



**FCC 47 CFR PART 15 SUBPART E
C2PC CERTIFICATION TEST REPORT
FOR**

CDMA/LTE Phone + Bluetooth & DTS/UNII a/b/g/n + NFC

MODEL NUMBER: LG-VS876, LGVS876, VS876, LG-AS876, AS876 and LGAS876

FCC ID: ZNFVS876

REPORT NUMBER: 14U16955-5

ISSUE DATE: FEBRUARY 11, 2014

Prepared for
**LG ELECTRONICS MOBILECOMM U.S.A., INC
1000 SYLVAN AVENUE
ENGLEWOOD CLIFFS, NEW JERSEY, 07632, U.S.A.**

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

Rev.	Issue Date	Revisions	Revised By
	2/11/14	Initial Issue	P. Kim

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS.....	5
2. TEST METHODOLOGY	6
3. FACILITIES AND ACCREDITATION.....	6
4. CALIBRATION AND UNCERTAINTY	6
4.1. MEASURING INSTRUMENT CALIBRATION	6
4.2. SAMPLE CALCULATION.....	6
4.3. MEASUREMENT UNCERTAINTY	6
5. EQUIPMENT UNDER TEST	7
5.1. DESCRIPTION OF EUT.....	7
5.2. DESCRIPTION OF AVAILABLE ANTENNAS.....	7
5.3. WORST-CASE CONFIGURATION AND MODE.....	8
5.4. DESCRIPTION OF TEST SETUP.....	9
6. TEST AND MEASUREMENT EQUIPMENT	11
7. SUMMARY TABLE	12
8. MEASUREMENT METHOD	13
9. ANTENNA PORT TEST RESULTS	14
9.1. AVERAGE POWER.....	14
9.1.1. 802.11a MODE IN THE 5.2 GHz BAND.....	14
9.1.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND.....	14
9.1.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND.....	14
9.1.1. 802.11a MODE IN THE 5.3 GHz BAND.....	15
9.1.1. 802.11n HT20 MODE IN THE 5.3 GHz BAND.....	15
9.1.2. 802.11n HT40 MODE IN THE 5.3 GHz BAND.....	15
9.1.3. 802.11a MODE IN THE 5.5 GHz BAND.....	15
9.1.4. 802.11n HT20 MODE IN THE 5.5 GHz BAND.....	15
9.1.5. 802.11n HT40 MODE IN THE 5.5 GHz BAND.....	16
10. TRANSMITTER ABOVE 1 GHz	17
10.1. 5.2 GHz.....	18
10.1.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.2 GHz BAND.....	18
10.1.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND.....	29
10.1.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND.....	40
10.2. 5.3 GHz.....	48
10.2.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.3 GHz BAND.....	48
10.2.3. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.3 GHz BAND.....	59
10.2.5. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.3 GHz BAND.....	70
10.3. 5.5-5.6 GHz.....	78
10.3.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.5 GHz BAND.....	78

10.3.3. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.5 GHz BAND.....	91
10.3.5. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.5 GHz BAND.....	103
11. WORST-CASE BELOW 1 GHz.....	115
12. SETUP PHOTOS.....	118

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: LG ELECTRONICS MOBILECOMM U.S.A., INC

EUT DESCRIPTION: CDMA/LTE Phone + Bluetooth & DTS/UNII a/b/g/n + NFC

MODEL: LG-VS876, LGVS876, VS876, LG-AS876, AS876 and LGAS876

SERIAL NUMBER: 1801187-VS

DATE TESTED: FEBRUARY 7-11, 2014

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart E	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.

CHARLES VERGONIO
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, ANSI C63.10-2009.

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 18000 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 CDMA/LTE Phone + Bluetooth & DTS/UNII a/b/g/n + NFC

5.2. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an FPCB antenna, with a maximum gain of -0.7 dBi for 5.2GHz; 0.27 for 5.3GHz; 1.95 for 5.5GHz.

5.3. 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

5.4. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

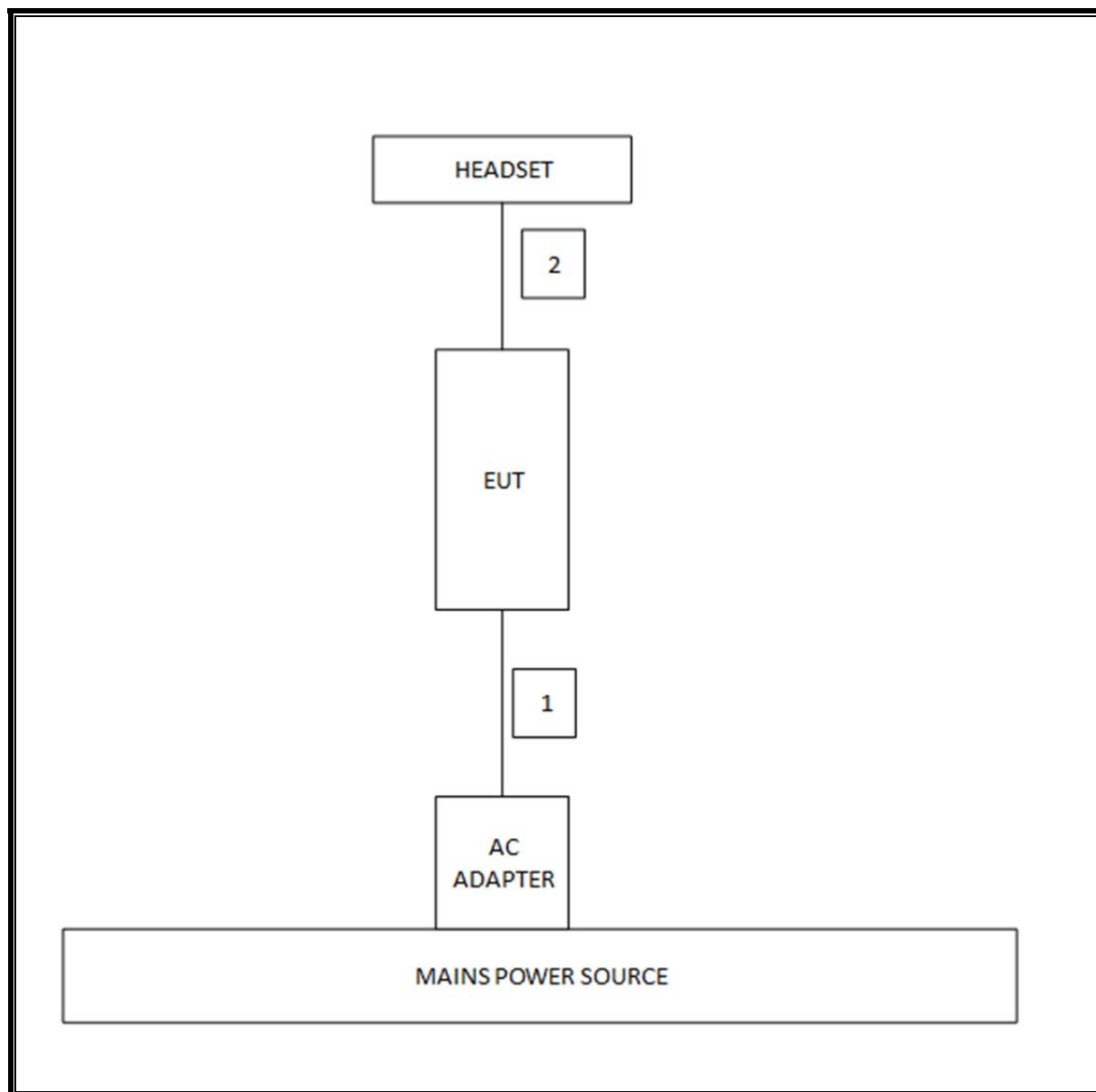
Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	LG	MCS-02WD	DA3Y0035121	N/A
Earphone	LG	EAB62209201	N/A	N/A

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	8/8/2014
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00580	1/28/2015
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01063	10/22/2014
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	12/17/2014
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/2014
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/2014
LISN, 30 MHz	FCC	50/250-25-2	C00626	01/14/15
Reject Filter, 5.725-5.825 GHz	Micro-Tronics	BRC13192	N02676	CNR

7. SUMMARY TABLE

FCC Part Section	Test Description	Test Limit	Test Condition	Test Result	Worst Case
15.247 (a)	Occupied Band width (26dB)	N/A	Conducted	Pass	See original
15.407 (a)(1)	TX Cond. Power 5.15-5.25	<17dBm or 4+10Log(OBW)		Pass	See original
15.407 (a)(2)	TX Cond. Power 5.25-5.35 & 5.47-5.725	<24dBm or 11+10Log(OBW)		Pass	See original
15.407 (a)(5)	PSD	<8dBm		Pass	See original
15.407 (a)(6)	Peak Excursion Ratio	13dB		Pass	See original
15.207 (a)	AC Power Line conducted emissions	Section 10	Radiated	Pass	See original
15.407 (b) & 15.209	Radiated Spurious Emission	< 54dBuV/m		Pass	49.45dBuV/m
15.407 (h)(2)	Dynamic Frequency Selection	N/A	Radiated / Conducted	Pass	See original

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. ANTENNA PORT TEST RESULTS

9.1. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 10.4 dB (including 10 dB pad and 0.4 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

RESULTS

9.1.1. 802.11a MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5180	12.60
Mid	5200	13.00
High	5240	12.90
Worst		13.00

9.1.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5180	11.50
Mid	5200	11.90
High	5240	12.00
Worst		12.00

9.1.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5190	10.000
Mid	5230	10.500
Worst		10.500

9.1.1. 802.11a MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5260	12.80
Mid	5300	12.90
High	5320	12.60
Worst		12.90

9.1.1. 802.11n HT20 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5260	12.10
Mid	5300	12.00
High	5320	12.30
Worst		12.30

9.1.2. 802.11n HT40 MODE IN THE 5.3 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5270	10.9
High	5310	10.8
Worst		10.9

9.1.3. 802.11a MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5500	12.800
Mid	5580	12.700
High	5700	13.000
Worst		13.000

9.1.4. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5500	12.200
Mid	5580	12.000
High	5700	12.100
Worst		12.200

9.1.5. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Channel	Frequency (MHz)	Avg Power (dBm)
Low	5510	10.8
Mid	5550	10.7
High	5670	10.6
Worst		10.8

10. TRANSMITTER ABOVE 1 GHz

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 VB:

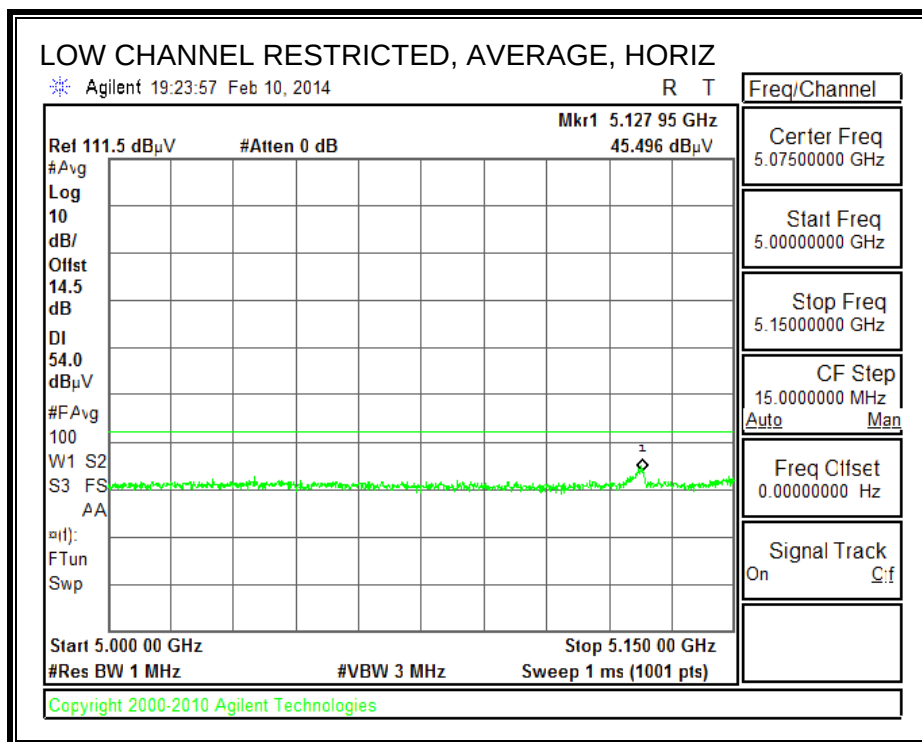
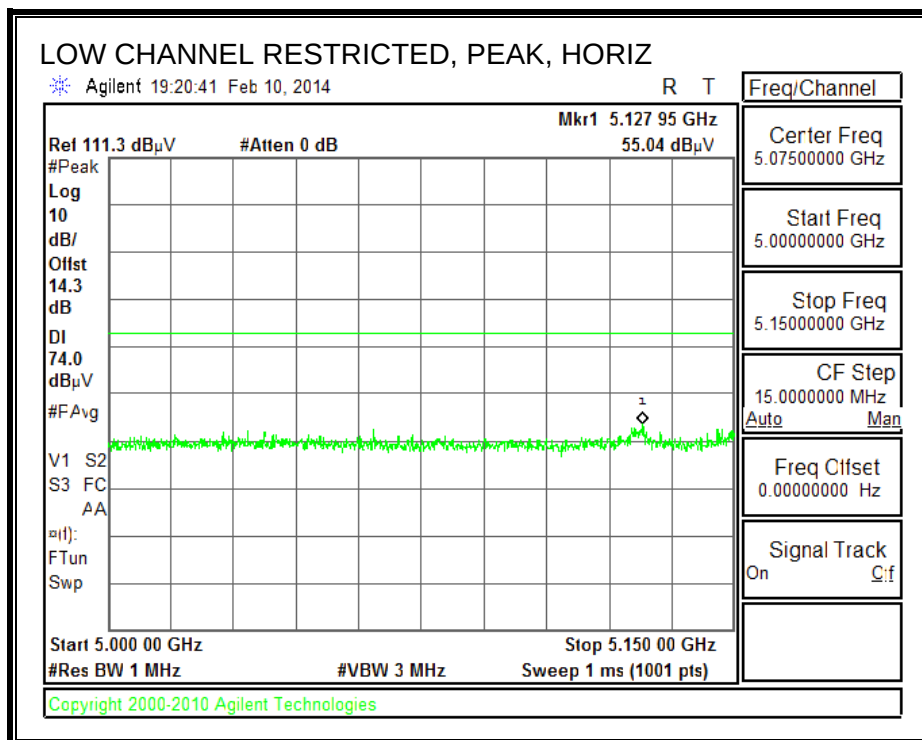
For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor to the reading offset for average measurements. For this sample: a, n mode = 0.2dB; n HT40 = 0.7dB

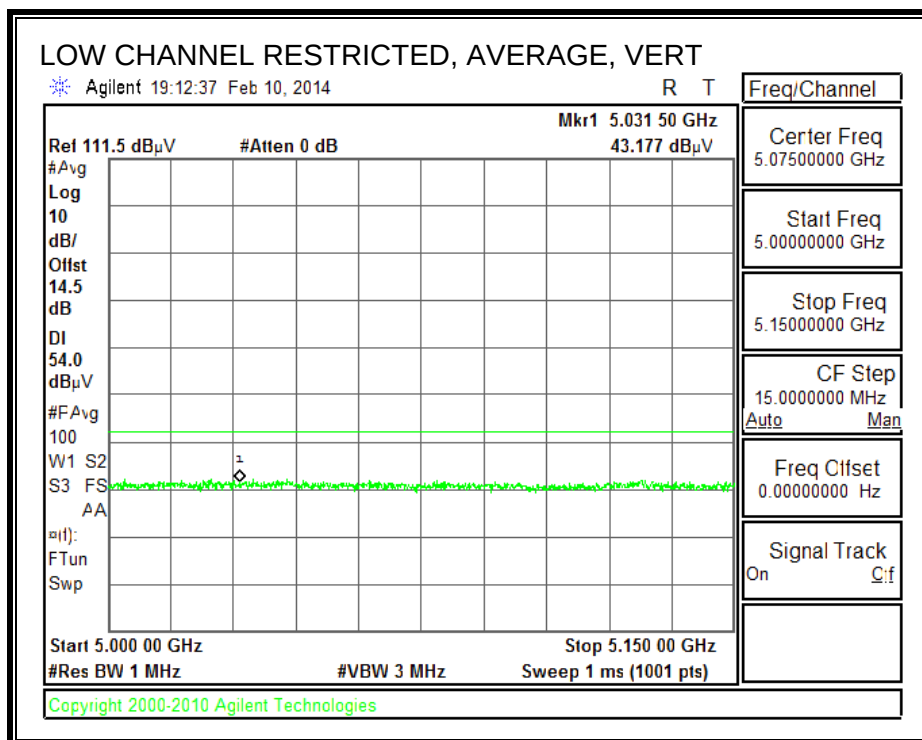
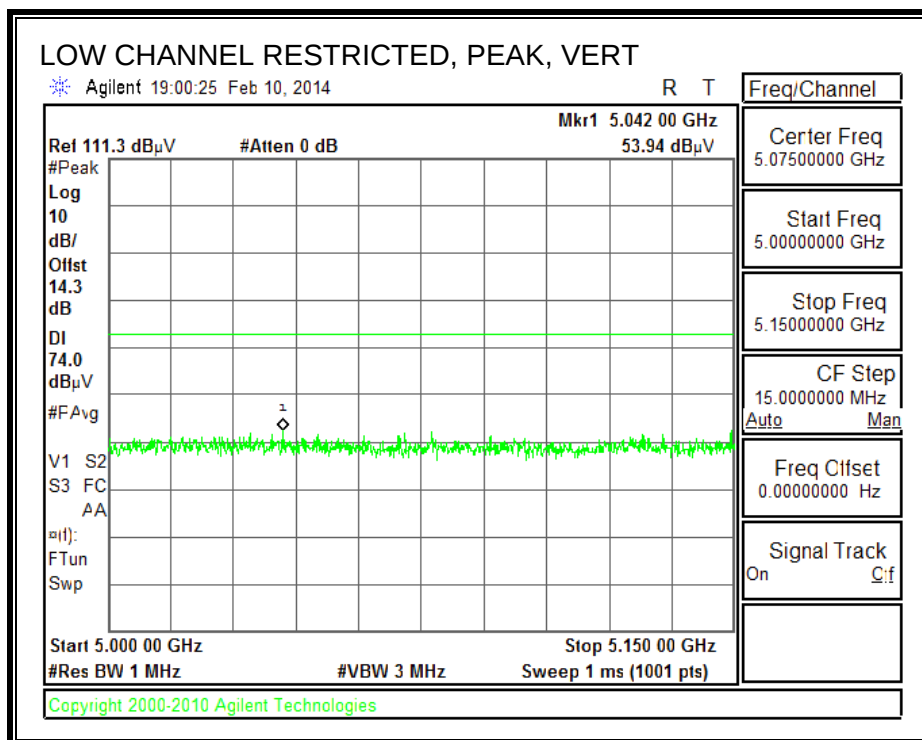
The spectrum from 1GHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

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.

10.1. 5.2 GHz

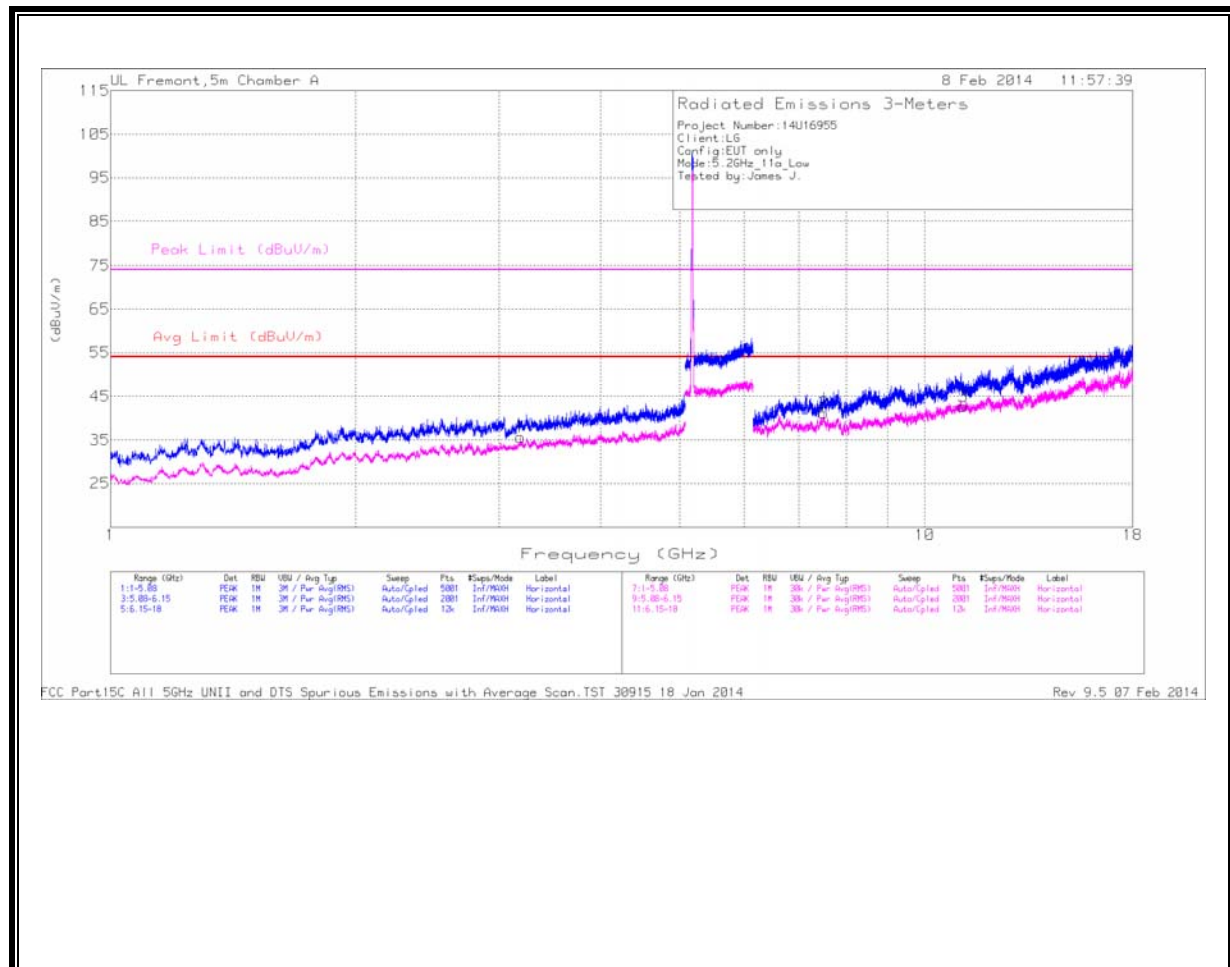
10.1.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.2 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)



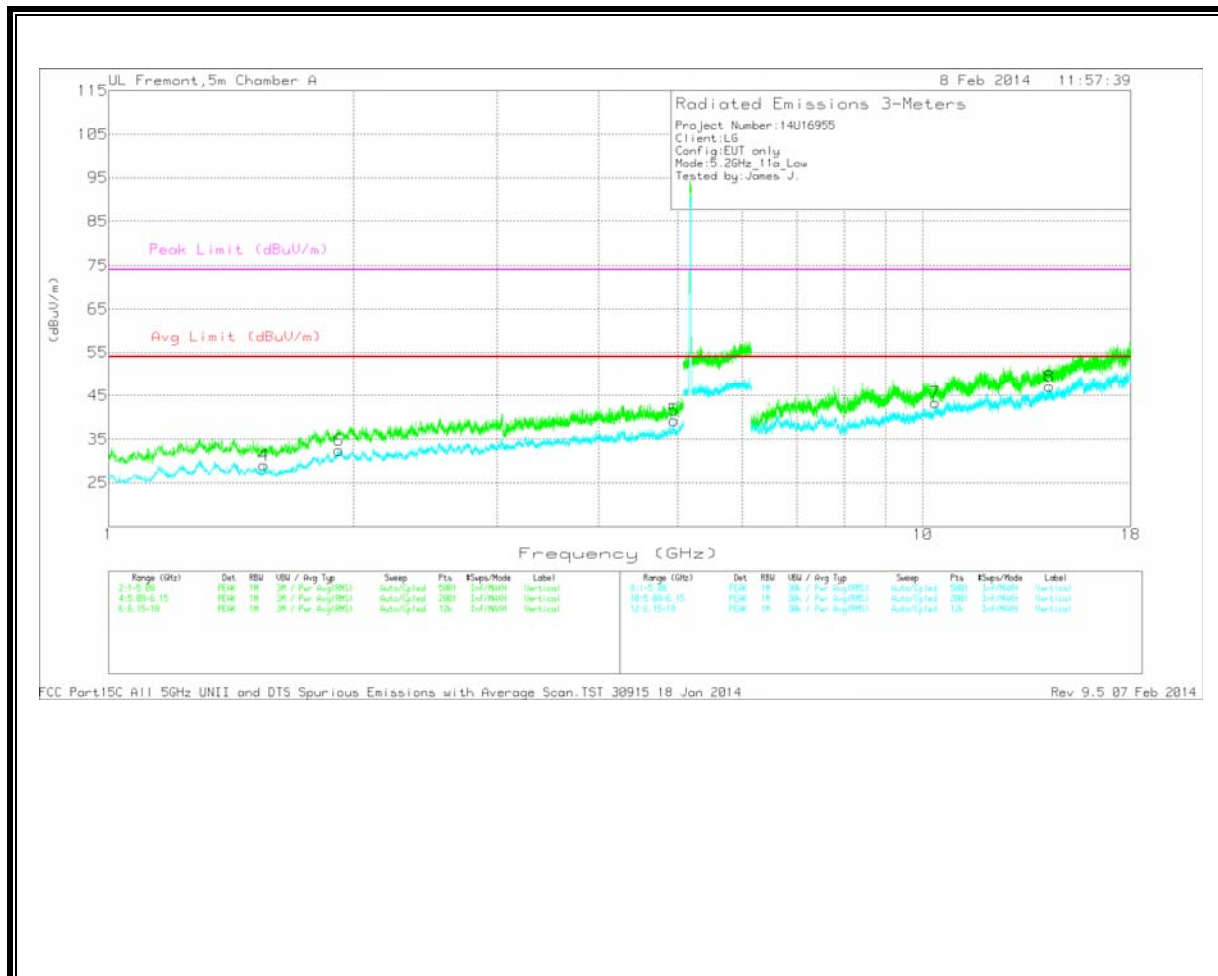


HARMONICS AND SPURIOUS EMISSIONS

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.

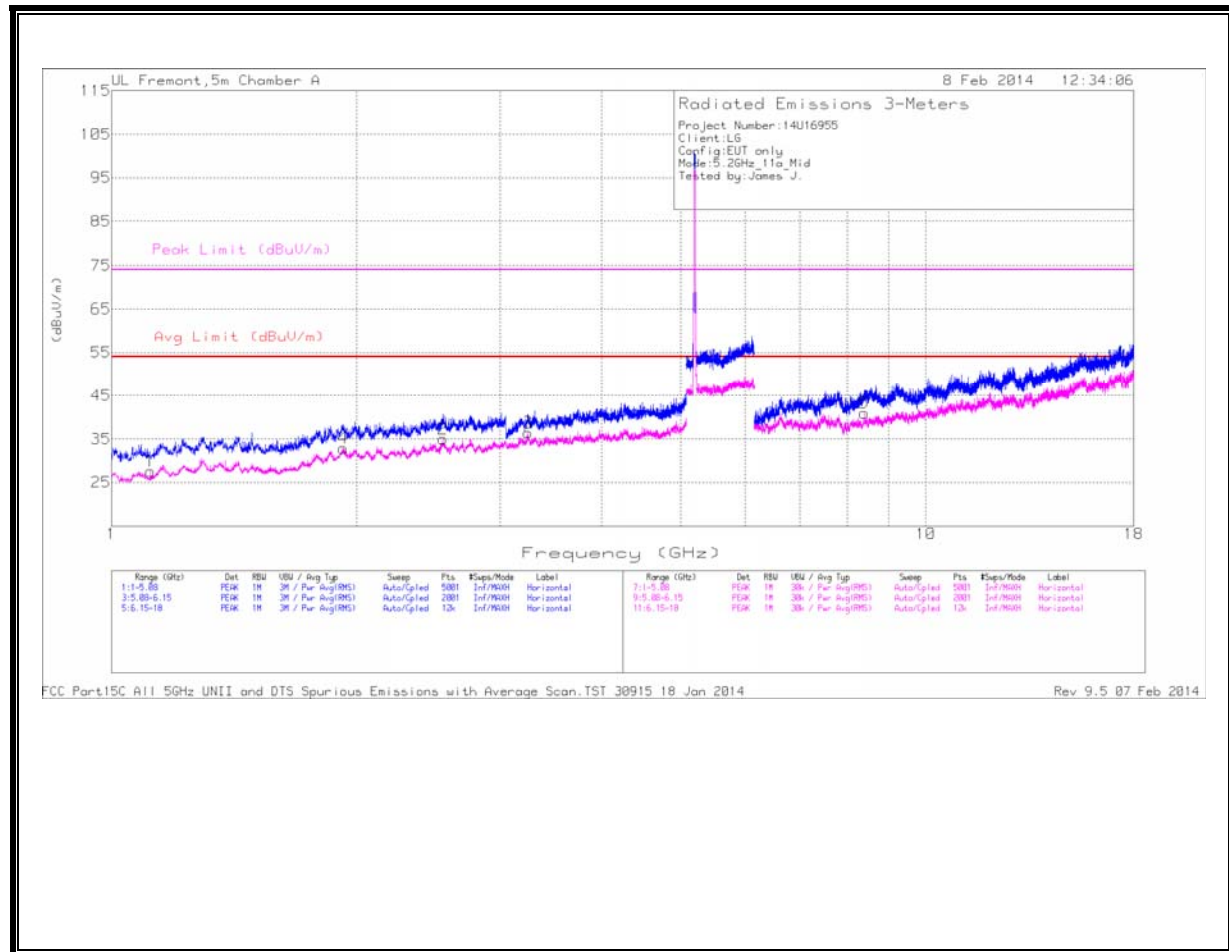


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

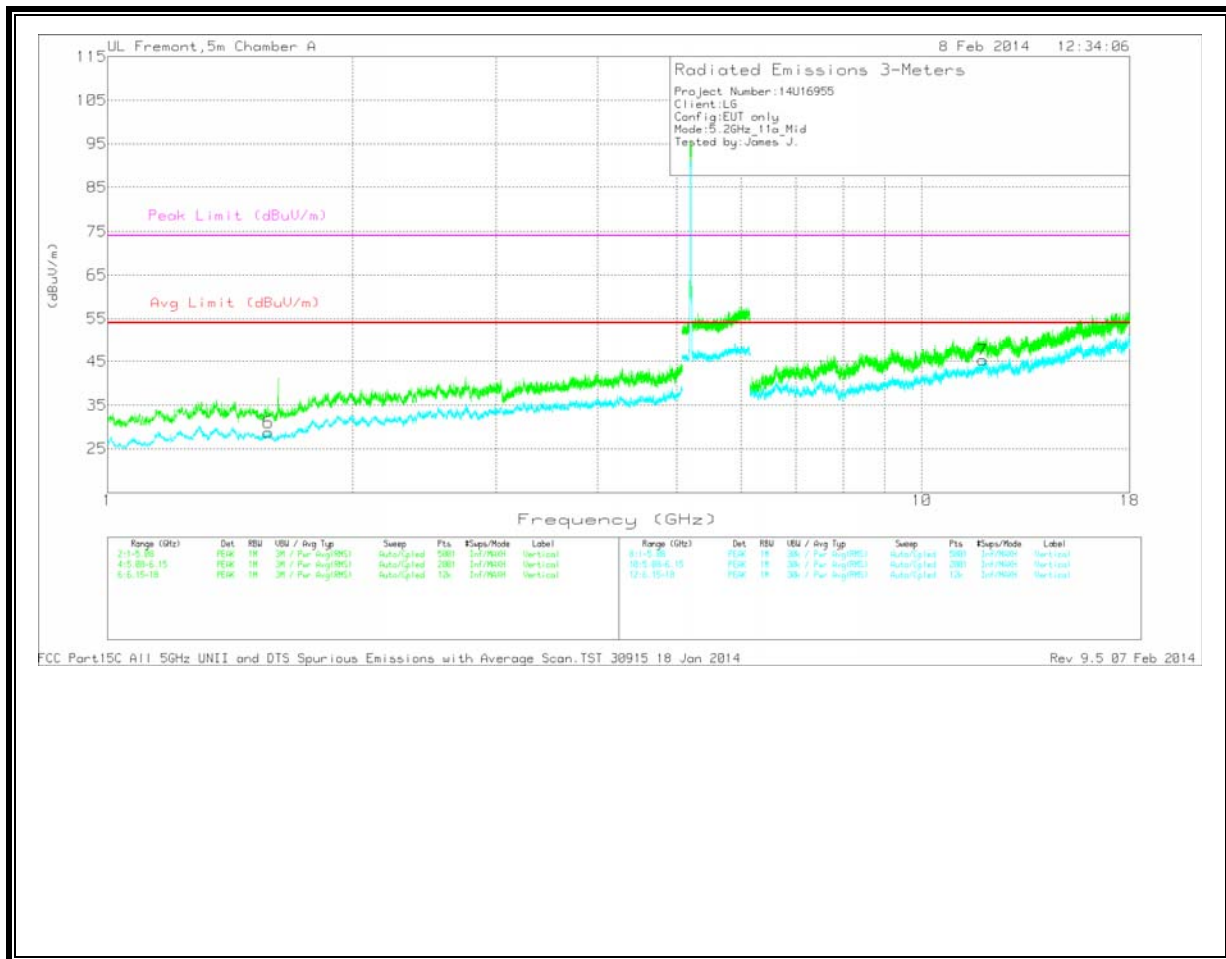
LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	1.552	36.44	Avg	28.6	-36	29.04	54	-24.96	-	-	0-360	100	V
6	1.918	35.24	Avg	31.7	-34.5	32.44	54	-21.56	-	-	0-360	100	V
1	3.187	34.67	Avg	33.5	-32.5	35.67	54	-18.33	-	-	0-360	200	H
5	4.946	34.28	Avg	34	-29	39.28	54	-14.72	-	-	0-360	200	V
2	7.511	30.51	Avg	35.4	-24.7	41.21	54	-12.79	-	-	0-360	101	H
7	10.359	28.46	Avg	37.4	-22.5	43.36	54	-10.64	-	-	0-360	200	V
3	11.145	27.51	Avg	37.8	-22.6	42.71	54	-11.29	-	-	0-360	200	H
8	14.303	29.99	Avg	39.6	-22.4	47.19	54	-6.81	-	-	0-360	200	V

All peak readings were 20dB below the peak limit. Average measurements at discrete frequencies are provided in the table below for frequencies that are within 6dB of the average limit.



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

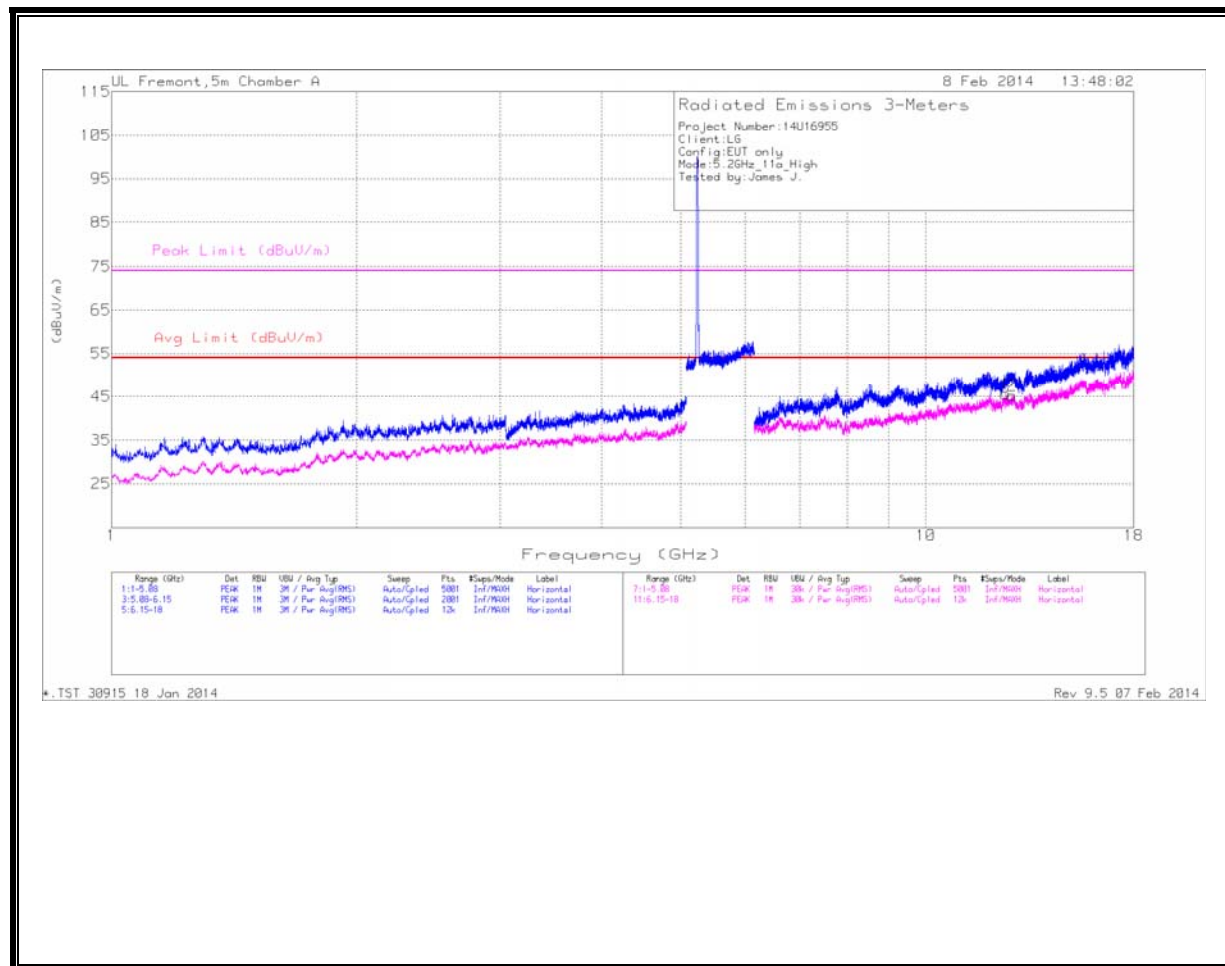


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

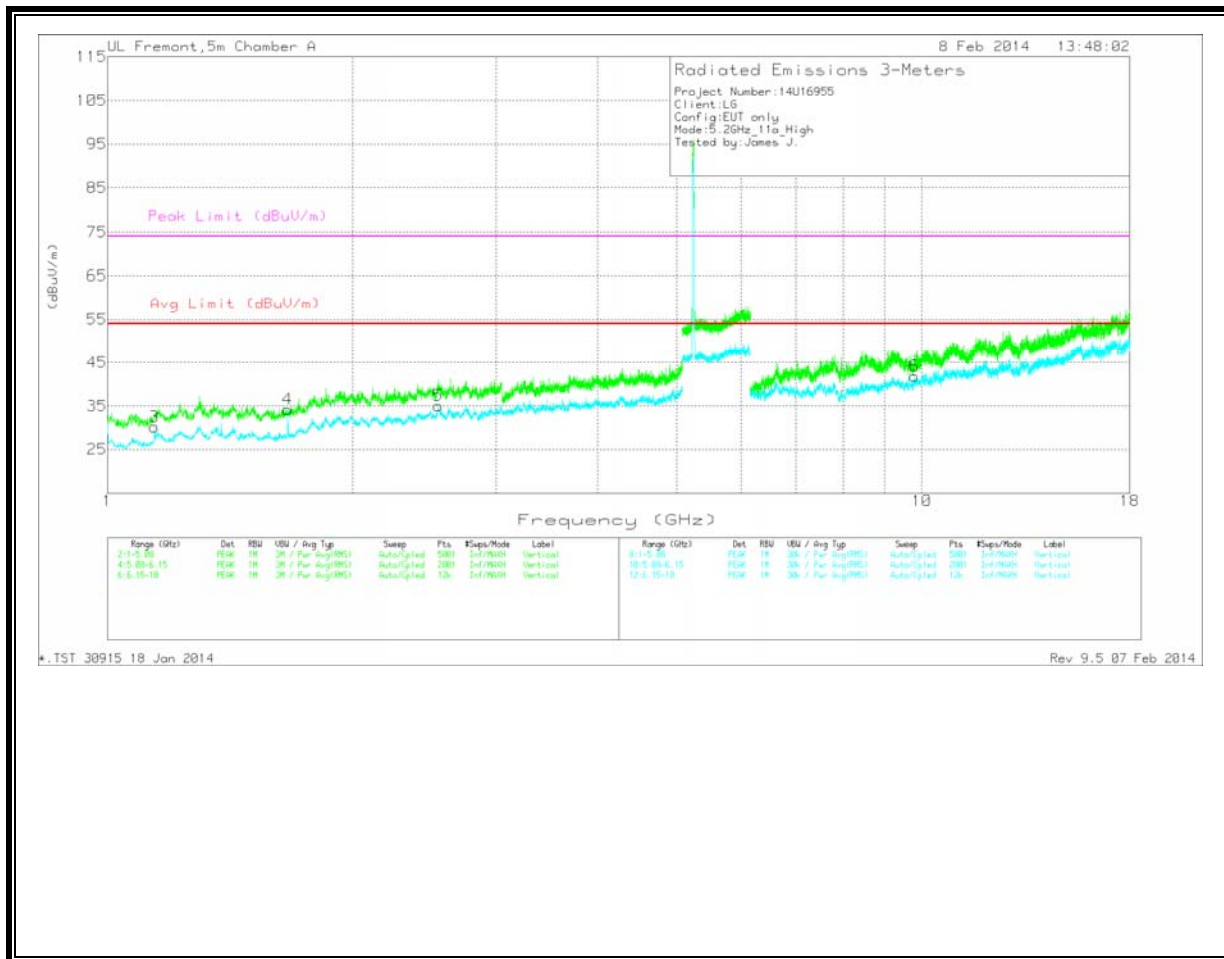
MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.117	36.06	Avg	28.2	-36.7	27.56	54	-26.44	-	-	0-360	200	H
6	1.576	36.06	Avg	28.4	-35.7	28.76	54	-25.24	-	-	0-360	101	V
4	1.925	35.78	Avg	31.7	-34.6	32.88	54	-21.12	-	-	0-360	101	H
2	2.553	35.03	Avg	32.7	-32.7	35.03	54	-18.97	-	-	0-360	101	H
3	3.246	34.9	Avg	33.3	-31.8	36.4	54	-17.6	-	-	0-360	101	H
5	8.404	30.75	Avg	35.7	-25.5	40.95	54	-13.05	-	-	0-360	200	H
7	11.878	28.88	Avg	38.7	-22.2	45.38	54	-8.62	-	-	0-360	201	V

All peak readings were 20dB below the peak limit. Average measurements at discrete frequencies are provided in the table below for frequencies that are within 6dB of the average limit.



