



Honeywell, Automation and Control Solutions

TH8321WF

FCC 15.207:2014

FCC 15.247:2014

Report # HNYW0116



NVLAP Lab Code: 200881-0

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. This Report may only be duplicated in its entirety

**Last Date of Test: November 25, 2014
Honeywell, Automation and Control Solutions
Model: TH8321WF**

Radio Equipment Testing

Standards

Specification	Method
FCC 15.207:2014	ANSI C63.10:2009
FCC 15.247:2014	ANSI C63.10:2009


Results

Method Clause	Test Description	Applied	Results	Comments
6.2	AC Powerline Conducted Emissions	Yes	Pass	
6.5, 6.6	Spurious Radiated Emissions	Yes	Pass	
6.7	Spurious Conducted Emissions	Yes	Pass	
6.7	Band Edge Compliance	Yes	Pass	
6.9.1	Occupied Bandwidth	Yes	Pass	
6.10.2	Output Power	Yes	Pass	
6.11.2	Power Spectral Density	Yes	Pass	
7.5	Duty Cycle	Yes	Pass	

Deviations From Test Standards

None

Approved By:



Tim O'Shea, Operations Manager

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. 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		

ACCREDITATIONS AND AUTHORIZATIONS

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

Canada

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

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.

Australia/New Zealand

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

Korea

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

Japan

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

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.

Singapore

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

Israel

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

Hong Kong

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

Vietnam

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

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 on each data sheet. 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 16-4-2 as applicable), and are available upon request.

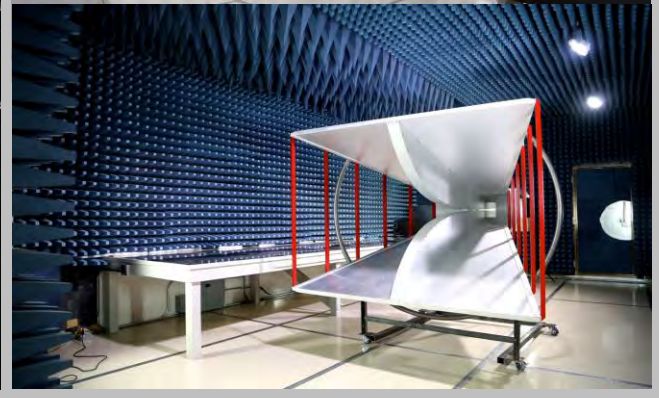
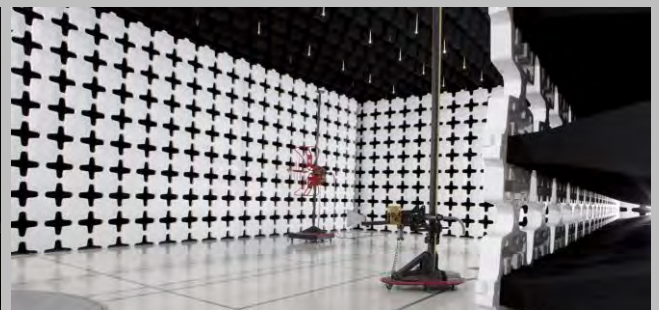
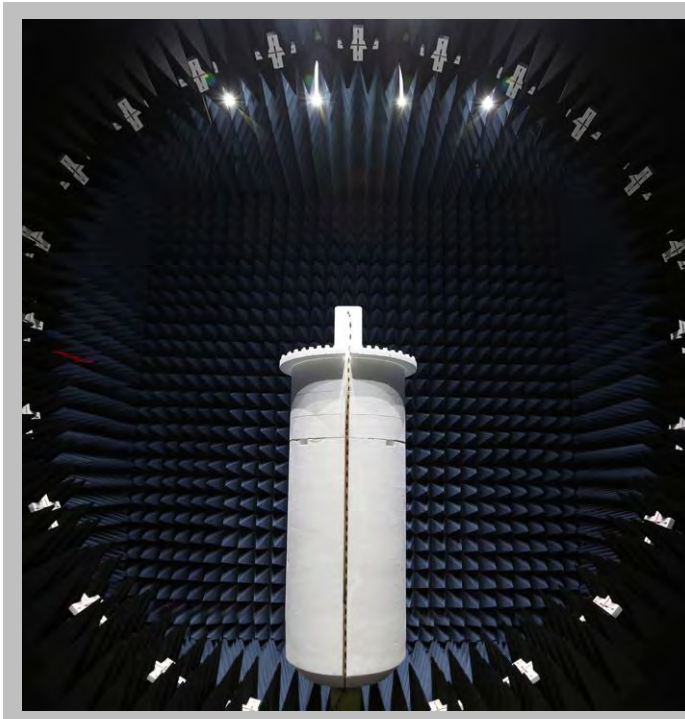
The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

Test	+ MU	- MU
Frequency Accuracy (Hz)	0.0007%	-0.0007%
Amplitude Accuracy (dB)	1.2 dB	-1.2 dB
Conducted Power (dB)	0.3 dB	-0.3 dB
Radiated Power via Substitution (dB)	0.7 dB	-0.7 dB
Temperature (degrees C)	0.7°C	-0.7°C
Humidity (% RH)	2.5% RH	-2.5% RH
Voltage (AC)	1.0%	-1.0%
Voltage (DC)	0.7%	-0.7%
Field Strength (dB)	4.7 dB	-4.7 dB
AC Powerline Conducted Emissions (dB)	2.9 dB	-2.9 dB

FACILITIES



California Labs OC01-13 41 Tesla Irvine, CA 92618 (949) 861-8918	Minnesota Labs MN01-08, MN10 9349 W Broadway Ave. Brooklyn Park, MN 55445 (612)-638-5136	New York Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 685-0796	Oregon Labs EV01-12 22975 NW Evergreen Pkwy Hillsboro, OR 97124 (503) 844-4066	Texas Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	Washington Labs NC01-05 19201 120 th Ave NE Bothell, WA 9801 (425)984-6600
NVLAP					
NVLAP Lab Code: 200676-0	NVLAP Lab Code: 200881-0	NVLAP Lab Code: 200761-0	NVLAP Lab Code: 200630-0	NVLAP Lab Code:201049-0	NVLAP Lab Code: 200629-0
Industry Canada					
2834B-1, 2834B-3	2834E-1	N/A	2834D-1, 2834D-2	2834G-1	2834F-1
BSMI					
SL2-IN-E-1154R	SL2-IN-E-1152R	N/A	SL2-IN-E-1017	In Process	SL2-IN-E-1153R
VCCI					
A-0029	A-0109	N/A	A-0108	A-0201	A-0110



Client and Equipment Under Test (EUT) Information

Company Name:	Honeywell, Automation and Control Solutions
Address:	1985 Douglas Drive North
City, State, Zip:	Golden Valley, MN 55422
Test Requested By:	Dave Mulhouse
Model:	TH8321WF
First Date of Test:	November 21, 2014
Last Date of Test:	November 25, 2014
Receipt Date of Samples:	November 21, 2014
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT:
Thermostat with Wi-Fi and 2 antennas
Radio Output Settings:
The radio software power settings used for the testing contained in this report are contained in the 'Operational Description' submitted to the FCC as part of the certification application package.
Testing Objective:
To demonstrate compliance of the 802.11 radio under FCC 15.247 for operation in the 2.4 GHz band(s).

Configuration HNYW0116- 1

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Thermostat	Honeywell, Automation and Control Solutions	TH8321WF	51911030061812

Remote Equipment Outside of Test Setup Boundary			
Description	Manufacturer	Model/Part Number	Serial Number
AC Adapter	CUI Incorporated	48A-24-500	None

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Adapter Cable	No	180cm	No	Thermostat	AC Adapter

Configuration HNYW0116- 2

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Thermostat	Honeywell, Automation and Control Solutions	TH8321WF	51911030061812

Remote Equipment Outside of Test Setup Boundary			
Description	Manufacturer	Model/Part Number	Serial Number
AC Adapter	CUI Incorporated	48A-24-500	None

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Adapter Cable	No	180cm	No	Thermostat	AC Adapter
AC Power	No	240cm	No	AC Adapter	AC Mains

Configuration HNYW0116- 3

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Thermostat	Honeywell, Automation and Control Solutions	TH8321WF	51911030061813

Remote Equipment Outside of Test Setup Boundary			
Description	Manufacturer	Model/Part Number	Serial Number
AC Adapter	CUI Incorporated	48A-24-500	None

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Adapter Cable	No	180cm	No	Thermostat	AC Adapter

Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	11/21/2014	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
2	11/24/2014	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.
3	11/25/2014	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.
4	11/25/2014	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.
5	11/25/2014	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.
6	11/25/2014	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.
7	11/25/2014	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.
8	11/25/2014	Power Spectral Density	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

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 Ω measuring port is terminated by a 50 Ω EMI meter or a 50 Ω resistive load. All 50 Ω measuring ports of the LISN are terminated by 50 Ω .

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Receiver	Rohde & Schwarz	ESR7	ARI	05/06/2014	12 mo
MN03 Cables	ESM Cable Corp.	Conducted Cables	MNC	12/05/2013	12 mo
LISN	Solar Electronics	9252-50-R-24-BNC	LIY	05/15/2014	12 mo
Attenuator 20dB, BNC	Fairview Microwave	SA01B-20	AQP	07/22/2014	12 mo
High Pass Filter	TTE	H97-100K-50-720B	HGN	05/23/2014	24 mo

MEASUREMENT UNCERTAINTY

Description		
Expanded k=2	2.4 dB	-2.4 dB

CONFIGURATIONS INVESTIGATED

HNYW0116-2

MODES INVESTIGATED

Transmitting High Channel 1 Mbps.
Transmitting Low Channel 1 Mbps.
Transmitting Mid Channel 1 Mbps.

AC POWERLINE CONDUCTED EMISSIONS

EUT:	TH8321WF	Work Order:	HNYW0116
Serial Number:	51911030061812	Date:	11/24/2014
Customer:	Honeywell, Automation and Control Solutions	Temperature:	23.1°C
Attendees:	None	Relative Humidity:	18.8%
Customer Project:	None	Bar. Pressure:	1002.6 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0116-2

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	5	Line:	Neutral	Ext. Attenuation (dB):	20
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COMMENTS

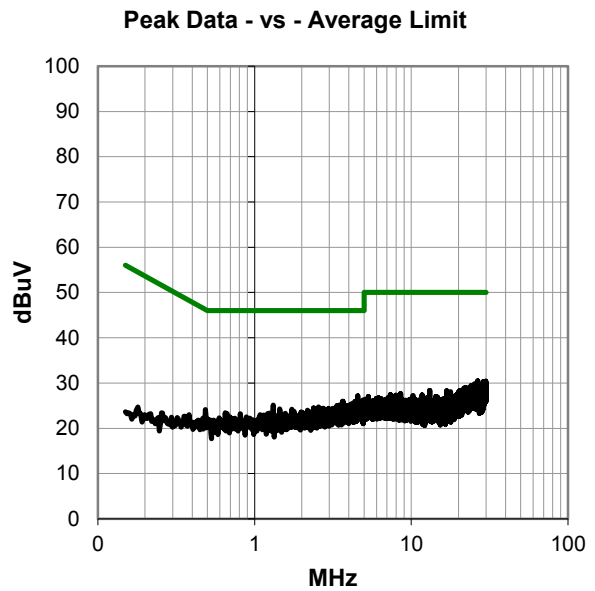
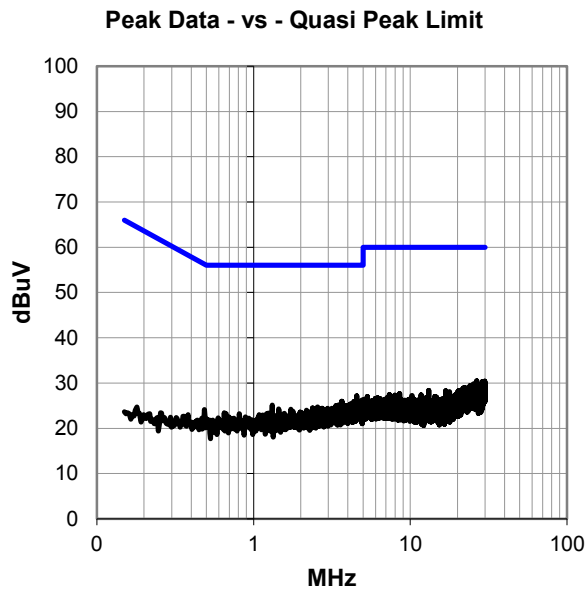
None

EUT OPERATING MODES

Transmitting Low Channel 1 Mbps.

DEVIATIONS FROM TEST STANDARD

None



AC POWERLINE CONDUCTED EMISSIONS



WTD:2014.10.14
PSA-ESCI 2014.09.10, EmiR5 2014.10.01.1

RESULTS - Run #5

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
4.552	6.8	20.4	27.2	56.0	-28.8
26.545	8.4	22.1	30.5	60.0	-29.5
29.907	7.9	22.5	30.4	60.0	-29.6
28.877	8.0	22.4	30.4	60.0	-29.6
4.903	5.8	20.4	26.2	56.0	-29.8
4.616	5.6	20.4	26.0	56.0	-30.0
3.649	5.6	20.4	26.0	56.0	-30.0
26.739	7.8	22.1	29.9	60.0	-30.1
4.370	5.5	20.4	25.9	56.0	-30.1
3.694	5.5	20.4	25.9	56.0	-30.1
26.560	7.7	22.1	29.8	60.0	-30.2
25.392	7.8	22.0	29.8	60.0	-30.2
27.385	7.5	22.2	29.7	60.0	-30.3
29.127	7.2	22.4	29.6	60.0	-30.4
29.761	7.1	22.5	29.6	60.0	-30.4
28.788	7.2	22.4	29.6	60.0	-30.4
29.243	7.1	22.4	29.5	60.0	-30.5
4.474	5.1	20.4	25.5	56.0	-30.5
4.179	5.1	20.4	25.5	56.0	-30.5
24.102	7.6	21.8	29.4	60.0	-30.6
24.396	7.5	21.9	29.4	60.0	-30.6
29.519	6.9	22.4	29.3	60.0	-30.7
26.023	7.2	22.0	29.2	60.0	-30.8
29.049	6.8	22.4	29.2	60.0	-30.8
4.090	4.8	20.4	25.2	56.0	-30.8
3.489	4.8	20.3	25.1	56.0	-30.9

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
4.552	6.8	20.4	27.2	46.0	-18.8
26.545	8.4	22.1	30.5	50.0	-19.5
29.907	7.9	22.5	30.4	50.0	-19.6
28.877	8.0	22.4	30.4	50.0	-19.6
4.903	5.8	20.4	26.2	46.0	-19.8
4.616	5.6	20.4	26.0	46.0	-20.0
3.649	5.6	20.4	26.0	46.0	-20.0
26.739	7.8	22.1	29.9	50.0	-20.1
4.370	5.5	20.4	25.9	46.0	-20.1
3.694	5.5	20.4	25.9	46.0	-20.1
26.560	7.7	22.1	29.8	50.0	-20.2
25.392	7.8	22.0	29.8	50.0	-20.2
27.385	7.5	22.2	29.7	50.0	-20.3
29.127	7.2	22.4	29.6	50.0	-20.4
29.761	7.1	22.5	29.6	50.0	-20.4
28.788	7.2	22.4	29.6	50.0	-20.4
29.243	7.1	22.4	29.5	50.0	-20.5
4.474	5.1	20.4	25.5	46.0	-20.5
4.179	5.1	20.4	25.5	46.0	-20.5
24.102	7.6	21.8	29.4	50.0	-20.6
24.396	7.5	21.9	29.4	50.0	-20.6
29.519	6.9	22.4	29.3	50.0	-20.7
26.023	7.2	22.0	29.2	50.0	-20.8
29.049	6.8	22.4	29.2	50.0	-20.8
4.090	4.8	20.4	25.2	46.0	-20.8
3.489	4.8	20.3	25.1	46.0	-20.9

CONCLUSION

Pass

Trevor Buls

Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	TH8321WF	Work Order:	HNYW0116
Serial Number:	51911030061812	Date:	11/24/2014
Customer:	Honeywell, Automation and Control Solutions	Temperature:	23.1°C
Attendees:	None	Relative Humidity:	18.8%
Customer Project:	None	Bar. Pressure:	1002.6 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0116-2

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	6	Line:	High Line	Ext. Attenuation (dB):	20
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COMMENTS

None

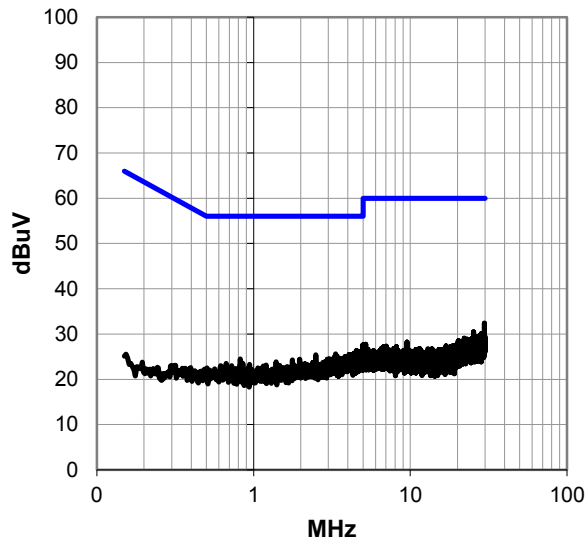
EUT OPERATING MODES

Transmitting Low Channel 1 Mbps.

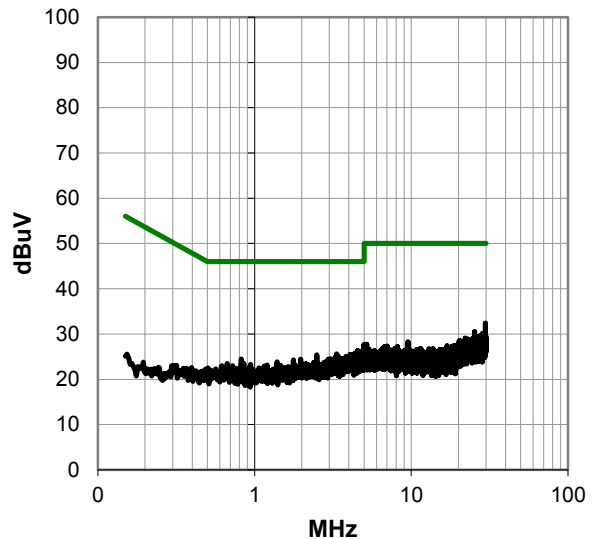
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS



WTD:2014.10.14
PSA-ESCI 2014.09.10, EmiR5 2014.10.01.1

RESULTS - Run #6

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
29.769	9.9	22.5	32.4	60.0	-27.6
4.989	7.1	20.5	27.6	56.0	-28.4
4.970	6.3	20.5	26.8	56.0	-29.2
25.351	8.5	22.0	30.5	60.0	-29.5
4.534	5.9	20.4	26.3	56.0	-29.7
4.672	5.8	20.4	26.2	56.0	-29.8
4.828	5.7	20.4	26.1	56.0	-29.9
28.523	7.8	22.3	30.1	60.0	-29.9
4.731	5.4	20.4	25.8	56.0	-30.2
4.384	5.4	20.4	25.8	56.0	-30.2
28.821	7.4	22.4	29.8	60.0	-30.2
4.601	5.3	20.4	25.7	56.0	-30.3
4.418	5.3	20.4	25.7	56.0	-30.3
3.340	5.3	20.3	25.6	56.0	-30.4
29.437	7.2	22.4	29.6	60.0	-30.4
27.698	7.4	22.2	29.6	60.0	-30.4
29.922	7.1	22.5	29.6	60.0	-30.4
4.444	5.2	20.4	25.6	56.0	-30.4
27.926	7.3	22.3	29.6	60.0	-30.4
27.560	7.3	22.2	29.5	60.0	-30.5
29.019	7.1	22.4	29.5	60.0	-30.5
27.206	7.3	22.2	29.5	60.0	-30.5
4.269	5.1	20.4	25.5	56.0	-30.5
4.075	5.1	20.4	25.5	56.0	-30.5
27.814	7.2	22.2	29.4	60.0	-30.6
2.500	5.1	20.3	25.4	56.0	-30.6

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
29.769	9.9	22.5	32.4	50.0	-17.6
4.989	7.1	20.5	27.6	46.0	-18.4
4.970	6.3	20.5	26.8	46.0	-19.2
25.351	8.5	22.0	30.5	50.0	-19.5
4.534	5.9	20.4	26.3	46.0	-19.7
4.672	5.8	20.4	26.2	46.0	-19.8
4.828	5.7	20.4	26.1	46.0	-19.9
28.523	7.8	22.3	30.1	50.0	-19.9
4.731	5.4	20.4	25.8	46.0	-20.2
4.384	5.4	20.4	25.8	46.0	-20.2
28.821	7.4	22.4	29.8	50.0	-20.2
4.601	5.3	20.4	25.7	46.0	-20.3
4.418	5.3	20.4	25.7	46.0	-20.3
3.340	5.3	20.3	25.6	46.0	-20.4
29.437	7.2	22.4	29.6	50.0	-20.4
27.698	7.4	22.2	29.6	50.0	-20.4
29.922	7.1	22.5	29.6	50.0	-20.4
4.444	5.2	20.4	25.6	46.0	-20.4
27.926	7.3	22.3	29.6	50.0	-20.4
27.560	7.3	22.2	29.5	50.0	-20.5
29.019	7.1	22.4	29.5	50.0	-20.5
27.206	7.3	22.2	29.5	50.0	-20.5
4.269	5.1	20.4	25.5	46.0	-20.5
4.075	5.1	20.4	25.5	46.0	-20.5
27.814	7.2	22.2	29.4	50.0	-20.6
2.500	5.1	20.3	25.4	46.0	-20.6

CONCLUSION

Pass

Trevor Buls

Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	TH8321WF	Work Order:	HNYW0116
Serial Number:	51911030061812	Date:	11/24/2014
Customer:	Honeywell, Automation and Control Solutions	Temperature:	23.1°C
Attendees:	None	Relative Humidity:	18.8%
Customer Project:	None	Bar. Pressure:	1002.6 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0116-2

TEST SPECIFICATIONS

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

TEST PARAMETERS

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

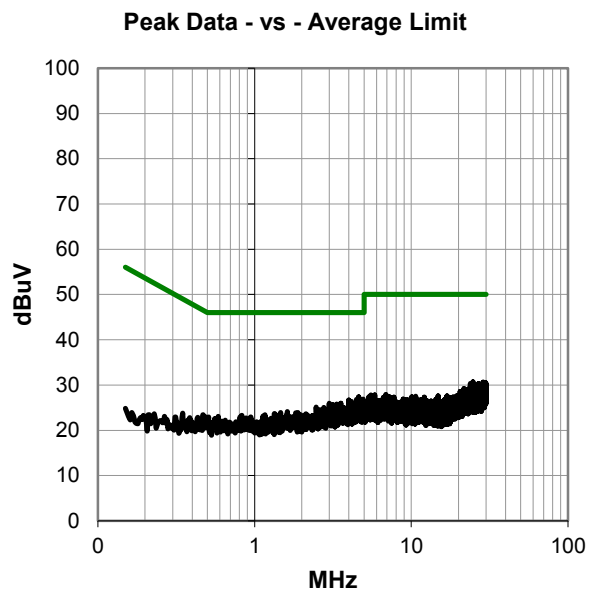
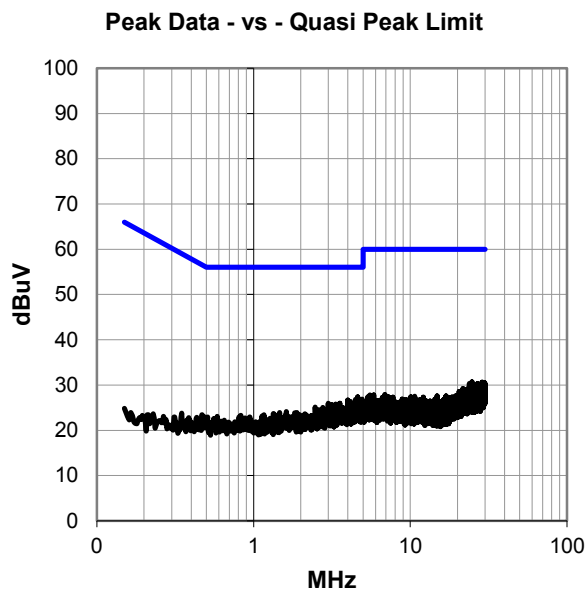
None

EUT OPERATING MODES

Transmitting Mid Channel 1 Mbps.

DEVIATIONS FROM TEST STANDARD

None



AC POWERLINE CONDUCTED EMISSIONS



WTD:2014.10.14
PSA-ESCI 2014.09.10, EmiR5 2014.10.01.1

RESULTS - Run #7

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
4.623	7.0	20.4	27.4	56.0	-28.6
4.944	6.4	20.5	26.9	56.0	-29.1
4.481	6.4	20.4	26.8	56.0	-29.2
24.751	8.8	21.9	30.7	60.0	-29.3
3.993	6.3	20.4	26.7	56.0	-29.3
28.735	8.3	22.4	30.7	60.0	-29.3
29.944	8.0	22.5	30.5	60.0	-29.5
29.504	8.0	22.4	30.4	60.0	-29.6
4.138	6.0	20.4	26.4	56.0	-29.6
27.012	8.2	22.2	30.4	60.0	-29.6
23.807	8.5	21.8	30.3	60.0	-29.7
29.877	7.7	22.5	30.2	60.0	-29.8
28.944	7.7	22.4	30.1	60.0	-29.9
26.926	7.9	22.1	30.0	60.0	-30.0
29.843	7.5	22.5	30.0	60.0	-30.0
28.922	7.6	22.4	30.0	60.0	-30.0
28.799	7.6	22.4	30.0	60.0	-30.0
4.955	5.5	20.5	26.0	56.0	-30.0
3.552	5.6	20.4	26.0	56.0	-30.0
2.993	5.6	20.3	25.9	56.0	-30.1
29.284	7.5	22.4	29.9	60.0	-30.1
26.825	7.7	22.1	29.8	60.0	-30.2
4.769	5.4	20.4	25.8	56.0	-30.2
28.982	7.4	22.4	29.8	60.0	-30.2
4.392	5.4	20.4	25.8	56.0	-30.2
3.344	5.4	20.3	25.7	56.0	-30.3

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
4.623	7.0	20.4	27.4	46.0	-18.6
4.944	6.4	20.5	26.9	46.0	-19.1
4.481	6.4	20.4	26.8	46.0	-19.2
24.751	8.8	21.9	30.7	50.0	-19.3
3.993	6.3	20.4	26.7	46.0	-19.3
28.735	8.3	22.4	30.7	50.0	-19.3
29.944	8.0	22.5	30.5	50.0	-19.5
29.504	8.0	22.4	30.4	50.0	-19.6
4.138	6.0	20.4	26.4	46.0	-19.6
27.012	8.2	22.2	30.4	50.0	-19.6
23.807	8.5	21.8	30.3	50.0	-19.7
29.877	7.7	22.5	30.2	50.0	-19.8
28.944	7.7	22.4	30.1	50.0	-19.9
26.926	7.9	22.1	30.0	50.0	-20.0
29.843	7.5	22.5	30.0	50.0	-20.0
28.922	7.6	22.4	30.0	50.0	-20.0
28.799	7.6	22.4	30.0	50.0	-20.0
4.955	5.5	20.5	26.0	46.0	-20.0
3.552	5.6	20.4	26.0	46.0	-20.0
2.993	5.6	20.3	25.9	46.0	-20.1
29.284	7.5	22.4	29.9	50.0	-20.1
26.825	7.7	22.1	29.8	50.0	-20.2
4.769	5.4	20.4	25.8	46.0	-20.2
28.982	7.4	22.4	29.8	50.0	-20.2
4.392	5.4	20.4	25.8	46.0	-20.2
3.344	5.4	20.3	25.7	46.0	-20.3

CONCLUSION

Pass

Trevor Buls

Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	TH8321WF	Work Order:	HNYW0116
Serial Number:	51911030061812	Date:	11/24/2014
Customer:	Honeywell, Automation and Control Solutions	Temperature:	23.1°C
Attendees:	None	Relative Humidity:	18.8%
Customer Project:	None	Bar. Pressure:	1002.6 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0116-2

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	8	Line:	Neutral	Ext. Attenuation (dB):	20
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COMMENTS

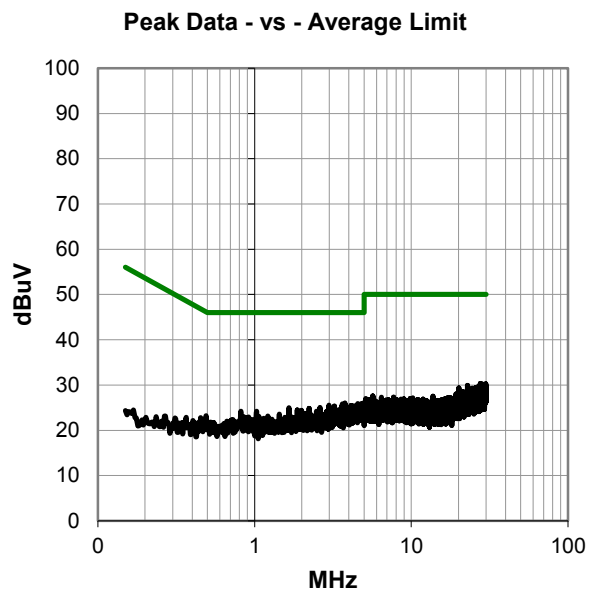
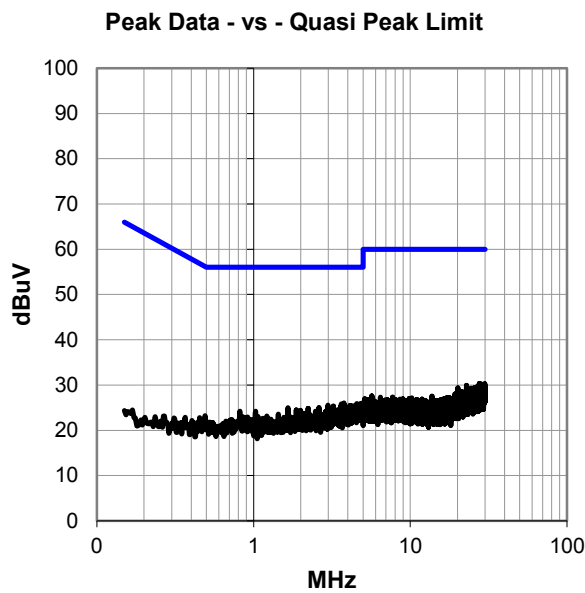
None

EUT OPERATING MODES

Transmitting Mid Channel 1 Mbps.

DEVIATIONS FROM TEST STANDARD

None



AC POWERLINE CONDUCTED EMISSIONS



WTD:2014.10.14
PSA-ESCI 2014.09.10, EmiR5 2014.10.01.1

RESULTS - Run #8

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
27.560	8.1	22.2	30.3	60.0	-29.7
29.948	7.8	22.5	30.3	60.0	-29.7
28.329	7.9	22.3	30.2	60.0	-29.8
29.190	7.7	22.4	30.1	60.0	-29.9
4.970	5.6	20.5	26.1	56.0	-29.9
3.784	5.7	20.4	26.1	56.0	-29.9
29.892	7.5	22.5	30.0	60.0	-30.0
22.878	8.2	21.7	29.9	60.0	-30.1
4.787	5.5	20.4	25.9	56.0	-30.1
4.549	5.5	20.4	25.9	56.0	-30.1
29.619	7.4	22.5	29.9	60.0	-30.1
3.631	5.5	20.4	25.9	56.0	-30.1
29.176	7.4	22.4	29.8	60.0	-30.2
29.149	7.3	22.4	29.7	60.0	-30.3
28.717	7.3	22.4	29.7	60.0	-30.3
26.676	7.5	22.1	29.6	60.0	-30.4
29.023	7.2	22.4	29.6	60.0	-30.4
3.720	5.2	20.4	25.6	56.0	-30.4
2.978	5.2	20.3	25.5	56.0	-30.5
29.392	7.1	22.4	29.5	60.0	-30.5
29.235	7.1	22.4	29.5	60.0	-30.5
4.131	5.1	20.4	25.5	56.0	-30.5
29.545	7.0	22.4	29.4	60.0	-30.6
28.414	7.1	22.3	29.4	60.0	-30.6
28.373	7.1	22.3	29.4	60.0	-30.6
25.706	7.4	22.0	29.4	60.0	-30.6

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
27.560	8.1	22.2	30.3	50.0	-19.7
29.948	7.8	22.5	30.3	50.0	-19.7
28.329	7.9	22.3	30.2	50.0	-19.8
29.190	7.7	22.4	30.1	50.0	-19.9
4.970	5.6	20.5	26.1	46.0	-19.9
3.784	5.7	20.4	26.1	46.0	-19.9
29.892	7.5	22.5	30.0	50.0	-20.0
22.878	8.2	21.7	29.9	50.0	-20.1
4.787	5.5	20.4	25.9	46.0	-20.1
4.549	5.5	20.4	25.9	46.0	-20.1
29.619	7.4	22.5	29.9	50.0	-20.1
3.631	5.5	20.4	25.9	46.0	-20.1
29.176	7.4	22.4	29.8	50.0	-20.2
29.149	7.3	22.4	29.7	50.0	-20.3
28.717	7.3	22.4	29.7	50.0	-20.3
26.676	7.5	22.1	29.6	50.0	-20.4
29.023	7.2	22.4	29.6	50.0	-20.4
3.720	5.2	20.4	25.6	46.0	-20.4
2.978	5.2	20.3	25.5	46.0	-20.5
29.392	7.1	22.4	29.5	50.0	-20.5
29.235	7.1	22.4	29.5	50.0	-20.5
4.131	5.1	20.4	25.5	46.0	-20.5
29.545	7.0	22.4	29.4	50.0	-20.6
28.414	7.1	22.3	29.4	50.0	-20.6
28.373	7.1	22.3	29.4	50.0	-20.6
25.706	7.4	22.0	29.4	50.0	-20.6

CONCLUSION

Pass

Trevor Buls

Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	TH8321WF	Work Order:	HNYW0116
Serial Number:	51911030061812	Date:	11/24/2014
Customer:	Honeywell, Automation and Control Solutions	Temperature:	23.1°C
Attendees:	None	Relative Humidity:	18.8%
Customer Project:	None	Bar. Pressure:	1002.6 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0116-2

TEST SPECIFICATIONS

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

TEST PARAMETERS

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

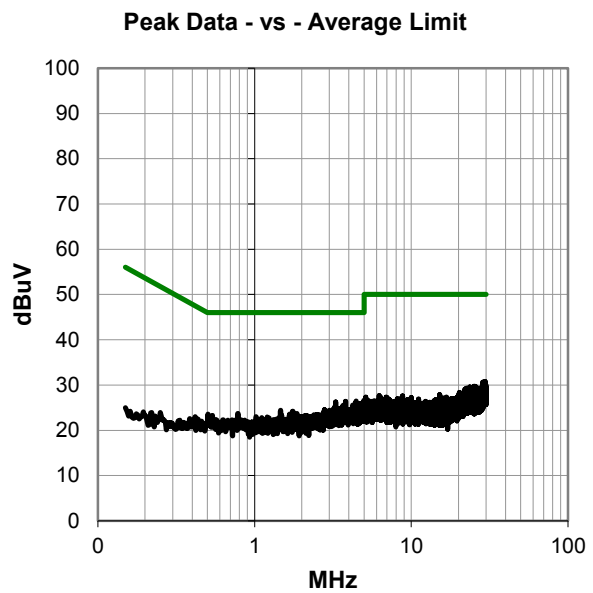
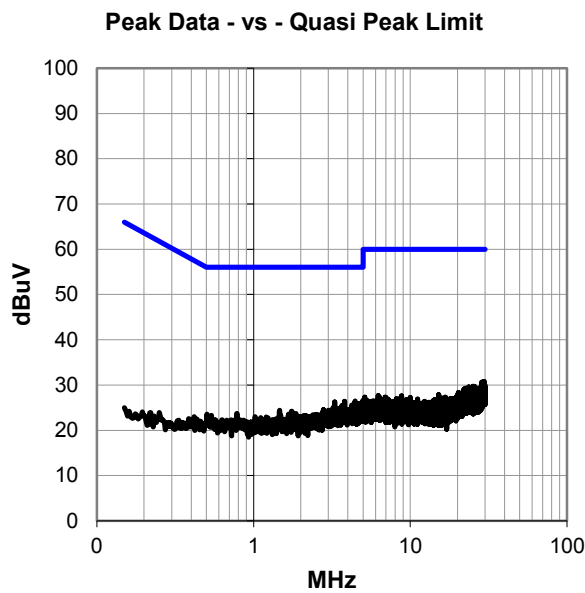
None

EUT OPERATING MODES

Transmitting High Channel 1 Mbps.

DEVIATIONS FROM TEST STANDARD

None



AC POWERLINE CONDUCTED EMISSIONS



WTD:2014.10.14
PSA-ESCI 2014.09.10, EmiR5 2014.10.01.1

RESULTS - Run #9

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
29.649	8.3	22.5	30.8	60.0	-29.2
28.709	8.3	22.4	30.7	60.0	-29.3
29.418	8.2	22.4	30.6	60.0	-29.4
4.993	6.1	20.5	26.6	56.0	-29.4
4.440	6.1	20.4	26.5	56.0	-29.5
3.810	6.0	20.4	26.4	56.0	-29.6
3.295	5.9	20.3	26.2	56.0	-29.8
29.929	7.6	22.5	30.1	60.0	-29.9
29.508	7.6	22.4	30.0	60.0	-30.0
4.392	5.6	20.4	26.0	56.0	-30.0
4.623	5.5	20.4	25.9	56.0	-30.1
29.668	7.4	22.5	29.9	60.0	-30.1
4.821	5.4	20.4	25.8	56.0	-30.2
4.758	5.4	20.4	25.8	56.0	-30.2
29.254	7.4	22.4	29.8	60.0	-30.2
29.966	7.3	22.5	29.8	60.0	-30.2
25.075	7.8	21.9	29.7	60.0	-30.3
4.668	5.3	20.4	25.7	56.0	-30.3
4.545	5.3	20.4	25.7	56.0	-30.3
25.471	7.7	22.0	29.7	60.0	-30.3
28.284	7.3	22.3	29.6	60.0	-30.4
23.632	7.8	21.8	29.6	60.0	-30.4
29.799	7.1	22.5	29.6	60.0	-30.4
4.235	5.2	20.4	25.6	56.0	-30.4
3.679	5.2	20.4	25.6	56.0	-30.4
26.001	7.5	22.0	29.5	60.0	-30.5

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
29.649	8.3	22.5	30.8	50.0	-19.2
28.709	8.3	22.4	30.7	50.0	-19.3
29.418	8.2	22.4	30.6	50.0	-19.4
4.993	6.1	20.5	26.6	46.0	-19.4
4.440	6.1	20.4	26.5	46.0	-19.5
3.810	6.0	20.4	26.4	46.0	-19.6
3.295	5.9	20.3	26.2	46.0	-19.8
29.929	7.6	22.5	30.1	50.0	-19.9
29.508	7.6	22.4	30.0	50.0	-20.0
4.392	5.6	20.4	26.0	46.0	-20.0
4.623	5.5	20.4	25.9	46.0	-20.1
29.668	7.4	22.5	29.9	50.0	-20.1
4.821	5.4	20.4	25.8	46.0	-20.2
4.758	5.4	20.4	25.8	46.0	-20.2
29.254	7.4	22.4	29.8	50.0	-20.2
29.966	7.3	22.5	29.8	50.0	-20.2
25.075	7.8	21.9	29.7	50.0	-20.3
4.668	5.3	20.4	25.7	46.0	-20.3
4.545	5.3	20.4	25.7	46.0	-20.3
25.471	7.7	22.0	29.7	50.0	-20.3
28.284	7.3	22.3	29.6	50.0	-20.4
23.632	7.8	21.8	29.6	50.0	-20.4
29.799	7.1	22.5	29.6	50.0	-20.4
4.235	5.2	20.4	25.6	46.0	-20.4
3.679	5.2	20.4	25.6	46.0	-20.4
26.001	7.5	22.0	29.5	50.0	-20.5

CONCLUSION

Pass

Trevor Buls

Tested By

AC POWERLINE CONDUCTED EMISSIONS



WTD:2014.10.14
PSA-ESCI 2014.09.10, EmiR5 2014.10.01.1

EUT:	TH8321WF	Work Order:	HNYW0116
Serial Number:	51911030061812	Date:	11/24/2014
Customer:	Honeywell, Automation and Control Solutions	Temperature:	23.1°C
Attendees:	None	Relative Humidity:	18.8%
Customer Project:	None	Bar. Pressure:	1002.6 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0116-2

TEST SPECIFICATIONS

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

TEST PARAMETERS

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

None

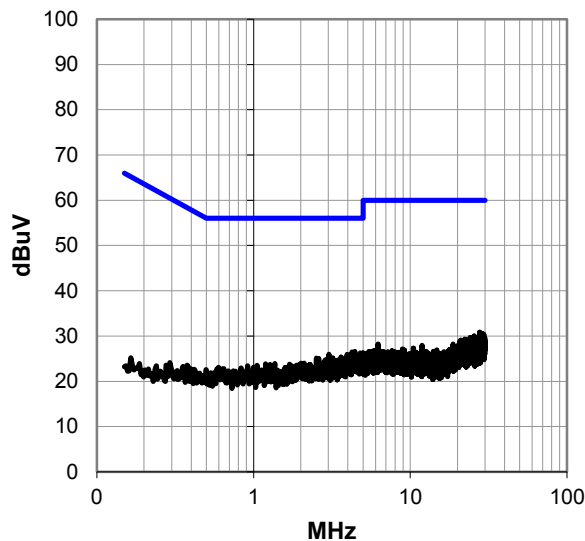
EUT OPERATING MODES

Transmitting High Channel 1 Mbps.

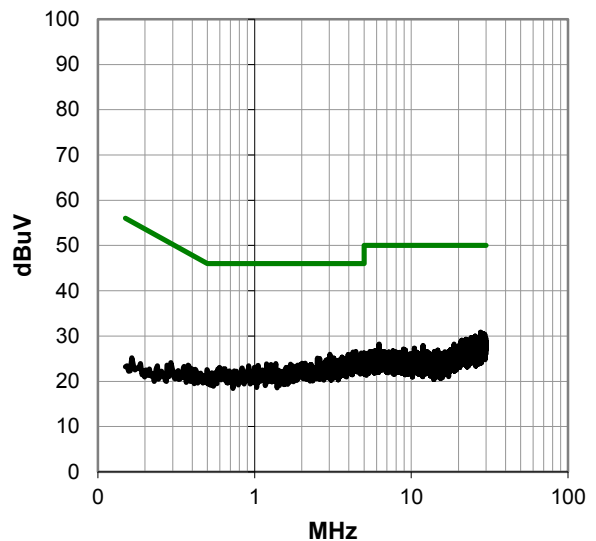
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS



WTD:2014.10.14
PSA-ESCI 2014.09.10, EmiR5 2014.10.01.1

RESULTS - Run #10

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
27.732	8.6	22.2	30.8	60.0	-29.2
4.422	6.2	20.4	26.6	56.0	-29.4
29.015	8.1	22.4	30.5	60.0	-29.5
4.239	6.1	20.4	26.5	56.0	-29.5
29.489	7.9	22.4	30.3	60.0	-29.7
28.940	7.9	22.4	30.3	60.0	-29.7
4.981	5.8	20.5	26.3	56.0	-29.7
4.806	5.8	20.4	26.2	56.0	-29.8
25.631	8.0	22.0	30.0	60.0	-30.0
3.030	5.6	20.3	25.9	56.0	-30.1
4.784	5.5	20.4	25.9	56.0	-30.1
3.959	5.5	20.4	25.9	56.0	-30.1
4.914	5.2	20.5	25.7	56.0	-30.3
24.120	7.8	21.8	29.6	60.0	-30.4
25.143	7.7	21.9	29.6	60.0	-30.4
29.892	7.1	22.5	29.6	60.0	-30.4
29.802	7.1	22.5	29.6	60.0	-30.4
29.534	7.1	22.4	29.5	60.0	-30.5
29.317	7.1	22.4	29.5	60.0	-30.5
28.385	7.2	22.3	29.5	60.0	-30.5
29.146	7.1	22.4	29.5	60.0	-30.5
4.142	5.1	20.4	25.5	56.0	-30.5
28.885	7.1	22.4	29.5	60.0	-30.5
4.728	5.0	20.4	25.4	56.0	-30.6
4.687	5.0	20.4	25.4	56.0	-30.6
3.623	5.0	20.4	25.4	56.0	-30.6

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
27.732	8.6	22.2	30.8	50.0	-19.2
4.422	6.2	20.4	26.6	46.0	-19.4
29.015	8.1	22.4	30.5	50.0	-19.5
4.239	6.1	20.4	26.5	46.0	-19.5
29.489	7.9	22.4	30.3	50.0	-19.7
28.940	7.9	22.4	30.3	50.0	-19.7
4.981	5.8	20.5	26.3	46.0	-19.7
4.806	5.8	20.4	26.2	46.0	-19.8
25.631	8.0	22.0	30.0	50.0	-20.0
3.030	5.6	20.3	25.9	46.0	-20.1
4.784	5.5	20.4	25.9	46.0	-20.1
3.959	5.5	20.4	25.9	46.0	-20.1
4.914	5.2	20.5	25.7	46.0	-20.3
24.120	7.8	21.8	29.6	50.0	-20.4
25.143	7.7	21.9	29.6	50.0	-20.4
29.892	7.1	22.5	29.6	50.0	-20.4
29.802	7.1	22.5	29.6	50.0	-20.4
29.534	7.1	22.4	29.5	50.0	-20.5
29.317	7.1	22.4	29.5	50.0	-20.5
28.385	7.2	22.3	29.5	50.0	-20.5
29.146	7.1	22.4	29.5	50.0	-20.5
4.142	5.1	20.4	25.5	46.0	-20.5
28.885	7.1	22.4	29.5	50.0	-20.5
4.728	5.0	20.4	25.4	46.0	-20.6
4.687	5.0	20.4	25.4	46.0	-20.6
3.623	5.0	20.4	25.4	46.0	-20.6

CONCLUSION

Pass

Trevor Buls

Tested By

SPURIOUS RADIATED EMISSIONS

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

MODES OF OPERATION

Transmitting 802.11, antenna 0 @ 2412, 2437, 2462 MHz, with 1, 11, 6, 36, 54 Mbps, MCS0, MCS7 (see comments)

Transmitting 802.11, antenna 1 @ 2412, 2437, 2462 MHz, with 1, 11, 6, 36, 54 Mbps, MCS0, MCS7 (see comments)

POWER SETTINGS INVESTIGATED

110VAC/60Hz

CONFIGURATIONS INVESTIGATED

HNYW0118 - 1

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	25 GHz
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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
High Pass Filter	Micro-Tronics	HPM50111	HGQ	5/15/2014	24 mo
Low Pass Filter	Micro-Tronics	LPM50004	HGK	5/15/2014	24 mo
Attenuator, 20 dB, 'SMA'	SM Electronics	SA6-20	REO	5/15/2014	12 mo
Pre-Amplifier	Miteq	JSD4-18002600-26-8P	APU	10/3/2014	12 mo
MN05 Cable	N/A	18-26GHz Standard Gain Horn Cable	MNP	10/3/2014	12 mo
Antenna, Horn	ETS	3160-09	AHG	NCR	0 mo
Antenna, Horn	ETS Lindgren	3160-08	AIQ	NCR	0 mo
Antenna, Horn	ETS	3160-07	AXP	NCR	0 mo
MN05 Cables	ESM Cable Corp.	Standard Gain Horn Cables	MNJ	3/14/2014	12 mo
Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVW	3/14/2014	12 mo
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVV	3/14/2014	12 mo
Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVX	3/14/2014	12 mo
MN05 Cables	ESM Cable Corp.	Double Ridge Guide Horn Cables	MNI	3/14/2014	12 mo
Antenna, Horn	ETS	3115	AJA	6/3/2014	24 mo
Pre-Amplifier	Miteq	AM-1616-1000	PAD	3/14/2014	12 mo
MN05 Cables	ESM Cable Corp.	Bilog Cables	MNH	3/14/2014	12 mo
Antenna, Biconilog	Teseq	CBL 6141B	AYD	12/17/2013	24 mo
Spectrum Analyzer	Agilent	N9010A	AFI	1/27/2013	24 mo

MEASUREMENT BANDWIDTHS

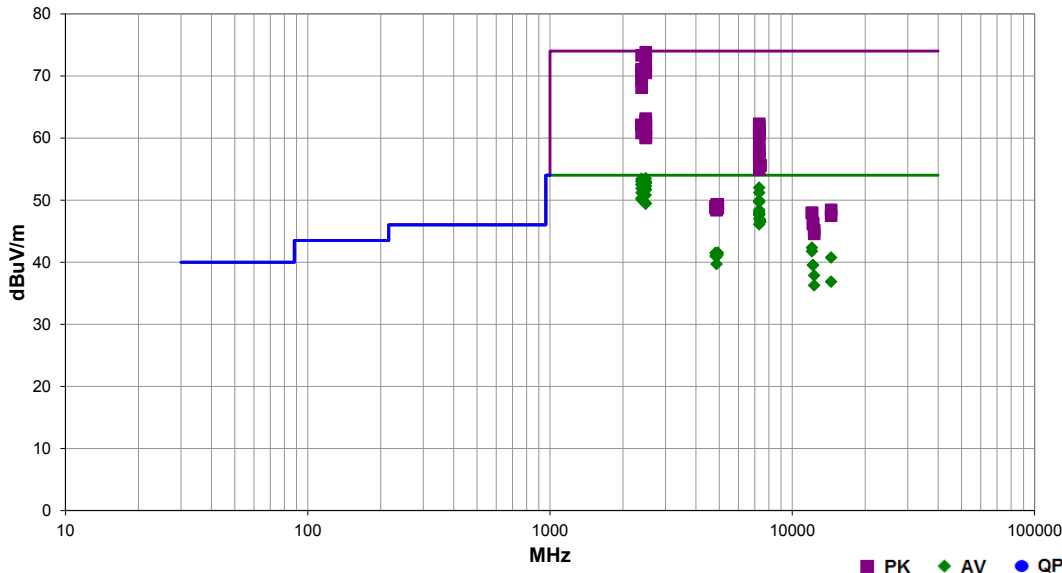
Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)
0.01 - 0.15	1.0	0.2	0.2
0.15 - 30.0	10.0	9.0	9.0
30.0 - 1000	100.0	120.0	120.0
Above 1000	1000.0	N/A	1000.0

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:	HNYW0118	Date:	11/21/14	<i>Trevor Buls</i>
Project:	None	Temperature:	22.3 °C	
Job Site:	MN05	Humidity:	16.6% RH	
Serial Number:	51911030061812	Barometric Pres.:	1020.5 mbar	
EUT:	TH8321WF	Tested by:	Dustin Sparks, Trevor Buls	
Configuration:	1			
Customer:	Honeywell, Automation and Control Solutions			
Attendees:	Dave Mulhouse			
EUT Power:	110VAC/60Hz			
Operating Mode:	Transmitting 802.11, antenna 1 @ 2412, 2437, 2462 MHz, with 1, 11, 6, 36, 54 Mbps, MCS0, MCS7 (see comments)			
Deviations:	None			
Comments:	None			

