



# TEST REPORT

**Report Number :** 11400053-E1V4

**Applicant :** HP INC.  
3390 EAST HARMONY ROAD  
FORT COLLINS CO, 80528 U.S.A

**Model :** SDGOB-1191 & SDGOB-1192\*

**FCC ID :** B94SDGOB1191

**IC ID :** 466D-SDGOB191

**EUT Description :** 802.11a/b/g/n WLAN MODULE

**Test Standard(s) :** FCC 47 CFR PART 15 SUBPART E (EXCEPT DFS)  
INDUSTRY CANADA RSS-247 ISSUE 1 (EXCEPT DFS)  
INDUSTRY CANADA RSS-GEN Issue 4

**Date of Issue:**

**4/6/2017**

**Prepared by:**

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\*Models differences are explained within the body of this report.



NVLAP LAB CODE 200065-0

Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
V1	9/26/16	Initial Issue	D. CORONIA
V2	10/25/16	Updated Section 4.4.3, 4.4.4, 5.2.10, 5.2.11, 5.2.12 and 5.6.	D. CORONIA
V3	02/17/17	Updated Section 1, 3.2 & 5.1 (add note)	D. CORONIA
V4	04/06/17	Updated Section 5.1	D. CORONIA

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# 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** HP INC.  
**EUT DESCRIPTION:** 802.11a/b/g/n WLAN MODULE  
**MODEL:** SDGOB-1191 (Part # 1150-7953) & SDGOB-1192\*  
**SERIAL NUMBER:** 40490F6109F8, 40490F610A16  
**DATE TESTED:** SEPTEMBER 7 - 26, 2016

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart E (EXCEPT DFS)	Pass
INDUSTRY CANADA RSS-247 Issue 1 (EXCEPT DFS)	Pass
INDUSTRY CANADA RSS-GEN Issue 4	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.

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## 2. SUMMARY OF TESTING

### 2.1. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, Fremont, California, USA. Line conducted emissions are measured only at the 47173 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

47173 Benicia Street	47266 Benicia Street
<input checked="" type="checkbox"/> Chamber A(IC: 2324B-1)	<input type="checkbox"/> Chamber D(IC: 2324B-4)
<input checked="" type="checkbox"/> Chamber B(IC: 2324B-2)	<input type="checkbox"/> Chamber E(IC: 2324B-5)
<input checked="" type="checkbox"/> Chamber C(IC: 2324B-3)	<input type="checkbox"/> Chamber F(IC: 2324B-6)
	<input type="checkbox"/> Chamber G(IC: 2324B-7)
	<input type="checkbox"/> Chamber H(IC: 2324B-8)

The above test sites and facilities are covered under FCC Test Firm Registration # 208313. Chambers A through H are covered under Industry Canada company address code 2324B with site numbers 2324B -1 through 2324B-8, respectively.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://ts.nist.gov/standards/scopes/2000650.htm>.

### 2.2. SUMMARY TABLE

FCC Part Section	RSS Section	Test Description	Test Limit	Test Condition	Test Result
§15.407 (a)	RSS-247	Occupied Band width (26dB)	N/A	Conducted	See note*
§15.407	RSS-247 6.2.4	6dB Band width (5.8Ghz)	>500KHz		Pass
§15.407 (a)(1)	RSS-247 6.2	TX Cond. Power 5.15-5.25 GHz	<24dBm (FCC) / <23 dBm EIRP or <10+10Log(99% BW) EIRP (IC)		See note*
§15.407 (a)(2)	RSS-247 6.2	TX Cond. Power 5.25-5.35 & 5.47-5.725 GHz	<24dBm or <11+10log (OBW) (FCC) / <24 dBm or <11+10Log(99% BW) (IC)		See note*
§15.407 (a)(3)	RSS-247 6.2.4	TX Cond. Power 5.725-5.850 GHz	<30dBm		Pass
§15.407 (a)(1)	RSS-247 6.2	PSD (5.15-5.25 GHz)	<11dBm/MHz (FCC) <10 dBm/MHz EIRP (IC)		See note*
§15.407 (a)(2)	RSS-247 6.2	PSD (5.3,5.5GHz)	<11dBm/MHz		See note*
§15.407 (a)(3)	RSS-247 6.2.4	PSD (5.8GHz)	<30dBm per 500kHz		Pass
§15.207 (a) §15.407(b) (6)	RSS-GEN 8.8	AC Power Line conducted emissions	Section 10		Pass
§15.407 (b) & 15.209	RSS-GEN 8.9/7	Radiated Spurious Emission	<54dBuV/m		Radiated

\*For 5.2, 5.3, and 5.6GHz conducted data, see report number 11U13822-8C.

### 2.3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, KDB 789033 D02 v01r03, KDB 662911, ANSI C63.10-2013, RSS-GEN Issue 4, and RSS-247 Issue 1.

## 2.4. CALIBRATION AND UNCERTAINTY

### 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.

### SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

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

### 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	3.84 dB
Radiated Disturbance, 9KHz to 30 MHz	2.14 dB
Radiated Disturbance, 30 to 1000 MHz	4.98 dB
Radiated Disturbance, 1000 to 6000 MHz	3.86 dB
Radiated Disturbance, 6000 to 18000 MHz	4.23 dB
Radiated Disturbance, 18000 to 26000 MHz	5.30 dB
Radiated Disturbance, 26000 to 40000 MHz	5.23 dB

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

## 2.5. MEASUREMENT METHOD

On Time and Duty Cycle: KDB 789033 D02 v01r03, Section B.

6 dB Emission BW: KDB 789033 D02 v01r03, Section C.

26 dB Emission BW: KDB 789033 D02 v01r03, Section C.

99% Occupied BW: KDB 789033 D02 v01r03, Section D.

Conducted Output Power: KDB 789033 D02 v01r03, Section E.3.b (Method PM-G), and KDB 662911 D01 v02r01

Power Spectral Density: KDB 789033 D02 v01r03, Section F, and KDB 662911 D01 v02r01

Unwanted emissions in restricted bands: KDB 789033 D02 v01r03, Sections G.3, G.4, G.5, and G.6.

Unwanted emissions in non-restricted bands: KDB 789033 D02 v01r03, Sections G.3, G.4, and G.5.

AC Power Line Conducted Emissions: ANSI C63.10-2013, Section 6.2.

## 2.6. 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	T No.	Cal Date	Cal Due
Amplifier, 1 - 18GHz	Miteq	AFS42	T493	03/09/16	03/09/17
Amplifier, 10KHz to 1GHz, 32dB	HP	8447D	T10	02/01/16	02/01/17
Antenna, Broadband Hybrid 30MHz to 2000MHz	Sunol Science	JB1	T130	09/03/16	09/03/17
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	T345	03/07/16	03/07/17
Antenna, Horn 18-26.5GHz	Seavey Division	MWH-1826/B	T449	05/26/16	05/26/17
Antenna, Horn 26.5-40GHz	Seavey Division	MWH-2640/B	T446	05/26/16	05/26/17
EMI Test Receiver 9KHz-7GHz	R&S	ESC17	100935	09/10/16	09/10/17
LISN for Conducted Emissions	Fischer	50/250-25-2	161124	06/08/16	06/08/17
Loop Antenna, 10KHz-30MHz	EMCO	6502	35	03/24/16	03/24/17
Power Cable, Line Conducted Emissions	UL	PG1	N/A	07/28/16	07/28/17
Power Meter, P-series single channel	Keysight	N1911A	1262	07/08/16	07/08/17
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Agilent	N1921A	1224	03/22/16	03/22/17
PSA Spectrum Analyzer 40GHz	Agilent	E4446A	T146	07/13/16	07/13/17
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent	N9030A	T907	01/06/16	01/06/17
RF Preamplifier, 30MHz - 1GHz	Sonoma	310N	173	06/17/16	06/17/17
Spectrum Analyzer, 44 GHz	Agilent	N9030A	908	03/21/16	03/21/17
Amplifier, 1-18GHz	Miteq	NSP4000-SP2	88	04/07/16	04/07/17
Antenna, Biconolog, 30MHz-1 GHz	Sunol Sciences	JB3	122	05/26/16	05/26/17
Antenna, Horn, 18GHz	ETS Lindgren	3117	119	02/04/16	02/04/17

Test Software List			
Description	Manufacturer	Model	Version
Radiated Software	UL	UL EMC	Ver 9.5, Apr 26, 2016
Conducted Software	UL	UL EMC	Ver 9.5, May 26, 2015
Antenna Port Software	UL	UL RF	Ver 5.1.1, July 15, 2016

### 3. EQUIPMENT UNDER TEST

#### 3.1. DESCRIPTION OF EUT

The EUT is an 802.11a/b/g/n WLAN module.

Note: Per original report (11U13822-7B) section 5.2 it was determined that the main antenna on Model # SDGOB-1191, Part # 1150-7953 is the worst case. Therefore, testing was done on Model # SDGOB-1191, Part # 1150-7953 and the test data was presented in this report.

#### 3.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5745-5825	802.11a	16.13	41.02
5745-5825	802.11n HT20	16.16	41.30
5755-5795	802.11n HT40	15.39	34.59

NOTE: For 5.2, 5.3, and 5.6GHz conducted output power, see report number 11U13822-8C

#### 3.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a PIFA antenna, with a maximum gain as below:

Frequency (MHz)	Max. Peak Gain (dBi)
5150-5850	3.75

#### 3.4. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was 14.0.11.26 for HP.

The EUT driver software installed during testing was USB Labtool DLL version 1.0.7.7.

The test utility software used during testing was DutApiBRIDGEETH8782.exe.

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

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

The EUT was investigated in three orthogonal orientations X, Y and Z, it was found that Y orientation is worst case; therefore, all final testing was performed with the EUT laid down in the Y orientation.

Worst-case data rates as provided by the client were:

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

### **3.6. DESCRIPTION OF CLASS II PERMISSIVE CHANGE**

The purpose of this C2PC is to upgrade the device described under section 5.1 of this report to the new rules per KDB 789033 D02 v01r03.

For UNII-3 band, compliance with the new rules per KDB 789033 D02 v01r03 is demonstrated by data covered under this report.

For UNII-1, UNII-2A and UNII-2C bands, other than radiated bandedge and harmonics, we have reviewed the original test report (report no. 11U13822-8C) and are hereby attesting that all the current technical requirements are still met and all applicable test procedures remain the same. Therefore, the original test report is still applicable and no additional testing is done.

The EUT is a Slave Device without Radar Detection. Therefore, DFS evaluation as per section 10 in original report no. 11U13822-8C continues to be valid and consistent with requirements of KDB 905462 D02 v02, KDB 905462 D03 v01r02, KDB 905462 D04 v01 and KDB 789033 D02 v01r03.

### 3.7. DESCRIPTION OF TEST SETUP

#### SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Support Laptop	Lenovo	T430	PB-05HPL	N/A
AC/DC Adapter	Lenovo	42T4430	N/A	N/A
USB Interface Box	Sheeva Plug	003-SP1001	1043-002788	N/A
Test JIG	Marvell	N/A	14628-PAC029	N/A

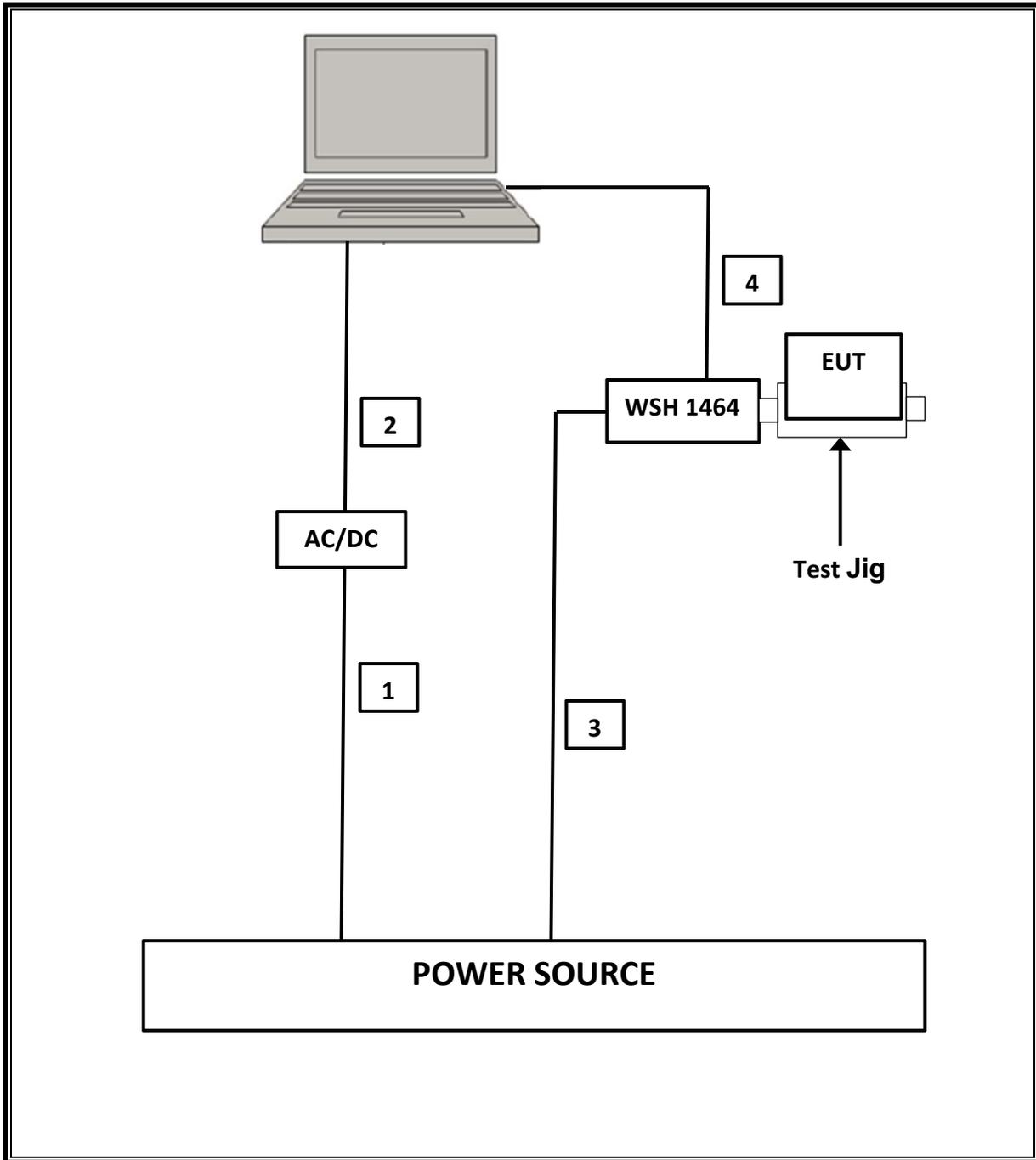
#### I/O CABLES

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	AC	1	US115VAC	Unshielded	1.5	Power for Laptop
2	DC	1	DC PLUG	Unshielded	1.5	Power for Laptop
3	AC	1	Sheeva Plug	Unshielded	1.8	Power for Sheeva (WSH 1464)
4	LAN	1	RJ45	Unshielded	1.5	Connected to Laptop LAN

#### TEST SETUP

The EUT is plugged to a test JIG card, connected to the USB Sheeva plug and a laptop computer during the tests. Test software exercised the radio card.

**SETUP DIAGRAM FOR TESTS**



## 4. ANTENNA PORT TEST RESULTS

### 4.1. ON TIME AND DUTY CYCLE

#### LIMITS

None; for reporting purposes only.

#### PROCEDURE

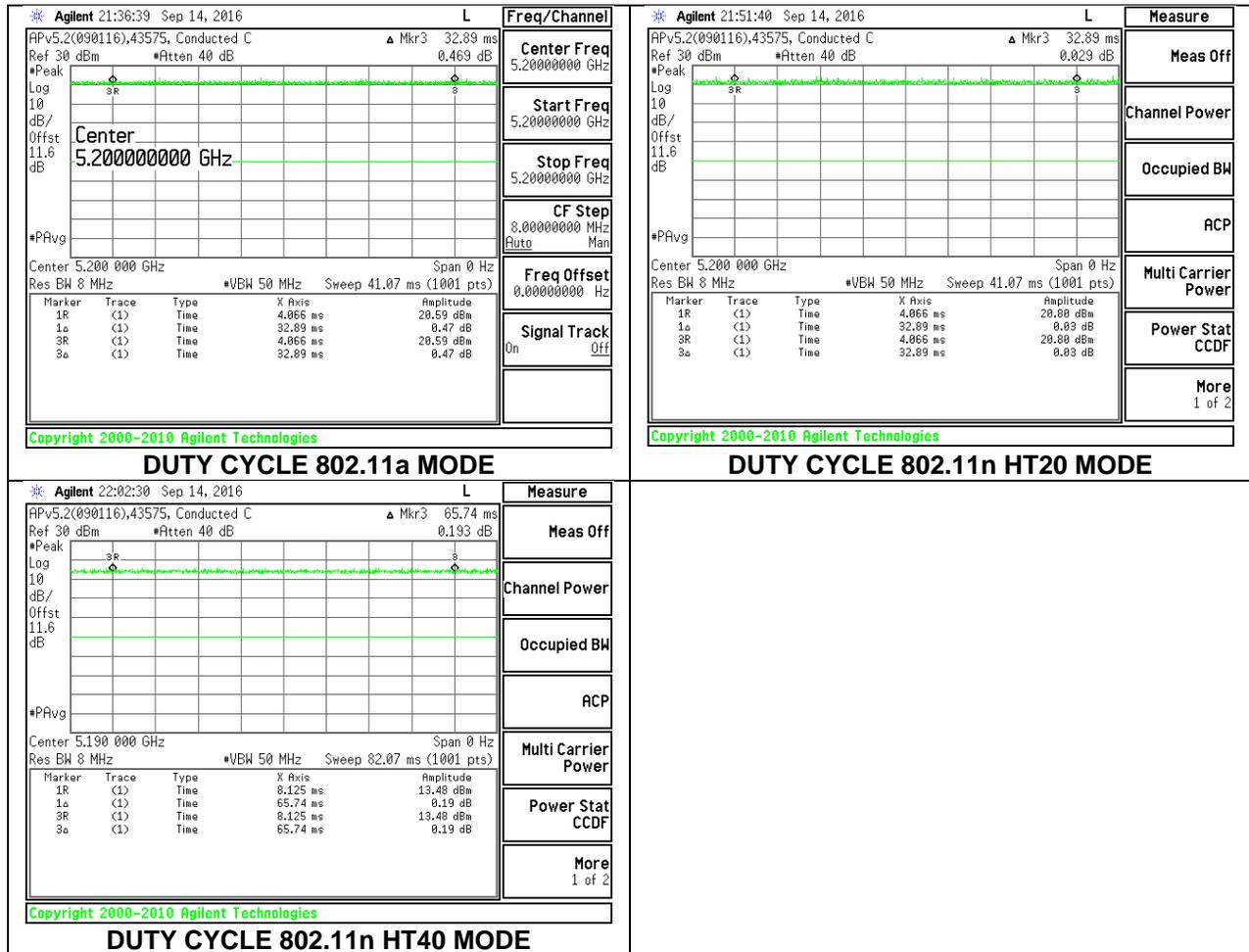
KDB 789033 Zero-Span Spectrum Analyzer Method.

Note that 5.2, 5.3, and 5.6 conducted data can be found in report number 11U13822-8C.

#### 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/B Minimum VBW (kHz)
802.11a 1TX	32.890	32.890	1.000	100.00%	0.00	0.010
802.11n HT20 CDD	32.890	32.890	1.000	100.00%	0.00	0.010
802.11n HT40 CDD	65.7400	65.7400	1.000	100.00%	0.00	0.010

**DUTY CYCLE PLOTS**



## 4.2. 802.11a MODE IN THE 5.8 GHz BAND

### 4.2.1. 6 dB BANDWIDTH

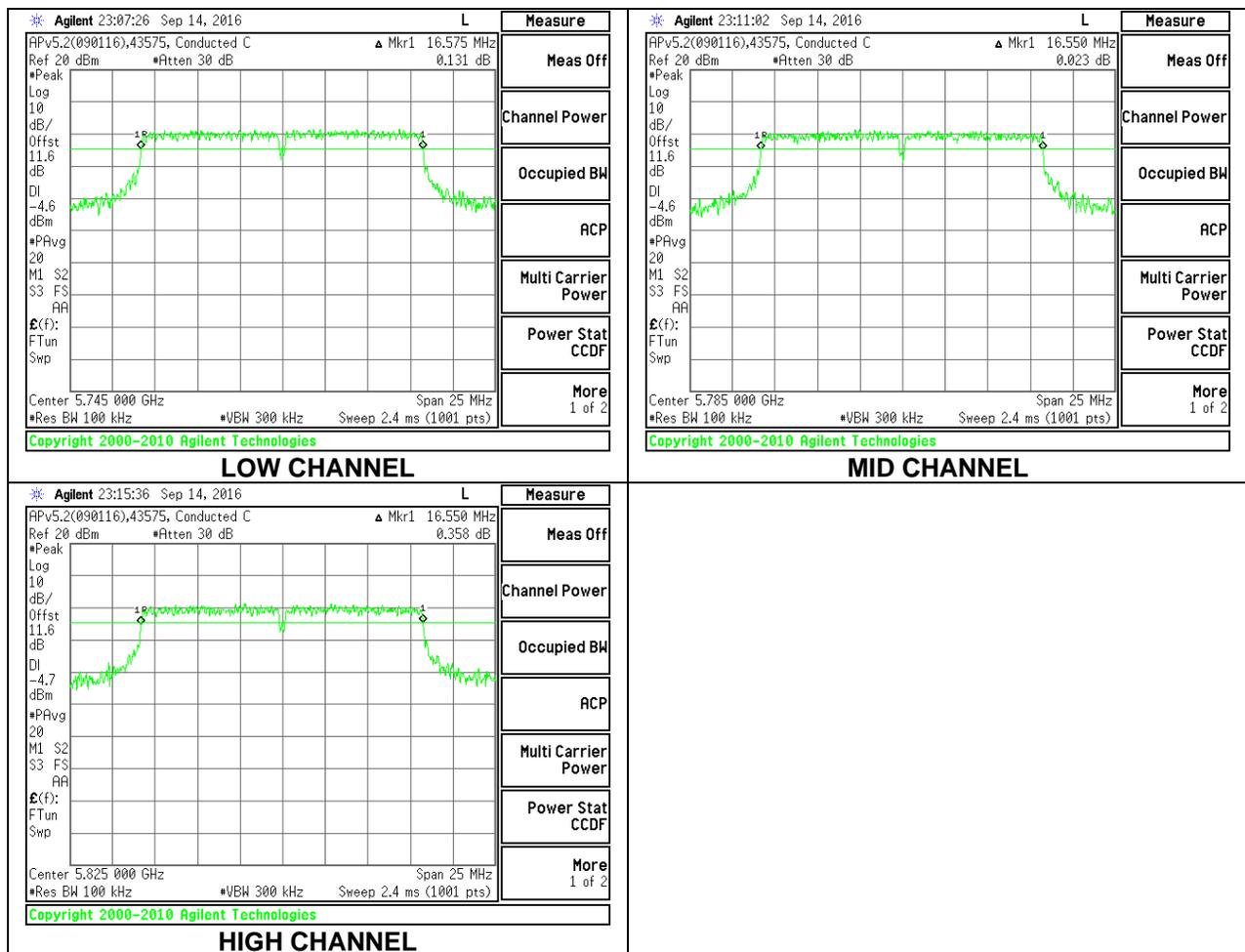
#### LIMITS

FCC §15.407 (e)

The minimum 6 dB bandwidth shall be at least 500 kHz.

#### RESULTS

Channel	Frequency (MHz)	6 dB BW (MHz)	Minimum Limit (MHz)
Low	5745	16.5750	0.5
Mid	5785	16.5500	0.5
High	5825	16.5500	0.5



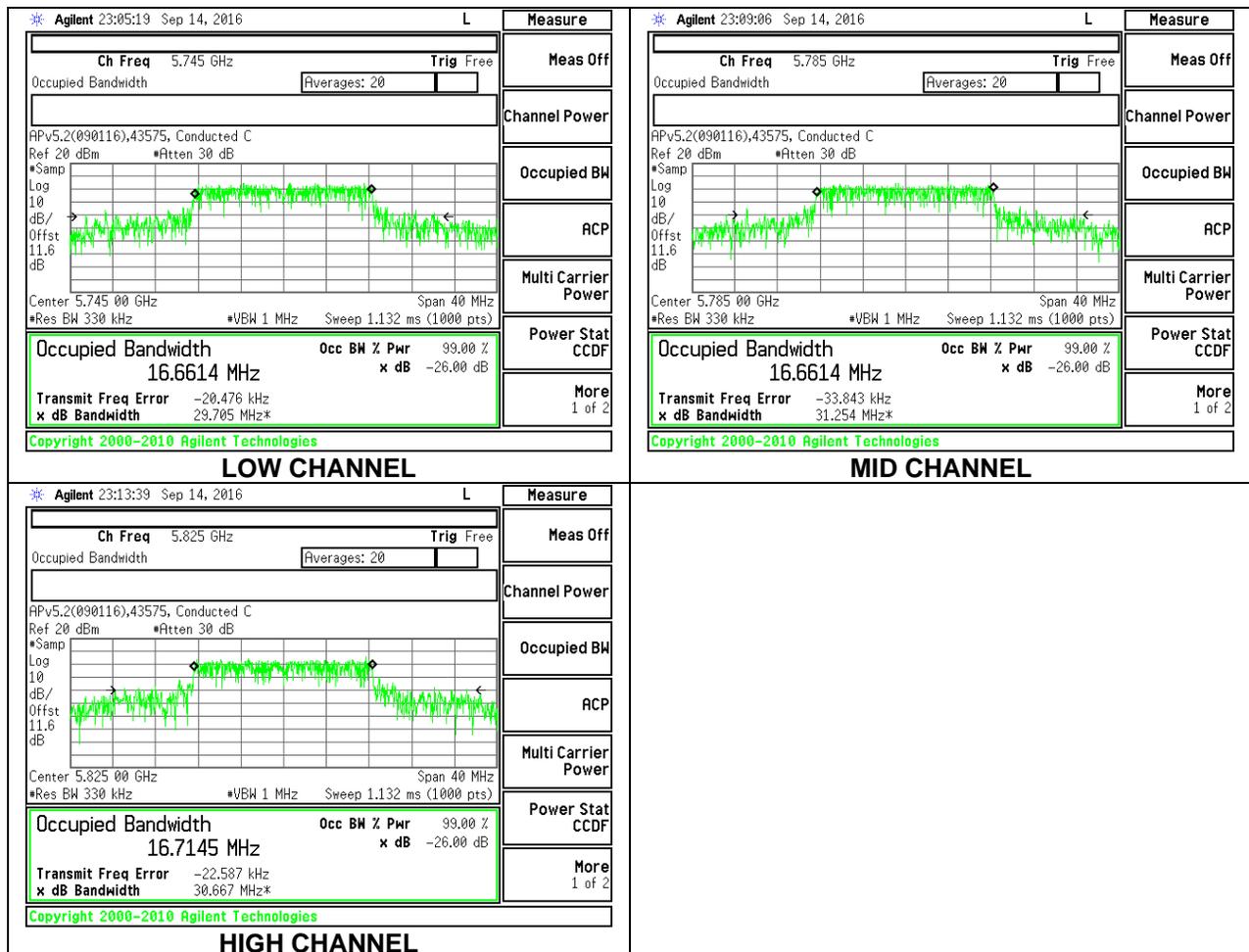
### 4.2.2. 99% BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	99% BW (MHz)
Low	5745	16.6614
Mid	5785	16.6614
High	5825	16.7145



### 4.2.1. OUTPUT POWER

#### LIMITS

FCC §15.407 (a) (3), IC RSS-247 6.2.4 (1)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

#### RESULTS

<b>ID:</b>	43575	<b>Date:</b>	9/14/2016
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##### Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)
Low	5745	3.75	30.00
Mid	5785	3.75	30.00
High	5825	3.75	30.00

##### Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	16.13	16.13	30.00	-13.87
Mid	5785	15.68	15.68	30.00	-14.32
High	5825	15.62	15.62	30.00	-14.38