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



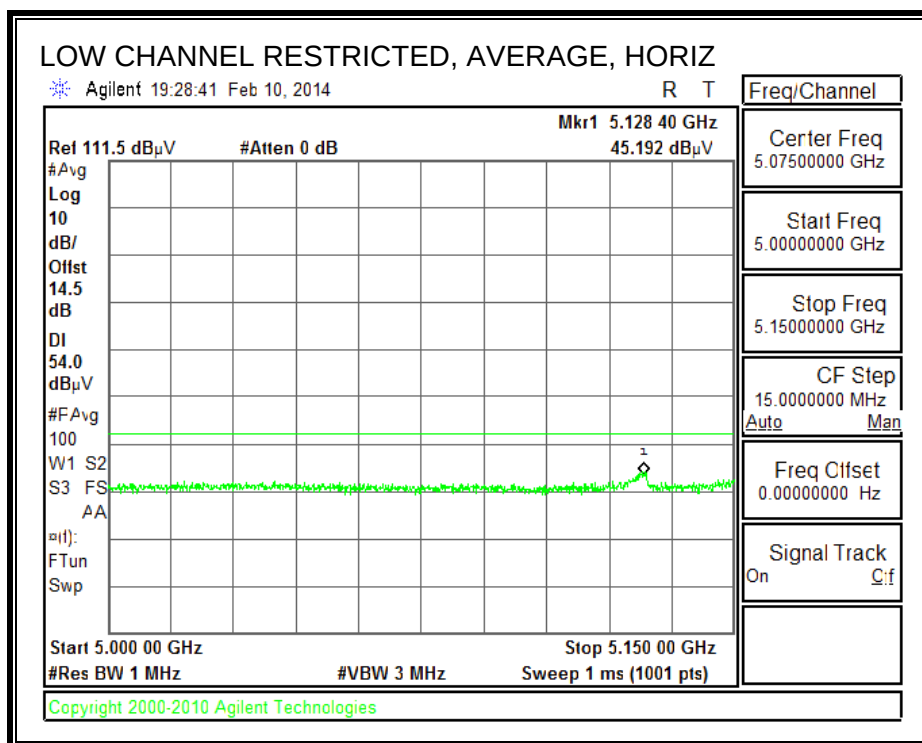
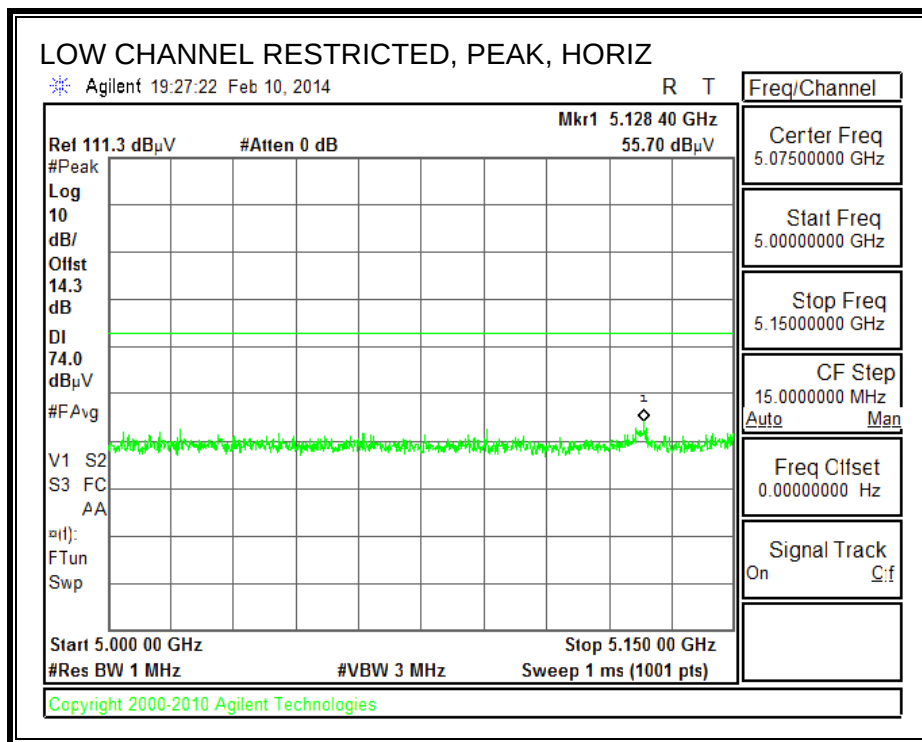
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

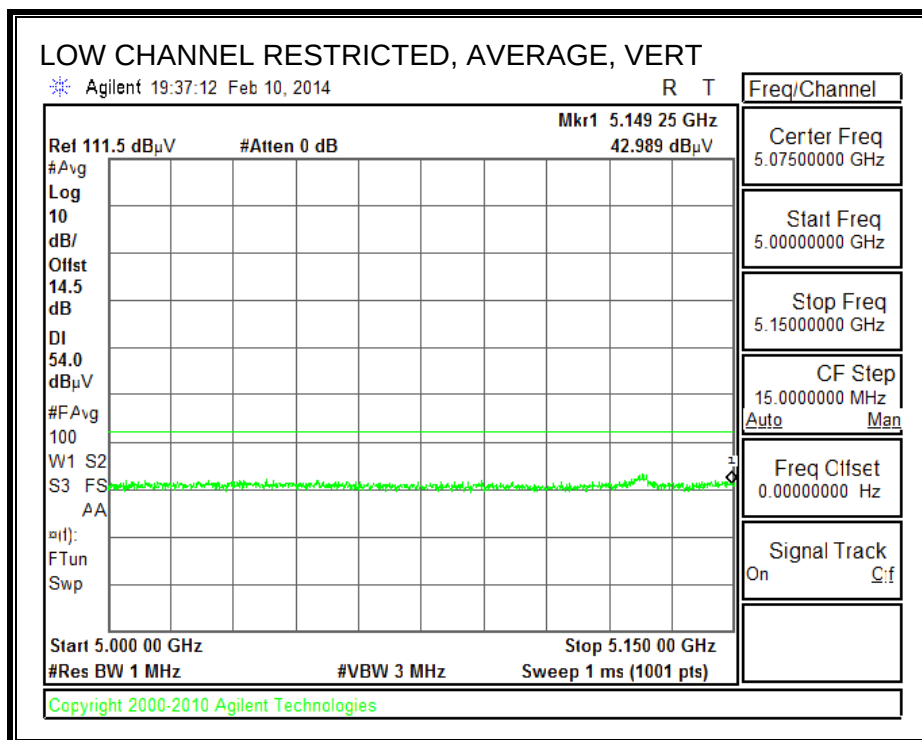
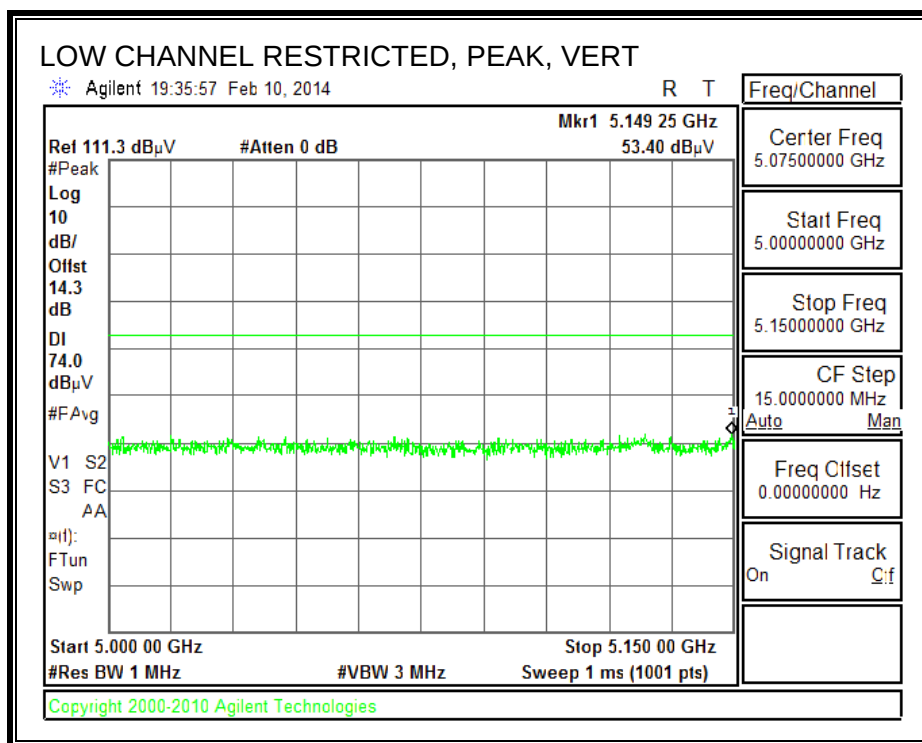
HIGH CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	1.142	38.2	Avg	28.6	-36.6	30.2	54	-23.8	-	-	0-360	101	V
4	1.664	41.64	Avg	29	-36.4	34.24	54	-19.76	-	-	0-360	200	V
5	2.549	35.06	Avg	32.6	-32.6	35.06	54	-18.94	-	-	0-360	101	V
6	9.795	28.48	Avg	36.9	-23.5	41.88	54	-12.12	-	-	0-360	200	V
1	12.52	29.3	Avg	39.1	-22.7	45.7	54	-8.3	-	-	0-360	101	H
2	12.761	29.5	Avg	39.1	-23.4	45.2	54	-8.8	-	-	0-360	101	H

All peak readings were 20dB below the peak limit. Average measurements at discrete frequencies are provided in the table below for frequencies that are within 6dB of the average limit.

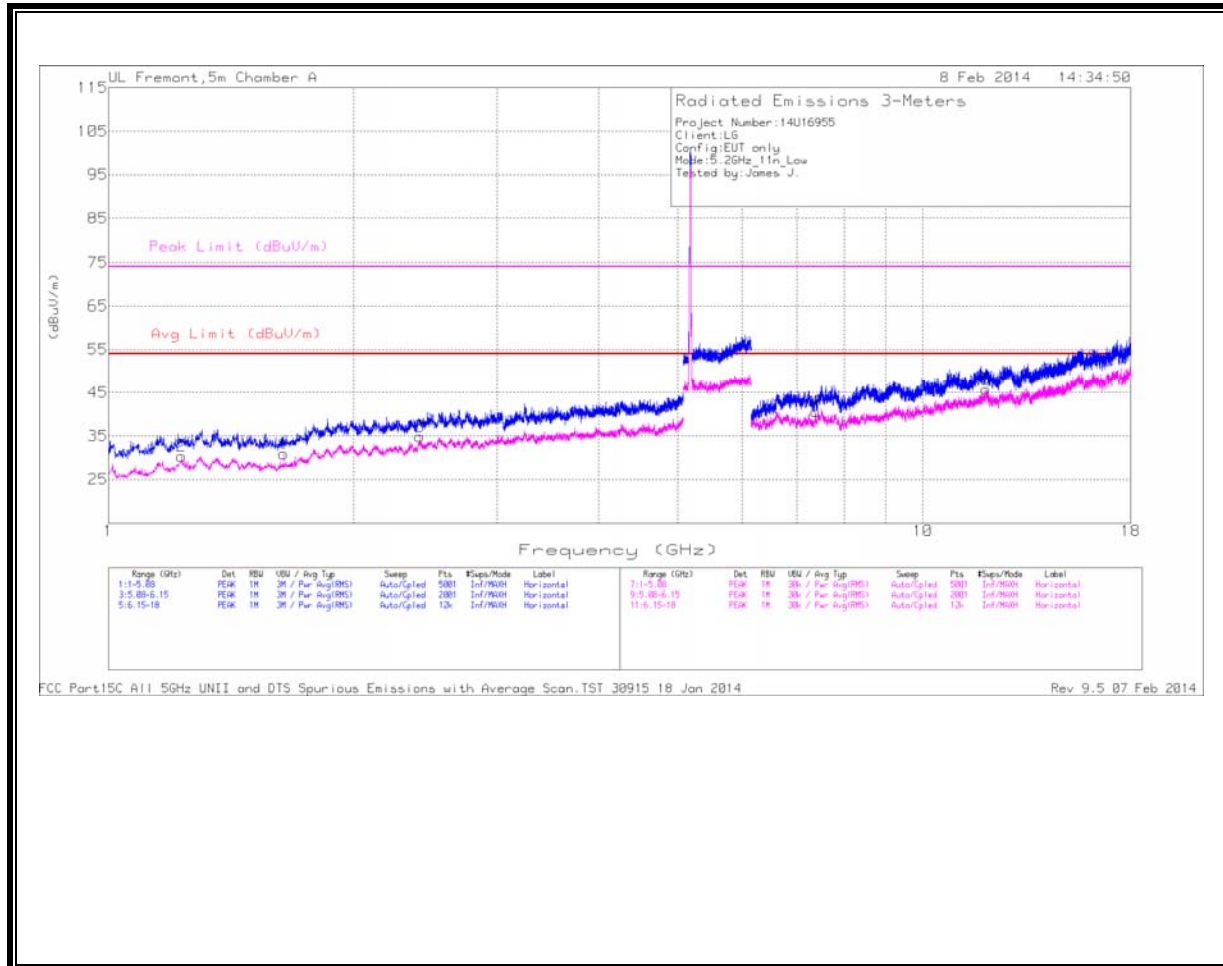
**10.1.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND
RESTRICTED BANDEDGE (LOW CHANNEL)**



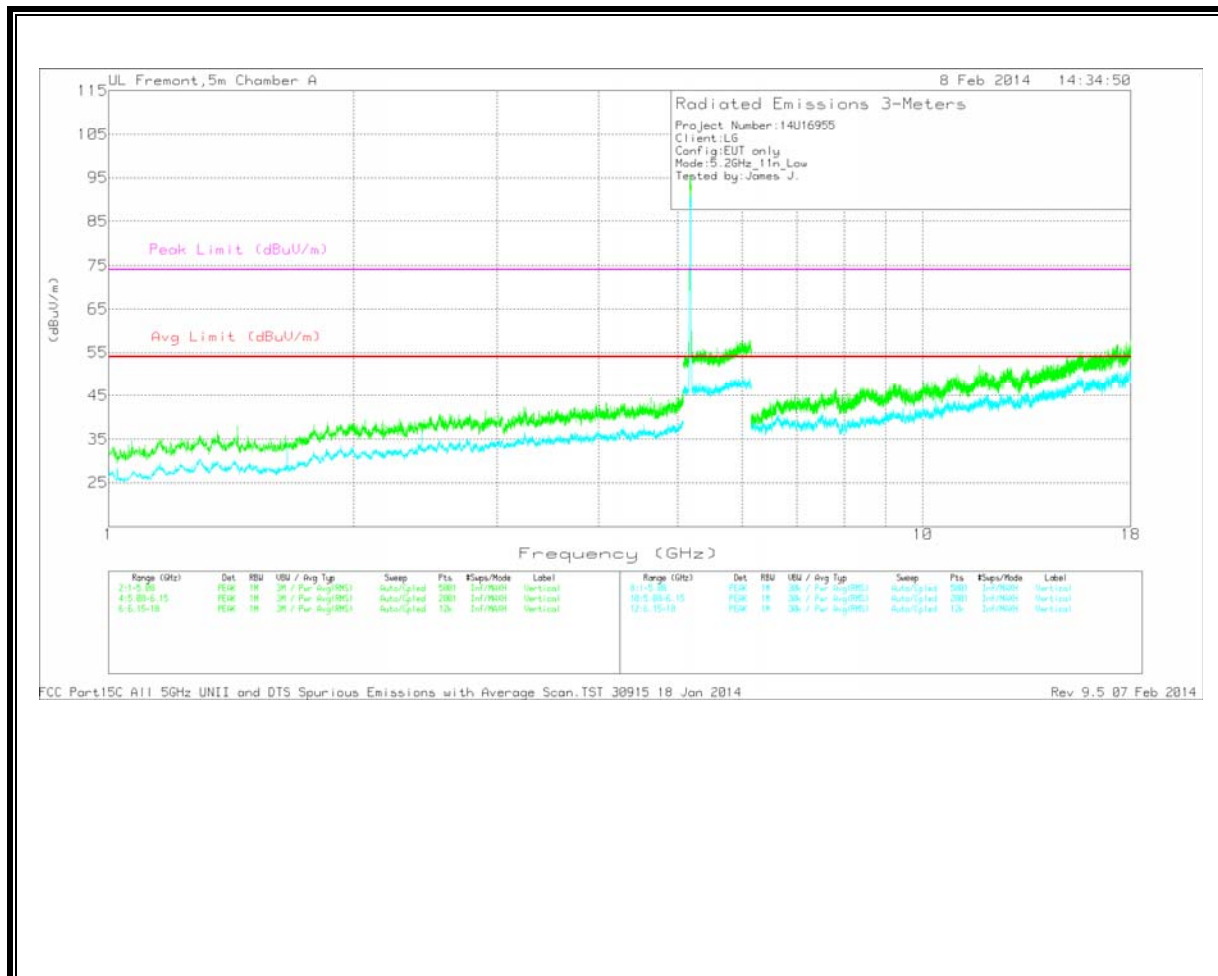


HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL 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.

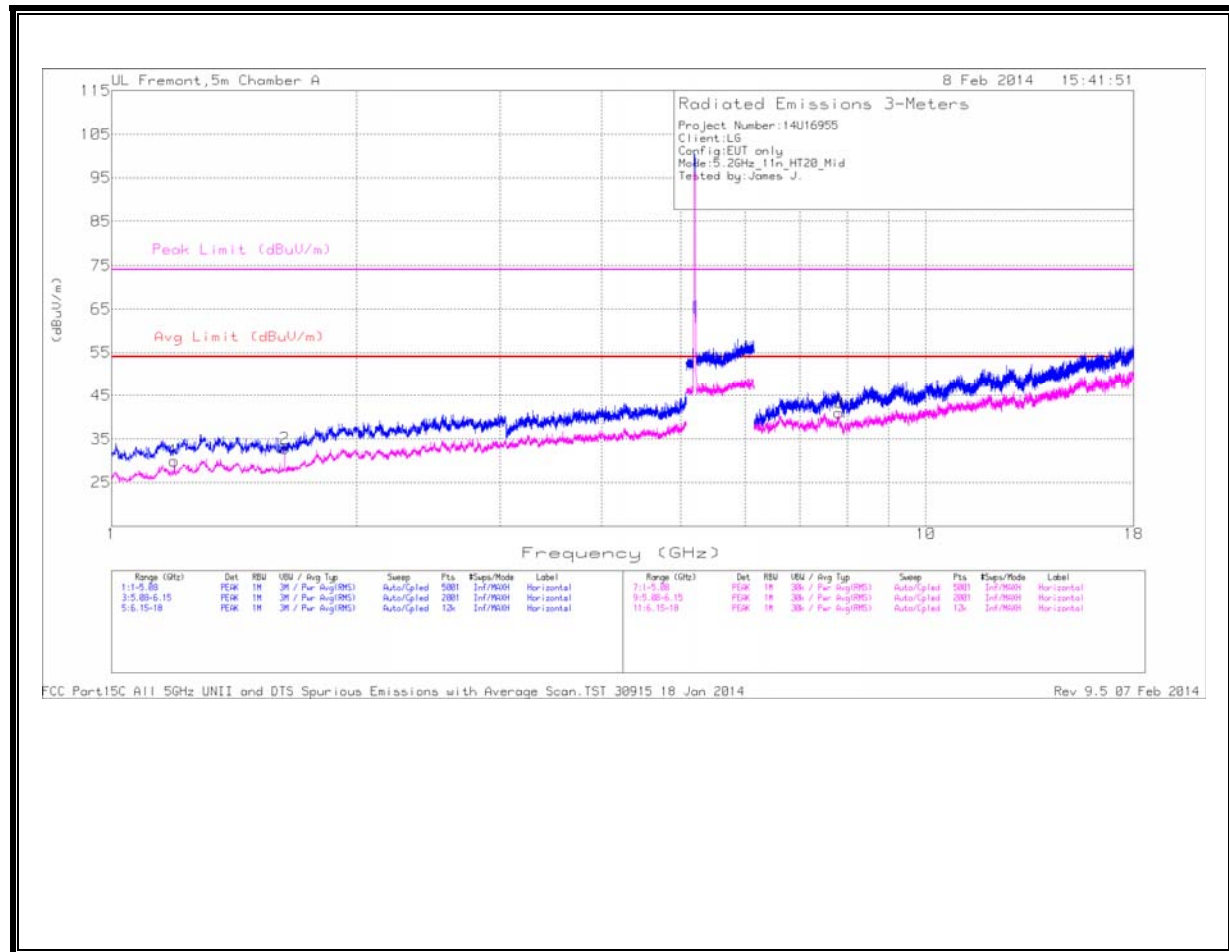


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

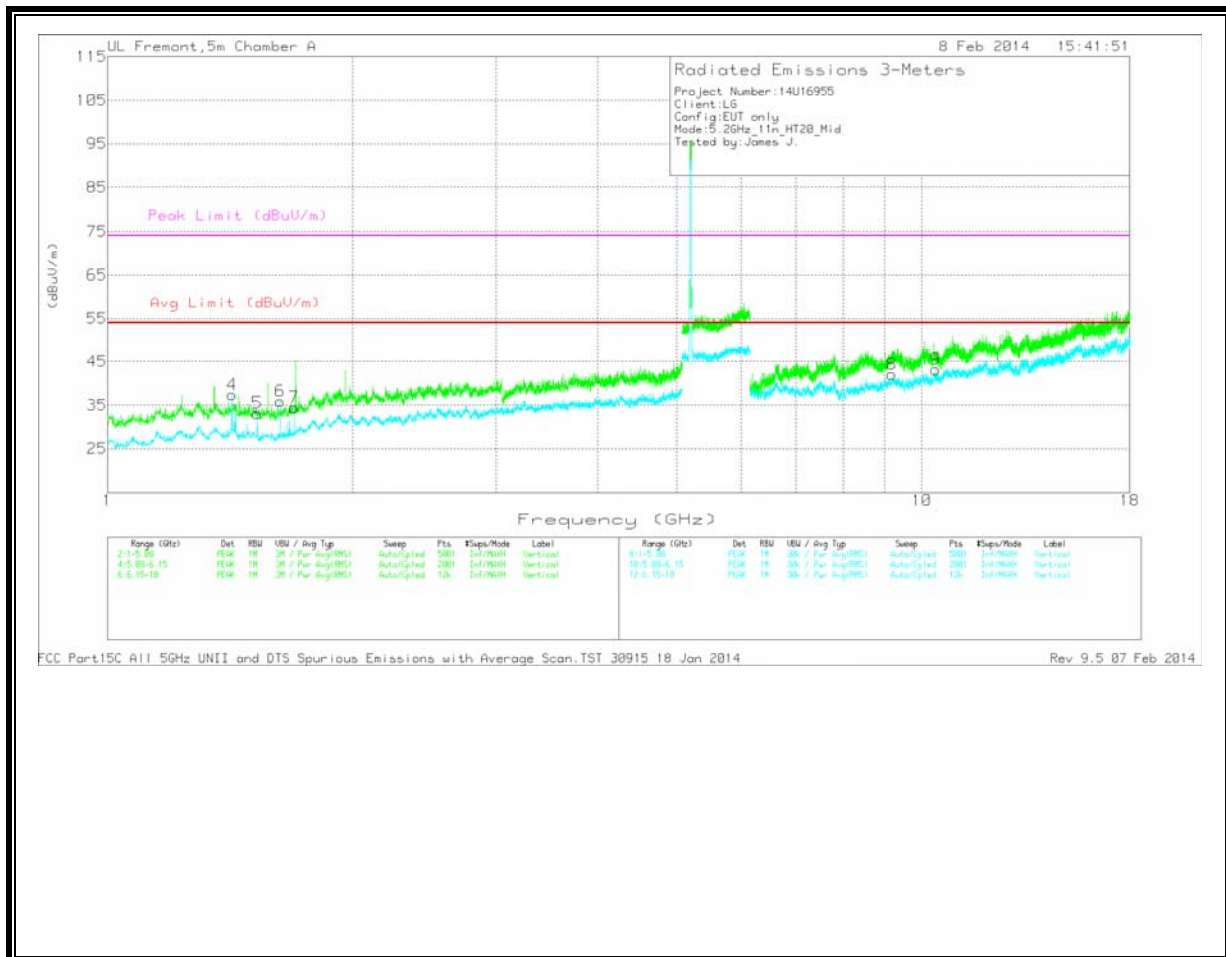
LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	1.229	37.87	Avg	29.7	-37.2	30.37	54	-23.63	-	-	0-360	200	H
1	1.641	38.21	Avg	28.7	-36	30.91	54	-23.09	-	-	0-360	100	H
3	2.41	36.08	Avg	32.2	-33.4	34.88	54	-19.12	-	-	0-360	200	H
4	7.385	31.8	Avg	35.4	-26.6	40.6	54	-13.4	-	-	0-360	101	H
5	11.949	29.33	Avg	38.7	-22.3	45.73	54	-8.27	-	-	0-360	101	H

All peak readings were 20dB below the peak limit. Average measurements at discrete frequencies are provided in the table below for frequencies that are within 6dB of the average limit.



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

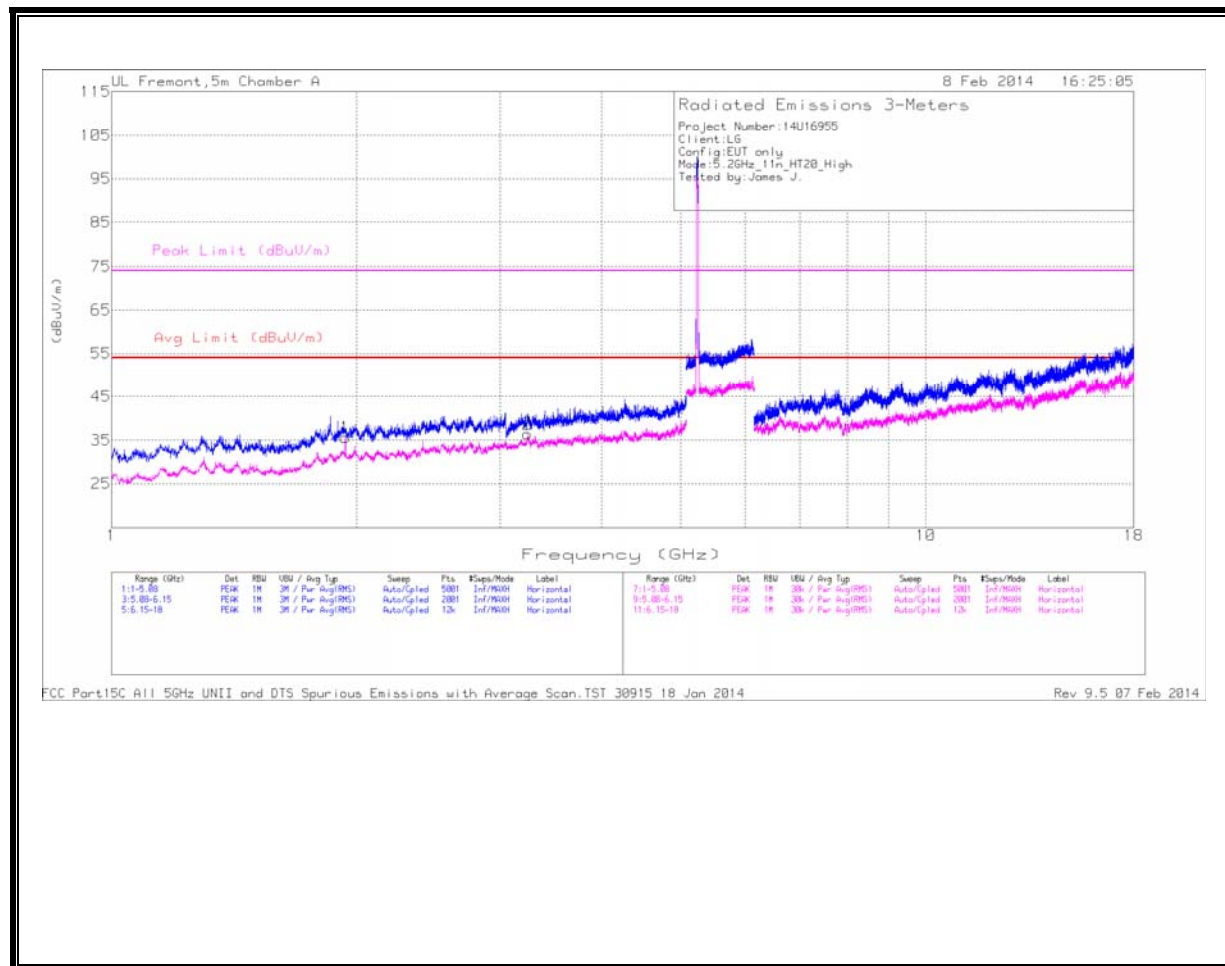


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

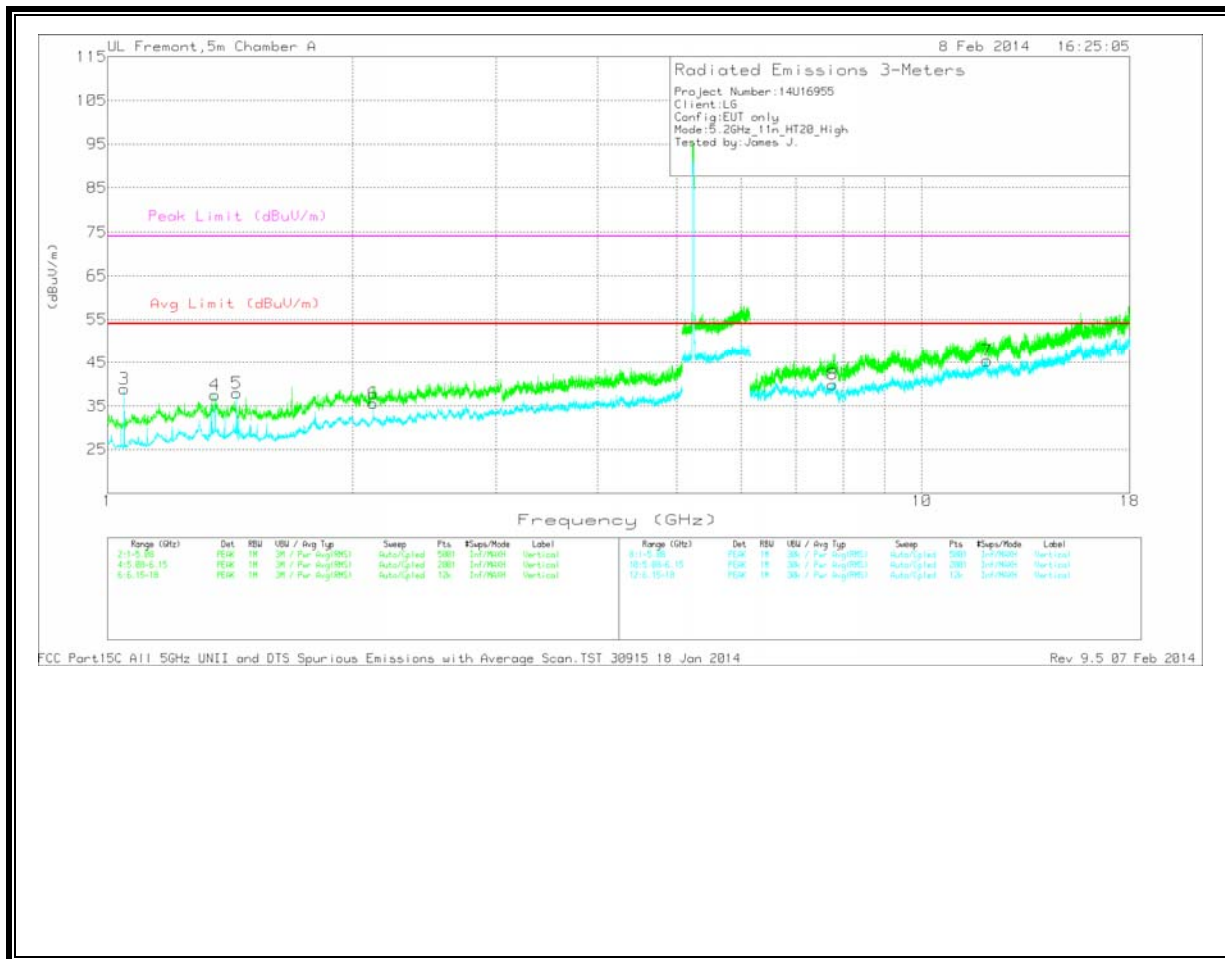
MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.194	37.36	Avg	29.4	-36.8	29.96	54	-24.04	-	-	0-360	200	H
4	1.422	44.17	Avg	29.6	-36.4	37.37	54	-16.63	-	-	0-360	100	V
5	1.527	40.15	Avg	28.7	-35.7	33.15	54	-20.85	-	-	0-360	100	V
6	1.629	43.11	Avg	28.6	-35.8	35.91	54	-18.09	-	-	0-360	100	V
2	1.632	39.96	Avg	28.7	-35.9	32.76	54	-21.24	-	-	0-360	200	H
7	1.694	41.54	Avg	29.3	-36.4	34.44	54	-19.56	-	-	0-360	100	V
3	7.822	29.87	Avg	35.5	-24.3	41.07	54	-12.93	-	-	0-360	101	H
8	9.188	30.25	Avg	36.1	-24.3	42.05	54	-11.95	-	-	0-360	101	V
9	10.4	28.38	Avg	37.4	-22.6	43.18	54	-10.82	-	-	0-360	201	V

All peak readings were 20dB below the peak limit. Average measurements at discrete frequencies are provided in the table below for frequencies that are within 6dB of the average limit.



