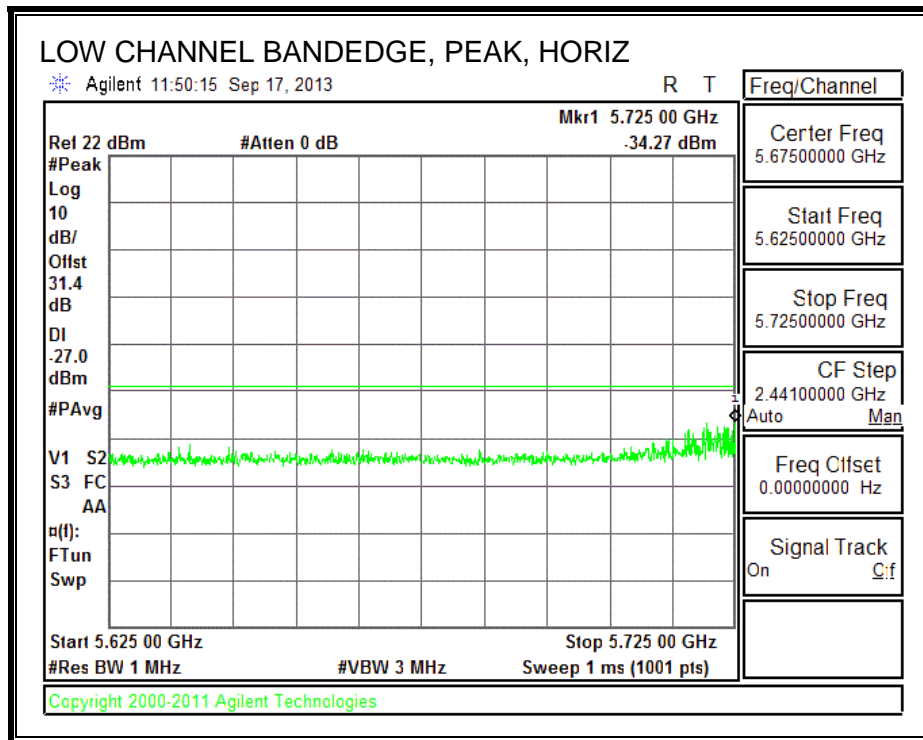
LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cb/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.794	41.11	PK	33.6	-32.5	42.21	53.97	-11.76	74	-31.79	0-360	199	H
3	7.252	38.01	PK	35.7	-29.3	44.41	53.97	-9.56	74	-29.59	0-360	199	H
7	11.817	28.41	PK	39.2	-25.1	42.51	53.97	-11.46	74	-31.49	0-360	100	H

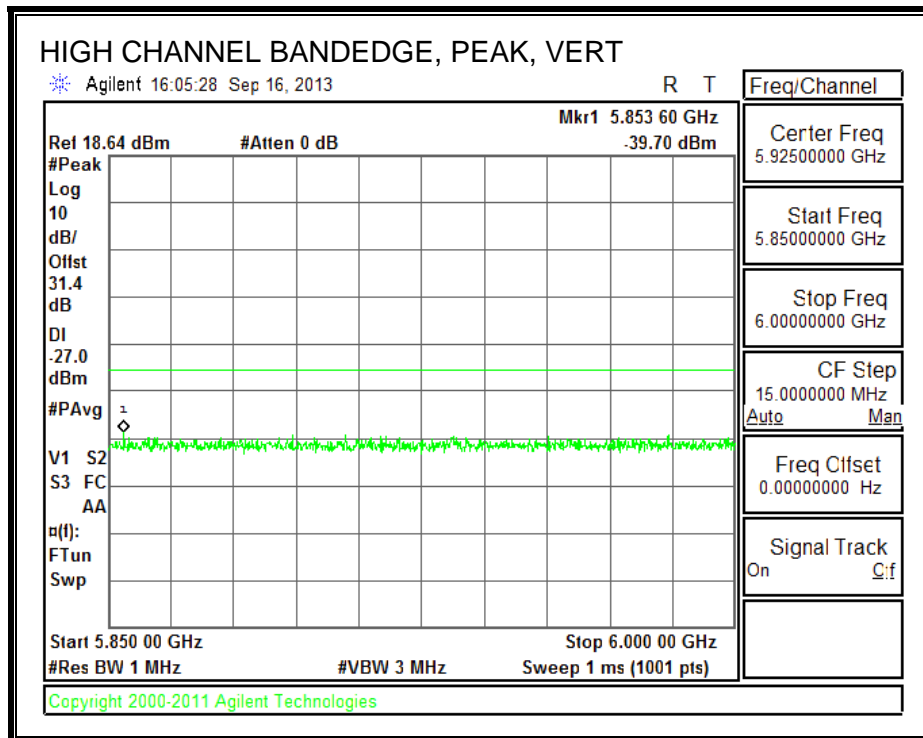
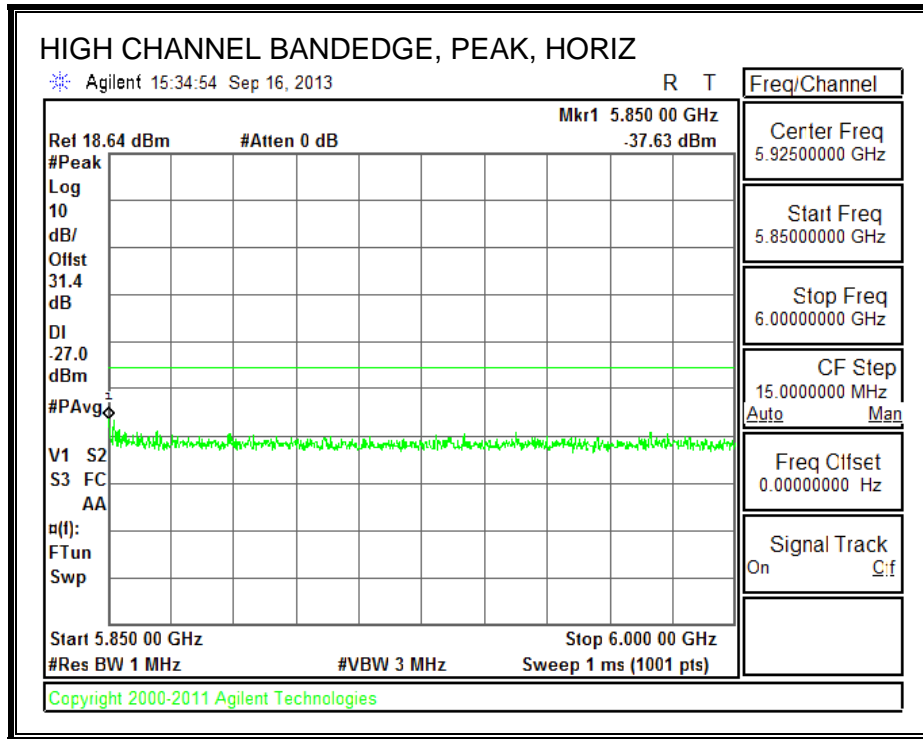


**9.5. 5.8 GHz**

**9.5.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.8 GHz BAND  
 AUTHORIZED BANDEDGE (LOW CHANNEL)**



**AUTHORIZED BANDEDGE (HIGH CHANNEL)**



**HARMONICS AND SPURIOUS EMISSIONS**

LOW CHANNEL  
VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T119 AF (dB/m)	Amp/Cbl (dB)	Fitr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
2	4.397	36.38	PK	33.7	-25.8	.1	44.38	54	-9.62	74	-29.62	200	Vert
4	9.632	32.28	PK	36.8	-21.8	.3	47.58	54	-6.42	74	-26.42	201	Vert
6	15.549	27.03	PK	40.3	-16.5	.6	51.43	54	-2.57	74	-22.57	201	Vert

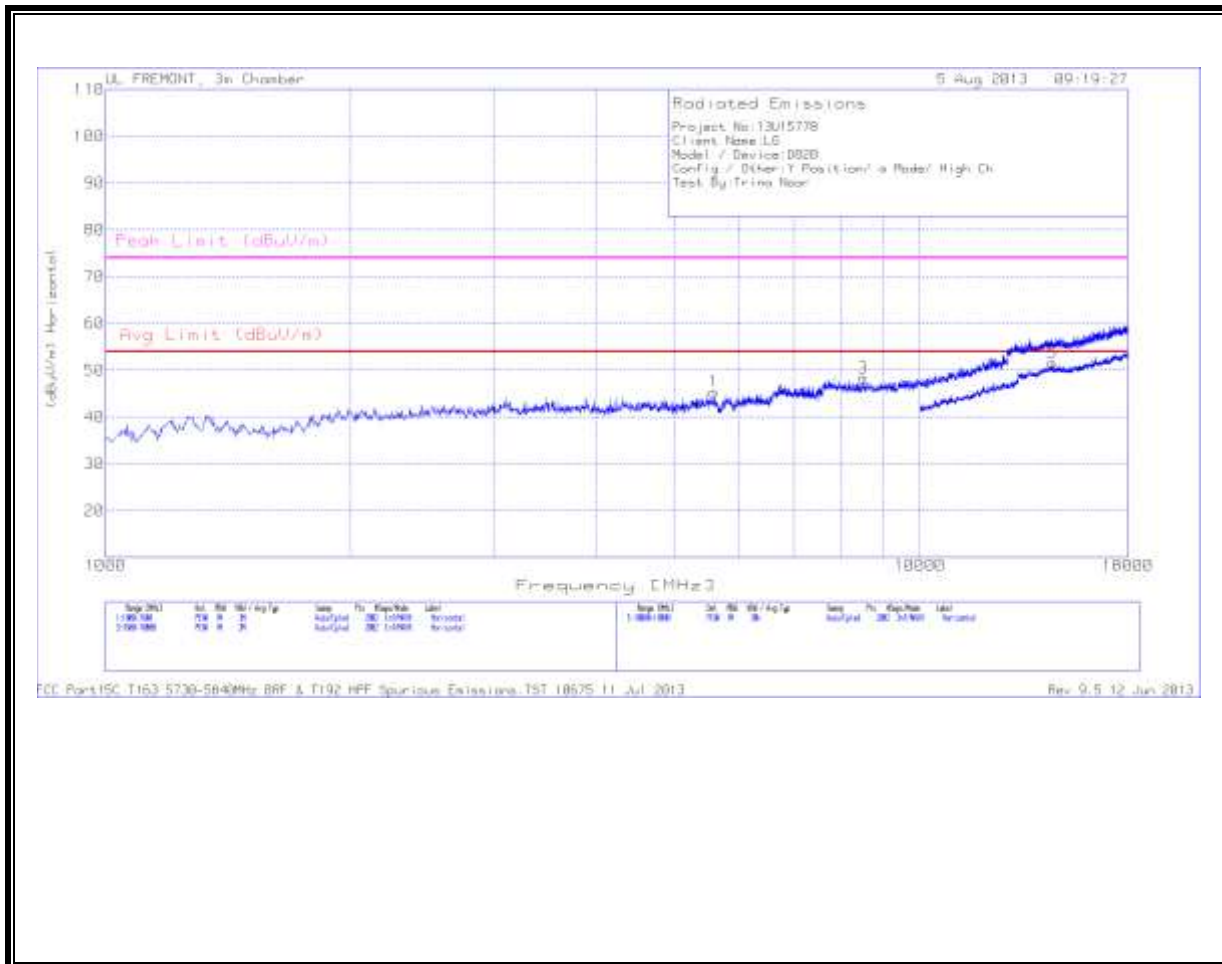
MID CHANNEL  
VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T119 AF (dB/m)	Amp/ Cbl (dB)	Fitr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
2	3.085	39.08	PK	33	-28.3	.1	43.88	54	-10.12	74	-30.12	201	Vert
4	7.688	34	PK	35.8	-22.7	.5	47.6	54	-6.4	74	-26.4	201	Vert
6	13.27	26.21	PK	39.1	-16.7	.6	49.21	54	-4.79	74	-24.79	201	Vert



