



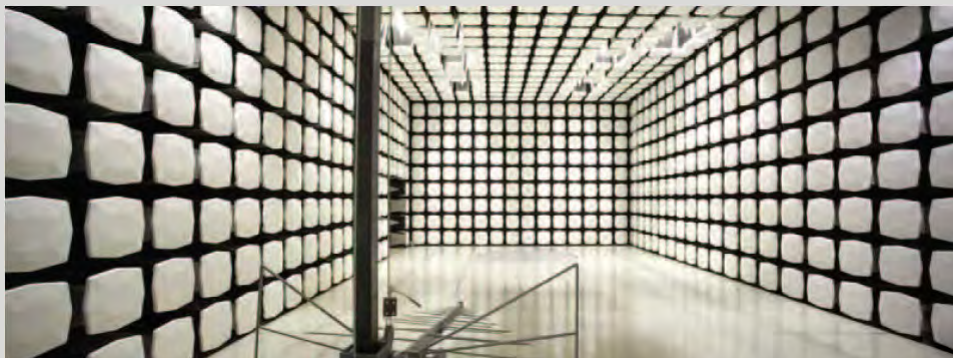
## **Honeywell, Automation and Control Solutions**

**RTH9580WF01**

**FCC 15.247:2013**

**FCC 15.207:2013**

**Report #: HNYW0043**



Report Prepared By Northwest EMC Inc.

NORTHWEST EMC – (888) 364-2378 – [www.nwemc.com](http://www.nwemc.com)

California – Minnesota – Oregon – New York – Washington

# CERTIFICATE OF TEST

**Last Date of Test: March 22, 2013**  
**Honeywell, Automation and Control Solutions**  
**Model: RTH9580WF01**

## Emissions

| Test Description                 | Specification   | Test Method      | Pass/Fail |
|----------------------------------|-----------------|------------------|-----------|
| Duty Cycle                       | FCC 15.247:2013 | ANSI C63.10:2009 | Pass      |
| Occupied Bandwidth               | FCC 15.247:2013 | ANSI C63.10:2009 | Pass      |
| Output Power                     | FCC 15.247:2013 | ANSI C63.10:2009 | Pass      |
| Band Edge Compliance             | FCC 15.247:2013 | ANSI C63.10:2009 | Pass      |
| Spurious Conducted Emissions     | FCC 15.247:2013 | ANSI C63.10:2009 | Pass      |
| Power Spectral Density           | FCC 15.247:2013 | ANSI C63.10:2009 | Pass      |
| Spurious Radiated Emissions      | FCC 15.247:2013 | ANSI C63.10:2009 | Pass      |
| AC Powerline Conducted Emissions | FCC 15.207:2013 | ANSI C63.10:2009 | Pass      |

## Deviations From Test Standards

None

## Approved By:



Tim O'Shea, Operations Manager



**NVLAP Lab Code: 200881-0**

## Test Facility

The measurement facility used to collect the data is located at:

Northwest EMC, Inc.  
9349 W Broadway Ave.  
Brooklyn Park, MN 55445

Phone: (763) 425-2281      Fax: (763) 424-3469

This site has been fully described in a report filed with and accepted by the FCC (Federal Communications Commission) and Industry Canada (Site filing #2834E-1).

***This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government of the United States of America.***

***Product compliance is the responsibility of the client, therefore the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. This Report may only be duplicated in its entirety. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test.***

# REVISION HISTORY

| Revision Number | Description | Date | Page Number |
|-----------------|-------------|------|-------------|
| 00              | None        |      |             |

## Barometric Pressure

The recorded barometric pressure has been normalized to sea level.

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## United States

**FCC** - Designated by the FCC as a Telecommunications Certification Body (TCB). Certification chambers, Open Area Test Sites, and conducted measurement facilities are listed with the FCC.

**A2LA** - Accredited by A2LA to ISO / IEC Guide 65 as a product certifier. This allows Northwest EMC to certify transmitters to FCC and IC specifications.

**NVLAP** - Each laboratory is accredited by NVLAP to ISO 17025

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## Canada

**IC** - Recognized by Industry Canada as a Certification Body (CB). Certification chambers and Open Area Test Sites are filed with IC.

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## European Union

**European Commission** – Validated by the European Commission as a Conformity Assessment Body (CAB) under the EMC directive and as a Notified Body under the R&TTE Directive.

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## Australia/New Zealand

**ACMA** - Recognized by ACMA as a CAB for the acceptance of test data.

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## Korea

**KCC / RRA** - Recognized by KCC's RRA as a CAB for the acceptance of test data.

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## Japan

**VCCI** - Associate Member of the VCCI. Conducted and radiated measurement facilities are registered.

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## Taiwan

**BSMI** – Recognized by BSMI as a CAB for the acceptance of test data.

**NCC** - Recognized by NCC as a CAB for the acceptance of test data.

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## Singapore

**IDA** – Recognized by IDA as a CAB for the acceptance of test data.

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## Hong Kong

**OFTA** – Recognized by OFTA as a CAB for the acceptance of test data.

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## Vietnam

**MIC** – Recognized by MIC as a CAB for the acceptance of test data.

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## Russia

**GOST** – Accredited by Certinform VNIINMASH, CERTINFO, SAMTES, and Federal CHEC to perform EMC and Hygienic testing for Information Technology products to GOST standards.

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## SCOPE

For details on the Scopes of our Accreditations, please visit:

<http://www.nwemc.com/accreditations/>

## Measurement Uncertainty

When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. Measurement uncertainty is a statistical expression of measurement error qualified by a probability distribution.

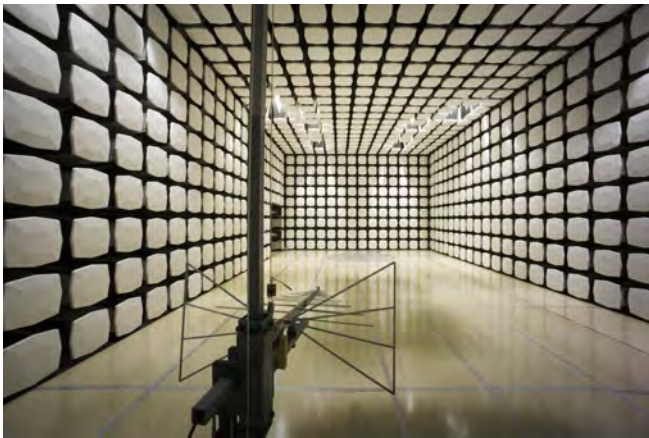
A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) for each test is listed below. Our measurement data meets or exceeds the measurement uncertainty requirements of the applicable specification; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for estimating measurement uncertainty are based upon ETSI TR 100 028 (or CISPR 16-4-1 as applicable), and are available upon request.

The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

| <b>Test</b>                           | <b>+ MU</b> | <b>- MU</b> |
|---------------------------------------|-------------|-------------|
| Frequency Accuracy (Hz)               | 0.12        | -0.01       |
| Amplitude Accuracy (dB)               | 0.49        | -0.49       |
| Conducted Power (dB)                  | 0.41        | -0.41       |
| Radiated Power via Substitution (dB)  | 0.69        | -0.68       |
| Temperature (degrees C)               | 0.81        | -0.81       |
| Humidity (% RH)                       | 2.89        | -2.89       |
| Field Strength (dB)                   | 3.80        | -3.80       |
| AC Powerline Conducted Emissions (dB) | 2.94        | -2.94       |



|                                                                                                   |                                                                                     |                                                                                            |                                                                                                       |                                                                                                                         |
|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>Oregon</b><br>Labs EV01-12<br>22975 NW Evergreen Pkwy<br>Hillsboro, OR 97124<br>(503) 844-4066 | <b>California</b><br>Labs OC01-13<br>41 Tesla<br>Irvine, CA 92618<br>(949) 861-8918 | <b>New York</b><br>Labs NY01-04<br>4939 Jordan Rd.<br>Elbridge, NY 13060<br>(315) 685-0796 | <b>Minnesota</b><br>Labs MN01-08<br>9349 W Broadway Ave.<br>Brooklyn Park, MN 55445<br>(763) 425-2281 | <b>Washington</b><br>Labs NC01-05, SU02, SU07<br>19201 120 <sup>th</sup> Ave. NE<br>Bothell, WA 98011<br>(425) 984-6600 |
| <b>VCCI</b>                                                                                       |                                                                                     |                                                                                            |                                                                                                       |                                                                                                                         |
| A-0108                                                                                            | A-0029                                                                              |                                                                                            | A-0109                                                                                                | A-0110                                                                                                                  |
| <b>Industry Canada</b>                                                                            |                                                                                     |                                                                                            |                                                                                                       |                                                                                                                         |
| 2834D-1, 2834D-2                                                                                  | 2834B-1, 2834B-2, 2834B-3                                                           |                                                                                            | 2834E-1                                                                                               | 2834C-1                                                                                                                 |
| <b>NVLAP</b>                                                                                      |                                                                                     |                                                                                            |                                                                                                       |                                                                                                                         |
| NVLAP Lab Code: 200630-0                                                                          | NVLAP Lab Code: 200676-0                                                            | NVLAP Lab Code: 200761-0                                                                   | NVLAP Lab Code: 200881-0                                                                              | NVLAP Lab Code: 200629-0                                                                                                |



## Client and Equipment Under Test (EUT) Information

|                                 |                                             |
|---------------------------------|---------------------------------------------|
| <b>Company Name:</b>            | Honeywell, Automation and Control Solutions |
| <b>Address:</b>                 | 1985 Douglas Drive North                    |
| <b>City, State, Zip:</b>        | Golden Valley, MN 55422-3992                |
| <b>Test Requested By:</b>       | Dave Mulhouse                               |
| <b>Model:</b>                   | RTH9580WF01                                 |
| <b>First Date of Test:</b>      | March 14, 2013                              |
| <b>Last Date of Test:</b>       | March 22, 2013                              |
| <b>Receipt Date of Samples:</b> | March 14, 2013                              |
| <b>Equipment Design Stage:</b>  | Prototype                                   |
| <b>Equipment Condition:</b>     | No Damage                                   |

## Information Provided by the Party Requesting the Test

### Functional Description of the EUT (Equipment Under Test):

The RTH9580WF01 is a Wi-Fi enabled thermostat operating in the 2.4GHz ISM band utilizing the popular 802.11b/g/n standard data rates and modulations. This thermostat is designed to control various HVAC equipment. While this thermostat is intended to be used in mostly residential applications, it can also be used in various light-commercial applications as well.

### Testing Objective:

To demonstrate compliance under FCC 15.247 for operation in the 2.4 GHz band.

## Configuration HNYW0043- 1

| EUT         |                                             |                   |                 |
|-------------|---------------------------------------------|-------------------|-----------------|
| Description | Manufacturer                                | Model/Part Number | Serial Number   |
| Thermostat  | Honeywell, Automation and Control Solutions | RTH9580WF01       | 5191101 0010630 |

| Remote Equipment Outside of Test Setup Boundary |                                             |                   |               |
|-------------------------------------------------|---------------------------------------------|-------------------|---------------|
| Description                                     | Manufacturer                                | Model/Part Number | Serial Number |
| Load Board                                      | Honeywell, Automation and Control Solutions | None              | None          |

| Cables                                                                                                 |        |            |         |              |              |
|--------------------------------------------------------------------------------------------------------|--------|------------|---------|--------------|--------------|
| Cable Type                                                                                             | Shield | Length (m) | Ferrite | Connection 1 | Connection 2 |
| AC Power                                                                                               | No     | 2.6m       | No      | Load Board   | AC Mains     |
| Power Load                                                                                             | No     | 2.2m       | No      | Thermostat   | Load Board   |
| PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown. |        |            |         |              |              |

## Configuration HNYW0043- 2

| EUT         |                                             |                   |                 |
|-------------|---------------------------------------------|-------------------|-----------------|
| Description | Manufacturer                                | Model/Part Number | Serial Number   |
| Thermostat  | Honeywell, Automation and Control Solutions | RTH9580WF01       | 5191101 0010638 |

| Remote Equipment Outside of Test Setup Boundary |                                             |                   |               |
|-------------------------------------------------|---------------------------------------------|-------------------|---------------|
| Description                                     | Manufacturer                                | Model/Part Number | Serial Number |
| Load Board                                      | Honeywell, Automation and Control Solutions | None              | None          |

| Cables                                                                                                 |        |            |         |              |              |
|--------------------------------------------------------------------------------------------------------|--------|------------|---------|--------------|--------------|
| Cable Type                                                                                             | Shield | Length (m) | Ferrite | Connection 1 | Connection 2 |
| AC Power                                                                                               | No     | 2.6m       | No      | Load Board   | AC Mains     |
| Power Load                                                                                             | No     | 2.2m       | No      | Thermostat   | Load Board   |
| PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown. |        |            |         |              |              |

## Equipment Modifications

| Item | Date      | Test                             | Modification                         | Note                                                                | Disposition of EUT                                |
|------|-----------|----------------------------------|--------------------------------------|---------------------------------------------------------------------|---------------------------------------------------|
| 1    | 3/20/2013 | Spurious Radiated Emissions      | Tested as delivered to Test Station. | No EMI suppression devices were added or modified during this test. | EUT remained at Northwest EMC following the test. |
| 2    | 3/21/2013 | AC Powerline Conducted Emissions | Tested as delivered to Test Station. | No EMI suppression devices were added or modified during this test. | EUT remained at Northwest EMC following the test. |
| 3    | 3/22/2013 | Band Edge Compliance             | Tested as delivered to Test Station. | No EMI suppression devices were added or modified during this test. | EUT remained at Northwest EMC following the test. |
| 4    | 3/22/2013 | Output Power                     | Tested as delivered to Test Station. | No EMI suppression devices were added or modified during this test. | EUT remained at Northwest EMC following the test. |
| 5    | 3/22/2013 | Duty Cycle                       | Tested as delivered to Test Station. | No EMI suppression devices were added or modified during this test. | EUT remained at Northwest EMC following the test. |
| 6    | 3/22/2013 | Occupied Bandwidth               | Tested as delivered to Test Station. | No EMI suppression devices were added or modified during this test. | EUT remained at Northwest EMC following the test. |
| 7    | 3/22/2013 | Power Spectral Density           | Tested as delivered to Test Station. | No EMI suppression devices were added or modified during this test. | EUT remained at Northwest EMC following the test. |
| 8    | 3/22/2013 | Spurious Conducted Emissions     | Tested as delivered to Test Station. | No EMI suppression devices were added or modified during this test. | Scheduled testing was completed.                  |

## Duty Cycle

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

### TEST EQUIPMENT

| Description              | Manufacturer       | Model    | ID  | Last Cal. | Interval |
|--------------------------|--------------------|----------|-----|-----------|----------|
| 40 GHz DC block          | Fairview Microwave | SD3379   | AMI | 10/5/2012 | 12       |
| Attenuator - 20db, 'SMA' | SM Electronics     | SA26B-20 | RFW | 4/19/2012 | 12       |
| Signal Generator MXG     | Agilent            | N5183A   | TIK | 6/7/2012  | 36       |
| Spectrum Analyzer        | Agilent            | E4446A   | AAT | 6/28/2012 | 24       |

### TEST DESCRIPTION

The Duty Cycle (x) were measured for each of the EUT operating modes. The measurements were made using a zero span on the spectrum analyzer to see the pulses in the time domain. The transmit power was set to its default maximum. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used

The duty cycle was calculated by dividing the transmission pulse duration (T) by the total period of a single on and total off time.

If the transmit duty cycle < 98 percent, burst gating was used during some of the other tests in this report to only measure during the burst duration.



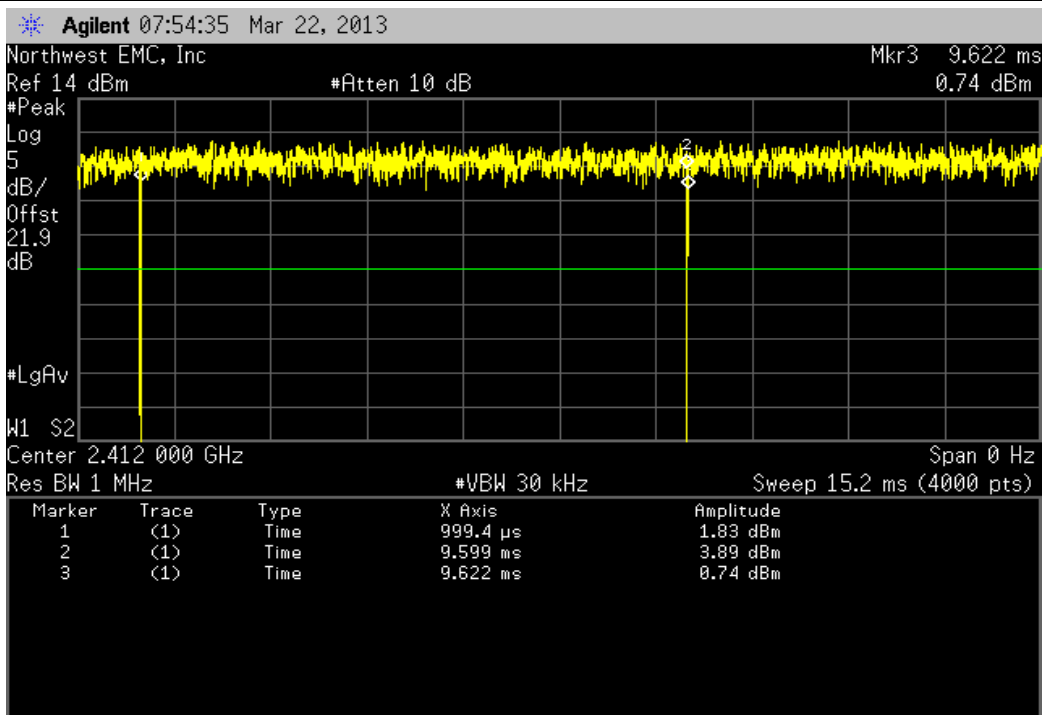
## Duty Cycle

XMit 2013.02.28  
PsaTx 2013.03.22

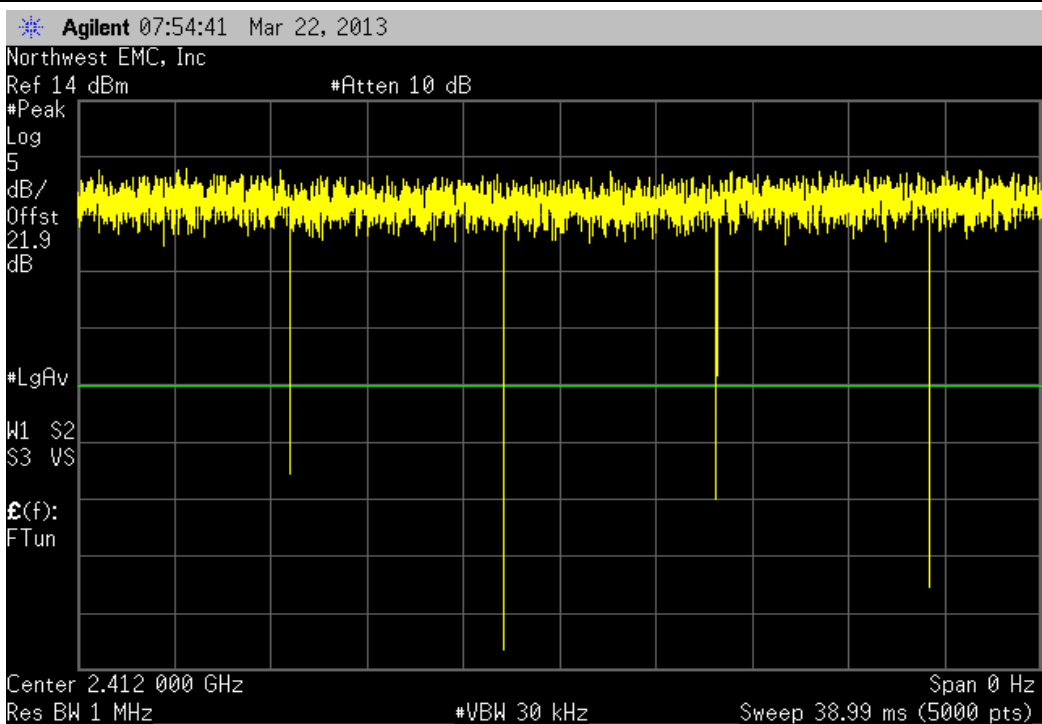
|                                                       |   |                              |                          |                  |           |       |        |
|-------------------------------------------------------|---|------------------------------|--------------------------|------------------|-----------|-------|--------|
| EUT: RTH9580WF01                                      |   |                              | Work Order: HNYW0043     |                  |           |       |        |
| Serial Number: 5191101 0010638                        |   |                              | Date: 03/22/13           |                  |           |       |        |
| Customer: Honeywell, Automation and Control Solutions |   |                              | Temperature: 23.9°C      |                  |           |       |        |
| Attendees: None                                       |   |                              | Humidity: 13%            |                  |           |       |        |
| Project: None                                         |   |                              | Barometric Pres.: 1018.5 |                  |           |       |        |
| Tested by: Trevor Buls                                |   | Power: 110VAC/60Hz           | Job Site: MN05           |                  |           |       |        |
| TEST SPECIFICATIONS                                   |   |                              | Test Method              |                  |           |       |        |
| FCC 15.247:2013                                       |   |                              | ANSI C63.10:2009         |                  |           |       |        |
| COMMENTS                                              |   |                              |                          |                  |           |       |        |
| None                                                  |   |                              |                          |                  |           |       |        |
| DEVIATIONS FROM TEST STANDARD                         |   |                              |                          |                  |           |       |        |
| None                                                  |   |                              |                          |                  |           |       |        |
| Configuration #                                       | 2 | Signature <i>Trevor Buls</i> |                          |                  |           |       |        |
|                                                       |   | Pulse Width                  | Period                   | Number of Pulses | Value (%) | Limit | Result |
| Antenna 0                                             |   |                              |                          |                  |           |       |        |
| 802.11(b) 1 Mbps                                      |   |                              |                          |                  |           |       |        |
| Low Channel 1, 2412 MHz                               |   | 8.599 mS                     | 8.622 mS                 | 1                | 99.7      | N/A   | N/A    |
| Low Channel 1, 2412 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | 8.599 mS                     | 8.619 mS                 | 1                | 99.8      | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | 8.599 mS                     | 8.624 mS                 | 1                | 99.7      | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| 802.11(b) 11 Mbps                                     |   |                              |                          |                  |           |       |        |
| Low Channel 1, 2412 MHz                               |   | 947.6 uS                     | 973.6 uS                 | 1                | 97.3      | N/A   | N/A    |
| Low Channel 1, 2412 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | 947.6 uS                     | 972.1 uS                 | 1                | 97.5      | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | 946.1 uS                     | 972.1 uS                 | 1                | 97.3      | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| 802.11(g) 6 Mbps                                      |   |                              |                          |                  |           |       |        |
| Low Channel 1, 2412 MHz                               |   | 1.416 mS                     | 1.448 mS                 | 1                | 97.8      | N/A   | N/A    |
| Low Channel 1, 2412 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | 1.418 mS                     | 1.45 mS                  | 1                | 97.8      | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | 1.418 mS                     | 1.448 mS                 | 1                | 97.9      | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| 802.11(g) 36 Mbps                                     |   |                              |                          |                  |           |       |        |
| Low Channel 1, 2412 MHz                               |   | 245 uS                       | 276 uS                   | 1                | 88.8      | N/A   | N/A    |
| Low Channel 1, 2412 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | 244 uS                       | 277 uS                   | 1                | 88.1      | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | 245 uS                       | 277 uS                   | 1                | 88.4      | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| 802.11(g) 54 Mbps                                     |   |                              |                          |                  |           |       |        |
| Low Channel 1, 2412 MHz                               |   | 168 uS                       | 201 uS                   | 1                | 83.6      | N/A   | N/A    |
| Low Channel 1, 2412 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | 169 uS                       | 200 uS                   | 1                | 84.5      | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | 169 uS                       | 201 uS                   | 1                | 84.1      | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| 802.11(n) MCS0                                        |   |                              |                          |                  |           |       |        |
| Low Channel 1, 2412 MHz                               |   | 1.326 mS                     | 1.358 mS                 | 1                | 97.6      | N/A   | N/A    |
| Low Channel 1, 2412 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | 1.326 mS                     | 1.358 mS                 | 1                | 97.6      | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | 1.324 mS                     | 1.356 mS                 | 1                | 97.6      | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| 802.11(n) MCS7                                        |   |                              |                          |                  |           |       |        |
| Low Channel 1, 2412 MHz                               |   | 157 uS                       | 189 uS                   | 1                | 83.1      | N/A   | N/A    |
| Low Channel 1, 2412 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | 157 uS                       | 189 uS                   | 1                | 83.1      | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | 157 uS                       | 188 uS                   | 1                | 83.5      | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| Antenna 1                                             |   |                              |                          |                  |           |       |        |
| 802.11(b) 1 Mbps                                      |   |                              |                          |                  |           |       |        |
| Low Channel 1, 2412 MHz                               |   | 8.599 mS                     | 8.619 mS                 | 1                | 99.8      | N/A   | N/A    |
| Low Channel 1, 2412 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | 8.602 mS                     | 8.623 mS                 | 1                | 99.8      | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | 8.603 mS                     | 8.622 mS                 | 1                | 99.8      | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| 802.11(b) 11 Mbps                                     |   |                              |                          |                  |           |       |        |
| Low Channel 1, 2412 MHz                               |   | 947.6 uS                     | 972.1 uS                 | 1                | 97.5      | N/A   | N/A    |
| Low Channel 1, 2412 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | 946.1 uS                     | 972.1 uS                 | 1                | 97.3      | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | 947.6 uS                     | 972.1 uS                 | 1                | 97.5      | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| 802.11(g) 6 Mbps                                      |   |                              |                          |                  |           |       |        |
| Low Channel 1, 2412 MHz                               |   | 1.416 mS                     | 1.448 mS                 | 1                | 97.8      | N/A   | N/A    |
| Low Channel 1, 2412 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | 1.416 mS                     | 1.448 mS                 | 1                | 97.8      | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | 1.416 mS                     | 1.448 mS                 | 1                | 97.8      | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| 802.11(g) 36 Mbps                                     |   |                              |                          |                  |           |       |        |
| Low Channel 1, 2412 MHz                               |   | 245 uS                       | 277 uS                   | 1                | 88.4      | N/A   | N/A    |
| Low Channel 1, 2412 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | 245 uS                       | 276 uS                   | 1                | 88.8      | N/A   | N/A    |
| Mid Channel 6, 2437 MHz                               |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | 245 uS                       | 277 uS                   | 1                | 88.4      | N/A   | N/A    |
| High Channel 11, 2462 MHz                             |   | N/A                          | N/A                      | 5                | N/A       | N/A   | N/A    |

|                           |          |          |   |      |     |     |  |
|---------------------------|----------|----------|---|------|-----|-----|--|
| 802.11(g) 54 Mbps         |          |          |   |      |     |     |  |
| Low Channel 1, 2412 MHz   | 169 uS   | 200 uS   | 1 | 84.5 | N/A | N/A |  |
| Low Channel 1, 2412 MHz   | N/A      | N/A      | 5 | N/A  | N/A | N/A |  |
| Mid Channel 6, 2437 MHz   | 168 uS   | 200 uS   | 1 | 84   | N/A | N/A |  |
| Mid Channel 6, 2437 MHz   | N/A      | N/A      | 5 | N/A  | N/A | N/A |  |
| High Channel 11, 2462 MHz | 169 uS   | 200 uS   | 1 | 84.5 | N/A | N/A |  |
| High Channel 11, 2462 MHz | N/A      | N/A      | 5 | N/A  | N/A | N/A |  |
| 802.11(n) MCS0            |          |          |   |      |     |     |  |
| Low Channel 1, 2412 MHz   | 1.326 mS | 1.356 mS | 1 | 97.8 | N/A | N/A |  |
| Low Channel 1, 2412 MHz   | N/A      | N/A      | 5 | N/A  | N/A | N/A |  |
| Mid Channel 6, 2437 MHz   | 1.324 mS | 1.356 mS | 1 | 97.6 | N/A | N/A |  |
| Mid Channel 6, 2437 MHz   | N/A      | N/A      | 5 | N/A  | N/A | N/A |  |
| High Channel 11, 2462 MHz | 1.326 mS | 1.356 mS | 1 | 97.8 | N/A | N/A |  |
| High Channel 11, 2462 MHz | N/A      | N/A      | 5 | N/A  | N/A | N/A |  |
| 802.11(n) MCS7            |          |          |   |      |     |     |  |
| Low Channel 1, 2412 MHz   | 157 uS   | 189 uS   | 1 | 83.1 | N/A | N/A |  |
| Low Channel 1, 2412 MHz   | N/A      | N/A      | 5 | N/A  | N/A | N/A |  |
| Mid Channel 6, 2437 MHz   | 157 uS   | 188 uS   | 1 | 83.5 | N/A | N/A |  |
| Mid Channel 6, 2437 MHz   | N/A      | N/A      | 5 | N/A  | N/A | N/A |  |
| High Channel 11, 2462 MHz | 157 uS   | 189 uS   | 1 | 83.1 | N/A | N/A |  |
| High Channel 11, 2462 MHz | N/A      | N/A      | 5 | N/A  | N/A | N/A |  |

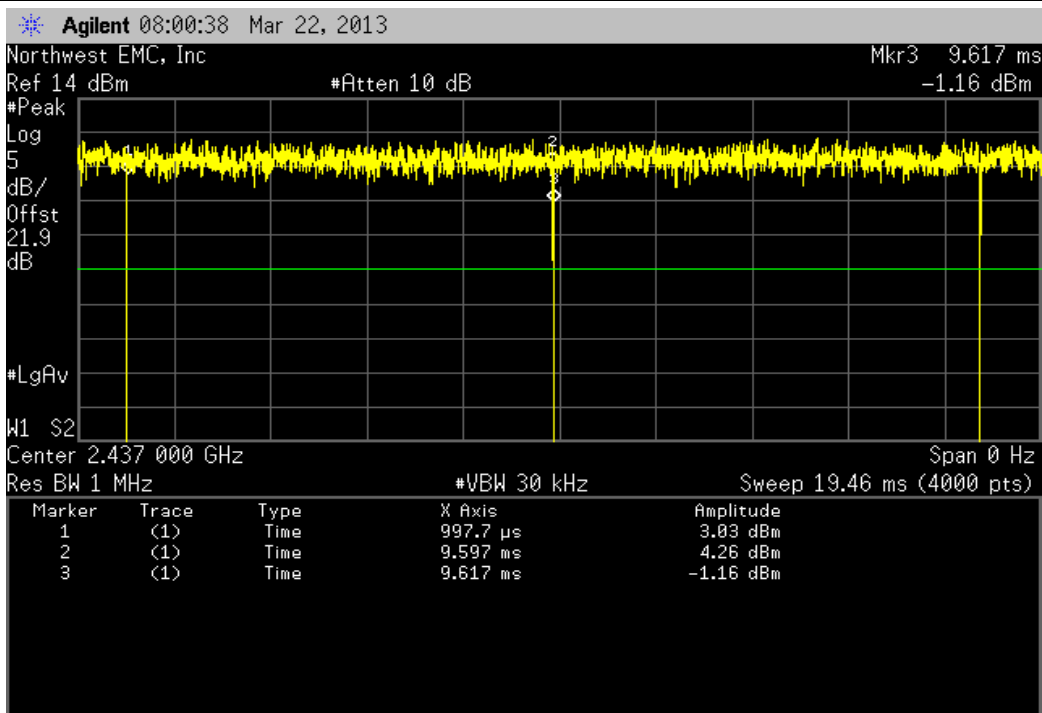
| Antenna 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz |             |          |                  |           |       |        |
|------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                      | 8.599 mS    | 8.622 mS | 1                | 99.7      | N/A   | N/A    |



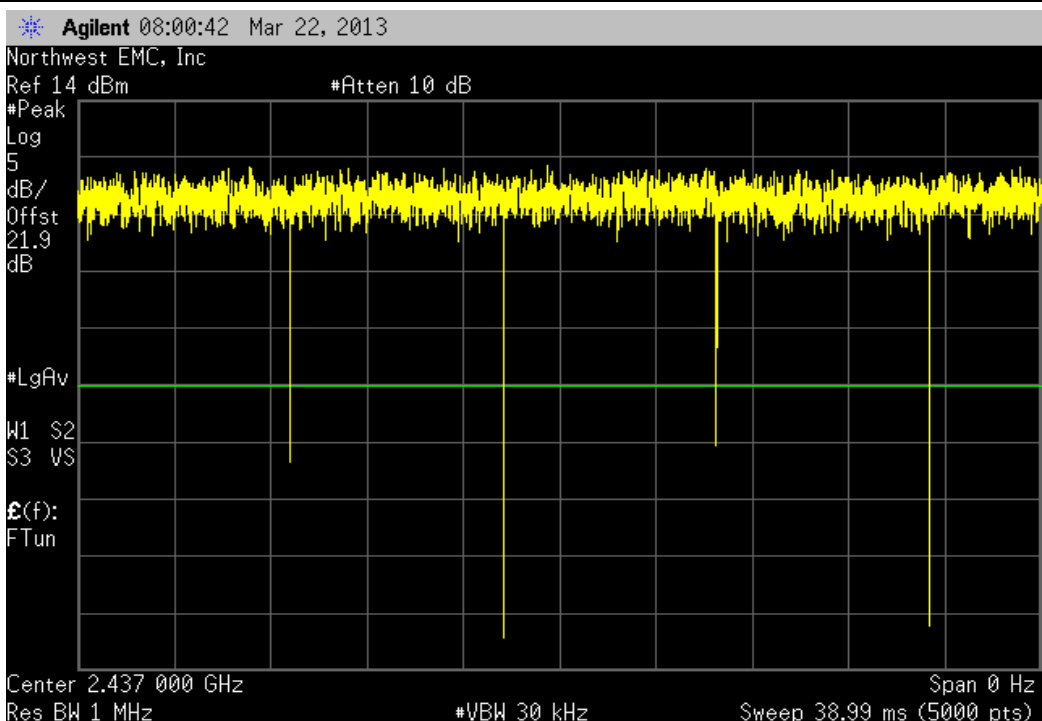
| Antenna 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                      | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



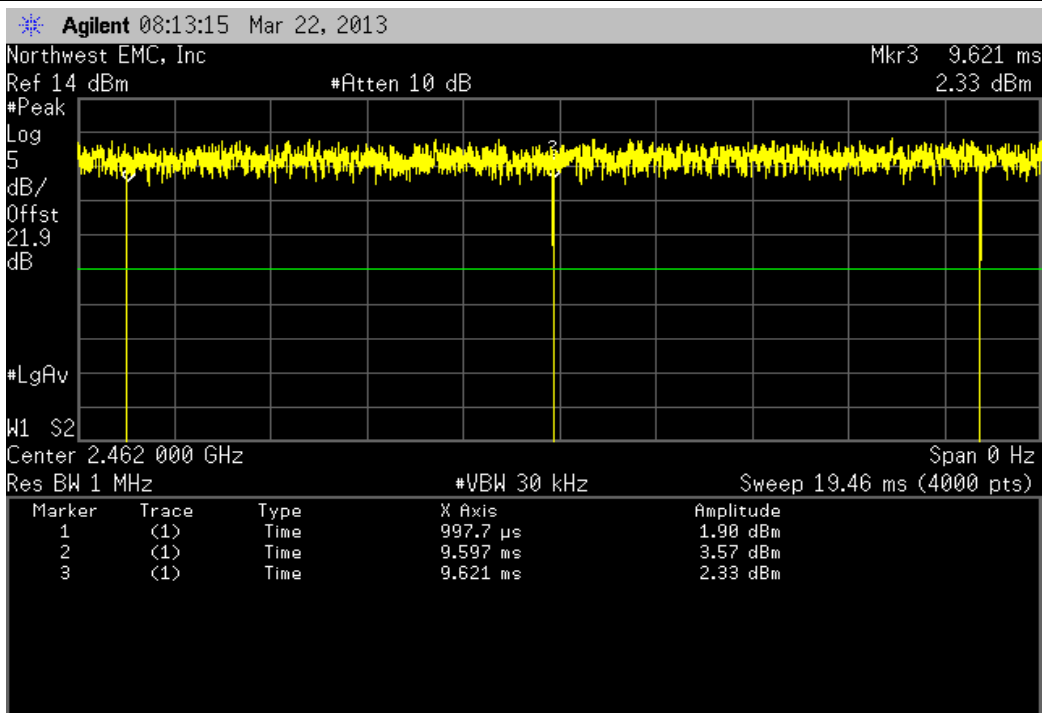
| Antenna 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz |             |          |                  |           |       |        |
|------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                      | 8.599 mS    | 8.619 mS | 1                | 99.8      | N/A   | N/A    |



| Antenna 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                      | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



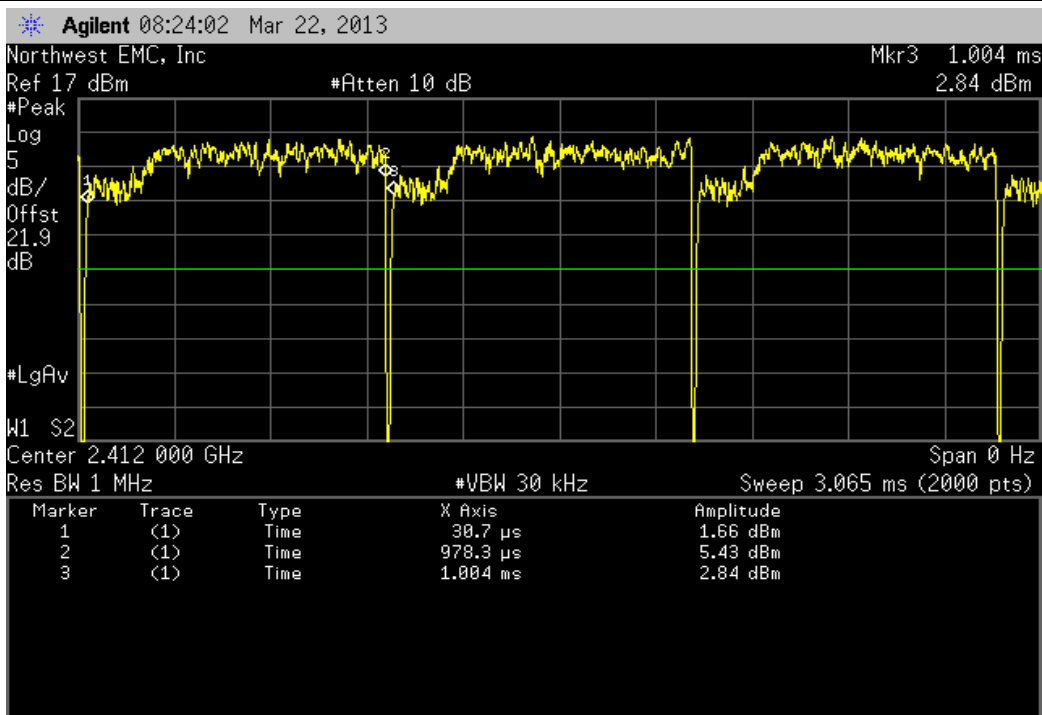
| Antenna 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz |             |          |                  |           |       |        |
|--------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                        | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                        | 8.599 mS    | 8.624 mS | 1                | 99.7      | N/A   | N/A    |



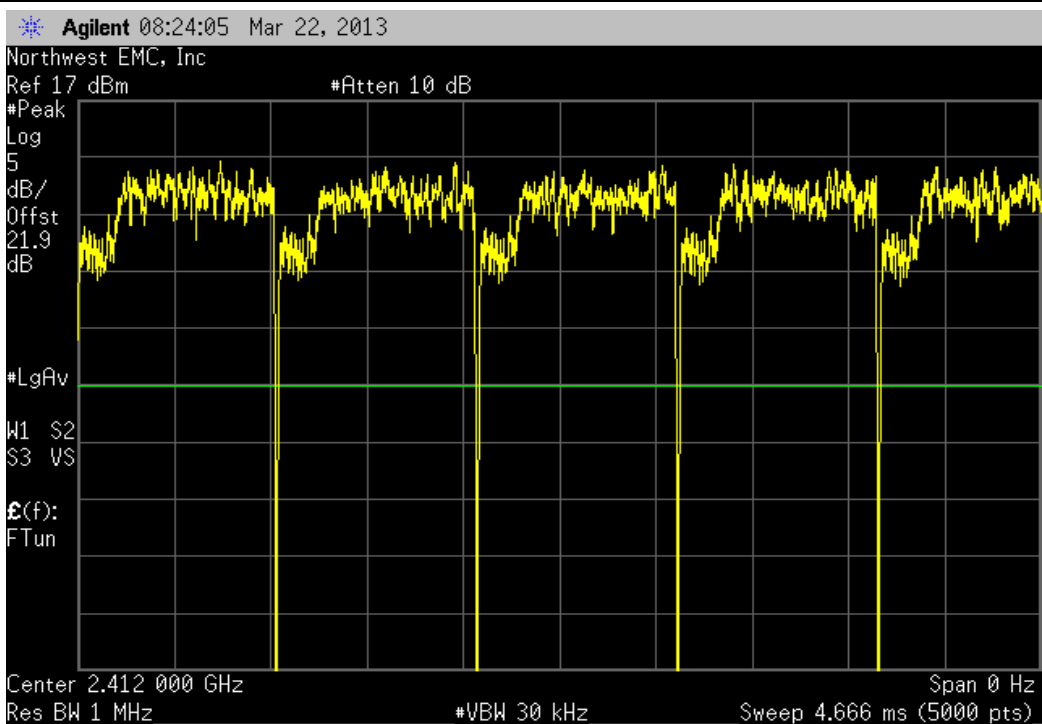
| Antenna 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|--------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                        | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                        | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



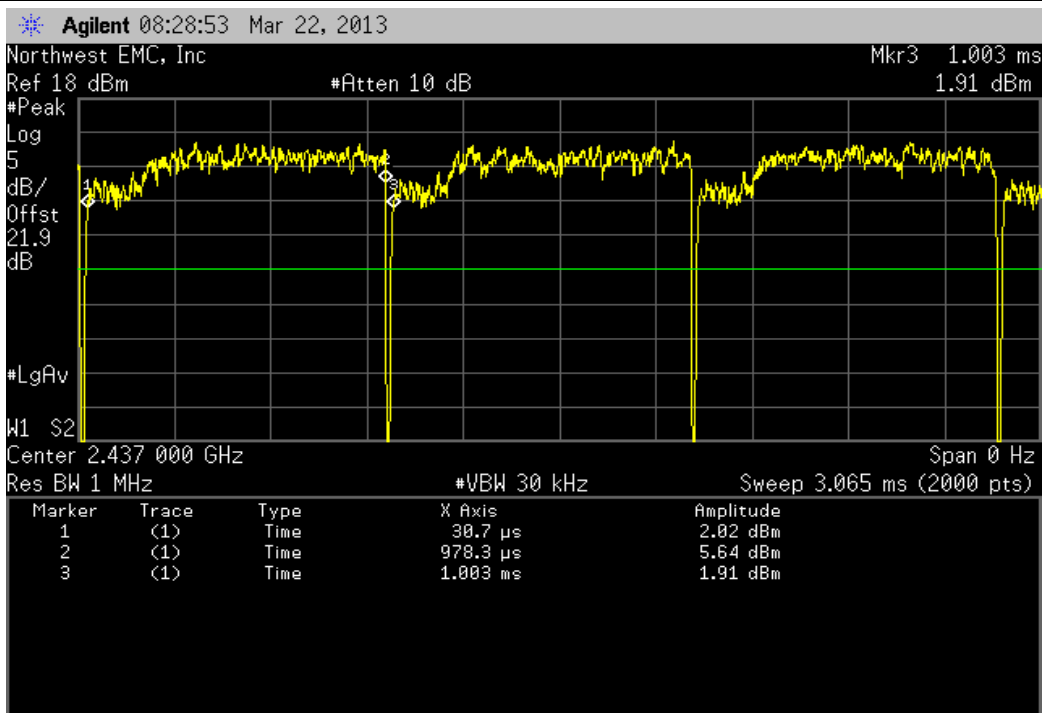
| Antenna 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |             |          |                  |           |       |        |
|-------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                       | 947.6 uS    | 973.6 uS | 1                | 97.3      | N/A   | N/A    |



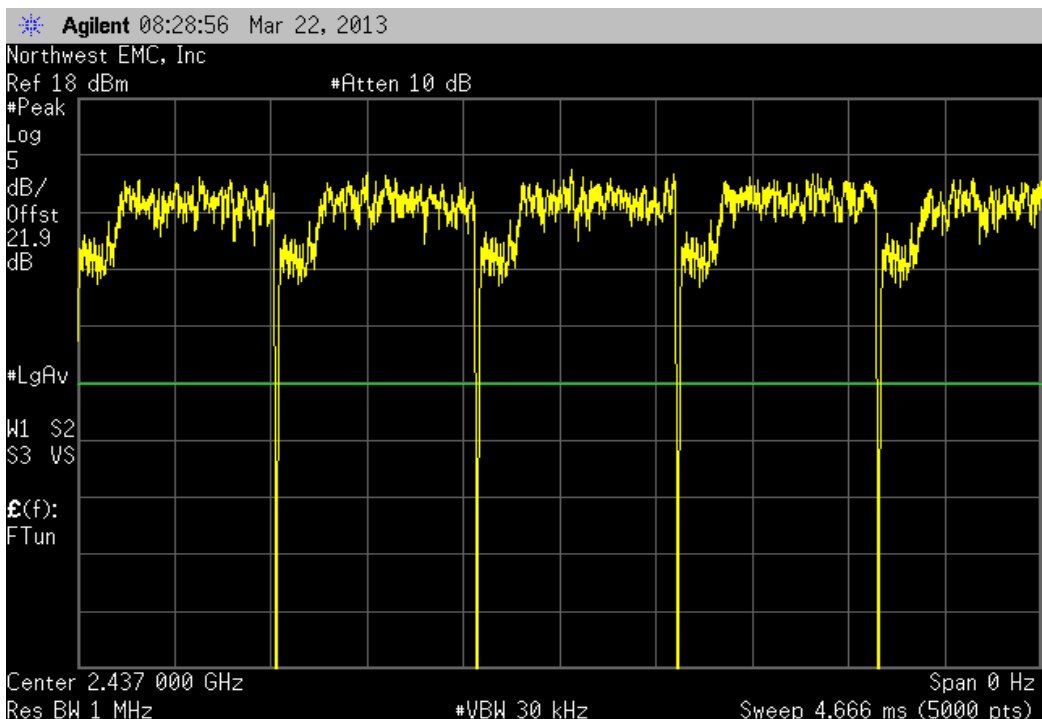
| Antenna 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                       | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



| Antenna 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz |             |          |                  |           |       |        |
|-------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                       | 947.6 uS    | 972.1 uS | 1                | 97.5      | N/A   | N/A    |

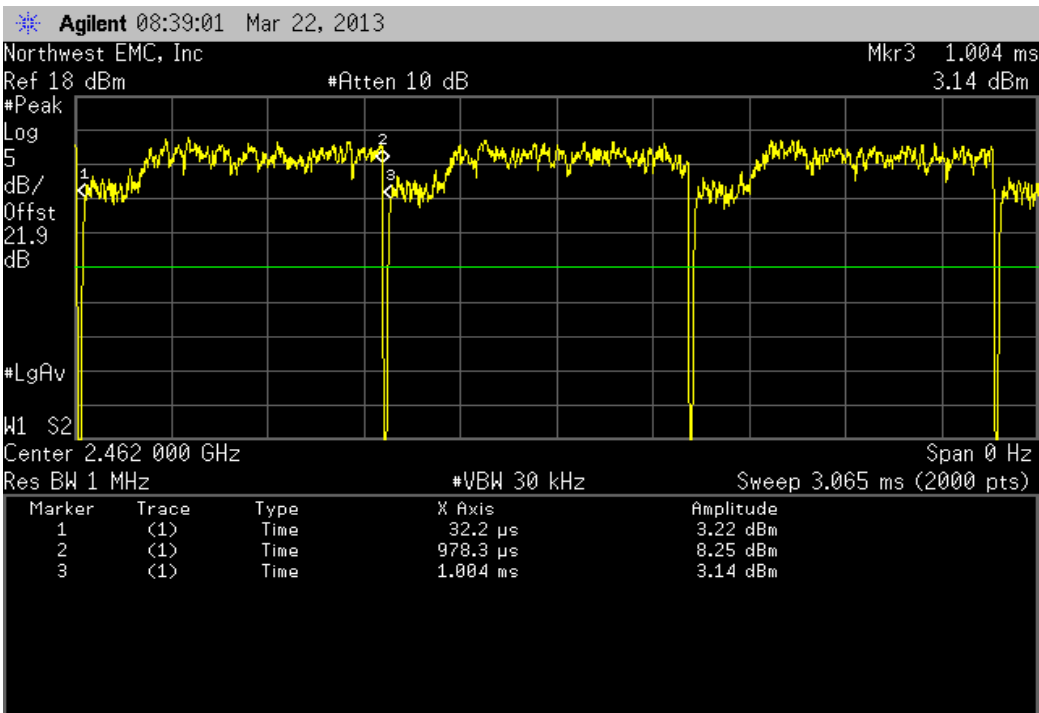


| Antenna 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                       | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



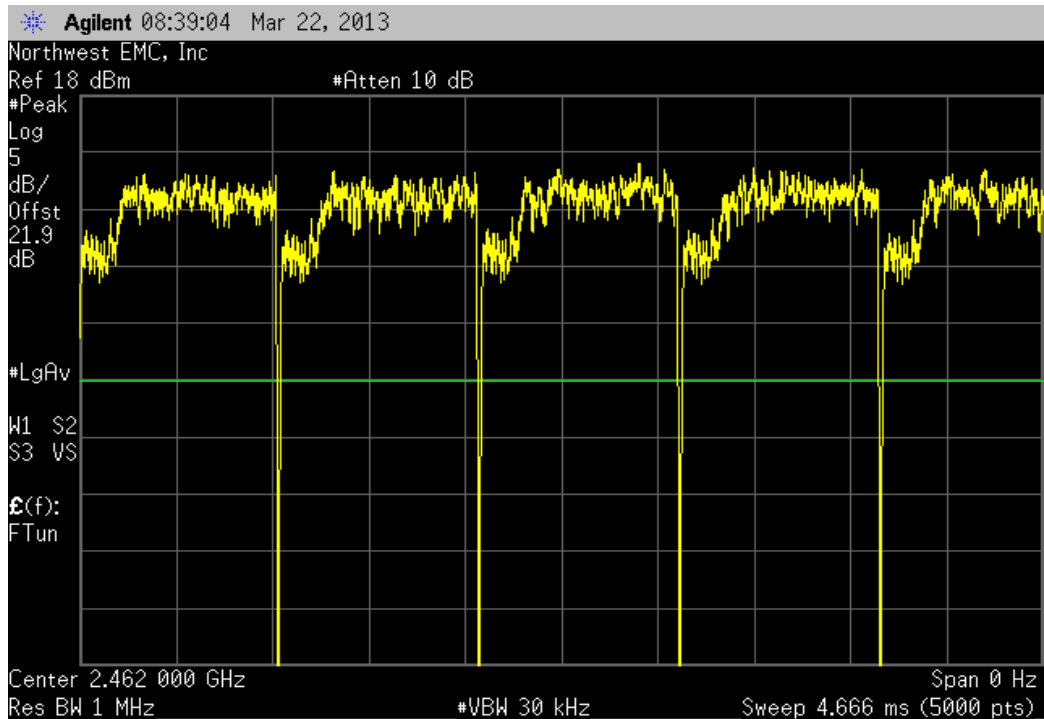
Antenna 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz

| Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|-------------|----------|------------------|-----------|-------|--------|
| 946.1 uS    | 972.1 uS | 1                | 97.3      | N/A   | N/A    |

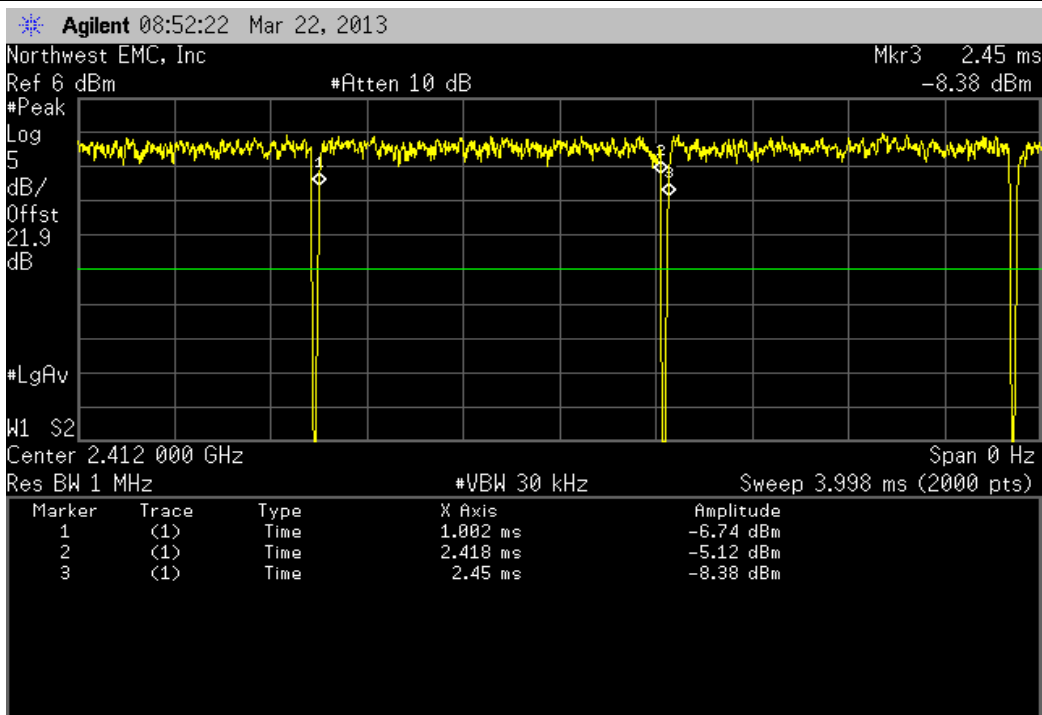


Antenna 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz

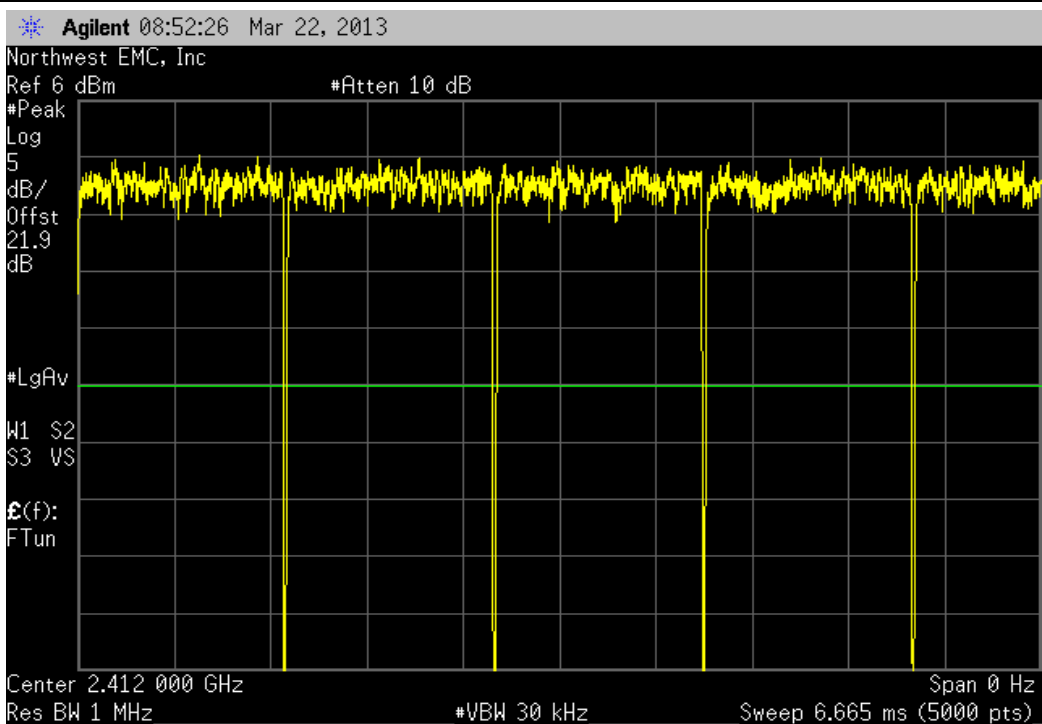
| Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|-------------|--------|------------------|-----------|-------|--------|
| N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



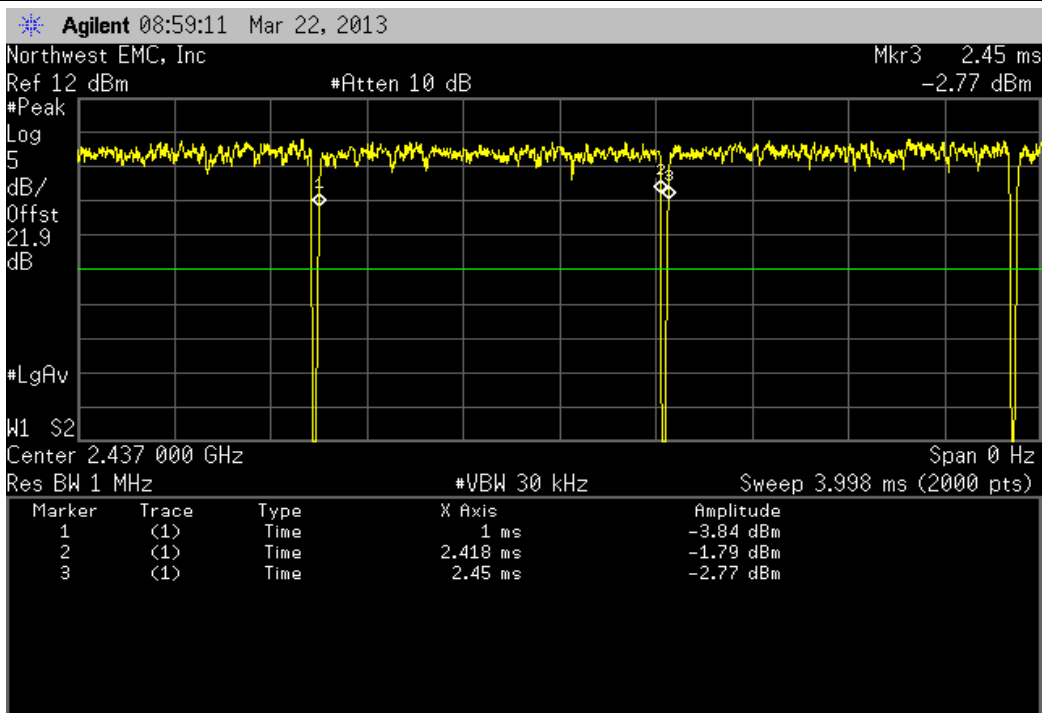
| Antenna 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz |             |          |                  |           |       |        |
|------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                      | 1.416 mS    | 1.448 mS | 1                | 97.8      | N/A   | N/A    |



| Antenna 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                      | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



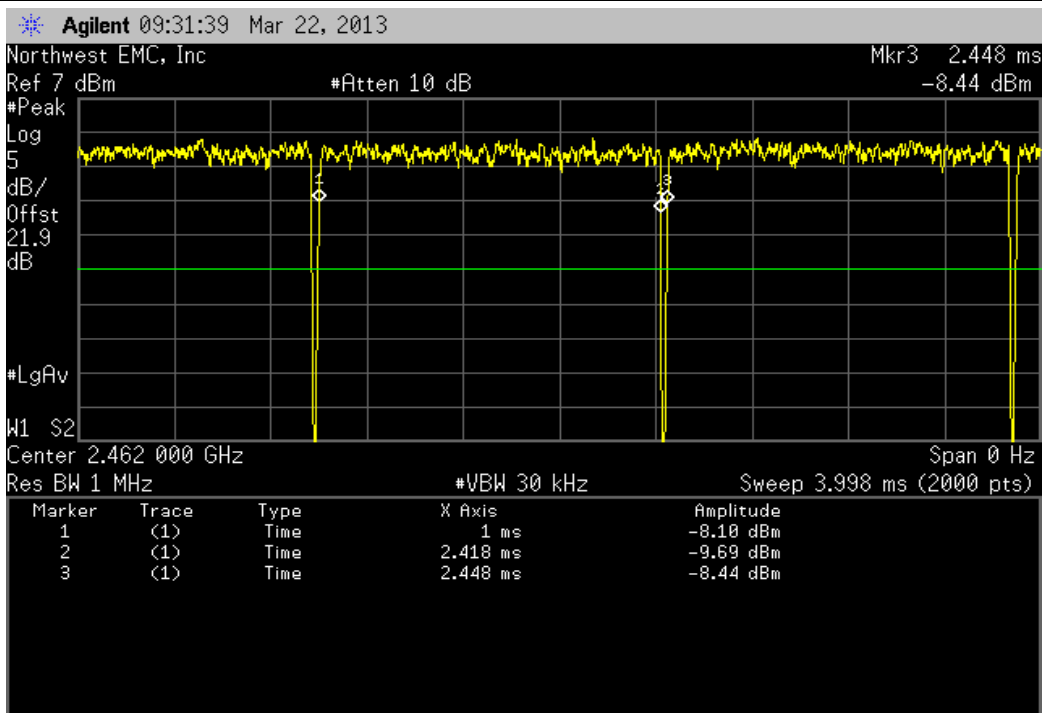
| Antenna 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz |             |         |                  |           |       |        |
|------------------------------------------------------|-------------|---------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period  | Number of Pulses | Value (%) | Limit | Result |
|                                                      | 1.418 mS    | 1.45 mS | 1                | 97.8      | N/A   | N/A    |



| Antenna 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                      | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



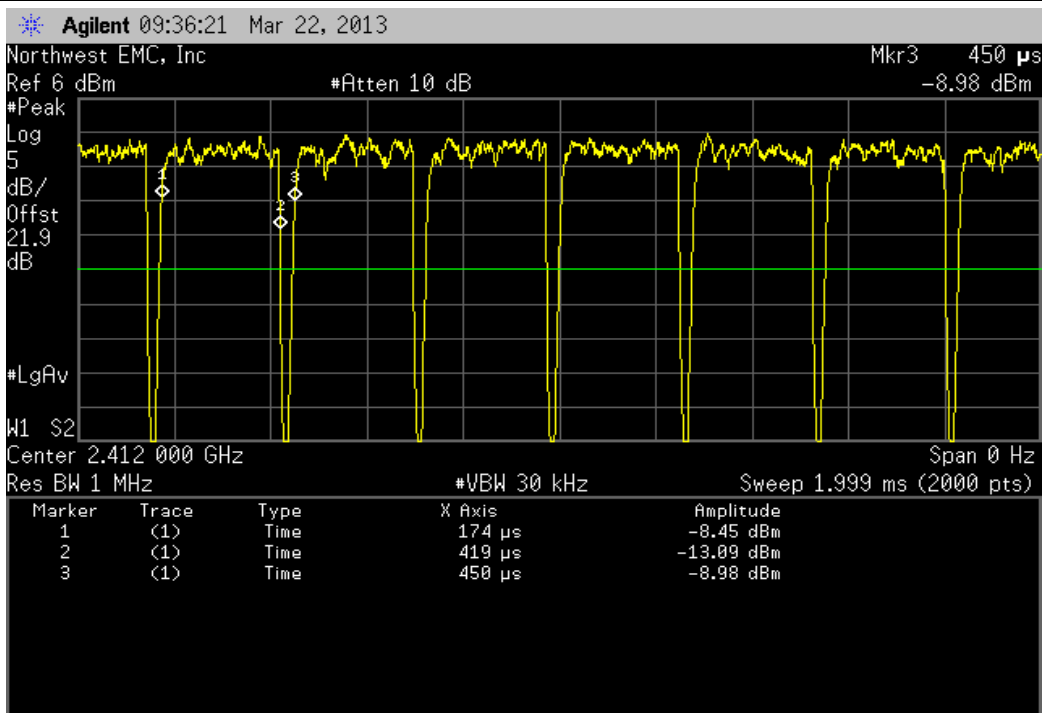
| Antenna 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |             |          |                  |           |       |        |
|--------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                        | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                        | 1.418 mS    | 1.448 mS | 1                | 97.9      | N/A   | N/A    |



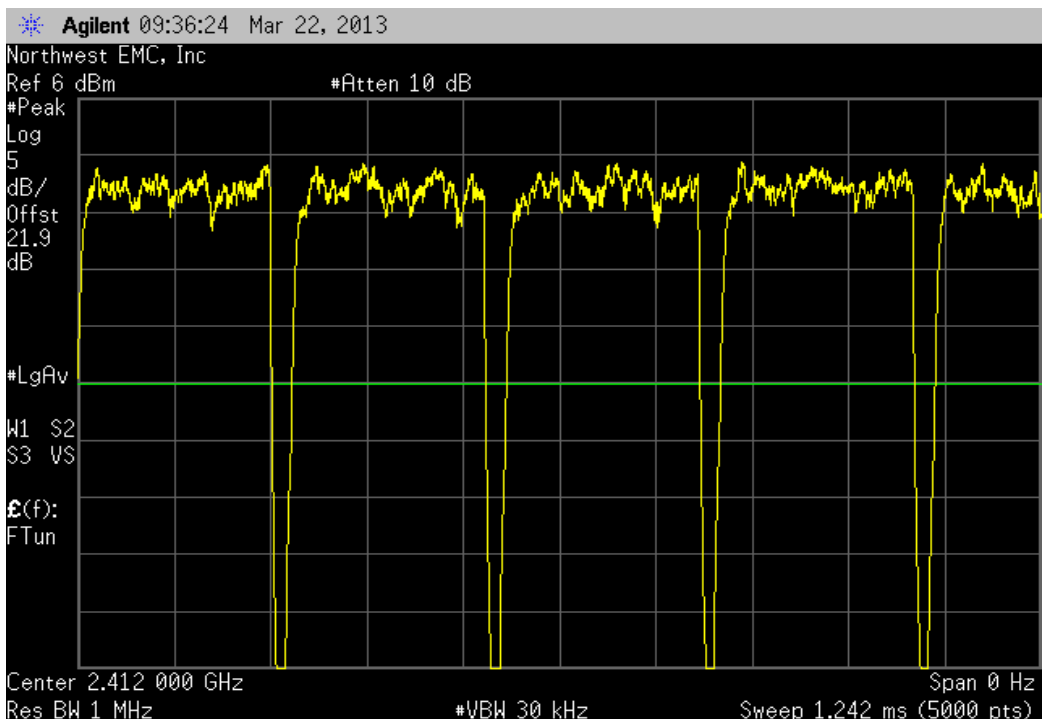
| Antenna 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|--------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                        | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                        | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



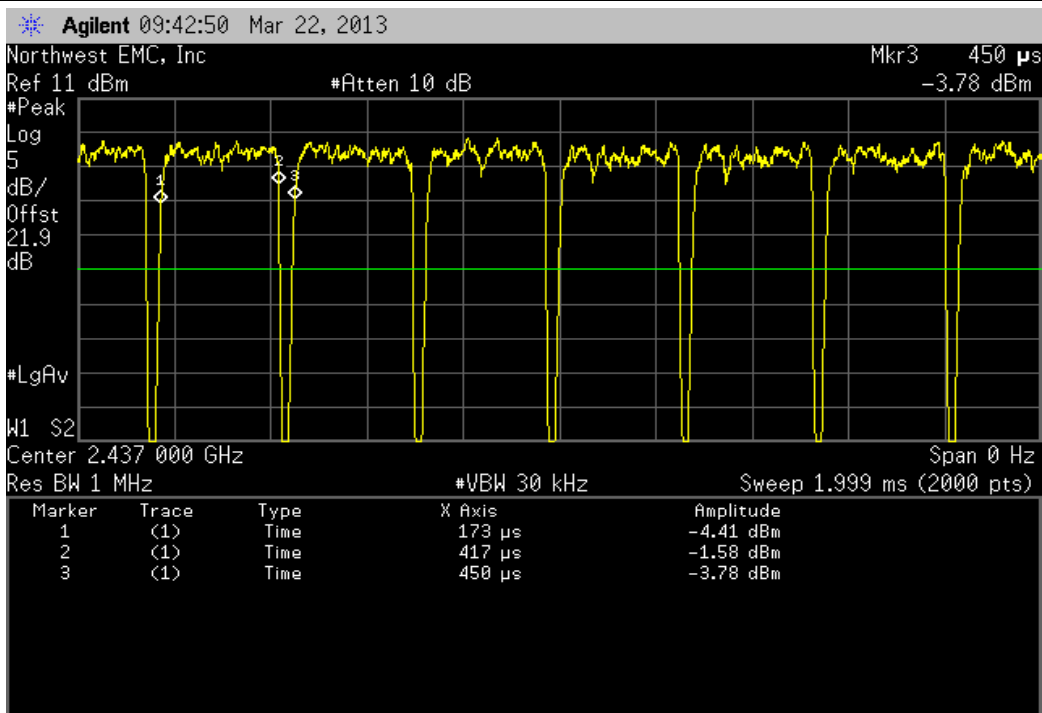
| Antenna 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                       | 245 uS      | 276 uS | 1                | 88.8      | N/A   | N/A    |



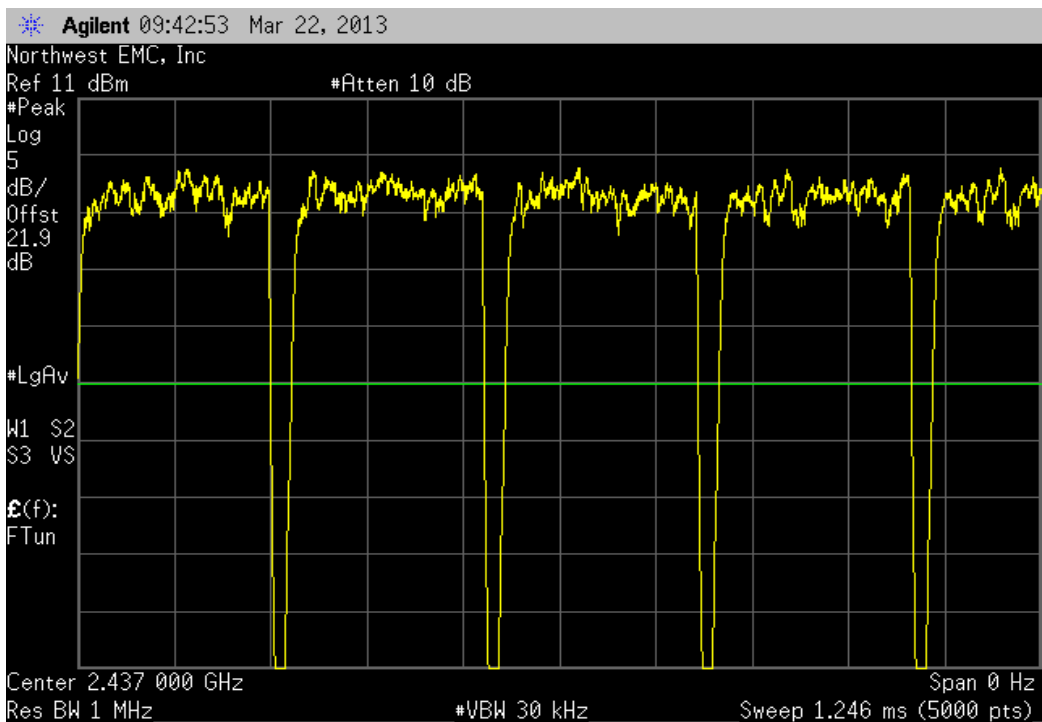
| Antenna 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                       | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



| Antenna 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                       | 244 uS      | 277 uS | 1                | 88.1      | N/A   | N/A    |

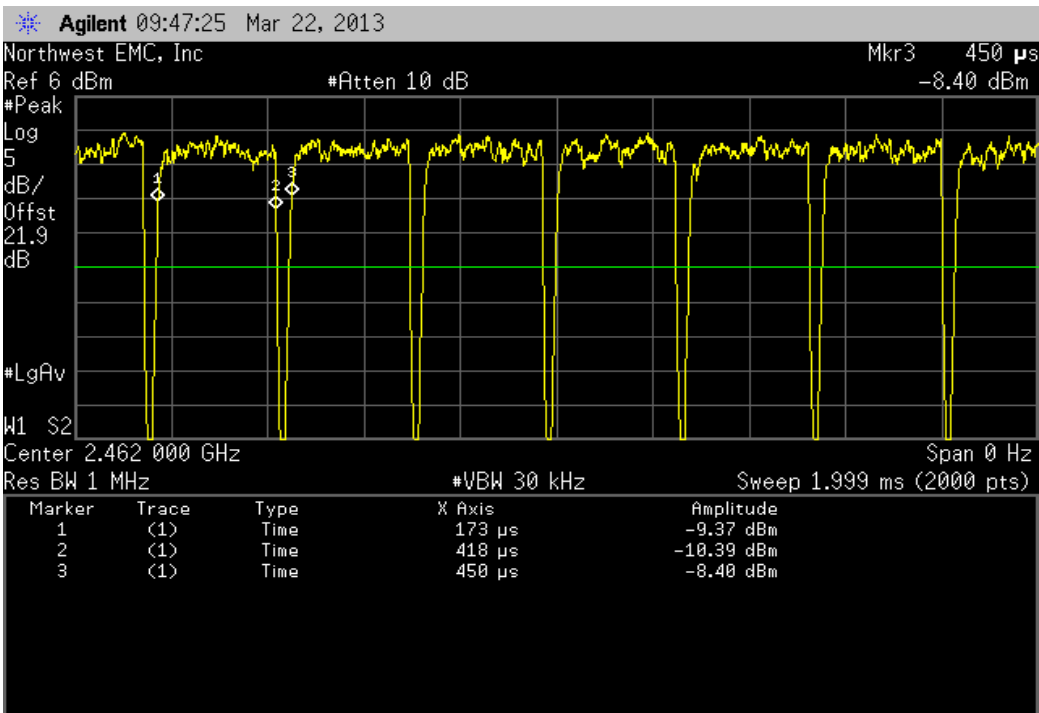


| Antenna 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                       | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



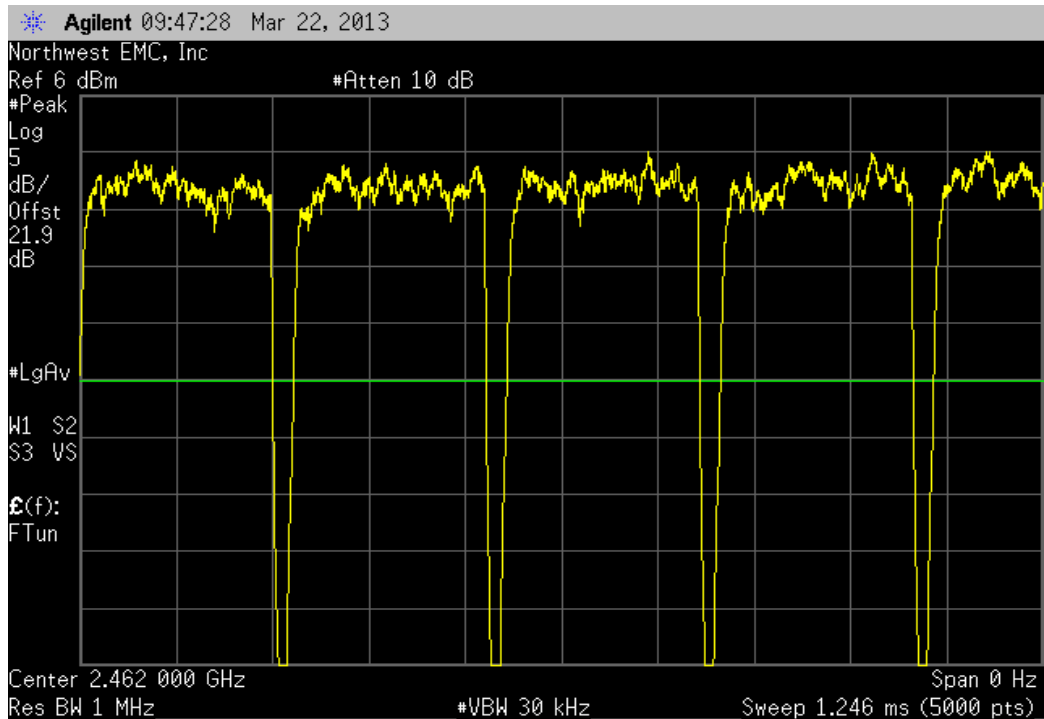
Antenna 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz

| Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|-------------|--------|------------------|-----------|-------|--------|
| 245 uS      | 277 uS | 1                | 88.4      | N/A   | N/A    |

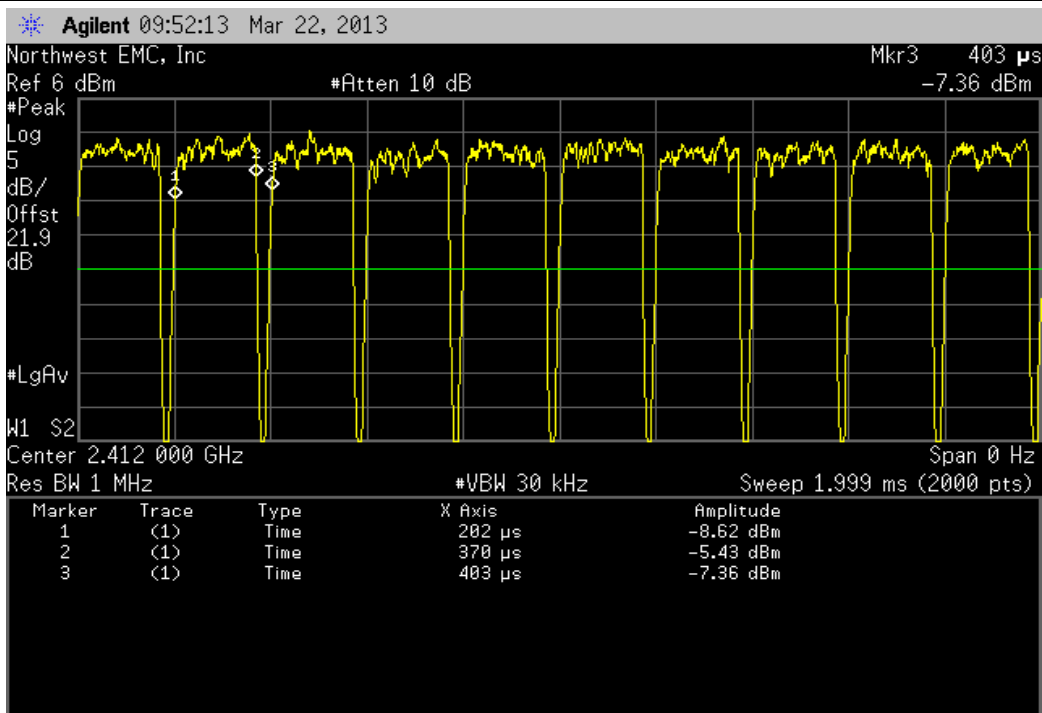


Antenna 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz

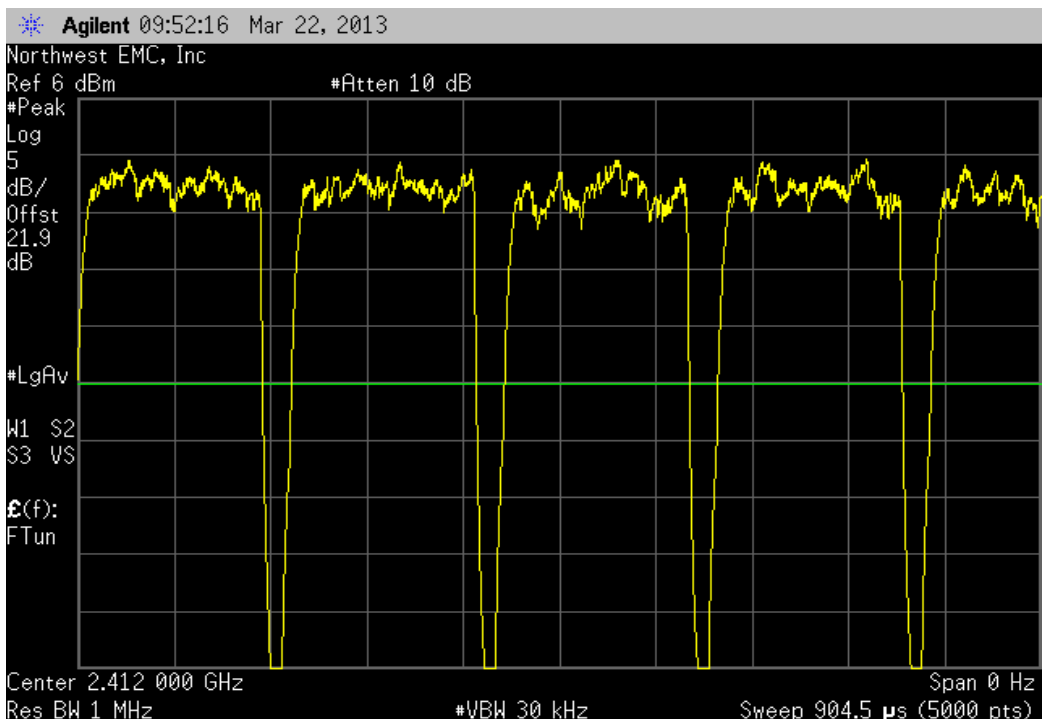
| Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|-------------|--------|------------------|-----------|-------|--------|
| N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



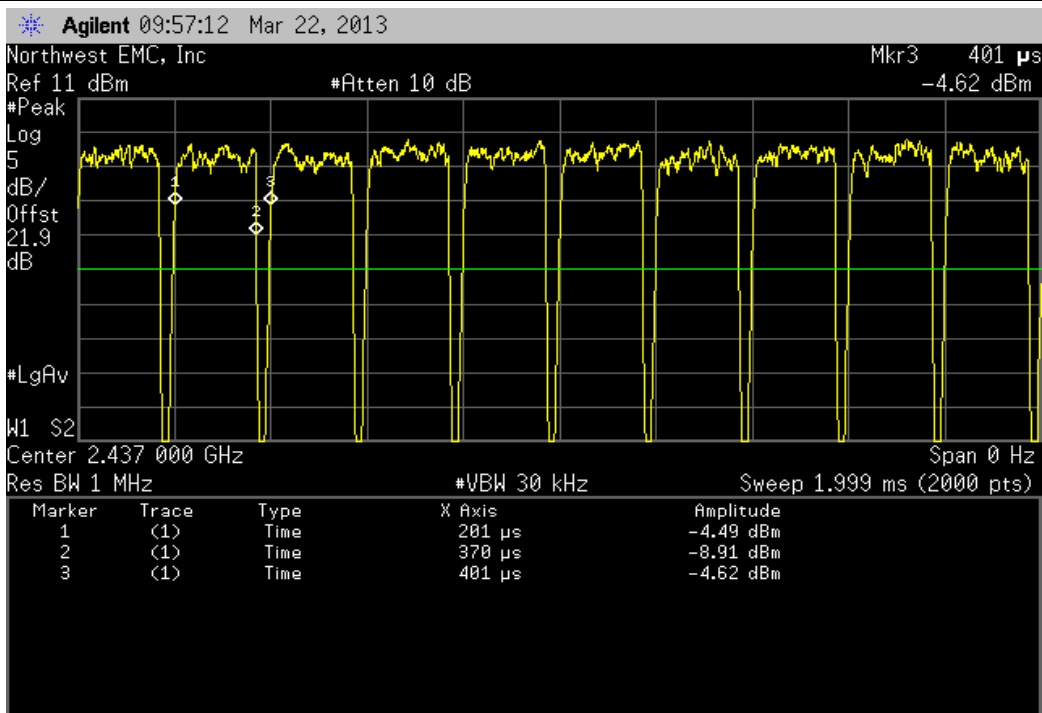
| Antenna 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                       | 168 uS      | 201 uS | 1                | 83.6      | N/A   | N/A    |



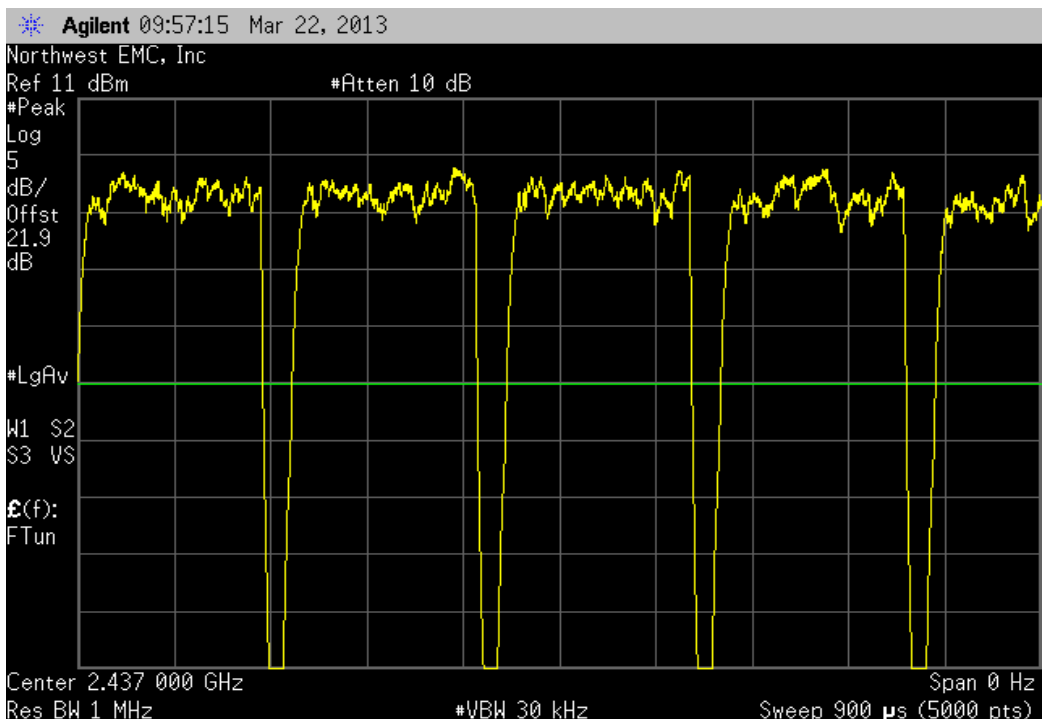
| Antenna 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                       | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



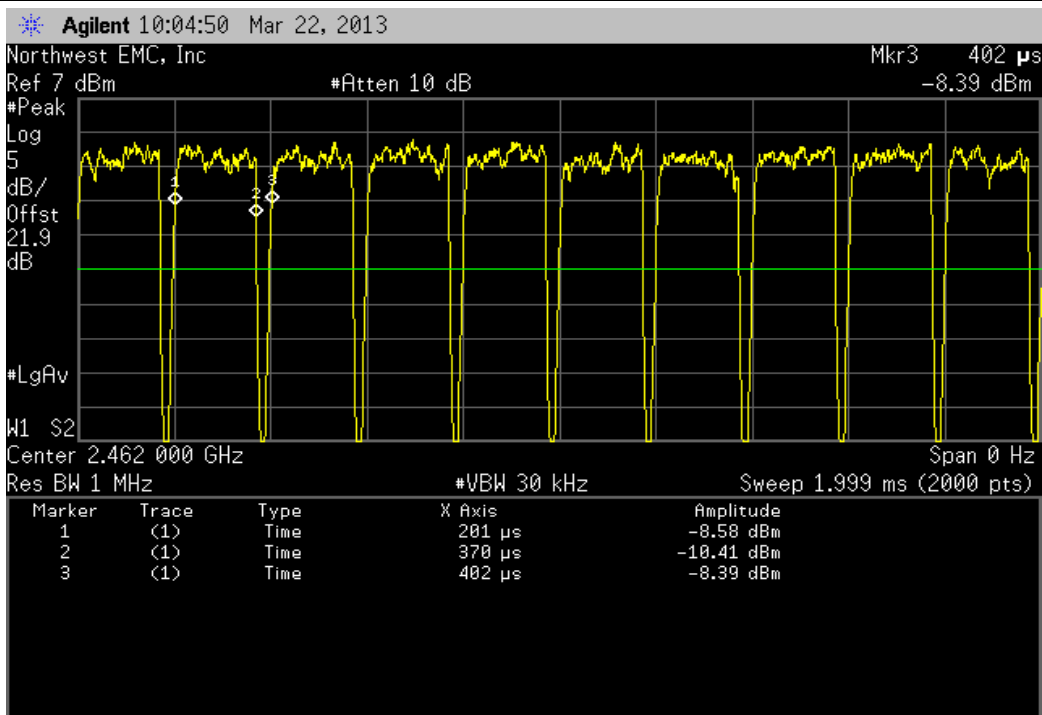
| Antenna 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                       | 169 uS      | 200 uS | 1                | 84.5      | N/A   | N/A    |



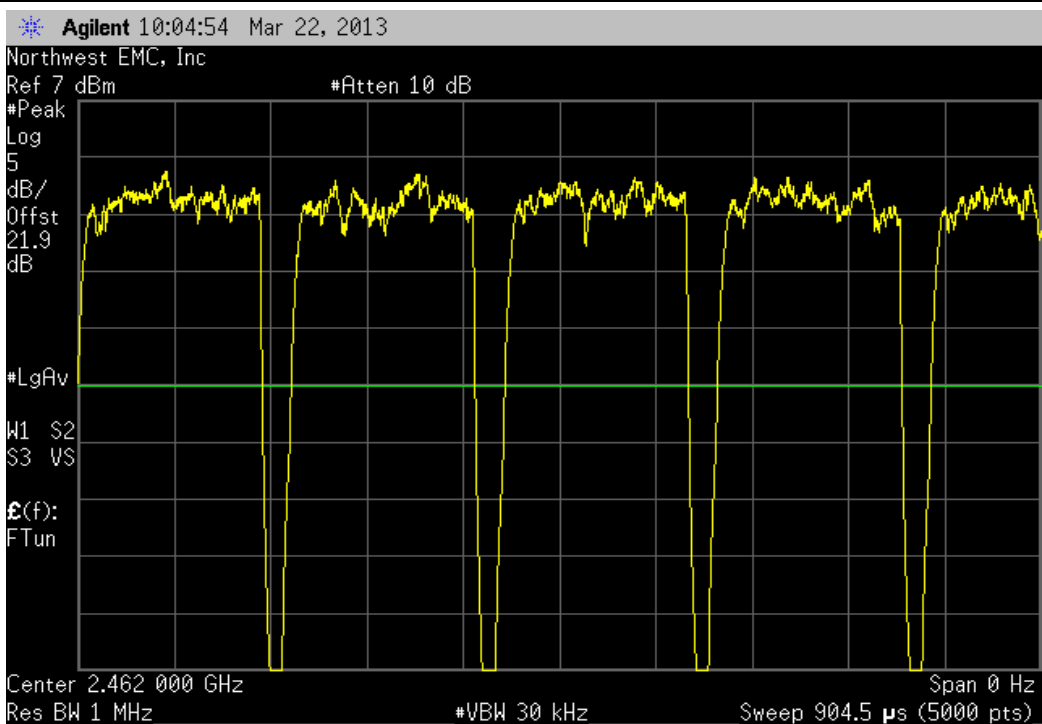
| Antenna 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                       | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



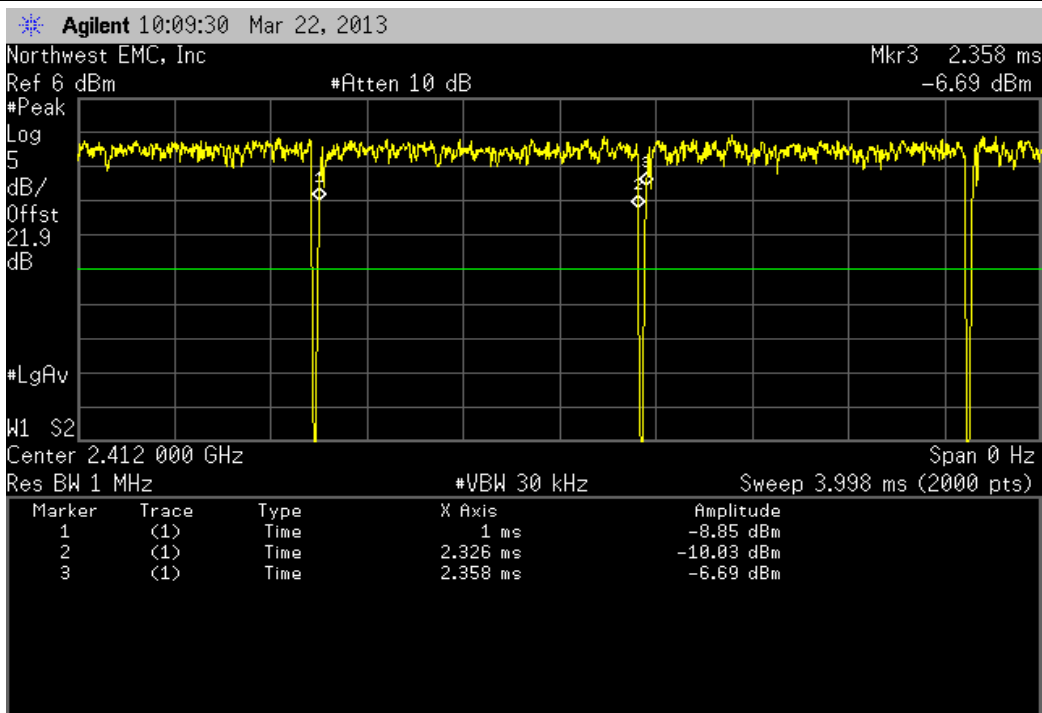
| Antenna 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|---------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                         | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                         | 169 uS      | 201 uS | 1                | 84.1      | N/A   | N/A    |



| Antenna 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|---------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                         | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                         | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



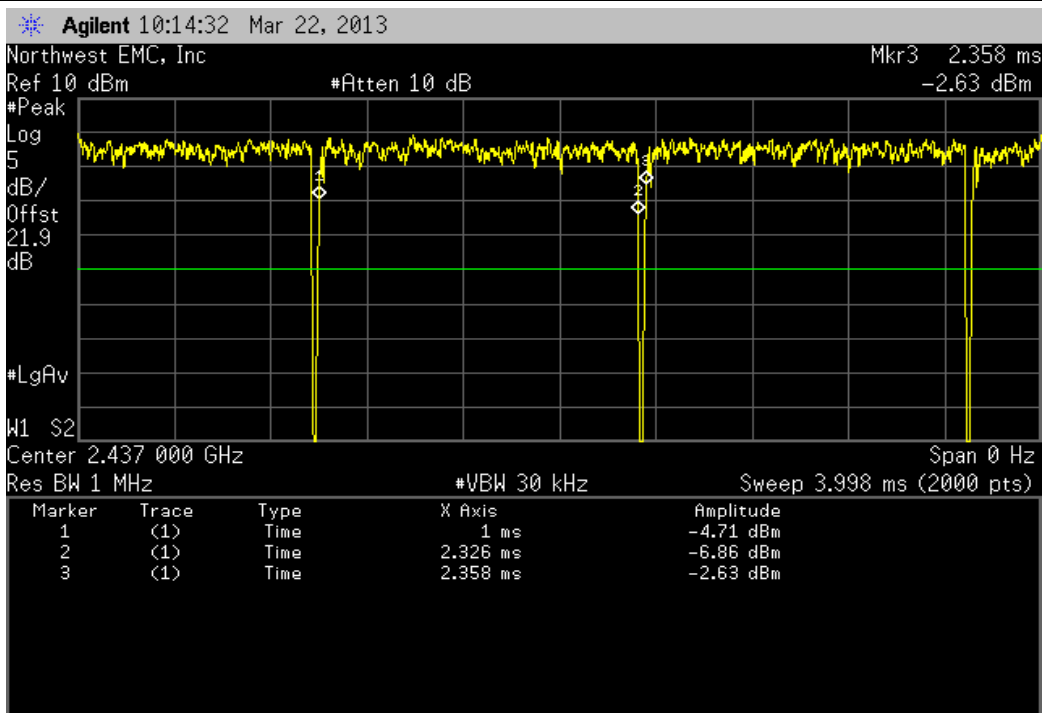
| Antenna 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz |          |                  |           |       |        |  |
|----------------------------------------------------|----------|------------------|-----------|-------|--------|--|
| Pulse Width                                        | Period   | Number of Pulses | Value (%) | Limit | Result |  |
| 1.326 mS                                           | 1.358 mS | 1                | 97.6      | N/A   | N/A    |  |



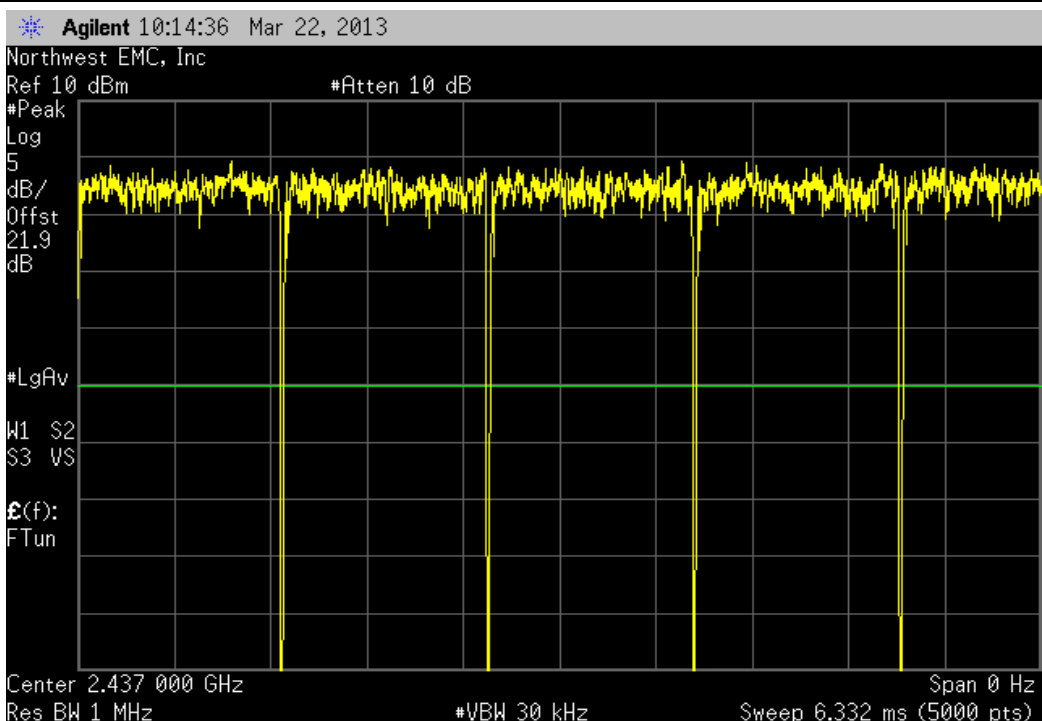
| Antenna 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz |        |                  |           |       |        |  |
|----------------------------------------------------|--------|------------------|-----------|-------|--------|--|
| Pulse Width                                        | Period | Number of Pulses | Value (%) | Limit | Result |  |
| N/A                                                | N/A    | 5                | N/A       | N/A   | N/A    |  |



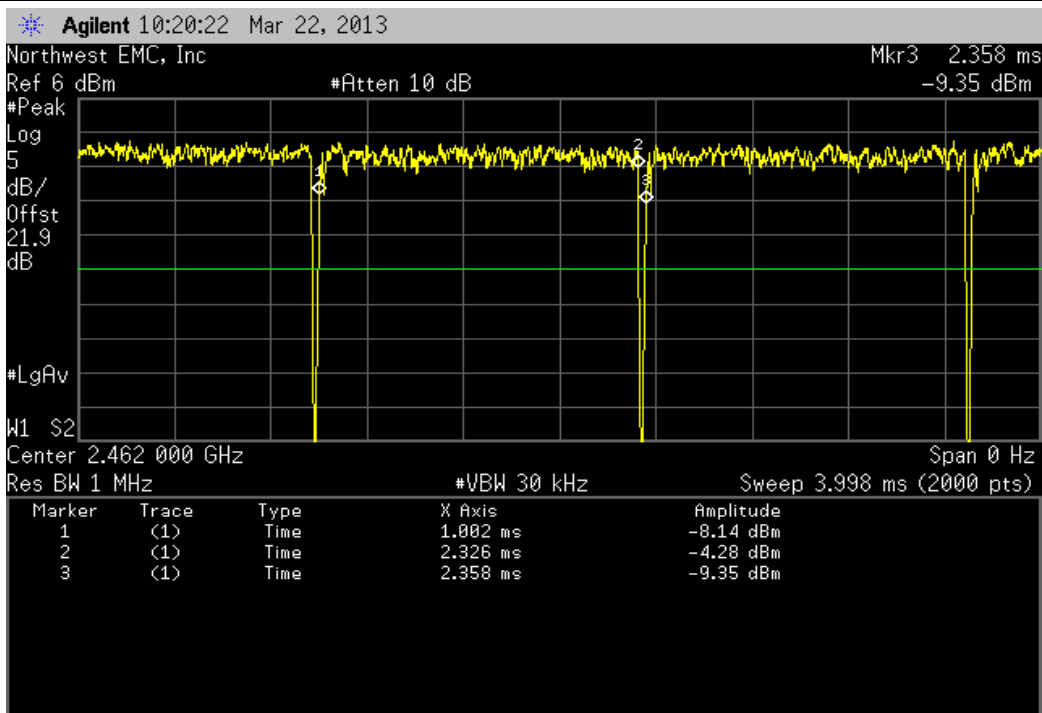
| Antenna 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz |          |                  |           |       |        |  |
|----------------------------------------------------|----------|------------------|-----------|-------|--------|--|
| Pulse Width                                        | Period   | Number of Pulses | Value (%) | Limit | Result |  |
| 1.326 mS                                           | 1.358 mS | 1                | 97.6      | N/A   | N/A    |  |



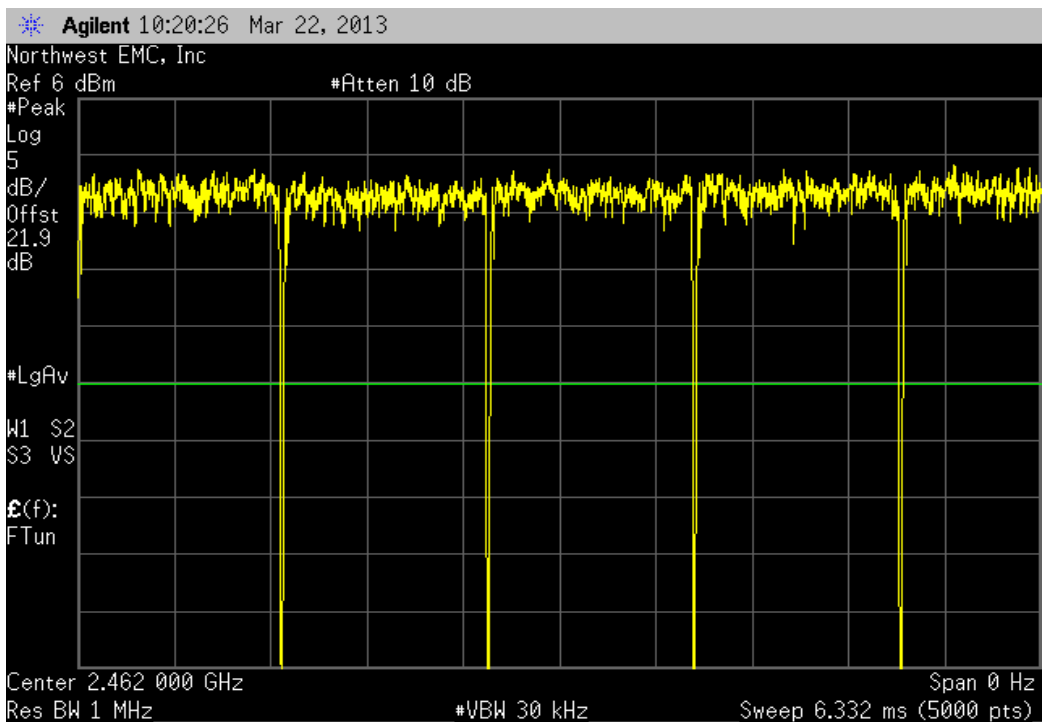
| Antenna 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz |        |                  |           |       |        |  |
|----------------------------------------------------|--------|------------------|-----------|-------|--------|--|
| Pulse Width                                        | Period | Number of Pulses | Value (%) | Limit | Result |  |
| N/A                                                | N/A    | 5                | N/A       | N/A   | N/A    |  |



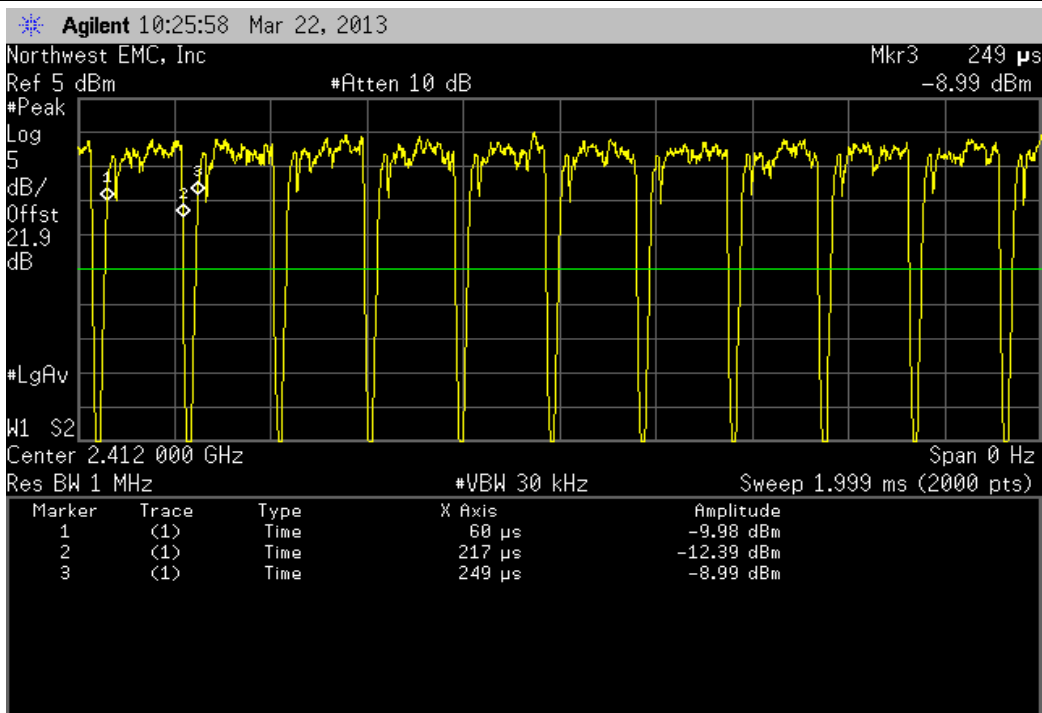
| Antenna 0, 802.11(n) MCS0, High Channel 11, 2462 MHz |          |                  |           |       |        |  |
|------------------------------------------------------|----------|------------------|-----------|-------|--------|--|
| Pulse Width                                          | Period   | Number of Pulses | Value (%) | Limit | Result |  |
| 1.324 mS                                             | 1.356 mS | 1                | 97.6      | N/A   | N/A    |  |



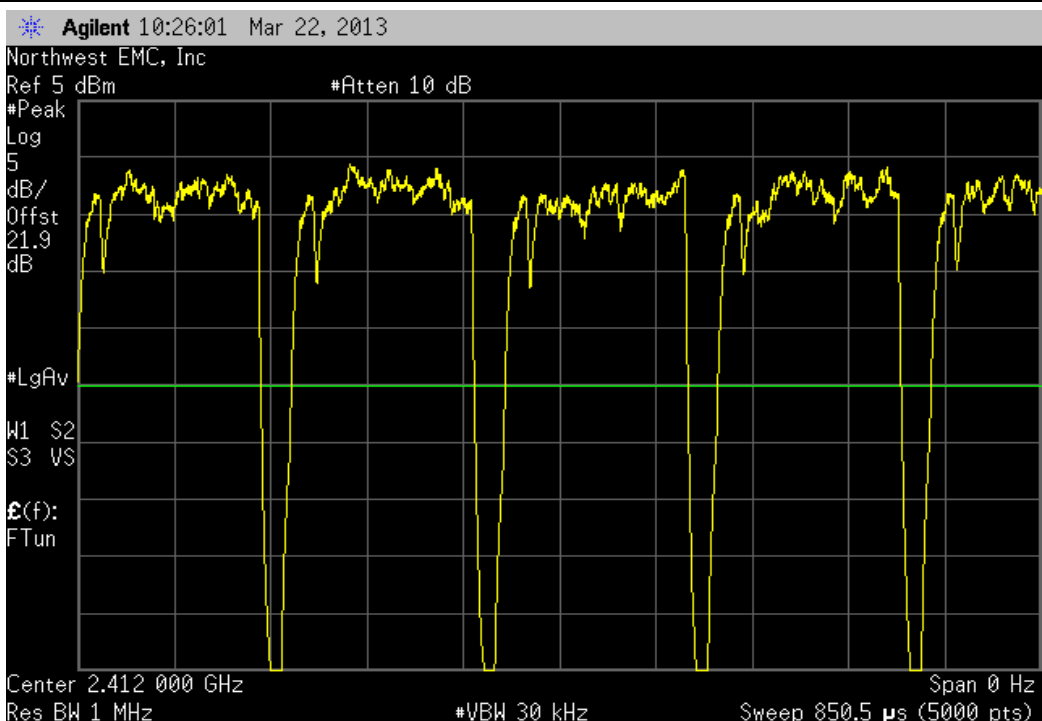
| Antenna 0, 802.11(n) MCS0, High Channel 11, 2462 MHz |        |                  |           |       |        |  |
|------------------------------------------------------|--------|------------------|-----------|-------|--------|--|
| Pulse Width                                          | Period | Number of Pulses | Value (%) | Limit | Result |  |
| N/A                                                  | N/A    | 5                | N/A       | N/A   | N/A    |  |



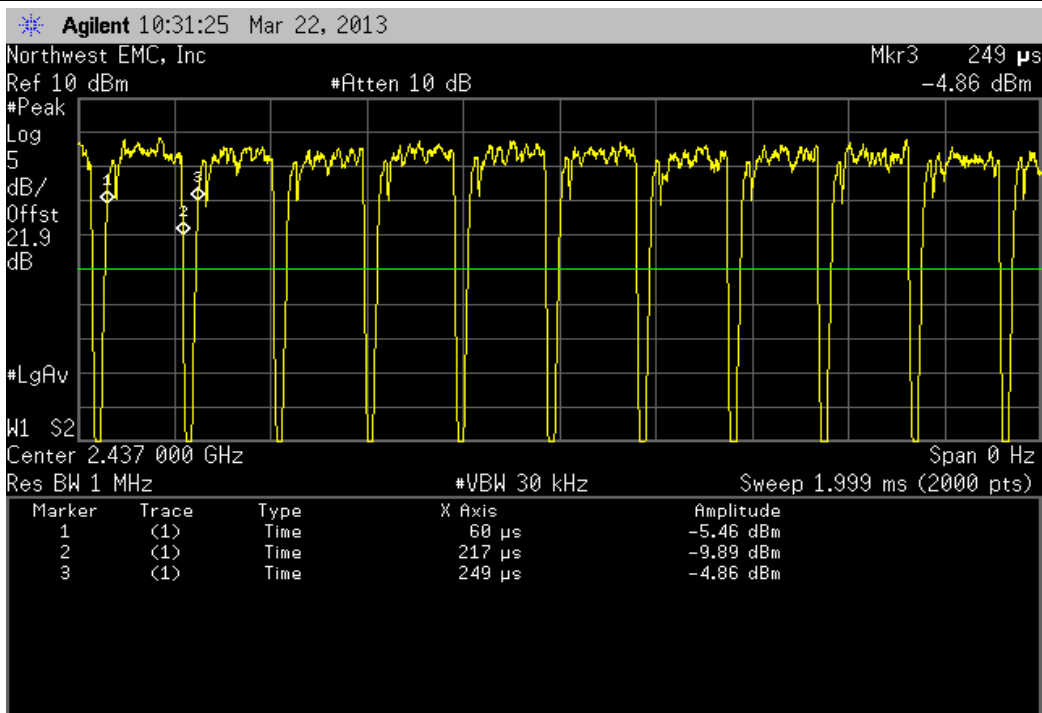
| Antenna 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|----------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                    | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                    | 157 uS      | 189 uS | 1                | 83.1      | N/A   | N/A    |



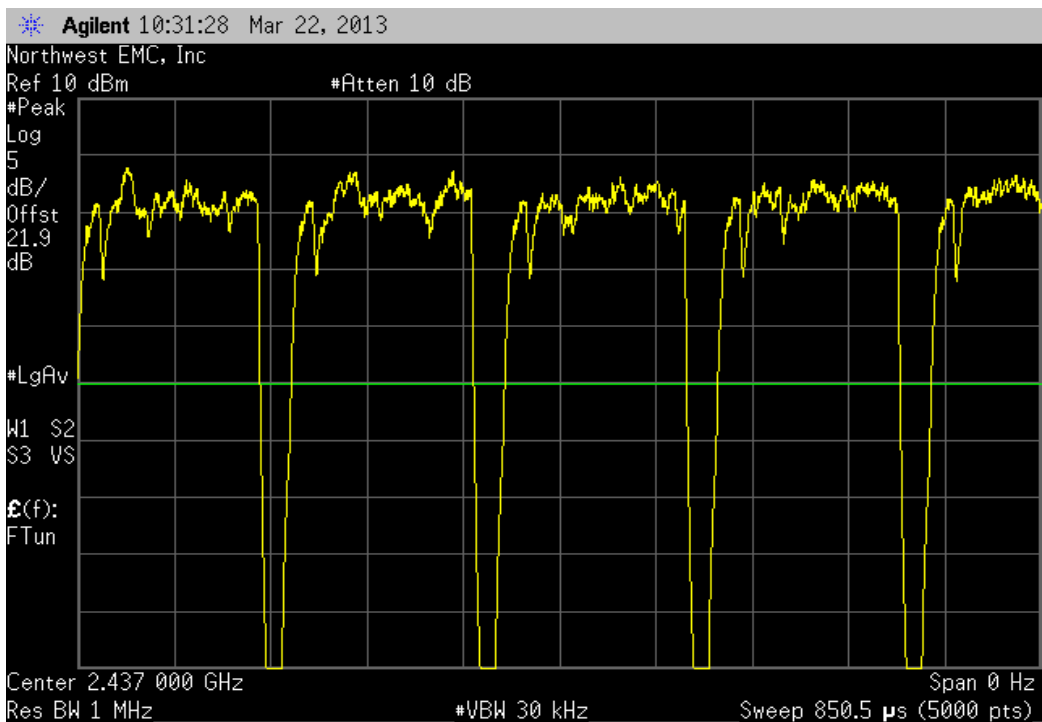
| Antenna 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|----------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                    | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                    | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



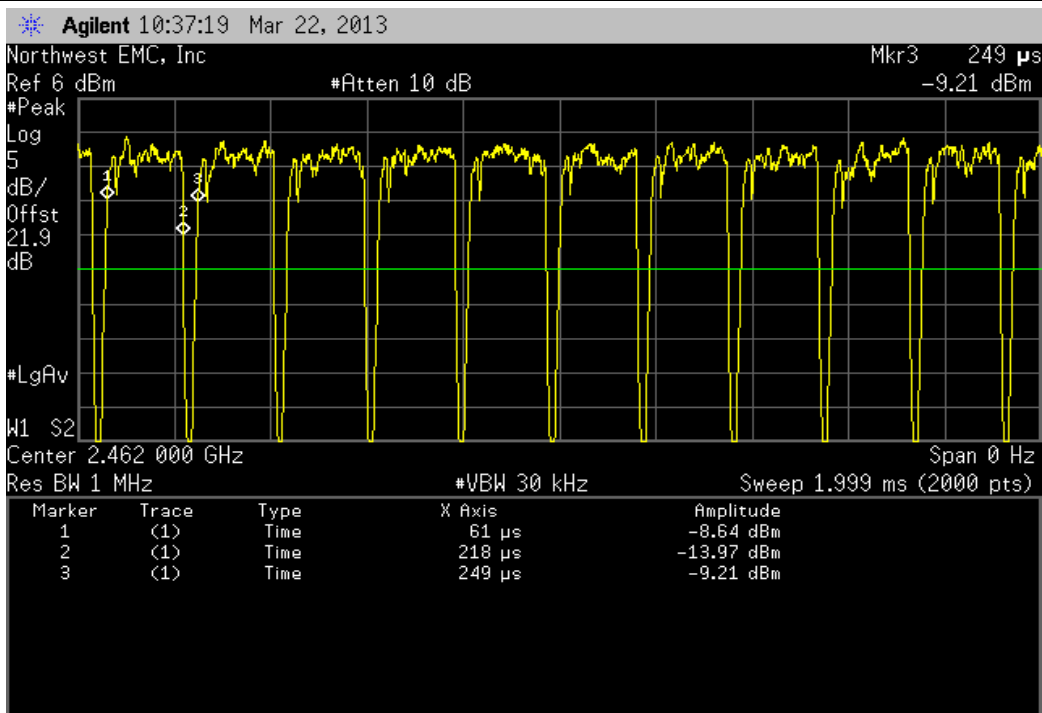
| Antenna 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|----------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                    | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                    | 157 uS      | 189 uS | 1                | 83.1      | N/A   | N/A    |



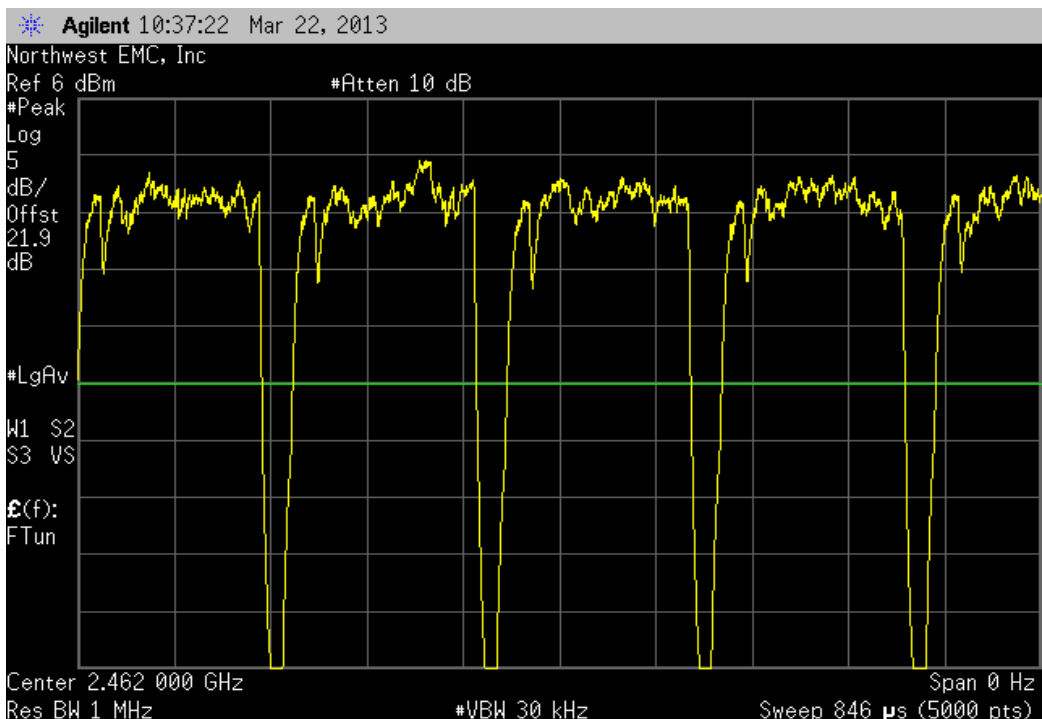
| Antenna 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|----------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                    | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                    | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



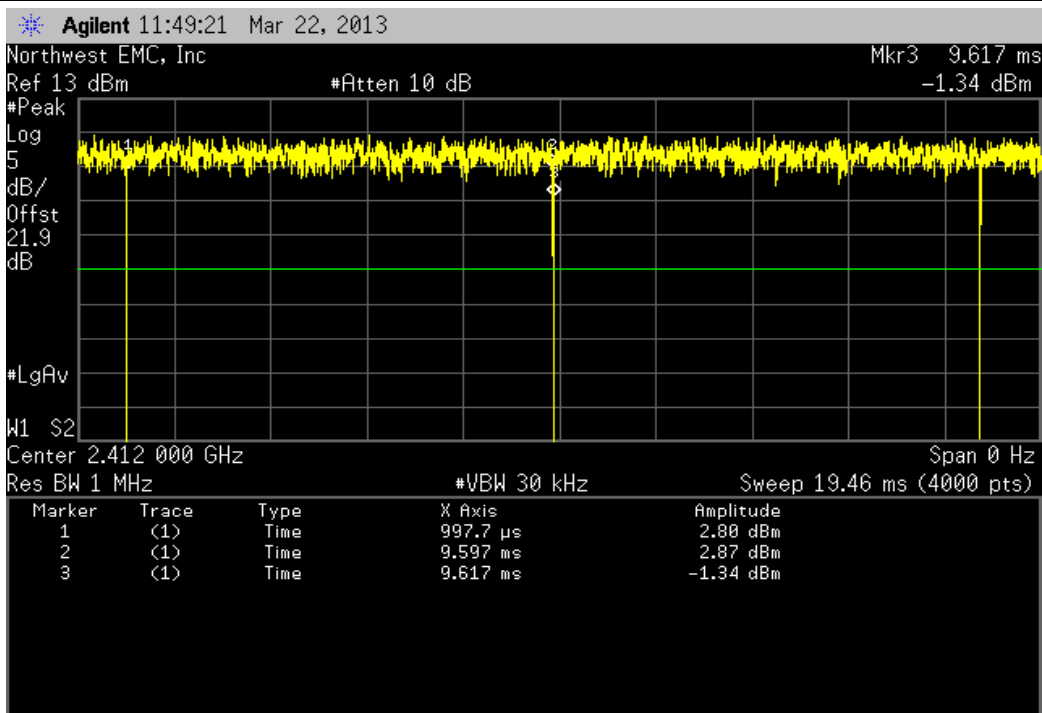
| Antenna 0, 802.11(n) MCS7, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                      | 157 uS      | 188 uS | 1                | 83.5      | N/A   | N/A    |



| Antenna 0, 802.11(n) MCS7, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                      | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



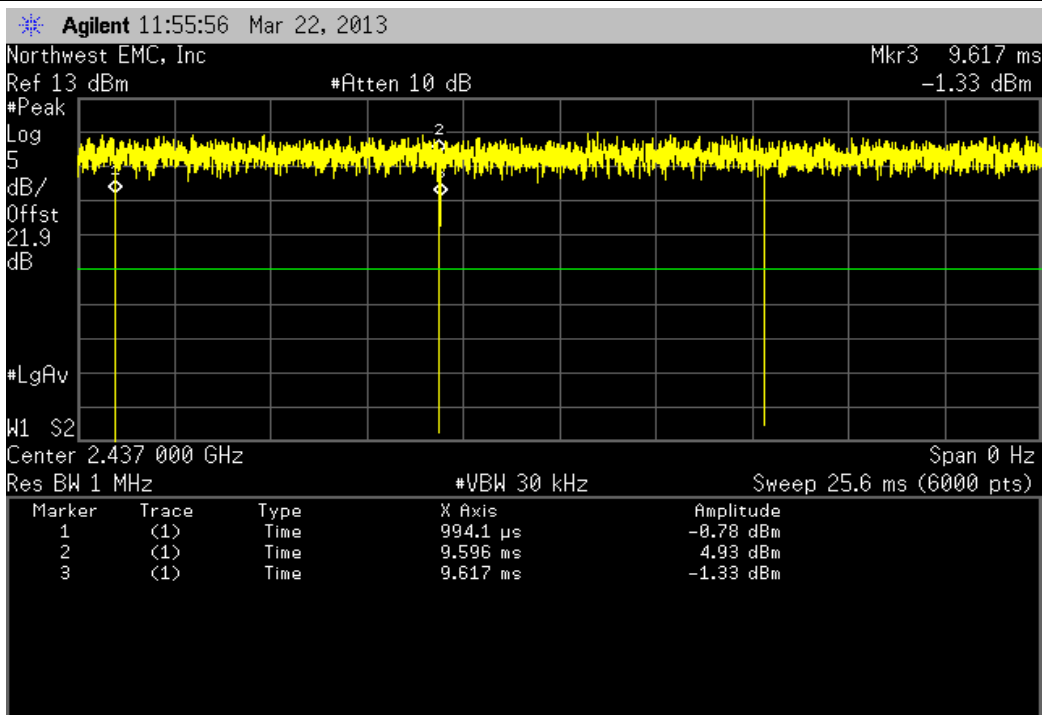
| Antenna 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz |             |          |                  |           |       |        |
|------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                      | 8.599 mS    | 8.619 mS | 1                | 99.8      | N/A   | N/A    |



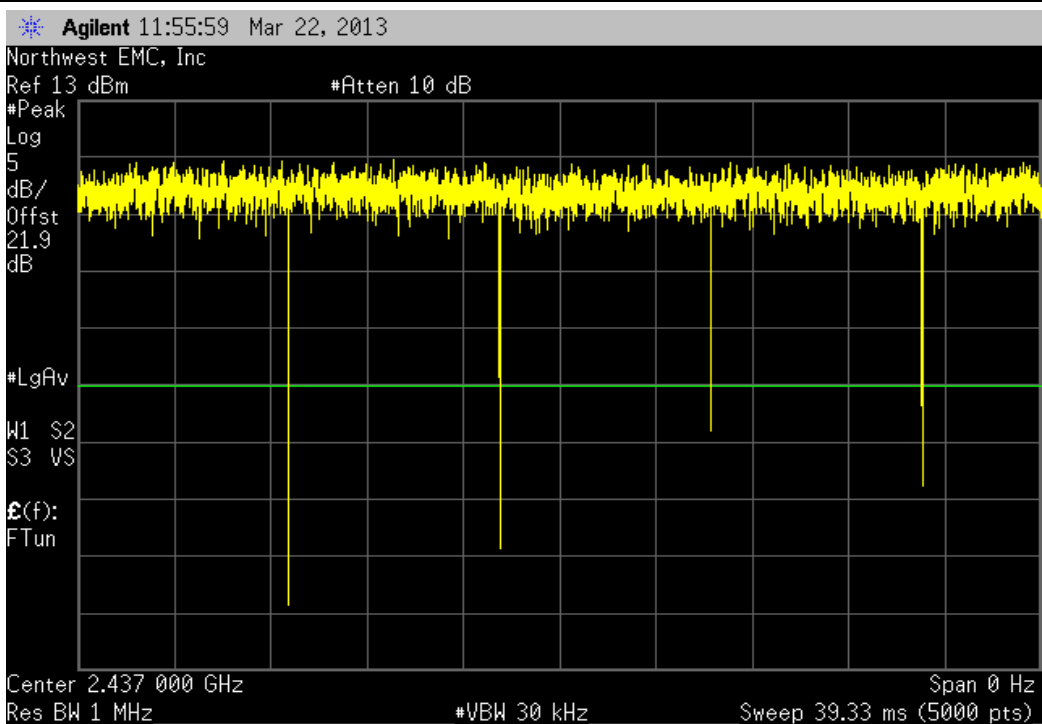
| Antenna 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                      | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



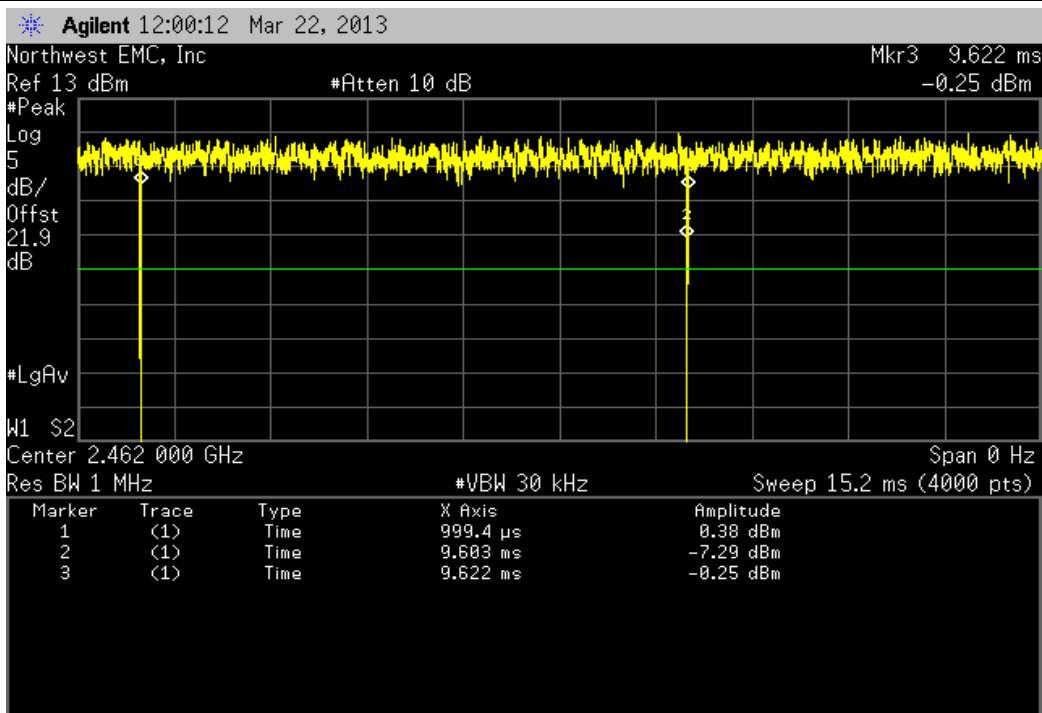
| Antenna 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz |             |          |                  |           |       |        |
|------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                      | 8.602 mS    | 8.623 mS | 1                | 99.8      | N/A   | N/A    |



| Antenna 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                      | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



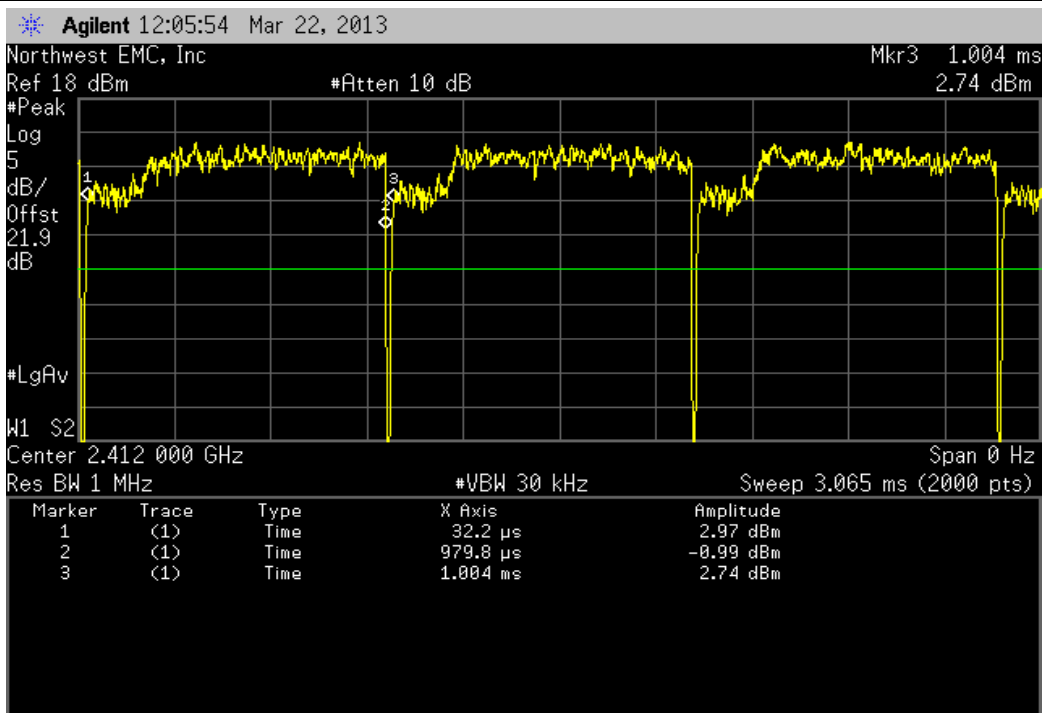
| Antenna 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz |             |          |                  |           |       |        |
|--------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                        | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                        | 8.603 mS    | 8.622 mS | 1                | 99.8      | N/A   | N/A    |



| Antenna 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|--------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                        | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                        | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



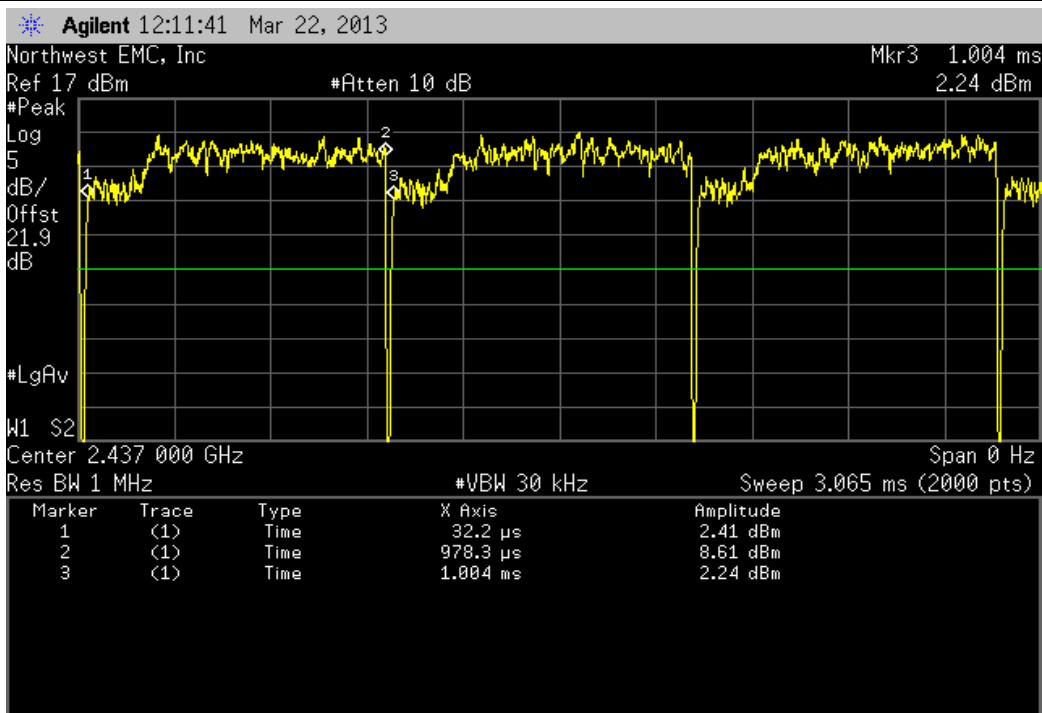
| Antenna 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |             |          |                  |           |       |        |
|-------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                       | 947.6 uS    | 972.1 uS | 1                | 97.5      | N/A   | N/A    |



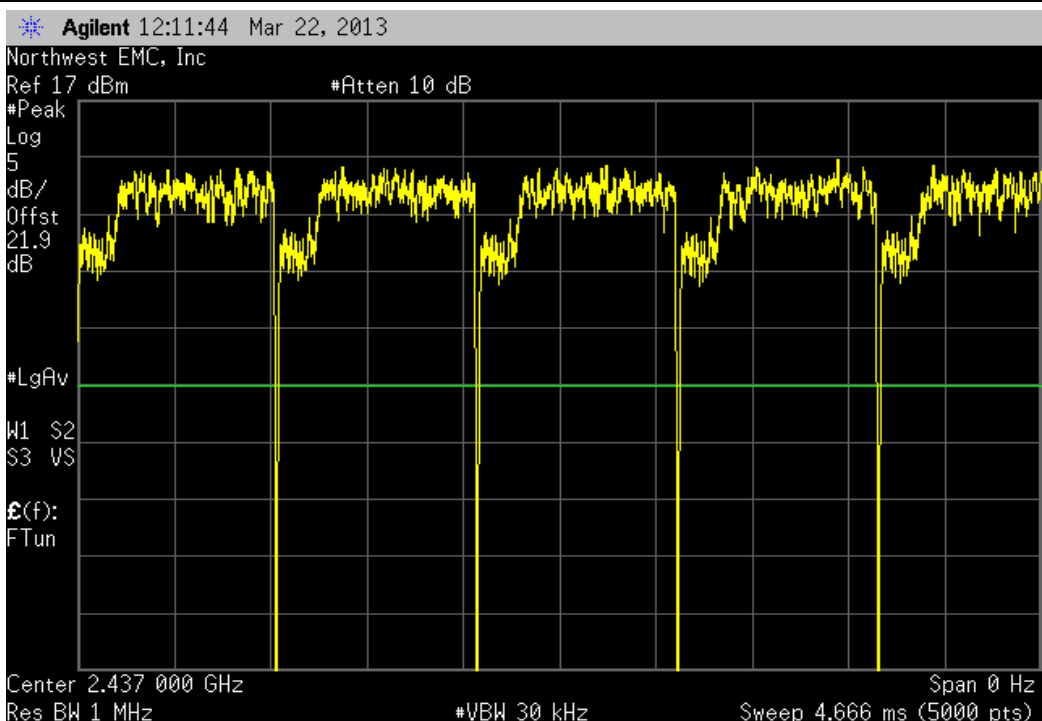
| Antenna 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                       | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



