



# TEST REPORT

**Report Number :** 11360398-E4V3

**Applicant :** JUNE LIFE INC.  
1805 BROADWAY  
SAN FRANCISCO, CA 94109, U.S.A.

**Model :** JCP01

**FCC ID :** 2AJGA-CP16A

**IC ID :** 21848-CP16A

**EUT Description :** INTELLIGENT OVEN Wi-Fi / BLUETOOTH

**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:**  
11/7/2016

**Prepared by:**

UL Verification Services Inc.  
47173 Benicia Street  
Fremont, CA 94538, U.S.A.  
TEL: (510) 771-1000  
FAX: (510) 661-0888

NVLAP®  
NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	10/13/16	Initial Issue	D. Corona
V2	10/28/16	Updated Section 5.5,7.8,7.9 &7.10	D. Corona
V3	11/07/16	Updated Section 5.3	D. Corona

## TABLE OF CONTENTS

<b>1. ATTESTATION OF TEST RESULTS.....</b>	<b>6</b>
<b>2. TEST METHODOLOGY .....</b>	<b>7</b>
<b>3. FACILITIES AND ACCREDITATION.....</b>	<b>7</b>
<b>4. CALIBRATION AND UNCERTAINTY .....</b>	<b>7</b>
4.1. <i>MEASURING INSTRUMENT CALIBRATION .....</i>	<i>7</i>
4.2. <i>SAMPLE CALCULATION.....</i>	<i>7</i>
4.3. <i>MEASUREMENT UNCERTAINTY .....</i>	<i>8</i>
<b>5. EQUIPMENT UNDER TEST .....</b>	<b>9</b>
5.1. <i>DESCRIPTION OF EUT.....</i>	<i>9</i>
5.2. <i>MAXIMUM OUTPUT POWER.....</i>	<i>9</i>
5.3. <i>DESCRIPTION OF AVAILABLE ANTENNAS .....</i>	<i>9</i>
5.4. <i>SOFTWARE AND FIRMWARE .....</i>	<i>9</i>
5.5. <i>WORST-CASE CONFIGURATION AND MODE.....</i>	<i>10</i>
5.6. <i>DESCRIPTION OF TEST SETUP .....</i>	<i>11</i>
5.7. <i>TEST AND MEASUREMENT EQUIPMENT.....</i>	<i>13</i>
5.1. <i>MEASUREMENT METHOD .....</i>	<i>14</i>
<b>6. SUMMARY TABLE .....</b>	<b>15</b>
<b>7. ANTENNA PORT TEST RESULTS .....</b>	<b>16</b>
7.1. <i>ON TIME AND DUTY CYCLE .....</i>	<i>16</i>
7.2. <i>802.11a MODE IN THE 5.2 GHz BAND (Chain 0) .....</i>	<i>18</i>
7.2.1. <i>26 dB BANDWIDTH .....</i>	<i>18</i>
7.2.2. <i>99% BANDWIDTH .....</i>	<i>19</i>
7.2.3. <i>OUTPUT POWER AND PSD .....</i>	<i>20</i>
7.3. <i>802.11n HT20 MODE IN THE 5.2 GHz BAND (Chain 0 &amp; 1).....</i>	<i>23</i>
7.3.1. <i>26 dB BANDWIDTH .....</i>	<i>23</i>
7.3.2. <i>99% BANDWIDTH .....</i>	<i>25</i>
7.3.3. <i>OUTPUT POWER AND PSD .....</i>	<i>27</i>
7.4. <i>802.11n HT40 MODE IN THE 5.2 GHz BAND (Chain 0 &amp; 1).....</i>	<i>30</i>
7.4.1. <i>26 dB BANDWIDTH .....</i>	<i>30</i>
7.4.2. <i>99% BANDWIDTH .....</i>	<i>31</i>
7.4.3. <i>OUTPUT POWER AND PSD .....</i>	<i>32</i>
7.5. <i>802.11a MODE IN THE 5.3 GHz BAND (Chain 0) .....</i>	<i>35</i>
7.5.1. <i>26 dB BANDWIDTH .....</i>	<i>35</i>
7.5.2. <i>99% BANDWIDTH .....</i>	<i>36</i>
7.5.3. <i>OUTPUT POWER AND PSD .....</i>	<i>37</i>
7.6. <i>802.11n HT20 MODE IN THE 5.3 GHz BAND (Chain 0 &amp; 1).....</i>	<i>40</i>

7.6.1.	26 dB BANDWIDTH .....	40
7.6.2.	99% BANDWIDTH .....	42
7.6.3.	OUTPUT POWER AND PSD .....	44
7.7.	<i>802.11n HT40 MODE IN THE 5.3 GHz BAND (Chain 0 &amp; 1)</i> .....	47
7.7.1.	26 dB BANDWIDTH .....	47
7.7.2.	99% BANDWIDTH .....	48
7.7.3.	OUTPUT POWER AND PSD .....	49
7.8.	<i>802.11a MODE IN THE 5.6 GHz BAND (Chain 0)</i> .....	52
7.8.1.	26 dB BANDWIDTH .....	52
7.8.2.	99% BANDWIDTH .....	53
7.8.3.	OUTPUT POWER AND PSD .....	54
7.9.	<i>802.11n HT20 MODE IN THE 5.6 GHz BAND (Chain 0 &amp; 1)</i> .....	57
7.9.1.	26 dB BANDWIDTH .....	57
7.9.2.	99% BANDWIDTH .....	59
7.9.3.	OUTPUT POWER AND PSD .....	61
7.10.	<i>802.11n HT40 MODE IN THE 5.6 GHz BAND (Chain 0 &amp; 1)</i> .....	64
7.10.1.	26 dB BANDWIDTH.....	64
7.10.2.	99% BANDWIDTH.....	66
7.10.3.	OUTPUT POWER AND PSD .....	68
7.11.	<i>802.11a MODE IN THE 5.8 GHz BAND (Chain 0)</i> .....	71
7.11.1.	6 dB BANDWIDTH.....	71
7.11.2.	99% BANDWIDTH.....	72
7.11.3.	OUTPUT POWER .....	73
7.11.4.	Maximum Power Spectral Density (PSD) .....	75
7.12.	<i>802.11n HT20 MODE IN THE 5.8 GHz BAND (Chain 0 &amp; 1)</i> .....	78
7.12.1.	6 dB BANDWIDTH.....	78
7.12.2.	99% BANDWIDTH.....	80
7.12.3.	OUTPUT POWER .....	82
7.12.4.	Maximum Power Spectral Density (PSD) .....	84
7.13.	<i>802.11n HT40 MODE IN THE 5.8 GHz BAND (Chain 0 &amp; 1)</i> .....	87
7.13.1.	6 dB BANDWIDTH.....	87
7.13.2.	99% BANDWIDTH.....	88
7.13.3.	OUTPUT POWER .....	89
7.13.4.	Maximum Power Spectral Density (PSD) .....	91
8.	<b>RADIATED TEST RESULTS .....</b>	<b>94</b>
8.1.	<i>LIMITS AND PROCEDURE</i> .....	94
8.2.	<i>TRANSMITTER ABOVE 1 GHz</i> .....	95
8.2.1.	TX ABOVE 1 GHz 802.11a MODE IN THE 5.2 GHz BAND .....	95
8.2.2.	TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND.....	103
8.2.3.	TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND.....	111
8.2.4.	TX ABOVE 1 GHz 802.11a MODE IN THE 5.3 GHz BAND.....	117
8.2.5.	TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.3 GHz BAND.....	125
8.2.6.	TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.3 GHz BAND.....	133
8.2.7.	TX ABOVE 1 GHz 802.11a MODE IN THE 5.6 GHz BAND.....	139
8.2.8.	TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.6 GHz BAND.....	149
8.2.9.	TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.6 GHz BAND.....	159
8.2.10.	TX ABOVE 1 GHz 802.11a MODE IN THE 5.8 GHz BAND .....	169
8.2.11.	TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.8 GHz BAND .....	179

---

8.2.12. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.8 GHz BAND .....	189
8.3. WORST-CASE BELOW 30 MHz.....	197
8.4. WORST-CASE BELOW 1 GHz .....	198
8.5. WORST-CASE 18 GHz – 26 GHz.....	200
8.6. WORST-CASE 26 GHz – 40 GHz.....	202
<b>9. AC POWER LINE CONDUCTED EMISSIONS.....</b>	<b>204</b>
<b>10. SETUP PHOTOS .....</b>	<b>207</b>

## 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** JUNE LIFE INC.  
**EUT DESCRIPTION:** INTELLIGENT OVEN Wi-Fi / BLUETOOTH  
**MODEL:** JCP01  
**SERIAL NUMBER:** KQ263C0006  
**DATE TESTED:** JULY 28 – SEPTEMBER 7, 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.

Approved & Released For  
UL Verification Services Inc. By:



---

DAN CORONA  
CONSUMER TECHNOLOGY DIVISION  
WISE PROJECT LEAD  
UL Verification Services Inc.

Prepared By:



---

GLENN ESCANO  
CONSUMER TECHNOLOGY DIVISION  
WISE LAB ENGINEER  
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, KDB 789033 D02 v01r03, KDB 662911, ANSI C63.10-2013, RSS-GEN Issue 4, and RSS-247 Issue 1.

## 3. 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 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 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>.

## 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	3.84 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%.

## 5. EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF EUT

The EUT is an Intelligent OVEN Wi-Fi / Bluetooth.

### 5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5180 - 5240	802.11a SISO	16.00	39.81
5180 - 5240	802.11n HT20 MIMO	16.41	43.75
5190 - 5230	802.11n HT40 MIMO	15.97	39.54
5260 - 5320	802.11a SISO	19.20	83.18
5260 - 5320	802.11n HT20 MIMO	18.78	75.51
5270 - 5310	802.11n HT40 MIMO	19.83	96.16
5500 - 5700	802.11a SISO	17.77	59.84
5500 - 5700	802.11n HT20 MIMO	21.01	126.18
5510 - 5670	802.11n HT40 MIMO	17.13	51.64
5745-5825	802.11a SISO	16.43	43.95
5745-5825	802.11n HT20 MIMO	20.01	100.23
5755-5795	802.11n HT40 MIMO	17.06	50.82

### 5.3. DESCRIPTION OF AVAILABLE ANTENNAS

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

Frequency (MHz)	Max. Peak Gain (dBi) (Main)	Max. Peak Gain (dBi) (Aux)
5150-5350	3.0	3.0
5470-5850	4.0	4.0

### 5.4. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was Broadcom, rev. 6.37 RC32.0.

The EUT driver software installed during testing was Broadcom, rev. 6.37.32.0.

The test utility software used during testing was Broadcom, rev. 6.10.197.111.1 (r446629 WLTEST).

## 5.5. WORST-CASE CONFIGURATION AND MODE

Above 1GHz Low/Middle/High channels were tested for radiated emissions with the EUT set to transmit at the channels with highest output power as worst-case scenario.

The EUT can only be setup in desktop orientation; therefore, all radiated testing was performed with the EUT in desktop orientation.

Radiated emission below 1GHz, above 18GHz, and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

SISO mode was performed at chain 0.

MIMO mode was performed at chain 0 and 1.

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

802.11a mode: MCS0

802.11n HT20mode: MCS8

802.11n HT40mode: MCS8

## 5.6. DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Laptop	Lenovo	T450	PC-04AVGP	PD97265NGU
AC Adapter	Lenovo	ADLX65NLC2A	PA-1650-71	N/A

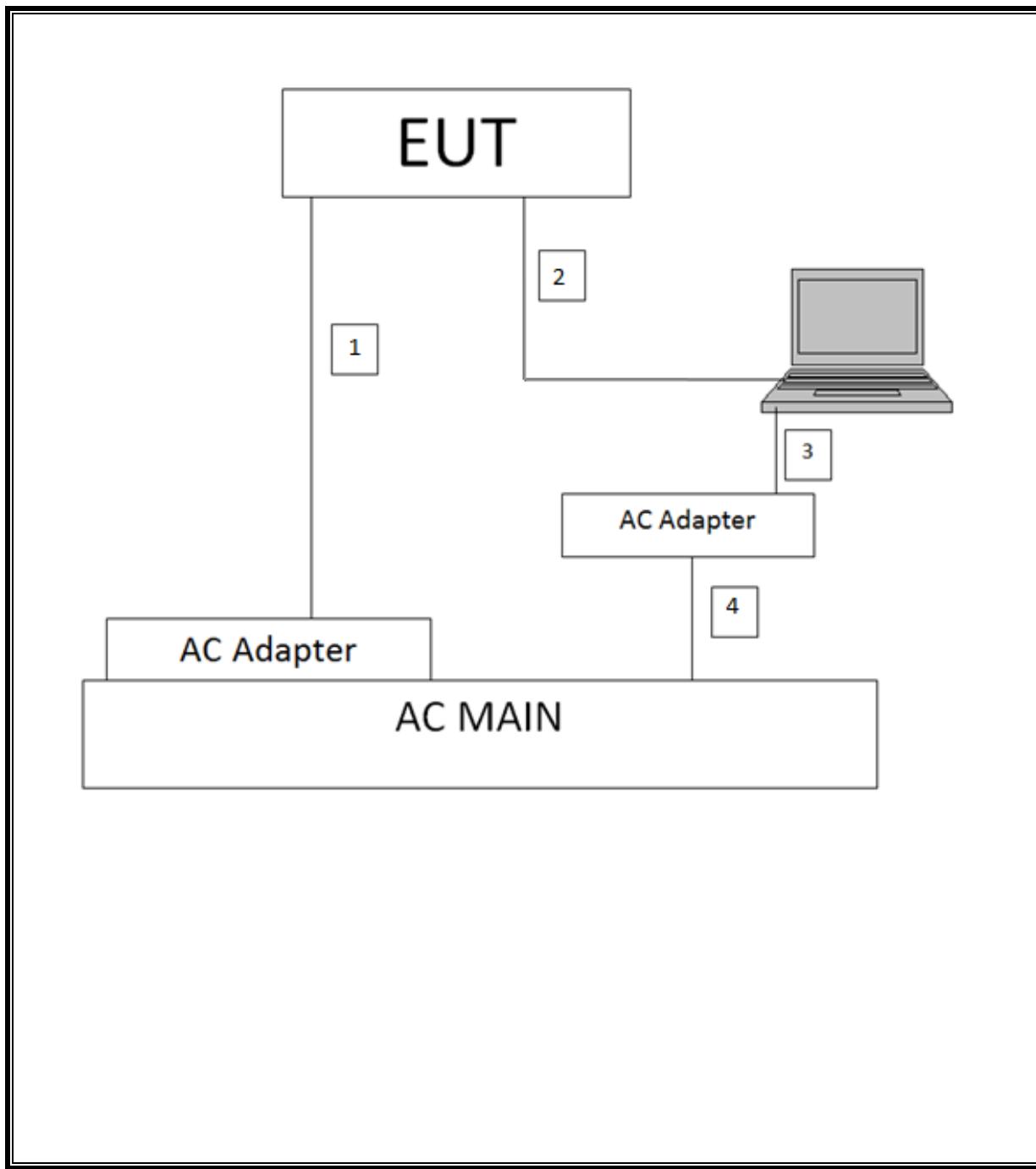
### I/O CABLES

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC Power	1	DC	unshielded	1	N/A
2	USB port	1	Micro-USB	unshielded	3	Ferrite at Micro-USB side
3	DC	1	20V DC	Unshielded	1.5	
4	AC	1	US115V	Unshielded	1	

### TEST SETUP

The EUT is a stand-alone unit, and the radio is exercised by software, Broadcom rev 6.10.197.111.1 (r446629 WLTEST) via USB cable.

**SETUP DIAGRAM FOR TESTS**



## 5.7. 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	493	03/09/16	03/09/17	
Amplifier, 1 - 26.5GHz, 23.5dB	Agilent	8449B	404	07/05/16	07/05/17	
Amplifier, 26 - 40GHz	Miteq	NSP 4000 SP2	88	04/07/16	04/07/17	
Amplifier, 10KHz to 1GHz, 32dB	HP	8447D	10	02/01/16	02/01/17	
Antenna, Broadband Hybrid 30MHz to 2000MHz	Sunol Science	JB1	130	09/23/15	09/23/16	
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	345	03/07/16	03/07/17	
Antenna, Horn 18-26.5GHz	Seavey Division	MWH-1826/B	449	05/26/16	05/26/17	
Antenna, Horn26.5 - 40 GHz Horn Antenna	ARA	MWH-2640/B	446	05/25/16	05/25/17	
EMI Test Receiver 9Khz-7GHz	R& S	ESCI7	100935	09/10/15	09/10/16	
LISN for Conducted Emissions	Fischer	50/250-25-2	161124	09/16/15	09/16/16	
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	750	09/16/25	09/16/16	
PSA Spectrum Analyzer 40GHz	Agilent	E4446A	146	07/13/16	07/13/17	
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent	N9030A	907	01/06/16	01/06/17	
Filter, HPF 6 HPF	Micro-Tronics	HPS17542	483	03/09/16	03/09/17	
Filter, HPF 3GHz	Micro-Tronics	HPM17543	485	03/09/16	03/09/17	

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

## 5.1. 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.

## 6. 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	Pass
§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)		Pass
§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)		Pass
§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)		Pass
§15.407 (a)(2)	RSS-247 6.2	PSD (5.3,5.5GHz)	<11dBm/MHz		Pass
§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	Pass

## 7. ANTENNA PORT TEST RESULTS

### 7.1. ON TIME AND DUTY CYCLE

#### LIMITS

None; for reporting purposes only.

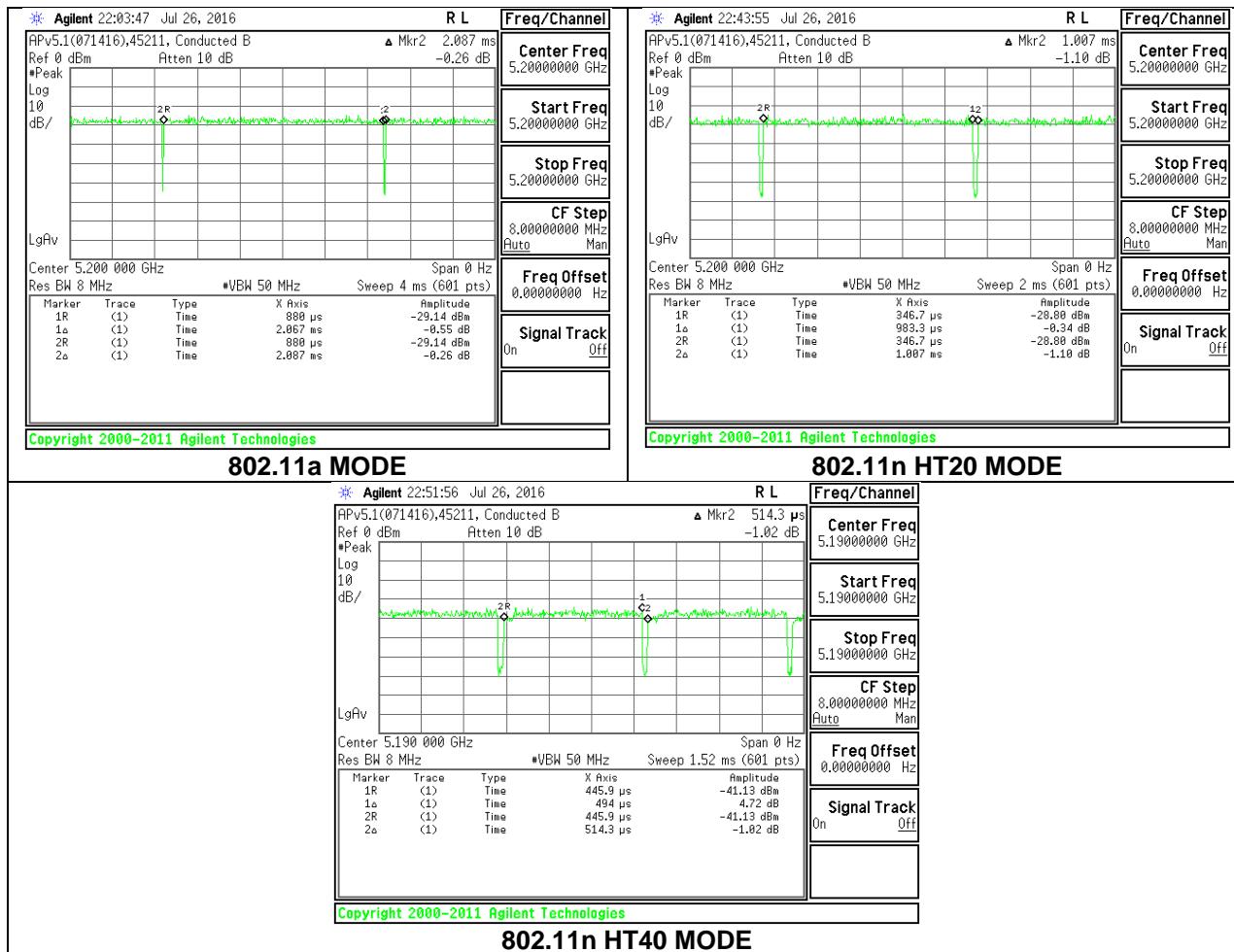
#### PROCEDURE

KDB 789033 Zero-Span Spectrum Analyzer Method.

#### 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	2.067	2.087	0.990	99.04%	0.00	0.010
802.11n HT20 CDD	0.983	1.007	0.976	97.65%	0.10	1.017
802.11n HT40 CDD	0.4940	0.5143	0.961	96.05%	0.17	2.024

## DUTY CYCLE PLOTS



## 7.2. 802.11a MODE IN THE 5.2 GHz BAND (Chain 0)

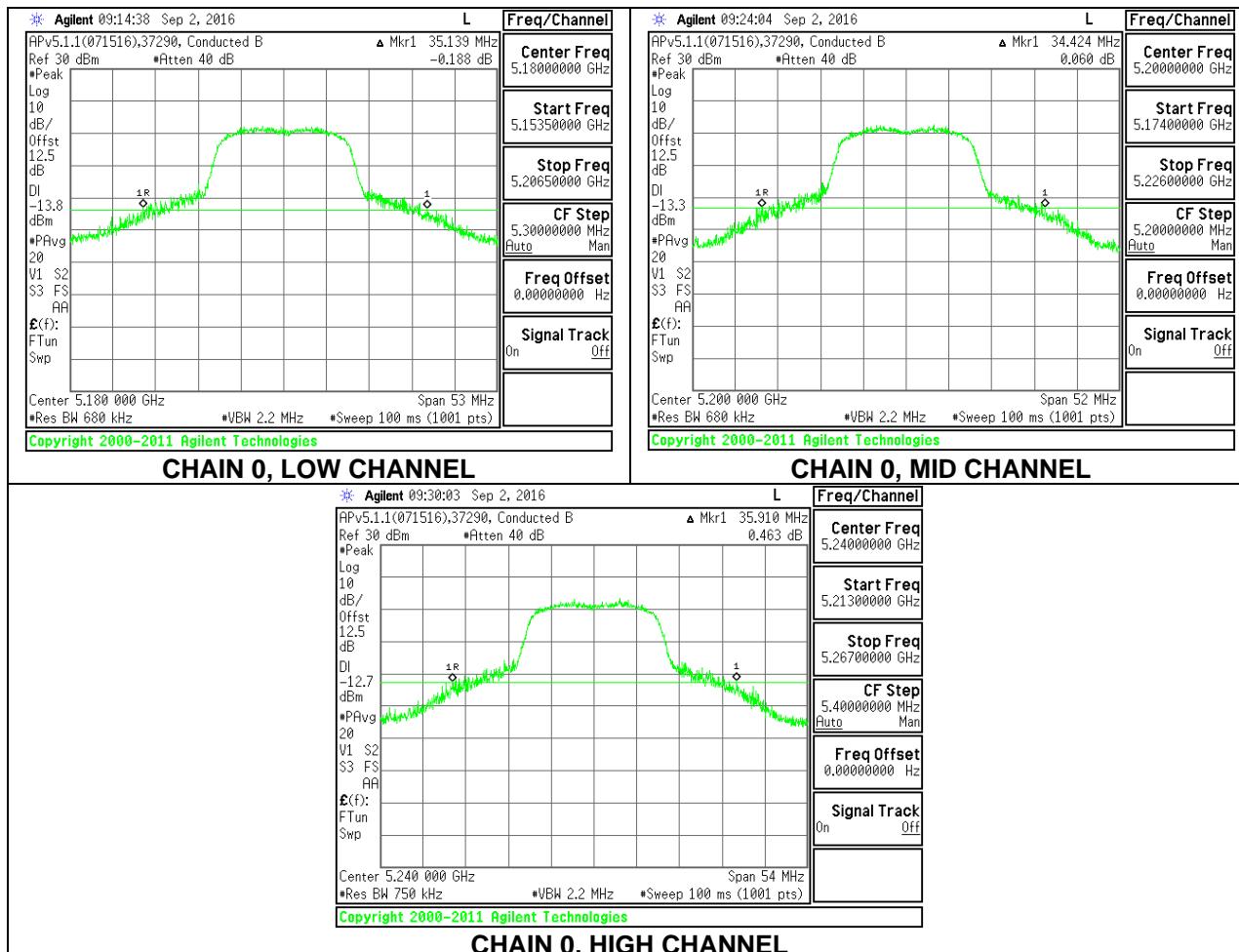
### 7.2.1. 26 dB BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	26 dB BW CHAIN 0 (MHz)
Low	5180	35.139
Mid	5200	34.424
High	5240	35.910



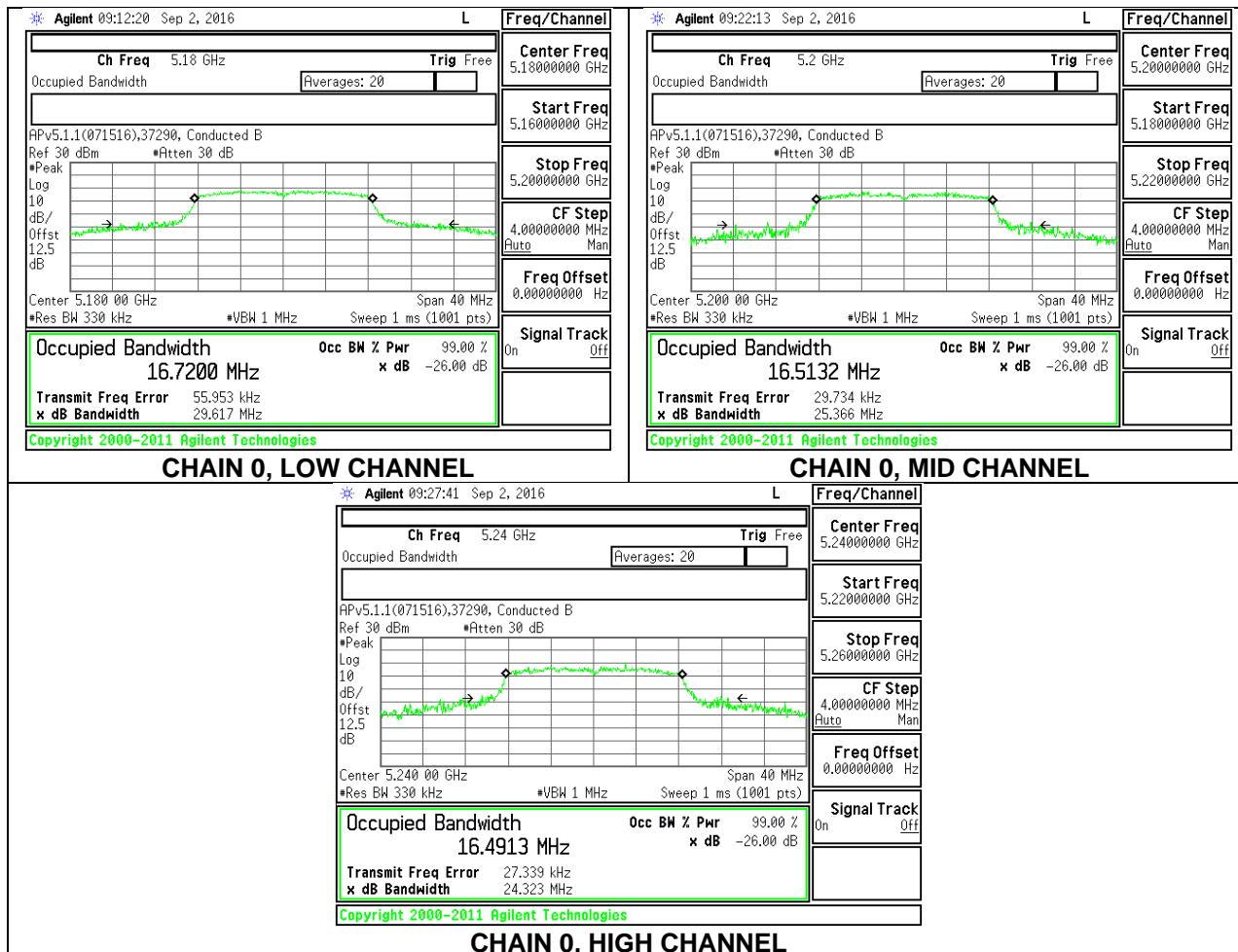
## 7.2.2. 99% BANDWIDTH

### LIMITS

None; for reporting purposes only.

### RESULTS

Channel	Frequency (MHz)	99% BW CHAIN 0 (MHz)
Low	5180	16.7200
Mid	5200	16.5132
High	5240	16.4913



### 7.2.3. OUTPUT POWER AND PSD

#### LIMITS

##### FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26-dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

##### IC RSS-247 6.2.1(1)

The maximum e.i.r.p. shall not exceed 200 mW or  $10 + 10 \log_{10} B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

#### DIRECTIONAL ANTENNA GAIN

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

#### RESULTS

#### Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5180	16.7200	3.00
Mid	5200	16.5132	3.00
High	5240	16.4913	3.00

#### Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC EIRP Limit (dBm)	Max IC Power (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm)	IC eirp PSD Limit (dBm)	PSD Limit (dBm)
Low	5180	24.00	22.23	19.23	19.23	11.00	10.00	7.00
Mid	5200	24.00	22.18	19.18	19.18	11.00	10.00	7.00
High	5240	24.00	22.17	19.17	19.17	11.00	10.00	7.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power
--------------------	------	--

#### Output Power Results

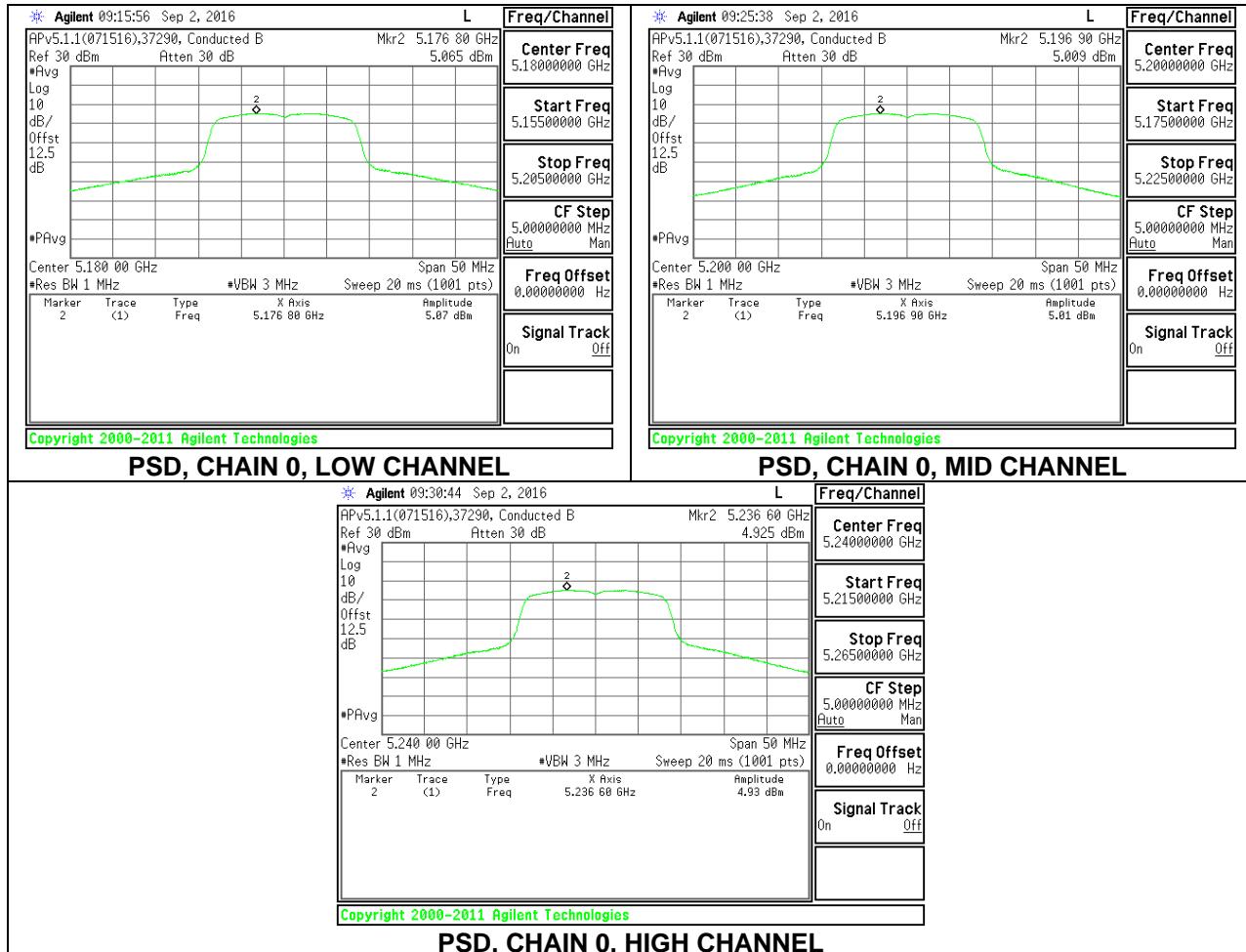
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	15.00	15.00	19.23	-4.23
Mid	5200	16.00	16.00	19.18	-3.18
High	5240	15.90	15.90	19.17	-3.27

#### PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5180	5.065	5.07	7.00	-1.94
Mid	5200	5.009	5.01	7.00	-1.99
High	5240	4.925	4.93	7.00	-2.08

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

ID:	37290	Date:	8/8/16
-----	-------	-------	--------



## 7.3. 802.11n HT20 MODE IN THE 5.2 GHz BAND (Chain 0 & 1)

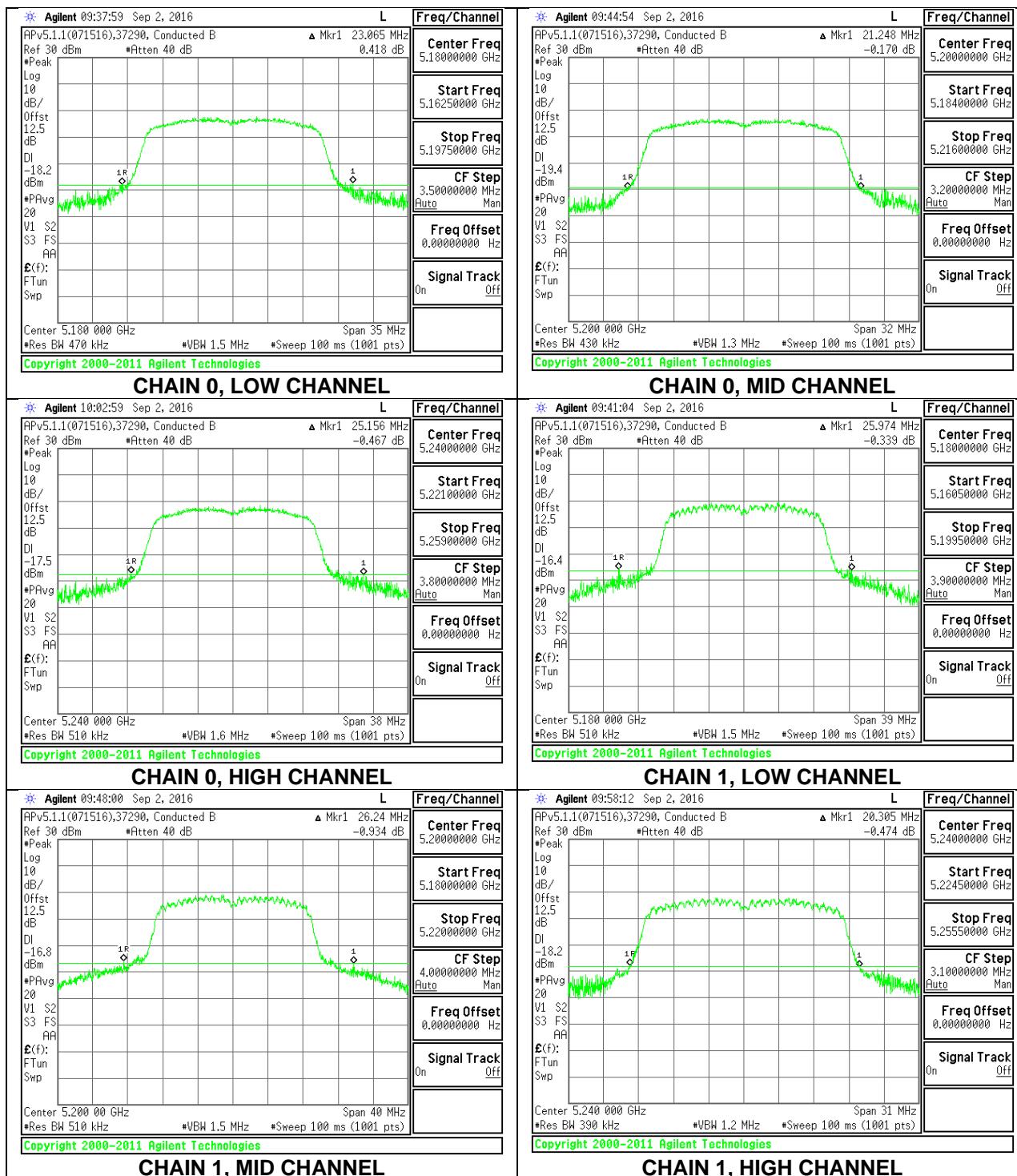
### 7.3.1. 26 dB BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	26 dB BW CHAIN 0 (MHz)	26 dB BW CHAIN 1 (MHz)
Low	5180	23.065	25.974
Mid	5200	21.248	26.240
High	5240	25.156	20.305



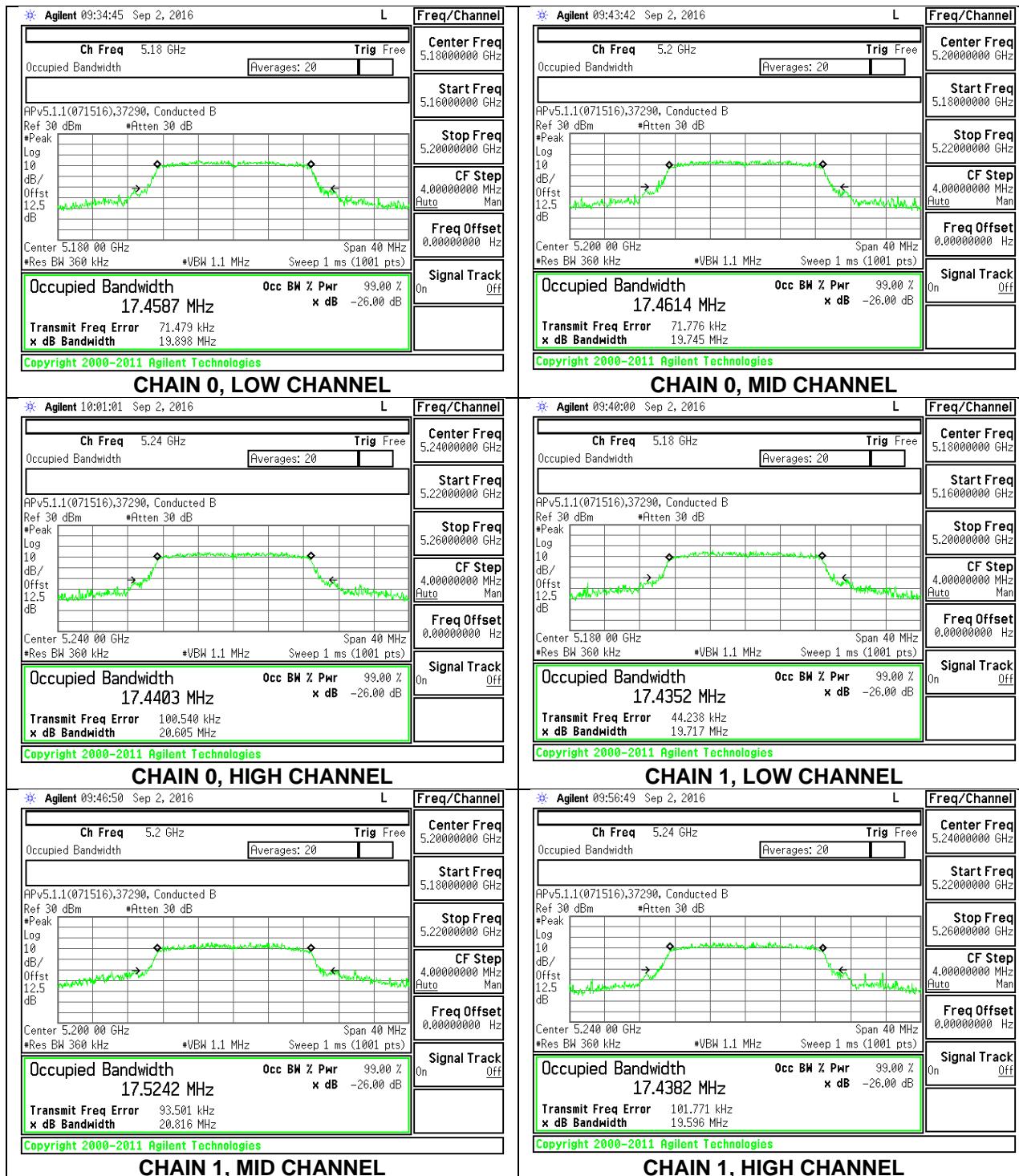
### 7.3.2. 99% BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	99% BW CHAIN 0 (MHz)	99% BW CHAIN 1 (MHz)
Low	5180	17.4587	17.4352
Mid	5200	17.4614	17.5242
High	5240	17.4403	17.4382



### 7.3.3. OUTPUT POWER AND PSD

#### LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

IC RSS-247 6.2.1(1)

The maximum e.i.r.p. shall not exceed 200 mW or  $10 + 10 \log_{10} B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

#### DIRECTIONAL ANTENNA GAIN

For Power, the TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
3.00	3.00	3.00

For PSD, the TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
3.00	3.00	6.01

#### RESULTS

### Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)
Low	5180	17.4352	3.00	6.01
Mid	5200	17.4614	3.00	6.01
High	5240	17.4382	3.00	6.01

### Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC EIRP Limit (dBm)	Max IC Power (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm)
Low	5180	24.00	22.41	19.41	19.41	10.99
Mid	5200	24.00	22.42	19.42	19.42	10.99
High	5240	24.00	22.42	19.42	19.42	10.99

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd PPSD
--------------------	------	---

### Output Power Results

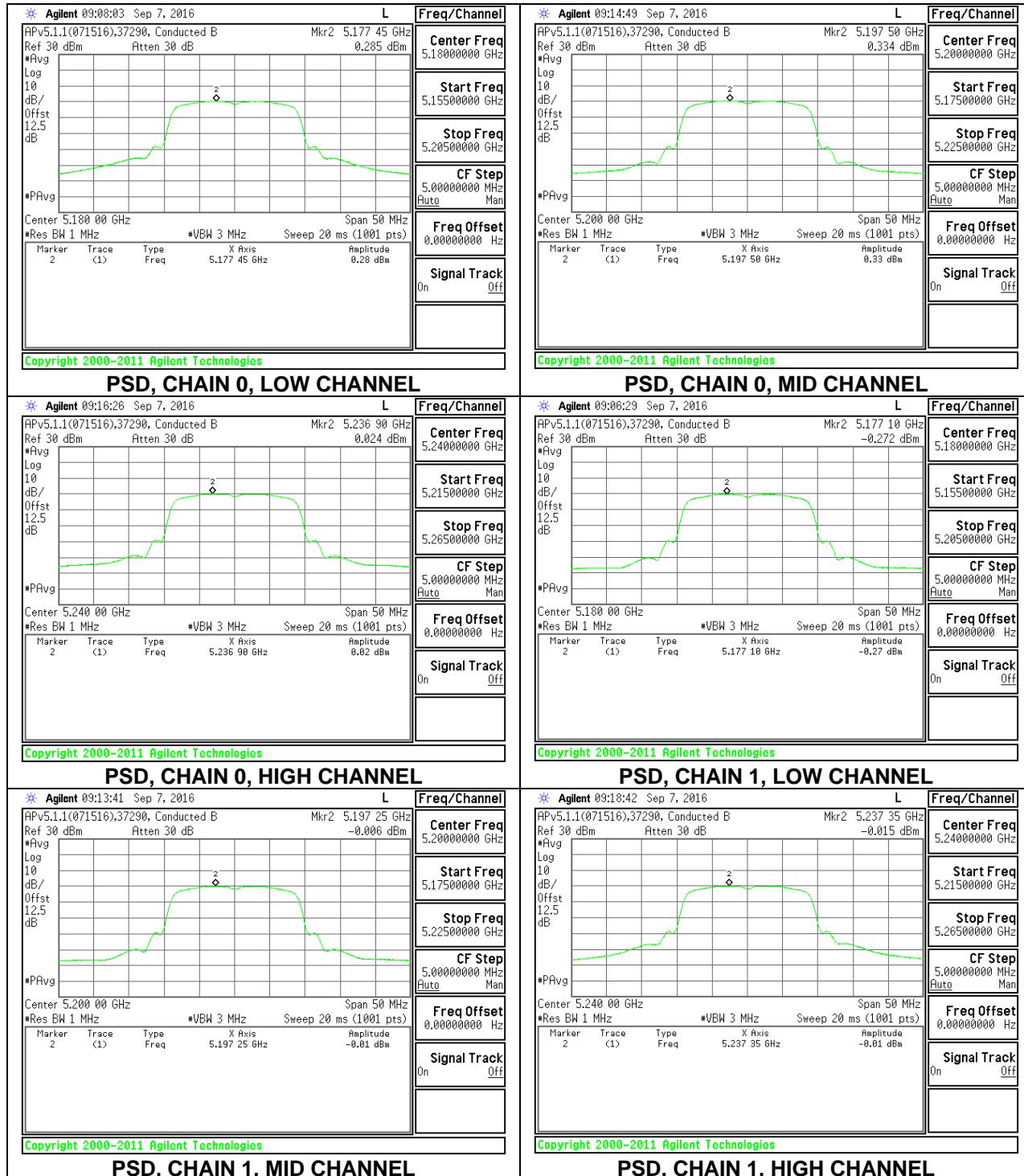
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	13.51	12.90	16.23	19.41	-3.19
Mid	5200	13.08	12.80	15.95	19.42	-3.47
High	5240	13.46	13.33	16.41	19.42	-3.01

### PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5180	0.285	-0.272	3.13	3.99	-0.86
Mid	5200	0.334	-0.006	3.28	3.99	-0.71
High	5240	0.024	-0.015	3.11	3.99	-0.88

**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.

ID:	37290	Date:	9/7/16
-----	-------	-------	--------



## 7.4. 802.11n HT40 MODE IN THE 5.2 GHz BAND (Chain 0 & 1)

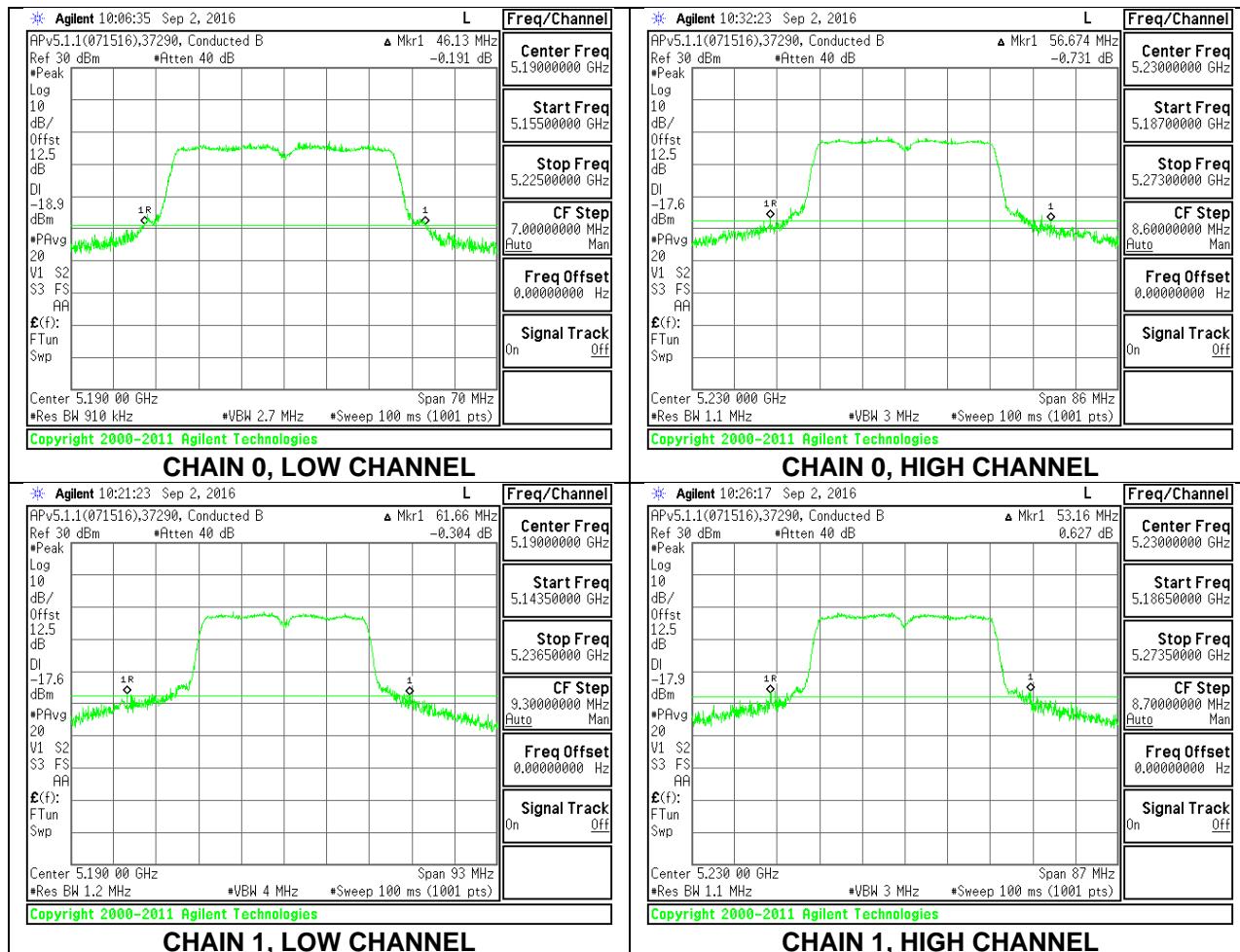
### 7.4.1. 26 dB BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	26dB BW CHAIN 0 (MHz)	26dB BW CHAIN 1 (MHz)
Low	5190	46.130	61.660
High	5230	56.674	53.160



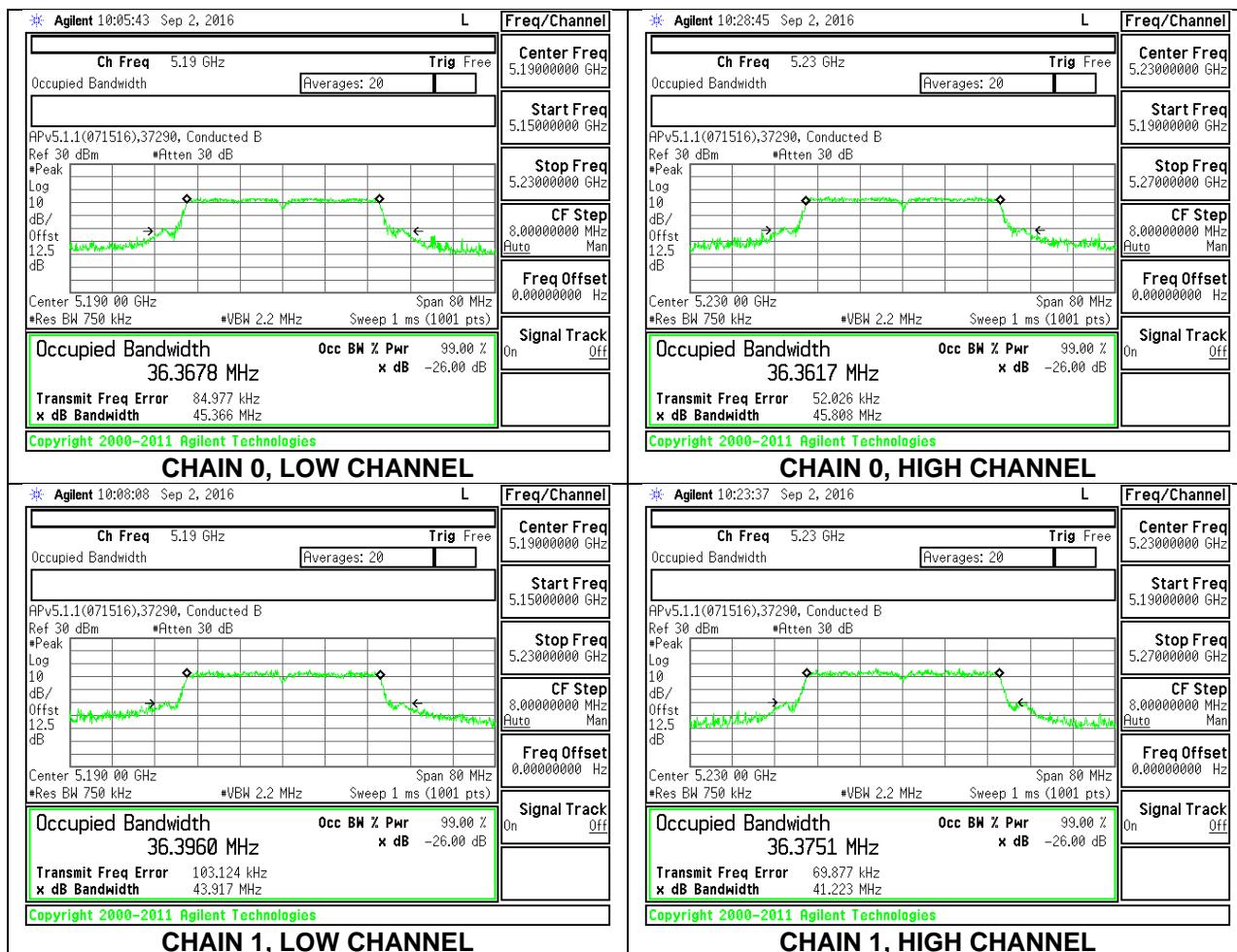
## 7.4.2. 99% BANDWIDTH

### LIMITS

None; for reporting purposes only.

