



## **Intel Corporation**

**Intel 8-inch Tablet**

**Model: GQ110**

**FCC 15.207:2014**

**FCC 15.247:2014**

**802.11 bgn Radio**

**Report #: INTE5431.1**



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: April 25, 2014**  
**Intel Corporation**  
**Model: GQ110**

## Emissions

| Test Description                 | Specification   | Test Method      | Pass/Fail |
|----------------------------------|-----------------|------------------|-----------|
| Duty Cycle                       | FCC 15.247:2014 | ANSI C63.10:2009 | Pass      |
| Occupied Bandwidth               | FCC 15.247:2014 | ANSI C63.10:2009 | Pass      |
| Output Power                     | FCC 15.247:2014 | ANSI C63.10:2009 | Pass      |
| Power Spectral Density           | FCC 15.247:2014 | ANSI C63.10:2009 | Pass      |
| Band Edge Compliance             | FCC 15.247:2014 | ANSI C63.10:2009 | Pass      |
| Spurious Conducted Emissions     | FCC 15.247:2014 | ANSI C63.10:2009 | Pass      |
| Spurious Radiated Emissions      | FCC 15.247:2014 | ANSI C63.10:2009 | Pass      |
| AC Powerline Conducted Emissions | FCC 15.207:2014 | ANSI C63.10:2009 | Pass      |

## Deviations From Test Standards

None

## Approved By:



Kyle Holgate, Operations Manager



**NVLAP Lab Code: 200630-0**  
**200629-0**

*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.

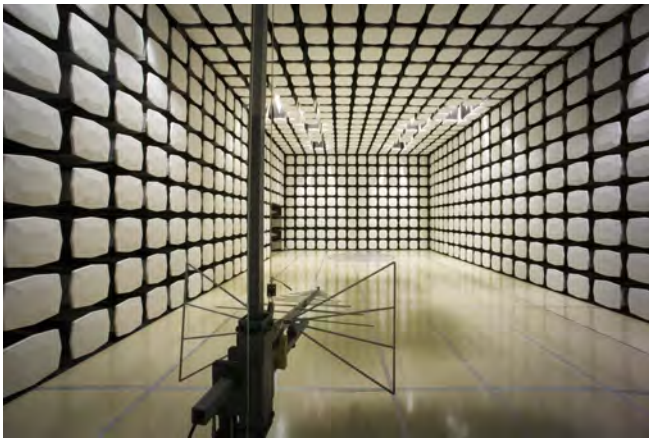
A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) for each test is listed below. Our measurement 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                                                                                               | 2834F-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>            | Intel Corporation       |
| <b>Address:</b>                 | 5200 NE Elam Young Pkwy |
| <b>City, State, Zip:</b>        | Hillsboro, OR 97124     |
| <b>Test Requested By:</b>       | Aaron Cohen             |
| <b>Model:</b>                   | GQ110                   |
| <b>First Date of Test:</b>      | March 26, 2014          |
| <b>Last Date of Test:</b>       | April 3, 2014           |
| <b>Receipt Date of Samples:</b> | March 26, 2014          |
| <b>Equipment Design Stage:</b>  | Production              |
| <b>Equipment Condition:</b>     | No Damage               |

## Information Provided by the Party Requesting the Test

|                                                                               |
|-------------------------------------------------------------------------------|
| <b>Functional Description of the EUT (Equipment Under Test):</b>              |
| Tablet with 802.11bgn 20 MHz bandwidth, SISO, with Bluetooth 4.0 and GPS.     |
| <b>Testing Objective:</b>                                                     |
| To demonstrate compliance under FCC 15.247 for operation in the 2.4 GHz band. |

## Configuration INTE5431- 1

| Software/Firmware Running during test |         |
|---------------------------------------|---------|
| Description                           | Version |
| Android OS                            | 4.4.2   |

| EUT                 |                   |                   |               |
|---------------------|-------------------|-------------------|---------------|
| Description         | Manufacturer      | Model/Part Number | Serial Number |
| Intel 8-inch Tablet | Intel Corporation | GQ110             | EZF83450005Z  |

| Peripherals in test setup boundary |              |                   |               |
|------------------------------------|--------------|-------------------|---------------|
| Description                        | Manufacturer | Model/Part Number | Serial Number |
| AC/DC Adapter                      | Salcomp      | S11A02            | 131100233060  |

| Cables                                                                                                 |        |            |         |                     |               |
|--------------------------------------------------------------------------------------------------------|--------|------------|---------|---------------------|---------------|
| Cable Type                                                                                             | Shield | Length (m) | Ferrite | Connection 1        | Connection 2  |
| USB Cable                                                                                              | Yes    | .3m        | No      | Intel 8-inch Tablet | AC/DC Adapter |
| PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown. |        |            |         |                     |               |

## Configuration INTE5431- 4

| Software/Firmware Running during test |         |
|---------------------------------------|---------|
| Description                           | Version |
| Android OS                            | 4.4.2   |

| EUT                 |                   |                   |               |
|---------------------|-------------------|-------------------|---------------|
| Description         | Manufacturer      | Model/Part Number | Serial Number |
| Intel 8-inch Tablet | Intel Corporation | GQ110             | EZF8344000UK  |

| Peripherals in test setup boundary |              |                   |               |
|------------------------------------|--------------|-------------------|---------------|
| Description                        | Manufacturer | Model/Part Number | Serial Number |
| AC/DC Adapter                      | Salcomp      | S11A02            | 131100233060  |

| Cables                                                                                                 |        |            |         |                     |               |
|--------------------------------------------------------------------------------------------------------|--------|------------|---------|---------------------|---------------|
| Cable Type                                                                                             | Shield | Length (m) | Ferrite | Connection 1        | Connection 2  |
| USB Cable                                                                                              | Yes    | .3m        | No      | Intel 8-inch Tablet | AC/DC Adapter |
| PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown. |        |            |         |                     |               |

## Configuration INTE5431- 6

| Software/Firmware Running during test |         |
|---------------------------------------|---------|
| Description                           | Version |
| Android OS                            | 4.4.2   |

| EUT                 |                   |                   |               |
|---------------------|-------------------|-------------------|---------------|
| Description         | Manufacturer      | Model/Part Number | Serial Number |
| Intel 8-inch Tablet | Intel Corporation | GQ110             | EZF8344000UK  |

| Peripherals in test setup boundary |              |                   |               |
|------------------------------------|--------------|-------------------|---------------|
| Description                        | Manufacturer | Model/Part Number | Serial Number |
| AC/DC Adapter                      | Salcomp      | S11A02            | 131100233060  |
| Headphones(ear buds)               | None         | None              | None          |

| Cables     |        |            |         |                     |               |
|------------|--------|------------|---------|---------------------|---------------|
| Cable Type | Shield | Length (m) | Ferrite | Connection 1        | Connection 2  |
| USB Cable  | Yes    | .3m        | No      | Intel 8-inch Tablet | AC/DC Adapter |
| HDMI Cable | Yes    | 3m         | No      | Intel 8-inch Tablet | Unterminated  |

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    | 3/26/2014 | 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. |
| 2    | 3/26/2014 | 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. |
| 3    | 3/26/2014 | 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. |
| 4    | 3/26/2014 | 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. |
| 5    | 3/26/2014 | 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. |
| 6    | 3/26/2014 | Spurious 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. |
| 7    | 3/28/2014 | 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. |
| 8    | 4/3/2014  | Spurious Radiated 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 |
|---------------------------------|------------------|----------|-----|------------|----------|
| 40GHz DC Block                  | Miteq            | DCB4000  | AMD | 5/16/2013  | 12       |
| Attenuator 20 dB, SMA M/F 26GHz | S.M. Electronics | SA26B-20 | AUY | 7/30/2013  | 12       |
| EV06 Direct Connect Cable       | ESM Cable Corp.  | TT       | ECA | NCR        | 0        |
| Attenuator, 6dB                 | S.M. Electronics | 18N-06   | AWN | 2/3/2014   | 12       |
| RF Vector Signal Generator      | Agilent          | V2920A   | TIH | NCR        | 0        |
| Power Meter                     | Gigatronics      | 8651A    | SPM | 11/26/2013 | 24       |
| Power Sensor                    | Gigatronics      | 80701A   | SPL | 7/8/2011   | 36       |
| Spectrum Analyzer               | Agilent          | E4440    | AFE | 11/4/2013  | 24       |

### TEST DESCRIPTION

The Duty Cycle (x) of the single channel operation of the radio as controlled by the provided test software was 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.

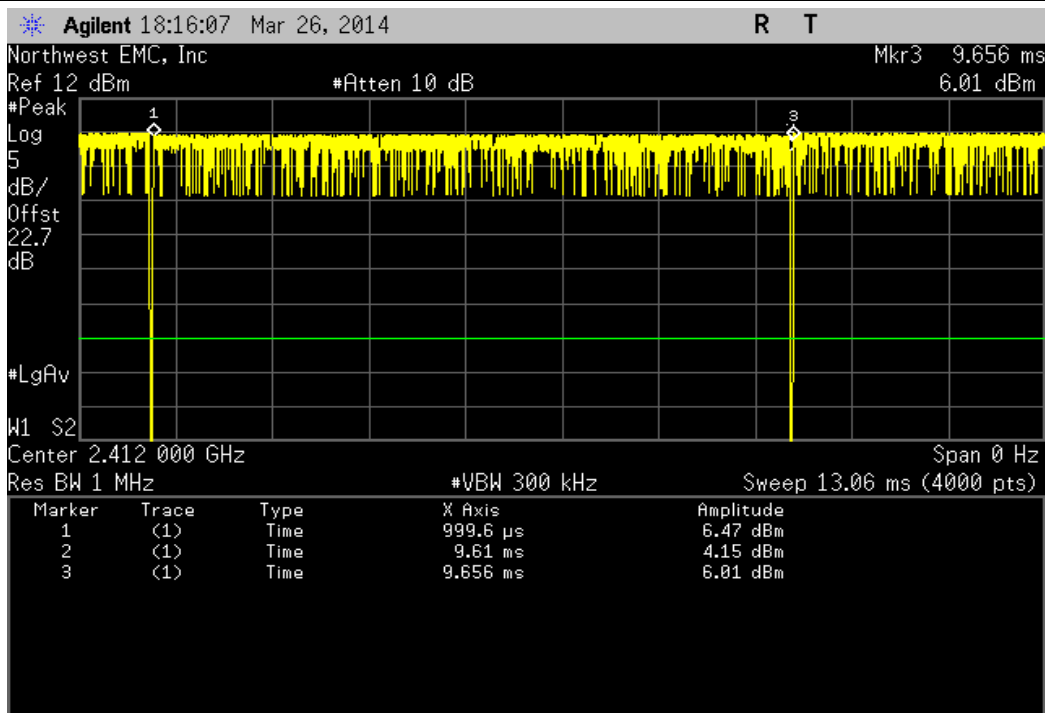


## DUTY CYCLE

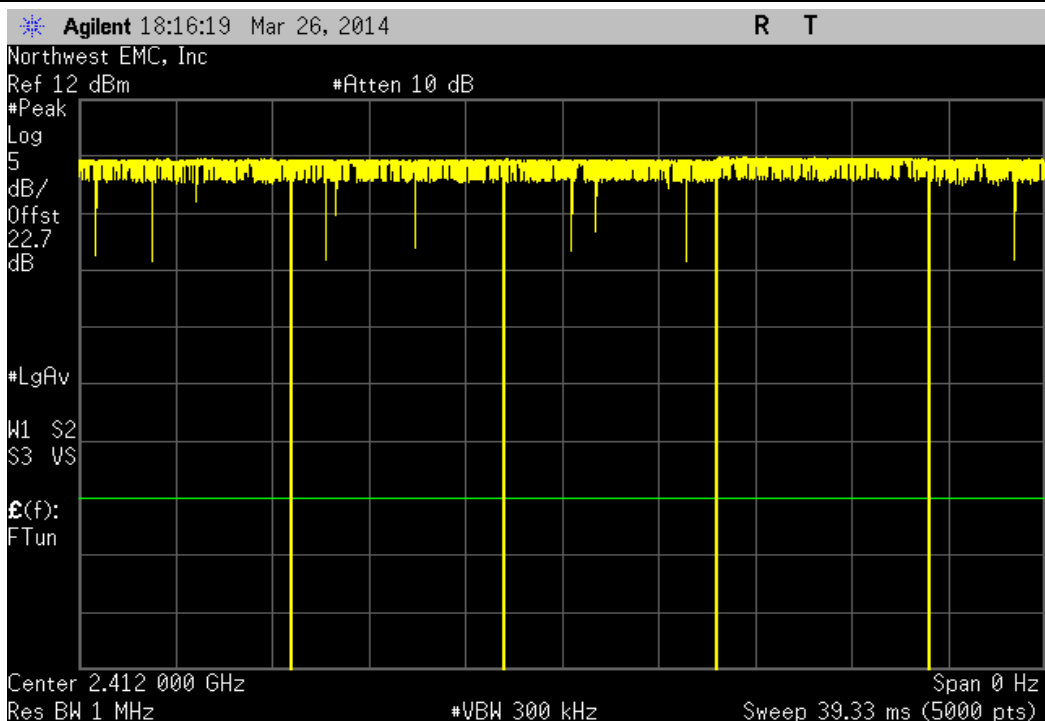
XMit 2013.08.15  
PsaTx 2013.10.23

|                                                |                           |                                                                                             |          |                  |           |       |        |
|------------------------------------------------|---------------------------|---------------------------------------------------------------------------------------------|----------|------------------|-----------|-------|--------|
| EUT: GQ110                                     |                           | Work Order: INTE5431                                                                        |          |                  |           |       |        |
| Serial Number: EZF83450005Z                    |                           | Date: 03/26/14                                                                              |          |                  |           |       |        |
| Customer: Intel Corporation                    |                           | Temperature: 21.7°C                                                                         |          |                  |           |       |        |
| Attendees: None                                |                           | Humidity: 39%                                                                               |          |                  |           |       |        |
| Project: GQ110                                 |                           | Barometric Pres.: 1001.8                                                                    |          |                  |           |       |        |
| Tested by: Jared Ison                          |                           | Power: 110VAC/60Hz                                                                          |          |                  |           |       |        |
|                                                |                           | Job Site: EV06                                                                              |          |                  |           |       |        |
| TEST SPECIFICATIONS                            |                           | Test Method                                                                                 |          |                  |           |       |        |
| FCC 15.247:2014                                |                           | ANSI C63.10:2009                                                                            |          |                  |           |       |        |
| COMMENTS                                       |                           |                                                                                             |          |                  |           |       |        |
| Mode of operation tested were client provided. |                           |                                                                                             |          |                  |           |       |        |
| DEVIATIONS FROM TEST STANDARD                  |                           |                                                                                             |          |                  |           |       |        |
| None                                           |                           |                                                                                             |          |                  |           |       |        |
| Configuration #                                | 1                         | Signature  |          |                  |           |       |        |
|                                                |                           | Pulse Width                                                                                 | Period   | Number of Pulses | Value (%) | Limit | Result |
| 2400 MHz - 2483.5 MHz Band                     |                           |                                                                                             |          |                  |           |       |        |
| 802.11(b) 1 Mbps                               |                           |                                                                                             |          |                  |           |       |        |
|                                                | Low Channel 1, 2412 MHz   | 8.611 mS                                                                                    | 8.657 mS | 1                | 99.5      | 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   | 8.611 mS                                                                                    | 8.657 mS | 1                | 99.5      | 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 | 8.614 mS                                                                                    | 8.657 mS | 1                | 99.5      | 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   | 864.8 uS                                                                                    | 910.8 uS | 1                | 94.9      | 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   | 863.2 uS                                                                                    | 909.2 uS | 1                | 94.9      | 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 | 864.8 uS                                                                                    | 910.8 uS | 1                | 94.9      | 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   | 1.42 mS                                                                                     | 1.478 mS | 1                | 96.1      | 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   | 1.42 mS                                                                                     | 1.478 mS | 1                | 96.1      | 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 | 1.42 mS                                                                                     | 1.478 mS | 1                | 96.1      | 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   | 248 uS                                                                                      | 306 uS   | 1                | 81        | 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   | 248 uS                                                                                      | 306 uS   | 1                | 81        | 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 | 249 uS                                                                                      | 306 uS   | 1                | 81.4      | 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   | 172 uS                                                                                      | 230 uS   | 1                | 74.8      | 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   | 172 uS                                                                                      | 230 uS   | 1                | 74.8      | N/A   | N/A    |
|                                                | Mid Channel 6, 2437 MHz   | N/A                                                                                         | N/A      | 6                | N/A       | N/A   | N/A    |
|                                                | High Channel 11, 2462 MHz | 172 uS                                                                                      | 229 uS   | 1                | 75.1      | 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   | 1.33 mS                                                                                     | 1.388 mS | 1                | 95.8      | 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   | 1.328 mS                                                                                    | 1.386 mS | 1                | 95.8      | 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 | 1.328 mS                                                                                    | 1.386 mS | 1                | 95.8      | 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   | 159 uS                                                                                      | 217 uS   | 1                | 73.3      | 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   | 159 uS                                                                                      | 218 uS   | 1                | 72.9      | 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 | 160 uS                                                                                      | 218 uS   | 1                | 73.4      | N/A   | N/A    |
|                                                | High Channel 11, 2462 MHz | N/A                                                                                         | N/A      | 5                | N/A       | N/A   | N/A    |

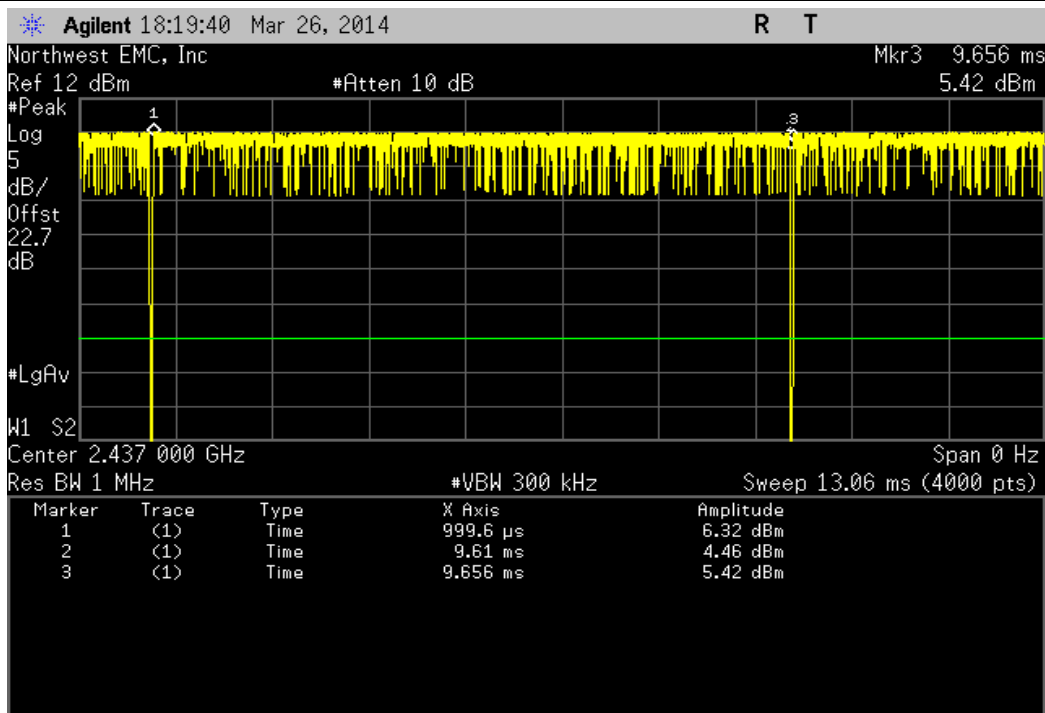
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz |             |          |                  |           |       |        |
|-----------------------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                                       | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                                       | 8.611 mS    | 8.657 mS | 1                | 99.5      | N/A   | N/A    |



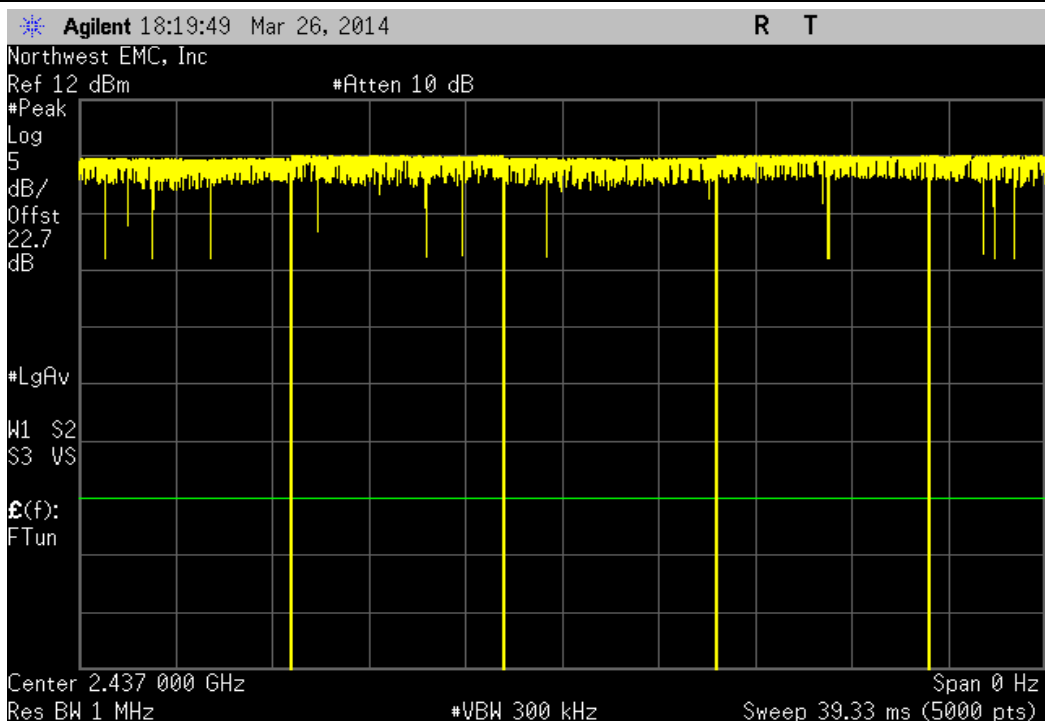
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|-----------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                       | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



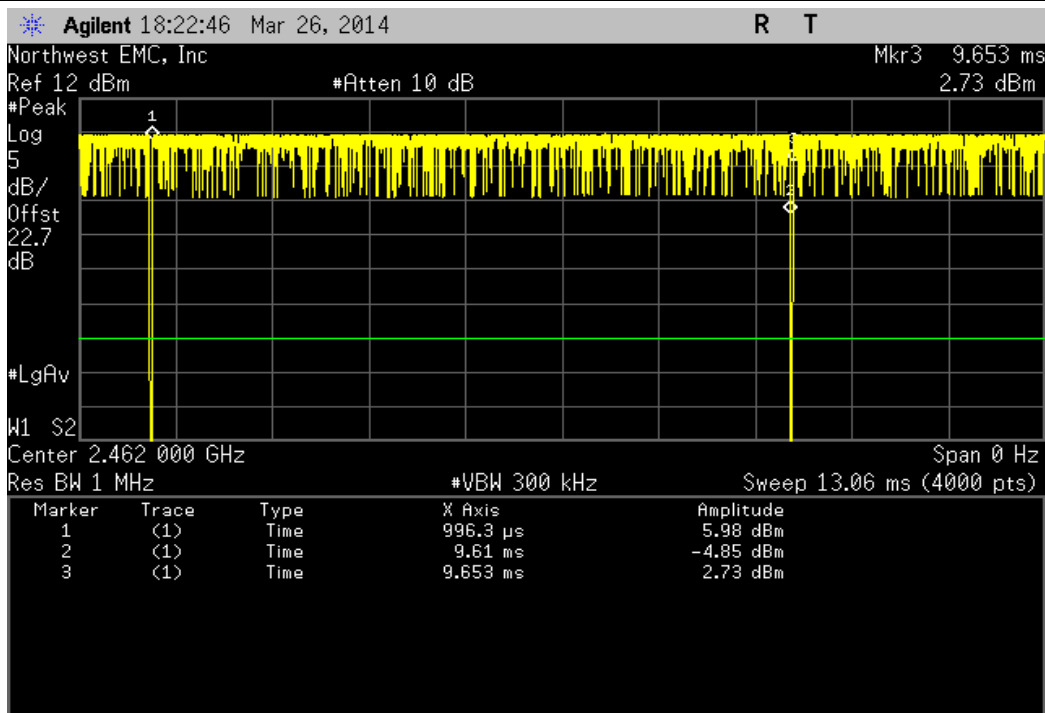
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz |             |          |                  |           |       |        |
|-----------------------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                                       | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                                       | 8.611 mS    | 8.657 mS | 1                | 99.5      | N/A   | N/A    |



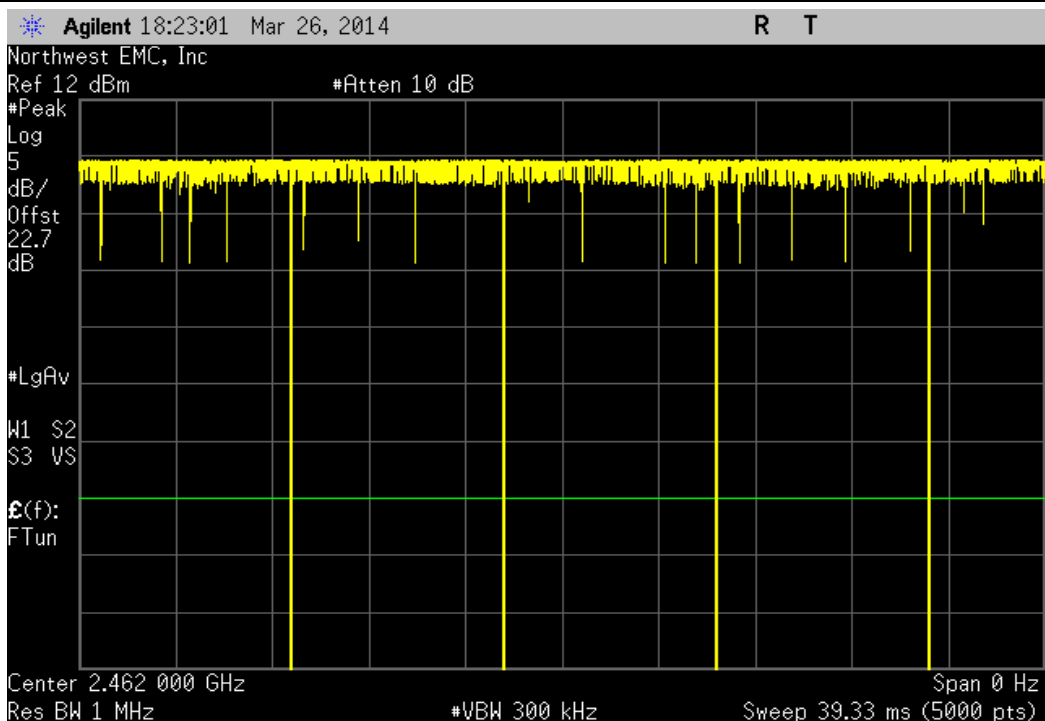
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|-----------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                       | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



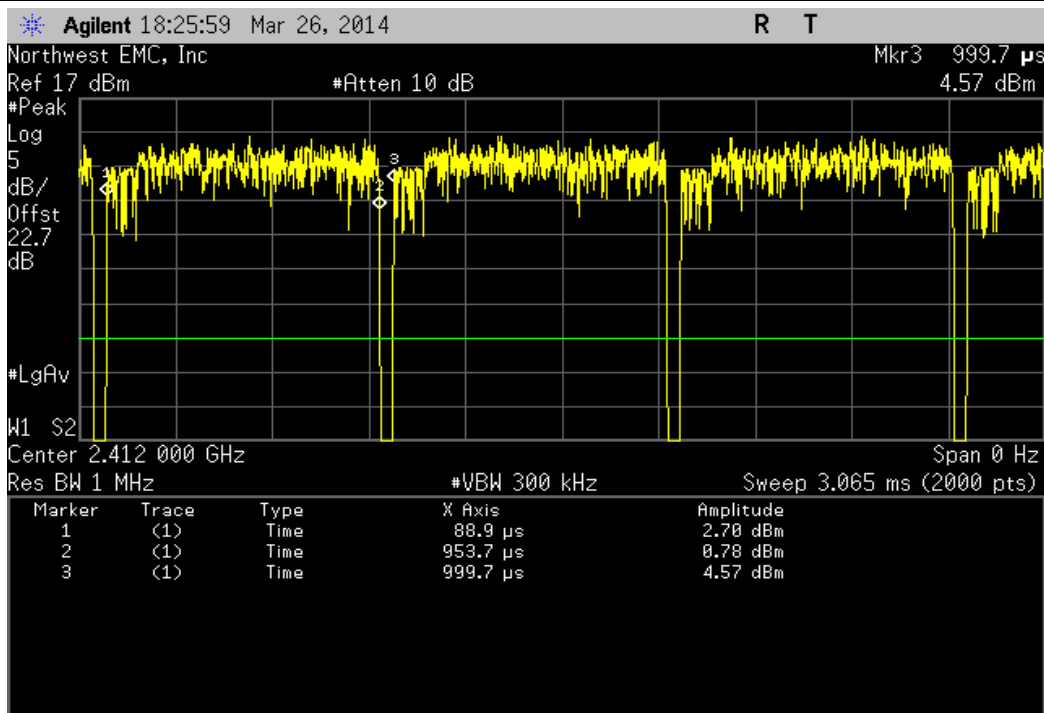
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz |             |          |                  |           |       |        |
|-------------------------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                                         | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                                         | 8.614 mS    | 8.657 mS | 1                | 99.5      | N/A   | N/A    |



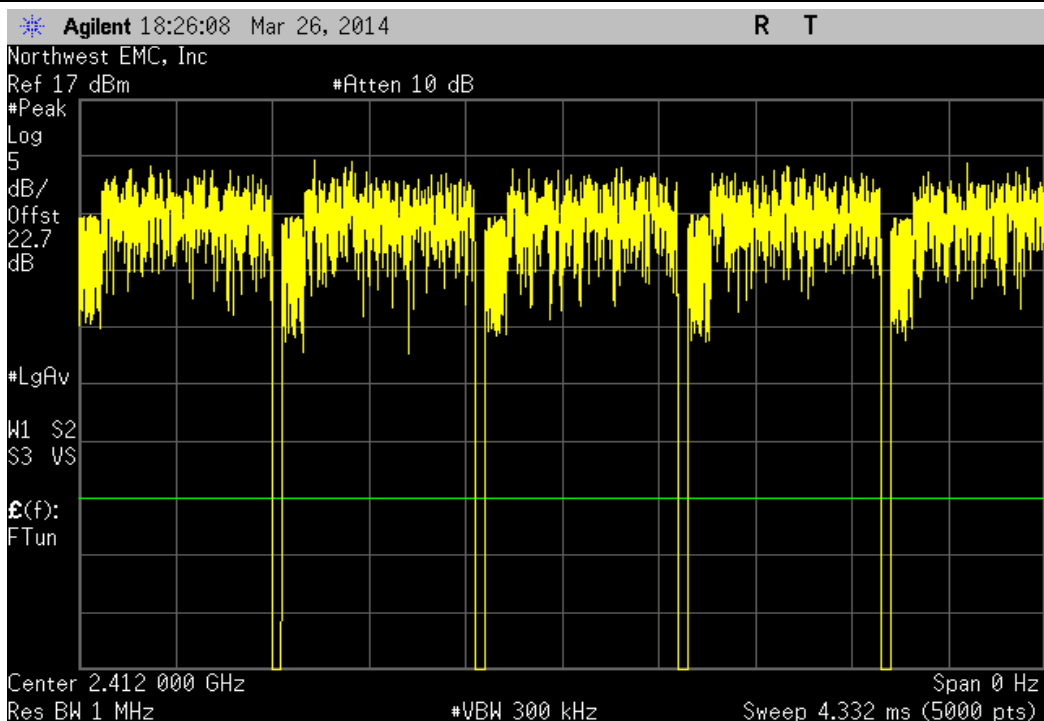
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                         | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                         | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



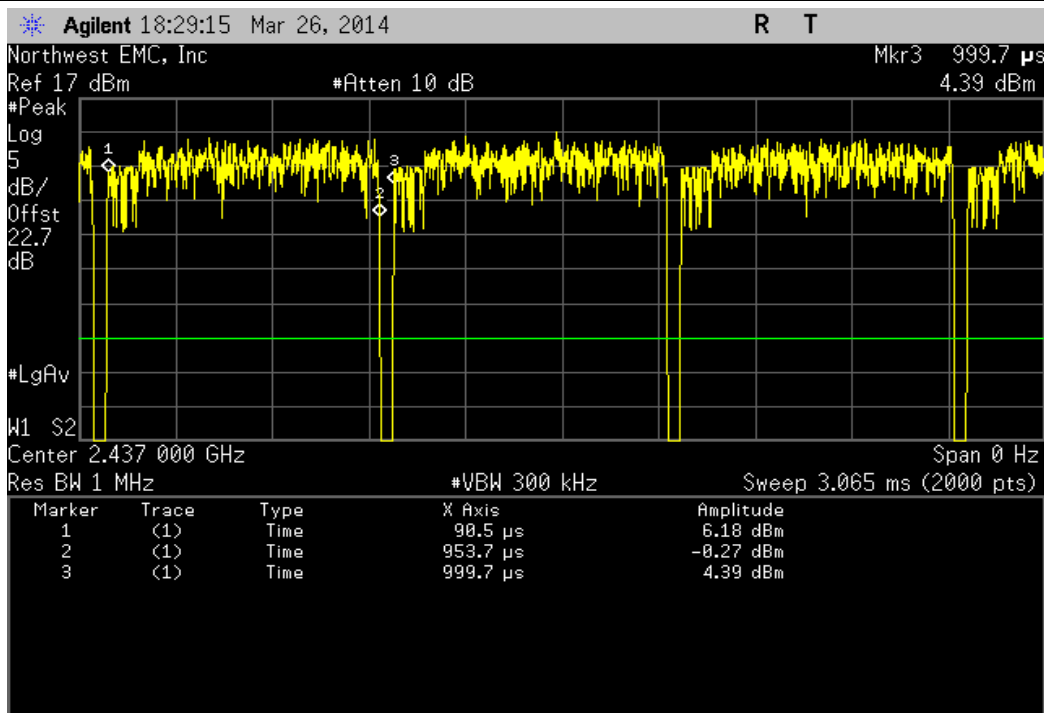
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |             |          |                  |           |       |        |
|------------------------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                                        | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                                        | 864.8 uS    | 910.8 uS | 1                | 94.9      | N/A   | N/A    |



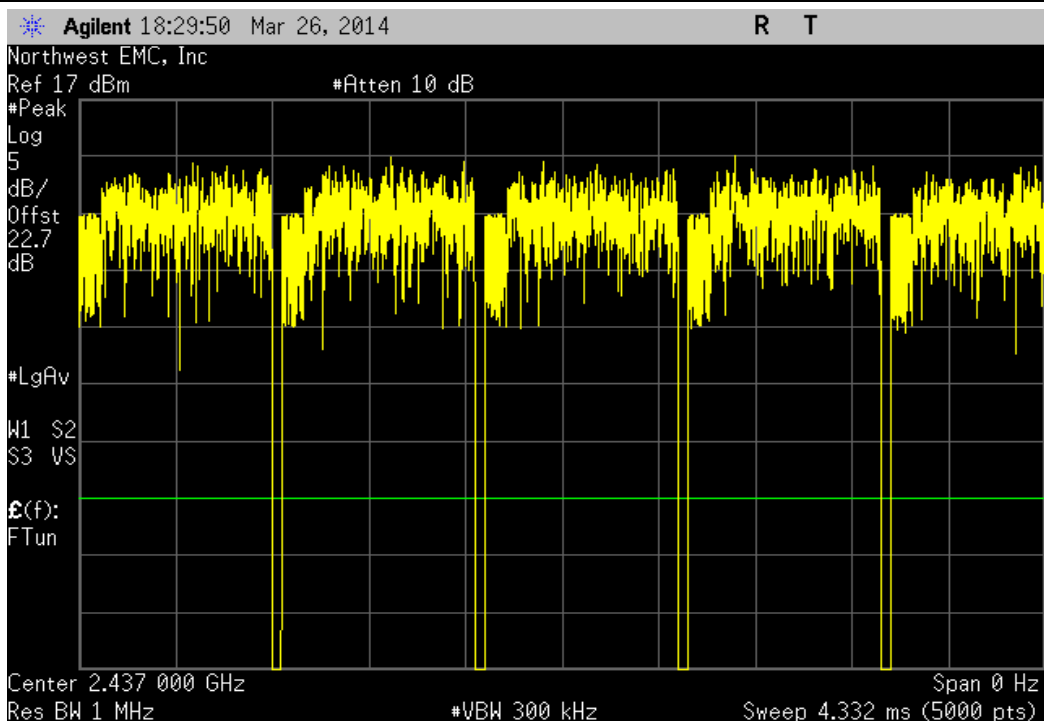
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|------------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                        | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                        | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



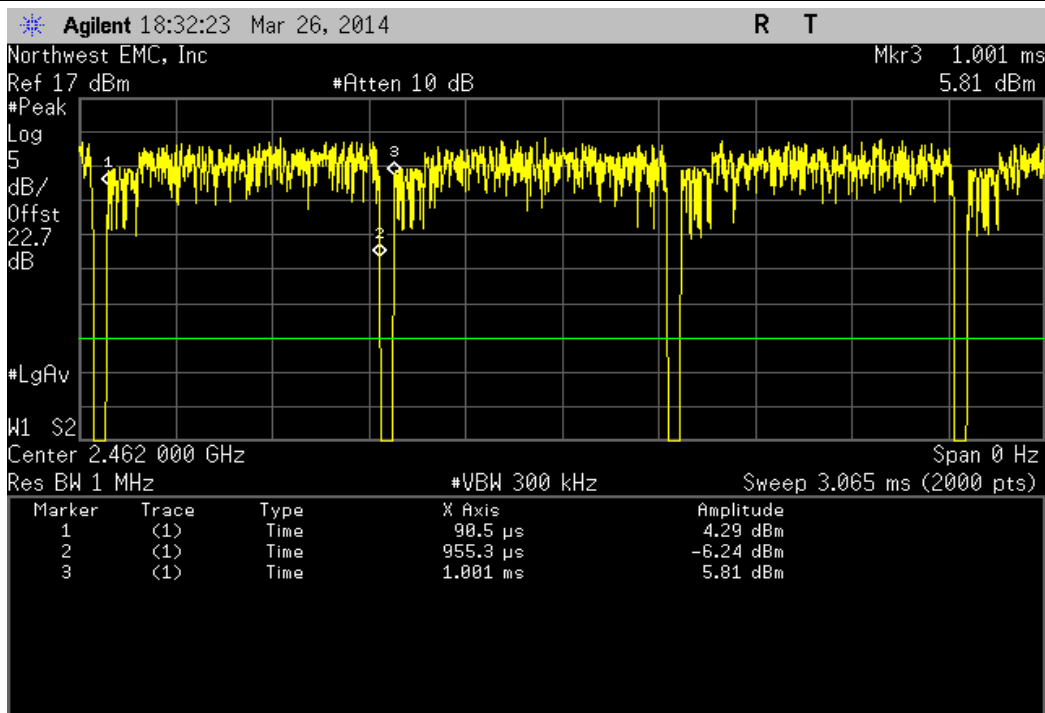
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz |               |               |                  |           |       |        |
|------------------------------------------------------------------------|---------------|---------------|------------------|-----------|-------|--------|
|                                                                        | Pulse Width   | Period        | Number of Pulses | Value (%) | Limit | Result |
|                                                                        | 863.2 $\mu$ s | 909.2 $\mu$ s | 1                | 94.9      | N/A   | N/A    |



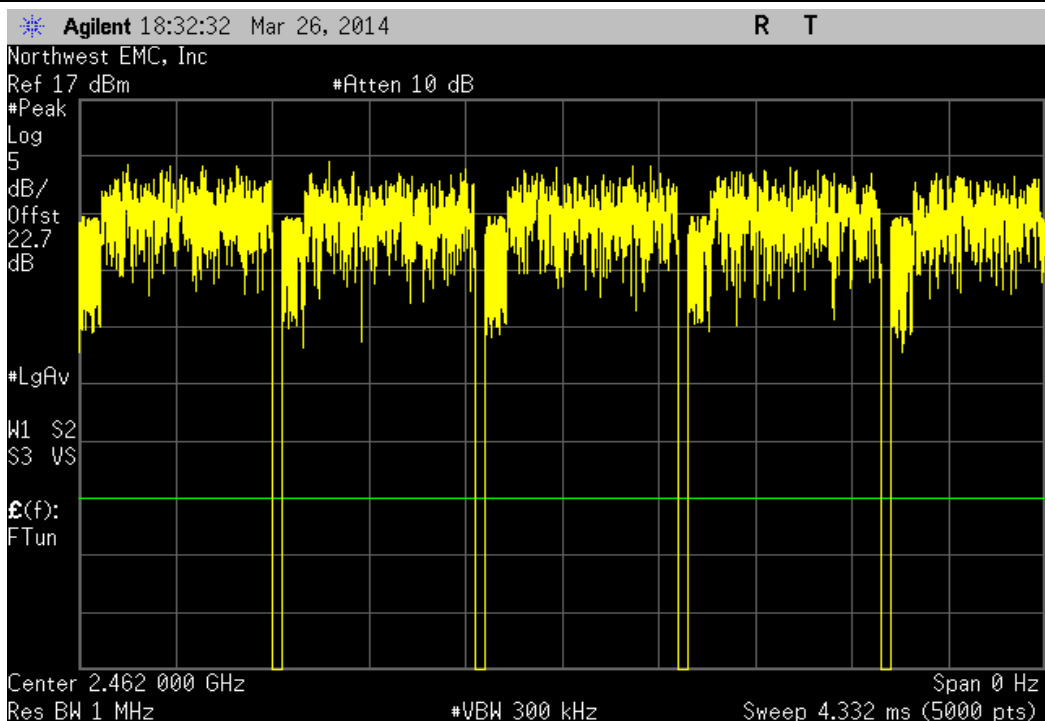
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|------------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                        | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                        | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



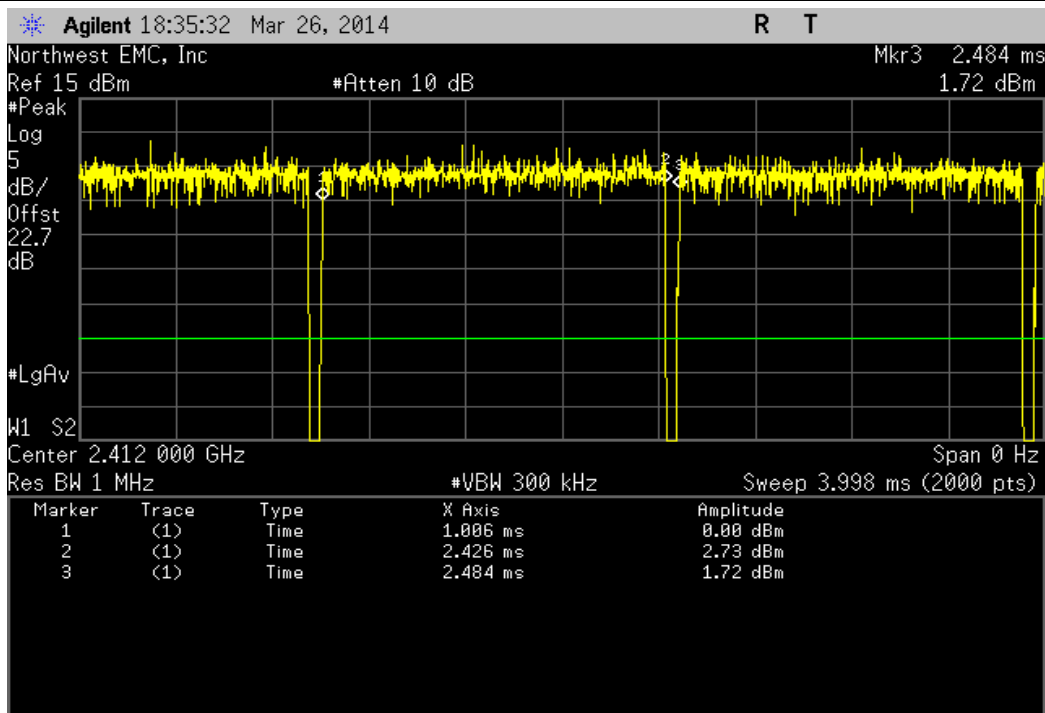
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz |          |                  |           |       |        |  |
|--------------------------------------------------------------------------|----------|------------------|-----------|-------|--------|--|
| Pulse Width                                                              | Period   | Number of Pulses | Value (%) | Limit | Result |  |
| 864.8 uS                                                                 | 910.8 uS | 1                | 94.9      | N/A   | N/A    |  |



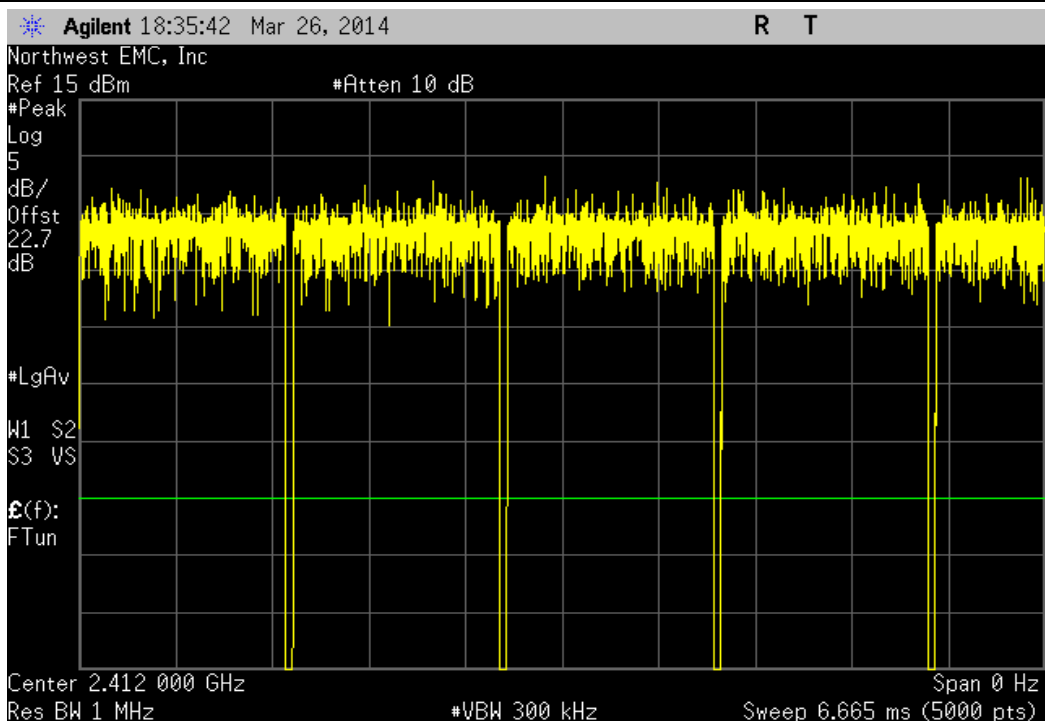
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz |        |                  |           |       |        |  |
|--------------------------------------------------------------------------|--------|------------------|-----------|-------|--------|--|
| Pulse Width                                                              | Period | Number of Pulses | Value (%) | Limit | Result |  |
| N/A                                                                      | N/A    | 5                | N/A       | N/A   | N/A    |  |



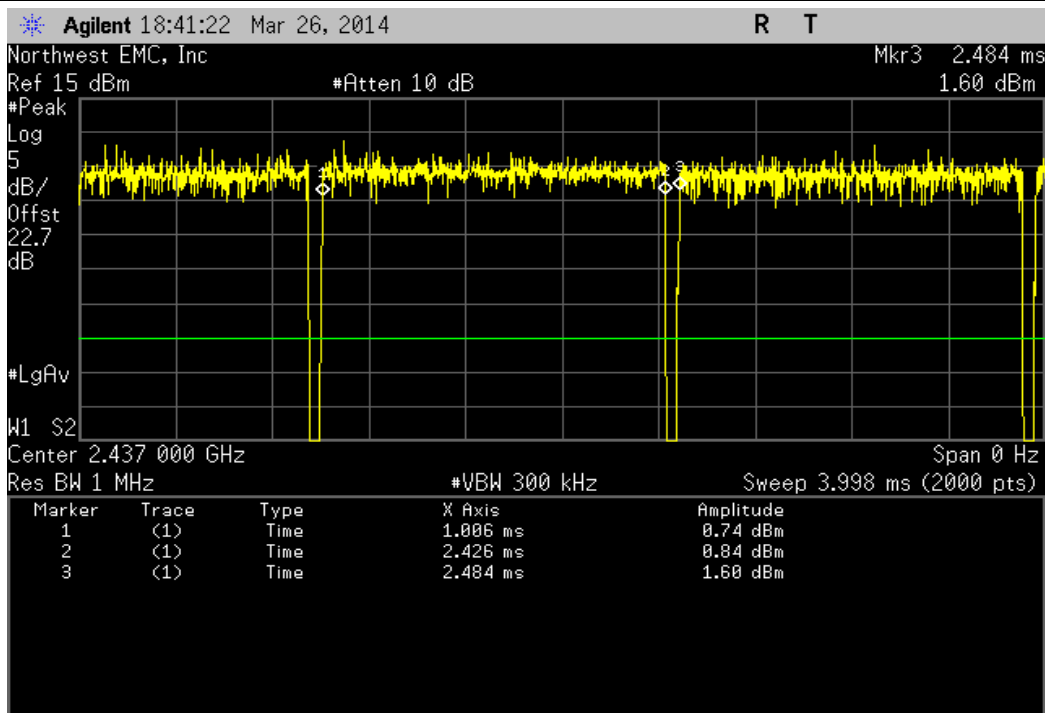
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz |             |          |                  |           |       |        |
|-----------------------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                                       | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                                       | 1.42 mS     | 1.478 mS | 1                | 96.1      | N/A   | N/A    |



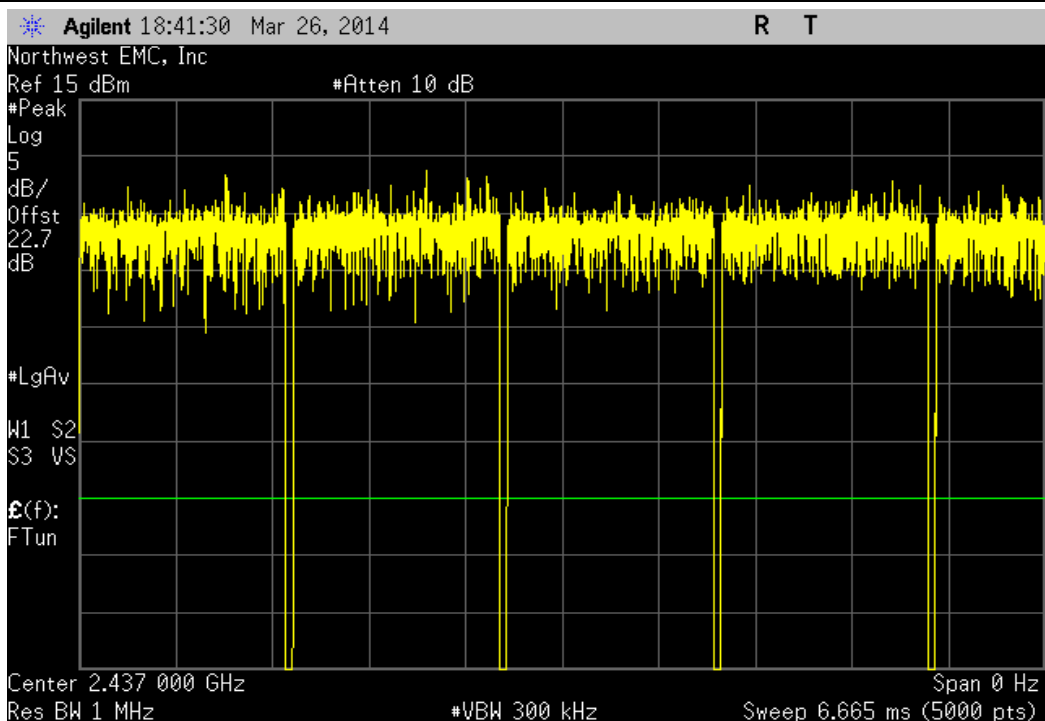
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|-----------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                       | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



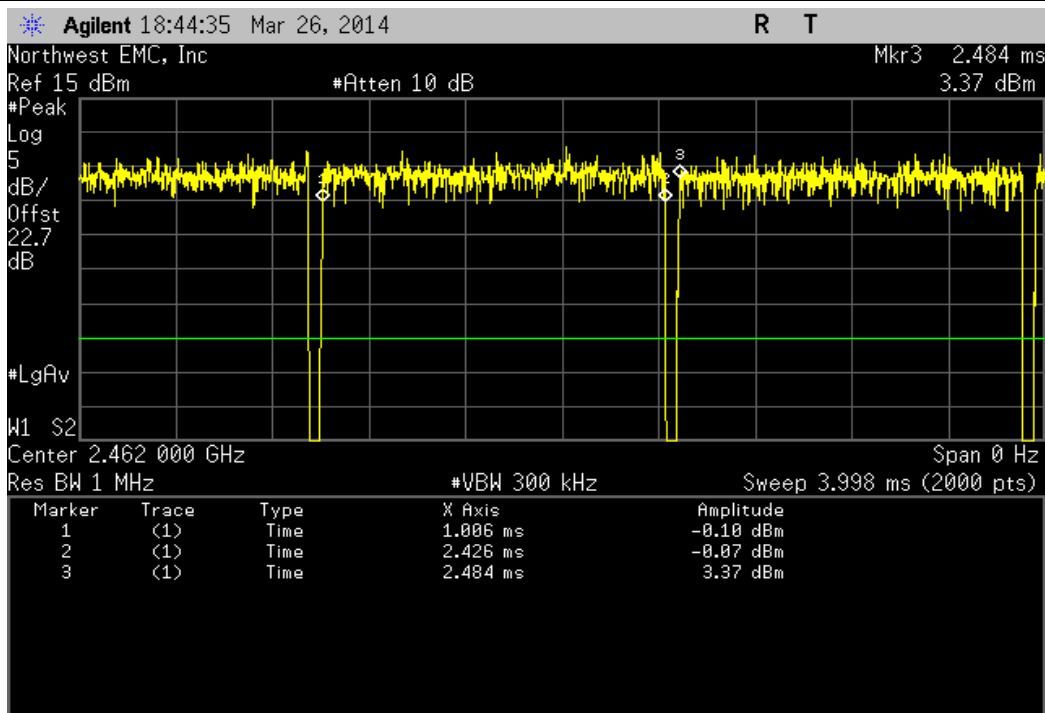
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz |             |          |                  |           |       |        |
|-----------------------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                                       | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                                       | 1.42 mS     | 1.478 mS | 1                | 96.1      | N/A   | N/A    |



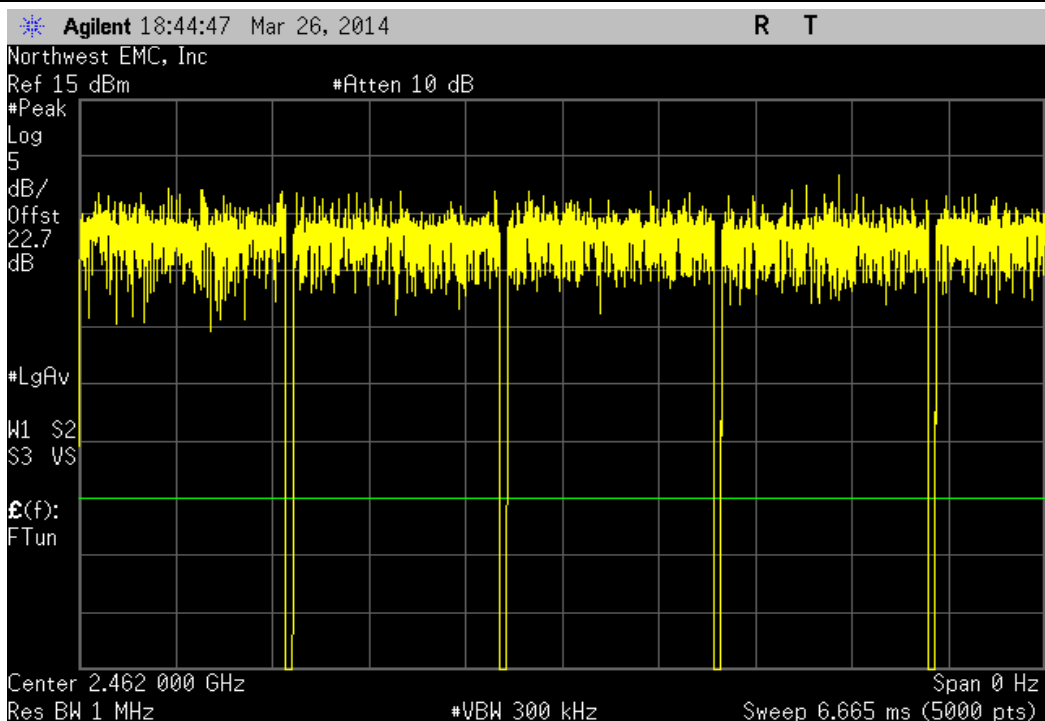
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|-----------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                       | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                       | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