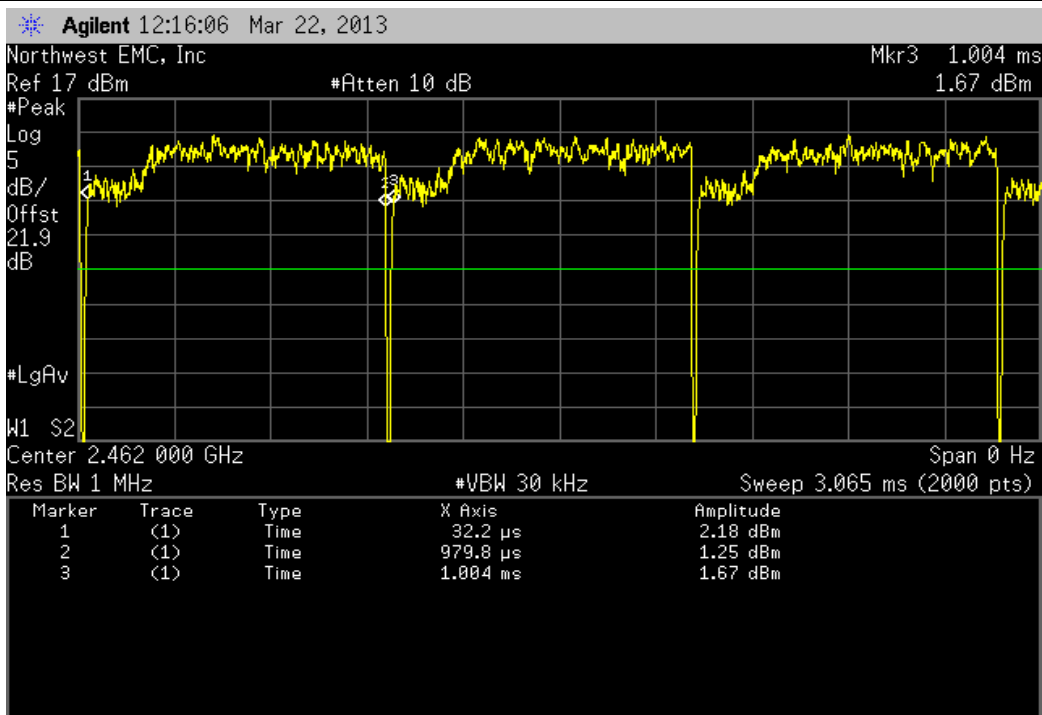
| Antenna 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz |             |          |                  |           |       |        |
|-------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                       | 946.1 uS    | 972.1 uS | 1                | 97.3      | N/A   | N/A    |



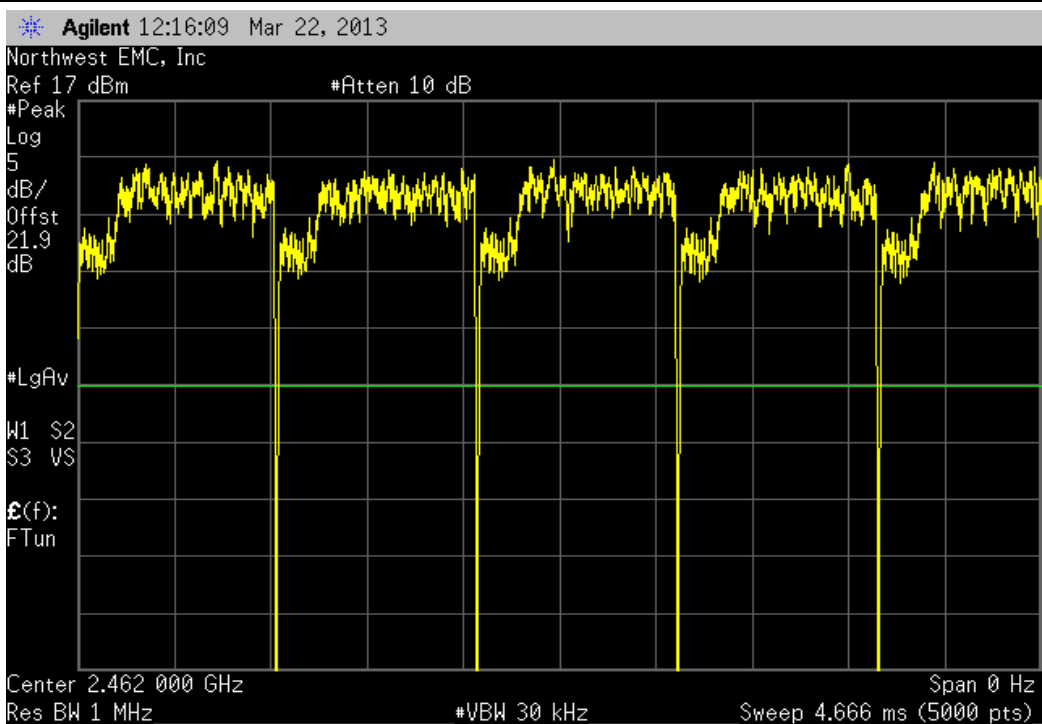
| Antenna 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                       | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



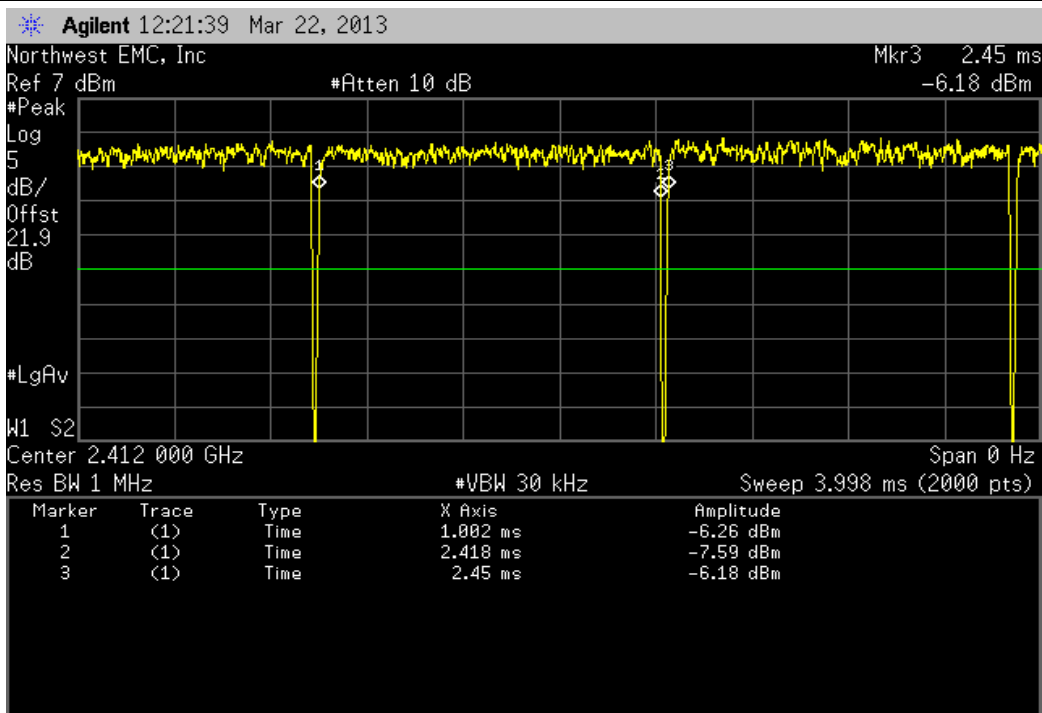
| Antenna 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz |             |          |                  |           |       |        |
|---------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                         | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                         | 947.6 uS    | 972.1 uS | 1                | 97.5      | N/A   | N/A    |



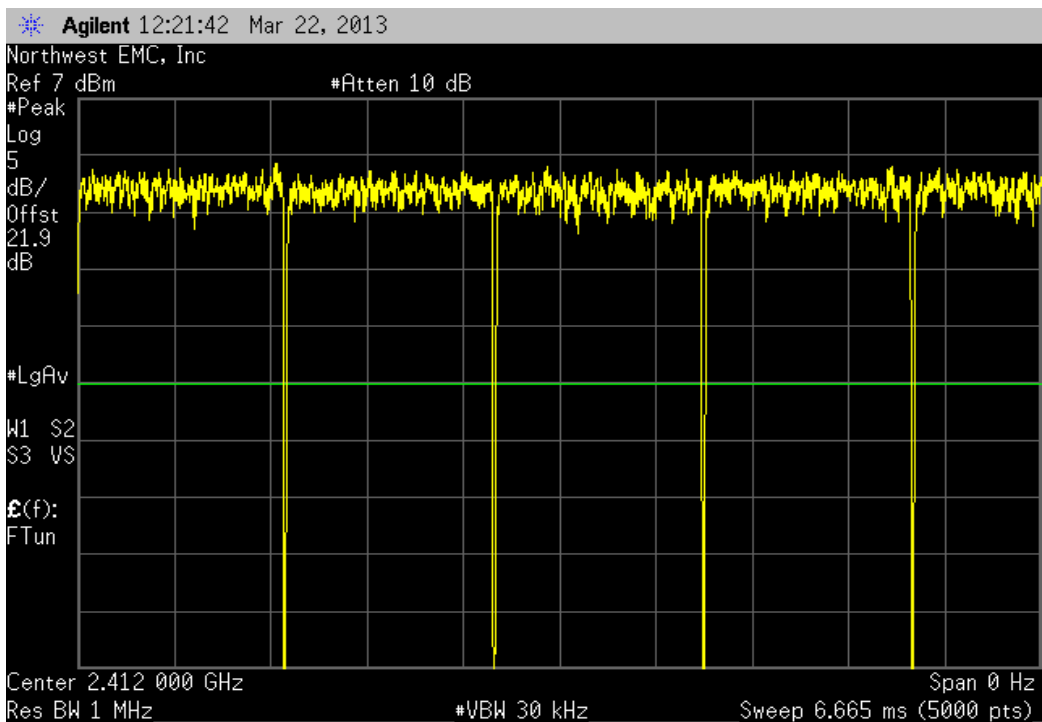
| Antenna 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|---------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                         | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                         | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



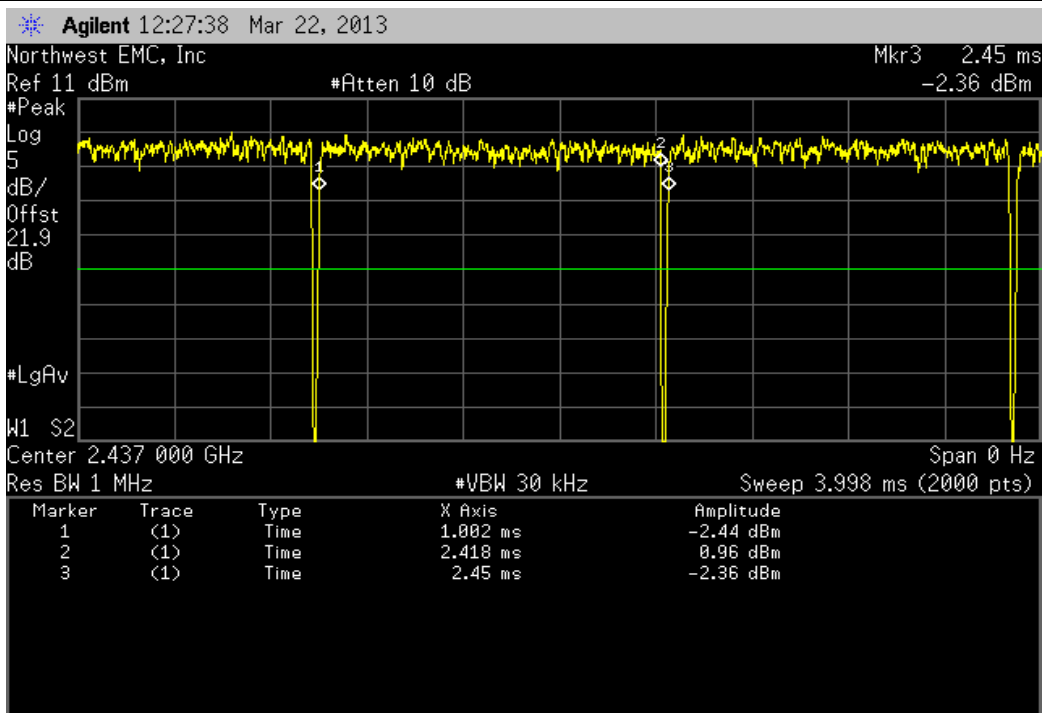
| Antenna 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz |             |          |                  |           |       |        |
|------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                      | 1.416 mS    | 1.448 mS | 1                | 97.8      | N/A   | N/A    |



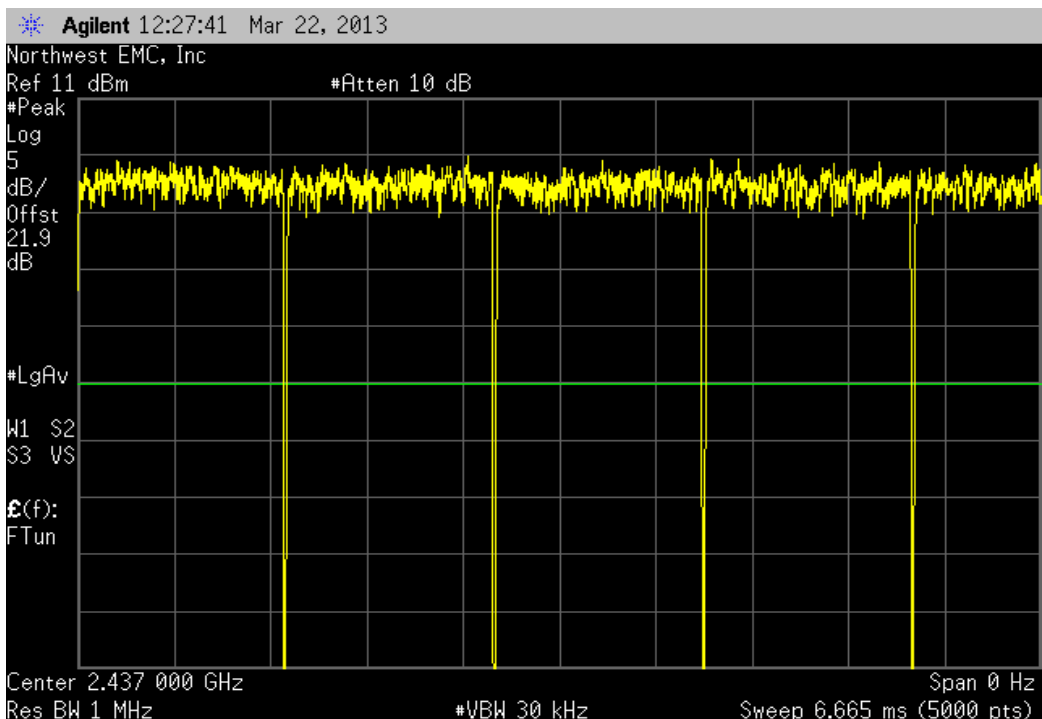
| Antenna 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                      | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



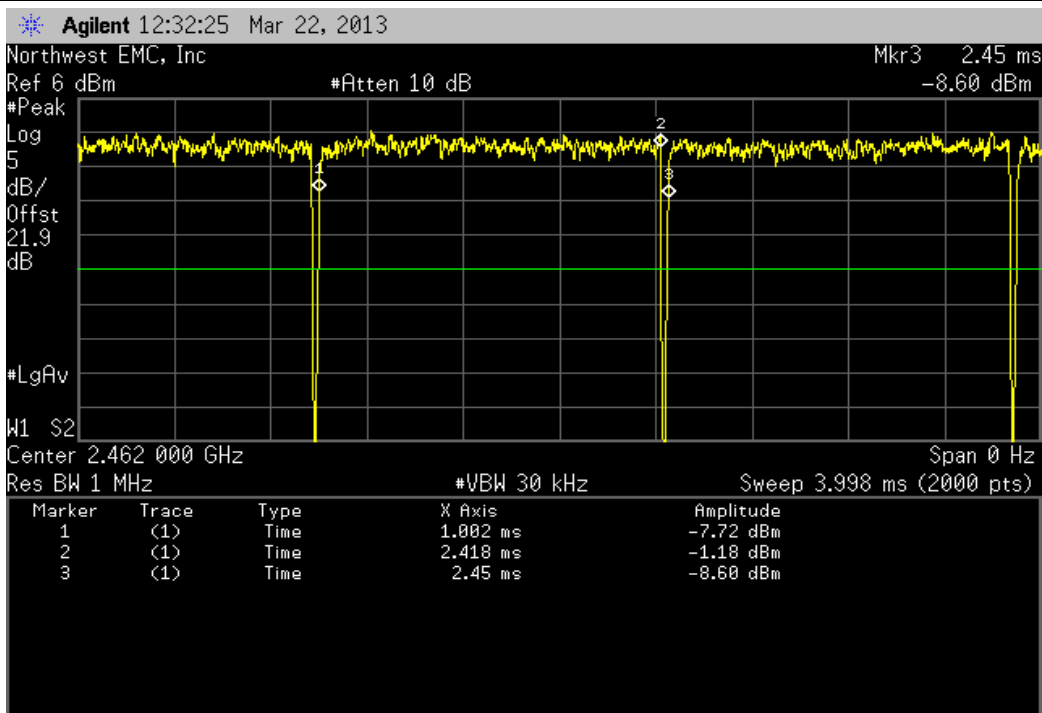
| Antenna 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz |             |          |                  |           |       |        |
|------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                      | 1.416 mS    | 1.448 mS | 1                | 97.8      | N/A   | N/A    |



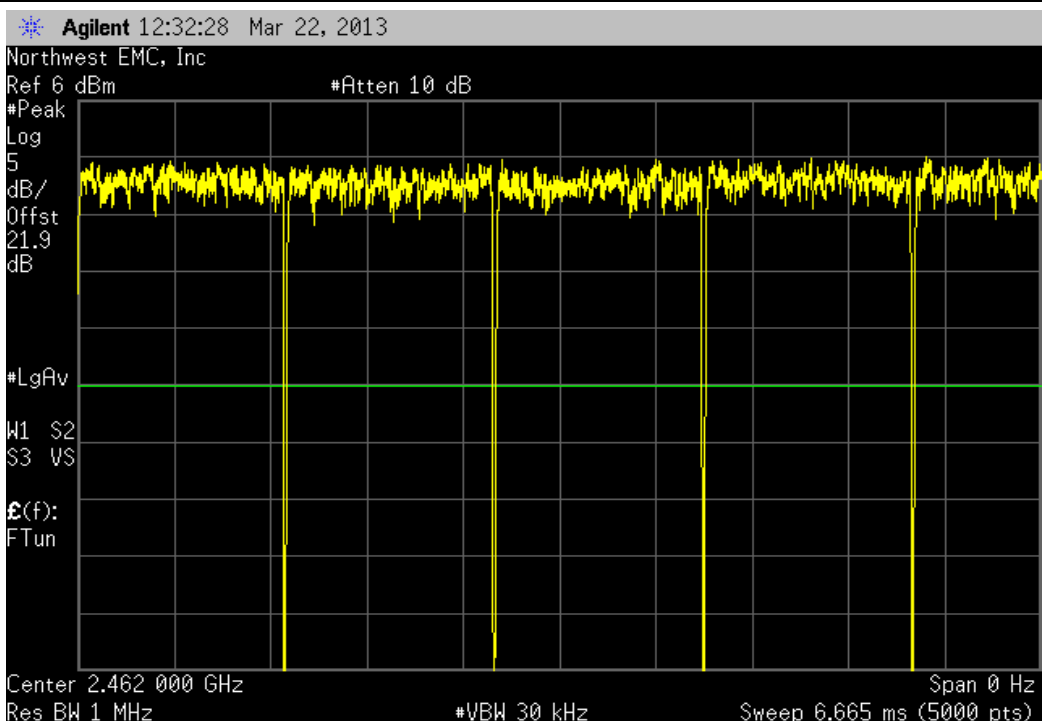
| Antenna 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                      | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



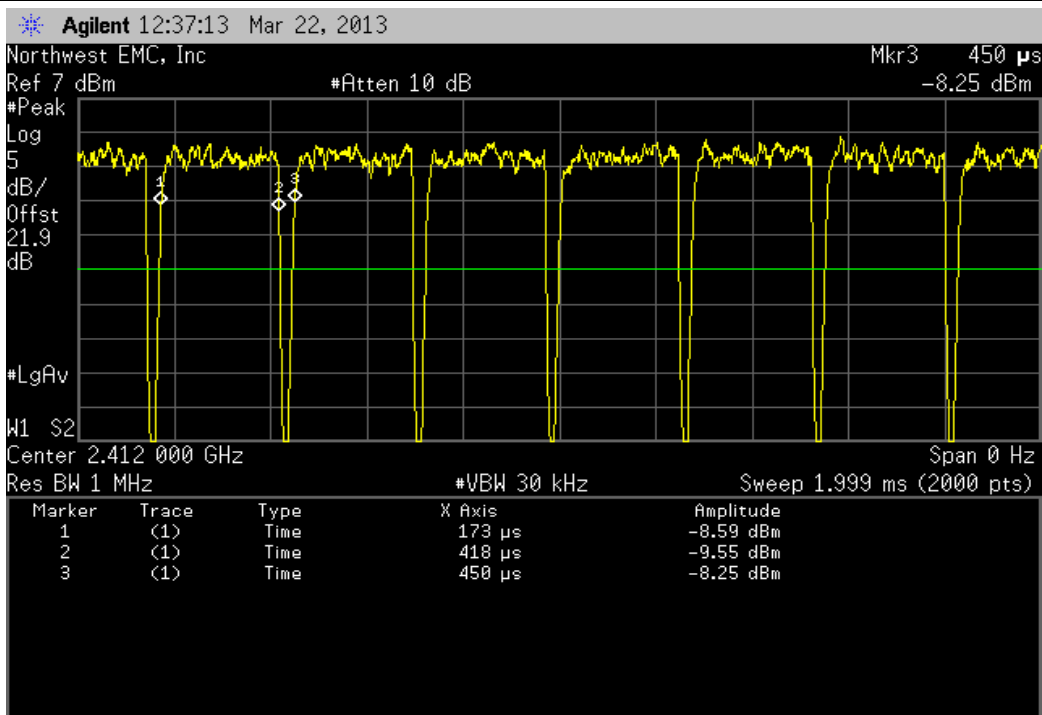
| Antenna 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |             |          |                  |           |       |        |
|--------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                        | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                        | 1.416 mS    | 1.448 mS | 1                | 97.8      | N/A   | N/A    |



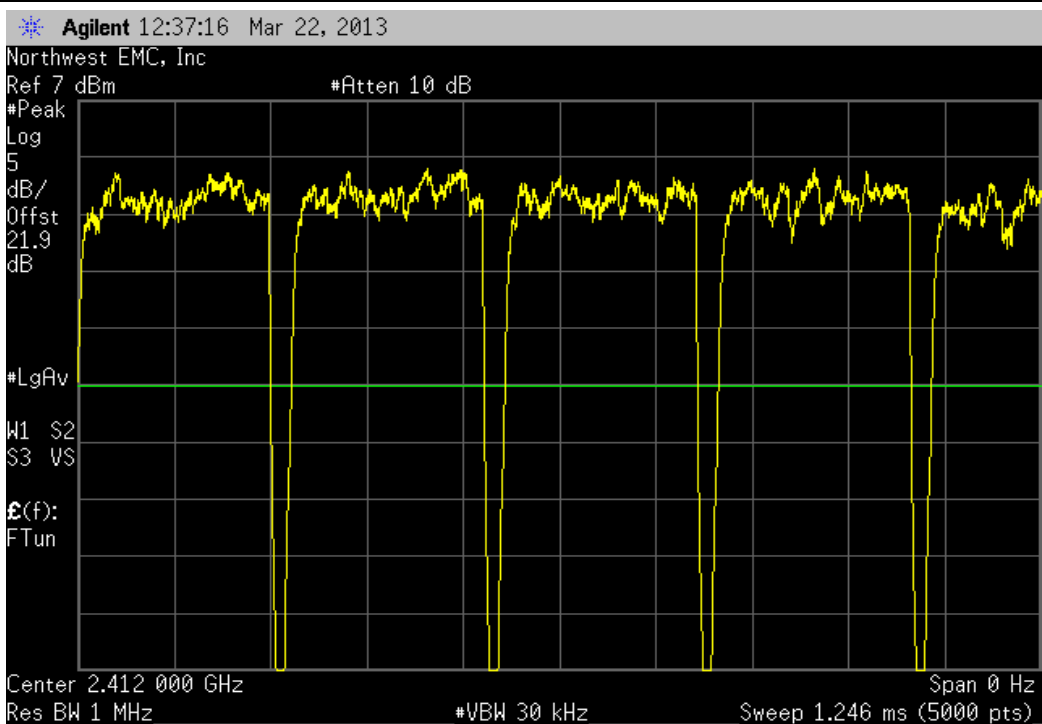
| Antenna 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|--------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                        | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                        | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



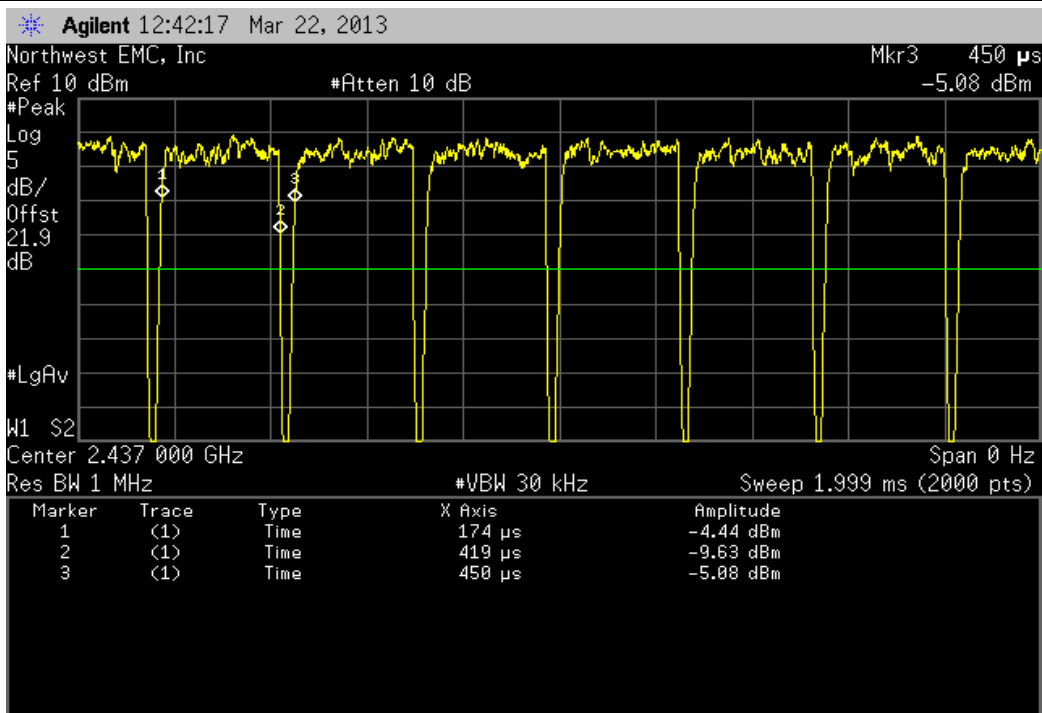
| Antenna 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                       | 245 uS      | 277 uS | 1                | 88.4      | N/A   | N/A    |



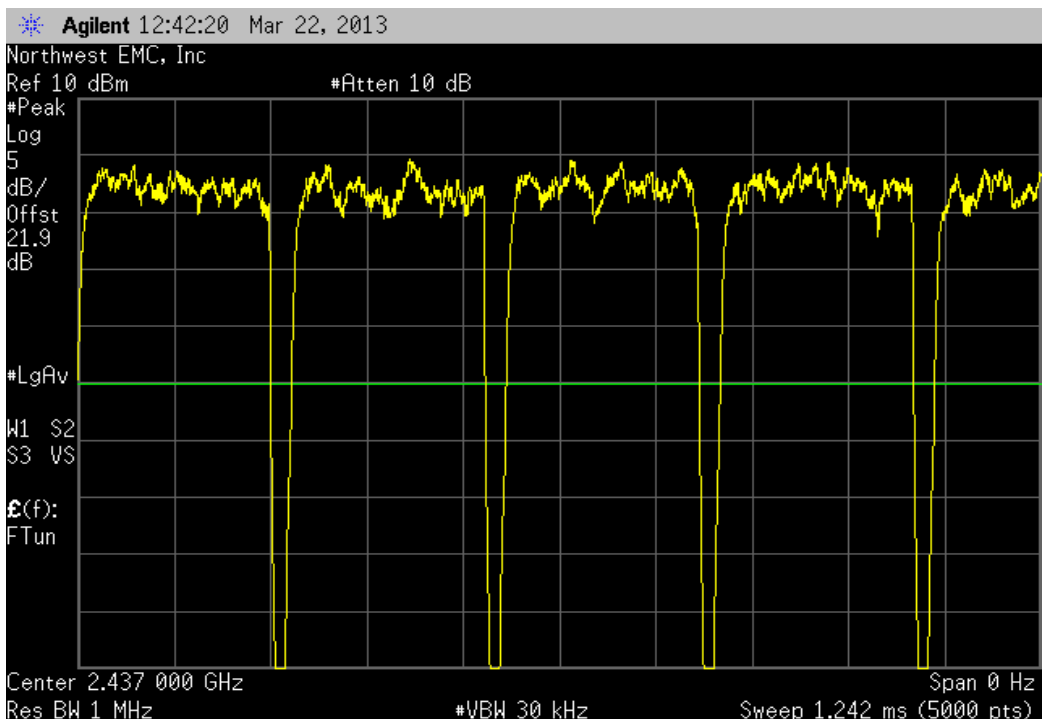
| Antenna 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                       | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



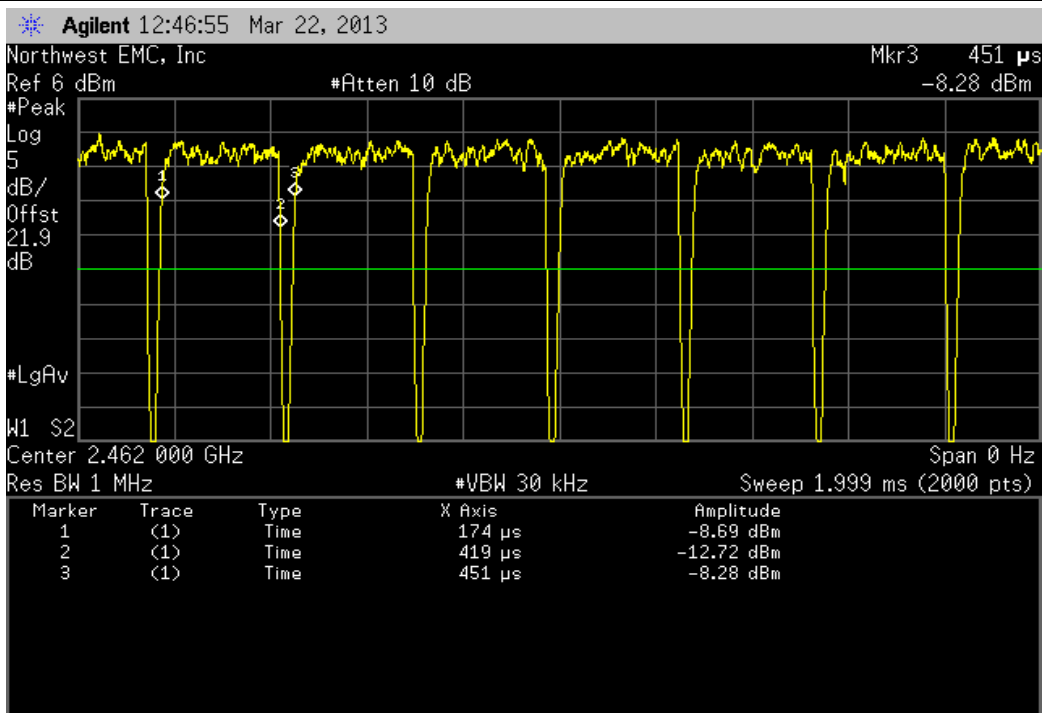
| Antenna 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                       | 245 uS      | 276 uS | 1                | 88.8      | N/A   | N/A    |



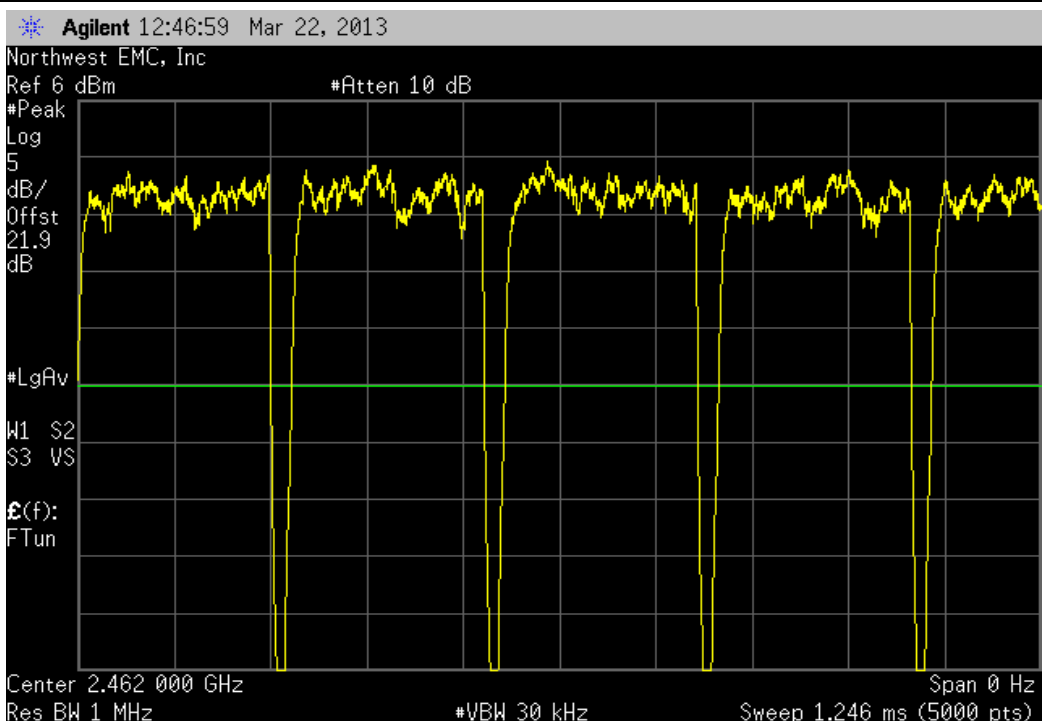
| Antenna 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                       | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



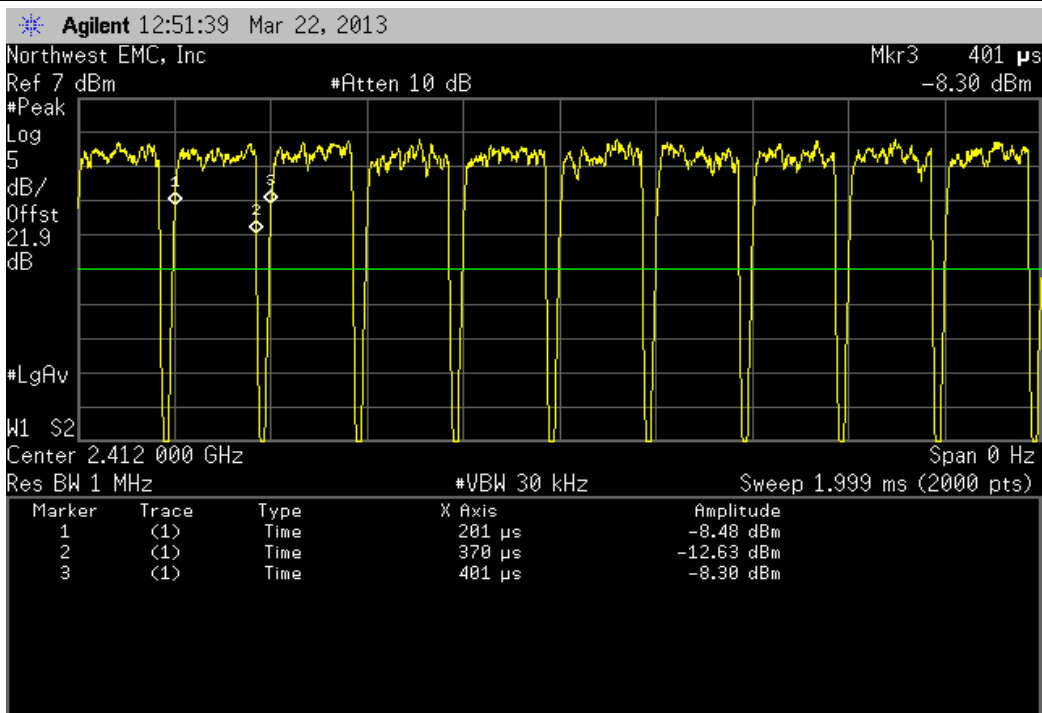
| Antenna 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|---------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                         | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                         | 245 uS      | 277 uS | 1                | 88.4      | N/A   | N/A    |



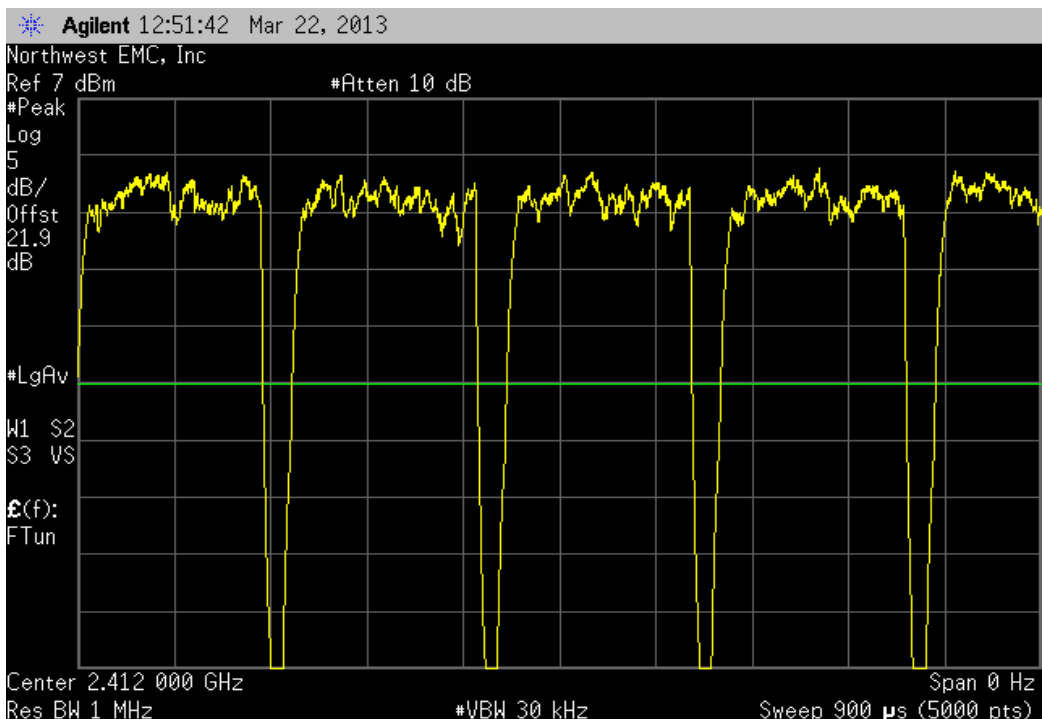
| Antenna 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|---------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                         | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                         | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



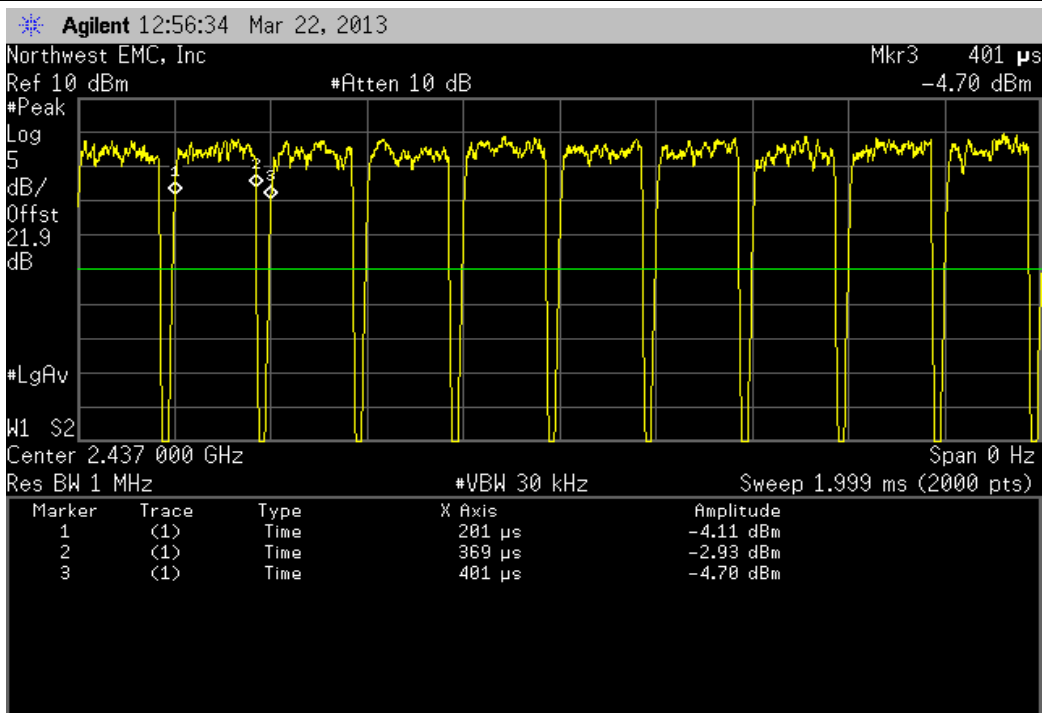
| Antenna 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz |             |             |                  |           |       |        |
|-------------------------------------------------------|-------------|-------------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period      | Number of Pulses | Value (%) | Limit | Result |
|                                                       | 169 $\mu$ S | 200 $\mu$ S | 1                | 84.5      | N/A   | N/A    |



| Antenna 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                       | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



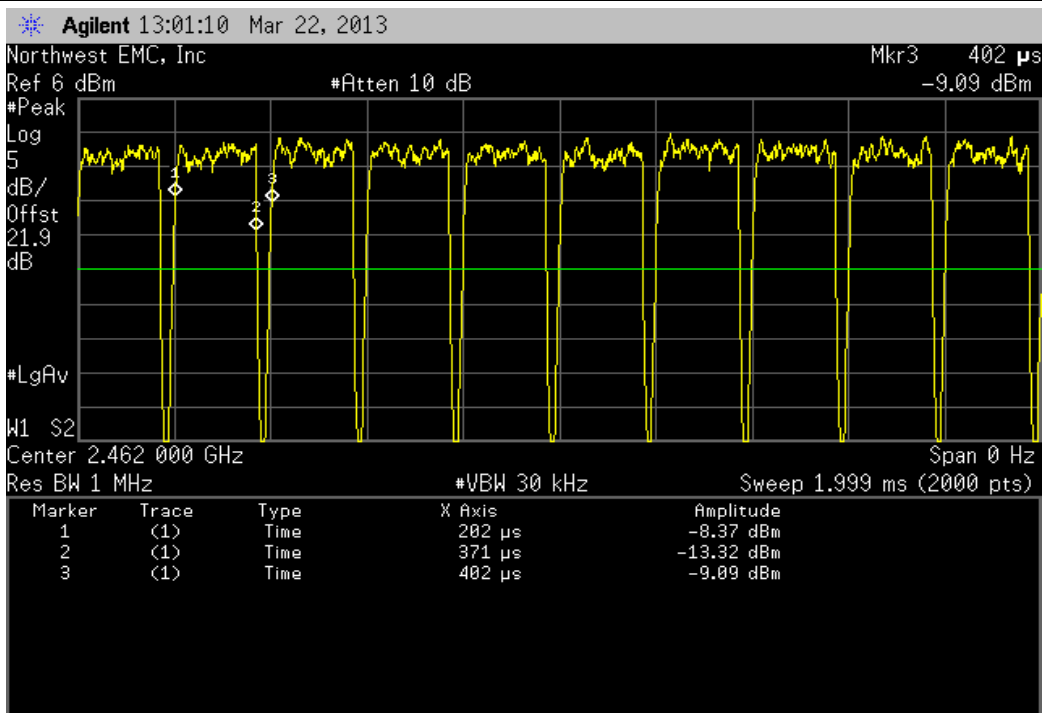
| Antenna 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                       | 168 uS      | 200 uS | 1                | 84        | N/A   | N/A    |



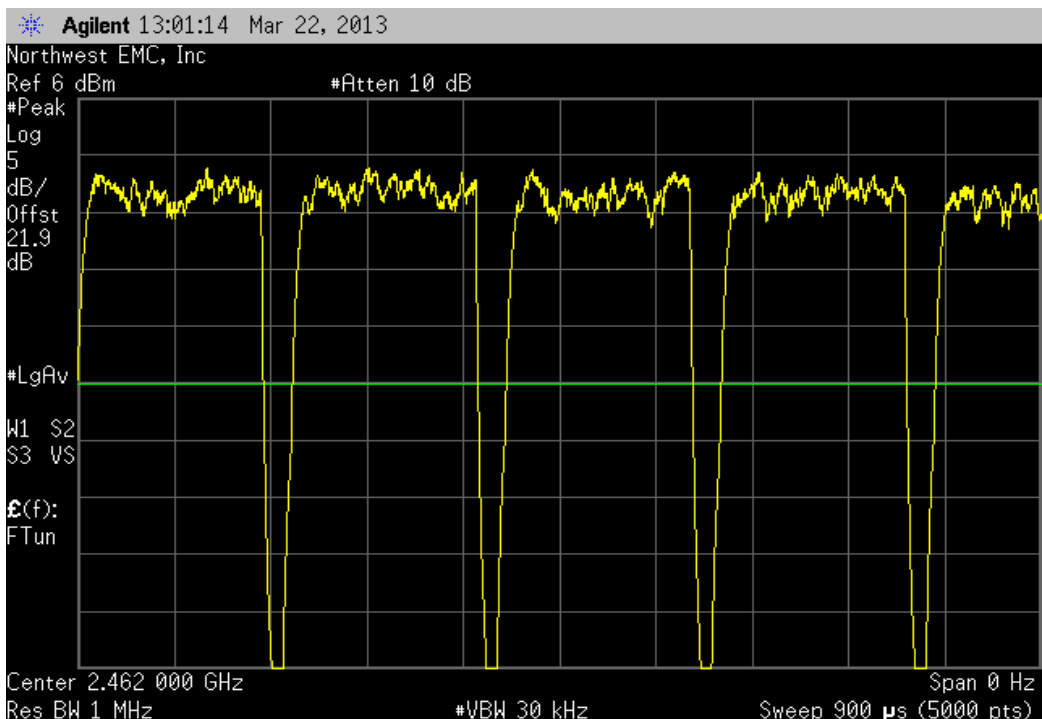
| Antenna 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                       | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



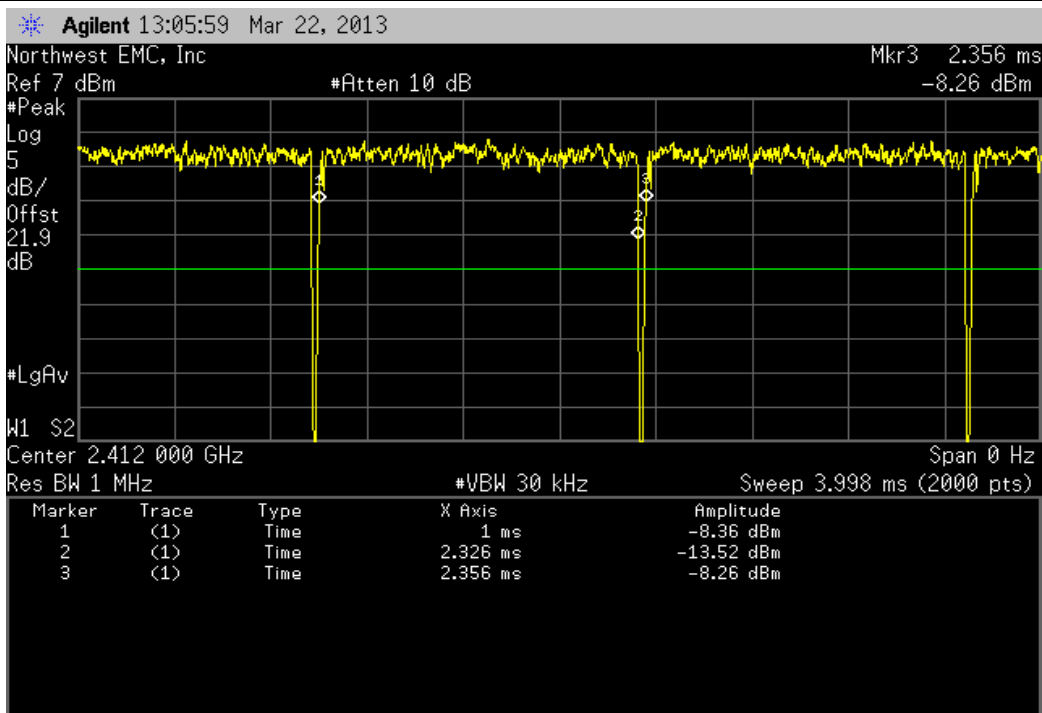
| Antenna 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz |             |             |                  |           |       |        |
|---------------------------------------------------------|-------------|-------------|------------------|-----------|-------|--------|
|                                                         | Pulse Width | Period      | Number of Pulses | Value (%) | Limit | Result |
|                                                         | 169 $\mu$ S | 200 $\mu$ S | 1                | 84.5      | N/A   | N/A    |



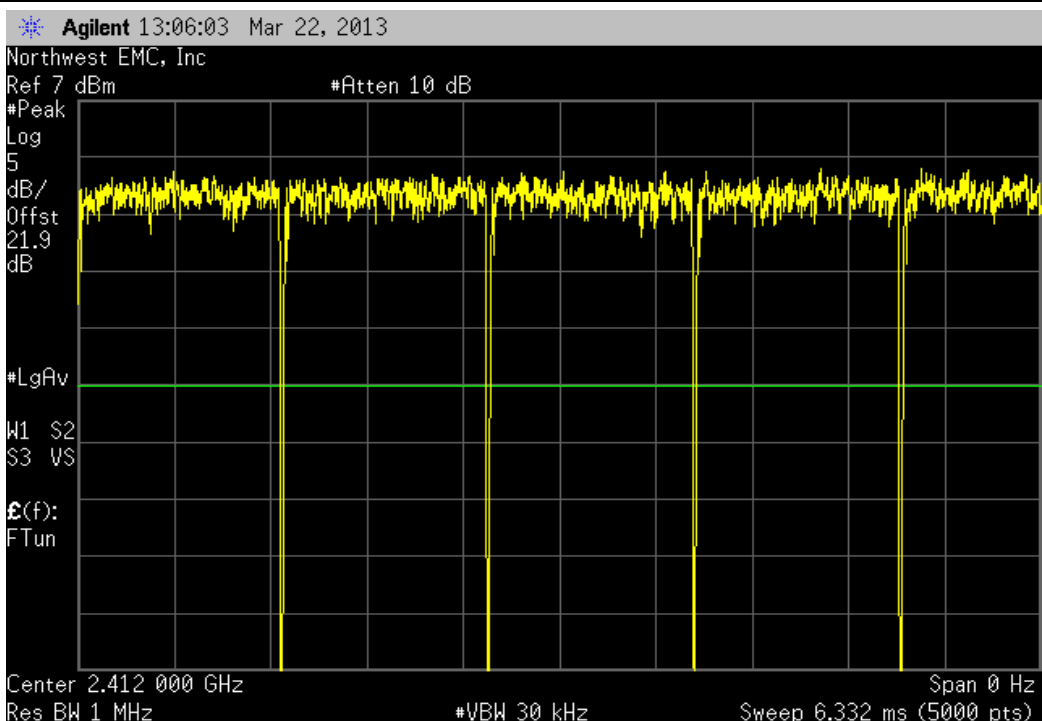
| Antenna 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|---------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                         | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                         | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



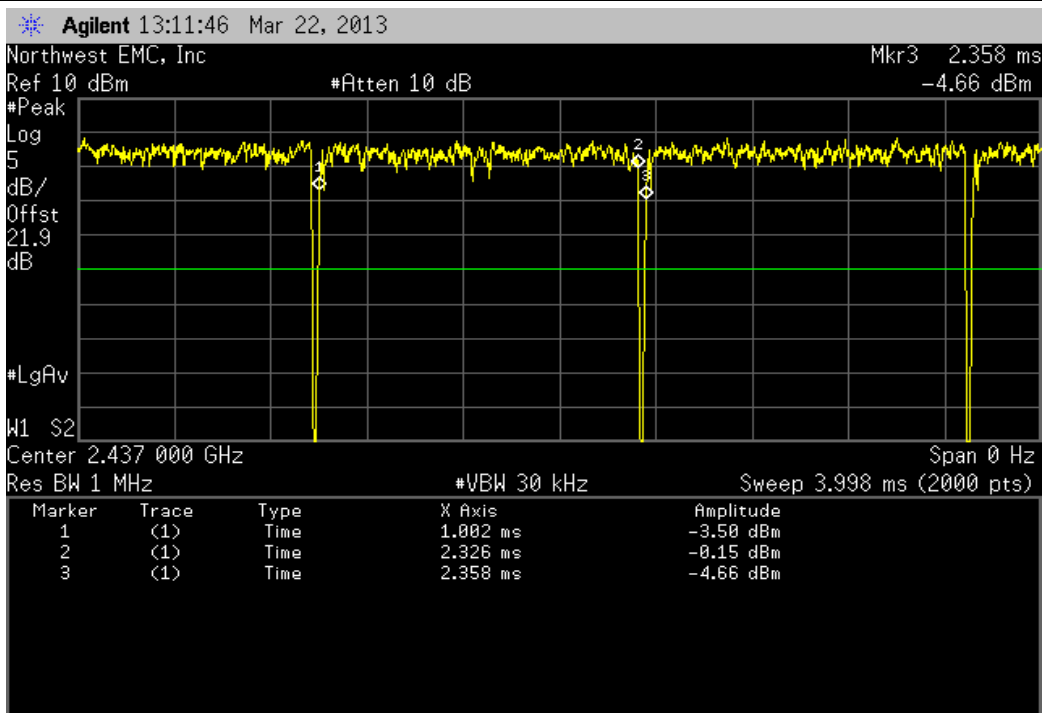
| Antenna 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz |          |                  |           |       |        |  |
|----------------------------------------------------|----------|------------------|-----------|-------|--------|--|
| Pulse Width                                        | Period   | Number of Pulses | Value (%) | Limit | Result |  |
| 1.326 mS                                           | 1.356 mS | 1                | 97.8      | N/A   | N/A    |  |



| Antenna 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz |        |                  |           |       |        |  |
|----------------------------------------------------|--------|------------------|-----------|-------|--------|--|
| Pulse Width                                        | Period | Number of Pulses | Value (%) | Limit | Result |  |
| N/A                                                | N/A    | 5                | N/A       | N/A   | N/A    |  |



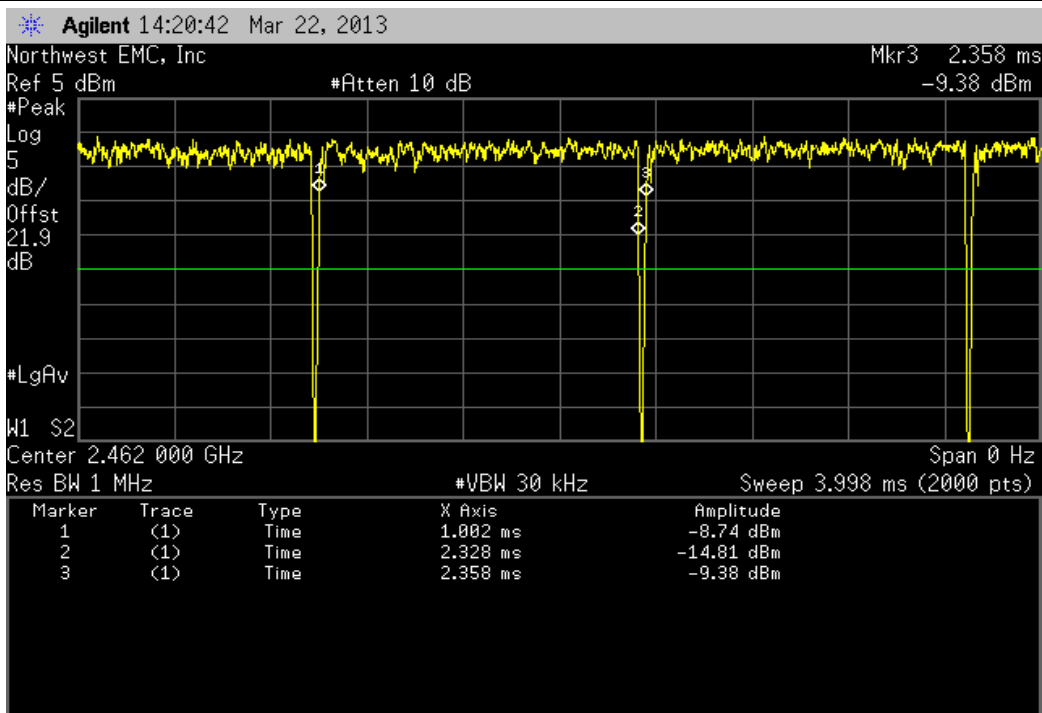
| Antenna 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz |          |                  |           |       |        |  |
|----------------------------------------------------|----------|------------------|-----------|-------|--------|--|
| Pulse Width                                        | Period   | Number of Pulses | Value (%) | Limit | Result |  |
| 1.324 mS                                           | 1.356 mS | 1                | 97.6      | N/A   | N/A    |  |



| Antenna 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz |        |                  |           |       |        |  |
|----------------------------------------------------|--------|------------------|-----------|-------|--------|--|
| Pulse Width                                        | Period | Number of Pulses | Value (%) | Limit | Result |  |
| N/A                                                | N/A    | 5                | N/A       | N/A   | N/A    |  |



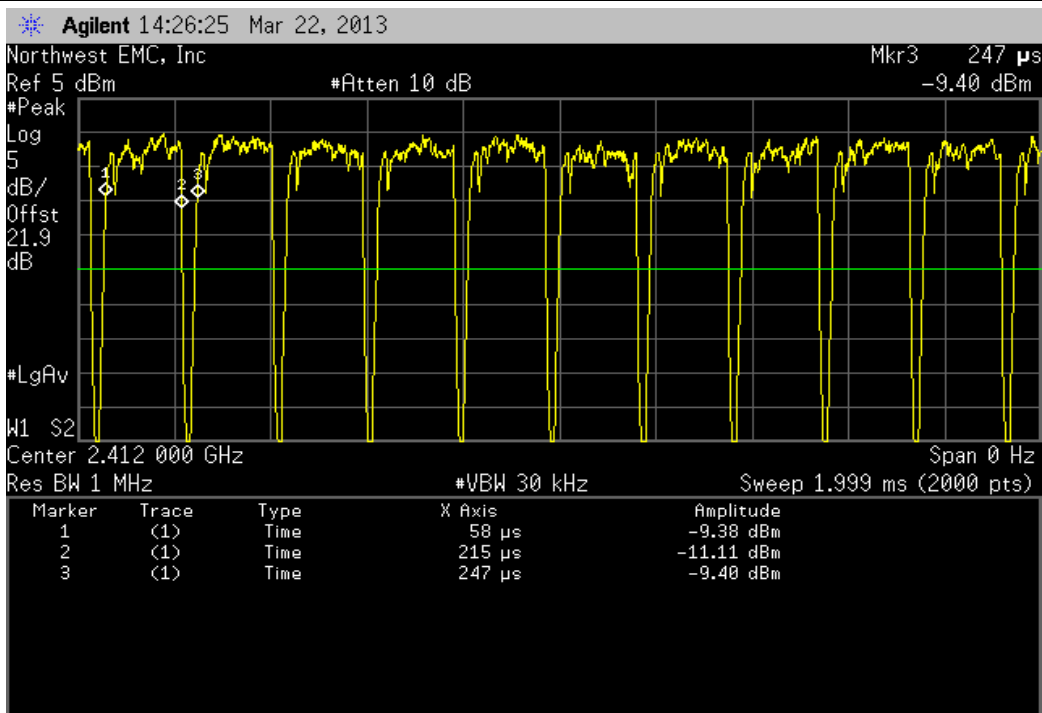
| Antenna 1, 802.11(n) MCS0, High Channel 11, 2462 MHz |          |                  |           |       |        |  |
|------------------------------------------------------|----------|------------------|-----------|-------|--------|--|
| Pulse Width                                          | Period   | Number of Pulses | Value (%) | Limit | Result |  |
| 1.326 mS                                             | 1.356 mS | 1                | 97.8      | N/A   | N/A    |  |



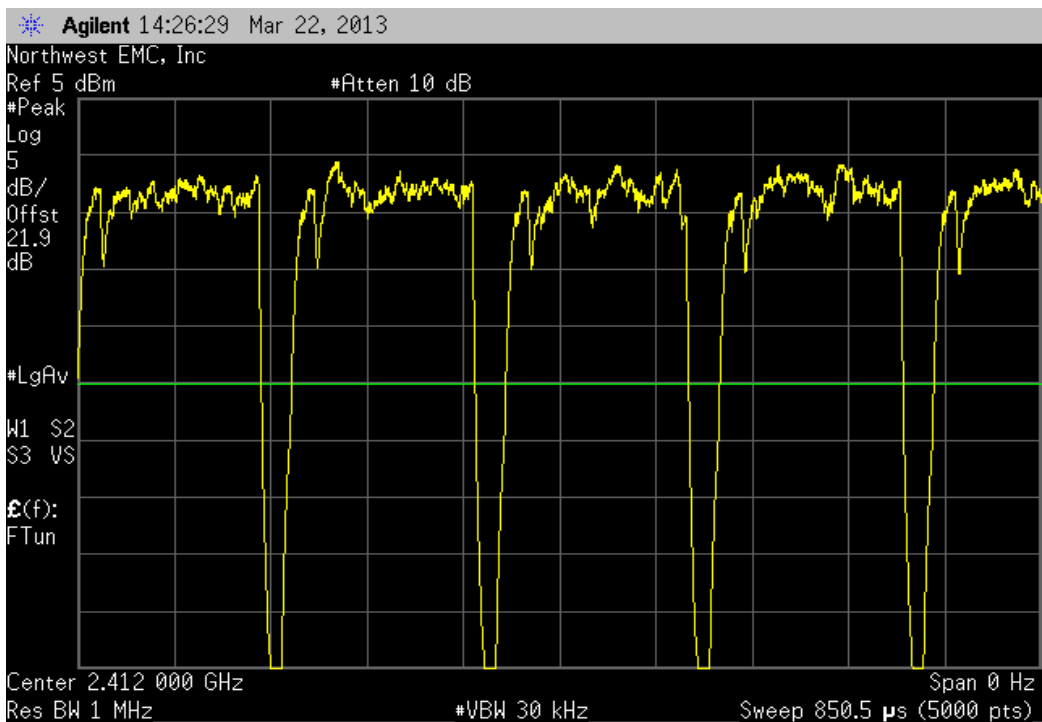
| Antenna 1, 802.11(n) MCS0, High Channel 11, 2462 MHz |        |                  |           |       |        |  |
|------------------------------------------------------|--------|------------------|-----------|-------|--------|--|
| Pulse Width                                          | Period | Number of Pulses | Value (%) | Limit | Result |  |
| N/A                                                  | N/A    | 5                | N/A       | N/A   | N/A    |  |



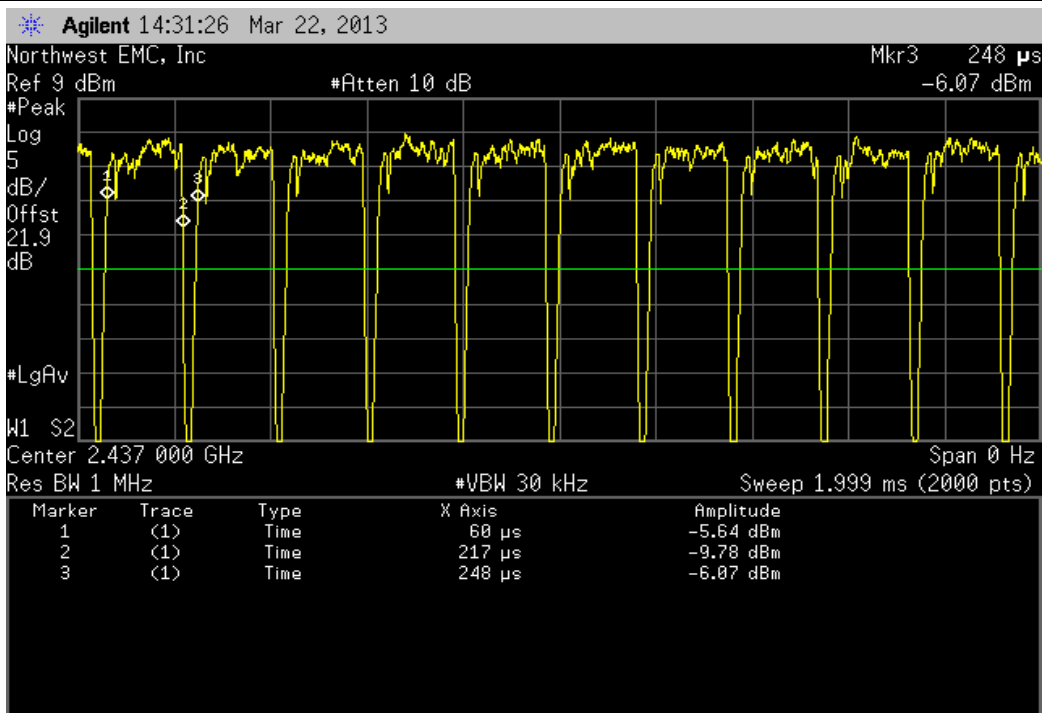
| Antenna 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz |             |             |                  |           |       |        |
|----------------------------------------------------|-------------|-------------|------------------|-----------|-------|--------|
|                                                    | Pulse Width | Period      | Number of Pulses | Value (%) | Limit | Result |
|                                                    | 157 $\mu$ S | 189 $\mu$ S | 1                | 83.1      | N/A   | N/A    |



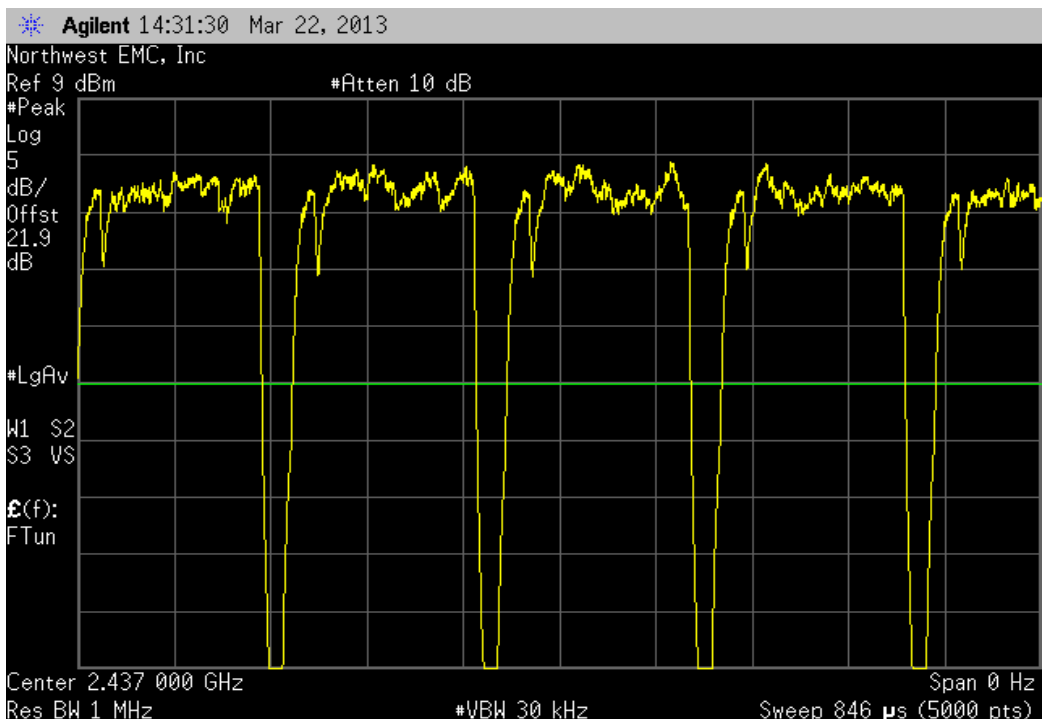
| Antenna 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|----------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                    | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                    | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



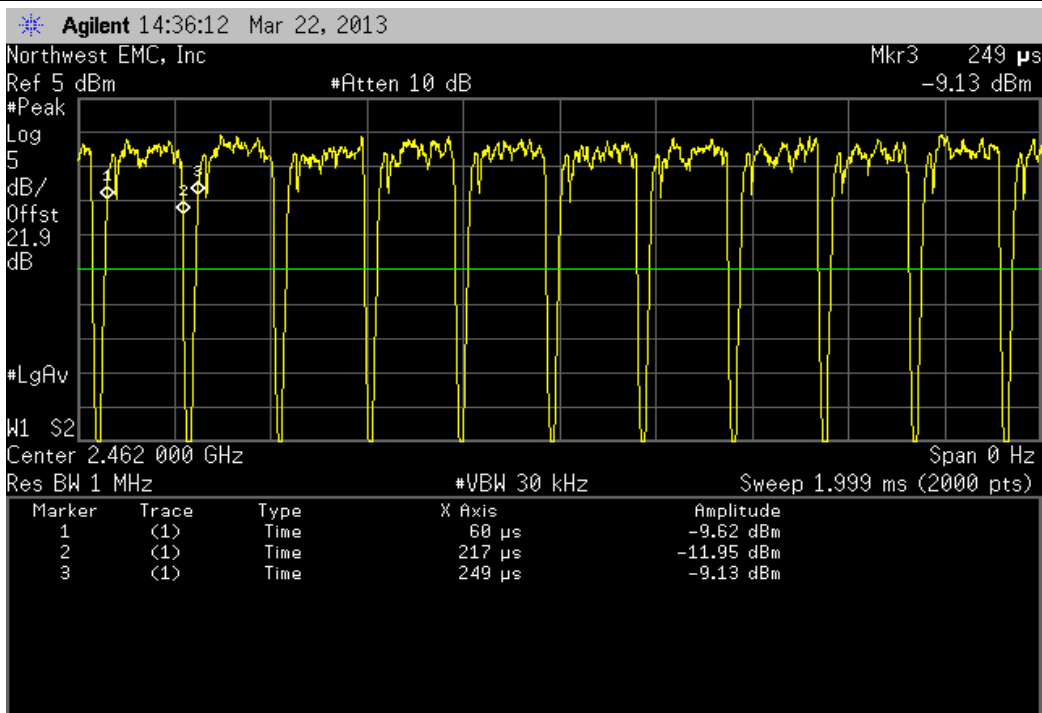
| Antenna 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|----------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                    | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                    | 157 uS      | 188 uS | 1                | 83.5      | N/A   | N/A    |



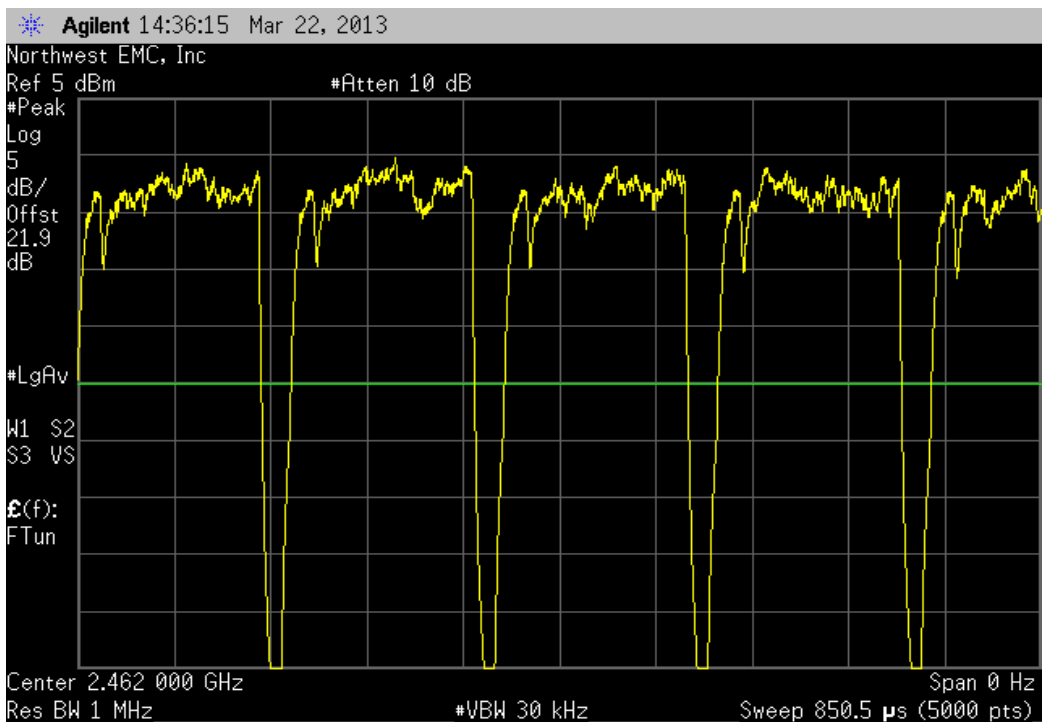
| Antenna 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|----------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                    | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                    | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



| Antenna 1, 802.11(n) MCS7, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                      | 157 uS      | 189 uS | 1                | 83.1      | N/A   | N/A    |



| Antenna 1, 802.11(n) MCS7, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                      | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                      | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



## Occupied Bandwidth

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

### TEST EQUIPMENT

| Description              | Manufacturer       | Model    | ID  | Last Cal. | Interval |
|--------------------------|--------------------|----------|-----|-----------|----------|
| 40 GHz DC block          | Fairview Microwave | SD3379   | AMI | 10/5/2012 | 12       |
| Attenuator - 20db, 'SMA' | SM Electronics     | SA26B-20 | RFW | 4/19/2012 | 12       |
| Signal Generator MXG     | Agilent            | N5183A   | TIK | 6/7/2012  | 36       |
| Spectrum Analyzer        | Agilent            | E4446A   | AAT | 6/28/2012 | 24       |

### TEST DESCRIPTION

The 6dB occupied bandwidth was measured. The 26 dB (99.9%) emission bandwidth (EBW) was also measured at the same time.

The EUT was set to low, medium and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at the data rate(s) listed in the datasheet.



# Occupied Bandwidth

XMit 2013.02.28  
PsaTx 2013.03.22

|                                                       |                          |
|-------------------------------------------------------|--------------------------|
| EUT: RTH9580WF01                                      | Work Order: HNYW0043     |
| Serial Number: 5191101 0010638                        | Date: 03/22/13           |
| Customer: Honeywell, Automation and Control Solutions | Temperature: 23.9°C      |
| Attendees: None                                       | Humidity: 13%            |
| Project: None                                         | Barometric Pres.: 1018.5 |
| Tested by: Trevor Buls                                | Power: 110VAC/60Hz       |
|                                                       | Job Site: MN05           |

|                     |                  |
|---------------------|------------------|
| TEST SPECIFICATIONS | Test Method      |
| FCC 15.247:2013     | ANSI C63.10:2009 |

|          |
|----------|
| COMMENTS |
| None     |

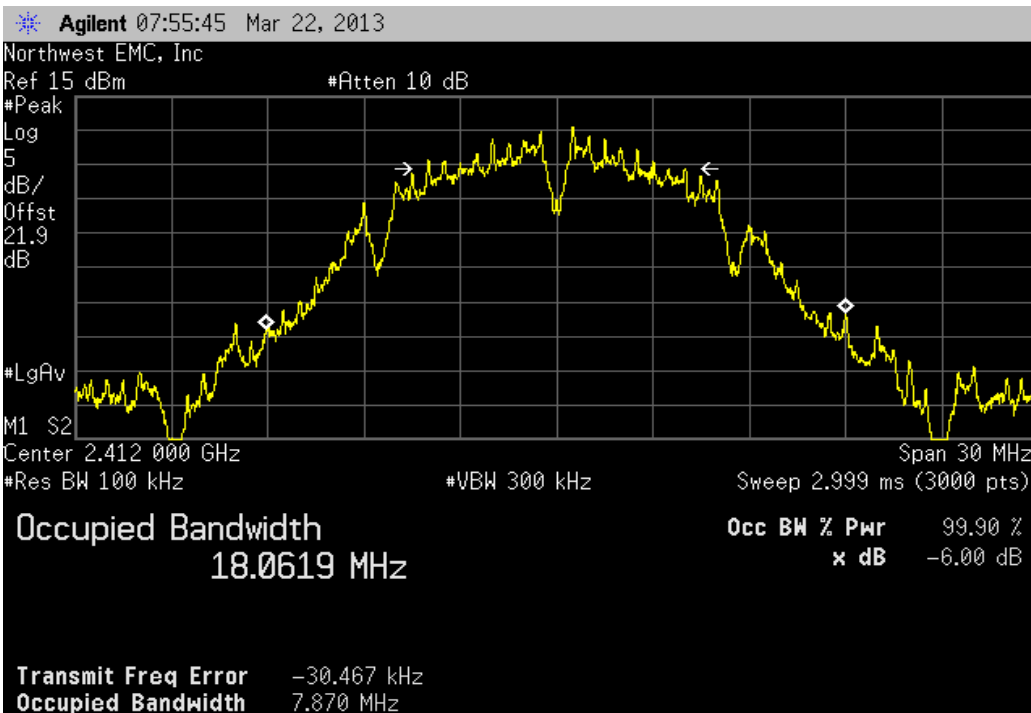
|                               |
|-------------------------------|
| DEVIATIONS FROM TEST STANDARD |
| None                          |

|                 |   |                              |
|-----------------|---|------------------------------|
| Configuration # | 2 | Signature <i>Trevor Buls</i> |
|-----------------|---|------------------------------|

|                   |                           | Value      | Limit     | Result |
|-------------------|---------------------------|------------|-----------|--------|
| Antenna 0         |                           |            |           |        |
| 802.11(b) 1 Mbps  |                           |            |           |        |
|                   | Low Channel 1, 2412 MHz   | 7.87 MHz   | > 500 kHz | Pass   |
|                   | Mid Channel 6, 2437 MHz   | 7.905 MHz  | > 500 kHz | Pass   |
|                   | High Channel 11, 2462 MHz | 7.879 MHz  | > 500 kHz | Pass   |
| 802.11(b) 11 Mbps |                           |            |           |        |
|                   | Low Channel 1, 2412 MHz   | 7.036 MHz  | > 500 kHz | Pass   |
|                   | Mid Channel 6, 2437 MHz   | 8.309 MHz  | > 500 kHz | Pass   |
|                   | High Channel 11, 2462 MHz | 6.963 MHz  | > 500 kHz | Pass   |
| 802.11(g) 6 Mbps  |                           |            |           |        |
|                   | Low Channel 1, 2412 MHz   | 15.245 MHz | > 500 kHz | Pass   |
|                   | Mid Channel 6, 2437 MHz   | 16.271 MHz | > 500 kHz | Pass   |
|                   | High Channel 11, 2462 MHz | 16.087 MHz | > 500 kHz | Pass   |
| 802.11(g) 36 Mbps |                           |            |           |        |
|                   | Low Channel 1, 2412 MHz   | 16.352 MHz | > 500 kHz | Pass   |
|                   | Mid Channel 6, 2437 MHz   | 15.976 MHz | > 500 kHz | Pass   |
|                   | High Channel 11, 2462 MHz | 15.931 MHz | > 500 kHz | Pass   |
| 802.11(g) 54 Mbps |                           |            |           |        |
|                   | Low Channel 1, 2412 MHz   | 16.362 MHz | > 500 kHz | Pass   |
|                   | Mid Channel 6, 2437 MHz   | 16.219 MHz | > 500 kHz | Pass   |
|                   | High Channel 11, 2462 MHz | 16.148 MHz | > 500 kHz | Pass   |
| 802.11(n) MCS0    |                           |            |           |        |
|                   | Low Channel 1, 2412 MHz   | 13.299 MHz | > 500 kHz | Pass   |
|                   | Mid Channel 6, 2437 MHz   | 17.526 MHz | > 500 kHz | Pass   |
|                   | High Channel 11, 2462 MHz | 17.069 MHz | > 500 kHz | Pass   |
| 802.11(n) MCS7    |                           |            |           |        |
|                   | Low Channel 1, 2412 MHz   | 17.345 MHz | > 500 kHz | Pass   |
|                   | Mid Channel 6, 2437 MHz   | 17.195 MHz | > 500 kHz | Pass   |
|                   | High Channel 11, 2462 MHz | 17.301 MHz | > 500 kHz | Pass   |
| Antenna 1         |                           |            |           |        |
| 802.11(b) 1 Mbps  |                           |            |           |        |
|                   | Low Channel 1, 2412 MHz   | 9.013 MHz  | > 500 kHz | Pass   |
|                   | Mid Channel 6, 2437 MHz   | 8.599 MHz  | > 500 kHz | Pass   |
|                   | High Channel 11, 2462 MHz | 8.458 MHz  | > 500 kHz | Pass   |
| 802.11(b) 11 Mbps |                           |            |           |        |
|                   | Low Channel 1, 2412 MHz   | 8.426 MHz  | > 500 kHz | Pass   |
|                   | Mid Channel 6, 2437 MHz   | 7.178 MHz  | > 500 kHz | Pass   |
|                   | High Channel 11, 2462 MHz | 7.819 MHz  | > 500 kHz | Pass   |
| 802.11(g) 6 Mbps  |                           |            |           |        |
|                   | Low Channel 1, 2412 MHz   | 15.048 MHz | > 500 kHz | Pass   |
|                   | Mid Channel 6, 2437 MHz   | 14.001 MHz | > 500 kHz | Pass   |
|                   | High Channel 11, 2462 MHz | 15.17 MHz  | > 500 kHz | Pass   |
| 802.11(g) 36 Mbps |                           |            |           |        |
|                   | Low Channel 1, 2412 MHz   | 15.113 MHz | > 500 kHz | Pass   |
|                   | Mid Channel 6, 2437 MHz   | 15.057 MHz | > 500 kHz | Pass   |
|                   | High Channel 11, 2462 MHz | 15.093 MHz | > 500 kHz | Pass   |
| 802.11(g) 54 Mbps |                           |            |           |        |
|                   | Low Channel 1, 2412 MHz   | 15.673 MHz | > 500 kHz | Pass   |
|                   | Mid Channel 6, 2437 MHz   | 15.13 MHz  | > 500 kHz | Pass   |
|                   | High Channel 11, 2462 MHz | 15.131 MHz | > 500 kHz | Pass   |
| 802.11(n) MCS0    |                           |            |           |        |
|                   | Low Channel 1, 2412 MHz   | 15.153 MHz | > 500 kHz | Pass   |
|                   | Mid Channel 6, 2437 MHz   | 14.617 MHz | > 500 kHz | Pass   |
|                   | High Channel 11, 2462 MHz | 15.65 MHz  | > 500 kHz | Pass   |
| 802.11(n) MCS7    |                           |            |           |        |
|                   | Low Channel 1, 2412 MHz   | 16.668 MHz | > 500 kHz | Pass   |
|                   | Mid Channel 6, 2437 MHz   | 17.547 MHz | > 500 kHz | Pass   |
|                   | High Channel 11, 2462 MHz | 17.052 MHz | > 500 kHz | Pass   |

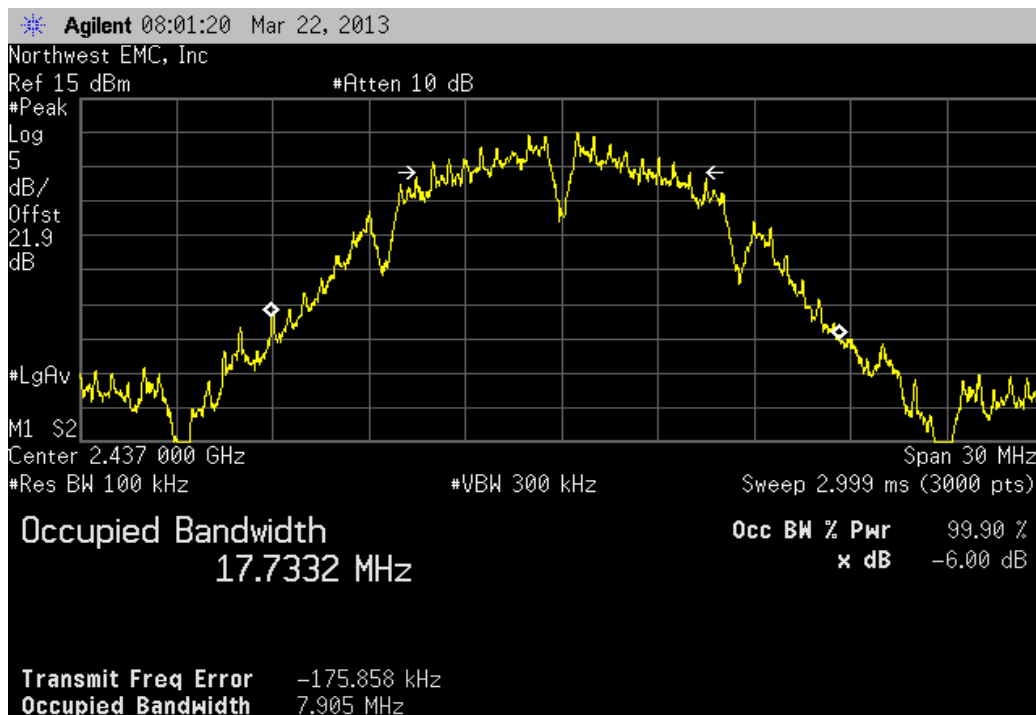
Antenna 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz

| Value    | Limit     | Result |
|----------|-----------|--------|
| 7.87 MHz | > 500 kHz | Pass   |



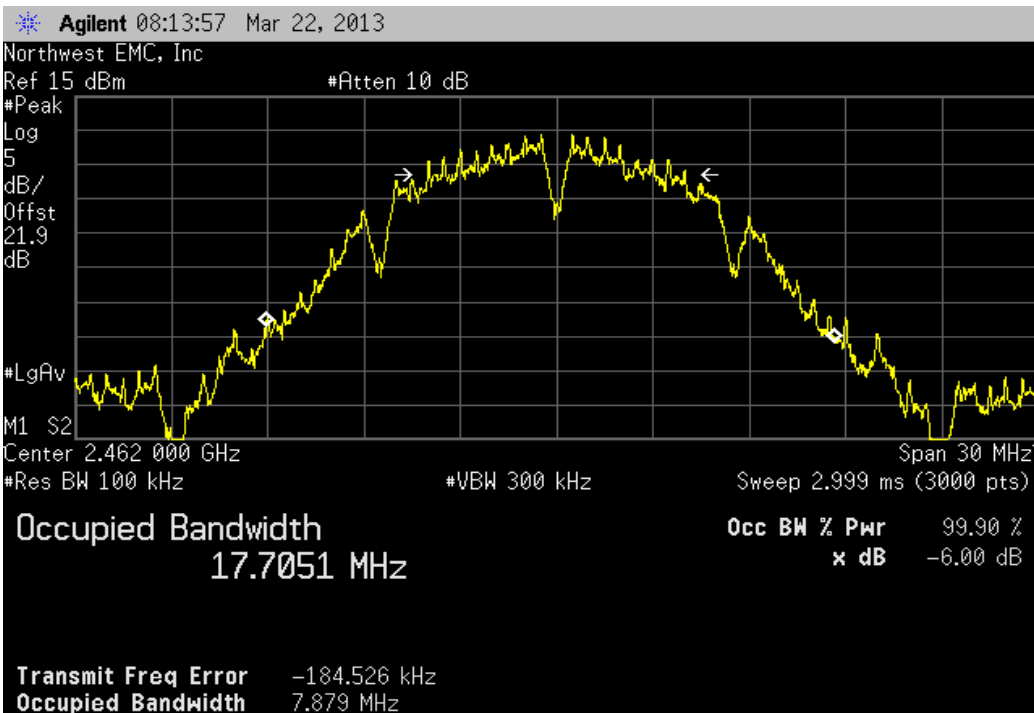
Antenna 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz

| Value     | Limit     | Result |
|-----------|-----------|--------|
| 7.905 MHz | > 500 kHz | Pass   |



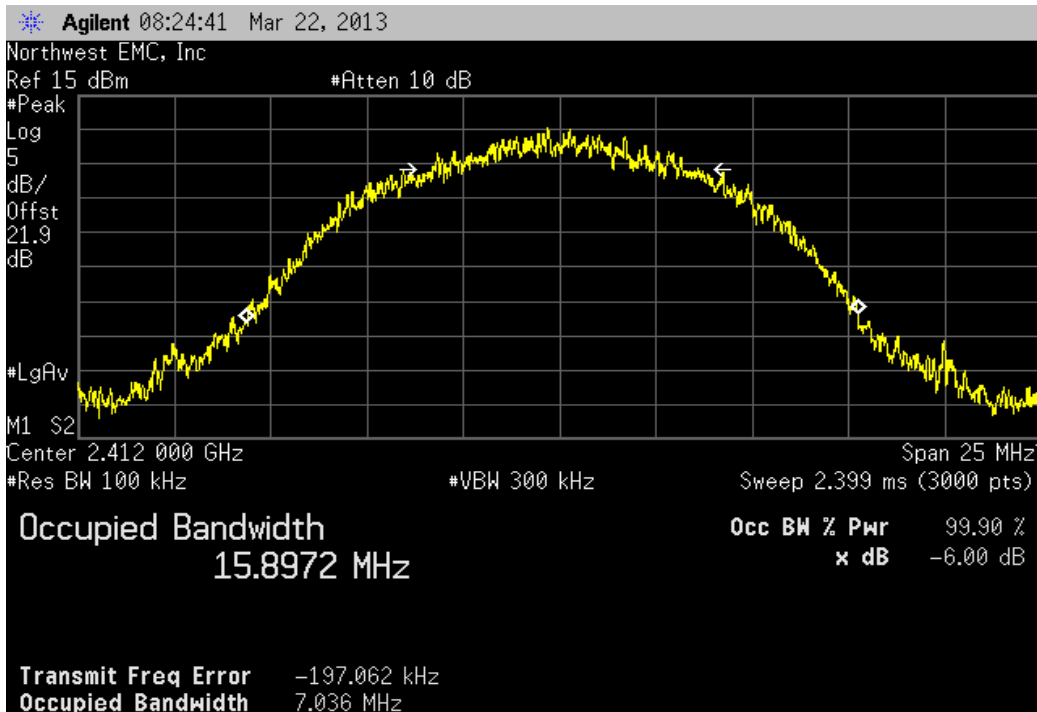
Antenna 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz

|  |  |  |  | Value     | Limit     | Result |
|--|--|--|--|-----------|-----------|--------|
|  |  |  |  | 7.879 MHz | > 500 kHz | Pass   |



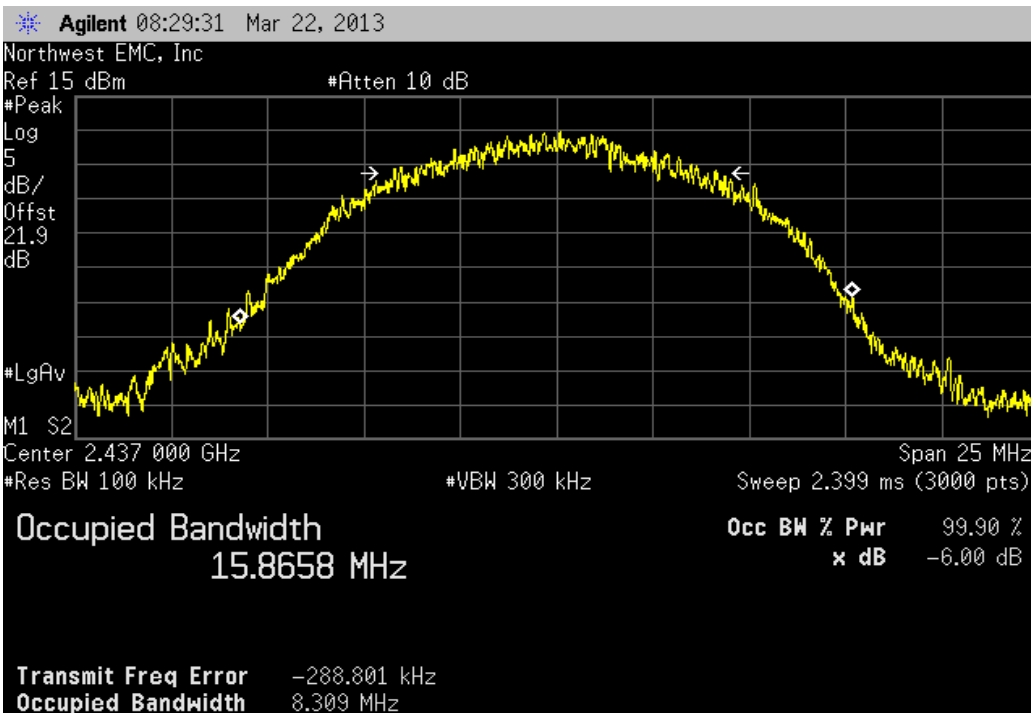
Antenna 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz

|  |  |  |  | Value     | Limit     | Result |
|--|--|--|--|-----------|-----------|--------|
|  |  |  |  | 7.036 MHz | > 500 kHz | Pass   |



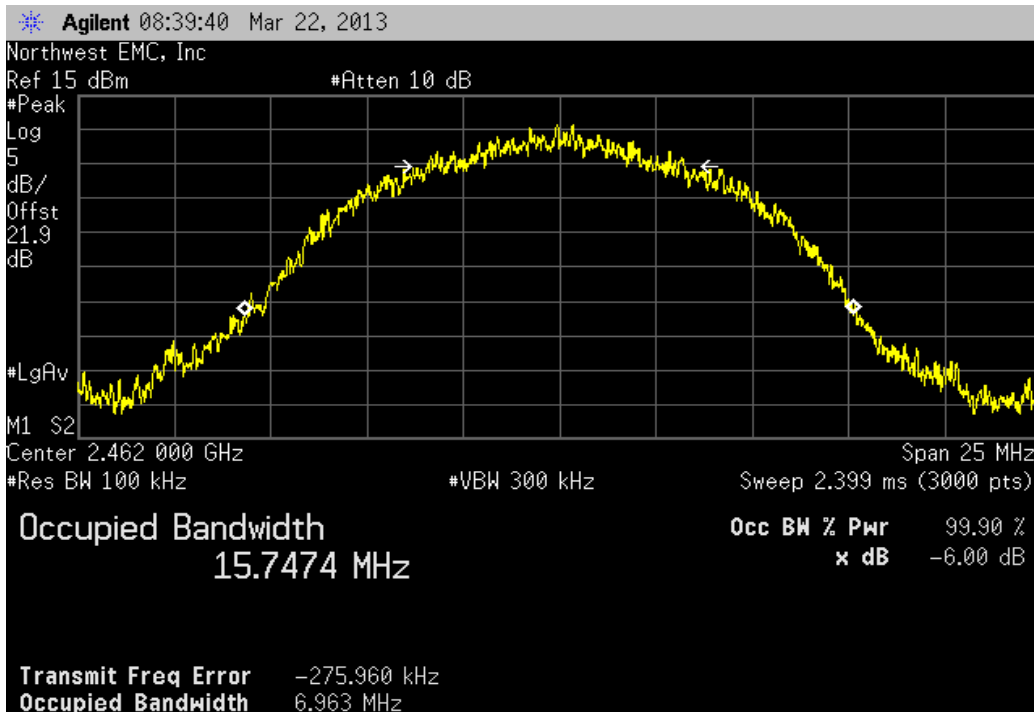
Antenna 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz

| Value     | Limit     | Result |
|-----------|-----------|--------|
| 8.309 MHz | > 500 kHz | Pass   |



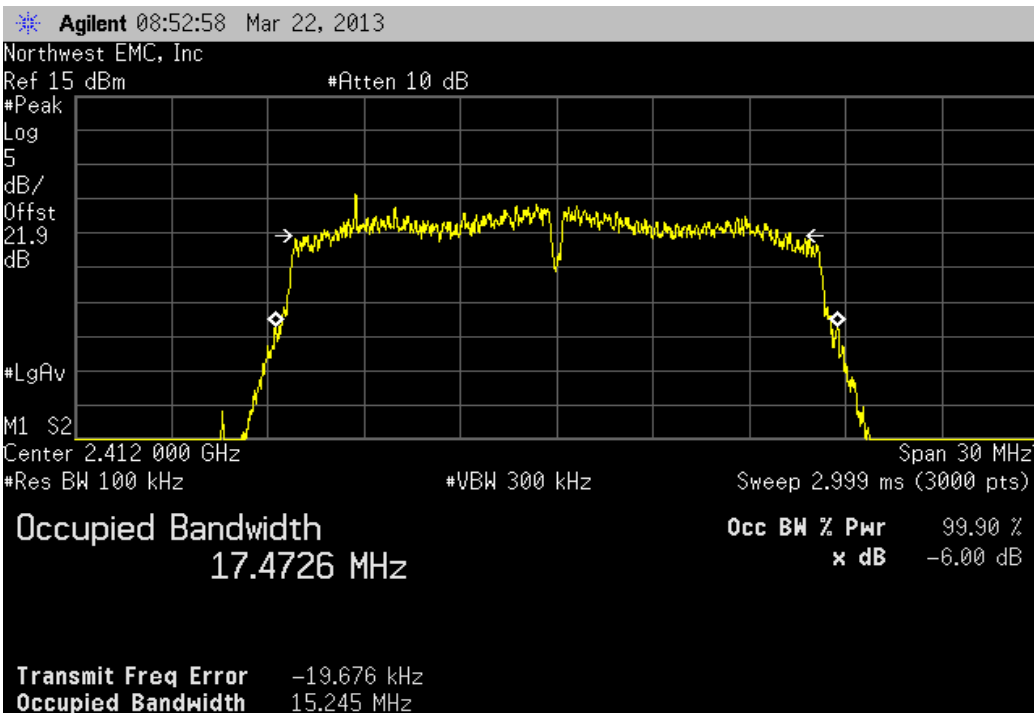
Antenna 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz

| Value     | Limit     | Result |
|-----------|-----------|--------|
| 6.963 MHz | > 500 kHz | Pass   |



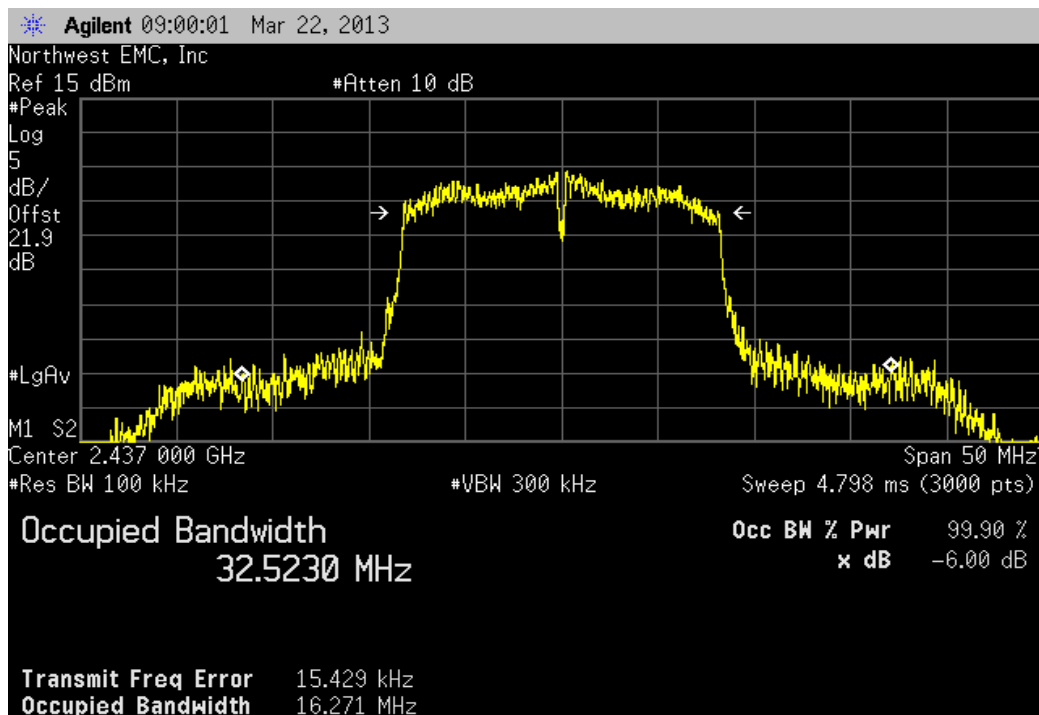
Antenna 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 15.245 MHz | > 500 kHz | Pass   |



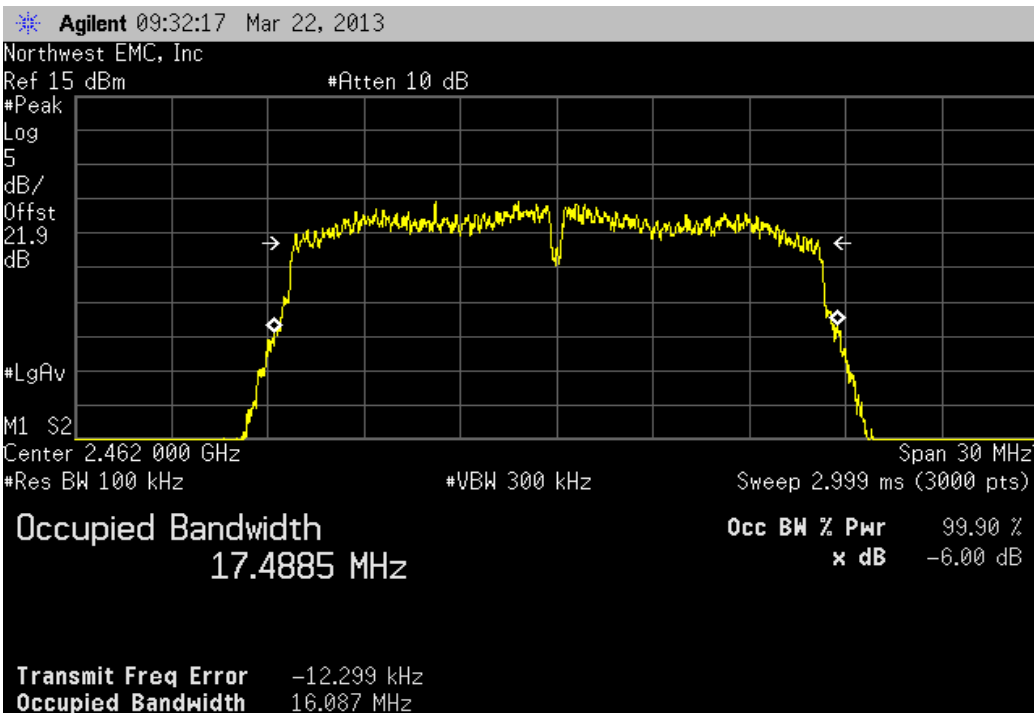
Antenna 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 16.271 MHz | > 500 kHz | Pass   |



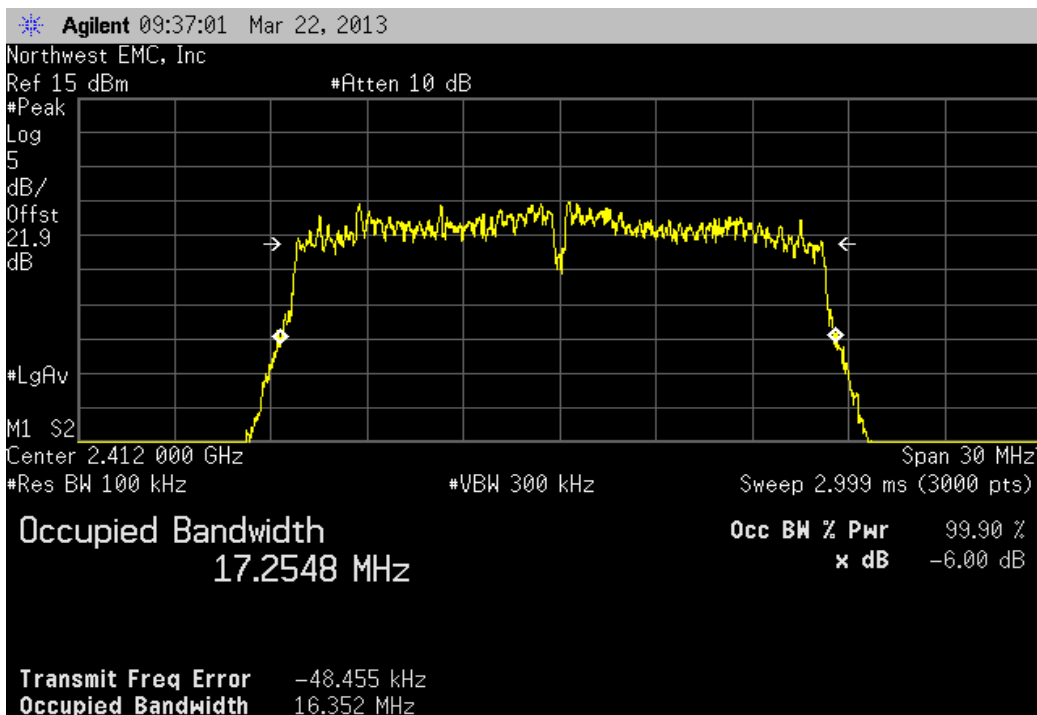
Antenna 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 16.087 MHz | > 500 kHz | Pass   |



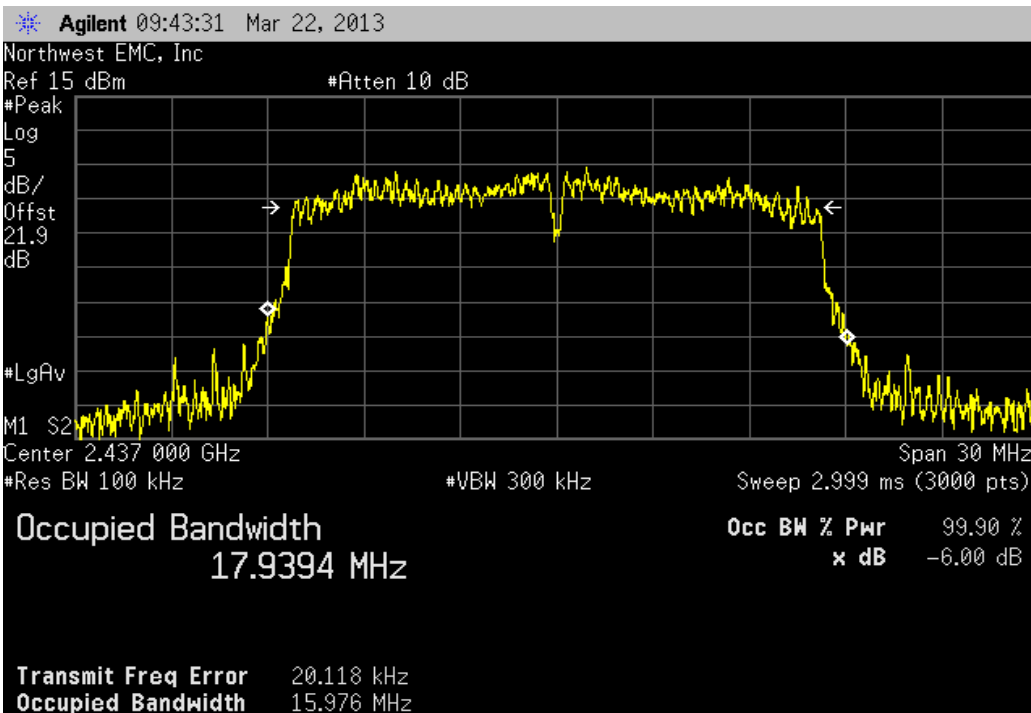
Antenna 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 16.352 MHz | > 500 kHz | Pass   |



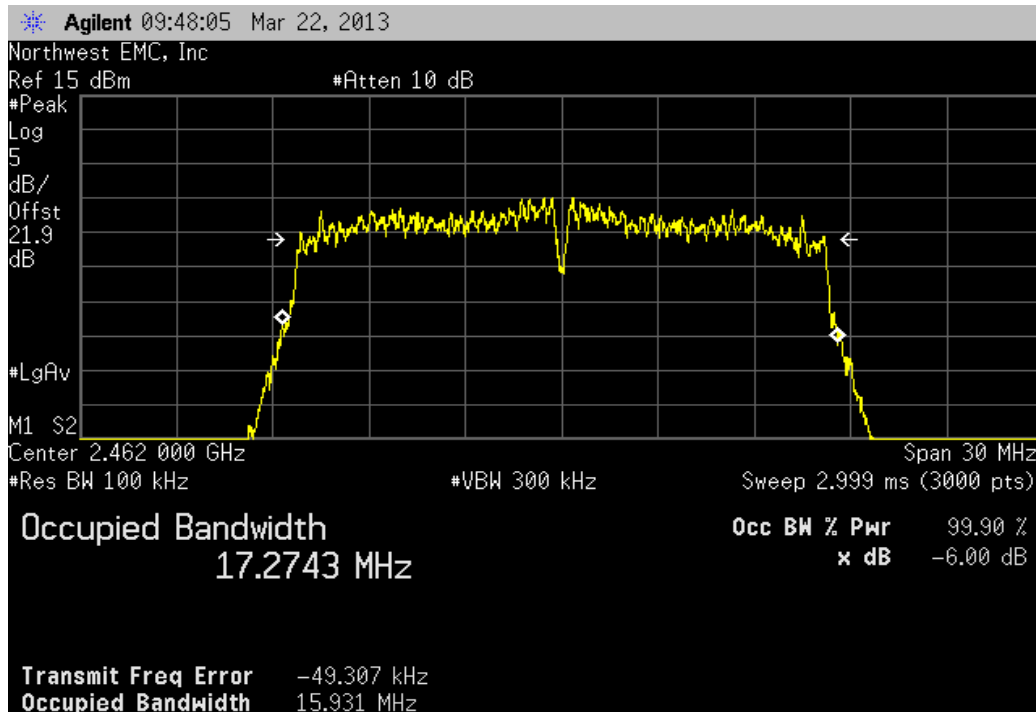
Antenna 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 15.976 MHz | > 500 kHz | Pass   |



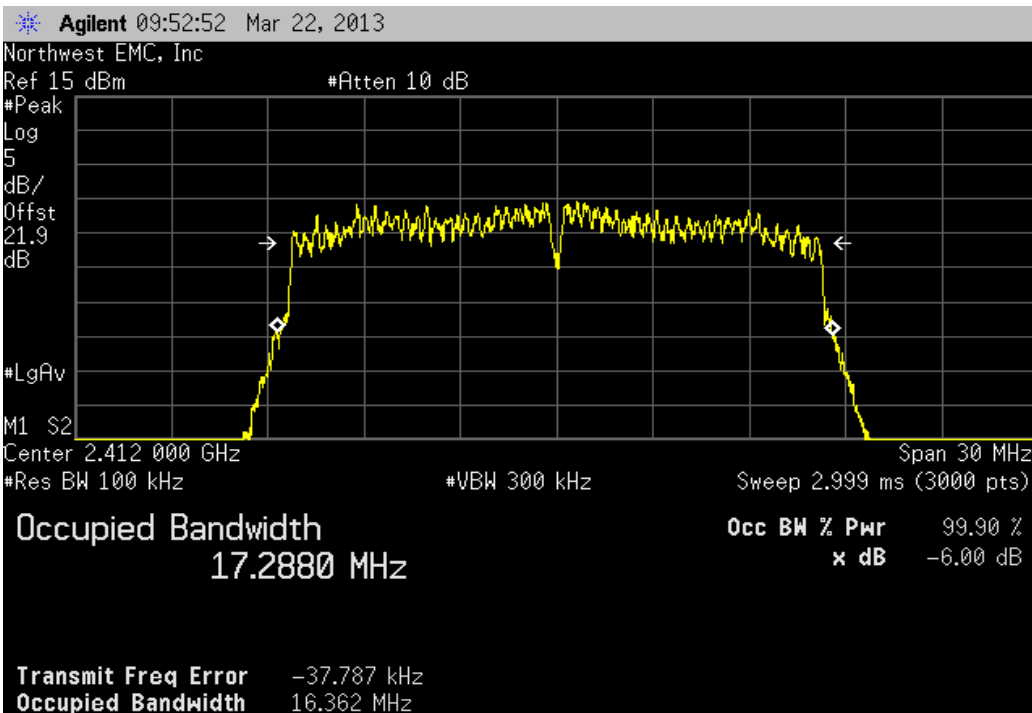
Antenna 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 15.931 MHz | > 500 kHz | Pass   |



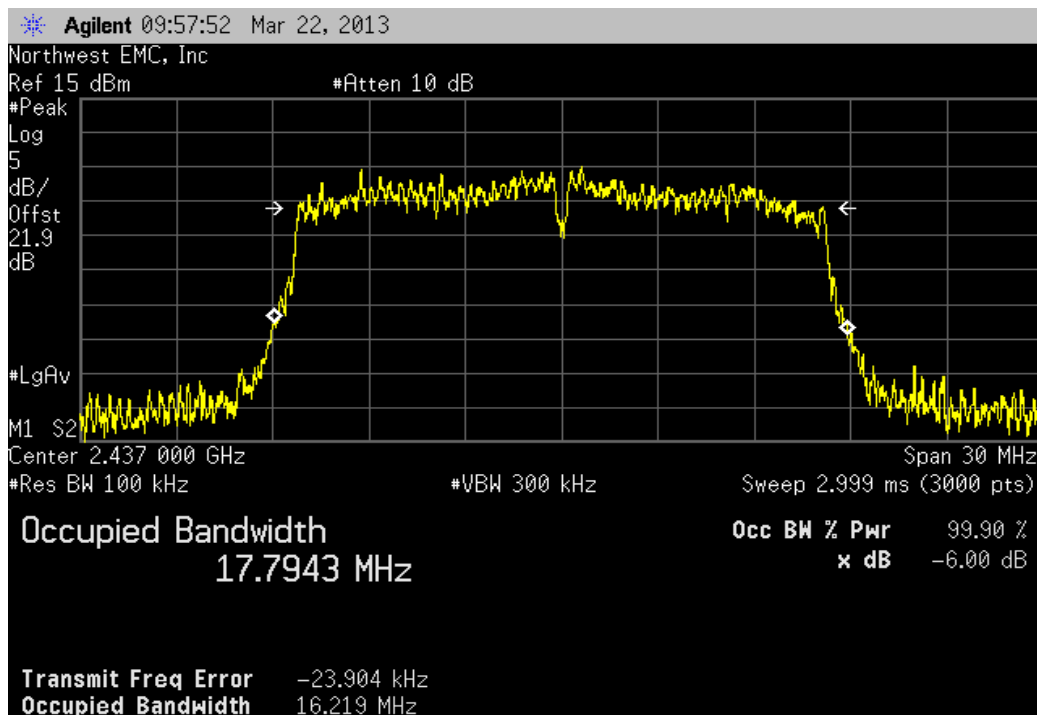
Antenna 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 16.362 MHz | > 500 kHz | Pass   |



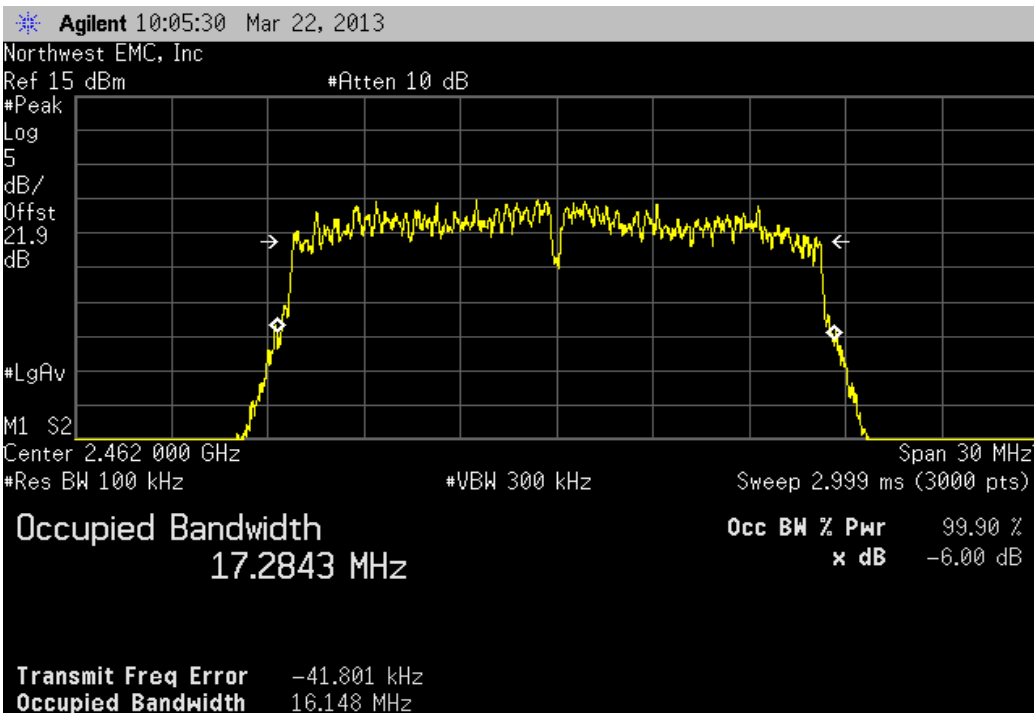
Antenna 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 16.219 MHz | > 500 kHz | Pass   |



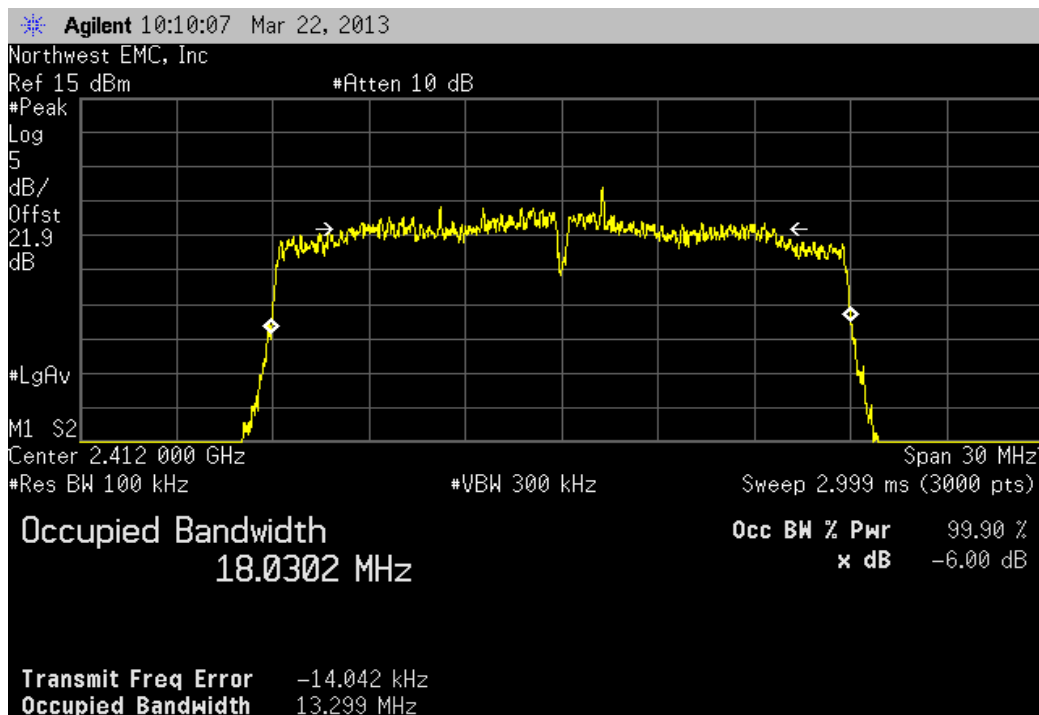
Antenna 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 16.148 MHz | > 500 kHz | Pass   |



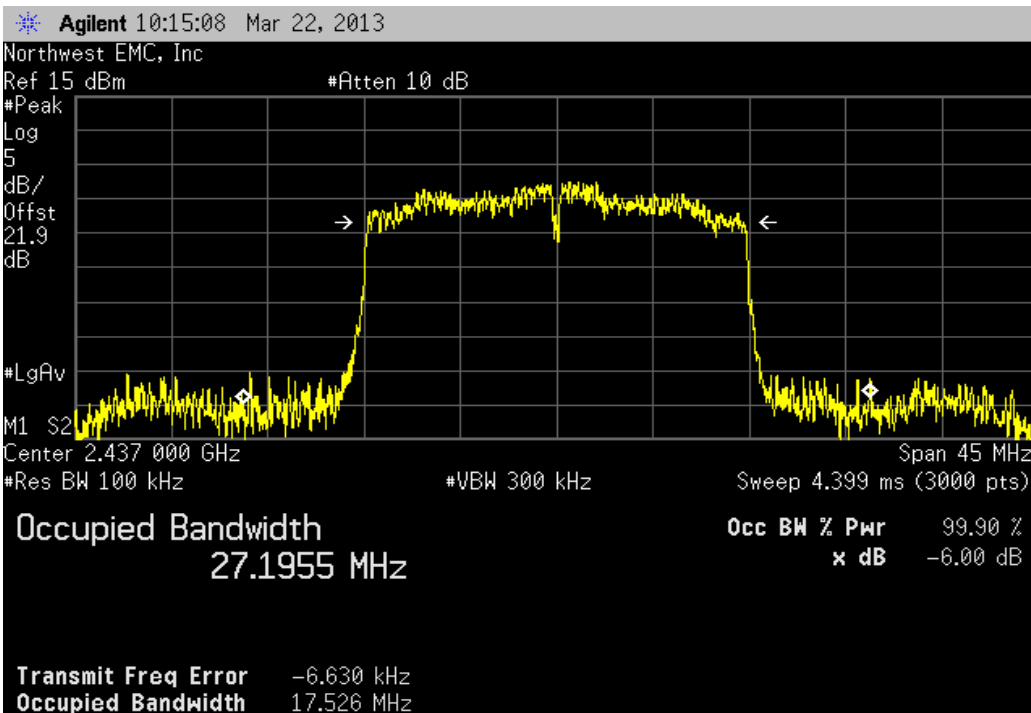
Antenna 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 13.299 MHz | > 500 kHz | Pass   |



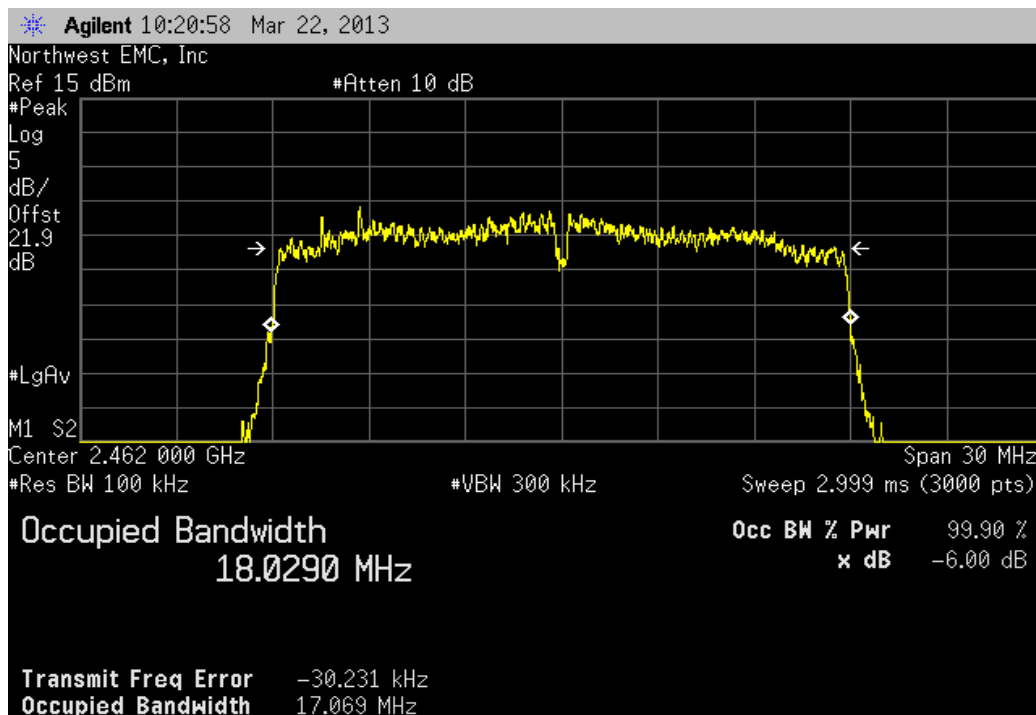
Antenna 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 17.526 MHz | > 500 kHz | Pass   |



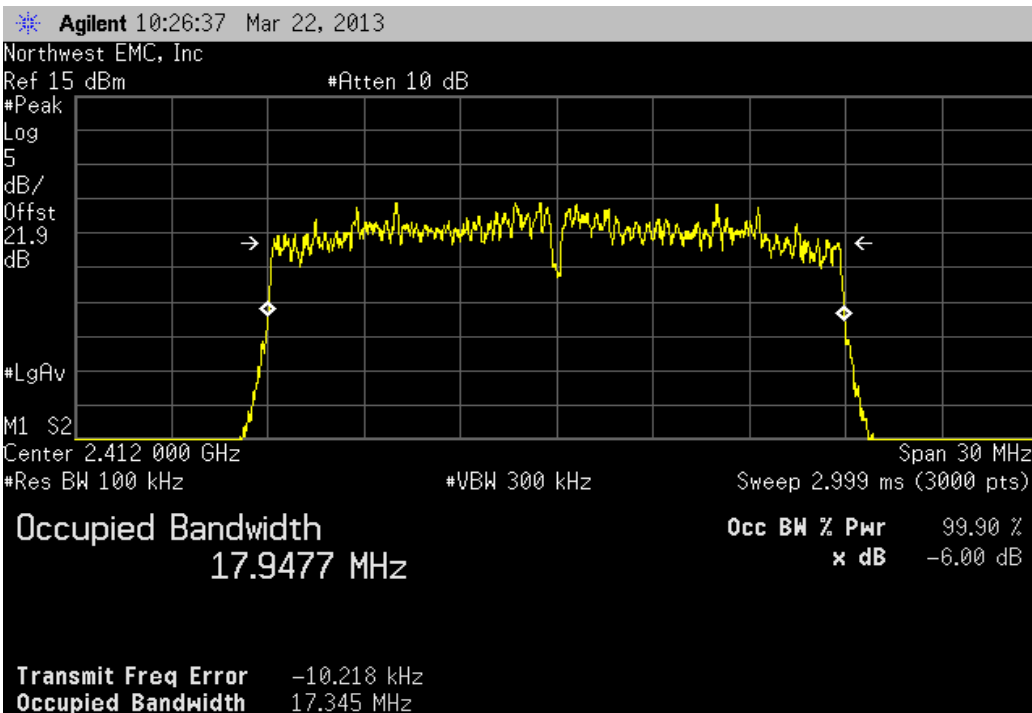
Antenna 0, 802.11(n) MCS0, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 17.069 MHz | > 500 kHz | Pass   |



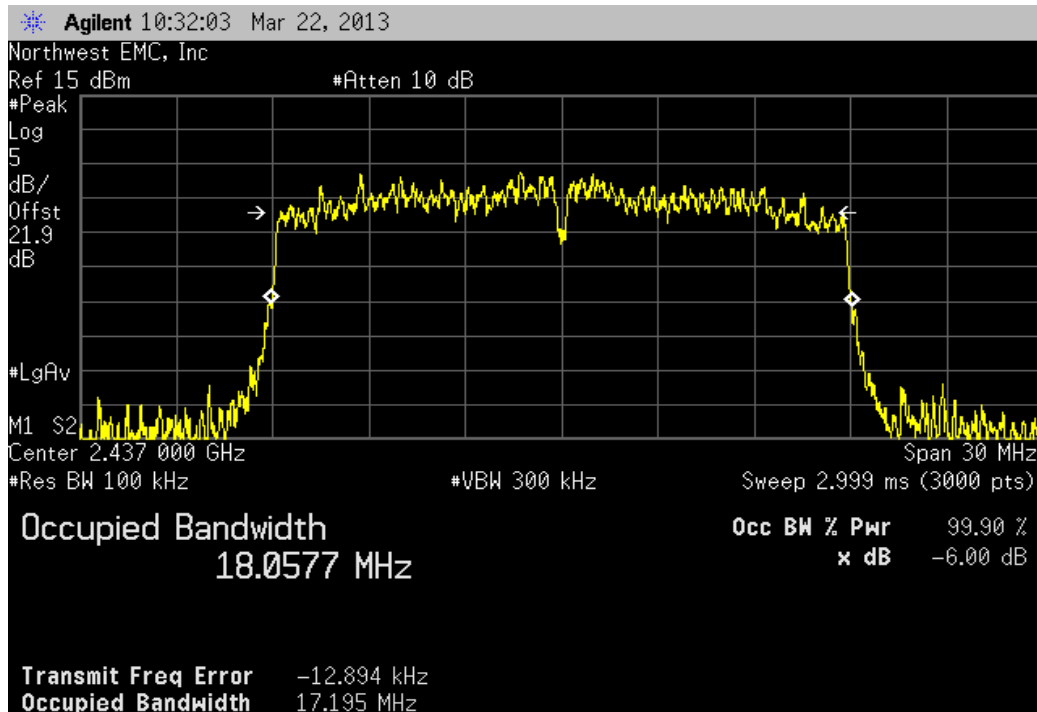
Antenna 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 17.345 MHz | > 500 kHz | Pass   |



Antenna 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 17.195 MHz | > 500 kHz | Pass   |



Antenna 0, 802.11(n) MCS7, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 17.301 MHz | > 500 kHz | Pass   |

Agilent 10:37:58 Mar 22, 2013

Northwest EMC, Inc

Ref 15 dBm

#Atten 10 dB

#Peak

Log

5

dB/

Offst

21.9

dB

#LgAv

M1 S2

Center 2.462 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Span 30 MHz

Sweep 2.999 ms (3000 pts)

**Occupied Bandwidth**

17.9313 MHz

**Occ BW % Pwr** 99.90 %  
**x dB** -6.00 dB

**Transmit Freq Error** -11.754 kHz

**Occupied Bandwidth** 17.301 MHz

Antenna 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz

| Value     | Limit     | Result |
|-----------|-----------|--------|
| 9.013 MHz | > 500 kHz | Pass   |

Agilent 11:49:53 Mar 22, 2013

Northwest EMC, Inc

Ref 15 dBm

#Atten 10 dB

#Peak

Log

5

dB/

Offst

21.9

dB

#LgAv

M1 S2

Center 2.412 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Span 30 MHz

Sweep 2.999 ms (3000 pts)

**Occupied Bandwidth**

18.1696 MHz

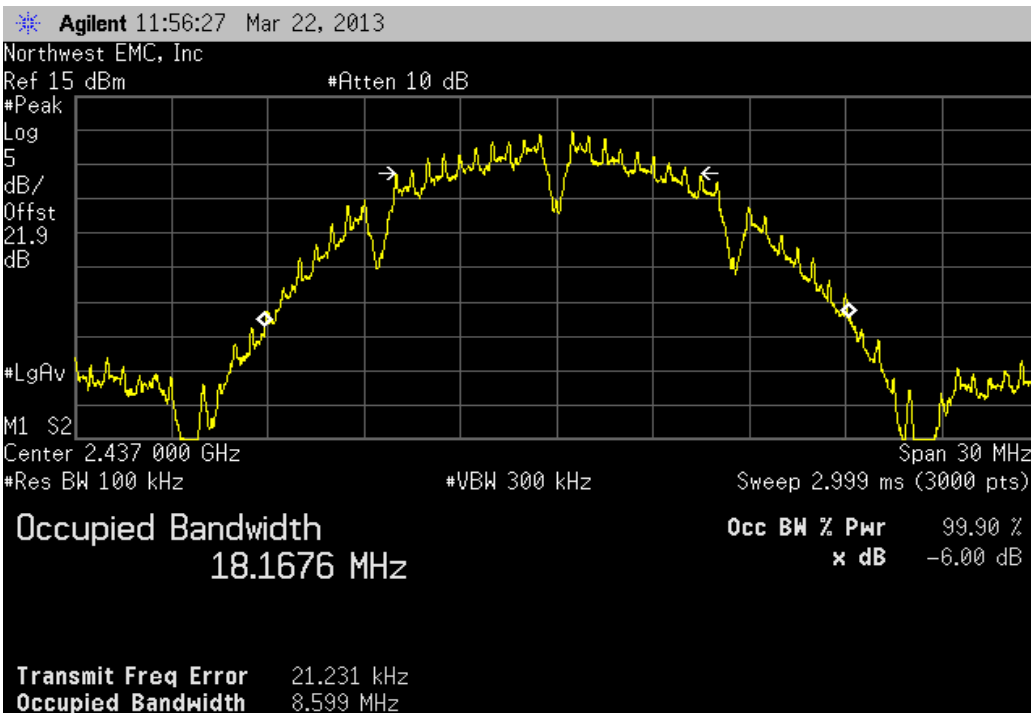
**Occ BW % Pwr** 99.90 %  
**x dB** -6.00 dB

**Transmit Freq Error** 53.930 kHz

**Occupied Bandwidth** 9.013 MHz

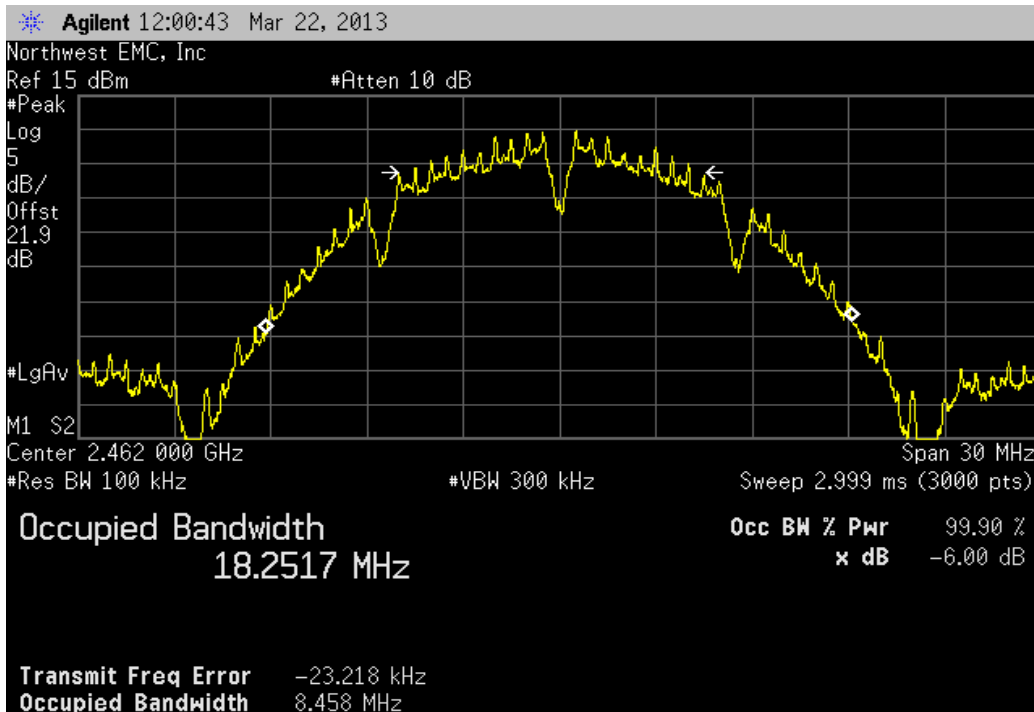
Antenna 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz

|  |  |  |  | Value     | Limit     | Result |
|--|--|--|--|-----------|-----------|--------|
|  |  |  |  | 8.599 MHz | > 500 kHz | Pass   |



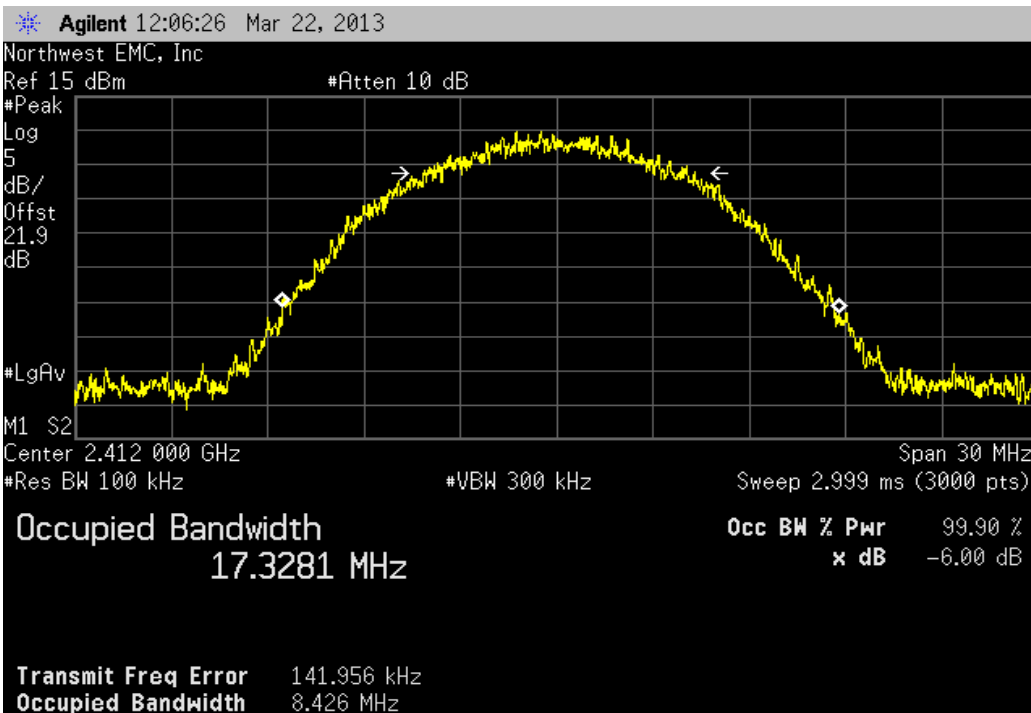
Antenna 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz

|  |  |  |  | Value     | Limit     | Result |
|--|--|--|--|-----------|-----------|--------|
|  |  |  |  | 8.458 MHz | > 500 kHz | Pass   |