### RESULTS

Channel	Frequency (MHz)	99% BW CHAIN 0 (MHz)	99% BW CHAIN 1 (MHz)
Low	5190	36.3678	36.3960
High	5230	36.3617	36.3751



### 7.4.3. OUTPUT POWER AND PSD

#### LIMITS

FCC §15.407 (a) (1)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

IC RSS-247 6.2.1(1)

The maximum e.i.r.p. shall not exceed 200 mW or  $10 + 10 \log_{10} B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

#### DIRECTIONAL ANTENNA GAIN

For Power, the TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
3.00	3.00	3.00

For PSD, the TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
3.00	3.00	6.01

#### RESULTS

**Bandwidth and Antenna Gain**

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)
Low	5190	36.3678	3.00	6.01
High	5230	36.3617	3.00	6.01

**Limits**

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC EIRP Limit (dBm)	Max IC Power (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm)	IC eirp PSD Limit (dBm)	PSD Limit (dBm)
Low	5190	24.00	23.00	20.00	20.00	10.99	10.00	3.99
High	5230	24.00	23.00	20.00	20.00	10.99	10.00	3.99

Duty Cycle CF (dB)	0.17	Included in Calculations of Corr'd PSD
--------------------	------	--

**Output Power Results**

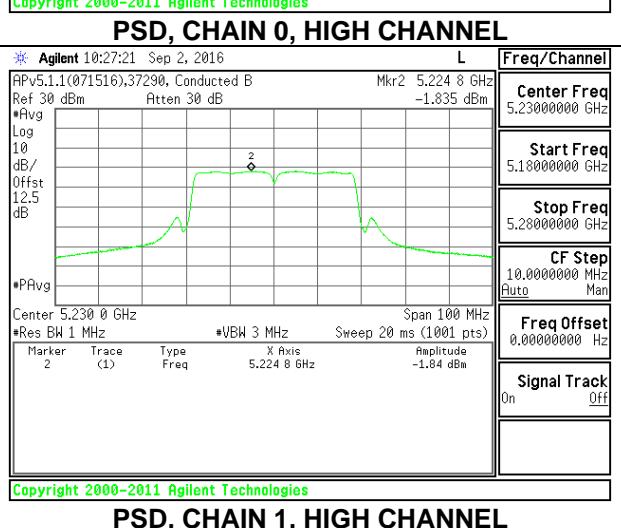
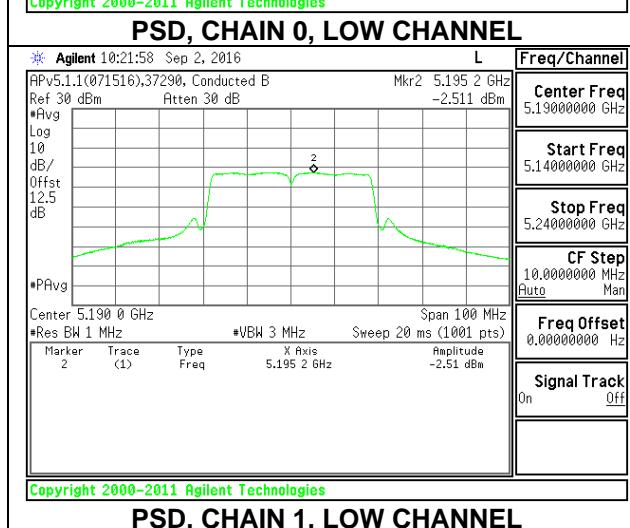
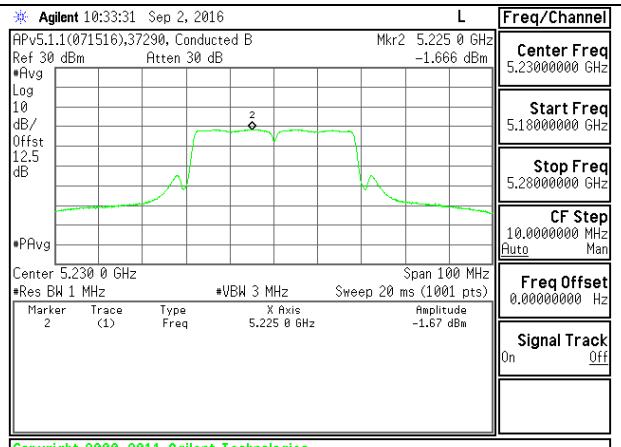
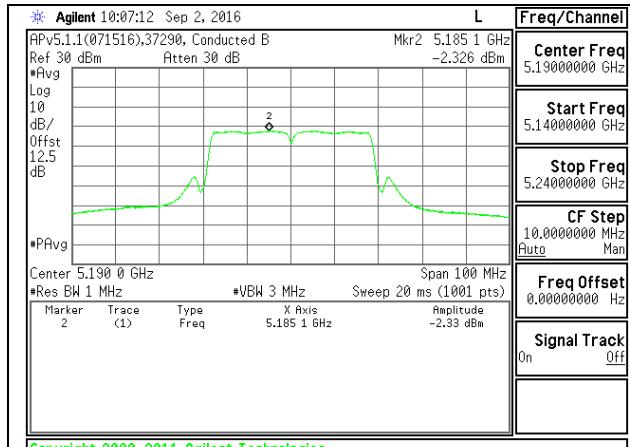
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	11.88	11.76	14.83	20.00	-5.17
High	5230	13.11	12.80	15.97	20.00	-4.03

**PSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5190	-2.326	-2.511	0.76	3.99	-3.23
High	5230	-1.666	-1.835	1.43	3.99	-2.56

**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.

ID:	37290	Date:	9/2/16
-----	-------	-------	--------



### PSD, CHAIN 0, LOW CHANNEL

### PSD, CHAIN 0, HIGH CHANNEL

### PSD, CHAIN 1, LOW CHANNEL

### PSD, CHAIN 1, HIGH CHANNEL

## 7.5. 802.11a MODE IN THE 5.3 GHz BAND (Chain 0)

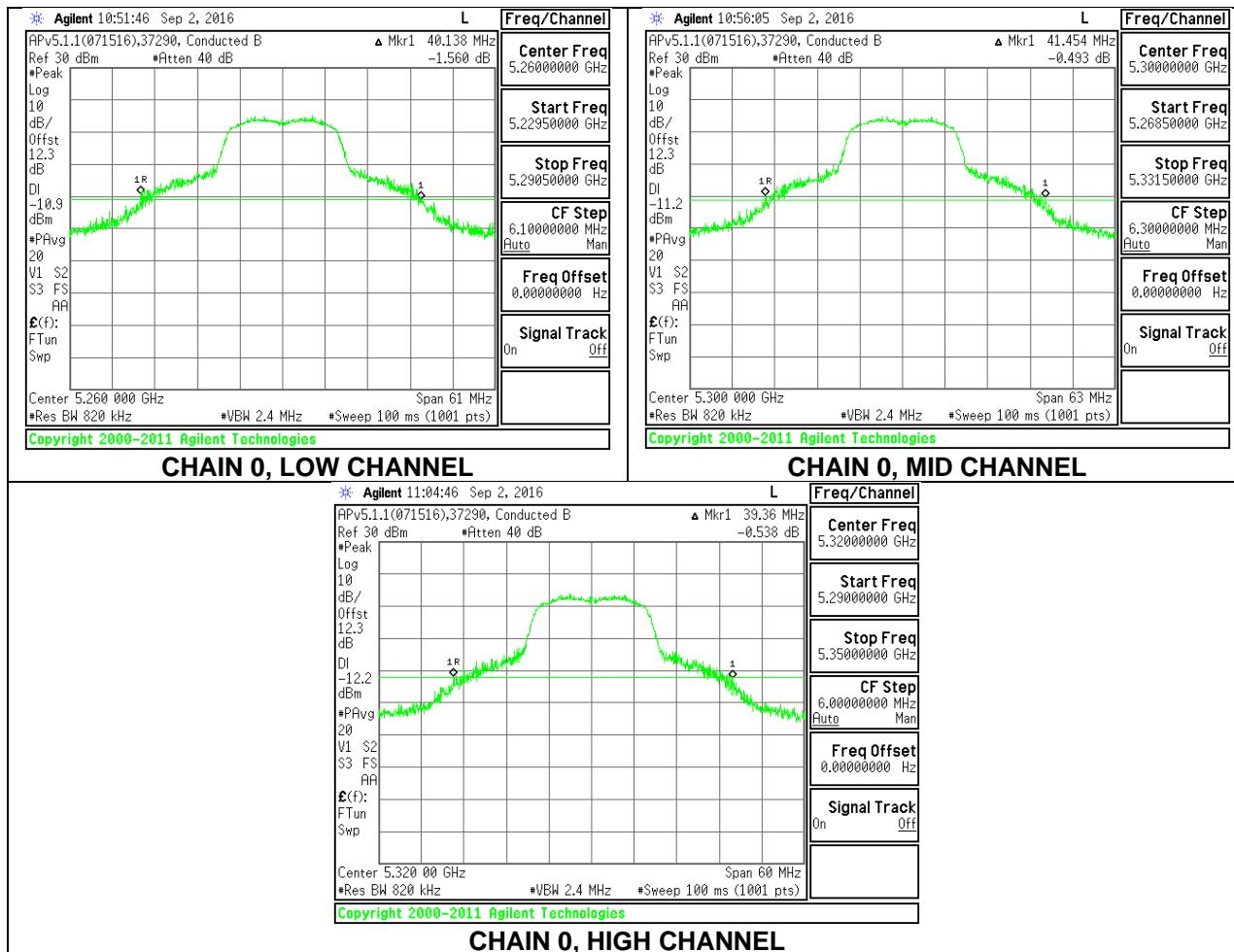
### 7.5.1. 26 dB BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	26 dB BW CHAIN 0 (MHz)
Low	5260	40.138
Mid	5300	41.454
High	5320	39.360



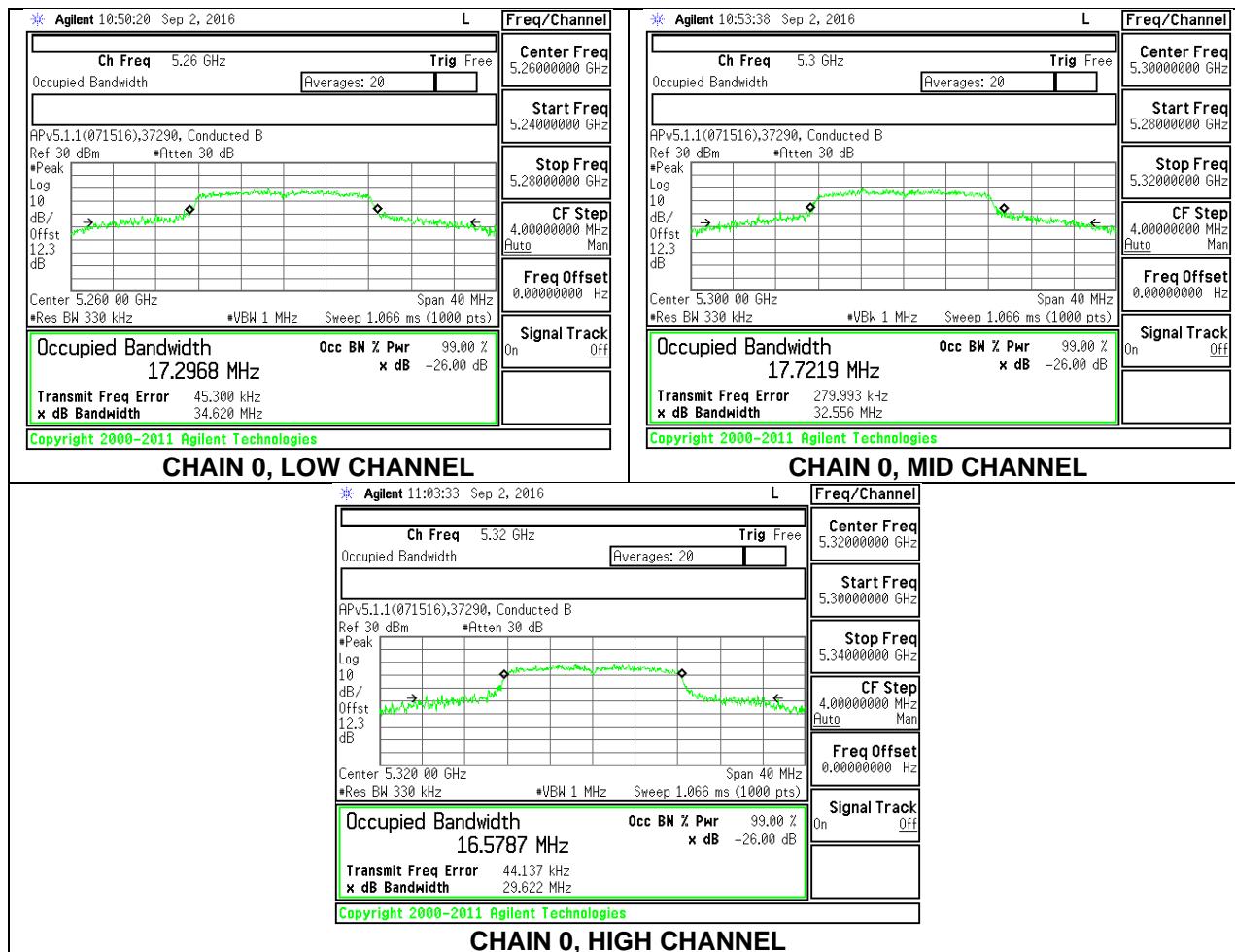
## 7.5.2. 99% BANDWIDTH

### LIMITS

None; for reporting purposes only.

### RESULTS

Channel	Frequency (MHz)	99% BW CHAIN 0 (MHz)
Low	5260	17.2968
Mid	5300	17.7219
High	5320	16.5787



### 7.5.3. OUTPUT POWER AND PSD

#### LIMITS

FCC §15.407 (a) (2)

For the band 5.25–5.35 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log_{10} B$ , where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

IC RSS-247 6.2.2 (1)

The maximum conducted output power shall not exceed 250 mW or  $11 + 10 \log_{10} B$ , dBm, whichever power is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band. The maximum e.i.r.p. shall not exceed 1.0 W or  $17 + 10 \log_{10} B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz

#### DIRECTIONAL ANTENNA GAIN

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

#### RESULTS

### Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5260	40.138	17.2968	3.00
Mid	5300	41.454	17.7219	3.00
High	5320	39.360	16.5787	3.00

### Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PSD Limit (dBm)
Low	5260	24.00	23.38	29.38	23.38	11.00	11.00	11.00
Mid	5300	24.00	23.49	29.49	23.49	11.00	11.00	11.00
High	5320	24.00	23.20	29.20	23.20	11.00	11.00	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD
--------------------	------	--

### Output Power Results

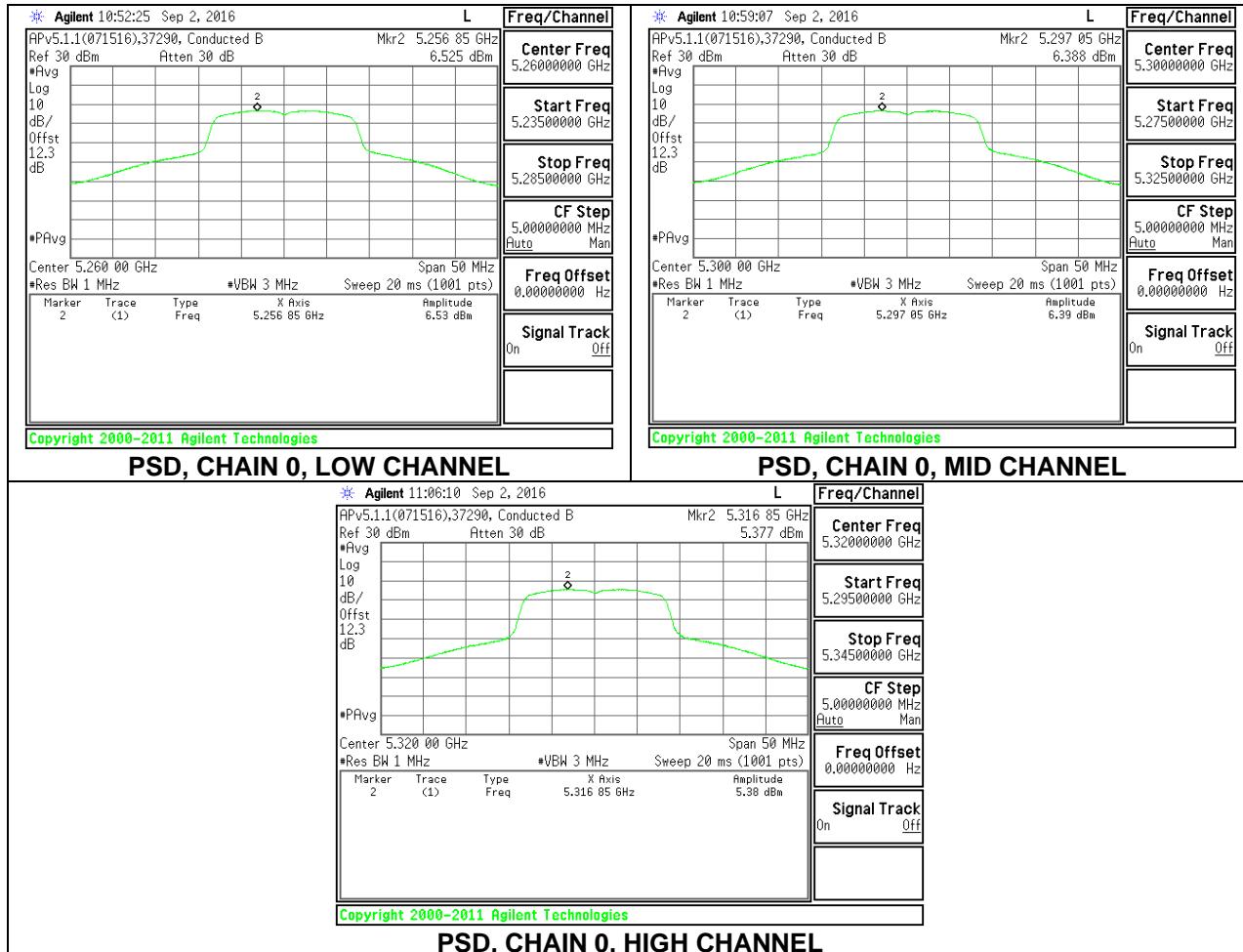
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	19.20	19.20	23.38	-4.18
Mid	5300	17.70	17.70	23.49	-5.79
High	5320	16.54	16.54	23.20	-6.66

### PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5260	6.525	6.53	11.00	-4.48
Mid	5300	6.388	6.39	11.00	-4.61
High	5320	5.377	5.38	11.00	-5.62

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

ID:	37290	Date:	9/2/16
-----	-------	-------	--------



## 7.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND (Chain 0 & 1)

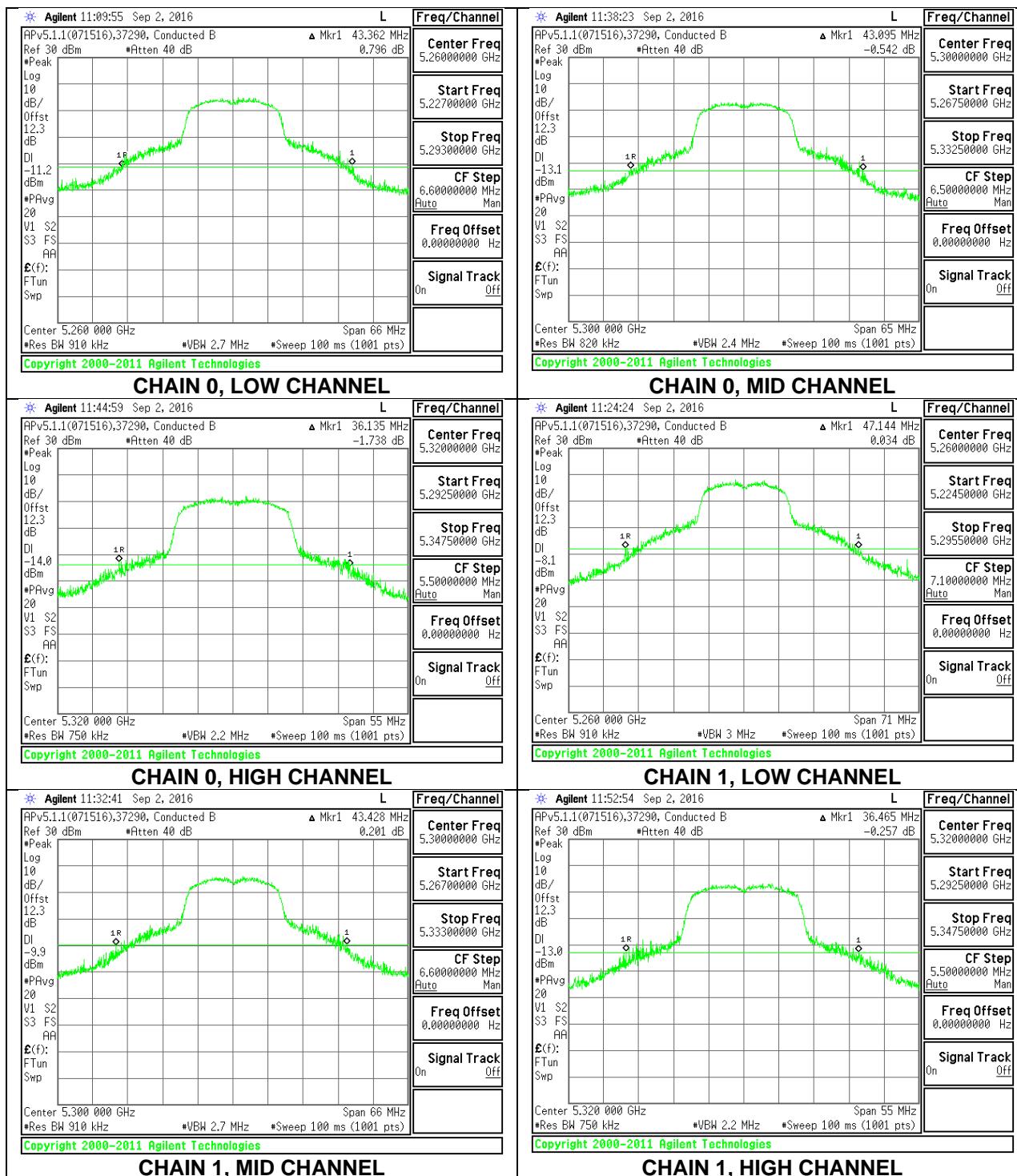
### 7.6.1. 26 dB BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	26 dB BW CHAIN 0 (MHz)	26 dB BW CHAIN 1 (MHz)
Low	5260	43.362	47.144
Mid	5300	43.095	43.428
High	5320	36.135	36.465



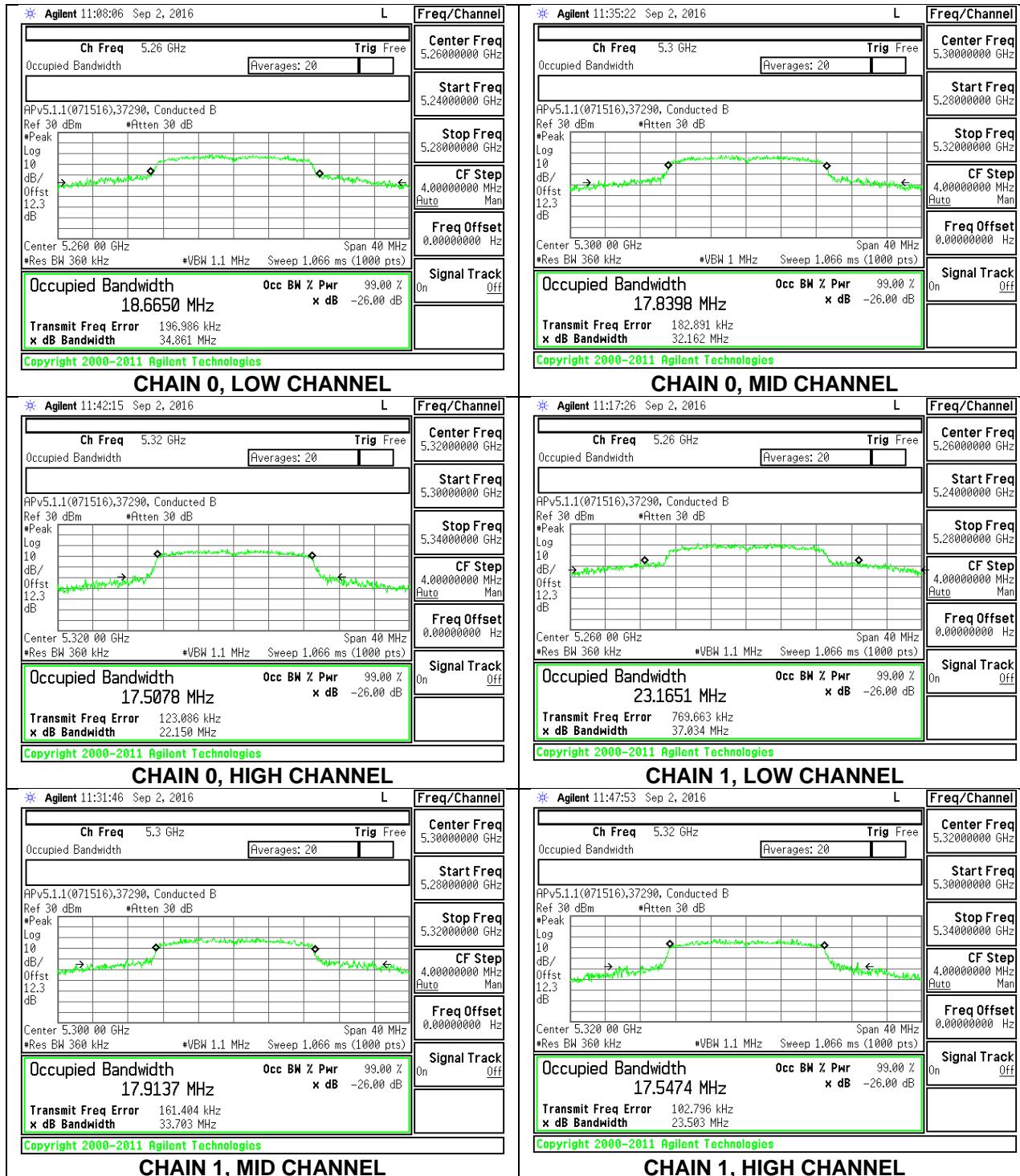
## 7.6.2. 99% BANDWIDTH

### LIMITS

None; for reporting purposes only.

### RESULTS

Channel	Frequency (MHz)	99% BW CHAIN 0 (MHz)	99% BW CHAIN 1 (MHz)
Low	5260	18.6650	23.1651
Mid	5300	17.8398	17.9137
High	5320	17.5078	17.5474



### 7.6.3. OUTPUT POWER AND PSD

#### LIMITS

FCC §15.407 (a) (2)

For the band 5.25–5.35 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

IC RSS-247 6.2.2 (1)

The maximum conducted output power shall not exceed 250 mW or  $11 + 10 \log_{10} B$ , dBm, whichever power is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band. The maximum e.i.r.p. shall not exceed 1.0 W or  $17 + 10 \log_{10} B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz

#### DIRECTIONAL ANTENNA GAIN

For Power, the TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
3.00	3.00	3.00

For PSD, the TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
3.00	3.00	6.01

#### RESULTS

#### Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)
Low	5260	43.362	18.6650	3.00	6.01
Mid	5300	43.095	17.8398	3.00	6.01
High	5320	36.135	17.5078	3.00	6.01

#### Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm)	IC PSD Limit (dBm)	PSD Limit (dBm)
Low	5260	24.00	23.71	29.71	23.71	10.99	11.00	10.99
Mid	5300	24.00	23.51	29.51	23.51	10.99	11.00	10.99
High	5320	24.00	23.43	29.43	23.43	10.99	11.00	10.99

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd PSD
--------------------	------	--

#### Output Power Results

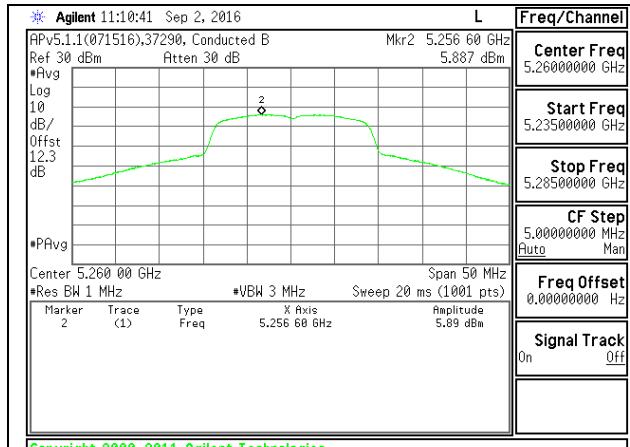
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	14.94	14.90	17.93	23.71	-5.78
Mid	5300	15.37	16.13	18.78	23.51	-4.74
High	5320	13.45	13.90	16.69	23.43	-6.74

#### PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5260	5.887	7.867	10.10	10.99	-0.89
Mid	5300	4.904	6.425	8.84	10.99	-2.15
High	5320	3.586	4.370	7.11	10.99	-3.88

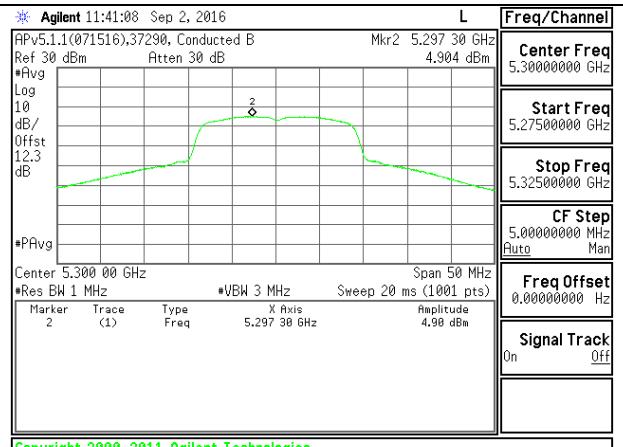
**Note:** the output power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

ID:	37290	Date:	9/2/16
-----	-------	-------	--------



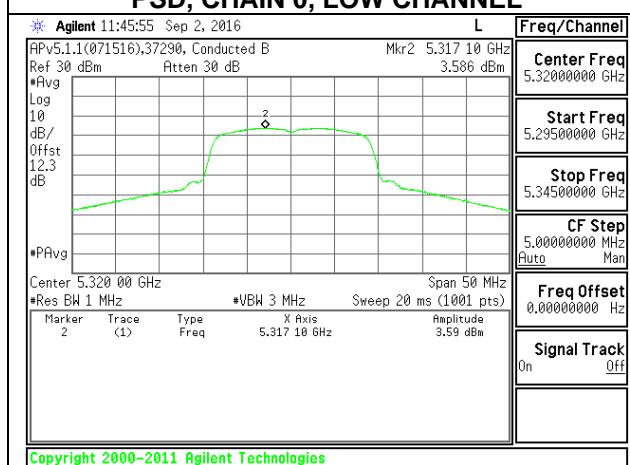
Copyright 2000-2011 Agilent Technologies

### PSD, CHAIN 0, LOW CHANNEL



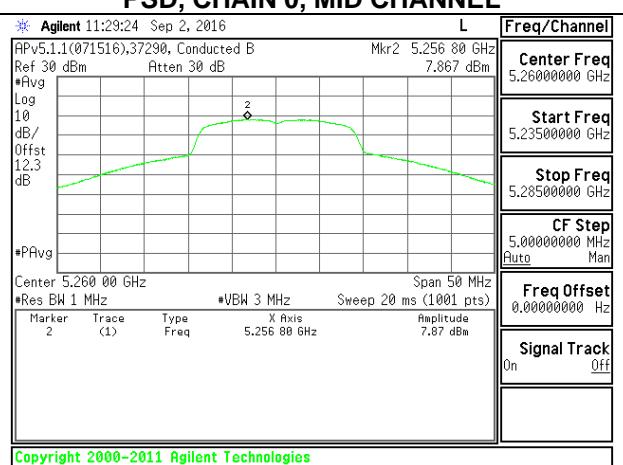
Copyright 2000-2011 Agilent Technologies

### PSD, CHAIN 0, MID CHANNEL



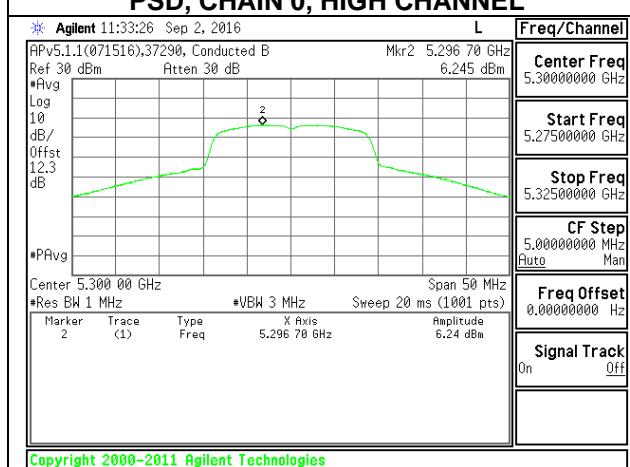
Copyright 2000-2011 Agilent Technologies

### PSD, CHAIN 0, HIGH CHANNEL



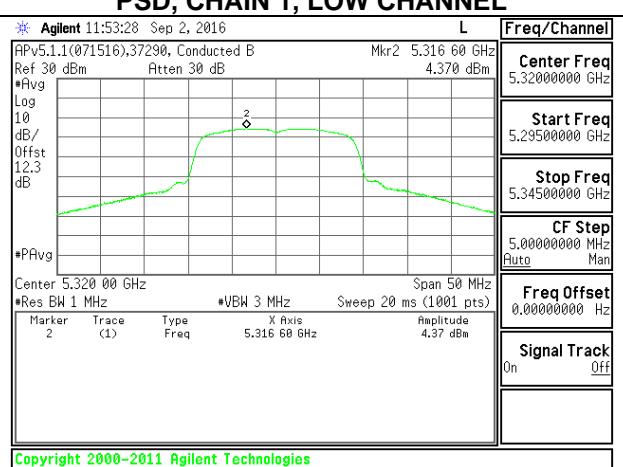
Copyright 2000-2011 Agilent Technologies

### PSD, CHAIN 1, LOW CHANNEL



Copyright 2000-2011 Agilent Technologies

### PSD, CHAIN 1, MID CHANNEL



Copyright 2000-2011 Agilent Technologies

### PSD, CHAIN 1, HIGH CHANNEL

## 7.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND (Chain 0 & 1)

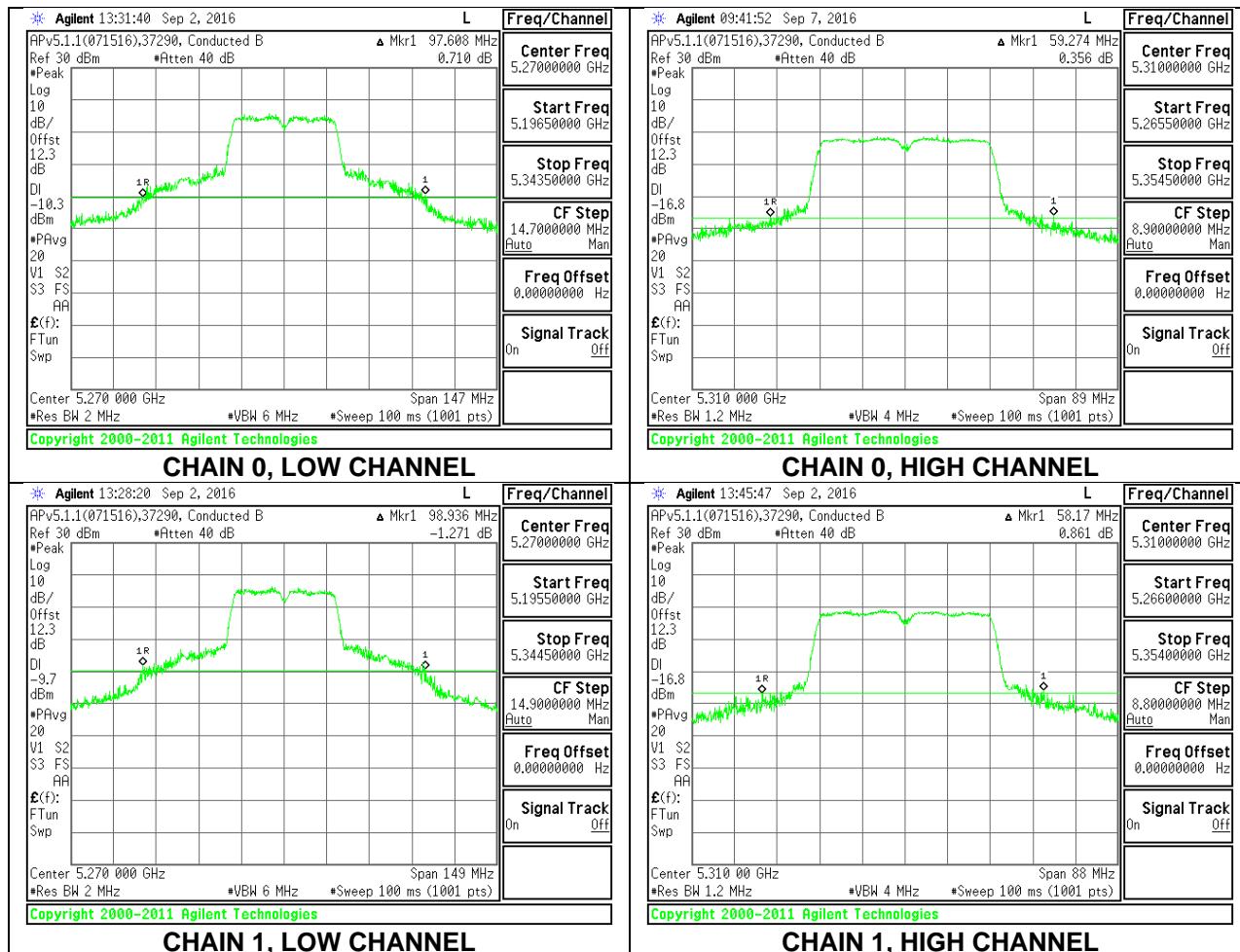
### 7.7.1. 26 dB BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	26dB BW CHAIN 0 (MHz)	26dB BW CHAIN 1 (MHz)
Low	5270	97.608	98.936
HIGH	5310	59.274	58.170



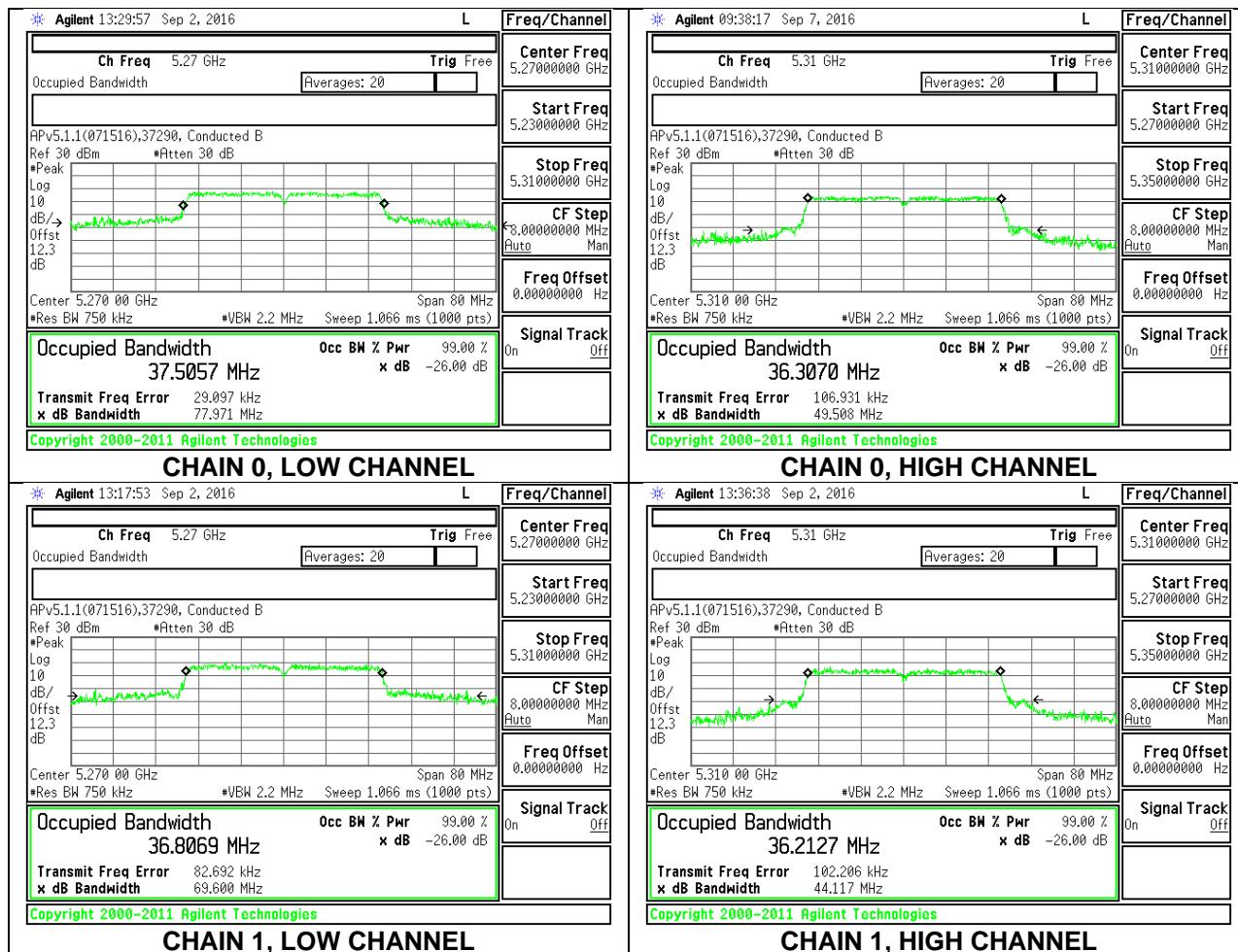
## 7.7.2. 99% BANDWIDTH

### LIMITS

None; for reporting purposes only.