Test Specifications	Test Method						
FCC 15.247:2014	ANSI C63.10:2009						
Run #	29	Test Distance (m)	3	Antenna Height(s)	1 to 4(m)	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
2483.692	56.8	-3.0	1.8	242.7	3.0	20.0	Horz	PK	0.0	73.8	74.0	-0.2	6 Mbps, high ch, EUT horz, Ant 1
2483.525	36.5	-3.0	1.8	242.7	3.0	20.0	Horz	AV	0.0	53.5	54.0	-0.5	6 Mbps, high ch, EUT horz, Ant 1
2388.108	36.7	-3.3	1.0	156.0	3.0	20.0	Horz	AV	0.0	53.4	54.0	-0.6	1 Mbps, low ch, EUT horz, Ant 1
2388.808	56.6	-3.3	1.0	354.9	3.0	20.0	Horz	PK	0.0	73.3	74.0	-0.7	MCS0, low ch, EUT horz, Ant 1
2389.808	36.4	-3.3	1.0	332.0	3.0	20.0	Horz	AV	0.0	53.1	54.0	-0.9	6 Mbps, low ch, EUT horz, Ant 1
2483.500	76.6	-3.1	1.0	156.1	3.0	20.0	Horz	AV	0.0	53.0	54.0	-1.0	36 Mbps, high ch, EUT horz, Ant 1, MD
2390.000	36.3	-3.3	1.0	354.9	3.0	20.0	Horz	AV	0.0	53.0	54.0	-1.0	MCS0, low ch, EUT horz, Ant 1
2483.875	35.9	-3.0	1.0	147.0	3.0	20.0	Horz	AV	0.0	52.9	54.0	-1.1	MCS0, high ch, EUT horz, Ant 1
2483.508	35.9	-3.0	1.8	242.9	3.0	20.0	Horz	AV	0.0	52.9	54.0	-1.1	1 Mbps, high ch, EUT horz, Ant 1
2483.500	35.7	-3.0	1.8	243.0	3.0	20.0	Horz	AV	0.0	52.7	54.0	-1.3	1 Mbps, high ch, EUT horz, Ant 1
2483.508	35.7	-3.0	2.2	288.0	3.0	20.0	Vert	AV	0.0	52.7	54.0	-1.3	1 Mbps, high ch, EUT on side, Ant 1
2483.567	55.6	-3.0	1.0	147.0	3.0	20.0	Horz	PK	0.0	72.6	74.0	-1.4	MCS0, high ch, EUT horz, Ant 1
2389.842	35.8	-3.3	1.0	354.9	3.0	20.0	Horz	AV	0.0	52.5	54.0	-1.5	36 Mbps, low ch, EUT horz, Ant 1
2389.850	35.8	-3.3	1.0	354.9	3.0	20.0	Horz	AV	0.0	52.5	54.0	-1.5	54 Mbps, low ch, EUT horz, Ant 1
2483.575	35.3	-3.0	1.0	147.0	3.0	20.0	Horz	AV	0.0	52.3	54.0	-1.7	54 Mbps, high ch, EUT horz, Ant 1
2483.583	35.2	-3.0	1.0	147.0	3.0	20.0	Horz	AV	0.0	52.2	54.0	-1.8	MCS7, high ch, EUT horz, Ant 1
7310.083	39.7	12.3	1.0	232.1	3.0	0.0	Horz	AV	0.0	52.0	54.0	-2.0	1 Mbps, mid ch, EUT vert, Ant 1
2389.992	35.2	-3.3	1.0	354.9	3.0	20.0	Horz	AV	0.0	51.9	54.0	-2.1	MCS7, low ch, EUT horz, Ant 1
2483.525	34.8	-3.0	1.8	242.7	3.0	20.0	Horz	AV	0.0	51.8	54.0	-2.2	6 Mbps, high ch, EUT horz, Ant 1
2483.508	34.6	-3.0	1.2	118.0	3.0	20.0	Vert	AV	0.0	51.6	54.0	-2.4	1 Mbps, high ch, EUT vert, Ant 1
2483.825	54.3	-3.0	1.8	242.7	3.0	20.0	Horz	PK	0.0	71.3	74.0	-2.7	6 Mbps, high ch, EUT horz, Ant 1
2389.908	34.5	-3.3	1.0	354.9	3.0	20.0	Horz	AV	0.0	51.2	54.0	-2.8	36 Mbps, low ch, EUT horz, Ant 1
7310.158	38.9	12.3	1.0	147.0	3.0	0.0	Horz	AV	0.0	51.2	54.0	-2.8	1 Mbps, mid ch, EUT on side, Ant 1
2389.858	54.4	-3.3	1.0	354.9	3.0	20.0	Horz	PK	0.0	71.1	74.0	-2.9	36 Mbps, low ch, EUT horz, Ant 1
2389.750	54.2	-3.3	1.0	332.0	3.0	20.0	Horz	PK	0.0	70.9	74.0	-3.1	6 Mbps, low ch, EUT horz, Ant 1
2483.583	33.8	-3.0	1.0	153.0	3.0	20.0	Horz	AV	0.0	50.8	54.0	-3.2	11 Mbps, high ch, EUT horz, Ant 1
2483.667	53.6	-3.0	1.0	147.0	3.0	20.0	Horz	PK	0.0	70.6	74.0	-3.4	MCS7, high ch, EUT horz, Ant 1
2484.317	53.5	-3.0	1.0	147.0	3.0	20.0	Horz	PK	0.0	70.5	74.0	-3.5	54 Mbps, high ch, EUT horz, Ant 1
2389.983	53.8	-3.3	1.0	354.9	3.0	20.0	Horz	PK	0.0	70.5	74.0	-3.5	MCS7, low ch, EUT horz, Ant 1
2388.075	33.6	-3.3	1.0	173.1	3.0	20.0	Horz	AV	0.0	50.3	54.0	-3.7	11 Mbps, low ch, EUT horz, Ant 1
2389.975	33.4	-3.3	1.0	332.0	3.0	20.0	Horz	AV	0.0	50.1	54.0	-3.9	6 Mbps, low ch, EUT horz, Ant 1
2389.992	53.4	-3.3	1.0	354.9	3.0	20.0	Horz	PK	0.0	70.1	74.0	-3.9	36 Mbps, low ch, EUT horz, Ant 1

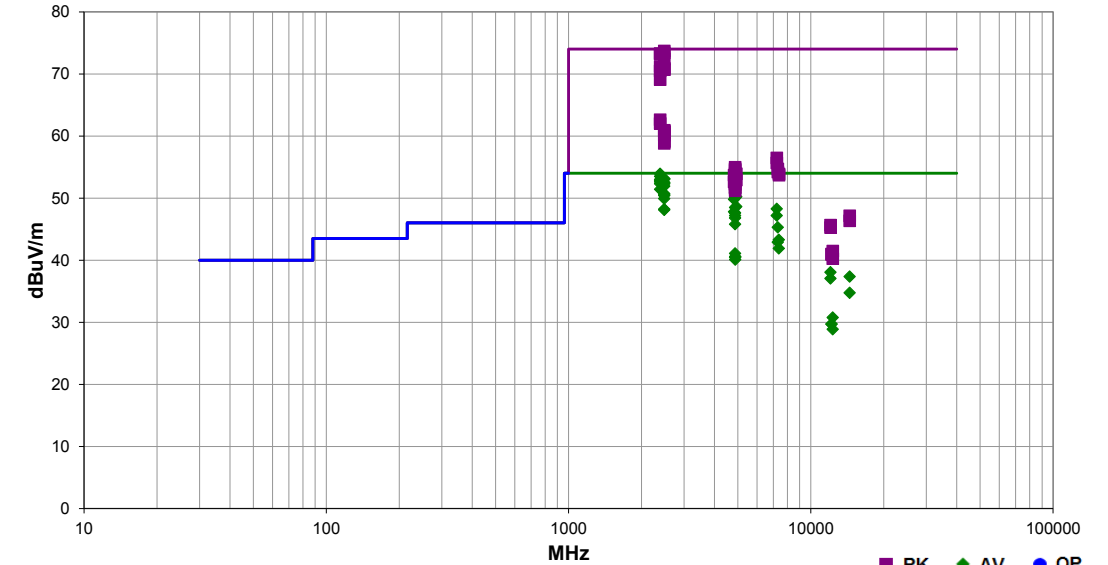


SPURIOUS RADIATED EMISSIONS

PSA-ESCI 2014.09.10
EmiR5 2014.10.01.1

Work Order:	HNYW0118	Date:	11/21/14	<i>Trevor Buls</i>
Project:	None	Temperature:	22.3 °C	
Job Site:	MN05	Humidity:	16.6% RH	
Serial Number:	51911030061812	Barometric Pres.:	1020.5 mbar	
EUT:	TH8321WF	Tested by: Dustin Sparks, Trevor Buls		
Configuration:	1			
Customer:	Honeywell, Automation and Control Solutions			
Attendees:	Dave Mulhouse			
EUT Power:	110VAC/60Hz			
Operating Mode:	Transmitting 802.11, antenna 0 @ 2412, 2437, 2462 MHz, with 1, 11, 6, 36, 54 Mbps, MCS0, MCS7 (see comments)			
Deviations:	None			
Comments:	None			

Test Specifications	Test Method						
FCC 15.247:2014	ANSI C63.10:2009						
Run #	30	Test Distance (m)	3	Antenna Height(s)	1 to 4(m)	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
2388.150	37.2	-3.3	1.0	351.0	3.0	20.0	Horz	AV	0.0	53.9	54.0	-0.1	1 Mbps, low ch, EUT horz, Ant 0
2483.500	56.7	-3.0	1.0	242.0	3.0	20.0	Horz	PK	0.0	73.7	74.0	-0.3	36 Mbps, high ch, EUT horz, Ant 0
2389.992	36.8	-3.3	1.0	351.0	3.0	20.0	Horz	AV	0.0	53.5	54.0	-0.5	6 Mbps, low ch, EUT horz, Ant 0
2483.958	56.4	-3.0	1.4	250.0	3.0	20.0	Horz	PK	0.0	73.4	74.0	-0.6	MCS0, high ch, EUT horz, Ant 0
2389.350	56.6	-3.3	1.0	351.0	3.0	20.0	Horz	PK	0.0	73.3	74.0	-0.7	MCS0, low ch, EUT horz, Ant 0
2389.592	56.5	-3.3	1.0	351.0	3.0	20.0	Horz	PK	0.0	73.2	74.0	-0.8	6 Mbps, low ch, EUT horz, Ant 0
2483.533	36.1	-3.0	1.0	349.9	3.0	20.0	Horz	AV	0.0	53.1	54.0	-0.9	6 Mbps, high ch, EUT horz, Ant 0
2483.500	36.1	-3.0	1.0	242.0	3.0	20.0	Horz	AV	0.0	53.1	54.0	-0.9	54 Mbps, high ch, EUT horz, Ant 0
2483.633	36.0	-3.0	1.0	242.0	3.0	20.0	Horz	AV	0.0	53.0	54.0	-1.0	36 Mbps, high ch, EUT horz, Ant 0
2389.908	36.3	-3.3	1.0	351.0	3.0	20.0	Horz	AV	0.0	53.0	54.0	-1.0	MCS0, low ch, EUT horz, Ant 0
2389.875	36.1	-3.3	1.0	351.0	3.0	20.0	Horz	AV	0.0	52.8	54.0	-1.2	36 Mbps, low ch, EUT horz, Ant 0
2389.967	35.9	-3.3	1.0	351.0	3.0	20.0	Horz	AV	0.0	52.6	54.0	-1.4	54 Mbps, low ch, EUT horz, Ant 0
2483.717	35.5	-3.0	1.4	250.0	3.0	20.0	Horz	AV	0.0	52.5	54.0	-1.5	MCS0, high ch, EUT horz, Ant 0
2483.667	55.4	-3.0	1.0	349.9	3.0	20.0	Horz	PK	0.0	72.4	74.0	-1.6	6 Mbps, high ch, EUT horz, Ant 0
2483.542	35.4	-3.0	1.0	349.9	3.0	20.0	Horz	AV	0.0	52.4	54.0	-1.6	6 Mbps, high ch, EUT horz, Ant 0
2483.508	35.3	-3.0	1.0	261.9	3.0	20.0	Horz	AV	0.0	52.3	54.0	-1.7	1 Mbps, high ch, EUT horz, Ant 0
2389.950	35.6	-3.3	1.0	351.0	3.0	20.0	Horz	AV	0.0	52.3	54.0	-1.7	MCS7, low ch, EUT horz, Ant 0
2483.517	34.9	-3.0	1.4	250.0	3.0	20.0	Horz	AV	0.0	51.9	54.0	-2.1	MCS7, high ch, EUT horz, Ant 0
2388.467	34.7	-3.3	1.0	351.0	3.0	20.0	Horz	AV	0.0	51.4	54.0	-2.6	11 Mbps, low ch, EUT horz, Ant 0
2389.942	54.5	-3.3	1.0	351.0	3.0	20.0	Horz	PK	0.0	71.2	74.0	-2.8	MCS7, low ch, EUT horz, Ant 0
2484.175	53.9	-3.0	1.0	349.9	3.0	20.0	Horz	PK	0.0	70.9	74.0	-3.1	6 Mbps, high ch, EUT horz, Ant 0
4874.025	45.8	5.1	1.0	205.0	3.0	0.0	Vert	AV	0.0	50.9	54.0	-3.1	1 Mbps, Mid ch, EUT Vertical, Ant 0
2483.667	53.7	-3.0	1.4	250.0	3.0	20.0	Horz	PK	0.0	70.7	74.0	-3.3	MCS7, high ch, EUT horz, Ant 0
2483.600	53.7	-3.0	1.0	242.0	3.0	20.0	Horz	PK	0.0	70.7	74.0	-3.3	54 Mbps, high ch, EUT horz, Ant 0
2483.508	33.7	-3.0	1.0	289.9	3.0	20.0	Vert	AV	0.0	50.7	54.0	-3.3	1 Mbps, high ch, EUT vert, Ant 0
2483.567	33.5	-3.0	1.3	250.9	3.0	20.0	Horz	AV	0.0	50.5	54.0	-3.5	11 Mbps, high ch, EUT horz, Ant 0
2388.858	53.8	-3.3	1.0	351.0	3.0	20.0	Horz	PK	0.0	70.5	74.0	-3.5	54 Mbps, low ch, EUT horz, Ant 0
2483.500	33.4	-3.0	1.0	247.9	3.0	20.0	Horz	AV	0.0	50.4	54.0	-3.6	1 Mbps, high ch, EUT on side, Ant 0
4923.992	45.3	4.9	1.0	205.0	3.0	0.0	Vert	AV	0.0	50.2	54.0	-3.8	1 Mbps, High ch, EUT Vertical, Ant 0
4873.975	45.0	5.1	1.0	215.0	3.0	0.0	Horz	AV	0.0	50.1	54.0	-3.9	1 Mbps, Mid ch, EUT on Side, Ant 0
2483.517	32.9	-3.0	1.0	263.0	3.0	20.0	Vert	AV	0.0	49.9	54.0	-4.1	1 Mbps, high ch, EUT on side, Ant 0
4824.017	44.4	5.4	1.0	206.1	3.0	0.0	Vert	AV	0.0	49.8	54.0	-4.2	1 Mbps, Low ch, EUT Vertical, Ant 0

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
2389.742	52.4	-3.3	1.0	351.0	3.0	20.0	Horz	PK	0.0	69.1	74.0	-4.9	36 Mbps, low ch, EUT horz, Ant 0
4923.967	43.7	4.9	1.2	212.0	3.0	0.0	Horz	AV	0.0	48.6	54.0	-5.4	1 Mbps, High ch, EUT on Side, Ant 0
4873.950	43.4	5.1	1.0	325.0	3.0	0.0	Vert	AV	0.0	48.5	54.0	-5.5	1 Mbps, Mid ch, EUT Horizontal, Ant 0
7236.867	36.4	11.9	1.0	231.0	3.0	0.0	Horz	AV	0.0	48.3	54.0	-5.7	1 Mbps, Low ch, EUT on Side, Ant 0
2483.550	31.2	-3.0	1.0	225.0	3.0	20.0	Vert	AV	0.0	48.2	54.0	-5.8	1 Mbps, high ch, EUT horz, Ant 0
2483.500	31.1	-3.0	1.5	154.0	3.0	20.0	Horz	AV	0.0	48.1	54.0	-5.9	1 Mbps, high ch, EUT vert, Ant 0
4824.050	42.4	5.4	1.3	215.0	3.0	0.0	Horz	AV	0.0	47.8	54.0	-6.2	1 Mbps, Low ch, EUT on Side, Ant 0
4873.942	42.5	5.1	1.0	226.0	3.0	0.0	Horz	AV	0.0	47.6	54.0	-6.4	1 Mbps, Mid ch, EUT Vertical, Ant 0
4873.992	42.1	5.1	1.1	214.1	3.0	0.0	Vert	AV	0.0	47.2	54.0	-6.8	11 Mbps, Mid ch, EUT Vertical, Ant 0
7236.775	35.3	11.9	2.0	194.0	3.0	0.0	Vert	AV	0.0	47.2	54.0	-6.8	1 Mbps, Low ch, EUT Vertical, Ant 0
4873.975	41.7	5.1	1.0	174.1	3.0	0.0	Vert	AV	0.0	46.8	54.0	-7.2	1 Mbps, Mid ch, EUT on Side, Ant 0
4874.017	40.7	5.1	1.0	232.9	3.0	0.0	Horz	AV	0.0	45.8	54.0	-8.2	1 Mbps, Mid ch, EUT Horizontal, Ant 0
7310.058	33.0	12.3	1.0	206.1	3.0	0.0	Horz	AV	0.0	45.3	54.0	-8.7	1 Mbps, Mid ch, EUT on Side, Ant 0
7384.917	30.5	12.8	1.0	193.0	3.0	0.0	Horz	AV	0.0	43.3	54.0	-10.7	1 Mbps, High ch, EUT on Side, Ant 0
7311.892	30.6	12.3	1.3	9.0	3.0	0.0	Vert	AV	0.0	42.9	54.0	-11.1	1 Mbps, Mid ch, EUT Vertical, Ant 0
2386.308	45.9	-3.3	1.0	351.0	3.0	20.0	Horz	PK	0.0	62.6	74.0	-11.4	1 Mbps, low ch, EUT horz, Ant 0
2388.633	45.3	-3.3	1.0	351.0	3.0	20.0	Horz	PK	0.0	62.0	74.0	-12.0	11 Mbps, low ch, EUT horz, Ant 0
7385.075	29.1	12.8	1.0	142.1	3.0	0.0	Vert	AV	0.0	41.9	54.0	-12.1	1 Mbps, High ch, EUT Vertical, Ant 0
4874.625	36.0	5.1	1.1	214.1	3.0	0.0	Vert	AV	0.0	41.1	54.0	-12.9	6 Mbps, Mid ch, EUT Vertical, Ant 0
2485.017	43.9	-3.0	1.3	250.9	3.0	20.0	Horz	PK	0.0	60.9	74.0	-13.1	11 Mbps, high ch, EUT horz, Ant 0
2483.858	43.8	-3.0	1.0	247.9	3.0	20.0	Horz	PK	0.0	60.8	74.0	-13.2	1 Mbps, high ch, EUT on side, Ant 0
2487.592	43.6	-3.0	1.0	289.9	3.0	20.0	Vert	PK	0.0	60.6	74.0	-13.4	1 Mbps, high ch, EUT vert, Ant 0
2483.558	43.6	-3.0	1.0	261.9	3.0	20.0	Horz	PK	0.0	60.6	74.0	-13.4	1 Mbps, high ch, EUT horz, Ant 0
4875.200	35.5	5.1	1.1	214.1	3.0	0.0	Vert	AV	0.0	40.6	54.0	-13.4	36 Mbps, Mid ch, EUT Vertical, Ant 0
4874.067	35.4	5.1	1.1	214.1	3.0	0.0	Vert	AV	0.0	40.5	54.0	-13.5	MCS0, Mid ch, EUT Vertical, Ant 0
4875.083	35.4	5.1	1.1	214.1	3.0	0.0	Vert	AV	0.0	40.5	54.0	-13.5	54 Mbps, Mid ch, EUT Vertical, Ant 0
2483.808	43.1	-3.0	1.0	263.0	3.0	20.0	Vert	PK	0.0	60.1	74.0	-13.9	1 Mbps, high ch, EUT on side, Ant 0
4875.175	35.0	5.1	1.1	214.1	3.0	0.0	Vert	AV	0.0	40.1	54.0	-13.9	MCS7, Mid ch, EUT Vertical, Ant 0
2487.983	42.1	-3.0	1.0	225.0	3.0	20.0	Vert	PK	0.0	59.1	74.0	-14.9	1 Mbps, high ch, EUT horz, Ant 0
2483.875	41.8	-3.0	1.5	154.0	3.0	20.0	Horz	PK	0.0	58.8	74.0	-15.2	1 Mbps, high ch, EUT vert, Ant 0
12059.070	43.2	-5.2	1.0	195.1	3.0	0.0	Horz	AV	0.0	38.0	54.0	-16.0	1 Mbps, Low ch, EUT on Side Ant 0
14471.960	33.8	3.5	1.0	308.9	3.0	0.0	Vert	AV	0.0	37.3	54.0	-16.7	1 Mbps, Low ch, EUT Vertical, Ant 0
12059.130	42.2	-5.2	1.2	193.0	3.0	0.0	Vert	AV	0.0	37.0	54.0	-17.0	1 Mbps, Low ch, EUT Vertical, Ant 0
7236.033	44.6	11.9	1.0	231.0	3.0	0.0	Horz	PK	0.0	56.5	74.0	-17.5	1 Mbps, Low ch, EUT on Side, Ant 0
7236.200	43.8	11.9	2.0	194.0	3.0	0.0	Vert	PK	0.0	55.7	74.0	-18.3	1 Mbps, Low ch, EUT Vertical, Ant 0
4873.892	49.9	5.1	1.1	214.1	3.0	0.0	Vert	PK	0.0	55.0	74.0	-19.0	11 Mbps, Mid ch, EUT Vertical, Ant 0
14472.210	31.2	3.5	1.0	12.1	3.0	0.0	Horz	AV	0.0	34.7	54.0	-19.3	1 Mbps, Low ch, EUT on Side Ant 0
7310.758	42.4	12.3	1.0	206.1	3.0	0.0	Horz	PK	0.0	54.7	74.0	-19.3	1 Mbps, Mid ch, EUT on Side, Ant 0
4873.692	49.6	5.1	1.0	205.0	3.0	0.0	Vert	PK	0.0	54.7	74.0	-19.3	1 Mbps, Mid ch, EUT Vertical, Ant 0
4874.675	49.4	5.1	1.1	214.1	3.0	0.0	Vert	PK	0.0	54.5	74.0	-19.5	6 Mbps, Mid ch, EUT Vertical, Ant 0
7312.150	41.9	12.3	1.3	9.0	3.0	0.0	Vert	PK	0.0	54.2	74.0	-19.8	1 Mbps, Mid ch, EUT Vertical, Ant 0
4874.125	48.9	5.1	1.0	215.0	3.0	0.0	Horz	PK	0.0	54.0	74.0	-20.0	1 Mbps, Mid ch, EUT on Side, Ant 0
4923.875	49.0	4.9	1.0	205.0	3.0	0.0	Vert	PK	0.0	53.9	74.0	-20.1	1 Mbps, High ch, EUT Vertical, Ant 0
7387.417	41.1	12.8	1.0	193.0	3.0	0.0	Horz	PK	0.0	53.9	74.0	-20.1	1 Mbps, High ch, EUT on Side, Ant 0
4824.000	48.3	5.4	1.0	206.1	3.0	0.0	Vert	PK	0.0	53.7	74.0	-20.3	1 Mbps, Low ch, EUT Vertical, Ant 0
7386.125	40.9	12.8	1.0	142.1	3.0	0.0	Vert	PK	0.0	53.7	74.0	-20.3	1 Mbps, High ch, EUT Vertical, Ant 0
4871.742	48.1	5.1	1.1	214.1	3.0	0.0	Vert	PK	0.0	53.2	74.0	-20.8	MCS0, Mid ch, EUT Vertical, Ant 0
4923.775	48.0	4.9	1.2	212.0	3.0	0.0	Horz	PK	0.0	52.9	74.0	-21.1	1 Mbps, High ch, EUT on Side, Ant 0
4872.817	47.7	5.1	1.1	214.1	3.0	0.0	Vert	PK	0.0	52.8	74.0	-21.2	54 Mbps, Mid ch, EUT Vertical, Ant 0
4873.717	47.7	5.1	1.0	325.0	3.0	0.0	Vert	PK	0.0	52.8	74.0	-21.2	1 Mbps, Mid ch, EUT Horizontal, Ant 0
4823.808	47.2	5.4	1.3	215.0	3.0	0.0	Horz	PK	0.0	52.6	74.0	-21.4	1 Mbps, Low ch, EUT on Side, Ant 0
4873.792	47.2	5.1	1.0	226.0	3.0	0.0	Horz	PK	0.0	52.3	74.0	-21.7	1 Mbps, Mid ch, EUT Vertical, Ant 0
4874.433	47.1	5.1	1.1	214.1	3.0	0.0	Vert	PK	0.0	52.2	74.0	-21.8	36 Mbps, Mid ch, EUT Vertical, Ant 0
4873.375	46.6	5.1	1.1	214.1	3.0	0.0	Vert	PK	0.0	51.7	74.0	-22.3	MCS7, Mid ch, EUT Vertical, Ant 0
4873.850	46.5	5.1	1.0	174.1	3.0	0.0	Vert	PK	0.0	51.6	74.0	-22.4	1 Mbps, Mid ch, EUT on Side, Ant 0
4873.892	46.1	5.1	1.0	232.9	3.0	0.0	Horz	PK	0.0	51.2	74.0	-22.8	1 Mbps, Mid ch, EUT Horizontal, Ant 0
12309.120	35.7	-5.0	1.0	130.1	3.0	0.0	Horz	AV	0.0	30.7	54.0	-23.3	1 Mbps, High ch, EUT on Side, Ant 0
12183.940	34.7	-5.0	1.0	322.0	3.0	0.0	Horz	AV	0.0	29.7	54.0	-24.3	1 Mbps, Mid ch, EUT on Side, Ant 0
12185.880	34.7	-5.0	1.0	333.9	3.0	0.0	Vert	AV	0.0	29.7	54.0	-24.3	1 Mbps, Mid ch, EUT Vertical, Ant 0
12311.130	33.8	-4.9	1.0	180.0	3.0	0.0	Vert	AV	0.0	28.9	54.0	-25.1	1 Mbps, High ch, EUT Vertical, Ant 0
14472.110	43.6	3.5	1.0	308.9	3.0	0.0	Vert	PK	0.0	47.1	74.0	-26.9	1 Mbps, Low ch, EUT Vertical, Ant 0
14471.120	42.8	3.5	1.0	12.1	3.0	0.0	Horz	PK	0.0	46.3	74.0	-27.7	1 Mbps, Low ch, EUT on Side Ant 0
12058.610	50.8	-5.2	1.2	193.0	3.0	0.0	Vert	PK	0.0	45.6	74.0	-28.4	1 Mbps, Low ch, EUT Vertical, Ant 0
12060.300	50.4	-5.2	1.0	195.1	3.0	0.0	Horz	PK	0.0	45.2	74.0	-28.8	1 Mbps, Low ch, EUT on Side Ant 0
12310.270	46.4	-4.9	1.0	130.1	3.0	0.0	Horz	PK	0.0	41.5	74.0	-32.5	1 Mbps, High ch, EUT on Side, Ant 0
12184.580	46.0	-5.0	1.0	322.0	3.0	0.0	Horz	PK	0.0	41.0	74.0	-33.0	1 Mbps, Mid ch, EUT on Side, Ant 0
12184.640	45.9	-5.0	1.0	333.9	3.0	0.0	Vert	PK	0.0	40.9	74.0	-33.1	1 Mbps, Mid ch, EUT Vertical, Ant 0
12309.340	45.2	-5.0	1.0	180.0	3.0	0.0	Vert	PK	0.0	40.2	74.0	-33.8	1 Mbps, High ch, EUT Vertical, Ant 0

**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 (mos)
MN08 Direct Connect Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNU	10/2/2014	12
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC Block	Fairview Microwave	SD3379	AMI	10/2/2014	12
MXG Vector Signal Generator	Agilent	N5182A	TIF	8/12/2014	36
Spectrum Analyzer	Agilent	E4440A	AAX	4/28/2014	12

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 2014.02.07
NweTx 2014.11.06

EUT: TH8321WF	Work Order: HNYW0116
Serial Number: 51911030061813	Date: 11/25/14
Customer: Honeywell, Automation and Control Solutions	Temperature: 23.2°C
Attendees: None	Humidity: 16%
Project: None	Barometric Pres.: 1019.9
Tested by: Trevor Buls	Power: 110VAC/60Hz
	Job Site: MN08

TEST SPECIFICATIONS	Test Method
FCC 15.247:2014	ANSI C63.10:2009

COMMENTS
None

DEVIATIONS FROM TEST STANDARD
None

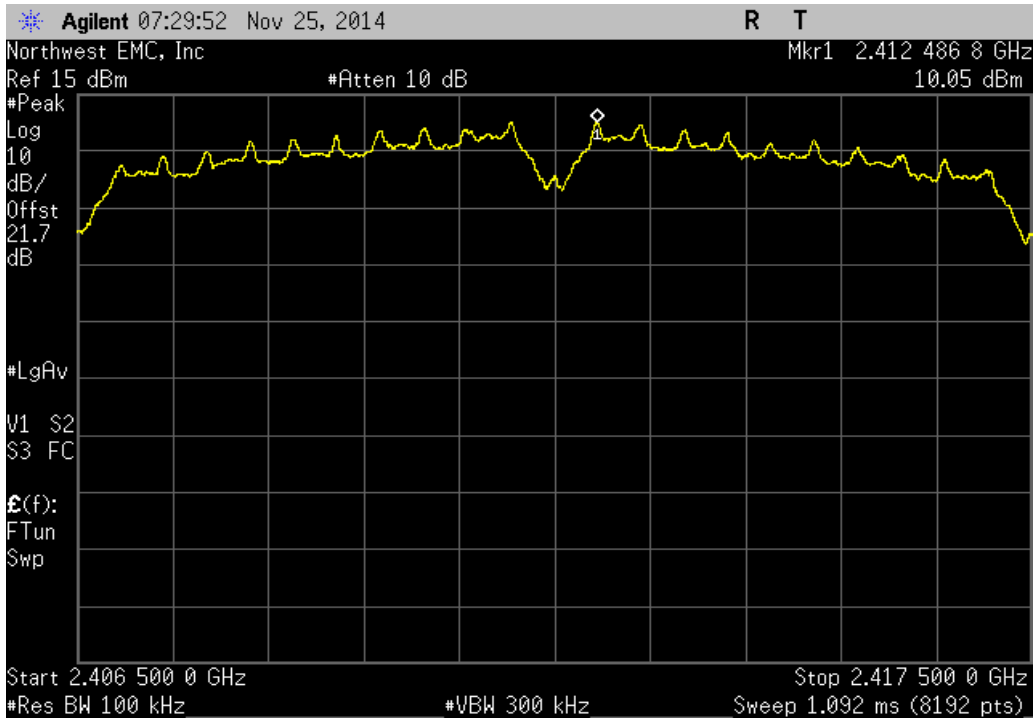
Configuration #	3	Signature <i>Trevor Buls</i>
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Antenna 0	Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
802.11(b) 1 Mbps				
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-51.77	-20	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-63	-20	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-51.72	-20	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-62.69	-20	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-53.23	-20	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-63	-20	Pass
802.11(b) 11 Mbps				
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-53.27	-20	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-62.94	-20	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-53.55	-20	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-63.67	-20	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-53.6	-20	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-63.47	-20	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	-45.64	-20	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-53.45	-20	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-58.58	-20	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-58.5	-20	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-56.33	-20	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-52.8	-20	Pass
802.11(g) 36 Mbps				
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-47.6	-20	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-54.36	-20	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-58.36	-20	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-58.76	-20	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	-20	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-54.13	-20	Pass
802.11(g) 54 Mbps				
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-46.68	-20	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-53.78	-20	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-57.8	-20	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-59	-20	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-56.65	-20	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-53.99	-20	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	-43.15	-20	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-52.75	-20	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-57.3	-20	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-58.15	-20	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-57.23	-20	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-53.8	-20	Pass
802.11(n) MCS7				
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-46.97	-20	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-53.74	-20	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-58.3	-20	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-58.99	-20	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-56.48	-20	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-53.11	-20	Pass

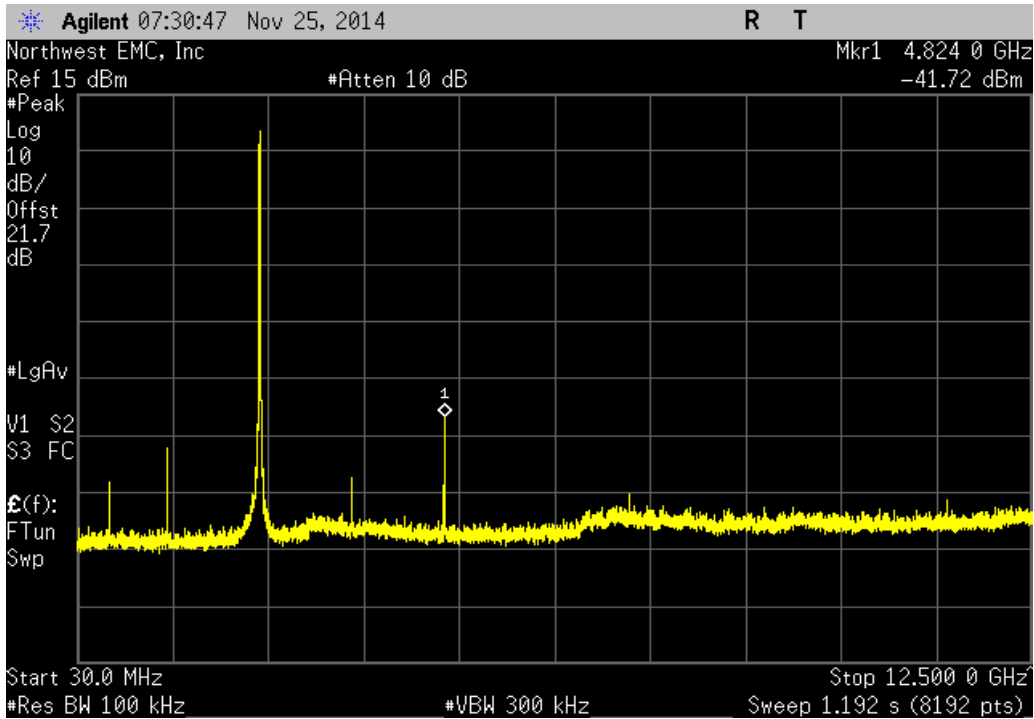
Antenna 1

802.11(b) 1 Mbps					
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A	
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-51.49	-20	Pass	
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-63.31	-20	Pass	
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A	
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-51.99	-20	Pass	
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-62.98	-20	Pass	
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A	
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-52.53	-20	Pass	
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-62.52	-20	Pass	
802.11(b) 11 Mbps					
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A	
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-51.63	-20	Pass	
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-62.29	-20	Pass	
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A	
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-52.44	-20	Pass	
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-62.56	-20	Pass	
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A	
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-52.76	-20	Pass	
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-62.88	-20	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	-38.27	-20	Pass	
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-54.08	-20	Pass	
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A	
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-57.94	-20	Pass	
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-58.25	-20	Pass	
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A	
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-55.79	-20	Pass	
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-51.96	-20	Pass	
802.11(g) 36 Mbps					
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A	
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-38.56	-20	Pass	
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-54.46	-20	Pass	
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A	
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-58.06	-20	Pass	
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-59.09	-20	Pass	
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A	
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-54.97	-20	Pass	
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-51.54	-20	Pass	
802.11(g) 54 Mbps					
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A	
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-41.2	-20	Pass	
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-54.7	-20	Pass	
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A	
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-57.68	-20	Pass	
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-58.93	-20	Pass	
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A	
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-55.94	-20	Pass	
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-51.72	-20	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	-38.22	-20	Pass	
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-53	-20	Pass	
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A	
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-58.7	-20	Pass	
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-58.69	-20	Pass	
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A	
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-54.77	-20	Pass	
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-51.48	-20	Pass	
802.11(n) MCS7					
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A	
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-40.14	-20	Pass	
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-53.86	-20	Pass	
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A	
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-58.03	-20	Pass	
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-59.55	-20	Pass	
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A	
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-55.96	-20	Pass	
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-52.1	-20	Pass	

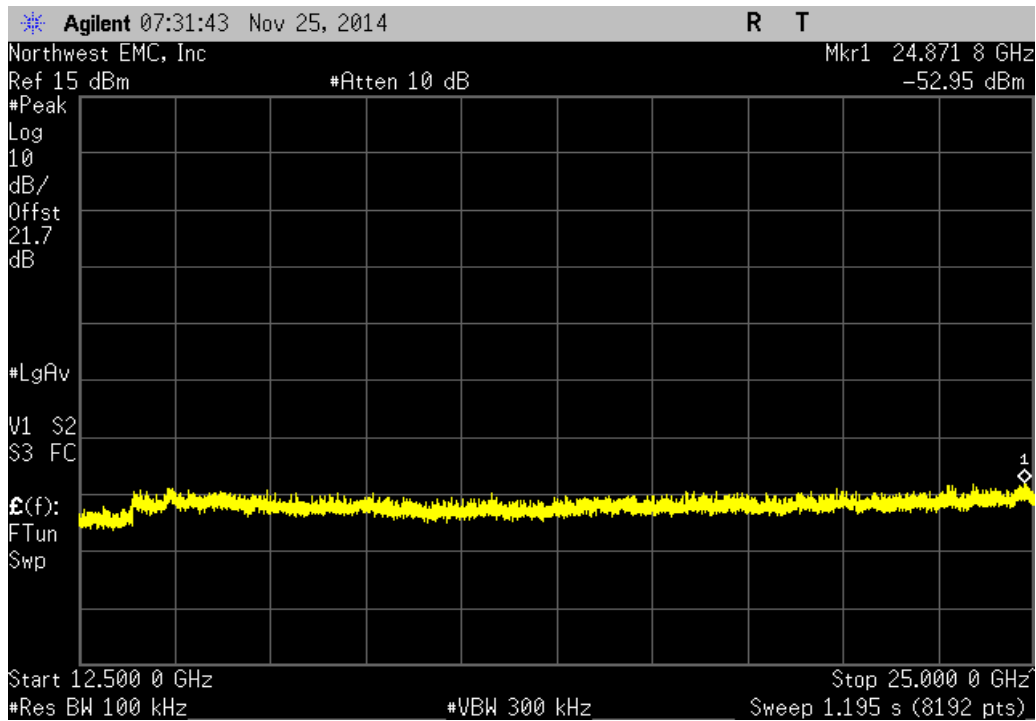
Antenna 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



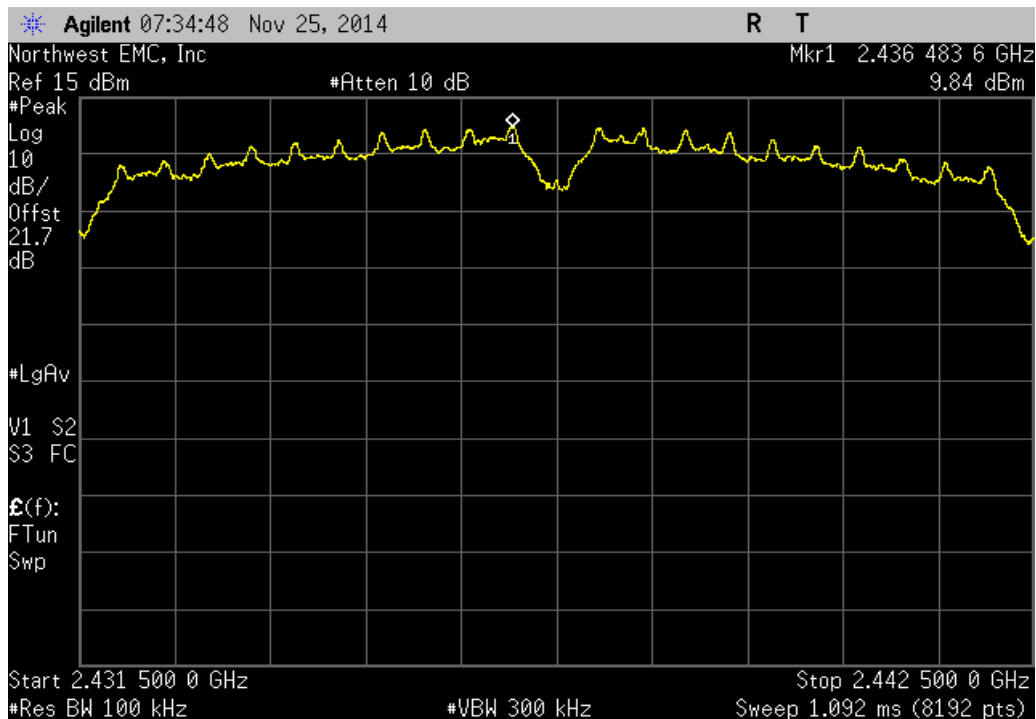
Antenna 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-51.77	-20	Pass



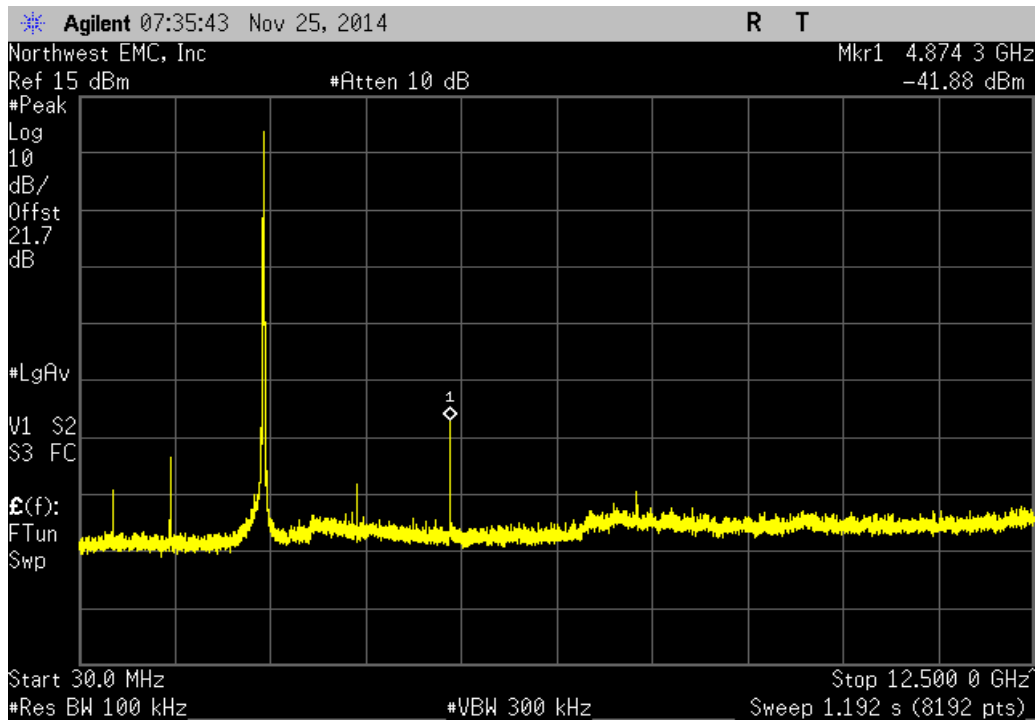
Antenna 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-63	-20	Pass



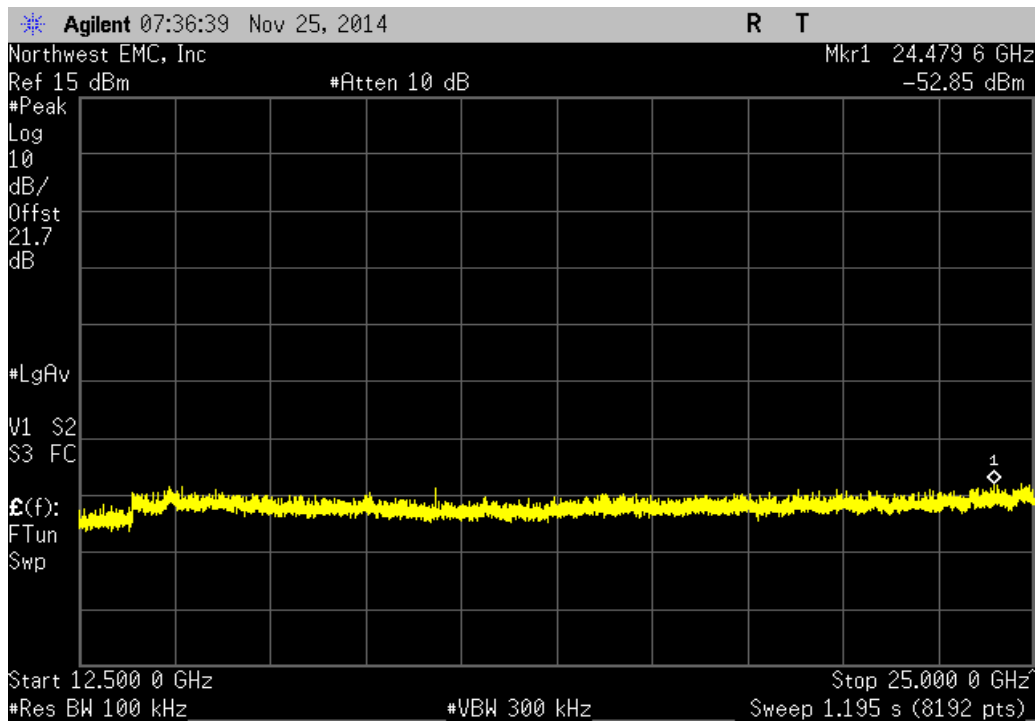
Antenna 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



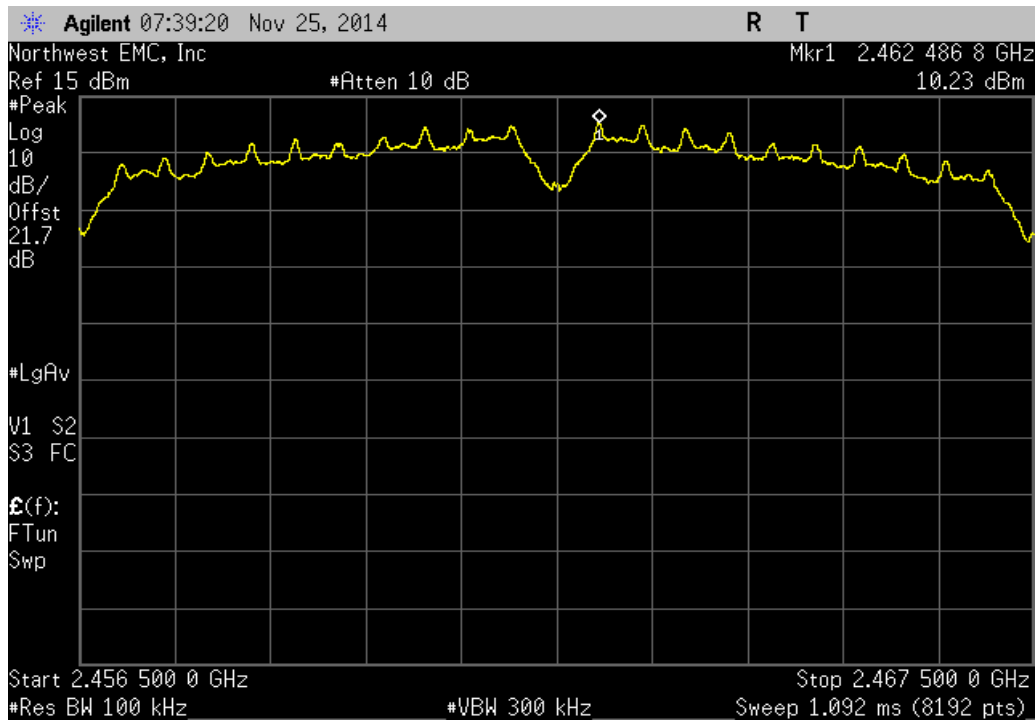
Antenna 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-51.72	-20	Pass



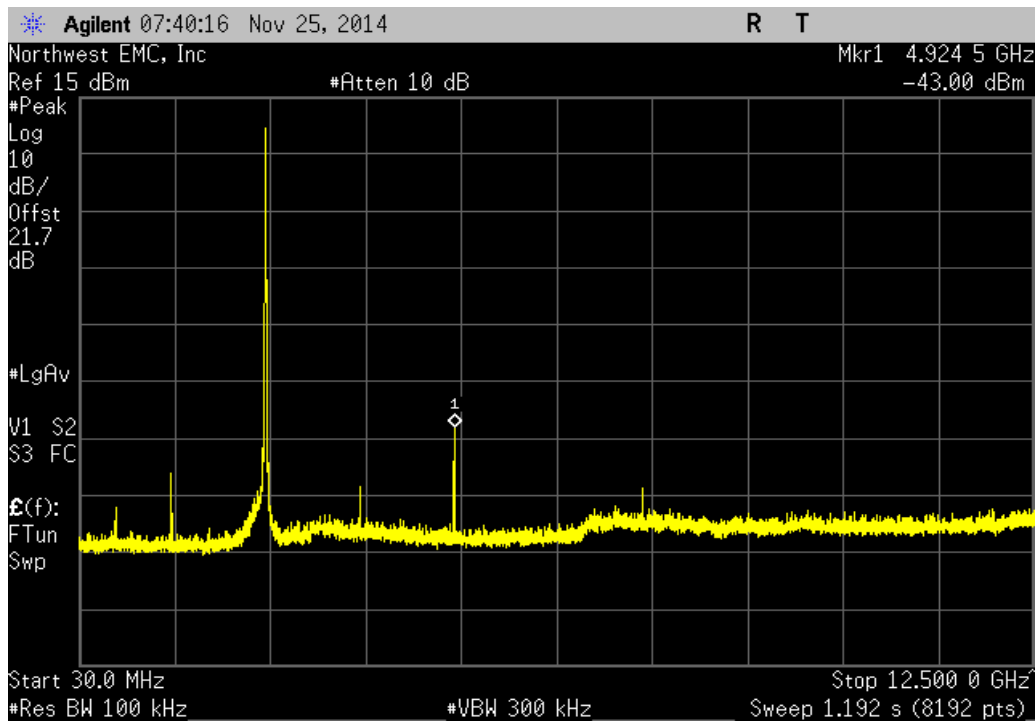
Antenna 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-62.69	-20	Pass