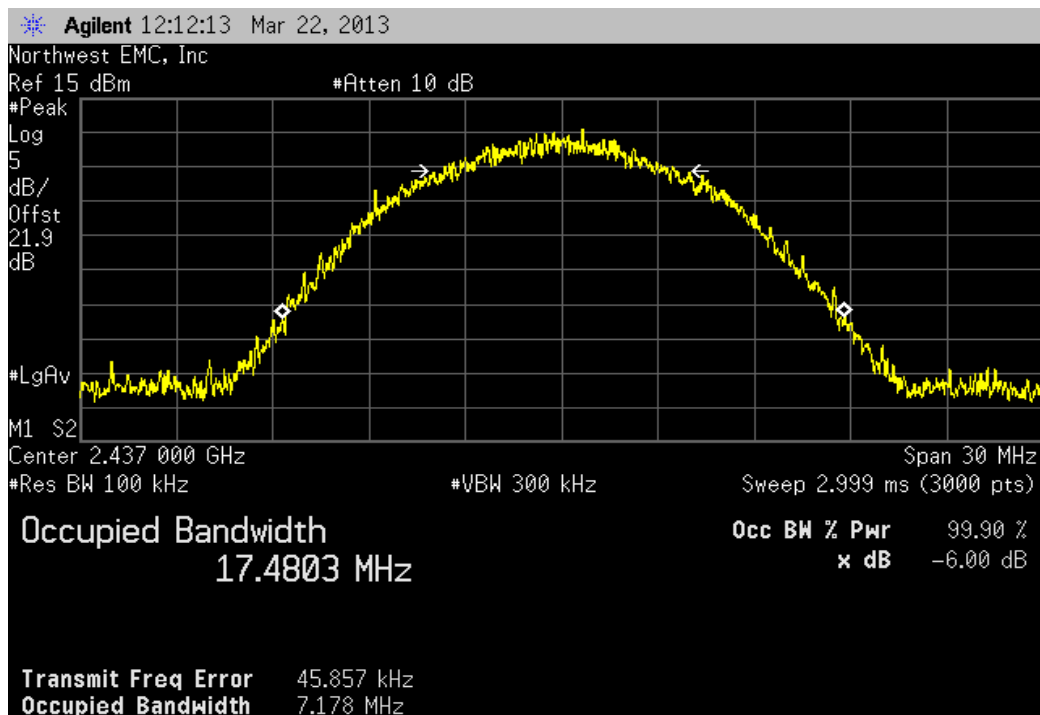
Antenna 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz

| Value     | Limit     | Result |
|-----------|-----------|--------|
| 8.426 MHz | > 500 kHz | Pass   |



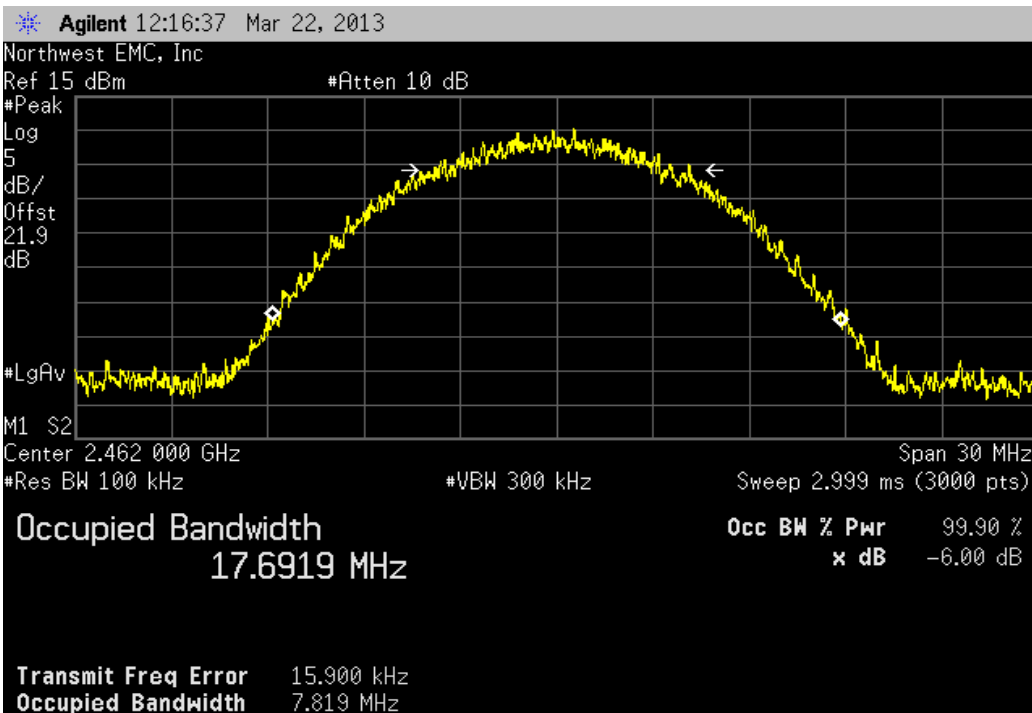
Antenna 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz

| Value     | Limit     | Result |
|-----------|-----------|--------|
| 7.178 MHz | > 500 kHz | Pass   |



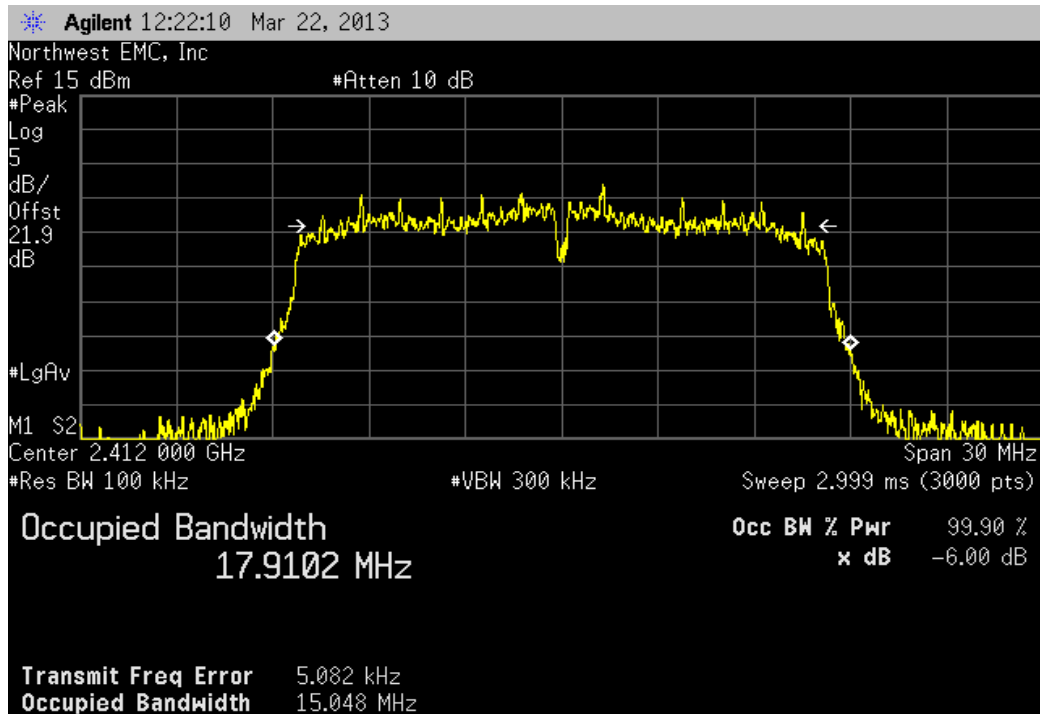
Antenna 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz

| Value     | Limit     | Result |
|-----------|-----------|--------|
| 7.819 MHz | > 500 kHz | Pass   |



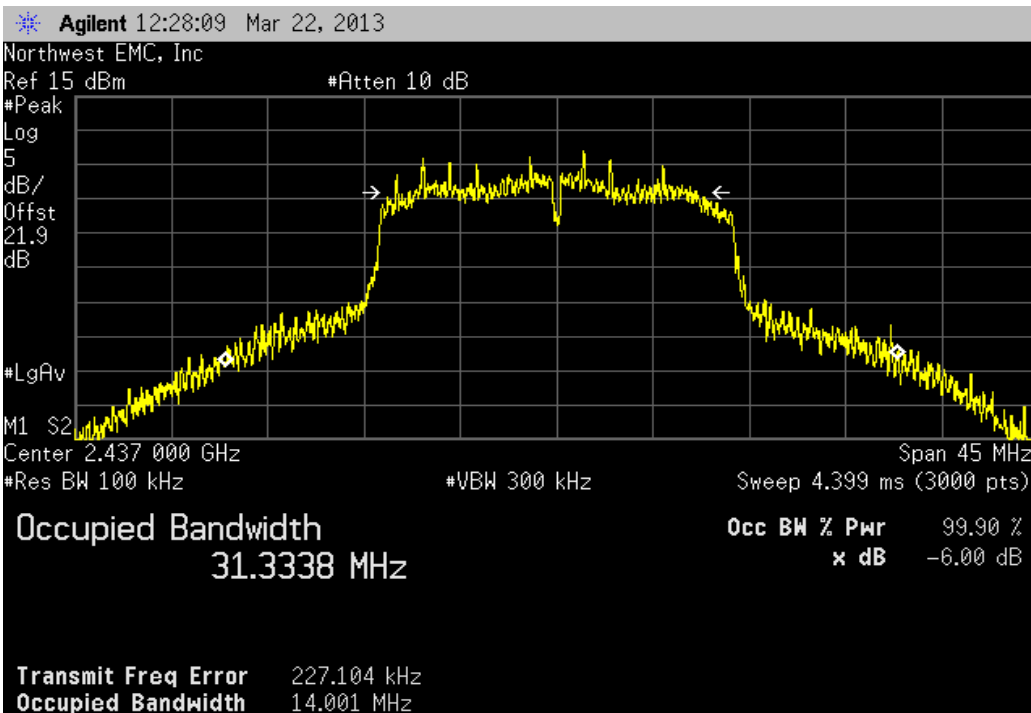
Antenna 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 15.048 MHz | > 500 kHz | Pass   |



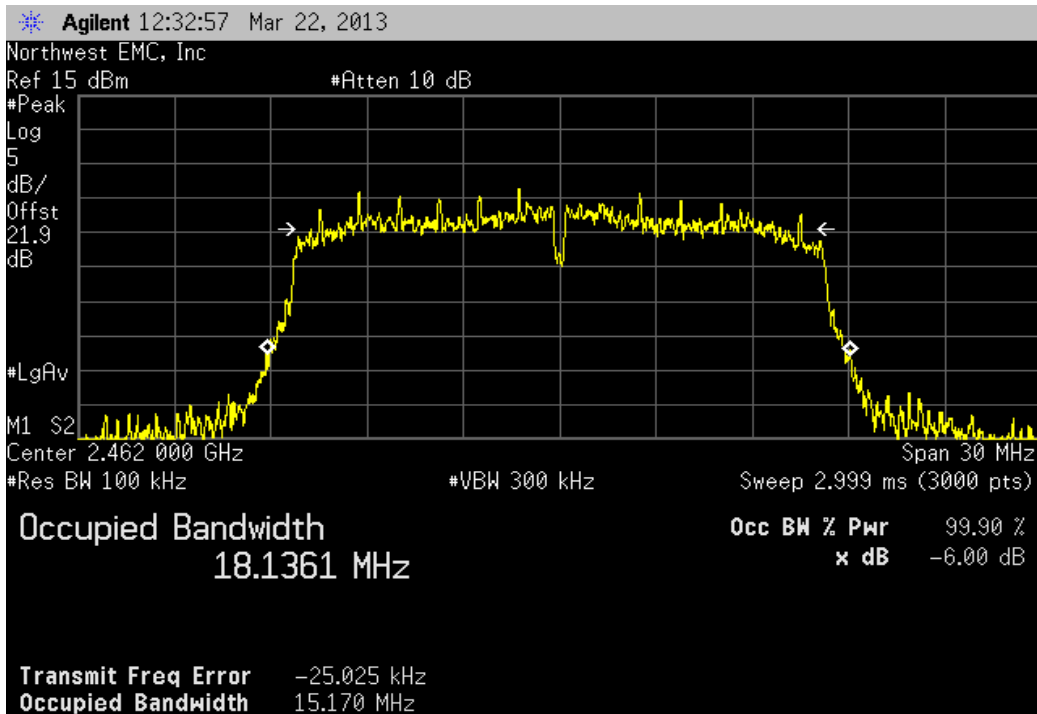
Antenna 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz

|  |  |  |  | Value      | Limit     | Result |
|--|--|--|--|------------|-----------|--------|
|  |  |  |  | 14.001 MHz | > 500 kHz | Pass   |



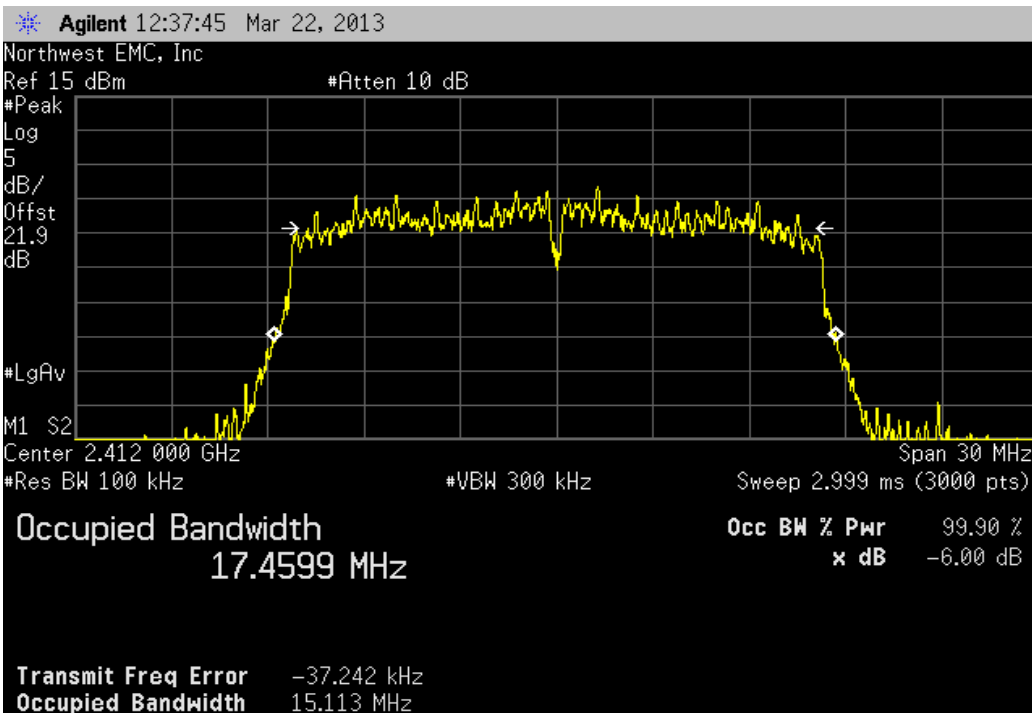
Antenna 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz

|  |  |  |  | Value     | Limit     | Result |
|--|--|--|--|-----------|-----------|--------|
|  |  |  |  | 15.17 MHz | > 500 kHz | Pass   |



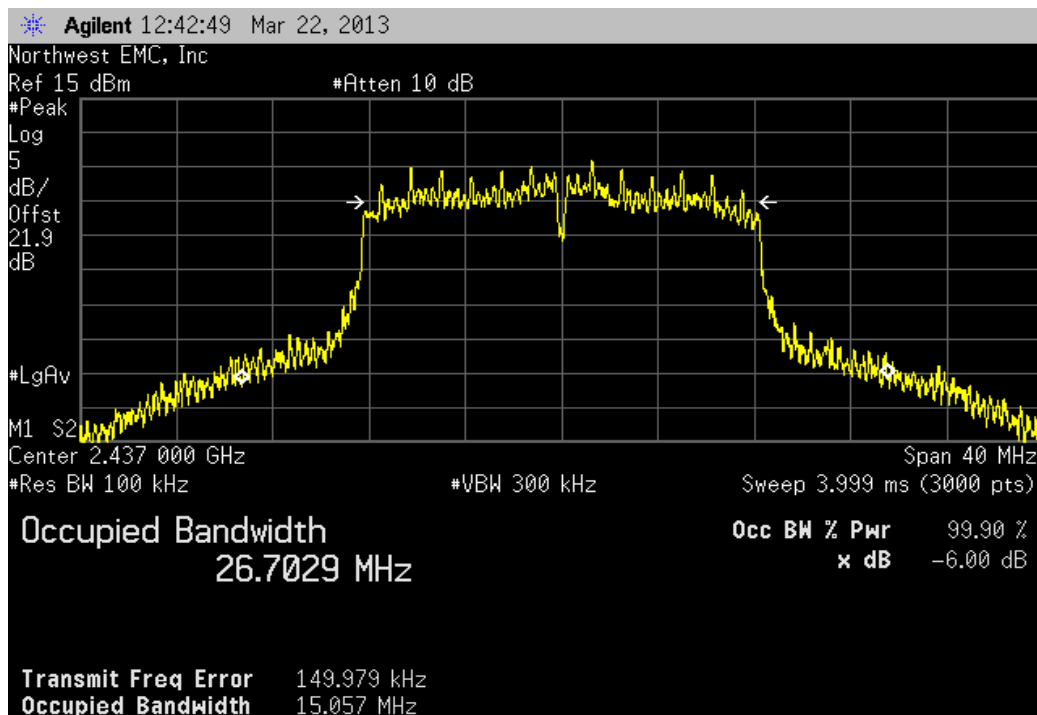
Antenna 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 15.113 MHz | > 500 kHz | Pass   |



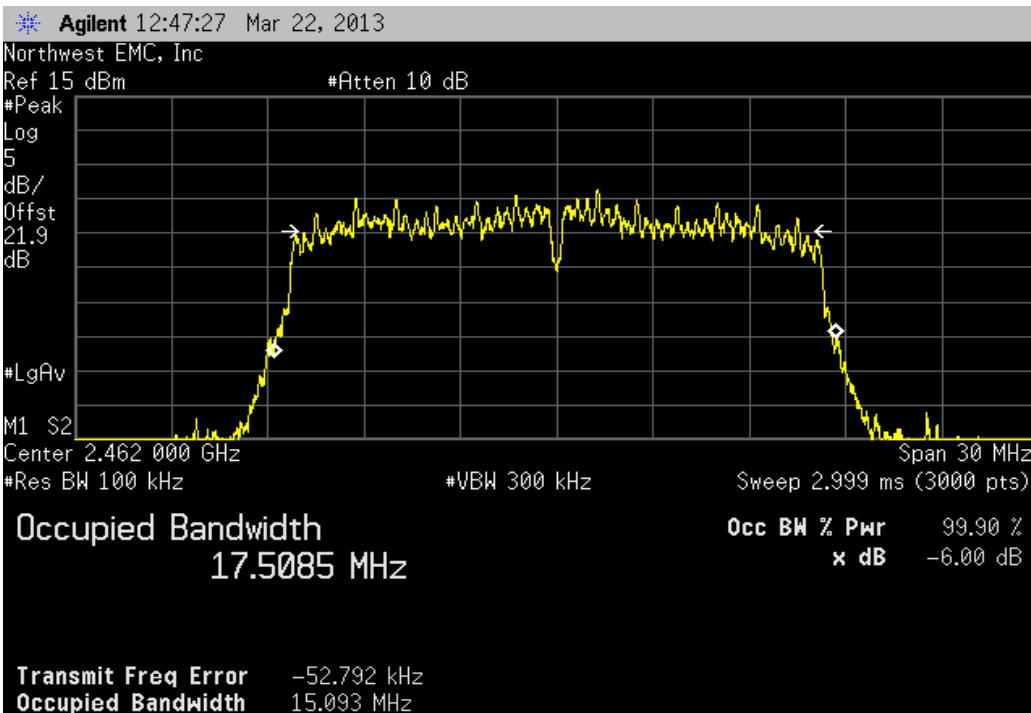
Antenna 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 15.057 MHz | > 500 kHz | Pass   |



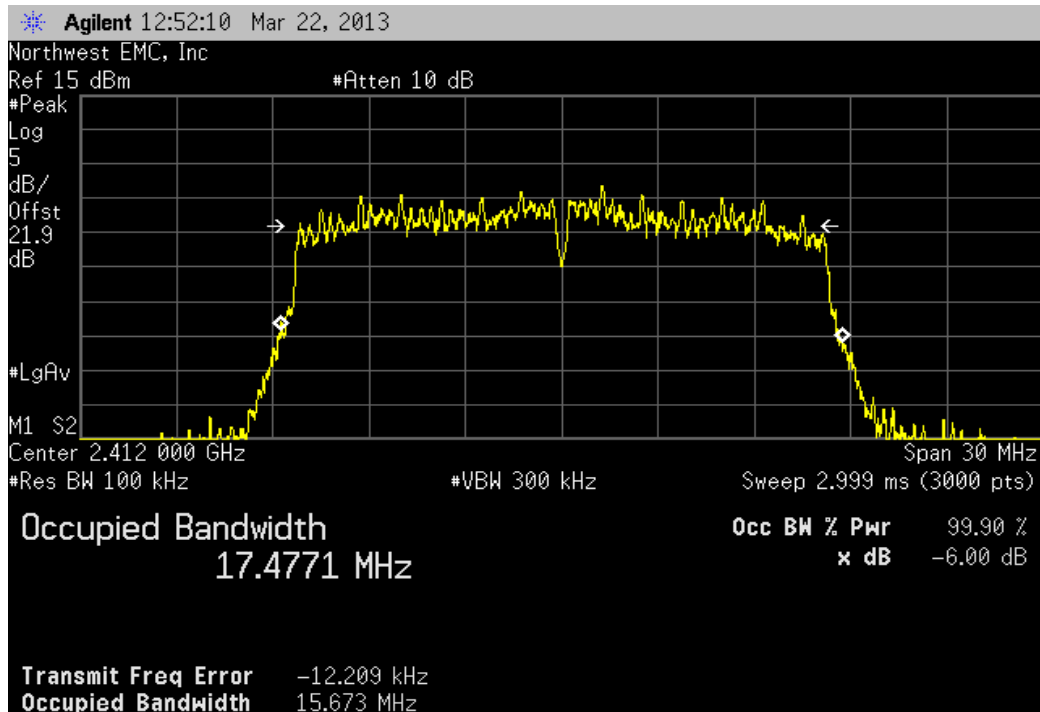
Antenna 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 15.093 MHz | > 500 kHz | Pass   |



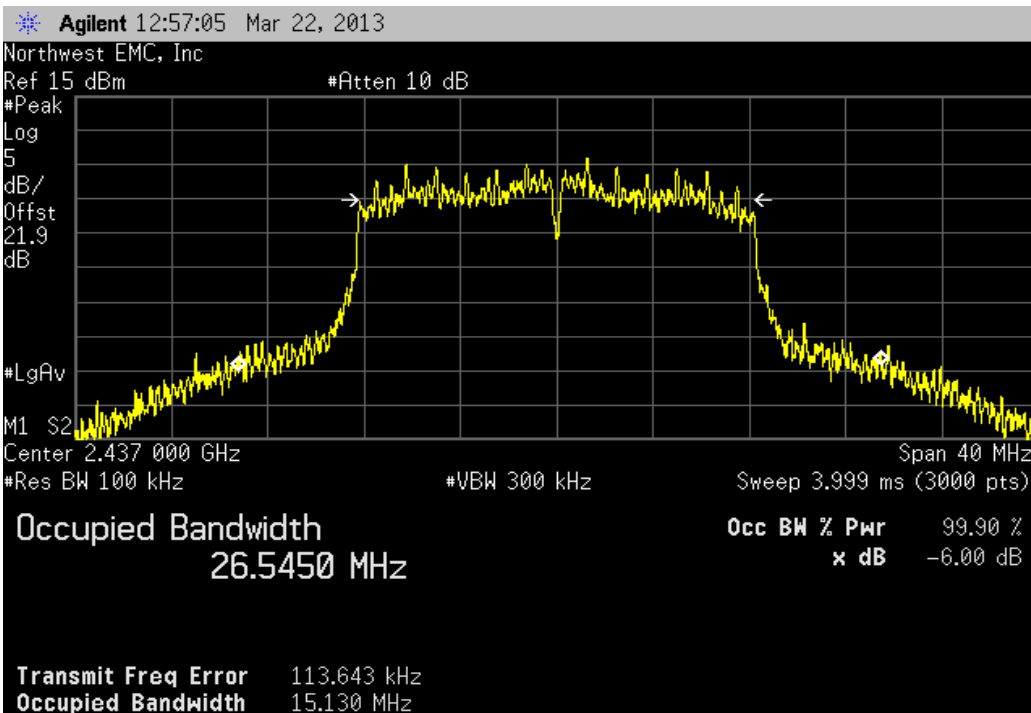
Antenna 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 15.673 MHz | > 500 kHz | Pass   |



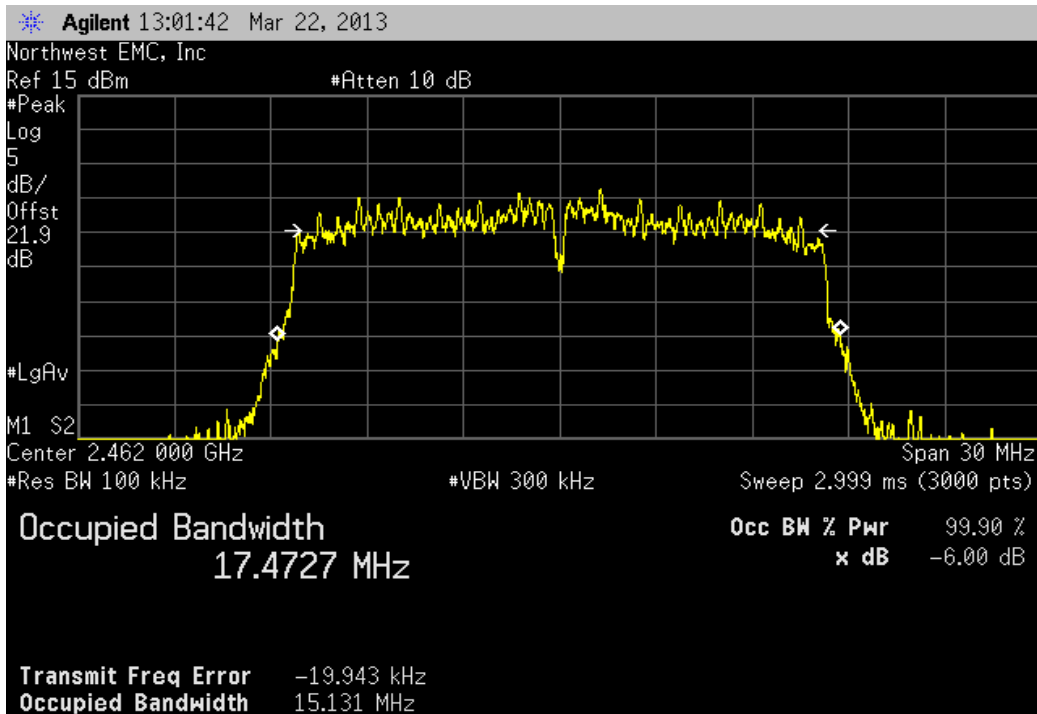
Antenna 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz

| Value     | Limit     | Result |
|-----------|-----------|--------|
| 15.13 MHz | > 500 kHz | Pass   |



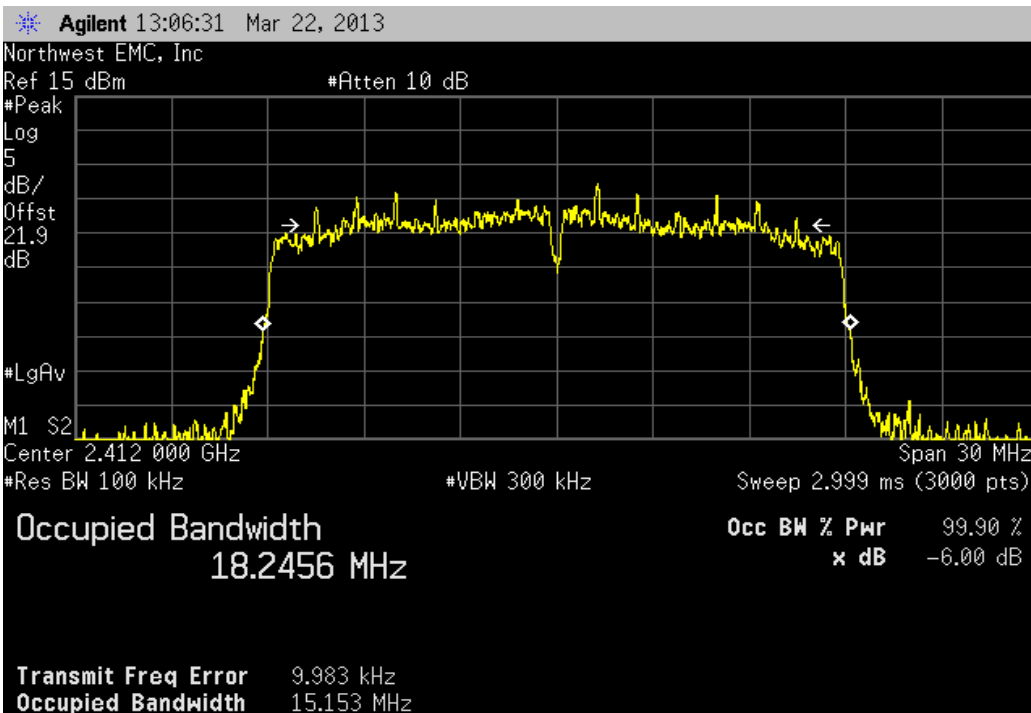
Antenna 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 15.131 MHz | > 500 kHz | Pass   |



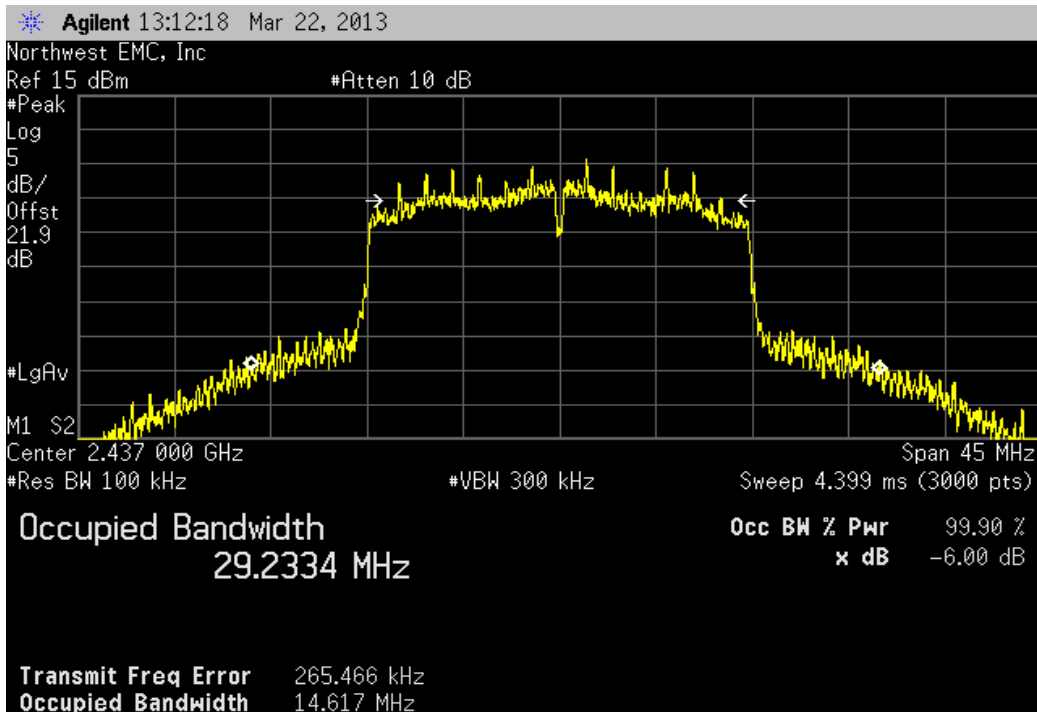
Antenna 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 15.153 MHz | > 500 kHz | Pass   |



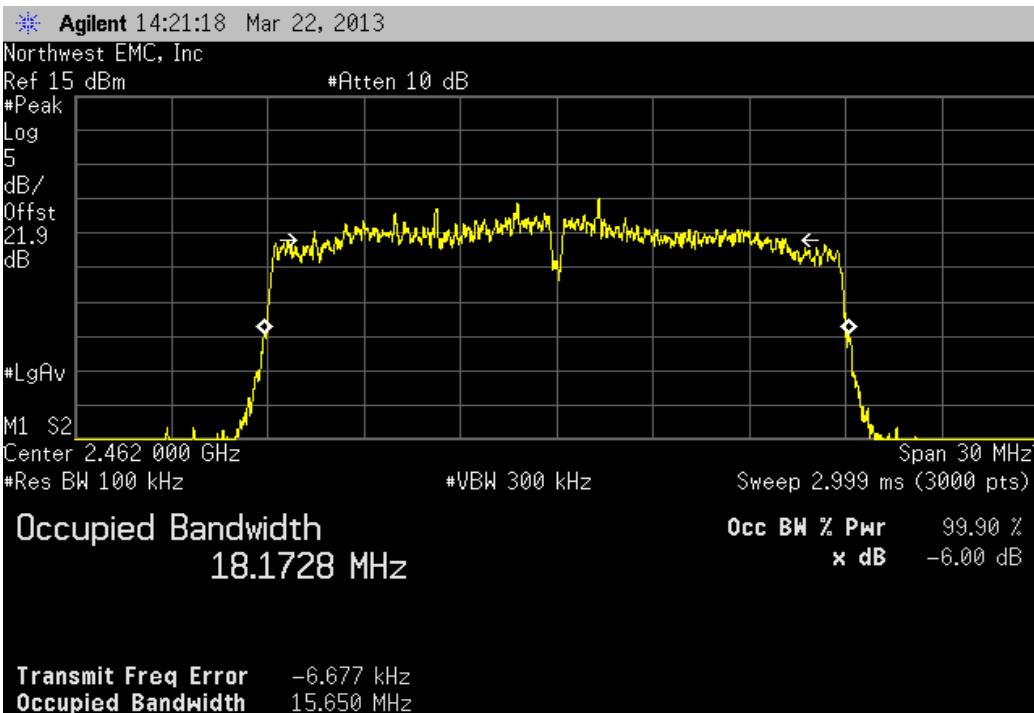
Antenna 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 14.617 MHz | > 500 kHz | Pass   |



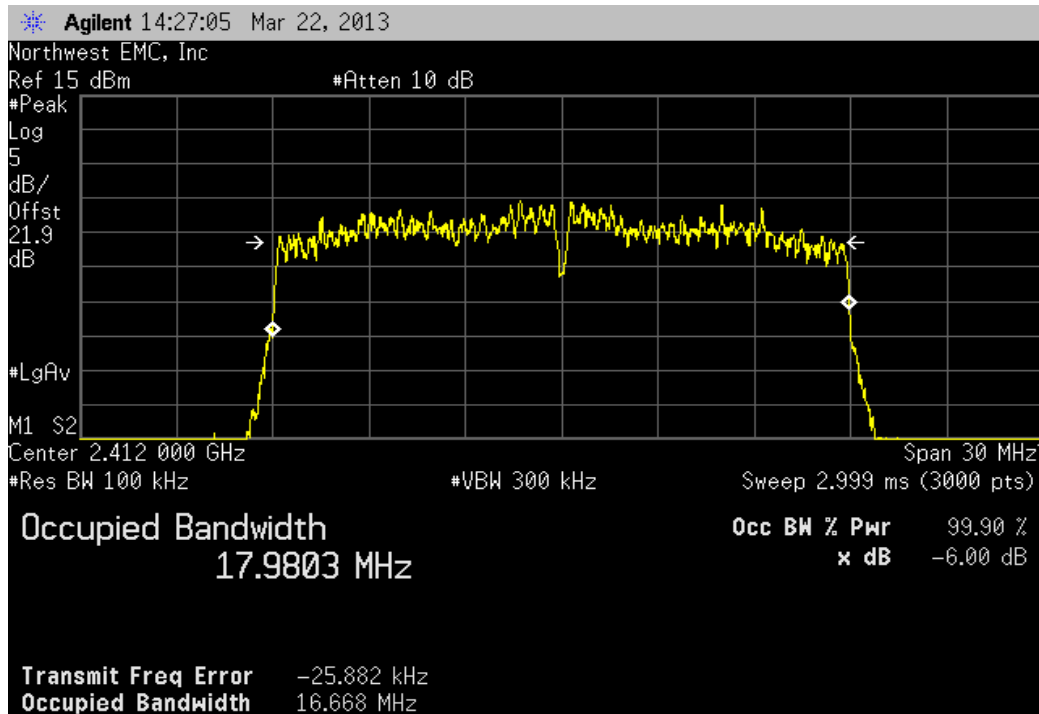
Antenna 1, 802.11(n) MCS0, High Channel 11, 2462 MHz

|  |  |  |  | Value     | Limit     | Result |
|--|--|--|--|-----------|-----------|--------|
|  |  |  |  | 15.65 MHz | > 500 kHz | Pass   |



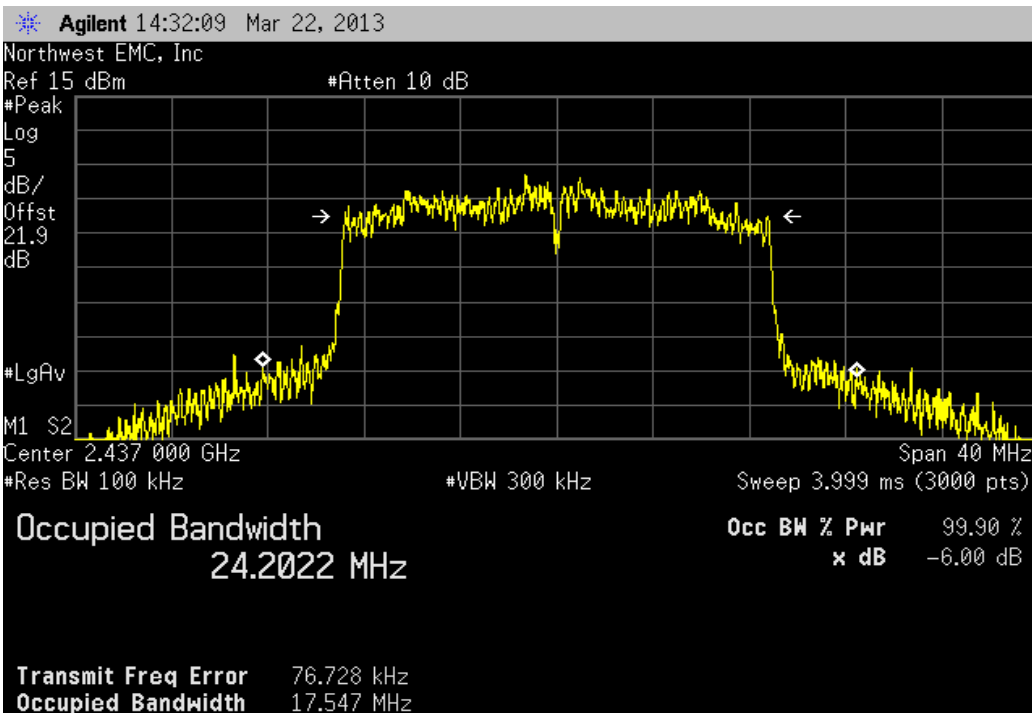
Antenna 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz

|  |  |  |  | Value      | Limit     | Result |
|--|--|--|--|------------|-----------|--------|
|  |  |  |  | 16.668 MHz | > 500 kHz | Pass   |



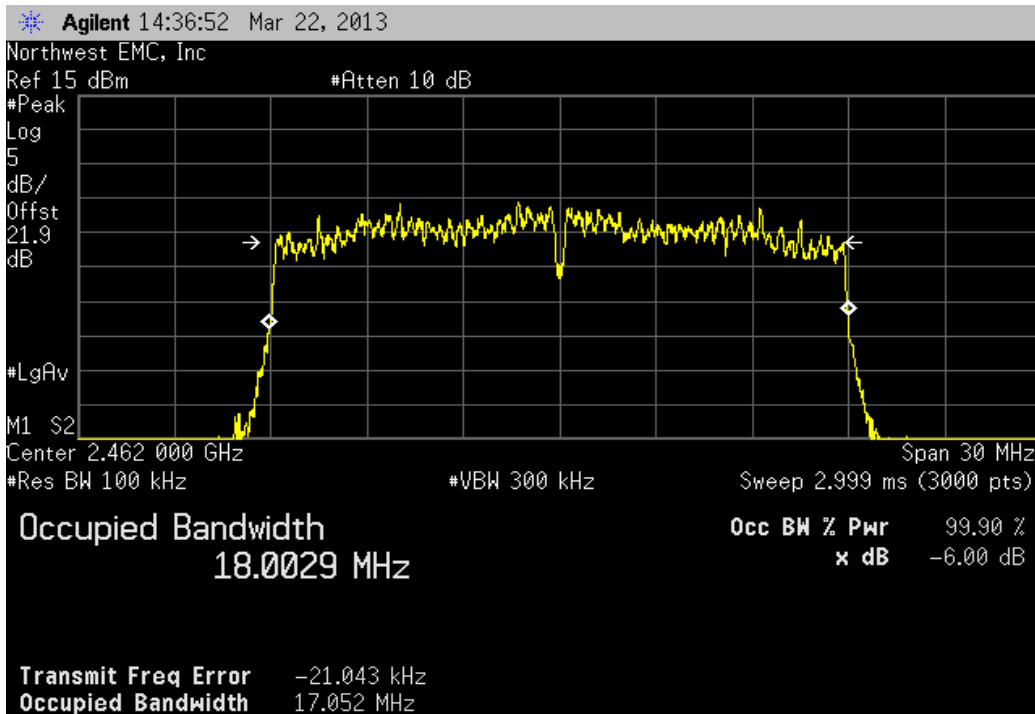
Antenna 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 17.547 MHz | > 500 kHz | Pass   |



Antenna 1, 802.11(n) MCS7, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 17.052 MHz | > 500 kHz | Pass   |



## Output Power

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

### TEST EQUIPMENT

| Description              | Manufacturer       | Model    | ID  | Last Cal. | Interval |
|--------------------------|--------------------|----------|-----|-----------|----------|
| 40 GHz DC block          | Fairview Microwave | SD3379   | AMI | 10/5/2012 | 12       |
| Attenuator - 20db, 'SMA' | SM Electronics     | SA26B-20 | RFW | 4/19/2012 | 12       |
| Signal Generator MXG     | Agilent            | N5183A   | TIK | 6/7/2012  | 36       |
| Spectrum Analyzer        | Agilent            | E4446A   | AAT | 6/28/2012 | 24       |

### TEST DESCRIPTION

The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

Prior to measuring peak transmit power; the emission bandwidth (B) and the transmission pulse duration (T) were measured. Both are required to determine the method of measuring Maximum Conducted Output Power. The transmission pulse duration (T) was measured using a zero span on the spectrum analyzer to see the pulses in the time domain.

Method PK2 found in KDB 558074 DTS D01 Measurement Section 5.2.1.2 was used because the Emission Bandwidth was greater than the largest RBW on the analyzer.

The spectrum analyzer settings were as follows:

- The span was set to encompass entire emission bandwidth (B), centered on the transmit channel.
- The RBW = 1 MHz, VBW = 3 MHz.
- Peak detector mode
- Power was integrated across "B", by using the channel power function of the analyzer.



## Output Power

XMit 2013.02.28  
PsaTx 2013.03.22

|                                                       |                          |
|-------------------------------------------------------|--------------------------|
| EUT: RTH9580WF01                                      | Work Order: HNYW0043     |
| Serial Number: 5191101 0010638                        | Date: 03/22/13           |
| Customer: Honeywell, Automation and Control Solutions | Temperature: 23.9°C      |
| Attendees: None                                       | Humidity: 13%            |
| Project: None                                         | Barometric Pres.: 1018.5 |
| Tested by: Trevor Buls                                | Power: 110VAC/60Hz       |
|                                                       | Job Site: MN05           |

|                     |                  |
|---------------------|------------------|
| TEST SPECIFICATIONS | Test Method      |
| FCC 15.247:2013     | ANSI C63.10:2009 |

|          |
|----------|
| COMMENTS |
| None     |

|                               |
|-------------------------------|
| DEVIATIONS FROM TEST STANDARD |
| None                          |

|                 |   |                              |
|-----------------|---|------------------------------|
| Configuration # | 2 | Signature <i>Trevor Buls</i> |
|-----------------|---|------------------------------|

|  | Value | Limit | Result |
|--|-------|-------|--------|
|--|-------|-------|--------|

|                           |            |       |      |  |
|---------------------------|------------|-------|------|--|
| Antenna 0                 |            |       |      |  |
| 802.11(b) 1 Mbps          |            |       |      |  |
| Low Channel 1, 2412 MHz   | 97.947 mW  | < 1 W | Pass |  |
| Mid Channel 6, 2437 MHz   | 100.796 mW | < 1 W | Pass |  |
| High Channel 11, 2462 MHz | 103.984 mW | < 1 W | Pass |  |
| 802.11(b) 11 Mbps         |            |       |      |  |
| Low Channel 1, 2412 MHz   | 91.666 mW  | < 1 W | Pass |  |
| Mid Channel 6, 2437 MHz   | 99.751 mW  | < 1 W | Pass |  |
| High Channel 11, 2462 MHz | 100.795 mW | < 1 W | Pass |  |
| 802.11(g) 6 Mbps          |            |       |      |  |
| Low Channel 1, 2412 MHz   | 23.929 mW  | < 1 W | Pass |  |
| Mid Channel 6, 2437 MHz   | 81.314 mW  | < 1 W | Pass |  |
| High Channel 11, 2462 MHz | 26.277 mW  | < 1 W | Pass |  |
| 802.11(g) 36 Mbps         |            |       |      |  |
| Low Channel 1, 2412 MHz   | 21.983 mW  | < 1 W | Pass |  |
| Mid Channel 6, 2437 MHz   | 62.749 mW  | < 1 W | Pass |  |
| High Channel 11, 2462 MHz | 22.694 mW  | < 1 W | Pass |  |
| 802.11(g) 54 Mbps         |            |       |      |  |
| Low Channel 1, 2412 MHz   | 21.809 mW  | < 1 W | Pass |  |
| Mid Channel 6, 2437 MHz   | 62.537 mW  | < 1 W | Pass |  |
| High Channel 11, 2462 MHz | 22.427 mW  | < 1 W | Pass |  |
| 802.11(n) MCS0            |            |       |      |  |
| Low Channel 1, 2412 MHz   | 23.837 mW  | < 1 W | Pass |  |
| Mid Channel 6, 2437 MHz   | 61.319 mW  | < 1 W | Pass |  |
| High Channel 11, 2462 MHz | 19.792 mW  | < 1 W | Pass |  |
| 802.11(n) MCS7            |            |       |      |  |
| Low Channel 1, 2412 MHz   | 18.038 mW  | < 1 W | Pass |  |
| Mid Channel 6, 2437 MHz   | 48.419 mW  | < 1 W | Pass |  |
| High Channel 11, 2462 MHz | 20.298 mW  | < 1 W | Pass |  |

|                   |                           |            |       |      |
|-------------------|---------------------------|------------|-------|------|
| Antenna 1         |                           |            |       |      |
| 802.11(b) 1 Mbps  |                           |            |       |      |
|                   | Low Channel 1, 2412 MHz   | 100.42 mW  | < 1 W | Pass |
|                   | Mid Channel 6, 2437 MHz   | 97.669 mW  | < 1 W | Pass |
|                   | High Channel 11, 2462 MHz | 97.076 mW  | < 1 W | Pass |
| 802.11(b) 11 Mbps |                           |            |       |      |
|                   | Low Channel 1, 2412 MHz   | 100.085 mW | < 1 W | Pass |
|                   | Mid Channel 6, 2437 MHz   | 97.515 mW  | < 1 W | Pass |
|                   | High Channel 11, 2462 MHz | 97.224 mW  | < 1 W | Pass |
| 802.11(g) 6 Mbps  |                           |            |       |      |
|                   | Low Channel 1, 2412 MHz   | 25.89 mW   | < 1 W | Pass |
|                   | Mid Channel 6, 2437 MHz   | 71.658 mW  | < 1 W | Pass |
|                   | High Channel 11, 2462 MHz | 24.241 mW  | < 1 W | Pass |
| 802.11(g) 36 Mbps |                           |            |       |      |
|                   | Low Channel 1, 2412 MHz   | 21.927 mW  | < 1 W | Pass |
|                   | Mid Channel 6, 2437 MHz   | 51.888 mW  | < 1 W | Pass |
|                   | High Channel 11, 2462 MHz | 19.41 mW   | < 1 W | Pass |
| 802.11(g) 54 Mbps |                           |            |       |      |
|                   | Low Channel 1, 2412 MHz   | 21.308 mW  | < 1 W | Pass |
|                   | Mid Channel 6, 2437 MHz   | 48.988 mW  | < 1 W | Pass |
|                   | High Channel 11, 2462 MHz | 19.184 mW  | < 1 W | Pass |
| 802.11(n) MCS0    |                           |            |       |      |
|                   | Low Channel 1, 2412 MHz   | 24.705 mW  | < 1 W | Pass |
|                   | Mid Channel 6, 2437 MHz   | 52.018 mW  | < 1 W | Pass |
|                   | High Channel 11, 2462 MHz | 18.641 mW  | < 1 W | Pass |
| 802.11(n) MCS7    |                           |            |       |      |
|                   | Low Channel 1, 2412 MHz   | 19.287 mW  | < 1 W | Pass |
|                   | Mid Channel 6, 2437 MHz   | 46.025 mW  | < 1 W | Pass |
|                   | High Channel 11, 2462 MHz | 19.016 mW  | < 1 W | Pass |

Antenna 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 97.947 mW | < 1 W | Pass   |

Agilent 07:56:21 Mar 22, 2013

Northwest EMC, Inc

Ref 100 mW

#Atten 10 dB

#Peak

Log

5

dB/

Offst

21.9

dB

#LgAv

M1 S2

Center 2.412 000 GHz

#Res BW 1 MHz

#VBW 3 MHz

Span 30 MHz

Sweep 1.066 ms (2000 pts)

**Channel Power**

97.95 mW /18.0619 MHz

**Power Spectral Density**

5.423 nW/Hz

Antenna 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz

| Value      | Limit | Result |
|------------|-------|--------|
| 100.796 mW | < 1 W | Pass   |

Agilent 08:01:53 Mar 22, 2013

Northwest EMC, Inc

Ref 100 mW

#Atten 10 dB

#Peak

Log

5

dB/

Offst

21.9

dB

#LgAv

M1 S2

Center 2.437 000 GHz

#Res BW 1 MHz

#VBW 3 MHz

Span 30 MHz

Sweep 1.066 ms (2000 pts)

**Channel Power**

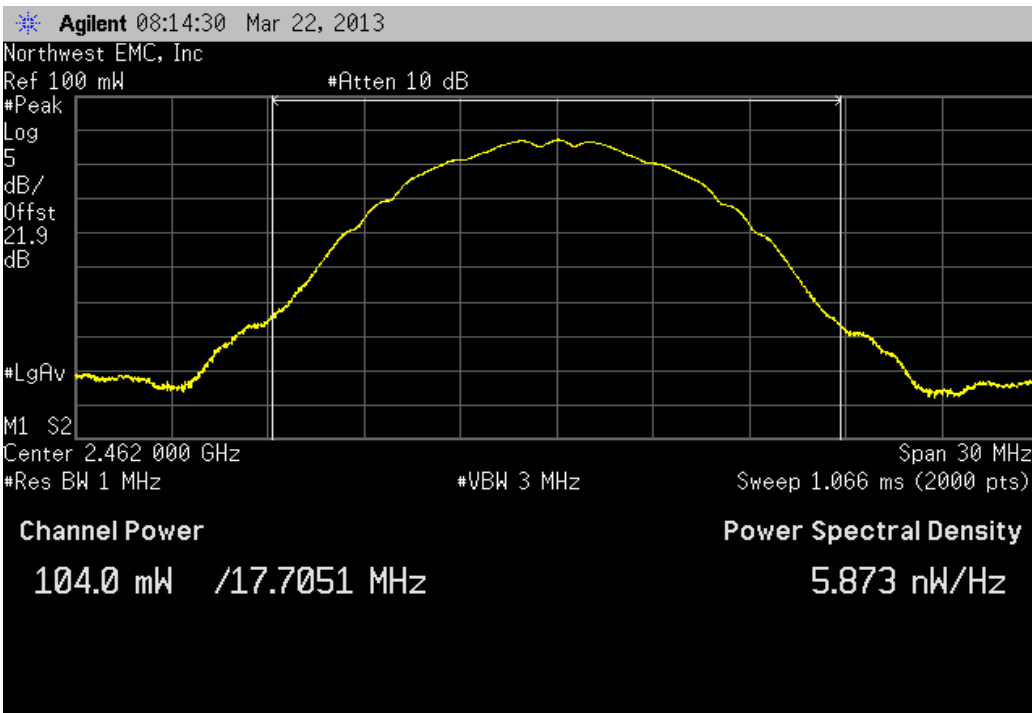
100.8 mW /17.7332 MHz

**Power Spectral Density**

5.684 nW/Hz

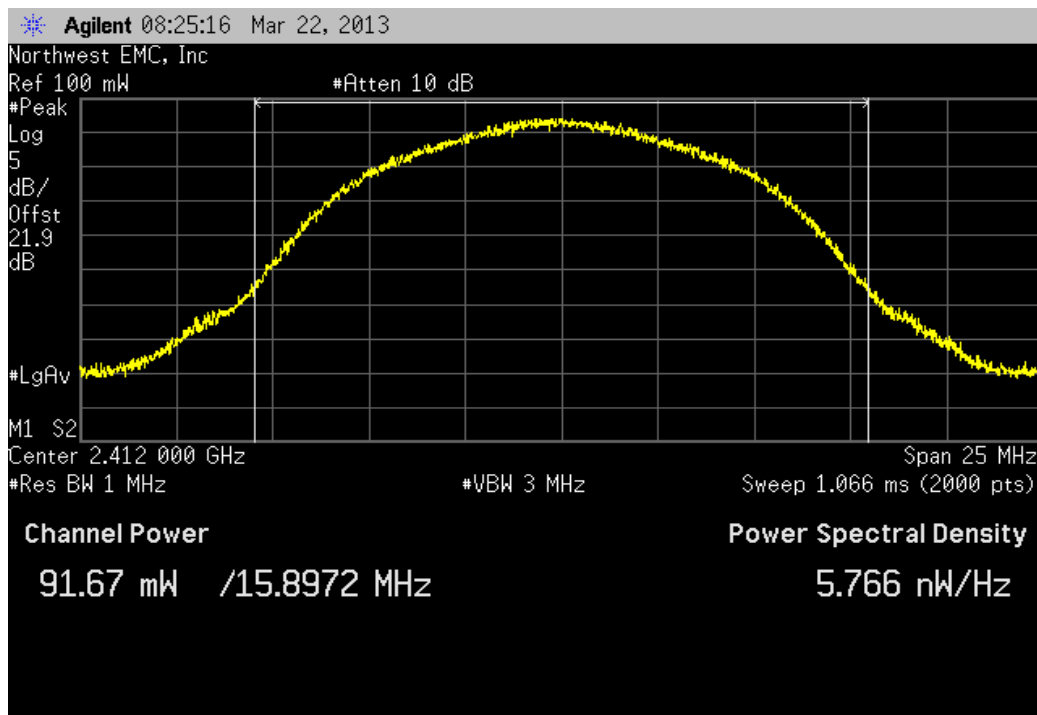
Antenna 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz

| Value      | Limit | Result |
|------------|-------|--------|
| 103.984 mW | < 1 W | Pass   |



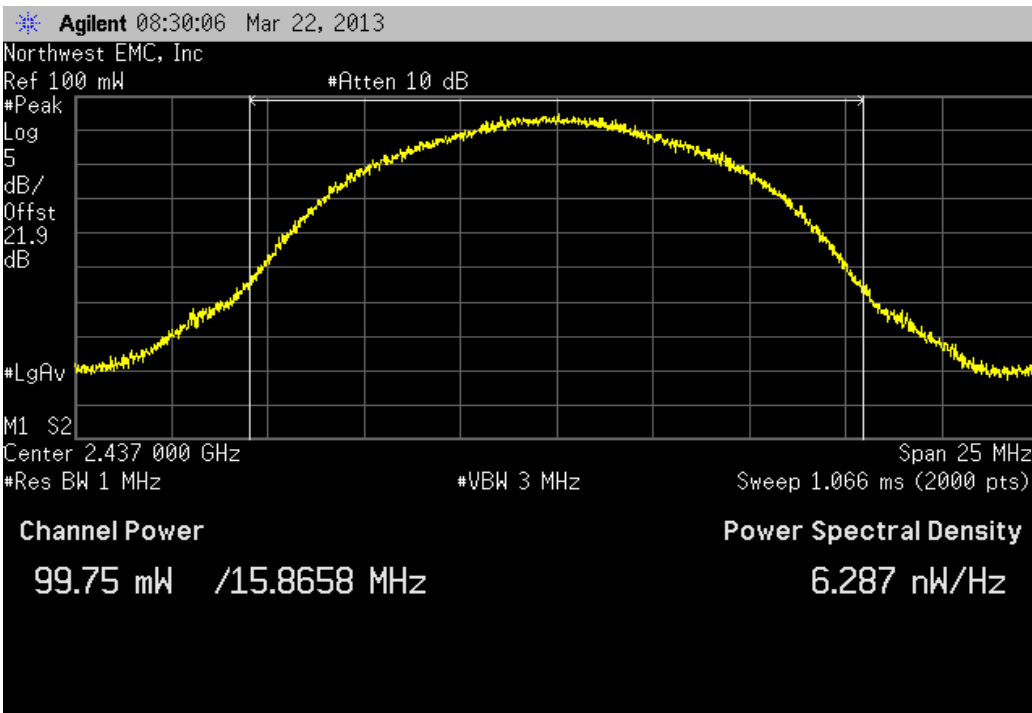
Antenna 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 91.666 mW | < 1 W | Pass   |



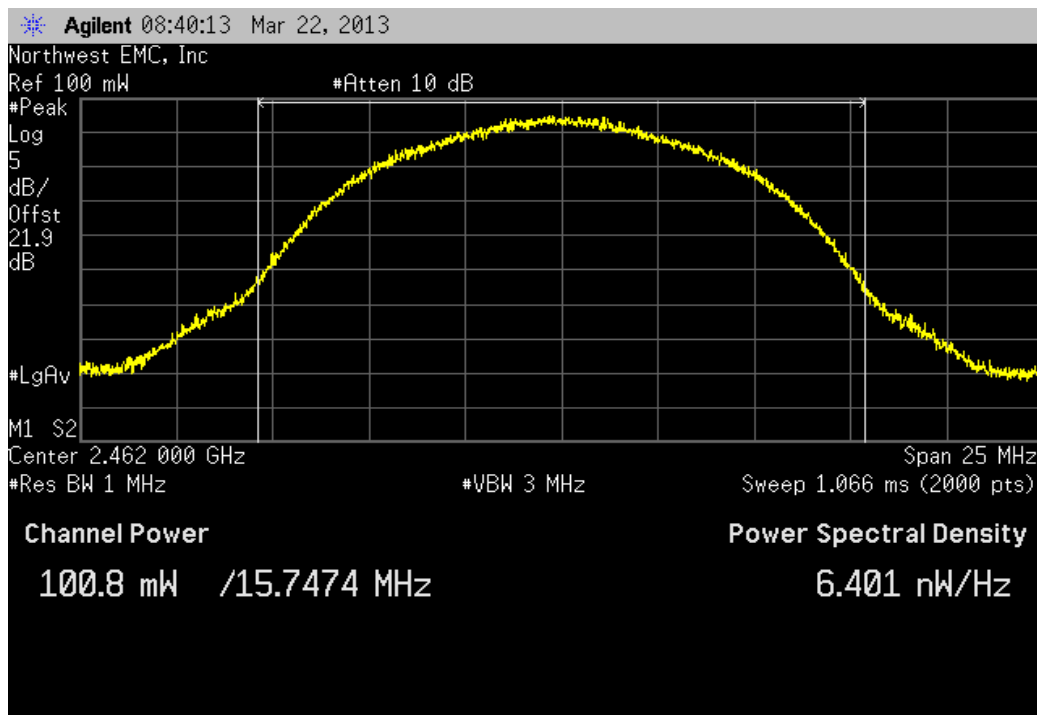
Antenna 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 99.751 mW | < 1 W | Pass   |



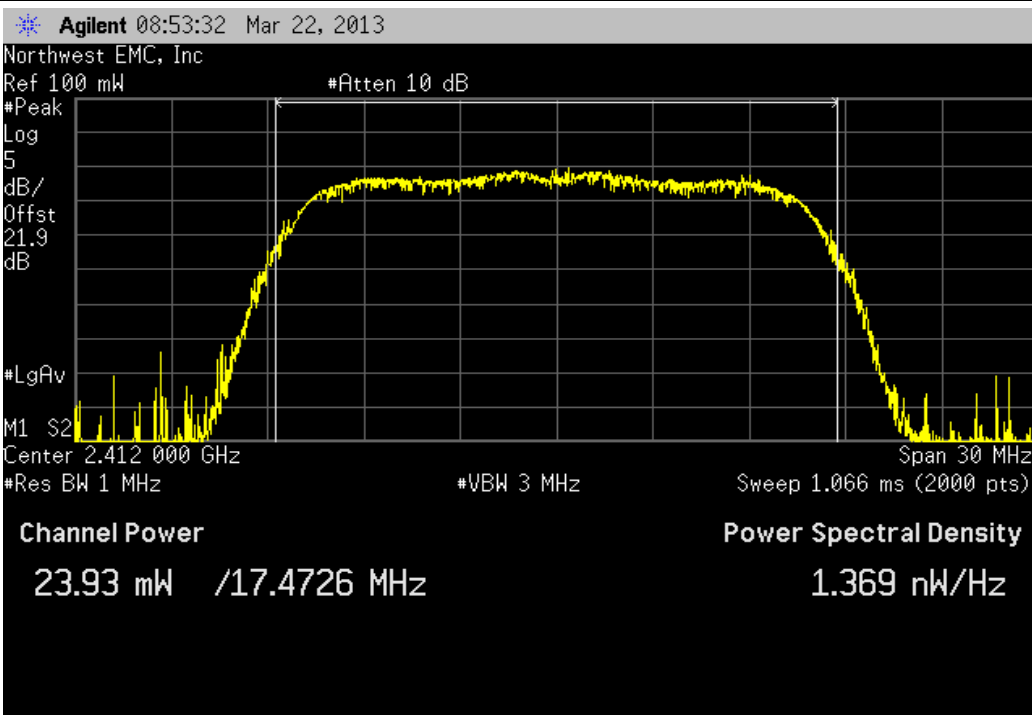
Antenna 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz

| Value      | Limit | Result |
|------------|-------|--------|
| 100.795 mW | < 1 W | Pass   |



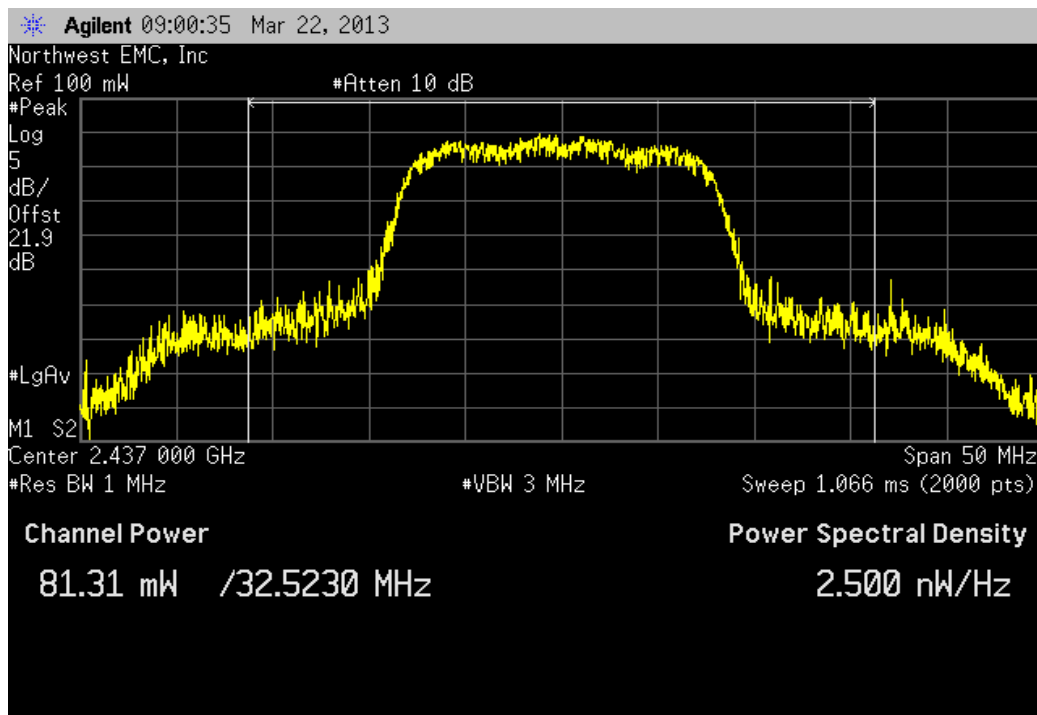
Antenna 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 23.929 mW | < 1 W | Pass   |



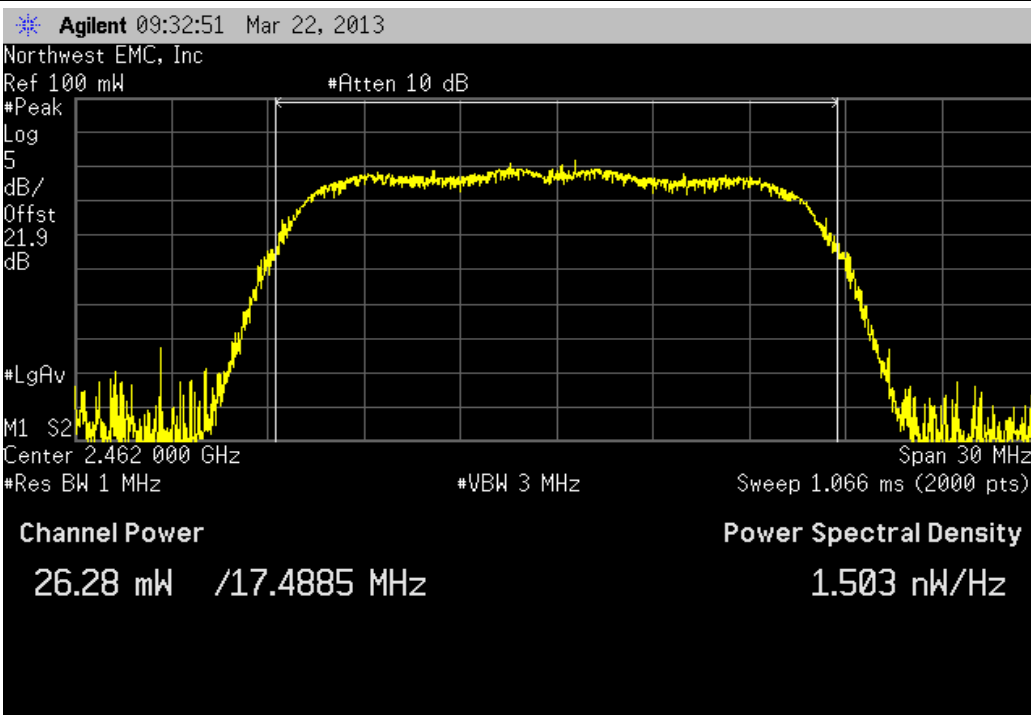
Antenna 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 81.314 mW | < 1 W | Pass   |



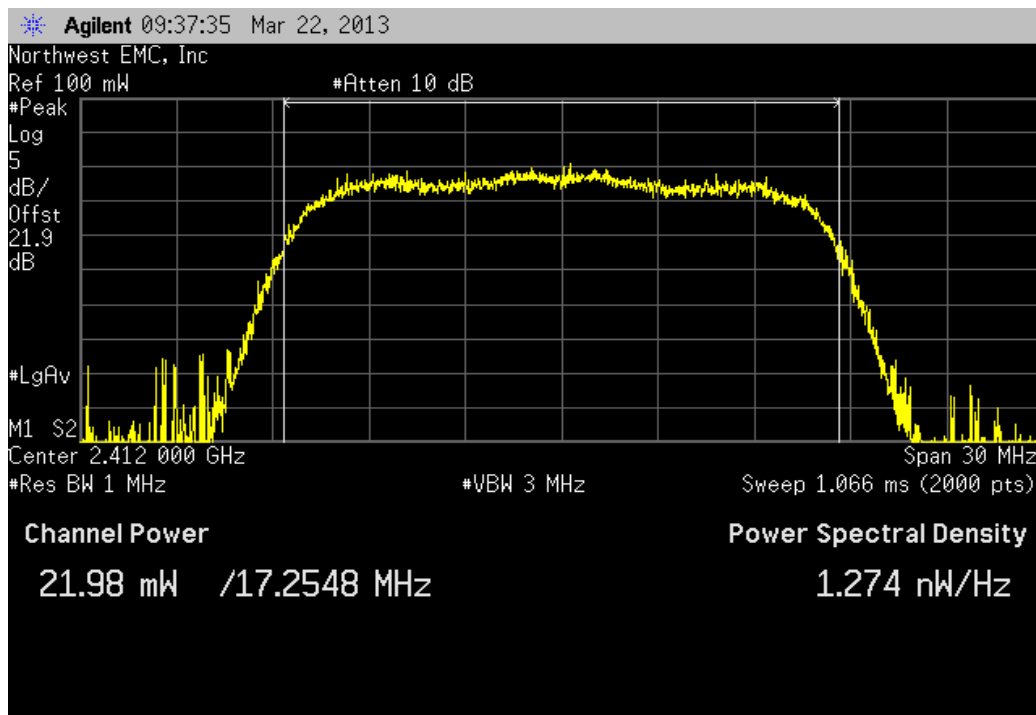
Antenna 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 26.277 mW | < 1 W | Pass   |



Antenna 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 21.983 mW | < 1 W | Pass   |



Antenna 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 62.749 mW | < 1 W | Pass   |

Agilent 09:44:04 Mar 22, 2013

Northwest EMC, Inc

Ref 100 mW

#Atten 10 dB

#Peak

Log

5

dB/

Offst

21.9

dB

#LgAv

M1 S2

Center 2.437 000 GHz

#Res BW 1 MHz

#VBW 3 MHz

Span 30 MHz  
Sweep 1.066 ms (2000 pts)

**Channel Power**

62.75 mW /17.9394 MHz

**Power Spectral Density**

3.498 nW/Hz

Antenna 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 22.694 mW | < 1 W | Pass   |

Agilent 09:48:39 Mar 22, 2013

Northwest EMC, Inc

Ref 100 mW

#Atten 10 dB

#Peak

Log

5

dB/

Offst

21.9

dB

#LgAv

M1 S2

Center 2.462 000 GHz

#Res BW 1 MHz

#VBW 3 MHz

Span 30 MHz  
Sweep 1.066 ms (2000 pts)

**Channel Power**

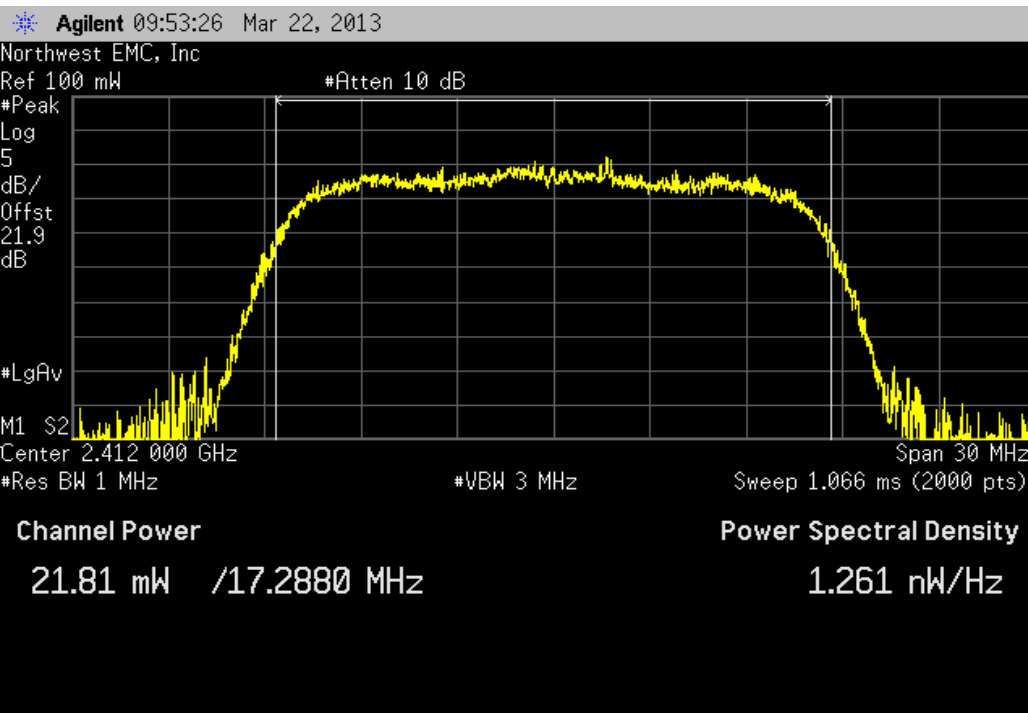
22.69 mW /17.2743 MHz

**Power Spectral Density**

1.314 nW/Hz

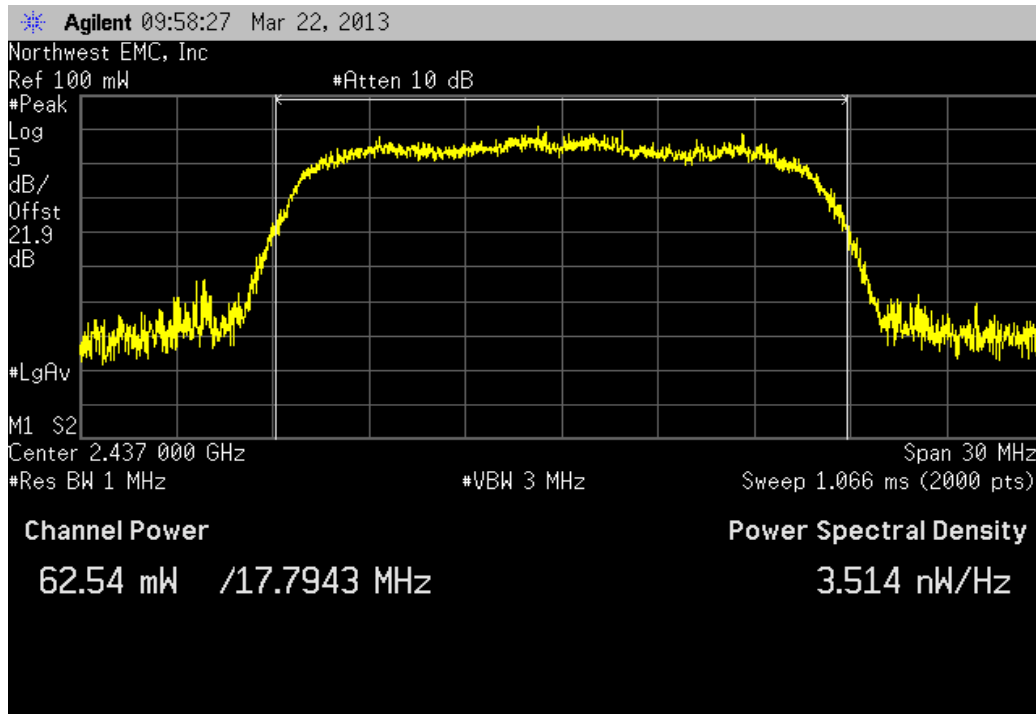
Antenna 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 21.809 mW | < 1 W | Pass   |



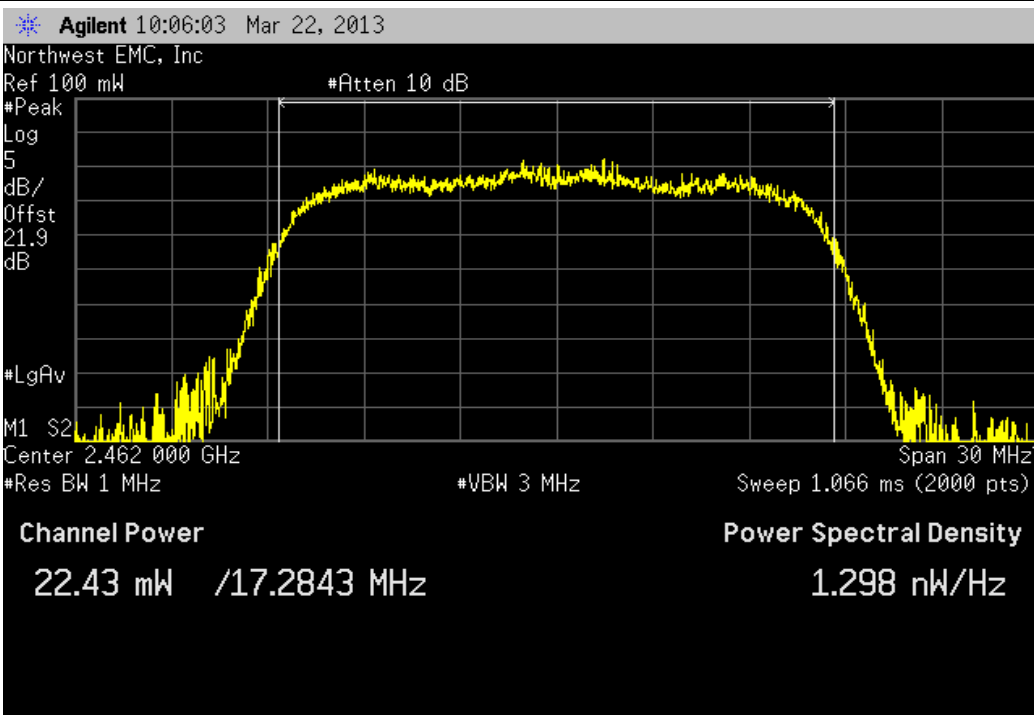
Antenna 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 62.537 mW | < 1 W | Pass   |



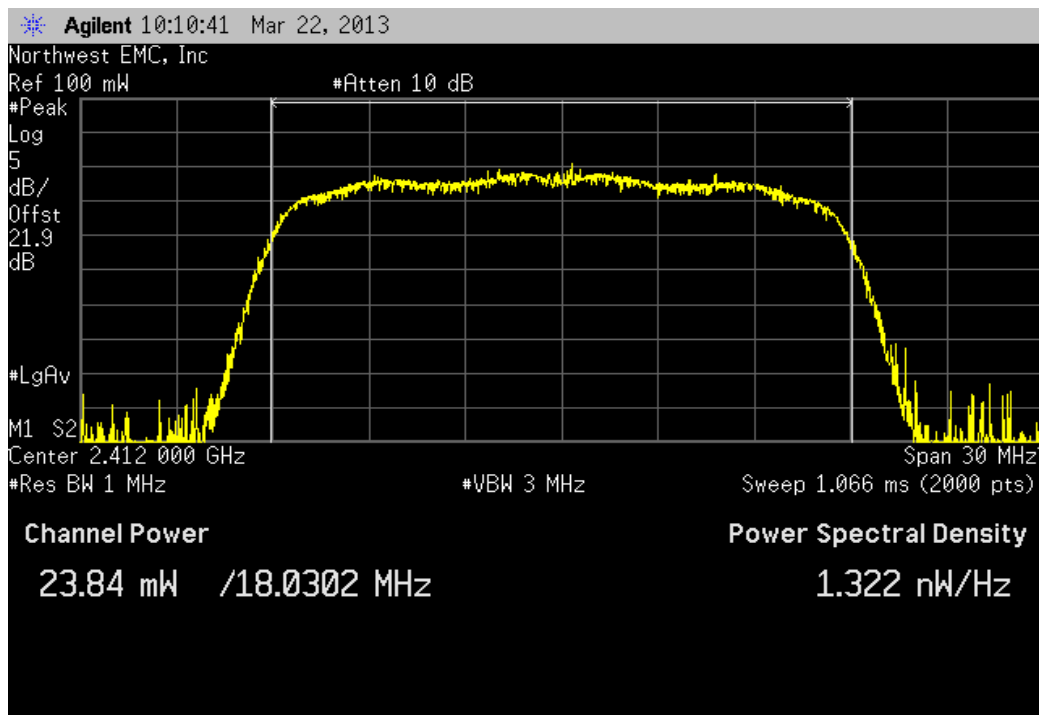
Antenna 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 22.427 mW | < 1 W | Pass   |



Antenna 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 23.837 mW | < 1 W | Pass   |



Antenna 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 61.319 mW | < 1 W | Pass   |

Agilent 10:15:41 Mar 22, 2013

Northwest EMC, Inc

Ref 100 mW

#Atten 10 dB

#Peak

Log

5

dB/

Offst

21.9

dB

#LgAv

M1 S2

Center 2.437 000 GHz

#Res BW 1 MHz

#VBW 3 MHz

Span 45 MHz  
Sweep 1.066 ms (2000 pts)

Channel Power

61.32 mW /27.1955 MHz

Power Spectral Density

2.255 nW/Hz

Antenna 0, 802.11(n) MCS0, High Channel 11, 2462 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 19.792 mW | < 1 W | Pass   |

Agilent 10:21:32 Mar 22, 2013

Northwest EMC, Inc

Ref 100 mW

#Atten 10 dB

#Peak

Log

5

dB/

Offst

21.9

dB

#LgAv

M1 S2

Center 2.462 000 GHz

#Res BW 1 MHz

#VBW 3 MHz

Span 30 MHz  
Sweep 1.066 ms (2000 pts)

Channel Power

19.79 mW /18.0290 MHz

Power Spectral Density

1.098 nW/Hz

Antenna 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 18.038 mW | < 1 W | Pass   |

Agilent 10:27:12 Mar 22, 2013

Northwest EMC, Inc

Ref 100 mW

#Atten 10 dB

#Peak

Log

5

dB/

Offst

21.9

dB

#LgAv

M1 S2

Center 2.412 000 GHz

#Res BW 1 MHz

#VBW 3 MHz

Sweep 1.066 ms (2000 pts)

Span 30 MHz

**Channel Power**

18.04 mW /17.9477 MHz

**Power Spectral Density**

1.005 nW/Hz

Antenna 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 48.419 mW | < 1 W | Pass   |

Agilent 10:32:38 Mar 22, 2013

Northwest EMC, Inc

Ref 100 mW

#Atten 10 dB

#Peak

Log

5

dB/

Offst

21.9

dB

#LgAv

M1 S2

Center 2.437 000 GHz

#Res BW 1 MHz

#VBW 3 MHz

Sweep 1.066 ms (2000 pts)

Span 30 MHz

**Channel Power**

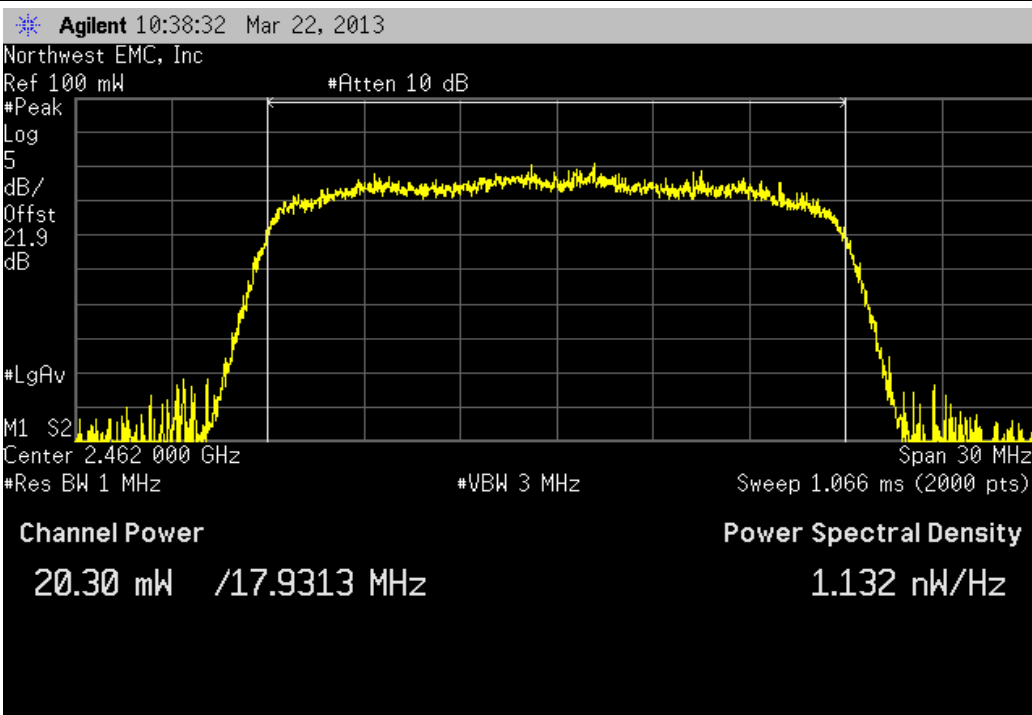
48.42 mW /18.0577 MHz

**Power Spectral Density**

2.681 nW/Hz

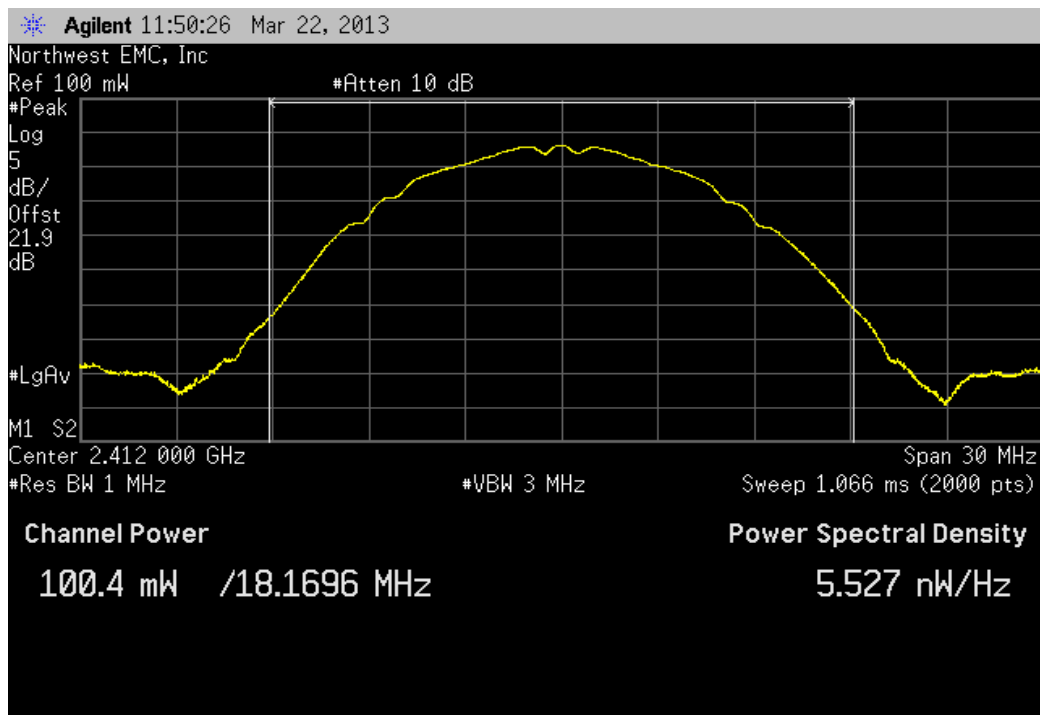
Antenna 0, 802.11(n) MCS7, High Channel 11, 2462 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 20.298 mW | < 1 W | Pass   |



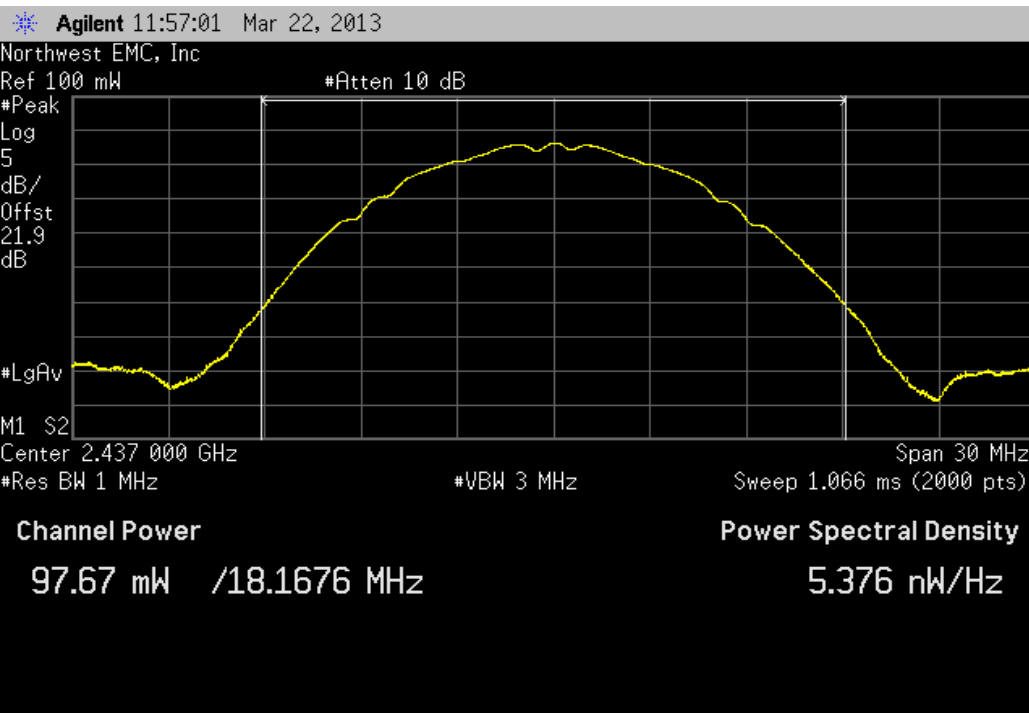
Antenna 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 100.42 mW | < 1 W | Pass   |



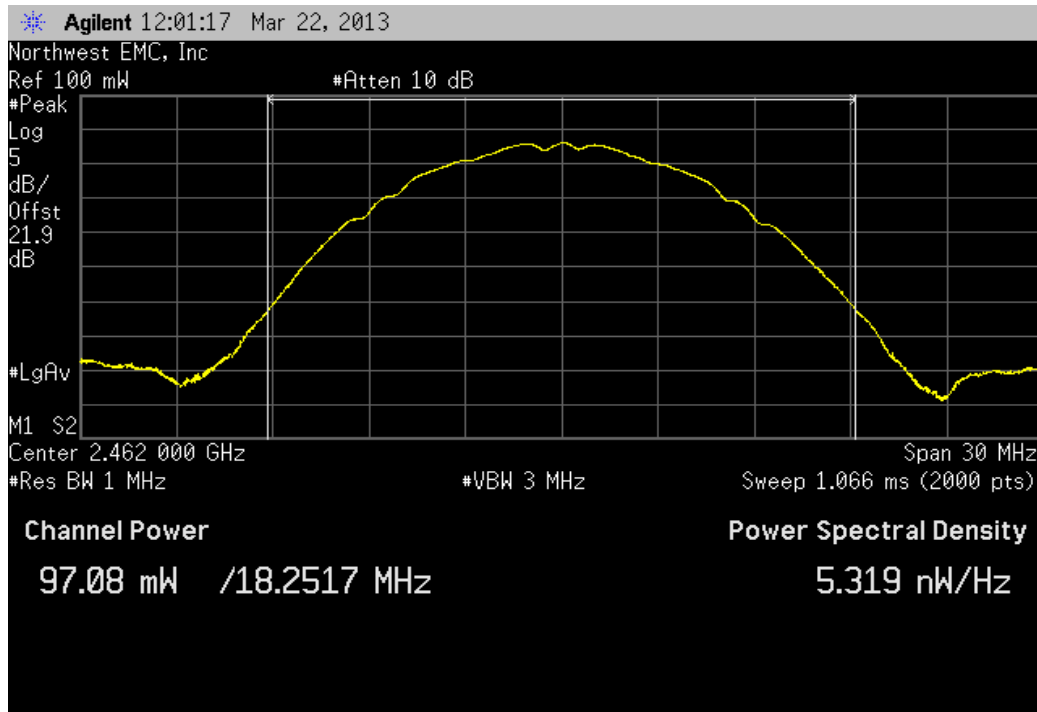
Antenna 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 97.669 mW | < 1 W | Pass   |



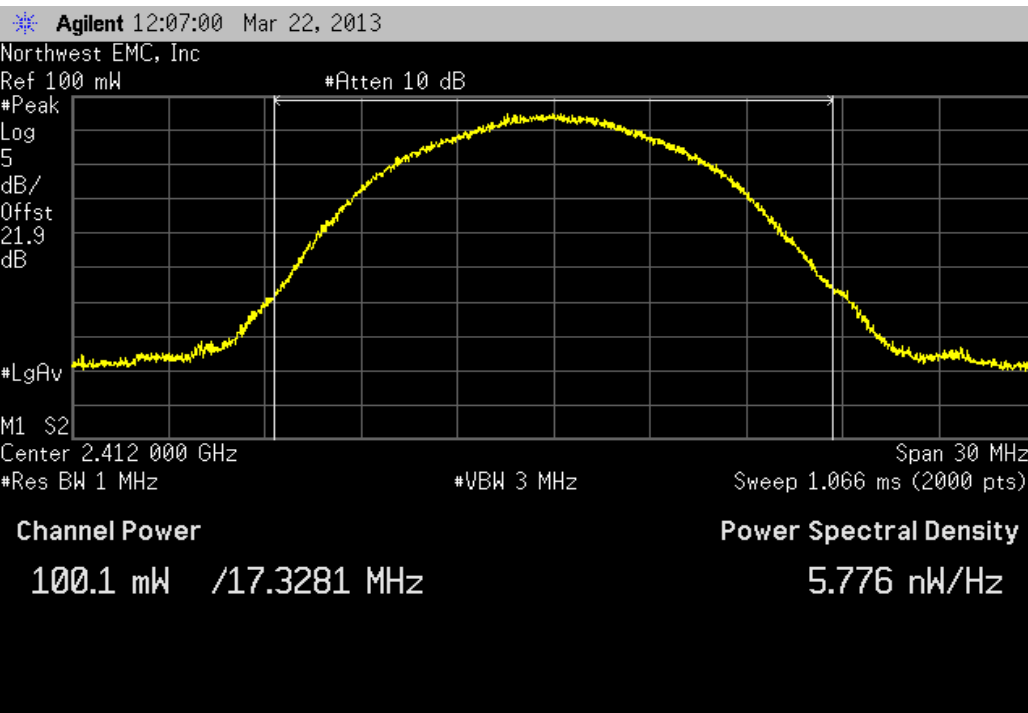
Antenna 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 97.076 mW | < 1 W | Pass   |



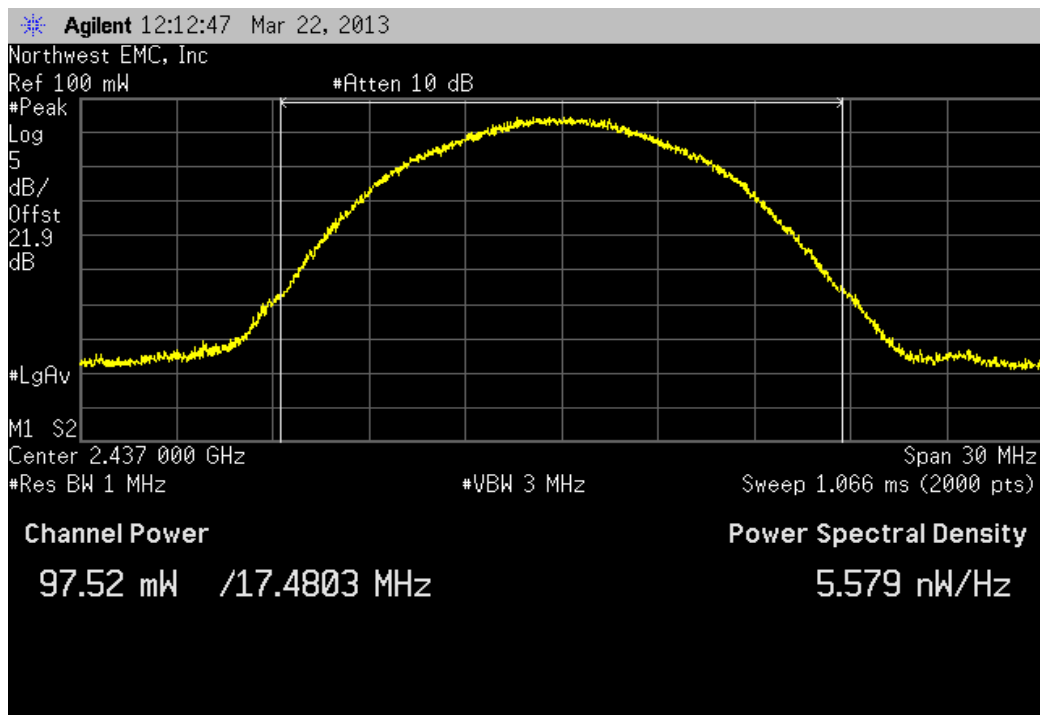
Antenna 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz

| Value      | Limit | Result |
|------------|-------|--------|
| 100.085 mW | < 1 W | Pass   |



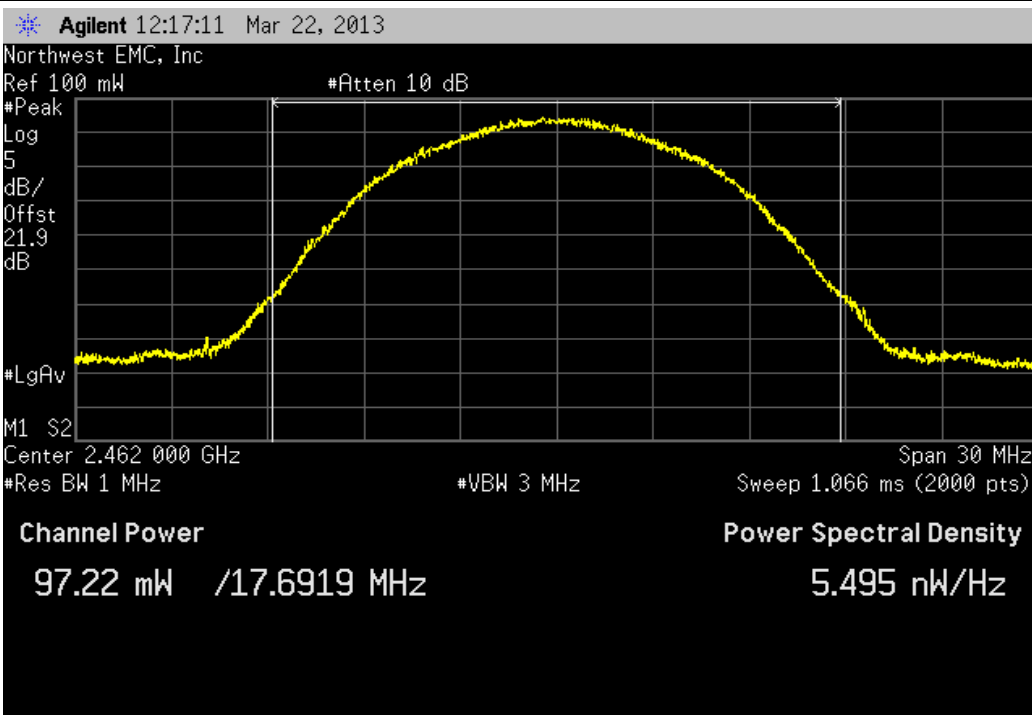
Antenna 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 97.515 mW | < 1 W | Pass   |



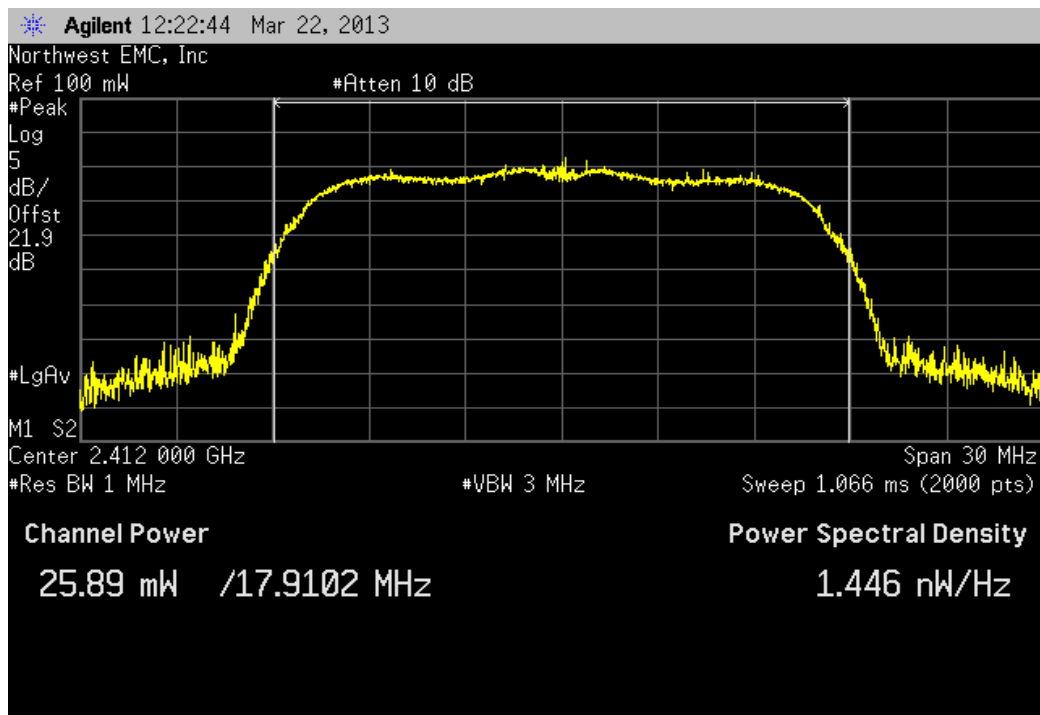
Antenna 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 97.224 mW | < 1 W | Pass   |



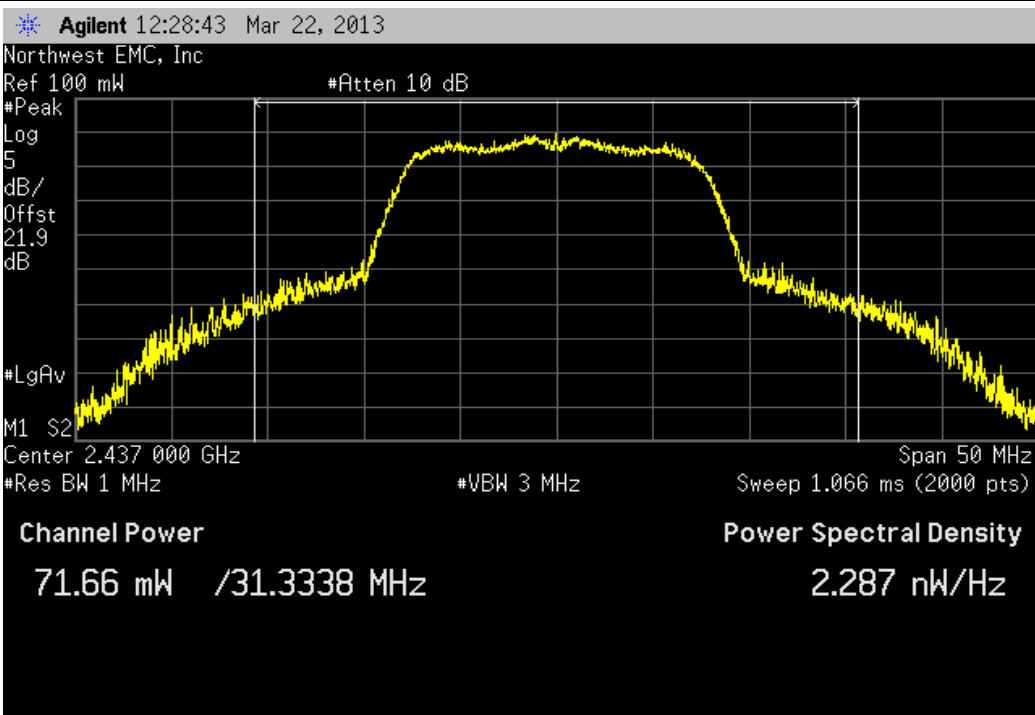
Antenna 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz

| Value    | Limit | Result |
|----------|-------|--------|
| 25.89 mW | < 1 W | Pass   |



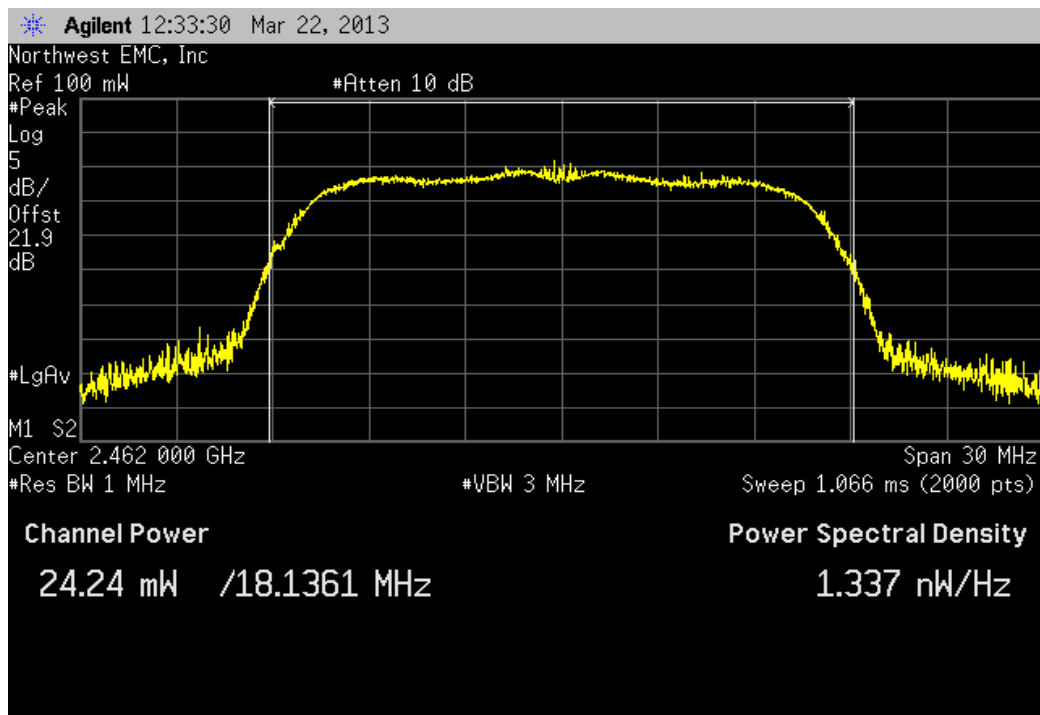
Antenna 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 71.658 mW | < 1 W | Pass   |



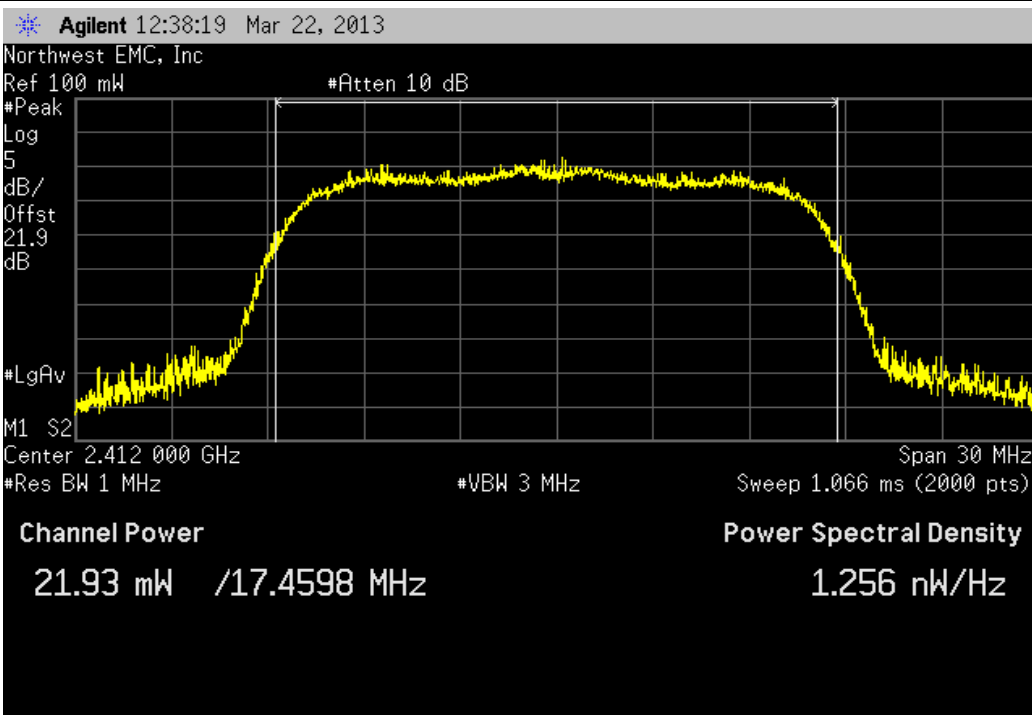
Antenna 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 24.241 mW | < 1 W | Pass   |



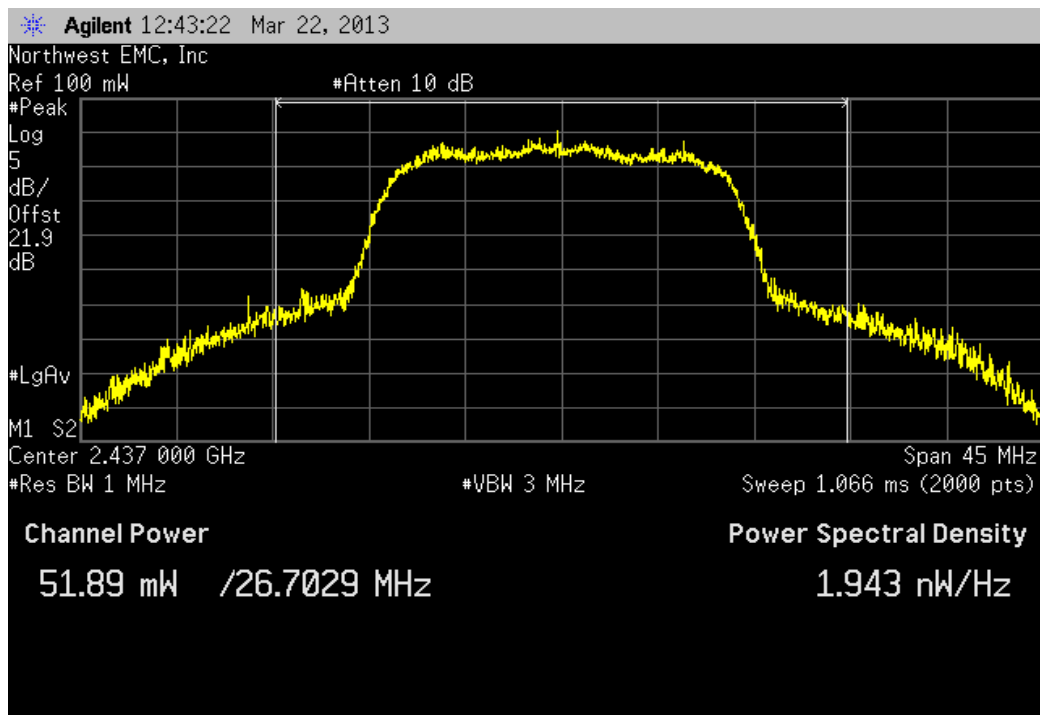
Antenna 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 21.927 mW | < 1 W | Pass   |



Antenna 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 51.888 mW | < 1 W | Pass   |



Antenna 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz

| Value    | Limit | Result |
|----------|-------|--------|
| 19.41 mW | < 1 W | Pass   |

Agilent 12:48:01 Mar 22, 2013

Northwest EMC, Inc

Ref 100 mW

#Atten 10 dB

#Peak

Log

5

dB/

Offst

21.9

dB

#LgAv

M1 S2

Center 2.462 000 GHz

#Res BW 1 MHz

#VBW 3 MHz

Span 30 MHz

Sweep 1.066 ms (2000 pts)

**Channel Power**

19.41 mW /17.5085 MHz

**Power Spectral Density**

1.109 nW/Hz

Antenna 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 21.308 mW | < 1 W | Pass   |

Agilent 12:52:44 Mar 22, 2013

Northwest EMC, Inc

Ref 100 mW

#Atten 10 dB

#Peak

Log

5

dB/

Offst

21.9

dB

#LgAv

M1 S2

Center 2.412 000 GHz

#Res BW 1 MHz

#VBW 3 MHz

Span 30 MHz

Sweep 1.066 ms (2000 pts)

**Channel Power**

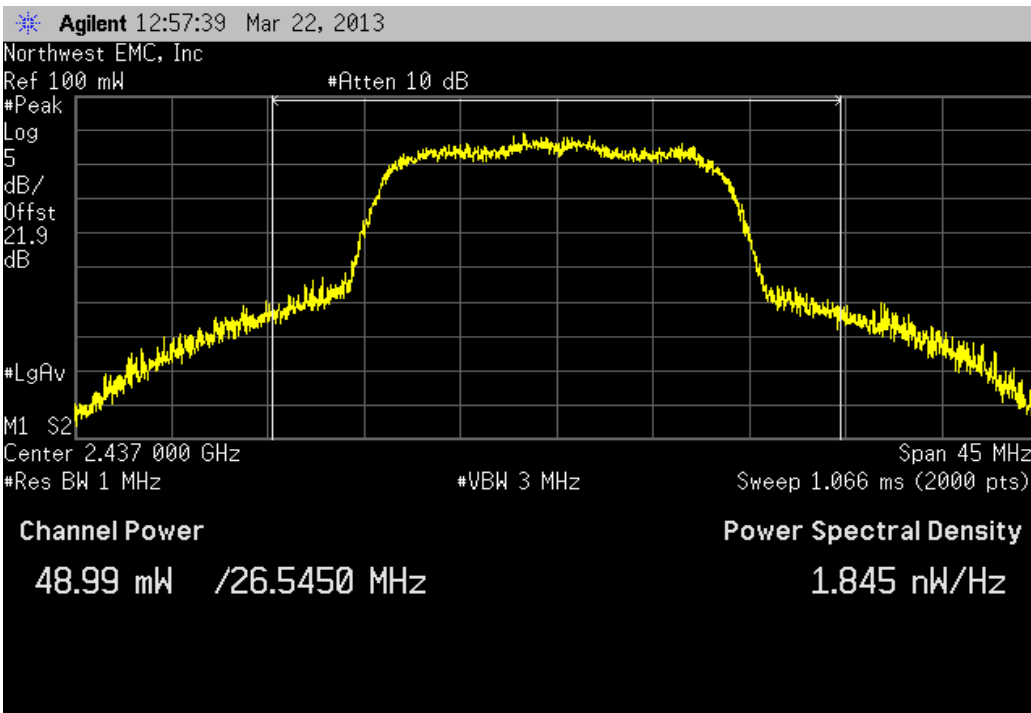
21.31 mW /17.4771 MHz

**Power Spectral Density**

1.219 nW/Hz

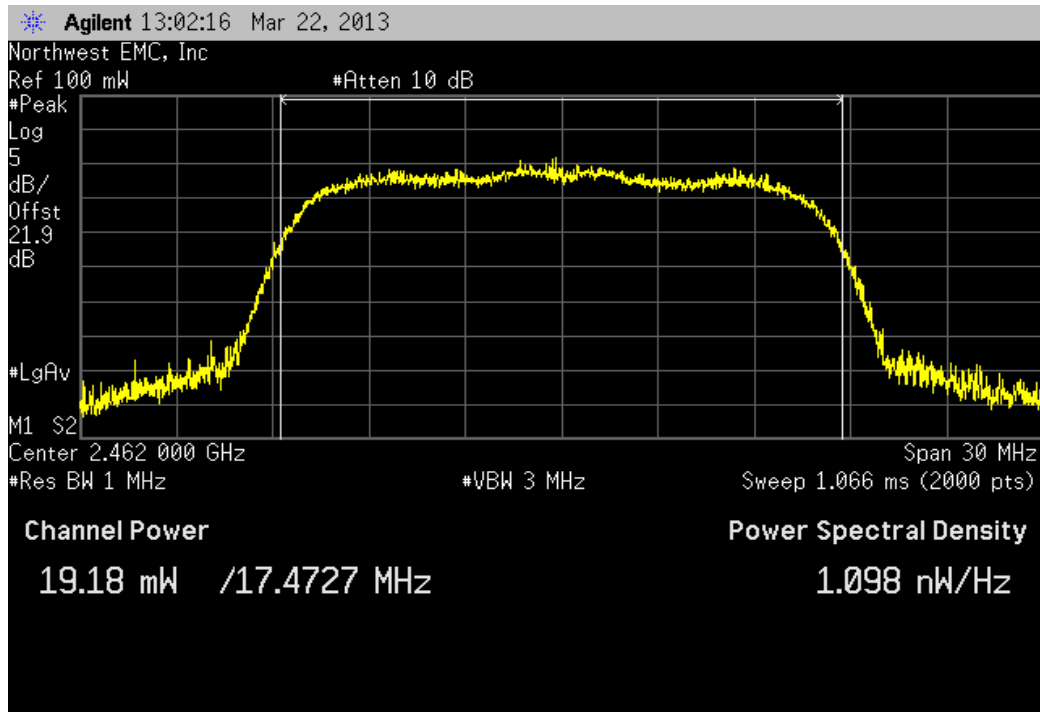
Antenna 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 48.988 mW | < 1 W | Pass   |



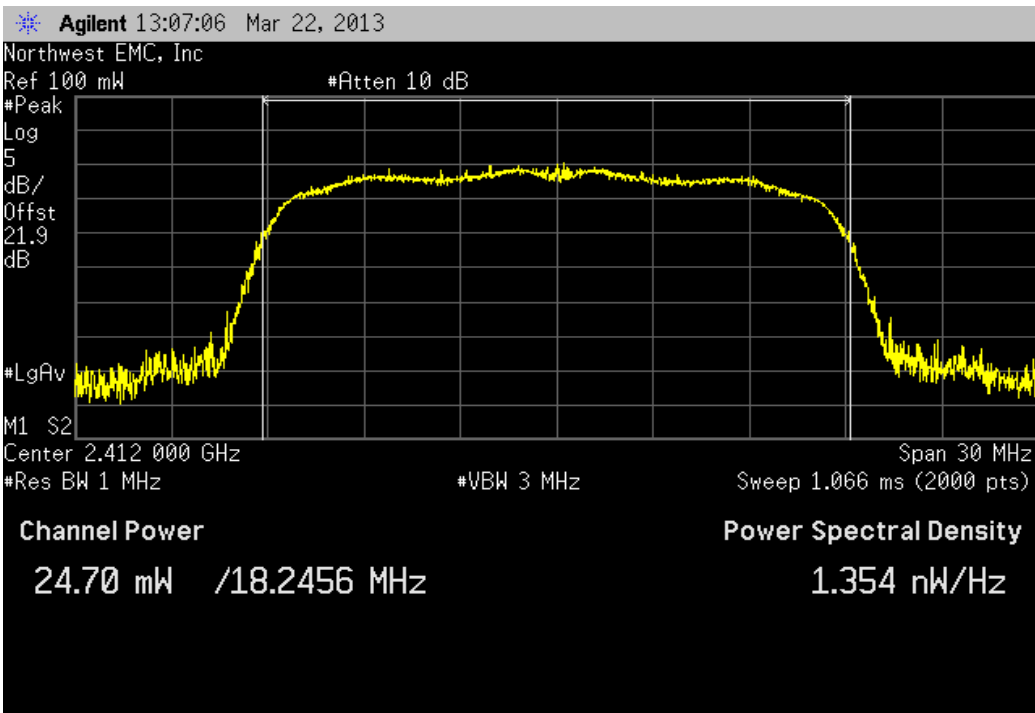
Antenna 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 19.184 mW | < 1 W | Pass   |



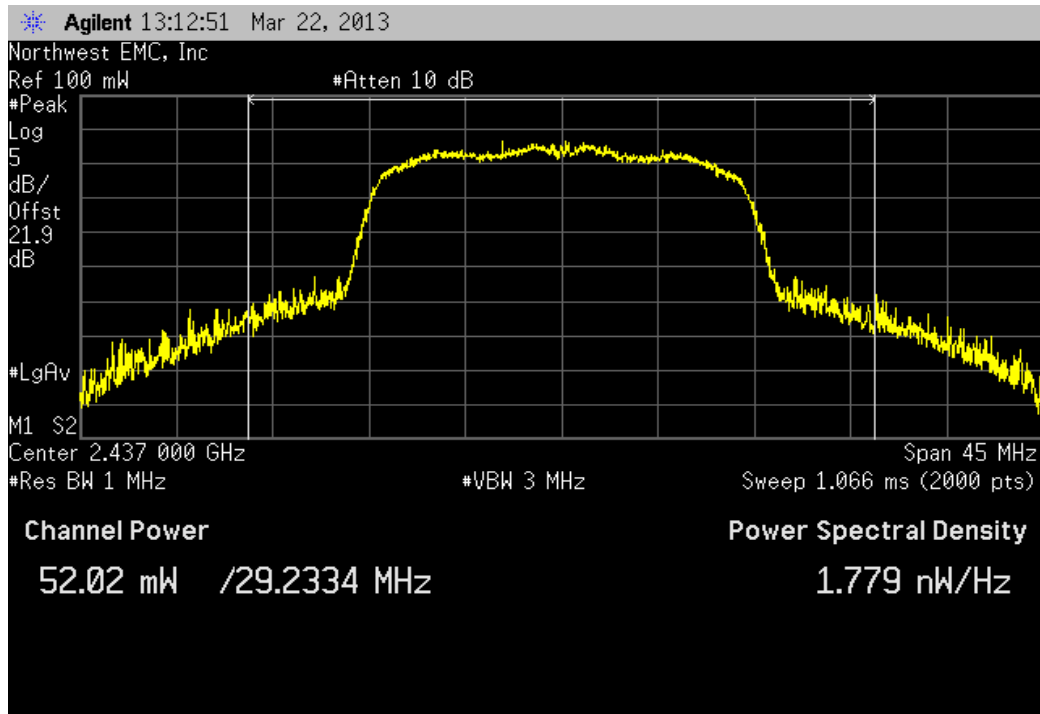
Antenna 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 24.705 mW | < 1 W | Pass   |



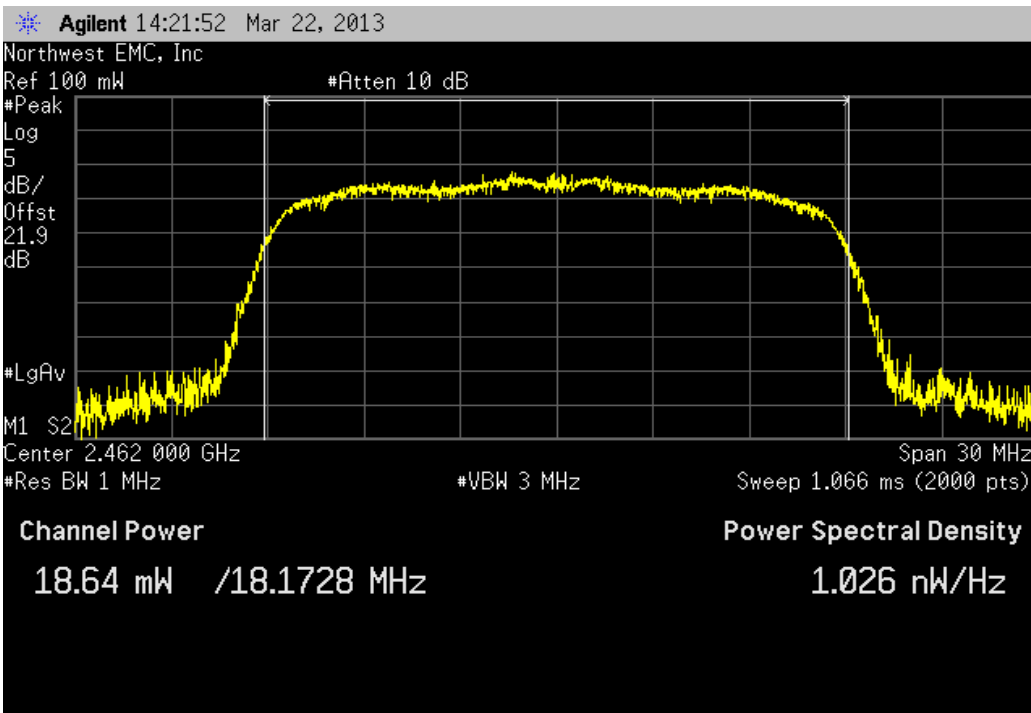
Antenna 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 52.018 mW | < 1 W | Pass   |



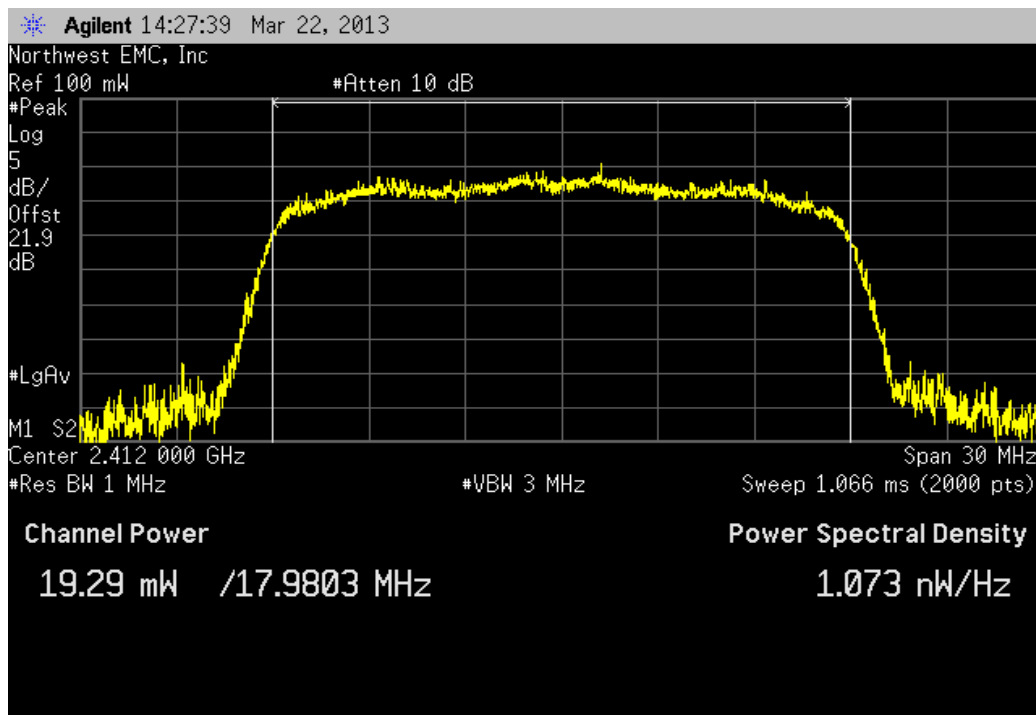
Antenna 1, 802.11(n) MCS0, High Channel 11, 2462 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 18.641 mW | < 1 W | Pass   |



Antenna 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 19.287 mW | < 1 W | Pass   |



Antenna 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 46.025 mW | < 1 W | Pass   |

Agilent 14:32:43 Mar 22, 2013

Northwest EMC, Inc

Ref 100 mW

#Atten 10 dB

#Peak

Log

5

dB/

Offst

21.9

dB

#LgAv

M1 S2

Center 2.437 000 GHz

#Res BW 1 MHz

#VBW 3 MHz

Span 40 MHz  
Sweep 1.066 ms (2000 pts)

Channel Power

46.03 mW /24.2022 MHz

Power Spectral Density

1.902 nW/Hz

Antenna 1, 802.11(n) MCS7, High Channel 11, 2462 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 19.016 mW | < 1 W | Pass   |

Agilent 14:37:26 Mar 22, 2013

Northwest EMC, Inc

Ref 100 mW

#Atten 10 dB

#Peak

Log

5

dB/

Offst

21.9

dB

#LgAv

M1 S2

Center 2.462 000 GHz

#Res BW 1 MHz

#VBW 3 MHz

Span 30 MHz  
Sweep 1.066 ms (2000 pts)

Channel Power

19.02 mW /18.0029 MHz

Power Spectral Density

1.056 nW/Hz

## Band Edge Compliance

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

### TEST EQUIPMENT

| Description              | Manufacturer       | Model    | ID  | Last Cal. | Interval |
|--------------------------|--------------------|----------|-----|-----------|----------|
| 40 GHz DC block          | Fairview Microwave | SD3379   | AMI | 10/5/2012 | 12       |
| Attenuator - 20db, 'SMA' | SM Electronics     | SA26B-20 | RFW | 4/19/2012 | 12       |
| Spectrum Analyzer        | Agilent            | E4446A   | AAT | 6/28/2012 | 24       |
| Signal Generator MXG     | Agilent            | N5183A   | TIK | 6/7/2012  | 36       |

### TEST DESCRIPTION

The spurious RF conducted emissions at the edges of the authorized bands were measured with the EUT set to low and high transmit frequencies in each available band. The channels closest to the band edges were selected. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at the data rate(s) listed in the datasheet.

The spectrum was scanned below the lower band edge and above the higher band edge.