### RESULTS

Channel	Frequency (MHz)	99% BW CHAIN 0 (MHz)	99% BW CHAIN 1 (MHz)
Low	5270	37.506	36.807
HIGH	5310	36.307	36.213



### 7.7.3. OUTPUT POWER AND PSD

#### LIMITS

FCC §15.407 (a) (2)

For the band 5.25–5.35 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

IC RSS-247 6.2.2 (1)

The maximum conducted output power shall not exceed 250 mW or  $11 + 10 \log_{10} B$ , dBm, whichever power is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band. The maximum e.i.r.p. shall not exceed 1.0 W or  $17 + 10 \log_{10} B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

#### DIRECTIONAL ANTENNA GAIN

For Power, the TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
3.00	3.00	3.00

For PSD, the TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
3.00	3.00	6.01

#### RESULTS

#### Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)
Low	5270	81.440	36.8000	3.00	6.01
High	5310	46.390	36.6000	3.00	6.01

#### Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC PSD Limit (dBm)	PSD Limit (dBm)
Low	5270	24.00	24.00	30.00	24.00	10.99	11.00	10.99
High	5310	24.00	24.00	30.00	24.00	10.99	11.00	10.99

Duty Cycle CF (dB)	0.17	Included in Calculations of Corr'd PSD
--------------------	------	--

#### Output Power Results

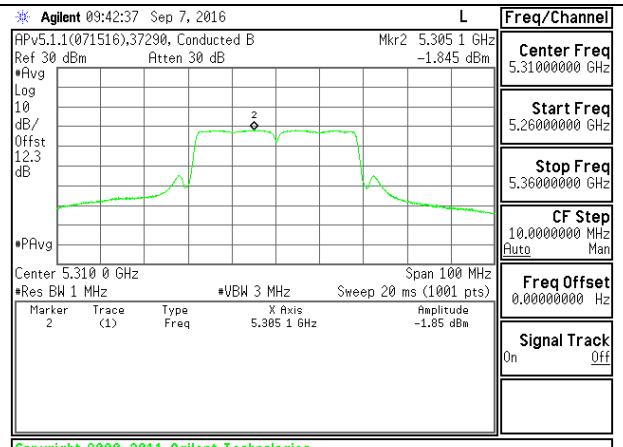
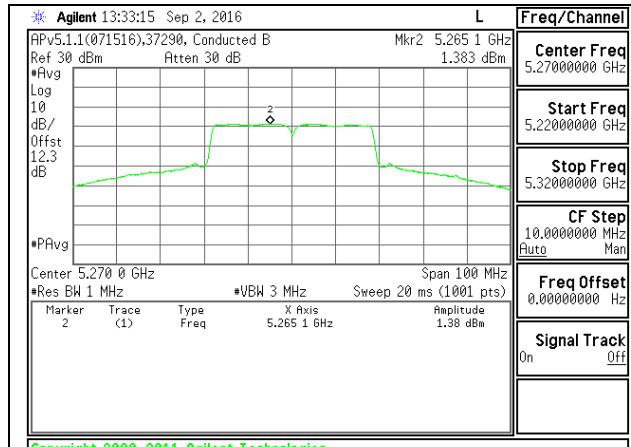
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5270	16.40	17.20	19.83	24.00	-4.17
High	5310	11.80	11.77	14.80	24.00	-9.20

#### PSD Results

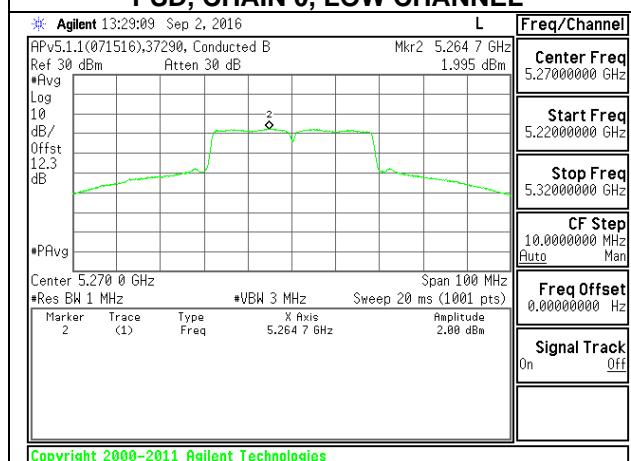
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5270	1.38	2.00	4.88	10.99	-6.11
High	5310	-1.85	-1.64	1.44	10.99	-9.55

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

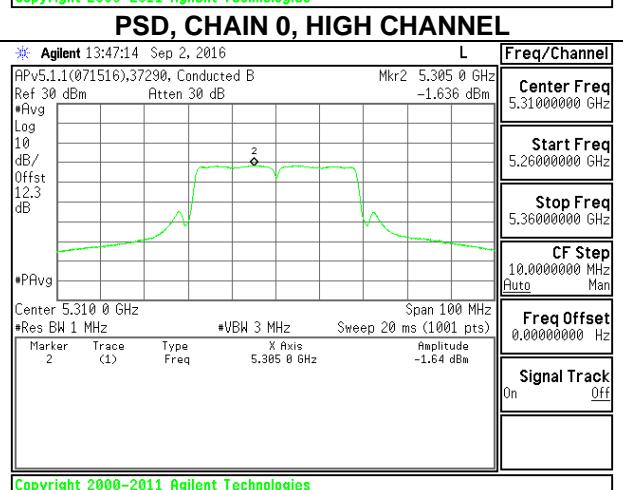
ID:	37290	Date:	9/2/16
-----	-------	-------	--------



### PSD, CHAIN 0, LOW CHANNEL



### PSD, CHAIN 1, LOW CHANNEL



### PSD, CHAIN 1, HIGH CHANNEL

## 7.8. 802.11a MODE IN THE 5.5 GHz BAND (Chain 0)

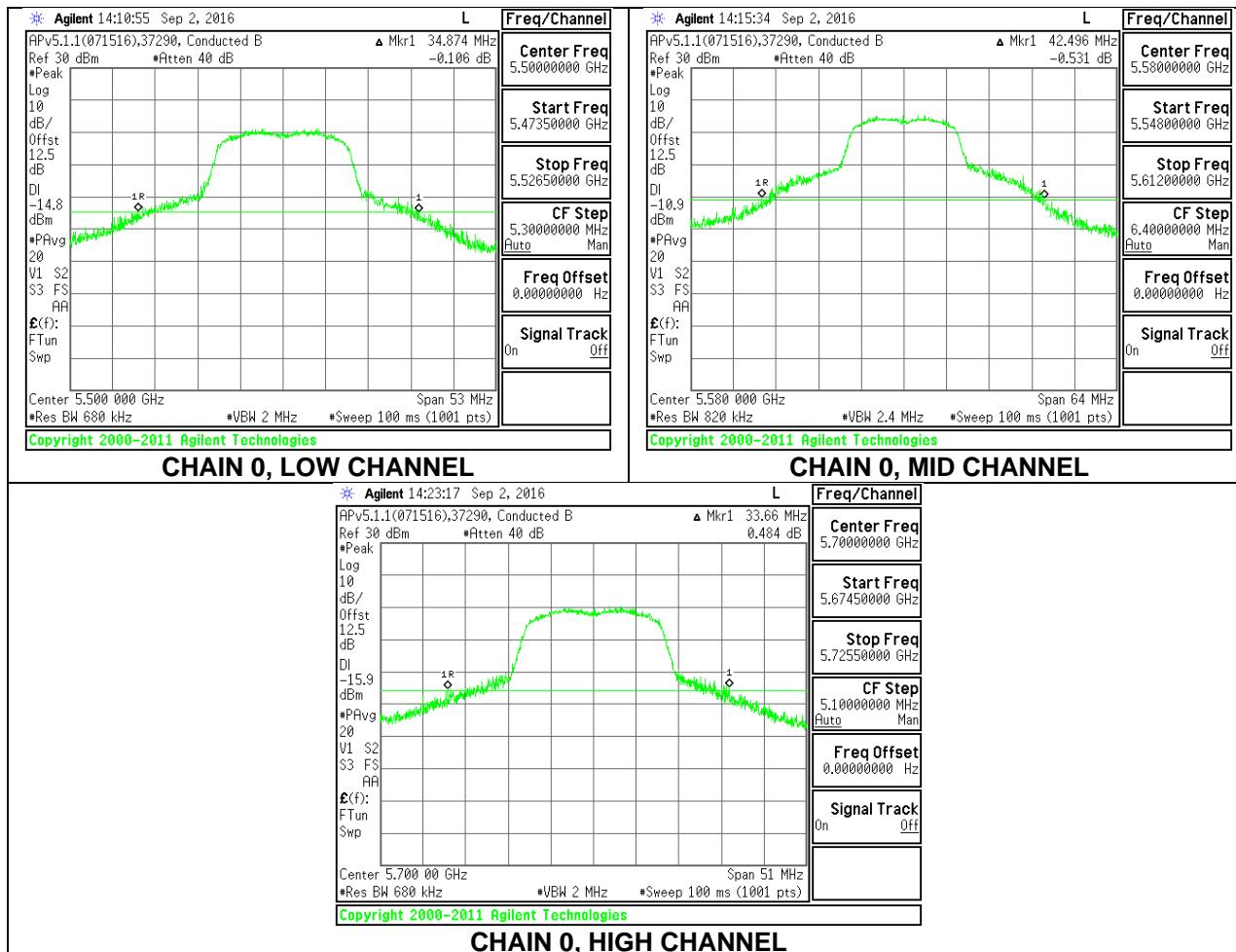
### 7.8.1. 26 dB BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	26 dB BW CHAIN 0 (MHz)
Low	5500	34.874
Mid	5580	42.496
High	5700	33.660



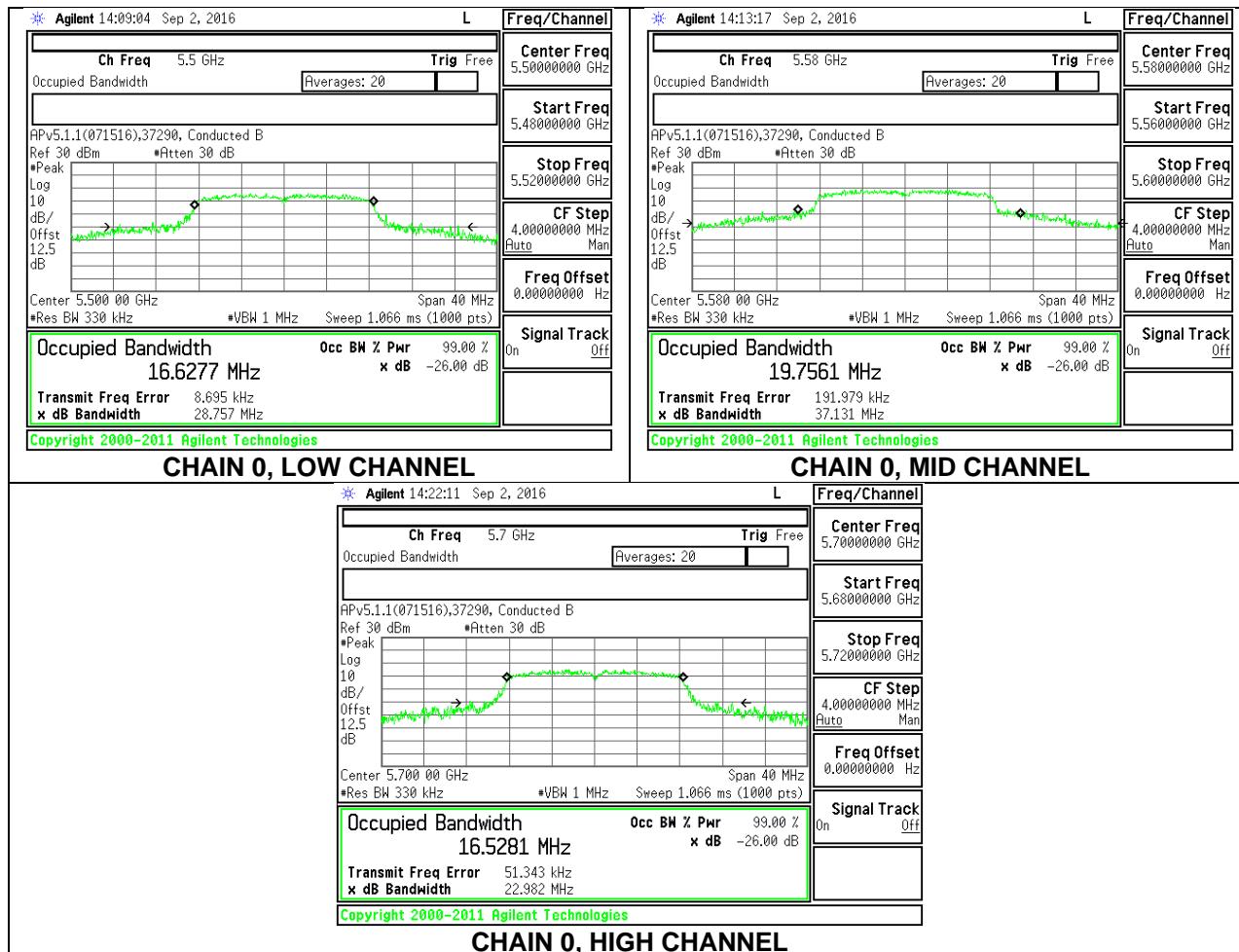
## 7.8.2. 99% BANDWIDTH

### LIMITS

None; for reporting purposes only.

### RESULTS

Channel	Frequency (MHz)	99% BW CHAIN 0 (MHz)
Low	5500	16.6277
Mid	5580	19.7561
High	5700	16.5281



### 7.8.3. OUTPUT POWER AND PSD

#### LIMITS

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26-dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

IC RSS-247 6.2.3 (1)

The maximum conducted output power shall not exceed 250 mW or  $11 + 10 \log_{10} B$ , dBm, whichever power is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band. The maximum e.i.r.p. shall not exceed 1.0 W or  $17 + 10 \log_{10} B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

#### DIRECTIONAL ANTENNA GAIN

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

#### RESULTS

#### Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5500	22.020	16.5600	4.00
Mid	5580	42.130	25.3200	4.00
High	5700	22.480	16.4400	4.00

#### Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm)	IC PSD Limit (dBm)	PSD Limit (dBm)
Low	5500	24.00	23.19	29.19	23.19	11.00	11.00	11.00
Mid	5580	24.00	24.00	30.00	24.00	11.00	11.00	11.00
High	5700	24.00	23.16	29.16	23.16	11.00	11.00	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD
--------------------	------	--

#### Output Power Results

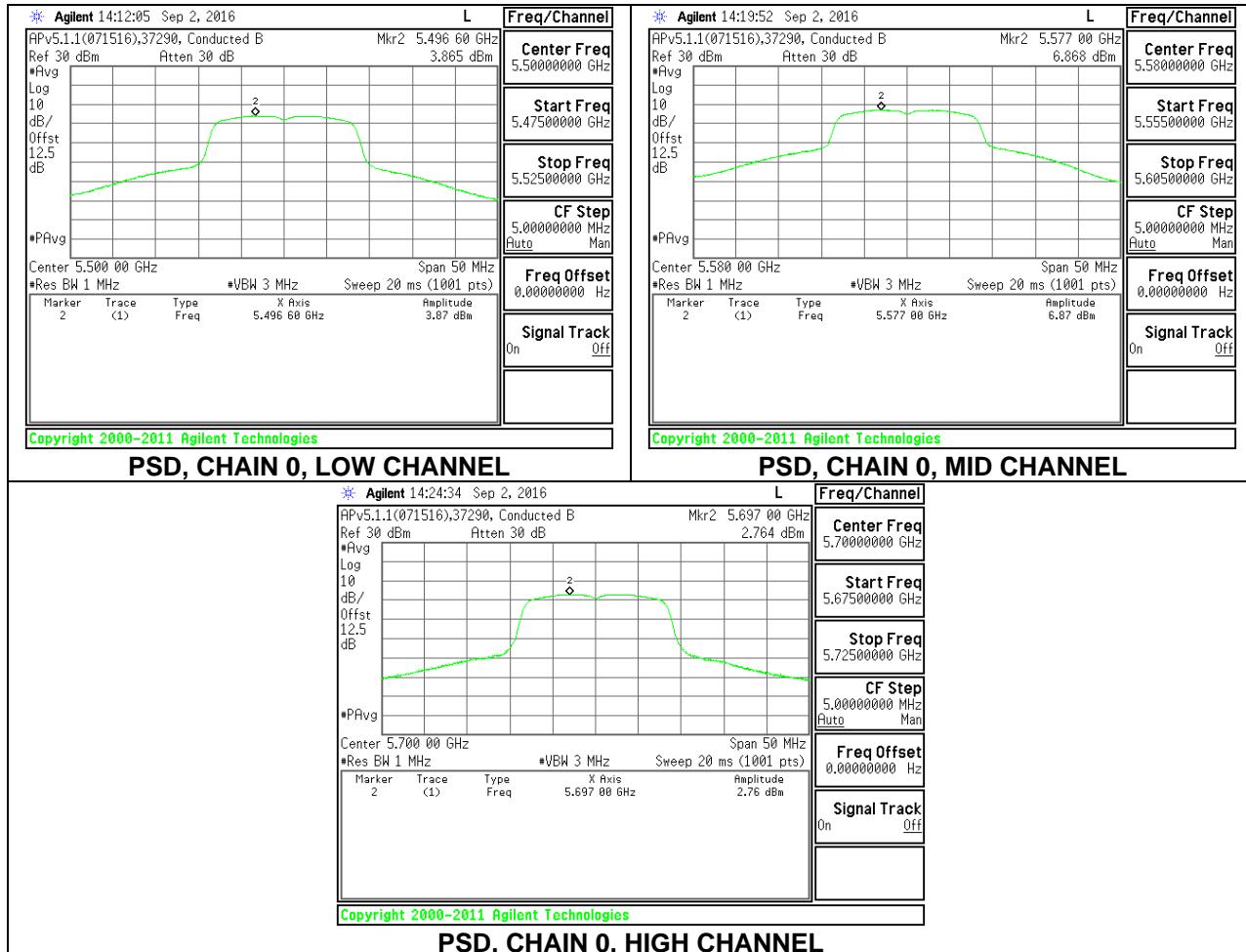
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	12.73	12.73	23.19	-10.46
Mid	5580	17.77	17.77	24.00	-6.23
High	5700	13.63	13.63	23.16	-9.53

#### PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5500	3.865	3.87	11.00	-7.14
Mid	5580	6.868	6.87	11.00	-4.13
High	5700	2.764	2.76	11.00	-8.24

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

ID:	37290	Date:	9/2/16
-----	-------	-------	--------



## 7.9. 802.11n HT20 MODE IN THE 5.5 GHz BAND (Chain 0 & 1)

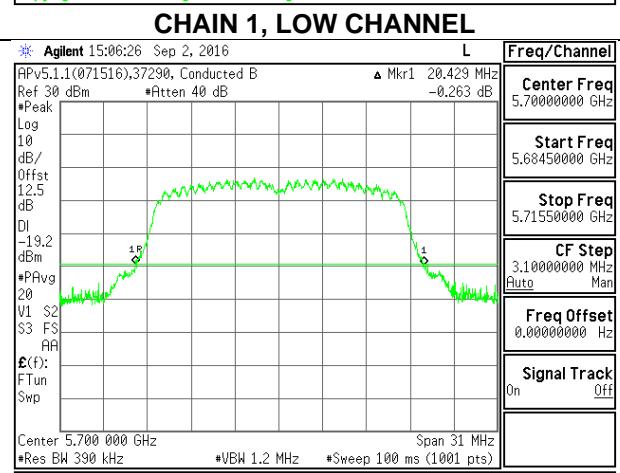
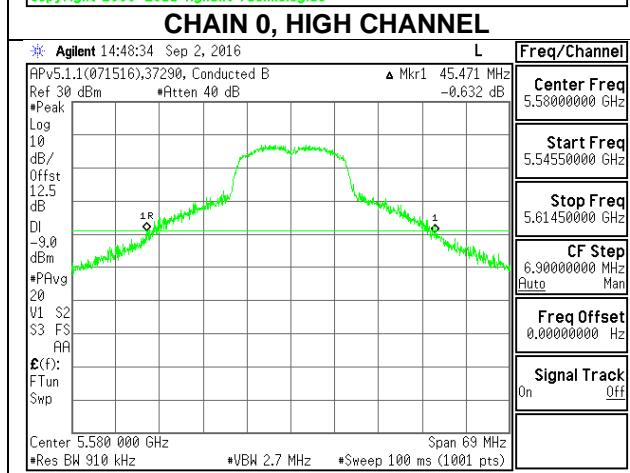
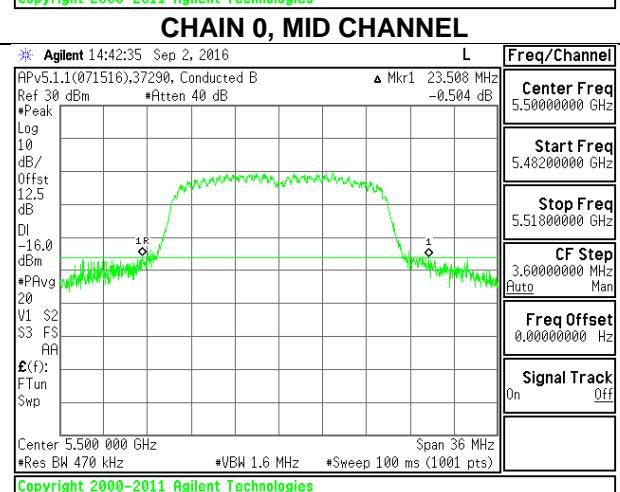
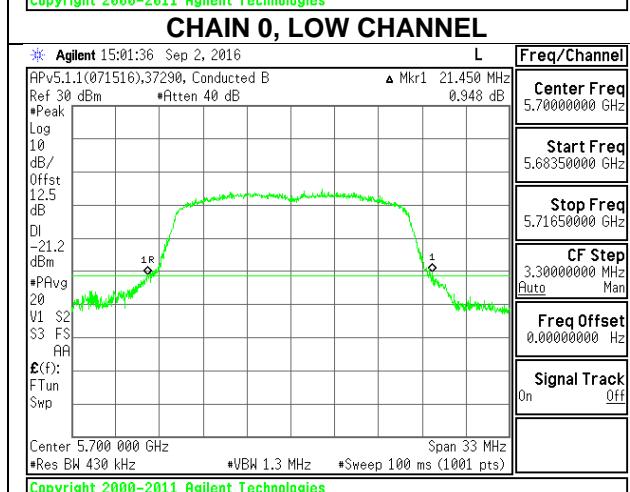
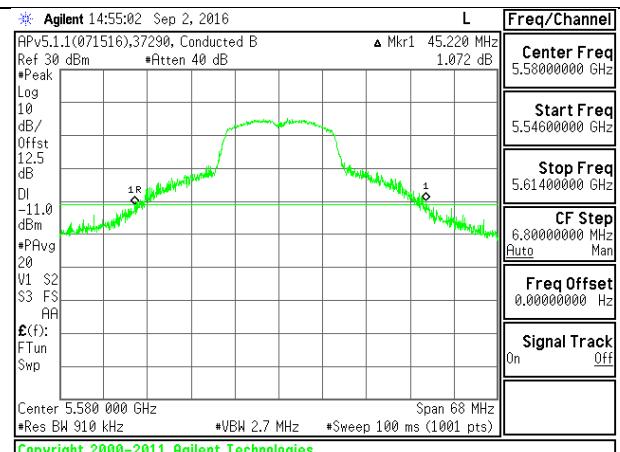
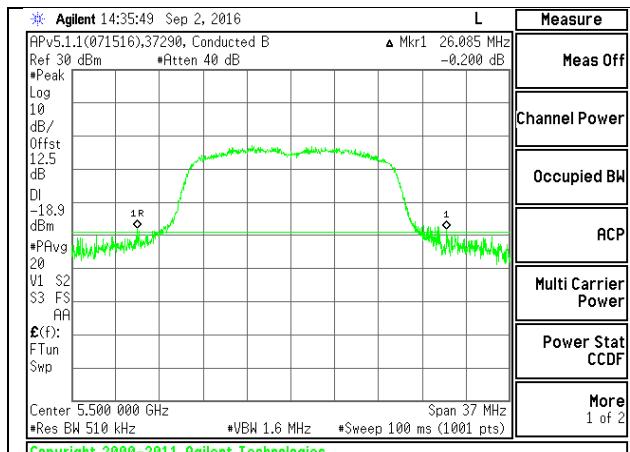
### 7.9.1. 26 dB BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	26 dB BW CHAIN 0 (MHz)	26 dB BW CHAIN 1 (MHz)
Low	5500	26.085	23.508
Mid	5580	45.220	45.471
High	5700	21.450	20.429



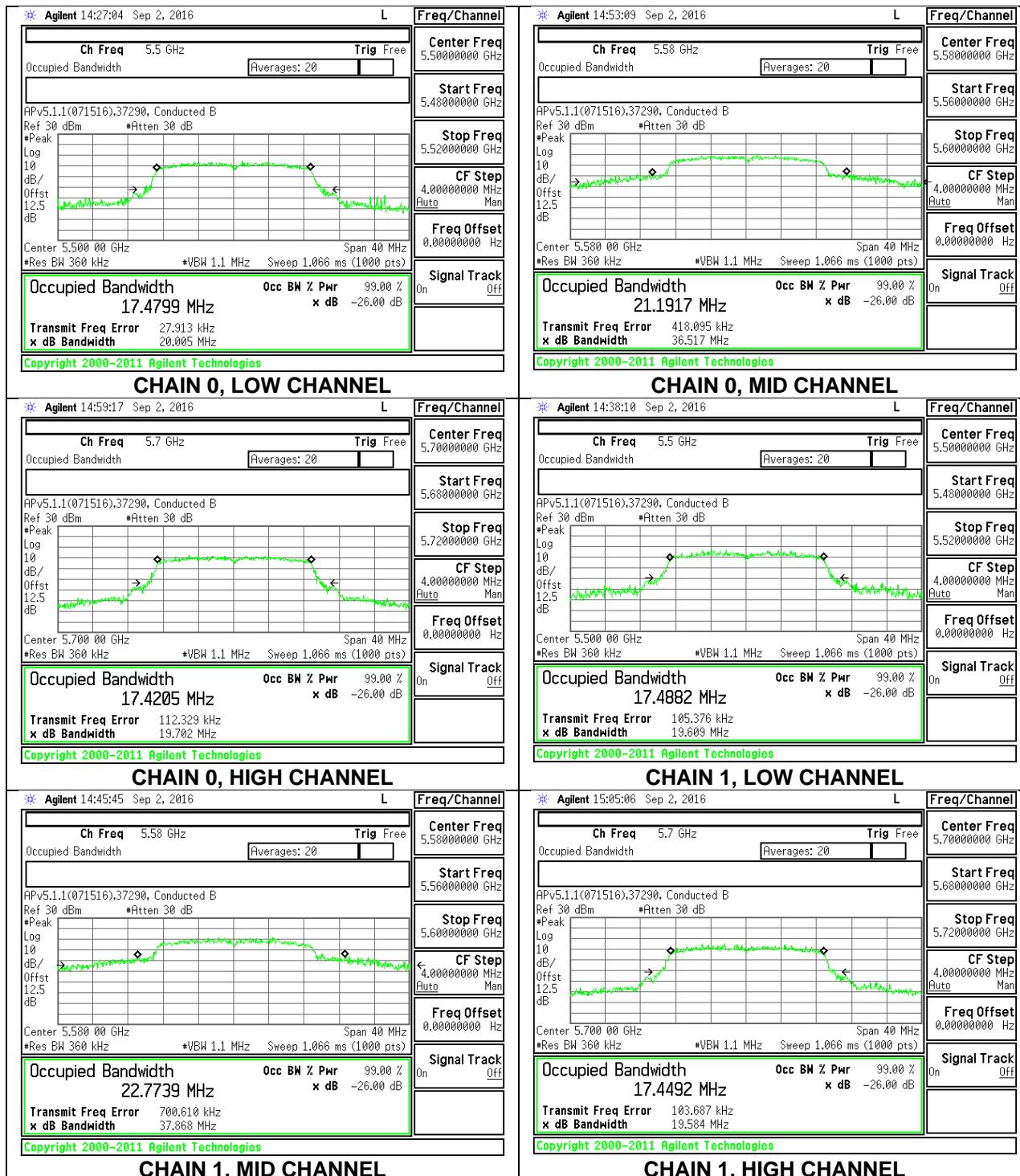
## 7.9.2. 99% BANDWIDTH

### LIMITS

None; for reporting purposes only.

### RESULTS

Channel	Frequency (MHz)	99% BW CHAIN 0 (MHz)	99% BW CHAIN 1 (MHz)
Low	5500	17.4799	17.4882
Mid	5580	21.1917	22.7739
High	5700	17.4205	17.4492



### 7.9.3. OUTPUT POWER AND PSD

#### LIMITS

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26–dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

IC RSS-247 6.2.3 (1)

The maximum conducted output power shall not exceed 250 mW or  $11 + 10 \log_{10} B$ , dBm, whichever power is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band. The maximum e.i.r.p. shall not exceed 1.0 W or  $17 + 10 \log_{10} B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

#### DIRECTIONAL ANTENNA GAIN

For Power, the TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna	Chain 1 Antenna	Uncorrelated Chains Directional Gain (dBi)
Gain (dBi)	Gain (dBi)	Gain (dBi)
4.00	4.00	4.00

For PSD, the TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna	Chain 1 Antenna	Correlated Chains Directional Gain (dBi)
Gain (dBi)	Gain (dBi)	Gain (dBi)
4.00	4.00	7.01

#### RESULTS

#### Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)
Low	5500	23.508	17.4799	4.00	7.01
Mid	5580	45.220	21.1917	4.00	7.01
High	5700	20.429	17.4205	4.00	7.01

#### Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm)	IC PSD Limit (dBm)	PSD Limit (dBm)
Low	5500	24.00	23.43	29.43	23.43	9.99	11.00	9.99
Mid	5580	24.00	24.00	30.00	24.00	9.99	11.00	9.99
High	5700	24.00	23.41	29.41	23.41	9.99	11.00	9.99

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd PSD
--------------------	------	--

#### Output Power Results

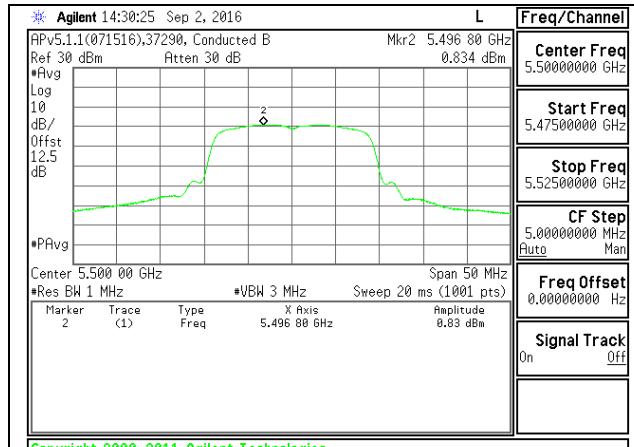
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	12.50	13.51	16.04	23.43	-7.38
Mid	5580	17.40	18.52	21.01	24.00	-2.99
High	5700	10.30	11.70	14.07	23.41	-9.34

#### PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5500	0.834	2.646	4.94	9.99	-5.05
Mid	5580	6.116	7.400	9.92	9.99	-0.07
High	5700	-1.038	0.618	2.98	9.99	-7.01

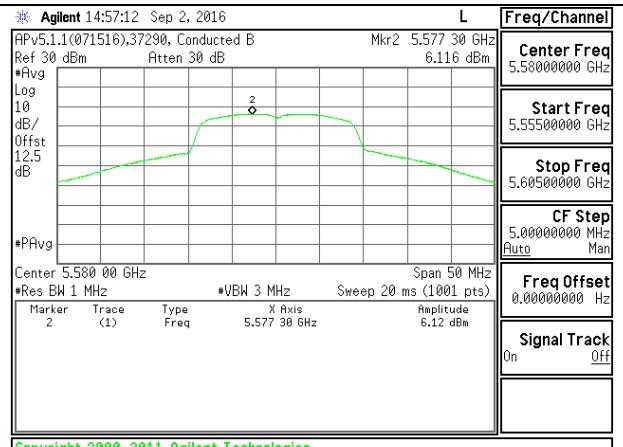
**Note:** the output power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

ID:	37290	Date:	9/2/16
-----	-------	-------	--------



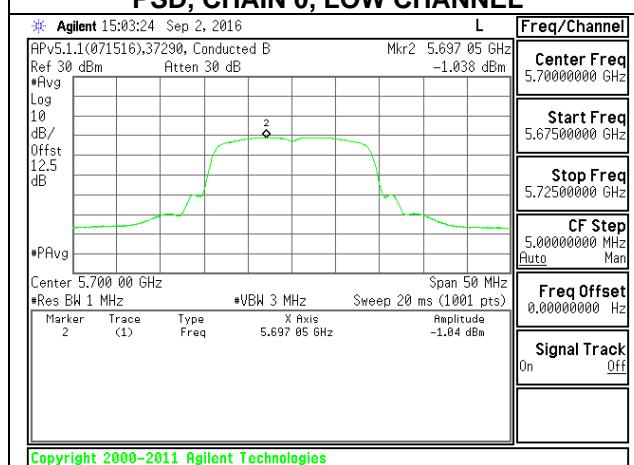
Copyright 2000-2011 Agilent Technologies

### PSD, CHAIN 0, LOW CHANNEL



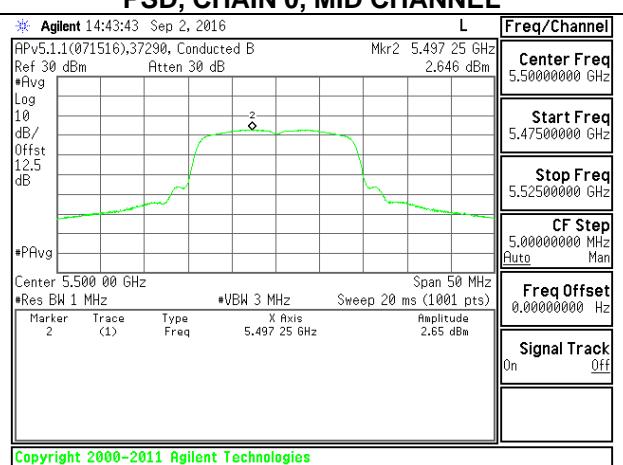
Copyright 2000-2011 Agilent Technologies

### PSD, CHAIN 0, MID CHANNEL



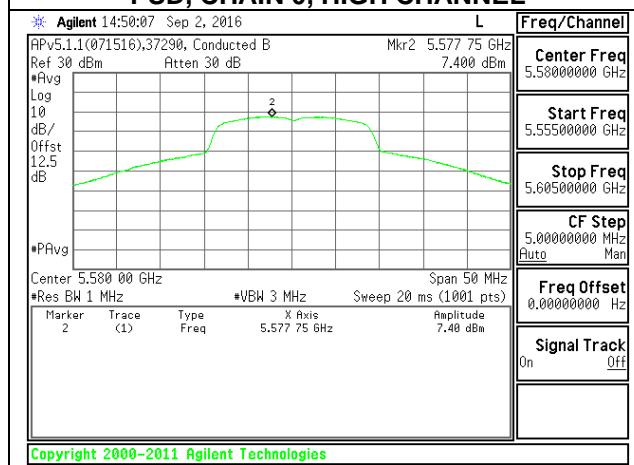
Copyright 2000-2011 Agilent Technologies

### PSD, CHAIN 0, HIGH CHANNEL



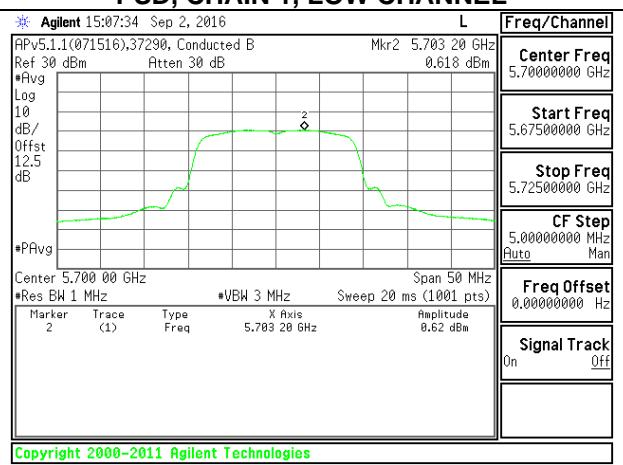
Copyright 2000-2011 Agilent Technologies

### PSD, CHAIN 1, LOW CHANNEL



Copyright 2000-2011 Agilent Technologies

### PSD, CHAIN 1, MID CHANNEL



Copyright 2000-2011 Agilent Technologies

### PSD, CHAIN 1, HIGH CHANNEL

## 7.10. 802.11n HT40 MODE IN THE 5.5 GHz BAND (Chain 0 &1)

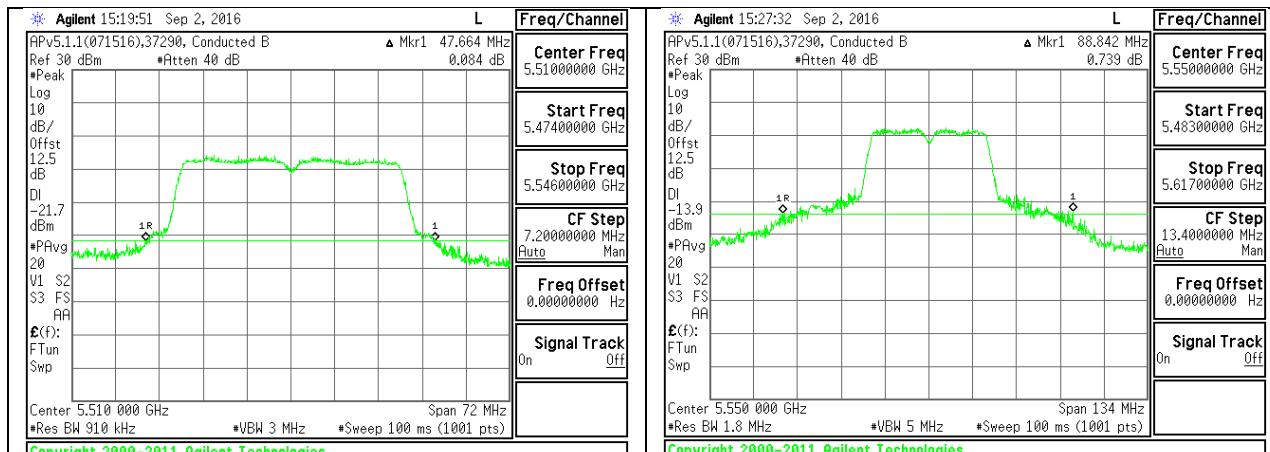
### 7.10.1. 26 dB BANDWIDTH

#### LIMITS

None; for reporting purposes only.

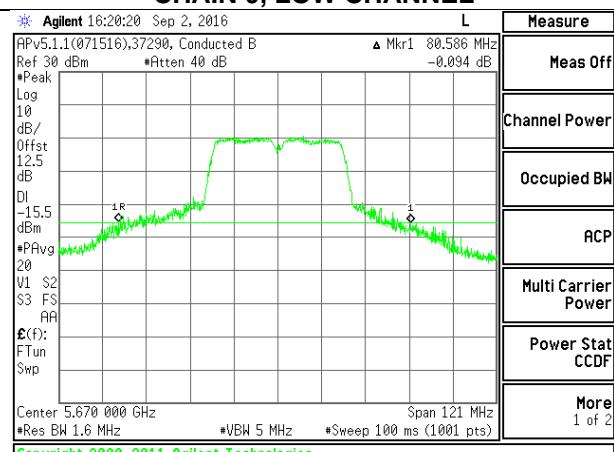
#### RESULTS

Channel	Frequency (MHz)	26 dB BW CHAIN 0 (MHz)	26 dB BW CHAIN 1 (MHz)
Low	5510	47.664	46.480
Mid	5550	88.842	94.950
High	5670	80.586	74.690



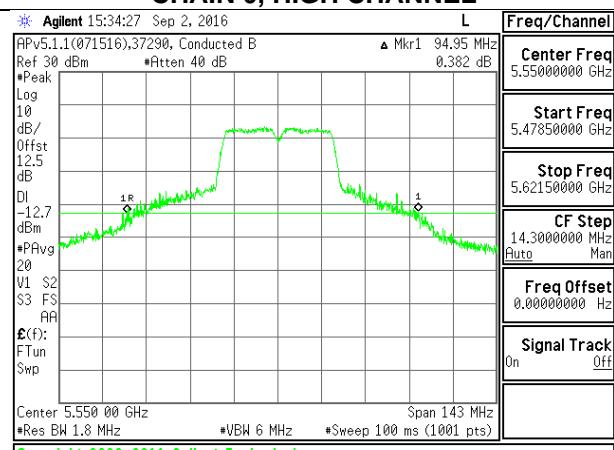
Copyright 2000-2011 Agilent Technologies

### CHAIN 0, LOW CHANNEL



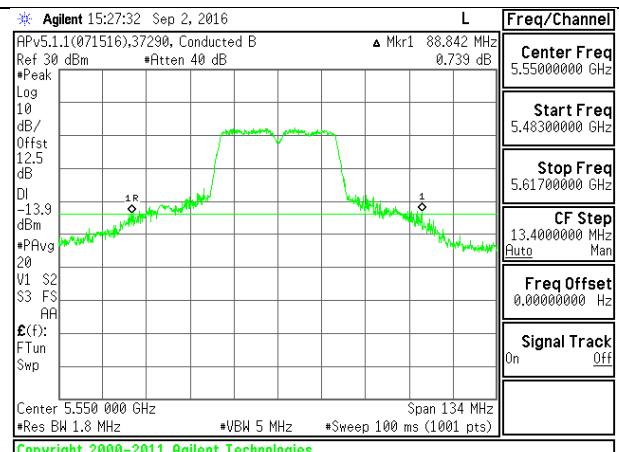
Copyright 2000-2011 Agilent Technologies

### CHAIN 0, HIGH CHANNEL



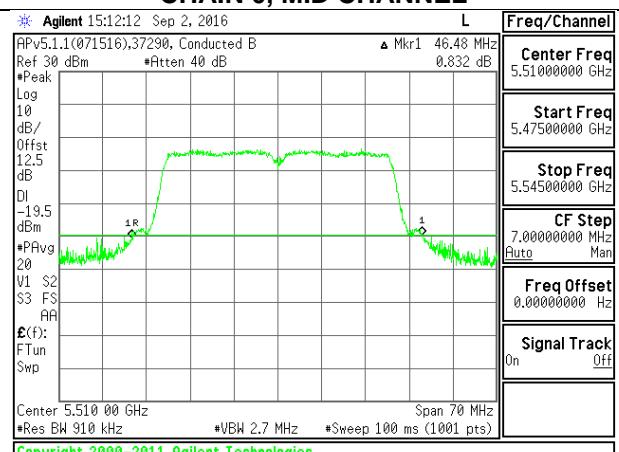
Copyright 2000-2011 Agilent Technologies

### CHAIN 1, MID CHANNEL



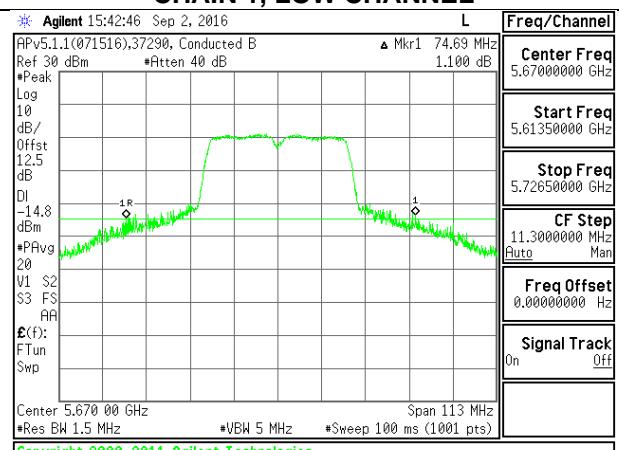
Copyright 2000-2011 Agilent Technologies

### CHAIN 0, MID CHANNEL



Copyright 2000-2011 Agilent Technologies

### CHAIN 1, LOW CHANNEL



Copyright 2000-2011 Agilent Technologies

### CHAIN 1, HIGH CHANNEL

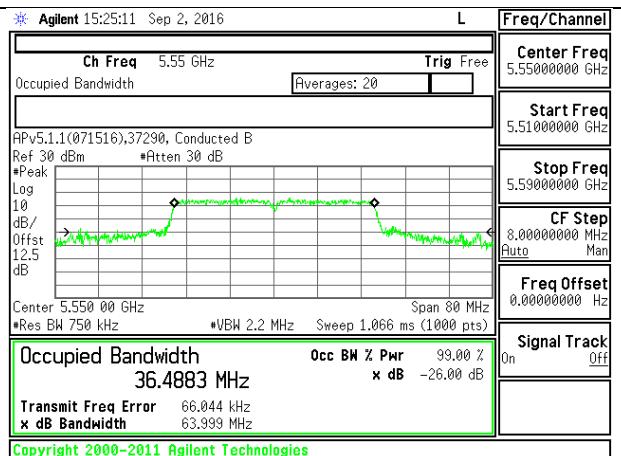
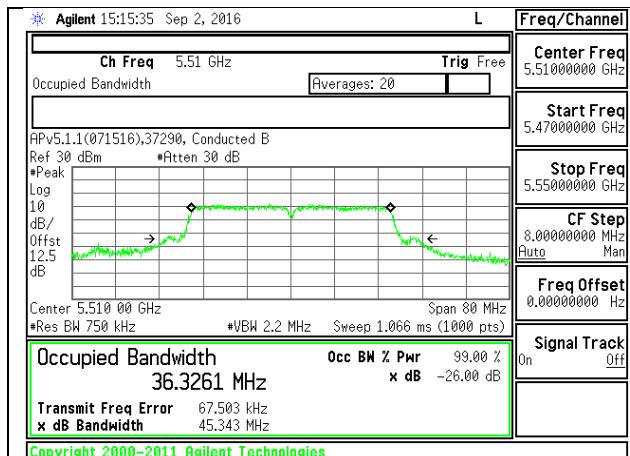
## 7.10.2. 99% BANDWIDTH

### LIMITS

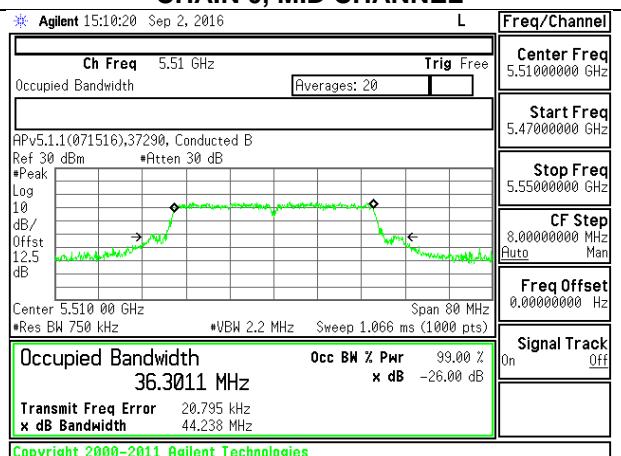
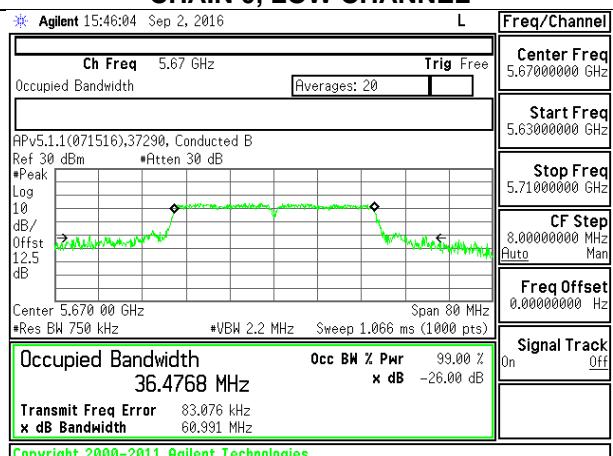
None; for reporting purposes only.