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



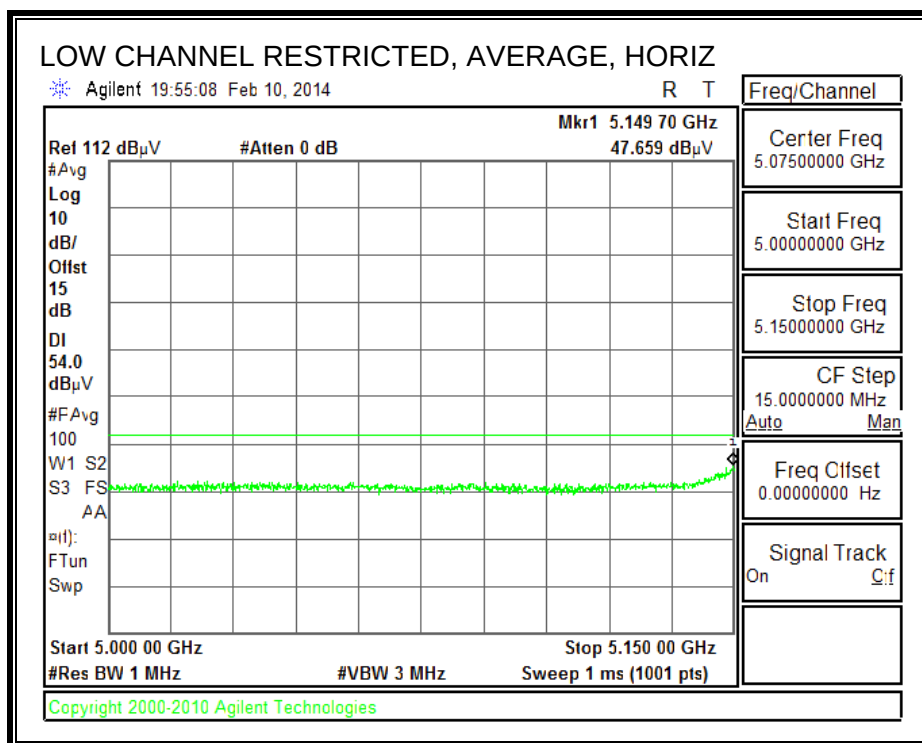
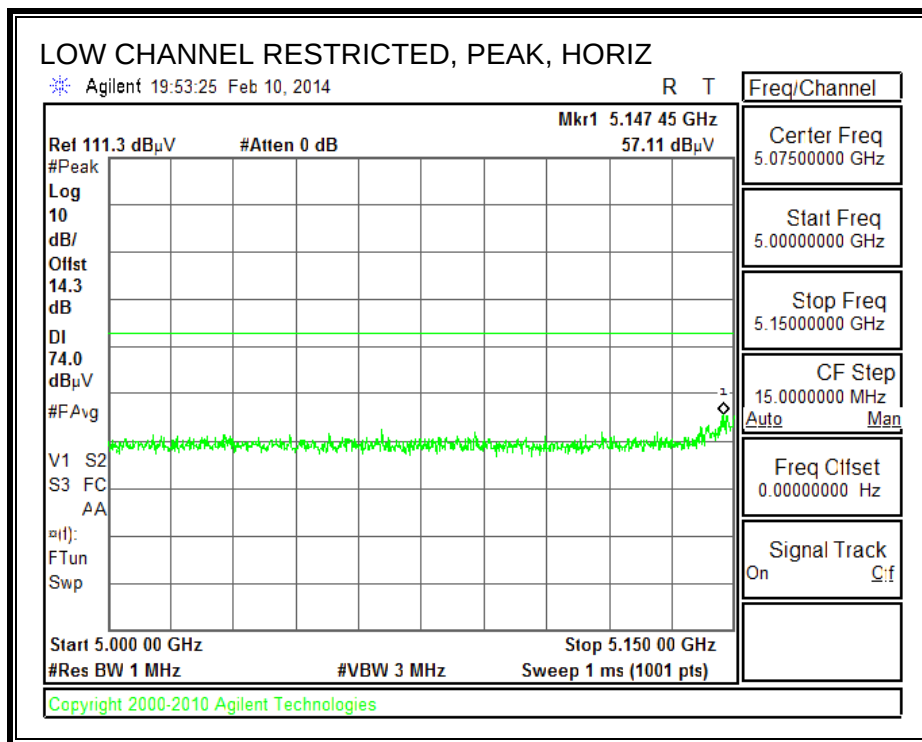
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

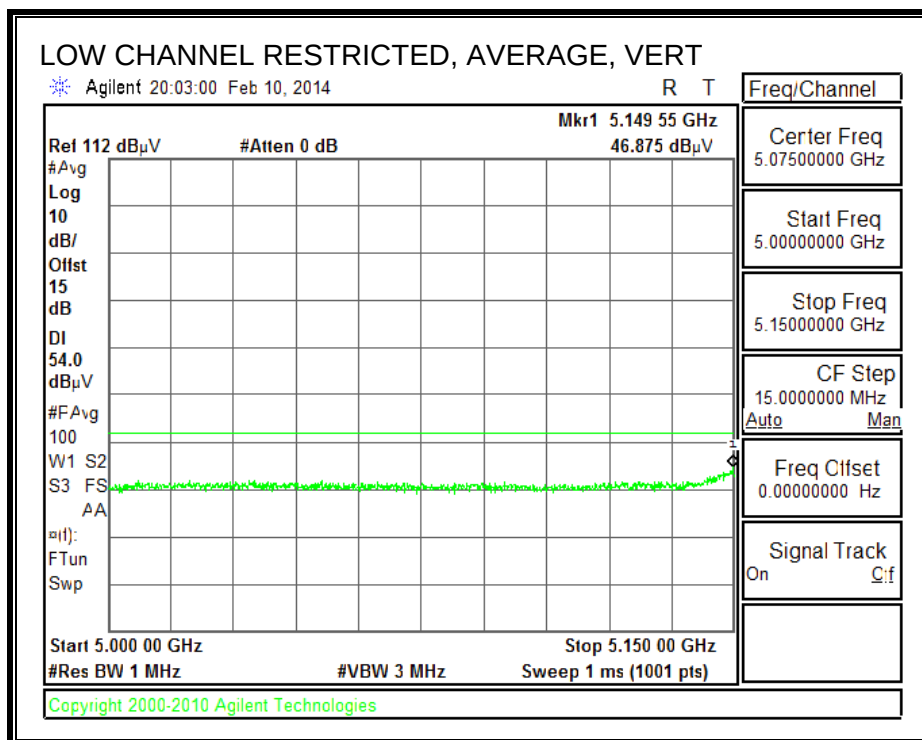
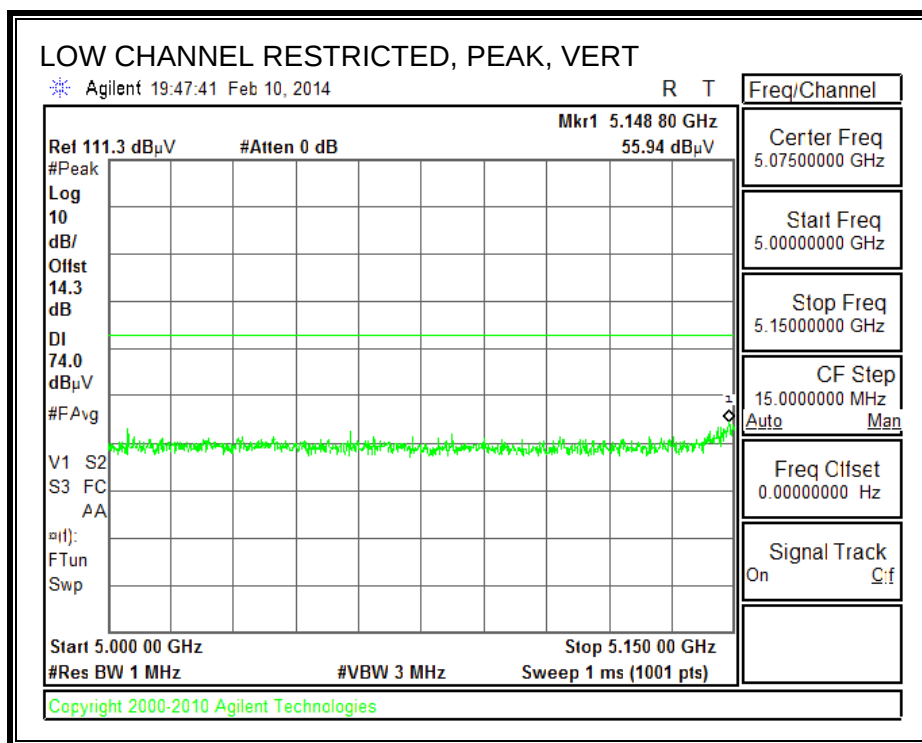
HIGH CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	1.048	48.5	Avg	28	-37.6	38.9	54	-15.1	-	-	0-360	200	V
4	1.354	44.34	Avg	30	-36.8	37.54	54	-16.46	-	-	0-360	200	V
5	1.441	44.62	Avg	29.4	-36.1	37.92	54	-16.08	-	-	0-360	200	V
1	1.937	38.43	Avg	31.8	-34.6	35.63	54	-18.37	-	-	0-360	200	H
6	2.12	38.15	Avg	31.6	-34.2	35.55	54	-18.45	-	-	0-360	101	V
2	3.242	34.8	Avg	33.3	-31.7	36.4	54	-17.6	-	-	0-360	101	H
8	7.772	30.63	Avg	35.5	-26.2	39.93	54	-14.07	-	-	0-360	101	V
7	12.028	28.32	Avg	38.8	-21.7	45.42	54	-8.58	-	-	0-360	201	V

All peak readings were 20dB below the peak limit. Average measurements at discrete frequencies are provided in the table below for frequencies that are within 6dB of the average limit.

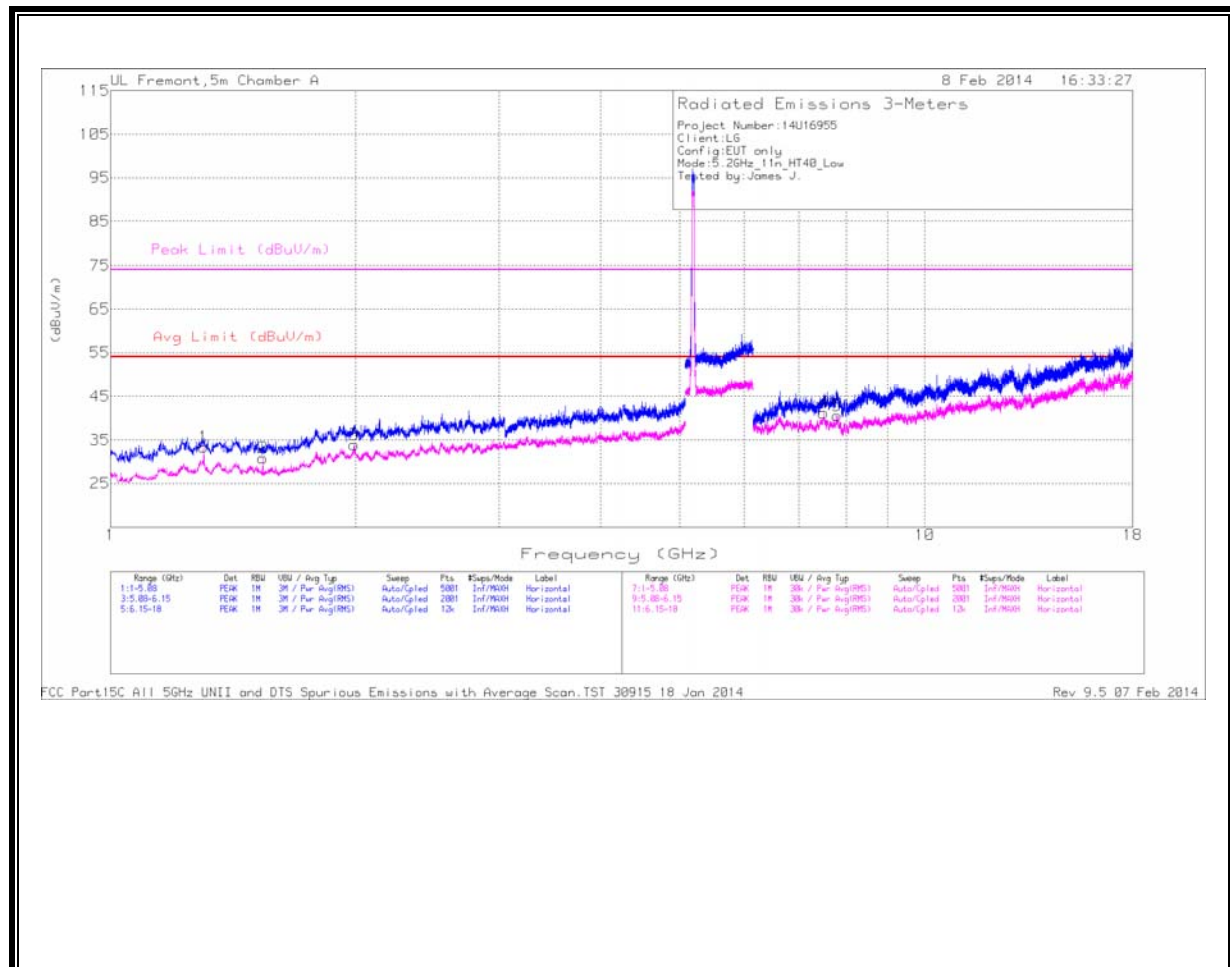
10.1.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND
RESTRICTED BANDEDGE (LOW CHANNEL)



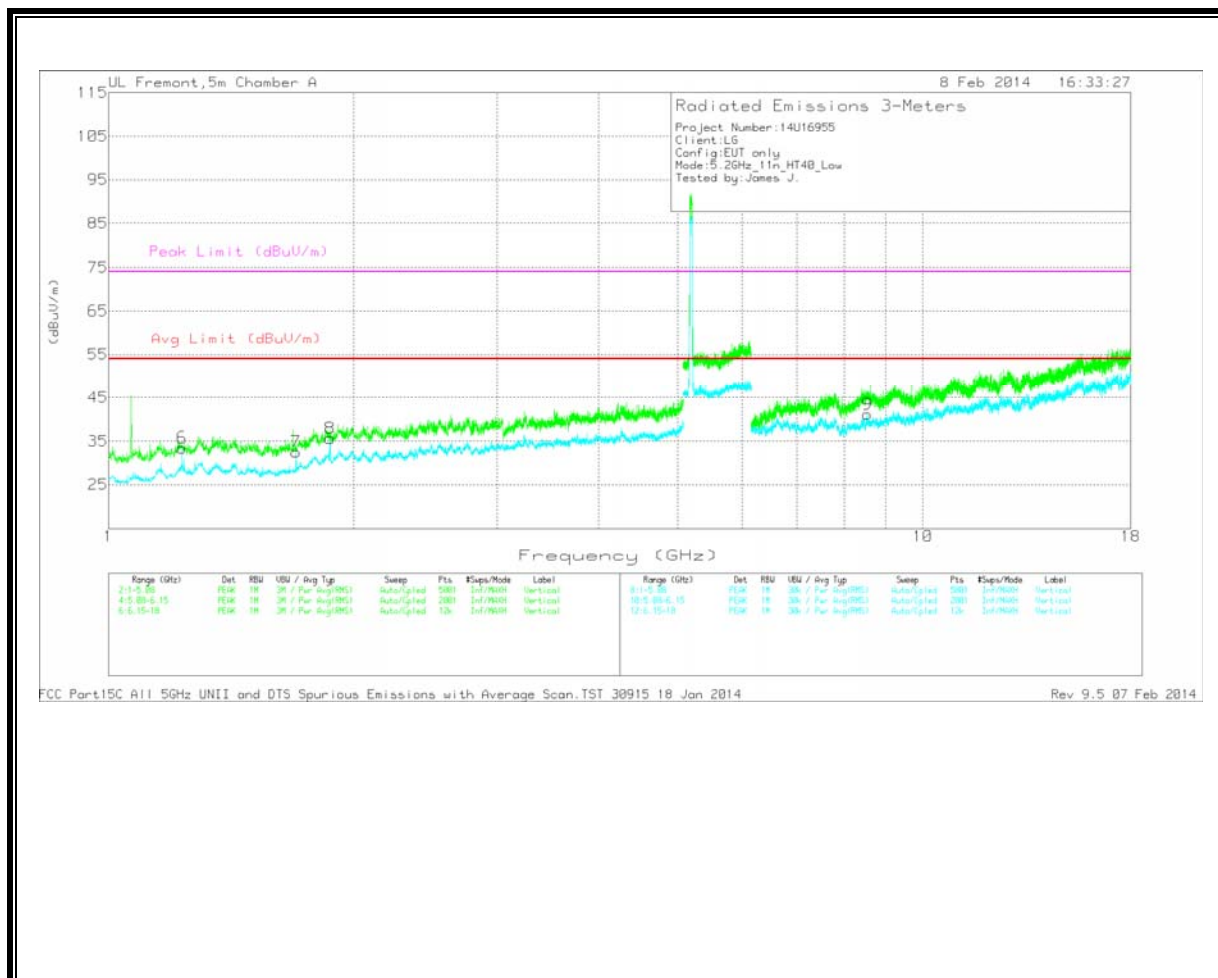


HARMONICS AND SPURIOUS EMISSIONS

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.

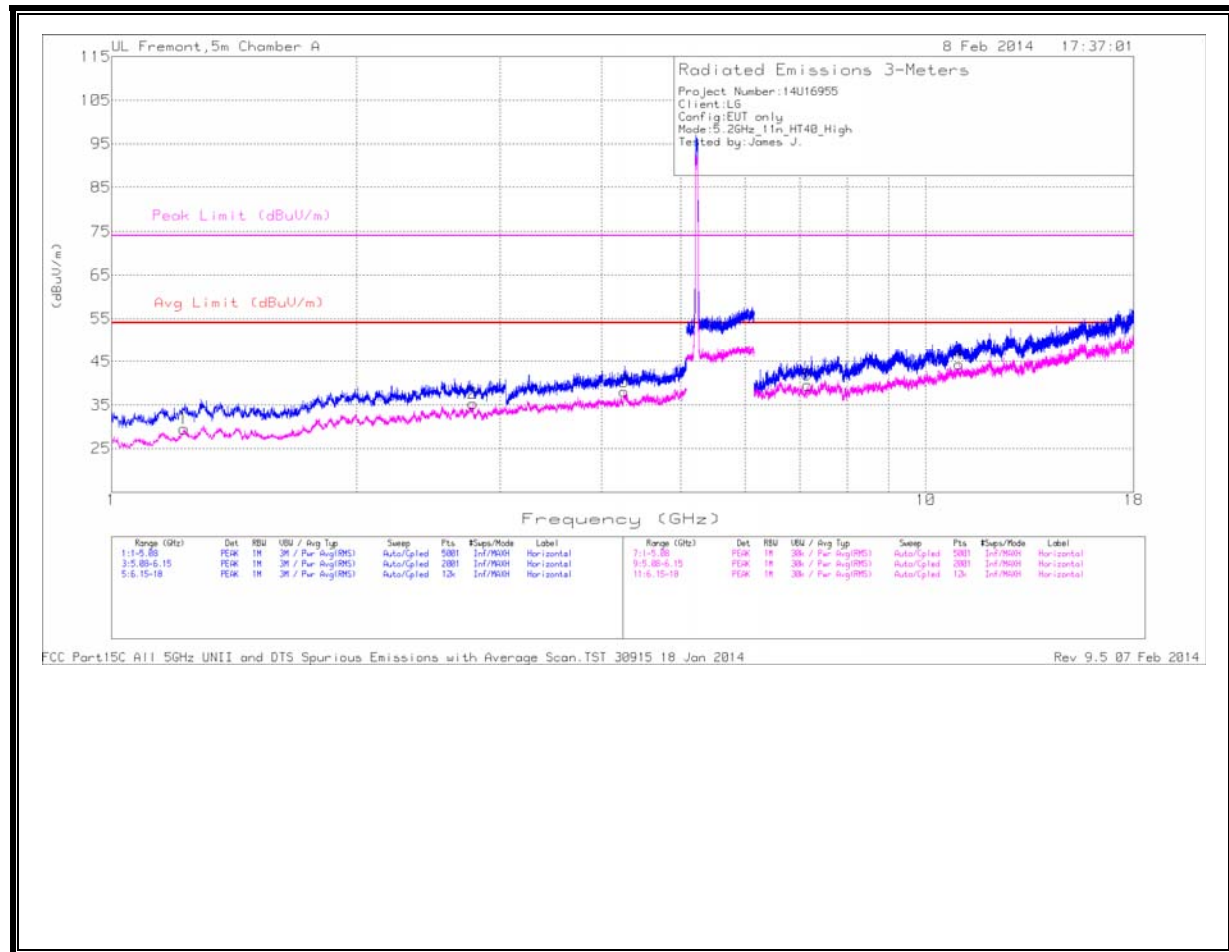


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

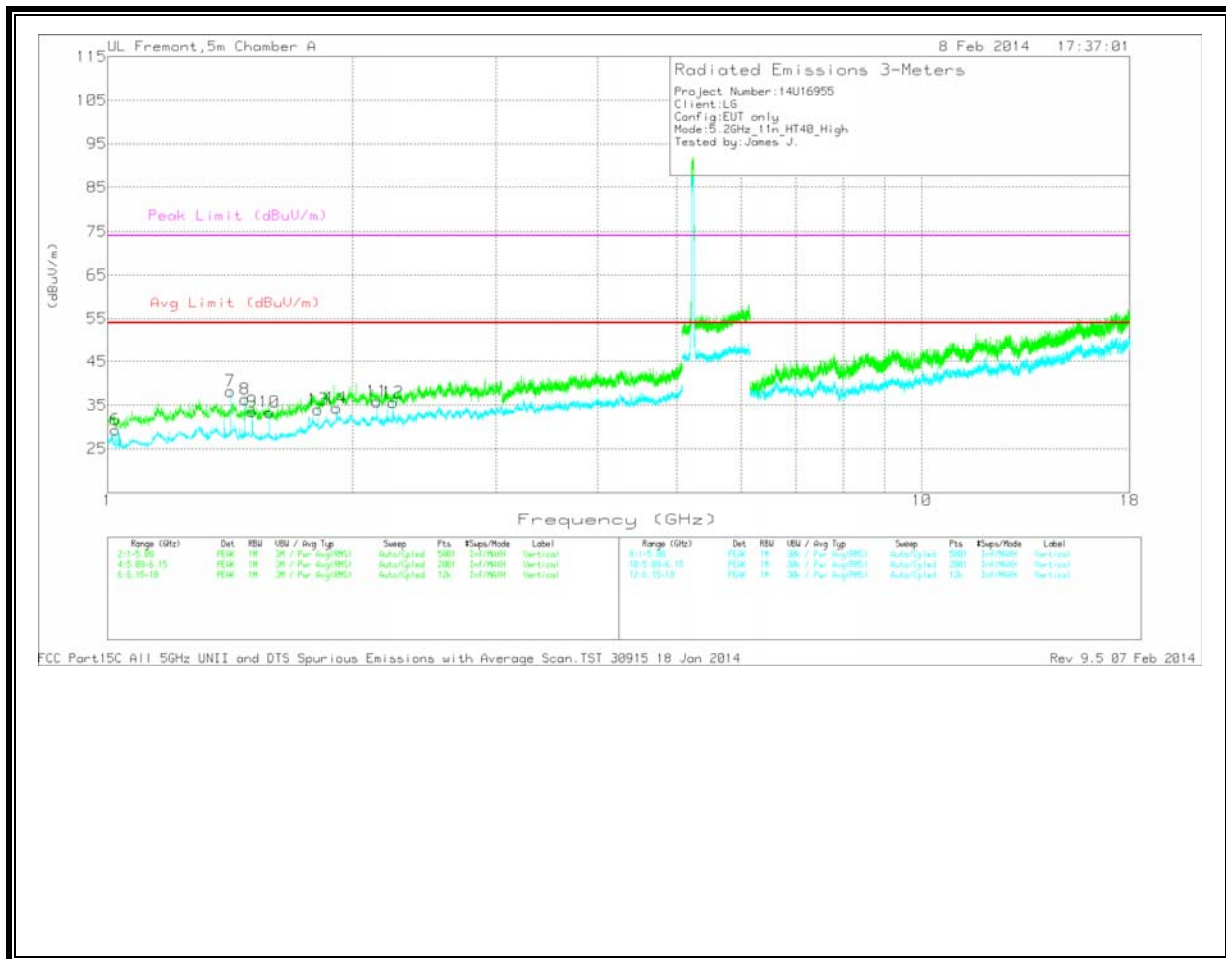
LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	1.231	40.95	Avg	29.7	-37.2	33.45	54	-20.55	-	-	0-360	101	V
1	1.301	39.86	Avg	30.3	-36.8	33.36	54	-20.64	-	-	0-360	200	H
2	1.539	38.19	Avg	28.7	-36	30.89	54	-23.11	-	-	0-360	200	H
7	1.699	39.56	Avg	29.4	-36.4	32.56	54	-21.44	-	-	0-360	101	V
8	1.871	39.45	Avg	31.4	-35.2	35.65	54	-18.35	-	-	0-360	201	V
3	1.991	36.73	Avg	31.9	-34.7	33.93	54	-20.07	-	-	0-360	200	H
4	7.508	30.53	Avg	35.4	-24.7	41.23	54	-12.77	-	-	0-360	200	H
5	7.806	29.87	Avg	35.5	-24.8	40.57	54	-13.43	-	-	0-360	200	H
9	8.544	31.68	Avg	35.7	-26.2	41.18	54	-12.82	-	-	0-360	100	V

All peak readings were 20dB below the peak limit. Average measurements at discrete frequencies are provided in the table below for frequencies that are within 6dB of the average limit.



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



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

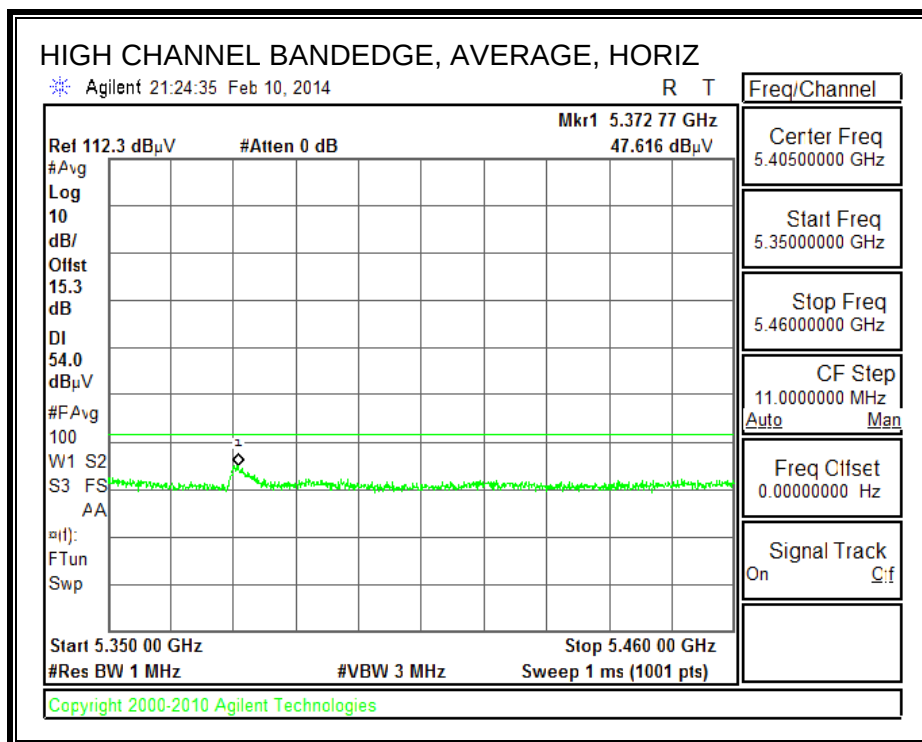
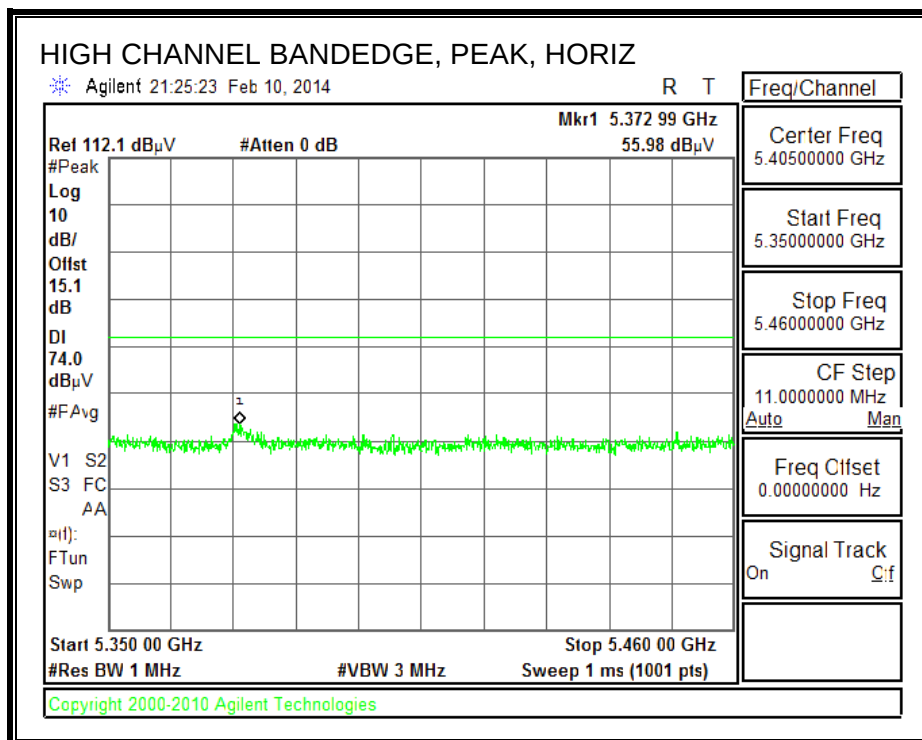
HIGH CHANNEL DATA

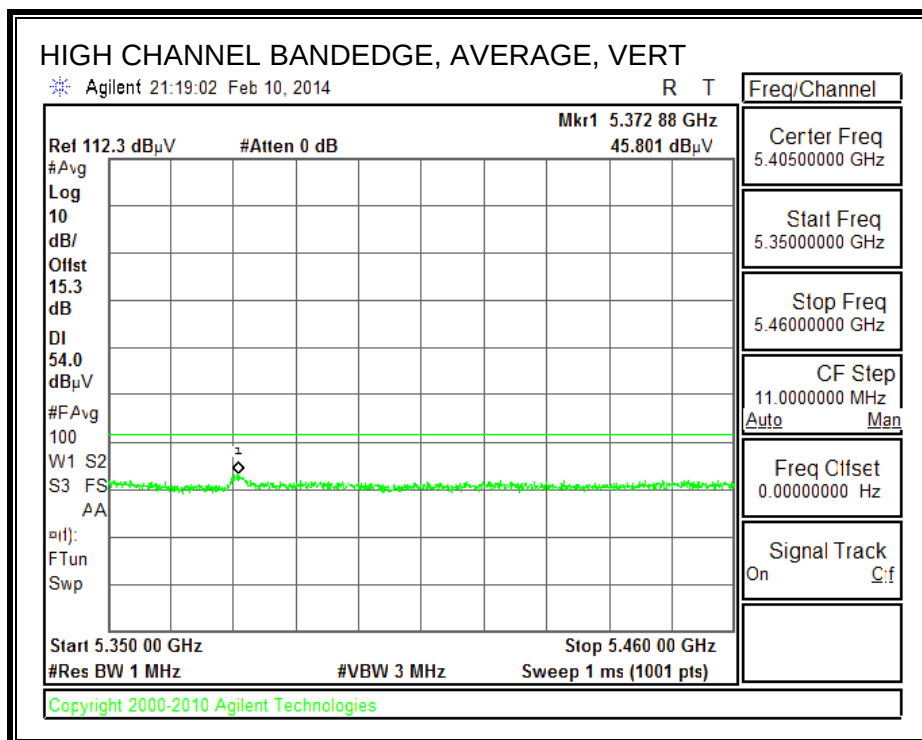
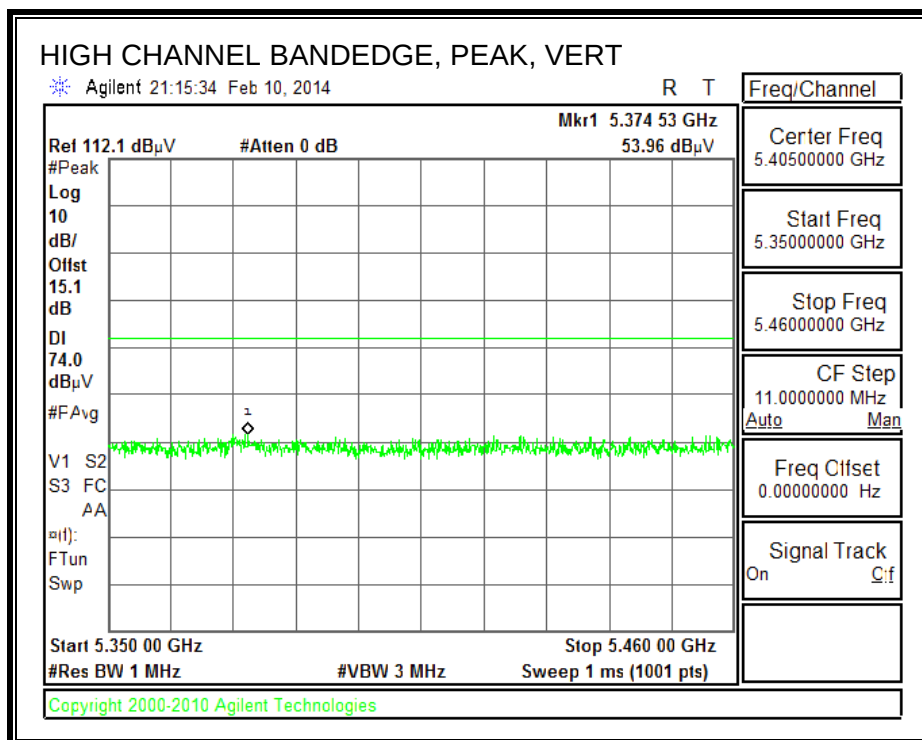
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	1.023	39.73	Avg	28.1	-38.5	29.33	54	-24.67	-	-	0-360	200	V
1	1.228	37.04	Avg	29.7	-37.2	29.54	54	-24.46	-	-	0-360	100	H
7	1.415	45.06	Avg	29.7	-36.6	38.16	54	-15.84	-	-	0-360	200	V
8	1.475	42.94	Avg	29.1	-35.7	36.34	54	-17.66	-	-	0-360	200	V
9	1.506	40.59	Avg	28.9	-36	33.49	54	-20.51	-	-	0-360	200	V
10	1.579	40.68	Avg	28.4	-35.7	33.38	54	-20.62	-	-	0-360	200	V
13	1.813	37.88	Avg	30.7	-34.6	33.98	54	-20.02	-	-	0-360	200	V
14	1.911	37	Avg	31.7	-34.4	34.3	54	-19.7	-	-	0-360	200	V
11	2.142	38.02	Avg	31.6	-33.8	35.82	54	-18.18	-	-	0-360	200	V
12	2.241	37.38	Avg	31.5	-33.3	35.58	54	-18.42	-	-	0-360	200	V
2	2.779	35.64	Avg	32.6	-32.9	35.34	54	-18.66	-	-	0-360	200	H
3	4.261	32.58	Avg	33.6	-28.1	38.08	54	-15.92	-	-	0-360	200	H
5	7.161	30.24	Avg	35.4	-26.1	39.54	54	-14.46	-	-	0-360	101	H
4	10.99	28.71	Avg	37.8	-22.1	44.41	54	-9.59	-	-	0-360	101	H

All peak readings were 20dB below the peak limit. Average measurements at discrete frequencies are provided in the table below for frequencies that are within 6dB of the average limit.

10.2. 5.3 GHz

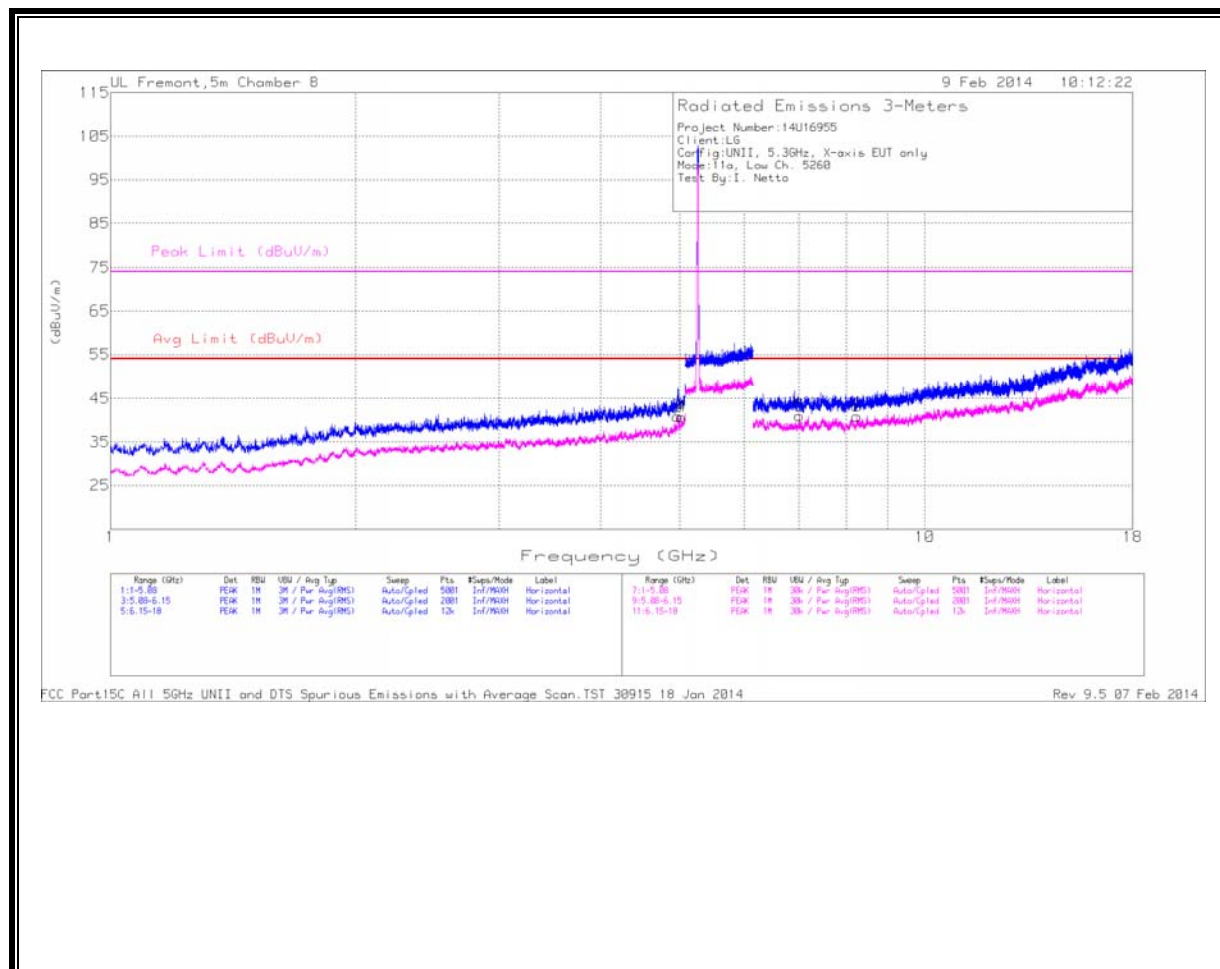
10.2.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.3 GHz BAND AUTHORIZED BANDEDGE (HIGH CHANNEL)



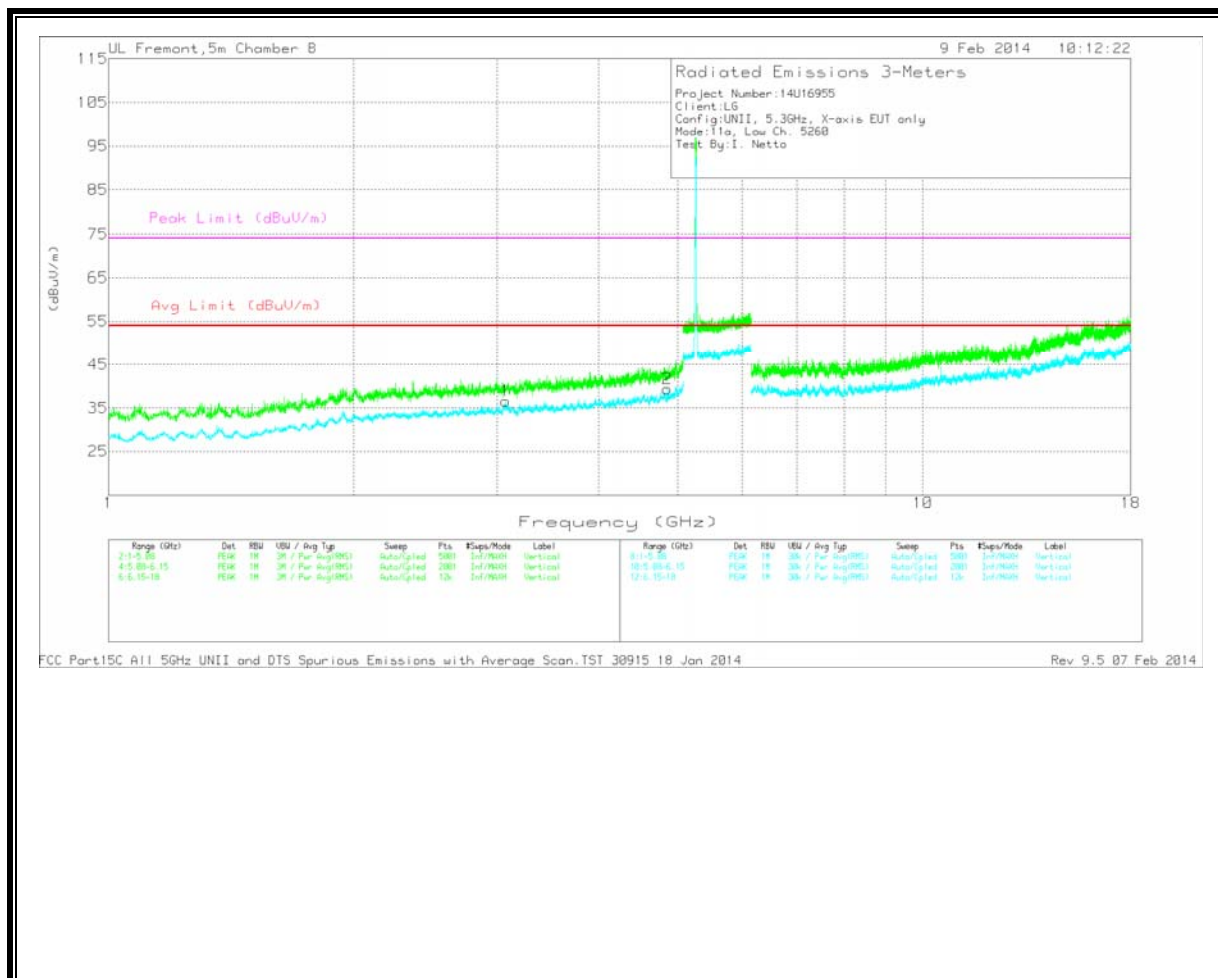


HARMONICS AND SPURIOUS EMISSIONS

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.