**Note:** the power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

## 4.2.2. Maximum Power Spectral Density (PSD)

### LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

### RESULTS

<b>ID:</b>	43575	<b>Date:</b>	9/14/2016
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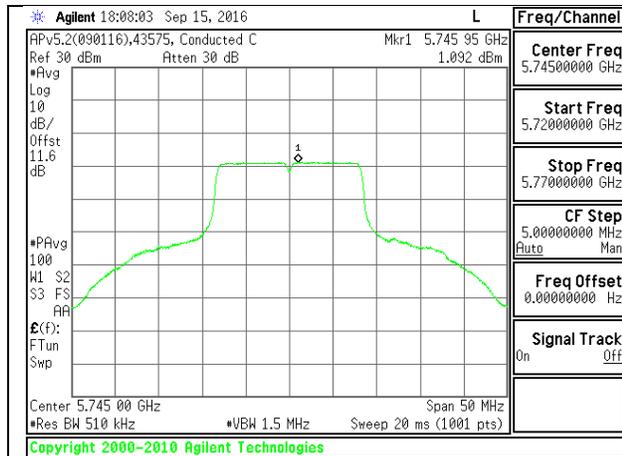
#### Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5745	3.75	30.00
Mid	5785	3.75	30.00
High	5825	3.75	30.00

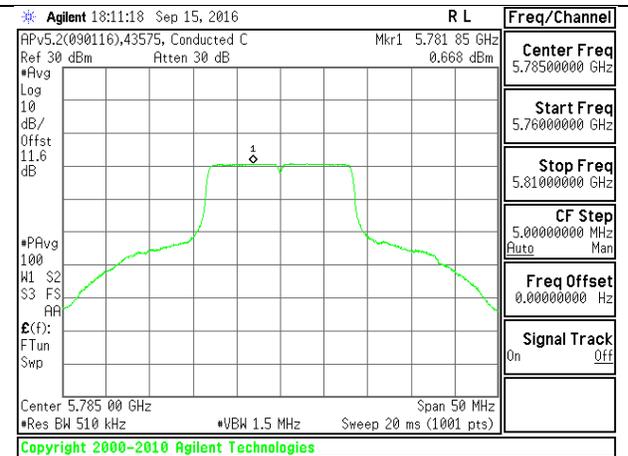
<b>Duty Cycle CF (dB)</b>	0.00	<b>Included in Calculations of Corr'd PSD</b>
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#### PSD Results

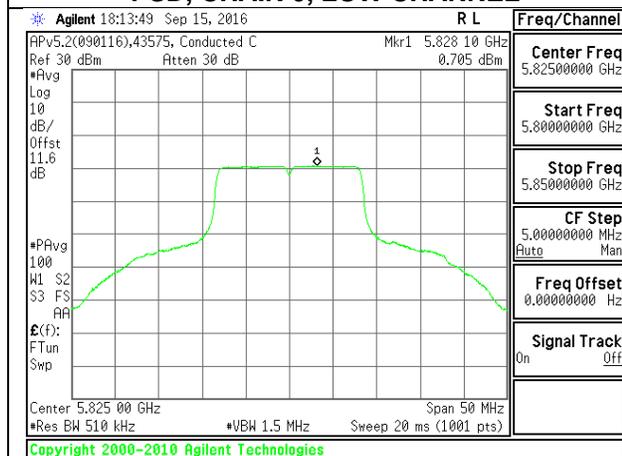
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	1.092	1.092	30.00	-28.91
Mid	5785	0.668	0.668	30.00	-29.33
High	5825	0.705	0.705	30.00	-29.30



**PSD, CHAIN 0, LOW CHANNEL**



**PSD, CHAIN 0, MID CHANNEL**



**PSD, CHAIN 0, HIGH CHANNEL**

### 4.3. 802.11n HT20 MODE IN THE 5.8 GHz BAND

#### 4.3.1. 6 dB BANDWIDTH

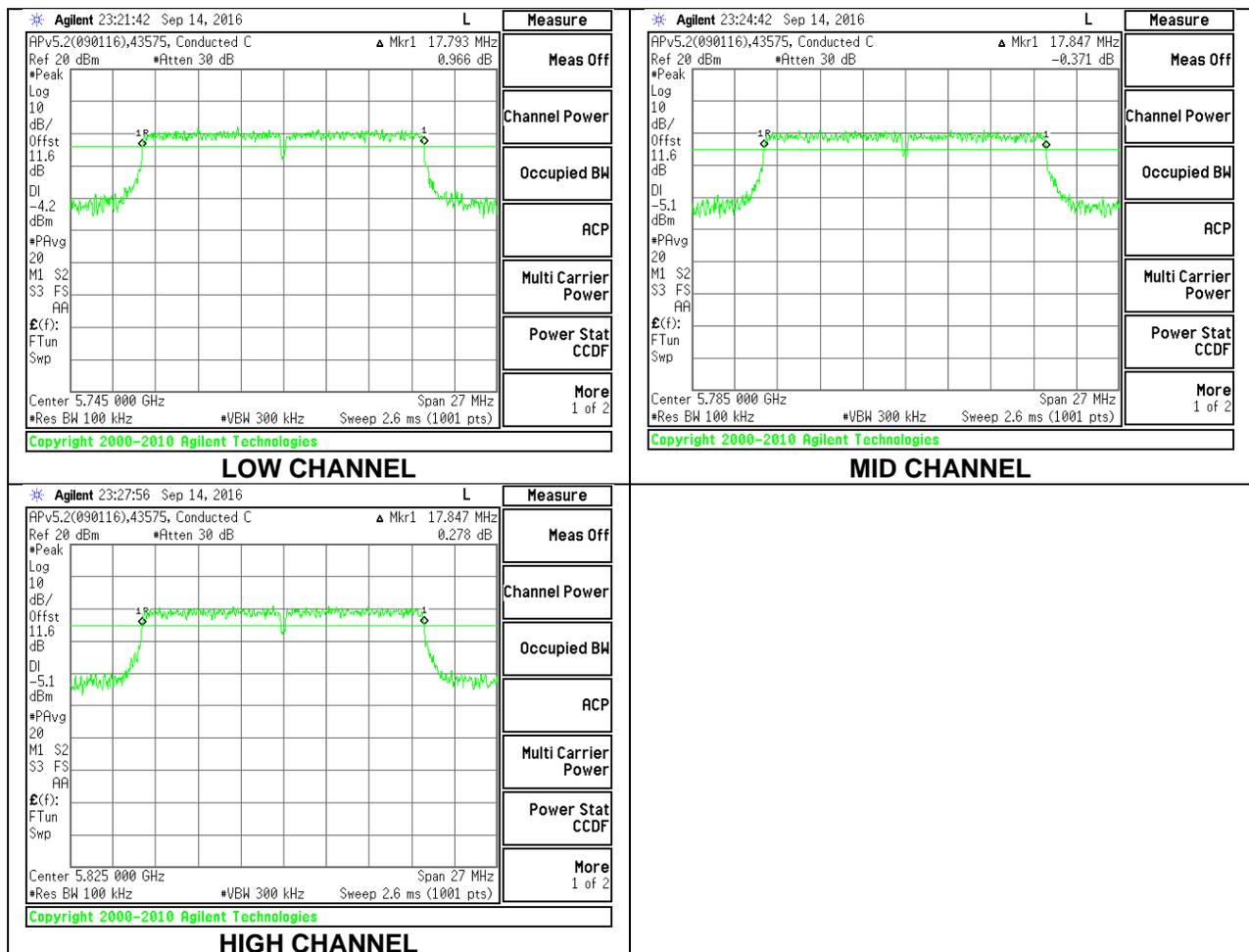
##### LIMITS

FCC §15.407 (e)

The minimum 6 dB bandwidth shall be at least 500 kHz.

##### RESULTS

Channel	Frequency (MHz)	6 dB BW (MHz)	Minimum Limit (MHz)
Low	5745	17.793	0.5
Mid	5785	17.847	0.5
High	5825	17.847	0.5



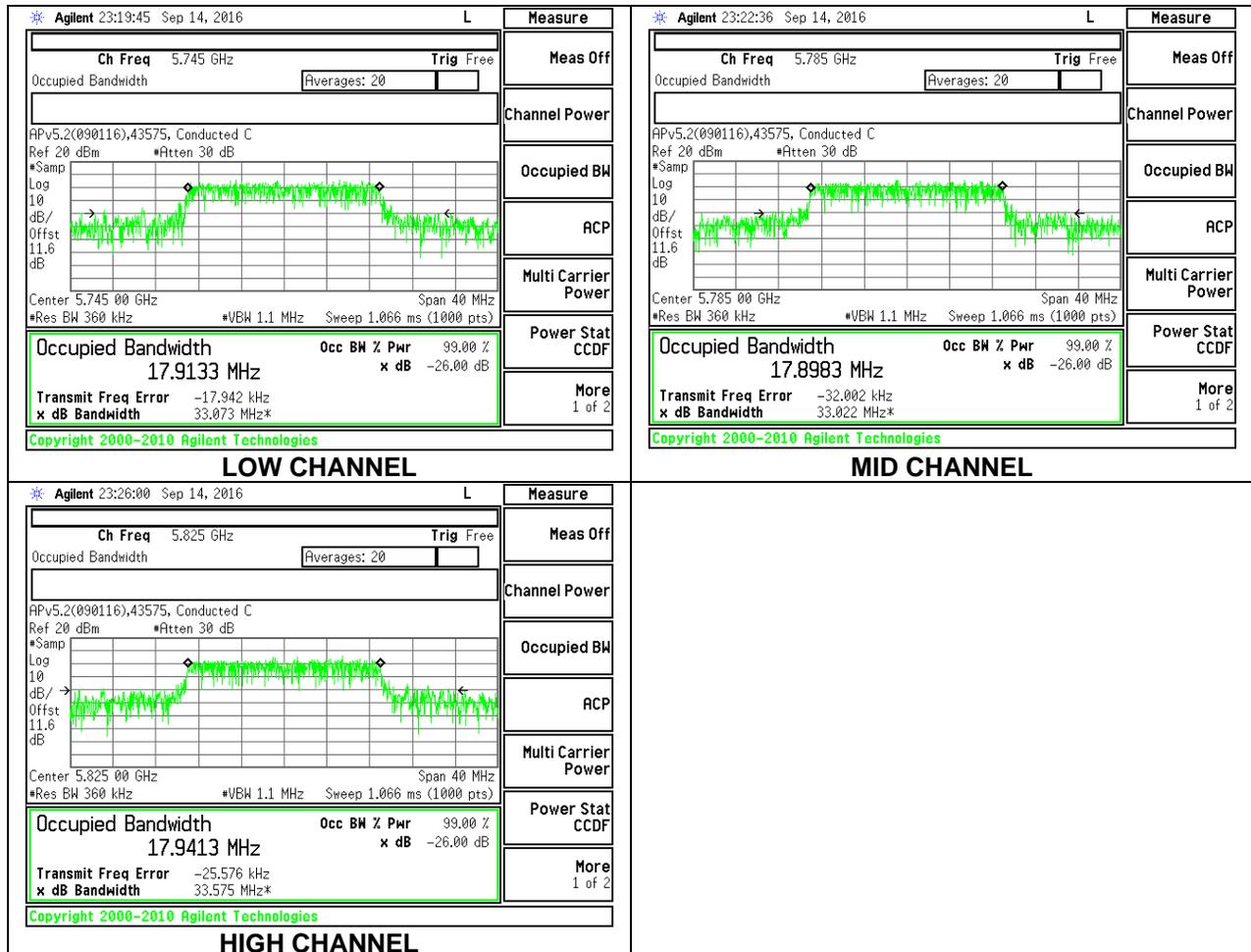
### 4.3.2. 99% BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	99% BW (MHz)
Low	5745	17.9133
Mid	5785	17.8983
High	5825	17.9413



### 4.3.3. OUTPUT POWER

#### LIMITS

FCC §15.407 (a) (3), IC RSS-247 6.2.4 (1)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

#### RESULTS

<b>ID:</b>	43575	<b>Date:</b>	9/14/2016
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##### Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)
Low	5745	3.75	30.00
Mid	5785	3.75	30.00
High	5825	3.75	30.00

##### Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	16.16	16.16	30.00	-13.84
Mid	5785	15.66	15.66	30.00	-14.34
High	5825	15.54	15.54	30.00	-14.46

**Note:** the power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

### 4.3.4. Maximum Power Spectral Density (PSD)

#### LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

#### RESULTS

<b>ID:</b>	43575	<b>Date:</b>	9/14/2016
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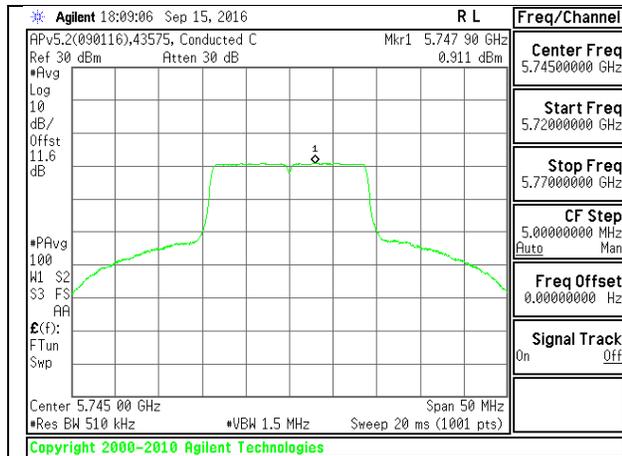
#### Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5745	3.75	30.00
Mid	5785	3.75	30.00
High	5825	3.75	30.00

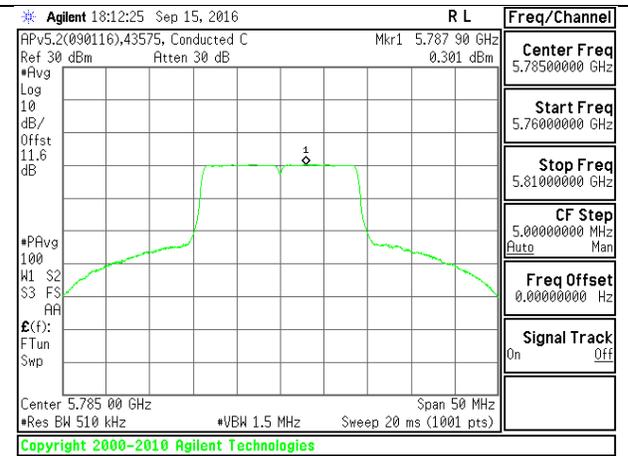
<b>Duty Cycle CF (dB)</b>	0.00	<b>Included in Calculations of Corr'd PSD</b>
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#### PSD Results

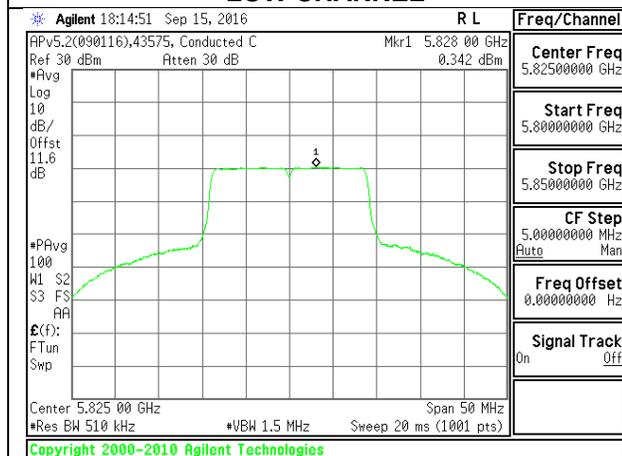
Channel	Frequency (MHz)	Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	0.911	0.911	30.00	-29.09
Mid	5785	0.301	0.301	30.00	-29.70
High	5825	0.342	0.342	30.00	-29.66



**LOW CHANNEL**



**MID CHANNEL**



**HIGH CHANNEL**

### 4.4. 802.11n HT40 MODE IN THE 5.8 GHz BAND

#### 4.4.1. 6 dB BANDWIDTH

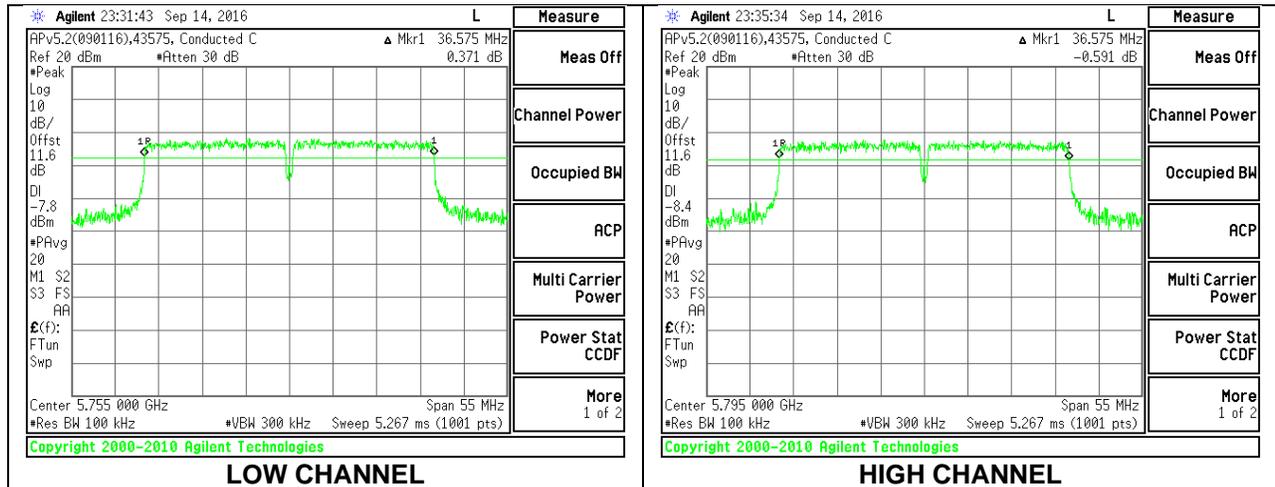
##### LIMITS

FCC §15.407 (e)

The minimum 6 dB bandwidth shall be at least 500 kHz.

##### RESULTS

Channel	Frequency (MHz)	6 dB BW (MHz)	Minimum Limit (MHz)
Low	5755	36.575	0.5
High	5795	36.575	0.5



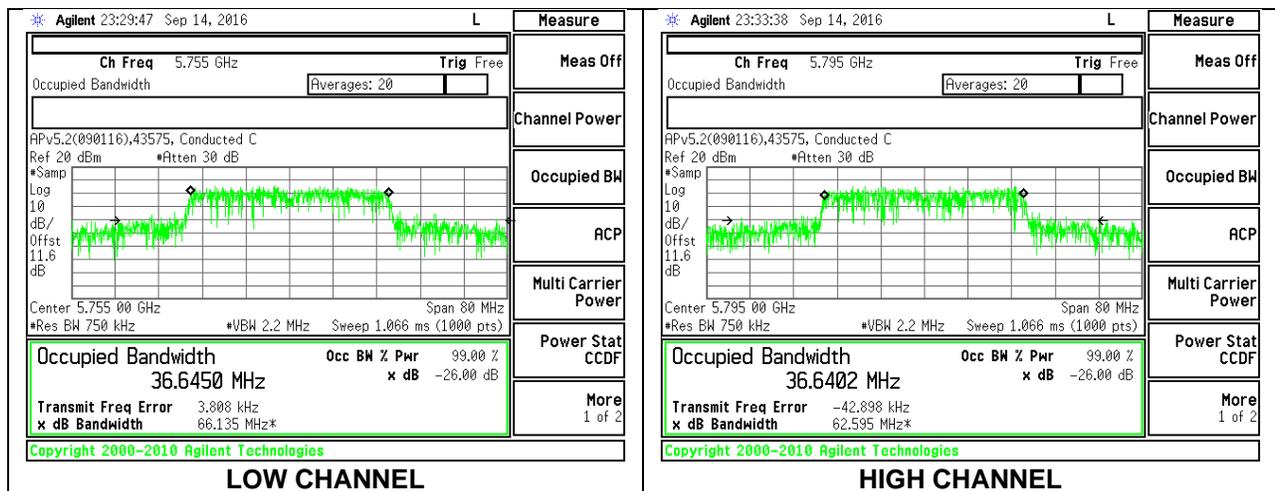
### 4.4.2. 99% BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	99% BW (MHz)
Low	5755	36.6450
High	5795	36.6402



### 4.4.3. OUTPUT POWER

#### LIMITS

FCC §15.407 (a) (3), IC RSS-247 6.2.4 (1)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

#### RESULTS

<b>ID:</b>	43575	<b>Date:</b>	9/14/2016
------------	-------	--------------	-----------

#### Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)
Low	5755	3.75	30.00
High	5795	3.75	30.00

#### Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	14.58	14.58	30.00	-15.42
High	5795	15.39	15.39	30.00	-14.61

**Note:** the power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

#### 4.4.4. Maximum Power Spectral Density (PSD)

##### LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

##### DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

##### RESULTS

<b>ID:</b>	43575	<b>Date:</b>	9/14/2016
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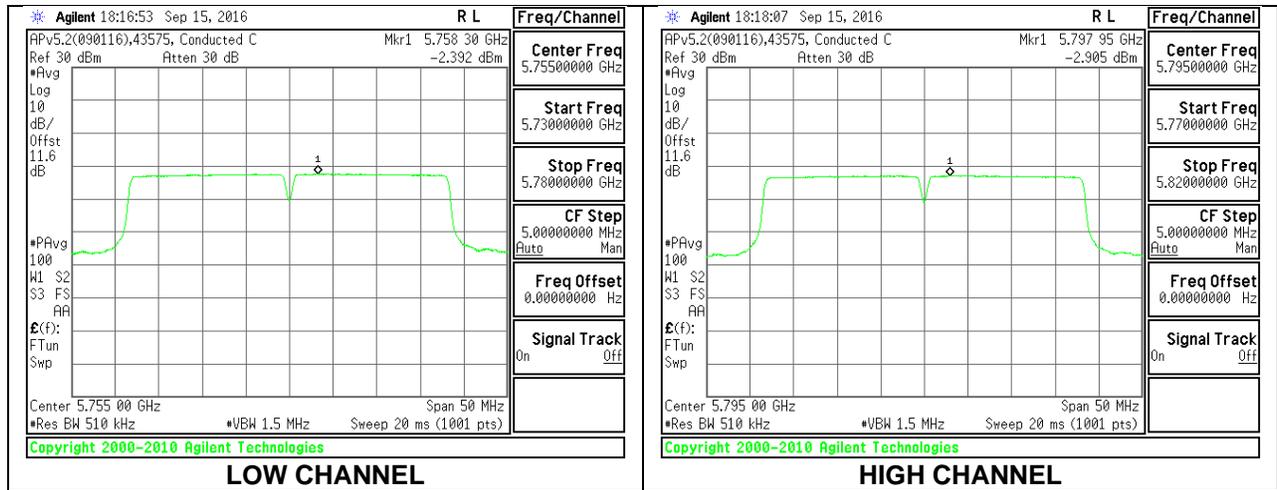
##### Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5755	3.75	30.00
High	5795	3.75	30.00

<b>Duty Cycle CF (dB)</b>	0.00	<b>Included in Calculations of Corr'd PSD</b>
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##### PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5755	-2.392	-2.392	30.00	-32.39
High	5795	-2.905	-2.905	30.00	-32.91



## 5. RADIATED TEST RESULTS

### 5.1. LIMITS AND PROCEDURE

#### LIMITS

FCC §15.205 and §15.209  
RSS Gen

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
0.009-0.490	2400/F(kHz) @ 300m	2400/F(kHz) @ 300m
0.490-1.705	24000/F(kHz) @ 30m	24000/F(kHz) @ 30m
1.705-30.0	30 @ 30m	30 @ 30m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

**NOTE: KDB 937606 OATS and Chamber Correlation Justification**

- Based on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.
- OATs and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

#### TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 120 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements for the 30-1000 MHz range, 9 kHz for peak detection measurements or 9 kHz for quasi-peak detection measurements for the 0.15-30 MHz range and 200 Hz for peak detection measurements or 200 Hz for quasi-peak detection measurements for the 9 to 150 kHz range. Peak detection is used unless otherwise noted as quasi-peak.

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

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

Below 1G and 18-26GHz radiated emission tests were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

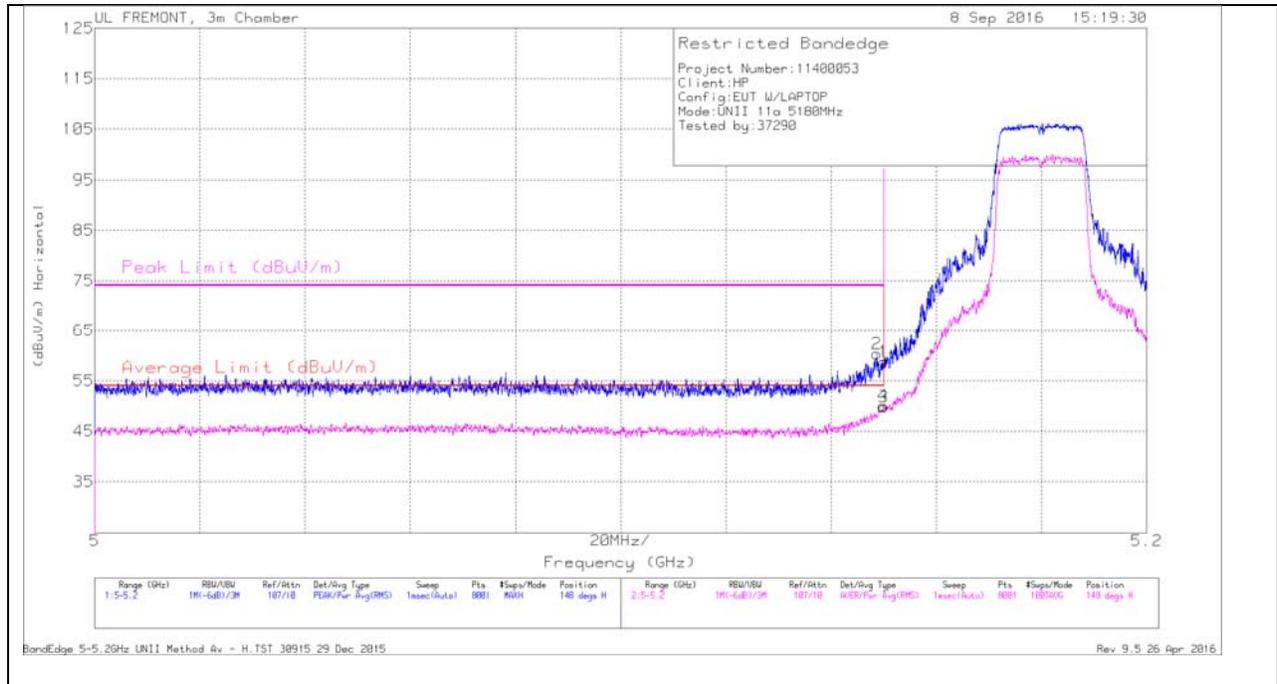
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

## 5.2. TRANSMITTER ABOVE 1 GHz

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

#### RESTRICTED BANDEDGE (LOW CHANNEL)

#### HORIZONTAL RESULTS

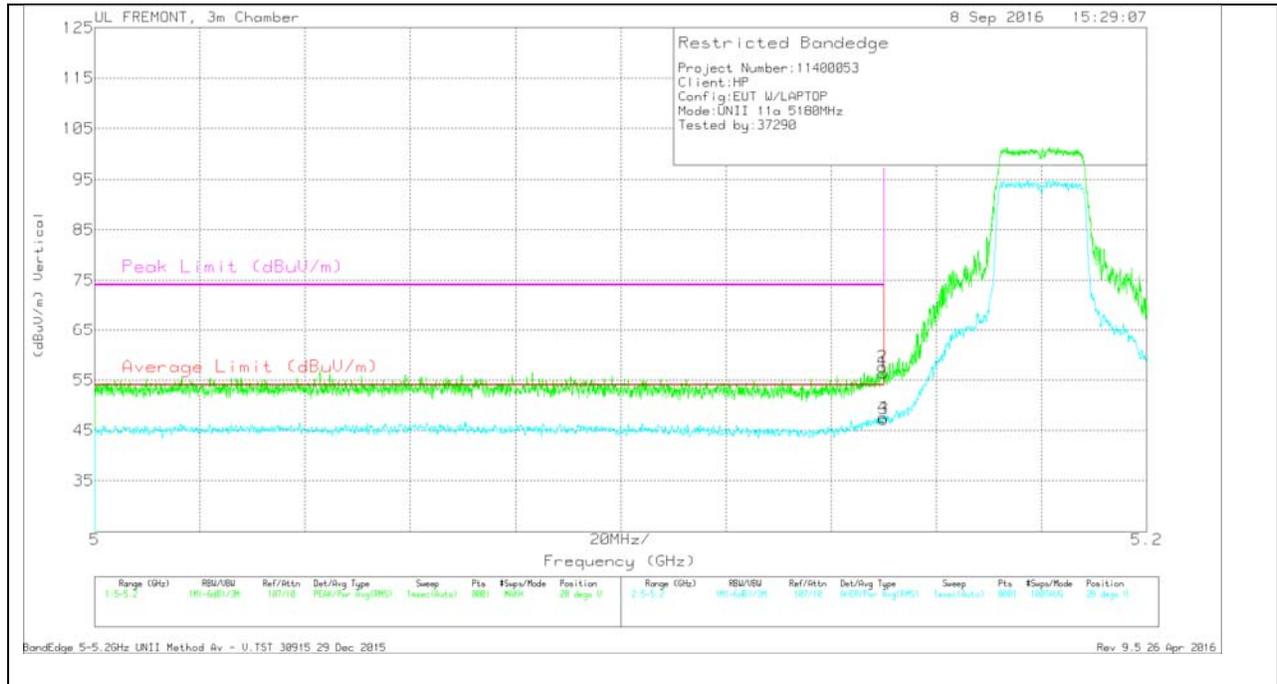


#### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/Fitr/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.149	45.07	Pk	34.3	-19	60.37	-	-	74	-13.63	148	399	H
1	5.15	43.4	Pk	34.3	-19	58.7	-	-	74	-15.3	148	399	H
3	5.15	34.5	RMS	34.3	-19	49.8	54	-4.2	-	-	148	399	H
4	5.15	34.73	RMS	34.3	-19	50.03	54	-3.97	-	-	148	399	H