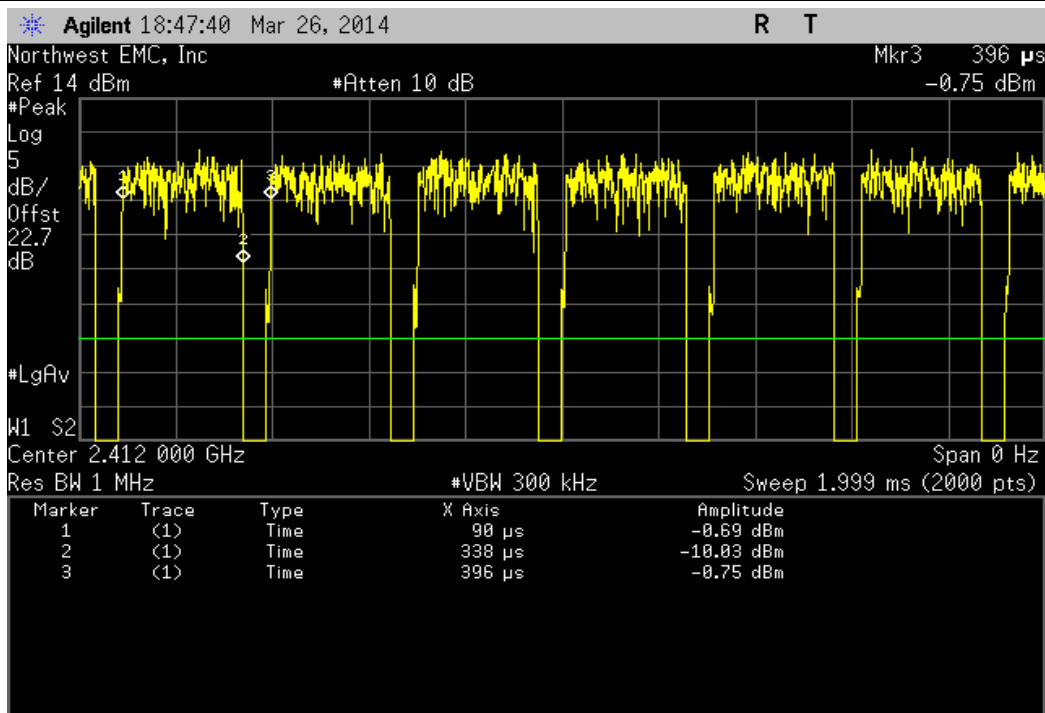
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |             |          |                  |           |       |        |
|-------------------------------------------------------------------------|-------------|----------|------------------|-----------|-------|--------|
|                                                                         | Pulse Width | Period   | Number of Pulses | Value (%) | Limit | Result |
|                                                                         | 1.42 mS     | 1.478 mS | 1                | 96.1      | N/A   | N/A    |



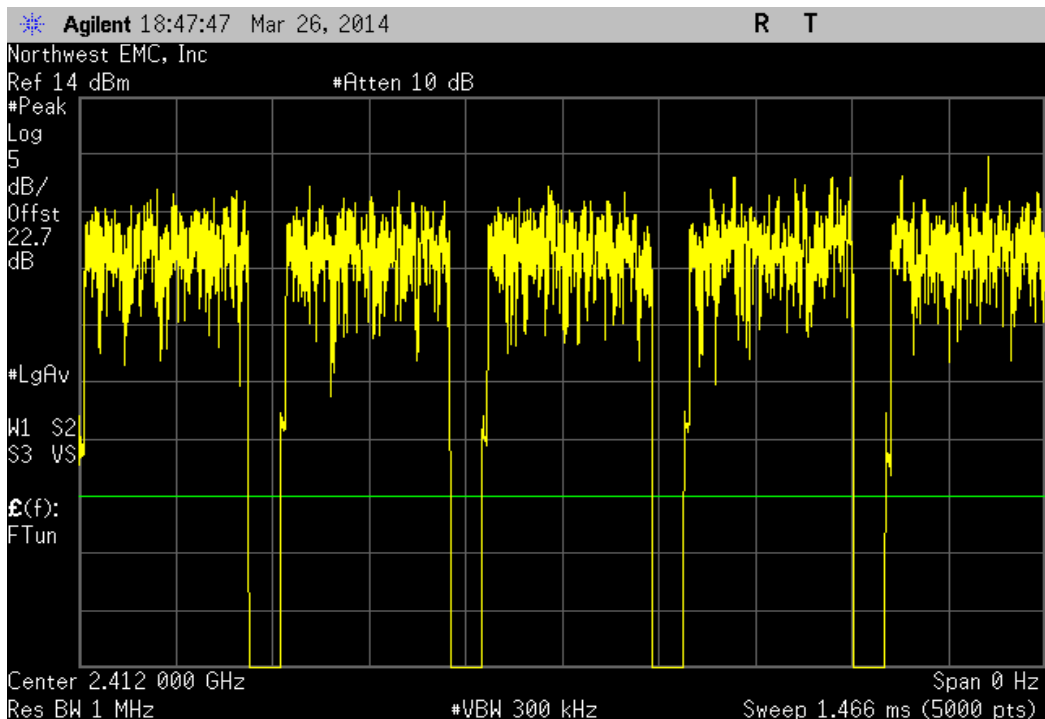
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|-------------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                         | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                         | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



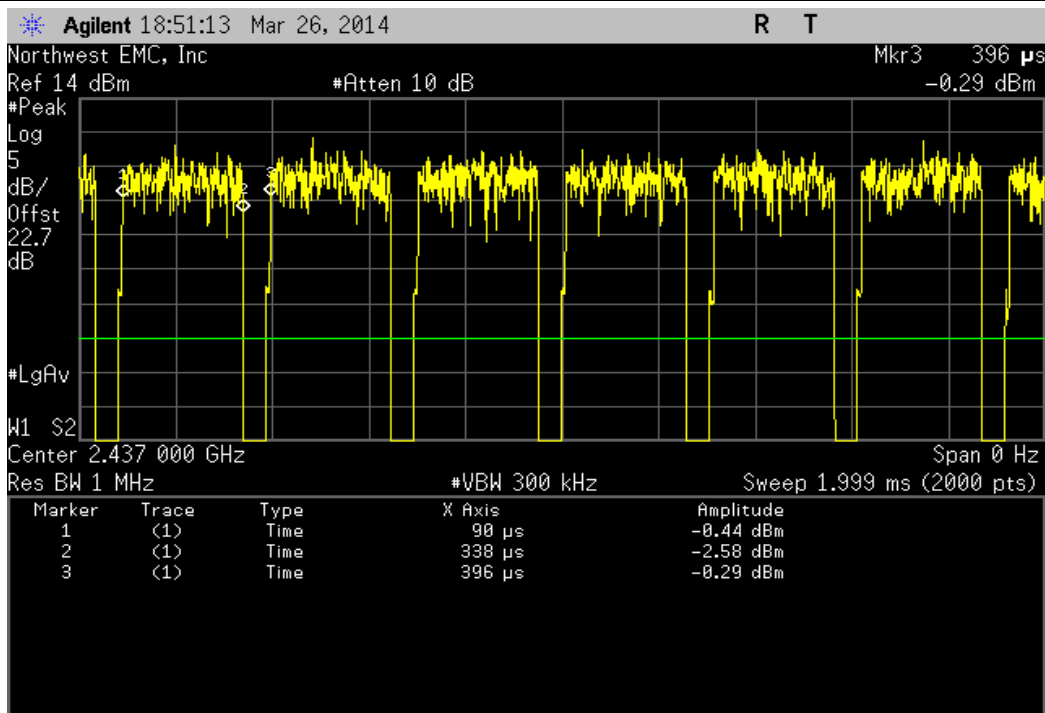
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|------------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                        | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                        | 248 uS      | 306 uS | 1                | 81        | N/A   | N/A    |



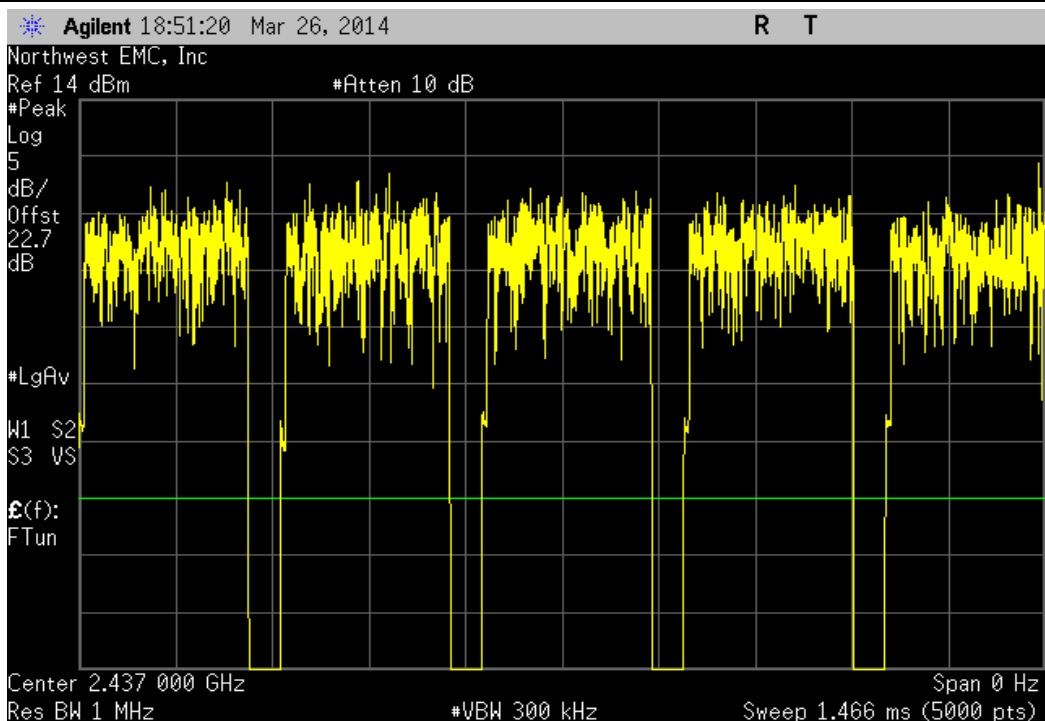
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|------------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                        | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                        | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



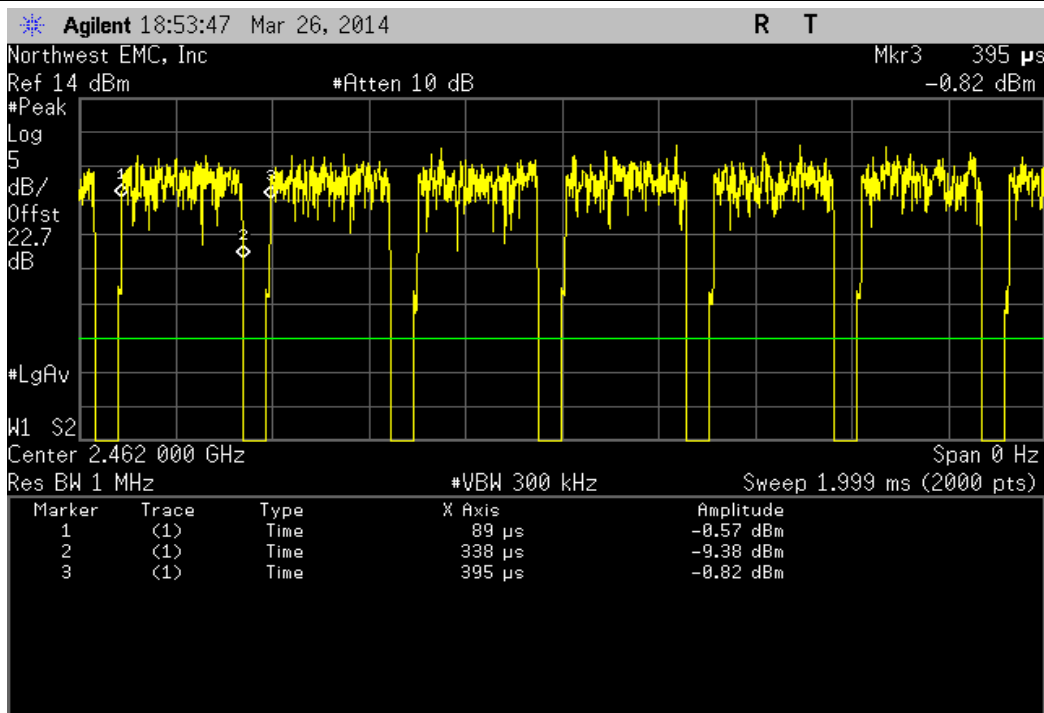
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|------------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                        | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                        | 248 uS      | 306 uS | 1                | 81        | N/A   | N/A    |



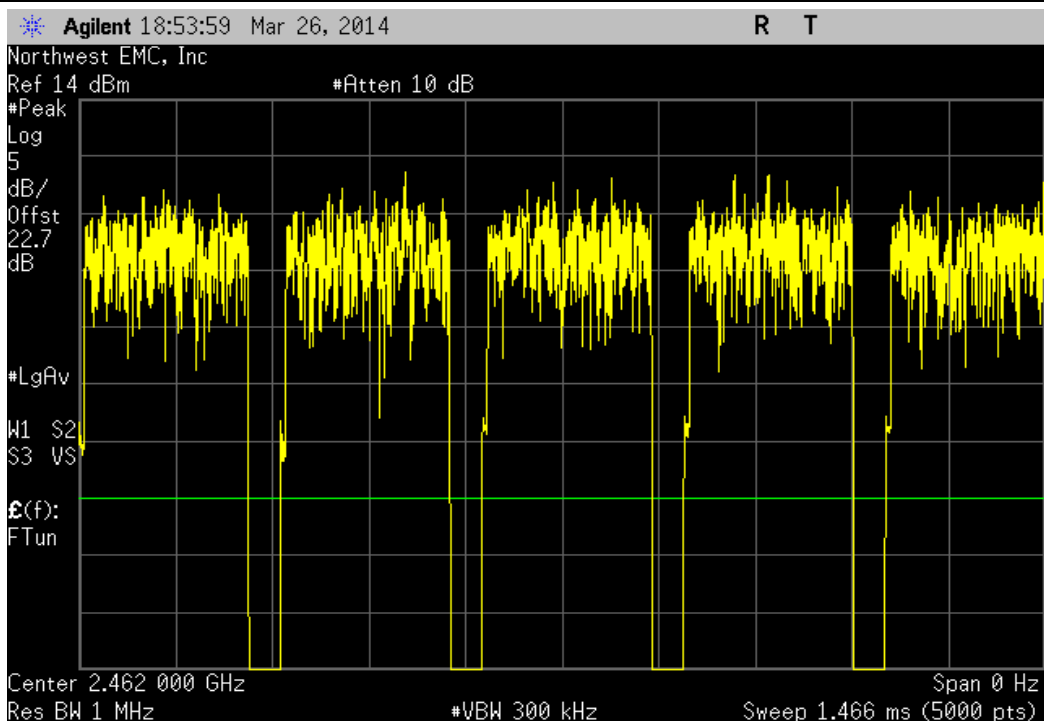
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|------------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                        | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                        | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



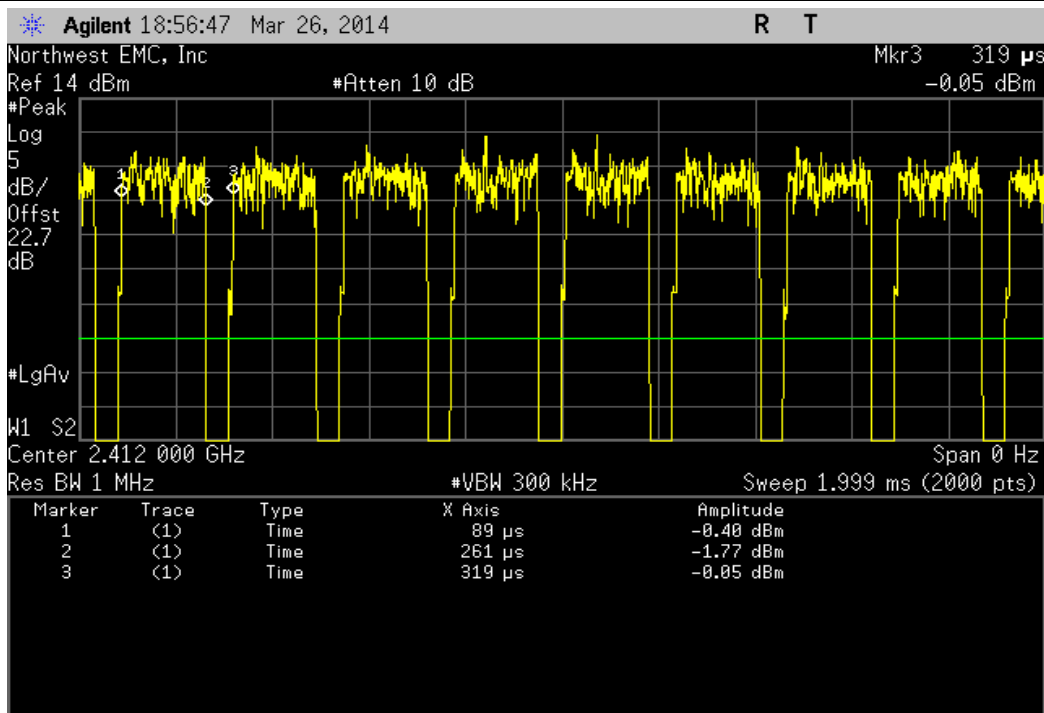
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|--------------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                          | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                          | 249 uS      | 306 uS | 1                | 81.4      | N/A   | N/A    |



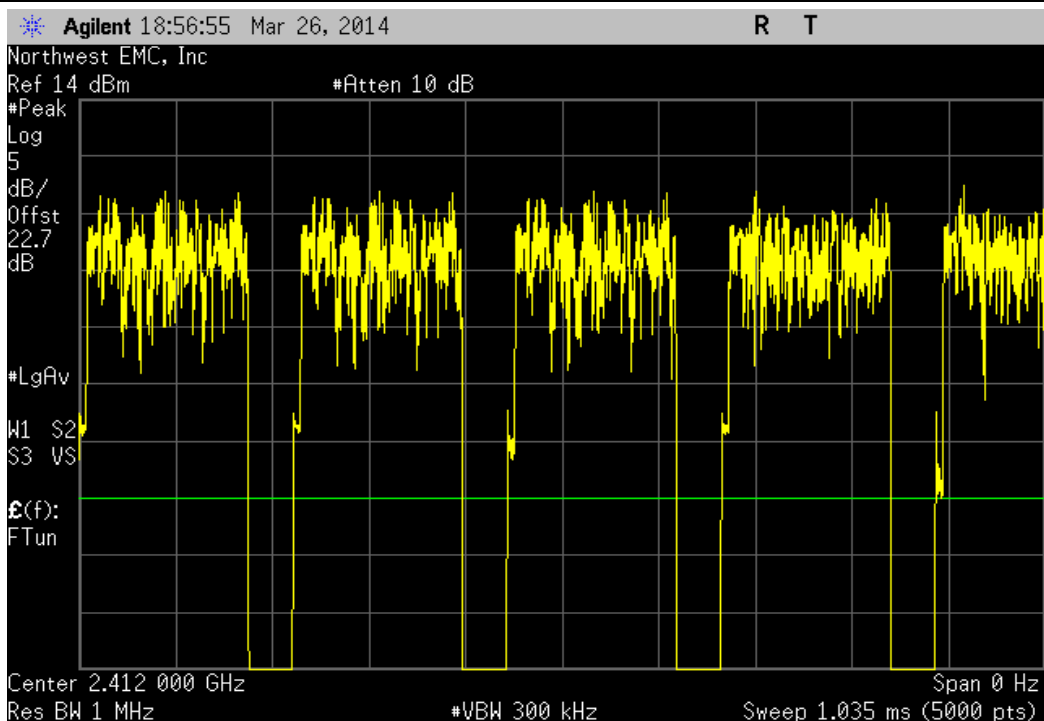
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|--------------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                          | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                          | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



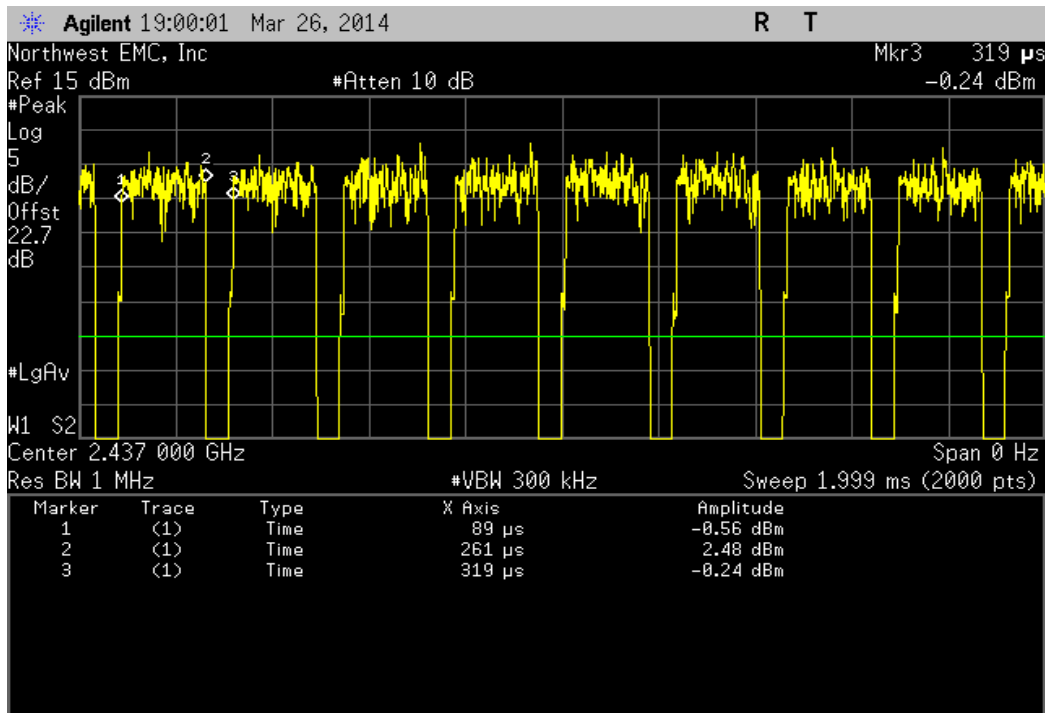
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|------------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                        | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                        | 172 uS      | 230 uS | 1                | 74.8      | N/A   | N/A    |



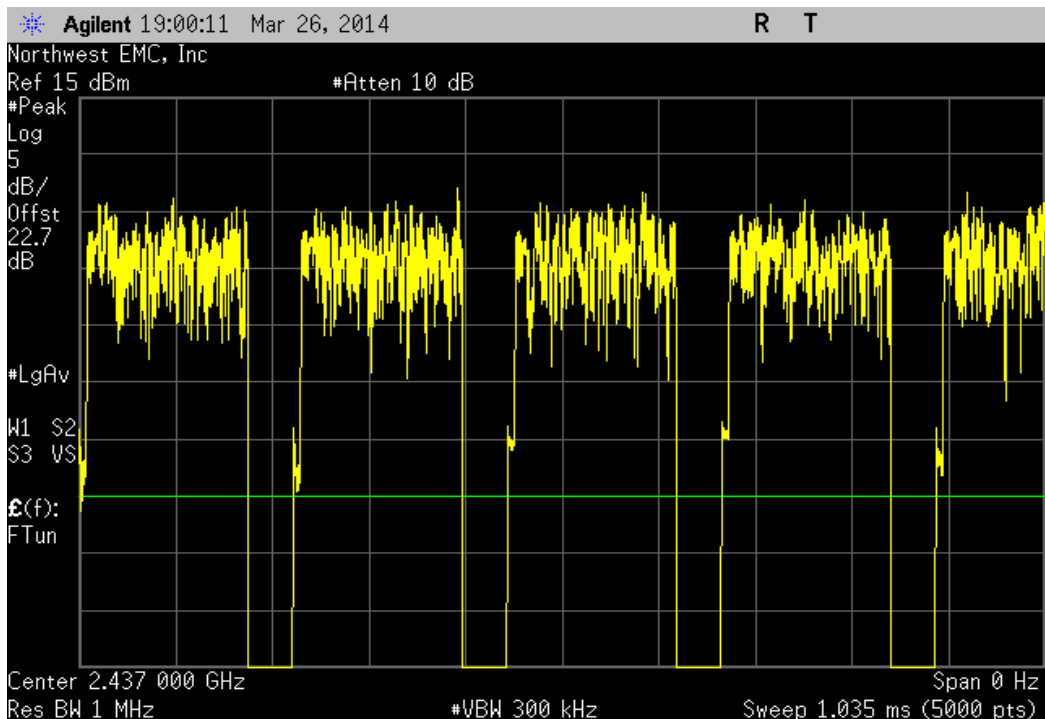
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|------------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                        | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                        | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



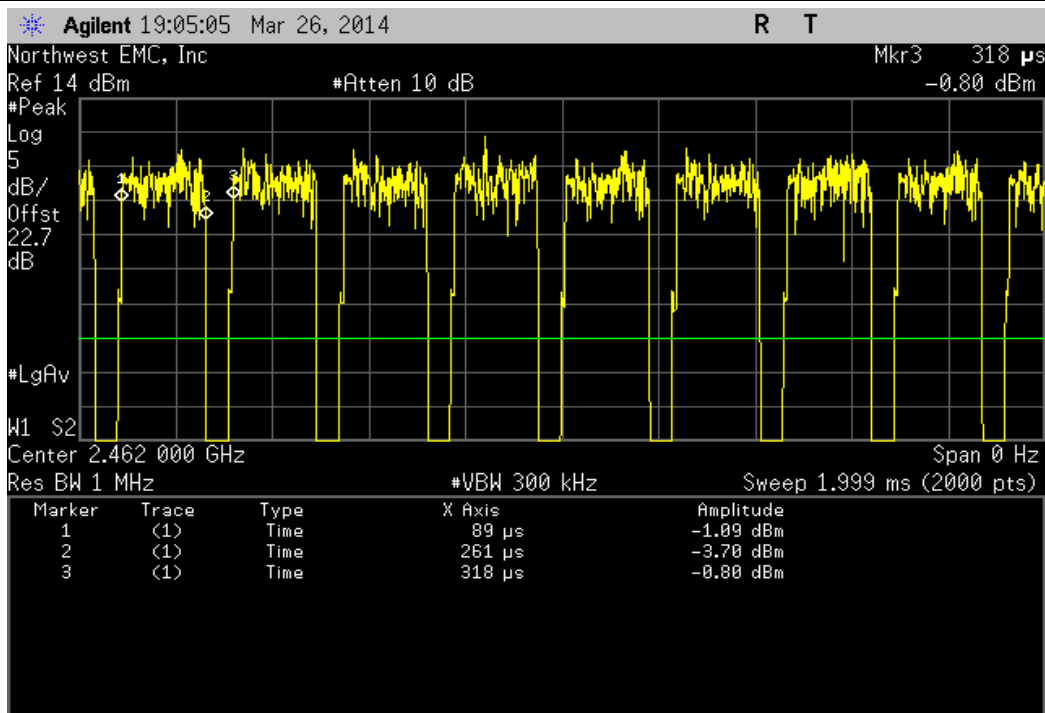
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|------------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                        | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                        | 172 uS      | 230 uS | 1                | 74.8      | N/A   | N/A    |



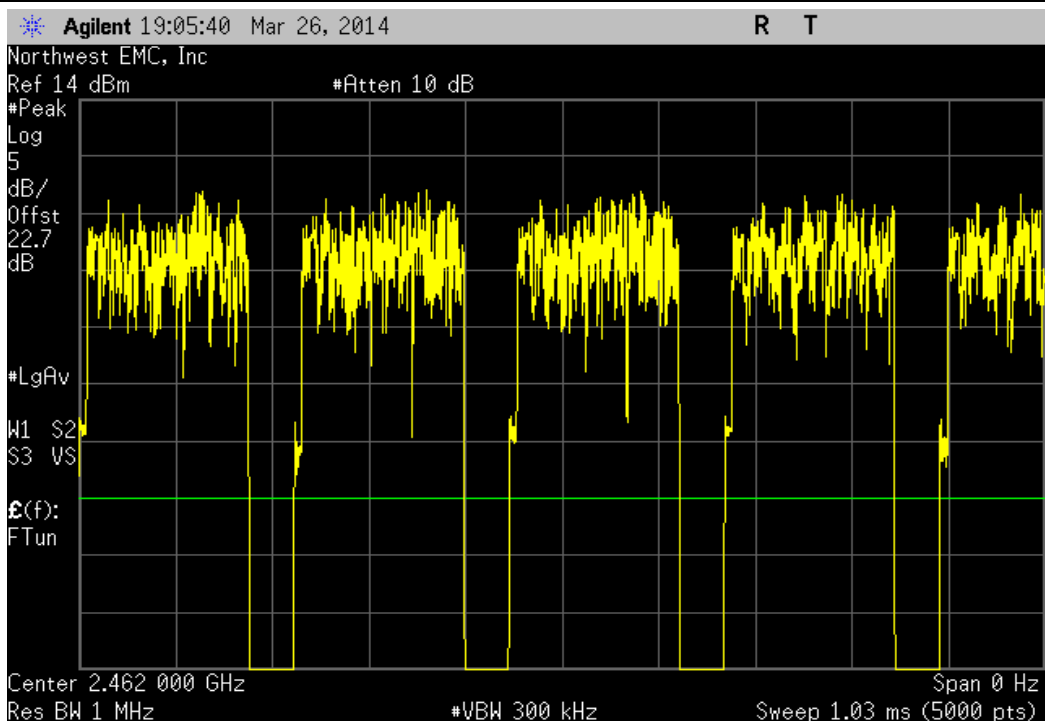
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|------------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                        | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                        | N/A         | N/A    | 6                | N/A       | N/A   | N/A    |



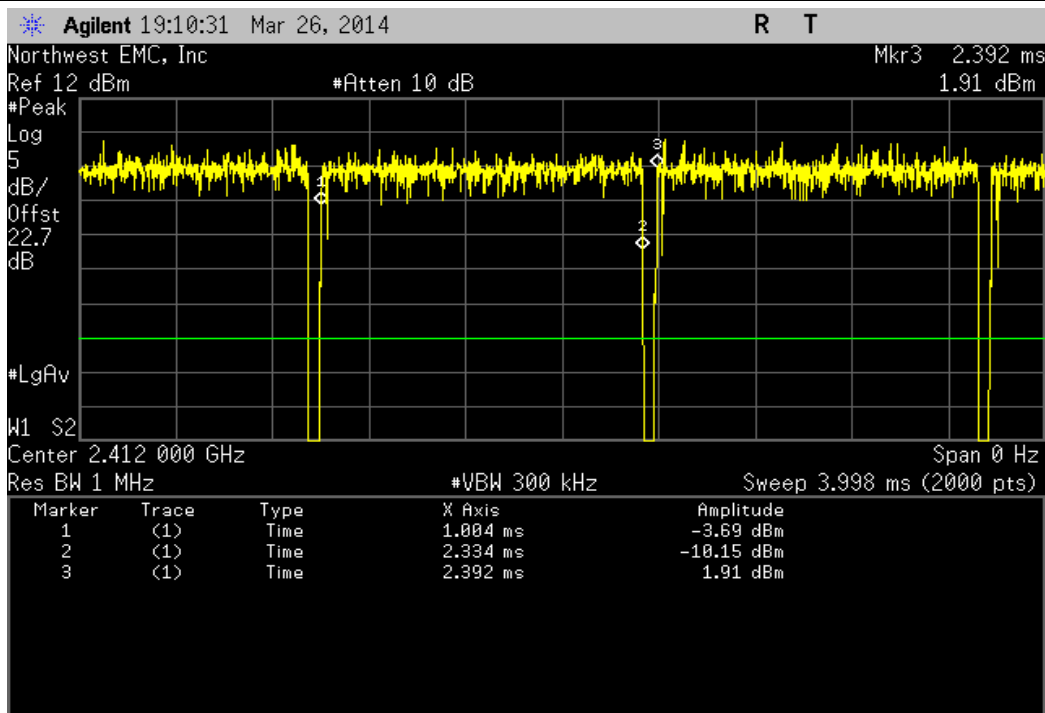
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|--------------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                          | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                          | 172 uS      | 229 uS | 1                | 75.1      | N/A   | N/A    |



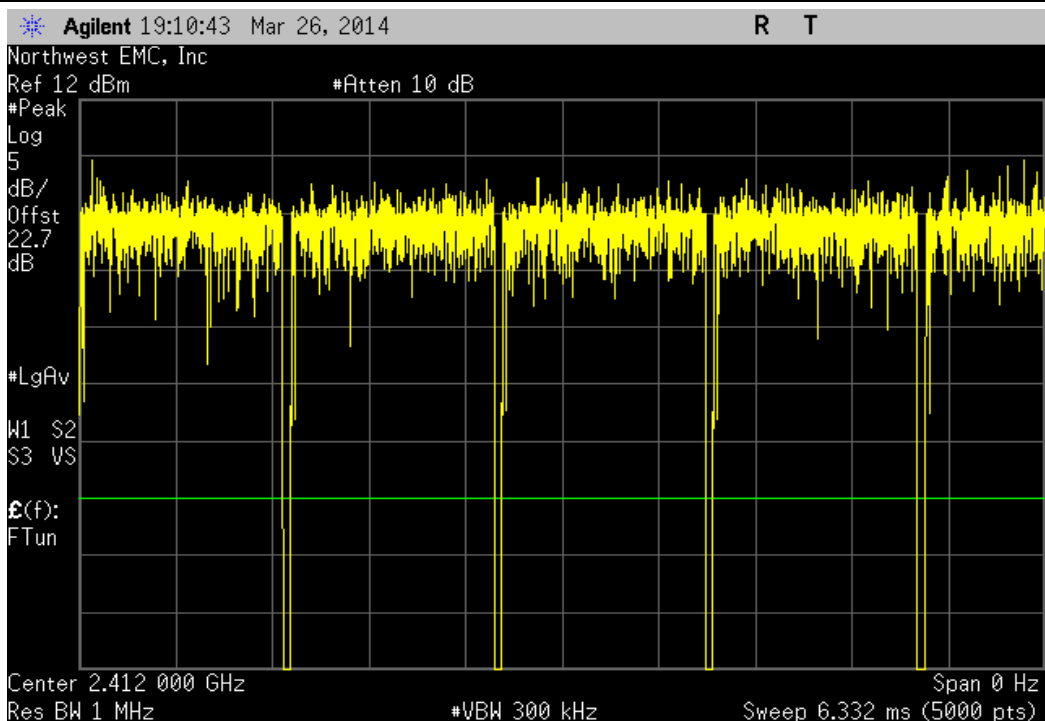
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz |             |        |                  |           |       |        |
|--------------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                          | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                          | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



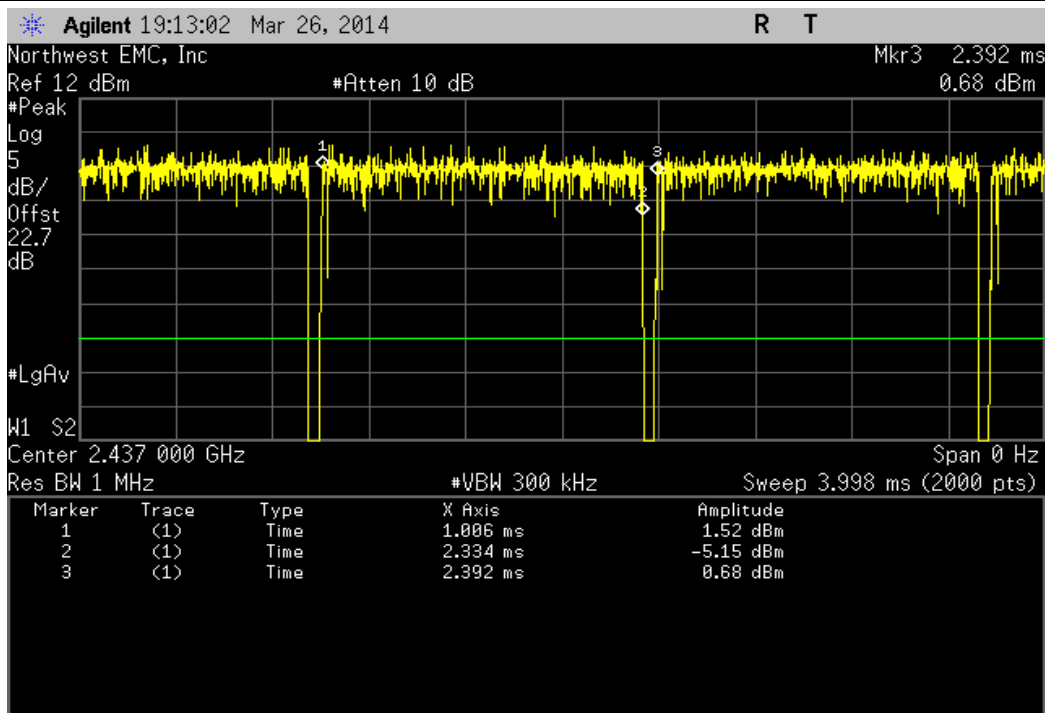
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz |          |                  |           |       |        |  |
|---------------------------------------------------------------------|----------|------------------|-----------|-------|--------|--|
| Pulse Width                                                         | Period   | Number of Pulses | Value (%) | Limit | Result |  |
| 1.33 mS                                                             | 1.388 mS | 1                | 95.8      | N/A   | N/A    |  |



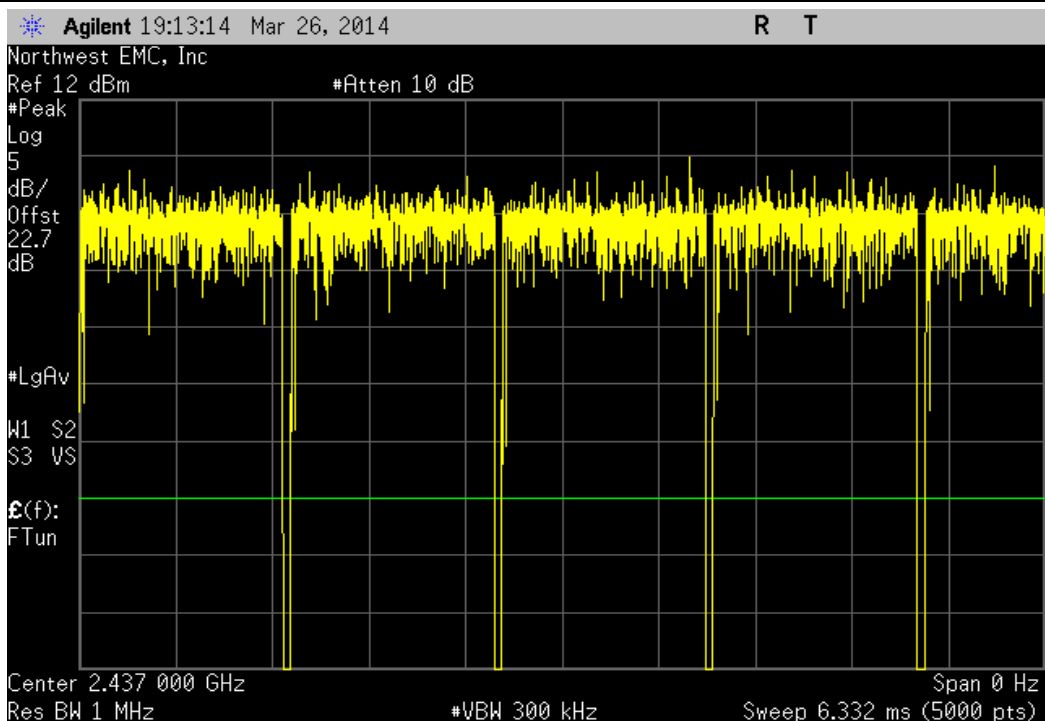
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz |        |                  |           |       |        |  |
|---------------------------------------------------------------------|--------|------------------|-----------|-------|--------|--|
| Pulse Width                                                         | Period | Number of Pulses | Value (%) | Limit | Result |  |
| N/A                                                                 | N/A    | 5                | N/A       | N/A   | N/A    |  |



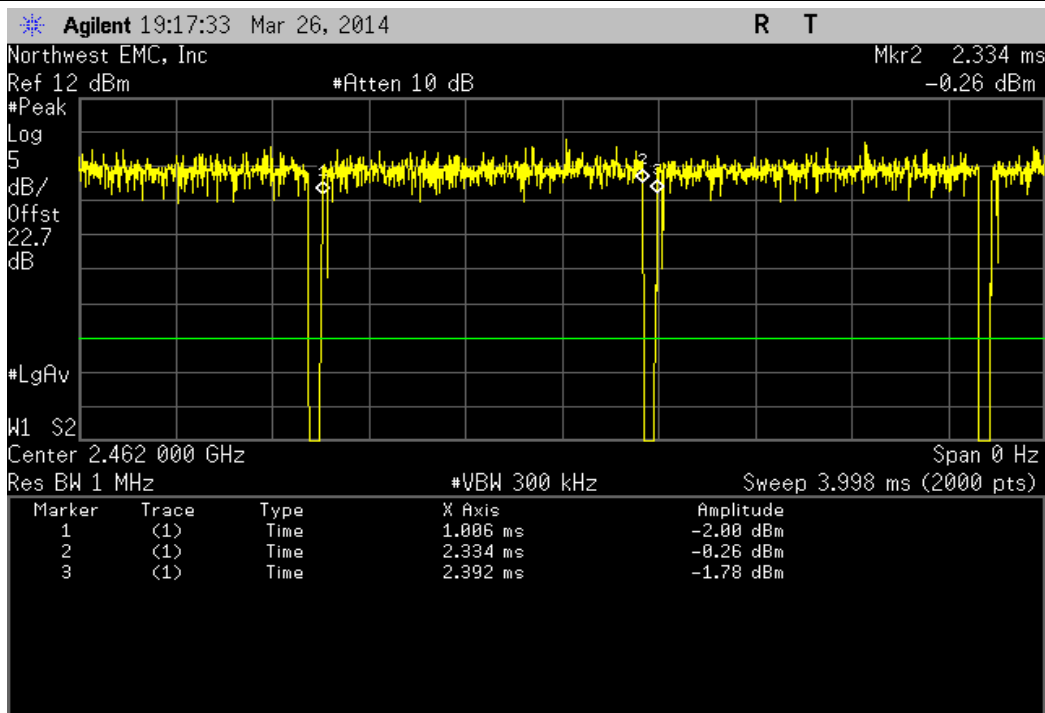
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz |          |                  |           |       |        |  |
|---------------------------------------------------------------------|----------|------------------|-----------|-------|--------|--|
| Pulse Width                                                         | Period   | Number of Pulses | Value (%) | Limit | Result |  |
| 1.328 mS                                                            | 1.386 mS | 1                | 95.8      | N/A   | N/A    |  |



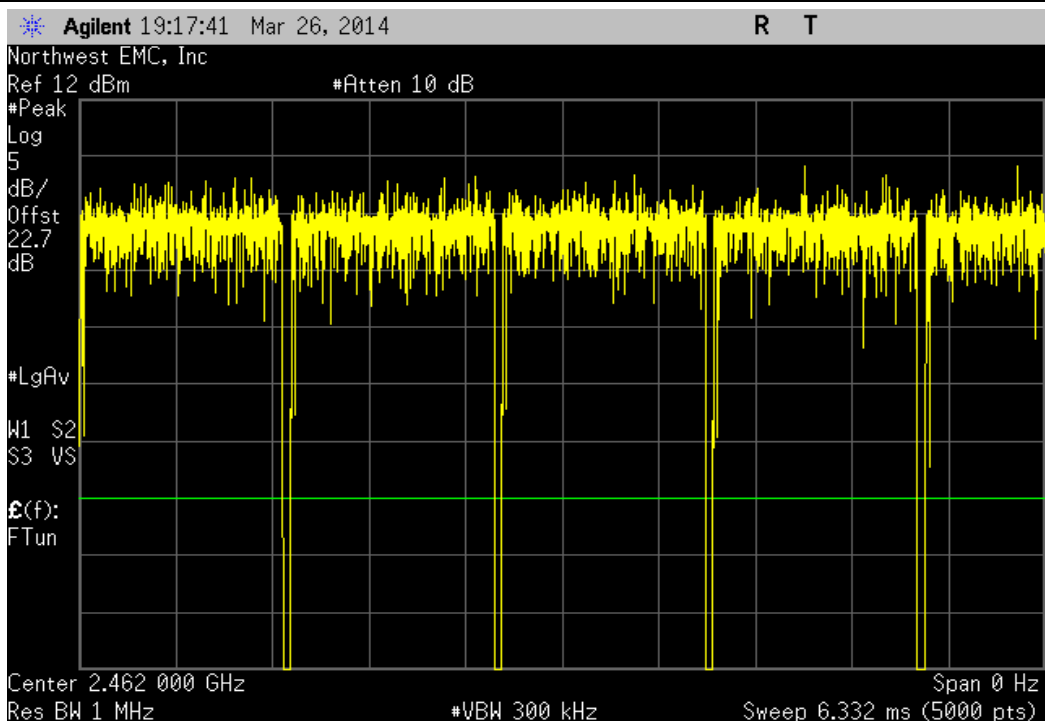
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz |        |                  |           |       |        |  |
|---------------------------------------------------------------------|--------|------------------|-----------|-------|--------|--|
| Pulse Width                                                         | Period | Number of Pulses | Value (%) | Limit | Result |  |
| N/A                                                                 | N/A    | 5                | N/A       | N/A   | N/A    |  |



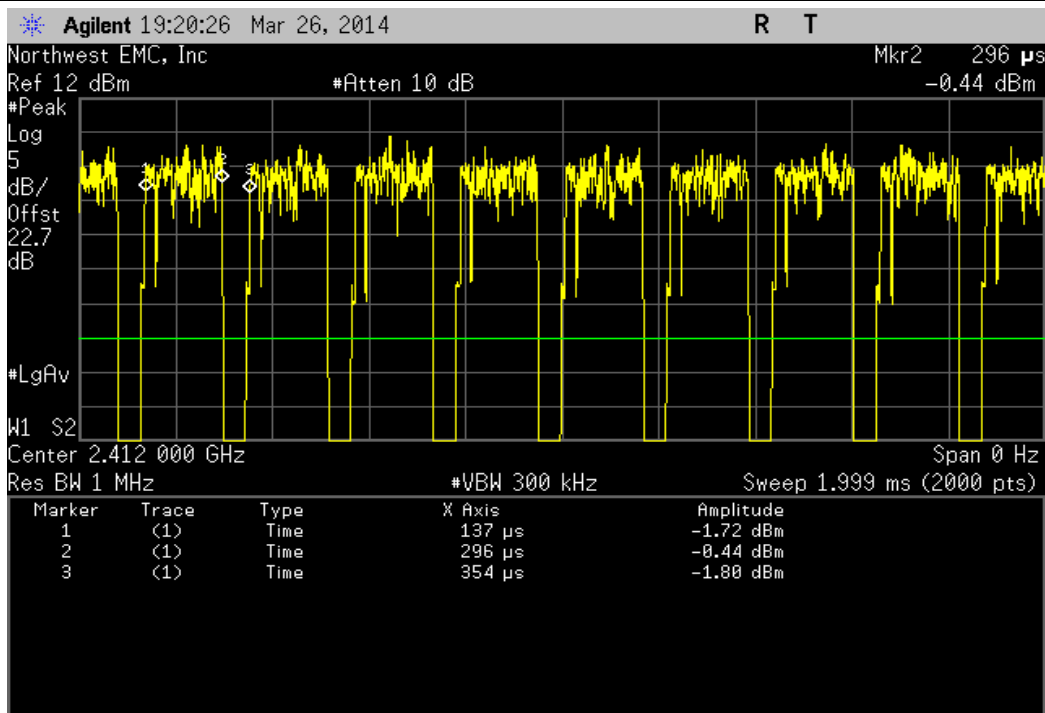
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz |          |                  |           |       |        |  |
|-----------------------------------------------------------------------|----------|------------------|-----------|-------|--------|--|
| Pulse Width                                                           | Period   | Number of Pulses | Value (%) | Limit | Result |  |
| 1.328 mS                                                              | 1.386 mS | 1                | 95.8      | N/A   | N/A    |  |



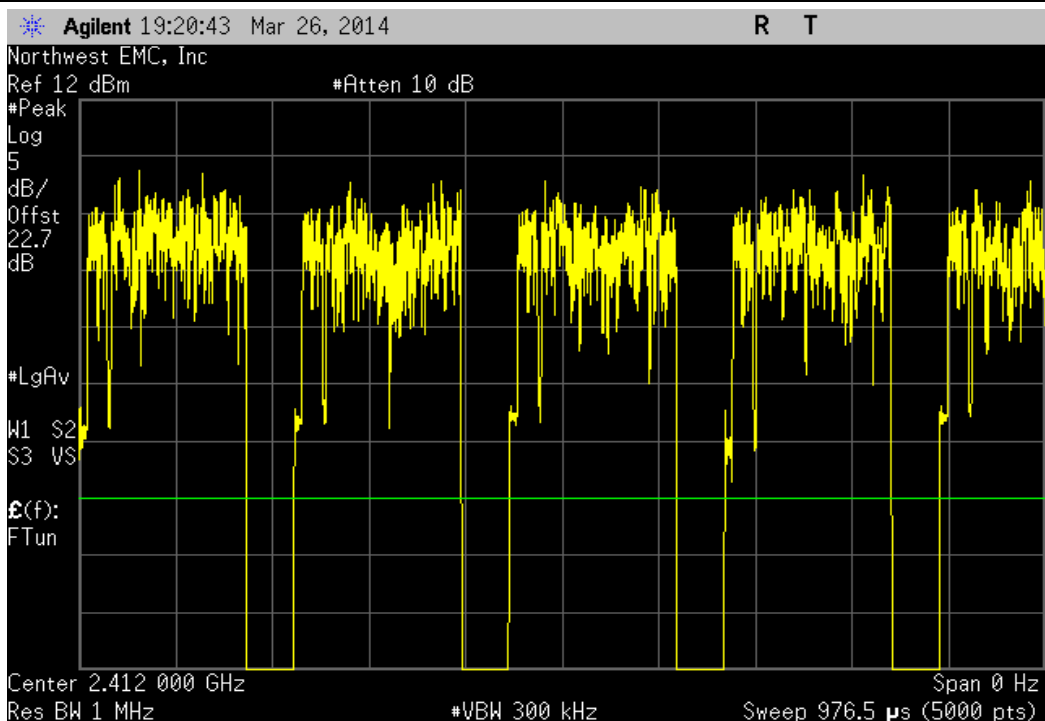
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz |        |                  |           |       |        |  |
|-----------------------------------------------------------------------|--------|------------------|-----------|-------|--------|--|
| Pulse Width                                                           | Period | Number of Pulses | Value (%) | Limit | Result |  |
| N/A                                                                   | N/A    | 5                | N/A       | N/A   | N/A    |  |



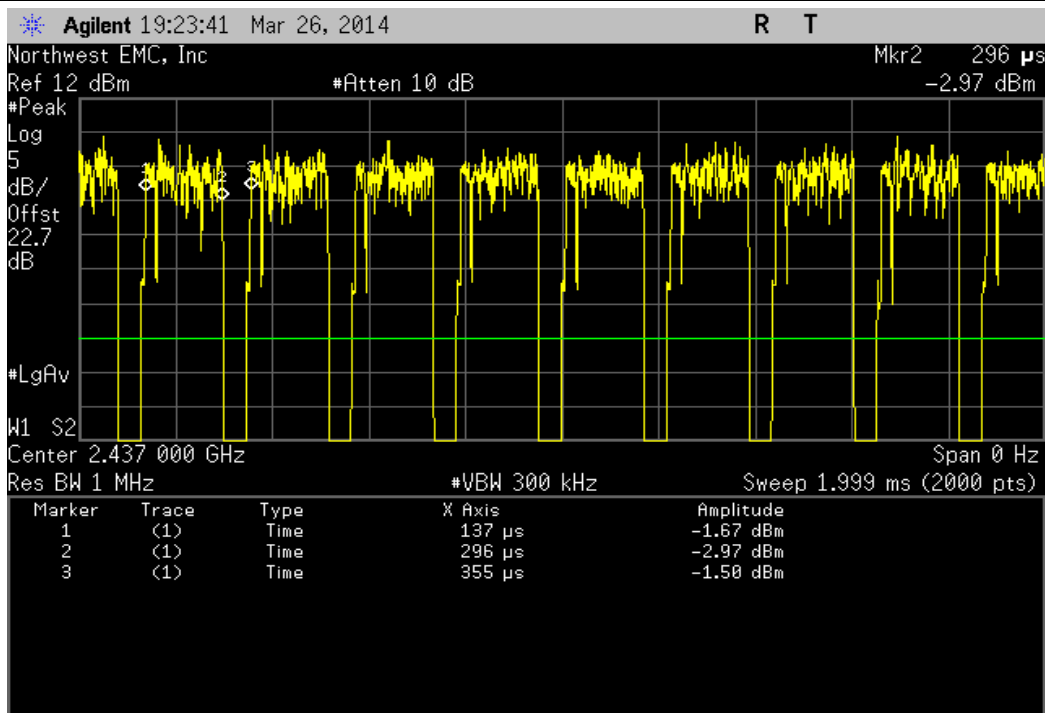
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|---------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                     | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                     | 159 uS      | 217 uS | 1                | 73.3      | N/A   | N/A    |



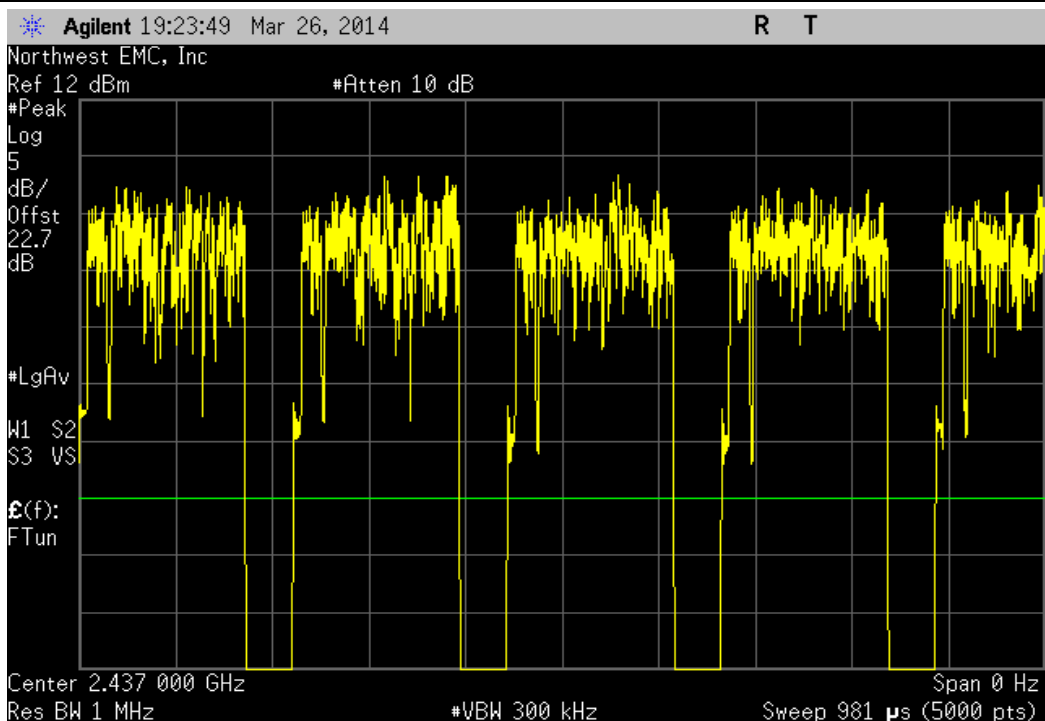
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Low Channel 1, 2412 MHz |             |        |                  |           |       |        |
|---------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                     | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                     | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



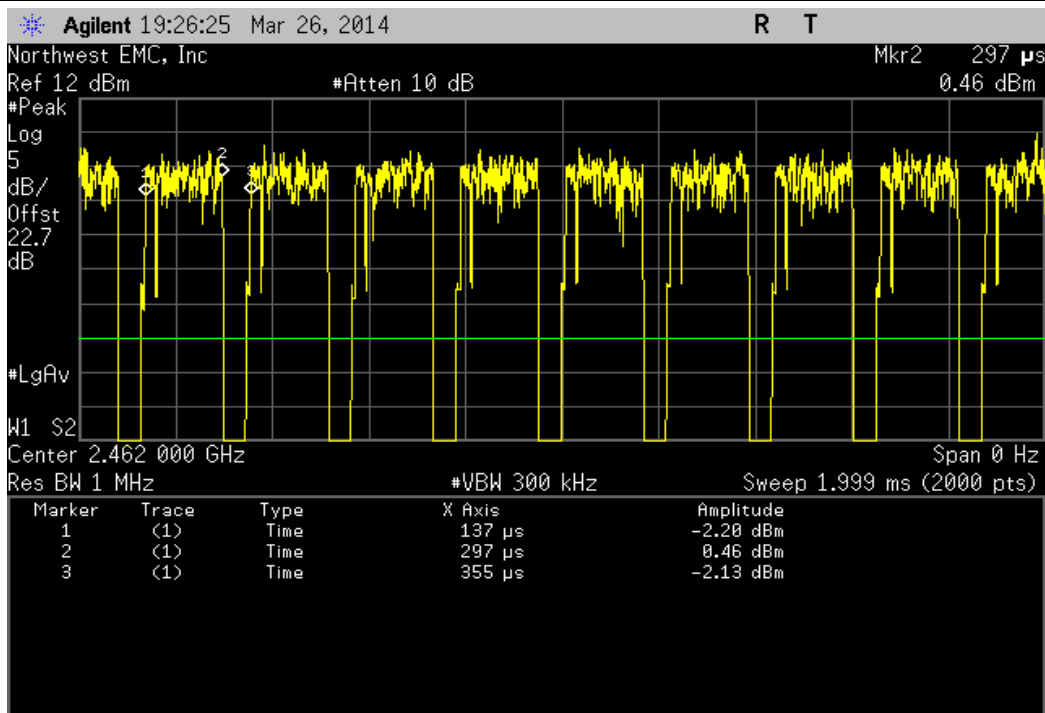
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz |             |             |                  |           |       |        |
|---------------------------------------------------------------------|-------------|-------------|------------------|-----------|-------|--------|
|                                                                     | Pulse Width | Period      | Number of Pulses | Value (%) | Limit | Result |
|                                                                     | 159 $\mu$ S | 218 $\mu$ S | 1                | 72.9      | N/A   | N/A    |



