



**FCC 47 CFR PART 15 SUBPART C**

**CERTIFICATION TEST REPORT**

**FOR**

**PORTABLE COMPUTING DEVICE**

**MODEL NUMBER: 1724**

**FCC ID: C3K1724B**

**REPORT NUMBER: R10880568-E1C**

**ISSUE DATE: 2015-10-02**

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NVLAP Lab code: 200246-0

Revision History

| Ver. | Issue Date | Revisions     | Revised By |
|------|------------|---------------|------------|
| 1    | 2015-10-02 | Initial Issue | Jeff Moser |

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## 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** MICROSOFT CORPORATION  
ONE MICROSOFT WAY  
REDMOND, WA 98052, U.S.A.

**EUT DESCRIPTION:** PORTABLE COMPUTING DEVICE

**MODEL:** 1724

**SERIAL NUMBER:** 012785552253 (RF1), 012756752253 (RF2),  
012810252253 (RF3)

**DATE TESTED:** August 03-17, 2015

| APPLICABLE STANDARDS     |              |
|--------------------------|--------------|
| STANDARD                 | TEST RESULTS |
| CFR 47 Part 15 Subpart C | PASS         |

UL LLC 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 LLC 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 LLC and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL LLC 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 LLC By:



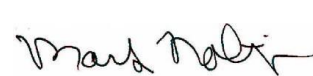
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Reviewed By:



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## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2013.

## 3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 12 Laboratory Dr., Research Triangle Park, NC 27709, USA and 2800 Suite B Perimeter Park Dr., Morrisville, NC 27560.

| 12 Laboratory Dr., RTP, NC 27709 |           |
|----------------------------------|-----------|
| <input type="checkbox"/>         | Chamber A |
| <input type="checkbox"/>         | Chamber C |

| 2800 Suite B Perimeter Park Dr.,<br>Morrisville, NC 27560 |               |
|-----------------------------------------------------------|---------------|
| <input checked="" type="checkbox"/>                       | Chamber NORTH |
| <input type="checkbox"/>                                  | Chamber SOUTH |

UL LLC (RTP) is accredited by NVLAP, Laboratory Code 200246-0. The full scope of accreditation can be viewed at <http://www.nist.gov/nvlap/>.

## 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:

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

### 4.3. MEASUREMENT UNCERTAINTY

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

| PARAMETER                        | UNCERTAINTY                |
|----------------------------------|----------------------------|
| Total RF power, conducted        | $\pm 0.45$ dB              |
| RF power density, conducted      | $\pm 1.5$ dB               |
| Spurious emissions, conducted    | $\pm 1.46$ dB              |
| Radiated Emissions (30-1000 MHz) | $\pm 6.04$ dB (3m)         |
| Radiated Emissions (1-6 GHz)     | $\pm 5.96$ dB              |
| Radiated Emissions (6-18 GHz)    | $\pm 6.10$ dB              |
| Radiated Emissions (18-26 GHz)   | $\pm 6.81$ dB              |
| Temperature                      | $\pm 0.07^{\circ}\text{C}$ |
| Humidity                         | $\pm 2.26\%$ RH            |
| DC and low frequency voltages    | $\pm 1.27\%$               |

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

## 5. EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF EUT

The EUT is a handheld computing device with 802.11 2x2, a/b/g/n/ac WLAN, Bluetooth, Bluetooth LE. This report covers 2.4 GHz 802.11. All other technologies are covered by separate reports.

### 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) |
|-----------------------|--------------|--------------------|-------------------|
| 2412 - 2472           | 802.11b      | 15.28              | 33.73             |
| 2412 - 2472           | 802.11g      | 18.38              | 68.87             |
| 2412 - 2472           | 802.11n HT20 | 18.47              | 70.31             |

### 5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an integrated antenna, with a maximum gain as follows:

| Frequency Range (MHz) | MAIN Antenna<br>Wi-Fi Main/BT<br>Peak Gain (dBi)<br>Chain B | MIMO Antenna<br>Wi-Fi MIMO<br>Peak Gain (dBi)<br>Chain A |
|-----------------------|-------------------------------------------------------------|----------------------------------------------------------|
| 2400 to 2483.5 MHz    | 1.7                                                         | 1.4                                                      |

### 5.4. SOFTWARE AND FIRMWARE

The EUT driver software installed during testing was Mte OS 1.416.0.

The test utility software used during testing was WiFi tool v2.7.4.



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

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

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

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

802.11b mode: 1 Mbps  
802.11g mode: 6 Mbps  
802.11n HT20mode: MCS0

Radiated emissions for EUT with antenna was performed and passed; therefore, antenna port spurious was not performed.

## 5.6. DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT

| Support Equipment List  |              |         |                        |        |
|-------------------------|--------------|---------|------------------------|--------|
| Description             | Manufacturer | Model   | Serial Number          | FCC ID |
| Laptop                  | Lenovo       | E545    | MP-06P9HP              | DoC    |
| Laptop AC/DC adapter    | Lenovo       | 42T4430 | 11S42T4430Z1ZGWE25Y1ET | DoC    |
| Ethernet to USB Adapter | Linksys      | USB300M | C8D719E76E21           | N/A    |
| EUT AC/DC adapter       | Microsoft    | 1625    | 0D130C07VLN51          | DoC    |
| Ear buds                | -            | Generic | -                      | N/A    |

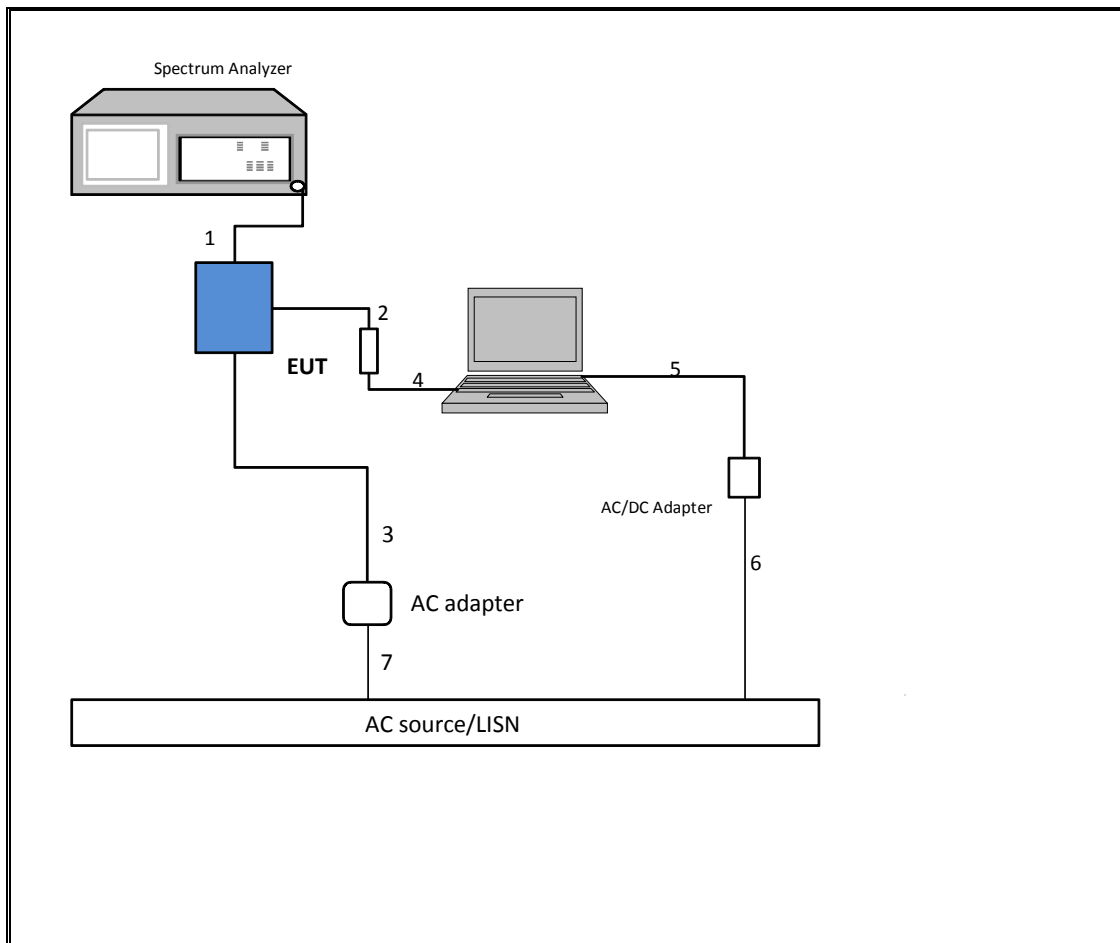
### I/O CABLES

| I/O Cable List |             |                      |                |             |                  |                      |
|----------------|-------------|----------------------|----------------|-------------|------------------|----------------------|
| Cable No       | Port        | # of identical ports | Connector Type | Cable Type  | Cable Length (m) | Remarks              |
| 1              | Antenna     | 1                    | SMA            | Un-Shielded | 0.3              | To spectrum Analyzer |
| 2              | USB         | 1                    | USB            | Shielded    | 0.2              | To EUT               |
| 3              | DC          | 1                    | DC             | Un-shielded | 1.8              | N/A                  |
| 4              | Ether cable | 1                    | RJ45- USB      | Un-shielded | 1                | To laptop            |
| 5              | DC          | 1                    | DC             | Un-shielded | 0.8              | N/A                  |
| 6              | AC          | 1                    | 2-Prong        | Un-shielded | 1.5              | N/A                  |
| 7              | AC          | 1                    | 2-Prong        | Un-Shielded | 0.5              | N/A                  |
| 8              | Audio       | 1                    | 3.5mm stereo   | Un-Shielded | 1.1              | N/A                  |

### **TEST SETUP- CONDUCTED PORT**

The EUT was tested connected to a host Laptop via RJ45/USB cable and spectrum analyzer to antenna port. Test software exercised the EUT.

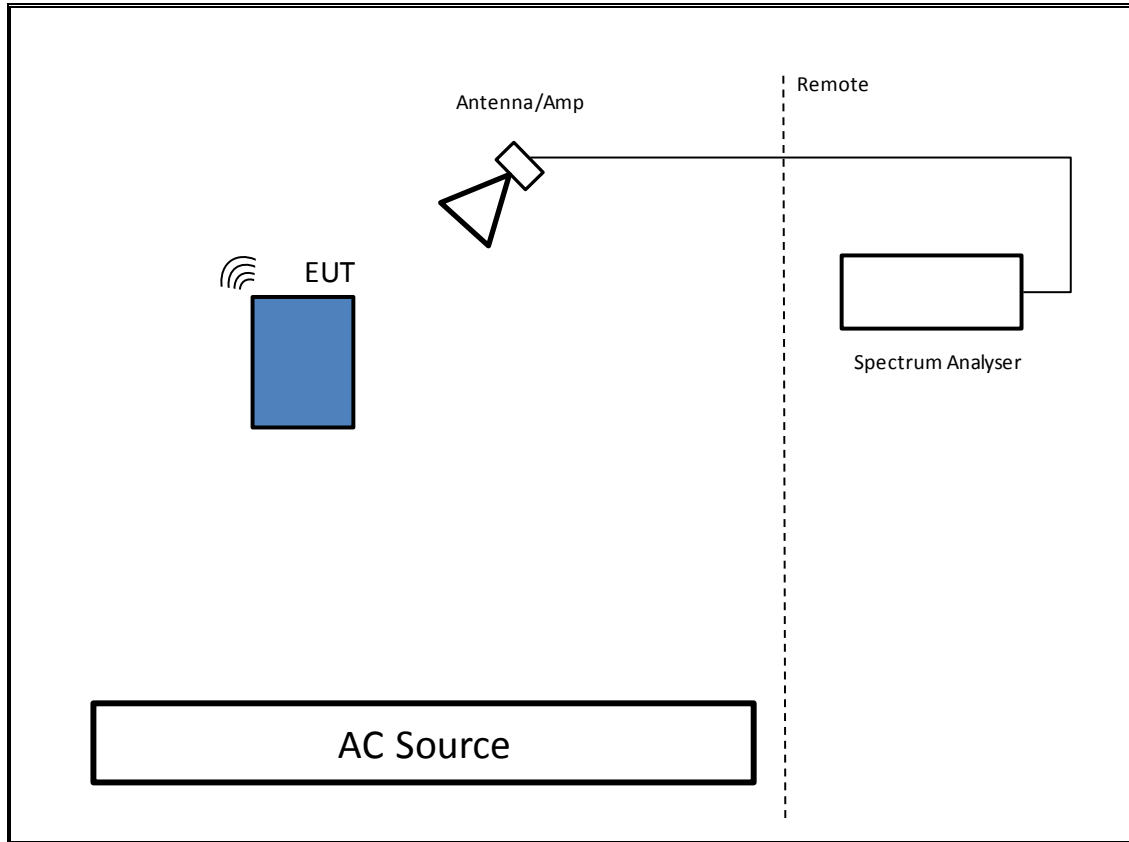
### **SETUP DIAGRAM**



**TEST SETUP- RADIATED-ABOVE 1 GHZ**

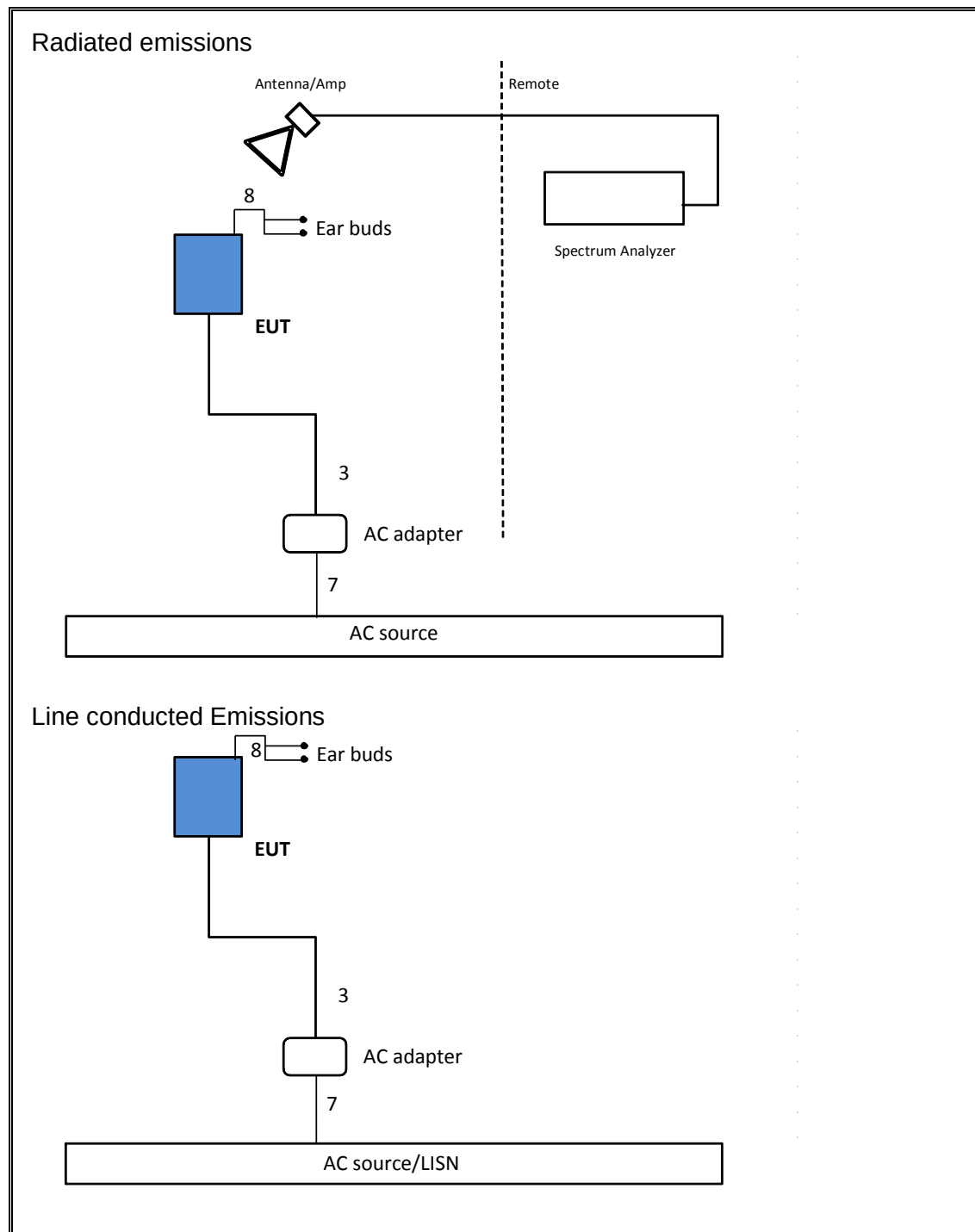
The EUT was tested battery powered. Test software exercised the EUT.

**SETUP DIAGRAM**



**TEST SETUP - BELOW 1GHZ & AC LINE CONDUCTED TESTS**

**SETUP DIAGRAM**



## 6. TEST AND MEASUREMENT EQUIPMENT

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

### Radiated Disturbance Emissions Test Equipment (Morrisville - North Chamber)

| Equip. ID                 | Description                                       | Manufacturer         | Model Number          | Last Cal.  | Next Cal.  |
|---------------------------|---------------------------------------------------|----------------------|-----------------------|------------|------------|
| AT0073                    | Hybrid Broadband Antenna, 30-1000MHz              | Sunol Sciences Corp. | JB3                   | 2015-06-10 | 2016-06-30 |
| AT0072                    | Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz | ETS Lindgren         | 3117                  | 2015-02-17 | 2016-02-29 |
| SAC_N_Hybrid (30-1000MHz) | Gain-Loss string for Hybrid antenna               | Various              | Various               | 2015-06-25 | 2016-06-30 |
| SAC_N_Horn (1-18GHz)      | Gain-Loss string for Horn antenna                 | Various              | Various               | 2015-06-25 | 2016-06-30 |
| AT0053                    | Horn Antenna, 18-26.5GHz                          | ARA                  | SWH-28 (S/N 1004)     | 2015-07-28 | 2016-07-31 |
|                           | Amplifier (S/Ns 859993, 860112, 859864)           | Miteq                | JSD42-1800400-30-5A   |            |            |
|                           | Cable (S/N 204158-001)                            | Micro-coax           | UFA147A-0-1181-200200 |            |            |
| SA0026                    | Spectrum Analyzer                                 | Agilent              | N9030A                | 2015-03-27 | 2016-03-31 |
| SOFTEMI                   | EMI Software                                      | UL                   | Version 9.5           | NA         | NA         |
| 43733                     | Temp/Humid/Pressure Meter                         | Cole Parmer          | 99760-00              | 2014-03-24 | 2016-03-24 |

Antenna-port Test Measurement Equipment

| Equipment ID | Description                  | Manufacturer          | Model Number | Last Cal.  | Next Cal.  |
|--------------|------------------------------|-----------------------|--------------|------------|------------|
|              | <b>Common Equipment</b>      |                       |              |            |            |
| T189         | Spectrum Analyzer            | Agilent Technologies  | E4440A       | 2015-05-13 | 2016-05-31 |
| PWM002       | RF Power Meter               | Keysight Technologies | N1911A       | 2015-06-08 | 2017-06-08 |
| PWS004       | Power Sensor, 50MHz to 6 GHz | Keysight Technologies | E9323A       | 2015-06-05 | 2016-06-05 |
| 43733        | Temp/Humid/Pressure Meter    | Cole Parmer           | 99760-00     | 2014-03-24 | 2016-03-24 |

Line Conducted Test Equipment

| Equipment ID | Description                                   | Manufacturer        | Model Number             | Last Cal.  | Next Cal.  |
|--------------|-----------------------------------------------|---------------------|--------------------------|------------|------------|
| SA0021       | EMI Test Receiver 9kHz-3.6GHz                 | Rohde & Schwarz     | ESR3                     | 2015-07-08 | 2-16-07-31 |
| ATA508       | Transient Limiter, 0.009 to 100 MHz           | Electro-Metrics     | EM 7600                  | 2015-08-03 | 2016-08-31 |
| ATA509       | Coaxial cable, 20 ft., BNC - male to BNC-male | UL                  | RG-223                   | 2015-08-03 | 2016-08-31 |
| HI0069       | Temp/Humid/Pressure Meter                     | Cole-Parmer         | 99760-00                 | 2015-07-01 | 2016-07-31 |
| SOFTEMI      | EMI Software                                  | UL                  | Version 9.5              | NA         | NA         |
| LISN002      | LISN, 50-ohm/50-uH, 2-conductor, 25A          | Fischer Custom Com. | FCC-LISN-50-25-2-01-550V | 2014-09-04 | 2015-09-30 |

## 7. MEASUREMENT METHODS

6 dB BW: KDB 558074 D01 v03r03, Section 8.1.

Output Power: KDB 558074 D01 v03r03, Section 9.2.3.1.

Power Spectral Density: KDB 558074 D01 v03r03, Section 10.2.

Out-of-band emissions in non-restricted bands: KDB 558074 D01 v03r03, Section 11.0.

Out-of-band emissions in restricted bands: KDB 558074 D01 v03r03, Section 12.0.

Band-edge: KDB 558074 D01 v03r03, Section 13.3.1.



## 8. ANTENNA PORT TEST RESULTS

### 8.1. ON TIME AND DUTY CYCLE

#### LIMITS

None; for reporting purposes only.

#### PROCEDURE

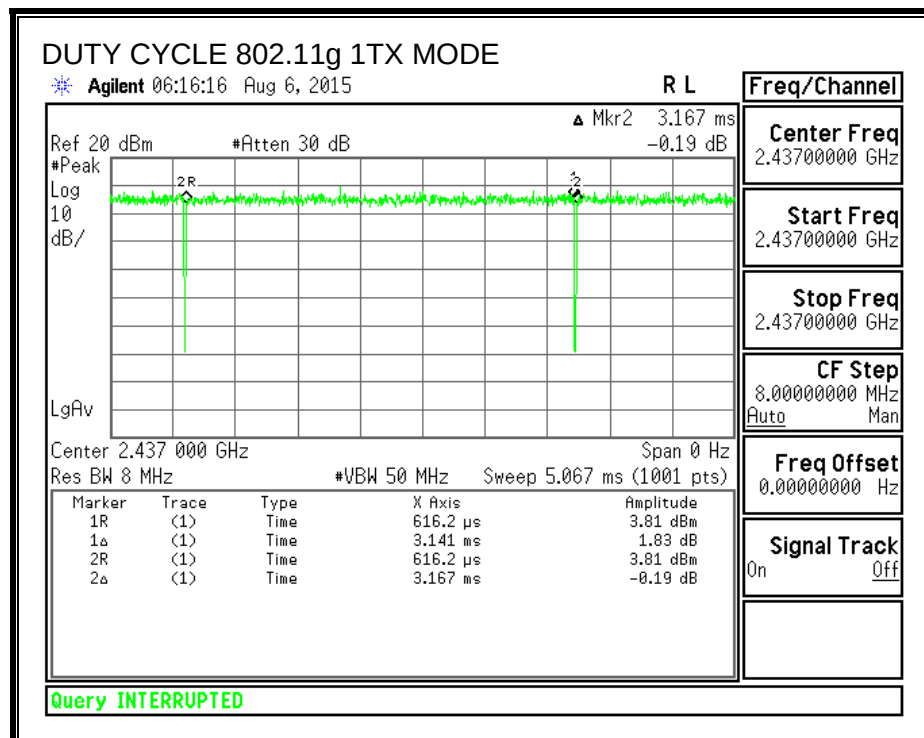
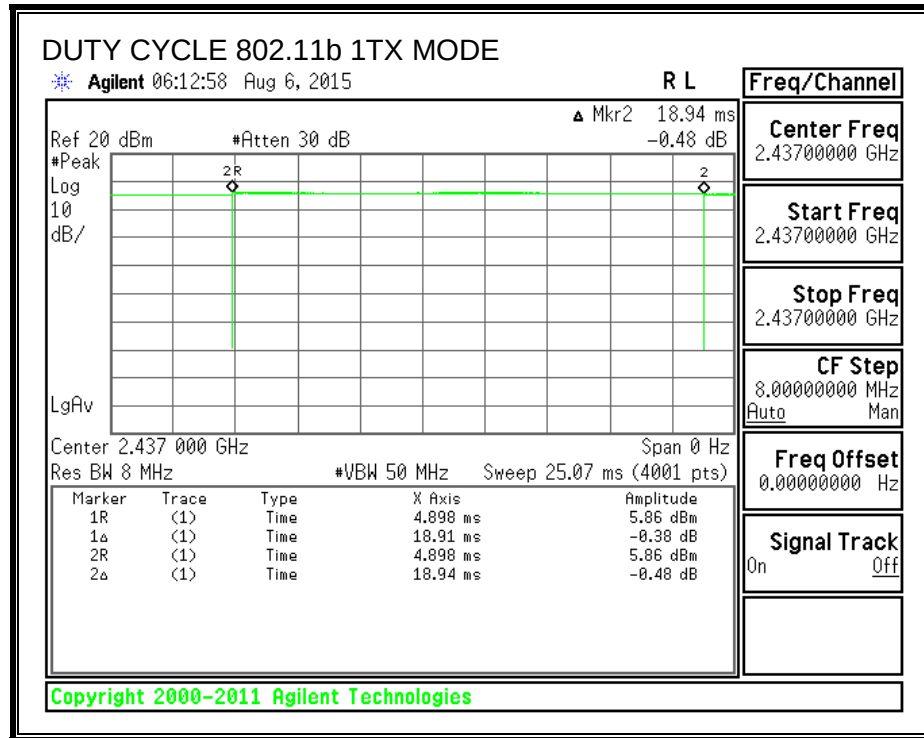
KDB 558074 Zero-Span Spectrum Analyzer Method.

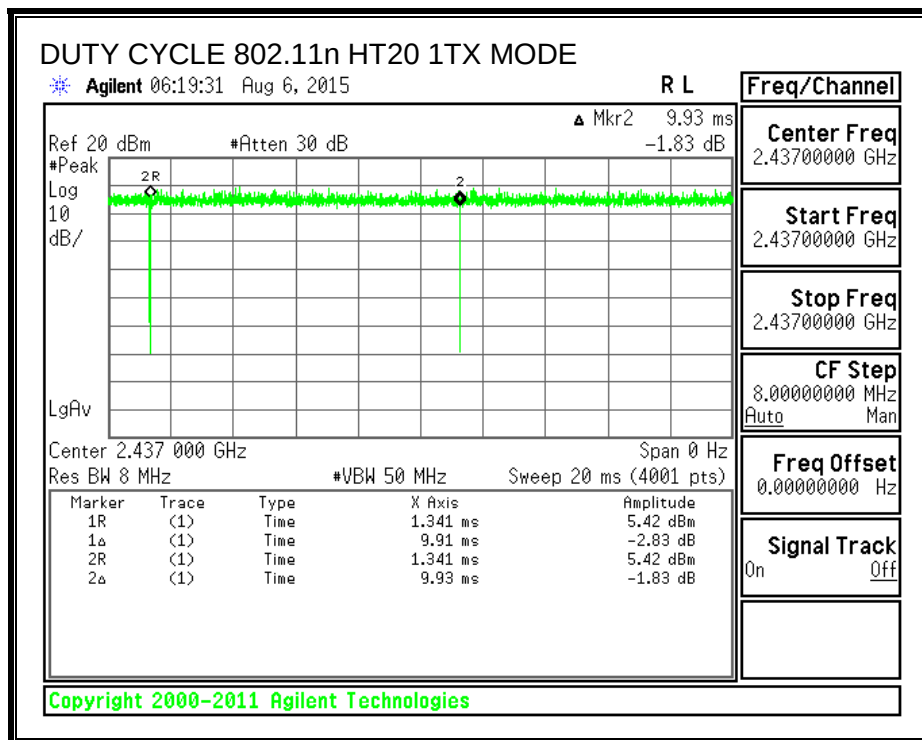
#### ON TIME AND DUTY CYCLE RESULTS

| Mode               | ON Time<br>B<br>(msec) | Period<br>(msec) | Duty Cycle<br>x<br>(linear) | Duty<br>Cycle<br>(%) | Duty Cycle<br>Correction Factor<br>(dB) | 1/B<br>Minimum VBW<br>(kHz) |
|--------------------|------------------------|------------------|-----------------------------|----------------------|-----------------------------------------|-----------------------------|
| <b>2.4GHz Band</b> |                        |                  |                             |                      |                                         |                             |
| 802.11b 2Tx        | 18.910                 | 18.940           | 0.998                       | 99.84%               | 0.00                                    | 0.010                       |
| 802.11g 2Tx        | 3.141                  | 3.167            | 0.992                       | 99.18%               | 0.00                                    | 0.010                       |
| 802.11n HT20 2Tx   | 9.910                  | 9.930            | 0.998                       | 99.80%               | 0.00                                    | 0.010                       |

## DUTY CYCLE PLOTS

### 2.4 GHz BAND





## 8.2. 802.11b MODE IN THE 2.4 GHz BAND

### 8.2.1. 6 dB BANDWIDTH

#### LIMITS

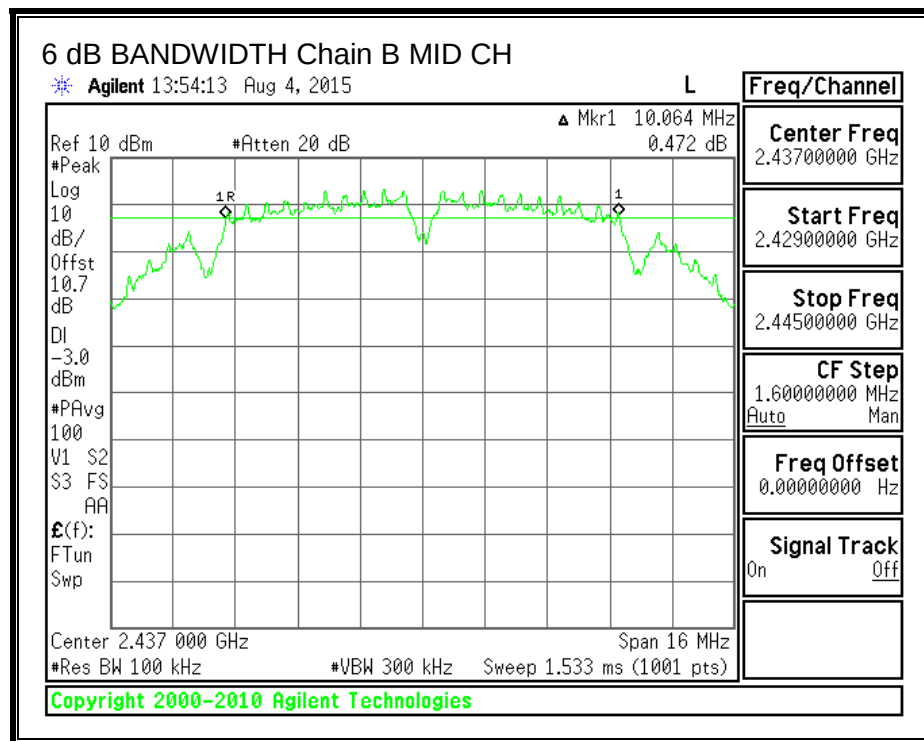
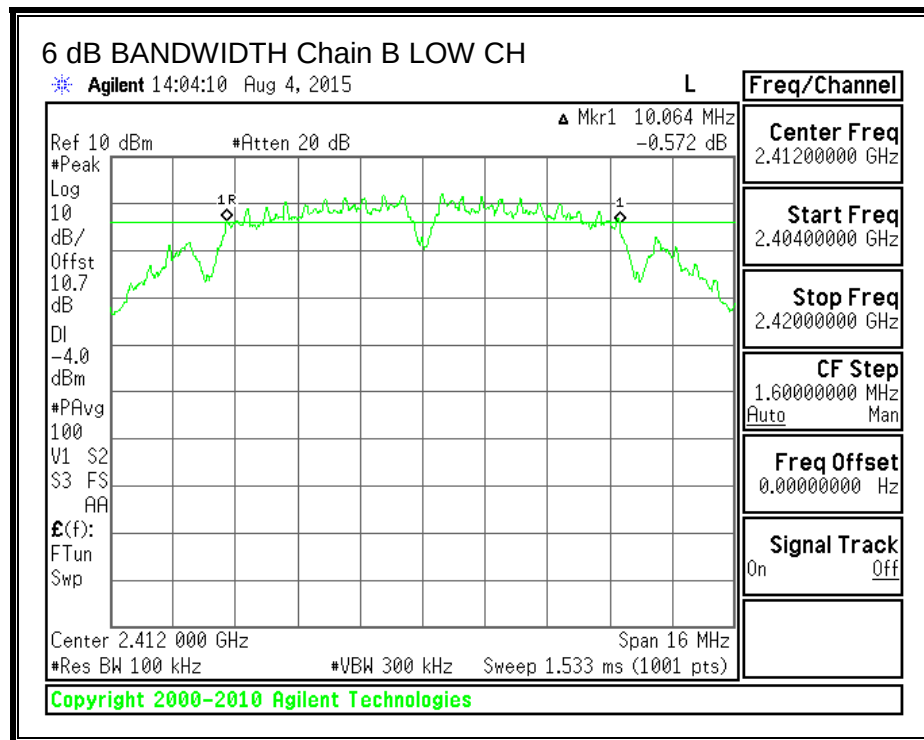
FCC §15.247 (a) (2)

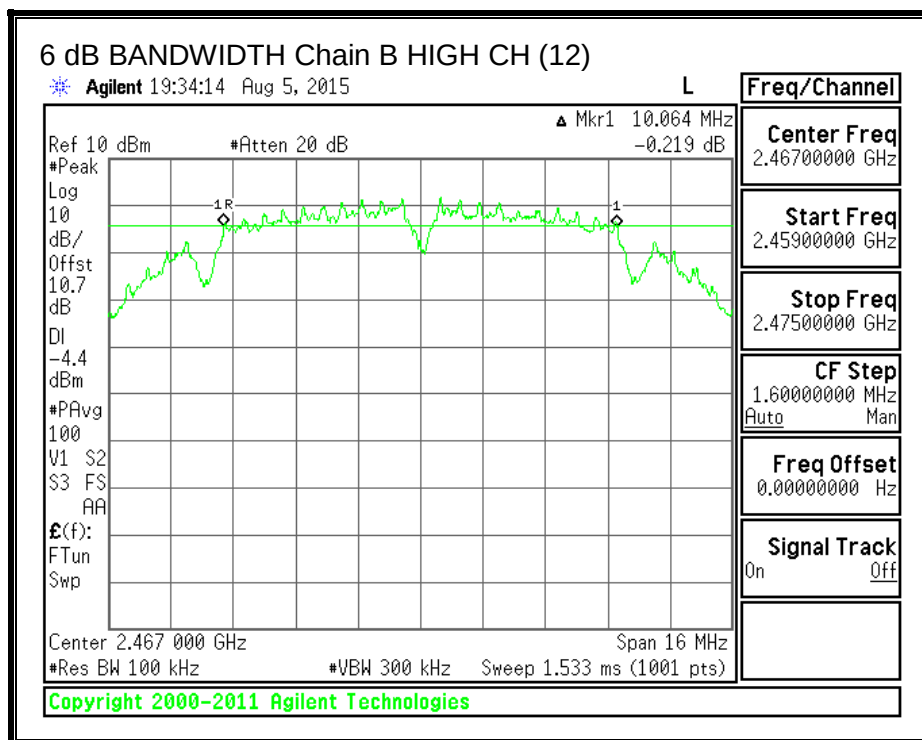
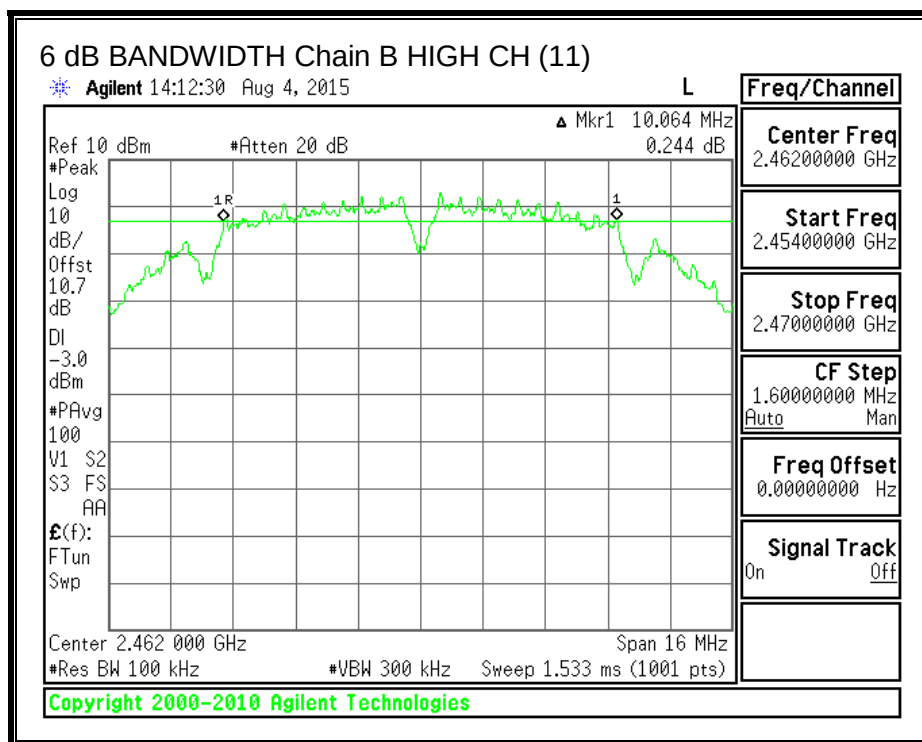
The minimum 6 dB bandwidth shall be at least 500 kHz.

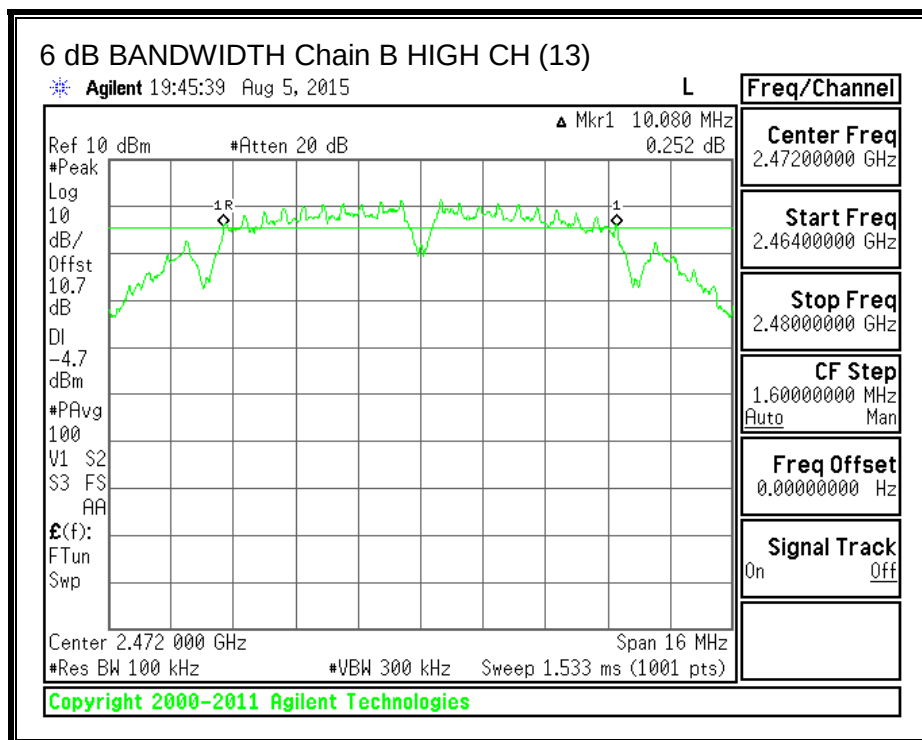
#### RESULTS (802.11b)

| Channel    | Frequency<br>(MHz) | 6 dB BW<br>Chain B<br>(MHz) | 6 dB BW<br>Chain A<br>(MHz) | Minimum<br>Limit<br>(MHz) |
|------------|--------------------|-----------------------------|-----------------------------|---------------------------|
| Low        | 2412               | 10.064                      | 9.825                       | 0.5                       |
| Mid        | 2437               | 10.064                      | 10.064                      | 0.5                       |
| High CH 11 | 2462               | 10.064                      | 10.080                      | 0.5                       |
| High CH 12 | 2467               | 10.064                      | 10.080                      | 0.5                       |
| High CH 13 | 2472               | 10.080                      | 10.096                      | 0.5                       |

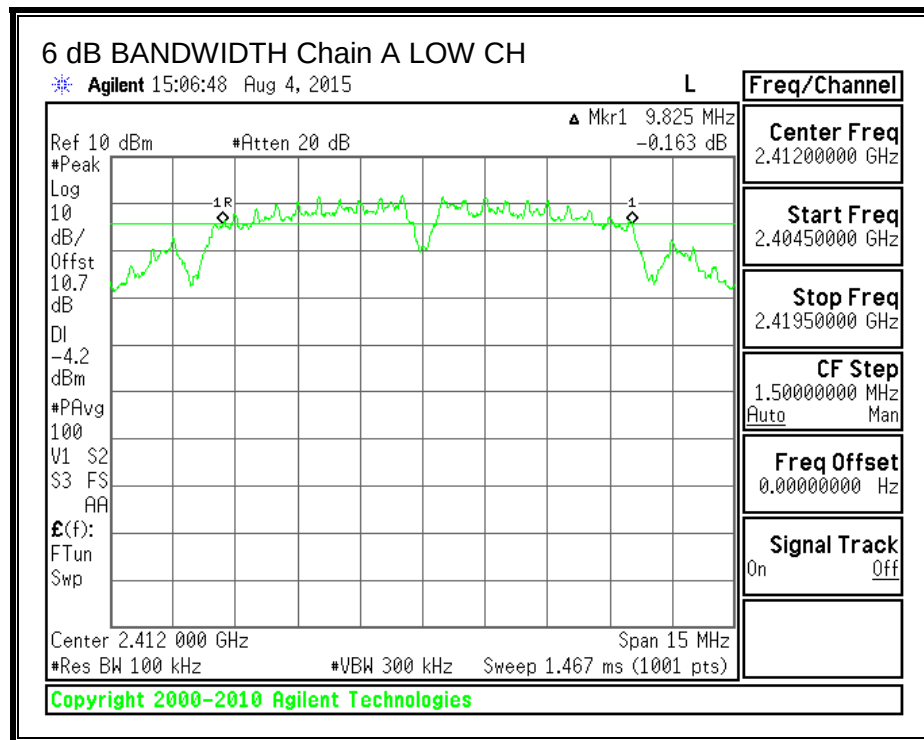
**6 dB BANDWIDTH, Chain B**



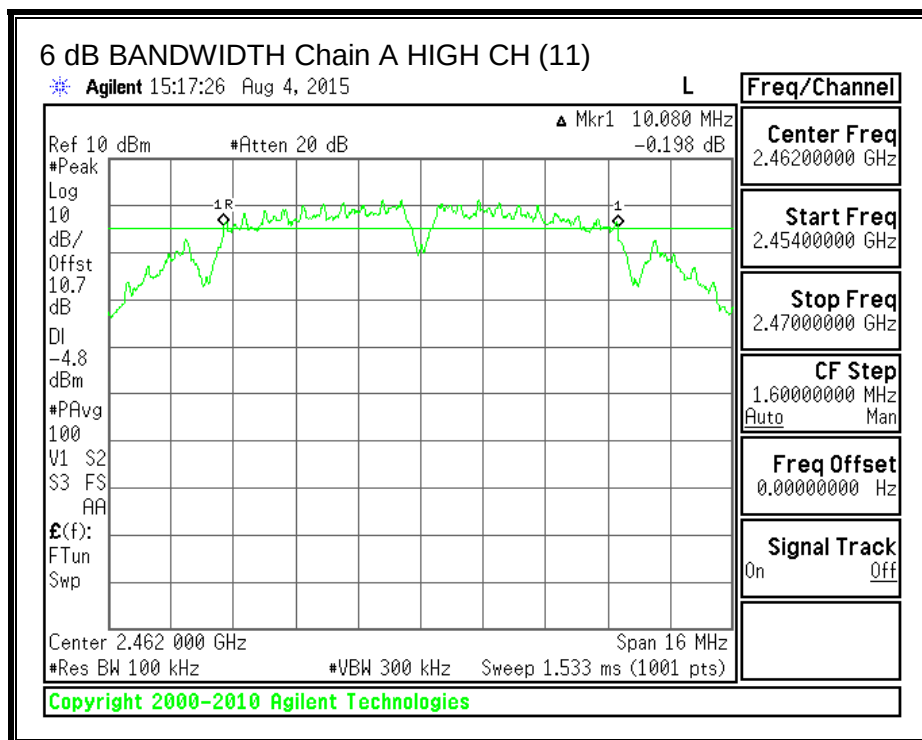
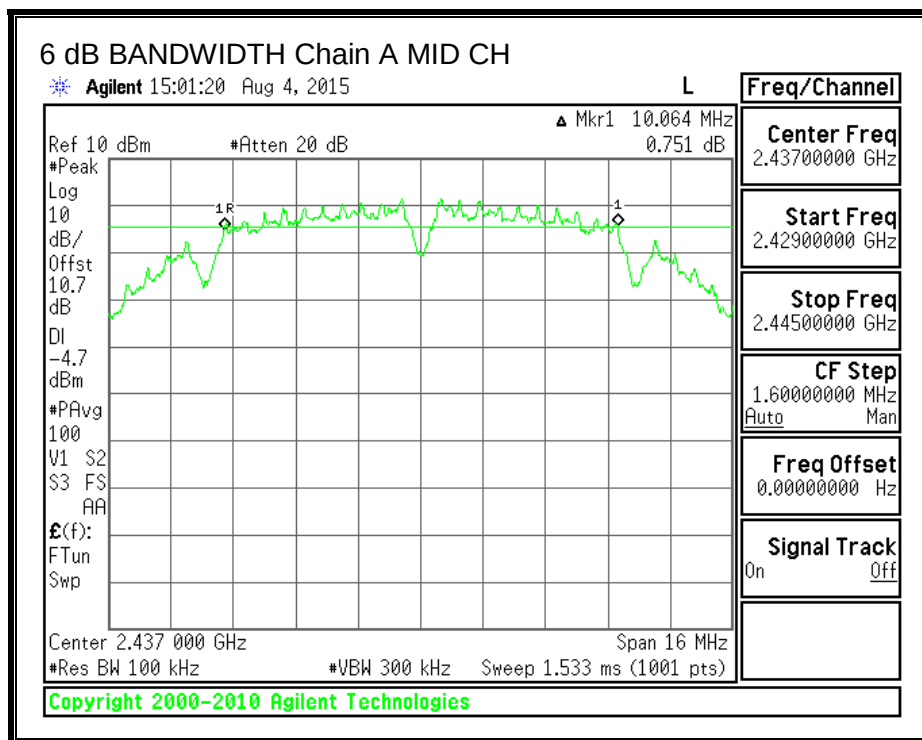


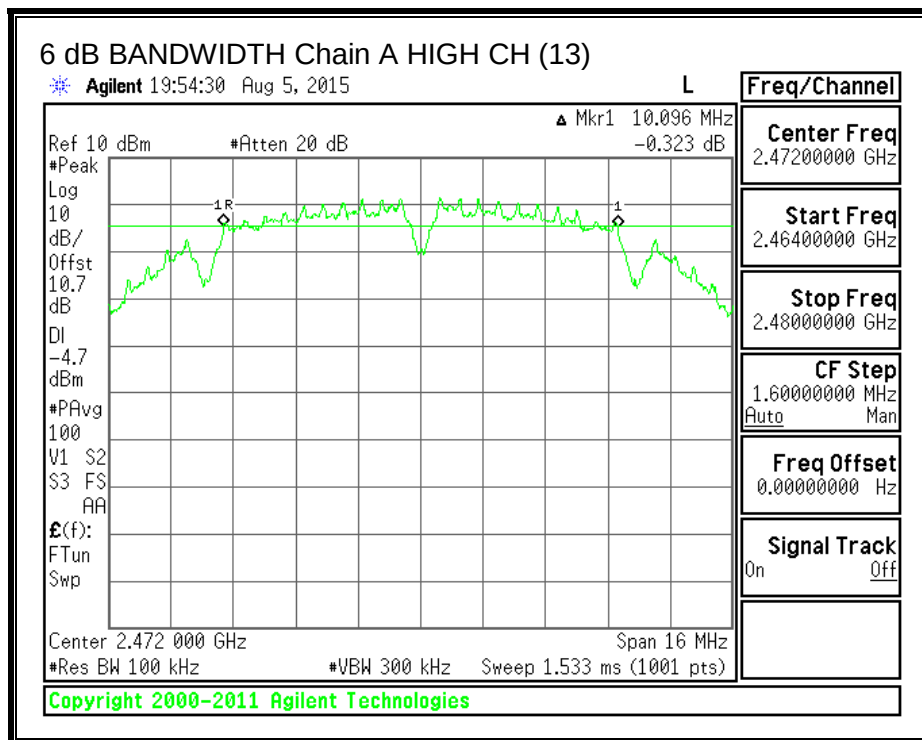
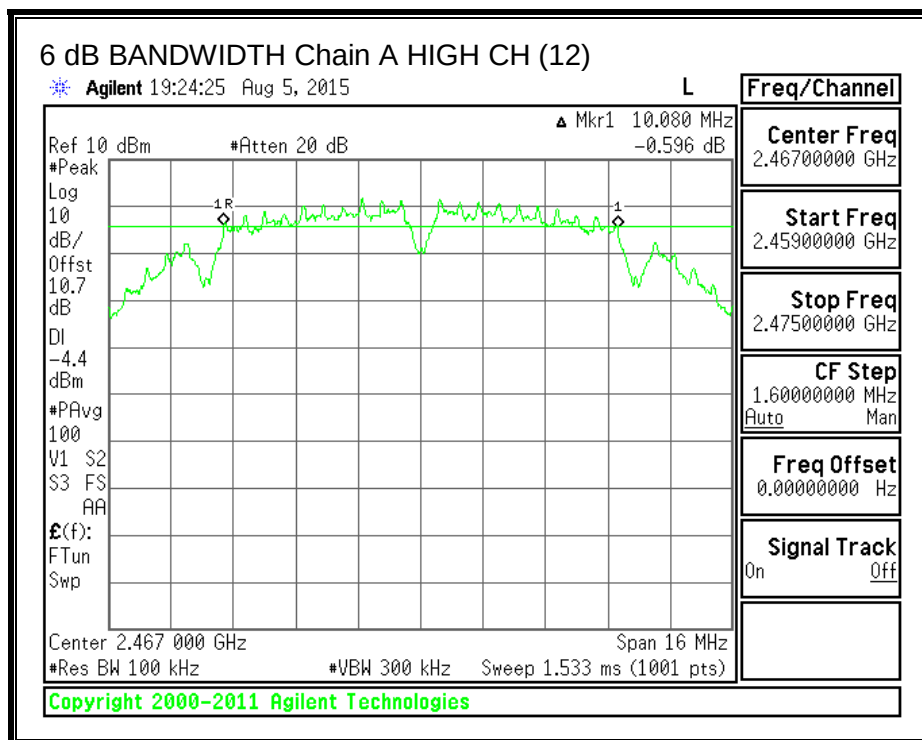


**6 dB BANDWIDTH, Chain A**









## 8.2.2. 99% BANDWIDTH

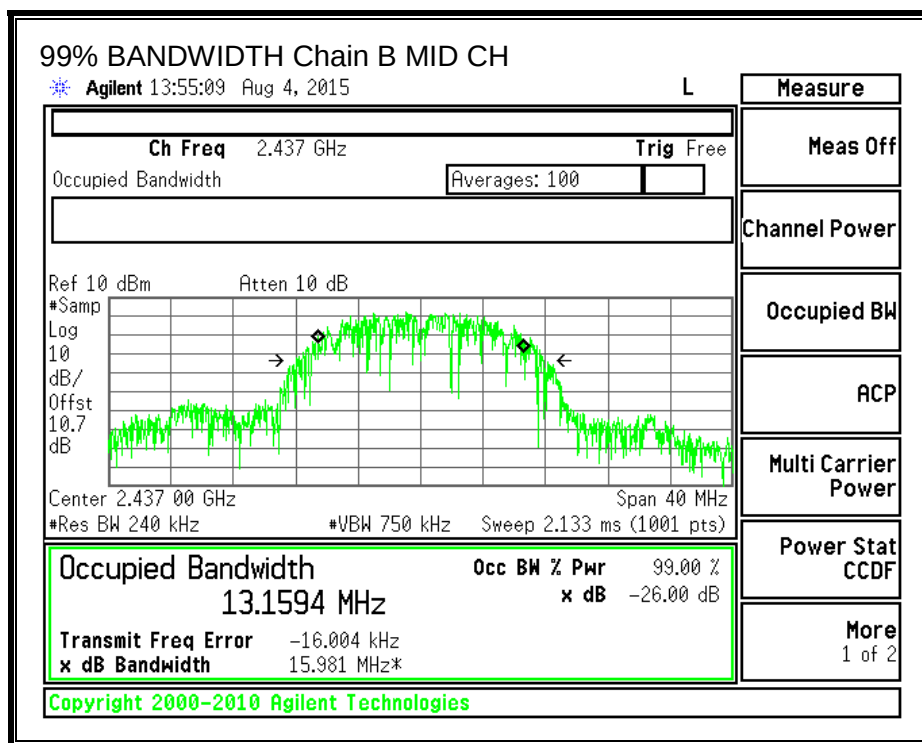
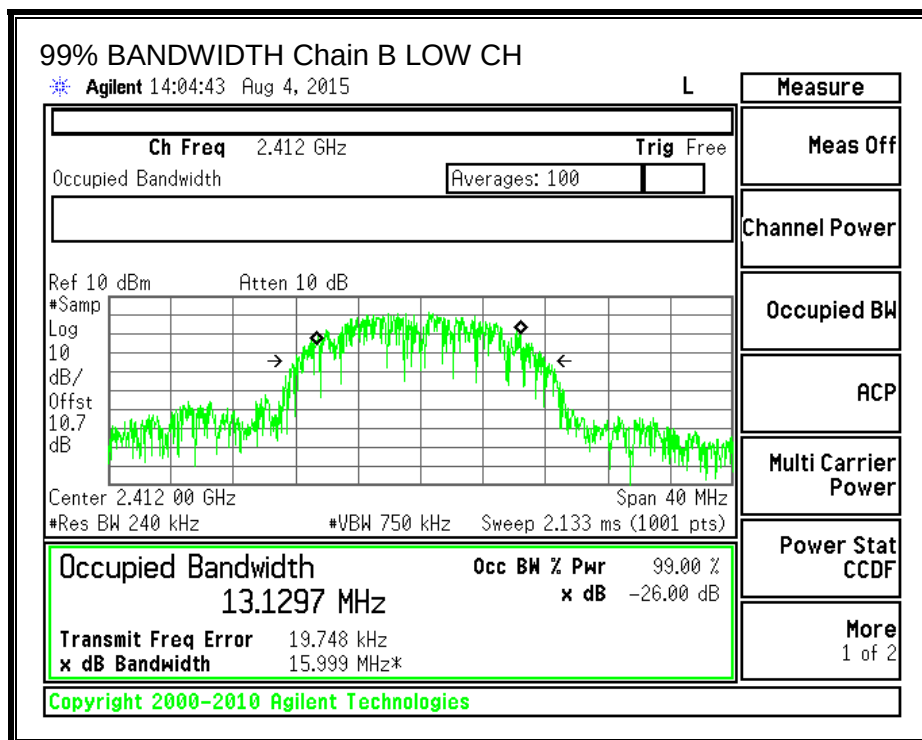
### LIMITS

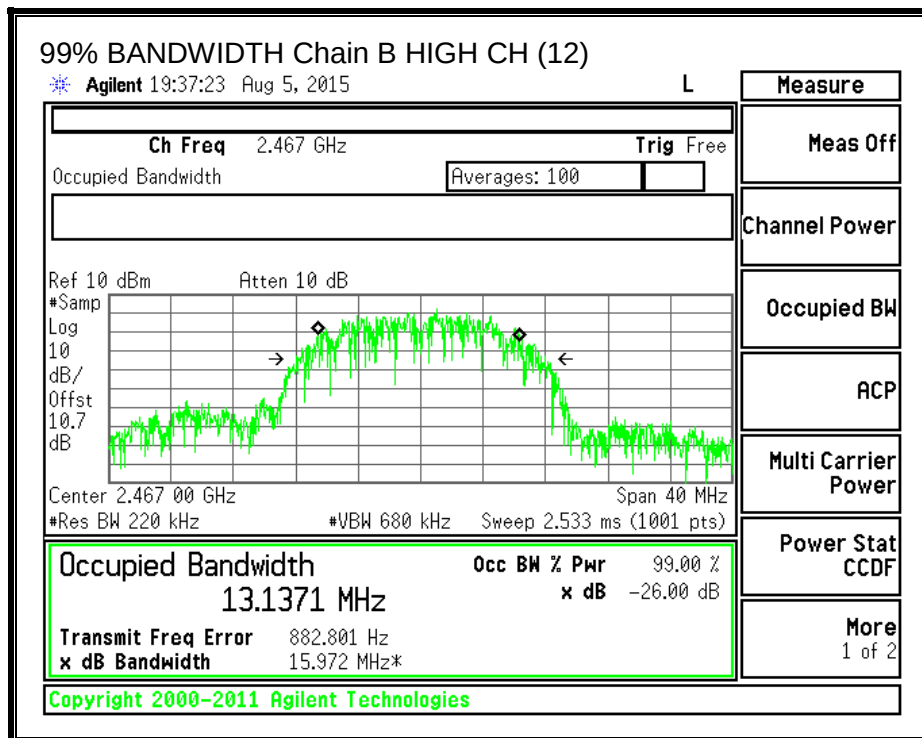
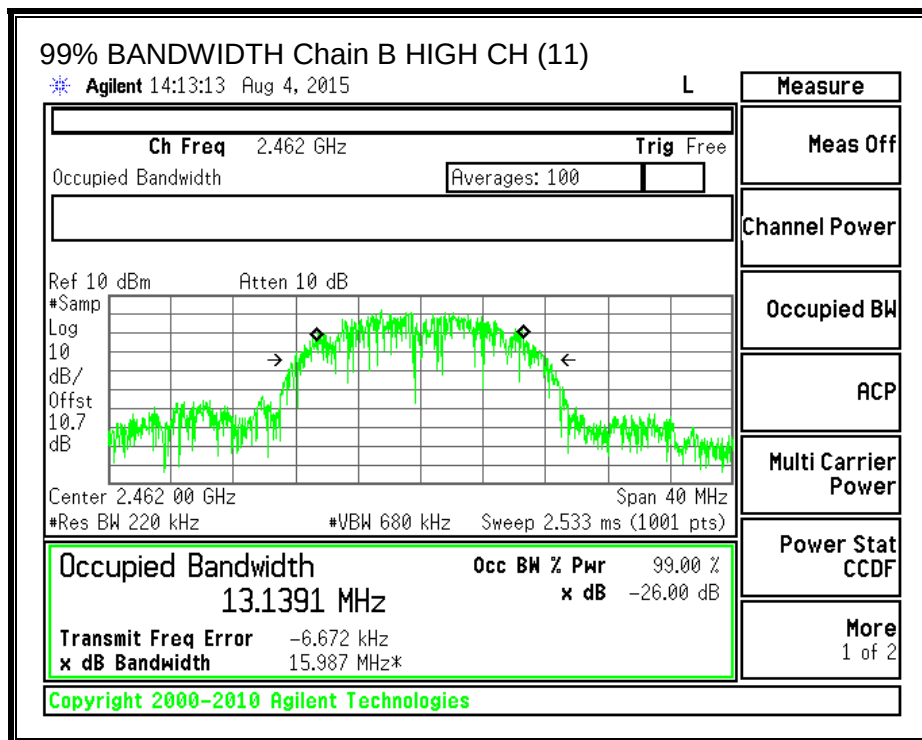
None; for reporting purposes only.

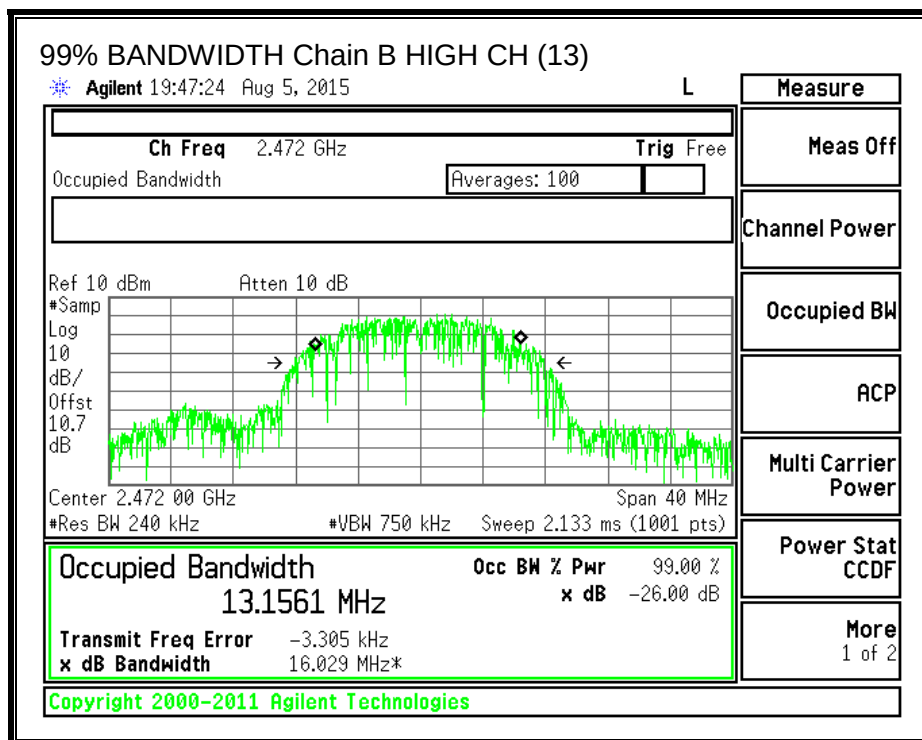
### RESULTS (802.11b)

| Channel    | Frequency<br>(MHz) | 99% BW<br>Chain B<br>(MHz) | 99% BW<br>Chain A<br>(MHz) |
|------------|--------------------|----------------------------|----------------------------|
| Low        | 2412               | 13.1297                    | 13.1679                    |
| Mid        | 2437               | 13.1594                    | 13.1620                    |
| High CH 11 | 2462               | 13.1391                    | 13.1882                    |
| High CH 12 | 2467               | 13.1371                    | 13.1918                    |
| High CH 13 | 2472               | 13.1561                    | 13.2086                    |

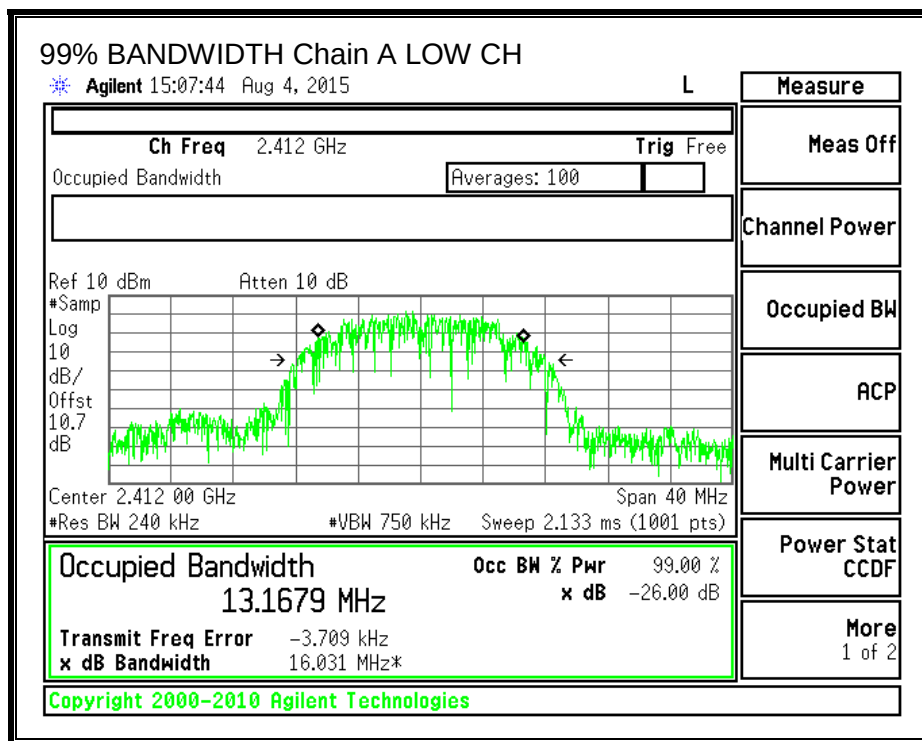
**99% BANDWIDTH, Chain B**

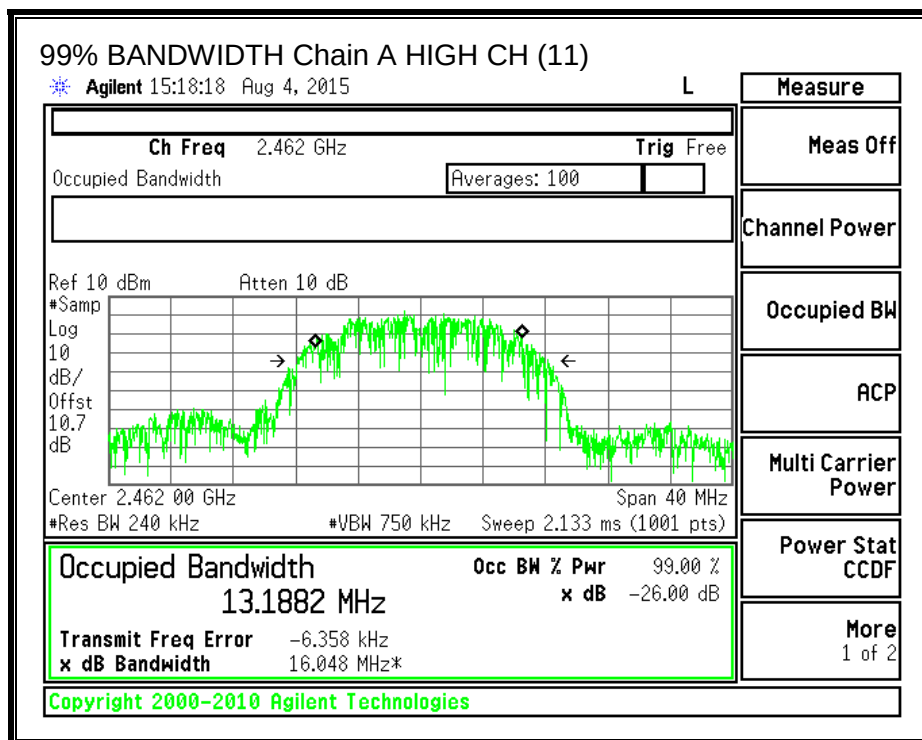
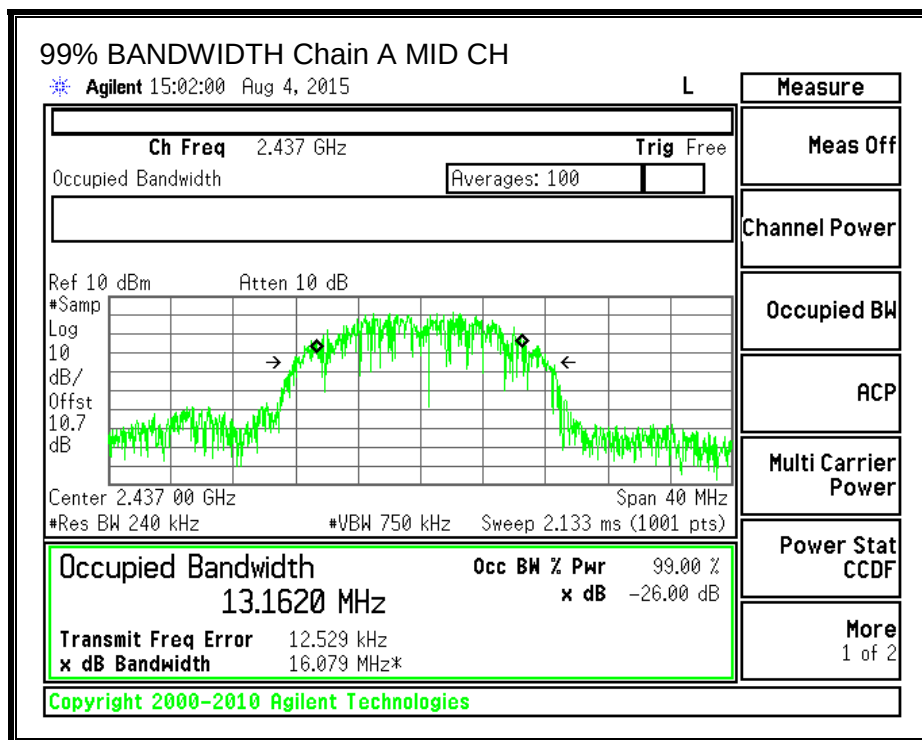


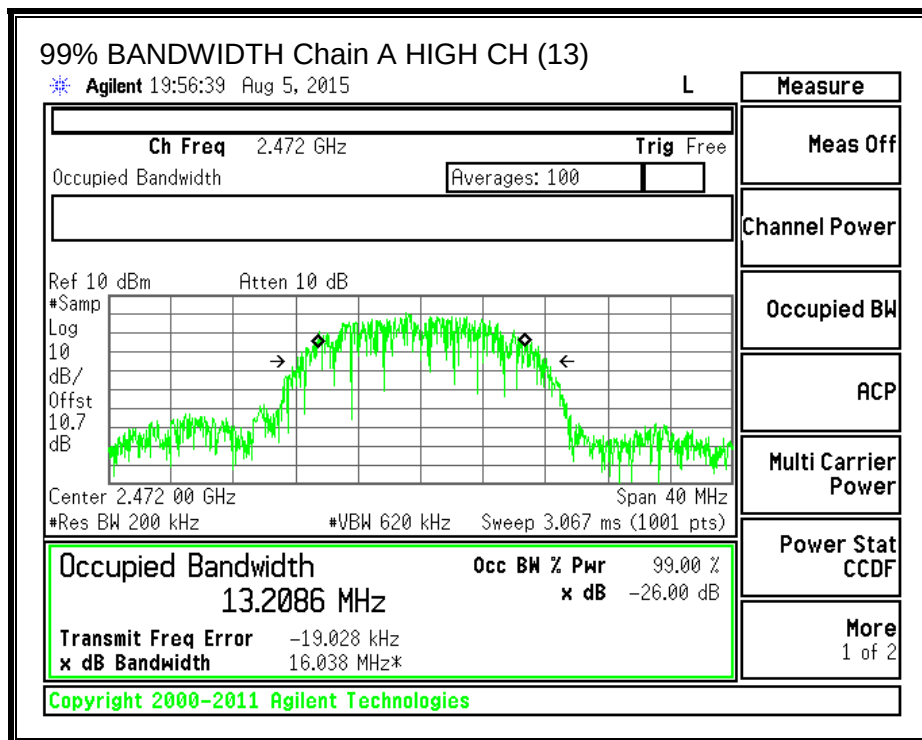
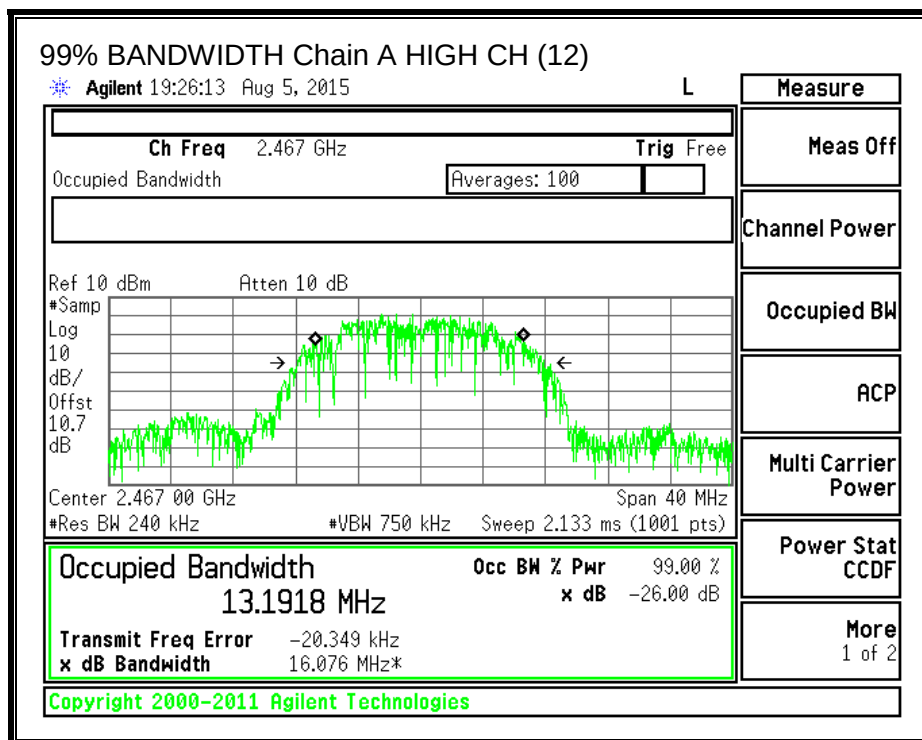