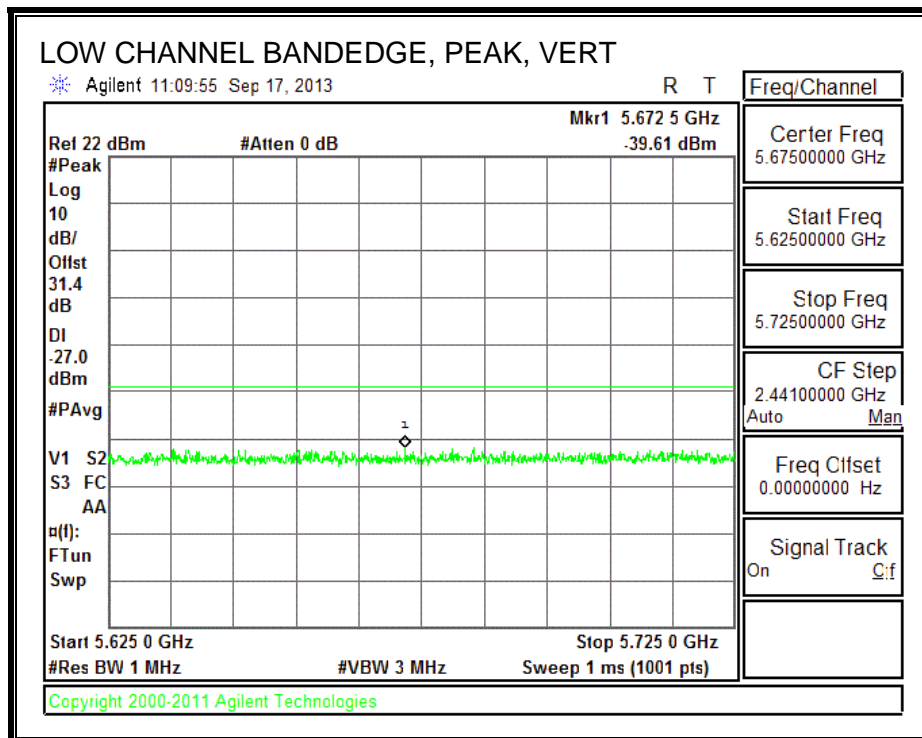
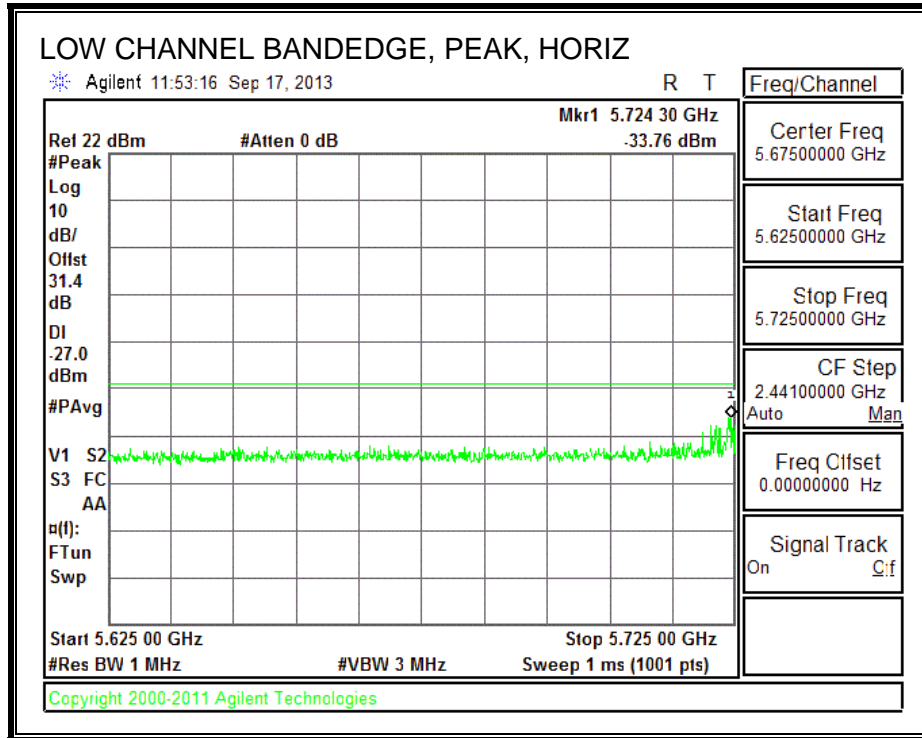
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

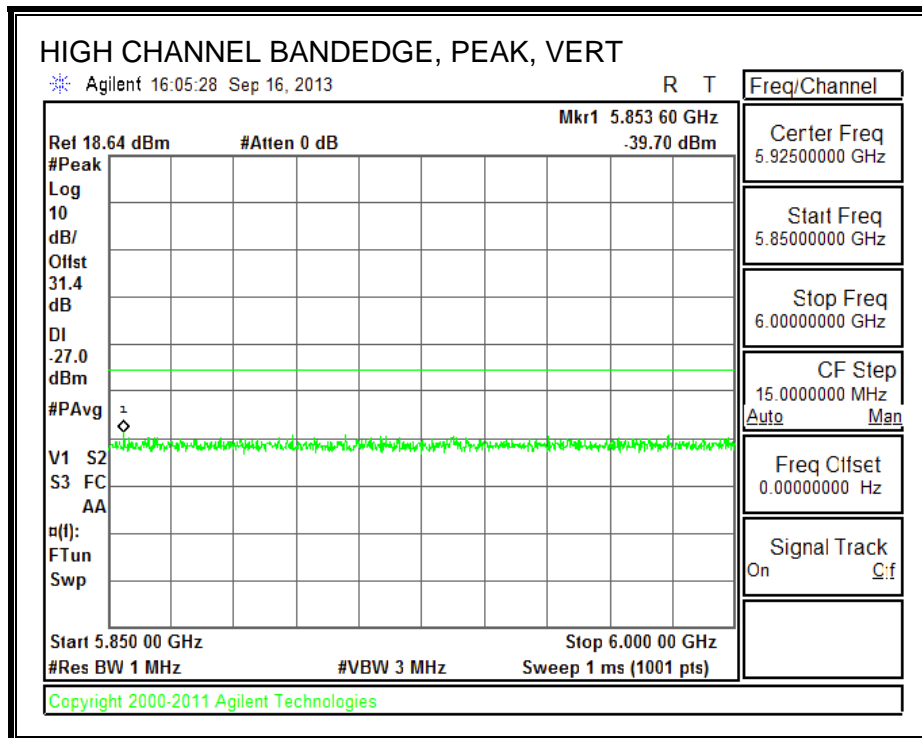
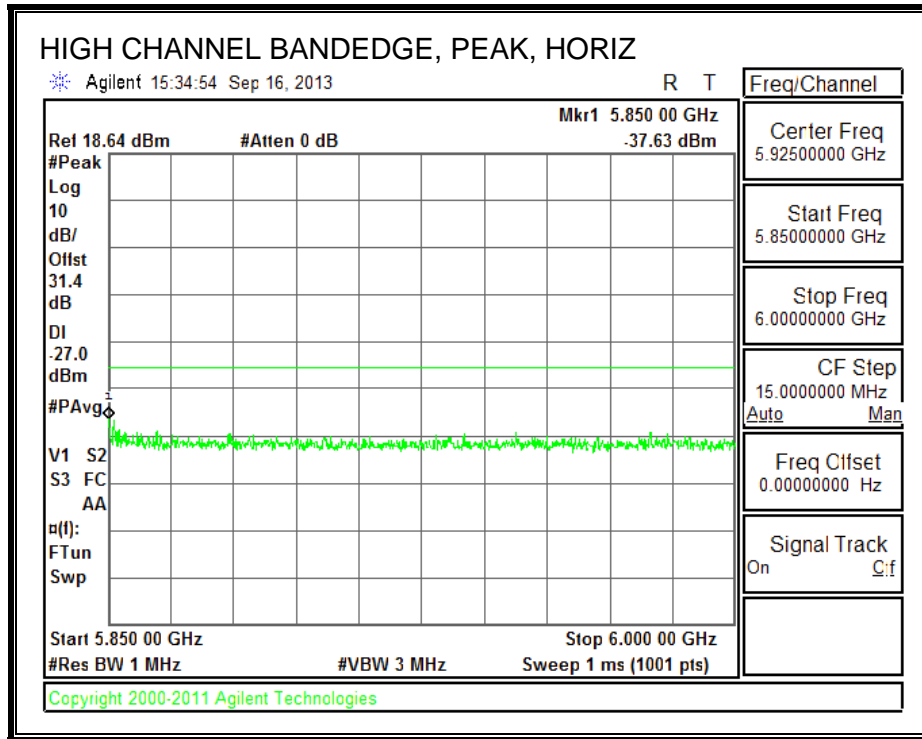
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T119 AF (dB/m)	Amp/Cbl (dB)	Fitr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	5.585	34.82	PK	34.8	-24.4	.2	45.42	54	-8.58	74	-28.58	201	Horz
3	8.52	34.22	PK	35.8	-22.1	.4	48.32	54	-5.68	74	-25.68	99	Horz



**9.5.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND**  
**AUTHORIZED BANDEDGE (LOW CHANNEL)**



**AUTHORIZED BANDEDGE (HIGH CHANNEL)**



### HARMONICS AND SPURIOUS EMISSIONS

#### LOW CHANNEL HORIZONTAL

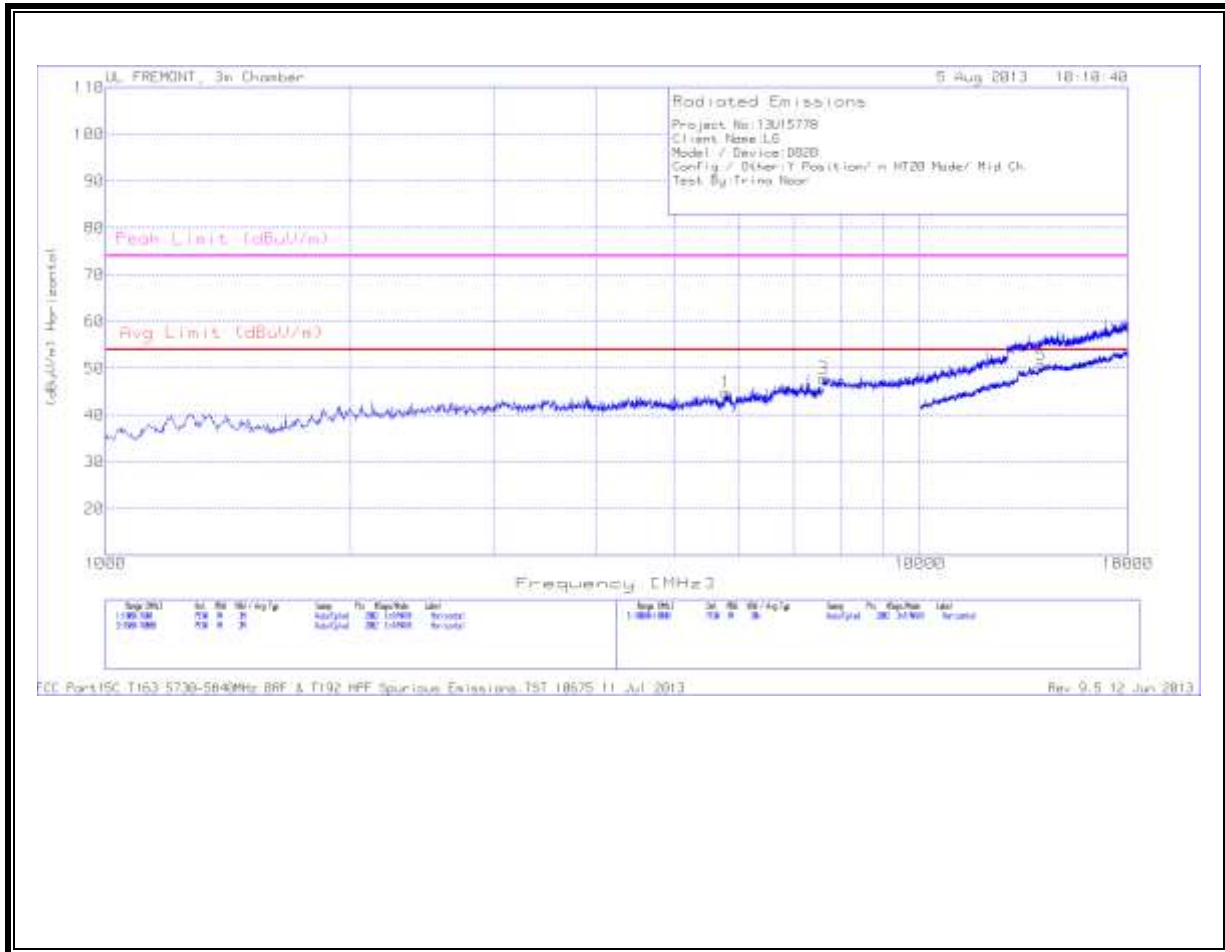


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T119 AF (dB/m)	Amp/Cb l (dB)	Filtr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	4.918	35.72	PK	34	-25.1	.1	44.72	54	-9.28	74	-29.28	99	Horz
3	9.923	33.42	PK	36.9	-21.5	.4	49.22	54	-4.78	74	-24.78	201	Horz