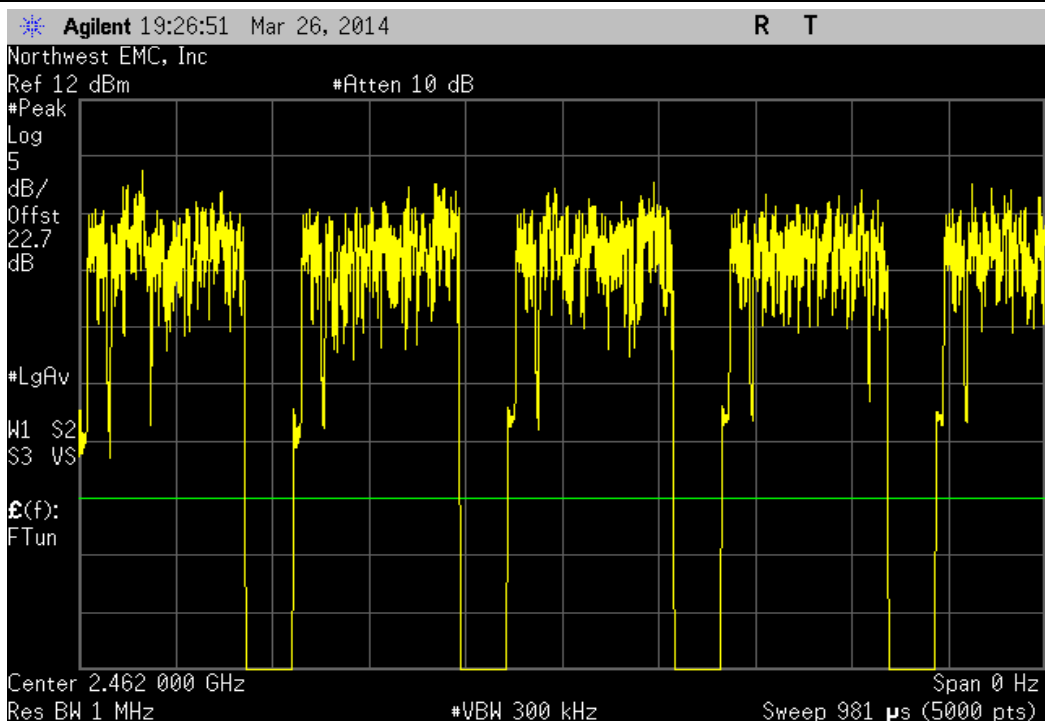
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz |             |        |                  |           |       |        |
|---------------------------------------------------------------------|-------------|--------|------------------|-----------|-------|--------|
|                                                                     | Pulse Width | Period | Number of Pulses | Value (%) | Limit | Result |
|                                                                     | N/A         | N/A    | 5                | N/A       | N/A   | N/A    |



| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, High Channel 11, 2462 MHz |             |             |                  |           |       |        |
|-----------------------------------------------------------------------|-------------|-------------|------------------|-----------|-------|--------|
|                                                                       | Pulse Width | Period      | Number of Pulses | Value (%) | Limit | Result |
|                                                                       | 160 $\mu$ S | 218 $\mu$ S | 1                | 73.4      | N/A   | N/A    |



| 2400 MHz - 2483.5 MHz Band, 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 |
|---------------------------------|------------------|----------|-----|------------|----------|
| Attenuator 20 dB, SMA M/F 26GHz | S.M. Electronics | SA26B-20 | AUY | 7/30/2013  | 12       |
| 40GHz DC Block                  | Miteq            | DCB4000  | AMD | 5/16/2013  | 12       |
| EV06 Direct Connect Cable       | ESM Cable Corp.  | TT       | ECA | NCR        | 0        |
| Attenuator, 6dB                 | S.M. Electronics | 18N-06   | AWN | 2/3/2014   | 12       |
| RF Vector Signal Generator      | Agilent          | V2920A   | TIH | NCR        | 0        |
| Power Meter                     | Gigatronics      | 8651A    | SPM | 11/26/2013 | 24       |
| Power Sensor                    | Gigatronics      | 80701A   | SPL | 7/8/2011   | 36       |
| Spectrum Analyzer               | Agilent          | E4440    | AFE | 11/4/2013  | 24       |

### TEST DESCRIPTION

The 6dB occupied bandwidth was measured using 100 kHz resolution bandwidth and 300 kHz video bandwidth. The 99.9% (approximate 26 dB) 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 2013.08.15  
PsaTx 2013.10.23

|                                                |   |                                                                                             |                |
|------------------------------------------------|---|---------------------------------------------------------------------------------------------|----------------|
| EUT: GQ110                                     |   | Work Order: INTE5431                                                                        |                |
| Serial Number: EZF83450005Z                    |   | Date: 03/26/14                                                                              |                |
| Customer: Intel Corporation                    |   | Temperature: 21.7°C                                                                         |                |
| Attendees: None                                |   | Humidity: 39%                                                                               |                |
| Project: GQ110                                 |   | Barometric Pres.: 1001.8                                                                    |                |
| Tested by: Jared Ison                          |   | Power: 110VAC/60Hz                                                                          |                |
|                                                |   | Job Site: EV06                                                                              |                |
| TEST SPECIFICATIONS                            |   | Test Method                                                                                 |                |
| FCC 15.247:2014                                |   | ANSI C63.10:2009                                                                            |                |
| COMMENTS                                       |   |                                                                                             |                |
| Mode of operation tested were client provided. |   |                                                                                             |                |
| DEVIATIONS FROM TEST STANDARD                  |   |                                                                                             |                |
| None                                           |   |                                                                                             |                |
| Configuration #                                | 1 | Signature  |                |
|                                                |   | Value                                                                                       | Limit          |
| 2400 MHz - 2483.5 MHz Band                     |   |                                                                                             | Result         |
| 802.11(b) 1 Mbps                               |   |                                                                                             |                |
| Low Channel 1, 2412 MHz                        |   | 8.025 MHz                                                                                   | > 500 kHz Pass |
| Mid Channel 6, 2437 MHz                        |   | 7.946 MHz                                                                                   | > 500 kHz Pass |
| High Channel 11, 2462 MHz                      |   | 7.735 MHz                                                                                   | > 500 kHz Pass |
| 802.11(b) 11 Mbps                              |   |                                                                                             |                |
| Low Channel 1, 2412 MHz                        |   | 7.749 MHz                                                                                   | > 500 kHz Pass |
| Mid Channel 6, 2437 MHz                        |   | 7.766 MHz                                                                                   | > 500 kHz Pass |
| High Channel 11, 2462 MHz                      |   | 7.119 MHz                                                                                   | > 500 kHz Pass |
| 802.11(g) 6 Mbps                               |   |                                                                                             |                |
| Low Channel 1, 2412 MHz                        |   | 13.144 MHz                                                                                  | > 500 kHz Pass |
| Mid Channel 6, 2437 MHz                        |   | 14.844 MHz                                                                                  | > 500 kHz Pass |
| High Channel 11, 2462 MHz                      |   | 15.956 MHz                                                                                  | > 500 kHz Pass |
| 802.11(g) 36 Mbps                              |   |                                                                                             |                |
| Low Channel 1, 2412 MHz                        |   | 16.084 MHz                                                                                  | > 500 kHz Pass |
| Mid Channel 6, 2437 MHz                        |   | 16.302 MHz                                                                                  | > 500 kHz Pass |
| High Channel 11, 2462 MHz                      |   | 15.951 MHz                                                                                  | > 500 kHz Pass |
| 802.11(g) 54 Mbps                              |   |                                                                                             |                |
| Low Channel 1, 2412 MHz                        |   | 15.361 MHz                                                                                  | > 500 kHz Pass |
| Mid Channel 6, 2437 MHz                        |   | 15.953 MHz                                                                                  | > 500 kHz Pass |
| High Channel 11, 2462 MHz                      |   | 16.265 MHz                                                                                  | > 500 kHz Pass |
| 802.11(n) MCS0                                 |   |                                                                                             |                |
| Low Channel 1, 2412 MHz                        |   | 14.429 MHz                                                                                  | > 500 kHz Pass |
| Mid Channel 6, 2437 MHz                        |   | 14.937 MHz                                                                                  | > 500 kHz Pass |
| High Channel 11, 2462 MHz                      |   | 16.062 MHz                                                                                  | > 500 kHz Pass |
| 802.11(n) MCS7                                 |   |                                                                                             |                |
| Low Channel 1, 2412 MHz                        |   | 15.93 MHz                                                                                   | > 500 kHz Pass |
| Mid Channel 6, 2437 MHz                        |   | 16.276 MHz                                                                                  | > 500 kHz Pass |
| High Channel 11, 2462 MHz                      |   | 17.377 MHz                                                                                  | > 500 kHz Pass |

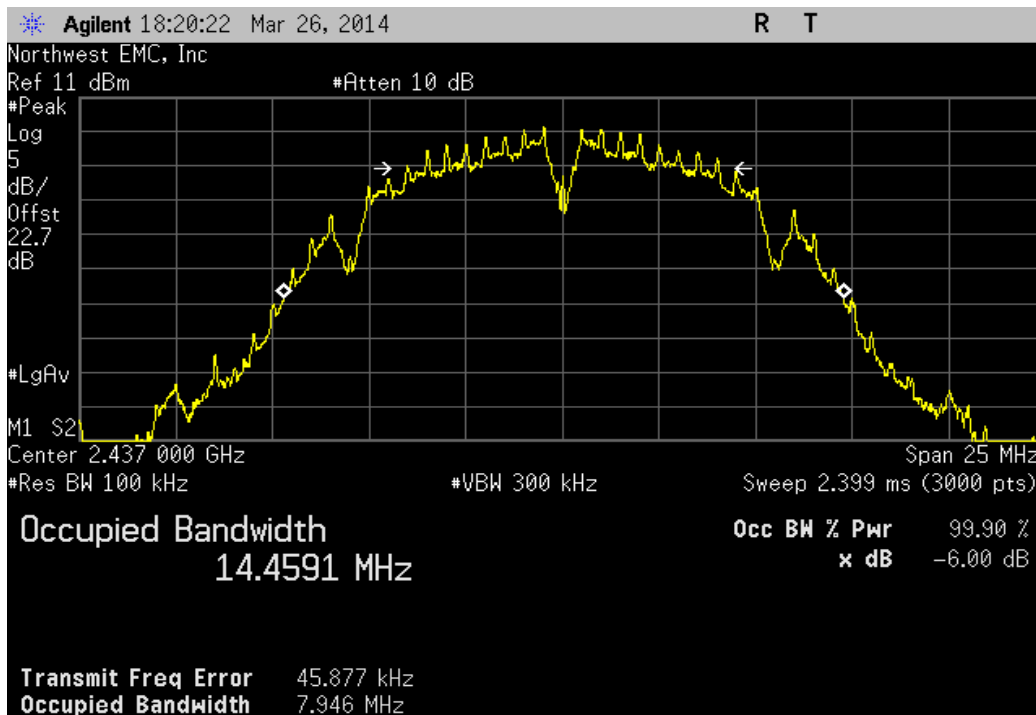
2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz

| Value     | Limit     | Result |
|-----------|-----------|--------|
| 8.025 MHz | > 500 kHz | Pass   |

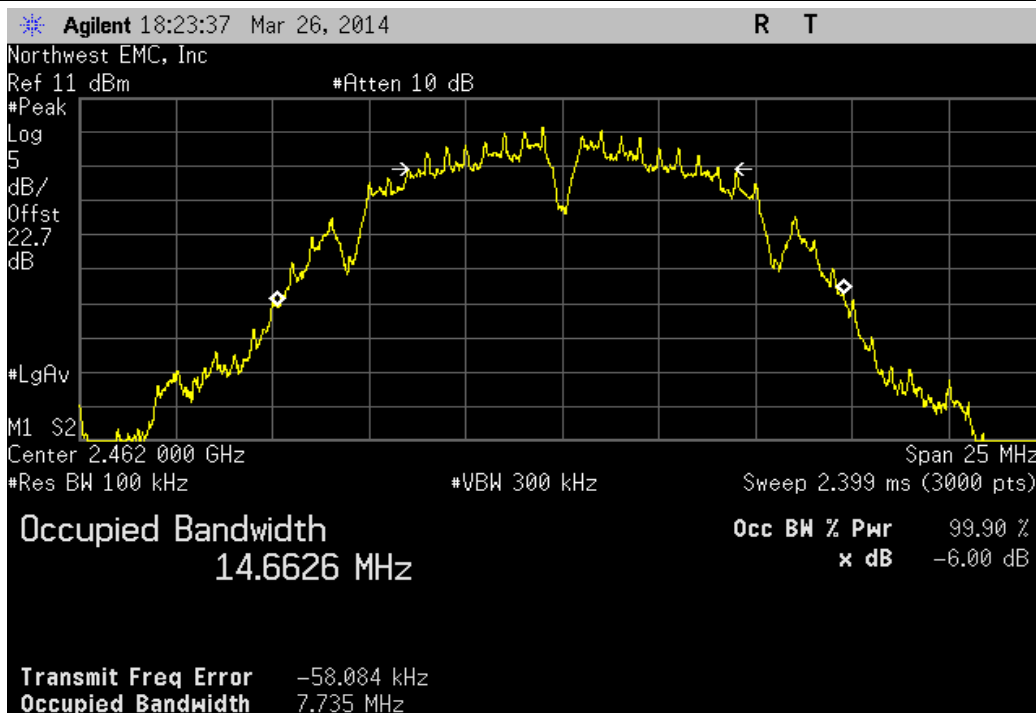


2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz

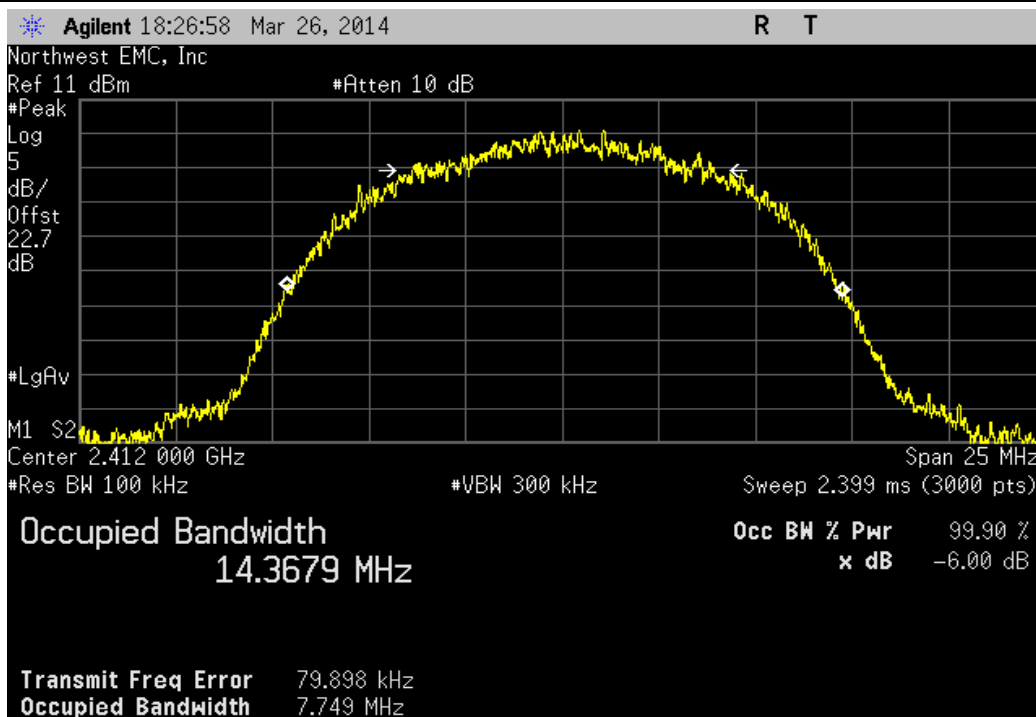
| Value     | Limit     | Result |
|-----------|-----------|--------|
| 7.946 MHz | > 500 kHz | Pass   |



| 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz |           |           |        |
|-------------------------------------------------------------------------|-----------|-----------|--------|
|                                                                         | Value     | Limit     | Result |
|                                                                         | 7.735 MHz | > 500 kHz | Pass   |

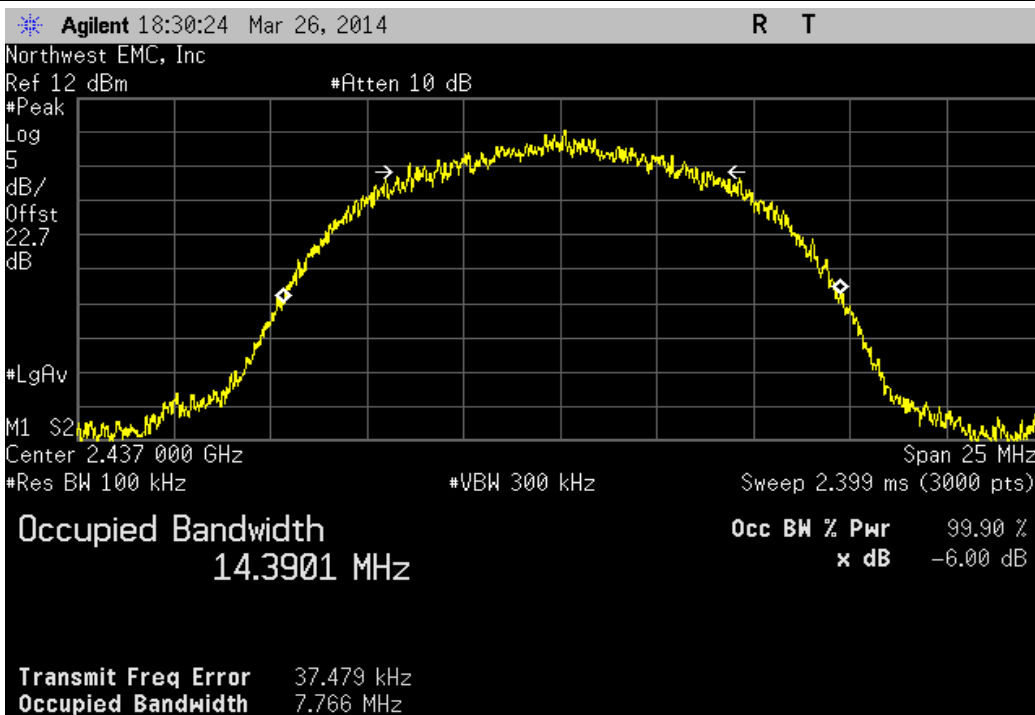


| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |           |           |        |
|------------------------------------------------------------------------|-----------|-----------|--------|
|                                                                        | Value     | Limit     | Result |
|                                                                        | 7.749 MHz | > 500 kHz | Pass   |



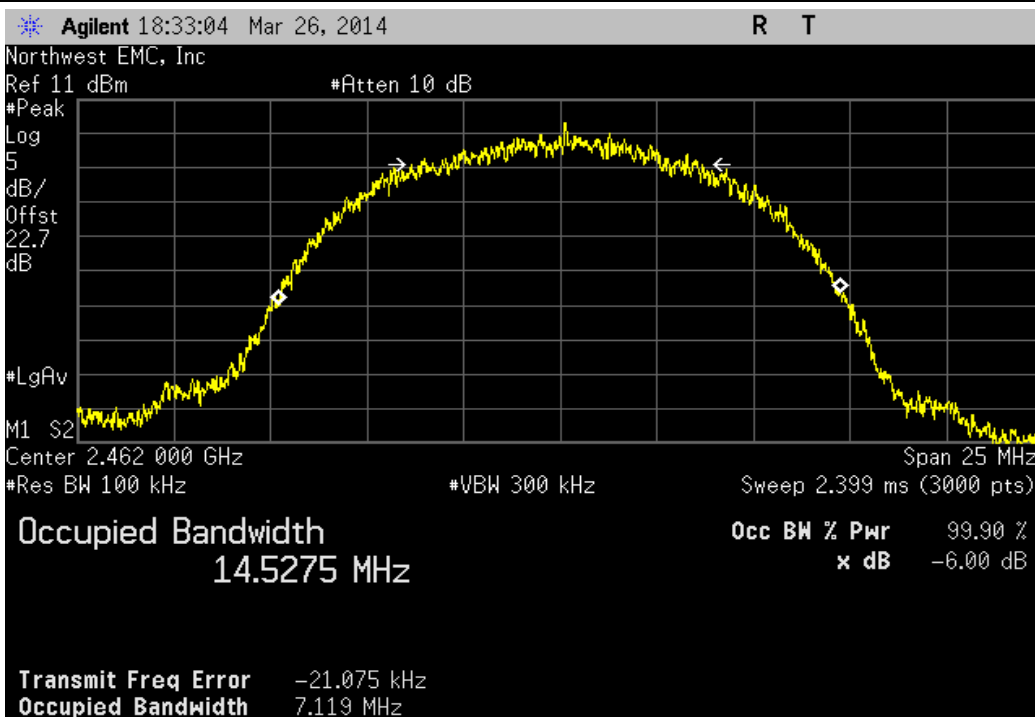
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz

| Value     | Limit     | Result |
|-----------|-----------|--------|
| 7.766 MHz | > 500 kHz | Pass   |



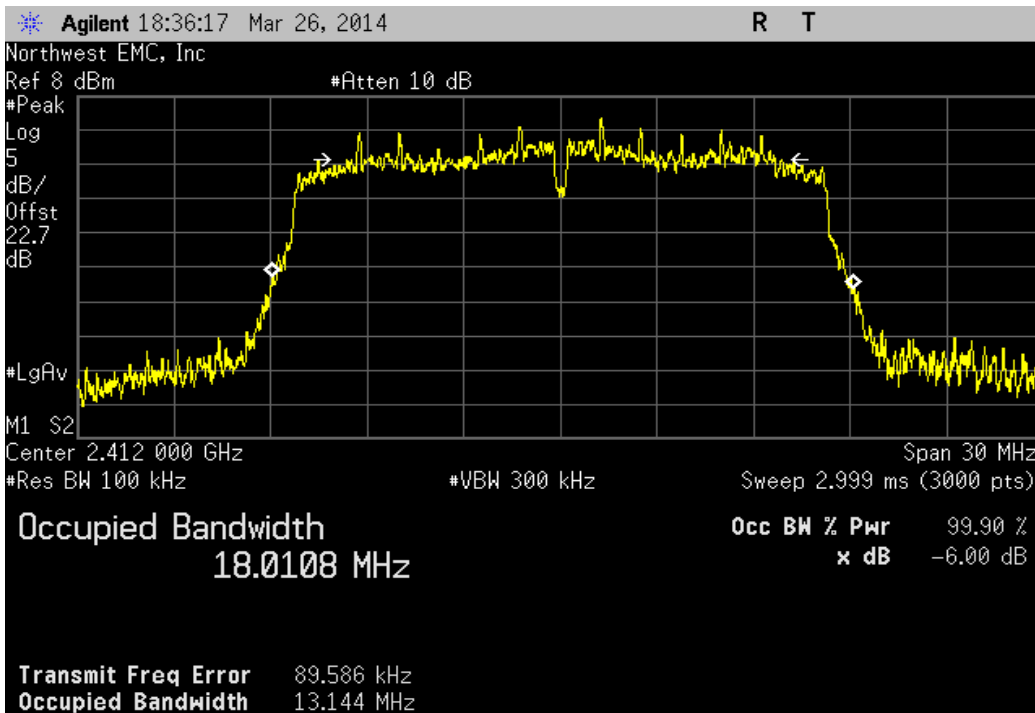
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz

| Value     | Limit     | Result |
|-----------|-----------|--------|
| 7.119 MHz | > 500 kHz | Pass   |



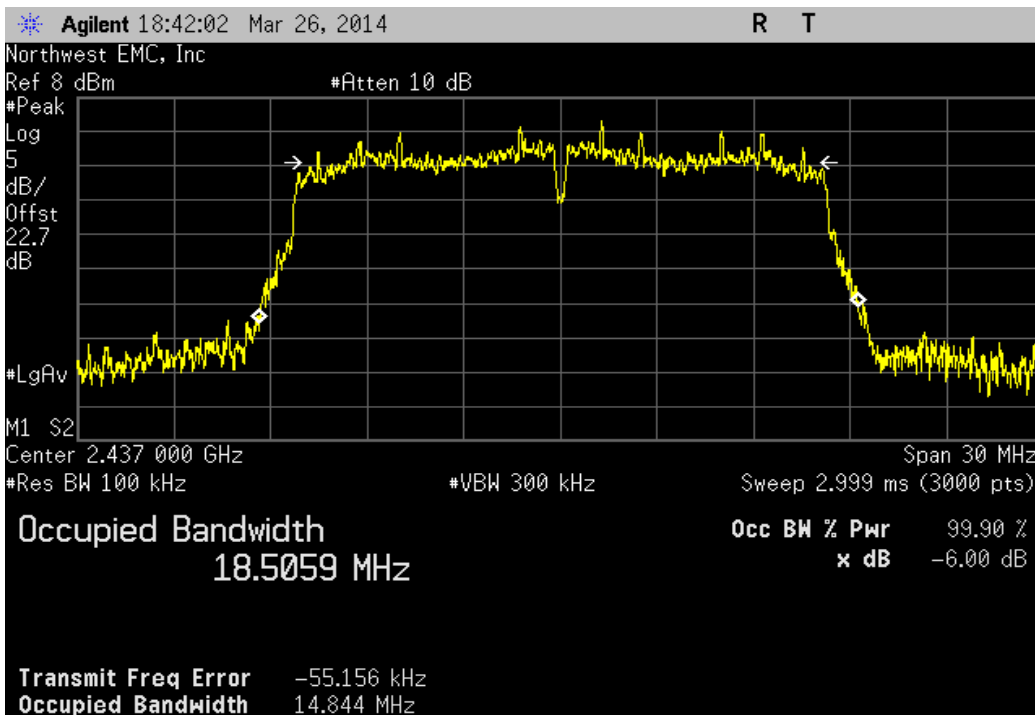
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 13.144 MHz | > 500 kHz | Pass   |

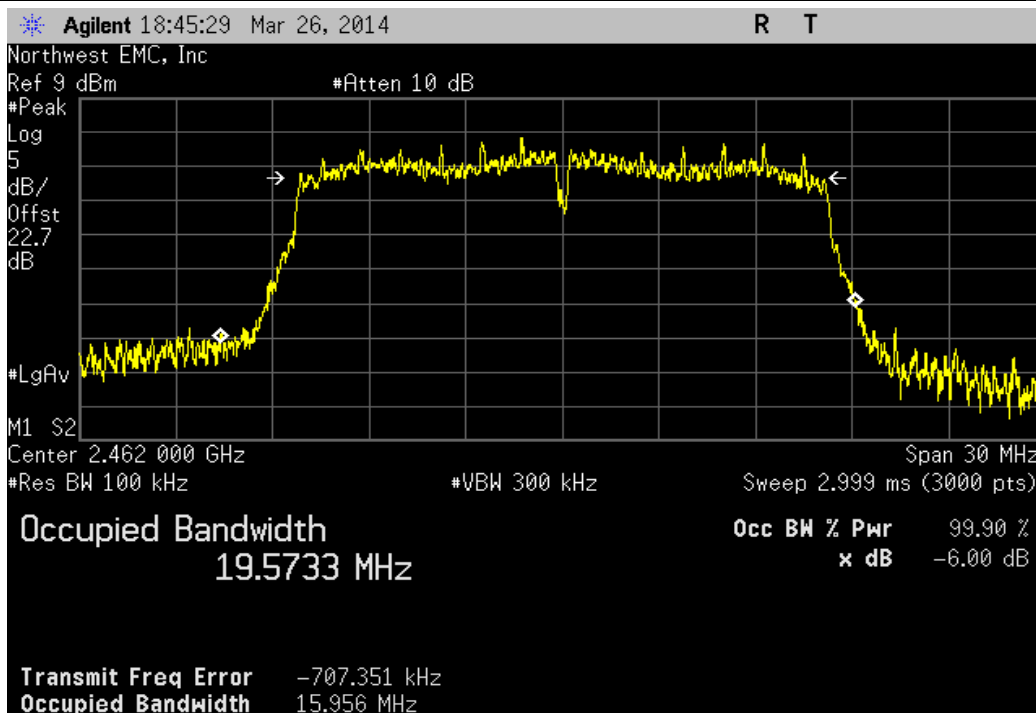


2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz

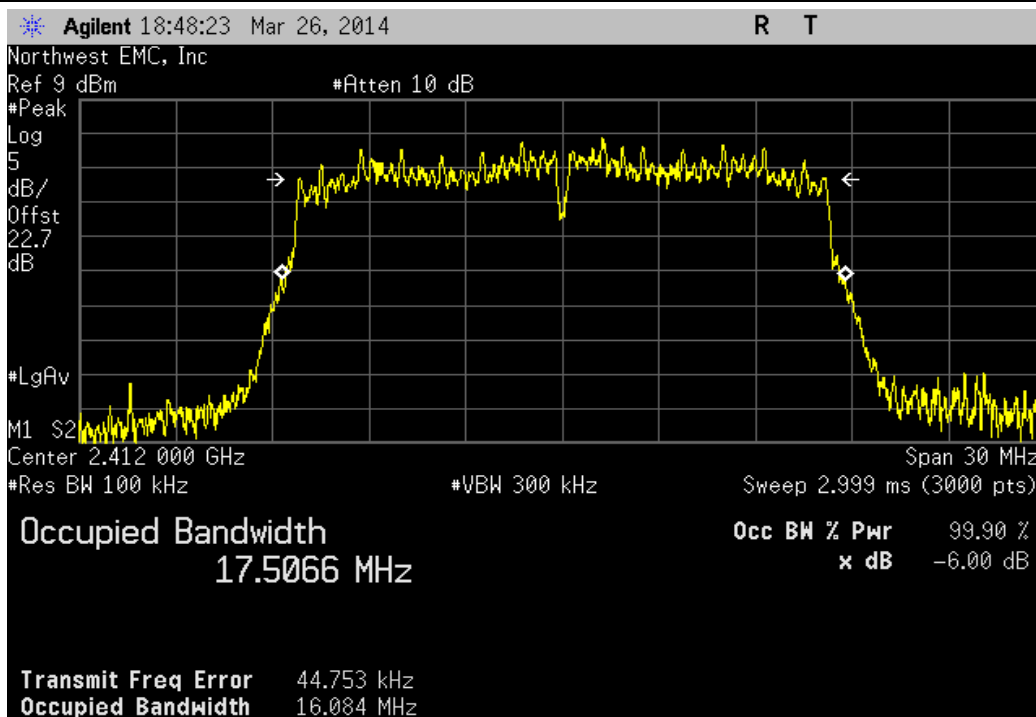
| Value      | Limit     | Result |
|------------|-----------|--------|
| 14.844 MHz | > 500 kHz | Pass   |



| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |            |           |        |
|-------------------------------------------------------------------------|------------|-----------|--------|
|                                                                         | Value      | Limit     | Result |
|                                                                         | 15.956 MHz | > 500 kHz | Pass   |

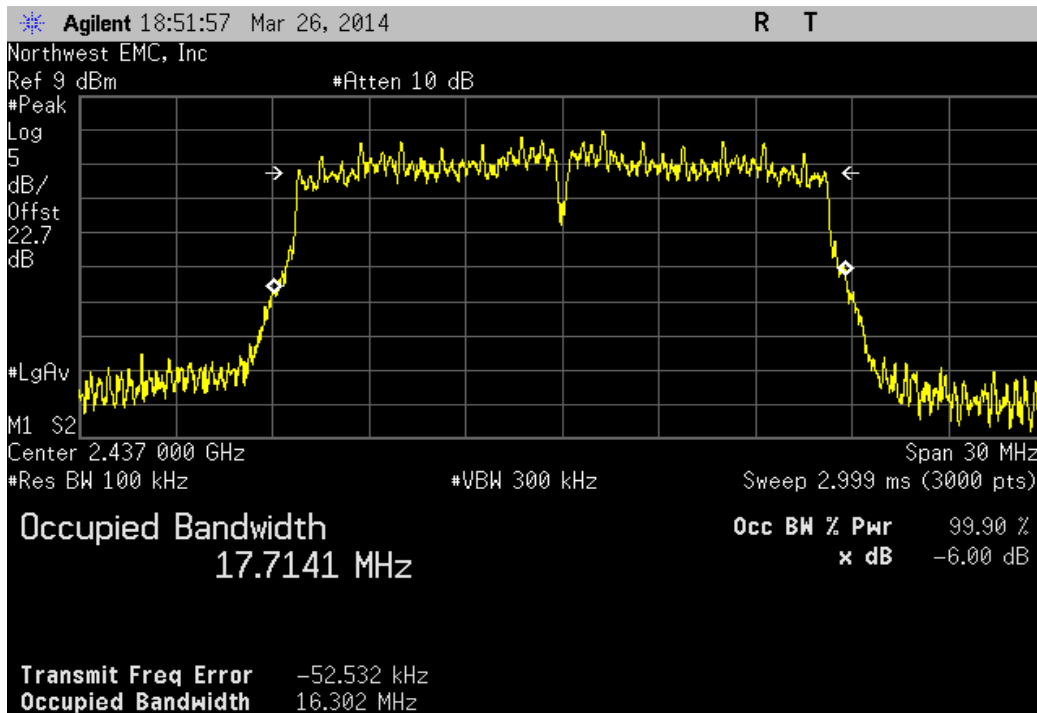


| 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz |            |           |        |
|------------------------------------------------------------------------|------------|-----------|--------|
|                                                                        | Value      | Limit     | Result |
|                                                                        | 16.084 MHz | > 500 kHz | Pass   |



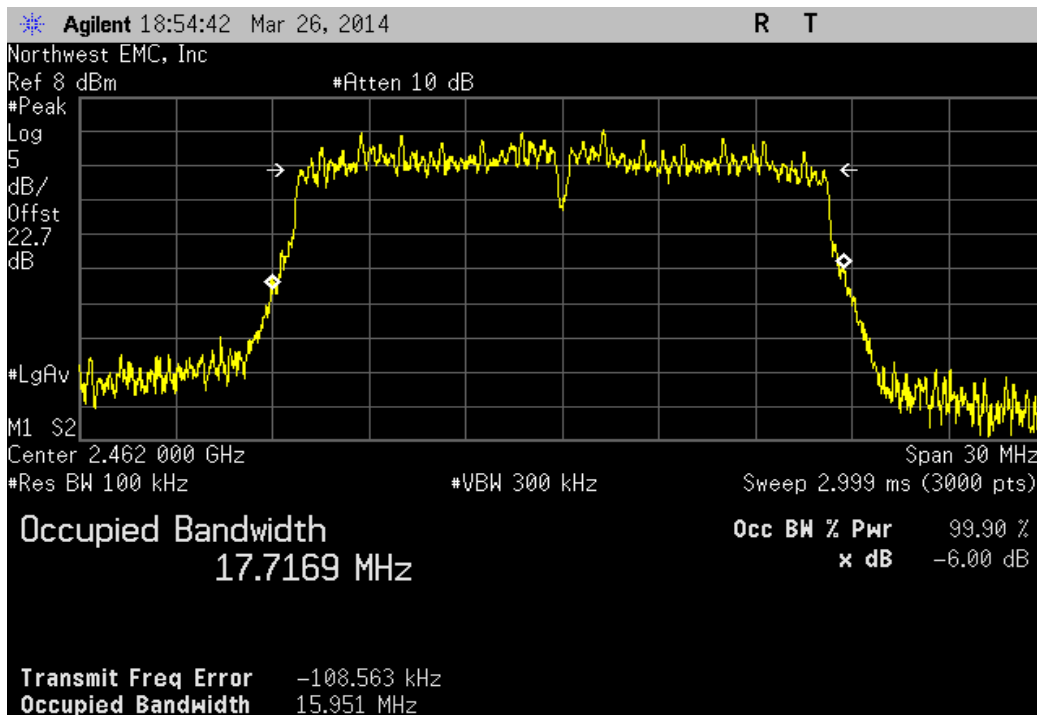
2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 16.302 MHz | > 500 kHz | Pass   |



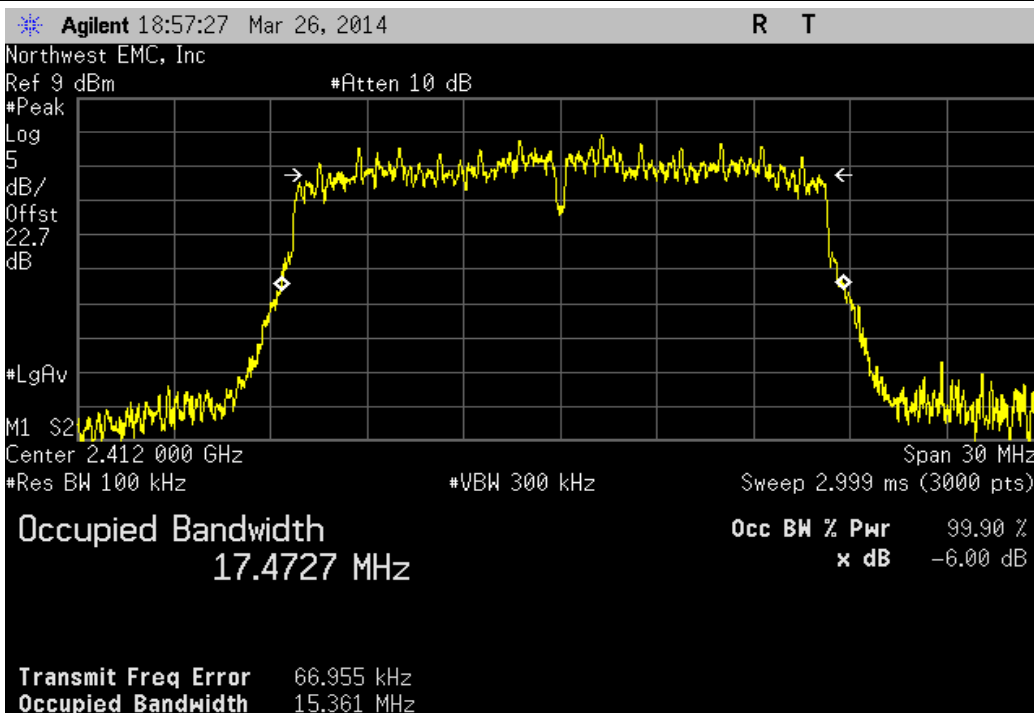
2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 15.951 MHz | > 500 kHz | Pass   |



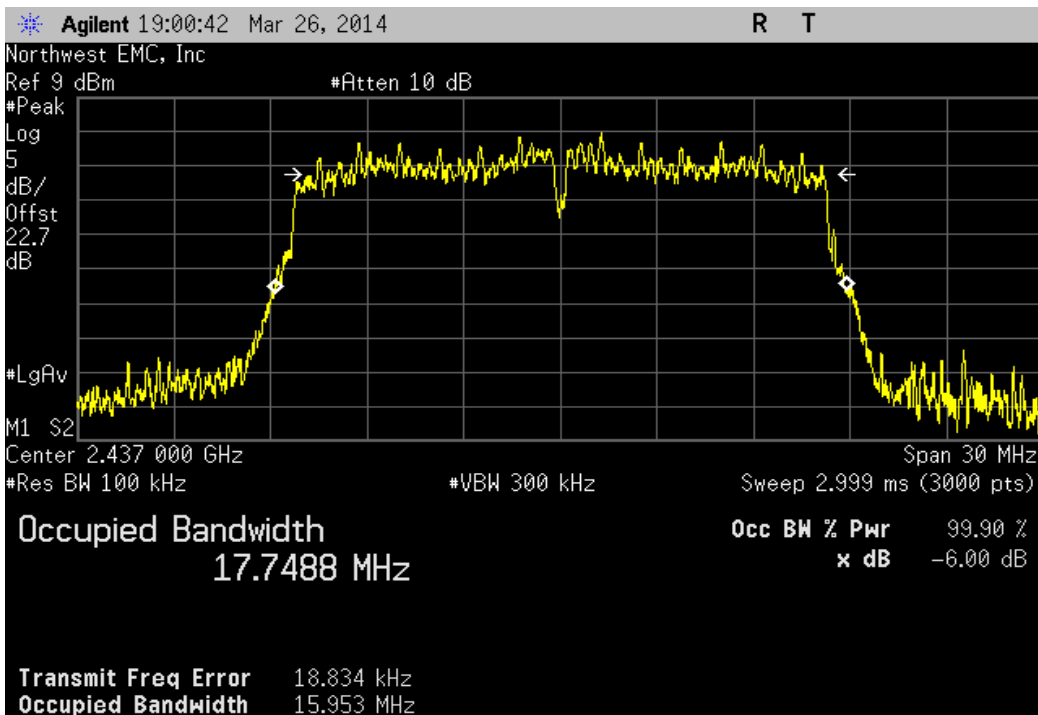
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 15.361 MHz | > 500 kHz | Pass   |



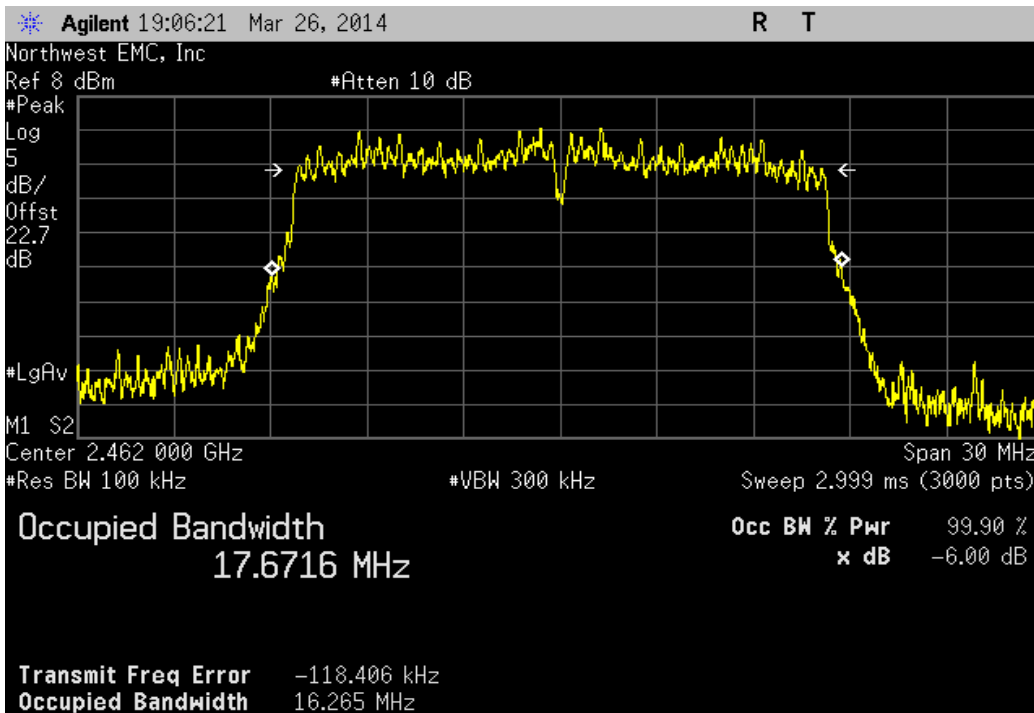
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 15.953 MHz | > 500 kHz | Pass   |



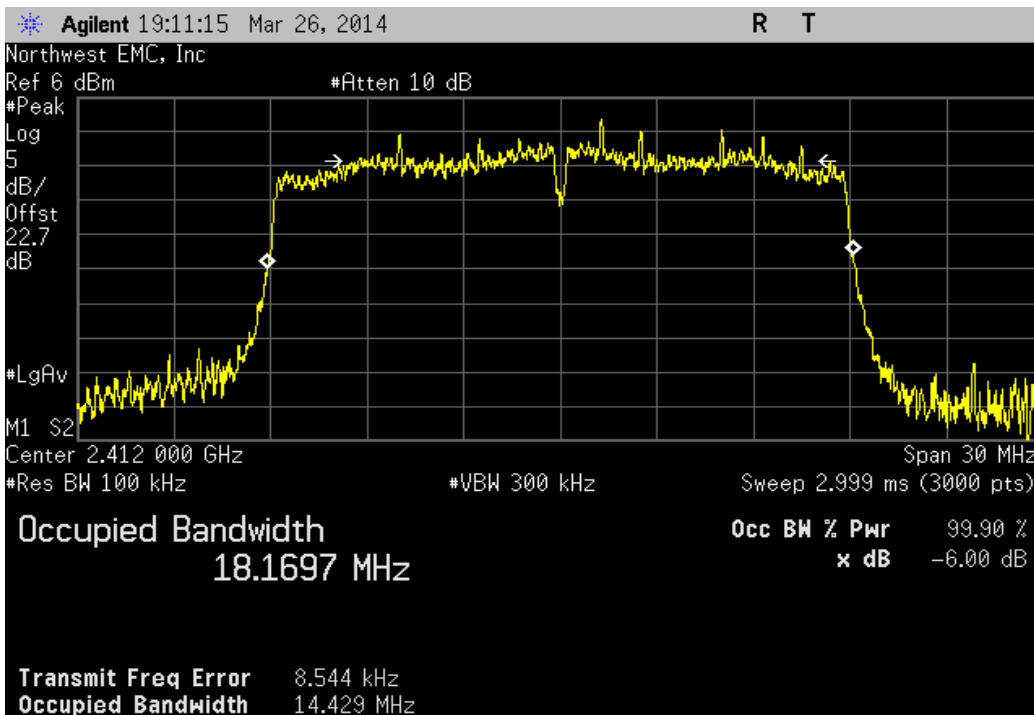
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 16.265 MHz | > 500 kHz | Pass   |



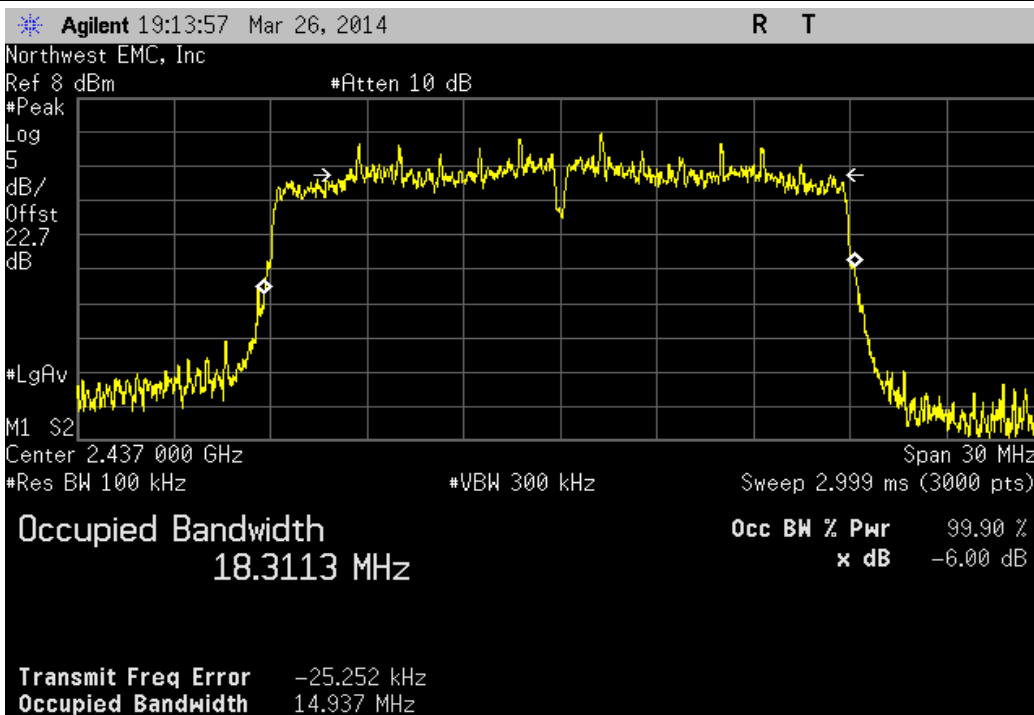
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 14.429 MHz | > 500 kHz | Pass   |



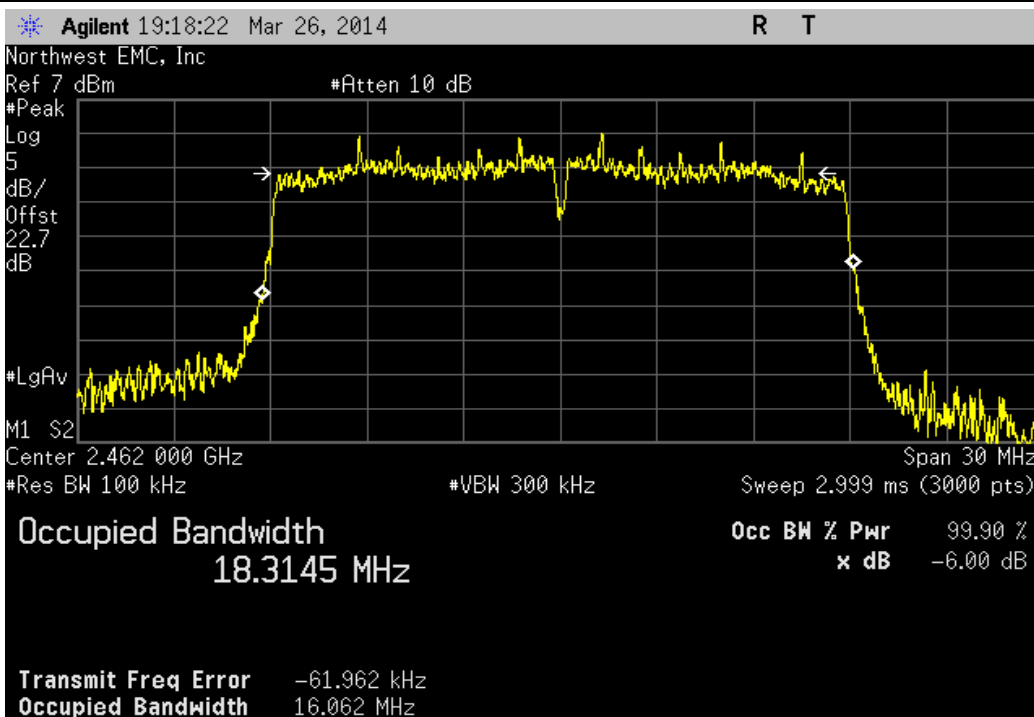
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 14.937 MHz | > 500 kHz | Pass   |



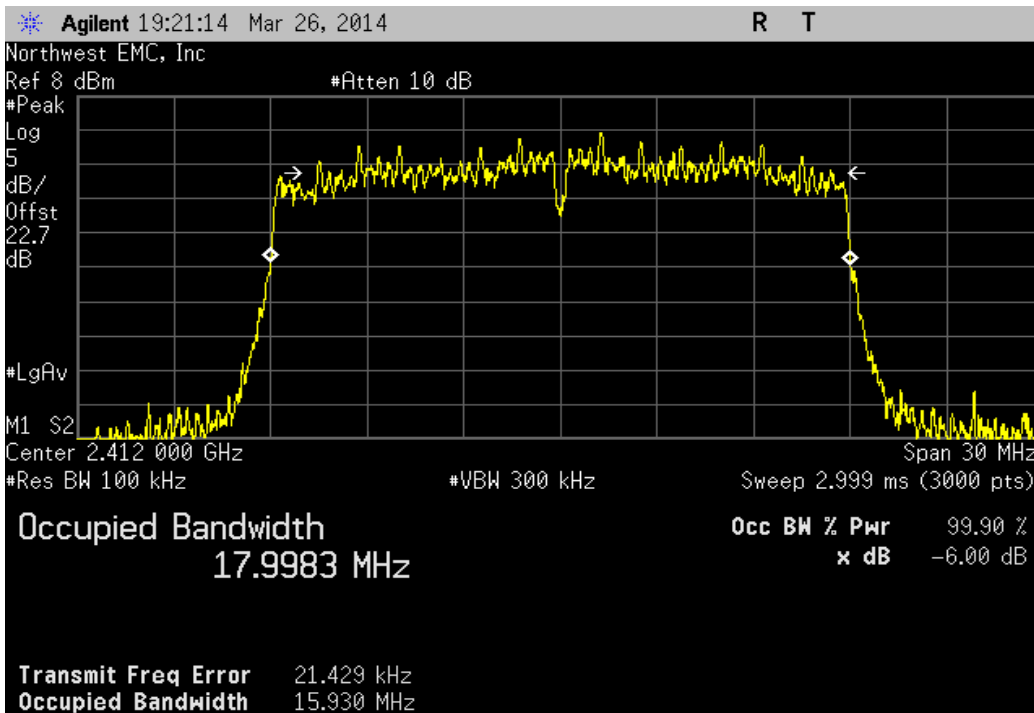
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 16.062 MHz | > 500 kHz | Pass   |



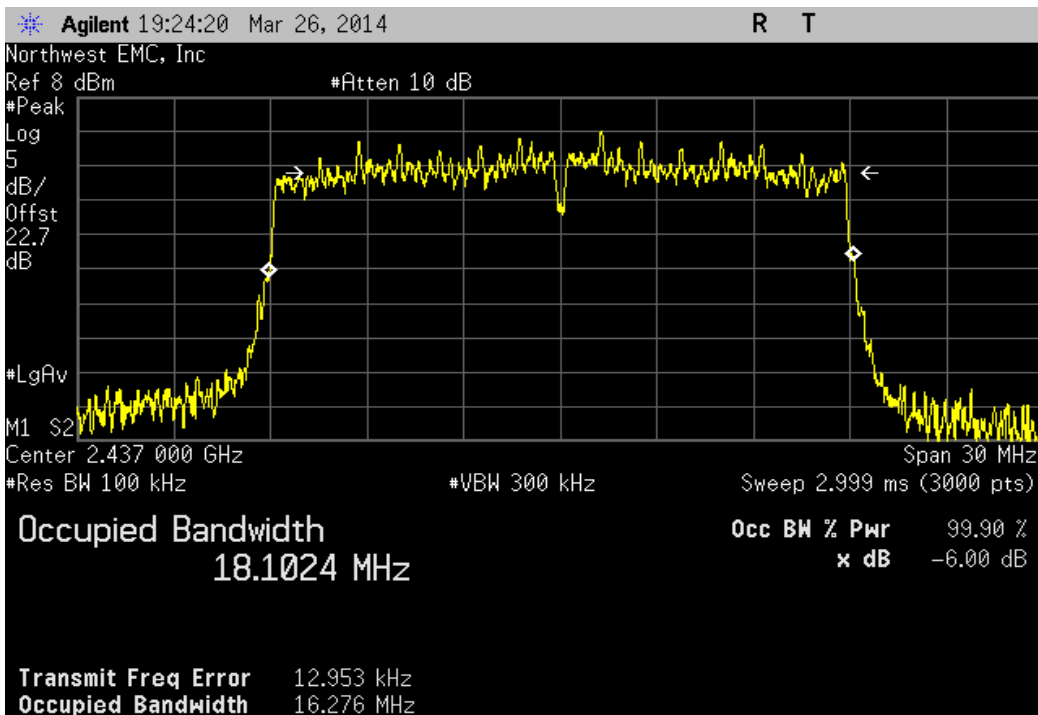
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Low Channel 1, 2412 MHz

| Value     | Limit     | Result |
|-----------|-----------|--------|
| 15.93 MHz | > 500 kHz | Pass   |



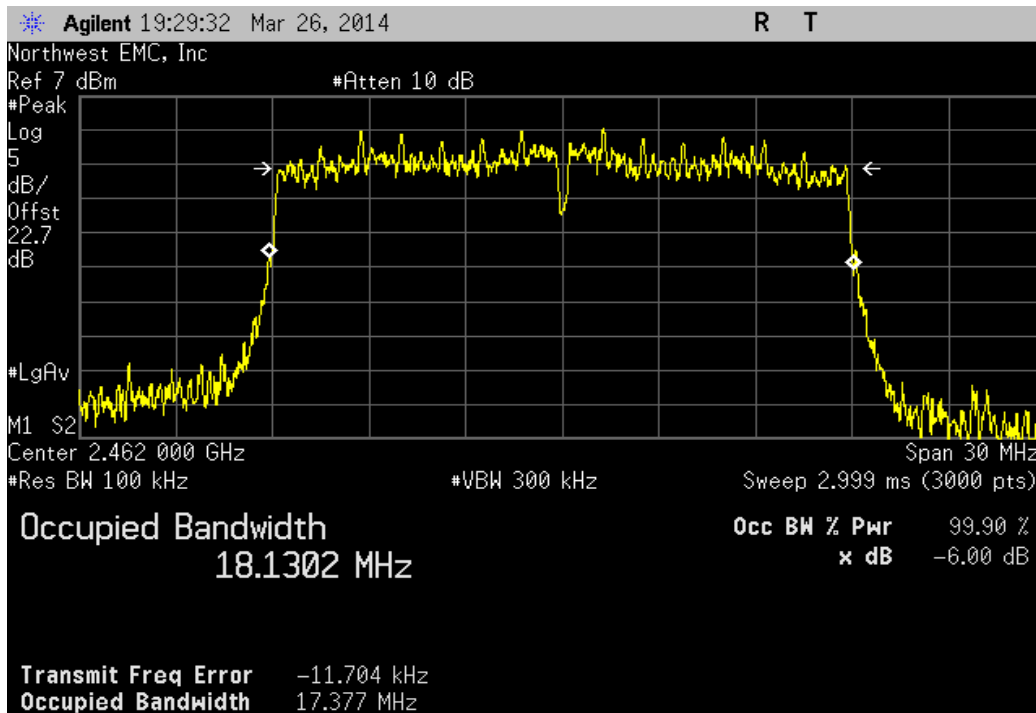
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 16.276 MHz | > 500 kHz | Pass   |



2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| 17.377 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 |
|---------------------------------|------------------|----------|-----|------------|----------|
| 40GHz DC Block                  | Miteq            | DCB4000  | AMD | 5/16/2013  | 12       |
| Attenuator 20 dB, SMA M/F 26GHz | S.M. Electronics | SA26B-20 | AUY | 7/30/2013  | 12       |
| EV06 Direct Connect Cable       | ESM Cable Corp.  | TT       | ECA | NCR        | 0        |
| Attenuator, 6dB                 | S.M. Electronics | 18N-06   | AWN | 2/3/2014   | 12       |
| RF Vector Signal Generator      | Agilent          | V2920A   | TIH | NCR        | 0        |
| Power Meter                     | Gigatronics      | 8651A    | SPM | 11/26/2013 | 24       |
| Power Sensor                    | Gigatronics      | 80701A   | SPL | 7/8/2011   | 36       |
| Spectrum Analyzer               | Agilent          | E4440    | AFE | 11/4/2013  | 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.