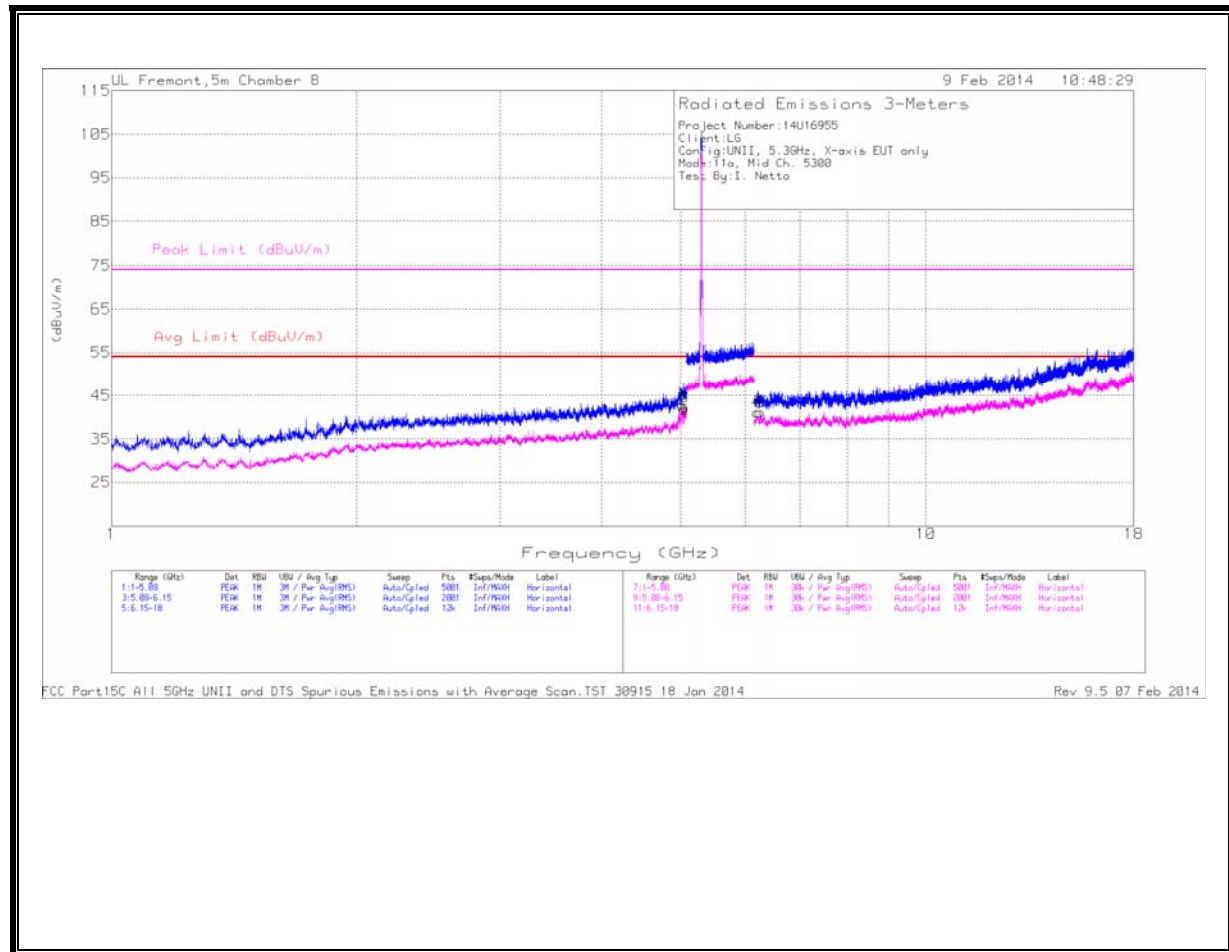


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

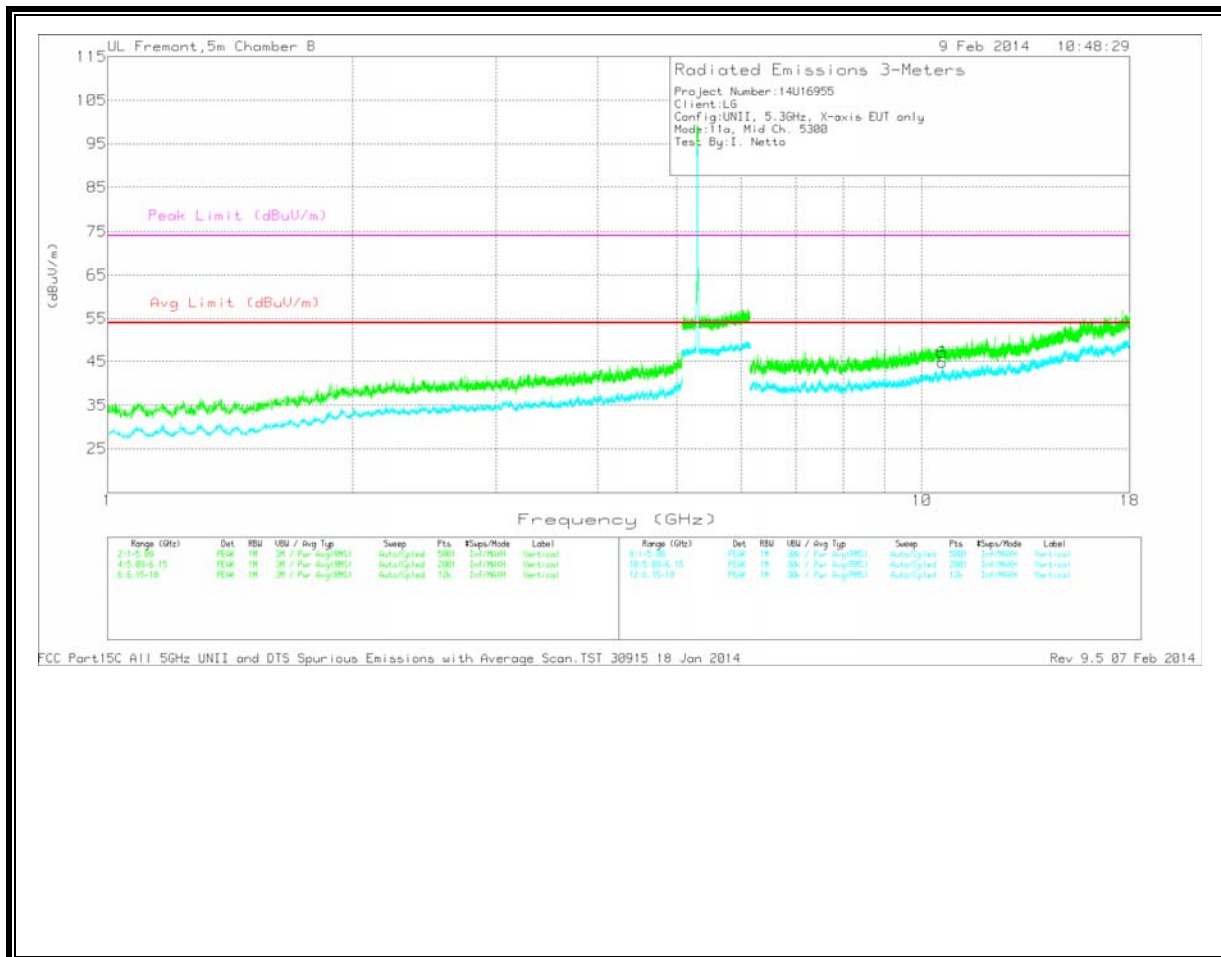
LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.073	35.51	Avg	33.2	-32.1	36.61	54	-17.39	-	-	0-360	202	V
2	4.854	34.99	Avg	34.7	-30.3	39.39	54	-14.61	-	-	0-360	99	V
3	4.969	34.89	Avg	34.6	-28.6	40.89	54	-13.11	-	-	0-360	202	H
4	5.024	34.97	Avg	34.6	-28.8	40.77	54	-13.23	-	-	0-360	202	H
5	7.015	32.72	Avg	35.9	-27.6	41.02	54	-12.98	-	-	0-360	202	H
6	8.249	31.52	Avg	36.1	-26.7	40.92	54	-13.08	-	-	0-360	202	H

All peak readings were 20dB below the peak limit. Average measurements at discrete frequencies are provided in the table below for frequencies that are within 6dB of the average limit.



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

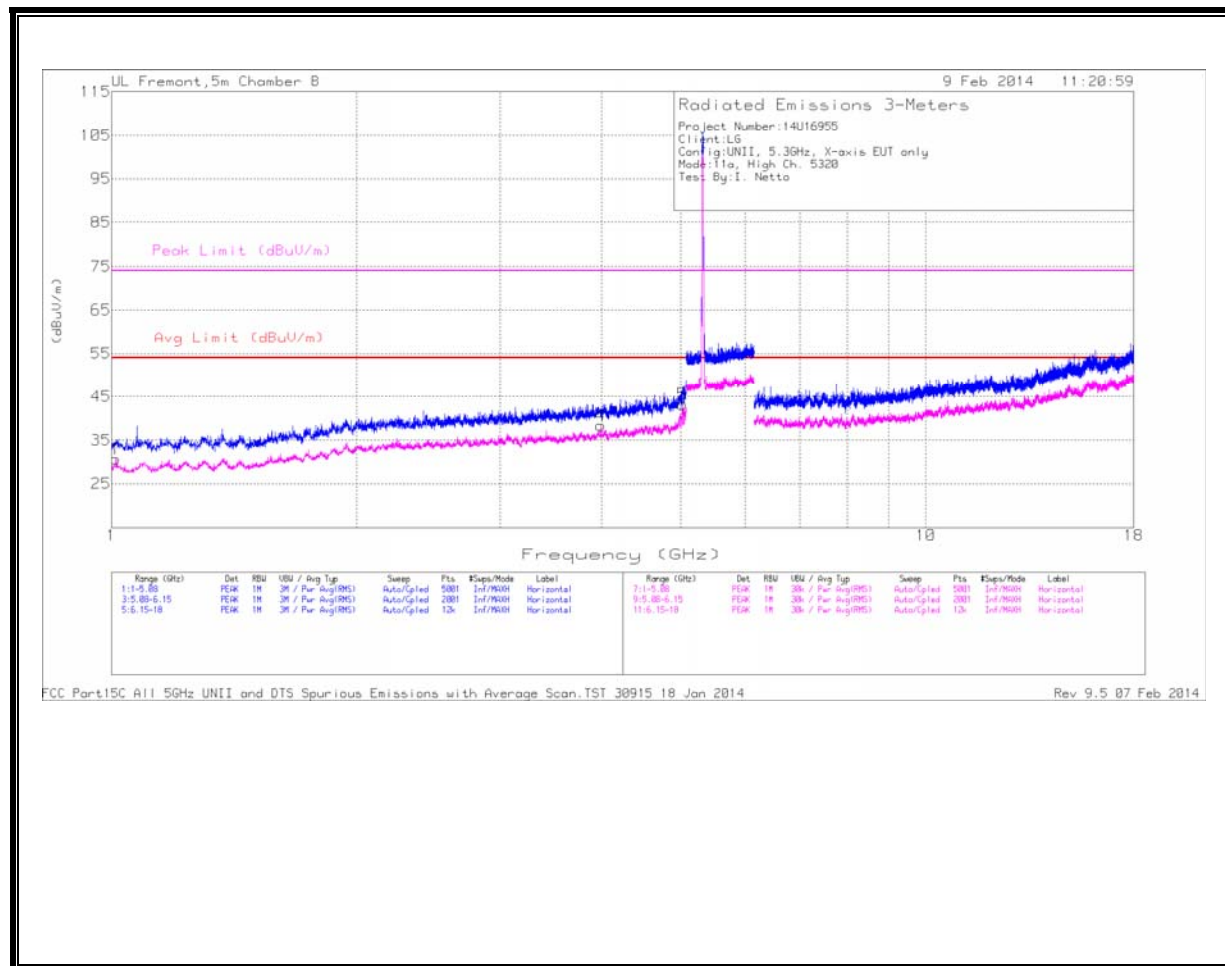


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

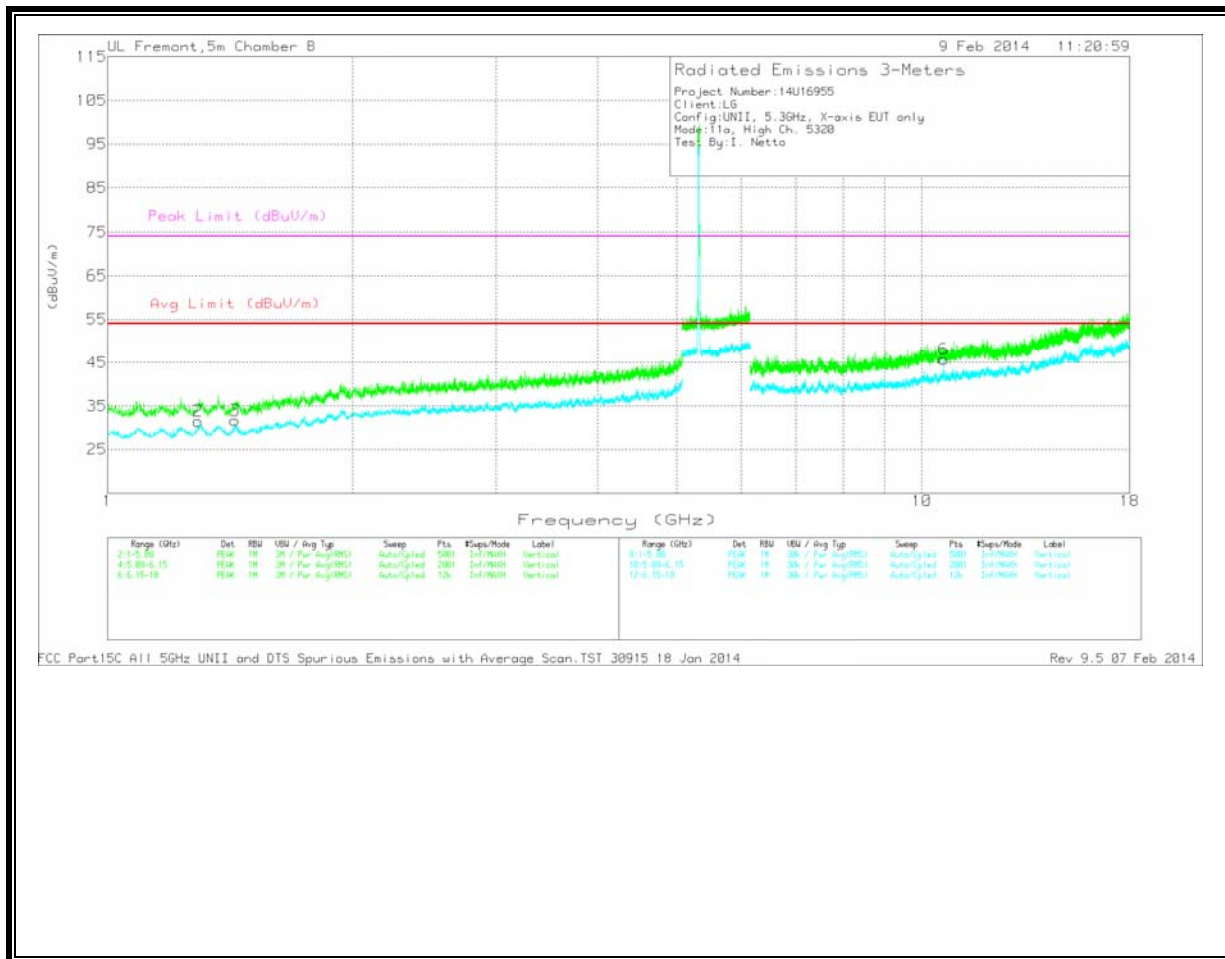
MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.016	37.03	Avg	34.6	-28.8	42.83	54	-11.17	-	-	0-360	201	H
2	5.044	35.5	Avg	34.7	-28.4	41.8	54	-12.2	-	-	0-360	201	H
3	5.053	35.82	Avg	34.7	-28.2	42.32	54	-11.68	-	-	0-360	201	H
4	6.216	32.85	Avg	36	-27.7	41.15	54	-12.85	-	-	0-360	99	H
5	6.259	33.75	Avg	36	-28.6	41.15	54	-12.85	-	-	0-360	201	H
6	10.599	29.78	Avg	38.2	-23.2	44.78	54	-9.22	-	-	0-360	202	V

All peak readings were 20dB below the peak limit. Average measurements at discrete frequencies are provided in the table below for frequencies that are within 6dB of the average limit.



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



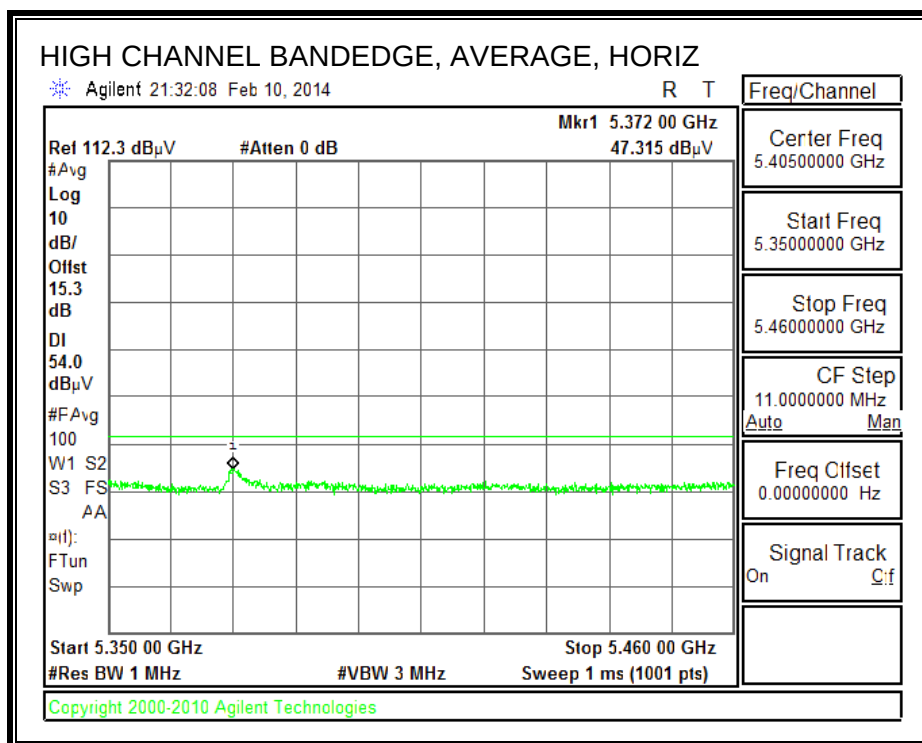
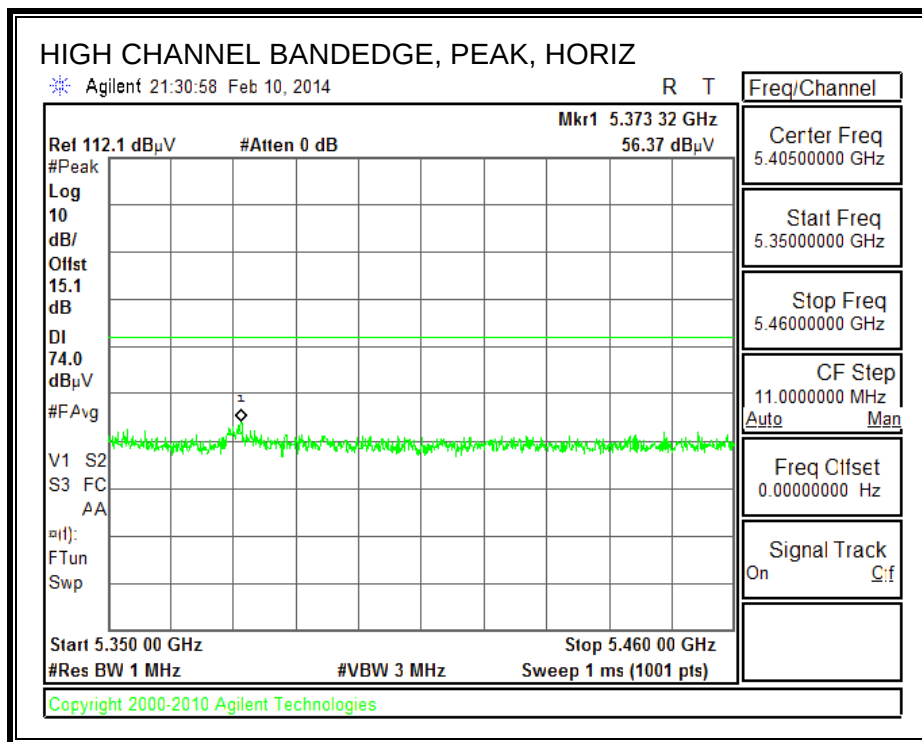
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

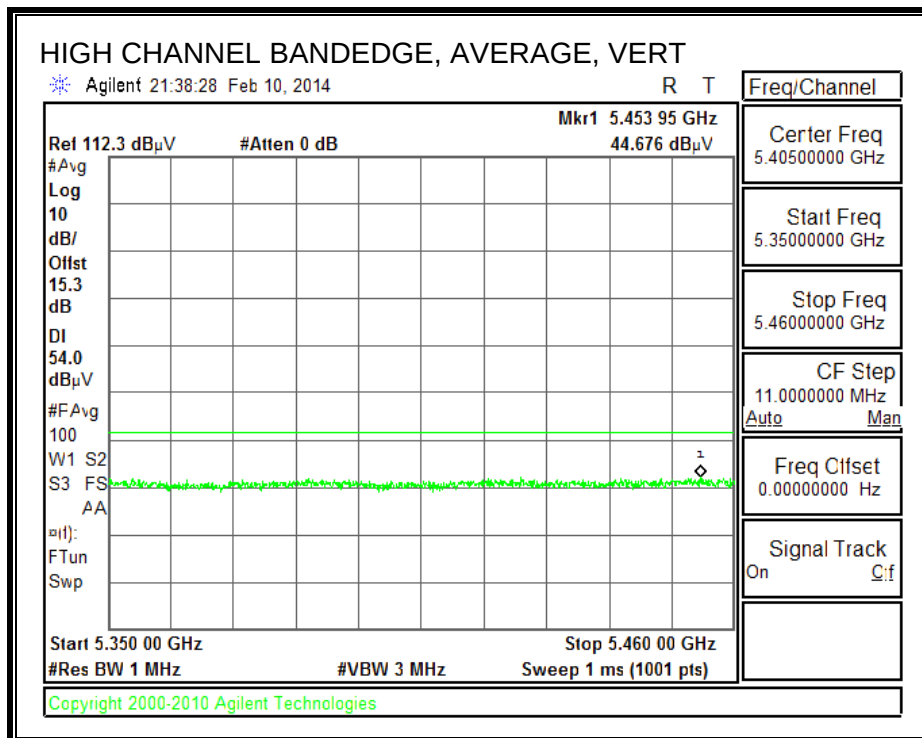
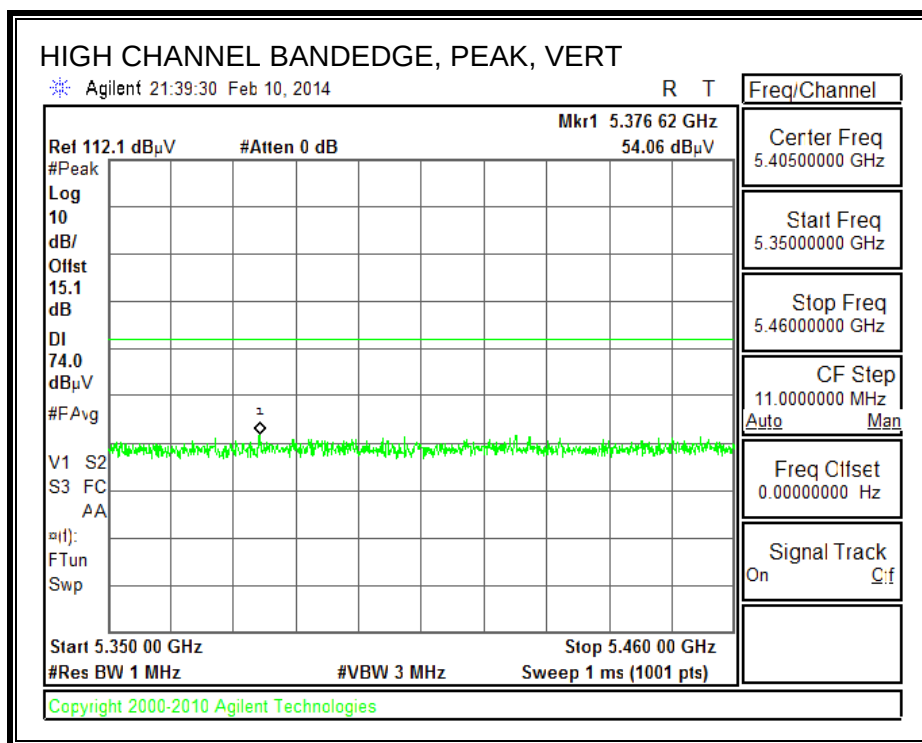
HIGH CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.012	37.67	Avg	27.5	-34.5	30.67	54	-23.33	-	-	0-360	99	H
2	1.291	37.29	Avg	28.5	-34.3	31.49	54	-22.51	-	-	0-360	202	V
3	1.433	37.36	Avg	28.3	-34	31.66	54	-22.34	-	-	0-360	99	V
4	3.988	34.56	Avg	33.9	-30.1	38.36	54	-15.64	-	-	0-360	99	H
5	5.027	37.39	Avg	34.6	-28.8	43.19	54	-10.81	-	-	0-360	201	H
6	10.64	30.71	Avg	38.3	-23.2	45.81	54	-8.19	-	-	0-360	202	V

All peak readings were 20dB below the peak limit. Average measurements at discrete frequencies are provided in the table below for frequencies that are within 6dB of the average limit.

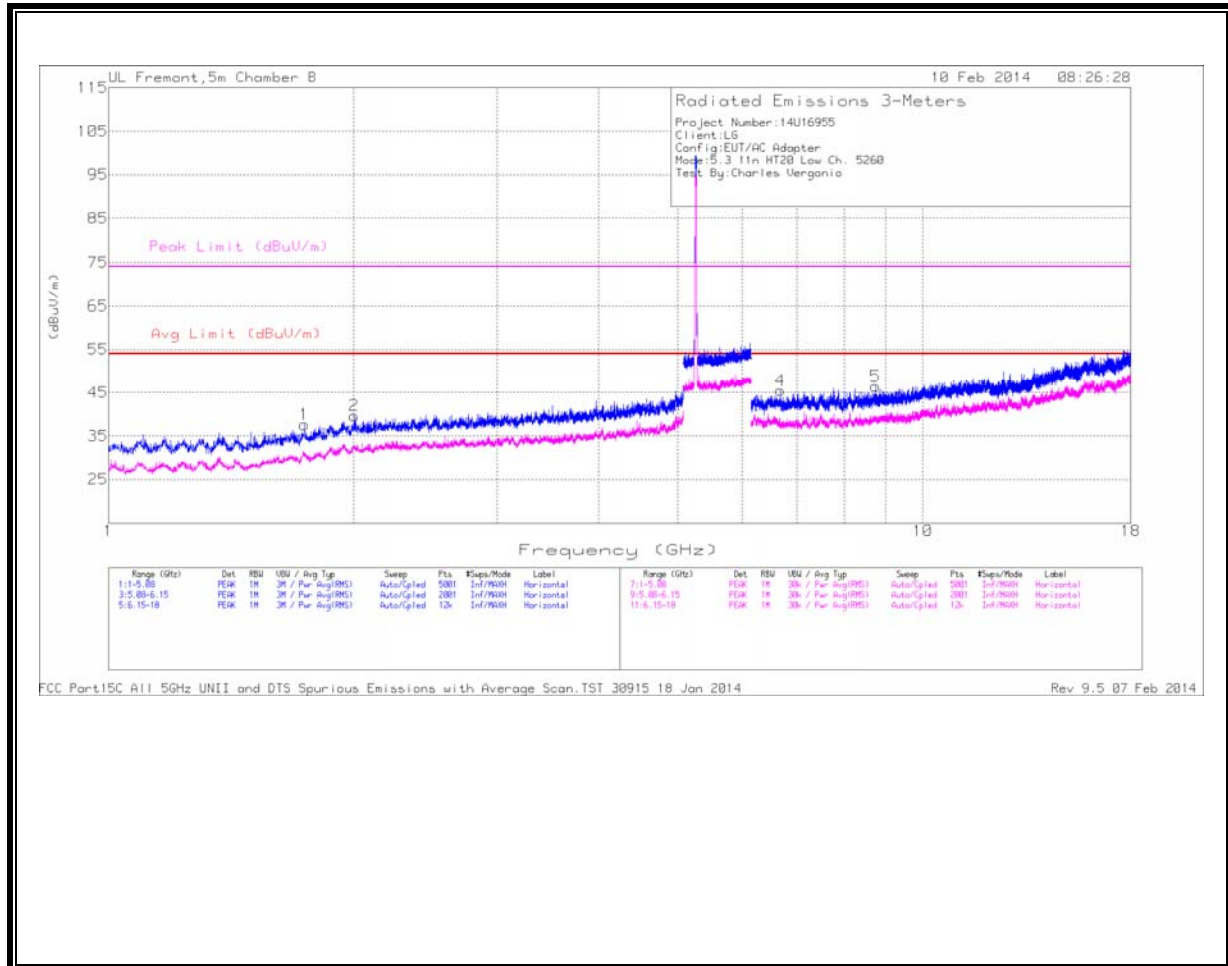
**10.2.3. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.3 GHz BAND
AUTHORIZED BANDEDGE (HIGH CHANNEL)**



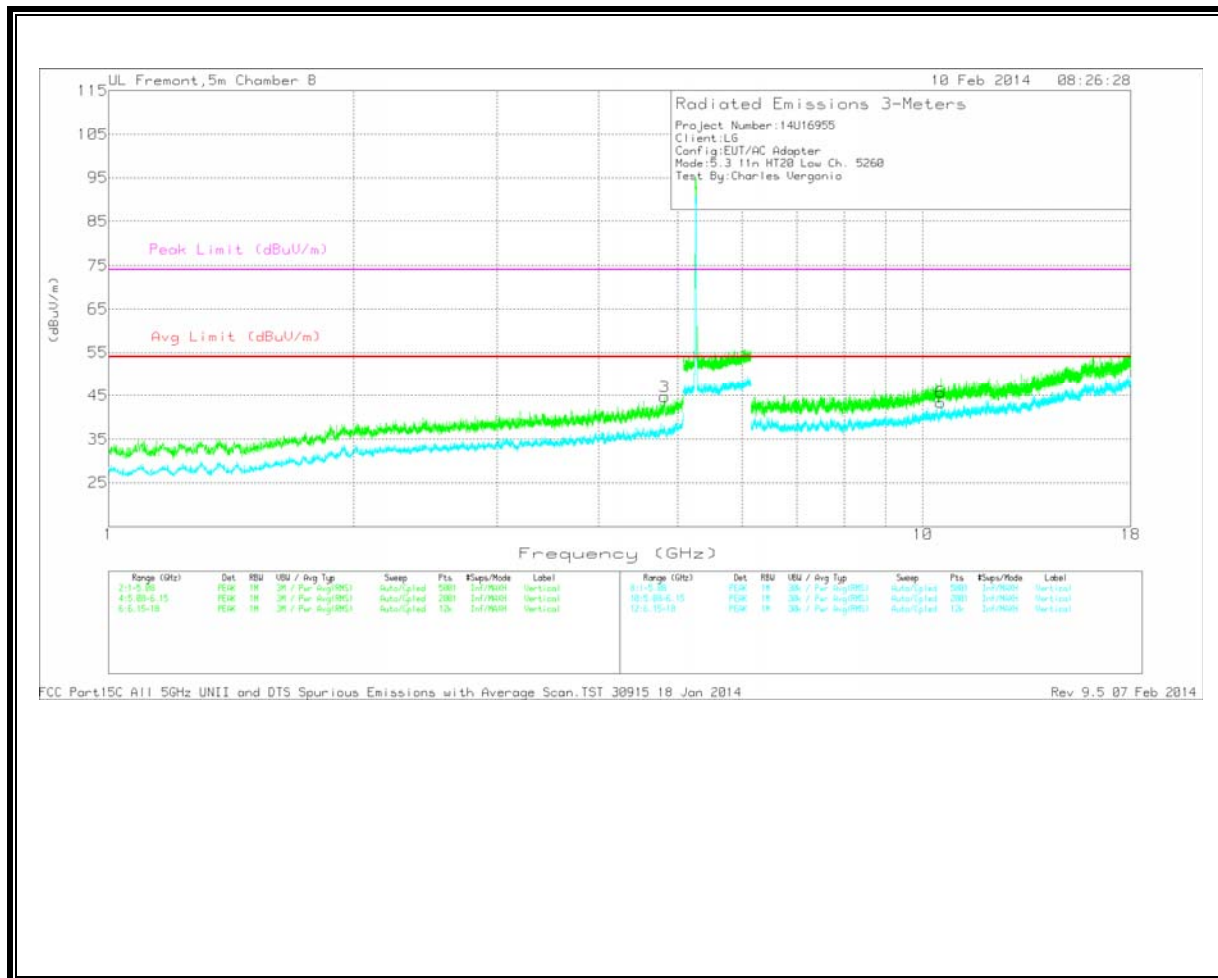


HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL 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.