### RESULTS

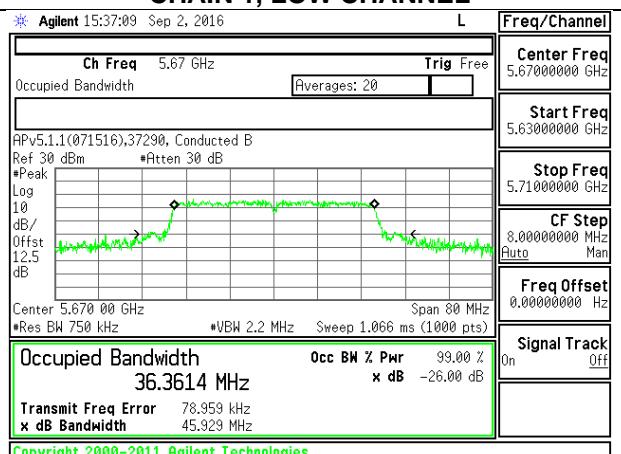
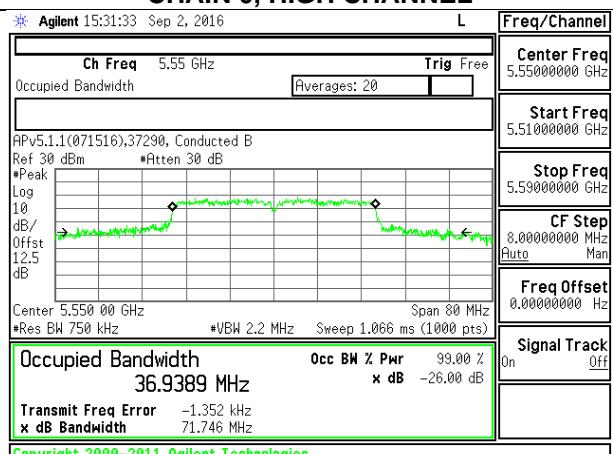
Channel	Frequency (MHz)	99% BW CHAIN 0 (MHz)	99% BW CHAIN 1 (MHz)
Low	5510	36.3261	36.3011
Mid	5550	36.4883	36.9389
High	5670	36.4768	36.3614



## **CHAIN 0, LOW CHANNEL**



## CHAIN 0. HIGH CHANNEL



### 7.10.3. OUTPUT POWER AND PSD

#### LIMITS

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26–dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

IC RSS-247 6.2.3 (1)

The maximum conducted output power shall not exceed 250 mW or  $11 + 10 \log_{10} B$ , dBm, whichever power is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band. The maximum e.i.r.p. shall not exceed 1.0 W or  $17 + 10 \log_{10} B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

#### DIRECTIONAL ANTENNA GAIN

For Power, the TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna	Chain 1 Antenna	Uncorrelated Chains Directional Gain (dBi)
Gain (dBi)	Gain (dBi)	Gain (dBi)
4.00	4.00	4.00

For PSD, the TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna	Chain 1 Antenna	Correlated Chains Directional Gain (dBi)
Gain (dBi)	Gain (dBi)	Gain (dBi)
4.00	4.00	7.01

#### RESULTS

### Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)
Low	5510	46.480	36.3011	4.00	7.01
Mid	5550	88.842	36.4883	4.00	7.01
High	5670	74.690	36.3614	4.00	7.01

### Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm)	IC PSD Limit (dBm)	PSD Limit (dBm)
Low	5510	24.00	24.00	30.00	24.00	9.99	11.00	9.99
Mid	5550	24.00	24.00	30.00	24.00	9.99	11.00	9.99
High	5670	24.00	24.00	30.00	24.00	9.99	11.00	9.99

Duty Cycle CF (dB)	0.17	Included in Calculations of Corr'd PSD
--------------------	------	--

### Output Power Results

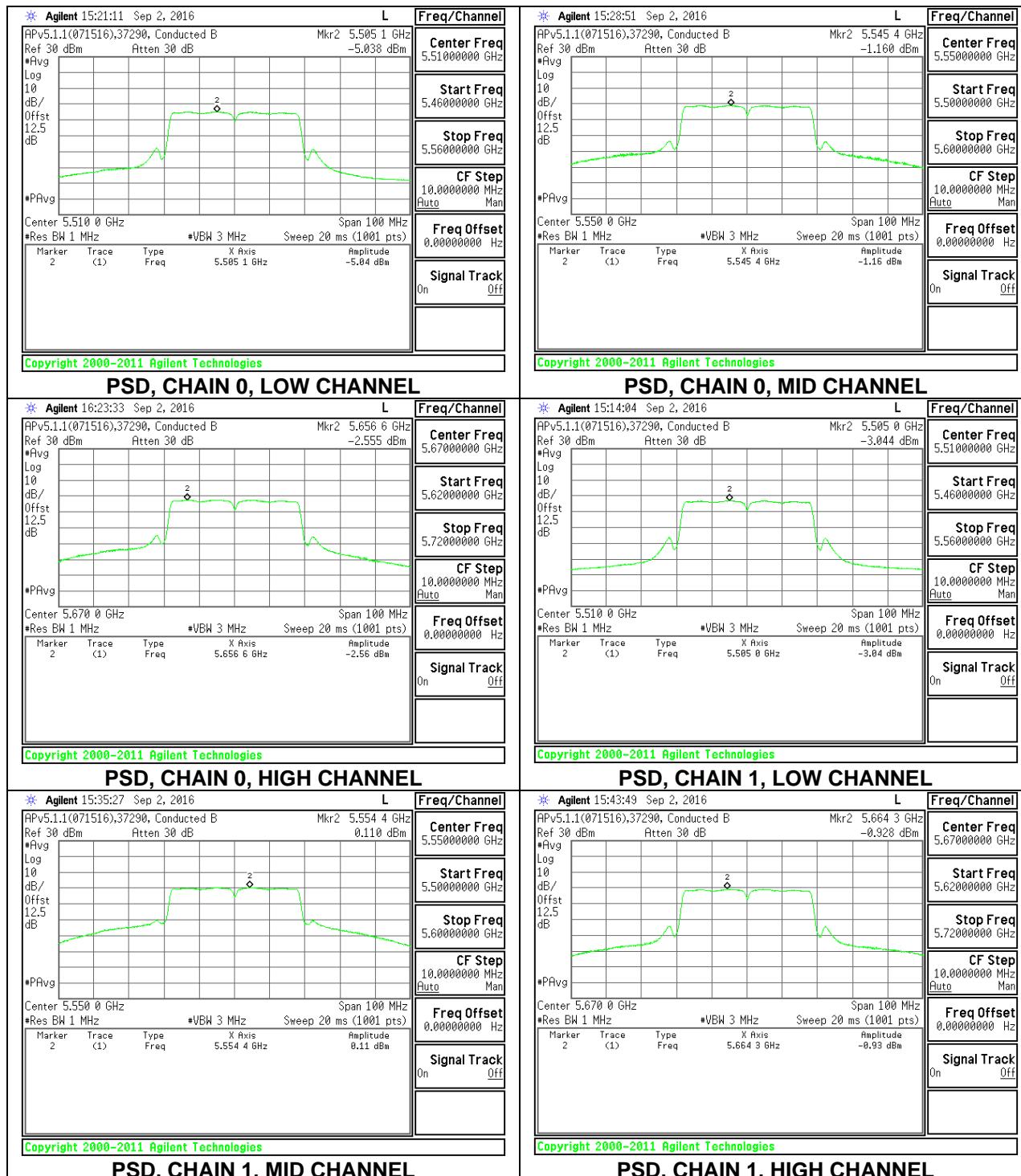
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	9.60	11.54	13.69	24.00	-10.31
Mid	5550	13.46	14.70	17.13	24.00	-6.87
High	5670	12.40	13.50	16.00	24.00	-8.00

### PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5510	-5.038	-3.044	-0.75	9.99	-10.74
Mid	5550	-1.160	0.110	2.70	9.99	-7.29
High	5670	-2.555	-0.928	1.51	9.99	-8.48

**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.

ID:	37290	Date:	9/2/16
-----	-------	-------	--------



## 7.11. 802.11a MODE IN THE 5.8 GHz BAND (Chain 0)

### 7.11.1. 6 dB BANDWIDTH

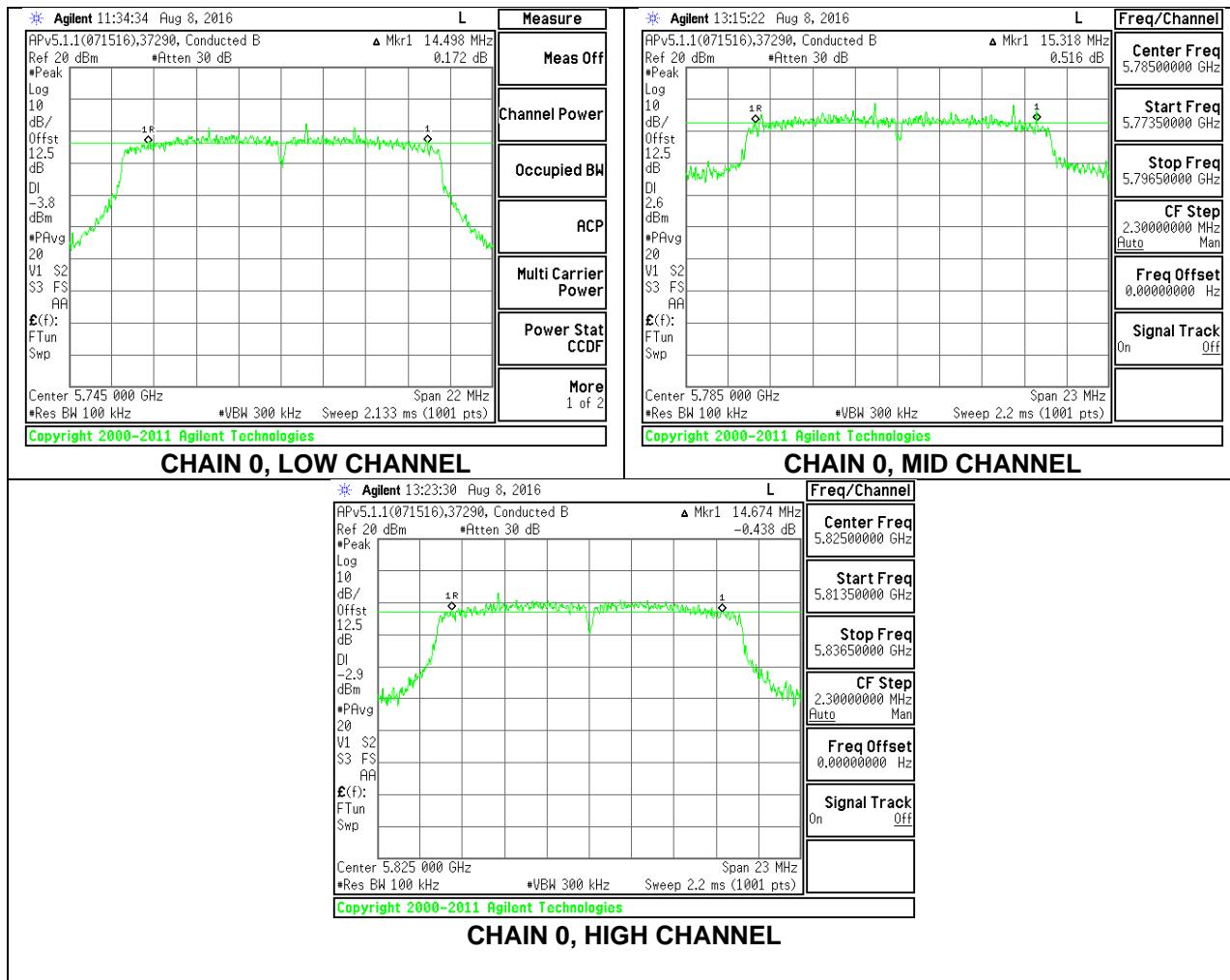
#### LIMITS

FCC §15.407 (e)

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

#### RESULTS

Channel	Frequency (MHz)	6 dB BW CHAIN 0 (MHz)	Minimum Limit (MHz)
Low	5745	14.4980	0.5
Mid	5785	15.3180	0.5
High	5825	14.6740	0.5



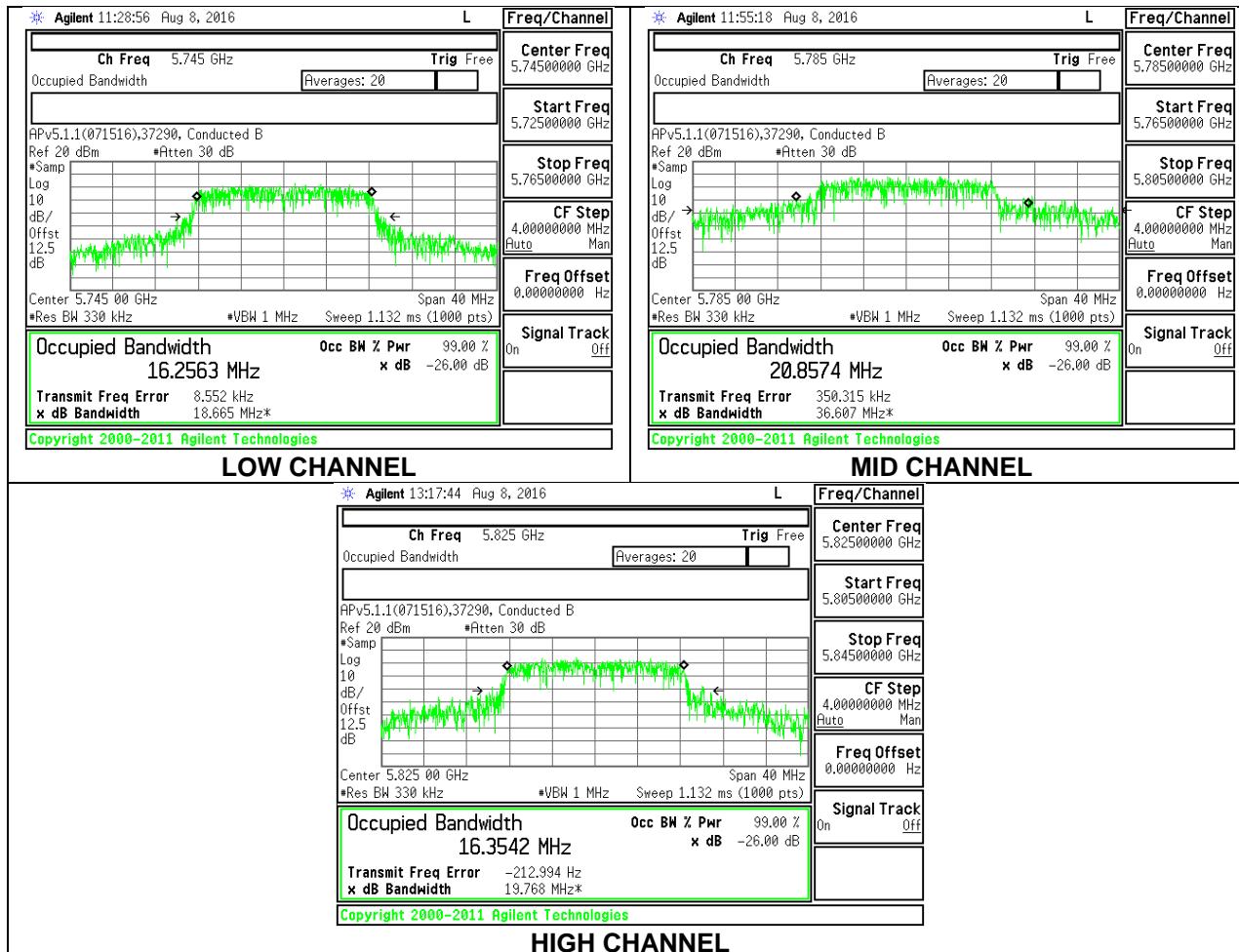
## 7.11.2. 99% BANDWIDTH

### LIMITS

None; for reporting purposes only.

### RESULTS

Channel	Frequency (MHz)	99% BW CHAIN 0 (MHz)
Low	5745	16.2563
Mid	5785	20.8574
High	5825	16.3542



### 7.11.3. 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

**Antenna Gain and Limit**

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)
Low	5745	4.00	30.00
Mid	5785	4.00	30.00
High	5825	4.00	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	12.60	12.60	30.00	-17.40
Mid	5785	16.43	16.43	30.00	-13.57
High	5825	14.37	14.37	30.00	-15.63

**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.

ID:	37290	Date:	8/8/16
-----	-------	-------	--------

#### 7.11.4. 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

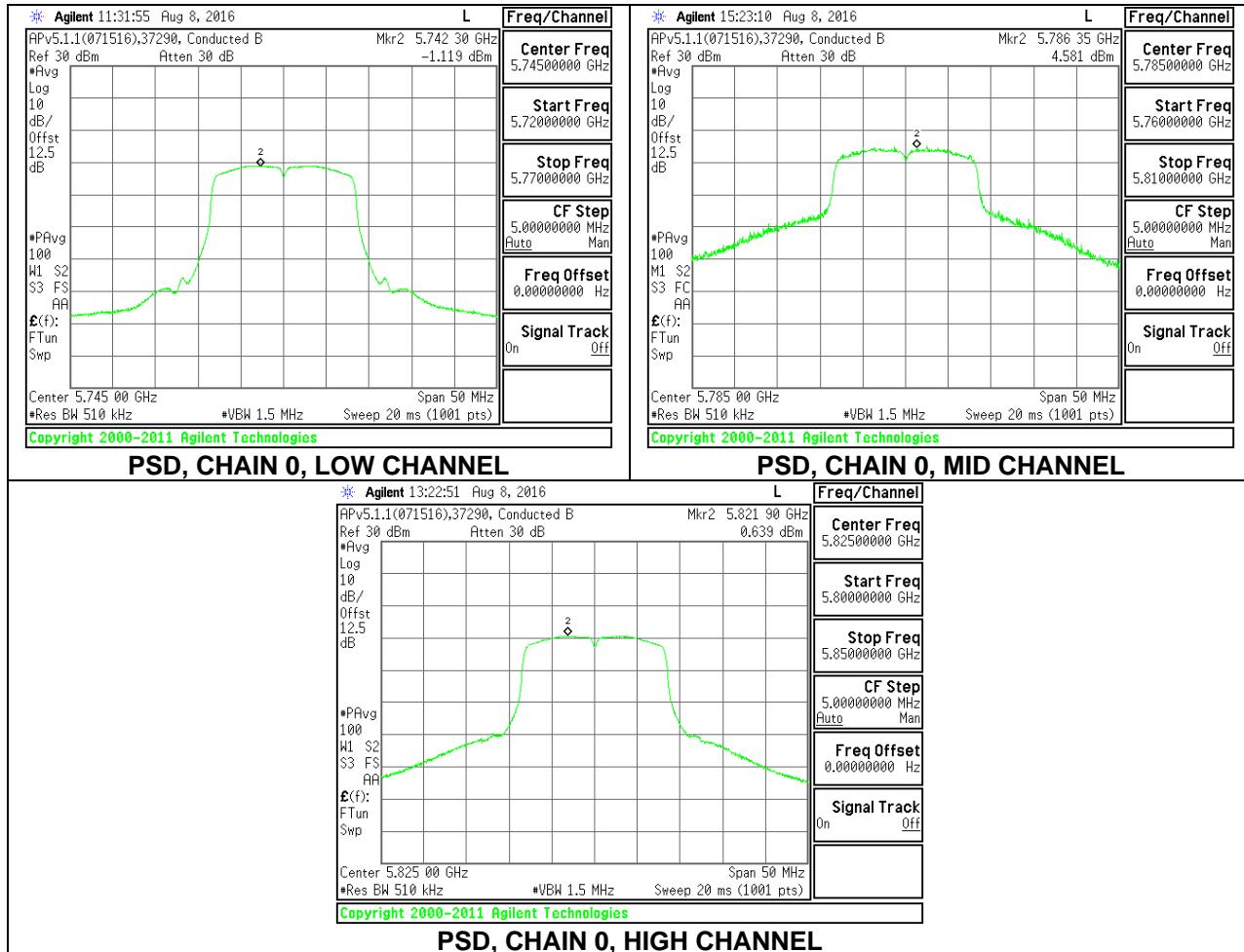
**Antenna Gain and Limits**

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5745	4.00	30.00
Mid	5785	4.00	30.00
High	5825	4.00	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
--------------------	------	--

**PSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	-1.119	-1.119	30.00	-31.12
Mid	5785	4.581	4.581	30.00	-25.42
High	5825	0.639	0.639	30.00	-29.36



## 7.12. 802.11n HT20 MODE IN THE 5.8 GHz BAND (Chain 0 & 1)

### 7.12.1. 6 dB BANDWIDTH

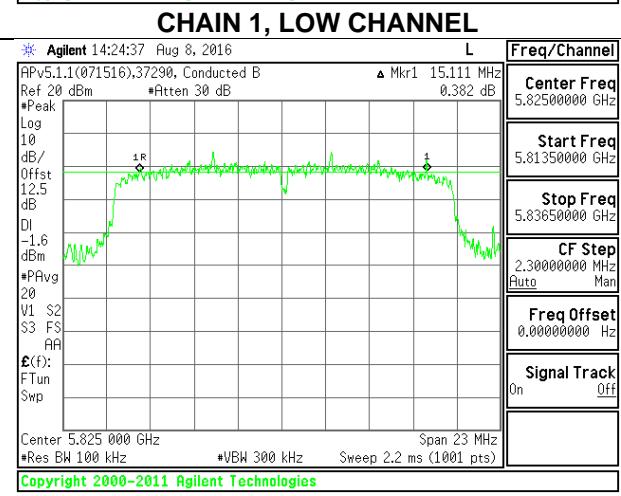
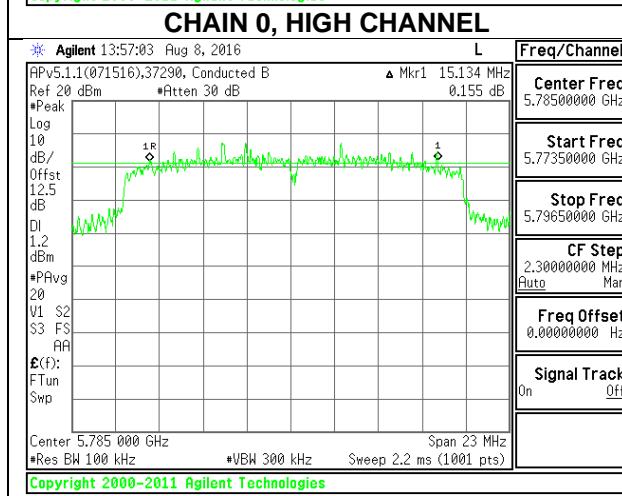
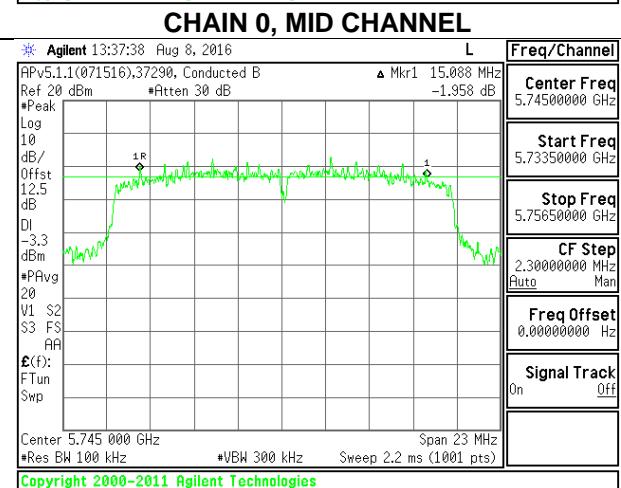
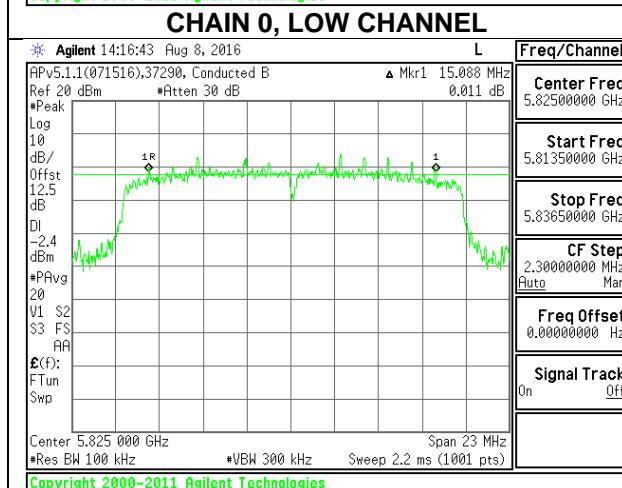
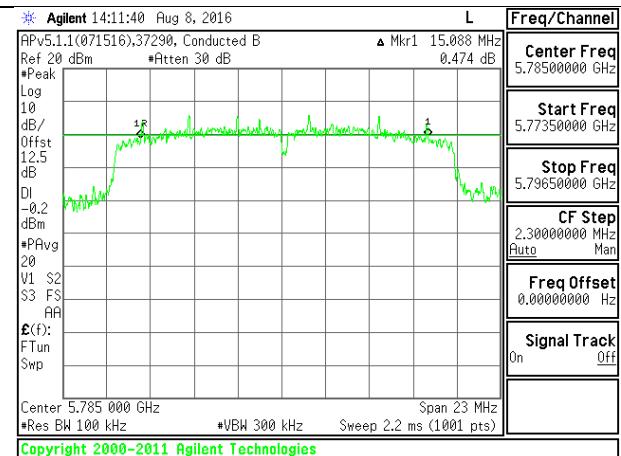
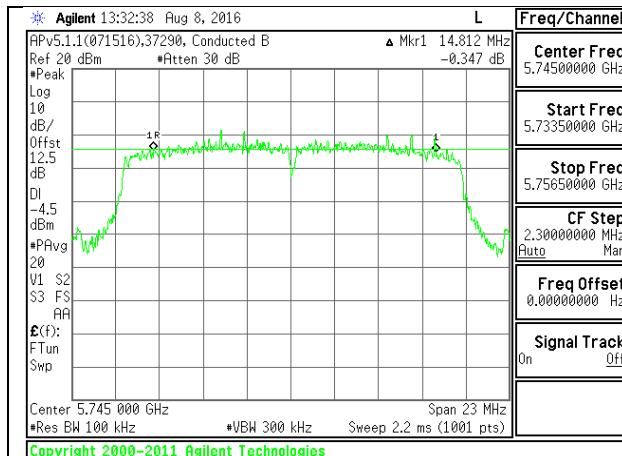
#### LIMITS

FCC §15.407 (e)

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

#### RESULTS

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Low	5745	14.812	15.088	0.5
Mid	5785	15.088	15.134	0.5
High	5825	15.088	15.111	0.5



CHAIN 0, HIGH CHANNEL

CHAIN 1, LOW CHANNEL

CHAIN 1, MID CHANNEL

CHAIN 1, HIGH CHANNEL

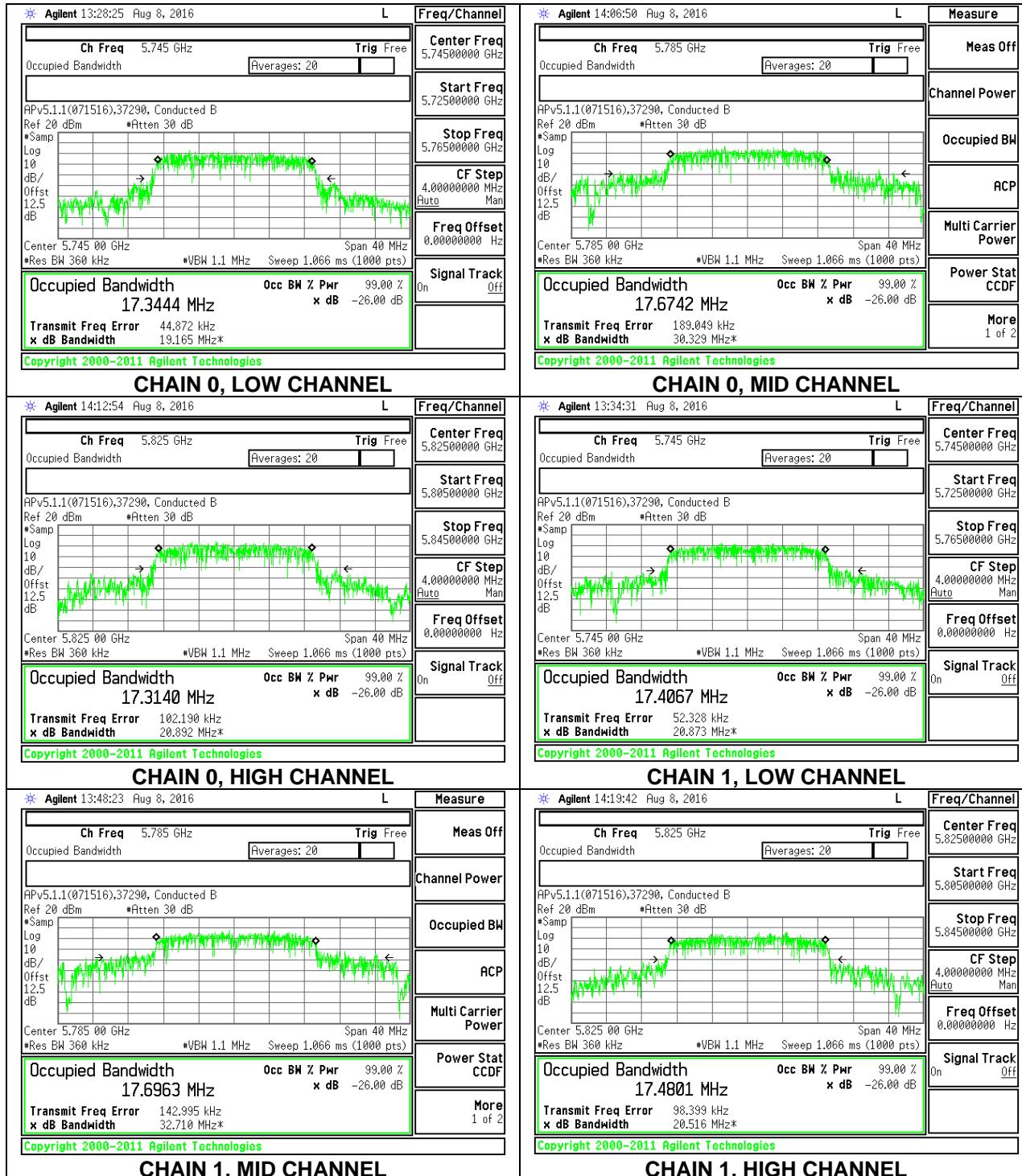
## 7.12.2. 99% BANDWIDTH

### LIMITS

None; for reporting purposes only.

### RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5745	17.3444	17.4067
Mid	5785	17.6742	17.6963
High	5825	17.3140	17.4801



### 7.12.3. 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

For Power, the TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
4.00	4.00	4.00

#### RESULTS

**Antenna Gain and Limit**

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)
Low	5745	4.00	30.00
Mid	5785	4.00	30.00
High	5825	4.00	30.00

**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	11.85	13.00	15.47	30.00	-14.53
Mid	5785	16.63	17.34	20.01	30.00	-9.99
High	5825	13.74	14.60	17.20	30.00	-12.80

**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.

ID:	37290	Date:	8/8/16
-----	-------	-------	--------

#### 7.12.4. 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

For PSD, the TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
4.00	4.00	7.01

##### RESULTS

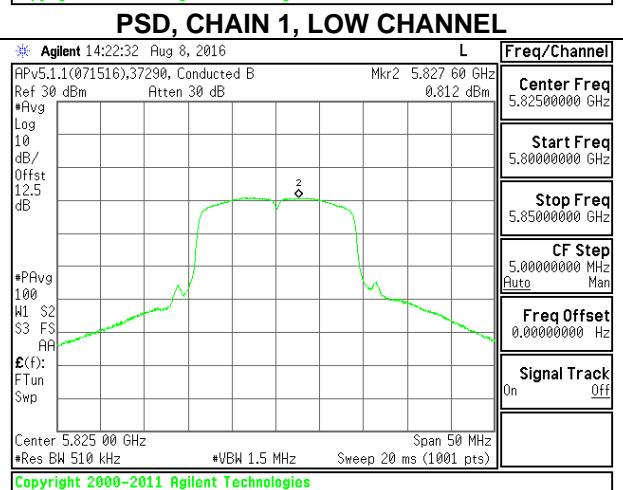
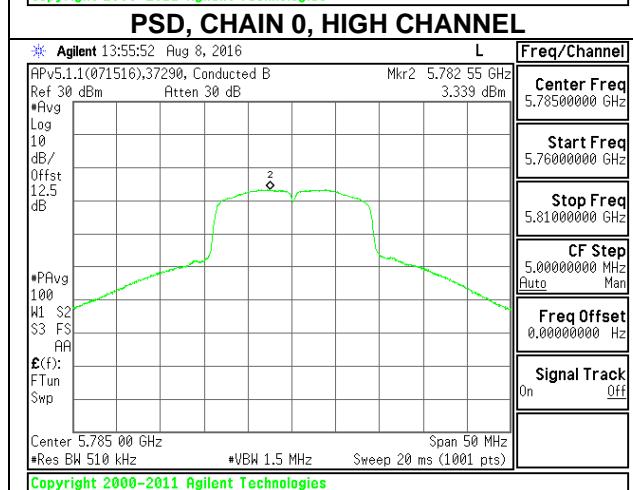
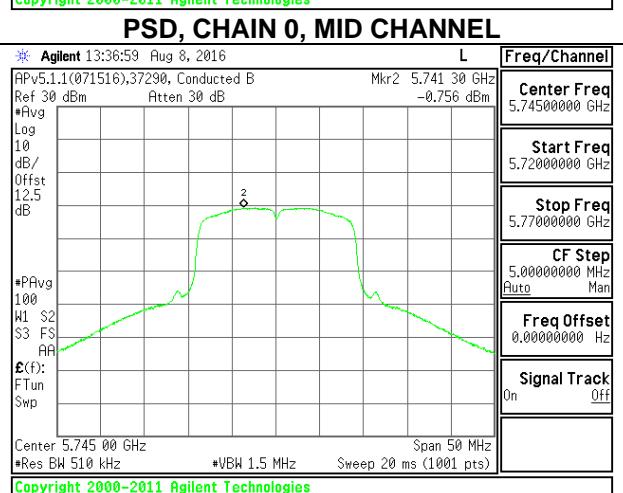
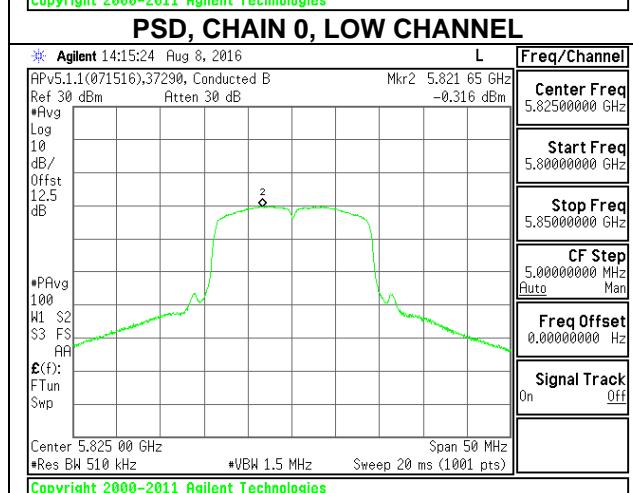
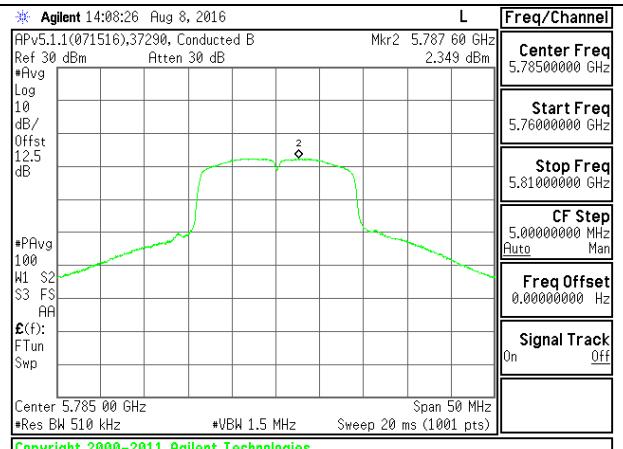
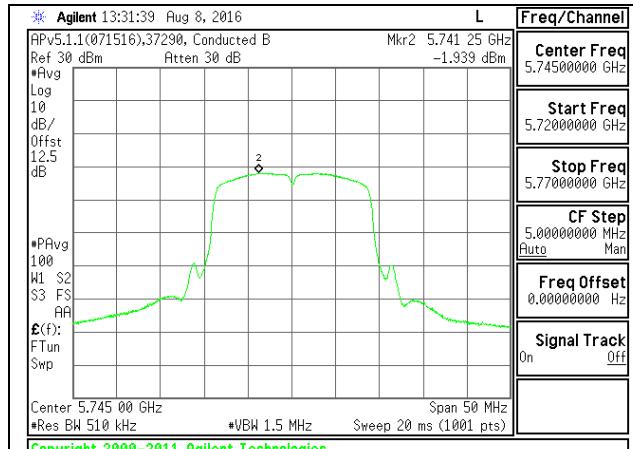
**Antenna Gain and Limits**

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5745	7.01	28.99
Mid	5785	7.01	28.99
High	5825	7.01	28.99

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd PSD
--------------------	------	--

**PSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	-1.939	-0.756	1.803	28.99	-27.19
Mid	5785	2.349	3.339	5.982	28.99	-23.01
High	5825	-0.316	0.812	3.395	28.99	-25.60



PSD, CHAIN 1, MID CHANNEL

PSD, CHAIN 1, HIGH CHANNEL

## 7.13. 802.11n HT40 MODE IN THE 5.8 GHz BAND (Chain 0 & 1)

### 7.13.1. 6 dB BANDWIDTH

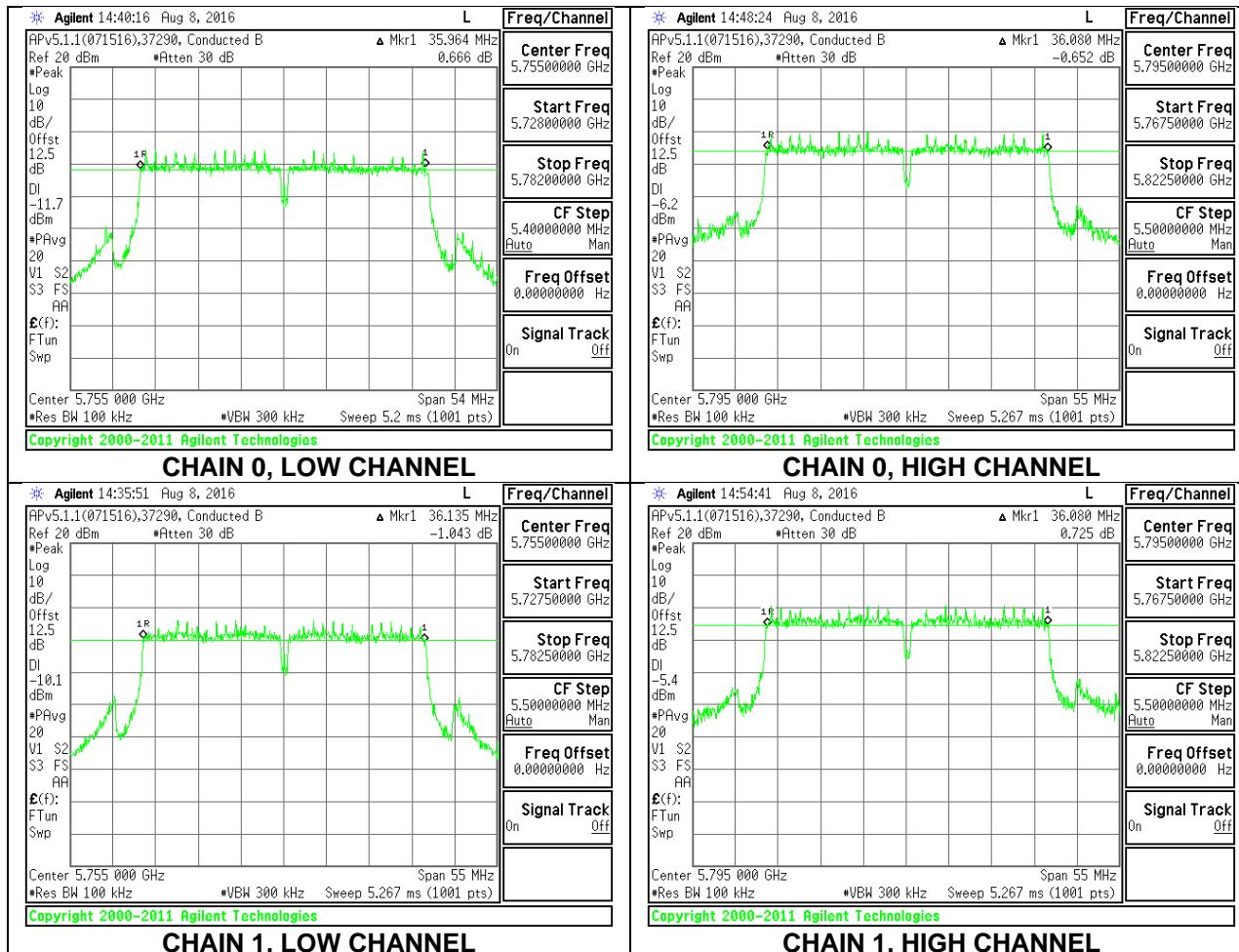
#### LIMITS

FCC §15.407 (e)

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

#### RESULTS

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Low	5755	35.964	36.135	0.5
High	5795	36.080	36.080	0.5



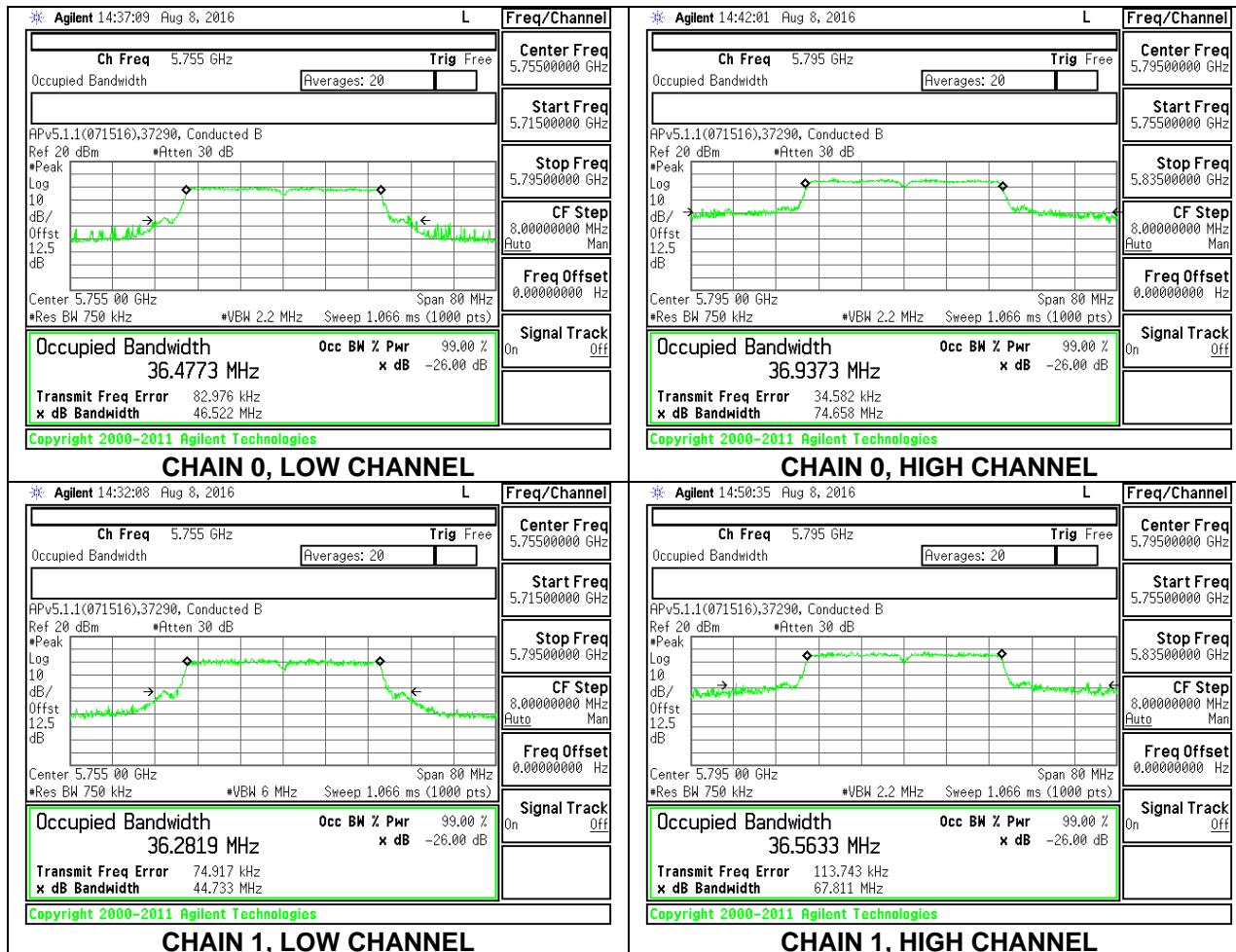
## 7.13.2. 99% BANDWIDTH

### LIMITS

None; for reporting purposes only.

### RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5755	36.4773	36.2819
High	5795	36.9373	36.5633



### 7.13.3. 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

For Power, the TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
4.00	4.00	4.00

#### RESULTS

**Antenna Gain and Limit**

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Low	5755	4.00	30.00
High	5795	4.00	30.00

**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	7.74	9.80	11.90	30.00	-18.10
High	5795	13.41	14.60	17.06	30.00	-12.94

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

ID:	37290	Date:	8/8/16
-----	-------	-------	--------

#### 7.13.4. 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

For PSD, the TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
4.00	4.00	7.01

##### RESULTS

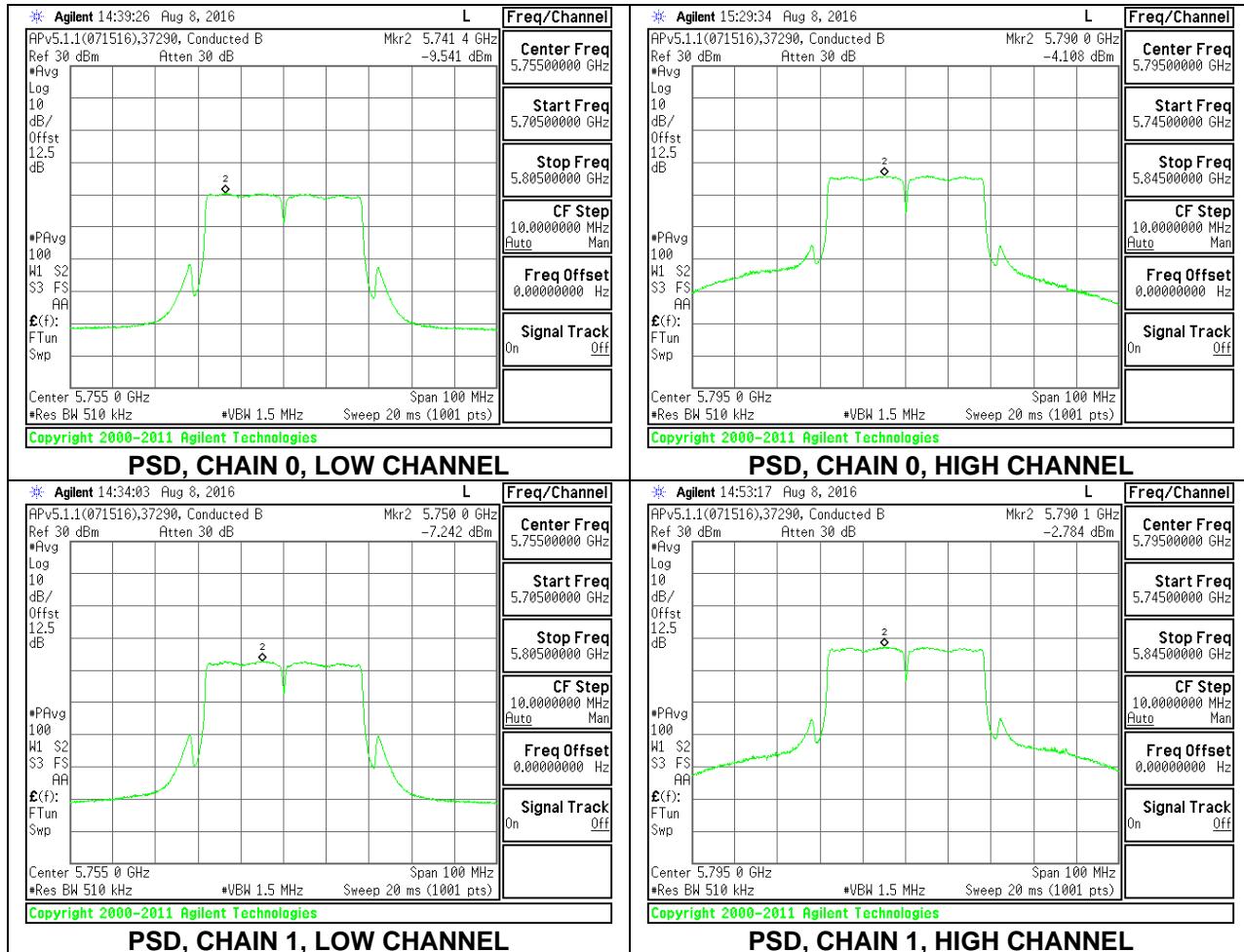
**Antenna Gain and Limit**

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5755	7.01	28.99
High	5795	7.01	28.99

Duty Cycle CF (dB)	0.17	Included in Calculations of Corr'd PSD
--------------------	------	--

**PSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5755	-9.541	-7.242	-5.061	28.99	-34.05
High	5795	-4.108	-2.784	-0.215	28.99	-29.21



## 8. RADIATED TEST RESULTS

### 8.1. 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 below 1GHz and 150cm for 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 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

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

Note: The pre-scan measurements above 1GHz the VBW is set to 30 kHz.