The channel power integration method found in KDB 558074 DTS D01 Measurement Section 9.1.2 was used because the DTS Bandwidth of the radio was greater than the RBW on the analyzer.



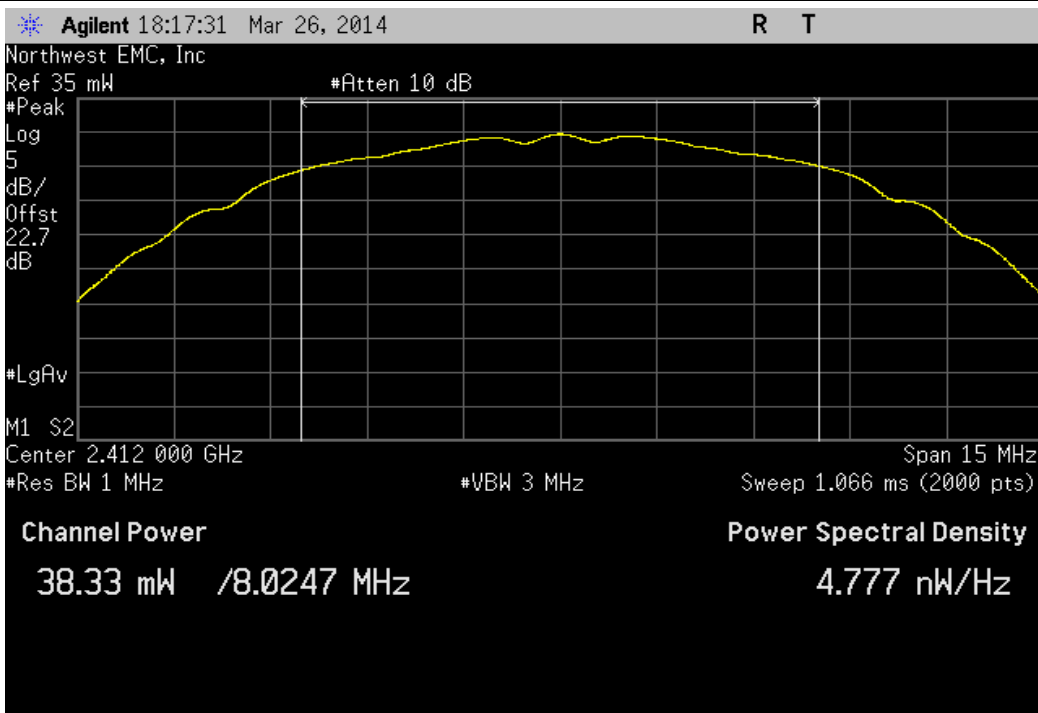
# OUTPUT POWER

XMit 2013.08.15  
PsaTx 2013.10.23

|                                                |   |                                                                                             |        |
|------------------------------------------------|---|---------------------------------------------------------------------------------------------|--------|
| EUT: GQ110                                     |   | Work Order: INTE5431                                                                        |        |
| Serial Number: EZF83450005Z                    |   | Date: 03/26/14                                                                              |        |
| Customer: Intel Corporation                    |   | Temperature: 21.7°C                                                                         |        |
| Attendees: None                                |   | Humidity: 39%                                                                               |        |
| Project: GQ110                                 |   | Barometric Pres.: 1001.8                                                                    |        |
| Tested by: Jared Ison                          |   | Power: 110VAC/60Hz                                                                          |        |
|                                                |   | Job Site: EV06                                                                              |        |
| TEST SPECIFICATIONS                            |   | Test Method                                                                                 |        |
| FCC 15.247:2014                                |   | ANSI C63.10:2009                                                                            |        |
| COMMENTS                                       |   |                                                                                             |        |
| Mode of operation tested were client provided. |   |                                                                                             |        |
| DEVIATIONS FROM TEST STANDARD                  |   |                                                                                             |        |
| None                                           |   |                                                                                             |        |
| Configuration #                                | 1 | Signature  |        |
|                                                |   | Value                                                                                       | Limit  |
| 2400 MHz - 2483.5 MHz Band                     |   |                                                                                             | Result |
| 802.11(b) 1 Mbps                               |   |                                                                                             |        |
| Low Channel 1, 2412 MHz                        |   | 38.332 mW                                                                                   | < 1 W  |
| Mid Channel 6, 2437 MHz                        |   | 111.866 mW                                                                                  | < 1 W  |
| High Channel 11, 2462 MHz                      |   | 106.218 mW                                                                                  | < 1 W  |
| 802.11(b) 11 Mbps                              |   |                                                                                             |        |
| Low Channel 1, 2412 MHz                        |   | 102.447 mW                                                                                  | < 1 W  |
| Mid Channel 6, 2437 MHz                        |   | 113.684 mW                                                                                  | < 1 W  |
| High Channel 11, 2462 MHz                      |   | 108.643 mW                                                                                  | < 1 W  |
| 802.11(g) 6 Mbps                               |   |                                                                                             |        |
| Low Channel 1, 2412 MHz                        |   | 34.199 mW                                                                                   | < 1 W  |
| Mid Channel 6, 2437 MHz                        |   | 40.589 mW                                                                                   | < 1 W  |
| High Channel 11, 2462 MHz                      |   | 39.685 mW                                                                                   | < 1 W  |
| 802.11(g) 36 Mbps                              |   |                                                                                             |        |
| Low Channel 1, 2412 MHz                        |   | 28.11 mW                                                                                    | < 1 W  |
| Mid Channel 6, 2437 MHz                        |   | 30.836 mW                                                                                   | < 1 W  |
| High Channel 11, 2462 MHz                      |   | 28.757 mW                                                                                   | < 1 W  |
| 802.11(g) 54 Mbps                              |   |                                                                                             |        |
| Low Channel 1, 2412 MHz                        |   | 26.103 mW                                                                                   | < 1 W  |
| Mid Channel 6, 2437 MHz                        |   | 28.077 mW                                                                                   | < 1 W  |
| High Channel 11, 2462 MHz                      |   | 28.044 mW                                                                                   | < 1 W  |
| 802.11(n) MCS0                                 |   |                                                                                             |        |
| Low Channel 1, 2412 MHz                        |   | 23.059 mW                                                                                   | < 1 W  |
| Mid Channel 6, 2437 MHz                        |   | 24.837 mW                                                                                   | < 1 W  |
| High Channel 11, 2462 MHz                      |   | 24.513 mW                                                                                   | < 1 W  |
| 802.11(n) MCS7                                 |   |                                                                                             |        |
| Low Channel 1, 2412 MHz                        |   | 19.621 mW                                                                                   | < 1 W  |
| Mid Channel 6, 2437 MHz                        |   | 21.818 mW                                                                                   | < 1 W  |
| High Channel 11, 2462 MHz                      |   | 21.493 mW                                                                                   | < 1 W  |

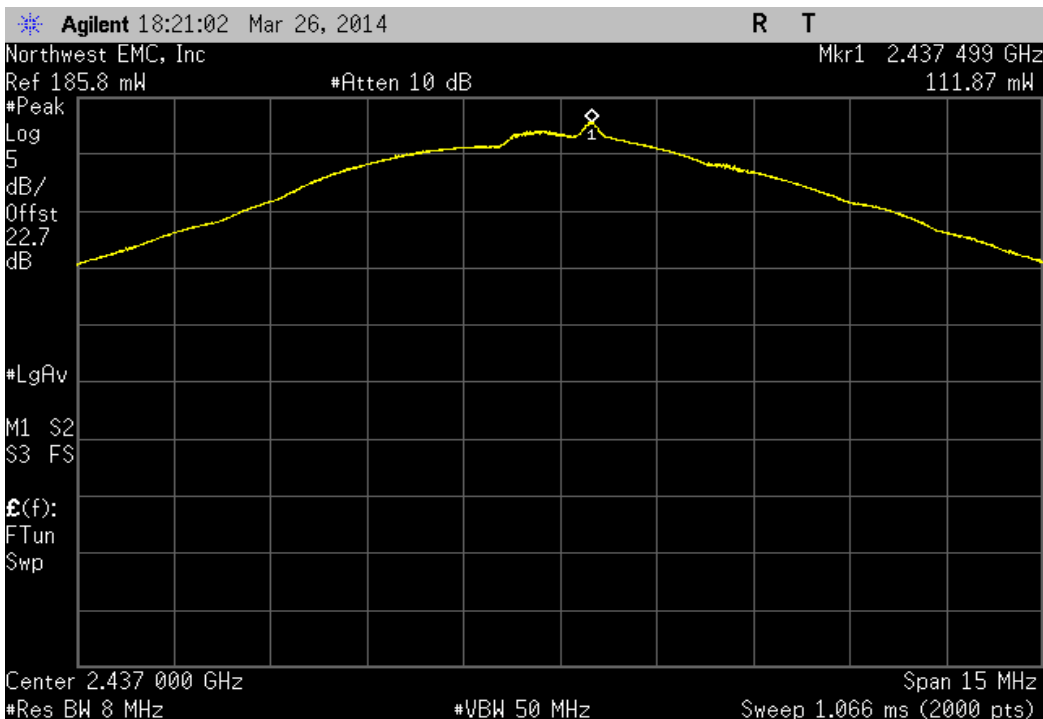
2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 38.332 mW | < 1 W | Pass   |

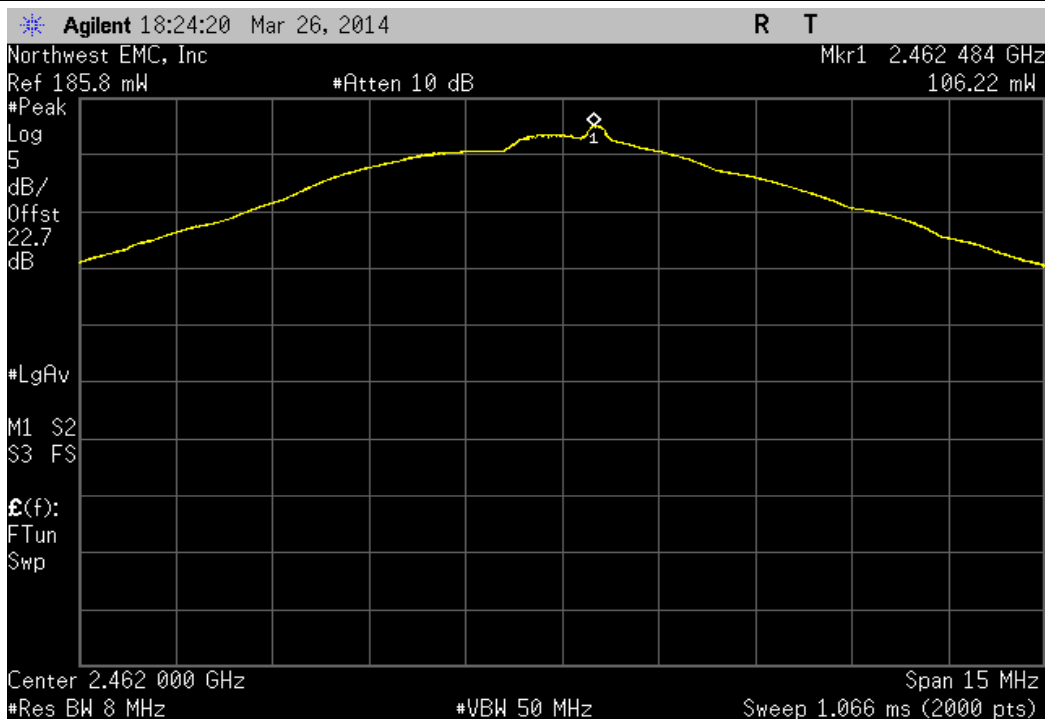


2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz

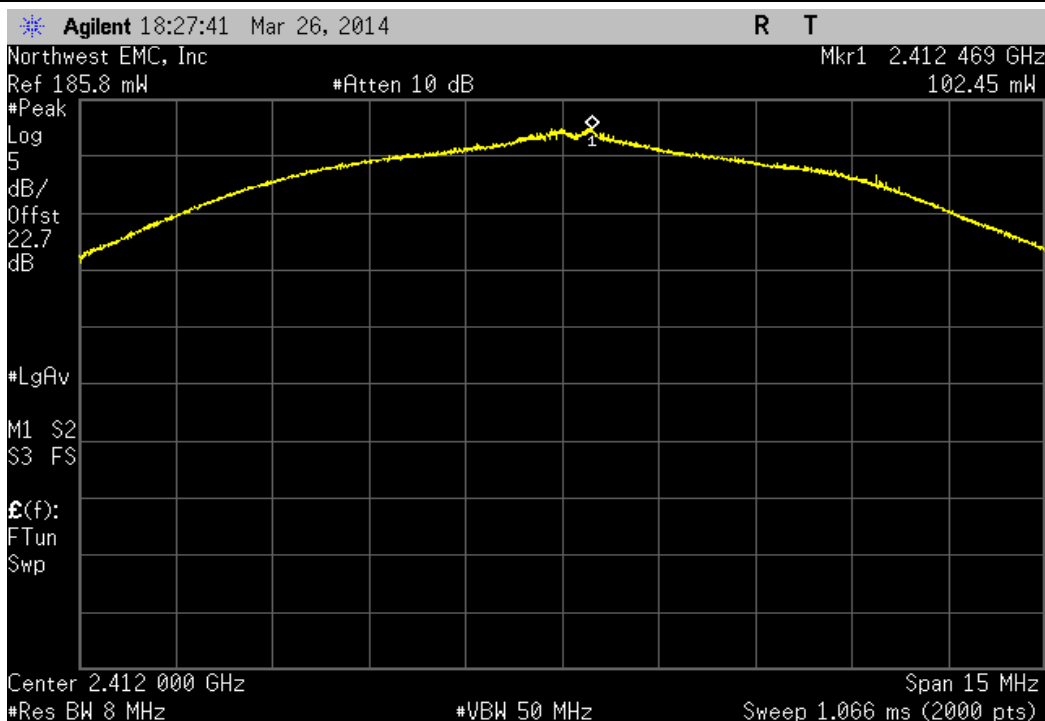
| Value      | Limit | Result |
|------------|-------|--------|
| 111.866 mW | < 1 W | Pass   |



| 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz |            |       |        |
|-------------------------------------------------------------------------|------------|-------|--------|
|                                                                         | Value      | Limit | Result |
|                                                                         | 106.218 mW | < 1 W | Pass   |

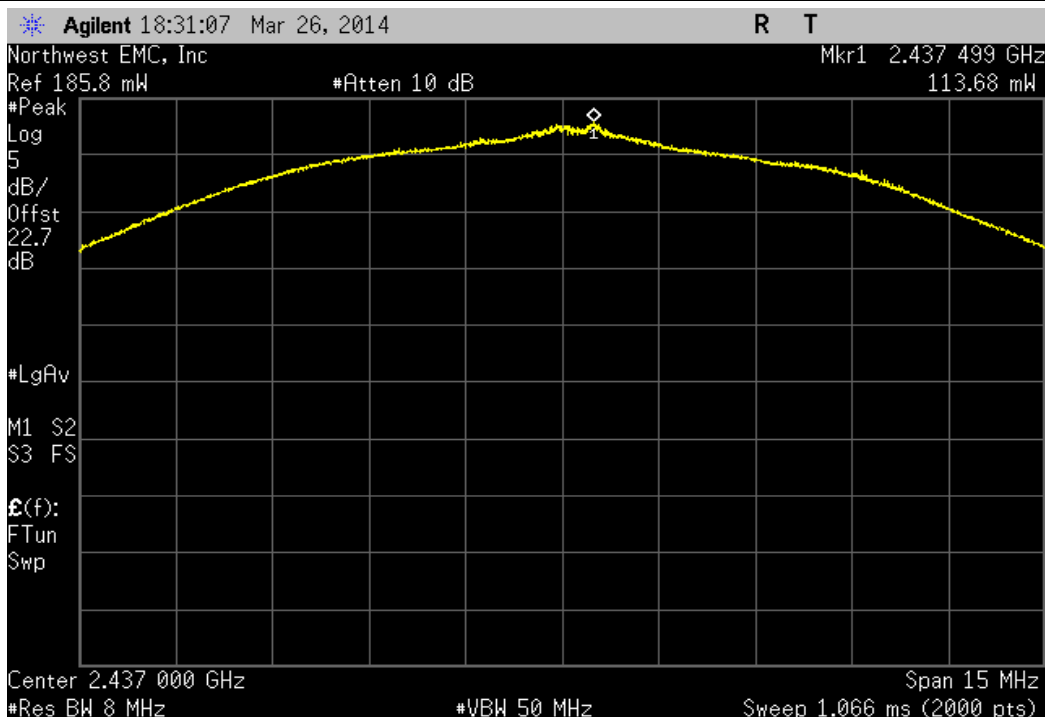


| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |            |       |        |
|------------------------------------------------------------------------|------------|-------|--------|
|                                                                        | Value      | Limit | Result |
|                                                                        | 102.447 mW | < 1 W | Pass   |



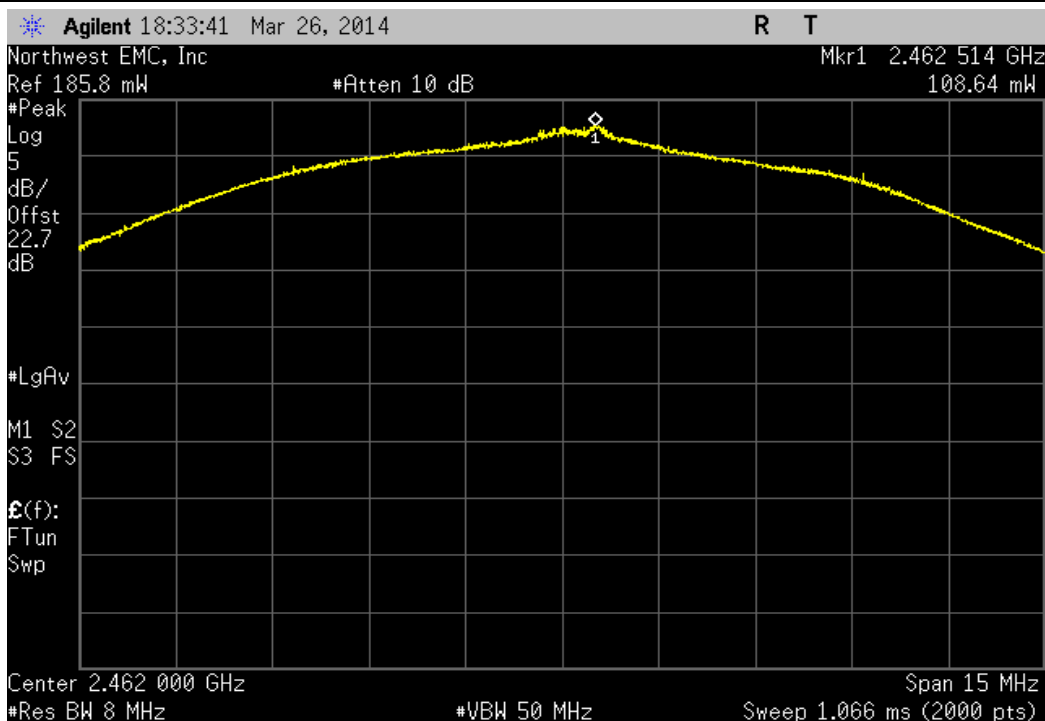
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz

| Value      | Limit | Result |
|------------|-------|--------|
| 113.684 mW | < 1 W | Pass   |



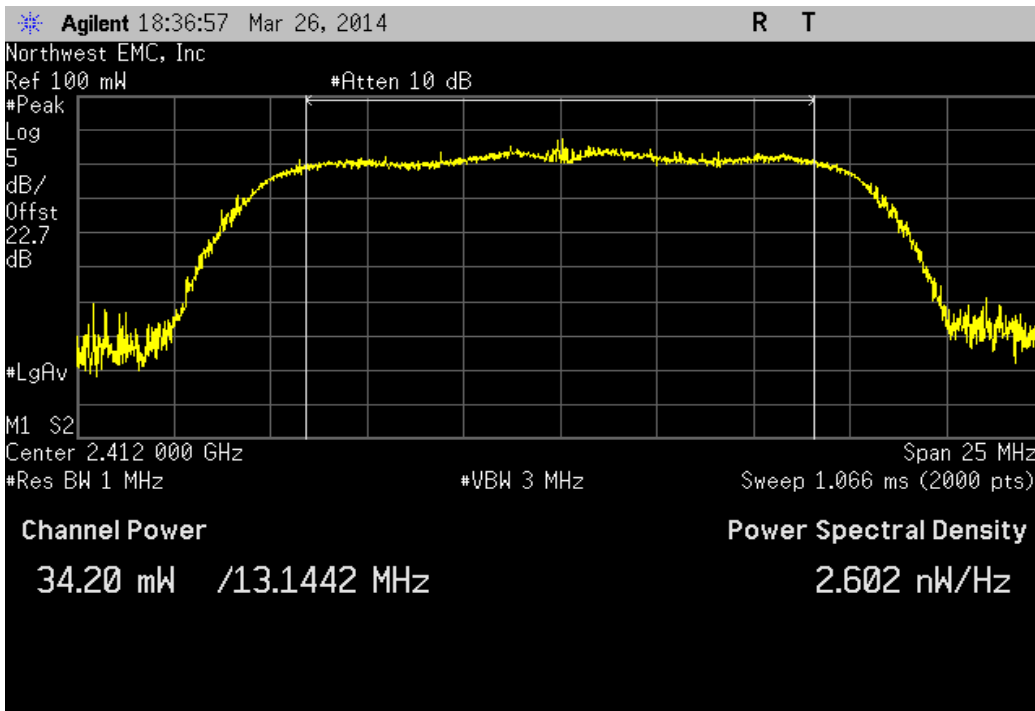
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz

| Value      | Limit | Result |
|------------|-------|--------|
| 108.643 mW | < 1 W | Pass   |



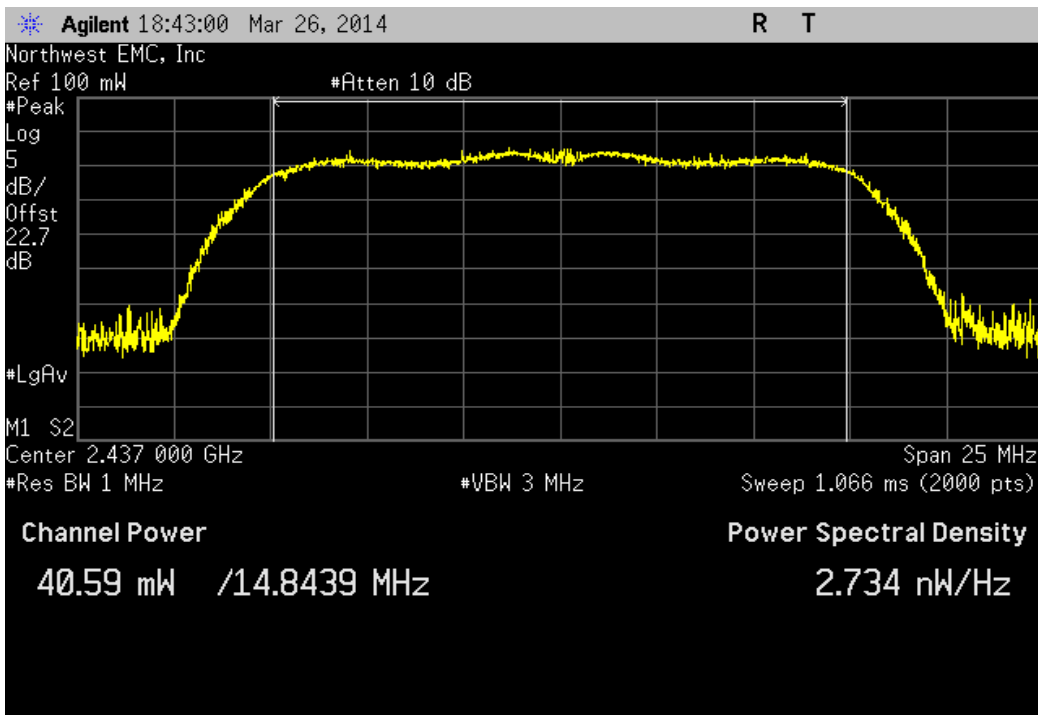
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 34.199 mW | < 1 W | Pass   |

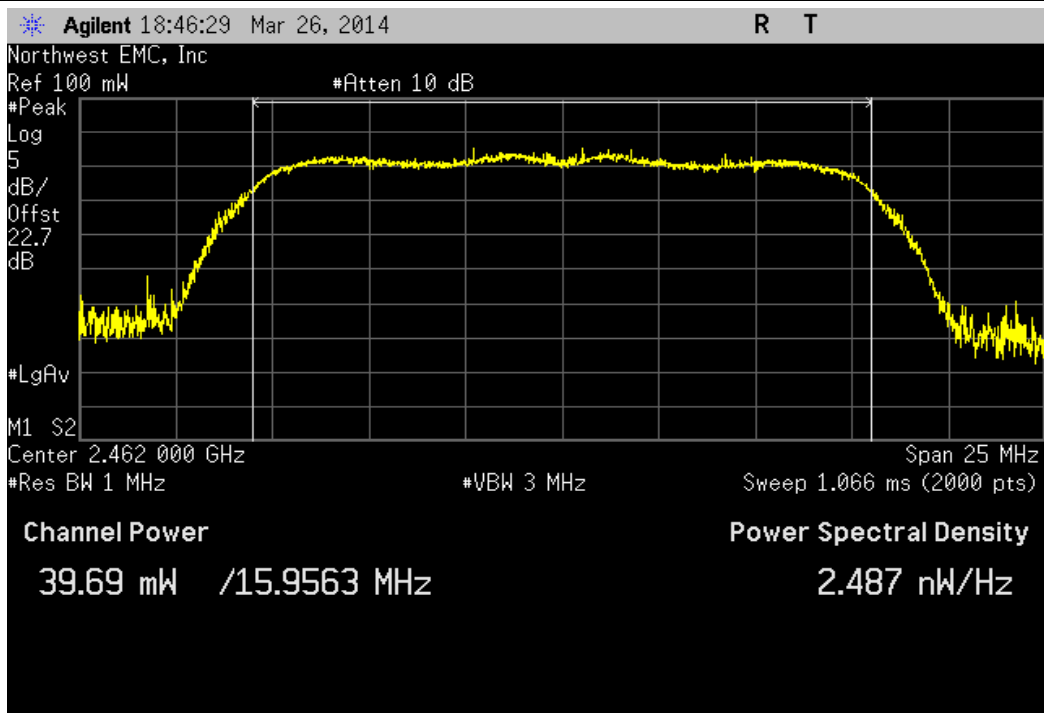


2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz

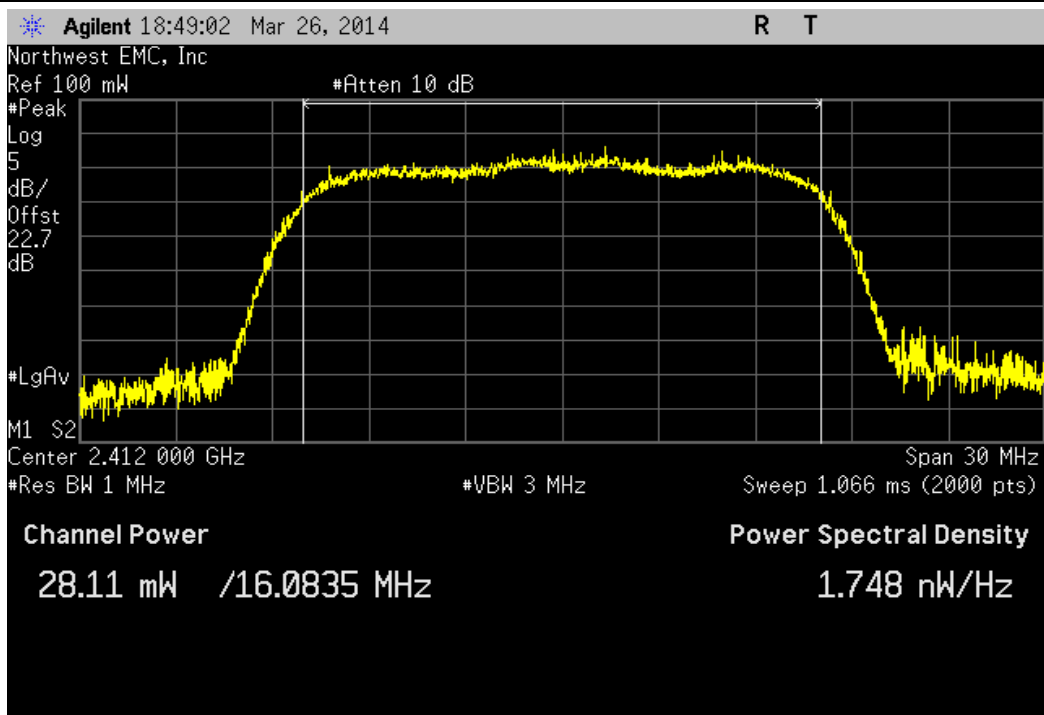
| Value     | Limit | Result |
|-----------|-------|--------|
| 40.589 mW | < 1 W | Pass   |



| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |           |       |        |
|-------------------------------------------------------------------------|-----------|-------|--------|
|                                                                         | Value     | Limit | Result |
|                                                                         | 39.685 mW | < 1 W | Pass   |

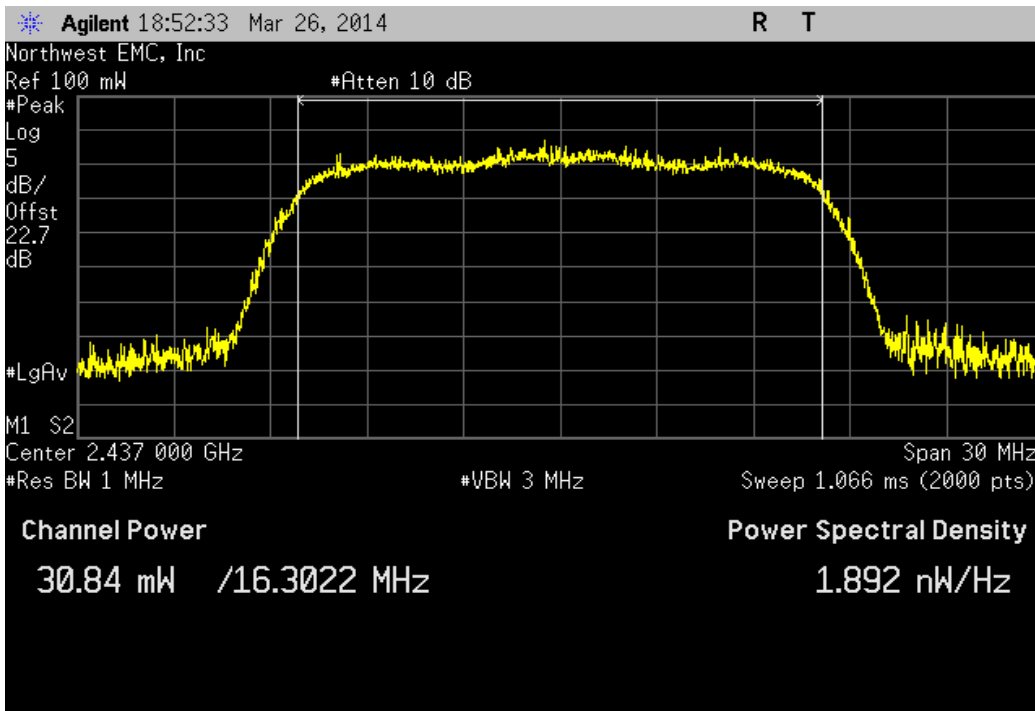


| 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz |          |       |        |
|------------------------------------------------------------------------|----------|-------|--------|
|                                                                        | Value    | Limit | Result |
|                                                                        | 28.11 mW | < 1 W | Pass   |



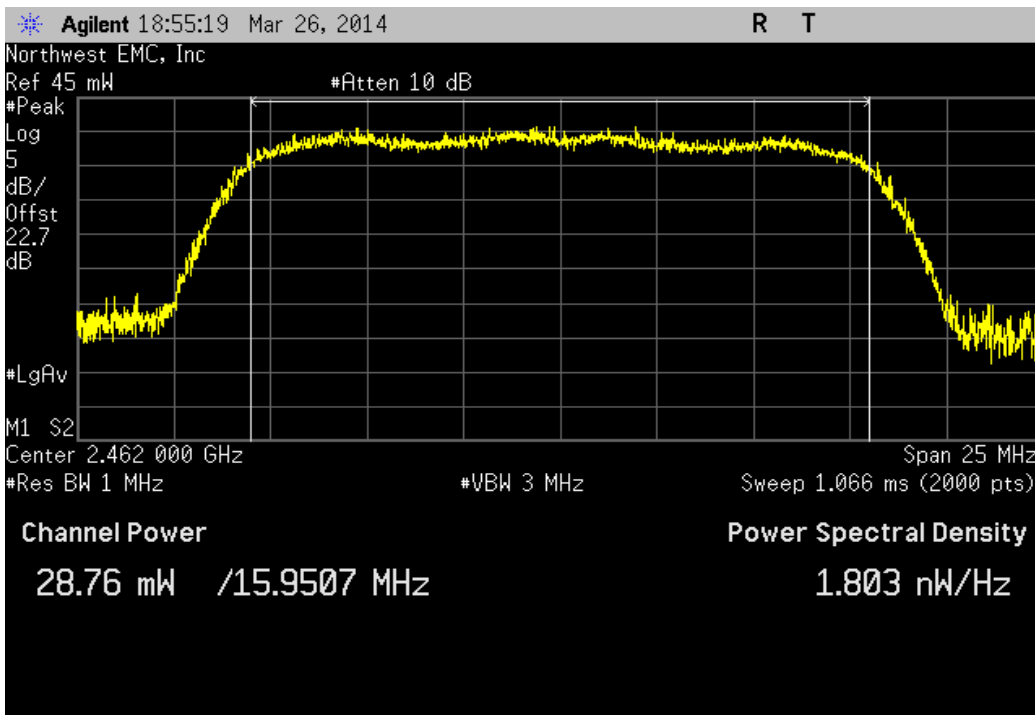
2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 30.836 mW | < 1 W | Pass   |



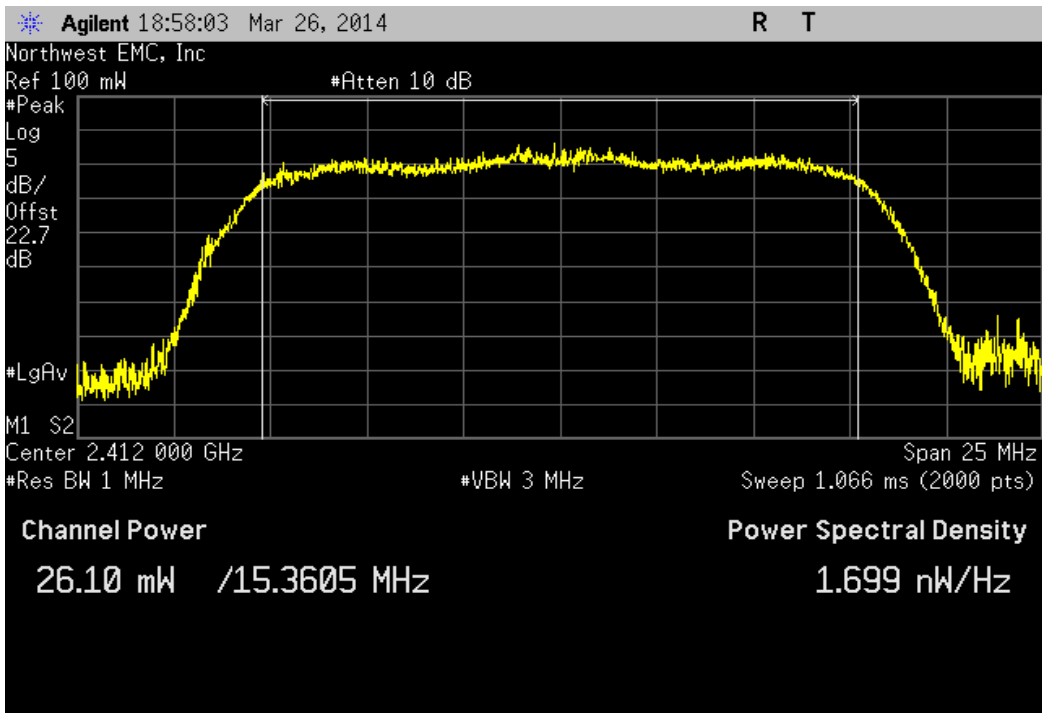
2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 28.757 mW | < 1 W | Pass   |



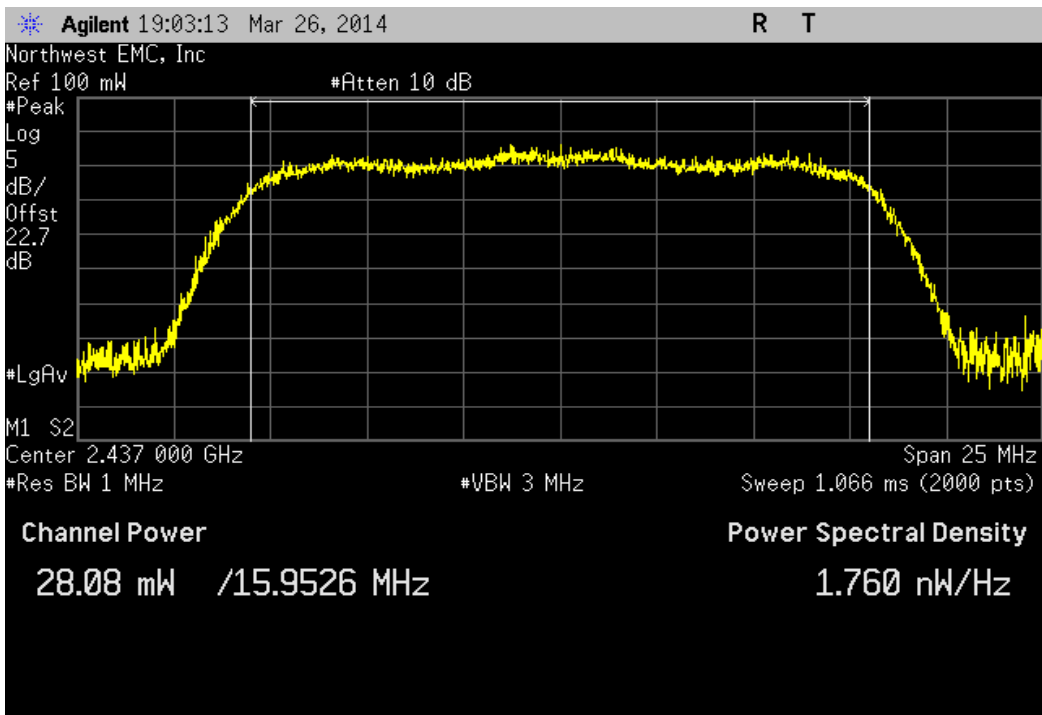
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 26.103 mW | < 1 W | Pass   |



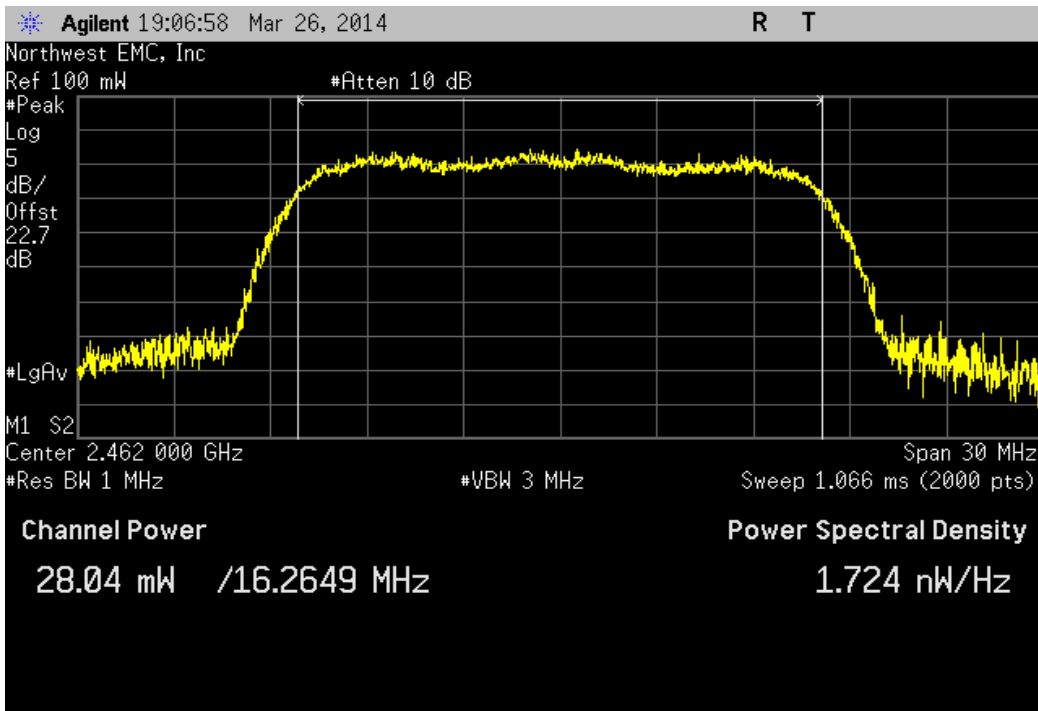
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 28.077 mW | < 1 W | Pass   |



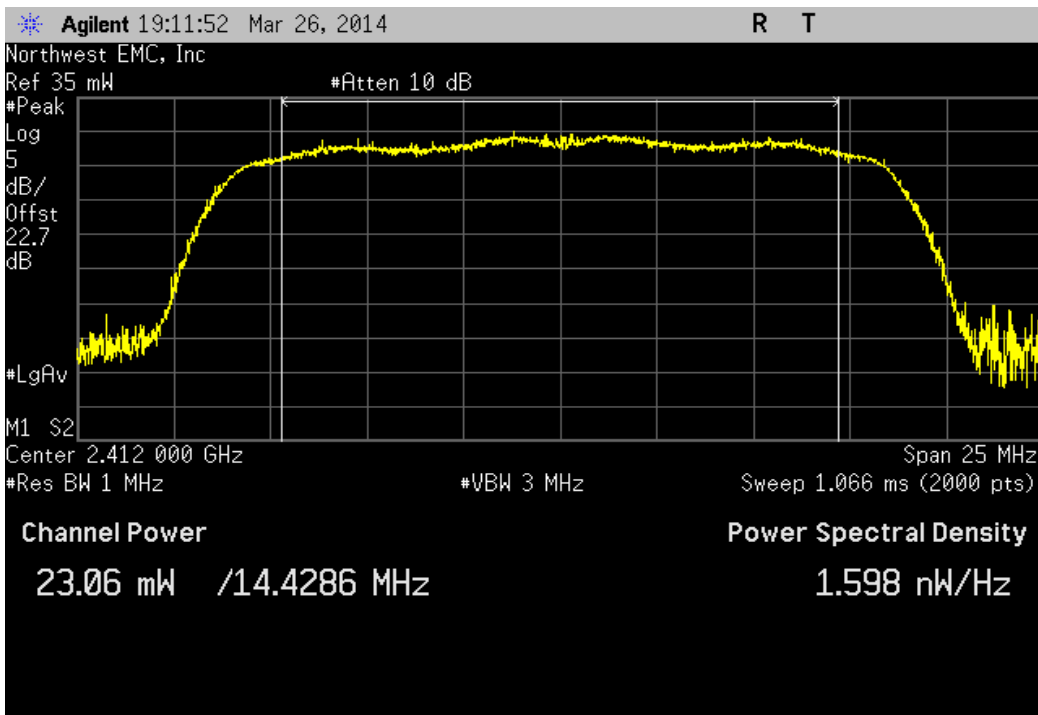
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 28.044 mW | < 1 W | Pass   |



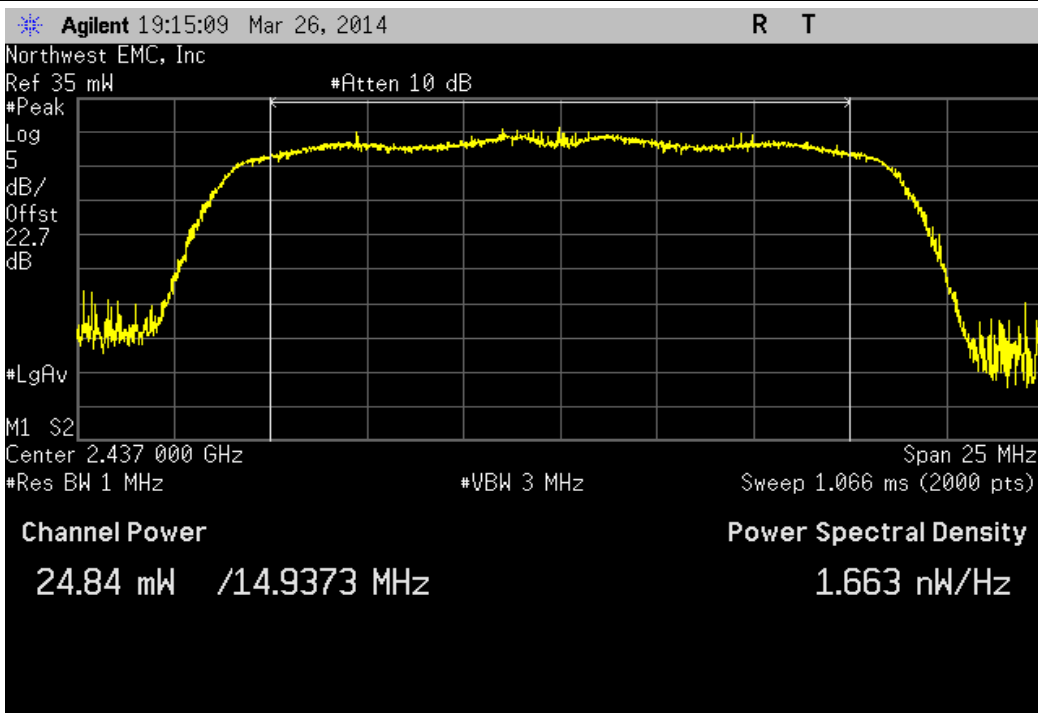
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz

|  | Value     | Limit | Result |
|--|-----------|-------|--------|
|  | 23.059 mW | < 1 W | Pass   |



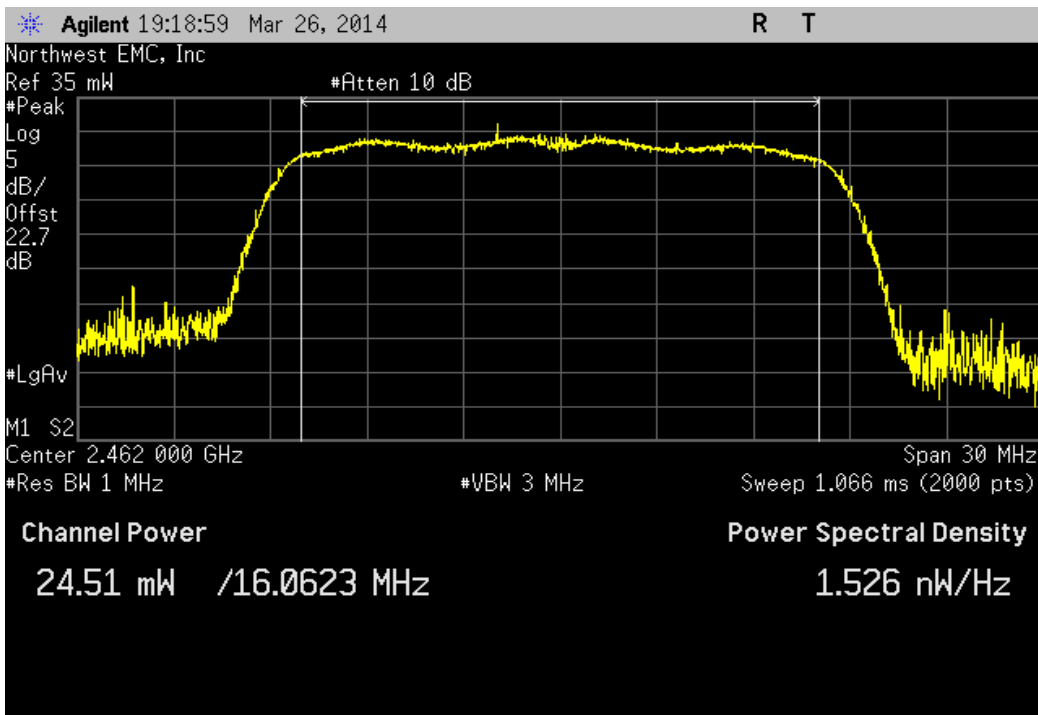
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 24.837 mW | < 1 W | Pass   |



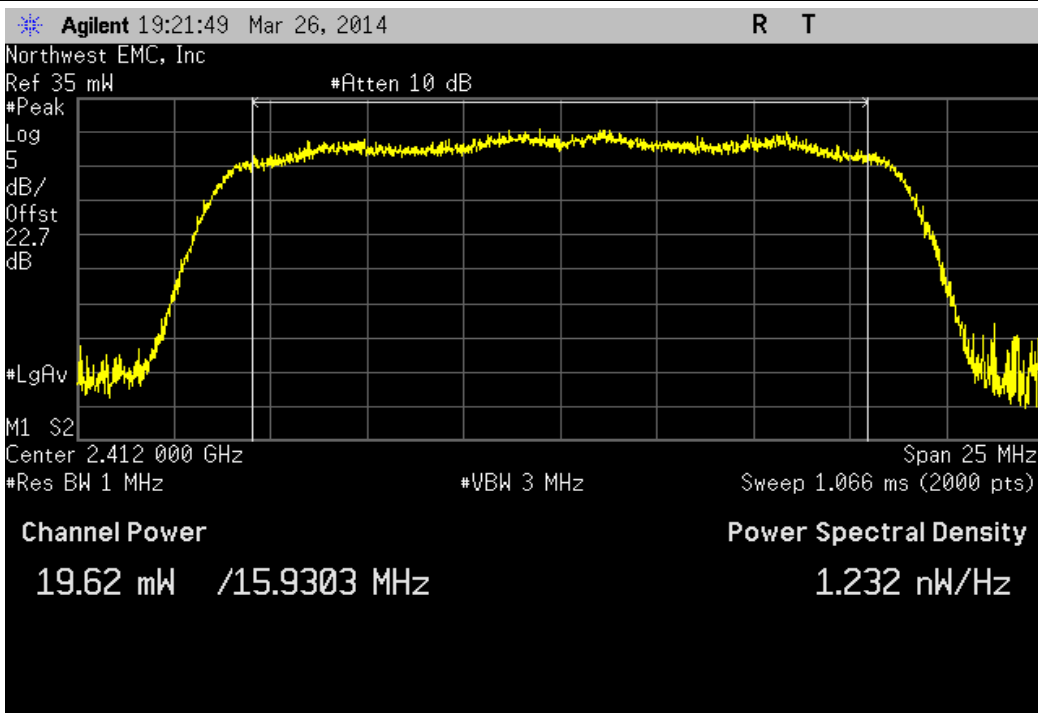
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 24.513 mW | < 1 W | Pass   |



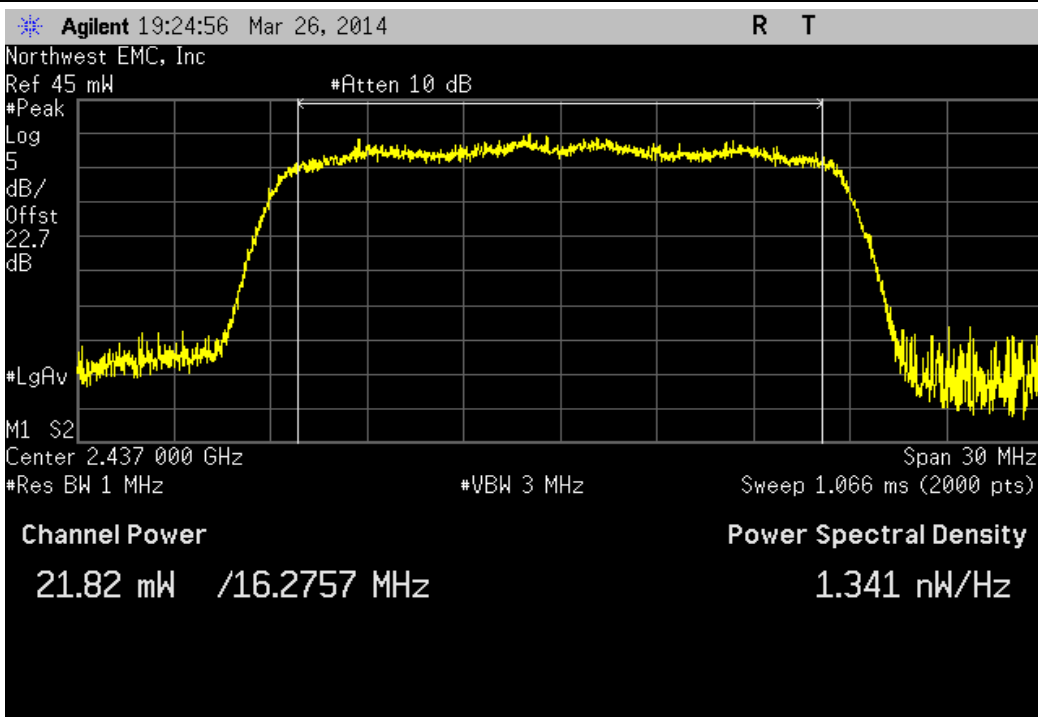
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Low Channel 1, 2412 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 19.621 mW | < 1 W | Pass   |



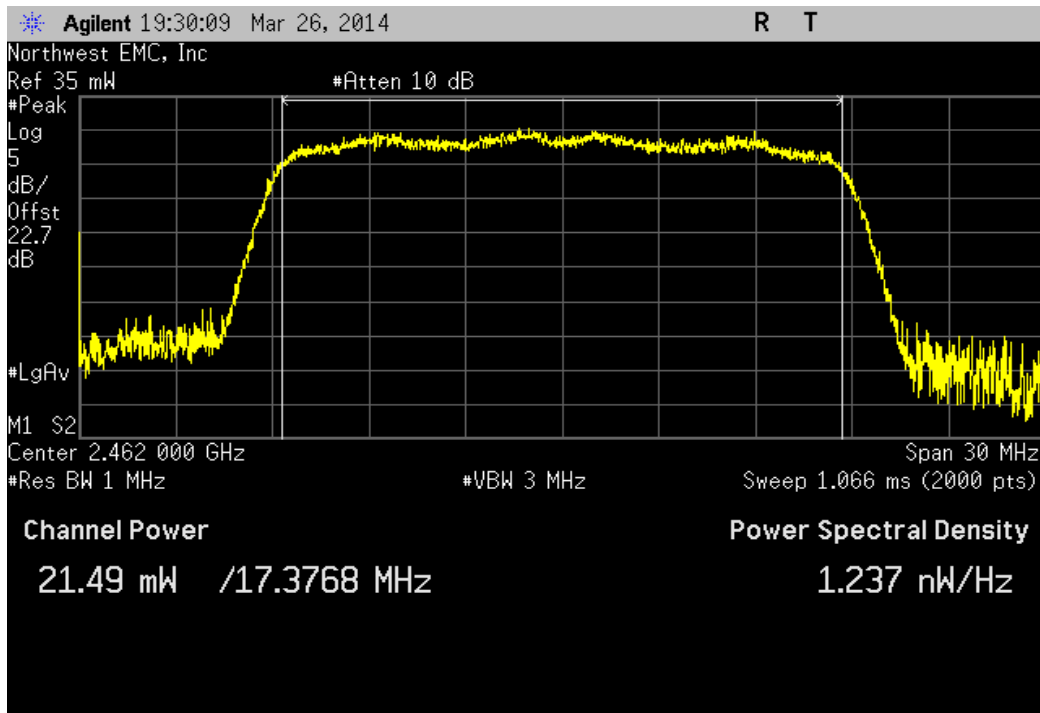
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 21.818 mW | < 1 W | Pass   |



2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, High Channel 11, 2462 MHz

| Value     | Limit | Result |
|-----------|-------|--------|
| 21.493 mW | < 1 W | Pass   |



## 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 |
|---------------------------------|------------------|----------|-----|------------|----------|
| 40GHz DC Block                  | Miteq            | DCB4000  | AMD | 5/16/2013  | 12       |
| Attenuator 20 dB, SMA M/F 26GHz | S.M. Electronics | SA26B-20 | AUY | 7/30/2013  | 12       |
| EV06 Direct Connect Cable       | ESM Cable Corp.  | TT       | ECA | NCR        | 0        |
| Attenuator, 6dB                 | S.M. Electronics | 18N-06   | AWN | 2/3/2014   | 12       |
| RF Vector Signal Generator      | Agilent          | V2920A   | TIH | NCR        | 0        |
| Power Meter                     | Gigatronics      | 8651A    | SPM | 11/26/2013 | 24       |
| Power Sensor                    | Gigatronics      | 80701A   | SPL | 7/8/2011   | 36       |
| Spectrum Analyzer               | Agilent          | E4440    | AFE | 11/4/2013  | 24       |