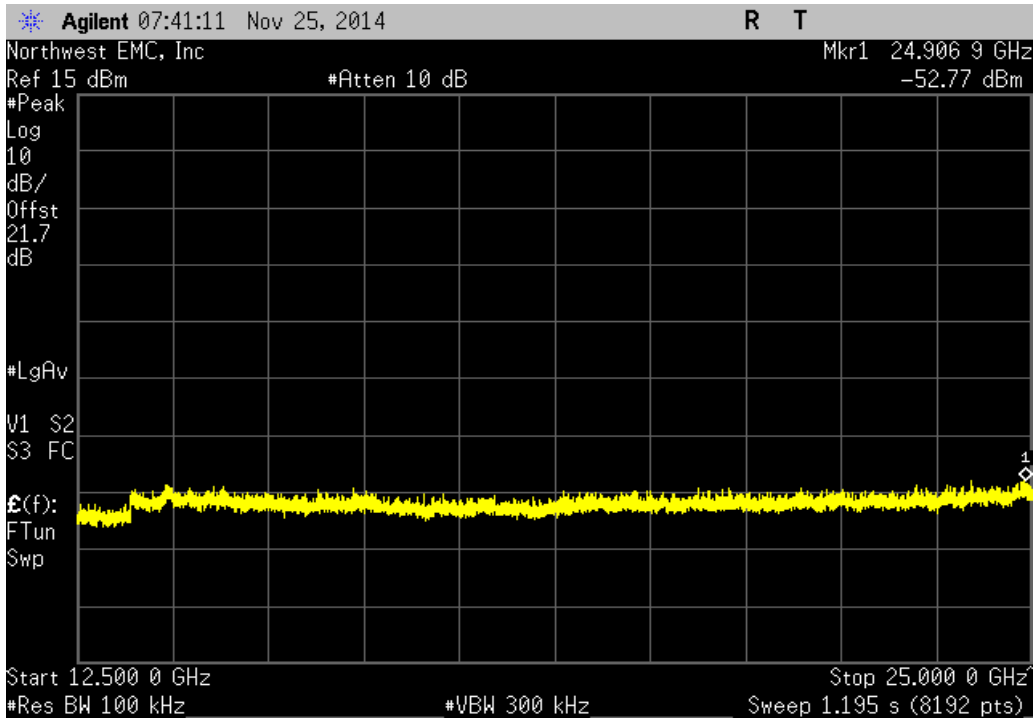
Antenna 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



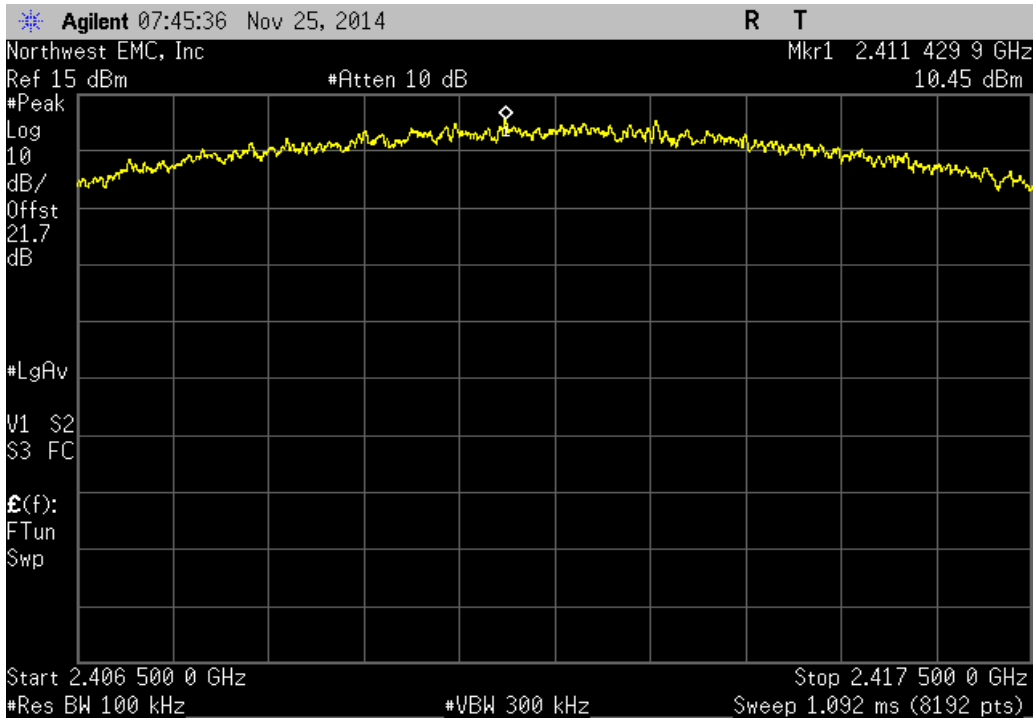
Antenna 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-53.23	-20	Pass



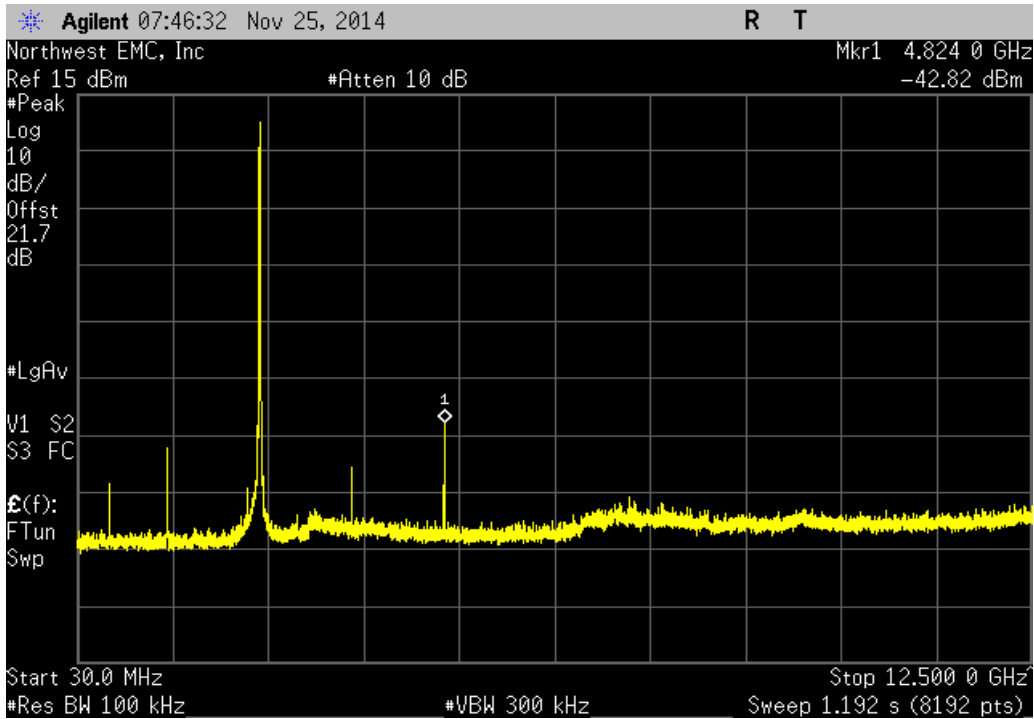
Antenna 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-63	-20	Pass



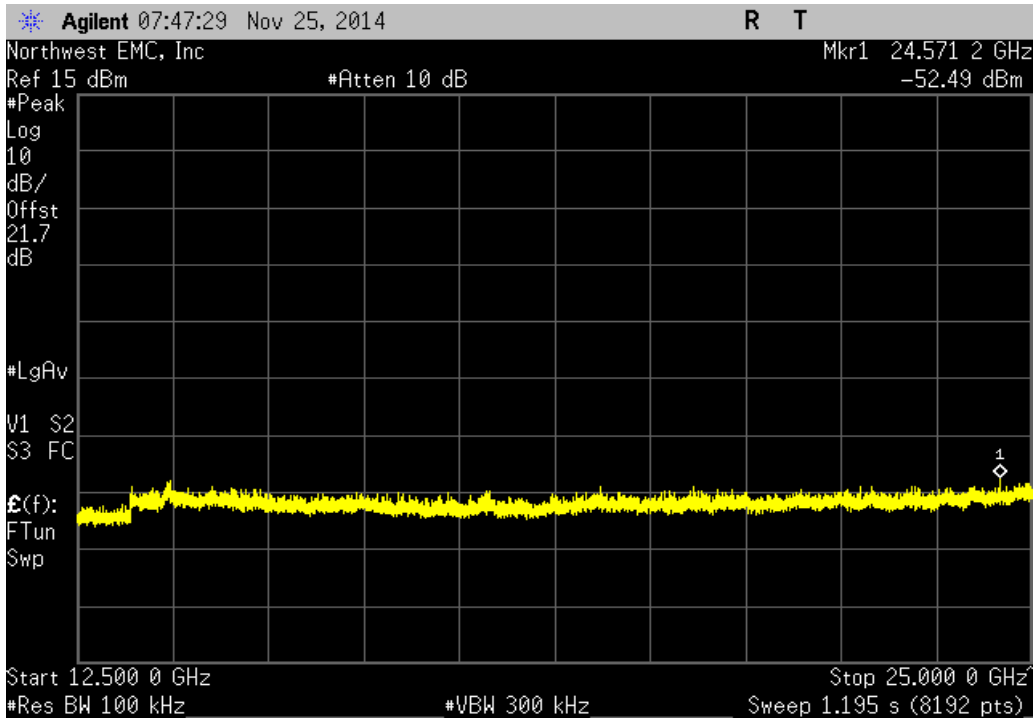
Antenna 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



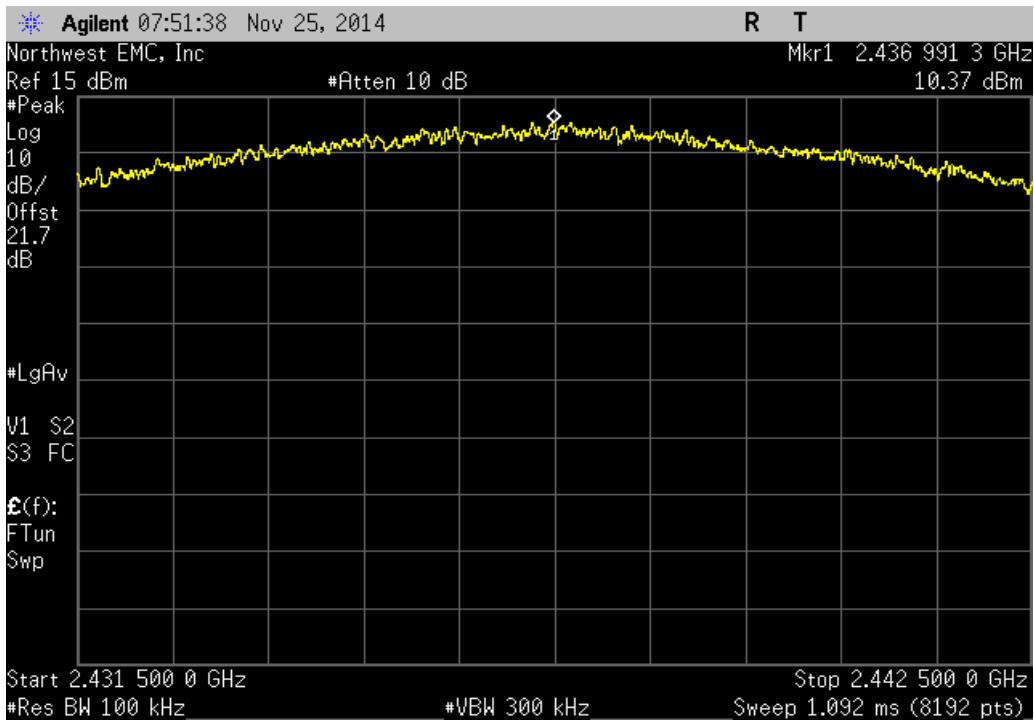
Antenna 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-53.27	-20	Pass



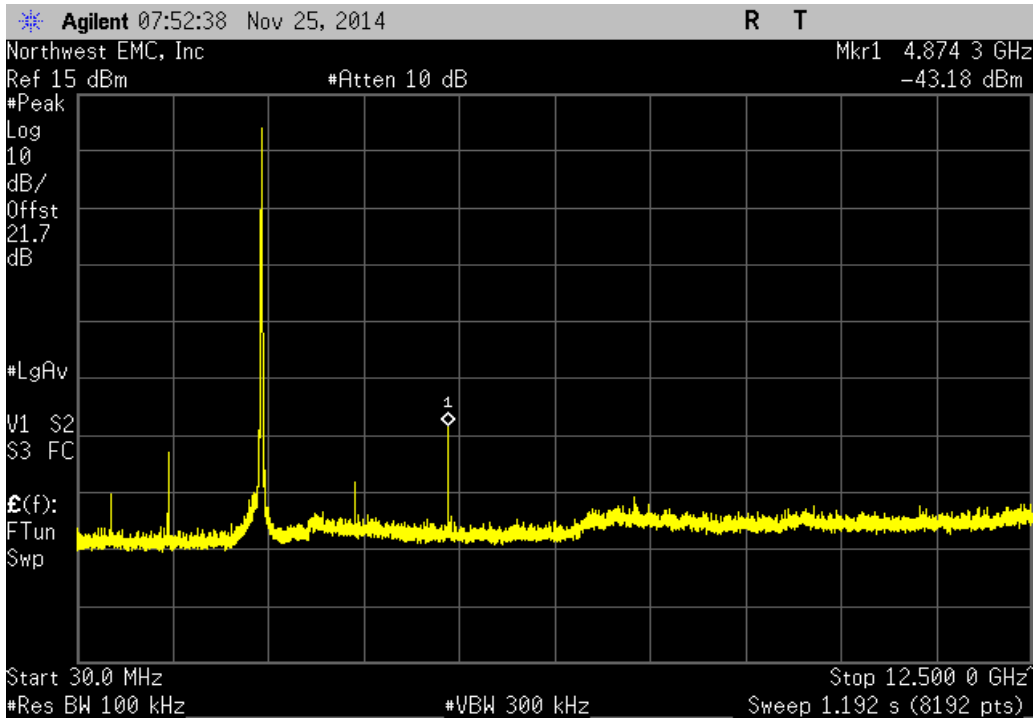
Antenna 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-62.94	-20	Pass



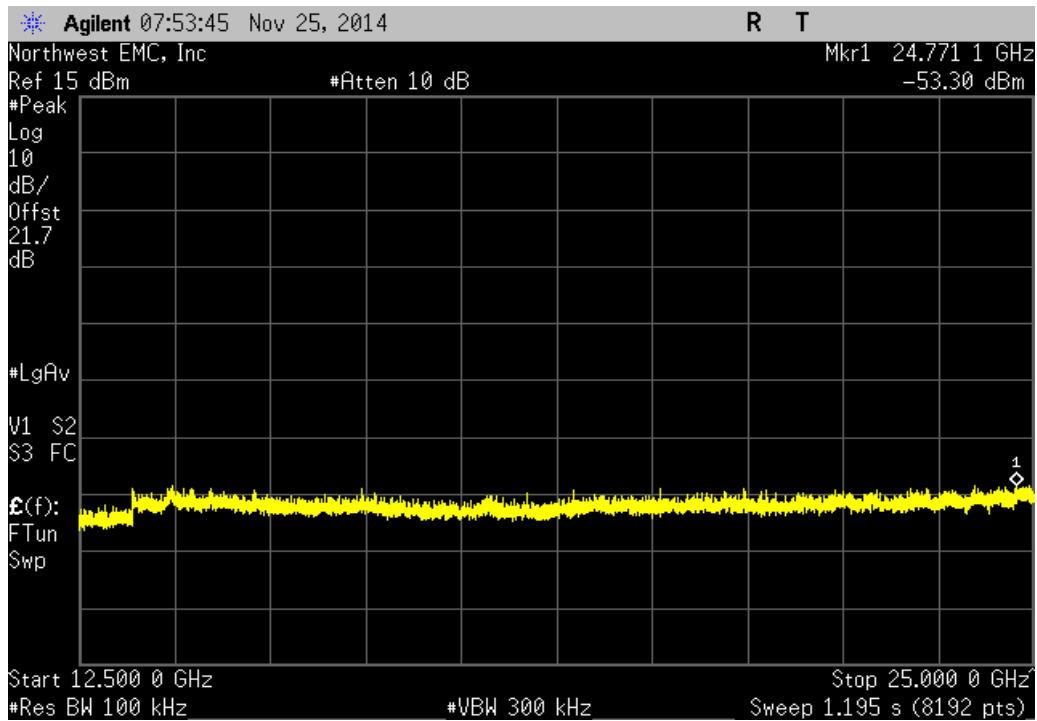
Antenna 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



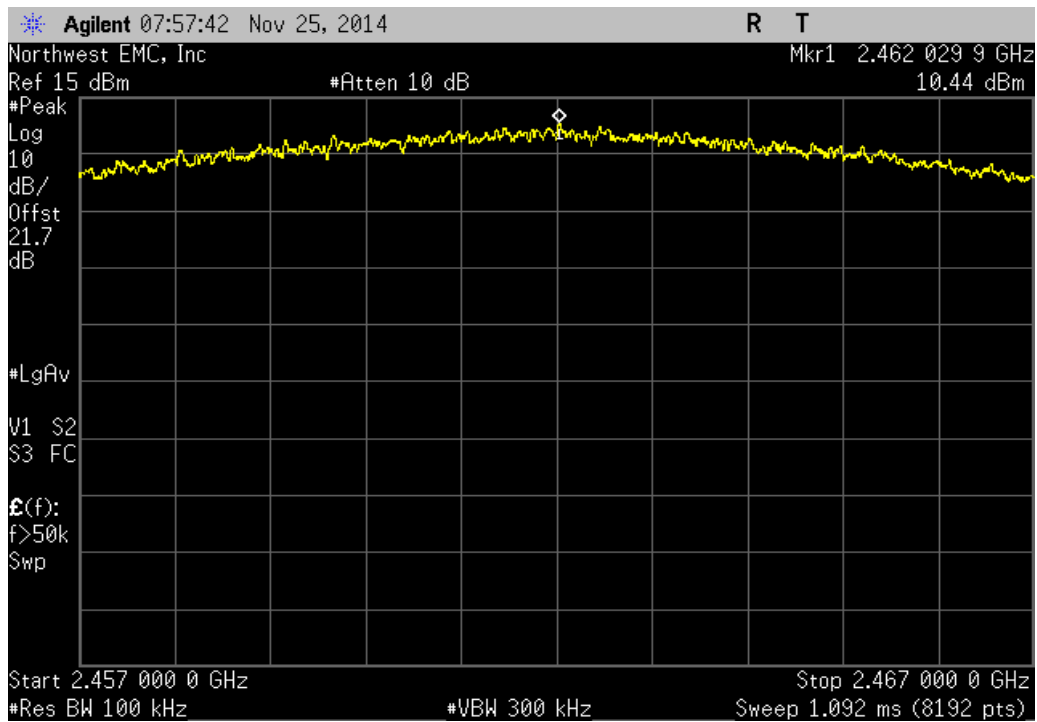
Antenna 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-53.55	-20	Pass



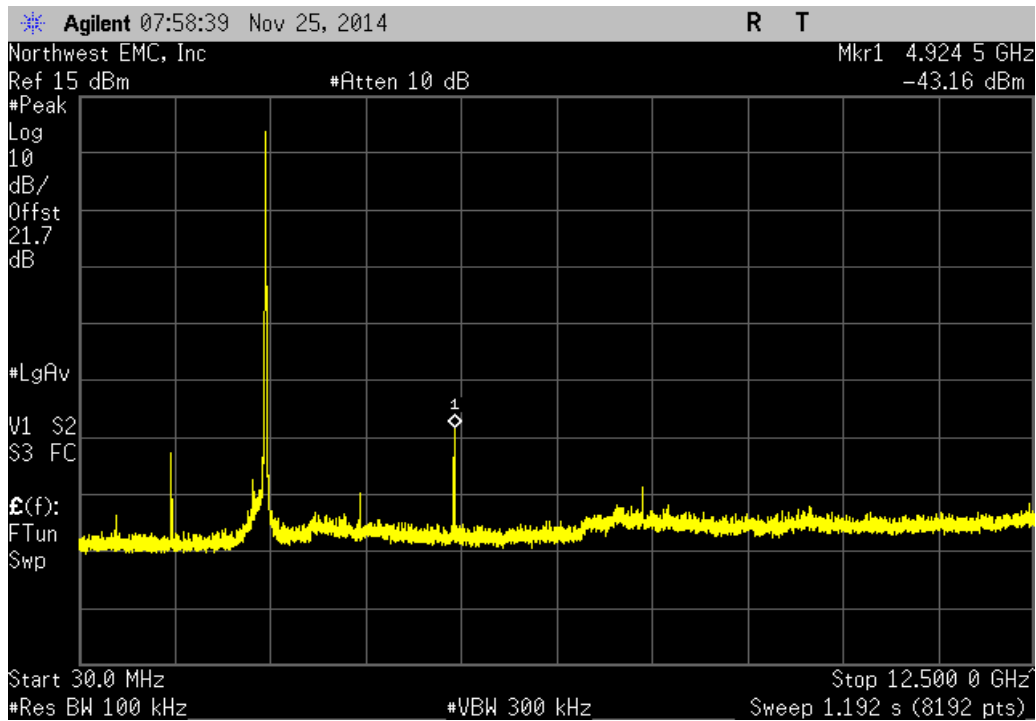
Antenna 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-63.67	-20	Pass



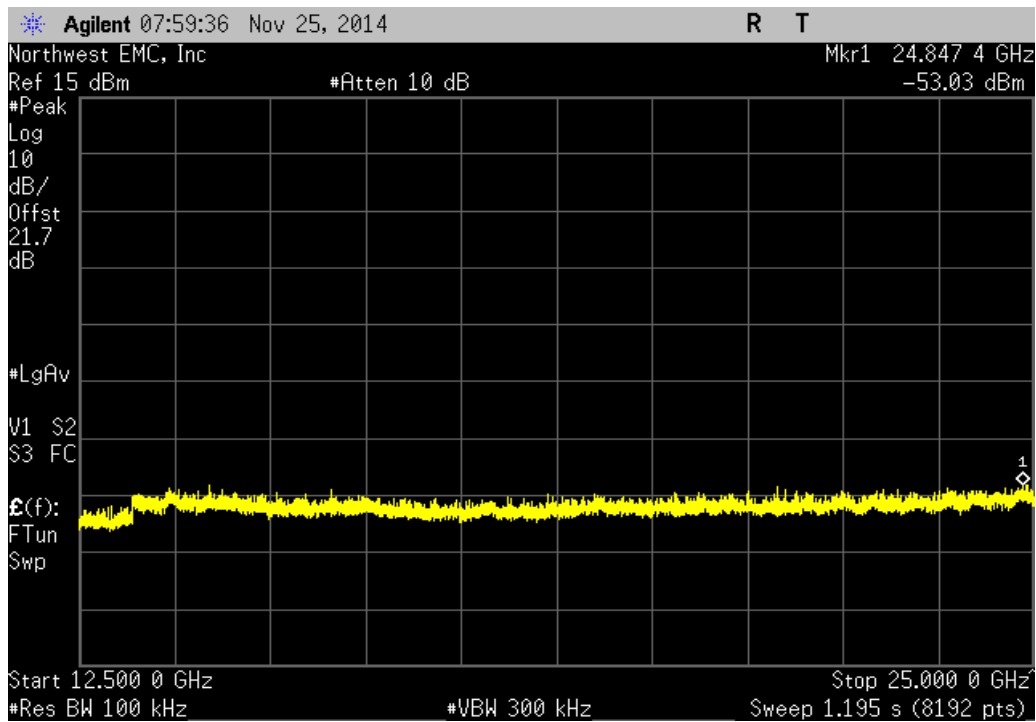
Antenna 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



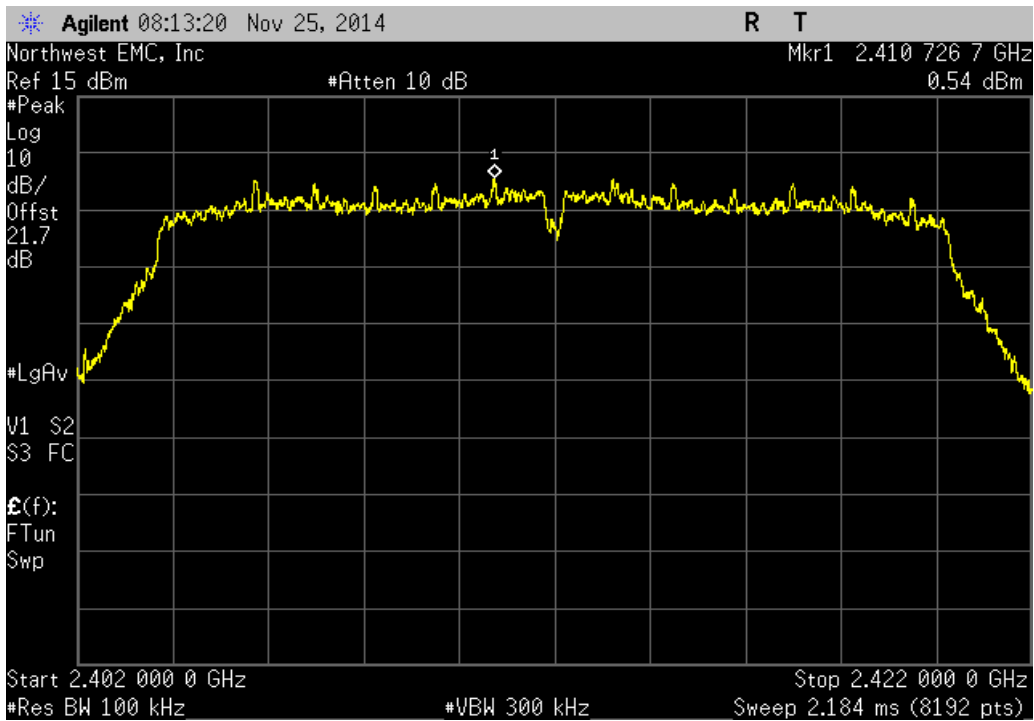
Antenna 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-53.6	-20	Pass



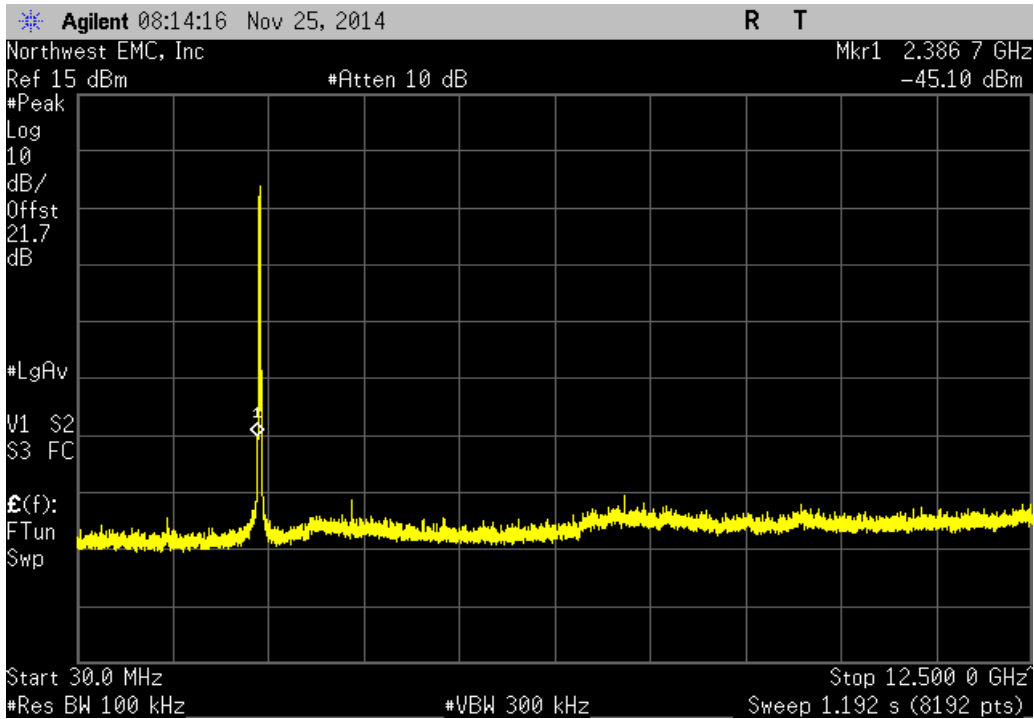
Antenna 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-63.47	-20	Pass



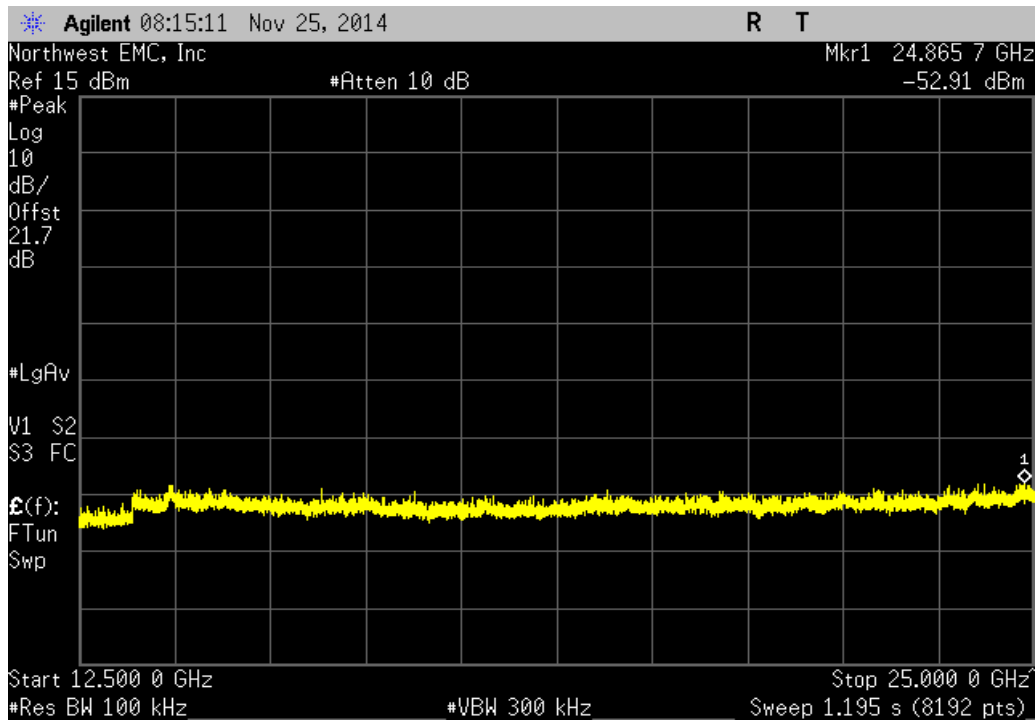
Antenna 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



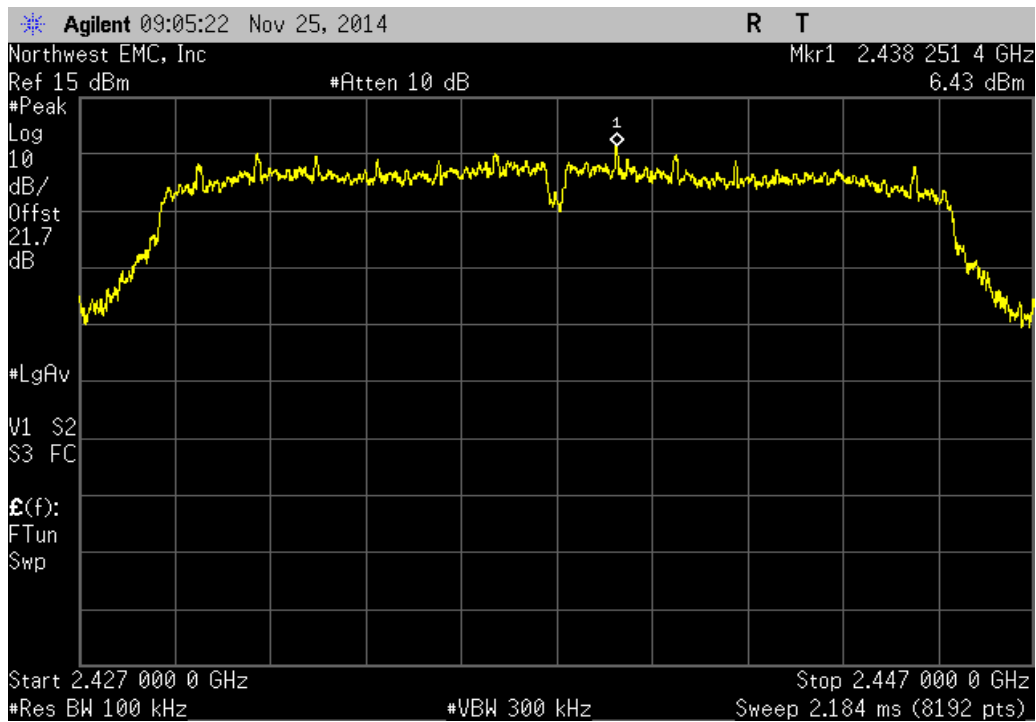
Antenna 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-45.64	-20	Pass



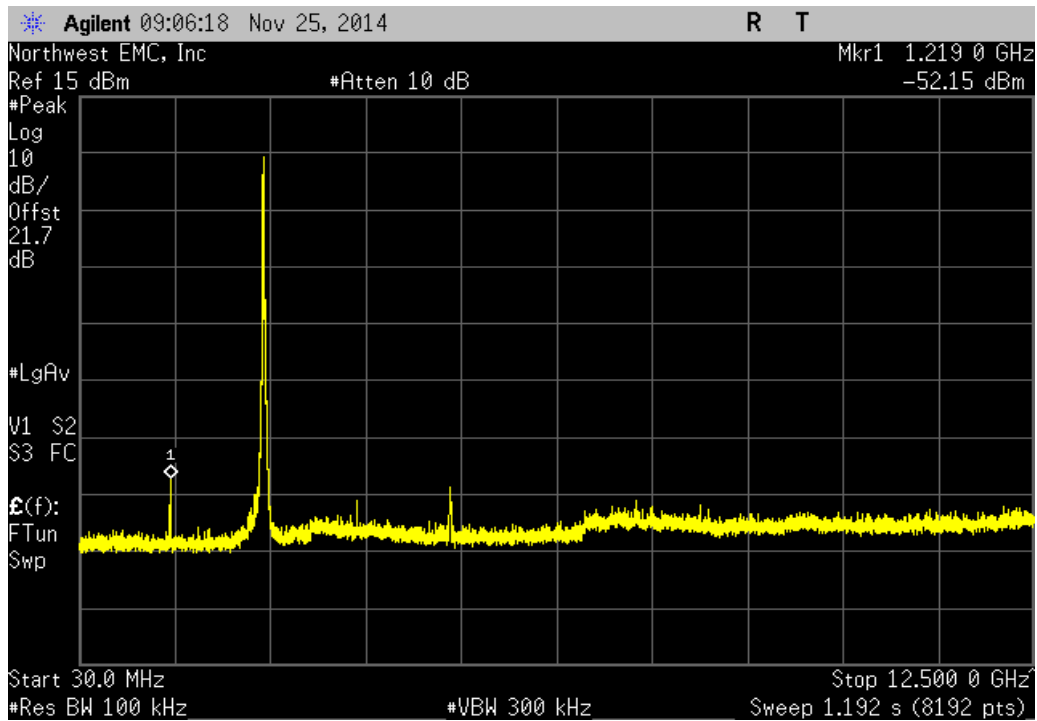
Antenna 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-53.45	-20	Pass



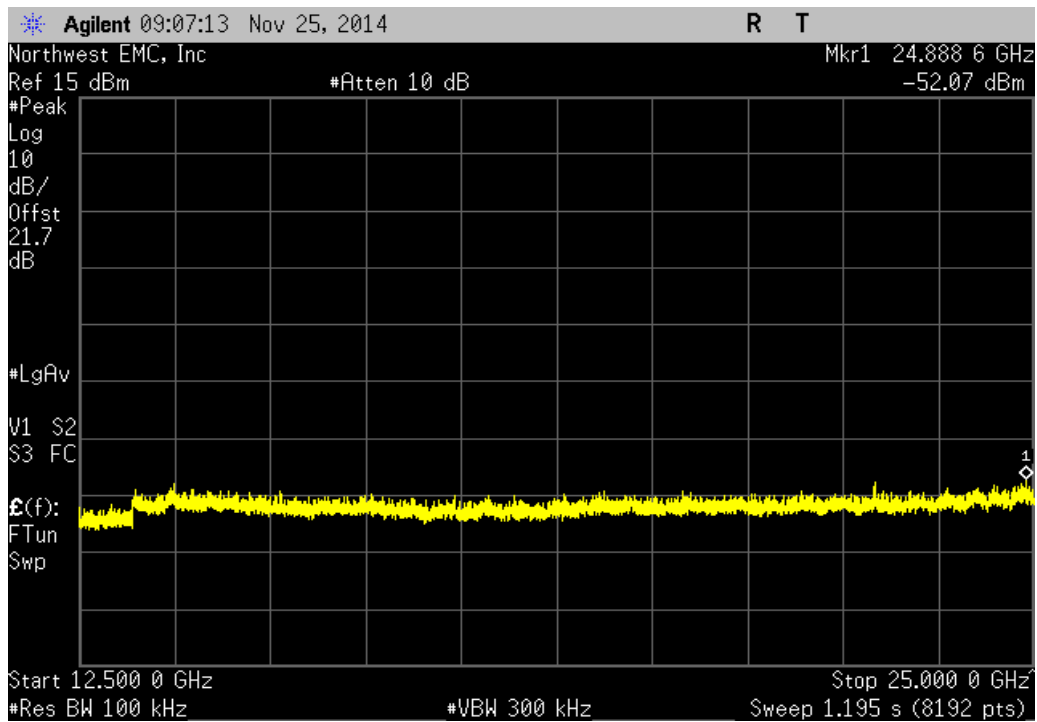
Antenna 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



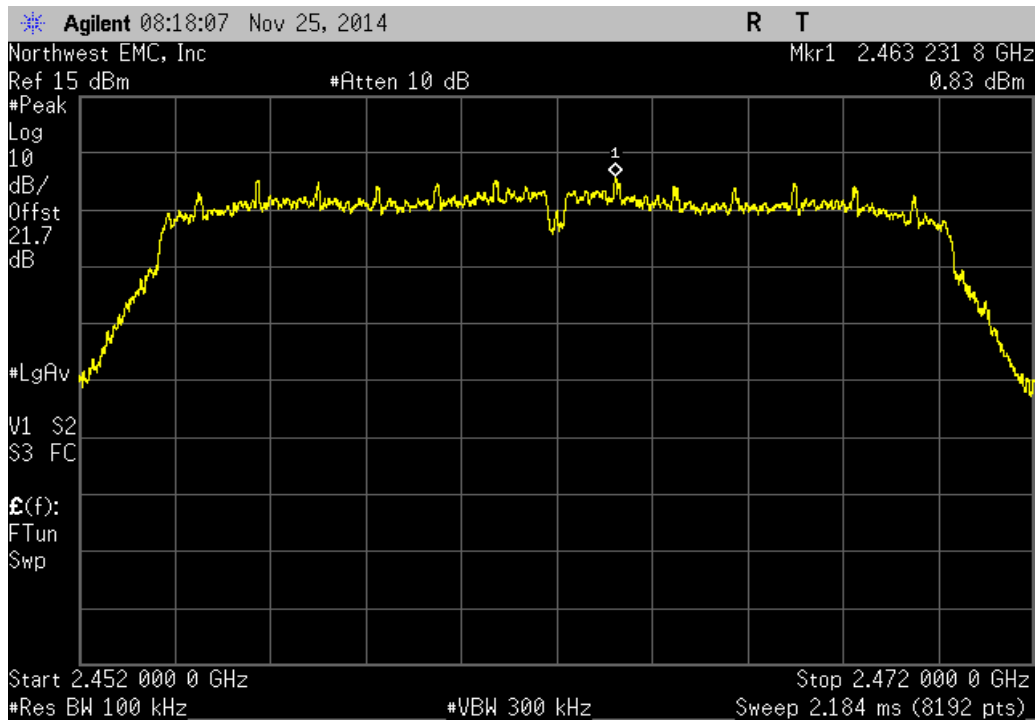
Antenna 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-58.58	-20	Pass



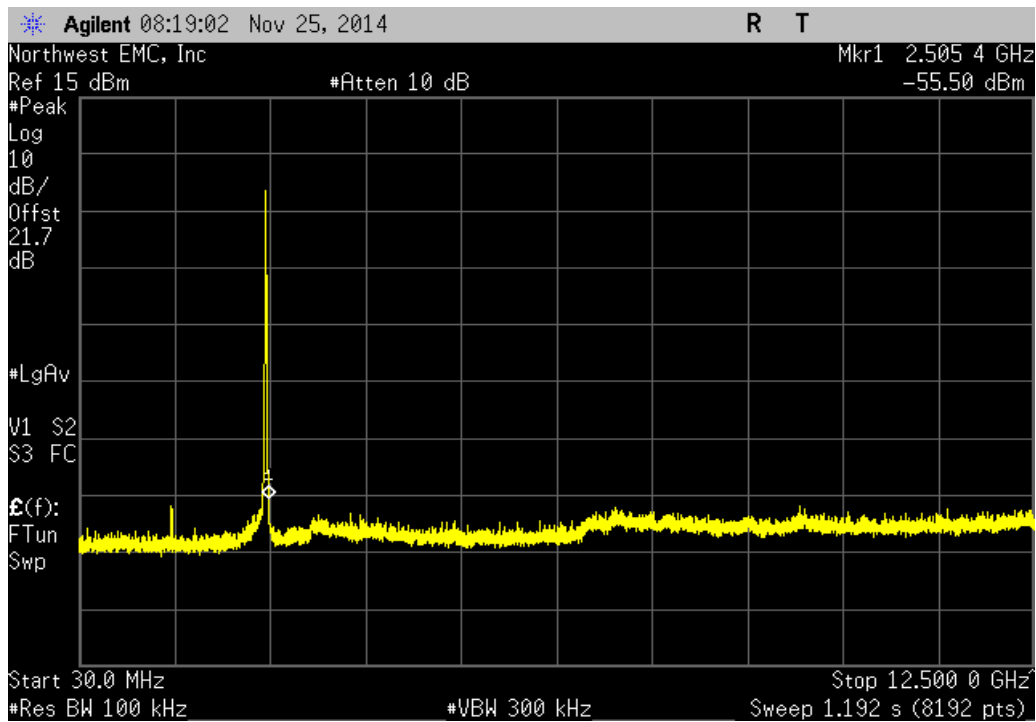
Antenna 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-58.5	-20	Pass



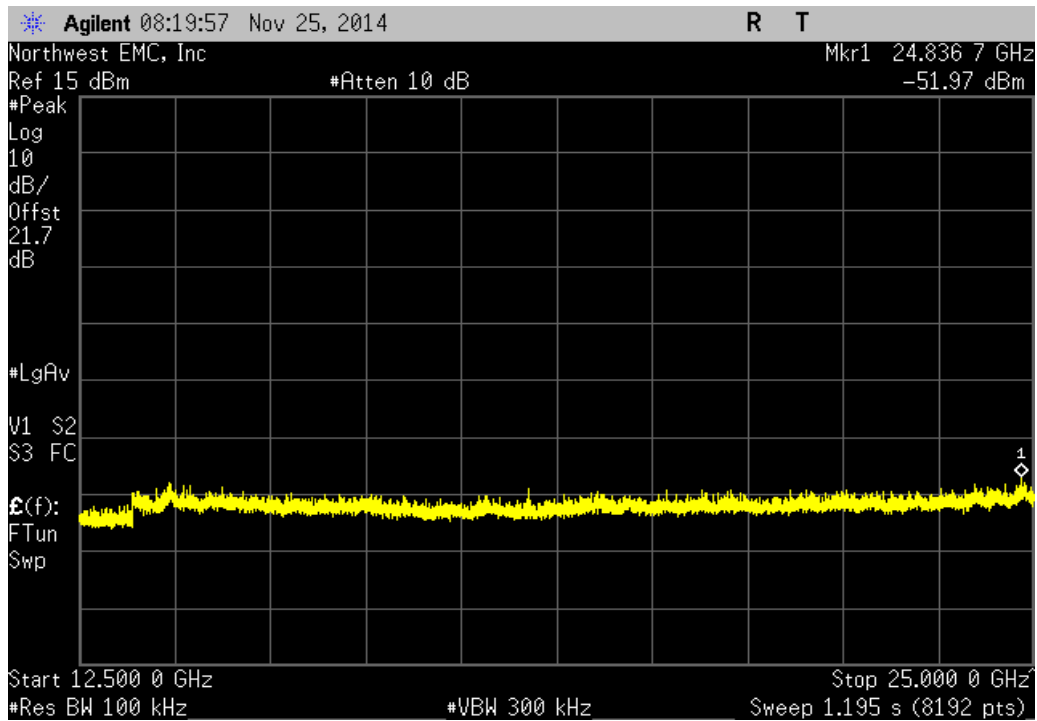
Antenna 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
Fundamental	N/A	N/A	N/A	



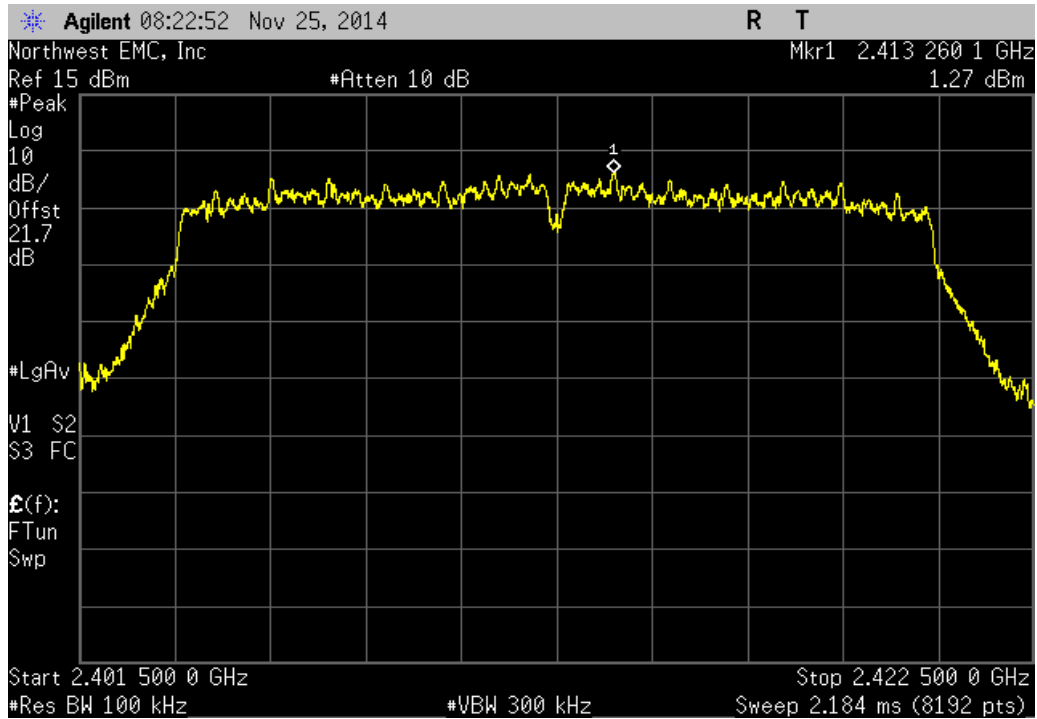
Antenna 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-56.33	-20	Pass	



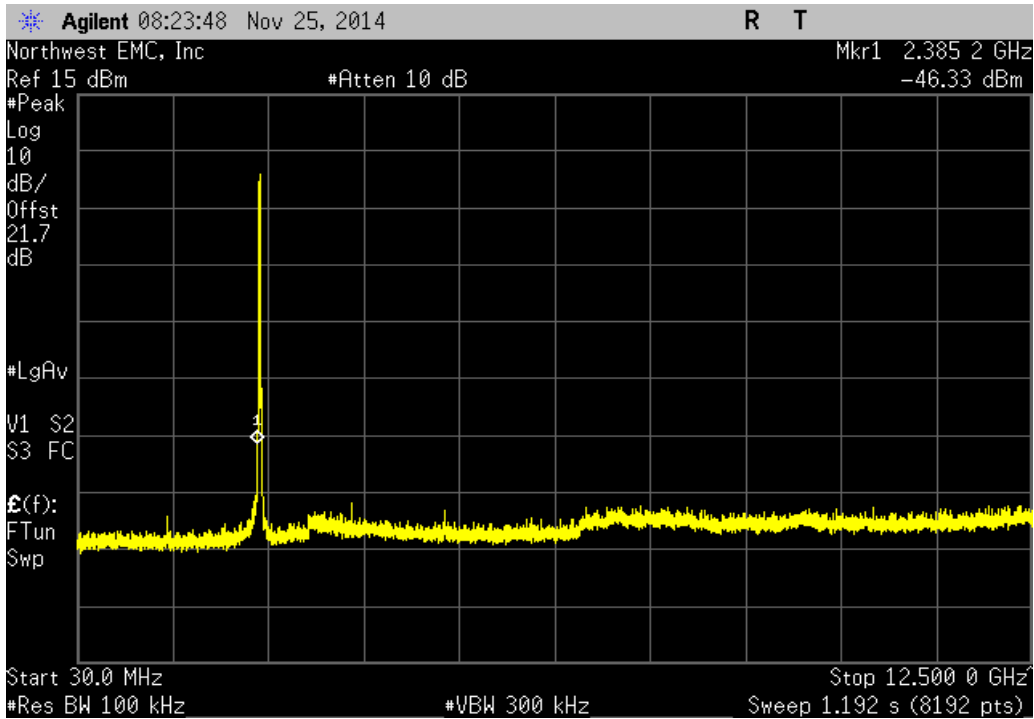
Antenna 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-52.8	-20	Pass



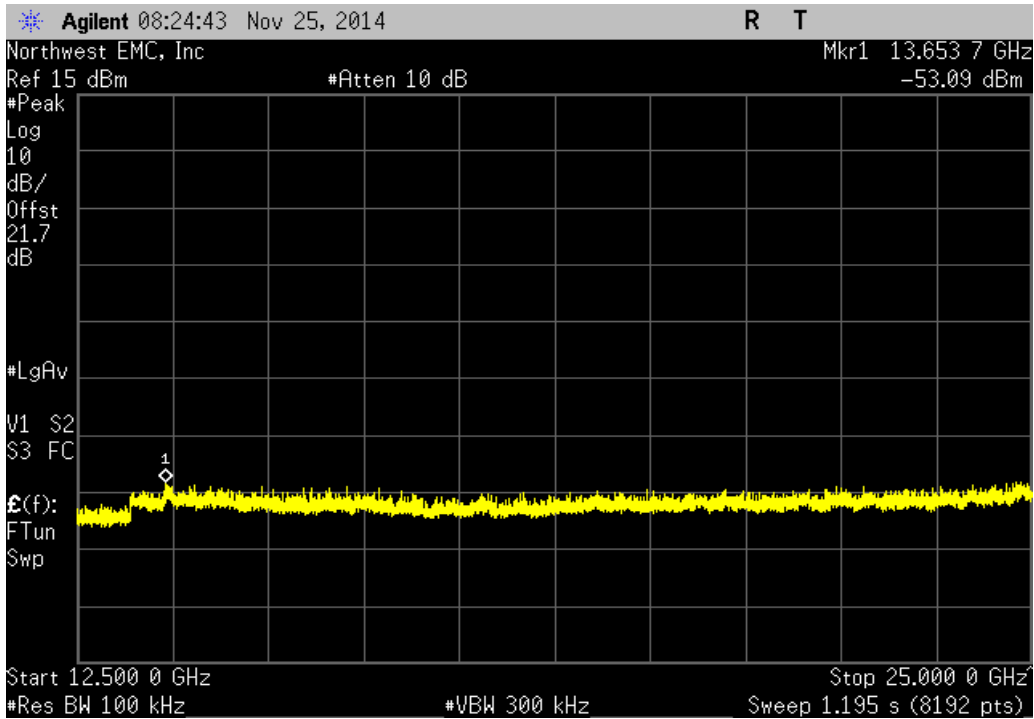
Antenna 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