Pk - Peak detector  
 RMS - RMS detection

### VERTICAL RESULTS



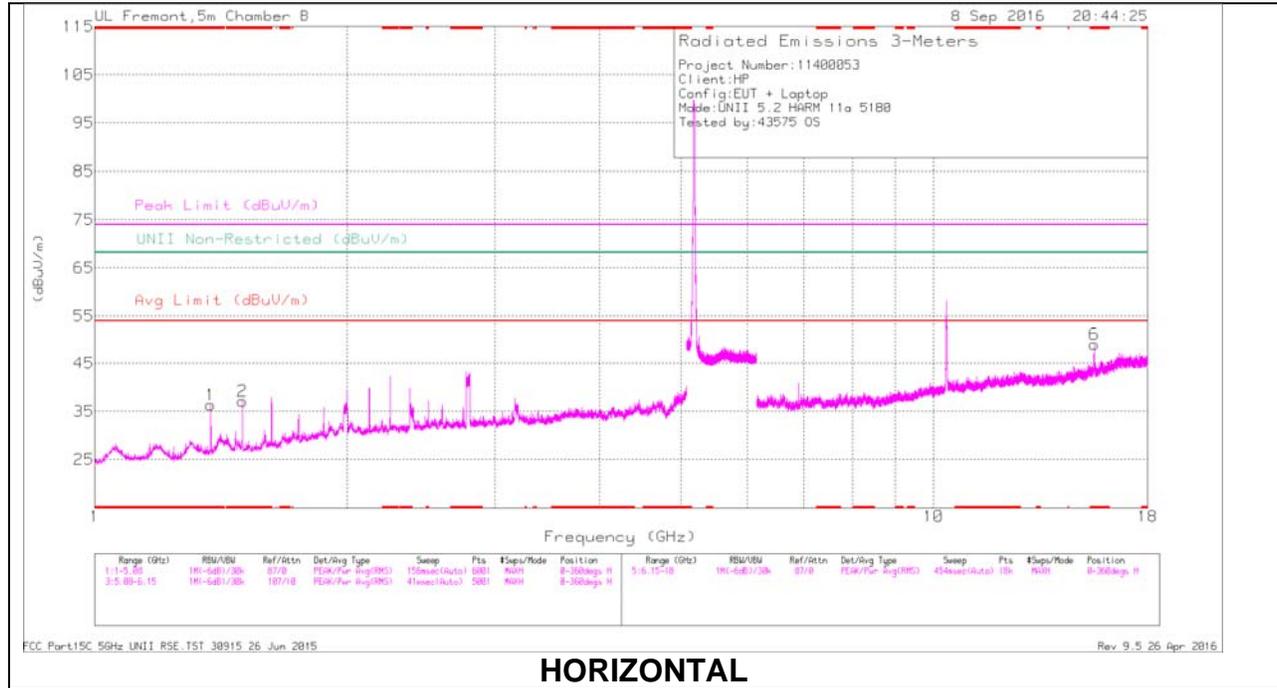
### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.15	41.05	Pk	34.3	-19	56.35	-	-	74	-17.65	28	399	V
2	5.15	42.3	Pk	34.3	-19	57.6	-	-	74	-16.4	28	399	V
3	5.15	31.95	RMS	34.3	-19	47.25	54	-6.75	-	-	28	399	V
4	5.15	32.25	RMS	34.3	-19	47.55	54	-6.45	-	-	28	399	V

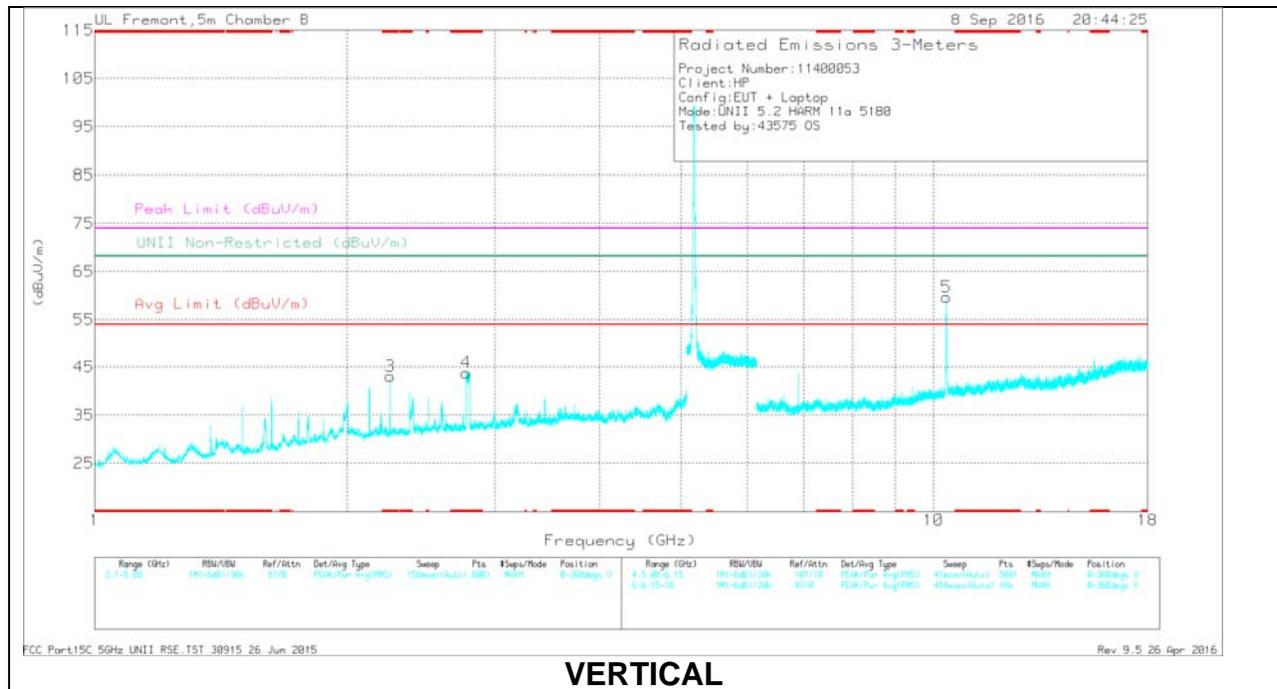
Pk - Peak detector  
 RMS - RMS detection

**HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL RESULTS**



**HORIZONTAL**



**VERTICAL**

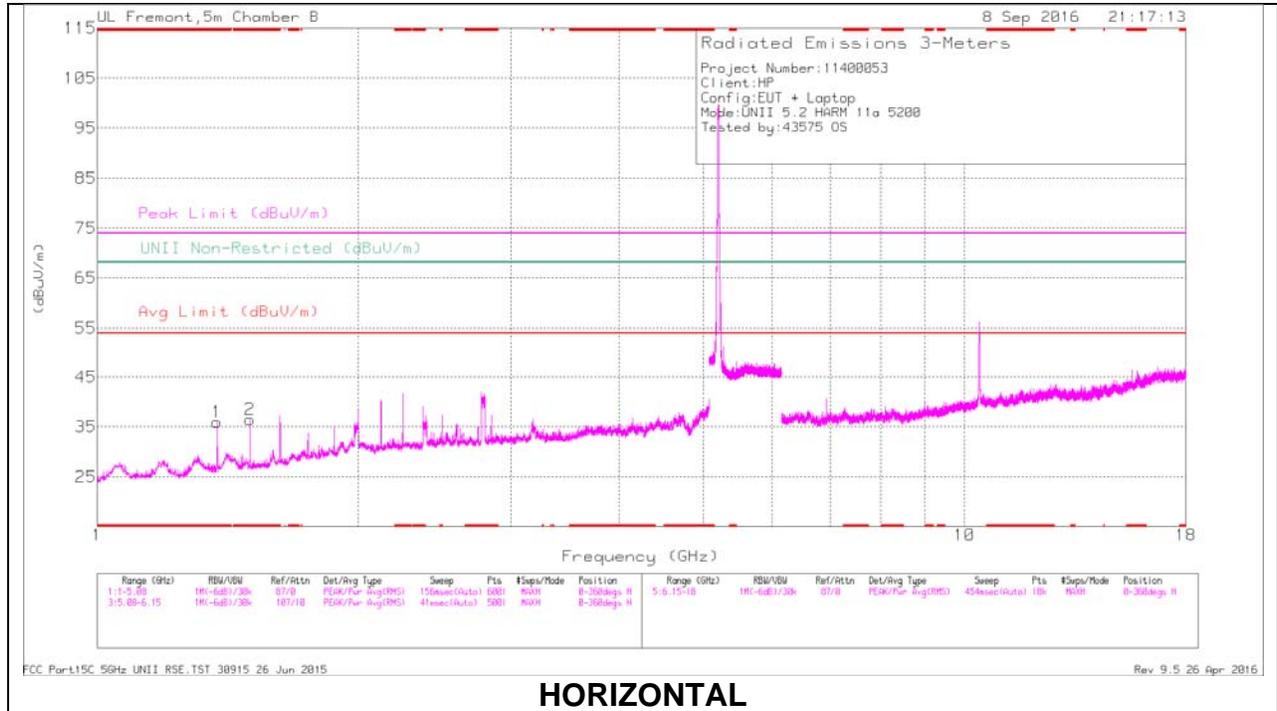
## LOW CHANNEL DATA

### Trace Markers

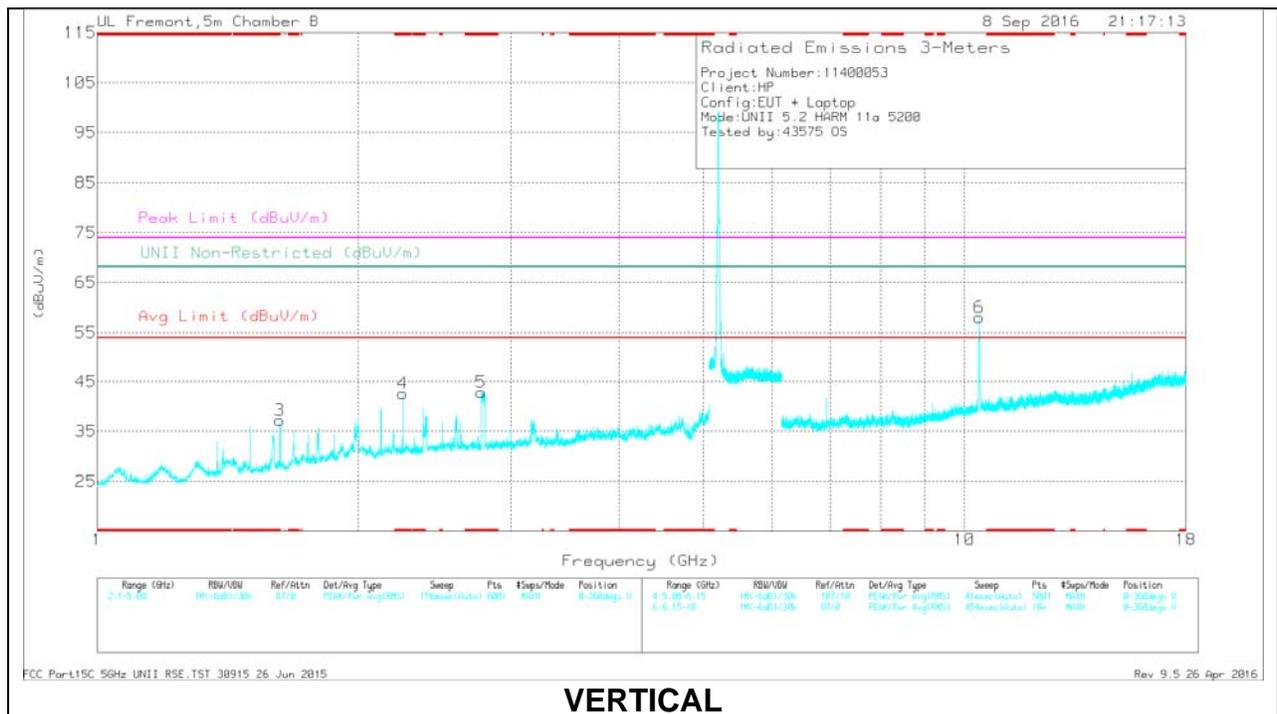
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dBm)	Amp/Cbi/Frr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.375	47.78	PK-U	28.9	-35.1	0	47.58	-	-	74	-32.42	-	-	200	229	H
	* 1.375	41.57	ADR	28.9	-35.1	0	35.37	54	-18.63	-	-	-	-	200	229	H
2	* 1.5	49.74	PK-U	27.8	-35.6	0	41.94	-	-	74	-32.06	-	-	182	282	H
	* 1.5	43.23	ADR	27.8	-35.6	0	35.43	54	-18.57	-	-	-	-	182	282	H
3	* 2.25	51.11	PK-U	31.5	-34.1	0	48.51	-	-	74	-25.49	-	-	109	237	V
	* 2.25	45.79	ADR	31.5	-34.1	0	43.19	54	-10.81	-	-	-	-	109	237	V
4	* 2.772	52.15	PK-U	32.4	-34.4	0	50.15	-	-	74	-23.85	-	-	304	251	V
	* 2.773	38.06	ADR	32.4	-34.4	0	36.06	54	-17.94	-	-	-	-	304	251	V
6	* 15.536	39.01	PK-U	40.2	-24.1	0	55.11	-	-	74	-18.89	-	-	263	191	H
	* 15.539	28.67	ADR	40.2	-24	0	44.87	54	-9.13	-	-	-	-	263	191	H
5	10.353	54.72	PK-U	37.6	-26.1	0	66.22	-	-	-	-	68.2	-1.98	179	218	V

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 Pk - Peak detector  
 ADR - U-NII AD primary method, RMS average

### MID CHANNEL RESULTS



### HORIZONTAL



### VERTICAL

### MID CHANNEL DATA

#### Trace Markers

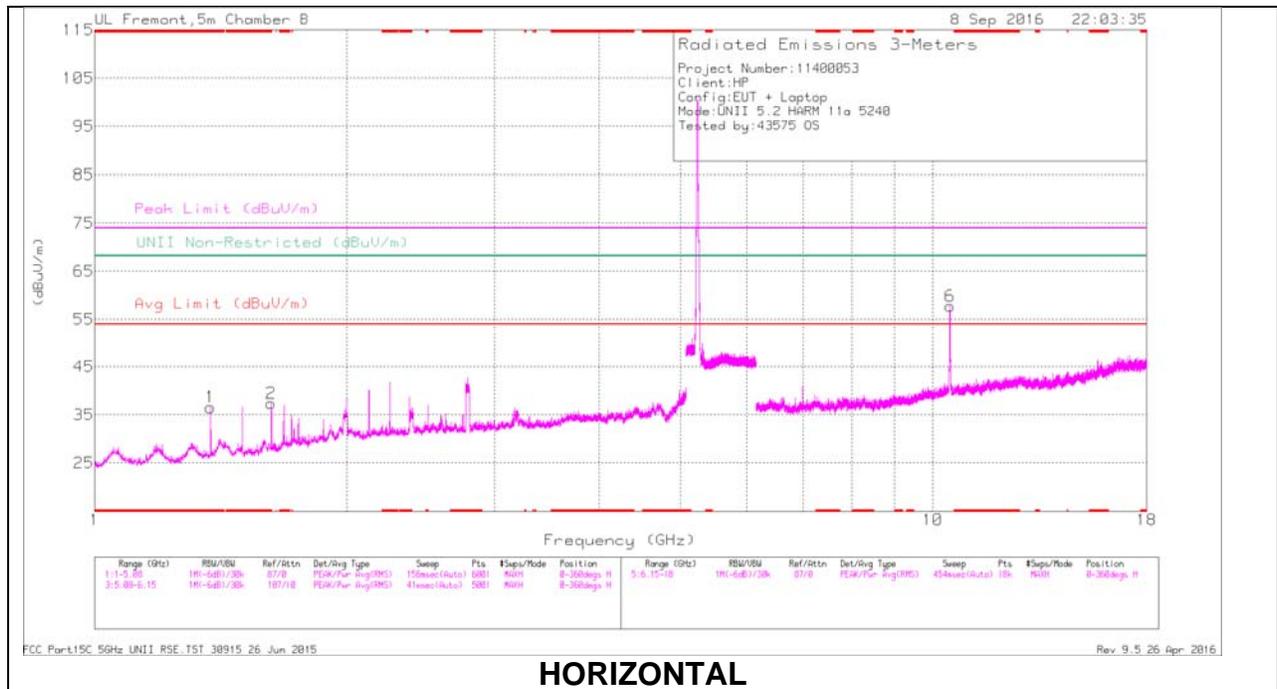
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF1345 (dB/m)	Amp/CS/FHz/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.375	46.89	PK-U	28.9	-35.1	0	40.59	-	-	74	-33.31	-	-	194	234	H
	* 1.375	41.56	ADR	28.9	-35.1	0	35.36	54	-18.64	-	-	-	-	194	234	H
2	* 1.5	49.67	PK-U	27.8	-35.6	0	41.87	-	-	74	-32.13	-	-	180	257	H
	* 1.5	43.39	ADR	27.8	-35.6	0	35.59	54	-18.41	-	-	-	-	180	257	H
3	* 1.625	50.03	PK-U	28.4	-34.7	0	43.73	-	-	74	-30.27	-	-	48	343	V
	* 1.625	44.3	ADR	28.4	-34.7	0	38	54	-16	-	-	-	-	48	343	V
4	* 2.25	50.9	PK-U	31.5	-34.1	0	48.3	-	-	74	-25.7	-	-	109	239	V
	* 2.25	45.85	ADR	31.5	-34.1	0	43.25	54	-10.75	-	-	-	-	109	239	V
5	* 2.774	51.04	PK-U	32.4	-34.4	0	49.04	-	-	74	-24.96	-	-	53	102	V
	* 2.774	37.44	ADR	32.4	-34.4	0	35.44	54	-18.56	-	-	-	-	53	102	V
6	10.393	54.16	PK-U	37.6	-25.5	0	66.26	-	-	-	-	68.2	-1.94	180	209	V

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

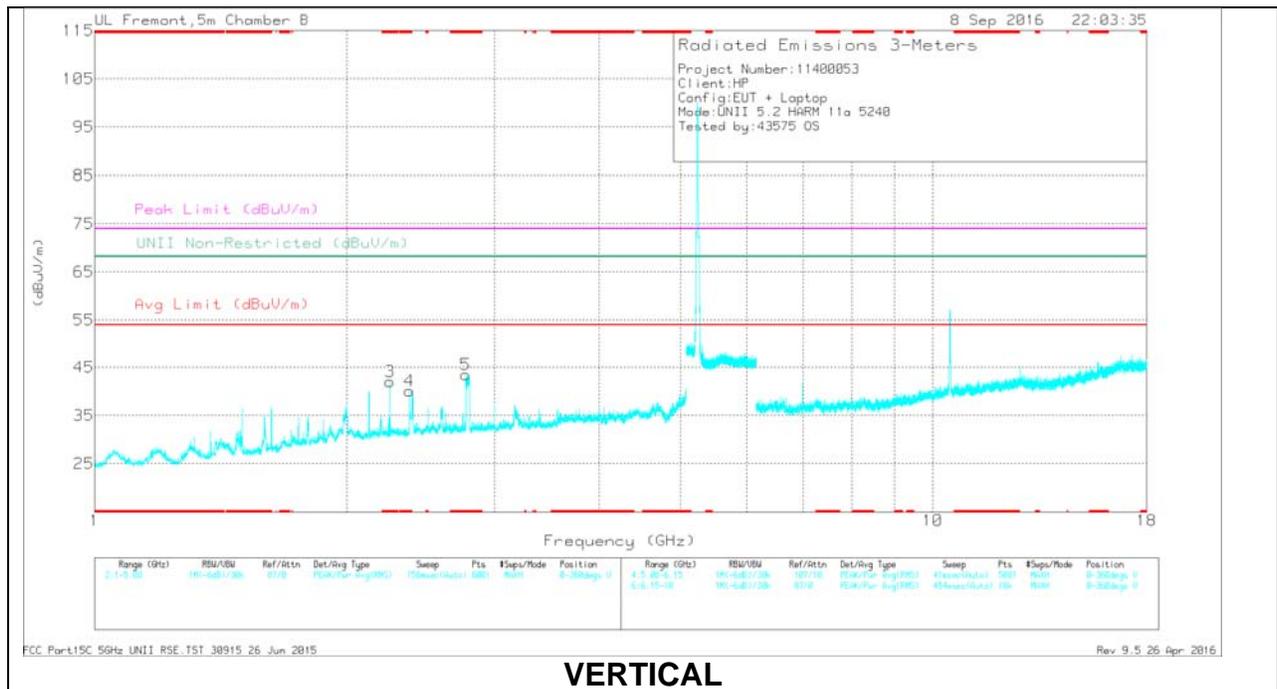
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### HIGH CHANNEL RESULTS



**HORIZONTAL**



**VERTICAL**

## HIGH CHANNEL DATA

### Trace Markers

Marker	Frequenc y (GHz)	Meter Reading (dBm)	Det	AF T345 (dBm)	Amp/CbfFtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBm)	Avg Limit (dBm)	Margin (dB)	Peak Limit (dBm)	PK Margin (dB)	UNII Non- Restricted (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.375	46.94	PK-U	28.9	-35.1	0	40.74	-	-	74	-33.26	-	-	193	232	H
	* 1.375	41.56	ADR	28.9	-35.1	0	35.36	54	-18.64	-	-	-	-	193	232	H
2	* 1.625	48.92	PK-U	28.4	-34.7	0	42.62	-	-	74	-31.38	-	-	90	357	H
	* 1.625	43.67	ADR	28.4	-34.7	0	37.57	54	-16.63	-	-	-	-	90	357	H
3	* 2.25	50.88	PK-U	31.5	-34.1	0	43.28	-	-	74	-25.72	-	-	108	212	V
	* 2.25	45.72	ADR	31.5	-34.1	0	43.12	54	-10.88	-	-	-	-	108	212	V
4	* 2.375	49.09	PK-U	32	-34.4	0	46.69	-	-	74	-27.31	-	-	315	225	V
	* 2.375	40.67	ADR	32	-34.4	0	38.27	54	-15.73	-	-	-	-	315	225	V
5	* 2.772	50.51	PK-U	32.4	-34.4	0	48.51	-	-	74	-25.49	-	-	55	119	V
	* 2.773	36.93	ADR	32.4	-34.4	0	34.93	54	-19.07	-	-	-	-	55	119	V
6	10.482	54.01	PK-U	37.7	-25.8	0	65.91	-	-	-	-	68.2	-2.29	268	231	H

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

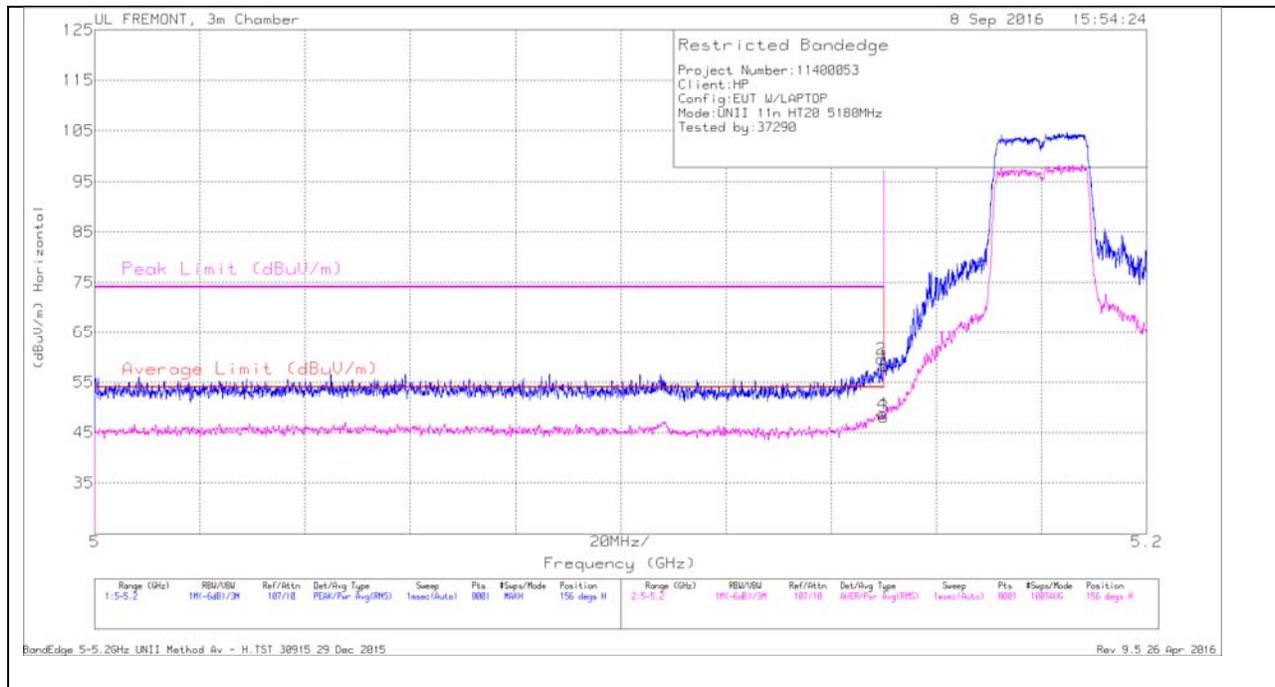
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### 5.2.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND

#### RESTRICTED BANDEDGE (LOW CHANNEL)

#### HORIZONTAL RESULTS

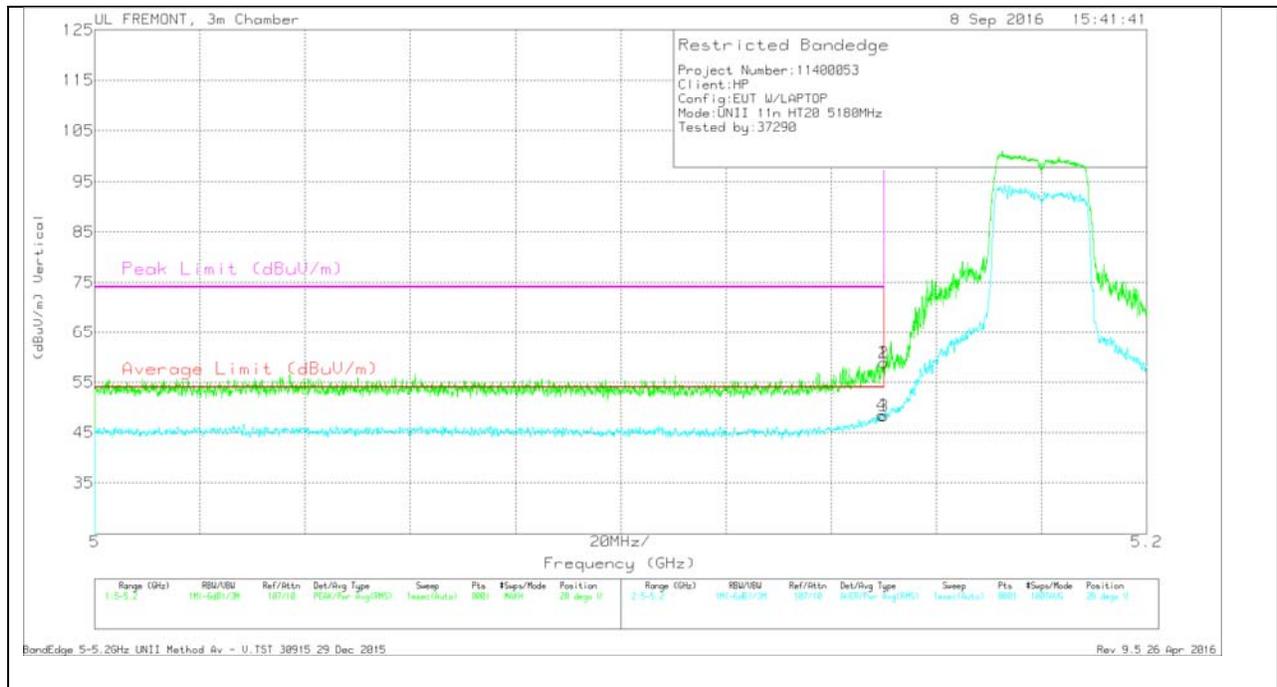


#### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbi/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.15	42.92	Pk	34.3	-19	58.22	-	-	74	-15.78	156	339	H
2	5.15	44.27	Pk	34.3	-19	59.57	-	-	74	-14.43	156	339	H
3	5.15	32.82	RMS	34.3	-19	48.12	54	-5.88	-	-	156	339	H
4	5.15	33.4	RMS	34.3	-19	48.7	54	-5.3	-	-	156	339	H

Pk - Peak detector  
 RMS - RMS detection

### VERTICAL RESULTS



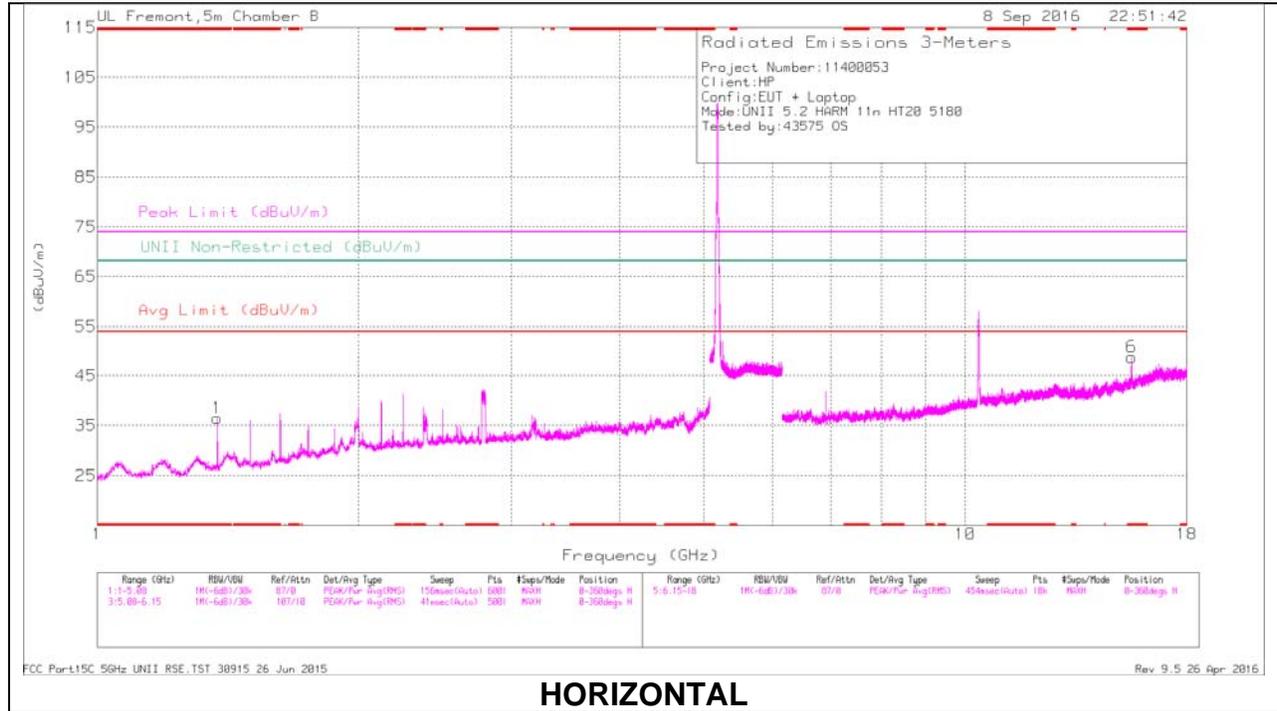
### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbi/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.15	43.54	Pk	34.3	-19	58.84	-	-	74	-15.16	28	362	V
2	5.15	43.52	Pk	34.3	-19	58.82	-	-	-	-	28	362	V
3	5.15	32.97	RMS	34.3	-19	48.27	54	-5.73	-	-	28	362	V
4	5.15	33.16	RMS	34.3	-19	48.46	54	-5.54	-	-	28	362	V

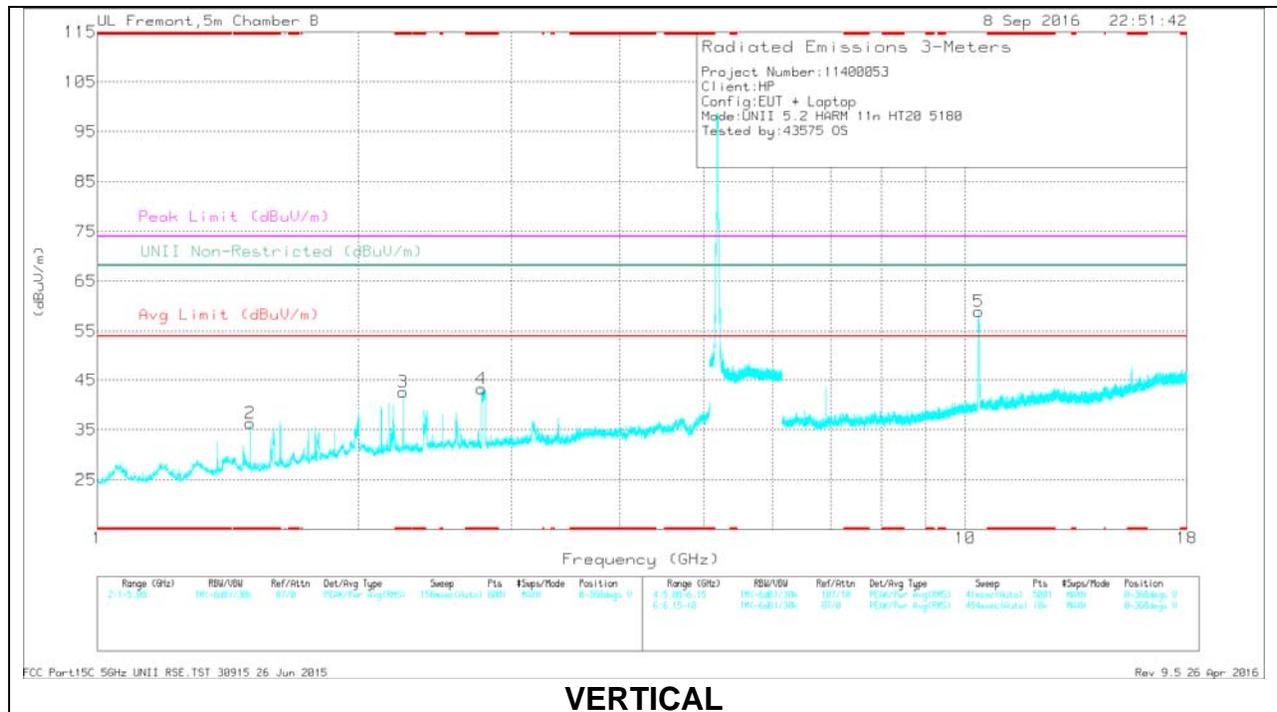
Pk - Peak detector  
 RMS - RMS detection

**HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL RESULTS**



**HORIZONTAL**



**VERTICAL**

## LOW CHANNEL DATA

### Trace Markers

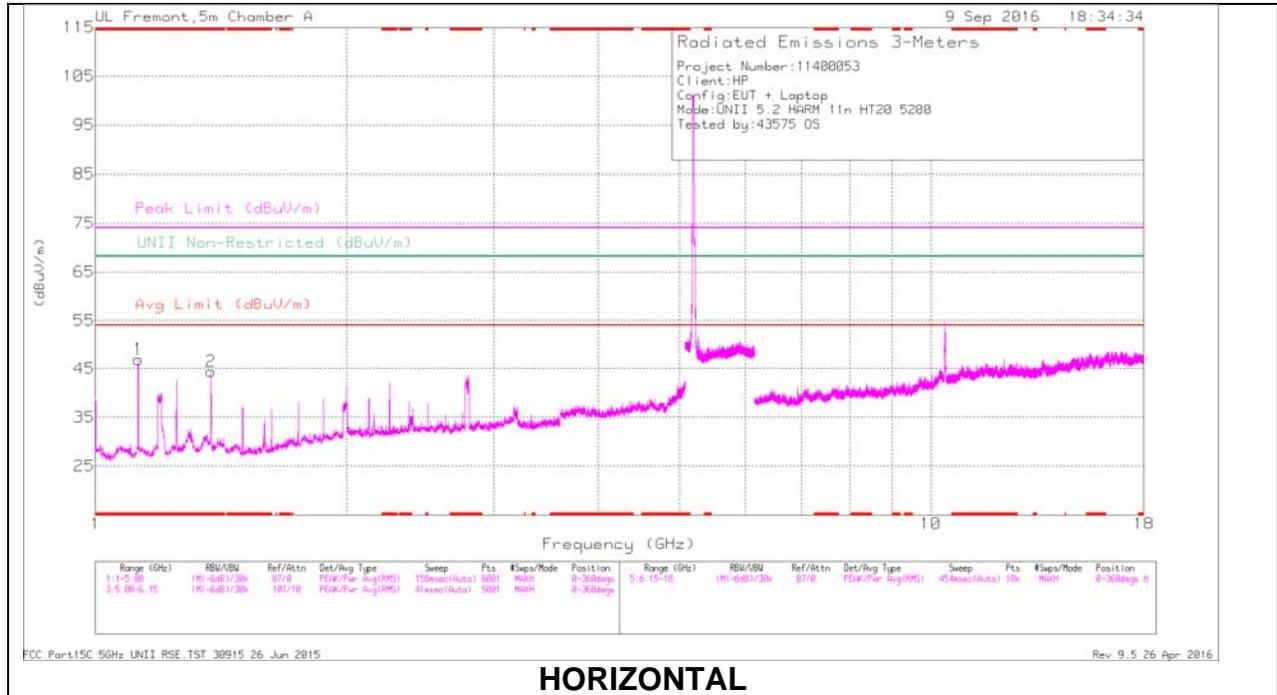
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dBm)	AmpCblFtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.375	46.92	PK-U	28.9	-35.1	0	40.72	-	-	74	-33.28	-	-	197	231	H
	* 1.375	41.48	ADR	28.9	-35.1	0	35.28	54	-18.72	-	-	-	-	197	231	H
2	* 1.5	48.75	PK-U	27.8	-35.6	0	40.95	-	-	74	-33.05	-	-	60	102	V
	* 1.5	42.3	ADR	27.8	-35.6	0	34.5	54	-19.5	-	-	-	-	60	102	V
3	* 2.25	50.33	PK-U	31.5	-34.1	0	47.73	-	-	74	-26.27	-	-	105	211	V
	* 2.25	45.39	ADR	31.5	-34.1	0	42.79	54	-11.21	-	-	-	-	105	211	V
4	* 2.773	51.67	PK-U	32.4	-34.4	0	49.67	-	-	74	-24.33	-	-	292	244	V
	* 2.773	38.15	ADR	32.4	-34.4	0	36.15	54	-17.85	-	-	-	-	292	244	V
6	* 15.537	39.97	PK-U	40.2	-24.1	0	56.07	-	-	74	-17.93	-	-	263	199	H
	* 15.539	27.77	ADR	40.2	-24	0	43.97	54	-10.03	-	-	-	-	263	199	H
5	10.359	54.8	PK-U	37.6	-26	0	66.4	-	-	-	-	68.2	-1.8	179	198	V

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

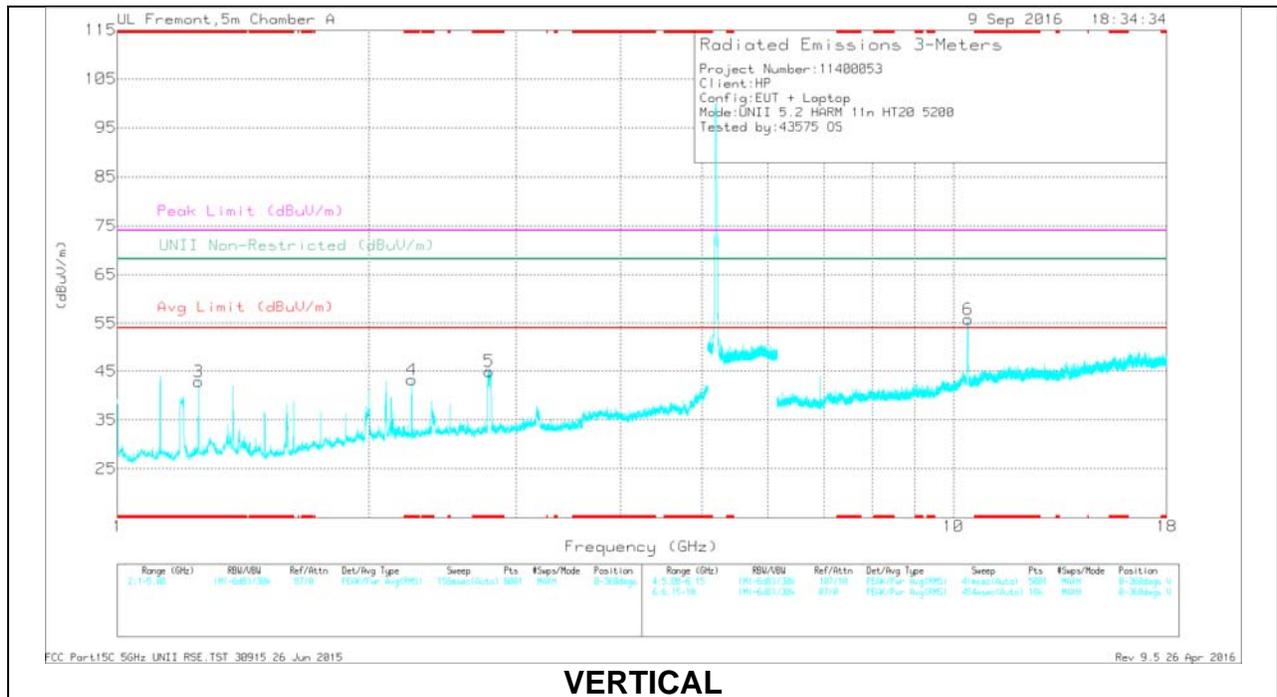
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### MID CHANNEL RESULTS



### HORIZONTAL



### VERTICAL

**MID CHANNEL DATA**

Trace Markers

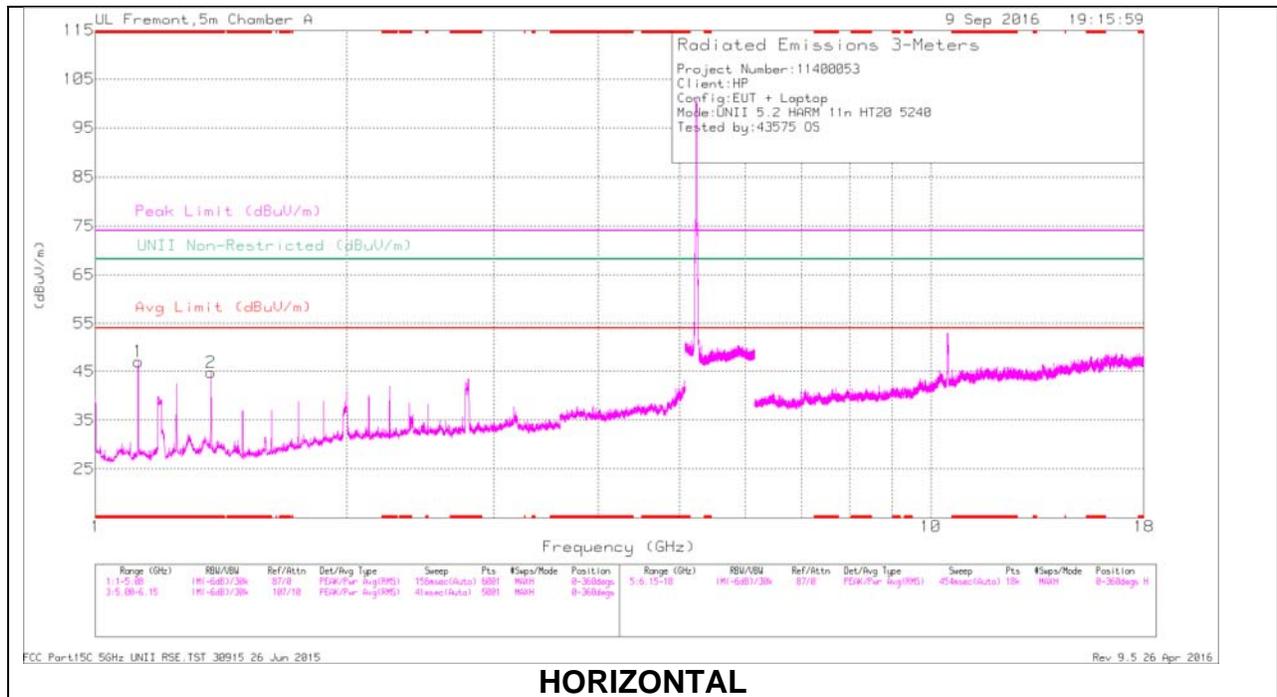
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Ftr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.125	56	PK-U	27.9	-33.8	50.1	-	-	74	-23.9	-	-	208	190	H
	* 1.125	52.13	ADR	27.9	-33.8	46.23	54	-7.77	-	-	-	-	208	190	H
2	* 1.375	53.09	PK-U	29	-33.4	48.69	-	-	74	-25.31	-	-	160	183	H
	* 1.375	49.3	ADR	29	-33.4	44.9	54	-9.1	-	-	-	-	160	183	H
3	* 1.25	53	PK-U	28.6	-34.3	47.3	-	-	74	-26.7	-	-	332	285	V
	* 1.25	48.59	ADR	28.6	-34.3	42.89	54	-11.11	-	-	-	-	332	285	V
4	* 2.25	49.62	PK-U	31.8	-33	48.42	-	-	74	-25.58	-	-	251	288	V
	* 2.25	44.47	ADR	31.8	-33	43.27	54	-10.73	-	-	-	-	251	288	V
5	* 2.785	51.57	PK-U	32.6	-31.9	52.27	-	-	74	-21.73	-	-	289	272	V
	* 2.782	37.84	ADR	32.6	-31.9	38.54	54	-15.46	-	-	-	-	289	272	V
6	10.407	48.62	PK-U	37.4	-20.8	65.22	-	-	-	-	68.2	-2.98	173	222	V

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

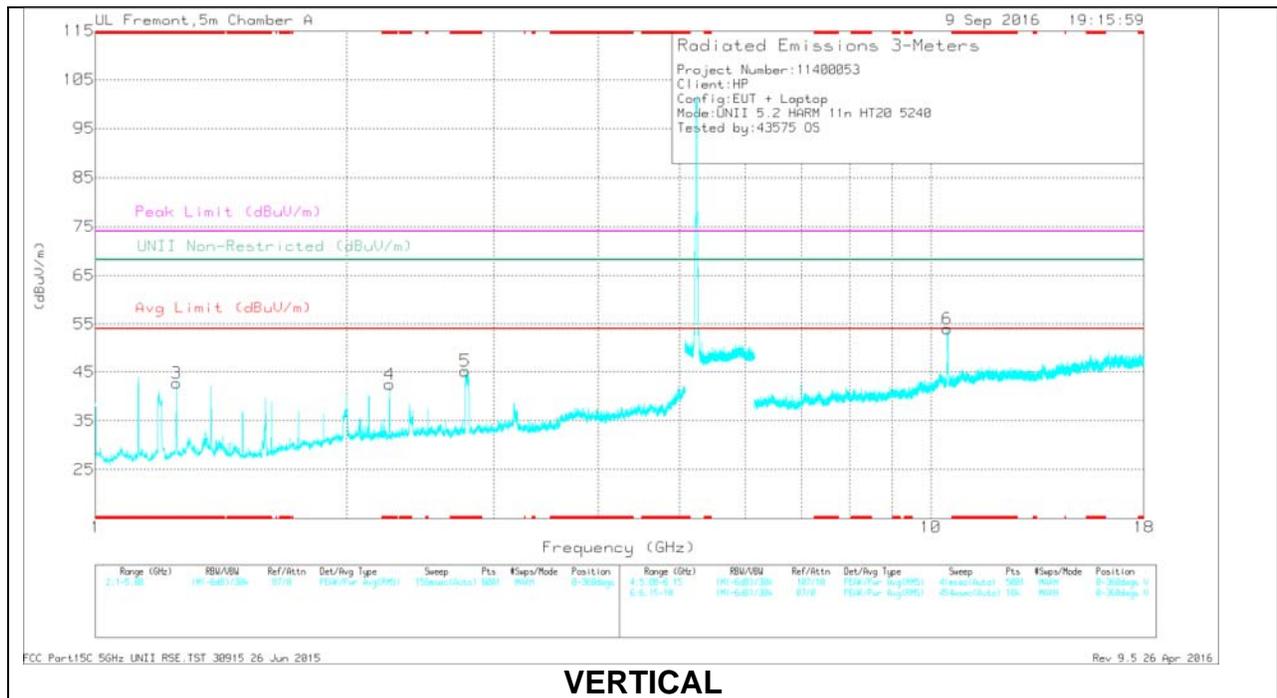
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### HIGH CHANNEL RESULTS



**HORIZONTAL**



**VERTICAL**

## HIGH CHANNEL DATA

### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cb/Fir/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.125	55.69	PK-U	27.9	-33.8	49.79	-	-	74	-24.21	-	-	210	191	H
	* 1.125	52.18	ADR	27.9	-33.8	46.28	54	-7.72	-	-	-	-	210	191	H
2	* 1.375	53.04	PK-U	29	-33.4	48.64	-	-	74	-25.36	-	-	158	184	H
	* 1.375	49.35	ADR	29	-33.4	44.95	54	-9.05	-	-	-	-	158	184	H
3	* 1.25	53	PK-U	28.6	-34.3	47.3	-	-	74	-26.7	-	-	329	280	V
	* 1.25	48.84	ADR	28.6	-34.3	43.14	54	-10.86	-	-	-	-	329	280	V
4	* 2.25	49.49	PK-U	31.8	-33	48.29	-	-	74	-25.71	-	-	253	287	V
	* 2.25	44.96	ADR	31.8	-33	43.76	54	-10.24	-	-	-	-	253	287	V
5	* 2.771	52.77	PK-U	32.6	-32	53.37	-	-	74	-20.63	-	-	292	252	V
	* 2.773	39.27	ADR	32.6	-32	39.87	54	-14.13	-	-	-	-	292	252	V
6	10.47	47.53	PK-U	37.5	-20.7	64.33	-	-	-	-	68.2	-3.87	170	225	V

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

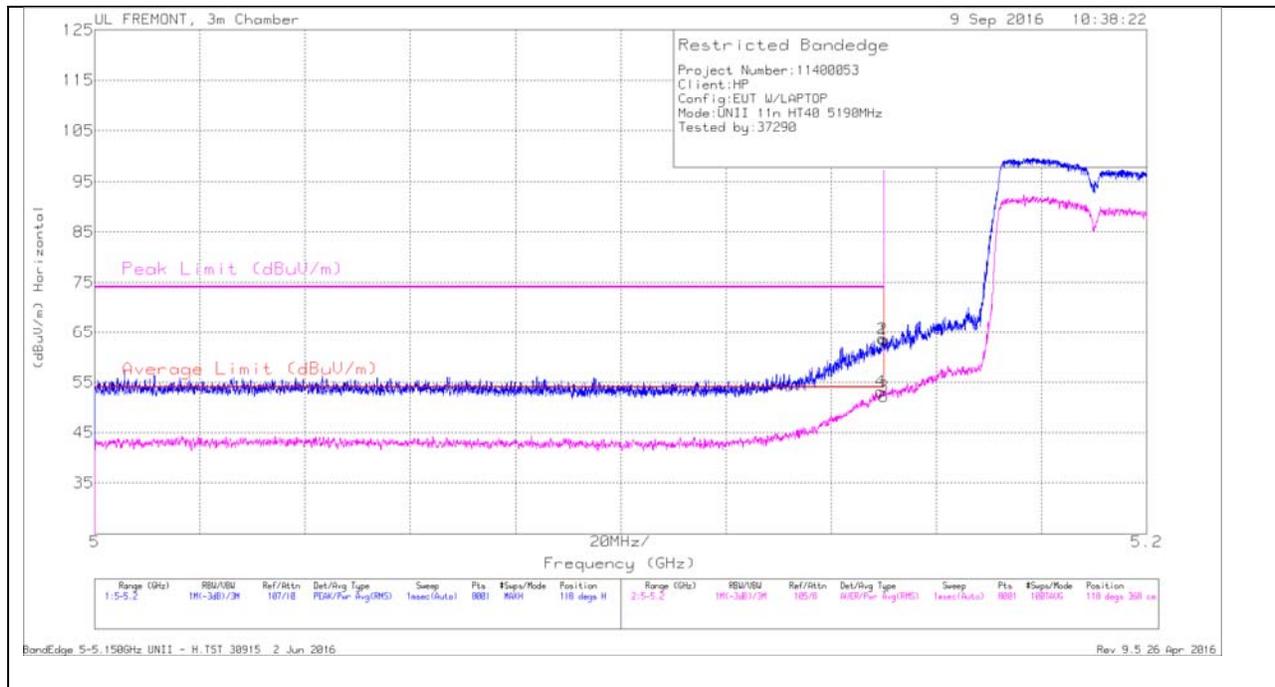
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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

#### RESTRICTED BANDEDGE (LOW CHANNEL)

#### HORIZONTAL RESULTS

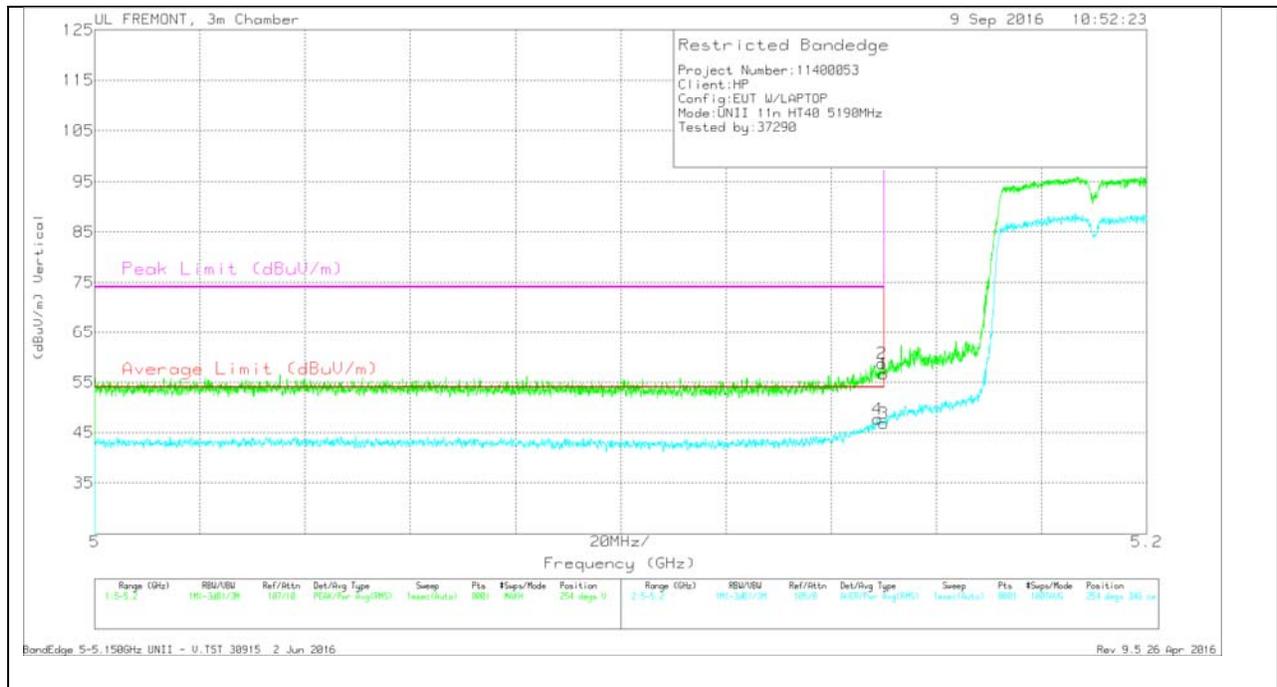


#### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	5.149	38.42	RM S	34.3	-19.6	53.12	54	-0.88	-	-	118	368	H
1	5.15	48.74	Pk	34.3	-19.6	63.44	-	-	74	-10.56	118	368	H
2	5.15	49	Pk	34.3	-19.6	63.7	-	-	74	-10.3	118	368	H
3	5.15	37.47	RM S	34.3	-19.6	52.17	54	-1.83	-	-	118	368	H