### 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.



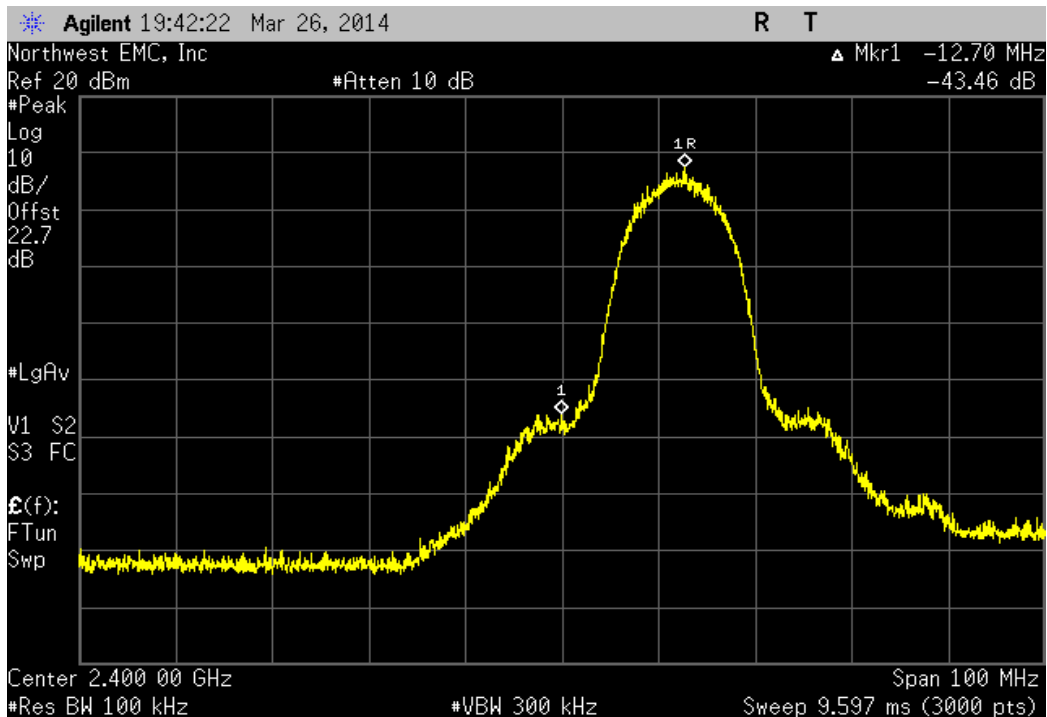
## BAND EDGE COMPLIANCE

XMit 2013.08.15  
PsaTx 2013.10.23

|                                                |   |                                                                                             |           |
|------------------------------------------------|---|---------------------------------------------------------------------------------------------|-----------|
| EUT: GQ110                                     |   | Work Order: INTE5431                                                                        |           |
| Serial Number: EZF83450005Z                    |   | Date: 03/26/14                                                                              |           |
| Customer: Intel Corporation                    |   | Temperature: 21.7°C                                                                         |           |
| Attendees: None                                |   | Humidity: 39%                                                                               |           |
| Project: GQ110                                 |   | Barometric Pres.: 1001.8                                                                    |           |
| Tested by: Jared Ison                          |   | Power: 110VAC/60Hz                                                                          |           |
|                                                |   | Job Site: EV06                                                                              |           |
| TEST SPECIFICATIONS                            |   | Test Method                                                                                 |           |
| FCC 15.247:2014                                |   | ANSI C63.10:2009                                                                            |           |
| COMMENTS                                       |   |                                                                                             |           |
| Mode of operation tested were client provided. |   |                                                                                             |           |
| DEVIATIONS FROM TEST STANDARD                  |   |                                                                                             |           |
| None                                           |   |                                                                                             |           |
| Configuration #                                | 1 | Signature  |           |
|                                                |   | Value                                                                                       | Limit     |
| 2400 MHz - 2483.5 MHz Band                     |   |                                                                                             | Result    |
| 802.11(b) 11 Mbps                              |   |                                                                                             |           |
| Low Channel 1, 2412 MHz                        |   | -43.46 dBc                                                                                  | ≤ -20 dBc |
| High Channel 11, 2462 MHz                      |   | -60.34 dBc                                                                                  | ≤ -20 dBc |
| 802.11(g) 6 Mbps                               |   |                                                                                             |           |
| Low Channel 1, 2412 MHz                        |   | -34 dBc                                                                                     | ≤ -20 dBc |
| High Channel 11, 2462 MHz                      |   | -46.64 dBc                                                                                  | ≤ -20 dBc |
| 802.11(n) MCS0                                 |   |                                                                                             |           |
| Low Channel 1, 2412 MHz                        |   | -36.61 dBc                                                                                  | ≤ -20 dBc |
| High Channel 11, 2462 MHz                      |   | -44.92 dBc                                                                                  | ≤ -20 dBc |

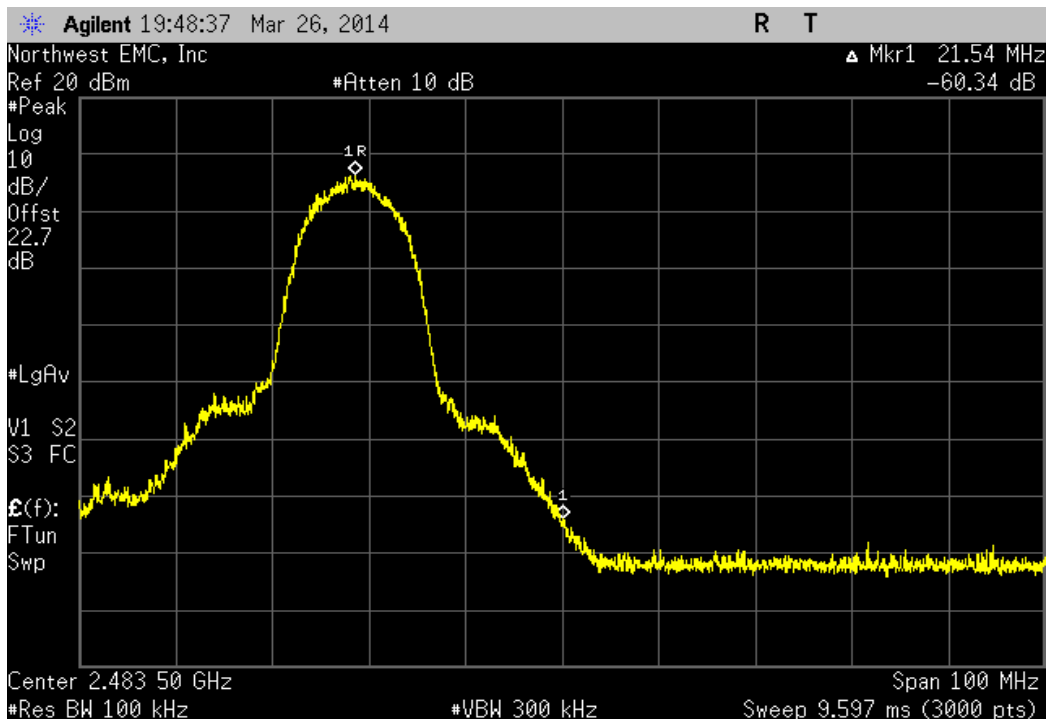
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -43.46 dBc | ≤ -20 dBc | Pass   |



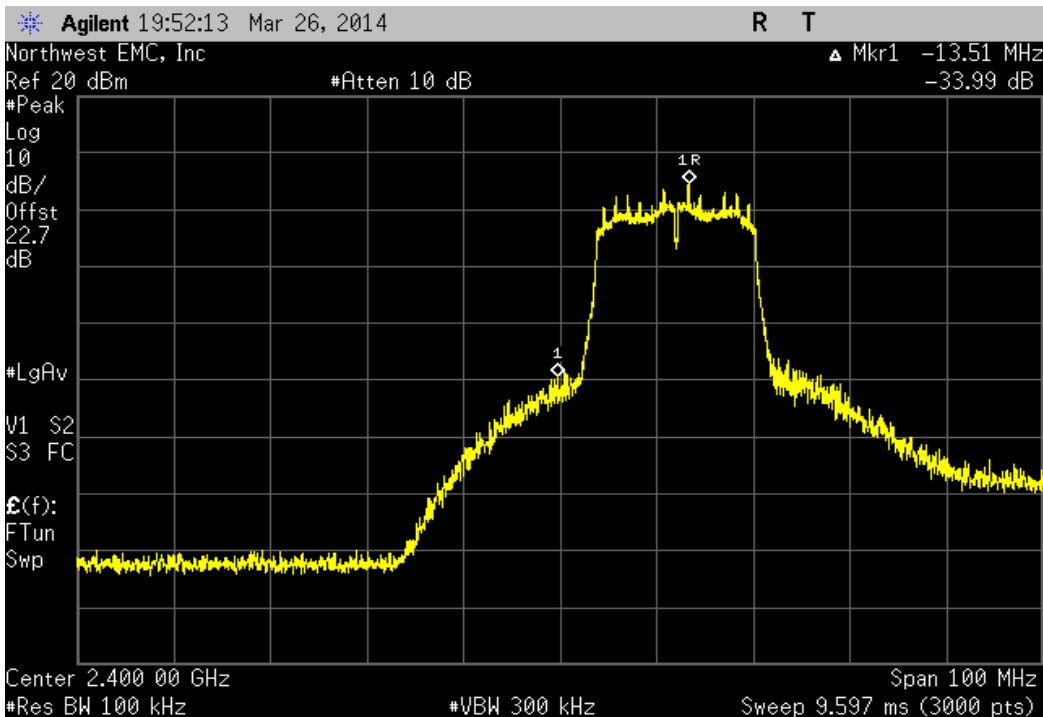
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -60.34 dBc | ≤ -20 dBc | Pass   |



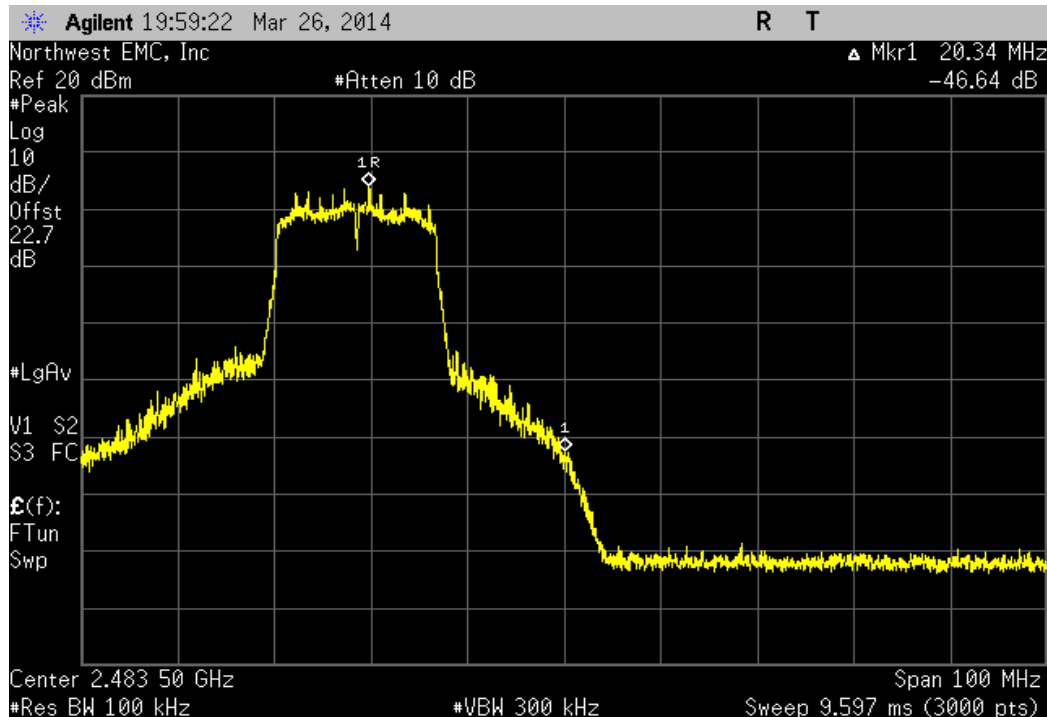
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz

| Value   | Limit     | Result |
|---------|-----------|--------|
| -34 dBc | ≤ -20 dBc | Pass   |



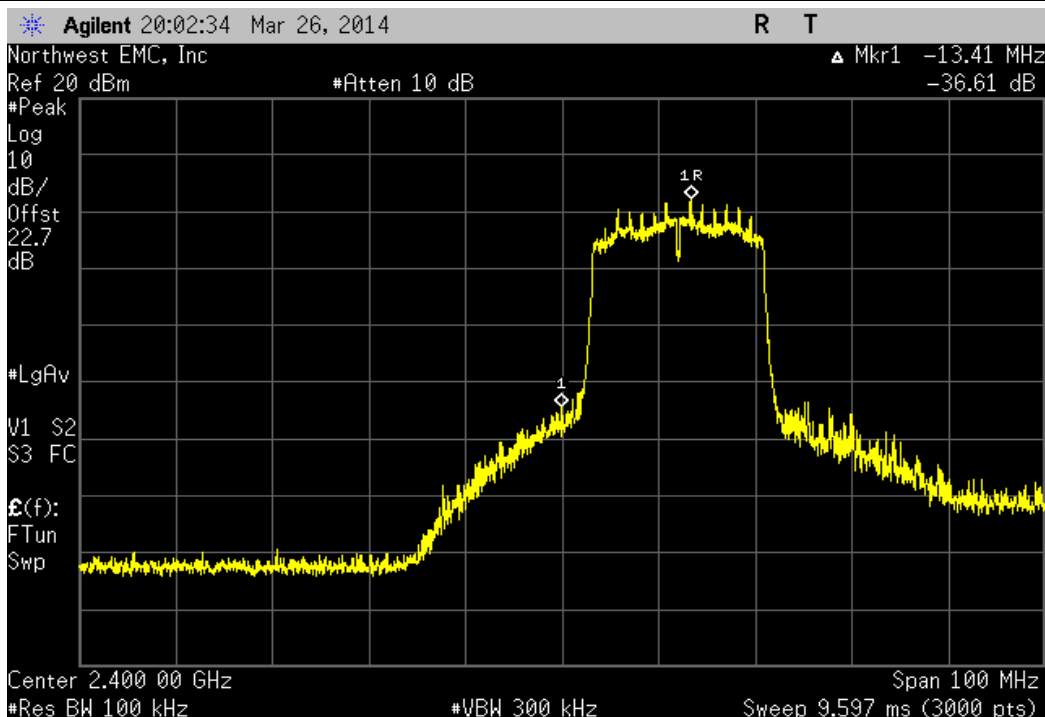
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -46.64 dBc | ≤ -20 dBc | Pass   |



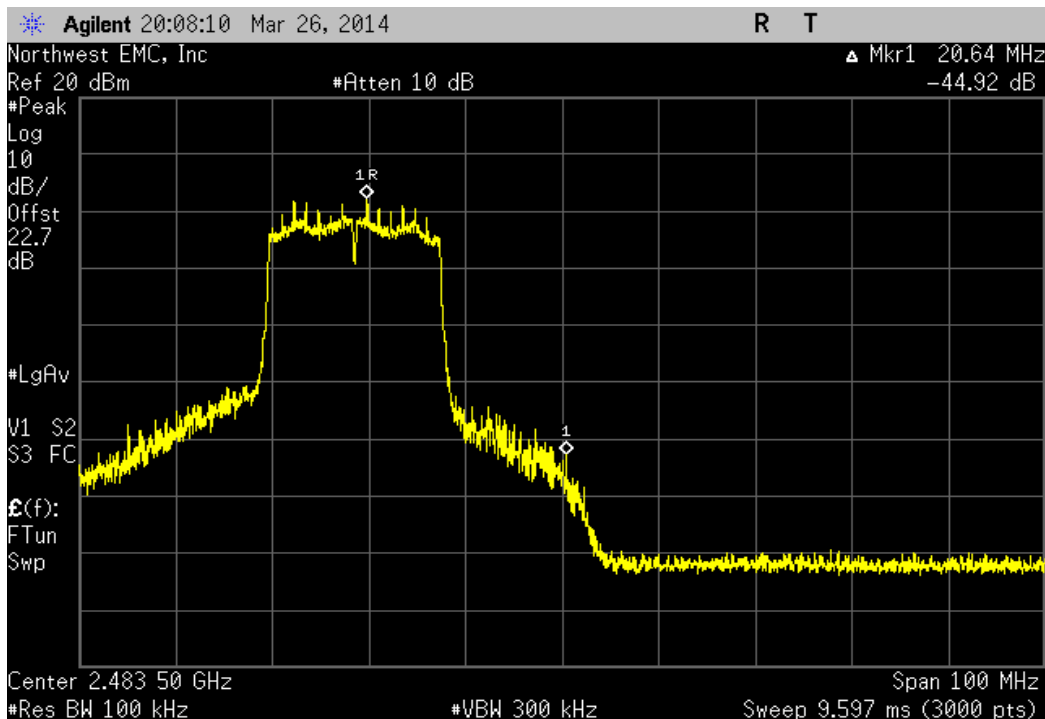
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -36.61 dBc | ≤ -20 dBc | Pass   |



2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz

| Value      | Limit     | Result |
|------------|-----------|--------|
| -44.92 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 |
|---------------------------------|------------------|----------|-----|------------|----------|
| 40GHz DC Block                  | Miteq            | DCB4000  | AMD | 5/16/2013  | 12       |
| Attenuator 20 dB, SMA M/F 26GHz | S.M. Electronics | SA26B-20 | AUY | 7/30/2013  | 12       |
| EV06 Direct Connect Cable       | ESM Cable Corp.  | TT       | ECA | NCR        | 0        |
| Attenuator, 6dB                 | S.M. Electronics | 18N-06   | AWN | 2/3/2014   | 12       |
| RF Vector Signal Generator      | Agilent          | V2920A   | TIH | NCR        | 0        |
| Power Meter                     | Gigatronics      | 8651A    | SPM | 11/26/2013 | 24       |
| Power Sensor                    | Gigatronics      | 80701A   | SPL | 7/8/2011   | 36       |
| Spectrum Analyzer               | Agilent          | E4440    | AFE | 11/4/2013  | 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.

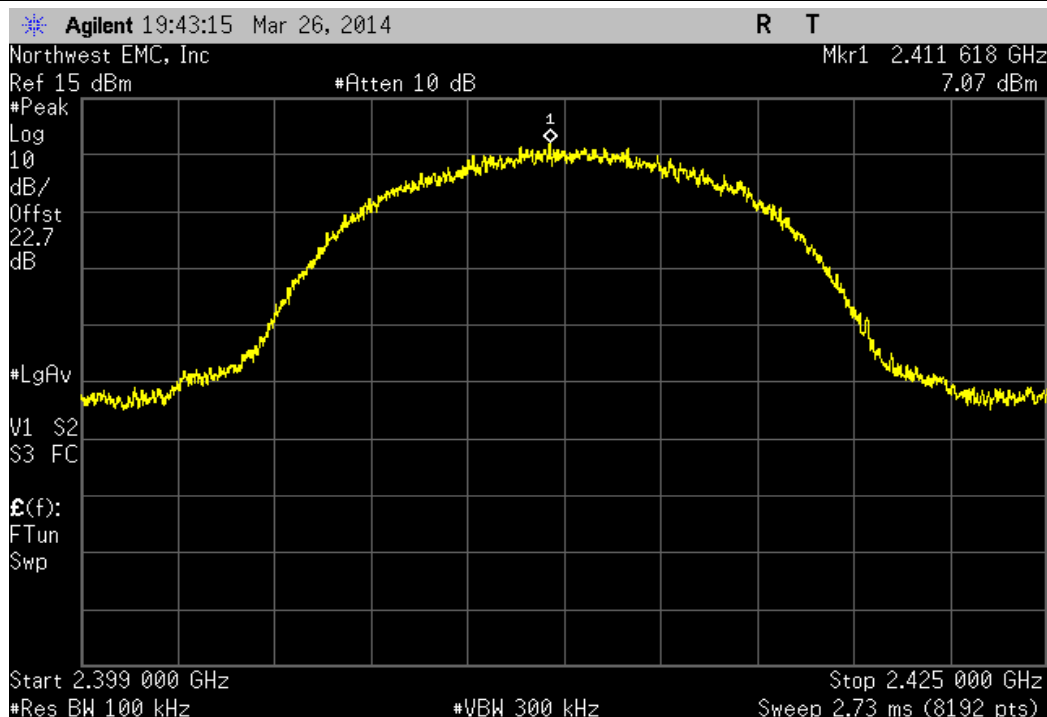


# SPURIOUS CONDUCTED EMISSIONS

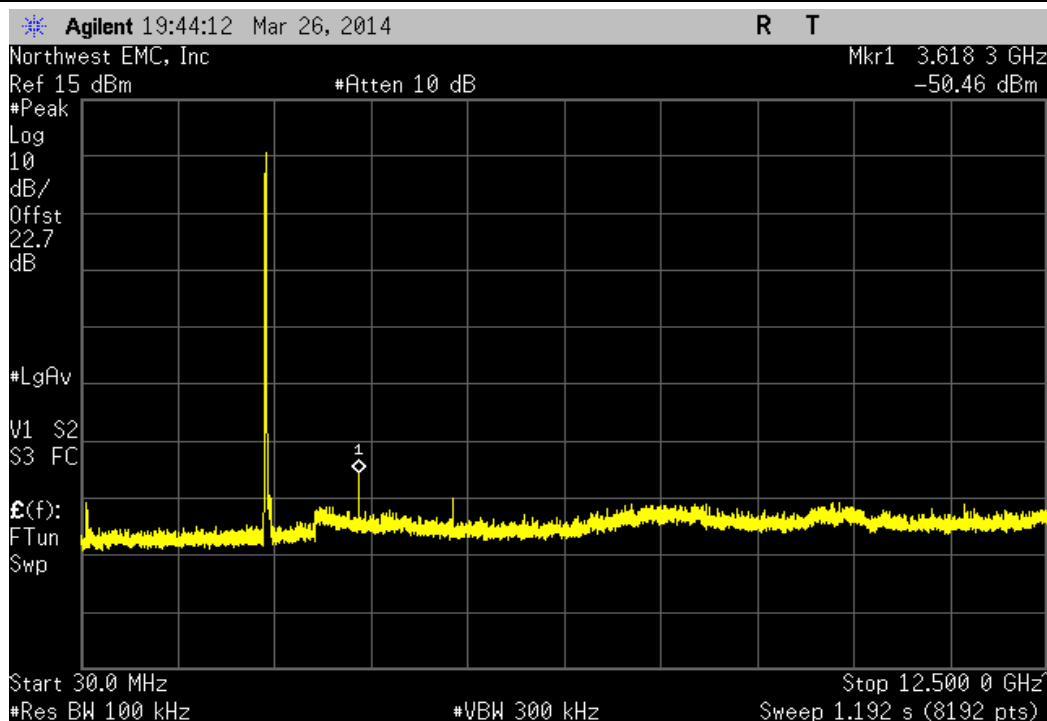
XMit 2013.08.15  
PsaTx 2013.10.23

|                                                |   |                                                                                   |            |           |        |
|------------------------------------------------|---|-----------------------------------------------------------------------------------|------------|-----------|--------|
| EUT: GQ110                                     |   | Work Order: INTE5431                                                              |            |           |        |
| Serial Number: EZF83450005Z                    |   | Date: 03/26/14                                                                    |            |           |        |
| Customer: Intel Corporation                    |   | Temperature: 21.7°C                                                               |            |           |        |
| Attendees: None                                |   | Humidity: 39%                                                                     |            |           |        |
| Project: GQ110                                 |   | Barometric Pres.: 1001.8                                                          |            |           |        |
| Tested by: Jared Ison                          |   | Power: 110VAC/60Hz                                                                |            |           |        |
|                                                |   | Job Site: EV06                                                                    |            |           |        |
| TEST SPECIFICATIONS                            |   | Test Method                                                                       |            |           |        |
| FCC 15.247:2014                                |   | ANSI C63.10:2009                                                                  |            |           |        |
| COMMENTS                                       |   |                                                                                   |            |           |        |
| Mode of operation tested were client provided. |   |                                                                                   |            |           |        |
| DEVIATIONS FROM TEST STANDARD                  |   |                                                                                   |            |           |        |
| None                                           |   |                                                                                   |            |           |        |
| Configuration #                                | 1 |  |            |           |        |
|                                                |   | Frequency Range                                                                   | Value      | Limit     | Result |
| 2400 MHz - 2483.5 MHz Band                     |   |                                                                                   |            |           |        |
| 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                                                                 | -57.53 dBc | ≤ -20 dBc | Pass   |
| Low Channel 1, 2412 MHz                        |   | 12.5 GHz - 25 GHz                                                                 | -59.02 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                                                                 | -58.32 dBc | ≤ -20 dBc | Pass   |
| Mid Channel 6, 2437 MHz                        |   | 12.5 GHz - 25 GHz                                                                 | -60.36 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                                                                 | -56.93 dBc | ≤ -20 dBc | Pass   |
| High Channel 11, 2462 MHz                      |   | 12.5 GHz - 25 GHz                                                                 | -58.33 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                                                                 | -54.89 dBc | ≤ -20 dBc | Pass   |
| Low Channel 1, 2412 MHz                        |   | 12.5 GHz - 25 GHz                                                                 | -55.7 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                                                                 | -54.19 dBc | ≤ -20 dBc | Pass   |
| Mid Channel 6, 2437 MHz                        |   | 12.5 GHz - 25 GHz                                                                 | -56.13 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                                                                 | -53.48 dBc | ≤ -20 dBc | Pass   |
| High Channel 11, 2462 MHz                      |   | 12.5 GHz - 25 GHz                                                                 | -55.62 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                                                                 | -52.79 dBc | ≤ -20 dBc | Pass   |
| Low Channel 1, 2412 MHz                        |   | 12.5 GHz - 25 GHz                                                                 | -54.48 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                                                                 | -53.15 dBc | ≤ -20 dBc | Pass   |
| Mid Channel 6, 2437 MHz                        |   | 12.5 GHz - 25 GHz                                                                 | -54.17 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                                                                 | -52.3 dBc  | ≤ -20 dBc | Pass   |
| High Channel 11, 2462 MHz                      |   | 12.5 GHz - 25 GHz                                                                 | -54.96 dBc | ≤ -20 dBc | Pass   |

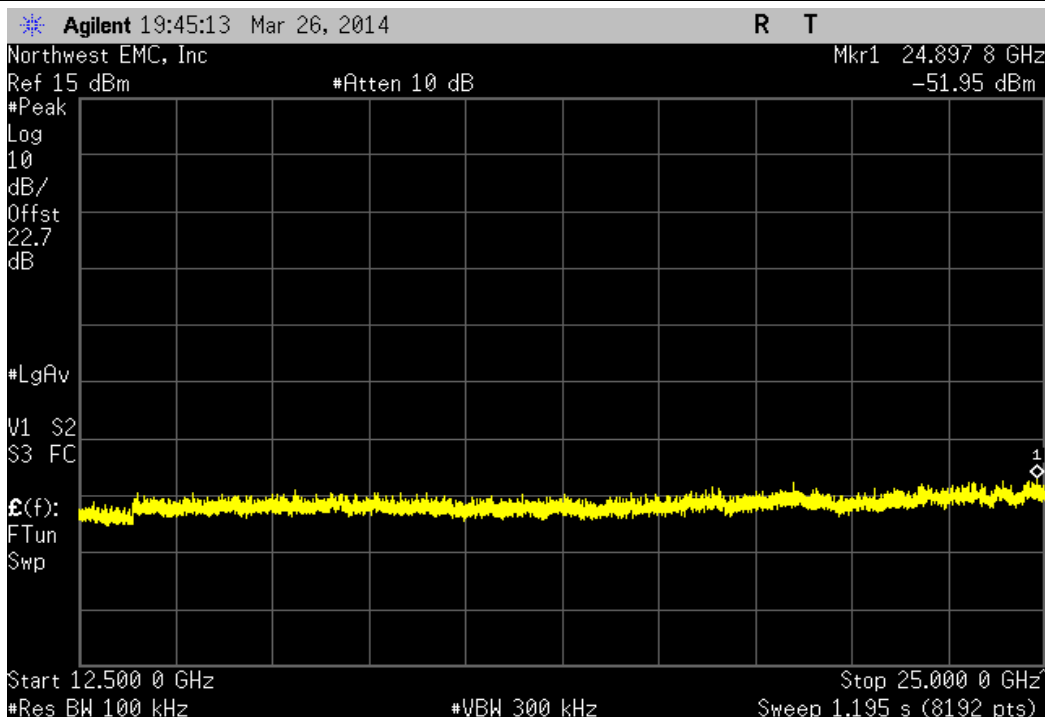
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |  |       |       |        |
|------------------------------------------------------------------------|--|-------|-------|--------|
| Frequency Range                                                        |  | Value | Limit | Result |
| Fundamental                                                            |  | N/A   | N/A   | N/A    |



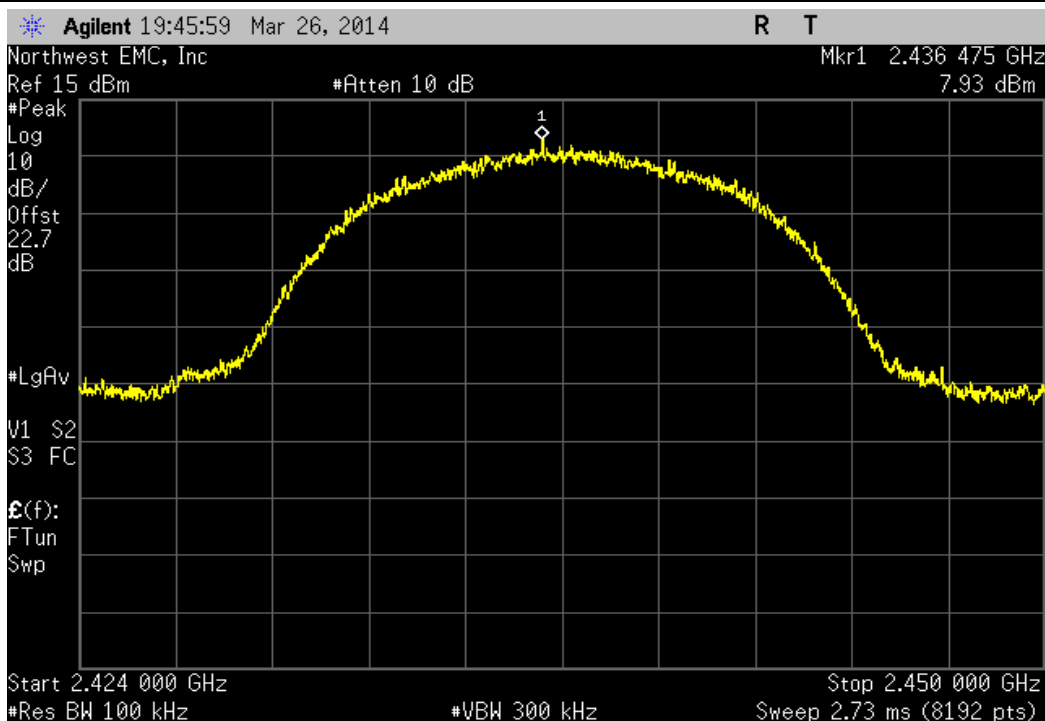
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |  |            |           |        |
|------------------------------------------------------------------------|--|------------|-----------|--------|
| Frequency Range                                                        |  | Value      | Limit     | Result |
| 30 MHz - 12.5 GHz                                                      |  | -57.53 dBc | ≤ -20 dBc | Pass   |



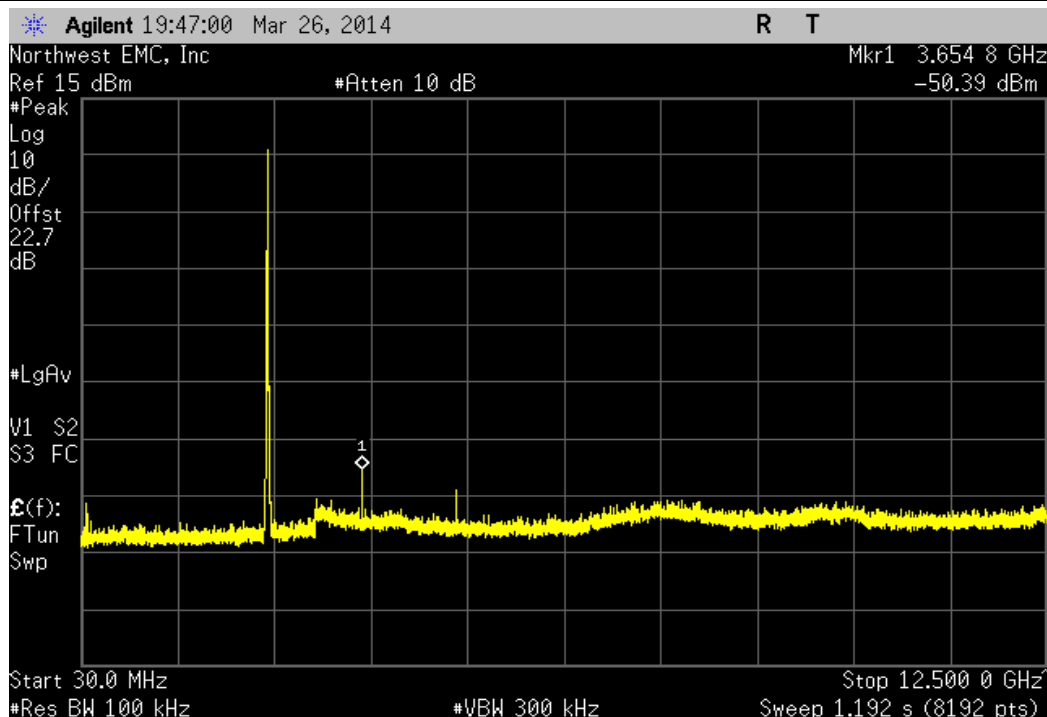
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |  |            |           |        |
|------------------------------------------------------------------------|--|------------|-----------|--------|
| Frequency Range                                                        |  | Value      | Limit     | Result |
| 12.5 GHz - 25 GHz                                                      |  | -59.02 dBc | ≤ -20 dBc | Pass   |



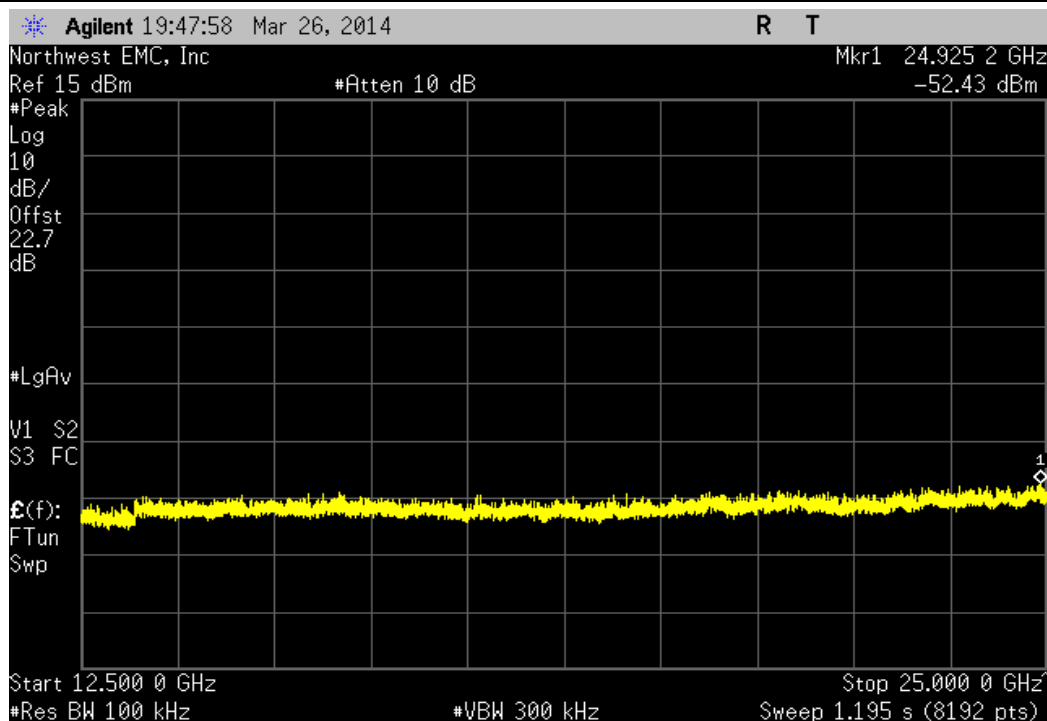
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz |  |       |       |        |
|------------------------------------------------------------------------|--|-------|-------|--------|
| Frequency Range                                                        |  | Value | Limit | Result |
| Fundamental                                                            |  | N/A   | N/A   | N/A    |



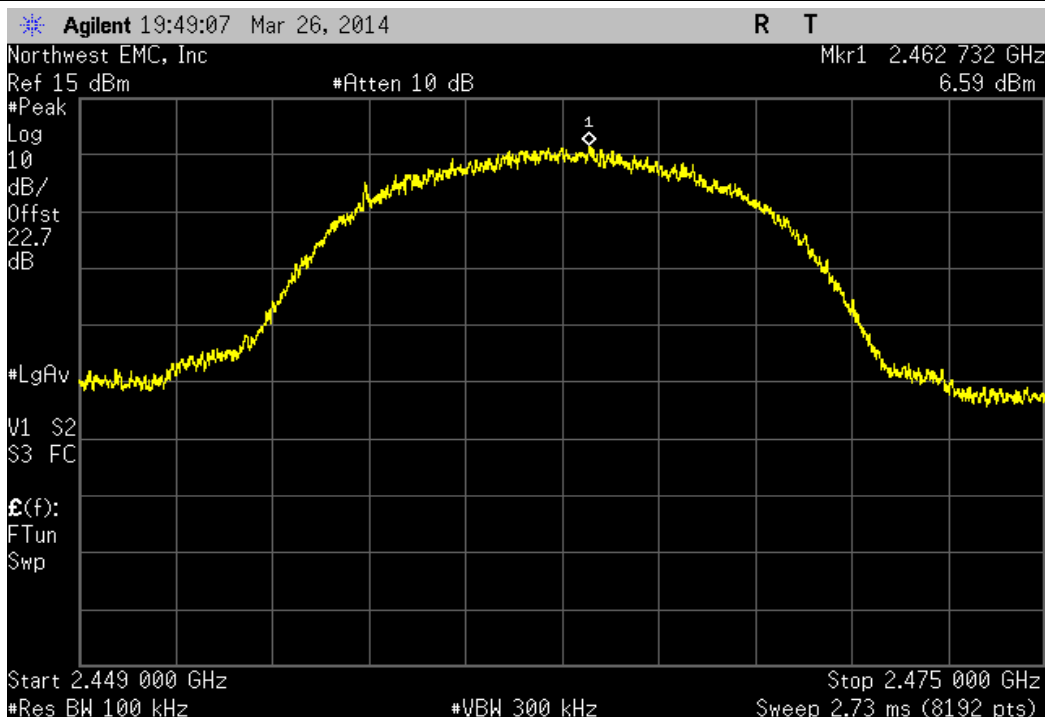
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz |            |           |        |
|------------------------------------------------------------------------|------------|-----------|--------|
| Frequency Range                                                        | Value      | Limit     | Result |
| 30 MHz - 12.5 GHz                                                      | -58.32 dBc | ≤ -20 dBc | Pass   |



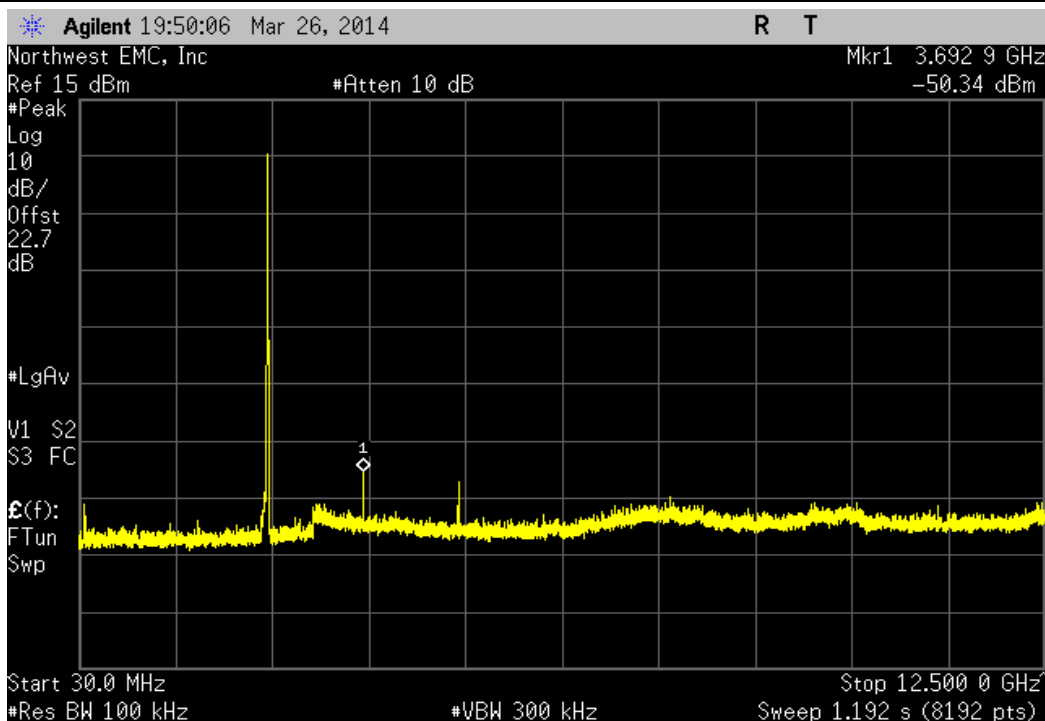
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz |            |           |        |
|------------------------------------------------------------------------|------------|-----------|--------|
| Frequency Range                                                        | Value      | Limit     | Result |
| 12.5 GHz - 25 GHz                                                      | -60.36 dBc | ≤ -20 dBc | Pass   |



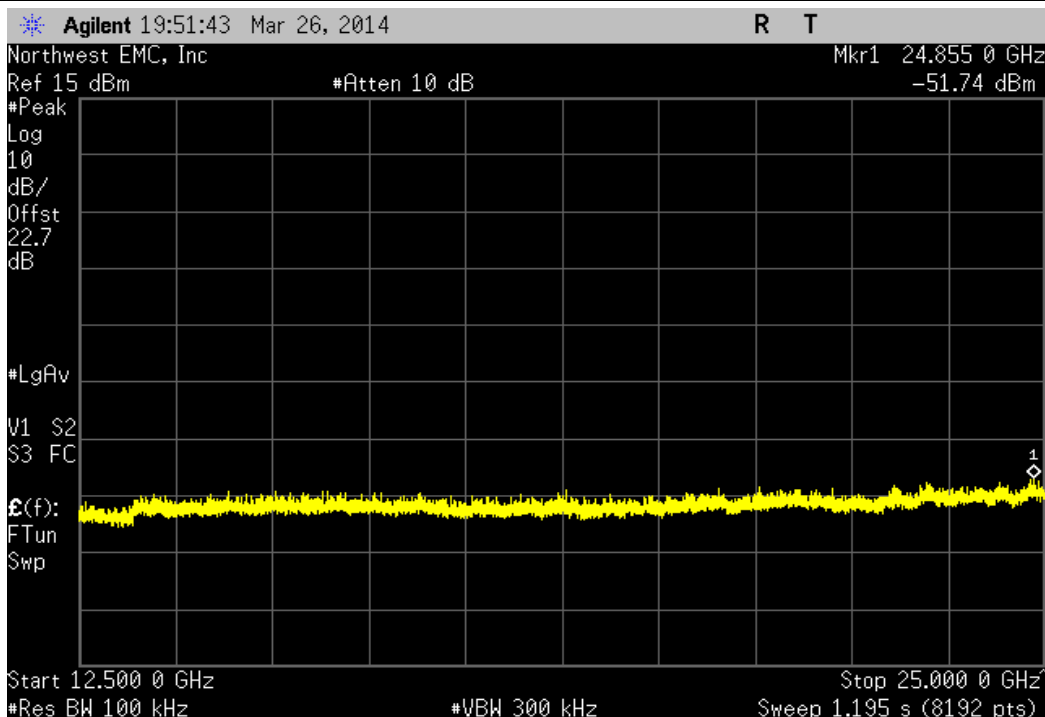
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz |  |       |       |        |
|--------------------------------------------------------------------------|--|-------|-------|--------|
| Frequency Range                                                          |  | Value | Limit | Result |
| Fundamental                                                              |  | N/A   | N/A   | N/A    |



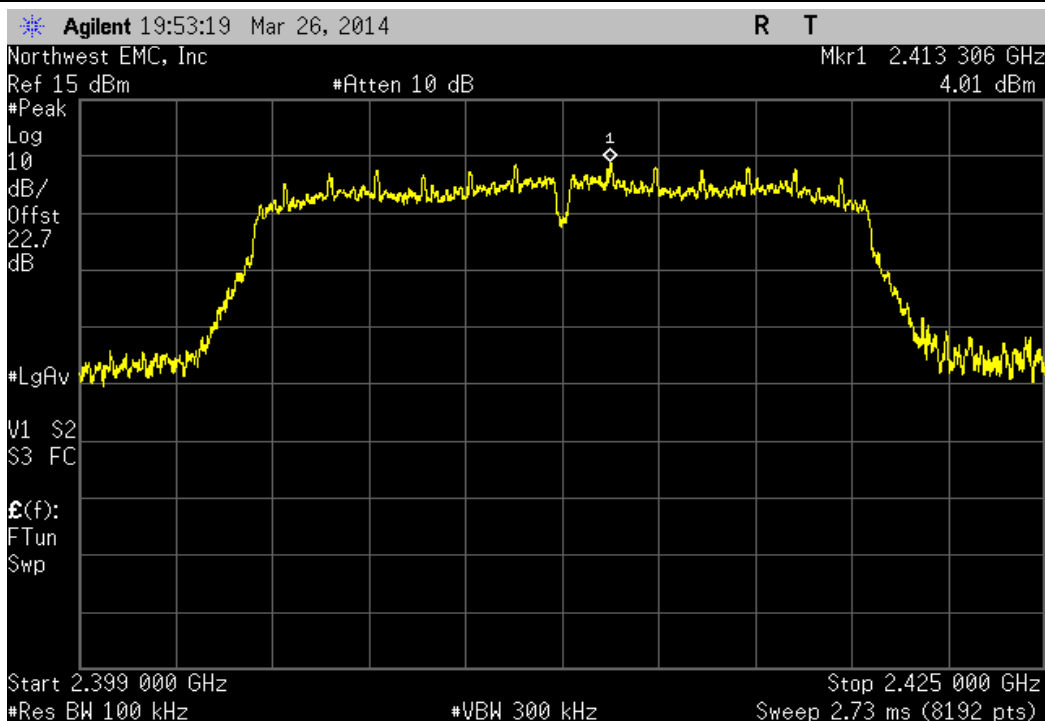
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz |  |            |           |        |
|--------------------------------------------------------------------------|--|------------|-----------|--------|
| Frequency Range                                                          |  | Value      | Limit     | Result |
| 30 MHz - 12.5 GHz                                                        |  | -56.93 dBc | ≤ -20 dBc | Pass   |



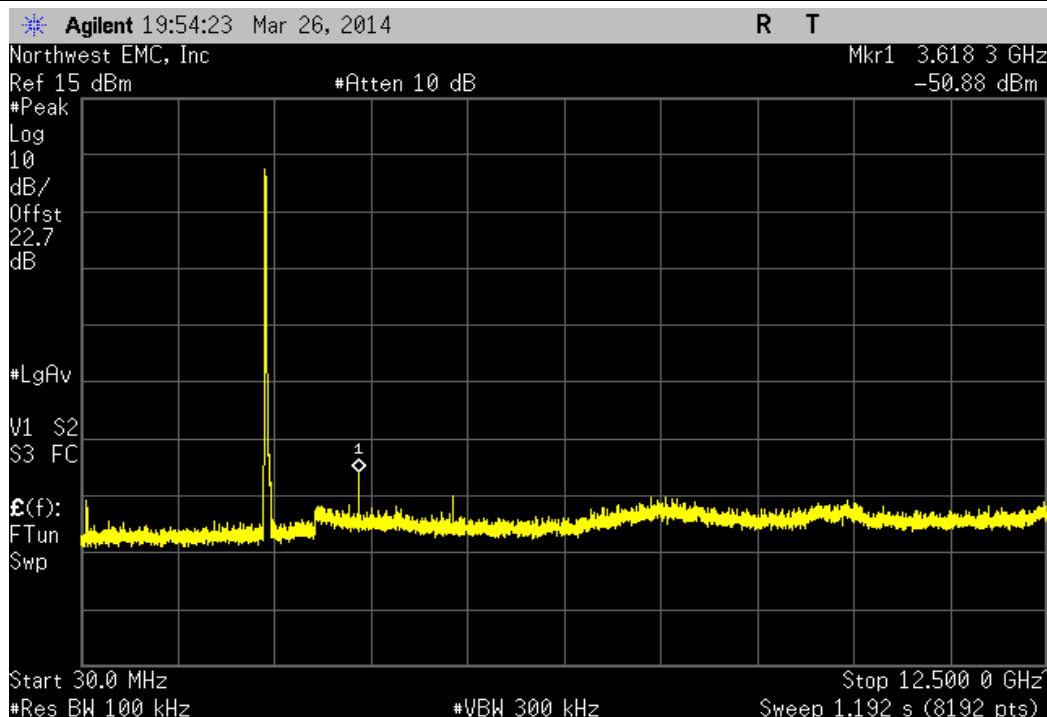
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz |  |            |           |        |
|--------------------------------------------------------------------------|--|------------|-----------|--------|
| Frequency                                                                |  | Value      | Limit     | Result |
| Range                                                                    |  |            |           |        |
| 12.5 GHz - 25 GHz                                                        |  | -58.33 dBc | ≤ -20 dBc | Pass   |



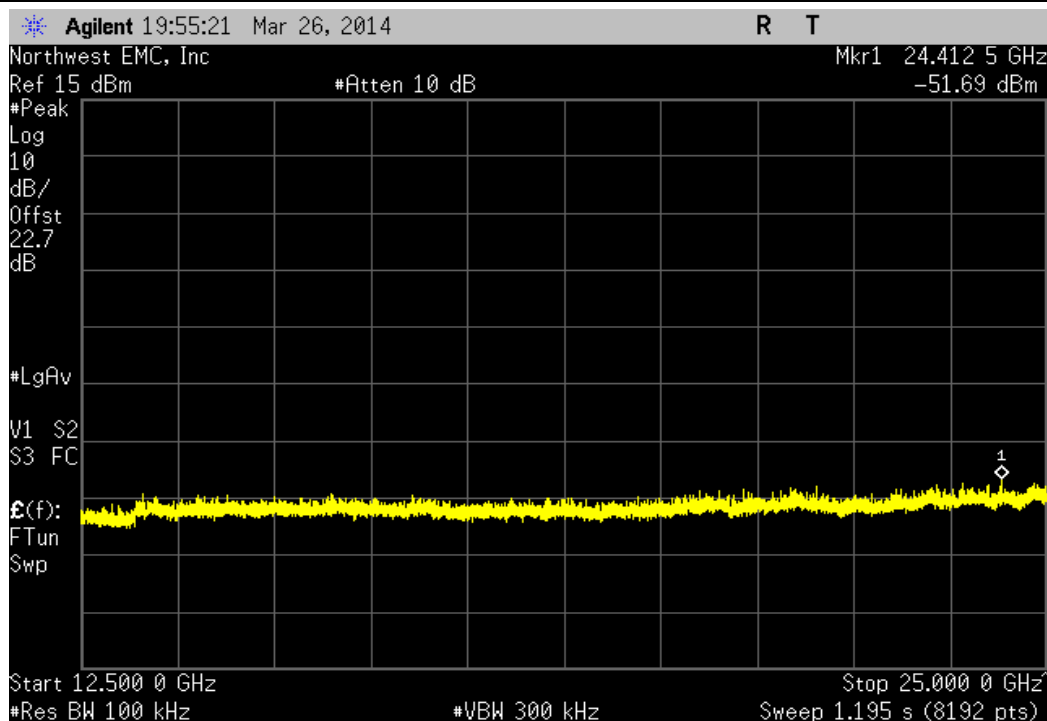
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz |  |       |       |        |
|-----------------------------------------------------------------------|--|-------|-------|--------|
| Frequency                                                             |  | Value | Limit | Result |
| Range                                                                 |  |       |       |        |
| Fundamental                                                           |  | N/A   | N/A   | N/A    |



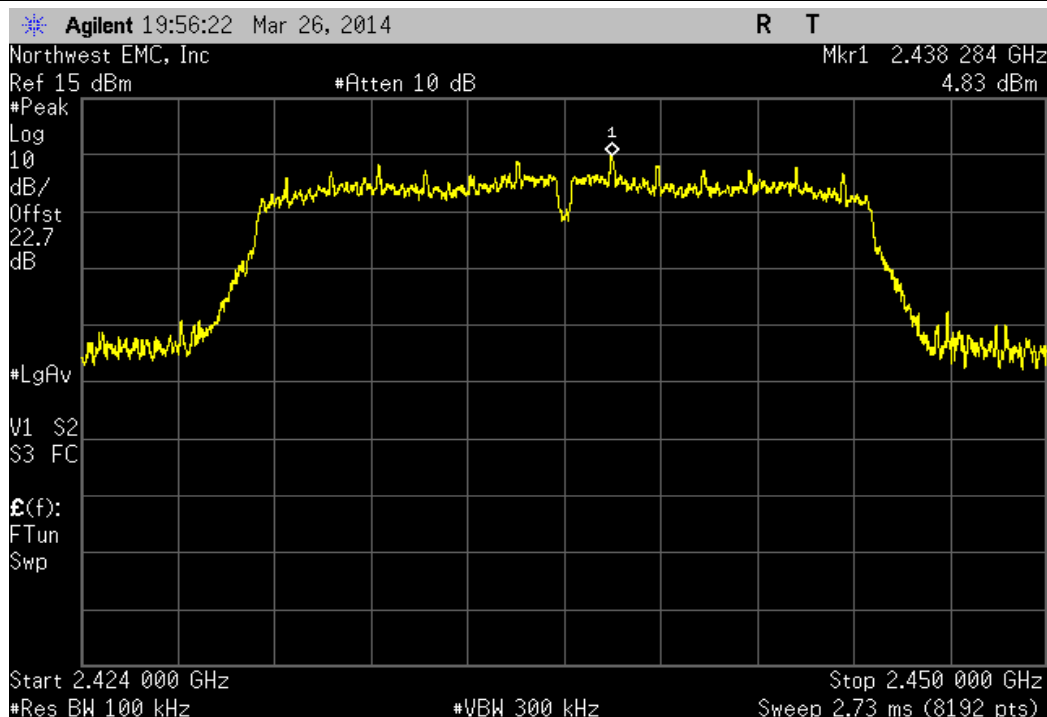
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz |            |           |        |  |
|-----------------------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                                       | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                                     | -54.89 dBc | ≤ -20 dBc | Pass   |  |



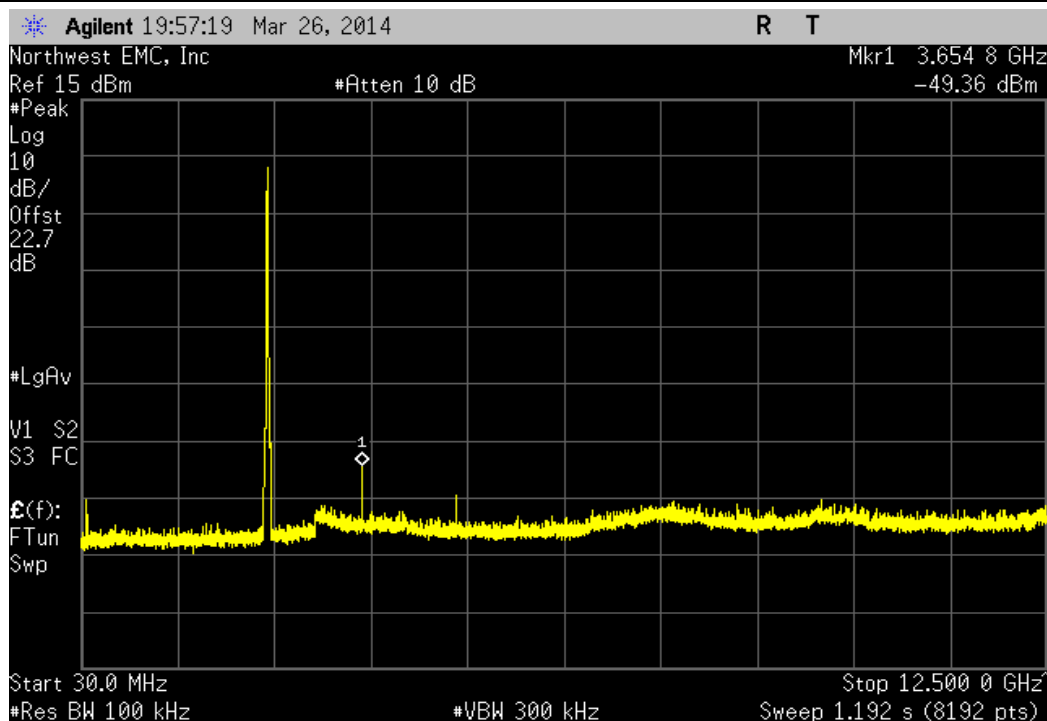
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz |           |           |        |  |
|-----------------------------------------------------------------------|-----------|-----------|--------|--|
| Frequency Range                                                       | Value     | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                                     | -55.7 dBc | ≤ -20 dBc | Pass   |  |



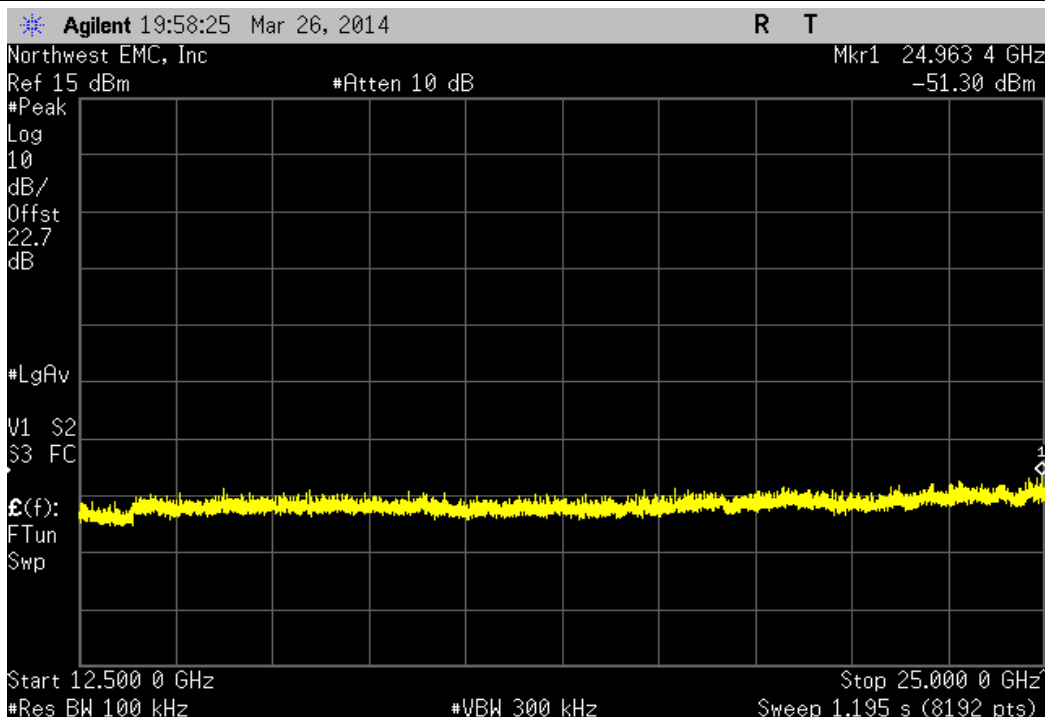
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz |  |       |       |        |
|-----------------------------------------------------------------------|--|-------|-------|--------|
| Frequency Range                                                       |  | Value | Limit | Result |
| Fundamental                                                           |  | N/A   | N/A   | N/A    |