## Band Edge Compliance

XMit 2013.02.28  
PsaTx 2013.03.22

|                                                       |   |                              |           |        |
|-------------------------------------------------------|---|------------------------------|-----------|--------|
| EUT: RTH9580WF01                                      |   | Work Order: HNYW0043         |           |        |
| Serial Number: 5191101 0010638                        |   | Date: 03/22/13               |           |        |
| Customer: Honeywell, Automation and Control Solutions |   | Temperature: 23.9°C          |           |        |
| Attendees: None                                       |   | Humidity: 13%                |           |        |
| Project: None                                         |   | Barometric Pres.: 1018.5     |           |        |
| Tested by: Trevor Buls                                |   | Power: 110VAC/60Hz           |           |        |
| Job Site: MN05                                        |   | Test Method                  |           |        |
| FCC 15.247:2013                                       |   | ANSI C63.10:2009             |           |        |
| COMMENTS                                              |   |                              |           |        |
| None                                                  |   |                              |           |        |
| DEVIATIONS FROM TEST STANDARD                         |   |                              |           |        |
| None                                                  |   |                              |           |        |
| Configuration #                                       | 2 | Signature <i>Trevor Buls</i> |           |        |
|                                                       |   | Value                        | Limit     | Result |
| Antenna 0                                             |   |                              |           |        |
| 802.11(b) 1 Mbps                                      |   |                              |           |        |
| Low Channel 1, 2412 MHz                               |   | -35.55 dBc                   | ≤ -20 dBc | Pass   |
| High Channel 11, 2462 MHz                             |   | -56.52 dBc                   | ≤ -20 dBc | Pass   |
| 802.11(b) 11 Mbps                                     |   |                              |           |        |
| Low Channel 1, 2412 MHz                               |   | -36.58 dBc                   | ≤ -20 dBc | Pass   |
| High Channel 11, 2462 MHz                             |   | -57.98 dBc                   | ≤ -20 dBc | Pass   |
| 802.11(g) 6 Mbps                                      |   |                              |           |        |
| Low Channel 1, 2412 MHz                               |   | -32.66 dBc                   | ≤ -20 dBc | Pass   |
| High Channel 11, 2462 MHz                             |   | -43.66 dBc                   | ≤ -20 dBc | Pass   |
| 802.11(g) 36 Mbps                                     |   |                              |           |        |
| Low Channel 1, 2412 MHz                               |   | -34.81 dBc                   | ≤ -20 dBc | Pass   |
| High Channel 11, 2462 MHz                             |   | -45.72 dBc                   | ≤ -20 dBc | Pass   |
| 802.11(g) 54 Mbps                                     |   |                              |           |        |
| Low Channel 1, 2412 MHz                               |   | -38.62 dBc                   | ≤ -20 dBc | Pass   |
| High Channel 11, 2462 MHz                             |   | -47.77 dBc                   | ≤ -20 dBc | Pass   |
| 802.11(n) MCS0                                        |   |                              |           |        |
| Low Channel 1, 2412 MHz                               |   | -36.59 dBc                   | ≤ -20 dBc | Pass   |
| High Channel 11, 2462 MHz                             |   | -44.36 dBc                   | ≤ -20 dBc | Pass   |
| 802.11(n) MCS7                                        |   |                              |           |        |
| Low Channel 1, 2412 MHz                               |   | -38.83 dBc                   | ≤ -20 dBc | Pass   |
| High Channel 11, 2462 MHz                             |   | -46.34 dBc                   | ≤ -20 dBc | Pass   |
| Antenna 1                                             |   |                              |           |        |
| 802.11(b) 1 Mbps                                      |   |                              |           |        |
| Low Channel 1, 2412 MHz                               |   | -32.34 dBc                   | ≤ -20 dBc | Pass   |
| High Channel 11, 2462 MHz                             |   | -57.02 dBc                   | ≤ -20 dBc | Pass   |
| 802.11(b) 11 Mbps                                     |   |                              |           |        |
| Low Channel 1, 2412 MHz                               |   | -35.45 dBc                   | ≤ -20 dBc | Pass   |
| High Channel 11, 2462 MHz                             |   | -58.2 dBc                    | ≤ -20 dBc | Pass   |
| 802.11(g) 6 Mbps                                      |   |                              |           |        |
| Low Channel 1, 2412 MHz                               |   | -34.22 dBc                   | ≤ -20 dBc | Pass   |
| High Channel 11, 2462 MHz                             |   | -46.47 dBc                   | ≤ -20 dBc | Pass   |
| 802.11(g) 36 Mbps                                     |   |                              |           |        |
| Low Channel 1, 2412 MHz                               |   | -35.28 dBc                   | ≤ -20 dBc | Pass   |
| High Channel 11, 2462 MHz                             |   | -49.3 dBc                    | ≤ -20 dBc | Pass   |
| 802.11(g) 54 Mbps                                     |   |                              |           |        |
| Low Channel 1, 2412 MHz                               |   | -34.73 dBc                   | ≤ -20 dBc | Pass   |
| High Channel 11, 2462 MHz                             |   | -48.46 dBc                   | ≤ -20 dBc | Pass   |
| 802.11(n) MCS0                                        |   |                              |           |        |
| Low Channel 1, 2412 MHz                               |   | -33.22 dBc                   | ≤ -20 dBc | Pass   |
| High Channel 11, 2462 MHz                             |   | -46.9 dBc                    | ≤ -20 dBc | Pass   |
| 802.11(n) MCS7                                        |   |                              |           |        |
| Low Channel 1, 2412 MHz                               |   | -37.19 dBc                   | ≤ -20 dBc | Pass   |
| High Channel 11, 2462 MHz                             |   | -48.34 dBc                   | ≤ -20 dBc | Pass   |

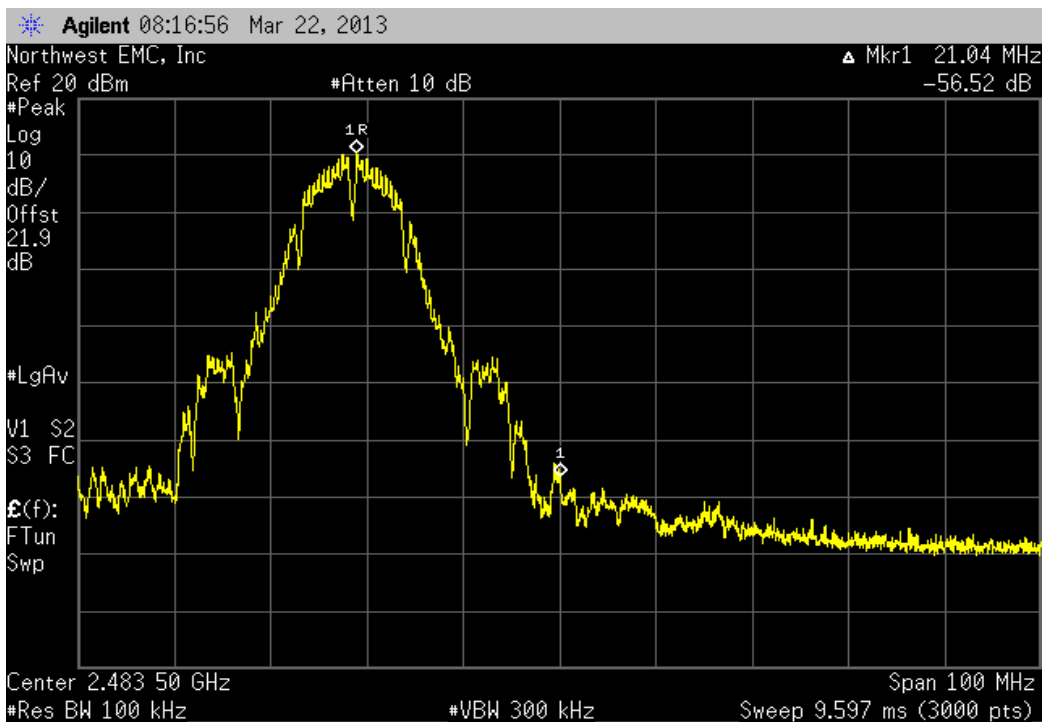
Antenna 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz

|  |  |  |  | Value      | Limit     | Result |
|--|--|--|--|------------|-----------|--------|
|  |  |  |  | -35.55 dBc | ≤ -20 dBc | Pass   |



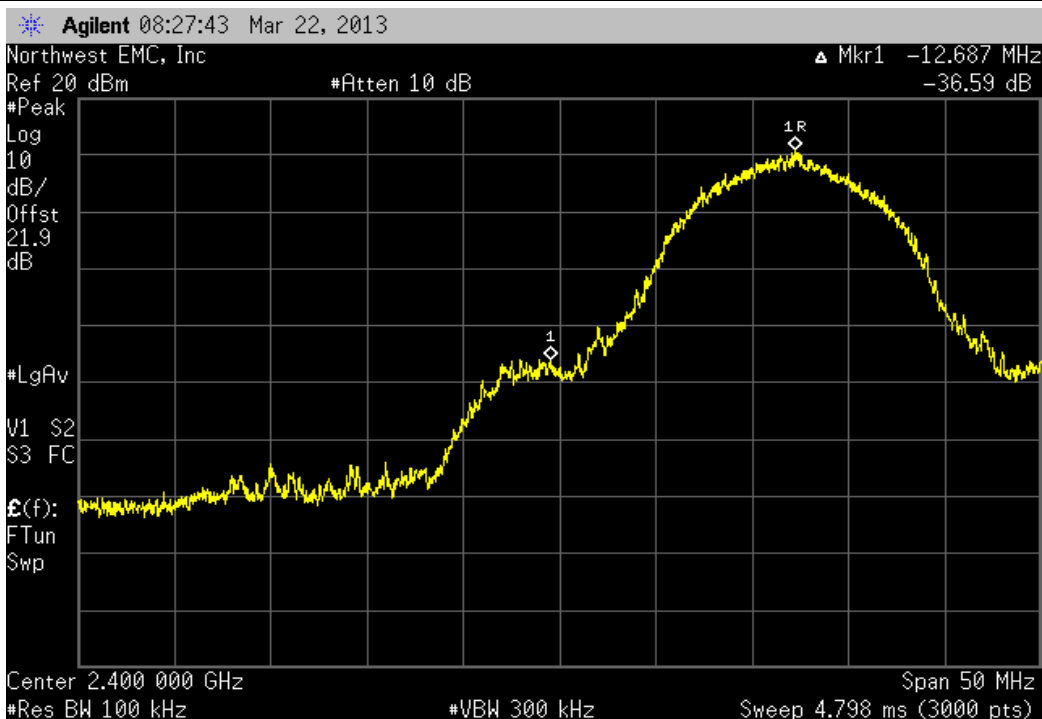
Antenna 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz

|  |  |  |  | Value      | Limit     | Result |
|--|--|--|--|------------|-----------|--------|
|  |  |  |  | -56.52 dBc | ≤ -20 dBc | Pass   |



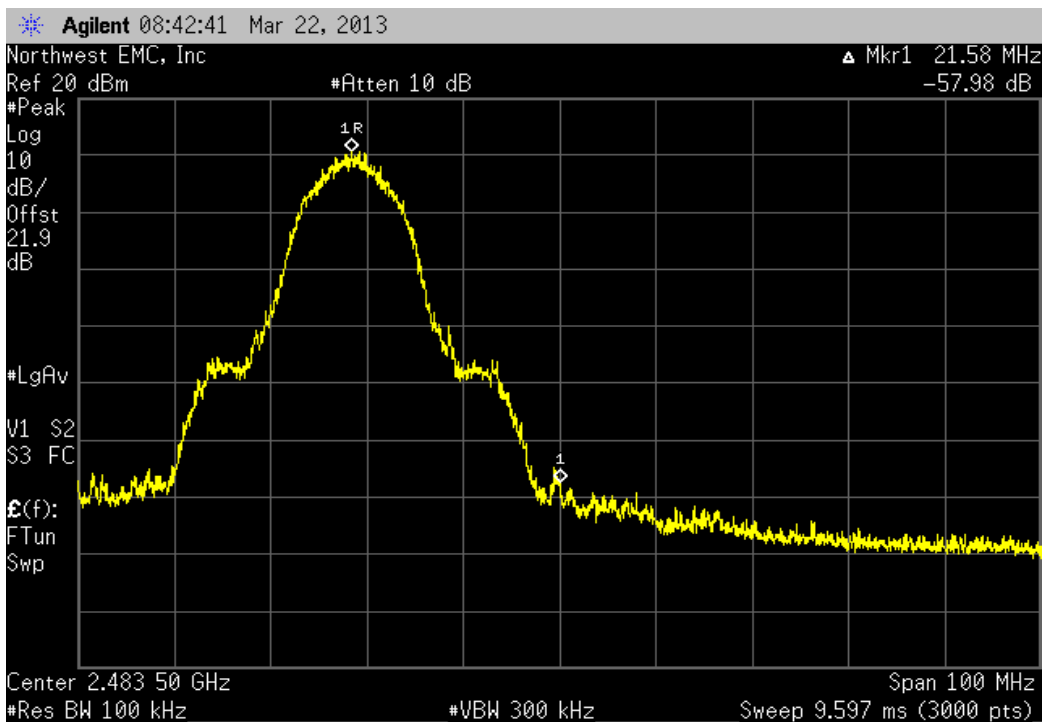
Antenna 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -36.58 dBc | ≤ -20 dBc | Pass   |



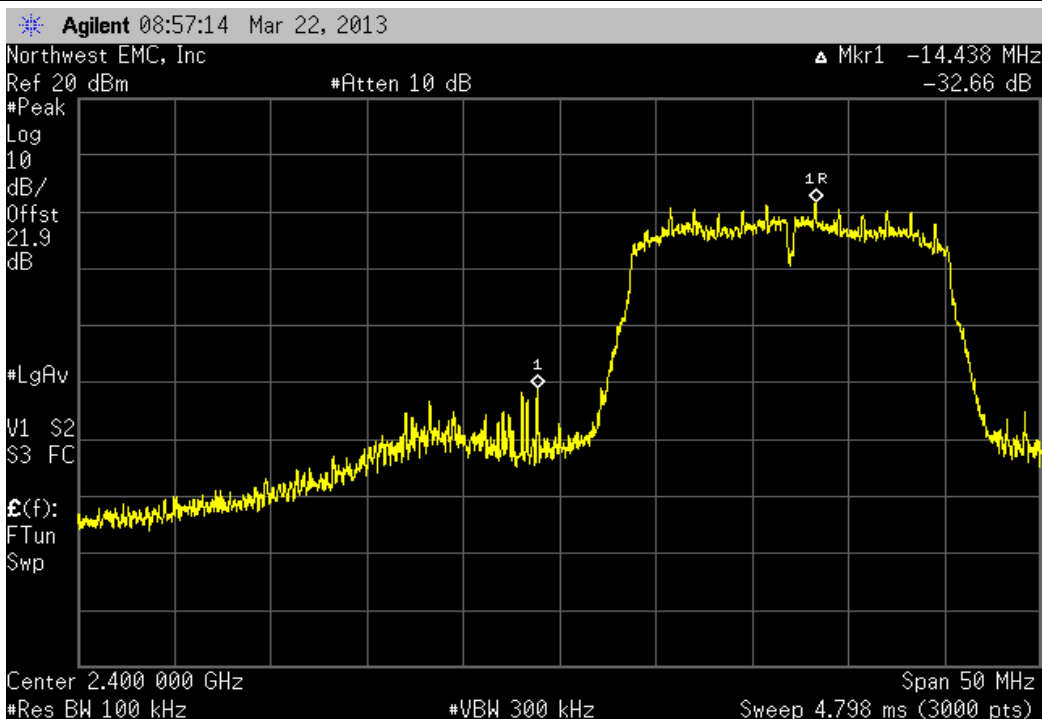
Antenna 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -57.98 dBc | ≤ -20 dBc | Pass   |



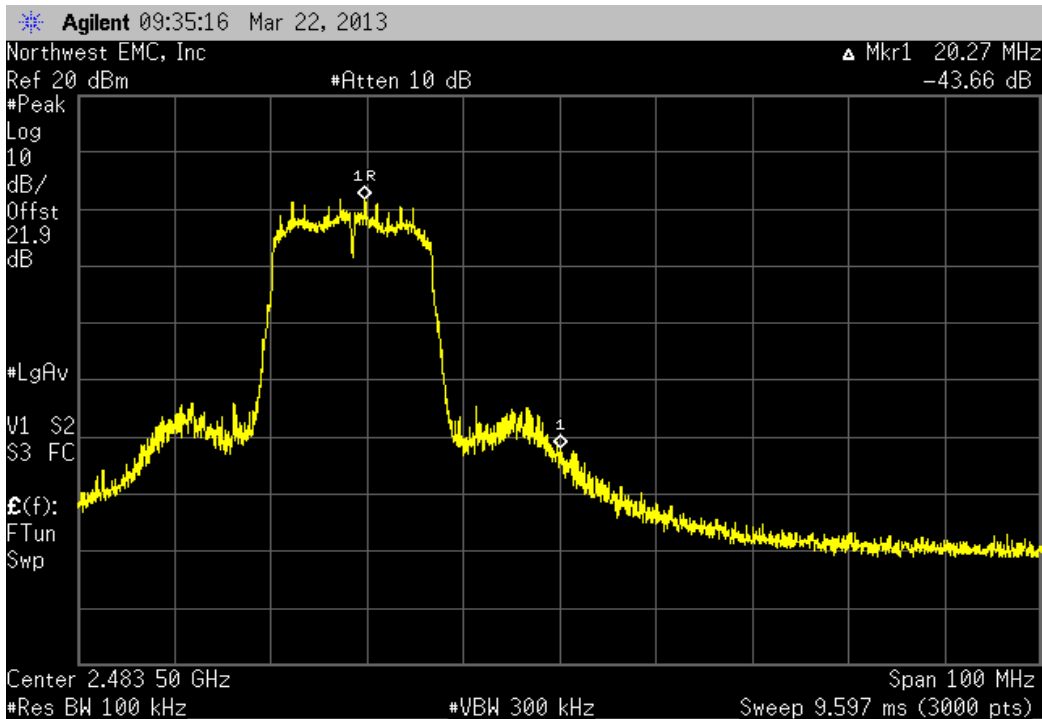
Antenna 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz

|  |  |  |  | Value      | Limit     | Result |
|--|--|--|--|------------|-----------|--------|
|  |  |  |  | -32.66 dBc | ≤ -20 dBc | Pass   |



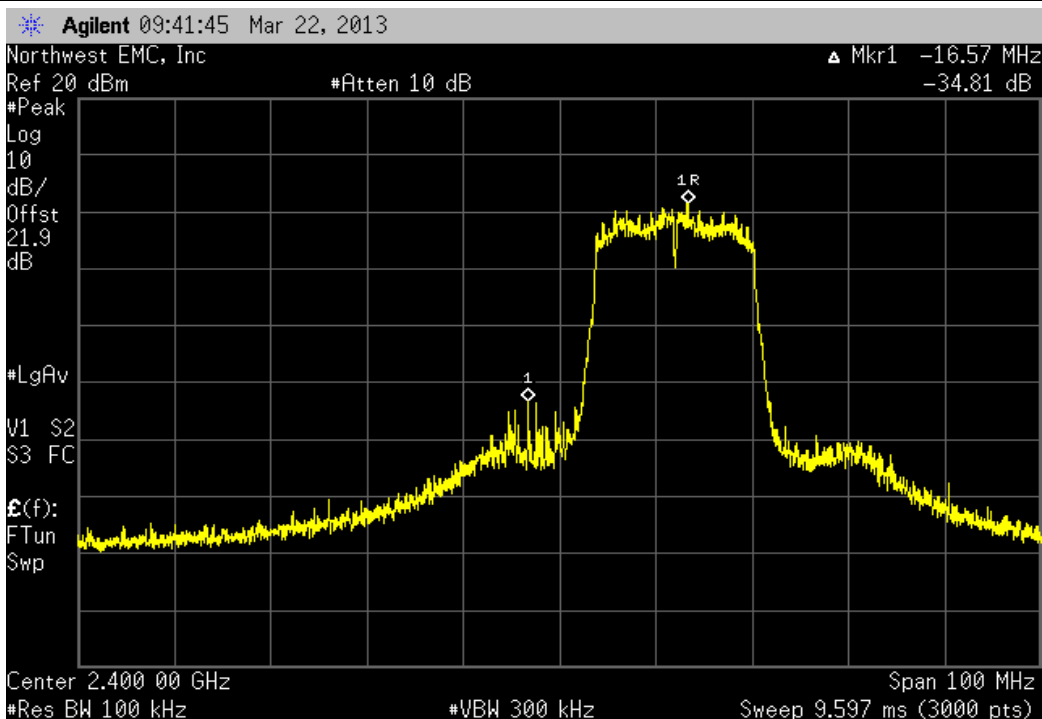
Antenna 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz

|  |  |  |  | Value      | Limit     | Result |
|--|--|--|--|------------|-----------|--------|
|  |  |  |  | -43.66 dBc | ≤ -20 dBc | Pass   |



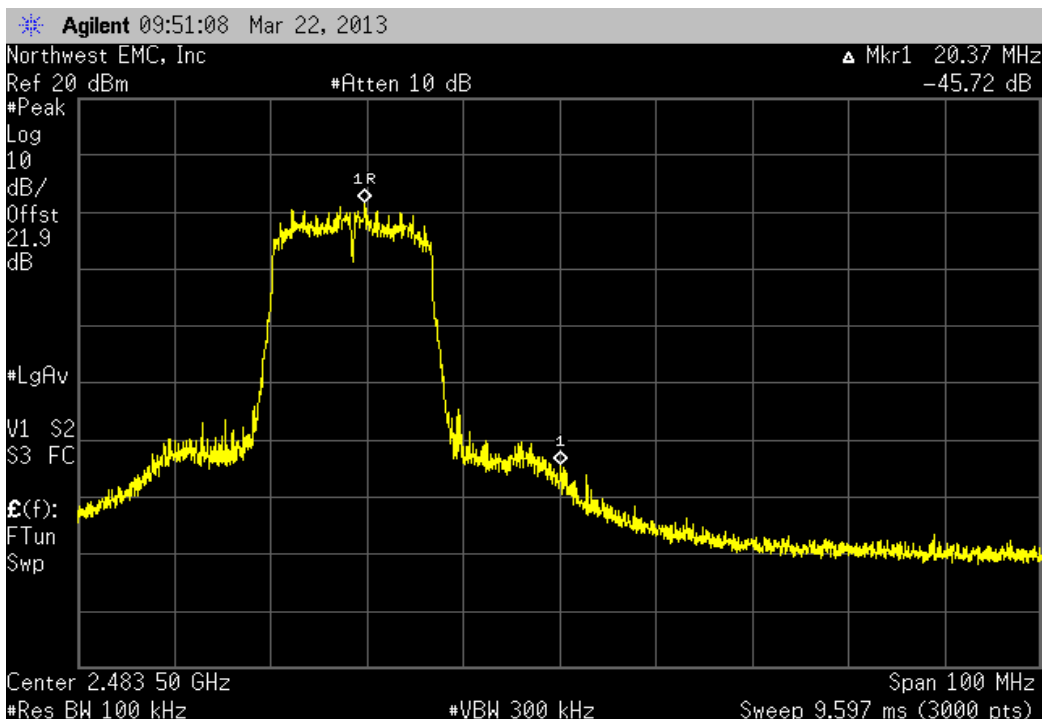
Antenna 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -34.81 dBc | ≤ -20 dBc | Pass   |



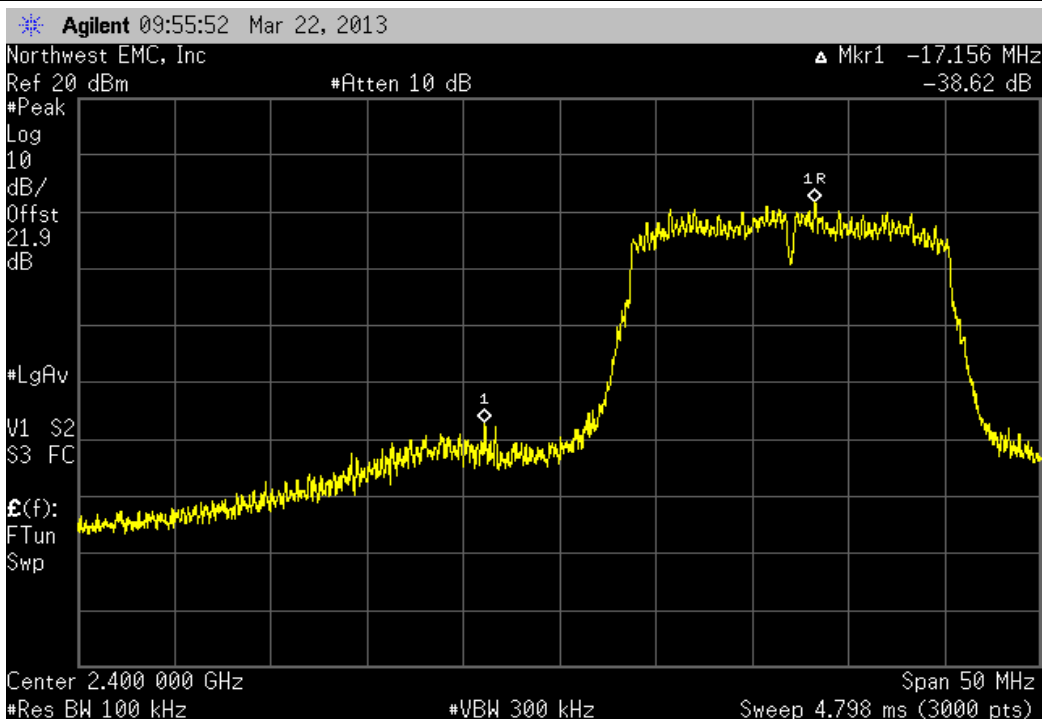
Antenna 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -45.72 dBc | ≤ -20 dBc | Pass   |



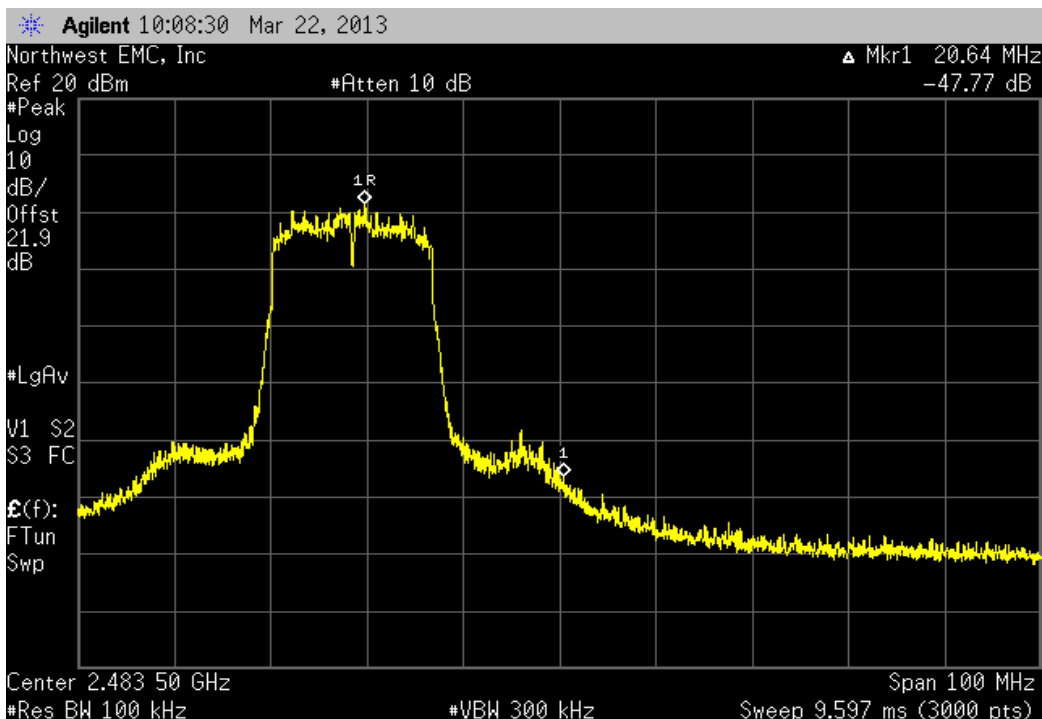
Antenna 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -38.62 dBc | ≤ -20 dBc | Pass   |



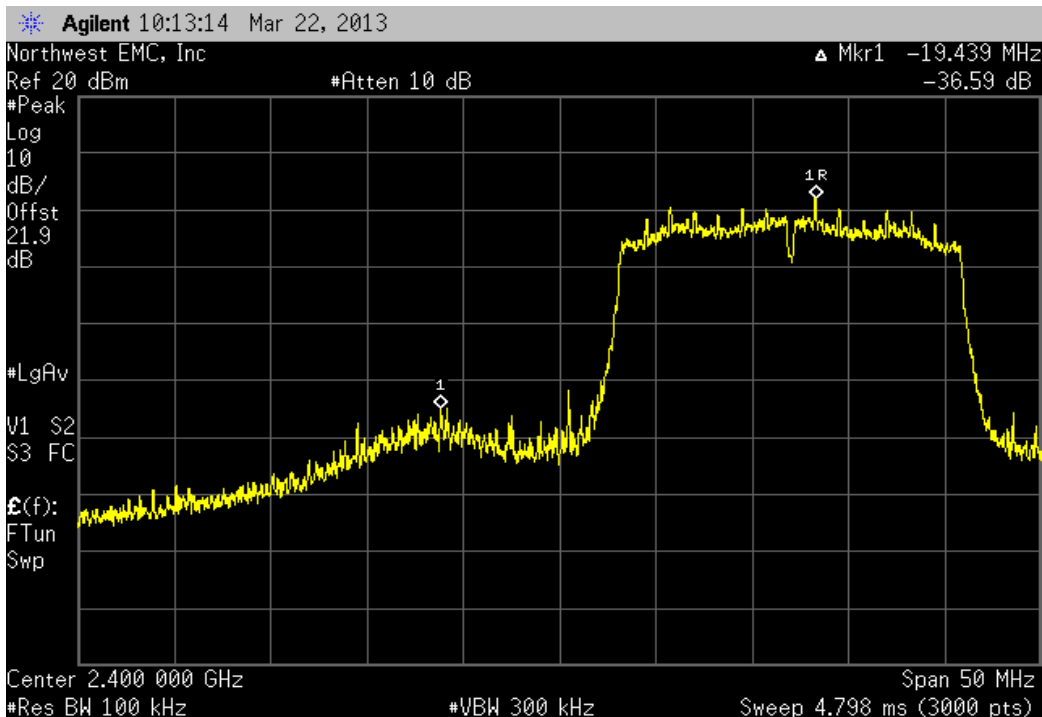
Antenna 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -47.77 dBc | ≤ -20 dBc | Pass   |



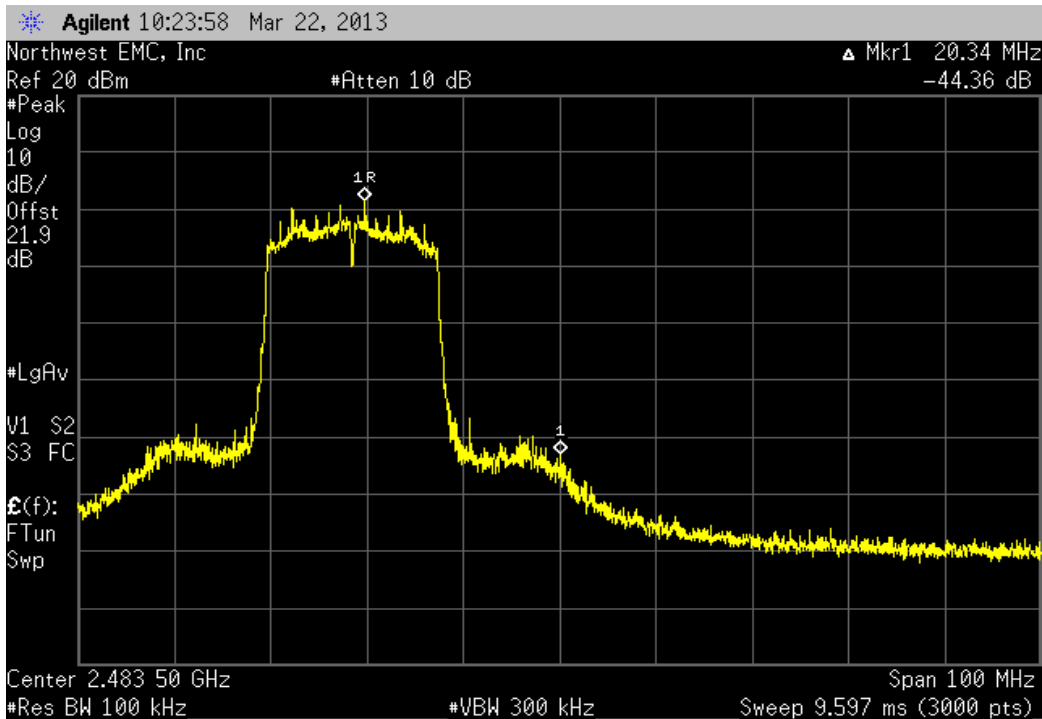
Antenna 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -36.59 dBc | ≤ -20 dBc | Pass   |



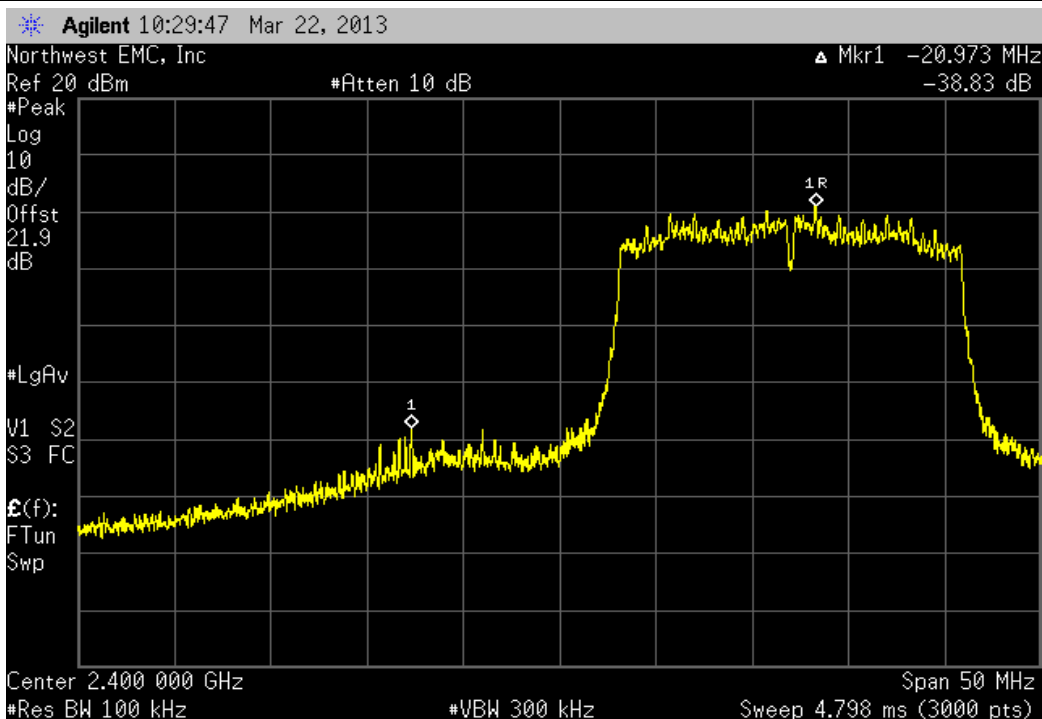
Antenna 0, 802.11(n) MCS0, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -44.36 dBc | ≤ -20 dBc | Pass   |



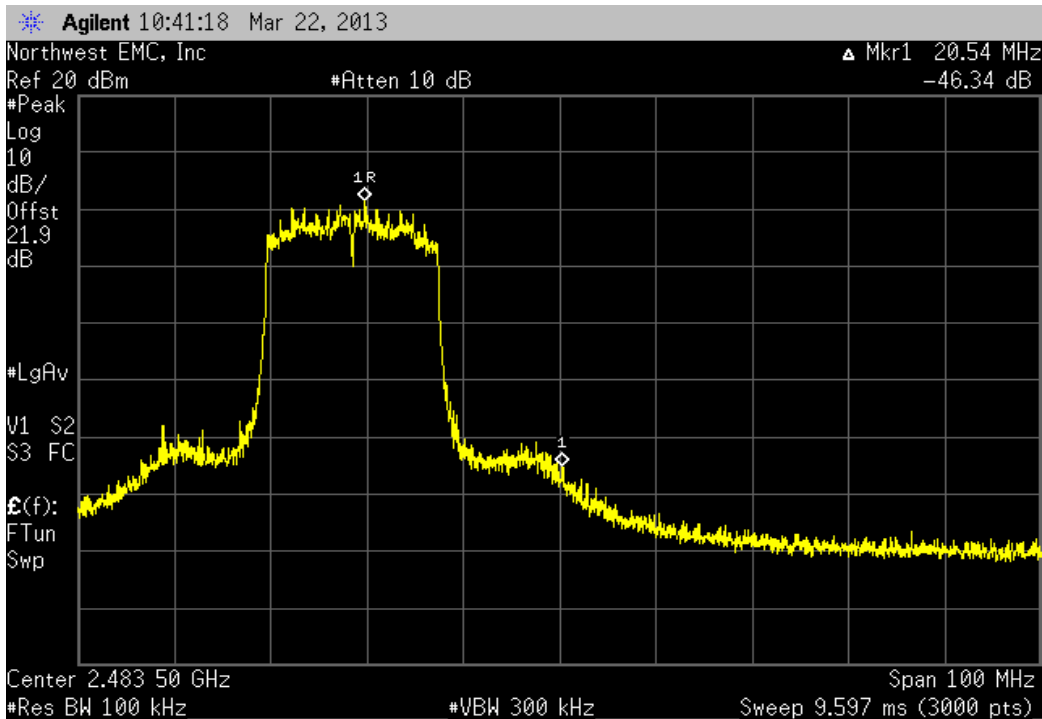
Antenna 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz

|  |  |  |  | Value      | Limit     | Result |
|--|--|--|--|------------|-----------|--------|
|  |  |  |  | -38.83 dBc | ≤ -20 dBc | Pass   |



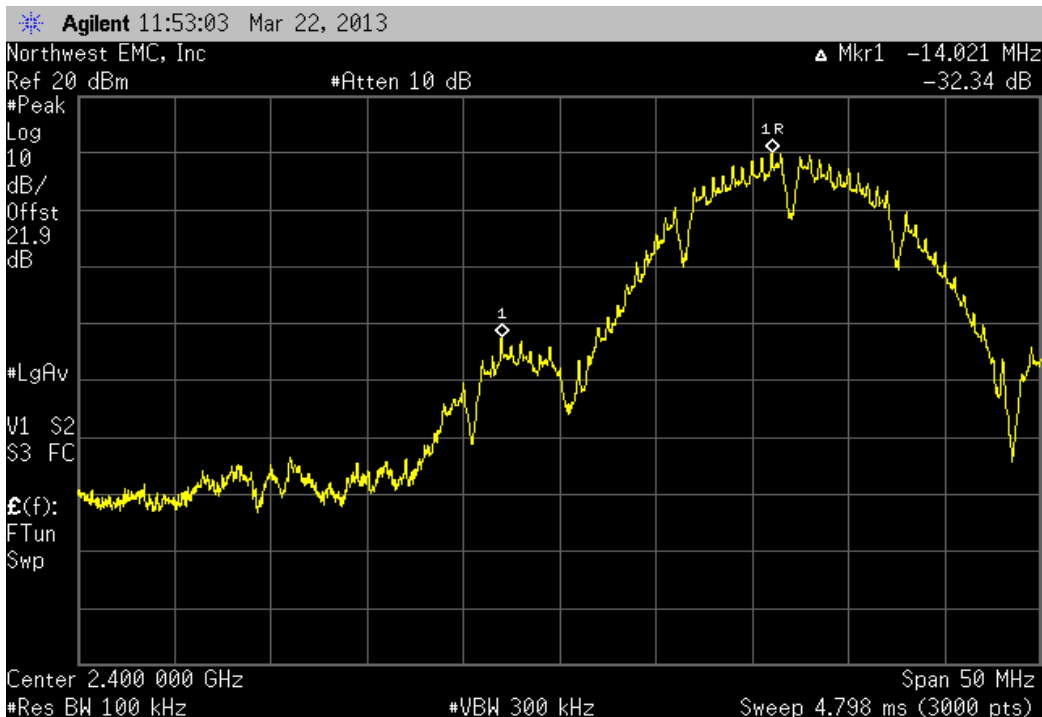
Antenna 0, 802.11(n) MCS7, High Channel 11, 2462 MHz

|  |  |  |  | Value      | Limit     | Result |
|--|--|--|--|------------|-----------|--------|
|  |  |  |  | -46.34 dBc | ≤ -20 dBc | Pass   |



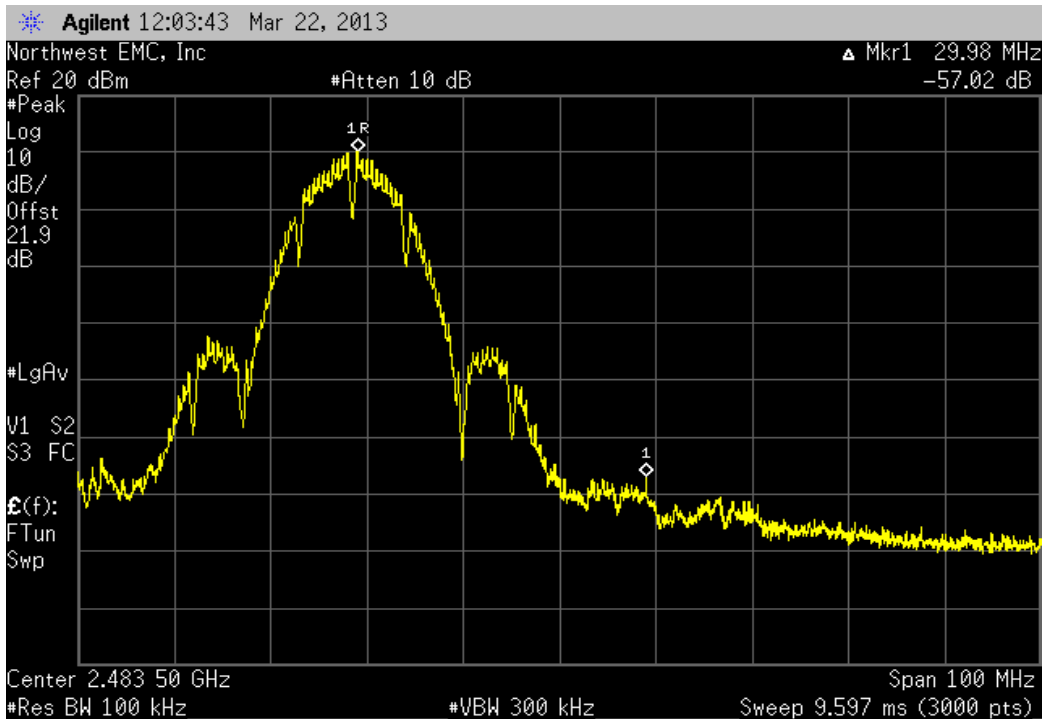
Antenna 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -32.34 dBc | ≤ -20 dBc | Pass   |



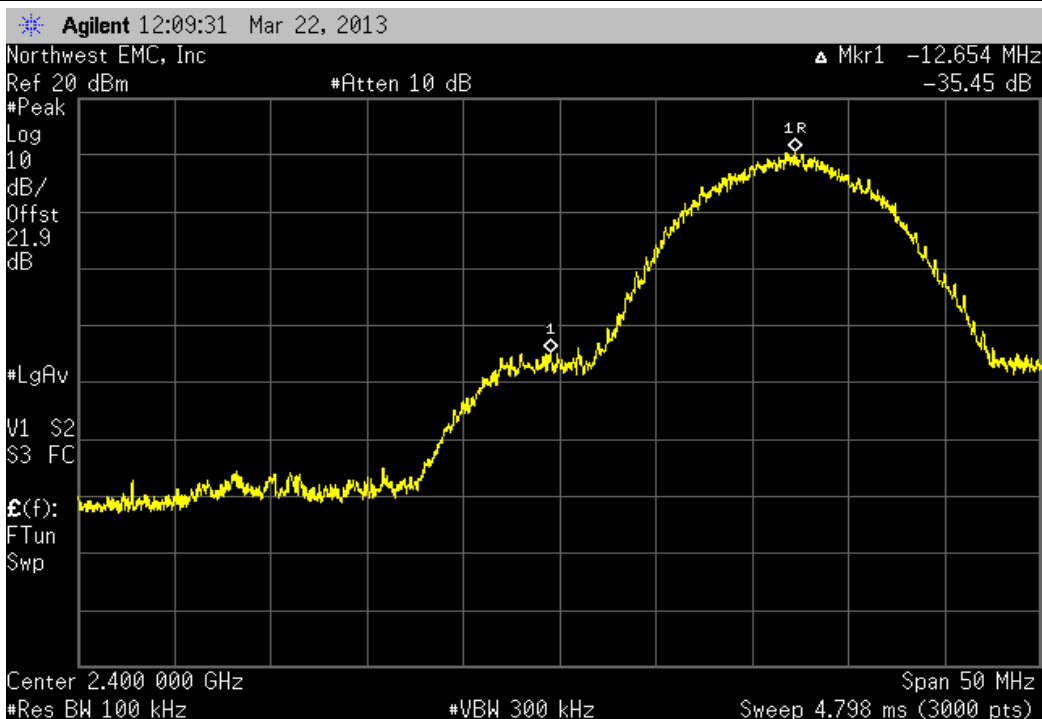
Antenna 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -57.02 dBc | ≤ -20 dBc | Pass   |



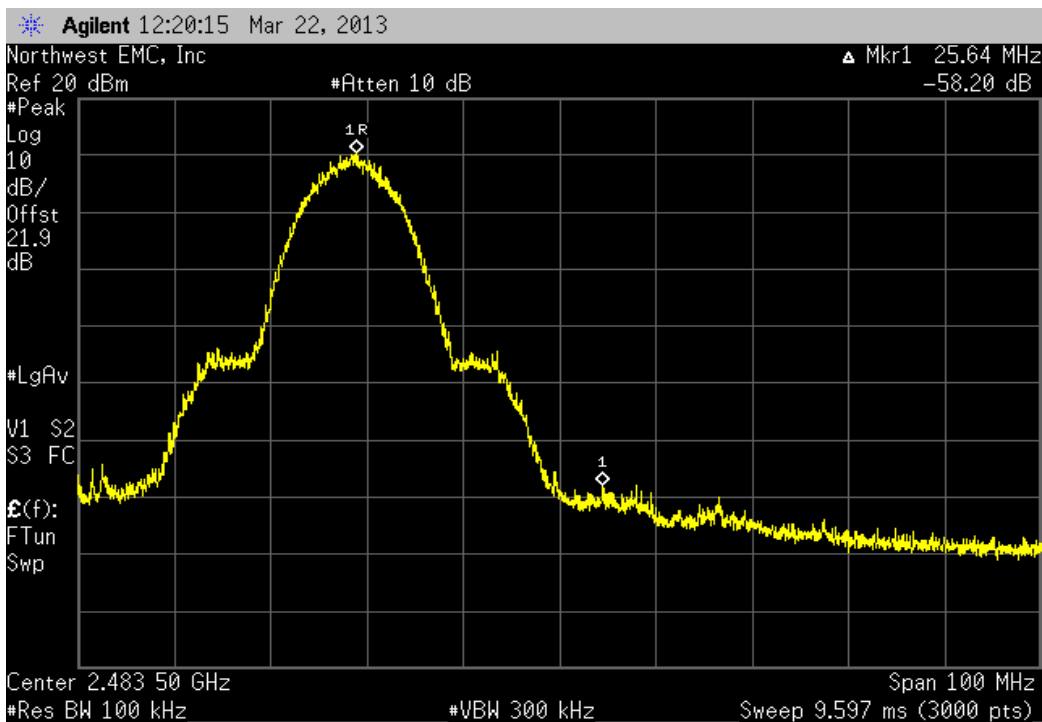
Antenna 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz

|  | Value      | Limit     | Result |
|--|------------|-----------|--------|
|  | -35.45 dBc | ≤ -20 dBc | Pass   |



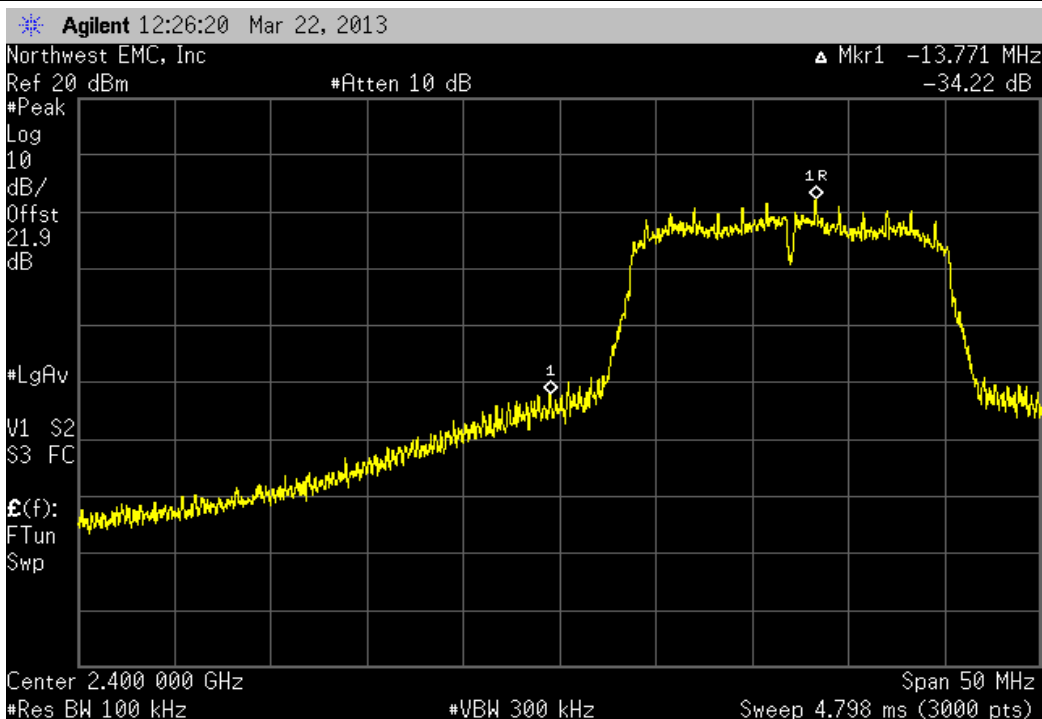
Antenna 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz

|  | Value     | Limit     | Result |
|--|-----------|-----------|--------|
|  | -58.2 dBc | ≤ -20 dBc | Pass   |



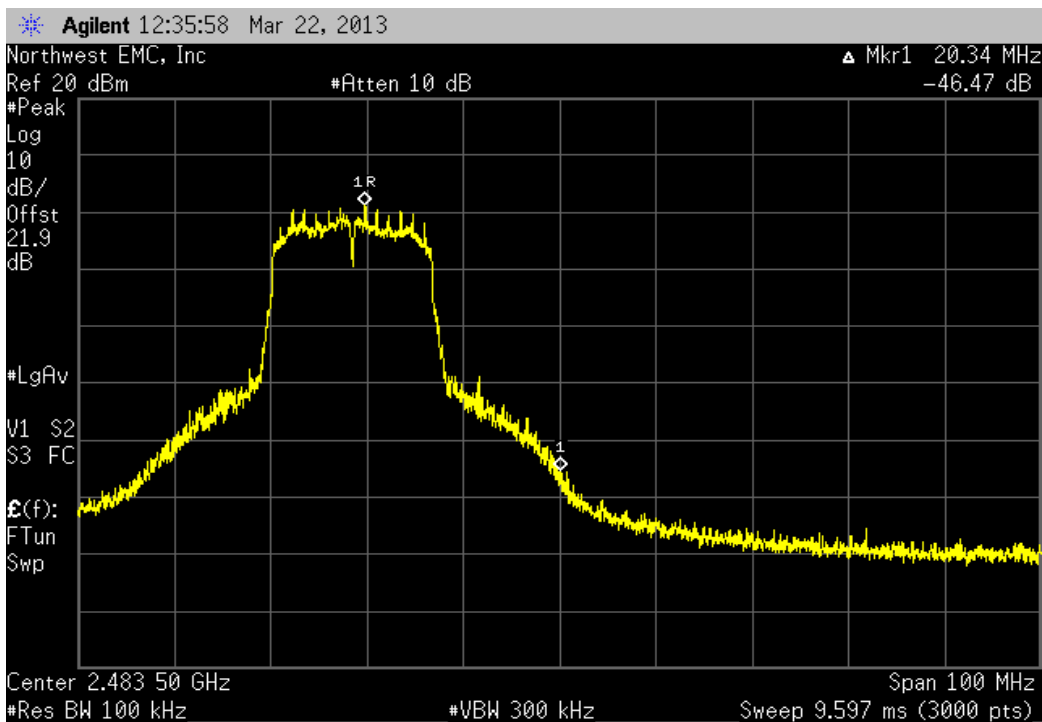
Antenna 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz

|  | Value      | Limit     | Result |
|--|------------|-----------|--------|
|  | -34.22 dBc | ≤ -20 dBc | Pass   |



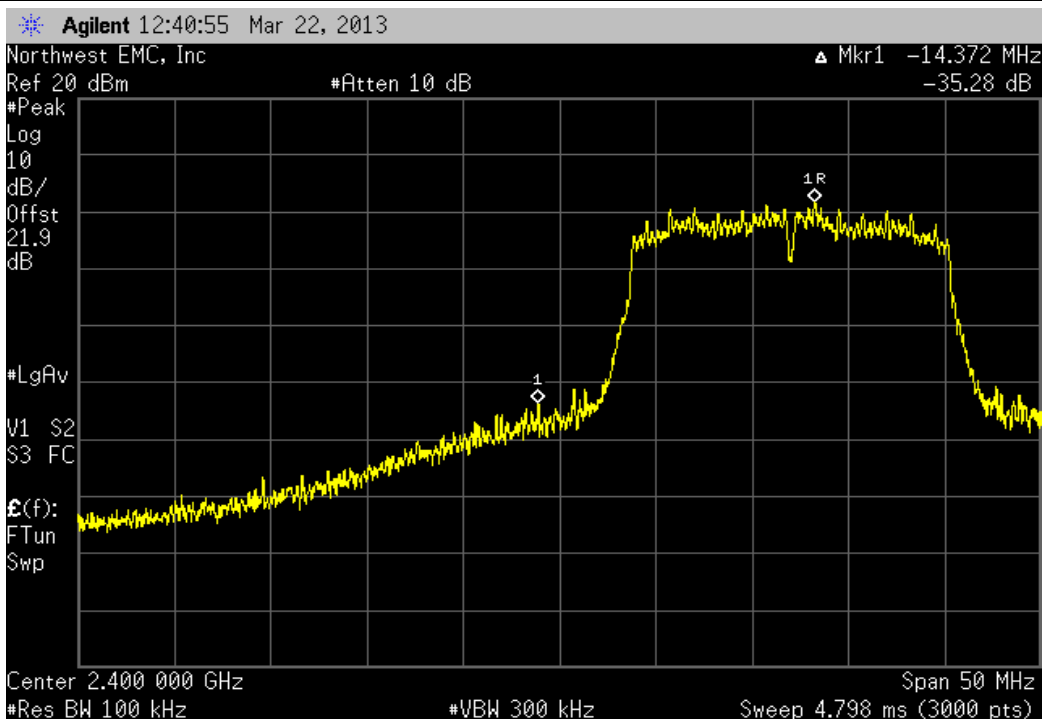
Antenna 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz

|  | Value      | Limit     | Result |
|--|------------|-----------|--------|
|  | -46.47 dBc | ≤ -20 dBc | Pass   |



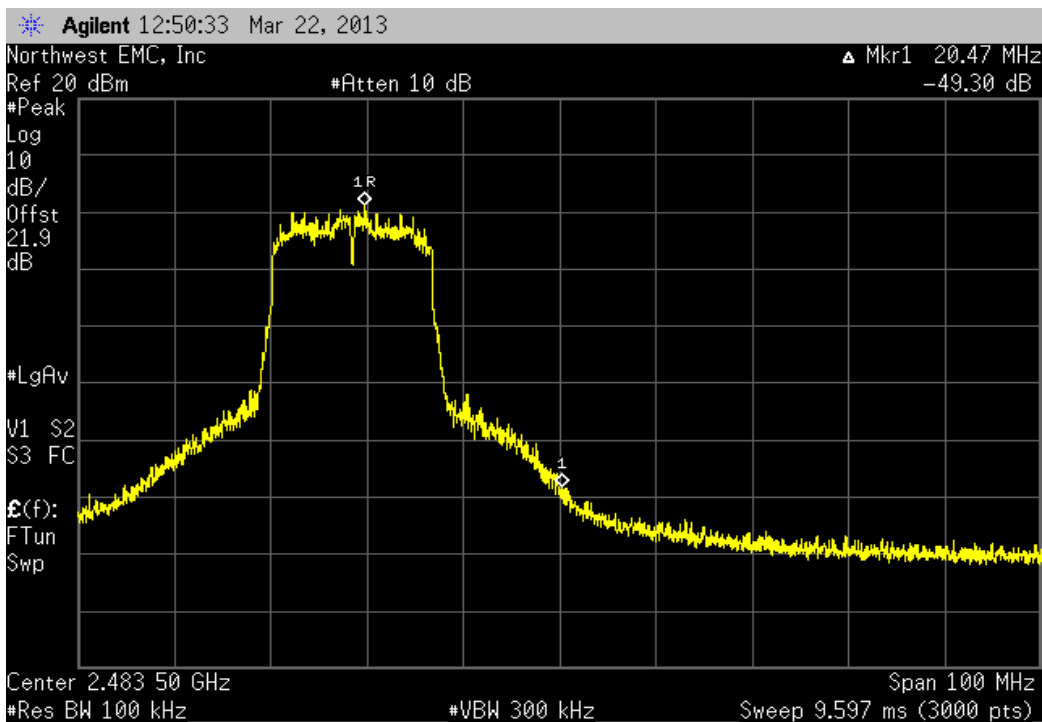
Antenna 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -35.28 dBc | ≤ -20 dBc | Pass   |



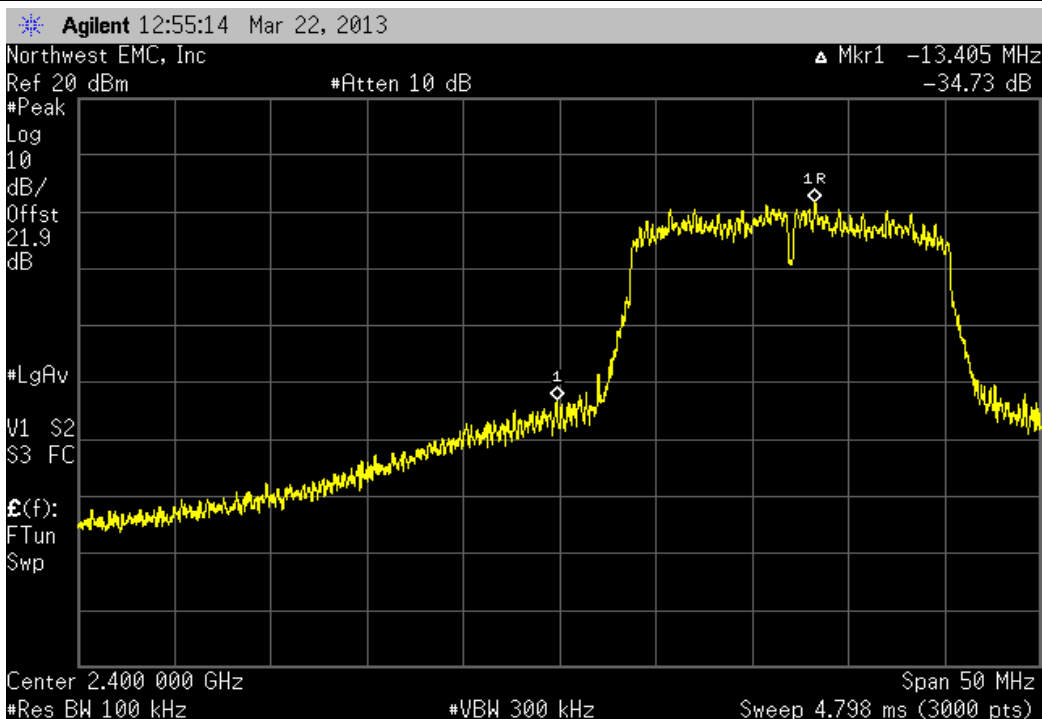
Antenna 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz

| Value     | Limit     | Result |
|-----------|-----------|--------|
| -49.3 dBc | ≤ -20 dBc | Pass   |



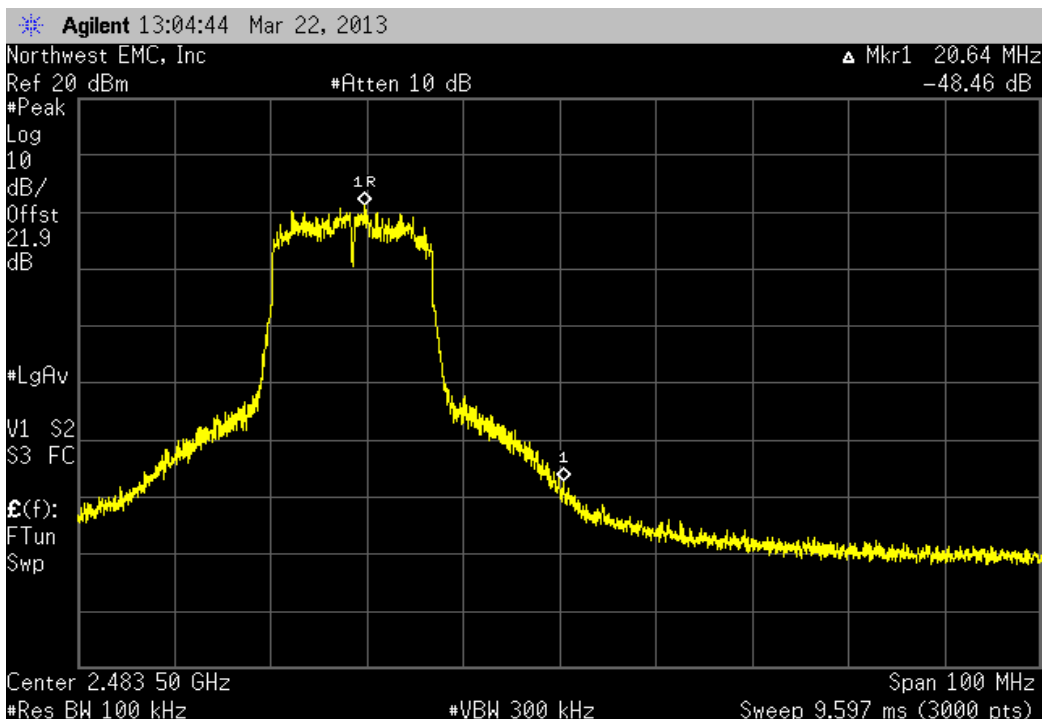
Antenna 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -34.73 dBc | ≤ -20 dBc | Pass   |



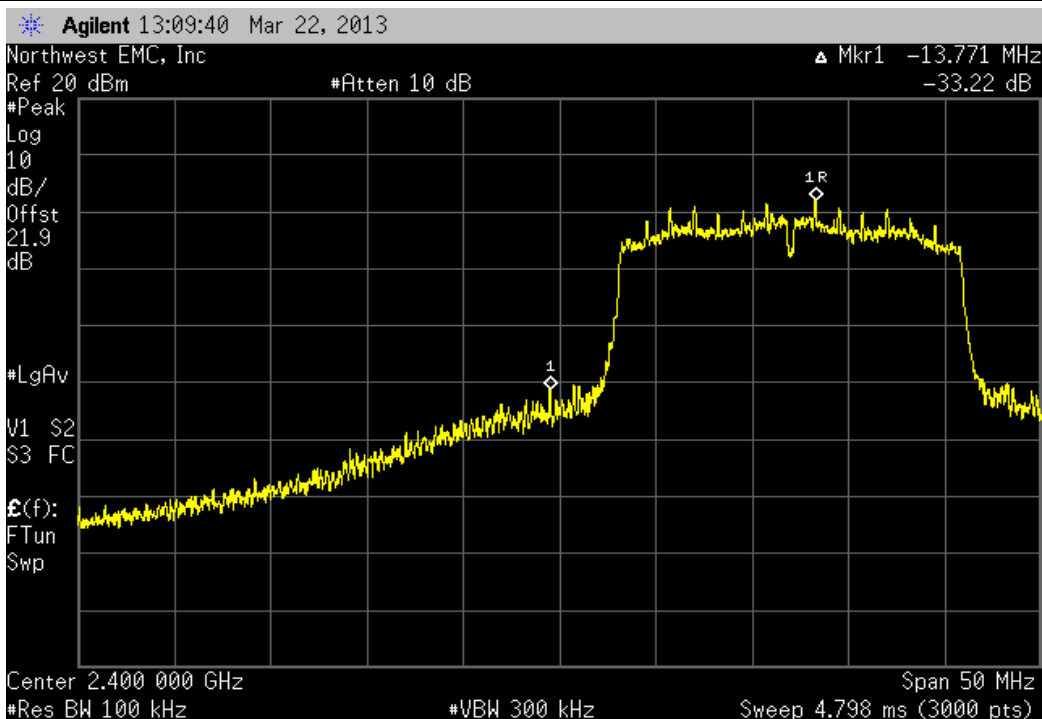
Antenna 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -48.46 dBc | ≤ -20 dBc | Pass   |



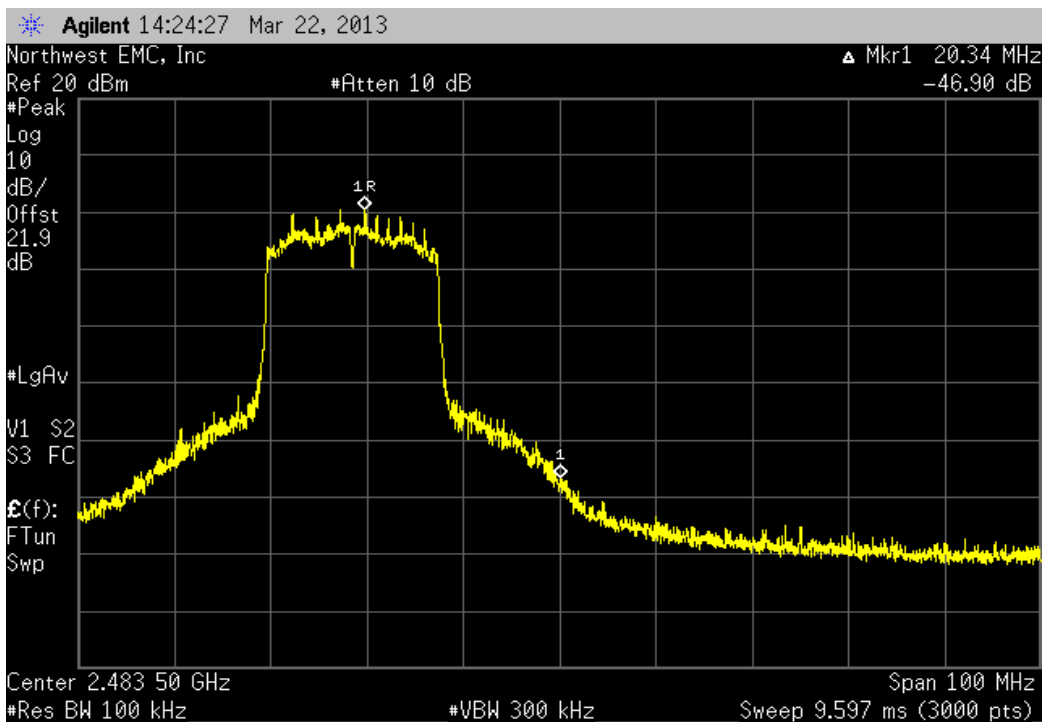
Antenna 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -33.22 dBc | ≤ -20 dBc | Pass   |



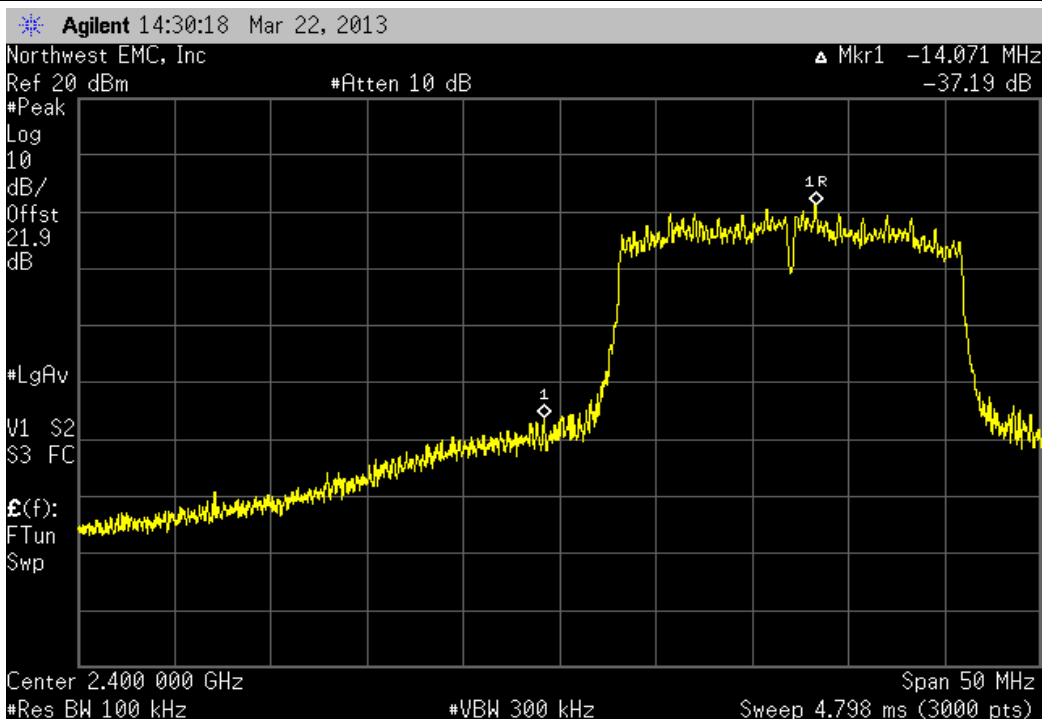
Antenna 1, 802.11(n) MCS0, High Channel 11, 2462 MHz

| Value     | Limit     | Result |
|-----------|-----------|--------|
| -46.9 dBc | ≤ -20 dBc | Pass   |



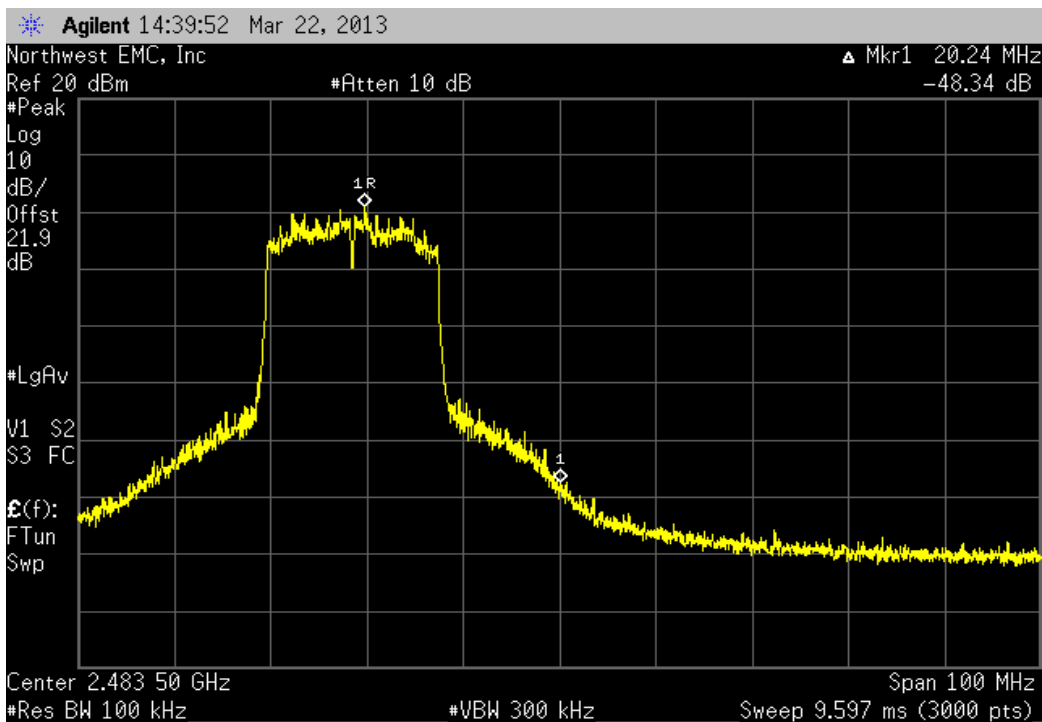
Antenna 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -37.19 dBc | ≤ -20 dBc | Pass   |



Antenna 1, 802.11(n) MCS7, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -48.34 dBc | ≤ -20 dBc | Pass   |



## Spurious Conducted Emissions

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

### TEST EQUIPMENT

| Description              | Manufacturer       | Model    | ID  | Last Cal. | Interval |
|--------------------------|--------------------|----------|-----|-----------|----------|
| 40 GHz DC block          | Fairview Microwave | SD3379   | AMI | 10/5/2012 | 12       |
| Attenuator - 20db, 'SMA' | SM Electronics     | SA26B-20 | RFW | 4/19/2012 | 12       |
| Signal Generator MXG     | Agilent            | N5183A   | TIK | 6/7/2012  | 36       |
| Spectrum Analyzer        | Agilent            | E4446A   | AAT | 6/28/2012 | 24       |

### TEST DESCRIPTION

The spurious RF conducted emissions were measured with the EUT set to low, medium and high transmit frequencies. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at the data rate(s) listed in the datasheet. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.



## Spurious Conducted Emissions

XMit 2013.02.28  
PsaTx 2013.03.22

|                                                       |                          |
|-------------------------------------------------------|--------------------------|
| EUT: RTH9580WF01                                      | Work Order: HNYW0043     |
| Serial Number: 5191101 0010638                        | Date: 03/22/13           |
| Customer: Honeywell, Automation and Control Solutions | Temperature: 23.9°C      |
| Attendees: None                                       | Humidity: 13%            |
| Project: None                                         | Barometric Pres.: 1018.5 |
| Tested by: Trevor Buls                                | Power: 110VAC/60Hz       |
|                                                       | Job Site: MN05           |

|                     |                  |
|---------------------|------------------|
| TEST SPECIFICATIONS | Test Method      |
| FCC 15.247:2013     | ANSI C63.10:2009 |

|          |
|----------|
| COMMENTS |
| None     |

|                               |
|-------------------------------|
| DEVIATIONS FROM TEST STANDARD |
| None                          |

|                 |   |                    |
|-----------------|---|--------------------|
| Configuration # | 2 | Signature          |
|                 |   | <i>Trevor Buls</i> |

| Antenna 0 | Frequency Range | Value | Limit | Result |
|-----------|-----------------|-------|-------|--------|
|-----------|-----------------|-------|-------|--------|

### 802.11(b) 1 Mbps

|                           |                   |            |           |      |
|---------------------------|-------------------|------------|-----------|------|
| Low Channel 1, 2412 MHz   | Fundamental       | N/A        | N/A       | N/A  |
| Low Channel 1, 2412 MHz   | 30 MHz - 12.5 GHz | -55.72 dBc | ≤ -20 dBc | Pass |
| Low Channel 1, 2412 MHz   | 12.5 GHz - 25 GHz | -58.97 dBc | ≤ -20 dBc | Pass |
| Mid Channel 6, 2437 MHz   | Fundamental       | N/A        | N/A       | N/A  |
| Mid Channel 6, 2437 MHz   | 30 MHz - 12.5 GHz | -58.59 dBc | ≤ -20 dBc | Pass |
| Mid Channel 6, 2437 MHz   | 12.5 GHz - 25 GHz | -60.16 dBc | ≤ -20 dBc | Pass |
| High Channel 11, 2462 MHz | Fundamental       | N/A        | N/A       | N/A  |
| High Channel 11, 2462 MHz | 30 MHz - 12.5 GHz | -61.63 dBc | ≤ -20 dBc | Pass |
| High Channel 11, 2462 MHz | 12.5 GHz - 25 GHz | -59.49 dBc | ≤ -20 dBc | Pass |

### 802.11(b) 11 Mbps

|                           |                   |            |           |      |
|---------------------------|-------------------|------------|-----------|------|
| Low Channel 1, 2412 MHz   | Fundamental       | N/A        | N/A       | N/A  |
| Low Channel 1, 2412 MHz   | 30 MHz - 12.5 GHz | -56.15 dBc | ≤ -20 dBc | Pass |
| Low Channel 1, 2412 MHz   | 12.5 GHz - 25 GHz | -60.1 dBc  | ≤ -20 dBc | Pass |
| Mid Channel 6, 2437 MHz   | Fundamental       | N/A        | N/A       | N/A  |
| Mid Channel 6, 2437 MHz   | 30 MHz - 12.5 GHz | -58.49 dBc | ≤ -20 dBc | Pass |
| Mid Channel 6, 2437 MHz   | 12.5 GHz - 25 GHz | -59.59 dBc | ≤ -20 dBc | Pass |
| High Channel 11, 2462 MHz | Fundamental       | N/A        | N/A       | N/A  |
| High Channel 11, 2462 MHz | 30 MHz - 12.5 GHz | -57.93 dBc | ≤ -20 dBc | Pass |
| High Channel 11, 2462 MHz | 12.5 GHz - 25 GHz | -61.17 dBc | ≤ -20 dBc | Pass |

### 802.11(g) 6 Mbps

|                           |                   |            |           |      |
|---------------------------|-------------------|------------|-----------|------|
| Low Channel 1, 2412 MHz   | Fundamental       | N/A        | N/A       | N/A  |
| Low Channel 1, 2412 MHz   | 30 MHz - 12.5 GHz | -48.87 dBc | ≤ -20 dBc | Pass |
| Low Channel 1, 2412 MHz   | 12.5 GHz - 25 GHz | -51.6 dBc  | ≤ -20 dBc | Pass |
| Mid Channel 6, 2437 MHz   | Fundamental       | N/A        | N/A       | N/A  |
| Mid Channel 6, 2437 MHz   | 30 MHz - 12.5 GHz | -57.08 dBc | ≤ -20 dBc | Pass |
| Mid Channel 6, 2437 MHz   | 12.5 GHz - 25 GHz | -55.77 dBc | ≤ -20 dBc | Pass |
| High Channel 11, 2462 MHz | Fundamental       | N/A        | N/A       | N/A  |
| High Channel 11, 2462 MHz | 30 MHz - 12.5 GHz | -56.57 dBc | ≤ -20 dBc | Pass |
| High Channel 11, 2462 MHz | 12.5 GHz - 25 GHz | -51.69 dBc | ≤ -20 dBc | Pass |

### 802.11(g) 36 Mbps

|                           |                   |            |           |      |
|---------------------------|-------------------|------------|-----------|------|
| Low Channel 1, 2412 MHz   | Fundamental       | N/A        | N/A       | N/A  |
| Low Channel 1, 2412 MHz   | 30 MHz - 12.5 GHz | -50.55 dBc | ≤ -20 dBc | Pass |
| Low Channel 1, 2412 MHz   | 12.5 GHz - 25 GHz | -50.68 dBc | ≤ -20 dBc | Pass |
| Mid Channel 6, 2437 MHz   | Fundamental       | N/A        | N/A       | N/A  |
| Mid Channel 6, 2437 MHz   | 30 MHz - 12.5 GHz | -56.57 dBc | ≤ -20 dBc | Pass |
| Mid Channel 6, 2437 MHz   | 12.5 GHz - 25 GHz | -55.26 dBc | ≤ -20 dBc | Pass |
| High Channel 11, 2462 MHz | Fundamental       | N/A        | N/A       | N/A  |
| High Channel 11, 2462 MHz | 30 MHz - 12.5 GHz | -54.93 dBc | ≤ -20 dBc | Pass |
| High Channel 11, 2462 MHz | 12.5 GHz - 25 GHz | -50.89 dBc | ≤ -20 dBc | Pass |

### 802.11(g) 54 Mbps

|                           |                   |            |           |      |
|---------------------------|-------------------|------------|-----------|------|
| Low Channel 1, 2412 MHz   | Fundamental       | N/A        | N/A       | N/A  |
| Low Channel 1, 2412 MHz   | 30 MHz - 12.5 GHz | -50.04 dBc | ≤ -20 dBc | Pass |
| Low Channel 1, 2412 MHz   | 12.5 GHz - 25 GHz | -51.21 dBc | ≤ -20 dBc | Pass |
| Mid Channel 6, 2437 MHz   | Fundamental       | N/A        | N/A       | N/A  |
| Mid Channel 6, 2437 MHz   | 30 MHz - 12.5 GHz | -57.05 dBc | ≤ -20 dBc | Pass |
| Mid Channel 6, 2437 MHz   | 12.5 GHz - 25 GHz | -55.1 dBc  | ≤ -20 dBc | Pass |
| High Channel 11, 2462 MHz | Fundamental       | N/A        | N/A       | N/A  |
| High Channel 11, 2462 MHz | 30 MHz - 12.5 GHz | -54.62 dBc | ≤ -20 dBc | Pass |
| High Channel 11, 2462 MHz | 12.5 GHz - 25 GHz | -50.58 dBc | ≤ -20 dBc | Pass |

### 802.11(n) MCS0

|                           |                   |            |           |      |
|---------------------------|-------------------|------------|-----------|------|
| Low Channel 1, 2412 MHz   | Fundamental       | N/A        | N/A       | N/A  |
| Low Channel 1, 2412 MHz   | 30 MHz - 12.5 GHz | -48.48 dBc | ≤ -20 dBc | Pass |
| Low Channel 1, 2412 MHz   | 12.5 GHz - 25 GHz | -50.99 dBc | ≤ -20 dBc | Pass |
| Mid Channel 6, 2437 MHz   | Fundamental       | N/A        | N/A       | N/A  |
| Mid Channel 6, 2437 MHz   | 30 MHz - 12.5 GHz | -57.41 dBc | ≤ -20 dBc | Pass |
| Mid Channel 6, 2437 MHz   | 12.5 GHz - 25 GHz | -55.26 dBc | ≤ -20 dBc | Pass |
| High Channel 11, 2462 MHz | Fundamental       | N/A        | N/A       | N/A  |
| High Channel 11, 2462 MHz | 30 MHz - 12.5 GHz | -54.48 dBc | ≤ -20 dBc | Pass |
| High Channel 11, 2462 MHz | 12.5 GHz - 25 GHz | -50.54 dBc | ≤ -20 dBc | Pass |

### 802.11(n) MCS7

|                           |                   |            |           |      |
|---------------------------|-------------------|------------|-----------|------|
| Low Channel 1, 2412 MHz   | Fundamental       | N/A        | N/A       | N/A  |
| Low Channel 1, 2412 MHz   | 30 MHz - 12.5 GHz | -50 dBc    | ≤ -20 dBc | Pass |
| Low Channel 1, 2412 MHz   | 12.5 GHz - 25 GHz | -50.18 dBc | ≤ -20 dBc | Pass |
| Mid Channel 6, 2437 MHz   | Fundamental       | N/A        | N/A       | N/A  |
| Mid Channel 6, 2437 MHz   | 30 MHz - 12.5 GHz | -57.46 dBc | ≤ -20 dBc | Pass |
| Mid Channel 6, 2437 MHz   | 12.5 GHz - 25 GHz | -54.2 dBc  | ≤ -20 dBc | Pass |
| High Channel 11, 2462 MHz | Fundamental       | N/A        | N/A       | N/A  |
| High Channel 11, 2462 MHz | 30 MHz - 12.5 GHz | -55.11 dBc | ≤ -20 dBc | Pass |
| High Channel 11, 2462 MHz | 12.5 GHz - 25 GHz | -50.93 dBc | ≤ -20 dBc | Pass |

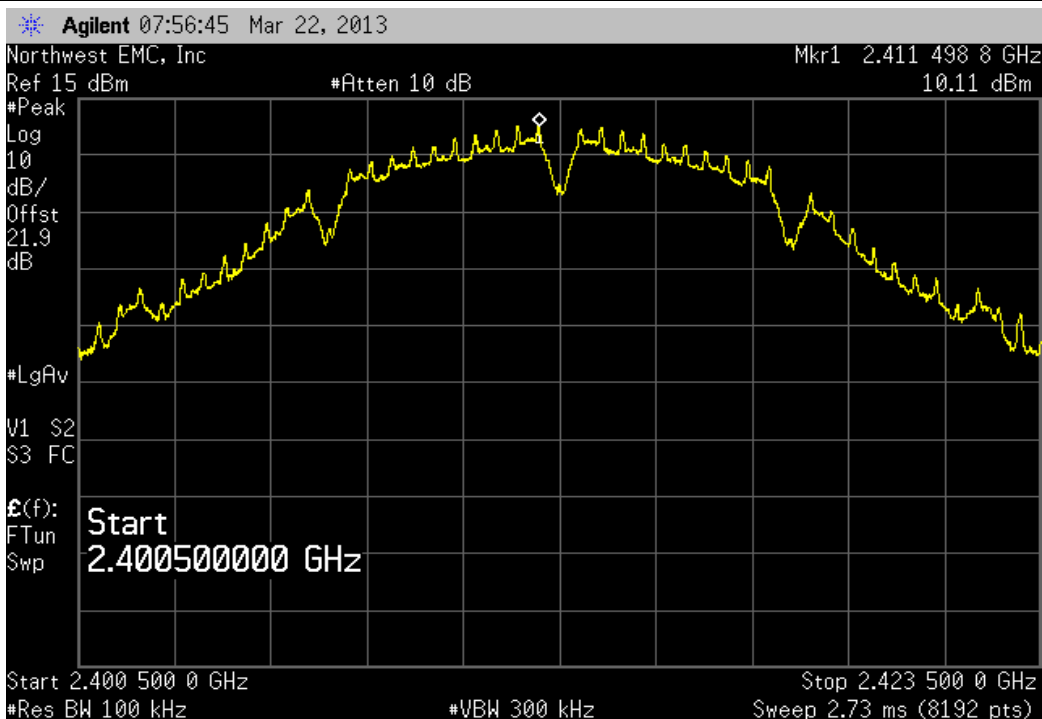
| Antenna 1 | Frequency Range | Value | Limit | Result |
|-----------|-----------------|-------|-------|--------|
|-----------|-----------------|-------|-------|--------|

### 802.11(b) 1 Mbps

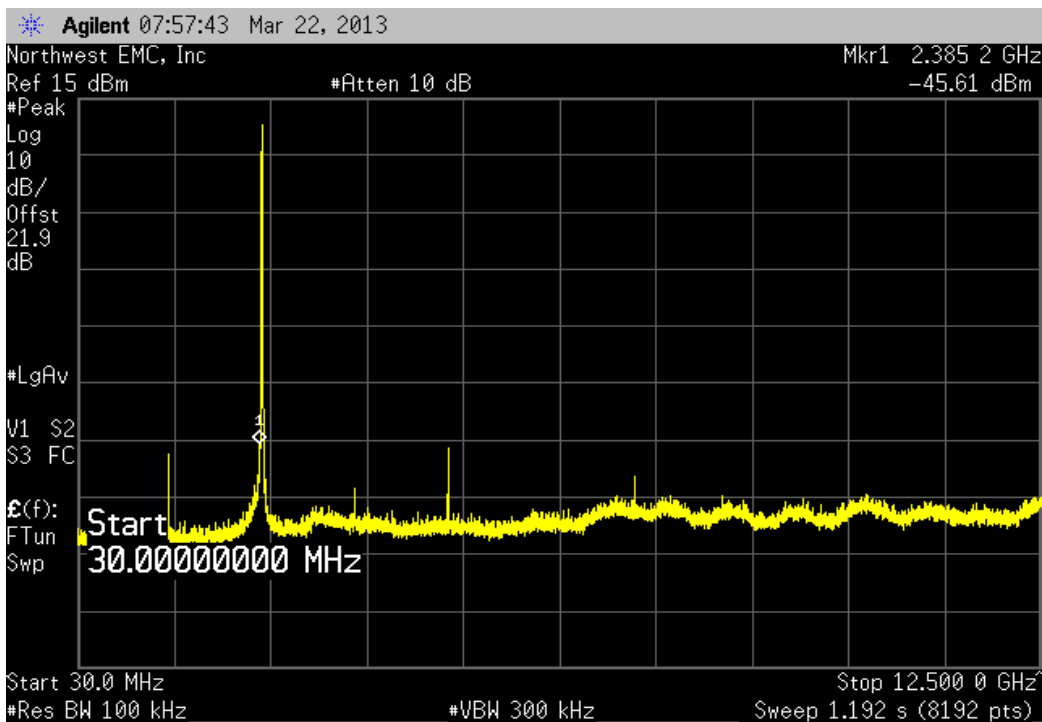
|                         |                   |            |           |      |
|-------------------------|-------------------|------------|-----------|------|
| Low Channel 1, 2412 MHz | Fundamental       | N/A        | N/A       | N/A  |
| Low Channel 1, 2412 MHz | 30 MHz - 12.5 GHz | -54.29 dBc | ≤ -20 dBc | Pass |
| Low Channel 1, 2412 MHz | 12.5 GHz - 25 GHz | -59.72 dBc | ≤ -20 dBc | Pass |
| Mid Channel 6, 2437 MHz | Fundamental       | N/A        | N/A       | N/A  |
| Mid Channel 6, 2437 MHz | 30 MHz - 12.5 GHz | -56.16 dBc | ≤ -20 dBc | Pass |
| Mid Channel 6, 2437 MHz | 12.5 GHz - 25 GHz | -59.63 dBc | ≤ -20 dBc | Pass |

|                   |                           |                   |            |           |      |
|-------------------|---------------------------|-------------------|------------|-----------|------|
|                   | High Channel 11, 2462 MHz | Fundamental       | N/A        | N/A       | N/A  |
|                   | High Channel 11, 2462 MHz | 30 MHz - 12.5 GHz | -55.67 dBc | ≤ -20 dBc | Pass |
|                   | High Channel 11, 2462 MHz | 12.5 GHz - 25 GHz | -58.22 dBc | ≤ -20 dBc | Pass |
| 802.11(b) 11 Mbps |                           |                   |            |           |      |
|                   | Low Channel 1, 2412 MHz   | Fundamental       | N/A        | N/A       | N/A  |
|                   | Low Channel 1, 2412 MHz   | 30 MHz - 12.5 GHz | -55.81 dBc | ≤ -20 dBc | Pass |
|                   | Low Channel 1, 2412 MHz   | 12.5 GHz - 25 GHz | -59.8 dBc  | ≤ -20 dBc | Pass |
|                   | Mid Channel 6, 2437 MHz   | Fundamental       | N/A        | N/A       | N/A  |
|                   | Mid Channel 6, 2437 MHz   | 30 MHz - 12.5 GHz | -57.57 dBc | ≤ -20 dBc | Pass |
|                   | Mid Channel 6, 2437 MHz   | 12.5 GHz - 25 GHz | -60.1 dBc  | ≤ -20 dBc | Pass |
|                   | High Channel 11, 2462 MHz | Fundamental       | N/A        | N/A       | N/A  |
|                   | High Channel 11, 2462 MHz | 30 MHz - 12.5 GHz | -56.52 dBc | ≤ -20 dBc | Pass |
|                   | High Channel 11, 2462 MHz | 12.5 GHz - 25 GHz | -59.73 dBc | ≤ -20 dBc | Pass |
| 802.11(g) 6 Mbps  |                           |                   |            |           |      |
|                   | Low Channel 1, 2412 MHz   | Fundamental       | N/A        | N/A       | N/A  |
|                   | Low Channel 1, 2412 MHz   | 30 MHz - 12.5 GHz | -49.23 dBc | ≤ -20 dBc | Pass |
|                   | Low Channel 1, 2412 MHz   | 12.5 GHz - 25 GHz | -51.53 dBc | ≤ -20 dBc | Pass |
|                   | Mid Channel 6, 2437 MHz   | Fundamental       | N/A        | N/A       | N/A  |
|                   | Mid Channel 6, 2437 MHz   | 30 MHz - 12.5 GHz | -58.29 dBc | ≤ -20 dBc | Pass |
|                   | Mid Channel 6, 2437 MHz   | 12.5 GHz - 25 GHz | -56.38 dBc | ≤ -20 dBc | Pass |
|                   | High Channel 11, 2462 MHz | Fundamental       | N/A        | N/A       | N/A  |
|                   | High Channel 11, 2462 MHz | 30 MHz - 12.5 GHz | -56.35 dBc | ≤ -20 dBc | Pass |
|                   | High Channel 11, 2462 MHz | 12.5 GHz - 25 GHz | -50.98 dBc | ≤ -20 dBc | Pass |
| 802.11(g) 36 Mbps |                           |                   |            |           |      |
|                   | Low Channel 1, 2412 MHz   | Fundamental       | N/A        | N/A       | N/A  |
|                   | Low Channel 1, 2412 MHz   | 30 MHz - 12.5 GHz | -49.82 dBc | ≤ -20 dBc | Pass |
|                   | Low Channel 1, 2412 MHz   | 12.5 GHz - 25 GHz | -50.41 dBc | ≤ -20 dBc | Pass |
|                   | Mid Channel 6, 2437 MHz   | Fundamental       | N/A        | N/A       | N/A  |
|                   | Mid Channel 6, 2437 MHz   | 30 MHz - 12.5 GHz | -57.5 dBc  | ≤ -20 dBc | Pass |
|                   | Mid Channel 6, 2437 MHz   | 12.5 GHz - 25 GHz | -55.44 dBc | ≤ -20 dBc | Pass |
|                   | High Channel 11, 2462 MHz | Fundamental       | N/A        | N/A       | N/A  |
|                   | High Channel 11, 2462 MHz | 30 MHz - 12.5 GHz | -54.9 dBc  | ≤ -20 dBc | Pass |
|                   | High Channel 11, 2462 MHz | 12.5 GHz - 25 GHz | -50.73 dBc | ≤ -20 dBc | Pass |
| 802.11(g) 54 Mbps |                           |                   |            |           |      |
|                   | Low Channel 1, 2412 MHz   | Fundamental       | N/A        | N/A       | N/A  |
|                   | Low Channel 1, 2412 MHz   | 30 MHz - 12.5 GHz | -48.92 dBc | ≤ -20 dBc | Pass |
|                   | Low Channel 1, 2412 MHz   | 12.5 GHz - 25 GHz | -51.03 dBc | ≤ -20 dBc | Pass |
|                   | Mid Channel 6, 2437 MHz   | Fundamental       | N/A        | N/A       | N/A  |
|                   | Mid Channel 6, 2437 MHz   | 30 MHz - 12.5 GHz | -57.82 dBc | ≤ -20 dBc | Pass |
|                   | Mid Channel 6, 2437 MHz   | 12.5 GHz - 25 GHz | -54.92 dBc | ≤ -20 dBc | Pass |
|                   | High Channel 11, 2462 MHz | Fundamental       | N/A        | N/A       | N/A  |
|                   | High Channel 11, 2462 MHz | 30 MHz - 12.5 GHz | -54.62 dBc | ≤ -20 dBc | Pass |
|                   | High Channel 11, 2462 MHz | 12.5 GHz - 25 GHz | -50.65 dBc | ≤ -20 dBc | Pass |
| 802.11(n) MCS0    |                           |                   |            |           |      |
|                   | Low Channel 1, 2412 MHz   | Fundamental       | N/A        | N/A       | N/A  |
|                   | Low Channel 1, 2412 MHz   | 30 MHz - 12.5 GHz | -47.1 dBc  | ≤ -20 dBc | Pass |
|                   | Low Channel 1, 2412 MHz   | 12.5 GHz - 25 GHz | -51.11 dBc | ≤ -20 dBc | Pass |
|                   | Mid Channel 6, 2437 MHz   | Fundamental       | N/A        | N/A       | N/A  |
|                   | Mid Channel 6, 2437 MHz   | 30 MHz - 12.5 GHz | -58.91 dBc | ≤ -20 dBc | Pass |
|                   | Mid Channel 6, 2437 MHz   | 12.5 GHz - 25 GHz | -55.07 dBc | ≤ -20 dBc | Pass |
|                   | High Channel 11, 2462 MHz | Fundamental       | N/A        | N/A       | N/A  |
|                   | High Channel 11, 2462 MHz | 30 MHz - 12.5 GHz | -54.3 dBc  | ≤ -20 dBc | Pass |
|                   | High Channel 11, 2462 MHz | 12.5 GHz - 25 GHz | -49.84 dBc | ≤ -20 dBc | Pass |
| 802.11(n) MCS7    |                           |                   |            |           |      |
|                   | Low Channel 1, 2412 MHz   | Fundamental       | N/A        | N/A       | N/A  |
|                   | Low Channel 1, 2412 MHz   | 30 MHz - 12.5 GHz | -49.85 dBc | ≤ -20 dBc | Pass |
|                   | Low Channel 1, 2412 MHz   | 12.5 GHz - 25 GHz | -50.31 dBc | ≤ -20 dBc | Pass |
|                   | Mid Channel 6, 2437 MHz   | Fundamental       | N/A        | N/A       | N/A  |
|                   | Mid Channel 6, 2437 MHz   | 30 MHz - 12.5 GHz | -57.17 dBc | ≤ -20 dBc | Pass |
|                   | Mid Channel 6, 2437 MHz   | 12.5 GHz - 25 GHz | -54.19 dBc | ≤ -20 dBc | Pass |
|                   | High Channel 11, 2462 MHz | Fundamental       | N/A        | N/A       | N/A  |
|                   | High Channel 11, 2462 MHz | 30 MHz - 12.5 GHz | -54.61 dBc | ≤ -20 dBc | Pass |
|                   | High Channel 11, 2462 MHz | 12.5 GHz - 25 GHz | -49.43 dBc | ≤ -20 dBc | Pass |

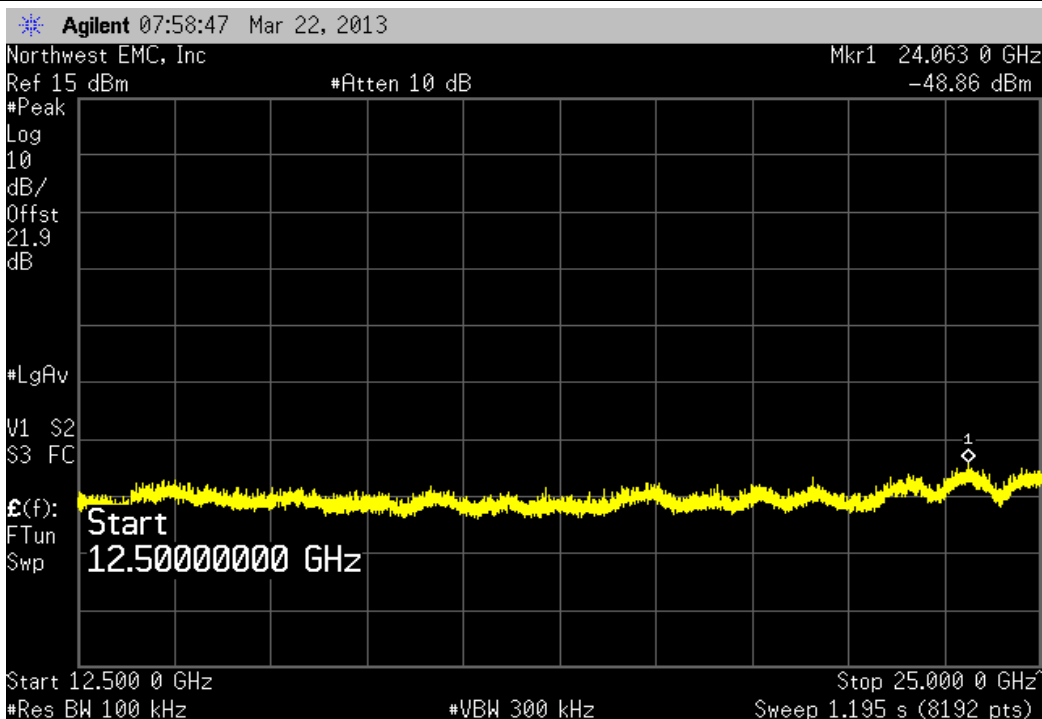
| Antenna 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz |  |       |       |        |  |  |
|------------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                      |  | Value | Limit | Result |  |  |
| Fundamental                                          |  | N/A   | N/A   | N/A    |  |  |



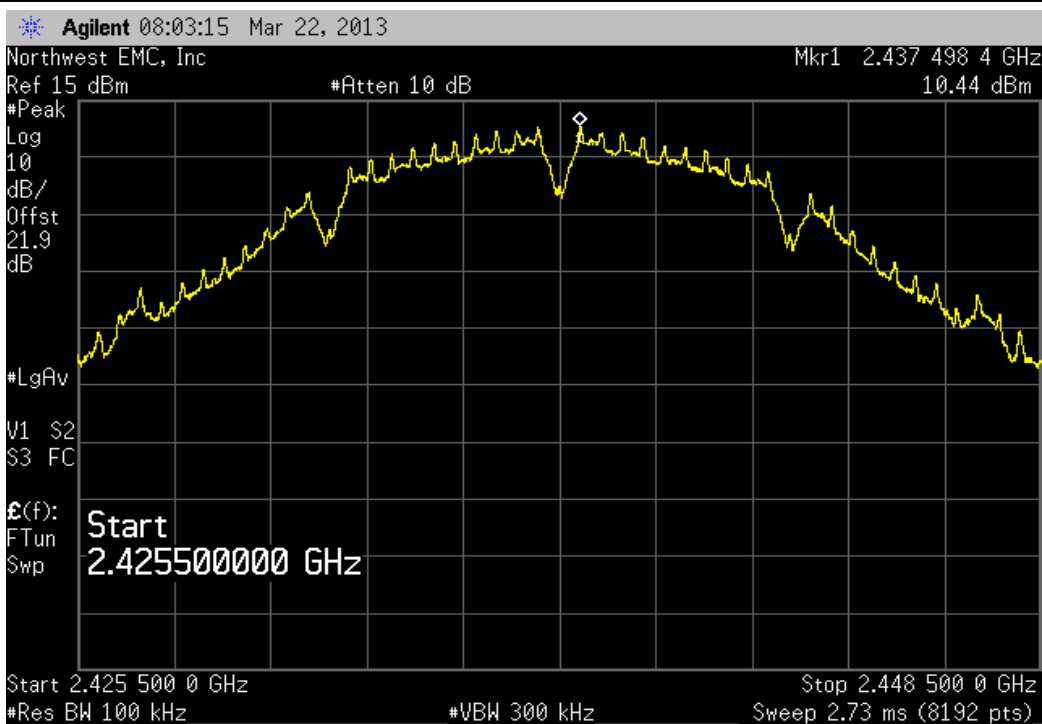
| Antenna 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz |  |            |           |        |  |  |
|------------------------------------------------------|--|------------|-----------|--------|--|--|
| Frequency Range                                      |  | Value      | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                    |  | -55.72 dBc | ≤ -20 dBc | Pass   |  |  |



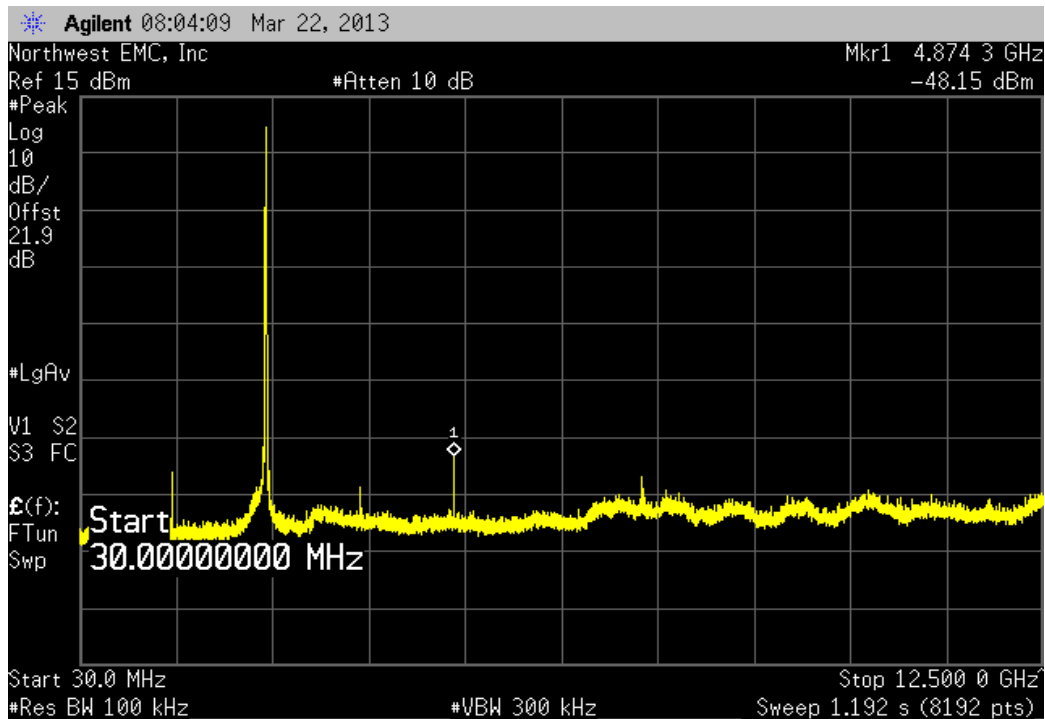
| Antenna 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz |            |           |        |  |
|------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                      | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                    | -58.97 dBc | ≤ -20 dBc | Pass   |  |



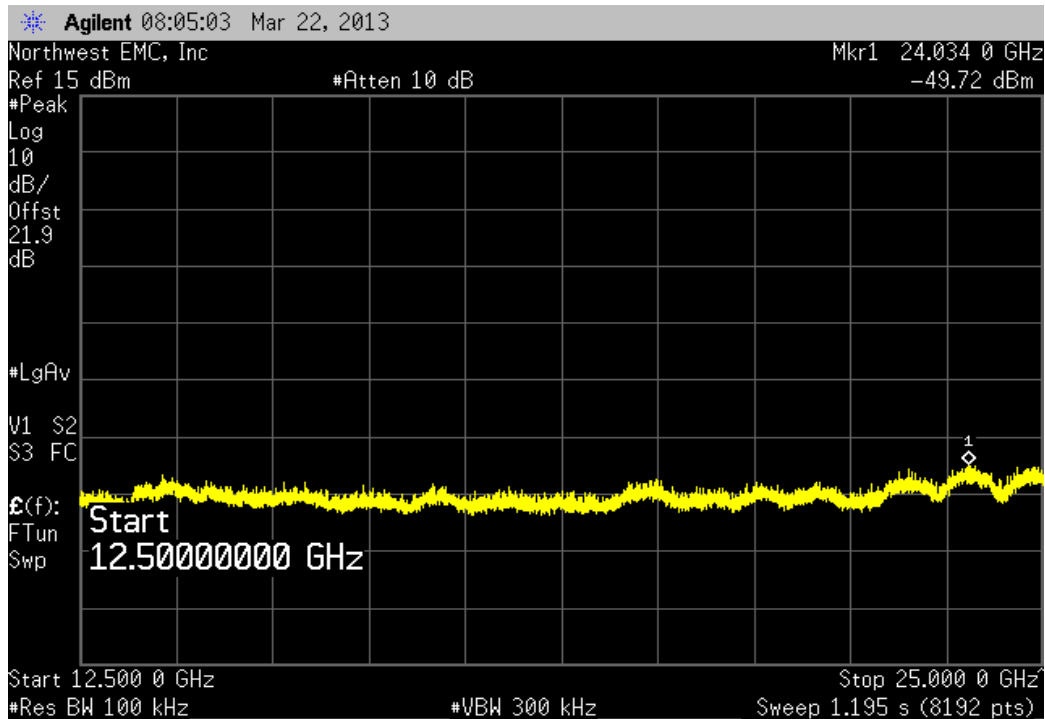
| Antenna 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz |       |       |        |  |
|------------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                      | Value | Limit | Result |  |
| Fundamental                                          | N/A   | N/A   | N/A    |  |



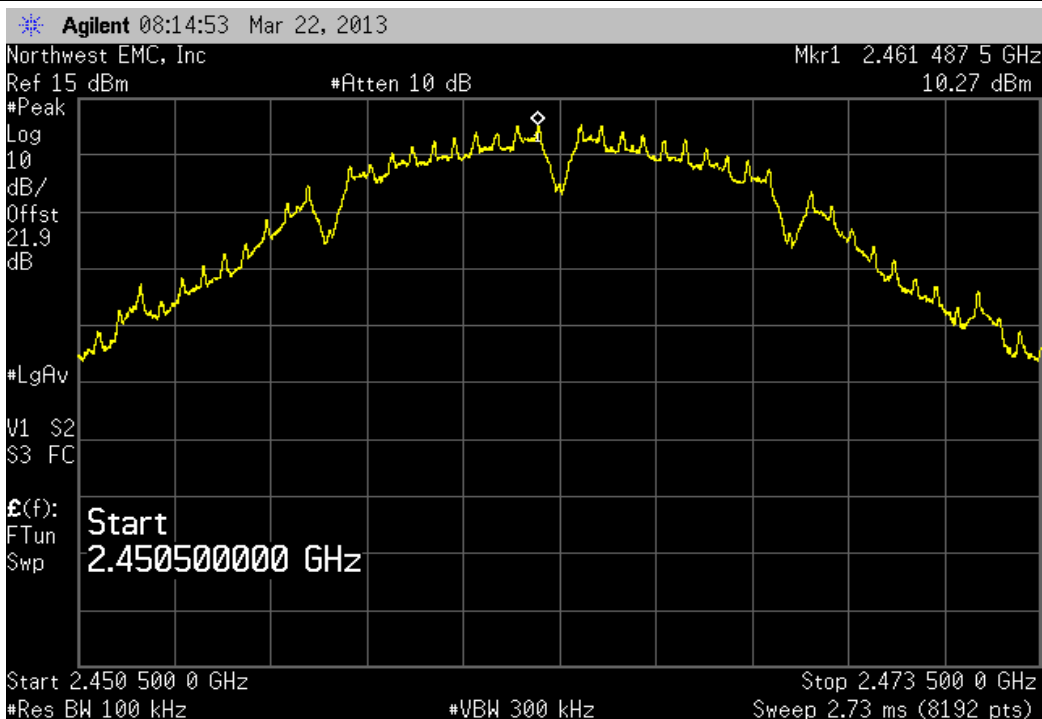
| Antenna 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz |            |           |        |  |
|------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                      | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                    | -58.59 dBc | ≤ -20 dBc | Pass   |  |



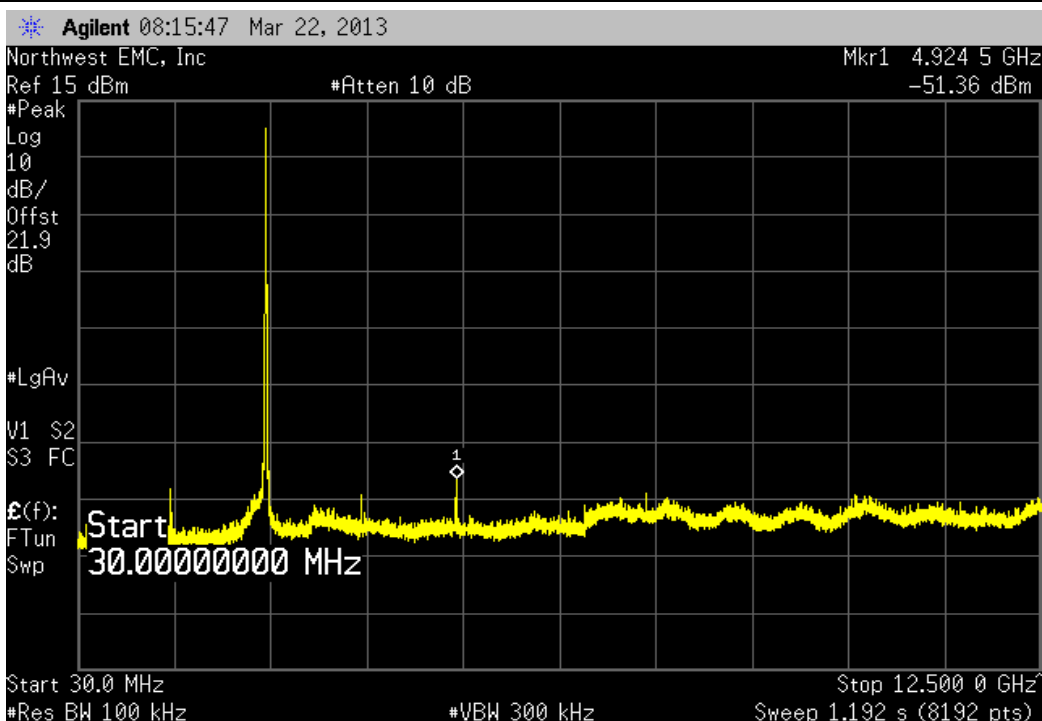
| Antenna 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz |            |           |        |  |
|------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                      | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                    | -60.16 dBc | ≤ -20 dBc | Pass   |  |



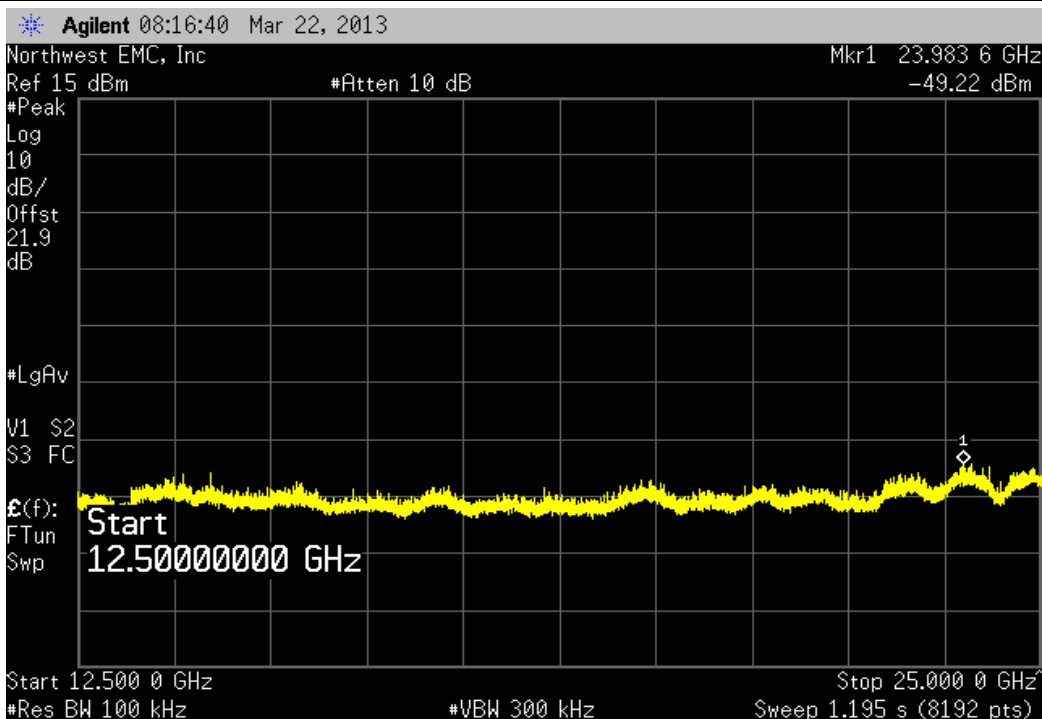
| Antenna 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz |  |       |       |        |  |  |
|--------------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                        |  | Value | Limit | Result |  |  |
| Fundamental                                            |  | N/A   | N/A   | N/A    |  |  |



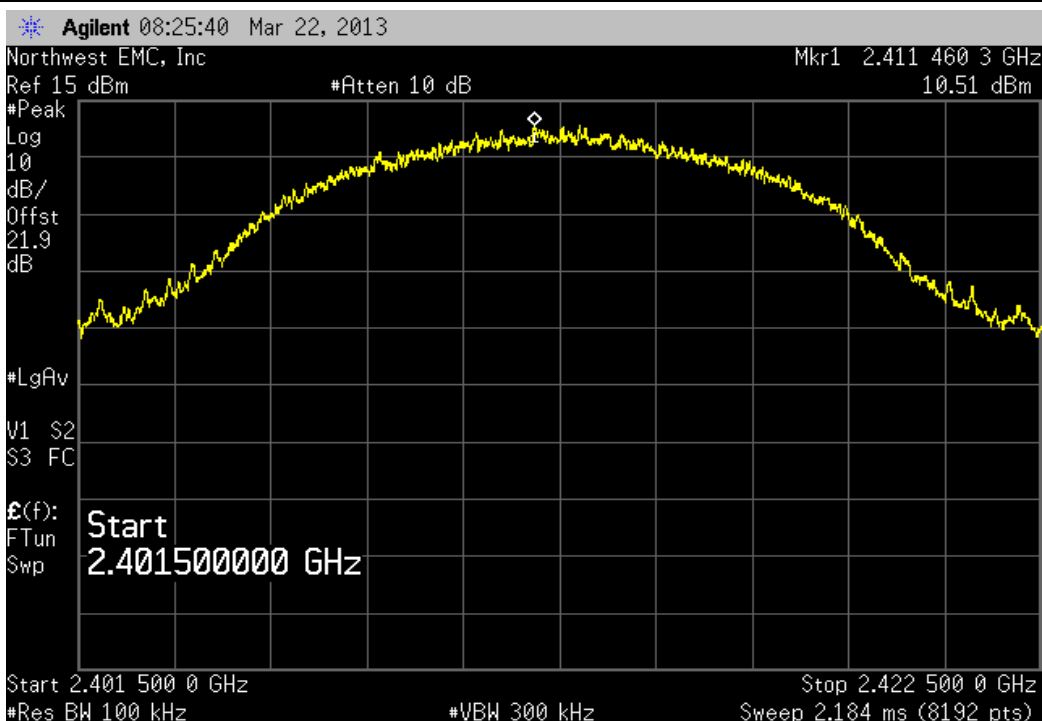
| Antenna 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz |  |            |           |        |  |  |
|--------------------------------------------------------|--|------------|-----------|--------|--|--|
| Frequency Range                                        |  | Value      | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                      |  | -61.63 dBc | ≤ -20 dBc | Pass   |  |  |



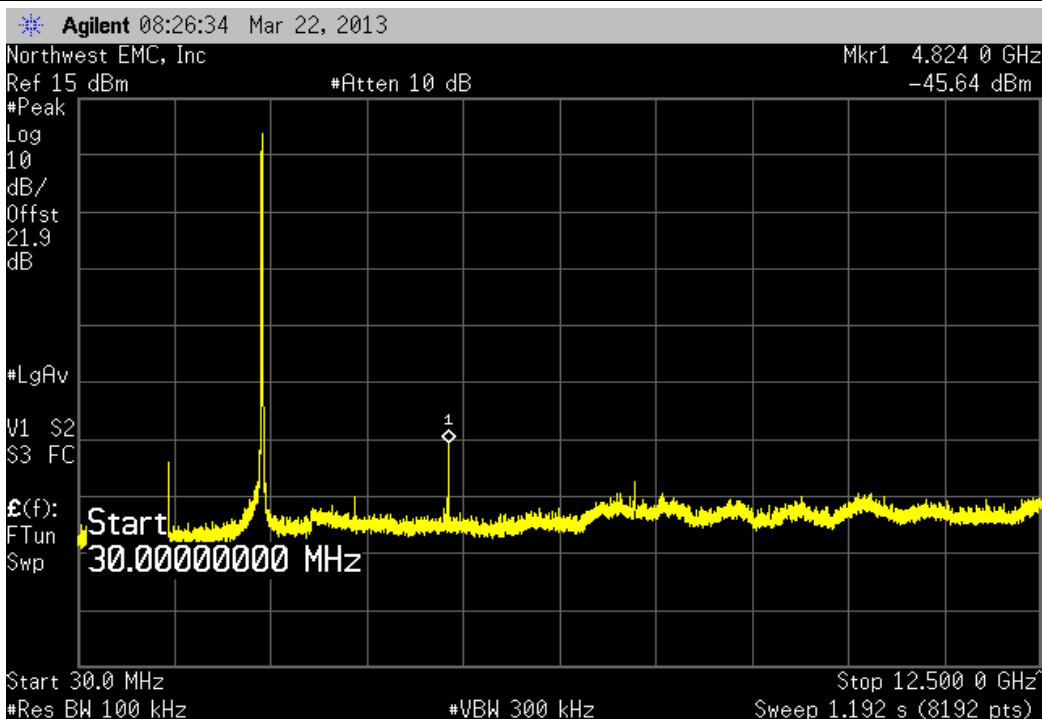
| Antenna 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz |            |           |        |  |
|--------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                        | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                      | -59.49 dBc | ≤ -20 dBc | Pass   |  |



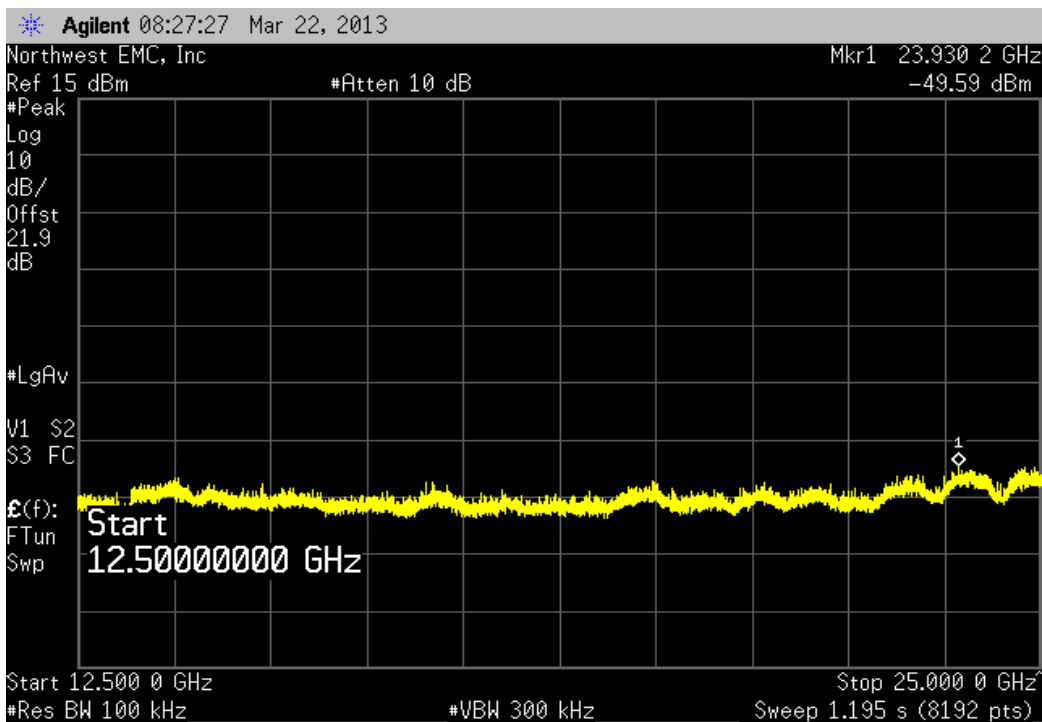
| Antenna 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |       |       |        |  |
|-------------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                       | Value | Limit | Result |  |
| Fundamental                                           | N/A   | N/A   | N/A    |  |



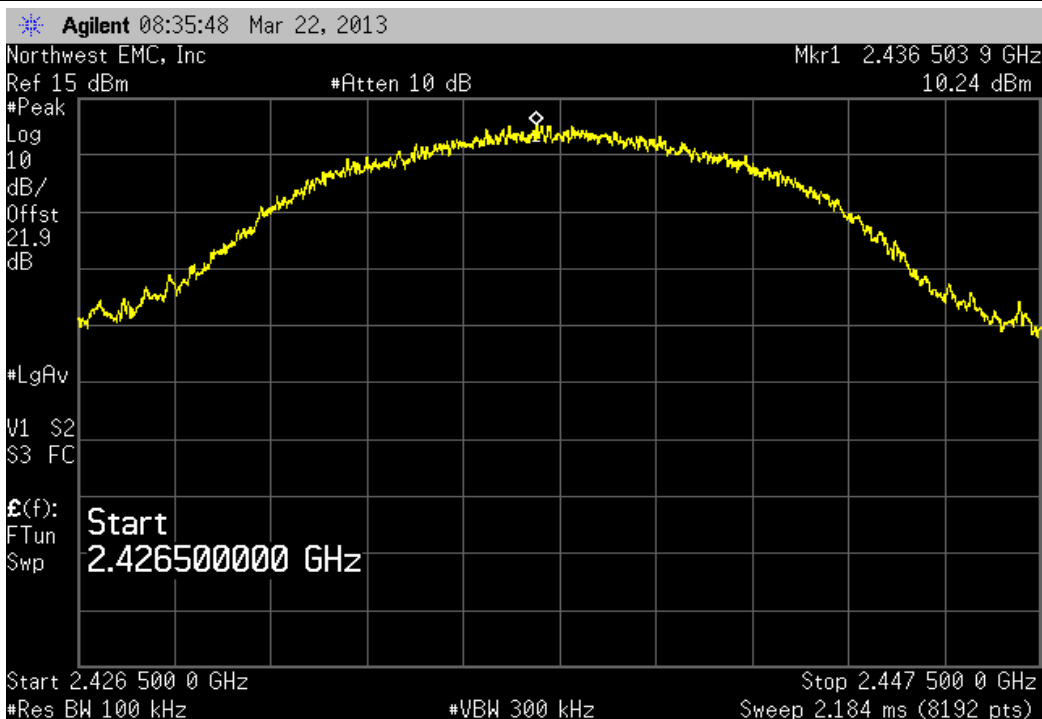
| Antenna 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |            |           |        |  |
|-------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                       | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                     | -56.15 dBc | ≤ -20 dBc | Pass   |  |



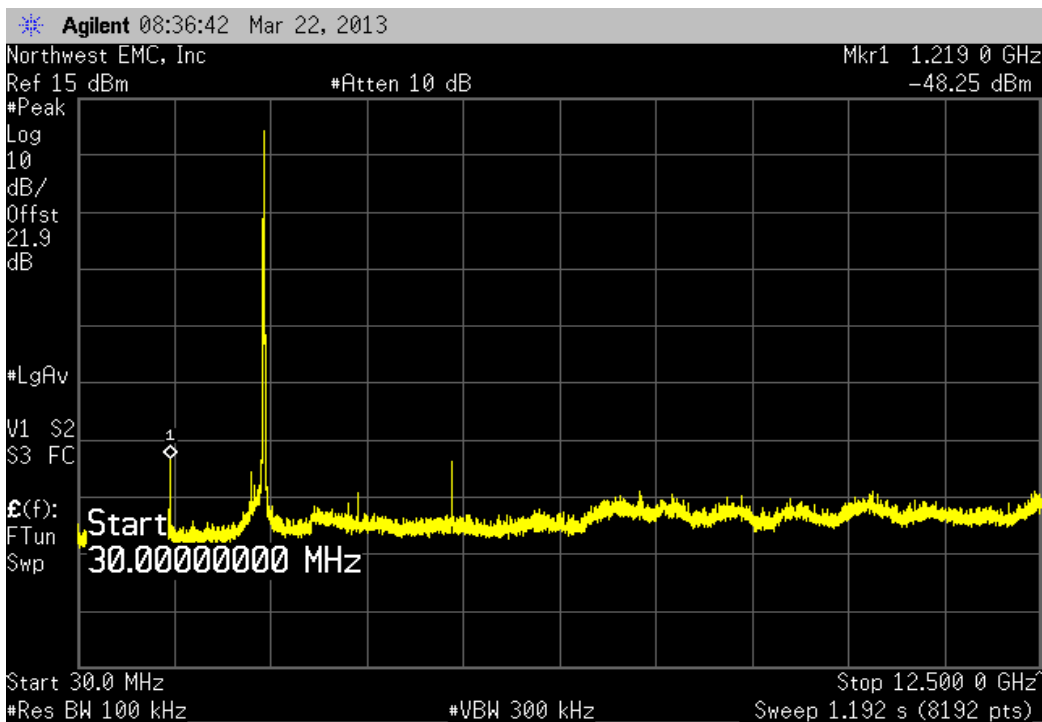
| Antenna 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |           |           |        |  |
|-------------------------------------------------------|-----------|-----------|--------|--|
| Frequency Range                                       | Value     | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                     | -60.1 dBc | ≤ -20 dBc | Pass   |  |



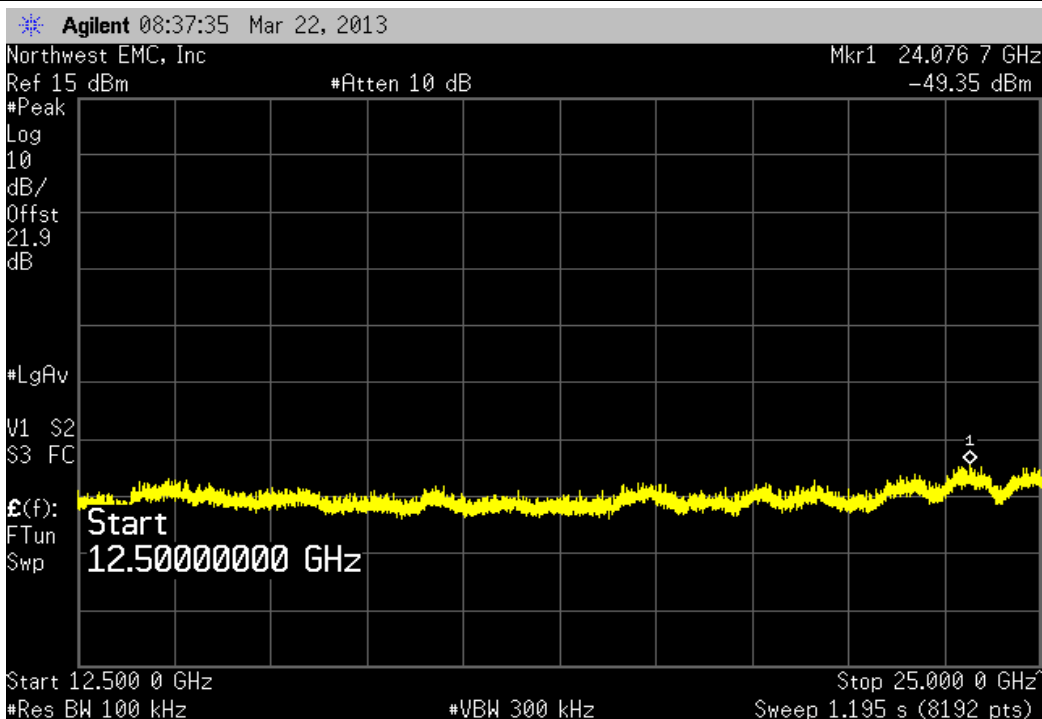
| Antenna 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz |  |       |       |        |  |  |
|-------------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                       |  | Value | Limit | Result |  |  |
| Fundamental                                           |  | N/A   | N/A   | N/A    |  |  |



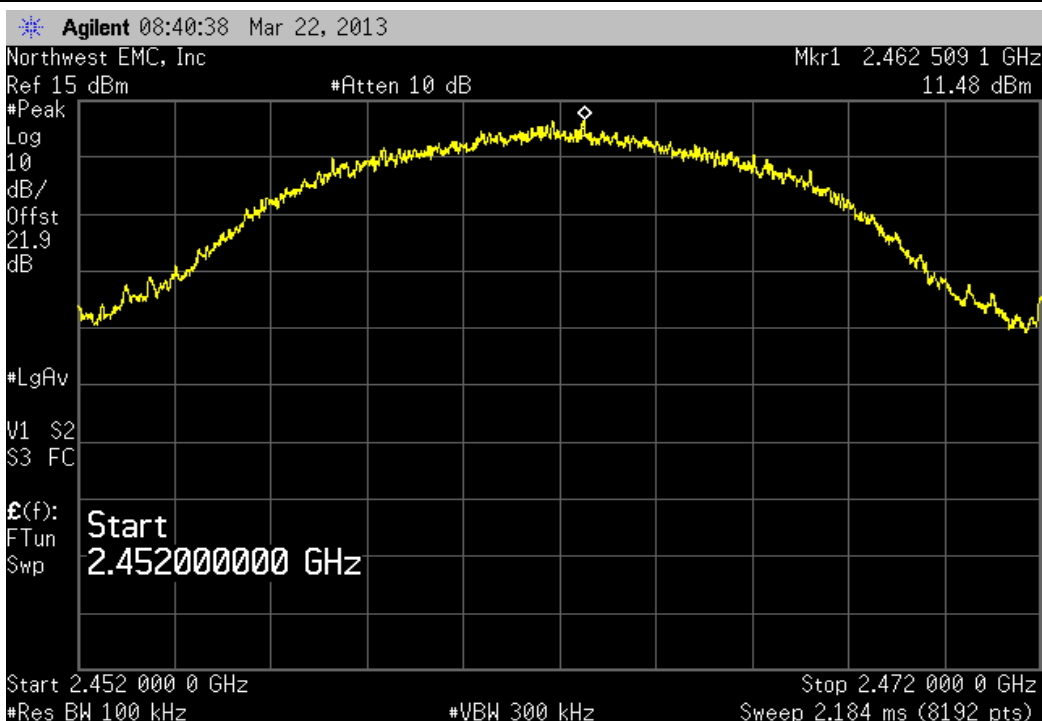
| Antenna 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz |  |            |           |        |  |  |
|-------------------------------------------------------|--|------------|-----------|--------|--|--|
| Frequency Range                                       |  | Value      | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                     |  | -58.49 dBc | ≤ -20 dBc | Pass   |  |  |



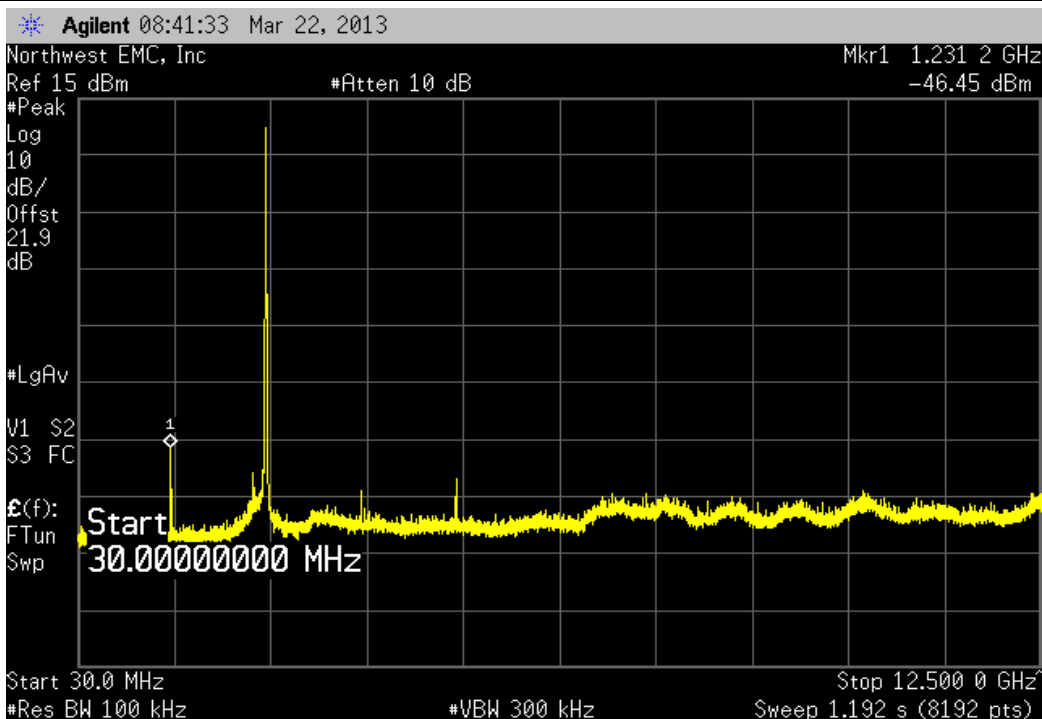
| Antenna 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz |            |           |        |  |
|-------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                       | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                     | -59.59 dBc | ≤ -20 dBc | Pass   |  |



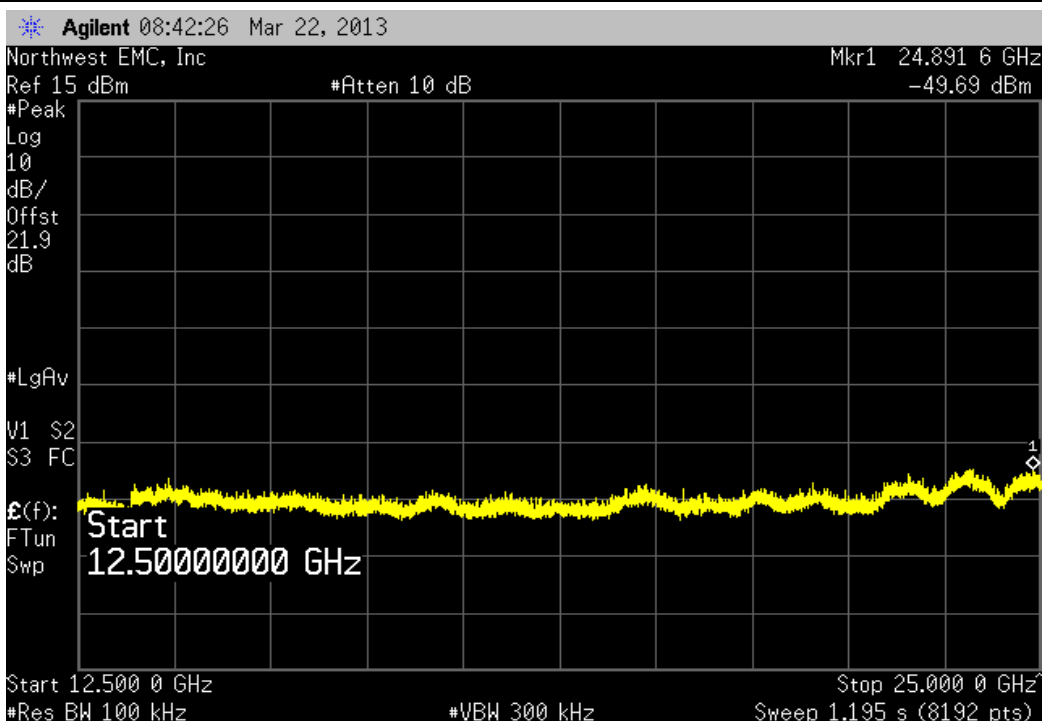
| Antenna 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz |       |       |        |  |
|---------------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                         | Value | Limit | Result |  |
| Fundamental                                             | N/A   | N/A   | N/A    |  |



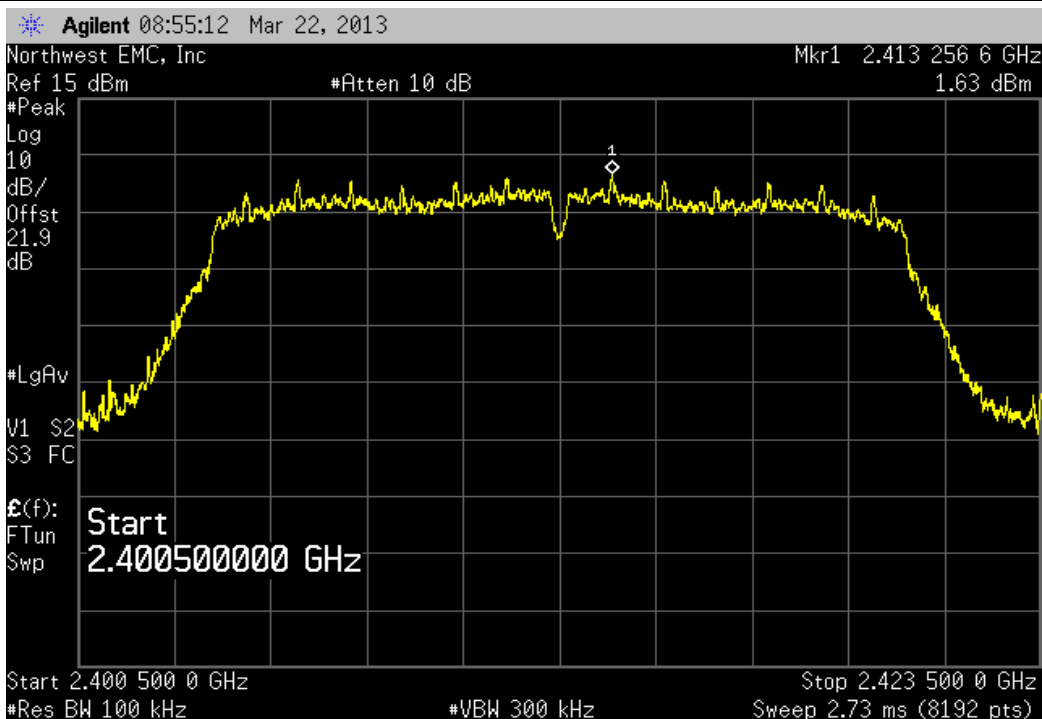
| Antenna 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz |            |           |        |  |
|---------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                         | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                       | -57.93 dBc | ≤ -20 dBc | Pass   |  |



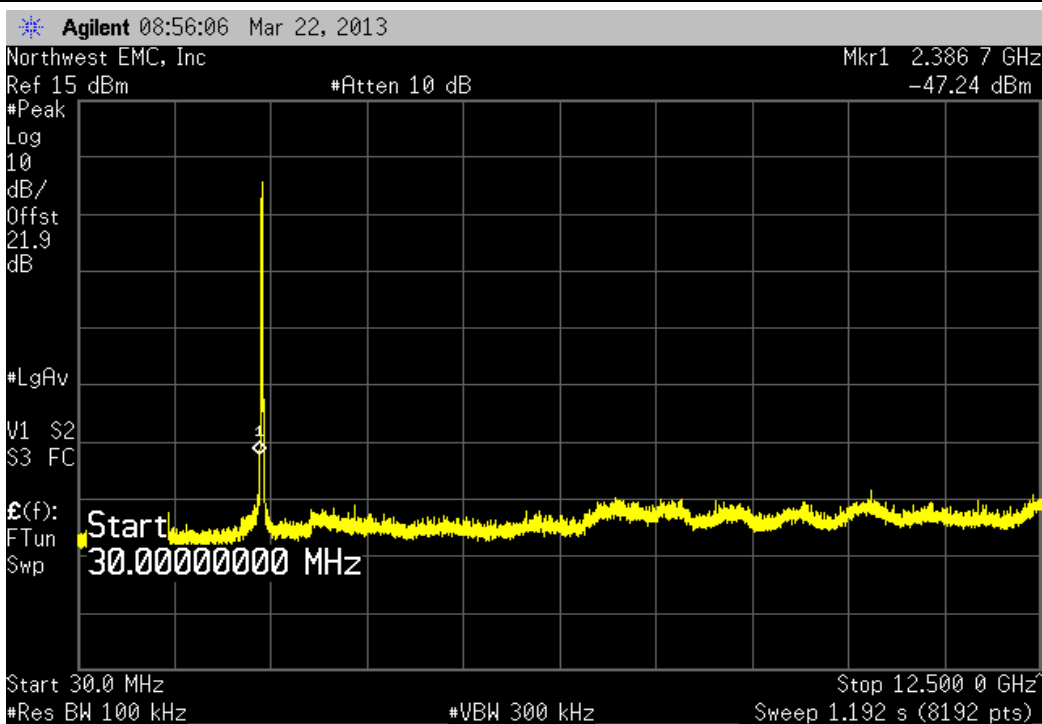
| Antenna 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz |            |           |        |  |
|---------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                         | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                       | -61.17 dBc | ≤ -20 dBc | Pass   |  |



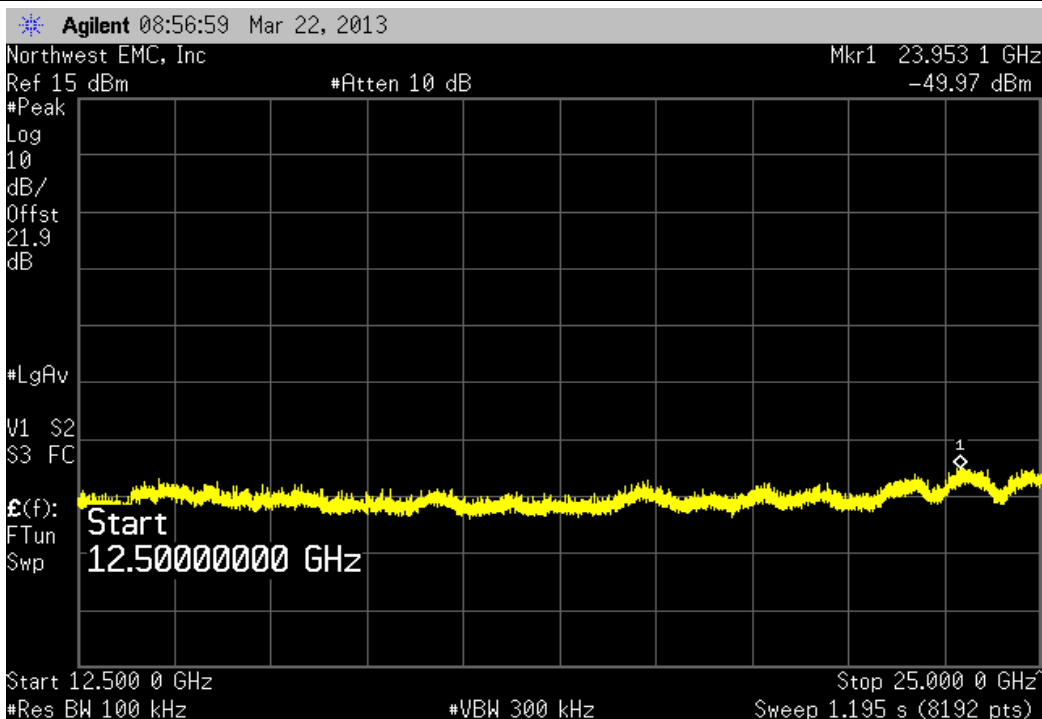
| Antenna 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz |  |       |       |        |  |  |
|------------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                      |  | Value | Limit | Result |  |  |
| Fundamental                                          |  | N/A   | N/A   | N/A    |  |  |