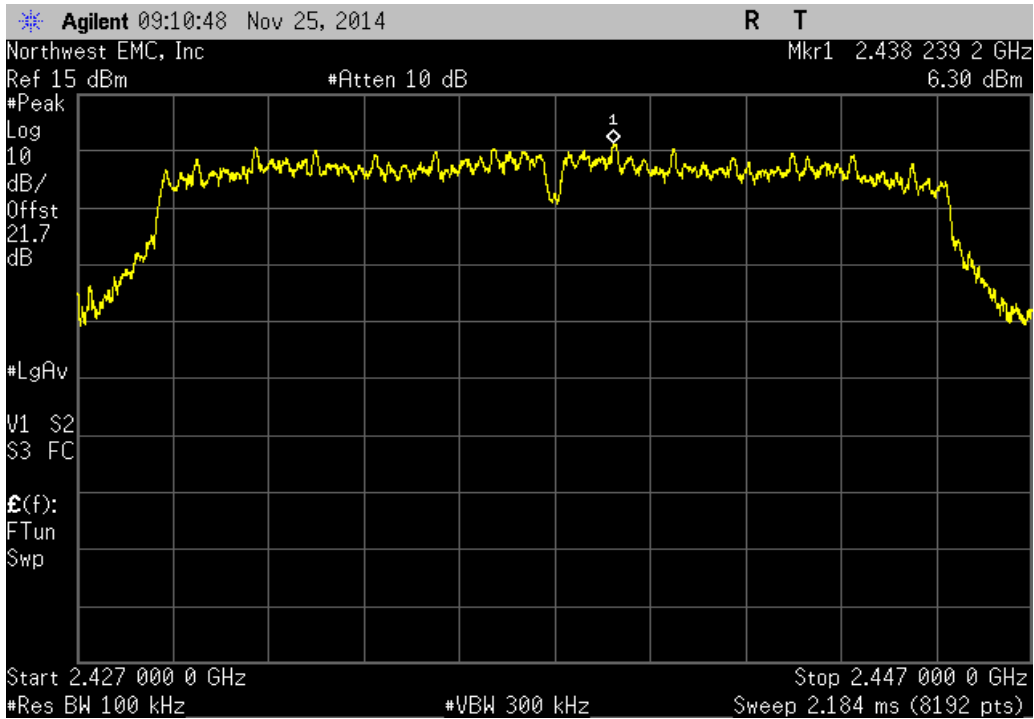
Antenna 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-47.6	-20	Pass	



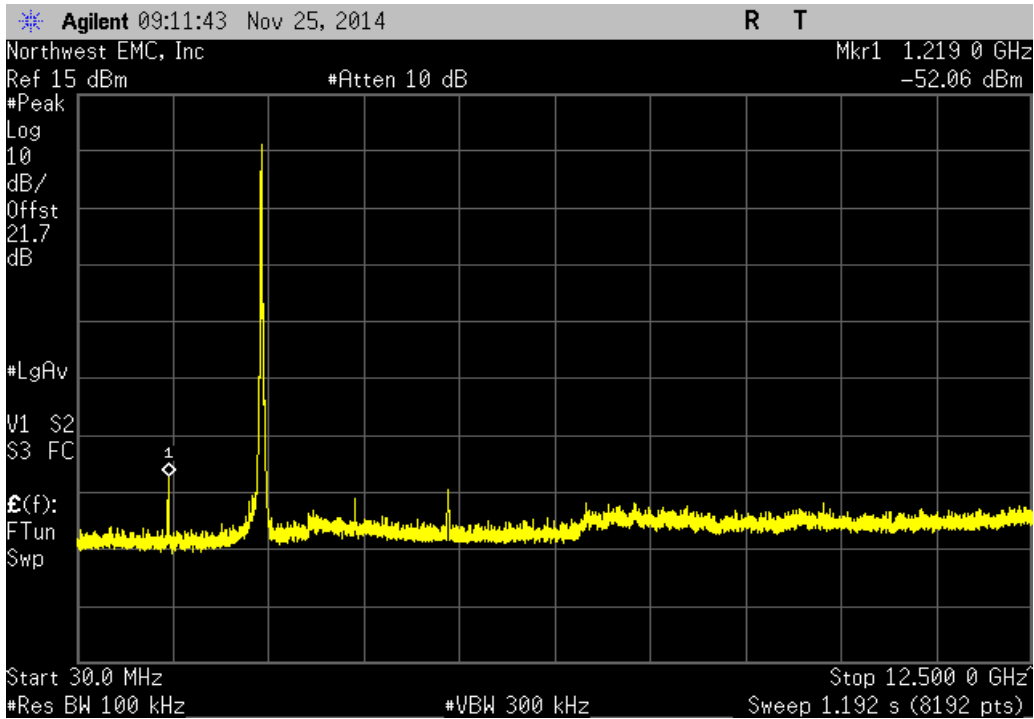
Antenna 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-54.36	-20	Pass	



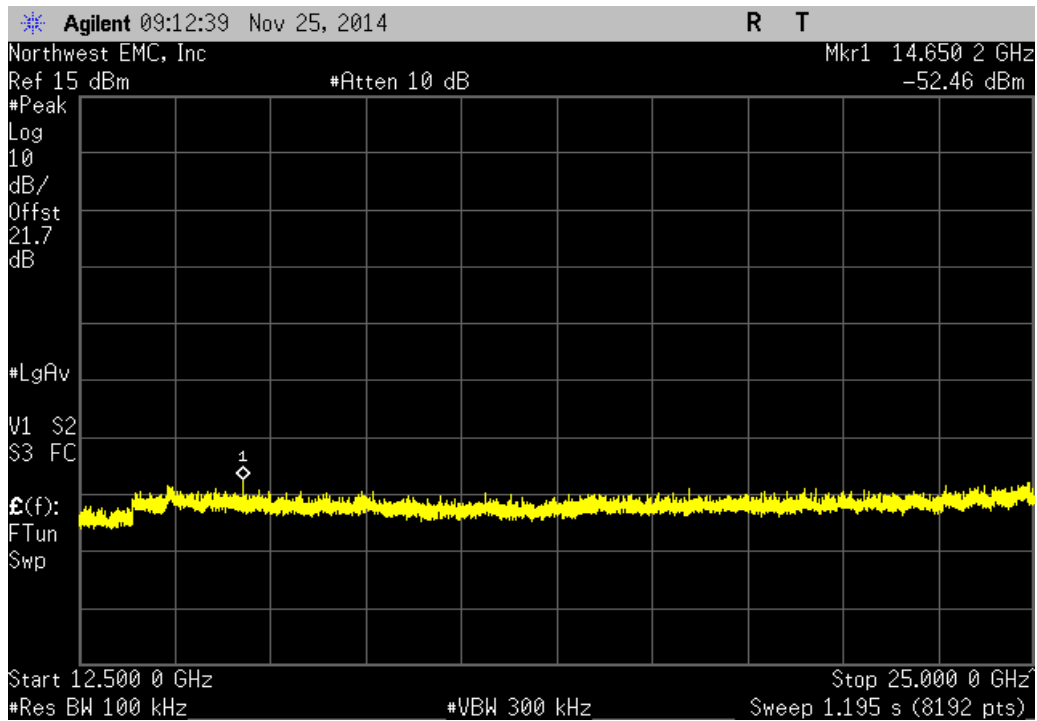
Antenna 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



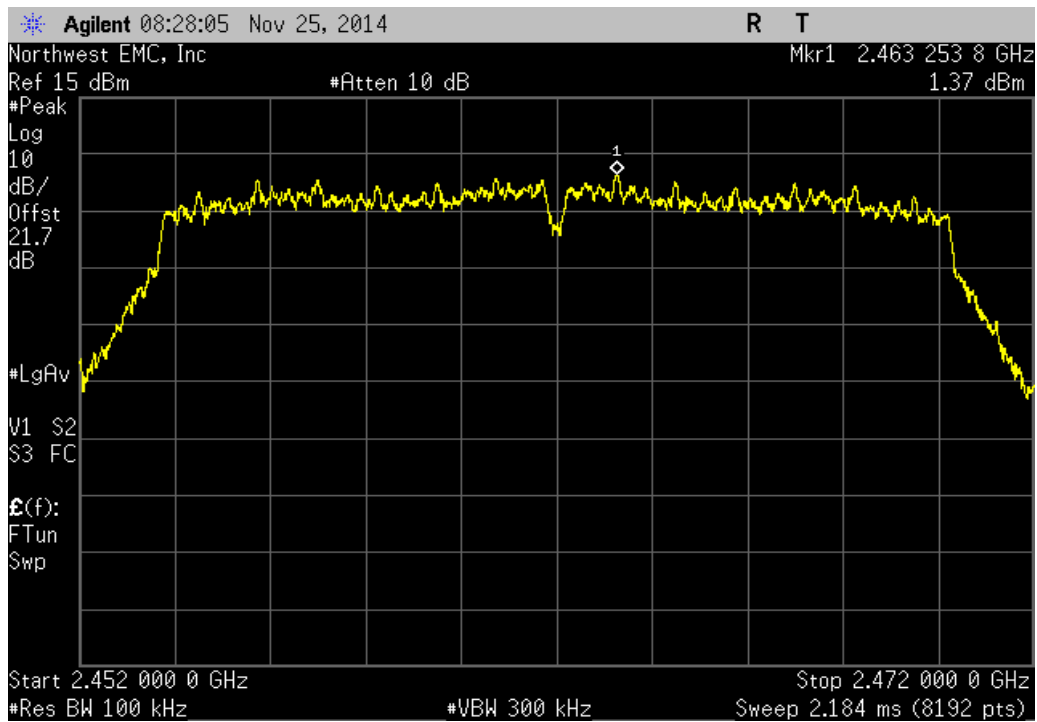
Antenna 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-58.36	-20	Pass



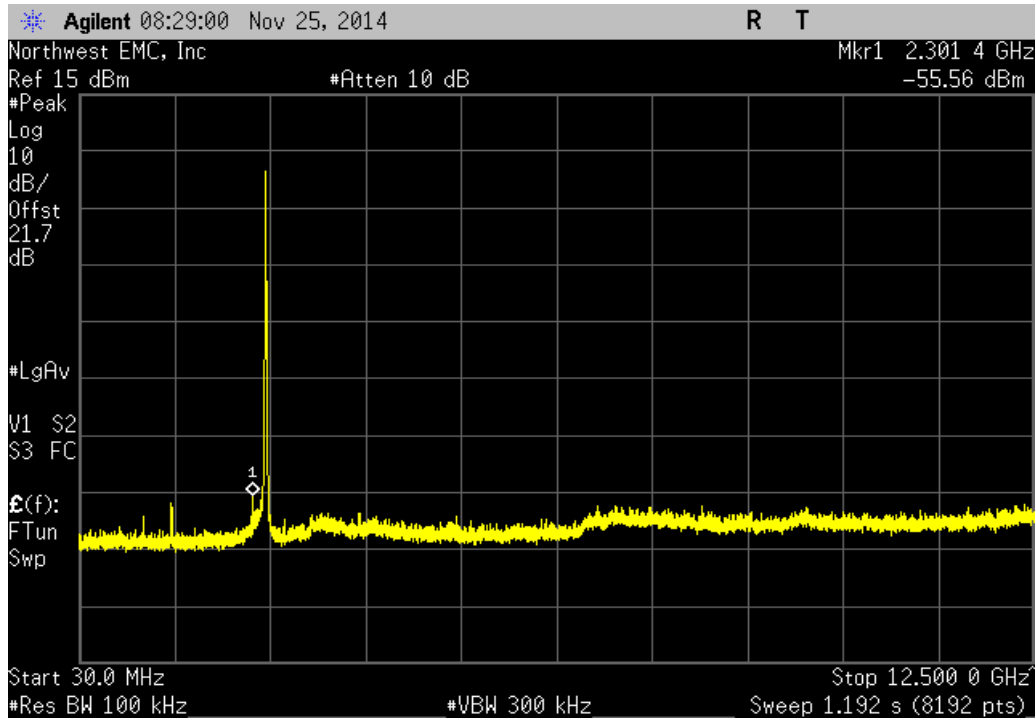
Antenna 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-58.76	-20	Pass



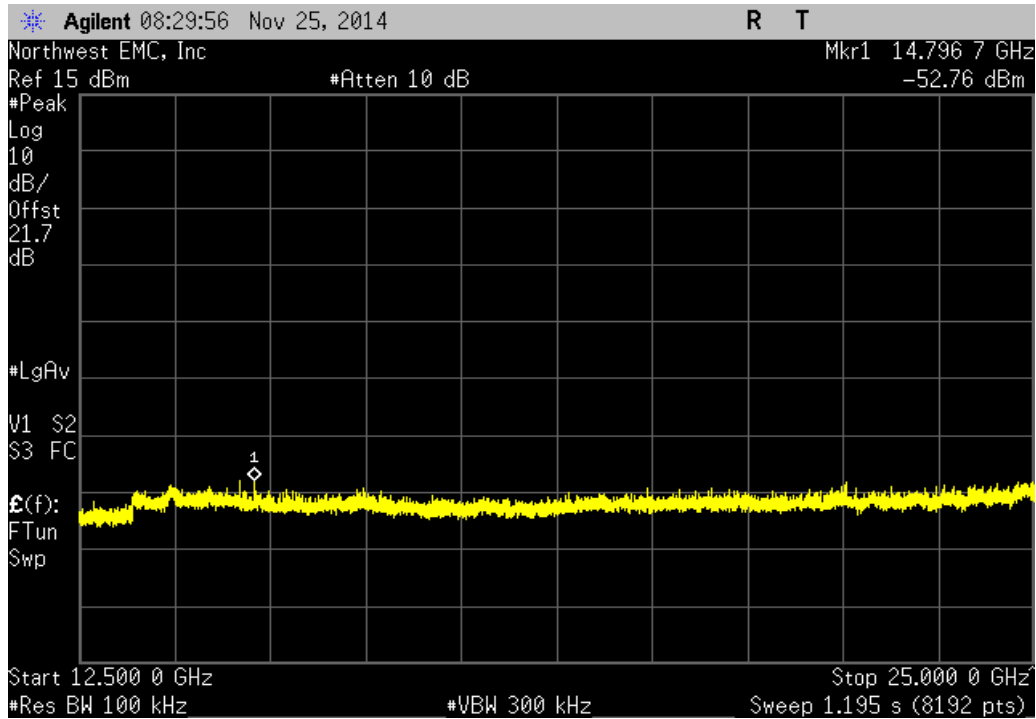
Antenna 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



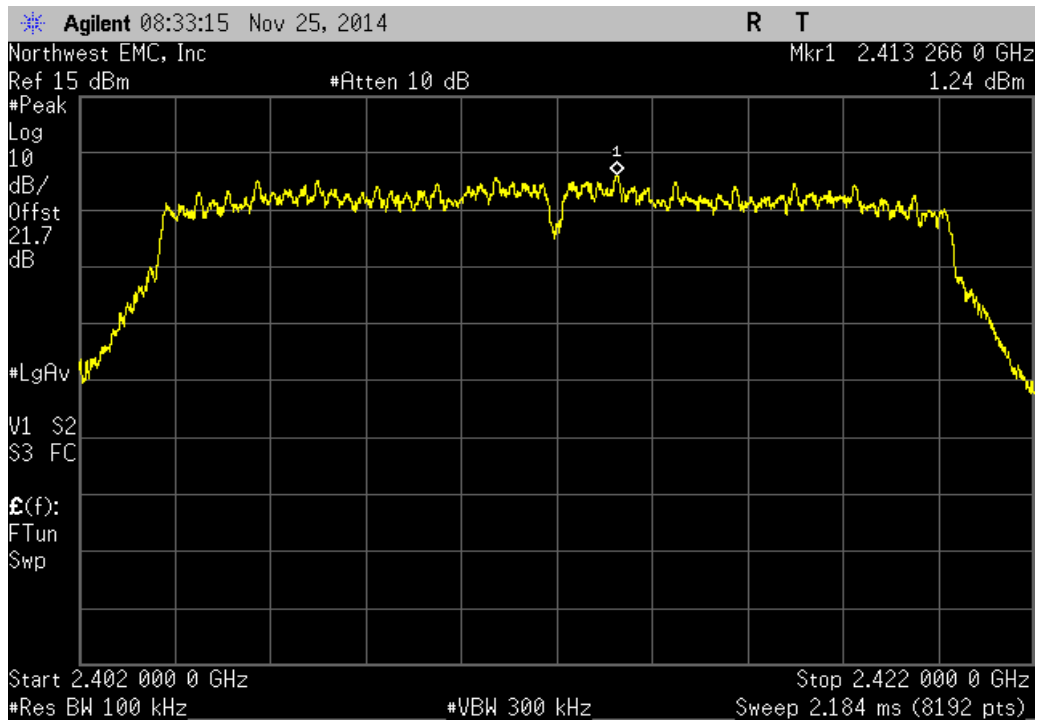
Antenna 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-56.93	-20	Pass



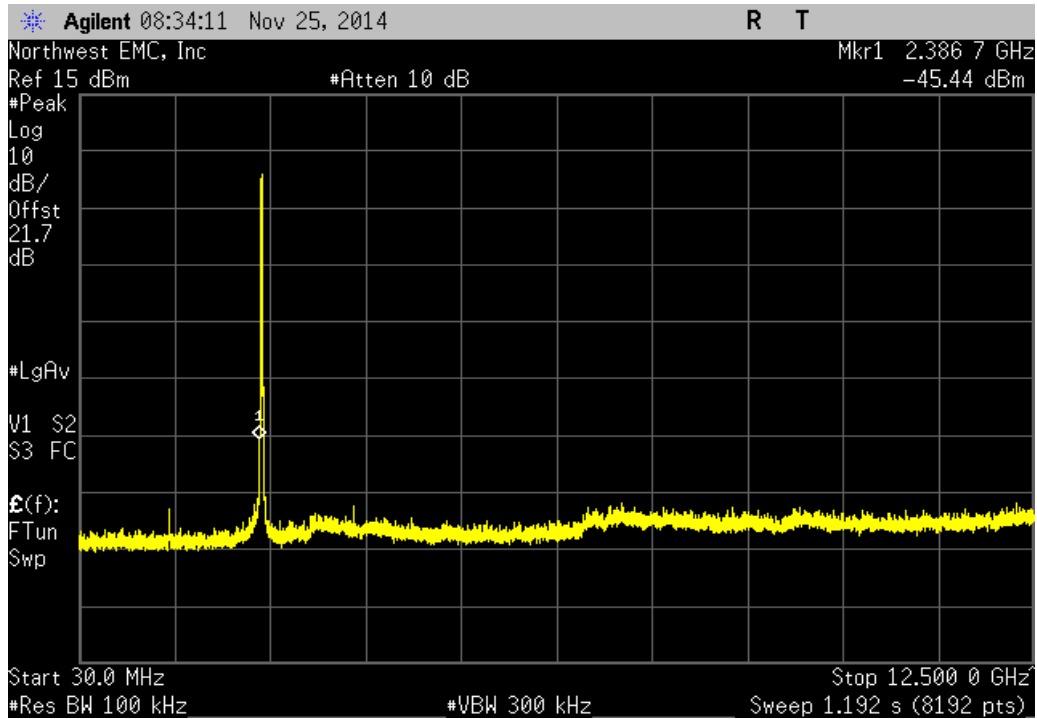
Antenna 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-54.13	-20	Pass



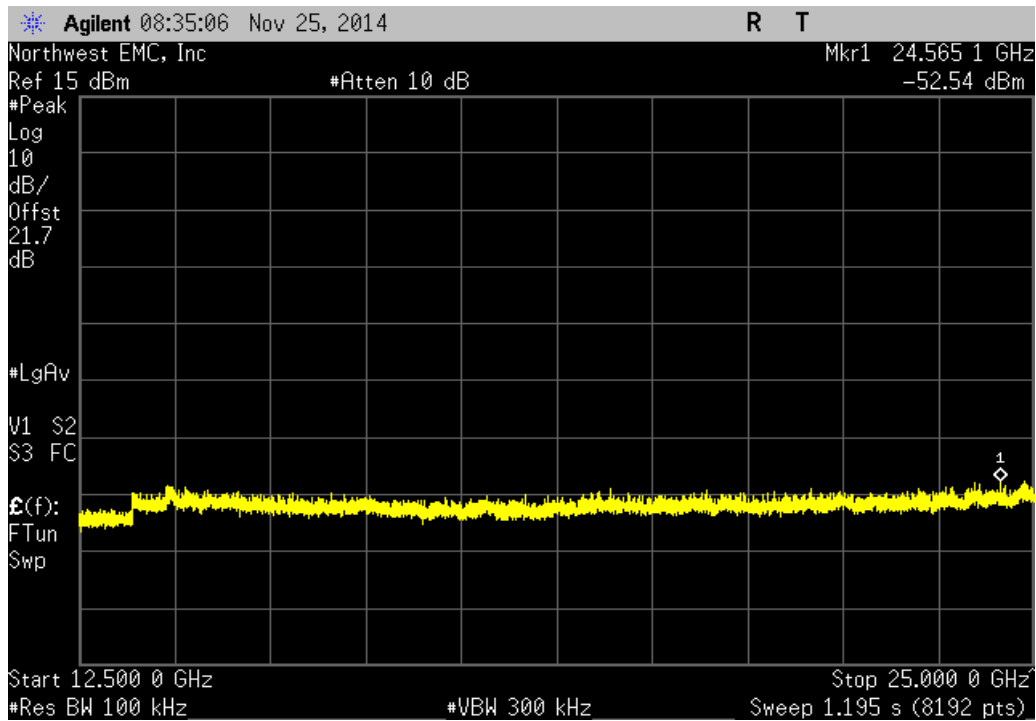
Antenna 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



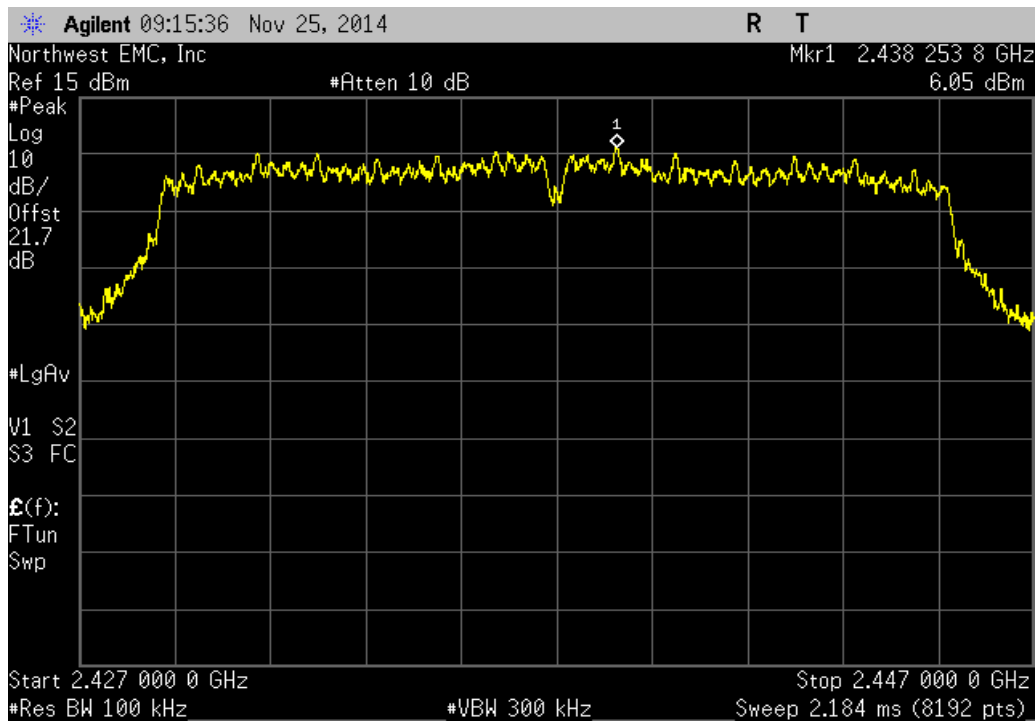
Antenna 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-46.68	-20	Pass



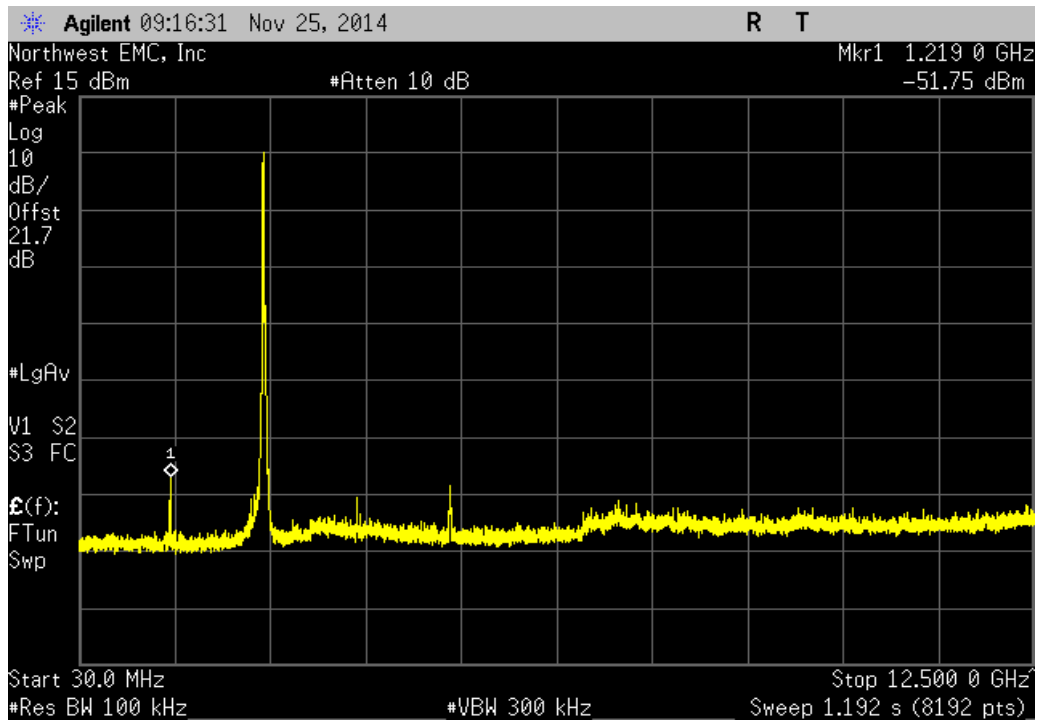
Antenna 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-53.78	-20	Pass



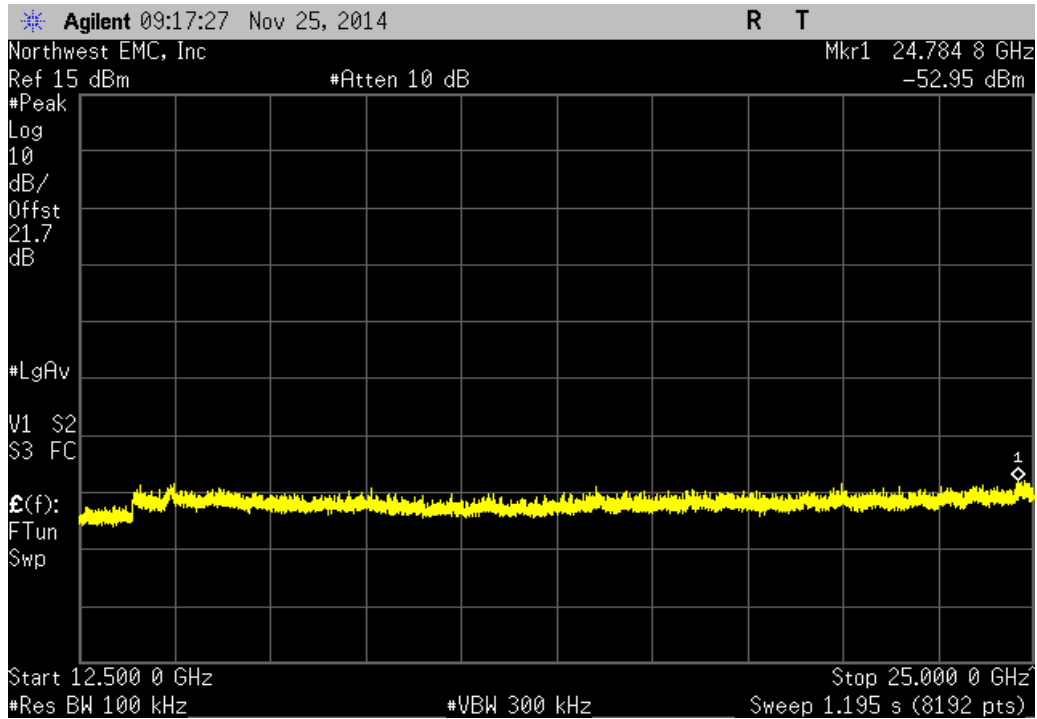
Antenna 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



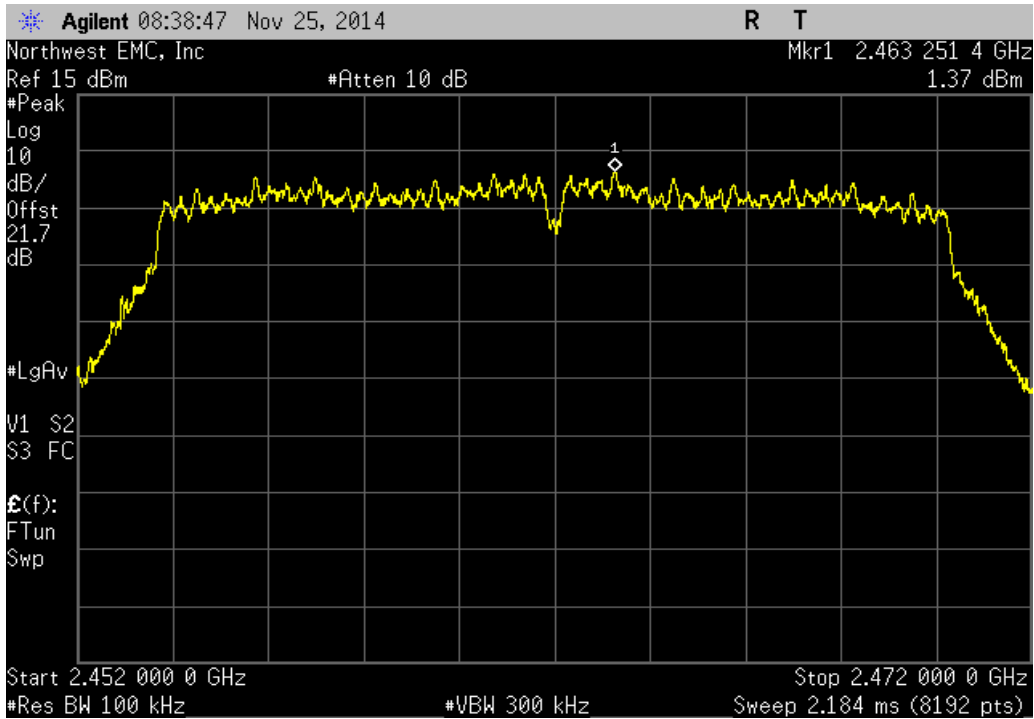
Antenna 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-57.8	-20	Pass



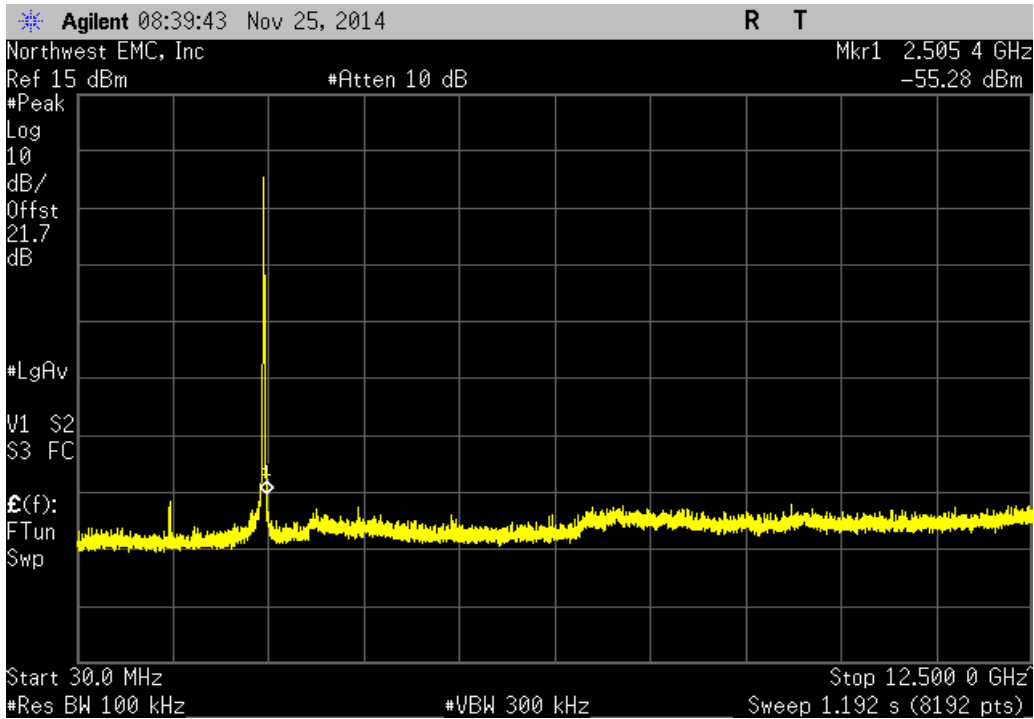
Antenna 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-59	-20	Pass



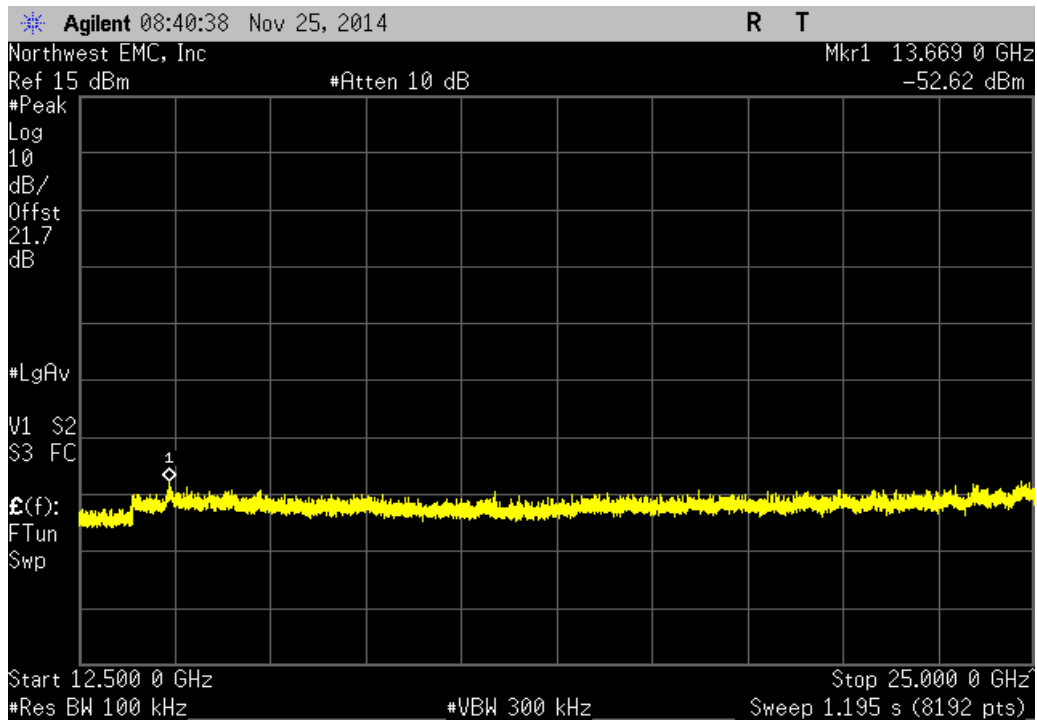
Antenna 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



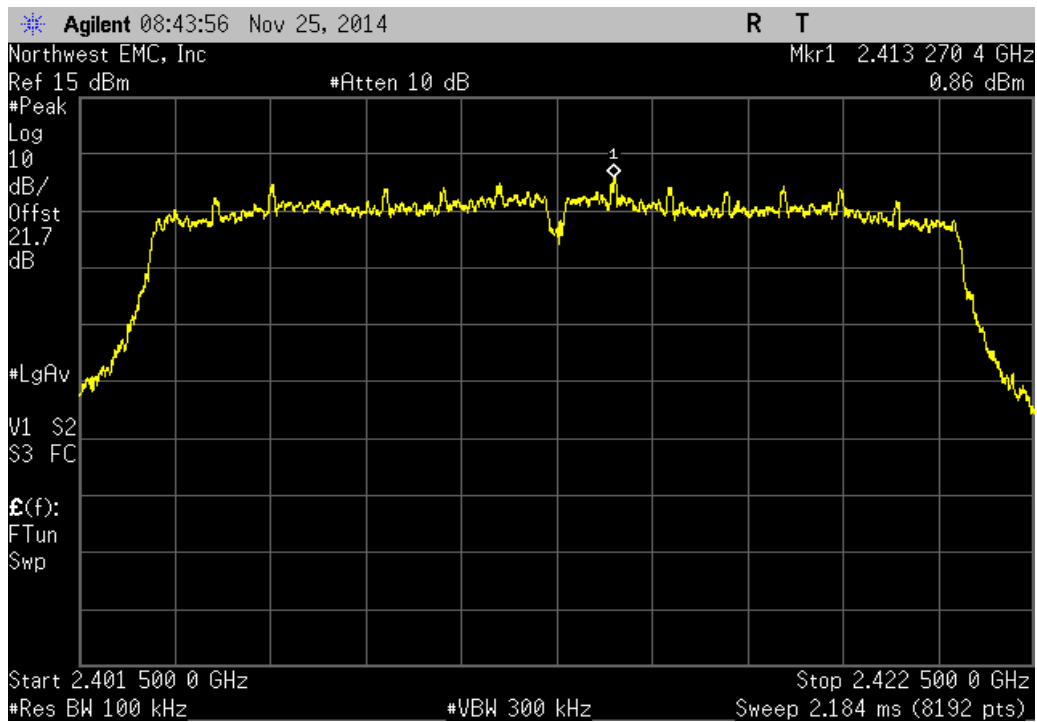
Antenna 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-56.65	-20	Pass



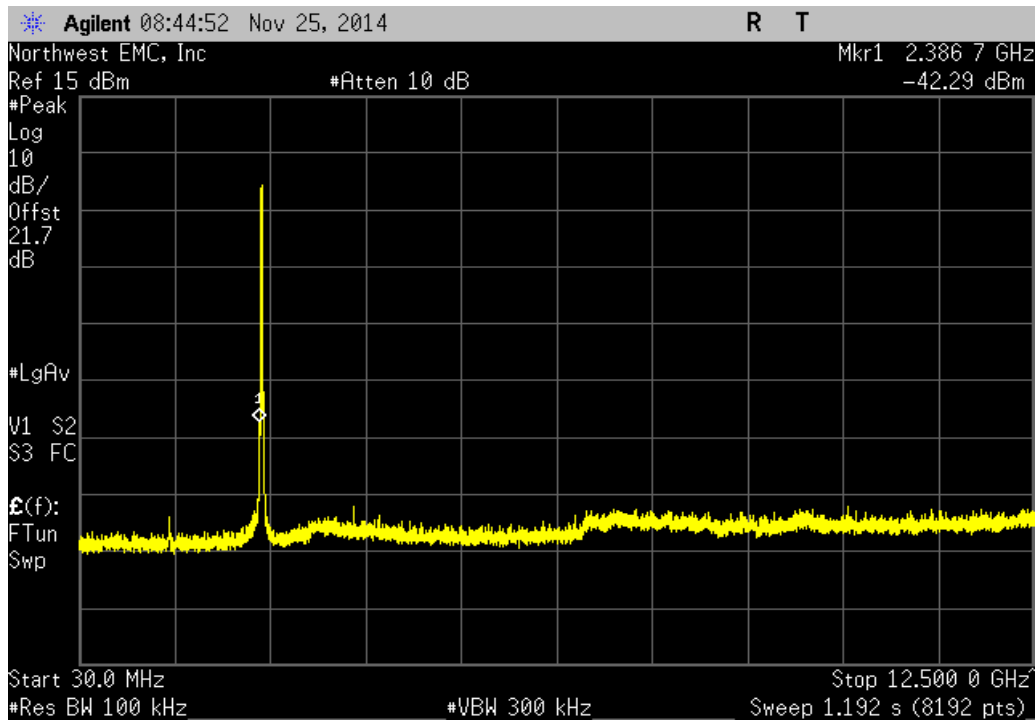
Antenna 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-53.99	-20	Pass



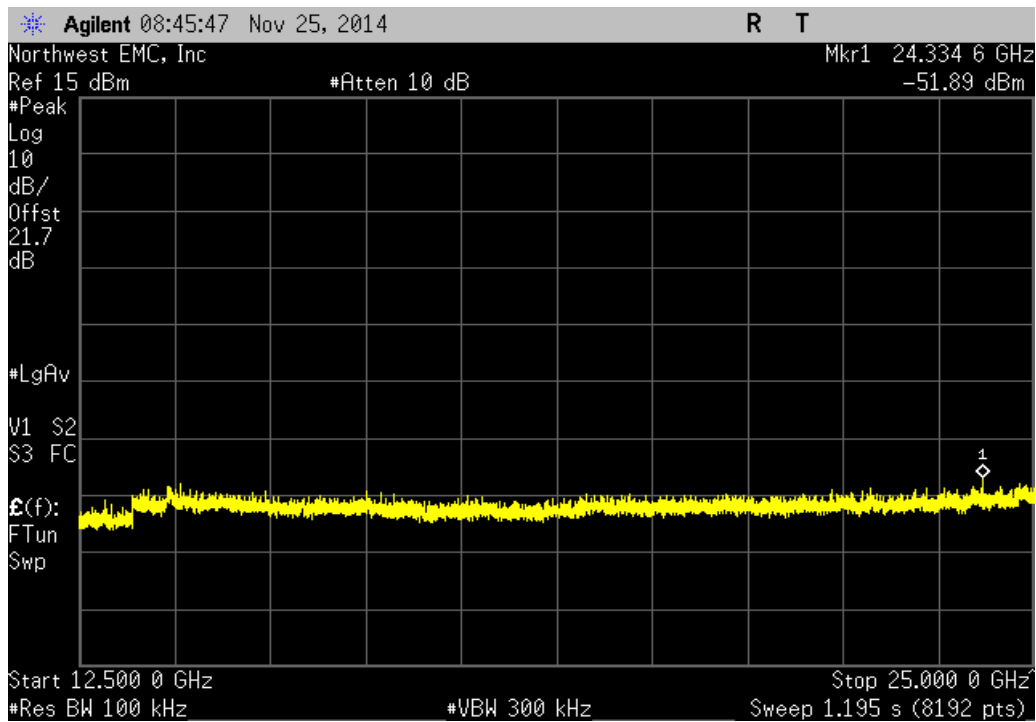
Antenna 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



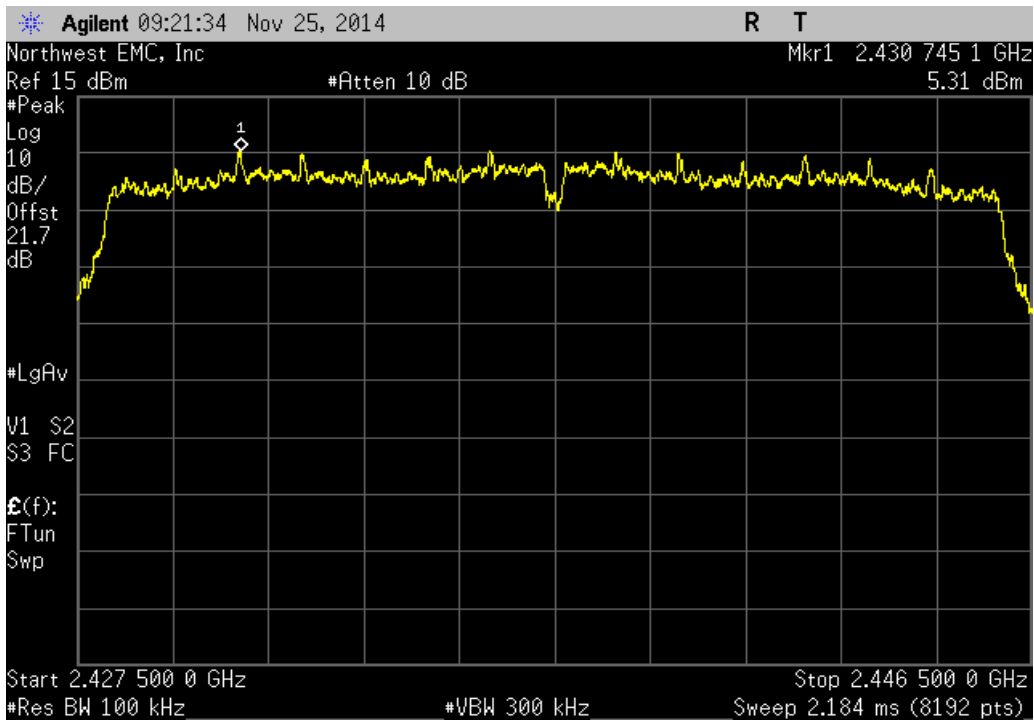
Antenna 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-43.15	-20	Pass



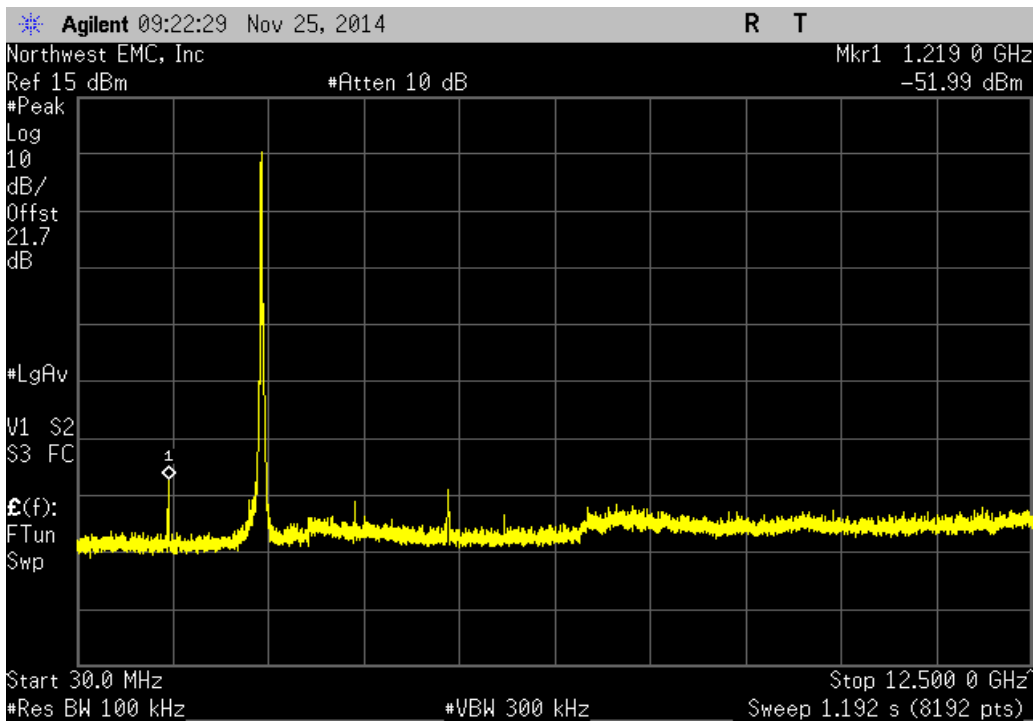
Antenna 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-52.75	-20	Pass



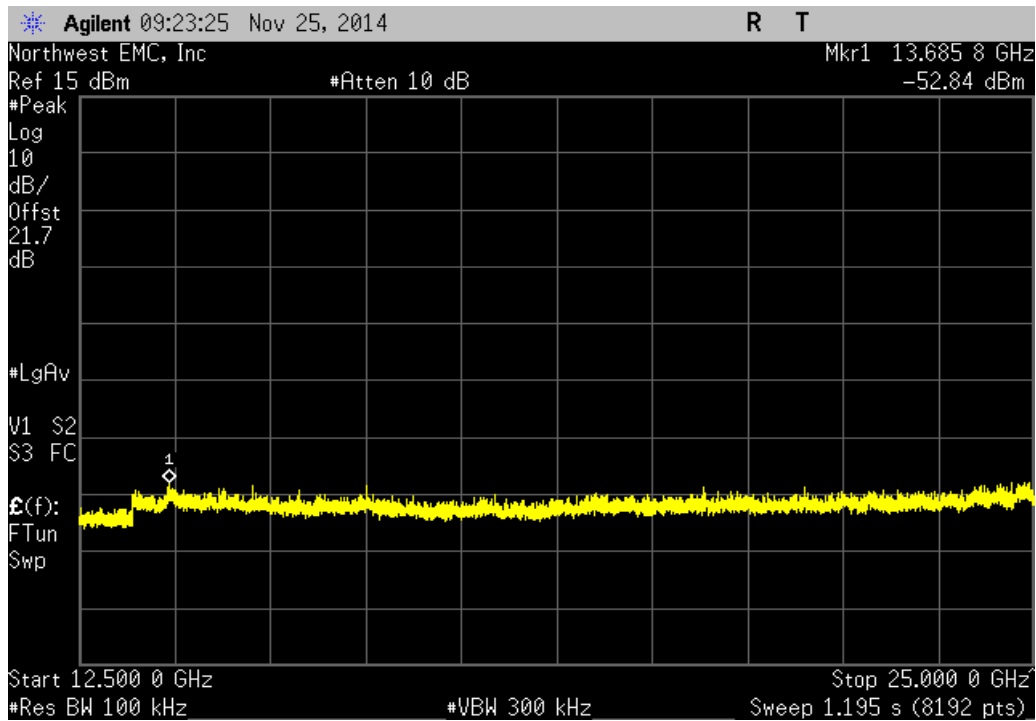
Antenna 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



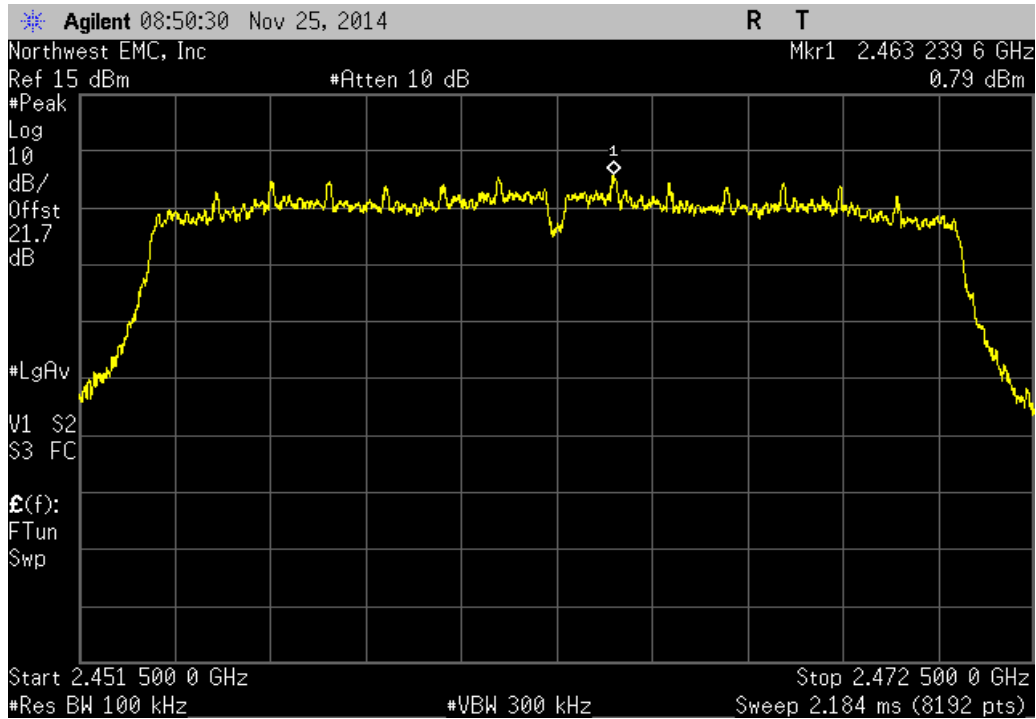
Antenna 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-57.3	-20	Pass