**99% BANDWIDTH, Chain A**









### 8.2.3. OUTPUT POWER

#### LIMITS

FCC §15.247

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

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

| Chain B<br>Antenna<br>Gain<br>(dBi) | Chain A<br>Antenna<br>Gain<br>(dBi) | Uncorrelated Chains<br>Directional<br>Gain<br>(dBi) |
|-------------------------------------|-------------------------------------|-----------------------------------------------------|
| 1.70                                | 1.40                                | 1.55                                                |

**RESULTS (802.11b)**

**Limits**

| Channel | Frequency<br>(MHz) | Directional<br>Gain<br>(dBi) | FCC<br>Power<br>Limit<br>(dBm) | IC<br>Power<br>Limit<br>(dBm) | IC<br>EIRP<br>Limit<br>(dBm) | Max<br>Power<br>(dBm) |
|---------|--------------------|------------------------------|--------------------------------|-------------------------------|------------------------------|-----------------------|
| Low 1   | 2412               | 1.55                         | 30.00                          | 30                            | 36                           | 30.00                 |
| Low 2   | 2417               | 1.55                         | 30.00                          | 30                            | 36                           | 30.00                 |
| Mid     | 2437               | 1.55                         | 30.00                          | 30                            | 36                           | 30.00                 |
| High 10 | 2457               | 1.55                         | 30.00                          | 30                            | 36                           | 30.00                 |
| High 11 | 2462               | 1.55                         | 30.00                          | 30                            | 36                           | 30.00                 |
| High 12 | 2467               | 1.55                         | 30.00                          | 30                            | 36                           | 30.00                 |
| High 13 | 2472               | 1.55                         | 30.00                          | 30                            | 36                           | 30.00                 |

|                           |      |                                                 |
|---------------------------|------|-------------------------------------------------|
| <b>Duty Cycle CF (dB)</b> | 0.00 | <b>Included in Calculations of Corr'd Power</b> |
|---------------------------|------|-------------------------------------------------|

**Results**

| Channel | Frequency<br>(MHz) | Chain B<br>Meas<br>Power<br>(dBm) | Chain<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Margin<br>(dB) | EIRP<br>(dBm) | EIRP<br>Limit<br>(dBm) | Margin<br>(dB) |
|---------|--------------------|-----------------------------------|---------------------------------|-----------------------------------|-------------------------|----------------|---------------|------------------------|----------------|
| Low 1   | 2412               | 10.92                             | 10.90                           | 13.92                             | 30.00                   | -16.08         | 15.47         | 36.00                  | -20.53         |
| Low 2   | 2417               | 12.38                             | 12.15                           | 15.28                             | 30.00                   | -14.72         | 16.83         | 36.00                  | -19.17         |
| Mid     | 2437               | 12.47                             | 11.85                           | 15.18                             | 30.00                   | -14.82         | 16.73         | 36.00                  | -19.27         |
| High 10 | 2457               | 12.41                             | 12.01                           | 15.22                             | 30.00                   | -14.78         | 16.77         | 36.00                  | -19.23         |
| High 11 | 2462               | 10.88                             | 10.81                           | 13.86                             | 30.00                   | -16.14         | 15.41         | 36.00                  | -20.59         |
| High 12 | 2467               | 9.18                              | 7.73                            | 11.53                             | 30.00                   | -18.47         | 13.08         | 36.00                  | -22.92         |
| High 13 | 2472               | 9.05                              | 7.65                            | 11.42                             | 30.00                   | -18.58         | 12.97         | 36.00                  | -23.03         |

## 8.2.4. POWER SPECTRAL DENSITY

### LIMITS

FCC §15.247

### RESULTS (802.11b)

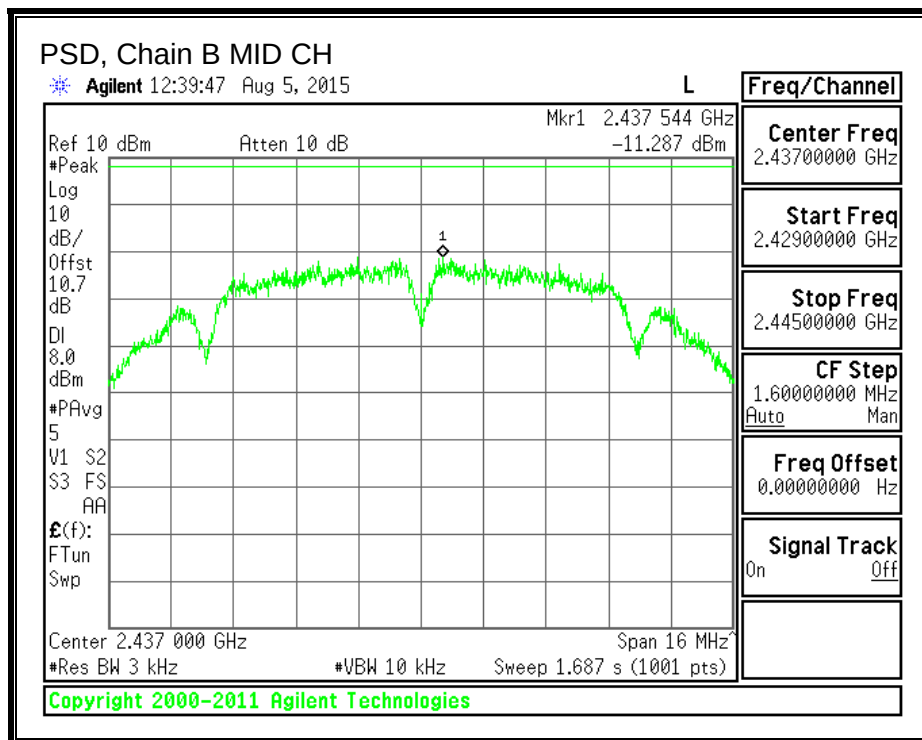
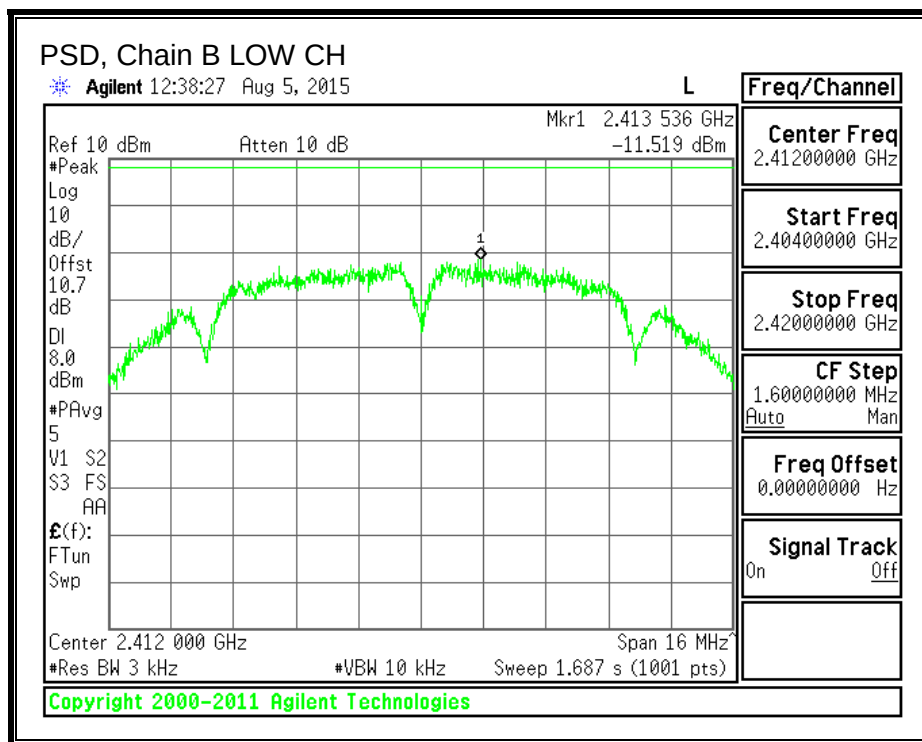
|                           |      |                                               |
|---------------------------|------|-----------------------------------------------|
| <b>Duty Cycle CF (dB)</b> | 0.00 | <b>Included in Calculations of Corr'd PSD</b> |
|---------------------------|------|-----------------------------------------------|

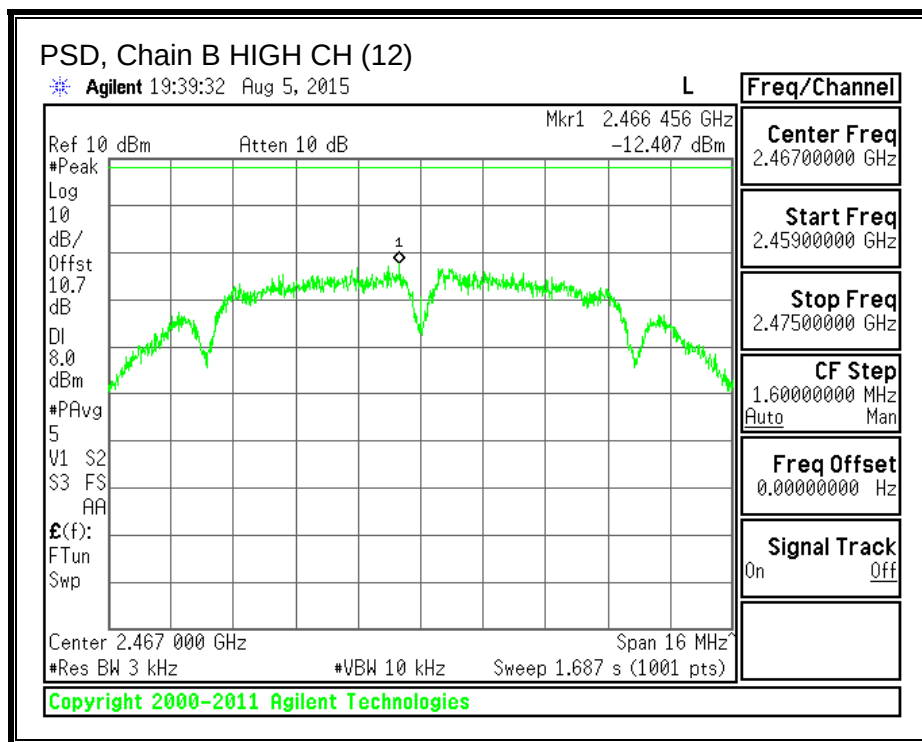
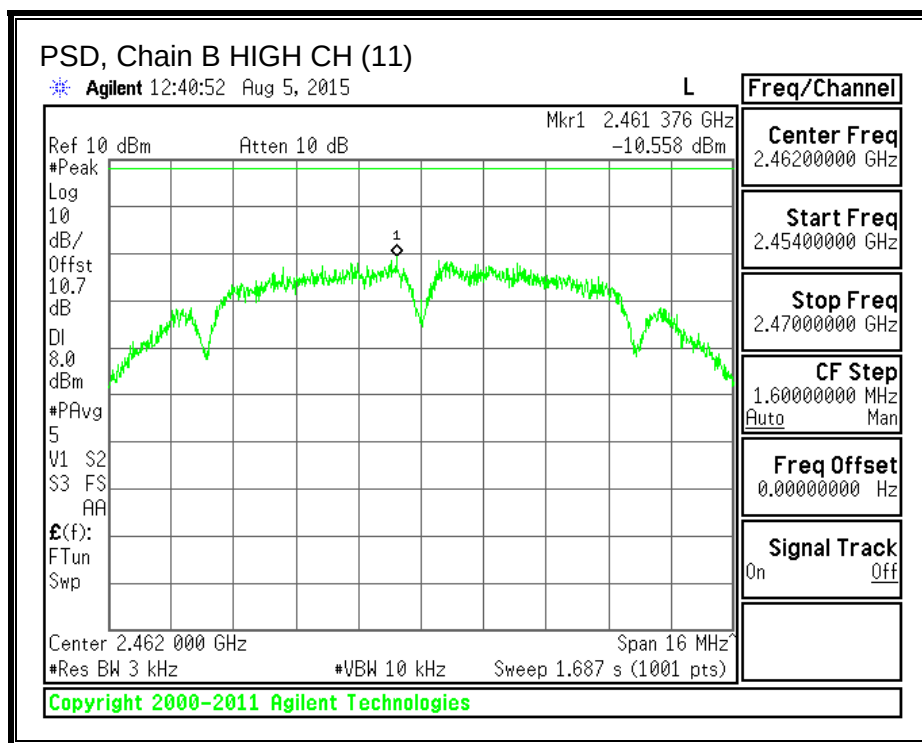
#### **PSD Results**

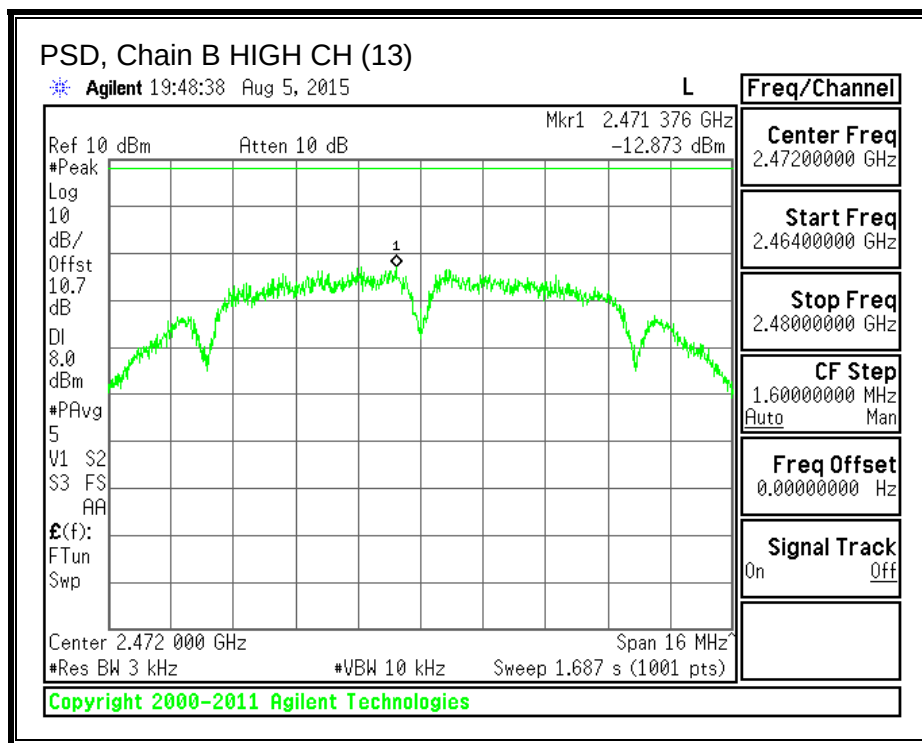
| <b>Channel</b> | <b>Frequency<br/>(MHz)</b> | <b>Chain B<br/>Meas<br/>(dBm)</b> | <b>Chain A<br/>Meas<br/>(dBm)</b> | <b>Total<br/>Corr'd<br/>PSD<br/>(dBm)</b> | <b>Limit<br/>(dBm)</b> | <b>Margin<br/>(dB)</b> |
|----------------|----------------------------|-----------------------------------|-----------------------------------|-------------------------------------------|------------------------|------------------------|
| Low            | 2412                       | -11.52                            | -11.86                            | -8.67                                     | 8.0                    | -16.7                  |
| Mid            | 2437                       | -11.29                            | -11.55                            | -8.41                                     | 8.0                    | -16.4                  |
| High CH 11     | 2462                       | -10.56                            | -11.84                            | -8.14                                     | 8.0                    | -16.1                  |
| High CH 12     | 2467                       | -12.41                            | -13.09                            | -9.72                                     | 8.0                    | -17.7                  |
| High CH 13     | 2472                       | -12.87                            | -12.94                            | -9.89                                     | 8.0                    | -17.9                  |

Note – For 802.11b, the power was set as a stair step: Channels 1 and 11 are the same power and Channels 2-10 are the same power. For PSD, Channels 1 and 11 were set at same power as the Mid Channel to achieve worst-case results.

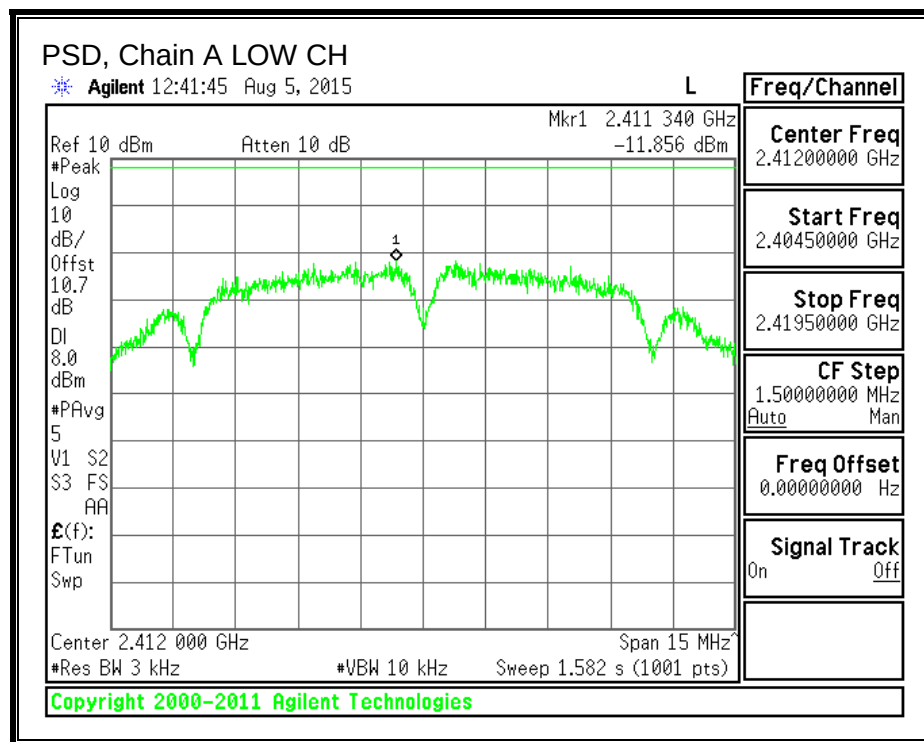
**PSD, Chain B**

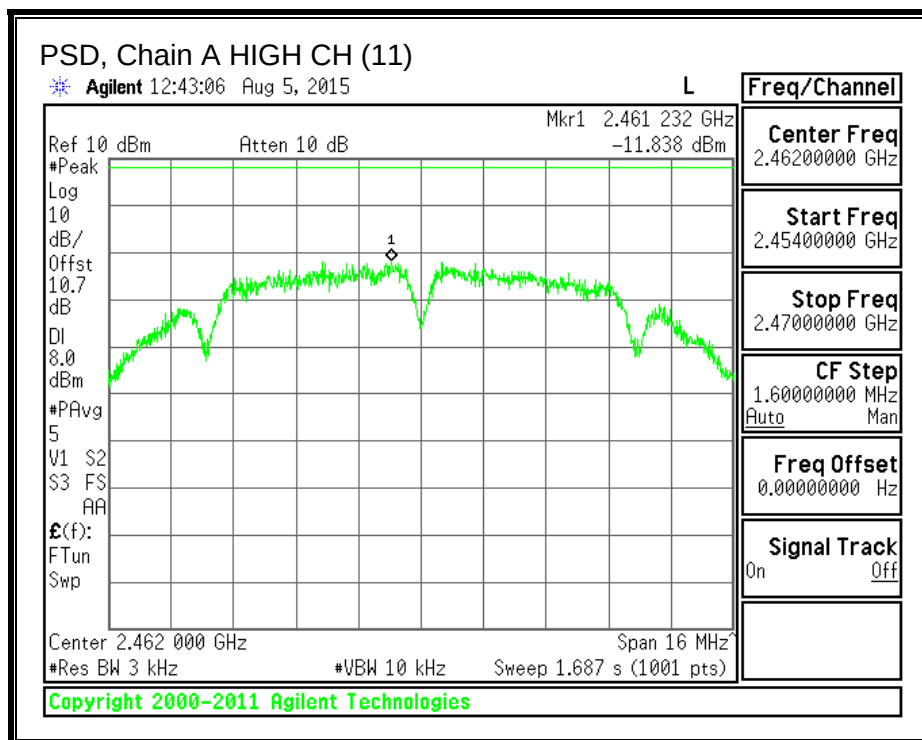
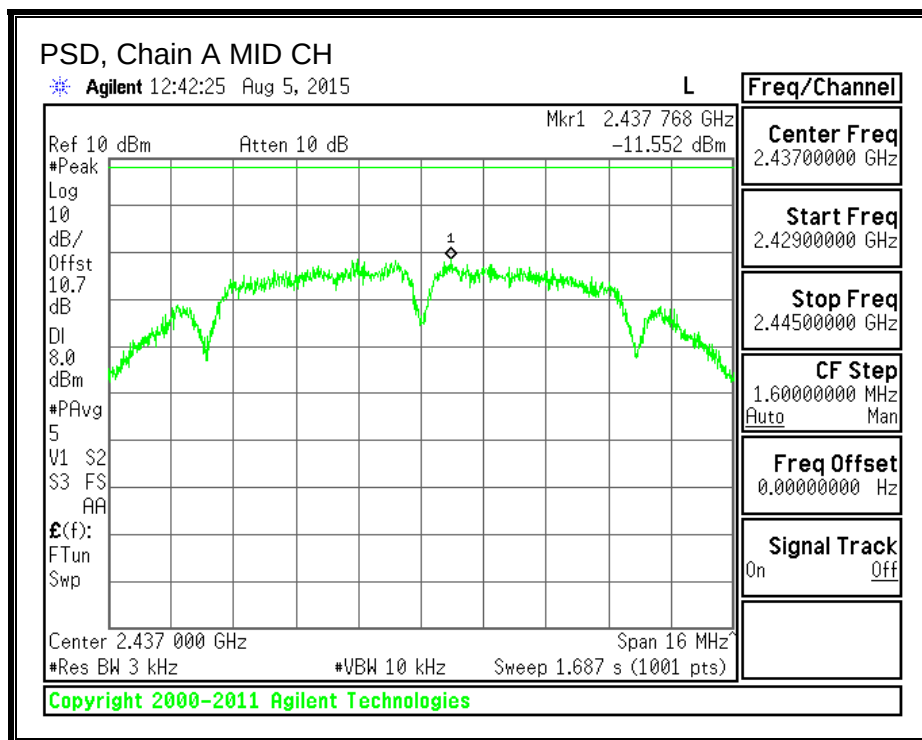




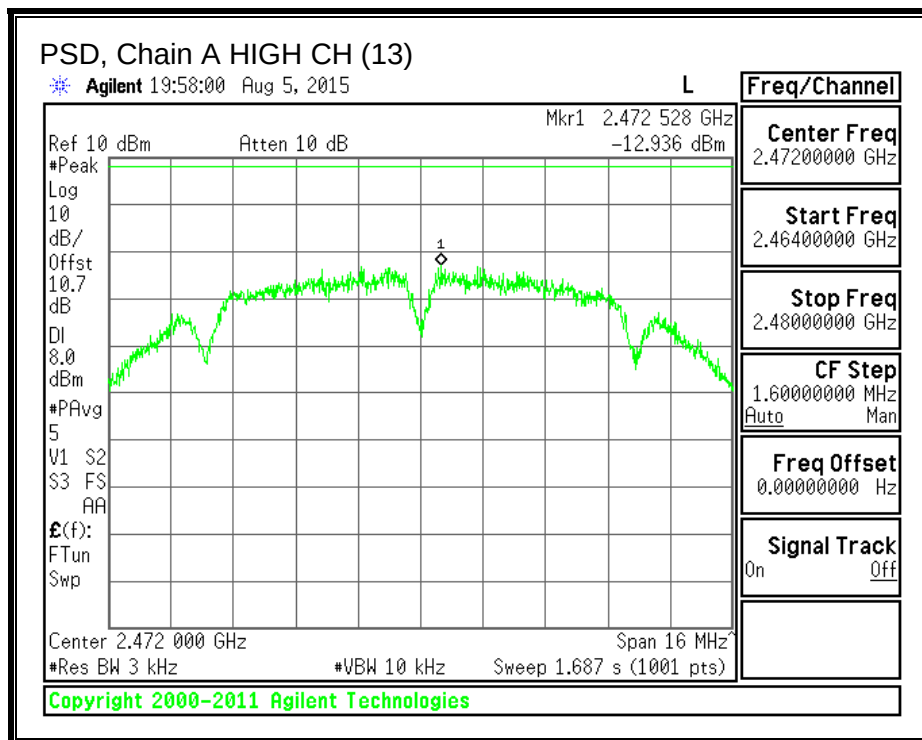
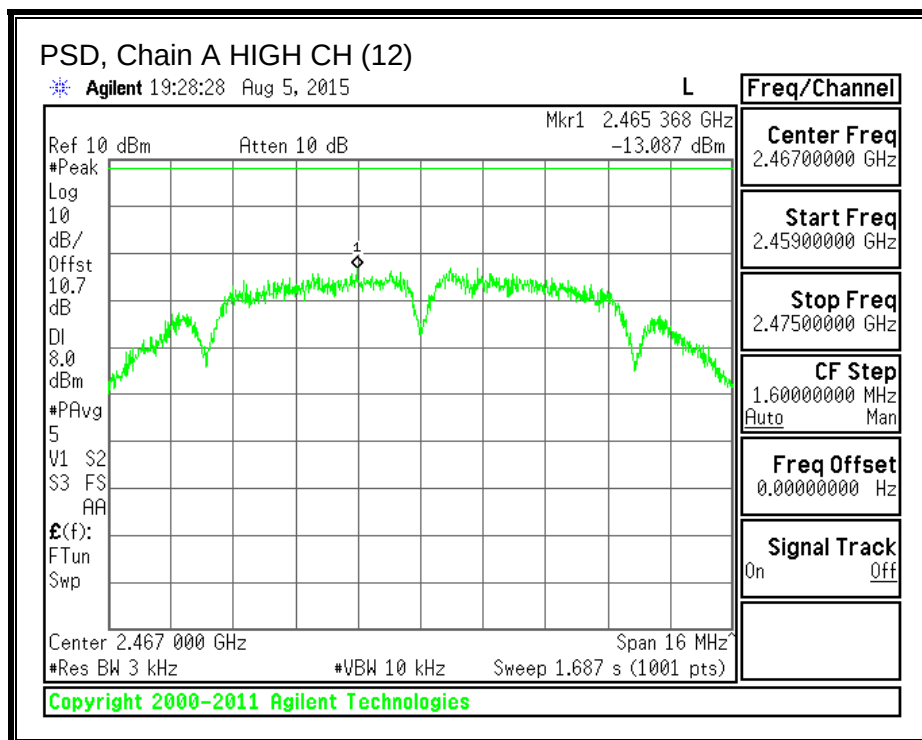


**PSD, Chain A**









## 8.2.5. OUT-OF-BAND EMISSIONS

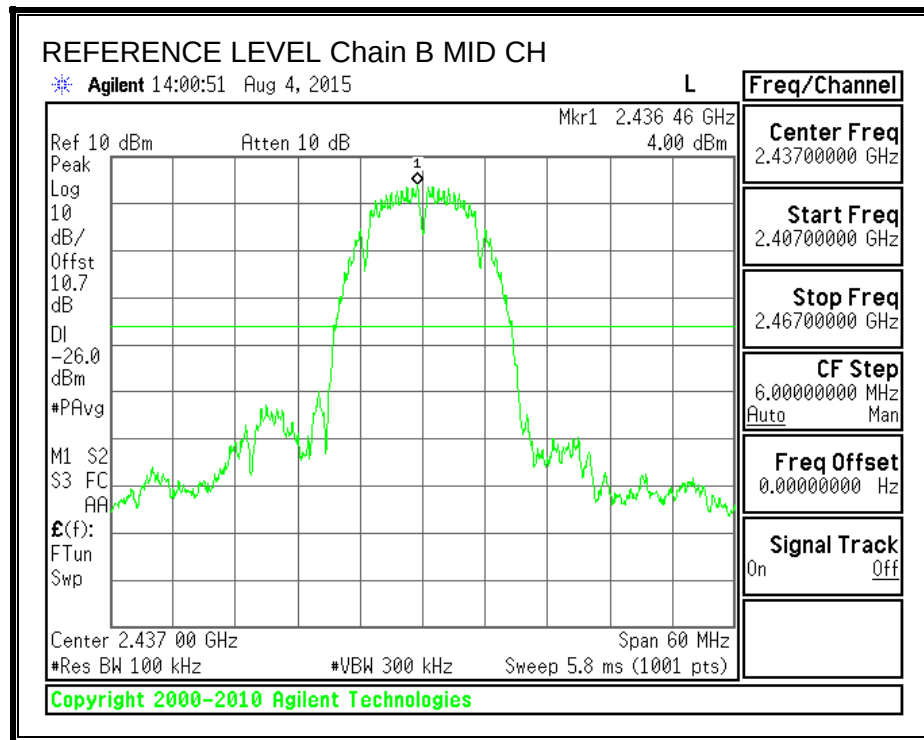
### LIMITS

FCC §15.247 (d)

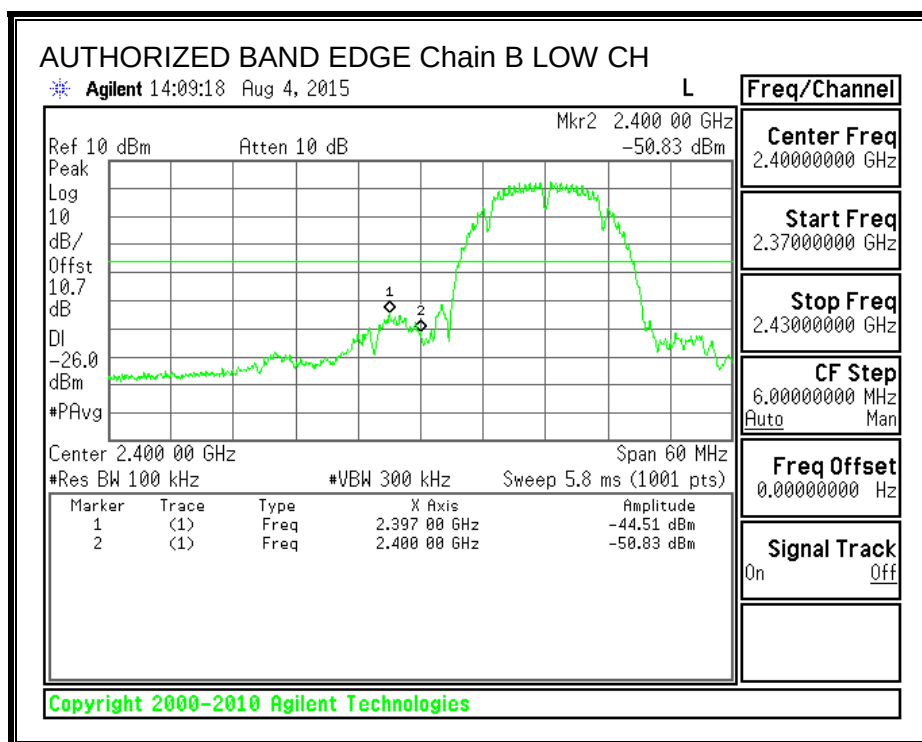
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

**RESULTS (802.11b)**

**IN-BAND REFERENCE LEVEL, Chain B**

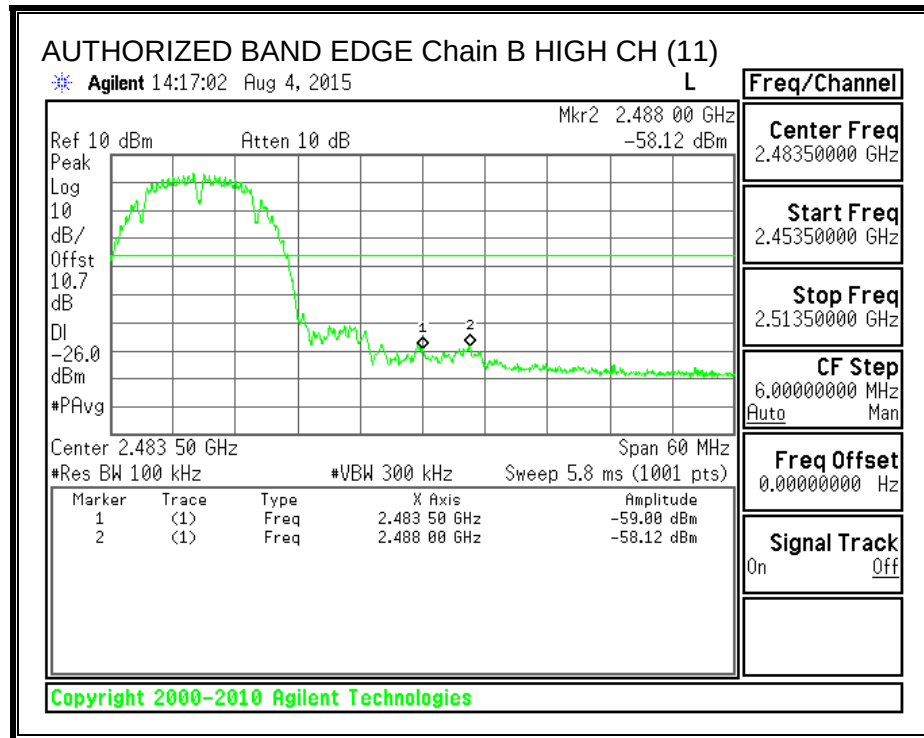


**LOW CHANNEL BANDEGE, Chain B**

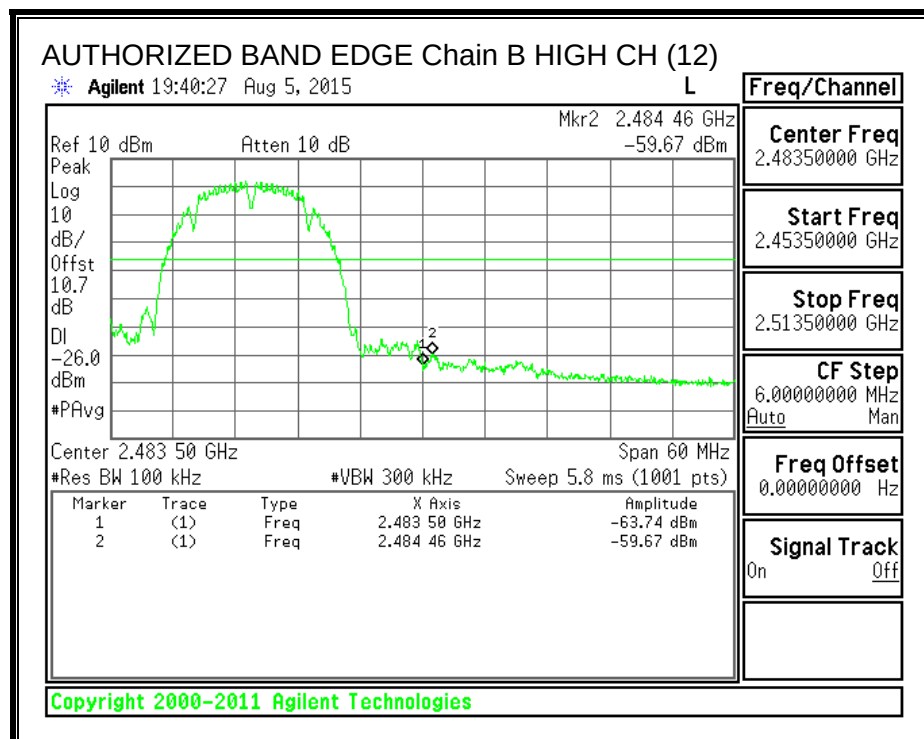


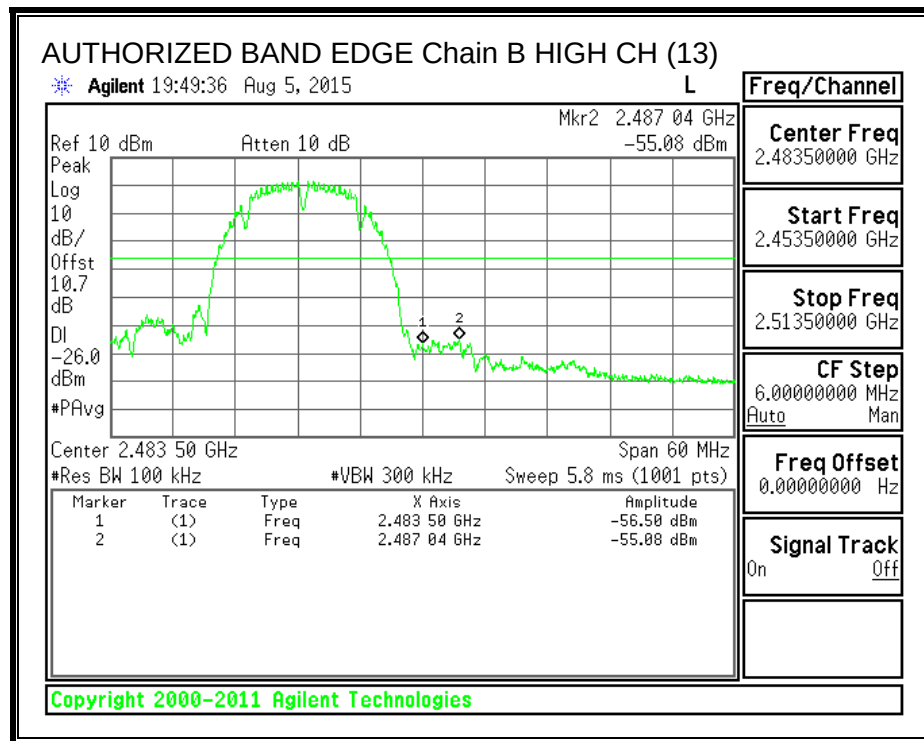
Note – The Low Channel was tested at Mid-Channel Power for worst-case results.

**HIGH CHANNEL BANDEDGE, Chain B**

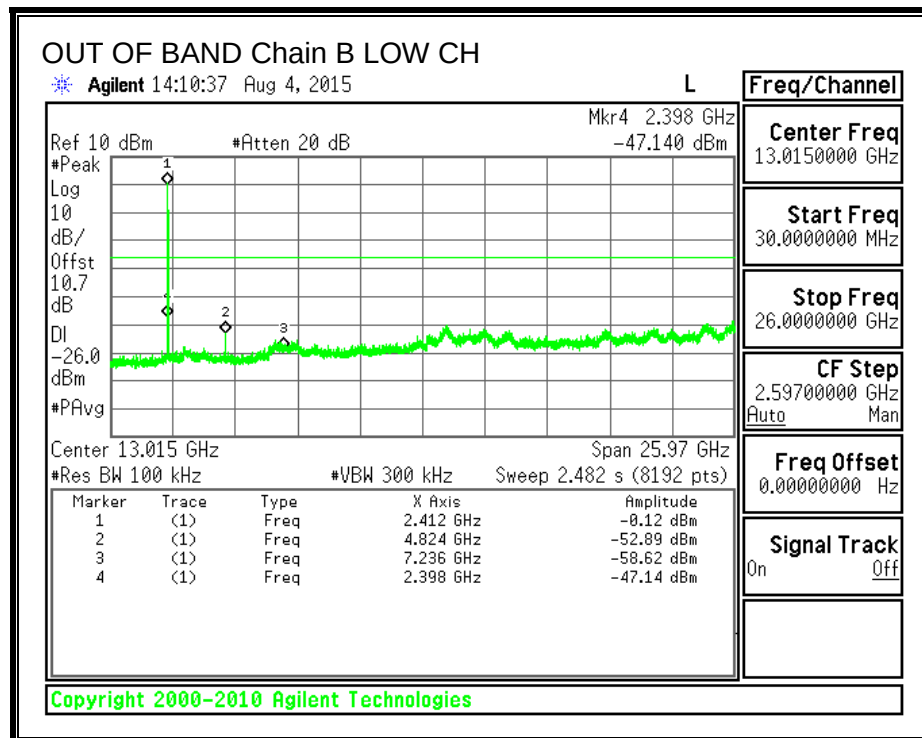


Note – The High Channel (11) was tested at Mid-Channel Power for worst-case results.

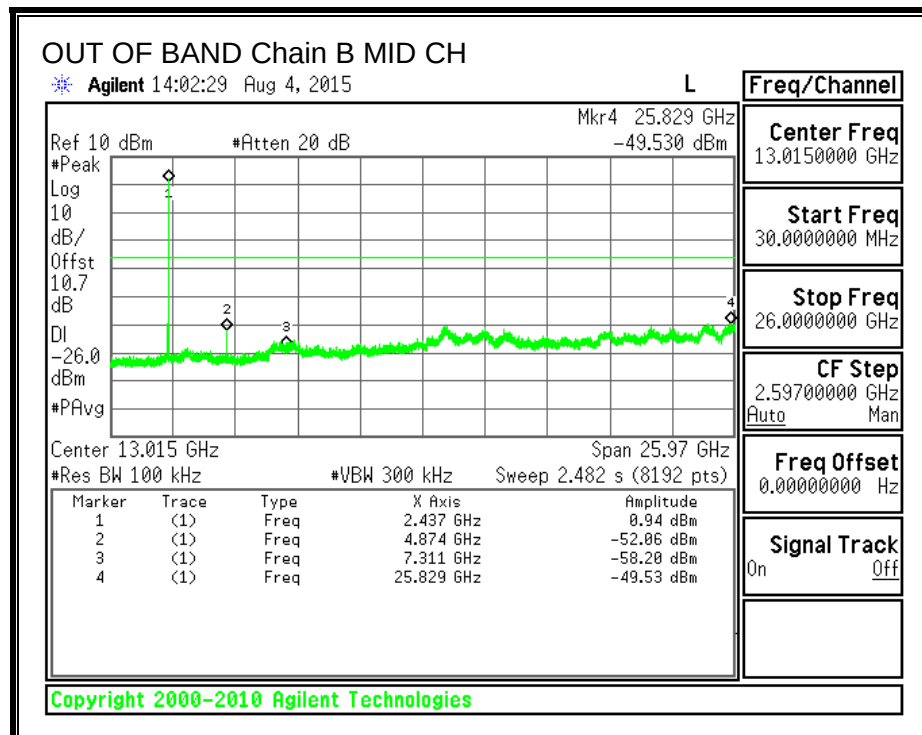


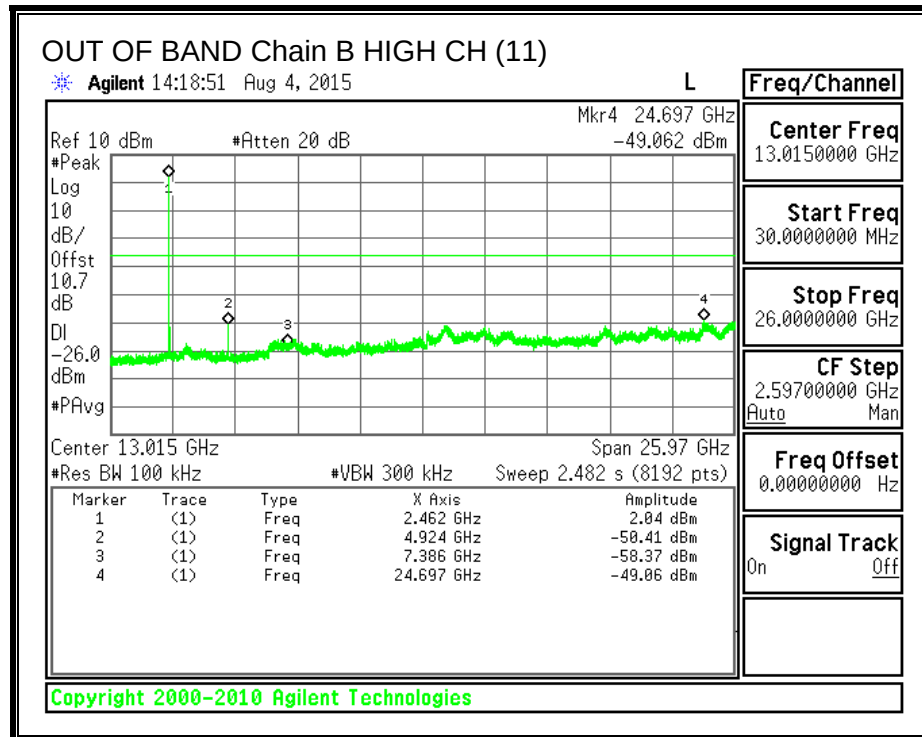


**OUT-OF-BAND EMISSIONS, Chain B**

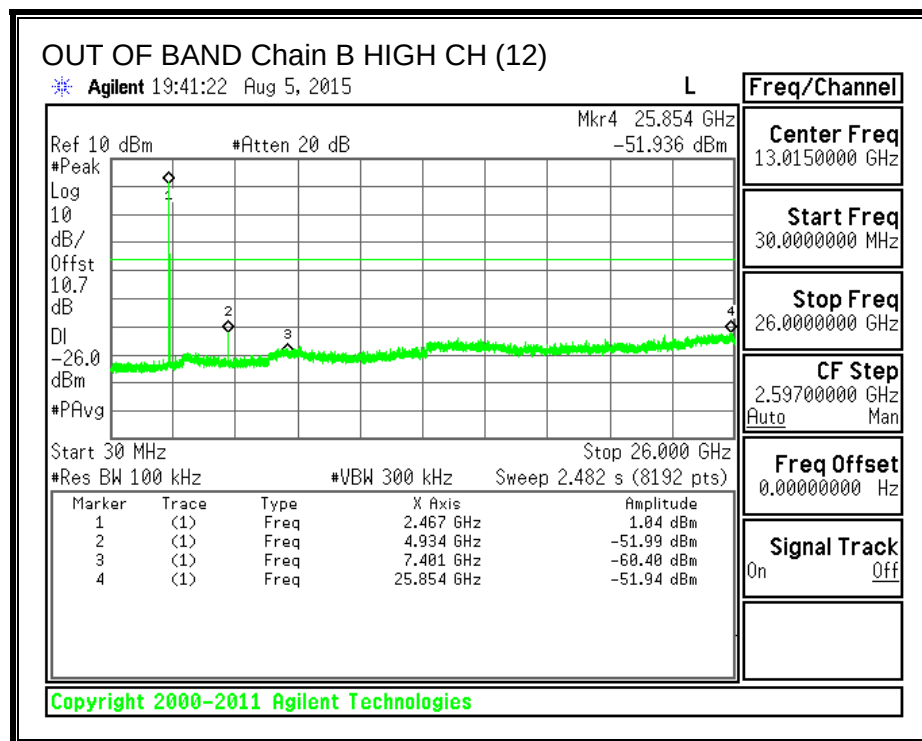


Note – The Low Channel was tested at Mid-Channel Power for worst-case results.

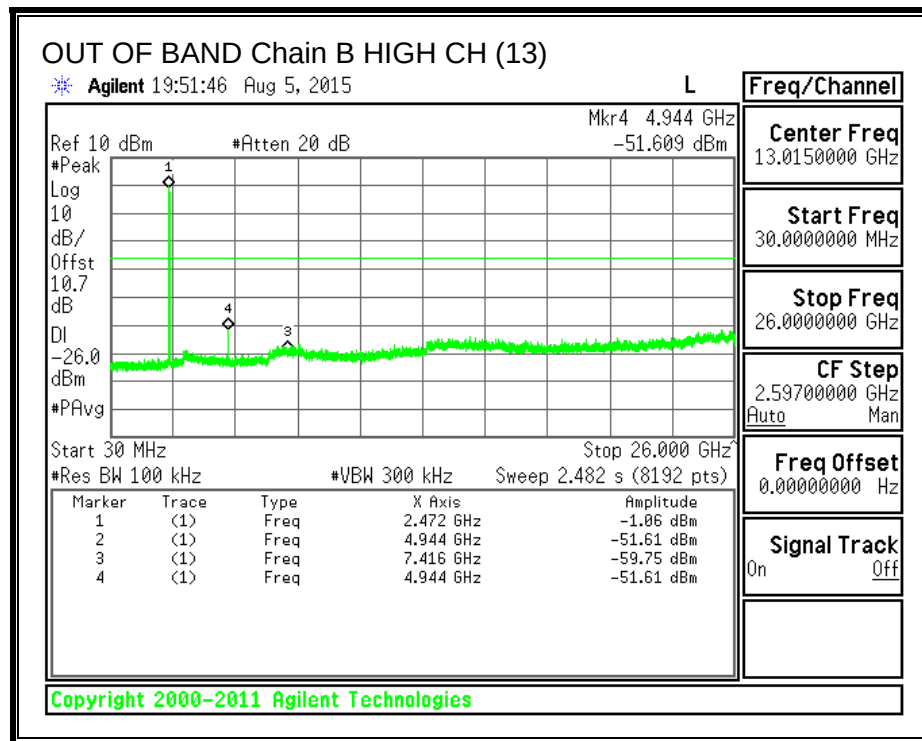




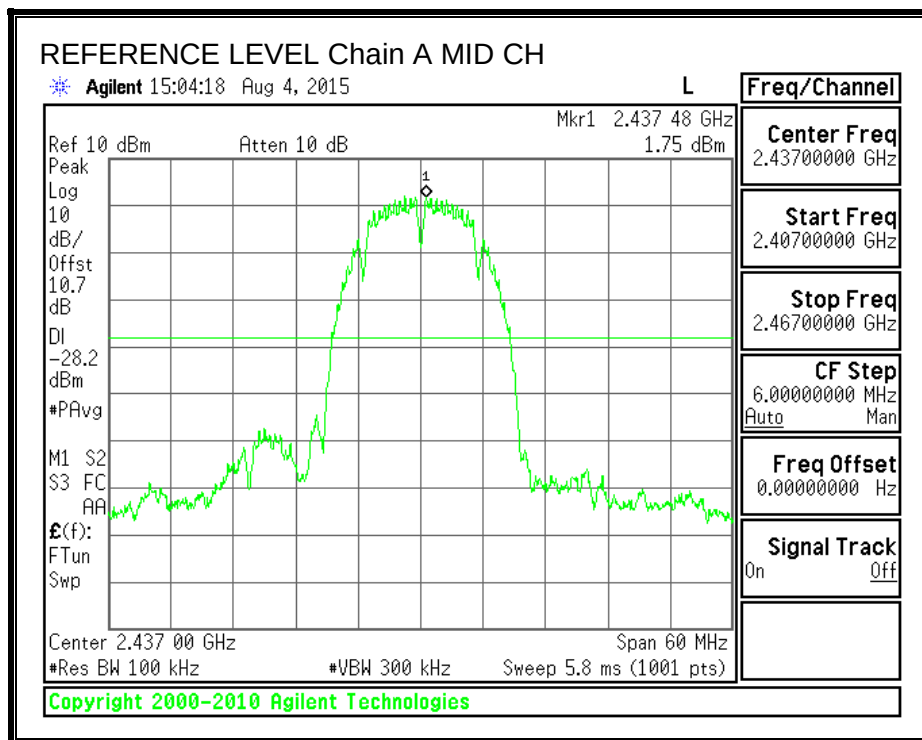
Note – The High Channel (11) was tested at Mid-Channel Power for worst-case results.



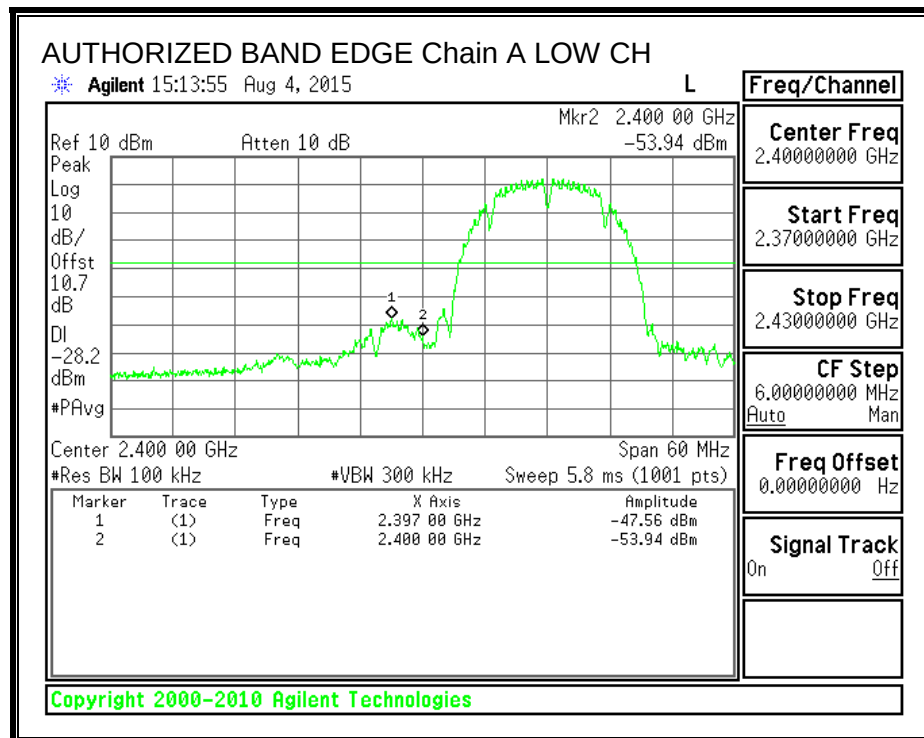




**IN-BAND REFERENCE LEVEL, Chain A**

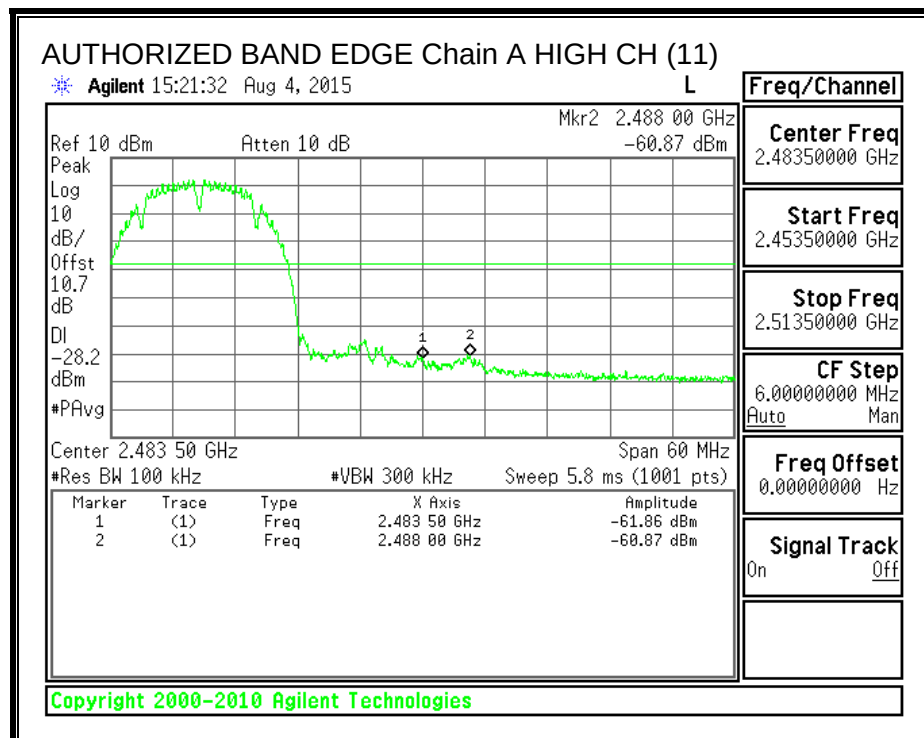


**LOW CHANNEL BANDEDGE, Chain A**

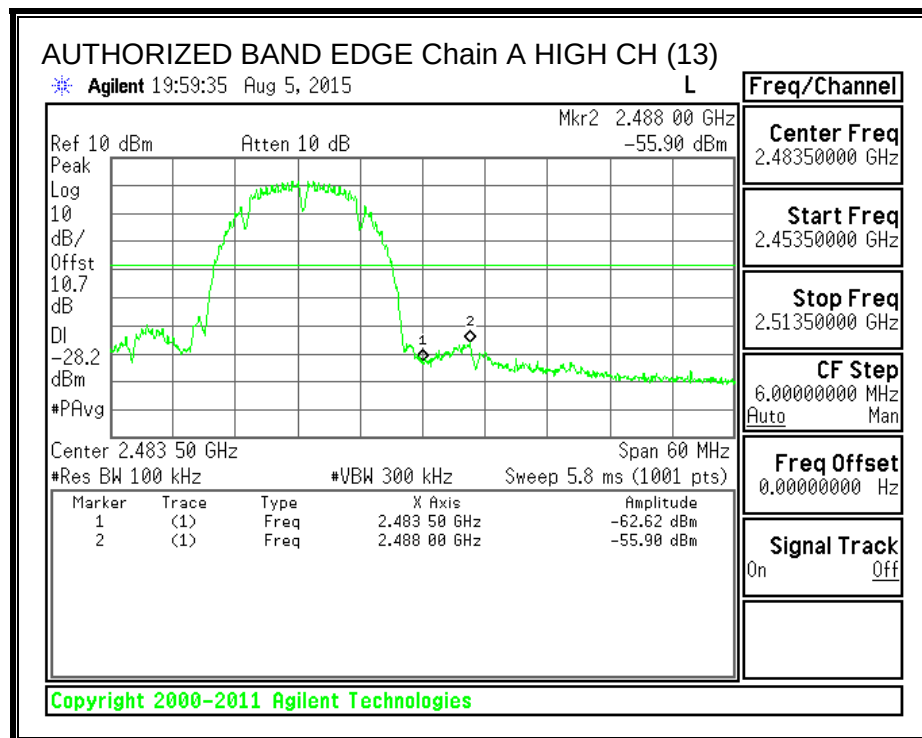
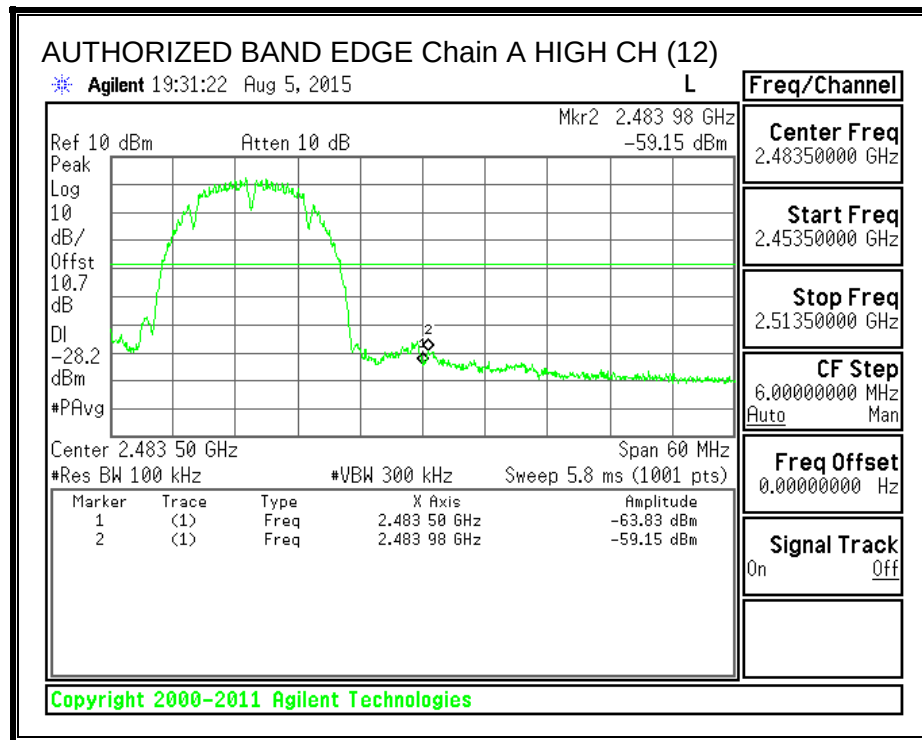


Note – The Low Channel was tested at Mid-Channel Power for worst-case results.

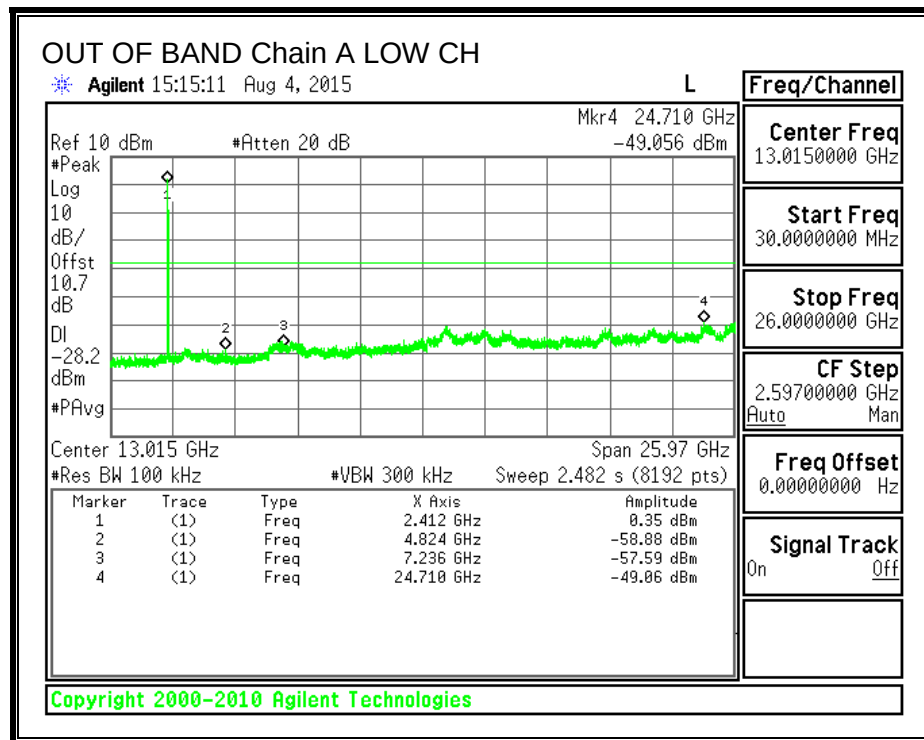
**HIGH CHANNEL BANDEDGE, Chain 1**



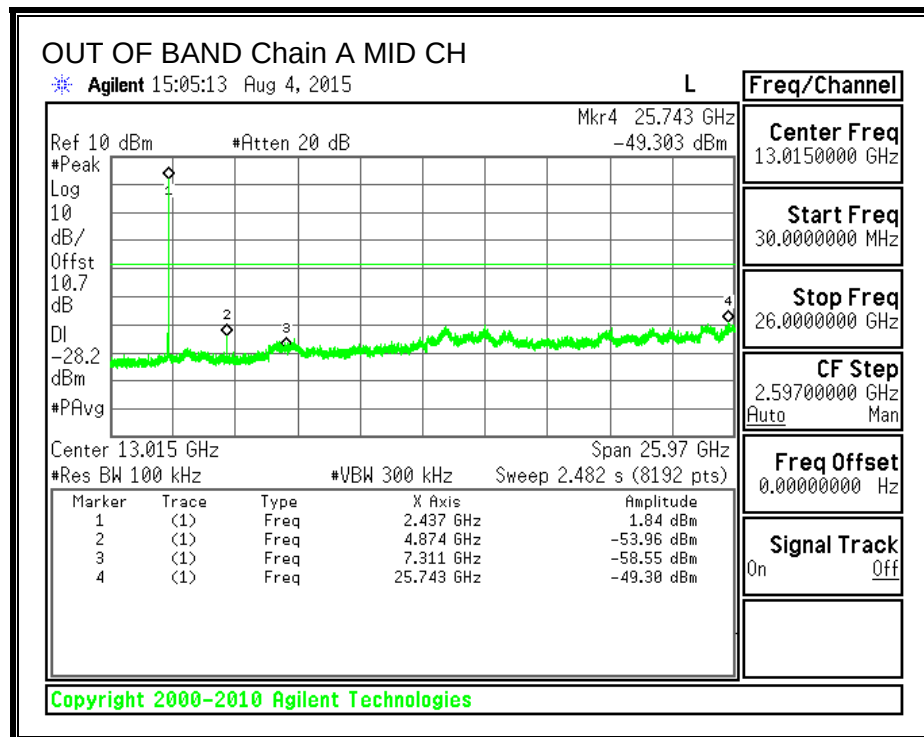
Note – The High Channel (11) was tested at Mid-Channel Power for worst-case results.

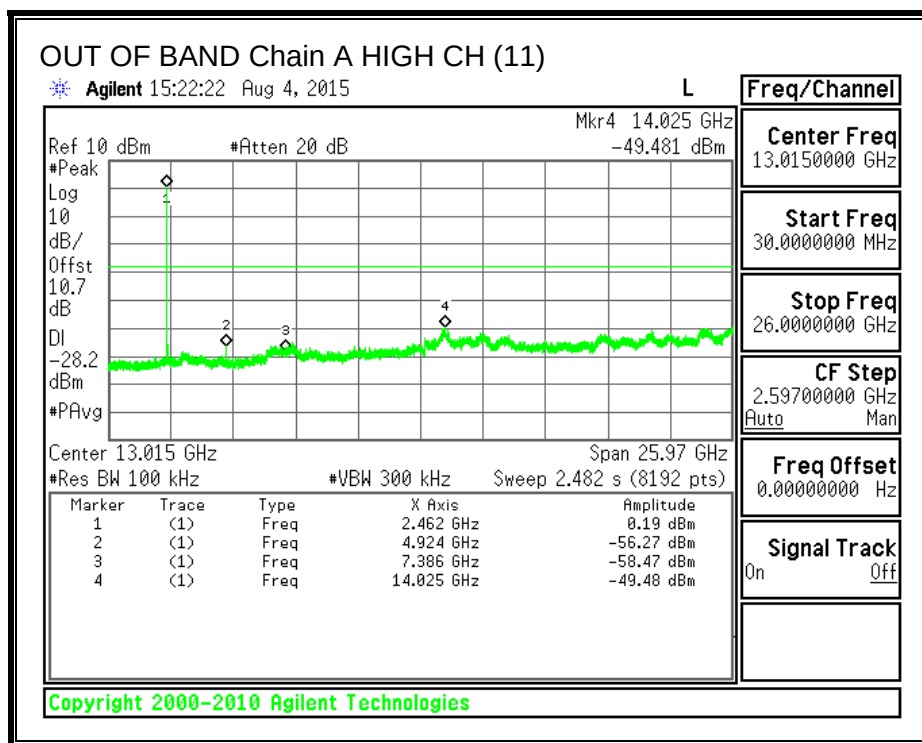


**OUT-OF-BAND EMISSIONS, Chain A**

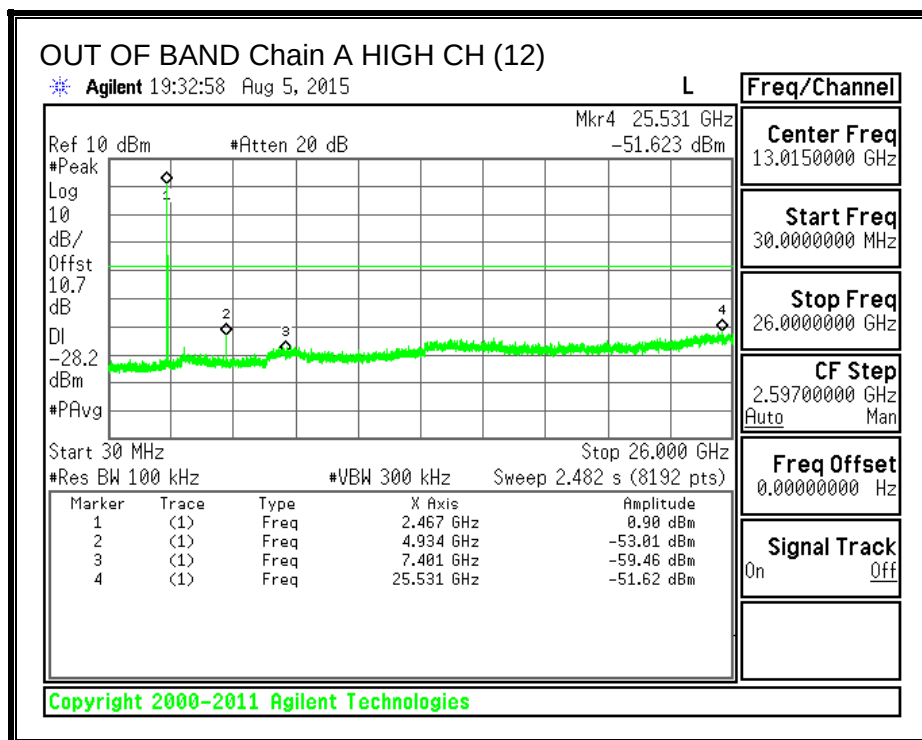


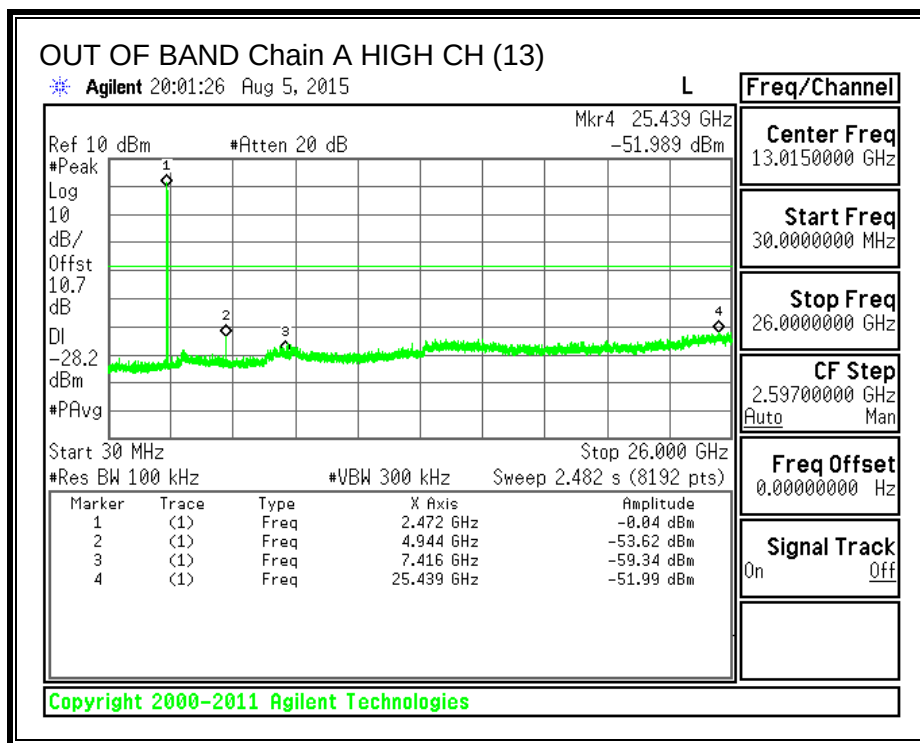
Note – The Low Channel was tested at Mid-Channel Power for worst-case results.





Note – The High Channel (11) was tested at Mid-Channel Power for worst-case results.