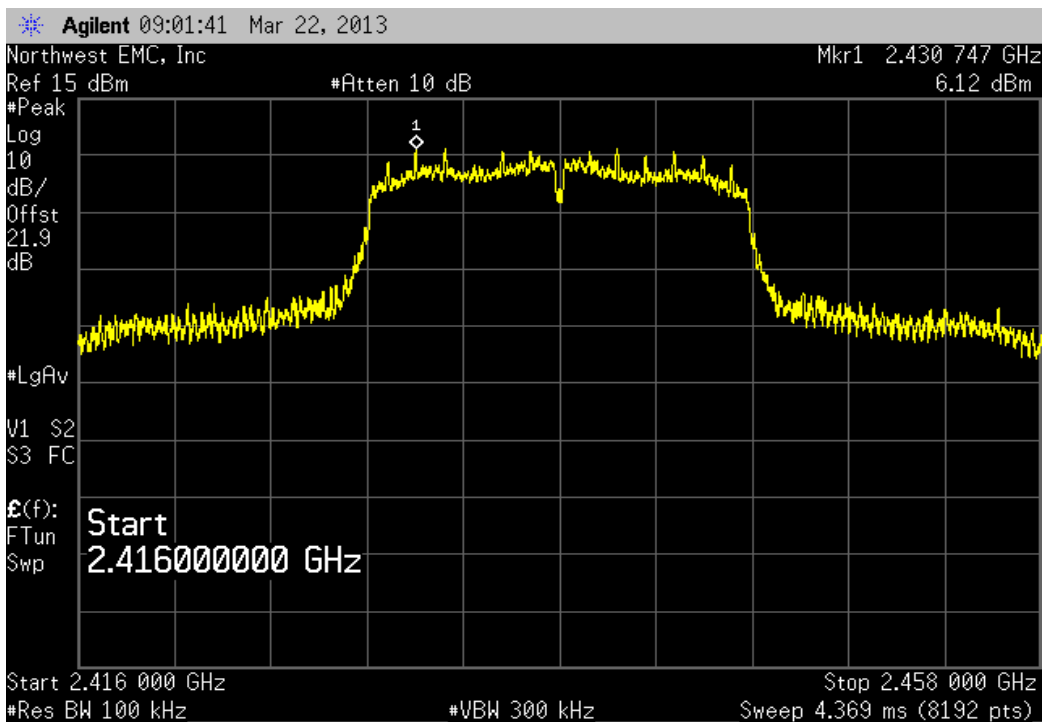
| Antenna 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz |  |            |           |        |  |  |
|------------------------------------------------------|--|------------|-----------|--------|--|--|
| Frequency Range                                      |  | Value      | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                    |  | -48.87 dBc | ≤ -20 dBc | Pass   |  |  |



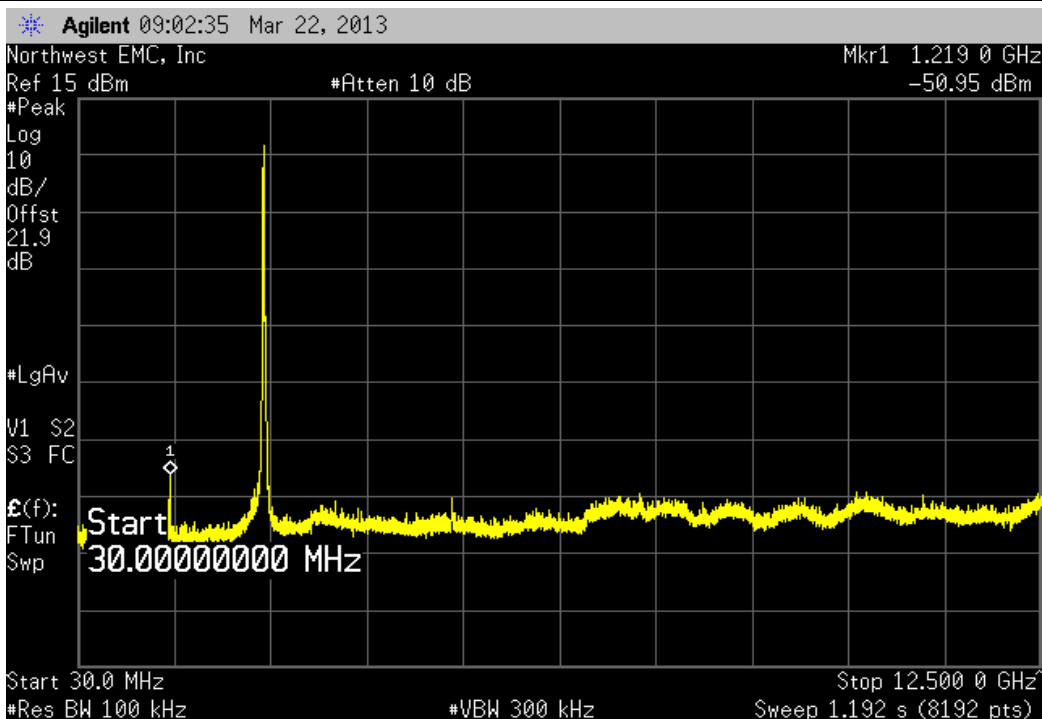
| Antenna 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz |           |           |        |  |
|------------------------------------------------------|-----------|-----------|--------|--|
| Frequency Range                                      | Value     | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                    | -51.6 dBc | ≤ -20 dBc | Pass   |  |



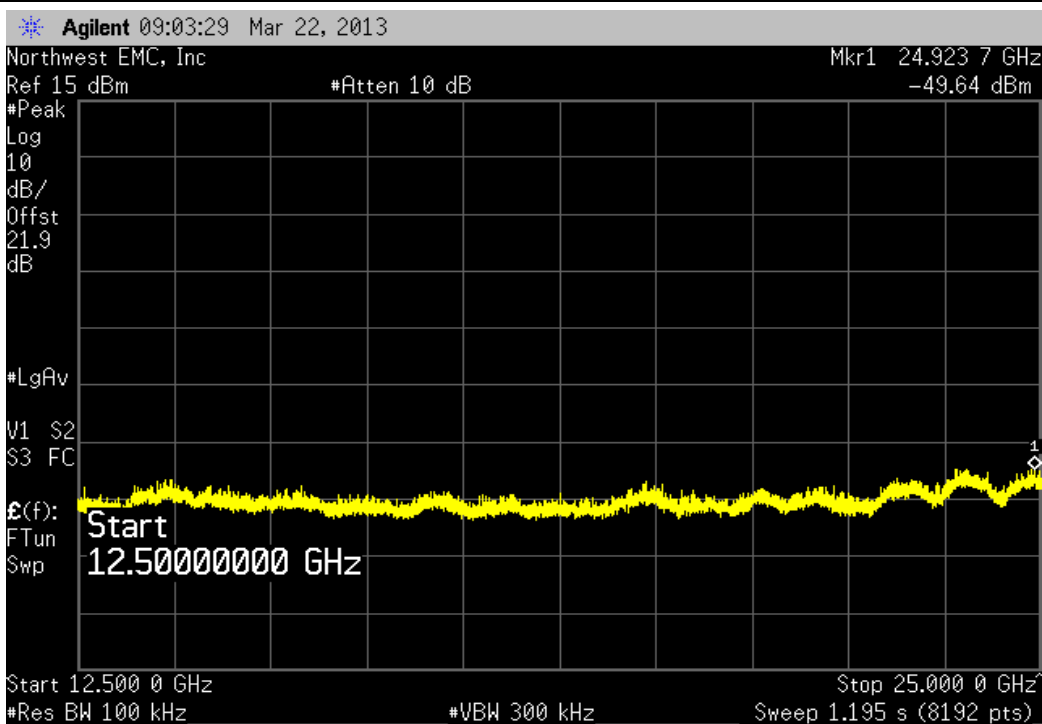
| Antenna 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz |       |       |        |  |
|------------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                      | Value | Limit | Result |  |
| Fundamental                                          | N/A   | N/A   | N/A    |  |



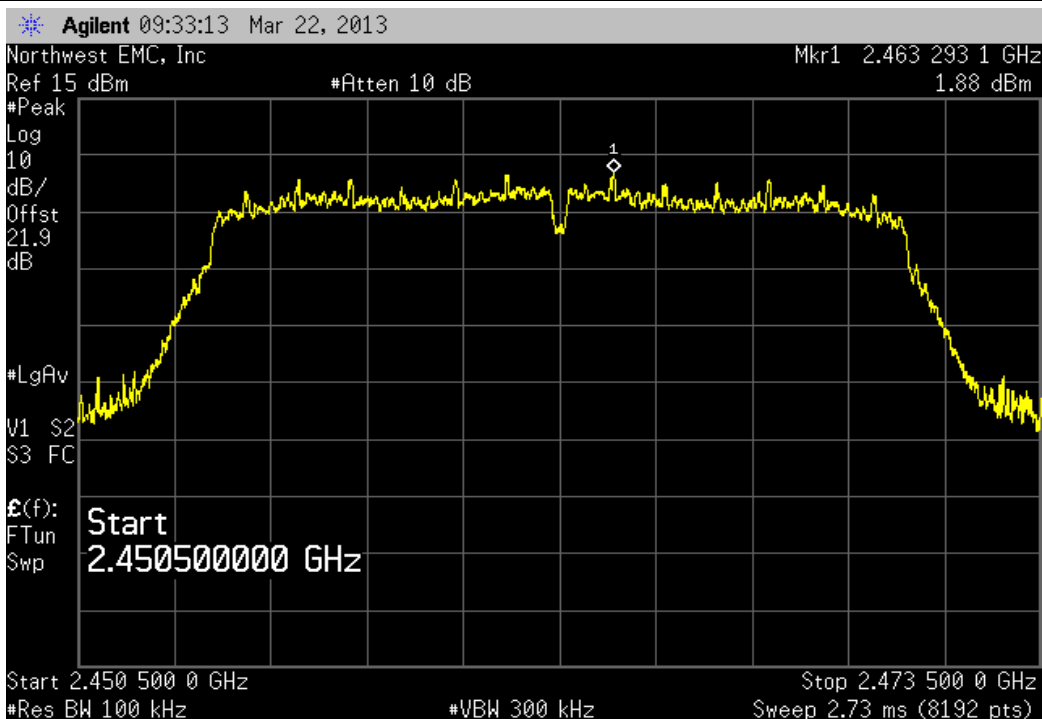
| Antenna 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz |            |           |        |  |
|------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                      | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                    | -57.08 dBc | ≤ -20 dBc | Pass   |  |



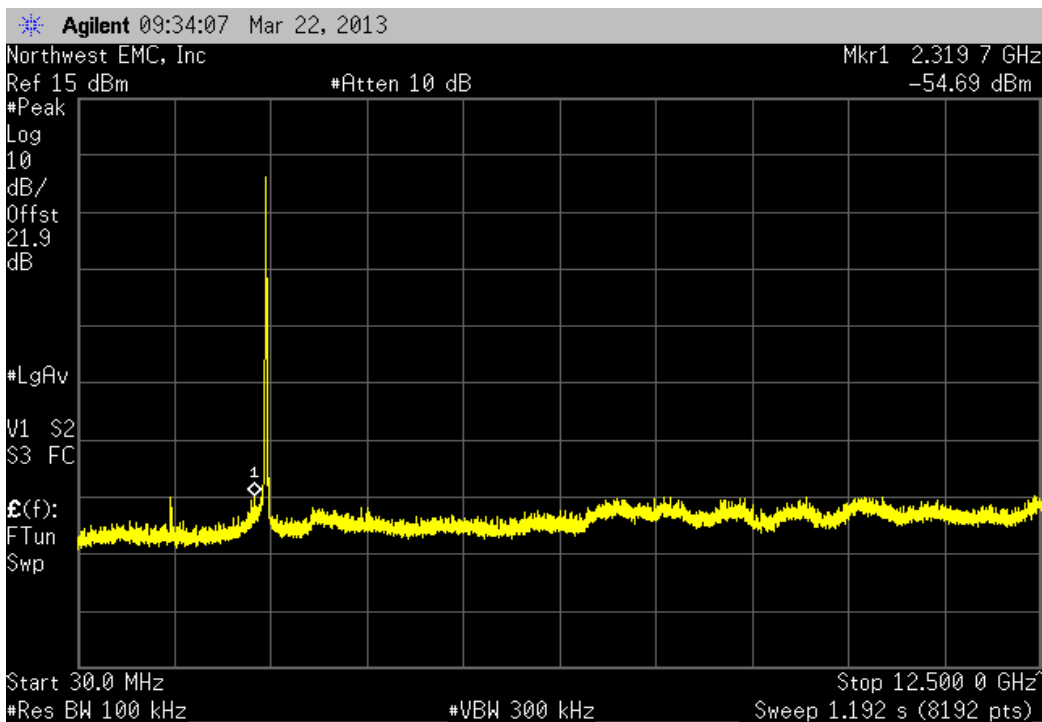
| Antenna 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz |            |           |        |  |
|------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                      | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                    | -55.77 dBc | ≤ -20 dBc | Pass   |  |



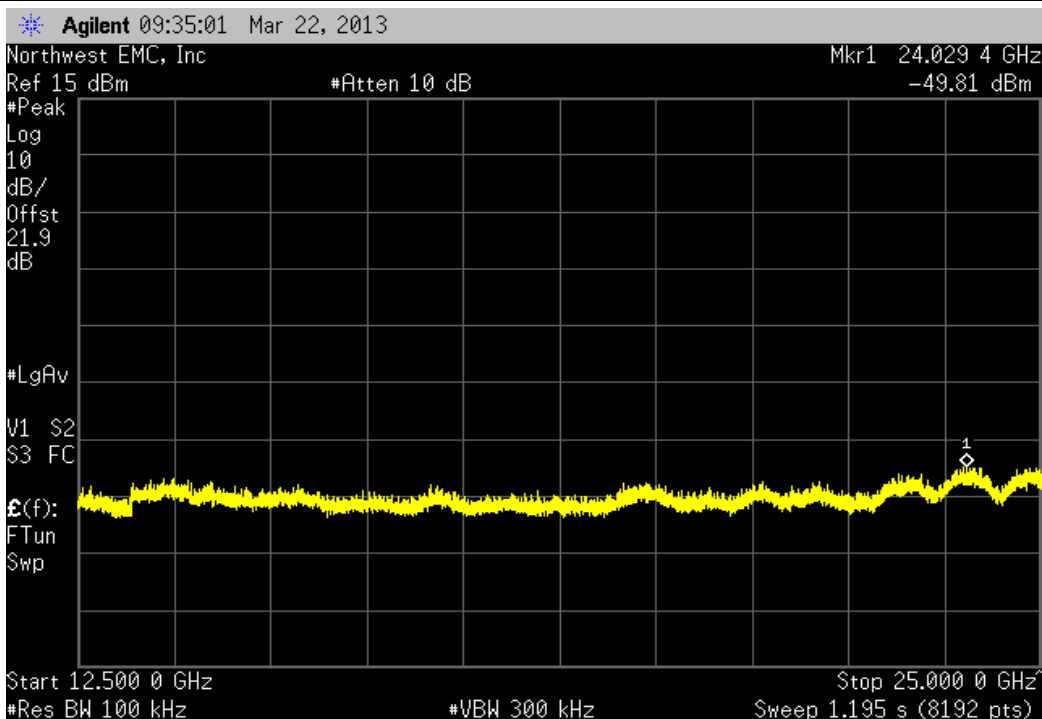
| Antenna 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |  |       |       |        |  |  |
|--------------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                        |  | Value | Limit | Result |  |  |
| Fundamental                                            |  | N/A   | N/A   | N/A    |  |  |



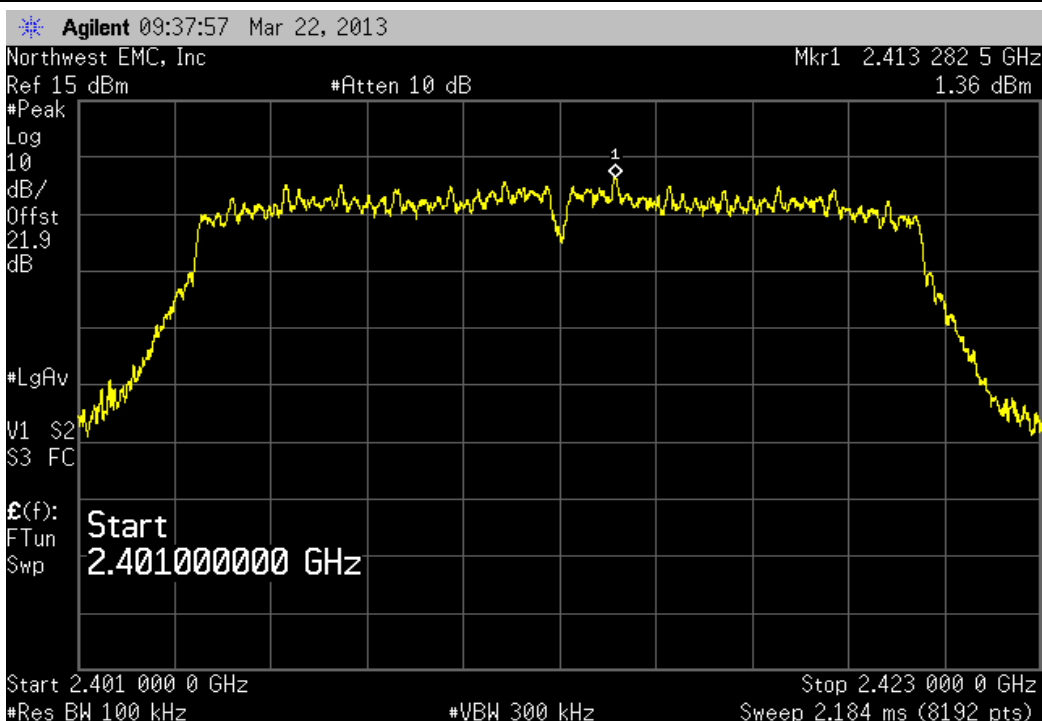
| Antenna 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |  |            |           |        |  |  |
|--------------------------------------------------------|--|------------|-----------|--------|--|--|
| Frequency Range                                        |  | Value      | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                      |  | -56.57 dBc | ≤ -20 dBc | Pass   |  |  |



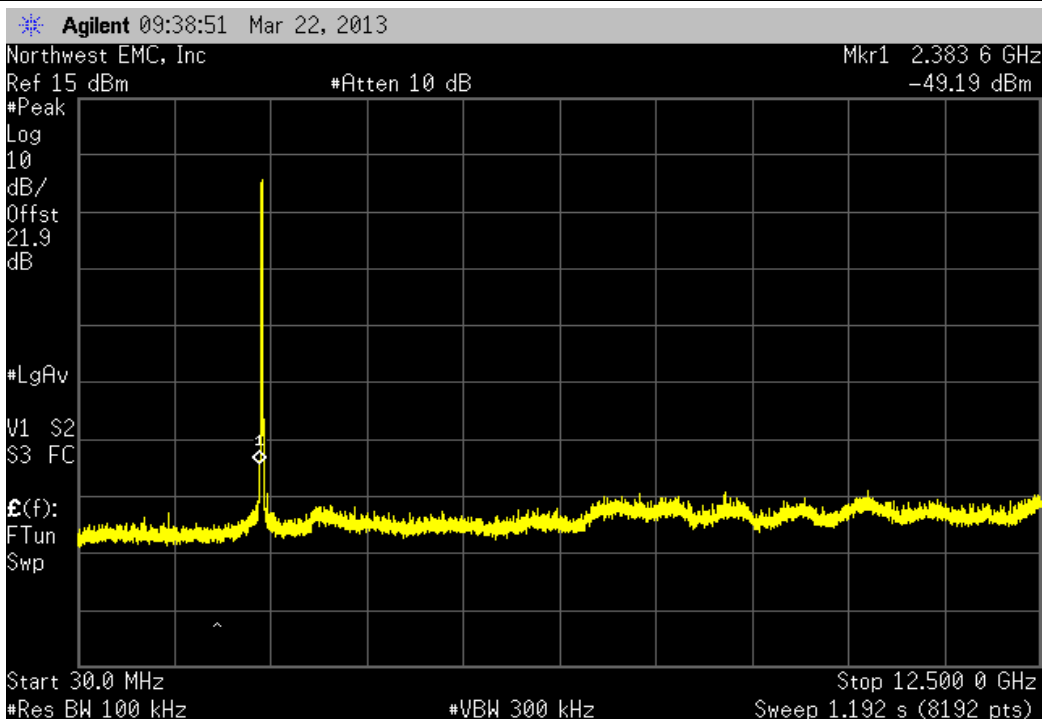
| Antenna 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |            |           |        |  |
|--------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                        | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                      | -51.69 dBc | ≤ -20 dBc | Pass   |  |



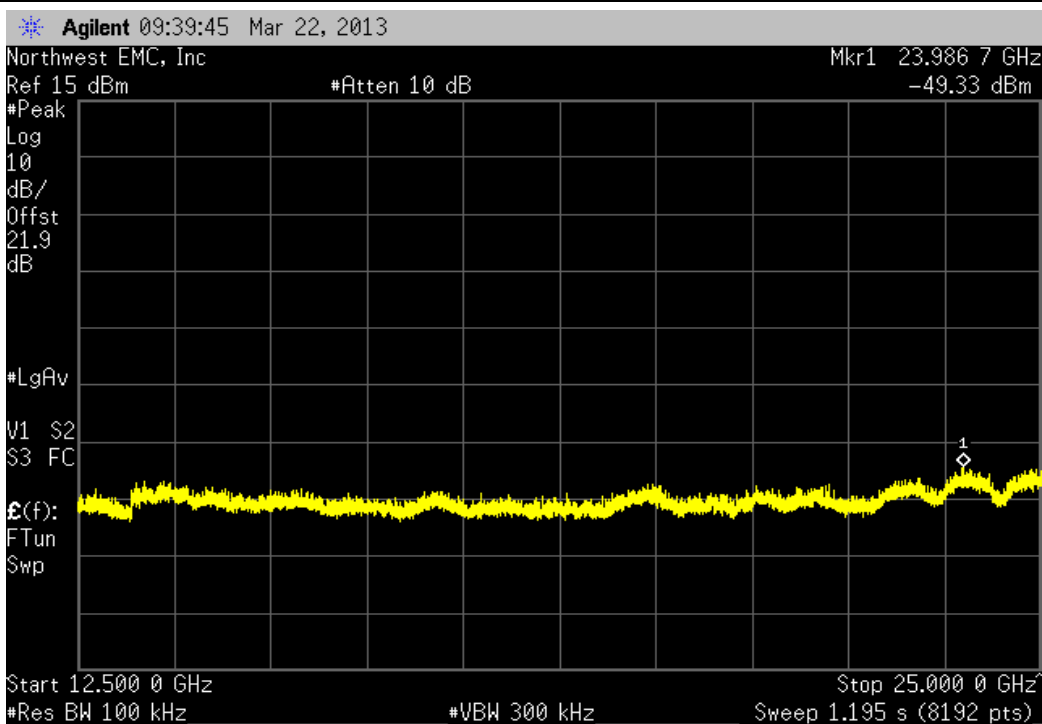
| Antenna 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz |       |       |        |  |
|-------------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                       | Value | Limit | Result |  |
| Fundamental                                           | N/A   | N/A   | N/A    |  |



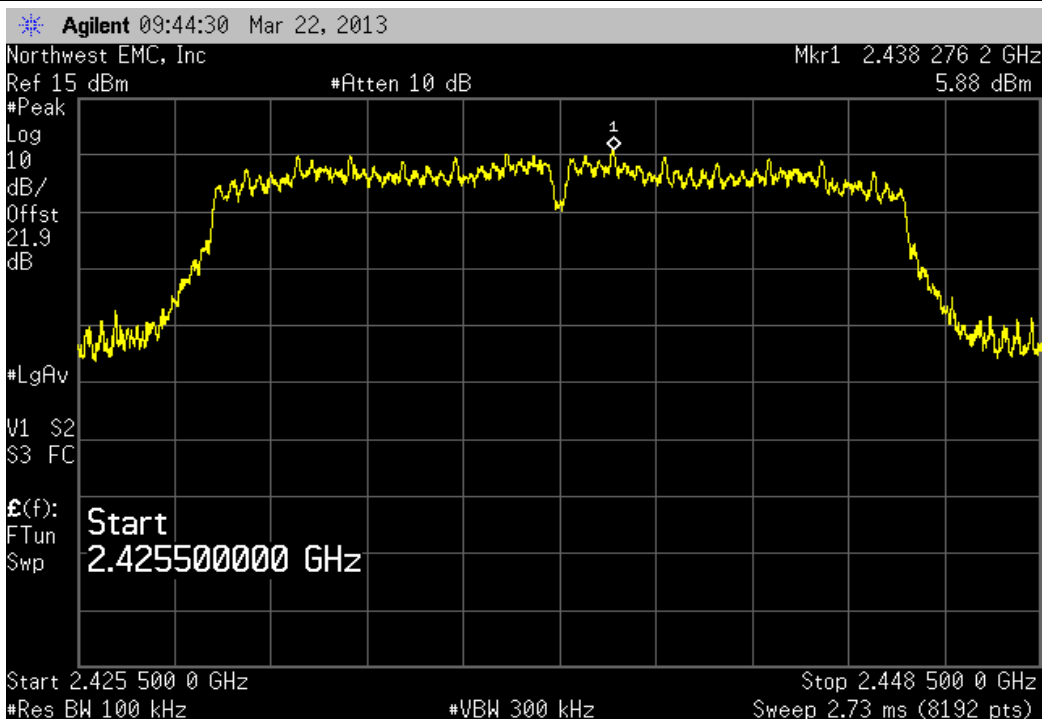
| Antenna 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz |            |           |        |  |
|-------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                       | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                     | -50.55 dBc | ≤ -20 dBc | Pass   |  |



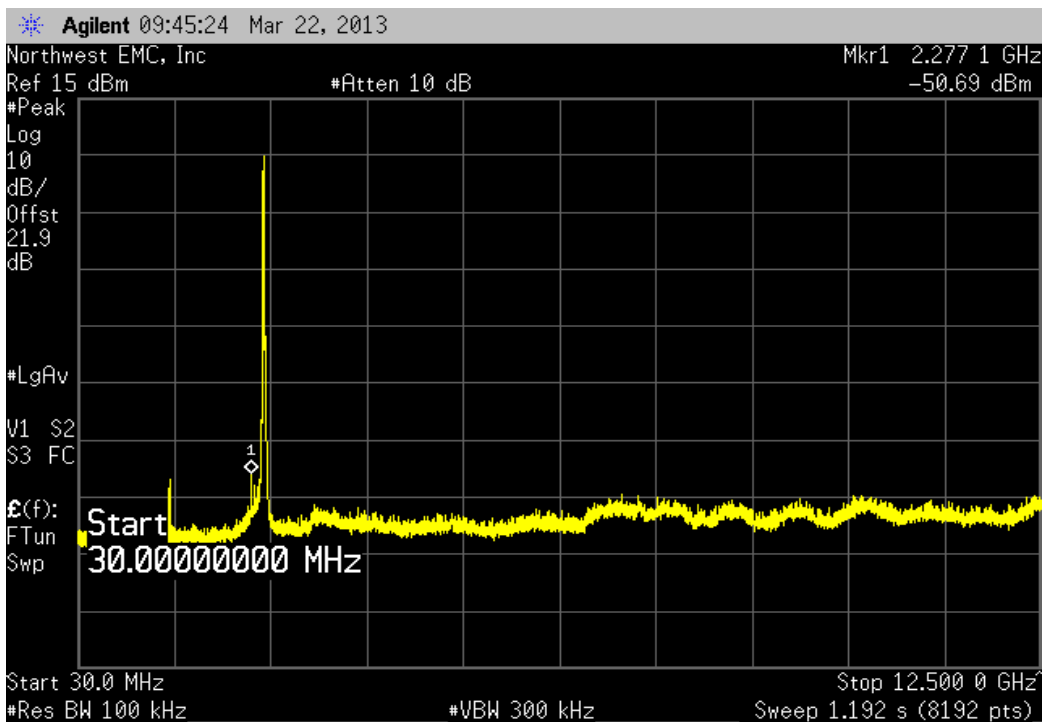
| Antenna 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz |            |           |        |  |
|-------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                       | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                     | -50.68 dBc | ≤ -20 dBc | Pass   |  |



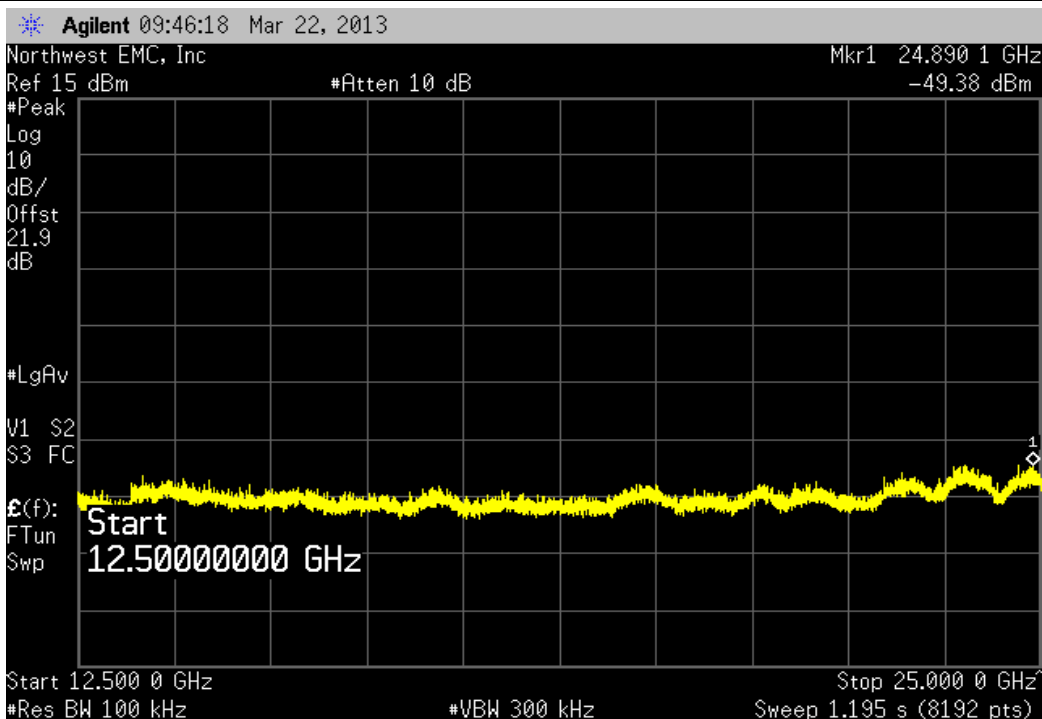
| Antenna 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz |  |       |       |        |  |  |
|-------------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                       |  | Value | Limit | Result |  |  |
| Fundamental                                           |  | N/A   | N/A   | N/A    |  |  |



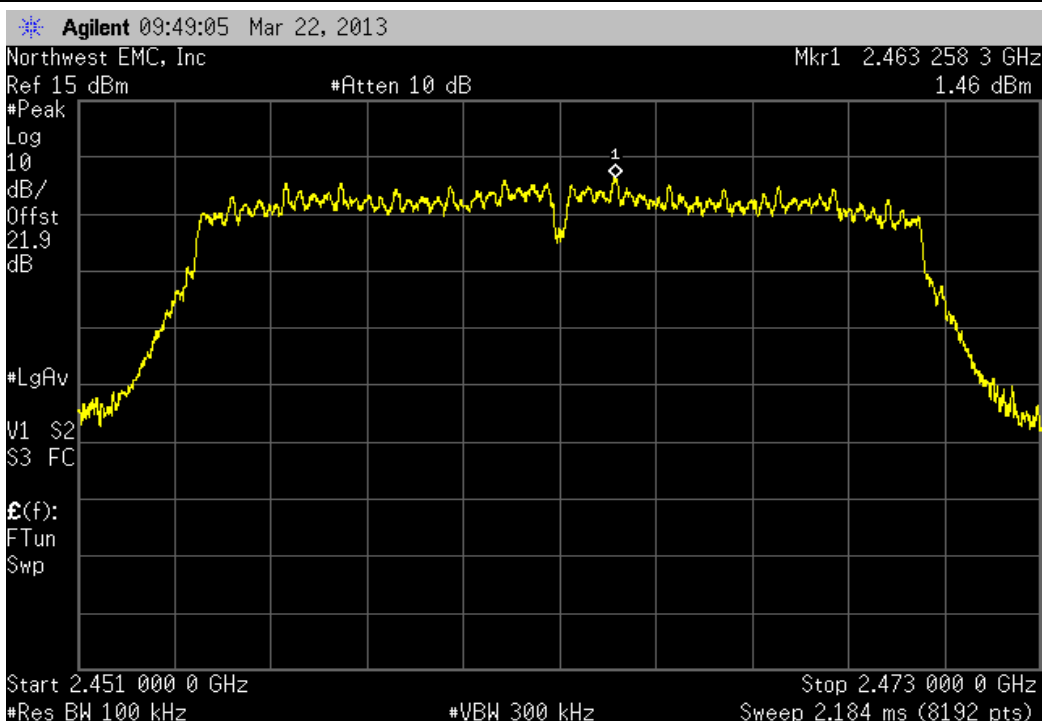
| Antenna 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz |  |            |           |        |  |  |
|-------------------------------------------------------|--|------------|-----------|--------|--|--|
| Frequency Range                                       |  | Value      | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                     |  | -56.57 dBc | ≤ -20 dBc | Pass   |  |  |



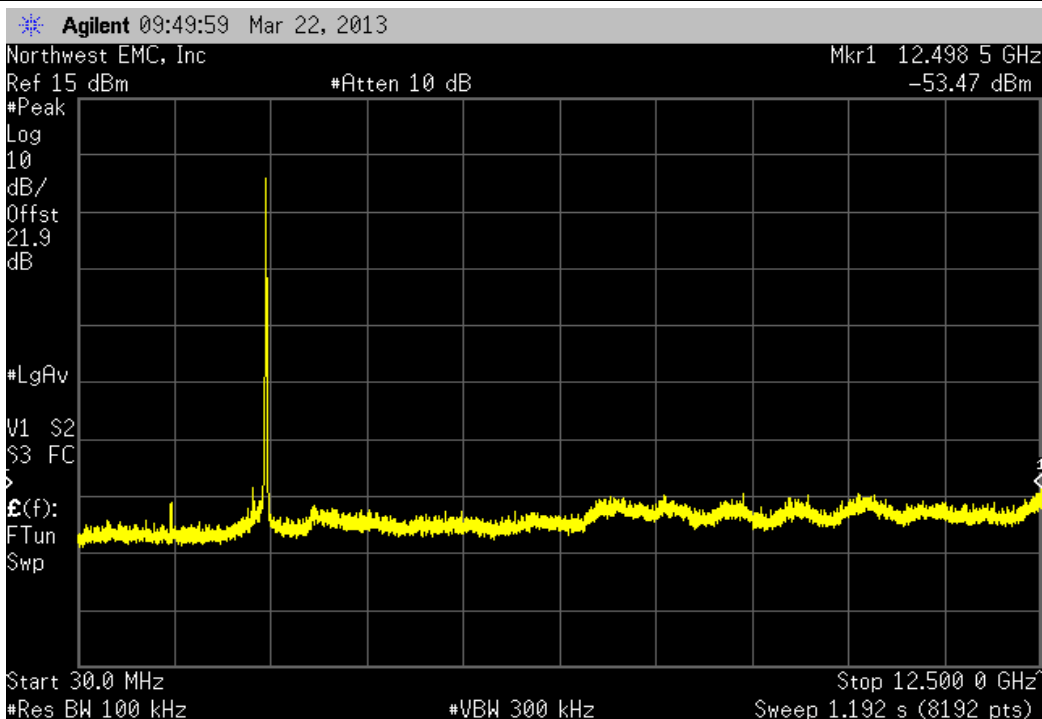
| Antenna 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz |            |           |        |  |
|-------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                       | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                     | -55.26 dBc | ≤ -20 dBc | Pass   |  |



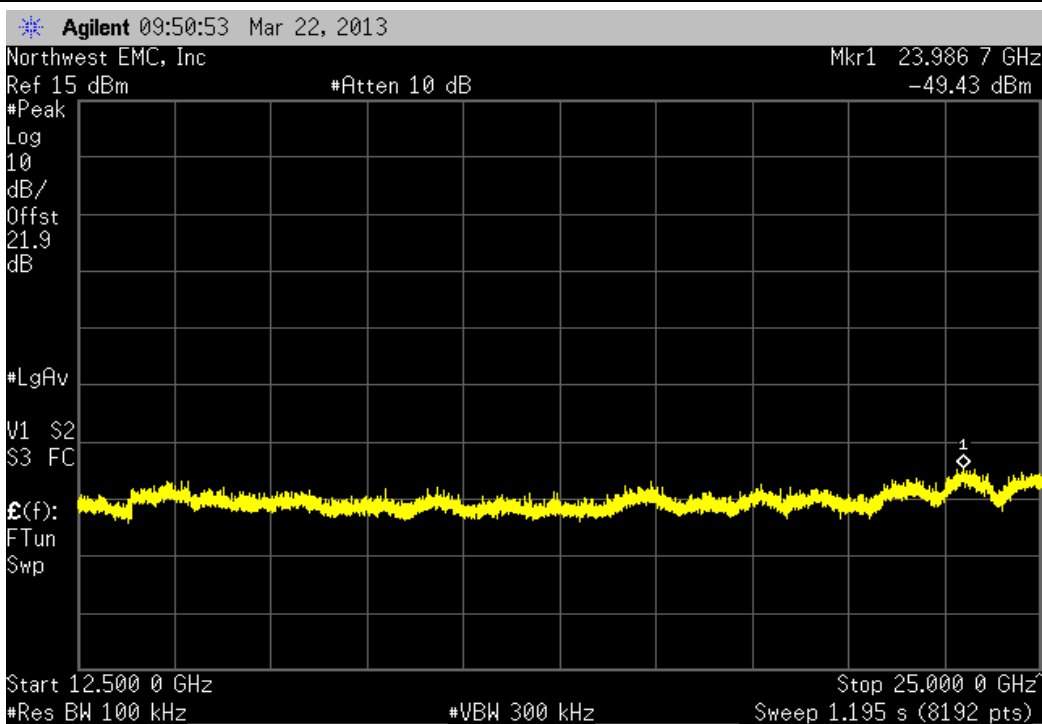
| Antenna 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz |       |       |        |  |
|---------------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                         | Value | Limit | Result |  |
| Fundamental                                             | N/A   | N/A   | N/A    |  |



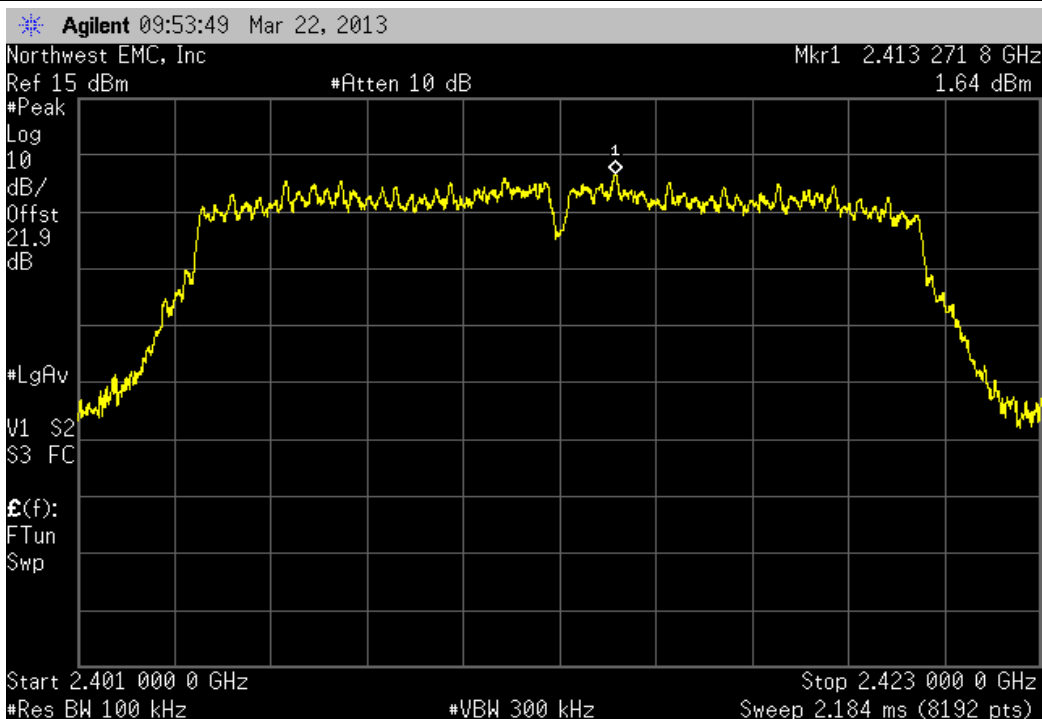
| Antenna 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz |            |           |        |  |
|---------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                         | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                       | -54.93 dBc | ≤ -20 dBc | Pass   |  |



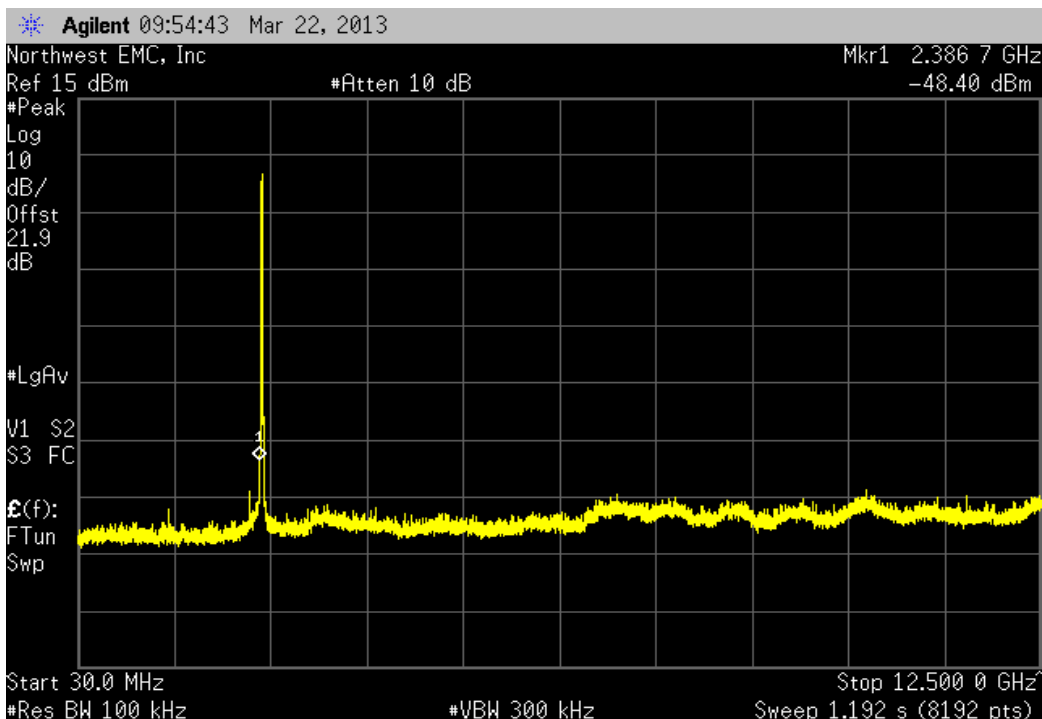
| Antenna 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz |            |           |        |  |
|---------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                         | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                       | -50.89 dBc | ≤ -20 dBc | Pass   |  |



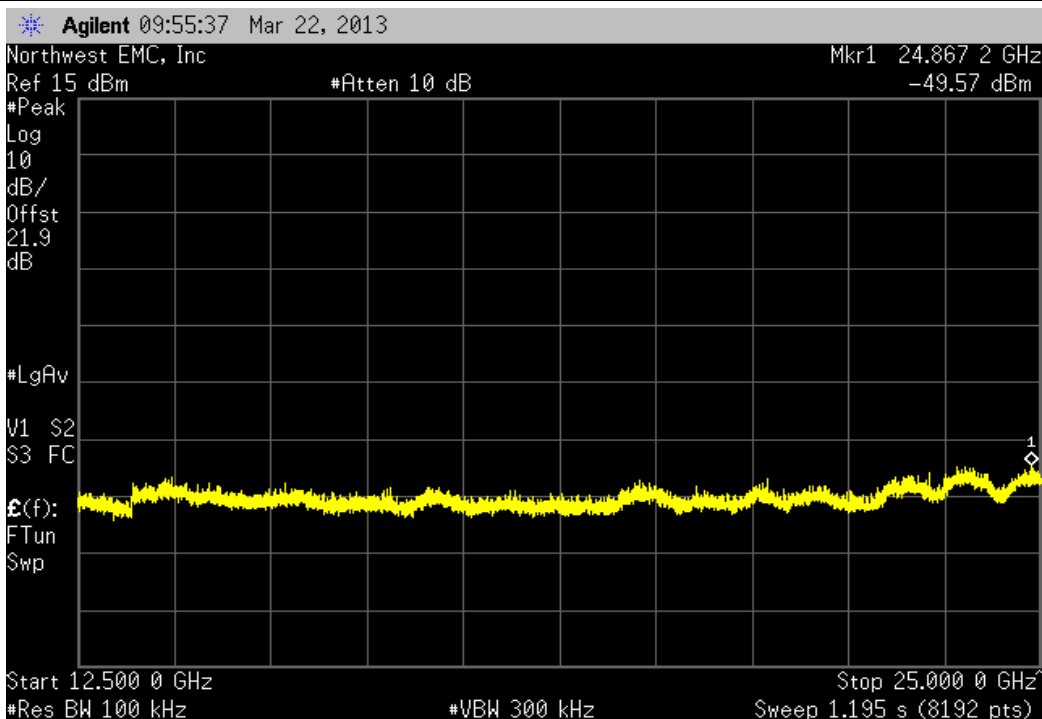
| Antenna 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz |  |       |       |        |  |  |
|-------------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                       |  | Value | Limit | Result |  |  |
| Fundamental                                           |  | N/A   | N/A   | N/A    |  |  |



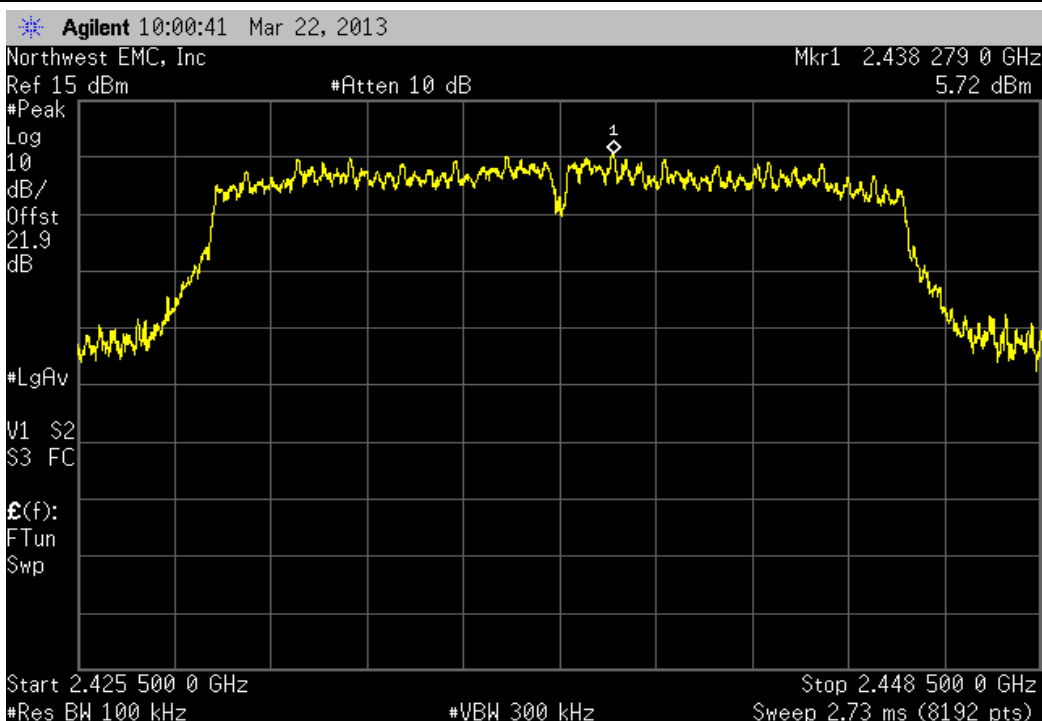
| Antenna 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz |  |            |           |        |  |  |
|-------------------------------------------------------|--|------------|-----------|--------|--|--|
| Frequency Range                                       |  | Value      | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                     |  | -50.04 dBc | ≤ -20 dBc | Pass   |  |  |



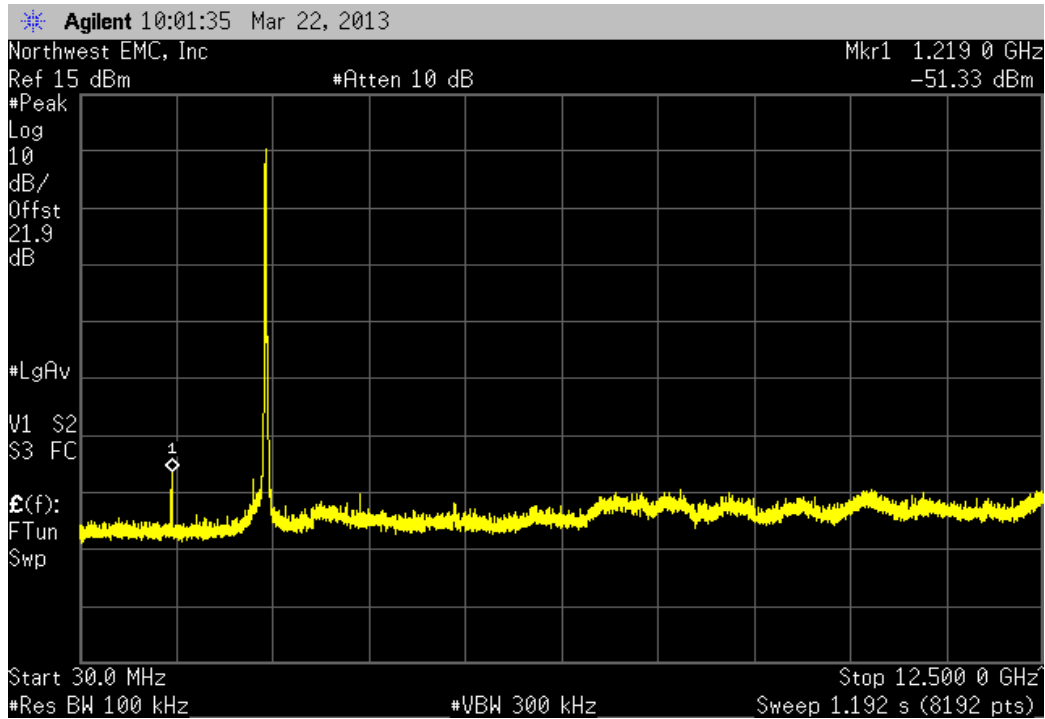
| Antenna 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz |            |           |        |  |
|-------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                       | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                     | -51.21 dBc | ≤ -20 dBc | Pass   |  |



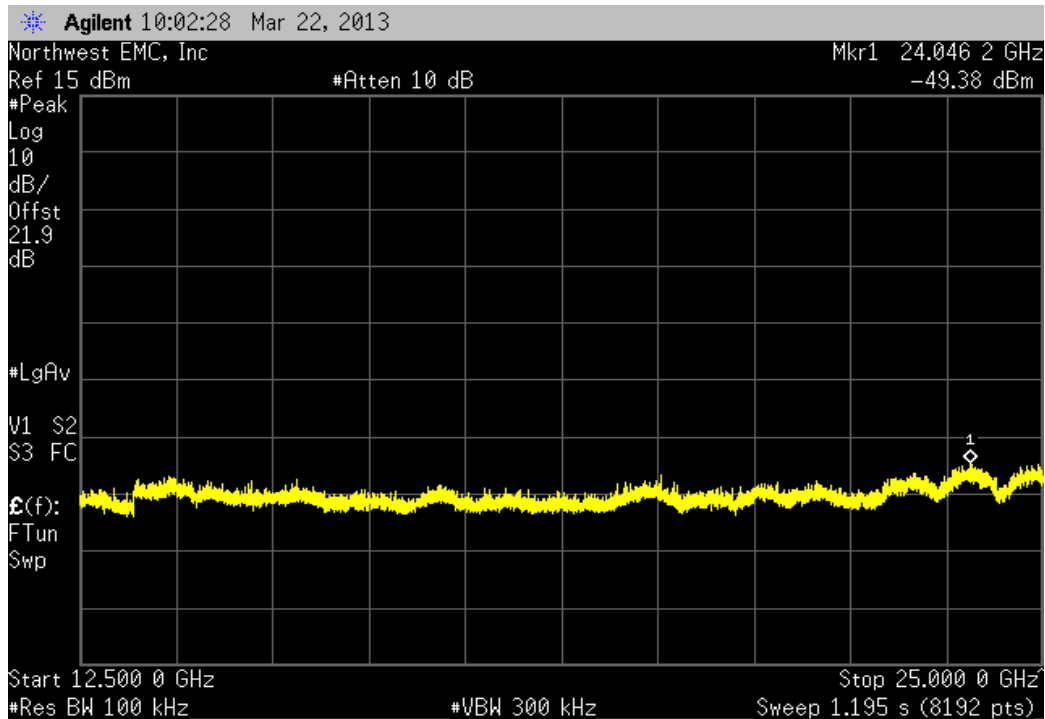
| Antenna 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz |       |       |        |  |
|-------------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                       | Value | Limit | Result |  |
| Fundamental                                           | N/A   | N/A   | N/A    |  |



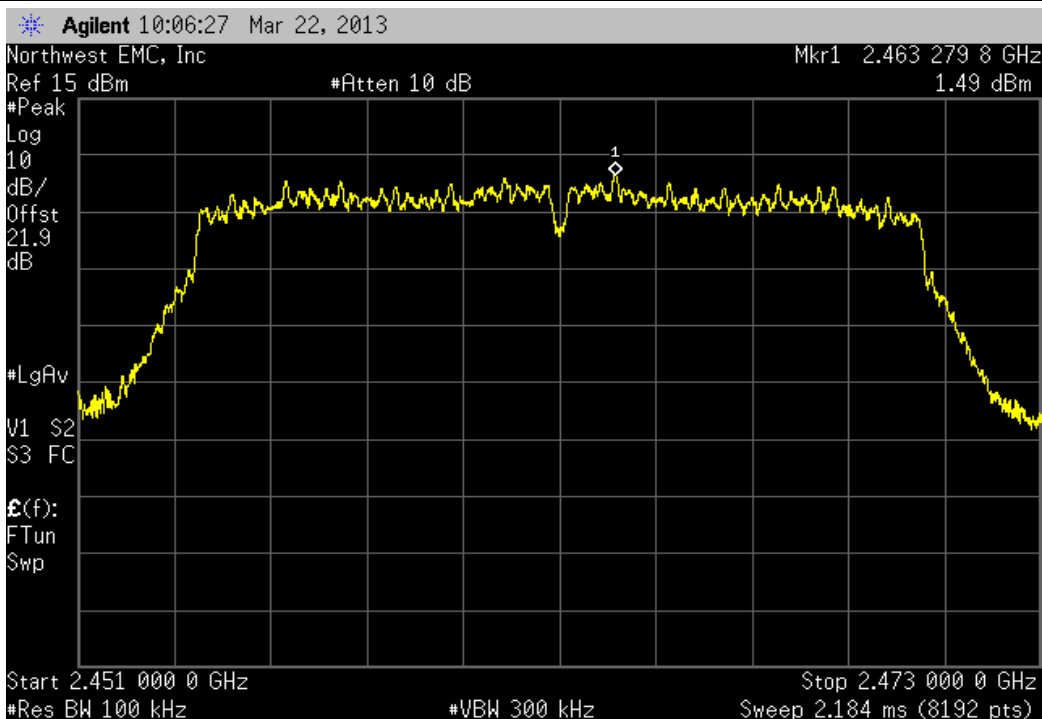
| Antenna 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz |            |           |        |  |
|-------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                       | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                     | -57.05 dBc | ≤ -20 dBc | Pass   |  |



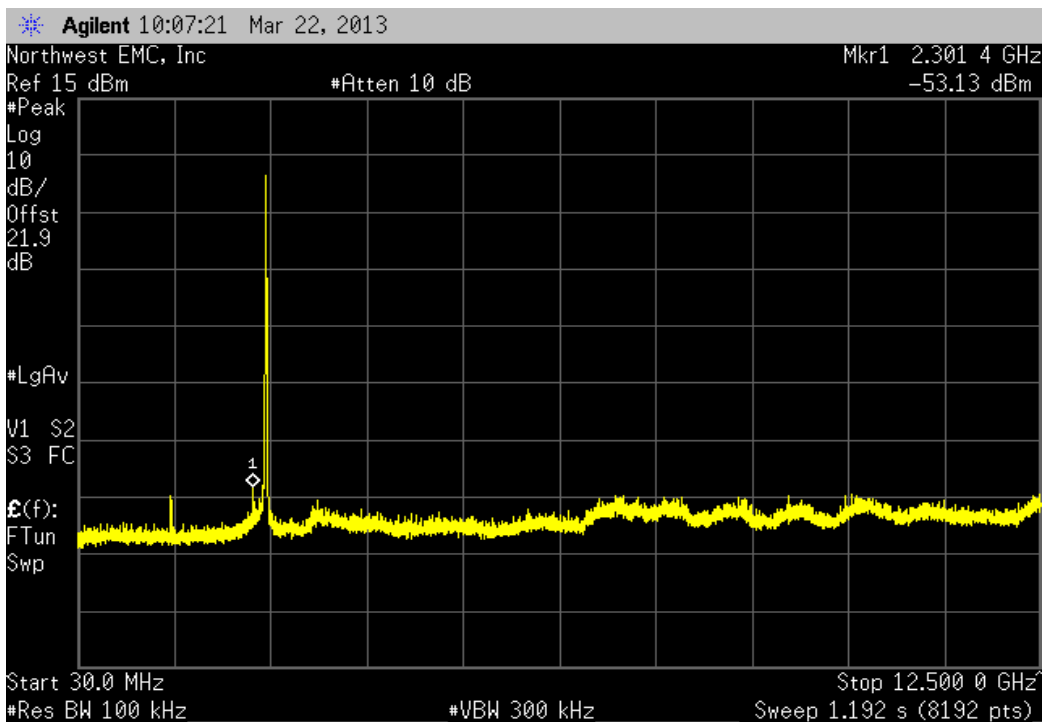
| Antenna 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz |           |           |        |  |
|-------------------------------------------------------|-----------|-----------|--------|--|
| Frequency Range                                       | Value     | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                     | -55.1 dBc | ≤ -20 dBc | Pass   |  |



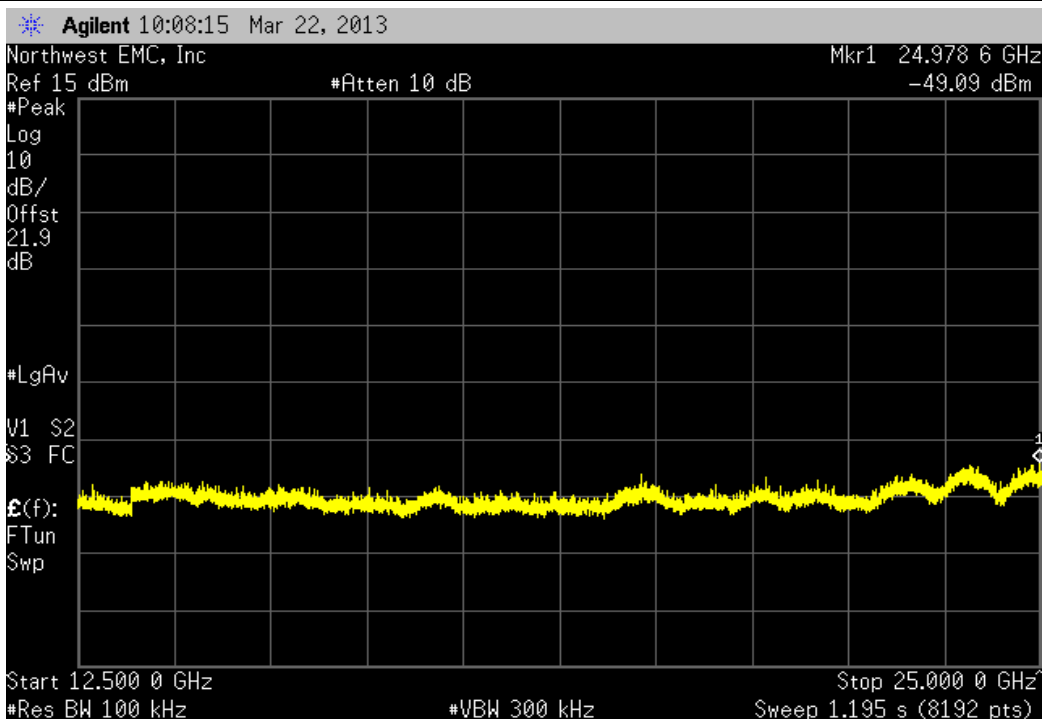
| Antenna 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz |  |       |       |        |  |  |
|---------------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                         |  | Value | Limit | Result |  |  |
| Fundamental                                             |  | N/A   | N/A   | N/A    |  |  |



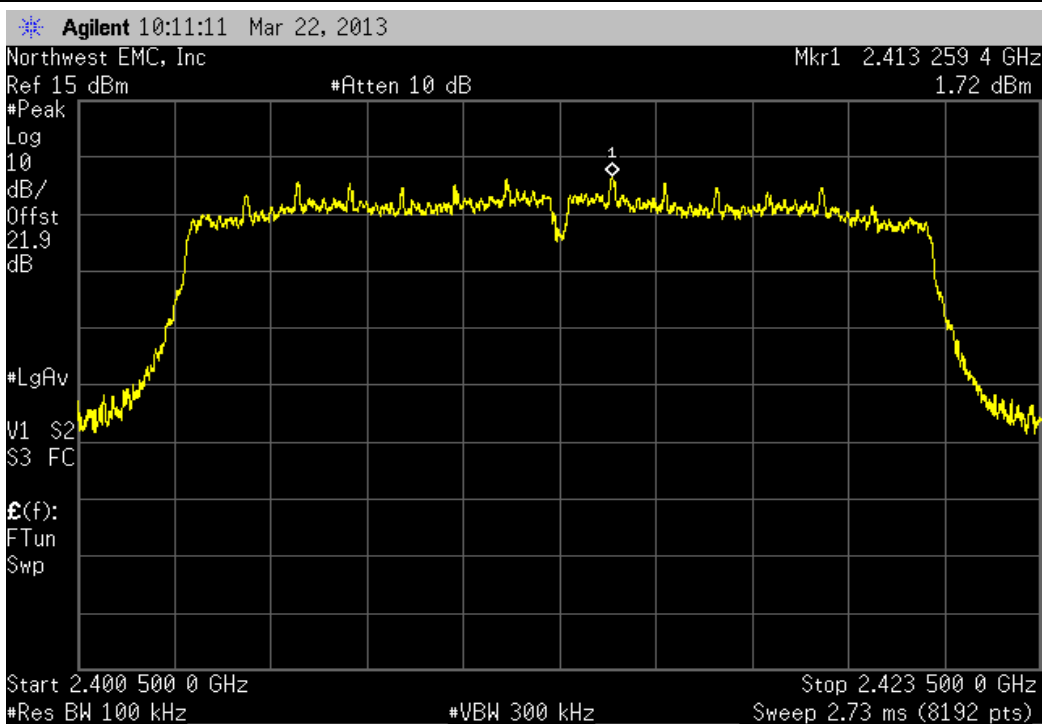
| Antenna 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz |  |            |           |        |  |  |
|---------------------------------------------------------|--|------------|-----------|--------|--|--|
| Frequency Range                                         |  | Value      | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                       |  | -54.62 dBc | ≤ -20 dBc | Pass   |  |  |



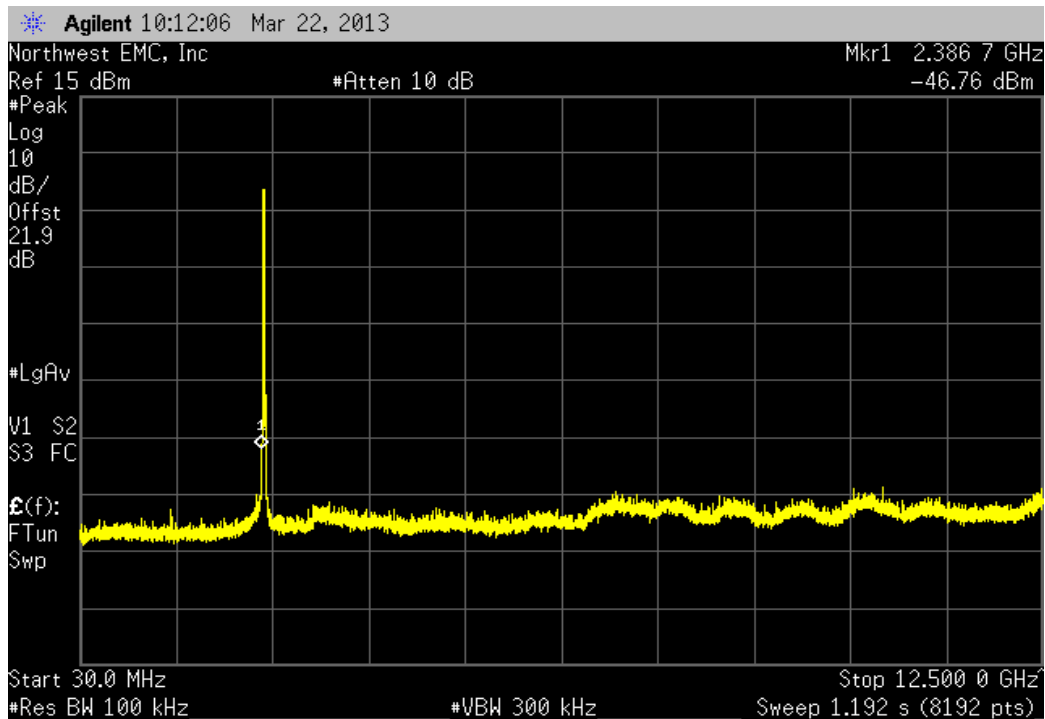
| Antenna 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz |            |           |        |  |
|---------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                         | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                       | -50.58 dBc | ≤ -20 dBc | Pass   |  |



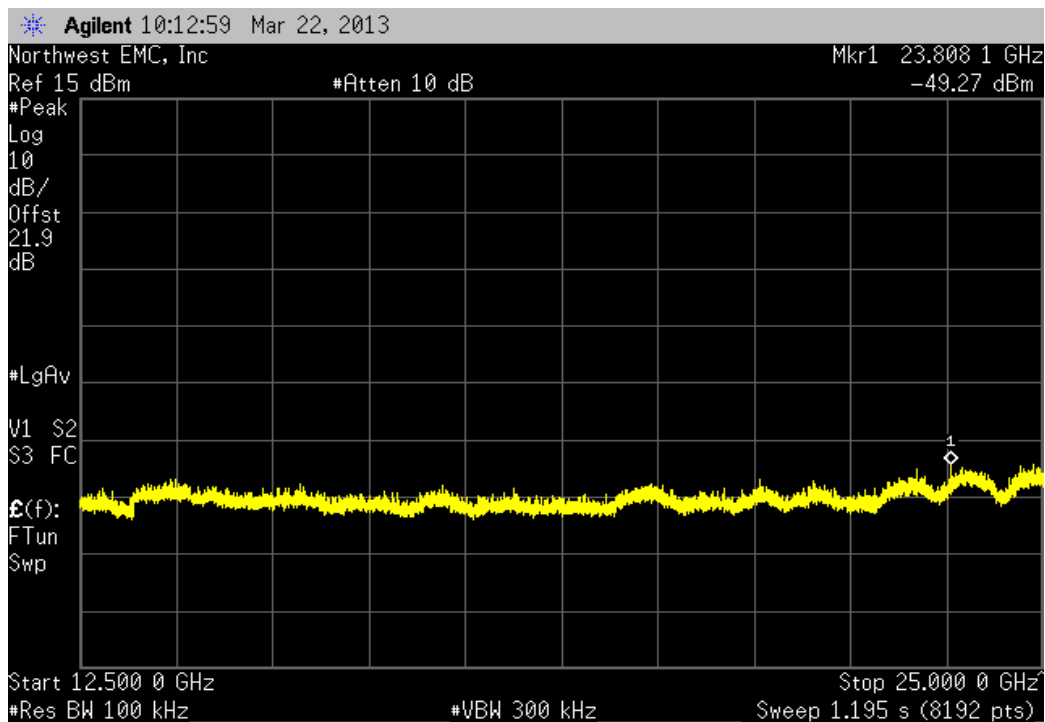
| Antenna 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz |       |       |        |  |
|----------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                    | Value | Limit | Result |  |
| Fundamental                                        | N/A   | N/A   | N/A    |  |



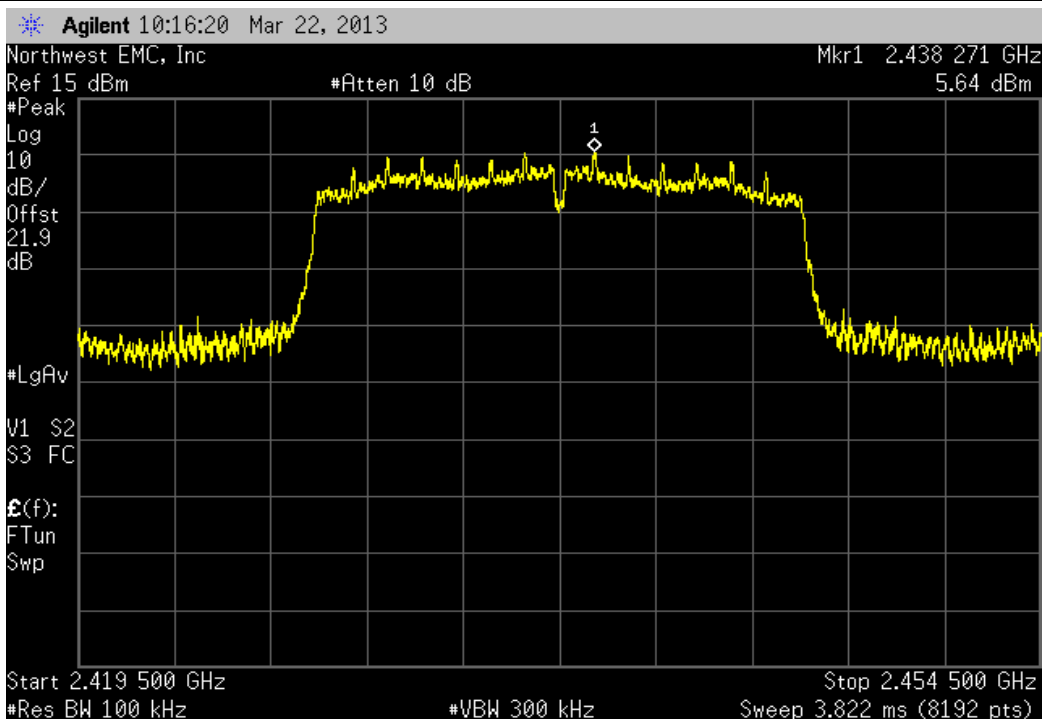
| Antenna 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz |            |           |        |  |
|----------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                    | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                  | -48.48 dBc | ≤ -20 dBc | Pass   |  |



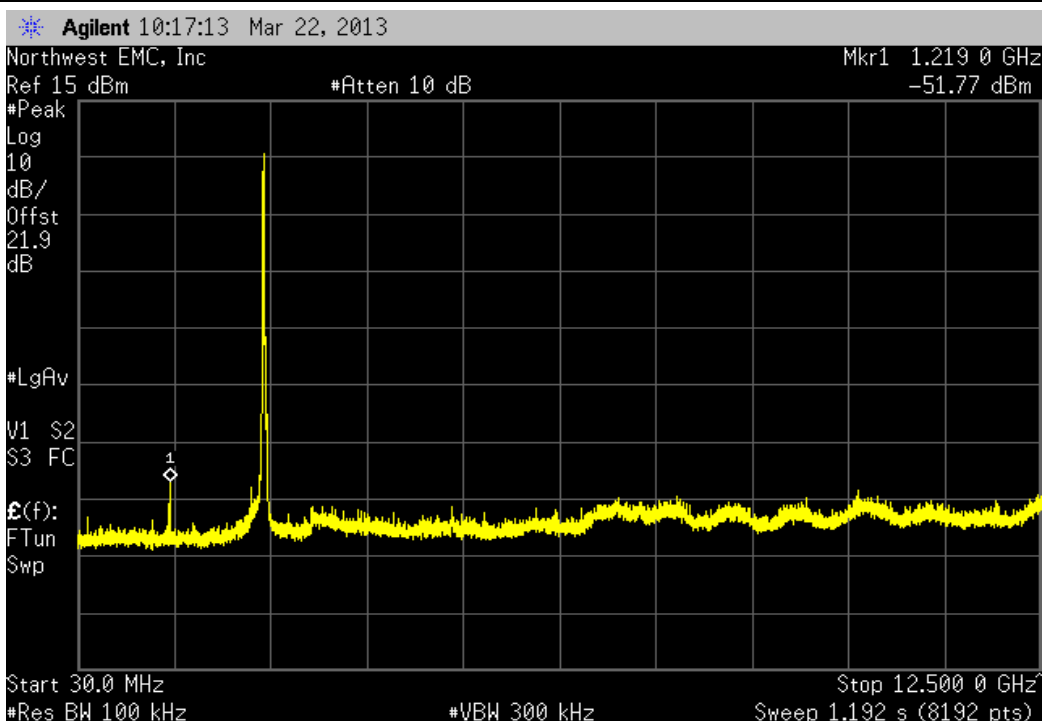
| Antenna 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz |            |           |        |  |
|----------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                    | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                  | -50.99 dBc | ≤ -20 dBc | Pass   |  |



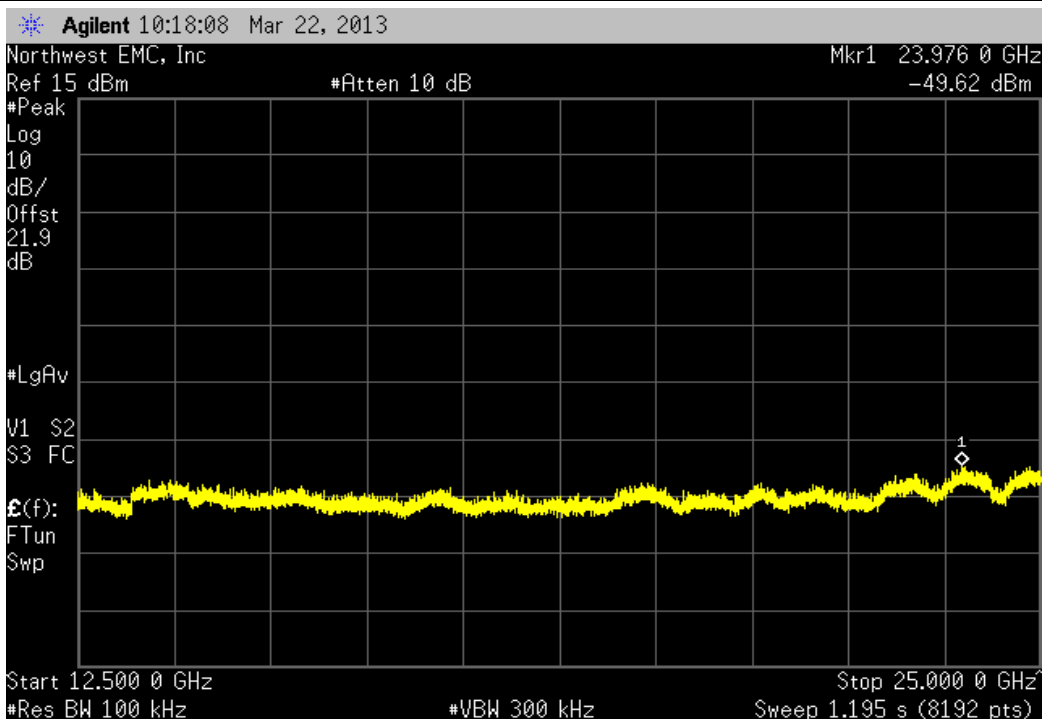
| Antenna 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz |  |       |       |        |  |  |
|----------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                    |  | Value | Limit | Result |  |  |
| Fundamental                                        |  | N/A   | N/A   | N/A    |  |  |



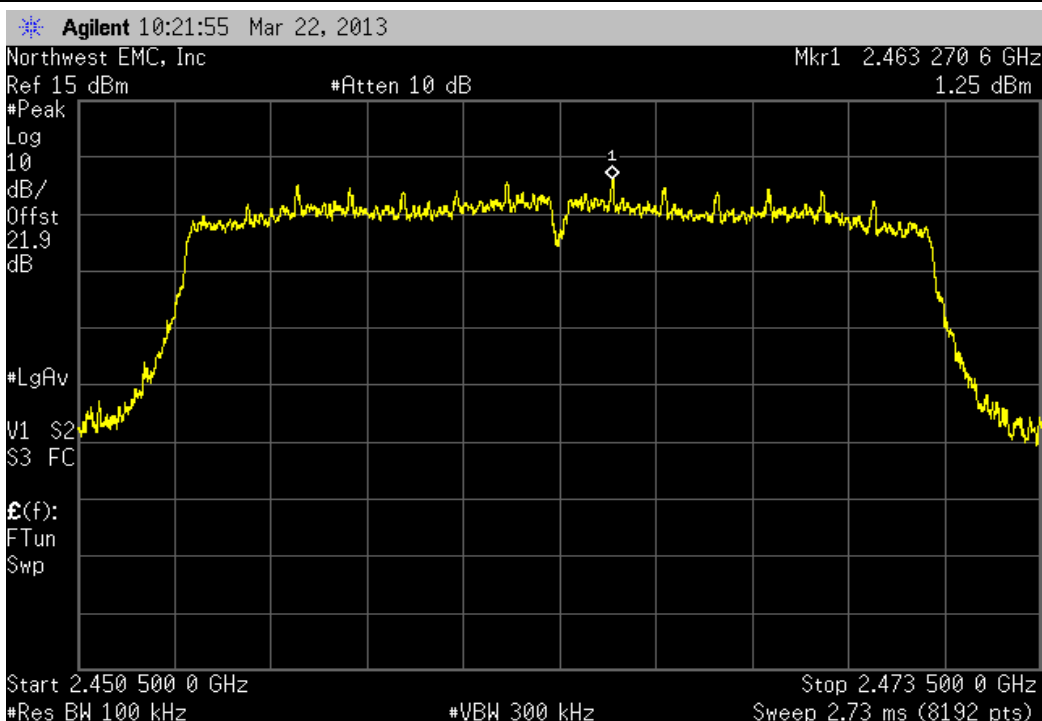
| Antenna 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz |  |            |           |        |  |  |
|----------------------------------------------------|--|------------|-----------|--------|--|--|
| Frequency Range                                    |  | Value      | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                  |  | -57.41 dBc | ≤ -20 dBc | Pass   |  |  |



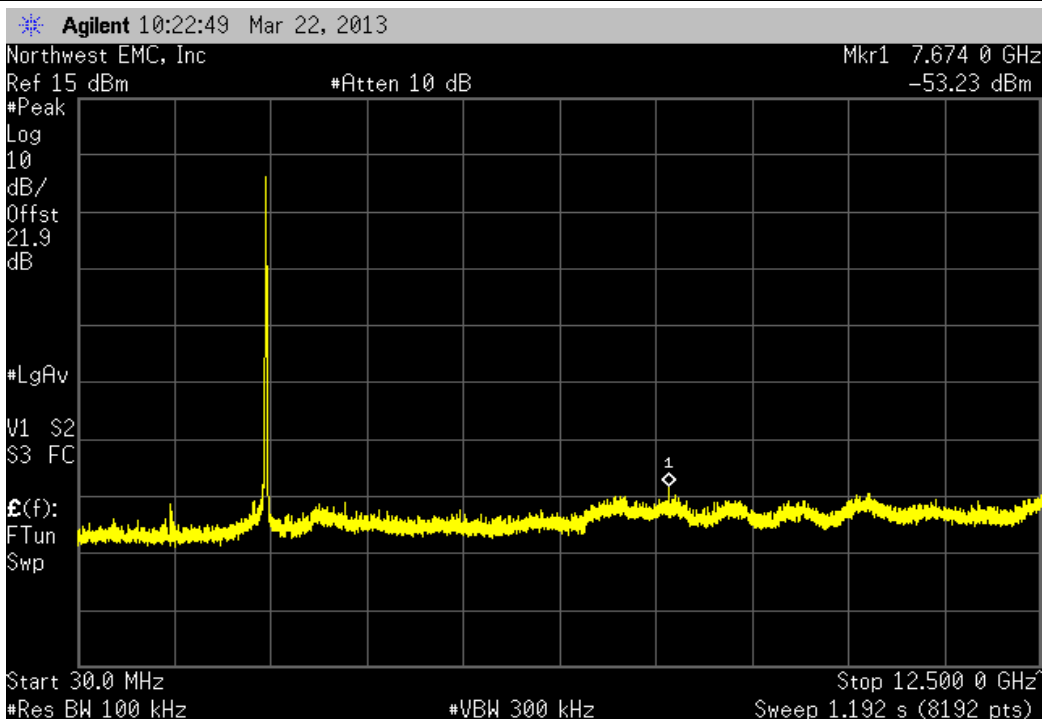
| Antenna 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz |            |           |        |  |
|----------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                    | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                  | -55.26 dBc | ≤ -20 dBc | Pass   |  |



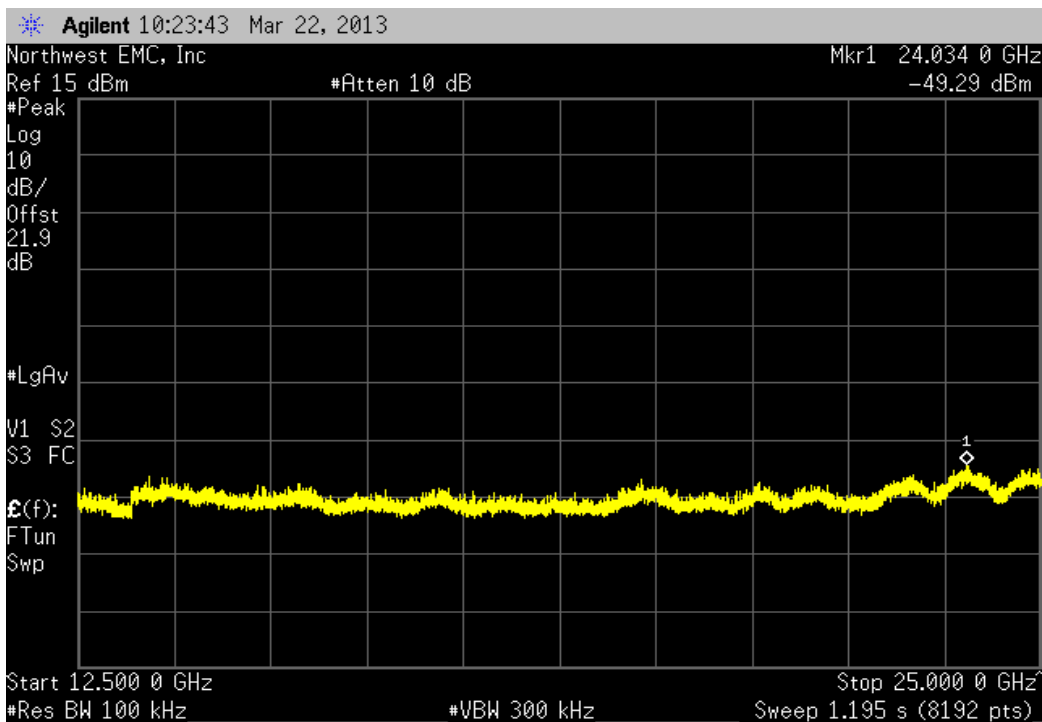
| Antenna 0, 802.11(n) MCS0, High Channel 11, 2462 MHz |       |       |        |  |
|------------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                      | Value | Limit | Result |  |
| Fundamental                                          | N/A   | N/A   | N/A    |  |



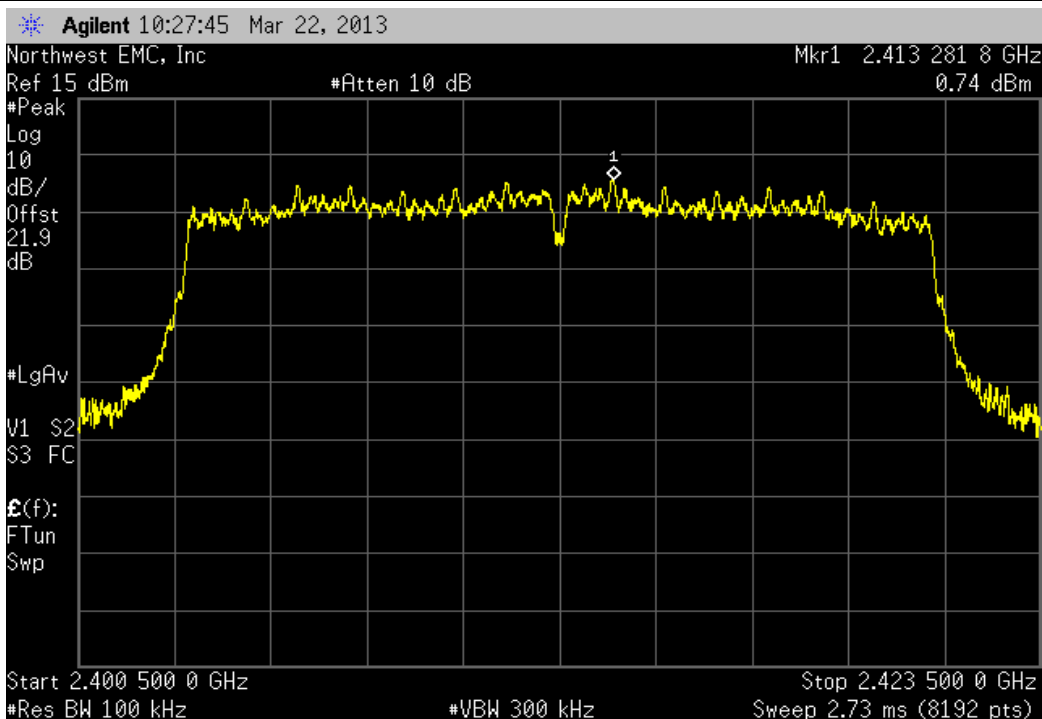
| Antenna 0, 802.11(n) MCS0, High Channel 11, 2462 MHz |            |           |        |  |
|------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                      | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                    | -54.48 dBc | ≤ -20 dBc | Pass   |  |



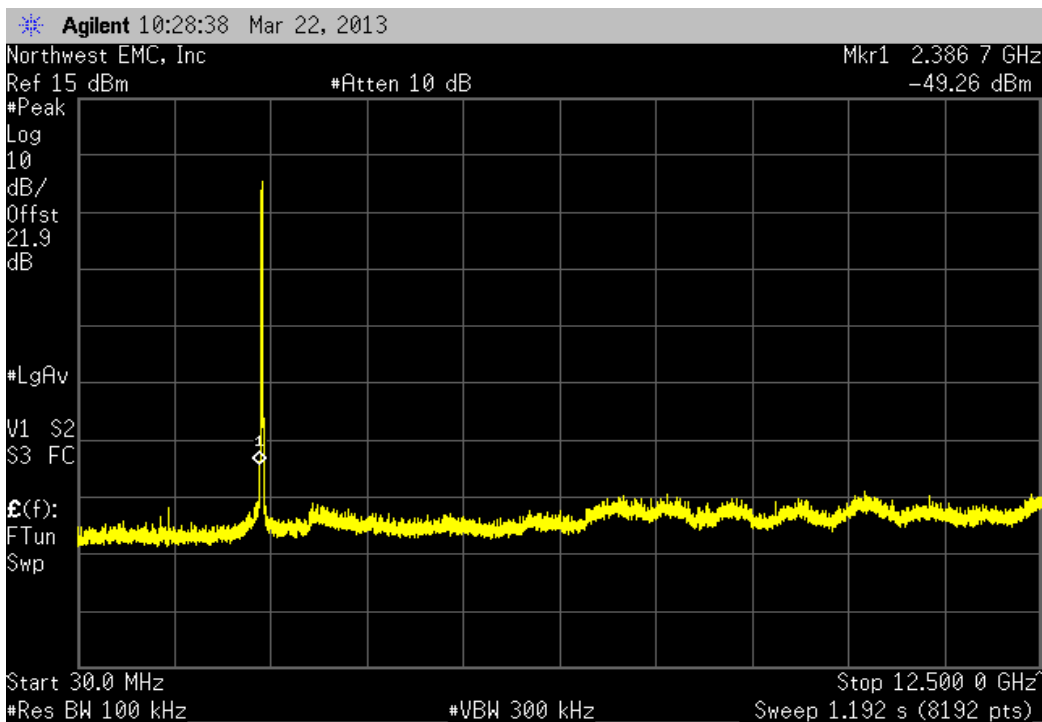
| Antenna 0, 802.11(n) MCS0, High Channel 11, 2462 MHz |            |           |        |  |
|------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                      | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                    | -50.54 dBc | ≤ -20 dBc | Pass   |  |



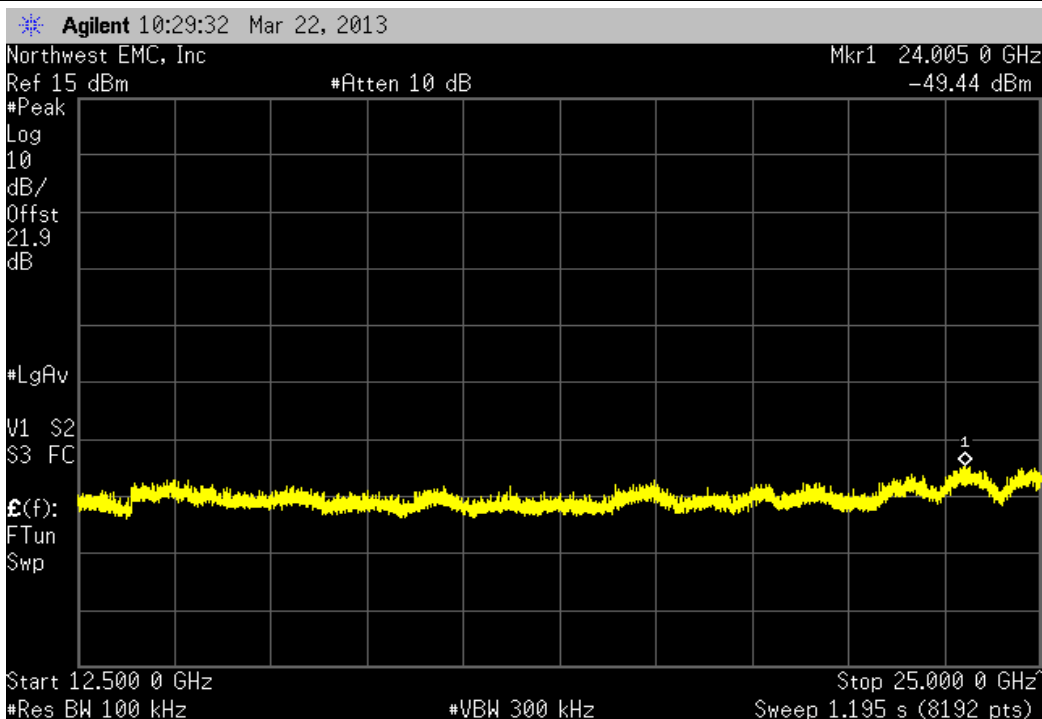
| Antenna 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz |  |       |       |        |  |  |
|----------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                    |  | Value | Limit | Result |  |  |
| Fundamental                                        |  | N/A   | N/A   | N/A    |  |  |



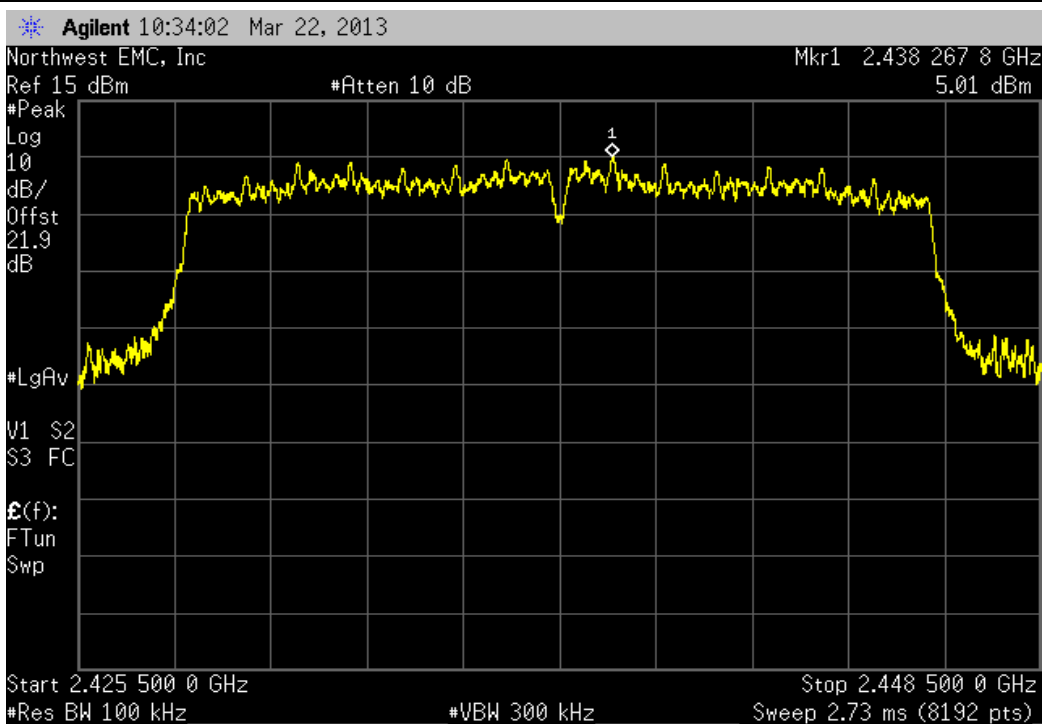
| Antenna 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz |  |         |           |        |  |  |
|----------------------------------------------------|--|---------|-----------|--------|--|--|
| Frequency Range                                    |  | Value   | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                  |  | -50 dBc | ≤ -20 dBc | Pass   |  |  |



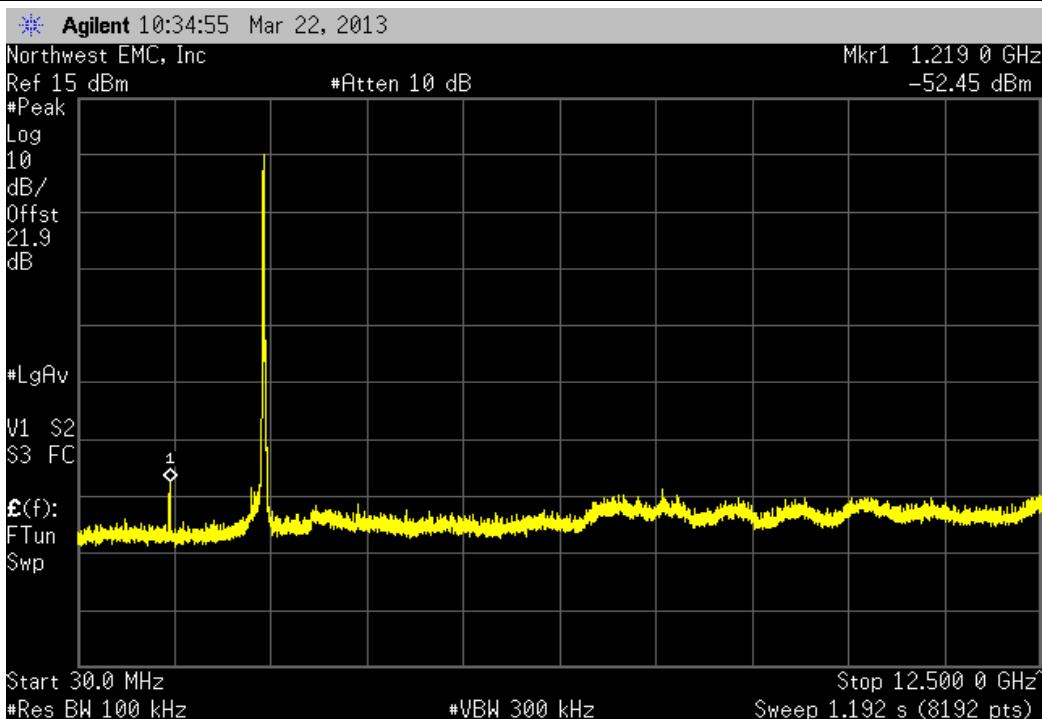
| Antenna 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz |            |           |        |  |
|----------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                    | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                  | -50.18 dBc | ≤ -20 dBc | Pass   |  |



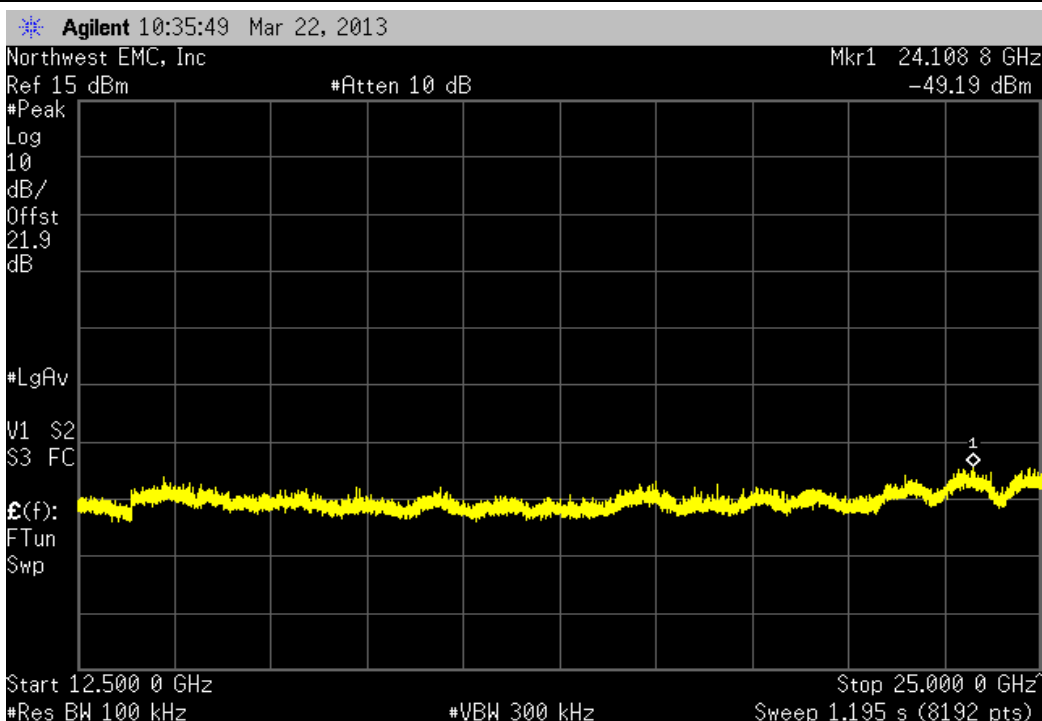
| Antenna 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz |       |       |        |  |
|----------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                    | Value | Limit | Result |  |
| Fundamental                                        | N/A   | N/A   | N/A    |  |



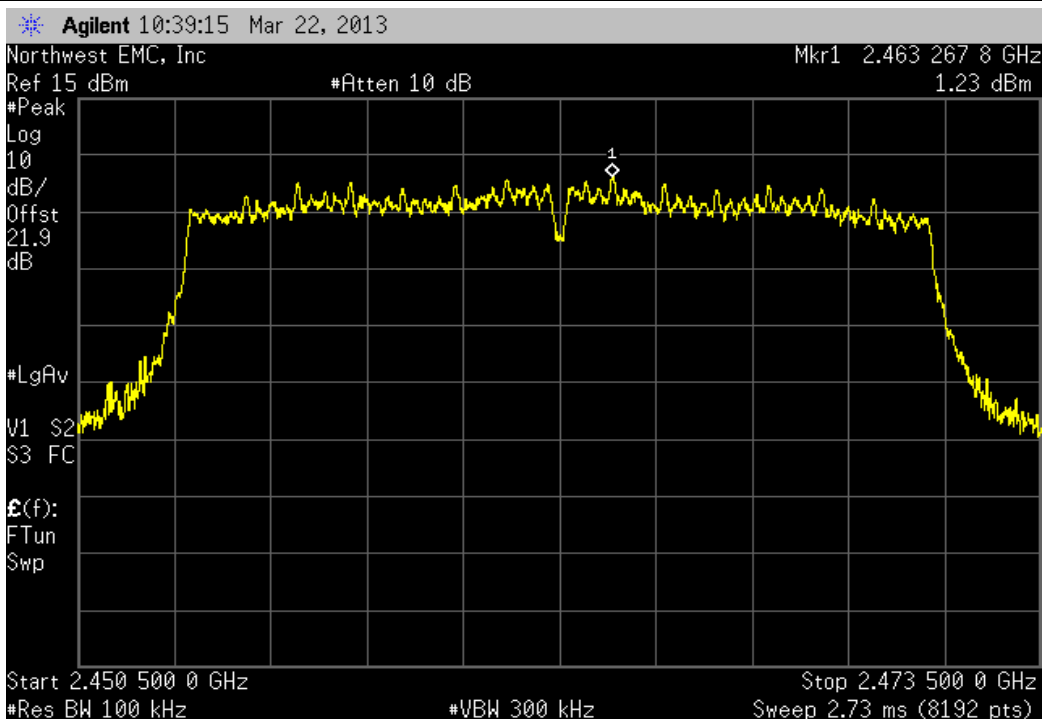
| Antenna 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz |            |           |        |  |
|----------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                    | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                  | -57.46 dBc | ≤ -20 dBc | Pass   |  |



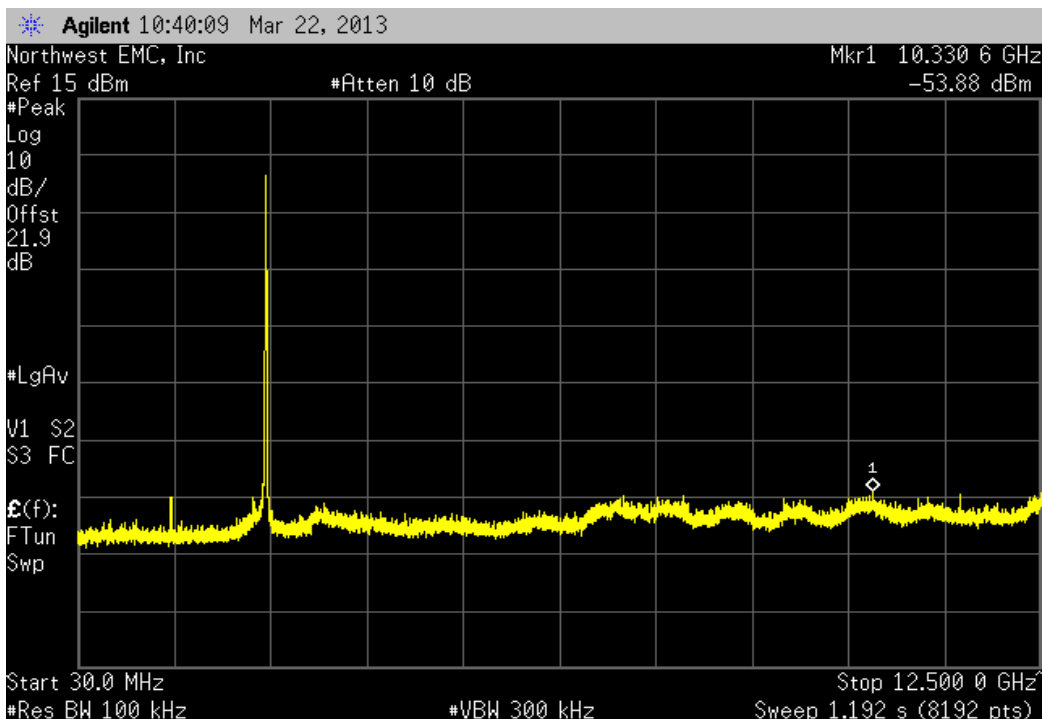
| Antenna 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz |           |           |        |  |
|----------------------------------------------------|-----------|-----------|--------|--|
| Frequency Range                                    | Value     | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                  | -54.2 dBc | ≤ -20 dBc | Pass   |  |



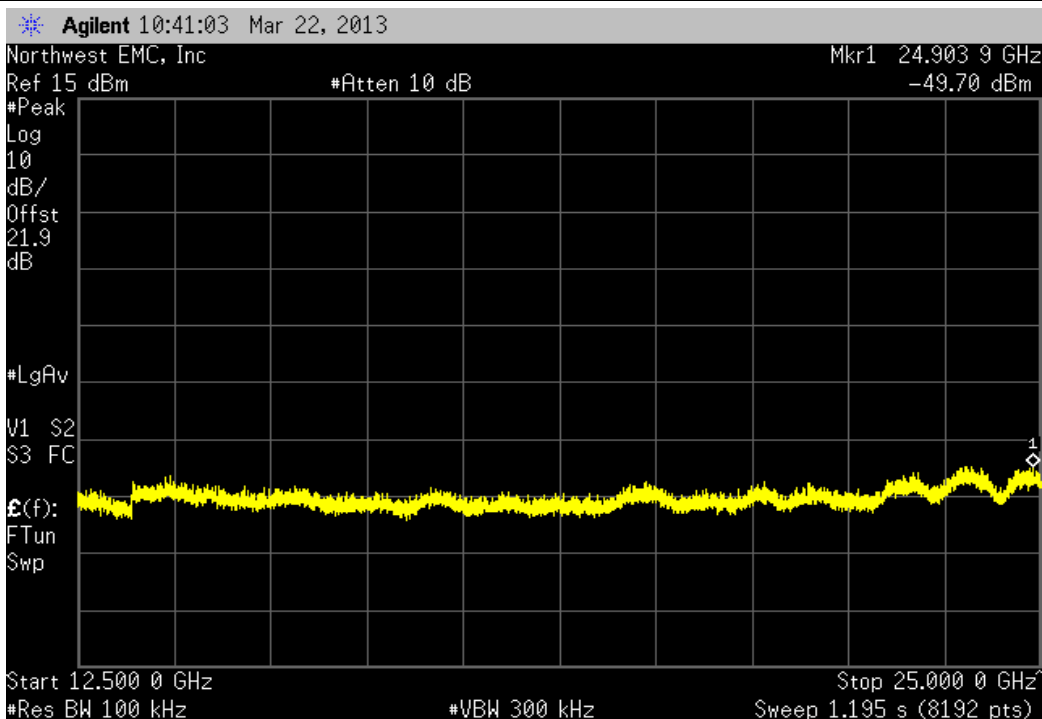
| Antenna 0, 802.11(n) MCS7, High Channel 11, 2462 MHz |  |       |       |        |  |  |
|------------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                      |  | Value | Limit | Result |  |  |
| Fundamental                                          |  | N/A   | N/A   | N/A    |  |  |



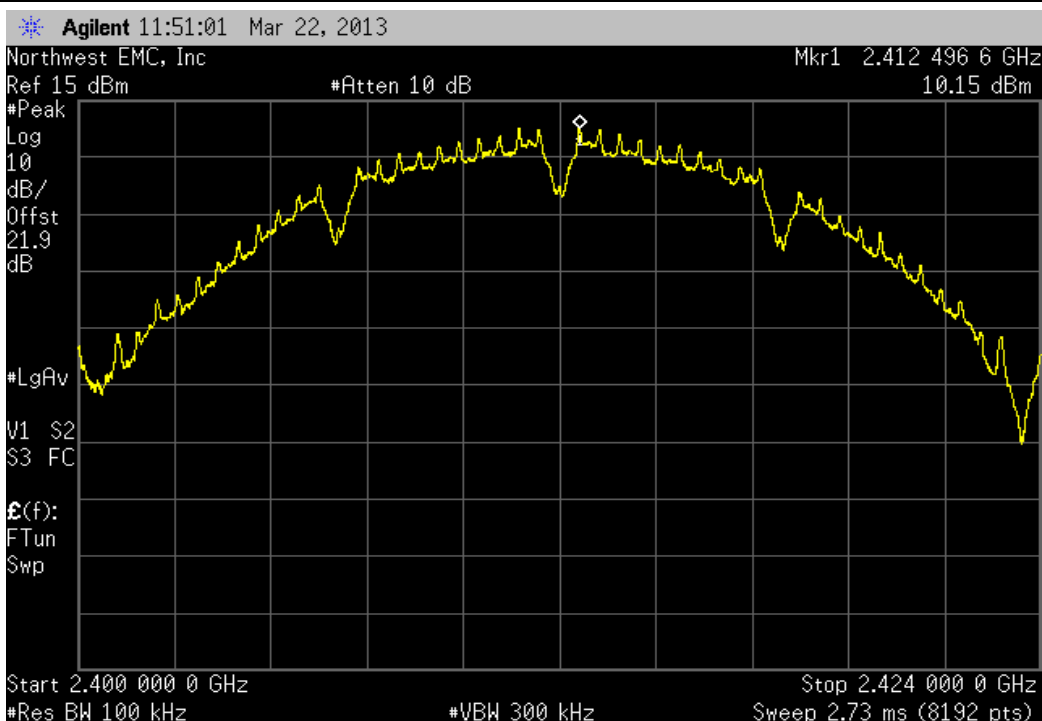
| Antenna 0, 802.11(n) MCS7, High Channel 11, 2462 MHz |  |            |           |        |  |  |
|------------------------------------------------------|--|------------|-----------|--------|--|--|
| Frequency Range                                      |  | Value      | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                    |  | -55.11 dBc | ≤ -20 dBc | Pass   |  |  |



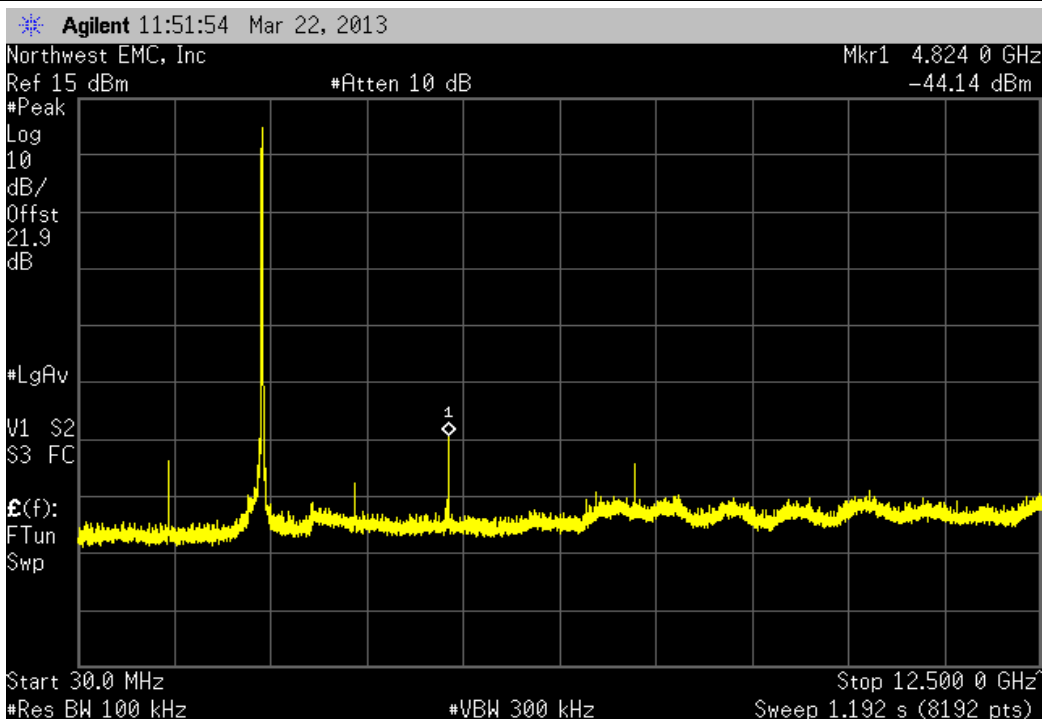
| Antenna 0, 802.11(n) MCS7, High Channel 11, 2462 MHz |            |           |        |  |
|------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                      | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                    | -50.93 dBc | ≤ -20 dBc | Pass   |  |



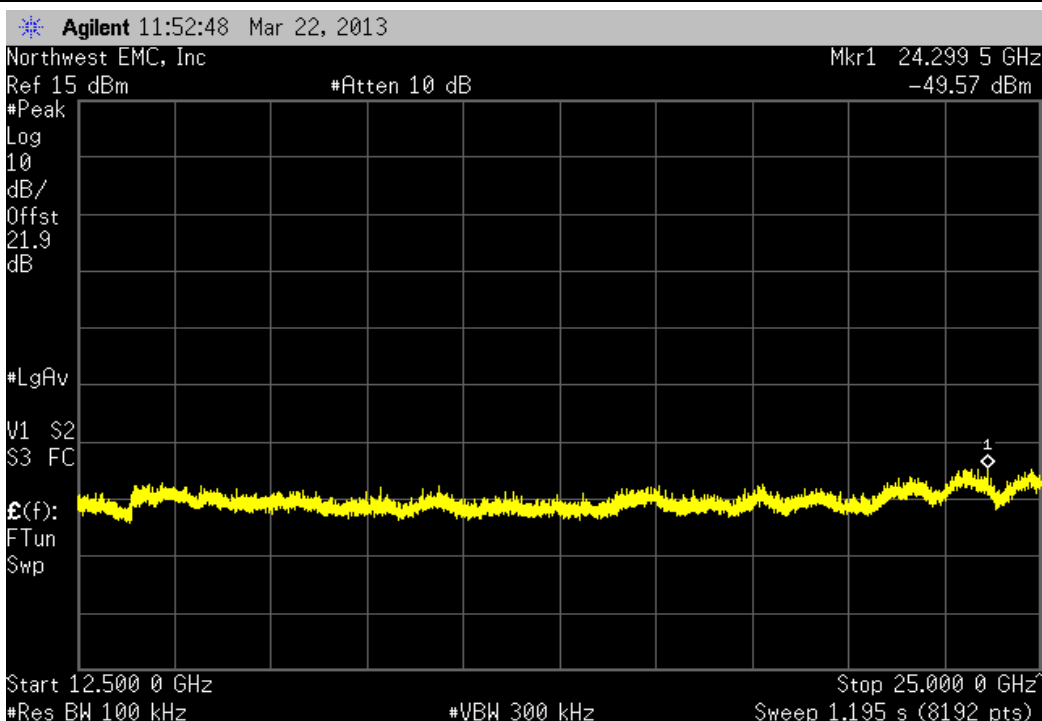
| Antenna 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz |       |       |        |  |
|------------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                      | Value | Limit | Result |  |
| Fundamental                                          | N/A   | N/A   | N/A    |  |



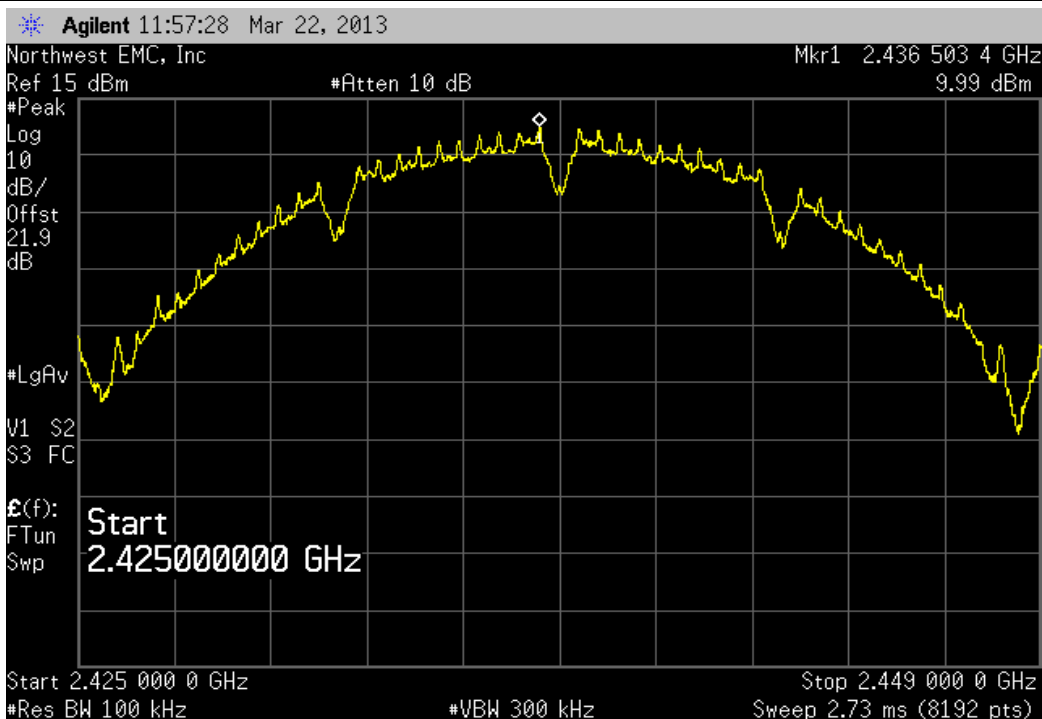
| Antenna 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz |            |           |        |  |
|------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                      | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                    | -54.29 dBc | ≤ -20 dBc | Pass   |  |



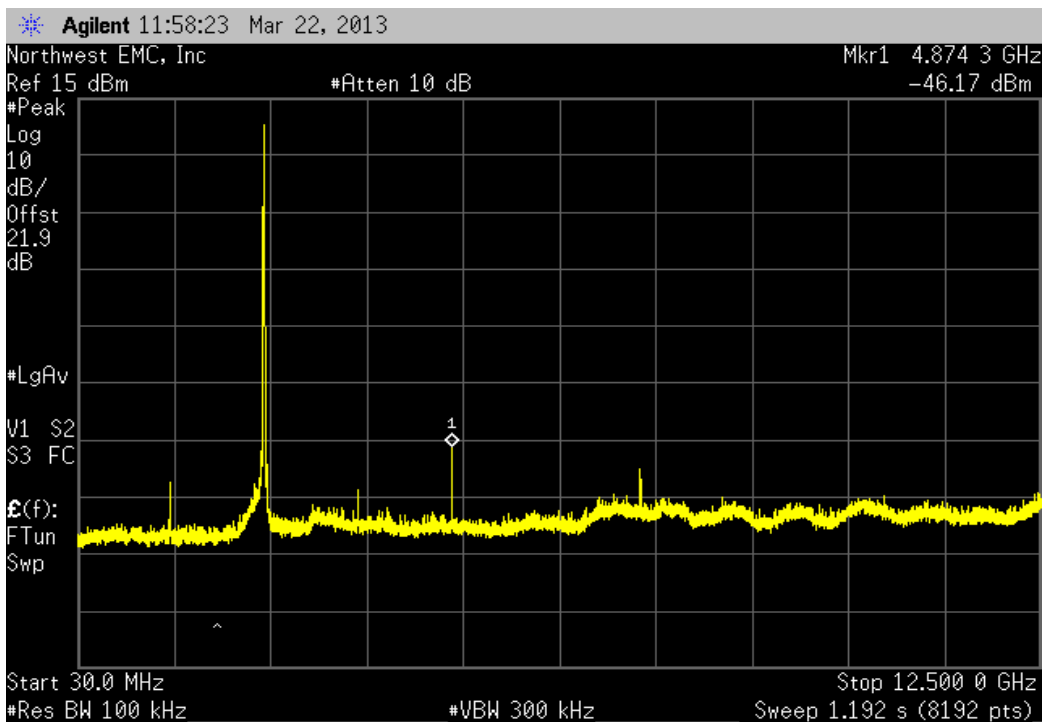
| Antenna 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz |            |           |        |  |
|------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                      | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                    | -59.72 dBc | ≤ -20 dBc | Pass   |  |



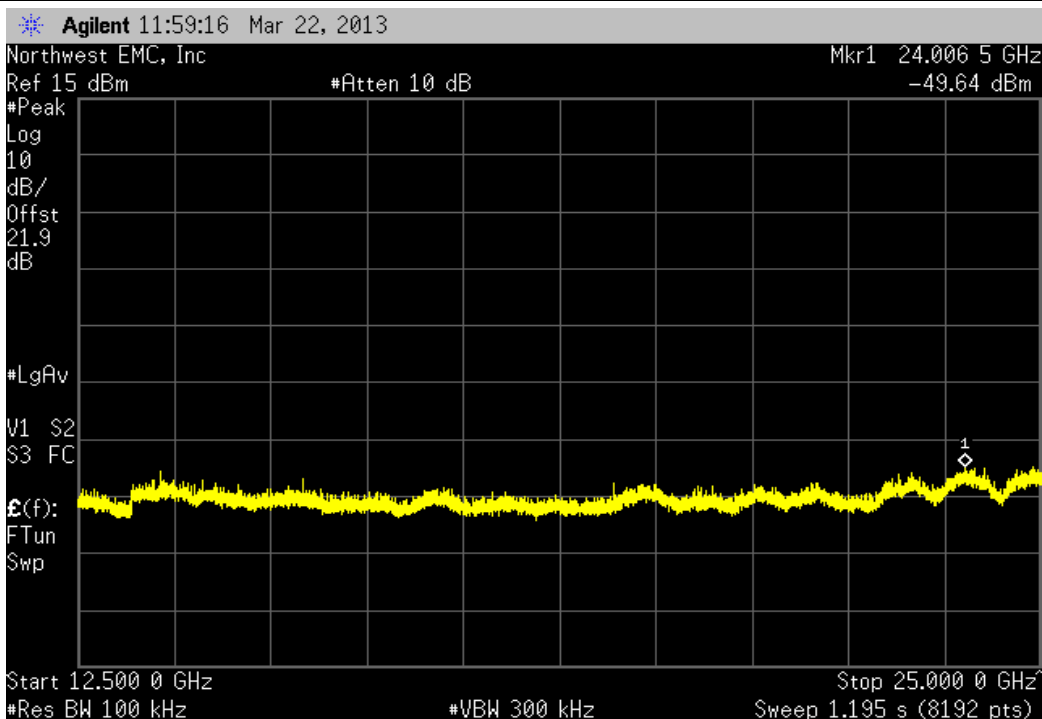
| Antenna 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz |  |       |       |        |  |  |
|------------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                      |  | Value | Limit | Result |  |  |
| Fundamental                                          |  | N/A   | N/A   | N/A    |  |  |



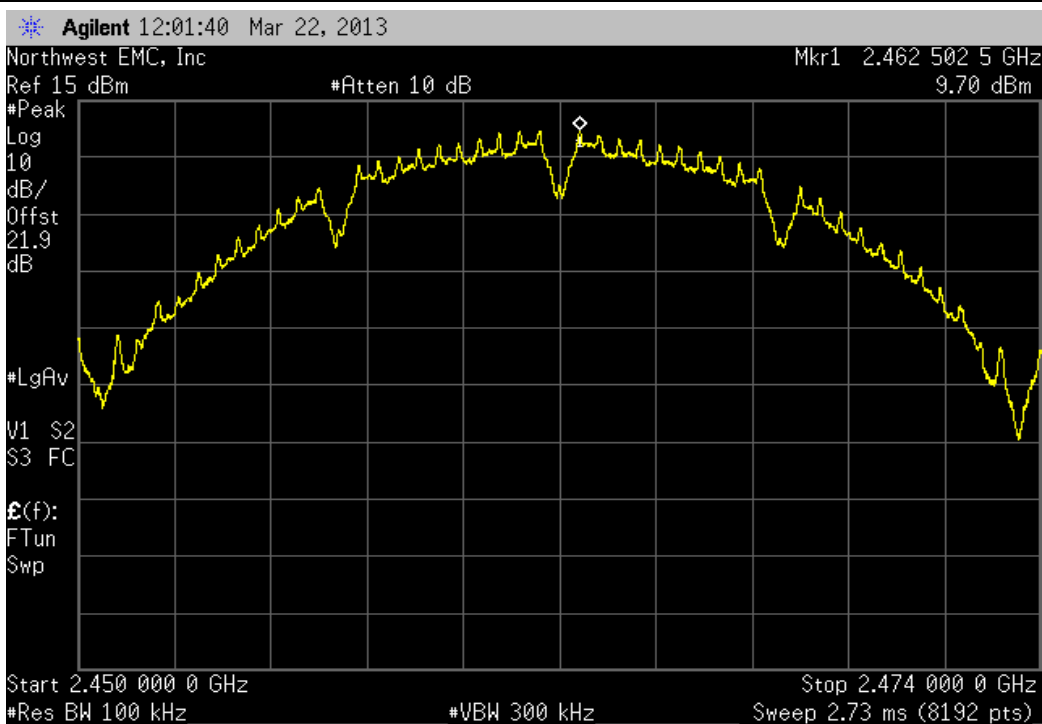
| Antenna 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz |  |            |           |        |  |  |
|------------------------------------------------------|--|------------|-----------|--------|--|--|
| Frequency Range                                      |  | Value      | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                    |  | -56.16 dBc | ≤ -20 dBc | Pass   |  |  |



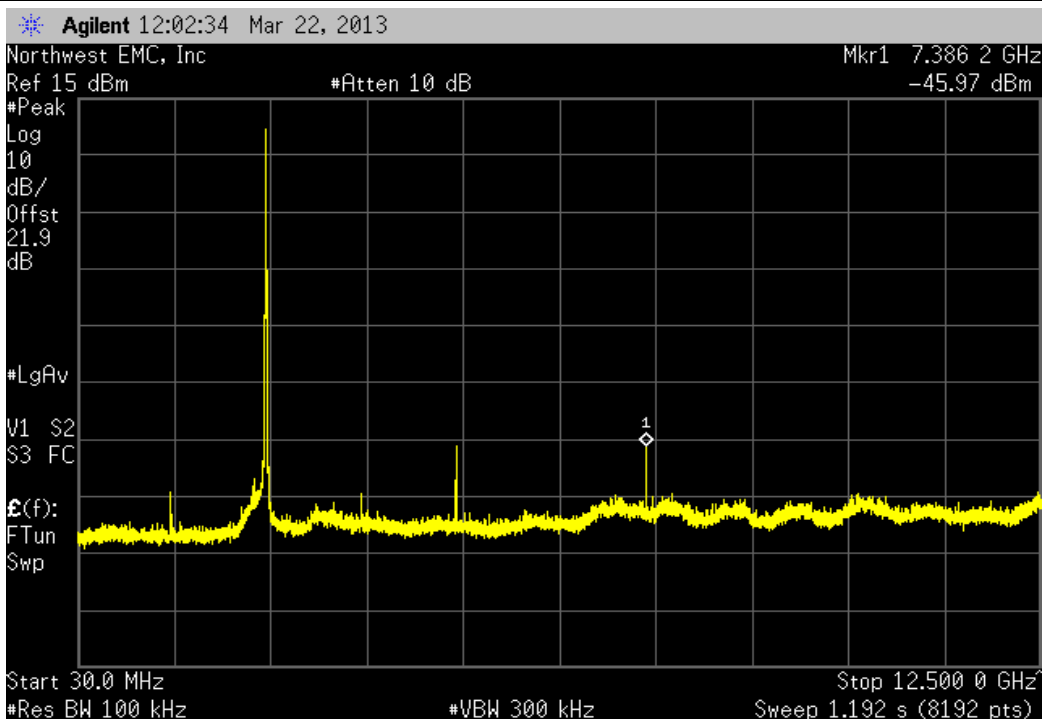
| Antenna 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz |            |           |        |  |
|------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                      | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                    | -59.63 dBc | ≤ -20 dBc | Pass   |  |



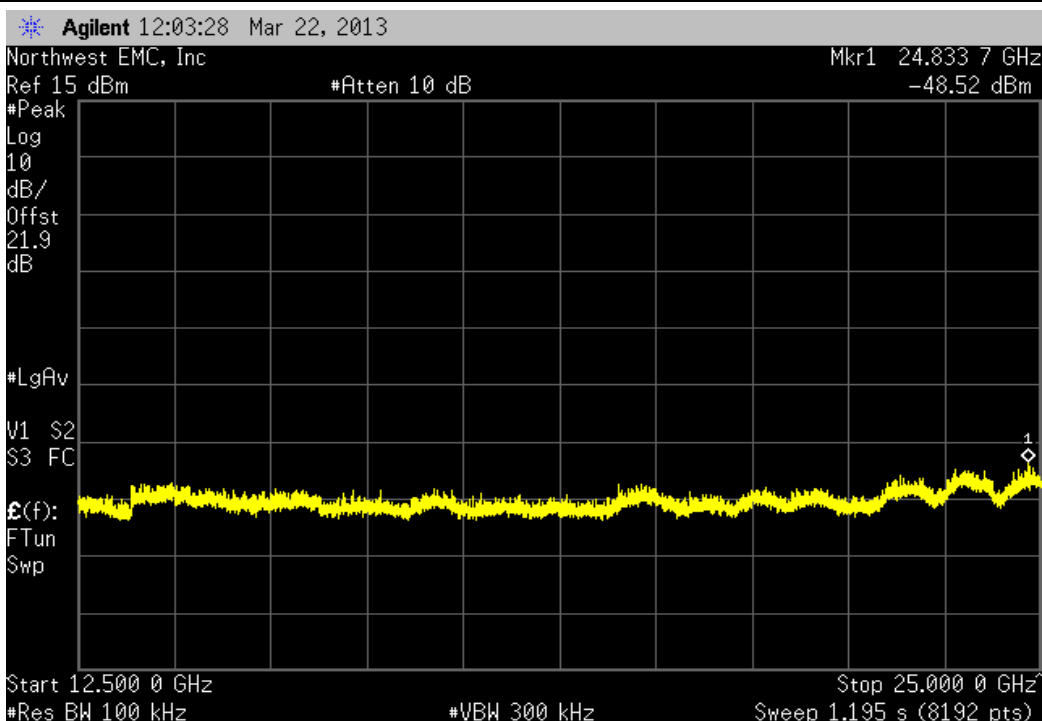
| Antenna 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz |       |       |        |  |
|--------------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                        | Value | Limit | Result |  |
| Fundamental                                            | N/A   | N/A   | N/A    |  |



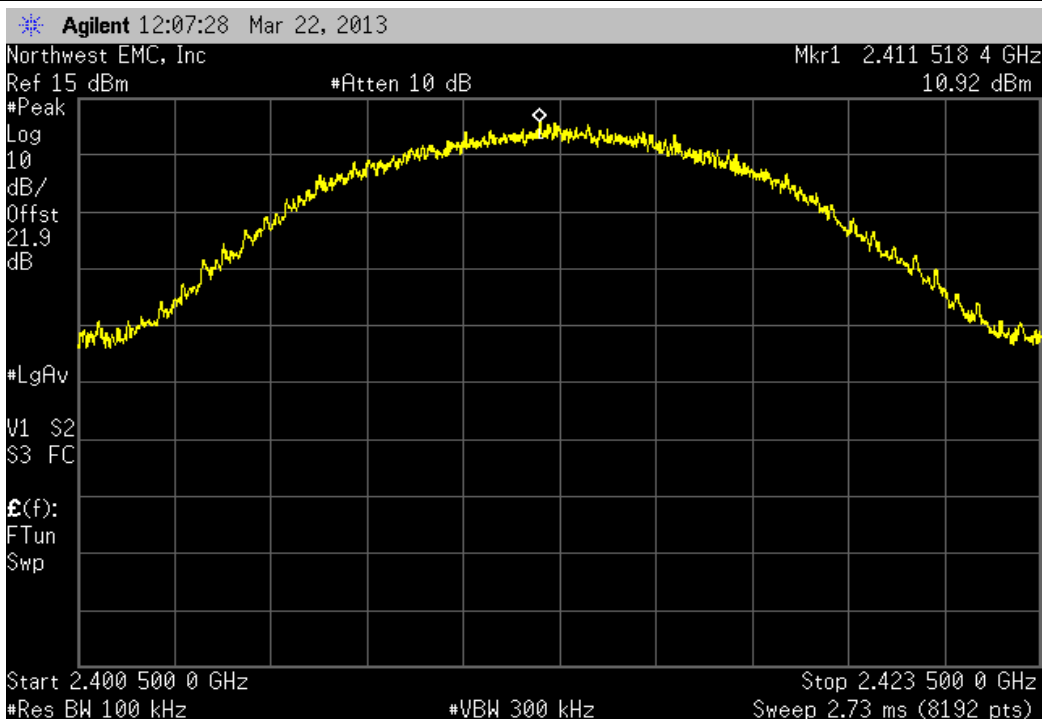
| Antenna 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz |            |           |        |  |
|--------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                        | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                      | -55.67 dBc | ≤ -20 dBc | Pass   |  |



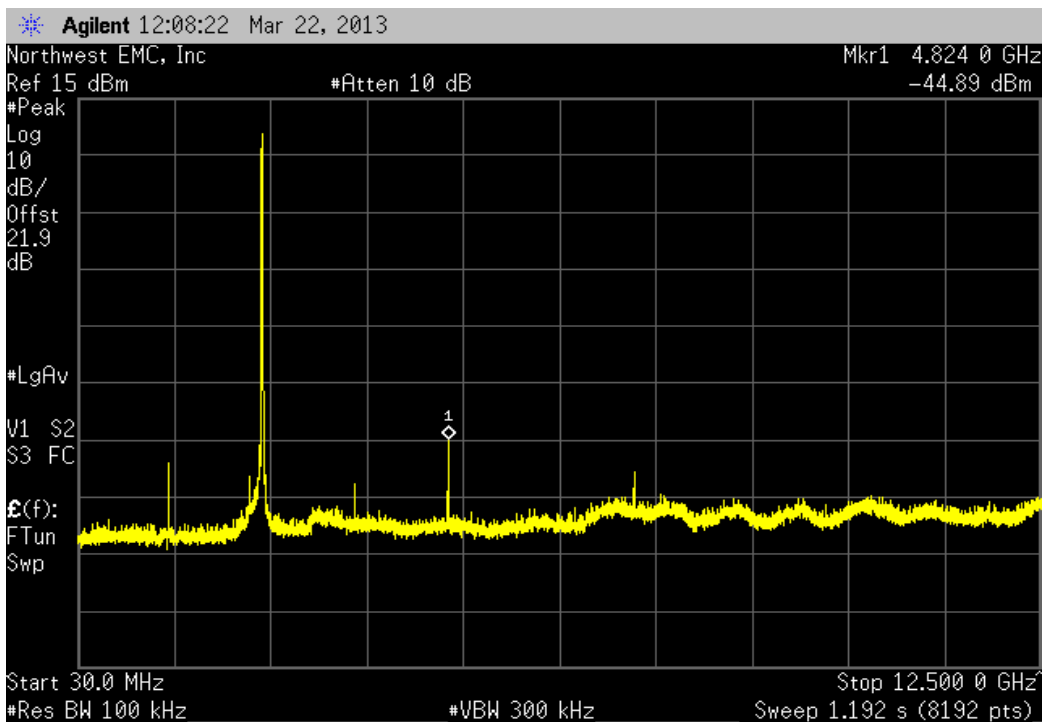
| Antenna 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz |            |           |        |  |
|--------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                        | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                      | -58.22 dBc | ≤ -20 dBc | Pass   |  |



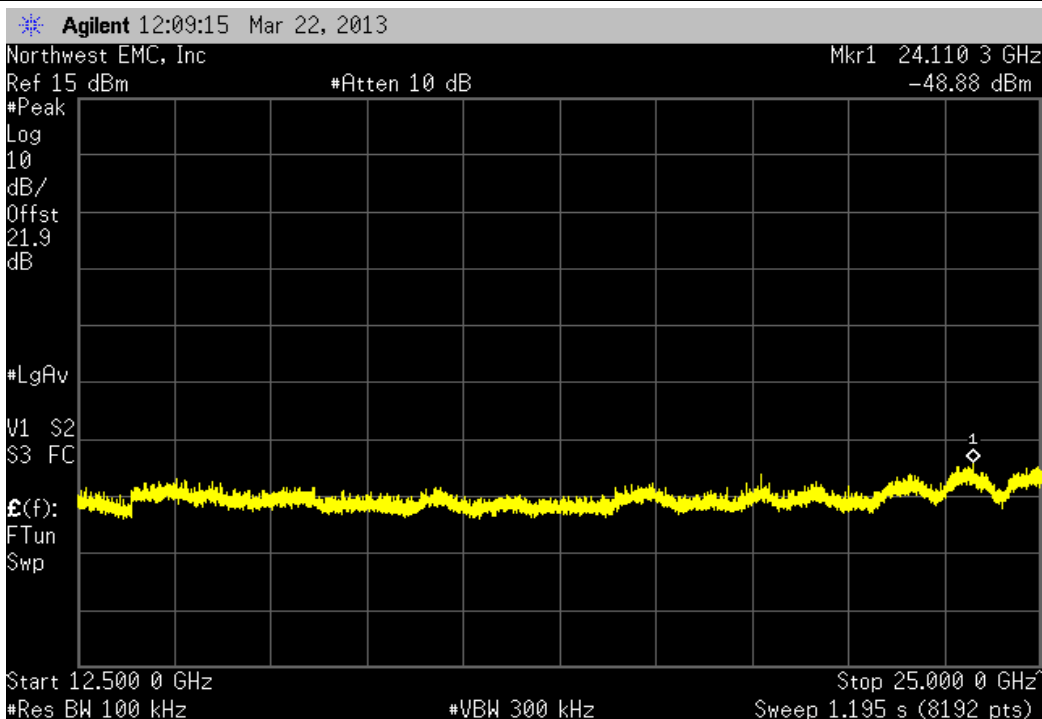
| Antenna 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |  |  |       |       |        |  |
|-------------------------------------------------------|--|--|-------|-------|--------|--|
| Frequency Range                                       |  |  | Value | Limit | Result |  |
| Fundamental                                           |  |  | N/A   | N/A   | N/A    |  |