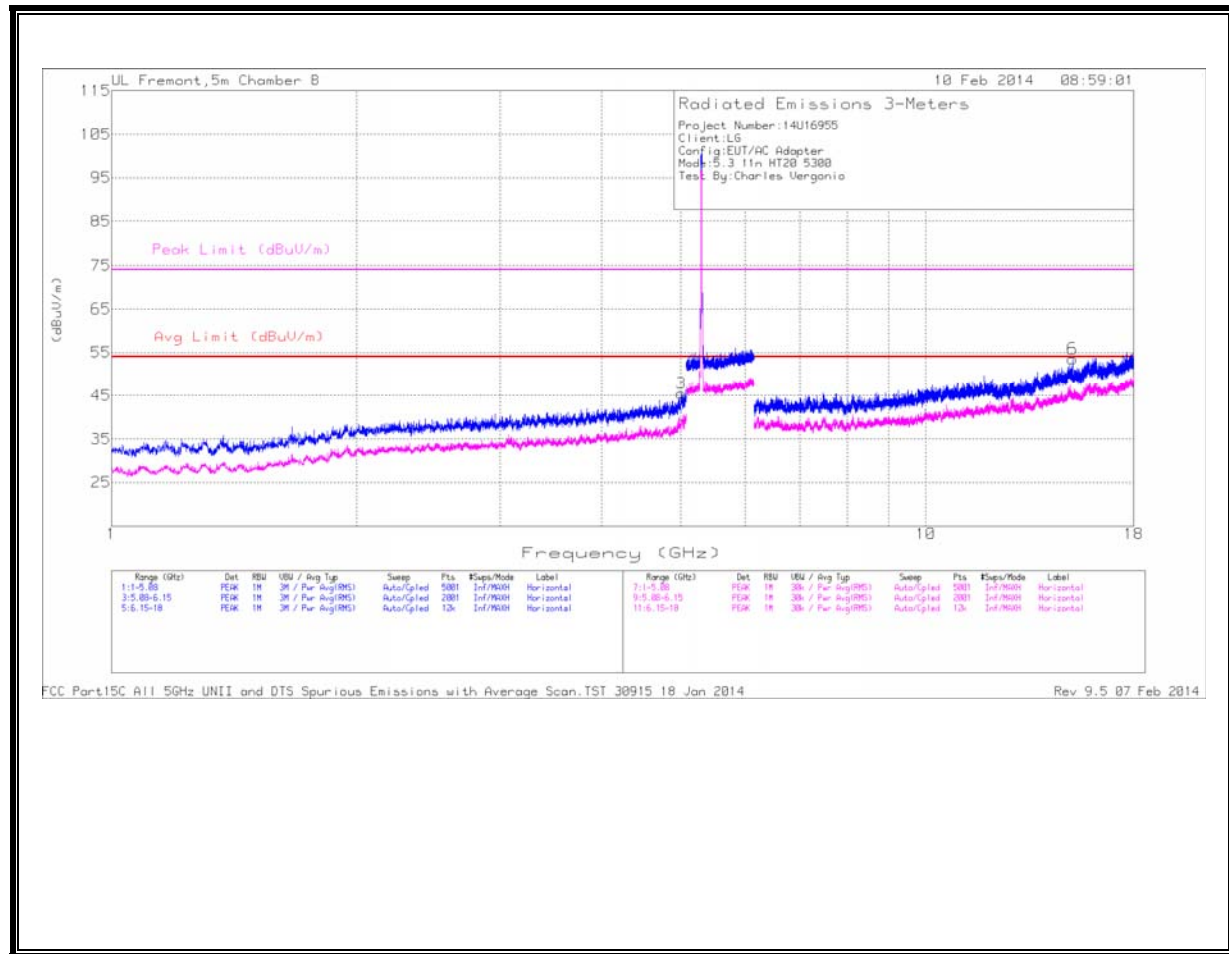
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

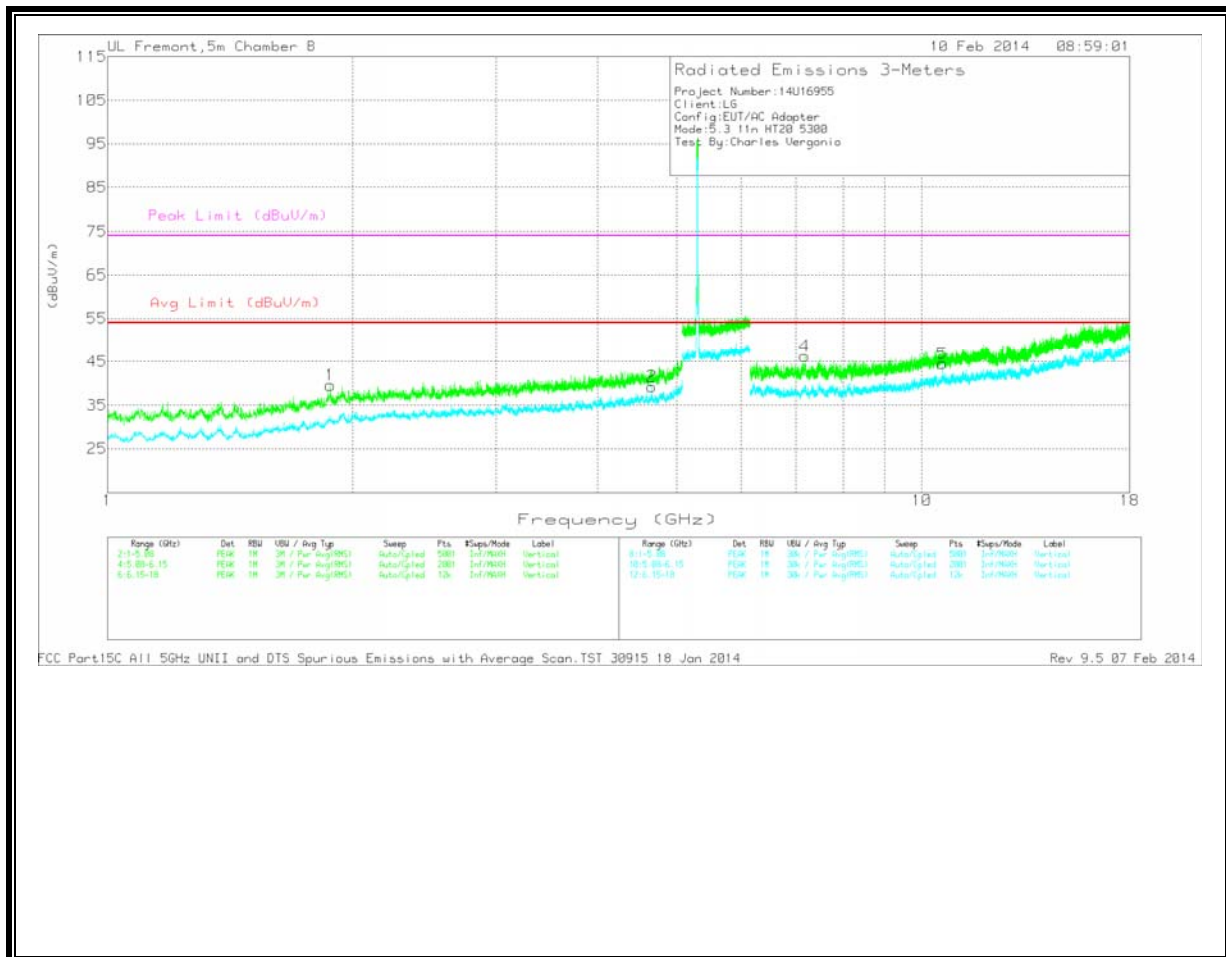
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 4.818	39.51	PK	34.7	-29.5	44.71	54	-9.29	74	-29.29	0-360	202	V
1	1.739	41.22	PK	30	-33.6	37.62	54	-16.38	74	-36.38	0-360	201	H
2	2.004	41.06	PK	31.8	-33.2	39.66	54	-14.34	74	-34.34	0-360	99	H
4	6.685	38.59	PK	35.8	-28.9	45.49	54	-8.51	74	-28.51	0-360	99	H
5	8.751	35.84	PK	36.4	-25.8	46.44	54	-7.56	74	-27.56	0-360	99	H
6	10.519	29.14	Avg	38.2	-23.9	43.44	54	-10.56	-	-	0-360	202	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector



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



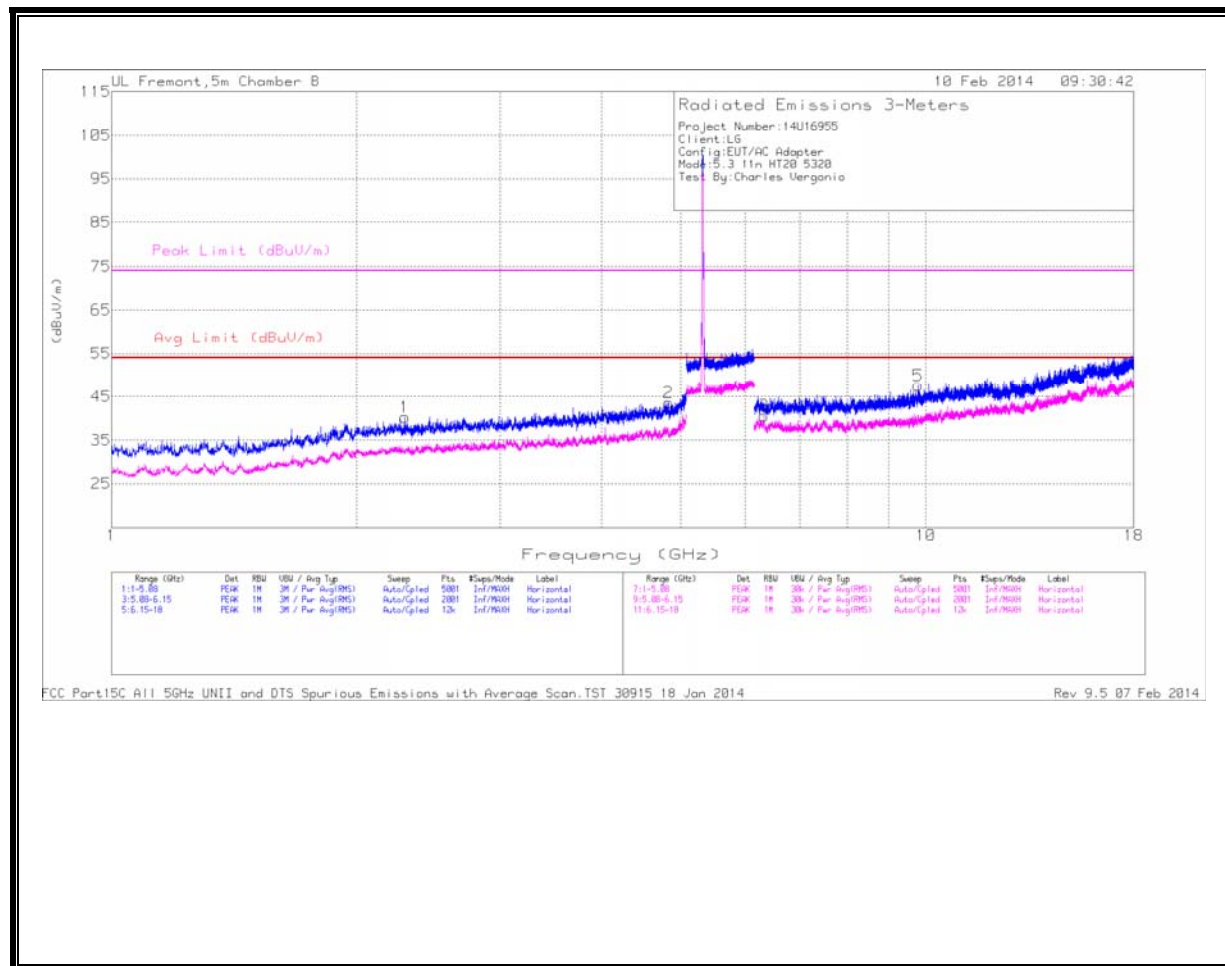
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

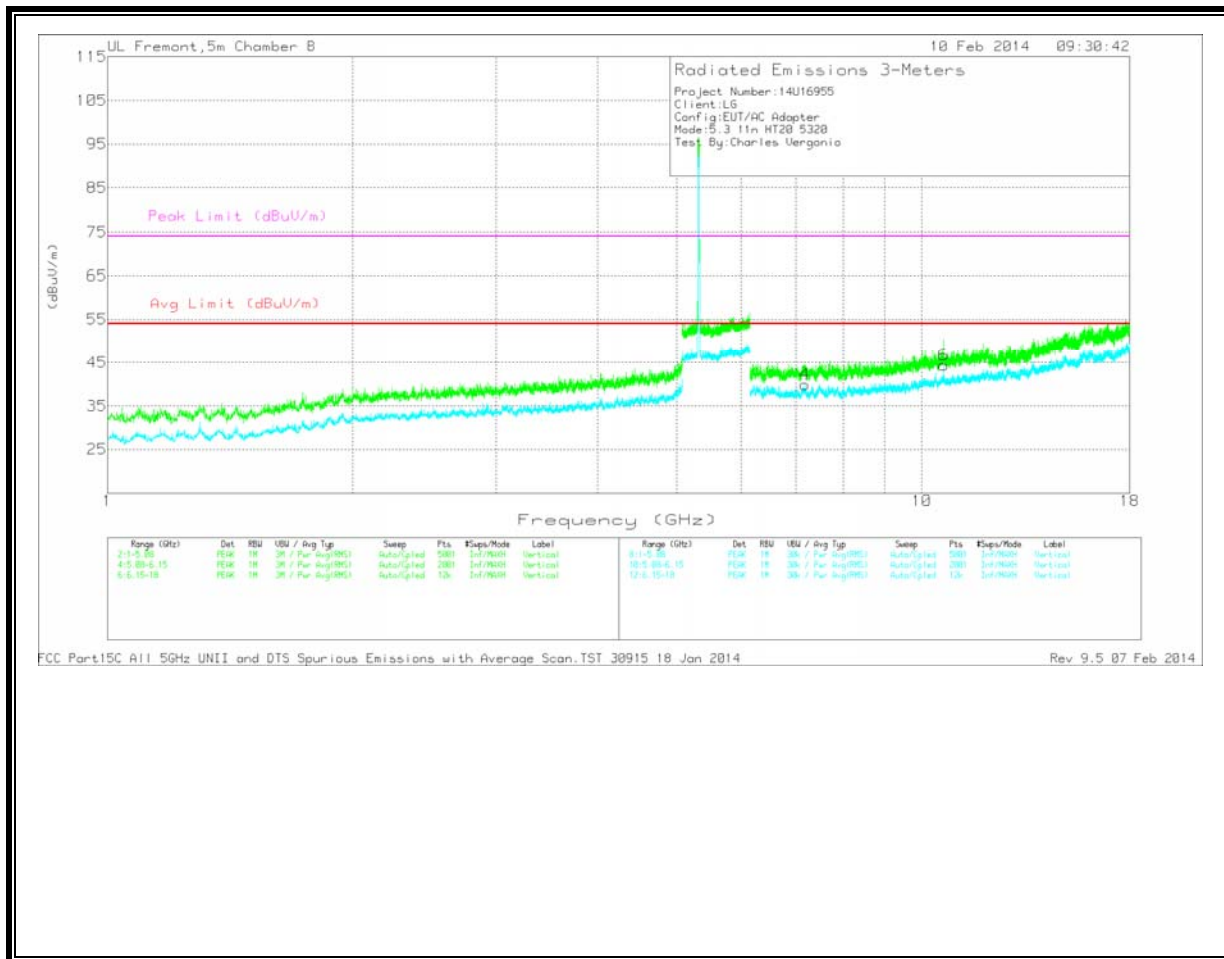
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 5.006	39.32	PK	34.6	-28.4	45.52	54	-8.48	74	-28.48	0-360	202	H
2	* 4.657	34.01	Avg	34.6	-29.4	39.21	54	-14.79	-	-	0-360	99	V
1	1.877	41.56	PK	31	-33	39.56	54	-14.44	74	-34.44	0-360	99	V
4	7.181	37.18	PK	35.8	-26.7	46.28	54	-7.72	74	-27.72	0-360	202	V
5	10.599	29.57	Avg	38.2	-23.2	44.57	54	-9.43	-	-	0-360	202	V
6	15.14	33.94	PK	40.2	-20.6	53.54	54	-46	74	-20.46	0-360	202	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector



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



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

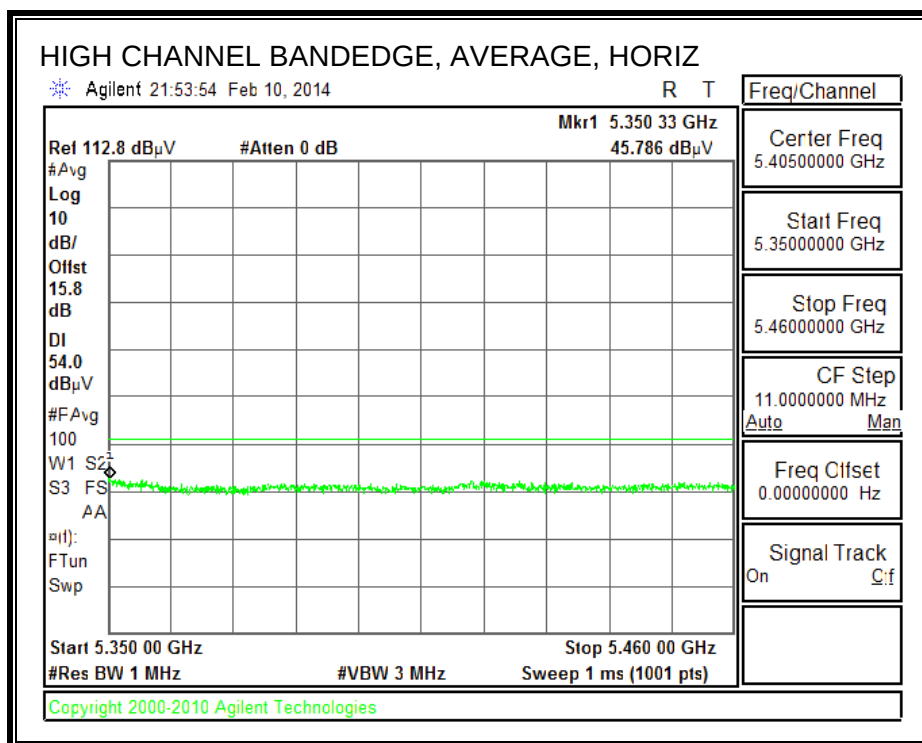
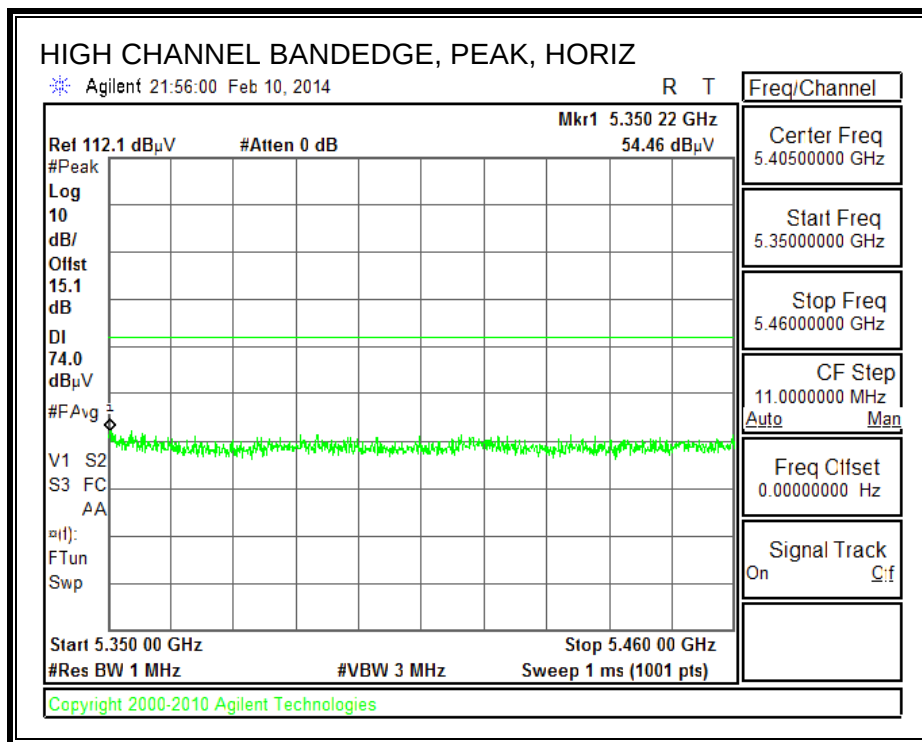
HIGH CHANNEL DATA

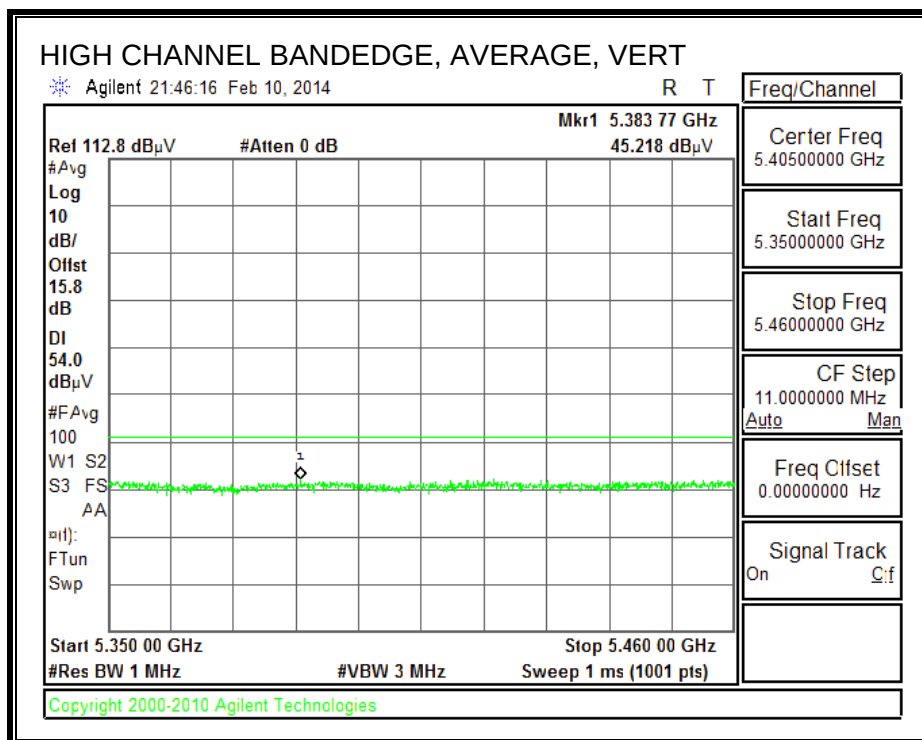
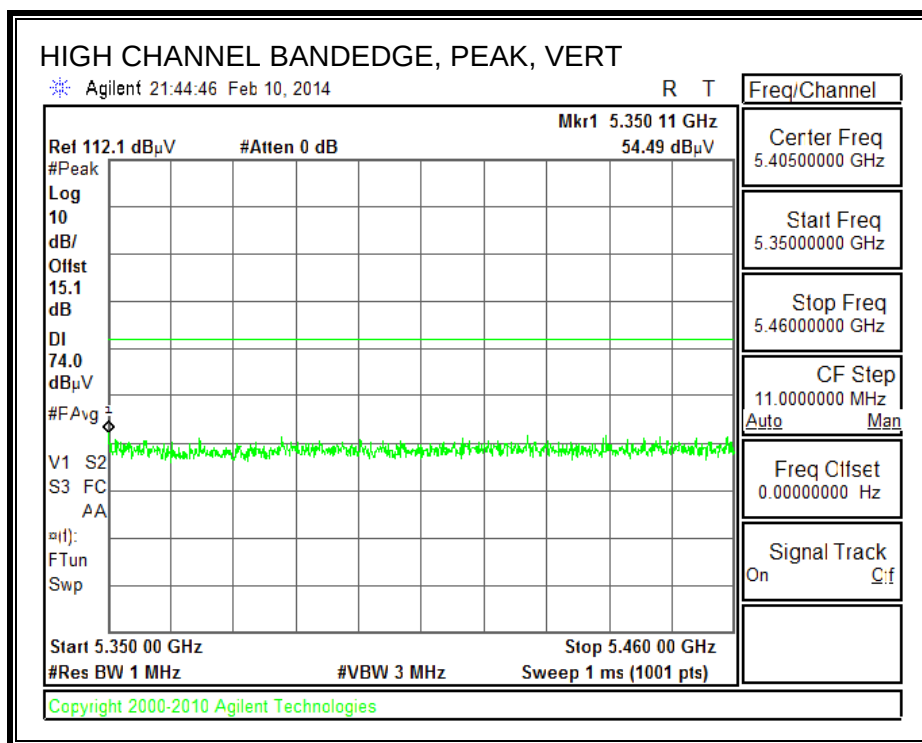
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.292	41.04	PK	32.2	-33	40.24	54	-13.76	74	-33.76	0-360	202	H
2	* 4.829	38.89	PK	34.7	-30	43.59	54	-10.41	74	-30.41	0-360	202	H
6	* 10.64	29.31	Avg	38.3	-23.2	44.41	54	-9.59	-	-	0-360	202	V
3	6.325	32.15	Avg	36	-27.6	40.55	54	-13.45	-	-	0-360	202	H
4	7.184	30.61	Avg	35.8	-26.5	39.91	54	-14.09	-	-	0-360	99	V
5	9.785	33.44	PK	37.5	-23.4	47.54	54	-6.46	74	-26.46	0-360	99	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

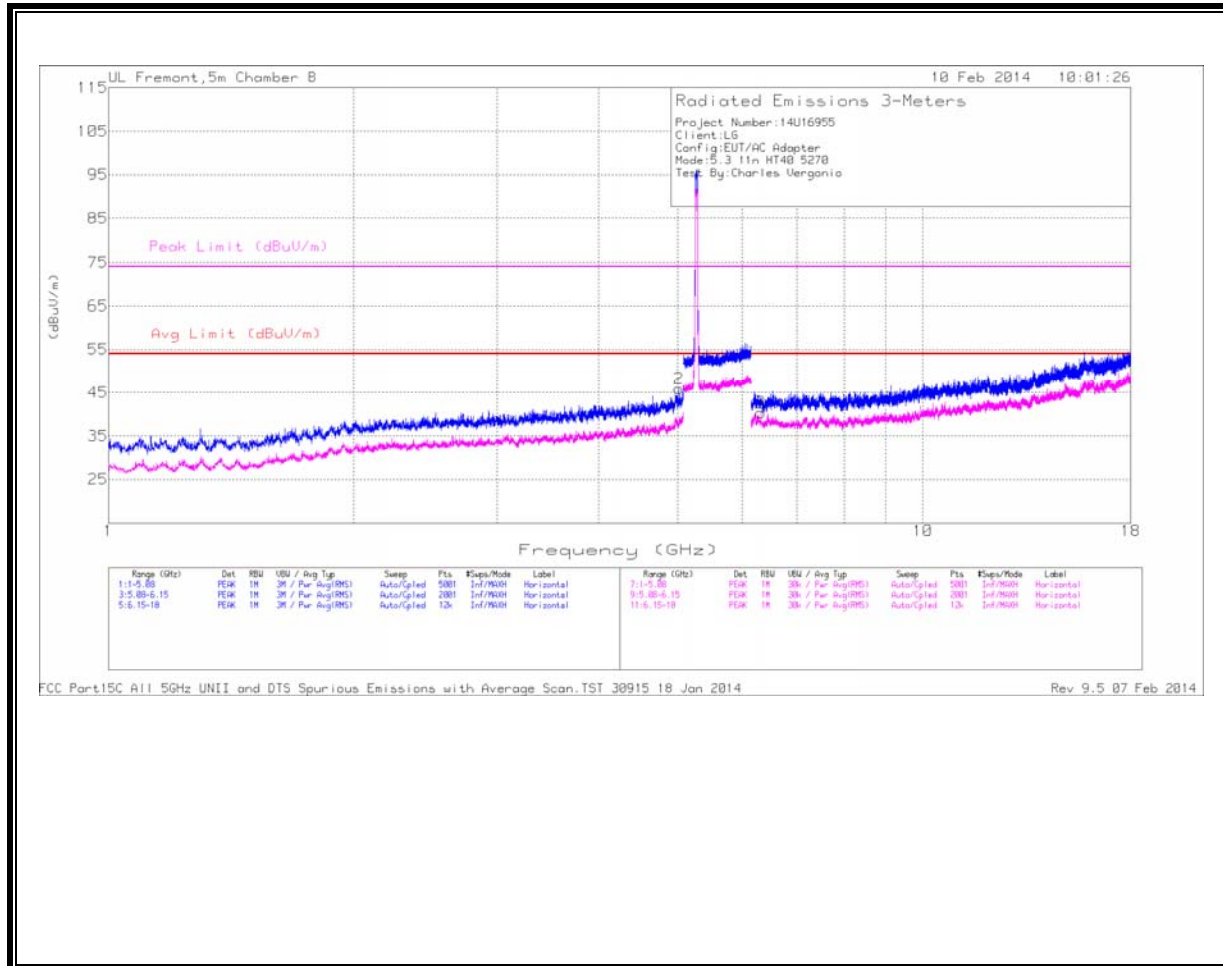
**10.2.5. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.3 GHz BAND
AUTHORIZED BANDEDGE (HIGH CHANNEL)**



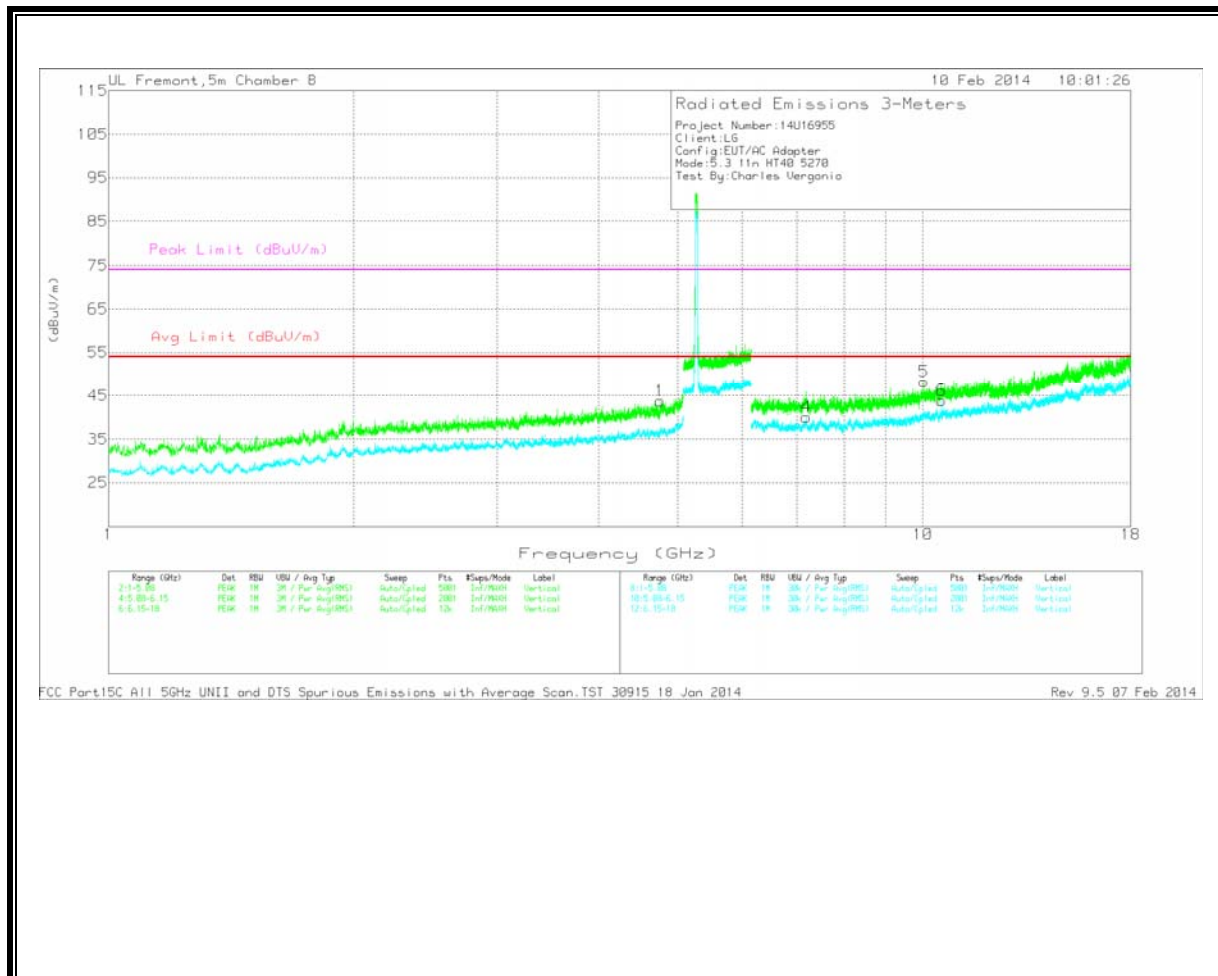


HARMONICS AND SPURIOUS EMISSIONS

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.



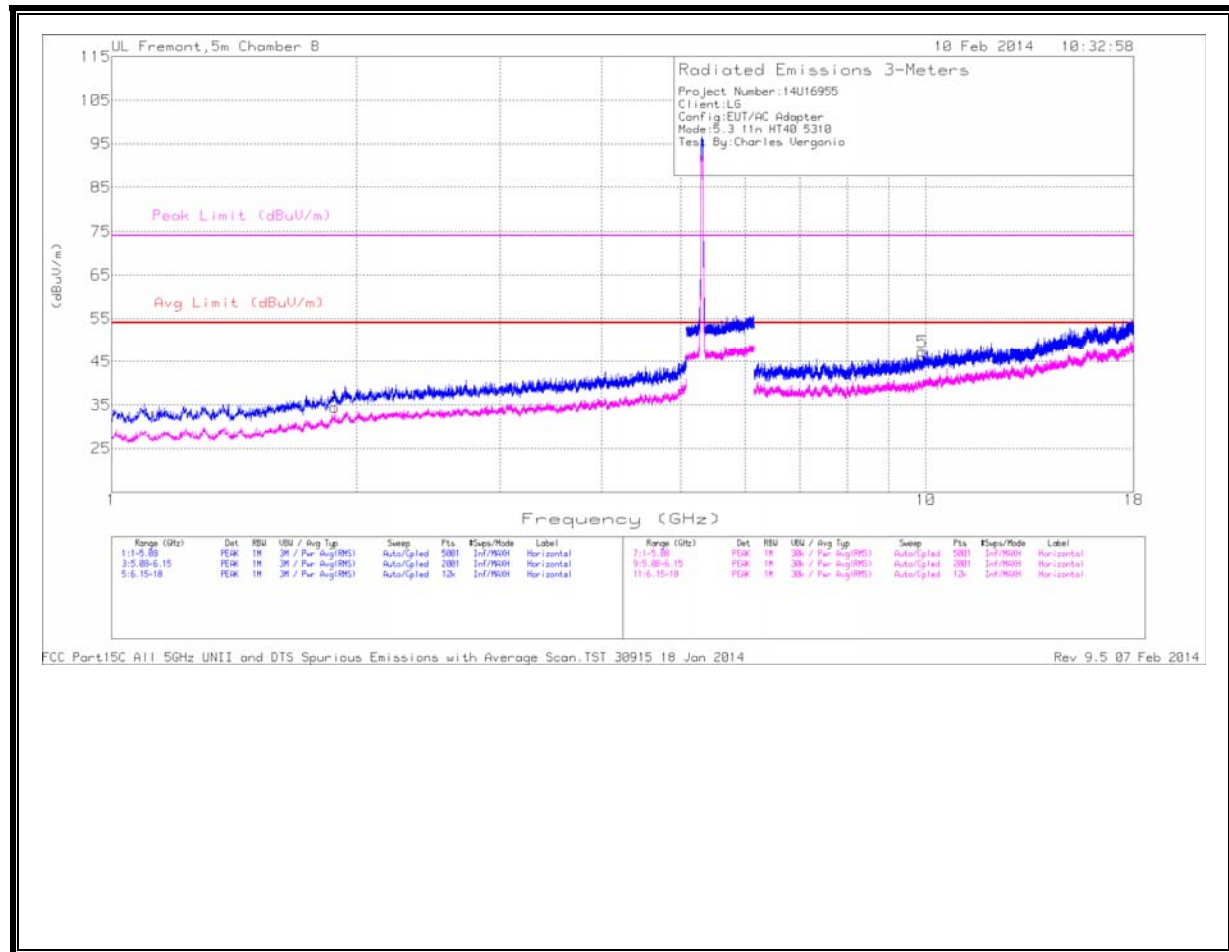
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

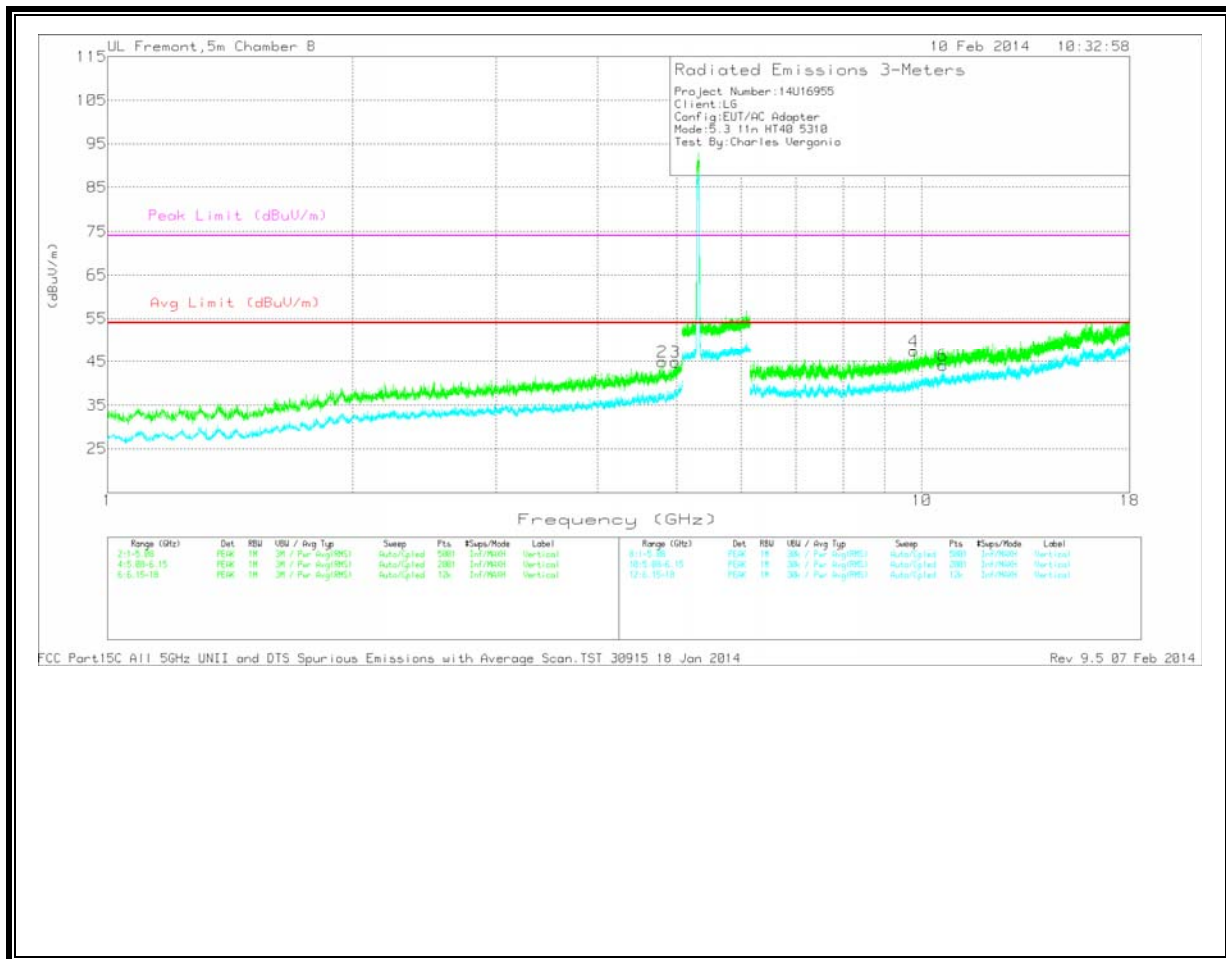
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.018	40.14	PK	34.6	-28.8	45.94	54	-8.06	74	-28.06	0-360	99	H
1	* 4.754	38.85	PK	34.7	-29.8	43.75	54	-10.25	74	-30.25	0-360	202	V
3	6.322	32.01	Avg	36	-27.7	40.31	54	-13.69	-	-	0-360	202	H
4	7.193	30.78	Avg	35.8	-26.5	40.08	54	-13.92	-	-	0-360	202	V
5	10.031	34.42	PK	37.8	-23.9	48.32	54	-5.68	74	-25.68	0-360	99	V
6	10.539	29.49	Avg	38.2	-23.8	43.89	54	-10.11	-	-	0-360	202	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector



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



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

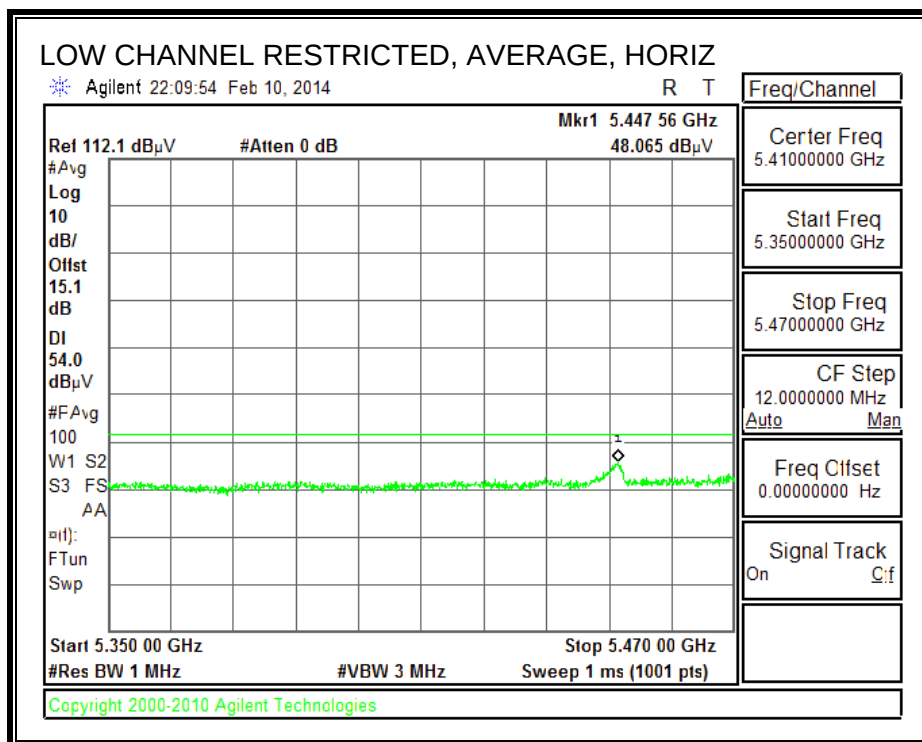
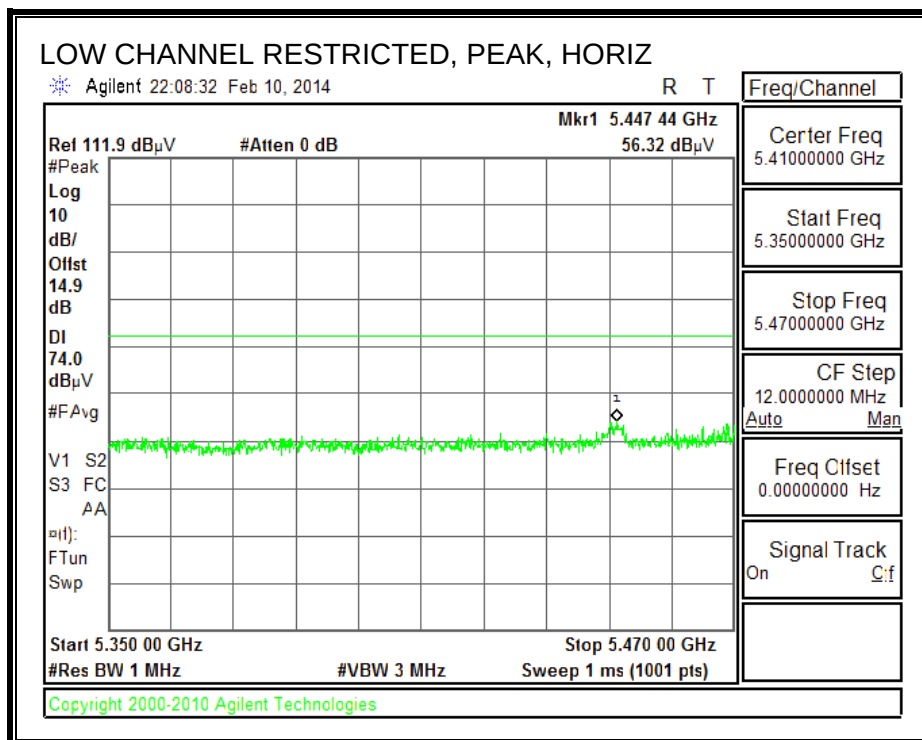
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.802	39.4	PK	34.7	-29.2	44.9	54	-9.1	74	-29.1	0-360	99	V
3	* 4.981	38.57	PK	34.6	-28.3	44.87	54	-9.13	74	-29.13	0-360	202	V
6	* 10.62	29	Avg	38.2	-23.1	44.1	54	-9.9	-	-	0-360	202	V
1	1.88	36.47	Avg	31	-33	34.47	54	-19.53	-	-	0-360	99	H
4	9.772	33.52	PK	37.5	-23.6	47.42	54	-6.58	74	-26.58	0-360	202	V
5	9.903	34.09	PK	37.7	-24.5	47.29	54	-6.71	74	-26.71	0-360	202	H

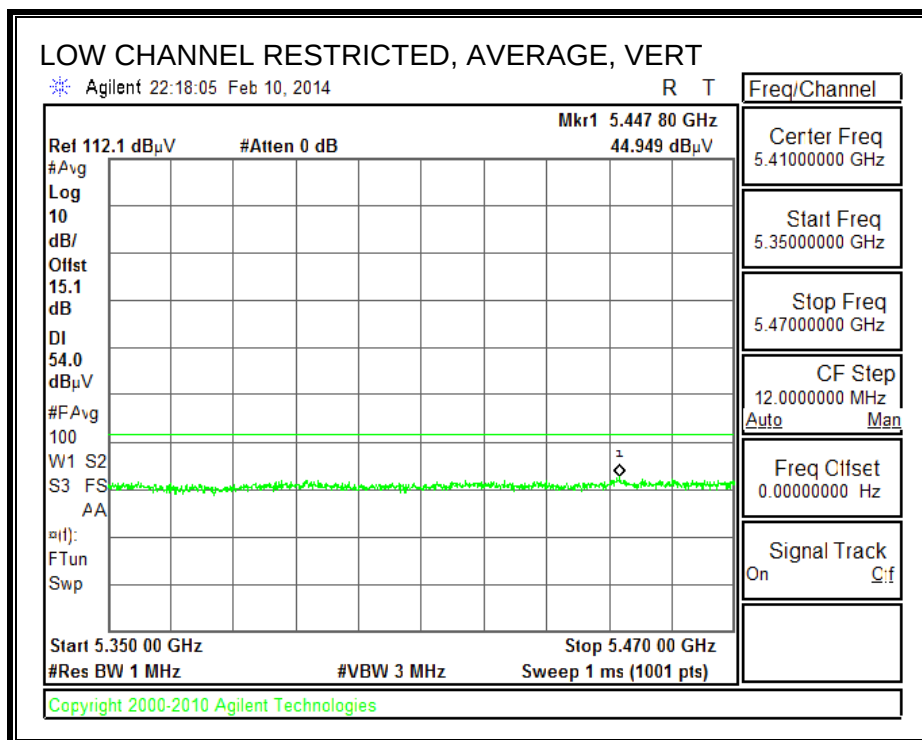
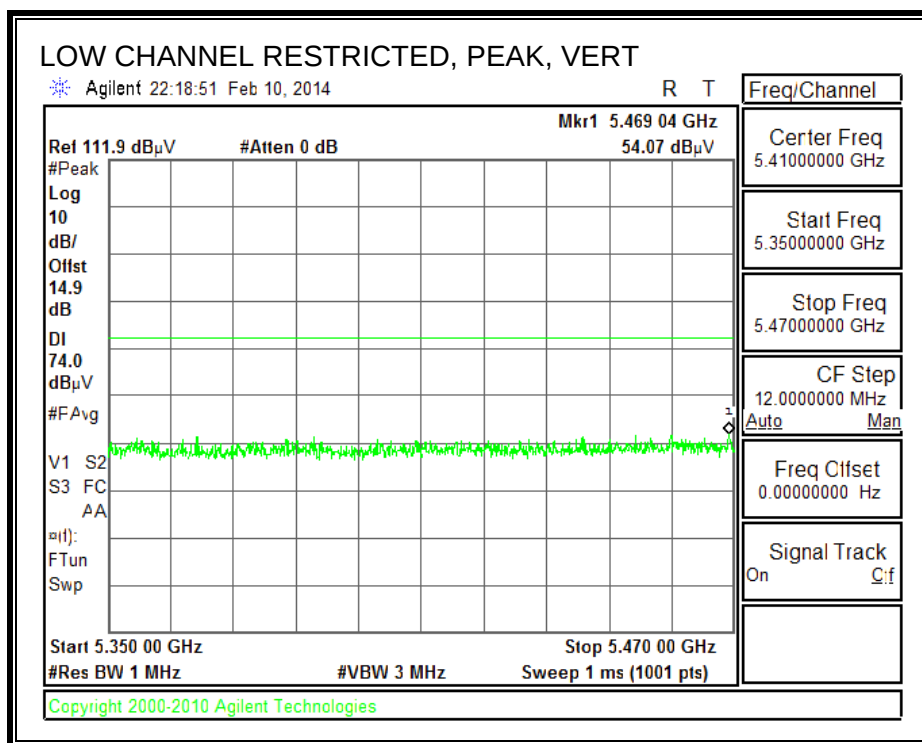
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

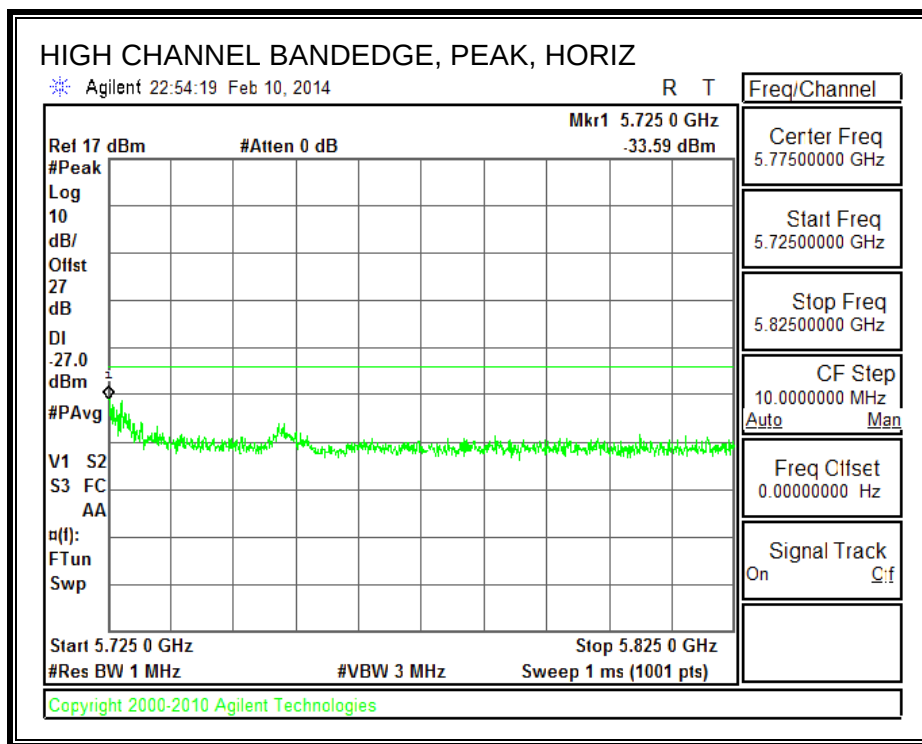
10.3. 5.5-5.6 GHz

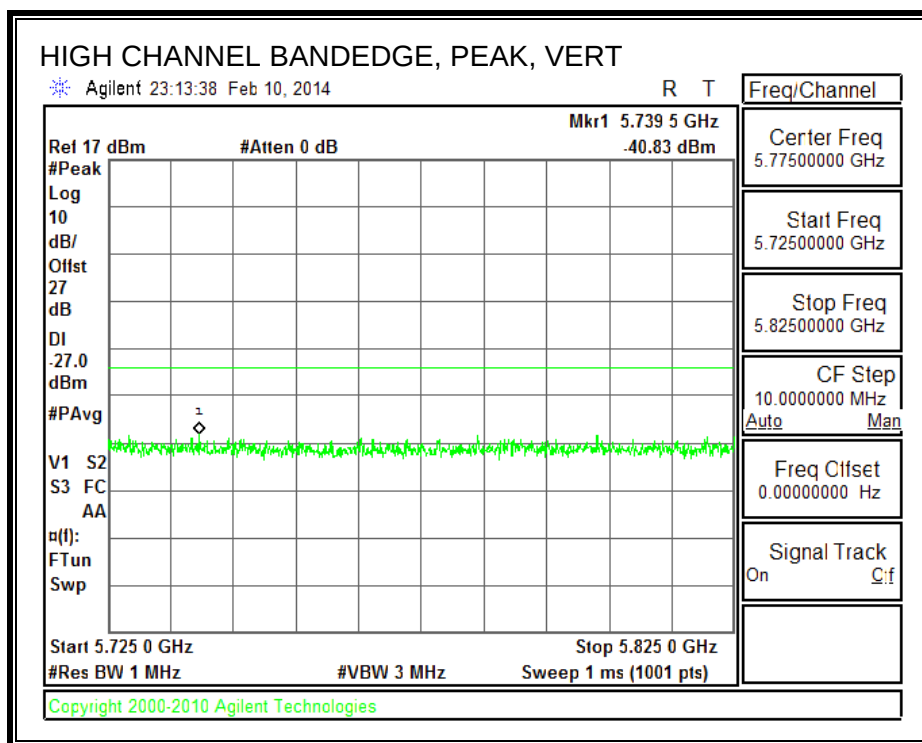
10.3.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.5 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)





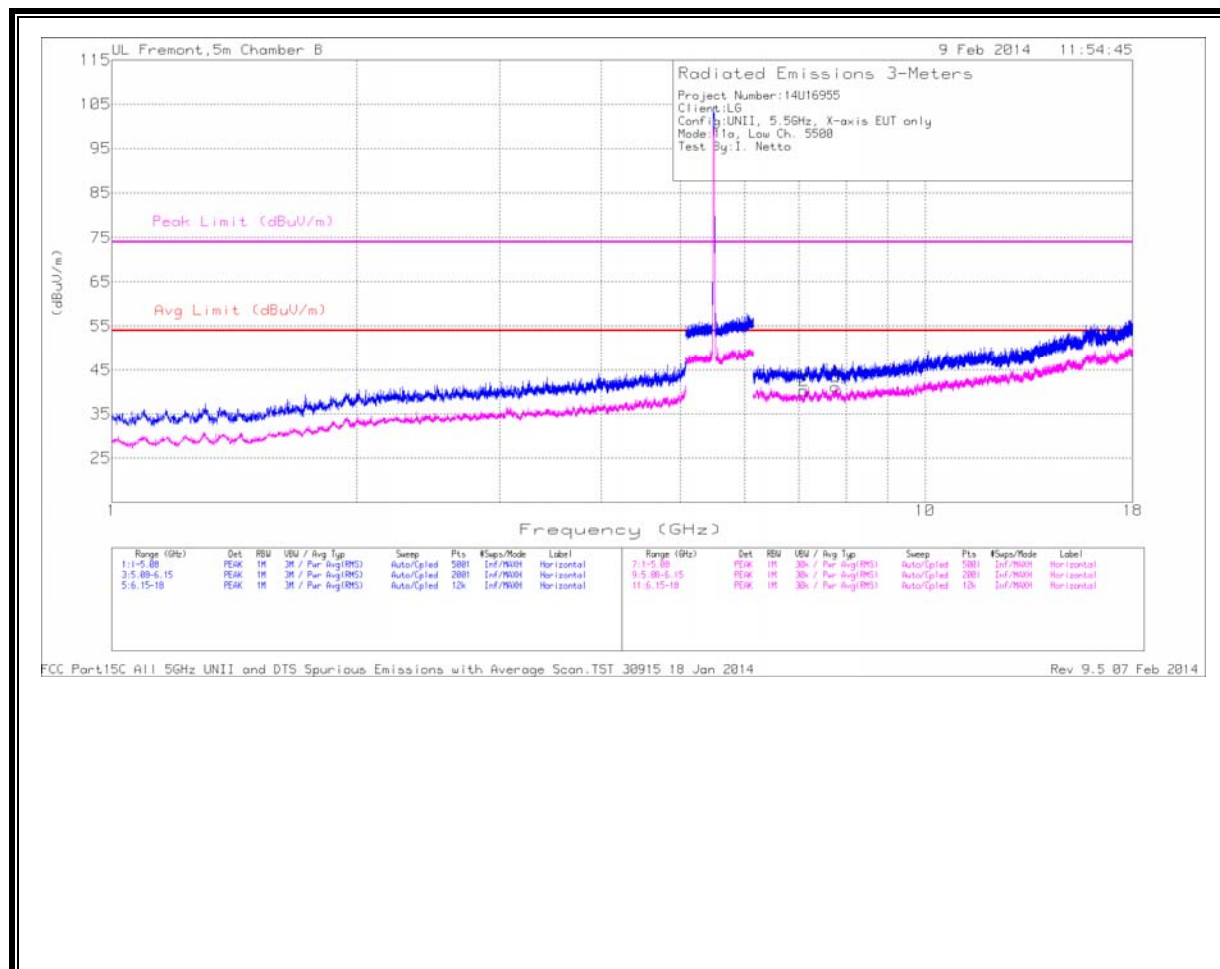
AUTHORIZED BANDEDGE (HIGH CHANNEL)



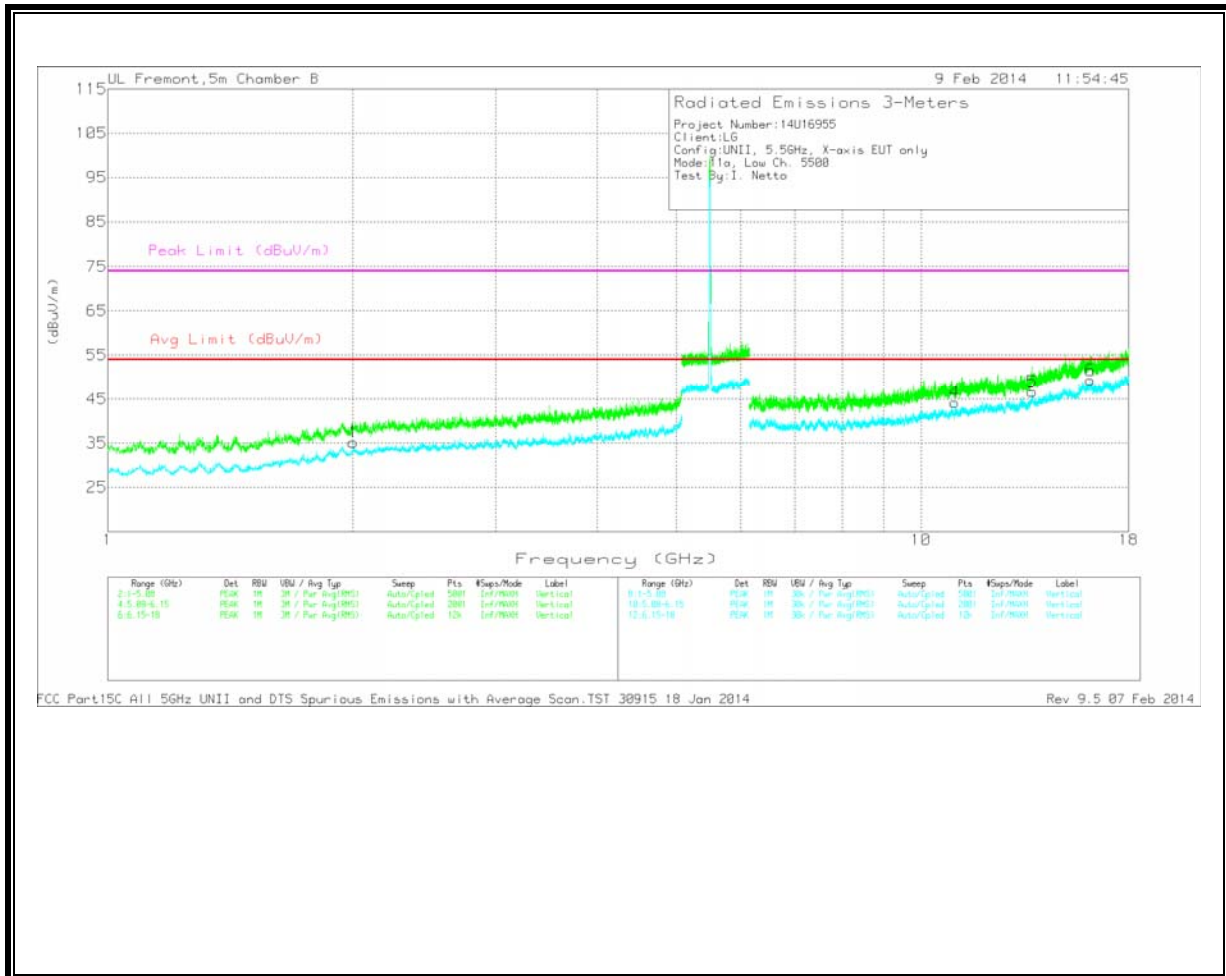


HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL 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.

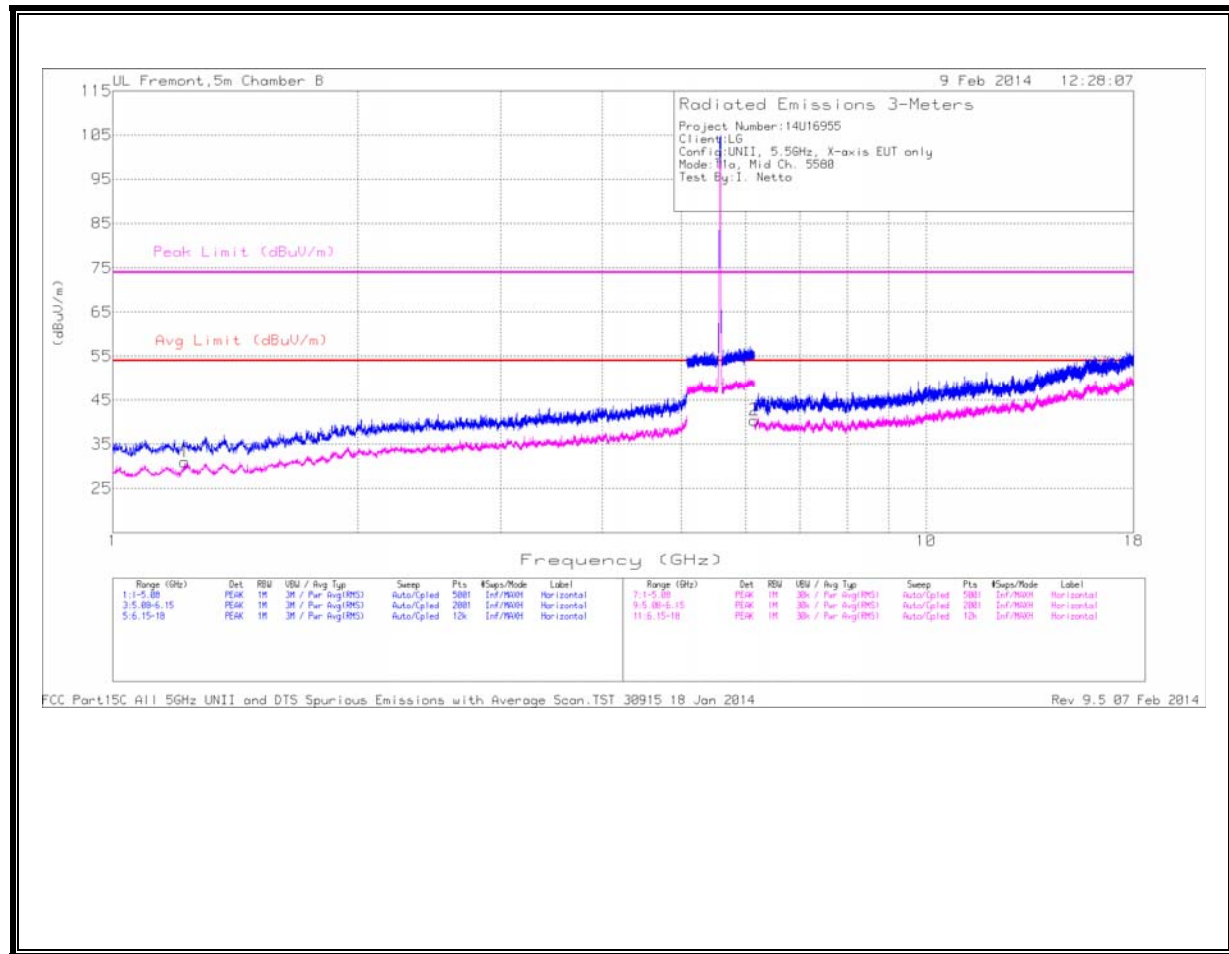


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

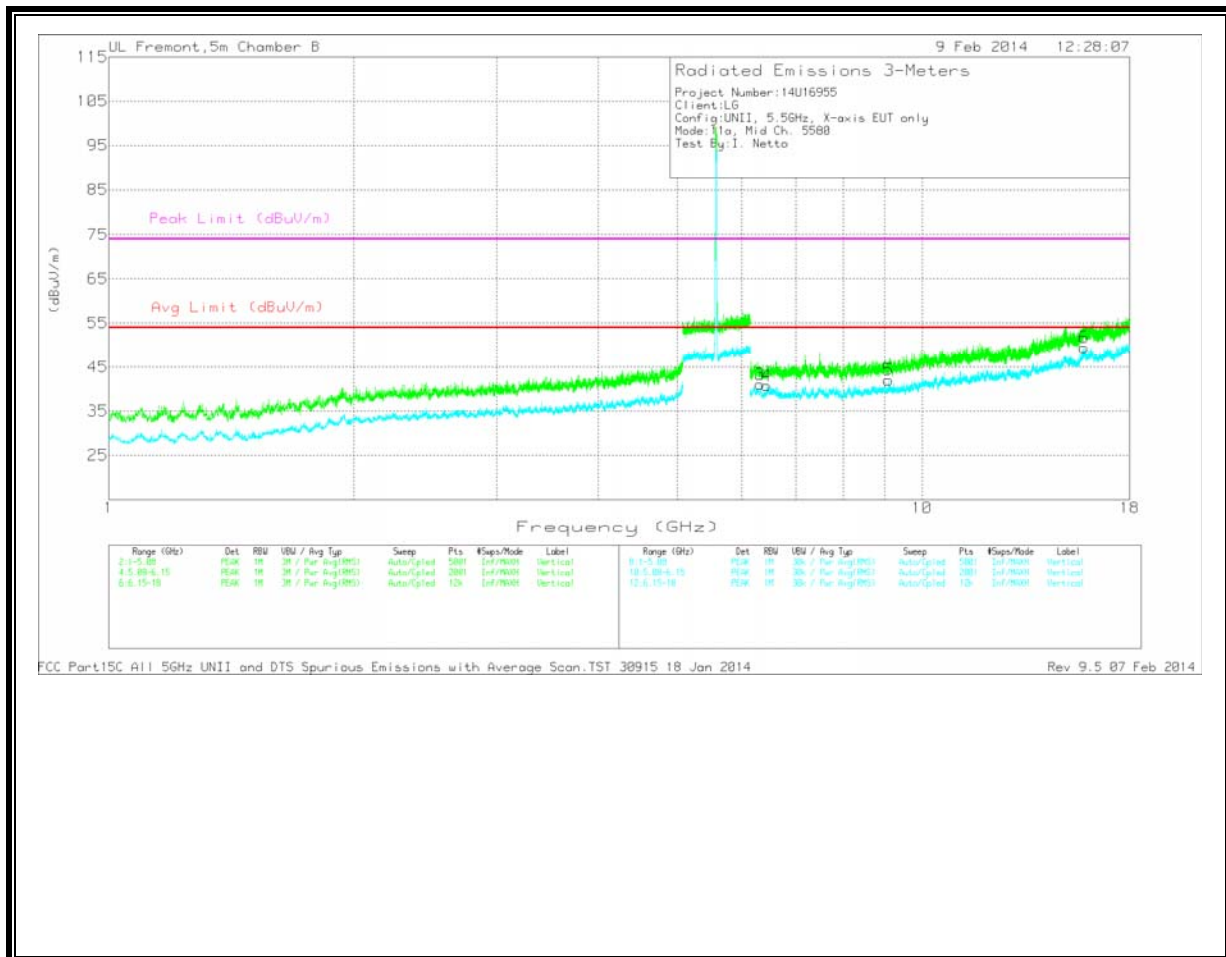
LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.004	36.57	Avg	31.8	-33.2	35.17	54	-18.83	-	-	0-360	202	V
2	7.1	33.09	Avg	35.9	-28.7	40.29	54	-13.71	-	-	0-360	202	H
3	7.767	31.63	Avg	36.2	-26.6	41.23	54	-12.77	-	-	0-360	202	H
4	11	29.19	Avg	38.3	-23.3	44.19	54	-9.81	-	-	0-360	202	V
5	13.702	29.16	Avg	39.1	-21.6	46.66	54	-7.34	-	-	0-360	202	V
6	16.151	27.38	Avg	41.5	-19.6	49.28	54	-4.72	-	-	0-360	99	V

All peak readings were 20dB below the peak limit. Average measurements at discrete frequencies are provided in the table below for frequencies that are within 6dB of the average limit.



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

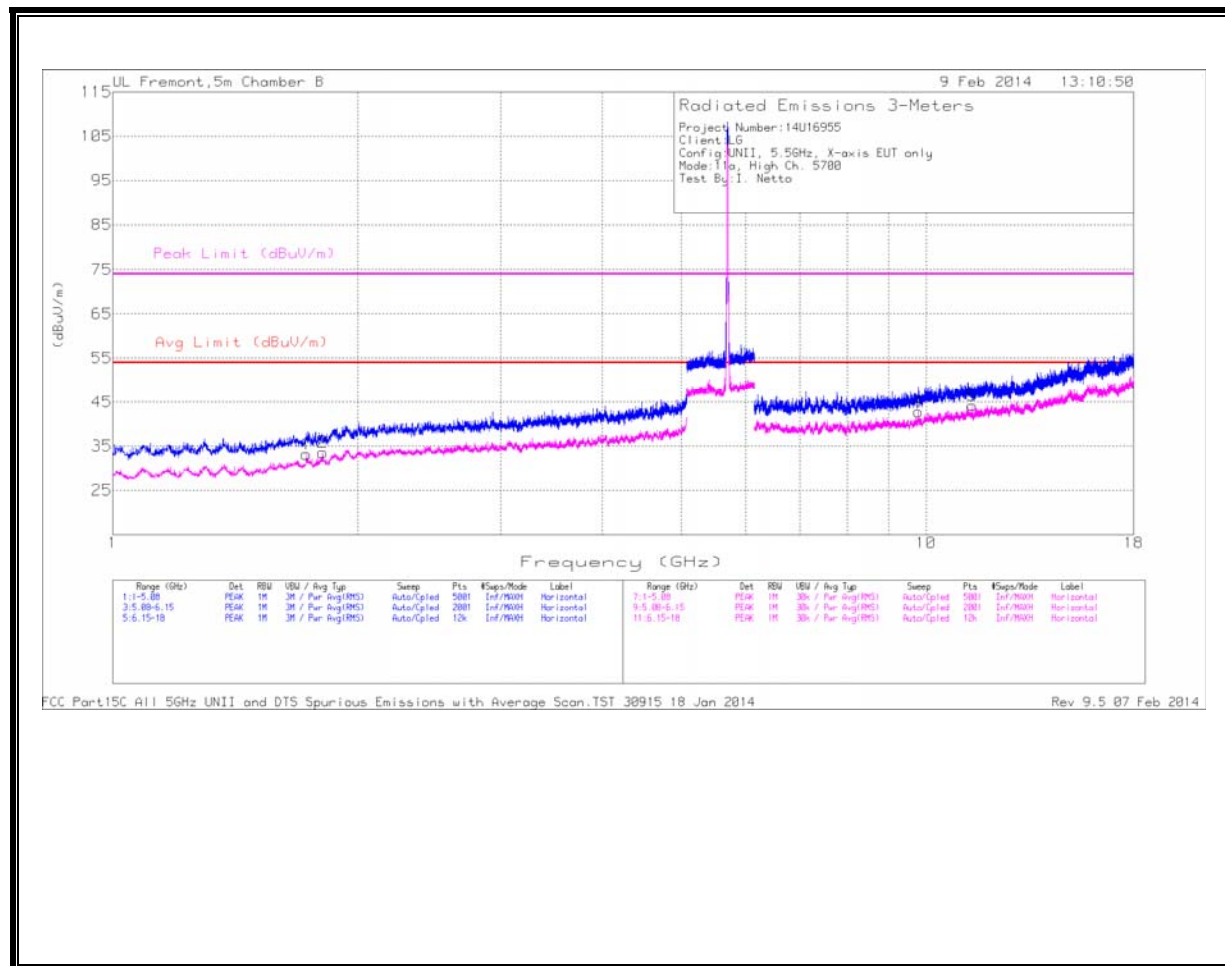


Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

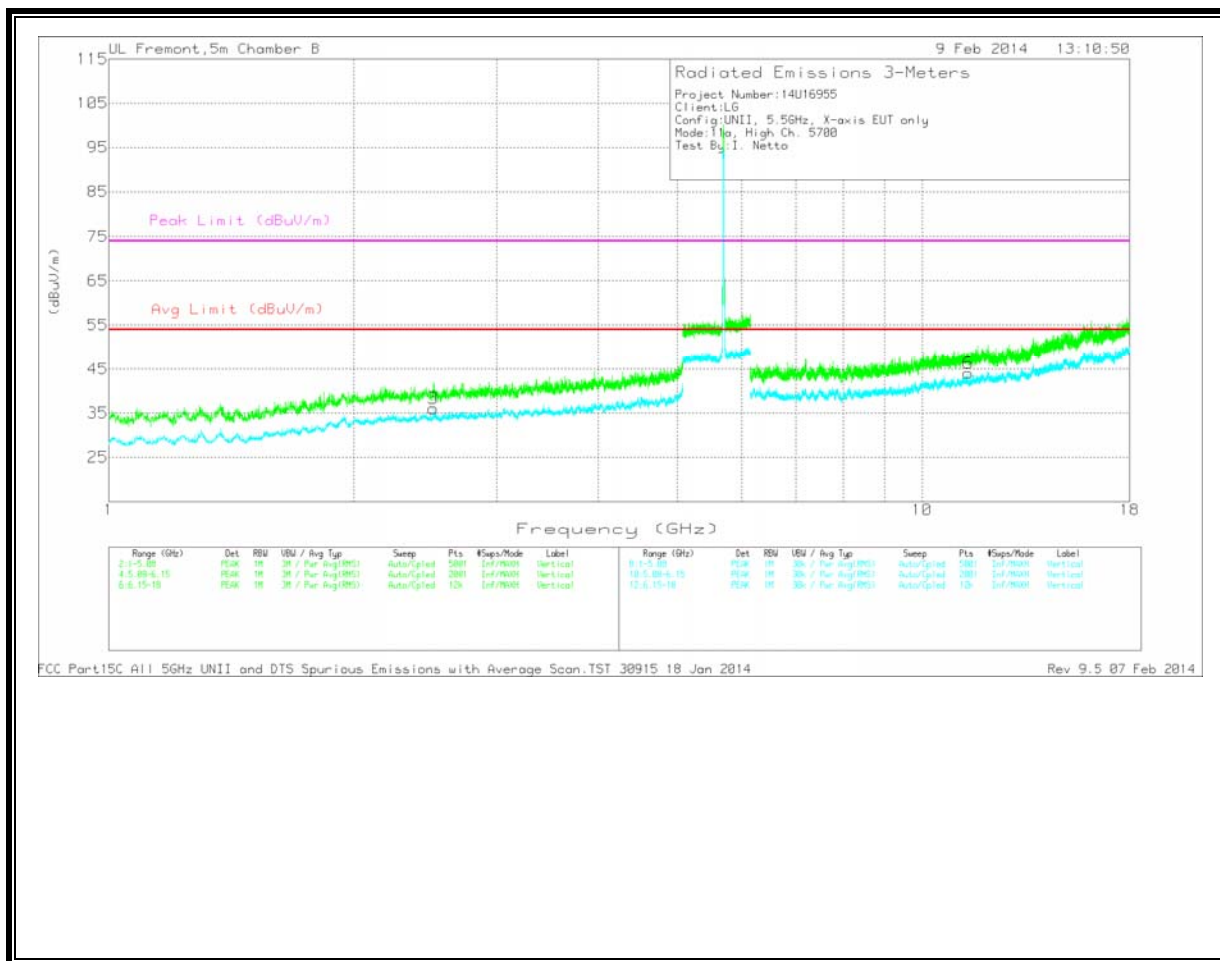
MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.227	37.15	Avg	28.5	-34.7	30.95	54	-23.05	-	-	0-360	99	H
2	6.155	32.6	Avg	36	-28.2	40.4	54	-13.6	-	-	0-360	202	H
3	6.322	32.75	Avg	36	-27.7	41.05	54	-12.95	-	-	0-360	99	V
4	6.441	33.87	Avg	35.9	-29	40.77	54	-13.23	-	-	0-360	99	V
5	9.098	30.65	Avg	36.8	-25.4	42.05	54	-11.95	-	-	0-360	99	V
6	15.822	28.15	Avg	41.4	-20.1	49.45	54	-4.55	-	-	0-360	99	V

All peak readings were 20dB below the peak limit. Average measurements at discrete frequencies are provided in the table below for frequencies that are within 6dB of the average limit.