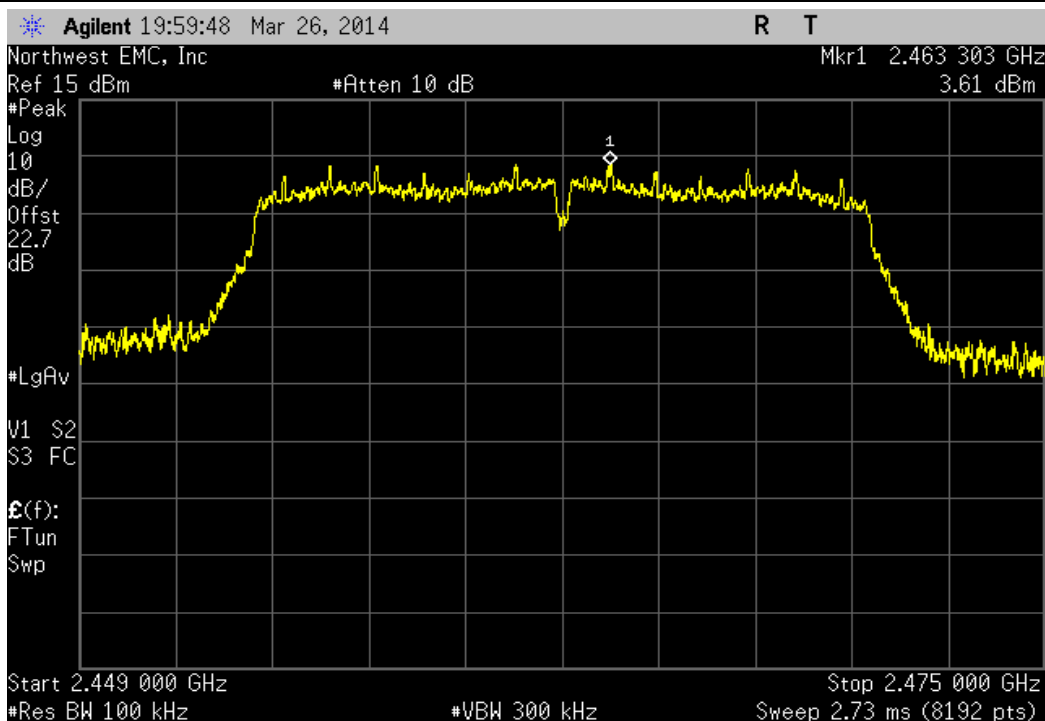
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz |  |            |           |        |
|-----------------------------------------------------------------------|--|------------|-----------|--------|
| Frequency Range                                                       |  | Value      | Limit     | Result |
| 30 MHz - 12.5 GHz                                                     |  | -54.19 dBc | ≤ -20 dBc | Pass   |



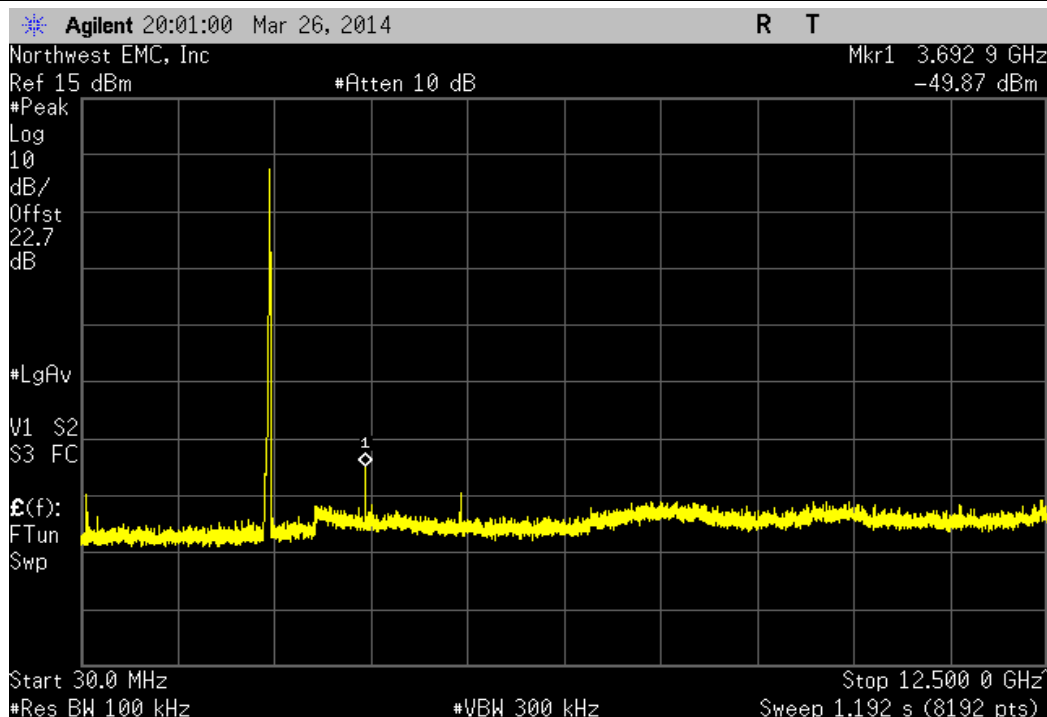
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz |            |           |        |  |
|-----------------------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                                       | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                                     | -56.13 dBc | ≤ -20 dBc | Pass   |  |



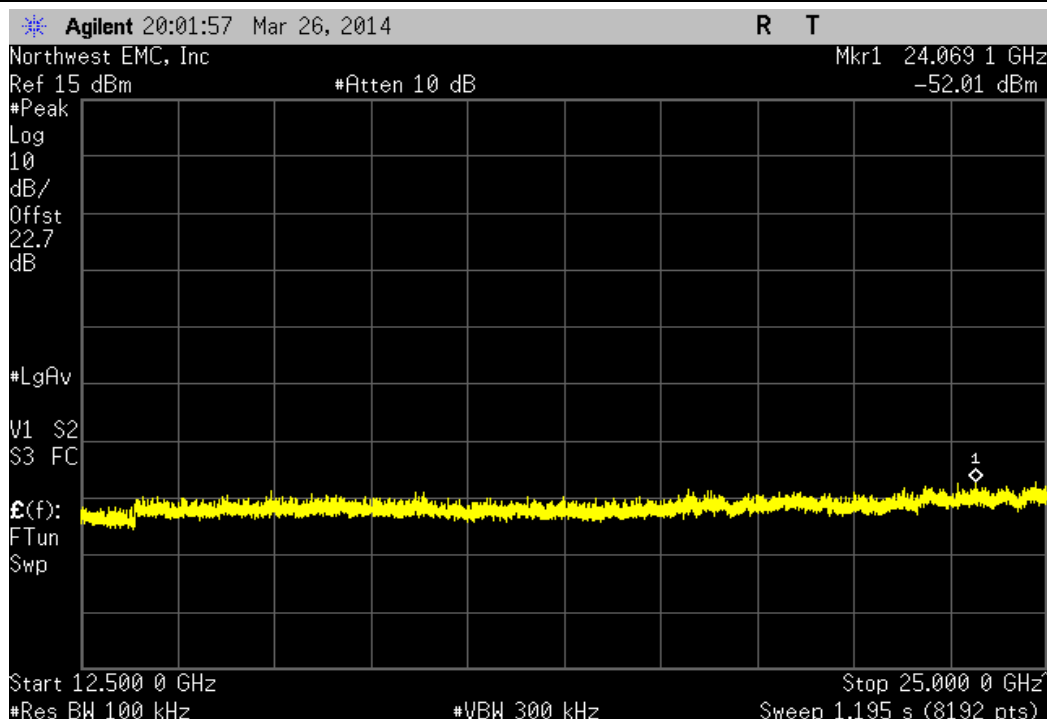
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |       |       |        |  |
|-------------------------------------------------------------------------|-------|-------|--------|--|
| Frequency Range                                                         | Value | Limit | Result |  |
| Fundamental                                                             | N/A   | N/A   | N/A    |  |



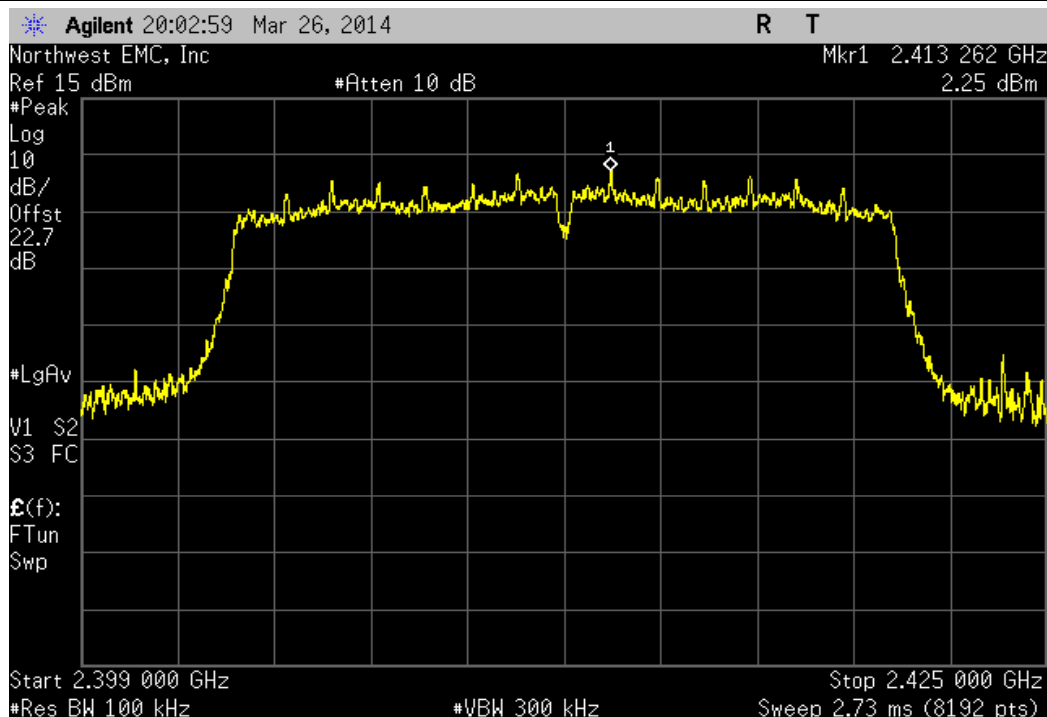
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |            |           |        |
|-------------------------------------------------------------------------|------------|-----------|--------|
| Frequency Range                                                         | Value      | Limit     | Result |
| 30 MHz - 12.5 GHz                                                       | -53.48 dBc | ≤ -20 dBc | Pass   |



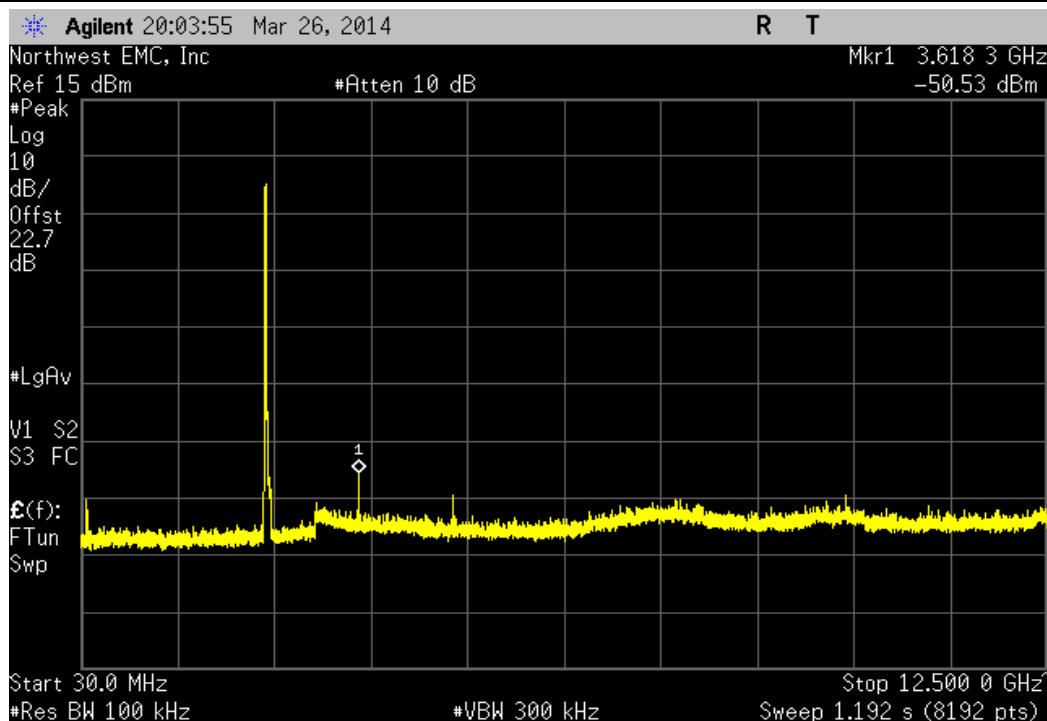
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |            |           |        |
|-------------------------------------------------------------------------|------------|-----------|--------|
| Frequency Range                                                         | Value      | Limit     | Result |
| 12.5 GHz - 25 GHz                                                       | -55.62 dBc | ≤ -20 dBc | Pass   |



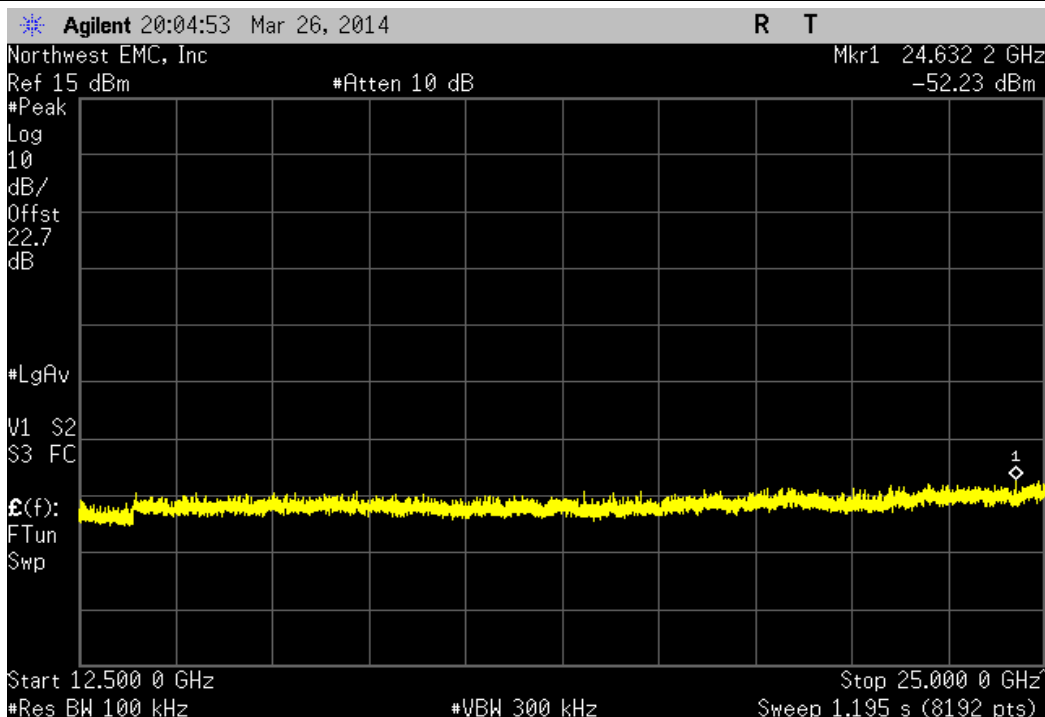
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz |  |       |       |        |
|---------------------------------------------------------------------|--|-------|-------|--------|
| Frequency Range                                                     |  | Value | Limit | Result |
| Fundamental                                                         |  | N/A   | N/A   | N/A    |



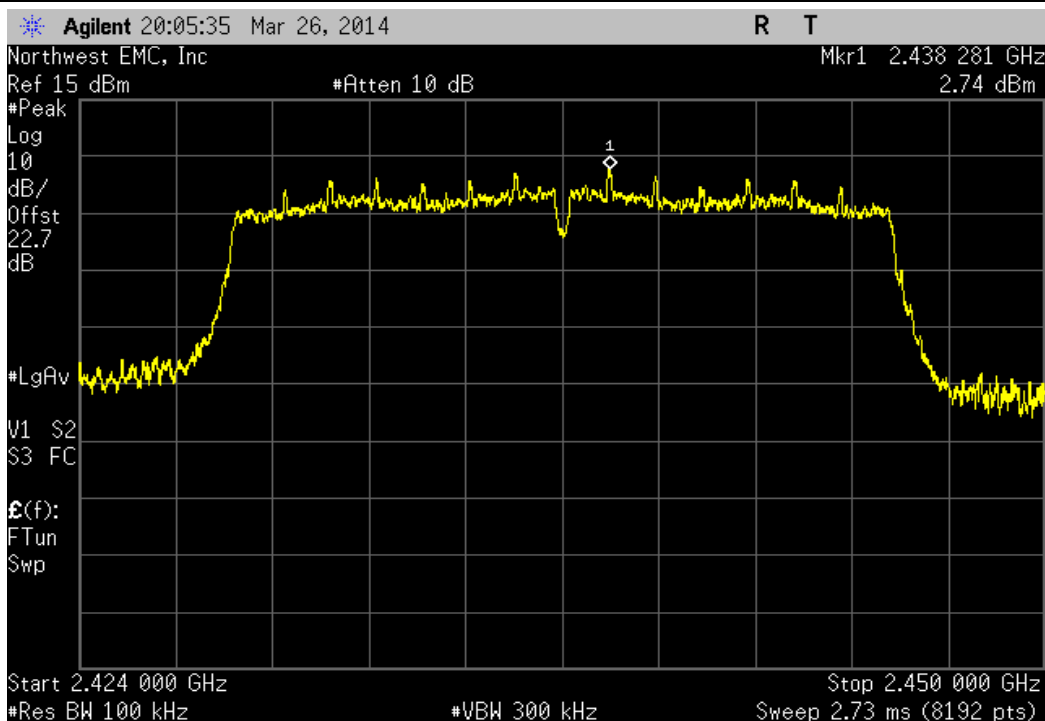
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz |  |            |           |        |
|---------------------------------------------------------------------|--|------------|-----------|--------|
| Frequency Range                                                     |  | Value      | Limit     | Result |
| 30 MHz - 12.5 GHz                                                   |  | -52.79 dBc | ≤ -20 dBc | Pass   |



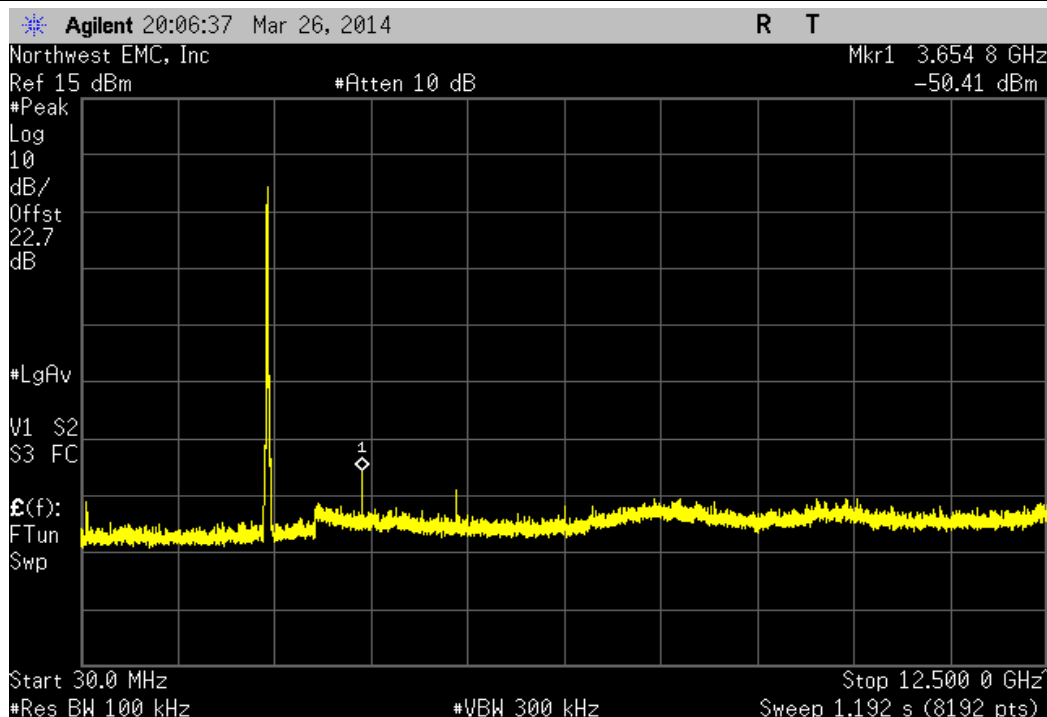
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz |  |            |           |        |
|---------------------------------------------------------------------|--|------------|-----------|--------|
| Frequency Range                                                     |  | Value      | Limit     | Result |
| 12.5 GHz - 25 GHz                                                   |  | -54.48 dBc | ≤ -20 dBc | Pass   |



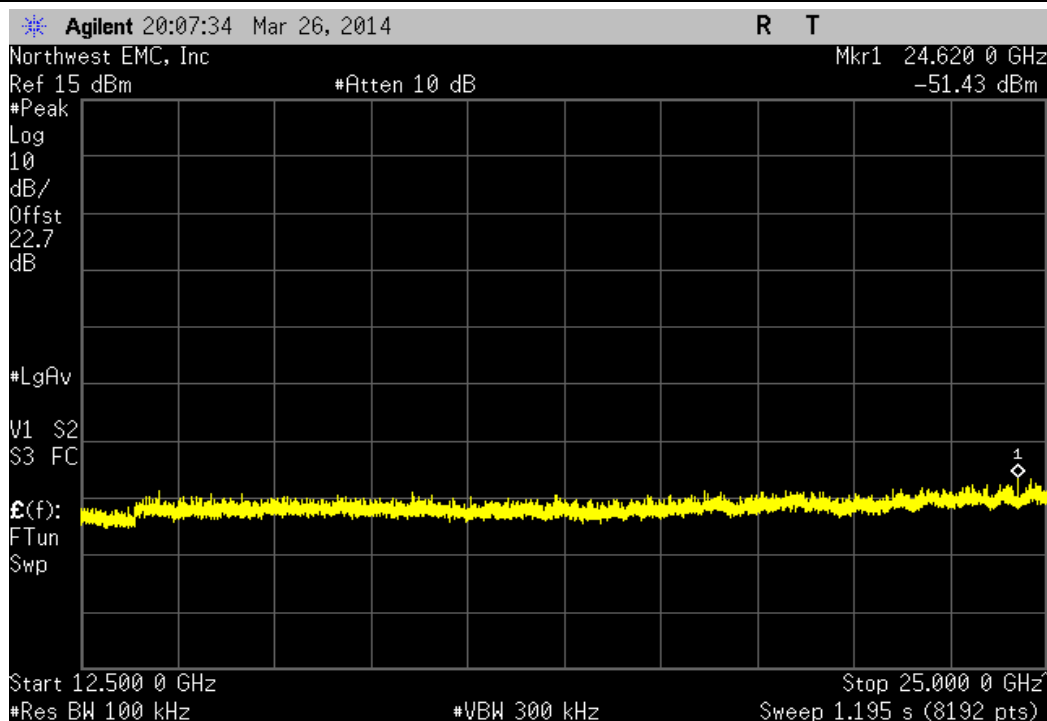
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz |  |       |       |        |
|---------------------------------------------------------------------|--|-------|-------|--------|
| Frequency Range                                                     |  | Value | Limit | Result |
| Fundamental                                                         |  | N/A   | N/A   | N/A    |



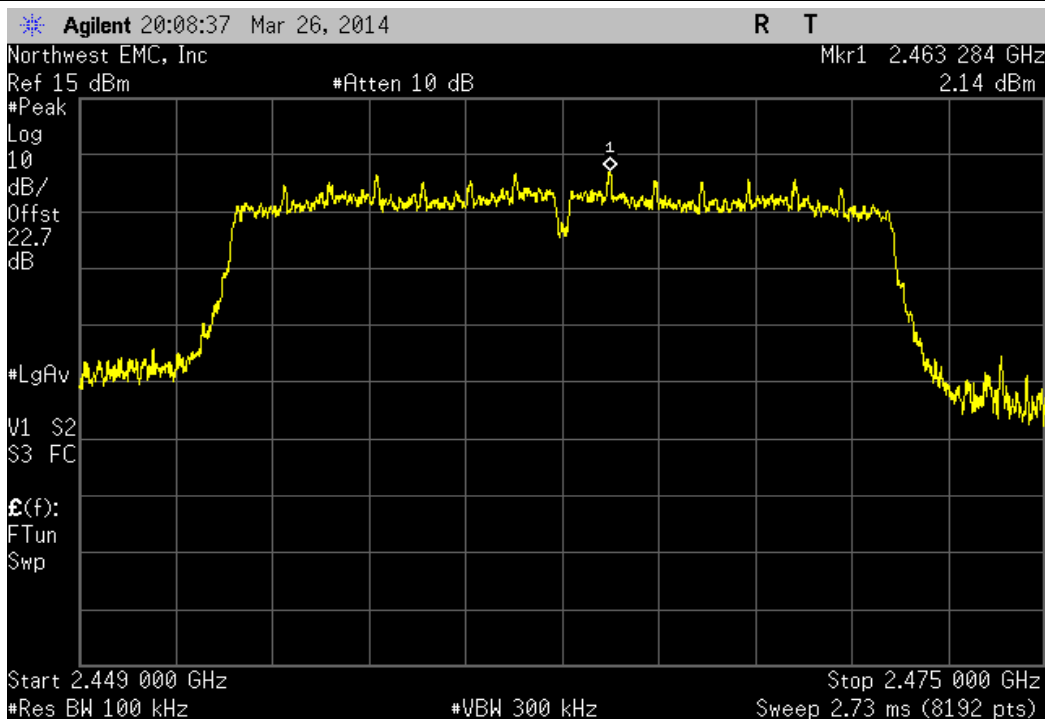
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz |            |           |        |  |
|---------------------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                                     | Value      | Limit     | Result |  |
| 30 MHz - 12.5 GHz                                                   | -53.15 dBc | ≤ -20 dBc | Pass   |  |



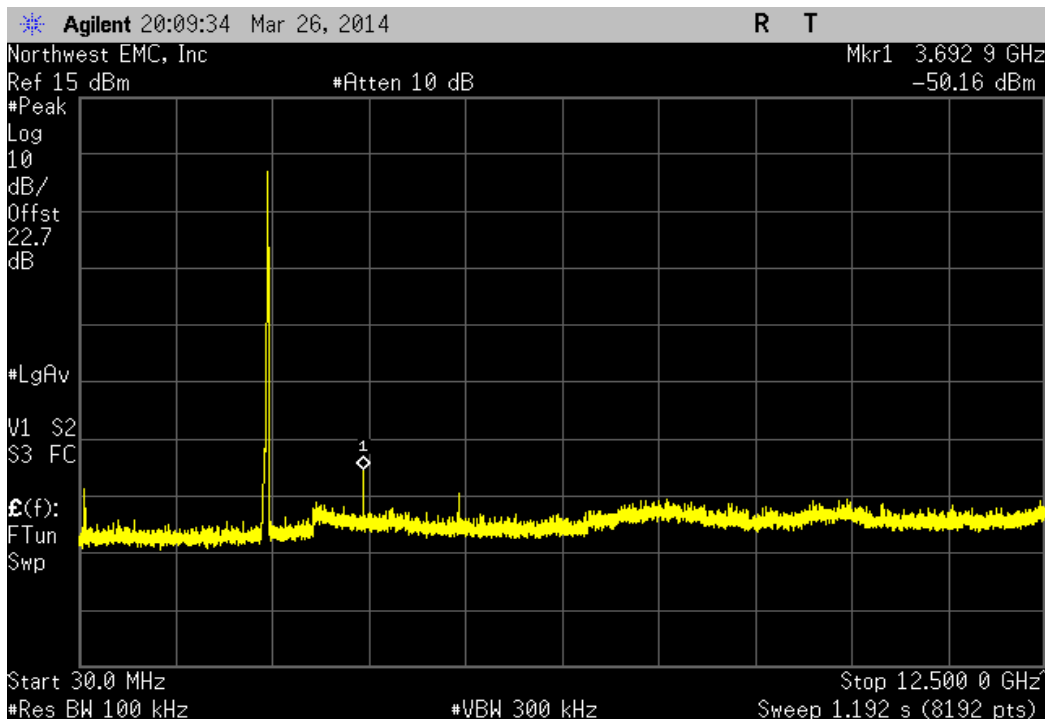
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz |            |           |        |  |
|---------------------------------------------------------------------|------------|-----------|--------|--|
| Frequency Range                                                     | Value      | Limit     | Result |  |
| 12.5 GHz - 25 GHz                                                   | -54.17 dBc | ≤ -20 dBc | Pass   |  |



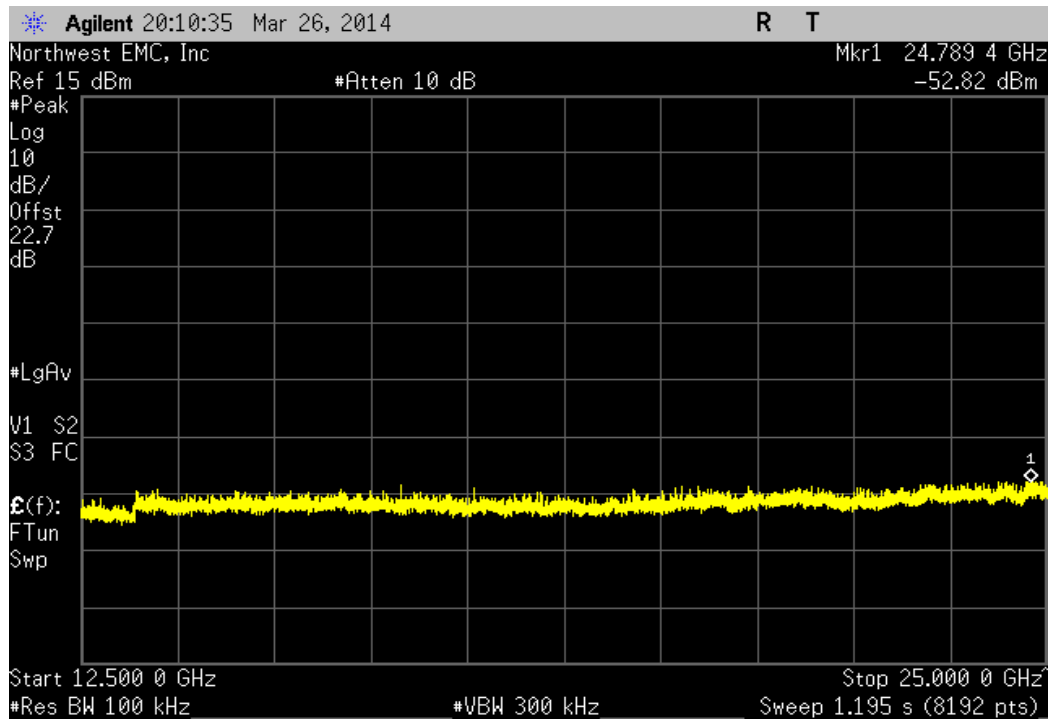
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz |  |       |       |        |
|-----------------------------------------------------------------------|--|-------|-------|--------|
| Frequency Range                                                       |  | Value | Limit | Result |
| Fundamental                                                           |  | N/A   | N/A   | N/A    |



| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz |  |           |           |        |
|-----------------------------------------------------------------------|--|-----------|-----------|--------|
| Frequency Range                                                       |  | Value     | Limit     | Result |
| 30 MHz - 12.5 GHz                                                     |  | -52.3 dBc | ≤ -20 dBc | Pass   |



| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz |            |           |        |
|-----------------------------------------------------------------------|------------|-----------|--------|
| Frequency                                                             | Value      | Limit     | Result |
| Range                                                                 |            |           |        |
| 12.5 GHz - 25 GHz                                                     | -54.96 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 |
|---------------------------------|------------------|----------|-----|------------|----------|
| 40GHz DC Block                  | Miteq            | DCB4000  | AMD | 5/16/2013  | 12       |
| Attenuator 20 dB, SMA M/F 26GHz | S.M. Electronics | SA26B-20 | AUY | 7/30/2013  | 12       |
| EV06 Direct Connect Cable       | ESM Cable Corp.  | TT       | ECA | NCR        | 0        |
| Attenuator, 6dB                 | S.M. Electronics | 18N-06   | AWN | 2/3/2014   | 12       |
| RF Vector Signal Generator      | Agilent          | V2920A   | TIH | NCR        | 0        |
| Power Meter                     | Gigatronics      | 8651A    | SPM | 11/26/2013 | 24       |
| Power Sensor                    | Gigatronics      | 80701A   | SPL | 7/8/2011   | 36       |
| Spectrum Analyzer               | Agilent          | E4440    | AFE | 11/4/2013  | 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:

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

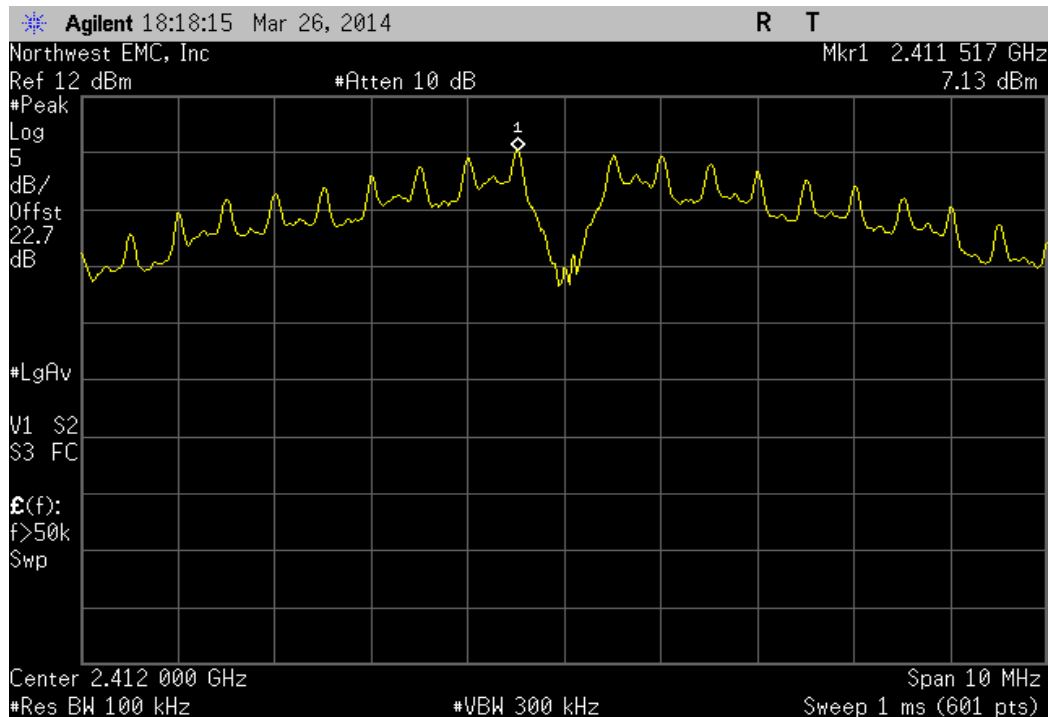


# POWER SPECTRAL DENSITY

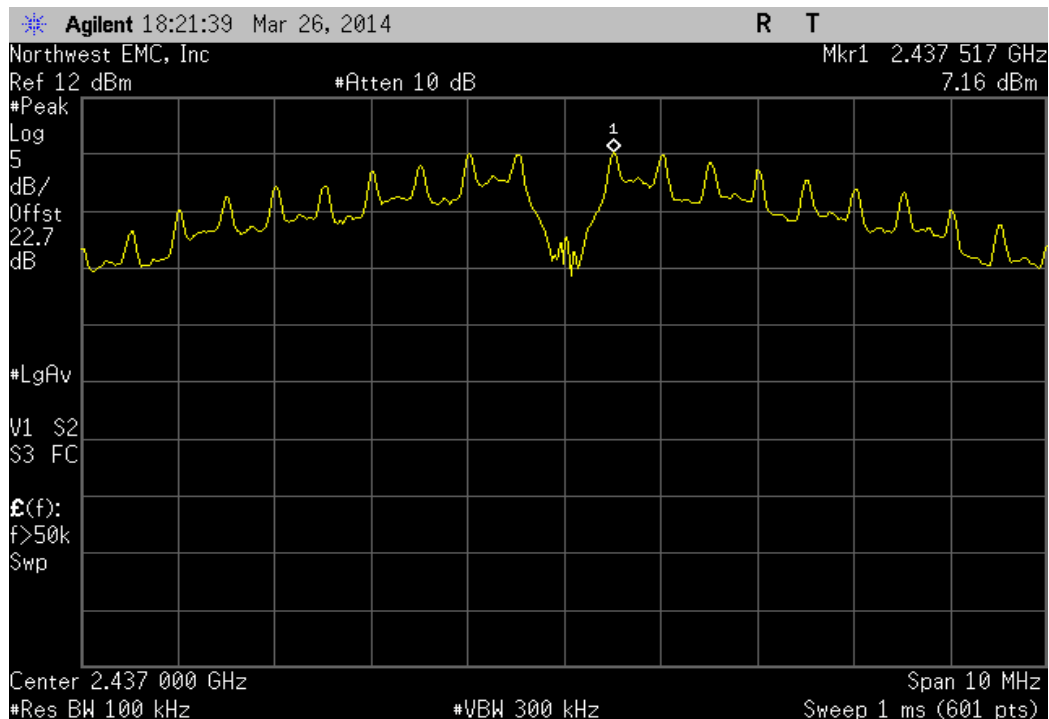
XMit 2013.08.15  
PsaTx 2013.10.23

|                                                |       |                                                                                             |                   |
|------------------------------------------------|-------|---------------------------------------------------------------------------------------------|-------------------|
| EUT: GQ110                                     |       | Work Order: INTE5431                                                                        |                   |
| Serial Number: EZF83450005Z                    |       | Date: 03/26/14                                                                              |                   |
| Customer: Intel Corporation                    |       | Temperature: 21.7°C                                                                         |                   |
| Attendees: None                                |       | Humidity: 39%                                                                               |                   |
| Project: GQ110                                 |       | Barometric Pres.: 1001.8                                                                    |                   |
| Tested by: Jared Ison                          |       | Power: 110VAC/60Hz                                                                          |                   |
|                                                |       | Job Site: EV06                                                                              |                   |
| TEST SPECIFICATIONS                            |       | Test Method                                                                                 |                   |
| FCC 15.247:2014                                |       | ANSI C63.10:2009                                                                            |                   |
| COMMENTS                                       |       |                                                                                             |                   |
| Mode of operation tested were client provided. |       |                                                                                             |                   |
| DEVIATIONS FROM TEST STANDARD                  |       |                                                                                             |                   |
| None                                           |       |                                                                                             |                   |
| Configuration #                                | 1     | Signature  |                   |
|                                                |       | Value<br>dBm/100kHz                                                                         | Limit<br>dBm/3kHz |
| 2400 MHz - 2483.5 MHz Band                     |       |                                                                                             |                   |
| 802.11(b) 1 Mbps                               |       |                                                                                             |                   |
| Low Channel 1, 2412 MHz                        | 7.133 | -15.2                                                                                       | 8                 |
| Mid Channel 6, 2437 MHz                        | 7.161 | -15.2                                                                                       | 8                 |
| High Channel 11, 2462 MHz                      | 6.854 | -15.2                                                                                       | 8                 |
| 802.11(b) 11 Mbps                              |       |                                                                                             |                   |
| Low Channel 1, 2412 MHz                        | 7.001 | -15.2                                                                                       | 8                 |
| Mid Channel 6, 2437 MHz                        | 7.087 | -15.2                                                                                       | 8                 |
| High Channel 11, 2462 MHz                      | 7.711 | -15.2                                                                                       | 8                 |
| 802.11(g) 6 Mbps                               |       |                                                                                             |                   |
| Low Channel 1, 2412 MHz                        | 4.859 | -15.2                                                                                       | 8                 |
| Mid Channel 6, 2437 MHz                        | 4.925 | -15.2                                                                                       | 8                 |
| High Channel 11, 2462 MHz                      | 4.461 | -15.2                                                                                       | 8                 |
| 802.11(g) 36 Mbps                              |       |                                                                                             |                   |
| Low Channel 1, 2412 MHz                        | 3.663 | -15.2                                                                                       | 8                 |
| Mid Channel 6, 2437 MHz                        | 3.863 | -15.2                                                                                       | 8                 |
| High Channel 11, 2462 MHz                      | 3.339 | -15.2                                                                                       | 8                 |
| 802.11(g) 54 Mbps                              |       |                                                                                             |                   |
| Low Channel 1, 2412 MHz                        | 3.705 | -15.2                                                                                       | 8                 |
| Mid Channel 6, 2437 MHz                        | 3.971 | -15.2                                                                                       | 8                 |
| High Channel 11, 2462 MHz                      | 3.304 | -15.2                                                                                       | 8                 |
| 802.11(n) MCS0                                 |       |                                                                                             |                   |
| Low Channel 1, 2412 MHz                        | 2.63  | -15.2                                                                                       | 8                 |
| Mid Channel 6, 2437 MHz                        | 2.804 | -15.2                                                                                       | 8                 |
| High Channel 11, 2462 MHz                      | 2.293 | -15.2                                                                                       | 8                 |
| 802.11(n) MCS7                                 |       |                                                                                             |                   |
| Low Channel 1, 2412 MHz                        | 2.625 | -15.2                                                                                       | 8                 |
| Mid Channel 6, 2437 MHz                        | 2.978 | -15.2                                                                                       | 8                 |
| High Channel 11, 2462 MHz                      | 2.304 | -15.2                                                                                       | 8                 |

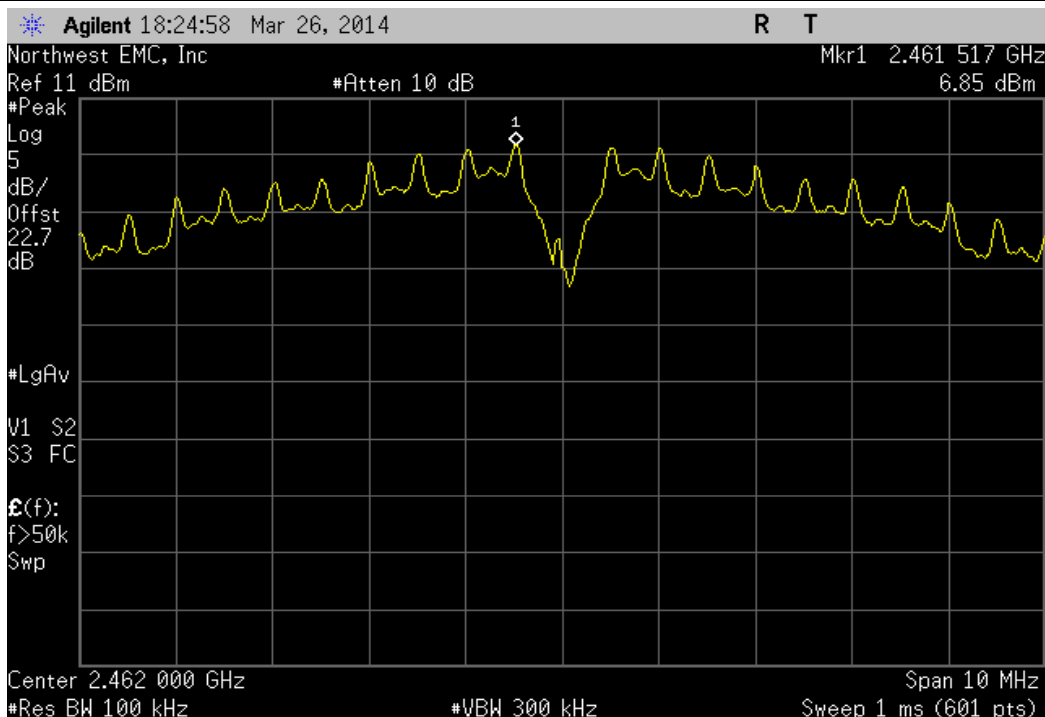
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz |       |             |          |          |        |  |
|-----------------------------------------------------------------------|-------|-------------|----------|----------|--------|--|
|                                                                       | Value | dBm/100kHz  | Value    | Limit    |        |  |
|                                                                       |       | To dBm/3kHz | dBm/3kHz | dBm/3kHz | Result |  |
|                                                                       | 7.133 | -15.2       | -8.067   | 8        | Pass   |  |



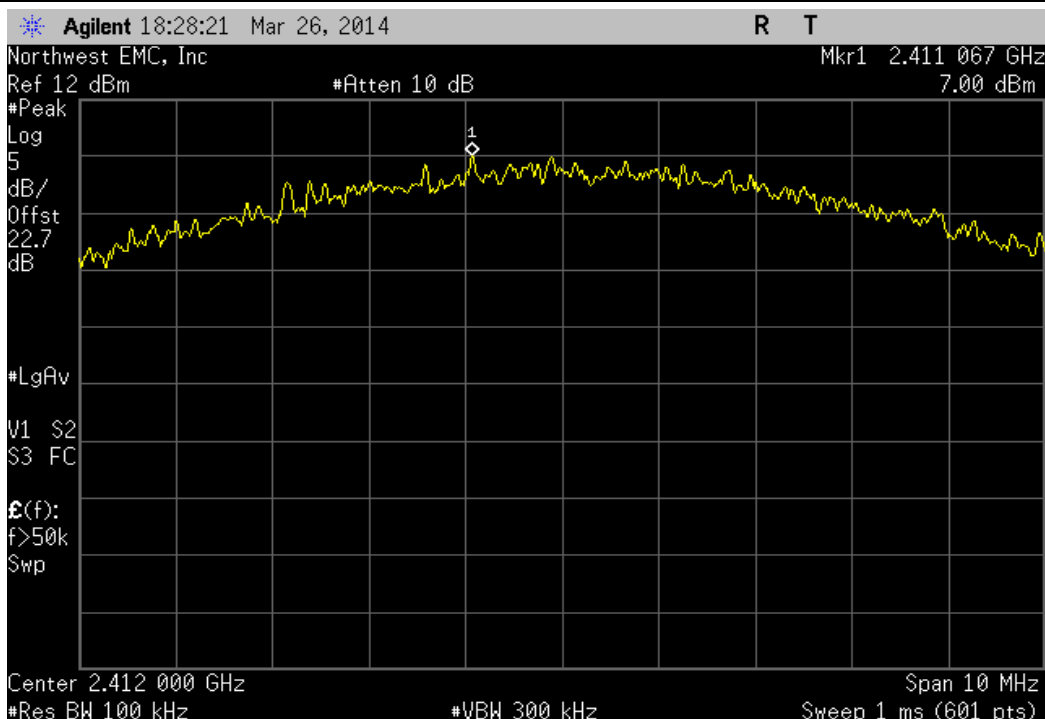
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz |       |             |          |          |        |  |
|-----------------------------------------------------------------------|-------|-------------|----------|----------|--------|--|
|                                                                       | Value | dBm/100kHz  | Value    | Limit    |        |  |
|                                                                       |       | To dBm/3kHz | dBm/3kHz | dBm/3kHz | Result |  |
|                                                                       | 7.161 | -15.2       | -8.039   | 8        | Pass   |  |



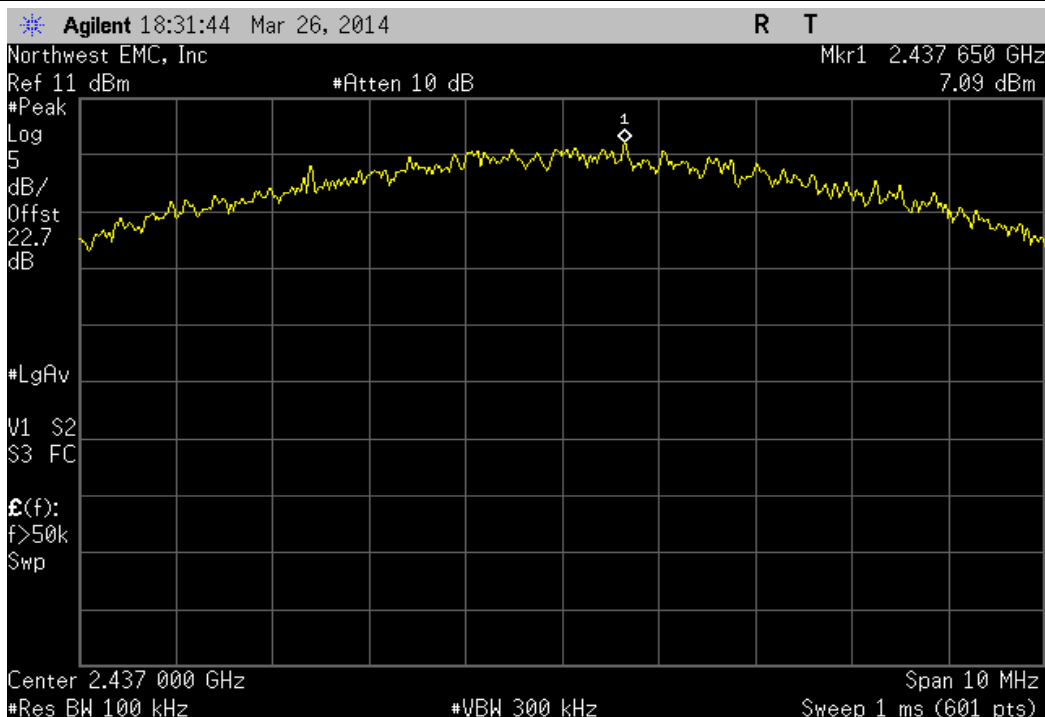
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz |       |            |             |          |          |        |
|-------------------------------------------------------------------------|-------|------------|-------------|----------|----------|--------|
|                                                                         | Value | dBm/100kHz | To dBm/3kHz | Value    | Limit    | Result |
|                                                                         |       | dBm/100kHz |             | dBm/3kHz | dBm/3kHz |        |
|                                                                         |       | 6.854      | -15.2       | -8.346   | 8        | Pass   |



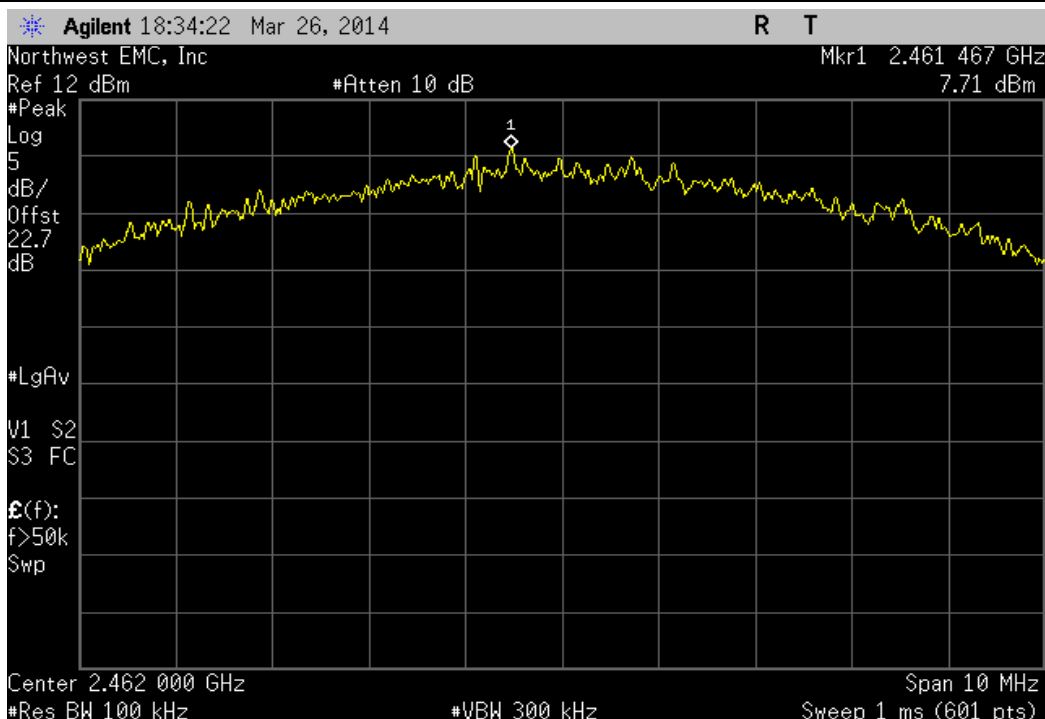
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz |       |            |             |          |          |        |
|------------------------------------------------------------------------|-------|------------|-------------|----------|----------|--------|
|                                                                        | Value | dBm/100kHz | To dBm/3kHz | Value    | Limit    | Result |
|                                                                        |       | dBm/100kHz |             | dBm/3kHz | dBm/3kHz |        |
|                                                                        |       | 7.001      | -15.2       | -8.199   | 8        | Pass   |



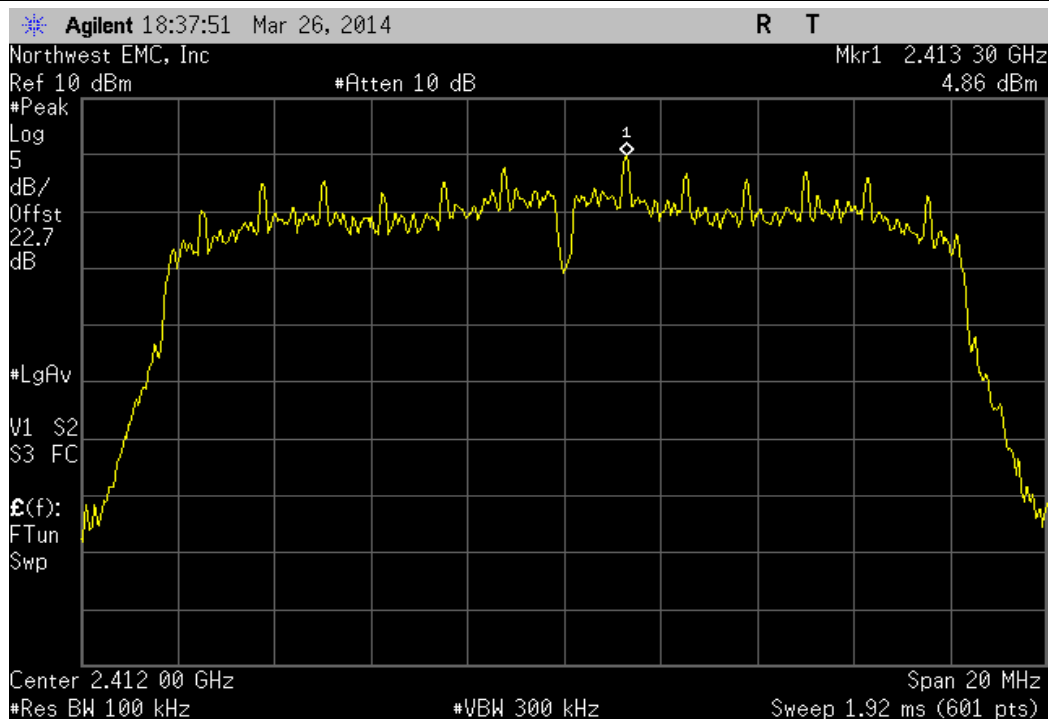
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz |       |             |          |       |        |
|------------------------------------------------------------------------|-------|-------------|----------|-------|--------|
|                                                                        | Value | dBm/100kHz  | Value    | Limit | Result |
|                                                                        |       | To dBm/3kHz | dBm/3kHz |       |        |
|                                                                        | 7.087 | -15.2       | -8.113   | 8     | Pass   |