### 8.3. 802.11g MODE IN THE 2.4 GHz BAND

#### 8.3.1. 6 dB BANDWIDTH

##### LIMITS

FCC §15.247 (a) (2)

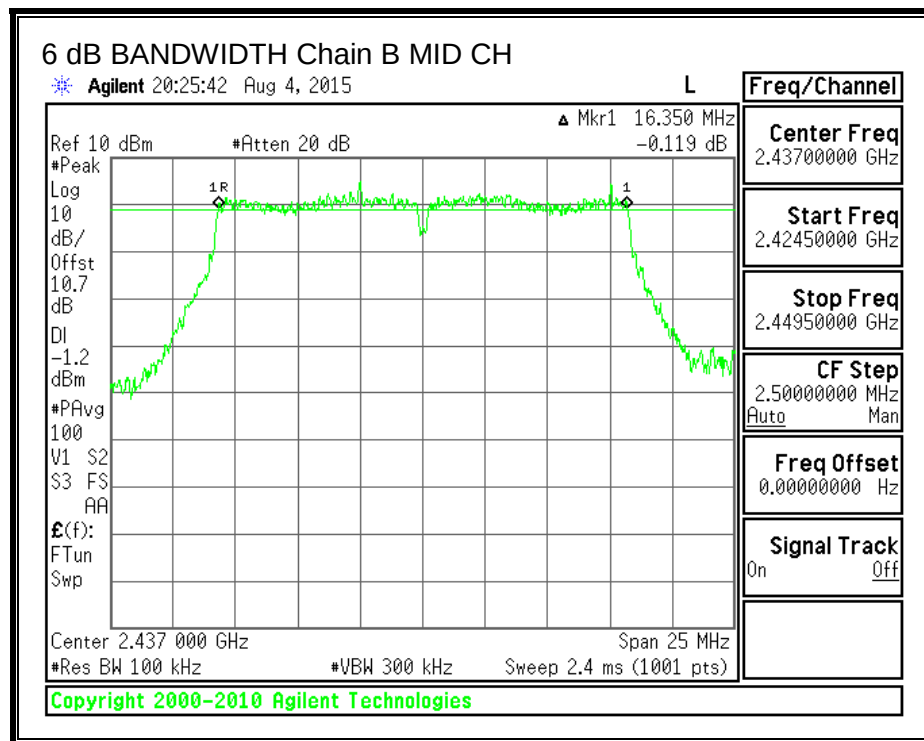
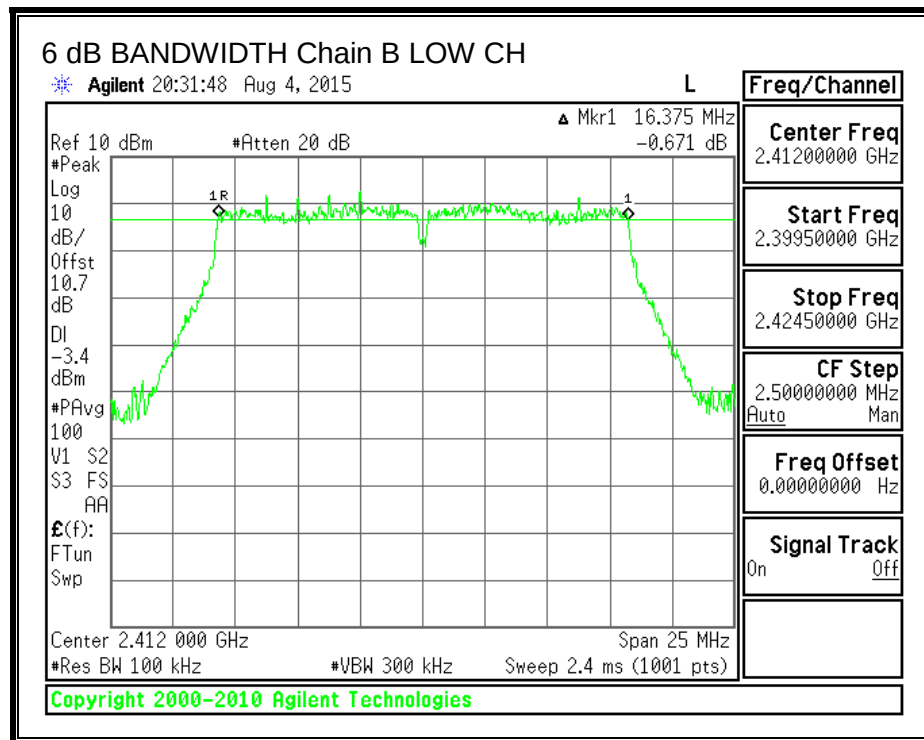
The minimum 6 dB bandwidth shall be at least 500 kHz.

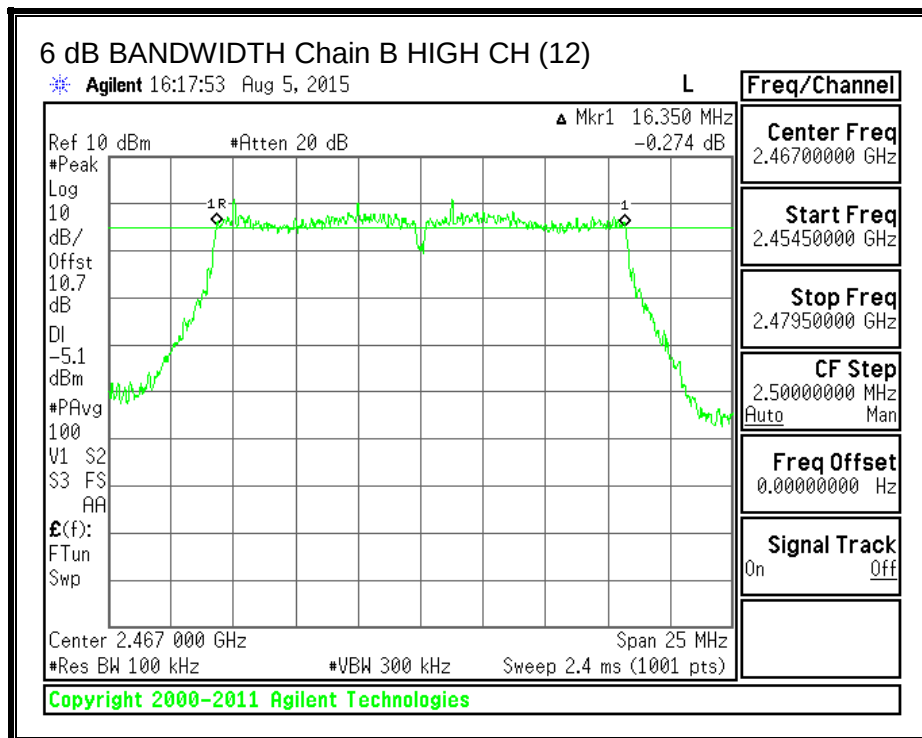
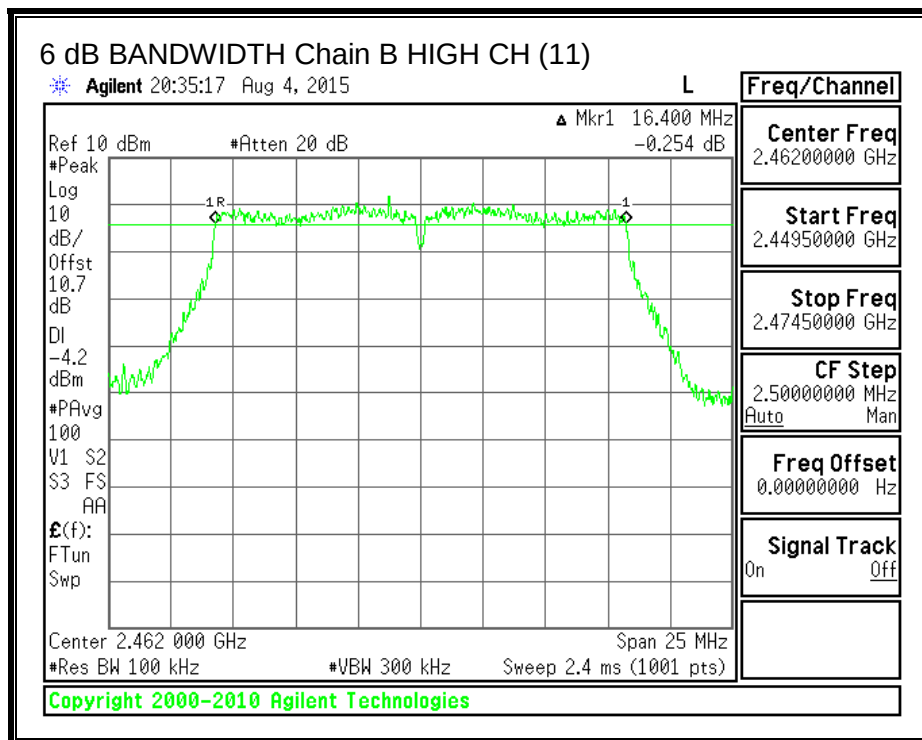
##### RESULTS (802.11g)

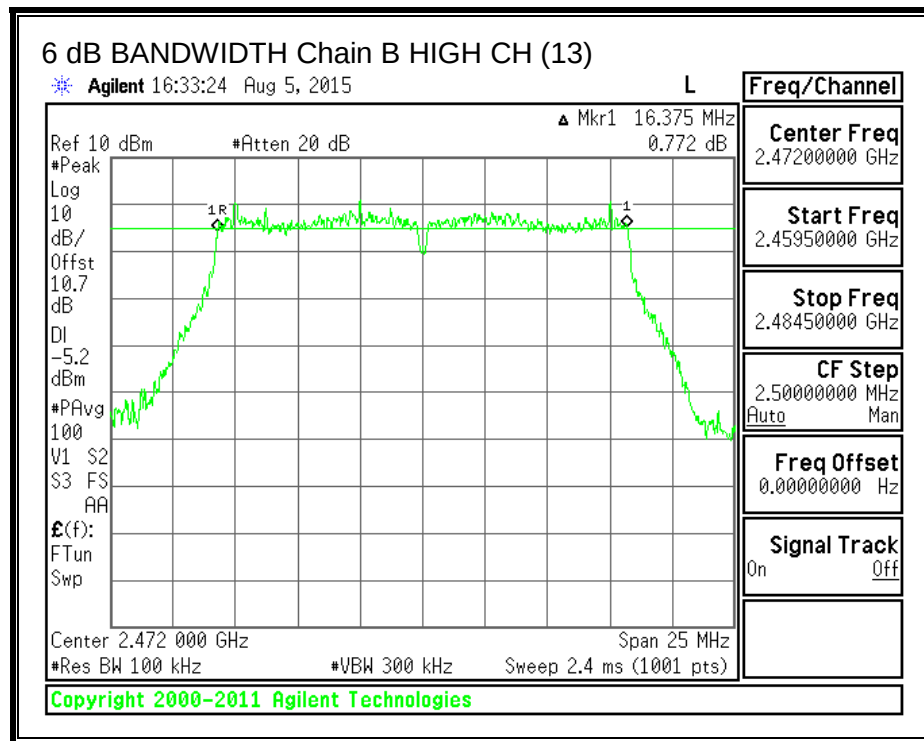
| Channel    | Frequency<br>(MHz) | 6 dB BW<br>Chain B<br>(MHz) | 6 dB BW<br>Chain A<br>(MHz) | Minimum<br>Limit<br>(MHz) |
|------------|--------------------|-----------------------------|-----------------------------|---------------------------|
| Low        | 2412               | 16.375                      | 16.375                      | 0.5                       |
| Mid        | 2437               | 16.350                      | 16.425                      | 0.5                       |
| High CH 11 | 2462               | 16.400                      | 16.350                      | 0.5                       |
| High CH 12 | 2467               | 16.350                      | 16.350                      | 0.5                       |
| High CH 13 | 2472               | 16.375                      | 16.400                      | 0.5                       |



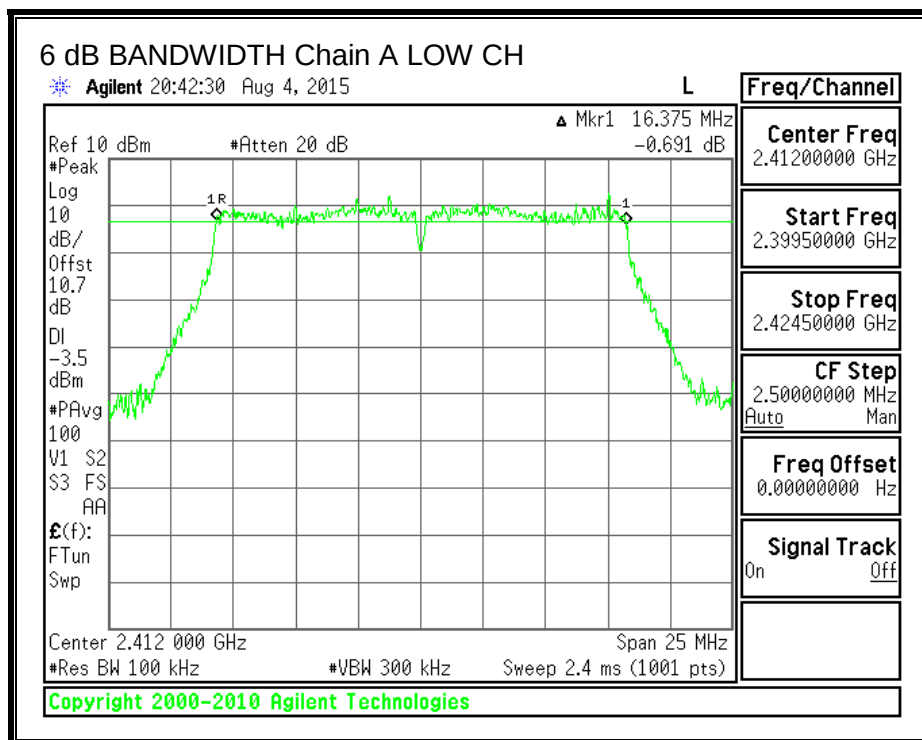
**6 dB BANDWIDTH, Chain B**

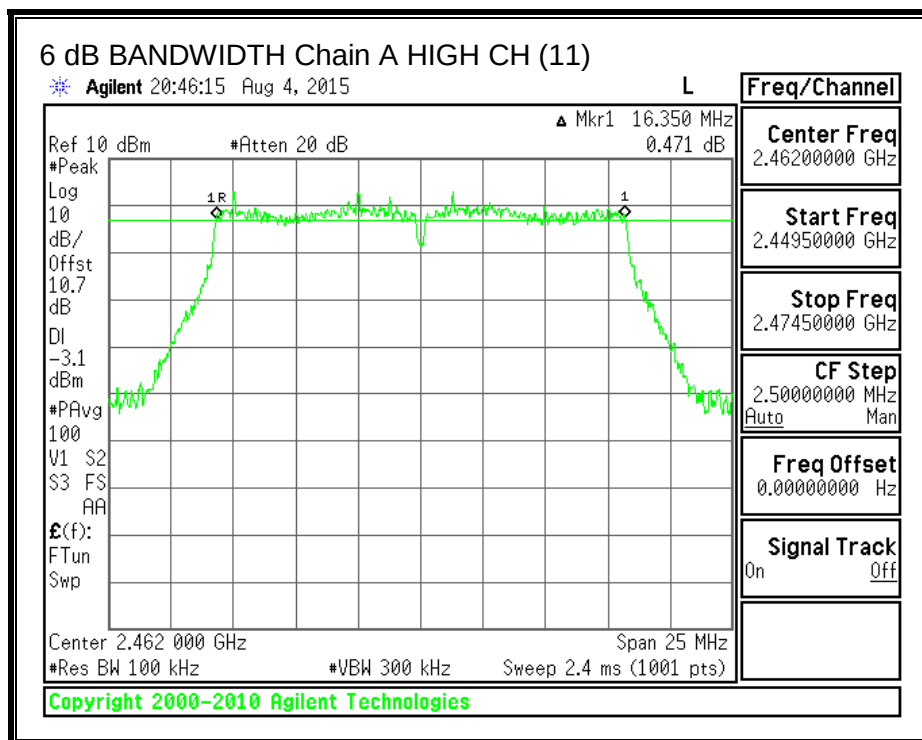
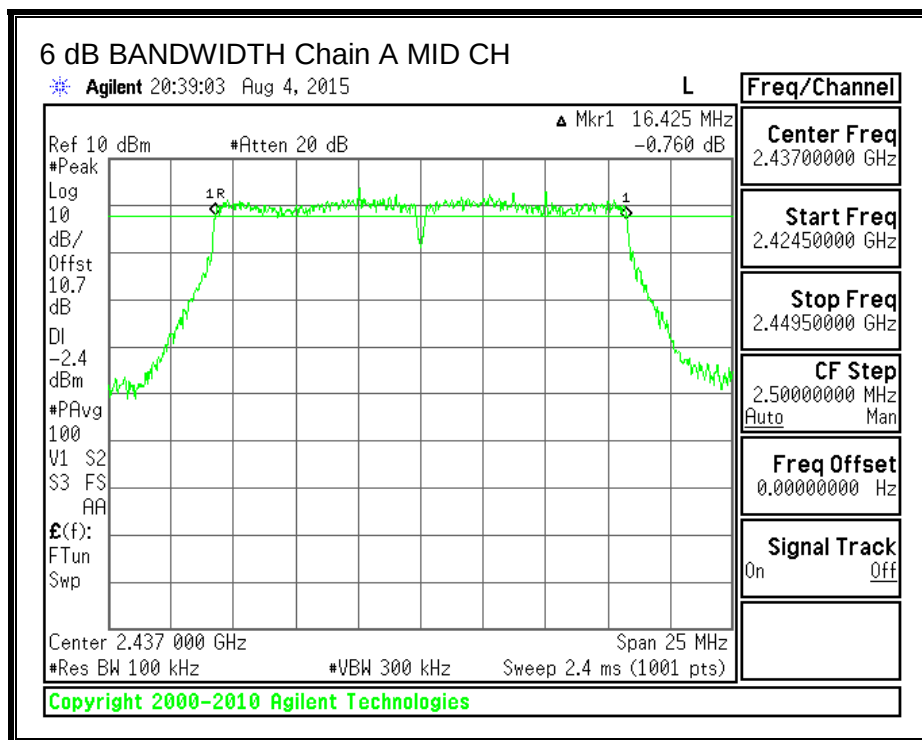


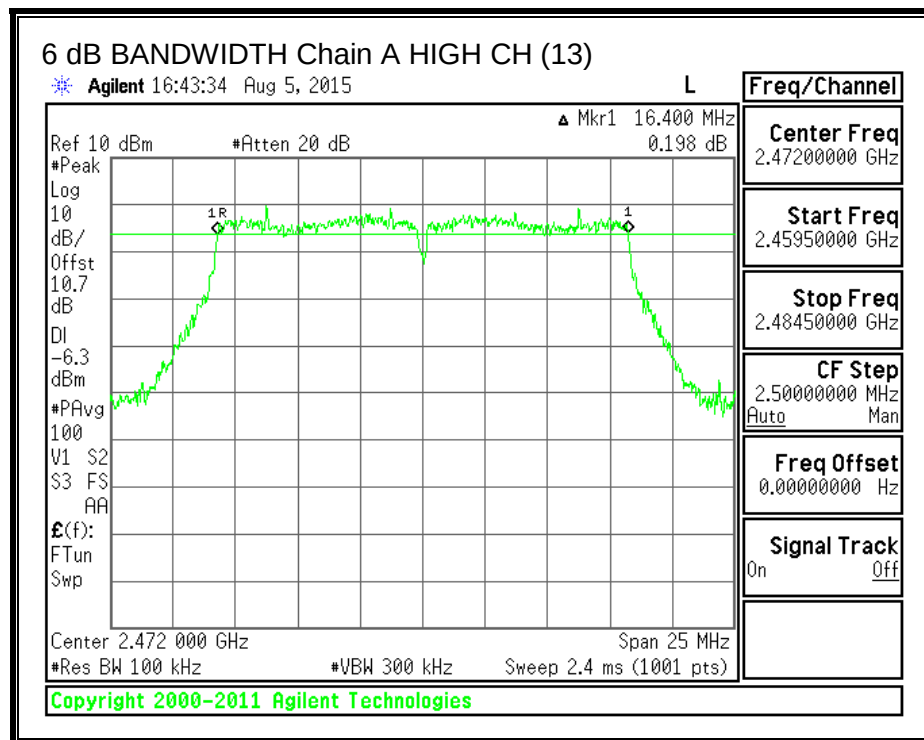
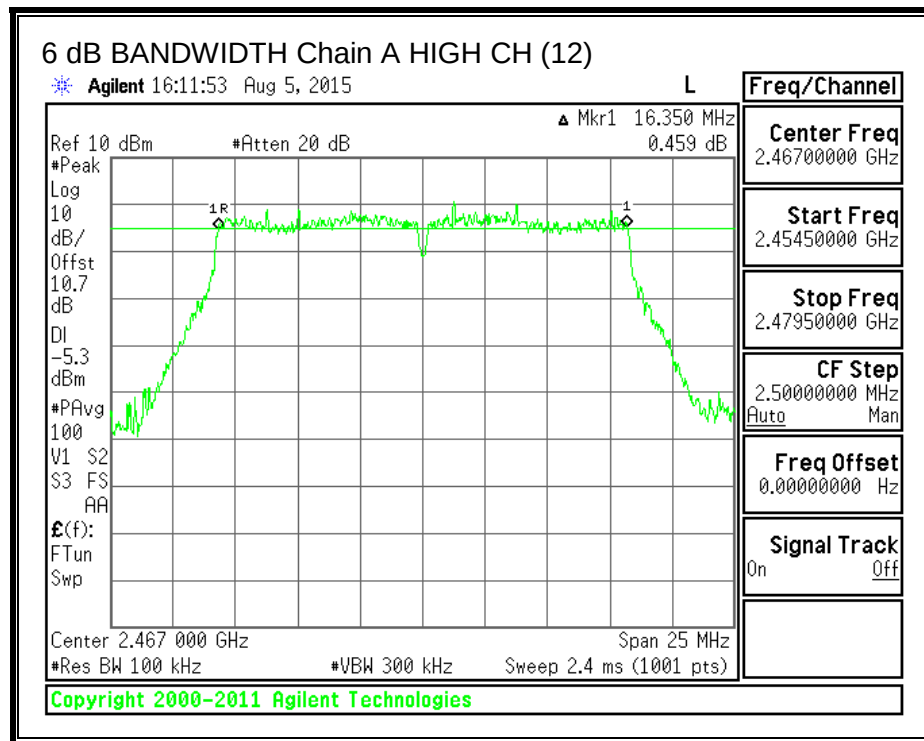




**6 dB BANDWIDTH, Chain A**







### 8.3.2. 99% BANDWIDTH

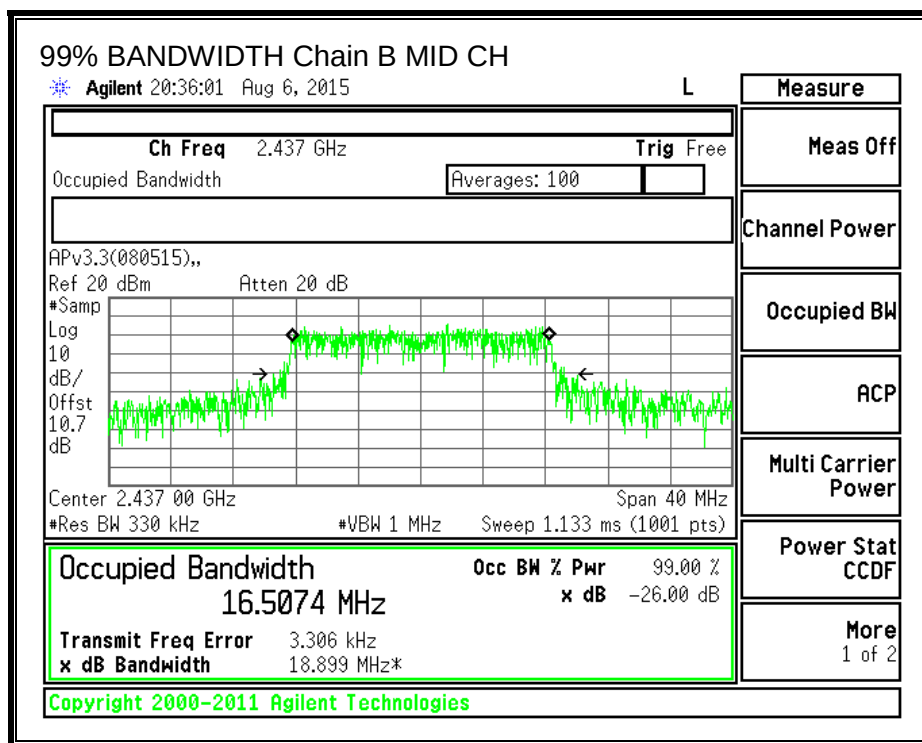
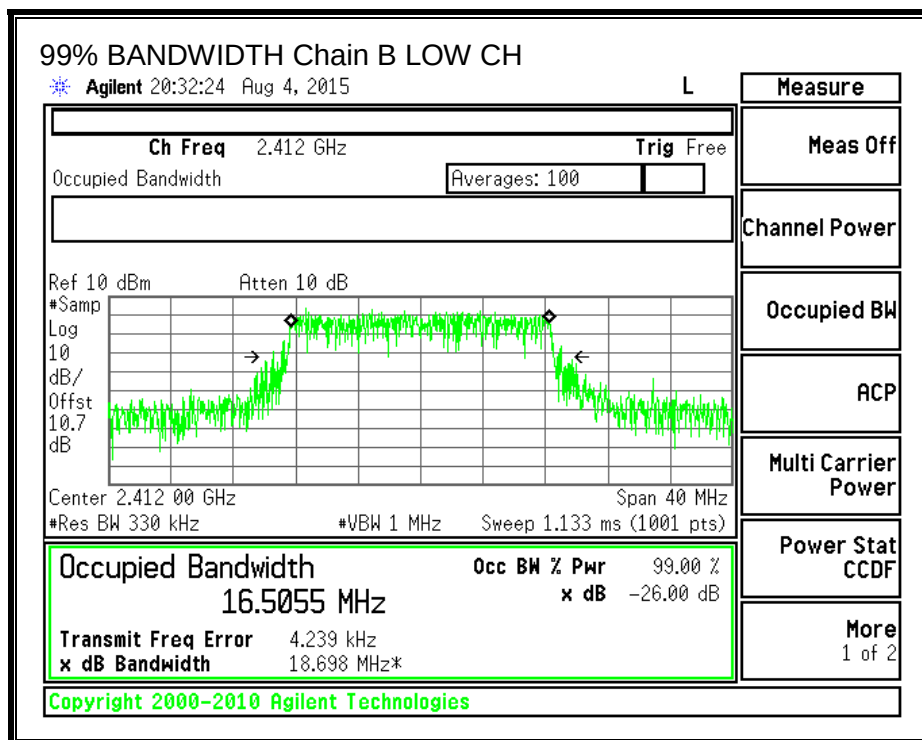
#### LIMITS

None; for reporting purposes only.

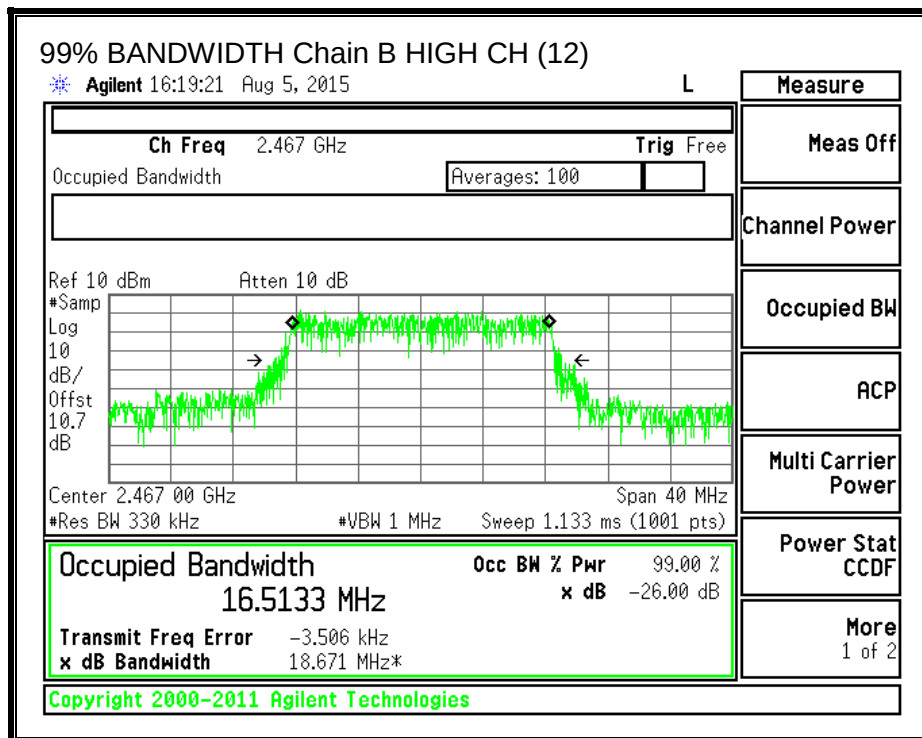
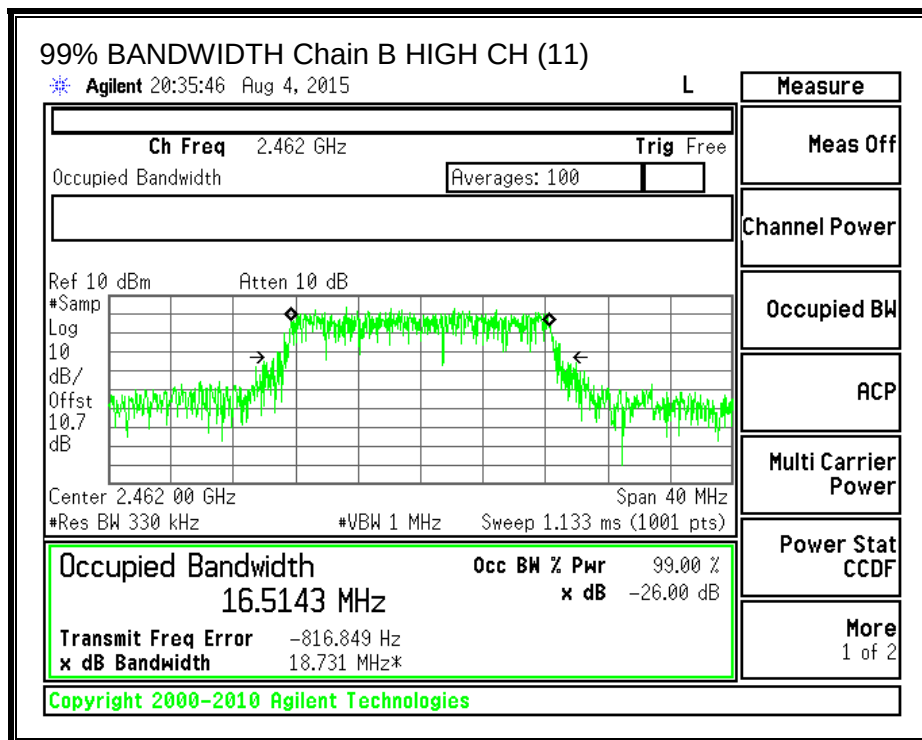
#### RESULTS (802.11g)

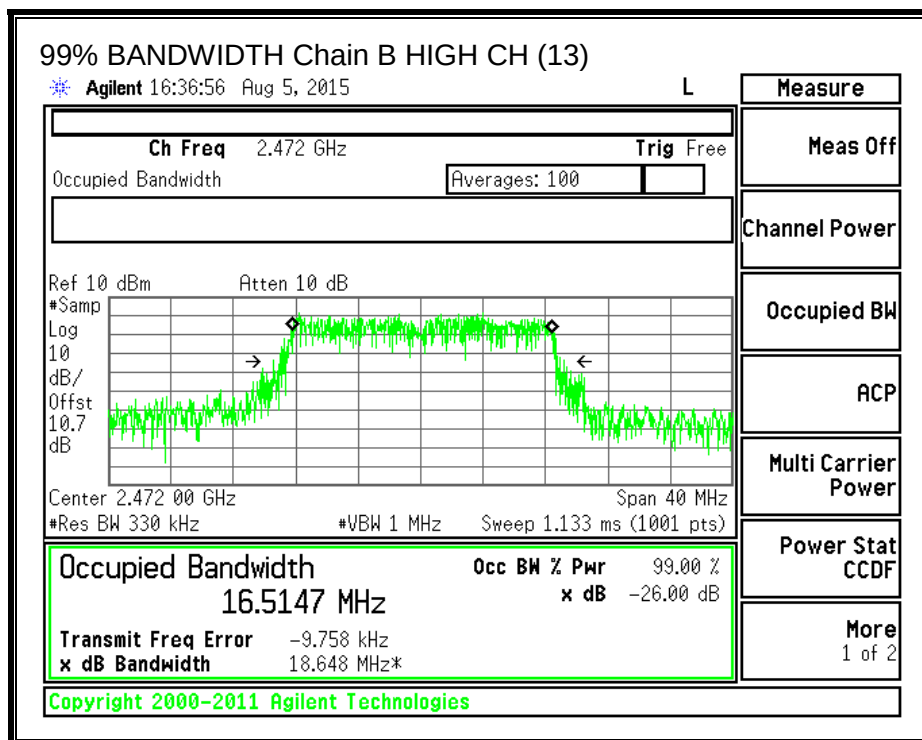
| Channel    | Frequency<br>(MHz) | 99% BW<br>Chain B<br>(MHz) | 99% BW<br>Chain A<br>(MHz) |
|------------|--------------------|----------------------------|----------------------------|
| Low        | 2412               | 16.5055                    | 16.5131                    |
| Mid        | 2437               | 16.5074                    | 16.5258                    |
| High CH 11 | 2462               | 16.5143                    | 16.5138                    |
| High CH 12 | 2467               | 16.5133                    | 16.5187                    |
| High CH 13 | 2472               | 16.5147                    | 16.5273                    |

**99% BANDWIDTH, Chain B**

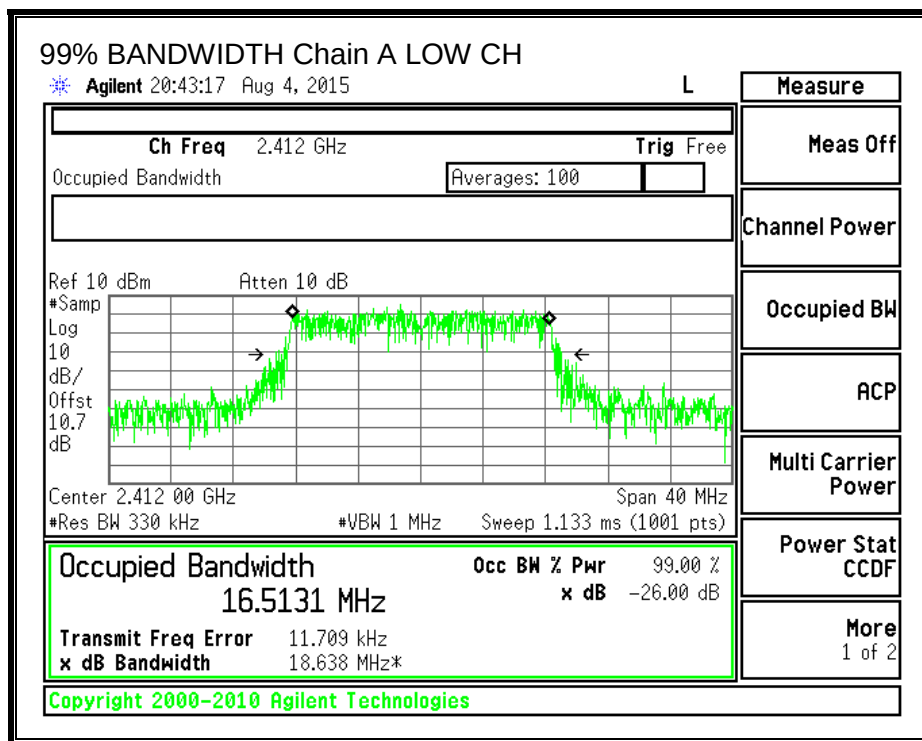


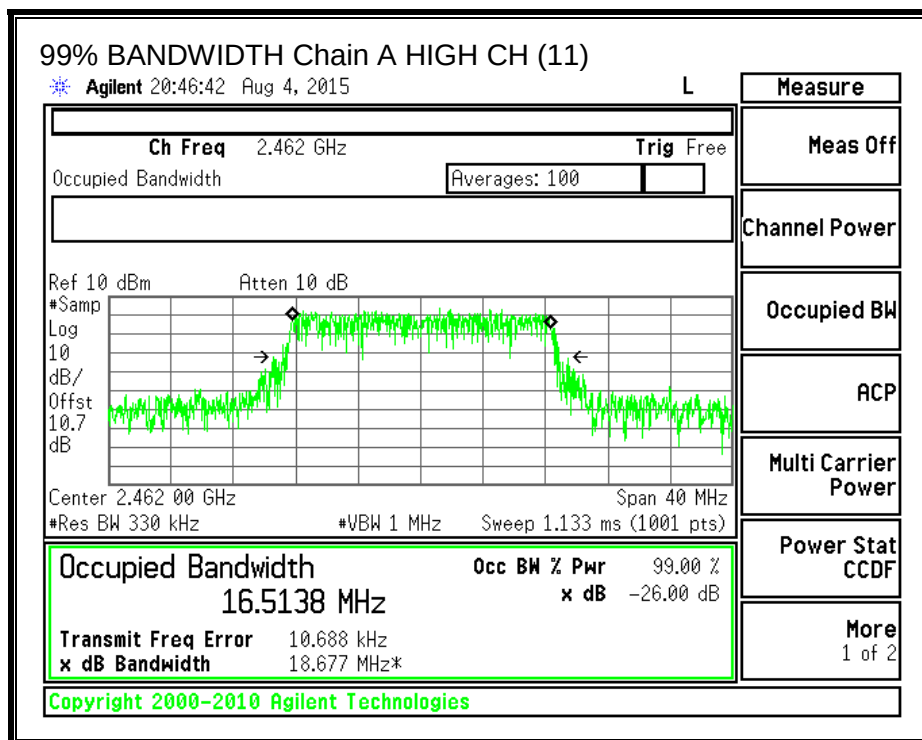
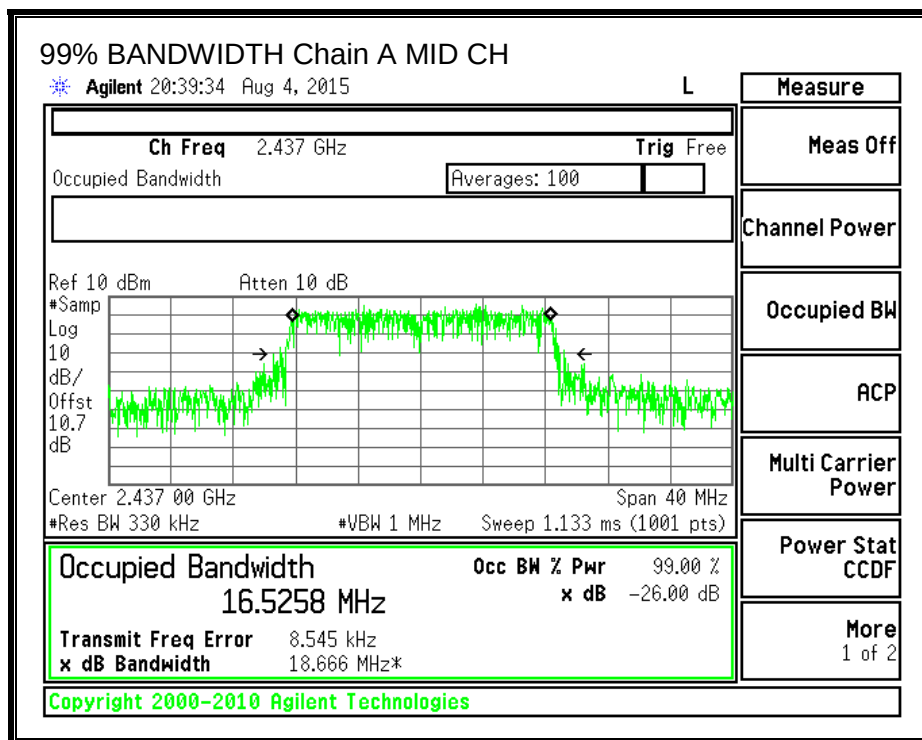


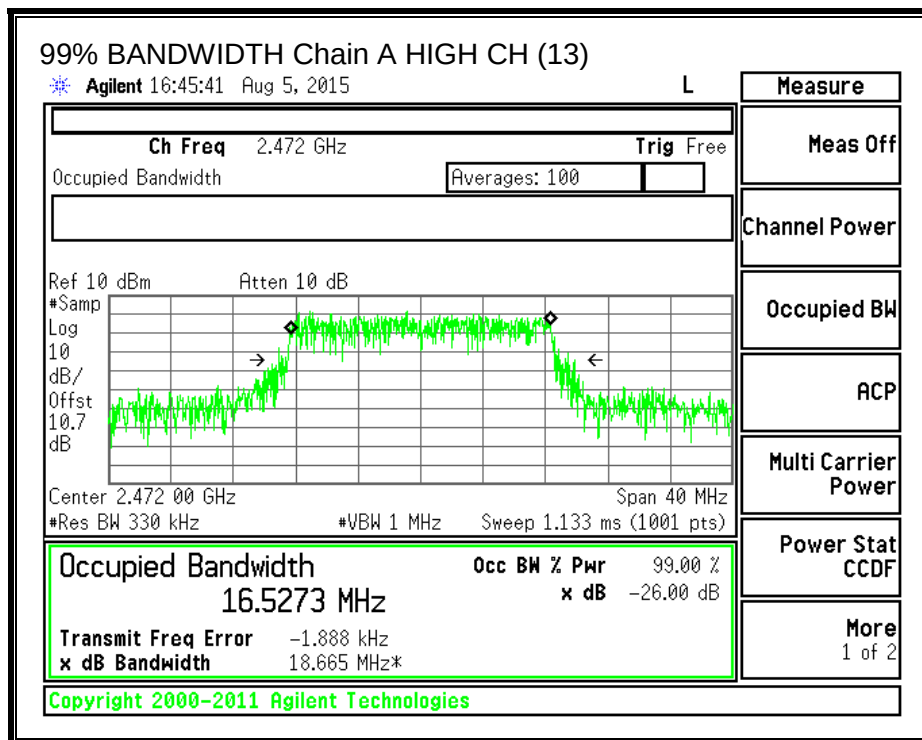
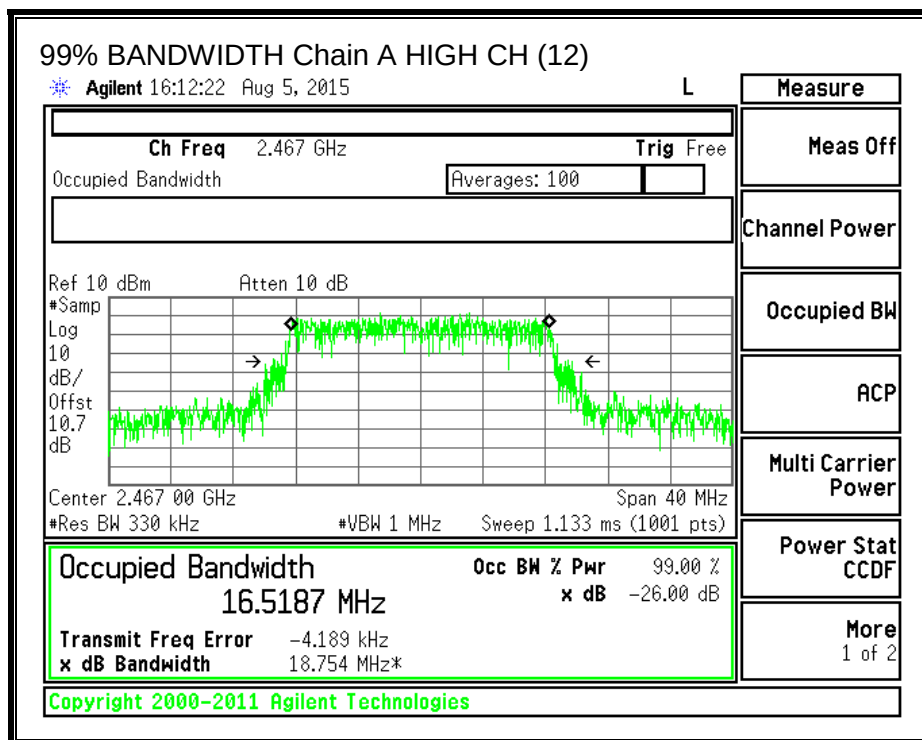




**99% BANDWIDTH, Chain A**







### 8.3.3. OUTPUT POWER

#### LIMITS

FCC §15.247

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

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

| Chain B<br>Antenna<br>Gain<br>(dBi) | Chain A<br>Antenna<br>Gain<br>(dBi) | Uncorrelated Chains<br>Directional<br>Gain<br>(dBi) |
|-------------------------------------|-------------------------------------|-----------------------------------------------------|
| 1.70                                | 1.40                                | 1.55                                                |

## RESULTS (802.11g)

### Limits

| Channel    | Frequency<br>(MHz) | Direct.<br>Gain<br>(dBi) | FCC<br>Power<br>Limit<br>(dBm) | IC<br>Power<br>Limit<br>(dBm) | IC<br>EIRP<br>Limit<br>(dBm) | Max<br>Power<br>(dBm) |
|------------|--------------------|--------------------------|--------------------------------|-------------------------------|------------------------------|-----------------------|
| Low CH 1   | 2412               | 1.55                     | 30.00                          | 30                            | 36                           | 30.00                 |
| Low CH 2   | 2417               | 1.55                     | 30.00                          | 30                            | 36                           | 30.00                 |
| Mid        | 2437               | 1.55                     | 30.00                          | 30                            | 36                           | 30.00                 |
| High CH 10 | 2457               | 1.55                     | 30.00                          | 30                            | 36                           | 30.00                 |
| High CH 11 | 2462               | 1.55                     | 30.00                          | 30                            | 36                           | 30.00                 |
| High CH 12 | 2467               | 1.55                     | 30.00                          | 30                            | 36                           | 30.00                 |
| High CH 13 | 2472               | 1.55                     | 30.00                          | 30                            | 36                           | 30.00                 |

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

### Results

| Channel    | Frequency<br>(MHz) | Chain B<br>Meas<br>Power<br>(dBm) | Chain A<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Margin<br>(dB) | EIRP<br>(dBm) | EIRP<br>Limit<br>(dBm) | Margin<br>(dB) |
|------------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|----------------|---------------|------------------------|----------------|
| Low CH 1   | 2412               | 13.85                             | 14.35                             | 17.12                             | 30.00                   | -12.88         | 18.67         | 36.00                  | -17.33         |
| Low CH 2   | 2417               | 15.29                             | 15.30                             | 18.31                             | 30.00                   | -11.69         | 19.86         | 36.00                  | -16.14         |
| Mid        | 2437               | 15.42                             | 15.31                             | 18.38                             | 30.00                   | -11.62         | 19.93         | 36.00                  | -16.07         |
| High CH 10 | 2457               | 15.39                             | 15.24                             | 18.33                             | 30.00                   | -11.67         | 19.88         | 36.00                  | -16.12         |
| High CH 11 | 2462               | 13.82                             | 14.21                             | 17.03                             | 30.00                   | -12.97         | 18.58         | 36.00                  | -17.42         |
| High CH 12 | 2467               | 11.75                             | 12.04                             | 14.91                             | 30.00                   | -15.09         | 16.46         | 36.00                  | -19.54         |
| High CH 13 | 2472               | 11.87                             | 12.00                             | 14.95                             | 30.00                   | -15.05         | 16.50         | 36.00                  | -19.50         |

### 8.3.4. POWER SPECTRAL DENSITY

#### LIMITS

FCC §15.247

#### RESULTS (802.11g)

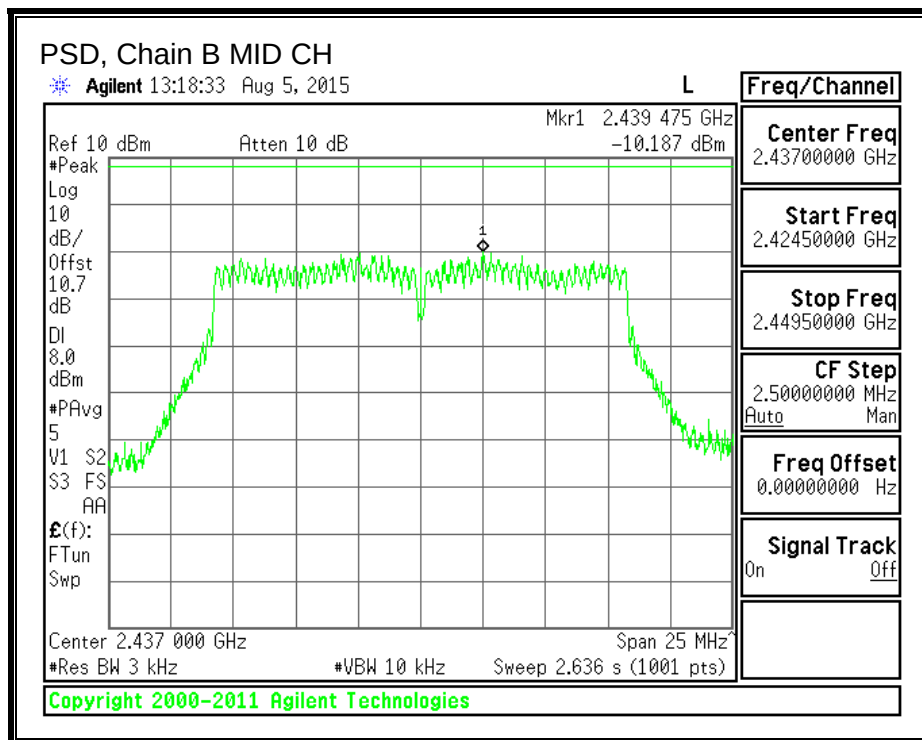
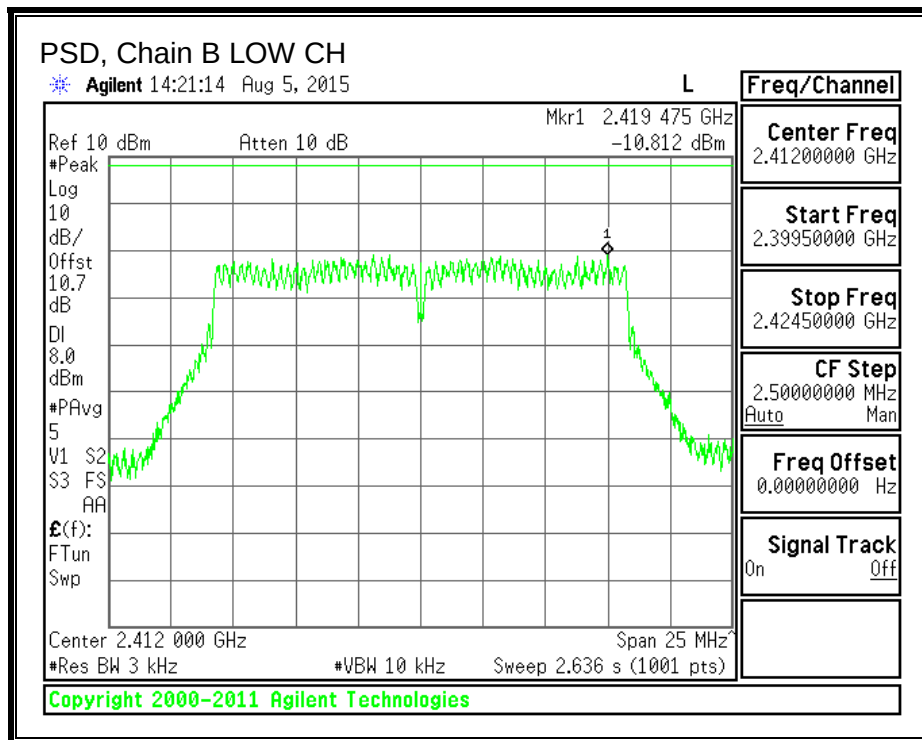
Note – For 802.11g, the power was set as a stair step: Channels 1 and 11 are the same power and Channels 2-10 are the same power. For PSD, Channels 1 and 11 were set at same power setting as the Mid Channel to achieve worst-case results.

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

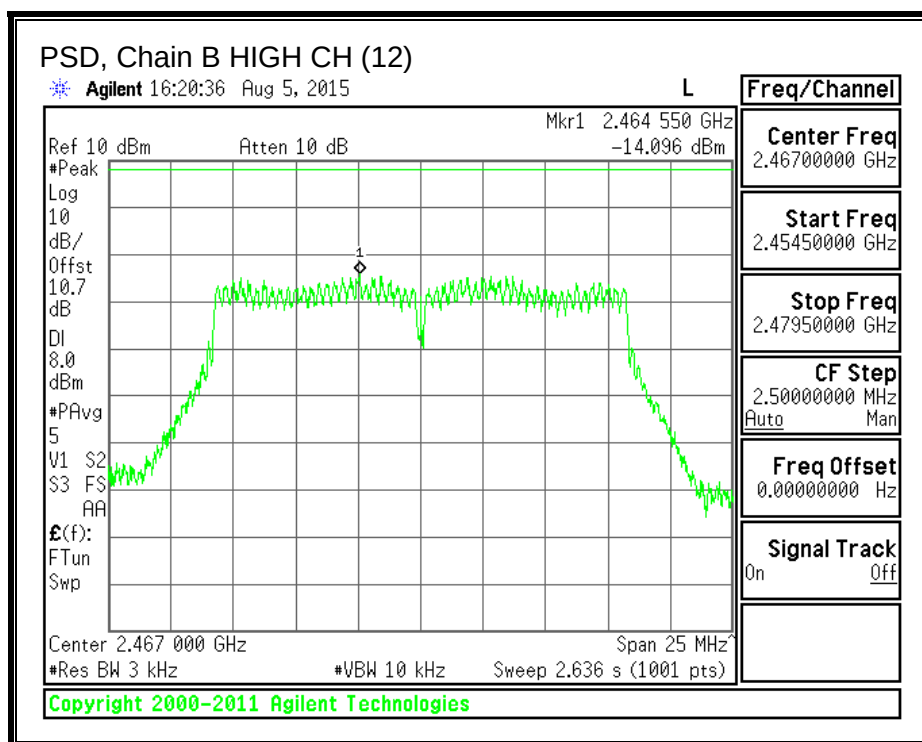
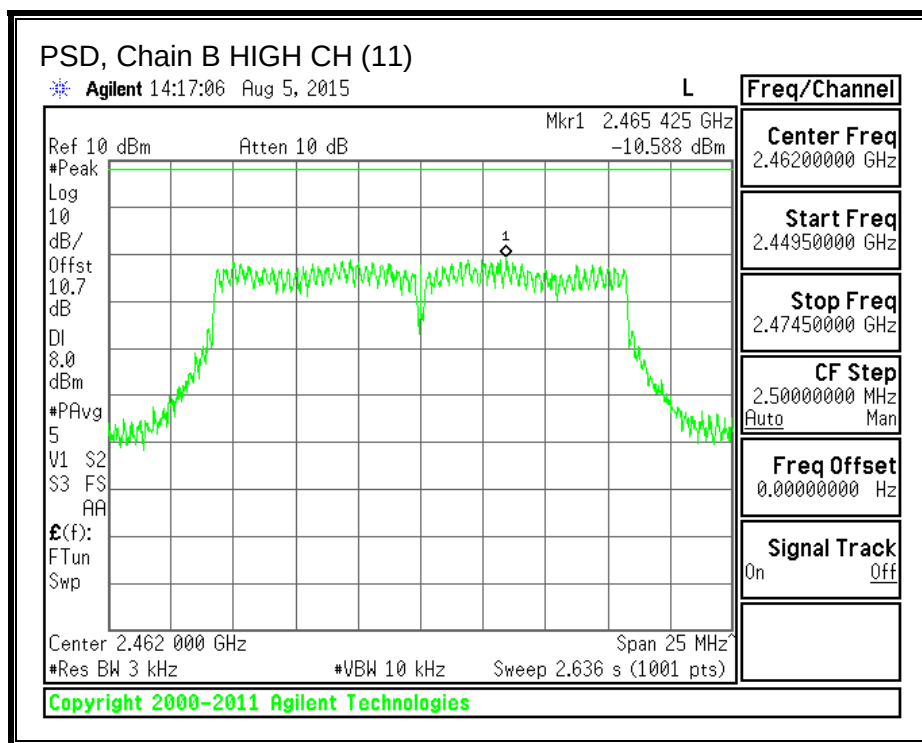
#### PSD Results

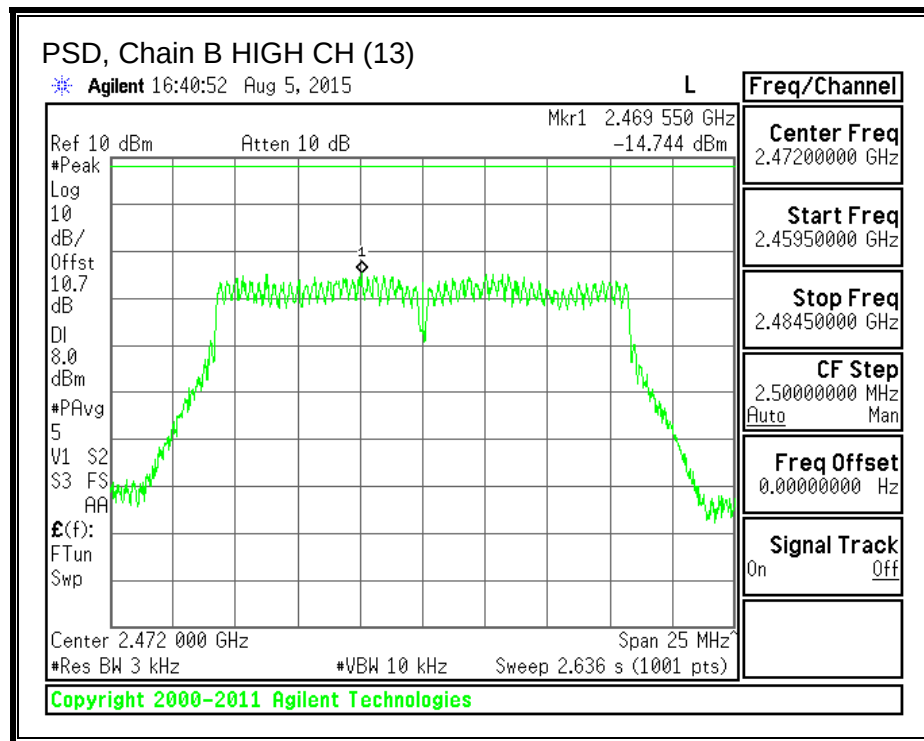
| Channel    | Frequency<br>(MHz) | Chain B<br>Meas<br>(dBm) | Chain A<br>Meas<br>(dBm) | Total<br>Corr'd<br>PSD<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|------------|--------------------|--------------------------|--------------------------|---------------------------------|----------------|----------------|
| Low        | 2412               | -10.81                   | -9.10                    | -6.86                           | 8.0            | -14.9          |
| Mid        | 2437               | -10.19                   | -10.07                   | -7.12                           | 8.0            | -15.1          |
| High CH 11 | 2462               | -10.59                   | -10.72                   | -7.64                           | 8.0            | -15.6          |
| High CH 12 | 2467               | -14.10                   | -14.33                   | -11.20                          | 8.0            | -19.2          |
| High CH 13 | 2472               | -14.74                   | -14.38                   | -11.55                          | 8.0            | -19.5          |

**PSD, Chain B**

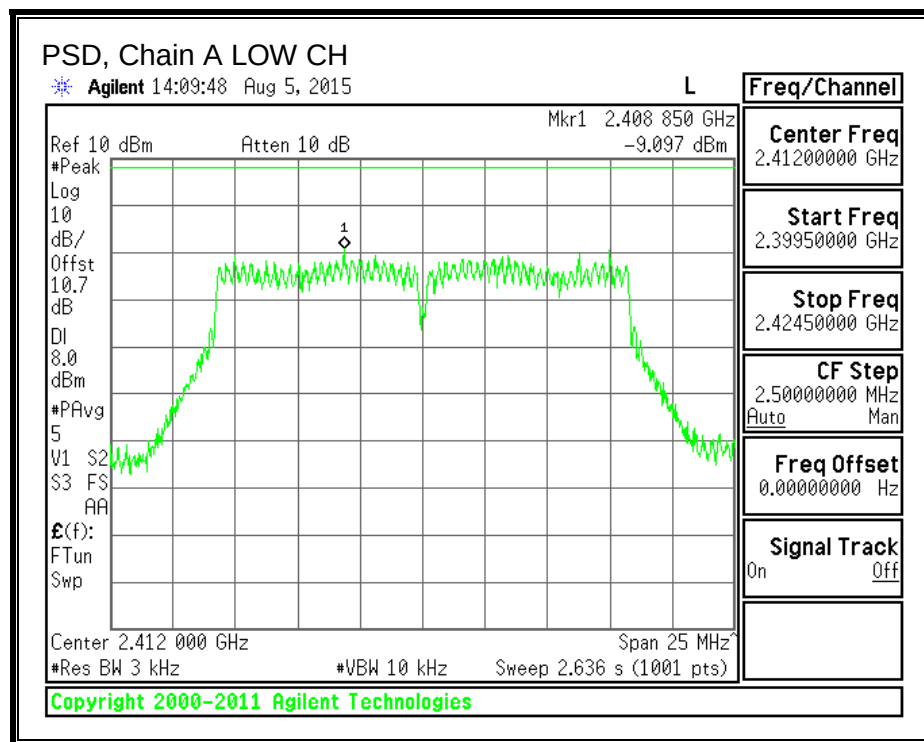


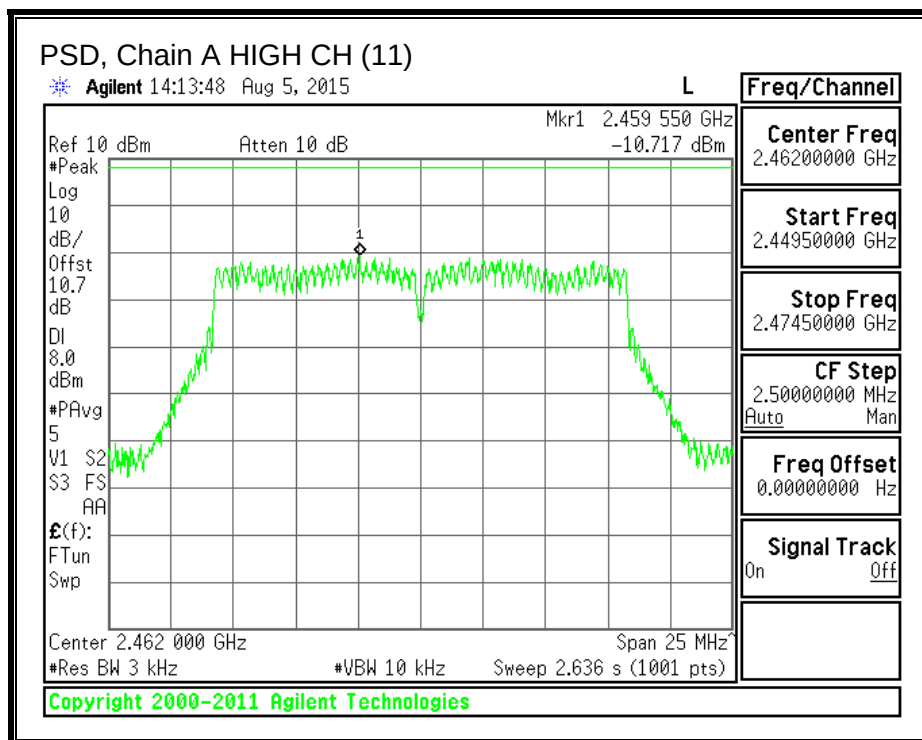
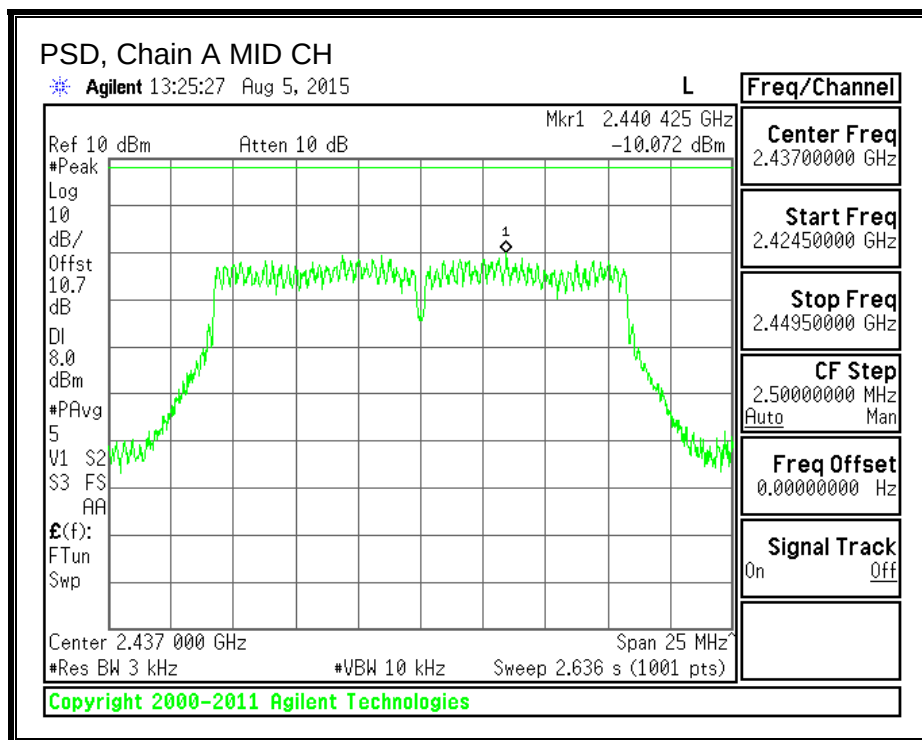


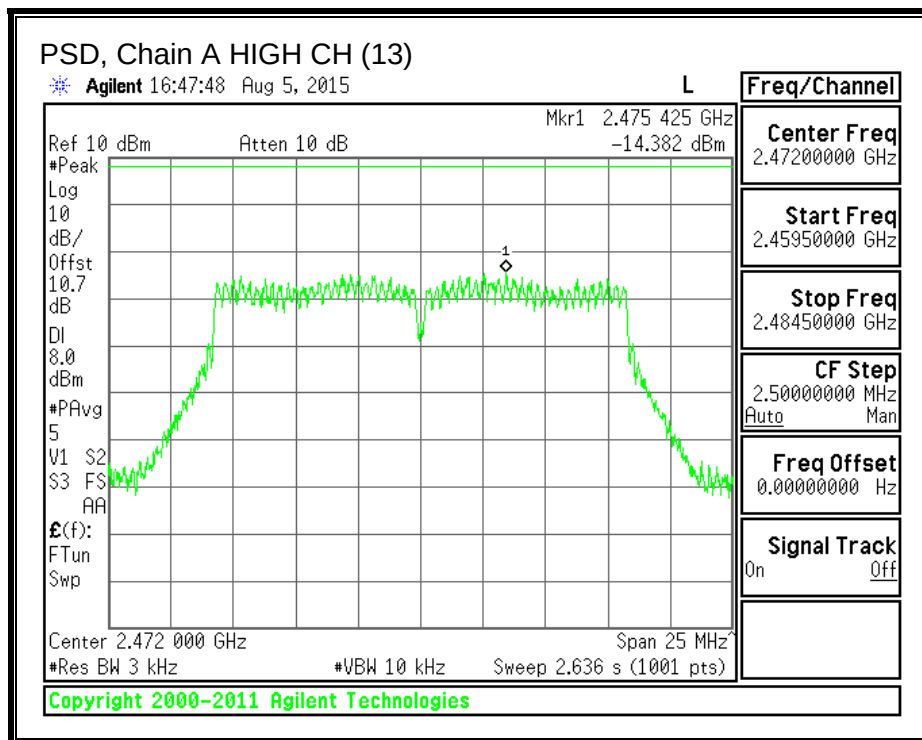
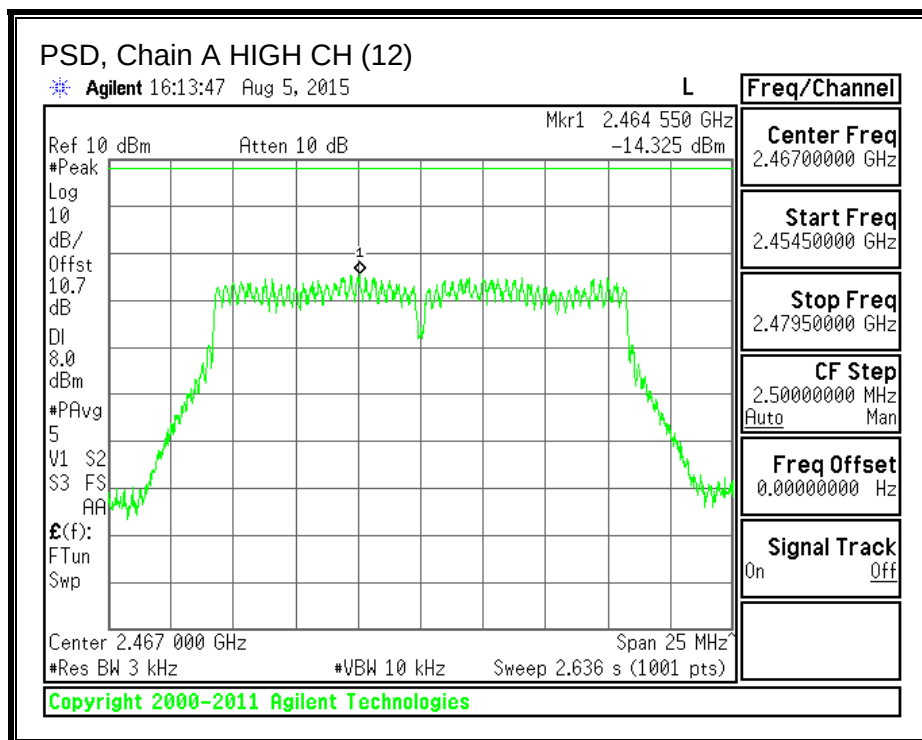




**PSD, Chain A**







### **8.3.5. OUT-OF-BAND EMISSIONS**

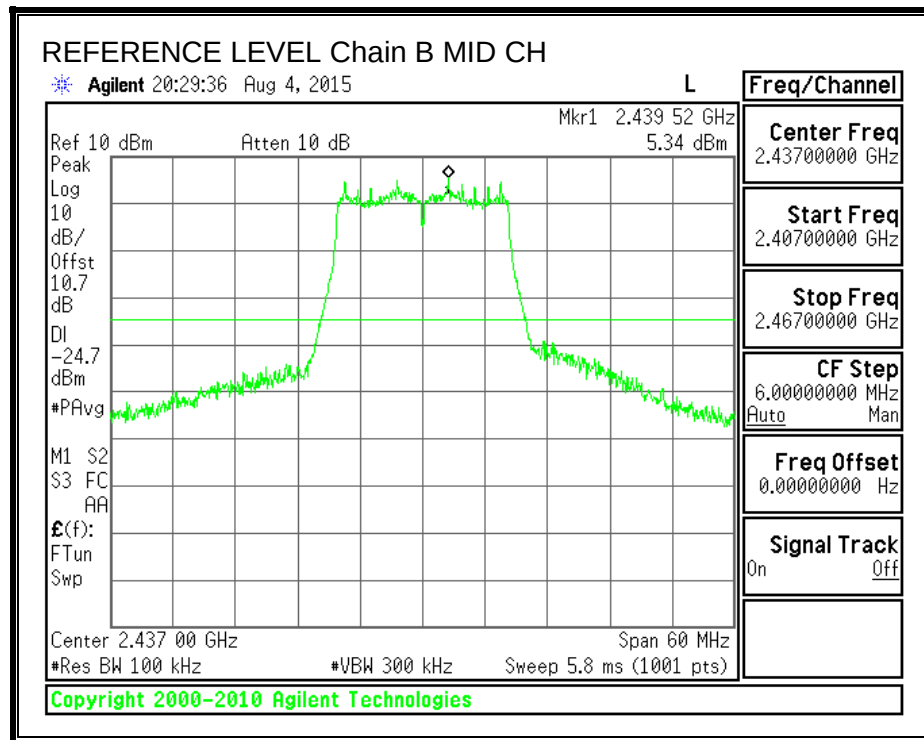
#### **LIMITS**

FCC §15.247 (d)

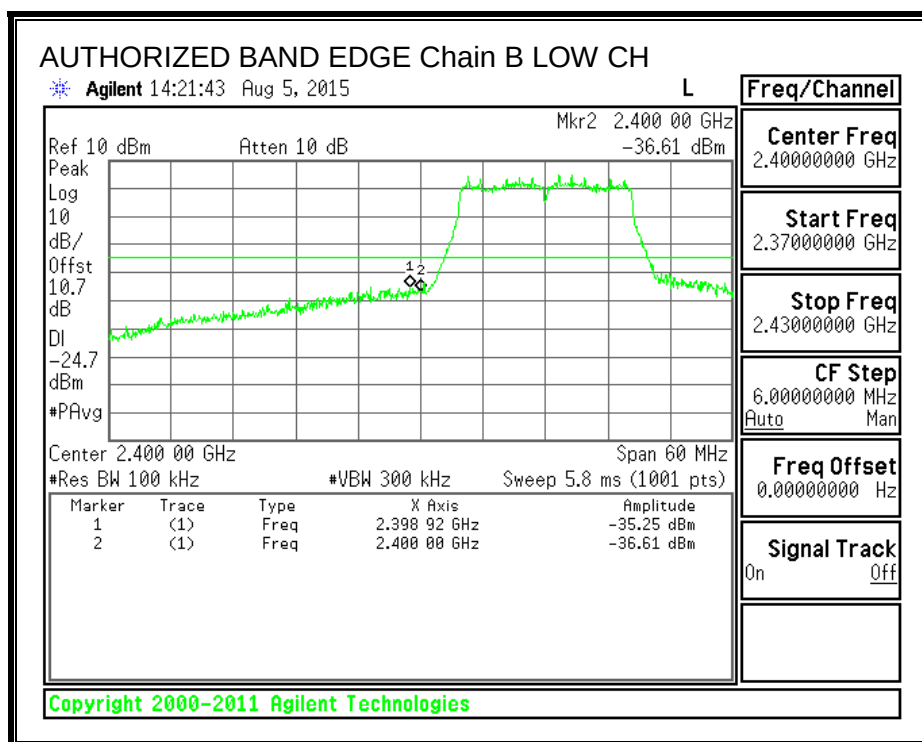
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

## RESULTS (802.11g)

### IN-BAND REFERENCE LEVEL, Chain B



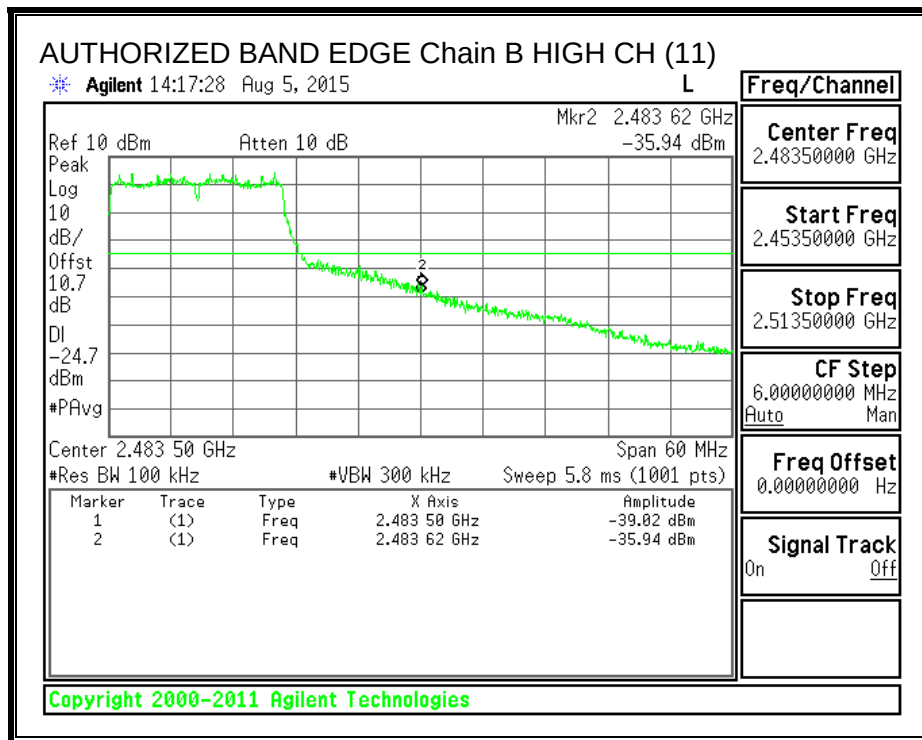
**LOW CHANNEL BANDEGE, Chain B**



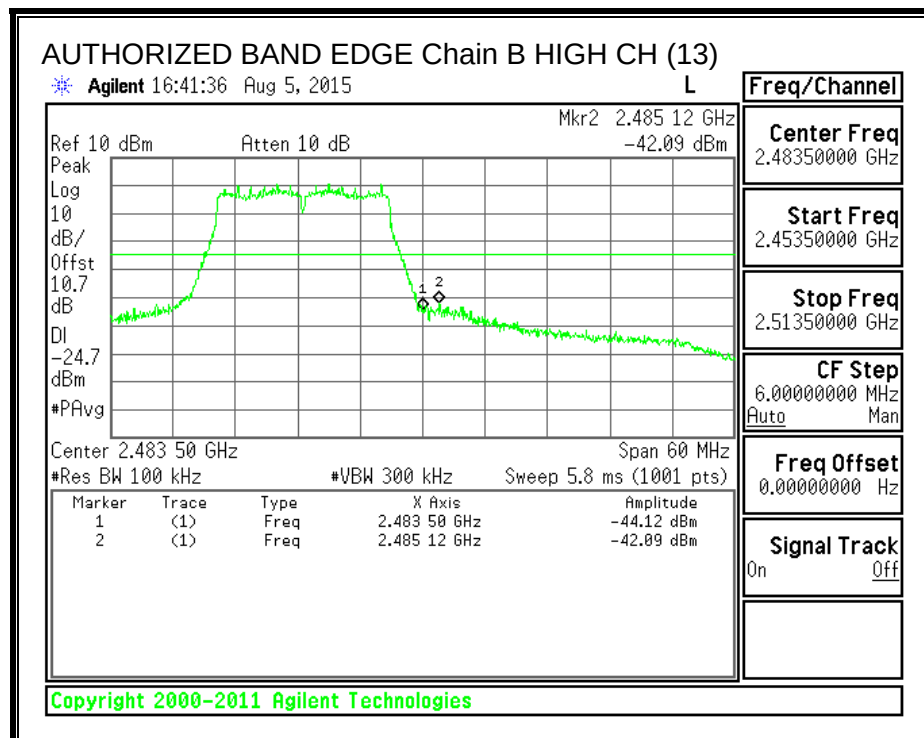
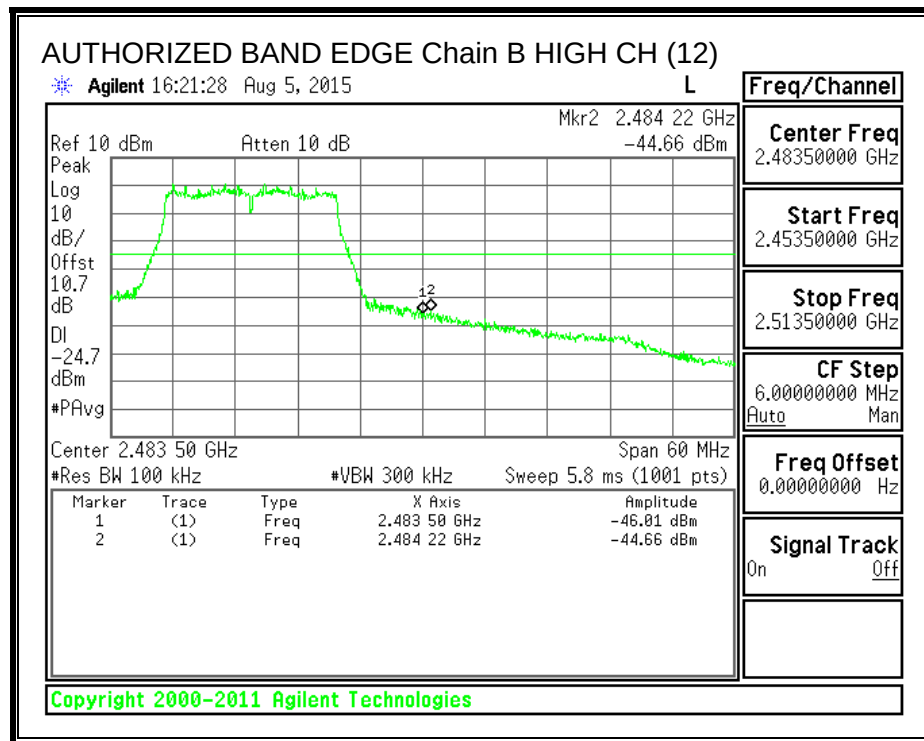
Note – CH1 was tested at the Mid Channel Power Setting to achieve worst-case results.