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



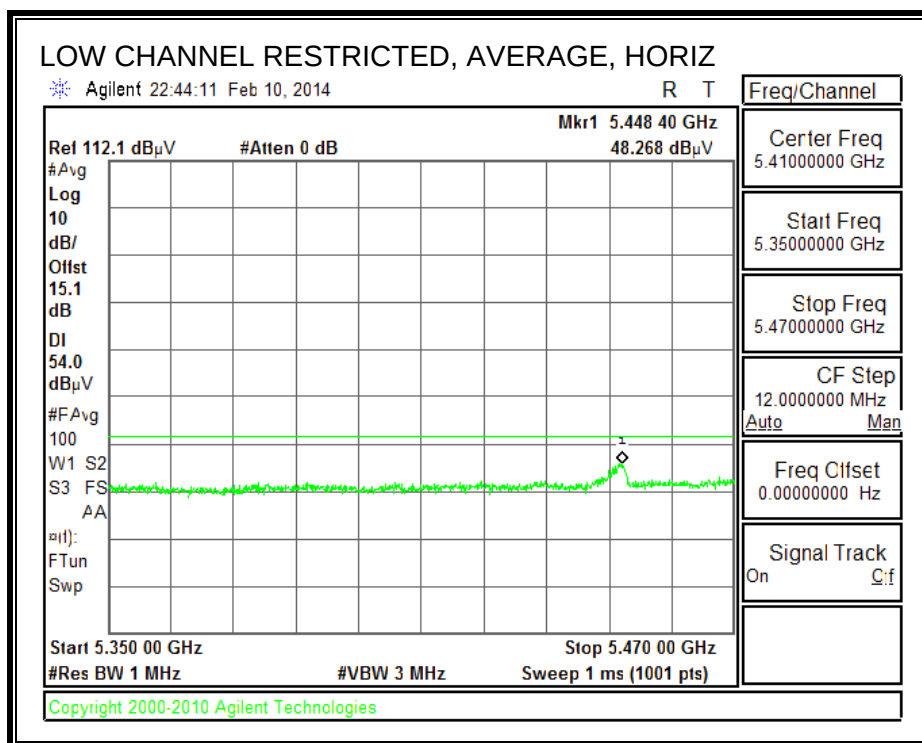
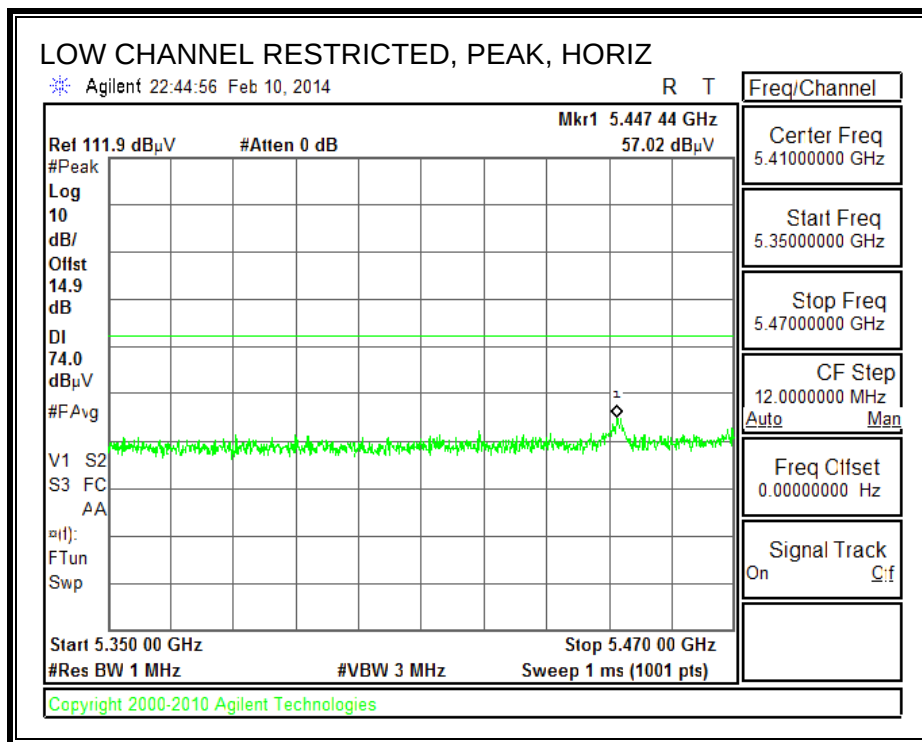
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

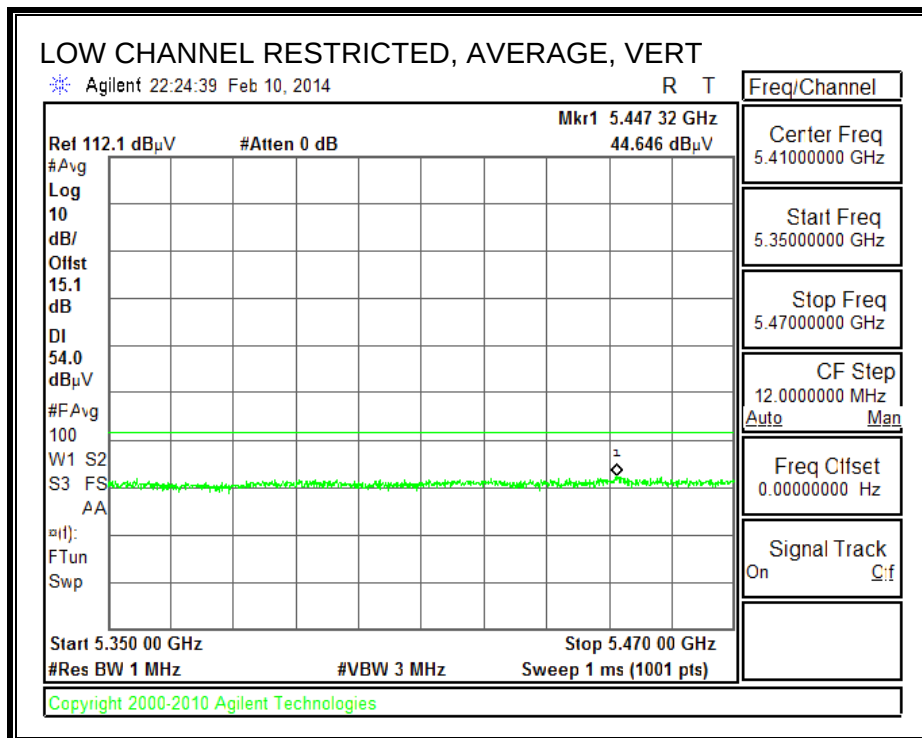
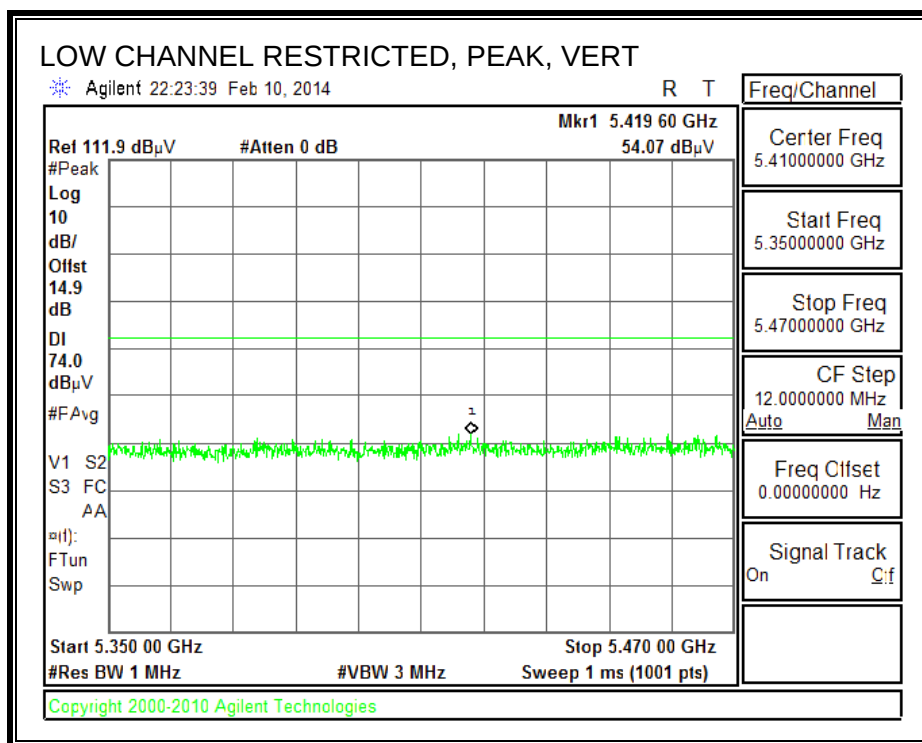
HIGH CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.731	36.56	Avg	30	-33.4	33.16	54	-20.84	-	-	0-360	202	H
2	1.813	36.87	Avg	30.5	-33.8	33.57	54	-20.43	-	-	0-360	99	H
3	2.506	35.87	Avg	32.5	-32.3	36.07	54	-17.93	-	-	0-360	202	V
4	9.788	28.71	Avg	37.5	-23.4	42.81	54	-11.19	-	-	0-360	99	H
5	11.399	28.9	Avg	38.6	-23.3	44.2	54	-9.8	-	-	0-360	202	H
6	11.399	28.76	Avg	38.6	-23.3	44.06	54	-9.94	-	-	0-360	202	V

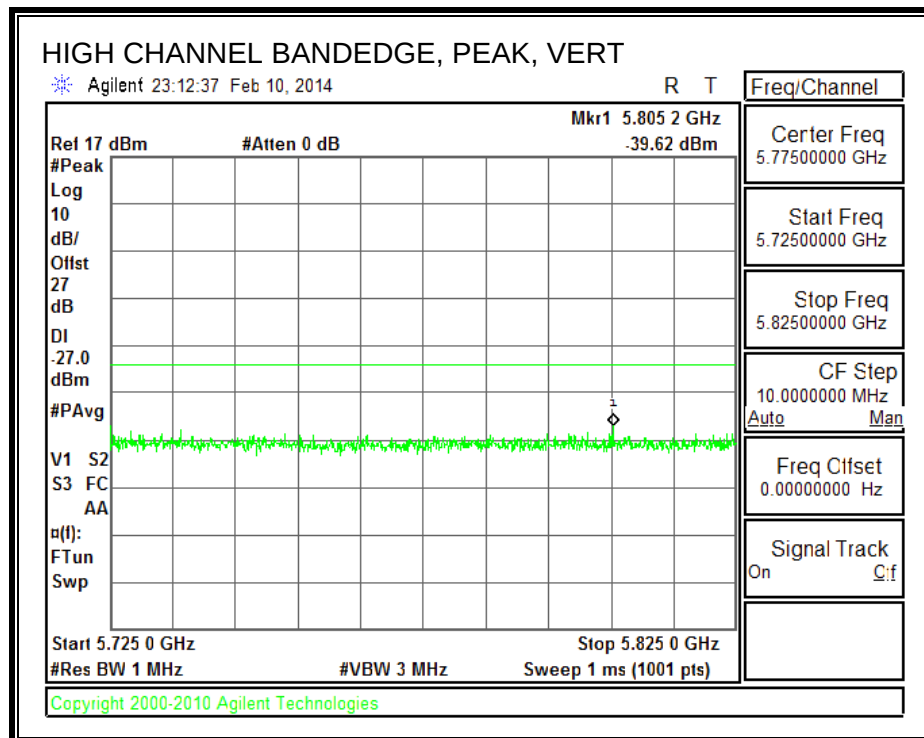
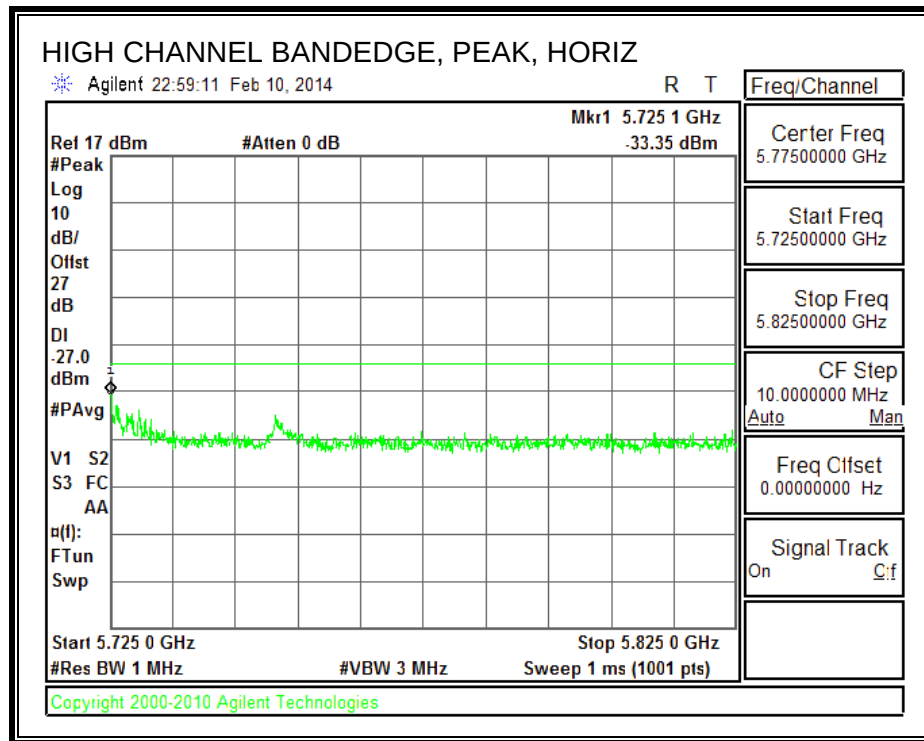
All peak readings were 20dB below the peak limit. Average measurements at discrete frequencies are provided in the table below for frequencies that are within 6dB of the average limit.

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



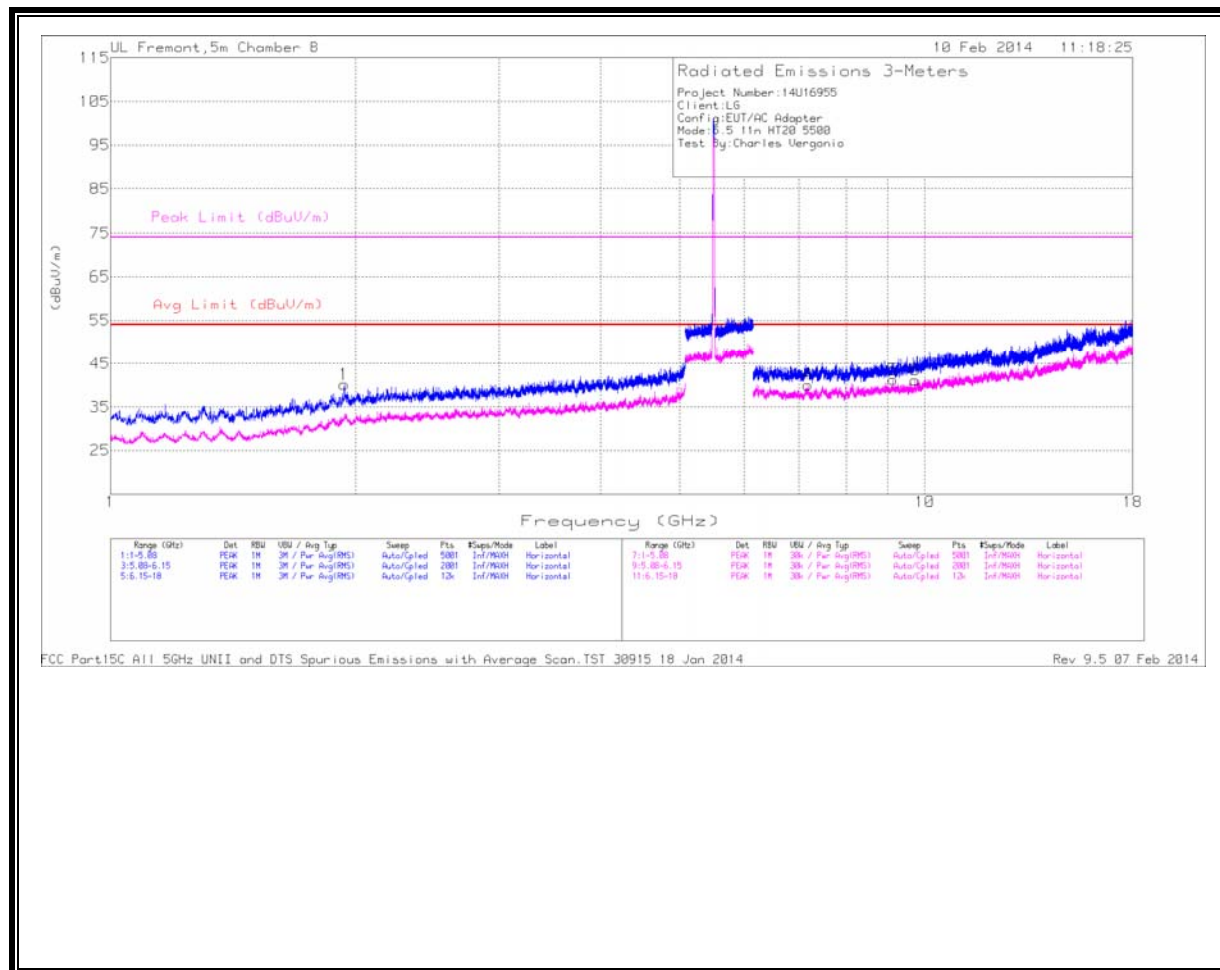


AUTHORIZED BANDEDGE (HIGH CHANNEL)

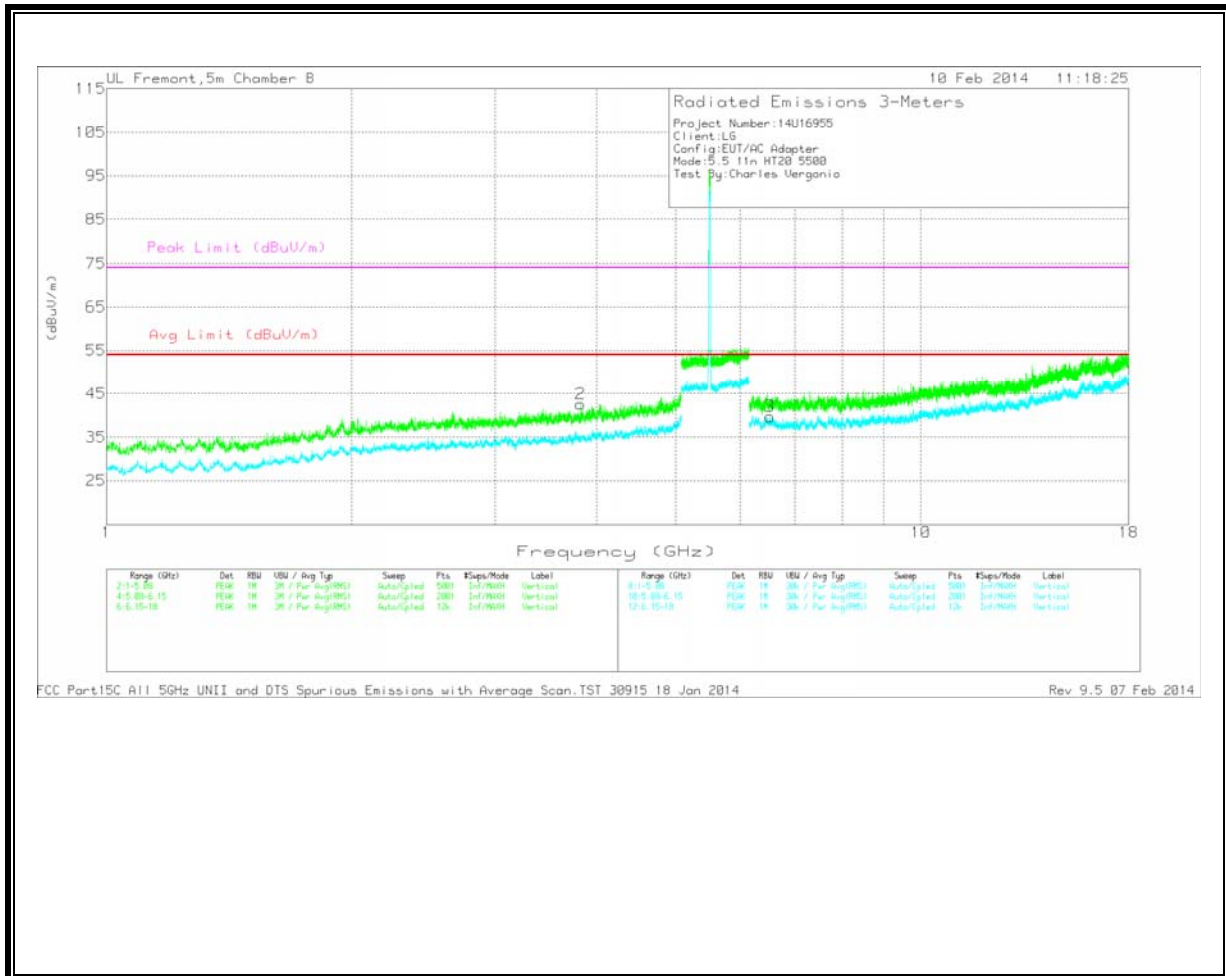


HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL 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.



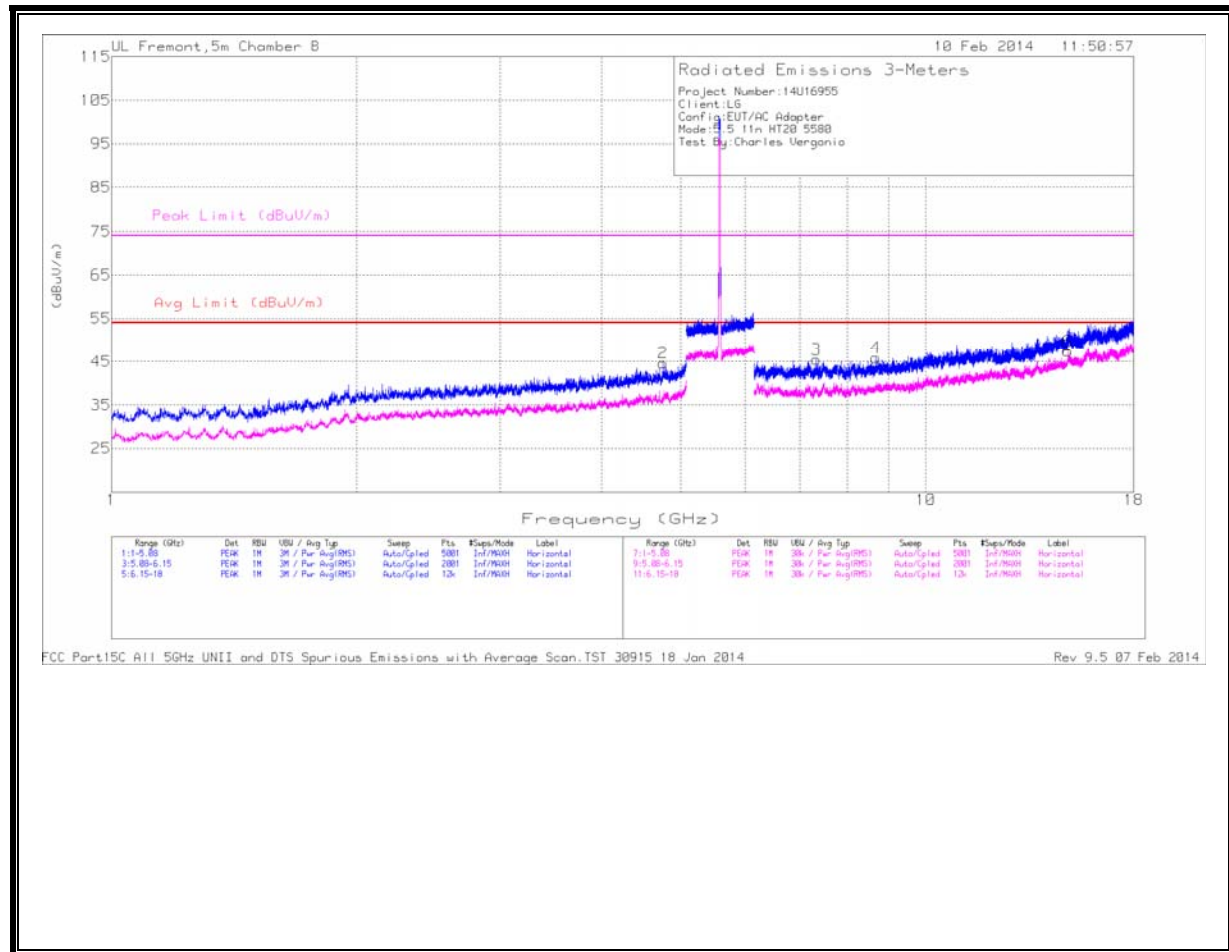
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

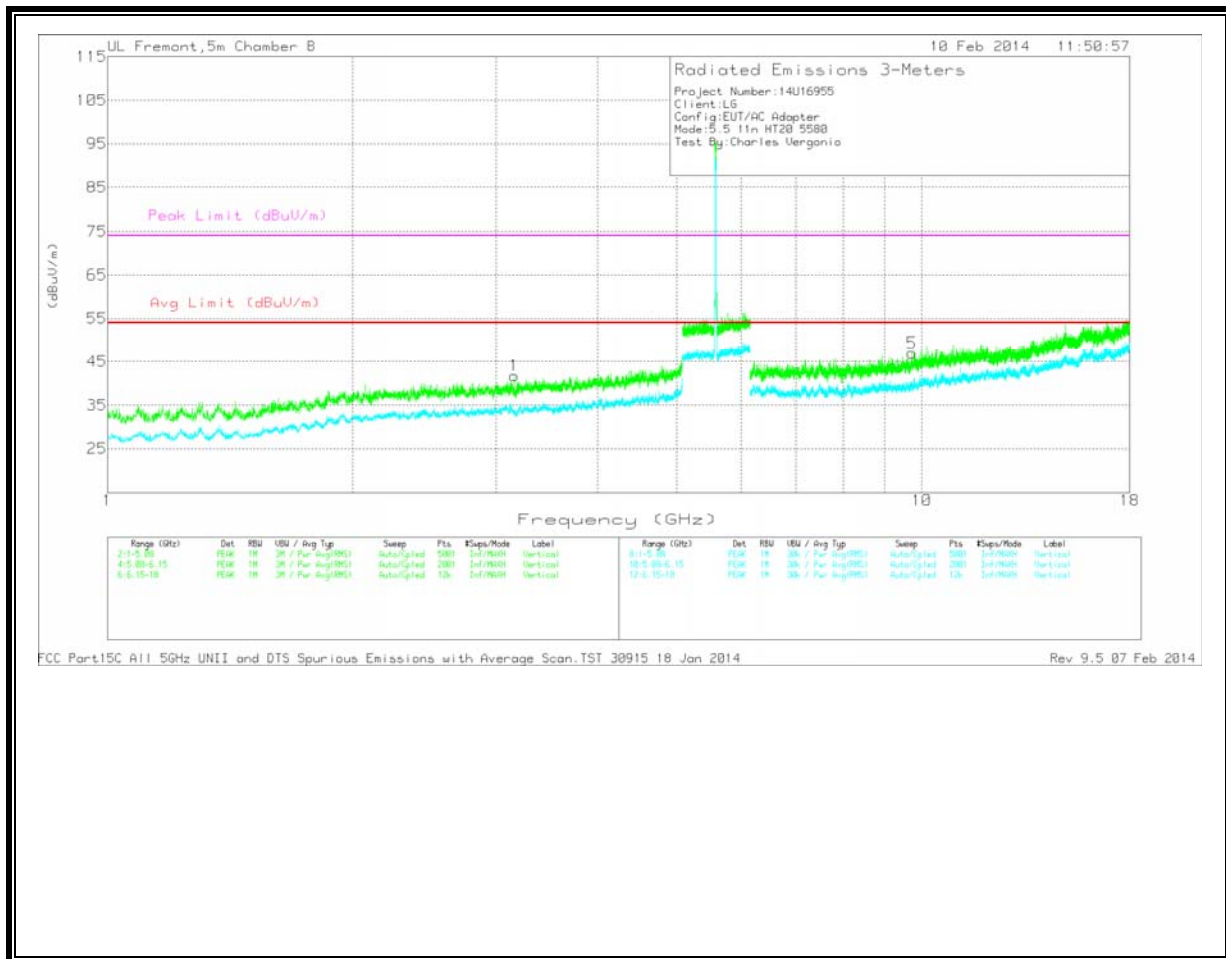
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 3.821	39.8	PK	33.8	-31	42.6	54	-11.4	74	-31.4	0-360	99	V
5	* 9.14	29.58	Avg	36.9	-25.2	41.28	54	-12.72	-	-	0-360	99	H
1	1.937	41.38	PK	31.4	-32.6	40.18	54	-13.82	74	-33.82	0-360	201	H
3	6.527	31.4	Avg	35.9	-27.6	39.7	54	-14.3	-	-	0-360	202	V
4	7.183	30.87	Avg	35.8	-26.6	40.07	54	-13.93	-	-	0-360	99	H
6	9.729	27.51	Avg	37.5	-23.8	41.21	54	-12.79	-	-	0-360	99	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector



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



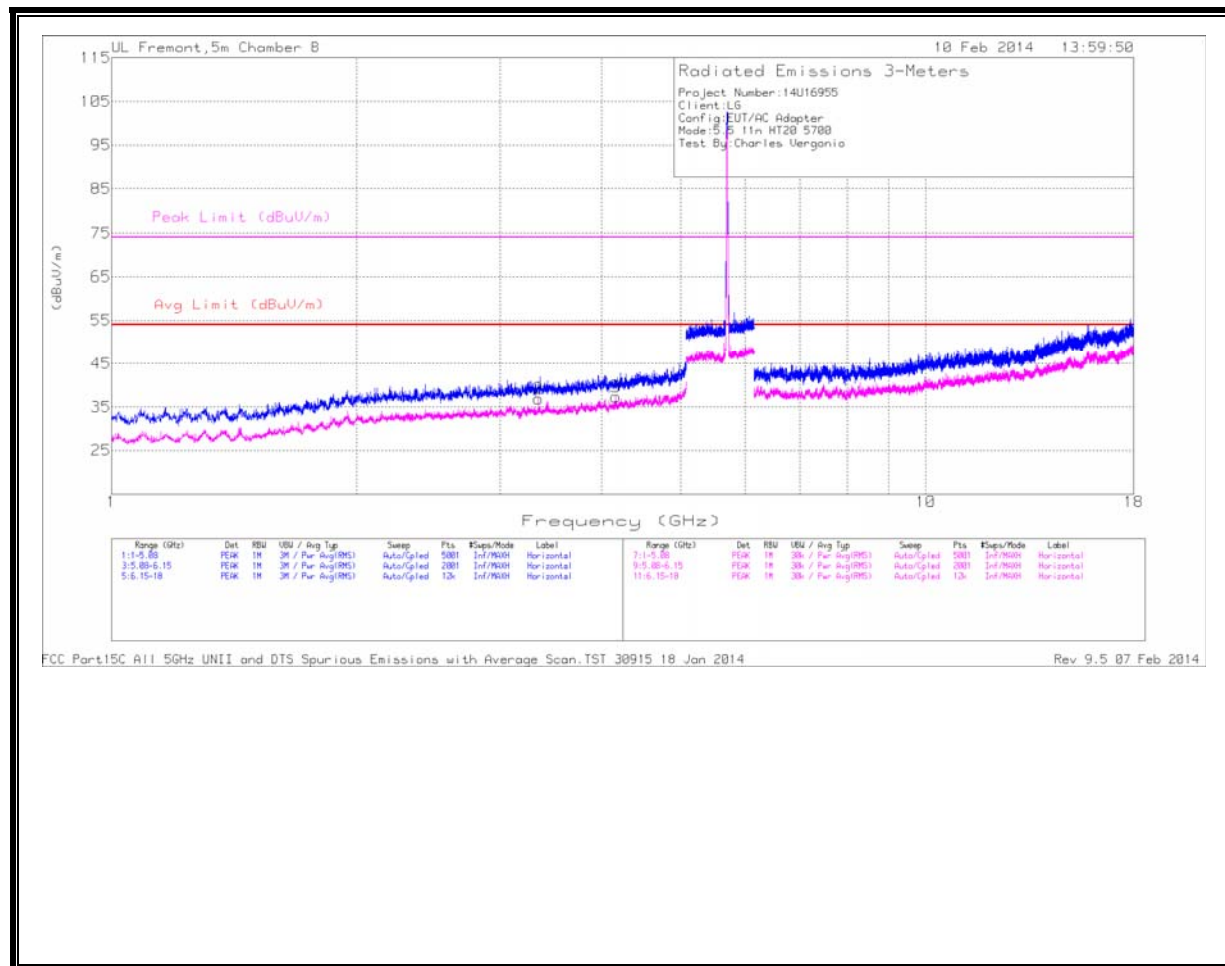
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

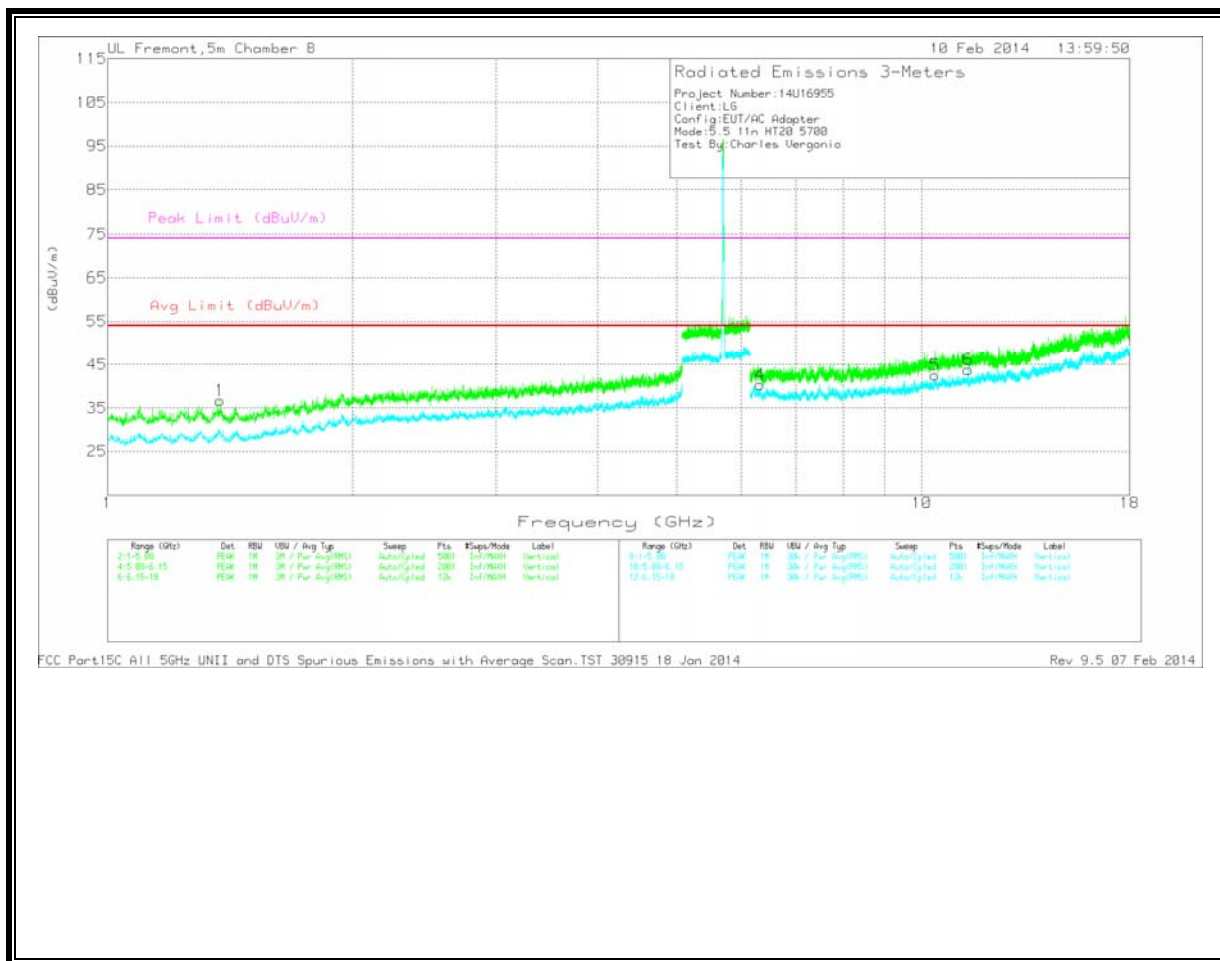
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.755	39.79	PK	34.7	-29.8	44.69	54	-9.31	74	-29.31	0-360	201	H
3	* 7.332	37.25	PK	35.9	-27.7	45.45	54	-8.55	74	-28.55	0-360	99	H
1	3.158	40.45	PK	33.2	-31.9	41.75	54	-12.25	74	-32.25	0-360	202	V
4	8.678	35.83	PK	36.3	-26.3	45.83	54	-8.17	74	-28.17	0-360	99	H
5	9.721	33.17	PK	37.5	-23.7	46.97	54	-7.03	74	-27.03	0-360	99	V
6	14.94	28.02	Avg	40	-20.6	47.42	54	-6.58	-	-	0-360	99	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector



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



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

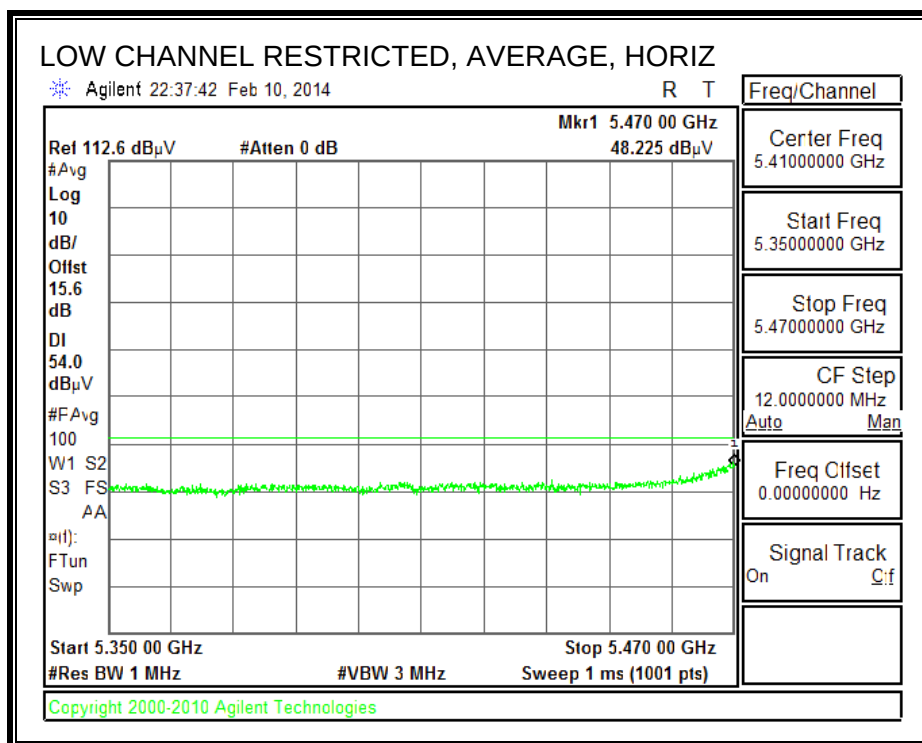
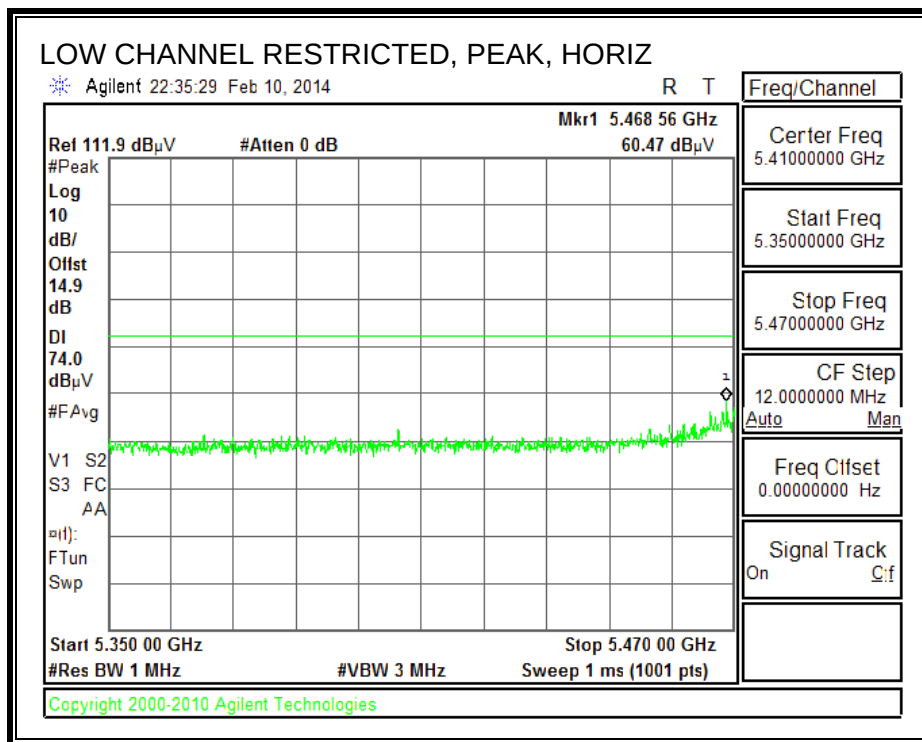
HIGH CHANNEL DATA