MID CHANNEL  
HORIZONTAL



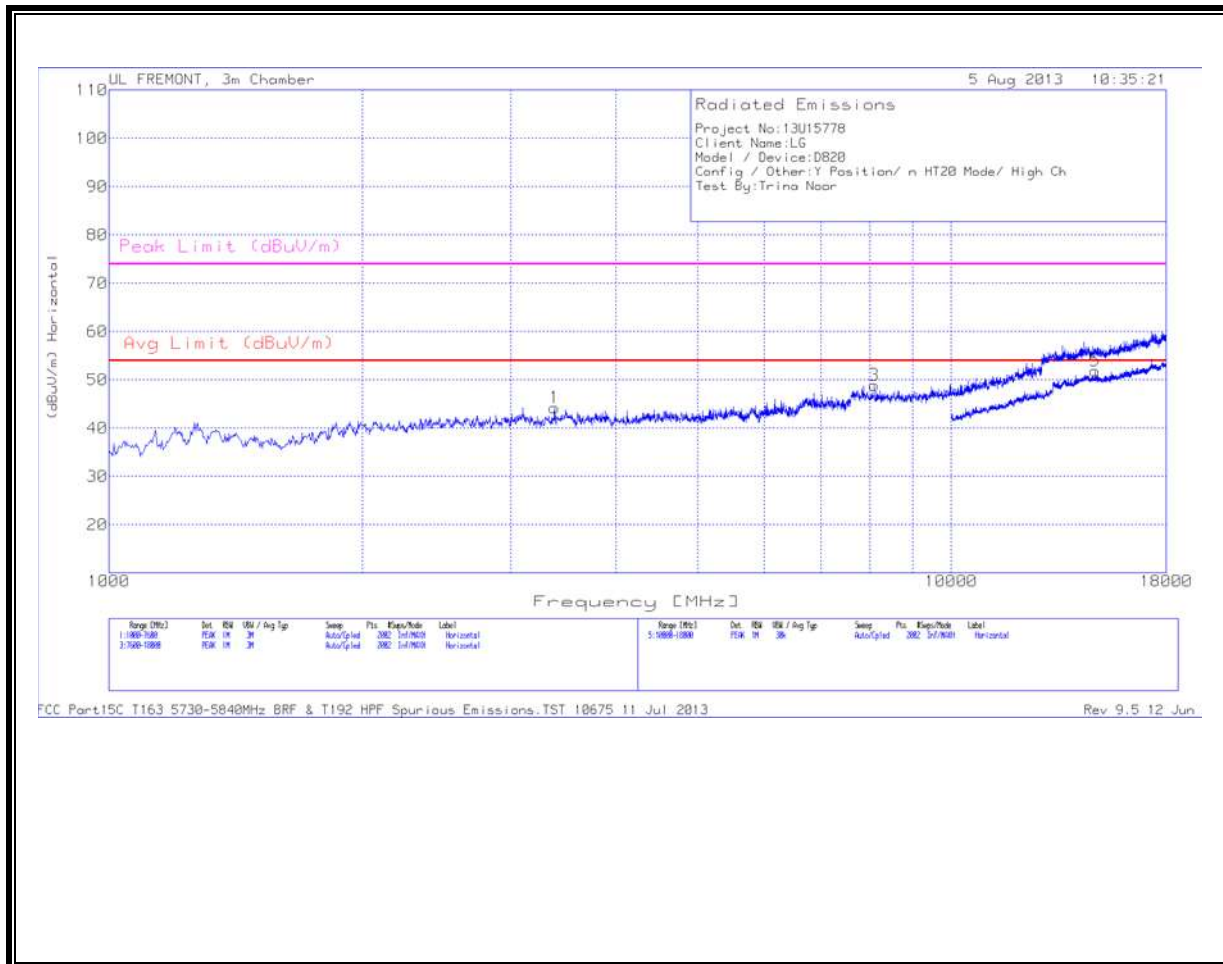
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T119 AF (dB/m)	Amp/Cb l (dB)	Filtr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	5.776	34.03	PK	34.9	-24.3	.2	44.83	54	-9.17	74	-29.17	201	Horz
3	7.61	34.32	PK	35.7	-22.8	.6	47.82	54	-6.18	74	-26.18	201	Horz

HIGH CHANNEL

HORIZONTAL



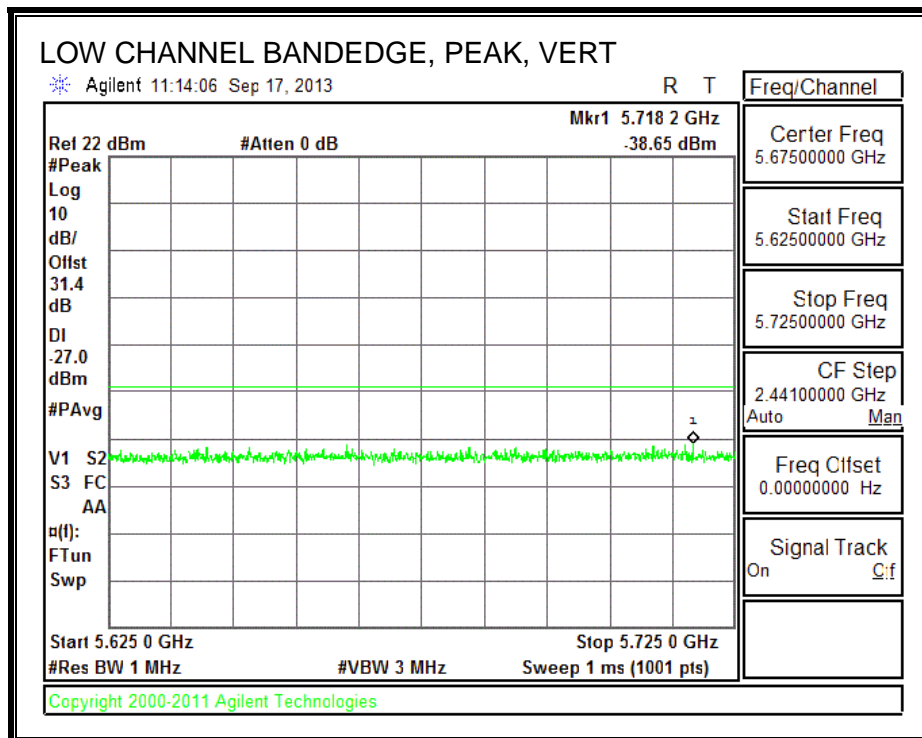
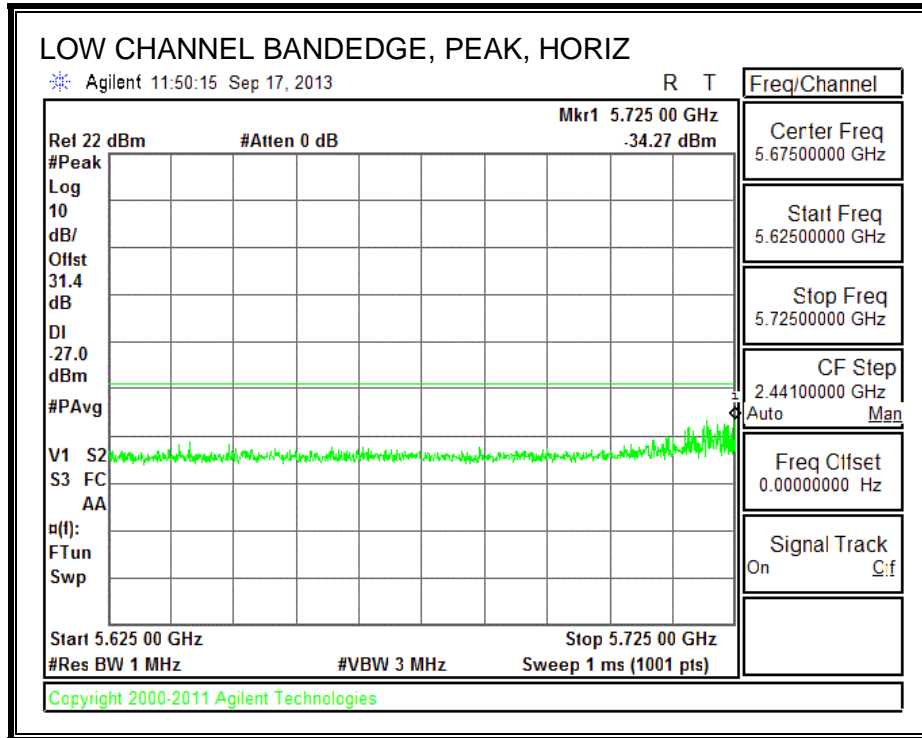
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