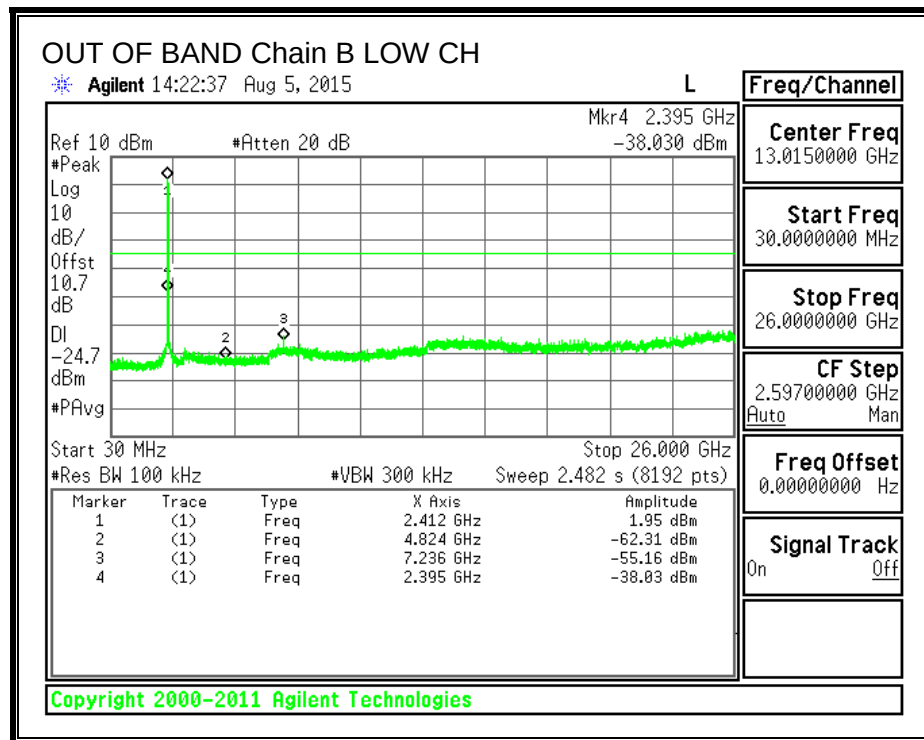
**HIGH CHANNEL BANDEDGE, Chain B**



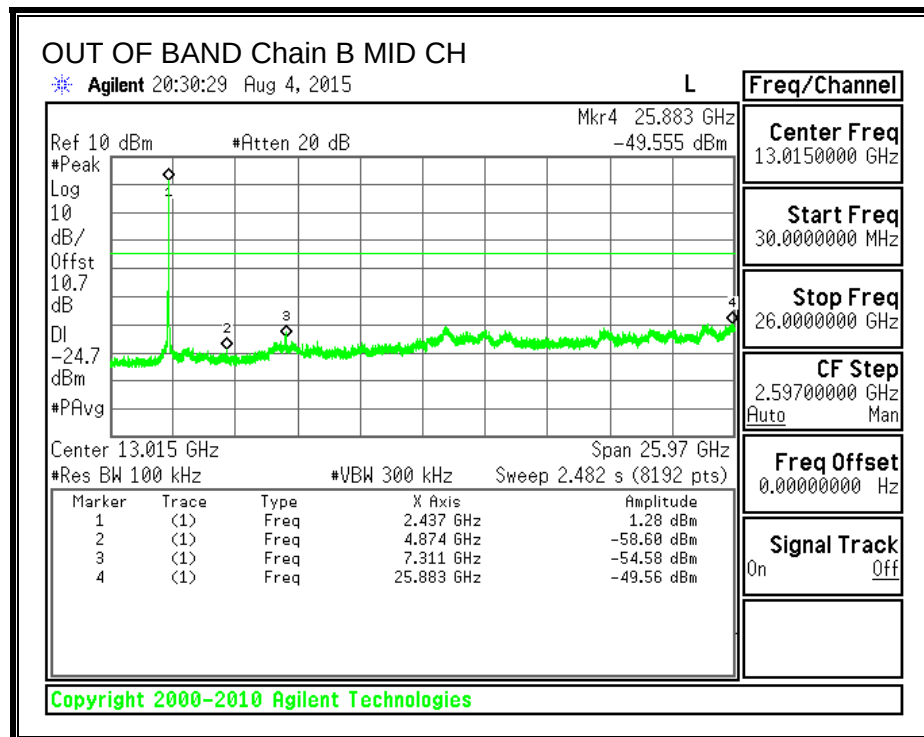
Note – CH11 was tested at the Mid Channel Power Setting to achieve worst-case results.

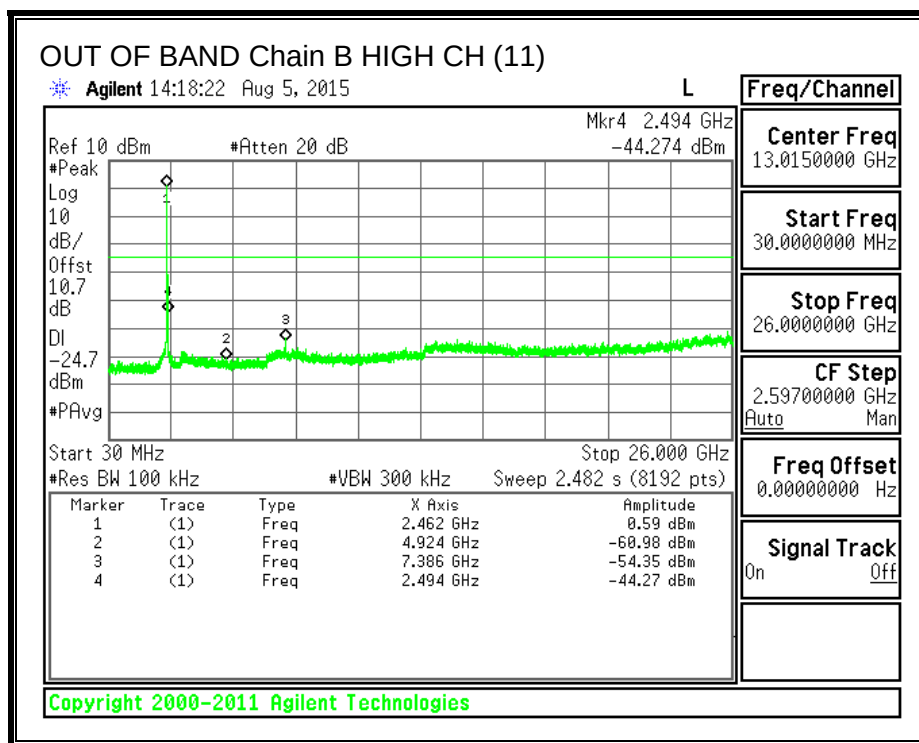


**OUT-OF-BAND EMISSIONS, Chain B**

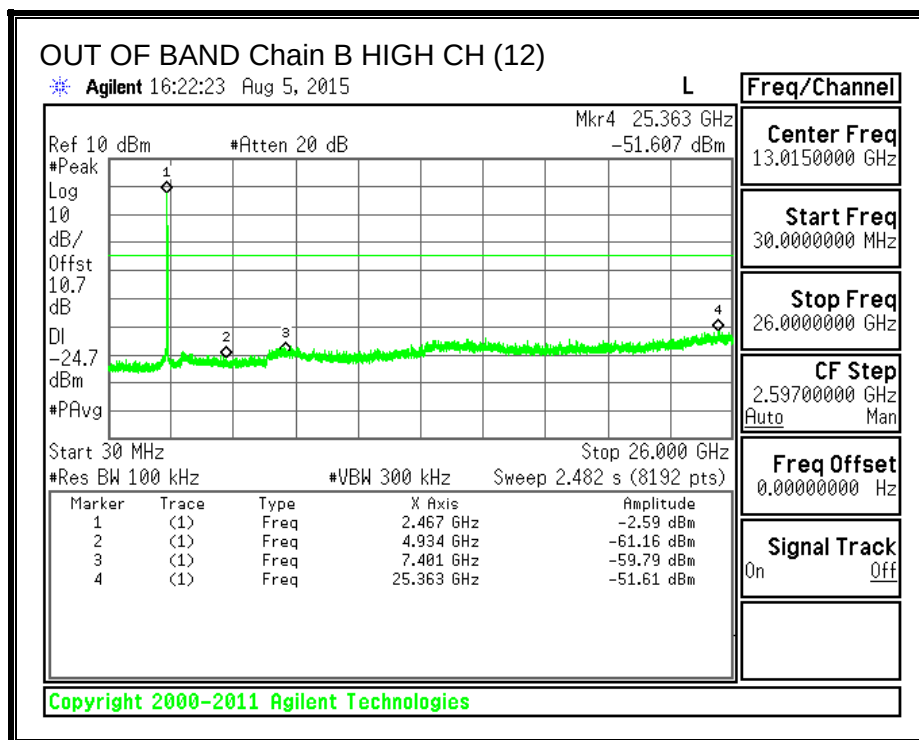


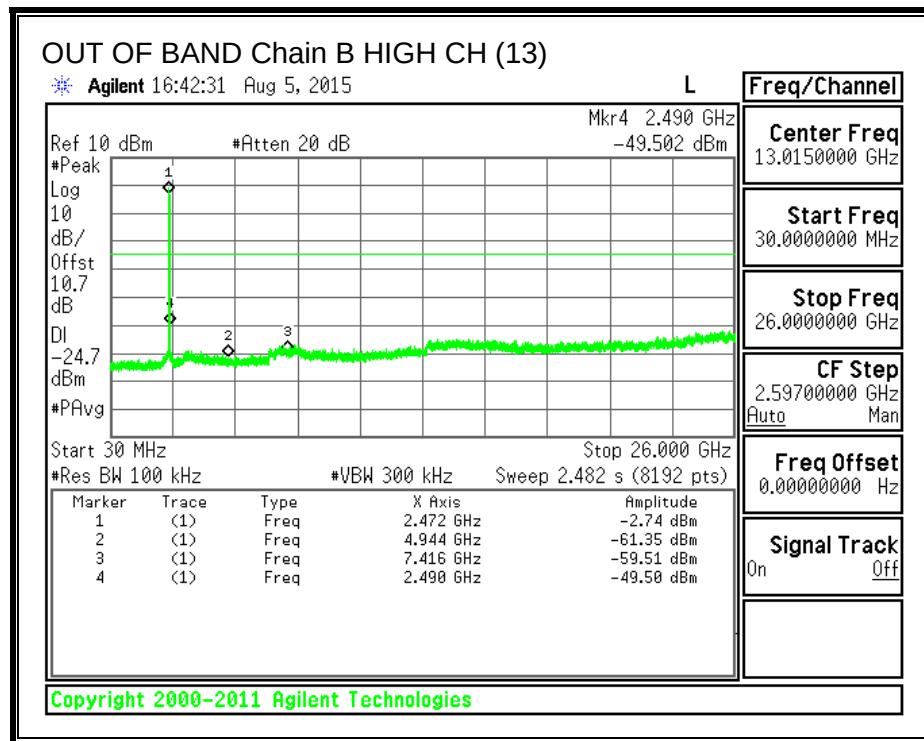
Note – CH1 was tested at the Mid Channel Power Setting to achieve worst-case results.



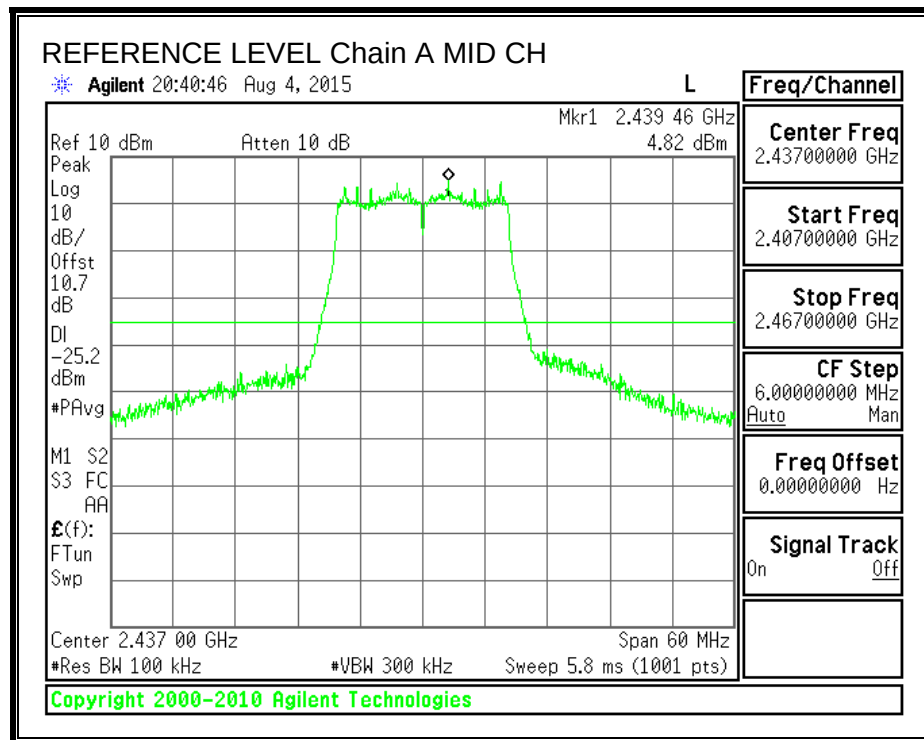


Note – CH11 was tested at the Mid Channel Power Setting to achieve worst-case results.

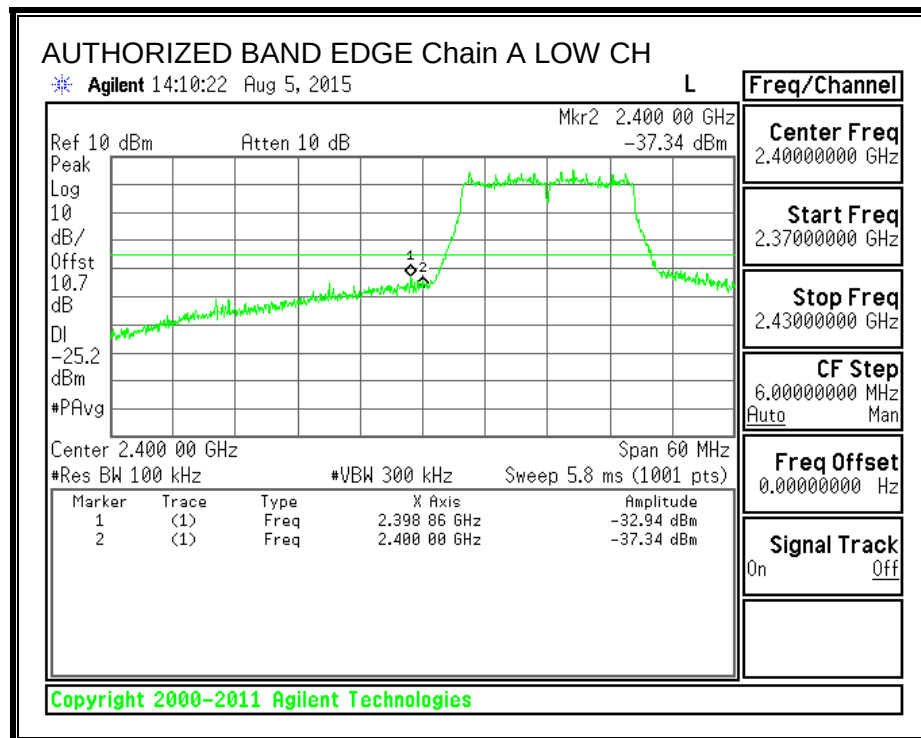




**IN-BAND REFERENCE LEVEL, Chain A**

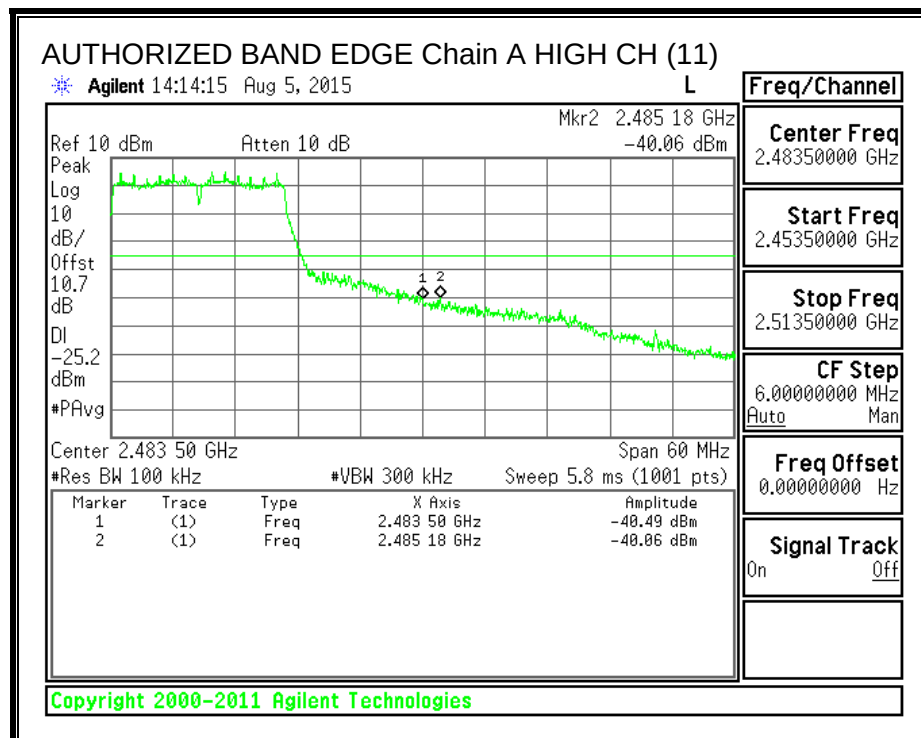


**LOW CHANNEL BANDEDGE, Chain A**

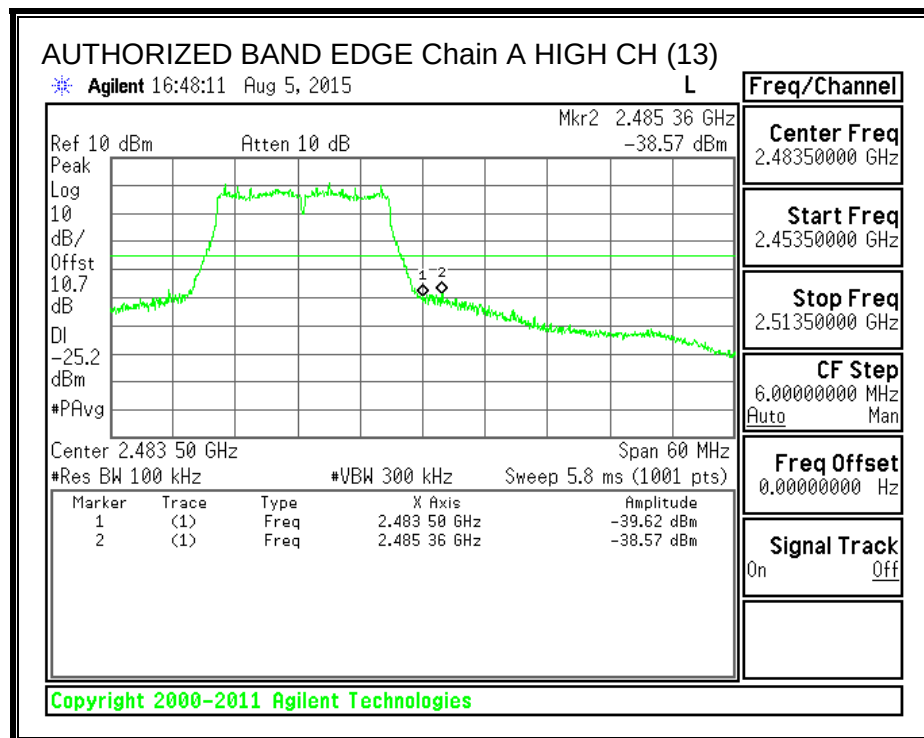
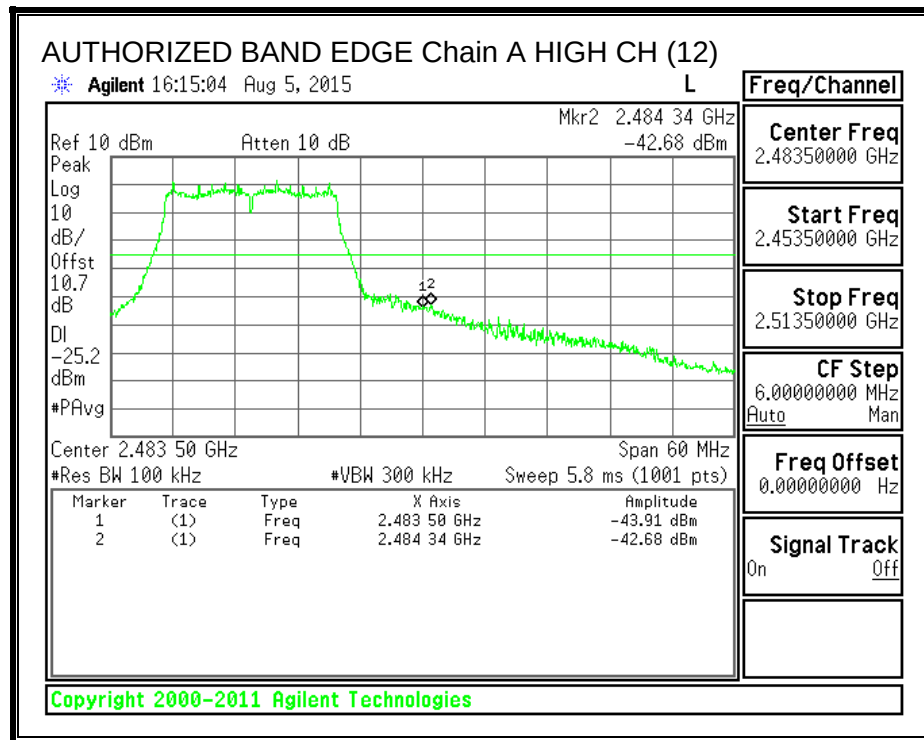


Note – CH1 was tested at the Mid Channel Power Setting to achieve worst-case results.

**HIGH CHANNEL BANDEDGE, Chain A**

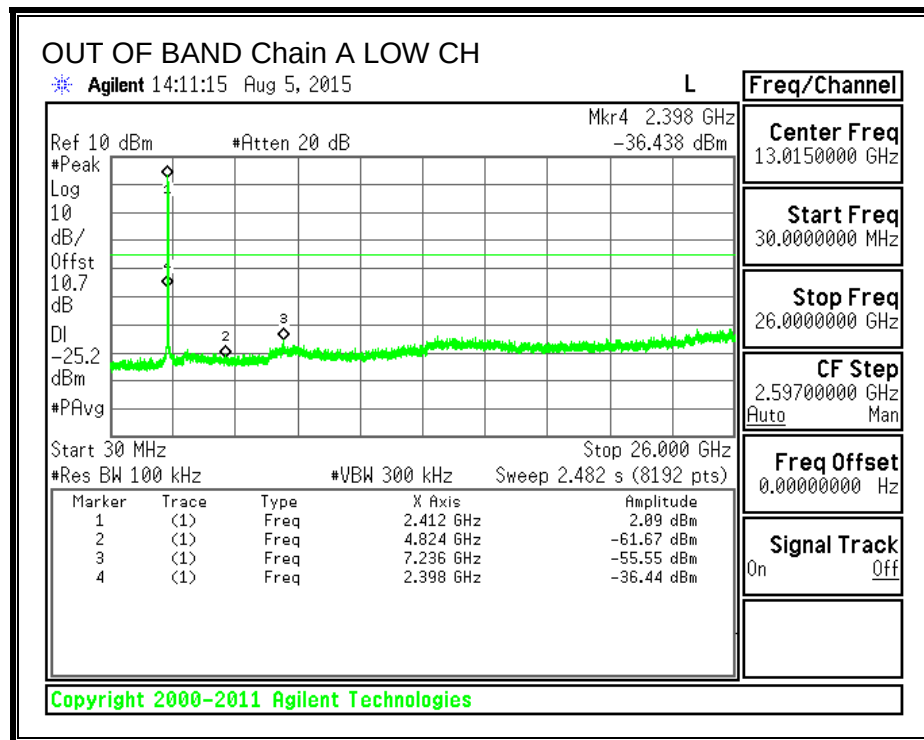


Note – CH11 was tested at the Mid Channel Power Setting to achieve worst-case results.

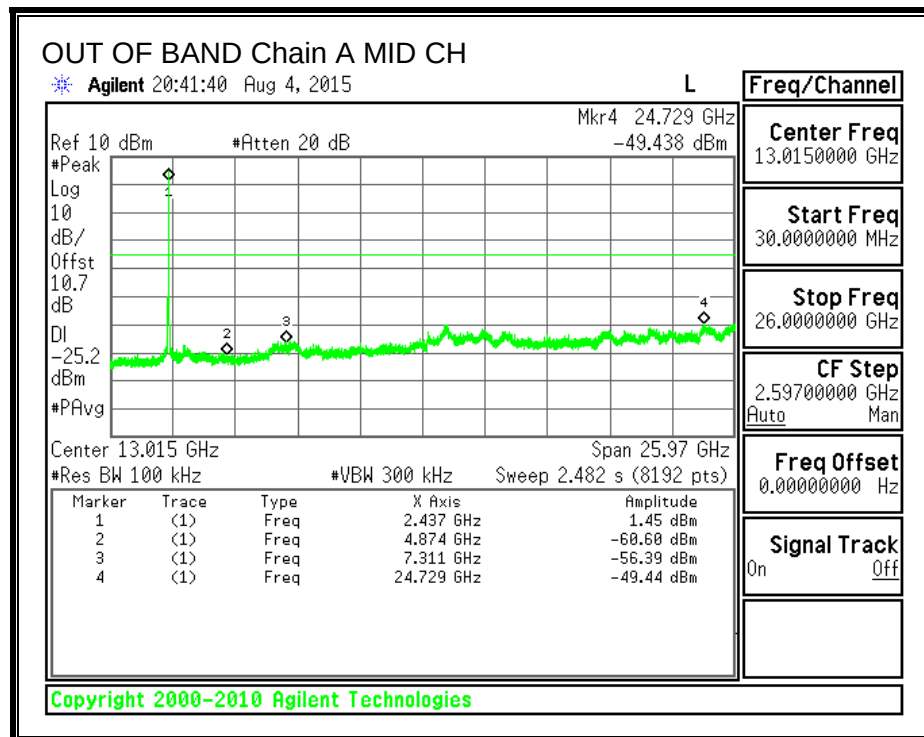


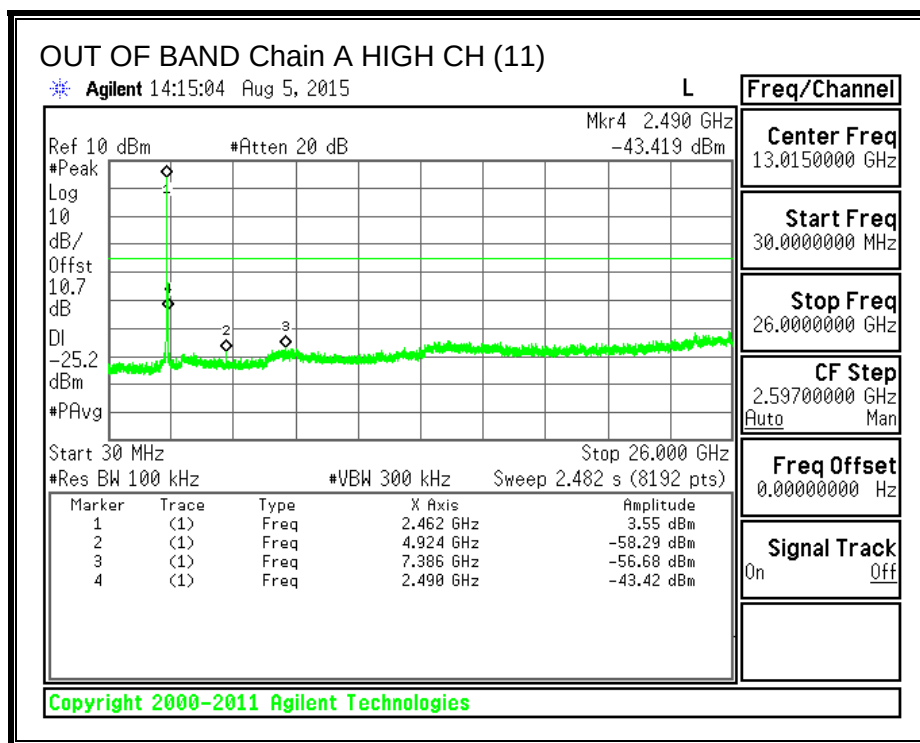


**OUT-OF-BAND EMISSIONS, Chain A**

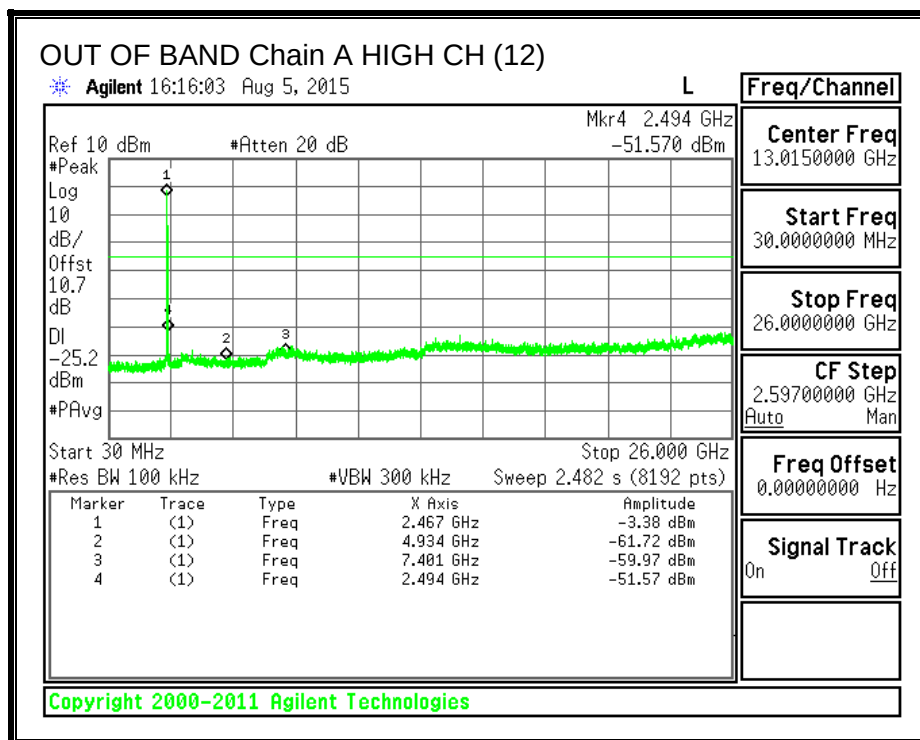


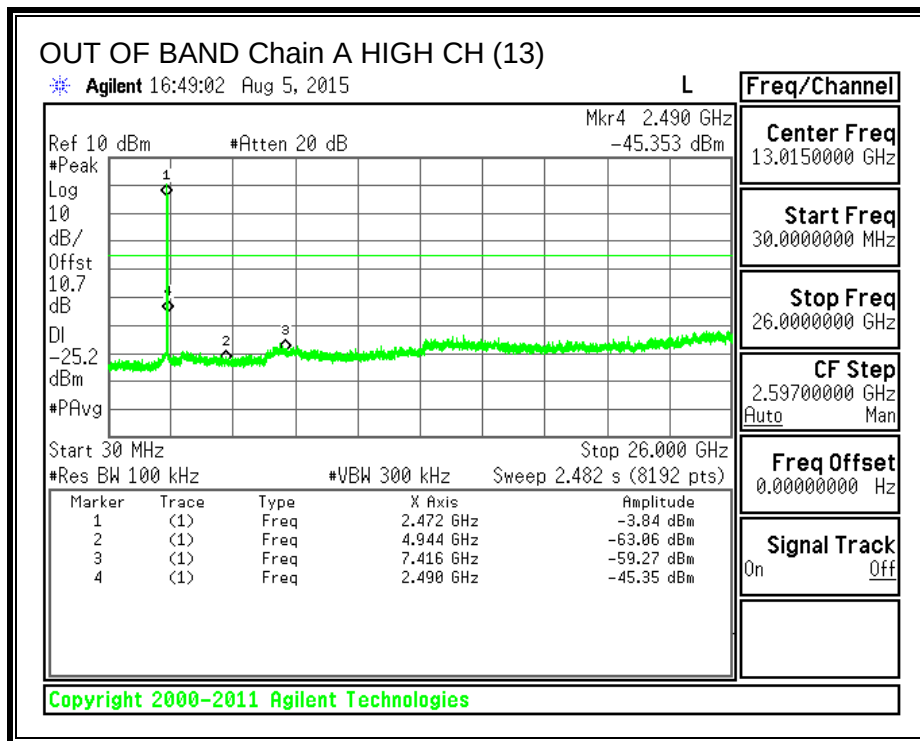
Note – CH1 was tested at the Mid Channel Power Setting to achieve worst-case results.





Note – CH11 was tested at the Mid Channel Power Setting to achieve worst-case results.





## 8.4. 802.11n HT20 MODE IN THE 2.4 GHZ BAND

### 8.4.1. 6 dB BANDWIDTH

#### LIMITS

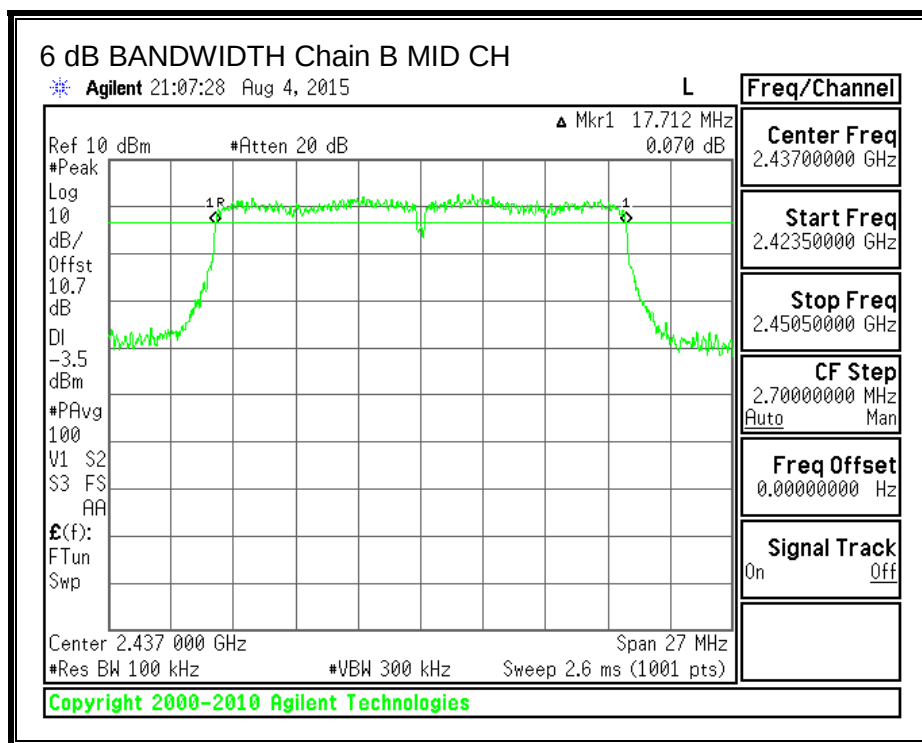
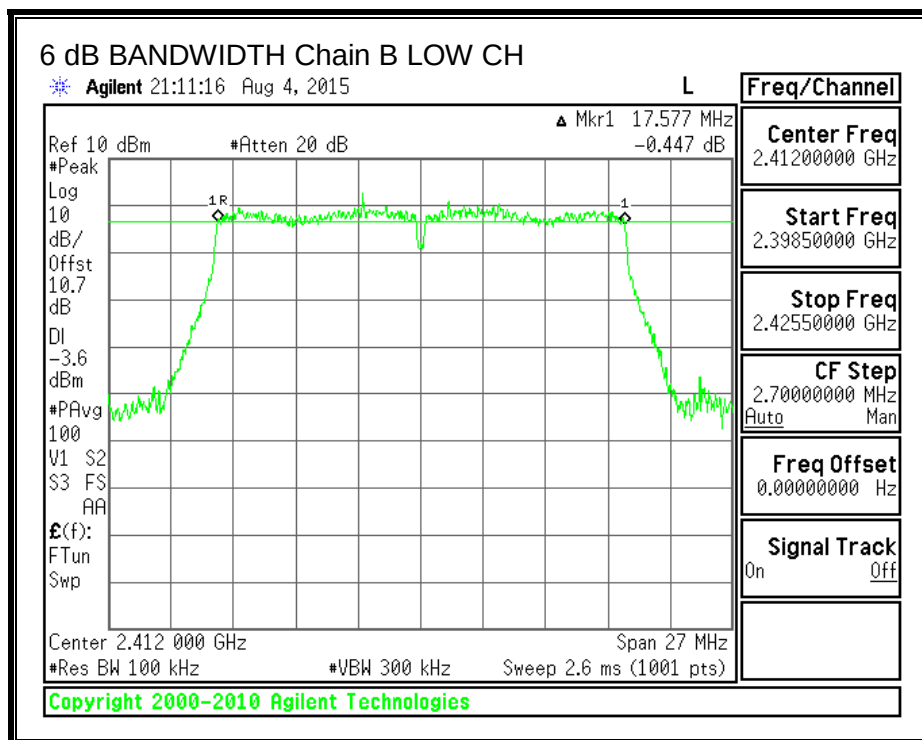
FCC §15.247 (a) (2)

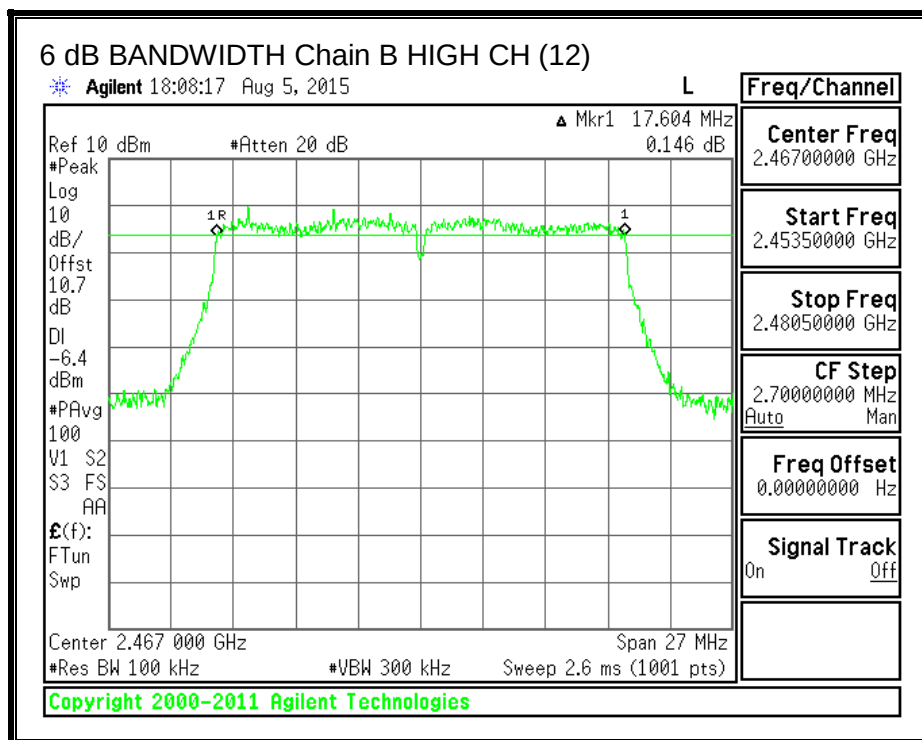
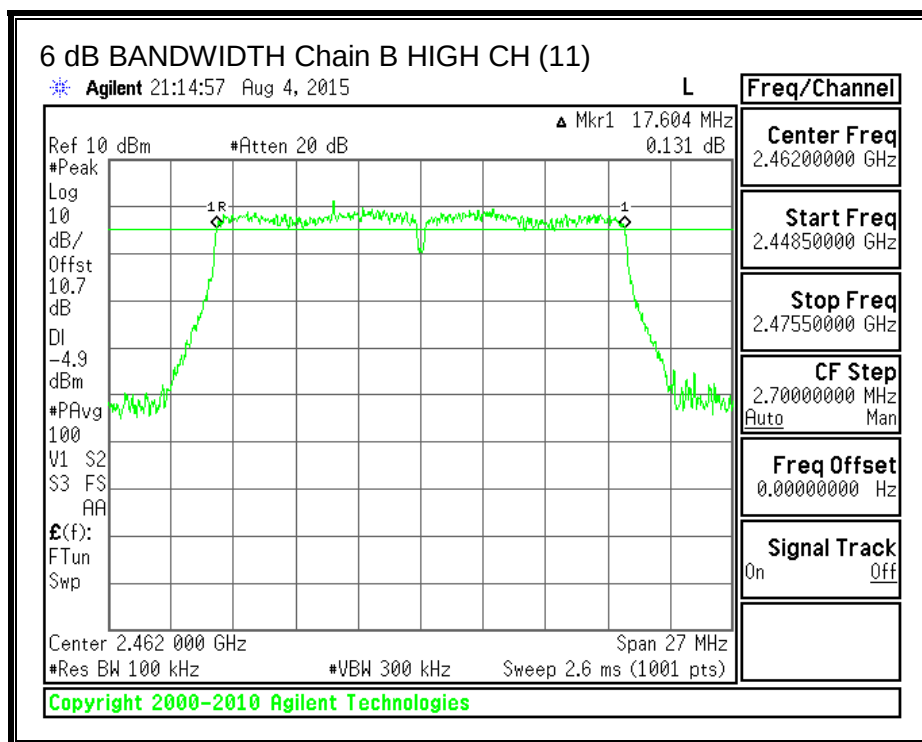
The minimum 6 dB bandwidth shall be at least 500 kHz.

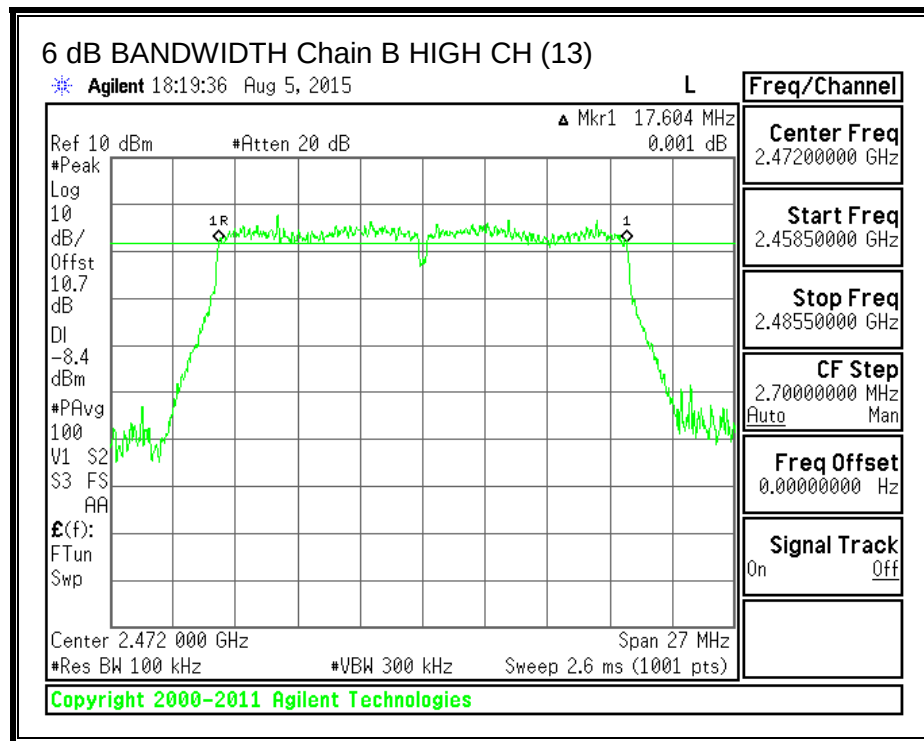
#### RESULTS (802.11n HT20)

| Channel    | Frequency<br>(MHz) | 6 dB BW<br>Chain B<br>(MHz) | 6 dB BW<br>Chain A<br>(MHz) | Minimum<br>Limit<br>(MHz) |
|------------|--------------------|-----------------------------|-----------------------------|---------------------------|
| Low        | 2412               | 17.577                      | 17.631                      | 0.5                       |
| Mid        | 2437               | 17.712                      | 17.631                      | 0.5                       |
| High CH 11 | 2462               | 17.604                      | 17.604                      | 0.5                       |
| High CH 12 | 2467               | 17.604                      | 17.604                      | 0.5                       |
| High CH 13 | 2472               | 17.604                      | 17.604                      | 0.5                       |

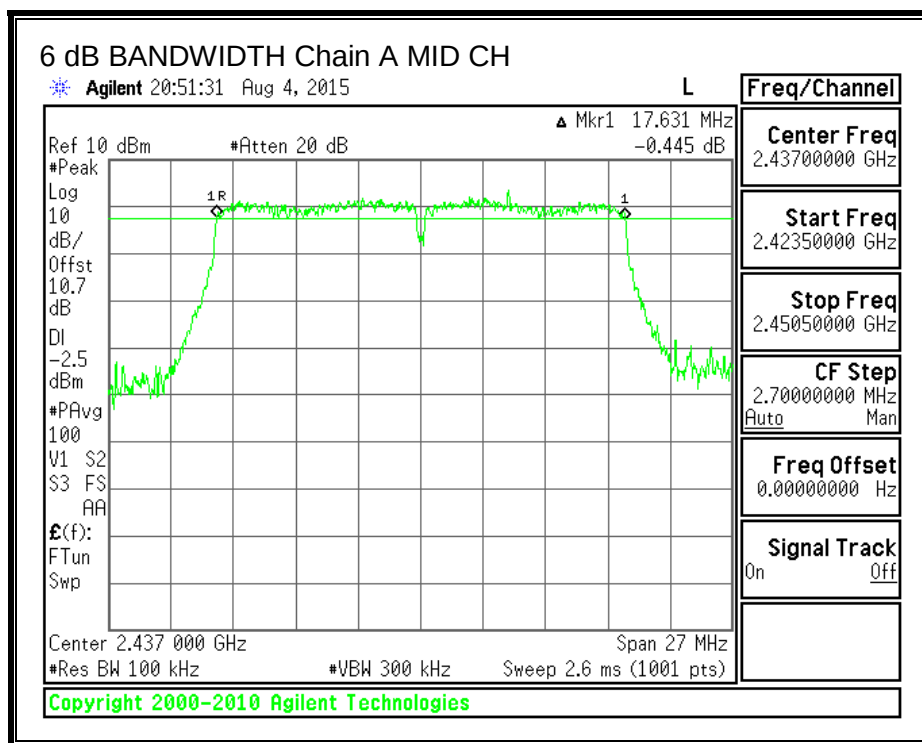
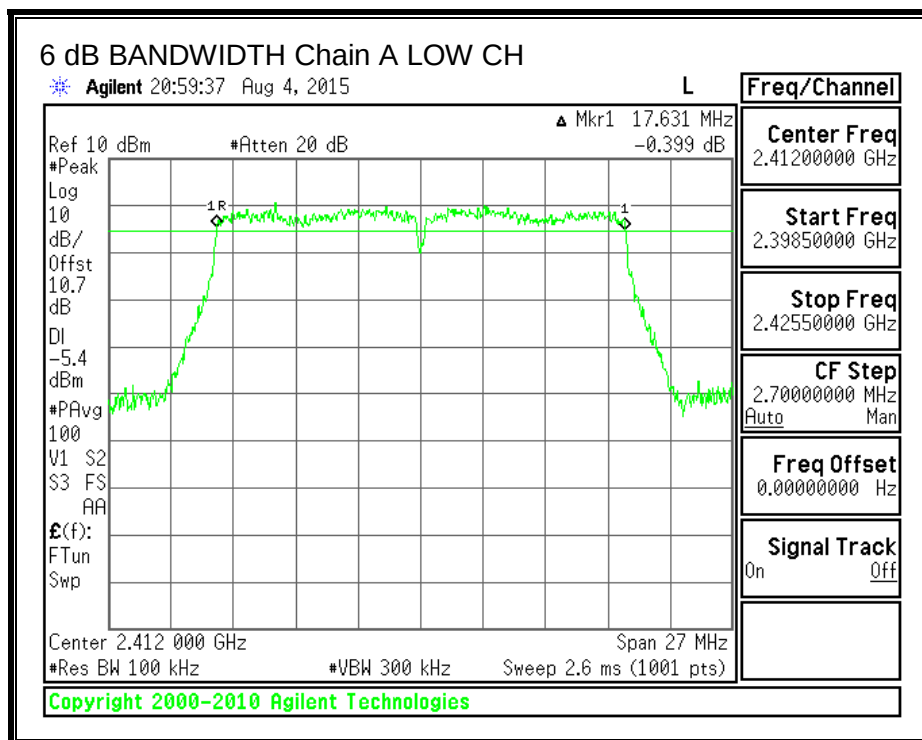
**6 dB BANDWIDTH, Chain B**



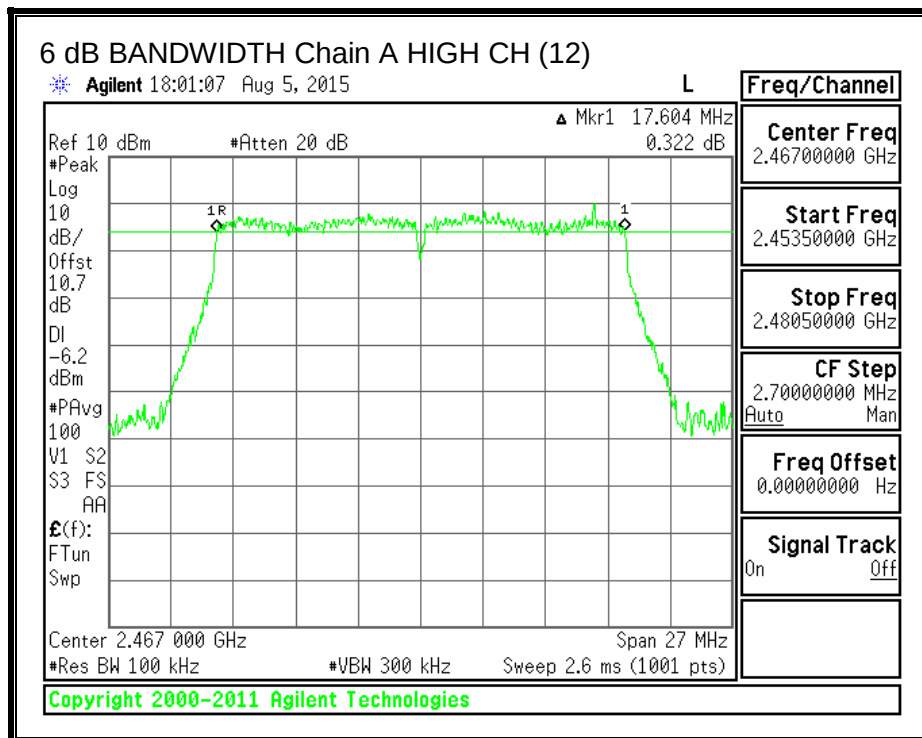
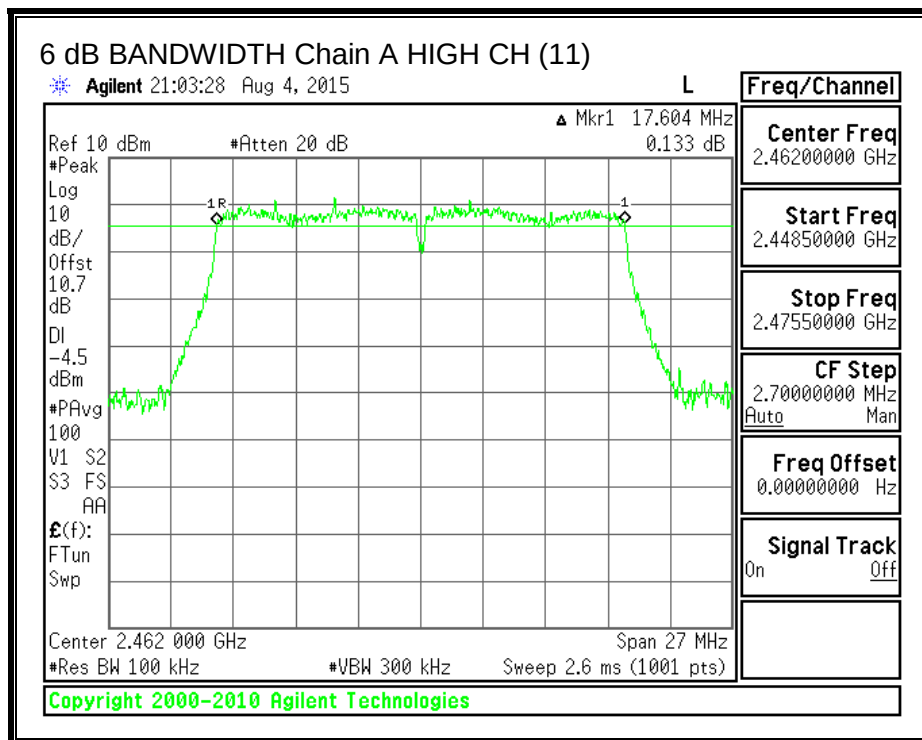


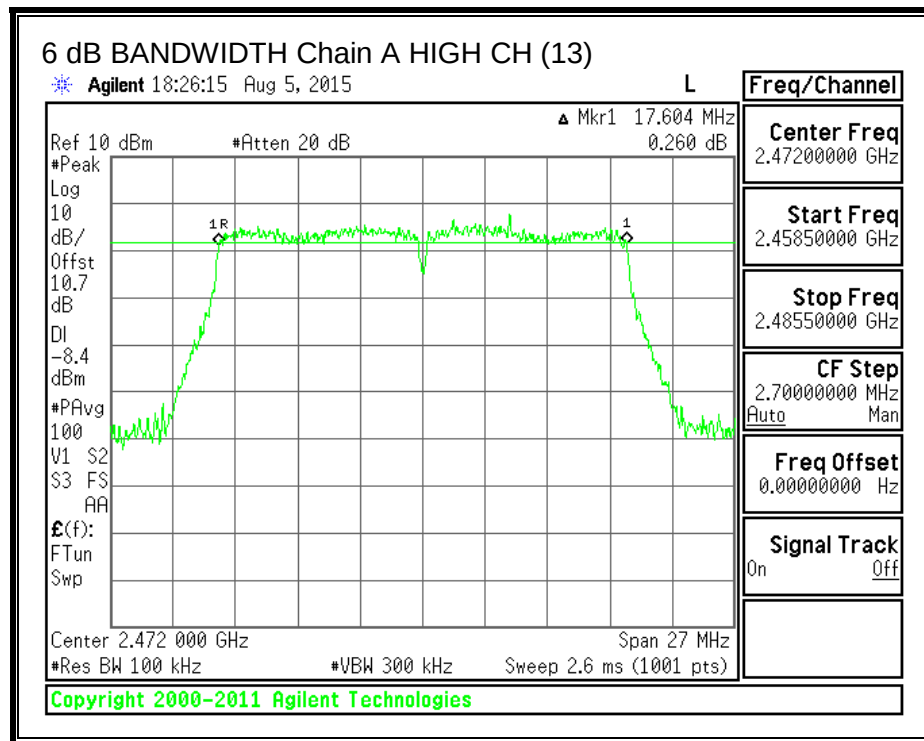


**6 dB BANDWIDTH, Chain A**









#### 8.4.2. 99% BANDWIDTH

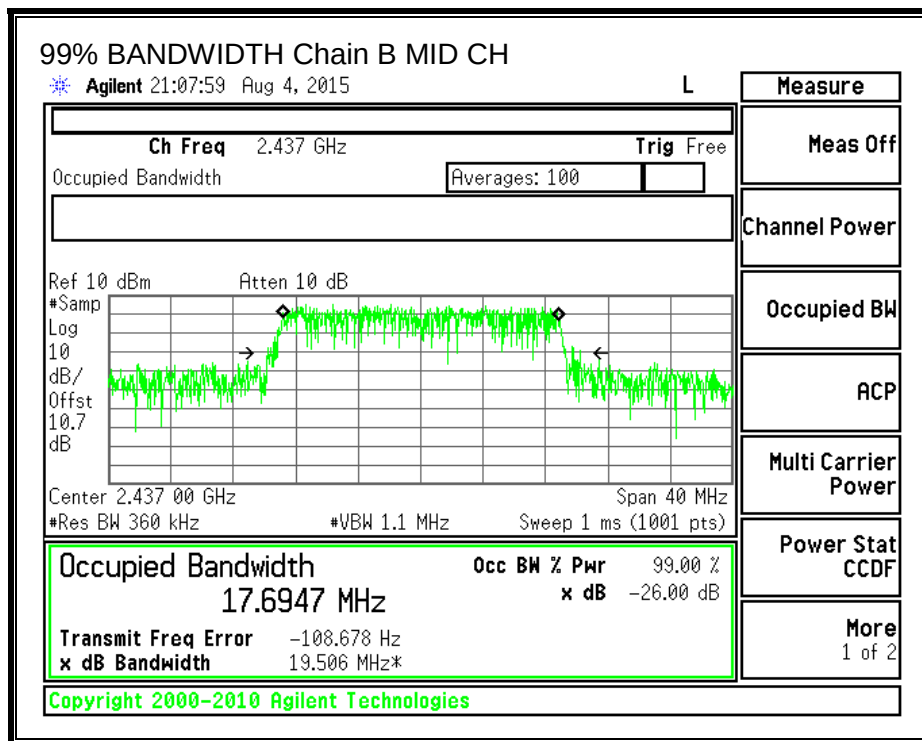
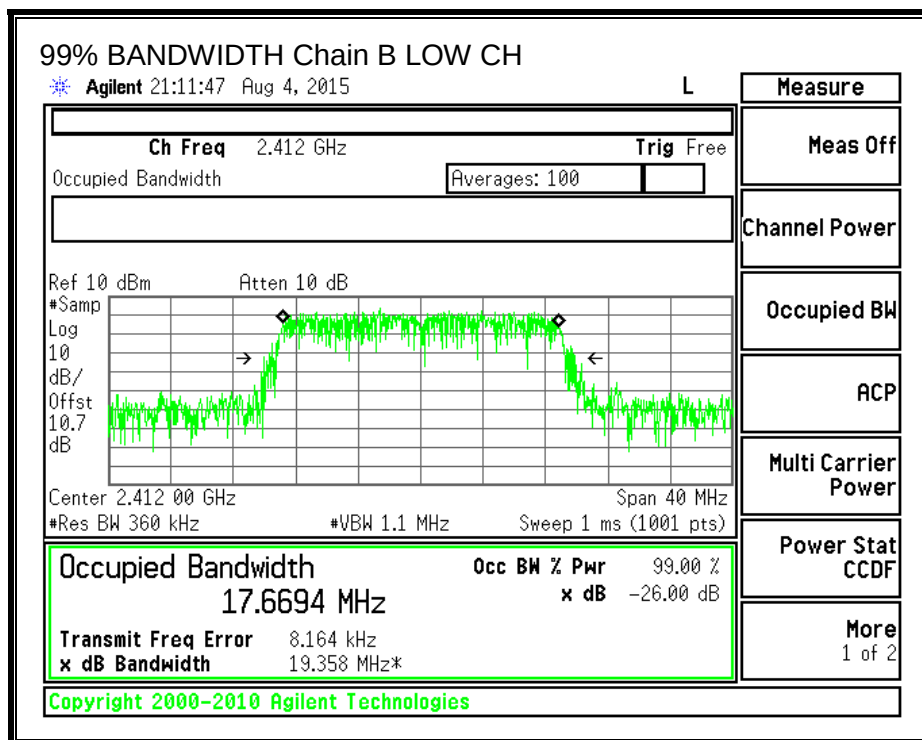
##### LIMITS

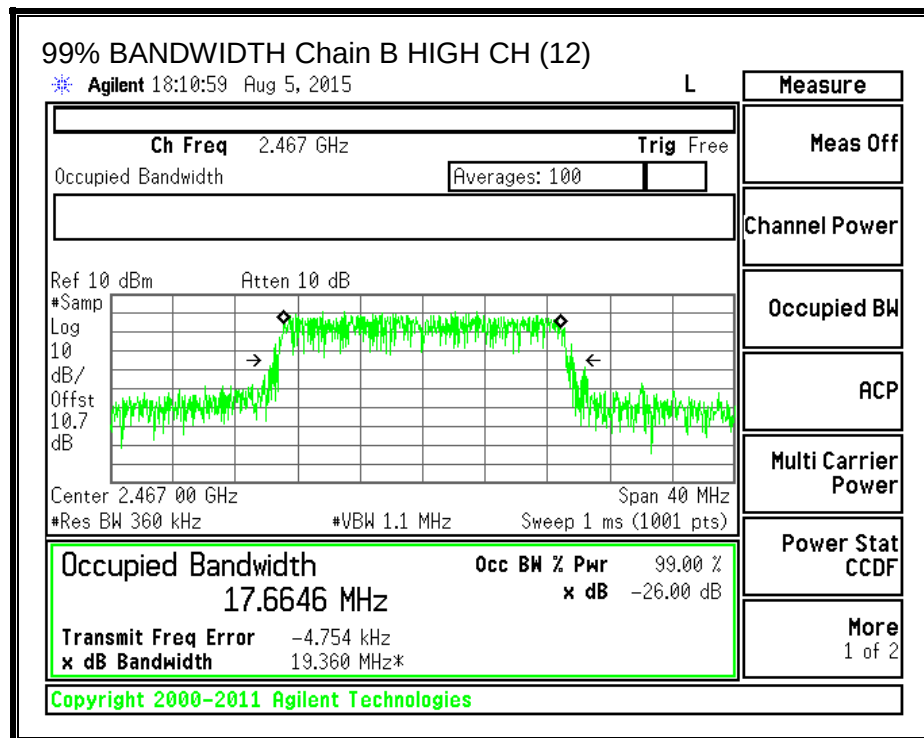
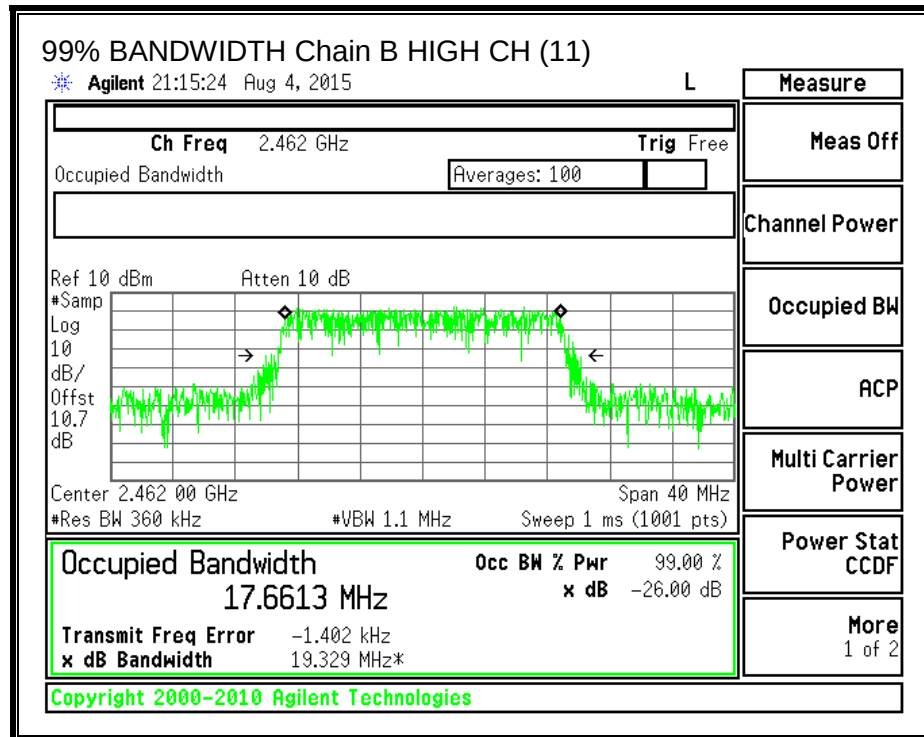
None; for reporting purposes only.