Pk - Peak detector  
 RMS - RMS detection

### VERTICAL RESULTS



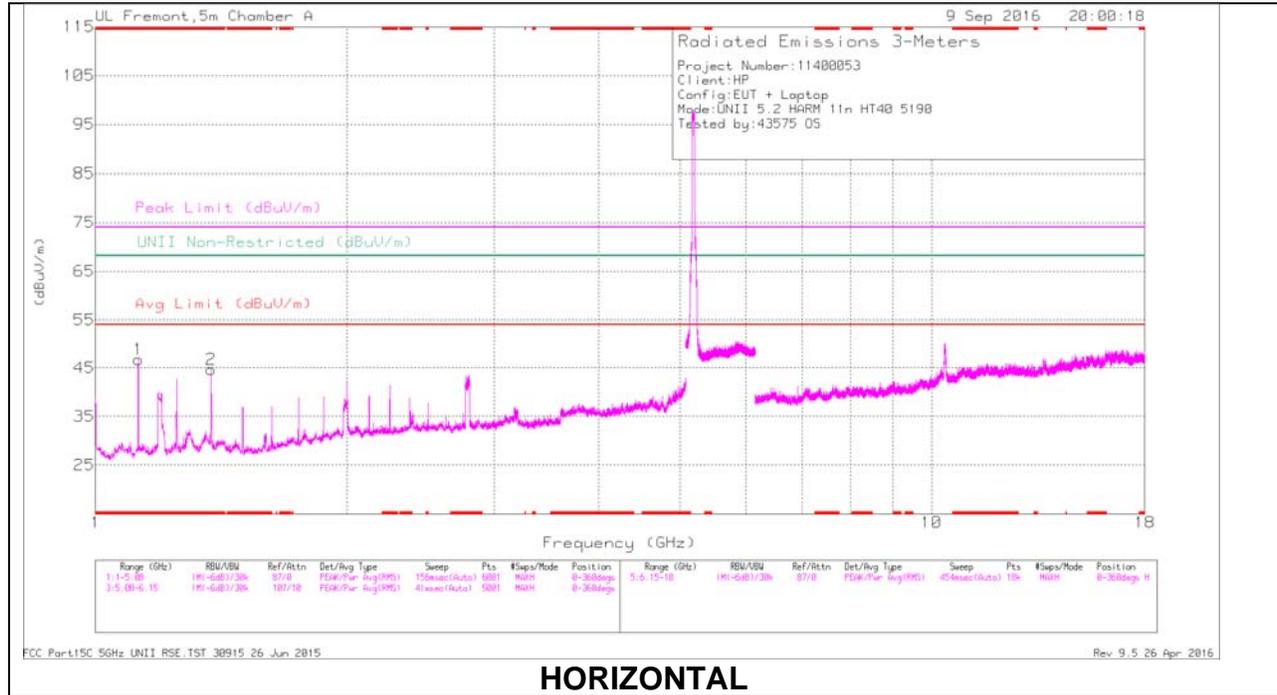
### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	5.149	33.01	RMS	34.3	-19.6	47.71	54	-6.29	-	-	254	346	V
1	5.15	41.95	Pk	34.3	-19.6	56.65	-	-	74	-17.35	254	346	V
2	5.15	44	Pk	34.3	-19.6	58.7	-	-	74	-15.3	254	346	V
3	5.15	32.07	RMS	34.3	-19.6	46.77	54	-7.23	-	-	254	346	V

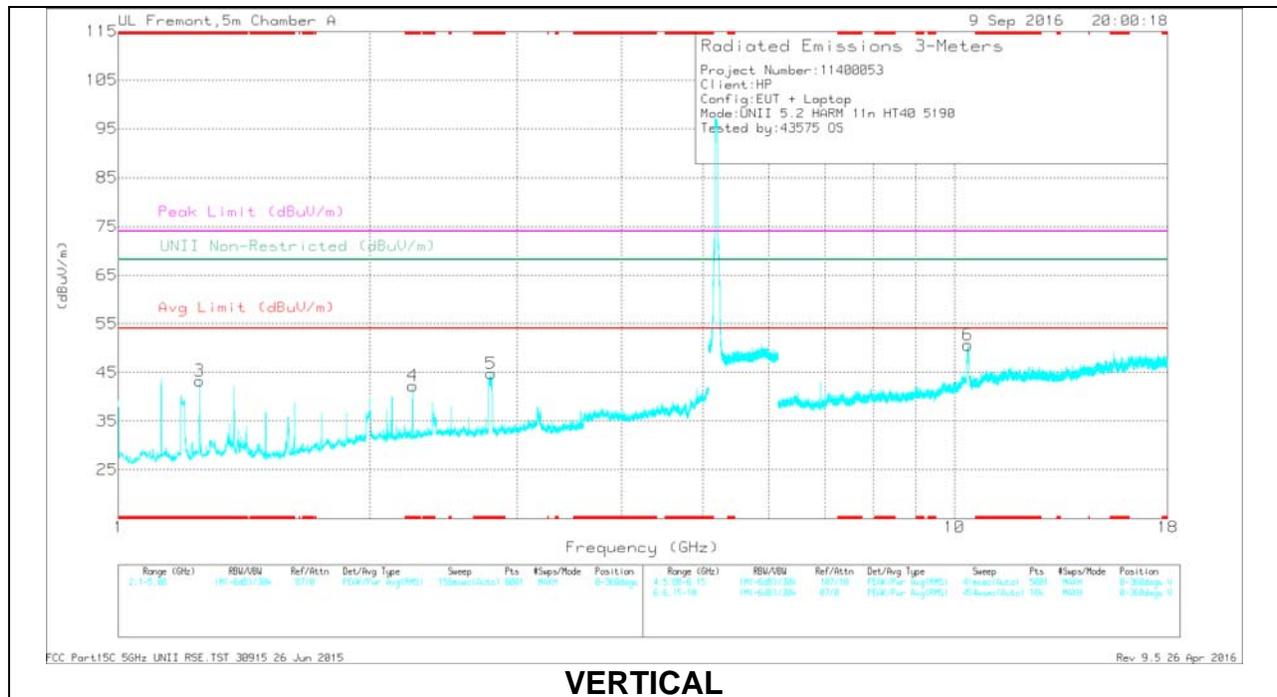
Pk - Peak detector  
 RMS - RMS detection

**HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL RESULTS**



**HORIZONTAL**



**VERTICAL**

### LOW CHANNEL DATA

#### Trace Markers

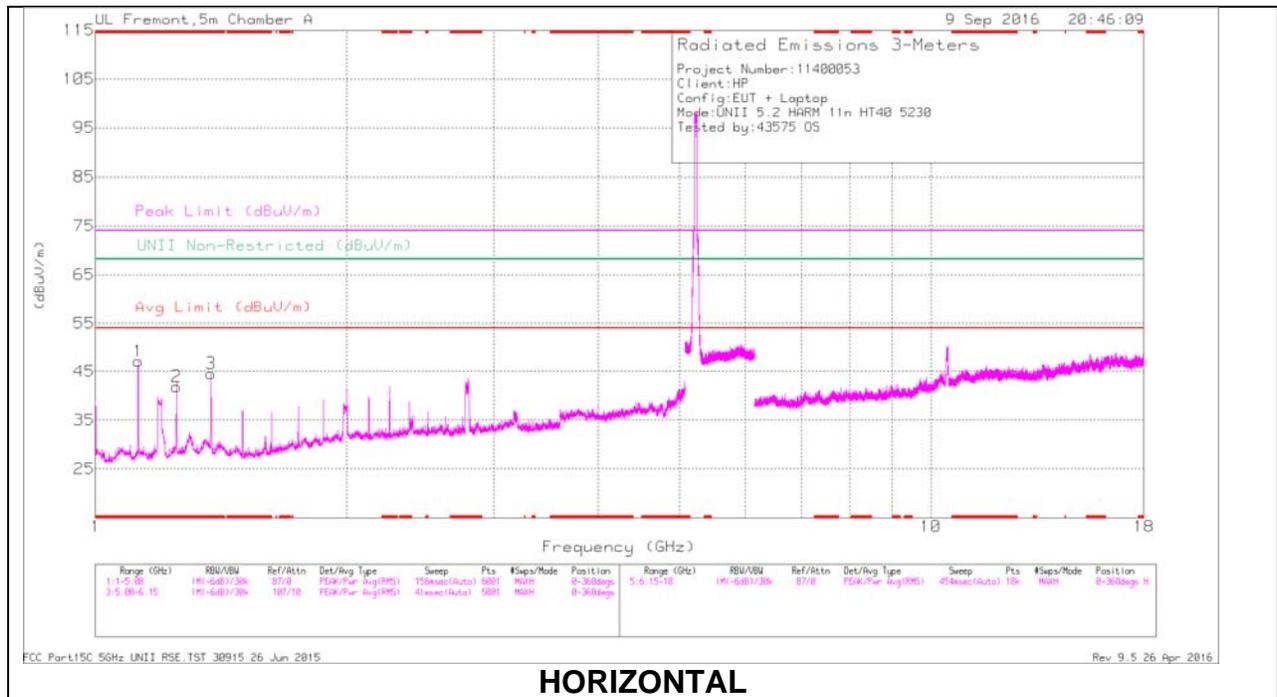
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Af 1346 (dB/m)	Amp/Cable/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Unli Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.125	56.15	PK-U	27.9	-33.8	50.25	-	-	74	-23.75	-	-	208	194	H
	* 1.125	52.29	ADR	27.9	-33.8	48.39	54	-7.61	-	-	-	-	208	194	H
2	* 1.375	53.26	PK-U	29	-33.4	48.86	-	-	74	-25.14	-	-	157	187	H
	* 1.375	49.35	ADR	29	-33.4	44.95	54	-9.05	-	-	-	-	157	187	H
3	* 1.25	52.88	PK-U	28.6	-34.3	47.18	-	-	74	-26.82	-	-	333	284	V
	* 1.25	48.4	ADR	28.6	-34.3	42.7	54	-11.3	-	-	-	-	333	284	V
4	* 2.25	49.23	PK-U	31.8	-33	48.03	-	-	74	-25.97	-	-	251	289	V
	* 2.25	44.27	ADR	31.8	-33	43.07	54	-10.93	-	-	-	-	251	289	V
5	* 2.791	50.8	PK-U	32.6	-31.7	51.7	-	-	74	-22.3	-	-	306	276	V
	* 2.791	37.17	ADR	32.6	-31.7	38.07	54	-15.93	-	-	-	-	306	276	V
6	10.38	43.14	PK-U	37.4	-21	59.54	-	-	-	-	68.2	-8.66	158	176	V

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

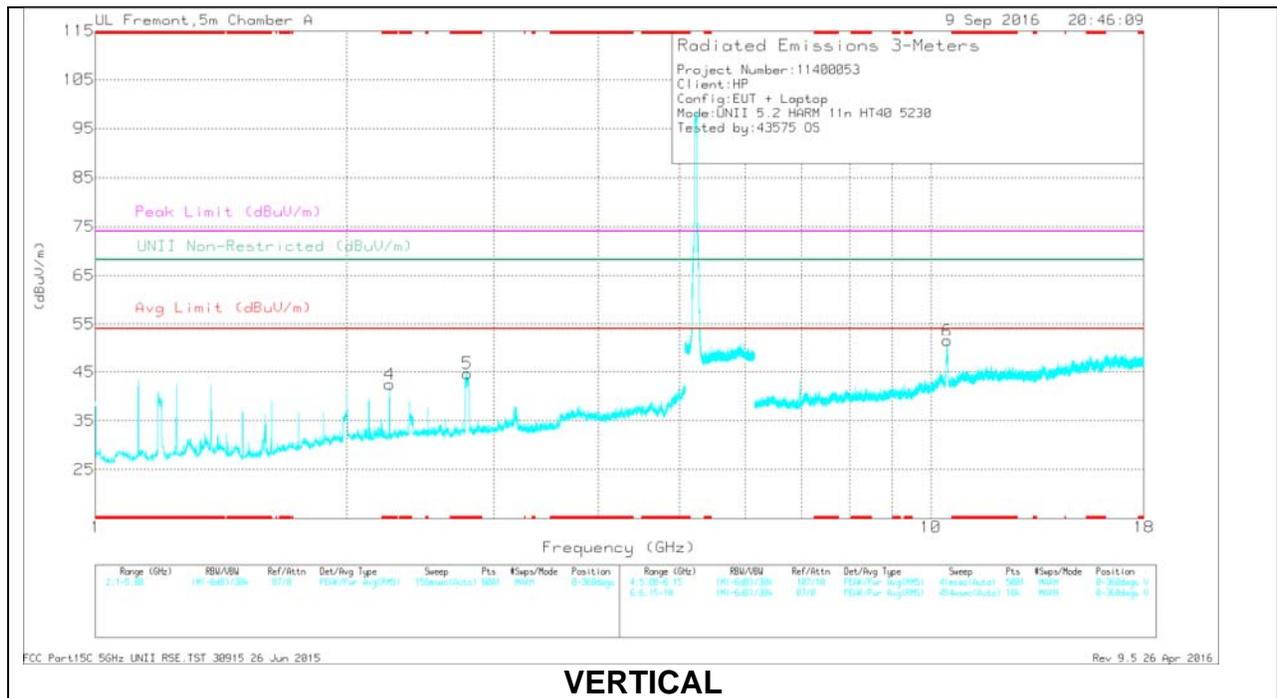
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### HIGH CHANNEL RESULTS



**HORIZONTAL**



**VERTICAL**

## HIGH CHANNEL DATA

### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Filt/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.125	55.85	PK-U	27.9	-33.8	49.95	-	-	74	-24.05	-	-	208	192	H
	* 1.125	52.29	ADR	27.9	-33.8	46.39	54	-7.61	-	-	-	-	208	192	H
2	* 1.25	52.5	PK-U	28.6	-34.3	46.8	-	-	74	-27.2	-	-	155	227	H
	* 1.25	47.85	ADR	28.6	-34.3	42.15	54	-11.85	-	-	-	-	155	227	H
3	* 1.375	53.09	PK-U	29	-33.4	48.69	-	-	74	-25.31	-	-	156	184	H
	* 1.375	49.05	ADR	29	-33.4	44.65	54	-9.35	-	-	-	-	156	184	H
4	* 2.25	49.27	PK-U	31.8	-33	48.07	-	-	74	-25.93	-	-	250	289	V
	* 2.25	44.19	ADR	31.8	-33	42.99	54	-11.01	-	-	-	-	250	289	V
5	* 2.786	51.4	PK-U	32.6	-31.9	52.1	-	-	74	-21.9	-	-	289	273	V
	* 2.787	38.14	ADR	32.6	-31.8	38.94	54	-15.06	-	-	-	-	289	273	V
6	10.47	41.94	PK-U	37.5	-20.7	58.74	-	-	-	-	68.2	-9.46	157	151	V

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

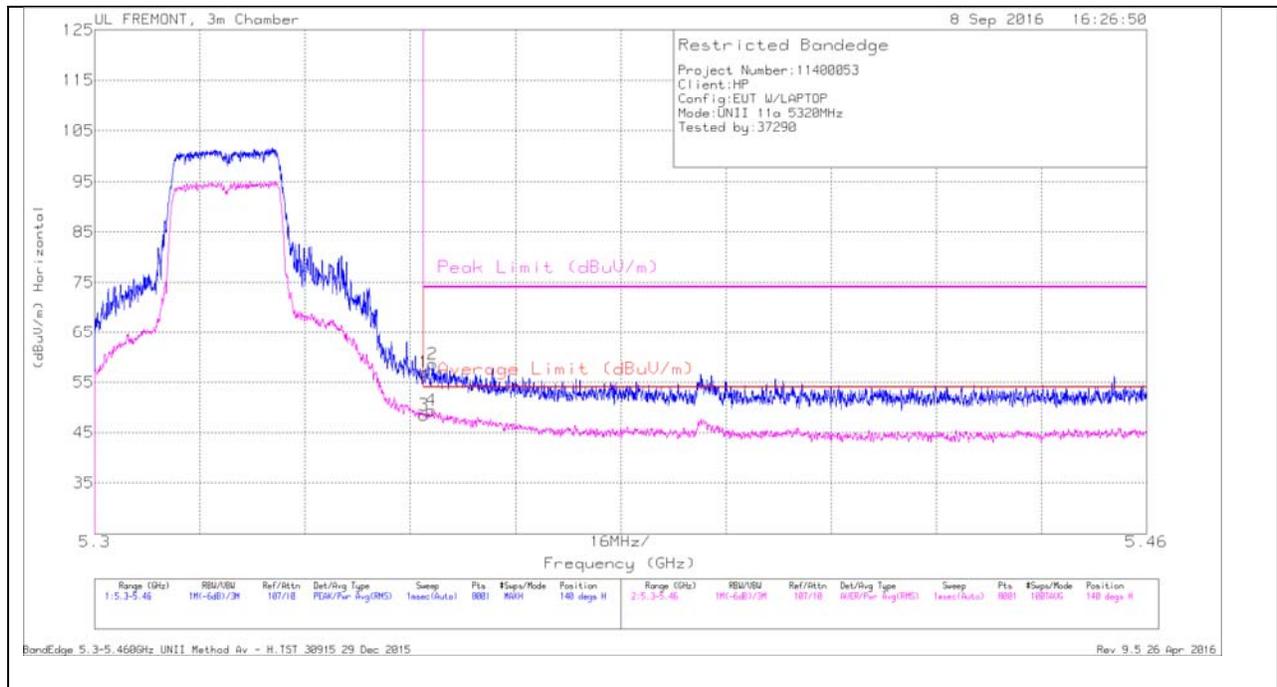
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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

#### AUTHORIZED BANDEDGE (HIGH CHANNEL)

#### HORIZONTAL RESULTS

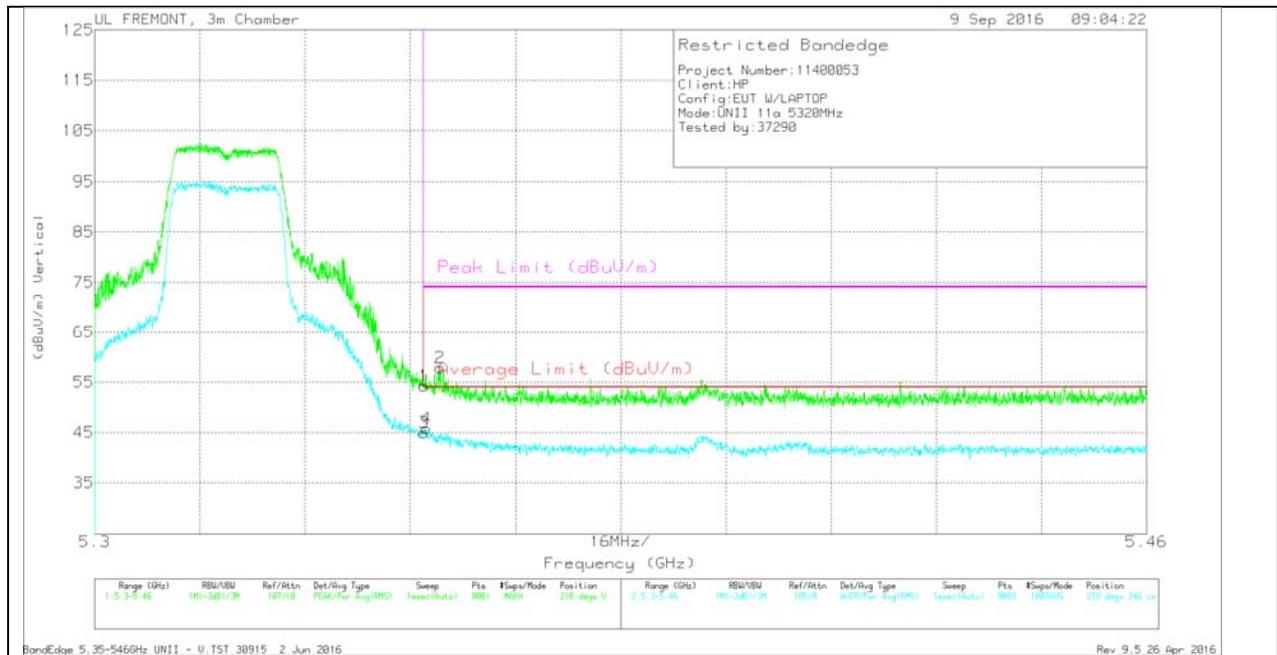


#### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbi/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.35	40.98	Pk	34.5	-18.5	56.98	-	-	74	-17.02	140	393	H
3	5.35	32.49	RMS	34.5	-18.5	48.49	54	-5.51	-	-	140	393	H
2	5.351	42.57	Pk	34.5	-18.5	58.57	-	-	74	-15.43	140	393	H
4	5.351	33.38	RMS	34.5	-18.5	49.38	54	-4.62	-	-	140	393	H

Pk - Peak detector  
 RMS - RMS detection

### VERTICAL RESULTS



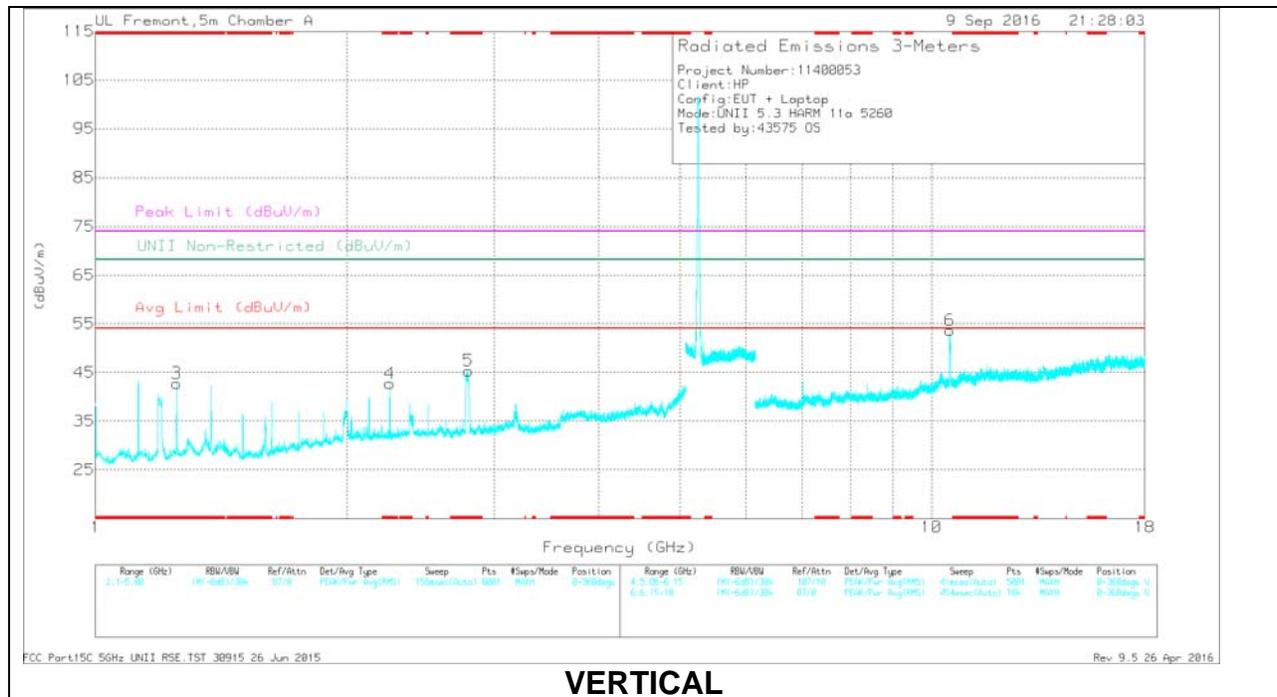
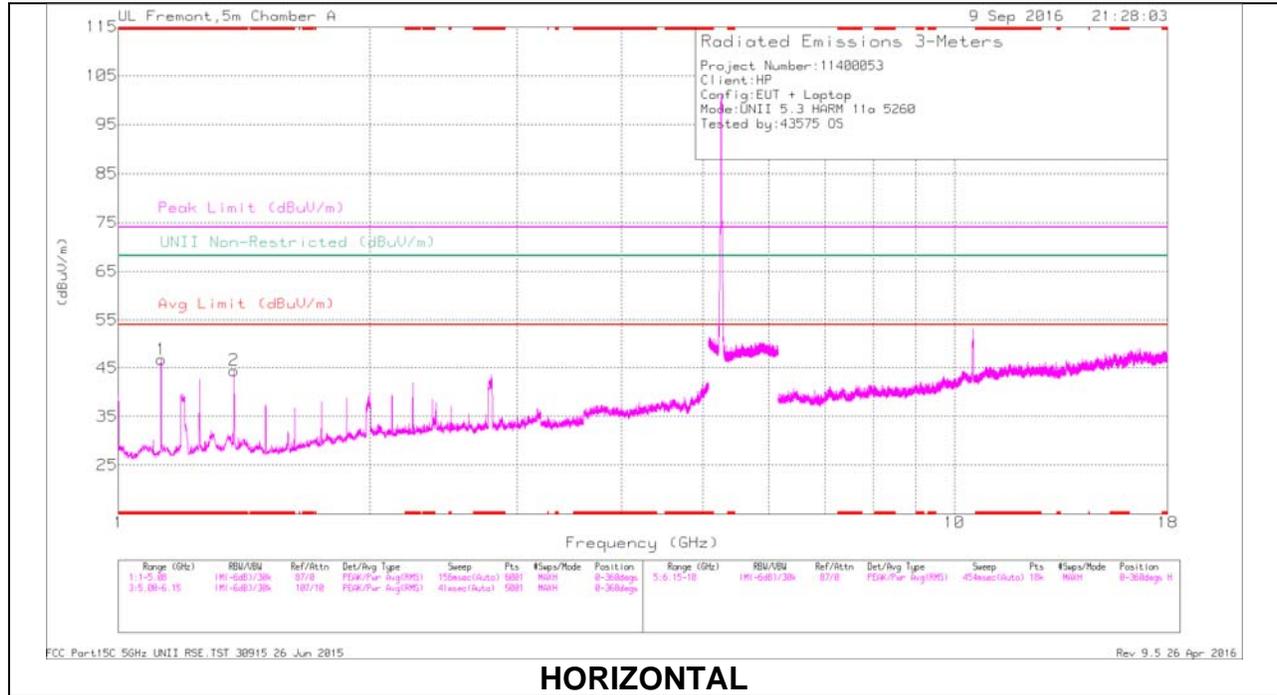
### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb1/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.35	39.51	Pk	34.5	-19.8	54.21	-	-	74	-19.79	218	246	V
3	5.35	30.26	RMS	34.5	-19.8	44.96	54	-9.04	-	-	218	246	V
4	5.35	31.2	RMS	34.5	-19.9	45.8	54	-8.2	-	-	218	246	V
2	5.353	43.19	Pk	34.5	-19.8	57.89	-	-	74	-16.11	218	246	V