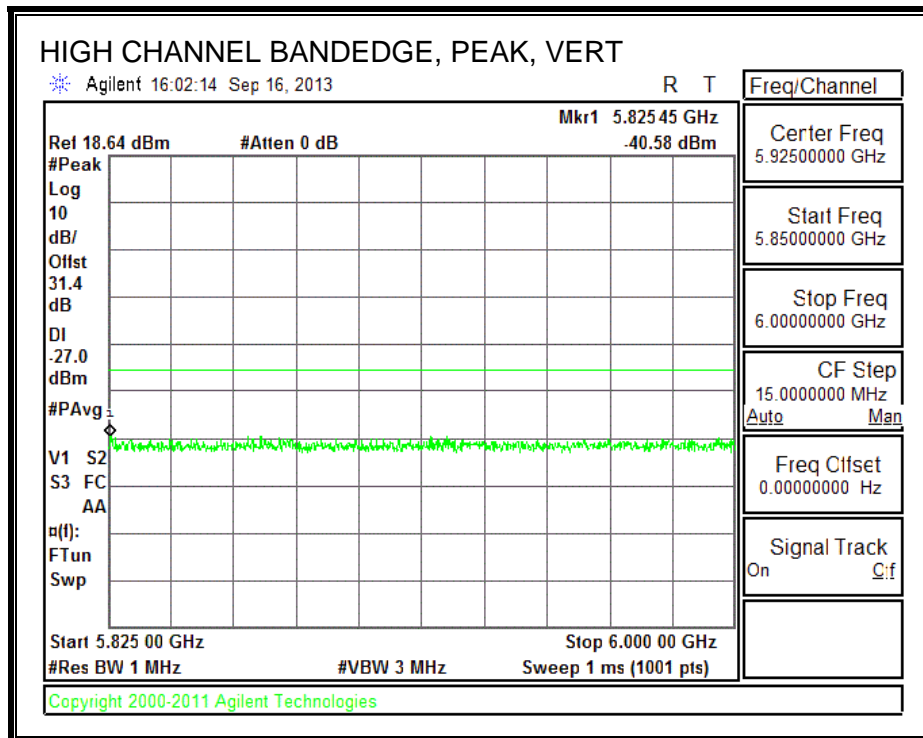
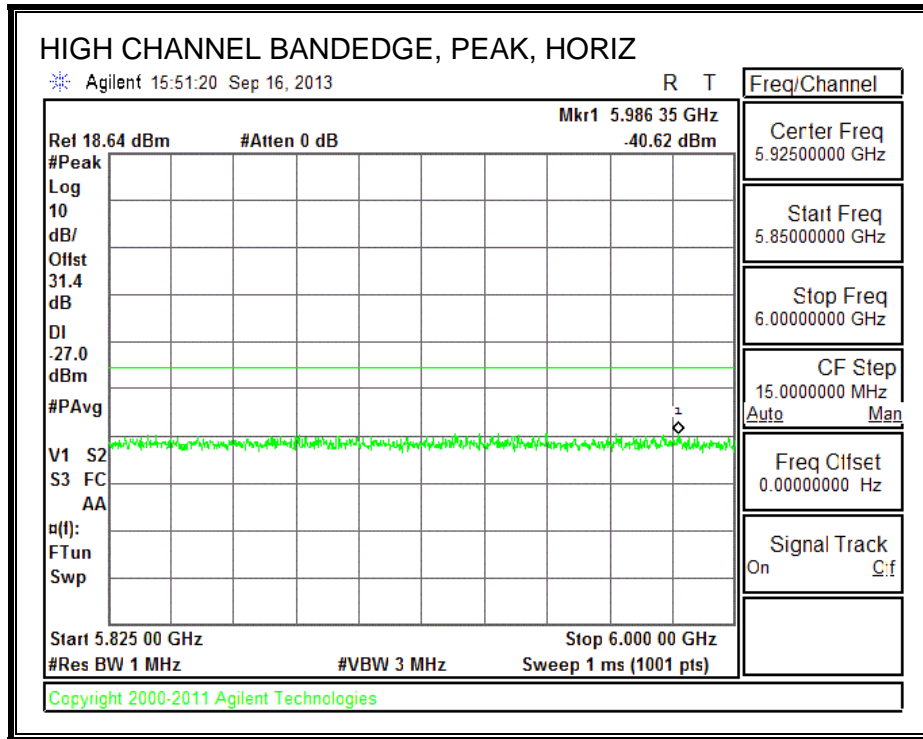
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T119 AF (dB/m)	Amp/Cb l (dB)	Filtr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	3.381	38.7	PK	32.9	-27.6	.2	44.2	54	-9.8	74	-29.8	201	Horz
3	8.104	35.06	PK	35.7	-22.3	.4	48.86	54	-5.14	74	-25.14	99	Horz



**9.5.2. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND**  
**AUTHORIZED BANDEDGE (LOW CHANNEL)**



**AUTHORIZED BANDEDGE (HIGH CHANNEL)**



### HARMONICS AND SPURIOUS EMISSIONS

#### LOW CHANNEL HORIZONTAL



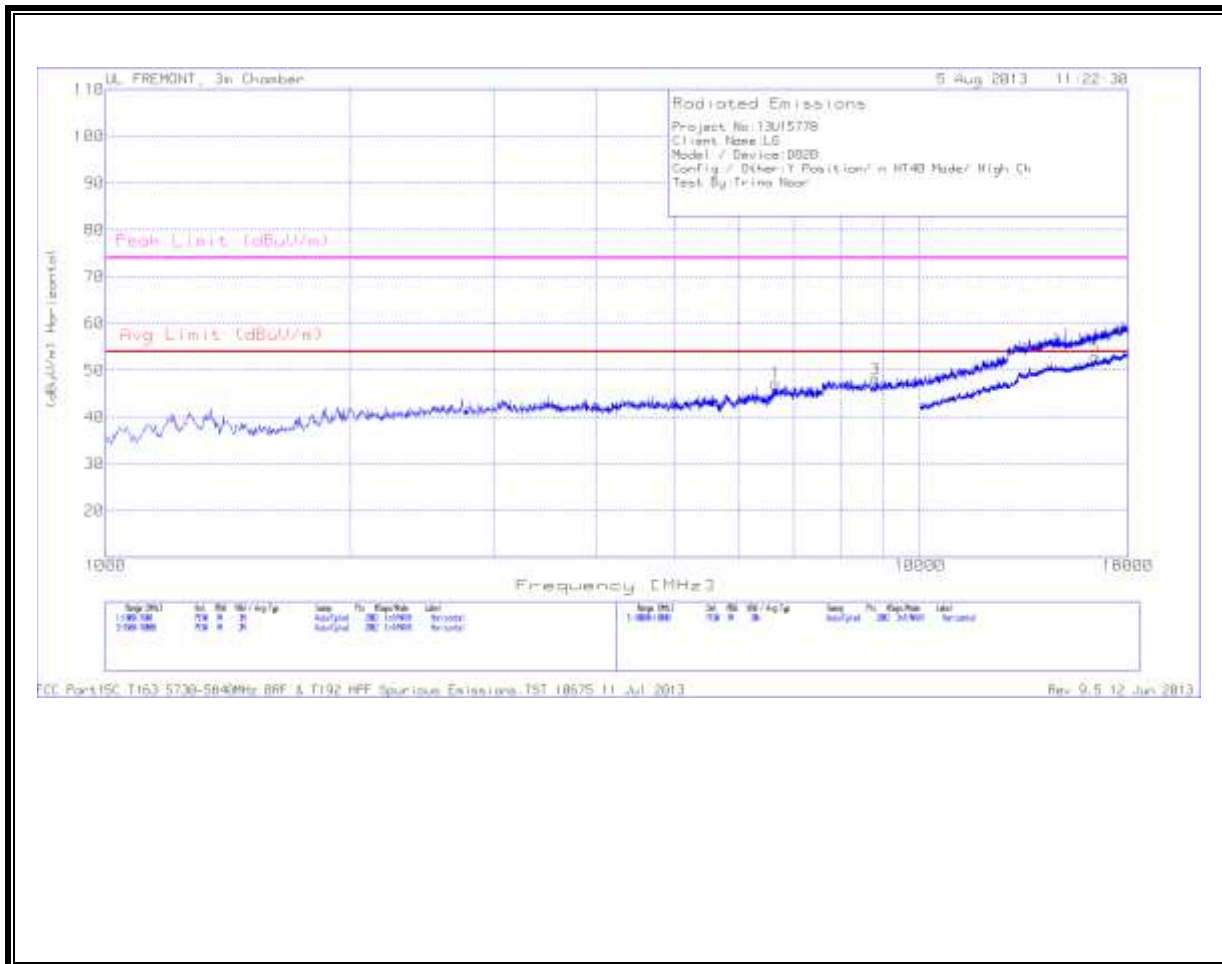
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T119 AF (dB/m)	Amp/Cb l (dB)	Filtr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	6.861	34.55	PK	35.6	-23.2	.2	47.15	54	-6.85	74	-26.85	201	Horz
3	9.315	33.18	PK	36.3	-21.9	.4	47.98	54	-6.02	74	-26.02	99	Horz

HIGH CHANNEL

HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

VERTICAL

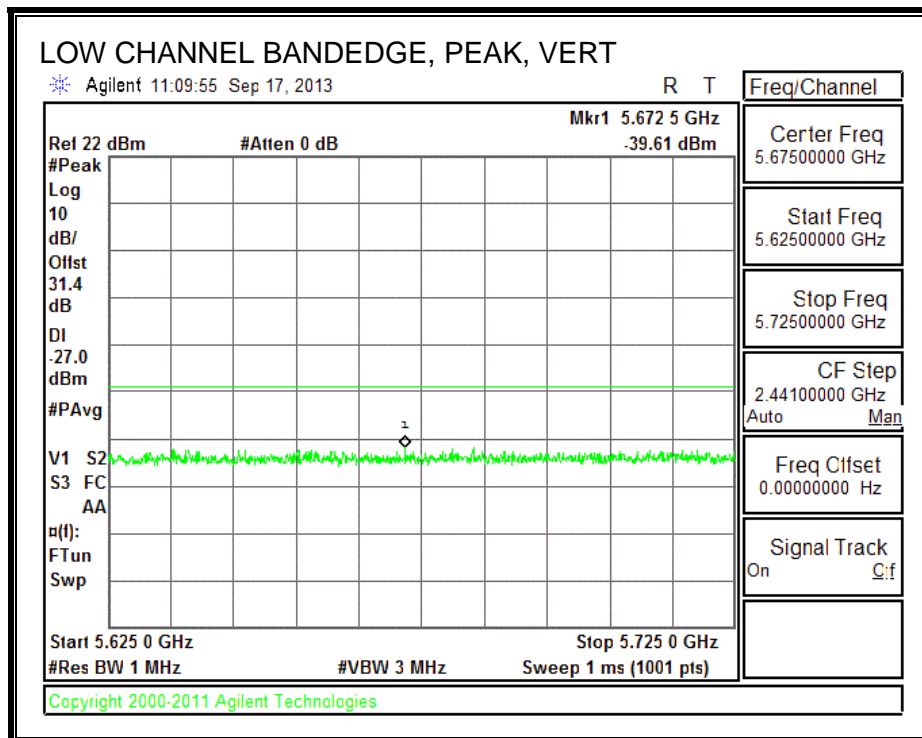
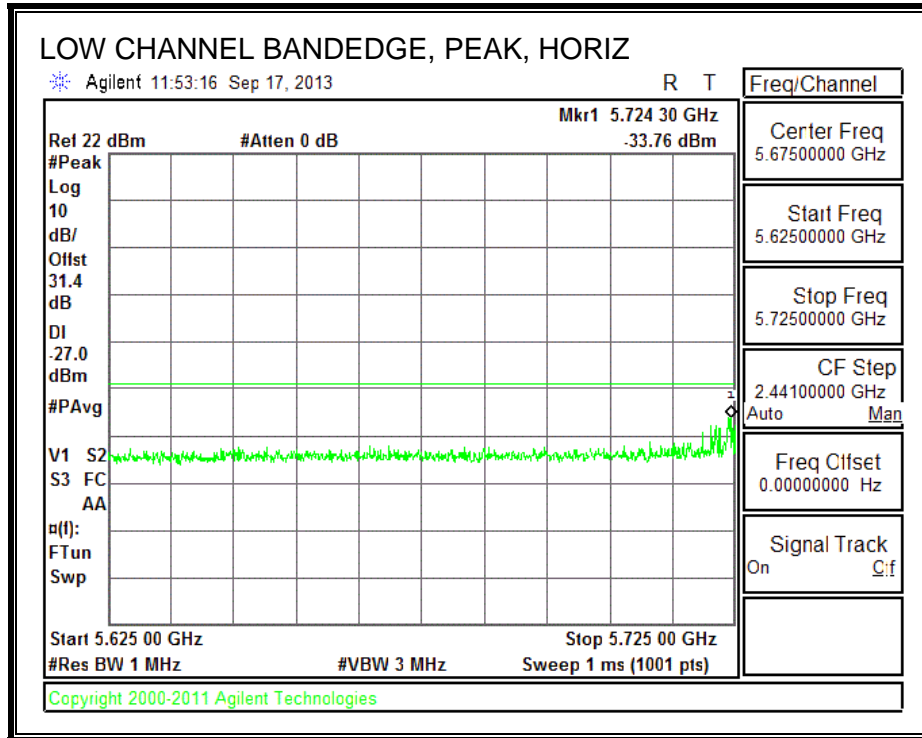