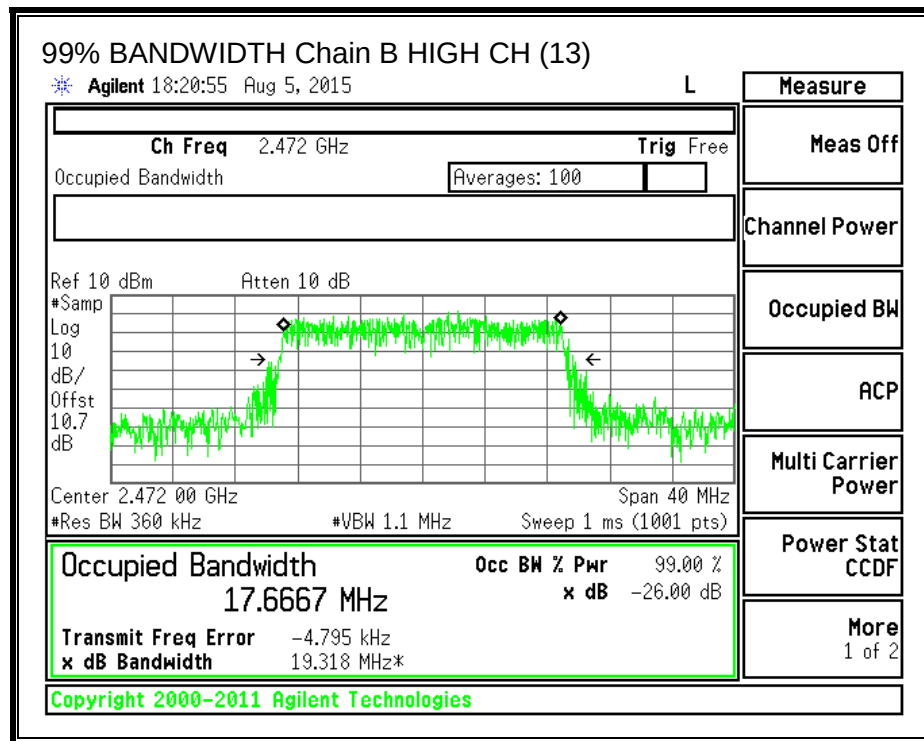
##### RESULTS (802.11n HT20)

| Channel    | Frequency<br>(MHz) | 99% BW<br>Chain B<br>(MHz) | 99% BW<br>Chain A<br>(MHz) |
|------------|--------------------|----------------------------|----------------------------|
| Low        | 2412               | 17.6694                    | 17.6713                    |
| Mid        | 2437               | 17.6947                    | 17.6603                    |
| High CH 11 | 2462               | 17.6613                    | 17.6448                    |
| High CH 12 | 2467               | 17.6646                    | 17.6577                    |
| High CH 13 | 2472               | 17.6667                    | 17.6666                    |

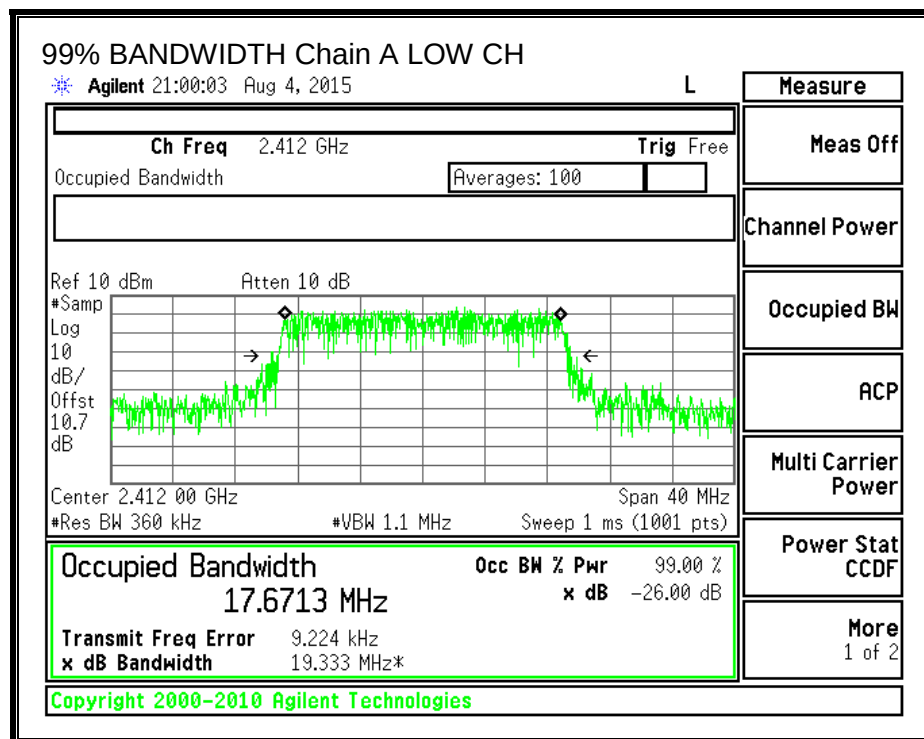
**99% BANDWIDTH, Chain B**

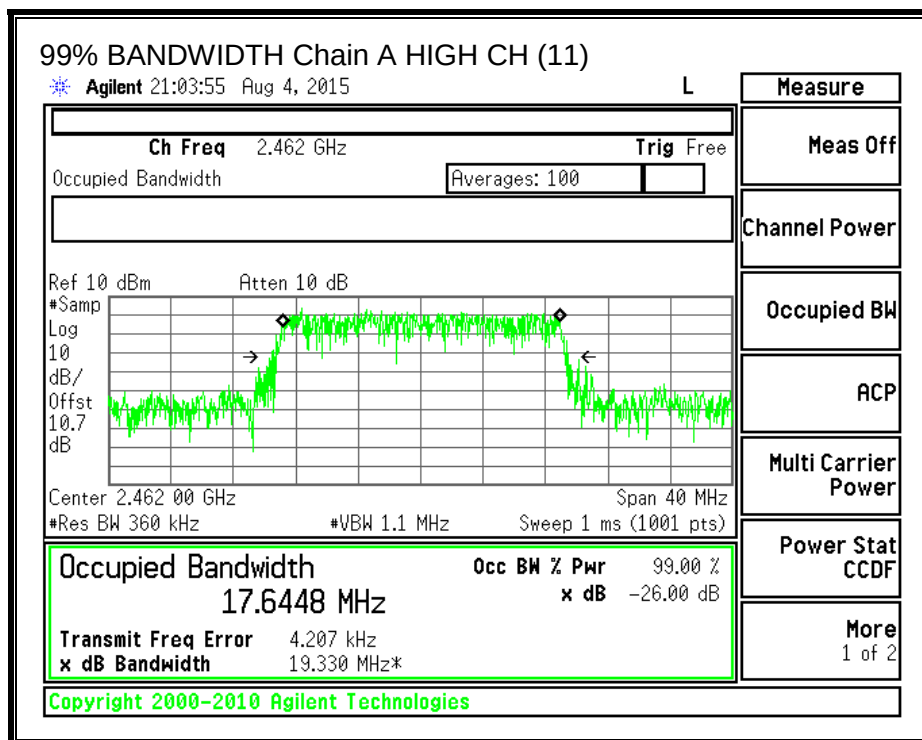
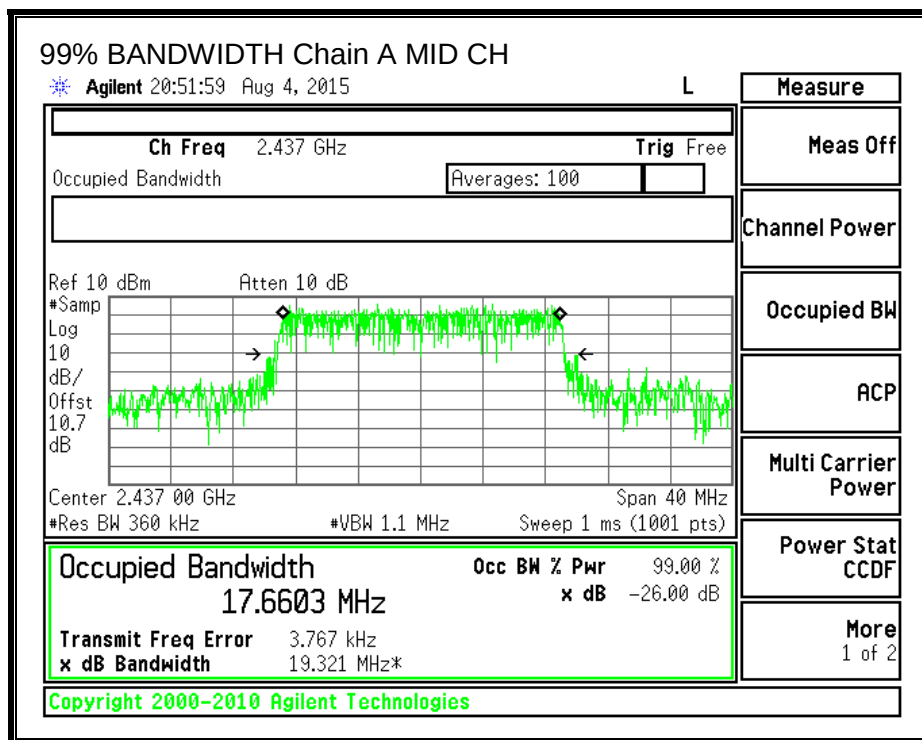


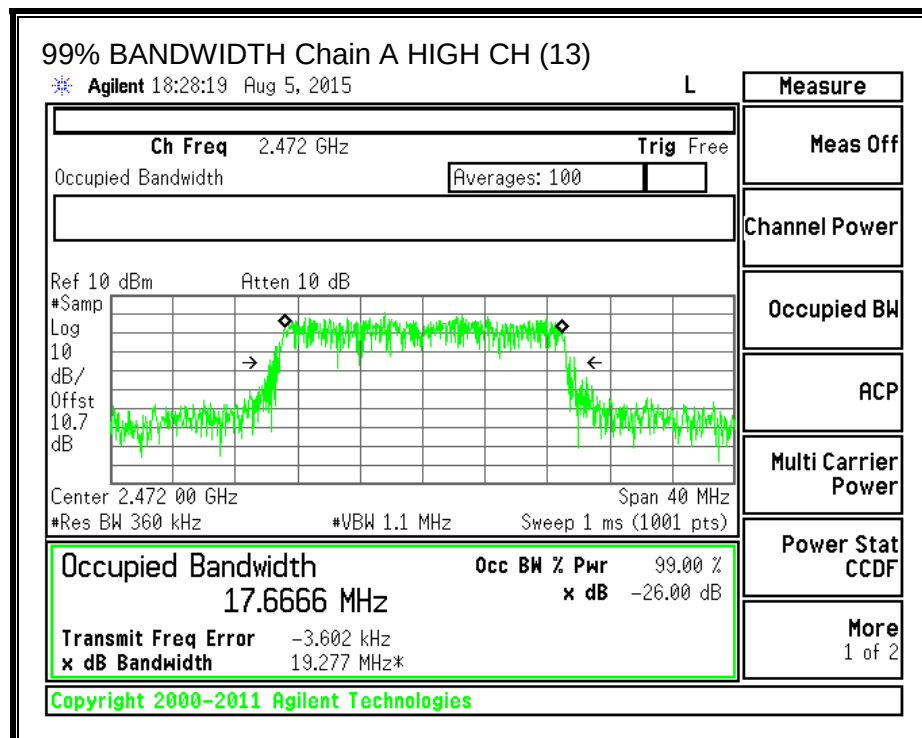
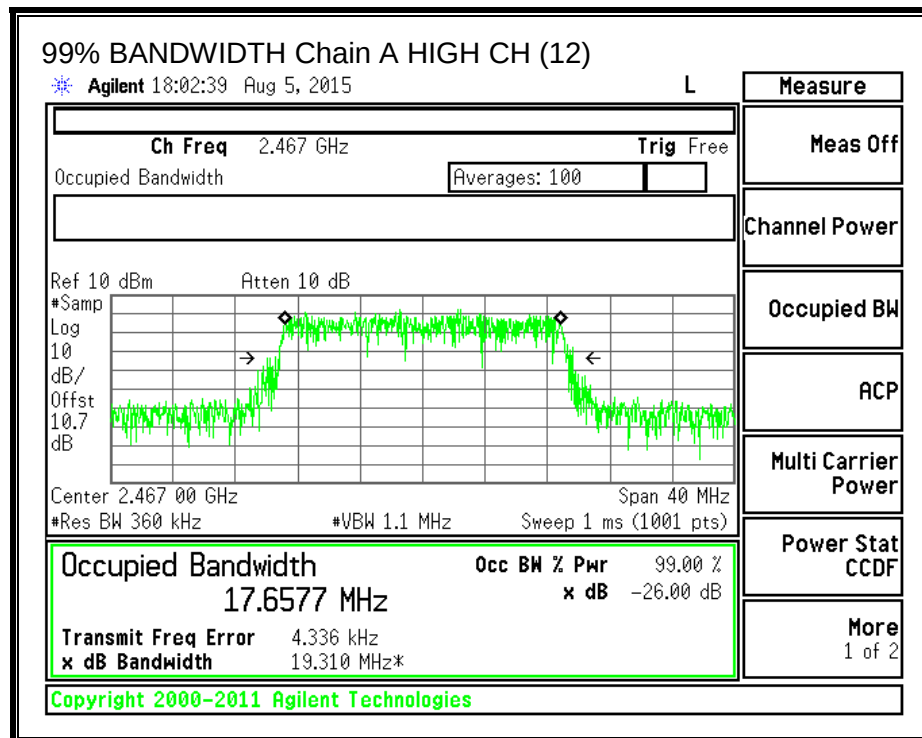




**99% BANDWIDTH, Chain A**









### 8.4.3. OUTPUT POWER

#### LIMITS

FCC §15.247

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

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

| Chain B<br>Antenna<br>Gain<br>(dBi) | Chain A<br>Antenna<br>Gain<br>(dBi) | Uncorrelated Chains<br>Directional<br>Gain<br>(dBi) |
|-------------------------------------|-------------------------------------|-----------------------------------------------------|
| 1.70                                | 1.40                                | 1.55                                                |

**RESULTS (802.11n HT20)**

**Limits**

| Channel    | Frequency<br>(MHz) | Direct.<br>Gain<br>(dBi) | FCC<br>Power<br>Limit<br>(dBm) | IC<br>Power<br>Limit<br>(dBm) | IC<br>EIRP<br>Limit<br>(dBm) | Max<br>Power<br>(dBm) |
|------------|--------------------|--------------------------|--------------------------------|-------------------------------|------------------------------|-----------------------|
| Low CH 1   | 2412               | 1.55                     | 30.00                          | 30                            | 36                           | 30.00                 |
| Low CH 2   | 2417               | 1.55                     | 30.00                          | 30                            | 36                           | 30.00                 |
| Mid        | 2437               | 1.55                     | 30.00                          | 30                            | 36                           | 30.00                 |
| High CH 10 | 2457               | 1.55                     | 30.00                          | 30                            | 36                           | 30.00                 |
| High CH 11 | 2462               | 1.55                     | 30.00                          | 30                            | 36                           | 30.00                 |
| High CH 12 | 2467               | 1.55                     | 30.00                          | 30                            | 36                           | 30.00                 |
| High CH 13 | 2472               | 1.55                     | 30.00                          | 30                            | 36                           | 30.00                 |

|                           |      |                                                 |
|---------------------------|------|-------------------------------------------------|
| <b>Duty Cycle CF (dB)</b> | 0.00 | <b>Included in Calculations of Corr'd Power</b> |
|---------------------------|------|-------------------------------------------------|

**Results**

| Channel    | Frequency<br>(MHz) | Chain B<br>Meas<br>Power<br>(dBm) | Chain<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Margin<br>(dB) | EIRP<br>(dBm) | EIRP<br>Limit<br>(dBm) | Margin<br>(dB) |
|------------|--------------------|-----------------------------------|---------------------------------|-----------------------------------|-------------------------|----------------|---------------|------------------------|----------------|
| Low CH 1   | 2412               | 13.94                             | 14.20                           | 17.08                             | 30.00                   | -12.92         | 18.63         | 36.00                  | -17.37         |
| Low CH 2   | 2417               | 15.50                             | 15.41                           | 18.47                             | 30.00                   | -11.53         | 20.02         | 36.00                  | -15.98         |
| Mid        | 2437               | 15.52                             | 15.34                           | 18.44                             | 30.00                   | -11.56         | 19.99         | 36.00                  | -16.01         |
| High CH 10 | 2457               | 15.45                             | 15.23                           | 18.35                             | 30.00                   | -11.65         | 19.90         | 36.00                  | -16.10         |
| High CH 11 | 2462               | 13.92                             | 14.17                           | 17.06                             | 30.00                   | -12.94         | 18.61         | 36.00                  | -17.39         |
| High CH 12 | 2467               | 11.90                             | 12.16                           | 15.04                             | 30.00                   | -14.96         | 16.59         | 36.00                  | -19.41         |
| High CH 13 | 2472               | 10.01                             | 9.78                            | 12.91                             | 30.00                   | -17.09         | 14.46         | 36.00                  | -21.54         |

## 8.4.4. POWER SPECTRAL DENSITY

### LIMITS

FCC §15.247

### RESULTS (802.11n HT20)

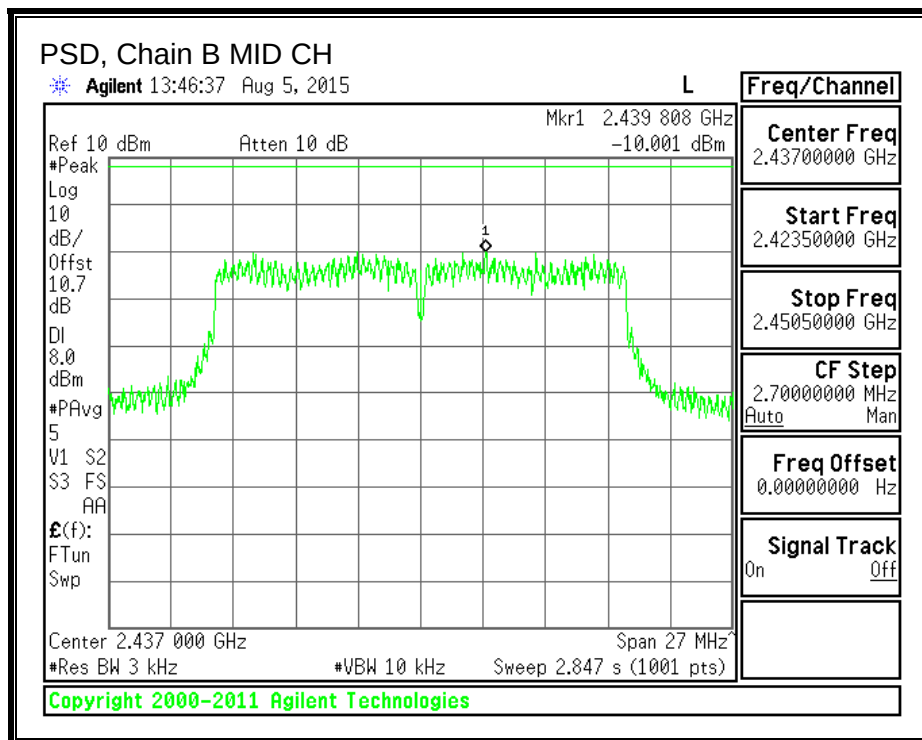
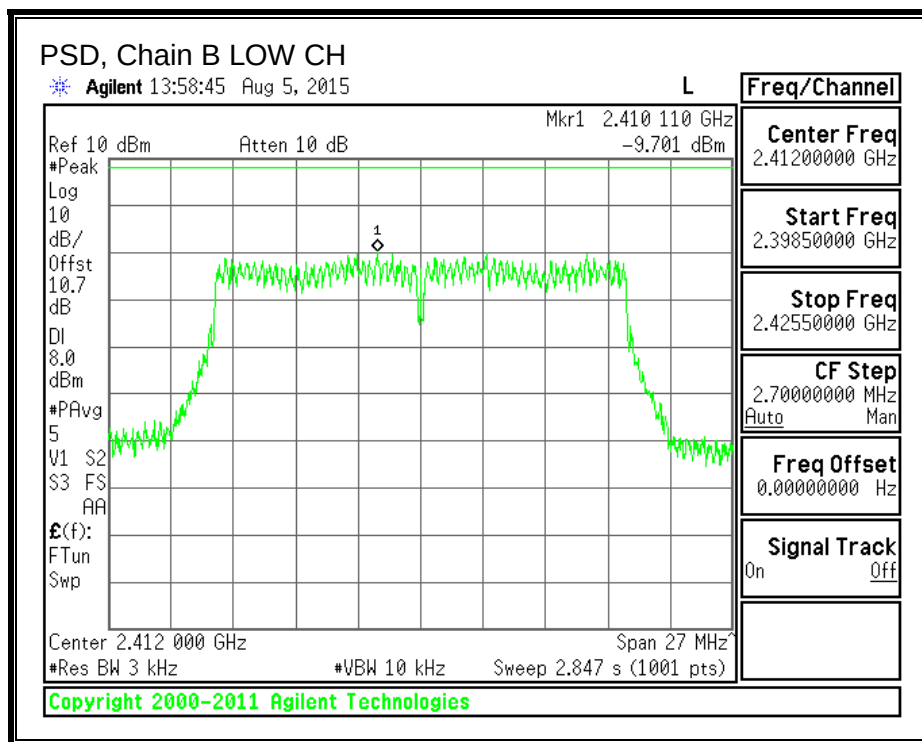
Note – For 802.11n, the power was set as a stair step: Channels 1 and 11 are the same power and Channels 2-10 are the same power. For PSD, Channels 1 and 11 were set at same power setting as the Mid Channel to achieve worst-case results.

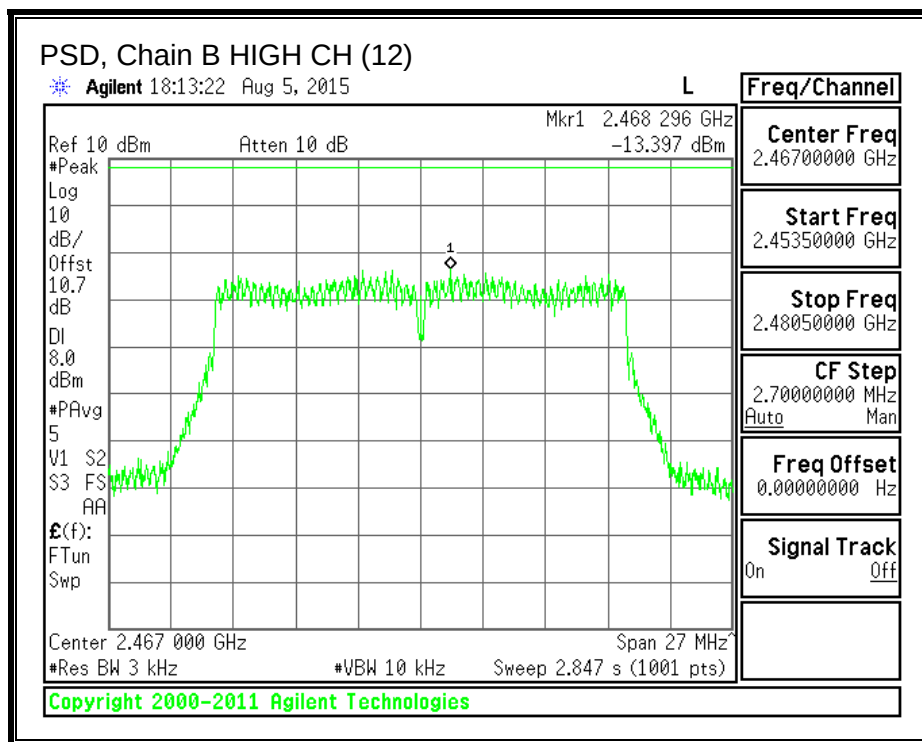
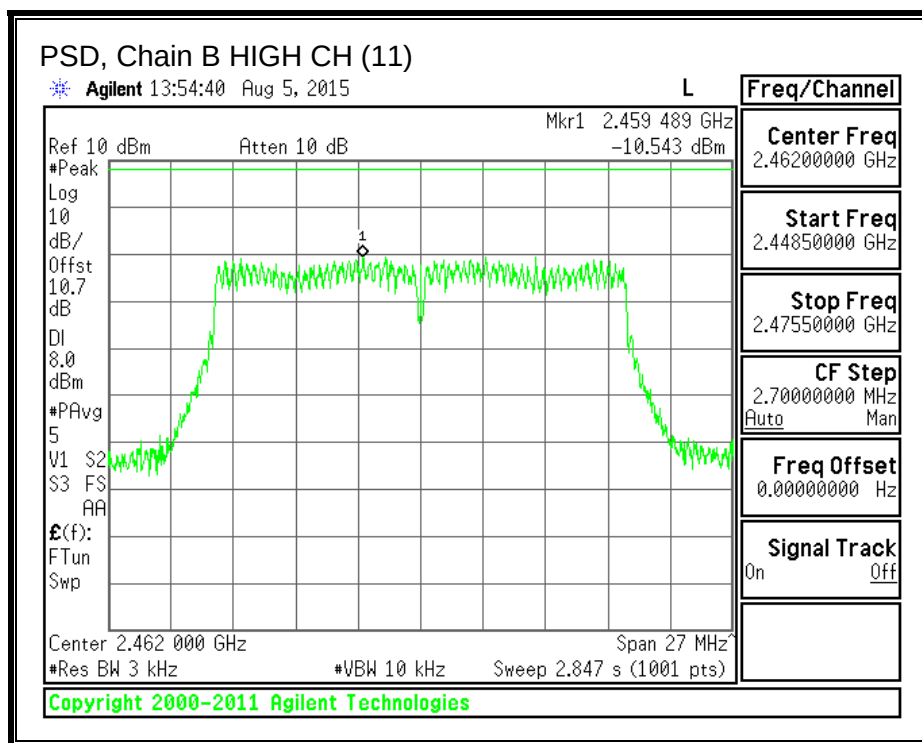
|                           |      |                                               |
|---------------------------|------|-----------------------------------------------|
| <b>Duty Cycle CF (dB)</b> | 0.00 | <b>Included in Calculations of Corr'd PSD</b> |
|---------------------------|------|-----------------------------------------------|

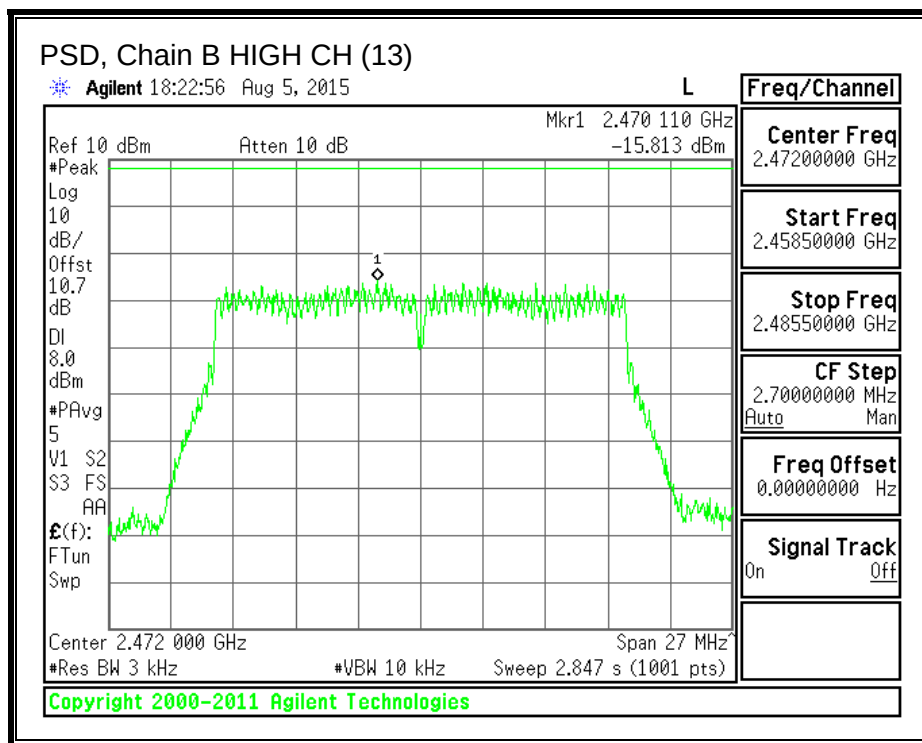
#### **PSD Results**

| <b>Channel</b> | <b>Frequency<br/>(MHz)</b> | <b>Chain b<br/>Meas<br/>(dBm)</b> | <b>Chain A<br/>Meas<br/>(dBm)</b> | <b>Total<br/>Corr'd<br/>PSD<br/>(dBm)</b> | <b>Limit<br/>(dBm)</b> | <b>Margin<br/>(dB)</b> |
|----------------|----------------------------|-----------------------------------|-----------------------------------|-------------------------------------------|------------------------|------------------------|
| Low            | 2412                       | -9.70                             | -9.01                             | -6.33                                     | 8.0                    | -14.3                  |
| Mid            | 2437                       | -10.00                            | -10.12                            | -7.05                                     | 8.0                    | -15.1                  |
| High CH 11     | 2462                       | -10.54                            | -9.33                             | -6.88                                     | 8.0                    | -14.9                  |
| High CH 12     | 2467                       | -13.40                            | -13.28                            | -10.33                                    | 8.0                    | -18.3                  |
| High CH 13     | 2472                       | -15.81                            | -15.50                            | -12.64                                    | 8.0                    | -20.6                  |

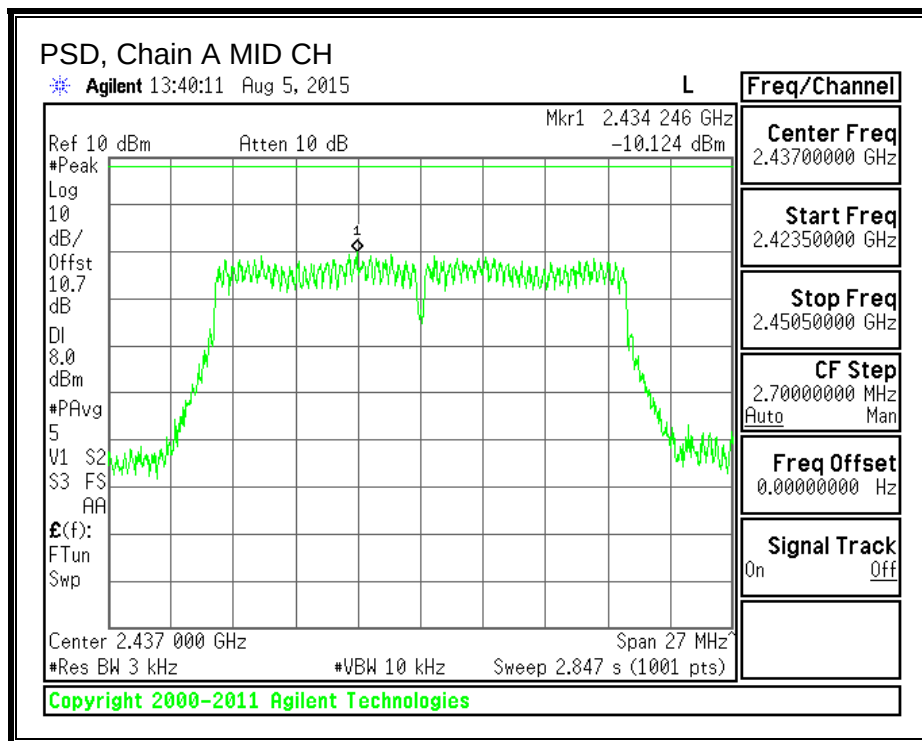
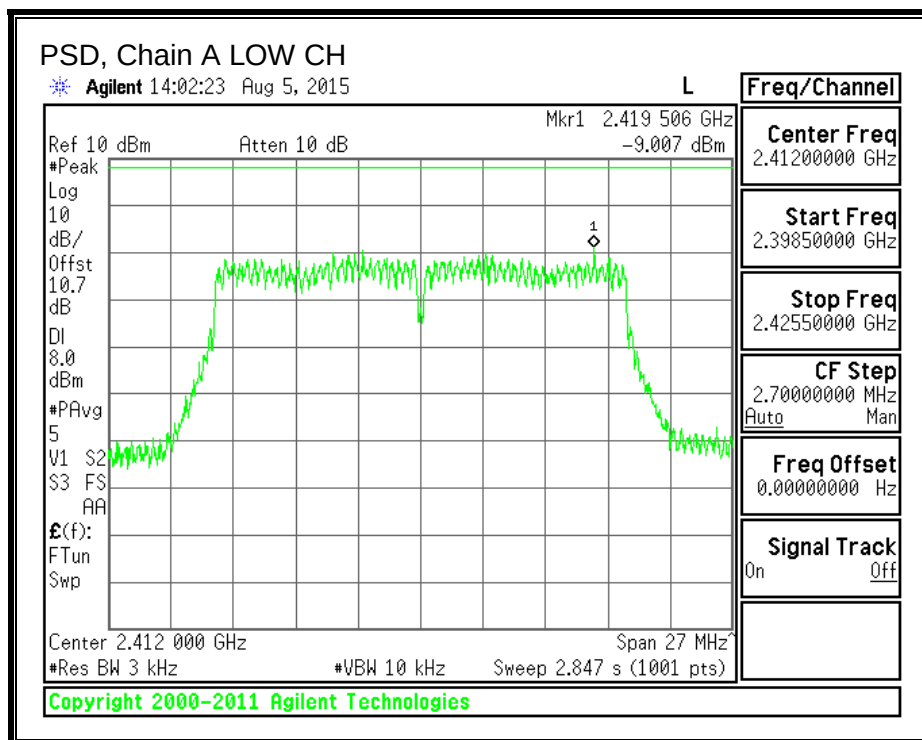
**PSD, Chain B**

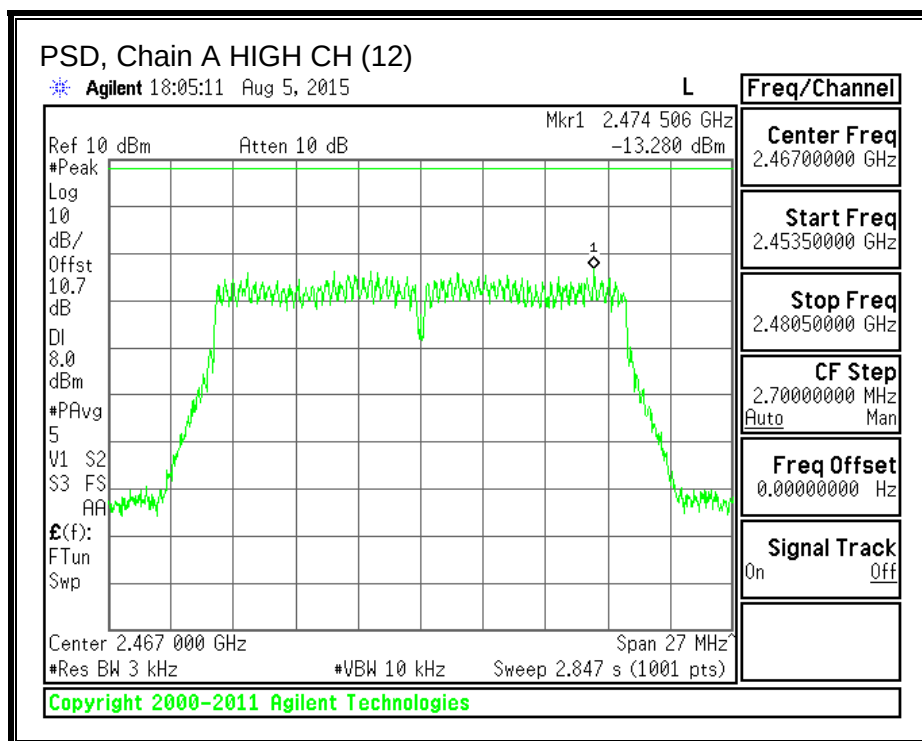
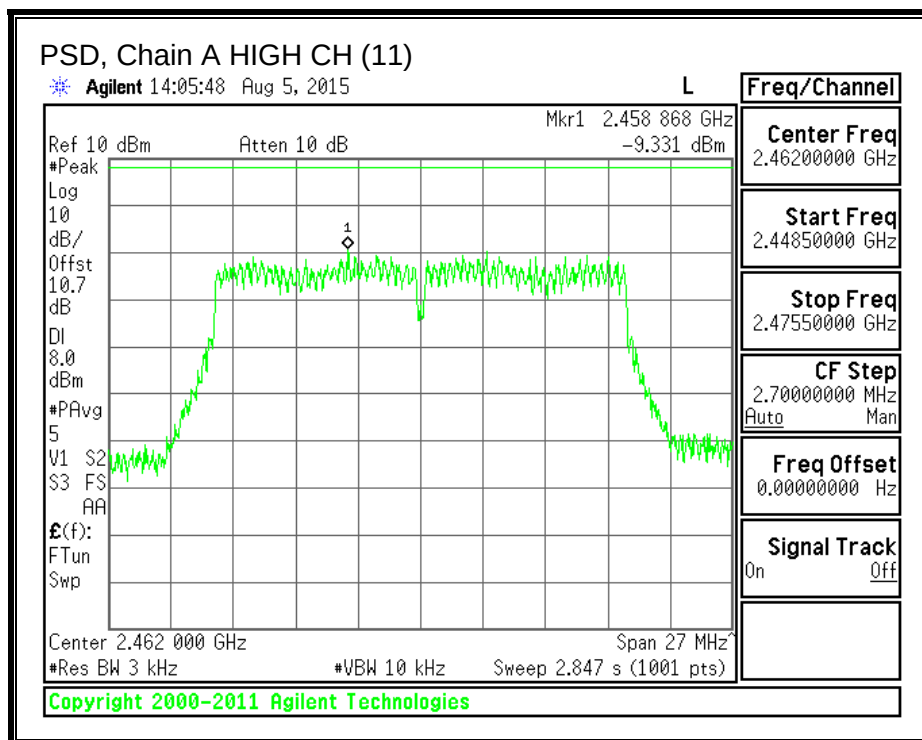




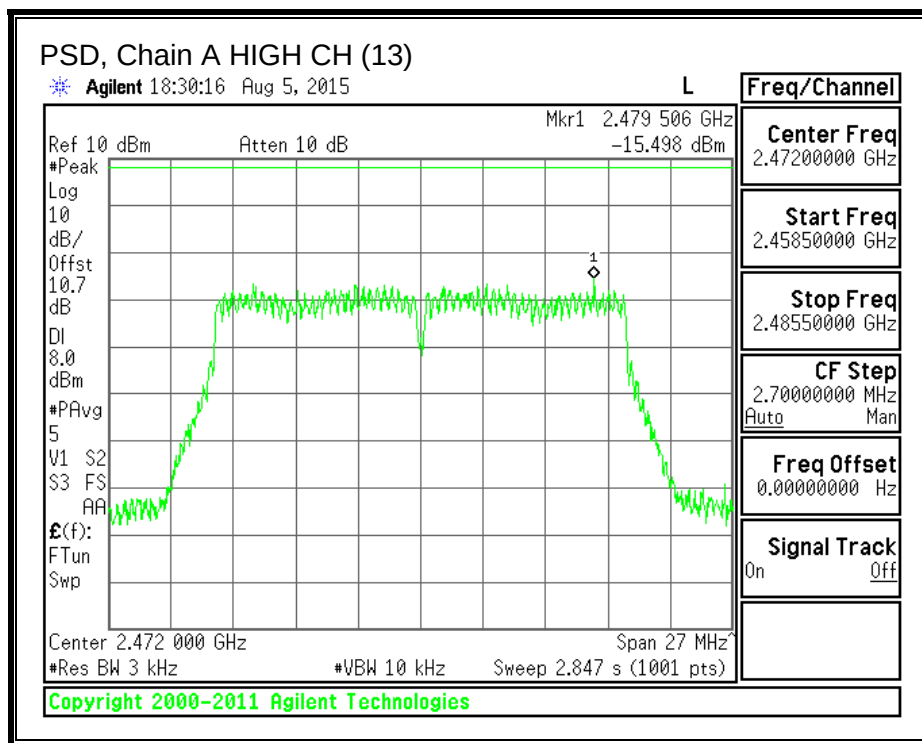


**PSD, Chain A**









## 8.4.5. OUT-OF-BAND EMISSIONS

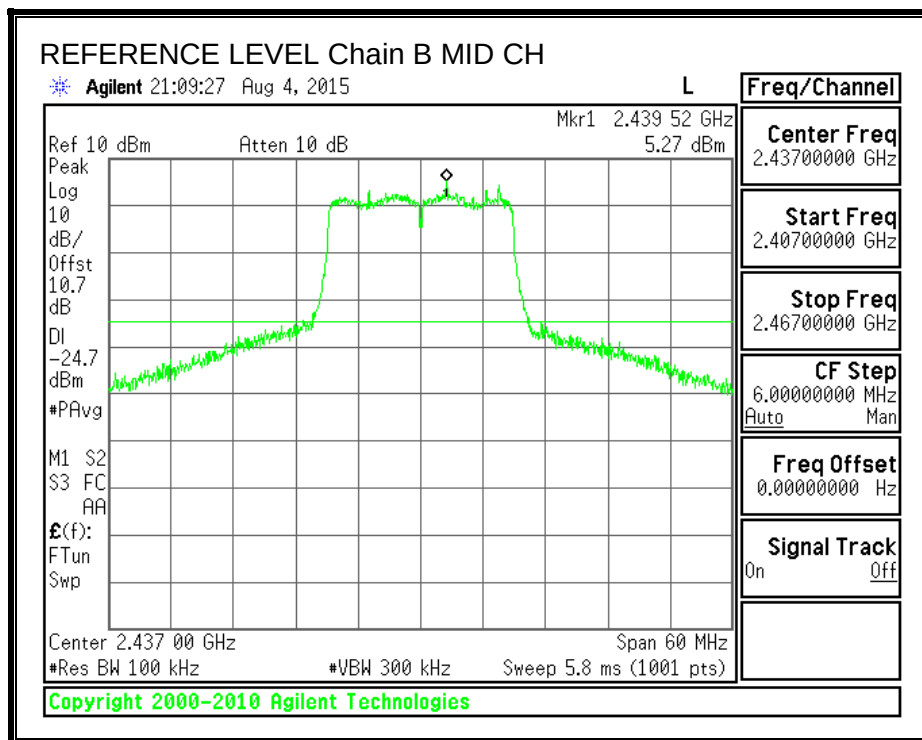
### LIMITS

FCC §15.247 (d)

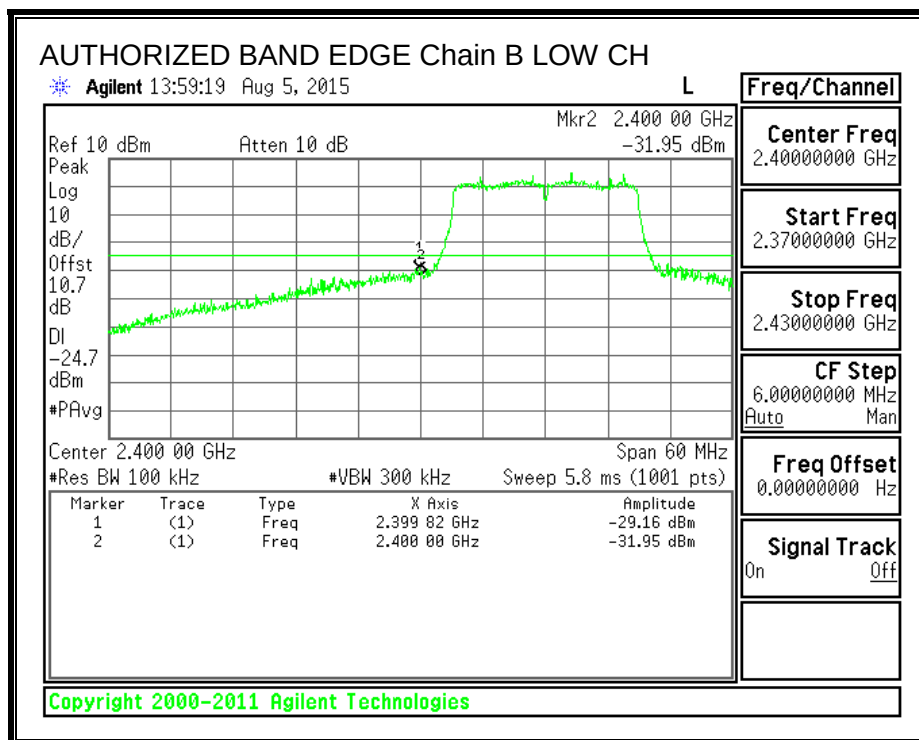
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

**RESULTS (802.11n HT20)**

**IN-BAND REFERENCE LEVEL, Chain B**

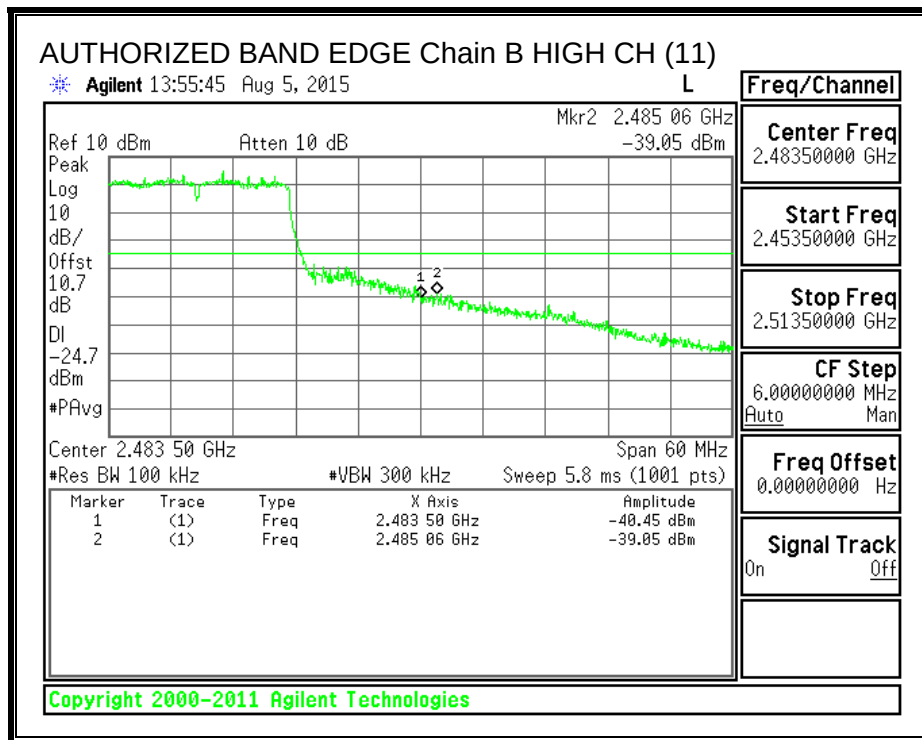


**LOW CHANNEL BANDEDGE, Chain B**

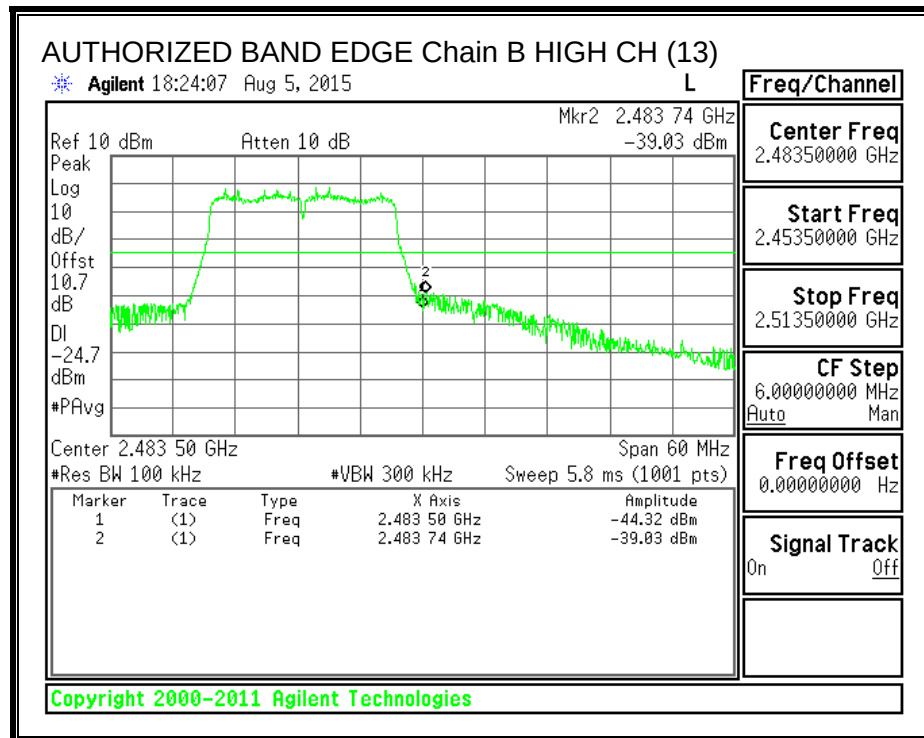
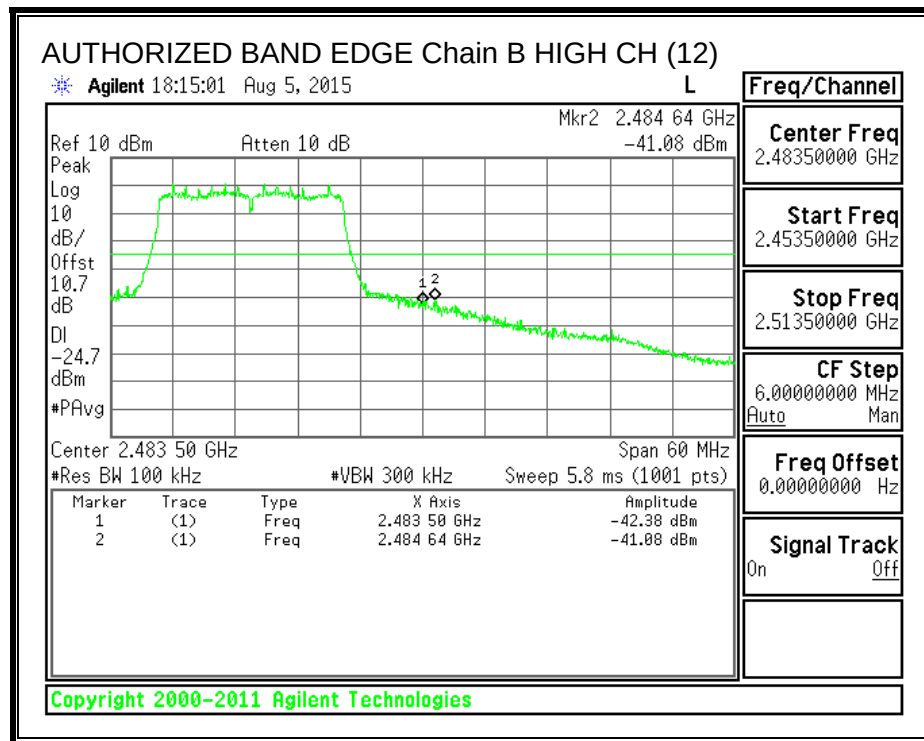


Note – CH1 was tested at the Mid Channel Power Setting to achieve worst-case results.

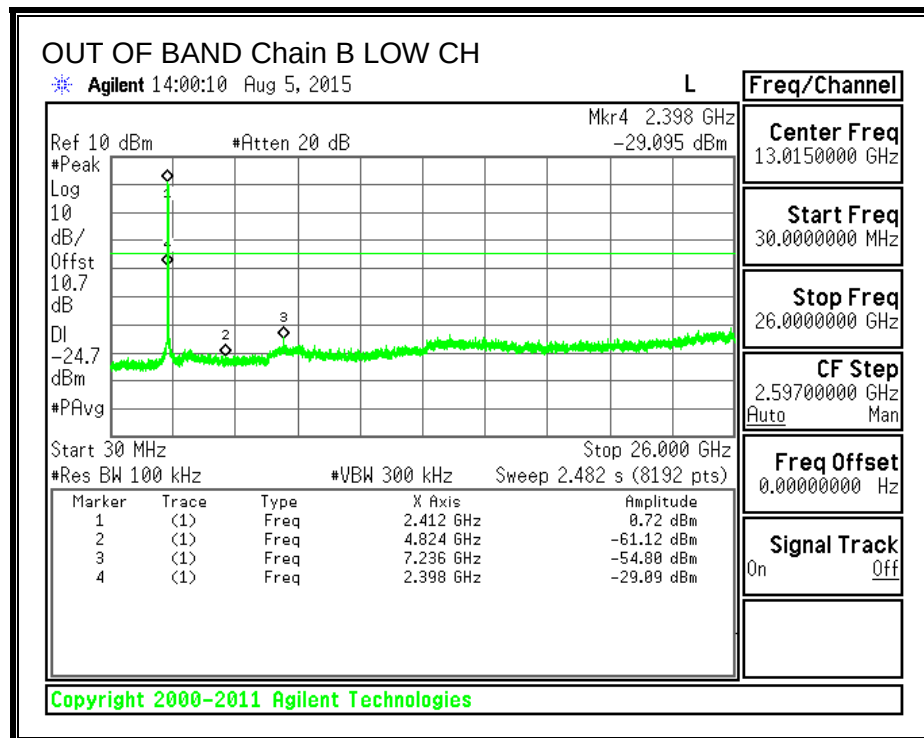
**HIGH CHANNEL BANDEDGE, Chain B**



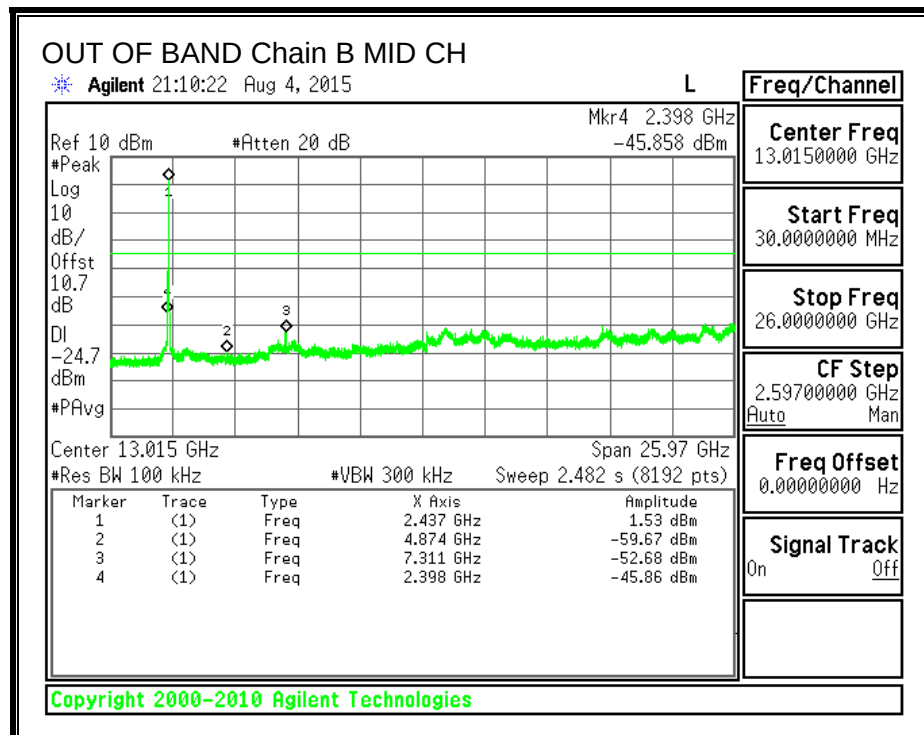
Note – CH11 was tested at the Mid Channel Power Setting to achieve worst-case results.

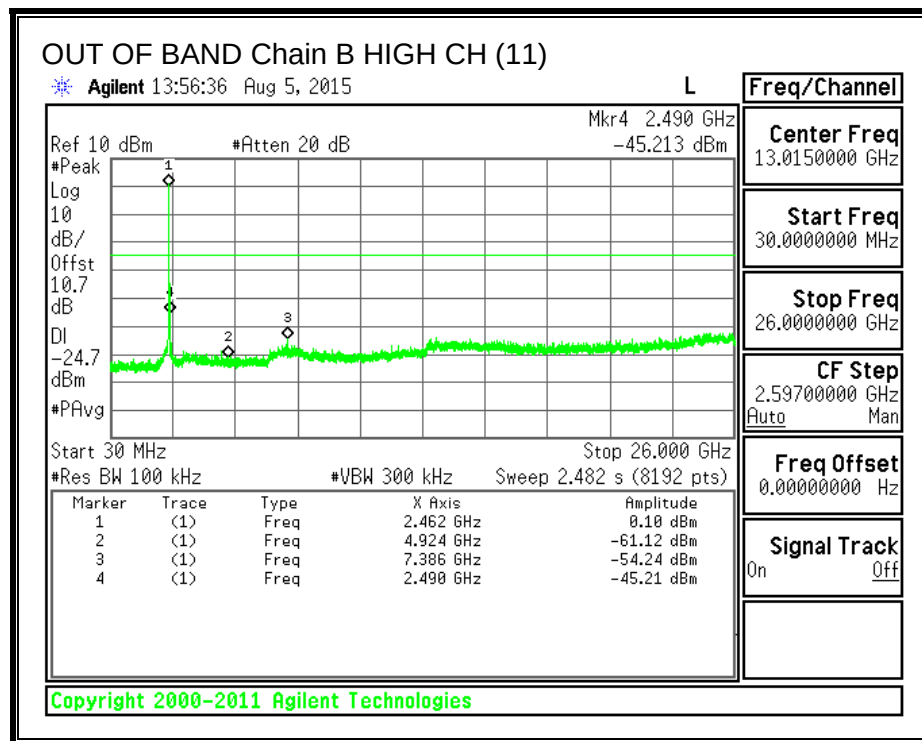


**OUT-OF-BAND EMISSIONS, Chain B**

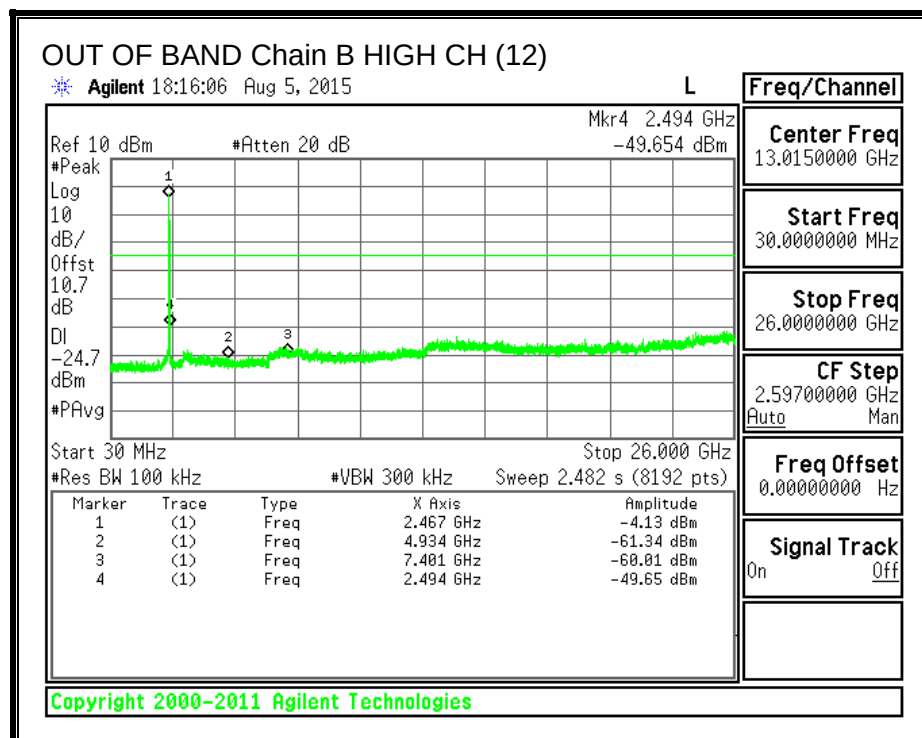


Note – CH1 was tested at the Mid Channel Power Setting to achieve worst-case results.

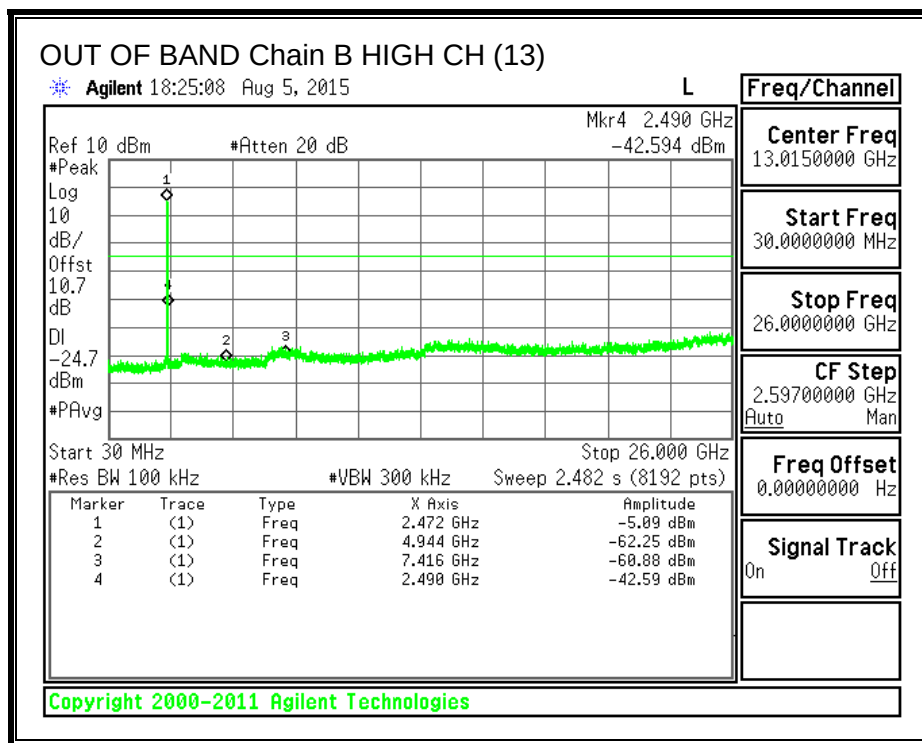




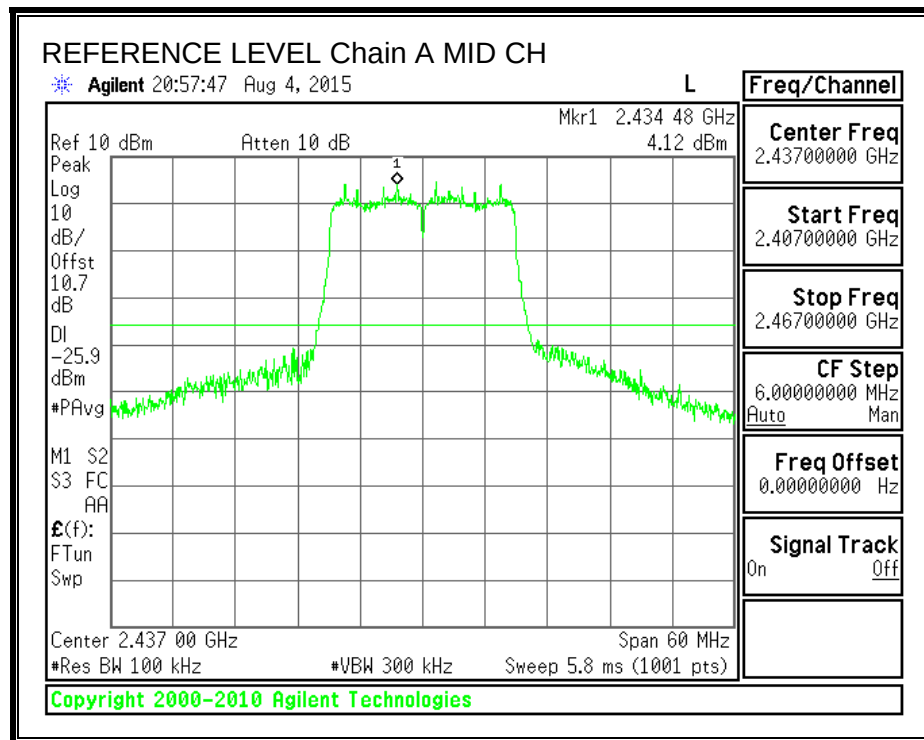
Note – CH11 was tested at the Mid Channel Power Setting to achieve worst-case results.



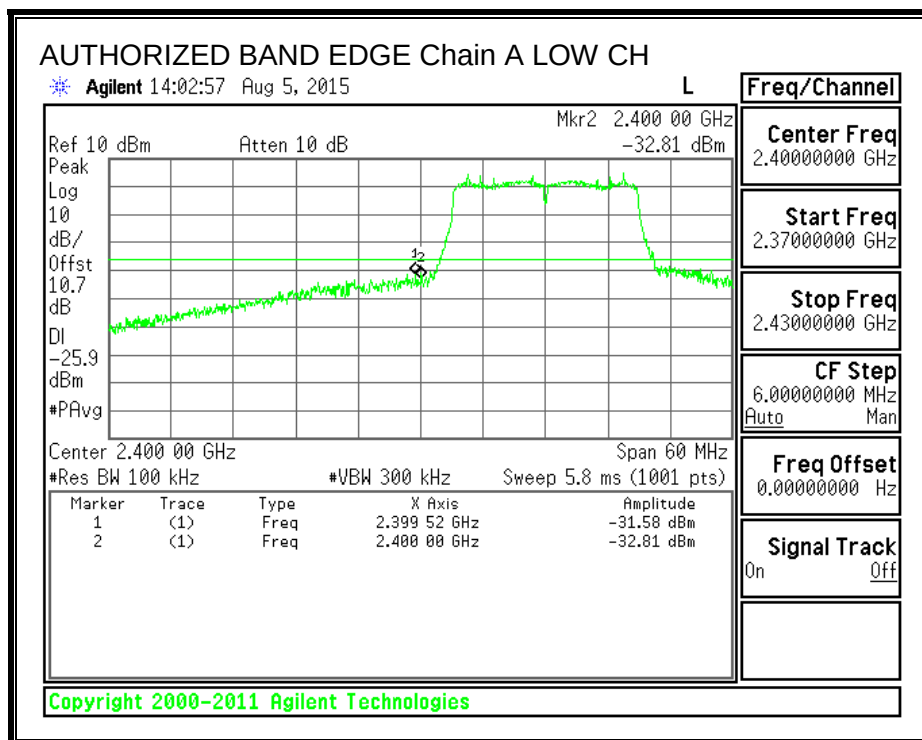




**IN-BAND REFERENCE LEVEL, Chain A**

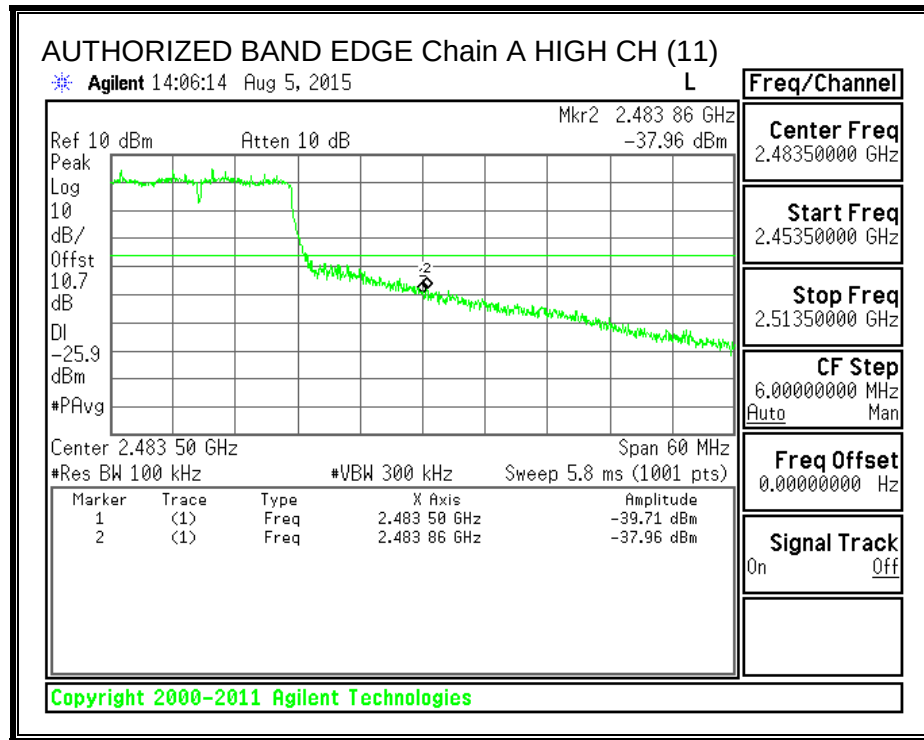


**LOW CHANNEL BANDEDGE, Chain A**

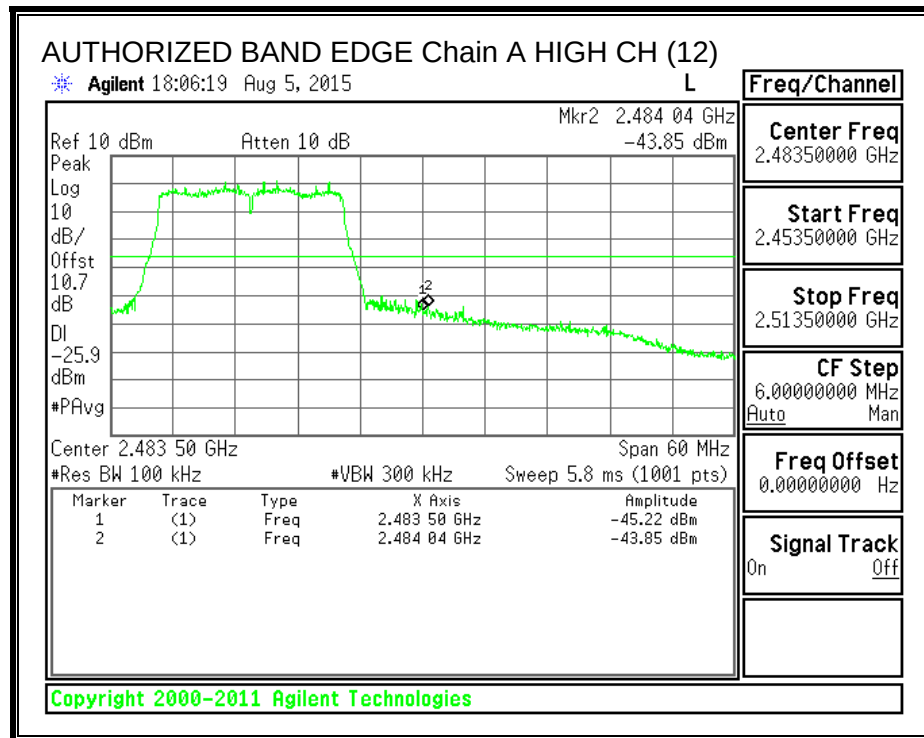


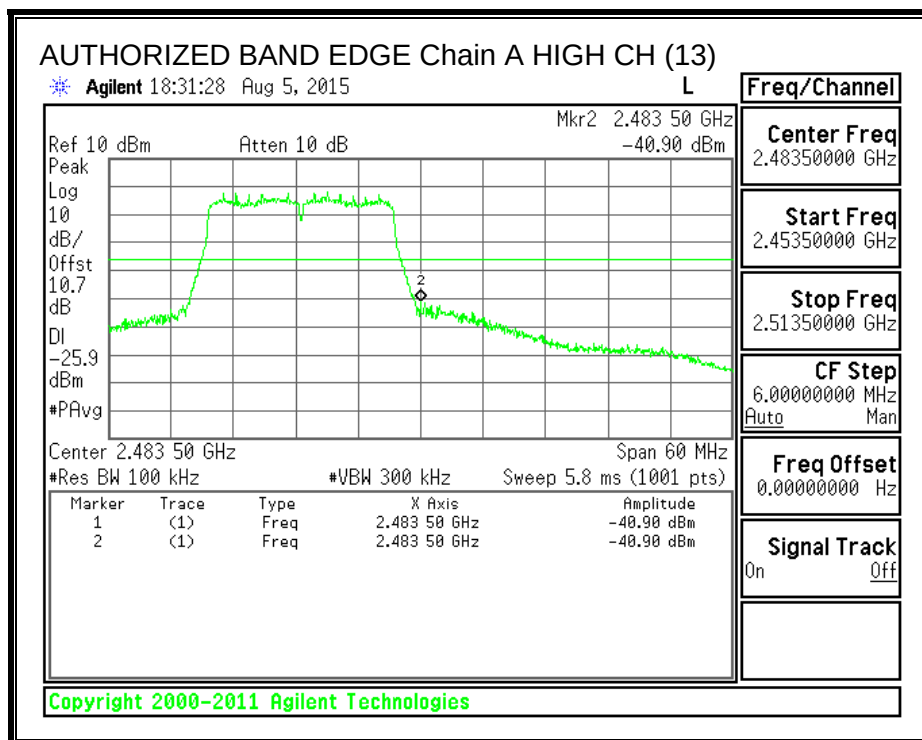
Note – CH1 was tested at the Mid Channel Power Setting to achieve worst-case results.

**HIGH CHANNEL BANDEDGE, Chain A**

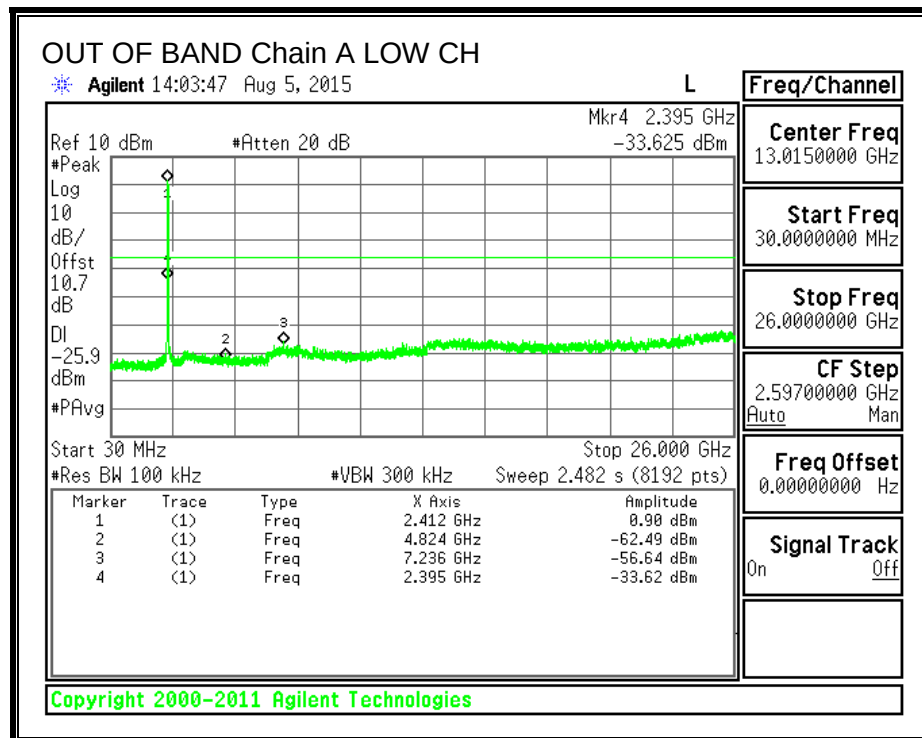


Note – CH11 was tested at the Mid Channel Power Setting to achieve worst-case results.