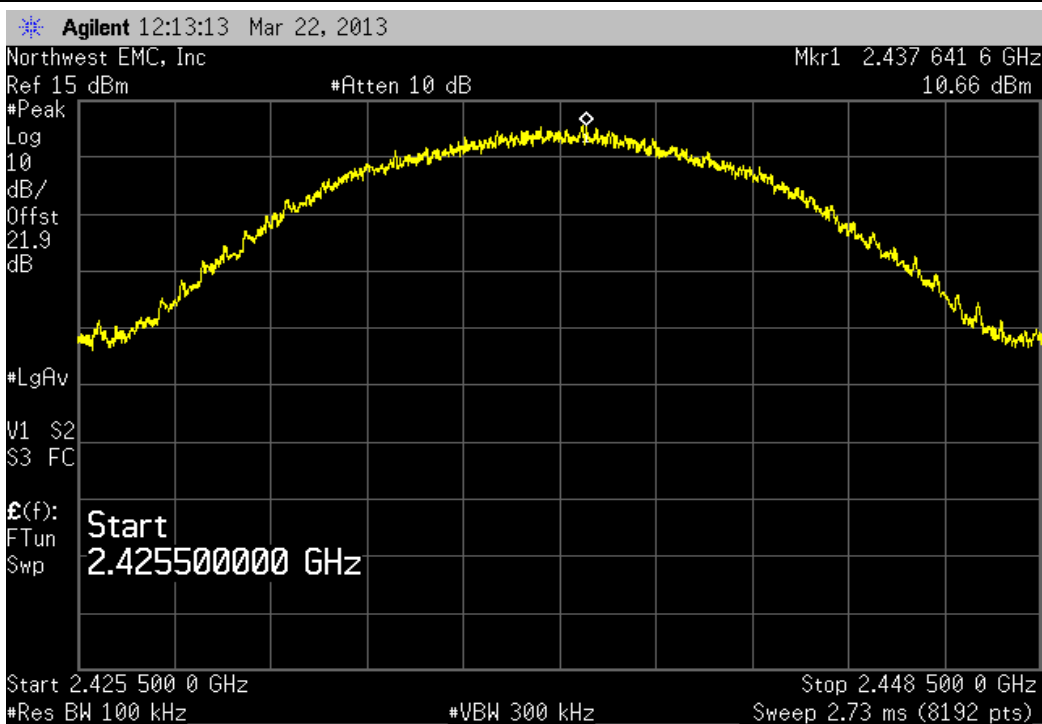
| Antenna 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |  |  |            |           |        |  |
|-------------------------------------------------------|--|--|------------|-----------|--------|--|
| Frequency Range                                       |  |  | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                     |  |  | -55.81 dBc | ≤ -20 dBc | Pass   |  |



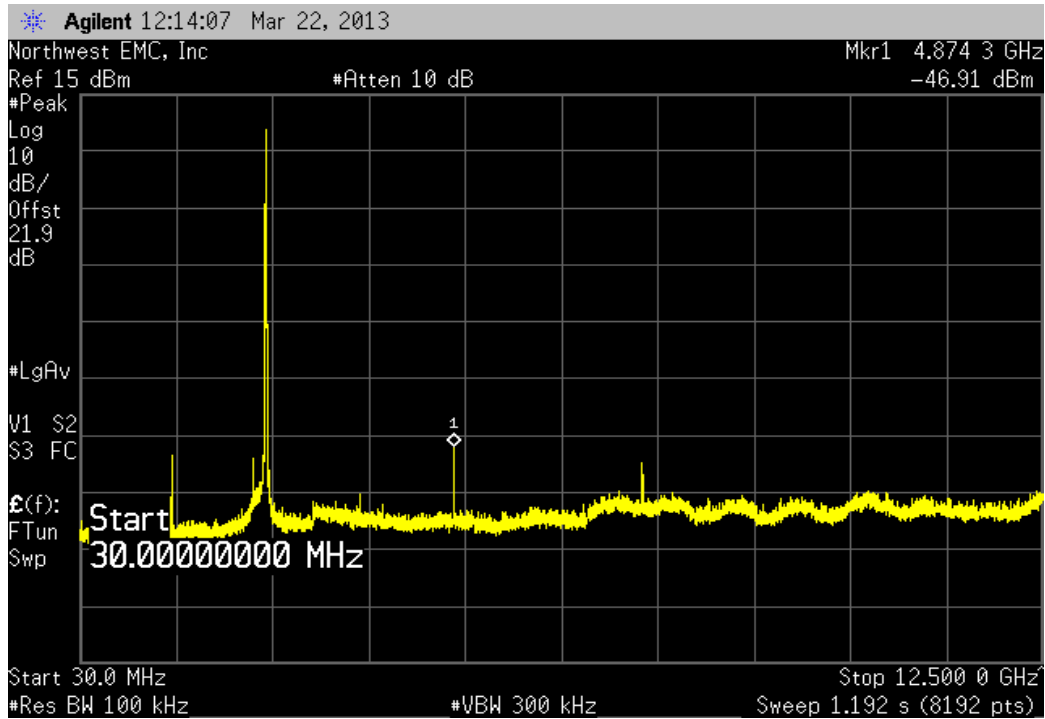
| Antenna 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |           |           |        |  |
|-------------------------------------------------------|-----------|-----------|--------|--|
| Frequency Range                                       | Value     | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                     | -59.8 dBc | ≤ -20 dBc | Pass   |  |



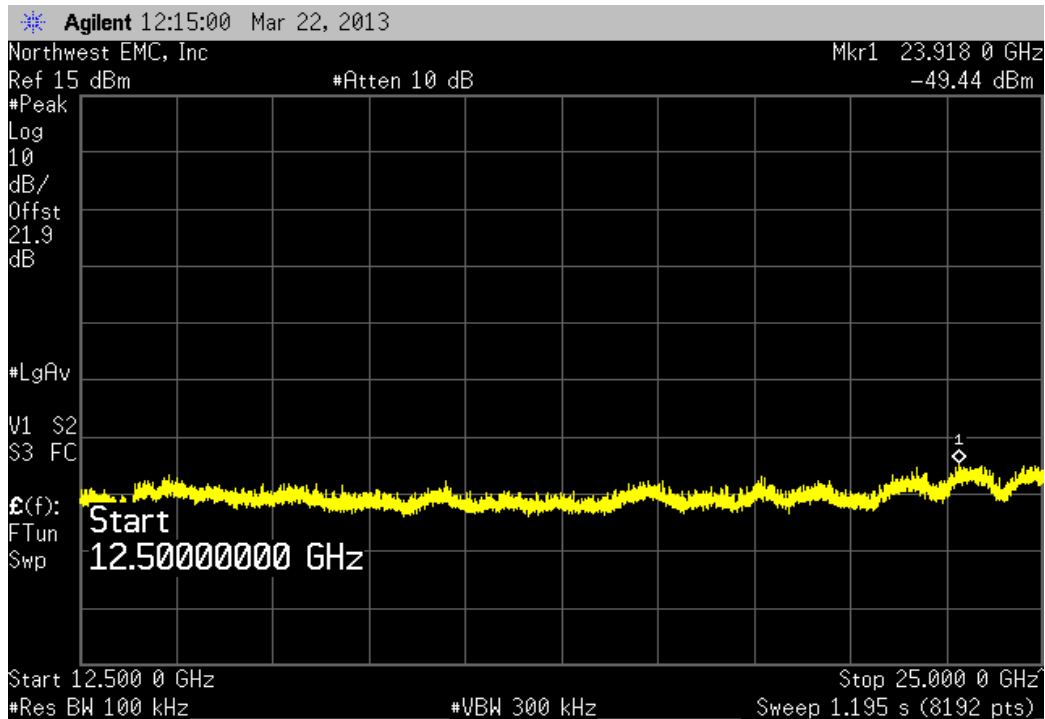
| Antenna 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz |       |       |        |  |
|-------------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                       | Value | Limit | Result |  |
| Fundamental                                           | N/A   | N/A   | N/A    |  |



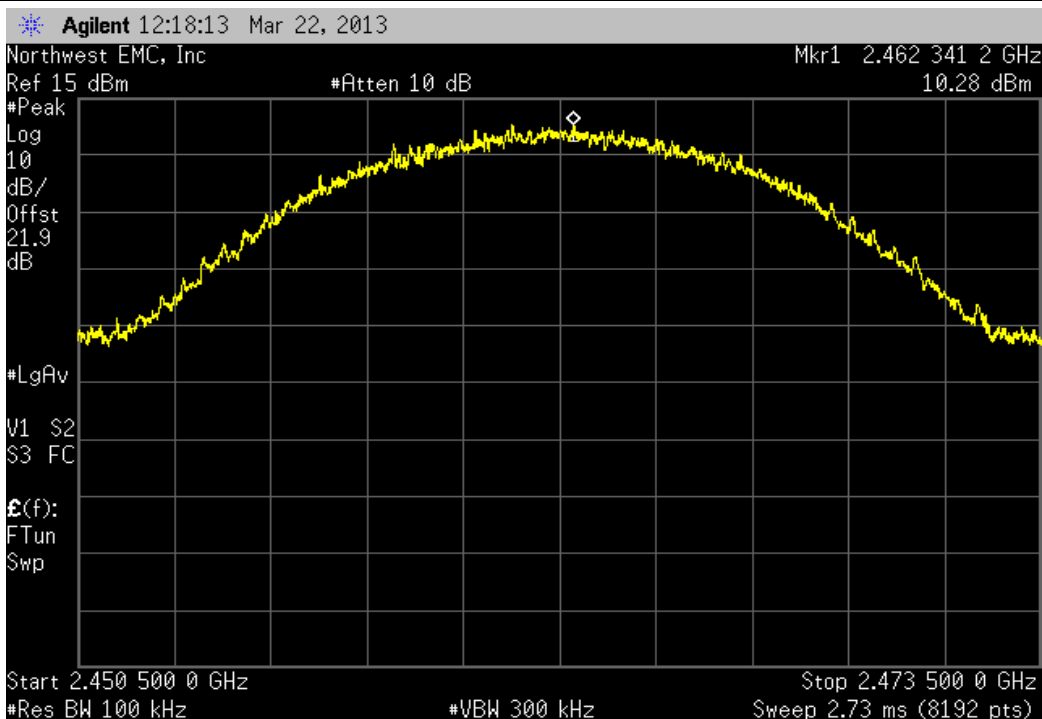
| Antenna 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz |            |           |        |  |
|-------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                       | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                     | -57.57 dBc | ≤ -20 dBc | Pass   |  |



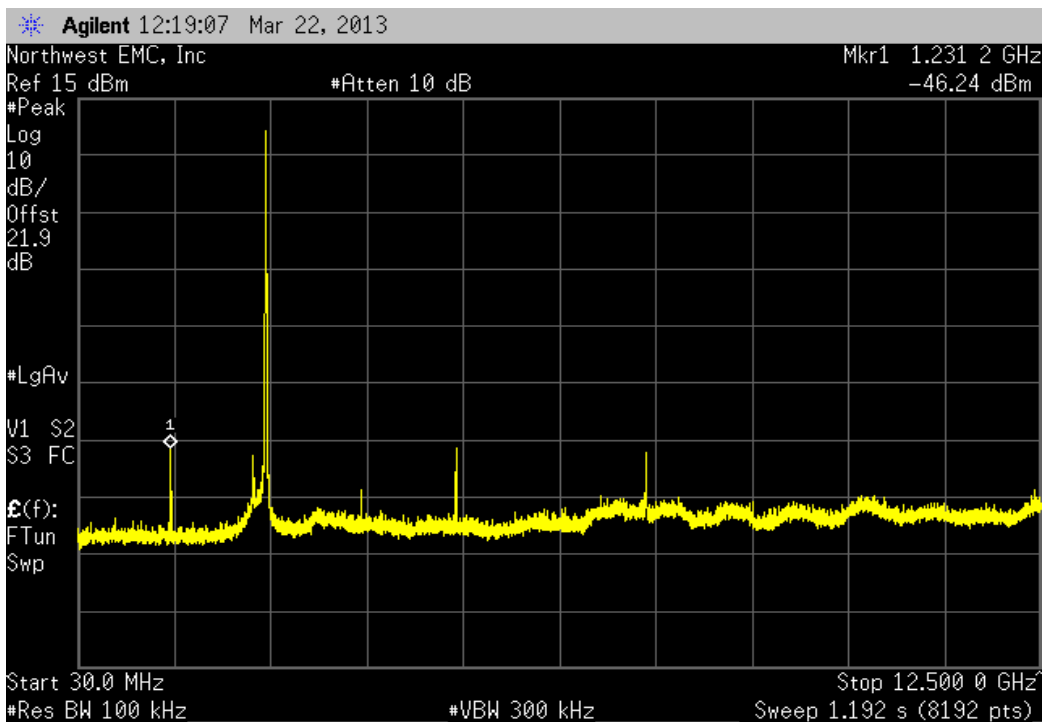
| Antenna 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz |           |           |        |  |
|-------------------------------------------------------|-----------|-----------|--------|--|
| Frequency Range                                       | Value     | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                     | -60.1 dBc | ≤ -20 dBc | Pass   |  |



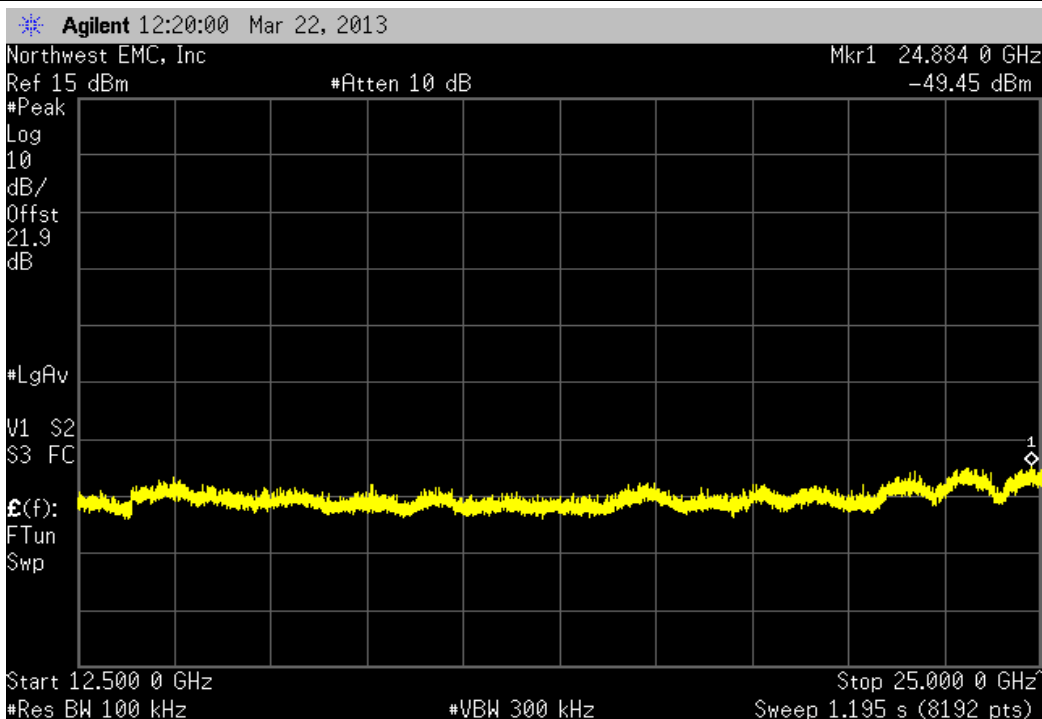
| Antenna 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz |  |       |       |        |  |  |
|---------------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                         |  | Value | Limit | Result |  |  |
| Fundamental                                             |  | N/A   | N/A   | N/A    |  |  |



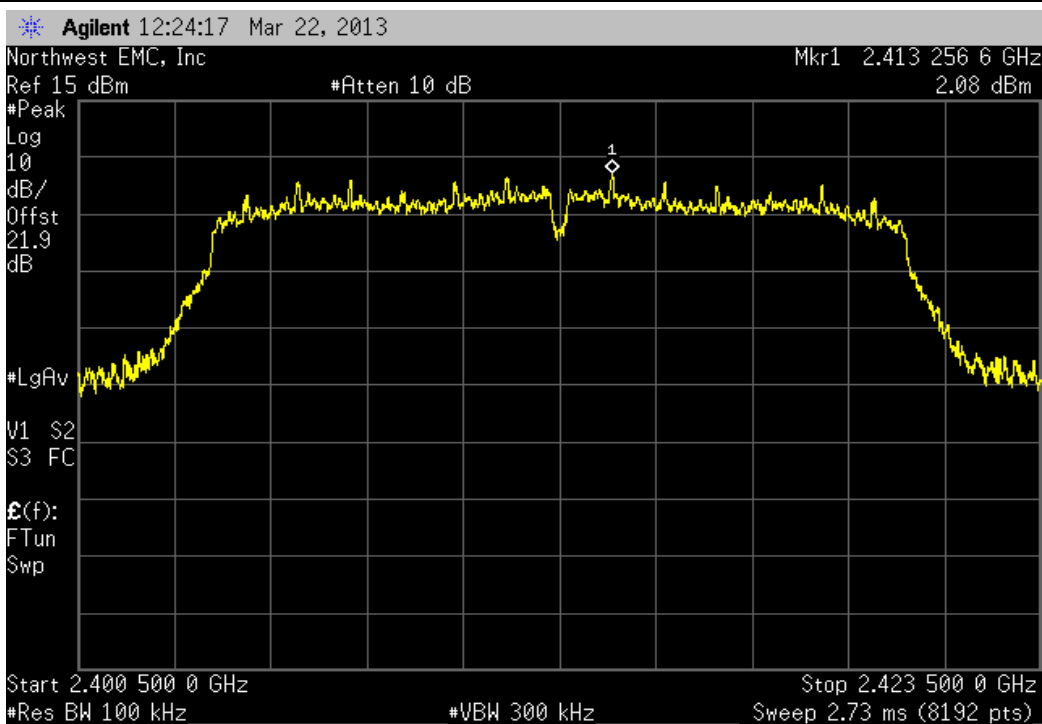
| Antenna 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz |  |            |           |        |  |  |
|---------------------------------------------------------|--|------------|-----------|--------|--|--|
| Frequency Range                                         |  | Value      | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                       |  | -56.52 dBc | ≤ -20 dBc | Pass   |  |  |



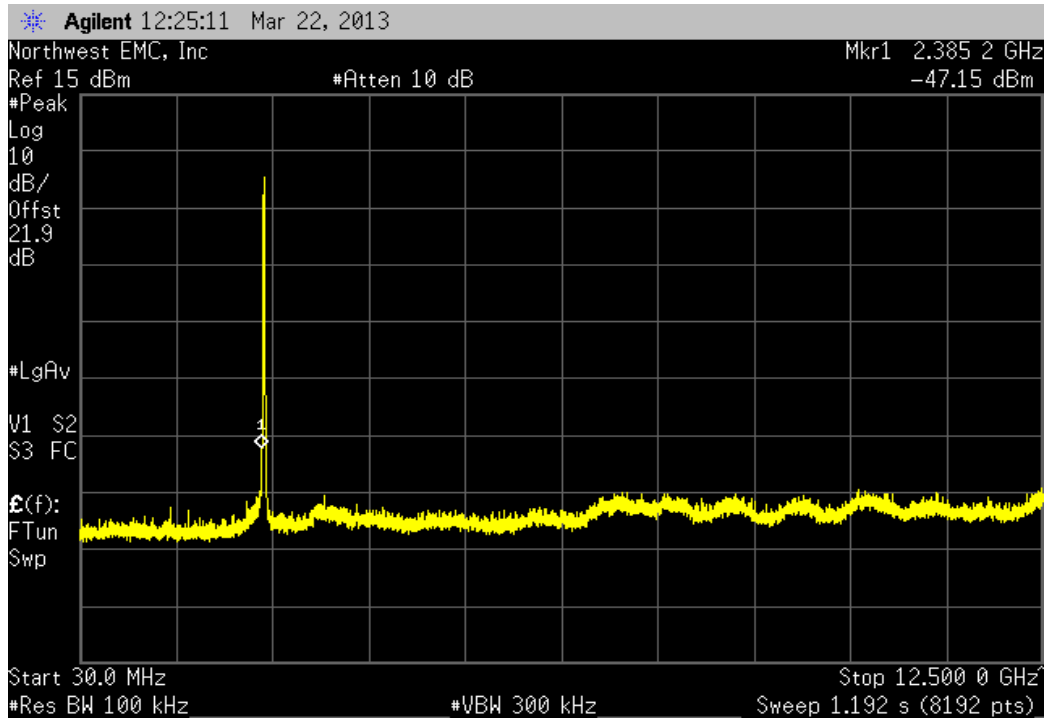
| Antenna 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz |            |           |        |  |
|---------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                         | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                       | -59.73 dBc | ≤ -20 dBc | Pass   |  |



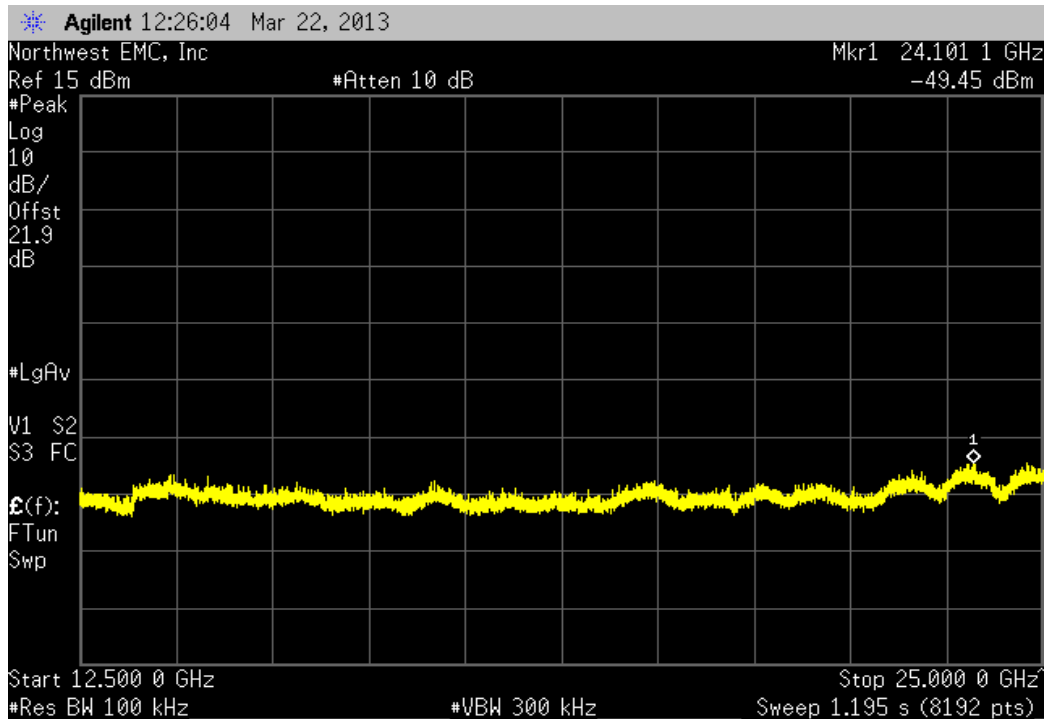
| Antenna 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz |       |       |        |  |
|------------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                      | Value | Limit | Result |  |
| Fundamental                                          | N/A   | N/A   | N/A    |  |



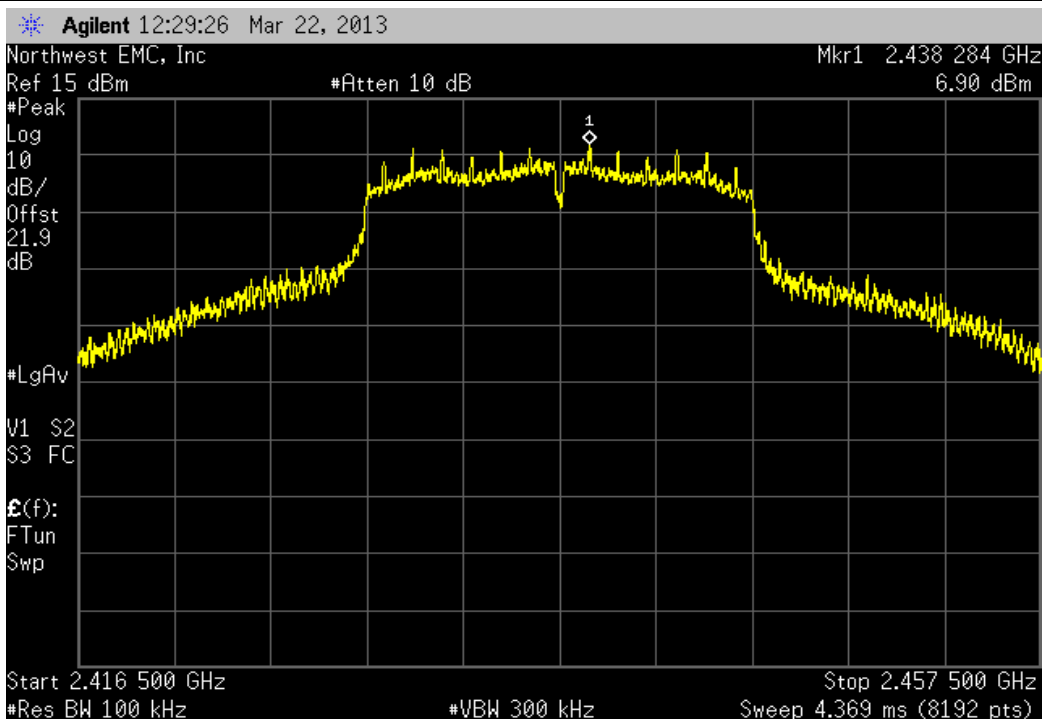
| Antenna 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz |            |           |        |  |
|------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                      | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                    | -49.23 dBc | ≤ -20 dBc | Pass   |  |



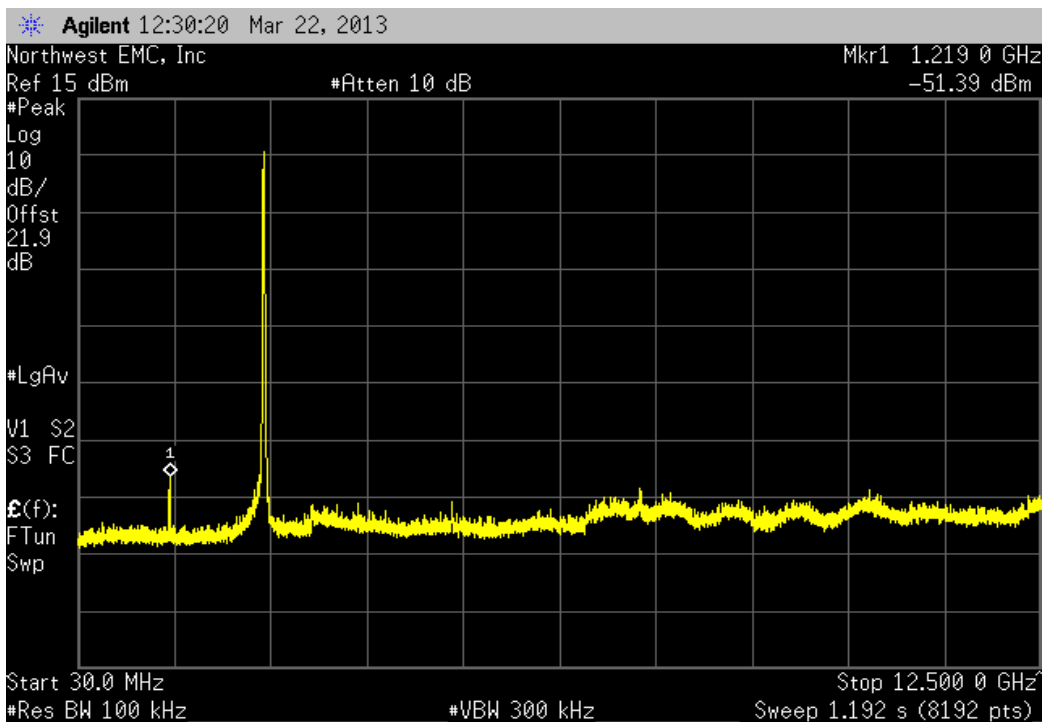
| Antenna 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz |            |           |        |  |
|------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                      | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                    | -51.53 dBc | ≤ -20 dBc | Pass   |  |



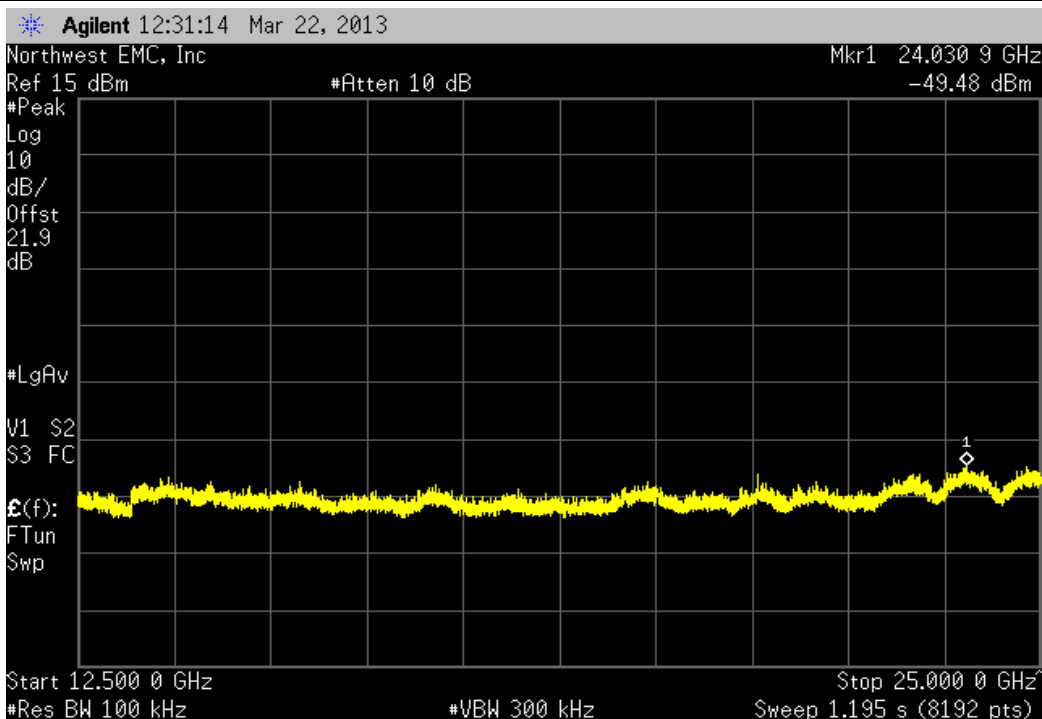
| Antenna 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz |  |       |       |        |  |  |
|------------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                      |  | Value | Limit | Result |  |  |
| Fundamental                                          |  | N/A   | N/A   | N/A    |  |  |



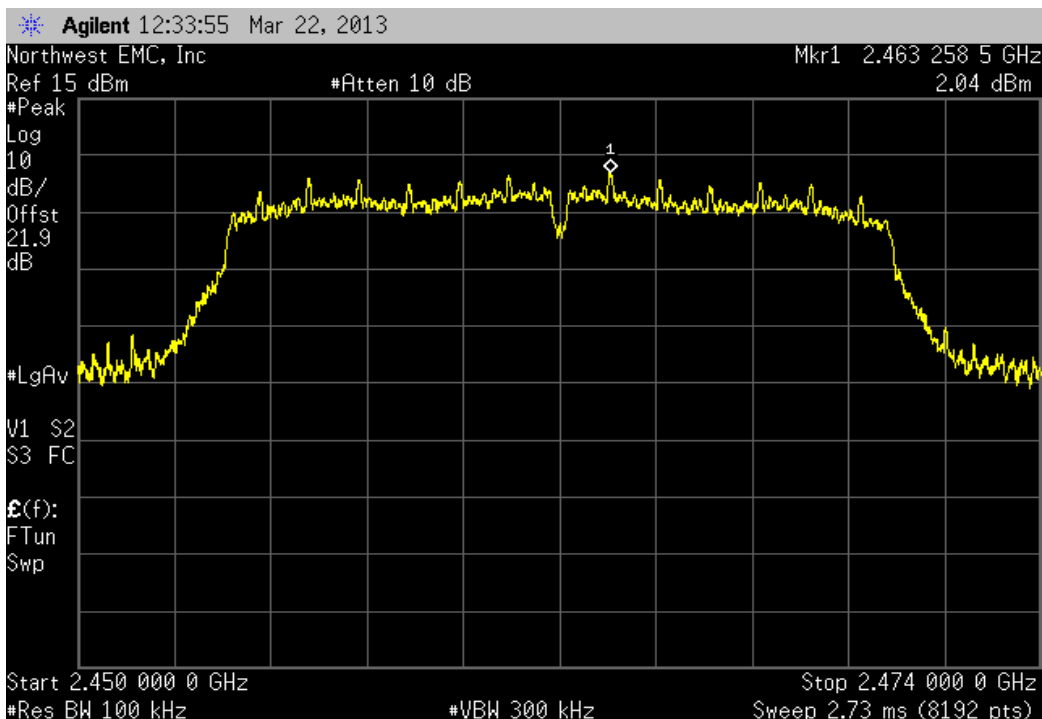
| Antenna 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz |  |            |           |        |  |  |
|------------------------------------------------------|--|------------|-----------|--------|--|--|
| Frequency Range                                      |  | Value      | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                    |  | -58.29 dBc | ≤ -20 dBc | Pass   |  |  |



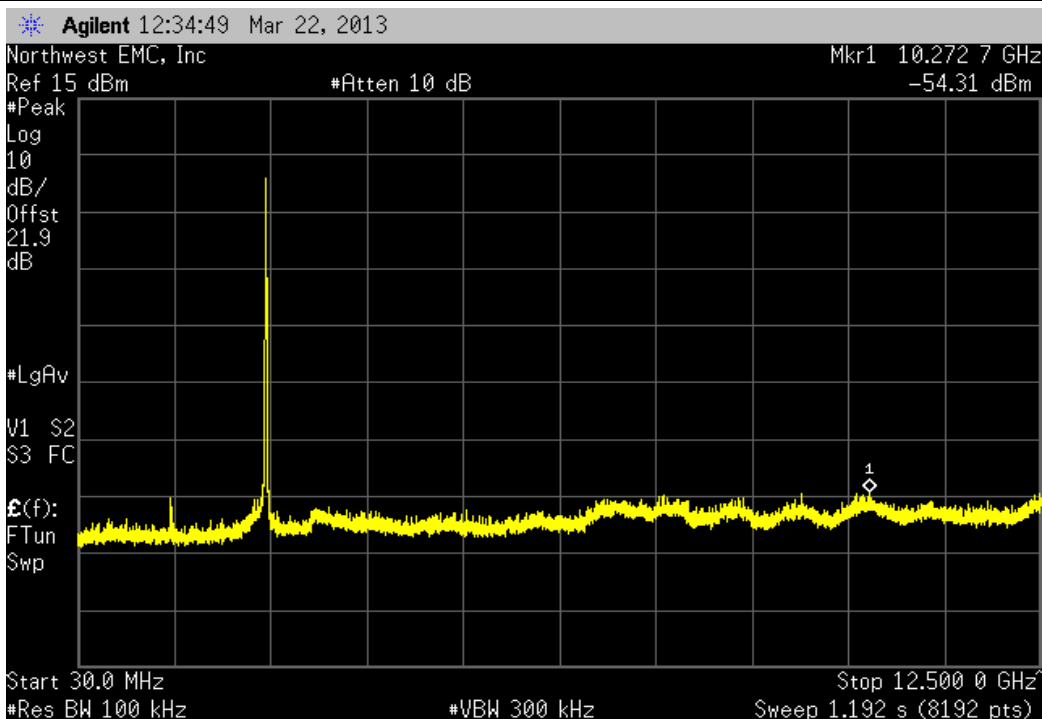
| Antenna 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz |            |           |        |  |
|------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                      | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                    | -56.38 dBc | ≤ -20 dBc | Pass   |  |



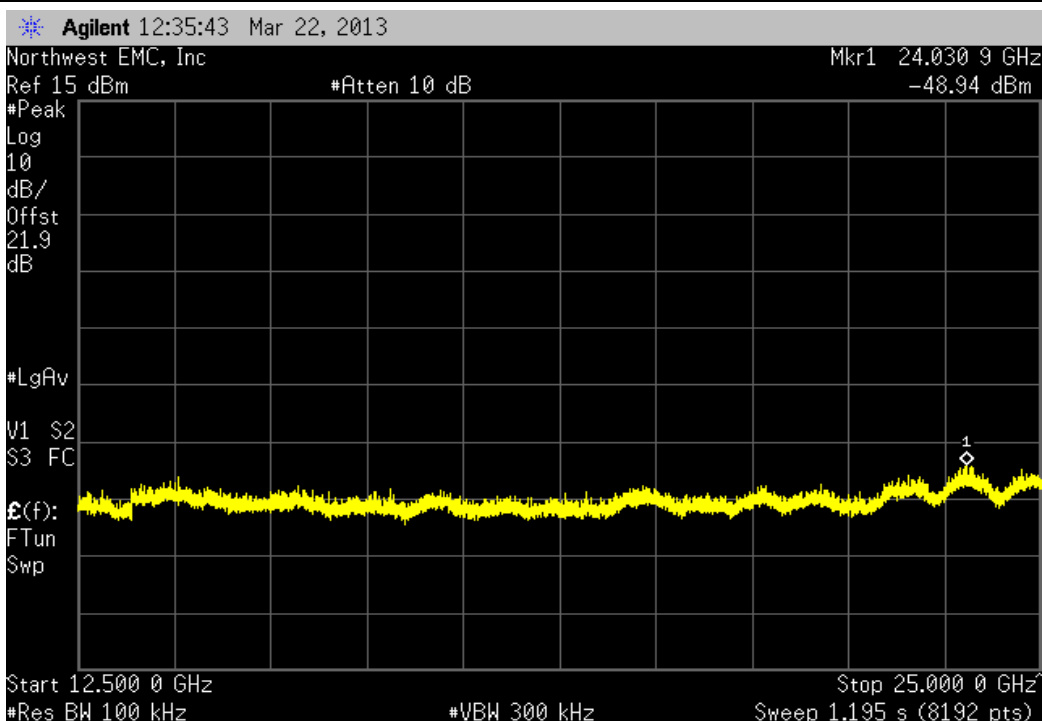
| Antenna 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |       |       |        |  |
|--------------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                        | Value | Limit | Result |  |
| Fundamental                                            | N/A   | N/A   | N/A    |  |



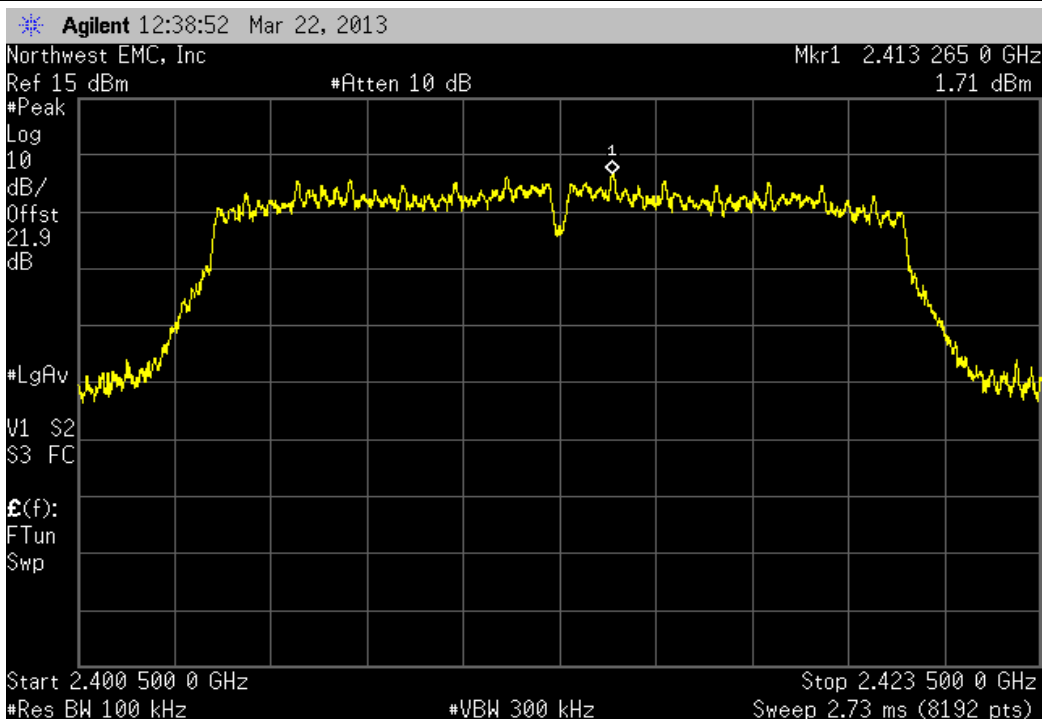
| Antenna 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |            |           |        |  |
|--------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                        | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                      | -56.35 dBc | ≤ -20 dBc | Pass   |  |



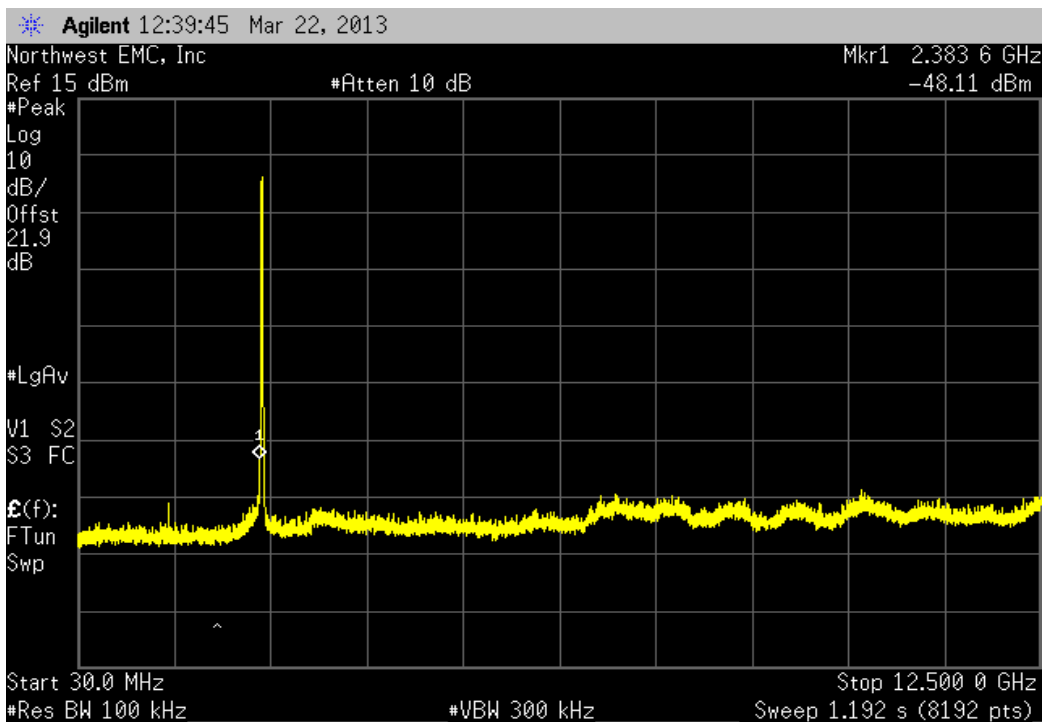
| Antenna 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |            |           |        |  |
|--------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                        | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                      | -50.98 dBc | ≤ -20 dBc | Pass   |  |



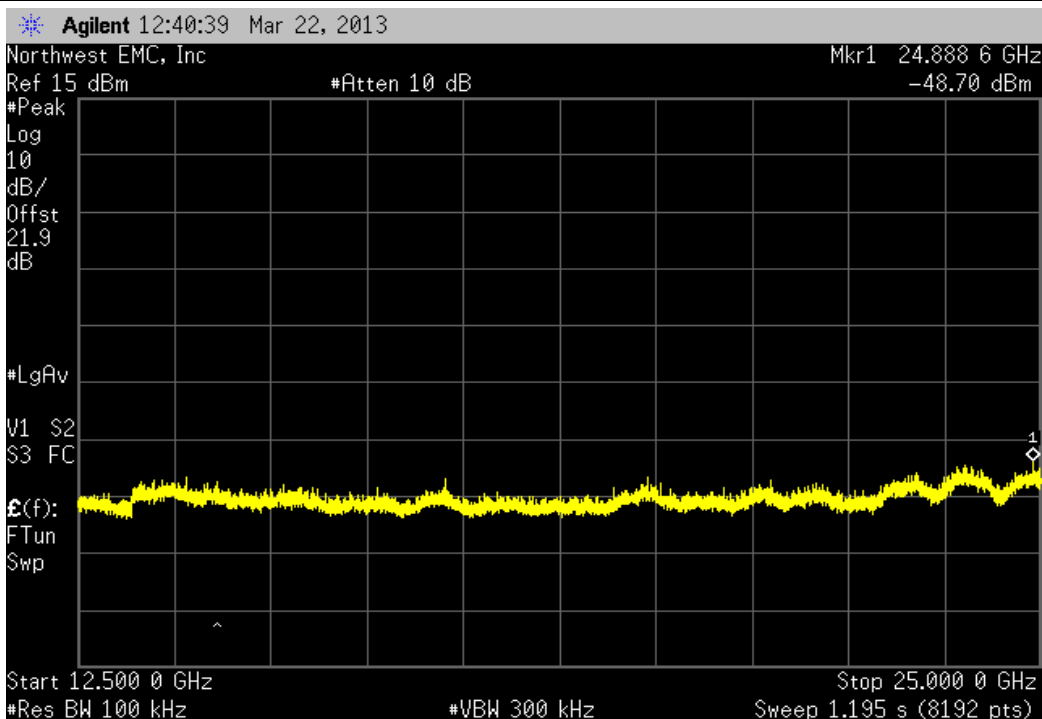
| Antenna 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz |  |       |       |        |  |  |
|-------------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                       |  | Value | Limit | Result |  |  |
| Fundamental                                           |  | N/A   | N/A   | N/A    |  |  |



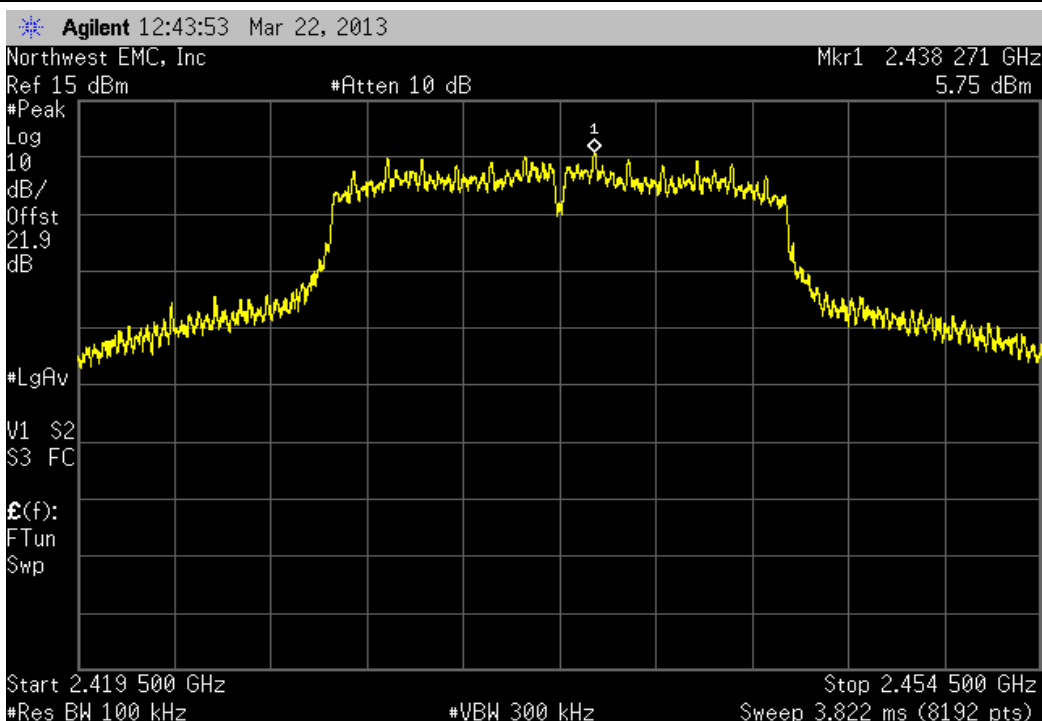
| Antenna 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz |  |            |           |        |  |  |
|-------------------------------------------------------|--|------------|-----------|--------|--|--|
| Frequency Range                                       |  | Value      | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                     |  | -49.82 dBc | ≤ -20 dBc | Pass   |  |  |



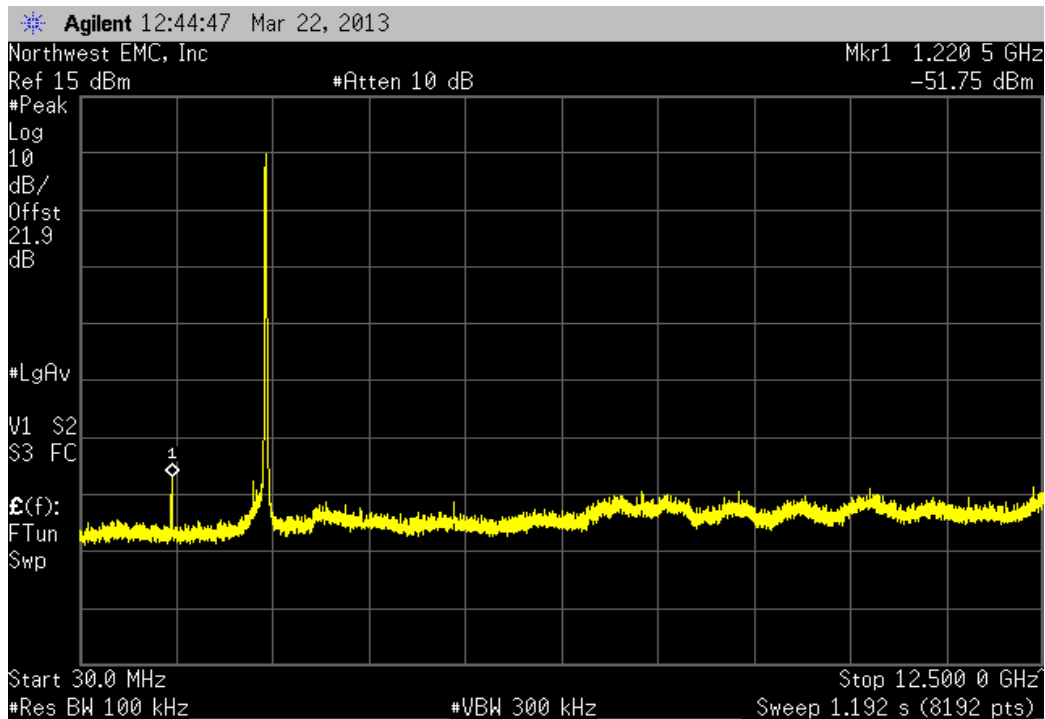
| Antenna 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz |            |           |        |  |
|-------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                       | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                     | -50.41 dBc | ≤ -20 dBc | Pass   |  |



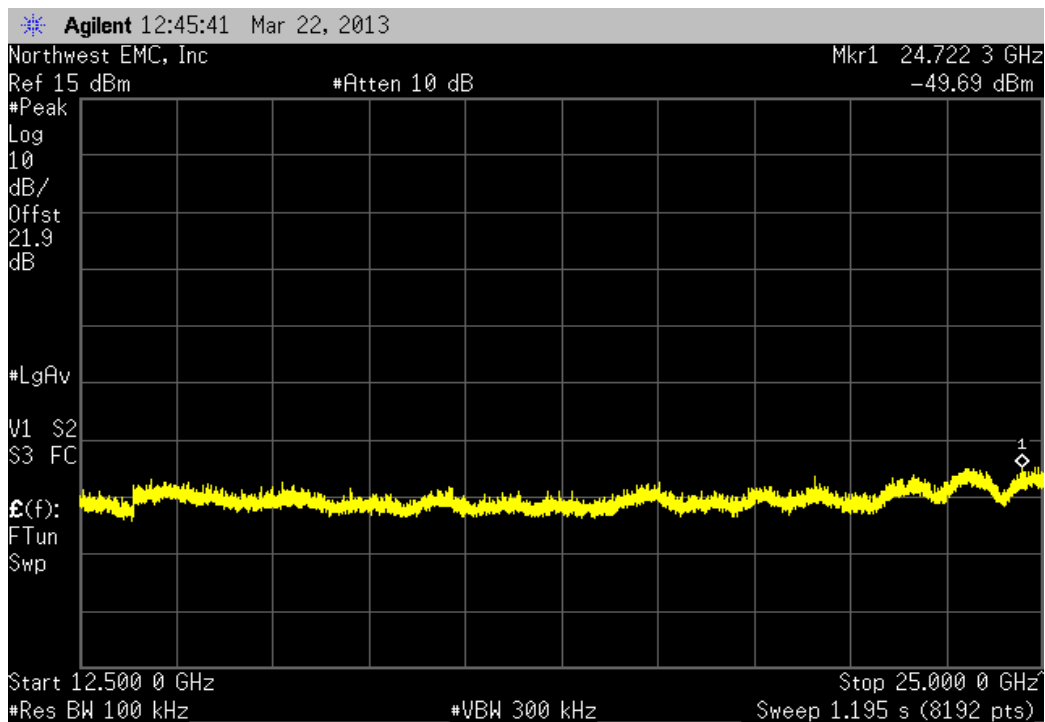
| Antenna 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz |       |       |        |  |
|-------------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                       | Value | Limit | Result |  |
| Fundamental                                           | N/A   | N/A   | N/A    |  |



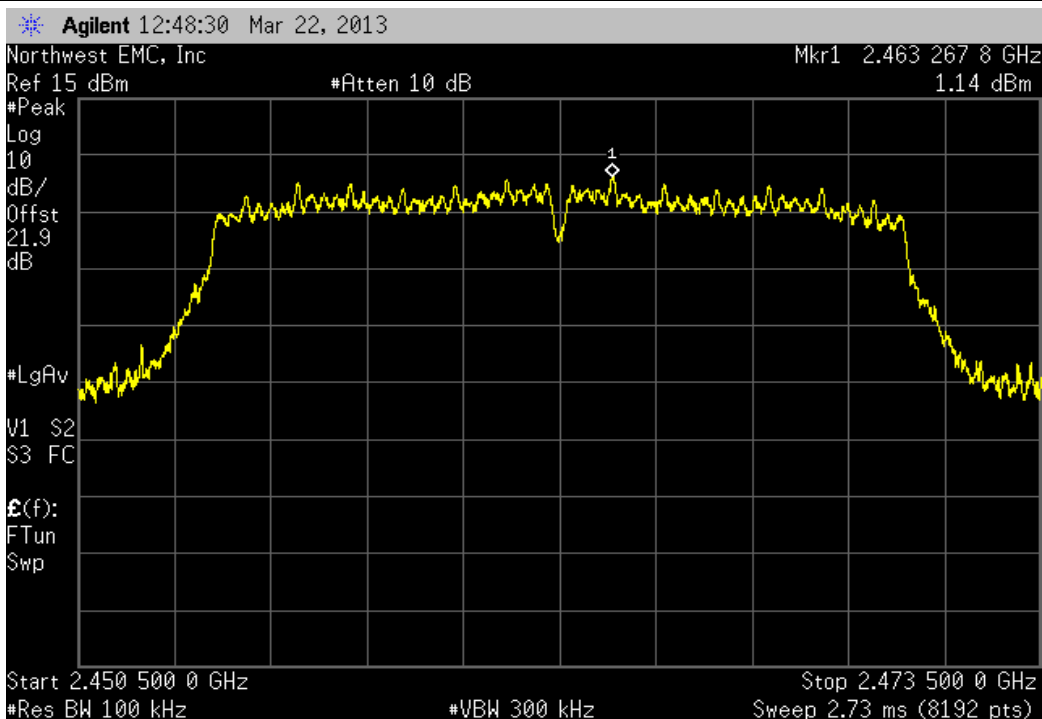
| Antenna 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz |           |           |        |  |
|-------------------------------------------------------|-----------|-----------|--------|--|
| Frequency Range                                       | Value     | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                     | -57.5 dBc | ≤ -20 dBc | Pass   |  |



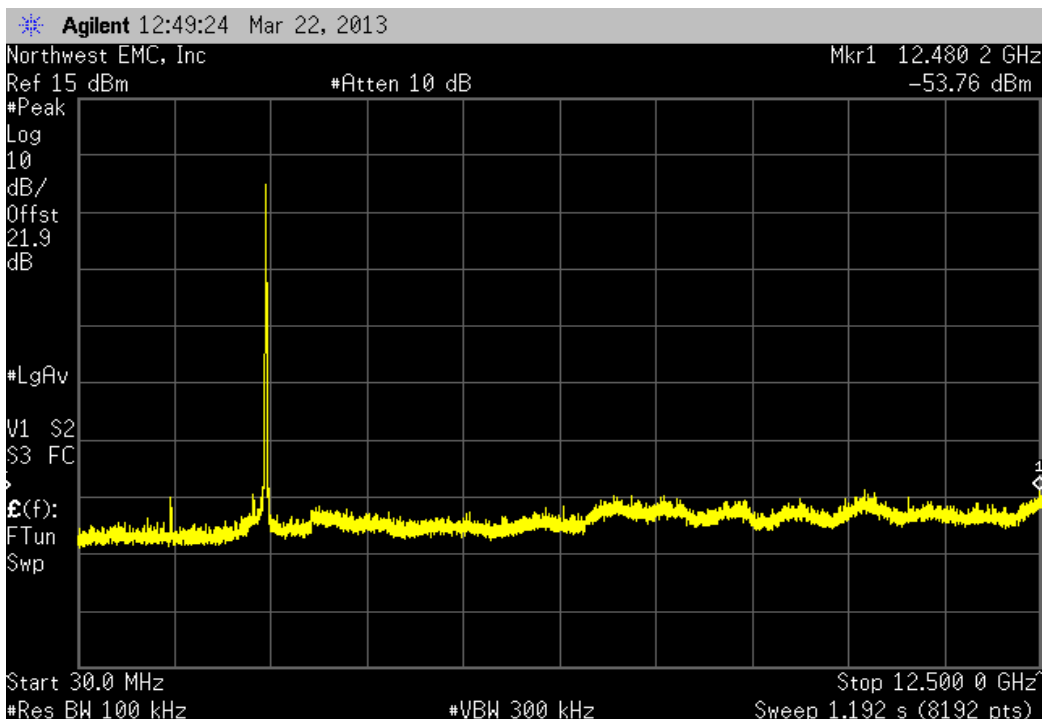
| Antenna 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz |            |           |        |  |
|-------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                       | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                     | -55.44 dBc | ≤ -20 dBc | Pass   |  |



| Antenna 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz |  |       |       |        |  |  |
|---------------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                         |  | Value | Limit | Result |  |  |
| Fundamental                                             |  | N/A   | N/A   | N/A    |  |  |

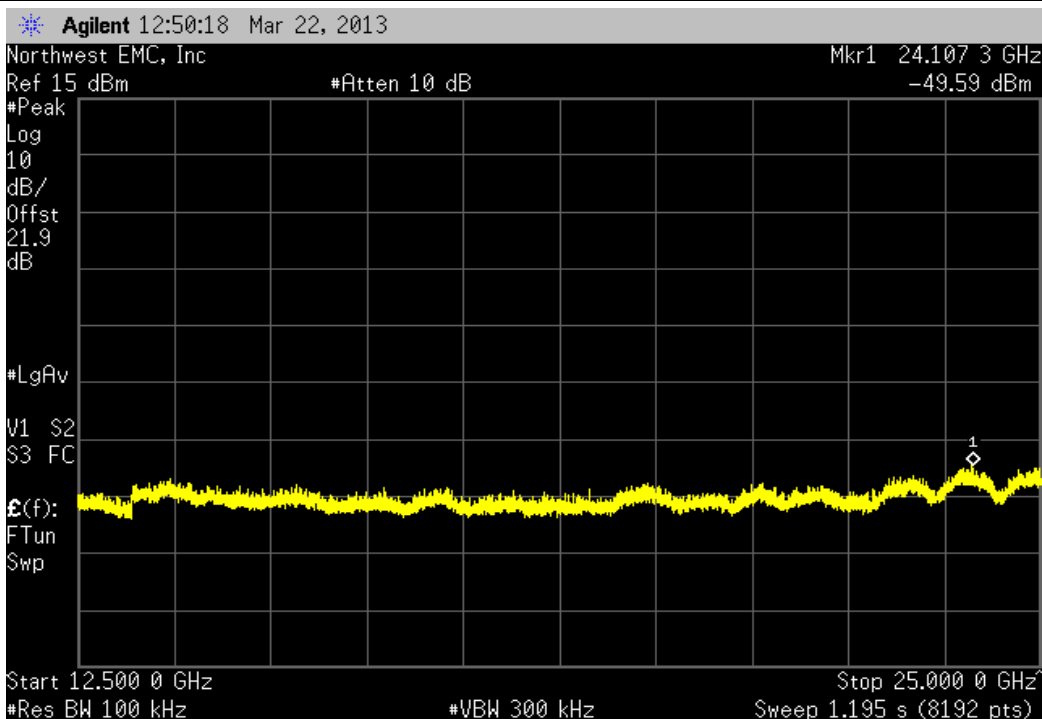


| Antenna 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz |  |           |           |        |  |  |
|---------------------------------------------------------|--|-----------|-----------|--------|--|--|
| Frequency Range                                         |  | Value     | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                       |  | -54.9 dBc | ≤ -20 dBc | Pass   |  |  |



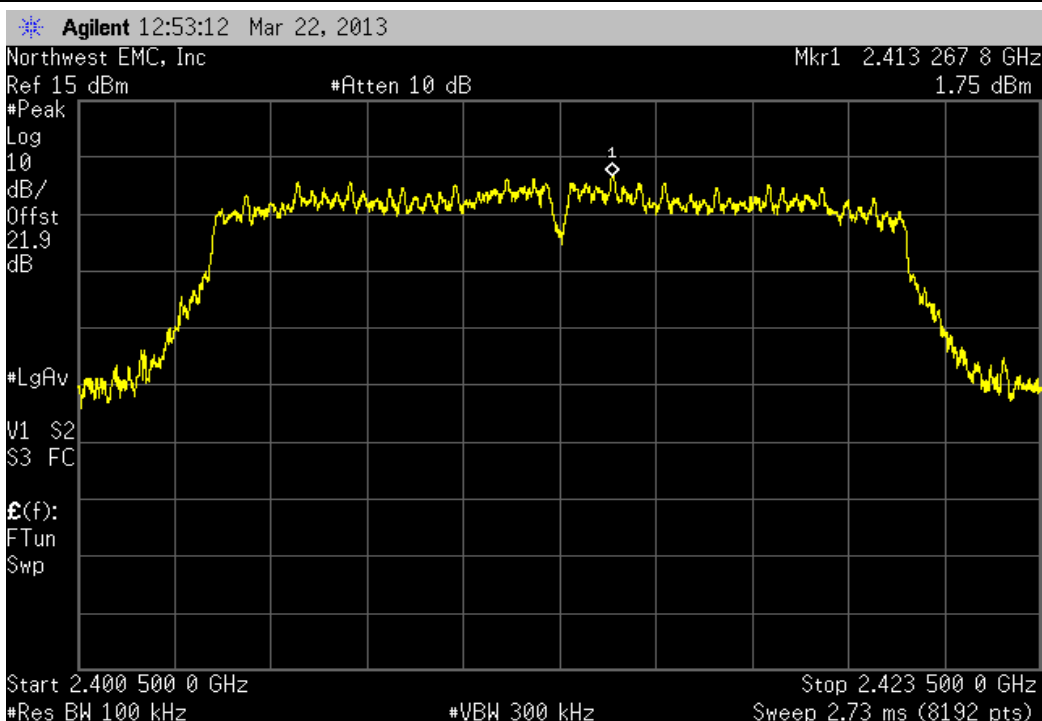
Antenna 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz

| Frequency Range   | Value      | Limit     | Result |
|-------------------|------------|-----------|--------|
| 12.5 GHz - 25 GHz | -50.73 dBc | ≤ -20 dBc | Pass   |

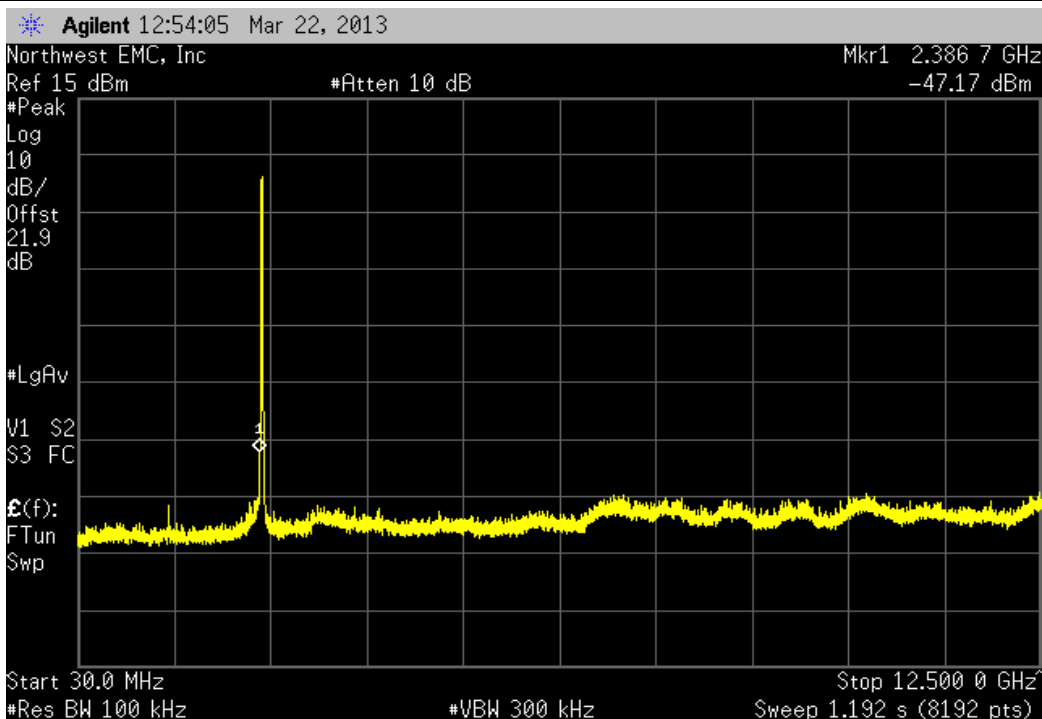


Antenna 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz

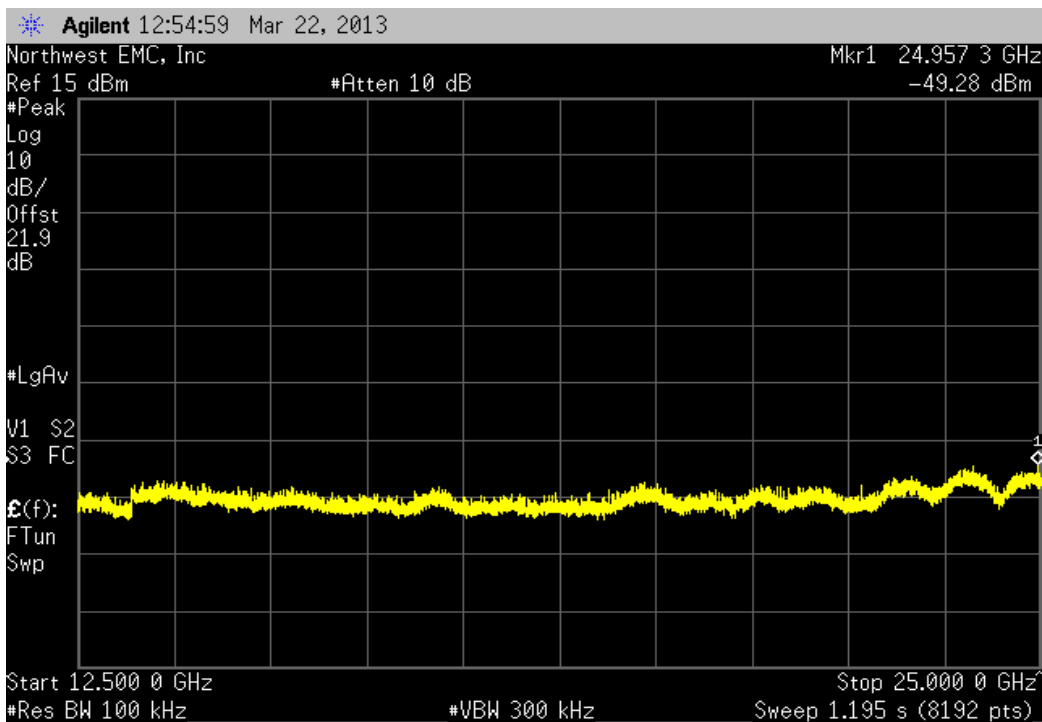
| Frequency Range | Value | Limit | Result |
|-----------------|-------|-------|--------|
| Fundamental     | N/A   | N/A   | N/A    |



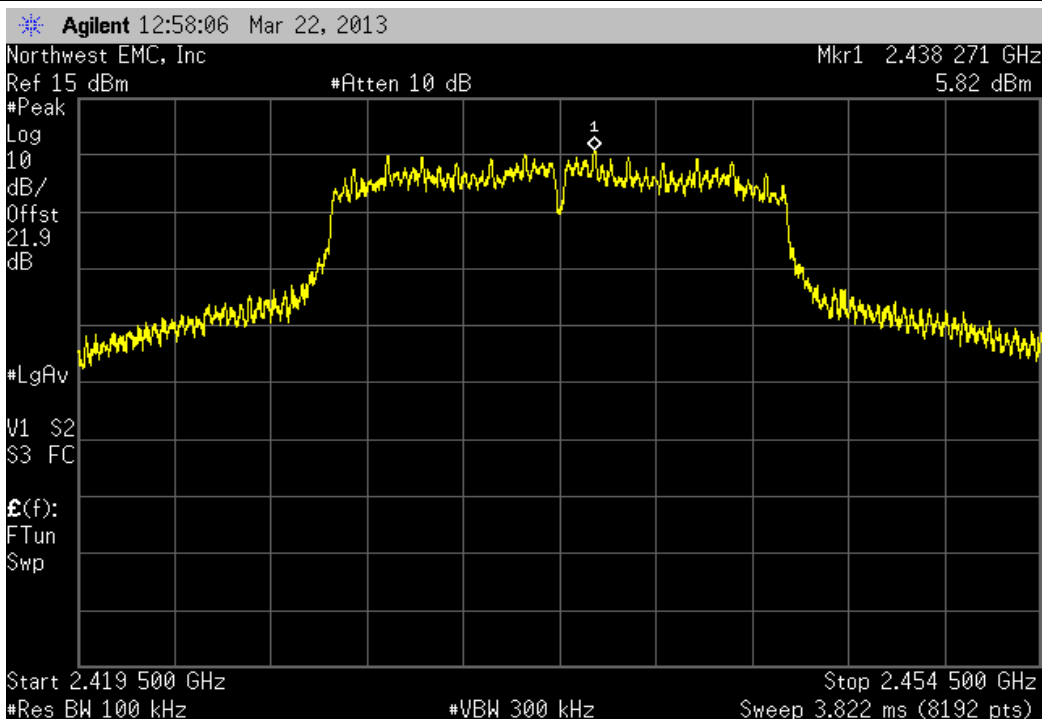
| Antenna 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz |            |           |        |  |
|-------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                       | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                     | -48.92 dBc | ≤ -20 dBc | Pass   |  |



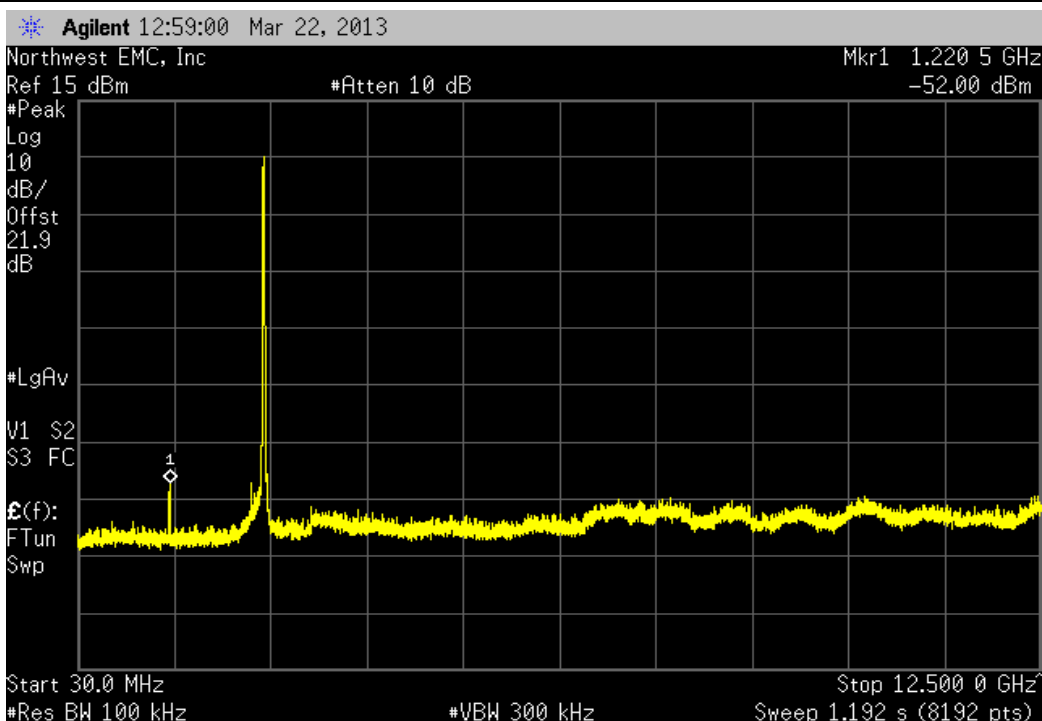
| Antenna 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz |            |           |        |  |
|-------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                       | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                     | -51.03 dBc | ≤ -20 dBc | Pass   |  |



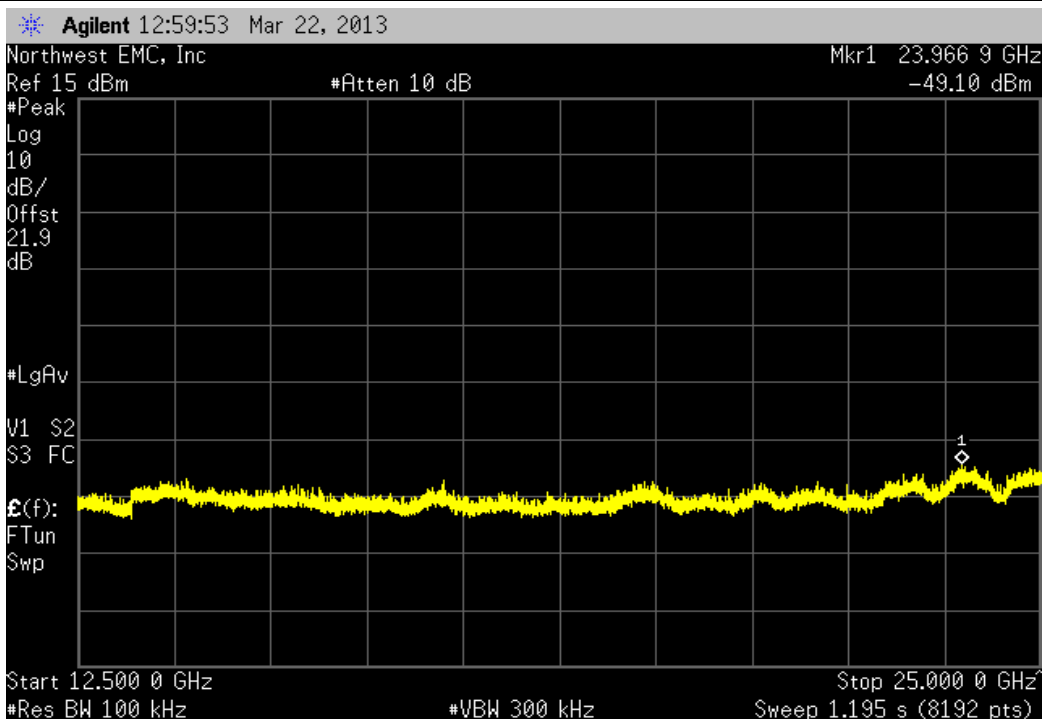
| Antenna 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz |  |       |       |        |  |  |
|-------------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                       |  | Value | Limit | Result |  |  |
| Fundamental                                           |  | N/A   | N/A   | N/A    |  |  |



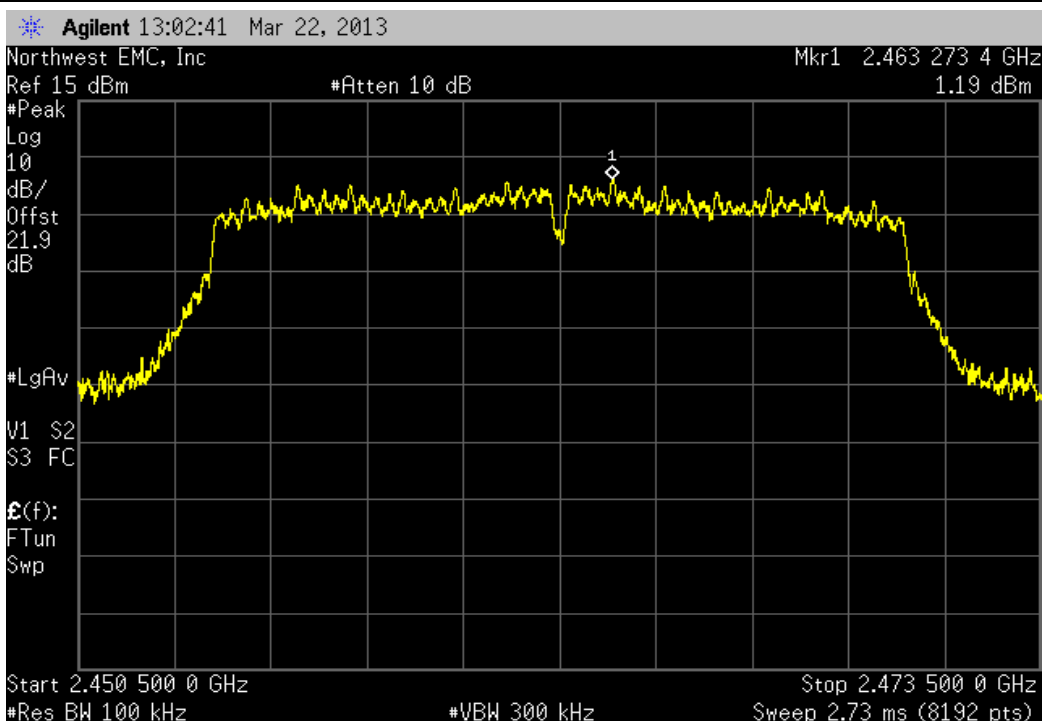
| Antenna 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz |  |            |           |        |  |  |
|-------------------------------------------------------|--|------------|-----------|--------|--|--|
| Frequency Range                                       |  | Value      | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                     |  | -57.82 dBc | ≤ -20 dBc | Pass   |  |  |



| Antenna 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz |            |           |        |  |
|-------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                       | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                     | -54.92 dBc | ≤ -20 dBc | Pass   |  |

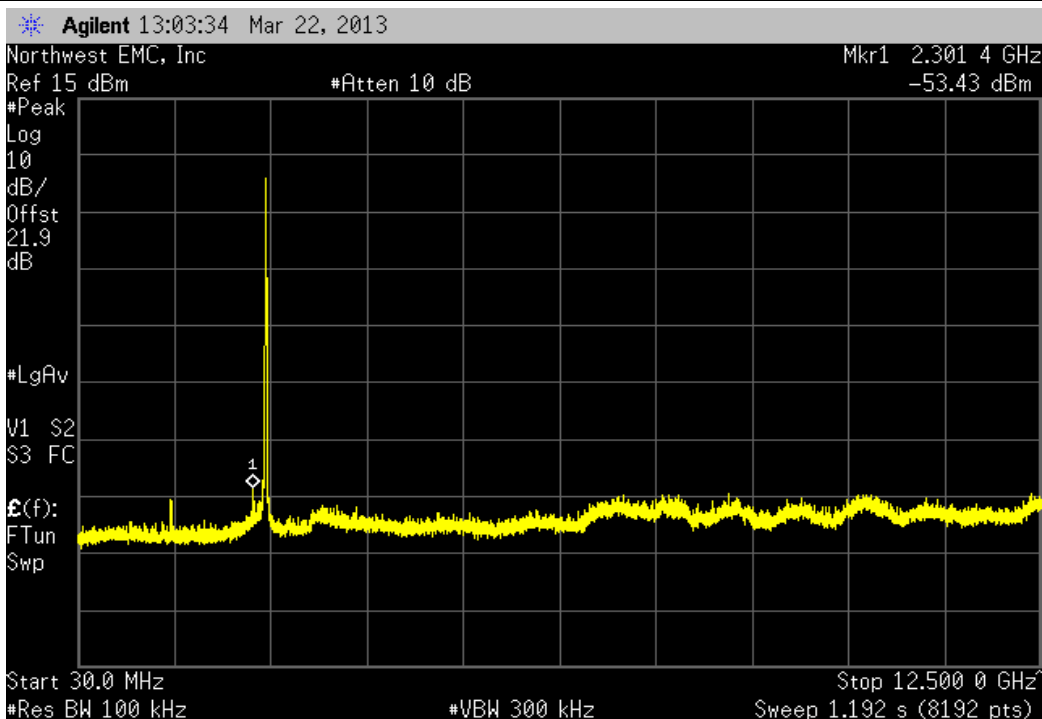


| Antenna 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz |       |       |        |  |
|---------------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                         | Value | Limit | Result |  |
| Fundamental                                             | N/A   | N/A   | N/A    |  |



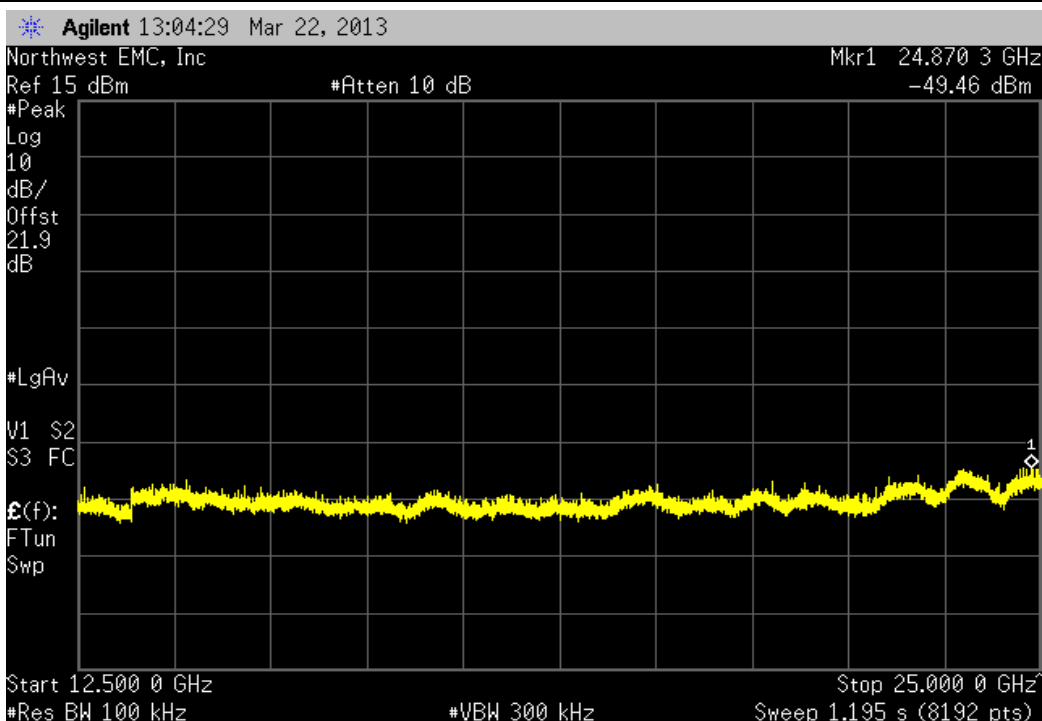
Antenna 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz

| Frequency Range   | Value      | Limit     | Result |
|-------------------|------------|-----------|--------|
| 30 MHz - 12.5 GHz | -54.62 dBc | ≤ -20 dBc | Pass   |

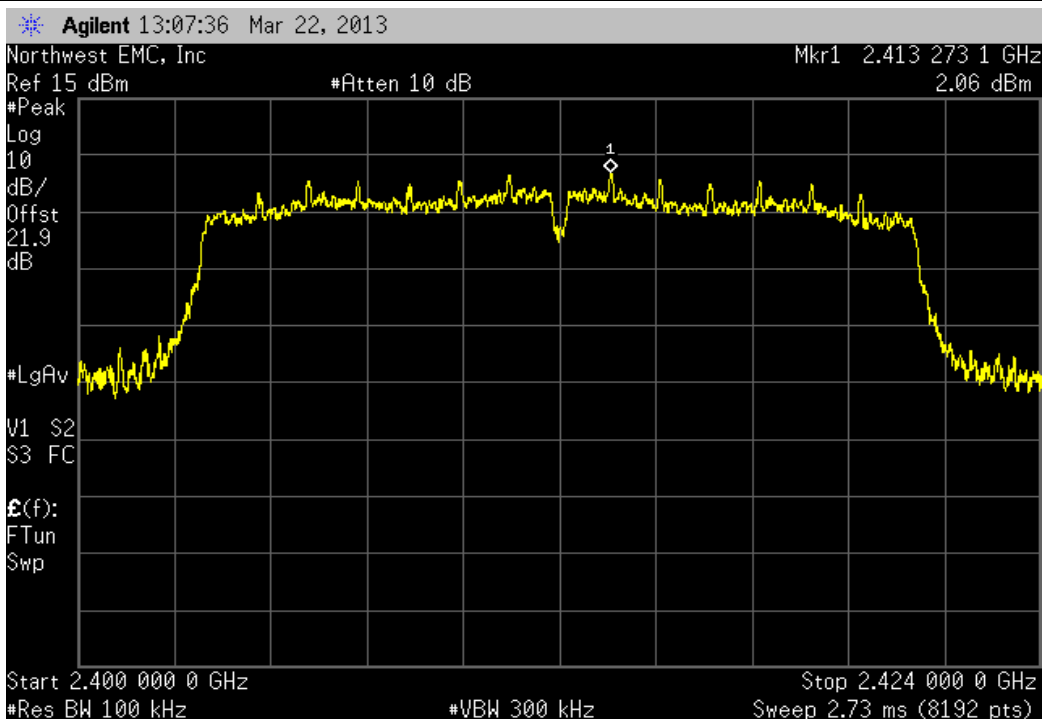


Antenna 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz

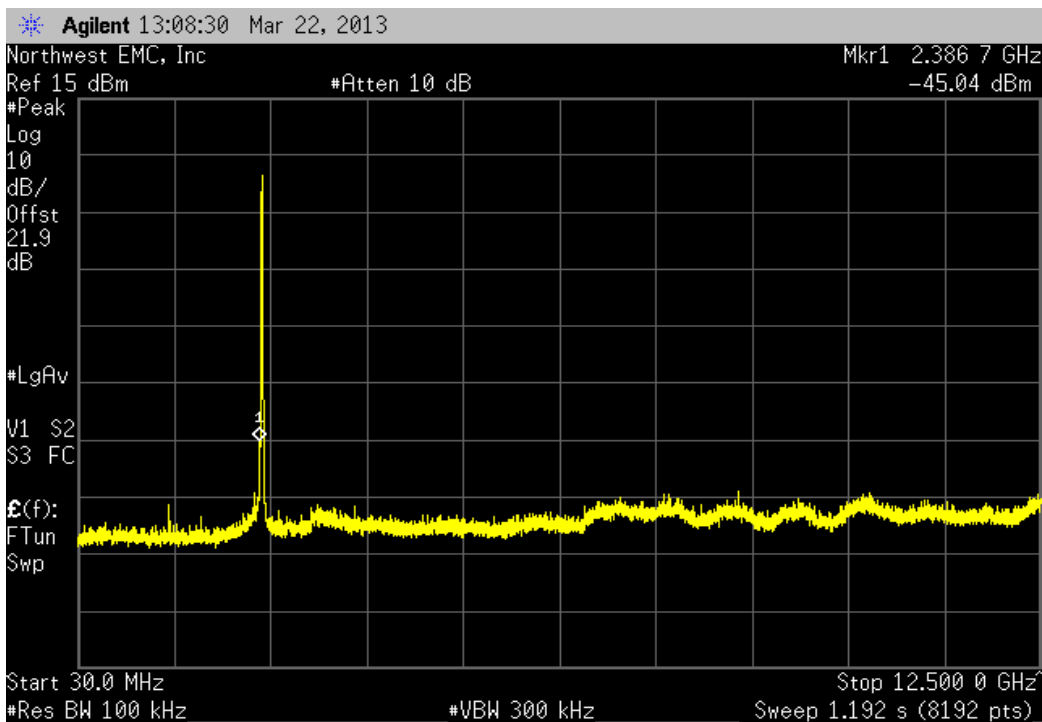
| Frequency Range   | Value      | Limit     | Result |
|-------------------|------------|-----------|--------|
| 12.5 GHz - 25 GHz | -50.65 dBc | ≤ -20 dBc | Pass   |



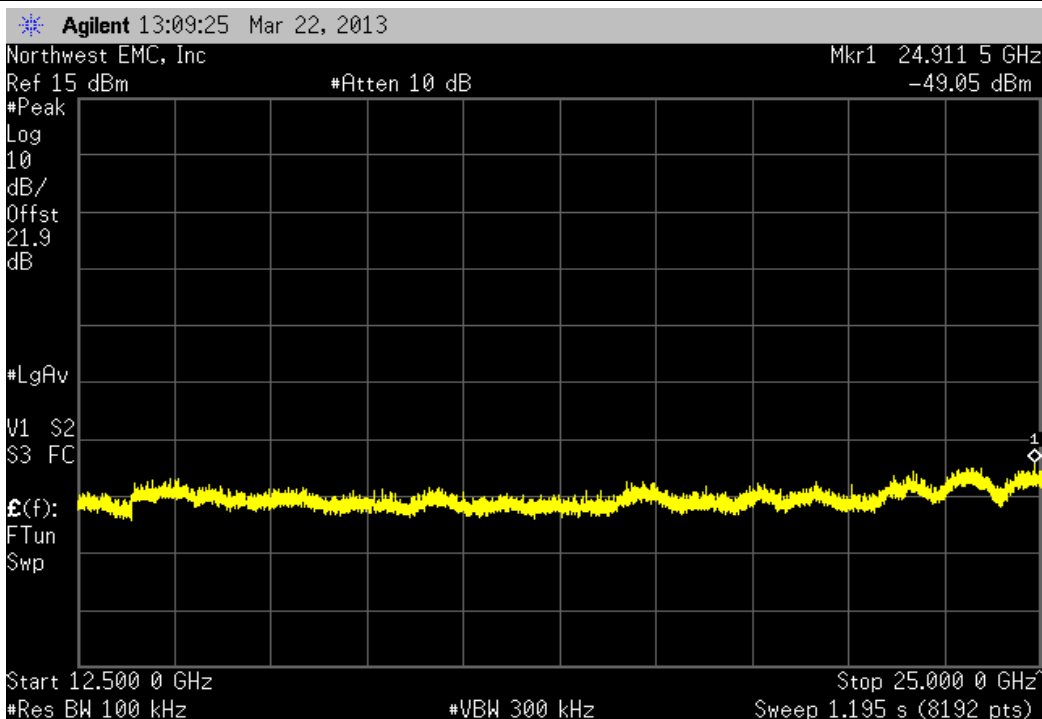
| Antenna 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz |  |       |       |        |  |  |
|----------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                    |  | Value | Limit | Result |  |  |
| Fundamental                                        |  | N/A   | N/A   | N/A    |  |  |



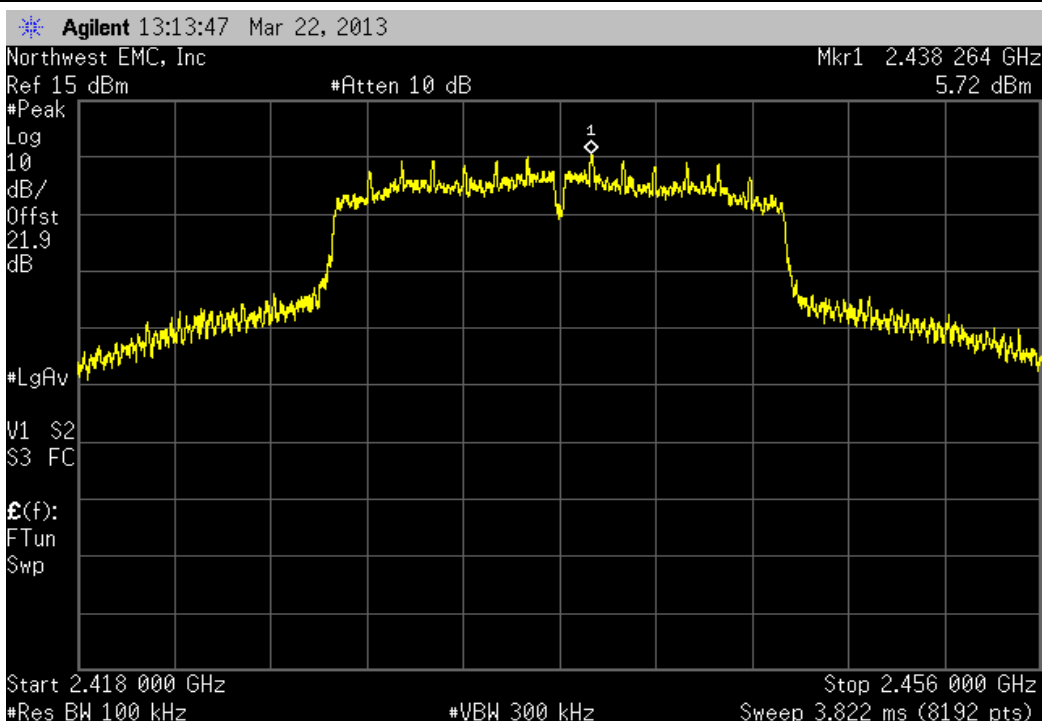
| Antenna 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz |  |           |           |        |  |  |
|----------------------------------------------------|--|-----------|-----------|--------|--|--|
| Frequency Range                                    |  | Value     | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                  |  | -47.1 dBc | ≤ -20 dBc | Pass   |  |  |



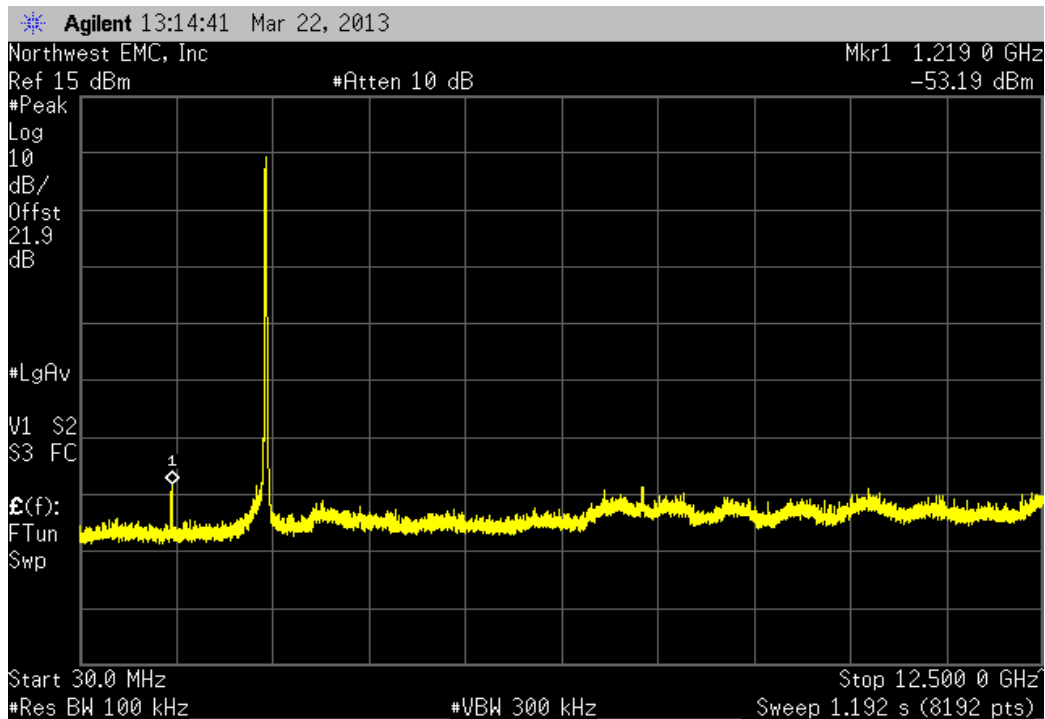
| Antenna 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz |            |           |        |  |
|----------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                    | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                  | -51.11 dBc | ≤ -20 dBc | Pass   |  |



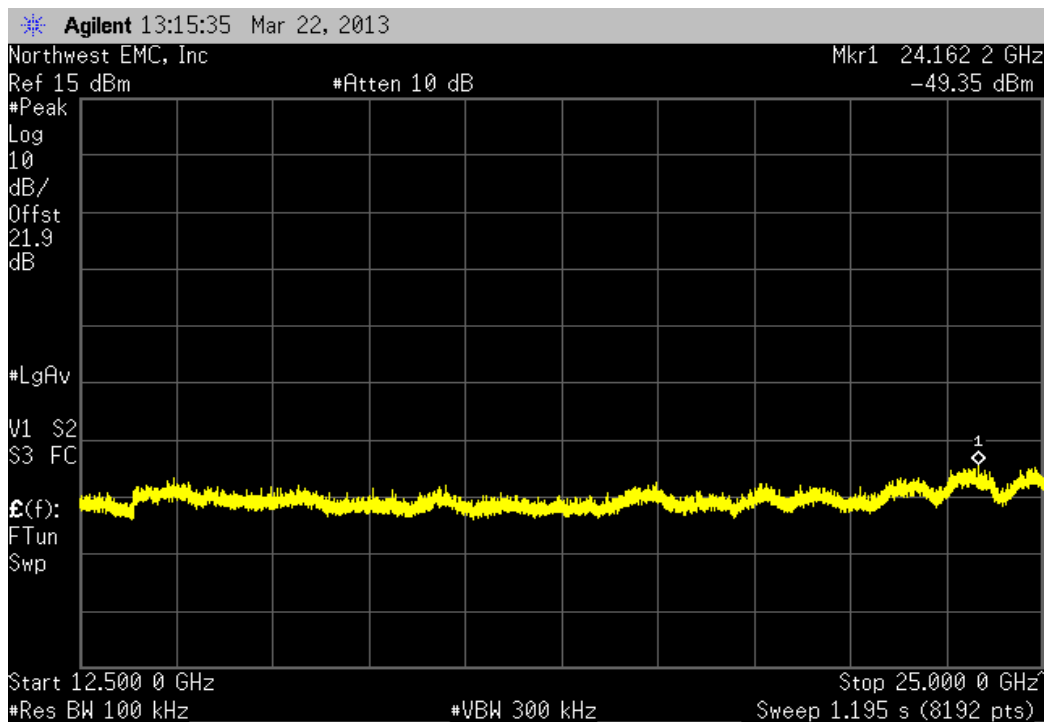
| Antenna 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz |       |       |        |  |
|----------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                    | Value | Limit | Result |  |
| Fundamental                                        | N/A   | N/A   | N/A    |  |



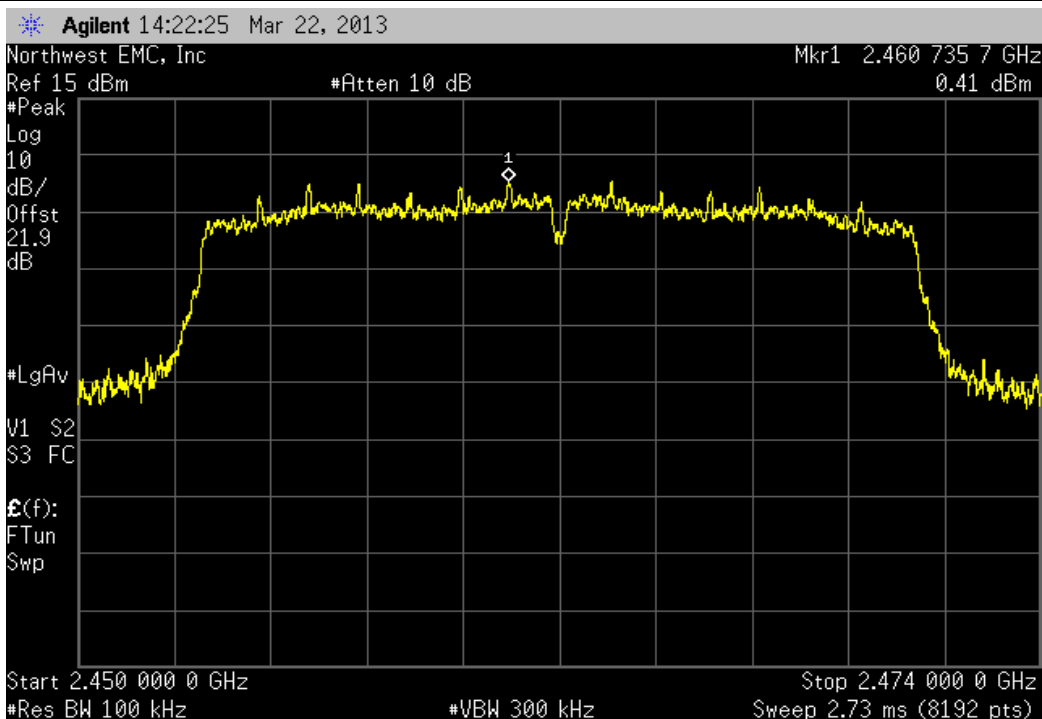
| Antenna 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz |            |           |        |  |
|----------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                    | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                  | -58.91 dBc | ≤ -20 dBc | Pass   |  |



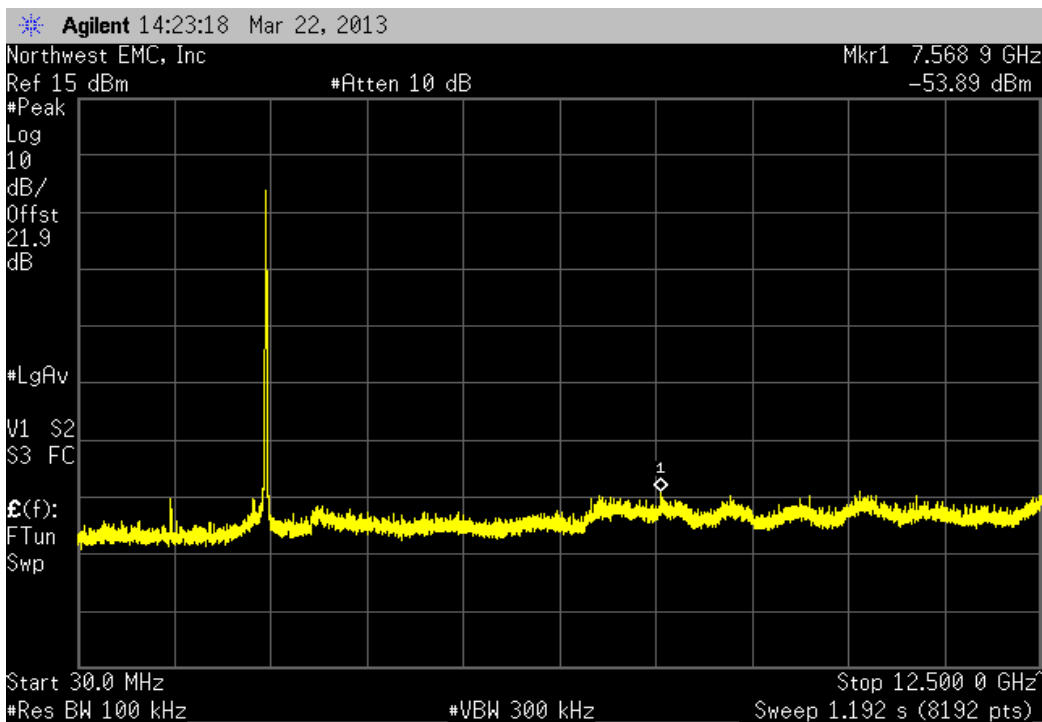
| Antenna 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz |            |           |        |  |
|----------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                    | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                  | -55.07 dBc | ≤ -20 dBc | Pass   |  |



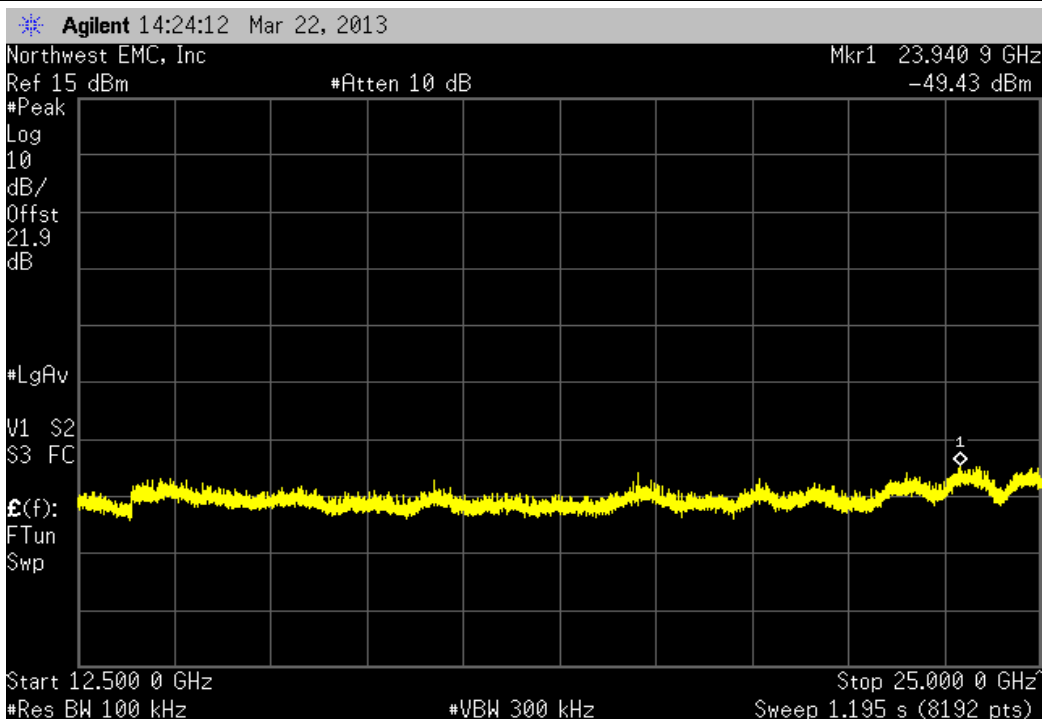
| Antenna 1, 802.11(n) MCS0, High Channel 11, 2462 MHz |  |       |       |        |  |  |
|------------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                      |  | Value | Limit | Result |  |  |
| Fundamental                                          |  | N/A   | N/A   | N/A    |  |  |



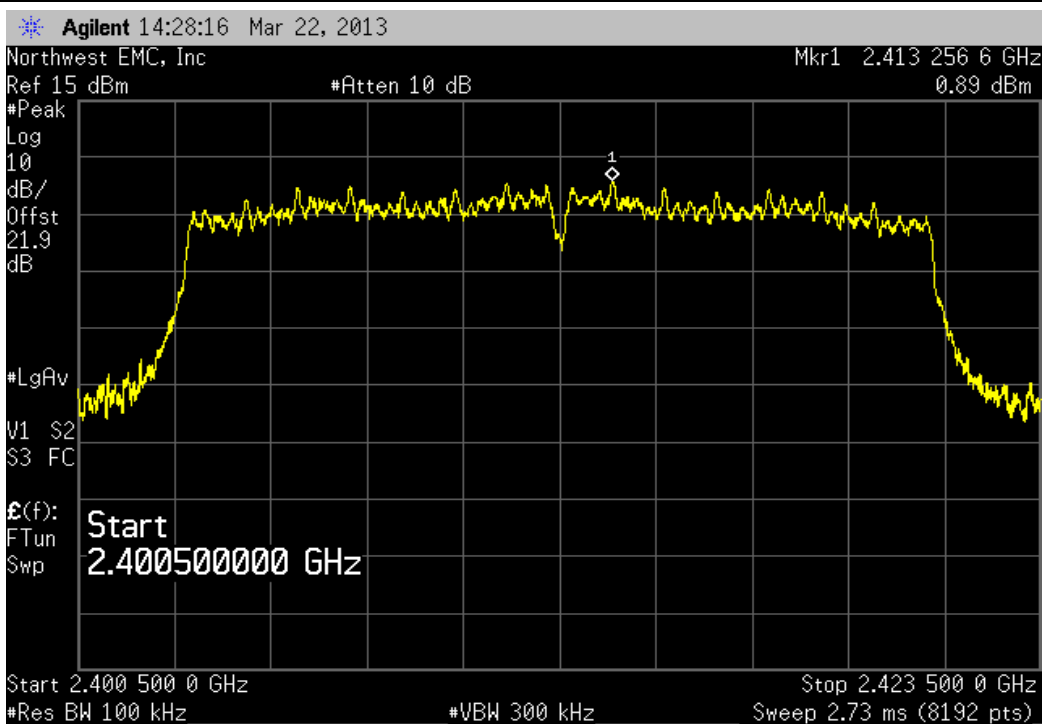
| Antenna 1, 802.11(n) MCS0, High Channel 11, 2462 MHz |  |           |           |        |  |  |
|------------------------------------------------------|--|-----------|-----------|--------|--|--|
| Frequency Range                                      |  | Value     | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                    |  | -54.3 dBc | ≤ -20 dBc | Pass   |  |  |



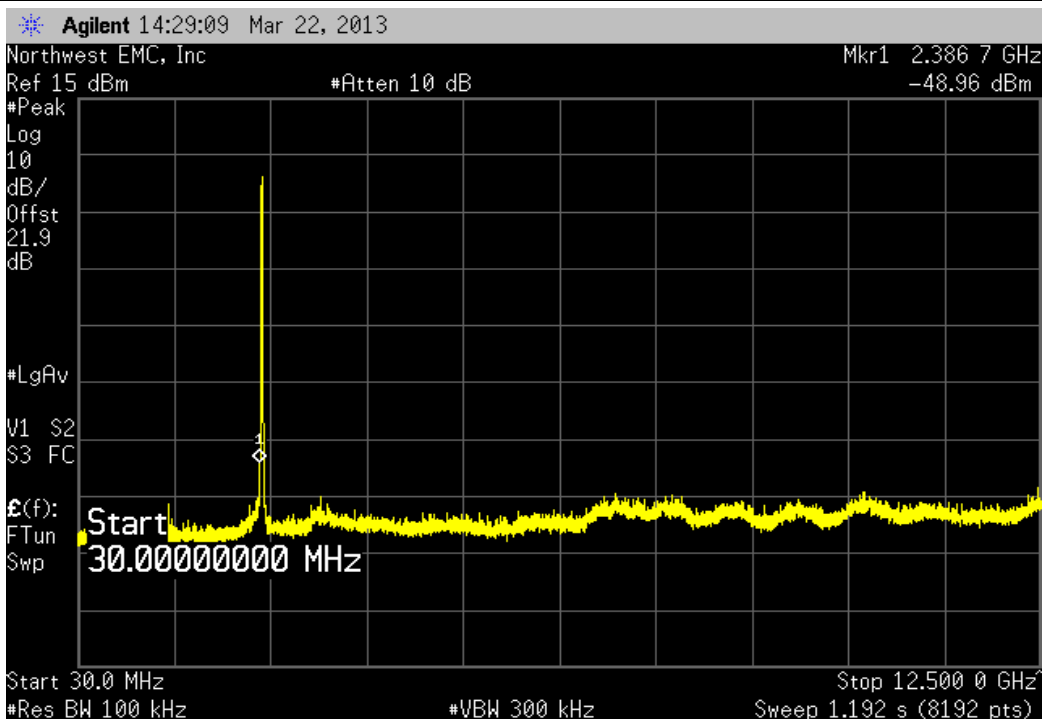
| Antenna 1, 802.11(n) MCS0, High Channel 11, 2462 MHz |            |           |        |  |
|------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                      | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                    | -49.84 dBc | ≤ -20 dBc | Pass   |  |



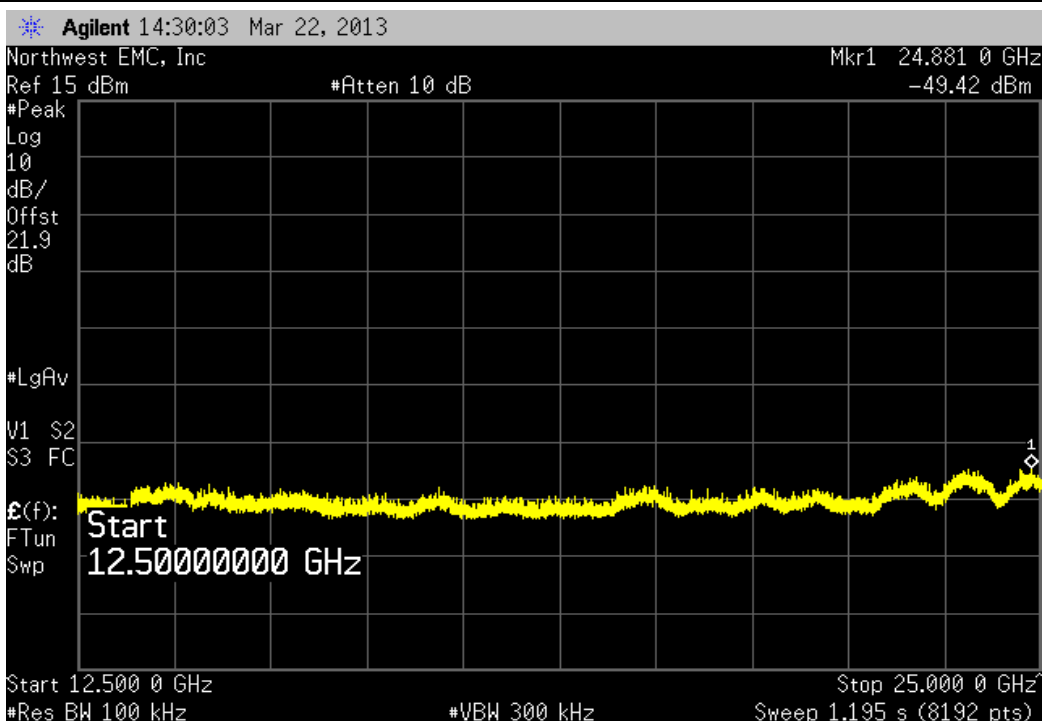
| Antenna 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz |       |       |        |  |
|----------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                    | Value | Limit | Result |  |
| Fundamental                                        | N/A   | N/A   | N/A    |  |



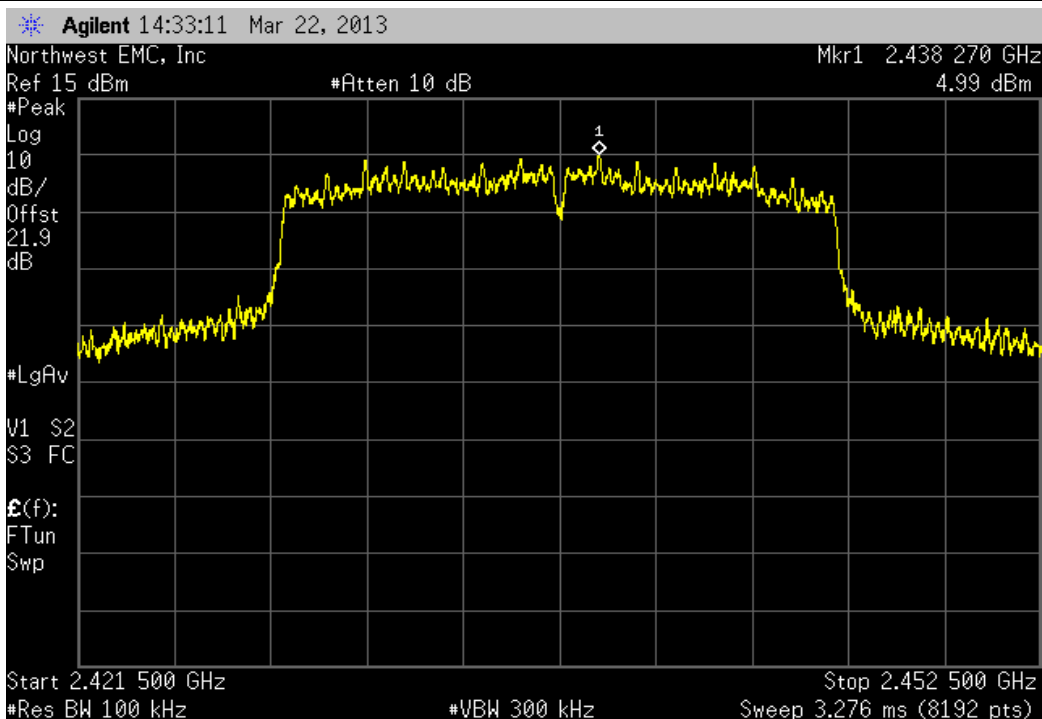
| Antenna 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz |            |           |        |  |
|----------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                    | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                  | -49.85 dBc | ≤ -20 dBc | Pass   |  |



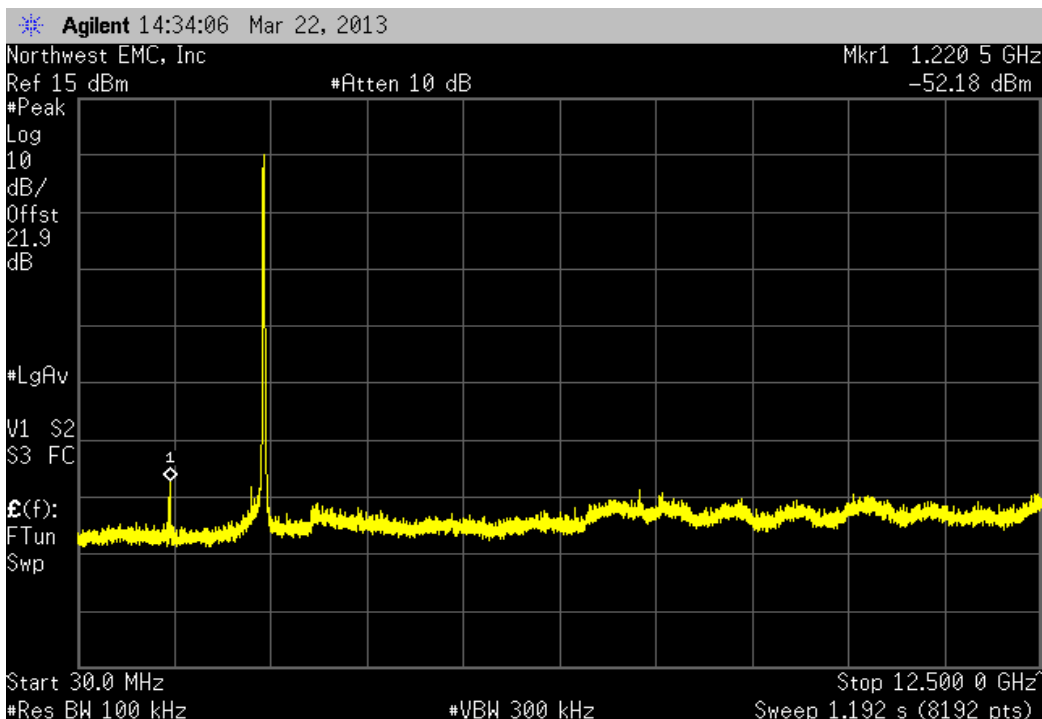
| Antenna 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz |            |           |        |  |
|----------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                    | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                  | -50.31 dBc | ≤ -20 dBc | Pass   |  |



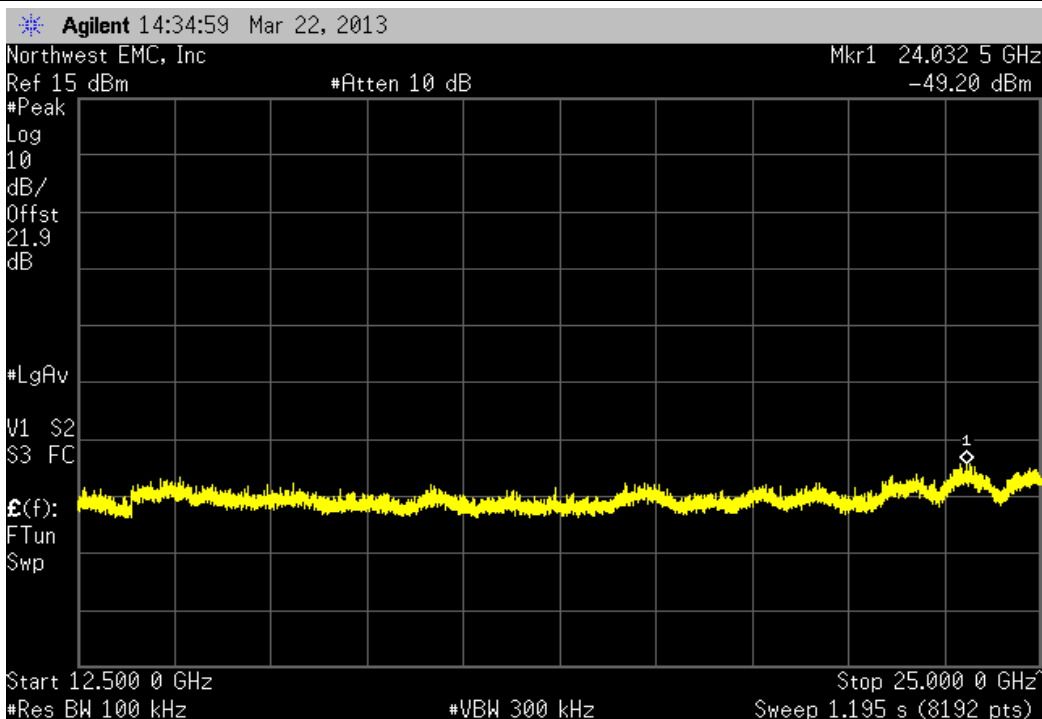
| Antenna 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz |  |       |       |        |  |  |
|----------------------------------------------------|--|-------|-------|--------|--|--|
| Frequency Range                                    |  | Value | Limit | Result |  |  |
| Fundamental                                        |  | N/A   | N/A   | N/A    |  |  |



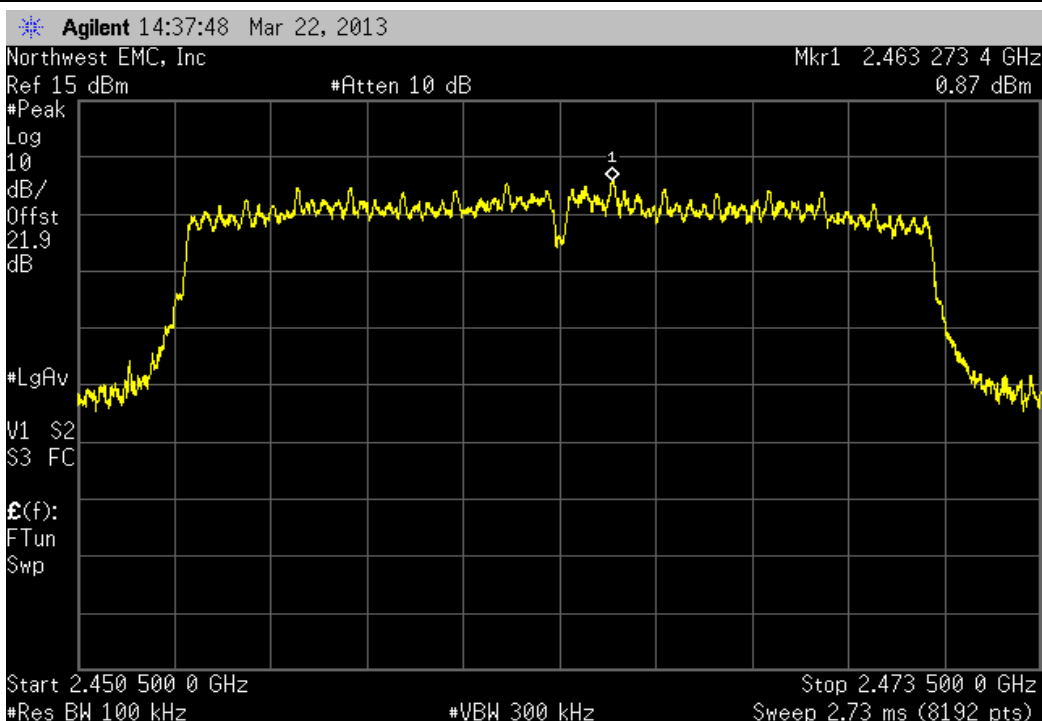
| Antenna 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz |  |            |           |        |  |  |
|----------------------------------------------------|--|------------|-----------|--------|--|--|
| Frequency Range                                    |  | Value      | Limit     | Result |  |  |
| 30 MHz - 12.5 GHz                                  |  | -57.17 dBc | ≤ -20 dBc | Pass   |  |  |



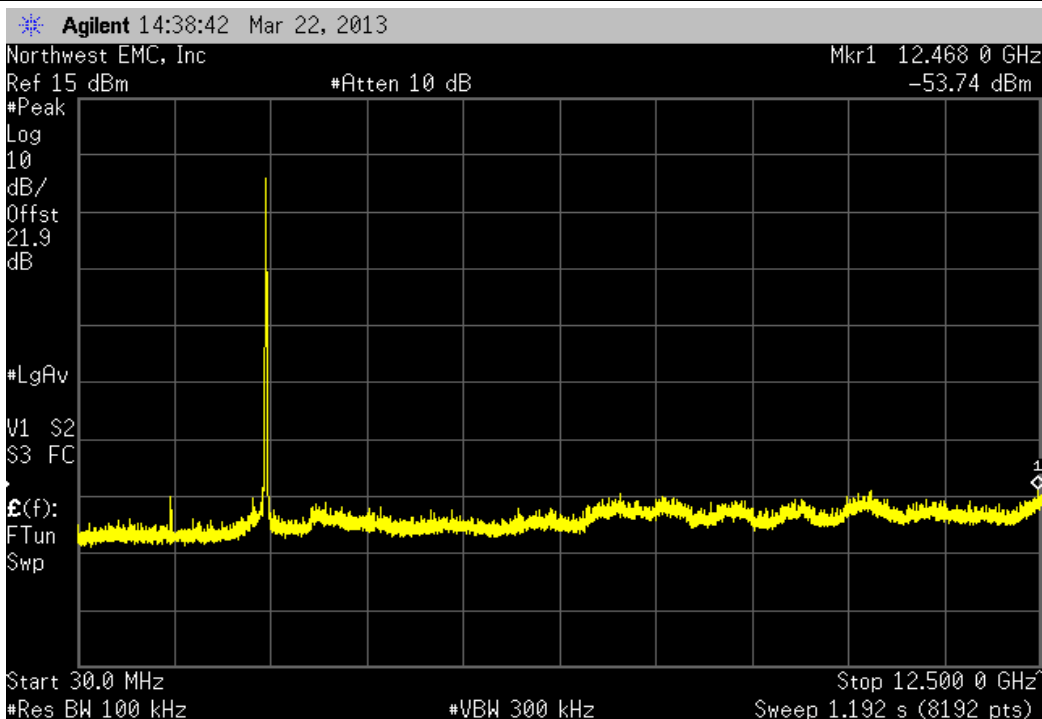
| Antenna 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz |            |           |        |  |
|----------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                    | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                  | -54.19 dBc | ≤ -20 dBc | Pass   |  |



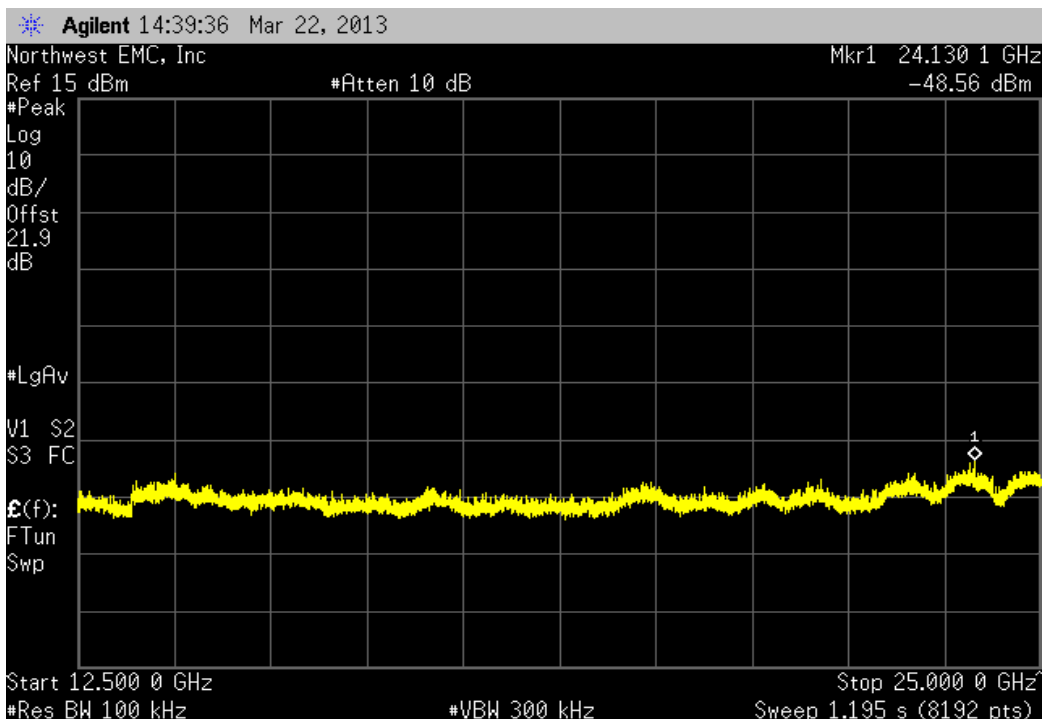
| Antenna 1, 802.11(n) MCS7, High Channel 11, 2462 MHz |       |       |        |  |
|------------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                      | Value | Limit | Result |  |
| Fundamental                                          | N/A   | N/A   | N/A    |  |



| Antenna 1, 802.11(n) MCS7, High Channel 11, 2462 MHz |            |           |        |  |
|------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                      | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                    | -54.61 dBc | ≤ -20 dBc | Pass   |  |



| Antenna 1, 802.11(n) MCS7, High Channel 11, 2462 MHz |            |           |        |  |
|------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                      | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                    | -49.43 dBc | ≤ -20 dBc | Pass   |  |



## Power Spectral Density

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

### TEST EQUIPMENT

| Description              | Manufacturer       | Model    | ID  | Last Cal. | Interval |
|--------------------------|--------------------|----------|-----|-----------|----------|
| 40 GHz DC block          | Fairview Microwave | SD3379   | AMI | 10/5/2012 | 12       |
| Attenuator - 20db, 'SMA' | SM Electronics     | SA26B-20 | RFW | 4/19/2012 | 12       |
| Signal Generator MXG     | Agilent            | N5183A   | TIK | 6/7/2012  | 36       |
| Spectrum Analyzer        | Agilent            | E4446A   | AAT | 6/28/2012 | 24       |

### TEST DESCRIPTION

The maximum power spectral density measurements were measured with the EUT set to the required transmit frequencies in each band. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at the lowest, middle, and maximum data rate for each modulation type available.