The spectrum from 9 kHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

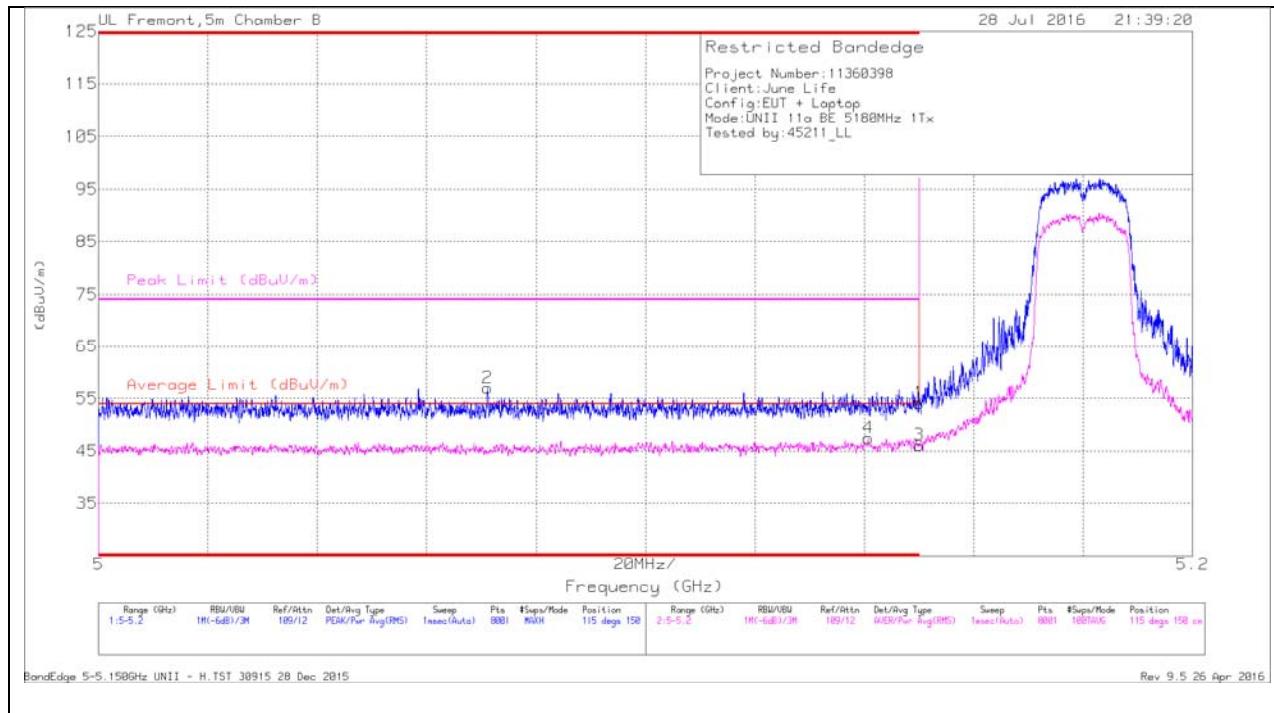
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

## 8.2. TRANSMITTER ABOVE 1 GHz

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

#### RESTRICTED BANDEDGE (LOW CHANNEL)

#### HORIZONTAL RESULTS



#### Trace Markers

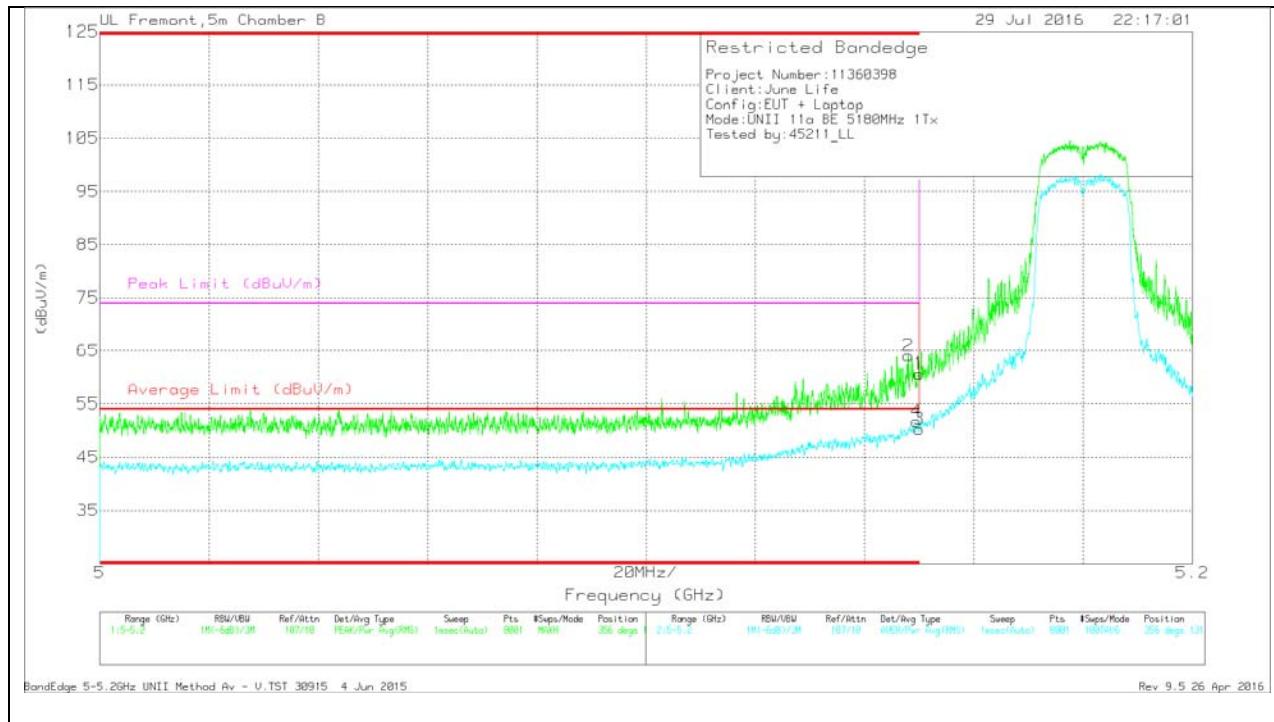
Marker	Frequency (GHz)	Meter Reading (dBmV)	Det	AF T345 (dB/m)	Amp/Cbl/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBmV/m)	Average Limit (dBmV/m)	Margin (dB)	Peak Limit (dBmV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.071	42.67	Pk	34.1	-19.8	0	56.97	-	-	74	-17.03	115	150	H
4	* 5.141	32.58	RMS	34.2	-19.4	0	47.38	54	-6.62	-	-	115	150	H
1	5.15	39.85	Pk	34.2	-19.9	0	54.15	-	-	74	-19.85	115	150	H
3	5.15	31.8	RMS	34.2	-19.9	0	46.1	54	-7.9	-	-	115	150	H

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULTS



### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.148	52.45	Pk	34.2	-22.6	0	64.05	-	-	74	-9.95	356	131	V
4	* 5.149	40.07	RMS	34.2	-22.6	0	51.67	54	-2.33	-	-	356	131	V
1	5.15	49.01	Pk	34.2	-22.6	0	60.61	-	-	74	-13.39	356	131	V
3	5.15	38.65	RMS	34.2	-22.6	0	50.25	54	-3.75	-	-	356	131	V

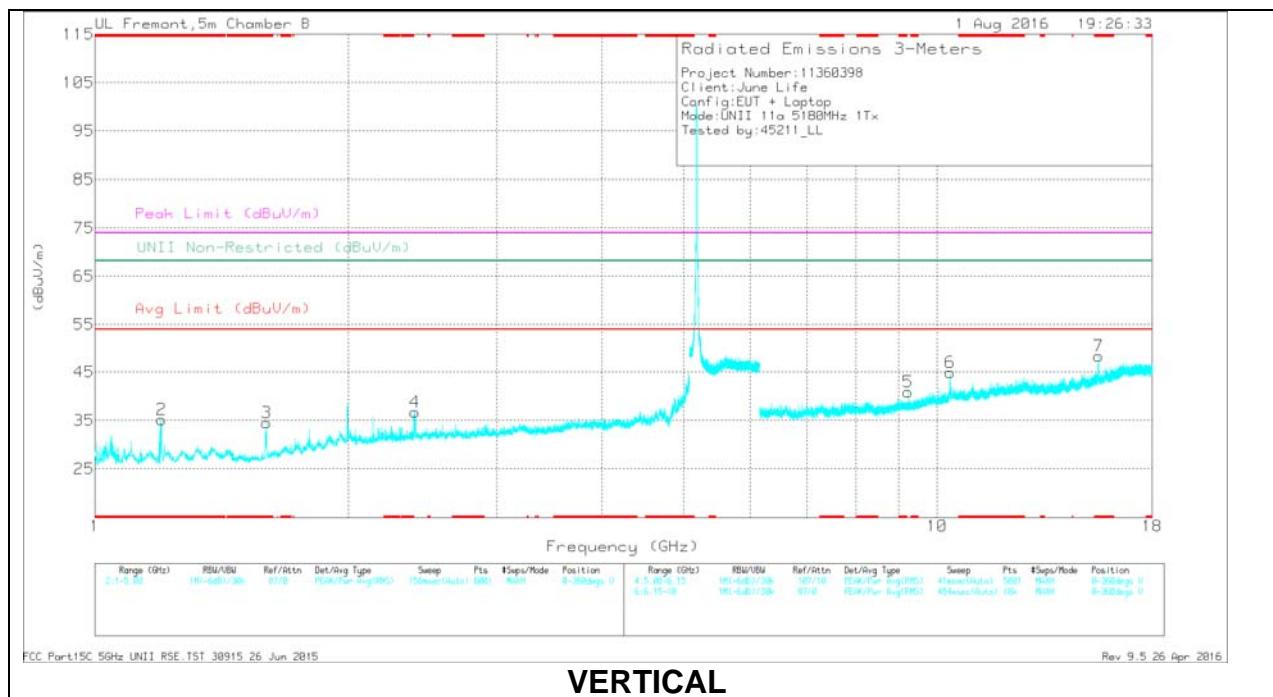
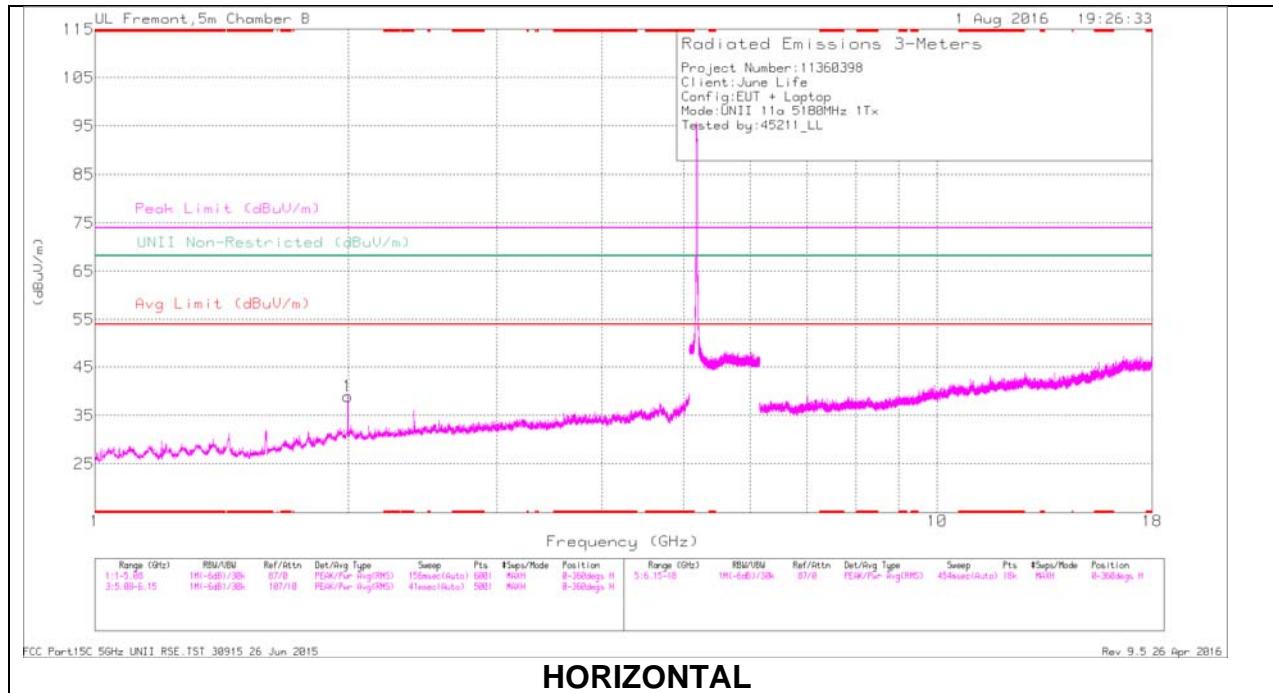
\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL RESULTS



## LOW CHANNEL DATA

### Trace Markers

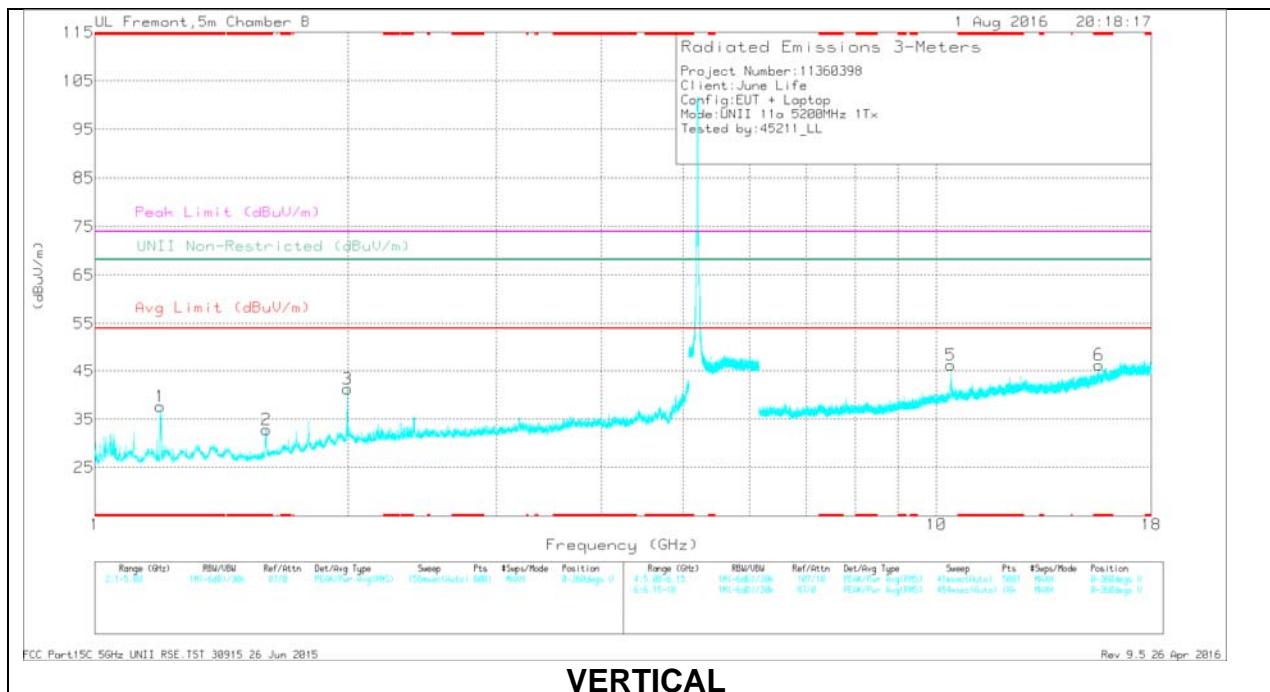
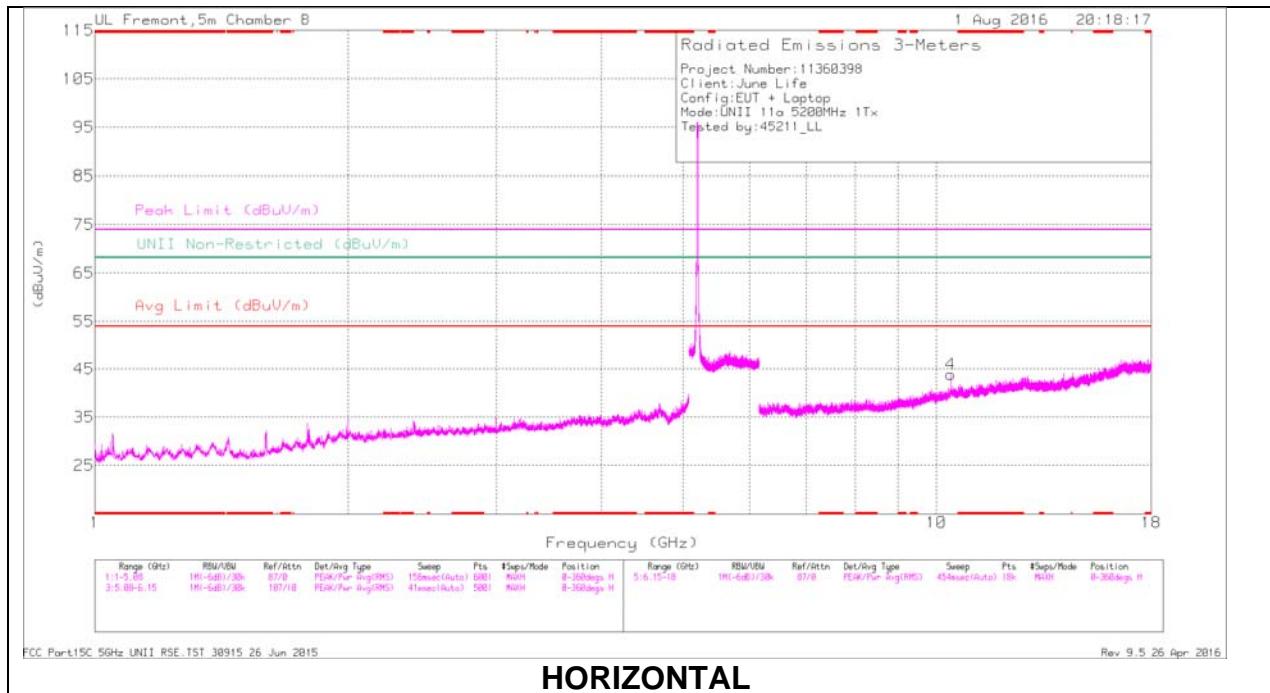
Marker	Frequency (GHz)	Meter Reading (dBm)	Dct	AF T345 (dB/m)	Amp/Dif/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBm)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 1.197	53.4	PK-U	28.3	-35.8	0	45.9	-	-	74	-28.1	-	-	223	306	V
	* 1.198	33.26	ADR	28.3	-35.8	0	25.76	54	-28.24	-	-	-	-	223	306	V
3	* 1.595	47.97	PK-U	28.1	-35.3	0	40.77	-	-	74	-33.23	-	-	0	144	V
	* 1.595	31.29	ADR	28.1	-35.3	0	24.09	54	-29.91	-	-	-	-	0	144	V
7	* 15.54	37.47	PK-U	40.2	-24	0	53.67	-	-	74	-20.33	-	-	141	101	V
	* 15.539	26.9	ADR	40.2	-24	0	43.1	54	-10.9	-	-	-	-	141	101	V
1	1.997	50.41	PK-U	31.5	-34.1	0	47.81	-	-	-	-	68.2	-20.39	250	209	H
4	2.398	46.27	PK-U	32.2	-34.7	0	43.77	-	-	-	-	68.2	-24.43	351	269	V
5	9.226	35.54	PK-U	36.4	-27.6	0	44.34	-	-	-	-	68.2	-23.86	215	296	V
6	10.357	41.44	PK-U	37.6	-26.1	0	52.94	-	-	-	-	68.2	-15.26	153	232	V

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## MID CHANNEL RESULTS



## MID CHANNEL DATA

### Trace Markers

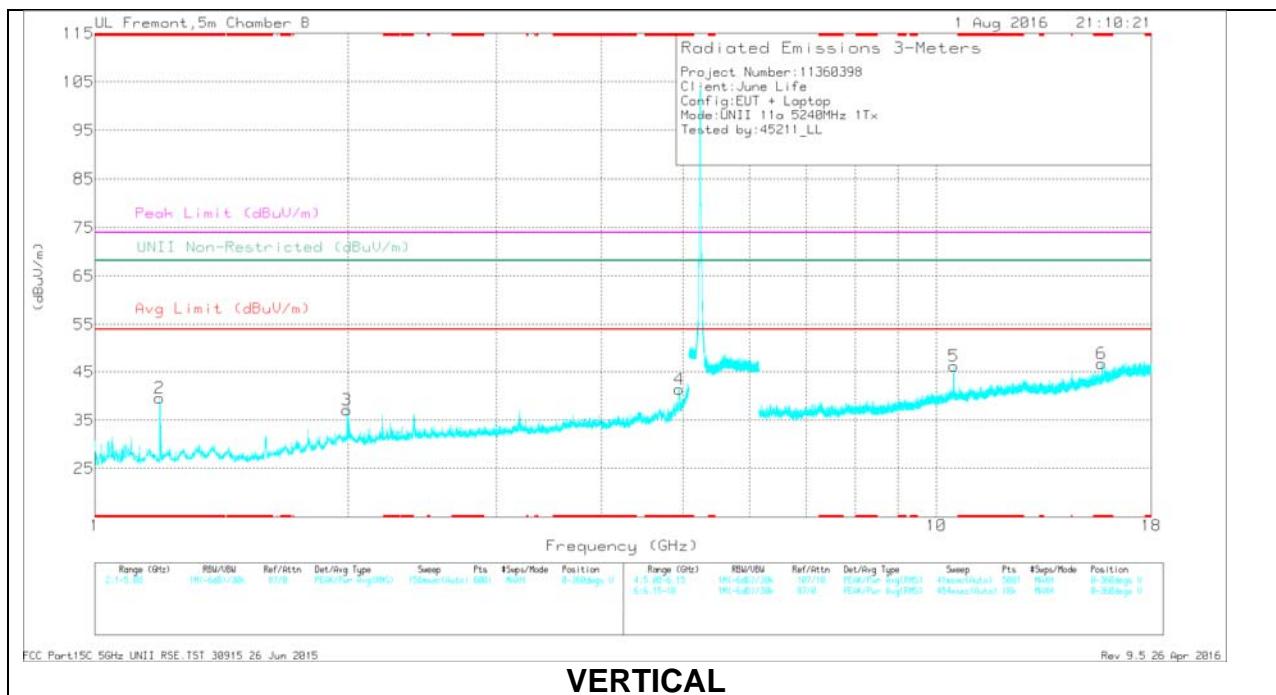
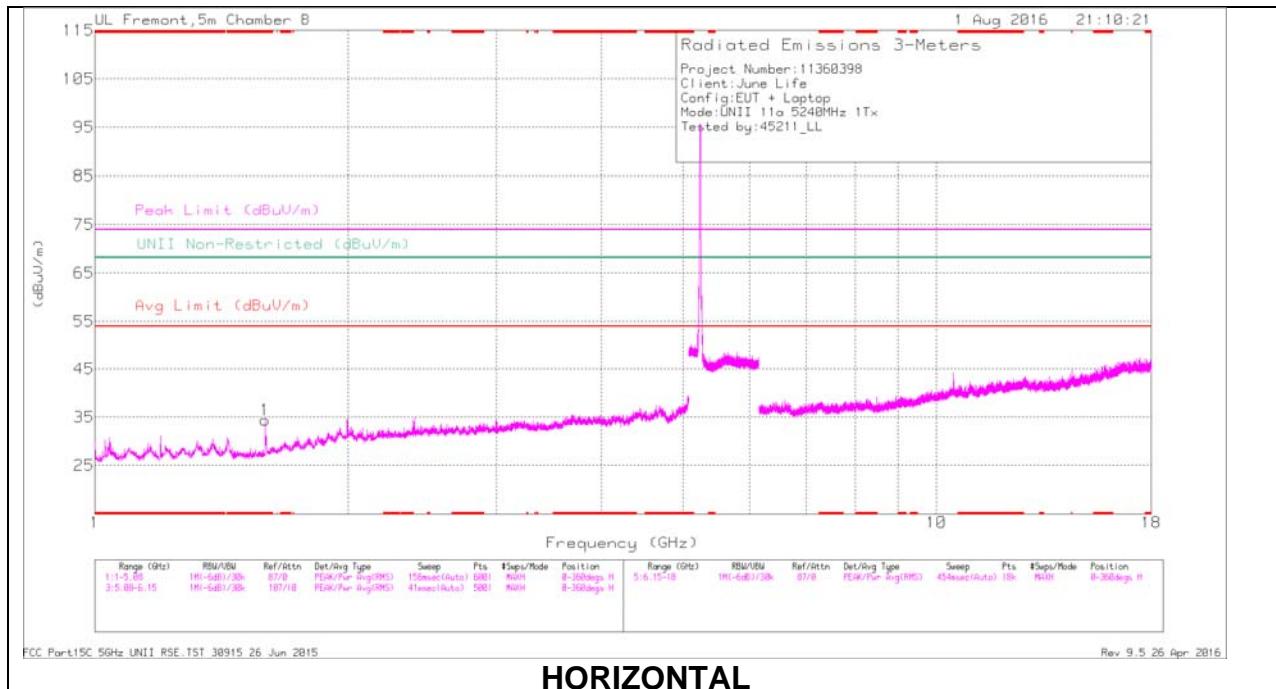
Marker	Frequency (GHz)	Meter Reading (dBmV)	Det	AF T345 (dB/m)	Amp/Cbl/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBmV)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.198	53.36	PK-U	28.3	-35.8	0	45.86	-	-	74	-28.14	-	-	223	364	V
	* 1.196	32.39	ADR	28.3	-35.8	0	24.89	54	-29.11	-	-	-	-	223	364	V
2	* 1.6	48.82	PK-U	28.1	-35.1	0	41.82	-	-	74	-32.18	-	-	9	257	V
	* 1.599	31.87	ADR	28.1	-35.1	0	24.87	54	-29.13	-	-	-	-	9	257	V
6	* 15.59	39.42	PK-U	40.3	-24.5	0	55.22	-	-	74	-18.78	-	-	167	101	V
	* 15.6	28.55	ADR	40.3	-24.5	0	44.35	54	-9.65	-	-	-	-	167	101	V
3	1.999	52.52	PK-U	31.5	-34.2	0	49.82	-	-	-	-	68.2	-18.38	236	218	V
4	10.402	38.21	PK-U	37.6	-25.6	0	50.21	-	-	-	-	68.2	-17.99	161	101	H
5	10.404	43.35	PK-U	37.6	-25.6	0	55.35	-	-	-	-	68.2	-12.85	157	221	V

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## HIGH CHANNEL RESULTS



## HIGH CHANNEL DATA

### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBmF)	Dct	AF T345 (dB/m)	Amp/Dif/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBmF)	Avg Limit (dBm/m)	Margin (dB)	Peak Limit (dBm/m)	PK Margin (dB)	UNII Non-Restricted (dBm/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.595	48.97	PK-U	28.1	-35.2	0	41.87	-	-	74	-32.13	-	-	169	257	H
	* 1.593	32.55	ADR	28.1	-35.3	0	25.35	54	-28.65	-	-	-	-	169	257	H
2	* 1.197	53.35	PK-U	28.3	-35.8	0	45.85	-	-	74	-28.15	-	-	219	298	V
	* 1.198	33.64	ADR	28.3	-35.8	0	26.14	54	-27.86	-	-	-	-	219	298	V
4	* 4.938	45.55	PK-U	33.9	-31.8	0	47.65	-	-	74	-26.35	-	-	157	101	V
	* 4.943	35.82	ADR	33.9	-31.7	0	38.02	54	-15.98	-	-	-	-	157	101	V
6	* 15.722	38.6	PK-U	40.5	-24.5	0	54.6	-	-	74	-19.4	-	-	160	206	V
	* 15.721	27.02	ADR	40.5	-24.5	0	43.02	54	-10.98	-	-	-	-	160	206	V
3	1.991	51.26	PK-U	31.4	-34	0	48.66	-	-	-	-	68.2	-19.54	175	352	V
5	10.481	44.3	PK-U	37.7	-25.8	0	56.2	-	-	-	-	68.2	-12	155	142	V

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

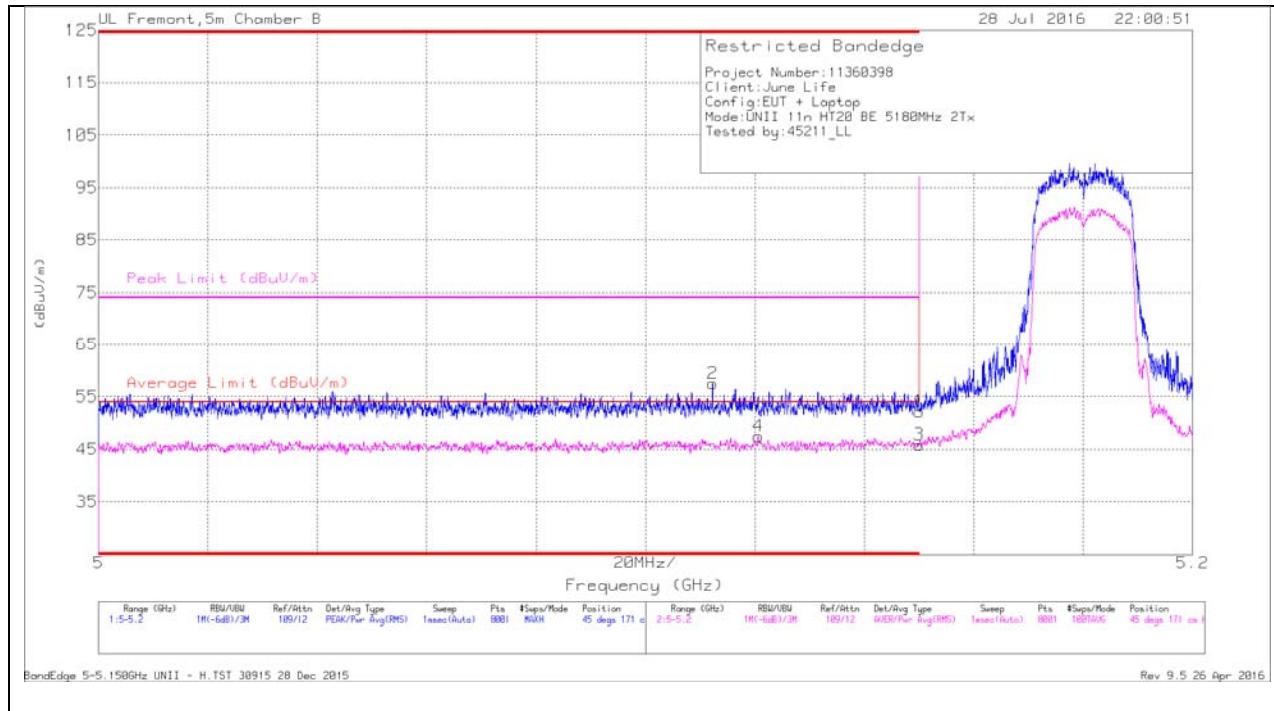
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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

### RESTRICTED BANDEDGE (LOW CHANNEL)

#### HORIZONTAL RESULTS



#### Trace Markers

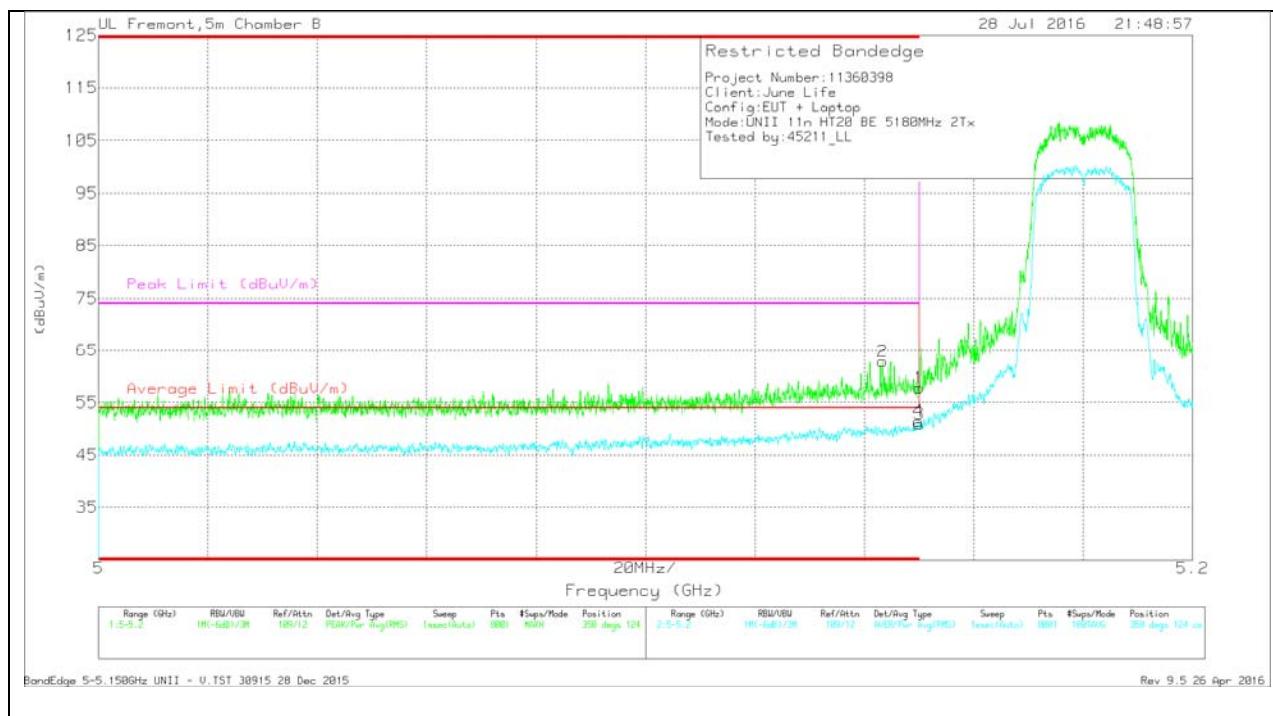
Marker	Frequency (GHz)	Meter Reading (dBmV)	Det	AF T345 (dB/m)	Amp/Cbl/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBmV/m)	Average Limit (dBmV/m)	Margin (dB)	Peak Limit (dBmV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.112	43.08	Pk	34.1	-19.7	0	57.48	-	-	74	-16.52	45	171	H
4	* 5.121	32.6	RMS	34.1	-19.4	.1	47.4	54	-6.6	-	-	45	171	H
1	5.15	37.82	Pk	34.2	-19.9	0	52.12	-	-	74	-21.88	45	171	H
3	5.15	31.44	RMS	34.2	-19.9	.1	45.84	54	-8.16	-	-	45	171	H

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULTS



### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.143	48.35	Pk	34.2	-19.7	0	62.85	-	-	74	-11.15	358	124	V
4	* 5.15	36.99	RMS	34.2	-19.9	.1	51.39	54	-2.61	-	-	358	124	V
1	5.15	43.44	Pk	34.2	-19.9	0	57.74	-	-	74	-16.26	358	124	V
3	5.15	36.49	RMS	34.2	-19.9	.1	50.89	54	-3.11	-	-	358	124	V

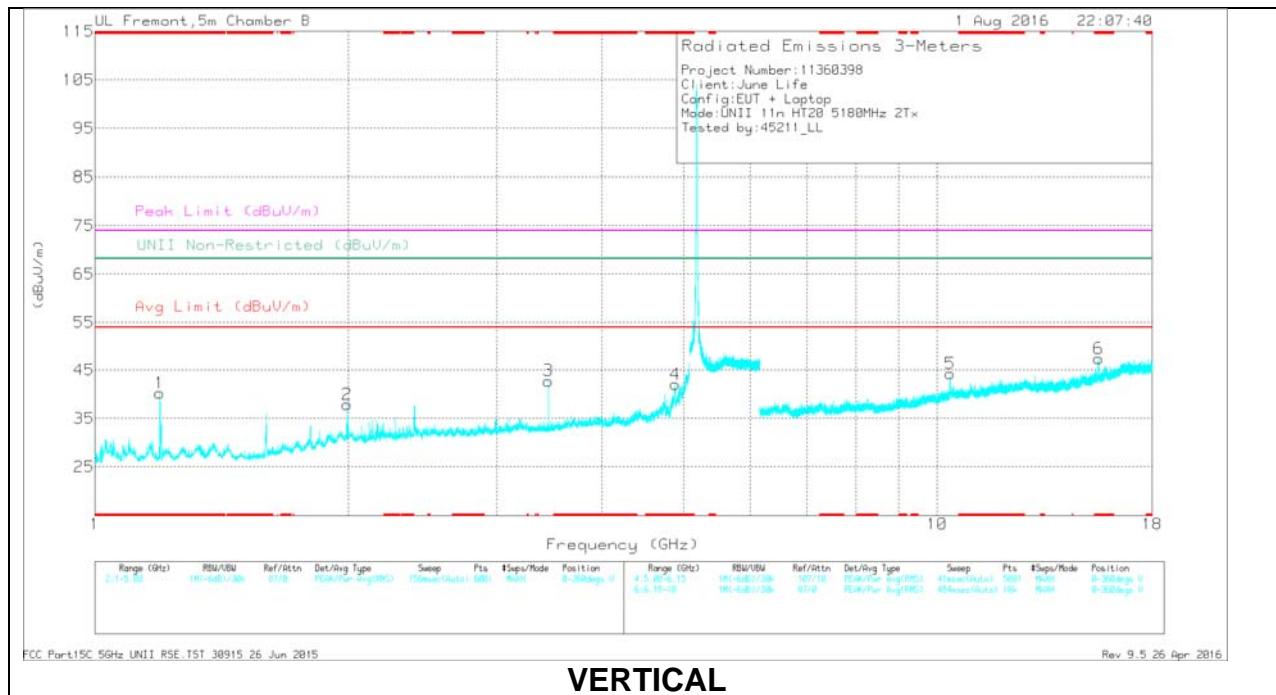
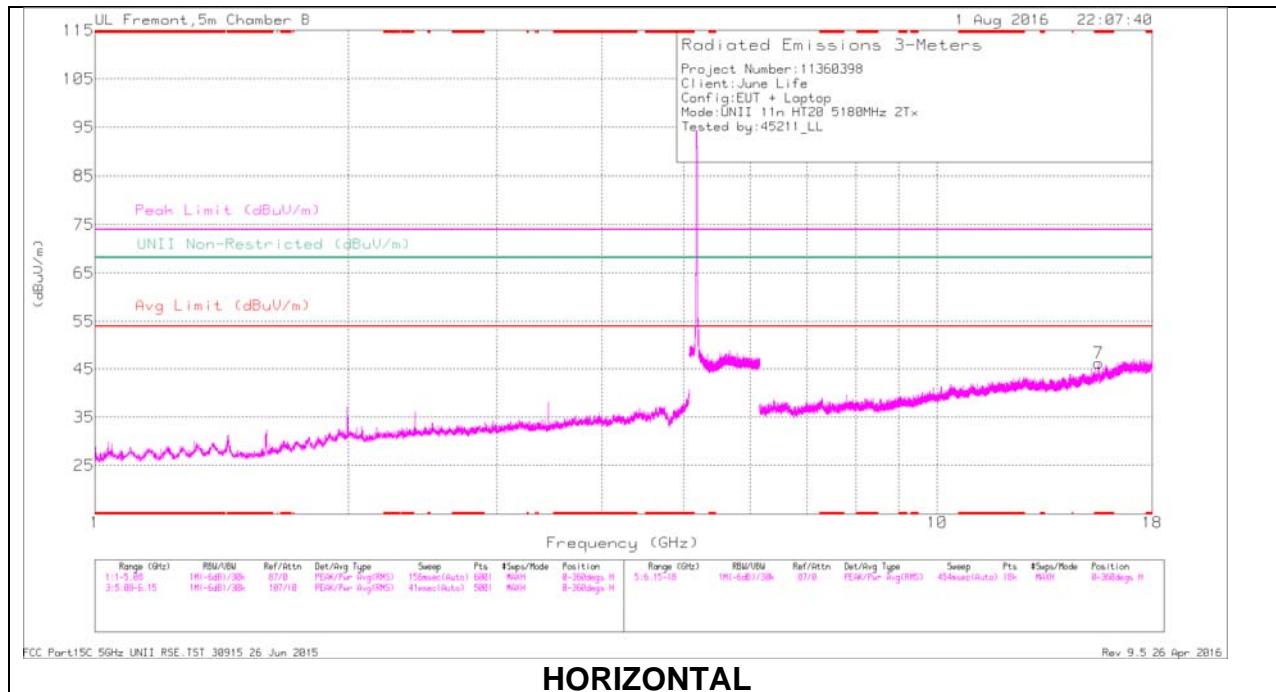
\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL RESULTS



## LOW CHANNEL DATA

### Trace Markers

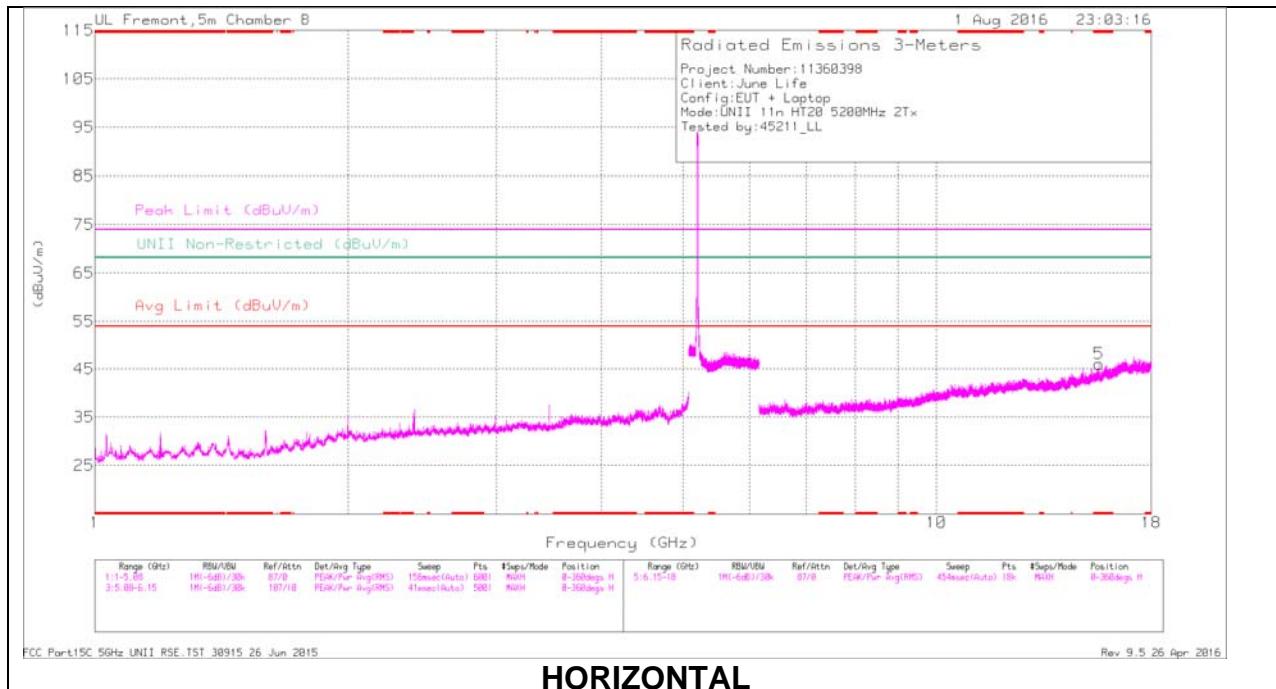
Marker	Frequency (GHz)	Meter Reading (dBm)	Dct	AF T345 (dB/m)	Amp/O/I/F/R/Pad (dB)	DC Corr (dB)	Corrected Reading (dBm)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.195	52.6	PK-U	28.3	-35.8	0	45.1	-	-	74	-28.9	-	-	256	212	V
	* 1.198	33.21	ADR	28.3	-35.8	.1	25.81	54	-28.19	-	-	-	-	256	212	V
4	* 4.883	46.38	PK-U	33.8	-31.5	0	48.68	-	-	74	-25.32	-	-	196	213	V
	* 4.883	35.24	ADR	33.8	-31.5	.1	37.64	54	-16.36	-	-	-	-	196	213	V
7	* 15.546	37.4	PK-U	40.2	-24	0	53.6	-	-	74	-20.4	-	-	160	263	H
	* 15.545	26.29	ADR	40.2	-24	.1	42.59	54	-11.41	-	-	-	-	160	263	H
6	* 15.541	39.12	PK-U	40.2	-24	0	55.32	-	-	74	-18.68	-	-	188	245	V
	* 15.542	27.51	ADR	40.2	-24	.1	43.81	54	-10.19	-	-	-	-	188	245	V
2	1.992	47.85	PK-U	31.5	-34	0	45.35	-	-	-	-	68.2	-22.85	326	112	V
3	3.454	48.05	PK-U	32.8	-33.8	0	47.05	-	-	-	-	68.2	-21.15	185	218	V
5	10.355	41.28	PK-U	37.6	-26.1	0	52.78	-	-	-	-	68.2	-15.42	154	226	V

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

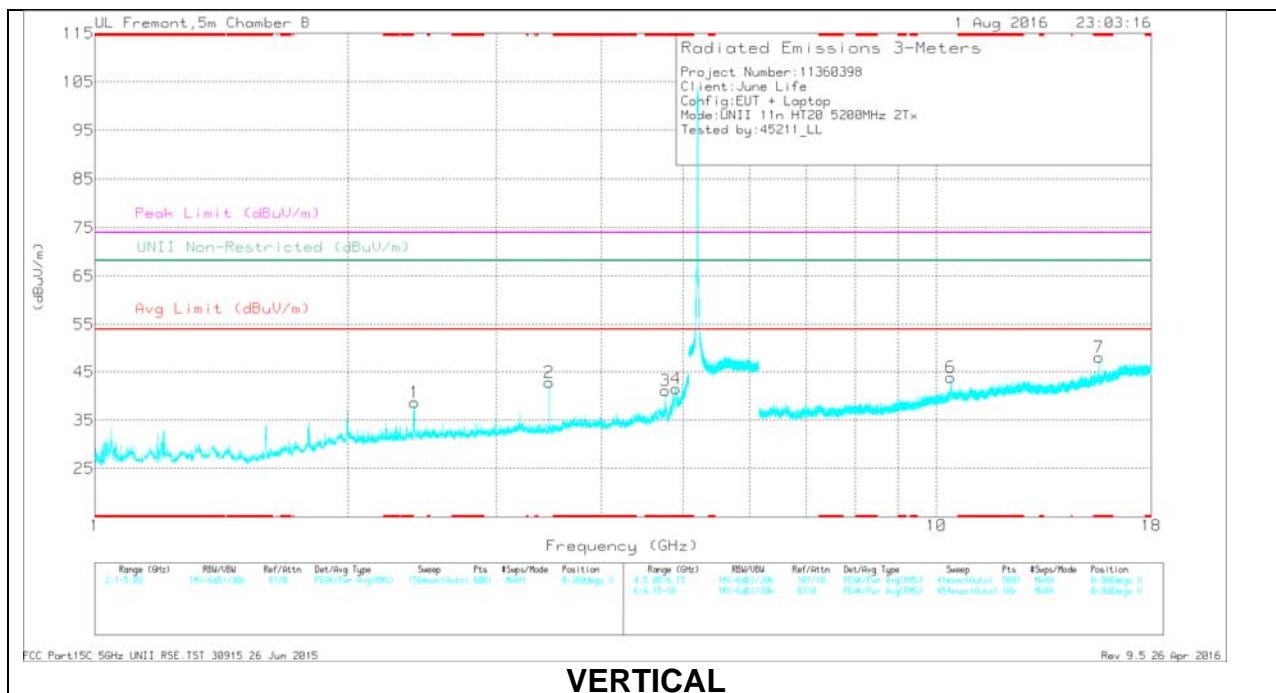
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## MID CHANNEL RESULTS



**HORIZONTAL**



**VERTICAL**

## MID CHANNEL DATA

### Trace Markers

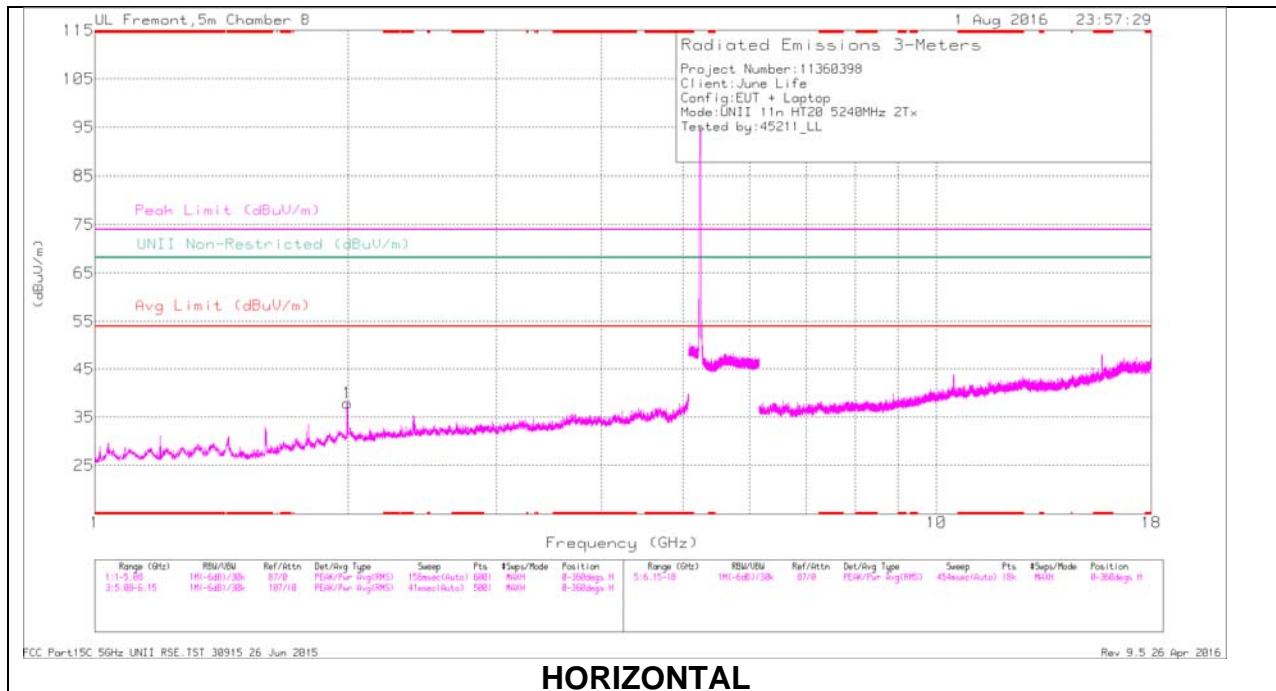
Marker	Frequency (GHz)	Meter Reading (dBm)	Dct	AF T345 (dB/m)	Amp/Dif/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBm)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 4.767	-42.9	PK-U	33.9	-31.6	0	45.2	-	-	74	-28.8	-	-	194	289	V
	* 4.767	33.96	ADR	33.9	-31.6	.1	36.36	54	-17.64	-	-	-	-	194	289	V
4	* 4.908	45.49	PK-U	33.9	-31.3	0	48.09	-	-	74	-25.91	-	-	187	306	V
	* 4.901	34.71	ADR	33.9	-31.3	.1	37.41	54	-16.59	-	-	-	-	187	306	V
5	* 15.599	37.93	PK-U	40.3	-24.5	0	53.73	-	-	74	-20.27	-	-	129	198	H
	* 15.599	26.02	ADR	40.3	-24.5	.1	41.92	54	-12.08	-	-	-	-	129	198	H
7	* 15.595	40.33	PK-U	40.3	-24.6	0	56.03	-	-	74	-17.97	-	-	187	303	V
	* 15.596	27.03	ADR	40.3	-24.6	.1	42.83	54	-11.17	-	-	-	-	187	303	V
1	2.395	49.92	PK-U	32.2	-34.6	0	47.52	-	-	-	-	68.2	-20.68	244	254	V
2	3.467	47.38	PK-U	32.8	-33.7	0	46.48	-	-	-	-	68.2	-21.72	183	217	V
6	10.404	36.41	PK-U	37.6	-25.6	0	48.41	-	-	-	-	68.2	-19.79	150	197	V