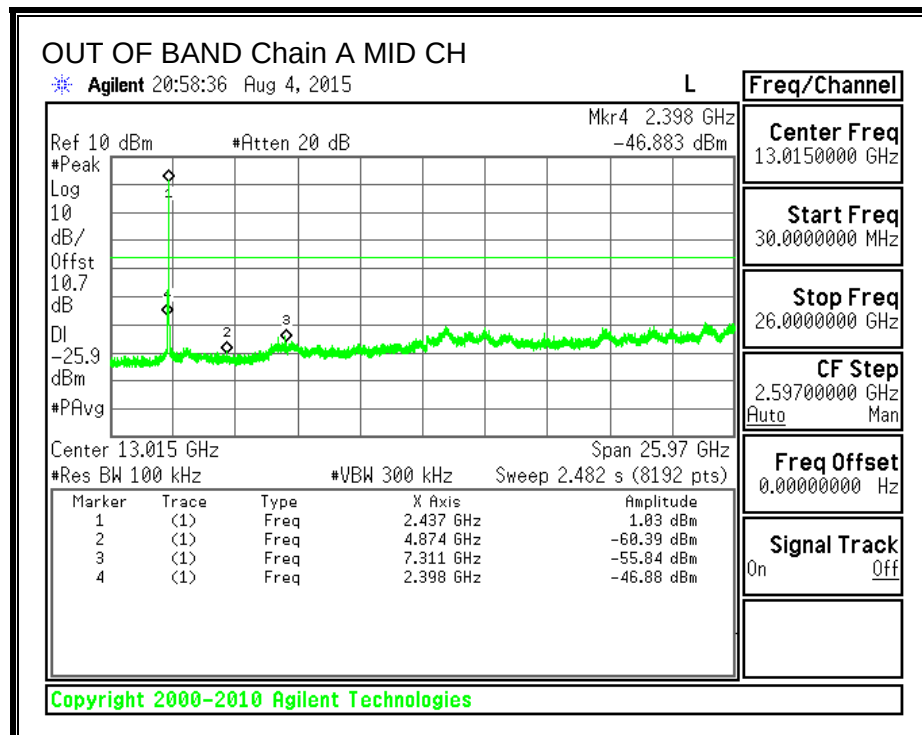


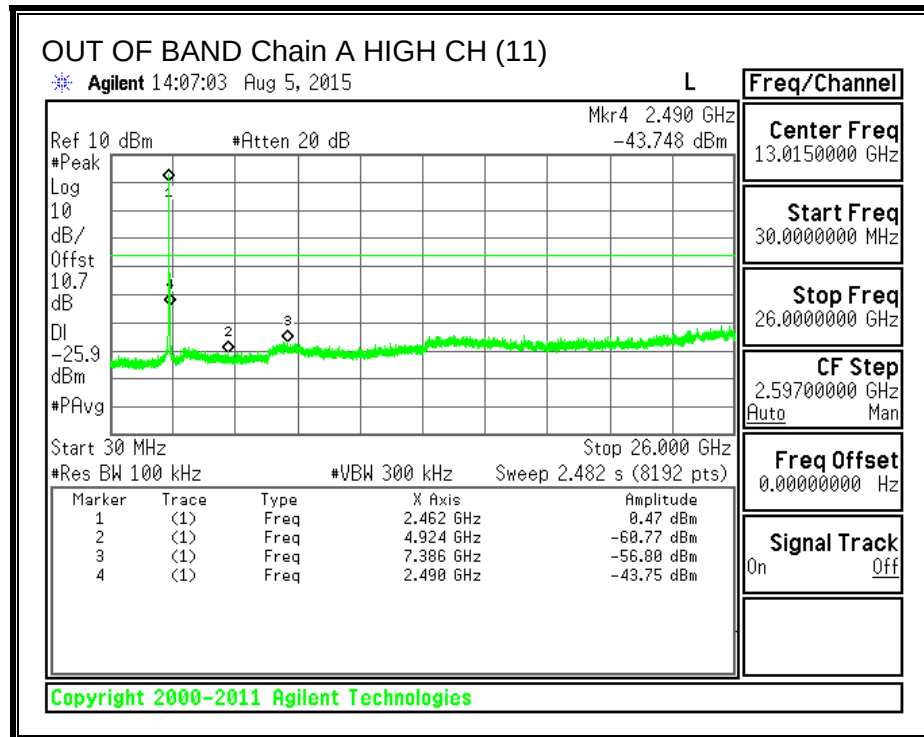


**OUT-OF-BAND EMISSIONS, Chain A**

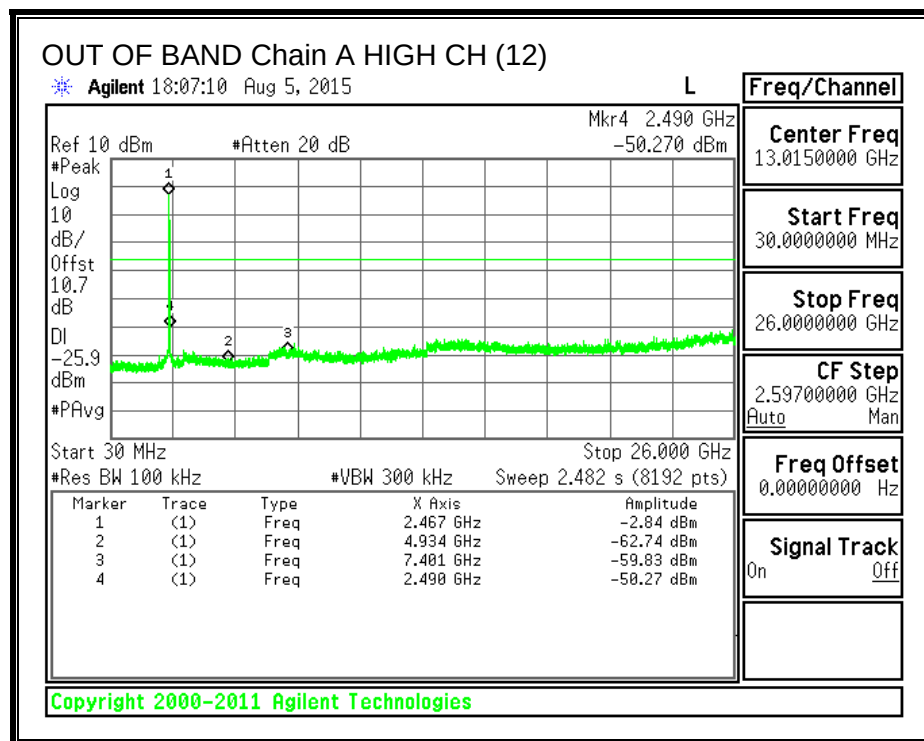


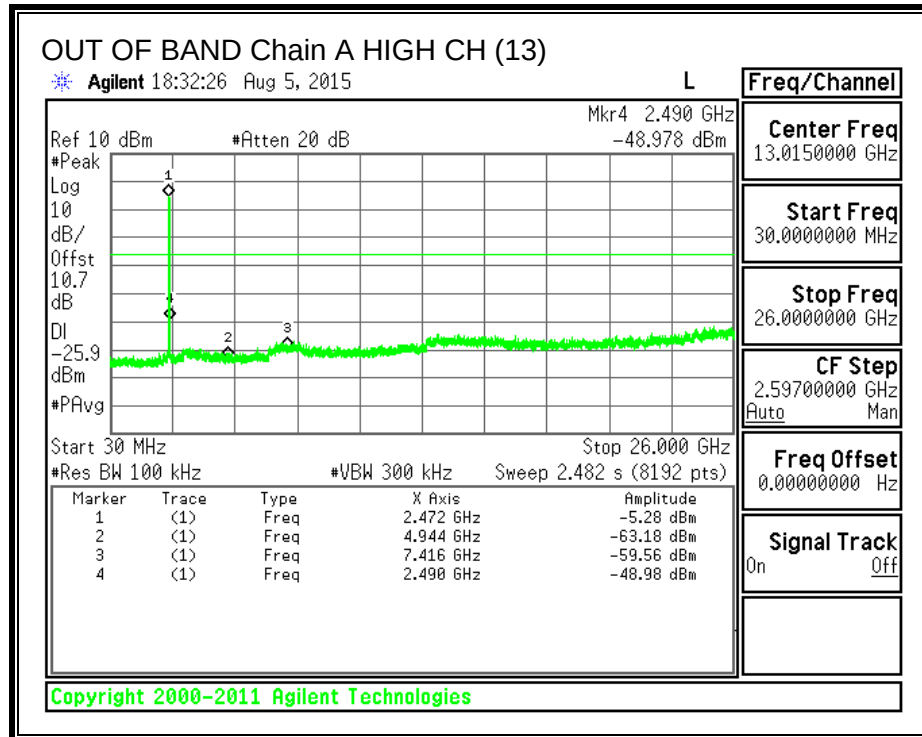
Note – CH1 was tested at the Mid Channel Power Setting to achieve worst-case results.





Note – CH11 was tested at the Mid Channel Power Setting to achieve worst-case results.







## 9. RADIATED TEST RESULTS

### 9.1. LIMITS AND PROCEDURE

#### LIMITS

FCC §15.205 and §15.209

| Frequency Range (MHz) | Field Strength Limit (uV/m) at 3 m | Field Strength Limit (dBuV/m) at 3 m |
|-----------------------|------------------------------------|--------------------------------------|
| 30 - 88               | 100                                | 40                                   |
| 88 - 216              | 150                                | 43.5                                 |
| 216 - 960             | 200                                | 46                                   |
| Above 960             | 500                                | 54                                   |

#### TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz measurements and 1.5 m above the ground plane for above 1GHz measurements. The antenna to EUT distance is 3 meters.

For measurements below 1 GHz the resolution bandwidth is set to 120 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. 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 1 MHz for peak measurements and as applicable for average measurements.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

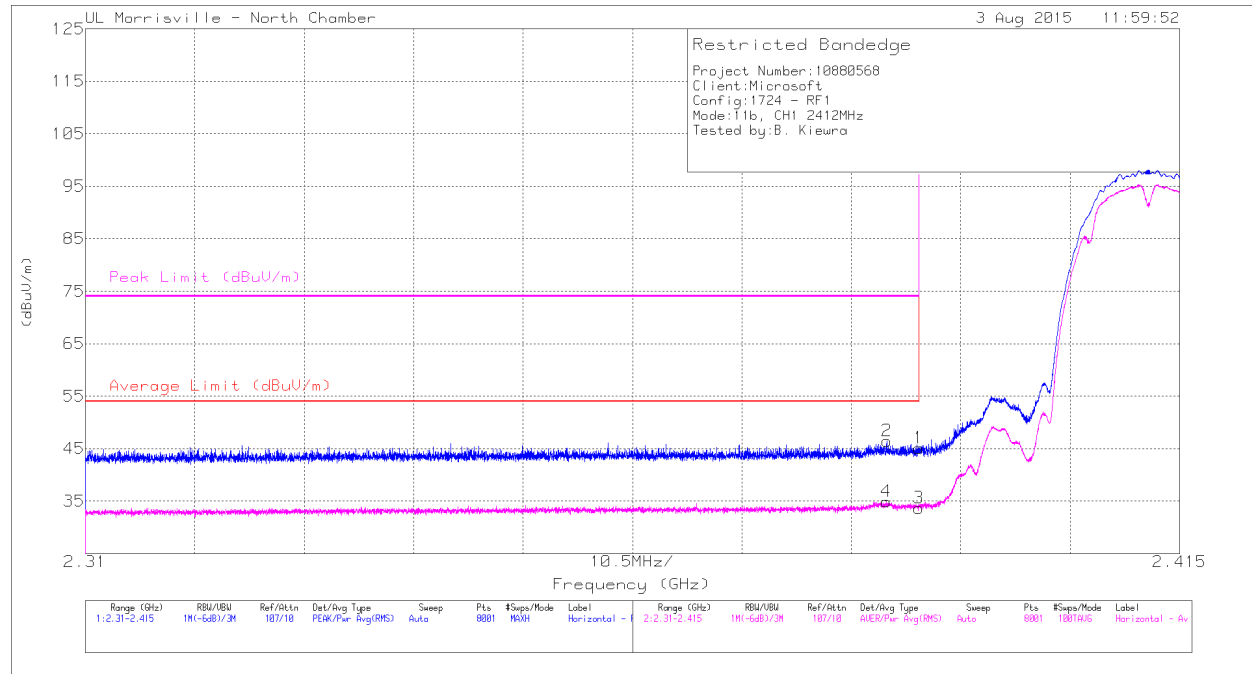
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

## 9.2. TRANSMITTER ABOVE 1 GHz

### 9.2.1. TX ABOVE 1 GHz 802.11b MODE IN THE 2.4 GHz BAND

#### RESTRICTED BANDEDGE (LOW CHANNEL CH 1)

##### HORIZONTAL



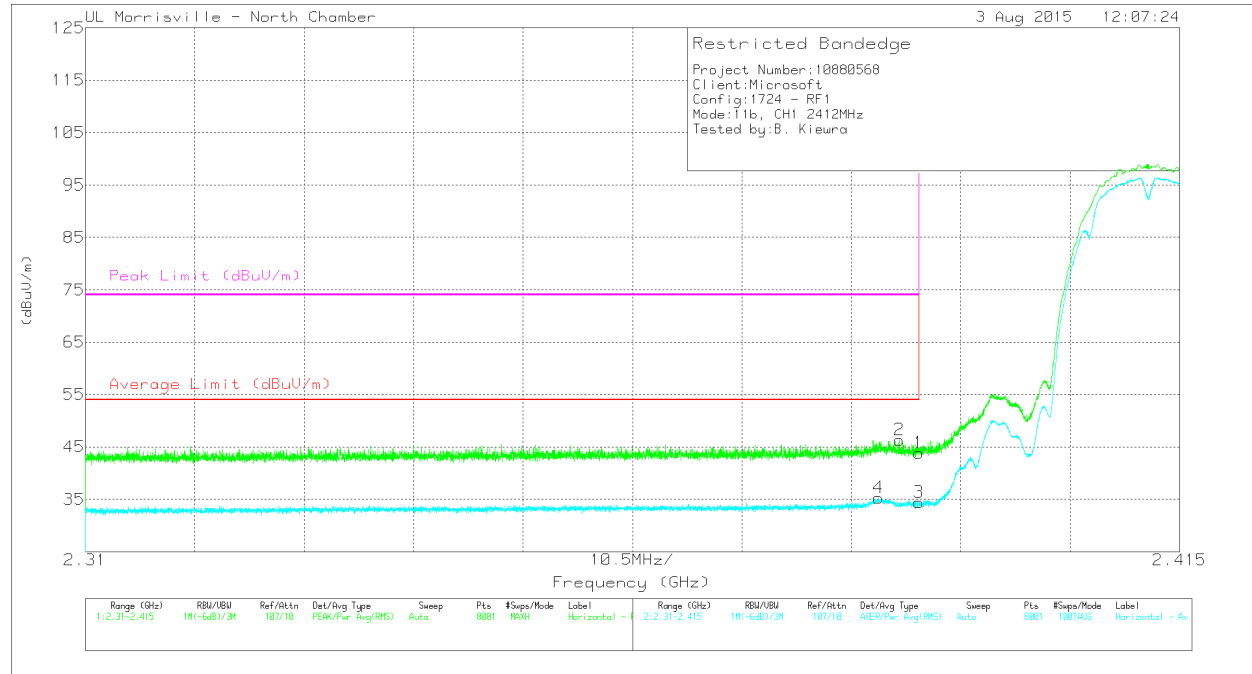
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.39          | 36.79                | Pk  | 31.9             | -23.6                 | 45.09                      | -                      | -           | 74                  | -28.91         | 6              | 208         | H        |
| 2      | * 2.387         | 38.14                | Pk  | 31.9             | -23.6                 | 46.44                      | -                      | -           | 74                  | -27.56         | 6              | 208         | H        |
| 3      | * 2.39          | 25.33                | RMS | 31.9             | -23.6                 | 33.63                      | 54                     | -20.37      | -                   | -              | 6              | 208         | H        |
| 4      | * 2.387         | 26.61                | RMS | 31.9             | -23.6                 | 34.91                      | 54                     | -19.09      | -                   | -              | 6              | 208         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.39          | 35.5                 | Pk  | 31.9             | -23.6                 | 43.8                       | -                      | -           | 74                  | -30.2          | 289            | 294         | V        |
| 2      | * 2.388         | 37.97                | Pk  | 31.9             | -23.6                 | 46.27                      | -                      | -           | 74                  | -27.73         | 289            | 294         | V        |
| 3      | * 2.39          | 26.09                | RMS | 31.9             | -23.6                 | 34.39                      | 54                     | -19.61      | -                   | -              | 289            | 294         | V        |
| 4      | * 2.386         | 26.82                | RMS | 31.9             | -23.5                 | 35.22                      | 54                     | -18.78      | -                   | -              | 289            | 294         | V        |

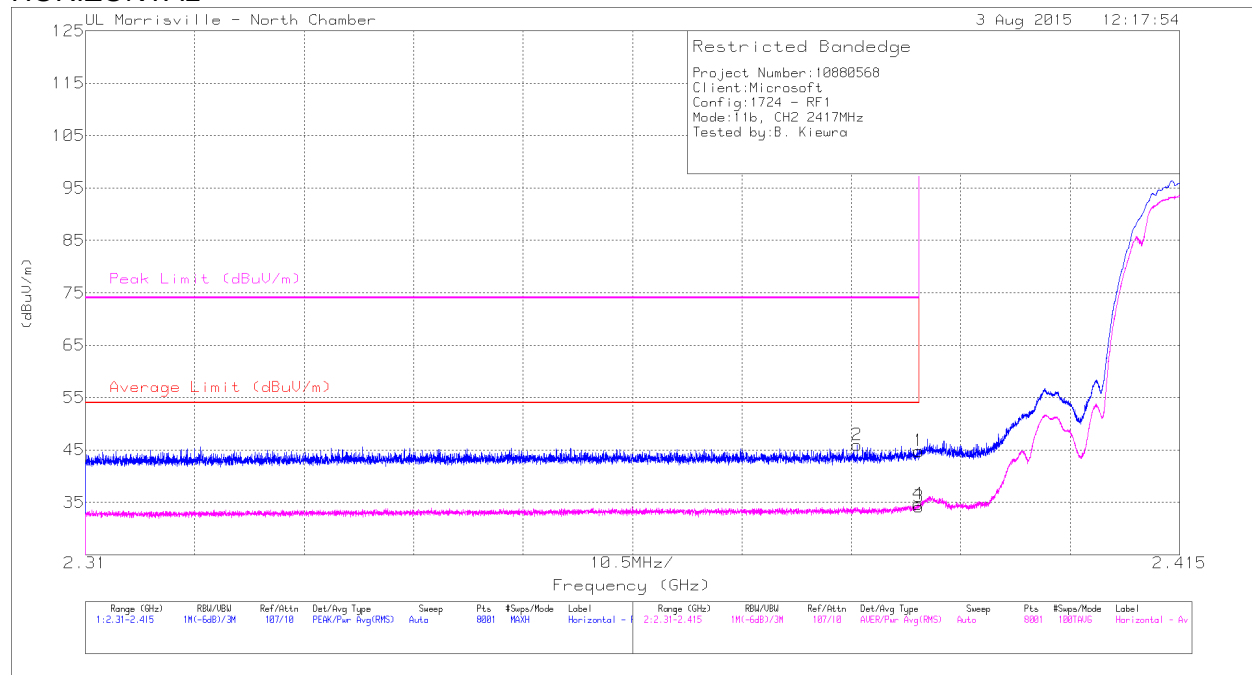
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

# **RESTRICTED BANDEDGE (LOW CHANNEL CH 2)**

## **HORIZONTAL**



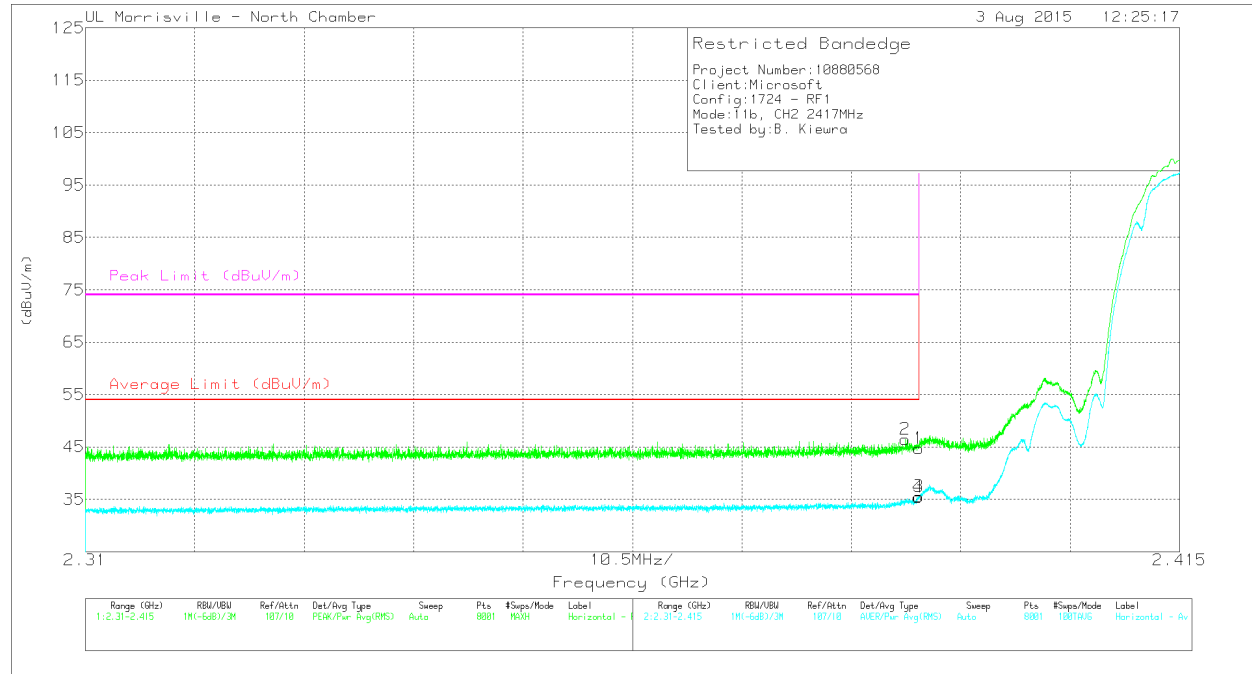
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.39          | 36.47                | Pk  | 31.9             | -23.6                 | 44.77                      | -                      | -           | 74                  | -29.23         | 99             | 304         | H        |
| 2      | * 2.384         | 37.5                 | Pk  | 31.9             | -23.5                 | 45.9                       | -                      | -           | 74                  | -28.1          | 99             | 304         | H        |
| 3      | * 2.39          | 25.89                | RMS | 31.9             | -23.6                 | 34.19                      | 54                     | -19.81      | -                   | -              | 99             | 304         | H        |
| 4      | * 2.39          | 26.3                 | RMS | 31.9             | -23.6                 | 34.6                       | 54                     | -19.4       | -                   | -              | 99             | 304         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.39          | 36.41                | Pk  | 31.9             | -23.6                 | 44.71                      | -                      | -           | 74                  | -29.29         | 200            | 313         | V        |
| 2      | * 2.389         | 38.1                 | Pk  | 31.9             | -23.6                 | 46.4                       | -                      | -           | 74                  | -27.6          | 200            | 313         | V        |
| 3      | * 2.39          | 27.26                | RMS | 31.9             | -23.6                 | 35.56                      | 54                     | -18.44      | -                   | -              | 200            | 313         | V        |
| 4      | * 2.39          | 27.13                | RMS | 31.9             | -23.6                 | 35.43                      | 54                     | -18.57      | -                   | -              | 200            | 313         | V        |

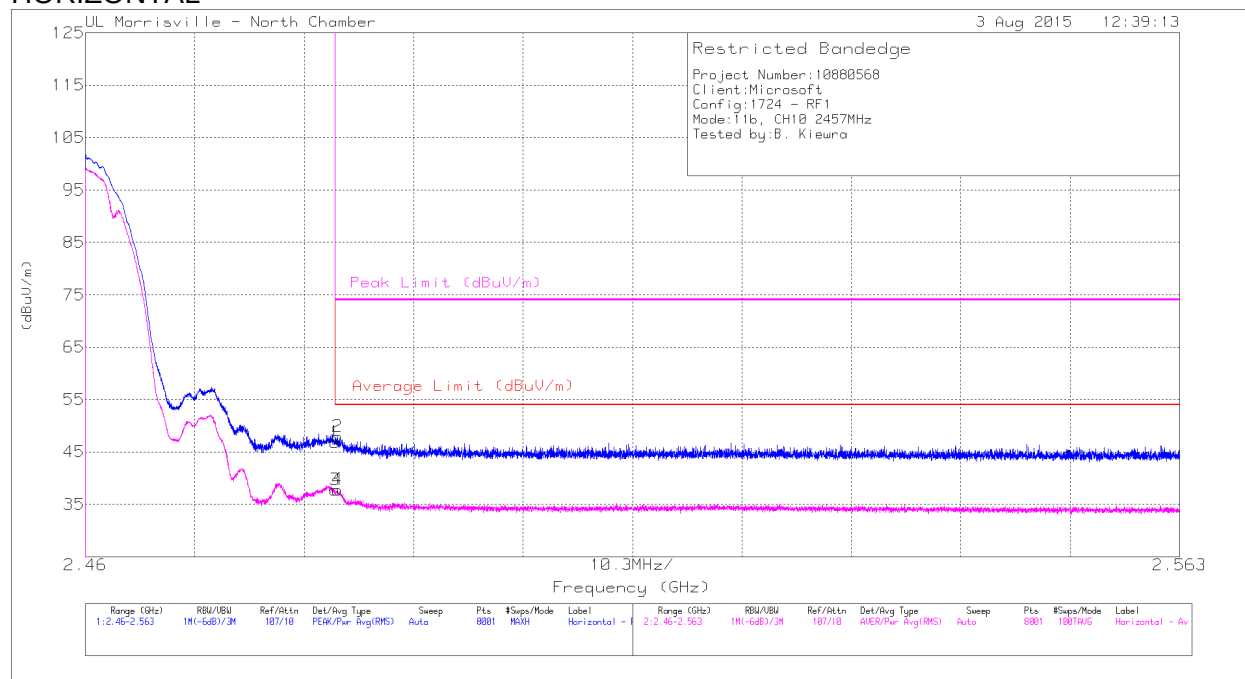
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

# **AUTHORIZED BANDEDGE (HIGH CHANNEL 10)**

## **HORIZONTAL**



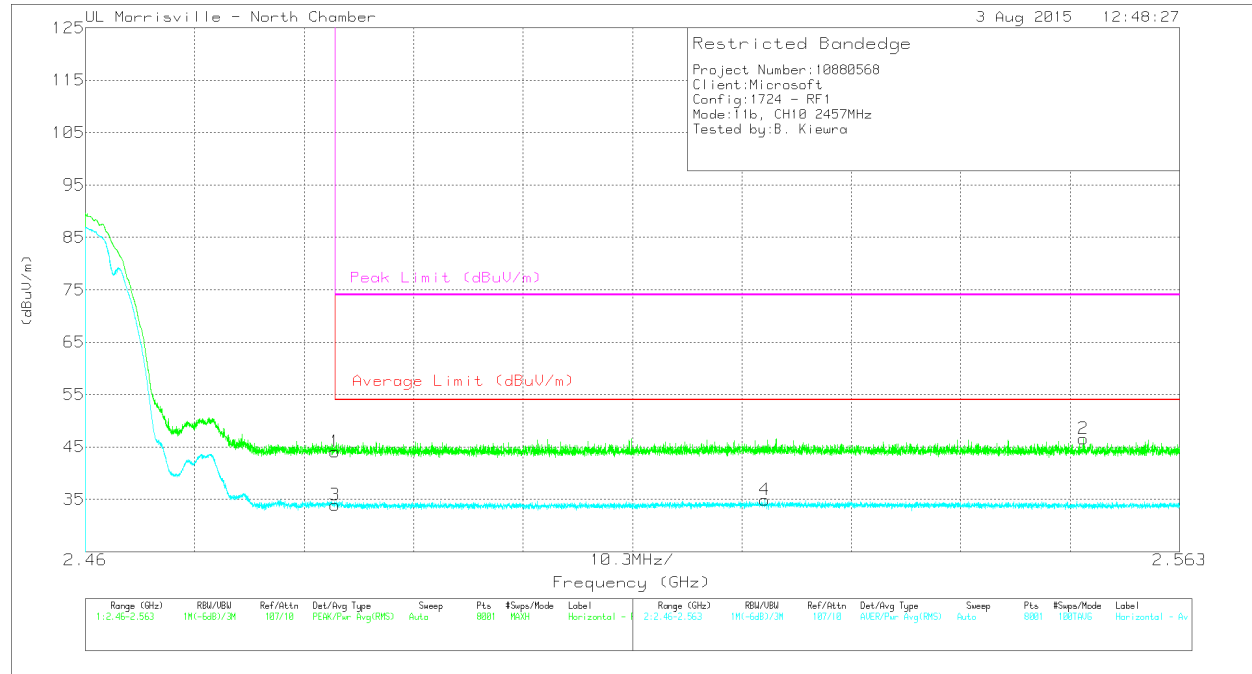
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 38.16                | Pk  | 32.1             | -23.4                 | 46.86                      | -                      | -           | 74                  | -27.14         | 162            | 103         | H        |
| 2      | * 2.484         | 39.22                | Pk  | 32.1             | -23.4                 | 47.92                      | -                      | -           | 74                  | -26.08         | 162            | 103         | H        |
| 3      | * 2.484         | 29.05                | RMS | 32.1             | -23.4                 | 37.75                      | 54                     | -16.25      | -                   | -              | 162            | 103         | H        |
| 4      | * 2.484         | 29.11                | RMS | 32.1             | -23.4                 | 37.81                      | 54                     | -16.19      | -                   | -              | 162            | 103         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 35.4                 | Pk  | 32.1             | -23.4                 | 44.1                       | -                      | -           | 74                  | -29.9          | 232            | 159         | V        |
| 2      | 2.554           | 37.72                | Pk  | 32.2             | -23.3                 | 46.62                      | -                      | -           | 74                  | -27.38         | 232            | 159         | V        |
| 3      | * 2.484         | 25.23                | RMS | 32.1             | -23.4                 | 33.93                      | 54                     | -20.07      | -                   | -              | 232            | 159         | V        |
| 4      | 2.524           | 26.14                | RMS | 32.1             | -23.3                 | 34.94                      | 54                     | -19.06      | -                   | -              | 232            | 159         | V        |

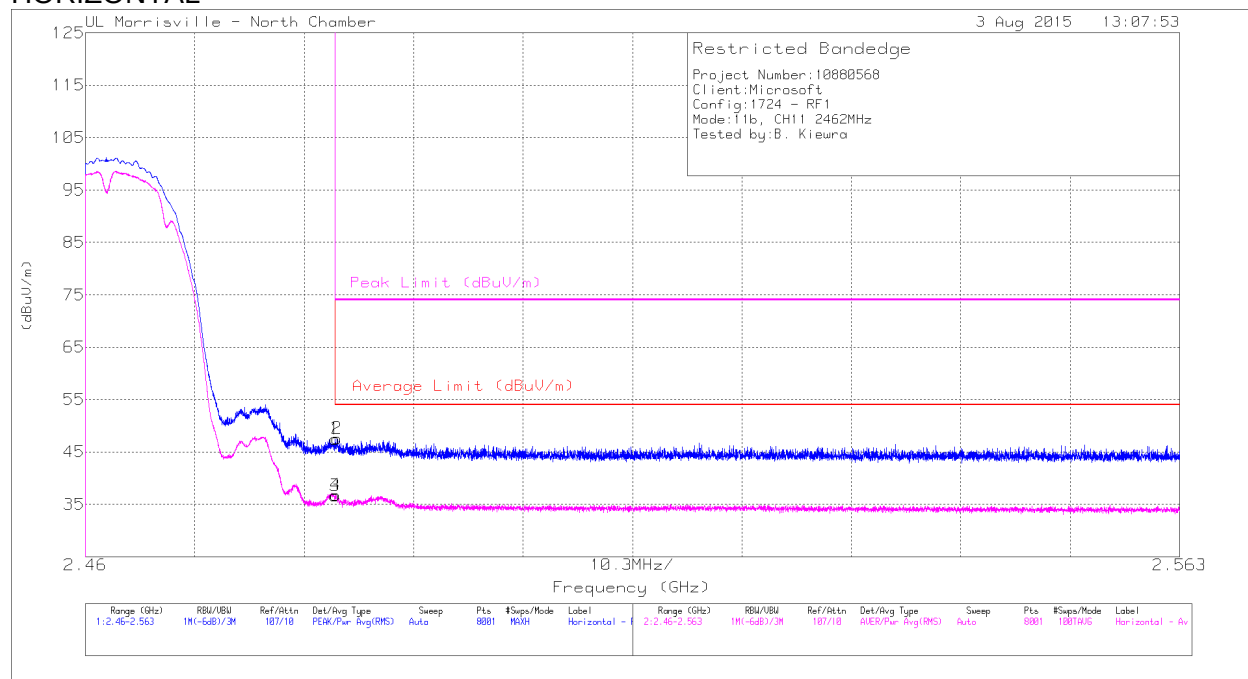
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

**AUTHORIZED BANDEDGE (HIGH CHANNEL 11)**

**HORIZONTAL**



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 38.71                | Pk  | 32.1             | -23.4                 | 47.41                      | -                      | -           | 74                  | -26.59         | 161            | 105         | H        |
| 2      | * 2.484         | 38.88                | Pk  | 32.1             | -23.4                 | 47.58                      | -                      | -           | 74                  | -26.42         | 161            | 105         | H        |
| 3      | * 2.484         | 27.89                | RMS | 32.1             | -23.4                 | 36.59                      | 54                     | -17.41      | -                   | -              | 161            | 105         | H        |
| 4      | * 2.484         | 28.03                | RMS | 32.1             | -23.4                 | 36.73                      | 54                     | -17.27      | -                   | -              | 161            | 105         | H        |

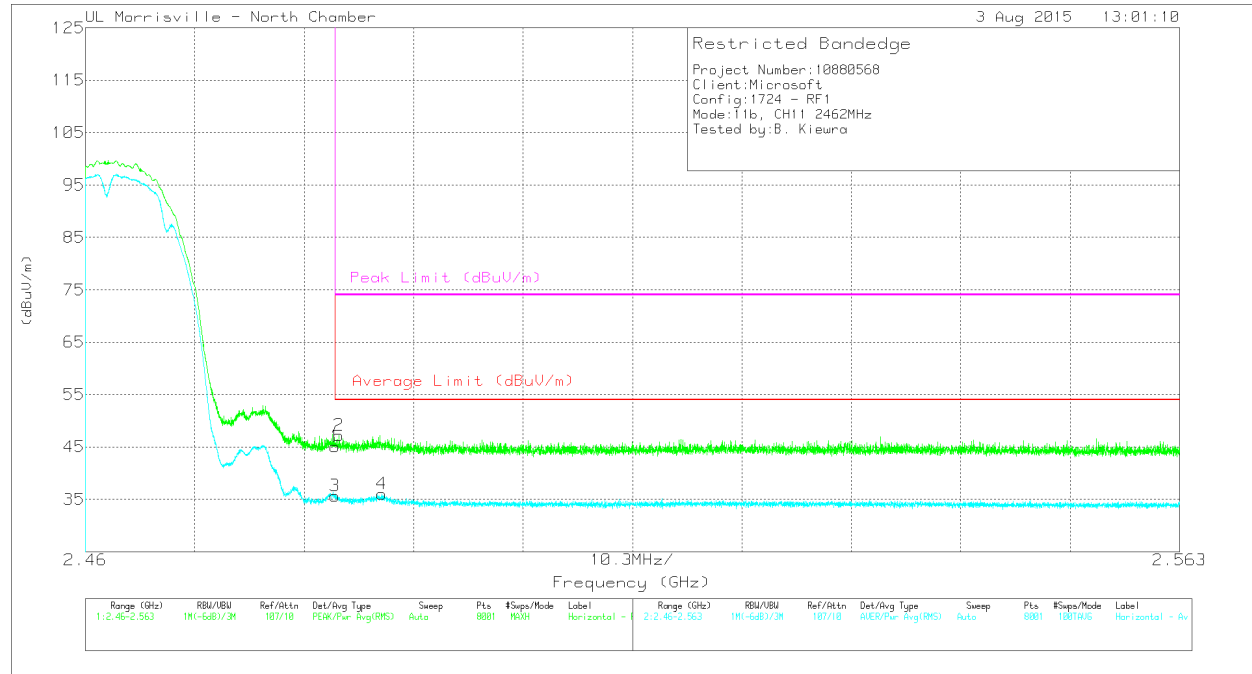
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection



# VERTICAL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 36.4                 | Pk  | 32.1             | -23.4                 | 45.1                       | -                      | -           | 74                  | -28.9          | 156            | 301         | V        |
| 2      | * 2.484         | 38.54                | Pk  | 32.1             | -23.4                 | 47.24                      | -                      | -           | 74                  | -26.76         | 156            | 301         | V        |
| 3      | * 2.484         | 26.96                | RMS | 32.1             | -23.4                 | 35.66                      | 54                     | -18.34      | -                   | -              | 156            | 301         | V        |
| 4      | * 2.488         | 27.33                | RMS | 32.1             | -23.4                 | 36.03                      | 54                     | -17.97      | -                   | -              | 156            | 301         | V        |

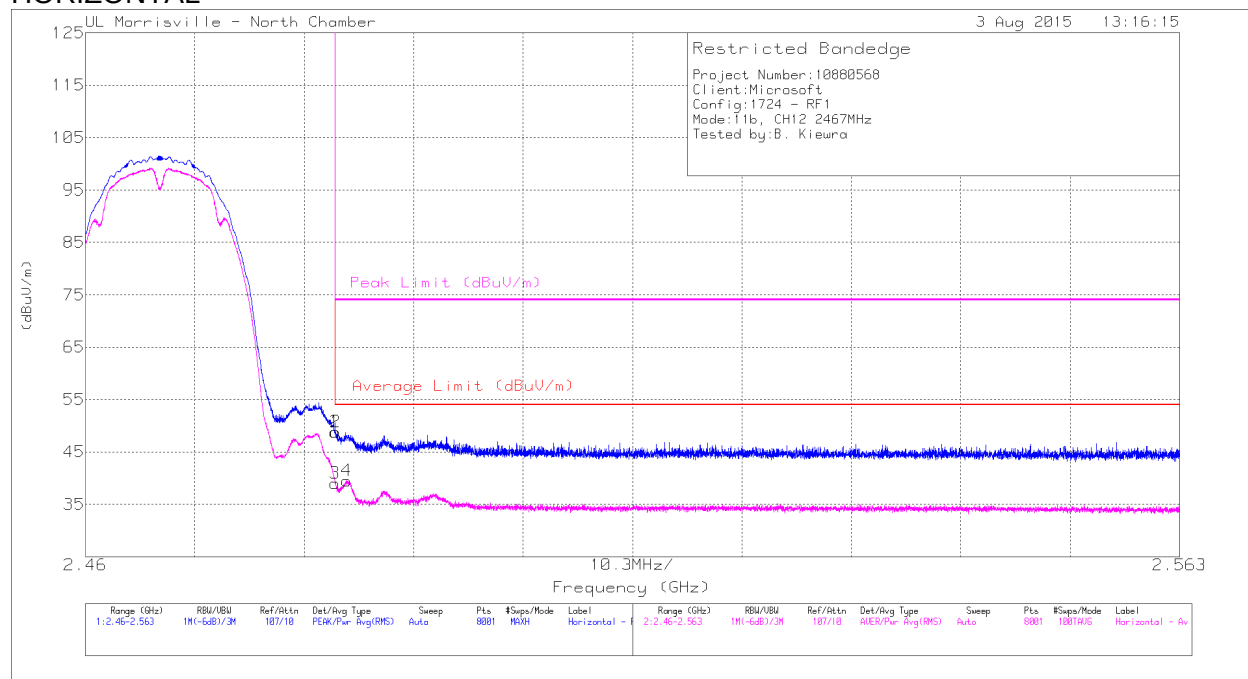
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

# **AUTHORIZED BANDEDGE (HIGH CHANNEL 12)**

## **HORIZONTAL**



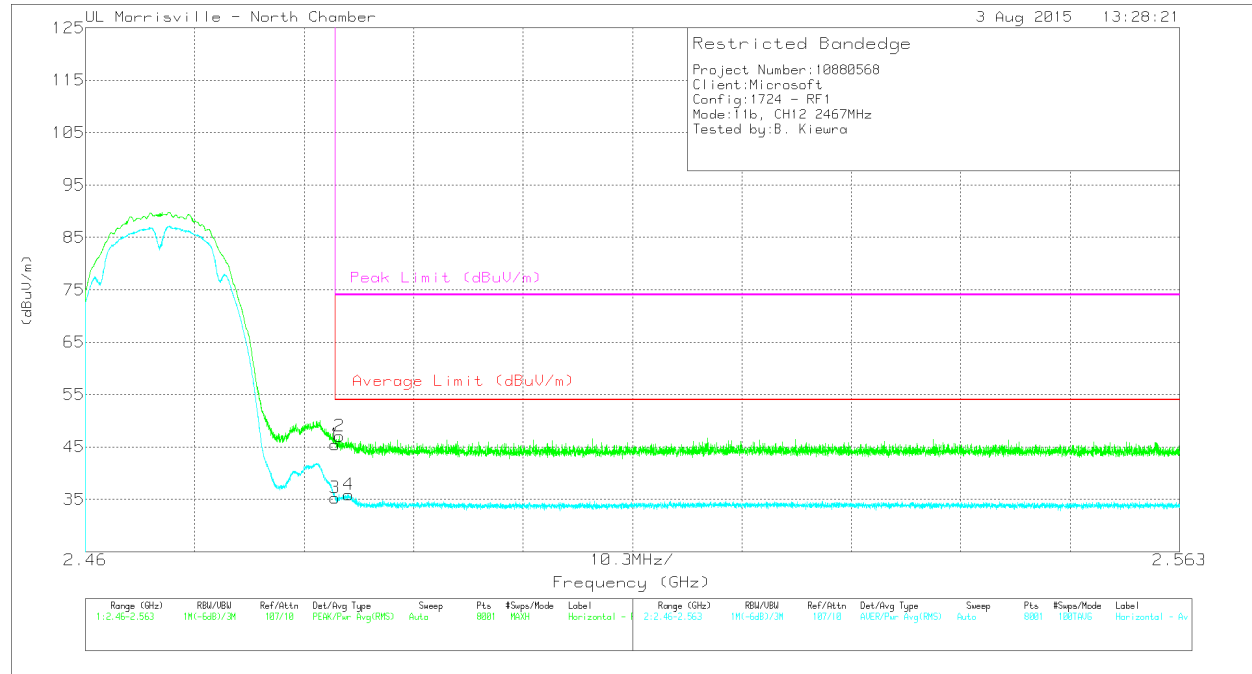
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 40.08                | Pk  | 32.1             | -23.4                 | 48.78                      | -                      | -           | 74                  | -25.22         | 164            | 144         | H        |
| 2      | * 2.484         | 40.11                | Pk  | 32.1             | -23.4                 | 48.81                      | -                      | -           | 74                  | -25.19         | 164            | 144         | H        |
| 3      | * 2.484         | 30.26                | RMS | 32.1             | -23.4                 | 38.96                      | 54                     | -15.04      | -                   | -              | 164            | 144         | H        |
| 4      | * 2.485         | 30.75                | RMS | 32.1             | -23.4                 | 39.45                      | 54                     | -14.55      | -                   | -              | 164            | 144         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 36.78                | Pk  | 32.1             | -23.4                 | 45.48                      | -                      | -           | 74                  | -28.52         | 262            | 164         | V        |
| 2      | * 2.484         | 38.35                | Pk  | 32.1             | -23.4                 | 47.05                      | -                      | -           | 74                  | -26.95         | 262            | 164         | V        |
| 3      | * 2.484         | 26.59                | RMS | 32.1             | -23.4                 | 35.29                      | 54                     | -18.71      | -                   | -              | 262            | 164         | V        |
| 4      | * 2.485         | 27.21                | RMS | 32.1             | -23.4                 | 35.91                      | 54                     | -18.09      | -                   | -              | 262            | 164         | V        |

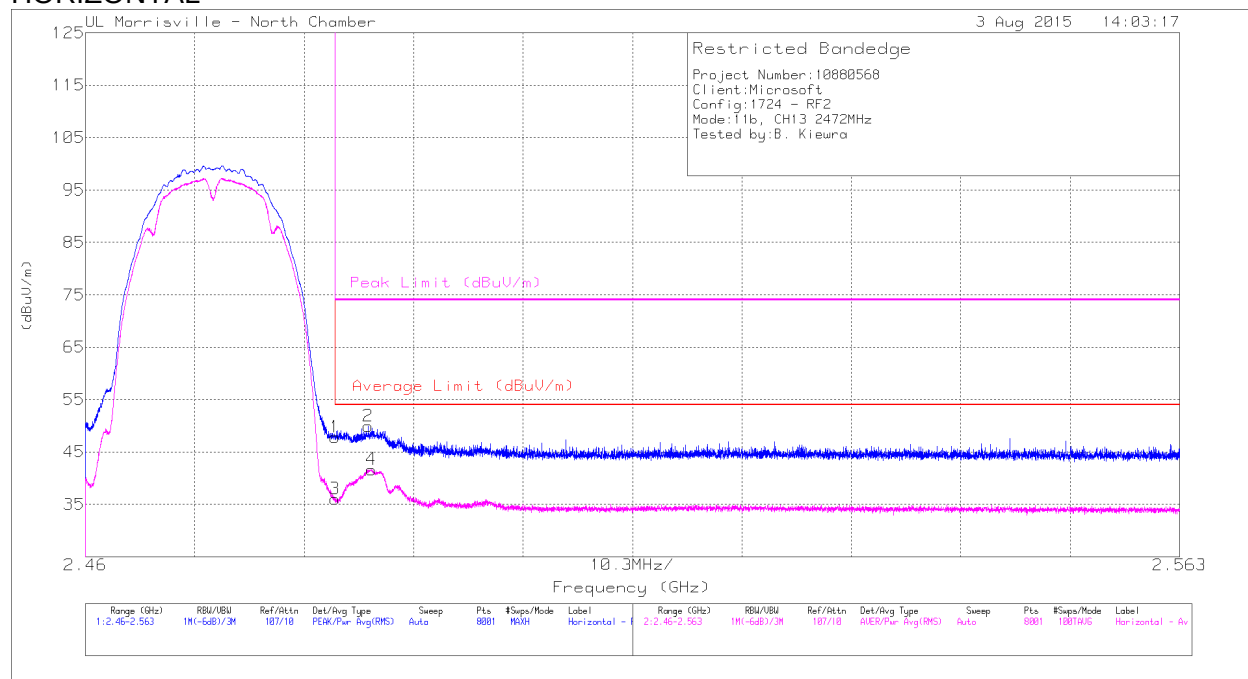
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

**AUTHORIZED BANDEDGE (HIGH CHANNEL 13)**

**HORIZONTAL**



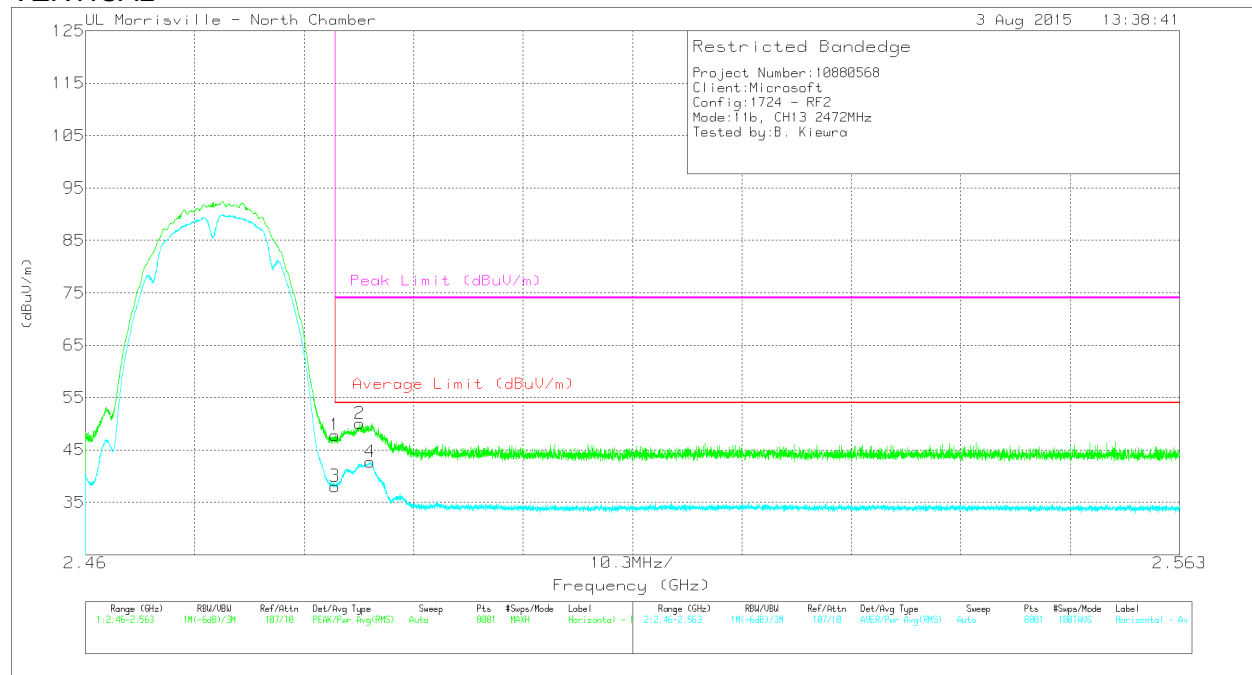
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 39.07                | Pk  | 32.1             | -23.4                 | 47.77                      | -                      | -           | 74                  | -26.23         | 182            | 167         | H        |
| 2      | * 2.487         | 41.19                | Pk  | 32.1             | -23.4                 | 49.89                      | -                      | -           | 74                  | -24.11         | 182            | 167         | H        |
| 3      | * 2.484         | 27.34                | RMS | 32.1             | -23.4                 | 36.04                      | 54                     | -17.96      | -                   | -              | 182            | 167         | H        |
| 4      | * 2.487         | 32.96                | RMS | 32.1             | -23.4                 | 41.66                      | 54                     | -12.34      | -                   | -              | 182            | 167         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 39.07                | Pk  | 32.1             | -23.4                 | 47.77                      | -                      | -           | 74                  | -26.23         | 267            | 232         | V        |
| 2      | * 2.486         | 41.38                | Pk  | 32.1             | -23.4                 | 50.08                      | -                      | -           | 74                  | -23.92         | 267            | 232         | V        |
| 3      | * 2.484         | 29.36                | RMS | 32.1             | -23.4                 | 38.06                      | 54                     | -15.94      | -                   | -              | 267            | 232         | V        |
| 4      | * 2.487         | 33.97                | RMS | 32.1             | -23.4                 | 42.67                      | 54                     | -11.33      | -                   | -              | 267            | 232         | V        |

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

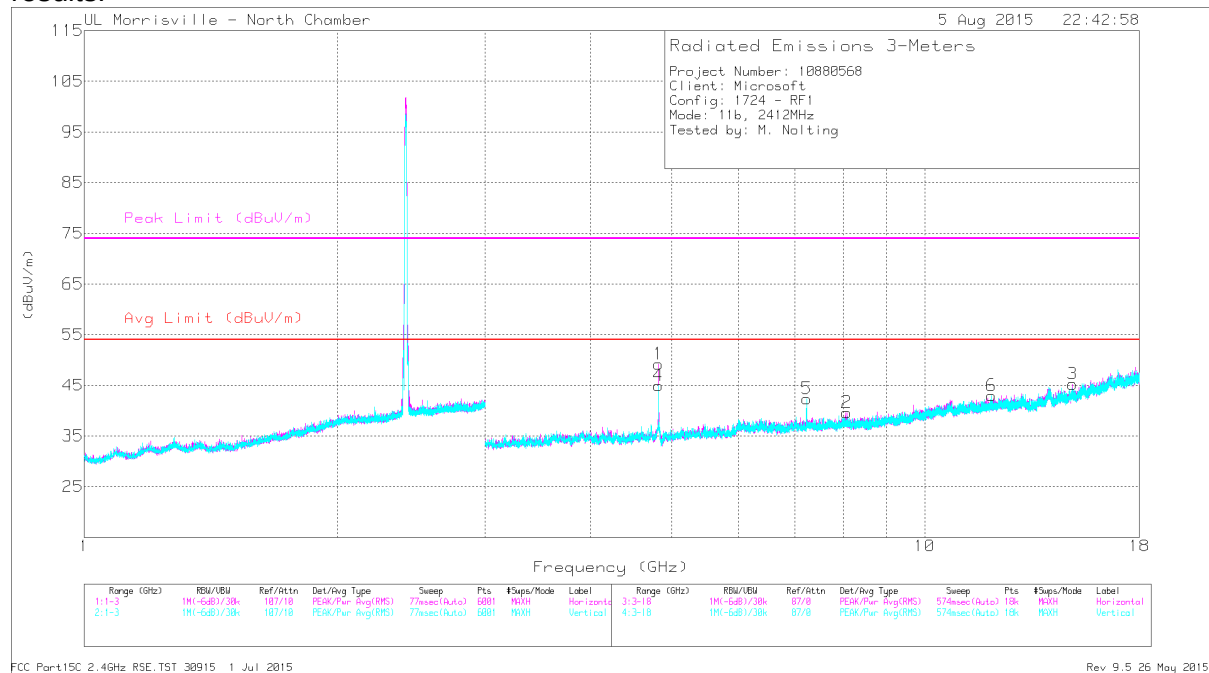
Pk - Peak detector

RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL

Note – Channel 1 was set to same power setting as the Mid channel to achieve worst-case results.



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF AT0072 (dB/m) | Amp/Cbl/ Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|------------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 4.824         | 48.91                | PK2  | 34.1             | -30.8                  | 52.21                      | -                  | -           | 74                  | -21.79         | 243            | 336         | H        |
|        | * 4.824         | 45.39                | MAv1 | 34.1             | -30.8                  | 48.69                      | 54                 | -5.31       | -                   | -              | 243            | 336         | H        |
| 2      | * 8.075         | 37.68                | PK2  | 35.9             | -27                    | 46.58                      | -                  | -           | 74                  | -27.42         | 72             | 169         | H        |
|        | * 8.071         | 25.47                | MAv1 | 35.9             | -27                    | 34.37                      | 54                 | -19.63      | -                   | -              | 72             | 169         | H        |
| 4      | * 4.824         | 47.01                | PK2  | 34.1             | -30.8                  | 50.31                      | -                  | -           | 74                  | -23.69         | 320            | 368         | V        |
|        | * 4.824         | 42.61                | MAv1 | 34.1             | -30.8                  | 45.91                      | 54                 | -8.09       | -                   | -              | 320            | 368         | V        |
| 6      | * 12.018        | 34.6                 | PK2  | 38.9             | -24.1                  | 49.4                       | -                  | -           | 74                  | -24.6          | 102            | 151         | V        |
|        | * 12.012        | 23.01                | MAv1 | 38.9             | -24                    | 37.91                      | 54                 | -16.09      | -                   | -              | 102            | 151         | V        |
| 5      | 7.236           | 34.86                | Pk   | 35.7             | -28.2                  | 42.36                      | -                  | -           | -                   | -              | 0-360          | 200         | V        |
| 3      | 14.999          | 29.17                | Pk   | 39.9             | -23.8                  | 45.27                      | -                  | -           | -                   | -              | 0-360          | 200         | H        |

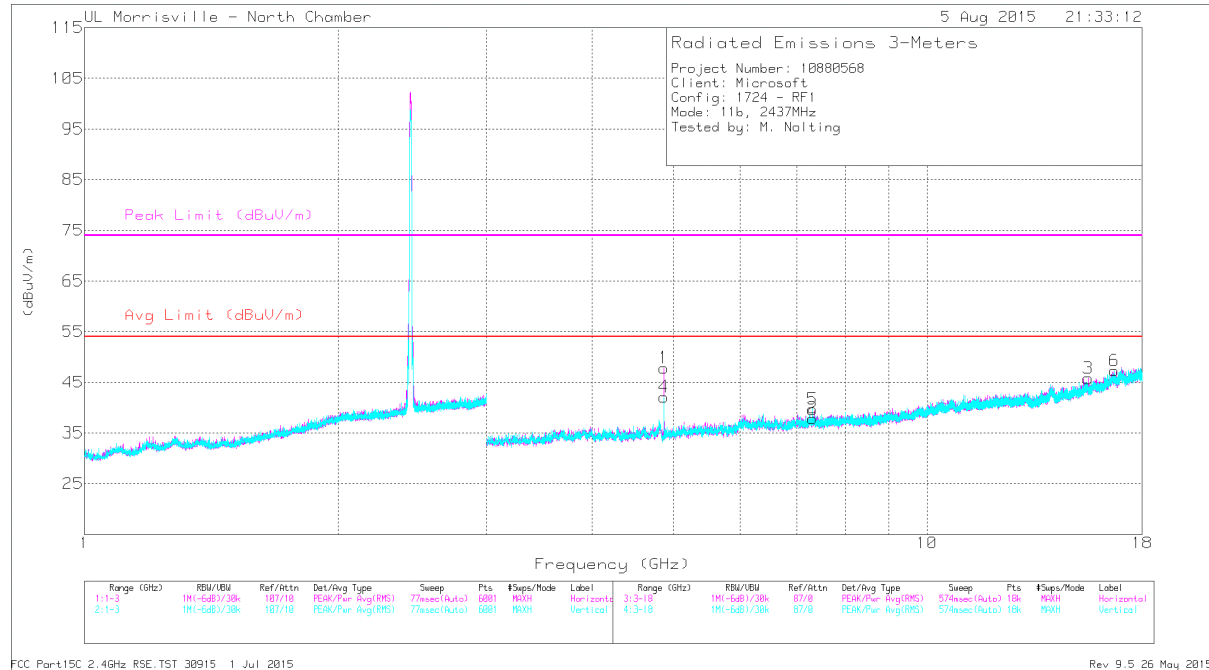
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

# MID CHANNEL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF AT0072 (dB/m) | Amp/Cbl/ Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|------------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 4.874         | 48.15                | PK2  | 34.1             | -30.4                  | 51.85                      | -                  | -           | 74                  | -22.15         | 241            | 292         | H        |
|        | * 4.874         | 44.35                | MAv1 | 34.1             | -30.4                  | 48.05                      | 54                 | -5.95       | -                   | -              | 241            | 292         | H        |
| 2      | * 7.314         | 38.51                | PK2  | 35.7             | -27.8                  | 46.41                      | -                  | -           | 74                  | -27.59         | 313            | 375         | H        |
|        | * 7.312         | 27.53                | MAv1 | 35.7             | -27.8                  | 35.43                      | 54                 | -18.57      | -                   | -              | 313            | 375         | H        |
| 3      | * 15.54         | 35.06                | PK2  | 40.5             | -23.5                  | 52.06                      | -                  | -           | 74                  | -21.94         | 319            | 200         | H        |
|        | * 15.538        | 23.46                | MAv1 | 40.5             | -23.5                  | 40.46                      | 54                 | -13.54      | -                   | -              | 319            | 200         | H        |
| 4      | * 4.874         | 45.75                | PK2  | 34.1             | -30.4                  | 49.45                      | -                  | -           | 74                  | -24.55         | 305            | 277         | V        |
|        | * 4.874         | 41.29                | MAv1 | 34.1             | -30.4                  | 44.99                      | 54                 | -9.01       | -                   | -              | 305            | 277         | V        |
| 5      | * 7.311         | 39.79                | PK2  | 35.7             | -27.8                  | 47.69                      | -                  | -           | 74                  | -26.31         | 96             | 264         | V        |
|        | * 7.312         | 29.83                | MAv1 | 35.7             | -27.8                  | 37.73                      | 54                 | -16.27      | -                   | -              | 96             | 264         | V        |
| 6      | 16.693          | 27.09                | Pk   | 42.2             | -22                    | 47.29                      | -                  | -           | -                   | -              | 0-360          | 200         | V        |

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

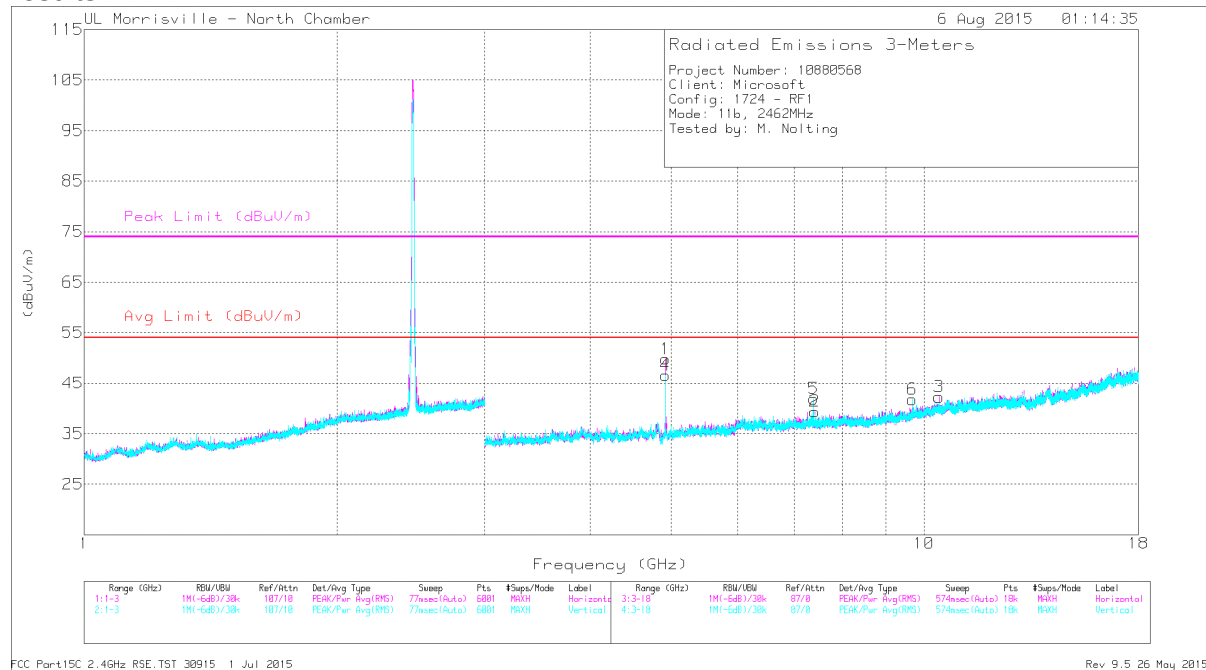
Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

# HIGH CHANNEL (11)

Note – Channel 11 was set to same power setting as the Mid channel to achieve worst-case results.



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF AT0072 (dB/m) | Amp/Cbl/ Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|------------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 4.924         | 48.91                | PK2  | 34.1             | -30.9                  | 52.11                      | -                  | -           | 74                  | -21.89         | 242            | 304         | H        |
|        | * 4.924         | 45.97                | MAV1 | 34.1             | -30.9                  | 49.17                      | 54                 | -4.83       | -                   | -              | 242            | 304         | H        |
| 2      | * 7.384         | 39.81                | PK2  | 35.8             | -27.9                  | 47.71                      | -                  | -           | 74                  | -26.29         | 164            | 381         | H        |
|        | * 7.387         | 29.7                 | MAV1 | 35.8             | -27.9                  | 37.6                       | 54                 | -16.4       | -                   | -              | 164            | 381         | H        |
| 4      | * 4.924         | 47.03                | PK2  | 34.1             | -30.9                  | 50.23                      | -                  | -           | 74                  | -23.77         | 321            | 272         | V        |
|        | * 4.924         | 43.31                | MAV1 | 34.1             | -30.9                  | 46.51                      | 54                 | -7.49       | -                   | -              | 321            | 272         | V        |
| 5      | * 7.386         | 40.45                | PK2  | 35.8             | -27.9                  | 48.35                      | -                  | -           | 74                  | -25.65         | 97             | 217         | V        |
|        | * 7.387         | 31.21                | MAV1 | 35.8             | -27.9                  | 39.11                      | 54                 | -14.89      | -                   | -              | 97             | 217         | V        |
| 6      | 9.685           | 30.6                 | Pk   | 36.9             | -25.7                  | 41.8                       | -                  | -           | -                   | -              | 0-360          | 102         | V        |
| 3      | 10.419          | 28.89                | Pk   | 37.6             | -24.2                  | 42.29                      | -                  | -           | -                   | -              | 0-360          | 101         | H        |

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

Pk - Peak detector

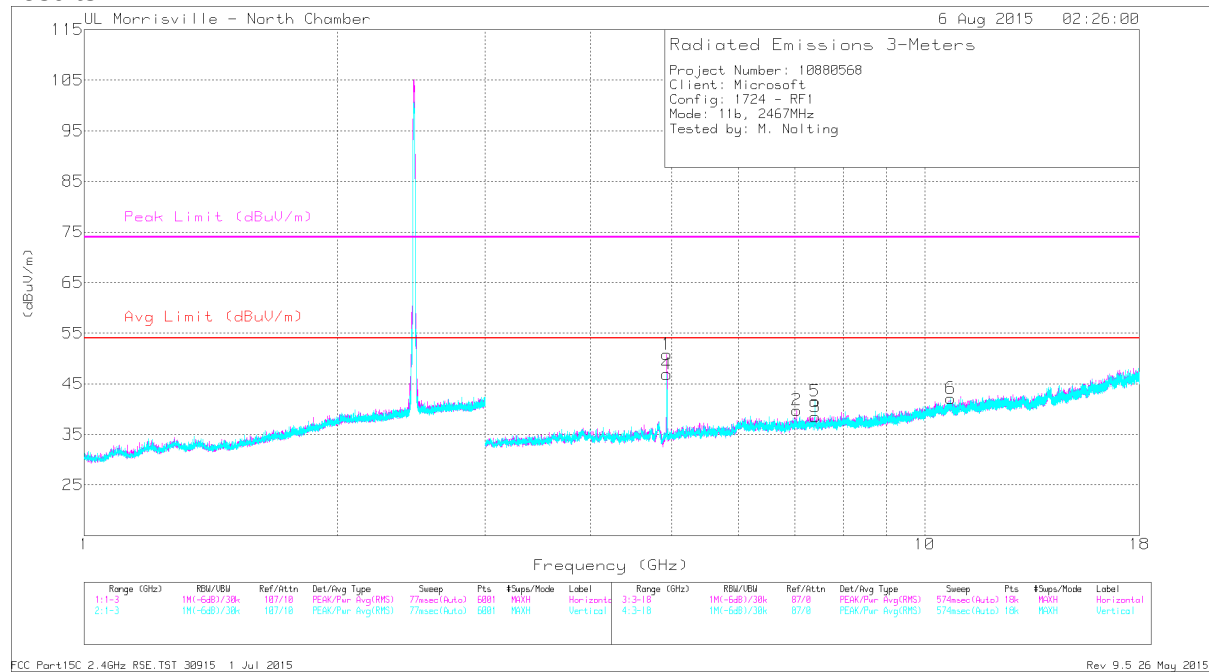
PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average



## HIGH CHANNEL (12)

Note – Channel 12 was set to same power setting as the Mid channel to achieve worst-case results.



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|------------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 4.934         | 49.33                | PK2  | 34.1             | -31                    | 52.43                      | -                  | -           | 74                  | -21.57         | 242            | 269         | H        |
|        | * 4.934         | 46.82                | MAV1 | 34.1             | -31                    | 49.92                      | 54                 | -4.08       | -                   | -              | 242            | 269         | H        |
| 2      | 7.041           | 32.18                | PK   | 35.6             | -28                    | 39.78                      | -                  | -           | -                   | -              | 0-360          | 200         | H        |
| 3      | * 7.403         | 39.34                | PK2  | 35.8             | -27.9                  | 47.24                      | -                  | -           | 74                  | -26.76         | 149            | 266         | H        |
|        | * 7.402         | 28.23                | MAV1 | 35.8             | -27.9                  | 36.13                      | 54                 | -17.87      | -                   | -              | 149            | 266         | H        |
| 4      | * 4.934         | 47.34                | PK2  | 34.1             | -31                    | 50.44                      | -                  | -           | 74                  | -23.56         | 309            | 247         | V        |
|        | * 4.934         | 43.44                | MAV1 | 34.1             | -31                    | 46.54                      | 54                 | -7.46       | -                   | -              | 309            | 247         | V        |
| 5      | * 7.402         | 43.49                | PK2  | 35.8             | -27.9                  | 51.39                      | -                  | -           | 74                  | -22.61         | 97             | 215         | V        |
|        | * 7.402         | 36.1                 | MAV1 | 35.8             | -27.9                  | 44                         | 54                 | -10         | -                   | -              | 97             | 215         | V        |
| 6      | * 10.742        | 34.8                 | PK2  | 37.8             | -23.6                  | 49                         | -                  | -           | 74                  | -25            | 335            | 201         | V        |
|        | * 10.741        | 23.23                | MAV1 | 37.8             | -23.6                  | 37.43                      | 54                 | -16.57      | -                   | -              | 335            | 201         | V        |

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

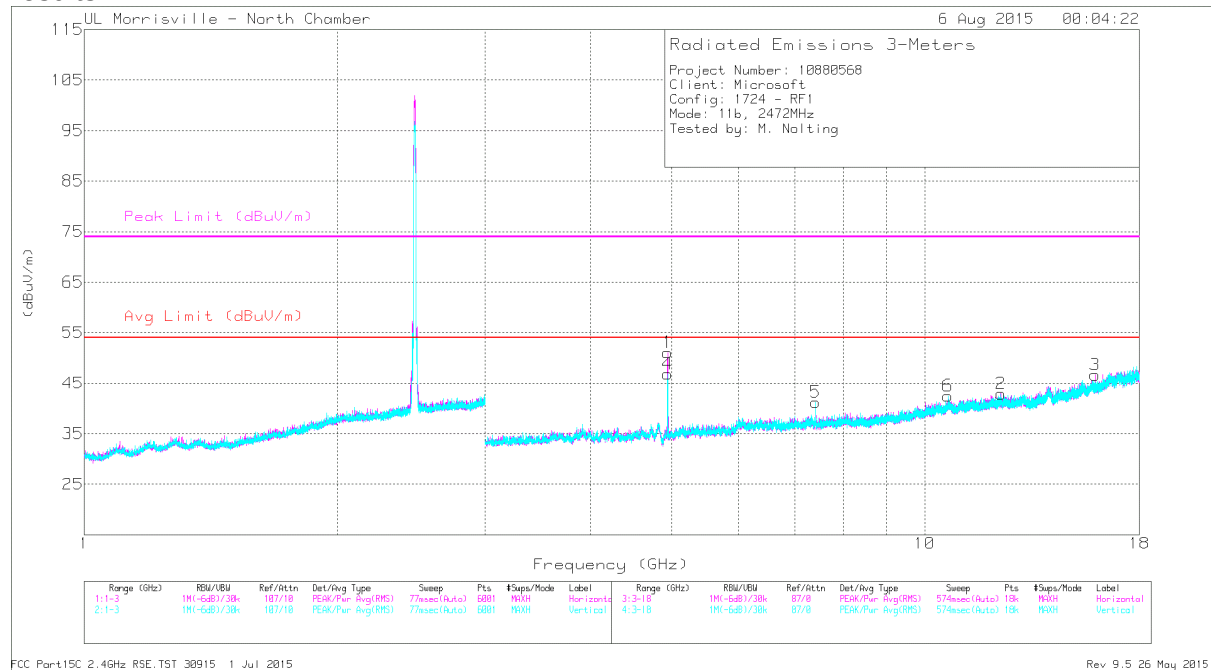
PK - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

# HIGH CHANNEL (13)

Note – Channel 13 was set to same power setting as the Mid channel to achieve worst-case results.