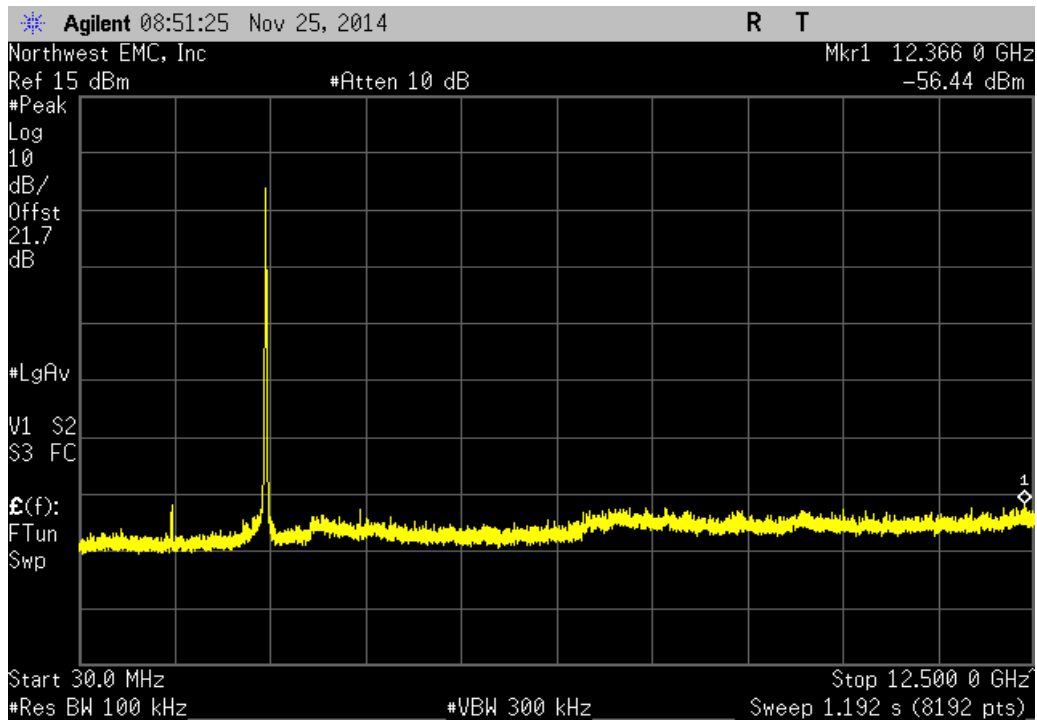
Antenna 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-58.15	-20	Pass



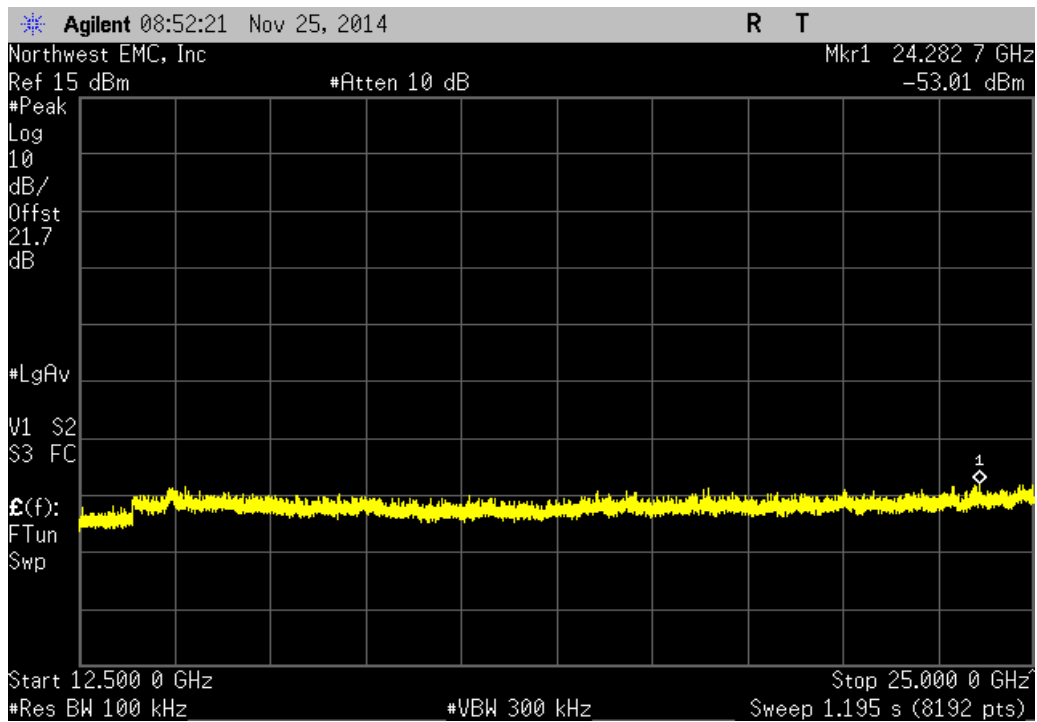
Antenna 0, 802.11(n) MCS0, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



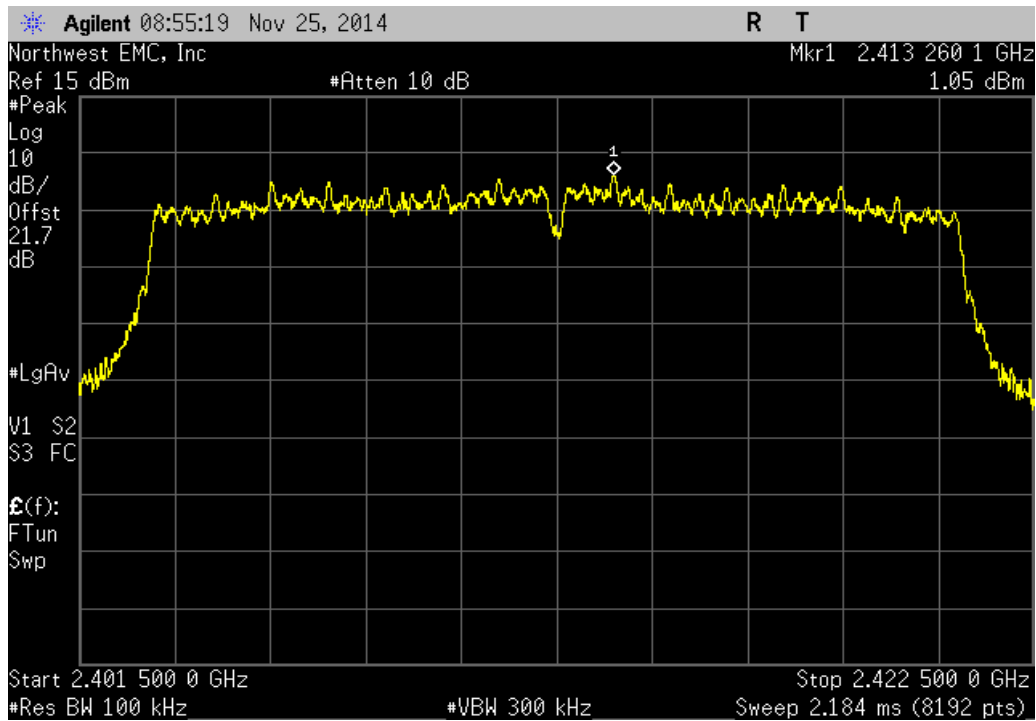
Antenna 0, 802.11(n) MCS0, High Channel 11, 2462 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-57.23	-20	Pass	



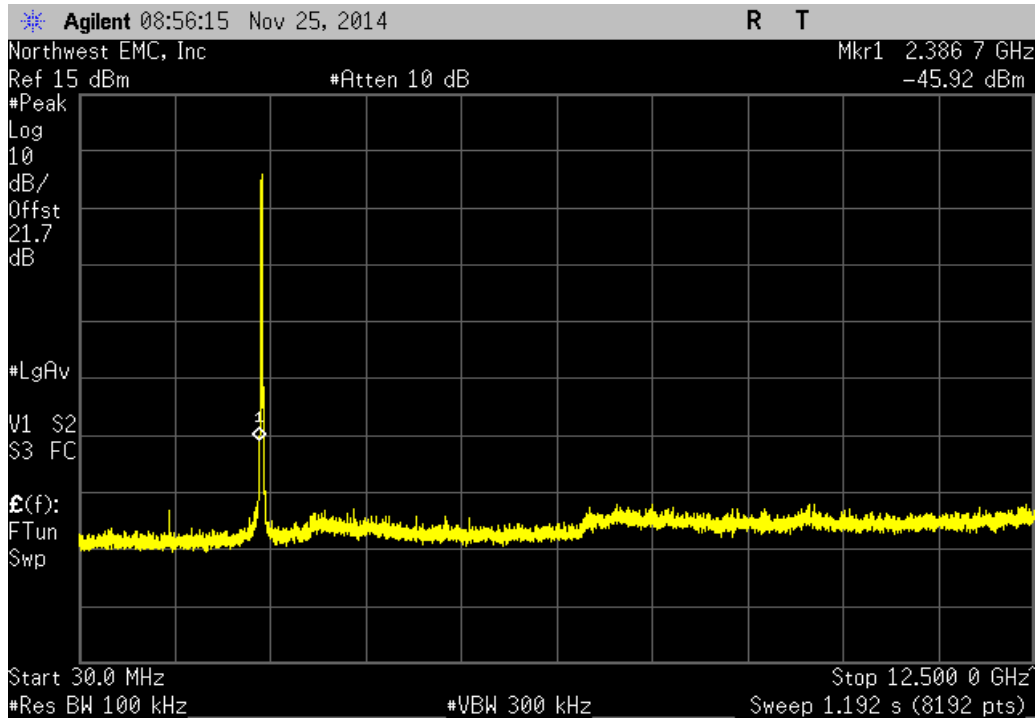
Antenna 0, 802.11(n) MCS0, High Channel 11, 2462 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-53.8	-20	Pass	



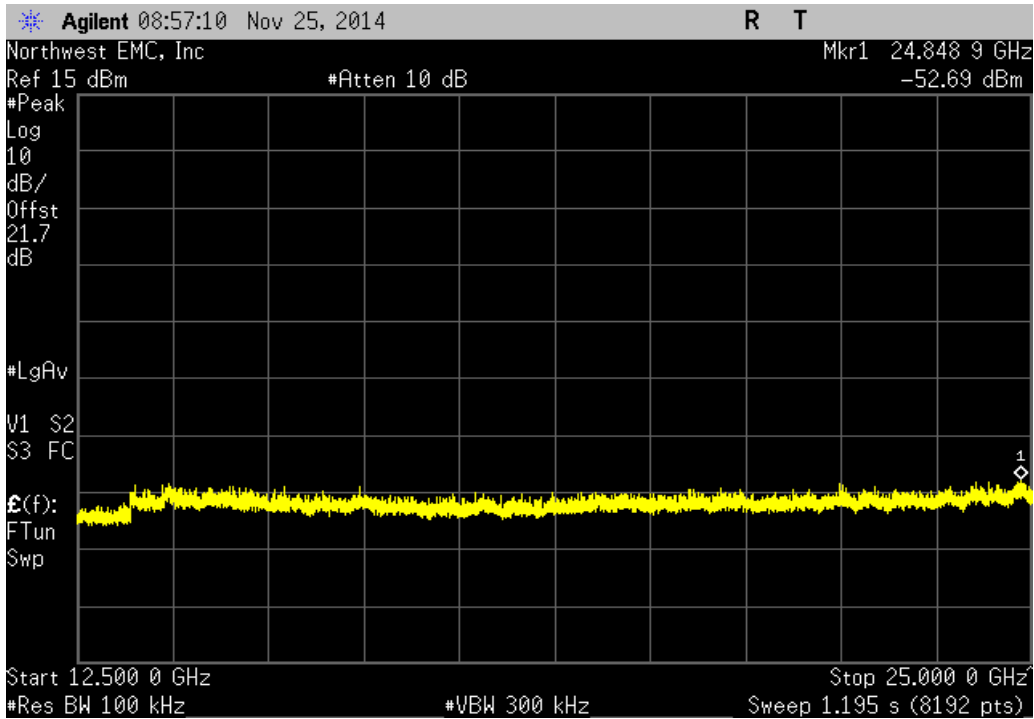
Antenna 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
Fundamental	N/A	N/A	N/A	



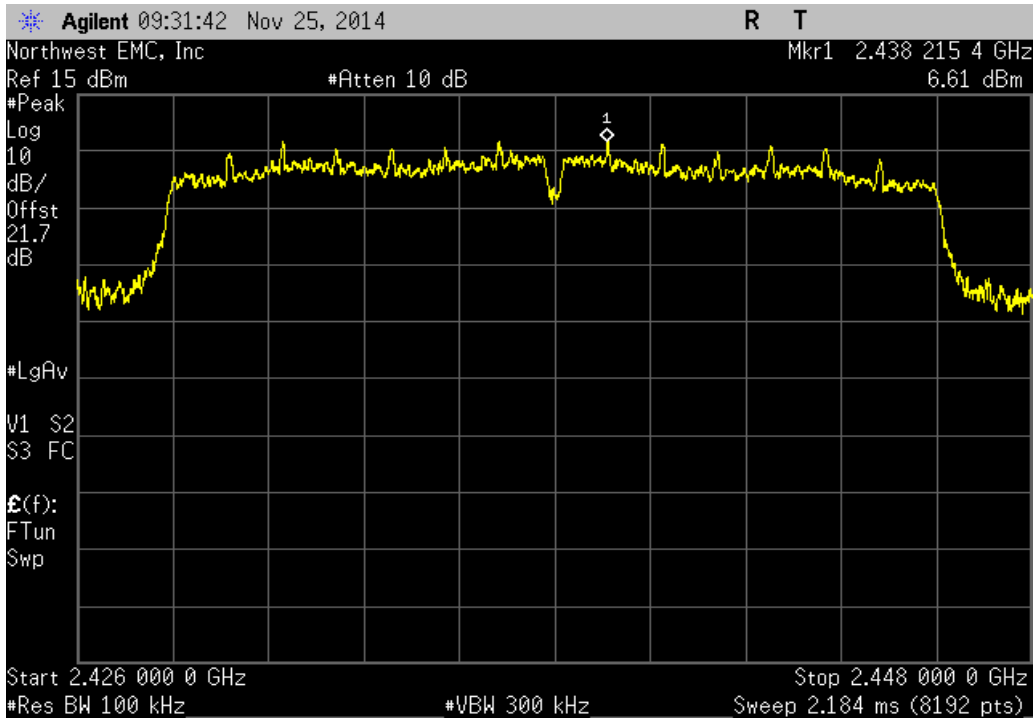
Antenna 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-46.97	-20	Pass	



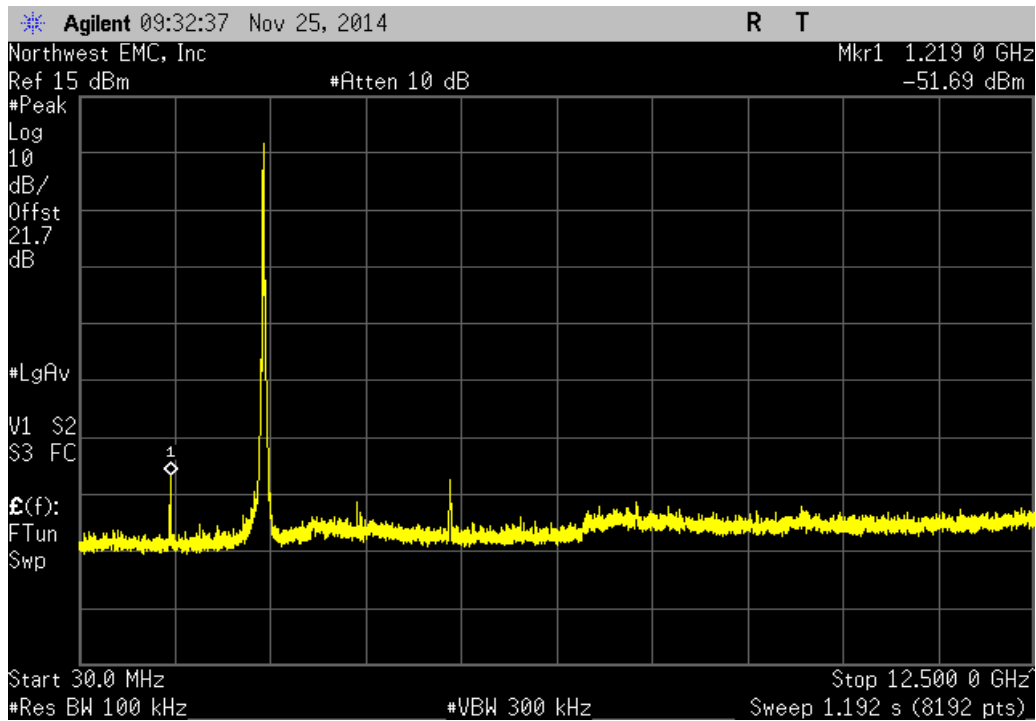
Antenna 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-53.74	-20	Pass



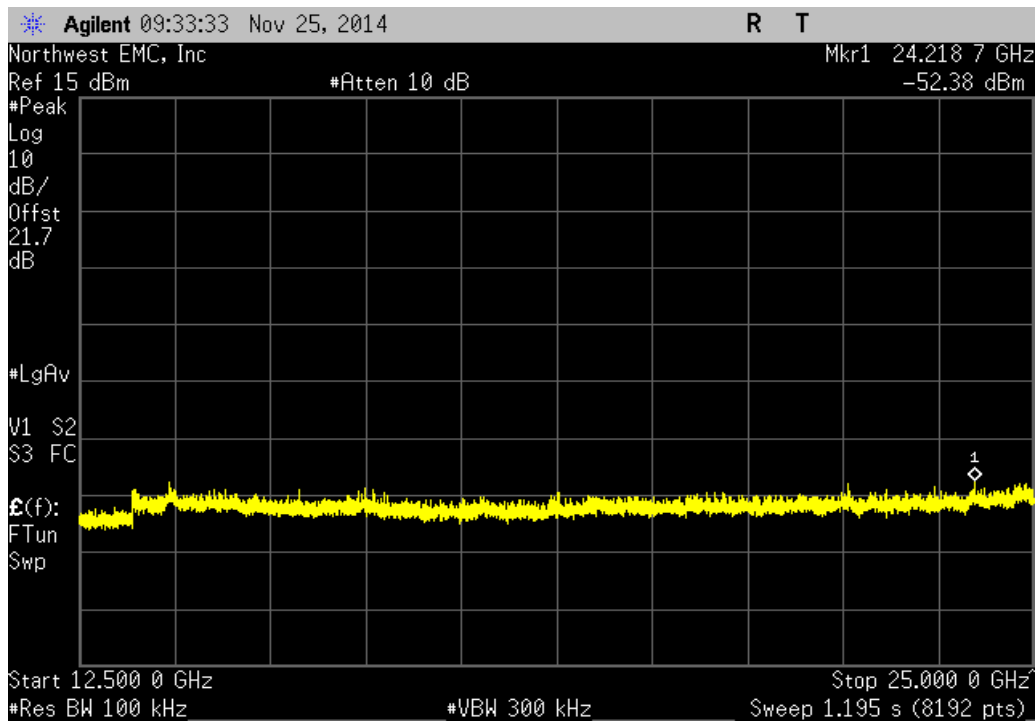
Antenna 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



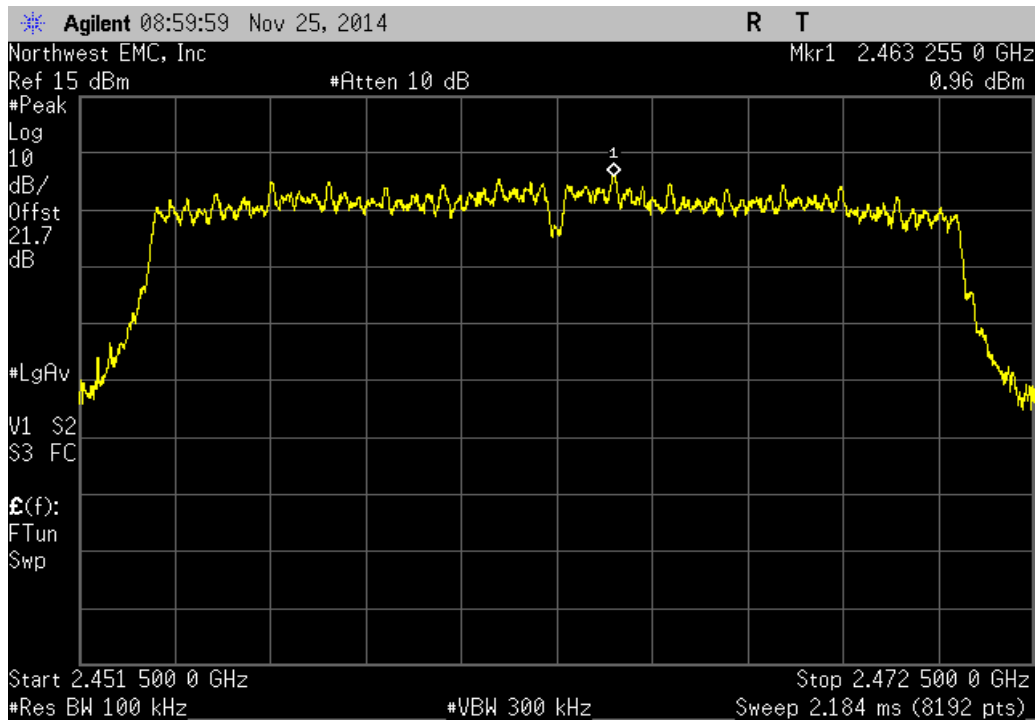
Antenna 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-58.3	-20	Pass



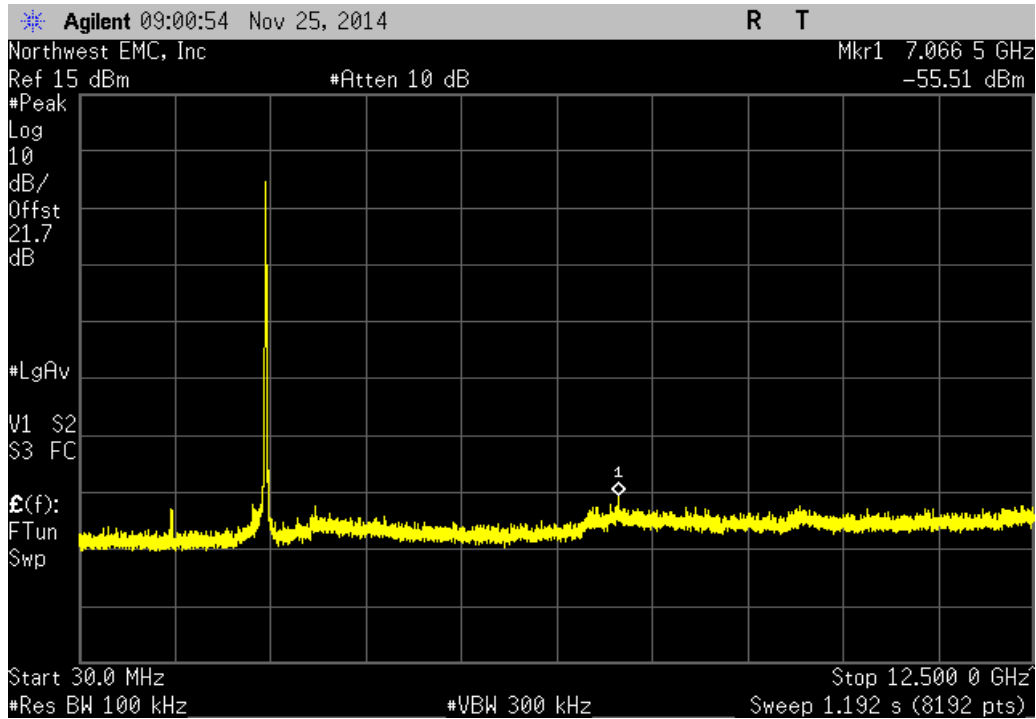
Antenna 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-58.99	-20	Pass



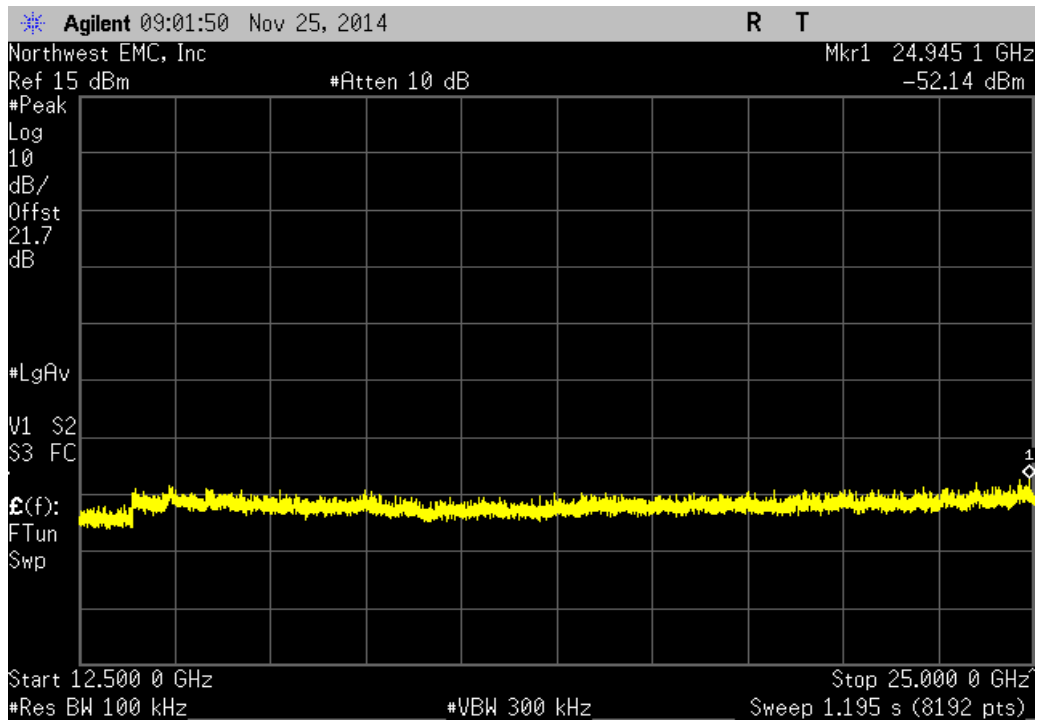
Antenna 0, 802.11(n) MCS7, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



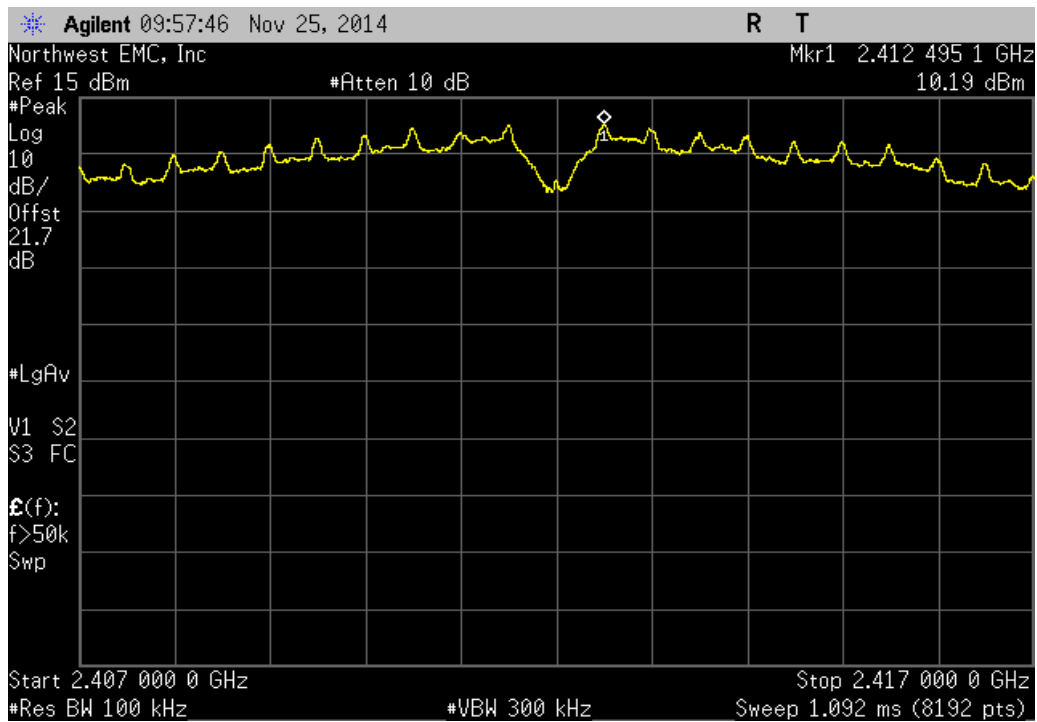
Antenna 0, 802.11(n) MCS7, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-56.48	-20	Pass



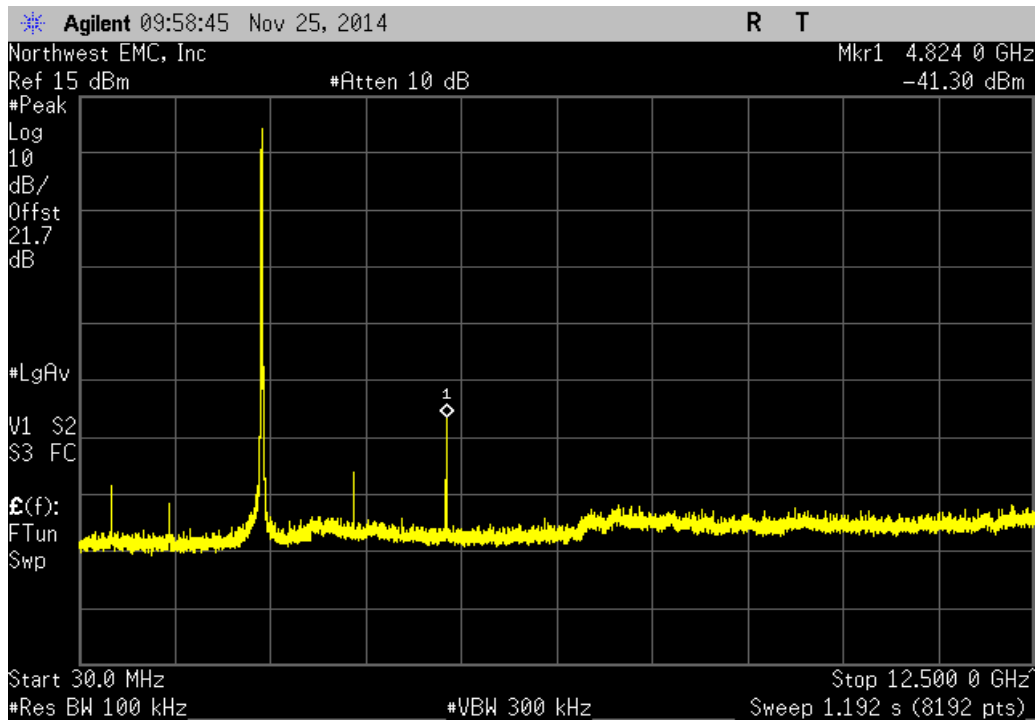
Antenna 0, 802.11(n) MCS7, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-53.11	-20	Pass



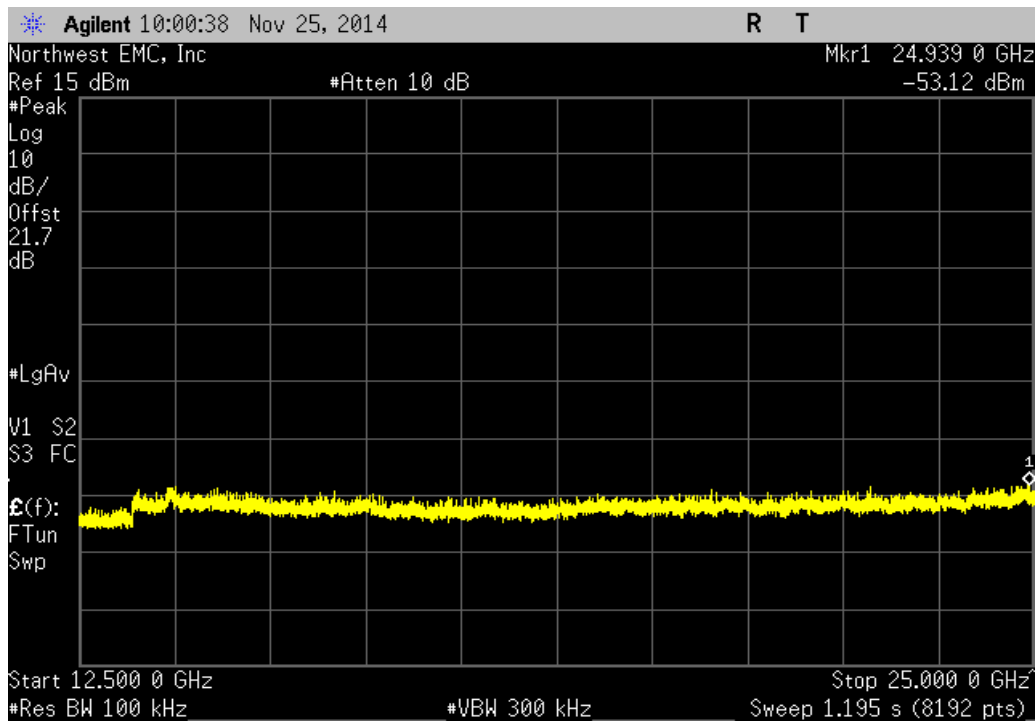
Antenna 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



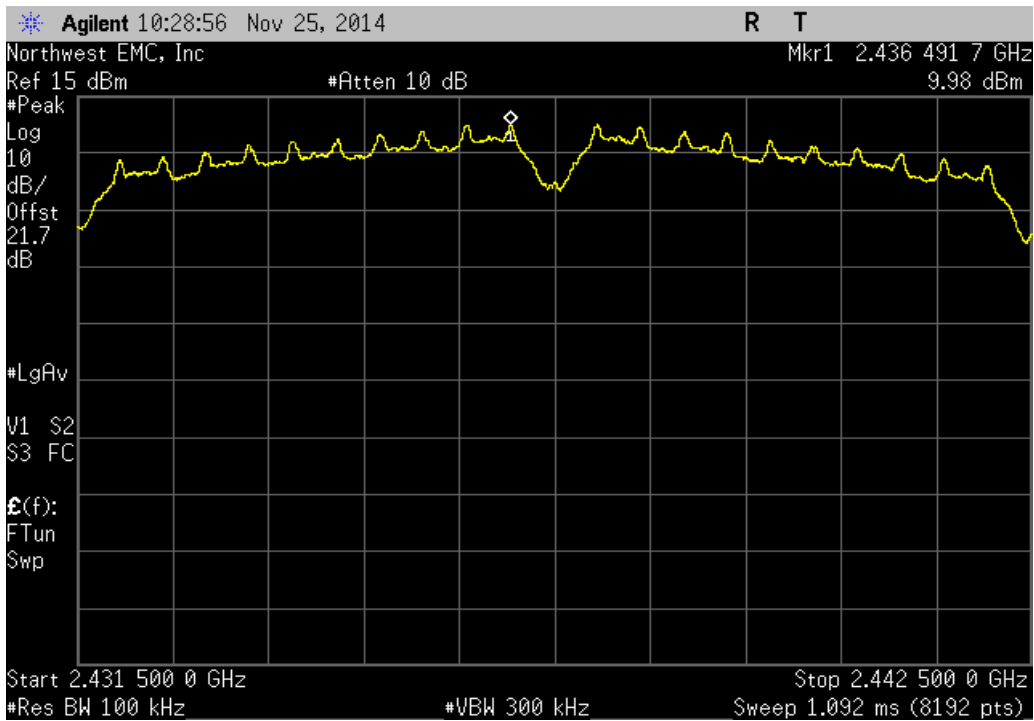
Antenna 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-51.49	-20	Pass



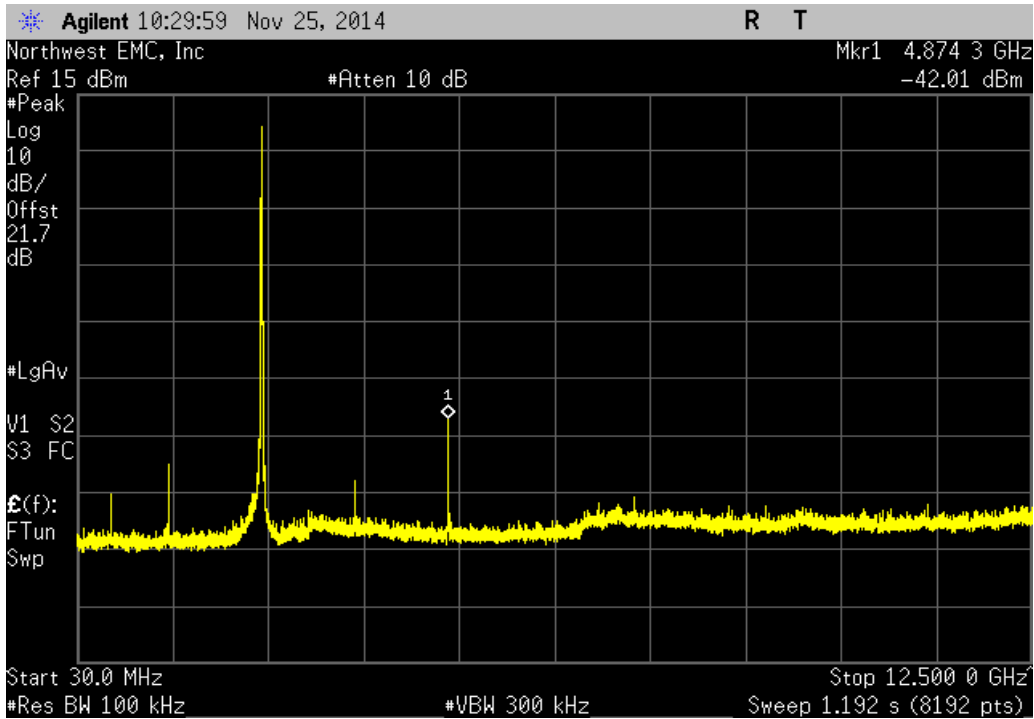
Antenna 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-63.31	-20	Pass



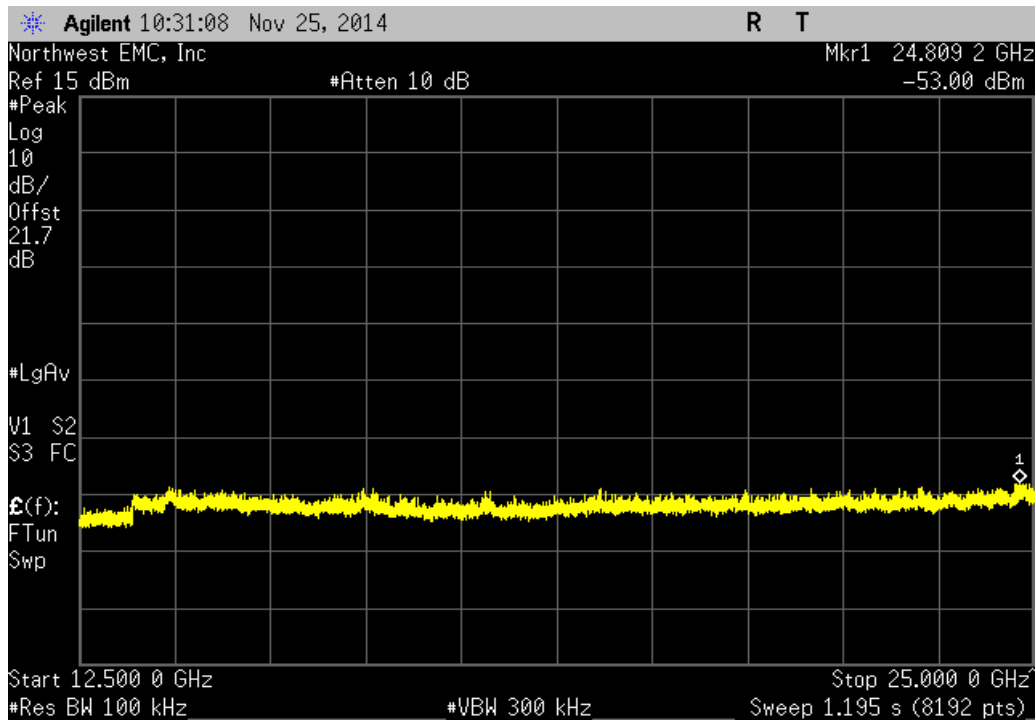
Antenna 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz					
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result		
Fundamental	N/A	N/A	N/A		



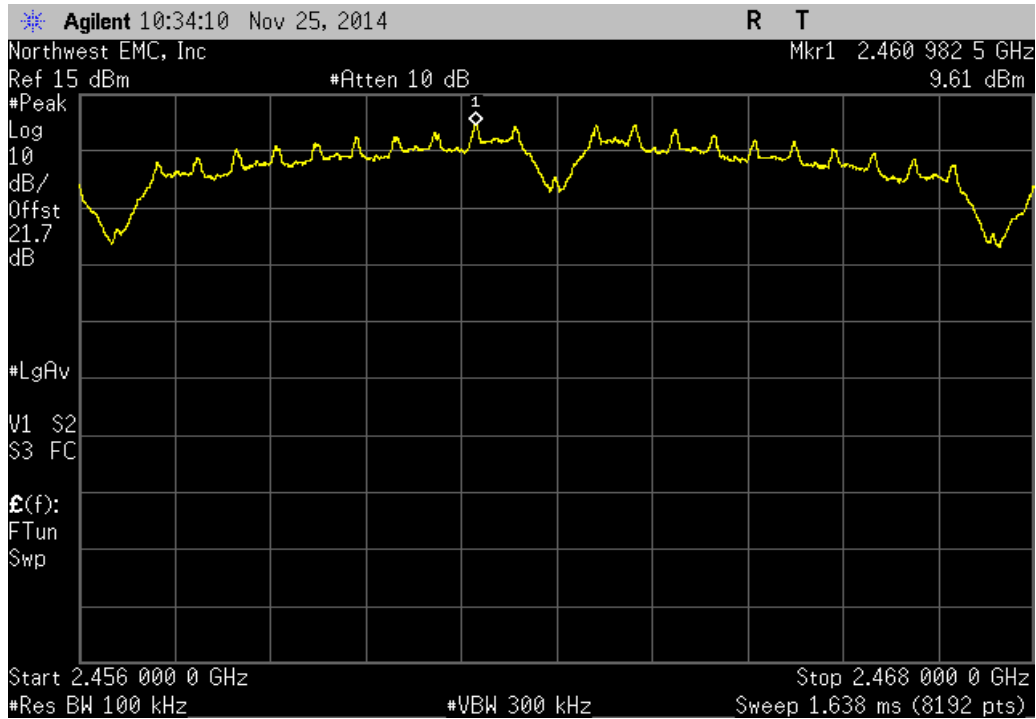
Antenna 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz					
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result		
30 MHz - 12.5 GHz	-51.99	-20	Pass		



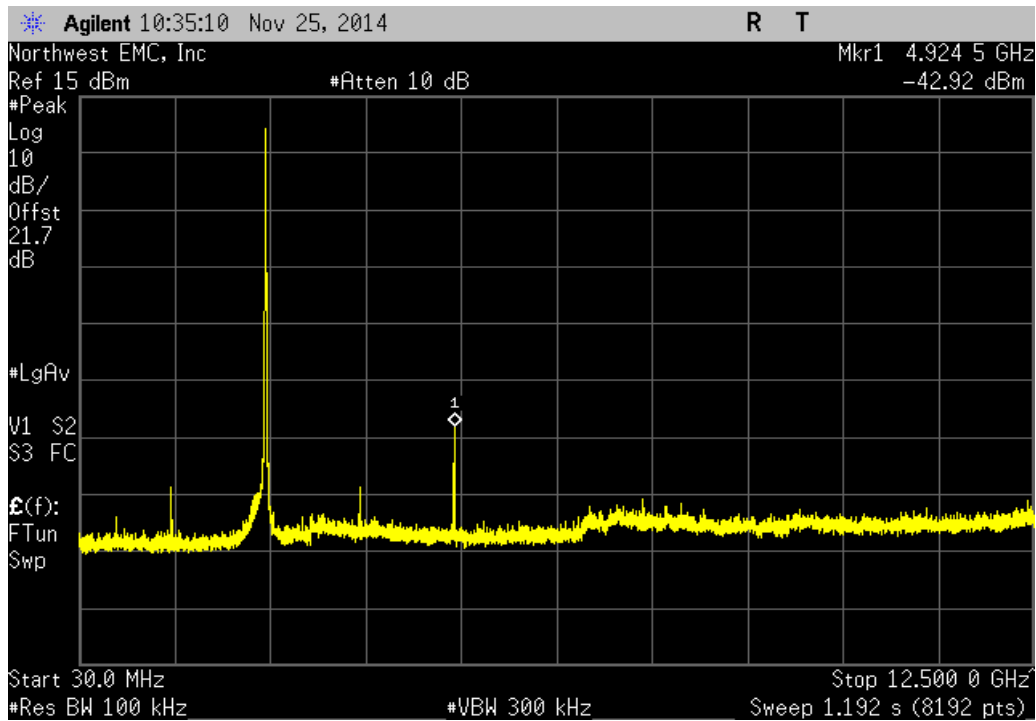
Antenna 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-62.98	-20	Pass



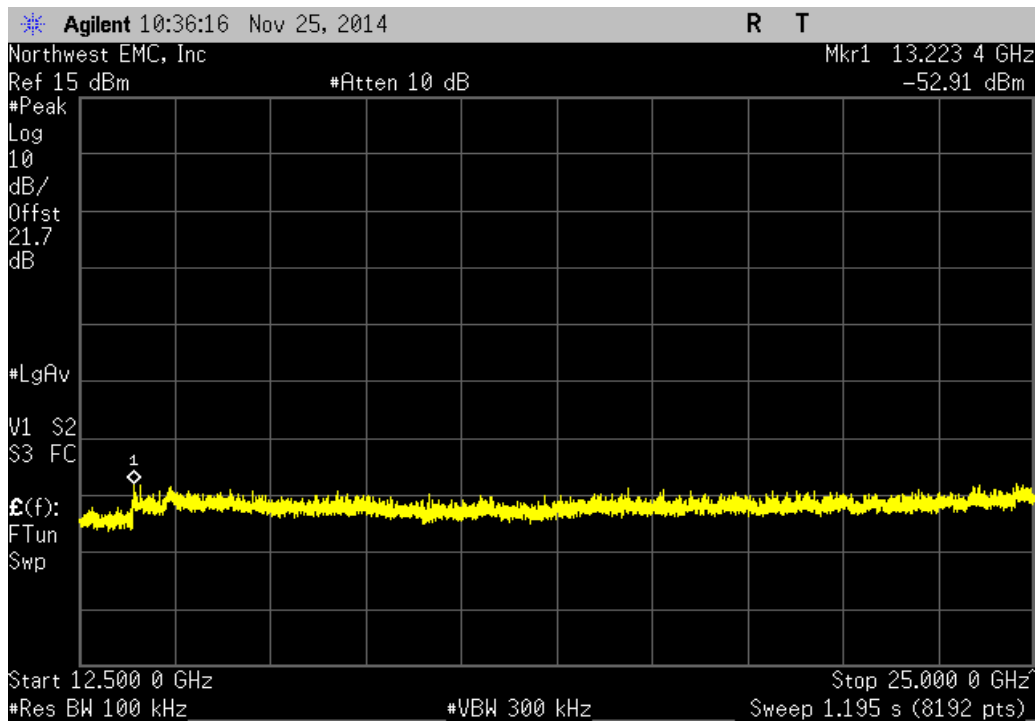
Antenna 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



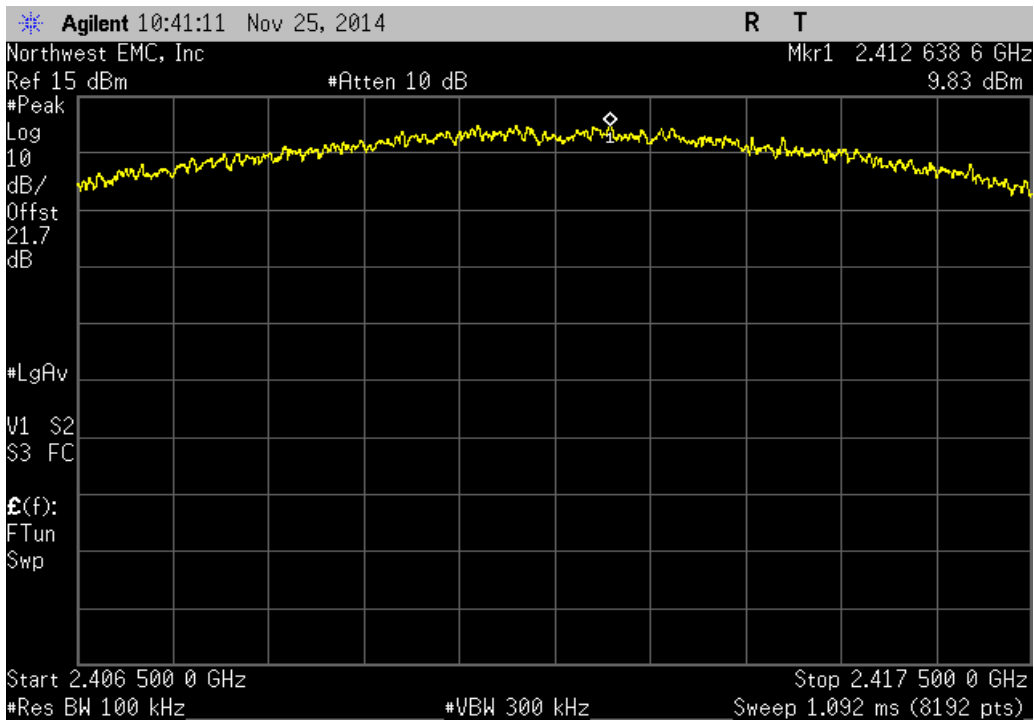
Antenna 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-52.53	-20	Pass