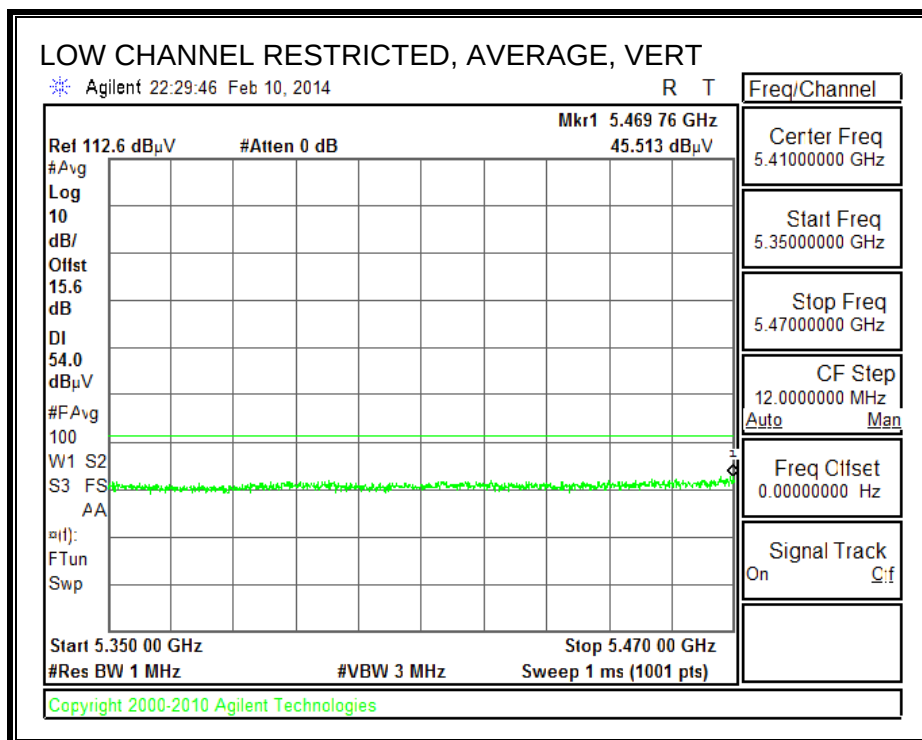
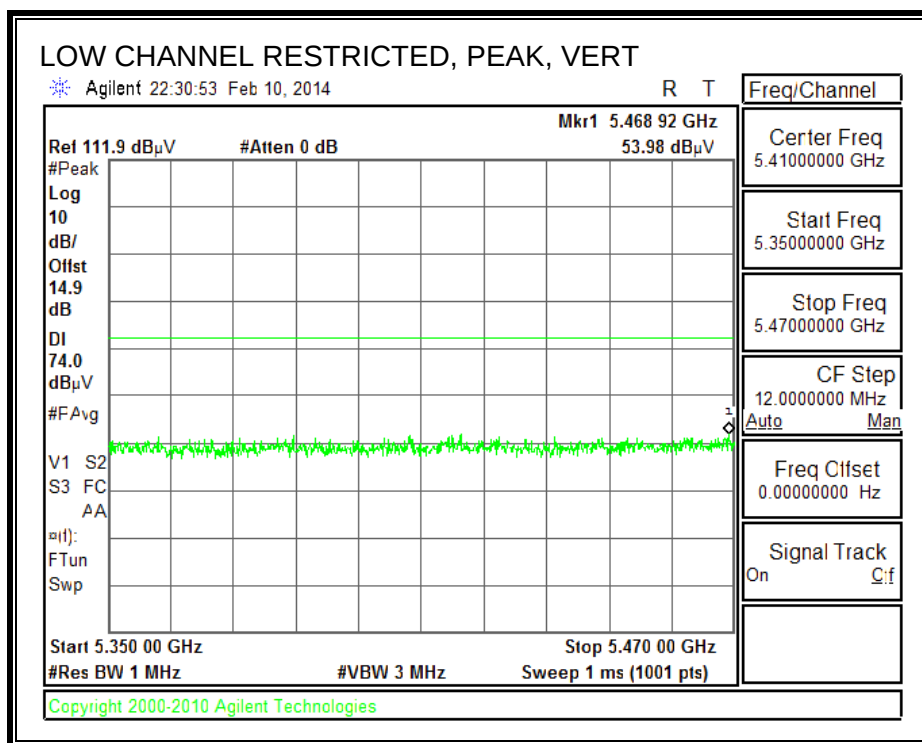
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.375	42.09	PK	28.4	-33.8	36.69	54	-17.31	74	-37.31	0-360	99	V
3	* 4.162	34.55	Avg	34	-31.2	37.35	54	-16.65	-	-	0-360	99	H
6	* 11.4	28.54	Avg	38.6	-23.3	43.84	54	-10.16	-	-	0-360	202	V
2	3.344	35.21	Avg	33.3	-31.6	36.91	54	-17.09	-	-	0-360	201	H
4	6.33	31.99	Avg	36	-27.7	40.29	54	-13.71	-	-	0-360	99	V
5	10.38	27.5	Avg	38.1	-23	42.6	54	-11.4	-	-	0-360	99	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

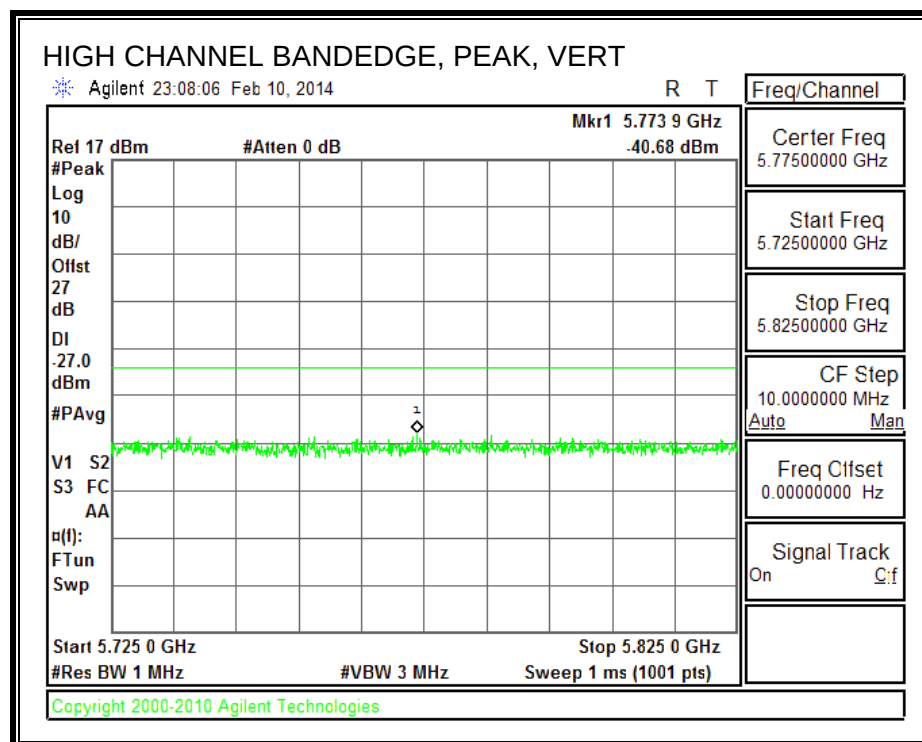
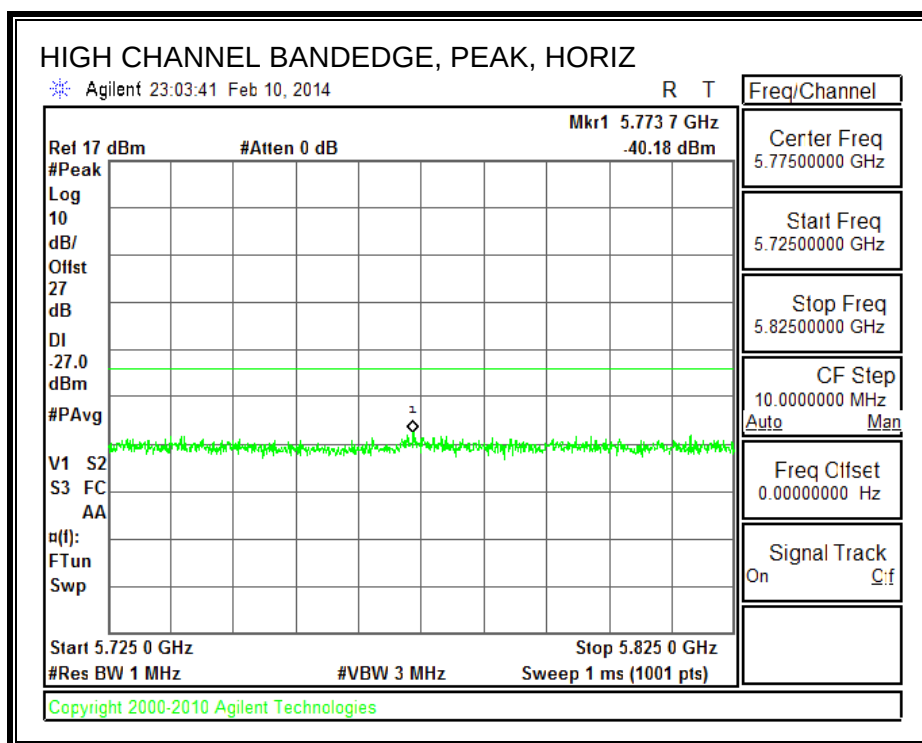
PK - Peak detector

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



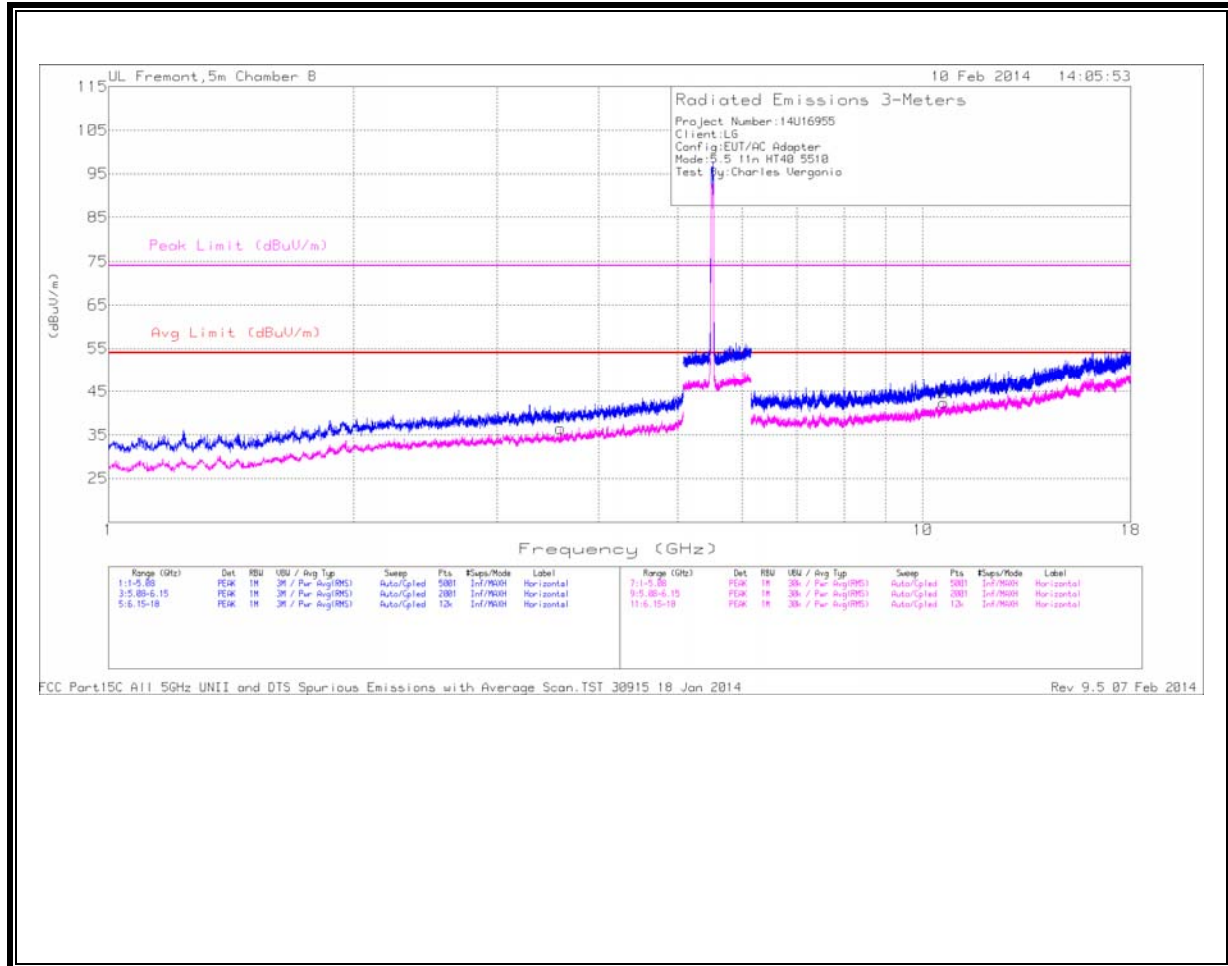


AUTHORIZED BANDEDGE (HIGH CHANNEL)

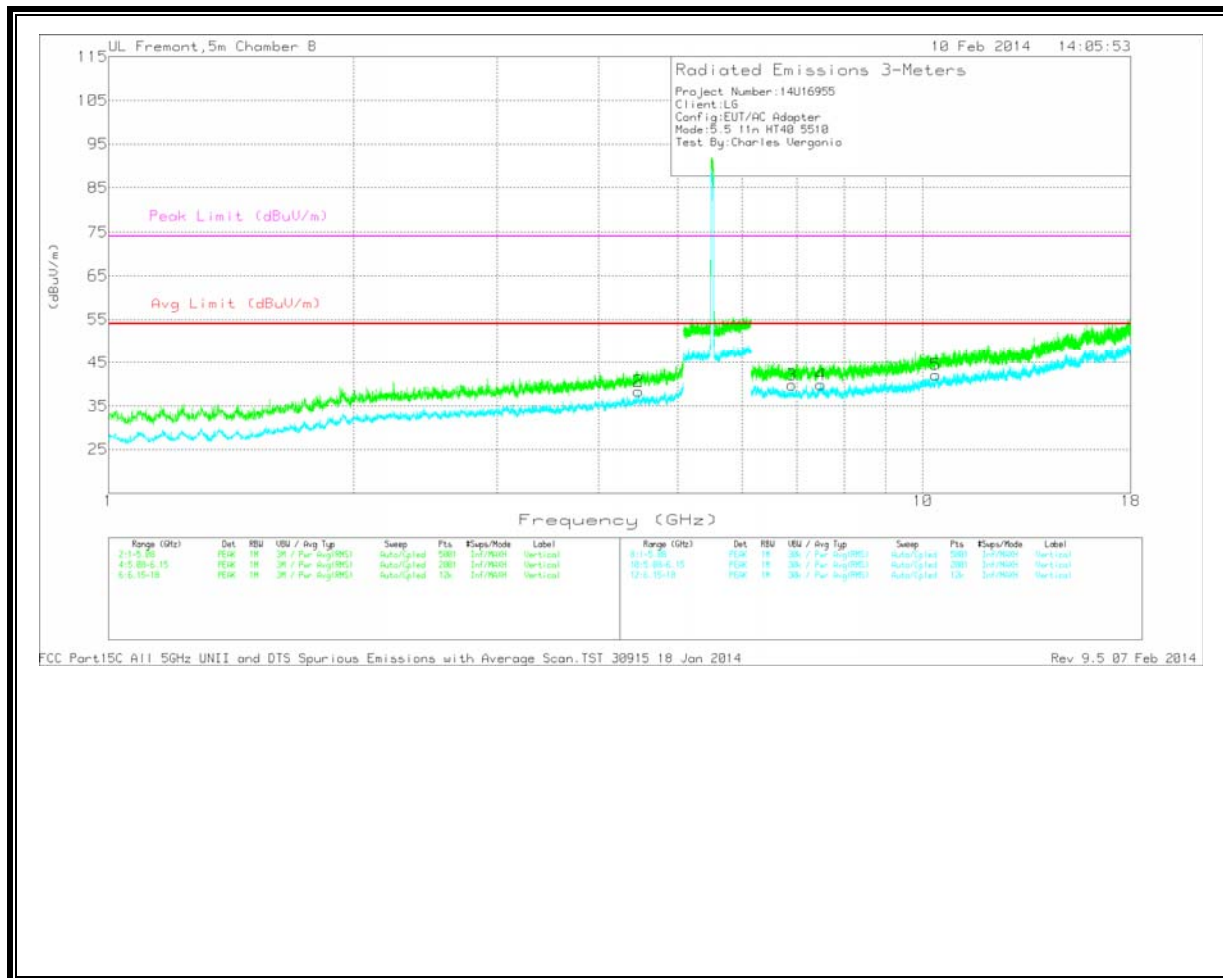


HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL 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.



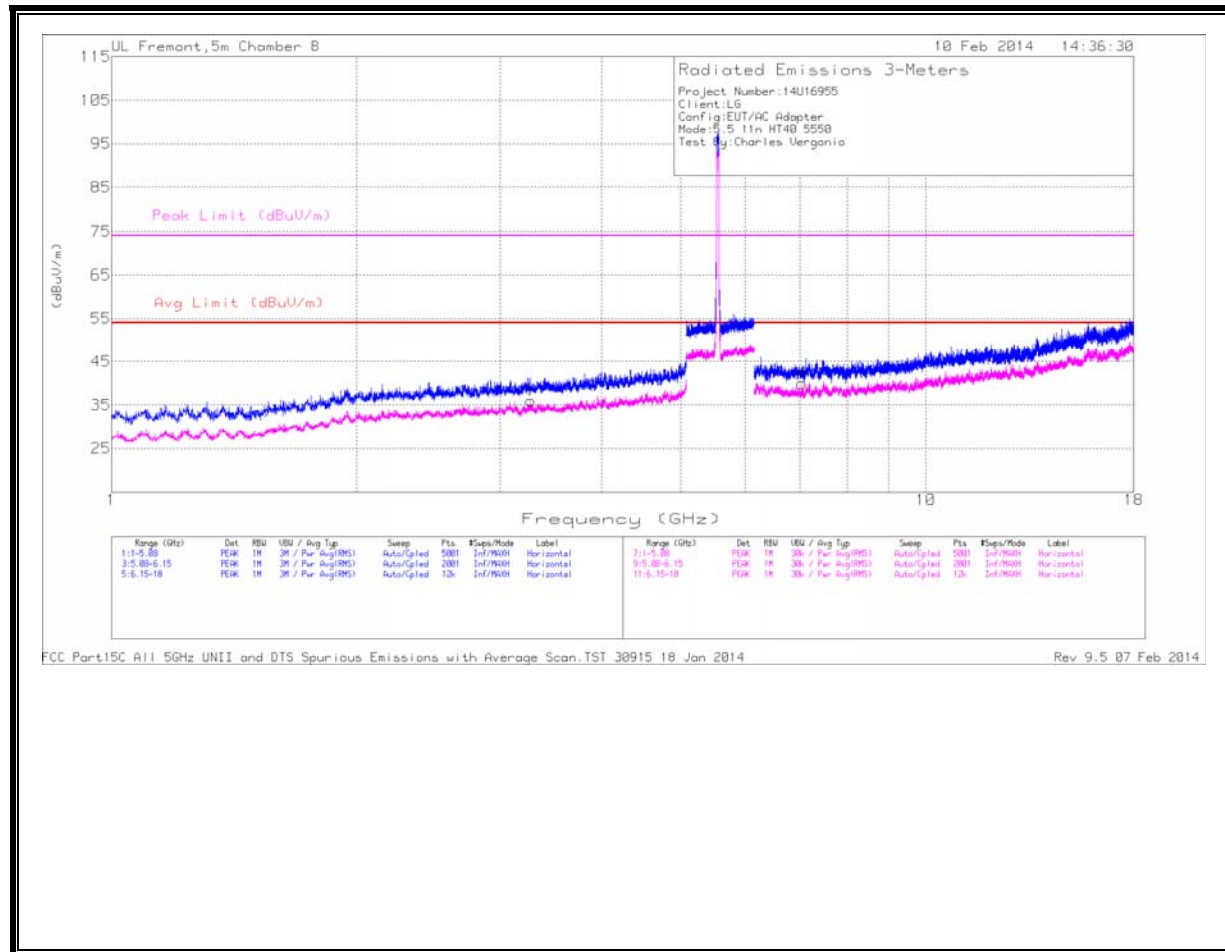
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

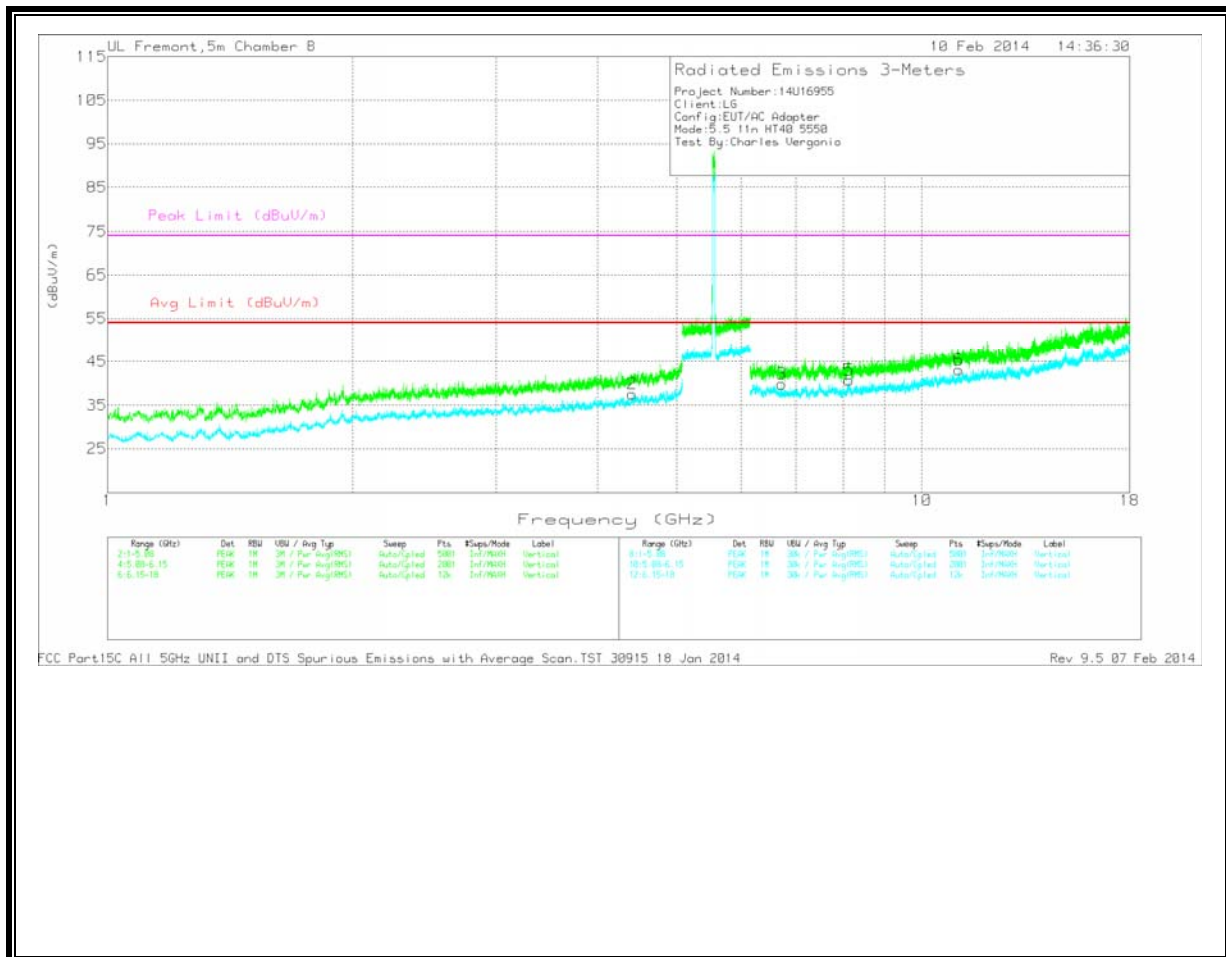
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.59	34.61	Avg	33.4	-31.5	36.51	54	-17.49	-	-	0-360	99	H
6	* 10.603	27.42	Avg	38.2	-23.2	42.42	54	-11.58	-	-	0-360	202	H
4	* 7.495	29.69	Avg	36	-25.8	39.89	54	-14.11	-	-	0-360	99	V
2	4.474	33.49	Avg	34.5	-29.6	38.39	54	-15.61	-	-	0-360	202	V
3	6.905	32.12	Avg	35.9	-28.2	39.82	54	-14.18	-	-	0-360	99	V
5	10.372	27.07	Avg	38.1	-23	42.17	54	-11.83	-	-	0-360	202	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

All peak readings were 20dB below the peak limit. Average measurements at discrete frequencies are provided in the table below for frequencies that are within 6dB of the average limit.



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



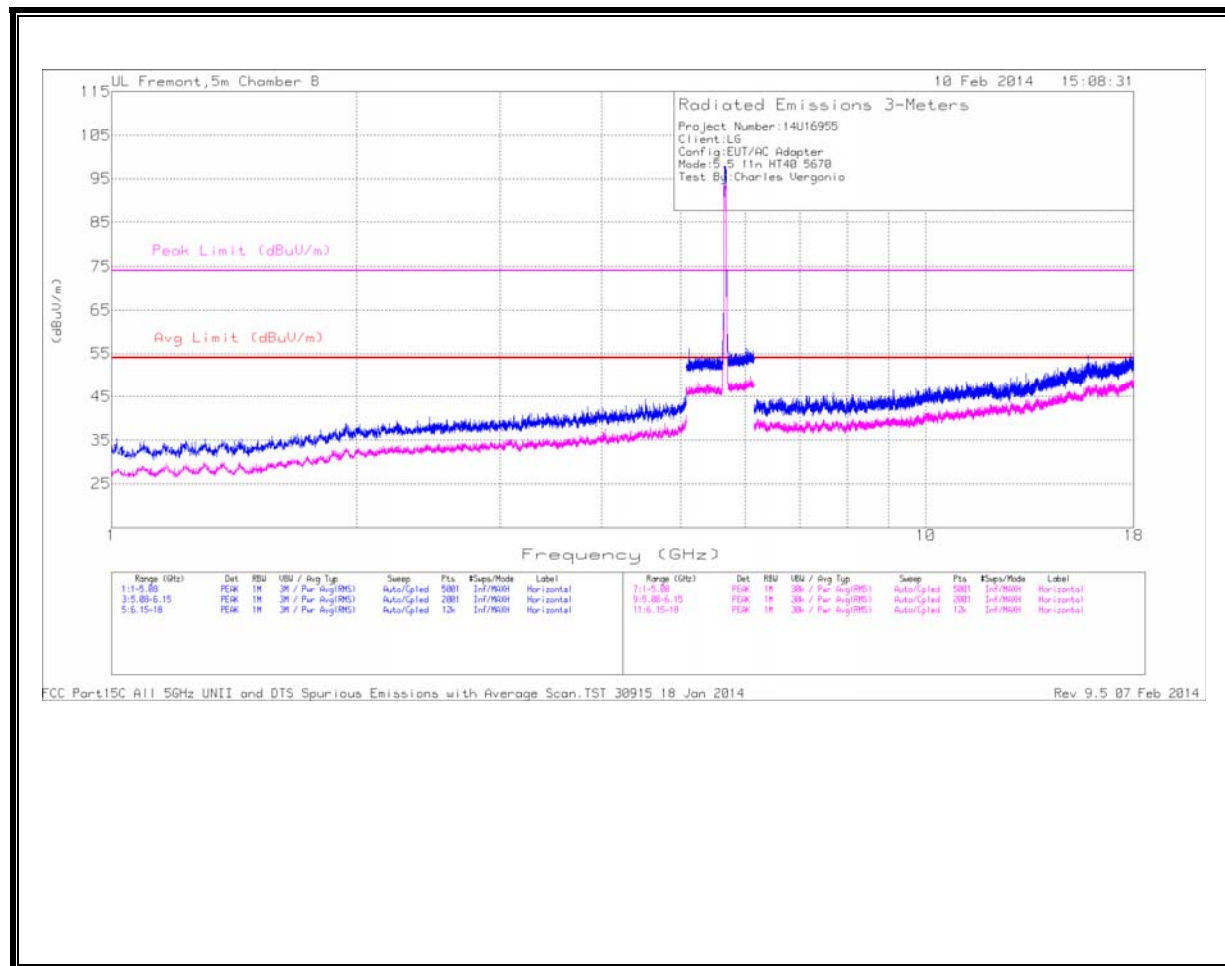
Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

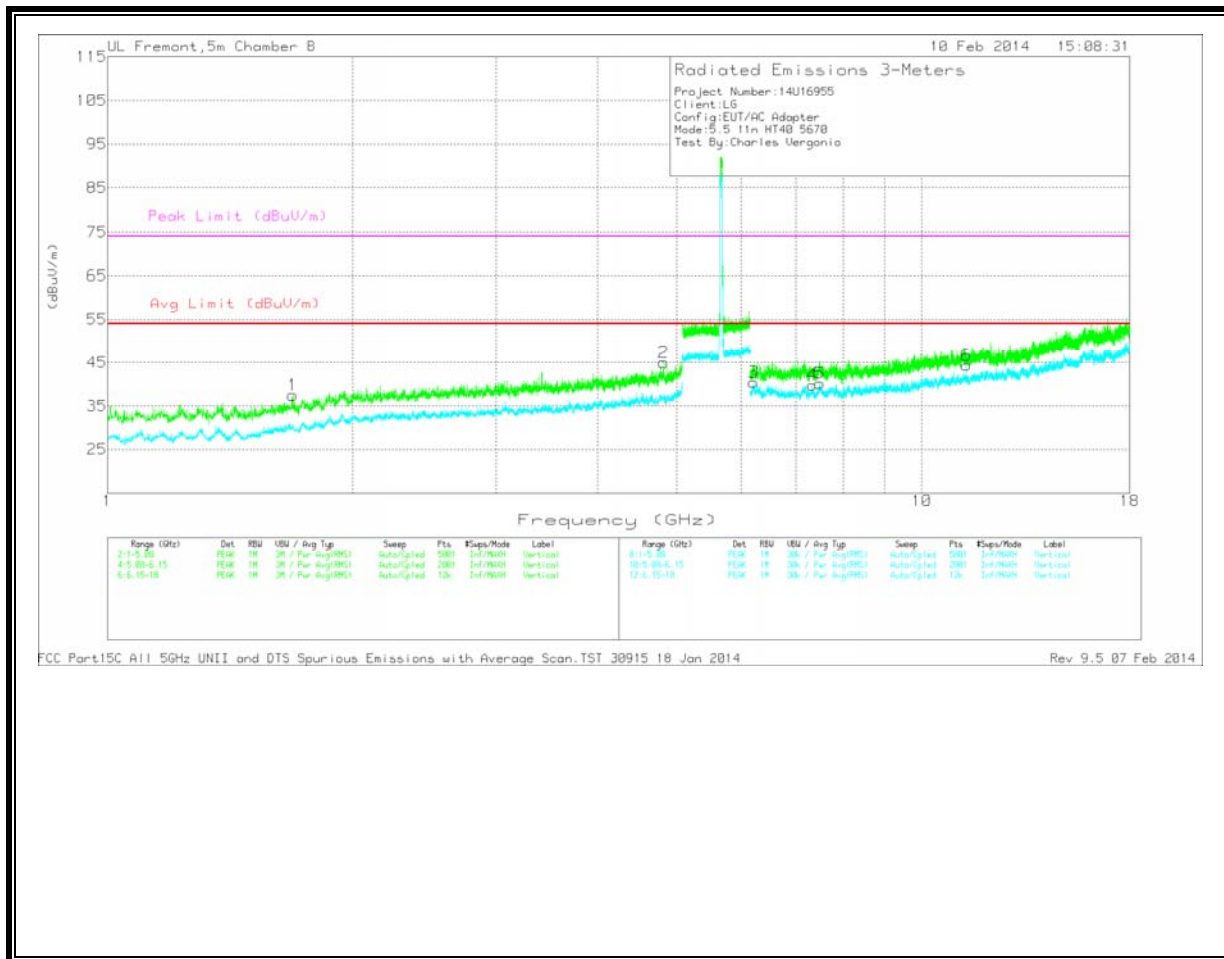
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	* 8.141	31.23	Avg	36.1	-26.6	40.73	54	-13.27	-	-	0-360	202	V
6	* 11.1	28.3	Avg	38.4	-23.6	43.1	54	-10.9	-	-	0-360	202	V
1	3.271	34.6	Avg	33.3	-31.9	36	54	-18	-	-	0-360	201	H
2	4.411	33.26	Avg	34.4	-30.1	37.56	54	-16.44	-	-	0-360	202	V
3	6.73	32.46	Avg	35.8	-28.4	39.86	54	-14.14	-	-	0-360	202	V
4	7.045	31.86	Avg	35.9	-27.8	39.96	54	-14.04	-	-	0-360	99	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

All peak readings were 20dB below the peak limit. Average measurements at discrete frequencies are provided in the table below for frequencies that are within 6dB of the average limit.



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



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

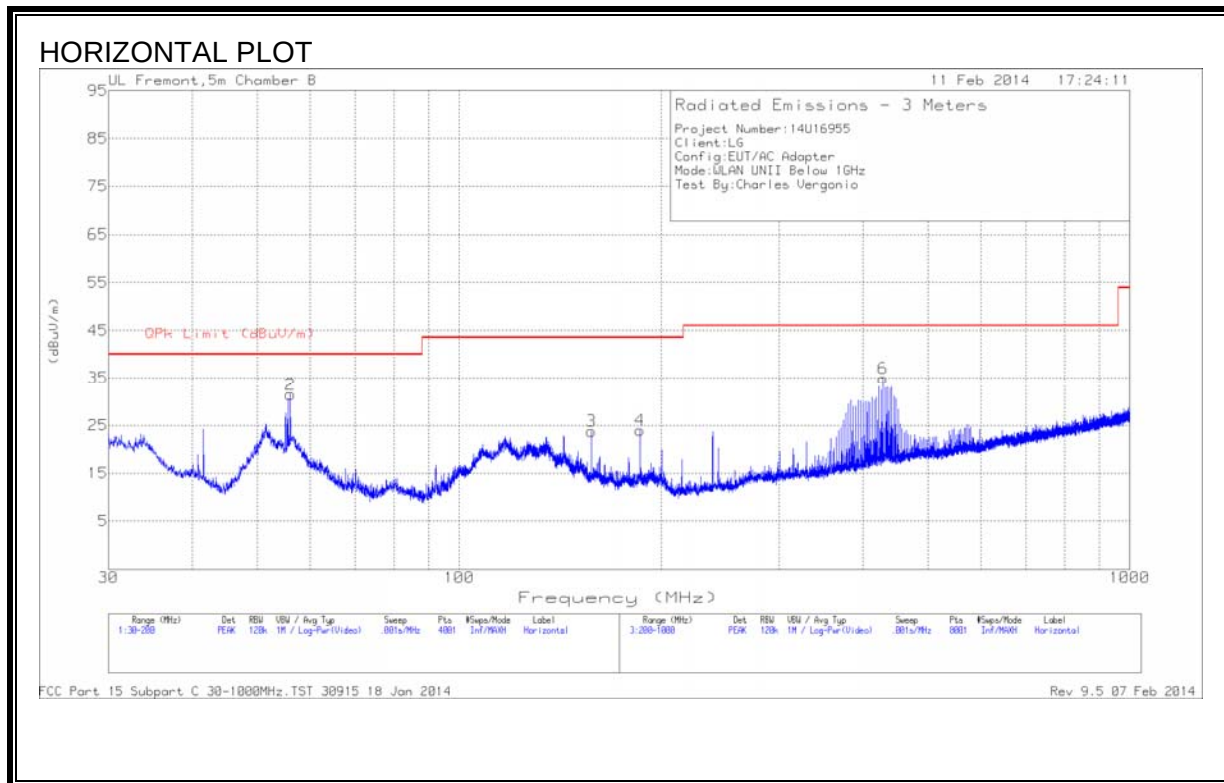
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.688	41.17	PK	29.6	-33.3	37.47	54	-16.53	74	-36.53	0-360	202	V
2	* 4.818	39.82	PK	34.7	-29.5	45.02	54	-8.98	74	-28.98	0-360	202	V
4	* 7.335	31.7	Avg	35.9	-27.8	39.8	54	-14.2	-	-	0-360	99	V
5	* 7.492	29.92	Avg	36	-25.7	40.22	54	-13.78	-	-	0-360	202	V
6	* 11.34	28.95	Avg	38.6	-23.2	44.35	54	-9.65	-	-	0-360	202	V
3	6.213	32.15	Avg	36	-27.7	40.45	54	-13.55	-	-	0-360	202	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

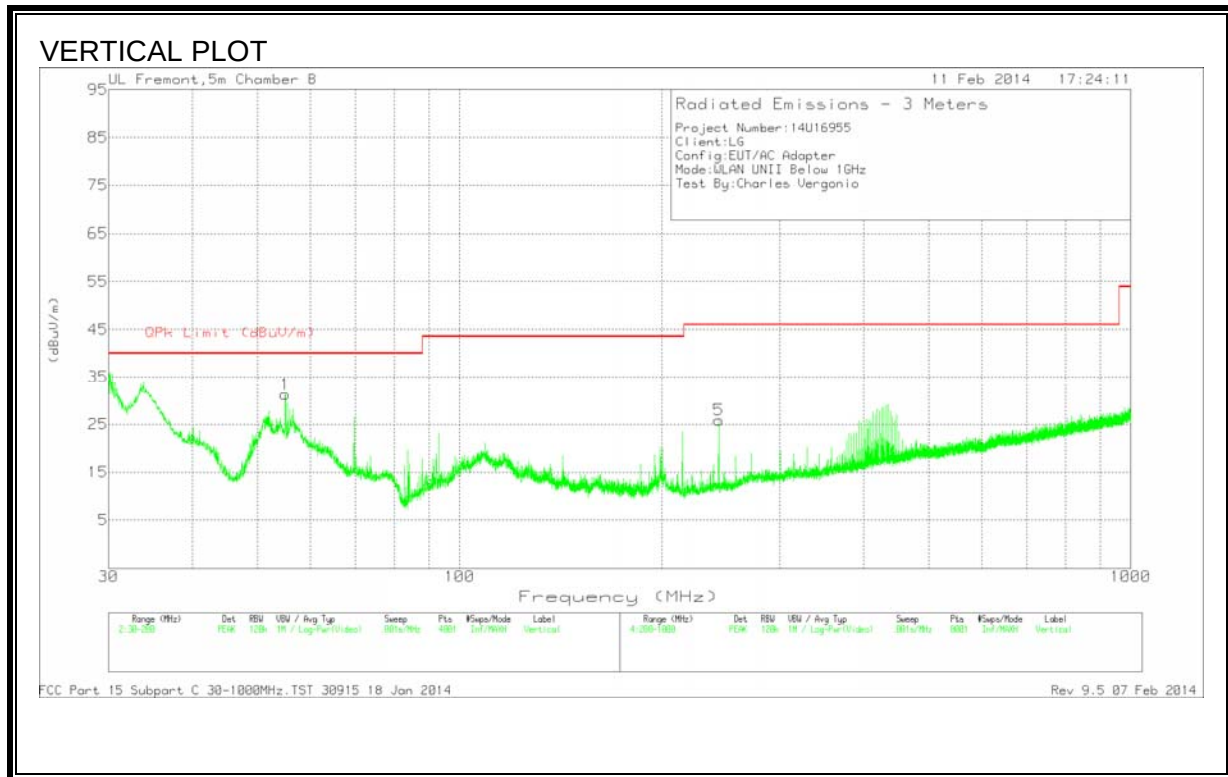
PK - Peak detector

11. WORST-CASE BELOW 1 GHz

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



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



Worst Case Data

Marker	Frequenc y (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	Correcte d Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	54.99	53.1	PK	6.8	-28.6	31.3	-	-	0-360	101	V
2	56.01	53.21	PK	6.9	-28.6	31.51	-	-	0-360	400	H
3	157.5	38.97	PK	12.2	-27.4	23.77	-	-	0-360	100	H
4	186.145	40.06	PK	11	-27.1	23.96	-	-	0-360	100	H
5	243.4	40.81	PK	11.6	-26.5	25.91	-	-	0-360	200	V
6	428.8	44.3	PK	16.5	-25.9	34.9	-	-	0-360	101	H

PK - Peak detector

FCC Part 15 Subpart C 30-1000MHz.TST 30915 18 Jan 2014

Rev 9.5 07 Feb 2014