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF AT0072 (dB/m) | Amp/Cbl/ Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|------------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 4.944         | 50.47                | PK2  | 34.1             | -31.1                  | 53.47                      | -                  | -           | 74                  | -20.53         | 242            | 252         | H        |
|        | * 4.944         | 47.98                | MAV1 | 34.1             | -31.1                  | 50.98                      | 54                 | -3.02       | -                   | -              | 242            | 252         | H        |
| 2      | * 12.322        | 34.49                | PK2  | 39               | -24                    | 49.49                      | -                  | -           | 74                  | -24.51         | 33             | 156         | H        |
|        | * 12.318        | 23.07                | MAV1 | 39               | -24                    | 38.07                      | 54                 | -15.93      | -                   | -              | 33             | 156         | H        |
| 3      | * 15.94         | 35.57                | PK2  | 41.1             | -24.1                  | 52.57                      | -                  | -           | 74                  | -21.43         | 268            | 221         | H        |
|        | * 15.941        | 24.06                | MAV1 | 41.1             | -24                    | 41.16                      | 54                 | -12.84      | -                   | -              | 268            | 221         | H        |
| 4      | * 4.944         | 48.24                | PK2  | 34.1             | -31.1                  | 51.24                      | -                  | -           | 74                  | -22.76         | 309            | 247         | V        |
|        | * 4.944         | 45.01                | MAV1 | 34.1             | -31.1                  | 48.01                      | 54                 | -5.99       | -                   | -              | 309            | 247         | V        |
| 5      | * 7.414         | 38.73                | PK2  | 35.8             | -27.8                  | 46.73                      | -                  | -           | 74                  | -27.27         | 271            | 237         | V        |
|        | * 7.415         | 27.43                | MAV1 | 35.8             | -27.8                  | 35.43                      | 54                 | -18.57      | -                   | -              | 271            | 237         | V        |
| 6      | * 10.654        | 34.9                 | PK2  | 37.8             | -23.4                  | 49.3                       | -                  | -           | 74                  | -24.7          | 211            | 189         | V        |
|        | * 10.654        | 23.23                | MAV1 | 37.8             | -23.4                  | 37.63                      | 54                 | -16.37      | -                   | -              | 211            | 189         | V        |

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

Pk - Peak detector

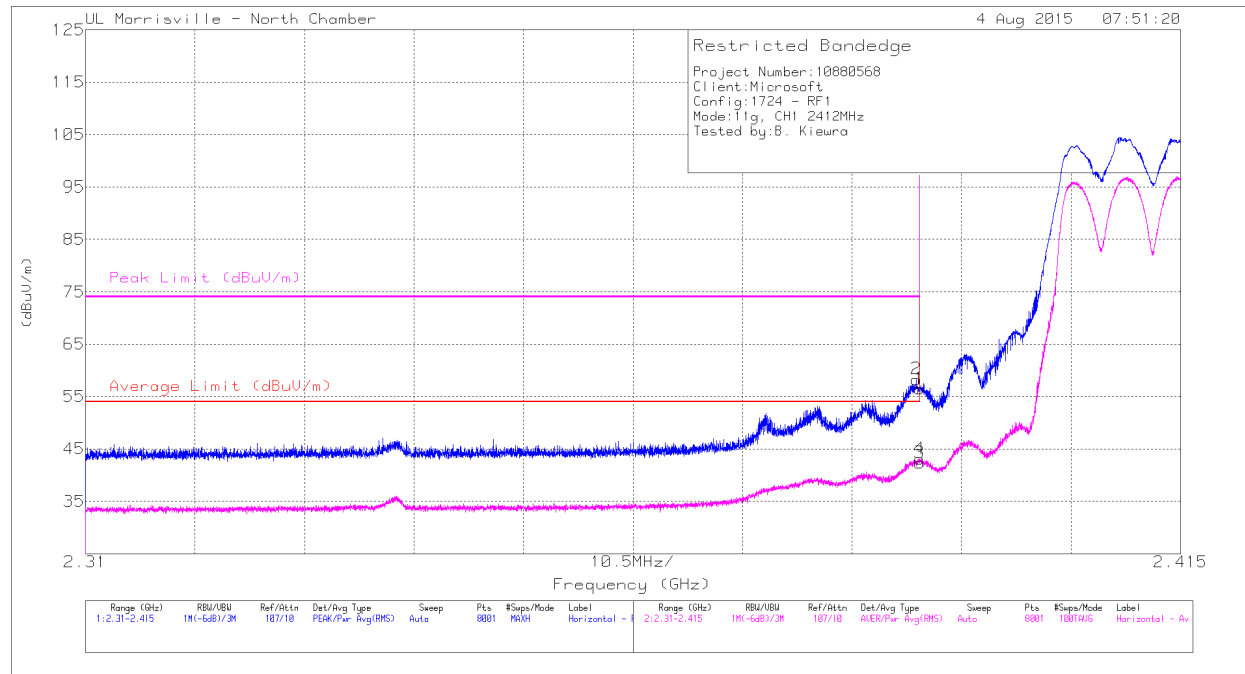
PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

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

### RESTRICTED BANDEDGE (LOW CHANNEL 1)

#### HORIZONTAL



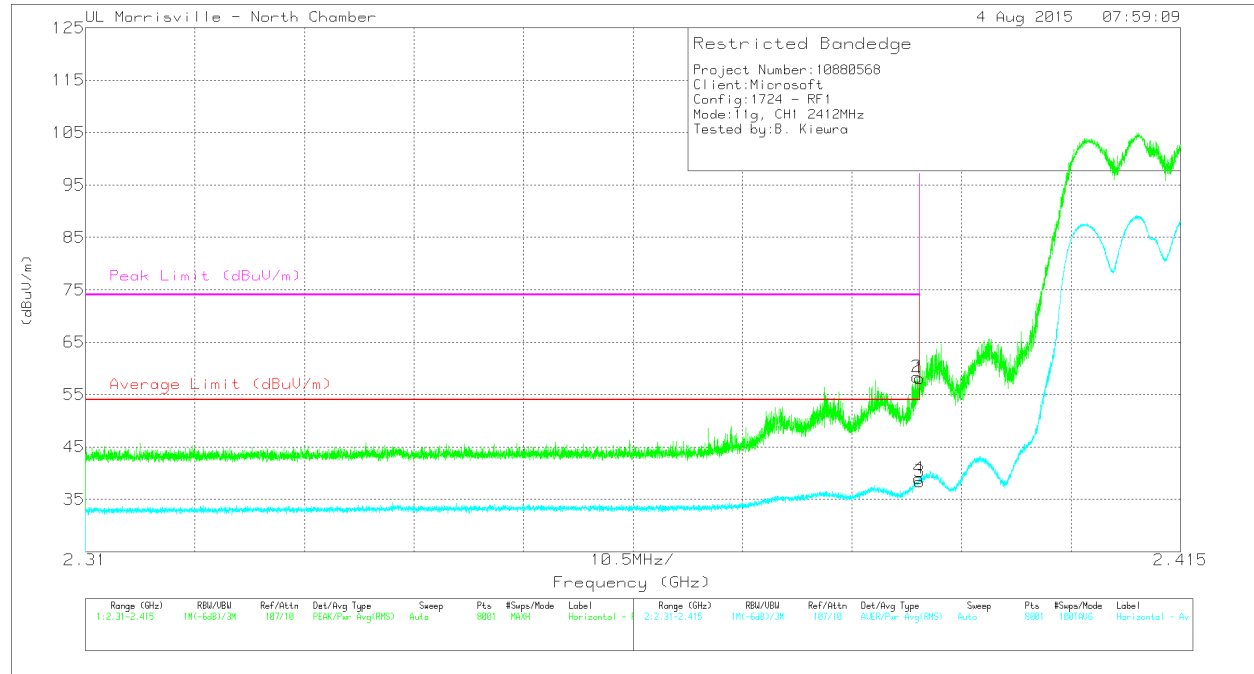
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.39          | 48.22                | Pk  | 31.9             | -23.6                  | 56.52                      | -                      | -           | 74                  | -17.48         | 312            | 109         | H        |
| 2      | * 2.39          | 50                   | Pk  | 31.9             | -23.6                  | 58.3                       | -                      | -           | 74                  | -15.7          | 312            | 109         | H        |
| 3      | * 2.39          | 34.1                 | RMS | 31.9             | -23.6                  | 42.4                       | 54                     | -11.6       | -                   | -              | 312            | 109         | H        |
| 4      | * 2.39          | 34.83                | RMS | 31.9             | -23.6                  | 43.13                      | 54                     | -10.87      | -                   | -              | 312            | 109         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.39          | 49.84                | Pk  | 31.9             | -23.6                 | 58.14                      | -                      | -           | 74                  | -15.86         | 175            | 151         | V        |
| 2      | * 2.39          | 50.02                | Pk  | 31.9             | -23.6                 | 58.32                      | -                      | -           | 74                  | -15.68         | 175            | 151         | V        |
| 3      | * 2.39          | 30.11                | RMS | 31.9             | -23.6                 | 38.41                      | 54                     | -15.59      | -                   | -              | 175            | 151         | V        |
| 4      | * 2.39          | 30.7                 | RMS | 31.9             | -23.6                 | 39                         | 54                     | -15         | -                   | -              | 175            | 151         | V        |

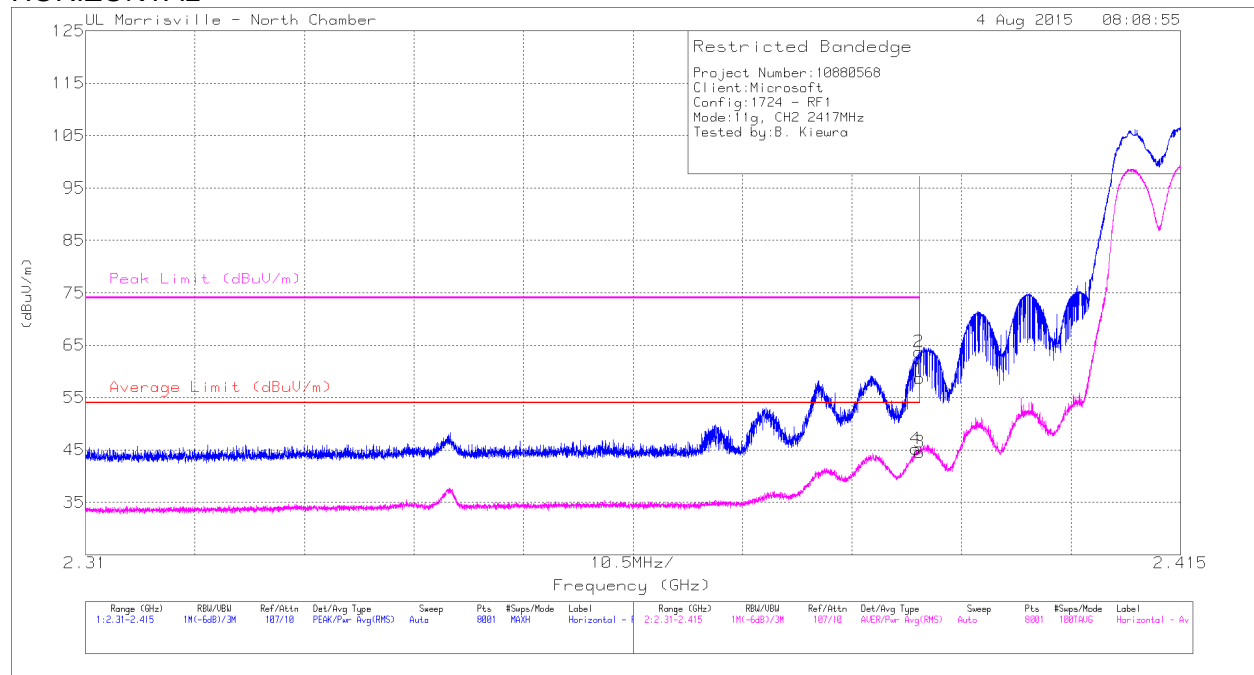
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

# **RESTRICTED BANDEDGE (LOW CHANNEL 2)**

## **HORIZONTAL**



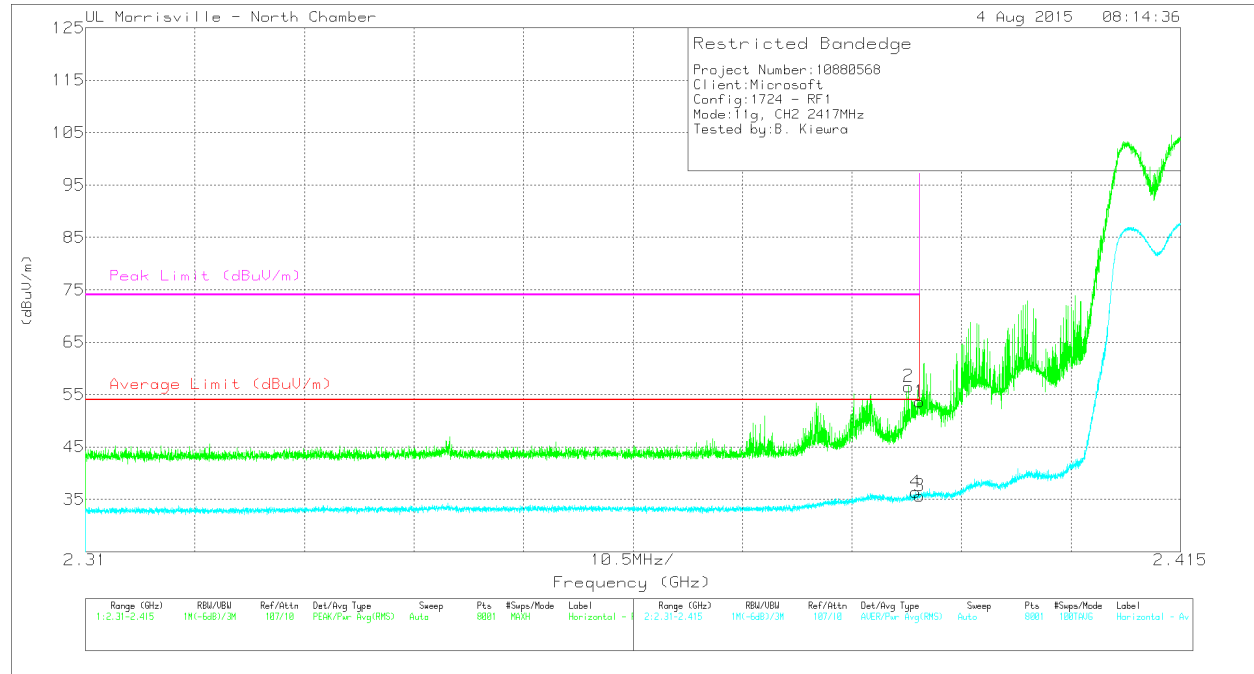
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.39          | 50.47                | Pk  | 31.9             | -23.6                 | 58.77                      | -                      | -           | 74                  | -15.23         | 191            | 103         | H        |
| 2      | * 2.39          | 55.37                | Pk  | 31.9             | -23.6                 | 63.67                      | -                      | -           | 74                  | -10.33         | 191            | 103         | H        |
| 3      | * 2.39          | 36.26                | RMS | 31.9             | -23.6                 | 44.56                      | 54                     | -9.44       | -                   | -              | 191            | 103         | H        |
| 4      | * 2.39          | 36.86                | RMS | 31.9             | -23.6                 | 45.16                      | 54                     | -8.84       | -                   | -              | 191            | 103         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.39          | 45.33                | Pk  | 31.9             | -23.6                  | 53.63                      | -                      | -           | 74                  | -20.37         | 301            | 150         | V        |
| 2      | * 2.389         | 48.26                | Pk  | 31.9             | -23.6                  | 56.56                      | -                      | -           | 74                  | -17.44         | 301            | 150         | V        |
| 3      | * 2.39          | 27.4                 | RMS | 31.9             | -23.6                  | 35.7                       | 54                     | -18.3       | -                   | -              | 301            | 150         | V        |
| 4      | * 2.39          | 28.04                | RMS | 31.9             | -23.6                  | 36.34                      | 54                     | -17.66      | -                   | -              | 301            | 150         | V        |

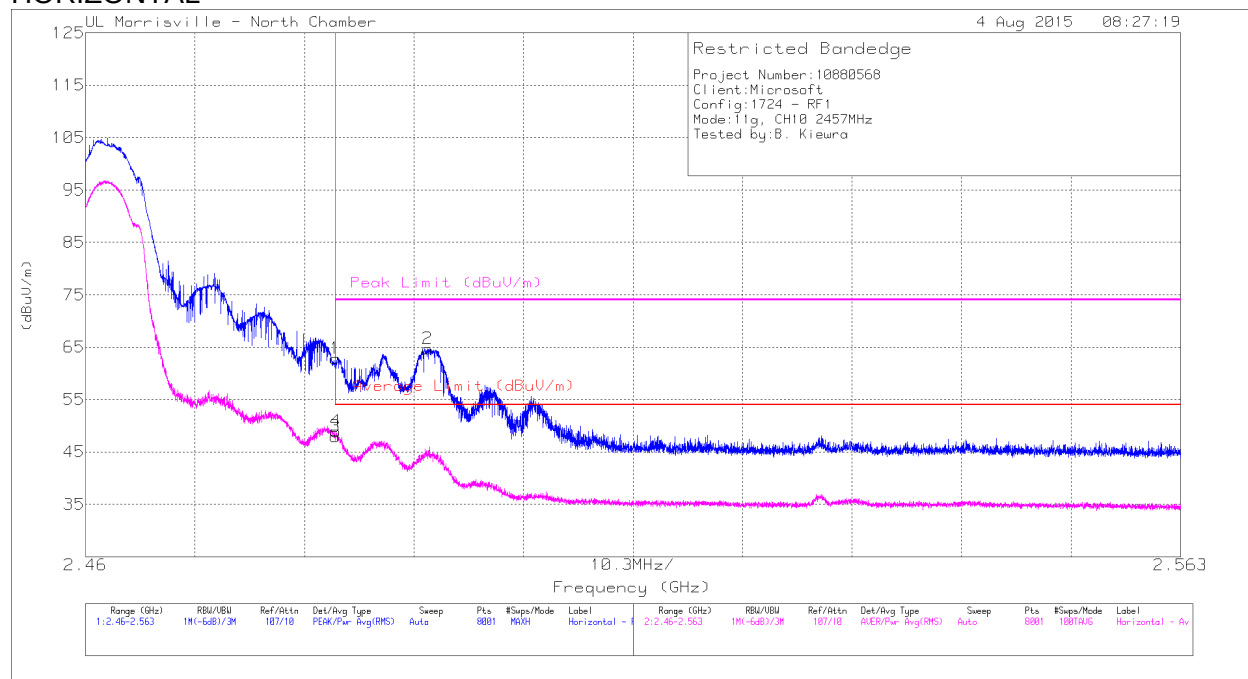
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

**AUTHORIZED BANDEDGE (HIGH CHANNEL 10)**

**HORIZONTAL**



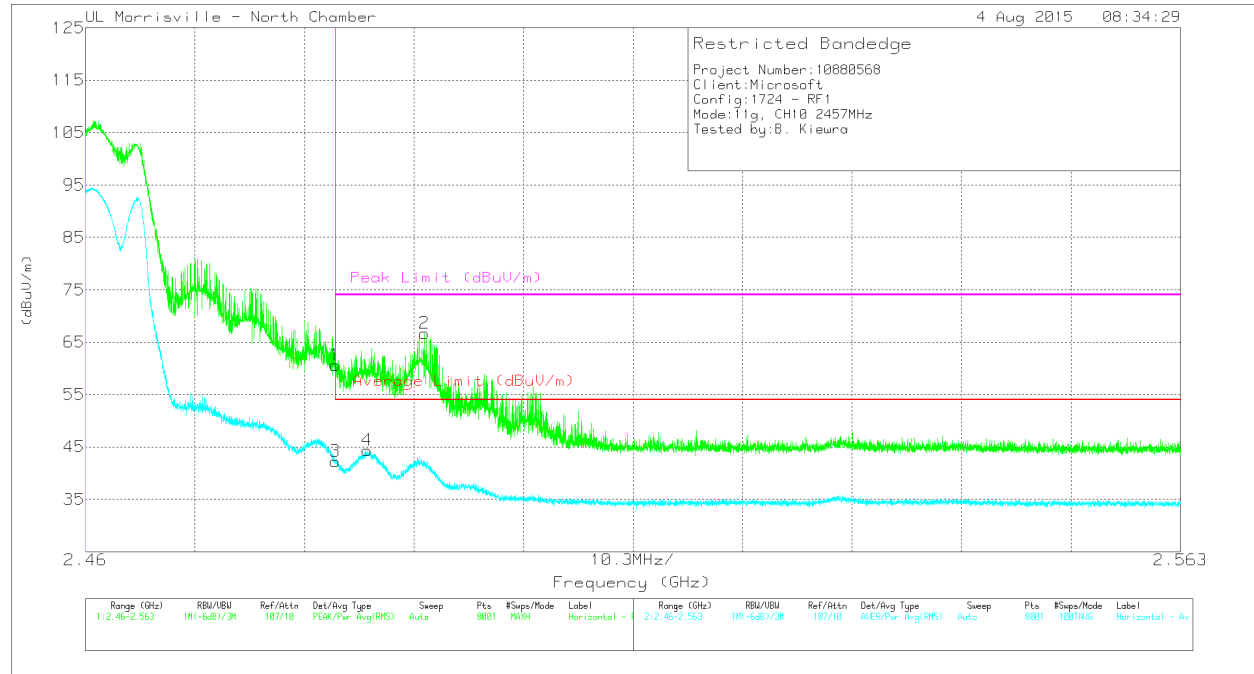
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 54.09                | Pk  | 32.1             | -23.4                 | 62.79                      | -                      | -           | 74                  | -11.21         | 142            | 118         | H        |
| 2      | * 2.492         | 55.99                | Pk  | 32.1             | -23.4                 | 64.69                      | -                      | -           | 74                  | -9.31          | 142            | 118         | H        |
| 3      | * 2.484         | 39.28                | RMS | 32.1             | -23.4                 | 47.98                      | 54                     | -6.02       | -                   | -              | 142            | 118         | H        |
| 4      | * 2.484         | 40.25                | RMS | 32.1             | -23.4                 | 48.95                      | 54                     | -5.05       | -                   | -              | 142            | 118         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 51.89                | Pk  | 32.1             | -23.4                 | 60.59                      | -                      | -           | 74                  | -13.41         | 179            | 228         | V        |
| 2      | * 2.492         | 57.93                | Pk  | 32.1             | -23.4                 | 66.63                      | -                      | -           | 74                  | -7.37          | 179            | 228         | V        |
| 3      | * 2.484         | 33.48                | RMS | 32.1             | -23.4                 | 42.18                      | 54                     | -11.82      | -                   | -              | 179            | 228         | V        |
| 4      | * 2.486         | 35.63                | RMS | 32.1             | -23.4                 | 44.33                      | 54                     | -9.67       | -                   | -              | 179            | 228         | V        |

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

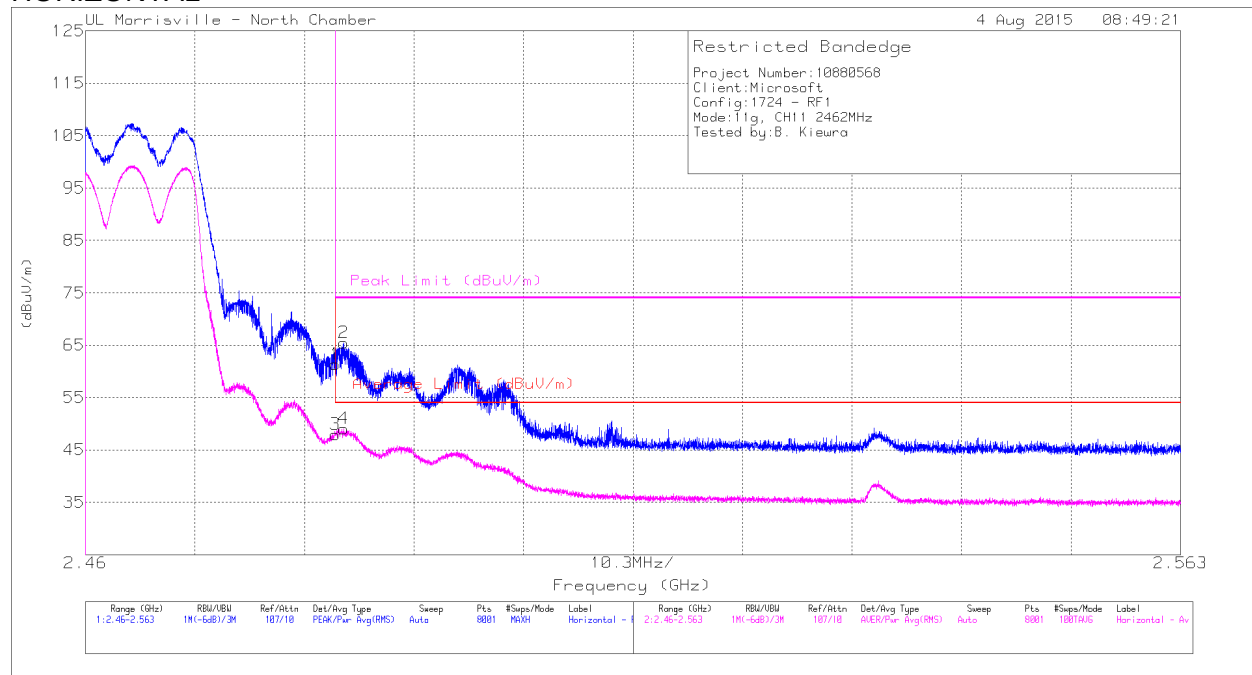
Pk - Peak detector

RMS - RMS detection



**AUTHORIZED BANDEDGE (HIGH CHANNEL 11)**

**HORIZONTAL**



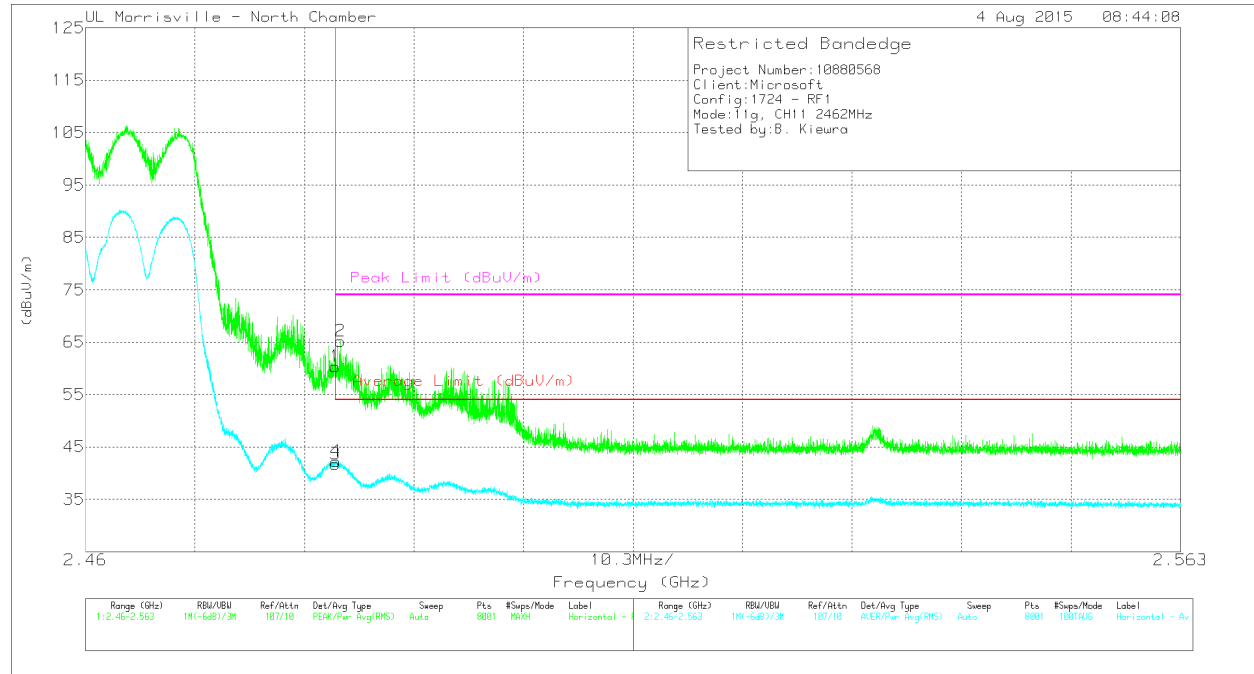
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 52.68                | Pk  | 32.1             | -23.4                 | 61.38                      | -                      | -           | 74                  | -12.62         | 167            | 103         | H        |
| 2      | * 2.484         | 56.73                | Pk  | 32.1             | -23.4                 | 65.43                      | -                      | -           | 74                  | -8.57          | 167            | 103         | H        |
| 3      | * 2.484         | 39.25                | RMS | 32.1             | -23.4                 | 47.95                      | 54                     | -6.05       | -                   | -              | 167            | 103         | H        |
| 4      | * 2.484         | 40.34                | RMS | 32.1             | -23.4                 | 49.04                      | 54                     | -4.96       | -                   | -              | 167            | 103         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 51.65                | Pk  | 32.1             | -23.4                 | 60.35                      | -                      | -           | 74                  | -13.65         | 183            | 164         | V        |
| 2      | * 2.484         | 56.51                | Pk  | 32.1             | -23.4                 | 65.21                      | -                      | -           | 74                  | -8.79          | 183            | 164         | V        |
| 3      | * 2.484         | 33.03                | RMS | 32.1             | -23.4                 | 41.73                      | 54                     | -12.27      | -                   | -              | 183            | 164         | V        |
| 4      | * 2.484         | 33.56                | RMS | 32.1             | -23.4                 | 42.26                      | 54                     | -11.74      | -                   | -              | 183            | 164         | V        |

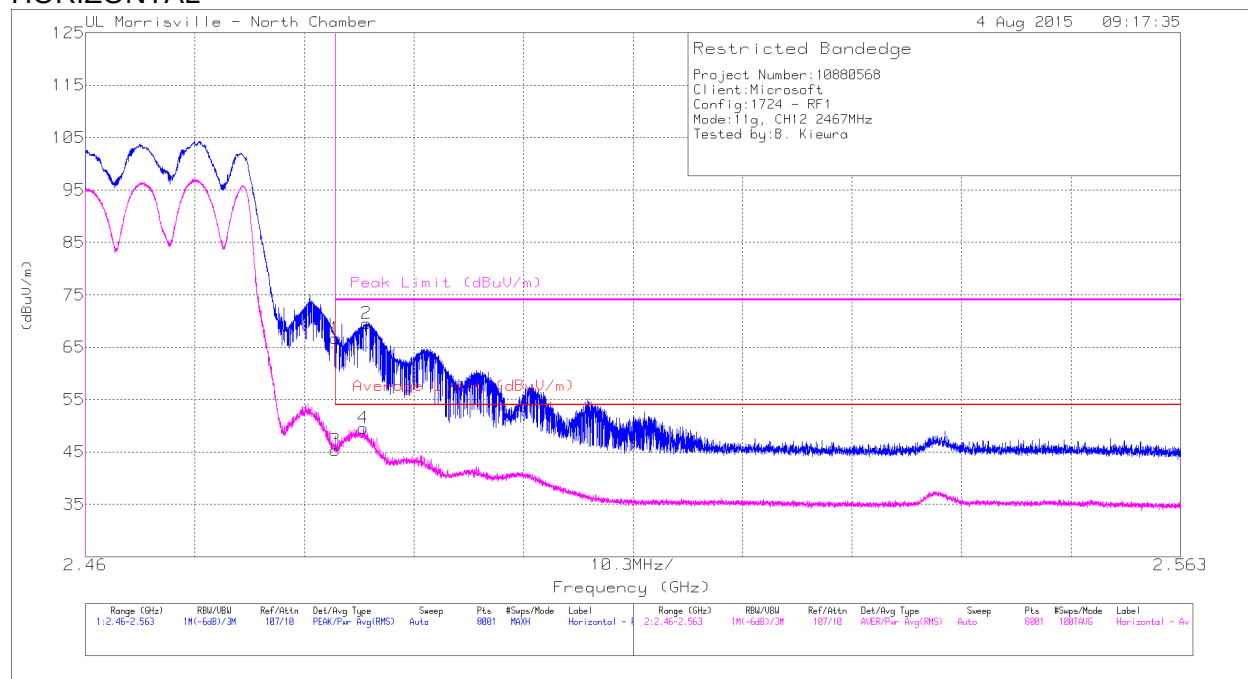
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

**AUTHORIZED BANDEDGE (HIGH CHANNEL 12)**

**HORIZONTAL**



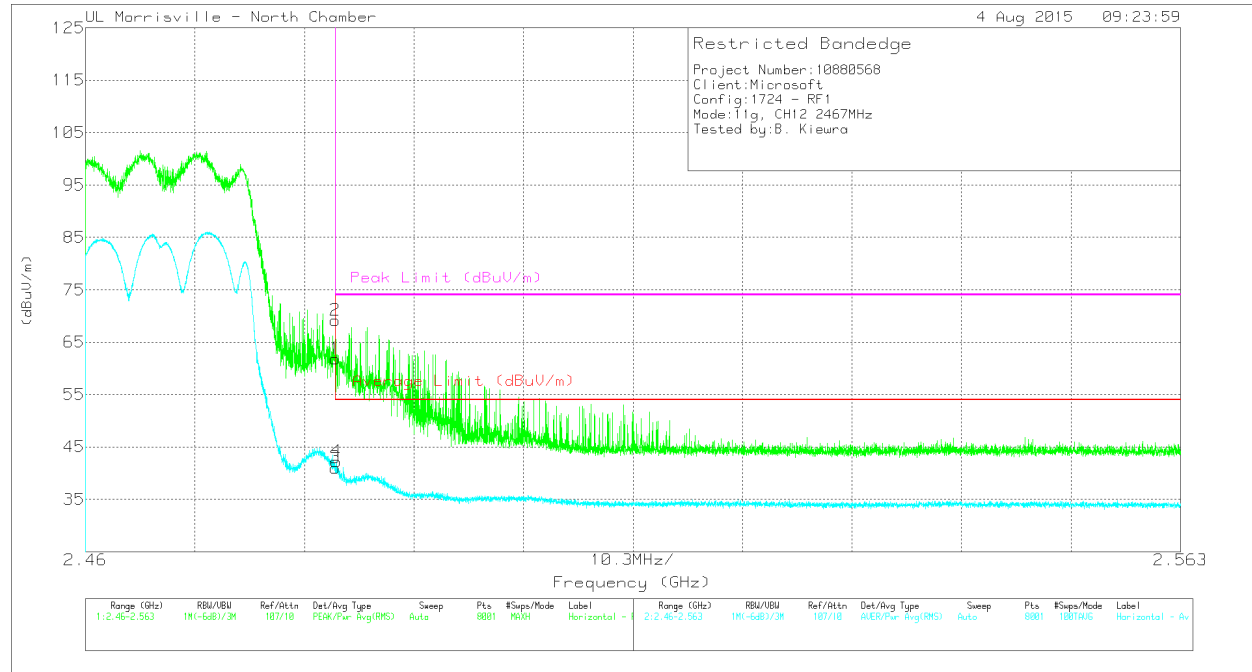
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 57.93                | Pk  | 32.1             | -23.4                 | 66.63                      | -                      | -           | 74                  | -7.37          | 299            | 149         | H        |
| 2      | * 2.486         | 60.8                 | Pk  | 32.1             | -23.4                 | 69.5                       | -                      | -           | 74                  | -4.5           | 299            | 149         | H        |
| 3      | * 2.484         | 36.68                | RMS | 32.1             | -23.4                 | 45.38                      | 54                     | -8.62       | -                   | -              | 299            | 149         | H        |
| 4      | * 2.486         | 40.83                | RMS | 32.1             | -23.4                 | 49.53                      | 54                     | -4.47       | -                   | -              | 299            | 149         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 53.14                | Pk  | 32.1             | -23.4                 | 61.84                      | -                      | -           | 74                  | -12.16         | 284            | 215         | V        |
| 2      | * 2.484         | 60.47                | Pk  | 32.1             | -23.4                 | 69.17                      | -                      | -           | 74                  | -4.83          | 284            | 215         | V        |
| 3      | * 2.484         | 32.34                | RMS | 32.1             | -23.4                 | 41.04                      | 54                     | -12.96      | -                   | -              | 285            | 215         | V        |
| 4      | * 2.484         | 33.56                | RMS | 32.1             | -23.4                 | 42.26                      | 54                     | -11.74      | -                   | -              | 285            | 215         | V        |

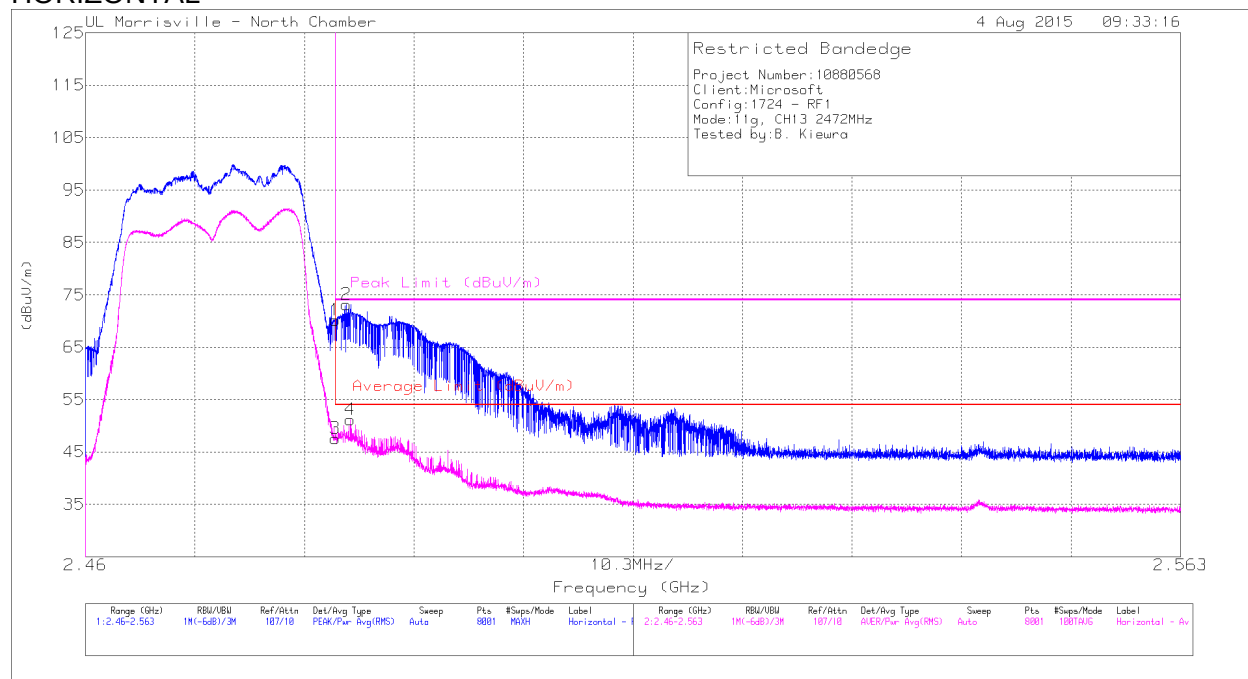
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

# **AUTHORIZED BANDEDGE (HIGH CHANNEL 13)**

## **HORIZONTAL**



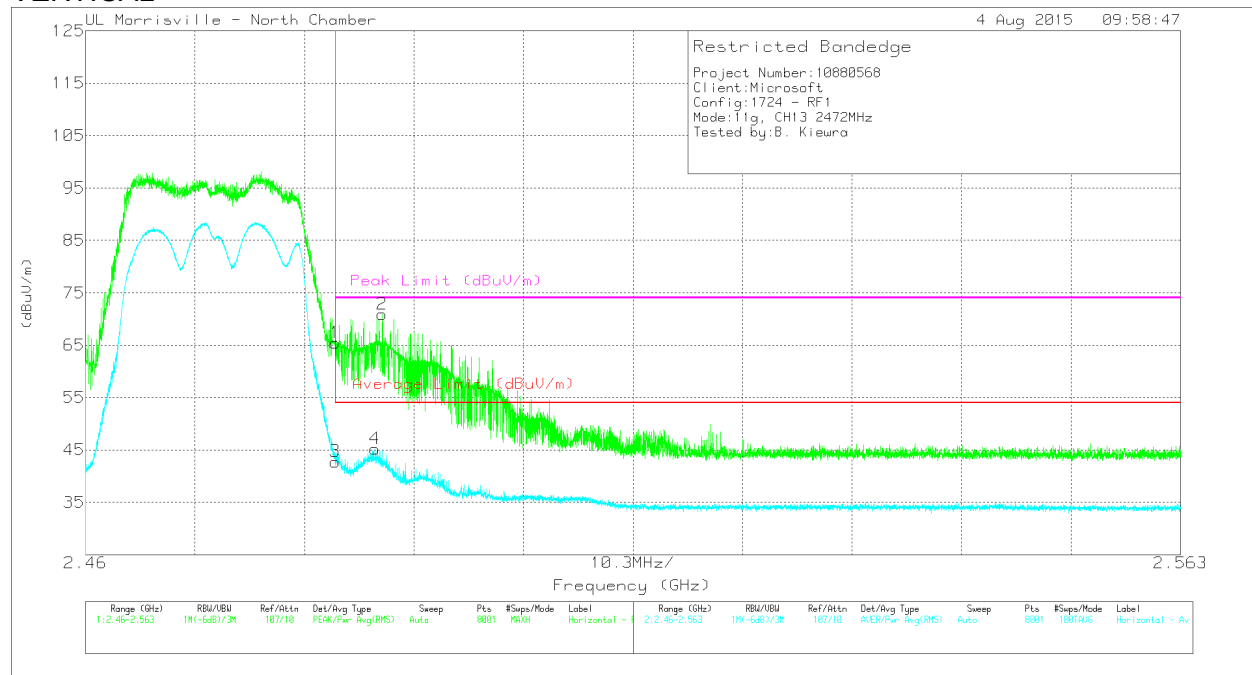
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 61.48                | Pk  | 32.1             | -23.4                 | 70.18                      | -                      | -           | 74                  | -3.82          | 269            | 382         | H        |
| 2      | * 2.485         | 64.42                | Pk  | 32.1             | -23.4                 | 73.12                      | -                      | -           | 74                  | -8.8           | 269            | 382         | H        |
| 3      | * 2.484         | 38.82                | RMS | 32.1             | -23.4                 | 47.52                      | 54                     | -6.48       | -                   | -              | 269            | 382         | H        |
| 4      | * 2.485         | 42.49                | RMS | 32.1             | -23.4                 | 51.19                      | 54                     | -2.81       | -                   | -              | 269            | 382         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 56.73                | Pk  | 32.1             | -23.4                 | 65.43                      | -                      | -           | 74                  | -8.57          | 292            | 348         | V        |
| 2      | * 2.488         | 62.15                | Pk  | 32.1             | -23.4                 | 70.85                      | -                      | -           | 74                  | -3.15          | 292            | 348         | V        |
| 3      | * 2.484         | 34.08                | RMS | 32.1             | -23.4                 | 42.78                      | 54                     | -11.22      | -                   | -              | 292            | 348         | V        |
| 4      | * 2.487         | 36.55                | RMS | 32.1             | -23.4                 | 45.25                      | 54                     | -8.75       | -                   | -              | 292            | 348         | V        |

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

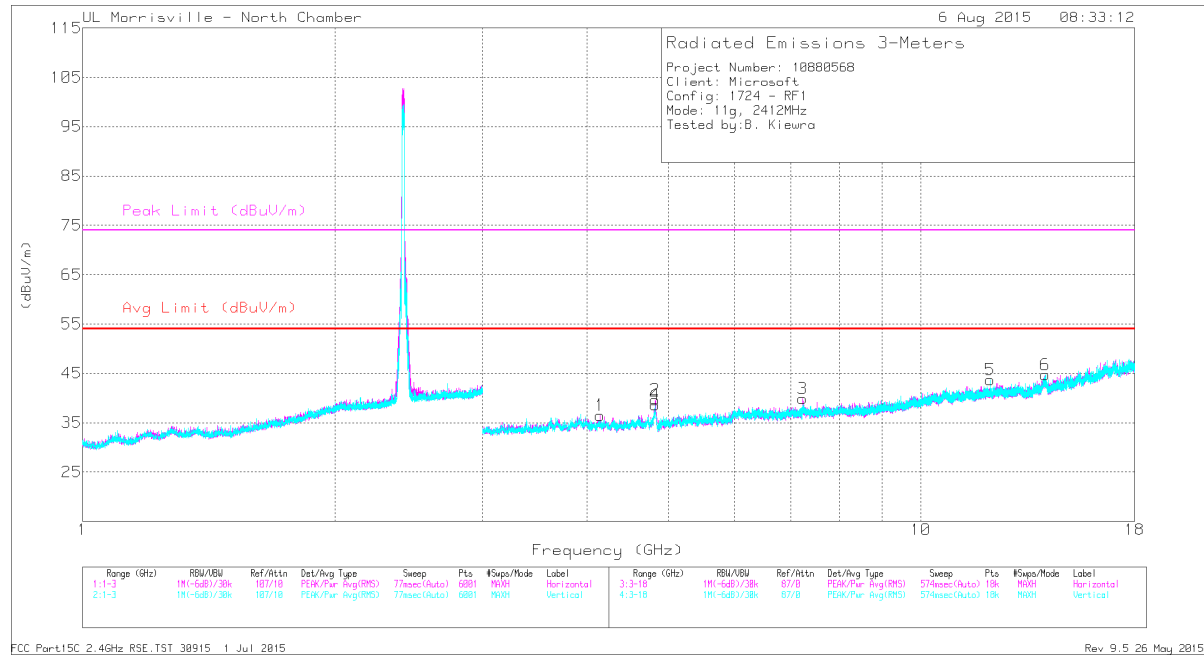
Pk - Peak detector

RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL

Note – Channel 1 was set to same power setting as the Mid channel to achieve worst-case results.



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF AT0072 (dB/m) | Amp/Cbl/ Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|------------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 4.136         | 41.44                | PK2  | 33.7             | -31.6                  | 43.54                      | -                  | -           | 74                  | -30.46         | 26             | 207         | H        |
|        | * 4.126         | 29.81                | MAV1 | 33.7             | -31.7                  | 31.81                      | 54                 | -22.19      | -                   | -              | 26             | 207         | H        |
| 2      | * 4.83          | 44.47                | PK2  | 34.1             | -30.7                  | 47.87                      | -                  | -           | 74                  | -26.13         | 239            | 104         | H        |
|        | * 4.824         | 33.27                | MAV1 | 34.1             | -30.8                  | 36.57                      | 54                 | -17.43      | -                   | -              | 239            | 104         | H        |
| 3      | 7.231           | 32.45                | Pk   | 35.7             | -28.3                  | 39.85                      | -                  | -           | 74                  | -34.15         | 0-360          | 101         | H        |
| 4      | * 4.825         | 42.18                | PK2  | 34.1             | -30.8                  | 45.48                      | -                  | -           | 74                  | -28.52         | 197            | 335         | V        |
|        | * 4.824         | 31.08                | MAV1 | 34.1             | -30.8                  | 34.38                      | 54                 | -19.62      | -                   | -              | 197            | 335         | V        |
| 5      | * 12.089        | 36.77                | PK2  | 38.9             | -23.8                  | 51.87                      | -                  | -           | 74                  | -22.13         | 268            | 263         | V        |
|        | * 12.127        | 23.19                | MAV1 | 39               | -24.3                  | 37.89                      | 54                 | -16.11      | -                   | -              | 268            | 263         | V        |
| 6      | 14.078          | 29.19                | Pk   | 39.3             | -23.8                  | 44.69                      | -                  | -           | 74                  | -29.31         | 0-360          | 101         | V        |

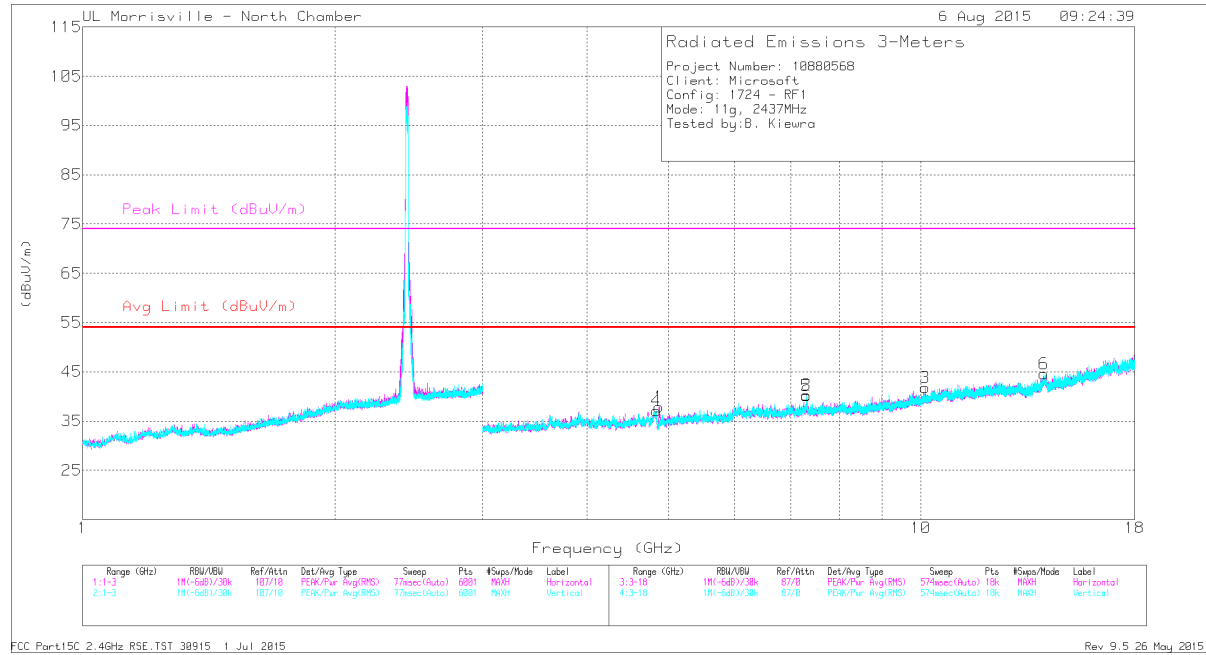
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

# MID CHANNEL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|------------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 4.873         | 43.85                | PK2  | 34.1             | -30.4                 | 47.55                      | -                  | -           | 74                  | -26.45         | 224            | 269         | H        |
|        | * 4.873         | 32.29                | MAV1 | 34.1             | -30.4                 | 35.99                      | 54                 | -18.01      | -                   | -              | 224            | 269         | H        |
| 2      | * 7.317         | 42.75                | PK2  | 35.7             | -27.9                 | 50.55                      | -                  | -           | 74                  | -23.45         | 273            | 260         | H        |
|        | * 7.315         | 29.04                | MAV1 | 35.7             | -27.9                 | 36.84                      | 54                 | -17.16      | -                   | -              | 273            | 260         | H        |
| 3      | 10.132          | 29.44                | Pk   | 37.4             | -25.1                 | 41.74                      | -                  | -           | 74                  | -32.26         | 0-360          | 200         | H        |
| 4      | * 4.803         | 41.1                 | PK2  | 34.1             | -30.7                 | 44.5                       | -                  | -           | 74                  | -29.5          | 62             | 101         | V        |
|        | * 4.812         | 29.94                | MAV1 | 34.1             | -30.8                 | 33.24                      | 54                 | -20.76      | -                   | -              | 62             | 101         | V        |
| 5      | * 7.31          | 41.45                | PK2  | 35.7             | -27.8                 | 49.35                      | -                  | -           | 74                  | -24.65         | 79             | 238         | V        |
|        | * 7.31          | 29.1                 | MAV1 | 35.7             | -27.8                 | 37                         | 54                 | -17         | -                   | -              | 79             | 238         | V        |
| 6      | 14.021          | 28.82                | Pk   | 39.2             | -23.4                 | 44.62                      | -                  | -           | 74                  | -29.38         | 0-360          | 101         | V        |

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

Pk - Peak detector

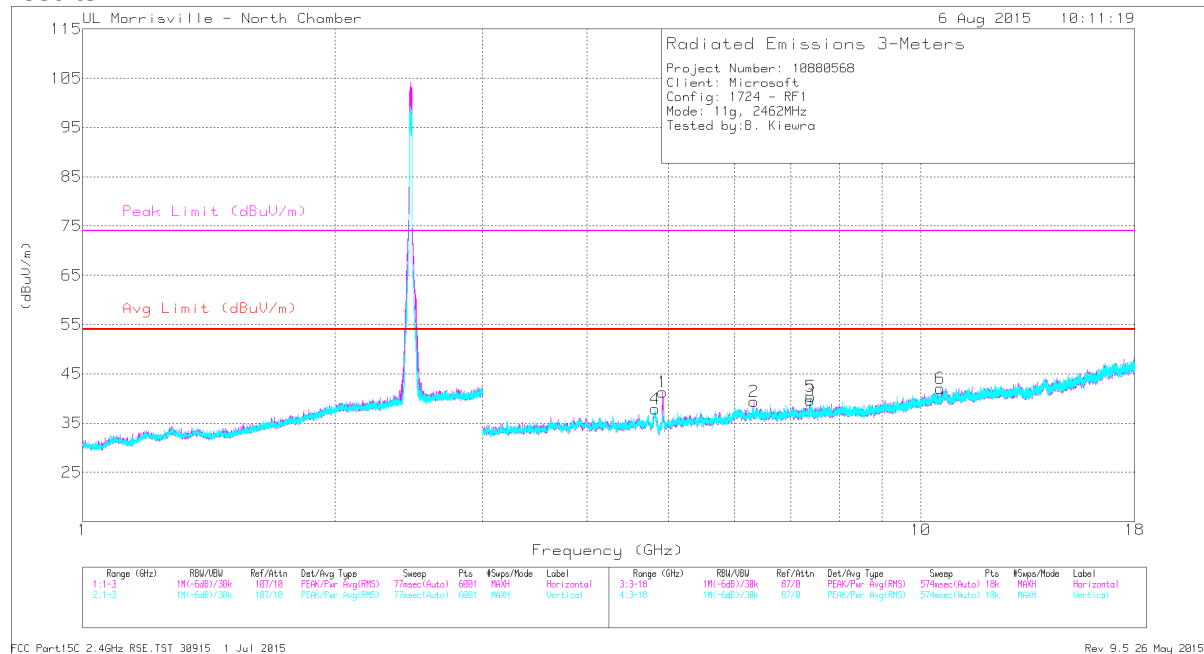
PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average



## HIGH CHANNEL (11)

Note – Channel 11 was set to same power setting as the Mid channel to achieve worst-case results.



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|------------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 4.924         | 44.71                | PK2  | 34.1             | -30.9                 | 47.91                      | -                  | -           | 74                  | -26.09         | 247            | 241         | H        |
|        | * 4.924         | 33.36                | MAv1 | 34.1             | -30.9                 | 36.56                      | 54                 | -17.44      | -                   | -              | 247            | 241         | H        |
| 2      | 6.324           | 32.77                | Pk   | 35.5             | -28.9                 | 39.37                      | -                  | -           | 74                  | -34.63         | 0-360          | 200         | H        |
| 3      | * 7.381         | 42.54                | PK2  | 35.8             | -27.9                 | 50.44                      | -                  | -           | 74                  | -23.56         | 279            | 160         | H        |
|        | * 7.385         | 29.77                | MAv1 | 35.8             | -27.9                 | 37.67                      | 54                 | -16.33      | -                   | -              | 279            | 160         | H        |
| 4      | * 4.828         | 41.37                | PK2  | 34.1             | -30.7                 | 44.77                      | -                  | -           | 74                  | -29.23         | 12             | 274         | V        |
|        | * 4.828         | 29.85                | MAv1 | 34.1             | -30.7                 | 33.25                      | 54                 | -20.75      | -                   | -              | 12             | 274         | V        |
| 5      | * 7.383         | 49.61                | PK2  | 35.8             | -27.9                 | 57.51                      | -                  | -           | 74                  | -16.49         | 250            | 102         | V        |
|        | * 7.389         | 33.21                | MAv1 | 35.8             | -27.9                 | 41.11                      | 54                 | -12.89      | -                   | -              | 250            | 102         | V        |
| 6      | 10.55           | 29.16                | Pk   | 37.7             | -24.8                 | 42.06                      | -                  | -           | 74                  | -31.94         | 0-360          | 200         | V        |

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

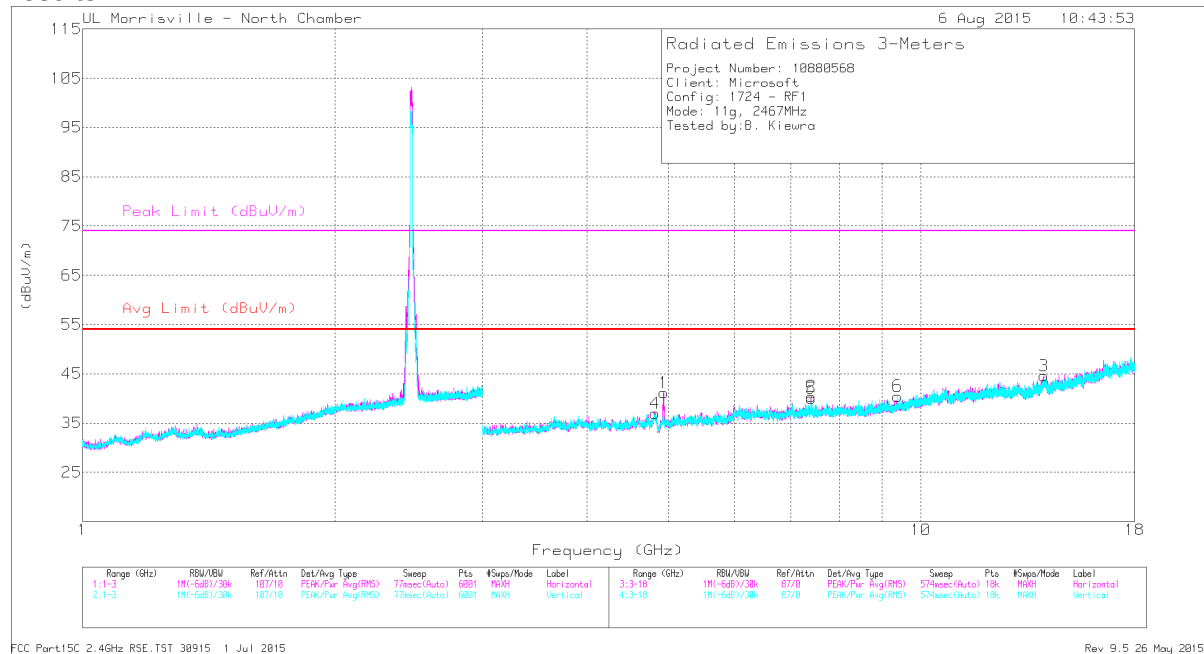
Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

## HIGH CHANNEL (12)

Note – Channel 12 was set to same power setting as the Mid channel to achieve worst-case results.



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|------------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 4.934         | 45.54                | PK2  | 34.1             | -31                   | 48.64                      | -                  | -           | 74                  | -25.36         | 225            | 113         | H        |
|        | * 4.933         | 34.16                | MAV1 | 34.1             | -31                   | 37.26                      | 54                 | -16.74      | -                   | -              | 225            | 113         | H        |
| 2      | * 7.403         | 41.63                | PK2  | 35.8             | -27.9                 | 49.53                      | -                  | -           | 74                  | -24.47         | 240            | 368         | H        |
|        | * 7.403         | 28.65                | MAV1 | 35.8             | -27.9                 | 36.55                      | 54                 | -17.45      | -                   | -              | 240            | 368         | H        |
| 3      | 14.031          | 28.93                | Pk   | 39.2             | -23.6                 | 44.53                      | -                  | -           | 74                  | -29.47         | 0-360          | 200         | H        |
| 4      | * 4.816         | 40.91                | PK2  | 34.1             | -30.8                 | 44.21                      | -                  | -           | 74                  | -29.79         | 5              | 164         | V        |
|        | * 4.828         | 29.78                | MAV1 | 34.1             | -30.8                 | 33.08                      | 54                 | -20.92      | -                   | -              | 5              | 164         | V        |
| 5      | * 7.403         | 43.43                | PK2  | 35.8             | -27.9                 | 51.33                      | -                  | -           | 74                  | -22.67         | 87             | 214         | V        |
|        | * 7.403         | 30.87                | MAV1 | 35.8             | -27.9                 | 38.77                      | 54                 | -15.23      | -                   | -              | 87             | 214         | V        |
| 6      | * 9.415         | 36.46                | PK2  | 36.7             | -26.2                 | 46.96                      | -                  | -           | 74                  | -27.04         | 33             | 182         | V        |
|        | * 9.377         | 25.08                | MAV1 | 36.6             | -26.3                 | 35.38                      | 54                 | -18.62      | -                   | -              | 33             | 182         | V        |

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

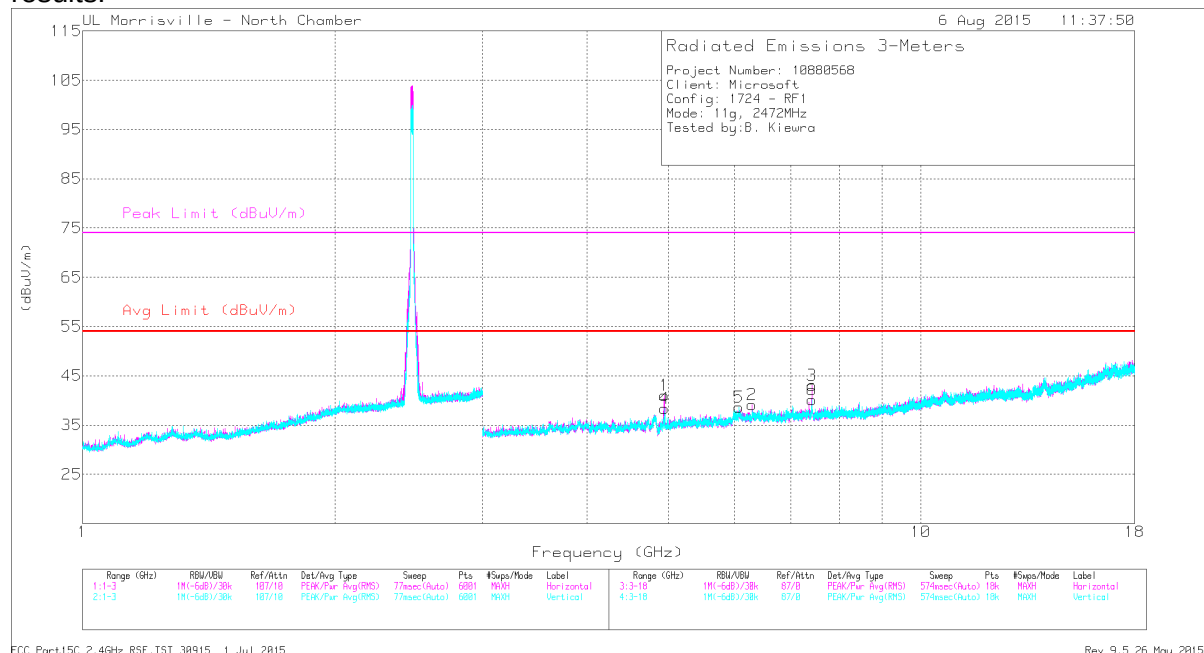
Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

## HIGH CHANNEL (13)

Note – Channel 13 was set to same power setting as the Mid channel to achieve worst-case results.