Pk - Peak detector  
 RMS - RMS detection

**HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL RESULTS**



### LOW CHANNEL DATA

#### Trace Markers

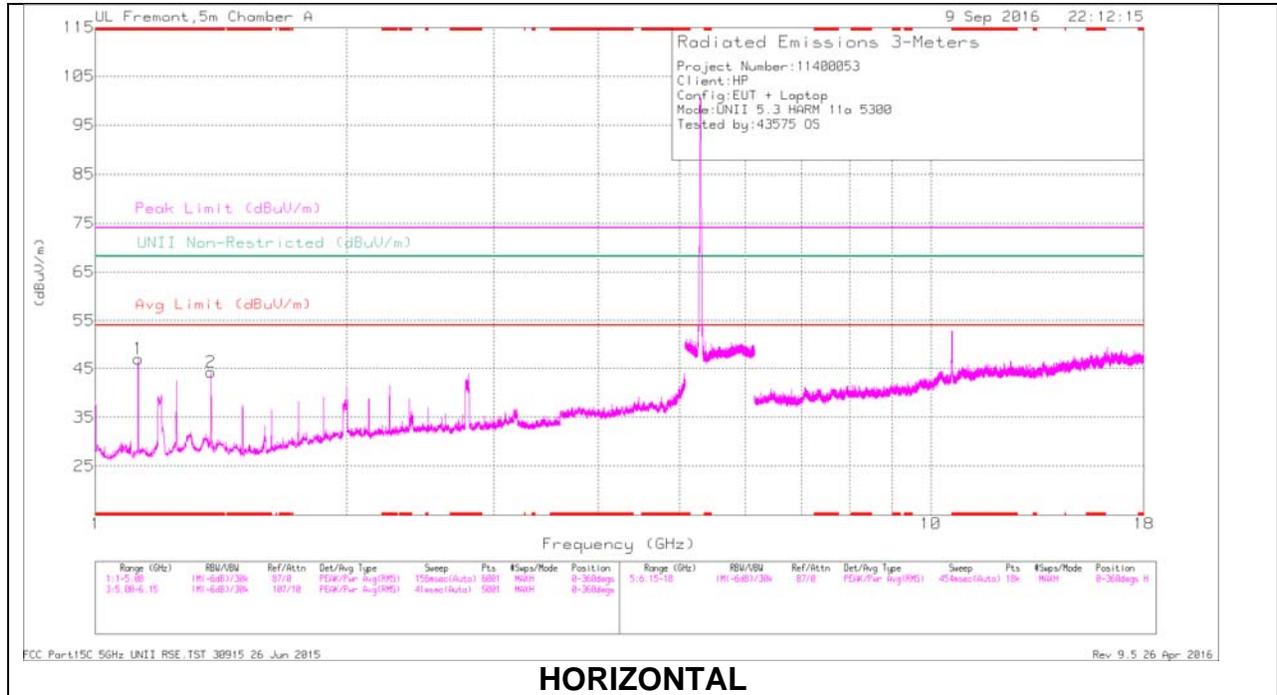
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cb/Fir/Pad (db)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (db)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.125	55.72	PK-U	27.9	-33.8	49.82	-	-	74	-24.18	-	-	209	196	H
	* 1.125	52.22	ADR	27.9	-33.8	46.32	54	-7.68	-	-	-	-	209	196	H
2	* 1.375	53.37	PK-U	29	-33.4	48.97	-	-	74	-25.03	-	-	159	188	H
	* 1.375	49.26	ADR	29	-33.4	44.86	54	-9.14	-	-	-	-	159	188	H
3	* 1.25	53.83	PK-U	28.6	-34.3	48.13	-	-	74	-25.87	-	-	331	287	V
	* 1.25	49.11	ADR	28.6	-34.3	43.41	54	-10.59	-	-	-	-	331	287	V
4	* 2.25	49.65	PK-U	31.8	-33	48.45	-	-	74	-25.55	-	-	251	286	V
	* 2.25	45.06	ADR	31.8	-33	43.86	54	-10.14	-	-	-	-	251	286	V
5	* 2.792	50.61	PK-U	32.6	-31.7	51.51	-	-	74	-22.49	-	-	304	271	V
	* 2.792	36.43	ADR	32.6	-31.7	37.33	54	-16.67	-	-	-	-	304	271	V
6	10.519	47.73	PK-U	37.5	-20.6	64.63	-	-	-	-	68.2	-3.57	174	226	V

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

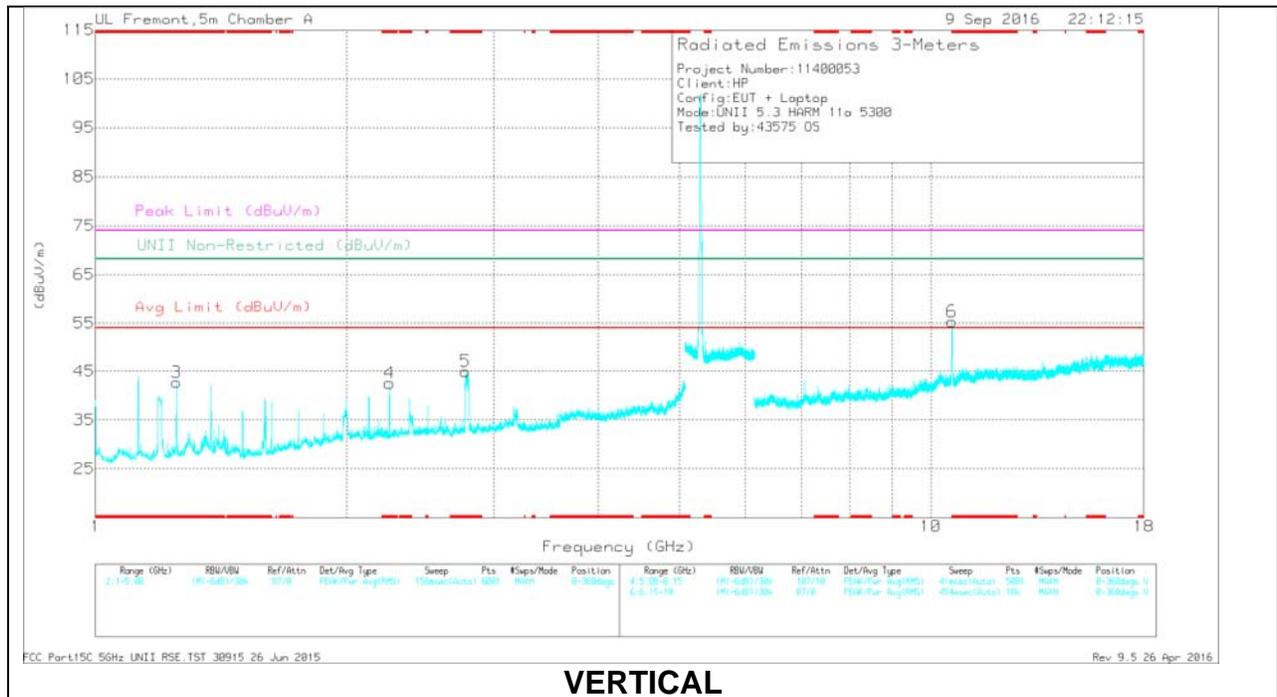
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### MID CHANNEL RESULTS



### HORIZONTAL



### VERTICAL

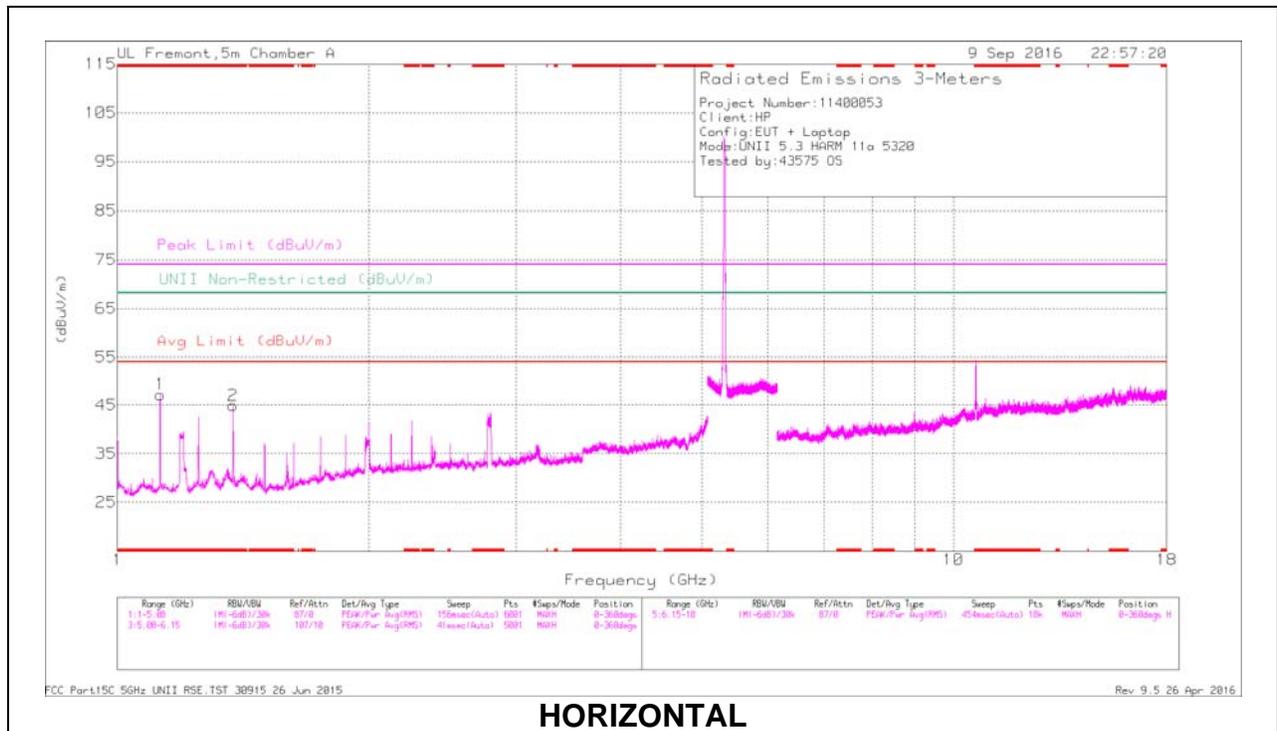
**MID CHANNEL DATA**

Trace Markers

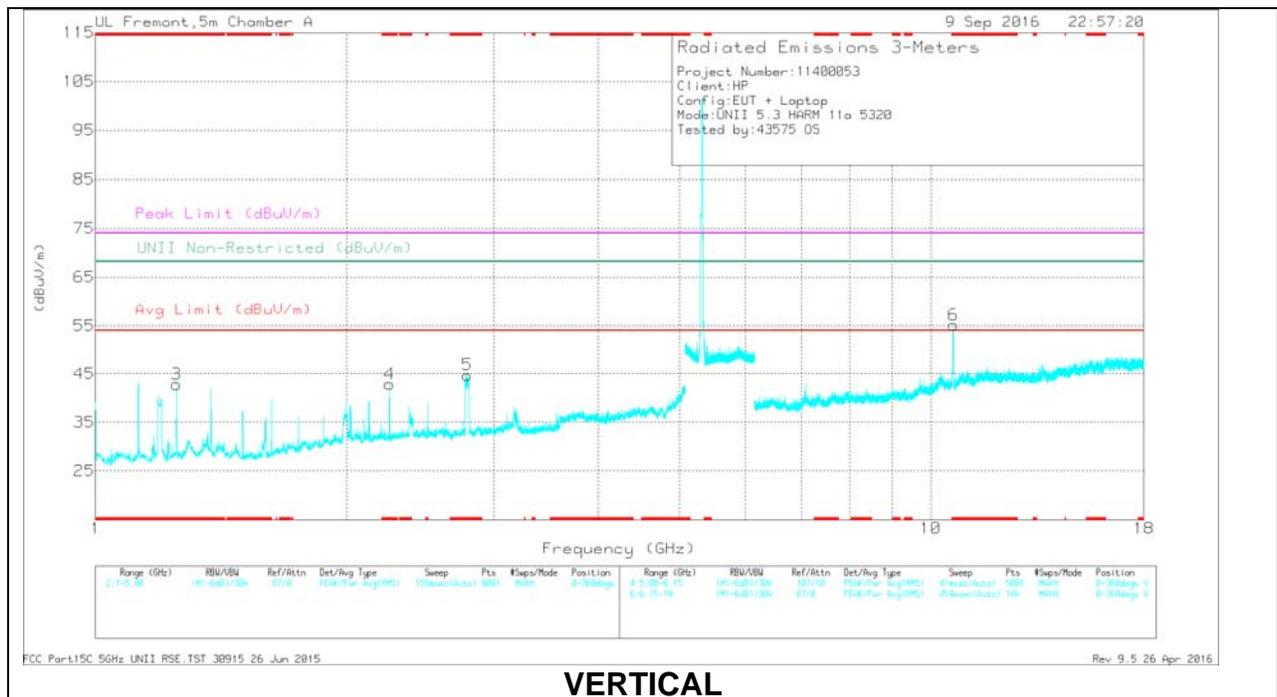
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cb/FFtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.125	55.94	PK-U	27.9	-33.8	50.04	-	-	74	-23.96	-	-	206	192	H
	* 1.125	52.31	ADR	27.9	-33.8	46.41	54	-7.59	-	-	-	-	206	192	H
2	* 1.375	52.79	PK-U	29	-33.4	48.39	-	-	74	-25.61	-	-	157	184	H
	* 1.375	49.25	ADR	29	-33.4	44.85	54	-9.15	-	-	-	-	157	184	H
3	* 1.25	53.59	PK-U	28.6	-34.3	47.89	-	-	74	-26.11	-	-	327	282	V
	* 1.25	49.24	ADR	28.6	-34.3	43.54	54	-10.46	-	-	-	-	327	282	V
4	* 2.25	49.19	PK-U	31.8	-33	47.99	-	-	74	-26.01	-	-	250	284	V
	* 2.25	44.29	ADR	31.8	-33	43.09	54	-10.91	-	-	-	-	250	284	V
5	* 2.774	52.02	PK-U	32.6	-32	52.62	-	-	74	-21.38	-	-	293	260	V
	* 2.774	38.18	ADR	32.6	-32	38.78	54	-15.22	-	-	-	-	293	260	V
6	* 10.602	46.16	PK-U	37.6	-20.5	63.26	-	-	74	-10.74	-	-	171	223	V
	* 10.602	35	ADR	37.6	-20.4	52.2	54	-1.8	-	-	-	-	171	223	V

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 PK-U - U-NII: Maximum Peak  
 ADR - U-NII AD primary method, RMS average

### HIGH CHANNEL RESULTS



**HORIZONTAL**



**VERTICAL**

## HIGH CHANNEL DATA

### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cb/FFtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.125	55.55	PK-U	27.9	-33.8	49.65	-	-	74	-24.35	-	-	205	281	H
	* 1.125	51.7	ADR	27.9	-33.8	45.8	54	-8.2	-	-	-	-	205	281	H
2	* 1.375	53.14	PK-U	29	-33.4	48.74	-	-	74	-25.26	-	-	158	186	H
	* 1.375	49.23	ADR	29	-33.4	44.83	54	-9.17	-	-	-	-	158	186	H
3	* 1.25	53.12	PK-U	28.6	-34.3	47.42	-	-	74	-26.58	-	-	329	282	V
	* 1.25	48.97	ADR	28.6	-34.3	43.27	54	-10.73	-	-	-	-	329	282	V
4	* 2.25	49.69	PK-U	31.8	-33	48.49	-	-	74	-25.51	-	-	252	286	V
	* 2.25	44.61	ADR	31.8	-33	43.41	54	-10.59	-	-	-	-	252	286	V
5	* 2.787	51.85	PK-U	32.6	-31.8	52.65	-	-	74	-21.35	-	-	293	275	V
	* 2.787	38.32	ADR	32.6	-31.8	39.12	54	-14.88	-	-	-	-	293	275	V
6	* 10.642	45.9	PK-U	37.6	-20.6	62.9	-	-	74	-11.1	-	-	160	204	V
	* 10.642	35.37	ADR	37.6	-20.6	52.37	54	-1.63	-	-	-	-	160	204	V

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

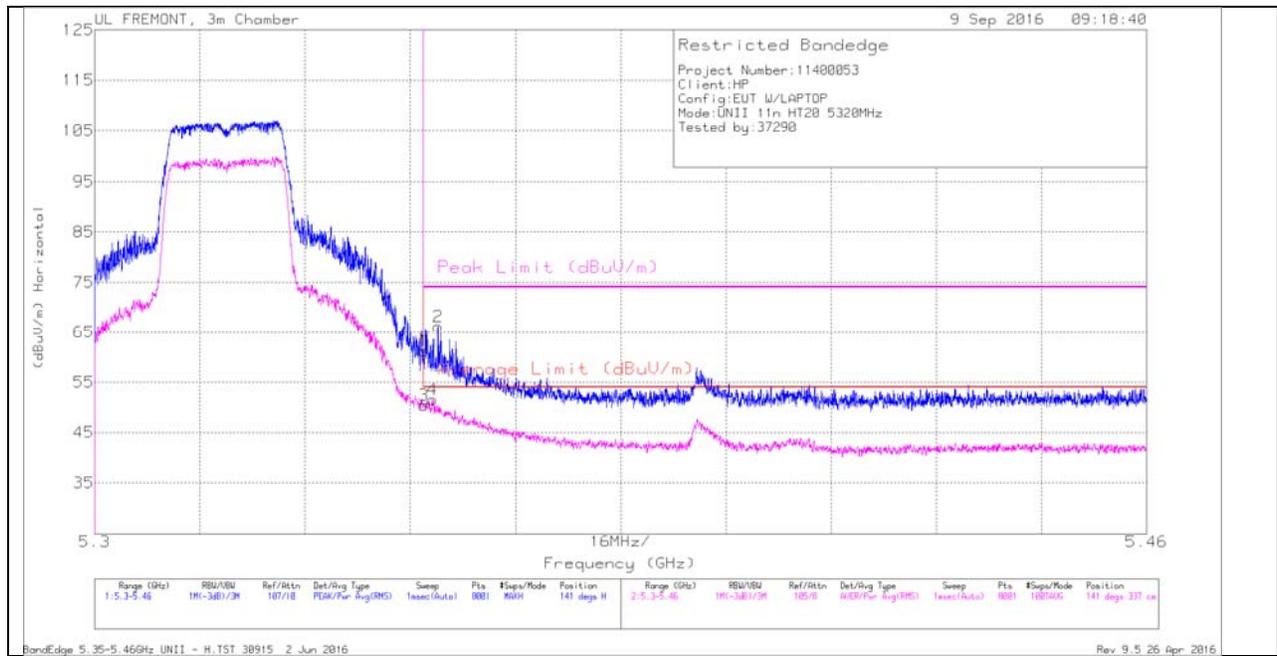
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### 5.2.5. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.3 GHz BAND

#### AUTHORIZED BANDEDGE (HIGH CHANNEL)

#### HORIZONTAL RESULTS

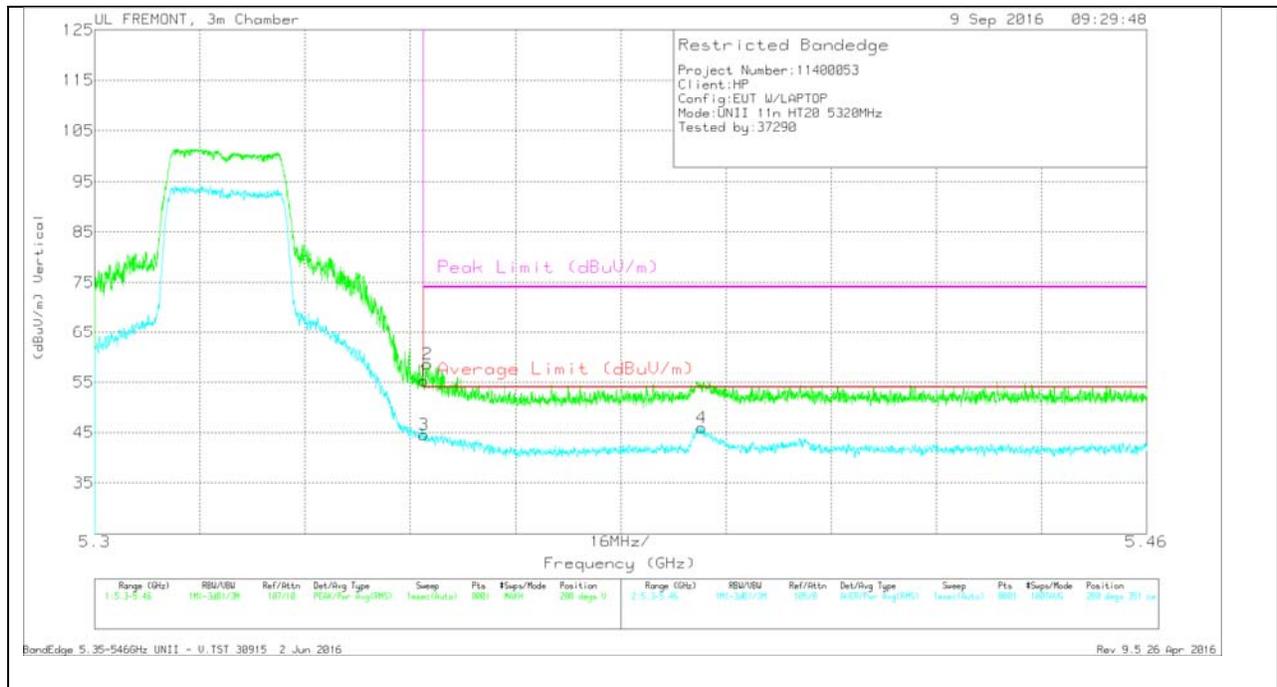


#### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.35	46.5	Pk	34.5	-19.8	61.2	-	-	74	-12.8	141	337	H
3	5.35	35.7	RMS	34.5	-19.8	50.4	54	-3.6	-	-	141	337	H
4	5.351	36.94	RMS	34.5	-19.9	51.54	54	-2.46	-	-	141	337	H
2	5.352	51.53	Pk	34.5	-19.8	66.23	-	-	74	-7.77	141	337	H

Pk - Peak detector  
 RMS - RMS detection

### VERTICAL RESULTS



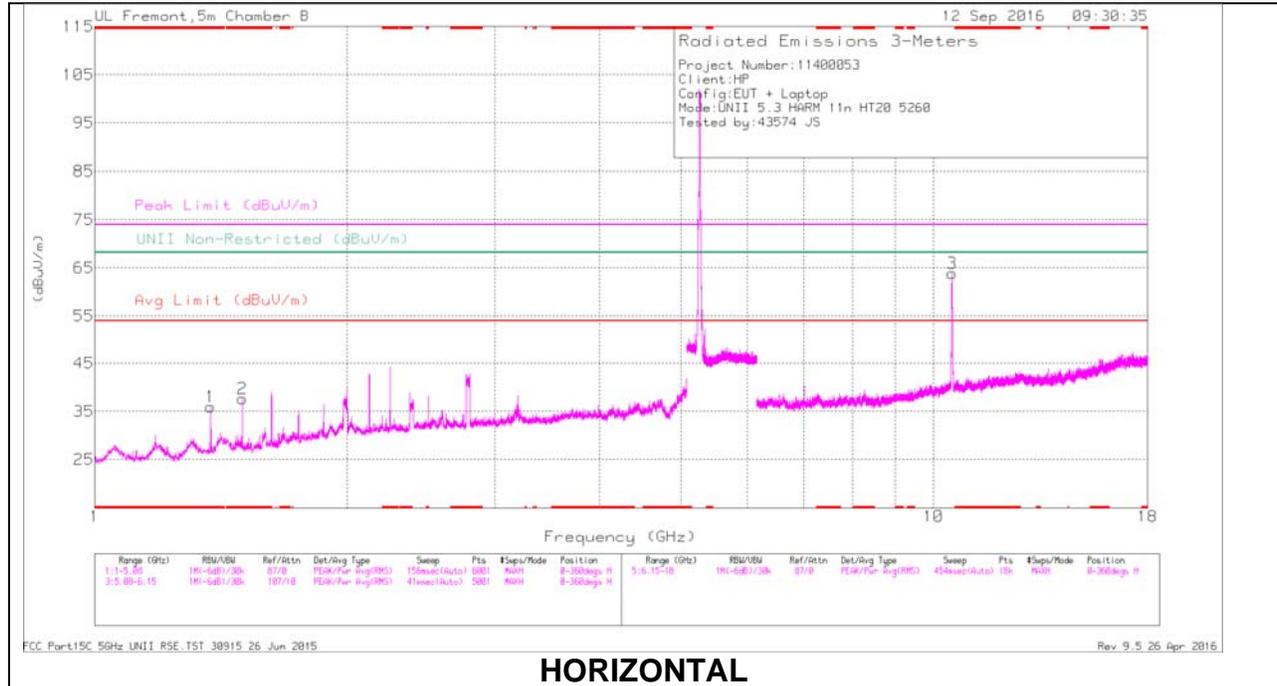
### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb1/Filtr/P ad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.35	40.6	Pk	34.5	-19.8	55.3	-	-	74	-18.7	288	351	V
3	5.35	29.92	RMS	34.5	-19.8	44.62	54	-9.38	-	-	288	351	V
2	5.351	44	Pk	34.5	-19.9	58.6	-	-	74	-15.4	288	351	V
4	5.392	31.29	RMS	34.5	-19.8	45.99	54	-8.01	-	-	288	351	V

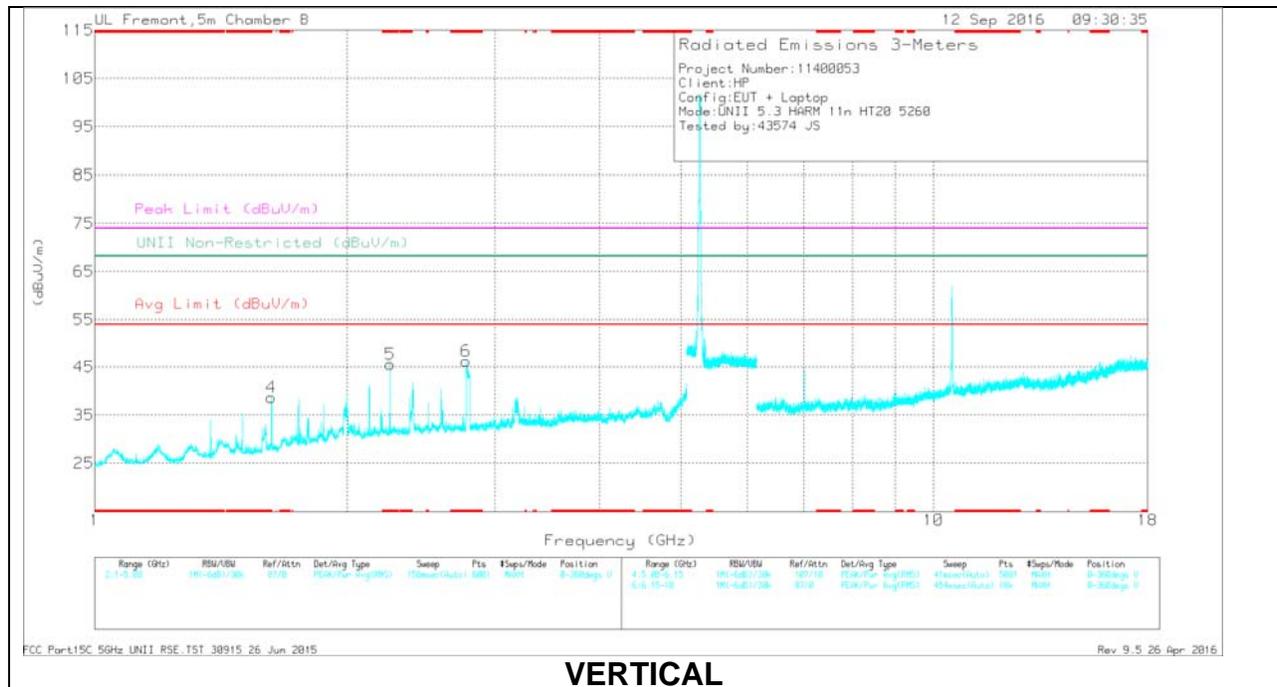
Pk - Peak detector  
 RMS - RMS detection

**HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL RESULTS**



**HORIZONTAL**



**VERTICAL**

## LOW CHANNEL DATA

### Trace Markers

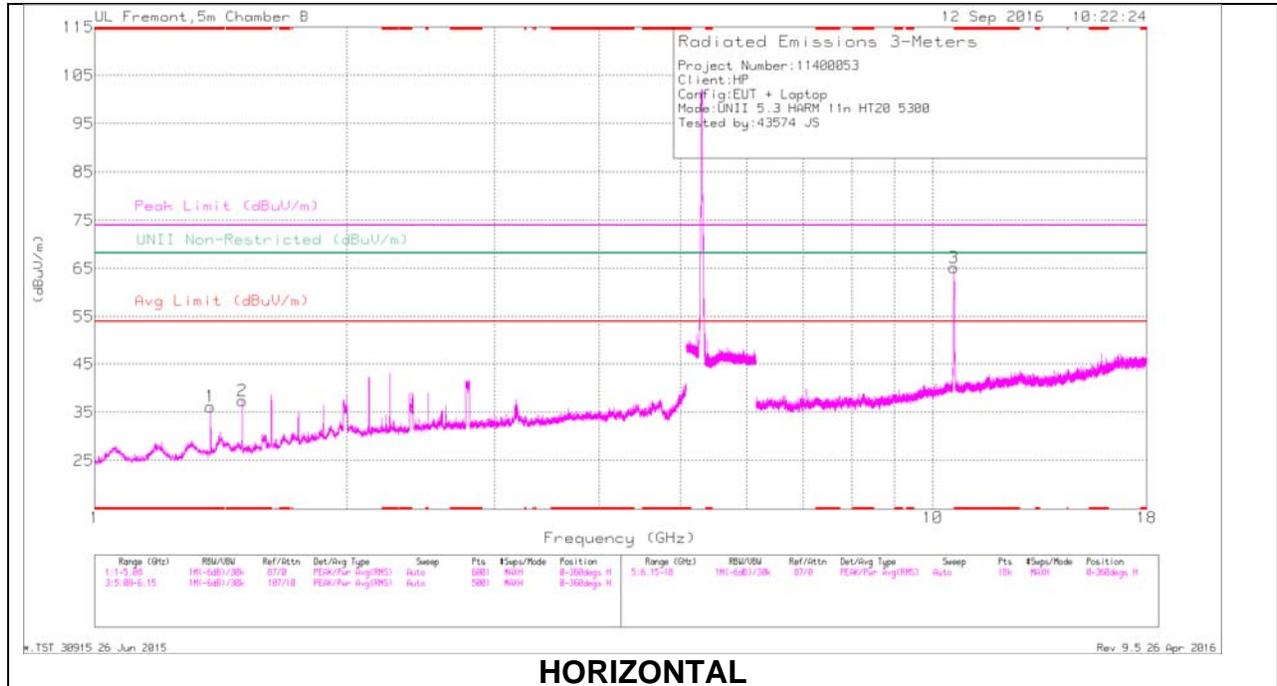
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	AmpCblFtrnPad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.375	47.84	PK-U	28.9	-35.1	41.64	-	-	74	-32.36	-	-	164	241	H
	* 1.375	43.26	ADR	28.9	-35.1	37.06	54	-16.94	-	-	-	-	164	241	H
2	* 1.5	50.83	PK-U	27.8	-35.6	43.03	-	-	74	-30.97	-	-	179	199	H
	* 1.5	44.02	ADR	27.8	-35.6	36.22	54	-17.78	-	-	-	-	179	199	H
4	* 1.625	49.51	PK-U	28.4	-34.7	43.21	-	-	74	-30.79	-	-	100	399	V
	* 1.625	43.71	ADR	28.4	-34.7	37.41	54	-16.59	-	-	-	-	100	399	V
5	* 2.25	51.7	PK-U	31.5	-34.1	49.1	-	-	74	-24.9	-	-	184	214	V
	* 2.25	46.88	ADR	31.5	-34.1	44.28	54	-9.72	-	-	-	-	184	214	V
6	* 2.773	54.61	PK-U	32.4	-34.4	52.61	-	-	74	-21.39	-	-	7	268	V
	* 2.773	40.97	ADR	32.4	-34.4	38.97	54	-15.03	-	-	-	-	7	268	V
3	10.519	48.38	PK-U	37.8	-25.9	60.28	-	-	-	-	68.2	-7.92	7	200	H

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

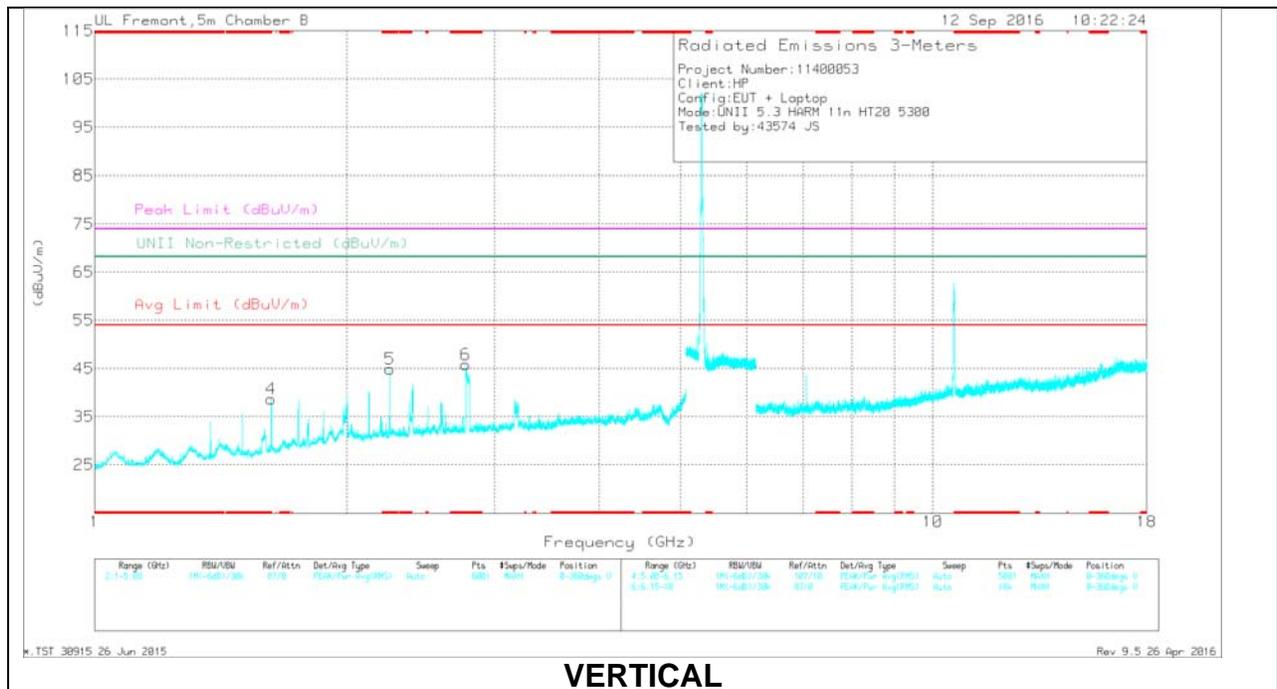
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### MID CHANNEL RESULTS



**HORIZONTAL**



**VERTICAL**

**MID CHANNEL DATA**

Trace Markers

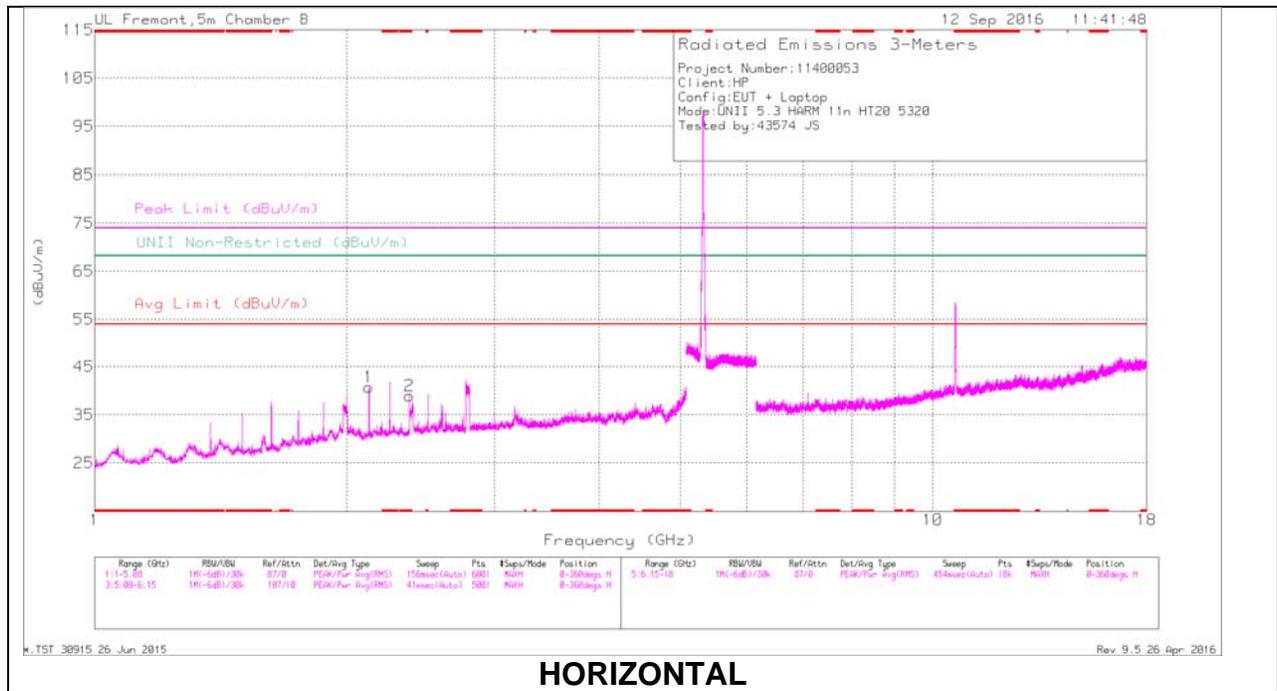
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T345 (dBm)	Amp/CbI/Filt/Pad (dB)	Corrected Reading (dBm)	Avg Limit (dBm)	Margin (dB)	Peak Limit (dBm)	PK Margin (dB)	UNII Non-Restricted (dBm)	PK Margin (dB)	Acimuth (Degs)	Height (cm)	Polarity
1	* 1.375	48.33	PK-U	28.9	-35.1	42.13	-	-	74	-31.87	-	-	159	300	H
	* 1.375	43.43	ADR	28.9	-35.1	37.23	54	-16.77	-	-	-	-	159	300	H
2	* 1.5	49.85	PK-U	27.8	-35.6	42.05	-	-	74	-31.95	-	-	180	203	H
	* 1.5	43.6	ADR	27.8	-35.6	35.8	54	-18.2	-	-	-	-	180	203	H
4	* 1.625	50.56	PK-U	28.4	-34.7	44.26	-	-	74	-29.74	-	-	123	400	V
	* 1.625	45.22	ADR	28.4	-34.7	38.92	54	-15.08	-	-	-	-	123	400	V
5	* 2.25	51.08	PK-U	31.5	-34.1	48.48	-	-	74	-25.52	-	-	182	324	V
	* 2.25	46.41	ADR	31.5	-34.1	43.81	54	-10.19	-	-	-	-	182	324	V
6	* 2.773	53.79	PK-U	32.4	-34.4	51.79	-	-	74	-22.21	-	-	5	297	V
	* 2.773	41.02	ADR	32.4	-34.4	39.02	54	-14.98	-	-	-	-	5	297	V
3	10.599	54.97	PK-U	37.9	-26.4	66.47	-	-	-	-	68.2	-1.73	355	299	H
	10.599	55.05	PK-U	37.9	-26.4	66.55	-	-	-	-	68.2	-1.65	355	299	H

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

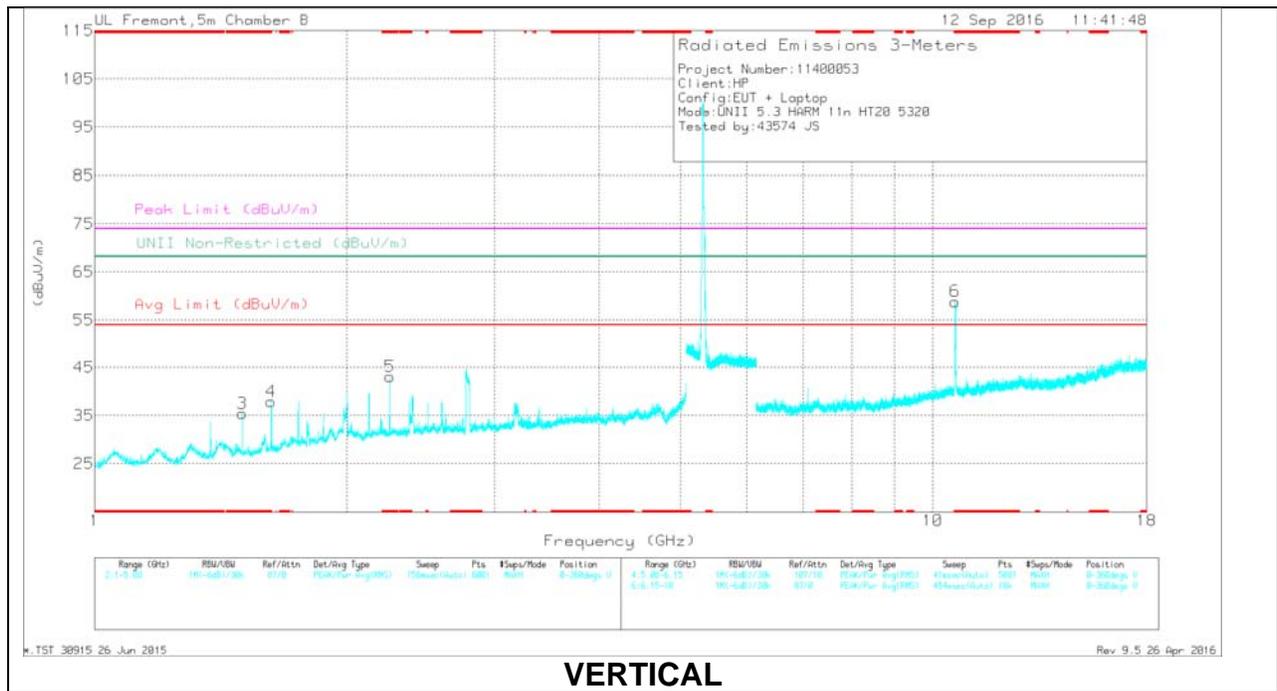
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### HIGH CHANNEL RESULTS



**HORIZONTAL**



**VERTICAL**

## HIGH CHANNEL DATA

### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	AmpCblFilt/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.375	48.23	PK-U	32	-34.4	45.83	-	-	74	-28.17	-	-	357	129	H
	* 2.375	37.81	ADR	32	-34.4	35.41	54	-18.59	-	-	-	-	357	129	H
3	* 1.5	48.34	PK-U	27.8	-35.6	40.54	-	-	74	-33.46	-	-	140	269	V
	* 1.5	41.41	ADR	27.8	-35.6	33.61	54	-20.39	-	-	-	-	140	269	V
4	* 1.625	50.12	PK-U	28.4	-34.7	43.82	-	-	74	-30.18	-	-	112	328	V
	* 1.625	44.65	ADR	28.4	-34.7	38.35	54	-15.65	-	-	-	-	112	328	V
5	* 2.25	50.32	PK-U	31.5	-34.1	47.72	-	-	74	-26.28	-	-	200	217	V
	* 2.25	45.47	ADR	31.5	-34.1	42.87	54	-11.13	-	-	-	-	200	217	V
6	* 10.641	50.9	PK-U	37.9	-25.5	63.3	-	-	74	-10.7	-	-	234	190	V
	* 10.64	38.61	ADR	37.9	-25.5	51.01	54	-2.99	-	-	-	-	234	190	V
1	2.125	48.84	PK-U	31.3	-35.1	45.04	-	-	-	-	68.2	-23.16	360	100	H

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

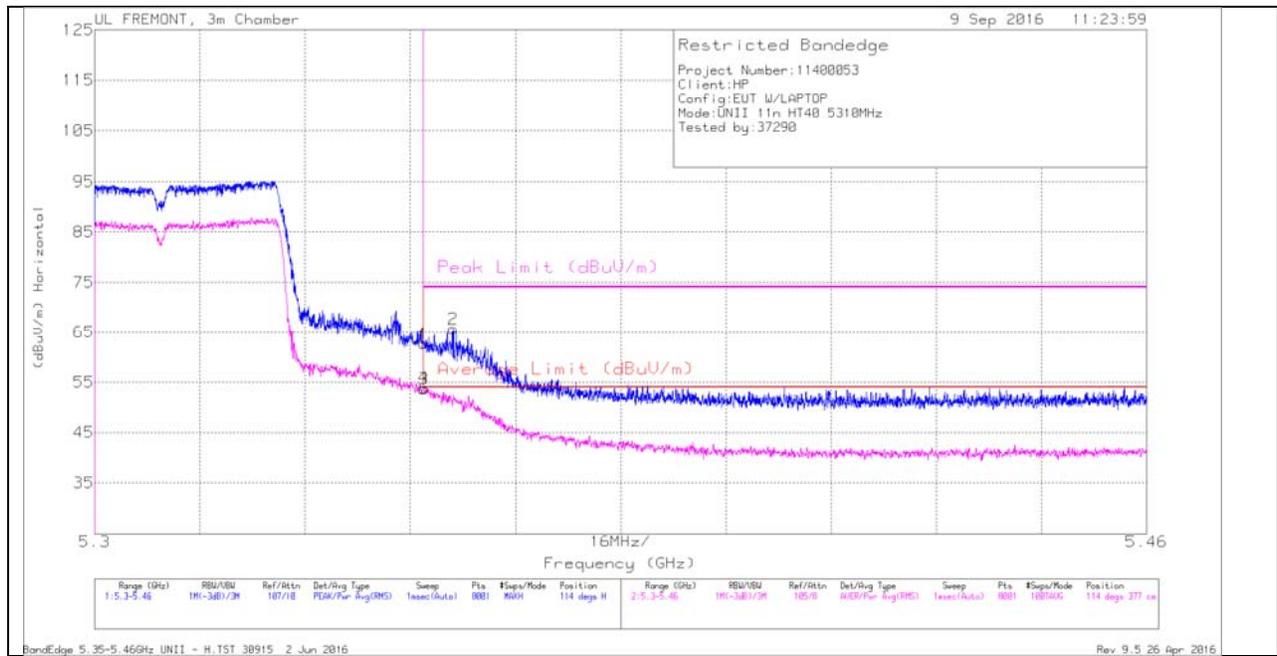
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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

#### AUTHORIZED BANDEDGE (HIGH CHANNEL)

#### HORIZONTAL RESULTS

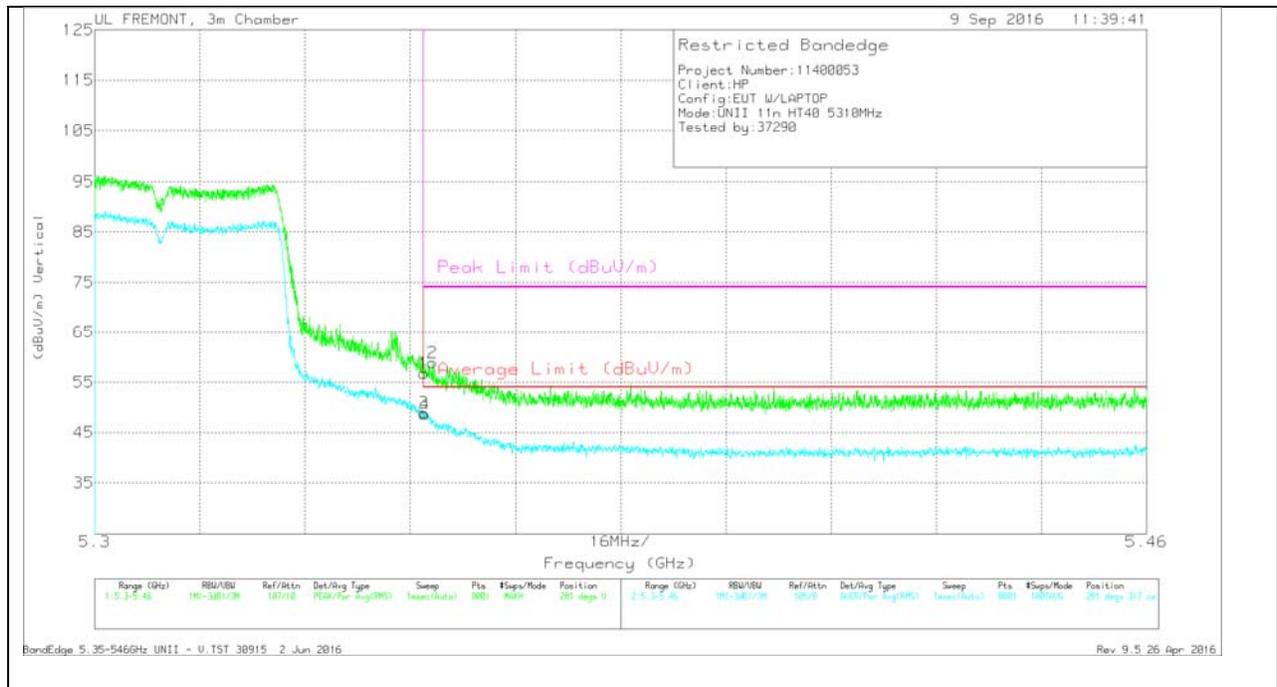


#### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filtr /Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.35	47.96	Pk	34.5	-19.8	62.66	-	-	74	-11.34	114	377	H
3	5.35	38.99	RMS	34.5	-19.8	53.69	54	-31	-	-	114	377	H
4	5.35	39.2	RMS	34.5	-19.8	53.9	54	-1	-	-	114	377	H
2	5.355	50.95	Pk	34.5	-19.8	65.65	-	-	74	-8.35	114	377	H

Pk - Peak detector  
 RMS - RMS detection

### VERTICAL RESULTS



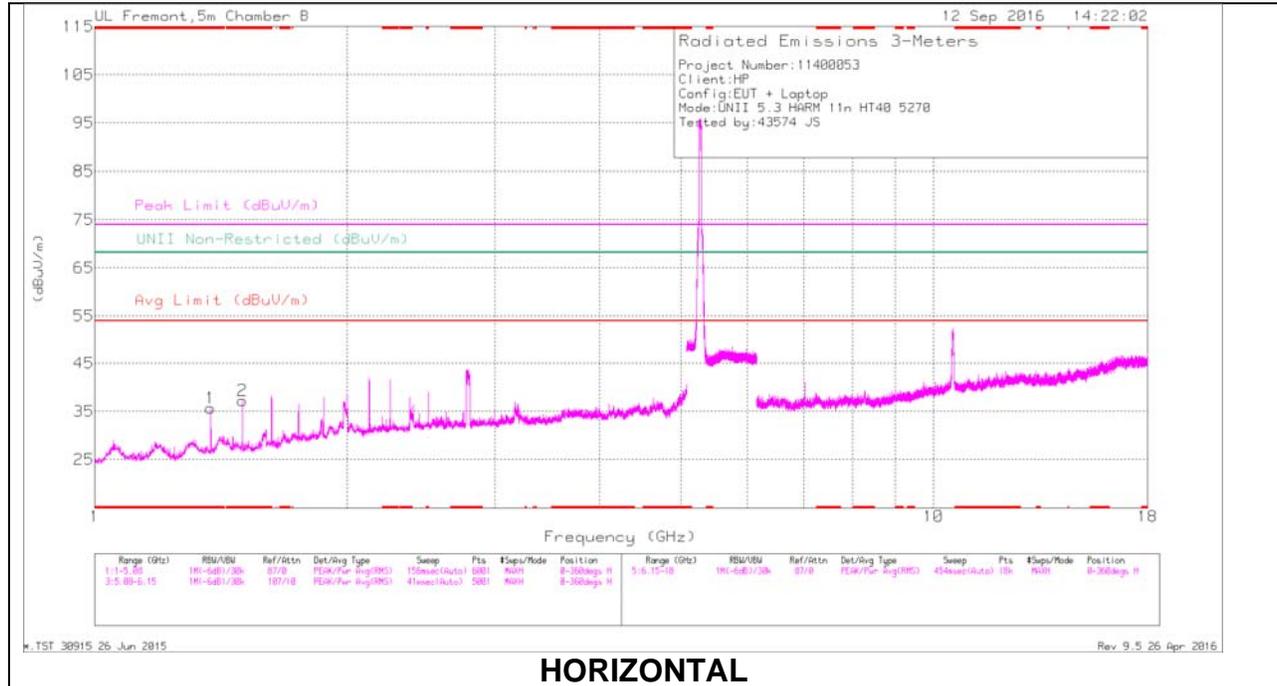
### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/Filtr /Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.35	42.03	Pk	34.5	-19.8	56.73	-	-	74	-17.27	281	317	V
3	5.35	34.26	RMS	34.5	-19.8	48.96	54	-5.04	-	-	281	317	V
4	5.35	34.11	RMS	34.5	-19.9	48.71	54	-5.29	-	-	281	317	V
2	5.351	44.22	Pk	34.5	-19.9	58.82	-	-	74	-15.18	281	317	V

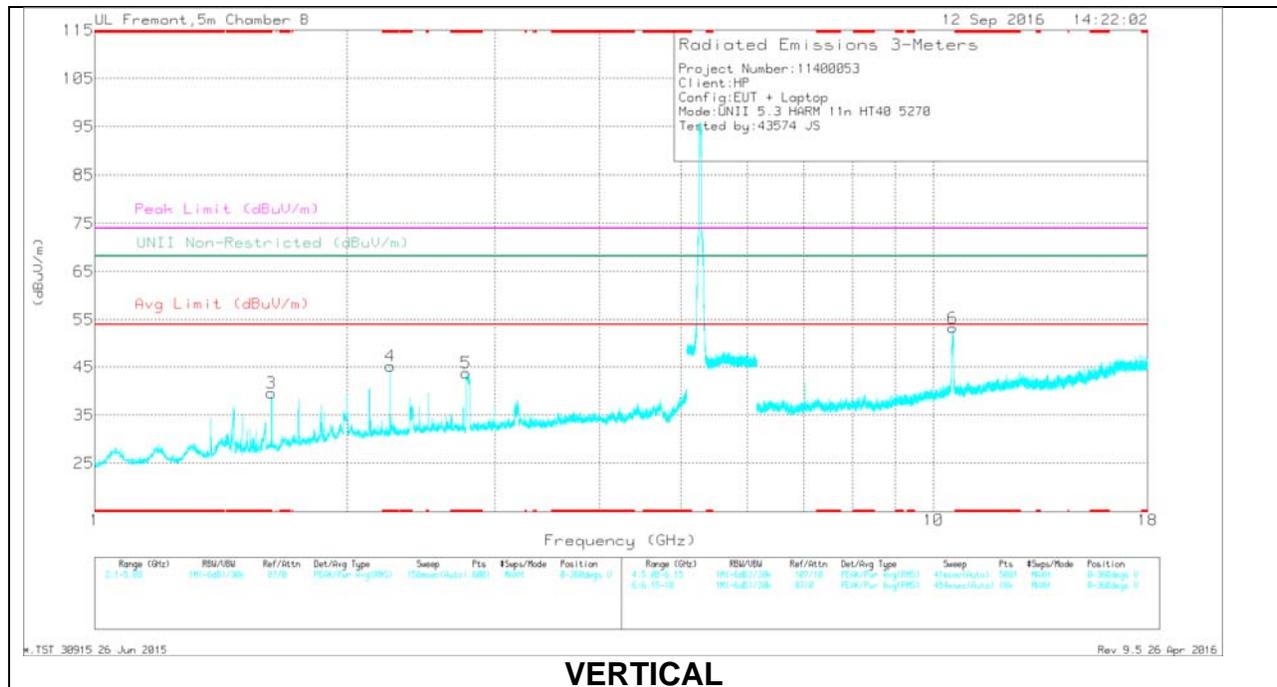
Pk - Peak detector  
 RMS - RMS detection

**HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL RESULTS**



**HORIZONTAL**



**VERTICAL**

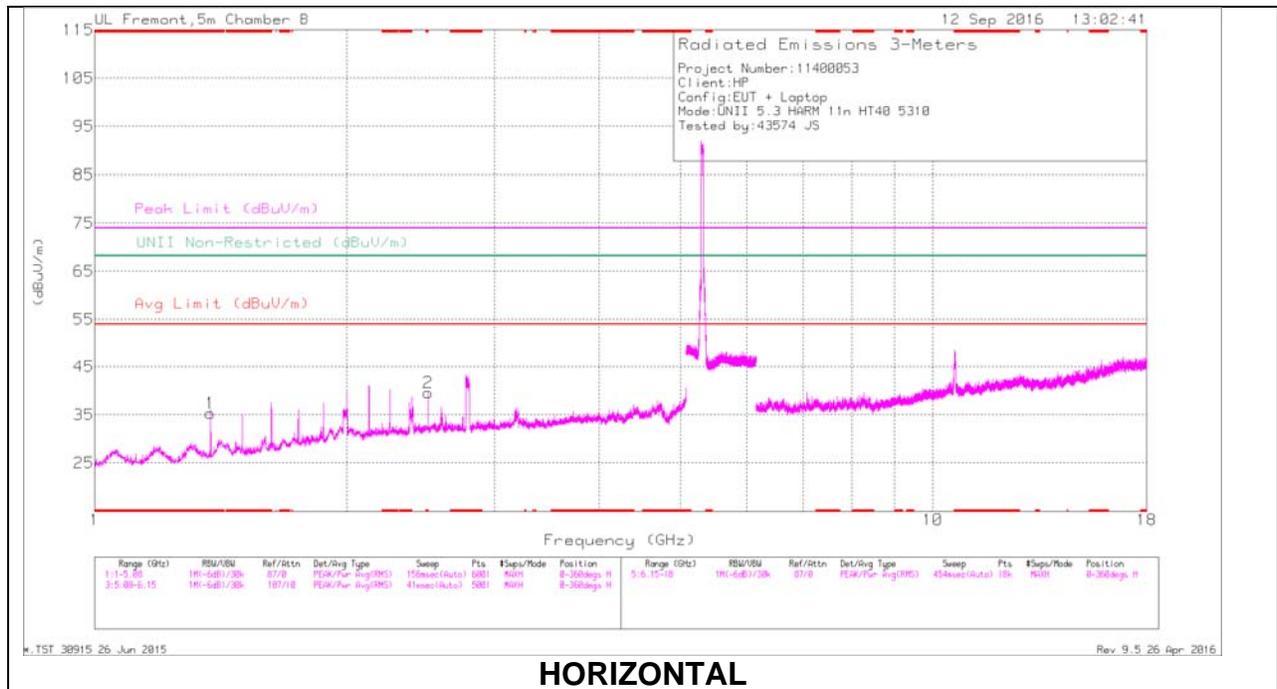
### LOW CHANNEL DATA

#### Trace Markers

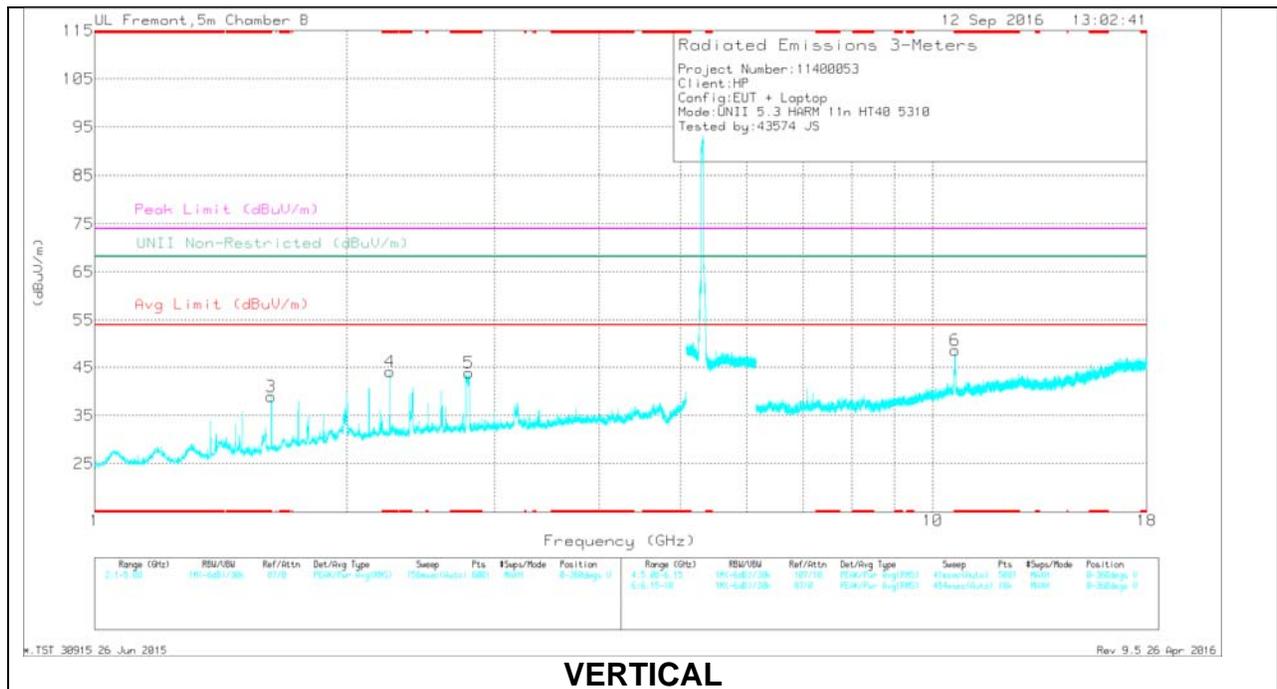
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/Filt/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.375	46.94	PK-U	28.9	-35.1	40.74	-	-	74	-33.26	-	-	140	287	H
* 1.375	42.12	ADR	28.9	-35.1	35.92	54	-18.08	-	-	-	-	140	287	H
* 1.5	49.51	PK-U	27.8	-35.6	41.71	-	-	74	-32.29	-	-	185	199	H
* 1.5	43.85	ADR	27.8	-35.6	36.05	54	-17.95	-	-	-	-	185	199	H
* 1.625	51.25	PK-U	28.4	-34.7	44.95	-	-	74	-29.05	-	-	127	282	V
* 1.625	46.13	ADR	28.4	-34.7	39.83	54	-14.17	-	-	-	-	127	282	V
* 2.25	51.64	PK-U	31.5	-34.1	49.04	-	-	74	-24.96	-	-	212	210	V
* 2.25	47.08	ADR	31.5	-34.1	44.48	54	-9.52	-	-	-	-	212	210	V
* 2.773	52.42	PK-U	32.4	-34.4	50.42	-	-	74	-23.58	-	-	0	329	V
* 2.774	39.3	ADR	32.4	-34.4	37.3	54	-16.7	-	-	-	-	0	329	V
10.54	36.97	ADR	37.8	-26.3	48.47	-	-	-	-	-	-	238	195	V
10.544	47.94	PK-U	37.8	-26.4	59.34	-	-	-	-	68.2	-8.86	238	195	V

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 PK-U - U-NII: Maximum Peak  
 ADR - U-NII AD primary method, RMS average

### HIGH CHANNEL RESULTS



**HORIZONTAL**



**VERTICAL**

## HIGH CHANNEL DATA

### Trace Markers

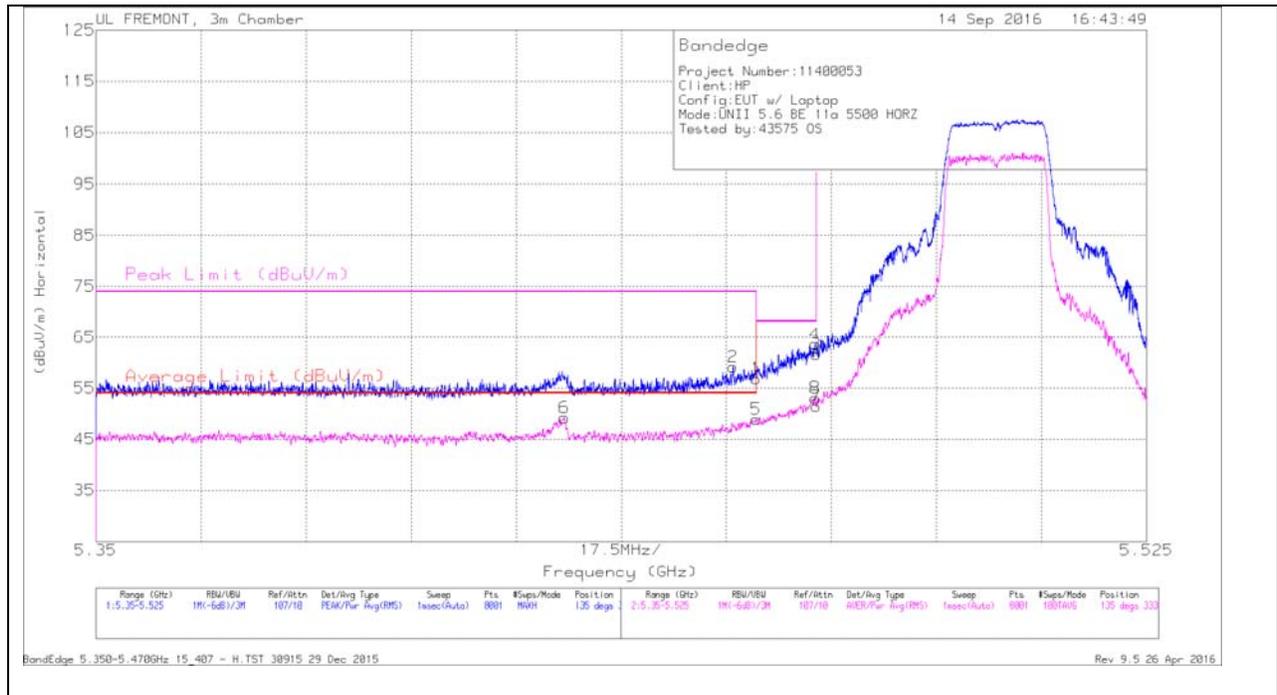
Frequency (GHz)	Meter Reading (dBuV)	Det	AF 1345 (dB/m)	Amp/Cbl/Filt/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Asimuth (Degs)	Height (cm)	Polarity
* 1.375	47.68	PK-U	28.9	-35.1	41.48	-	-	74	-32.52	-	-	143	229	H
* 1.375	42.64	ADR	28.9	-35.1	36.44	54	-17.56	-	-	-	-	143	229	H
* 1.625	51.58	PK-U	28.4	-34.7	45.28	-	-	74	-28.72	-	-	125	281	V
* 1.625	44.64	ADR	28.4	-34.7	38.34	54	-15.66	-	-	-	-	125	281	V
* 2.25	50.39	PK-U	31.5	-34.1	47.79	-	-	74	-26.21	-	-	217	210	V
* 2.25	45.83	ADR	31.5	-34.1	43.23	54	-10.77	-	-	-	-	217	210	V
* 2.796	51.61	PK-U	32.4	-34.3	49.71	-	-	74	-24.29	-	-	200	110	V
* 2.796	37.6	ADR	32.4	-34.3	35.7	54	-18.3	-	-	-	-	200	110	V
* 10.626	45.66	PK-U	37.9	-25.7	57.86	-	-	74	-16.14	-	-	169	300	V
* 10.624	35.03	ADR	37.9	-25.8	47.13	54	-6.87	-	-	-	-	169	300	V
2.5	41.92	PK-U	32.3	-34.1	40.12	-	-	-	-	68.2	-28.08	143	102	H
2.5	32.03	ADR	32.3	-34.1	30.23	-	-	-	-	-	-	143	102	H

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 PK-U - U-NII: Maximum Peak  
 ADR - U-NII AD primary method, RMS average

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

#### RESTRICTED BANDEDGE (LOW CHANNEL)

#### HORIZONTAL RESULTS

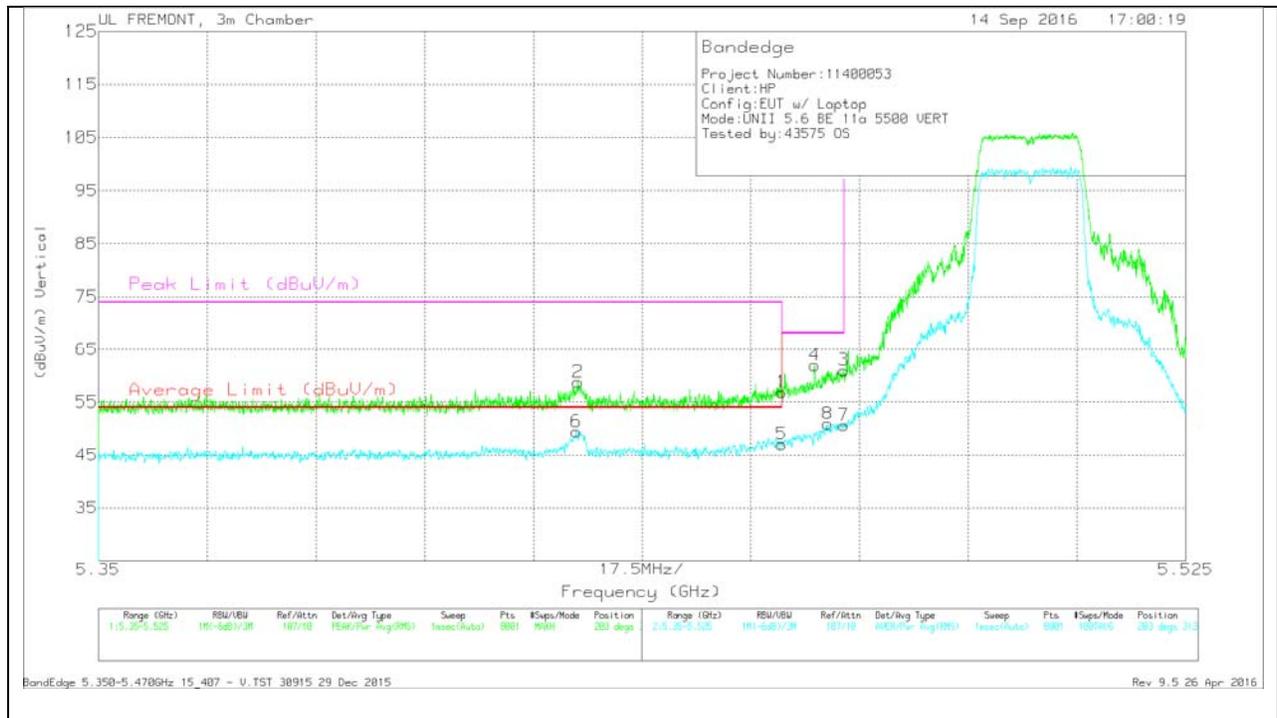


#### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBUV)	Det	AF T119 (dB/m)	Amp/Cbl/Filtr/P ad (dB)	Corrected Reading (dBUV/m)	Average Limit (dBUV/m)	Margin (dB)	Peak Limit (dBUV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	5.428	32.98	RMS	34.6	-18.4	49.18	54	-4.82	-	-	135	333	H
2	5.456	42.92	Pk	34.6	-18.4	59.12	-	-	74	-14.88	135	333	H
1	5.46	40.74	Pk	34.6	-18.5	56.84	-	-	74	-17.16	135	333	H
5	5.46	32.78	RMS	34.6	-18.5	48.88	54	-5.12	-	-	135	333	H
3	5.47	45.5	Pk	34.6	-18.5	61.6	-	-	68.2	-6.6	135	333	H
4	5.47	47.55	Pk	34.6	-18.5	63.65	-	-	68.2	-4.55	135	333	H
7	5.47	35.3	RMS	34.6	-18.5	51.4	-	-	-	-	135	333	H
8	5.47	36.94	RMS	34.6	-18.5	53.04	-	-	-	-	135	333	H

Pk - Peak detector  
 RMS - RMS detection

### VERTICAL RESULTS



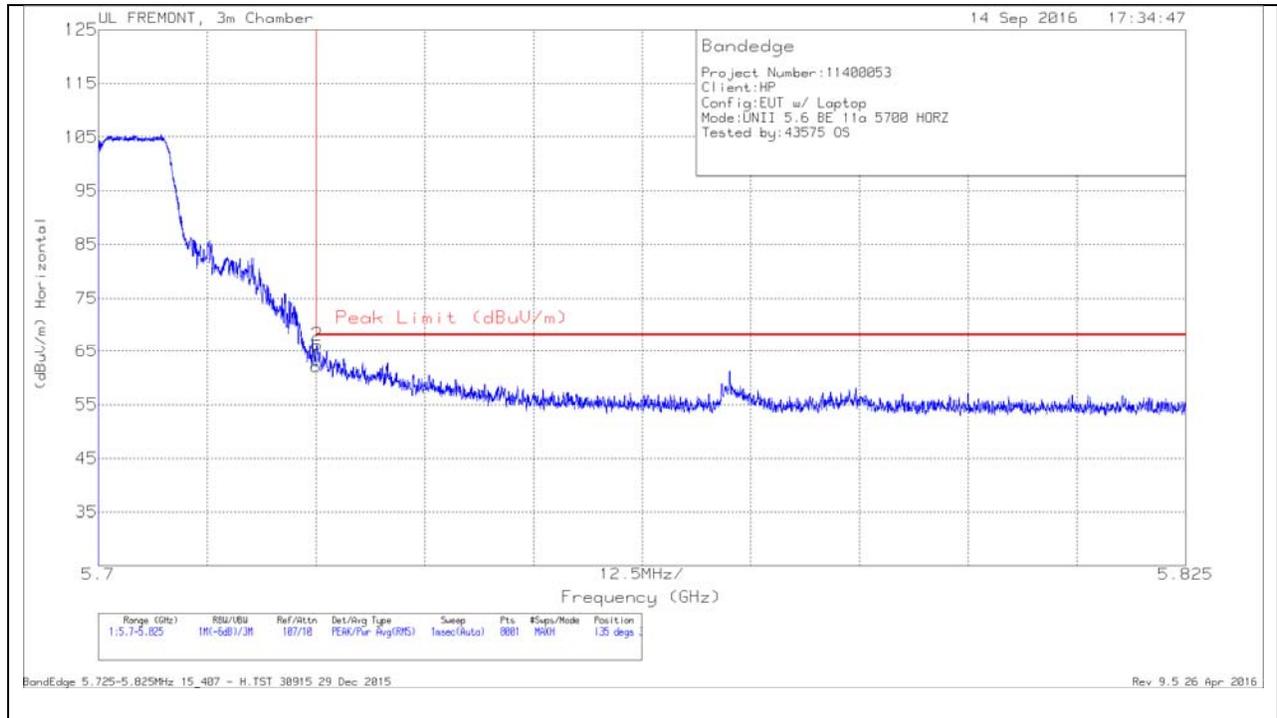
### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.427	42.54	Pk	34.6	-18.4	58.74	-	-	74	-15.26	203	313	V
6	5.427	33.18	RMS	34.6	-18.4	49.38	54	-4.62	-	-	203	313	V
1	5.46	40.73	PK	34.6	-18.5	56.83	-	-	74	-17.17	203	313	V
5	5.46	30.91	RMS	34.6	-18.5	47.01	54	-6.99	-	-	203	313	V
4	5.465	45.8	Pk	34.6	-18.5	61.9	-	-	68.2	-6.3	203	313	V
8	5.467	34.79	RMS	34.6	-18.5	50.89	-	-	-	-	203	313	V
3	5.47	44.9	Pk	34.6	-18.5	61	-	-	68.2	-7.2	203	313	V
7	5.47	34.51	RMS	34.6	-18.5	50.61	-	-	-	-	203	313	V

Pk - Peak detector  
 RMS - RMS detection

**AUTHORIZED BANDEGE (HIGH CHANNEL)**

**HORIZONTAL RESULTS**

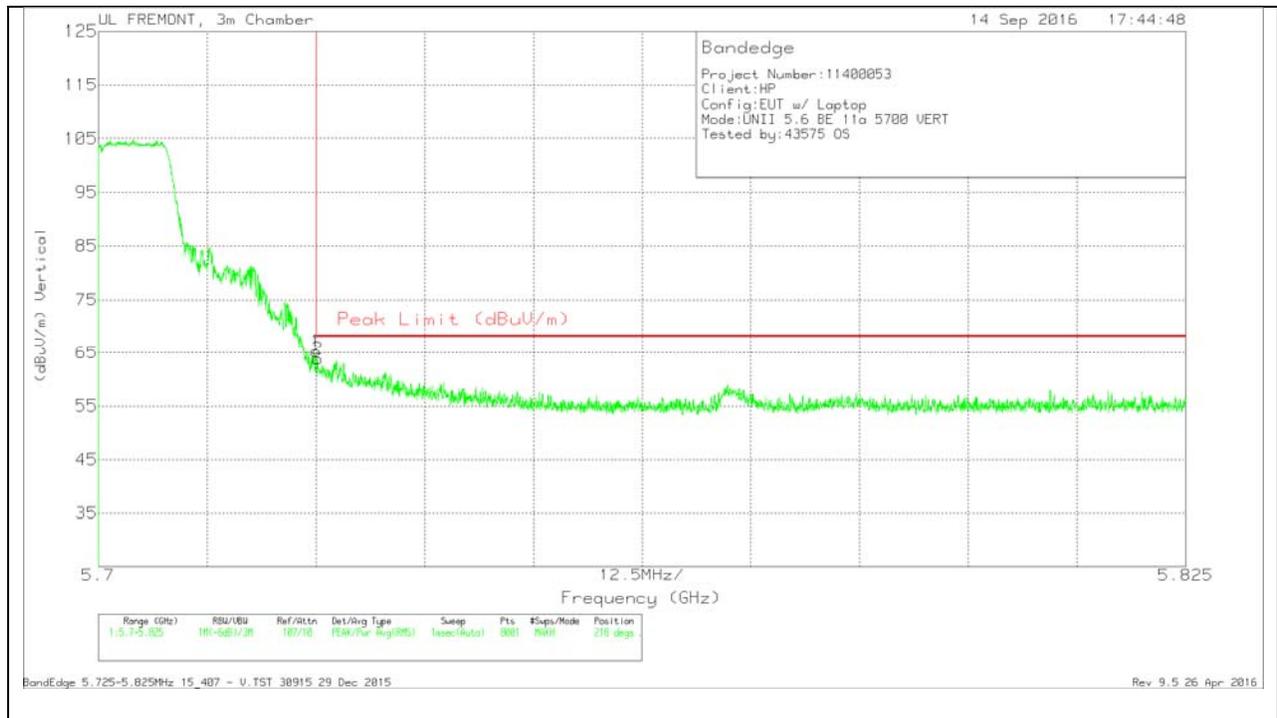


**Trace Markers**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	45.8	Pk	34.8	-18.5	62.1	68.2	-6.1	135	323	H
2	5.725	49.97	Pk	34.8	-18.5	66.27	68.2	-1.93	135	323	H

Pk - Peak detector

### VERTICAL RESULTS



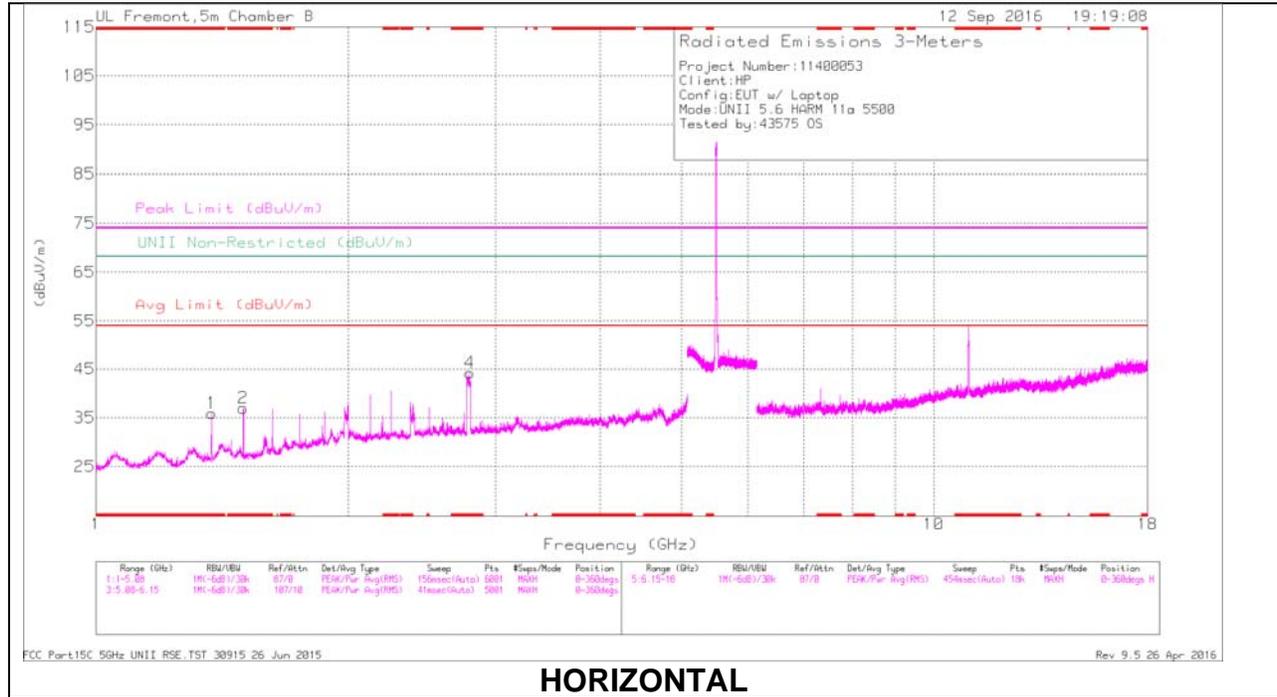
### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	49.02	PK	34.8	-18.5	65.32	68.2	-2.88	218	316	V
2	5.725	47.56	PK	34.8	-18.5	63.86	68.2	-4.34	218	316	V

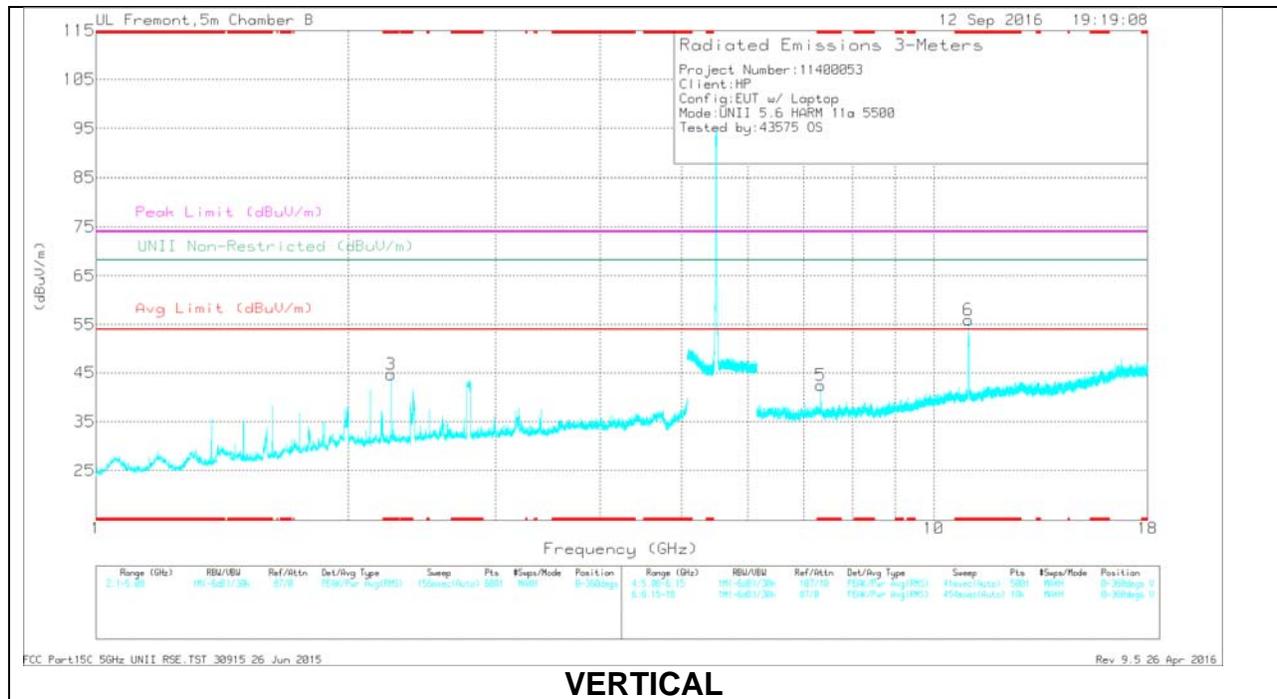
Pk - Peak detector

**HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL RESULTS**



**HORIZONTAL**



**VERTICAL**