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

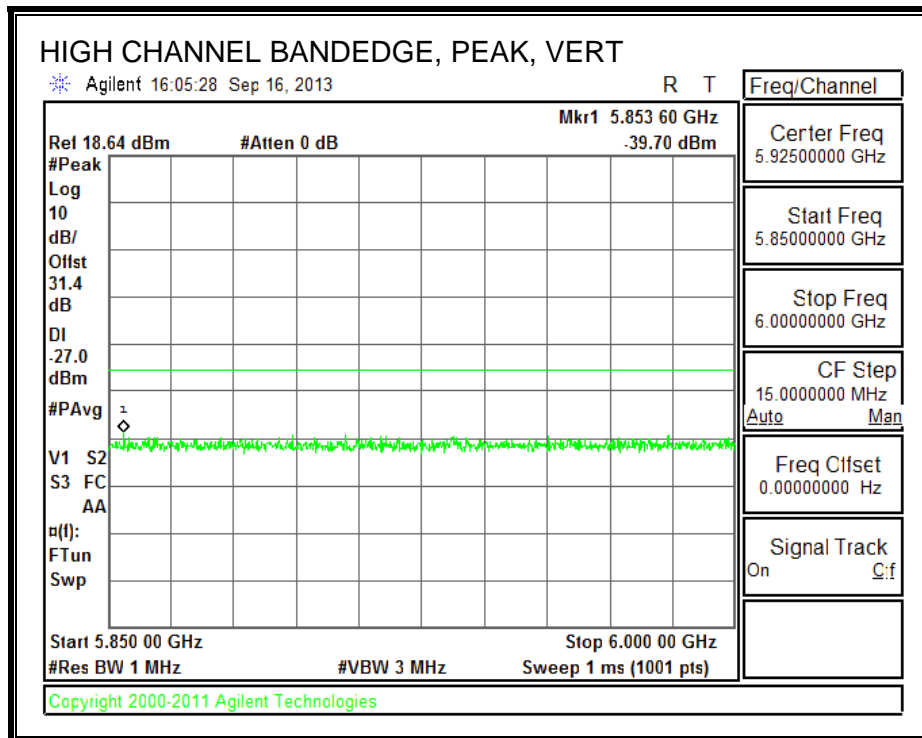
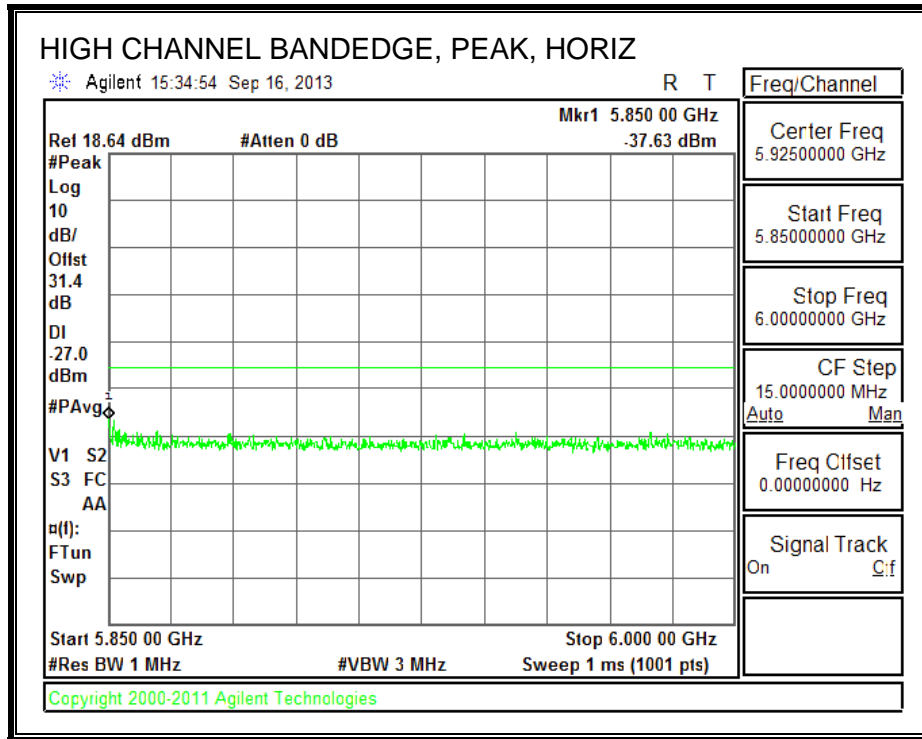
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T119 AF (dB/m)	Amp/Cb l (dB)	Fitr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	6.647	34.76	PK	35.6	-23.4	.2	47.16	54	-6.84	74	-26.84	99	Horz
2	7.211	34.51	PK	35.6	-23.1	.1	47.11	54	-6.89	74	-26.89	100	Vert
3	8.816	33.92	PK	36	-22.1	.3	48.12	54	-5.88	74	-25.88	201	Horz
4	8.562	34.16	PK	35.8	-22.1	.4	48.26	54	-5.74	74	-25.74	100	Vert
5	16.433	26.99	PK	41	-15.9	.8	52.89	54	-1.11	74	-21.11	201	Horz
6	16.781	26.8	PK	41.1	-15.2	.7	53.4	54	-6	74	-20.6	100	Vert

**9.5.2. TX ABOVE 1 GHz 802.11ac HT20 MODE IN THE 5.8 GHz BAND**  
**AUTHORIZED BANDEDGE (LOW CHANNEL)**



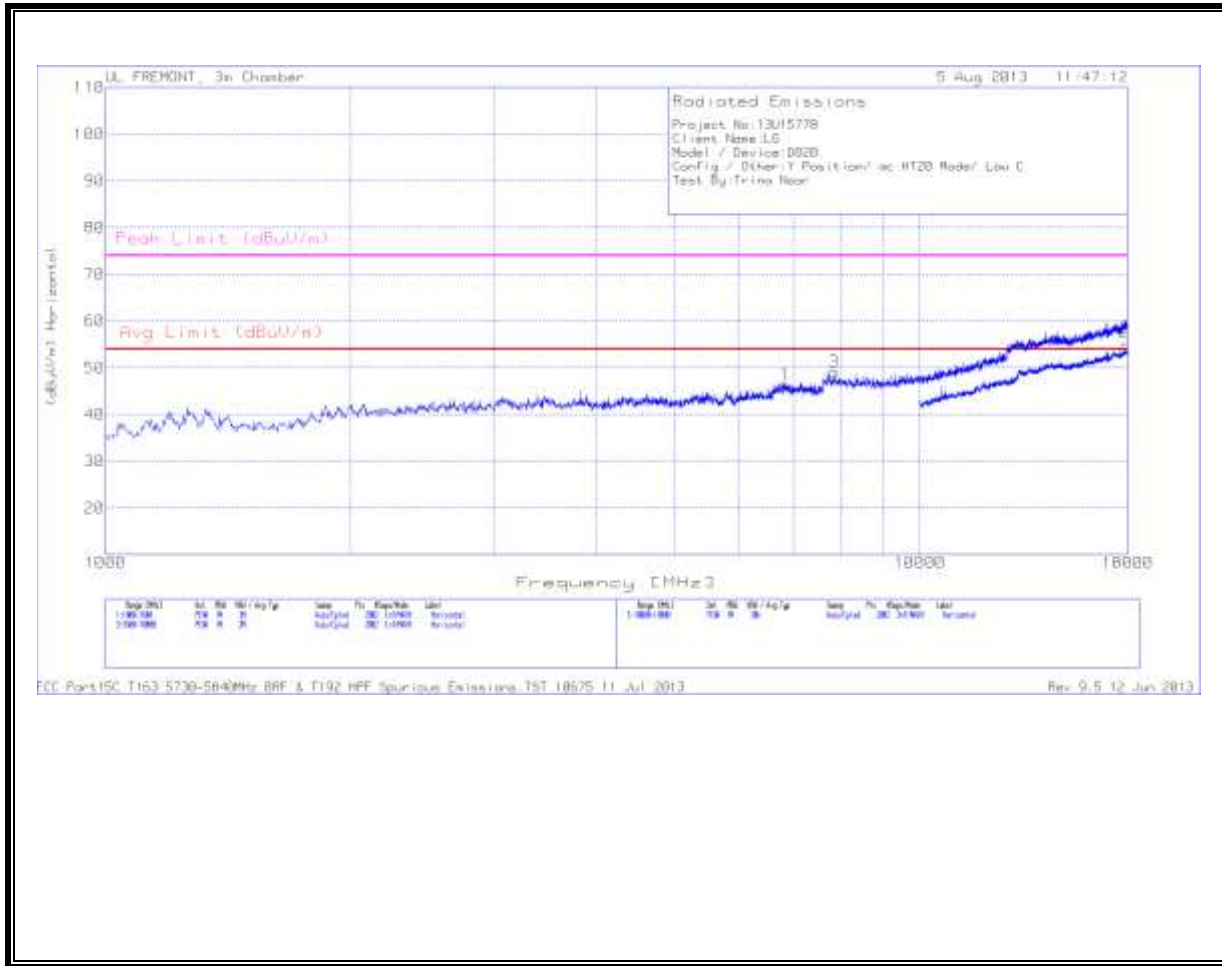


**AUTHORIZED BANDEDGE (HIGH CHANNEL)**



**HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL  
HORIZONTAL**



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T119 AF (dB/m)	Amp/Cb l (dB)	Fitr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	6.831	33.92	PK	35.6	-23.3	.2	46.42	54	-7.58	74	-27.58	201	Horz
3	7.849	35.69	PK	35.8	-22.7	.4	49.19	54	-4.81	74	-24.81	99	Horz

MID CHANNEL  
VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T119 AF (dB/m)	Amp/Cb l (dB)	Fitr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
2	7.171	34.35	PK	35.6	-23.1	.2	47.05	54	-6.95	74	-26.95	100	Vert