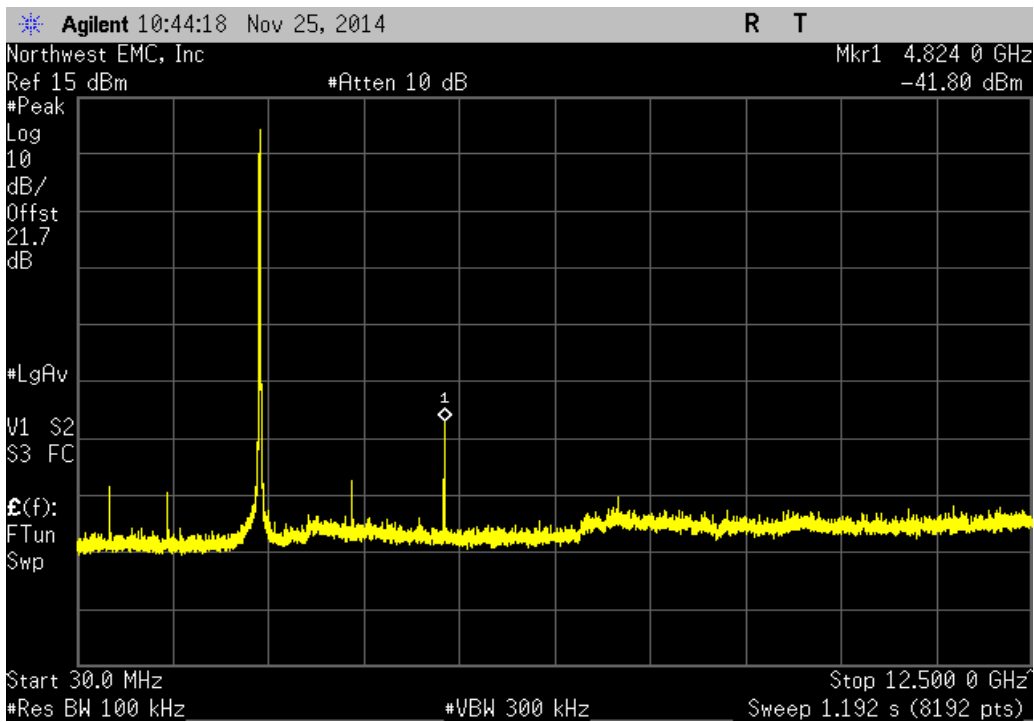
Antenna 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-62.52	-20	Pass



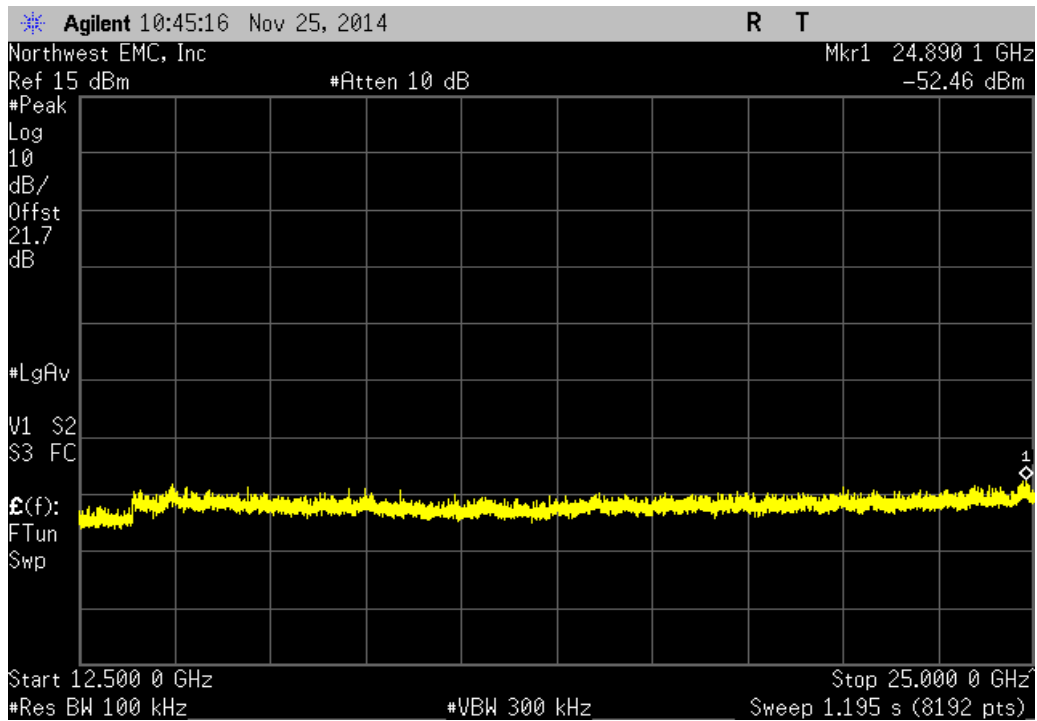
Antenna 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



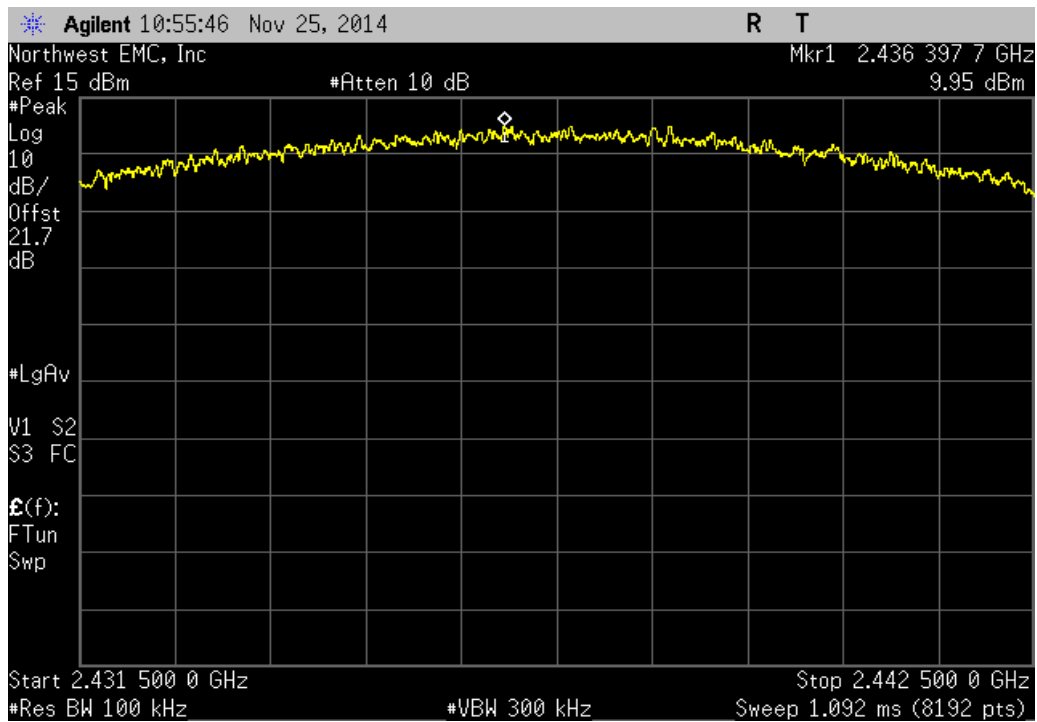
Antenna 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-51.63	-20	Pass



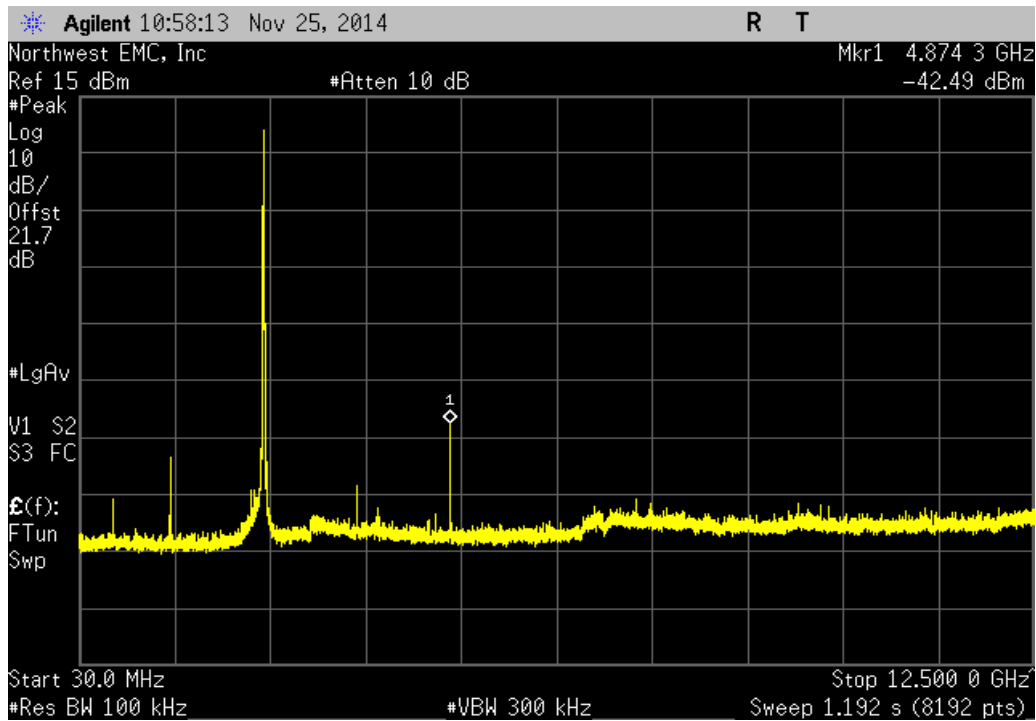
Antenna 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-62.29	-20	Pass



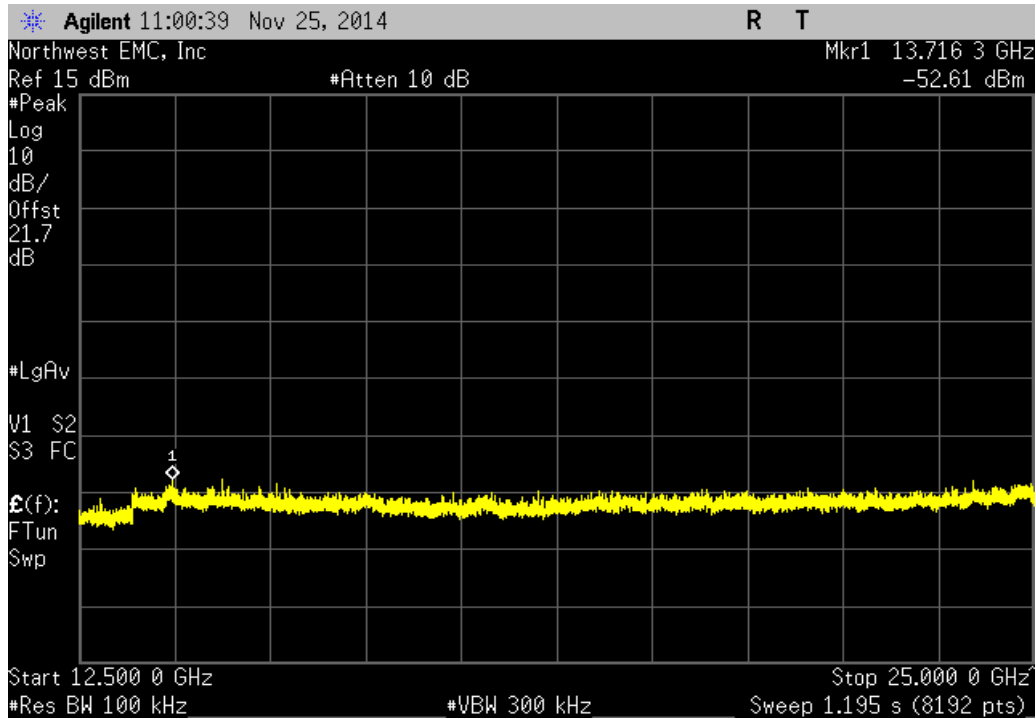
Antenna 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



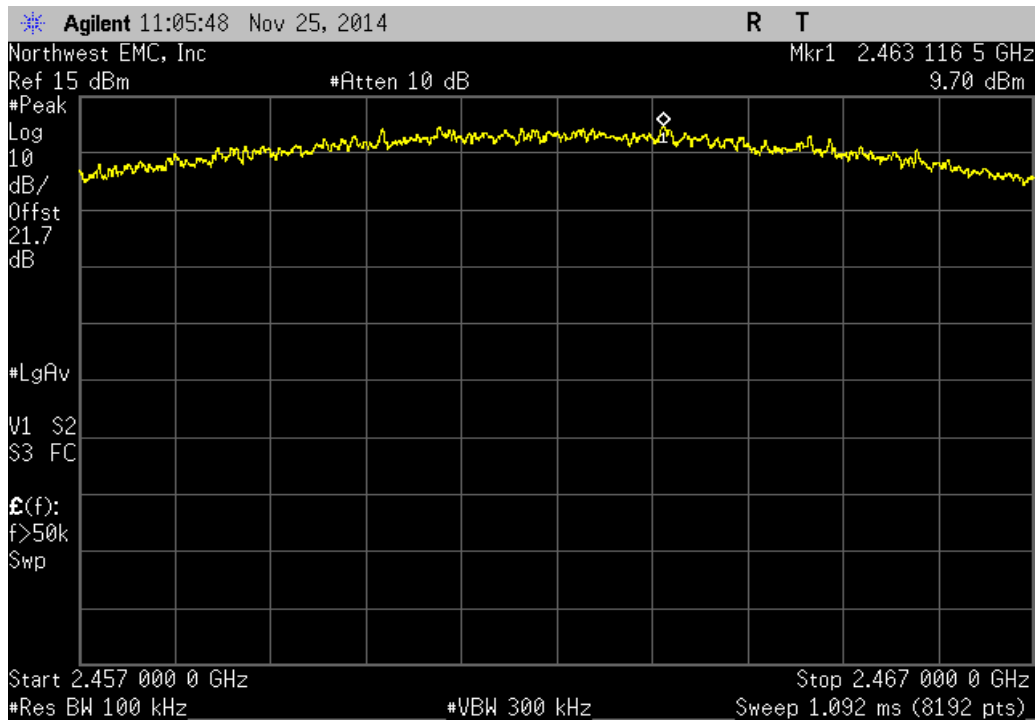
Antenna 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-52.44	-20	Pass



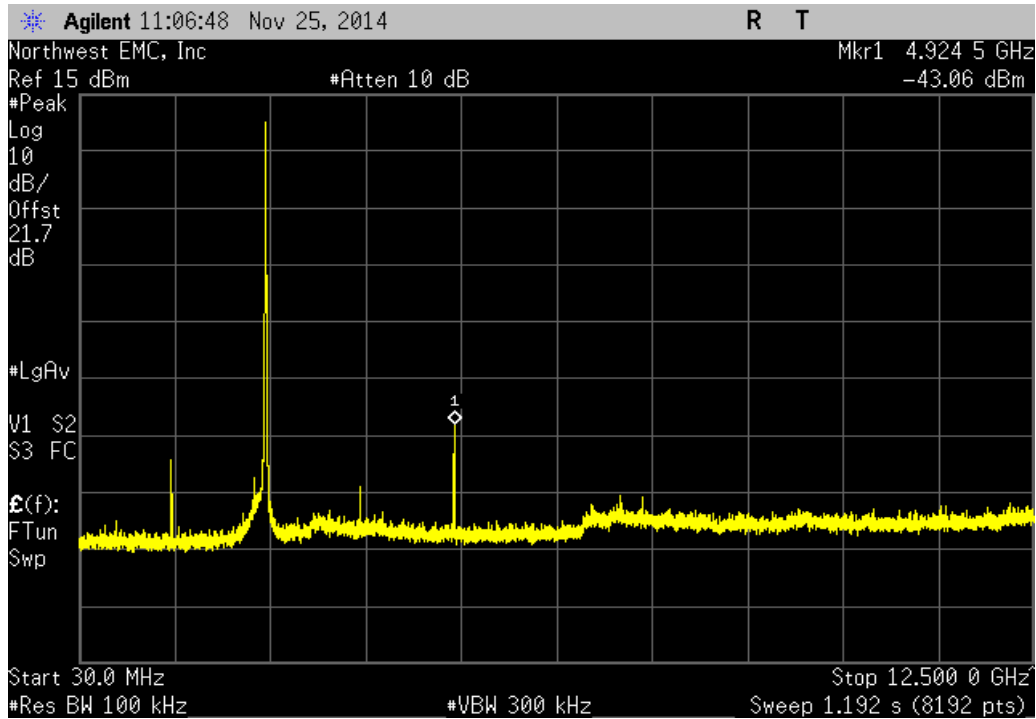
Antenna 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-62.56	-20	Pass



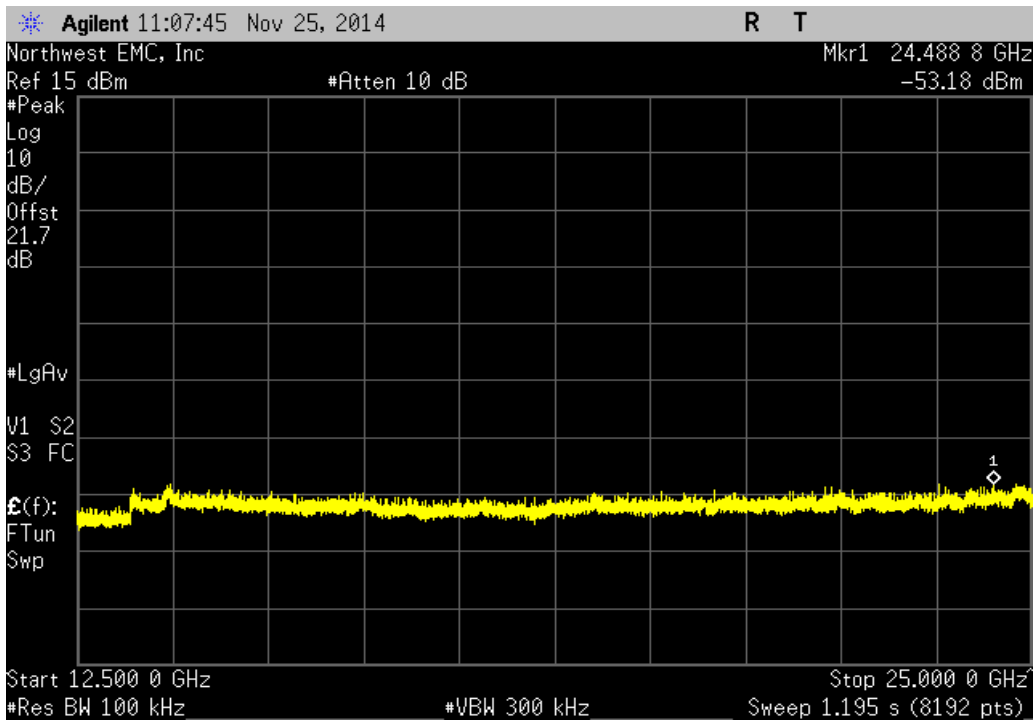
Antenna 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



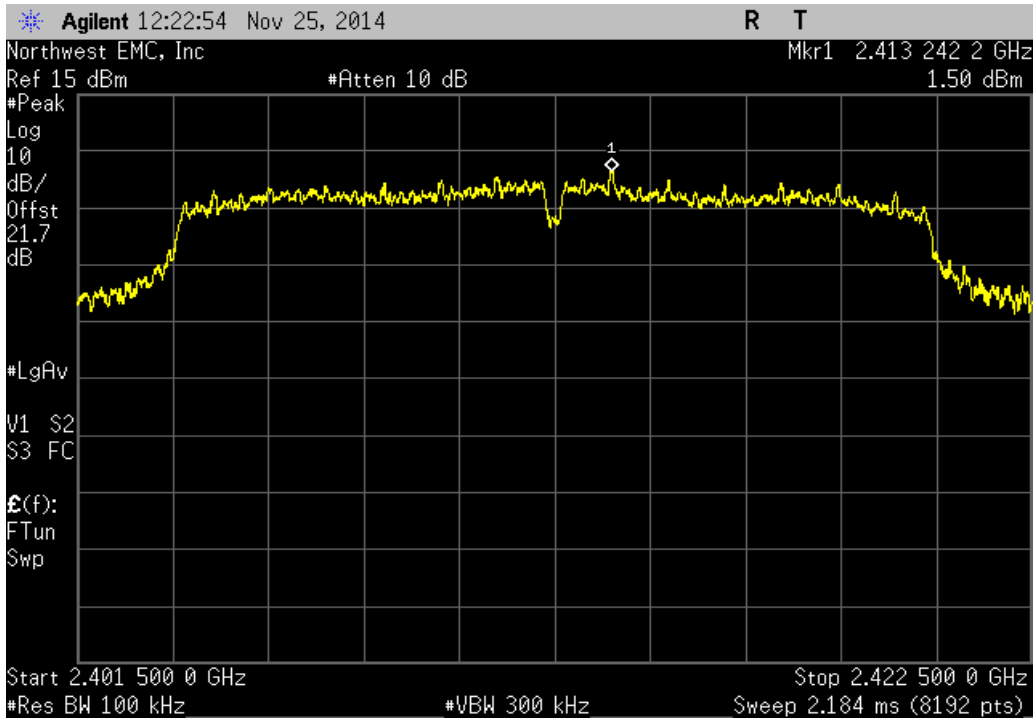
Antenna 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-52.76	-20	Pass



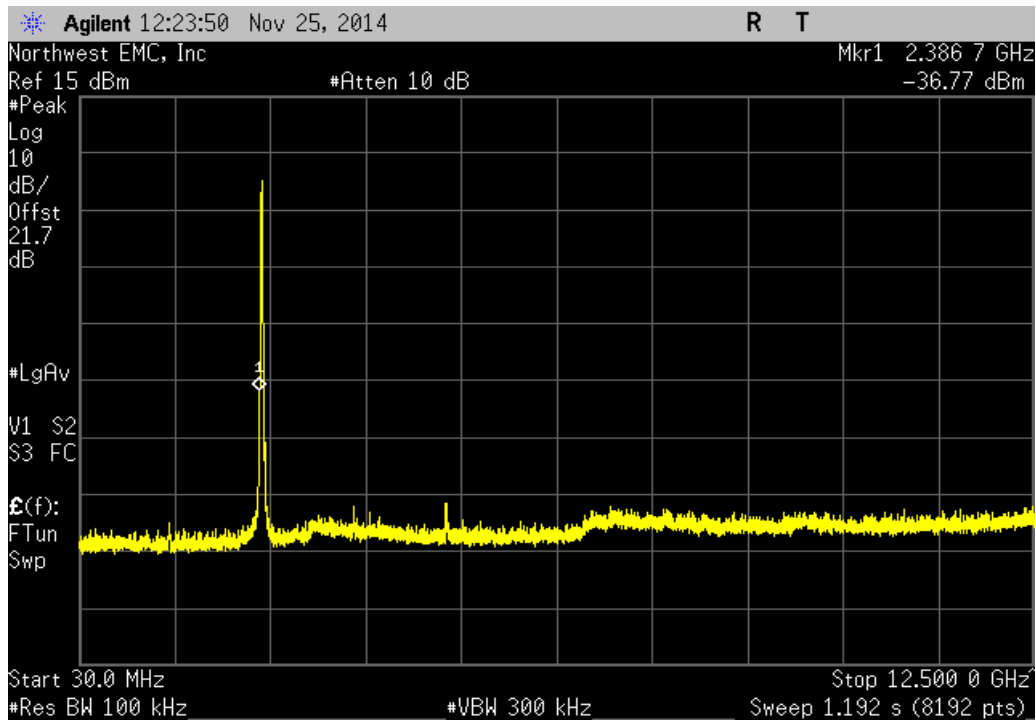
Antenna 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-62.88	-20	Pass



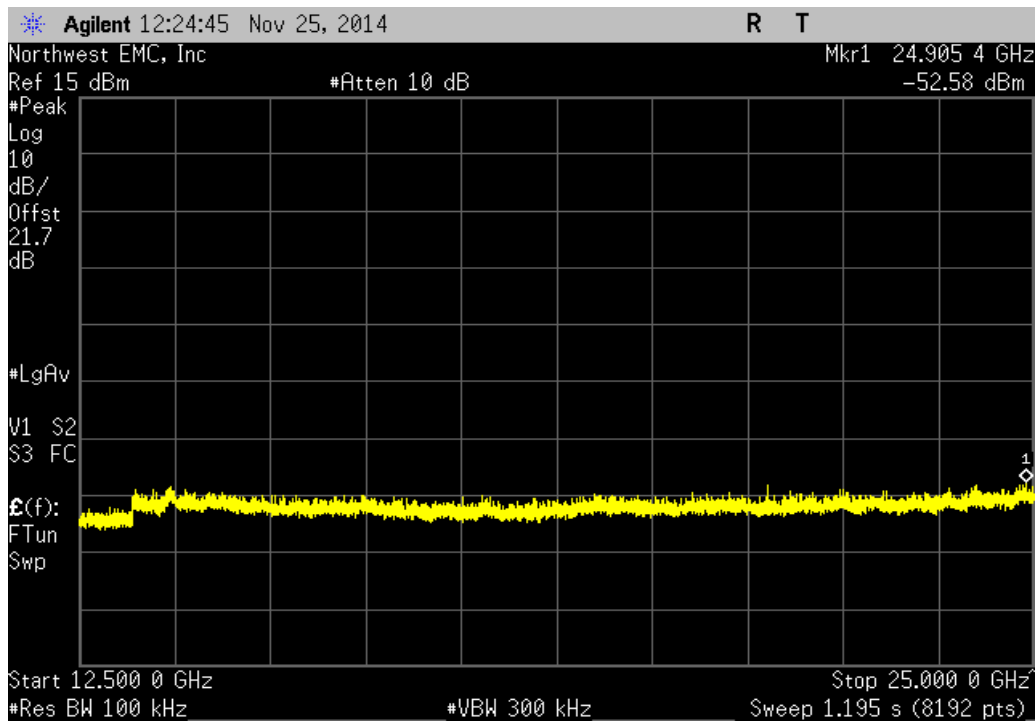
Antenna 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



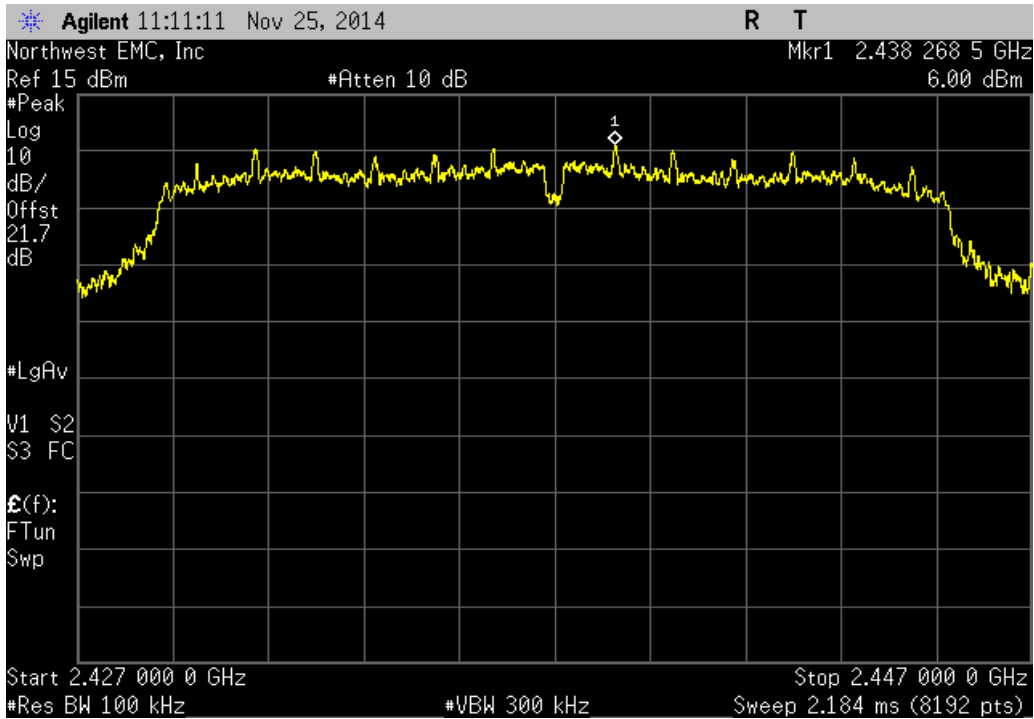
Antenna 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-38.27	-20	Pass



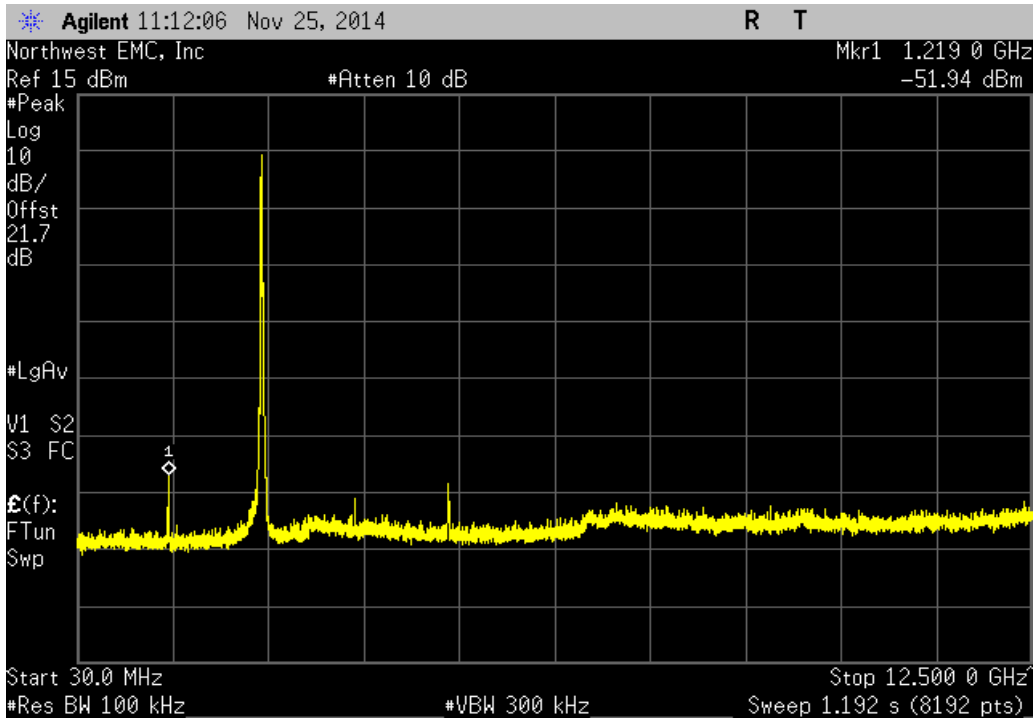
Antenna 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-54.08	-20	Pass



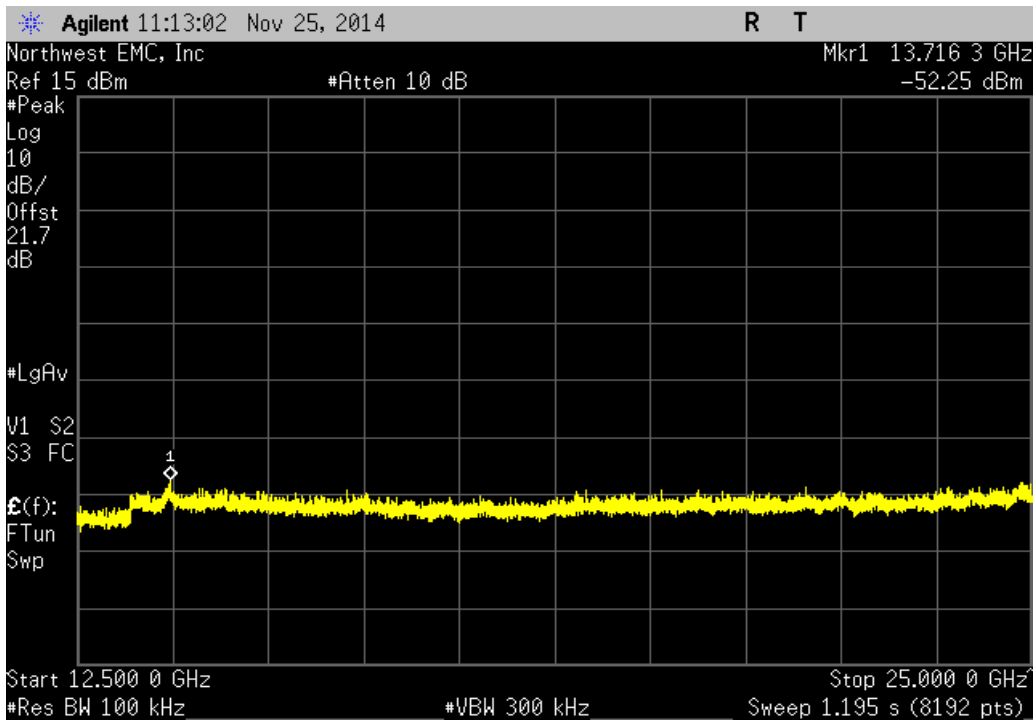
Antenna 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



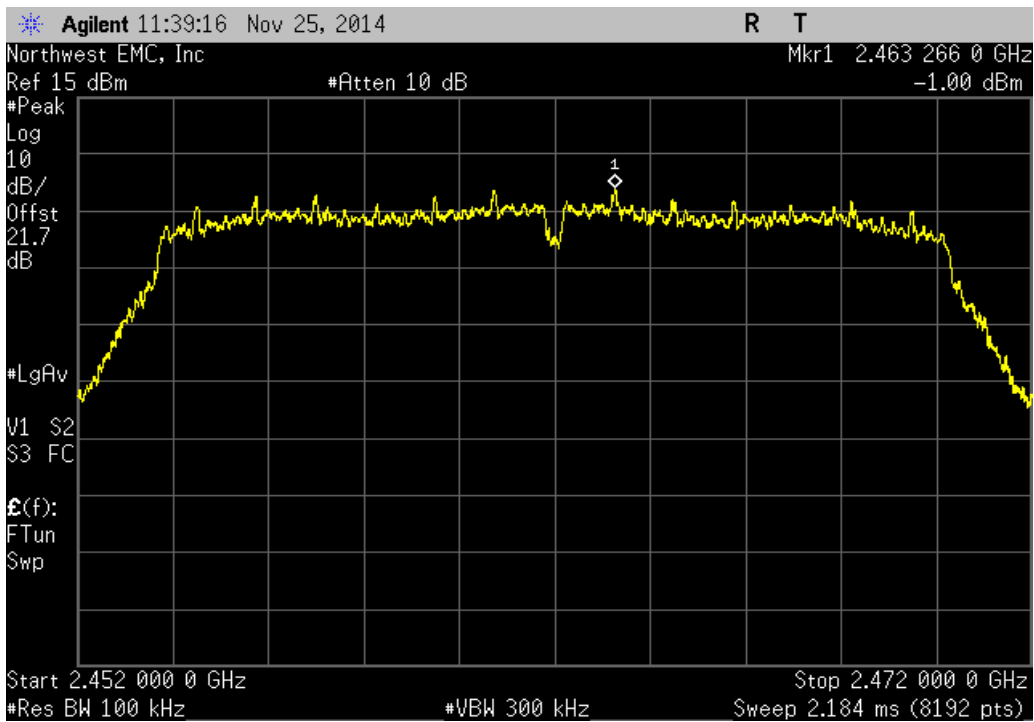
Antenna 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-57.94	-20	Pass



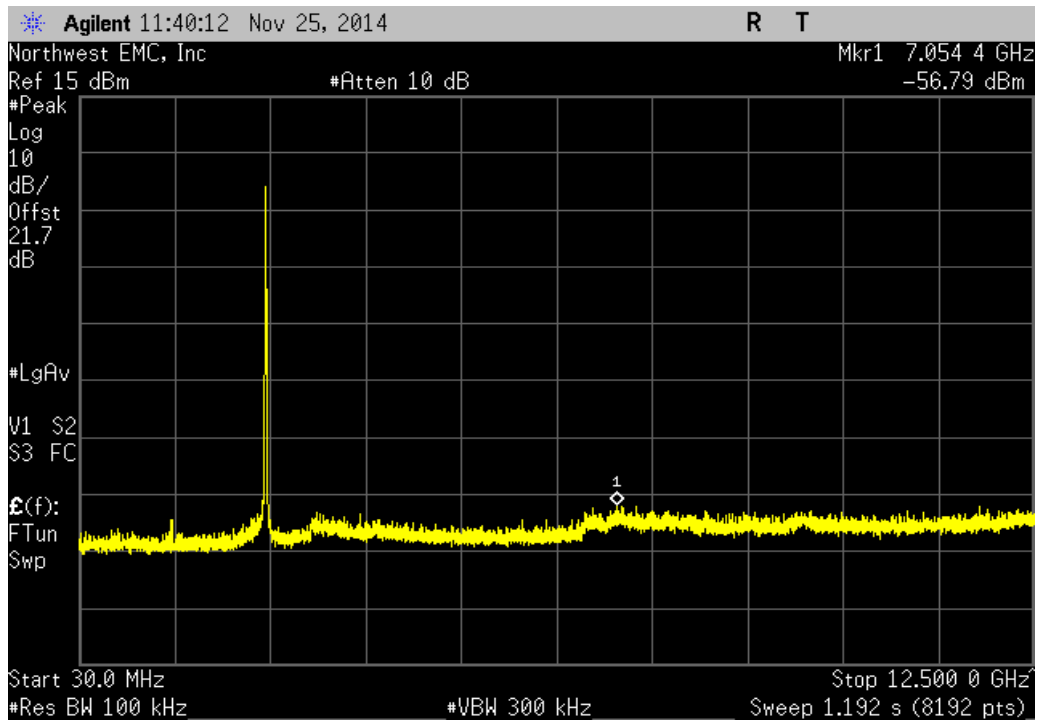
Antenna 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-58.25	-20	Pass



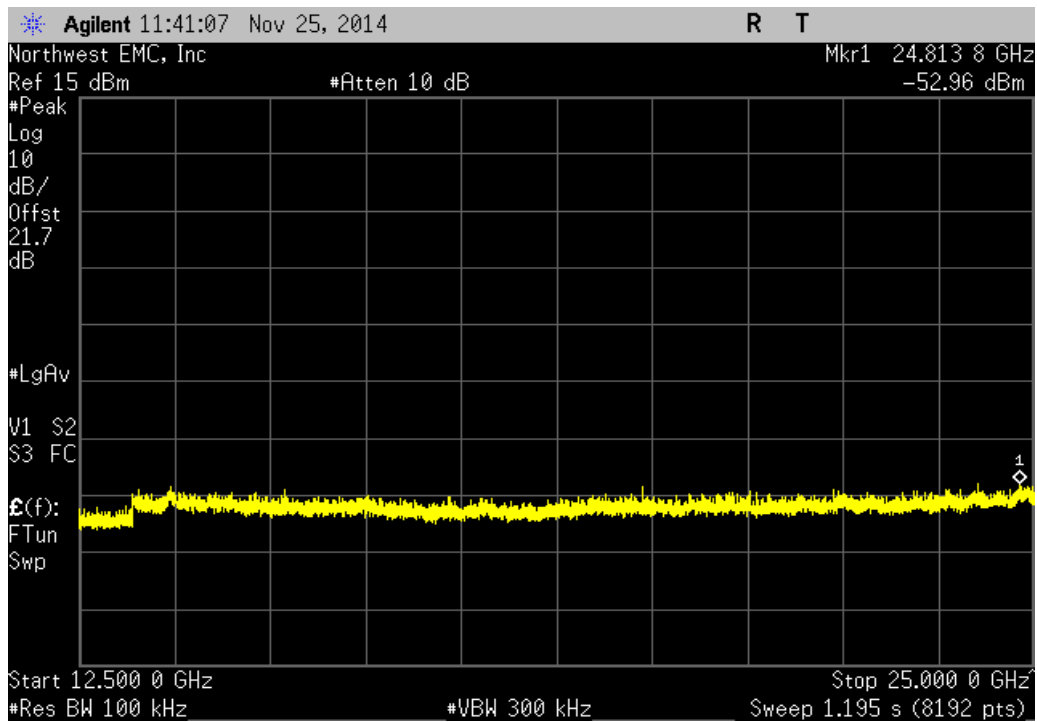
Antenna 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



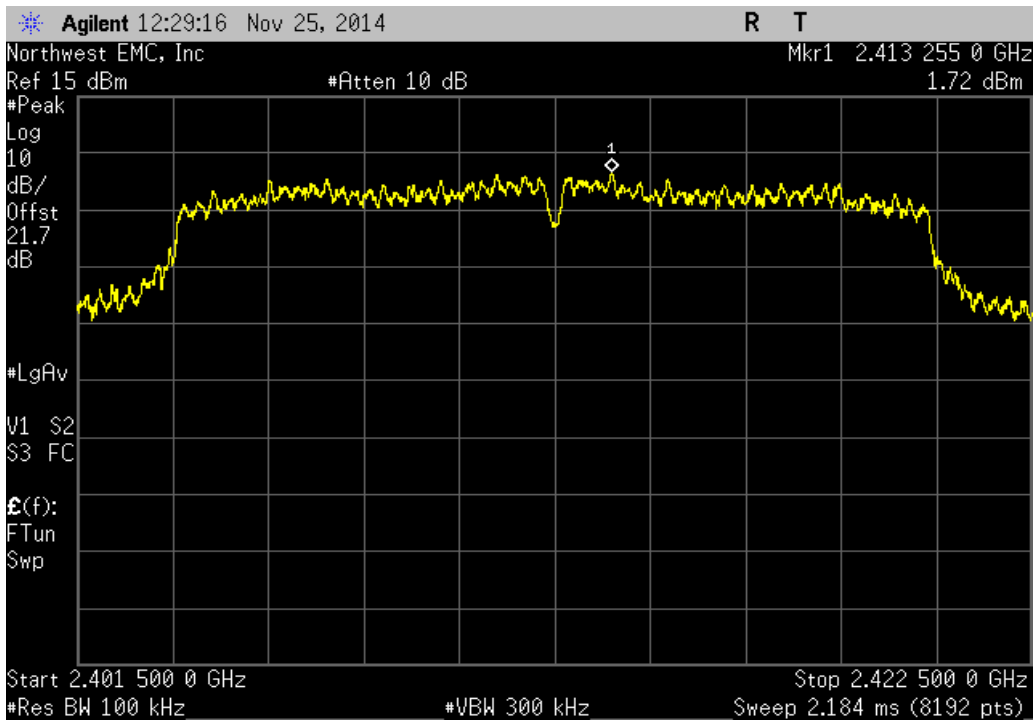
Antenna 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-55.79	-20	Pass	



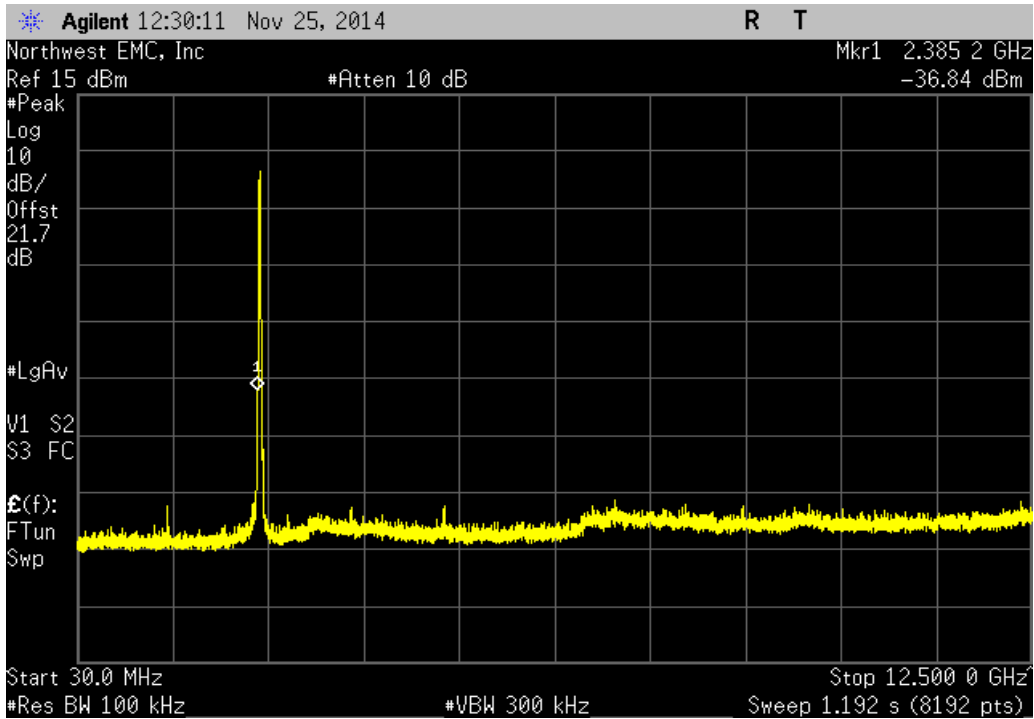
Antenna 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-51.96	-20	Pass	



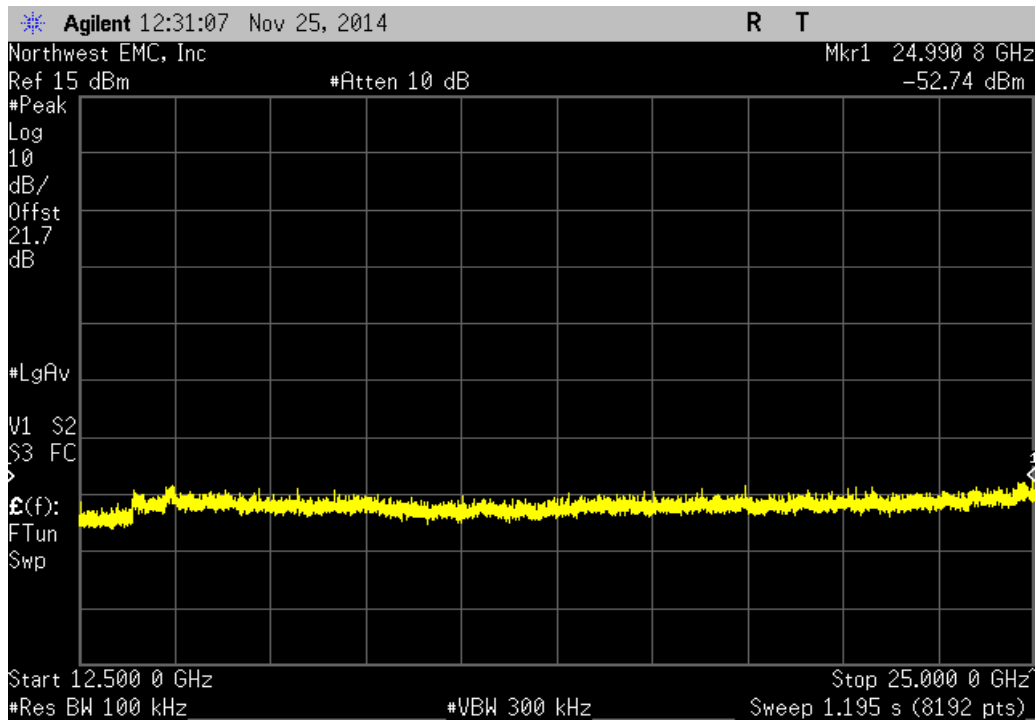
Antenna 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



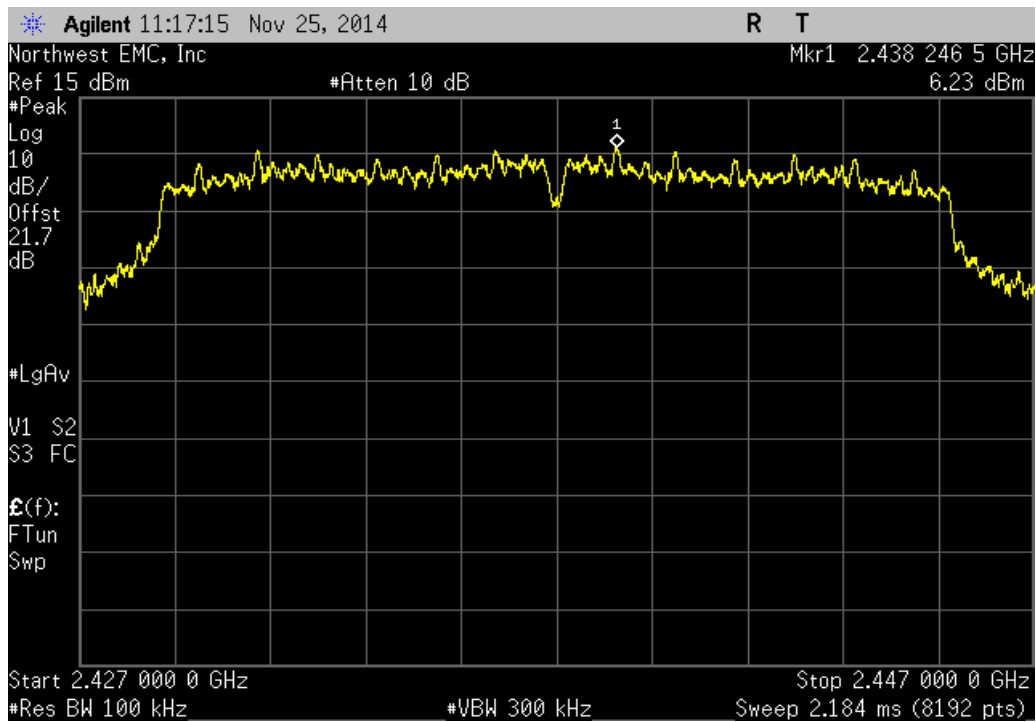
Antenna 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-38.56	-20	Pass



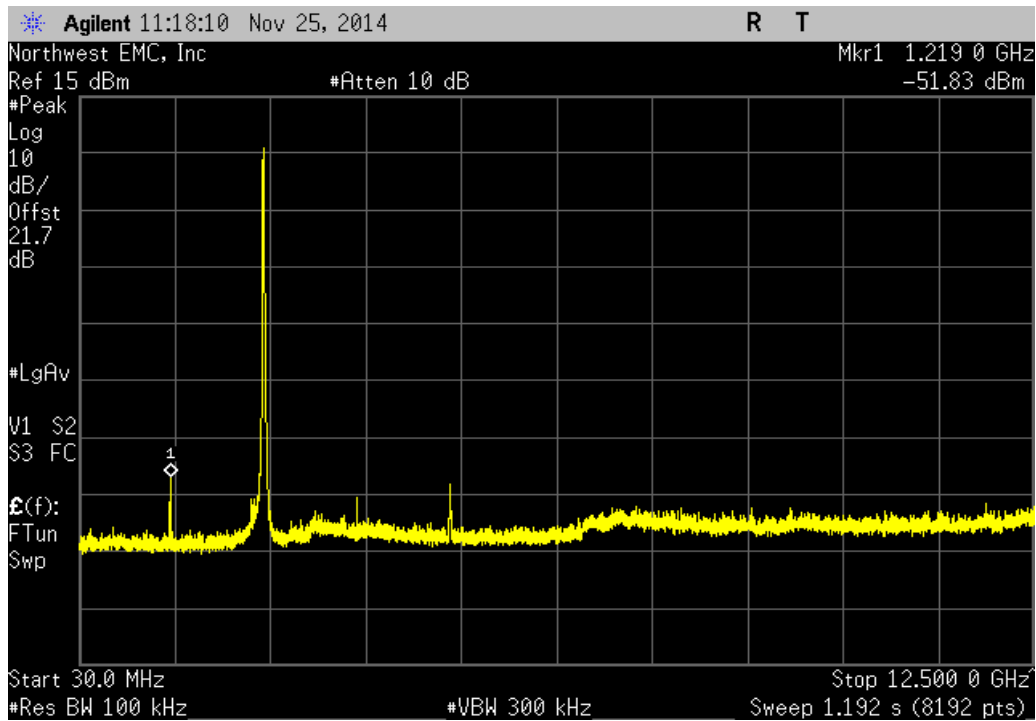
Antenna 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-54.46	-20	Pass