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

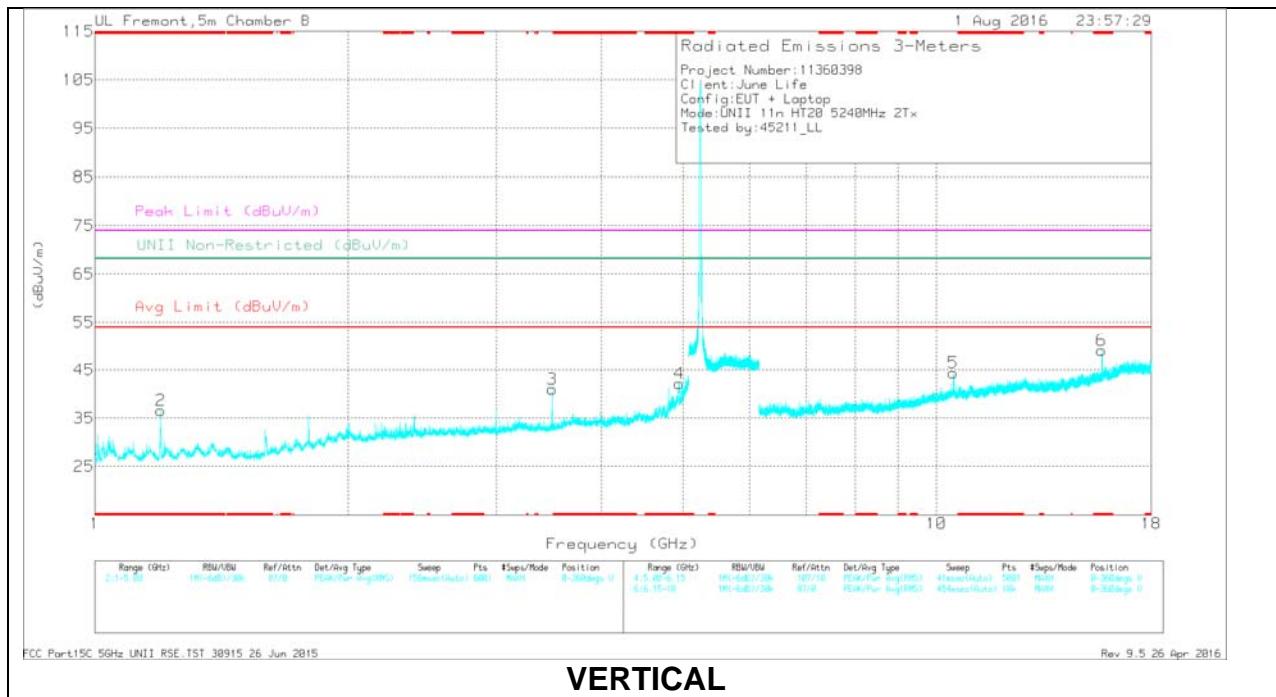
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## HIGH CHANNEL RESULTS



**HORIZONTAL**



**VERTICAL**

## HIGH CHANNEL DATA

### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBmF)	Dct	AF T345 (dB/m)	Amp/Dif/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBmF)	Avg Limit (dBmF/m)	Margin (dB)	Peak Limit (dBmF/m)	PK Margin (dB)	UNII Non-Restricted (dBmF/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 1.195	53.35	PK-U	28.3	-35.8	0	45.85	-	-	74	-28.15	-	-	217	381	V
	* 1.199	33.35	ADR	28.3	-35.8	.1	25.95	54	-28.05	-	-	-	-	217	381	V
4	* 4.938	47.69	PK-U	33.9	-31.8	0	49.79	-	-	74	-24.21	-	-	186	304	V
	* 4.938	36.67	ADR	33.9	-31.8	.1	38.87	54	-15.13	-	-	-	-	186	304	V
6	* 15.715	42.92	PK-U	40.5	-24.4	0	59.02	-	-	74	-14.98	-	-	166	142	V
	* 15.716	30.37	ADR	40.5	-24.4	.1	46.57	54	-7.43	-	-	-	-	166	142	V
1	1.997	49.34	PK-U	31.5	-34.1	0	46.74	-	-	-	-	68.2	-21.46	167	240	H
3	3.493	45.39	PK-U	32.8	-33.2	0	44.99	-	-	-	-	68.2	-23.21	178	250	V
5	10.48	42.59	PK-U	37.7	-25.7	0	54.59	-	-	-	-	68.2	-13.61	156	105	V

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

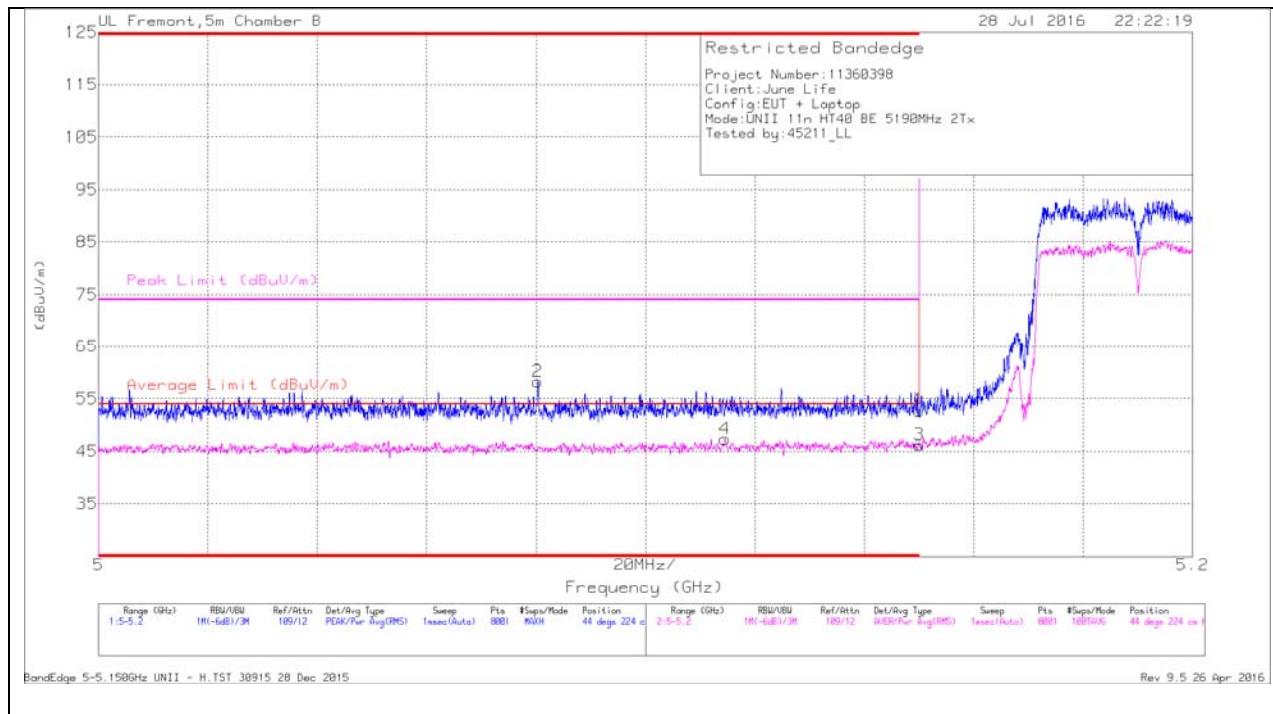
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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

#### RESTRICTED BANDEDGE (LOW CHANNEL)

#### HORIZONTAL RESULTS



#### Trace Markers

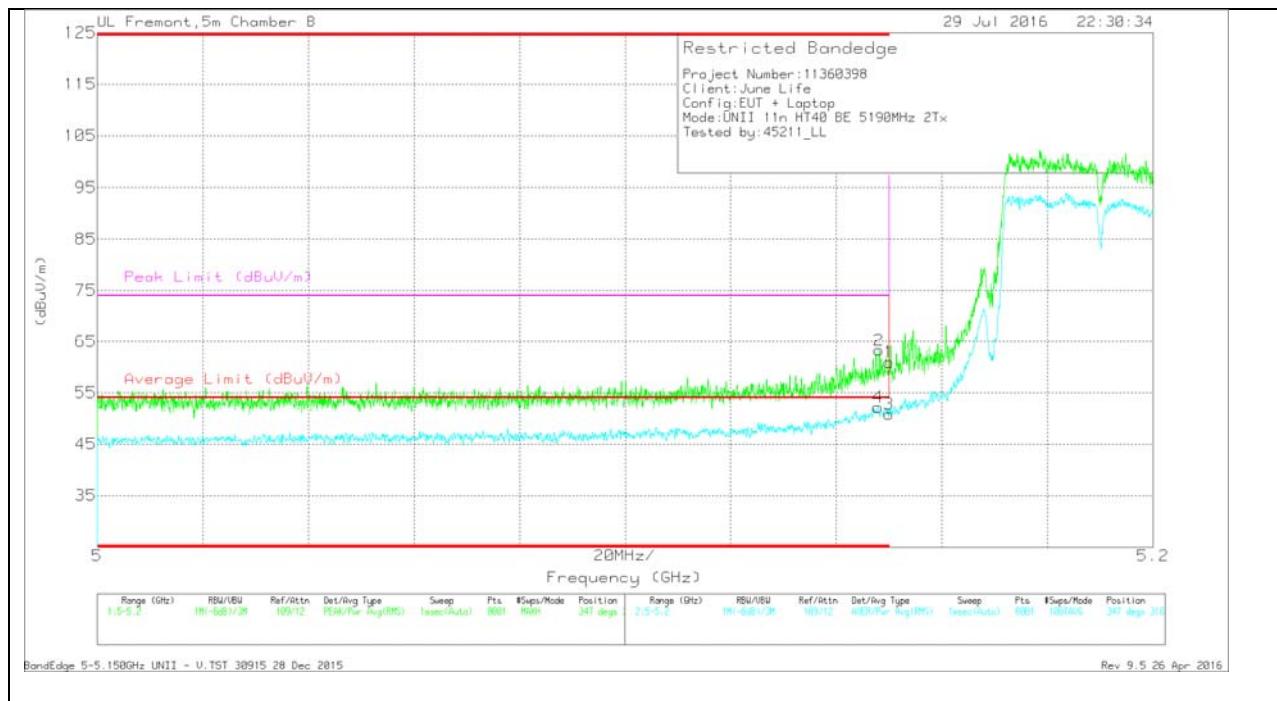
Marker	Frequency (GHz)	Meter Reading (dBmV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBmV/m)	Average Limit (dBmV/m)	Margin (dB)	Peak Limit (dBmV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.08	43.78	Pk	34.1	-19.6	0	58.28	-	-	74	-15.72	44	224	H
4	* 5.115	32.31	RMS	34.1	-19.3	.17	47.28	54	-6.72	-	-	44	224	H
1	5.15	38.41	Pk	34.2	-19.9	0	52.71	-	-	74	-21.29	44	224	H
3	5.15	31.71	RMS	34.2	-19.9	.17	46.18	54	-7.82	-	-	44	224	H

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULTS



### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBmV)	Det	AF T345 (dB/m)	Amp/Cbl/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBmV/m)	Average Limit (dBmV/m)	Margin (dB)	Peak Limit (dBmV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 5.148	48.65	Pk	34.2	-19.6	0	63.25	-	-	74	-10.75	347	316	V
4	* 5.148	37.29	RMS	34.2	-19.5	.17	52.16	54	-1.84	-	-	347	316	V
1	5.15	46.62	Pk	34.2	-19.9	0	60.92	-	-	74	-13.08	347	316	V
3	5.15	36.35	RMS	34.2	-19.9	.17	50.82	54	-3.18	-	-	347	316	V

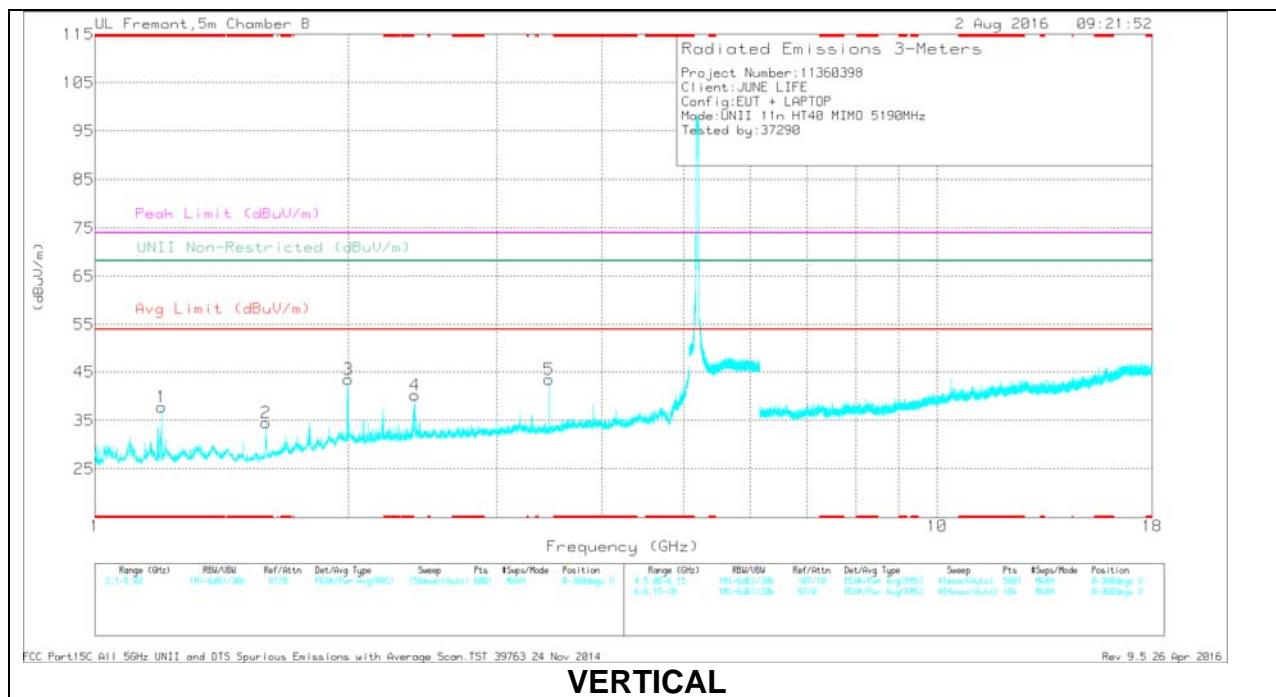
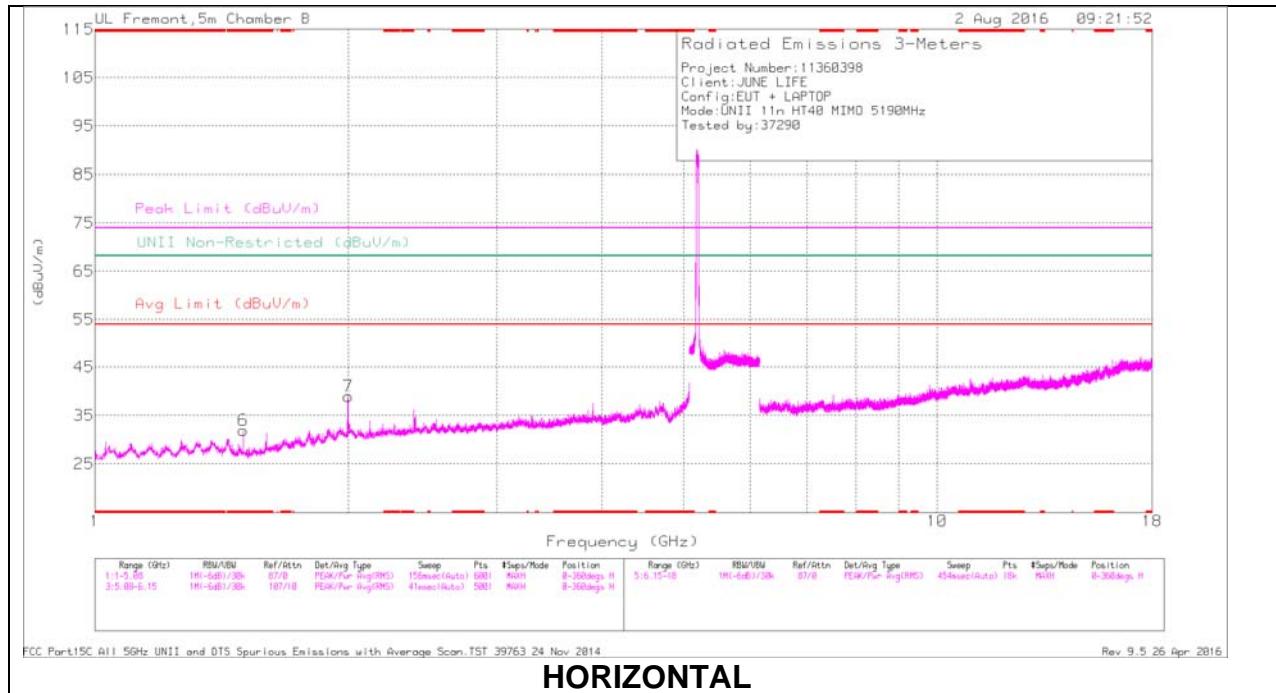
\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL RESULTS



## LOW CHANNEL DATA

### Trace Markers

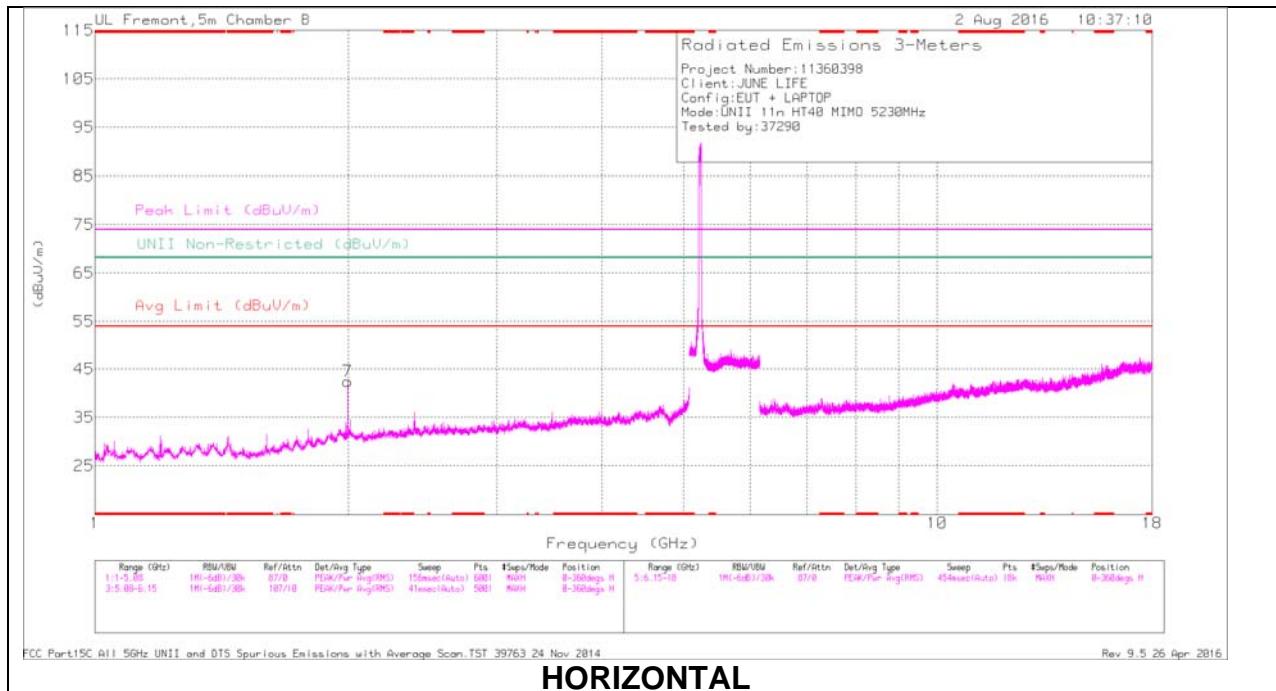
Marker	Frequency (GHz)	Meter Reading (dBuV)	Dst	AF T345 (dB/m)	Amp/Cbl/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Pk Margin (dB)	UNII Non-Restricted (dBuV/m)	Pk Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	* 1.494	43.4	PK-U	27.8	-35.6	0	35.6	-	-	74	-38.4	68.2	-32.6	255	288	H
	* 1.49	31.41	ADR	27.9	-35.5	.17	23.98	54	-30.02	-	-	-	-	255	288	H
1	* 1.2	55.57	PK-U	28.3	-35.8	0	48.07	-	-	74	-25.93	68.2	-20.13	48	278	V
	* 1.199	35.01	ADR	28.3	-35.8	.17	27.68	54	-26.32	-	-	-	-	48	278	V
2	* 1.596	50.71	PK-U	28.1	-35.2	0	43.61	-	-	74	-30.39	68.2	-24.59	224	119	V
	* 1.596	33.41	ADR	28.1	-35.2	.17	26.48	54	-27.52	-	-	-	-	224	119	V
7	1.998	54.49	PK-U	31.5	-34.2	0	51.79	-	-	74	-22.21	68.2	-16.41	56	252	V
3	1.999	51.84	PK-U	31.5	-34.2	0	49.14	-	-	74	-24.86	68.2	-19.06	65	188	H
4	2.396	51.89	PK-U	32.2	-34.6	0	49.49	-	-	74	-24.51	68.2	-18.71	270	135	V
5	3.46	48.8	PK-U	32.8	-33.7	0	47.9	-	-	74	-26.1	68.2	-20.3	218	125	V

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

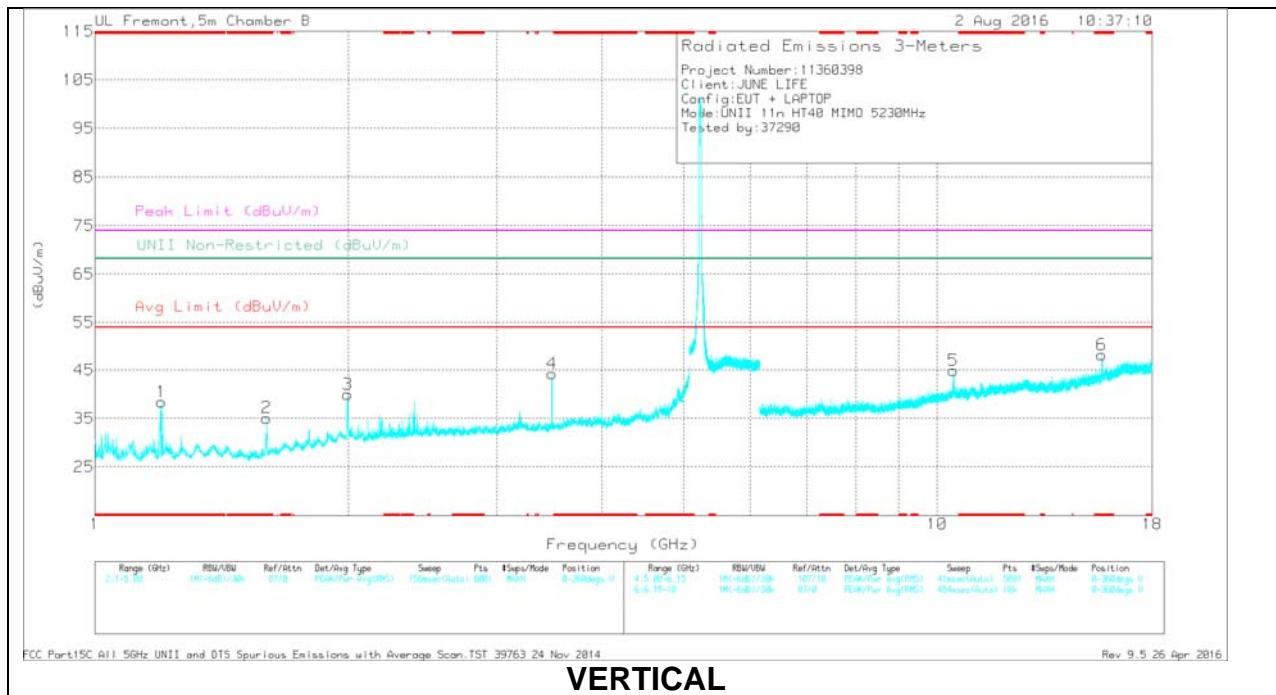
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## HIGH CHANNEL RESULTS



**HORIZONTAL**



**VERTICAL**

## HIGH CHANNEL DATA

### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV/m)	Dct	AF1345 (dB/m)	Amp/Cbl/Filt/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	* 1.199	55.42	PK-U	28.3	-35.8	0	47.92	-	-	74	-26.08	68.2	-20.28	53	209	V
	* 1.2	35.2	ADR	28.3	-35.8	.17	27.87	54	-26.13	-	-	-	-	53	209	V
2	* 1.599	50.24	PK-U	28.1	-35.1	0	43.24	-	-	74	-30.76	68.2	-24.96	201	297	V
	* 1.599	33.04	ADR	28.1	-35.2	.17	26.11	54	-27.89	-	-	-	-	201	297	V
6	* 15.69	38.72	PK-U	40.4	-24.6	0	54.52	-	-	74	-19.48	68.2	-13.68	169	124	V
	* 15.689	27.89	ADR	40.4	-24.5	.17	43.96	54	-10.04	-	-	-	-	169	124	V
7	1.996	51.76	PK-U	31.5	-34.1	0	49.16	-	-	74	-24.84	68.2	-19.04	69	151	H
3	2	55.55	PK-U	31.5	-34.2	0	52.85	-	-	74	-21.15	68.2	-15.35	56	229	V
4	3.487	48.08	PK-U	32.8	-33.3	0	47.58	-	-	74	-26.42	68.2	-20.62	208	126	V
5	10.46	41.16	PK-U	37.7	-25.4	0	53.46	-	-	74	-20.54	68.2	-14.74	154	141	V

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

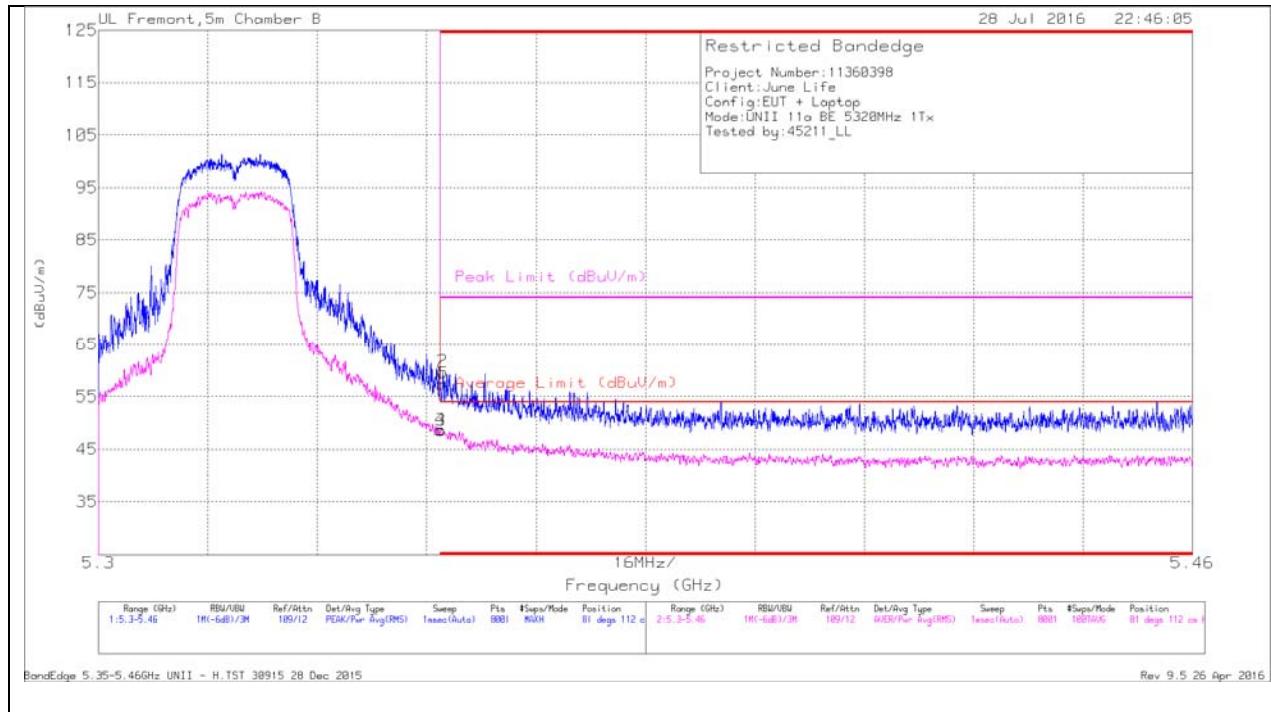
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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

### AUTHORIZED BANDEDGE (HIGH CHANNEL)

### HORIZONTAL RESULTS



### Trace Markers

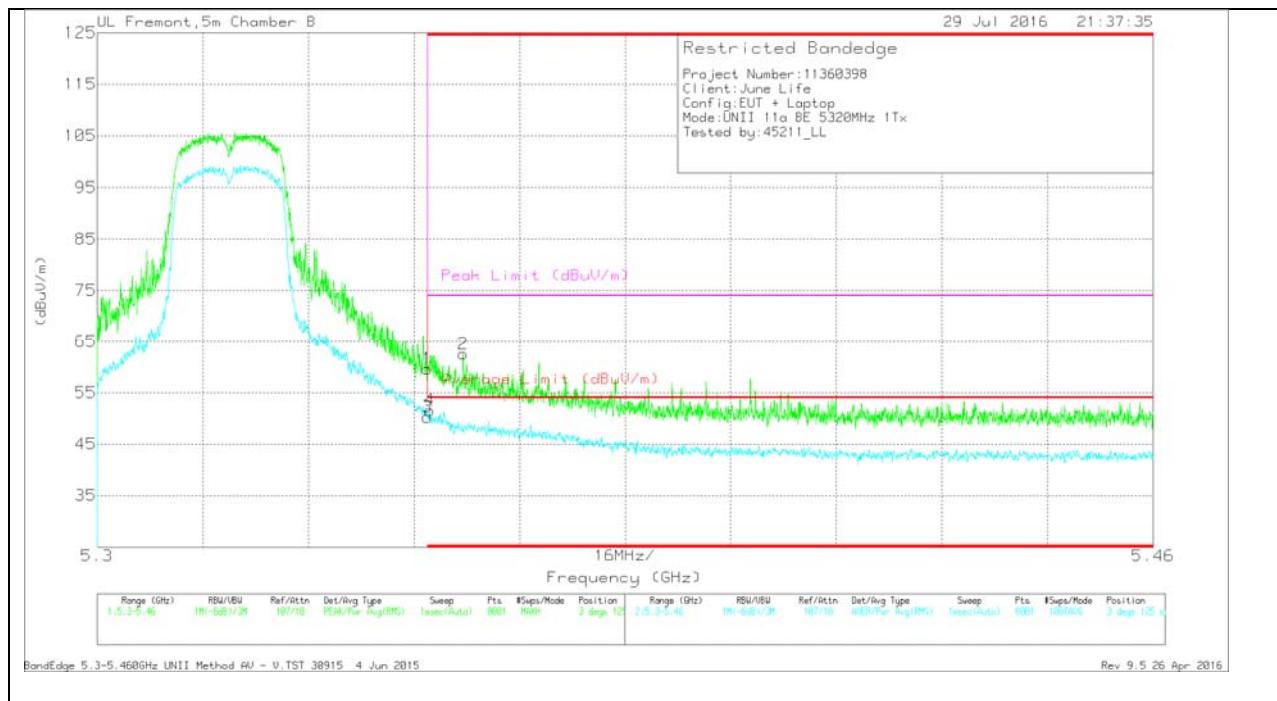
Marker	Frequency (GHz)	Meter Reading (dBmV)	Det	AF T345 (dB/m)	Amp/Cbl/Flt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBmV/m)	Average Limit (dBmV/m)	Margin (dB)	Peak Limit (dBmV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	43.18	Pk	34.5	-20.3	0	57.38	-	-	74	-16.62	81	112	H
2	* 5.35	45.47	Pk	34.5	-20.3	0	59.67	-	-	74	-14.33	81	112	H
3	* 5.35	34.31	RMS	34.5	-20.3	0	48.51	54	-5.49	-	-	81	112	H
4	* 5.35	34.43	RMS	34.5	-20.3	0	48.63	54	-5.37	-	-	81	112	H

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULTS



### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBmV)	Det	AF T345 (dB/m)	Amp/Cbl/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBmV)	Average Limit (dBmV/m)	Margin (dB)	Peak Limit (dBmV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	47.86	Pk	34.5	-22.7	0	59.66	-	-	74	-14.34	3	125	V
3	* 5.35	38.48	RMS	34.5	-22.7	0	50.28	54	-3.72	-	-	3	125	V
4	* 5.35	39.77	RMS	34.5	-22.7	0	51.57	54	-2.43	-	-	3	125	V
2	* 5.355	50.77	Pk	34.5	-22.7	0	62.57	-	-	74	-11.43	3	125	V

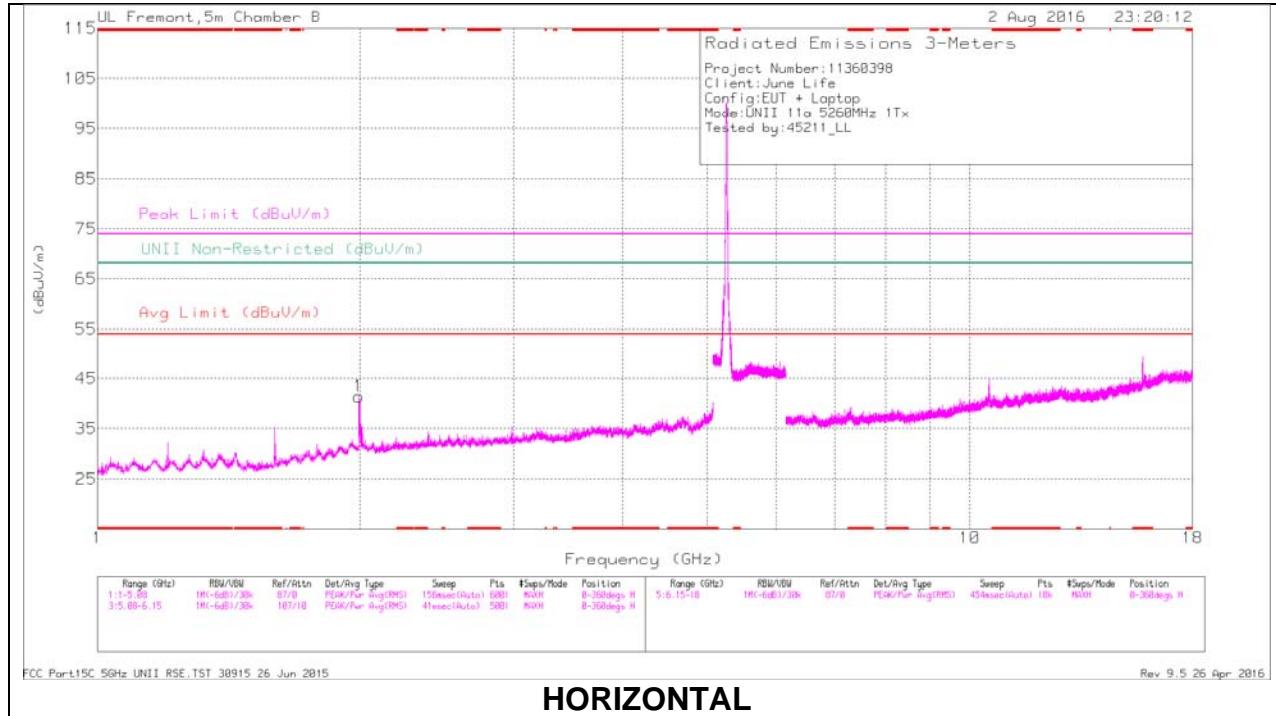
\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

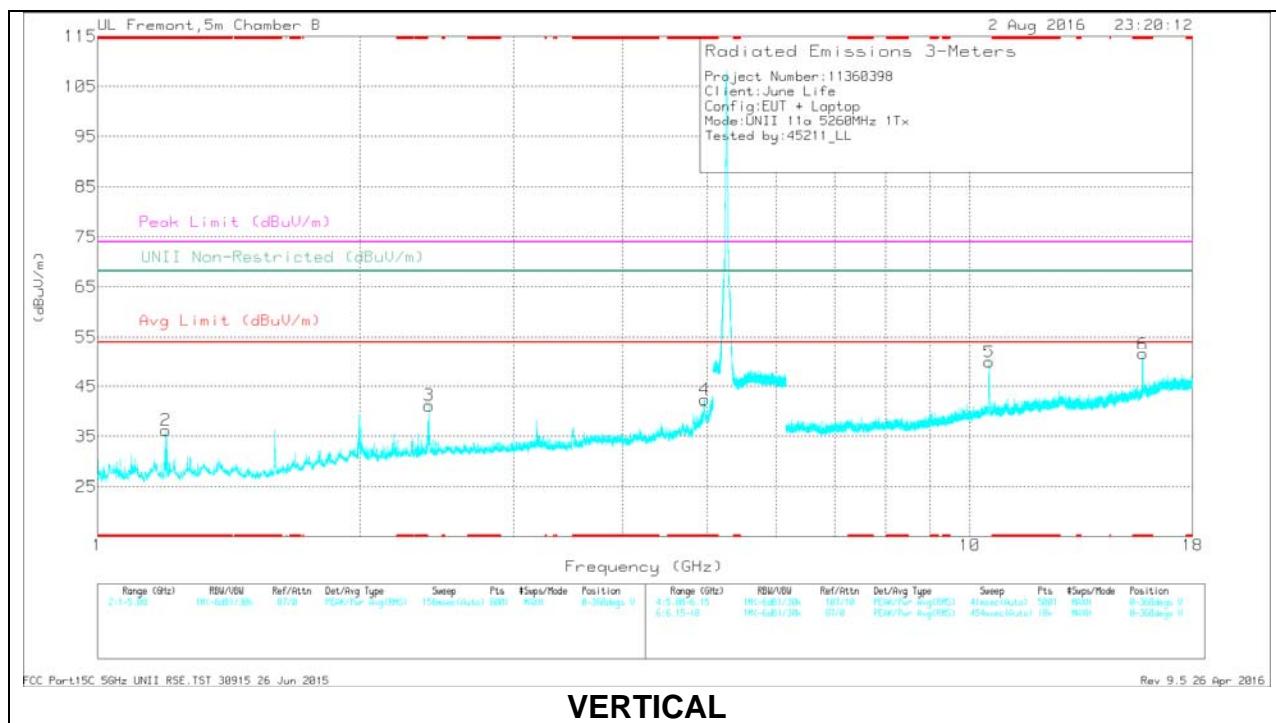
RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

## LOW CHANNEL DATA

### Trace Markers

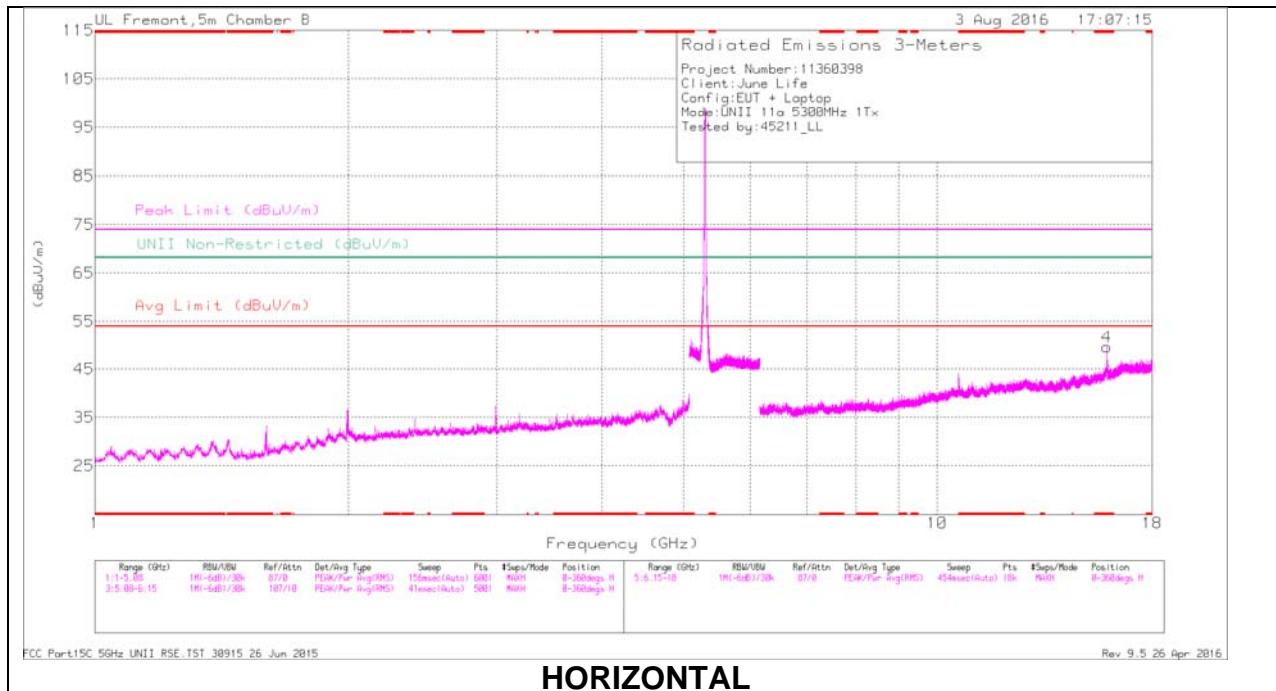
Marker	Frequency (GHz)	Meter Reading (dBmV)	Dst	AF T345 (dB/m)	Amp/Cdn/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBmV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Pk Margin (dB)	U-NII Non-Restricted (dBuV/m)	Pk Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 1.199	54.66	PK-U	28.3	-35.8	0	47.16	-	-	74	-26.84	-	-	64	222	V
	* 1.2	33.36	ADR	28.3	-35.8	0	25.86	54	-28.14	-	-	-	-	64	222	V
4	* 4.962	45.99	PK-U	34	-31.2	0	48.79	-	-	74	-25.21	-	-	173	125	V
	* 4.963	35.12	ADR	34	-31.2	0	37.92	54	-16.08	-	-	-	-	173	125	V
6	* 15.776	43.27	PK-U	40.5	-24	0	59.77	-	-	74	-14.23	-	-	206	101	V
	* 15.78	32.22	ADR	40.5	-24.2	0	48.52	54	-5.48	-	-	-	-	206	101	V
1	1.995	51.9	PK-U	31.5	-34.1	0	49.3	-	-	-	-	68.2	-18.9	66	157	H
3	2.397	52.17	PK-U	32.2	-34.6	0	49.77	-	-	-	-	68.2	-18.43	273	109	V
5	10.518	50.55	PK-U	37.8	-25.9	0	62.45	-	-	-	-	68.2	-5.75	155	139	V

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

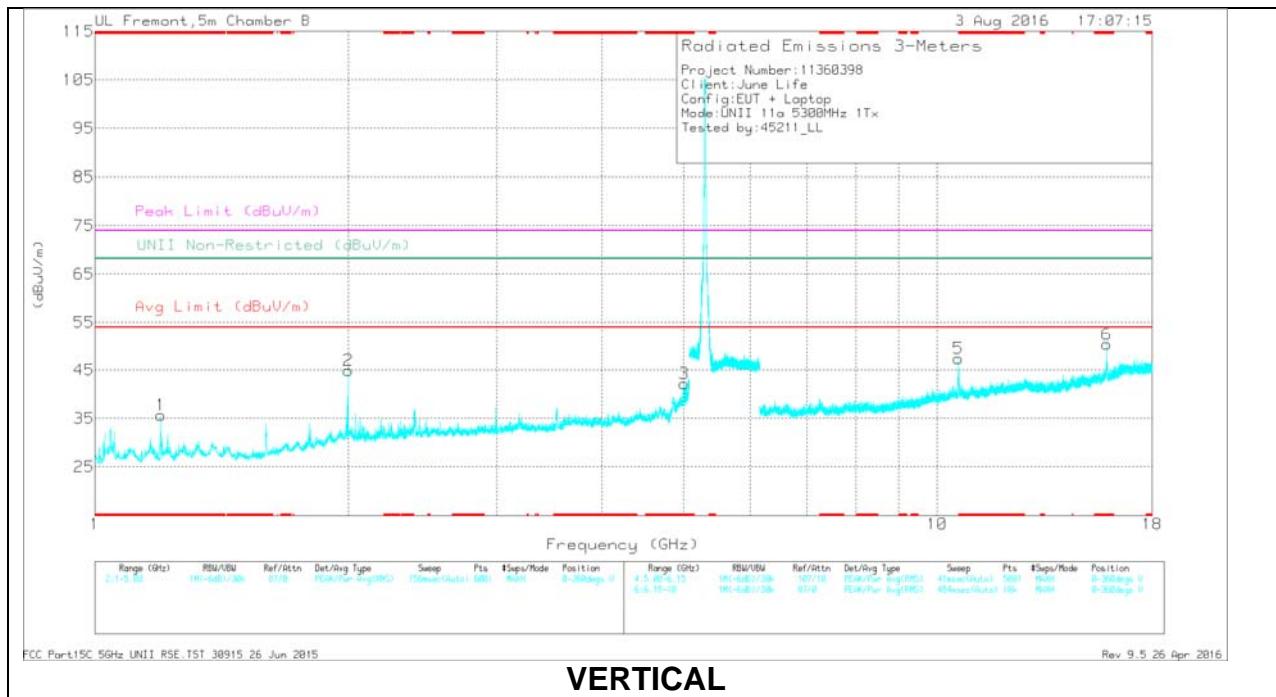
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