HIGH CHANNEL  
VERTICAL

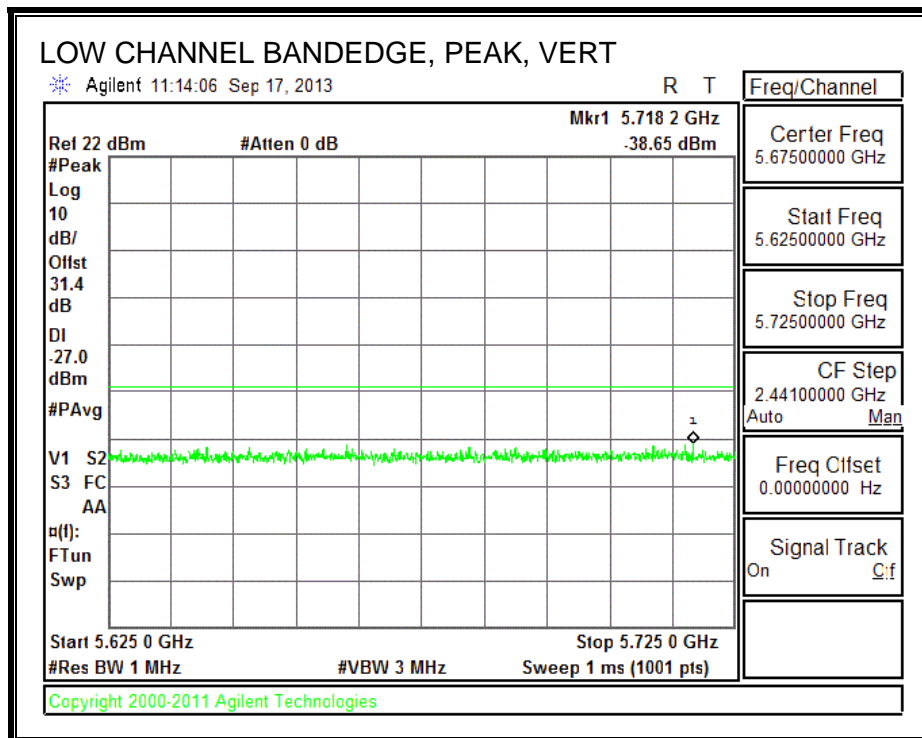
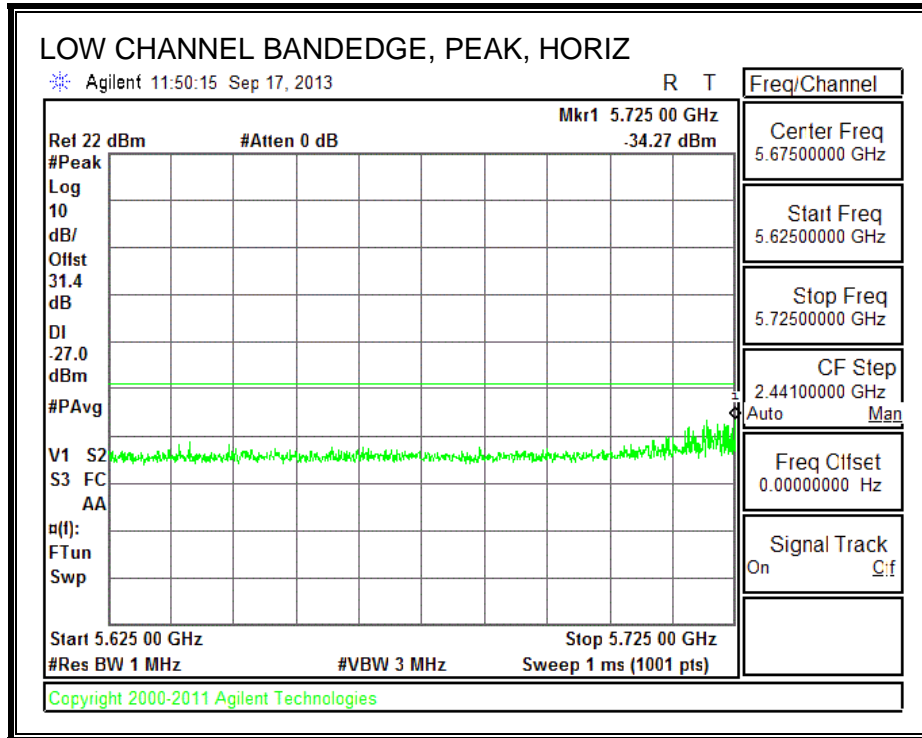


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

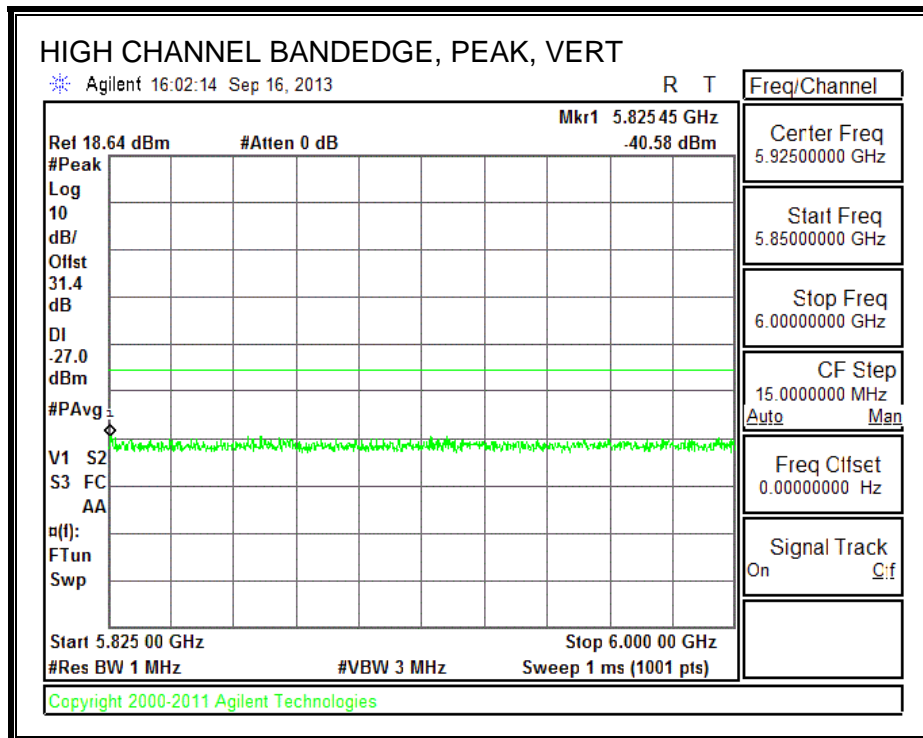
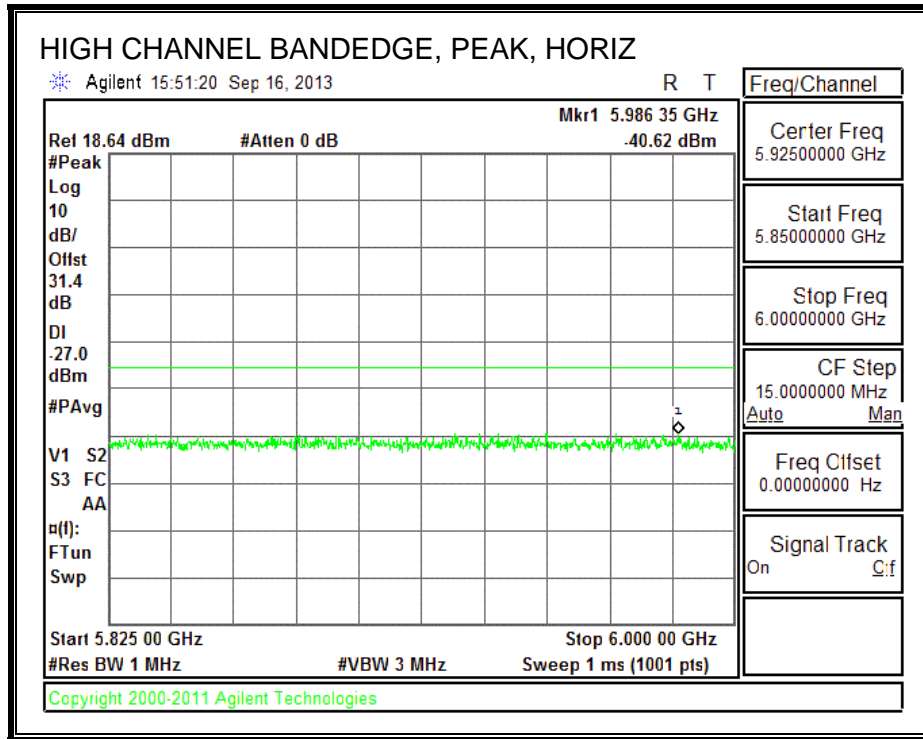
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T119 AF (dB/m)	Amp/Cb l (dB)	Filtr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
2	7.109	34.73	PK	35.6	-23.1	.2	47.43	54	-6.57	74	-26.57	99	Vert