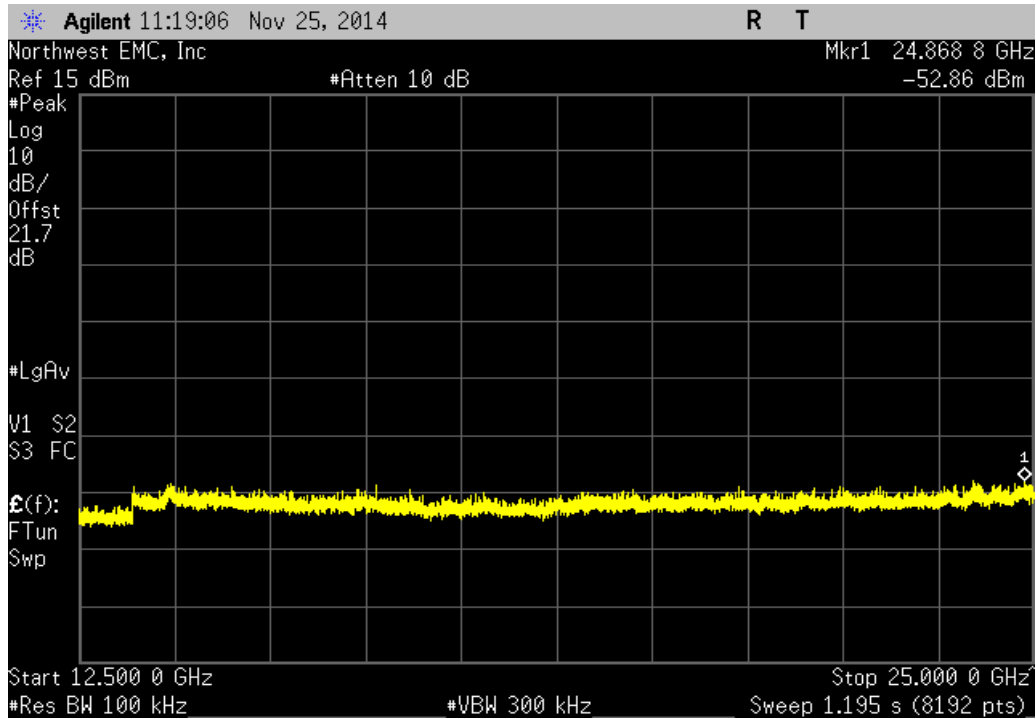
Antenna 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



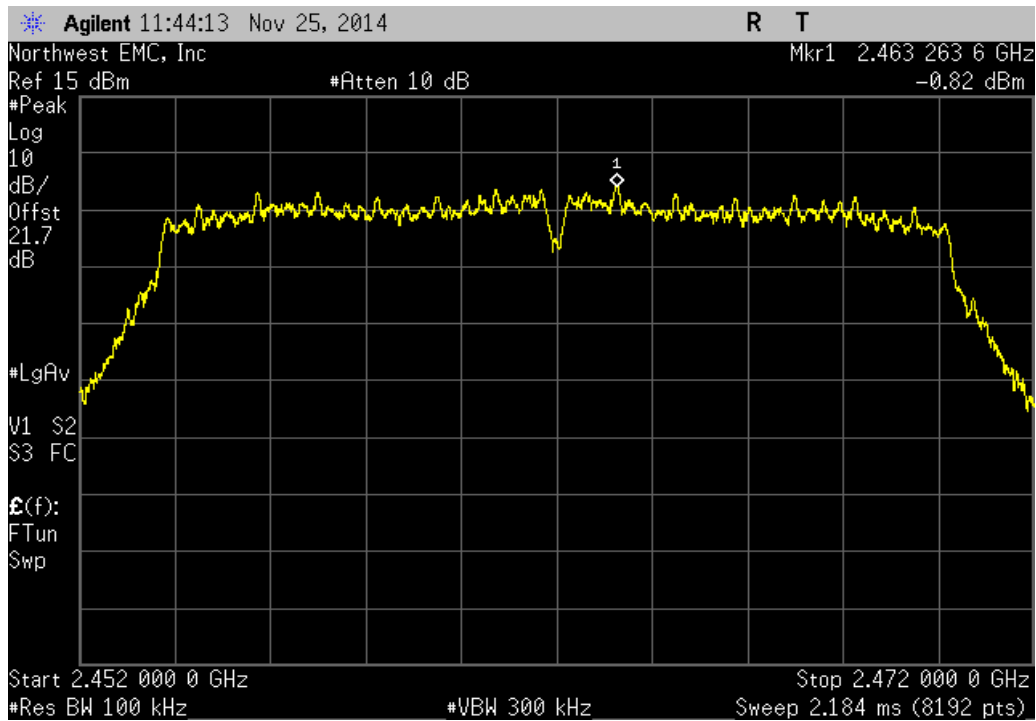
Antenna 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-58.06	-20	Pass



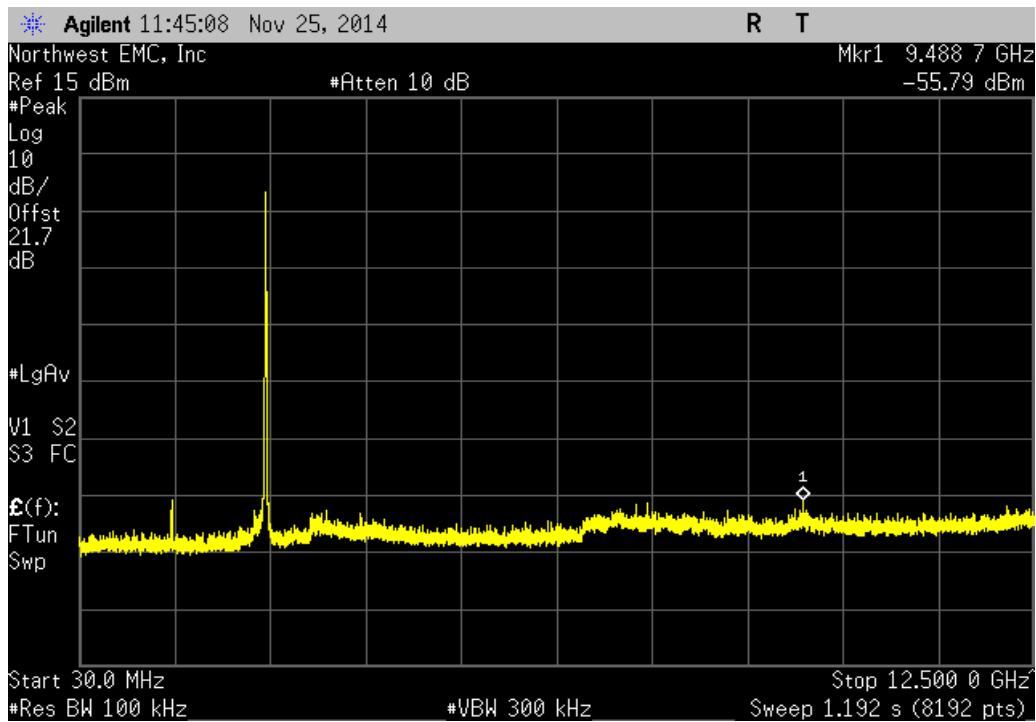
Antenna 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-59.09	-20	Pass



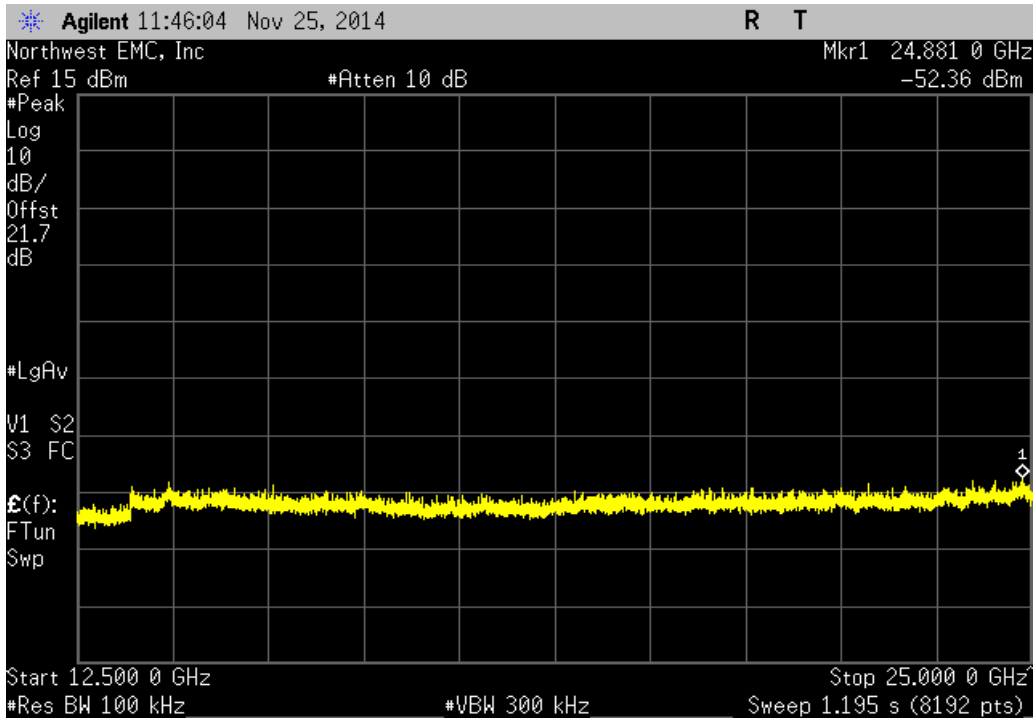
Antenna 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



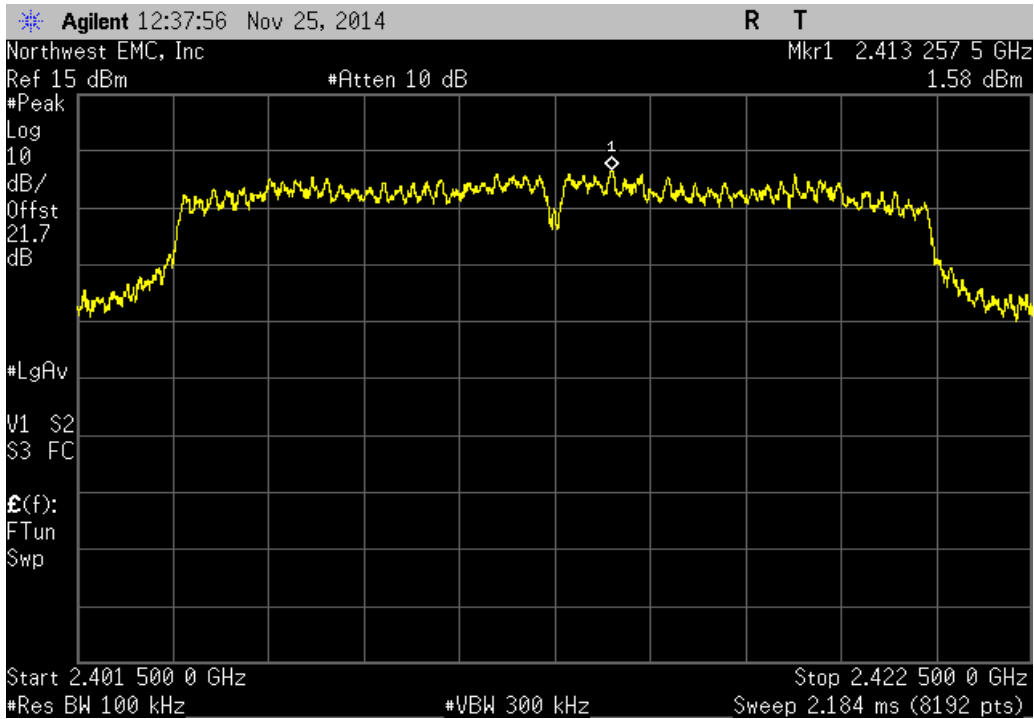
Antenna 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-54.97	-20	Pass



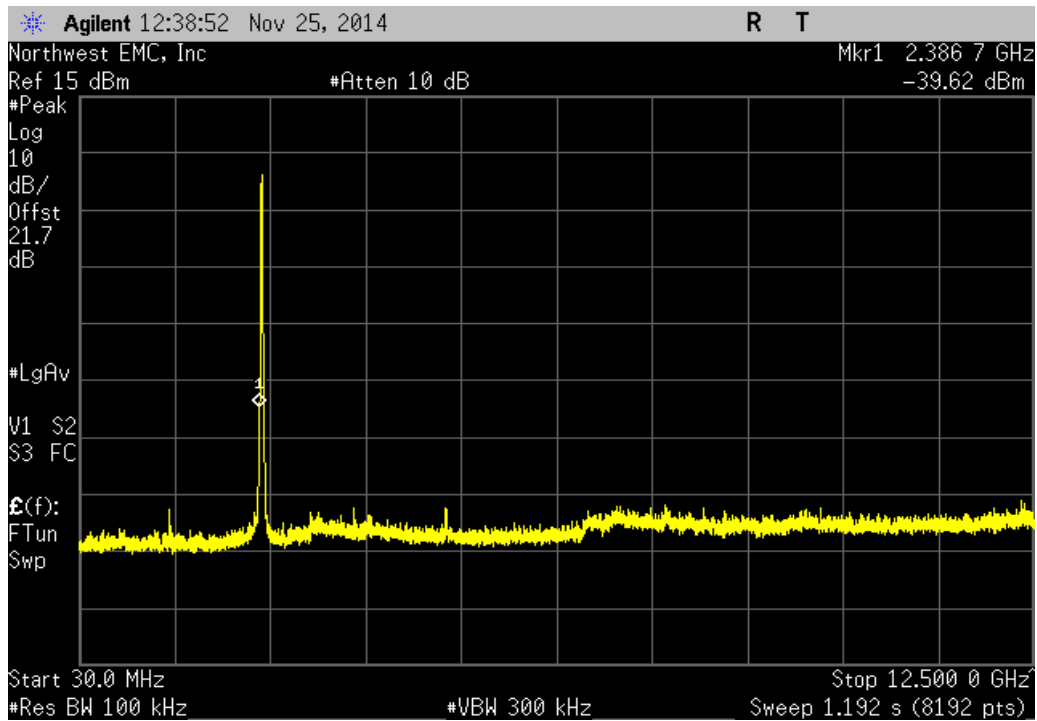
Antenna 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-51.54	-20	Pass



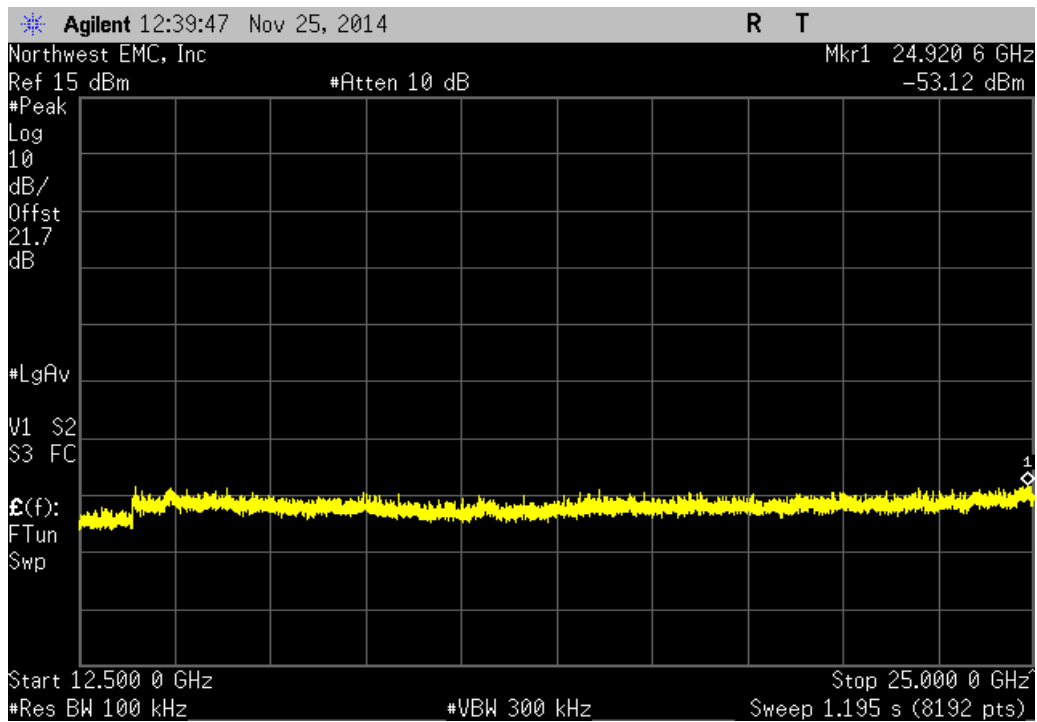
Antenna 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



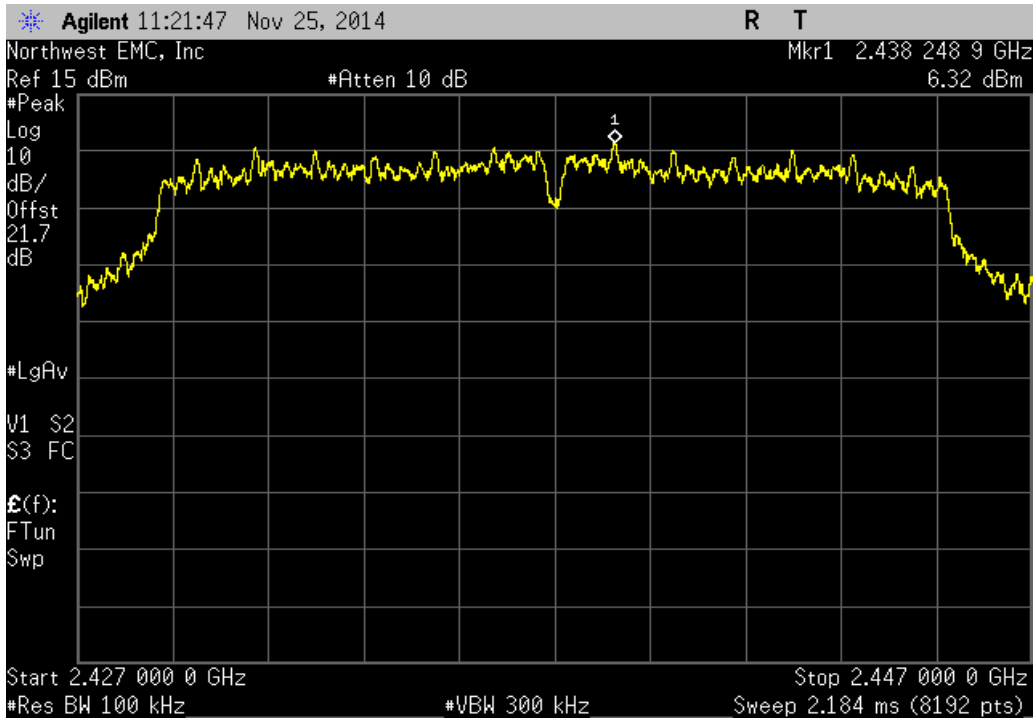
Antenna 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-41.2	-20	Pass	



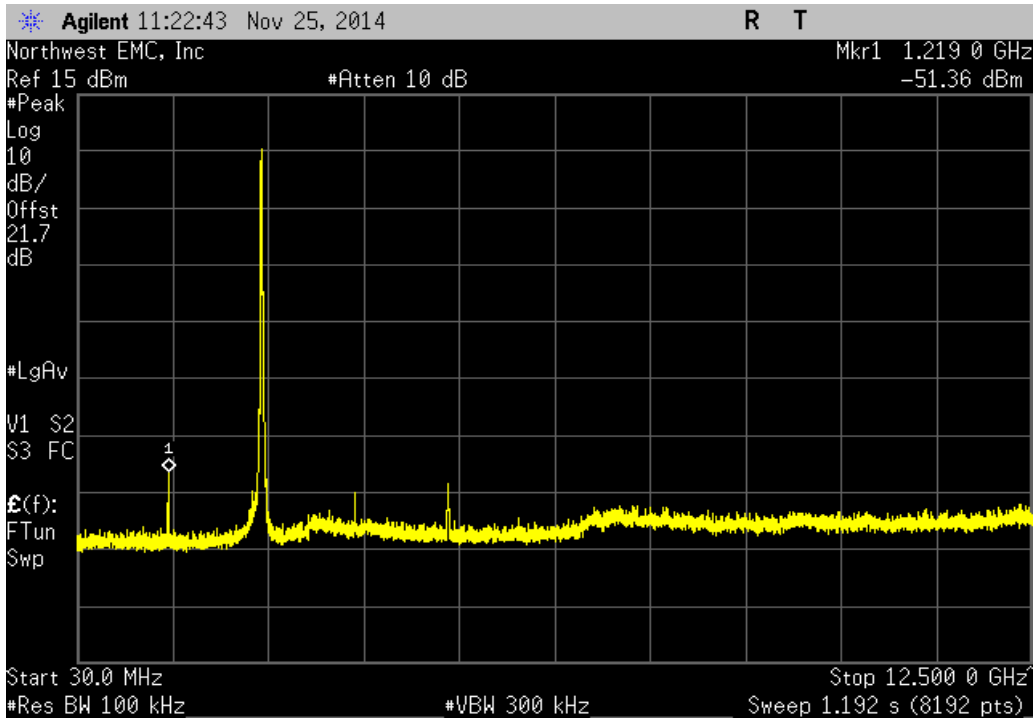
Antenna 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-54.7	-20	Pass	



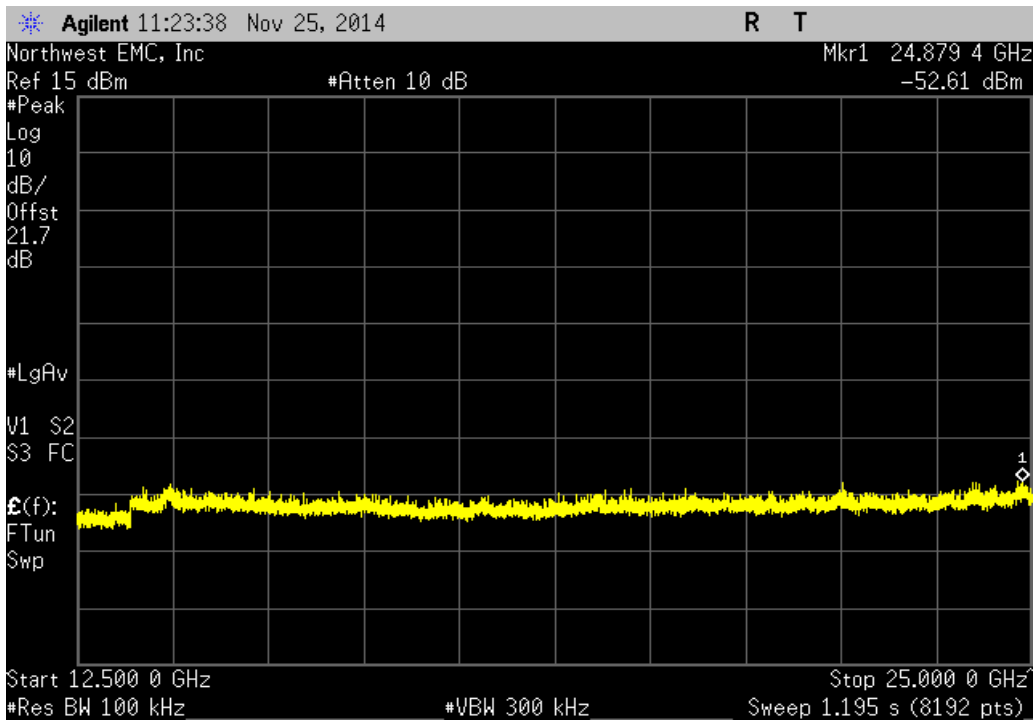
Antenna 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



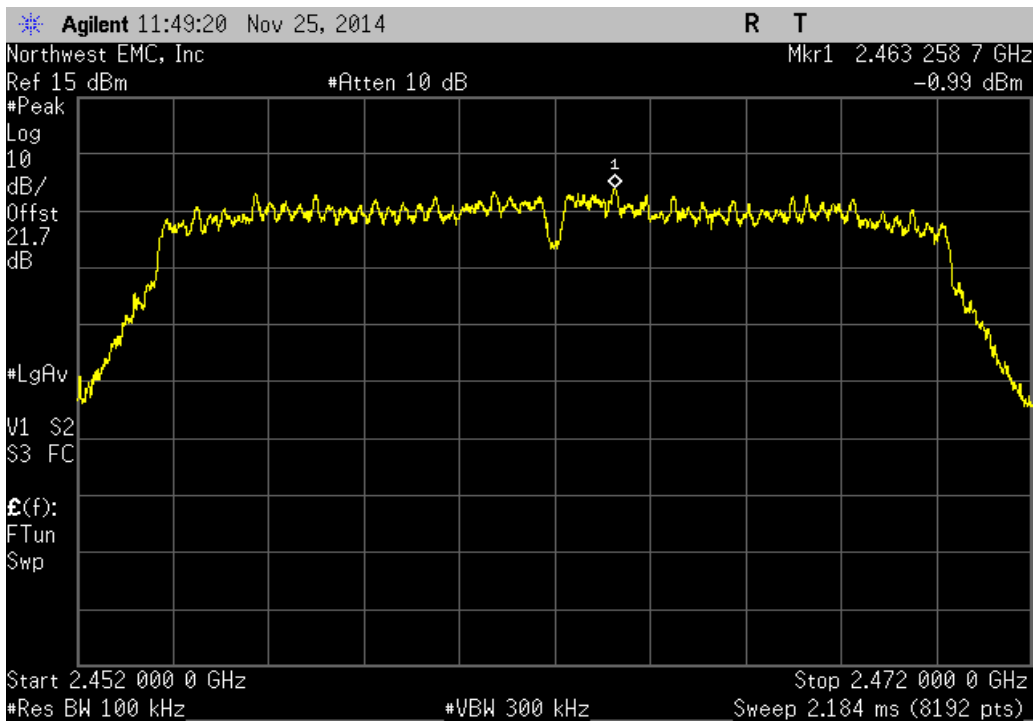
Antenna 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-57.68	-20	Pass



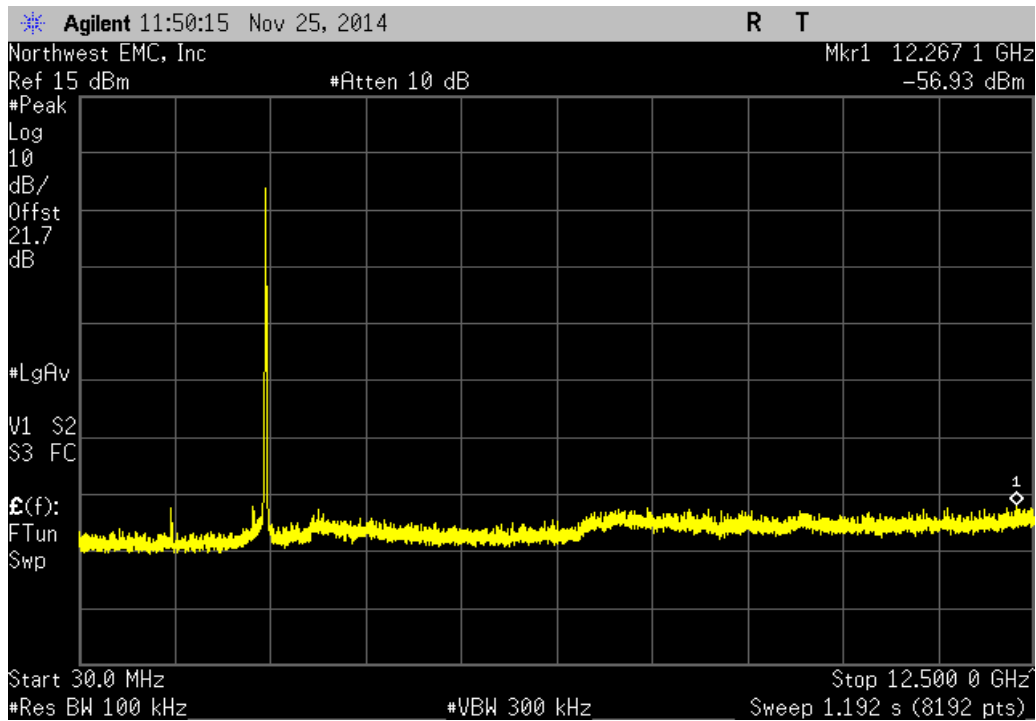
Antenna 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-58.93	-20	Pass



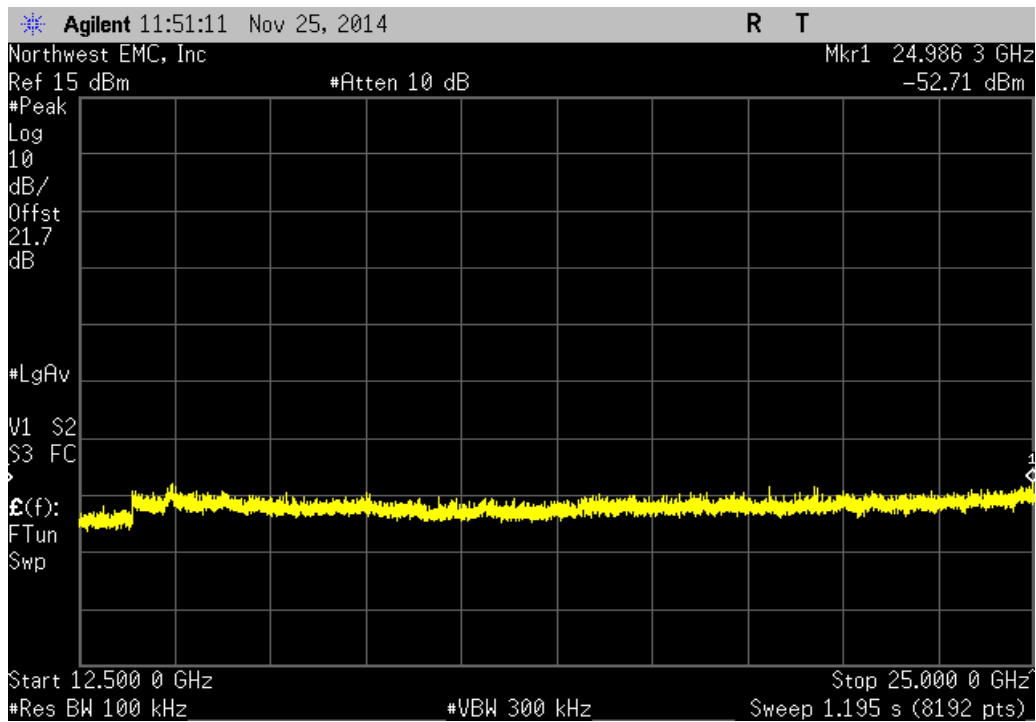
Antenna 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



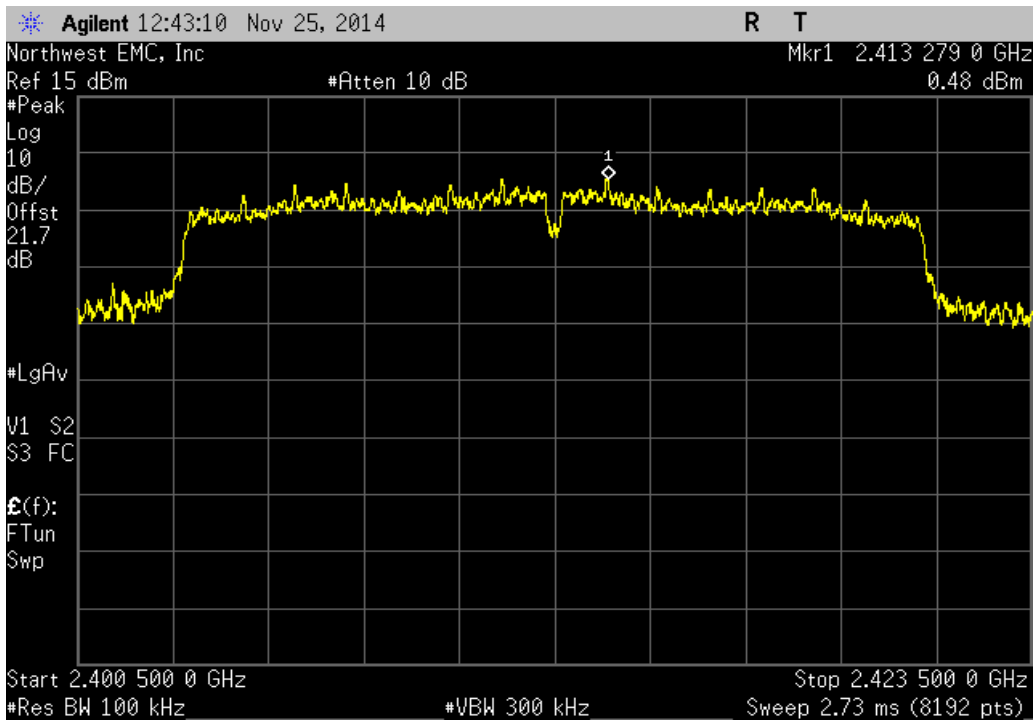
Antenna 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-55.94	-20	Pass	



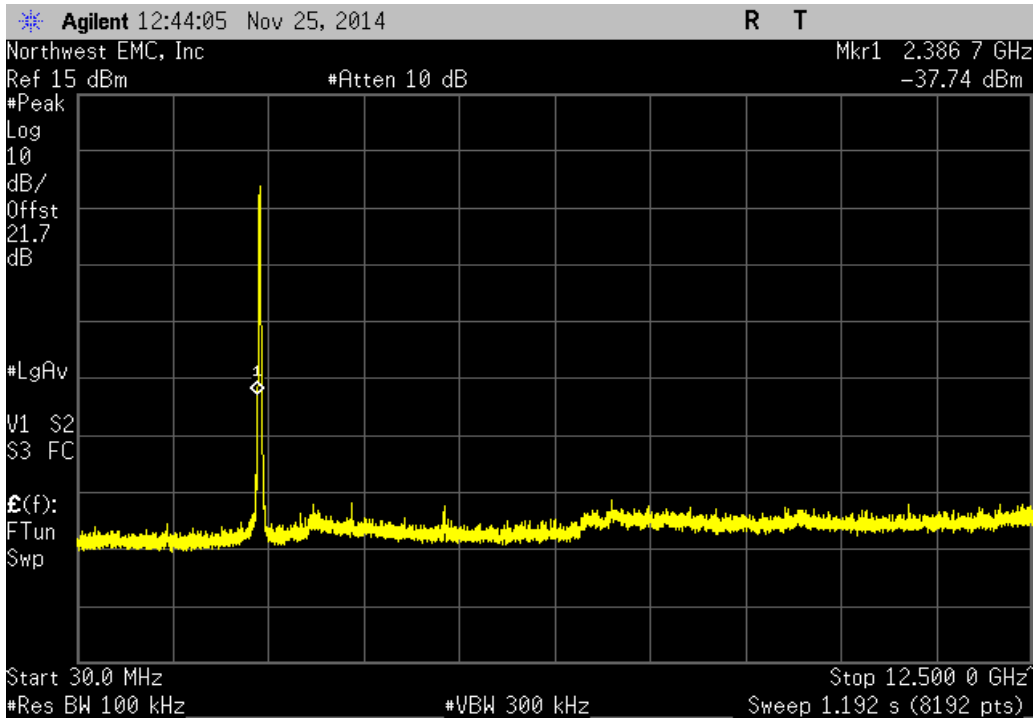
Antenna 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-51.72	-20	Pass	



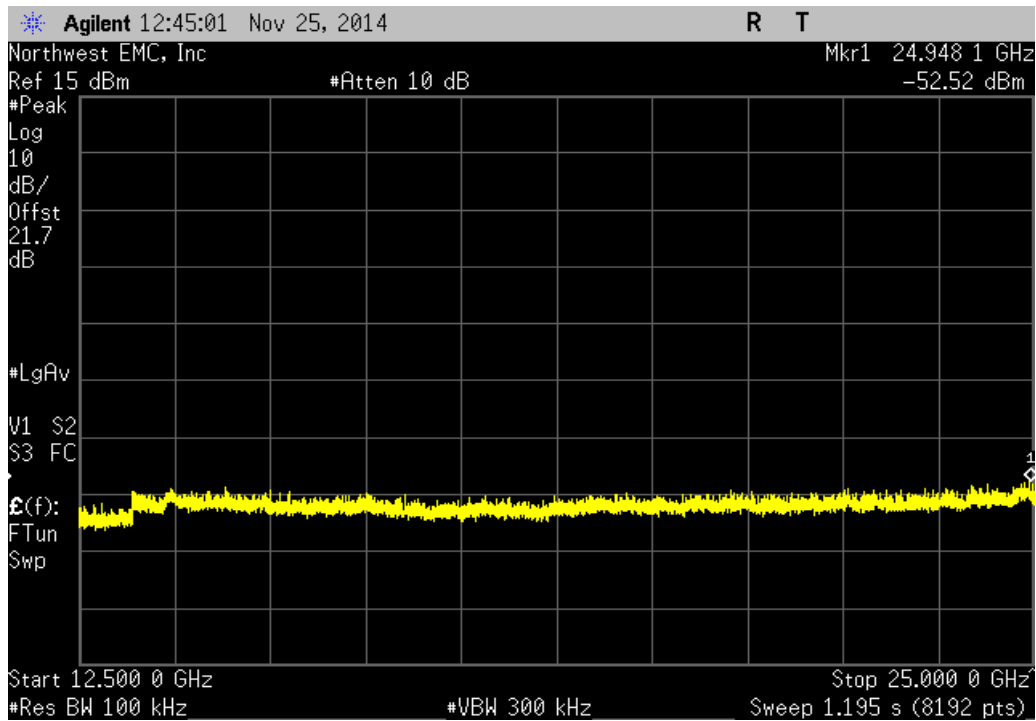
Antenna 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz					
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result		
Fundamental	N/A	N/A	N/A		



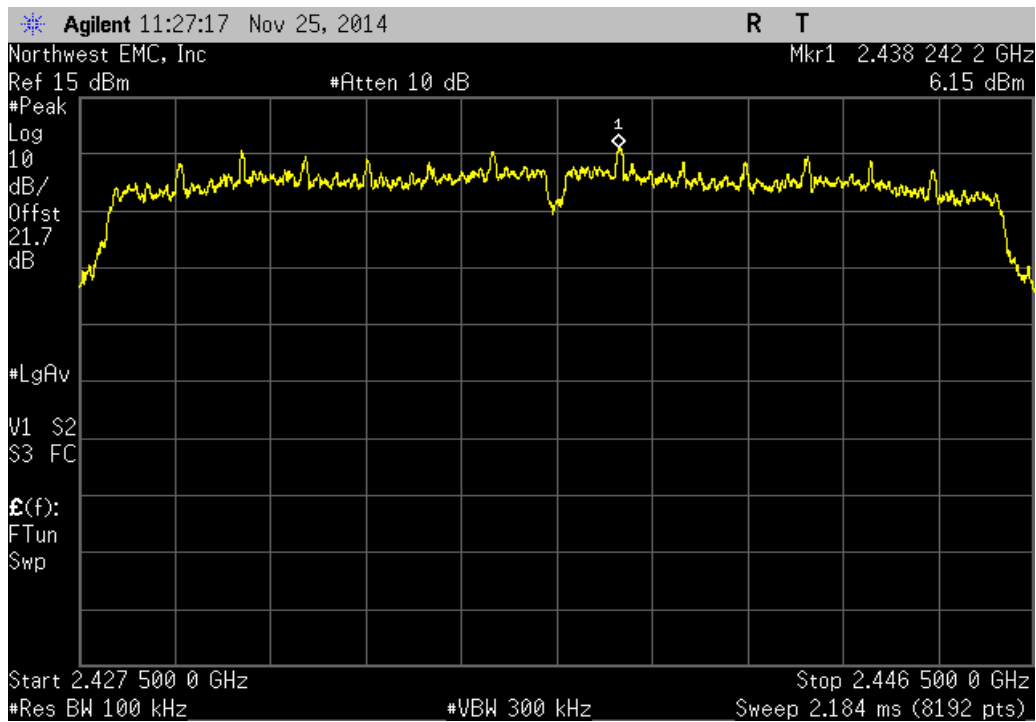
Antenna 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz					
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result		
30 MHz - 12.5 GHz	-38.22	-20	Pass		



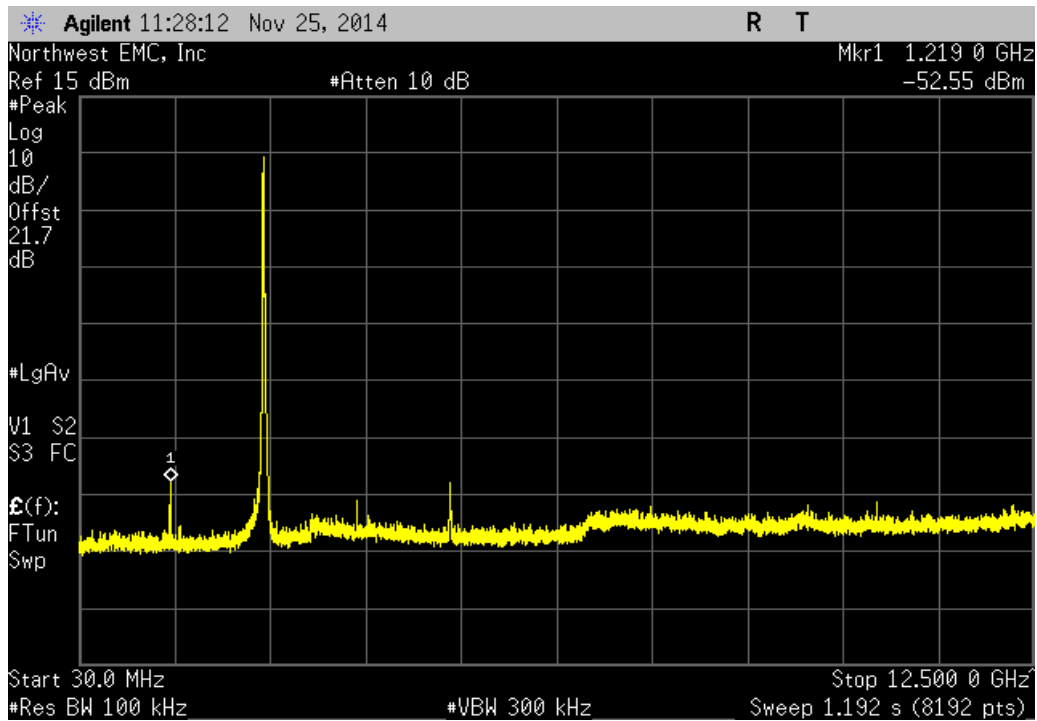
Antenna 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-53	-20	Pass



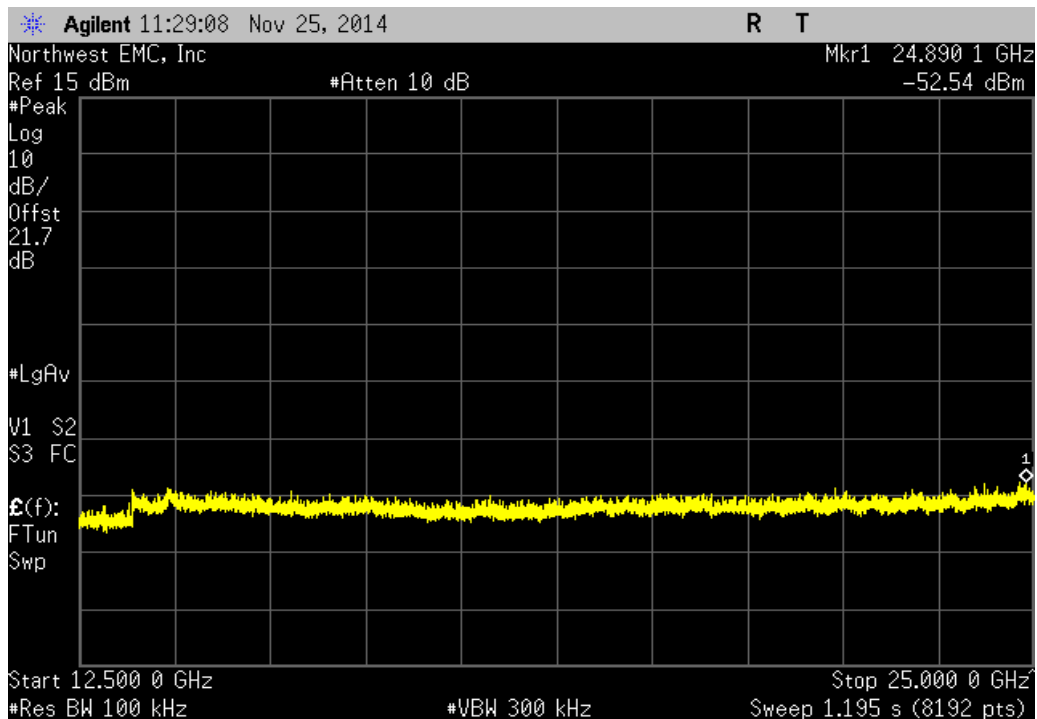
Antenna 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



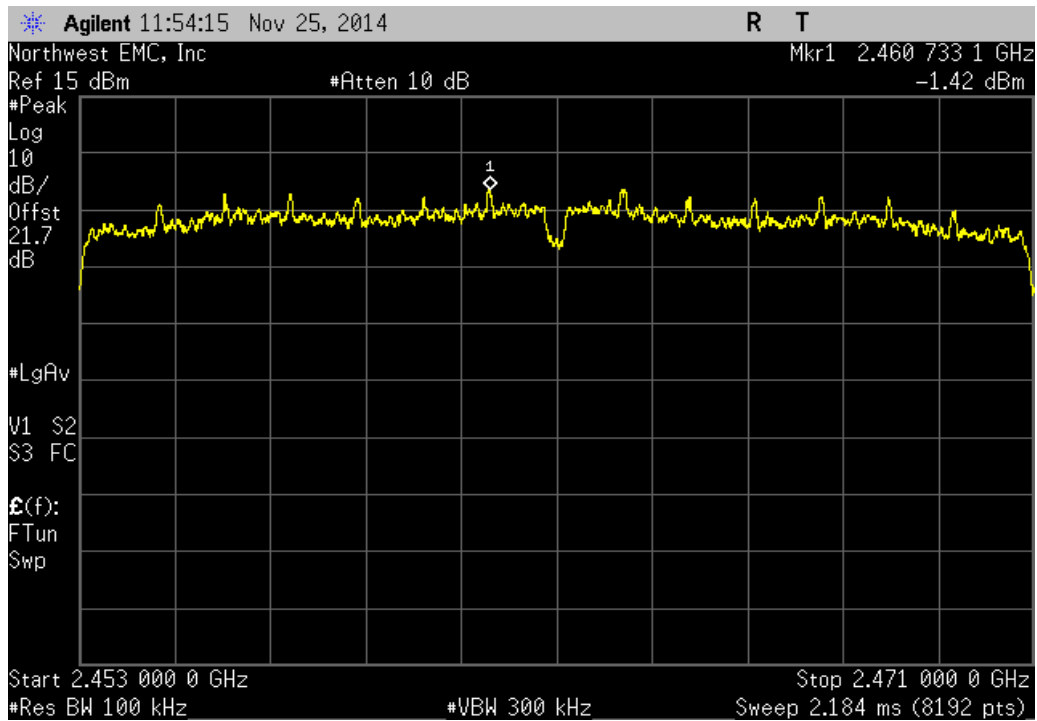
Antenna 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-58.7	-20	Pass



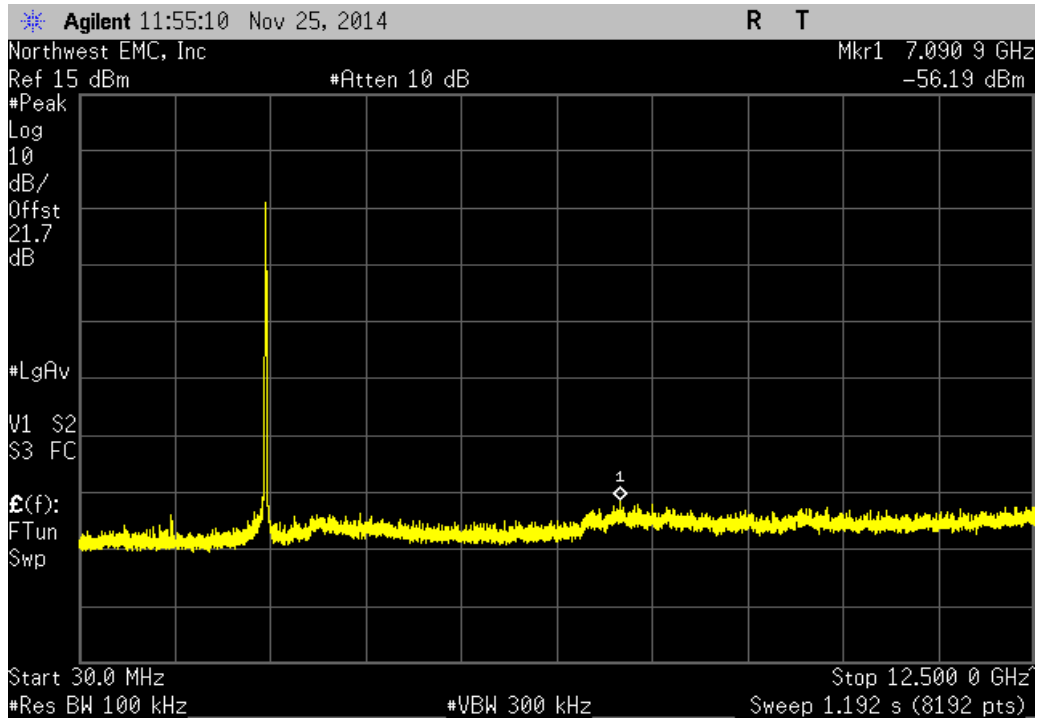
Antenna 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-58.69	-20	Pass



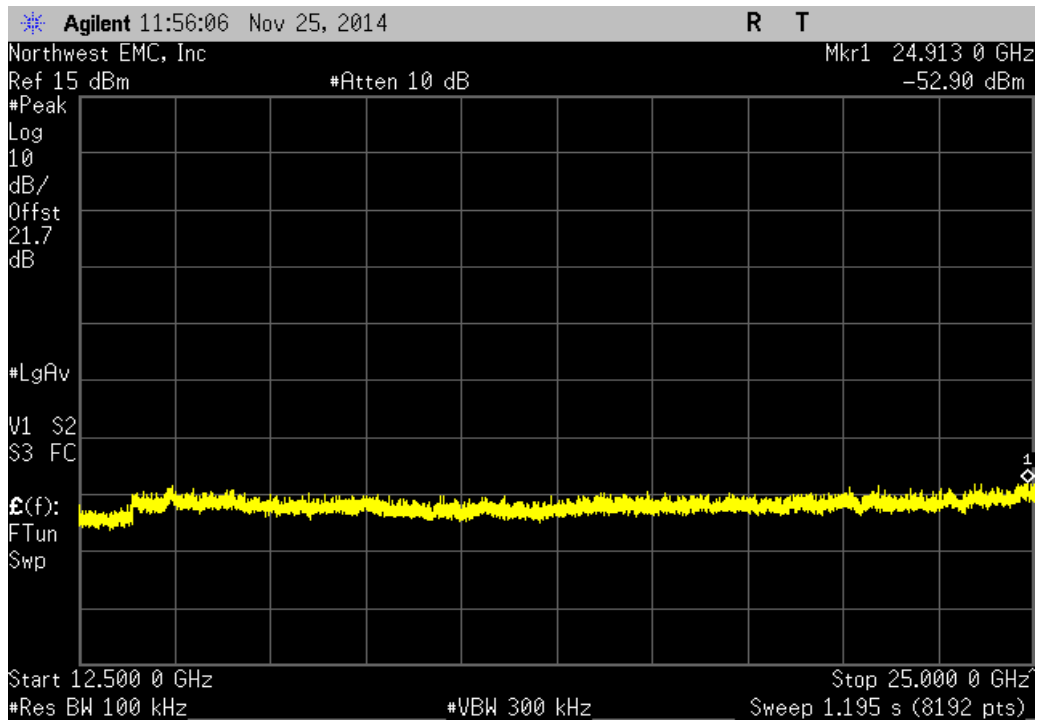
Antenna 1, 802.11(n) MCS0, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