Per the procedure outlined in FCC KDB 558074 D01 DTS Measurement Section 5.3.1, the spectrum analyzer was used as follows:

- RBW = 100 kHz
- VBW = 300 kHz
- Detector = Peak (to match method used for power measurement)
- Trace = Max hold

The observed power level is then scaled to an equivalent value in 3 kHz by adding a Bandwidth Correction Factor (BWCF) where:

$$\text{BWCF} = 10 \cdot \text{LOG} (3 \text{ kHz} / 100 \text{ kHz}) = -15.2 \text{ dB}$$

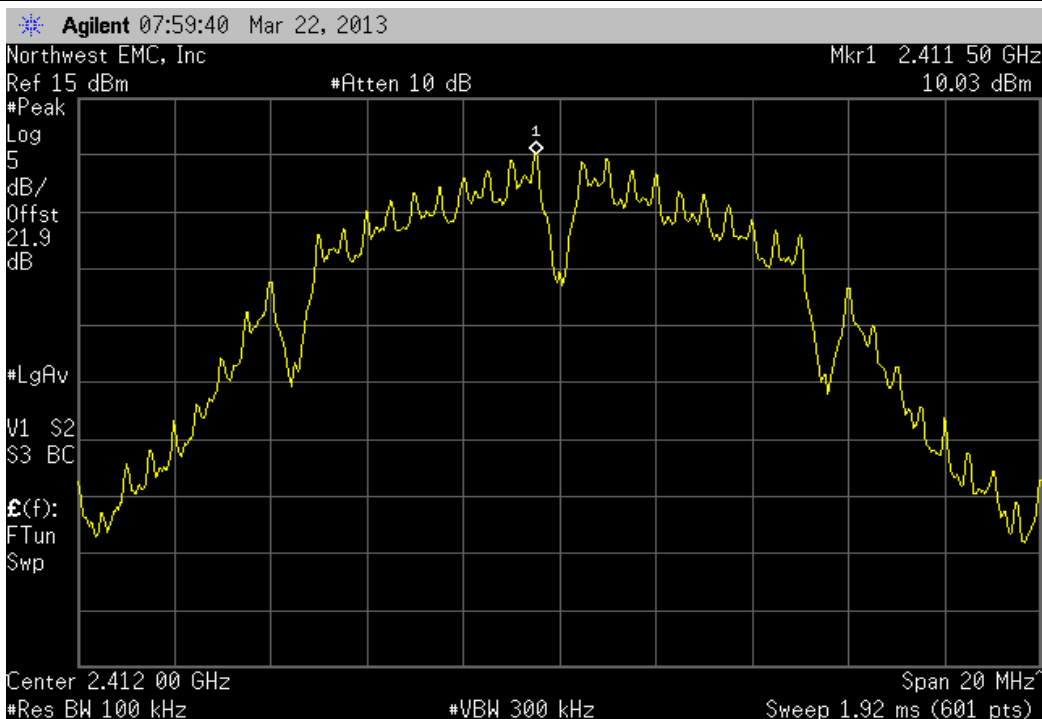


## Power Spectral Density

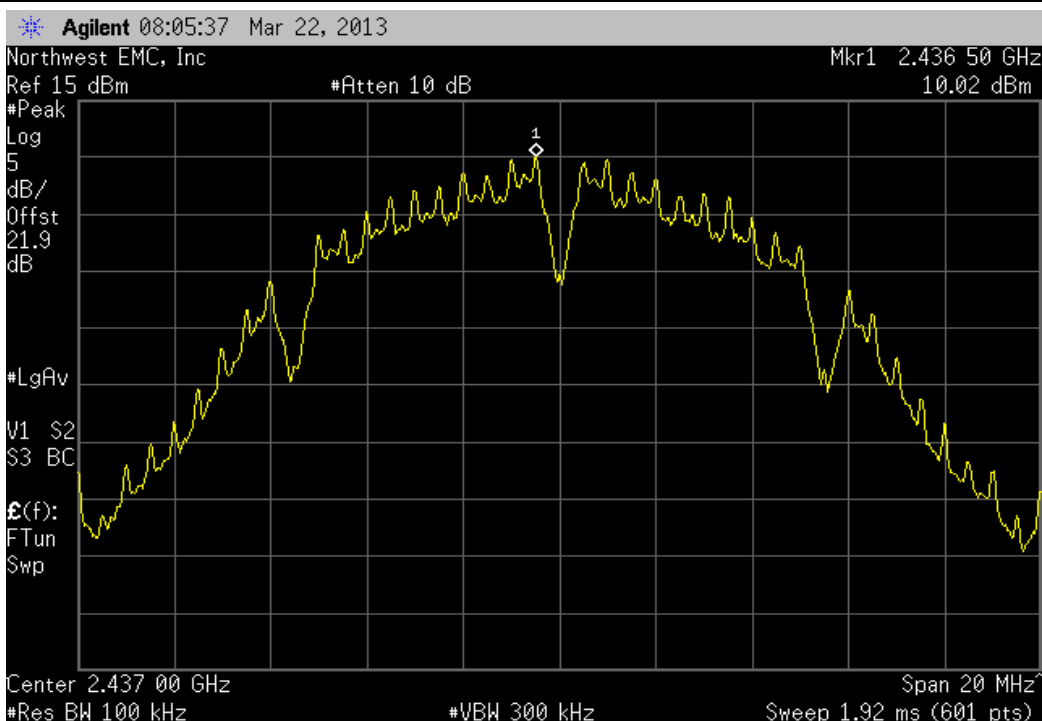
XMit 2013.02.28  
PsaTx 2013.03.22

|                                                       |   |                              |                          |          |          |
|-------------------------------------------------------|---|------------------------------|--------------------------|----------|----------|
| EUT: RTH9580WF01                                      |   |                              | Work Order: HNYW0043     |          |          |
| Serial Number: 5191101 0010638                        |   |                              | Date: 03/22/13           |          |          |
| Customer: Honeywell, Automation and Control Solutions |   |                              | Temperature: 23.9°C      |          |          |
| Attendees: None                                       |   |                              | Humidity: 13%            |          |          |
| Project: None                                         |   |                              | Barometric Pres.: 1018.5 |          |          |
| Tested by: Trevor Buls                                |   | Power: 110VAC/60Hz           | Job Site: MN05           |          |          |
| TEST SPECIFICATIONS                                   |   |                              | Test Method              |          |          |
| FCC 15.247:2013                                       |   |                              | ANSI C63.10:2009         |          |          |
| COMMENTS                                              |   |                              |                          |          |          |
| None                                                  |   |                              |                          |          |          |
| DEVIATIONS FROM TEST STANDARD                         |   |                              |                          |          |          |
| None                                                  |   |                              |                          |          |          |
| Configuration #                                       | 2 | Signature <i>Trevor Buls</i> |                          |          |          |
|                                                       |   | Value                        | dBm/100kHz               | Value    | Limit    |
|                                                       |   | dBm/100kHz                   | To dBm/3kHz              | dBm/3kHz | dBm/3kHz |
|                                                       |   | Result                       |                          |          |          |
| Antenna 0                                             |   |                              |                          |          |          |
| 802.11(b) 1 Mbps                                      |   |                              |                          |          |          |
| Low Channel 1, 2412 MHz                               |   | 10.03                        | -15.2                    | -5.17    | 8        |
| Mid Channel 6, 2437 MHz                               |   | 10.024                       | -15.2                    | -5.176   | 8        |
| High Channel 11, 2462 MHz                             |   | 9.99                         | -15.2                    | -5.21    | 8        |
| 802.11(b) 11 Mbps                                     |   |                              |                          |          |          |
| Low Channel 1, 2412 MHz                               |   | 10.125                       | -15.2                    | -5.075   | 8        |
| Mid Channel 6, 2437 MHz                               |   | 11.184                       | -15.2                    | -4.016   | 8        |
| High Channel 11, 2462 MHz                             |   | 10.303                       | -15.2                    | -4.897   | 8        |
| 802.11(g) 6 Mbps                                      |   |                              |                          |          |          |
| Low Channel 1, 2412 MHz                               |   | 1.87                         | -15.2                    | -13.33   | 8        |
| Mid Channel 6, 2437 MHz                               |   | 6.023                        | -15.2                    | -9.177   | 8        |
| High Channel 11, 2462 MHz                             |   | 1.396                        | -15.2                    | -13.804  | 8        |
| 802.11(g) 36 Mbps                                     |   |                              |                          |          |          |
| Low Channel 1, 2412 MHz                               |   | 0.797                        | -15.2                    | -14.403  | 8        |
| Mid Channel 6, 2437 MHz                               |   | 4.391                        | -15.2                    | -10.809  | 8        |
| High Channel 11, 2462 MHz                             |   | 0.314                        | -15.2                    | -14.886  | 8        |
| 802.11(g) 54 Mbps                                     |   |                              |                          |          |          |
| Low Channel 1, 2412 MHz                               |   | 0.559                        | -15.2                    | -14.641  | 8        |
| Mid Channel 6, 2437 MHz                               |   | 5.02                         | -15.2                    | -10.18   | 8        |
| High Channel 11, 2462 MHz                             |   | 0.406                        | -15.2                    | -14.794  | 8        |
| 802.11(n) MCS0                                        |   |                              |                          |          |          |
| Low Channel 1, 2412 MHz                               |   | 0.571                        | -15.2                    | -14.629  | 8        |
| Mid Channel 6, 2437 MHz                               |   | 4.539                        | -15.2                    | -10.661  | 8        |
| High Channel 11, 2462 MHz                             |   | 0.405                        | -15.2                    | -14.795  | 8        |
| 802.11(n) MCS7                                        |   |                              |                          |          |          |
| Low Channel 1, 2412 MHz                               |   | -0.489                       | -15.2                    | -15.689  | 8        |
| Mid Channel 6, 2437 MHz                               |   | 3.634                        | -15.2                    | -11.566  | 8        |
| High Channel 11, 2462 MHz                             |   | 0.101                        | -15.2                    | -15.099  | 8        |
| Antenna 1                                             |   |                              |                          |          |          |
| 802.11(b) 1 Mbps                                      |   |                              |                          |          |          |
| Low Channel 1, 2412 MHz                               |   | 10.189                       | -15.2                    | -5.011   | 8        |
| Mid Channel 6, 2437 MHz                               |   | 10.019                       | -15.2                    | -5.181   | 8        |
| High Channel 11, 2462 MHz                             |   | 10.055                       | -15.2                    | -5.145   | 8        |
| 802.11(b) 11 Mbps                                     |   |                              |                          |          |          |
| Low Channel 1, 2412 MHz                               |   | 11.142                       | -15.2                    | -4.058   | 8        |
| Mid Channel 6, 2437 MHz                               |   | 11.158                       | -15.2                    | -4.042   | 8        |
| High Channel 11, 2462 MHz                             |   | 11.163                       | -15.2                    | -4.037   | 8        |
| 802.11(g) 6 Mbps                                      |   |                              |                          |          |          |
| Low Channel 1, 2412 MHz                               |   | 2.274                        | -15.2                    | -12.926  | 8        |
| Mid Channel 6, 2437 MHz                               |   | 7.049                        | -15.2                    | -8.151   | 8        |
| High Channel 11, 2462 MHz                             |   | 2.169                        | -15.2                    | -13.031  | 8        |
| 802.11(g) 36 Mbps                                     |   |                              |                          |          |          |
| Low Channel 1, 2412 MHz                               |   | 1.873                        | -15.2                    | -13.327  | 8        |
| Mid Channel 6, 2437 MHz                               |   | 6.079                        | -15.2                    | -9.121   | 8        |
| High Channel 11, 2462 MHz                             |   | 1.291                        | -15.2                    | -13.909  | 8        |
| 802.11(g) 54 Mbps                                     |   |                              |                          |          |          |
| Low Channel 1, 2412 MHz                               |   | 1.901                        | -15.2                    | -13.299  | 8        |
| Mid Channel 6, 2437 MHz                               |   | 5.858                        | -15.2                    | -9.342   | 8        |
| High Channel 11, 2462 MHz                             |   | 1.335                        | -15.2                    | -13.865  | 8        |
| 802.11(n) MCS0                                        |   |                              |                          |          |          |
| Low Channel 1, 2412 MHz                               |   | 2.188                        | -15.2                    | -13.012  | 8        |
| Mid Channel 6, 2437 MHz                               |   | 5.842                        | -15.2                    | -9.358   | 8        |
| High Channel 11, 2462 MHz                             |   | 0.49                         | -15.2                    | -14.71   | 8        |
| 802.11(n) MCS7                                        |   |                              |                          |          |          |
| Low Channel 1, 2412 MHz                               |   | -0.398                       | -15.2                    | -15.598  | 8        |
| Mid Channel 6, 2437 MHz                               |   | 4.201                        | -15.2                    | -10.999  | 8        |
| High Channel 11, 2462 MHz                             |   | -0.536                       | -15.2                    | -15.736  | 8        |

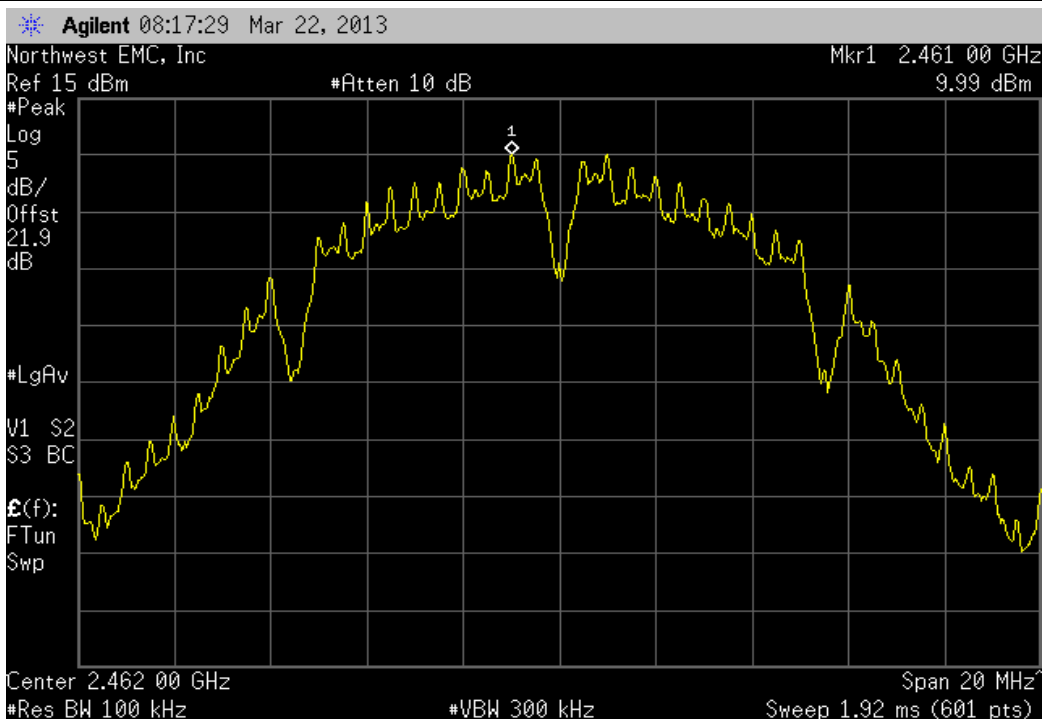
| Antenna 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz |       |            |             |       |       |        |
|------------------------------------------------------|-------|------------|-------------|-------|-------|--------|
|                                                      | Value | dBm/100kHz | To dBm/3kHz | Value | Limit | Result |
|                                                      |       | 10.03      | -15.2       | -5.17 | 8     | Pass   |



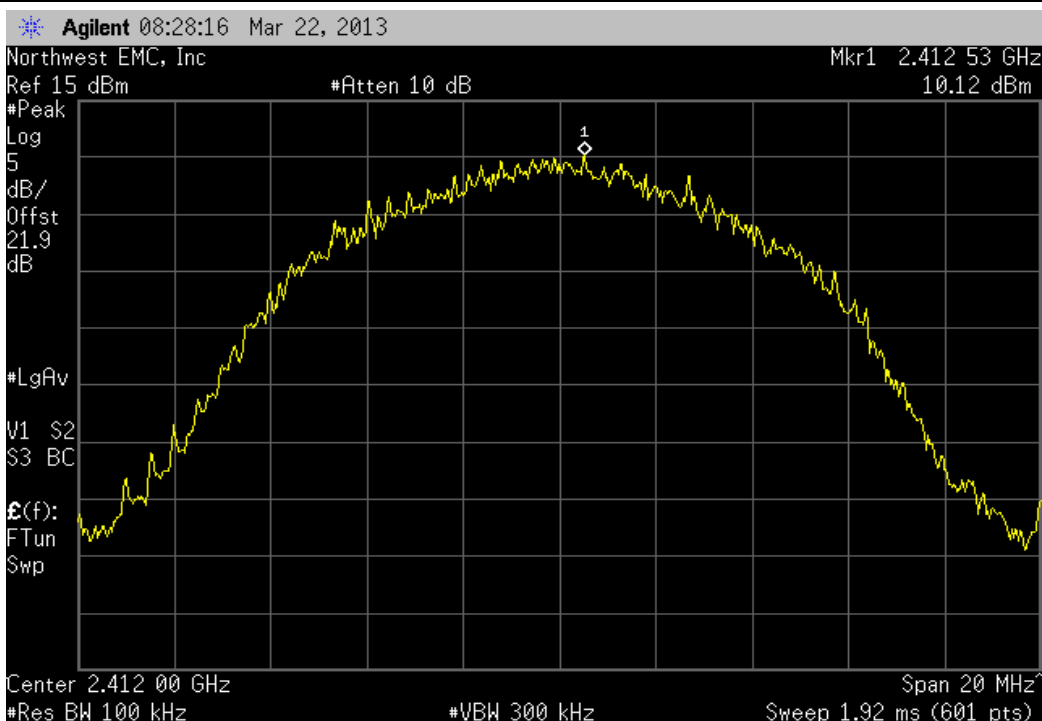
| Antenna 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz |       |            |             |        |       |        |
|------------------------------------------------------|-------|------------|-------------|--------|-------|--------|
|                                                      | Value | dBm/100kHz | To dBm/3kHz | Value  | Limit | Result |
|                                                      |       | 10.024     | -15.2       | -5.176 | 8     | Pass   |



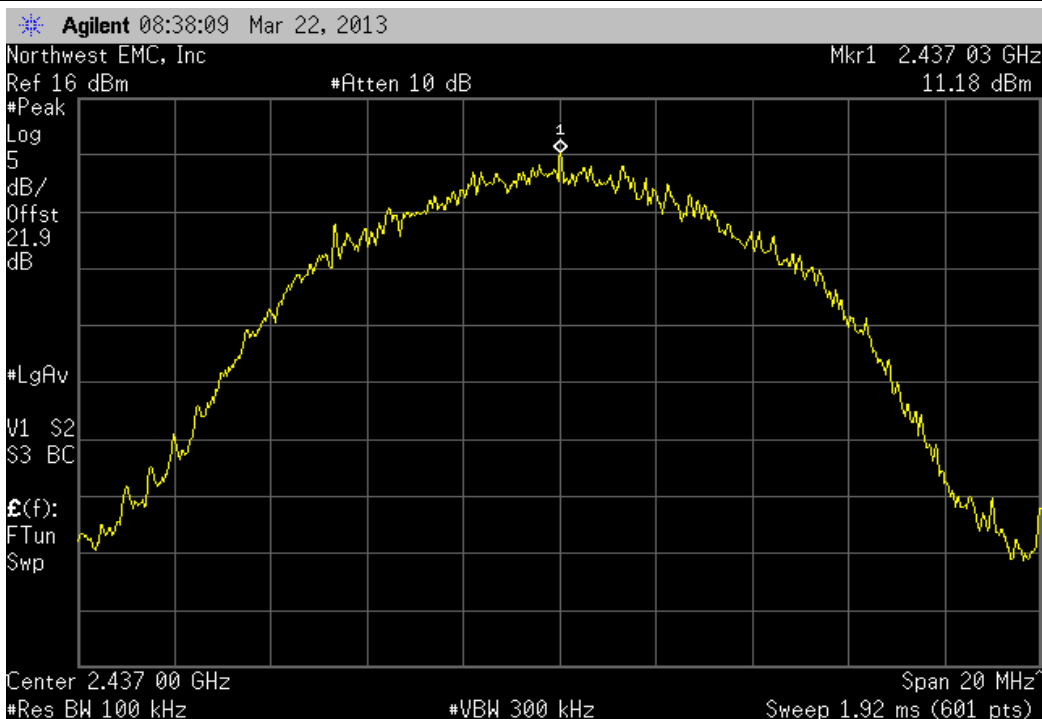
| Antenna 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz |       |             |          |          |        |  |
|--------------------------------------------------------|-------|-------------|----------|----------|--------|--|
|                                                        | Value | dBm/100kHz  | Value    | Limit    | Result |  |
|                                                        |       | To dBm/3kHz | dBm/3kHz | dBm/3kHz |        |  |
|                                                        | 9.99  | -15.2       | -5.21    | 8        | Pass   |  |



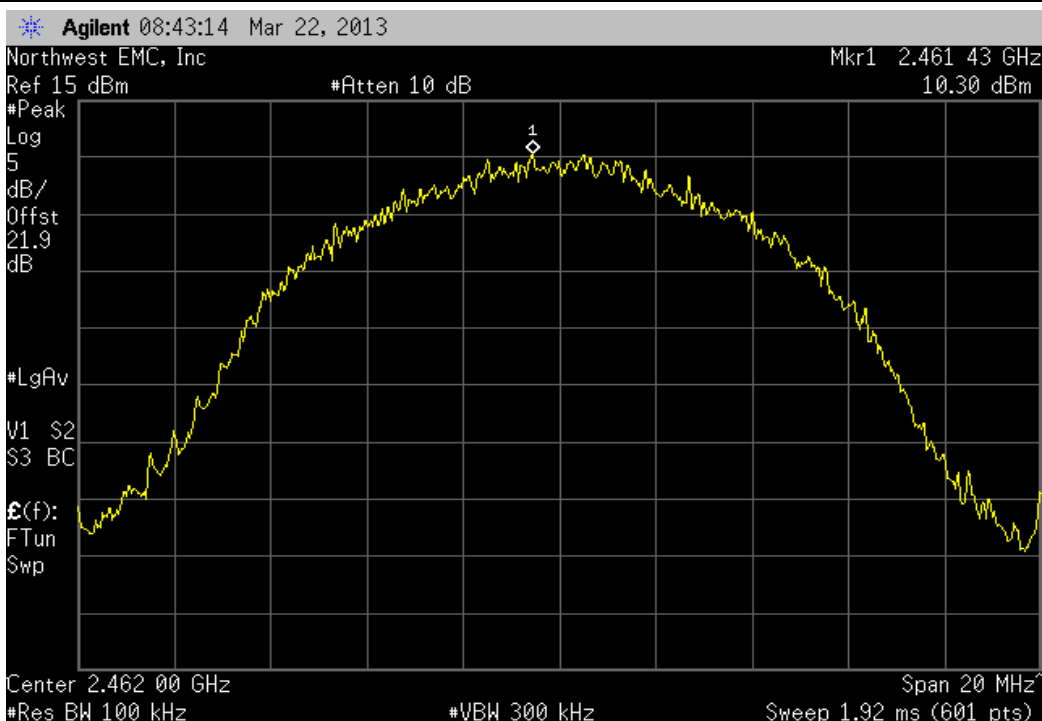
| Antenna 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |        |             |          |          |        |  |
|-------------------------------------------------------|--------|-------------|----------|----------|--------|--|
|                                                       | Value  | dBm/100kHz  | Value    | Limit    | Result |  |
|                                                       |        | To dBm/3kHz | dBm/3kHz | dBm/3kHz |        |  |
|                                                       | 10.125 | -15.2       | -5.075   | 8        | Pass   |  |



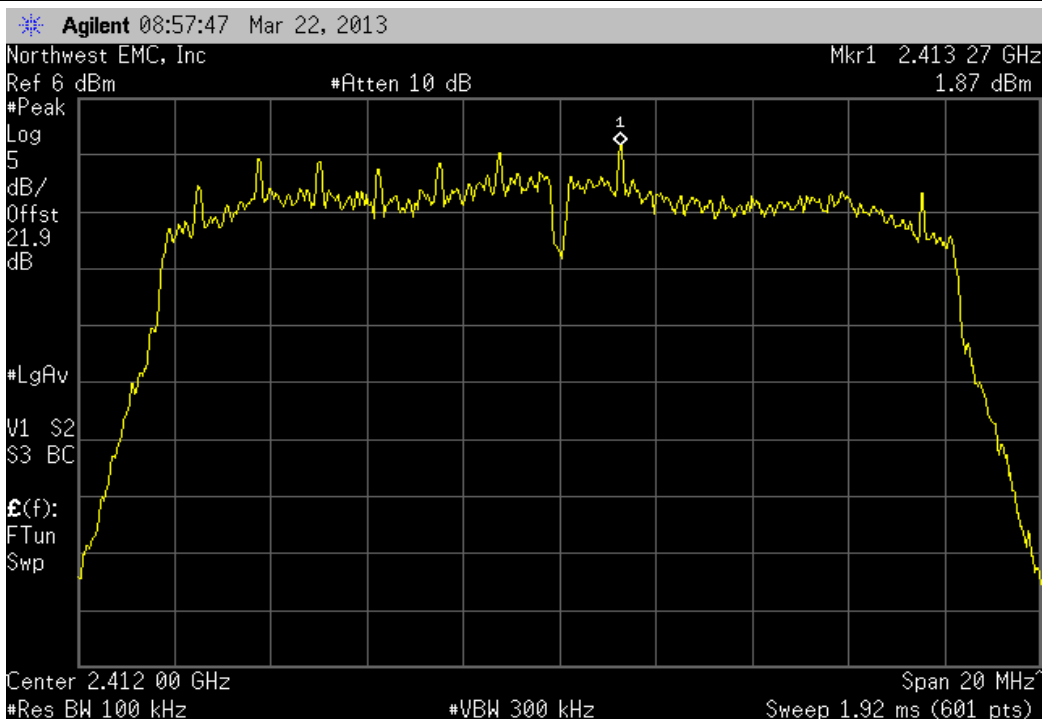
| Antenna 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz |       |            |             |          |          |        |
|-------------------------------------------------------|-------|------------|-------------|----------|----------|--------|
|                                                       | Value | dBm/100kHz | To dBm/3kHz | Value    | Limit    | Result |
|                                                       |       | dBm/100kHz |             | dBm/3kHz | dBm/3kHz |        |
|                                                       |       | 11.184     | -15.2       | -4.016   | 8        | Pass   |



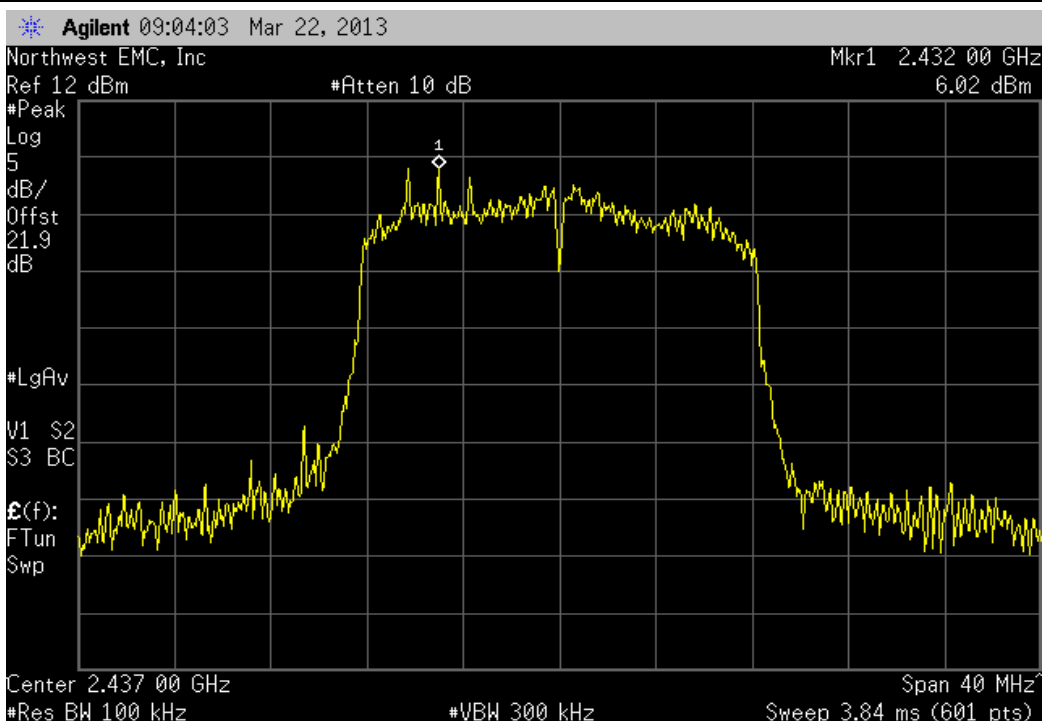
| Antenna 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz |       |            |             |          |          |        |
|---------------------------------------------------------|-------|------------|-------------|----------|----------|--------|
|                                                         | Value | dBm/100kHz | To dBm/3kHz | Value    | Limit    | Result |
|                                                         |       | dBm/100kHz |             | dBm/3kHz | dBm/3kHz |        |
|                                                         |       | 10.303     | -15.2       | -4.897   | 8        | Pass   |



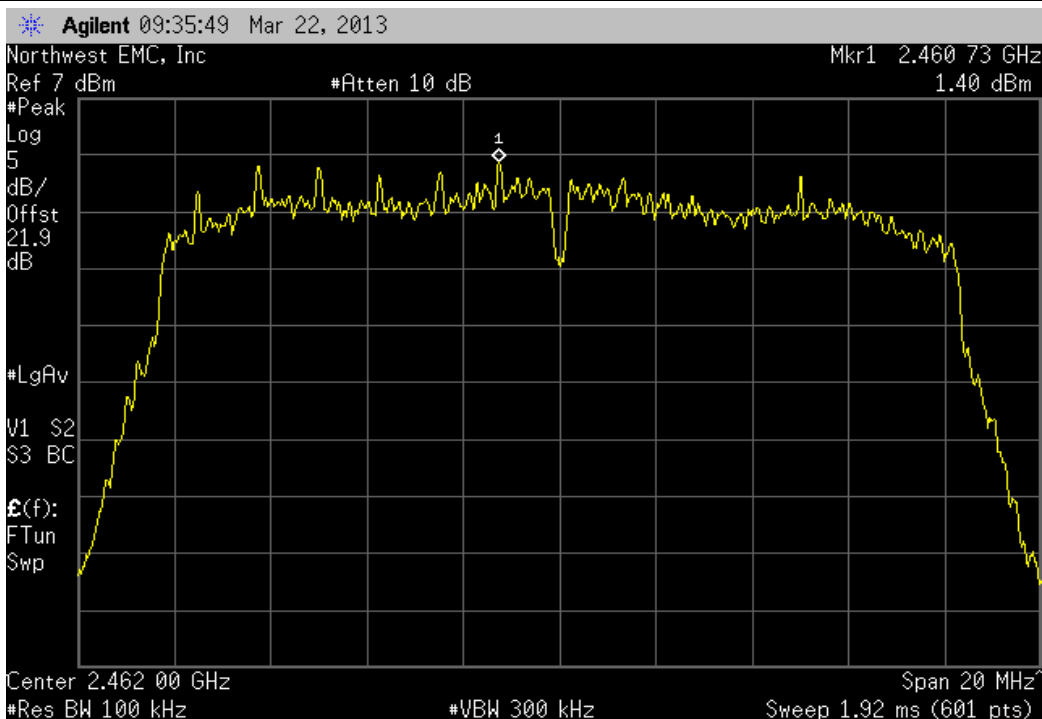
| Antenna 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz |       |            |             |        |       |        |
|------------------------------------------------------|-------|------------|-------------|--------|-------|--------|
|                                                      | Value | dBm/100kHz | To dBm/3kHz | Value  | Limit | Result |
|                                                      |       |            |             |        |       |        |
|                                                      |       | 1.87       | -15.2       | -13.33 | 8     | Pass   |



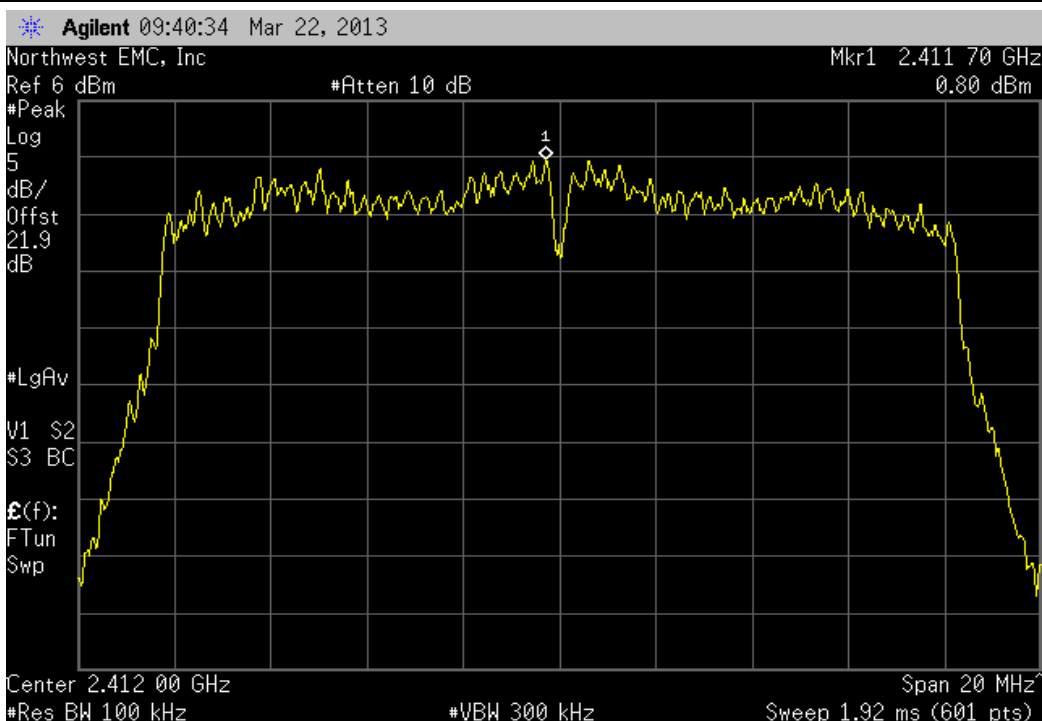
| Antenna 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz |       |            |             |        |       |        |
|------------------------------------------------------|-------|------------|-------------|--------|-------|--------|
|                                                      | Value | dBm/100kHz | To dBm/3kHz | Value  | Limit | Result |
|                                                      |       |            |             |        |       |        |
|                                                      |       | 6.023      | -15.2       | -9.177 | 8     | Pass   |



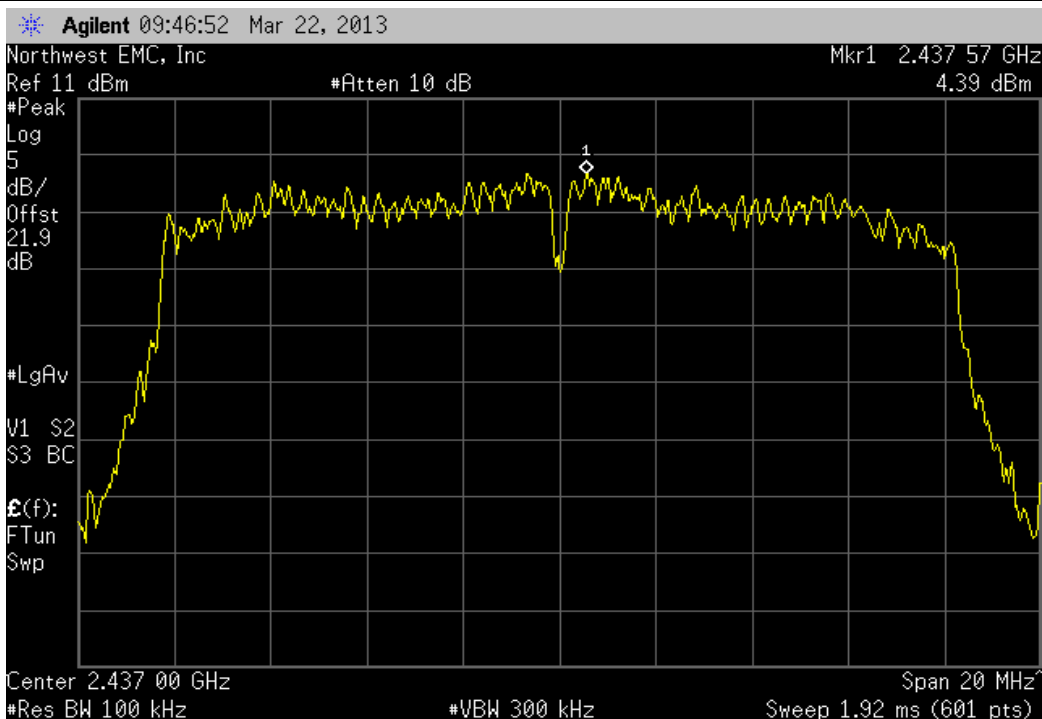
| Antenna 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |            |             |          |          |        |  |
|--------------------------------------------------------|------------|-------------|----------|----------|--------|--|
|                                                        | Value      | dBm/100kHz  | Value    | Limit    |        |  |
|                                                        | dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz | Result |  |
|                                                        | 1.396      | -15.2       | -13.804  | 8        | Pass   |  |



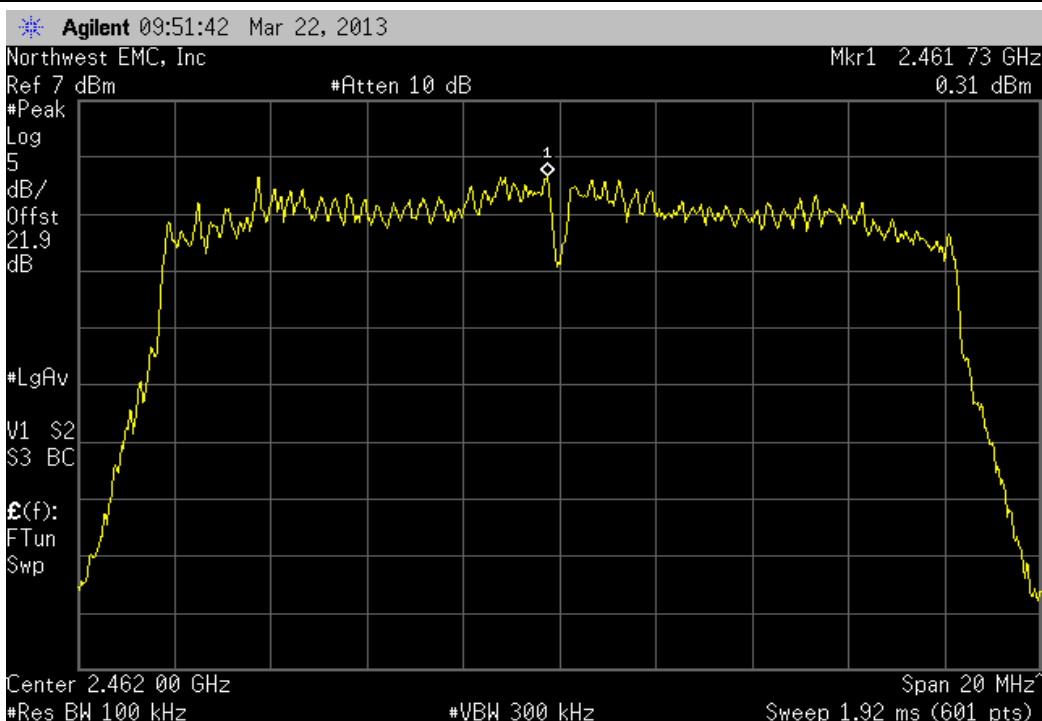
| Antenna 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz |            |             |          |          |        |  |
|-------------------------------------------------------|------------|-------------|----------|----------|--------|--|
|                                                       | Value      | dBm/100kHz  | Value    | Limit    |        |  |
|                                                       | dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz | Result |  |
|                                                       | 0.797      | -15.2       | -14.403  | 8        | Pass   |  |



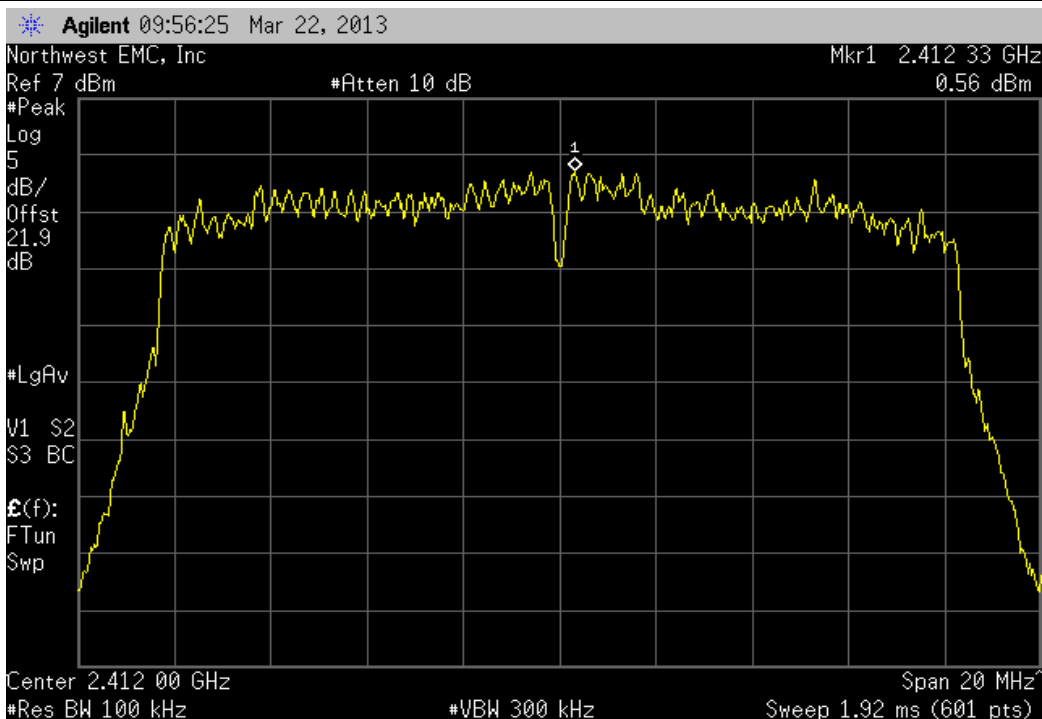
| Antenna 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz |       |             |          |       |        |
|-------------------------------------------------------|-------|-------------|----------|-------|--------|
|                                                       | Value | dBm/100kHz  | Value    | Limit | Result |
|                                                       |       | To dBm/3kHz | dBm/3kHz |       |        |
|                                                       | 4.391 | -15.2       | -10.809  | 8     | Pass   |



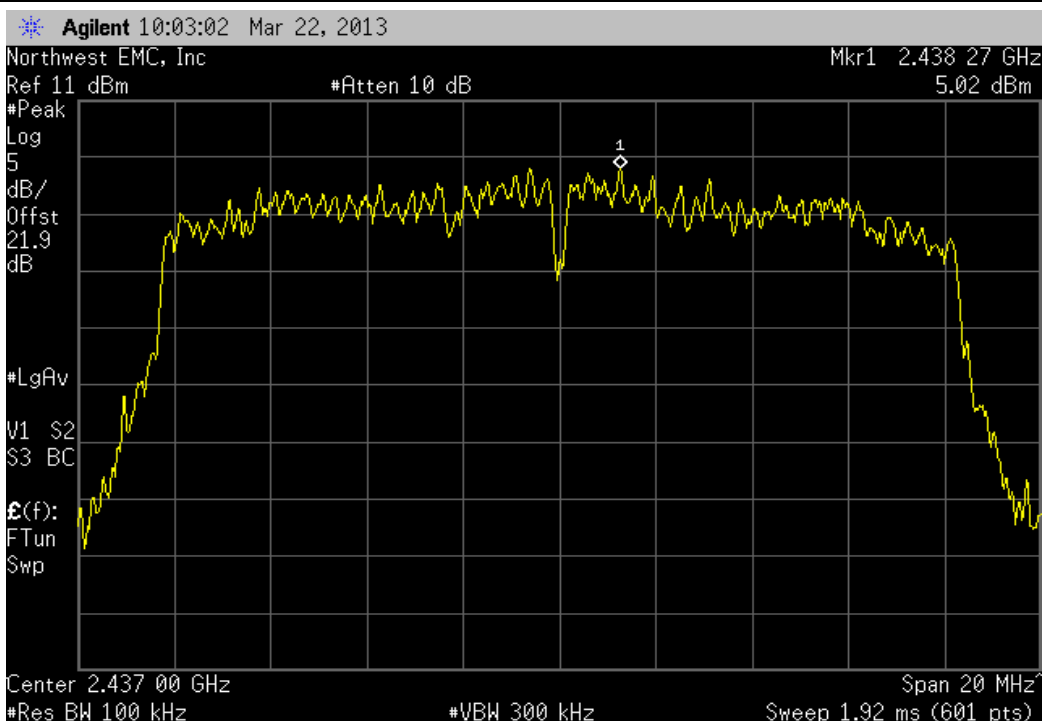
| Antenna 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz |       |             |          |       |        |
|---------------------------------------------------------|-------|-------------|----------|-------|--------|
|                                                         | Value | dBm/100kHz  | Value    | Limit | Result |
|                                                         |       | To dBm/3kHz | dBm/3kHz |       |        |
|                                                         | 0.314 | -15.2       | -14.886  | 8     | Pass   |



| Antenna 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz |       |            |             |         |       |        |
|-------------------------------------------------------|-------|------------|-------------|---------|-------|--------|
|                                                       | Value | dBm/100kHz | To dBm/3kHz | Value   | Limit | Result |
|                                                       |       | 0.559      | -15.2       | -14.641 | 8     | Pass   |

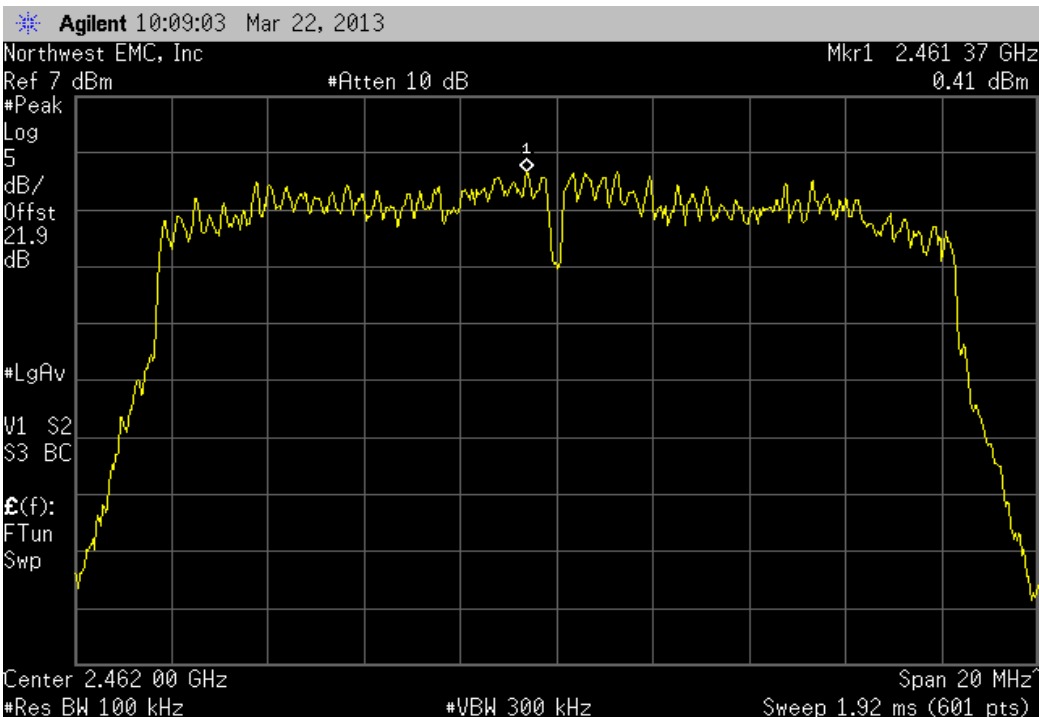


| Antenna 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz |       |            |             |        |       |        |
|-------------------------------------------------------|-------|------------|-------------|--------|-------|--------|
|                                                       | Value | dBm/100kHz | To dBm/3kHz | Value  | Limit | Result |
|                                                       |       | 5.02       | -15.2       | -10.18 | 8     | Pass   |



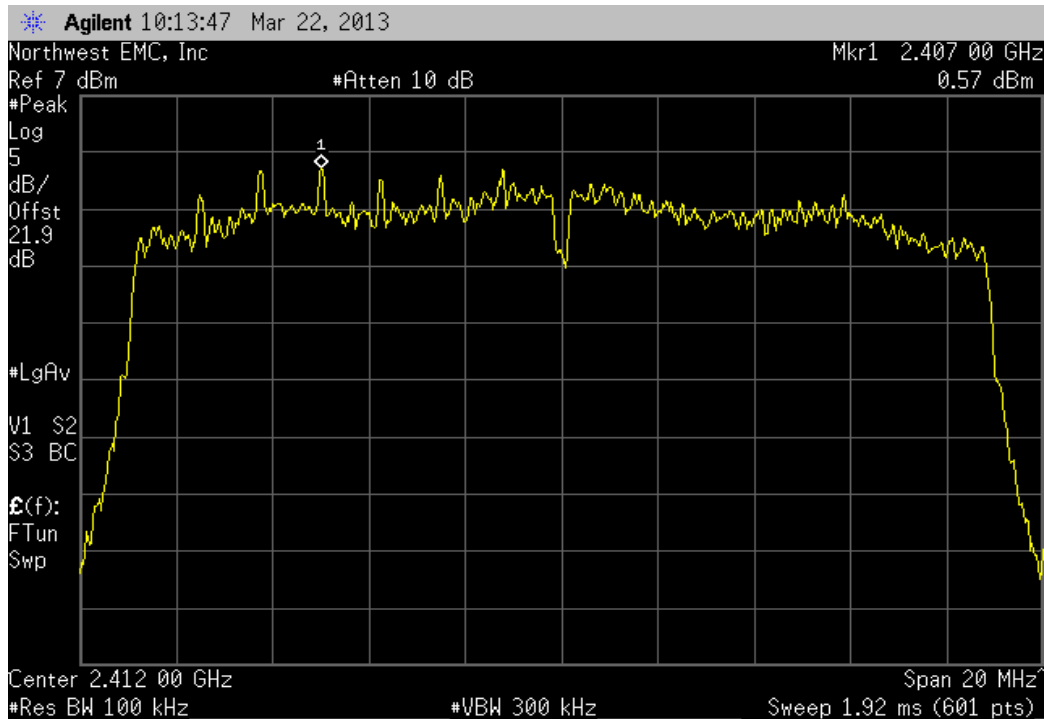
Antenna 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz

| Value      | dBm/100kHz  | Value    | Limit    | Result |
|------------|-------------|----------|----------|--------|
| dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz |        |
| 0.406      | -15.2       | -14.794  | 8        | Pass   |

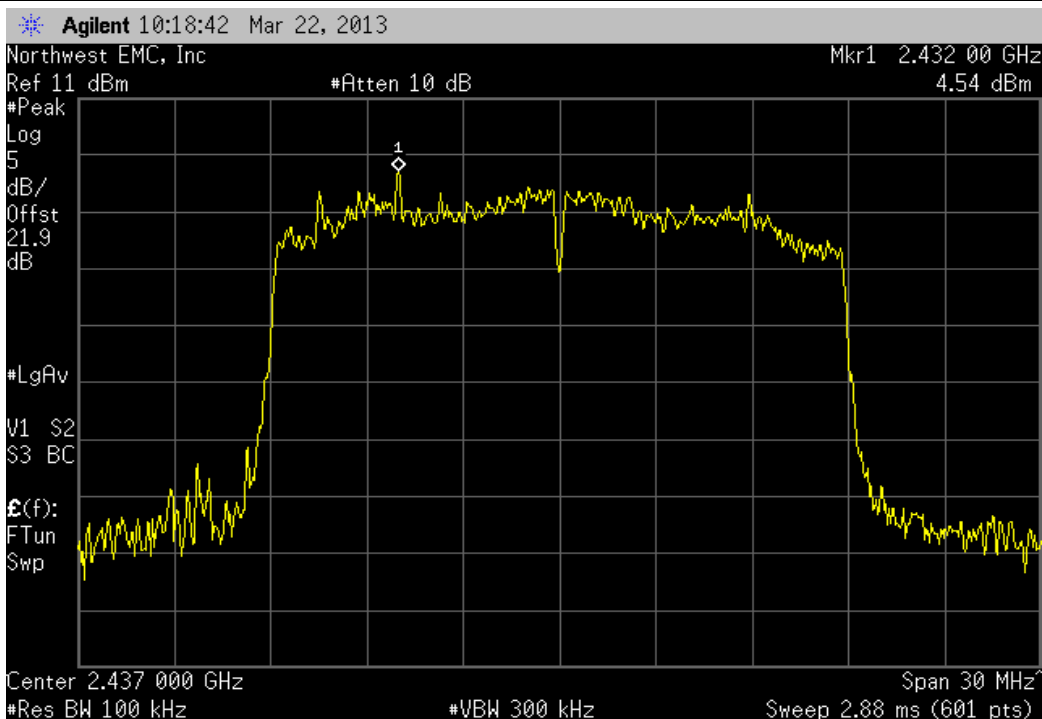


Antenna 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz

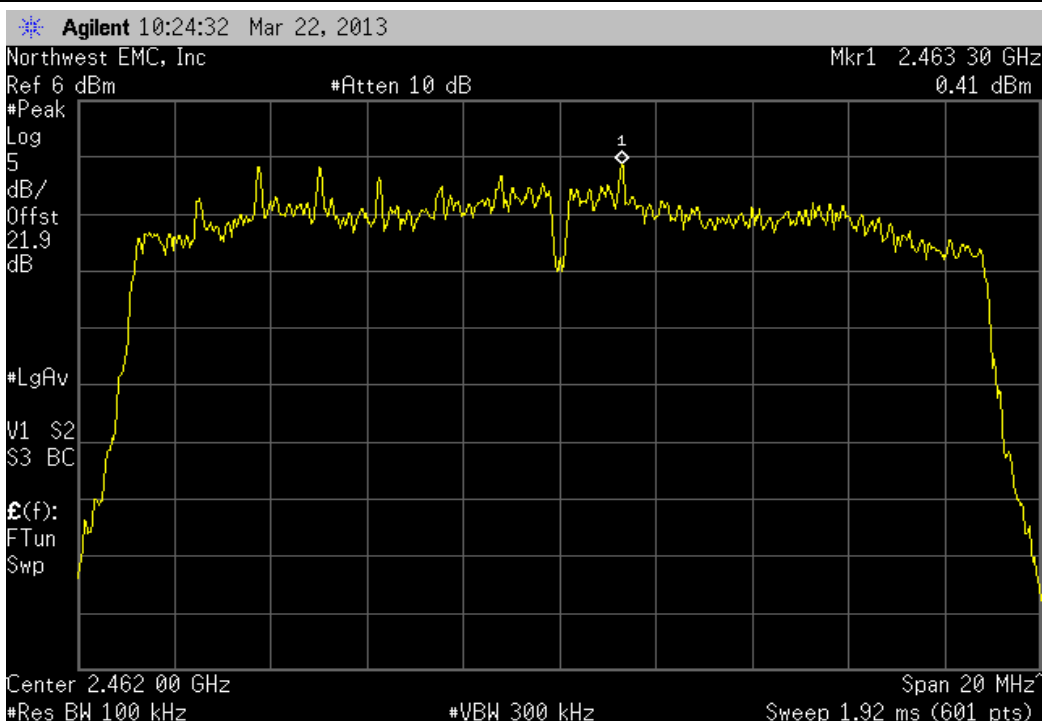
| Value      | dBm/100kHz  | Value    | Limit    | Result |
|------------|-------------|----------|----------|--------|
| dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz |        |
| 0.571      | -15.2       | -14.629  | 8        | Pass   |



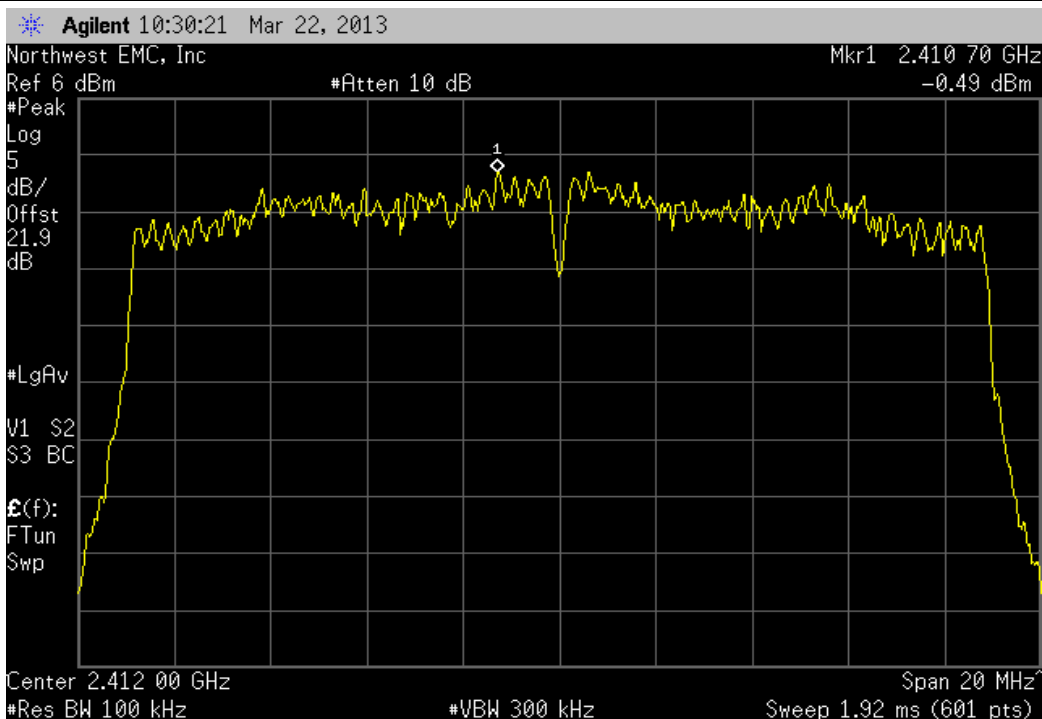
| Antenna 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz |            |             |          |          |        |  |
|----------------------------------------------------|------------|-------------|----------|----------|--------|--|
|                                                    | Value      | dBm/100kHz  | Value    | Limit    | Result |  |
|                                                    | dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz |        |  |
|                                                    | 4.539      | -15.2       | -10.661  | 8        | Pass   |  |



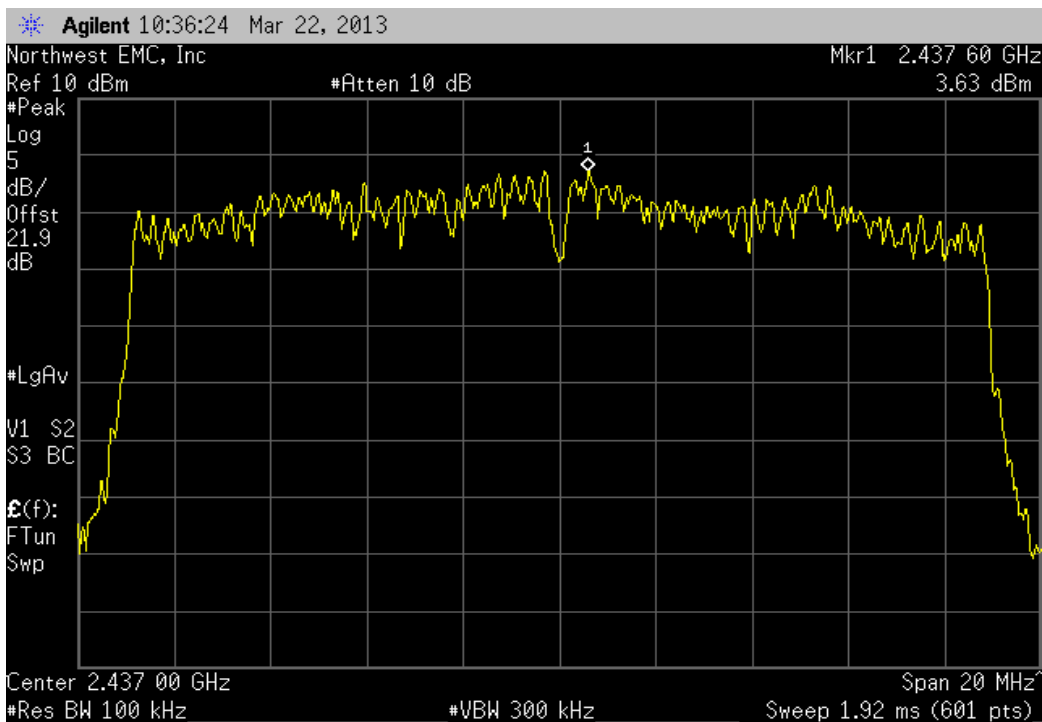
| Antenna 0, 802.11(n) MCS0, High Channel 11, 2462 MHz |            |             |          |          |        |  |
|------------------------------------------------------|------------|-------------|----------|----------|--------|--|
|                                                      | Value      | dBm/100kHz  | Value    | Limit    | Result |  |
|                                                      | dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz |        |  |
|                                                      | 0.405      | -15.2       | -14.795  | 8        | Pass   |  |



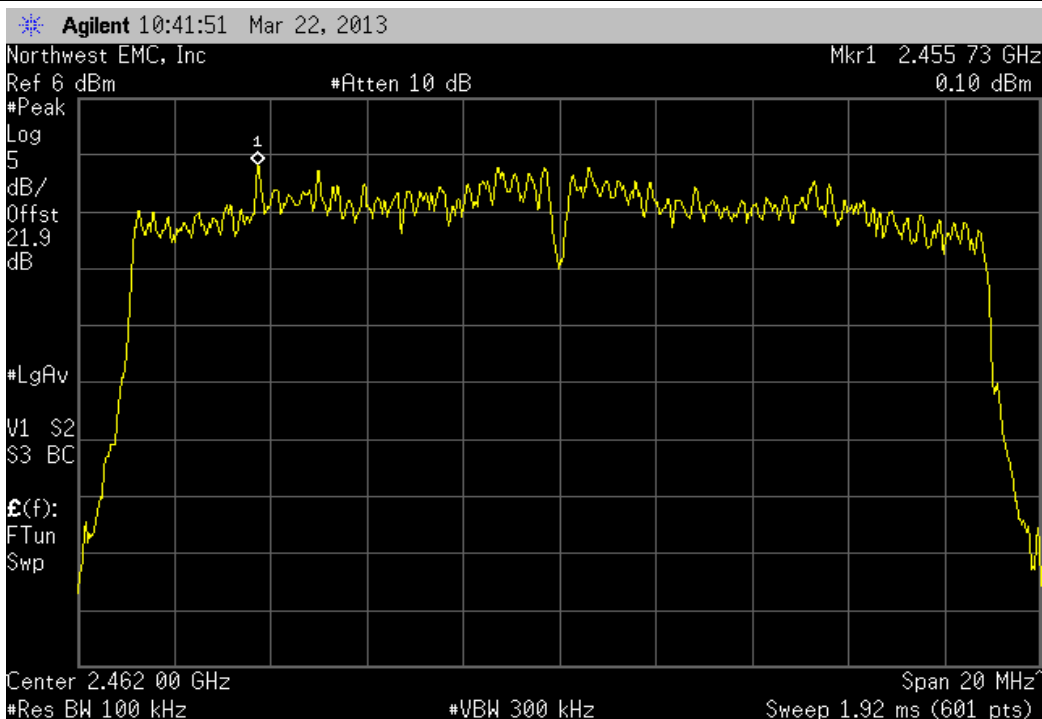
| Antenna 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz |            |             |          |          |        |  |
|----------------------------------------------------|------------|-------------|----------|----------|--------|--|
|                                                    | Value      | dBm/100kHz  | Value    | Limit    |        |  |
|                                                    | dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz | Result |  |
|                                                    | -0.489     | -15.2       | -15.689  | 8        | Pass   |  |



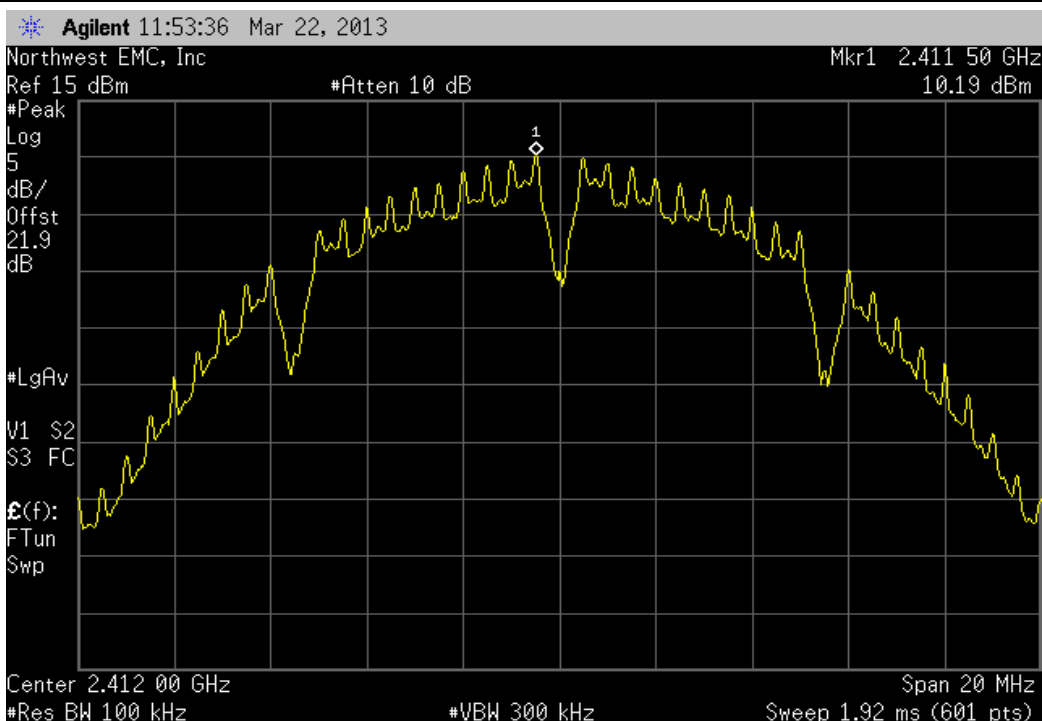
| Antenna 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz |            |             |          |          |        |  |
|----------------------------------------------------|------------|-------------|----------|----------|--------|--|
|                                                    | Value      | dBm/100kHz  | Value    | Limit    |        |  |
|                                                    | dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz | Result |  |
|                                                    | 3.634      | -15.2       | -11.566  | 8        | Pass   |  |



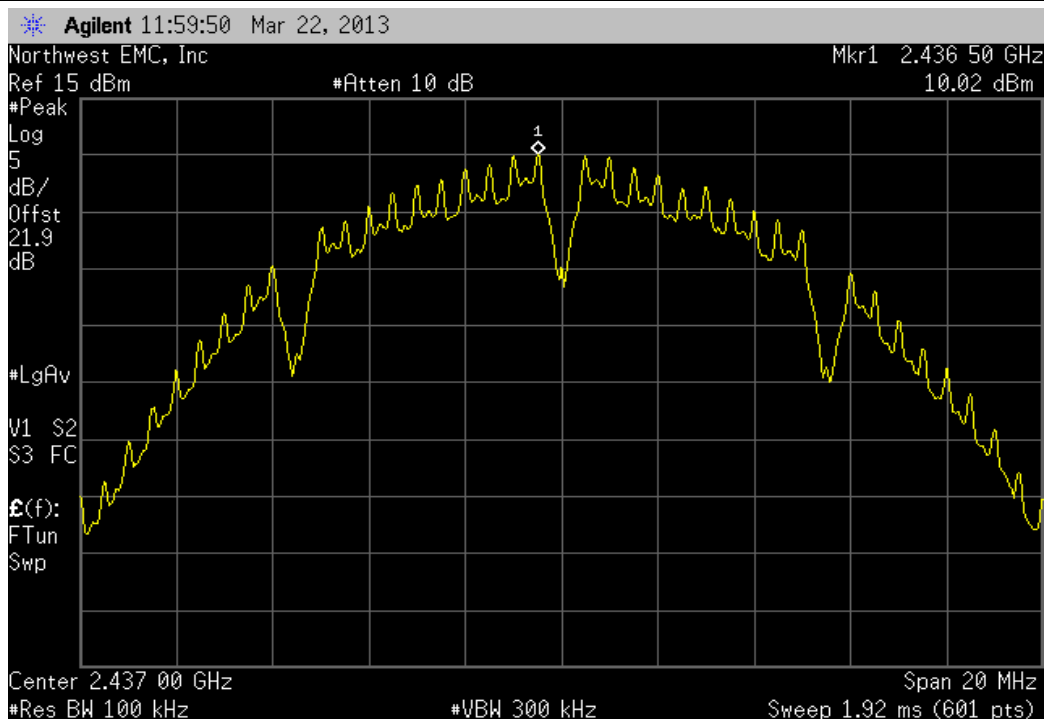
| Antenna 0, 802.11(n) MCS7, High Channel 11, 2462 MHz |            |             |          |          |        |  |
|------------------------------------------------------|------------|-------------|----------|----------|--------|--|
|                                                      | Value      | dBm/100kHz  | Value    | Limit    | Result |  |
|                                                      | dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz |        |  |
|                                                      | 0.101      | -15.2       | -15.099  | 8        | Pass   |  |



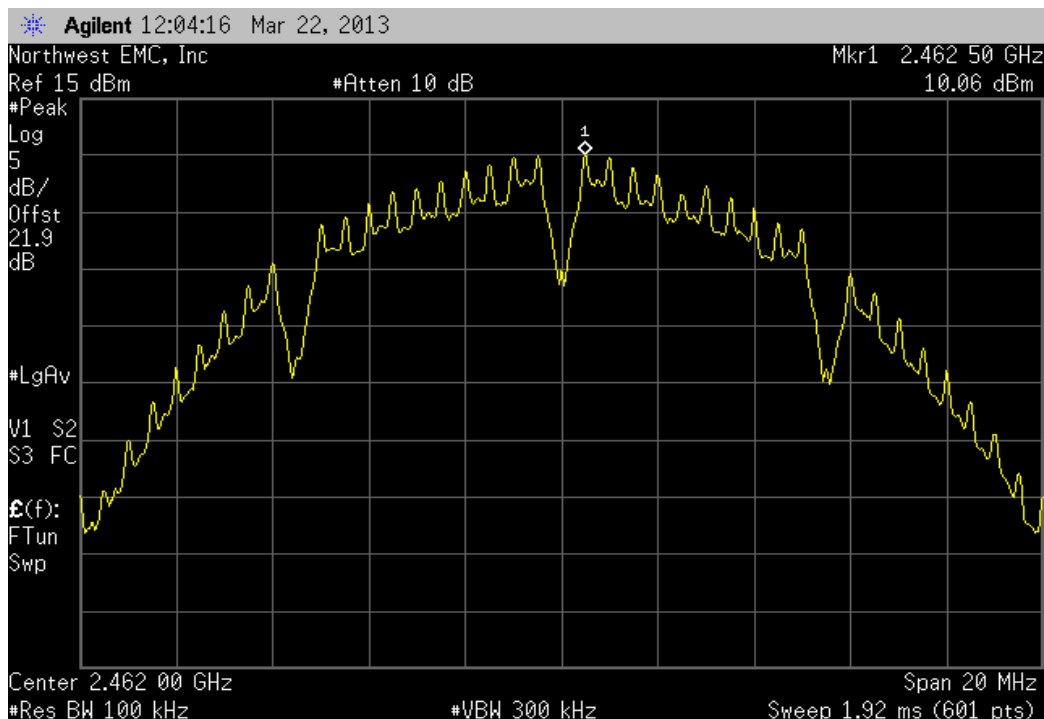
| Antenna 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz |            |             |          |          |        |  |
|------------------------------------------------------|------------|-------------|----------|----------|--------|--|
|                                                      | Value      | dBm/100kHz  | Value    | Limit    | Result |  |
|                                                      | dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz |        |  |
|                                                      | 10.189     | -15.2       | -5.011   | 8        | Pass   |  |



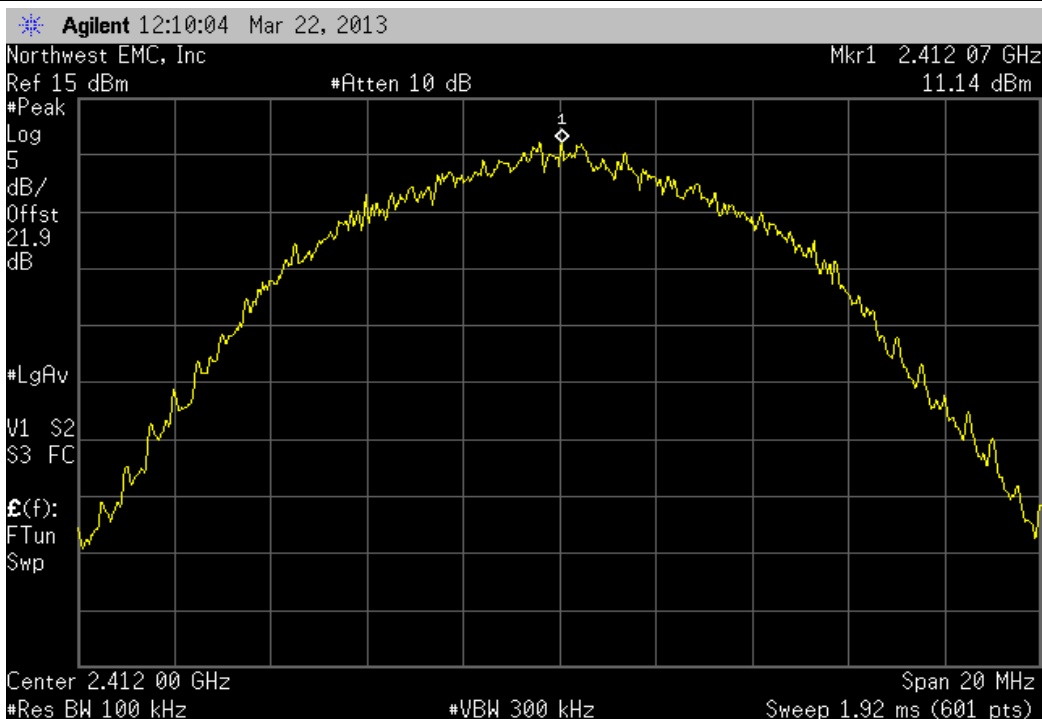
| Antenna 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz |        |             |          |  |          |
|------------------------------------------------------|--------|-------------|----------|--|----------|
| Value                                                |        | dBm/100kHz  | Value    |  | Limit    |
| dBm/100kHz                                           |        | To dBm/3kHz | dBm/3kHz |  | dBm/3kHz |
|                                                      | 10.019 | -15.2       | -5.181   |  | 8        |
|                                                      |        |             |          |  | Pass     |



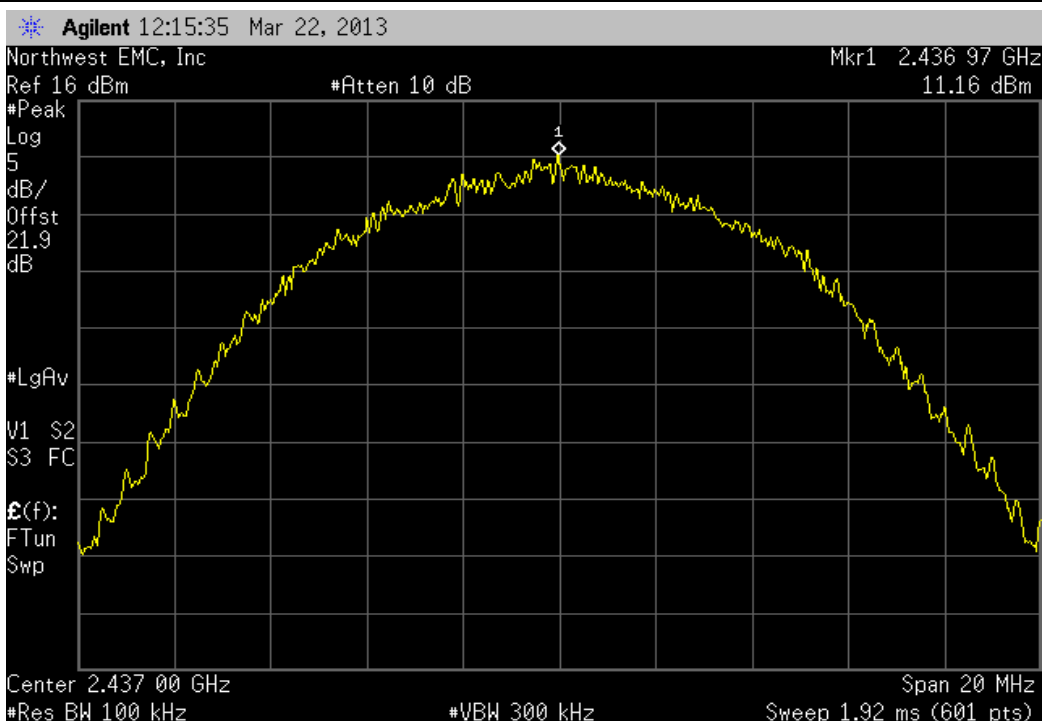
| Antenna 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz |            |             |          |          |          |        |
|--------------------------------------------------------|------------|-------------|----------|----------|----------|--------|
| Value                                                  |            | dBm/100kHz  | Value    |          | Limit    | Result |
|                                                        | dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz | dBm/3kHz |        |
|                                                        | 10.055     | -15.2       | -5.145   | 8        | Pass     |        |



| Antenna 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |       |            |             |          |          |        |
|-------------------------------------------------------|-------|------------|-------------|----------|----------|--------|
|                                                       | Value | dBm/100kHz | To dBm/3kHz | Value    | Limit    | Result |
|                                                       |       | dBm/100kHz |             | dBm/3kHz | dBm/3kHz |        |
|                                                       |       | 11.142     | -15.2       | -4.058   | 8        | Pass   |

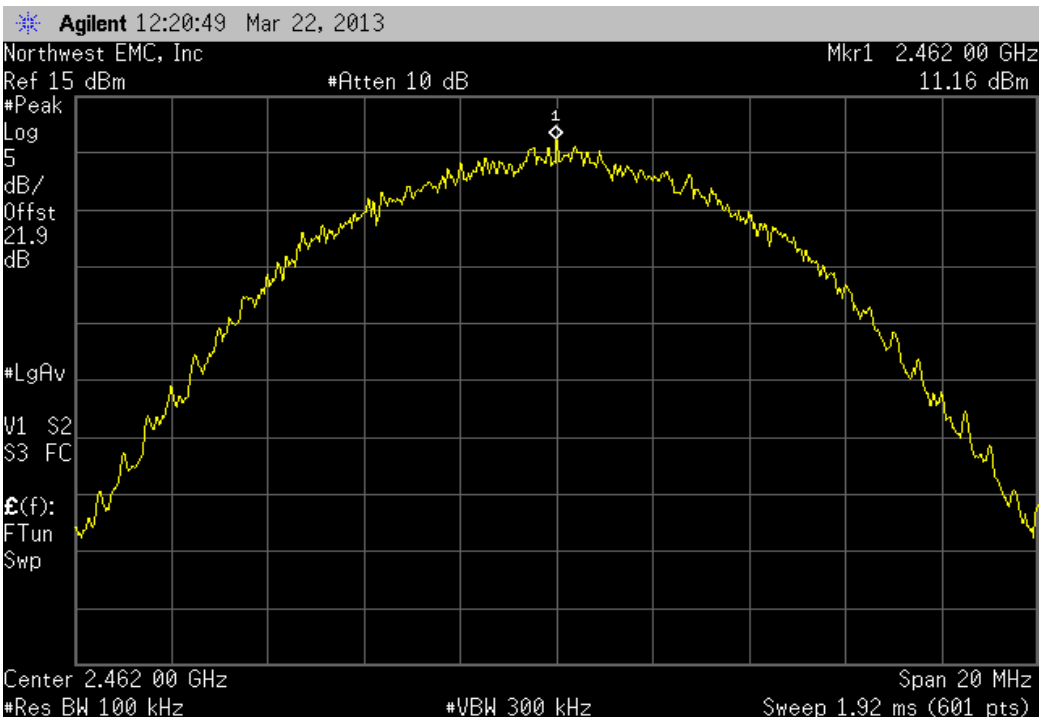


| Antenna 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz |       |            |             |          |          |        |
|-------------------------------------------------------|-------|------------|-------------|----------|----------|--------|
|                                                       | Value | dBm/100kHz | To dBm/3kHz | Value    | Limit    | Result |
|                                                       |       | dBm/100kHz |             | dBm/3kHz | dBm/3kHz |        |
|                                                       |       | 11.158     | -15.2       | -4.042   | 8        | Pass   |



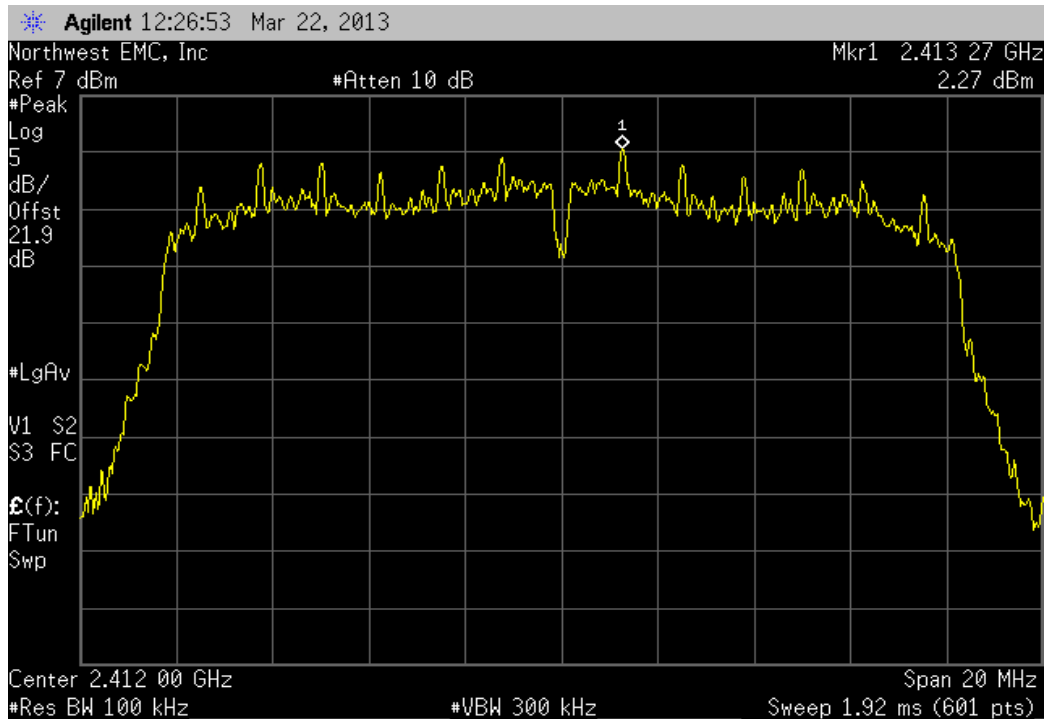
Antenna 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz

| Value      | dBm/100kHz  | Value    | Limit    | Result |
|------------|-------------|----------|----------|--------|
| dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz |        |
| 11.163     | -15.2       | -4.037   | 8        | Pass   |

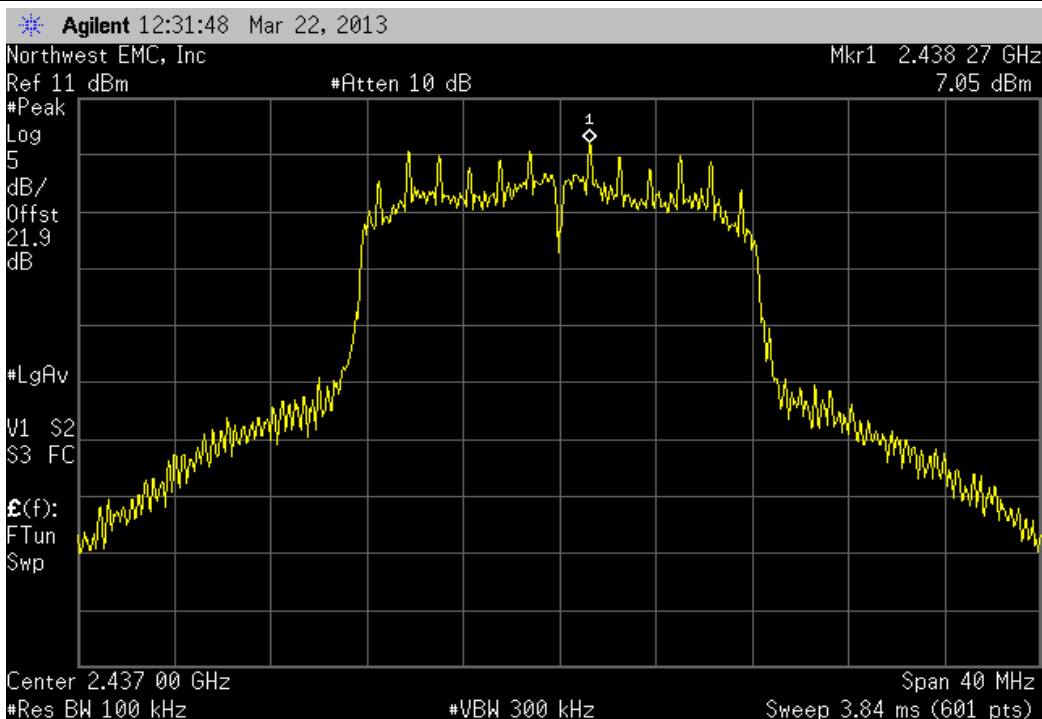


Antenna 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz

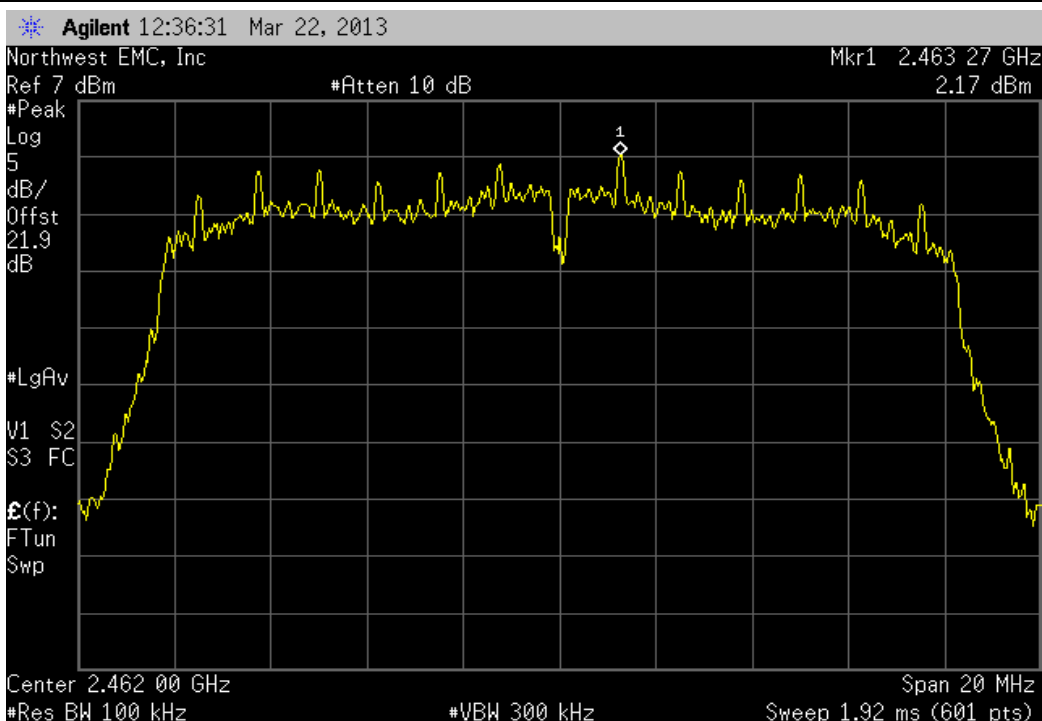
| Value      | dBm/100kHz  | Value    | Limit    | Result |
|------------|-------------|----------|----------|--------|
| dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz |        |
| 2.274      | -15.2       | -12.926  | 8        | Pass   |



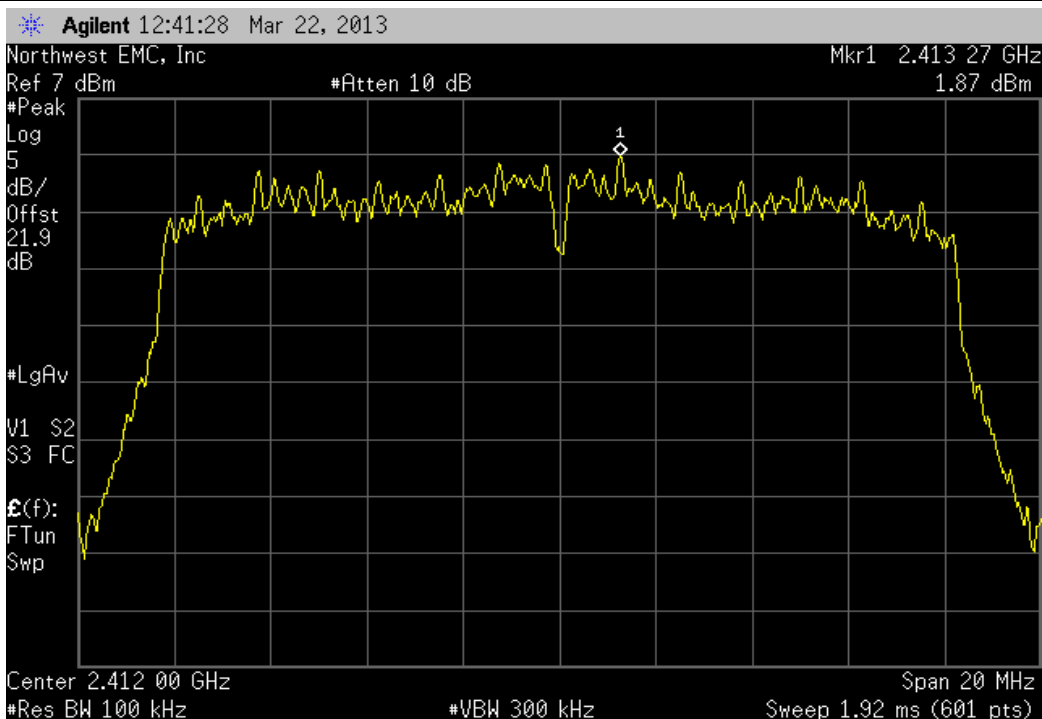
| Antenna 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz |       |            |             |        |       |        |
|------------------------------------------------------|-------|------------|-------------|--------|-------|--------|
|                                                      | Value | dBm/100kHz | To dBm/3kHz | Value  | Limit | Result |
|                                                      |       | 7.049      | -15.2       | -8.151 | 8     | Pass   |



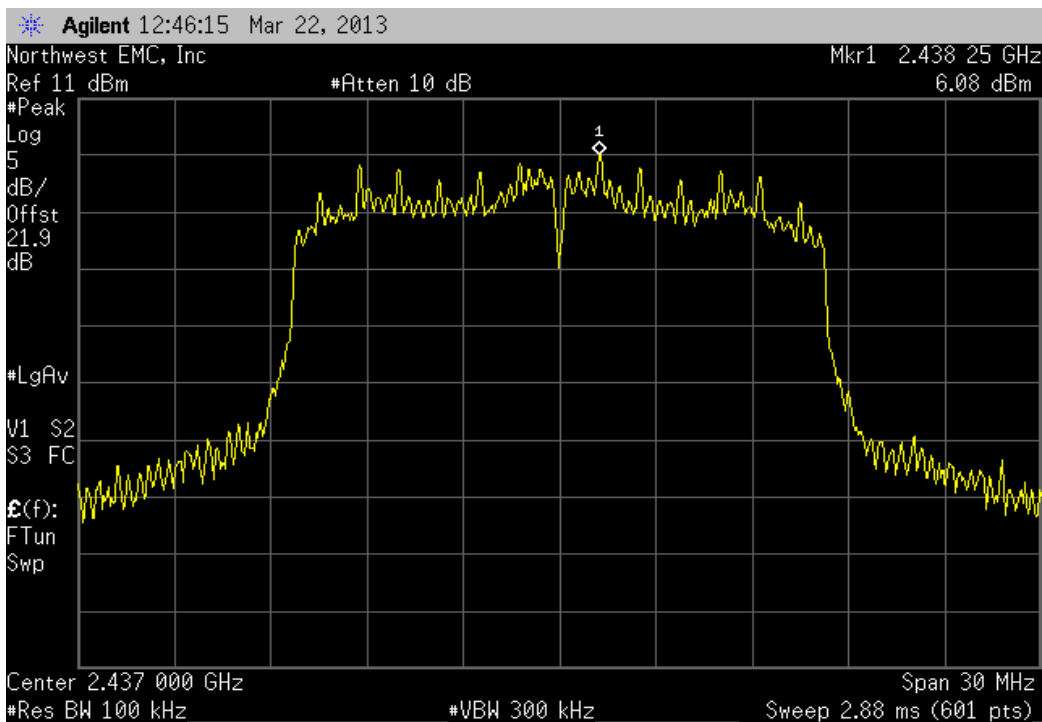
| Antenna 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |       |            |             |         |       |        |
|--------------------------------------------------------|-------|------------|-------------|---------|-------|--------|
|                                                        | Value | dBm/100kHz | To dBm/3kHz | Value   | Limit | Result |
|                                                        |       | 2.169      | -15.2       | -13.031 | 8     | Pass   |



| Antenna 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz |       |             |          |       |        |
|-------------------------------------------------------|-------|-------------|----------|-------|--------|
|                                                       | Value | dBm/100kHz  | Value    | Limit | Result |
|                                                       |       | To dBm/3kHz | dBm/3kHz |       |        |
|                                                       | 1.873 | -15.2       | -13.327  | 8     | Pass   |

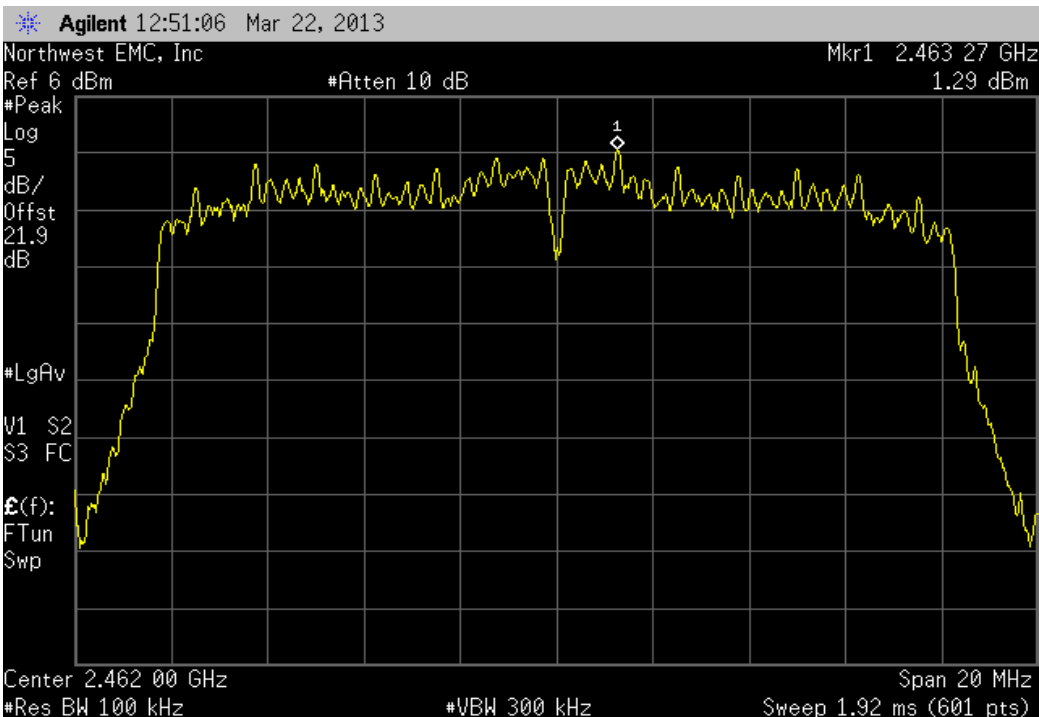


| Antenna 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz |       |             |          |       |        |
|-------------------------------------------------------|-------|-------------|----------|-------|--------|
|                                                       | Value | dBm/100kHz  | Value    | Limit | Result |
|                                                       |       | To dBm/3kHz | dBm/3kHz |       |        |
|                                                       | 6.079 | -15.2       | -9.121   | 8     | Pass   |



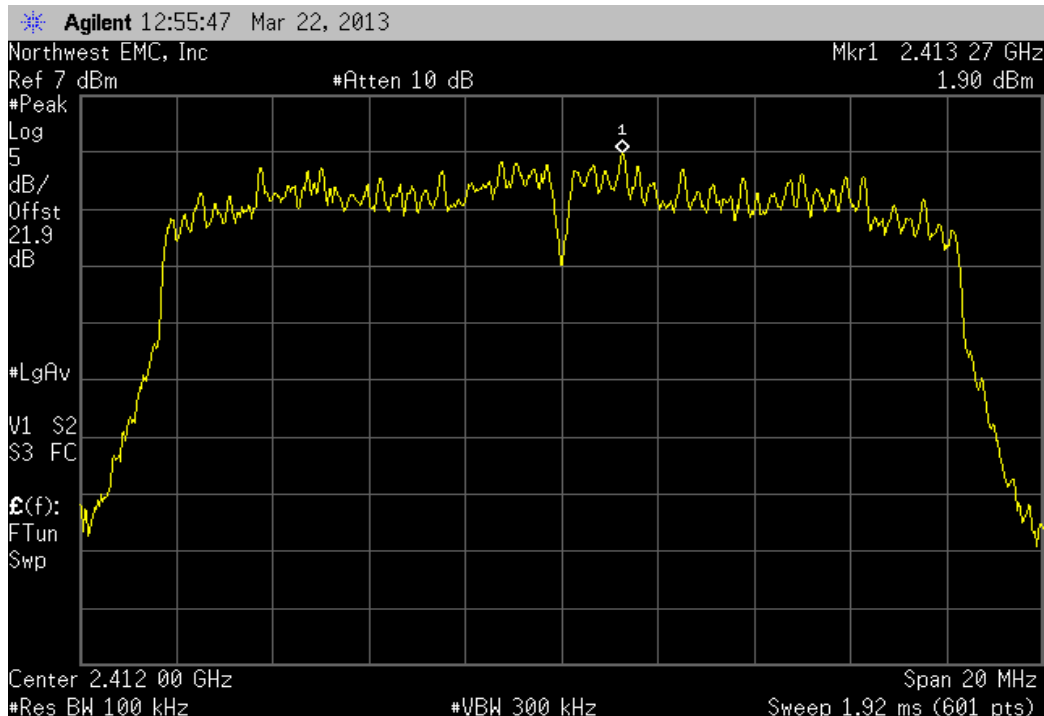
Antenna 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz

| Value      | dBm/100kHz  | Value    | Limit    | Result |
|------------|-------------|----------|----------|--------|
| dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz |        |
| 1.291      | -15.2       | -13.909  | 8        | Pass   |

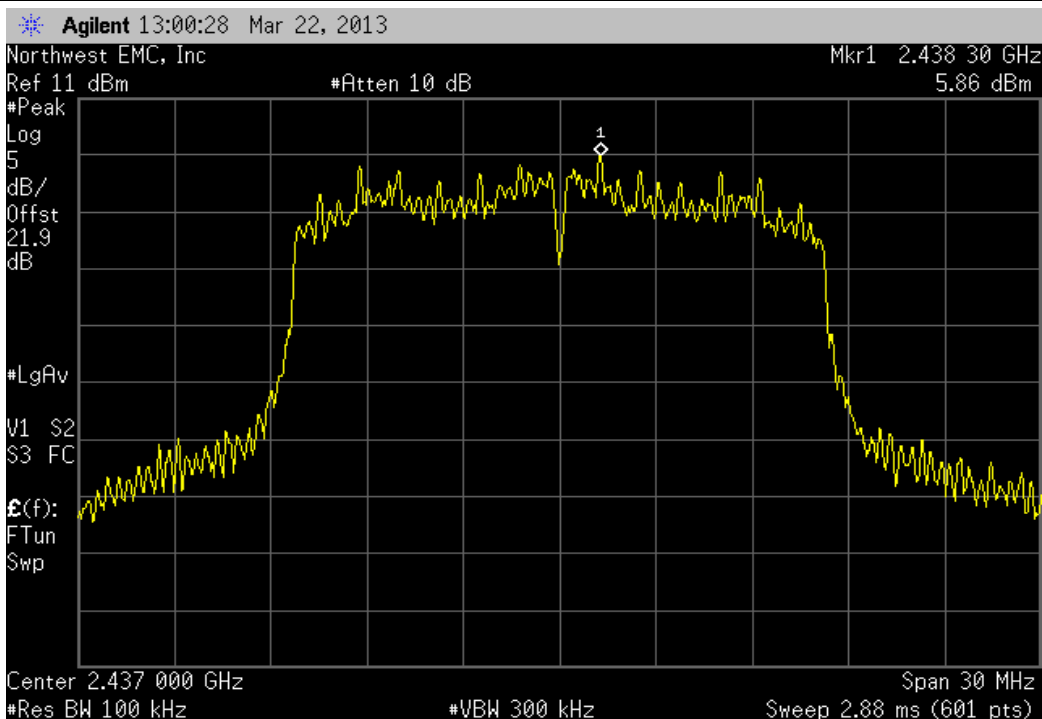


Antenna 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz

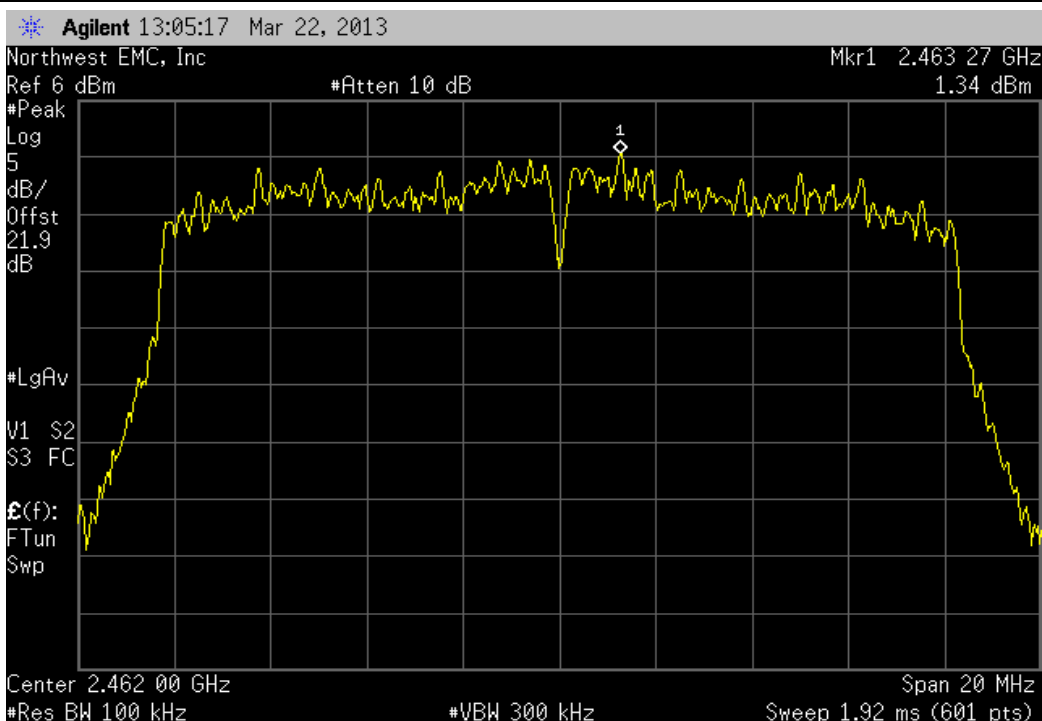
| Value      | dBm/100kHz  | Value    | Limit    | Result |
|------------|-------------|----------|----------|--------|
| dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz |        |
| 1.901      | -15.2       | -13.299  | 8        | Pass   |



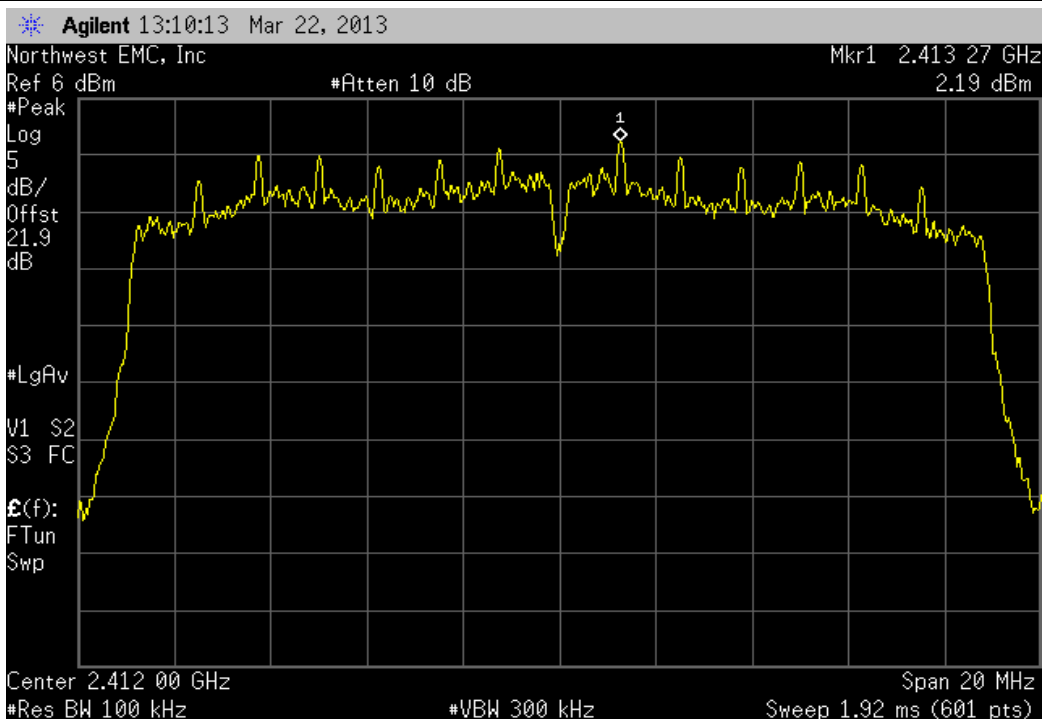
| Antenna 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz |       |            |             |        |       |        |
|-------------------------------------------------------|-------|------------|-------------|--------|-------|--------|
|                                                       | Value | dBm/100kHz | To dBm/3kHz | Value  | Limit | Result |
|                                                       |       | 5.858      | -15.2       | -9.342 | 8     | Pass   |



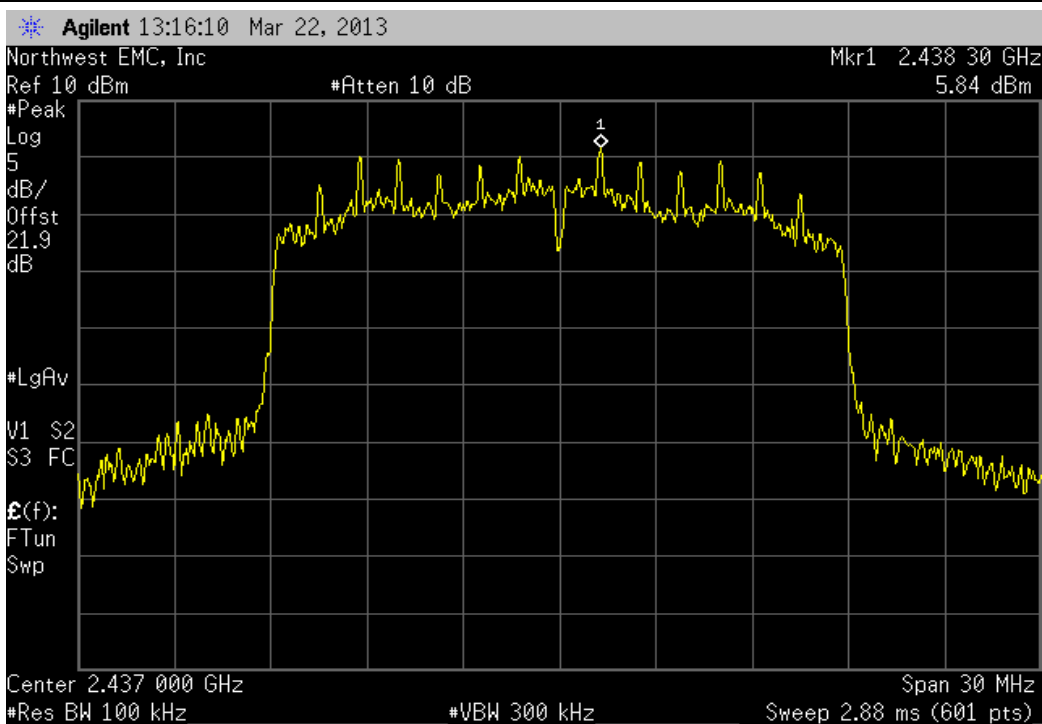
| Antenna 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz |       |            |             |         |       |        |
|---------------------------------------------------------|-------|------------|-------------|---------|-------|--------|
|                                                         | Value | dBm/100kHz | To dBm/3kHz | Value   | Limit | Result |
|                                                         |       | 1.335      | -15.2       | -13.865 | 8     | Pass   |



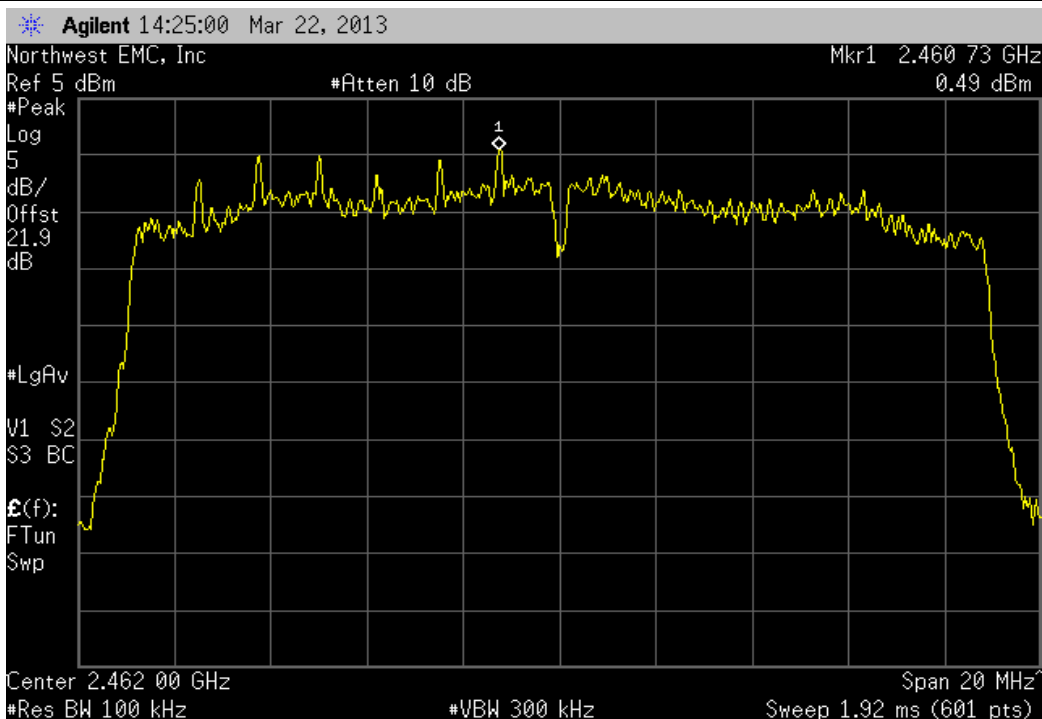
| Antenna 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz |            |             |          |          |        |  |
|----------------------------------------------------|------------|-------------|----------|----------|--------|--|
|                                                    | Value      | dBm/100kHz  | Value    | Limit    |        |  |
|                                                    | dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz | Result |  |
|                                                    | 2.188      | -15.2       | -13.012  | 8        | Pass   |  |



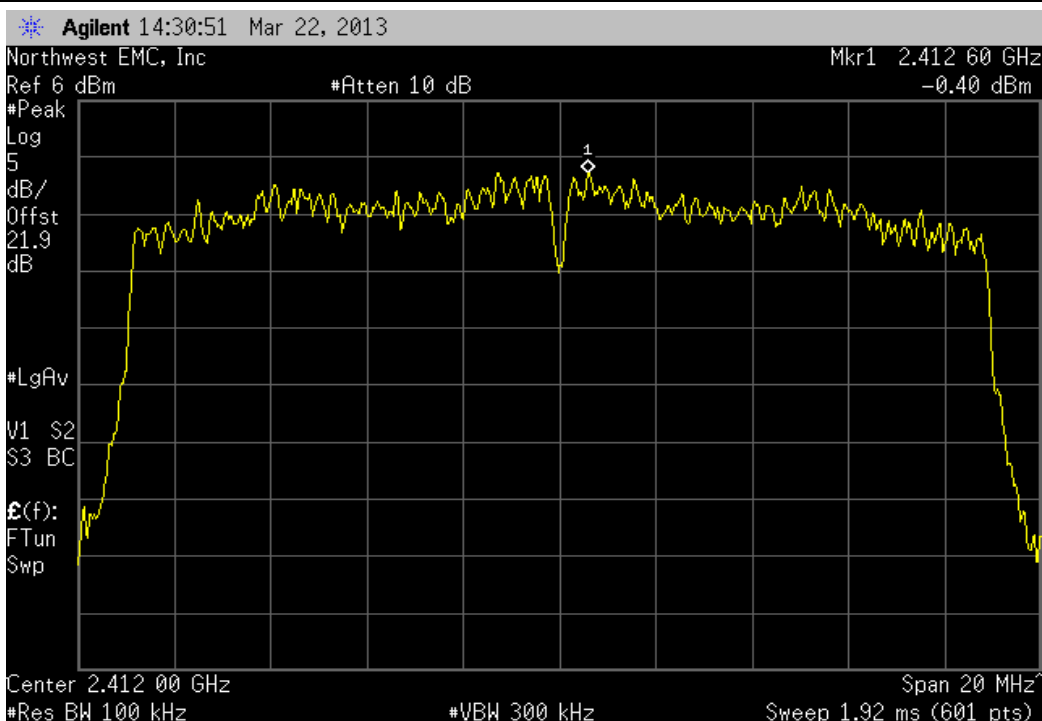
| Antenna 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz |            |             |          |          |        |  |
|----------------------------------------------------|------------|-------------|----------|----------|--------|--|
|                                                    | Value      | dBm/100kHz  | Value    | Limit    |        |  |
|                                                    | dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz | Result |  |
|                                                    | 5.842      | -15.2       | -9.358   | 8        | Pass   |  |



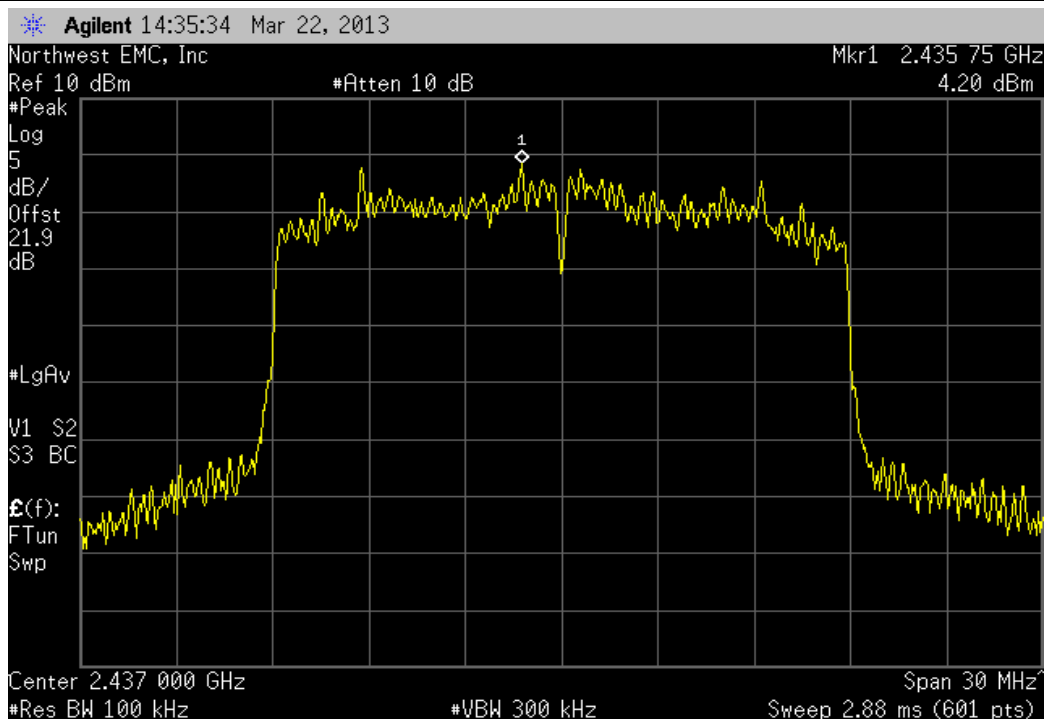
| Antenna 1, 802.11(n) MCS0, High Channel 11, 2462 MHz |            |             |          |          |        |  |
|------------------------------------------------------|------------|-------------|----------|----------|--------|--|
|                                                      | Value      | dBm/100kHz  | Value    | Limit    |        |  |
|                                                      | dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz | Result |  |
|                                                      | 0.49       | -15.2       | -14.71   | 8        | Pass   |  |



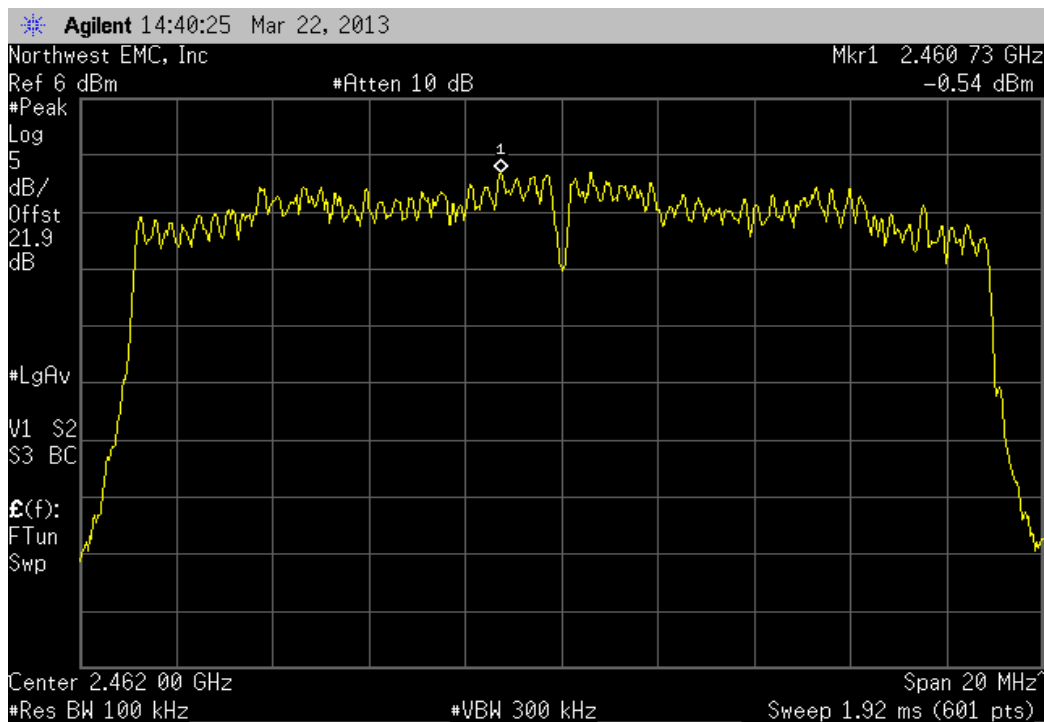
| Antenna 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz |            |             |          |          |        |  |
|----------------------------------------------------|------------|-------------|----------|----------|--------|--|
|                                                    | Value      | dBm/100kHz  | Value    | Limit    |        |  |
|                                                    | dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz | Result |  |
|                                                    | -0.398     | -15.2       | -15.598  | 8        | Pass   |  |



| Antenna 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz |  |            |             |          |          |        |
|----------------------------------------------------|--|------------|-------------|----------|----------|--------|
| Value                                              |  | dBm/100kHz | Value       |          | Limit    | Result |
|                                                    |  | dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz |        |
|                                                    |  | 4.201      | -15.2       | -10.999  | 8        | Pass   |



| Antenna 1, 802.11(n) MCS7, High Channel 11, 2462 MHz |  |             |       |         |          |        |
|------------------------------------------------------|--|-------------|-------|---------|----------|--------|
| Value                                                |  | dBm/100kHz  | Value |         | Limit    | Result |
|                                                      |  | To dBm/3kHz |       |         | dBm/3kHz |        |
|                                                      |  | -0.536      | -15.2 | -15.736 | 8        | Pass   |



## Spurious Radiated Emissions

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

### MODES OF OPERATION

Transmitting 802.11bgn with 1, 6, 36, 54 Mbps, MCS0, MCS7 on Channel 1, 6, 11 (2412, 2437, 2462 MHz), Antenna 1  
Transmitting 802.11bgn with 1, 6, 36, 54 Mbps, MCS0, MCS7 on Channel 1, 6, 11 (2412, 2437, 2462 MHz), Antenna 0

### POWER SETTINGS INVESTIGATED

110VAC/60Hz

### CONFIGURATIONS INVESTIGATED

HNYW0043 - 1

### FREQUENCY RANGE INVESTIGATED

Start Frequency 30 MHz Stop Frequency 25 GHz

### SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

### TEST EQUIPMENT

| Description              | Manufacturer    | Model                             | ID  | Last Cal.  | Interval |
|--------------------------|-----------------|-----------------------------------|-----|------------|----------|
| Low Pass Filter          | Micro-Tronics   | LPM50004                          | HGK | 5/31/2012  | 24 mo    |
| High Pass Filter         | Micro-Tronics   | HPM50111                          | HGQ | 6/1/2012   | 24 mo    |
| Attenuator, 20 dB, 'SMA' | SM Electronics  | SA6-20                            | REO | 5/31/2012  | 12 mo    |
| Pre-Amplifier            | Miteq           | JSD4-18002600-26-8P               | APU | 10/5/2012  | 12 mo    |
| MN05 Cables              | N/A             | 18-26GHz Standard Gain Horn Cable | MNP | 10/5/2012  | 12 mo    |
| Antenna, Horn            | EMCO            | 3115                              | AHJ | NCR        | 0 mo     |
| MN05 Cables              | ESM Cable Corp. | Standard Gain Horn Cables         | MNJ | 5/30/2012  | 12 mo    |
| Antenna, Horn            | ETS Lindgren    | 3160-08                           | AIQ | NCR        | 0 mo     |
| Antenna, Horn            | ETS             | 3160-07                           | AXP | NCR        | 0 mo     |
| Pre-Amplifier            | Miteq           | AMF-6F-12001800-30-10P            | AVW | 5/30/2012  | 12 mo    |
| Pre-Amplifier            | Miteq           | AMF-6F-08001200-30-10P            | AVV | 5/30/2012  | 12 mo    |
| Pre-Amplifier            | Miteq           | AMF-3D-00100800-32-13P            | AVX | 5/30/2012  | 12 mo    |
| Antenna, Horn (DRG)      | ETS Lindgren    | 3115                              | AIP | 6/29/2011  | 24 mo    |
| MN05 Cables              | ESM Cable Corp. | Double Ridge Guide Horn Cables    | MNI | 5/30/2012  | 12 mo    |
| Pre-Amplifier            | Miteq           | AM-1616-1000                      | PAD | 8/28/2012  | 12 mo    |
| MN05 Cables              | ESM Cable Corp. | Bilog Cables                      | MNH | 5/31/2012  | 12 mo    |
| Antenna, Bilog           | Teseq           | CBL 6141B                         | AYD | 12/17/2012 | 12 mo    |
| Spectrum Analyzer        | Agilent         | E4446A                            | AAT | 6/28/2012  | 24 mo    |

### MEASUREMENT BANDWIDTHS

| Frequency Range (MHz) | Peak Data (kHz) | Quasi-Peak Data (kHz) | Average Data (kHz) |
|-----------------------|-----------------|-----------------------|--------------------|
| 0.01 - 0.15           | 1.0             | 0.2                   | 0.2                |
| 0.15 - 30.0           | 10.0            | 9.0                   | 9.0                |
| 30.0 - 1000           | 100.0           | 120.0                 | 120.0              |
| Above 1000            | 1000.0          | N/A                   | 1000.0             |

### TEST DESCRIPTION

The highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for low, mid, and high band transmit frequencies. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify compliance. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and the EUT antenna in three orthogonal axis, and adjusting measurement antenna height and polarization. A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.