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF AT0072 (dB/m) | Amp/Cbl/ Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|------------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 4.943         | 45.02                | PK2  | 34.1             | -31.1                  | 48.02                      | -                  | -           | 74                  | -25.98         | 280            | 271         | H        |
|        | * 4.943         | 33.54                | MAV1 | 34.1             | -31.1                  | 36.54                      | 54                 | -17.46      | -                   | -              | 280            | 271         | H        |
| 3      | * 7.415         | 42.88                | PK2  | 35.8             | -27.8                  | 50.88                      | -                  | -           | 74                  | -23.12         | 278            | 102         | H        |
|        | * 7.415         | 29.79                | MAV1 | 35.8             | -27.8                  | 37.79                      | 54                 | -16.21      | -                   | -              | 278            | 102         | H        |
| 4      | * 4.944         | 44.68                | PK2  | 34.1             | -31.1                  | 47.68                      | -                  | -           | 74                  | -26.32         | 330            | 293         | V        |
|        | * 4.944         | 33.05                | MAV1 | 34.1             | -31.1                  | 36.05                      | 54                 | -17.95      | -                   | -              | 330            | 293         | V        |
| 6      | * 7.404         | 40.7                 | PK2  | 35.8             | -27.9                  | 48.6                       | -                  | -           | 74                  | -25.4          | 91             | 279         | V        |
|        | * 7.419         | 29.27                | MAV1 | 35.8             | -27.7                  | 37.37                      | 54                 | -16.63      | -                   | -              | 91             | 279         | V        |
| 5      | 6.072           | 31.8                 | Pk   | 35.2             | -28.4                  | 38.6                       | -                  | -           | 74                  | -35.4          | 0-360          | 101         | V        |
| 2      | 6.293           | 32.88                | Pk   | 35.4             | -29.1                  | 39.18                      | -                  | -           | 74                  | -34.82         | 0-360          | 101         | H        |

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

Pk - Peak detector

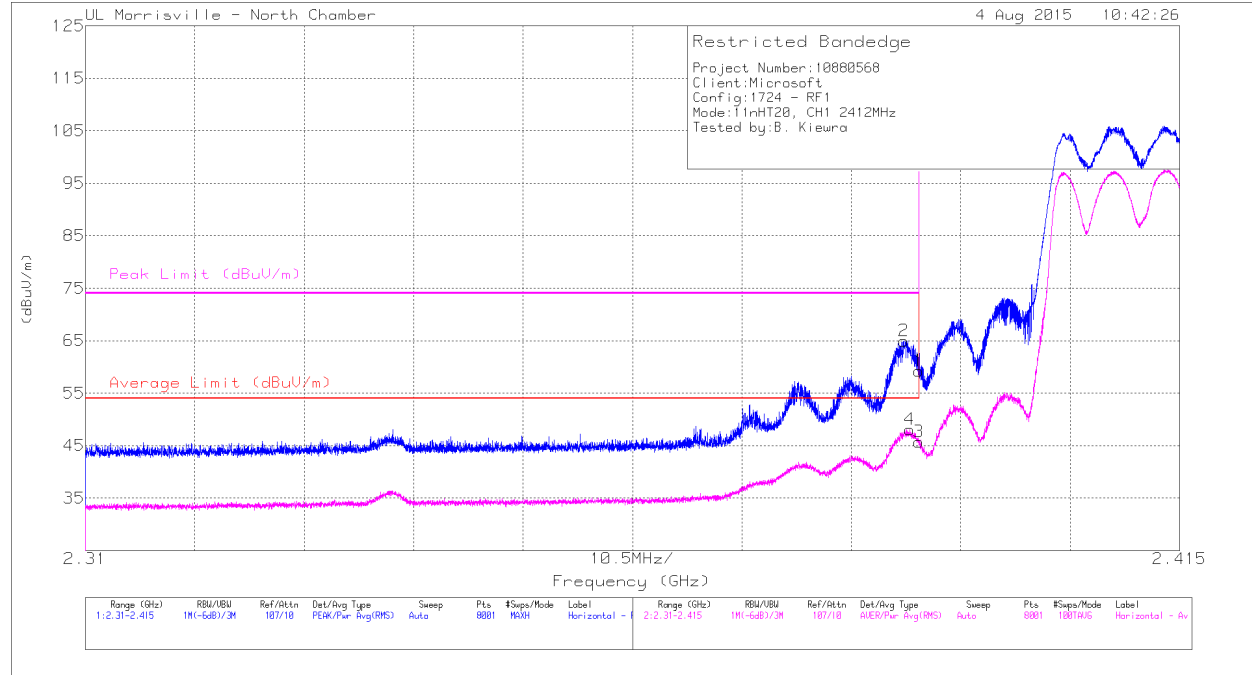
PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

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

#### RESTRICTED BANDEDGE (LOW CHANNEL 1)

#### HORIZONTAL



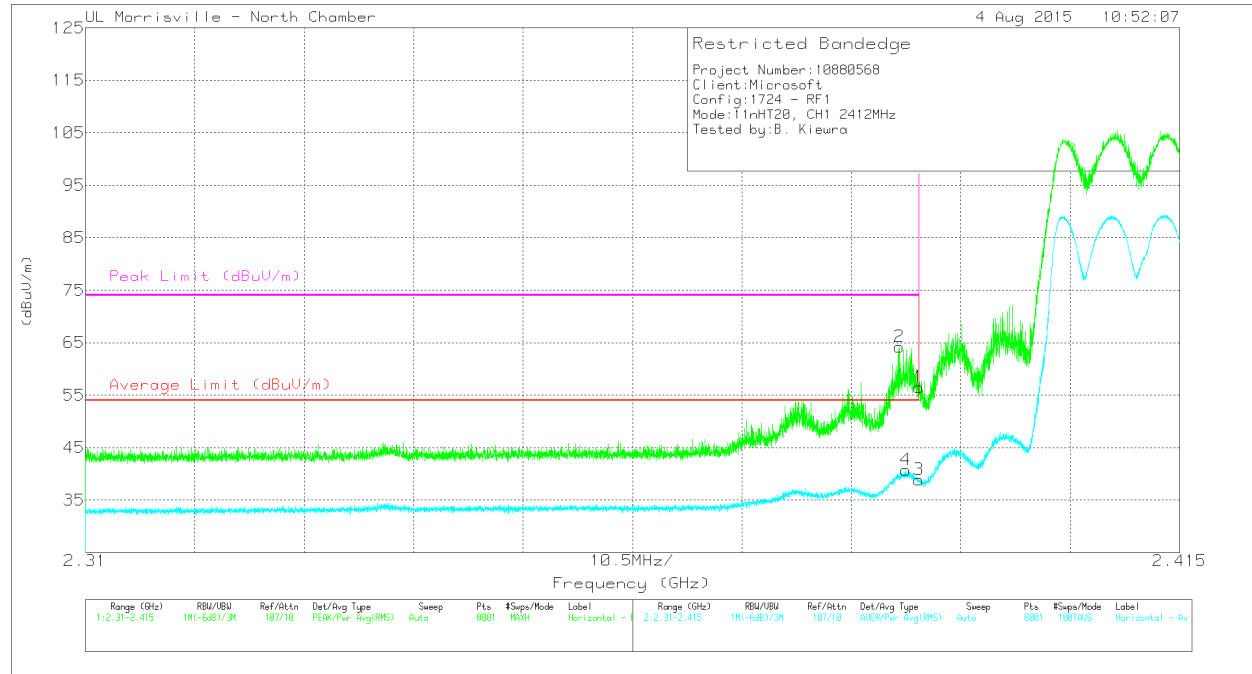
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.39          | 50.98                | Pk  | 31.9             | -23.6                 | 59.28                      | -                      | -           | 74                  | -14.72         | 177            | 181         | H        |
| 2      | * 2.389         | 56.69                | Pk  | 31.9             | -23.6                 | 64.99                      | -                      | -           | 74                  | -9.01          | 177            | 181         | H        |
| 3      | * 2.39          | 37.35                | RMS | 31.9             | -23.6                 | 45.65                      | 54                     | -8.35       | -                   | -              | 177            | 181         | H        |
| 4      | * 2.389         | 39.73                | RMS | 31.9             | -23.6                 | 48.03                      | 54                     | -5.97       | -                   | -              | 177            | 181         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL



| Marker | Frequency (GHz) | Meter Reading (dBUV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | Corrected Reading (dBUV/m) | Average Limit (dBUV/m) | Margin (dB) | Peak Limit (dBUV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.39          | 48.22                | Pk  | 31.9             | -23.6                  | 56.52                      | -                      | -           | 74                  | -17.48         | 180            | 197         | V        |
| 2      | * 2.388         | 55.95                | Pk  | 31.9             | -23.6                  | 64.25                      | -                      | -           | 74                  | -9.75          | 180            | 197         | V        |
| 3      | * 2.39          | 30.54                | RMS | 31.9             | -23.6                  | 38.84                      | 54                     | -15.16      | -                   | -              | 180            | 197         | V        |
| 4      | * 2.389         | 32.4                 | RMS | 31.9             | -23.6                  | 40.7                       | 54                     | -13.3       | -                   | -              | 180            | 197         | V        |

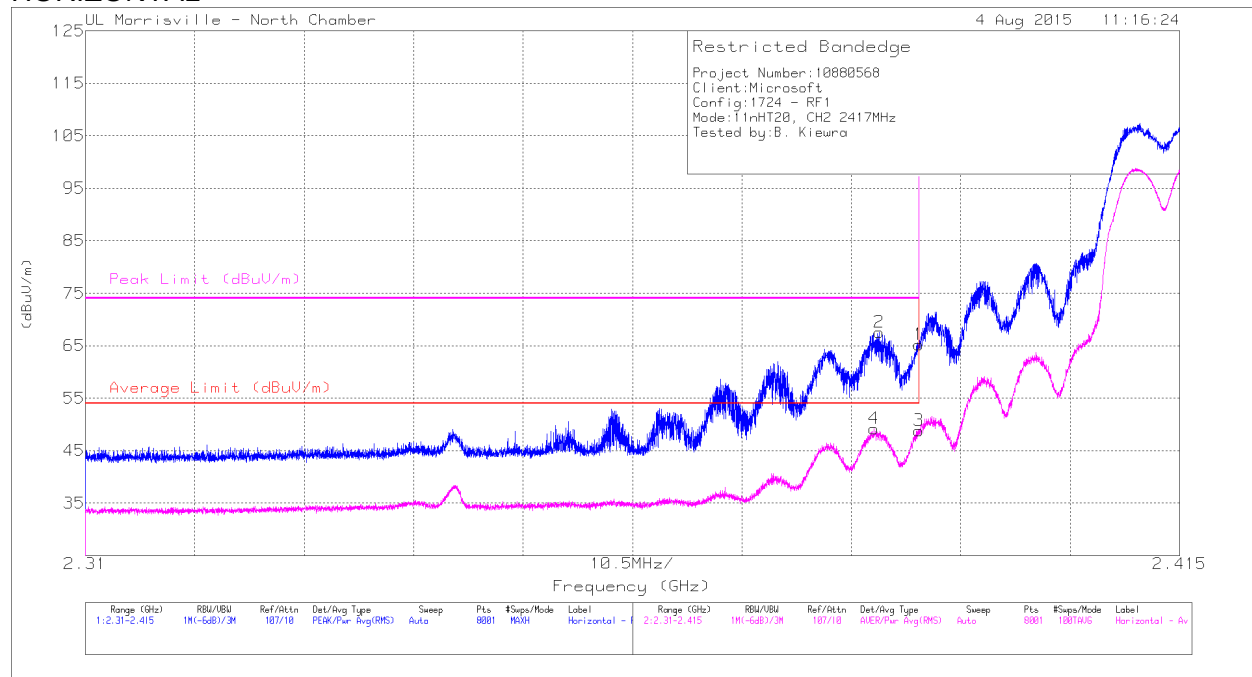
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

**RESTRICTED BANDEDGE (LOW CHANNEL 2)**

**HORIZONTAL**



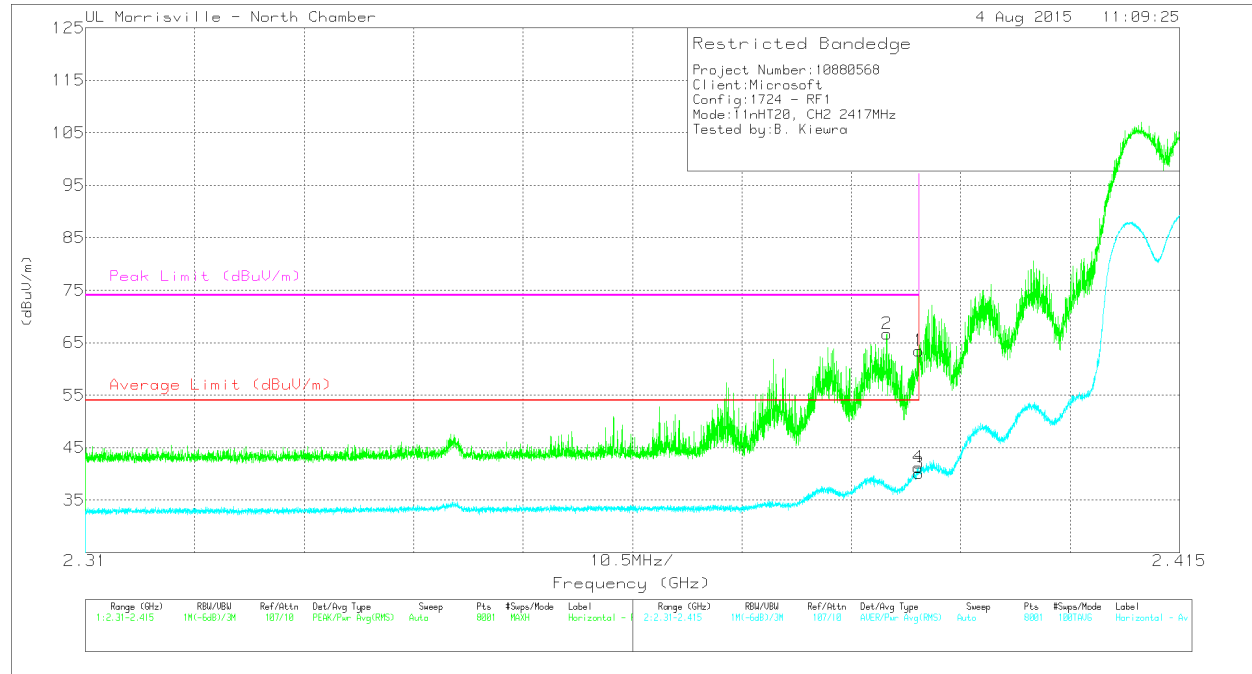
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.39          | 56.94                | Pk  | 31.9             | -23.6                 | 65.24                      | -                      | -           | 74                  | -8.76          | 179            | 135         | H        |
| 2      | * 2.386         | 59.17                | Pk  | 31.9             | -23.5                 | 67.57                      | -                      | -           | 74                  | -6.43          | 179            | 135         | H        |
| 3      | * 2.39          | 40.55                | RMS | 31.9             | -23.6                 | 48.85                      | 54                     | -5.15       | -                   | -              | 179            | 135         | H        |
| 4      | * 2.386         | 40.77                | RMS | 31.9             | -23.5                 | 49.17                      | 54                     | -4.83       | -                   | -              | 179            | 135         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.39          | 55.1                 | Pk  | 31.9             | -23.6                 | 63.4                       | -                      | -           | 74                  | -10.6          | 175            | 134         | V        |
| 2      | * 2.387         | 58.41                | Pk  | 31.9             | -23.6                 | 66.71                      | -                      | -           | 74                  | -7.29          | 175            | 134         | V        |
| 3      | * 2.39          | 31.78                | RMS | 31.9             | -23.6                 | 40.08                      | 54                     | -13.92      | -                   | -              | 175            | 134         | V        |
| 4      | * 2.39          | 32.91                | RMS | 31.9             | -23.6                 | 41.21                      | 54                     | -12.79      | -                   | -              | 175            | 134         | V        |

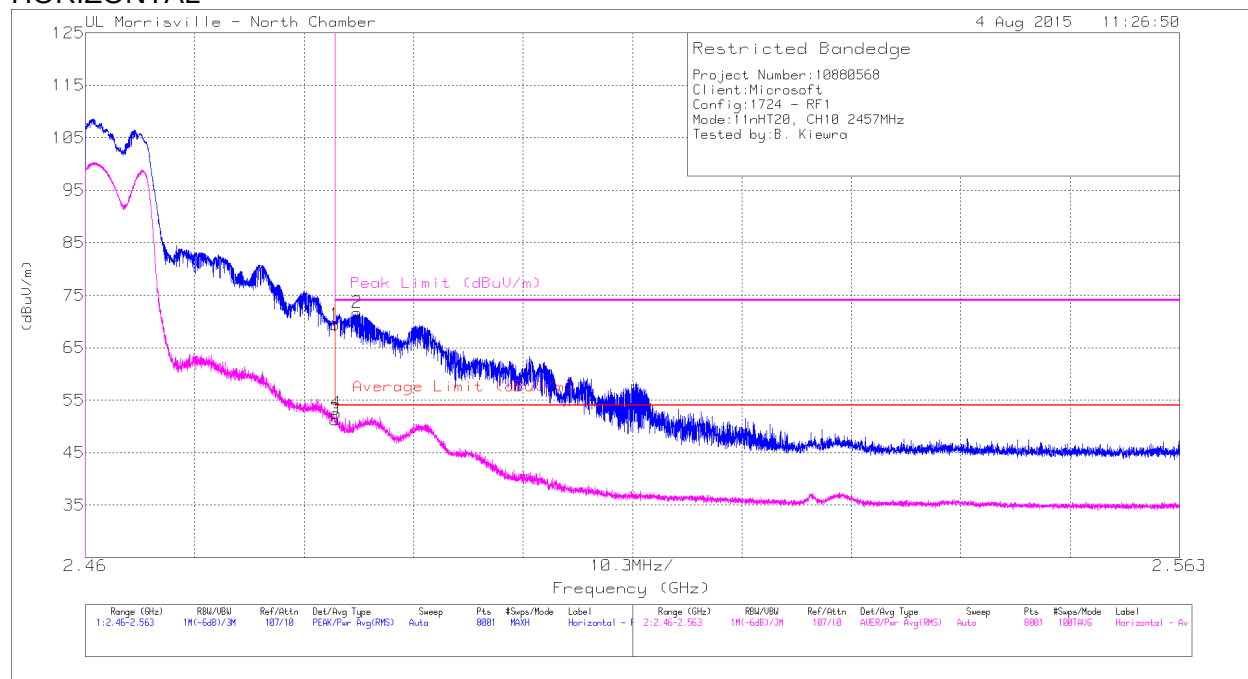
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

**AUTHORIZED BANDEDGE (HIGH CHANNEL 10)**

**HORIZONTAL**



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 60.72                | Pk  | 32.1             | -23.4                 | 69.42                      | -                      | -           | 74                  | -4.58          | 188            | 145         | H        |
| 2      | * 2.486         | 62.95                | Pk  | 32.1             | -23.4                 | 71.65                      | -                      | -           | 74                  | -2.35          | 188            | 145         | H        |
| 3      | * 2.484         | 42.6                 | RMS | 32.1             | -23.4                 | 51.3                       | 54                     | -2.7        | -                   | -              | 188            | 145         | H        |
| 4      | * 2.484         | 43.79                | RMS | 32.1             | -23.4                 | 52.49                      | 54                     | -1.51       | -                   | -              | 188            | 145         | H        |

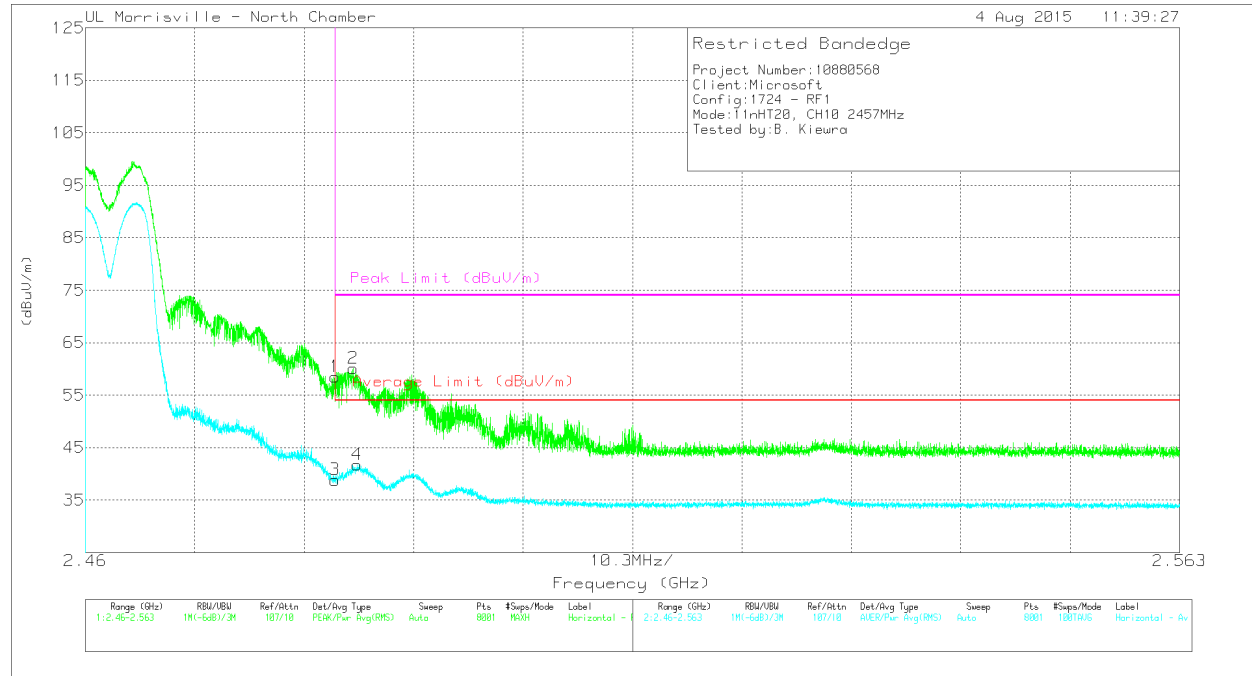
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection



# VERTICAL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Fltr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 49.81                | Pk  | 32.1             | -23.4                  | 58.51                      | -                      | -           | 74                  | -15.49         | 195            | 125         | V        |
| 2      | * 2.485         | 51.38                | Pk  | 32.1             | -23.4                  | 60.08                      | -                      | -           | 74                  | -13.92         | 195            | 125         | V        |
| 3      | * 2.484         | 30.11                | RMS | 32.1             | -23.4                  | 38.81                      | 54                     | -15.19      | -                   | -              | 195            | 125         | V        |
| 4      | * 2.486         | 33.05                | RMS | 32.1             | -23.4                  | 41.75                      | 54                     | -12.25      | -                   | -              | 195            | 125         | V        |

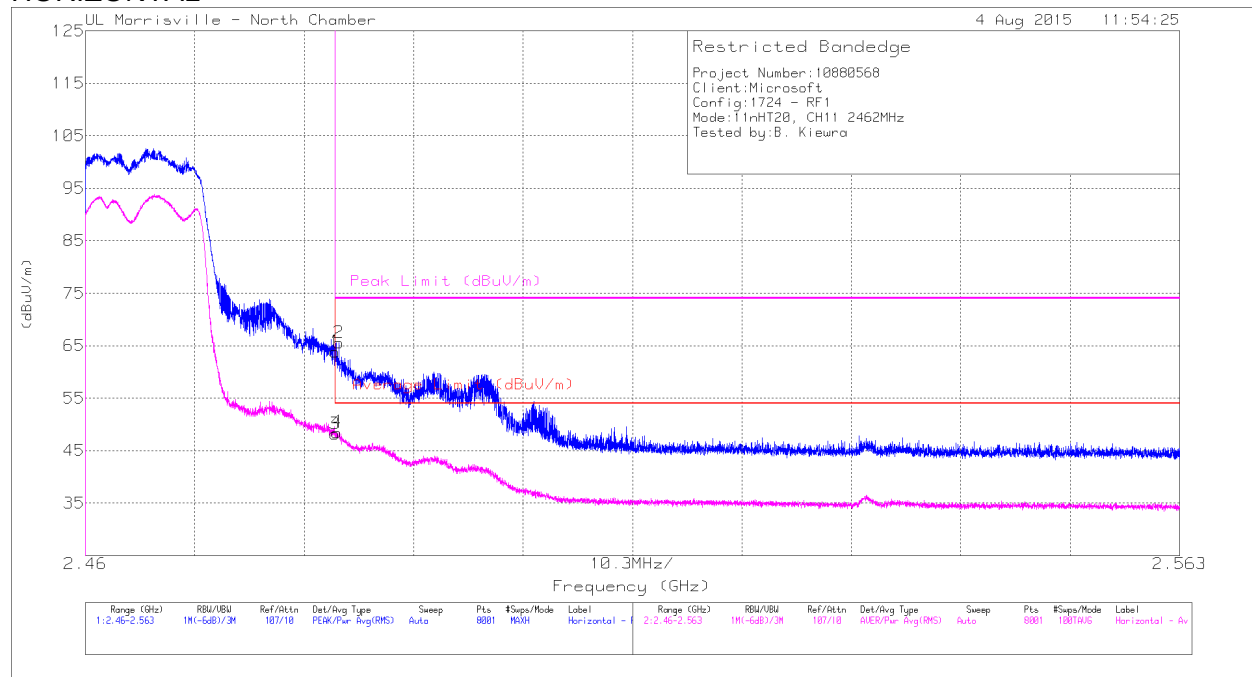
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

**AUTHORIZED BANDEDGE (HIGH CHANNEL 11)**

**HORIZONTAL**



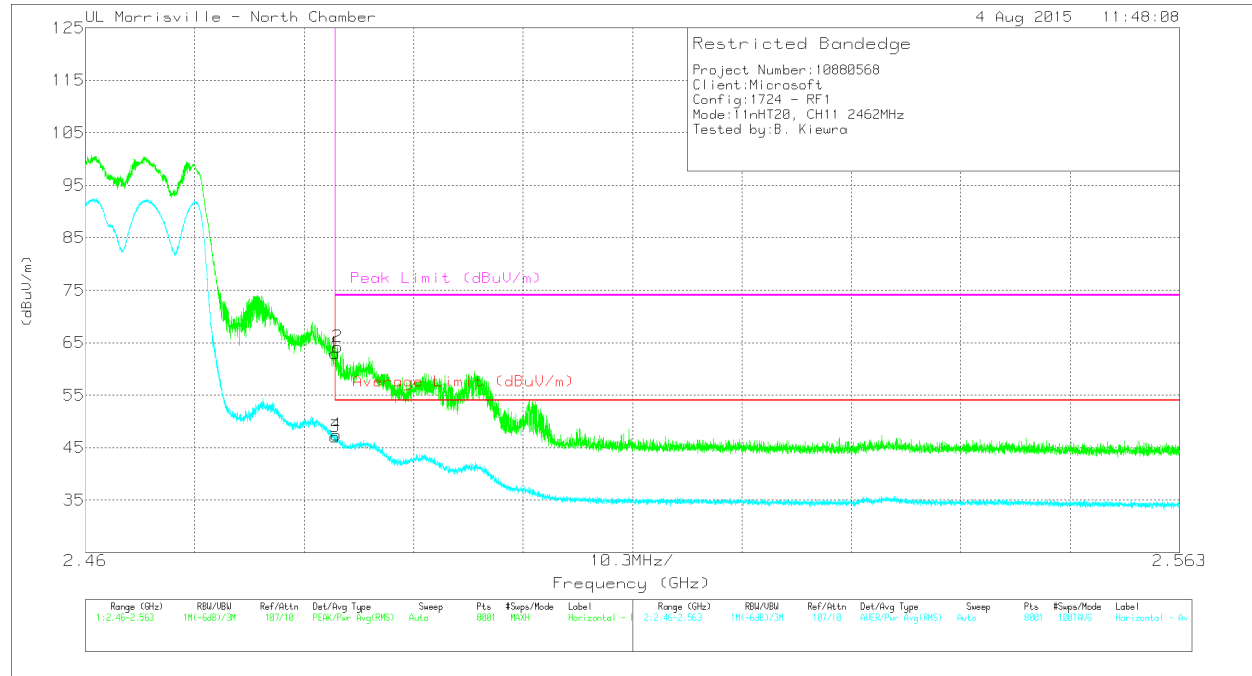
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 55.11                | Pk  | 32.1             | -23.4                 | 63.81                      | -                      | -           | 74                  | -10.19         | 272            | 129         | H        |
| 2      | * 2.484         | 56.87                | Pk  | 32.1             | -23.4                 | 65.57                      | -                      | -           | 74                  | -8.43          | 272            | 129         | H        |
| 3      | * 2.484         | 39.46                | RMS | 32.1             | -23.4                 | 48.16                      | 54                     | -5.84       | -                   | -              | 272            | 129         | H        |
| 4      | * 2.484         | 39.79                | RMS | 32.1             | -23.4                 | 48.49                      | 54                     | -5.51       | -                   | -              | 272            | 129         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Filt/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|------------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 54.23                | Pk  | 32.1             | -23.4                  | 62.93                      | -                      | -           | 74                  | -11.07         | 305            | 346         | V        |
| 2      | * 2.484         | 55.55                | Pk  | 32.1             | -23.4                  | 64.25                      | -                      | -           | 74                  | -9.75          | 305            | 346         | V        |
| 3      | * 2.484         | 38.38                | RMS | 32.1             | -23.4                  | 47.08                      | 54                     | -6.92       | -                   | -              | 305            | 346         | V        |
| 4      | * 2.484         | 38.71                | RMS | 32.1             | -23.4                  | 47.41                      | 54                     | -6.59       | -                   | -              | 305            | 346         | V        |

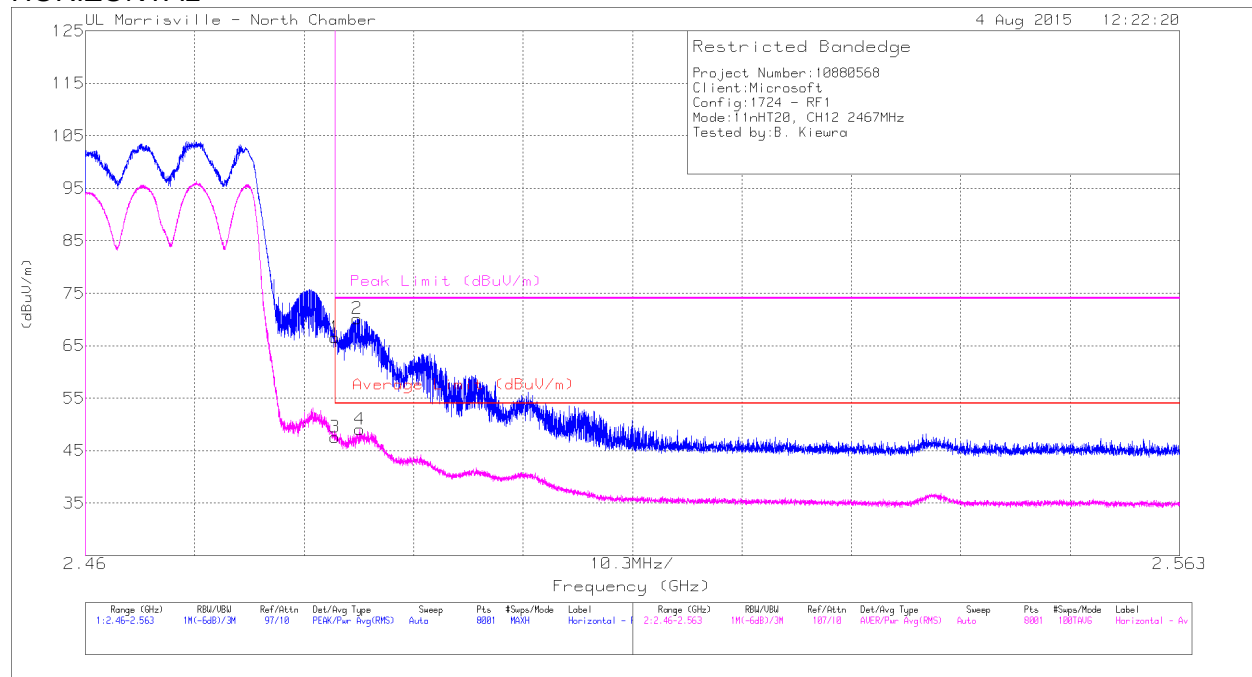
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

**AUTHORIZED BANDEDGE (HIGH CHANNEL 12)**

**HORIZONTAL**



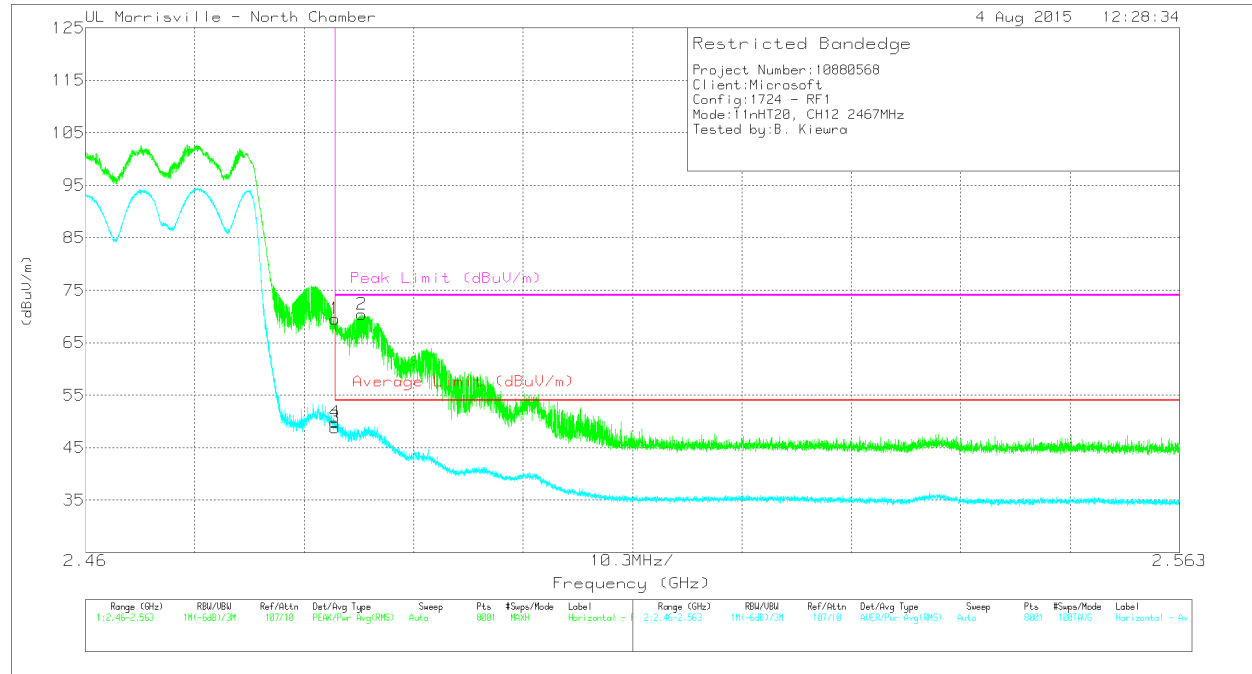
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 57.91                | Pk  | 32.1             | -23.4                 | 66.61                      | -                      | -           | 74                  | -7.39          | 303            | 195         | H        |
| 2      | * 2.486         | 61.4                 | Pk  | 32.1             | -23.4                 | 70.1                       | -                      | -           | 74                  | -3.9           | 303            | 195         | H        |
| 3      | * 2.484         | 38.86                | RMS | 32.1             | -23.4                 | 47.56                      | 54                     | -6.44       | -                   | -              | 303            | 195         | H        |
| 4      | * 2.486         | 40.33                | RMS | 32.1             | -23.4                 | 49.03                      | 54                     | -4.97       | -                   | -              | 303            | 195         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 60.85                | Pk  | 32.1             | -23.4                 | 69.55                      | -                      | -           | 74                  | -4.45          | 344            | 352         | V        |
| 2      | * 2.486         | 61.73                | Pk  | 32.1             | -23.4                 | 70.43                      | -                      | -           | 74                  | -3.57          | 344            | 352         | V        |
| 3      | * 2.484         | 40.16                | RMS | 32.1             | -23.4                 | 48.86                      | 54                     | -5.14       | -                   | -              | 344            | 352         | V        |
| 4      | * 2.484         | 41.13                | RMS | 32.1             | -23.4                 | 49.83                      | 54                     | -4.17       | -                   | -              | 344            | 352         | V        |

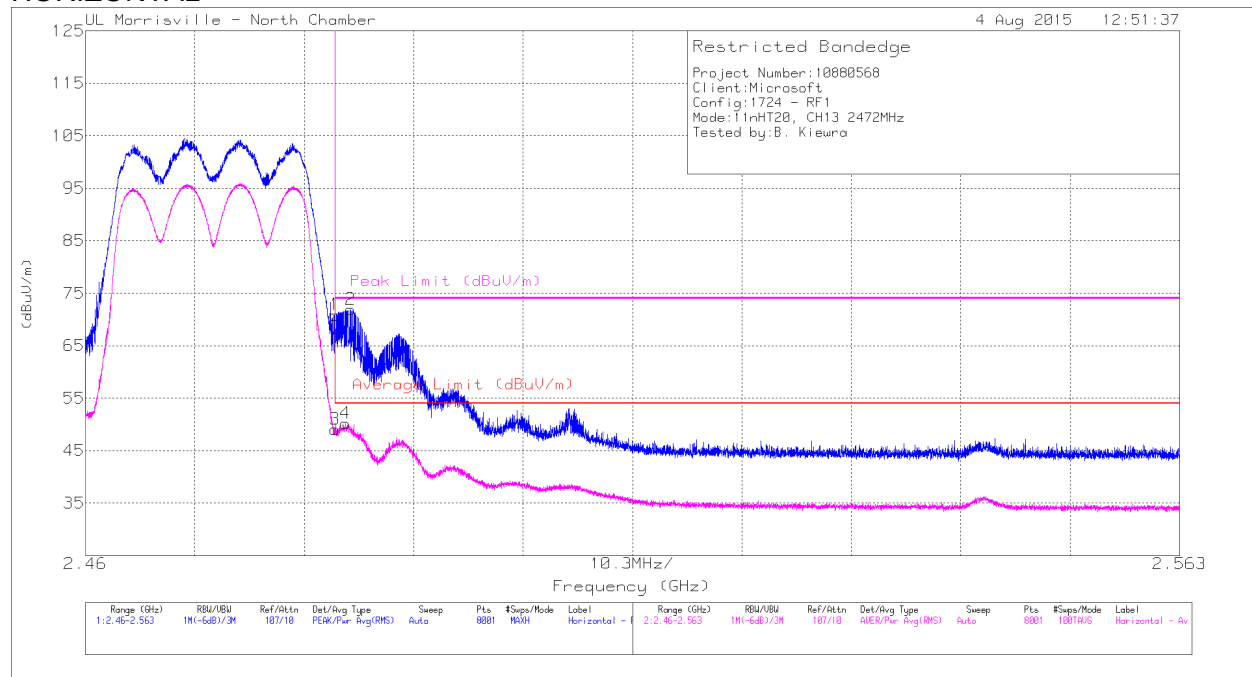
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

**AUTHORIZED BANDEDGE (HIGH CHANNEL 13)**

**HORIZONTAL**



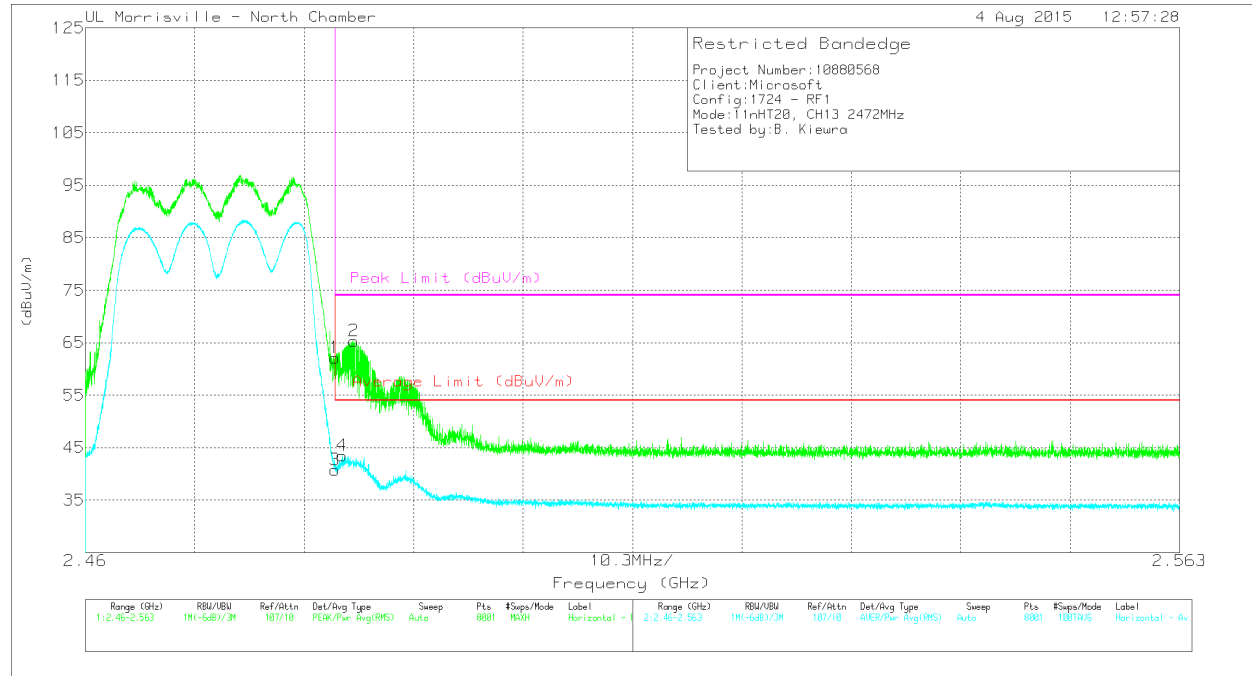
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 62.14                | Pk  | 32.1             | -23.4                 | 70.84                      | -                      | -           | 74                  | -3.16          | 164            | 126         | H        |
| 2      | * 2.485         | 63.24                | Pk  | 32.1             | -23.4                 | 71.94                      | -                      | -           | 74                  | -2.06          | 164            | 126         | H        |
| 3      | * 2.484         | 40.31                | RMS | 32.1             | -23.4                 | 49.01                      | 54                     | -4.99       | -                   | -              | 164            | 126         | H        |
| 4      | * 2.484         | 41.44                | RMS | 32.1             | -23.4                 | 50.14                      | 54                     | -3.86       | -                   | -              | 164            | 126         | H        |

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

Pk - Peak detector

RMS - RMS detection

# VERTICAL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|------------------|-----------------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 2.484         | 53.38                | Pk  | 32.1             | -23.4                 | 62.08                      | -                      | -           | 74                  | -11.92         | 278            | 275         | V        |
| 2      | * 2.485         | 56.66                | Pk  | 32.1             | -23.4                 | 65.36                      | -                      | -           | 74                  | -8.64          | 278            | 275         | V        |
| 3      | * 2.484         | 32                   | RMS | 32.1             | -23.4                 | 40.7                       | 54                     | -13.3       | -                   | -              | 278            | 275         | V        |
| 4      | * 2.484         | 34.81                | RMS | 32.1             | -23.4                 | 43.51                      | 54                     | -10.49      | -                   | -              | 278            | 275         | V        |

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

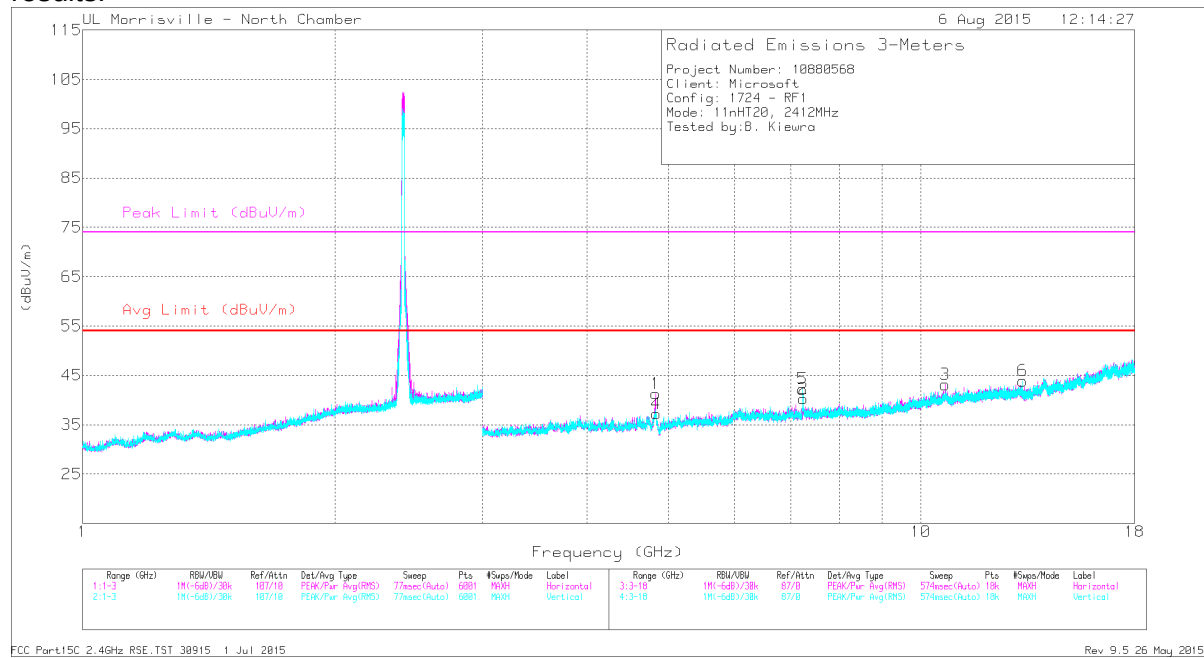
Pk - Peak detector

RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL

Note – Channel 1 was set to same power setting as the Mid channel to achieve worst-case results.



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF AT0072 (dB/m) | Amp/Cbl/ Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|------------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 4.823         | 43.48                | PK2  | 34.1             | -30.8                  | 46.78                      | -                  | -           | 74                  | -27.22         | 211            | 298         | H        |
|        | * 4.823         | 32.39                | MAV1 | 34.1             | -30.8                  | 35.69                      | 54                 | -18.31      | -                   | -              | 211            | 298         | H        |
| 2      | 7.237           | 32.75                | Pk   | 35.7             | -28.2                  | 40.25                      | -                  | -           | 74                  | -33.75         | 0-360          | 101         | H        |
| 3      | * 10.712        | 34.93                | PK2  | 37.8             | -23.4                  | 49.33                      | -                  | -           | 74                  | -24.67         | 93             | 323         | H        |
|        | * 10.692        | 23.27                | MAV1 | 37.8             | -23.3                  | 37.77                      | 54                 | -16.23      | -                   | -              | 93             | 323         | H        |
| 4      | * 4.824         | 40.93                | PK2  | 34.1             | -30.8                  | 44.23                      | -                  | -           | 74                  | -29.77         | 217            | 111         | V        |
|        | * 4.828         | 30.04                | MAV1 | 34.1             | -30.7                  | 33.44                      | 54                 | -20.56      | -                   | -              | 217            | 111         | V        |
| 5      | 7.231           | 34.84                | Pk   | 35.7             | -28.3                  | 42.24                      | -                  | -           | 74                  | -31.76         | 0-360          | 200         | V        |
| 6      | 13.236          | 30.29                | Pk   | 39.2             | -25.6                  | 43.89                      | -                  | -           | 74                  | -30.11         | 0-360          | 200         | V        |

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

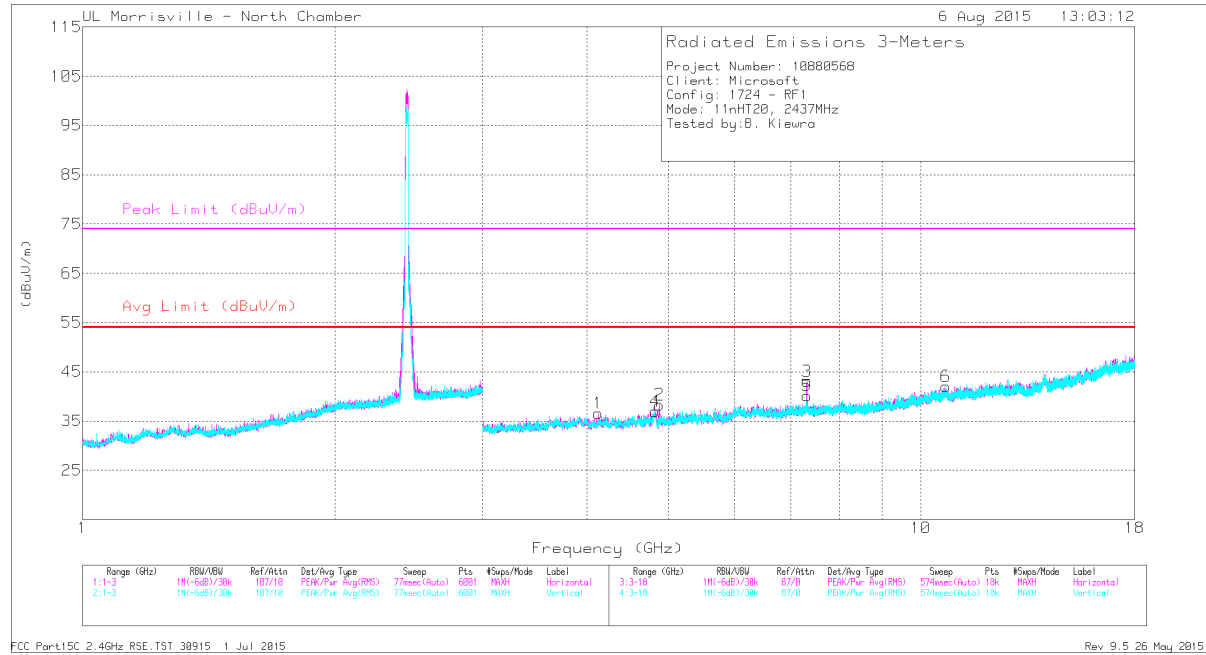
Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average



# MID CHANNEL



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF AT0072 (dB/m) | Amp/Cbl/ Fitr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|------------------|------------------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 4.121         | 41.65                | PK2  | 33.7             | -31.8                  | 43.55                      | -                  | -           | 74                  | -30.45         | 160            | 396         | H        |
|        | * 4.121         | 30.31                | MAV1 | 33.7             | -31.8                  | 32.21                      | 54                 | -21.79      | -                   | -              | 160            | 396         | H        |
| 2      | * 4.878         | 43.41                | PK2  | 34.1             | -30.4                  | 47.11                      | -                  | -           | 74                  | -26.89         | 228            | 227         | H        |
|        | * 4.872         | 32.15                | MAV1 | 34.1             | -30.4                  | 35.85                      | 54                 | -18.15      | -                   | -              | 228            | 227         | H        |
| 3      | * 7.306         | 41.67                | PK2  | 35.7             | -27.9                  | 49.47                      | -                  | -           | 74                  | -24.53         | 249            | 360         | H        |
|        | * 7.315         | 28.22                | MAV1 | 35.7             | -27.9                  | 36.02                      | 54                 | -17.98      | -                   | -              | 249            | 360         | H        |
| 4      | * 4.819         | 41.73                | PK2  | 34.1             | -30.8                  | 45.03                      | -                  | -           | 74                  | -28.97         | 294            | 240         | V        |
|        | * 4.82          | 29.97                | MAV1 | 34.1             | -30.8                  | 33.27                      | 54                 | -20.73      | -                   | -              | 294            | 240         | V        |
| 5      | * 7.313         | 41.02                | PK2  | 35.7             | -27.8                  | 48.92                      | -                  | -           | 74                  | -25.08         | 204            | 198         | V        |
|        | * 7.312         | 27.77                | MAV1 | 35.7             | -27.8                  | 35.67                      | 54                 | -18.33      | -                   | -              | 204            | 198         | V        |
| 6      | * 10.718        | 35.11                | PK2  | 37.8             | -23.4                  | 49.51                      | -                  | -           | 74                  | -24.49         | 305            | 157         | V        |
|        | * 10.719        | 23.28                | MAV1 | 37.8             | -23.4                  | 37.68                      | 54                 | -16.32      | -                   | -              | 305            | 157         | V        |

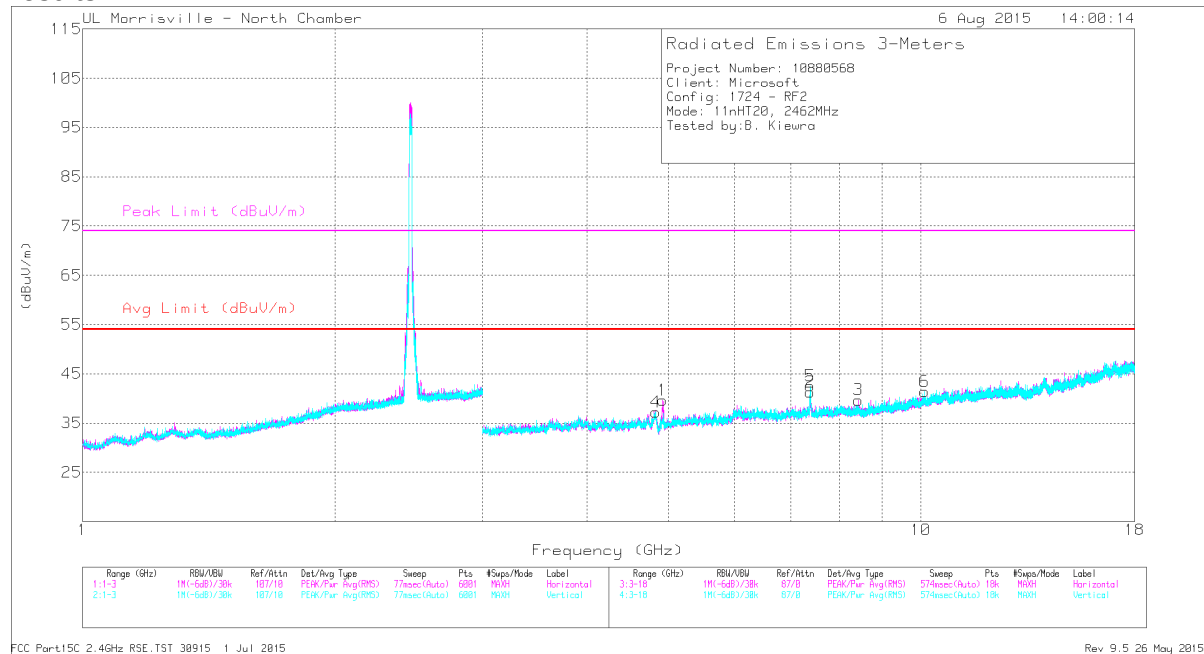
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

## HIGH CHANNEL (11)

Note – Channel 11 was set to same power setting as the Mid channel to achieve worst-case results.



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|------------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 4.923         | 44.8                 | PK2  | 34.1             | -30.9                 | 48                         | -                  | -           | 74                  | -26            | 204            | 240         | H        |
|        | * 4.924         | 33.11                | MAV1 | 34.1             | -30.9                 | 36.31                      | 54                 | -17.69      | -                   | -              | 204            | 240         | H        |
| 2      | * 7.375         | 45.27                | PK2  | 35.8             | -27.9                 | 53.17                      | -                  | -           | 74                  | -20.83         | 252            | 327         | H        |
|        | * 7.384         | 30.9                 | MAV1 | 35.8             | -27.9                 | 38.8                       | 54                 | -15.2       | -                   | -              | 252            | 327         | H        |
| 3      | * 8.42          | 36.86                | PK2  | 35.9             | -26.7                 | 46.06                      | -                  | -           | 74                  | -27.94         | 345            | 210         | H        |
|        | * 8.42          | 25.22                | MAV1 | 35.9             | -26.7                 | 34.42                      | 54                 | -19.58      | -                   | -              | 345            | 210         | H        |
| 4      | * 4.819         | 41.09                | PK2  | 34.1             | -30.8                 | 44.39                      | -                  | -           | 74                  | -29.61         | 270            | 164         | V        |
|        | * 4.828         | 29.75                | MAV1 | 34.1             | -30.7                 | 33.15                      | 54                 | -20.85      | -                   | -              | 270            | 164         | V        |
| 5      | * 7.375         | 46.66                | PK2  | 35.8             | -27.9                 | 54.56                      | -                  | -           | 74                  | -19.44         | 94             | 384         | V        |
|        | * 7.387         | 32.5                 | MAV1 | 35.8             | -27.9                 | 40.4                       | 54                 | -13.6       | -                   | -              | 94             | 384         | V        |
| 6      | 10.102          | 28.79                | Pk   | 37.4             | -24.8                 | 41.39                      | -                  | -           | 74                  | -32.61         | 0-360          | 200         | V        |

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

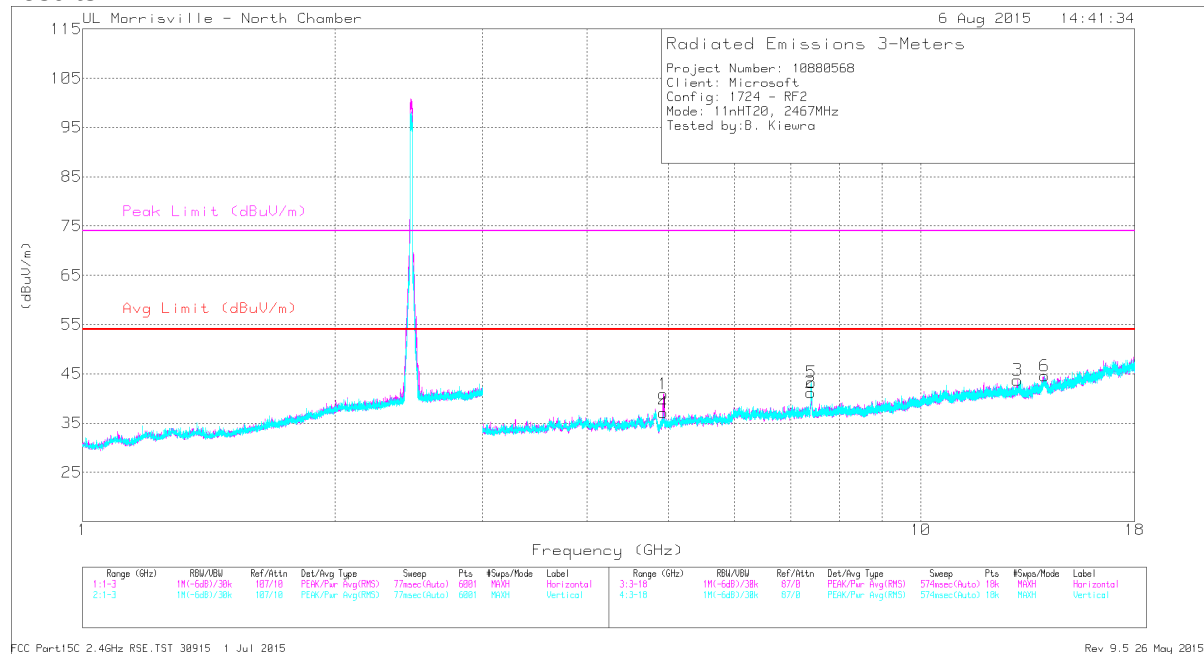
Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

## HIGH CHANNEL (12)

Note – Channel 12 was set to same power setting as the Mid channel to achieve worst-case results.



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|------------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 4.934         | 47.59                | PK2  | 34.1             | -31                   | 50.69                      | -                  | -           | 74                  | -23.31         | 228            | 227         | H        |
|        | * 4.934         | 34.85                | MAv1 | 34.1             | -31                   | 37.95                      | 54                 | -16.05      | -                   | -              | 228            | 227         | H        |
| 2      | * 7.405         | 43.66                | PK2  | 35.8             | -27.9                 | 51.56                      | -                  | -           | 74                  | -22.44         | 242            | 250         | H        |
|        | * 7.399         | 30.13                | MAv1 | 35.8             | -27.9                 | 38.03                      | 54                 | -15.97      | -                   | -              | 242            | 250         | H        |
| 3      | 13.044          | 28.76                | Pk   | 39.3             | -24.3                 | 43.76                      | -                  | -           | 74                  | -30.24         | 0-360          | 200         | H        |
| 4      | * 4.938         | 40.82                | PK2  | 34.1             | -31                   | 43.92                      | -                  | -           | 74                  | -30.08         | 227            | 217         | V        |
|        | * 4.934         | 29.98                | MAv1 | 34.1             | -31                   | 33.08                      | 54                 | -20.92      | -                   | -              | 227            | 217         | V        |
| 5      | * 7.403         | 46.61                | PK2  | 35.8             | -27.9                 | 54.51                      | -                  | -           | 74                  | -19.49         | 87             | 248         | V        |
|        | * 7.404         | 32.49                | MAv1 | 35.8             | -27.9                 | 40.39                      | 54                 | -13.61      | -                   | -              | 87             | 248         | V        |
| 6      | 14.057          | 28.96                | Pk   | 39.2             | -23.6                 | 44.56                      | -                  | -           | 74                  | -29.44         | 0-360          | 200         | V        |

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

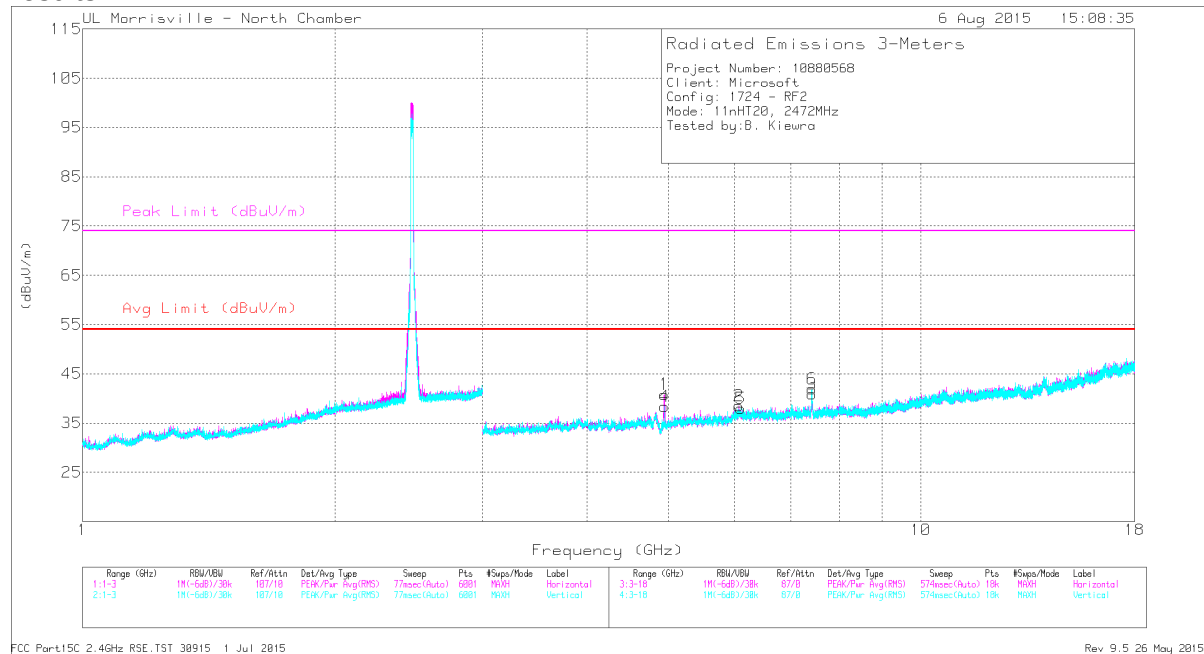
Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

## HIGH CHANNEL (13)

Note – Channel 13 was set to same power setting as the Mid channel to achieve worst-case results.



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF AT0072 (dB/m) | Amp/Cbl/ Ftr/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|------------------|-----------------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 4.943         | 44.99                | PK2  | 34.1             | -31.1                 | 47.99                      | -                  | -           | 74                  | -26.01         | 206            | 102         | H        |
|        | * 4.944         | 33.27                | MAV1 | 34.1             | -31.1                 | 36.27                      | 54                 | -17.73      | -                   | -              | 206            | 102         | H        |
| 3      | * 7.409         | 43.13                | PK2  | 35.8             | -27.9                 | 51.03                      | -                  | -           | 74                  | -22.97         | 251            | 210         | H        |
|        | * 7.416         | 29.31                | MAV1 | 35.8             | -27.8                 | 37.31                      | 54                 | -16.69      | -                   | -              | 251            | 210         | H        |
| 4      | * 4.949         | 41.74                | PK2  | 34.1             | -31.2                 | 44.64                      | -                  | -           | 74                  | -29.36         | 7              | 346         | V        |
|        | * 4.944         | 30.48                | MAV1 | 34.1             | -31.1                 | 33.48                      | 54                 | -20.52      | -                   | -              | 7              | 346         | V        |
| 6      | * 7.406         | 45.85                | PK2  | 35.8             | -27.9                 | 53.75                      | -                  | -           | 74                  | -20.25         | 74             | 241         | V        |
|        | * 7.417         | 31.61                | MAV1 | 35.8             | -27.7                 | 39.71                      | 54                 | -14.29      | -                   | -              | 74             | 241         | V        |
| 2      | 6.071           | 31.75                | Pk   | 35.2             | -28.4                 | 38.55                      | -                  | -           | 74                  | -35.45         | 0-360          | 101         | H        |
| 5      | 6.096           | 31.66                | Pk   | 35.2             | -28.9                 | 37.96                      | -                  | -           | 74                  | -36.04         | 0-360          | 101         | V        |

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

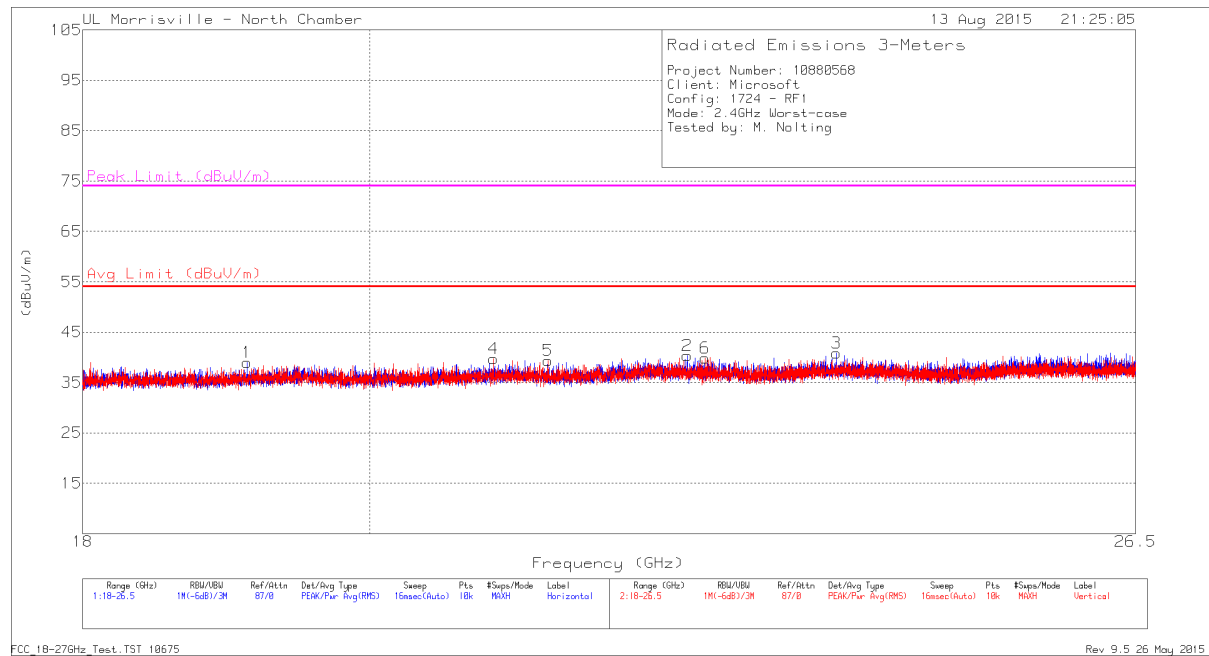
Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

### 9.3. WORST-CASE 18-26 GHz

#### SPURIOUS EMISSIONS 18 to 26 GHz (WORST-CASE CONFIGURATION)



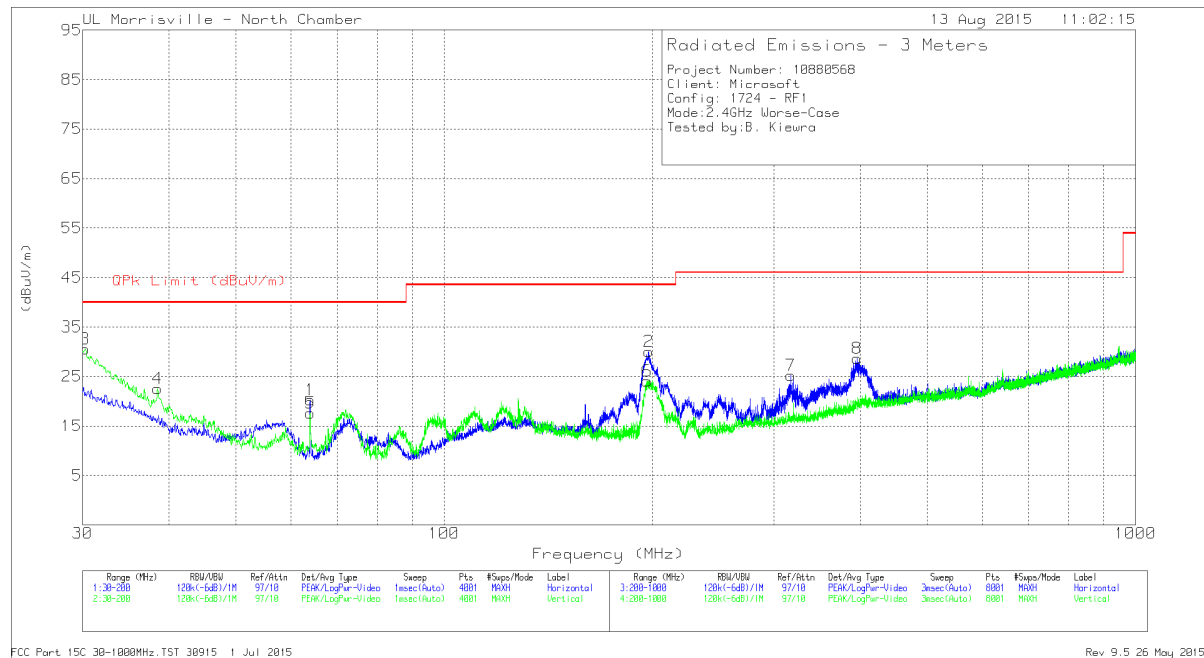
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF & G/L (dB/m) | Dist Cor (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) |
|--------|-----------------|----------------------|-----|-----------------|---------------|----------------------------|--------------------|-------------|---------------------|----------------|----------------|
| 1      | * 19.119        | 41.2                 | Pk  | 7.3             | -9.5          | 39                         | 54                 | -15         | 74                  | -35            | 0-360          |
| 2      | * 22.477        | 38.7                 | Pk  | 11.2            | -9.5          | 40.4                       | 54                 | -13.6       | 74                  | -33.6          | 0-360          |
| 3      | * 23.74         | 38.72                | Pk  | 11.6            | -9.5          | 40.82                      | 54                 | -13.18      | 74                  | -33.18         | 0-360          |
| 4      | * 20.934        | 39.34                | Pk  | 9.9             | -9.5          | 39.74                      | 54                 | -14.26      | 74                  | -34.26         | 0-360          |
| 5      | * 21.356        | 38.99                | Pk  | 9.9             | -9.5          | 39.39                      | 54                 | -14.61      | 74                  | -34.61         | 0-360          |
| 6      | * 22.626        | 38.14                | Pk  | 11.2            | -9.5          | 39.84                      | 54                 | -14.16      | 74                  | -34.16         | 0-360          |

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

Pk - Peak detector

## 9.4. WORST-CASE BELOW 1 GHz

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



| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | AF JB3 (dB/m) | Amp/Cbl (dB) | Corrected Reading (dBuV/m) | QPk Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|--------------|----------------------------|--------------------|-------------|----------------|-------------|----------|
| 1      | 64              | 39.8                 | Pk  | 11.7          | -31.2        | 20.3                       | 40                 | -19.7       | 0-360          | 299         | H        |
| 2      | 197.4925        | 43.43                | Pk  | 16.7          | -30.1        | 30.03                      | 43.52              | -13.49      | 0-360          | 100         | H        |
| 7      | 317.3           | 36.67                | Pk  | 17.9          | -29.4        | 25.17                      | 46.02              | -20.85      | 0-360          | 102         | H        |
| 8      | 395.8           | 37.93                | Pk  | 19.7          | -29          | 28.63                      | 46.02              | -17.39      | 0-360          | 102         | H        |
| 3      | 30.255          | 37.1                 | Pk  | 25            | -31.6        | 30.5                       | 40                 | -9.5        | 0-360          | 102         | V        |
| 4      | 38.5            | 35                   | Pk  | 19            | -31.5        | 22.5                       | 40                 | -17.5       | 0-360          | 102         | V        |
| 5      | 64              | 37.11                | Pk  | 11.7          | -31.2        | 17.61                      | 40                 | -22.39      | 0-360          | 102         | V        |
| 6      | 196.6425        | 37.72                | Pk  | 16.5          | -30.1        | 24.12                      | 43.52              | -19.4       | 0-360          | 102         | V        |

Pk - Peak detector

## 10. AC POWER LINE CONDUCTED EMISSIONS

### LIMITS

FCC §15.207 (a)

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

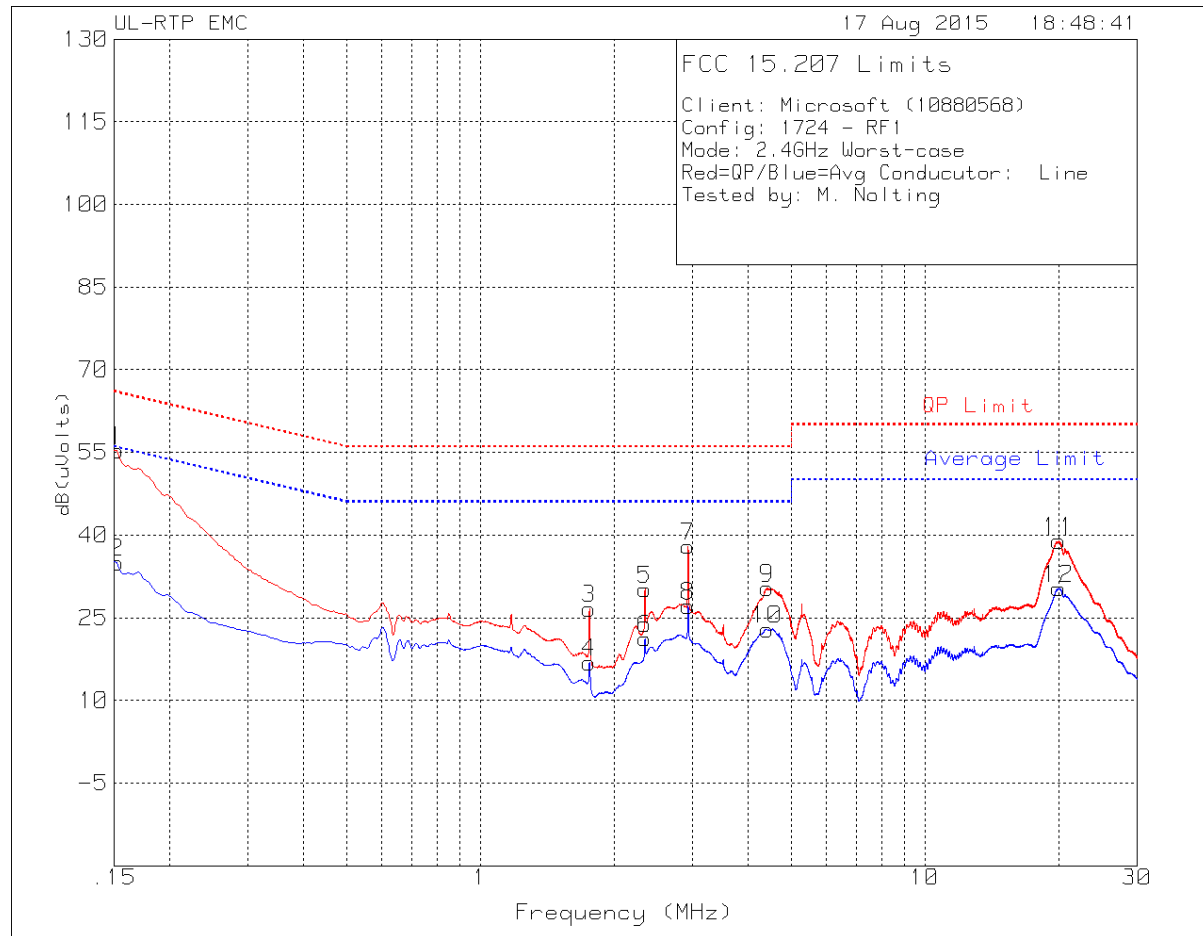
\* Decreases with the logarithm of the frequency.

### TEST PROCEDURE

ANSI C63.10

## RESULTS

### LINE 1 RESULTS



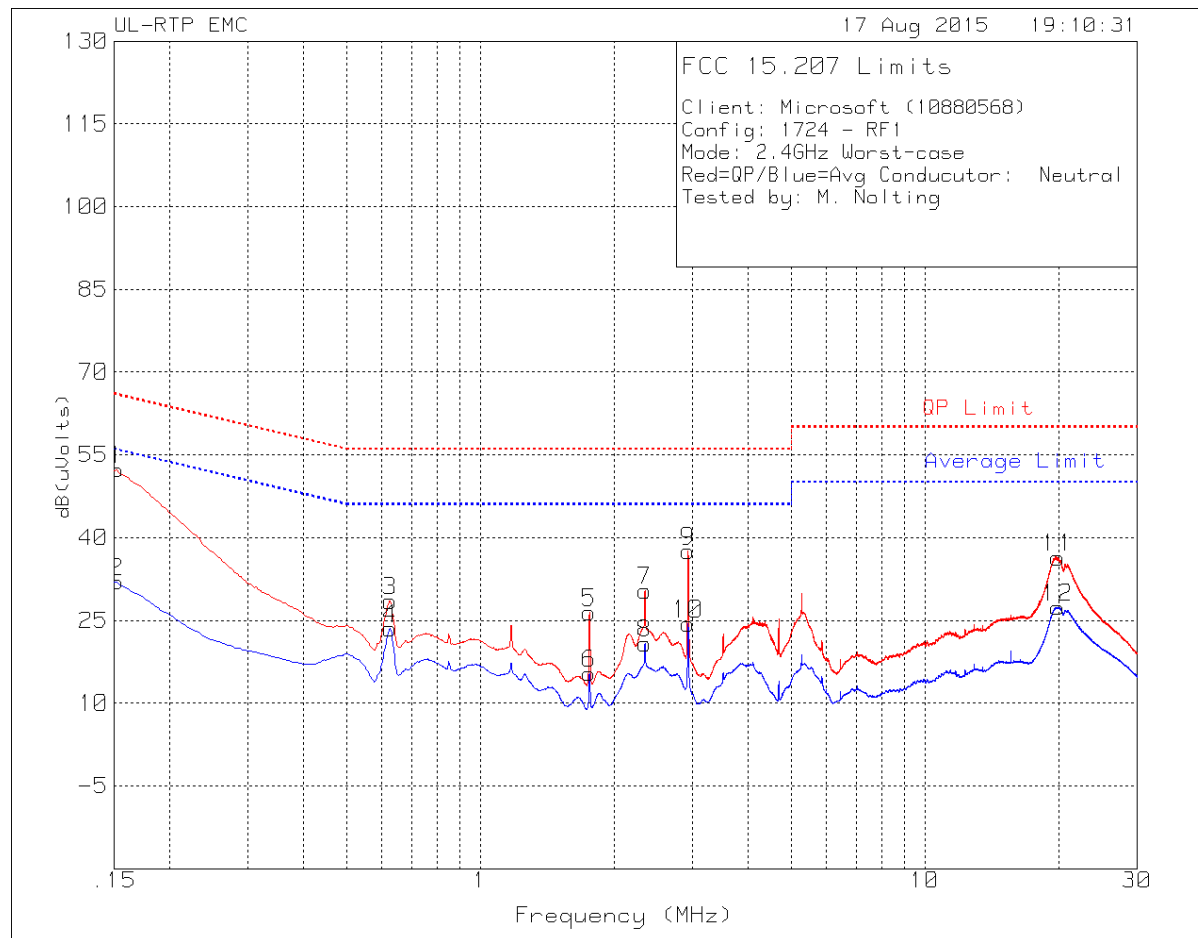
| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | LISN VCF (dB) | Limiter/Cbl (dB) | Corrected Reading dB(uVolts) | QP Limit | Margin (dB) | Average Limit | Margin (dB) |
|--------|-----------------|----------------------|-----|---------------|------------------|------------------------------|----------|-------------|---------------|-------------|
| 1      | .15225          | 45.63                | Qp  | .4            | 9.3              | 55.33                        | 65.88    | -10.55      | -             | -           |
| 2      | .15225          | 25.3                 | Ca  | .4            | 9.3              | 35                           | -        | -           | 55.88         | -20.88      |
| 3      | 1.75875         | 17.26                | Qp  | 0             | 9.4              | 26.66                        | 56       | -29.34      | -             | -           |
| 4      | 1.75875         | 7.52                 | Ca  | 0             | 9.4              | 16.92                        | -        | -           | 46            | -29.08      |
| 5      | 2.346           | 20.75                | Qp  | 0             | 9.4              | 30.15                        | 56       | -25.85      | -             | -           |
| 6      | 2.346           | 11.85                | Ca  | 0             | 9.4              | 21.25                        | -        | -           | 46            | -24.75      |
| 7      | 2.93325         | 28.56                | Qp  | 0             | 9.4              | 37.96                        | 56       | -18.04      | -             | -           |
| 8      | 2.93325         | 17.69                | Ca  | 0             | 9.4              | 27.09                        | -        | -           | 46            | -18.91      |
| 9      | 4.42275         | 20.86                | Qp  | .1            | 9.4              | 30.36                        | 56       | -25.64      | -             | -           |
| 10     | 4.41825         | 13.37                | Ca  | .1            | 9.4              | 22.87                        | -        | -           | 46            | -23.13      |
| 11     | 20.00175        | 29                   | Qp  | .2            | 9.7              | 38.9                         | 60       | -21.1       | -             | -           |
| 12     | 20.0085         | 20.43                | Ca  | .2            | 9.7              | 30.33                        | -        | -           | 50            | -19.67      |

Qp - Quasi-Peak detector

Ca - CISPR average detection



## LINE 2 RESULTS



Qp - Quasi-Peak detector

Ca - CISPR average detection