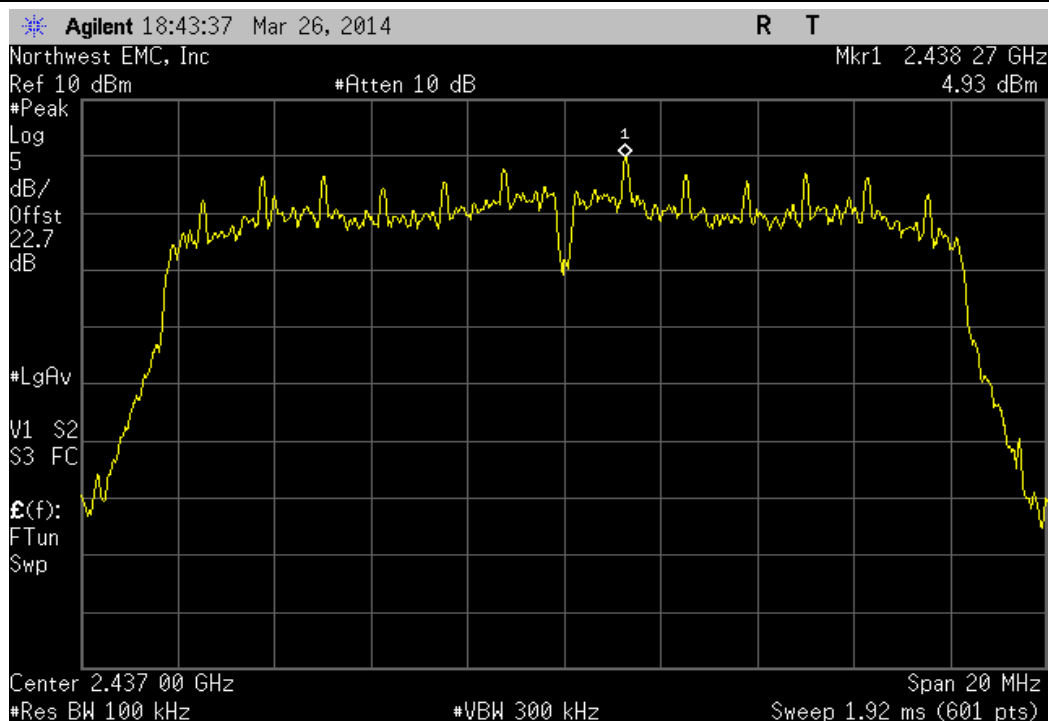
| 2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz |       |             |          |       |        |
|--------------------------------------------------------------------------|-------|-------------|----------|-------|--------|
|                                                                          | Value | dBm/100kHz  | Value    | Limit | Result |
|                                                                          |       | To dBm/3kHz | dBm/3kHz |       |        |
|                                                                          | 7.711 | -15.2       | -7.489   | 8     | Pass   |



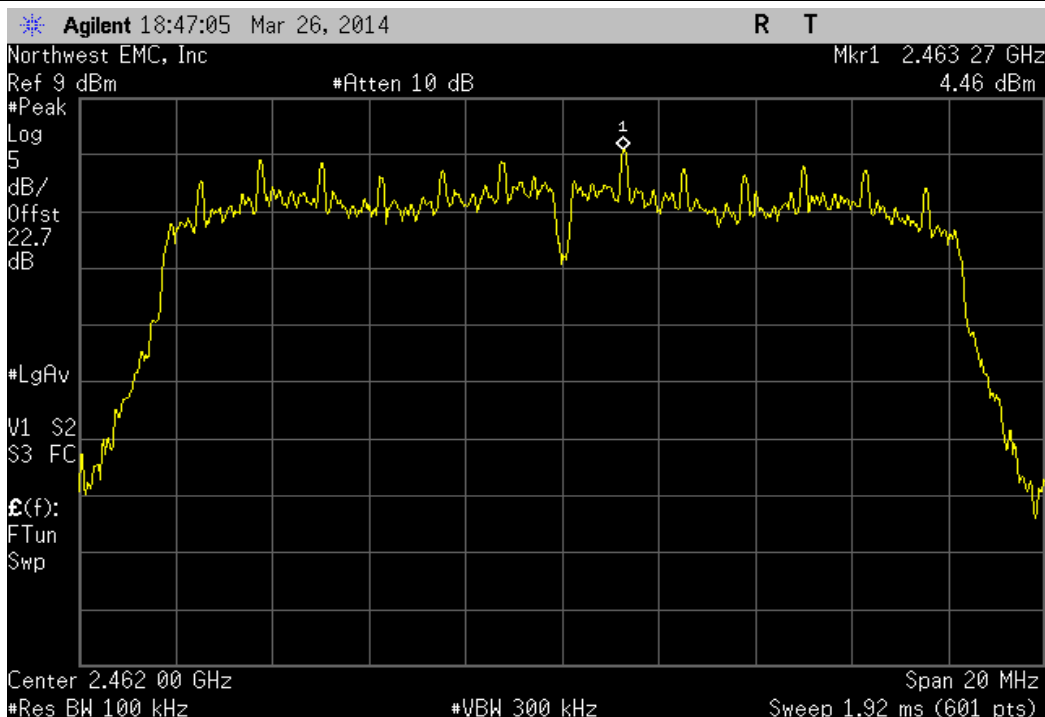
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz |       |            |             |          |          |        |
|-----------------------------------------------------------------------|-------|------------|-------------|----------|----------|--------|
|                                                                       | Value | dBm/100kHz | To dBm/3kHz | Value    | Limit    | Result |
|                                                                       |       | dBm/100kHz |             | dBm/3kHz | dBm/3kHz |        |
|                                                                       |       | 4.859      | -15.2       | -10.341  | 8        | Pass   |



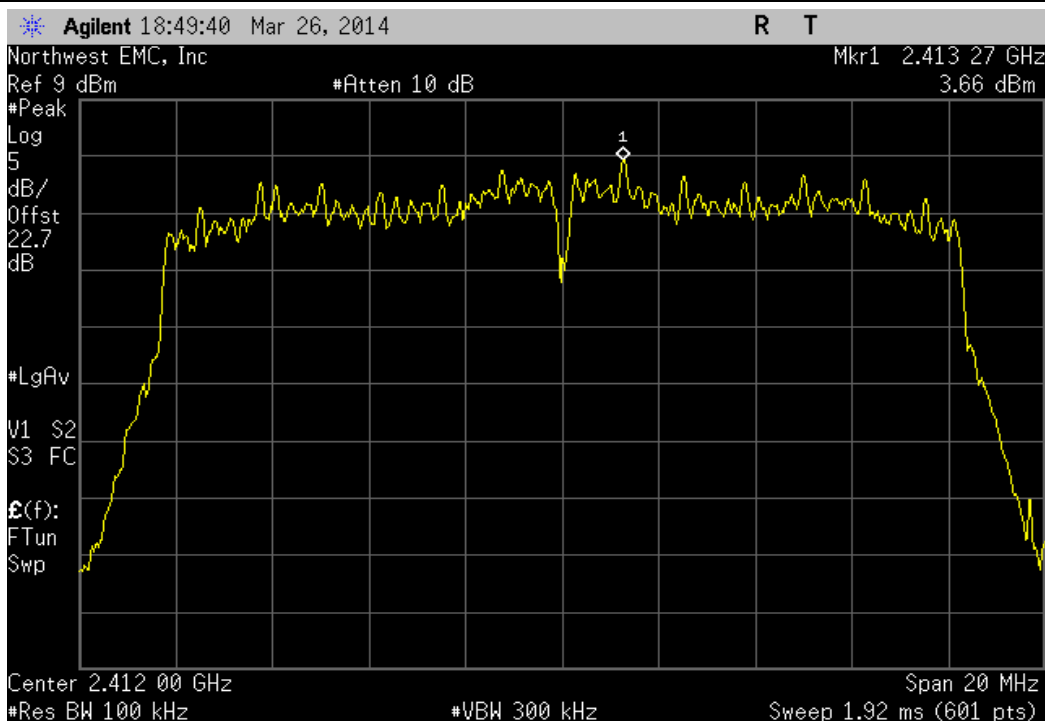
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz |       |            |             |          |          |        |
|-----------------------------------------------------------------------|-------|------------|-------------|----------|----------|--------|
|                                                                       | Value | dBm/100kHz | To dBm/3kHz | Value    | Limit    | Result |
|                                                                       |       | dBm/100kHz |             | dBm/3kHz | dBm/3kHz |        |
|                                                                       |       | 4.925      | -15.2       | -10.275  | 8        | Pass   |



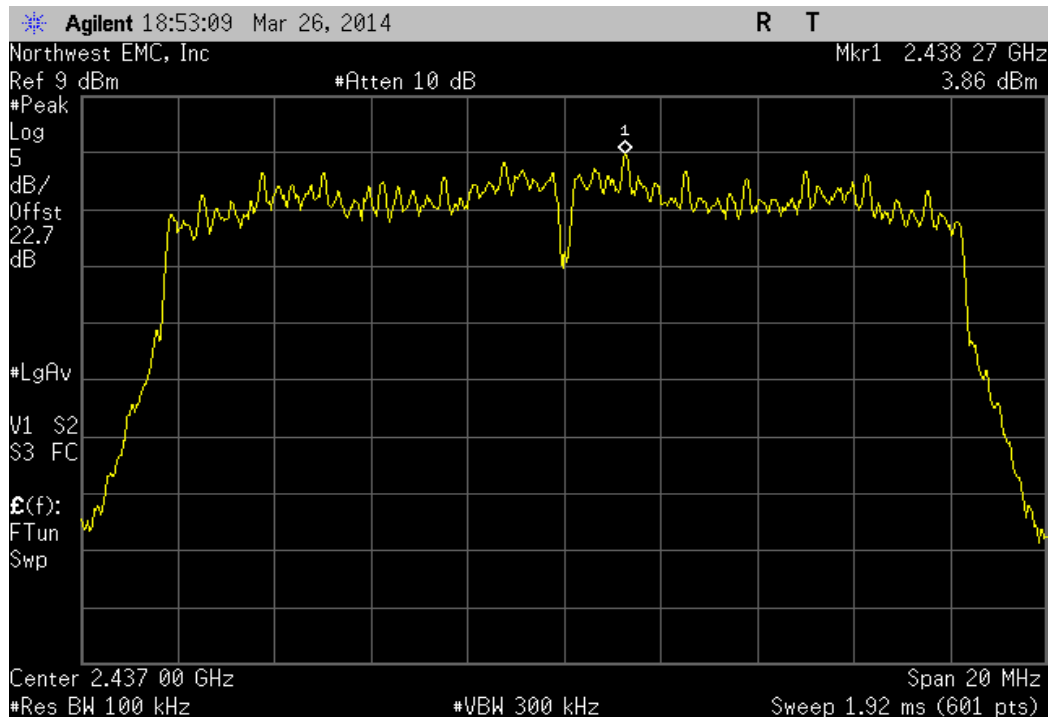
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz |       |             |          |       |        |  |
|-------------------------------------------------------------------------|-------|-------------|----------|-------|--------|--|
|                                                                         | Value | dBm/100kHz  | Value    | Limit |        |  |
|                                                                         |       | To dBm/3kHz | dBm/3kHz |       |        |  |
|                                                                         |       |             |          |       | Result |  |
|                                                                         | 4.461 | -15.2       | -10.739  | 8     | Pass   |  |



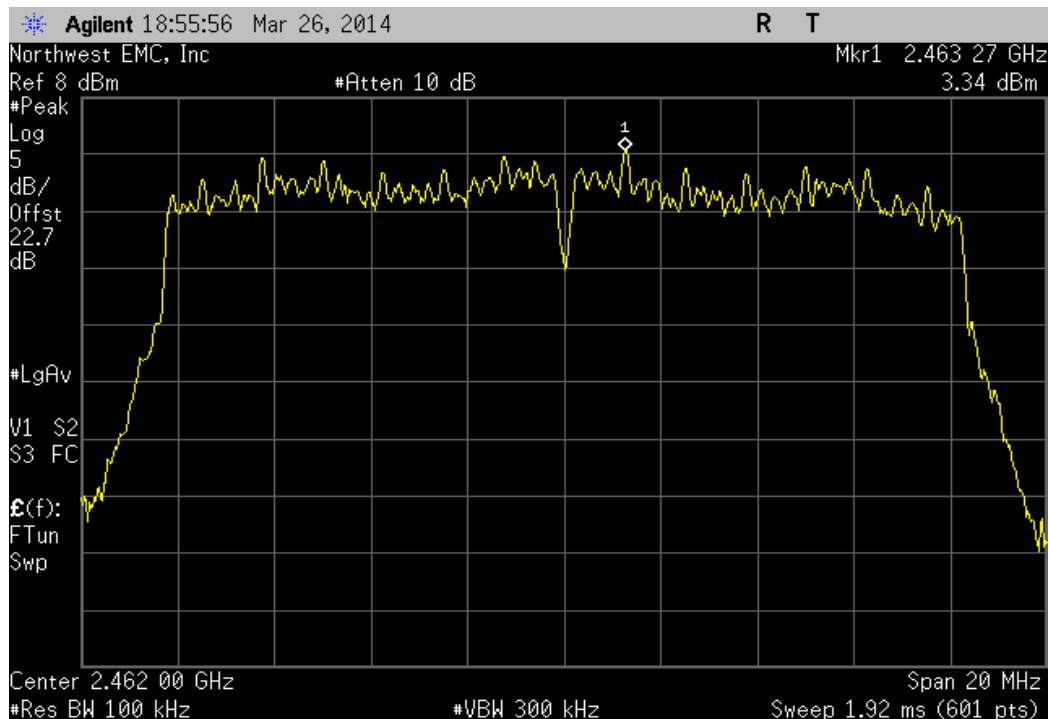
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz |       |             |          |       |        |  |
|------------------------------------------------------------------------|-------|-------------|----------|-------|--------|--|
|                                                                        | Value | dBm/100kHz  | Value    | Limit |        |  |
|                                                                        |       | To dBm/3kHz | dBm/3kHz |       |        |  |
|                                                                        |       |             |          |       | Result |  |
|                                                                        | 3.663 | -15.2       | -11.537  | 8     | Pass   |  |



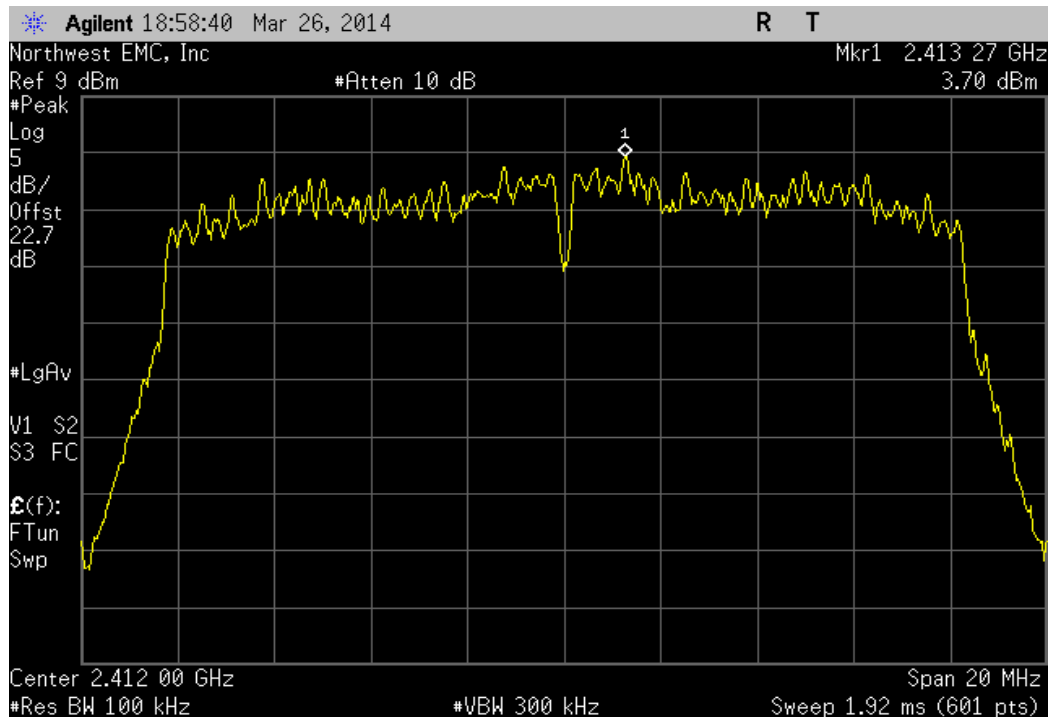
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz |            |             |          |          |        |  |
|------------------------------------------------------------------------|------------|-------------|----------|----------|--------|--|
|                                                                        | Value      | dBm/100kHz  | Value    | Limit    |        |  |
|                                                                        | dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz | Result |  |
|                                                                        | 3.863      | -15.2       | -11.337  | 8        | Pass   |  |



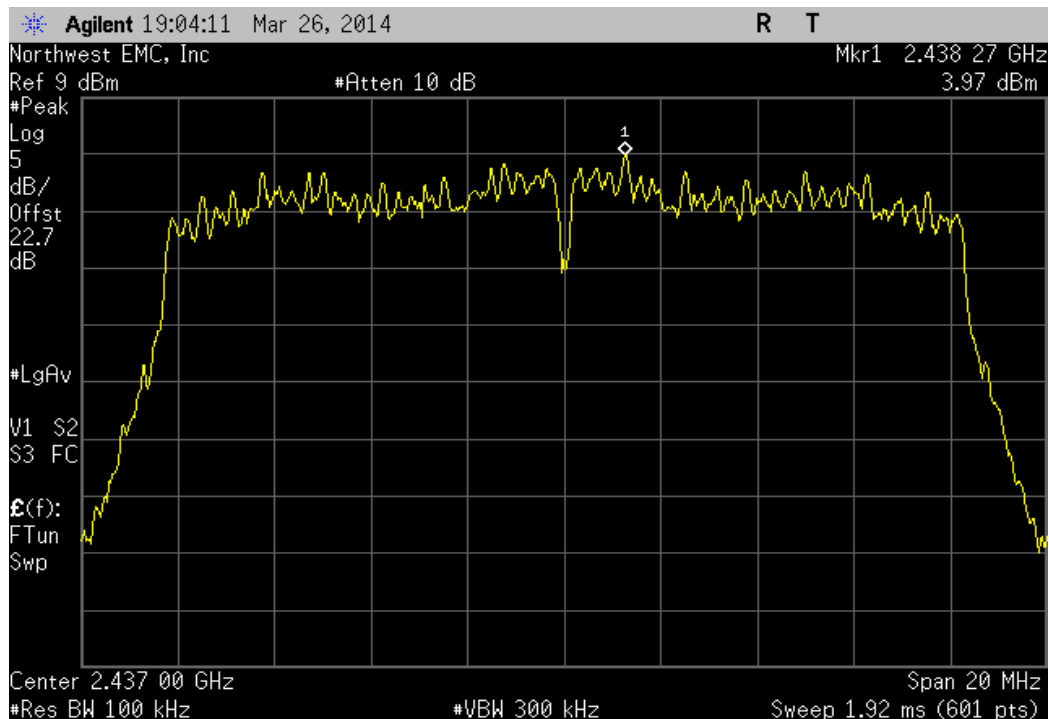
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz |            |             |          |          |        |  |
|--------------------------------------------------------------------------|------------|-------------|----------|----------|--------|--|
|                                                                          | Value      | dBm/100kHz  | Value    | Limit    |        |  |
|                                                                          | dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz | Result |  |
|                                                                          | 3.339      | -15.2       | -11.861  | 8        | Pass   |  |



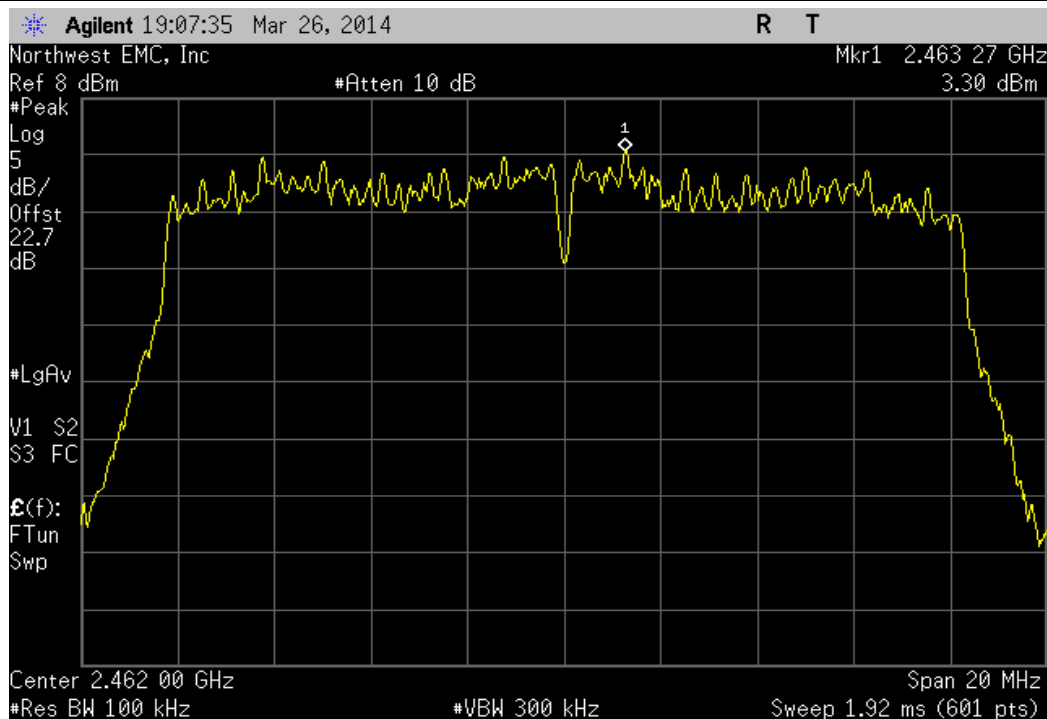
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz |       |             |          |       |        |  |
|------------------------------------------------------------------------|-------|-------------|----------|-------|--------|--|
|                                                                        | Value | dBm/100kHz  | Value    | Limit |        |  |
|                                                                        |       | To dBm/3kHz | dBm/3kHz |       | Result |  |
|                                                                        | 3.705 | -15.2       | -11.495  | 8     | Pass   |  |



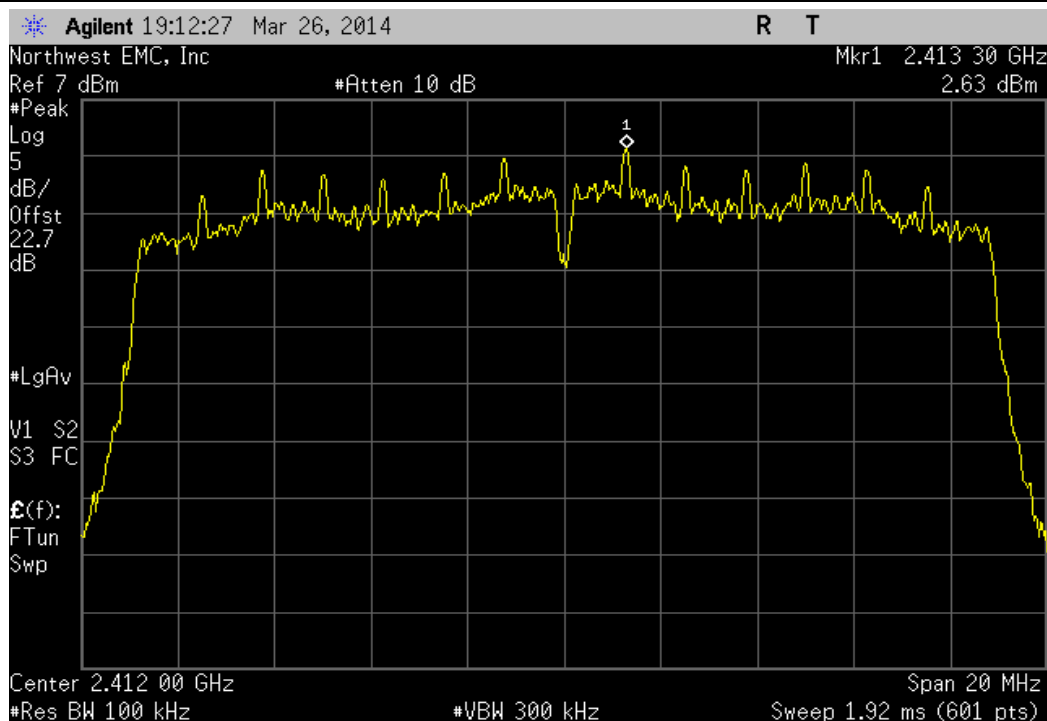
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz |       |             |          |       |        |  |
|------------------------------------------------------------------------|-------|-------------|----------|-------|--------|--|
|                                                                        | Value | dBm/100kHz  | Value    | Limit |        |  |
|                                                                        |       | To dBm/3kHz | dBm/3kHz |       | Result |  |
|                                                                        | 3.971 | -15.2       | -11.229  | 8     | Pass   |  |



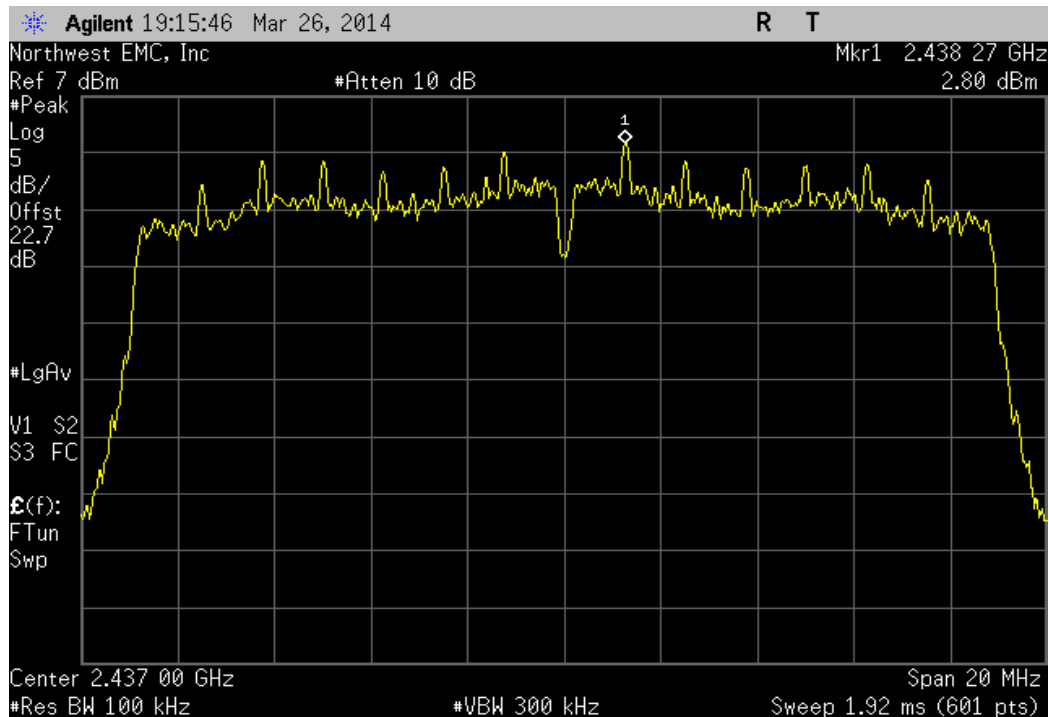
| 2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz |  |            |             |          |          |        |
|--------------------------------------------------------------------------|--|------------|-------------|----------|----------|--------|
| Value                                                                    |  | dBm/100kHz | Value       |          | Limit    | Result |
|                                                                          |  | dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz |        |
|                                                                          |  | 3.304      | -15.2       | -11.896  | 8        | Pass   |



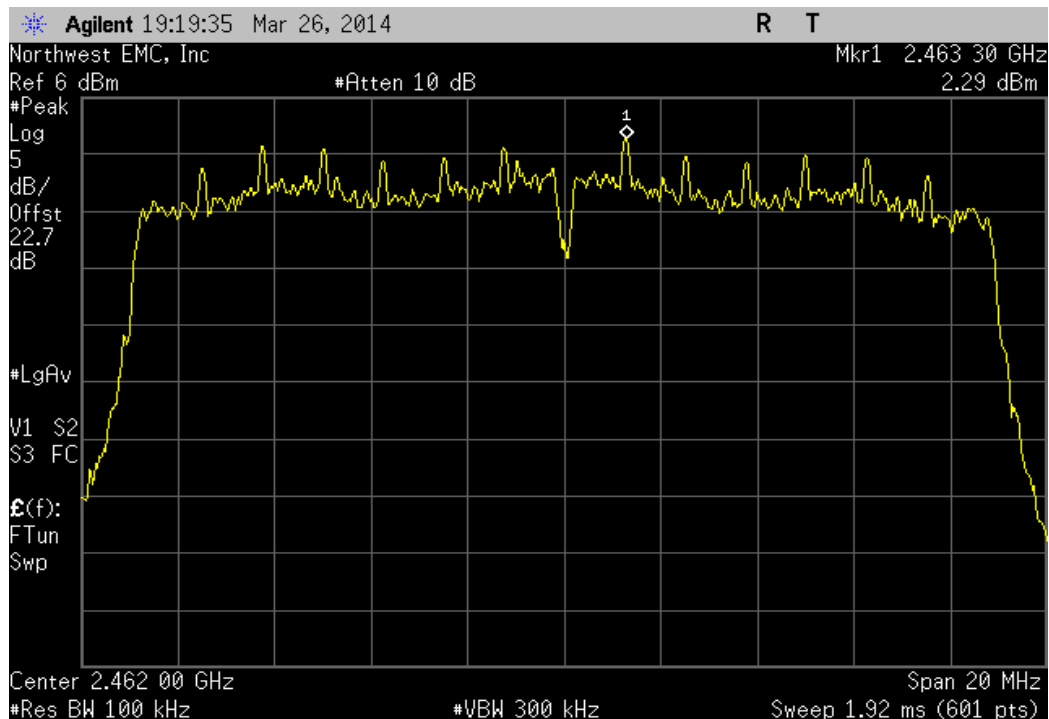
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz |      |             |        |  |          |        |
|---------------------------------------------------------------------|------|-------------|--------|--|----------|--------|
| Value                                                               |      | dBm/100kHz  | Value  |  | Limit    | Result |
|                                                                     |      | To dBm/3kHz |        |  | dBm/3kHz |        |
|                                                                     | 2.63 | -15.2       | -12.57 |  | 8        | Pass   |



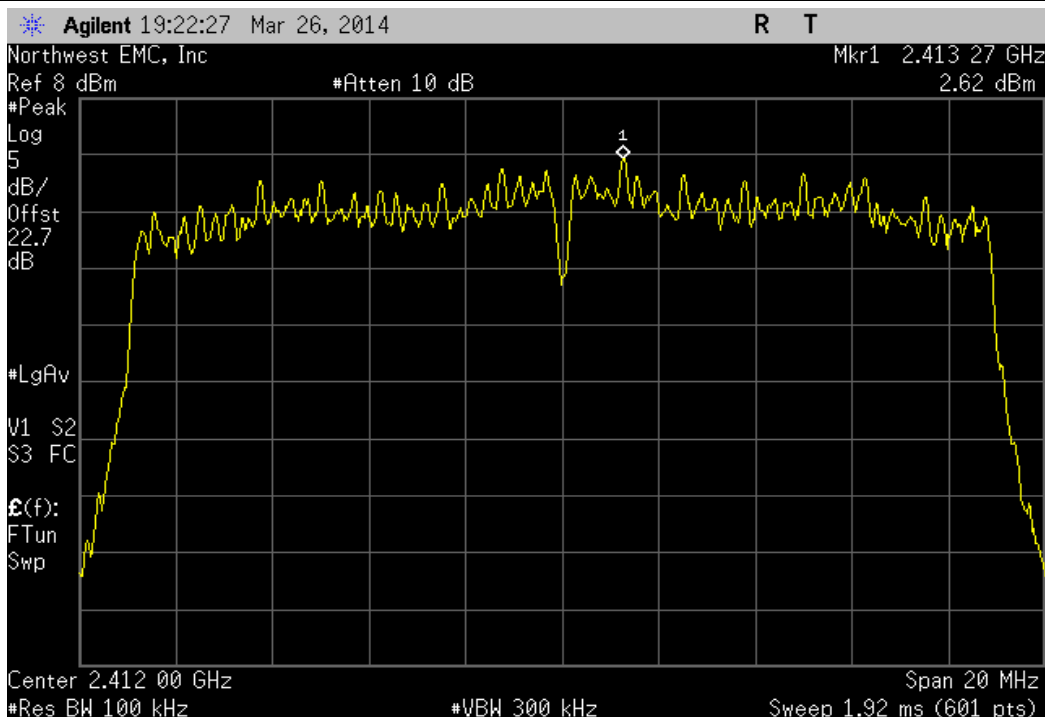
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz |            |             |          |          |        |  |
|---------------------------------------------------------------------|------------|-------------|----------|----------|--------|--|
|                                                                     | Value      | dBm/100kHz  | Value    | Limit    | Result |  |
|                                                                     | dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz |        |  |
|                                                                     | 2.804      | -15.2       | -12.396  | 8        | Pass   |  |



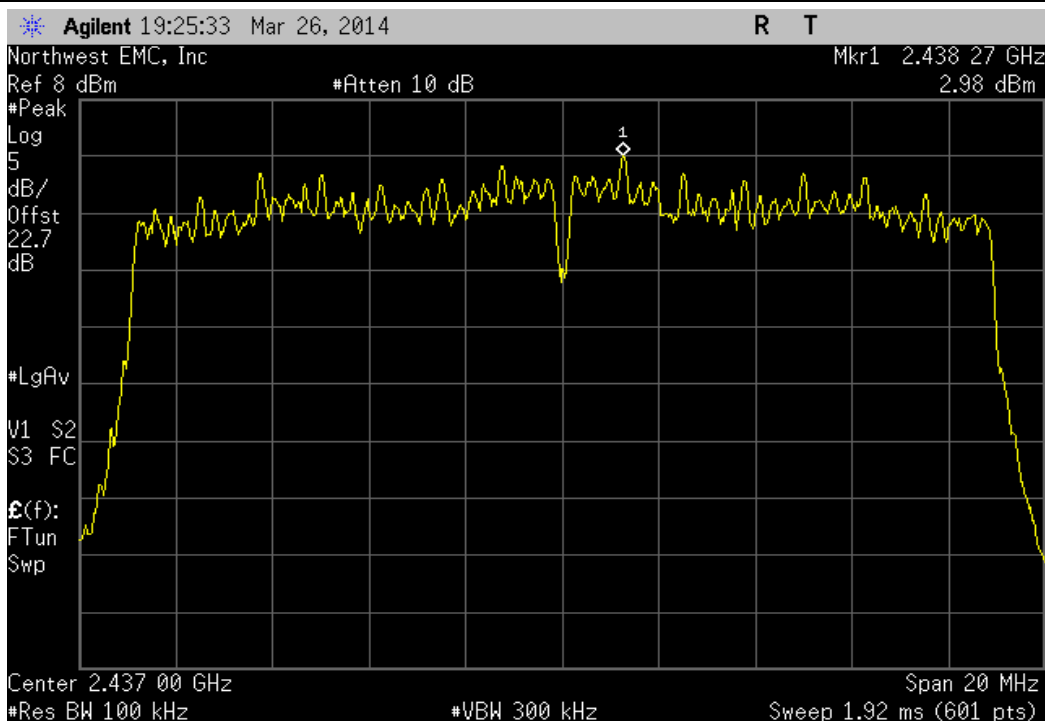
| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz |            |             |          |          |        |  |
|-----------------------------------------------------------------------|------------|-------------|----------|----------|--------|--|
|                                                                       | Value      | dBm/100kHz  | Value    | Limit    | Result |  |
|                                                                       | dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz |        |  |
|                                                                       | 2.293      | -15.2       | -12.907  | 8        | Pass   |  |



| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Low Channel 1, 2412 MHz |       |             |          |       |        |  |
|---------------------------------------------------------------------|-------|-------------|----------|-------|--------|--|
|                                                                     | Value | dBm/100kHz  | Value    | Limit |        |  |
|                                                                     |       | To dBm/3kHz | dBm/3kHz |       |        |  |
|                                                                     |       |             |          |       | Result |  |
|                                                                     | 2.625 | -15.2       | -12.575  | 8     | Pass   |  |

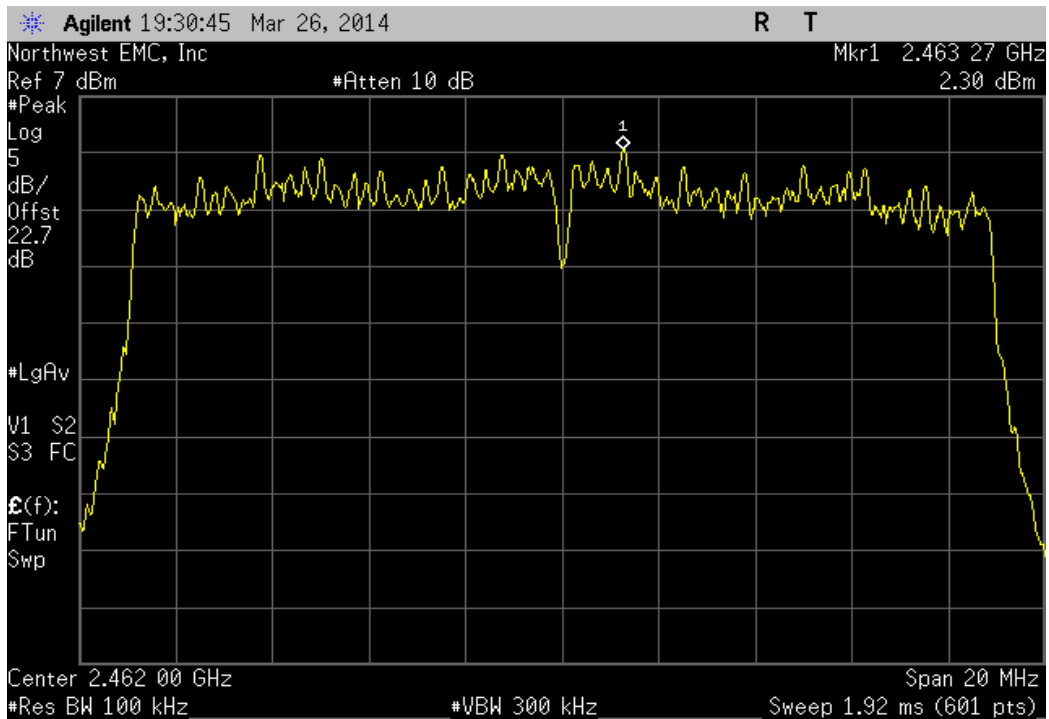


| 2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz |       |             |          |       |        |  |
|---------------------------------------------------------------------|-------|-------------|----------|-------|--------|--|
|                                                                     | Value | dBm/100kHz  | Value    | Limit |        |  |
|                                                                     |       | To dBm/3kHz | dBm/3kHz |       |        |  |
|                                                                     |       |             |          |       | Result |  |
|                                                                     | 2.978 | -15.2       | -12.222  | 8     | Pass   |  |



2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, High Channel 11, 2462 MHz

| Value      | dBm/100kHz  | Value    | Limit    | Result |
|------------|-------------|----------|----------|--------|
| dBm/100kHz | To dBm/3kHz | dBm/3kHz | dBm/3kHz |        |
| 2.304      | -15.2       | -12.896  | 8        | Pass   |



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 802.11(b), 1Mbps  
Transmitting 802.11(b), 11Mbps  
Transmitting 802.11(g), 6Mbps  
Transmitting 802.11(g), 36Mbps  
Transmitting 802.11(g), 54Mbps  
Transmitting 802.11(n), MCS0  
Transmitting 802.11(n), MCS7

## CHANNELS TESTED

Low Channel 1, 2412 MHz  
Mid Channel 6, 2437 MHz  
High Channel 11, 2462 MHz

## POWER SETTINGS INVESTIGATED

110VAC/60Hz

## CONFIGURATIONS INVESTIGATED

INTE5431-6

## FREQUENCY RANGE INVESTIGATED

Start Frequency 30 MHz Stop Frequency 26000 MHz

## 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 |
|--------------------|--------------------|--------------------------|-----|------------|----------|
| Attenuator         | Fairview Microwave | SA18E-20                 | AQV | 12/6/2013  | 12 mo    |
| HP Filter          | Micro-Tronics      | HPM50111                 | HHI | 1/18/2013  | 24 mo    |
| LP Filter          | Micro-Tronics      | LPM50004                 | LFF | 11/14/2013 | 24 mo    |
| Cable I            | N/A                | N/A                      | SUM | 7/10/2013  | 12 mo    |
| NC01 Cables        | N/A                | Standard Gain Horn Cable | NC3 | 12/6/2013  | 12 mo    |
| NC01 Cables        | N/A                | 3115 Horn Cable          | NC2 | 10/24/2013 | 12 mo    |
| NC01 Cables        | N/A                | Bilog Cables             | NC1 | 10/24/2013 | 12 mo    |
| Pre-Amplifier      | Miteq              | AMF-6F-18002650-25-10P   | AOD | 7/10/2013  | 12 mo    |
| Pre-Amplifier      | Miteq              | AMF-6F-12001800-30-10P   | AOJ | 12/6/2013  | 12 mo    |
| Pre-Amplifier      | Miteq              | AMF-6F-08001200-30-10P   | AOK | 12/6/2013  | 12 mo    |
| Pre-Amplifier      | Miteq              | AMF-3D-00100800-32-13P   | AVZ | 10/24/2013 | 12 mo    |
| Pre-Amplifier      | Miteq              | AM-1616-1000             | PAB | 10/24/2013 | 12 mo    |
| Antenna, Horn      | ETS                | 3160-09                  | AIY | NCR        | 0 mo     |
| Antenna, Horn      | EMCO               | 3160-08                  | AHO | NCR        | 0 mo     |
| Antenna, Horn      | EMCO               | 3160-07                  | AHP | NCR        | 0 mo     |
| Antenna, Horn      | EMCO               | 3115                     | AHM | 6/19/2012  | 24 mo    |
| Antenna, Biconilog | EMCO               | 3142                     | AXJ | 5/16/2012  | 36 mo    |
| Spectrum Analyzer  | Agilent            | E4440A                   | AAW | 2/21/2013  | 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             |

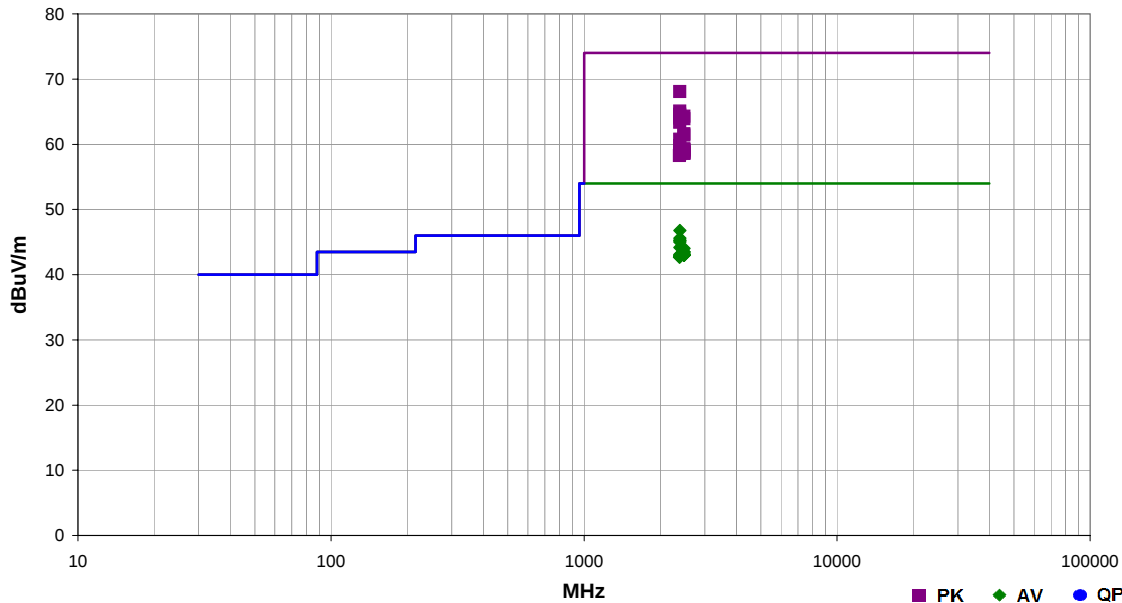
## TEST DESCRIPTION

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

|                 |                                                                                                          |                   |           |                                                                                    |                  |
|-----------------|----------------------------------------------------------------------------------------------------------|-------------------|-----------|------------------------------------------------------------------------------------|------------------|
| Work Order:     | INTE5431                                                                                                 | Date:             | 04/03/14  |  |                  |
| Project:        | GQ110                                                                                                    | Temperature:      | 24 °C     |                                                                                    |                  |
| Job Site:       | NC01                                                                                                     | Humidity:         | 28% RH    |                                                                                    |                  |
| Serial Number:  | EZF8344000UK                                                                                             | Barometric Pres.: | 1015 mbar | Tested by:                                                                         | Richard Mellroth |
| EUT:            | GQ110                                                                                                    |                   |           |                                                                                    |                  |
| Configuration:  | 6                                                                                                        |                   |           |                                                                                    |                  |
| Customer:       | Intel Corporation                                                                                        |                   |           |                                                                                    |                  |
| Attendees:      | None                                                                                                     |                   |           |                                                                                    |                  |
| EUT Power:      | 110VAC/60Hz                                                                                              |                   |           |                                                                                    |                  |
| Operating Mode: | Transmitting 802.11(b/g/n), See comments next to data points for EUT orientation, channel and data rate. |                   |           |                                                                                    |                  |
| Deviations:     | None                                                                                                     |                   |           |                                                                                    |                  |
| Comments:       | None                                                                                                     |                   |           |                                                                                    |                  |

|                     |                  |
|---------------------|------------------|
| Test Specifications | Test Method      |
| FCC 15.247:2014     | ANSI C63.10:2009 |

|       |       |                   |   |                   |      |         |      |
|-------|-------|-------------------|---|-------------------|------|---------|------|
| Run # | 32-33 | Test Distance (m) | 3 | Antenna Height(s) | 1-4m | Results | Pass |
|-------|-------|-------------------|---|-------------------|------|---------|------|



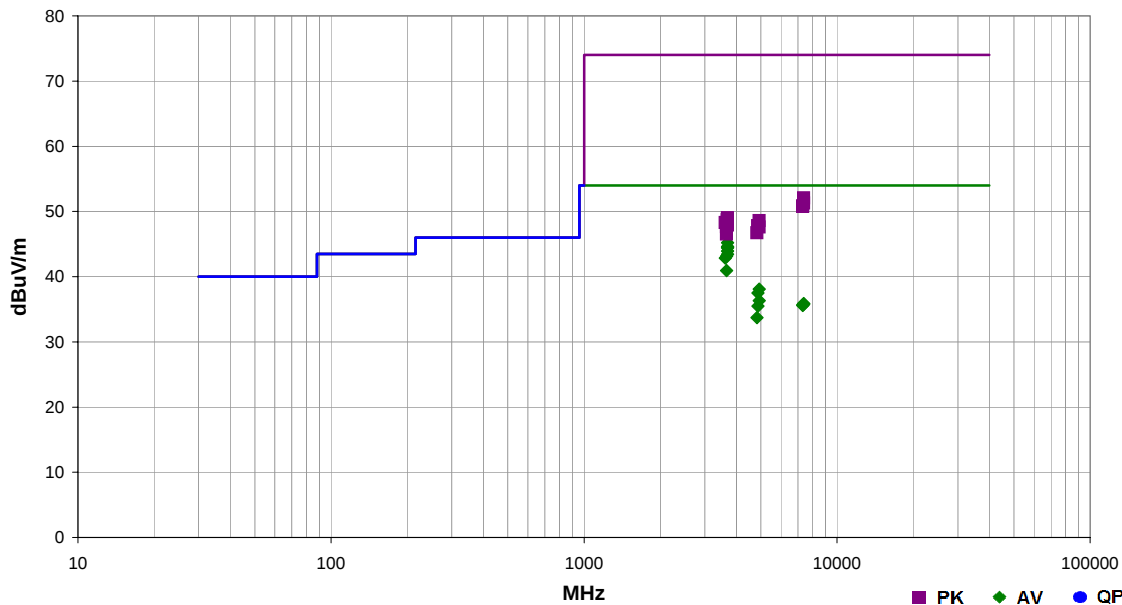
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Antenna Height (meters) | Azimuth (degrees) | Test Distance (meters) | External Attenuation (dB) | Polarity/Transducer Type | Detector | Distance Adjustment (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Compared to Spec. (dB) | Comments                          |
|------------|------------------|-------------|-------------------------|-------------------|------------------------|---------------------------|--------------------------|----------|--------------------------|-------------------|----------------------|------------------------|-----------------------------------|
| 2389.877   | 50.3             | -2.2        | 2.0                     | 229.0             | 3.0                    | 20.0                      | Horz                     | PK       | 0.0                      | 68.1              | 74.0                 | -5.9                   | Ch 1, 2412 MHz, 6Mbps, EUT Horz   |
| 2390.000   | 29.0             | -2.2        | 2.0                     | 229.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 46.8              | 54.0                 | -7.2                   | Ch 1, 2412 MHz, 6Mbps, EUT Horz   |
| 2389.990   | 27.8             | -2.2        | 1.2                     | 218.0             | 3.0                    | 20.0                      | Vert                     | AV       | 0.0                      | 45.6              | 54.0                 | -8.4                   | Ch 1, 2412 MHz, 6Mbps, EUT Vert   |
| 2389.990   | 27.5             | -2.2        | 1.2                     | 246.0             | 3.0                    | 20.0                      | Vert                     | AV       | 0.0                      | 45.3              | 54.0                 | -8.7                   | Ch 1, 2412 MHz, 6Mbps, EUT Flat   |
| 2389.993   | 27.4             | -2.2        | 1.2                     | 213.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 45.2              | 54.0                 | -8.8                   | Ch 1, 2412 MHz, 6Mbps, EUT Flat   |
| 2389.853   | 47.3             | -2.2        | 1.2                     | 218.0             | 3.0                    | 20.0                      | Vert                     | PK       | 0.0                      | 65.1              | 74.0                 | -8.9                   | Ch 1, 2412 MHz, 6Mbps, EUT Vert   |
| 2389.993   | 27.2             | -2.2        | 1.2                     | 151.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 45.0              | 54.0                 | -9.0                   | Ch 1, 2412 MHz, 6Mbps, EUT Vert   |
| 2389.613   | 46.8             | -2.2        | 1.2                     | 246.0             | 3.0                    | 20.0                      | Vert                     | PK       | 0.0                      | 64.6              | 74.0                 | -9.4                   | Ch 1, 2412 MHz, 6Mbps, EUT Flat   |
| 2483.833   | 46.3             | -2.0        | 2.8                     | 3.0               | 3.0                    | 20.0                      | Horz                     | PK       | 0.0                      | 64.3              | 74.0                 | -9.7                   | Ch 11, 2462 MHz, MCS0, EUT Flat   |
| 2389.747   | 46.5             | -2.2        | 1.2                     | 151.0             | 3.0                    | 20.0                      | Horz                     | PK       | 0.0                      | 64.3              | 74.0                 | -9.7                   | Ch 1, 2412 MHz, 6Mbps, EUT Vert   |
| 2390.000   | 26.4             | -2.2        | 1.2                     | 245.0             | 3.0                    | 20.0                      | Vert                     | AV       | 0.0                      | 44.2              | 54.0                 | -9.8                   | Ch 1, 2412 MHz, 6Mbps, EUT Horz   |
| 2483.503   | 26.0             | -2.0        | 1.0                     | 45.0              | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 44.0              | 54.0                 | -10.0                  | Ch 11, 2462 MHz, 6Mbps, EUT Flat  |
| 2389.823   | 46.2             | -2.2        | 1.2                     | 213.0             | 3.0                    | 20.0                      | Horz                     | PK       | 0.0                      | 64.0              | 74.0                 | -10.0                  | Ch 1, 2412 MHz, 6Mbps, EUT Flat   |
| 2483.680   | 45.9             | -2.0        | 1.0                     | 45.0              | 3.0                    | 20.0                      | Horz                     | PK       | 0.0                      | 63.9              | 74.0                 | -10.1                  | Ch 11, 2462 MHz, 6Mbps, EUT Flat  |
| 2483.500   | 25.5             | -2.0        | 1.0                     | 176.0             | 3.0                    | 20.0                      | Vert                     | AV       | 0.0                      | 43.5              | 54.0                 | -10.5                  | Ch 11, 2462 MHz, 6Mbps, EUT Horz  |
| 2483.500   | 25.5             | -2.0        | 1.2                     | 314.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 43.5              | 54.0                 | -10.5                  | Ch 11, 2462 MHz, 6Mbps, EUT Vert  |
| 2389.803   | 45.6             | -2.2        | 1.2                     | 245.0             | 3.0                    | 20.0                      | Vert                     | PK       | 0.0                      | 63.4              | 74.0                 | -10.6                  | Ch 1, 2412 MHz, 6Mbps, EUT Horz   |
| 2483.587   | 25.2             | -2.0        | 2.8                     | 3.0               | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 43.2              | 54.0                 | -10.8                  | Ch 11, 2462 MHz, MCS0, EUT Flat   |
| 2483.557   | 25.1             | -2.0        | 1.2                     | 179.0             | 3.0                    | 20.0                      | Vert                     | AV       | 0.0                      | 43.1              | 54.0                 | -10.9                  | Ch 11, 2462 MHz, 6Mbps, EUT Flat  |
| 2389.993   | 25.3             | -2.2        | 1.2                     | 35.0              | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 43.1              | 54.0                 | -10.9                  | Ch 1, 2412 MHz, 36Mbps, EUT Horz  |
| 2485.457   | 25.0             | -2.0        | 1.4                     | 18.0              | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 43.0              | 54.0                 | -11.0                  | Ch 11, 2462 MHz, 1Mbps, EUT Flat  |
| 2485.143   | 25.0             | -2.0        | 1.2                     | 101.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 43.0              | 54.0                 | -11.0                  | Ch 11, 2462 MHz, 36Mbps, EUT Flat |
| 2485.187   | 25.0             | -2.0        | 1.2                     | 303.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 43.0              | 54.0                 | -11.0                  | Ch 11, 2462 MHz, MCS7, EUT Flat   |
| 2484.480   | 25.0             | -2.0        | 1.2                     | 120.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 43.0              | 54.0                 | -11.0                  | Ch 11, 2462 MHz, 54Mbps, EUT Flat |
| 2483.850   | 25.0             | -2.0        | 1.2                     | 309.0             | 3.0                    | 20.0                      | Vert                     | AV       | 0.0                      | 43.0              | 54.0                 | -11.0                  | Ch 11, 2462 MHz, 6Mbps, EUT Vert  |
| 2483.580   | 25.0             | -2.0        | 3.2                     | 161.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 43.0              | 54.0                 | -11.0                  | Ch 11, 2462 MHz, 6Mbps, EUT Horz  |
| 2483.540   | 25.0             | -2.0        | 1.2                     | 211.0             | 3.0                    | 20.0                      | Horz                     | AV       | 0.0                      | 43.0              | 54.0                 | -11.0                  | Ch 11, 2462 MHz, 11Mbps, EUT Flat |

| 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                          |
|---------------|---------------------|----------------|----------------------------|----------------------|---------------------------|---------------------------------|---------------------------------|----------|--------------------------------|----------------------|-------------------------|------------------------------|-----------------------------------|
| 2389.983      | 25.2                | -2.2           | 1.2                        | 29.0                 | 3.0                       | 20.0                            | Horz                            | AV       | 0.0                            | 43.0                 | 54.0                    | -11.0                        | Ch 1, 2412 MHz, MCS0, EUT Horz    |
| 2389.900      | 25.1                | -2.2           | 1.2                        | 1.0                  | 3.0                       | 20.0                            | Horz                            | AV       | 0.0                            | 42.9                 | 54.0                    | -11.1                        | Ch 1, 2412 MHz, MCS7, EUT Horz    |
| 2389.823      | 25.0                | -2.2           | 1.2                        | 247.0                | 3.0                       | 20.0                            | Horz                            | AV       | 0.0                            | 42.8                 | 54.0                    | -11.2                        | Ch 1, 2412 MHz, 54Mbps, EUT Horz  |
| 2388.307      | 24.9                | -2.2           | 1.2                        | 66.0                 | 3.0                       | 20.0                            | Horz                            | AV       | 0.0                            | 42.7                 | 54.0                    | -11.3                        | Ch 1, 2412 MHz, 1Mbps, EUT Horz   |
| 2388.110      | 24.9                | -2.2           | 1.2                        | 314.0                | 3.0                       | 20.0                            | Horz                            | AV       | 0.0                            | 42.7                 | 54.0                    | -11.3                        | Ch 1, 2412 MHz, 11Mbps, EUT Horz  |
| 2483.593      | 43.6                | -2.0           | 1.0                        | 176.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 61.6                 | 74.0                    | -12.4                        | Ch 11, 2462 MHz, 6Mbps, EUT Horz  |
| 2483.817      | 43.4                | -2.0           | 1.2                        | 314.0                | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 61.4                 | 74.0                    | -12.6                        | Ch 11, 2462 MHz, 6Mbps, EUT Vert  |
| 2389.977      | 43.0                | -2.2           | 1.2                        | 35.0                 | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 60.8                 | 74.0                    | -13.2                        | Ch 1, 2412 MHz, 36Mbps, EUT Horz  |
| 2389.663      | 42.0                | -2.2           | 1.2                        | 29.0                 | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 59.8                 | 74.0                    | -14.2                        | Ch 1, 2412 MHz, MCS0, EUT Horz    |
| 2485.293      | 41.3                | -2.0           | 1.2                        | 303.0                | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 59.3                 | 74.0                    | -14.7                        | Ch 11, 2462 MHz, MCS7, EUT Flat   |
| 2485.340      | 41.2                | -2.0           | 1.2                        | 179.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 59.2                 | 74.0                    | -14.8                        | Ch 11, 2462 MHz, 6Mbps, EUT Flat  |
| 2485.073      | 41.1                | -2.0           | 1.2                        | 309.0                | 3.0                       | 20.0                            | Vert                            | PK       | 0.0                            | 59.1                 | 74.0                    | -14.9                        | Ch 11, 2462 MHz, 6Mbps, EUT Vert  |
| 2485.423      | 41.0                | -2.0           | 1.2                        | 211.0                | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 59.0                 | 74.0                    | -15.0                        | Ch 11, 2462 MHz, 11Mbps, EUT Flat |
| 2484.090      | 40.8                | -2.0           | 3.2                        | 161.0                | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 58.8                 | 74.0                    | -15.2                        | Ch 11, 2462 MHz, 6Mbps, EUT Horz  |
| 2389.377      | 41.0                | -2.2           | 1.2                        | 1.0                  | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 58.8                 | 74.0                    | -15.2                        | Ch 1, 2412 MHz, MCS7, EUT Horz    |
| 2484.450      | 40.7                | -2.0           | 1.4                        | 18.0                 | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 58.7                 | 74.0                    | -15.3                        | Ch 11, 2462 MHz, 1Mbps, EUT Flat  |
| 2484.633      | 40.6                | -2.0           | 1.2                        | 101.0                | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 58.6                 | 74.0                    | -15.4                        | Ch 11, 2462 MHz, 36Mbps, EUT Flat |
| 2484.270      | 40.6                | -2.0           | 1.2                        | 120.0                | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 58.6                 | 74.0                    | -15.4                        | Ch 11, 2462 MHz, 54Mbps, EUT Flat |
| 2388.570      | 40.8                | -2.2           | 1.2                        | 247.0                | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 58.6                 | 74.0                    | -15.4                        | Ch 1, 2412 MHz, 54Mbps, EUT Horz  |
| 2389.890      | 40.7                | -2.2           | 1.2                        | 314.0                | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 58.5                 | 74.0                    | -15.5                        | Ch 1, 2412 MHz, 11Mbps, EUT Horz  |
| 2388.347      | 40.5                | -2.2           | 1.2                        | 66.0                 | 3.0                       | 20.0                            | Horz                            | PK       | 0.0                            | 58.3                 | 74.0                    | -15.7                        | Ch 1, 2412 MHz, 1Mbps, EUT Horz   |