## MID CHANNEL DATA

### Trace Markers

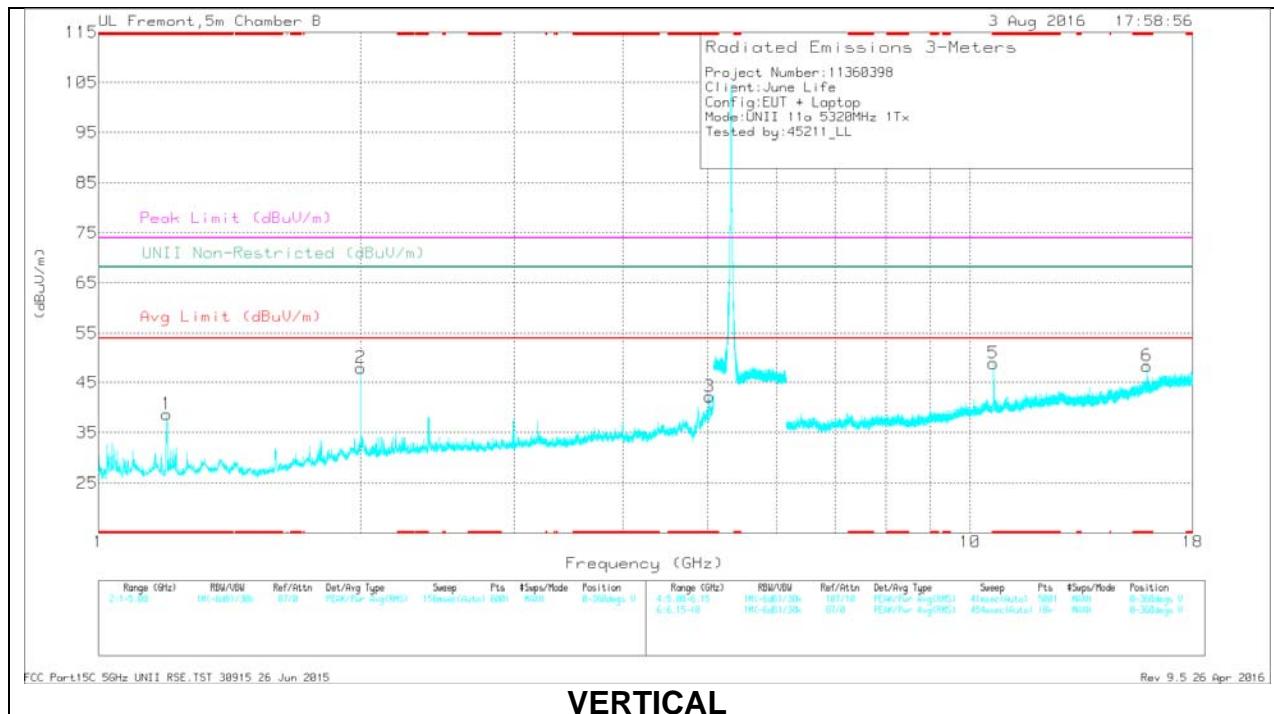
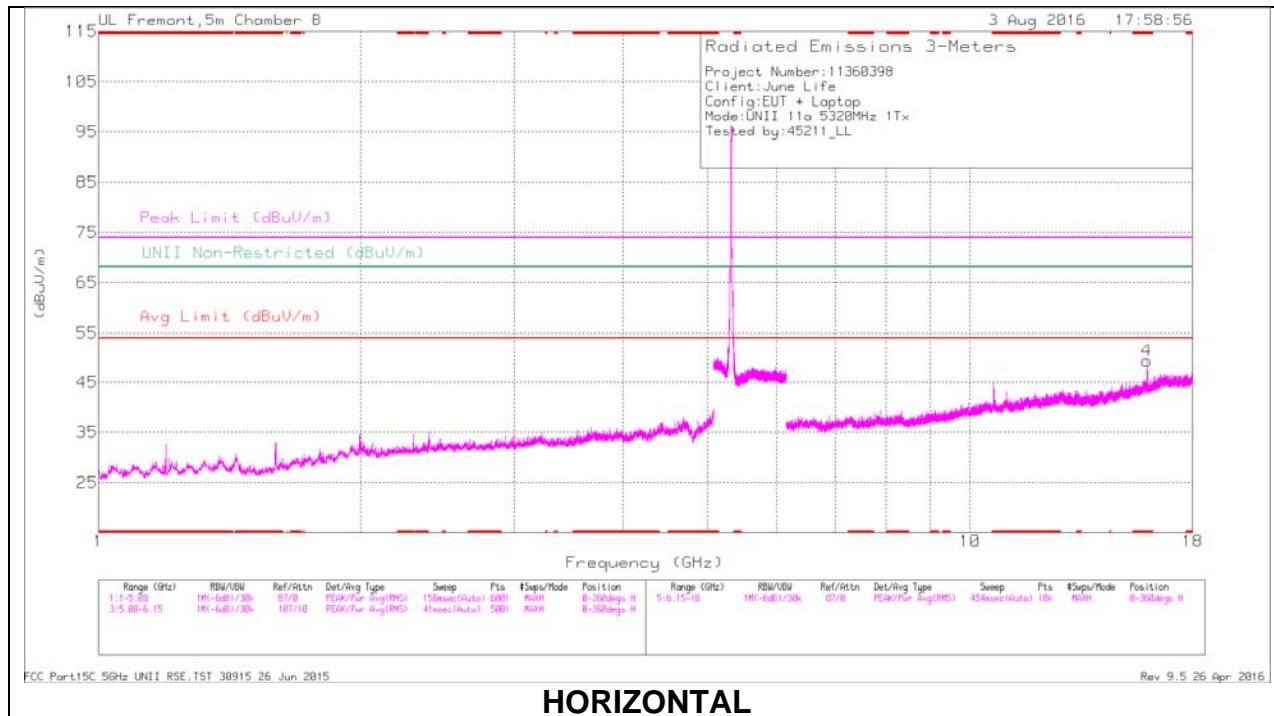
Marker	Frequency (GHz)	Meter Reading (dBmV)	Det	AF T345 (dB/m)	Amp/Dif/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBmV)	Avg Limit (dBmV/m)	Margin (dB)	Peak Limit (dBmV/m)	PK Margin (dB)	UNII Non-Restricted (dBmV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.2	52.36	PK-U	28.3	-35.8	0	44.86	-	-	74	-29.14	-	-	149	113	V
	* 1.2	32.49	ADR	28.3	-35.8	0	24.99	54	-29.01	-	-	-	-	149	113	V
3	* 4.997	45.66	PK-U	34.1	-30.2	0	49.56	-	-	74	-24.44	-	-	172	106	V
	* 5.003	35.25	ADR	34.1	-30.2	0	39.15	54	-14.85	-	-	-	-	172	106	V
4	* 15.904	42.11	PK-U	40.7	-22.5	0	60.31	-	-	74	-13.69	-	-	147	197	H
	* 15.904	30.76	ADR	40.7	-22.5	0	48.96	54	-5.04	-	-	-	-	147	197	H
6	* 15.903	42.85	PK-U	40.7	-22.5	0	61.05	-	-	74	-12.95	-	-	204	105	V
	* 15.901	31.46	ADR	40.7	-22.4	0	49.76	54	-4.24	-	-	-	-	204	105	V
2	1.999	55.07	PK-U	31.5	-34.2	0	52.37	-	-	-	-	68.2	-15.83	57	171	V
5	10.598	47.49	PK-U	37.9	-26.4	0	58.99	-	-	-	-	68.2	-9.21	156	140	V

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## HIGH CHANNEL RESULTS



## HIGH CHANNEL DATA

### Trace Markers

Marker	Frequency (GHz)	Marker Reading (dBmV)	Det	AF T345 (dB/m)	Amp/Cdn/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBmV/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	* 1.199	54.32	PK-U	28.3	-35.8	0	46.82	-	-	74	-27.18	-	-	77	231	V
	* 1.197	32.69	ADR	28.3	-35.8	0	25.19	54	-28.81	-	-	-	-	77	231	V
3	* 5.028	44.63	PK-U	34.1	-30	0	48.73	-	-	74	-25.27	-	-	171	184	V
	* 5.024	34.99	ADR	34.1	-30.1	0	38.99	54	-15.01	-	-	-	-	171	184	V
4	* 15.96	39.21	PK-U	40.7	-23.5	0	56.41	-	-	74	-17.59	-	-	148	197	H
	* 15.96	29.45	ADR	40.7	-23.5	0	46.65	54	-7.35	-	-	-	-	148	197	H
5	* 10.641	44.15	PK-U	37.9	-25.5	0	56.55	-	-	74	-17.45	-	-	157	145	V
	* 10.641	34.13	ADR	37.9	-25.5	0	46.53	54	-7.47	-	-	-	-	157	145	V
6	* 15.962	40.75	PK-U	40.7	-23.5	0	57.95	-	-	74	-16.05	-	-	206	113	V
	* 15.959	29.63	ADR	40.7	-23.5	0	46.83	54	-7.17	-	-	-	-	206	113	V
2	1.998	56.93	PK-U	31.5	-34.2	0	54.23	-	-	-	-	68.2	-13.97	59	244	V

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

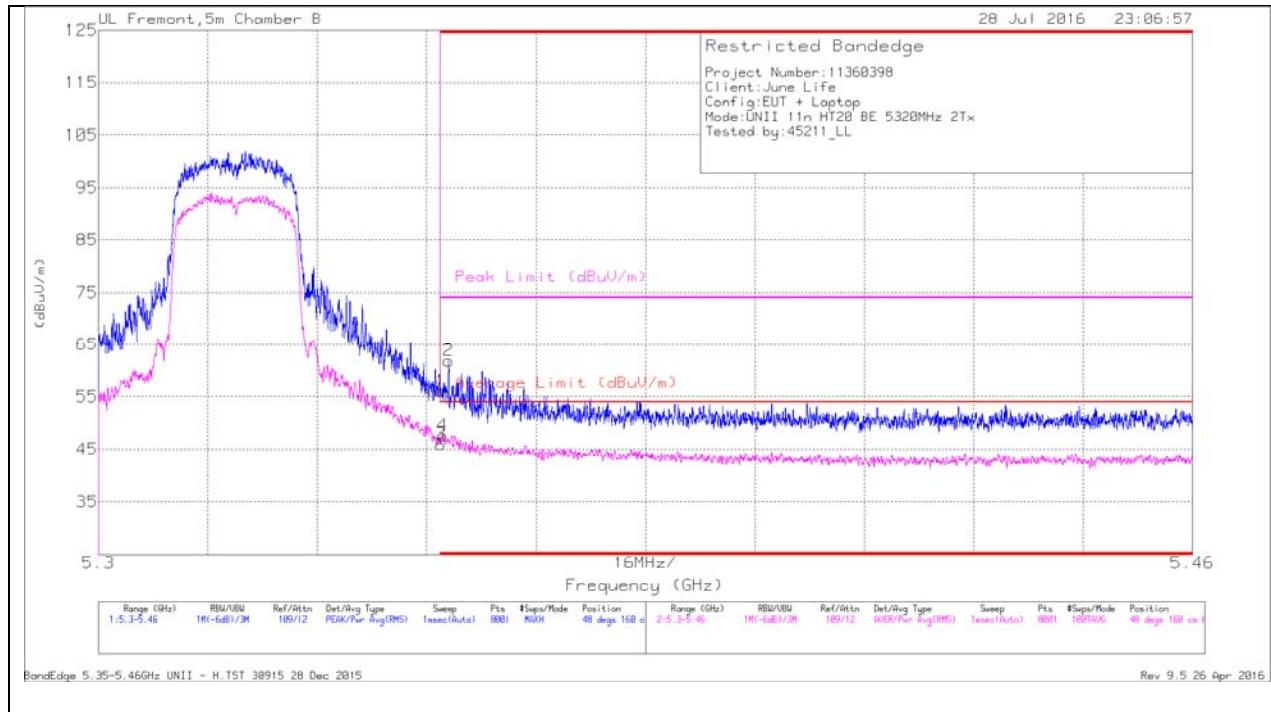
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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

### AUTHORIZED BANDEDGE (HIGH CHANNEL)

### HORIZONTAL RESULTS



### Trace Markers

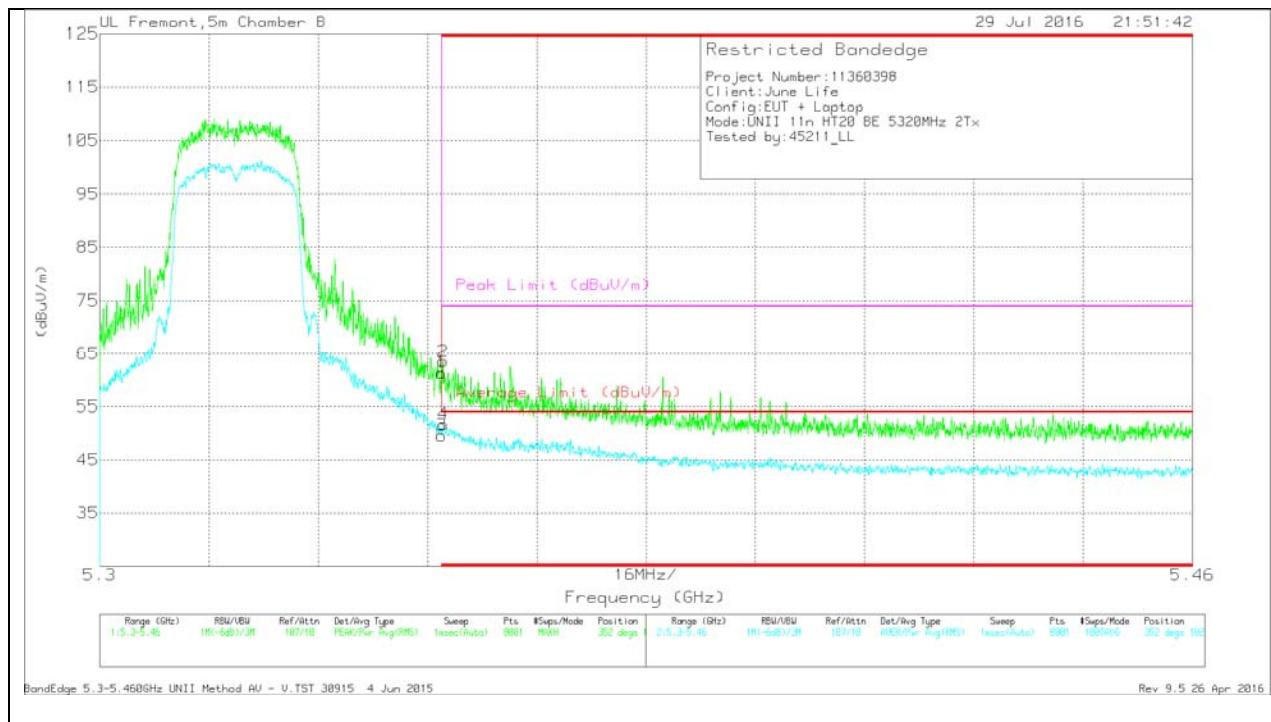
Marker	Frequency (GHz)	Meter Reading (dBmV)	Det	AF T345 (dB/m)	Amp/Cd/Htr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBmV/m)	Average Limit (dBmV/m)	Margin (dB)	Peak Limit (dBmV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	41.75	Pk	34.5	-20.3	0	55.95	-	-	74	-18.05	48	160	H
3	* 5.35	31.69	RMS	34.5	-20.3	.1	45.99	54	-8.01	-	-	48	160	H
4	* 5.35	33.22	RMS	34.5	-20.3	.1	47.52	54	-6.48	-	-	48	160	H
2	* 5.351	47.64	Pk	34.5	-20.3	0	61.84	-	-	74	-12.16	48	160	H

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULTS



### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	49.57	Pk	34.5	-22.7	0	61.37	-	-	74	-12.63	352	102	V
2	* 5.35	51.69	Pk	34.5	-22.7	0	63.49	-	-	74	-10.51	352	102	V
3	* 5.35	37.64	RMS	34.5	-22.7	.1	49.54	54	-4.46	-	-	352	102	V
4	* 5.35	39.74	RMS	34.5	-22.7	.1	51.64	54	-2.36	-	-	352	102	V

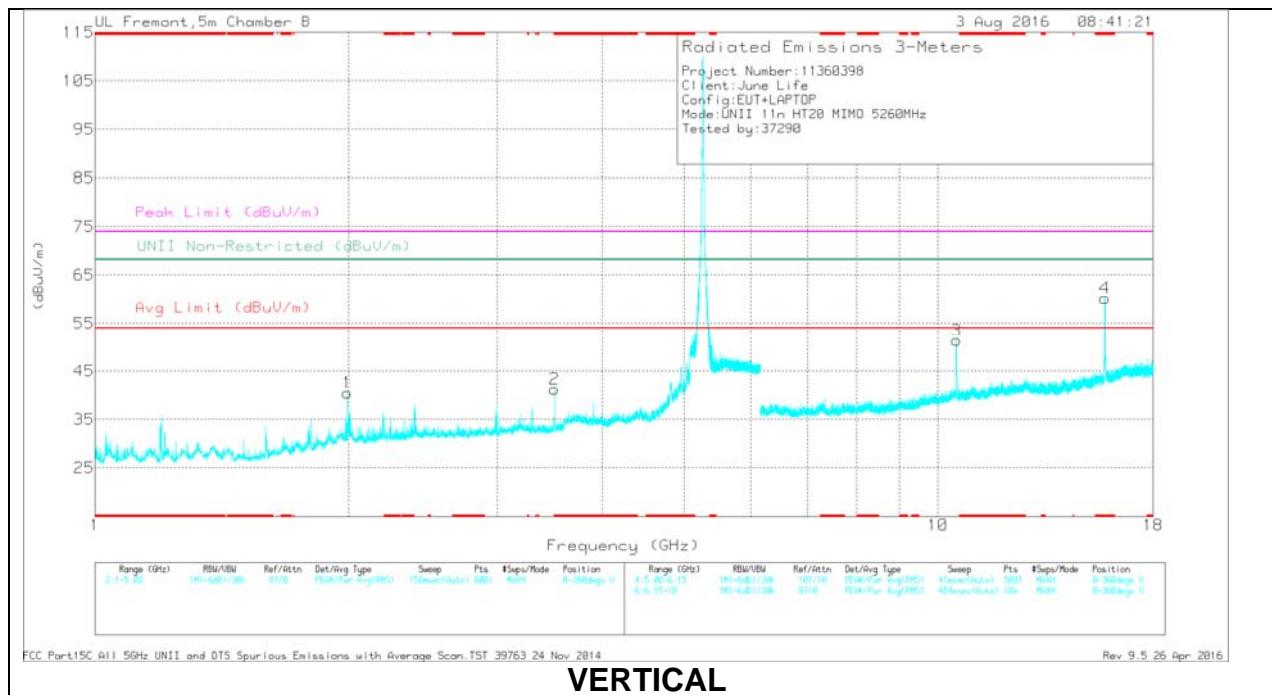
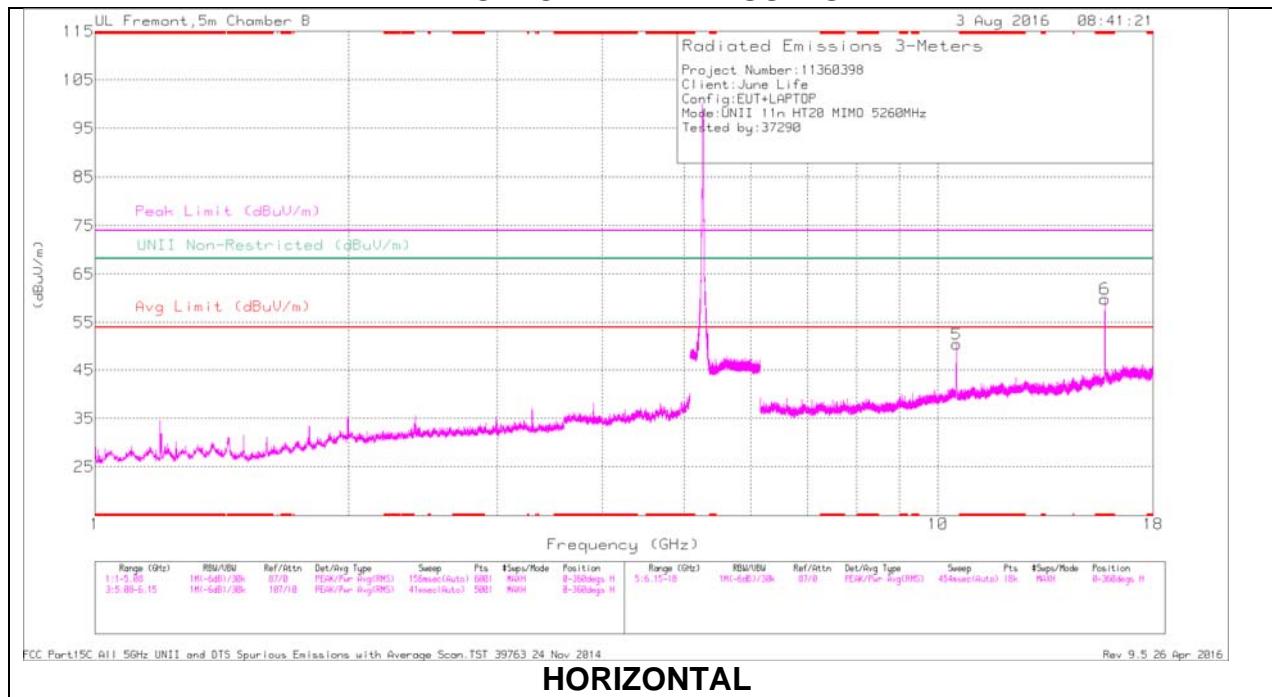
\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL RESULTS



## LOW CHANNEL DATA

### Trace Markers

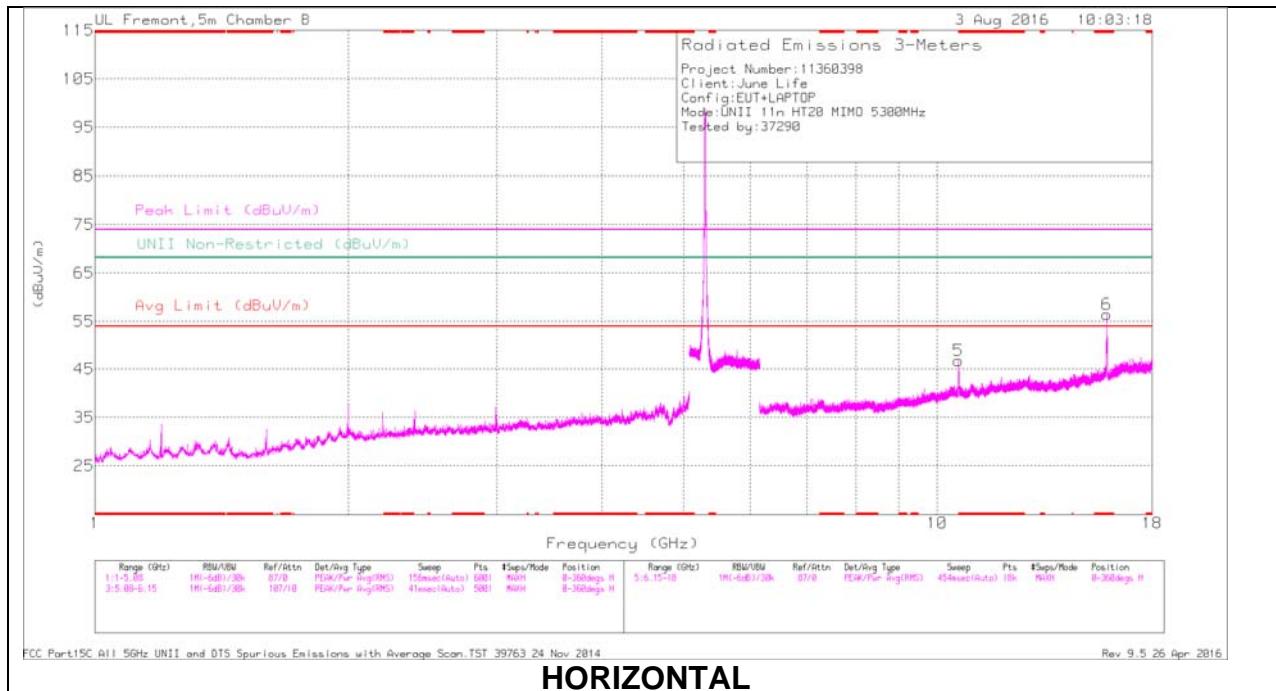
Marker	Frequency (GHz)	Meter Reading (dBm)	Dct	AF T345 (dB/m)	Amp/Clfr/Flt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBm)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 3.507	47.68	PK-U	32.8	-33.2	0	47.28	-	-	74	-26.72	68.2	-20.92	206	110	V
	* 3.507	40.56	ADR	32.8	-33.2	.1	40.26	54	-13.74	-	-	-	-	206	110	V
6	* 15.779	38.61	PK-U	40.5	-24.2	0	54.91	-	-	74	-19.09	68.2	-13.29	243	177	H
	* 15.777	28.36	ADR	40.5	-24.1	.1	44.86	54	-9.14	-	-	-	-	243	177	H
4	* 15.78	47.41	PK-U	40.5	-24.2	0	63.71	-	-	74	-10.29	68.2	-4.49	204	102	V
	* 15.78	35.31	ADR	40.5	-24.2	.1	51.71	54	-2.29	-	-	-	-	204	102	V
1	1.094	50.42	PK-U	31.5	-34.1	0	47.82	-	-	74	-26.18	68.2	-20.38	231	105	V
3	10.519	45.34	PK-U	37.8	-25.9	0	57.24	-	-	74	-16.76	68.2	-10.96	161	107	H
5	10.519	46.7	PK-U	37.8	-25.9	0	58.6	-	-	74	-15.4	68.2	-9.6	158	133	V

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

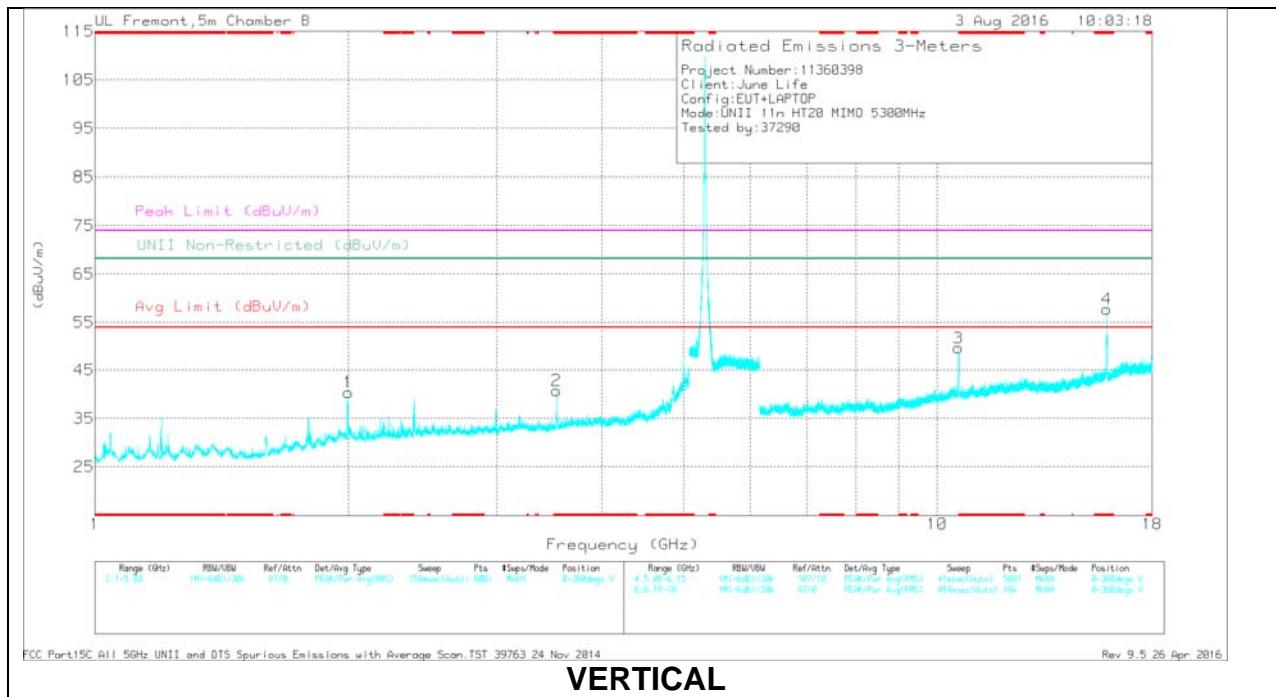
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## MID CHANNEL RESULTS



**HORIZONTAL**



**VERTICAL**

## MID CHANNEL DATA

### Trace Markers

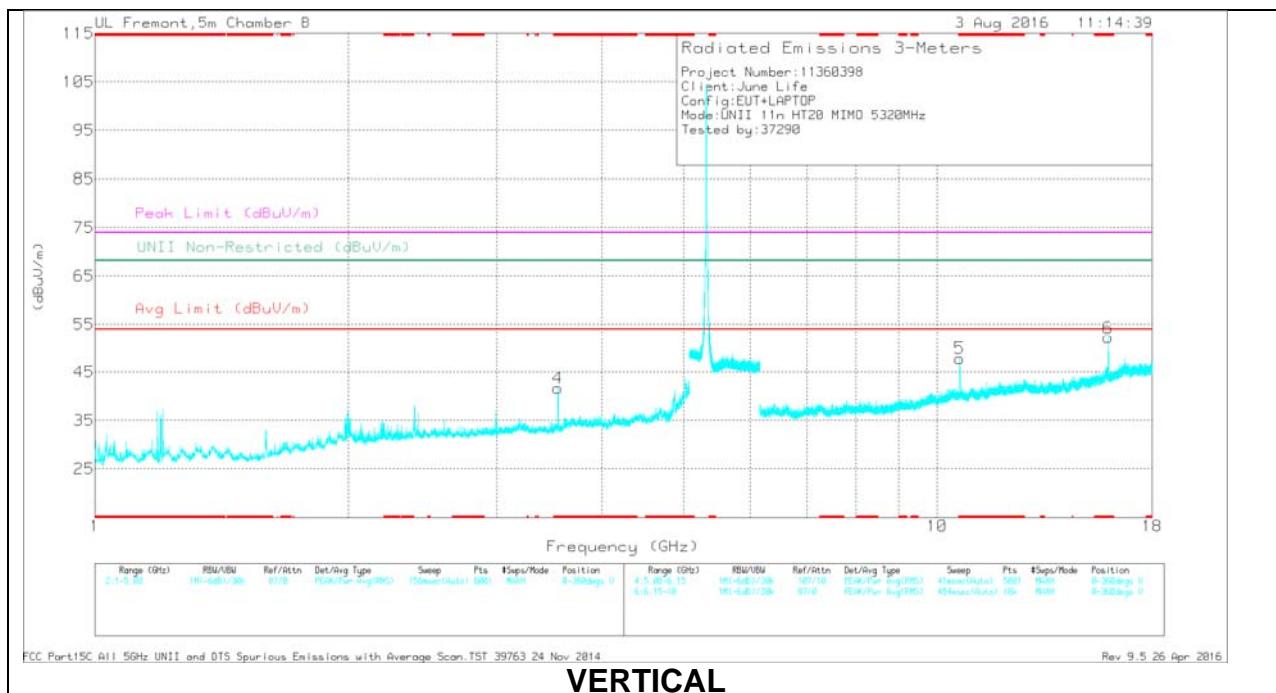
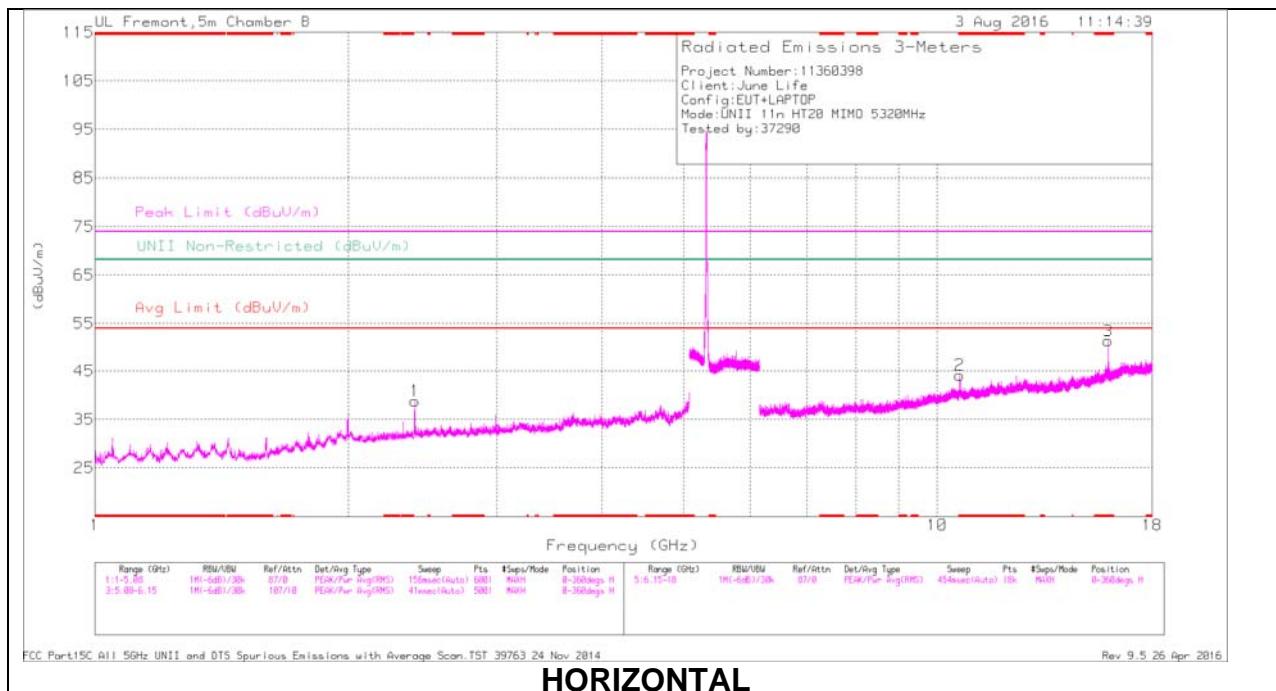
Marker	Frequency (GHz)	Meter Reading (dBm)	Dst	AF T345 (dB/m)	Amp/Dif/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBm)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 3.533	46.42	PK-U	32.9	-32.8	0	46.52	-	-	74	-27.48	68.2	-21.68	208	129	V
	* 3.533	39.23	ADR	32.9	-32.8	.1	39.43	54	-14.57	-	-	-	-	208	129	V
6	* 15.906	44.54	PK-U	40.7	-22.7	0	62.54	-	-	74	-11.46	68.2	-5.66	132	198	H
	* 15.904	33.8	ADR	40.7	-22.6	.1	52	54	-2	-	-	-	-	132	198	H
4	* 15.893	43.16	PK-U	40.7	-22.7	0	61.16	-	-	74	-12.84	68.2	-7.04	202	143	V
	* 15.903	33.48	ADR	40.7	-22.5	.1	51.78	54	-2.22	-	-	-	-	202	143	V
1	1.998	55.19	PK-U	31.5	-34.1	0	52.59	-	-	74	-21.41	68.2	-15.61	66	243	V
3	10.596	37.72	PK-U	37.9	-26.4	0	49.22	-	-	74	-24.78	68.2	-18.98	300	314	H
5	10.597	38.46	PK-U	37.9	-26.4	0	49.96	-	-	74	-24.04	68.2	-18.24	203	103	V

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## HIGH CHANNEL RESULTS



## HIGH CHANNEL DATA

### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Dct	AF T345 (dB/m)	Amp/Dcf/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBm)	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
4	* 3.547	45.67	PK-U	32.9	-32.8	0	45.77	-	-	74	-28.23	68.2	-22.43	200	109	V
	* 3.547	40.57	ADR	32.9	-32.8	.1	40.77	54	-13.23	-	-	-	-	200	109	V
2	* 10.637	39.8	PK-U	37.9	-25.6	0	52.1	-	-	74	-21.9	68.2	-16.1	161	105	H
	* 10.637	28.77	ADR	37.9	-25.6	.1	41.17	54	-12.83	-	-	-	-	161	105	H
3	* 15.967	41.07	PK-U	40.7	-23.6	0	58.17	-	-	74	-15.83	68.2	-10.03	147	196	H
	* 15.964	30.17	ADR	40.7	-23.6	.1	47.37	54	-6.63	-	-	-	-	147	196	H
5	* 10.64	46.28	PK-U	37.9	-25.5	0	58.68	-	-	74	-15.32	68.2	-9.52	155	141	V
	* 10.64	35.87	ADR	37.9	-25.5	.1	48.37	54	-5.63	-	-	-	-	155	141	V
6	* 15.963	42.42	PK-U	40.7	-23.5	0	59.62	-	-	74	-14.38	68.2	-8.58	205	109	V
	* 15.963	31.02	ADR	40.7	-23.6	.1	48.22	54	-5.78	-	-	-	-	205	109	V
1	2.399	31.04	ADR	32.2	-34.7	.1	28.64	54	-25.36	-	-	-	-	163	199	H

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

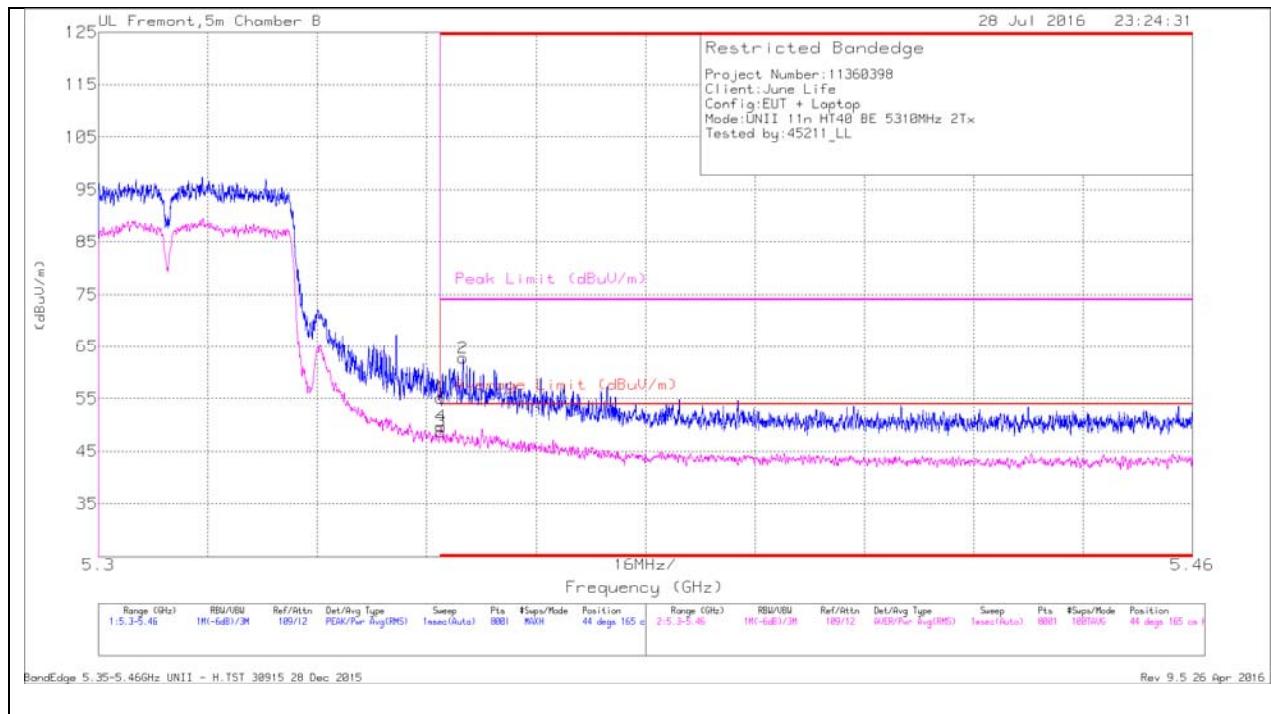
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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

### AUTHORIZED BANDEdge (HIGH CHANNEL)

### HORIZONTAL RESULTS



### Trace Markers

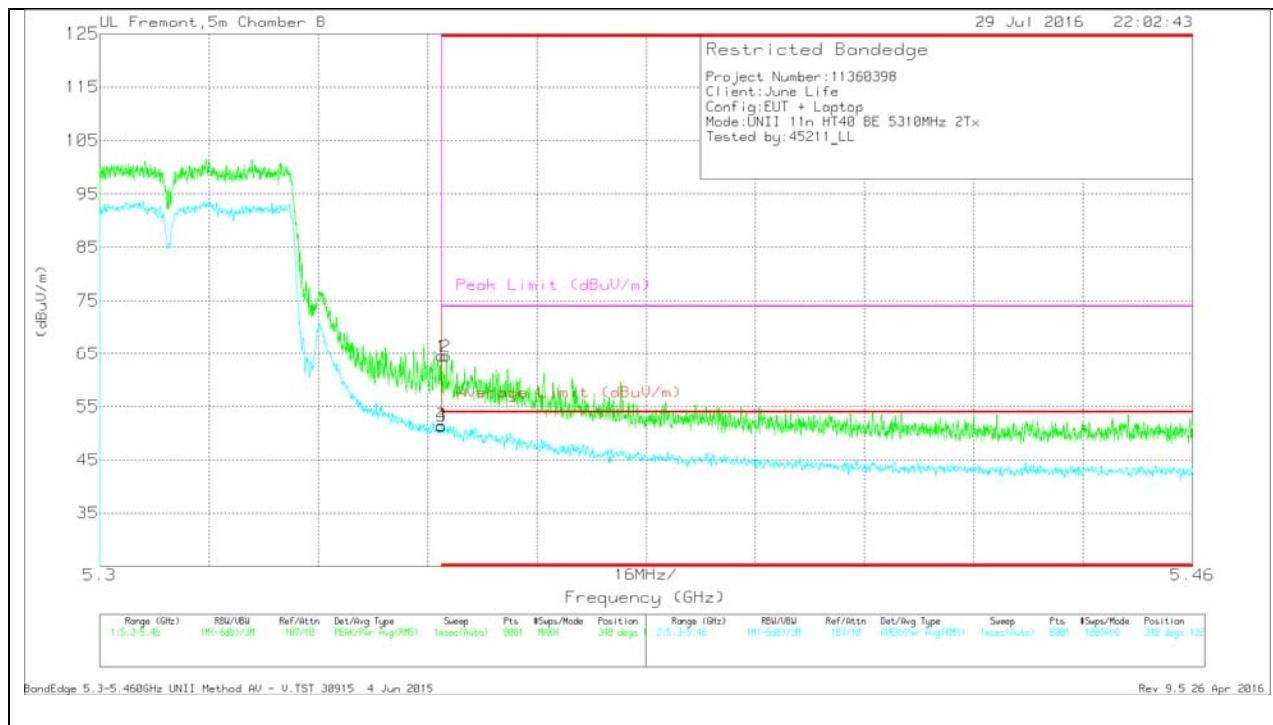
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	40.97	Pk	34.5	-20.3	0	55.17	-	-	74	-18.83	44	165	H
3	* 5.35	34.3	RMS	34.5	-20.3	.17	48.67	54	-5.33	-	-	44	165	H
4	* 5.35	35.26	RMS	34.5	-20.3	.17	49.63	54	-4.37	-	-	44	165	H
2	* 5.353	48.32	Pk	34.5	-20.1	0	62.72	-	-	74	-11.28	44	165	H

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULTS



### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	52.67	Pk	34.5	-22.7	0	64.47	-	-	74	-9.53	340	132	V
3	* 5.35	39.38	RMS	34.5	-22.7	.17	51.35	54	-2.65	-	-	340	132	V
4	* 5.35	39.46	RMS	34.5	-22.7	.17	51.43	54	-2.57	-	-	340	132	V
2	* 5.351	52.68	Pk	34.5	-22.7	0	64.48	-	-	74	-9.52	340	132	V

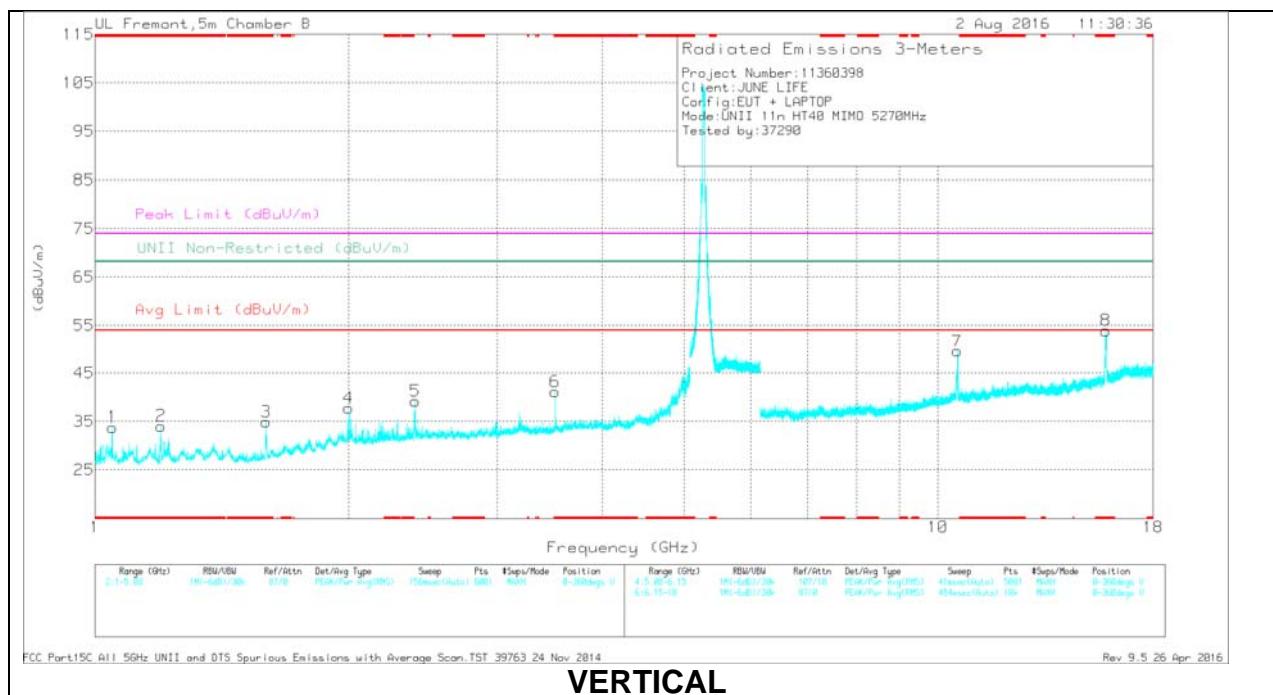
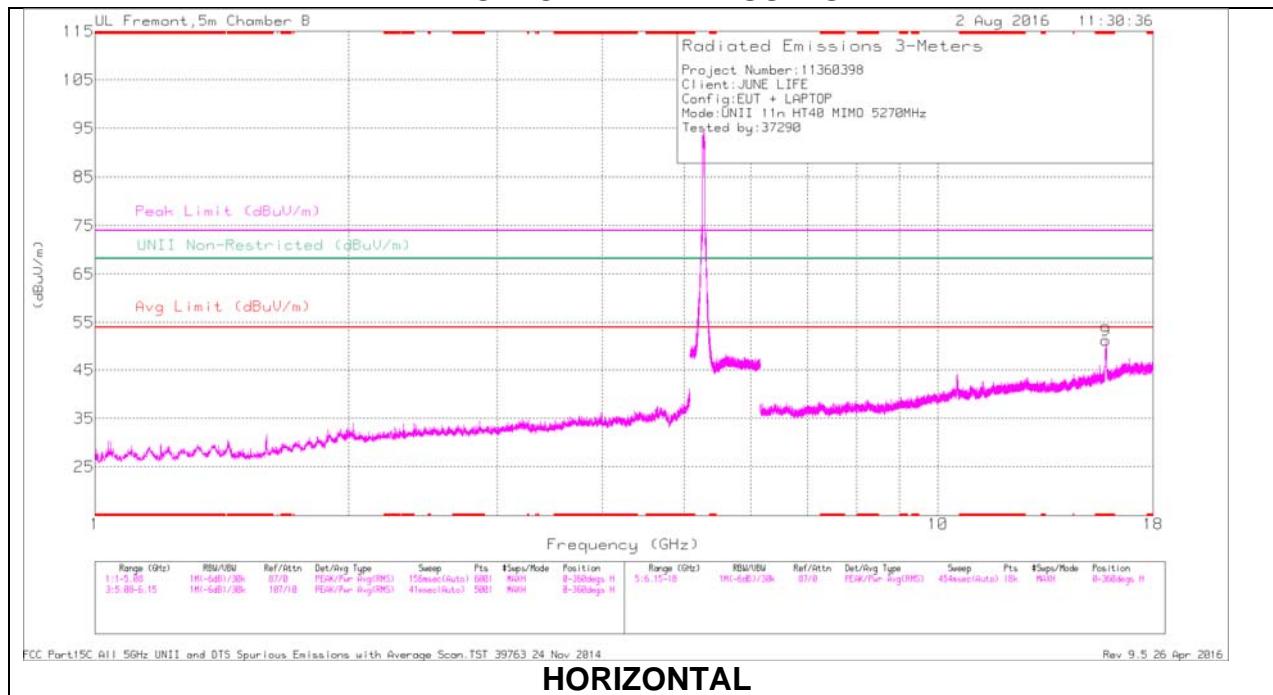
\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL RESULTS