**9.5.1. TX ABOVE 1 GHz 802.11ac HT40 MODE IN THE 5.8 GHz BAND  
 AUTHORIZED BANDEDGE (LOW CHANNEL)**



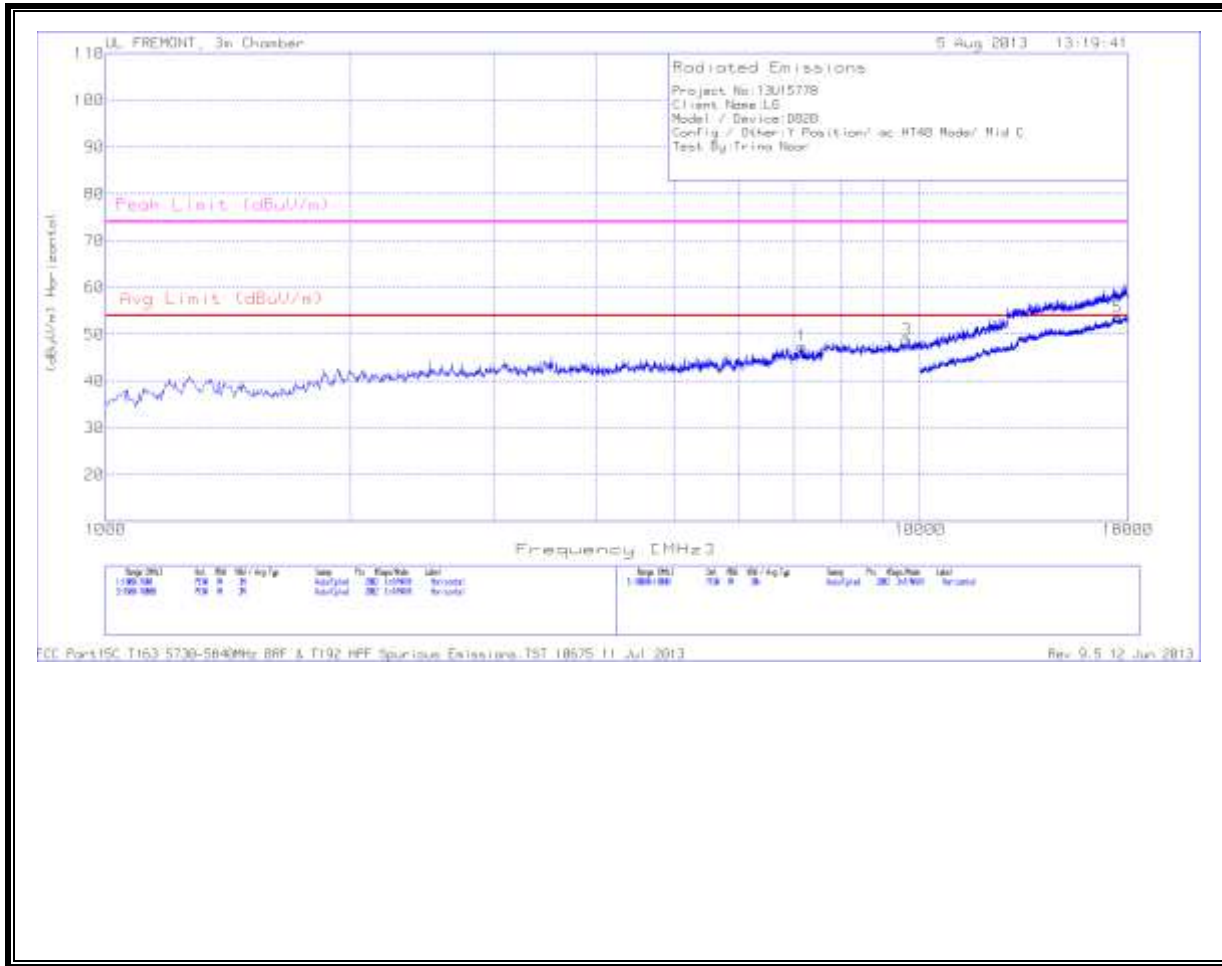


**AUTHORIZED BANDEDGE (HIGH CHANNEL)**



**HARMONICS AND SPURIOUS EMISSIONS**

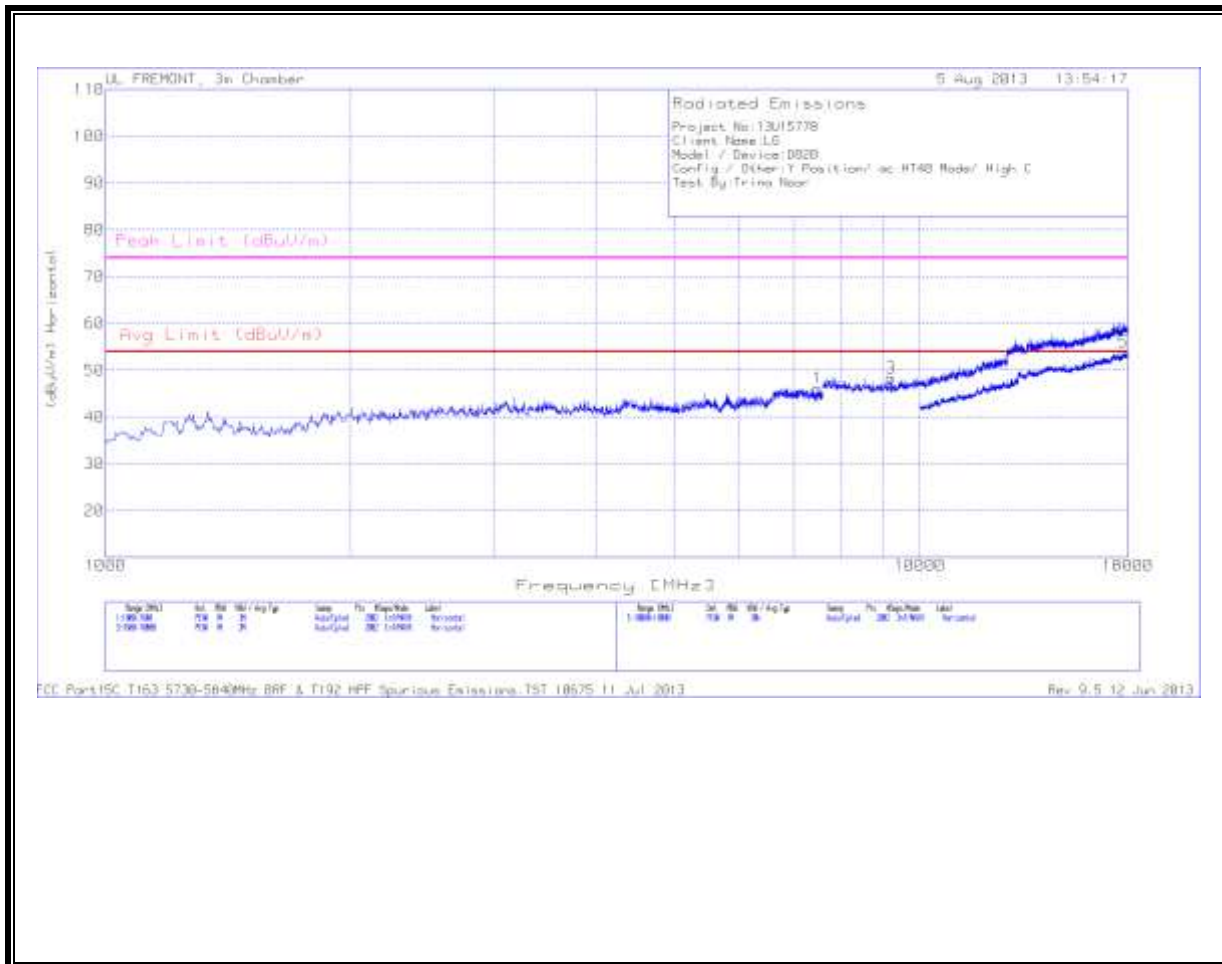
**LOW CHANNEL  
HORIZONTAL**



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T119 AF (dB/m)	Amp/Cb l (dB)	Filtr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	7.158	34.9	PK	35.6	-23.1	.1	47.5	54	-6.5	74	-26.5	201	Horz

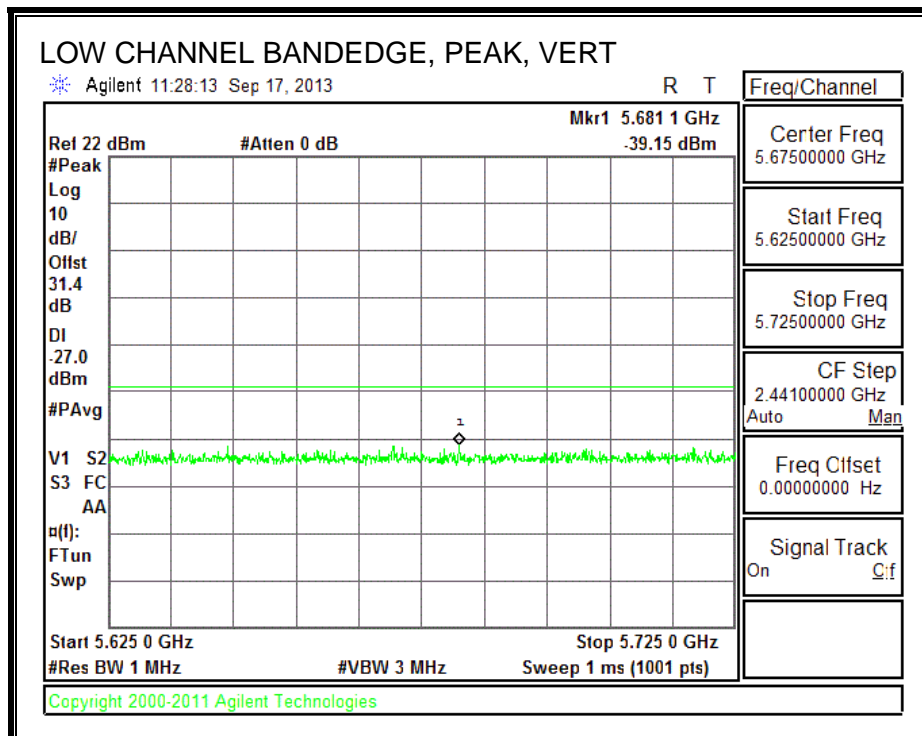
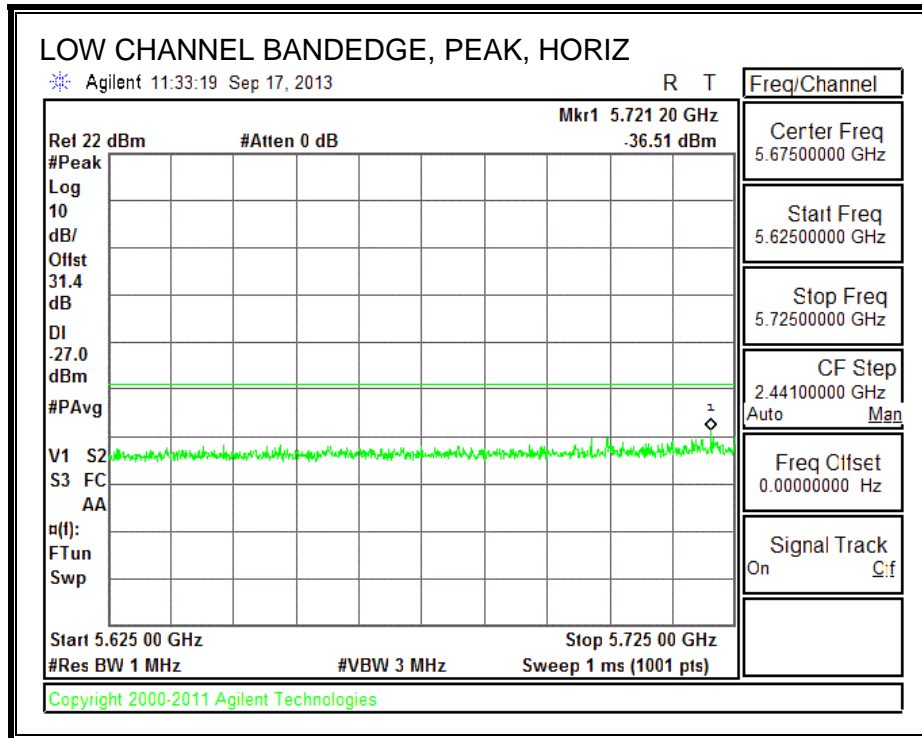


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

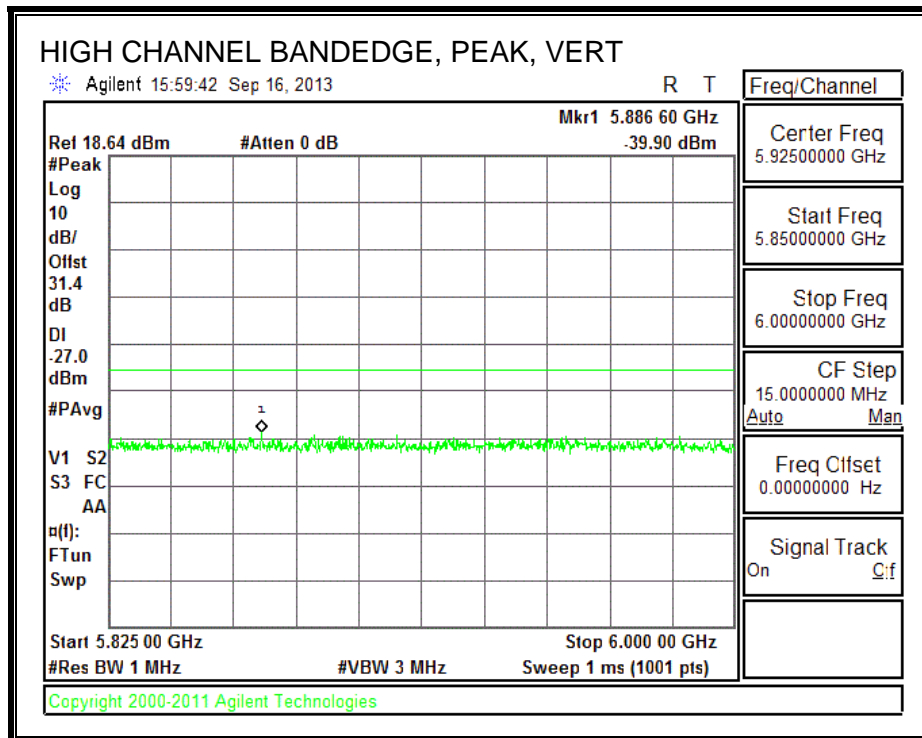
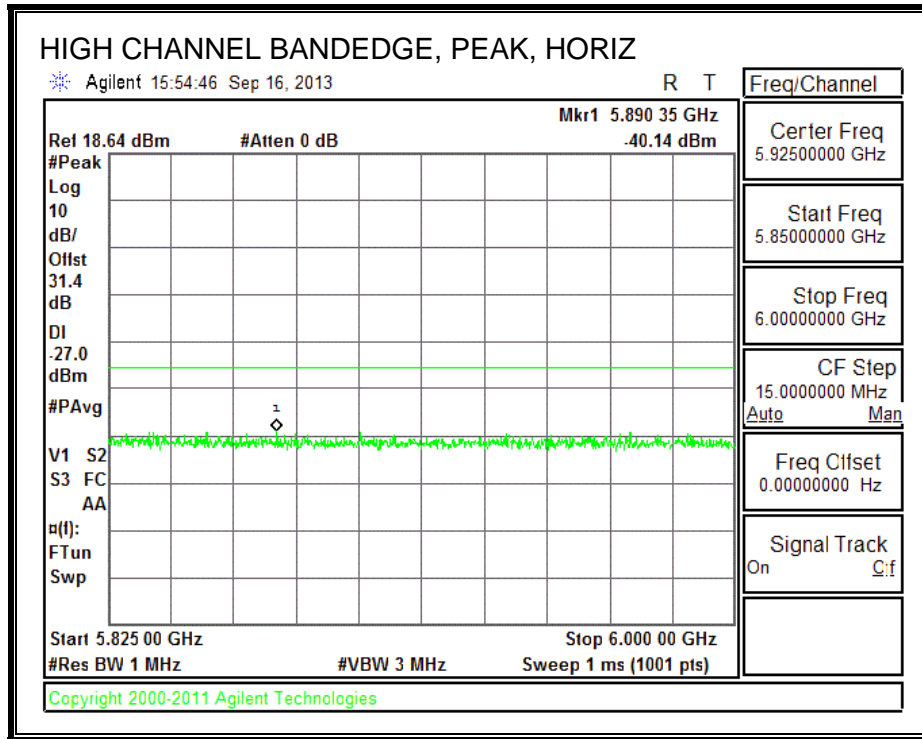
HIGH CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T119 AF (dB/m)	Amp/Cb l (dB)	Filtr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	7.491	33.19	PK	35.7	-22.9	.2	46.19	54	-7.81	74	-27.81	99	Horz