|                 |                                                                                                          |                   |           |                                                                                    |
|-----------------|----------------------------------------------------------------------------------------------------------|-------------------|-----------|------------------------------------------------------------------------------------|
| Work Order:     | INTE5431                                                                                                 | Date:             | 04/03/14  |  |
| Project:        | GQ110                                                                                                    | Temperature:      | 24 °C     |                                                                                    |
| Job Site:       | NC01                                                                                                     | Humidity:         | 28% RH    |                                                                                    |
| Serial Number:  | EZF8344000UK                                                                                             | Barometric Pres.: | 1015 mbar |                                                                                    |
| EUT:            | GQ110                                                                                                    |                   |           | Tested by: Richard Mellroth                                                        |
| Configuration:  | 6                                                                                                        |                   |           |                                                                                    |
| Customer:       | Intel Corporation                                                                                        |                   |           |                                                                                    |
| Attendees:      | None                                                                                                     |                   |           |                                                                                    |
| EUT Power:      | 110VAC/60Hz                                                                                              |                   |           |                                                                                    |
| Operating Mode: | Transmitting 802.11(b/g/n), See comments next to data points for EUT orientation, channel and data rate. |                   |           |                                                                                    |
| Deviations:     | None                                                                                                     |                   |           |                                                                                    |
| Comments:       | None                                                                                                     |                   |           |                                                                                    |

|                     |                 |             |                  |
|---------------------|-----------------|-------------|------------------|
| Test Specifications | FCC 15.247:2014 | Test Method | ANSI C63.10:2009 |
|---------------------|-----------------|-------------|------------------|

|       |    |                   |   |                   |      |         |      |
|-------|----|-------------------|---|-------------------|------|---------|------|
| Run # | 29 | 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                          |
|------------|------------------|-------------|-------------------------|-------------------|------------------------|---------------------------|--------------------------|----------|--------------------------|-------------------|----------------------|------------------------|-----------------------------------|
| 3693.025   | 42.6             | 2.6         | 1.8                     | 107.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 45.2              | 54.0                 | -8.8                   | Ch 11, 2462 MHz, 6Mbps, EUT Flat  |
| 3693.030   | 42.0             | 2.6         | 1.8                     | 106.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 44.6              | 54.0                 | -9.4                   | Ch 11, 2462 MHz, 36Mbps, EUT Flat |
| 3693.015   | 41.9             | 2.6         | 1.8                     | 109.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 44.5              | 54.0                 | -9.5                   | Ch 11, 2462 MHz, 54Mbps, EUT Flat |
| 3693.015   | 41.8             | 2.6         | 1.8                     | 117.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 44.4              | 54.0                 | -9.6                   | Ch 11, 2462 MHz, MCS0, EUT Flat   |
| 3693.025   | 41.3             | 2.6         | 2.1                     | 118.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 43.9              | 54.0                 | -10.1                  | Ch 11, 2462 MHz, 11Mbps, EUT Flat |
| 3693.025   | 40.8             | 2.6         | 1.9                     | 119.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 43.4              | 54.0                 | -10.6                  | Ch 11, 2462 MHz, MCS7, EUT Flat   |
| 3655.535   | 41.0             | 2.1         | 2.1                     | 105.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 43.1              | 54.0                 | -10.9                  | Ch 6, 2437 MHz, 1Mbps, EUT Flat   |
| 3618.020   | 41.0             | 1.9         | 1.8                     | 112.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 42.9              | 54.0                 | -11.1                  | Ch 1, 2412 MHz, 1Mbps, EUT Flat   |
| 3655.530   | 38.8             | 2.1         | 1.2                     | 42.0              | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 40.9              | 54.0                 | -13.1                  | Ch 6, 2437 MHz, 1Mbps, EUT Horz   |
| 4924.030   | 30.7             | 7.4         | 1.4                     | 148.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 38.1              | 54.0                 | -15.9                  | Ch 11, 2462 MHz, 1Mbps, EUT Flat  |
| 4874.050   | 30.2             | 7.3         | 1.2                     | 93.0              | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 37.5              | 54.0                 | -16.5                  | Ch 6, 2437 MHz, 1Mbps, EUT Flat   |
| 4924.042   | 28.9             | 7.4         | 1.0                     | 119.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 36.3              | 54.0                 | -17.7                  | Ch 11, 2462 MHz, 1Mbps, EUT Vert  |
| 7384.058   | 23.3             | 12.6        | 1.0                     | 332.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 35.9              | 54.0                 | -18.1                  | Ch 11, 2462 MHz, 1Mbps, EUT Vert  |
| 7387.135   | 23.2             | 12.6        | 1.0                     | 105.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 35.8              | 54.0                 | -18.2                  | Ch 11, 2462 MHz, 1Mbps, EUT Flat  |
| 7309.940   | 23.5             | 12.2        | 2.8                     | 186.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 35.7              | 54.0                 | -18.3                  | Ch 6, 2437 MHz, 1Mbps, EUT Flat   |
| 7311.715   | 23.4             | 12.2        | 1.2                     | 148.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 35.6              | 54.0                 | -18.4                  | Ch 6, 2437 MHz, 1Mbps, EUT Horz   |
| 4874.035   | 28.2             | 7.3         | 1.2                     | 87.0              | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 35.5              | 54.0                 | -18.5                  | Ch 6, 2437 MHz, 1Mbps, EUT Horz   |
| 4824.045   | 26.5             | 7.2         | 1.4                     | 97.0              | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 33.7              | 54.0                 | -20.3                  | Ch 1, 2412 MHz, 1Mbps, EUT Flat   |
| 7385.910   | 39.5             | 12.6        | 1.0                     | 105.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 52.1              | 74.0                 | -21.9                  | Ch 11, 2462 MHz, 1Mbps, EUT Flat  |
| 7386.458   | 38.7             | 12.6        | 1.0                     | 332.0             | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 51.3              | 74.0                 | -22.7                  | Ch 11, 2462 MHz, 1Mbps, EUT Vert  |
| 7309.525   | 38.7             | 12.2        | 1.2                     | 148.0             | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 50.9              | 74.0                 | -23.1                  | Ch 6, 2437 MHz, 1Mbps, EUT Horz   |
| 7311.140   | 38.6             | 12.2        | 2.8                     | 186.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 50.8              | 74.0                 | -23.2                  | Ch 6, 2437 MHz, 1Mbps, EUT Flat   |
| 3693.140   | 46.4             | 2.6         | 1.8                     | 107.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 49.0              | 74.0                 | -25.0                  | Ch 11, 2462 MHz, 6Mbps, EUT Flat  |
| 3693.125   | 46.1             | 2.6         | 1.8                     | 106.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 48.7              | 74.0                 | -25.3                  | Ch 11, 2462 MHz, 36Mbps, EUT Flat |
| 3692.975   | 46.1             | 2.6         | 1.8                     | 109.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 48.7              | 74.0                 | -25.3                  | Ch 11, 2462 MHz, 54Mbps, EUT Flat |
| 3693.165   | 46.0             | 2.6         | 1.8                     | 117.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 48.6              | 74.0                 | -25.4                  | Ch 11, 2462 MHz, MCS0, EUT Flat   |
| 4923.975   | 41.2             | 7.4         | 1.4                     | 148.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 48.6              | 74.0                 | -25.4                  | Ch 11, 2462 MHz, 1Mbps, EUT Flat  |

| 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                          |
|---------------|---------------------|----------------|----------------------------|----------------------|---------------------------|---------------------------------|---------------------------------|----------|--------------------------------|----------------------|-------------------------|------------------------------|-----------------------------------|
| 3692.920      | 45.7                | 2.6            | 2.1                        | 118.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 48.3                 | 74.0                    | -25.7                        | Ch 11, 2462 MHz, 11Mbps, EUT Flat |
| 3618.040      | 46.4                | 1.9            | 1.8                        | 112.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 48.3                 | 74.0                    | -25.7                        | Ch 1, 2412 MHz, 1Mbps, EUT Flat   |
| 3693.030      | 45.3                | 2.6            | 1.9                        | 119.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 47.9                 | 74.0                    | -26.1                        | Ch 11, 2462 MHz, MCS7, EUT Flat   |
| 4873.905      | 40.5                | 7.3            | 1.2                        | 87.0                 | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 47.8                 | 74.0                    | -26.2                        | Ch 6, 2437 MHz, 1Mbps, EUT Horz   |
| 4873.920      | 40.5                | 7.3            | 1.2                        | 93.0                 | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 47.8                 | 74.0                    | -26.2                        | Ch 6, 2437 MHz, 1Mbps, EUT Flat   |
| 3655.375      | 45.5                | 2.1            | 2.1                        | 105.0                | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 47.6                 | 74.0                    | -26.4                        | Ch 6, 2437 MHz, 1Mbps, EUT Flat   |
| 4924.250      | 40.2                | 7.4            | 1.0                        | 119.0                | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 47.6                 | 74.0                    | -26.4                        | Ch 11, 2462 MHz, 1Mbps, EUT Vert  |
| 4824.500      | 39.5                | 7.2            | 1.4                        | 97.0                 | 3.0                       | 0.0                             | Horz                            | PK       | 0.0                            | 46.7                 | 74.0                    | -27.3                        | Ch 1, 2412 MHz, 1Mbps, EUT Flat   |
| 3655.630      | 44.4                | 2.1            | 1.2                        | 42.0                 | 3.0                       | 0.0                             | Vert                            | PK       | 0.0                            | 46.5                 | 74.0                    | -27.5                        | Ch 6, 2437 MHz, 1Mbps, EUT Horz   |



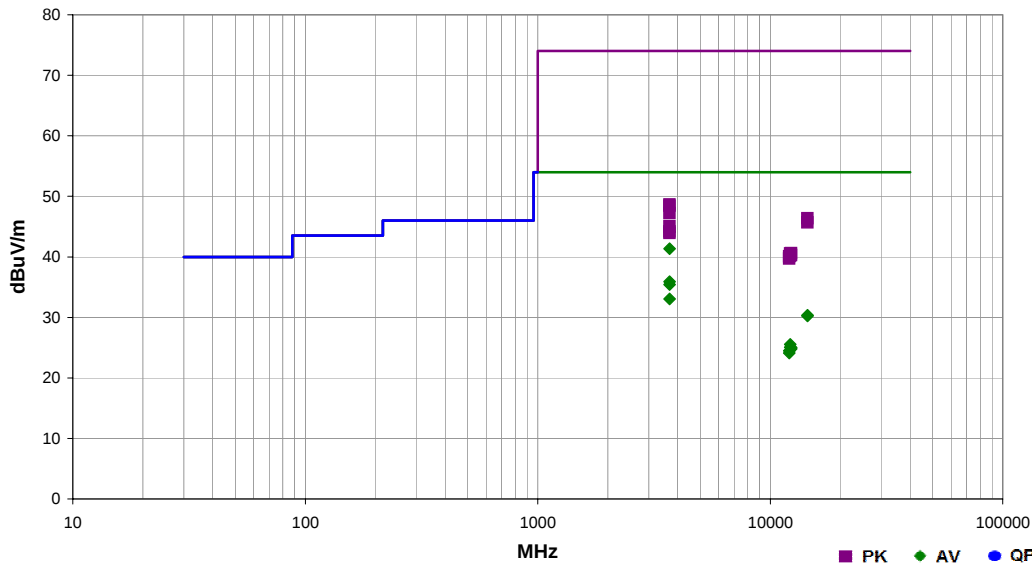
## SPURIOUS RADIATED EMISSIONS

PSA-ESCI 2014.02.19  
EmiR5 2014.01.02

|                 |                                                                                                          |                   |                  |  |
|-----------------|----------------------------------------------------------------------------------------------------------|-------------------|------------------|--|
| Work Order:     | INTE5431                                                                                                 | Date:             | 04/03/14         |  |
| Project:        | GQ110                                                                                                    | Temperature:      | 24 °C            |  |
| Job Site:       | NC01                                                                                                     | Humidity:         | 28% RH           |  |
| Serial Number:  | EZF8344000UK                                                                                             | Barometric Pres.: | 1015 mbar        |  |
| EUT:            | GQ110                                                                                                    | Tested by:        | Richard Mellroth |  |
| Configuration:  | 6                                                                                                        |                   |                  |  |
| Customer:       | Intel Corporation                                                                                        |                   |                  |  |
| Attendees:      | None                                                                                                     |                   |                  |  |
| EUT Power:      | 110VAC/60Hz                                                                                              |                   |                  |  |
| Operating Mode: | Transmitting 802.11(b/g/n). See comments next to data points for EUT orientation, channel and data rate. |                   |                  |  |
| Deviations:     | None                                                                                                     |                   |                  |  |
| Comments:       | None                                                                                                     |                   |                  |  |

|                     |                  |
|---------------------|------------------|
| Test Specifications | Test Method      |
| FCC 15.247:2014     | ANSI C63.10:2009 |

|       |          |                   |   |                   |      |         |      |
|-------|----------|-------------------|---|-------------------|------|---------|------|
| Run # | 28,30-31 | 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                         |
|------------|------------------|-------------|-------------------------|-------------------|------------------------|---------------------------|--------------------------|----------|--------------------------|-------------------|----------------------|------------------------|----------------------------------|
| 3693.035   | 41.5             | 2.6         | 1.8                     | 116.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 44.1              | 54.0                 | -9.9                   | Ch 11, 2462 MHz, 1Mbps, EUT Flat |
| 3693.025   | 41.5             | 2.6         | 1.9                     | 205.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 44.1              | 54.0                 | -9.9                   | Ch 11, 2462 MHz, 1Mbps, EUT Vert |
| 3693.030   | 38.7             | 2.6         | 1.2                     | 34.0              | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 41.3              | 54.0                 | -12.7                  | Ch 11, 2462 MHz, 1Mbps, EUT Horz |
| 3693.040   | 33.3             | 2.6         | 3.4                     | 257.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 35.9              | 54.0                 | -18.1                  | Ch 11, 2462 MHz, 1Mbps, EUT Vert |
| 3693.015   | 32.8             | 2.6         | 1.2                     | 236.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 35.4              | 54.0                 | -18.6                  | Ch 11, 2462 MHz, 1Mbps, EUT Horz |
| 3693.050   | 30.4             | 2.6         | 1.1                     | 277.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 33.0              | 54.0                 | -21.0                  | Ch 11, 2462 MHz, 1Mbps, EUT Flat |
| 14472.300  | 25.2             | 5.2         | 1.2                     | 193.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 30.4              | 54.0                 | -23.6                  | Ch 1, 2412 MHz, 1Mbps, EUT Horz  |
| 14473.040  | 25.1             | 5.2         | 1.2                     | 335.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 30.3              | 54.0                 | -23.7                  | Ch 1, 2412 MHz, 1Mbps, EUT Flat  |
| 3692.870   | 46.0             | 2.6         | 1.9                     | 205.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 48.6              | 74.0                 | -25.4                  | Ch 11, 2462 MHz, 1Mbps, EUT Vert |
| 3693.035   | 45.8             | 2.6         | 1.8                     | 116.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 48.4              | 74.0                 | -25.6                  | Ch 11, 2462 MHz, 1Mbps, EUT Flat |
| 3693.095   | 44.6             | 2.6         | 1.2                     | 34.0              | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 47.2              | 74.0                 | -26.8                  | Ch 11, 2462 MHz, 1Mbps, EUT Horz |
| 14471.140  | 41.2             | 5.2         | 1.2                     | 193.0             | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 46.4              | 74.0                 | -27.6                  | Ch 1, 2412 MHz, 1Mbps, EUT Horz  |
| 14471.280  | 40.5             | 5.2         | 1.2                     | 335.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 45.7              | 74.0                 | -28.3                  | Ch 1, 2412 MHz, 1Mbps, EUT Flat  |
| 12185.790  | 27.7             | -2.1        | 1.2                     | 20.0              | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 25.6              | 54.0                 | -28.4                  | Ch 6, 2437 MHz, 1Mbps, EUT Horz  |
| 12185.680  | 27.2             | -2.1        | 1.2                     | 28.0              | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 25.1              | 54.0                 | -28.9                  | Ch 6, 2437 MHz, 1Mbps, EUT Flat  |
| 3693.270   | 42.4             | 2.6         | 3.4                     | 257.0             | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 45.0              | 74.0                 | -29.0                  | Ch 11, 2462 MHz, 1Mbps, EUT Vert |
| 12310.810  | 27.1             | -2.1        | 1.2                     | 13.0              | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 25.0              | 54.0                 | -29.0                  | Ch 11, 2462 MHz, 1Mbps, EUT Horz |
| 12311.460  | 26.9             | -2.1        | 1.2                     | 200.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 24.8              | 54.0                 | -29.2                  | Ch 11, 2462 MHz, 1Mbps, EUT Flat |
| 12060.920  | 26.7             | -2.2        | 1.2                     | 18.0              | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 24.5              | 54.0                 | -29.5                  | Ch 1, 2412 MHz, 1Mbps, EUT Horz  |
| 3693.085   | 41.6             | 2.6         | 1.1                     | 277.0             | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 44.2              | 74.0                 | -29.8                  | Ch 11, 2462 MHz, 1Mbps, EUT Flat |
| 12061.430  | 26.3             | -2.2        | 1.2                     | 93.0              | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 24.1              | 54.0                 | -29.9                  | Ch 1, 2412 MHz, 1Mbps, EUT Flat  |
| 3692.530   | 41.3             | 2.6         | 1.2                     | 236.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 43.9              | 74.0                 | -30.1                  | Ch 11, 2462 MHz, 1Mbps, EUT Horz |
| 12309.970  | 42.7             | -2.1        | 1.2                     | 13.0              | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 40.6              | 74.0                 | -33.4                  | Ch 11, 2462 MHz, 1Mbps, EUT Horz |
| 12186.020  | 42.7             | -2.1        | 1.2                     | 20.0              | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 40.6              | 74.0                 | -33.4                  | Ch 6, 2437 MHz, 1Mbps, EUT Horz  |
| 12308.610  | 42.4             | -2.1        | 1.2                     | 200.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 40.3              | 74.0                 | -33.7                  | Ch 11, 2462 MHz, 1Mbps, EUT Flat |
| 12185.200  | 42.3             | -2.1        | 1.2                     | 28.0              | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 40.2              | 74.0                 | -33.8                  | Ch 6, 2437 MHz, 1Mbps, EUT Flat  |
| 12060.140  | 42.3             | -2.2        | 1.2                     | 93.0              | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 40.1              | 74.0                 | -33.9                  | Ch 1, 2412 MHz, 1Mbps, EUT Flat  |
| 12058.910  | 41.9             | -2.2        | 1.2                     | 18.0              | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 39.7              | 74.0                 | -34.3                  | Ch 1, 2412 MHz, 1Mbps, EUT Horz  |

# AC POWERLINE CONDUCTED EMISSIONS

## TEST DESCRIPTION

Using the mode of operation and configuration noted within this report, conducted emissions tests were performed. The frequency range investigated (scanned), is also noted in this report. Conducted power line measurements are made, unless otherwise specified, over the frequency range from 150 kHz to 30 MHz to determine the line-to-ground radio-noise voltage that is conducted from the EUT power-input terminals that are directly (or indirectly via separate transformer or power supplies) connected to a public power network. Equipment is tested with power cords that are normally used or that have electrical or shielding characteristics that are the same as those cords normally used. Typically those measurements are made using a LISN (Line Impedance Stabilization Network), the 50  $\Omega$  measuring port is terminated by a 50  $\Omega$  EMI meter or a 50  $\Omega$  resistive load. All 50  $\Omega$  measuring ports of the LISN are terminated by 50 $\Omega$ .

## TEST EQUIPMENT

| Description      | Manufacturer       | Model            | ID  | Last Cal.  | Interval |
|------------------|--------------------|------------------|-----|------------|----------|
| EV07 Cables      | N/A                | Conducted Cables | EVG | 03/07/2014 | 12 mo    |
| Attenuator       | Fairview Microwave | SA6B10W-20       | RKA | 10/24/2013 | 12 mo    |
| High Pass Filter | TTE                | H97-100K-50-720B | HHD | 01/22/2014 | 12 mo    |
| Receiver         | Rohde & Schwarz    | ESCI             | ARH | 02/05/2014 | 12 mo    |
| LISN             | Solar              | 9252-50-R-24-BNC | LIP | 02/16/2014 | 12 mo    |
| LISN             | Solar              | 9252-50-R-24-BNC | LIN | 02/03/2014 | 12 mo    |

## MEASUREMENT UNCERTAINTY

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

## CONFIGURATIONS INVESTIGATED

INTE5431-4

## MODES INVESTIGATED

EUT powered on. Tx, 802.11(b) Channel 1, 1Mbps  
EUT powered on. Tx, 802.11(b) Channel 6, 1Mbps  
EUT powered on. Tx, 802.11(b) Channel 11, 1Mbps

# AC POWERLINE CONDUCTED EMISSIONS

|                   |                   |                    |            |
|-------------------|-------------------|--------------------|------------|
| EUT:              | GQ110             | Work Order:        | INTE5431   |
| Serial Number:    | EZF8344000UK      | Date:              | 03/28/2014 |
| Customer:         | Intel Corporation | Temperature:       | 20.2°C     |
| Attendees:        | Sahithi Kandula   | Relative Humidity: | 42.7%      |
| Customer Project: | GQ110             | Bar. Pressure:     | 1009.1 mb  |
| Tested By:        | Jared Ison        | Job Site:          | EV07       |
| Power:            | 110VAC/60Hz       | Configuration:     | INTE5431-4 |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.207:2014 | ANSI C63.10:2009 |

## TEST PARAMETERS

|        |   |       |         |                        |    |
|--------|---|-------|---------|------------------------|----|
| Run #: | 2 | Line: | Neutral | Ext. Attenuation (dB): | 20 |
|--------|---|-------|---------|------------------------|----|

## COMMENTS

None.

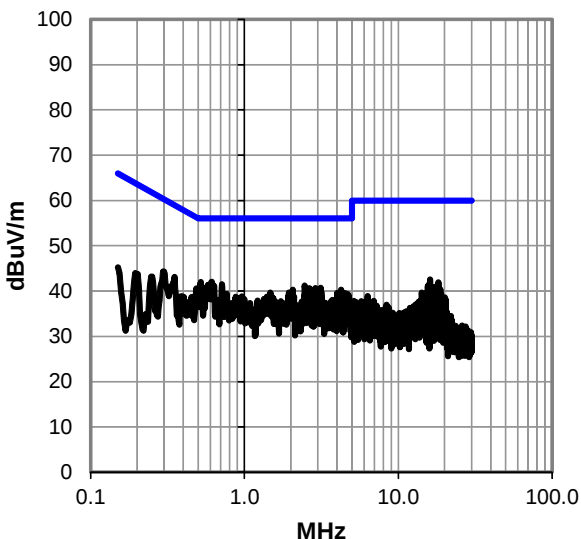
## EUT OPERATING MODES

EUT powered on. Tx, 802.11(b) Channel 1, 1Mbps

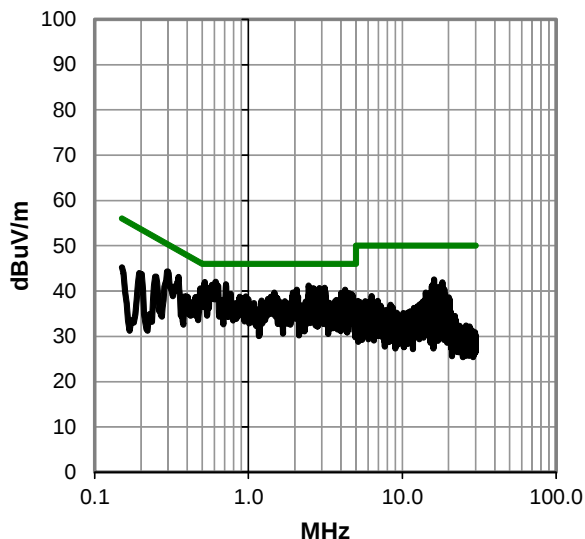
## DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #2

Peak Data - vs - Quasi Peak Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Margin (dB) |
|------------|-------------|-------------|-------------------|----------------------|-------------|
| 0.613      | 22.3        | 19.8        | 42.1              | 56.0                 | -13.9       |
| 0.519      | 22.2        | 19.8        | 42.0              | 56.0                 | -14.0       |
| 0.713      | 21.7        | 19.8        | 41.5              | 56.0                 | -14.5       |
| 0.579      | 21.6        | 19.8        | 41.4              | 56.0                 | -14.6       |
| 2.463      | 21.6        | 19.6        | 41.2              | 56.0                 | -14.8       |
| 3.127      | 21.2        | 19.5        | 40.7              | 56.0                 | -15.3       |
| 2.534      | 21.1        | 19.6        | 40.7              | 56.0                 | -15.3       |
| 2.896      | 21.1        | 19.6        | 40.7              | 56.0                 | -15.3       |
| 2.650      | 21.0        | 19.6        | 40.6              | 56.0                 | -15.4       |
| 2.642      | 20.9        | 19.6        | 40.5              | 56.0                 | -15.5       |
| 2.497      | 20.8        | 19.6        | 40.4              | 56.0                 | -15.6       |
| 0.486      | 20.8        | 19.8        | 40.6              | 56.2                 | -15.6       |
| 2.060      | 20.7        | 19.6        | 40.3              | 56.0                 | -15.7       |
| 4.239      | 20.7        | 19.6        | 40.3              | 56.0                 | -15.7       |
| 0.545      | 20.5        | 19.8        | 40.3              | 56.0                 | -15.7       |
| 0.351      | 23.3        | 19.8        | 43.1              | 58.9                 | -15.8       |
| 2.948      | 20.5        | 19.6        | 40.1              | 56.0                 | -15.9       |
| 0.299      | 24.5        | 19.8        | 44.3              | 60.3                 | -16.0       |
| 2.832      | 20.3        | 19.6        | 39.9              | 56.0                 | -16.1       |
| 1.474      | 20.0        | 19.7        | 39.7              | 56.0                 | -16.3       |
| 1.941      | 20.0        | 19.6        | 39.6              | 56.0                 | -16.4       |
| 4.015      | 20.0        | 19.6        | 39.6              | 56.0                 | -16.4       |
| 4.519      | 19.9        | 19.6        | 39.5              | 56.0                 | -16.5       |
| 3.015      | 19.8        | 19.6        | 39.4              | 56.0                 | -16.6       |
| 0.766      | 19.6        | 19.7        | 39.3              | 56.0                 | -16.7       |
| 4.690      | 19.7        | 19.6        | 39.3              | 56.0                 | -16.7       |

Peak Data - vs - Average Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Margin (dB) |
|------------|-------------|-------------|-------------------|----------------------|-------------|
| 0.613      | 22.3        | 19.8        | 42.1              | 46.0                 | -3.9        |
| 0.519      | 22.2        | 19.8        | 42.0              | 46.0                 | -4.0        |
| 0.713      | 21.7        | 19.8        | 41.5              | 46.0                 | -4.5        |
| 0.579      | 21.6        | 19.8        | 41.4              | 46.0                 | -4.6        |
| 2.463      | 21.6        | 19.6        | 41.2              | 46.0                 | -4.8        |
| 3.127      | 21.2        | 19.5        | 40.7              | 46.0                 | -5.3        |
| 2.534      | 21.1        | 19.6        | 40.7              | 46.0                 | -5.3        |
| 2.896      | 21.1        | 19.6        | 40.7              | 46.0                 | -5.3        |
| 2.650      | 21.0        | 19.6        | 40.6              | 46.0                 | -5.4        |
| 2.642      | 20.9        | 19.6        | 40.5              | 46.0                 | -5.5        |
| 2.497      | 20.8        | 19.6        | 40.4              | 46.0                 | -5.6        |
| 0.486      | 20.8        | 19.8        | 40.6              | 46.2                 | -5.6        |
| 2.060      | 20.7        | 19.6        | 40.3              | 46.0                 | -5.7        |
| 4.239      | 20.7        | 19.6        | 40.3              | 46.0                 | -5.7        |
| 0.545      | 20.5        | 19.8        | 40.3              | 46.0                 | -5.7        |
| 0.351      | 23.3        | 19.8        | 43.1              | 48.9                 | -5.8        |
| 2.948      | 20.5        | 19.6        | 40.1              | 46.0                 | -5.9        |
| 0.299      | 24.5        | 19.8        | 44.3              | 50.3                 | -6.0        |
| 2.832      | 20.3        | 19.6        | 39.9              | 46.0                 | -6.1        |
| 1.474      | 20.0        | 19.7        | 39.7              | 46.0                 | -6.3        |
| 1.941      | 20.0        | 19.6        | 39.6              | 46.0                 | -6.4        |
| 4.015      | 20.0        | 19.6        | 39.6              | 46.0                 | -6.4        |
| 4.519      | 19.9        | 19.6        | 39.5              | 46.0                 | -6.5        |
| 3.015      | 19.8        | 19.6        | 39.4              | 46.0                 | -6.6        |
| 0.766      | 19.6        | 19.7        | 39.3              | 46.0                 | -6.7        |
| 4.690      | 19.7        | 19.6        | 39.3              | 46.0                 | -6.7        |

## CONCLUSION

Pass



Tested By

# AC POWERLINE CONDUCTED EMISSIONS

|                   |                   |                    |            |
|-------------------|-------------------|--------------------|------------|
| EUT:              | GQ110             | Work Order:        | INTE5431   |
| Serial Number:    | EZF8344000UK      | Date:              | 03/28/2014 |
| Customer:         | Intel Corporation | Temperature:       | 20.2°C     |
| Attendees:        | Sahithi Kandula   | Relative Humidity: | 42.7%      |
| Customer Project: | GQ110             | Bar. Pressure:     | 1009.1 mb  |
| Tested By:        | Jared Ison        | Job Site:          | EV07       |
| Power:            | 110VAC/60Hz       | Configuration:     | INTE5431-4 |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.207:2014 | ANSI C63.10:2009 |

## TEST PARAMETERS

|        |   |       |           |                        |    |
|--------|---|-------|-----------|------------------------|----|
| Run #: | 3 | Line: | High Line | Ext. Attenuation (dB): | 20 |
|--------|---|-------|-----------|------------------------|----|

## COMMENTS

None.

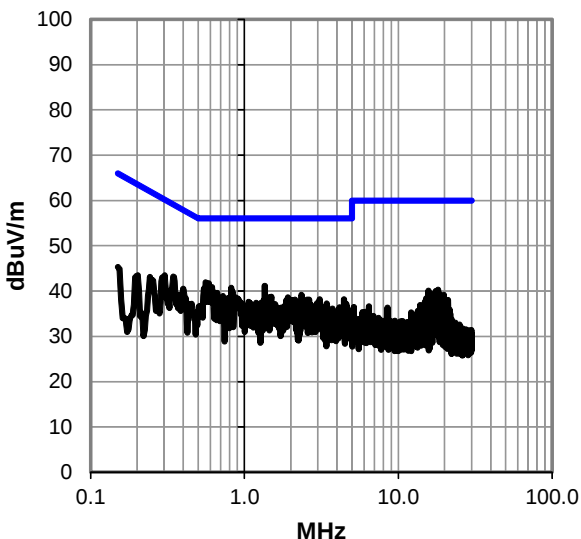
## EUT OPERATING MODES

EUT powered on. Tx, 802.11(b) Channel 1, 1Mbps

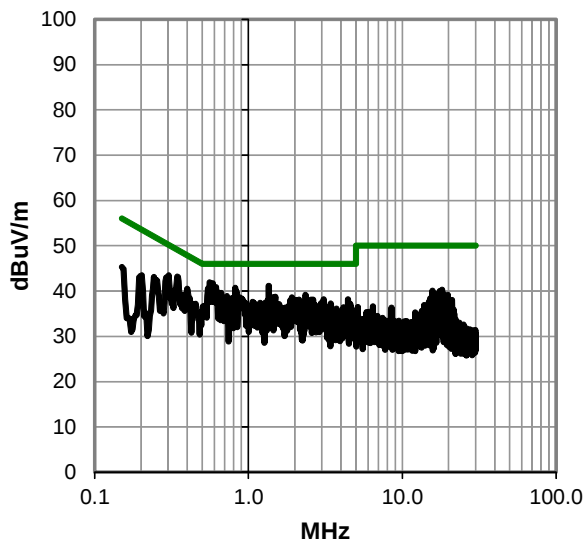
## DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #3

Peak Data - vs - Quasi Peak Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Margin (dB) |
|------------|-------------|-------------|-------------------|----------------------|-------------|
| 0.560      | 22.1        | 19.8        | 41.9              | 56.0                 | -14.1       |
| 0.587      | 21.9        | 19.8        | 41.7              | 56.0                 | -14.3       |
| 1.351      | 21.5        | 19.7        | 41.2              | 56.0                 | -14.8       |
| 0.616      | 21.1        | 19.8        | 40.9              | 56.0                 | -15.1       |
| 0.822      | 21.0        | 19.7        | 40.7              | 56.0                 | -15.3       |
| 0.545      | 20.8        | 19.8        | 40.6              | 56.0                 | -15.4       |
| 0.344      | 23.4        | 19.8        | 43.2              | 59.1                 | -15.9       |
| 0.665      | 19.8        | 19.8        | 39.6              | 56.0                 | -16.4       |
| 0.303      | 23.7        | 19.8        | 43.5              | 60.2                 | -16.7       |
| 2.347      | 19.6        | 19.6        | 39.2              | 56.0                 | -16.8       |
| 0.725      | 19.1        | 19.8        | 38.9              | 56.0                 | -17.1       |
| 1.493      | 19.1        | 19.7        | 38.8              | 56.0                 | -17.2       |
| 1.460      | 19.0        | 19.7        | 38.7              | 56.0                 | -17.3       |
| 0.400      | 20.7        | 19.8        | 40.5              | 57.9                 | -17.4       |
| 0.878      | 18.9        | 19.7        | 38.6              | 56.0                 | -17.4       |
| 1.915      | 19.0        | 19.6        | 38.6              | 56.0                 | -17.4       |
| 0.781      | 18.7        | 19.7        | 38.4              | 56.0                 | -17.6       |
| 1.407      | 18.6        | 19.7        | 38.3              | 56.0                 | -17.7       |
| 4.437      | 18.6        | 19.6        | 38.2              | 56.0                 | -17.8       |
| 3.079      | 18.6        | 19.5        | 38.1              | 56.0                 | -17.9       |
| 2.131      | 18.5        | 19.6        | 38.1              | 56.0                 | -17.9       |
| 2.553      | 18.5        | 19.6        | 38.1              | 56.0                 | -17.9       |
| 2.631      | 18.5        | 19.6        | 38.1              | 56.0                 | -17.9       |
| 2.034      | 18.4        | 19.6        | 38.0              | 56.0                 | -18.0       |
| 1.874      | 18.3        | 19.6        | 37.9              | 56.0                 | -18.1       |
| 2.418      | 18.3        | 19.6        | 37.9              | 56.0                 | -18.1       |

Peak Data - vs - Average Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Margin (dB) |
|------------|-------------|-------------|-------------------|----------------------|-------------|
| 0.560      | 22.1        | 19.8        | 41.9              | 46.0                 | -4.1        |
| 0.587      | 21.9        | 19.8        | 41.7              | 46.0                 | -4.3        |
| 1.351      | 21.5        | 19.7        | 41.2              | 46.0                 | -4.8        |
| 0.616      | 21.1        | 19.8        | 40.9              | 46.0                 | -5.1        |
| 0.822      | 21.0        | 19.7        | 40.7              | 46.0                 | -5.3        |
| 0.545      | 20.8        | 19.8        | 40.6              | 46.0                 | -5.4        |
| 0.344      | 23.4        | 19.8        | 43.2              | 49.1                 | -5.9        |
| 0.665      | 19.8        | 19.8        | 39.6              | 46.0                 | -6.4        |
| 0.303      | 23.7        | 19.8        | 43.5              | 50.2                 | -6.7        |
| 2.347      | 19.6        | 19.6        | 39.2              | 46.0                 | -6.8        |
| 0.725      | 19.1        | 19.8        | 38.9              | 46.0                 | -7.1        |
| 1.493      | 19.1        | 19.7        | 38.8              | 46.0                 | -7.2        |
| 1.460      | 19.0        | 19.7        | 38.7              | 46.0                 | -7.3        |
| 0.400      | 20.7        | 19.8        | 40.5              | 47.9                 | -7.4        |
| 0.878      | 18.9        | 19.7        | 38.6              | 46.0                 | -7.4        |
| 1.915      | 19.0        | 19.6        | 38.6              | 46.0                 | -7.4        |
| 0.781      | 18.7        | 19.7        | 38.4              | 46.0                 | -7.6        |
| 1.407      | 18.6        | 19.7        | 38.3              | 46.0                 | -7.7        |
| 4.437      | 18.6        | 19.6        | 38.2              | 46.0                 | -7.8        |
| 3.079      | 18.6        | 19.5        | 38.1              | 46.0                 | -7.9        |
| 2.131      | 18.5        | 19.6        | 38.1              | 46.0                 | -7.9        |
| 2.553      | 18.5        | 19.6        | 38.1              | 46.0                 | -7.9        |
| 2.631      | 18.5        | 19.6        | 38.1              | 46.0                 | -7.9        |
| 2.034      | 18.4        | 19.6        | 38.0              | 46.0                 | -8.0        |
| 1.874      | 18.3        | 19.6        | 37.9              | 46.0                 | -8.1        |
| 2.418      | 18.3        | 19.6        | 37.9              | 46.0                 | -8.1        |

## CONCLUSION

Pass



Tested By

# AC POWERLINE CONDUCTED EMISSIONS

|                   |                   |                    |            |
|-------------------|-------------------|--------------------|------------|
| EUT:              | GQ110             | Work Order:        | INTE5431   |
| Serial Number:    | EZF8344000UK      | Date:              | 03/28/2014 |
| Customer:         | Intel Corporation | Temperature:       | 20.2°C     |
| Attendees:        | Sahithi Kandula   | Relative Humidity: | 42.7%      |
| Customer Project: | GQ110             | Bar. Pressure:     | 1009.1 mb  |
| Tested By:        | Jared Ison        | Job Site:          | EV07       |
| Power:            | 110VAC/60Hz       | Configuration:     | INTE5431-4 |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.207:2014 | ANSI C63.10:2009 |

## TEST PARAMETERS

|        |   |       |         |                        |    |
|--------|---|-------|---------|------------------------|----|
| Run #: | 4 | Line: | Neutral | Ext. Attenuation (dB): | 20 |
|--------|---|-------|---------|------------------------|----|

## COMMENTS

None.

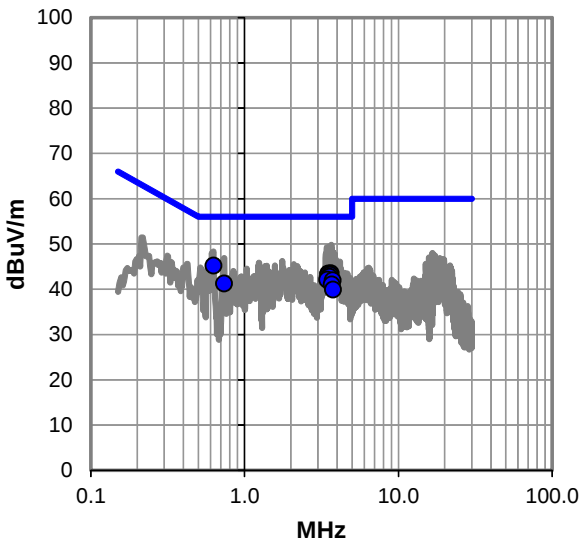
## EUT OPERATING MODES

EUT powered on. Tx, 802.11(b) Channel 6, 1Mbps

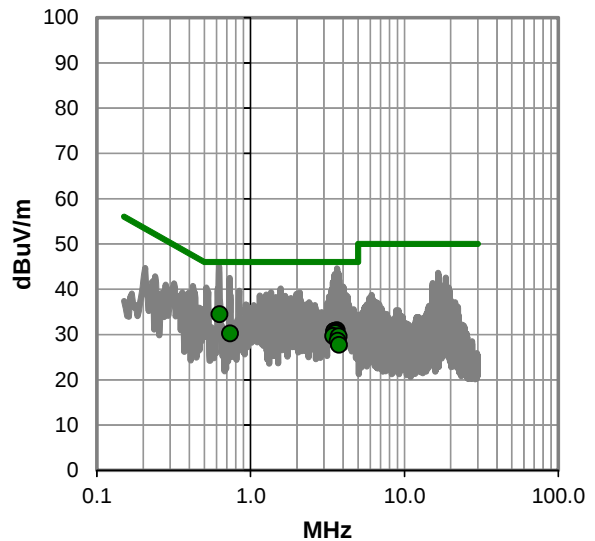
## DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #4

Quasi Peak Data - vs - Quasi Peak Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Margin (dB) |
|------------|-------------|-------------|-------------------|----------------------|-------------|
| 0.629      | 25.4        | 19.8        | 45.2              | 56.0                 | -10.8       |
| 3.641      | 23.9        | 19.6        | 43.5              | 56.0                 | -12.5       |
| 3.491      | 23.8        | 19.6        | 43.4              | 56.0                 | -12.6       |
| 3.521      | 23.7        | 19.6        | 43.3              | 56.0                 | -12.7       |
| 3.599      | 23.5        | 19.6        | 43.1              | 56.0                 | -12.9       |
| 3.565      | 23.1        | 19.6        | 42.7              | 56.0                 | -13.3       |
| 3.453      | 22.5        | 19.6        | 42.1              | 56.0                 | -13.9       |
| 3.734      | 22.3        | 19.6        | 41.9              | 56.0                 | -14.1       |
| 0.737      | 21.5        | 19.8        | 41.3              | 56.0                 | -14.7       |
| 3.684      | 21.4        | 19.6        | 41.0              | 56.0                 | -15.0       |
| 3.765      | 20.3        | 19.6        | 39.9              | 56.0                 | -16.1       |

Average Data - vs - Average Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Margin (dB) |
|------------|-------------|-------------|-------------------|----------------------|-------------|
| 0.629      | 14.7        | 19.8        | 34.5              | 46.0                 | -11.5       |
| 3.641      | 11.3        | 19.6        | 30.9              | 46.0                 | -15.1       |
| 3.521      | 11.1        | 19.6        | 30.7              | 46.0                 | -15.3       |
| 3.491      | 11.1        | 19.6        | 30.7              | 46.0                 | -15.3       |
| 3.599      | 11.0        | 19.6        | 30.6              | 46.0                 | -15.4       |
| 3.565      | 10.7        | 19.6        | 30.3              | 46.0                 | -15.7       |
| 0.737      | 10.5        | 19.8        | 30.3              | 46.0                 | -15.7       |
| 3.453      | 10.1        | 19.6        | 29.7              | 46.0                 | -16.3       |
| 3.734      | 10.0        | 19.6        | 29.6              | 46.0                 | -16.4       |
| 3.684      | 9.0         | 19.6        | 28.6              | 46.0                 | -17.4       |
| 3.765      | 8.1         | 19.6        | 27.7              | 46.0                 | -18.3       |

## CONCLUSION

Pass



Tested By

# AC POWERLINE CONDUCTED EMISSIONS

|                   |                   |                    |            |
|-------------------|-------------------|--------------------|------------|
| EUT:              | GQ110             | Work Order:        | INTE5431   |
| Serial Number:    | EZF8344000UK      | Date:              | 03/28/2014 |
| Customer:         | Intel Corporation | Temperature:       | 20.2°C     |
| Attendees:        | Sahithi Kandula   | Relative Humidity: | 42.7%      |
| Customer Project: | GQ110             | Bar. Pressure:     | 1009.1 mb  |
| Tested By:        | Jared Ison        | Job Site:          | EV07       |
| Power:            | 110VAC/60Hz       | Configuration:     | INTE5431-4 |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.207:2014 | ANSI C63.10:2009 |

## TEST PARAMETERS

|        |   |       |           |                        |    |
|--------|---|-------|-----------|------------------------|----|
| Run #: | 5 | Line: | High Line | Ext. Attenuation (dB): | 20 |
|--------|---|-------|-----------|------------------------|----|

## COMMENTS

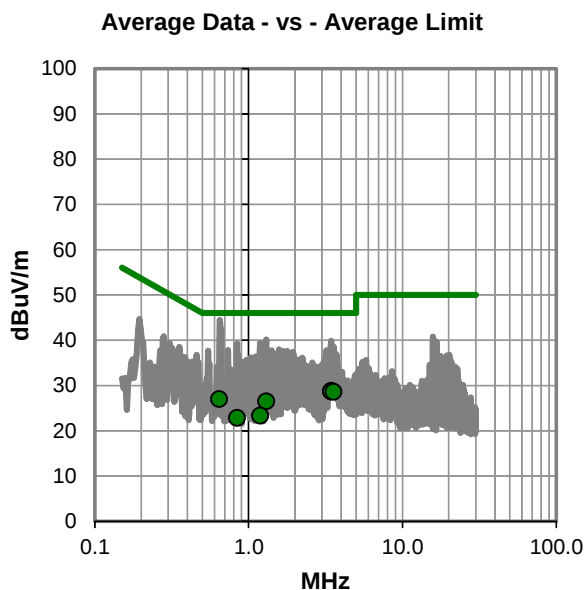
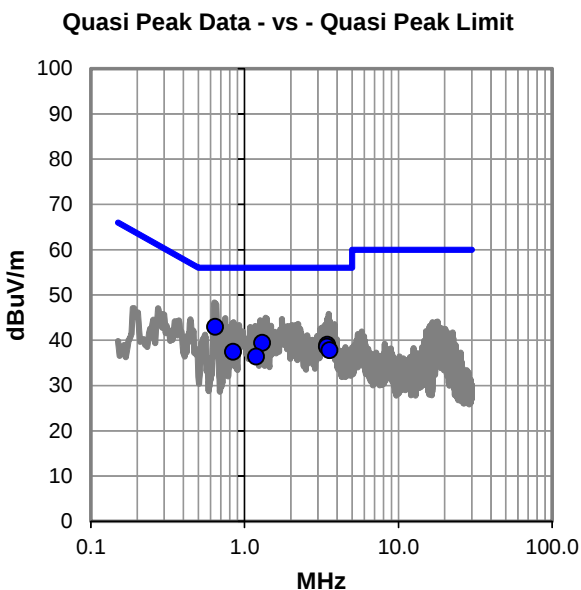
None.

## EUT OPERATING MODES

EUT powered on. Tx, 802.11(b) Channel 6, 1Mbps

## DEVIATIONS FROM TEST STANDARD

None



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #5

Quasi Peak Data - vs - Quasi Peak Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Margin (dB) |
|------------|-------------|-------------|-------------------|----------------------|-------------|
| 0.643      | 23.2        | 19.8        | 43.0              | 56.0                 | -13.0       |
| 1.304      | 19.7        | 19.7        | 39.4              | 56.0                 | -16.6       |
| 3.456      | 19.4        | 19.6        | 39.0              | 56.0                 | -17.0       |
| 3.424      | 19.0        | 19.6        | 38.6              | 56.0                 | -17.4       |
| 3.567      | 18.2        | 19.6        | 37.8              | 56.0                 | -18.2       |
| 0.842      | 17.7        | 19.7        | 37.4              | 56.0                 | -18.6       |
| 1.191      | 16.7        | 19.7        | 36.4              | 56.0                 | -19.6       |

Average Data - vs - Average Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Margin (dB) |
|------------|-------------|-------------|-------------------|----------------------|-------------|
| 3.456      | 9.2         | 19.6        | 28.8              | 46.0                 | -17.2       |
| 3.424      | 9.1         | 19.6        | 28.7              | 46.0                 | -17.3       |
| 3.567      | 9.0         | 19.6        | 28.6              | 46.0                 | -17.4       |
| 0.643      | 7.2         | 19.8        | 27.0              | 46.0                 | -19.0       |
| 1.304      | 6.8         | 19.7        | 26.5              | 46.0                 | -19.5       |
| 1.191      | 3.6         | 19.7        | 23.3              | 46.0                 | -22.7       |
| 0.842      | 3.1         | 19.7        | 22.8              | 46.0                 | -23.2       |

## CONCLUSION

Pass



Tested By

# AC POWERLINE CONDUCTED EMISSIONS

|                   |                   |                    |            |
|-------------------|-------------------|--------------------|------------|
| EUT:              | GQ110             | Work Order:        | INTE5431   |
| Serial Number:    | EZF8344000UK      | Date:              | 03/28/2014 |
| Customer:         | Intel Corporation | Temperature:       | 20.2°C     |
| Attendees:        | Sahithi Kandula   | Relative Humidity: | 42.7%      |
| Customer Project: | GQ110             | Bar. Pressure:     | 1009.1 mb  |
| Tested By:        | Jared Ison        | Job Site:          | EV07       |
| Power:            | 110VAC/60Hz       | Configuration:     | INTE5431-4 |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.207:2014 | ANSI C63.10:2009 |

## TEST PARAMETERS

|        |   |       |         |                        |    |
|--------|---|-------|---------|------------------------|----|
| Run #: | 6 | Line: | Neutral | Ext. Attenuation (dB): | 20 |
|--------|---|-------|---------|------------------------|----|

## COMMENTS

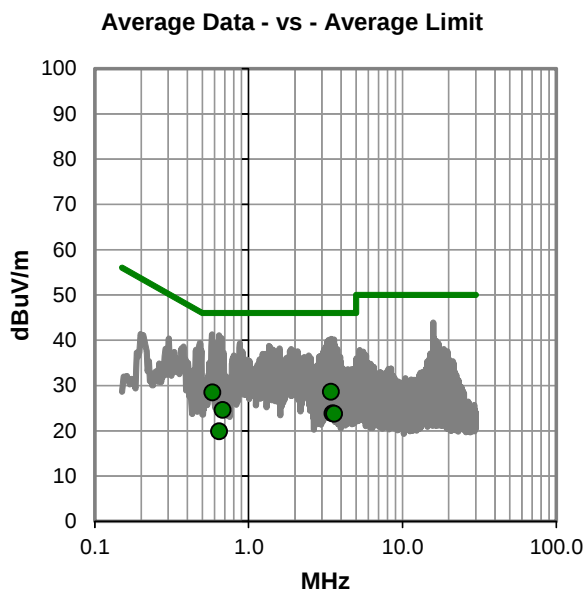
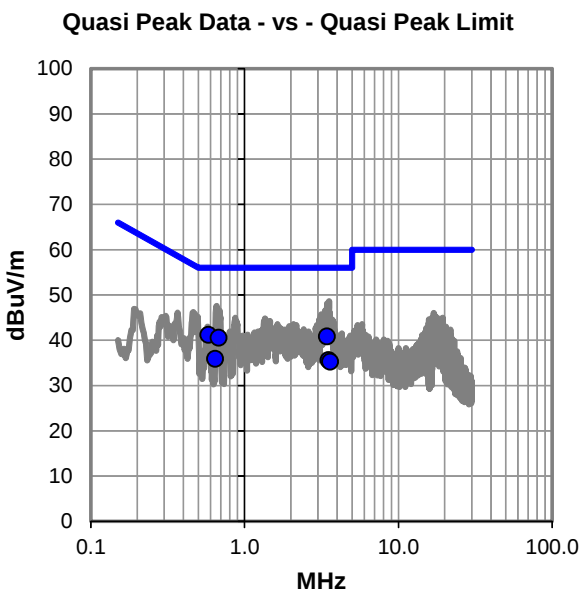
None.

## EUT OPERATING MODES

EUT powered on. Tx, 802.11(b) Channel 11, 1Mbps

## DEVIATIONS FROM TEST STANDARD

None



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #6

Quasi Peak Data - vs - Quasi Peak Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Margin (dB) |
|------------|-------------|-------------|-------------------|----------------------|-------------|
| 0.582      | 21.4        | 19.8        | 41.2              | 56.0                 | -14.8       |
| 3.438      | 21.2        | 19.6        | 40.8              | 56.0                 | -15.2       |
| 0.677      | 20.8        | 19.8        | 40.6              | 56.0                 | -15.4       |
| 0.643      | 16.1        | 19.8        | 35.9              | 56.0                 | -20.1       |
| 3.508      | 16.0        | 19.6        | 35.6              | 56.0                 | -20.4       |
| 3.594      | 15.6        | 19.6        | 35.2              | 56.0                 | -20.8       |

Average Data - vs - Average Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Margin (dB) |
|------------|-------------|-------------|-------------------|----------------------|-------------|
| 3.438      | 9.0         | 19.6        | 28.6              | 46.0                 | -17.4       |
| 0.582      | 8.7         | 19.8        | 28.5              | 46.0                 | -17.5       |
| 0.677      | 4.8         | 19.8        | 24.6              | 46.0                 | -21.4       |
| 3.508      | 4.2         | 19.6        | 23.8              | 46.0                 | -22.2       |
| 3.594      | 4.1         | 19.6        | 23.7              | 46.0                 | -22.3       |
| 0.643      | 0.1         | 19.8        | 19.9              | 46.0                 | -26.1       |

## CONCLUSION

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# AC POWERLINE CONDUCTED EMISSIONS

|                   |                   |                    |            |
|-------------------|-------------------|--------------------|------------|
| EUT:              | GQ110             | Work Order:        | INTE5431   |
| Serial Number:    | EZF8344000UK      | Date:              | 03/28/2014 |
| Customer:         | Intel Corporation | Temperature:       | 20.2°C     |
| Attendees:        | Sahithi Kandula   | Relative Humidity: | 42.7%      |
| Customer Project: | GQ110             | Bar. Pressure:     | 1009.1 mb  |
| Tested By:        | Jared Ison        | Job Site:          | EV07       |
| Power:            | 110VAC/60Hz       | Configuration:     | INTE5431-4 |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.207:2014 | ANSI C63.10:2009 |

## TEST PARAMETERS

|        |   |       |           |                        |    |
|--------|---|-------|-----------|------------------------|----|
| Run #: | 7 | Line: | High Line | Ext. Attenuation (dB): | 20 |
|--------|---|-------|-----------|------------------------|----|

## COMMENTS

None.

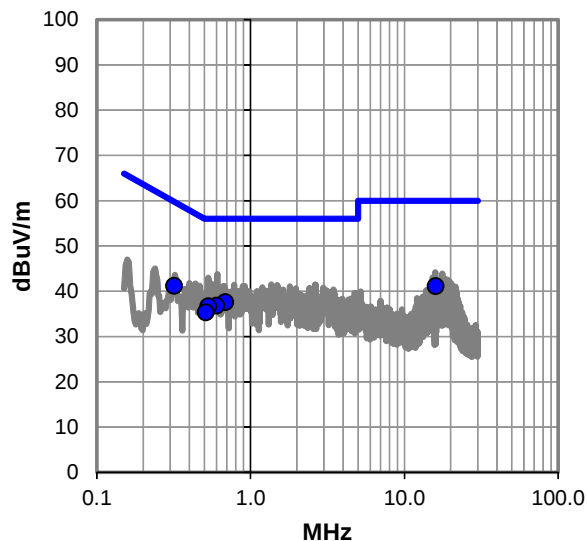
## EUT OPERATING MODES

EUT powered on. Tx, 802.11(b) Channel 11, 1Mbps

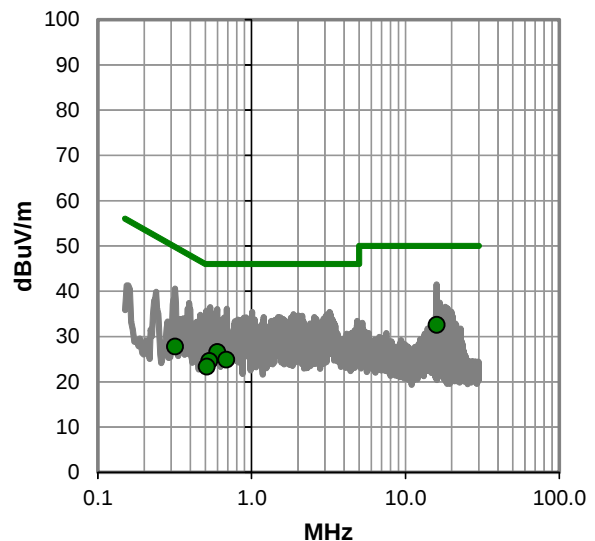
## DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #7

Quasi Peak Data - vs - Quasi Peak Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Margin (dB) |
|------------|-------------|-------------|-------------------|----------------------|-------------|
| 0.685      | 17.8        | 19.8        | 37.6              | 56.0                 | -18.4       |
| 0.319      | 21.4        | 19.8        | 41.2              | 59.7                 | -18.5       |
| 15.992     | 21.5        | 19.6        | 41.1              | 60.0                 | -18.9       |
| 0.601      | 17.0        | 19.8        | 36.8              | 56.0                 | -19.2       |
| 0.532      | 16.9        | 19.8        | 36.7              | 56.0                 | -19.3       |
| 0.512      | 15.5        | 19.8        | 35.3              | 56.0                 | -20.7       |

Average Data - vs - Average Limit

| Freq (MHz) | Amp. (dBuV) | Factor (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Margin (dB) |
|------------|-------------|-------------|-------------------|----------------------|-------------|
| 15.992     | 13.0        | 19.6        | 32.6              | 50.0                 | -17.4       |
| 0.601      | 6.8         | 19.8        | 26.6              | 46.0                 | -19.4       |
| 0.685      | 5.1         | 19.8        | 24.9              | 46.0                 | -21.1       |
| 0.532      | 4.8         | 19.8        | 24.6              | 46.0                 | -21.4       |
| 0.319      | 8.0         | 19.8        | 27.8              | 49.7                 | -21.9       |
| 0.512      | 3.5         | 19.8        | 23.3              | 46.0                 | -22.7       |

## CONCLUSION

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