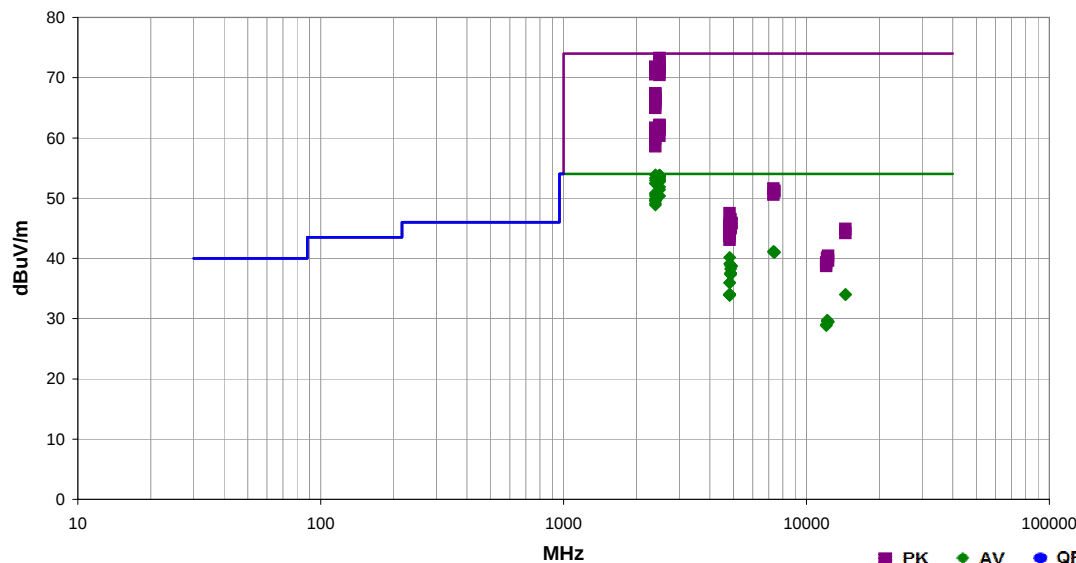
## Spurious Radiated Emissions

PSA-ESCI 2012.12.14  
PSA-ESCI Version 2011.12.21

|                 |                                                                                                                                   |                   |             |                    |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------|--------------------|
| Work Order:     | HNW0043                                                                                                                           | Date:             | 03/14/13    | <i>Trevor Buls</i> |
| Project:        | None                                                                                                                              | Temperature:      | 24.6 °C     |                    |
| Job Site:       | MN05                                                                                                                              | Humidity:         | 14.9% RH    |                    |
| Serial Number:  | 5191101 0010630                                                                                                                   | Barometric Pres.: | 1020.8 mbar |                    |
| EUT:            | RTH9580WF01                                                                                                                       |                   |             |                    |
| Configuration:  | 1                                                                                                                                 |                   |             |                    |
| Customer:       | Honeywell, Automation and Control Solutions                                                                                       |                   |             |                    |
| Attendees:      | None                                                                                                                              |                   |             |                    |
| EUT Power:      | 110VAC/60Hz                                                                                                                       |                   |             |                    |
| Operating Mode: | Transmitting 802.11bgn with 1, 6, 36, 54 Mbps, MCS0, MCS7 on Channel 1, 6, 11 (2412, 2437, 2462 MHz), Antenna 0<br>(See Comments) |                   |             |                    |
| Deviations:     | None                                                                                                                              |                   |             |                    |
| Comments:       | MD = Marker delta method was used to demonstrate compliance.                                                                      |                   |             |                    |

|                     |                  |
|---------------------|------------------|
| Test Specifications | Test Method      |
| FCC 15.247:2013     | ANSI C63.10:2009 |

|       |   |                   |   |                   |      |         |      |
|-------|---|-------------------|---|-------------------|------|---------|------|
| Run # | 1 | Test Distance (m) | 3 | Antenna Height(s) | 1-4m | Results | Pass |
|-------|---|-------------------|---|-------------------|------|---------|------|



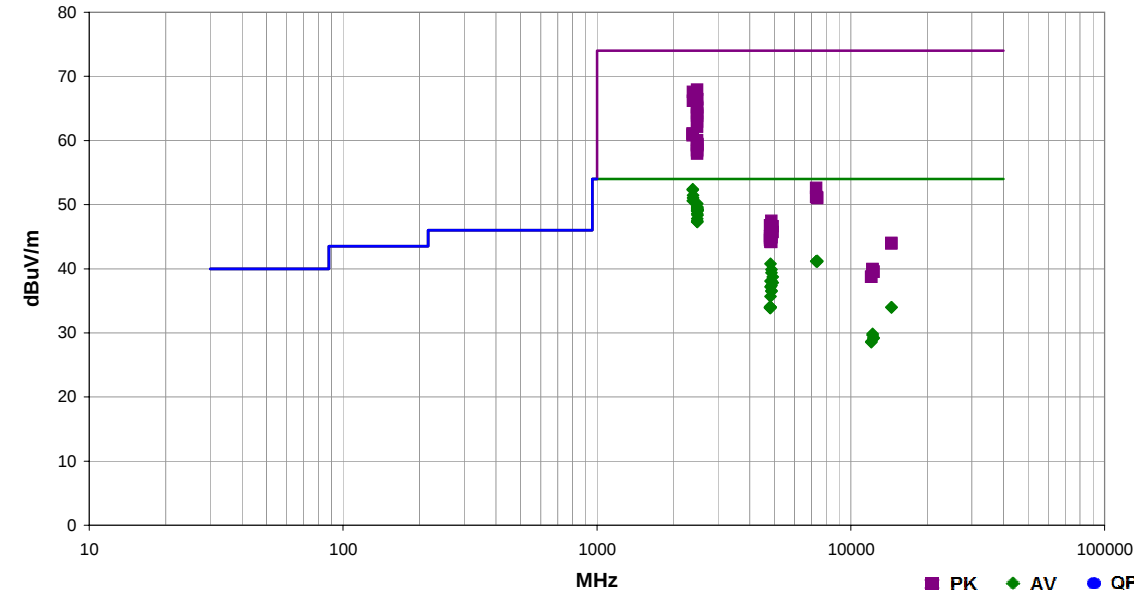
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Antenna Height (meters) | Azimuth (degrees) | Test Distance (meters) | External Attenuation (dB) | Polarity/Transducer Type | Detector | Distance Adjustment (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Compared to Spec. (dB) | Comments                       |
|------------|------------------|-------------|-------------------------|-------------------|------------------------|---------------------------|--------------------------|----------|--------------------------|-------------------|----------------------|------------------------|--------------------------------|
| 2389.950   | 37.9             | -4.0        | 1.4                     | 302.0             | 3.0                    | 20.0                      | Vert                     | AV       | 0.0                      | 53.9              | 54.0                 | -0.1                   | EUT on Side, Ch 1, MCS0        |
| 2483.733   | 37.6             | -3.8        | 1.0                     | 117.0             | 3.0                    | 20.0                      | Vert                     | AV       | 0.0                      | 53.8              | 54.0                 | -0.2                   | EUT on Side, Ch 11, 36 Mbps    |
| 2483.583   | 37.6             | -3.8        | 1.0                     | 117.0             | 3.0                    | 20.0                      | Vert                     | AV       | 0.0                      | 53.8              | 54.0                 | -0.2                   | EUT on Side, Ch 11, MCS7       |
| 2483.550   | 37.5             | -3.8        | 1.4                     | 143.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 53.7              | 54.0                 | -0.3                   | EUT Horizontal, Ch 11, MCS0    |
| 2483.500   | 78.0             | -3.9        | 1.0                     | 210.0             | 3.0                    | 20.0                      | Vert                     | AV       | 0.0                      | 53.5              | 54.0                 | -0.5                   | EUT on Side, Ch 11, 6 Mbps, MD |
| 2483.583   | 37.3             | -3.8        | 1.0                     | 117.0             | 3.0                    | 20.0                      | Vert                     | AV       | 0.0                      | 53.5              | 54.0                 | -0.5                   | EUT on Side, Ch 11, 54 Mbps    |
| 2389.967   | 37.4             | -4.0        | 1.4                     | 102.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 53.4              | 54.0                 | -0.6                   | EUT Horizontal, Ch 1, 6 Mbps   |
| 2483.592   | 37.1             | -3.8        | 1.4                     | 143.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 53.3              | 54.0                 | -0.7                   | EUT Horizontal, Ch 11, 36 Mbps |
| 2483.892   | 57.0             | -3.8        | 1.4                     | 143.0             | 3.0                    | 20.0                      | Horz                     | PK       | 0.0                      | 73.2              | 74.0                 | -0.8                   | EUT Horizontal, Ch 11, MCS7    |
| 2483.542   | 36.9             | -3.8        | 1.4                     | 143.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 53.1              | 54.0                 | -0.9                   | EUT Horizontal, Ch 11, 54 Mbps |
| 2483.525   | 36.8             | -3.8        | 1.4                     | 143.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 53.0              | 54.0                 | -1.0                   | EUT Horizontal, Ch 11, MCS7    |
| 2389.958   | 37.0             | -4.0        | 1.0                     | 353.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 53.0              | 54.0                 | -1.0                   | EUT Horizontal, Ch 1, MCS0     |
| 2483.550   | 36.6             | -3.8        | 1.4                     | 143.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 52.8              | 54.0                 | -1.2                   | EUT Horizontal, Ch 11, 1 Mbps  |
| 2483.508   | 36.5             | -3.8        | 1.0                     | 117.0             | 3.0                    | 20.0                      | Vert                     | AV       | 0.0                      | 52.7              | 54.0                 | -1.3                   | EUT on Side, Ch 11, MCS0       |
| 2483.892   | 56.4             | -3.8        | 1.4                     | 143.0             | 3.0                    | 20.0                      | Horz                     | PK       | 0.0                      | 72.6              | 74.0                 | -1.4                   | EUT Horizontal, Ch 11, MCS0    |
| 2385.067   | 36.5             | -4.0        | 1.4                     | 102.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 52.5              | 54.0                 | -1.5                   | EUT Horizontal, Ch 1, 1 Mbps   |
| 2390.000   | 36.5             | -4.0        | 1.0                     | 1.0               | 3.0                    | 20.0                      | Vert                     | AV       | 0.0                      | 52.5              | 54.0                 | -1.5                   | EUT on Side, Ch 1, 6 Mbps      |
| 2483.500   | 55.7             | -3.8        | 1.0                     | 117.0             | 3.0                    | 20.0                      | Vert                     | PK       | 0.0                      | 71.9              | 74.0                 | -2.1                   | EUT on Side, Ch 11, 54 Mbps    |
| 2483.500   | 35.6             | -3.8        | 1.0                     | 117.0             | 3.0                    | 20.0                      | Vert                     | AV       | 0.0                      | 51.8              | 54.0                 | -2.2                   | EUT on Side, Ch 11, 1 Mbps     |
| 2388.042   | 55.8             | -4.0        | 1.0                     | 353.0             | 3.0                    | 20.0                      | Horz                     | PK       | 0.0                      | 71.8              | 74.0                 | -2.2                   | EUT Horizontal, Ch 1, MCS0     |
| 2389.958   | 55.8             | -4.0        | 1.4                     | 302.0             | 3.0                    | 20.0                      | Vert                     | PK       | 0.0                      | 71.8              | 74.0                 | -2.2                   | EUT on Side, Ch 1, MCS0        |
| 2484.125   | 55.4             | -3.8        | 1.0                     | 117.0             | 3.0                    | 20.0                      | Vert                     | PK       | 0.0                      | 71.6              | 74.0                 | -2.4                   | EUT on Side, Ch 11, MCS0       |
| 2483.800   | 55.3             | -3.8        | 1.0                     | 117.0             | 3.0                    | 20.0                      | Vert                     | PK       | 0.0                      | 71.5              | 74.0                 | -2.5                   | EUT on Side, Ch 11, MCS7       |
| 2483.525   | 55.3             | -3.8        | 1.4                     | 143.0             | 3.0                    | 20.0                      | Horz                     | PK       | 0.0                      | 71.5              | 74.0                 | -2.5                   | EUT Horizontal, Ch 11, 54 Mbps |
| 2483.533   | 35.2             | -3.8        | 1.4                     | 143.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 51.4              | 54.0                 | -2.6                   | EUT Horizontal, Ch 11, 11 Mbps |
| 2389.967   | 34.9             | -4.0        | 1.0                     | 353.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 50.9              | 54.0                 | -3.1                   | EUT Horizontal, Ch 1, 36 Mbps  |
| 2483.950   | 54.6             | -3.8        | 1.0                     | 117.0             | 3.0                    | 20.0                      | Vert                     | PK       | 0.0                      | 70.8              | 74.0                 | -3.2                   | EUT on Side, Ch 11, 36 Mbps    |
| 2385.150   | 34.7             | -4.0        | 1.4                     | 102.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 50.7              | 54.0                 | -3.3                   | EUT Horizontal, Ch 1, 11 Mbps  |
| 2389.383   | 54.6             | -4.0        | 1.4                     | 102.0             | 3.0                    | 20.0                      | Horz                     | PK       | 0.0                      | 70.6              | 74.0                 | -3.4                   | EUT Horizontal, Ch 1, 6 Mbps   |
| 2483.667   | 54.2             | -3.8        | 1.4                     | 143.0             | 3.0                    | 20.0                      | Horz                     | PK       | 0.0                      | 70.4              | 74.0                 | -3.6                   | EUT Horizontal, Ch 11, 36 Mbps |
| 2389.750   | 34.4             | -4.0        | 1.0                     | 353.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 50.4              | 54.0                 | -3.6                   | EUT Horizontal, Ch 1, 54 Mbps  |
| 2483.550   | 34.1             | -3.8        | 1.0                     | 117.0             | 3.0                    | 20.0                      | Vert                     | AV       | 0.0                      | 50.3              | 54.0                 | -3.7                   | EUT on Side, Ch 11, 11 Mbps    |
| 2385.083   | 33.9             | -4.0        | 1.4                     | 302.0             | 3.0                    | 20.0                      | Vert                     | AV       | 0.0                      | 49.9              | 54.0                 | -4.1                   | EUT on Side, Ch 1, 1 Mbps      |
| 2389.725   | 33.7             | -4.0        | 1.4                     | 302.0             | 3.0                    | 20.0                      | Vert                     | AV       | 0.0                      | 49.7              | 54.0                 | -4.3                   | EUT on Side, Ch 1, 36 Mbps     |

| Freq<br>(MHz) | Amplitude<br>(dBuV) | Factor<br>(dB) | Antenna Height<br>(meters) | Azimuth<br>(degrees) | Test Distance<br>(meters) | External<br>Attenuation<br>(dB) | Polarity/<br>Transducer<br>Type | Detector | Distance<br>Adjustment<br>(dB) | Adjusted<br>(dBuV/m) | Spec. Limit<br>(dBuV/m) | Compared to<br>Spec.<br>(dB) | Comments                       |
|---------------|---------------------|----------------|----------------------------|----------------------|---------------------------|---------------------------------|---------------------------------|----------|--------------------------------|----------------------|-------------------------|------------------------------|--------------------------------|
| 2389.767      | 33.6                | -4.0           | 1.4                        | 302.0                | 3.0                       | 20.0                            | Vert                            | AV       | 0.0                            | 49.6                 | 54.0                    | -4.4                         | EUT on Side, Ch 1, 54 Mbps     |
| 2389.925      | 33.6                | -4.0           | 1.0                        | 353.0                | 3.0                       | 20.0                            | Horz                            | AV       | 0.0                            | 49.6                 | 54.0                    | -4.4                         | EUT Horizontal, Ch 1, MCS7     |
| 2389.867      | 33.2                | -4.0           | 1.4                        | 302.0                | 3.0                       | 20.0                            | Vert                            | AV       | 0.0                            | 49.2                 | 54.0                    | -4.8                         | EUT on Side, Ch 1, MCS7        |
| 2385.233      | 32.9                | -4.0           | 1.4                        | 302.0                | 3.0                       | 20.0                            | Vert                            | AV       | 0.0                            | 48.9                 | 54.0                    | -5.1                         | EUT on Side, Ch 1, 11 Mbps     |
| 2388.808      | 51.4                | -4.0           | 1.0                        | 353.0                | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 67.4                 | 74.0                    | -6.6                         | EUT Horizontal, Ch 1, 36 Mbps  |
| 2389.267      | 51.4                | -4.0           | 1.0                        | 1.0                  | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 67.4                 | 74.0                    | -6.6                         | EUT on Side, Ch 1, 6 Mbps      |
| 2389.542      | 51.0                | -4.0           | 1.0                        | 353.0                | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 67.0                 | 74.0                    | -7.0                         | EUT Horizontal, Ch 1, 54 Mbps  |
| 2389.875      | 50.5                | -4.0           | 1.4                        | 302.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 66.5                 | 74.0                    | -7.5                         | EUT on Side, Ch 1, MCS7        |
| 2389.608      | 50.0                | -4.0           | 1.4                        | 302.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 66.0                 | 74.0                    | -8.0                         | EUT on Side, Ch 1, 36 Mbps     |
| 2389.183      | 49.6                | -4.0           | 1.0                        | 353.0                | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 65.6                 | 74.0                    | -8.4                         | EUT Horizontal, Ch 1, MCS7     |
| 2389.767      | 49.0                | -4.0           | 1.4                        | 302.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 65.0                 | 74.0                    | -9.0                         | EUT on Side, Ch 1, 54 Mbps     |
| 2483.917      | 45.9                | -3.8           | 1.4                        | 143.0                | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 62.1                 | 74.0                    | -11.9                        | EUT Horizontal, Ch 11, 1 Mbps  |
| 2483.500      | 86.5                | -3.8           | 1.0                        | 210.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 62.0                 | 74.0                    | -12.0                        | EUT on Side, Ch 11, 6 Mbps, MD |
| 2483.933      | 45.5                | -3.8           | 1.4                        | 143.0                | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 61.7                 | 74.0                    | -12.3                        | EUT Horizontal, Ch 11, 11 Mbps |
| 2385.217      | 45.7                | -4.0           | 1.4                        | 102.0                | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 61.7                 | 74.0                    | -12.3                        | EUT Horizontal, Ch 1, 1 Mbps   |
| 2484.000      | 45.1                | -3.8           | 1.0                        | 117.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 61.3                 | 74.0                    | -12.7                        | EUT on Side, Ch 11, 1 Mbps     |
| 7309.142      | 29.2                | 12.0           | 1.6                        | 74.0                 | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 41.2                 | 54.0                    | -12.8                        | EUT on Side, Ch 6, 1 Mbps      |
| 7309.117      | 29.1                | 12.0           | 1.0                        | 276.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 41.1                 | 54.0                    | -12.9                        | EUT Horizontal, Ch 6, 1 Mbps   |
| 7388.042      | 28.6                | 12.4           | 3.7                        | 243.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 41.0                 | 54.0                    | -13.0                        | EUT on Side, Ch 11, 1 Mbps     |
| 7385.042      | 28.6                | 12.4           | 1.0                        | 224.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 41.0                 | 54.0                    | -13.0                        | EUT Horizontal, Ch 11, 1 Mbps  |
| 2385.950      | 44.9                | -4.0           | 1.4                        | 102.0                | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 60.9                 | 74.0                    | -13.1                        | EUT Horizontal, Ch 1, 11 Mbps  |
| 2487.783      | 44.1                | -3.7           | 1.0                        | 117.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 60.4                 | 74.0                    | -13.6                        | EUT on Side, Ch 11, 11 Mbps    |
| 4823.967      | 36.1                | 4.1            | 1.0                        | 19.0                 | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 40.2                 | 54.0                    | -13.8                        | EUT Horizontal, Ch 1, 1 Mbps   |
| 2385.008      | 43.9                | -4.0           | 1.4                        | 302.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 59.9                 | 74.0                    | -14.1                        | EUT on Side, Ch 1, 1 Mbps      |
| 4824.000      | 35.0                | 4.1            | 1.1                        | 268.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 39.1                 | 54.0                    | -14.9                        | EUT on Side, Ch 1, 1 Mbps      |
| 4873.925      | 34.5                | 4.3            | 1.5                        | 100.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 38.8                 | 54.0                    | -15.2                        | EUT on Side, Ch 1, 1 Mbps      |
| 4923.992      | 34.3                | 4.4            | 1.2                        | 99.0                 | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 38.7                 | 54.0                    | -15.3                        | EUT on Side, Ch 11, 1 Mbps     |
| 4923.992      | 34.3                | 4.4            | 1.1                        | 23.0                 | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 38.7                 | 54.0                    | -15.3                        | EUT Horizontal, Ch 11, 1 Mbps  |
| 2385.133      | 42.6                | -4.0           | 1.4                        | 302.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 58.6                 | 74.0                    | -15.4                        | EUT on Side, Ch 1, 11 Mbps     |
| 4874.008      | 34.0                | 4.3            | 1.0                        | 129.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 38.3                 | 54.0                    | -15.7                        | EUT Vertical, Ch 6, 1 Mbps     |
| 4874.075      | 33.3                | 4.3            | 1.0                        | 105.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 37.6                 | 54.0                    | -16.4                        | EUT Horizontal, Ch 6, 1 Mbps   |
| 4874.050      | 33.3                | 4.3            | 1.0                        | 21.0                 | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 37.6                 | 54.0                    | -16.4                        | EUT Horizontal, Ch 6, 1 Mbps   |
| 4874.017      | 33.1                | 4.3            | 1.0                        | 201.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 37.4                 | 54.0                    | -16.6                        | EUT on Side, Ch 6, 1 Mbps      |
| 4874.033      | 33.1                | 4.3            | 1.6                        | 166.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 37.4                 | 54.0                    | -16.6                        | EUT Vertical, Ch 6, 1 Mbps     |
| 4824.092      | 31.9                | 4.1            | 1.0                        | 349.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 36.0                 | 54.0                    | -18.0                        | EUT Horizontal, Ch 1, 11 Mbps  |
| 4824.017      | 31.9                | 4.1            | 1.0                        | 175.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 36.0                 | 54.0                    | -18.0                        | EUT on Side, Ch 1, 11 Mbps     |
| 14470.730     | 32.5                | 1.5            | 1.0                        | 349.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 34.0                 | 54.0                    | -20.0                        | EUT Horizontal, Ch 1, 1 Mbps   |
| 14471.770     | 32.5                | 1.5            | 1.0                        | 316.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 34.0                 | 54.0                    | -20.0                        | EUT on Side, Ch 1, 1 Mbps      |
| 4825.567      | 29.9                | 4.1            | 1.0                        | 175.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 34.0                 | 54.0                    | -20.0                        | EUT on Side, Ch 1, 36 Mbps     |
| 4823.950      | 29.9                | 4.1            | 1.0                        | 349.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 34.0                 | 54.0                    | -20.0                        | EUT Horizontal, Ch 1, 36 Mbps  |
| 4822.625      | 29.9                | 4.1            | 1.0                        | 349.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 34.0                 | 54.0                    | -20.0                        | EUT Horizontal, Ch 1, 6 Mbps   |
| 4822.150      | 29.9                | 4.1            | 1.0                        | 175.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 34.0                 | 54.0                    | -20.0                        | EUT on Side, Ch 1, 54 Mbps     |
| 4821.975      | 29.9                | 4.1            | 1.0                        | 349.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 34.0                 | 54.0                    | -20.0                        | EUT Horizontal, Ch 1, 54 Mbps  |
| 4821.958      | 29.9                | 4.1            | 1.0                        | 175.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 34.0                 | 54.0                    | -20.0                        | EUT on Side, Ch 1, 6 Mbps      |
| 4821.617      | 29.9                | 4.1            | 1.0                        | 175.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 34.0                 | 54.0                    | -20.0                        | EUT on Side, Ch 1, MCS0        |
| 4822.308      | 29.8                | 4.1            | 1.0                        | 175.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 33.9                 | 54.0                    | -20.1                        | EUT on Side, Ch 1, MCS7        |
| 4821.817      | 29.8                | 4.1            | 1.0                        | 349.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 33.9                 | 54.0                    | -20.1                        | EUT Horizontal, Ch 1, MCS0     |
| 4821.692      | 29.8                | 4.1            | 1.0                        | 349.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 33.9                 | 54.0                    | -20.1                        | EUT Horizontal, Ch 1, MCS7     |
| 7309.067      | 39.6                | 12.0           | 1.6                        | 74.0                 | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 51.6                 | 74.0                    | -22.4                        | EUT on Side, Ch 6, 1 Mbps      |
| 7387.625      | 38.8                | 12.4           | 3.7                        | 243.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 51.2                 | 74.0                    | -22.8                        | EUT on Side, Ch 11, 1 Mbps     |
| 7383.583      | 38.7                | 12.4           | 1.0                        | 224.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 51.1                 | 74.0                    | -22.9                        | EUT Horizontal, Ch 11, 1 Mbps  |
| 7309.242      | 38.6                | 12.0           | 1.0                        | 276.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 50.6                 | 74.0                    | -23.4                        | EUT Horizontal, Ch 6, 1 Mbps   |
| 12183.880     | 35.9                | -6.2           | 1.0                        | 315.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 29.7                 | 54.0                    | -24.3                        | EUT on Side, Ch 6, 1 Mbps      |
| 12309.550     | 35.4                | -5.9           | 1.0                        | 308.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 29.5                 | 54.0                    | -24.5                        | EUT Horizontal, Ch 11, 1 Mbps  |
| 12182.680     | 35.7                | -6.2           | 1.0                        | 129.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 29.5                 | 54.0                    | -24.5                        | EUT Horizontal, Ch 6, 1 Mbps   |
| 12308.130     | 35.3                | -5.9           | 1.0                        | 174.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 29.4                 | 54.0                    | -24.6                        | EUT on Side, Ch 11, 1 Mbps     |
| 12059.050     | 35.5                | -6.5           | 1.0                        | 148.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 29.0                 | 54.0                    | -25.0                        | EUT on Side, Ch 1, 1 Mbps      |
| 12061.110     | 35.3                | -6.5           | 1.4                        | 86.0                 | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 28.8                 | 54.0                    | -25.2                        | EUT Horizontal, Ch 1, 1 Mbps   |
| 4823.892      | 43.4                | 4.1            | 1.0                        | 19.0                 | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 47.5                 | 74.0                    | -26.5                        | EUT Horizontal, Ch 1, 1 Mbps   |
| 4874.183      | 42.2                | 4.3            | 1.5                        | 100.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 46.5                 | 74.0                    | -27.5                        | EUT on Side, Ch 6, 1 Mbps      |
| 4924.050      | 41.4                | 4.4            | 1.1                        | 23.0                 | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 45.8                 | 74.0                    | -28.2                        | EUT Horizontal, Ch 11, 1 Mbps  |
| 4923.958      | 41.4                | 4.4            | 1.2                        | 99.0                 | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 45.8                 | 74.0                    | -28.2                        | EUT on Side, Ch 11, 1 Mbps     |
| 4873.583      | 41.5                | 4.3            | 1.0                        | 129.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 45.8                 | 74.0                    | -28.2                        | EUT Vertical, Ch 6, 1 Mbps     |
| 4823.733      | 41.6                | 4.1            | 1.1                        | 268.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 45.7                 | 74.0                    | -28.3                        | EUT on Side, Ch 1, 1 Mbps      |
| 4873.992      | 41.3                | 4.3            | 1.6                        | 166.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 45.6                 | 74.0                    | -28.4                        | EUT Vertical, Ch 6, 1 Mbps     |
| 4823.683      | 41.3                | 4.1            | 1.0                        | 349.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 45.4                 | 74.0                    | -28.6                        | EUT Horizontal, Ch 1, 11 Mbps  |
| 4822.527      | 41.3                | 4.1            | 1.0                        | 175.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 45.4                 | 74.0                    | -28.6                        | EUT on Side, Ch 1, MCS7        |
| 4822.273      | 41.1                | 4.1            | 1.0                        | 349.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 45.2                 | 74.0                    | -28.8                        | EUT Horizontal, Ch 1, 6 Mbps   |
| 4873.867      | 40.9                | 4.3            | 1.0                        | 201.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 45.2                 | 74.0                    | -28.8                        | EUT on Side, Ch 6, 1 Mbps      |
| 4873.808      | 40.9                | 4.3            | 1.0                        | 105.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 45.2                 | 74.0                    | -28.8                        | EUT Horizontal, Ch 6, 1 Mbps   |
| 4873.617      | 40.7                | 4.3            | 1.0                        | 21.0                 | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 45.0                 | 74.0                    | -29.0                        | EUT Horizontal, Ch 6, 1 Mbps   |
| 14472.250     | 43.4                | 1.5            | 1.0                        | 349.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 44.9                 | 74.0                    | -29.1                        | EUT Horizontal, Ch 1, 1 Mbps   |
| 4824.627      | 40.8                | 4.1            | 1.0                        | 349.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 44.9                 | 74.0                    | -29.1                        | EUT Horizontal, Ch 1, MCS7     |
| 4824.533      | 40.8                | 4.1            | 1.0                        | 349.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 44.9                 | 74.0                    | -29.1                        | EUT Horizontal, Ch 1, MCS0     |
| 4822.773      | 40.7                | 4.1            | 1.0                        | 175.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 44.8                 | 74.0                    | -29.2                        | EUT on Side, Ch 1, MCS0        |
| 4822.550      | 40.7                | 4.1            | 1.0                        | 349.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 44.8                 | 74.0                    | -29.2                        | EUT Horizontal, Ch 1, 36 Mbps  |
| 4824.300      | 40.6                | 4.1            | 1.0                        | 349.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 44.7                 | 74.0                    | -29.3                        | EUT Horizontal, Ch 1, 54 Mbps  |
| 4824.900      | 40.2                | 4.1            | 1.0                        | 175.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 44.3                 | 74.0                    | -29.7                        | EUT on Side, Ch 1, 54 Mbps     |
| 14471.260     | 42.7                | 1.5            | 1.0                        | 316.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 44.2                 | 74.0                    | -29.8                        | EUT on Side, Ch 1, 1 Mbps      |
| 4824.807      | 40.0                | 4.1            | 1.0                        | 175.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 44.1                 | 74.0                    | -29.9                        | EUT on Side, Ch 1, 6 Mbps      |
| 4822.383      | 39.6                | 4.1            | 1.0                        | 175.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 43.7                 | 74.0                    | -30.3                        | EUT on Side, Ch 1, 36 Mbps     |
| 4824.083      | 39.0                | 4.1            | 1.0                        | 175.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 43.1                 | 74.0                    | -30.9                        | EUT on Side, Ch 1, 11 Mbps     |
| 12308.590     | 46.3                | -5.9           | 1.0                        | 308.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 40.4                 | 74.0                    | -33.6                        | EUT Horizontal, Ch 11, 1 Mbps  |
| 12183.570     | 46.3                | -6.2           | 1.0                        | 129.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 40.1                 | 74.0                    | -33.9                        | EUT Horizontal, Ch 6, 1 Mbps   |
| 12184.070     | 46.1                | -6.2           | 1.0                        | 315.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 39.9                 | 74.0                    | -34.1                        | EUT on Side, Ch 6, 1 Mbps      |
| 12309.590     | 45.5                | -5.9           | 1.0                        | 174.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 39.6                 | 74.0                    | -34.4                        | EUT on Side, Ch 11, 1 Mbps     |
| 12060.920     | 45.8                | -6.5           | 1.0                        | 148.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 39.3                 | 74.0                    | -34.7                        | EUT on Side, Ch 1, 1 Mbps      |
| 12058.310     | 45.2                | -6.5           | 1.4                        | 86.0                 | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 38.7                 | 74.0                    | -35.3                        | EUT Horizontal, Ch 1, 1 Mbps   |

|                 |                                                                                                                                |                   |             |                    |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------|--------------------|
| Work Order:     | HNYW0043                                                                                                                       | Date:             | 03/20/13    | <i>Trevor Buls</i> |
| Project:        | None                                                                                                                           | Temperature:      | 23.4 °C     |                    |
| Job Site:       | MN05                                                                                                                           | Humidity:         | 8.9% RH     |                    |
| Serial Number:  | 5191101 0010630                                                                                                                | Barometric Pres.: | 1024.7 mbar |                    |
| EUT:            | RT9580WF01                                                                                                                     |                   |             |                    |
| Configuration:  | 1                                                                                                                              |                   |             |                    |
| Customer:       | Honeywell, Automation and Control Solutions                                                                                    |                   |             |                    |
| Attendees:      | None                                                                                                                           |                   |             |                    |
| EUT Power:      | 110VAC/60Hz                                                                                                                    |                   |             |                    |
| Operating Mode: | Transmitting 802.11bgn with 1, 6, 36, 54 Mbps, MCS0, MCS7 on Channel 1, 6, 11 (2412, 2437, 2462 MHz), Antenna 1 (See Comments) |                   |             |                    |
| Deviations:     | None                                                                                                                           |                   |             |                    |
| Comments:       | None                                                                                                                           |                   |             |                    |

|                     |                 |             |                  |
|---------------------|-----------------|-------------|------------------|
| Test Specifications | FCC 15.247:2013 | Test Method | ANSI C63.10:2009 |
|---------------------|-----------------|-------------|------------------|

|       |   |                   |   |                   |      |         |      |
|-------|---|-------------------|---|-------------------|------|---------|------|
| Run # | 9 | Test Distance (m) | 3 | Antenna Height(s) | 1-4m | Results | Pass |
|-------|---|-------------------|---|-------------------|------|---------|------|



| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Antenna Height (meters) | Azimuth (degrees) | Test Distance (meters) | External Attenuation (dB) | Polarity/ Transducer Type | Detector | Distance Adjustment (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Compared to Spec. (dB) | Comments                       |
|------------|------------------|-------------|-------------------------|-------------------|------------------------|---------------------------|---------------------------|----------|--------------------------|-------------------|----------------------|------------------------|--------------------------------|
| 2385.208   | 36.4             | -4.0        | 1.0                     | 30.0              | 3.0                    | 20.0                      | Horz                      | AV       | 0.0                      | 52.4              | 54.0                 | -1.6                   | EUT Horizontal, Ch 1, 1 Mbps   |
| 2385.042   | 36.3             | -4.0        | 1.0                     | 245.0             | 3.0                    | 20.0                      | Vert                      | AV       | 0.0                      | 52.3              | 54.0                 | -1.7                   | EUT Vertical, Ch 1, 1 Mbps     |
| 2390.000   | 35.5             | -4.0        | 1.0                     | 245.0             | 3.0                    | 20.0                      | Vert                      | AV       | 0.0                      | 51.5              | 54.0                 | -2.5                   | EUT Vertical, Ch 1, 6 Mbps     |
| 2389.917   | 35.1             | -4.0        | 1.0                     | 30.0              | 3.0                    | 20.0                      | Horz                      | AV       | 0.0                      | 51.1              | 54.0                 | -2.9                   | EUT Horizontal, Ch 1, 6 Mbps   |
| 2385.233   | 34.6             | -4.0        | 1.0                     | 30.0              | 3.0                    | 20.0                      | Horz                      | AV       | 0.0                      | 50.6              | 54.0                 | -3.4                   | EUT Horizontal, Ch 1, 11 Mbps  |
| 2483.500   | 33.9             | -3.8        | 1.0                     | 293.0             | 3.0                    | 20.0                      | Vert                      | AV       | 0.0                      | 50.1              | 54.0                 | -3.9                   | EUT Vertical, Ch 11, 6 Mbps    |
| 2483.542   | 33.4             | -3.8        | 1.0                     | 293.0             | 3.0                    | 20.0                      | Vert                      | AV       | 0.0                      | 49.6              | 54.0                 | -4.4                   | EUT Vertical, Ch 11, MCS0      |
| 2483.533   | 33.3             | -3.8        | 1.0                     | 12.0              | 3.0                    | 20.0                      | Horz                      | AV       | 0.0                      | 49.5              | 54.0                 | -4.5                   | EUT Horizontal, Ch 11, 6 Mbps  |
| 2483.533   | 33.2             | -3.8        | 1.0                     | 293.0             | 3.0                    | 20.0                      | Vert                      | AV       | 0.0                      | 49.4              | 54.0                 | -4.6                   | EUT Vertical, Ch 11, MCS7      |
| 2483.567   | 33.1             | -3.8        | 1.0                     | 12.0              | 3.0                    | 20.0                      | Horz                      | AV       | 0.0                      | 49.3              | 54.0                 | -4.7                   | EUT Horizontal, Ch 11, MCS0    |
| 2488.500   | 33.0             | -3.7        | 1.0                     | 12.0              | 3.0                    | 20.0                      | Horz                      | AV       | 0.0                      | 49.3              | 54.0                 | -4.7                   | EUT Horizontal, Ch 11, 1 Mbps  |
| 2483.567   | 32.9             | -3.8        | 1.0                     | 293.0             | 3.0                    | 20.0                      | Vert                      | AV       | 0.0                      | 49.1              | 54.0                 | -4.9                   | EUT Vertical, Ch 11, 36 Mbps   |
| 2483.550   | 32.9             | -3.8        | 1.0                     | 12.0              | 3.0                    | 20.0                      | Horz                      | AV       | 0.0                      | 49.1              | 54.0                 | -4.9                   | EUT Horizontal, Ch 11, 36 Mbps |
| 2483.550   | 32.9             | -3.8        | 1.0                     | 12.0              | 3.0                    | 20.0                      | Horz                      | AV       | 0.0                      | 49.1              | 54.0                 | -4.9                   | EUT Vertical, Ch 11, MCS7      |
| 2483.508   | 32.9             | -3.8        | 1.0                     | 293.0             | 3.0                    | 20.0                      | Vert                      | AV       | 0.0                      | 49.1              | 54.0                 | -4.9                   | EUT Vertical, Ch 11, 54 Mbps   |
| 2488.467   | 32.8             | -3.7        | 1.0                     | 293.0             | 3.0                    | 20.0                      | Vert                      | AV       | 0.0                      | 49.1              | 54.0                 | -4.9                   | EUT Vertical, Ch 11, 1 Mbps    |
| 2483.533   | 32.7             | -3.8        | 1.0                     | 12.0              | 3.0                    | 20.0                      | Horz                      | AV       | 0.0                      | 48.9              | 54.0                 | -5.1                   | EUT Horizontal, Ch 11, 54 Mbps |
| 2483.542   | 32.3             | -3.8        | 1.0                     | 293.0             | 3.0                    | 20.0                      | Vert                      | AV       | 0.0                      | 48.5              | 54.0                 | -5.5                   | EUT Vertical, Ch 11, 11 Mbps   |
| 2488.075   | 32.1             | -3.7        | 1.0                     | 12.0              | 3.0                    | 20.0                      | Horz                      | AV       | 0.0                      | 48.4              | 54.0                 | -5.6                   | EUT Horizontal, Ch 11, 11 Mbps |
| 2483.625   | 51.7             | -3.8        | 1.0                     | 12.0              | 3.0                    | 20.0                      | Horz                      | PK       | 0.0                      | 67.9              | 74.0                 | -6.1                   | EUT Horizontal, Ch 11, MCS0    |
| 2483.558   | 31.6             | -3.8        | 1.0                     | 12.0              | 3.0                    | 20.0                      | Horz                      | AV       | 0.0                      | 47.8              | 54.0                 | -6.2                   | EUT Vertical, Ch 11, 6 Mbps    |
| 2389.675   | 51.6             | -4.0        | 1.0                     | 30.0              | 3.0                    | 20.0                      | Horz                      | PK       | 0.0                      | 67.6              | 74.0                 | -6.4                   | EUT Horizontal, Ch 1, 6 Mbps   |
| 2484.342   | 31.2             | -3.8        | 1.0                     | 167.0             | 3.0                    | 20.0                      | Horz                      | AV       | 0.0                      | 47.4              | 54.0                 | -6.6                   | EUT on Side, Ch 11, 6 Mbps     |
| 2483.792   | 31.1             | -3.8        | 3.4                     | 130.0             | 3.0                    | 20.0                      | Vert                      | AV       | 0.0                      | 47.3              | 54.0                 | -6.7                   | EUT on Side, Ch 11, 6 Mbps     |
| 2483.600   | 31.1             | -3.8        | 1.3                     | 307.0             | 3.0                    | 20.0                      | Vert                      | AV       | 0.0                      | 47.3              | 54.0                 | -6.7                   | EUT Horizontal, Ch 11, 6 Mbps  |
| 2485.608   | 50.2             | -3.8        | 1.0                     | 293.0             | 3.0                    | 20.0                      | Vert                      | PK       | 0.0                      | 66.4              | 74.0                 | -7.6                   | EUT Vertical, Ch 11, 6 Mbps    |
| 2483.958   | 50.2             | -3.8        | 1.0                     | 12.0              | 3.0                    | 20.0                      | Horz                      | PK       | 0.0                      | 66.4              | 74.0                 | -7.6                   | EUT Vertical, Ch 11, MCS7      |
| 2389.025   | 50.2             | -4.0        | 1.0                     | 245.0             | 3.0                    | 20.0                      | Vert                      | PK       | 0.0                      | 66.2              | 74.0                 | -7.8                   | EUT Vertical, Ch 1, 6 Mbps     |

| Freq<br>(MHz) | Amplitude<br>(dBuV) | Factor<br>(dB) | Antenna Height<br>(meters) | Azimuth<br>(degrees) | Test Distance<br>(meters) | External<br>Attenuation<br>(dB) | Polarity/<br>Transducer<br>Type | Detector | Distance<br>Adjustment<br>(dB) | Adjusted<br>(dBuV/m) | Spec. Limit<br>(dBuV/m) | Compared to<br>Spec.<br>(dB) | Comments                       |
|---------------|---------------------|----------------|----------------------------|----------------------|---------------------------|---------------------------------|---------------------------------|----------|--------------------------------|----------------------|-------------------------|------------------------------|--------------------------------|
| 2483.975      | 49.0                | -3.8           | 1.0                        | 12.0                 | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 65.2                 | 74.0                    | -8.8                         | EUT Horizontal, Ch 11, 6 Mbps  |
| 2484.425      | 48.8                | -3.8           | 1.0                        | 293.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 65.0                 | 74.0                    | -9.0                         | EUT Vertical, Ch 11, MCS0      |
| 2483.767      | 48.0                | -3.8           | 1.0                        | 12.0                 | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 64.2                 | 74.0                    | -9.8                         | EUT Horizontal, Ch 11, 36 Mbps |
| 2484.017      | 47.8                | -3.8           | 1.0                        | 12.0                 | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 64.0                 | 74.0                    | -10.0                        | EUT Horizontal, Ch 11, 54 Mbps |
| 2485.667      | 47.6                | -3.8           | 1.0                        | 293.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 63.8                 | 74.0                    | -10.2                        | EUT Vertical, Ch 11, MCS7      |
| 2483.950      | 46.7                | -3.8           | 1.0                        | 293.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 62.9                 | 74.0                    | -11.1                        | EUT Vertical, Ch 11, 54 Mbps   |
| 2484.350      | 45.9                | -3.8           | 1.0                        | 293.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 62.1                 | 74.0                    | -11.9                        | EUT Vertical, Ch 11, 36 Mbps   |
| 7388.067      | 28.8                | 12.4           | 2.7                        | 305.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 41.2                 | 54.0                    | -12.8                        | EUT Horizontal, Ch 11, 1 Mbps  |
| 7312.167      | 29.2                | 12.0           | 1.0                        | 326.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 41.2                 | 54.0                    | -12.8                        | EUT Vertical, Ch 6, 1 Mbps     |
| 7309.675      | 29.2                | 12.0           | 1.0                        | 200.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 41.2                 | 54.0                    | -12.8                        | EUT Horizontal, Ch 6, 1 Mbps   |
| 7388.092      | 28.7                | 12.4           | 1.0                        | 185.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 41.1                 | 54.0                    | -12.9                        | EUT Vertical, Ch 11, 1 Mbps    |
| 2385.675      | 45.1                | -4.0           | 1.0                        | 30.0                 | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 61.1                 | 74.0                    | -12.9                        | EUT Horizontal, Ch 1, 11 Mbps  |
| 2385.233      | 45.0                | -4.0           | 1.0                        | 30.0                 | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 61.0                 | 74.0                    | -13.0                        | EUT Horizontal, Ch 1, 1 Mbps   |
| 4823.950      | 36.7                | 4.1            | 1.0                        | 262.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 40.8                 | 54.0                    | -13.2                        | EUT Vertical, Ch 1, 1 Mbps     |
| 2385.467      | 44.8                | -4.0           | 1.0                        | 245.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 60.8                 | 74.0                    | -13.2                        | EUT Vertical, Ch 1, 1 Mbps     |
| 2487.608      | 43.8                | -3.7           | 1.0                        | 12.0                 | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 60.1                 | 74.0                    | -13.9                        | EUT Horizontal, Ch 11, 1 Mbps  |
| 4874.000      | 35.6                | 4.3            | 1.1                        | 4.0                  | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 39.9                 | 54.0                    | -14.1                        | EUT Horizontal, Ch 6, 1 Mbps   |
| 2488.292      | 43.2                | -3.7           | 1.0                        | 293.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 59.5                 | 74.0                    | -14.5                        | EUT Vertical, Ch 11, 1 Mbps    |
| 4874.025      | 35.1                | 4.3            | 1.0                        | 264.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 39.4                 | 54.0                    | -14.6                        | EUT Vertical, Ch 6, 1 Mbps     |
| 2487.242      | 43.1                | -3.8           | 1.0                        | 167.0                | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 59.3                 | 74.0                    | -14.7                        | EUT on Side, Ch 11, 6 Mbps     |
| 2484.233      | 43.1                | -3.8           | 1.0                        | 12.0                 | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 59.3                 | 74.0                    | -14.7                        | EUT Vertical, Ch 11, 6 Mbps    |
| 2483.533      | 42.9                | -3.8           | 1.0                        | 293.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 59.1                 | 74.0                    | -14.9                        | EUT Vertical, Ch 11, 11 Mbps   |
| 4924.000      | 34.3                | 4.4            | 1.0                        | 35.0                 | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 38.7                 | 54.0                    | -15.3                        | EUT Vertical, Ch 11, 1 Mbps    |
| 2484.825      | 42.3                | -3.8           | 1.0                        | 12.0                 | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 58.5                 | 74.0                    | -15.5                        | EUT Horizontal, Ch 11, 11 Mbps |
| 2486.200      | 42.1                | -3.8           | 3.4                        | 130.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 58.3                 | 74.0                    | -15.7                        | EUT on Side, Ch 11, 6 Mbps     |
| 4823.992      | 34.0                | 4.1            | 1.3                        | 6.0                  | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 38.1                 | 54.0                    | -15.9                        | EUT Horizontal, Ch 1, 1 Mbps   |
| 4873.975      | 33.8                | 4.3            | 1.1                        | 322.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 38.1                 | 54.0                    | -15.9                        | EUT on Side, Ch 6, 1 Mbps      |
| 2485.108      | 41.7                | -3.8           | 1.3                        | 307.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 57.9                 | 74.0                    | -16.1                        | EUT Horizontal, Ch 11, 6 Mbps  |
| 4923.975      | 33.4                | 4.4            | 1.0                        | 302.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 37.8                 | 54.0                    | -16.2                        | EUT Horizontal, Ch 11, 1 Mbps  |
| 4873.958      | 33.1                | 4.3            | 1.1                        | 281.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 37.4                 | 54.0                    | -16.6                        | EUT on Side, Ch 6, 1 Mbps      |
| 4824.125      | 33.1                | 4.1            | 1.0                        | 252.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 37.2                 | 54.0                    | -16.8                        | EUT Vertical, Ch 1, 11 Mbps    |
| 4874.033      | 32.3                | 4.3            | 1.0                        | 121.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 36.6                 | 54.0                    | -17.4                        | EUT Vertical, Ch 6, 1 Mbps     |
| 4874.067      | 32.2                | 4.3            | 1.0                        | 129.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 36.5                 | 54.0                    | -17.5                        | EUT Horizontal, Ch 6, 1 Mbps   |
| 4824.000      | 31.6                | 4.1            | 1.3                        | 5.0                  | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 35.7                 | 54.0                    | -18.3                        | EUT Horizontal, Ch 1, 11 Mbps  |
| 4821.600      | 30.0                | 4.1            | 1.0                        | 251.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 34.1                 | 54.0                    | -19.9                        | EUT Vertical, Ch 1, MCS0       |
| 14469.600     | 32.5                | 1.5            | 2.5                        | 177.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 34.0                 | 54.0                    | -20.0                        | EUT Vertical, Ch 1, 1 Mbps     |
| 14472.400     | 32.5                | 1.5            | 1.0                        | 180.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 34.0                 | 54.0                    | -20.0                        | EUT Horizontal, Ch 1, 1 Mbps   |
| 4822.550      | 29.9                | 4.1            | 1.0                        | 251.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 34.0                 | 54.0                    | -20.0                        | EUT Vertical, Ch 1, 54 Mbps    |
| 4822.400      | 29.9                | 4.1            | 1.3                        | 5.0                  | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 34.0                 | 54.0                    | -20.0                        | EUT Horizontal, Ch 1, 6 Mbps   |
| 4822.067      | 29.9                | 4.1            | 1.3                        | 5.0                  | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 34.0                 | 54.0                    | -20.0                        | EUT Horizontal, Ch 1, 36 Mbps  |
| 4821.733      | 29.9                | 4.1            | 1.0                        | 251.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 34.0                 | 54.0                    | -20.0                        | EUT Vertical, Ch 1, 6 Mbps     |
| 4821.633      | 29.9                | 4.1            | 1.0                        | 251.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 34.0                 | 54.0                    | -20.0                        | EUT Vertical, Ch 1, 36 Mbps    |
| 4821.583      | 29.9                | 4.1            | 1.3                        | 5.0                  | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 34.0                 | 54.0                    | -20.0                        | EUT Horizontal, Ch 1, 54 Mbps  |
| 4821.583      | 29.9                | 4.1            | 1.0                        | 251.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 34.0                 | 54.0                    | -20.0                        | EUT Vertical, Ch 1, MCS7       |
| 4822.392      | 29.8                | 4.1            | 1.3                        | 5.0                  | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 33.9                 | 54.0                    | -20.1                        | EUT Horizontal, Ch 1, MCS7     |
| 4822.167      | 29.8                | 4.1            | 1.3                        | 5.0                  | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 33.9                 | 54.0                    | -20.1                        | EUT Horizontal, Ch 1, MCS0     |
| 7313.317      | 40.6                | 12.0           | 1.0                        | 326.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 52.6                 | 74.0                    | -21.4                        | EUT Vertical, Ch 6, 1 Mbps     |
| 7313.075      | 39.2                | 12.0           | 1.0                        | 200.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 51.2                 | 74.0                    | -22.8                        | EUT Horizontal, Ch 6, 1 Mbps   |
| 7384.875      | 38.7                | 12.4           | 1.0                        | 185.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 51.1                 | 74.0                    | -22.9                        | EUT Vertical, Ch 11, 1 Mbps    |
| 7383.967      | 38.6                | 12.4           | 2.7                        | 305.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 51.0                 | 74.0                    | -23.0                        | EUT Horizontal, Ch 11, 1 Mbps  |
| 12184.030     | 36.0                | -6.2           | 1.0                        | 9.0                  | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 29.8                 | 54.0                    | -24.2                        | EUT Vertical, Ch 6, 1 Mbps     |
| 12183.010     | 35.8                | -6.2           | 1.0                        | 53.0                 | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 29.6                 | 54.0                    | -24.4                        | EUT Horizontal, Ch 6, 1 Mbps   |
| 12308.070     | 35.1                | -5.9           | 1.0                        | 147.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 29.2                 | 54.0                    | -24.8                        | EUT Vertical, Ch 11, 1 Mbps    |
| 12310.020     | 35.0                | -5.9           | 1.0                        | 43.0                 | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 29.1                 | 54.0                    | -24.9                        | EUT Horizontal, Ch 11, 1 Mbps  |
| 12062.100     | 35.1                | -6.5           | 1.7                        | 237.0                | 3.0                       | 0.0                             | Vert                            | AV       | 0.0                            | 28.6                 | 54.0                    | -25.4                        | EUT Vertical, Ch 1, 1 Mbps     |
| 12062.230     | 35.0                | -6.5           | 2.3                        | 223.0                | 3.0                       | 0.0                             | Horz                            | AV       | 0.0                            | 28.5                 | 54.0                    | -25.5                        | EUT Horizontal, Ch 1, 1 Mbps   |
| 4873.967      | 43.2                | 4.3            | 1.0                        | 264.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 47.5                 | 74.0                    | -26.5                        | EUT Vertical, Ch 6, 1 Mbps     |
| 4823.917      | 42.7                | 4.1            | 1.0                        | 262.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 46.8                 | 74.0                    | -27.2                        | EUT Vertical, Ch 1, 1 Mbps     |
| 4822.167      | 42.7                | 4.1            | 1.3                        | 5.0                  | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 46.8                 | 74.0                    | -27.2                        | EUT Horizontal, Ch 1, 11 Mbps  |
| 4923.783      | 42.2                | 4.4            | 1.0                        | 302.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 46.6                 | 74.0                    | -27.4                        | EUT Horizontal, Ch 11, 1 Mbps  |
| 4824.442      | 42.0                | 4.1            | 1.0                        | 252.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 46.1                 | 74.0                    | -27.9                        | EUT Vertical, Ch 1, 11 Mbps    |
| 4873.792      | 41.5                | 4.3            | 1.1                        | 4.0                  | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 45.8                 | 74.0                    | -28.2                        | EUT Horizontal, Ch 6, 1 Mbps   |
| 4923.933      | 41.3                | 4.4            | 1.0                        | 35.0                 | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 45.7                 | 74.0                    | -28.3                        | EUT Vertical, Ch 11, 1 Mbps    |
| 4823.133      | 41.3                | 4.1            | 1.0                        | 251.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 45.4                 | 74.0                    | -28.6                        | EUT Vertical, Ch 1, MCS0       |
| 4874.192      | 41.1                | 4.3            | 1.1                        | 322.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 45.4                 | 74.0                    | -28.6                        | EUT on Side, Ch 6, 1 Mbps      |
| 4825.600      | 41.1                | 4.1            | 1.0                        | 251.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 45.2                 | 74.0                    | -28.8                        | EUT Vertical, Ch 1, 36 Mbps    |
| 4824.008      | 41.1                | 4.1            | 1.3                        | 6.0                  | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 45.2                 | 74.0                    | -28.8                        | EUT Horizontal, Ch 1, 1 Mbps   |
| 4824.487      | 41.0                | 4.1            | 1.3                        | 5.0                  | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 45.1                 | 74.0                    | -28.9                        | EUT Horizontal, Ch 1, MCS7     |
| 4822.287      | 41.0                | 4.1            | 1.3                        | 5.0                  | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 45.1                 | 74.0                    | -28.9                        | EUT Horizontal, Ch 1, 36 Mbps  |
| 4873.667      | 40.7                | 4.3            | 1.1                        | 281.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 45.0                 | 74.0                    | -29.0                        | EUT on Side, Ch 6, 1 Mbps      |
| 4874.075      | 40.6                | 4.3            | 1.0                        | 121.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 44.9                 | 74.0                    | -29.1                        | EUT Vertical, Ch 6, 1 Mbps     |
| 4822.133      | 40.7                | 4.1            | 1.0                        | 251.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 44.8                 | 74.0                    | -29.2                        | EUT Vertical, Ch 1, 6 Mbps     |
| 4825.673      | 40.6                | 4.1            | 1.0                        | 251.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 44.7                 | 74.0                    | -29.3                        | EUT Vertical, Ch 1, MCS7       |
| 4822.827      | 40.5                | 4.1            | 1.3                        | 5.0                  | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 44.6                 | 74.0                    | -29.4                        | EUT Horizontal, Ch 1, MCS0     |
| 4822.533      | 40.4                | 4.1            | 1.3                        | 5.0                  | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 44.5                 | 74.0                    | -29.5                        | EUT Horizontal, Ch 1, 54 Mbps  |
| 4822.220      | 40.4                | 4.1            | 1.3                        | 5.0                  | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 44.5                 | 74.0                    | -29.5                        | EUT Horizontal, Ch 1, 6 Mbps   |
| 4824.933      | 40.1                | 4.1            | 1.0                        | 251.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 44.2                 | 74.0                    | -29.8                        | EUT Vertical, Ch 1, 54 Mbps    |
| 4871.600      | 39.9                | 4.3            | 1.0                        | 129.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 44.2                 | 74.0                    | -29.8                        | EUT Horizontal, Ch 6, 1 Mbps   |
| 14470.150     | 42.5                | 1.5            | 2.5                        | 177.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 44.0                 | 74.0                    | -30.0                        | EUT Vertical, Ch 1, 1 Mbps     |
| 14469.500     | 42.4                | 1.5            | 1.0                        | 180.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 43.9                 | 74.0                    | -30.1                        | EUT Horizontal, Ch 1, 1 Mbps   |
| 12187.000     | 46.1                | -6.2           | 1.0                        | 53.0                 | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 39.9                 | 74.0                    | -34.1                        | EUT Horizontal, Ch 6, 1 Mbps   |
| 12186.890     | 46.1                | -6.2           | 1.0                        | 9.0                  | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 39.9                 | 74.0                    | -34.1                        | EUT Vertical, Ch 6, 1 Mbps     |
| 12310.980     | 45.4                | -5.9           | 1.0                        | 43.0                 | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 39.5                 | 74.0                    | -34.5                        | EUT Horizontal, Ch 11, 1 Mbps  |
| 12310.770     | 45.4                | -5.9           | 1.0                        | 147.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 39.5                 | 74.0                    | -34.5                        | EUT Vertical, Ch 11, 1 Mbps    |
| 12061.690     | 45.2                | -6.5           | 1.7                        | 237.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 38.7                 | 74.0                    | -35.3                        | EUT Vertical, Ch 1, 1 Mbps     |
| 12059.910     | 45.2                | -6.5           | 2.3                        | 223.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 38.7                 | 74.0                    | -35.3                        | EUT Horizontal, Ch 1, 1 Mbps   |

# AC POWERLINE CONDUCTED EMISSIONS

## TEST DESCRIPTION

The EUT will be powered either directly or indirectly from the AC power line. Therefore, conducted emissions measurements were made on the AC input of the EUT, or on the AC input of the device used to power the EUT. The AC power line conducted emissions were measured with the EUT operating at the lowest, the highest, and a middle channel in the operational band. The EUT was transmitting at its maximum data rate. For each mode, the spectrum was scanned from 150 kHz to 30 MHz. The test setup and procedures were in accordance with ANSI C63.10-2009.

## TEST EQUIPMENT

| Description          | Manufacturer       | Model            | ID  | Last Cal.  | Interval |
|----------------------|--------------------|------------------|-----|------------|----------|
| Spectrum Analyzer    | Agilent            | E4440A           | AAX | 05/15/2012 | 24 mo    |
| MN03 Cables          | ESM Cable Corp.    | Conducted Cables | MNC | 01/17/2013 | 12 mo    |
| High Pass Filter     | TTE                | H97-100K-50-720B | HGN | 05/31/2012 | 24 mo    |
| Attenuator 20dB, BNC | Fairview Microwave | SA01B-20         | AQP | 08/15/2012 | 12 mo    |
| LISN                 | Solar Electronics  | 9252-50-R-24-BNC | LIY | 05/30/2012 | 12 mo    |

## MEASUREMENT UNCERTAINTY

| Description  |         |          |
|--------------|---------|----------|
| Expanded k=2 | 2.94 dB | -2.94 dB |

## CONFIGURATIONS INVESTIGATED

HNYW0043-1

## MODES INVESTIGATED

Transmitting, Antenna 0, 802.11, 1 Mbps, Channel 1  
 Transmitting, Antenna 0, 802.11, 1 Mbps, Channel 11  
 Transmitting, Antenna 0, 802.11, 1 Mbps, Channel 6  
 Transmitting, Antenna 1, 802.11, 1 Mbps, Channel 1  
 Transmitting, Antenna 1, 802.11, 1 Mbps, Channel 11  
 Transmitting, Antenna 1, 802.11, 1 Mbps, Channel 6

# AC POWERLINE CONDUCTED EMISSIONS

|                   |                                             |                    |            |
|-------------------|---------------------------------------------|--------------------|------------|
| EUT:              | RTH9580WF01                                 | Work Order:        | HNYW0043   |
| Serial Number:    | 5191101 0010630                             | Date:              | 03/21/2013 |
| Customer:         | Honeywell, Automation and Control Solutions | Temperature:       | 24.1°C     |
| Attendees:        | None                                        | Relative Humidity: | 10%        |
| Customer Project: | None                                        | Bar. Pressure:     | 1019.4 mb  |
| Tested By:        | Trevor Buls                                 | Job Site:          | MN03       |
| Power:            | 110VAC/60Hz                                 | Configuration:     | HNYW0043-1 |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.207:2013 | ANSI C63.10:2009 |

## TEST PARAMETERS

|        |   |       |           |                        |    |
|--------|---|-------|-----------|------------------------|----|
| Run #: | 8 | Line: | High Line | Ext. Attenuation (dB): | 20 |
|--------|---|-------|-----------|------------------------|----|

## COMMENTS

|      |
|------|
| None |
|------|

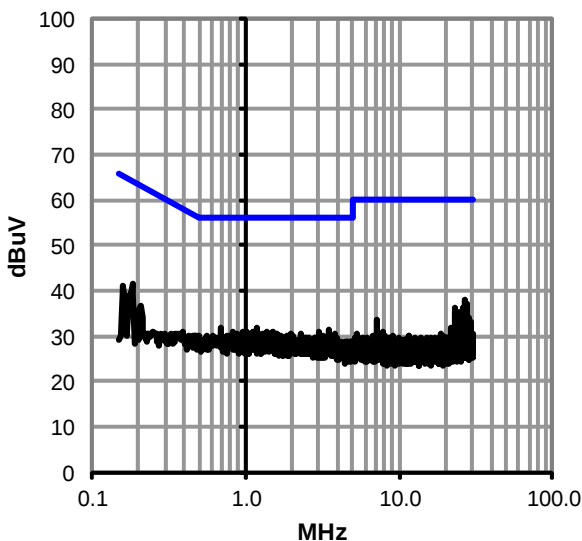
## EUT OPERATING MODES

|                                                    |
|----------------------------------------------------|
| Transmitting, Antenna 0, 802.11, 1 Mbps, Channel 1 |
|----------------------------------------------------|

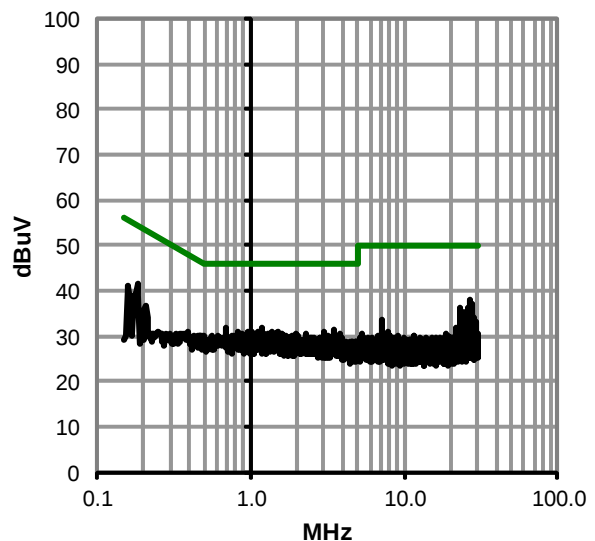
## DEVIATIONS FROM TEST STANDARD

|      |
|------|
| None |
|------|

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #8

Peak Data - vs - Quasi Peak Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 26.727     | 15.8        | 22.1        | 37.9            | 60.0               | -22.1       |
| 0.183      | 21.2        | 20.2        | 41.4            | 64.4               | -23.0       |
| 27.281     | 14.8        | 22.1        | 36.9            | 60.0               | -23.1       |
| 23.389     | 14.7        | 21.7        | 36.4            | 60.0               | -23.6       |
| 26.174     | 14.3        | 22.0        | 36.3            | 60.0               | -23.7       |
| 0.161      | 21.1        | 20.2        | 41.3            | 65.4               | -24.1       |
| 25.609     | 13.9        | 21.9        | 35.8            | 60.0               | -24.2       |
| 1.174      | 11.6        | 20.2        | 31.8            | 56.0               | -24.2       |
| 0.693      | 11.6        | 20.2        | 31.8            | 56.0               | -24.2       |
| 25.062     | 13.6        | 21.9        | 35.5            | 60.0               | -24.5       |
| 22.824     | 13.8        | 21.6        | 35.4            | 60.0               | -24.6       |
| 3.521      | 10.9        | 20.4        | 31.3            | 56.0               | -24.7       |
| 23.943     | 13.5        | 21.7        | 35.2            | 60.0               | -24.8       |
| 1.025      | 10.9        | 20.2        | 31.1            | 56.0               | -24.9       |
| 27.839     | 12.9        | 22.2        | 35.1            | 60.0               | -24.9       |
| 1.119      | 10.8        | 20.2        | 31.0            | 56.0               | -25.0       |
| 1.371      | 10.7        | 20.2        | 30.9            | 56.0               | -25.1       |
| 1.487      | 10.6        | 20.2        | 30.8            | 56.0               | -25.2       |
| 3.007      | 10.5        | 20.3        | 30.8            | 56.0               | -25.2       |
| 0.828      | 10.6        | 20.2        | 30.8            | 56.0               | -25.2       |
| 0.963      | 10.6        | 20.2        | 30.8            | 56.0               | -25.2       |
| 24.096     | 13.0        | 21.7        | 34.7            | 60.0               | -25.3       |
| 3.816      | 10.3        | 20.4        | 30.7            | 56.0               | -25.3       |
| 2.275      | 10.3        | 20.3        | 30.6            | 56.0               | -25.4       |
| 0.890      | 10.3        | 20.2        | 30.5            | 56.0               | -25.5       |
| 1.582      | 10.2        | 20.3        | 30.5            | 56.0               | -25.5       |

Peak Data - vs - Average Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 26.727     | 15.8        | 22.1        | 37.9            | 50.0               | -12.1       |
| 0.183      | 21.2        | 20.2        | 41.4            | 54.4               | -13.0       |
| 27.281     | 14.8        | 22.1        | 36.9            | 50.0               | -13.1       |
| 23.389     | 14.7        | 21.7        | 36.4            | 50.0               | -13.6       |
| 26.174     | 14.3        | 22.0        | 36.3            | 50.0               | -13.7       |
| 0.161      | 21.1        | 20.2        | 41.3            | 55.4               | -14.1       |
| 25.609     | 13.9        | 21.9        | 35.8            | 50.0               | -14.2       |
| 1.174      | 11.6        | 20.2        | 31.8            | 46.0               | -14.2       |
| 0.693      | 11.6        | 20.2        | 31.8            | 46.0               | -14.2       |
| 25.062     | 13.6        | 21.9        | 35.5            | 50.0               | -14.5       |
| 22.824     | 13.8        | 21.6        | 35.4            | 50.0               | -14.6       |
| 3.521      | 10.9        | 20.4        | 31.3            | 46.0               | -14.7       |
| 23.943     | 13.5        | 21.7        | 35.2            | 50.0               | -14.8       |
| 1.025      | 10.9        | 20.2        | 31.1            | 46.0               | -14.9       |
| 27.839     | 12.9        | 22.2        | 35.1            | 50.0               | -14.9       |
| 1.119      | 10.8        | 20.2        | 31.0            | 46.0               | -15.0       |
| 1.371      | 10.7        | 20.2        | 30.9            | 46.0               | -15.1       |
| 1.487      | 10.6        | 20.2        | 30.8            | 46.0               | -15.2       |
| 3.007      | 10.5        | 20.3        | 30.8            | 46.0               | -15.2       |
| 0.828      | 10.6        | 20.2        | 30.8            | 46.0               | -15.2       |
| 0.963      | 10.6        | 20.2        | 30.8            | 46.0               | -15.2       |
| 24.096     | 13.0        | 21.7        | 34.7            | 50.0               | -15.3       |
| 3.816      | 10.3        | 20.4        | 30.7            | 46.0               | -15.3       |
| 2.275      | 10.3        | 20.3        | 30.6            | 46.0               | -15.4       |
| 0.890      | 10.3        | 20.2        | 30.5            | 46.0               | -15.5       |
| 1.582      | 10.2        | 20.3        | 30.5            | 46.0               | -15.5       |

## CONCLUSION

Pass

*Trevor Buls*  
Tested By

# AC POWERLINE CONDUCTED EMISSIONS

|                   |                                             |                    |            |
|-------------------|---------------------------------------------|--------------------|------------|
| EUT:              | RTH9580WF01                                 | Work Order:        | HNYW0043   |
| Serial Number:    | 5191101 0010630                             | Date:              | 03/21/2013 |
| Customer:         | Honeywell, Automation and Control Solutions | Temperature:       | 24.1°C     |
| Attendees:        | None                                        | Relative Humidity: | 10%        |
| Customer Project: | None                                        | Bar. Pressure:     | 1019.4 mb  |
| Tested By:        | Trevor Buls                                 | Job Site:          | MN03       |
| Power:            | 110VAC/60Hz                                 | Configuration:     | HNYW0043-1 |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.207:2013 | ANSI C63.10:2009 |

## TEST PARAMETERS

|        |   |       |         |                        |    |
|--------|---|-------|---------|------------------------|----|
| Run #: | 9 | Line: | Neutral | Ext. Attenuation (dB): | 20 |
|--------|---|-------|---------|------------------------|----|

## COMMENTS

None

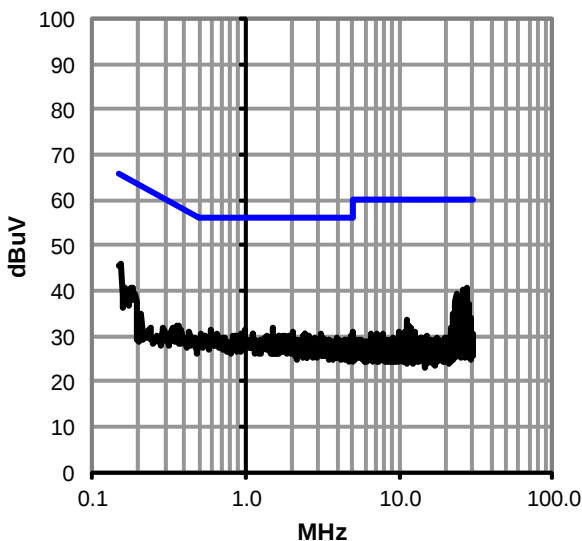
## EUT OPERATING MODES

Transmitting, Antenna 0, 802.11, 1 Mbps, Channel 1

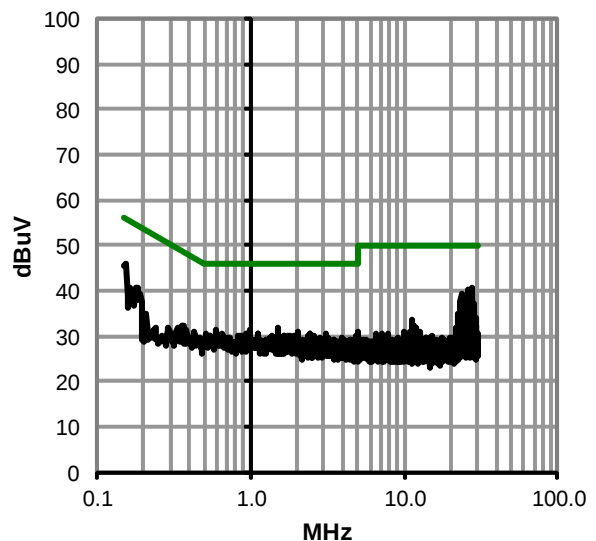
## DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #9

Peak Data - vs - Quasi Peak Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 27.300     | 18.4        | 22.1        | 40.5            | 60.0               | -19.5       |
| 0.154      | 25.7        | 20.2        | 45.9            | 65.8               | -19.9       |
| 26.184     | 18.1        | 22.0        | 40.1            | 60.0               | -19.9       |
| 26.742     | 17.8        | 22.1        | 39.9            | 60.0               | -20.1       |
| 23.400     | 17.7        | 21.7        | 39.4            | 60.0               | -20.6       |
| 25.634     | 17.2        | 21.9        | 39.1            | 60.0               | -20.9       |
| 24.665     | 16.1        | 21.8        | 37.9            | 60.0               | -22.1       |
| 27.857     | 15.7        | 22.2        | 37.9            | 60.0               | -22.1       |
| 25.073     | 15.7        | 21.9        | 37.6            | 60.0               | -22.4       |
| 23.958     | 15.6        | 21.7        | 37.3            | 60.0               | -22.7       |
| 24.104     | 15.3        | 21.7        | 37.0            | 60.0               | -23.0       |
| 28.415     | 14.7        | 22.2        | 36.9            | 60.0               | -23.1       |
| 22.843     | 15.3        | 21.6        | 36.9            | 60.0               | -23.1       |
| 24.566     | 15.1        | 21.8        | 36.9            | 60.0               | -23.1       |
| 24.515     | 14.7        | 21.8        | 36.5            | 60.0               | -23.5       |
| 0.179      | 20.6        | 20.2        | 40.8            | 64.5               | -23.7       |
| 1.498      | 11.5        | 20.2        | 31.7            | 56.0               | -24.3       |
| 23.546     | 14.0        | 21.7        | 35.7            | 60.0               | -24.3       |
| 26.338     | 13.5        | 22.0        | 35.5            | 60.0               | -24.5       |
| 25.219     | 13.6        | 21.9        | 35.5            | 60.0               | -24.5       |
| 0.977      | 11.2        | 20.2        | 31.4            | 56.0               | -24.6       |
| 0.598      | 11.1        | 20.2        | 31.3            | 56.0               | -24.7       |
| 0.165      | 20.3        | 20.2        | 40.5            | 65.2               | -24.7       |
| 26.891     | 13.2        | 22.1        | 35.3            | 60.0               | -24.7       |
| 4.953      | 10.6        | 20.4        | 31.0            | 56.0               | -25.0       |
| 24.865     | 13.1        | 21.8        | 34.9            | 60.0               | -25.1       |

Peak Data - vs - Average Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 27.300     | 18.4        | 22.1        | 40.5            | 50.0               | -9.5        |
| 0.154      | 25.7        | 20.2        | 45.9            | 55.8               | -9.9        |
| 26.184     | 18.1        | 22.0        | 40.1            | 50.0               | -9.9        |
| 26.742     | 17.8        | 22.1        | 39.9            | 50.0               | -10.1       |
| 23.400     | 17.7        | 21.7        | 39.4            | 50.0               | -10.6       |
| 25.634     | 17.2        | 21.9        | 39.1            | 50.0               | -10.9       |
| 24.665     | 16.1        | 21.8        | 37.9            | 50.0               | -12.1       |
| 27.857     | 15.7        | 22.2        | 37.9            | 50.0               | -12.1       |
| 25.073     | 15.7        | 21.9        | 37.6            | 50.0               | -12.4       |
| 23.958     | 15.6        | 21.7        | 37.3            | 50.0               | -12.7       |
| 24.104     | 15.3        | 21.7        | 37.0            | 50.0               | -13.0       |
| 28.415     | 14.7        | 22.2        | 36.9            | 50.0               | -13.1       |
| 22.843     | 15.3        | 21.6        | 36.9            | 50.0               | -13.1       |
| 24.566     | 15.1        | 21.8        | 36.9            | 50.0               | -13.1       |
| 24.515     | 14.7        | 21.8        | 36.5            | 50.0               | -13.5       |
| 0.179      | 20.6        | 20.2        | 40.8            | 54.5               | -13.7       |
| 1.498      | 11.5        | 20.2        | 31.7            | 46.0               | -14.3       |
| 23.546     | 14.0        | 21.7        | 35.7            | 50.0               | -14.3       |
| 26.338     | 13.5        | 22.0        | 35.5            | 50.0               | -14.5       |
| 25.219     | 13.6        | 21.9        | 35.5            | 50.0               | -14.5       |
| 0.977      | 11.2        | 20.2        | 31.4            | 46.0               | -14.6       |
| 0.598      | 11.1        | 20.2        | 31.3            | 46.0               | -14.7       |
| 0.165      | 20.3        | 20.2        | 40.5            | 55.2               | -14.7       |
| 26.891     | 13.2        | 22.1        | 35.3            | 50.0               | -14.7       |
| 4.953      | 10.6        | 20.4        | 31.0            | 46.0               | -15.0       |
| 24.865     | 13.1        | 21.8        | 34.9            | 50.0               | -15.1       |

## CONCLUSION

Pass

*Trevor Bults*  
Tested By

# AC POWERLINE CONDUCTED EMISSIONS

|                   |                                             |                    |            |
|-------------------|---------------------------------------------|--------------------|------------|
| EUT:              | RTH9580WF01                                 | Work Order:        | HNYW0043   |
| Serial Number:    | 5191101 0010630                             | Date:              | 03/21/2013 |
| Customer:         | Honeywell, Automation and Control Solutions | Temperature:       | 24.1°C     |
| Attendees:        | None                                        | Relative Humidity: | 10%        |
| Customer Project: | None                                        | Bar. Pressure:     | 1019.4 mb  |
| Tested By:        | Trevor Buls                                 | Job Site:          | MN03       |
| Power:            | 110VAC/60Hz                                 | Configuration:     | HNYW0043-1 |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.207:2013 | ANSI C63.10:2009 |

## TEST PARAMETERS

|        |    |       |           |                        |    |
|--------|----|-------|-----------|------------------------|----|
| Run #: | 10 | Line: | High Line | Ext. Attenuation (dB): | 20 |
|--------|----|-------|-----------|------------------------|----|

## COMMENTS

|      |
|------|
| None |
|------|

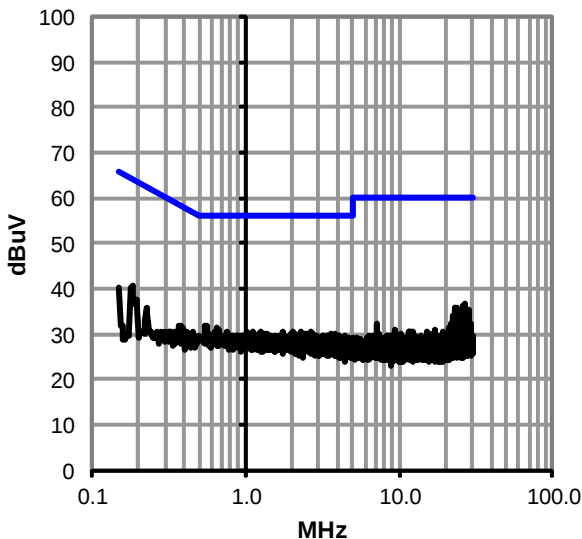
## EUT OPERATING MODES

|                                                    |
|----------------------------------------------------|
| Transmitting, Antenna 0, 802.11, 1 Mbps, Channel 6 |
|----------------------------------------------------|

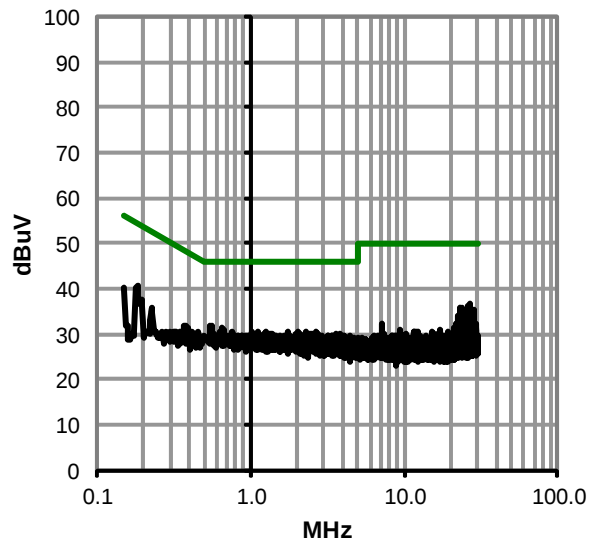
## DEVIATIONS FROM TEST STANDARD

|      |
|------|
| None |
|------|

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #10

Peak Data - vs - Quasi Peak Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 26.746     | 14.8        | 22.1        | 36.9            | 60.0               | -23.1       |
| 25.623     | 14.3        | 21.9        | 36.2            | 60.0               | -23.8       |
| 0.183      | 20.3        | 20.2        | 40.5            | 64.4               | -23.9       |
| 23.400     | 14.3        | 21.7        | 36.0            | 60.0               | -24.0       |
| 26.181     | 13.9        | 22.0        | 35.9            | 60.0               | -24.1       |
| 22.839     | 14.2        | 21.6        | 35.8            | 60.0               | -24.2       |
| 0.547      | 11.6        | 20.2        | 31.8            | 56.0               | -24.2       |
| 0.657      | 11.4        | 20.2        | 31.6            | 56.0               | -24.4       |
| 27.300     | 13.3        | 22.1        | 35.4            | 60.0               | -24.6       |
| 28.415     | 13.1        | 22.2        | 35.3            | 60.0               | -24.7       |
| 23.958     | 13.5        | 21.7        | 35.2            | 60.0               | -24.8       |
| 27.857     | 12.8        | 22.2        | 35.0            | 60.0               | -25.0       |
| 24.107     | 13.1        | 21.7        | 34.8            | 60.0               | -25.2       |
| 0.642      | 10.5        | 20.2        | 30.7            | 56.0               | -25.3       |
| 1.753      | 10.4        | 20.3        | 30.7            | 56.0               | -25.3       |
| 2.679      | 10.3        | 20.3        | 30.6            | 56.0               | -25.4       |
| 1.261      | 10.3        | 20.2        | 30.5            | 56.0               | -25.5       |
| 24.665     | 12.7        | 21.8        | 34.5            | 60.0               | -25.5       |
| 2.322      | 10.2        | 20.3        | 30.5            | 56.0               | -25.5       |
| 1.119      | 10.1        | 20.2        | 30.3            | 56.0               | -25.7       |
| 1.010      | 10.1        | 20.2        | 30.3            | 56.0               | -25.7       |
| 2.012      | 10.0        | 20.3        | 30.3            | 56.0               | -25.7       |
| 3.630      | 9.8         | 20.4        | 30.2            | 56.0               | -25.8       |
| 2.716      | 9.8         | 20.3        | 30.1            | 56.0               | -25.9       |
| 0.150      | 19.9        | 20.2        | 40.1            | 66.0               | -25.9       |
| 24.512     | 12.3        | 21.8        | 34.1            | 60.0               | -25.9       |

Peak Data - vs - Average Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 26.746     | 14.8        | 22.1        | 36.9            | 50.0               | -13.1       |
| 25.623     | 14.3        | 21.9        | 36.2            | 50.0               | -13.8       |
| 0.183      | 20.3        | 20.2        | 40.5            | 54.4               | -13.9       |
| 23.400     | 14.3        | 21.7        | 36.0            | 50.0               | -14.0       |
| 26.181     | 13.9        | 22.0        | 35.9            | 50.0               | -14.1       |
| 22.839     | 14.2        | 21.6        | 35.8            | 50.0               | -14.2       |
| 0.547      | 11.6        | 20.2        | 31.8            | 46.0               | -14.2       |
| 0.657      | 11.4        | 20.2        | 31.6            | 46.0               | -14.4       |
| 27.300     | 13.3        | 22.1        | 35.4            | 50.0               | -14.6       |
| 28.415     | 13.1        | 22.2        | 35.3            | 50.0               | -14.7       |
| 23.958     | 13.5        | 21.7        | 35.2            | 50.0               | -14.8       |
| 27.857     | 12.8        | 22.2        | 35.0            | 50.0               | -15.0       |
| 24.107     | 13.1        | 21.7        | 34.8            | 50.0               | -15.2       |
| 0.642      | 10.5        | 20.2        | 30.7            | 46.0               | -15.3       |
| 1.753      | 10.4        | 20.3        | 30.7            | 46.0               | -15.3       |
| 2.679      | 10.3        | 20.3        | 30.6            | 46.0               | -15.4       |
| 1.261      | 10.3        | 20.2        | 30.5            | 46.0               | -15.5       |
| 24.665     | 12.7        | 21.8        | 34.5            | 50.0               | -15.5       |
| 2.322      | 10.2        | 20.3        | 30.5            | 46.0               | -15.5       |
| 1.119      | 10.1        | 20.2        | 30.3            | 46.0               | -15.7       |
| 1.010      | 10.1        | 20.2        | 30.3            | 46.0               | -15.7       |
| 2.012      | 10.0        | 20.3        | 30.3            | 46.0               | -15.7       |
| 3.630      | 9.8         | 20.4        | 30.2            | 46.0               | -15.8       |
| 2.716      | 9.8         | 20.3        | 30.1            | 46.0               | -15.9       |
| 0.150      | 19.9        | 20.2        | 40.1            | 56.0               | -15.9       |
| 24.512     | 12.3        | 21.8        | 34.1            | 50.0               | -15.9       |

## CONCLUSION

Pass

*Trevor Buls*  
Tested By

# AC POWERLINE CONDUCTED EMISSIONS

|                   |                                             |                    |            |
|-------------------|---------------------------------------------|--------------------|------------|
| EUT:              | RTH9580WF01                                 | Work Order:        | HNYW0043   |
| Serial Number:    | 5191101 0010630                             | Date:              | 03/21/2013 |
| Customer:         | Honeywell, Automation and Control Solutions | Temperature:       | 24.1°C     |
| Attendees:        | None                                        | Relative Humidity: | 10%        |
| Customer Project: | None                                        | Bar. Pressure:     | 1019.4 mb  |
| Tested By:        | Trevor Buls                                 | Job Site:          | MN03       |
| Power:            | 110VAC/60Hz                                 | Configuration:     | HNYW0043-1 |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.207:2013 | ANSI C63.10:2009 |

## TEST PARAMETERS

|        |    |       |         |                        |    |
|--------|----|-------|---------|------------------------|----|
| Run #: | 11 | Line: | Neutral | Ext. Attenuation (dB): | 20 |
|--------|----|-------|---------|------------------------|----|

## COMMENTS

None

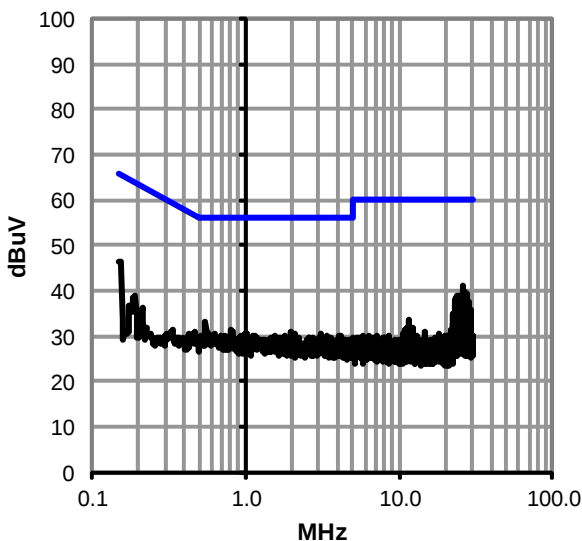
## EUT OPERATING MODES

Transmitting, Antenna 0, 802.11, 1 Mbps, Channel 6

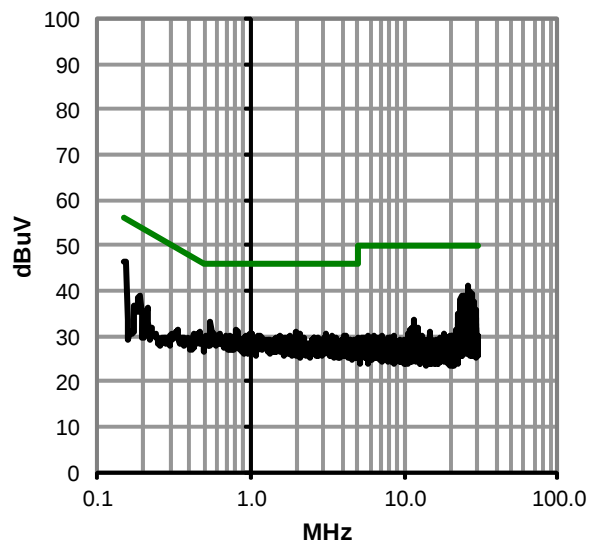
## DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #11

Peak Data - vs - Quasi Peak Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 26.188     | 18.9        | 22.0        | 40.9            | 60.0               | -19.1       |
| 0.150      | 26.4        | 20.2        | 46.6            | 66.0               | -19.4       |
| 26.746     | 17.6        | 22.1        | 39.7            | 60.0               | -20.3       |
| 27.296     | 17.4        | 22.1        | 39.5            | 60.0               | -20.5       |
| 25.631     | 17.0        | 21.9        | 38.9            | 60.0               | -21.1       |
| 23.397     | 17.2        | 21.7        | 38.9            | 60.0               | -21.1       |
| 24.661     | 16.9        | 21.8        | 38.7            | 60.0               | -21.3       |
| 24.515     | 16.9        | 21.8        | 38.7            | 60.0               | -21.3       |
| 23.958     | 16.6        | 21.7        | 38.3            | 60.0               | -21.7       |
| 25.077     | 16.0        | 21.9        | 37.9            | 60.0               | -22.1       |
| 24.107     | 16.1        | 21.7        | 37.8            | 60.0               | -22.2       |
| 28.411     | 15.4        | 22.2        | 37.6            | 60.0               | -22.4       |
| 27.861     | 15.2        | 22.2        | 37.4            | 60.0               | -22.6       |
| 0.551      | 13.0        | 20.2        | 33.2            | 56.0               | -22.8       |
| 22.843     | 15.5        | 21.6        | 37.1            | 60.0               | -22.9       |
| 25.780     | 14.0        | 21.9        | 35.9            | 60.0               | -24.1       |
| 23.550     | 14.0        | 21.7        | 35.7            | 60.0               | -24.3       |
| 28.972     | 13.3        | 22.3        | 35.6            | 60.0               | -24.4       |
| 25.226     | 13.7        | 21.9        | 35.6            | 60.0               | -24.4       |
| 24.315     | 13.8        | 21.8        | 35.6            | 60.0               | -24.4       |
| 24.818     | 13.7        | 21.8        | 35.5            | 60.0               | -24.5       |
| 0.813      | 11.0        | 20.2        | 31.2            | 56.0               | -24.8       |
| 1.976      | 10.7        | 20.3        | 31.0            | 56.0               | -25.0       |
| 22.289     | 13.2        | 21.6        | 34.8            | 60.0               | -25.2       |
| 0.190      | 18.5        | 20.2        | 38.7            | 64.0               | -25.3       |
| 3.054      | 10.2        | 20.3        | 30.5            | 56.0               | -25.5       |

Peak Data - vs - Average Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 26.188     | 18.9        | 22.0        | 40.9            | 50.0               | -9.1        |
| 0.150      | 26.4        | 20.2        | 46.6            | 56.0               | -9.4        |
| 26.746     | 17.6        | 22.1        | 39.7            | 50.0               | -10.3       |
| 27.296     | 17.4        | 22.1        | 39.5            | 50.0               | -10.5       |
| 25.631     | 17.0        | 21.9        | 38.9            | 50.0               | -11.1       |
| 23.397     | 17.2        | 21.7        | 38.9            | 50.0               | -11.1       |
| 24.661     | 16.9        | 21.8        | 38.7            | 50.0               | -11.3       |
| 24.515     | 16.9        | 21.8        | 38.7            | 50.0               | -11.3       |
| 23.958     | 16.6        | 21.7        | 38.3            | 50.0               | -11.7       |
| 25.077     | 16.0        | 21.9        | 37.9            | 50.0               | -12.1       |
| 24.107     | 16.1        | 21.7        | 37.8            | 50.0               | -12.2       |
| 28.411     | 15.4        | 22.2        | 37.6            | 50.0               | -12.4       |
| 27.861     | 15.2        | 22.2        | 37.4            | 50.0               | -12.6       |
| 0.551      | 13.0        | 20.2        | 33.2            | 46.0               | -12.8       |
| 22.843     | 15.5        | 21.6        | 37.1            | 50.0               | -12.9       |
| 25.780     | 14.0        | 21.9        | 35.9            | 50.0               | -14.1       |
| 23.550     | 14.0        | 21.7        | 35.7            | 50.0               | -14.3       |
| 28.972     | 13.3        | 22.3        | 35.6            | 50.0               | -14.4       |
| 25.226     | 13.7        | 21.9        | 35.6            | 50.0               | -14.4       |
| 24.315     | 13.8        | 21.8        | 35.6            | 50.0               | -14.4       |
| 24.818     | 13.7        | 21.8        | 35.5            | 50.0               | -14.5       |
| 0.813      | 11.0        | 20.2        | 31.2            | 46.0               | -14.8       |
| 1.976      | 10.7        | 20.3        | 31.0            | 46.0               | -15.0       |
| 22.289     | 13.2        | 21.6        | 34.8            | 50.0               | -15.2       |
| 0.190      | 18.5        | 20.2        | 38.7            | 54.0               | -15.3       |
| 3.054      | 10.2        | 20.3        | 30.5            | 46.0               | -15.5       |

## CONCLUSION

Pass

*Trevor Bults*  
Tested By

# AC POWERLINE CONDUCTED EMISSIONS

|                   |                                             |                    |            |
|-------------------|---------------------------------------------|--------------------|------------|
| EUT:              | RTH9580WF01                                 | Work Order:        | HNYW0043   |
| Serial Number:    | 5191101 0010630                             | Date:              | 03/21/2013 |
| Customer:         | Honeywell, Automation and Control Solutions | Temperature:       | 24.1°C     |
| Attendees:        | None                                        | Relative Humidity: | 10%        |
| Customer Project: | None                                        | Bar. Pressure:     | 1019.4 mb  |
| Tested By:        | Trevor Buls                                 | Job Site:          | MN03       |
| Power:            | 110VAC/60Hz                                 | Configuration:     | HNYW0043-1 |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.207:2013 | ANSI C63.10:2009 |

## TEST PARAMETERS

|        |    |       |           |                        |    |
|--------|----|-------|-----------|------------------------|----|
| Run #: | 12 | Line: | High Line | Ext. Attenuation (dB): | 20 |
|--------|----|-------|-----------|------------------------|----|

## COMMENTS

None

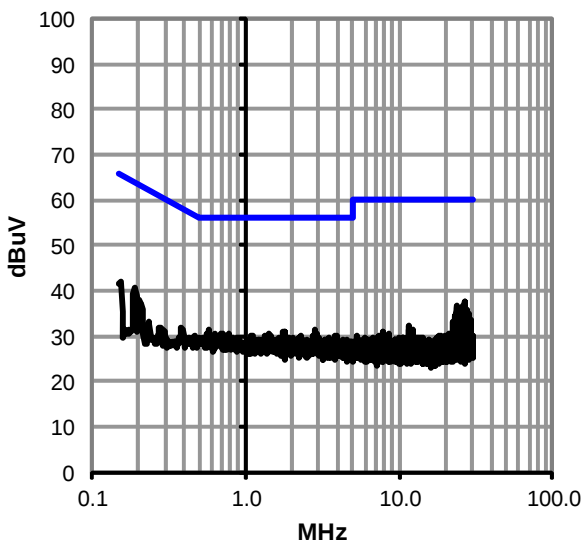
## EUT OPERATING MODES

Transmitting, Antenna 0, 802.11, 1 Mbps, Channel 11

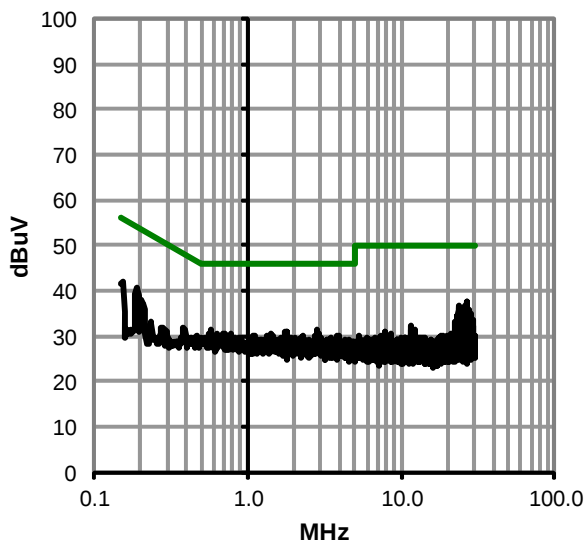
## DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #12

Peak Data - vs - Quasi Peak Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 26.753     | 15.4        | 22.1        | 37.5            | 60.0               | -22.5       |
| 26.192     | 14.7        | 22.0        | 36.7            | 60.0               | -23.3       |
| 23.961     | 14.8        | 21.7        | 36.5            | 60.0               | -23.5       |
| 0.190      | 20.3        | 20.2        | 40.5            | 64.0               | -23.5       |
| 23.404     | 14.5        | 21.7        | 36.2            | 60.0               | -23.8       |
| 25.634     | 14.2        | 21.9        | 36.1            | 60.0               | -23.9       |
| 0.154      | 21.6        | 20.2        | 41.8            | 65.8               | -24.0       |
| 27.307     | 13.8        | 22.1        | 35.9            | 60.0               | -24.1       |
| 0.580      | 11.2        | 20.2        | 31.4            | 56.0               | -24.6       |
| 2.869      | 11.0        | 20.3        | 31.3            | 56.0               | -24.7       |
| 1.779      | 10.9        | 20.3        | 31.2            | 56.0               | -24.8       |
| 1.819      | 10.8        | 20.3        | 31.1            | 56.0               | -24.9       |
| 28.411     | 12.8        | 22.2        | 35.0            | 60.0               | -25.0       |
| 0.642      | 10.5        | 20.2        | 30.7            | 56.0               | -25.3       |
| 2.843      | 10.3        | 20.3        | 30.6            | 56.0               | -25.4       |
| 0.205      | 17.7        | 20.2        | 37.9            | 63.4               | -25.5       |
| 22.846     | 12.8        | 21.6        | 34.4            | 60.0               | -25.6       |
| 1.429      | 10.1        | 20.2        | 30.3            | 56.0               | -25.7       |
| 0.711      | 10.1        | 20.2        | 30.3            | 56.0               | -25.7       |
| 0.784      | 10.1        | 20.2        | 30.3            | 56.0               | -25.7       |
| 23.557     | 12.5        | 21.7        | 34.2            | 60.0               | -25.8       |
| 27.864     | 12.0        | 22.2        | 34.2            | 60.0               | -25.8       |
| 3.936      | 9.8         | 20.4        | 30.2            | 56.0               | -25.8       |
| 25.077     | 12.2        | 21.9        | 34.1            | 60.0               | -25.9       |
| 3.791      | 9.7         | 20.4        | 30.1            | 56.0               | -25.9       |
| 1.345      | 9.8         | 20.2        | 30.0            | 56.0               | -26.0       |

Peak Data - vs - Average Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 26.753     | 15.4        | 22.1        | 37.5            | 50.0               | -12.5       |
| 26.192     | 14.7        | 22.0        | 36.7            | 50.0               | -13.3       |
| 23.961     | 14.8        | 21.7        | 36.5            | 50.0               | -13.5       |
| 0.190      | 20.3        | 20.2        | 40.5            | 54.0               | -13.5       |
| 23.404     | 14.5        | 21.7        | 36.2            | 50.0               | -13.8       |
| 25.634     | 14.2        | 21.9        | 36.1            | 50.0               | -13.9       |
| 0.154      | 21.6        | 20.2        | 41.8            | 55.8               | -14.0       |
| 27.307     | 13.8        | 22.1        | 35.9            | 50.0               | -14.1       |
| 0.580      | 11.2        | 20.2        | 31.4            | 46.0               | -14.6       |
| 2.869      | 11.0        | 20.3        | 31.3            | 46.0               | -14.7       |
| 1.779      | 10.9        | 20.3        | 31.2            | 46.0               | -14.8       |
| 1.819      | 10.8        | 20.3        | 31.1            | 46.0               | -14.9       |
| 28.411     | 12.8        | 22.2        | 35.0            | 50.0               | -15.0       |
| 0.642      | 10.5        | 20.2        | 30.7            | 46.0               | -15.3       |
| 2.843      | 10.3        | 20.3        | 30.6            | 46.0               | -15.4       |
| 0.205      | 17.7        | 20.2        | 37.9            | 53.4               | -15.5       |
| 22.846     | 12.8        | 21.6        | 34.4            | 50.0               | -15.6       |
| 1.429      | 10.1        | 20.2        | 30.3            | 46.0               | -15.7       |
| 0.711      | 10.1        | 20.2        | 30.3            | 46.0               | -15.7       |
| 0.784      | 10.1        | 20.2        | 30.3            | 46.0               | -15.7       |
| 23.557     | 12.5        | 21.7        | 34.2            | 50.0               | -15.8       |
| 27.864     | 12.0        | 22.2        | 34.2            | 50.0               | -15.8       |
| 3.936      | 9.8         | 20.4        | 30.2            | 46.0               | -15.8       |
| 25.077     | 12.2        | 21.9        | 34.1            | 50.0               | -15.9       |
| 3.791      | 9.7         | 20.4        | 30.1            | 46.0               | -15.9       |
| 1.345      | 9.8         | 20.2        | 30.0            | 46.0               | -16.0       |

## CONCLUSION

Pass

*Trevor Buls*  
Tested By

# AC POWERLINE CONDUCTED EMISSIONS

|                   |                                             |                    |            |
|-------------------|---------------------------------------------|--------------------|------------|
| EUT:              | RTH9580WF01                                 | Work Order:        | HNYW0043   |
| Serial Number:    | 5191101 0010630                             | Date:              | 03/21/2013 |
| Customer:         | Honeywell, Automation and Control Solutions | Temperature:       | 24.1°C     |
| Attendees:        | None                                        | Relative Humidity: | 10%        |
| Customer Project: | None                                        | Bar. Pressure:     | 1019.4 mb  |
| Tested By:        | Trevor Buls                                 | Job Site:          | MN03       |
| Power:            | 110VAC/60Hz                                 | Configuration:     | HNYW0043-1 |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.207:2013 | ANSI C63.10:2009 |

## TEST PARAMETERS

|        |    |       |         |                        |    |
|--------|----|-------|---------|------------------------|----|
| Run #: | 13 | Line: | Neutral | Ext. Attenuation (dB): | 20 |
|--------|----|-------|---------|------------------------|----|

## COMMENTS

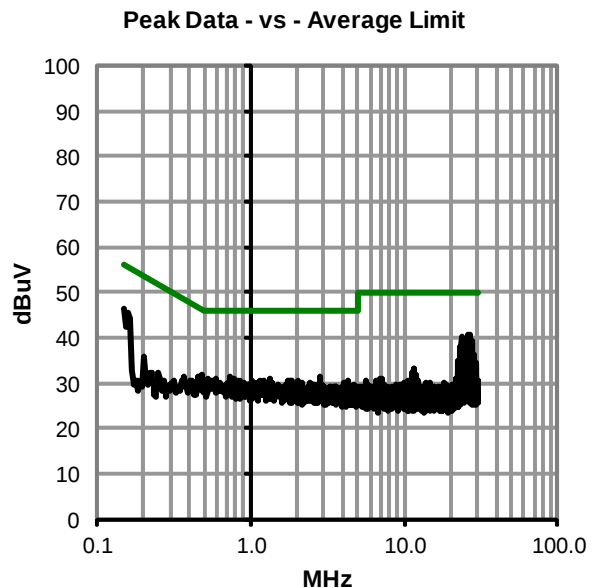
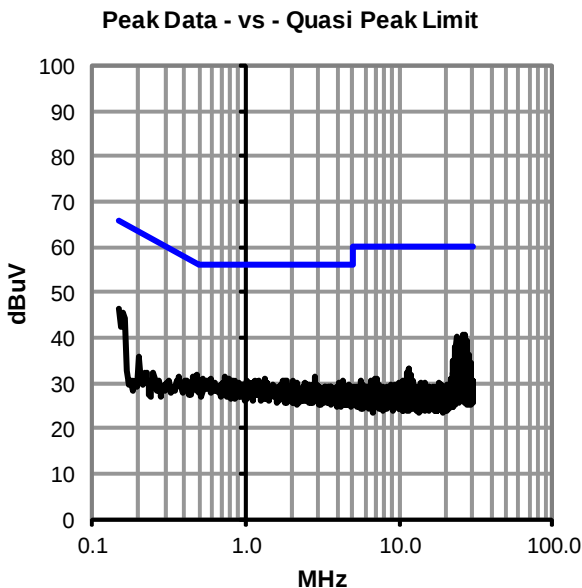
None

## EUT OPERATING MODES

Transmitting, Antenna 0, 802.11, 1 Mbps, Channel 11

## DEVIATIONS FROM TEST STANDARD

None



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #13

Peak Data - vs - Quasi Peak Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 26.192     | 18.6        | 22.0        | 40.6            | 60.0               | -19.4       |
| 26.746     | 18.4        | 22.1        | 40.5            | 60.0               | -19.5       |
| 0.150      | 26.1        | 20.2        | 46.3            | 66.0               | -19.7       |
| 23.400     | 18.5        | 21.7        | 40.2            | 60.0               | -19.8       |
| 25.638     | 17.3        | 21.9        | 39.2            | 60.0               | -20.8       |
| 27.307     | 17.1        | 22.1        | 39.2            | 60.0               | -20.8       |
| 23.961     | 16.9        | 21.7        | 38.6            | 60.0               | -21.4       |
| 27.864     | 16.1        | 22.2        | 38.3            | 60.0               | -21.7       |
| 22.846     | 16.3        | 21.6        | 37.9            | 60.0               | -22.1       |
| 24.519     | 15.8        | 21.8        | 37.6            | 60.0               | -22.4       |
| 24.111     | 15.2        | 21.7        | 36.9            | 60.0               | -23.1       |
| 23.561     | 14.5        | 21.7        | 36.2            | 60.0               | -23.8       |
| 25.230     | 14.2        | 21.9        | 36.1            | 60.0               | -23.9       |
| 28.418     | 13.8        | 22.2        | 36.0            | 60.0               | -24.0       |
| 25.080     | 14.0        | 21.9        | 35.9            | 60.0               | -24.1       |
| 24.060     | 13.9        | 21.7        | 35.6            | 60.0               | -24.4       |
| 0.485      | 11.6        | 20.2        | 31.8            | 56.2               | -24.4       |
| 25.784     | 13.5        | 21.9        | 35.4            | 60.0               | -24.6       |
| 0.733      | 11.1        | 20.2        | 31.3            | 56.0               | -24.7       |
| 2.836      | 10.9        | 20.3        | 31.2            | 56.0               | -24.8       |
| 24.668     | 13.4        | 21.8        | 35.2            | 60.0               | -24.8       |
| 23.863     | 13.4        | 21.7        | 35.1            | 60.0               | -24.9       |
| 0.595      | 10.9        | 20.2        | 31.1            | 56.0               | -24.9       |
| 22.292     | 13.4        | 21.6        | 35.0            | 60.0               | -25.0       |
| 0.791      | 10.7        | 20.2        | 30.9            | 56.0               | -25.1       |
| 0.471      | 11.2        | 20.2        | 31.4            | 56.5               | -25.1       |

Peak Data - vs - Average Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 26.192     | 18.6        | 22.0        | 40.6            | 50.0               | -9.4        |
| 26.746     | 18.4        | 22.1        | 40.5            | 50.0               | -9.5        |
| 0.150      | 26.1        | 20.2        | 46.3            | 56.0               | -9.7        |
| 23.400     | 18.5        | 21.7        | 40.2            | 50.0               | -9.8        |
| 25.638     | 17.3        | 21.9        | 39.2            | 50.0               | -10.8       |
| 27.307     | 17.1        | 22.1        | 39.2            | 50.0               | -10.8       |
| 23.961     | 16.9        | 21.7        | 38.6            | 50.0               | -11.4       |
| 27.864     | 16.1        | 22.2        | 38.3            | 50.0               | -11.7       |
| 22.846     | 16.3        | 21.6        | 37.9            | 50.0               | -12.1       |
| 24.519     | 15.8        | 21.8        | 37.6            | 50.0               | -12.4       |
| 24.111     | 15.2        | 21.7        | 36.9            | 50.0               | -13.1       |
| 23.561     | 14.5        | 21.7        | 36.2            | 50.0               | -13.8       |
| 25.230     | 14.2        | 21.9        | 36.1            | 50.0               | -13.9       |
| 28.418     | 13.8        | 22.2        | 36.0            | 50.0               | -14.0       |
| 25.080     | 14.0        | 21.9        | 35.9            | 50.0               | -14.1       |
| 24.060     | 13.9        | 21.7        | 35.6            | 50.0               | -14.4       |
| 0.485      | 11.6        | 20.2        | 31.8            | 46.2               | -14.4       |
| 25.784     | 13.5        | 21.9        | 35.4            | 50.0               | -14.6       |
| 0.733      | 11.1        | 20.2        | 31.3            | 46.0               | -14.7       |
| 2.836      | 10.9        | 20.3        | 31.2            | 46.0               | -14.8       |
| 24.668     | 13.4        | 21.8        | 35.2            | 50.0               | -14.8       |
| 23.863     | 13.4        | 21.7        | 35.1            | 50.0               | -14.9       |
| 0.595      | 10.9        | 20.2        | 31.1            | 46.0               | -14.9       |
| 22.292     | 13.4        | 21.6        | 35.0            | 50.0               | -15.0       |
| 0.791      | 10.7        | 20.2        | 30.9            | 46.0               | -15.1       |
| 0.471      | 11.2        | 20.2        | 31.4            | 46.5               | -15.1       |

## CONCLUSION

Pass

*Trevor Buls*  
Tested By

# AC POWERLINE CONDUCTED EMISSIONS

|                   |                                             |                    |            |
|-------------------|---------------------------------------------|--------------------|------------|
| EUT:              | RTH9580WF01                                 | Work Order:        | HNYW0043   |
| Serial Number:    | 5191101 0010630                             | Date:              | 03/21/2013 |
| Customer:         | Honeywell, Automation and Control Solutions | Temperature:       | 24.1°C     |
| Attendees:        | None                                        | Relative Humidity: | 10%        |
| Customer Project: | None                                        | Bar. Pressure:     | 1019.4 mb  |
| Tested By:        | Trevor Buls                                 | Job Site:          | MN03       |
| Power:            | 110VAC/60Hz                                 | Configuration:     | HNYW0043-1 |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.207:2013 | ANSI C63.10:2009 |

## TEST PARAMETERS

|        |    |       |           |                        |    |
|--------|----|-------|-----------|------------------------|----|
| Run #: | 14 | Line: | High Line | Ext. Attenuation (dB): | 20 |
|--------|----|-------|-----------|------------------------|----|

## COMMENTS

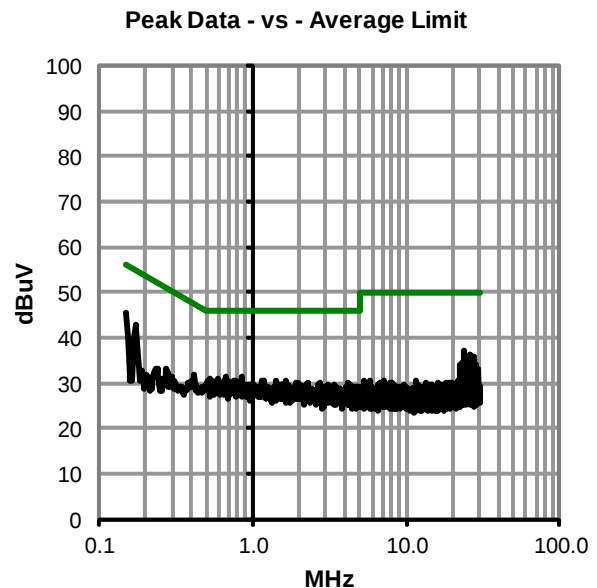
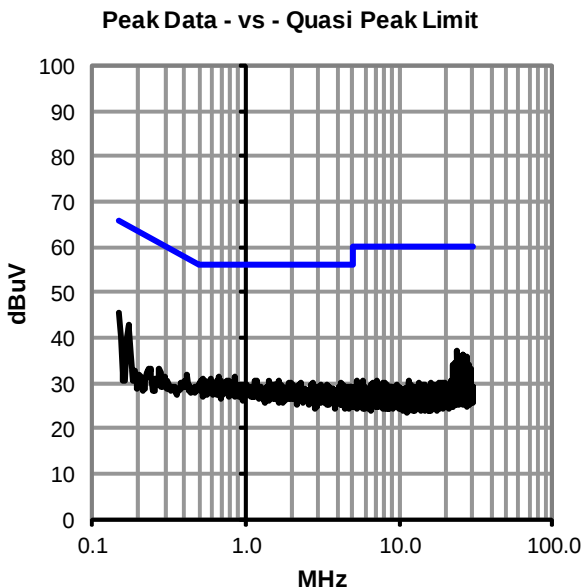
|      |
|------|
| None |
|------|

## EUT OPERATING MODES

|                                                    |
|----------------------------------------------------|
| Transmitting, Antenna 1, 802.11, 1 Mbps, Channel 1 |
|----------------------------------------------------|

## DEVIATIONS FROM TEST STANDARD

|      |
|------|
| None |
|------|



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #14

Peak Data - vs - Quasi Peak Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 0.150      | 25.1        | 20.2        | 45.3            | 66.0               | -20.7       |
| 0.172      | 22.6        | 20.2        | 42.8            | 64.9               | -22.1       |
| 23.404     | 15.6        | 21.7        | 37.3            | 60.0               | -22.7       |
| 25.634     | 14.4        | 21.9        | 36.3            | 60.0               | -23.7       |
| 26.188     | 14.3        | 22.0        | 36.3            | 60.0               | -23.7       |
| 27.303     | 13.7        | 22.1        | 35.8            | 60.0               | -24.2       |
| 26.749     | 13.6        | 22.1        | 35.7            | 60.0               | -24.3       |
| 0.853      | 11.2        | 20.2        | 31.4            | 56.0               | -24.6       |
| 0.671      | 11.1        | 20.2        | 31.3            | 56.0               | -24.7       |
| 23.961     | 13.4        | 21.7        | 35.1            | 60.0               | -24.9       |
| 0.587      | 10.8        | 20.2        | 31.0            | 56.0               | -25.0       |
| 0.522      | 10.7        | 20.2        | 30.9            | 56.0               | -25.1       |
| 1.159      | 10.5        | 20.2        | 30.7            | 56.0               | -25.3       |
| 0.646      | 10.4        | 20.2        | 30.6            | 56.0               | -25.4       |
| 1.440      | 10.3        | 20.2        | 30.5            | 56.0               | -25.5       |
| 24.519     | 12.7        | 21.8        | 34.5            | 60.0               | -25.5       |
| 1.670      | 10.2        | 20.3        | 30.5            | 56.0               | -25.5       |
| 23.557     | 12.7        | 21.7        | 34.4            | 60.0               | -25.6       |
| 22.850     | 12.7        | 21.6        | 34.3            | 60.0               | -25.7       |
| 0.700      | 10.1        | 20.2        | 30.3            | 56.0               | -25.7       |
| 27.864     | 12.1        | 22.2        | 34.3            | 60.0               | -25.7       |
| 0.420      | 11.5        | 20.2        | 31.7            | 57.5               | -25.8       |
| 2.708      | 9.9         | 20.3        | 30.2            | 56.0               | -25.8       |
| 2.304      | 9.9         | 20.3        | 30.2            | 56.0               | -25.8       |
| 1.888      | 9.8         | 20.3        | 30.1            | 56.0               | -25.9       |
| 22.289     | 12.4        | 21.6        | 34.0            | 60.0               | -26.0       |

Peak Data - vs - Average Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 0.150      | 25.1        | 20.2        | 45.3            | 56.0               | -10.7       |
| 0.172      | 22.6        | 20.2        | 42.8            | 54.9               | -12.1       |
| 23.404     | 15.6        | 21.7        | 37.3            | 50.0               | -12.7       |
| 25.634     | 14.4        | 21.9        | 36.3            | 50.0               | -13.7       |
| 26.188     | 14.3        | 22.0        | 36.3            | 50.0               | -13.7       |
| 27.303     | 13.7        | 22.1        | 35.8            | 50.0               | -14.2       |
| 26.749     | 13.6        | 22.1        | 35.7            | 50.0               | -14.3       |
| 0.853      | 11.2        | 20.2        | 31.4            | 46.0               | -14.6       |
| 0.671      | 11.1        | 20.2        | 31.3            | 46.0               | -14.7       |
| 23.961     | 13.4        | 21.7        | 35.1            | 50.0               | -14.9       |
| 0.587      | 10.8        | 20.2        | 31.0            | 46.0               | -15.0       |
| 0.522      | 10.7        | 20.2        | 30.9            | 46.0               | -15.1       |
| 1.159      | 10.5        | 20.2        | 30.7            | 46.0               | -15.3       |
| 0.646      | 10.4        | 20.2        | 30.6            | 46.0               | -15.4       |
| 1.440      | 10.3        | 20.2        | 30.5            | 46.0               | -15.5       |
| 24.519     | 12.7        | 21.8        | 34.5            | 50.0               | -15.5       |
| 1.670      | 10.2        | 20.3        | 30.5            | 46.0               | -15.5       |
| 23.557     | 12.7        | 21.7        | 34.4            | 50.0               | -15.6       |
| 22.850     | 12.7        | 21.6        | 34.3            | 50.0               | -15.7       |
| 0.700      | 10.1        | 20.2        | 30.3            | 46.0               | -15.7       |
| 27.864     | 12.1        | 22.2        | 34.3            | 50.0               | -15.7       |
| 0.420      | 11.5        | 20.2        | 31.7            | 47.5               | -15.8       |
| 2.708      | 9.9         | 20.3        | 30.2            | 46.0               | -15.8       |
| 2.304      | 9.9         | 20.3        | 30.2            | 46.0               | -15.8       |
| 1.888      | 9.8         | 20.3        | 30.1            | 46.0               | -15.9       |
| 22.289     | 12.4        | 21.6        | 34.0            | 50.0               | -16.0       |

## CONCLUSION

Pass

*Trevor Buls*  
Tested By

# AC POWERLINE CONDUCTED EMISSIONS

|                   |                                             |                    |            |
|-------------------|---------------------------------------------|--------------------|------------|
| EUT:              | RTH9580WF01                                 | Work Order:        | HNYW0043   |
| Serial Number:    | 5191101 0010630                             | Date:              | 03/21/2013 |
| Customer:         | Honeywell, Automation and Control Solutions | Temperature:       | 24.1°C     |
| Attendees:        | None                                        | Relative Humidity: | 10%        |
| Customer Project: | None                                        | Bar. Pressure:     | 1019.4 mb  |
| Tested By:        | Trevor Buls                                 | Job Site:          | MN03       |
| Power:            | 110VAC/60Hz                                 | Configuration:     | HNYW0043-1 |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.207:2013 | ANSI C63.10:2009 |

## TEST PARAMETERS

|        |    |       |         |                        |    |
|--------|----|-------|---------|------------------------|----|
| Run #: | 15 | Line: | Neutral | Ext. Attenuation (dB): | 20 |
|--------|----|-------|---------|------------------------|----|

## COMMENTS

|      |
|------|
| None |
|------|

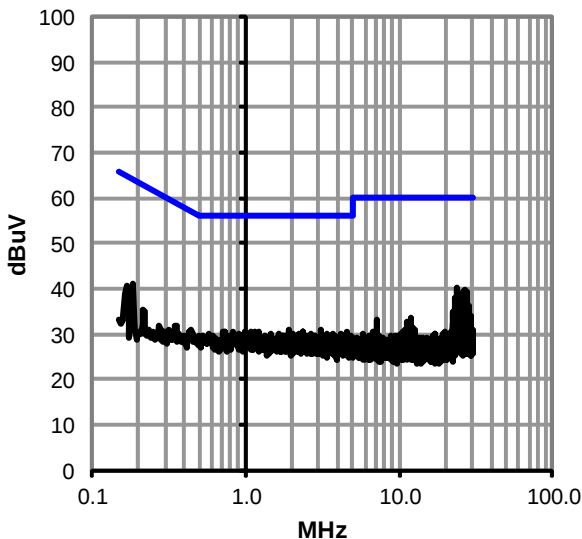
## EUT OPERATING MODES

|                                                    |
|----------------------------------------------------|
| Transmitting, Antenna 1, 802.11, 1 Mbps, Channel 1 |
|----------------------------------------------------|

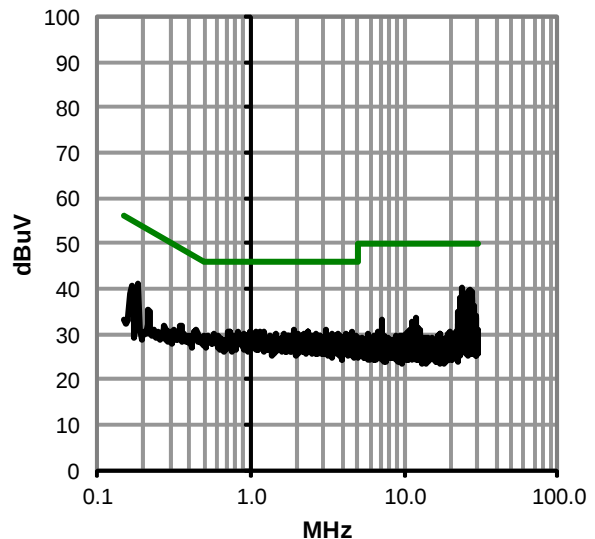
## DEVIATIONS FROM TEST STANDARD

|      |
|------|
| None |
|------|

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #15

Peak Data - vs - Quasi Peak Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 23.404     | 18.4        | 21.7        | 40.1            | 60.0               | -19.9       |
| 26.749     | 17.7        | 22.1        | 39.8            | 60.0               | -20.2       |
| 27.307     | 17.3        | 22.1        | 39.4            | 60.0               | -20.6       |
| 26.184     | 17.3        | 22.0        | 39.3            | 60.0               | -20.7       |
| 25.638     | 16.8        | 21.9        | 38.7            | 60.0               | -21.3       |
| 24.526     | 16.7        | 21.8        | 38.5            | 60.0               | -21.5       |
| 22.850     | 16.6        | 21.6        | 38.2            | 60.0               | -21.8       |
| 27.872     | 16.0        | 22.2        | 38.2            | 60.0               | -21.8       |
| 23.965     | 16.3        | 21.7        | 38.0            | 60.0               | -22.0       |
| 24.115     | 15.9        | 21.7        | 37.6            | 60.0               | -22.4       |
| 0.183      | 20.8        | 20.2        | 41.0            | 64.4               | -23.4       |
| 25.073     | 14.4        | 21.9        | 36.3            | 60.0               | -23.7       |
| 28.426     | 13.8        | 22.2        | 36.0            | 60.0               | -24.0       |
| 24.672     | 14.0        | 21.8        | 35.8            | 60.0               | -24.2       |
| 0.168      | 20.4        | 20.2        | 40.6            | 65.0               | -24.4       |
| 25.233     | 13.6        | 21.9        | 35.5            | 60.0               | -24.5       |
| 24.315     | 13.5        | 21.8        | 35.3            | 60.0               | -24.7       |
| 24.774     | 13.2        | 21.8        | 35.0            | 60.0               | -25.0       |
| 23.557     | 13.3        | 21.7        | 35.0            | 60.0               | -25.0       |
| 3.069      | 10.5        | 20.3        | 30.8            | 56.0               | -25.2       |
| 1.910      | 10.5        | 20.3        | 30.8            | 56.0               | -25.2       |
| 22.289     | 13.2        | 21.6        | 34.8            | 60.0               | -25.2       |
| 24.016     | 13.0        | 21.7        | 34.7            | 60.0               | -25.3       |
| 4.509      | 10.3        | 20.4        | 30.7            | 56.0               | -25.3       |
| 0.835      | 10.4        | 20.2        | 30.6            | 56.0               | -25.4       |
| 25.787     | 12.6        | 21.9        | 34.5            | 60.0               | -25.5       |

Peak Data - vs - Average Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 23.404     | 18.4        | 21.7        | 40.1            | 50.0               | -9.9        |
| 26.749     | 17.7        | 22.1        | 39.8            | 50.0               | -10.2       |
| 27.307     | 17.3        | 22.1        | 39.4            | 50.0               | -10.6       |
| 26.184     | 17.3        | 22.0        | 39.3            | 50.0               | -10.7       |
| 25.638     | 16.8        | 21.9        | 38.7            | 50.0               | -11.3       |
| 24.526     | 16.7        | 21.8        | 38.5            | 50.0               | -11.5       |
| 22.850     | 16.6        | 21.6        | 38.2            | 50.0               | -11.8       |
| 27.872     | 16.0        | 22.2        | 38.2            | 50.0               | -11.8       |
| 23.965     | 16.3        | 21.7        | 38.0            | 50.0               | -12.0       |
| 24.115     | 15.9        | 21.7        | 37.6            | 50.0               | -12.4       |
| 0.183      | 20.8        | 20.2        | 41.0            | 54.4               | -13.4       |
| 25.073     | 14.4        | 21.9        | 36.3            | 50.0               | -13.7       |
| 28.426     | 13.8        | 22.2        | 36.0            | 50.0               | -14.0       |
| 24.672     | 14.0        | 21.8        | 35.8            | 50.0               | -14.2       |
| 0.168      | 20.4        | 20.2        | 40.6            | 55.0               | -14.4       |
| 25.233     | 13.6        | 21.9        | 35.5            | 50.0               | -14.5       |
| 24.315     | 13.5        | 21.8        | 35.3            | 50.0               | -14.7       |
| 24.774     | 13.2        | 21.8        | 35.0            | 50.0               | -15.0       |
| 23.557     | 13.3        | 21.7        | 35.0            | 50.0               | -15.0       |
| 3.069      | 10.5        | 20.3        | 30.8            | 46.0               | -15.2       |
| 1.910      | 10.5        | 20.3        | 30.8            | 46.0               | -15.2       |
| 22.289     | 13.2        | 21.6        | 34.8            | 50.0               | -15.2       |
| 24.016     | 13.0        | 21.7        | 34.7            | 50.0               | -15.3       |
| 4.509      | 10.3        | 20.4        | 30.7            | 46.0               | -15.3       |
| 0.835      | 10.4        | 20.2        | 30.6            | 46.0               | -15.4       |
| 25.787     | 12.6        | 21.9        | 34.5            | 50.0               | -15.5       |

## CONCLUSION

Pass

*Trevor Buls*  
Tested By

# AC POWERLINE CONDUCTED EMISSIONS

|                   |                                             |                    |            |
|-------------------|---------------------------------------------|--------------------|------------|
| EUT:              | RTH9580WF01                                 | Work Order:        | HNYW0043   |
| Serial Number:    | 5191101 0010630                             | Date:              | 03/21/2013 |
| Customer:         | Honeywell, Automation and Control Solutions | Temperature:       | 24.1°C     |
| Attendees:        | None                                        | Relative Humidity: | 10%        |
| Customer Project: | None                                        | Bar. Pressure:     | 1019.4 mb  |
| Tested By:        | Trevor Buls                                 | Job Site:          | MN03       |
| Power:            | 110VAC/60Hz                                 | Configuration:     | HNYW0043-1 |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.207:2013 | ANSI C63.10:2009 |

## TEST PARAMETERS

|        |    |       |           |                        |    |
|--------|----|-------|-----------|------------------------|----|
| Run #: | 16 | Line: | High Line | Ext. Attenuation (dB): | 20 |
|--------|----|-------|-----------|------------------------|----|

## COMMENTS

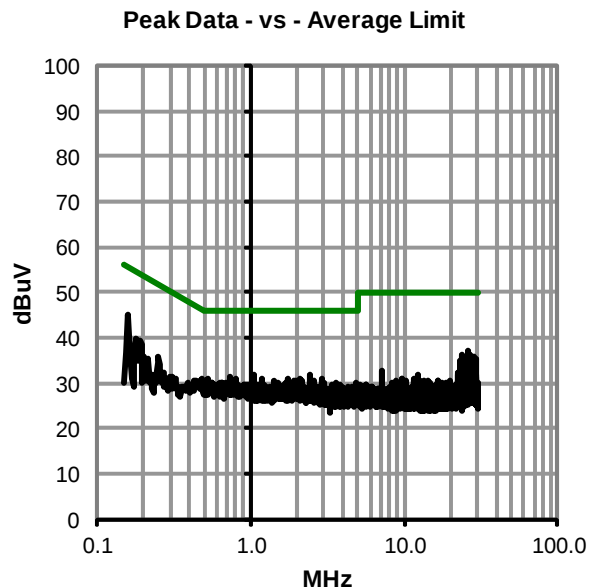
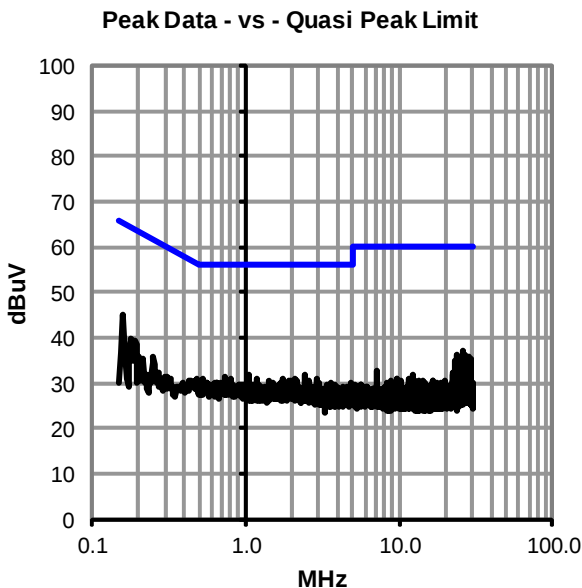
|      |
|------|
| None |
|------|

## EUT OPERATING MODES

|                                                    |
|----------------------------------------------------|
| Transmitting, Antenna 1, 802.11, 1 Mbps, Channel 6 |
|----------------------------------------------------|

## DEVIATIONS FROM TEST STANDARD

|      |
|------|
| None |
|------|



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #16

Peak Data - vs - Quasi Peak Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 0.157      | 24.7        | 20.2        | 44.9            | 65.6               | -20.7       |
| 26.192     | 15.3        | 22.0        | 37.3            | 60.0               | -22.7       |
| 23.408     | 14.6        | 21.7        | 36.3            | 60.0               | -23.7       |
| 25.638     | 14.3        | 21.9        | 36.2            | 60.0               | -23.8       |
| 26.749     | 14.0        | 22.1        | 36.1            | 60.0               | -23.9       |
| 27.307     | 13.9        | 22.1        | 36.0            | 60.0               | -24.0       |
| 28.422     | 13.6        | 22.2        | 35.8            | 60.0               | -24.2       |
| 2.464      | 11.5        | 20.3        | 31.8            | 56.0               | -24.2       |
| 1.065      | 11.5        | 20.2        | 31.7            | 56.0               | -24.3       |
| 0.744      | 11.3        | 20.2        | 31.5            | 56.0               | -24.5       |
| 28.980     | 13.2        | 22.3        | 35.5            | 60.0               | -24.5       |
| 0.179      | 19.7        | 20.2        | 39.9            | 64.5               | -24.6       |
| 0.190      | 19.1        | 20.2        | 39.3            | 64.0               | -24.7       |
| 1.772      | 10.9        | 20.3        | 31.2            | 56.0               | -24.8       |
| 23.961     | 13.4        | 21.7        | 35.1            | 60.0               | -24.9       |
| 27.868     | 12.9        | 22.2        | 35.1            | 60.0               | -24.9       |
| 1.196      | 10.8        | 20.2        | 31.0            | 56.0               | -25.0       |
| 2.114      | 10.7        | 20.3        | 31.0            | 56.0               | -25.0       |
| 22.850     | 13.3        | 21.6        | 34.9            | 60.0               | -25.1       |
| 2.905      | 10.5        | 20.3        | 30.8            | 56.0               | -25.2       |
| 0.529      | 10.6        | 20.2        | 30.8            | 56.0               | -25.2       |
| 0.806      | 10.6        | 20.2        | 30.8            | 56.0               | -25.2       |
| 0.482      | 10.9        | 20.2        | 31.1            | 56.3               | -25.2       |
| 1.440      | 10.4        | 20.2        | 30.6            | 56.0               | -25.4       |
| 0.507      | 10.4        | 20.2        | 30.6            | 56.0               | -25.4       |
| 2.559      | 10.1        | 20.3        | 30.4            | 56.0               | -25.6       |

Peak Data - vs - Average Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 0.157      | 24.7        | 20.2        | 44.9            | 55.6               | -10.7       |
| 26.192     | 15.3        | 22.0        | 37.3            | 50.0               | -12.7       |
| 23.408     | 14.6        | 21.7        | 36.3            | 50.0               | -13.7       |
| 25.638     | 14.3        | 21.9        | 36.2            | 50.0               | -13.8       |
| 26.749     | 14.0        | 22.1        | 36.1            | 50.0               | -13.9       |
| 27.307     | 13.9        | 22.1        | 36.0            | 50.0               | -14.0       |
| 28.422     | 13.6        | 22.2        | 35.8            | 50.0               | -14.2       |
| 2.464      | 11.5        | 20.3        | 31.8            | 46.0               | -14.2       |
| 1.065      | 11.5        | 20.2        | 31.7            | 46.0               | -14.3       |
| 0.744      | 11.3        | 20.2        | 31.5            | 46.0               | -14.5       |
| 28.980     | 13.2        | 22.3        | 35.5            | 50.0               | -14.5       |
| 0.179      | 19.7        | 20.2        | 39.9            | 54.5               | -14.6       |
| 0.190      | 19.1        | 20.2        | 39.3            | 54.0               | -14.7       |
| 1.772      | 10.9        | 20.3        | 31.2            | 46.0               | -14.8       |
| 23.961     | 13.4        | 21.7        | 35.1            | 50.0               | -14.9       |
| 27.868     | 12.9        | 22.2        | 35.1            | 50.0               | -14.9       |
| 1.196      | 10.8        | 20.2        | 31.0            | 46.0               | -15.0       |
| 2.114      | 10.7        | 20.3        | 31.0            | 46.0               | -15.0       |
| 22.850     | 13.3        | 21.6        | 34.9            | 50.0               | -15.1       |
| 2.905      | 10.5        | 20.3        | 30.8            | 46.0               | -15.2       |
| 0.529      | 10.6        | 20.2        | 30.8            | 46.0               | -15.2       |
| 0.806      | 10.6        | 20.2        | 30.8            | 46.0               | -15.2       |
| 0.482      | 10.9        | 20.2        | 31.1            | 46.3               | -15.2       |
| 1.440      | 10.4        | 20.2        | 30.6            | 46.0               | -15.4       |
| 0.507      | 10.4        | 20.2        | 30.6            | 46.0               | -15.4       |
| 2.559      | 10.1        | 20.3        | 30.4            | 46.0               | -15.6       |

## CONCLUSION

Pass

*Trevor Bults*  
Tested By

# AC POWERLINE CONDUCTED EMISSIONS

|                   |                                             |                    |            |
|-------------------|---------------------------------------------|--------------------|------------|
| EUT:              | RTH9580WF01                                 | Work Order:        | HNYW0043   |
| Serial Number:    | 5191101 0010630                             | Date:              | 03/21/2013 |
| Customer:         | Honeywell, Automation and Control Solutions | Temperature:       | 24.1°C     |
| Attendees:        | None                                        | Relative Humidity: | 10%        |
| Customer Project: | None                                        | Bar. Pressure:     | 1019.4 mb  |
| Tested By:        | Trevor Buls                                 | Job Site:          | MN03       |
| Power:            | 110VAC/60Hz                                 | Configuration:     | HNYW0043-1 |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.207:2013 | ANSI C63.10:2009 |

## TEST PARAMETERS

|        |    |       |         |                        |    |
|--------|----|-------|---------|------------------------|----|
| Run #: | 17 | Line: | Neutral | Ext. Attenuation (dB): | 20 |
|--------|----|-------|---------|------------------------|----|

## COMMENTS

None

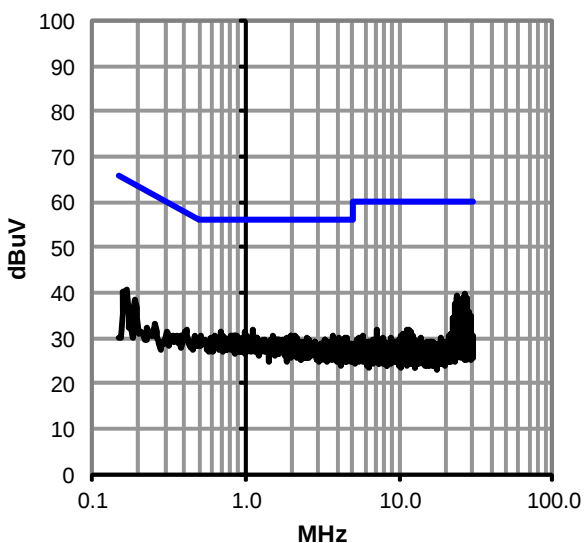
## EUT OPERATING MODES

Transmitting, Antenna 1, 802.11, 1 Mbps, Channel 6

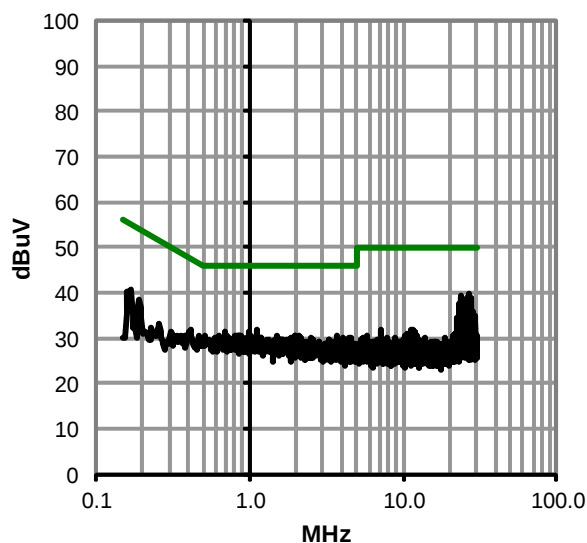
## DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #17

Peak Data - vs - Quasi Peak Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 26.753     | 17.9        | 22.1        | 40.0            | 60.0               | -20.0       |
| 23.961     | 17.7        | 21.7        | 39.4            | 60.0               | -20.6       |
| 27.311     | 16.9        | 22.1        | 39.0            | 60.0               | -21.0       |
| 23.411     | 17.3        | 21.7        | 39.0            | 60.0               | -21.0       |
| 26.192     | 16.9        | 22.0        | 38.9            | 60.0               | -21.1       |
| 25.638     | 15.9        | 21.9        | 37.8            | 60.0               | -22.2       |
| 22.850     | 16.1        | 21.6        | 37.7            | 60.0               | -22.3       |
| 24.519     | 15.8        | 21.8        | 37.6            | 60.0               | -22.4       |
| 27.868     | 15.4        | 22.2        | 37.6            | 60.0               | -22.4       |
| 24.115     | 15.5        | 21.7        | 37.2            | 60.0               | -22.8       |
| 25.080     | 14.4        | 21.9        | 36.3            | 60.0               | -23.7       |
| 28.422     | 13.7        | 22.2        | 35.9            | 60.0               | -24.1       |
| 1.112      | 11.7        | 20.2        | 31.9            | 56.0               | -24.1       |
| 25.332     | 14.0        | 21.9        | 35.9            | 60.0               | -24.1       |
| 24.315     | 13.8        | 21.8        | 35.6            | 60.0               | -24.4       |
| 24.220     | 13.7        | 21.8        | 35.5            | 60.0               | -24.5       |
| 0.168      | 20.3        | 20.2        | 40.5            | 65.0               | -24.5       |
| 0.988      | 11.2        | 20.2        | 31.4            | 56.0               | -24.6       |
| 24.665     | 13.4        | 21.8        | 35.2            | 60.0               | -24.8       |
| 0.686      | 11.0        | 20.2        | 31.2            | 56.0               | -24.8       |
| 28.983     | 12.8        | 22.3        | 35.1            | 60.0               | -24.9       |
| 23.765     | 13.3        | 21.7        | 35.0            | 60.0               | -25.0       |
| 24.778     | 13.1        | 21.8        | 34.9            | 60.0               | -25.1       |
| 23.557     | 13.2        | 21.7        | 34.9            | 60.0               | -25.1       |
| 23.863     | 13.1        | 21.7        | 34.8            | 60.0               | -25.2       |
| 26.345     | 12.8        | 22.0        | 34.8            | 60.0               | -25.2       |

Peak Data - vs - Average Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 26.753     | 17.9        | 22.1        | 40.0            | 50.0               | -10.0       |
| 23.961     | 17.7        | 21.7        | 39.4            | 50.0               | -10.6       |
| 27.311     | 16.9        | 22.1        | 39.0            | 50.0               | -11.0       |
| 23.411     | 17.3        | 21.7        | 39.0            | 50.0               | -11.0       |
| 26.192     | 16.9        | 22.0        | 38.9            | 50.0               | -11.1       |
| 25.638     | 15.9        | 21.9        | 37.8            | 50.0               | -12.2       |
| 22.850     | 16.1        | 21.6        | 37.7            | 50.0               | -12.3       |
| 24.519     | 15.8        | 21.8        | 37.6            | 50.0               | -12.4       |
| 27.868     | 15.4        | 22.2        | 37.6            | 50.0               | -12.4       |
| 24.115     | 15.5        | 21.7        | 37.2            | 50.0               | -12.8       |
| 25.080     | 14.4        | 21.9        | 36.3            | 50.0               | -13.7       |
| 28.422     | 13.7        | 22.2        | 35.9            | 50.0               | -14.1       |
| 1.112      | 11.7        | 20.2        | 31.9            | 46.0               | -14.1       |
| 25.332     | 14.0        | 21.9        | 35.9            | 50.0               | -14.1       |
| 24.315     | 13.8        | 21.8        | 35.6            | 50.0               | -14.4       |
| 24.220     | 13.7        | 21.8        | 35.5            | 50.0               | -14.5       |
| 0.168      | 20.3        | 20.2        | 40.5            | 55.0               | -14.5       |
| 0.988      | 11.2        | 20.2        | 31.4            | 46.0               | -14.6       |
| 24.665     | 13.4        | 21.8        | 35.2            | 50.0               | -14.8       |
| 0.686      | 11.0        | 20.2        | 31.2            | 46.0               | -14.8       |
| 28.983     | 12.8        | 22.3        | 35.1            | 50.0               | -14.9       |
| 23.765     | 13.3        | 21.7        | 35.0            | 50.0               | -15.0       |
| 24.778     | 13.1        | 21.8        | 34.9            | 50.0               | -15.1       |
| 23.557     | 13.2        | 21.7        | 34.9            | 50.0               | -15.1       |
| 23.863     | 13.1        | 21.7        | 34.8            | 50.0               | -15.2       |
| 26.345     | 12.8        | 22.0        | 34.8            | 50.0               | -15.2       |

## CONCLUSION

Pass

*Trevor Bults*  
Tested By

# AC POWERLINE CONDUCTED EMISSIONS

|                   |                                             |                    |            |
|-------------------|---------------------------------------------|--------------------|------------|
| EUT:              | RTH9580WF01                                 | Work Order:        | HNYW0043   |
| Serial Number:    | 5191101 0010630                             | Date:              | 03/21/2013 |
| Customer:         | Honeywell, Automation and Control Solutions | Temperature:       | 24.1°C     |
| Attendees:        | None                                        | Relative Humidity: | 10%        |
| Customer Project: | None                                        | Bar. Pressure:     | 1019.4 mb  |
| Tested By:        | Trevor Buls                                 | Job Site:          | MN03       |
| Power:            | 110VAC/60Hz                                 | Configuration:     | HNYW0043-1 |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.207:2013 | ANSI C63.10:2009 |

## TEST PARAMETERS

|        |    |       |           |                        |    |
|--------|----|-------|-----------|------------------------|----|
| Run #: | 18 | Line: | High Line | Ext. Attenuation (dB): | 20 |
|--------|----|-------|-----------|------------------------|----|

## COMMENTS

|      |
|------|
| None |
|------|

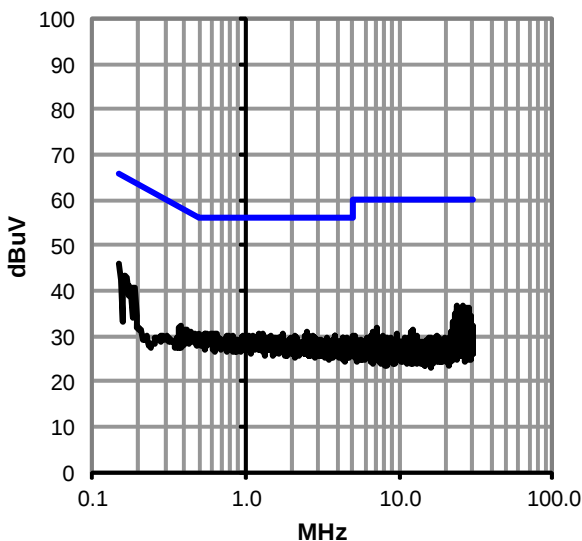
## EUT OPERATING MODES

|                                                     |
|-----------------------------------------------------|
| Transmitting, Antenna 1, 802.11, 1 Mbps, Channel 11 |
|-----------------------------------------------------|

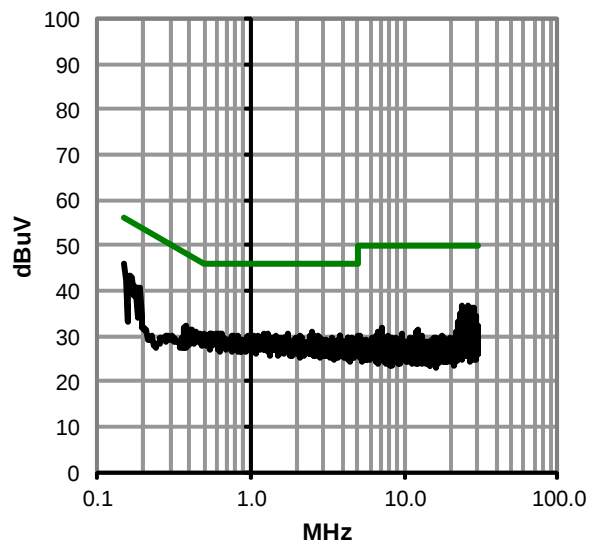
## DEVIATIONS FROM TEST STANDARD

|      |
|------|
| None |
|------|

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #18

Peak Data - vs - Quasi Peak Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 0.150      | 25.8        | 20.2        | 46.0            | 66.0               | -20.0       |
| 0.165      | 23.3        | 20.2        | 43.5            | 65.2               | -21.7       |
| 26.195     | 14.7        | 22.0        | 36.7            | 60.0               | -23.3       |
| 23.400     | 14.9        | 21.7        | 36.6            | 60.0               | -23.4       |
| 0.186      | 20.5        | 20.2        | 40.7            | 64.2               | -23.5       |
| 27.307     | 14.2        | 22.1        | 36.3            | 60.0               | -23.7       |
| 28.426     | 13.9        | 22.2        | 36.1            | 60.0               | -23.9       |
| 24.115     | 14.0        | 21.7        | 35.7            | 60.0               | -24.3       |
| 23.961     | 13.9        | 21.7        | 35.6            | 60.0               | -24.4       |
| 2.511      | 10.8        | 20.3        | 31.1            | 56.0               | -24.9       |
| 26.753     | 13.0        | 22.1        | 35.1            | 60.0               | -24.9       |
| 22.850     | 13.3        | 21.6        | 34.9            | 60.0               | -25.1       |
| 0.646      | 10.5        | 20.2        | 30.7            | 56.0               | -25.3       |
| 0.555      | 10.4        | 20.2        | 30.6            | 56.0               | -25.4       |
| 28.987     | 12.3        | 22.3        | 34.6            | 60.0               | -25.4       |
| 1.768      | 10.3        | 20.3        | 30.6            | 56.0               | -25.4       |
| 1.291      | 10.2        | 20.2        | 30.4            | 56.0               | -25.6       |
| 1.221      | 10.1        | 20.2        | 30.3            | 56.0               | -25.7       |
| 2.096      | 9.9         | 20.3        | 30.2            | 56.0               | -25.8       |
| 0.970      | 10.0        | 20.2        | 30.2            | 56.0               | -25.8       |
| 3.871      | 9.8         | 20.4        | 30.2            | 56.0               | -25.8       |
| 0.420      | 11.4        | 20.2        | 31.6            | 57.5               | -25.9       |
| 0.748      | 9.9         | 20.2        | 30.1            | 56.0               | -25.9       |
| 27.864     | 11.9        | 22.2        | 34.1            | 60.0               | -25.9       |
| 3.831      | 9.7         | 20.4        | 30.1            | 56.0               | -25.9       |
| 1.469      | 9.8         | 20.2        | 30.0            | 56.0               | -26.0       |

Peak Data - vs - Average Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 0.150      | 25.8        | 20.2        | 46.0            | 56.0               | -10.0       |
| 0.165      | 23.3        | 20.2        | 43.5            | 55.2               | -11.7       |
| 26.195     | 14.7        | 22.0        | 36.7            | 50.0               | -13.3       |
| 23.400     | 14.9        | 21.7        | 36.6            | 50.0               | -13.4       |
| 0.186      | 20.5        | 20.2        | 40.7            | 54.2               | -13.5       |
| 27.307     | 14.2        | 22.1        | 36.3            | 50.0               | -13.7       |
| 28.426     | 13.9        | 22.2        | 36.1            | 50.0               | -13.9       |
| 24.115     | 14.0        | 21.7        | 35.7            | 50.0               | -14.3       |
| 23.961     | 13.9        | 21.7        | 35.6            | 50.0               | -14.4       |
| 2.511      | 10.8        | 20.3        | 31.1            | 46.0               | -14.9       |
| 26.753     | 13.0        | 22.1        | 35.1            | 50.0               | -14.9       |
| 22.850     | 13.3        | 21.6        | 34.9            | 50.0               | -15.1       |
| 0.646      | 10.5        | 20.2        | 30.7            | 46.0               | -15.3       |
| 0.555      | 10.4        | 20.2        | 30.6            | 46.0               | -15.4       |
| 28.987     | 12.3        | 22.3        | 34.6            | 50.0               | -15.4       |
| 1.768      | 10.3        | 20.3        | 30.6            | 46.0               | -15.4       |
| 1.291      | 10.2        | 20.2        | 30.4            | 46.0               | -15.6       |
| 1.221      | 10.1        | 20.2        | 30.3            | 46.0               | -15.7       |
| 2.096      | 9.9         | 20.3        | 30.2            | 46.0               | -15.8       |
| 0.970      | 10.0        | 20.2        | 30.2            | 46.0               | -15.8       |
| 3.871      | 9.8         | 20.4        | 30.2            | 46.0               | -15.8       |
| 0.420      | 11.4        | 20.2        | 31.6            | 47.5               | -15.9       |
| 0.748      | 9.9         | 20.2        | 30.1            | 46.0               | -15.9       |
| 27.864     | 11.9        | 22.2        | 34.1            | 50.0               | -15.9       |
| 3.831      | 9.7         | 20.4        | 30.1            | 46.0               | -15.9       |
| 1.469      | 9.8         | 20.2        | 30.0            | 46.0               | -16.0       |

## CONCLUSION

Pass

*Trevor Buls*  
Tested By

# AC POWERLINE CONDUCTED EMISSIONS

|                   |                                             |                    |            |
|-------------------|---------------------------------------------|--------------------|------------|
| EUT:              | RTH9580WF01                                 | Work Order:        | HNYW0043   |
| Serial Number:    | 5191101 0010630                             | Date:              | 03/21/2013 |
| Customer:         | Honeywell, Automation and Control Solutions | Temperature:       | 24.1°C     |
| Attendees:        | None                                        | Relative Humidity: | 10%        |
| Customer Project: | None                                        | Bar. Pressure:     | 1019.4 mb  |
| Tested By:        | Trevor Buls                                 | Job Site:          | MN03       |
| Power:            | 110VAC/60Hz                                 | Configuration:     | HNYW0043-1 |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.207:2013 | ANSI C63.10:2009 |

## TEST PARAMETERS

|        |    |       |         |                        |    |
|--------|----|-------|---------|------------------------|----|
| Run #: | 19 | Line: | Neutral | Ext. Attenuation (dB): | 20 |
|--------|----|-------|---------|------------------------|----|

## COMMENTS

None

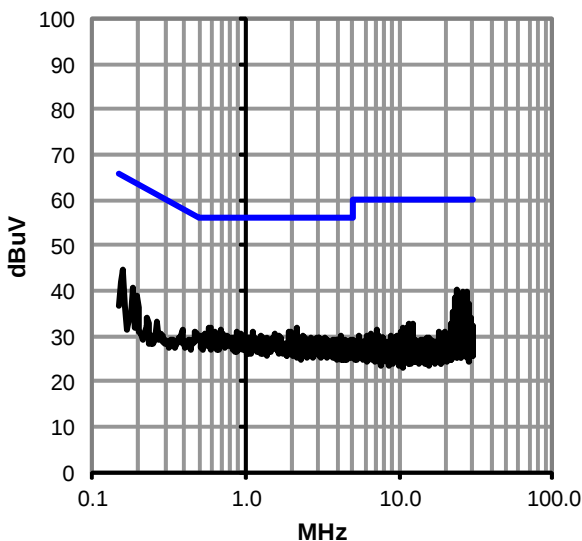
## EUT OPERATING MODES

Transmitting, Antenna 1, 802.11, 1 Mbps, Channel 11

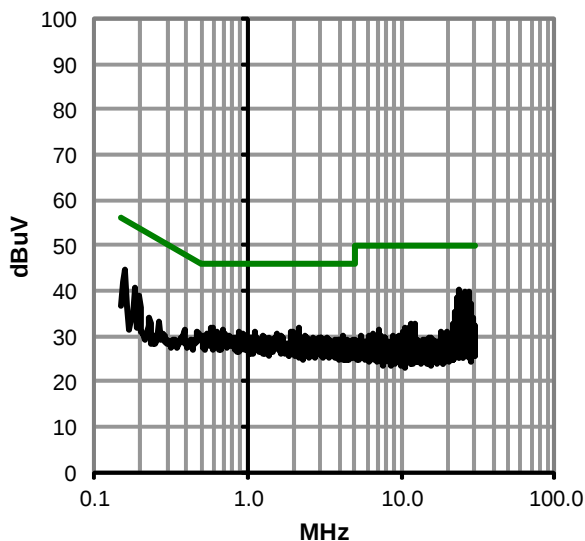
## DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #19

Peak Data - vs - Quasi Peak Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 23.411     | 18.4        | 21.7        | 40.1            | 60.0               | -19.9       |
| 27.303     | 17.6        | 22.1        | 39.7            | 60.0               | -20.3       |
| 26.192     | 17.6        | 22.0        | 39.6            | 60.0               | -20.4       |
| 26.749     | 17.2        | 22.1        | 39.3            | 60.0               | -20.7       |
| 0.157      | 24.6        | 20.2        | 44.8            | 65.6               | -20.8       |
| 23.965     | 16.6        | 21.7        | 38.3            | 60.0               | -21.7       |
| 22.850     | 16.7        | 21.6        | 38.3            | 60.0               | -21.7       |
| 24.523     | 16.2        | 21.8        | 38.0            | 60.0               | -22.0       |
| 27.864     | 15.5        | 22.2        | 37.7            | 60.0               | -22.3       |
| 25.638     | 15.7        | 21.9        | 37.6            | 60.0               | -22.4       |
| 28.426     | 15.0        | 22.2        | 37.2            | 60.0               | -22.8       |
| 24.672     | 14.8        | 21.8        | 36.6            | 60.0               | -23.4       |
| 24.115     | 14.7        | 21.7        | 36.4            | 60.0               | -23.6       |
| 0.183      | 20.4        | 20.2        | 40.6            | 64.4               | -23.8       |
| 25.080     | 14.2        | 21.9        | 36.1            | 60.0               | -23.9       |
| 2.136      | 11.6        | 20.3        | 31.9            | 56.0               | -24.1       |
| 24.778     | 14.0        | 21.8        | 35.8            | 60.0               | -24.2       |
| 0.580      | 11.5        | 20.2        | 31.7            | 56.0               | -24.3       |
| 0.693      | 11.2        | 20.2        | 31.4            | 56.0               | -24.6       |
| 0.197      | 18.8        | 20.2        | 39.0            | 63.7               | -24.7       |
| 22.296     | 13.6        | 21.6        | 35.2            | 60.0               | -24.8       |
| 1.914      | 10.7        | 20.3        | 31.0            | 56.0               | -25.0       |
| 1.119      | 10.7        | 20.2        | 30.9            | 56.0               | -25.1       |
| 0.638      | 10.7        | 20.2        | 30.9            | 56.0               | -25.1       |
| 0.872      | 10.7        | 20.2        | 30.9            | 56.0               | -25.1       |
| 1.972      | 10.5        | 20.3        | 30.8            | 56.0               | -25.2       |

Peak Data - vs - Average Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV) | Spec. Limit (dBuV) | Margin (dB) |
|------------|-------------|-------------|-----------------|--------------------|-------------|
| 23.411     | 18.4        | 21.7        | 40.1            | 50.0               | -9.9        |
| 27.303     | 17.6        | 22.1        | 39.7            | 50.0               | -10.3       |
| 26.192     | 17.6        | 22.0        | 39.6            | 50.0               | -10.4       |
| 26.749     | 17.2        | 22.1        | 39.3            | 50.0               | -10.7       |
| 0.157      | 24.6        | 20.2        | 44.8            | 55.6               | -10.8       |
| 23.965     | 16.6        | 21.7        | 38.3            | 50.0               | -11.7       |
| 22.850     | 16.7        | 21.6        | 38.3            | 50.0               | -11.7       |
| 24.523     | 16.2        | 21.8        | 38.0            | 50.0               | -12.0       |
| 27.864     | 15.5        | 22.2        | 37.7            | 50.0               | -12.3       |
| 25.638     | 15.7        | 21.9        | 37.6            | 50.0               | -12.4       |
| 28.426     | 15.0        | 22.2        | 37.2            | 50.0               | -12.8       |
| 24.672     | 14.8        | 21.8        | 36.6            | 50.0               | -13.4       |
| 24.115     | 14.7        | 21.7        | 36.4            | 50.0               | -13.6       |
| 0.183      | 20.4        | 20.2        | 40.6            | 54.4               | -13.8       |
| 25.080     | 14.2        | 21.9        | 36.1            | 50.0               | -13.9       |
| 2.136      | 11.6        | 20.3        | 31.9            | 46.0               | -14.1       |
| 24.778     | 14.0        | 21.8        | 35.8            | 50.0               | -14.2       |
| 0.580      | 11.5        | 20.2        | 31.7            | 46.0               | -14.3       |
| 0.693      | 11.2        | 20.2        | 31.4            | 46.0               | -14.6       |
| 0.197      | 18.8        | 20.2        | 39.0            | 53.7               | -14.7       |
| 22.296     | 13.6        | 21.6        | 35.2            | 50.0               | -14.8       |
| 1.914      | 10.7        | 20.3        | 31.0            | 46.0               | -15.0       |
| 1.119      | 10.7        | 20.2        | 30.9            | 46.0               | -15.1       |
| 0.638      | 10.7        | 20.2        | 30.9            | 46.0               | -15.1       |
| 0.872      | 10.7        | 20.2        | 30.9            | 46.0               | -15.1       |
| 1.972      | 10.5        | 20.3        | 30.8            | 46.0               | -15.2       |

## CONCLUSION

Pass

*Trevor Buls*  
Tested By