## LOW CHANNEL DATA

### Trace Markers

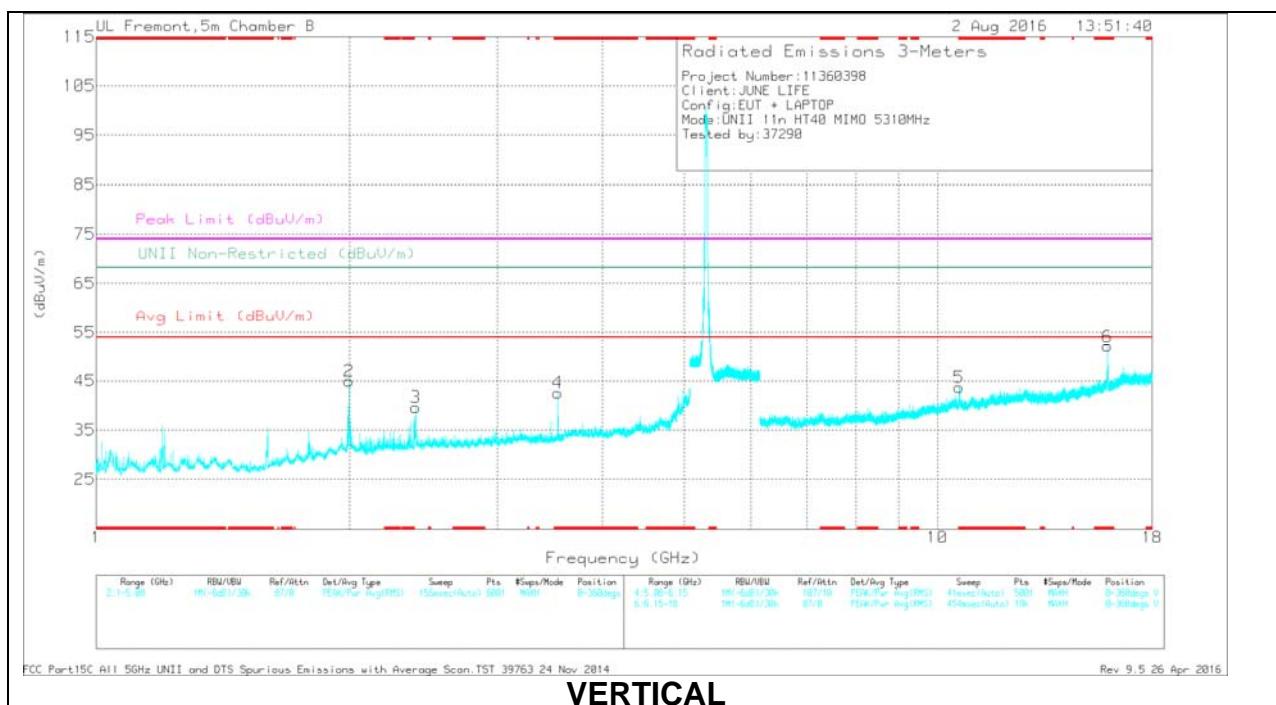
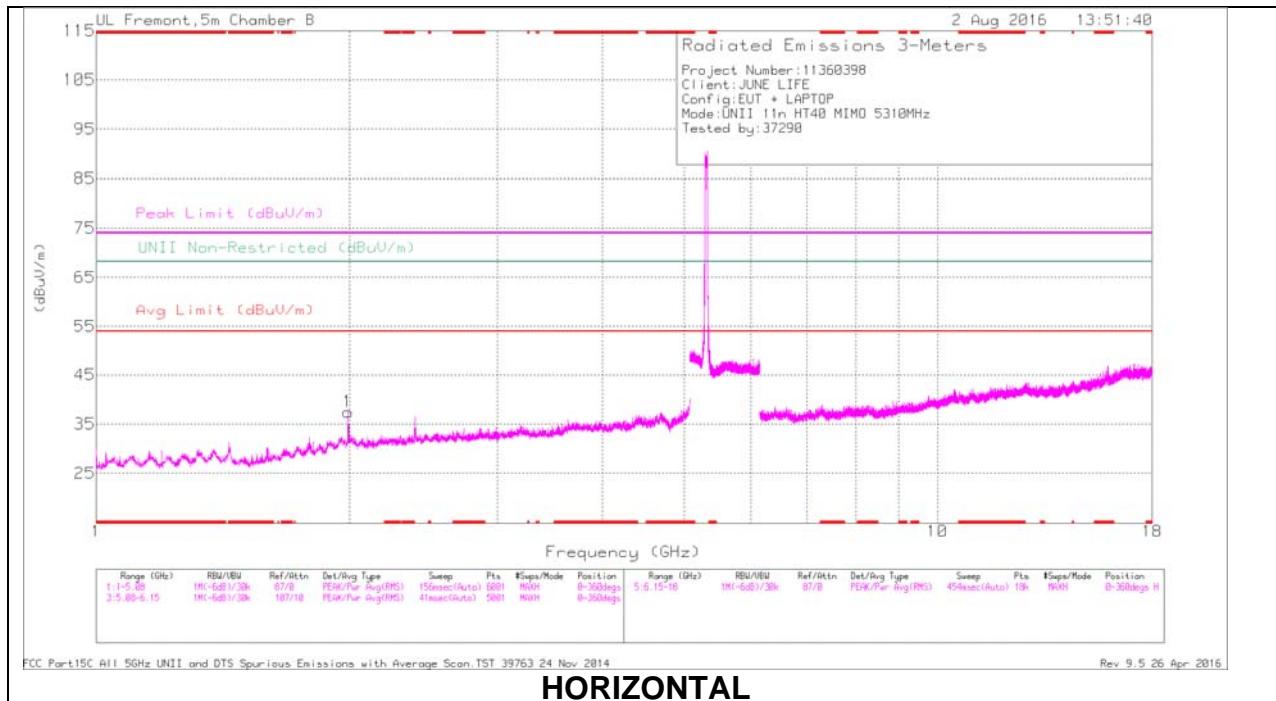
Marker	Frequency (GHz)	Meter Reading (dBmV)	Dct	AF1345 (dB/m)	Amp/Cbl/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBmV)	Avg Limit (dBmV/m)	Margin (dB)	Peak Limit (dBmV/m)	PK Margin (dB)	UNII Non-Restricted (dBmV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.049	45.79	PK-U	27.8	-35.8	0	37.79	-	-	74	-36.21	68.2	-30.41	177	234	V
	* 1.047	31.51	ADR	27.8	-35.8	.17	23.68	54	-30.32	-	-	-	-	177	234	V
2	* 1.198	55.12	PK-U	28.3	-35.8	0	47.62	-	-	74	-26.38	68.2	-20.58	37	291	V
	* 1.198	34.37	ADR	28.3	-35.8	.17	27.04	54	-26.96	-	-	-	-	37	291	V
3	* 1.596	50.86	PK-U	28.1	-35.2	0	43.76	-	-	74	-30.24	68.2	-24.44	219	316	V
	* 1.596	34.48	ADR	28.1	-35.2	.17	27.55	54	-26.45	-	-	-	-	219	316	V
6	* 3.513	46.92	PK-U	32.9	-33.2	0	46.62	-	-	74	-27.38	68.2	-21.58	200	107	V
	* 3.513	40.42	ADR	32.9	-33.2	.17	40.29	54	-13.71	-	-	-	-	200	107	V
9	* 15.819	39.67	PK-U	40.6	-23.3	0	56.97	-	-	74	-17.03	68.2	-11.23	130	183	H
	* 15.82	29.19	ADR	40.6	-23.3	.17	46.66	54	-7.34	-	-	-	-	130	183	H
8	* 15.82	43.86	PK-U	40.6	-23.4	0	61.06	-	-	74	-12.94	68.2	-7.14	193	115	V
	* 15.82	32.53	ADR	40.6	-23.3	.17	50.0	54	-4.0	-	-	-	-	193	115	V
4	1.998	54.71	PK-U	31.5	-34.2	0	52.01	-	-	74	-21.99	68.2	-16.19	65	169	V
5	2.397	52.8	PK-U	32.2	-34.6	0	50.4	-	-	74	-23.6	68.2	-17.8	277	106	V
7	10.54	47.93	PK-U	37.8	-26.3	0	59.43	-	-	74	-14.57	68.2	-8.77	155	138	V

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## HIGH CHANNEL RESULTS



## HIGH CHANNEL DATA

### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Dct	AF T345 (dB/m)	Amp/Cfl/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBm/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
4	* 3.54	46.3	PK-U	32.9	-32.7	0	46.5	-	-	74	-27.5	68.2	-21.7	199	104	V
	* 3.54	41.94	ADR	32.9	-32.7	.17	42.31	54	-11.69	-	-	-	-	199	104	V
5	* 10.617	40.26	PK-U	37.9	-26	0	52.16	-	-	74	-21.84	68.2	-16.04	153	128	V
	* 10.617	28.5	ADR	37.9	-26	.17	40.57	54	-13.43	-	-	-	-	153	128	V
6	* 15.92	38.37	PK-U	40.7	-22.6	0	56.47	-	-	74	-17.53	68.2	-11.73	208	106	V
	* 15.92	26.35	ADR	40.7	-22.7	.17	44.52	54	-9.48	-	-	-	-	208	106	V
1	1.995	50.16	PK-U	31.5	-34.1	0	47.56	-	-	74	-26.44	68.2	-20.64	75	187	H
2	2	54.6	PK-U	31.5	-34.2	0	51.9	-	-	74	-22.1	68.2	-16.3	53	241	V
3	2.398	53.56	PK-U	32.2	-34.7	0	51.06	-	-	74	-22.94	68.2	-17.14	274	132	V

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

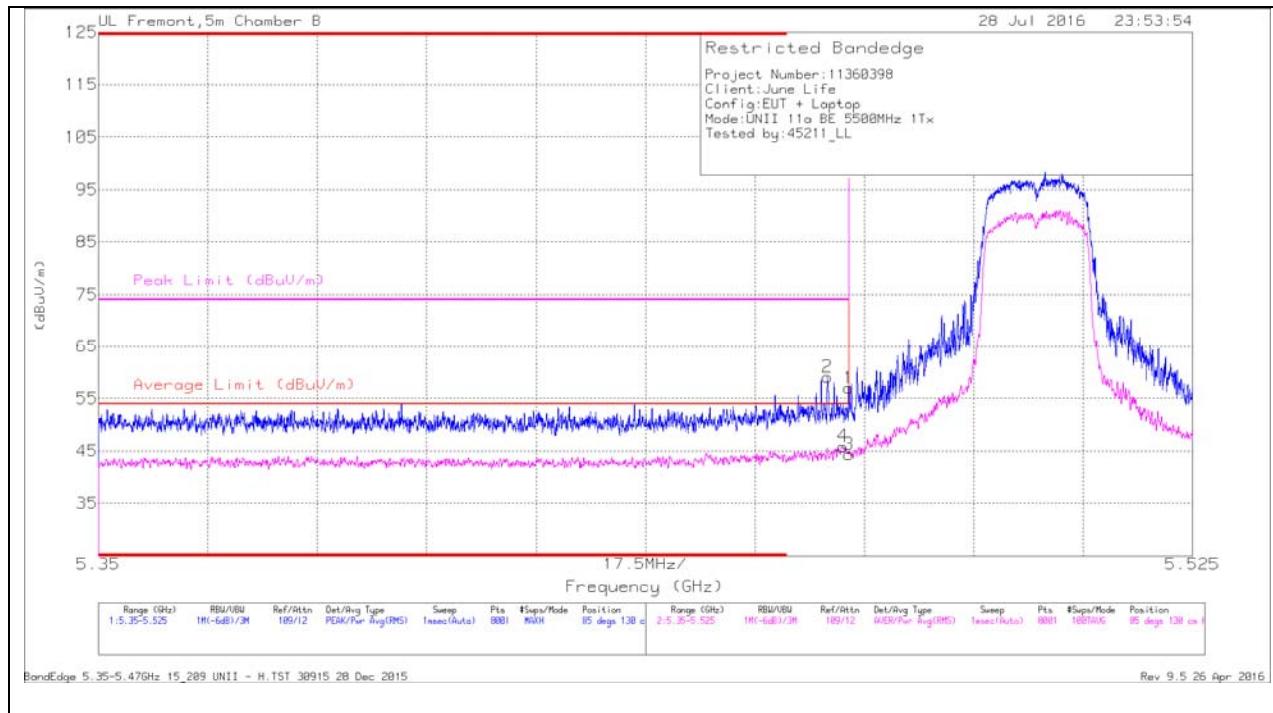
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

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

### RESTRICTED BANDEDGE (LOW CHANNEL)

### HORIZONTAL RESULTS



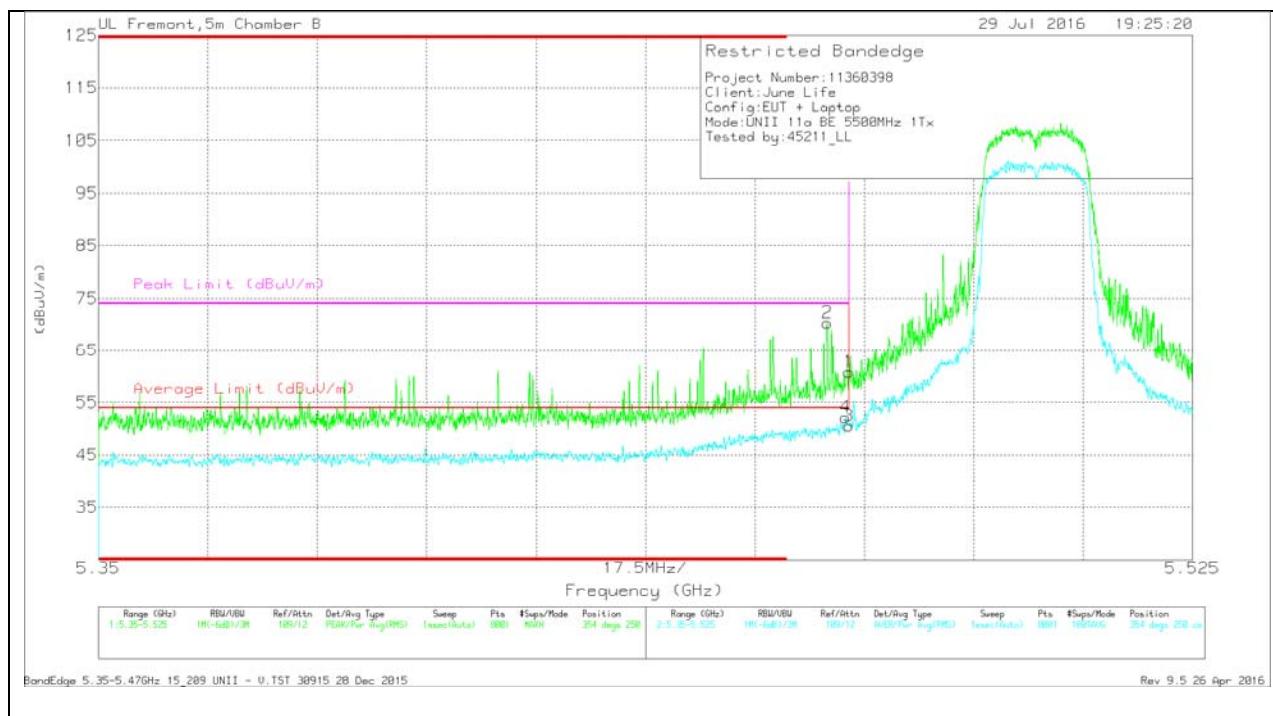
### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBmV)	Det	AF T345 (dB/m)	Amp/Cbl/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBmV/m)	Average Limit (dBmV/m)	Margin (dB)	Peak Limit (dBmV/m)	PK Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
2	5.467	45.45	Pk	34.5	-20.9	0	59.05	-	-	74	-14.95	85	130	H
4	5.469	32.08	RMS	34.5	-20.7	0	45.88	54	-8.12	-	-	85	130	H
1	5.47	43.38	Pk	34.5	-20.9	0	56.98	-	-	74	-17.02	85	130	H
3	5.47	30.73	RMS	34.5	-20.9	0	44.33	54	-9.67	-	-	85	130	H

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULTS



### Trace Markers

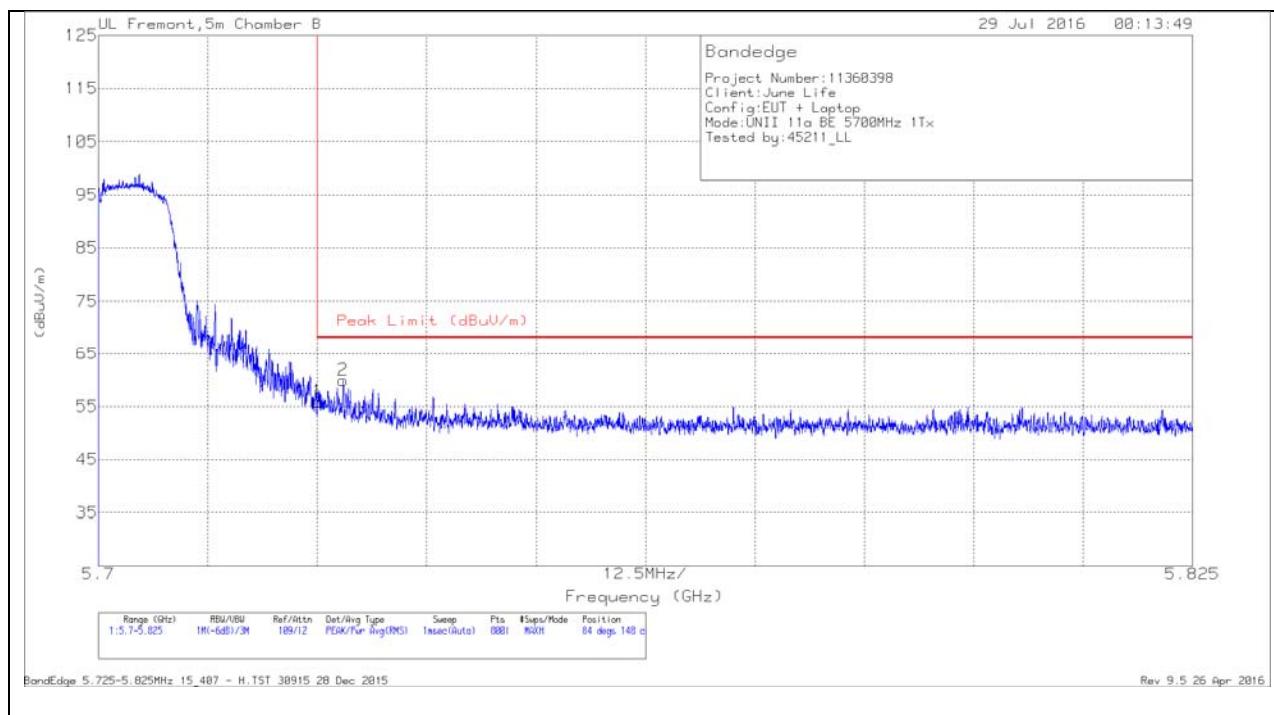
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (km)	Polarity
2	5.467	56.74	Pk	34.5	-20.9	0	70.34	-	-	74	-3.66	354	250	V
1	5.47	47.24	Pk	34.5	-20.9	0	60.84	-	-	74	-13.16	354	250	V
3	5.47	36.97	RMS	34.5	-20.9	0	50.57	54	-3.43	-	-	354	250	V
4	5.47	38.48	RMS	34.5	-20.8	0	52.18	54	-1.82	-	-	354	250	V

Pk - Peak detector

RMS - RMS detection

**AUTHORIZED BANDEDGE (HIGH CHANNEL)**

**HORIZONTAL RESULTS**

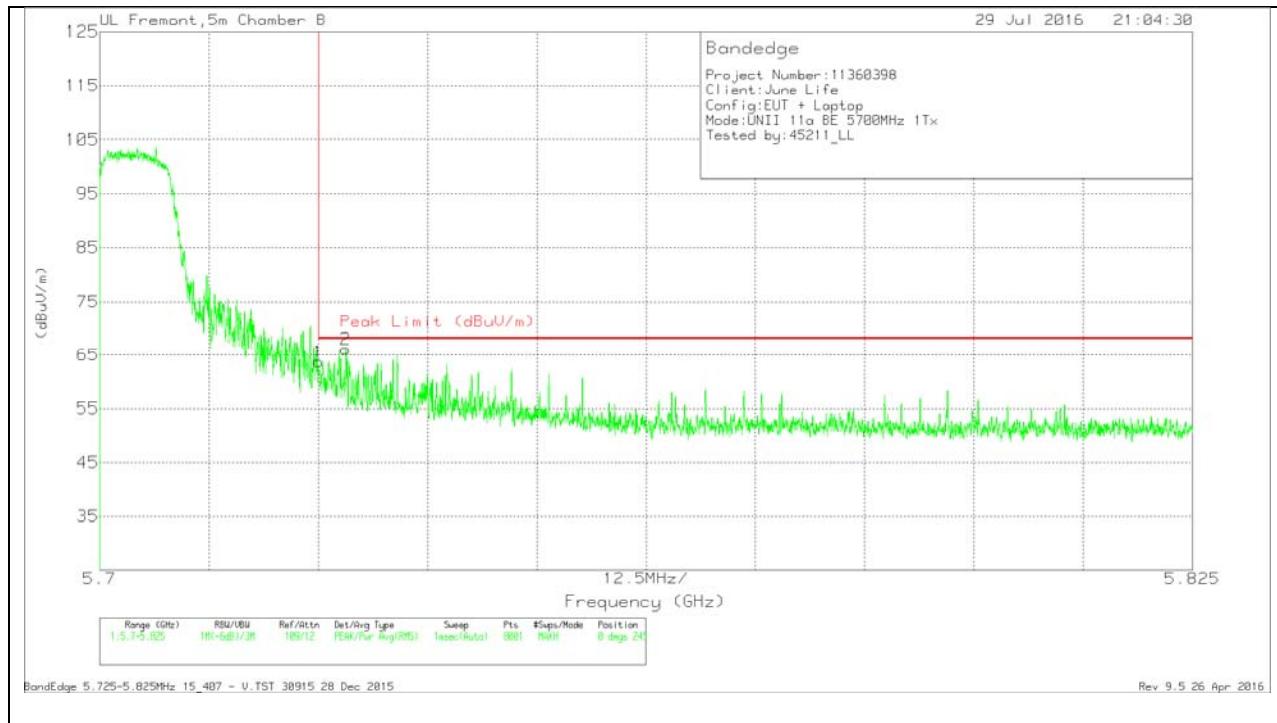


**Trace Markers**

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBm)	Peak Limit (dBm/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	42.75	Pk	34.9	-21.7	55.95	68.2	-12.25	84	148	H
2	5.728	46.63	Pk	34.9	-21.6	59.93	68.2	-8.27	84	148	H

Pk - Peak detector

## VERTICAL RESULTS



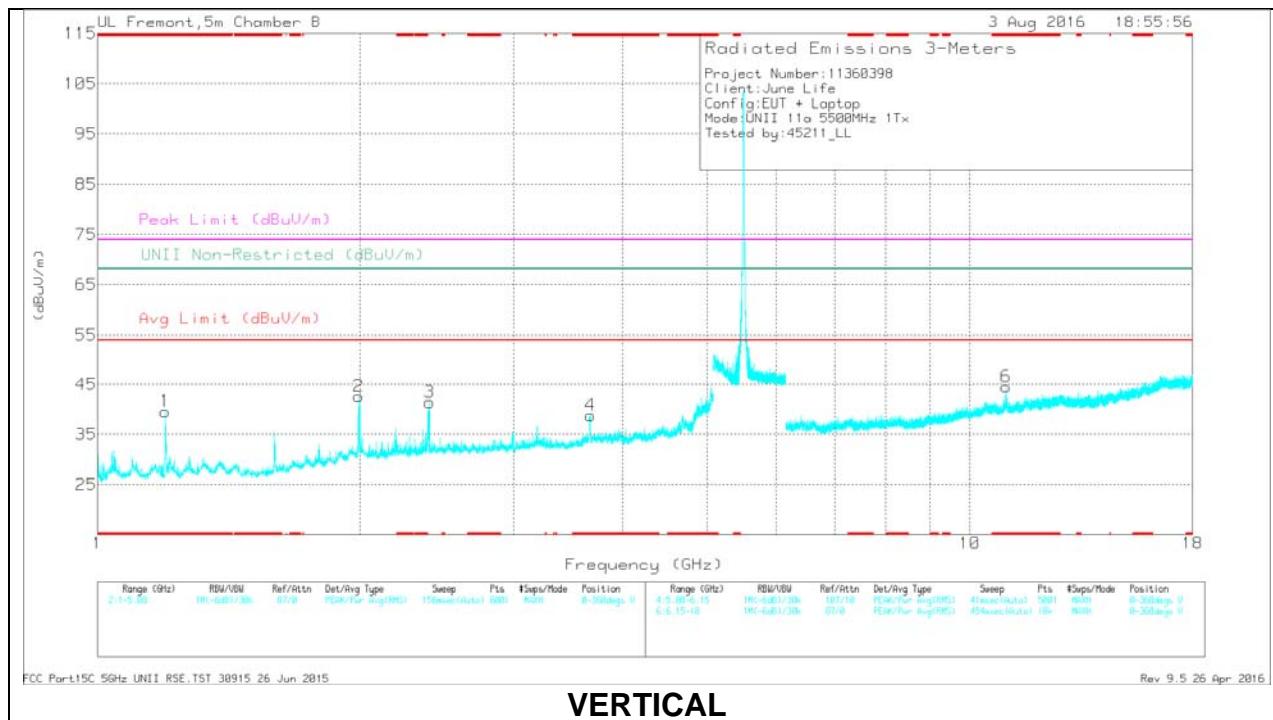
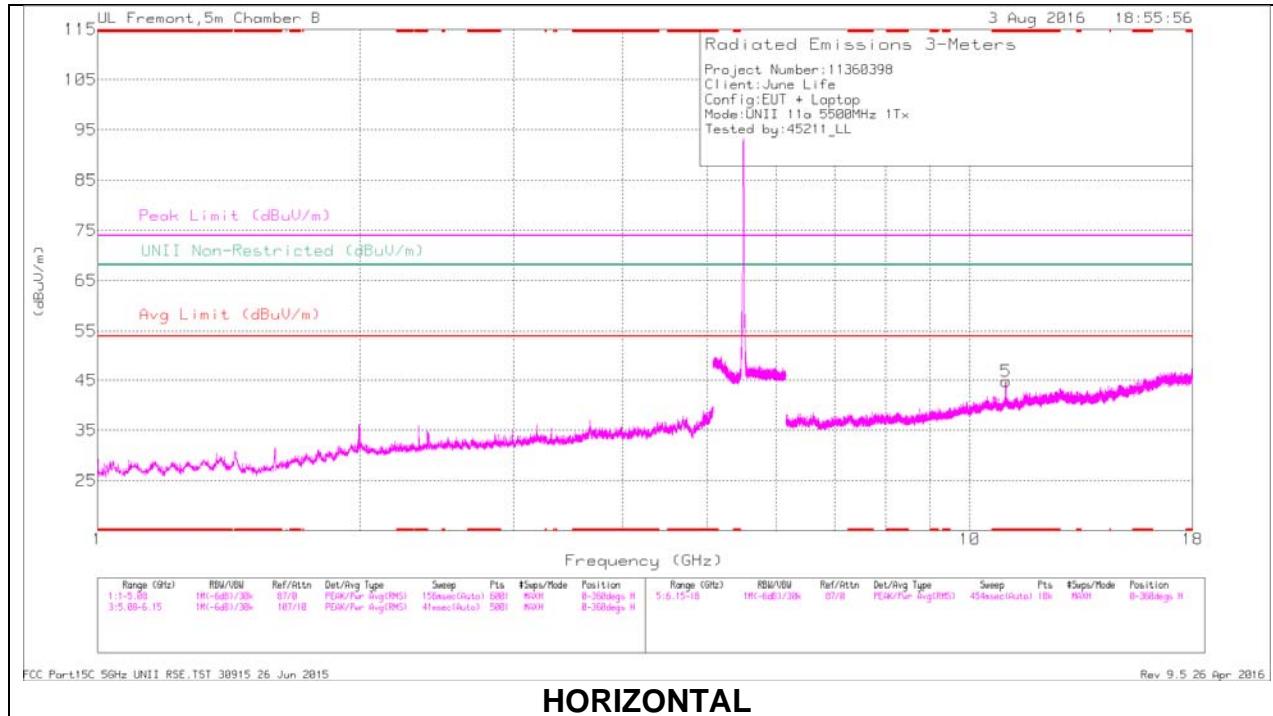
### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	50.5	Pk	34.9	-21.7	0	63.7	68.2	-4.5	0	245	V
2	5.728	52.83	Pk	34.9	-21.6	0	66.13	68.2	-2.07	0	245	V

Pk - Peak detector

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL RESULTS



## LOW CHANNEL DATA

### Trace Markers

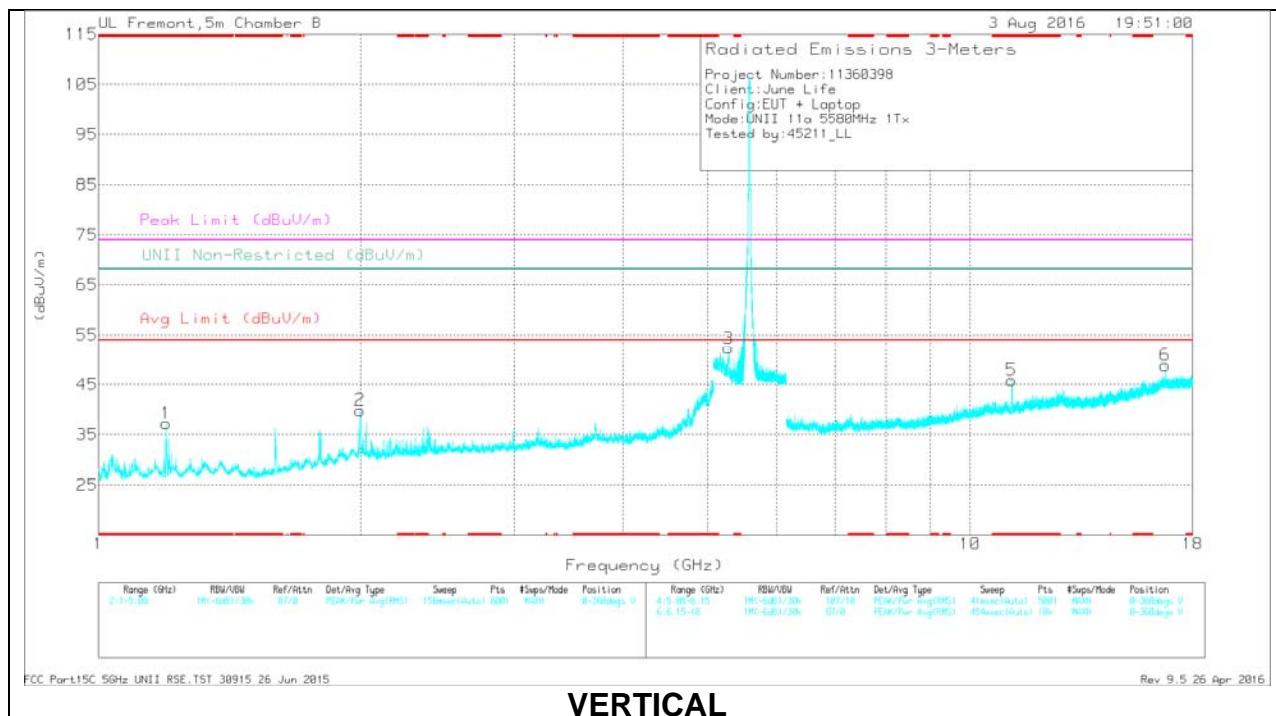
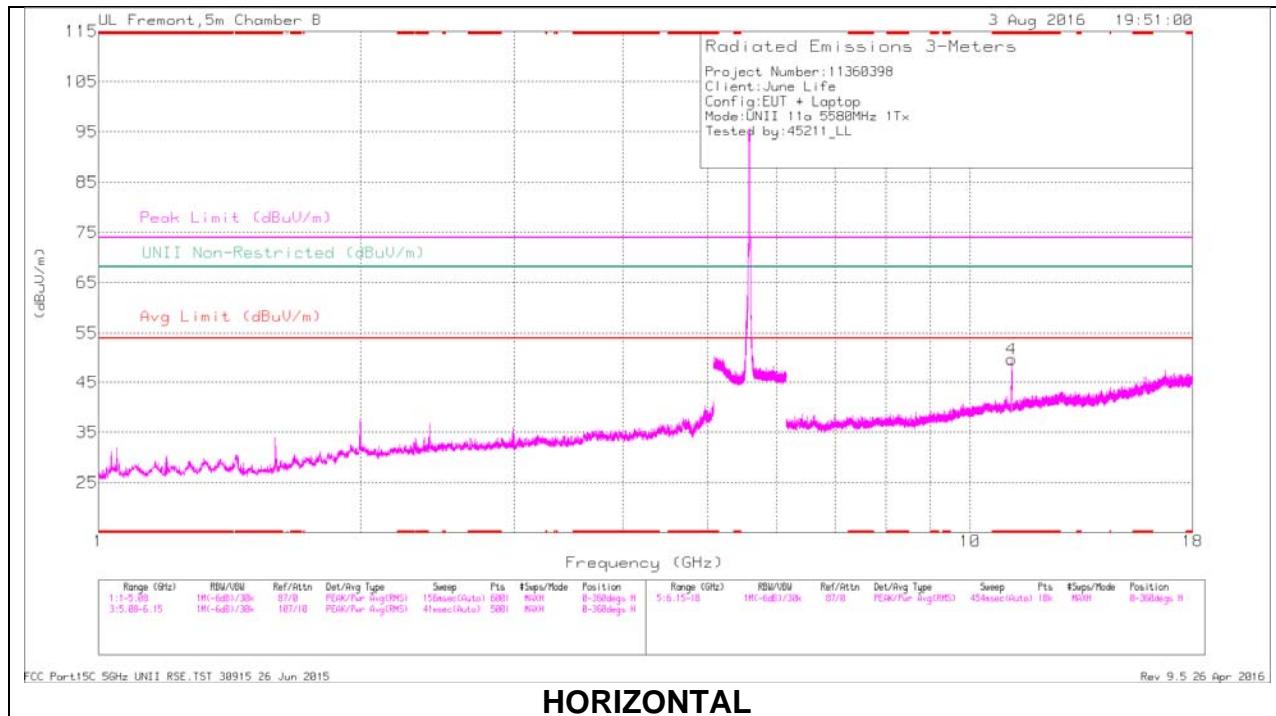
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.199	54.25	PK-U	28.3	-35.8	0	46.75	-	-	74	-27.25	-	-	73	154	V
	* 1.199	32.91	ADR	28.3	-35.8	0	25.41	54	-28.59	-	-	-	-	73	154	V
4	* 3.671	45.96	PK-U	33.3	-33.3	0	45.96	-	-	74	-28.04	-	-	171	192	V
	* 3.669	36.61	ADR	33.3	-33.3	0	36.61	54	-17.39	-	-	-	-	171	192	V
5	* 11.003	40.9	PK-U	37.9	-24.9	0	53.9	-	-	74	-20.1	-	-	154	187	H
	* 11.001	31.24	ADR	37.9	-24.9	0	44.24	54	-9.76	-	-	-	-	154	187	H
6	* 10.999	40.25	PK-U	37.9	-24.9	0	53.25	-	-	74	-20.75	-	-	155	155	V
	* 10.999	29.21	ADR	37.9	-24.9	0	42.21	54	-11.79	-	-	-	-	155	155	V
2	1.994	56.46	PK-U	31.5	-34.1	0	53.86	-	-	-	-	68.2	-14.34	64	172	V
3	2.399	51.77	PK-U	32.2	-34.7	0	49.27	-	-	-	-	68.2	-18.93	328	201	V

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## MID CHANNEL RESULTS



## MID CHANNEL DATA

### Trace Markers

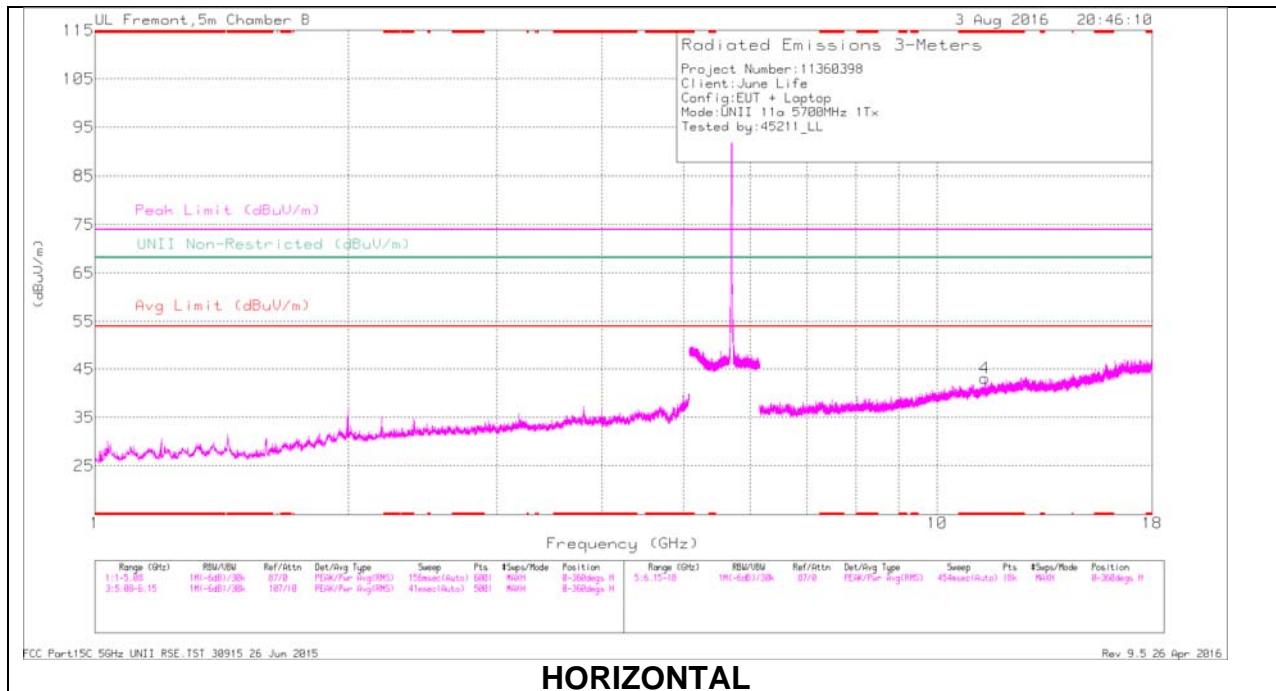
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF T345 (dB/m)	Amp/Cdn/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBm)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Pk Margin (dB)	UHII Non-Restricted (dBuV/m)	Pk Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.2	53.27	PK-U	28.3	-35.8	0	45.77	-	-	74	-28.23	-	-	81	229	V
	* 1.196	32.29	ADR	28.3	-35.8	0	24.79	54	-29.21	-	-	-	-	81	229	V
4	* 11.158	46.32	PK-U	38	-26.1	0	58.22	-	-	74	-15.78	-	-	153	194	H
	* 11.16	35.6	ADR	38	-26.1	0	47.5	54	-6.5	-	-	-	-	153	194	H
5	* 11.165	44.02	PK-U	38	-26.1	0	55.92	-	-	74	-18.08	-	-	215	129	V
	* 11.16	33.98	ADR	38	-26.1	0	45.88	54	-8.12	-	-	-	-	215	129	V
2	1.998	48.39	PK-U	31.5	-34.2	0	45.69	-	-	-	-	68.2	-22.51	153	148	V
3	5.277	44.38	PK-U	34.4	-20.2	0	58.58	-	-	-	-	68.2	-9.62	168	190	V
6	16.736	36.5	PK-U	41.9	-23.4	0	55	-	-	-	-	68.2	-13.2	164	206	V

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

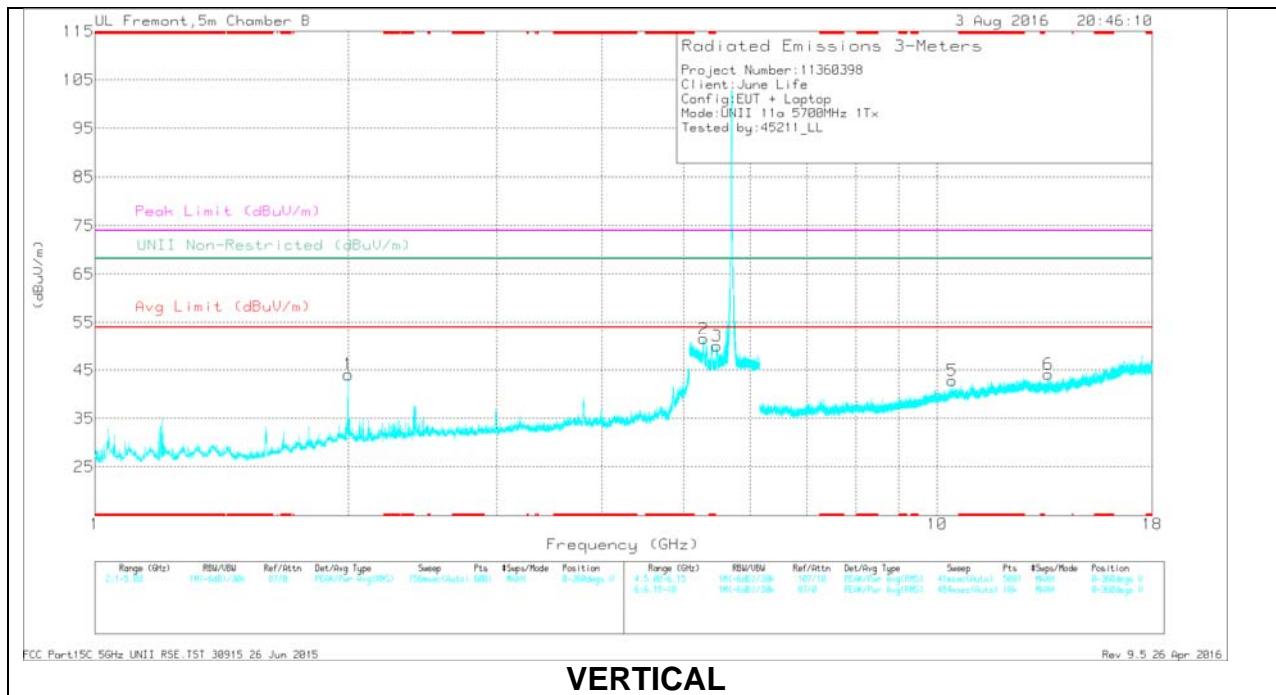
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## HIGH CHANNEL RESULTS



**HORIZONTAL**



**VERTICAL**

## HIGH CHANNEL DATA

### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Dct	AF T345 (dB/m)	Amp/Dif/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBm/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
4	* 11.403	38.28	PK-U	38.2	-26	0	50.48	-	-	74	-23.52	-	-	152	189	H
	* 11.402	27.71	ADR	38.2	-26.1	0	39.81	54	-14.19	-	-	-	-	152	189	H
1	1.998	54.84	PK-U	31.5	-34.2	0	52.14	-	-	-	68.2	-16.06	70	173	V	
2	5.274	42.53	PK-U	34.4	-19.9	0	57.03	-	-	-	68.2	-11.17	165	189	V	
3	5.478	42.91	PK-U	34.5	-20.8	0	56.61	-	-	-	68.2	-11.59	174	177	V	
5	10.412	35.12	PK-U	37.6	-25.6	0	47.12	-	-	-	68.2	-21.08	212	400	V	
6	13.553	34.73	PK-U	38.9	-25.8	0	47.83	-	-	-	68.2	-20.37	54	201	V	

\* - indicates frequency in CFR15.205/IC8.10 Restricted Band

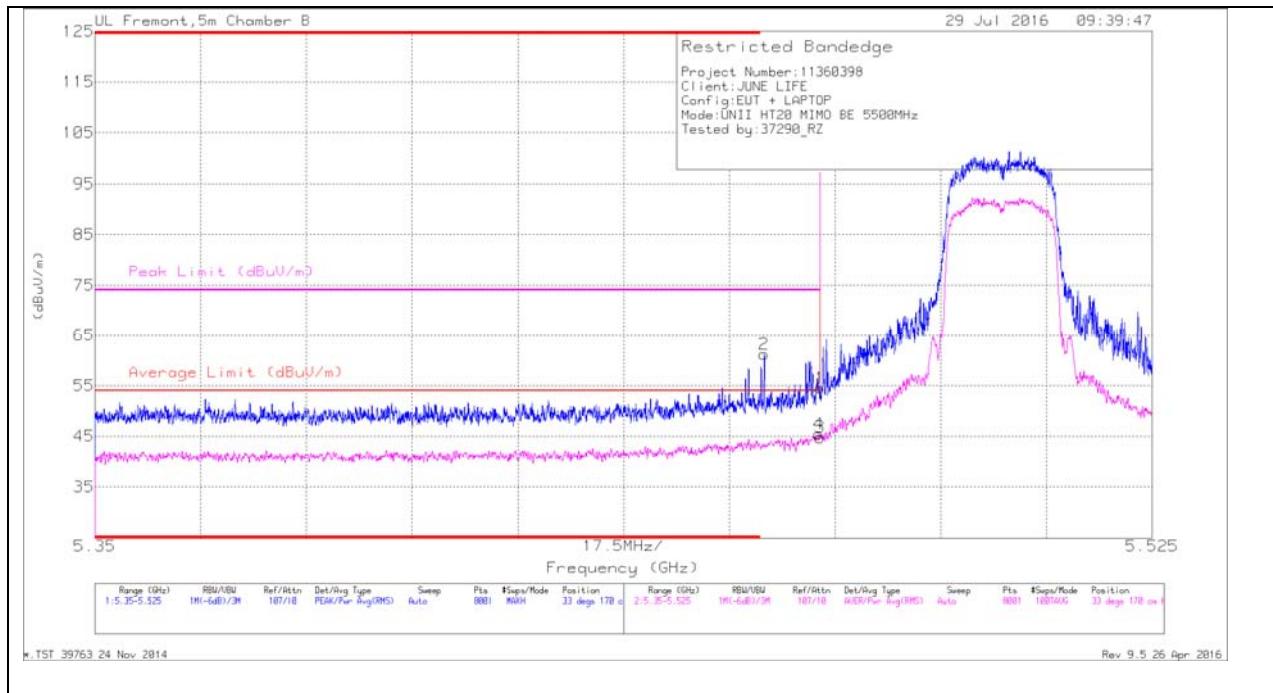
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## 8.2.8. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.6 GHz BAND

### RESTRICTED BANDEdge (LOW CHANNEL)

### HORIZONTAL RESULTS



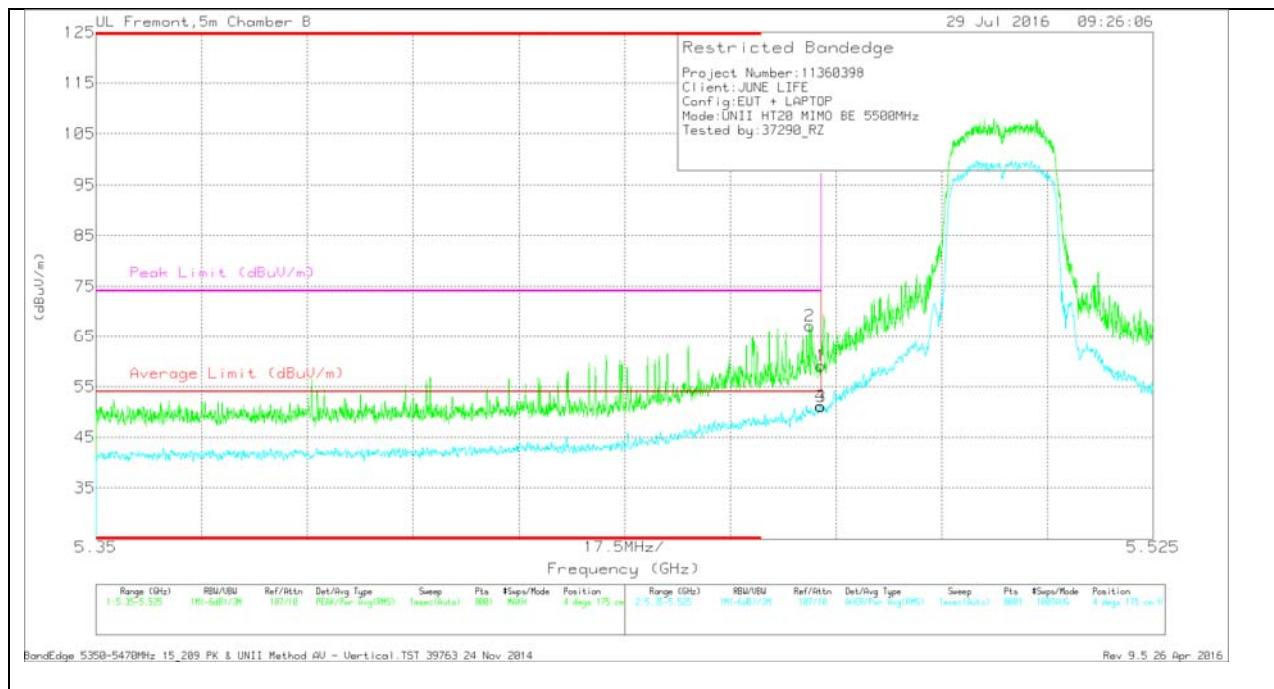
### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBmV)	Det	AF T345 (dB/m)	Amp/Cbl/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBmV/m)	Average Limit (dBmV/m)	Margin (dB)	Peak Limit (dBmV/m)	Pk Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.461	47.58	Pk	34.5	-20.9	0	61.18	-	-	74	-12.82	33	170	H
1	5.47	40.91	Pk	34.5	-20.9	0	54.51	-	-	74	-19.49	33	170	H
3	5.47	31.07	RMS	34.5	-20.9	.1	44.77	54	-9.23	-	-	33	170	H
4	5.47	31.64	RMS	34.5	-20.8	.1	45.44	54	-8.56	-	-	33	170	H

Pk - Peak detector

RMS - RMS detection

## VERTICAL RESULTS



### Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltz/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	5.468	53.44	Pk	34.5	-20.8	0	67.14	-	-	74	-6.86	4	175	V
1	5.47	45.53	Pk	34.5	-20.9	0	59.13	-	-	74	-14.87	4	175	V
3	5.47	37.28	RMS	34.5	-20.9	.1	50.98	54	-3.02	-	-	4	175	V
4	5.47	37.37	RMS	34.5	-20.8	.1	51.17	54	-2.83	-	-	4	175	V

Pk - Peak detector

RMS - RMS detection