### 9.5.1. TX ABOVE 1 GHz 802.11ac HT80 MODE IN THE 5.8 GHz BAND AUTHORIZED BANDEDGE (LOW CHANNEL)

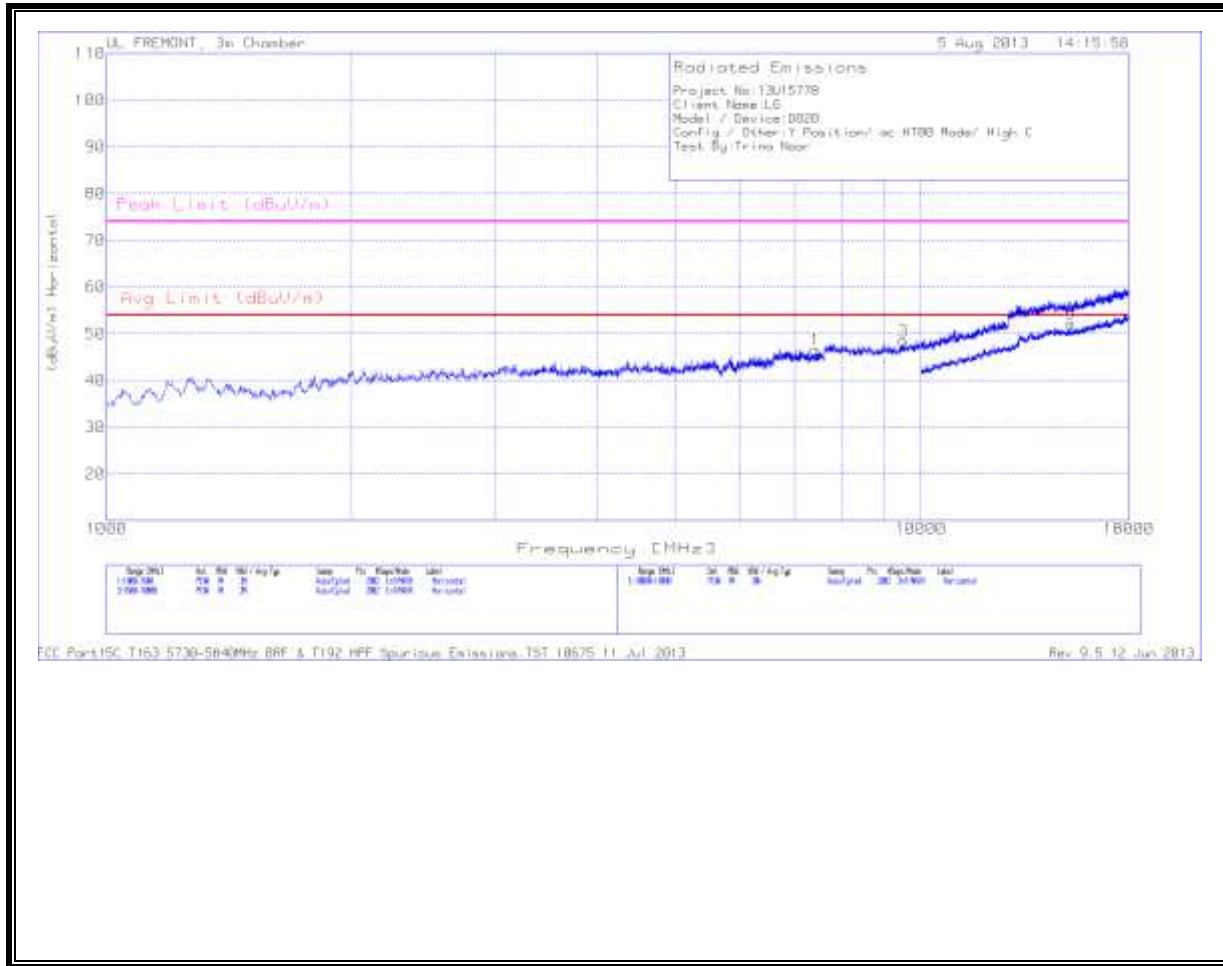


**AUTHORIZED BANDEDGE (HIGH CHANNEL)**



**HARMONICS AND SPURIOUS EMISSIONS**

HIGH CHANNEL  
HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

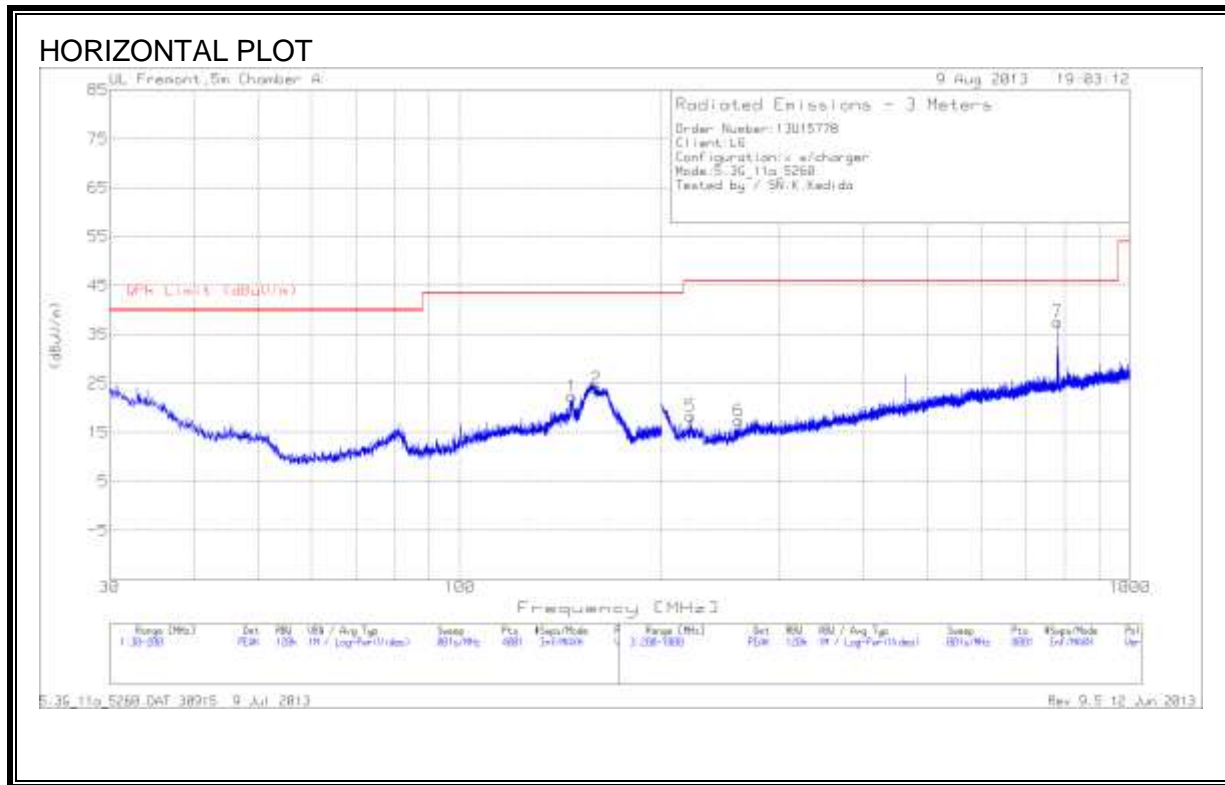


HIGH CHANNEL DATA

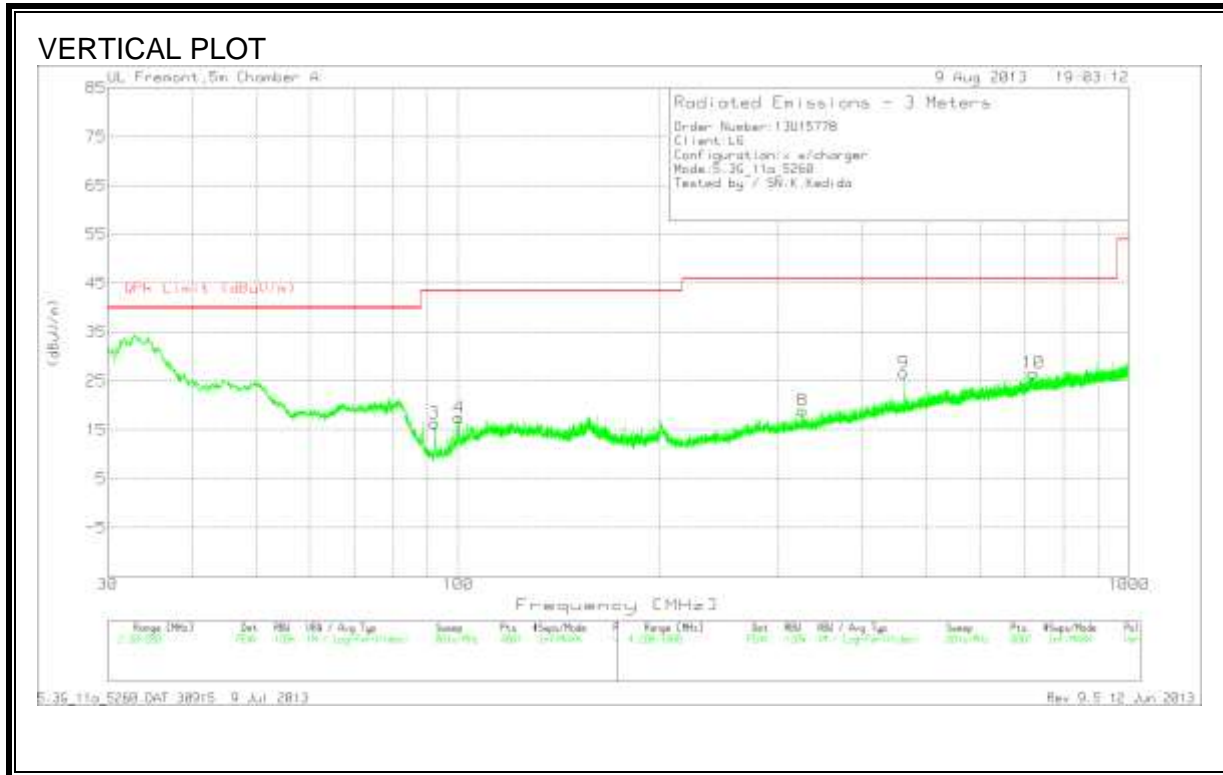
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T119 AF (dB/m)	Amp/Cb l (dB)	Filtr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarity
1	7.419	33.6	PK	35.7	-23	.2	46.5	54	-7.5	74	-27.5	201	Horz

### 10. WORST-CASE BELOW 1 GHz (in the 5.3 GHz Band)

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



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



Worst Case Data

Frequency (MHz)	Meter Reading (dBuV)	Det	AF T477 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
146.9175	36.52	PK	12.4	-26.6	22.32	43.52	-21.2	0-360	200	H
160.0075	38.29	PK	12.2	-26.5	23.99	43.52	-19.53	0-360	200	H
92.135	35.21	PK	8.1	-26.9	16.41	43.52	-27.11	0-360	100	V
100.2525	33.99	PK	10.4	-26.9	17.49	43.52	-26.03	0-360	100	V
221.2	33.8	PK	10.5	-26	18.3	46.02	-27.72	0-360	100	H
260.9	30.93	PK	12.2	-25.7	17.43	46.02	-28.59	0-360	100	H
779.7	39.63	PK	20.5	-22.6	37.53	46.02	-8.49	0-360	100	H
326.1	30.54	PK	13.8	-25.4	18.94	46.02	-27.08	0-360	400	V
461.5	34.68	PK	16.7	-24.7	26.68	46.02	-19.34	0-360	200	V
721.1	29.37	PK	20.2	-22.9	26.67	46.02	-19.35	0-360	300	V