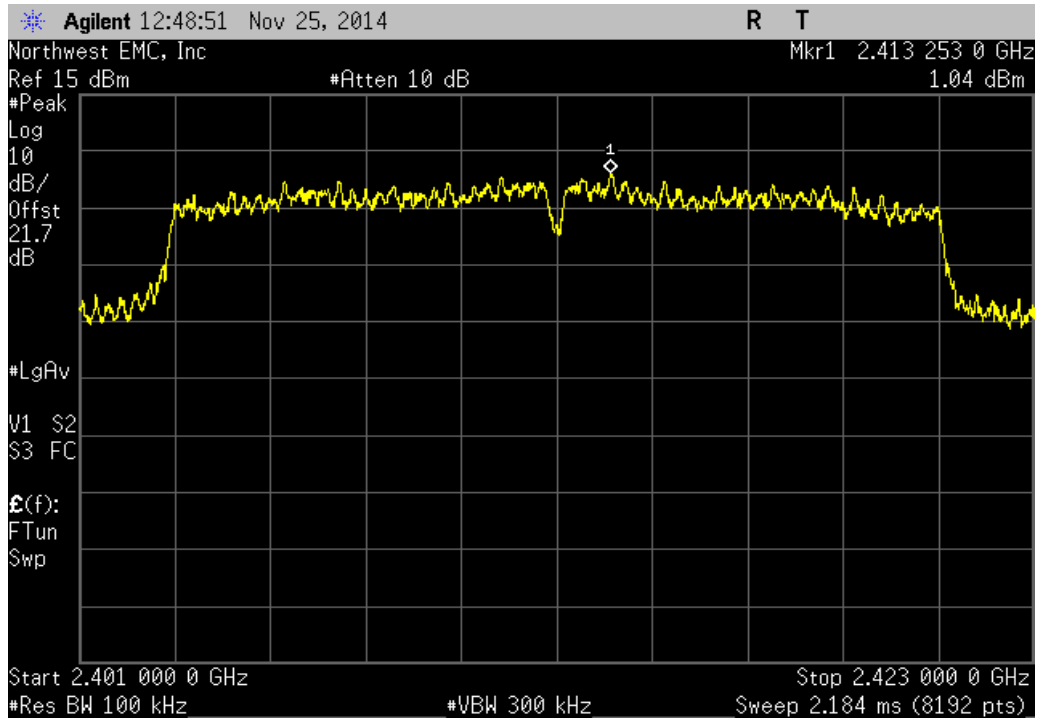
Antenna 1, 802.11(n) MCS0, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-54.77	-20	Pass



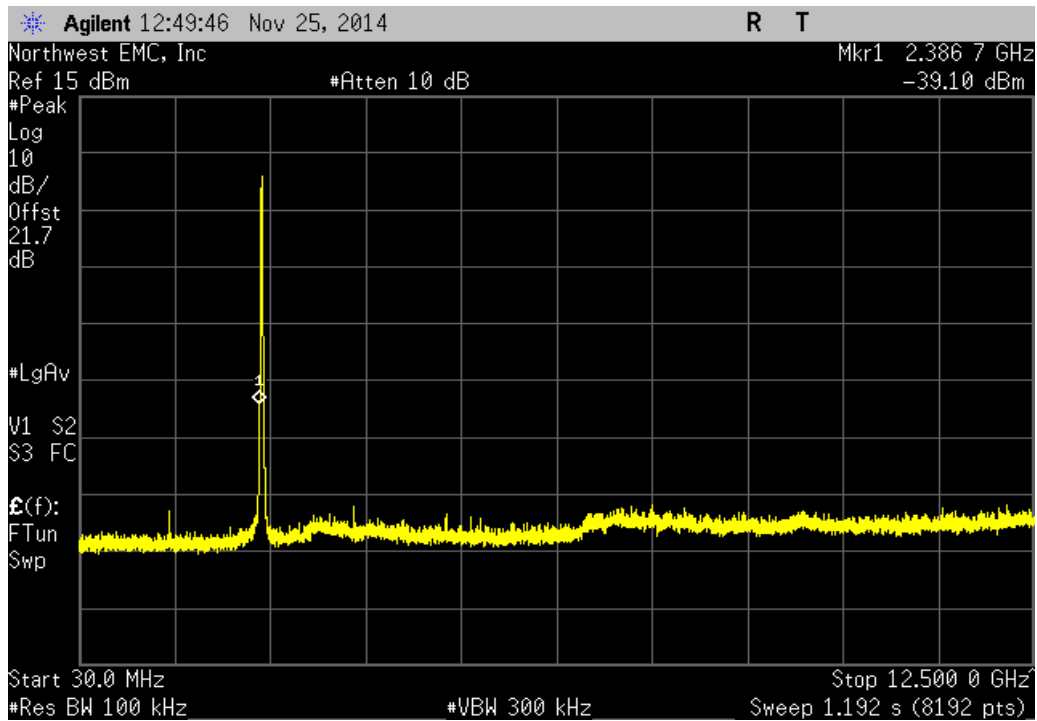
Antenna 1, 802.11(n) MCS0, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-51.48	-20	Pass



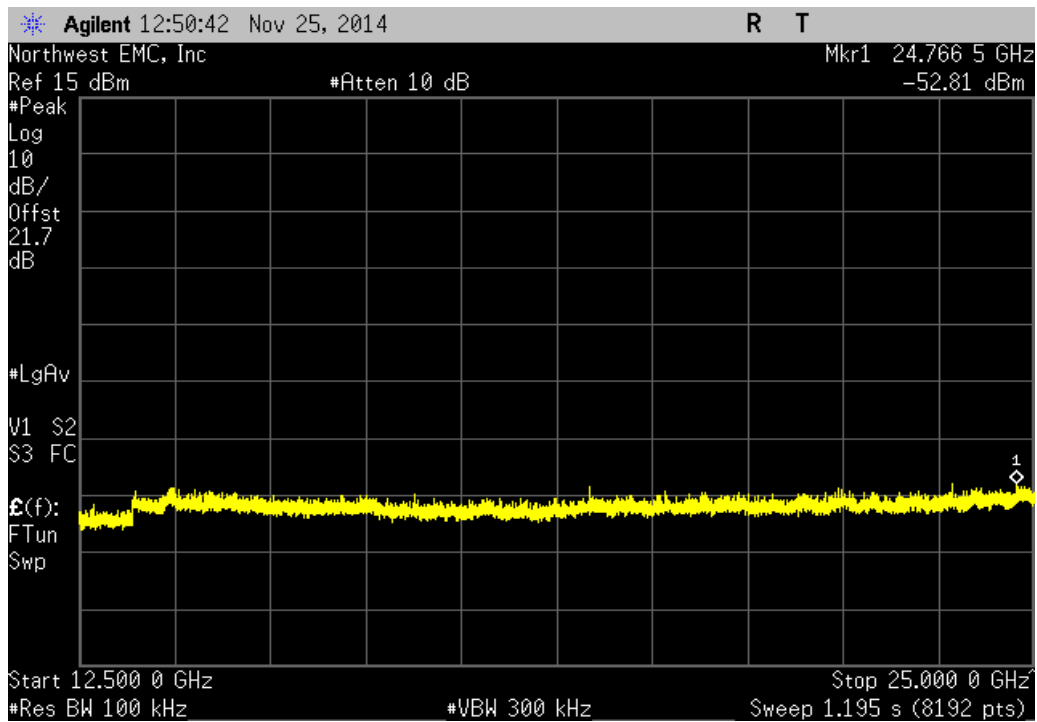
Antenna 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



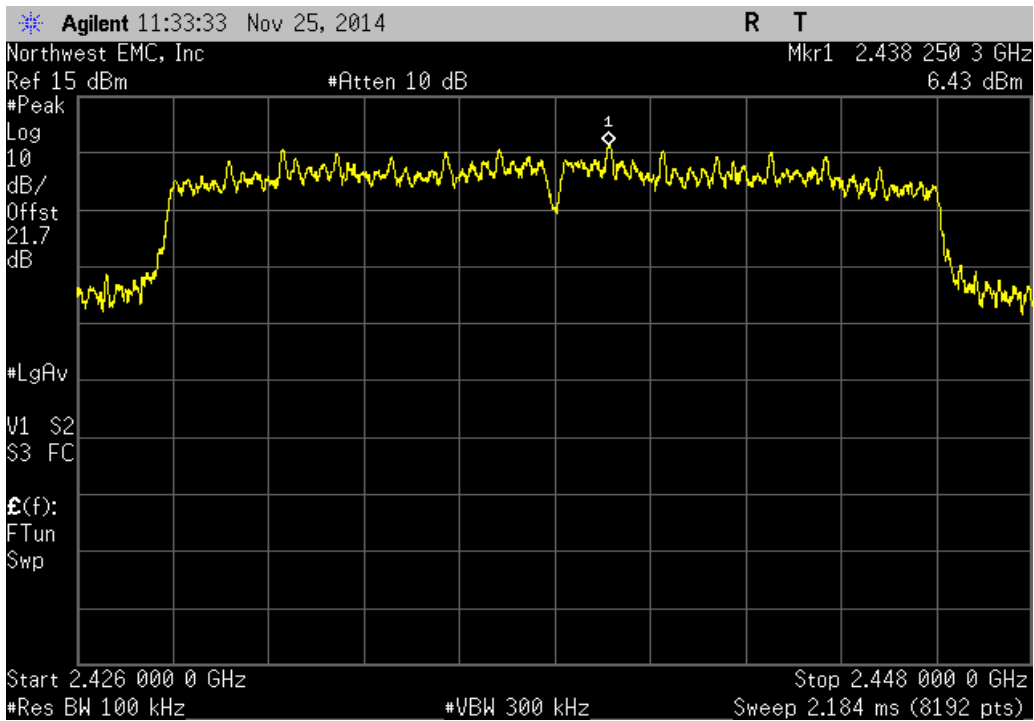
Antenna 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-40.14	-20	Pass



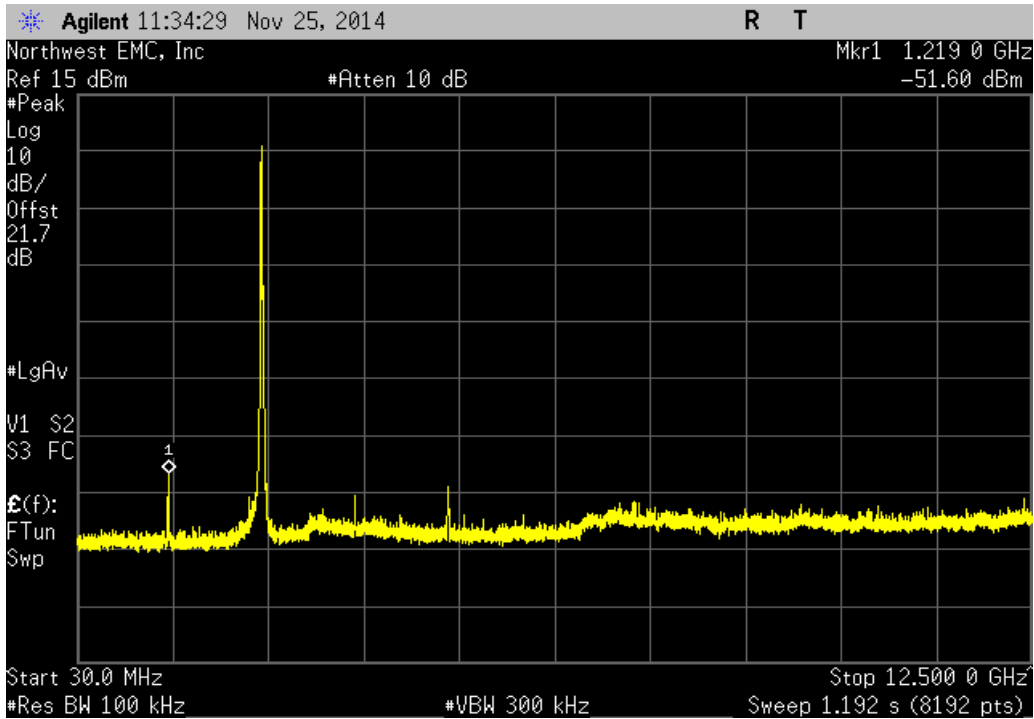
Antenna 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-53.86	-20	Pass



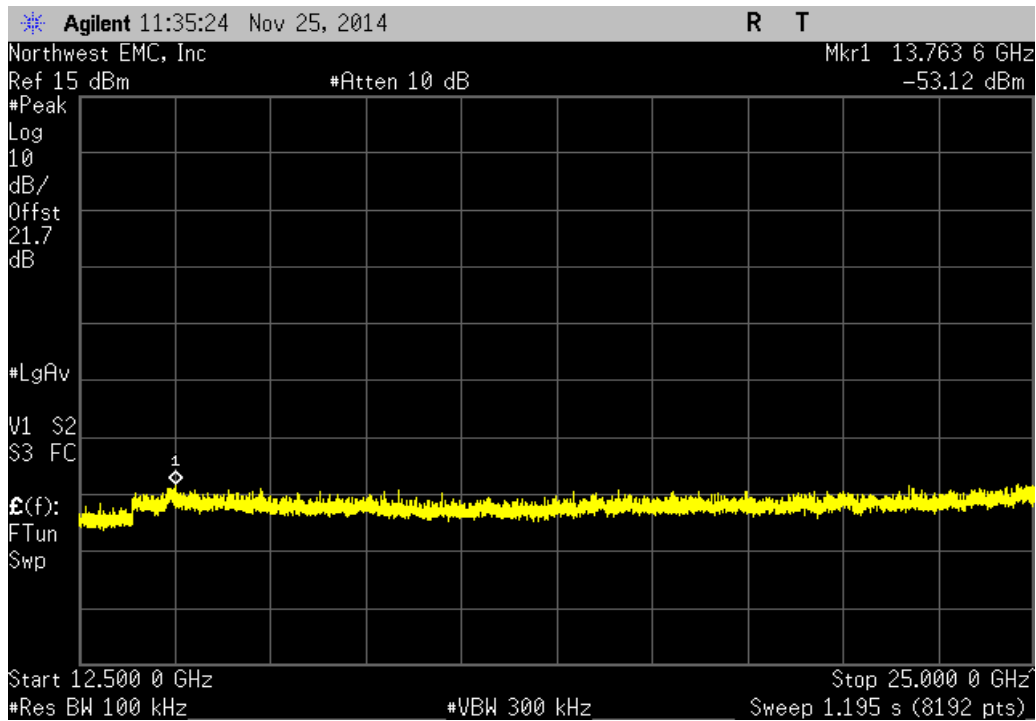
Antenna 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



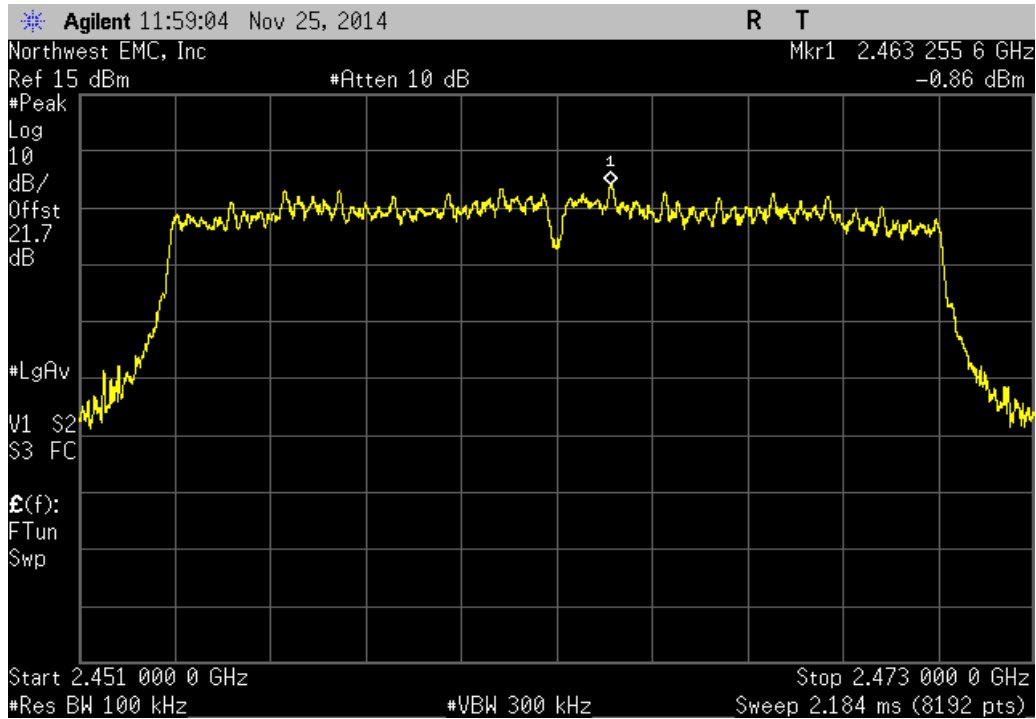
Antenna 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz	-58.03	-20	Pass



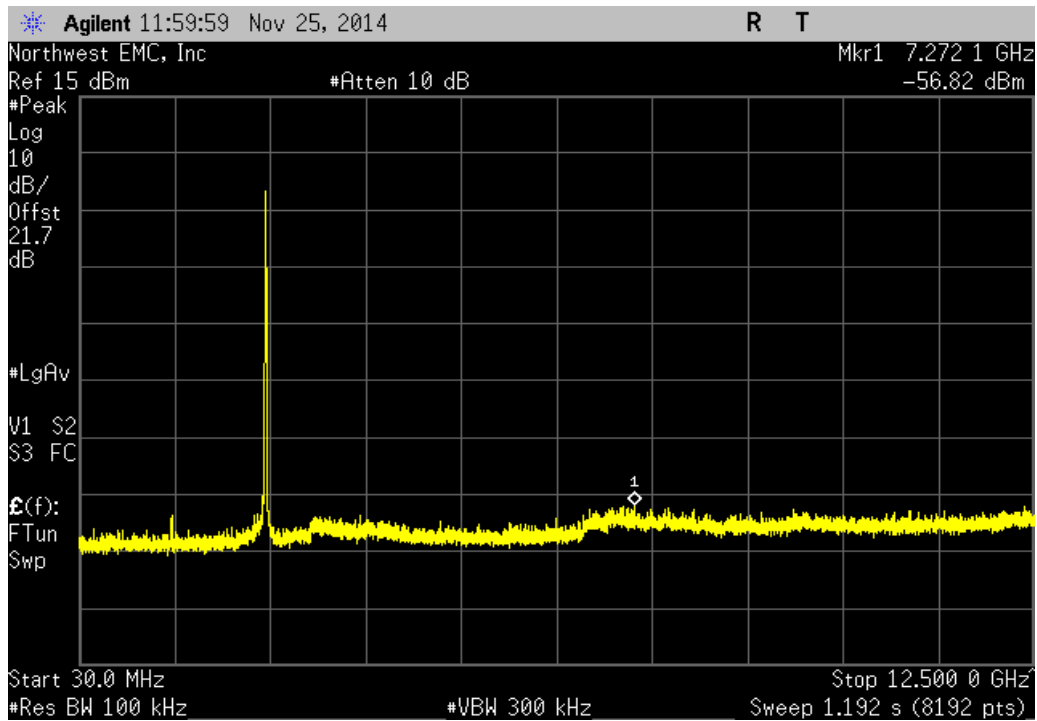
Antenna 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz	-59.55	-20	Pass



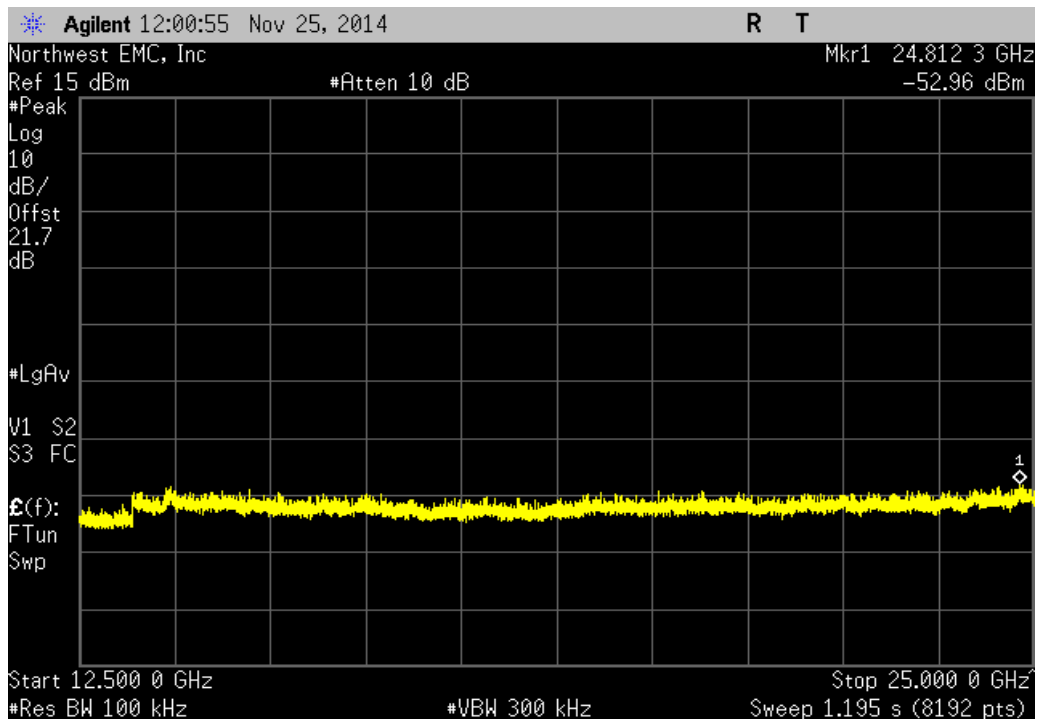
Antenna 1, 802.11(n) MCS7, High Channel 11, 2462 MHz			
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



Antenna 1, 802.11(n) MCS7, High Channel 11, 2462 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-55.96	-20	Pass	



Antenna 1, 802.11(n) MCS7, High Channel 11, 2462 MHz				
Frequency Range	Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-52.1	-20	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 (mos)
MN08 Direct Connect Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNU	10/2/2014	12
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC Block	Fairview Microwave	SD3379	AMI	10/2/2014	12
MXG Vector Signal Generator	Agilent	N5182A	TIF	8/12/2014	36
Spectrum Analyzer	Agilent	E4440A	AAX	4/28/2014	12

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.

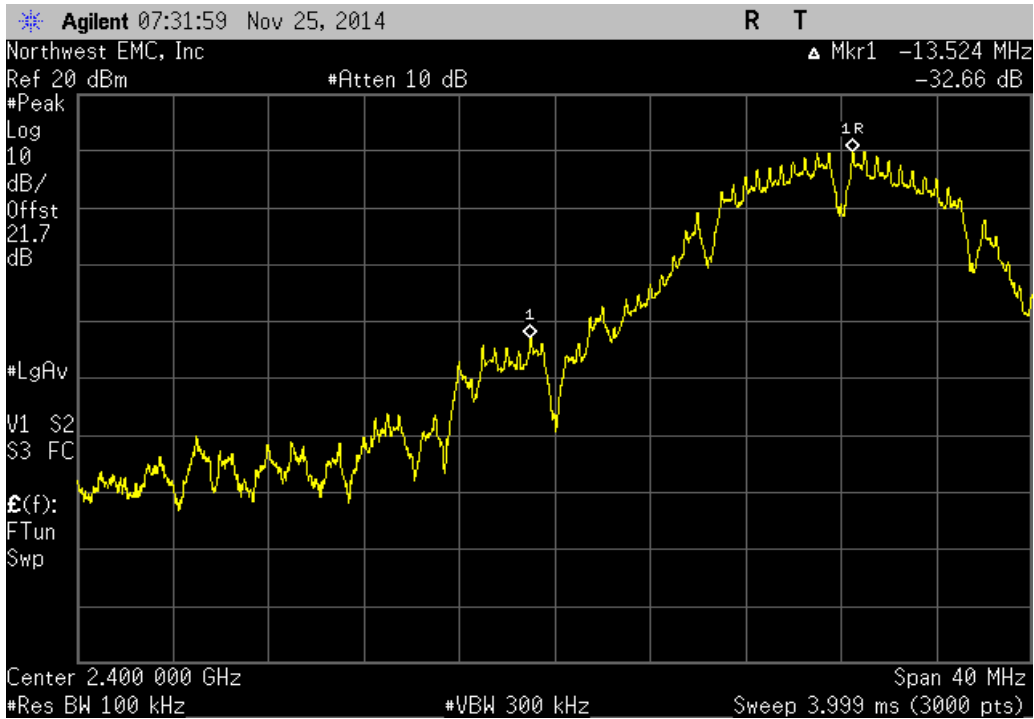


BAND EDGE COMPLIANCE

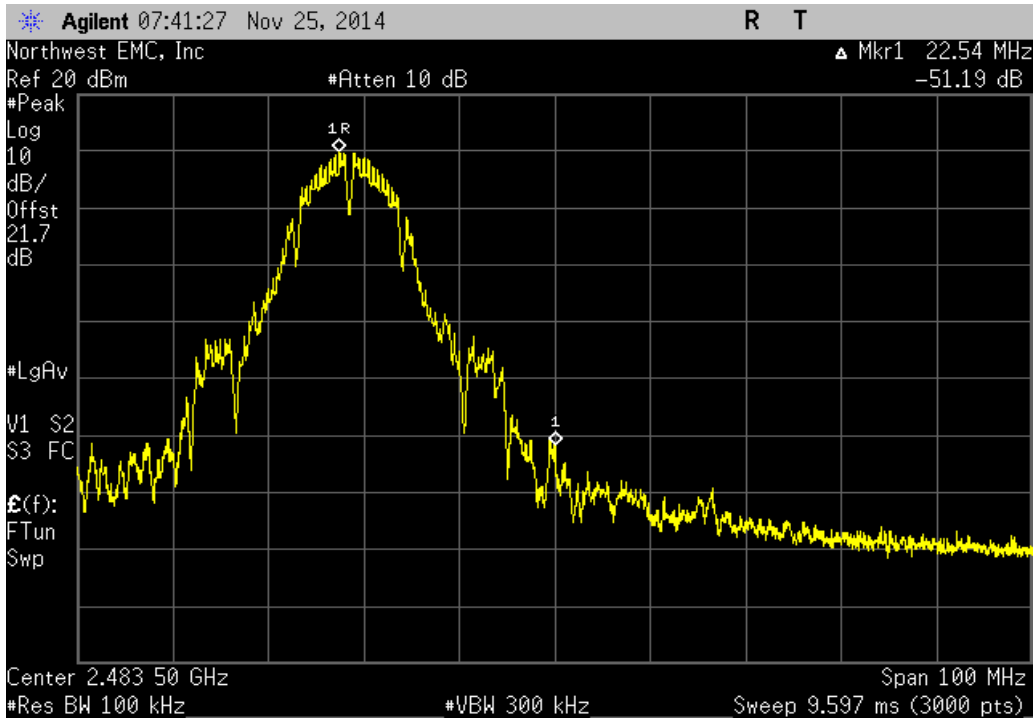
XMI 2014.02.07
NweTx 2014.11.06

EUT: TH8321WF		Work Order: HNYW0116	
Serial Number: 51911030061813		Date: 11/25/14	
Customer: Honeywell, Automation and Control Solutions		Temperature: 23.2°C	
Attendees: None		Humidity: 16%	
Project: None		Barometric Pres.: 1019.9	
Tested by: Trevor Buls		Power: 110VAC/60Hz	
		Job Site: MN08	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2014		ANSI C63.10:2009	
COMMENTS			
None			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	3	Signature <i>Trevor Buls</i>	
		Value (dBc)	Limit ≤ (dBc) Result
Antenna 0			
802.11(b) 1 Mbps			
Low Channel 1, 2412 MHz		-32.66	-20 Pass
High Channel 11, 2462 MHz		-51.19	-20 Pass
802.11(b) 11 Mbps			
Low Channel 1, 2412 MHz		-34.2	-20 Pass
High Channel 11, 2462 MHz		-54.42	-20 Pass
802.11(g) 6 Mbps			
Low Channel 1, 2412 MHz		-33.81	-20 Pass
High Channel 11, 2462 MHz		-39.95	-20 Pass
802.11(g) 36 Mbps			
Low Channel 1, 2412 MHz		-33.05	-20 Pass
High Channel 11, 2462 MHz		-43.17	-20 Pass
802.11(g) 54 Mbps			
Low Channel 1, 2412 MHz		-33.08	-20 Pass
High Channel 11, 2462 MHz		-44.44	-20 Pass
802.11(n) MCS0			
Low Channel 1, 2412 MHz		-30.92	-20 Pass
High Channel 11, 2462 MHz		-39.9	-20 Pass
802.11(n) MCS7			
Low Channel 1, 2412 MHz		-34.69	-20 Pass
High Channel 11, 2462 MHz		-41.22	-20 Pass
Antenna 1			
802.11(b) 1 Mbps			
Low Channel 1, 2412 MHz		-34.56	-20 Pass
High Channel 11, 2462 MHz		-55.33	-20 Pass
802.11(b) 11 Mbps			
Low Channel 1, 2412 MHz		-35.65	-20 Pass
High Channel 11, 2462 MHz		-67.28	-20 Pass
802.11(g) 6 Mbps			
Low Channel 1, 2412 MHz		-21.6	-20 Pass
High Channel 11, 2462 MHz		-46.17	-20 Pass
802.11(g) 36 Mbps			
Low Channel 1, 2412 MHz		-22.17	-20 Pass
High Channel 11, 2462 MHz		-49.22	-20 Pass
802.11(g) 54 Mbps			
Low Channel 1, 2412 MHz		-22.96	-20 Pass
High Channel 11, 2462 MHz		-49.11	-20 Pass
802.11(n) MCS0			
Low Channel 1, 2412 MHz		-21.82	-20 Pass
High Channel 11, 2462 MHz		-45.71	-20 Pass
802.11(n) MCS7			
Low Channel 1, 2412 MHz		-22.79	-20 Pass
High Channel 11, 2462 MHz		-48.33	-20 Pass

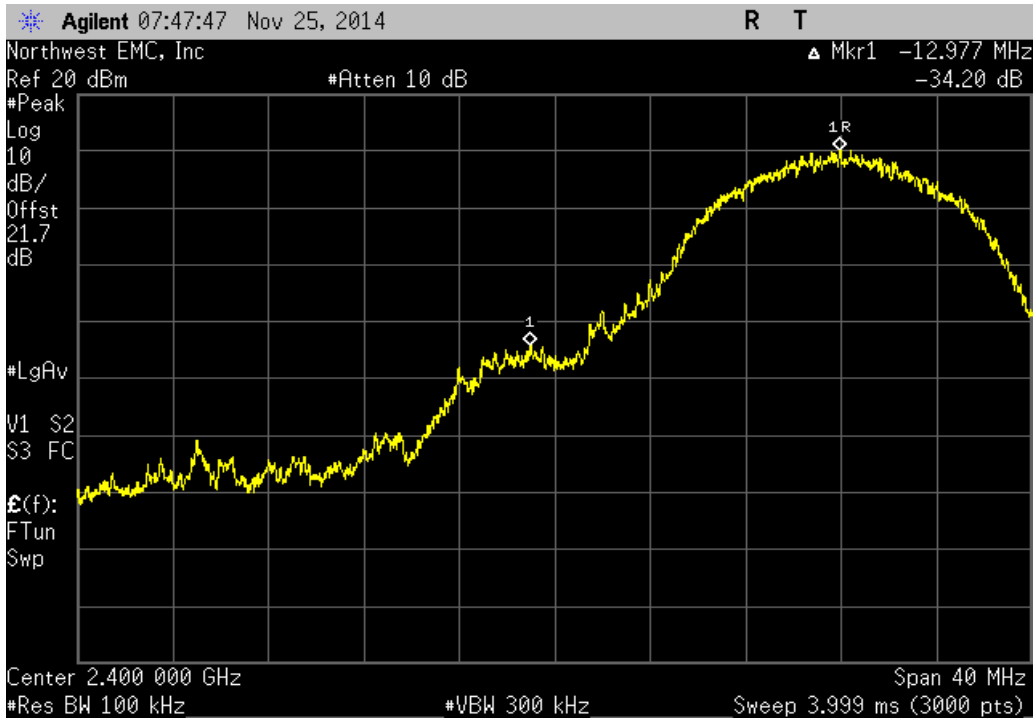
Antenna 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-32.66	-20	Pass



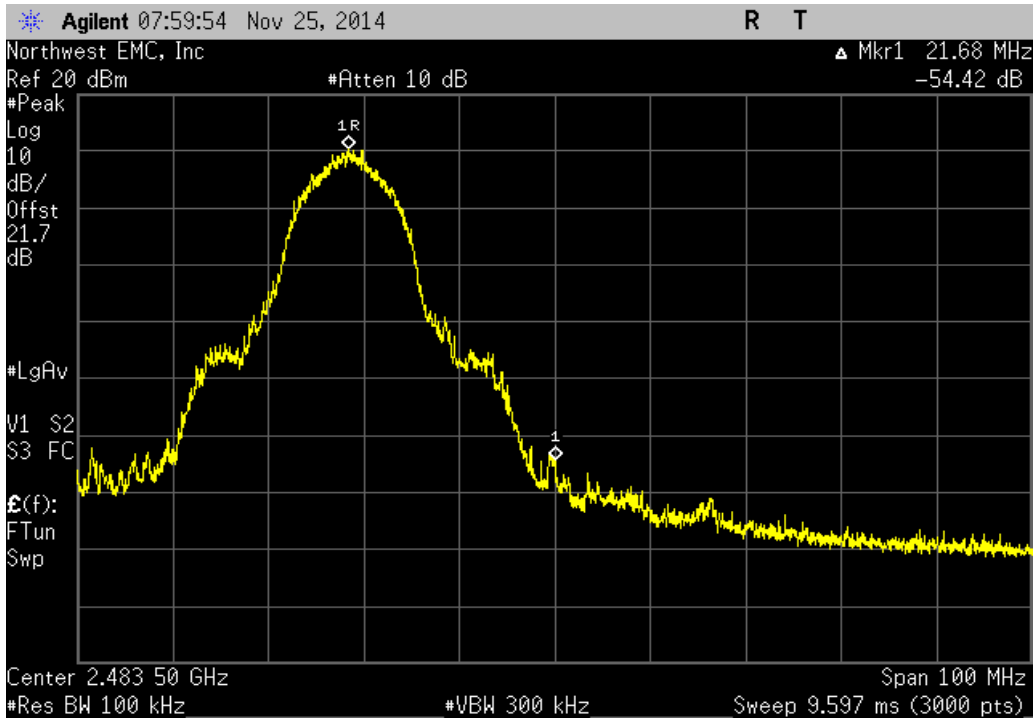
Antenna 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-51.19	-20	Pass



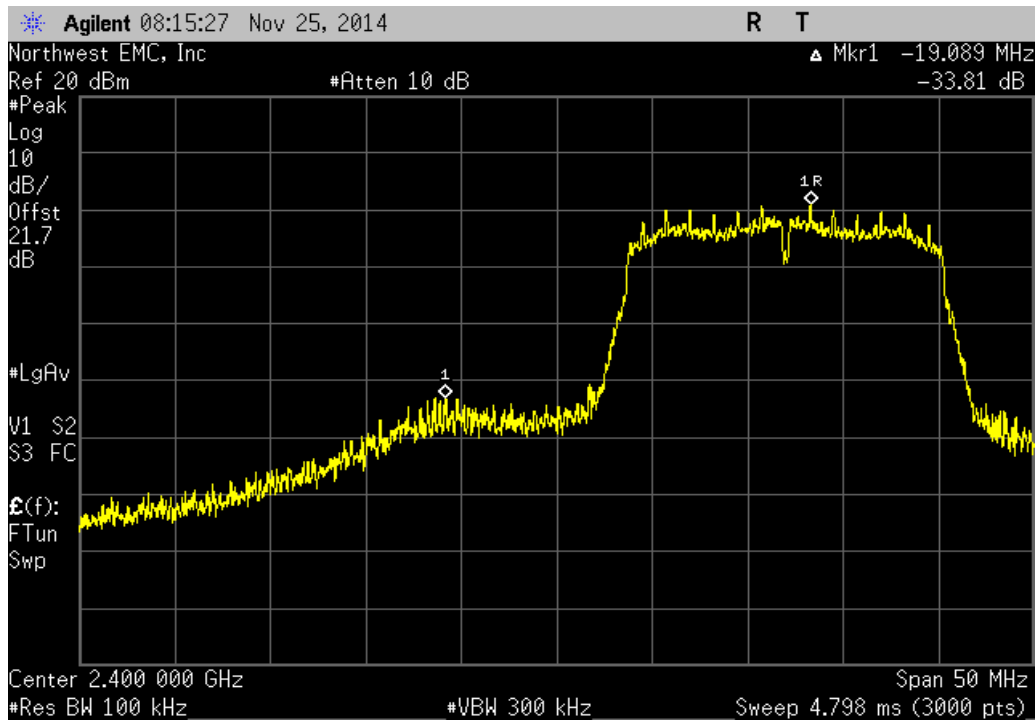
Antenna 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-34.2	-20	Pass



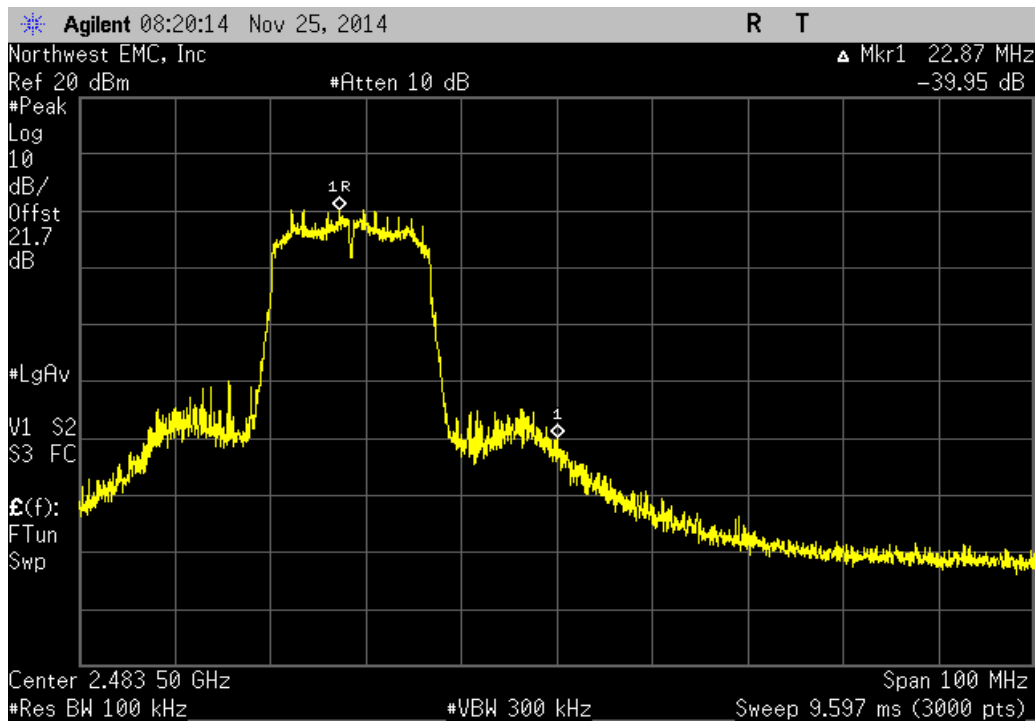
Antenna 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-54.42	-20	Pass



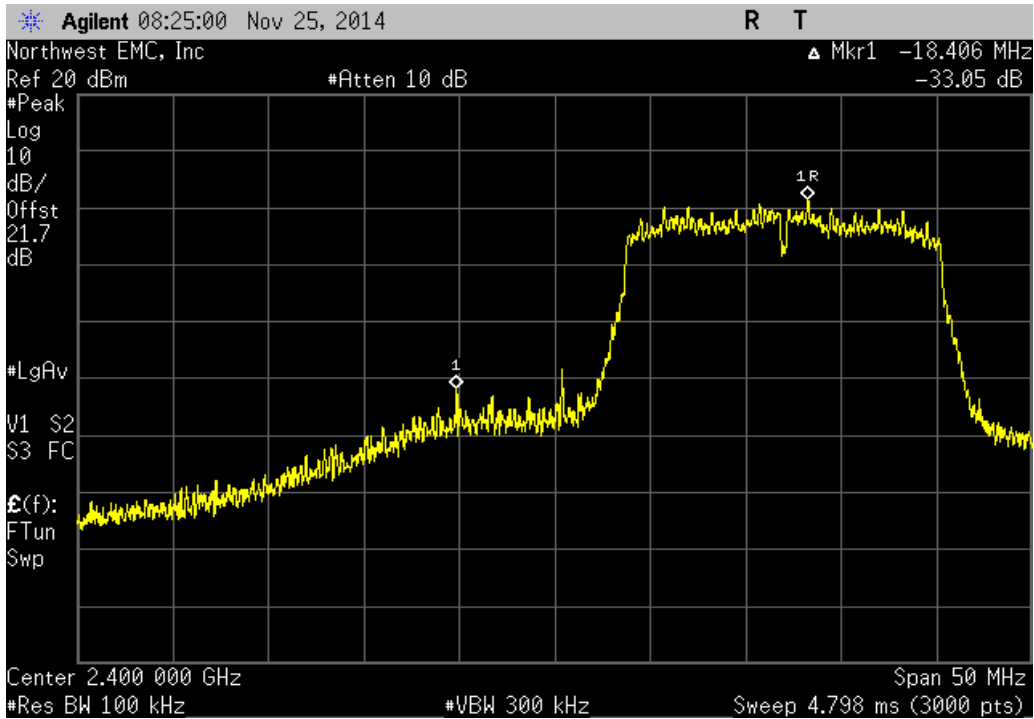
Antenna 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-33.81	-20	Pass



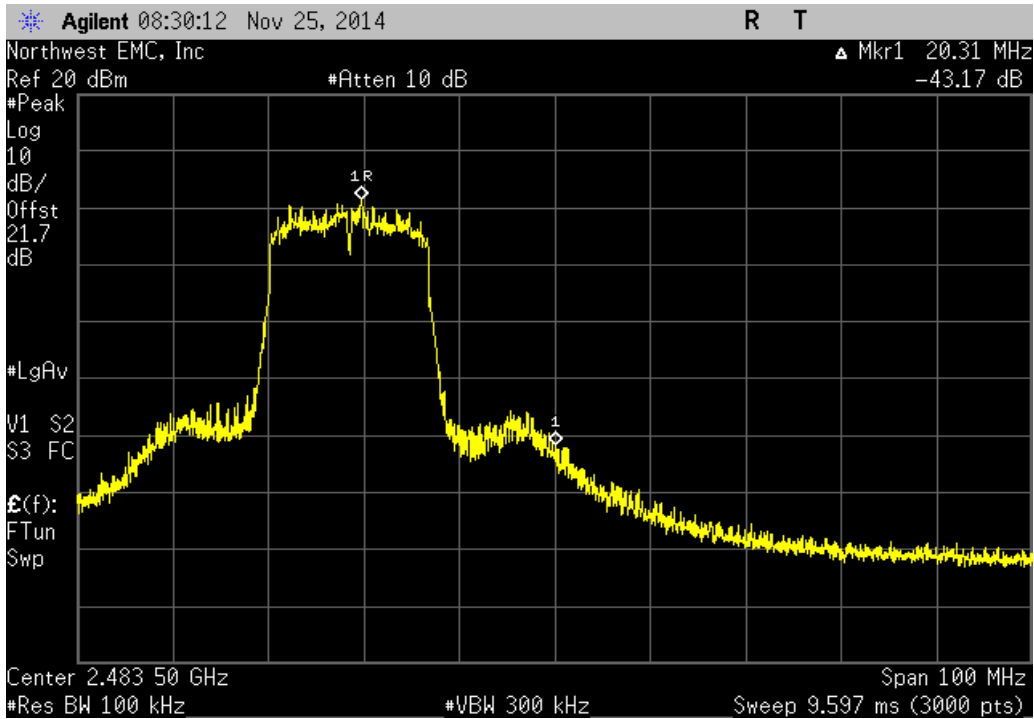
Antenna 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-39.95	-20	Pass



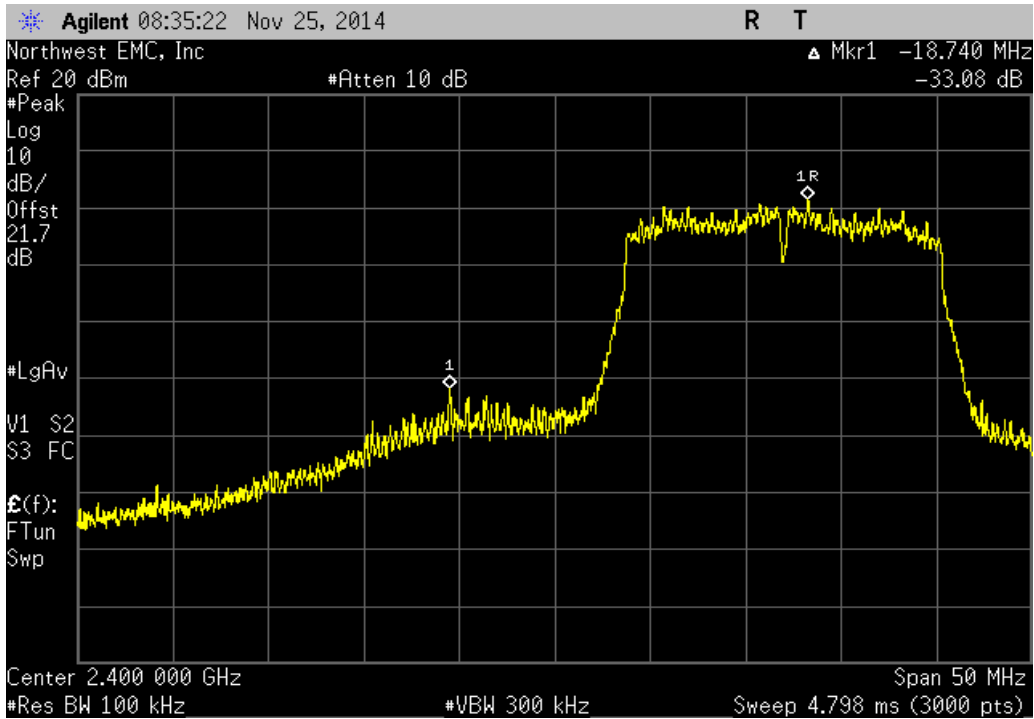
Antenna 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-33.05	-20	Pass



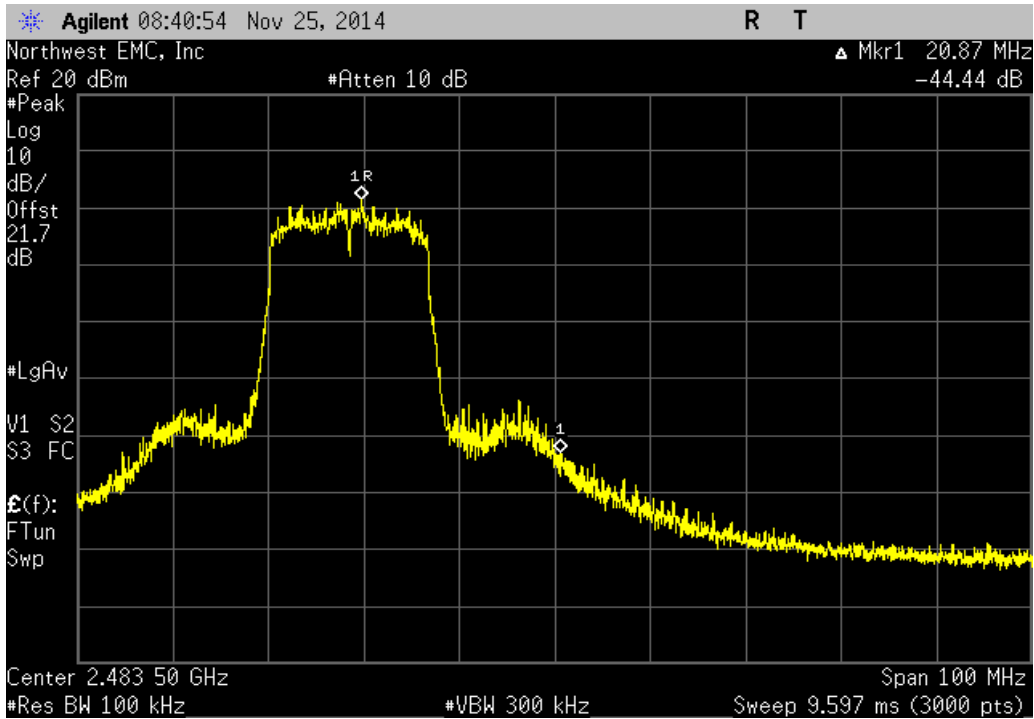
Antenna 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-43.17	-20	Pass



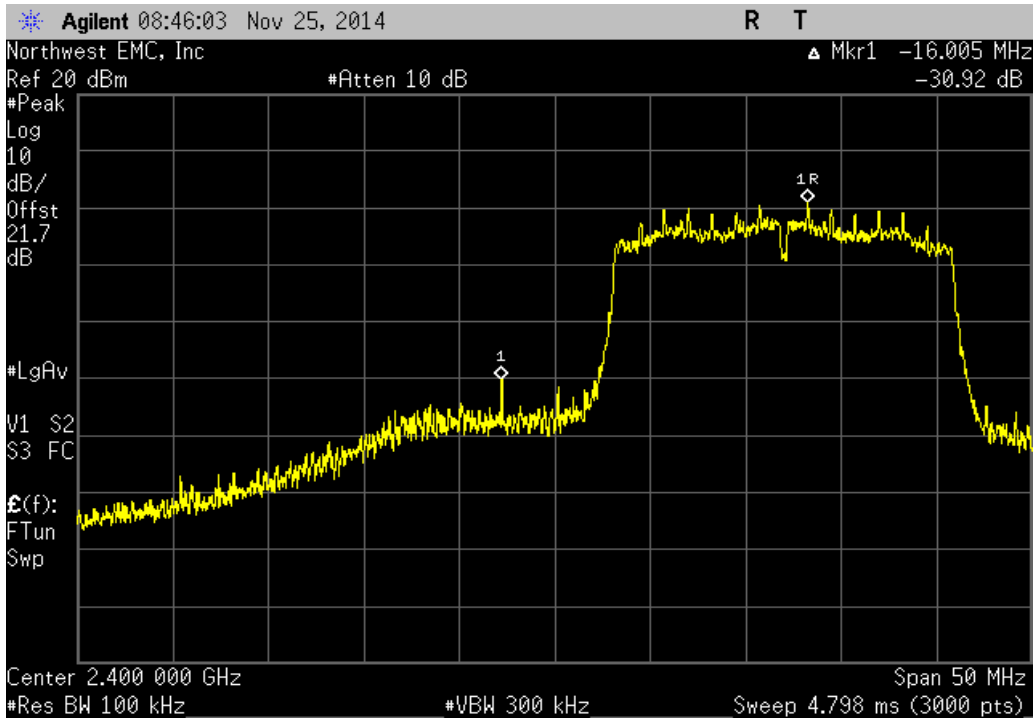
Antenna 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-33.08	-20	Pass



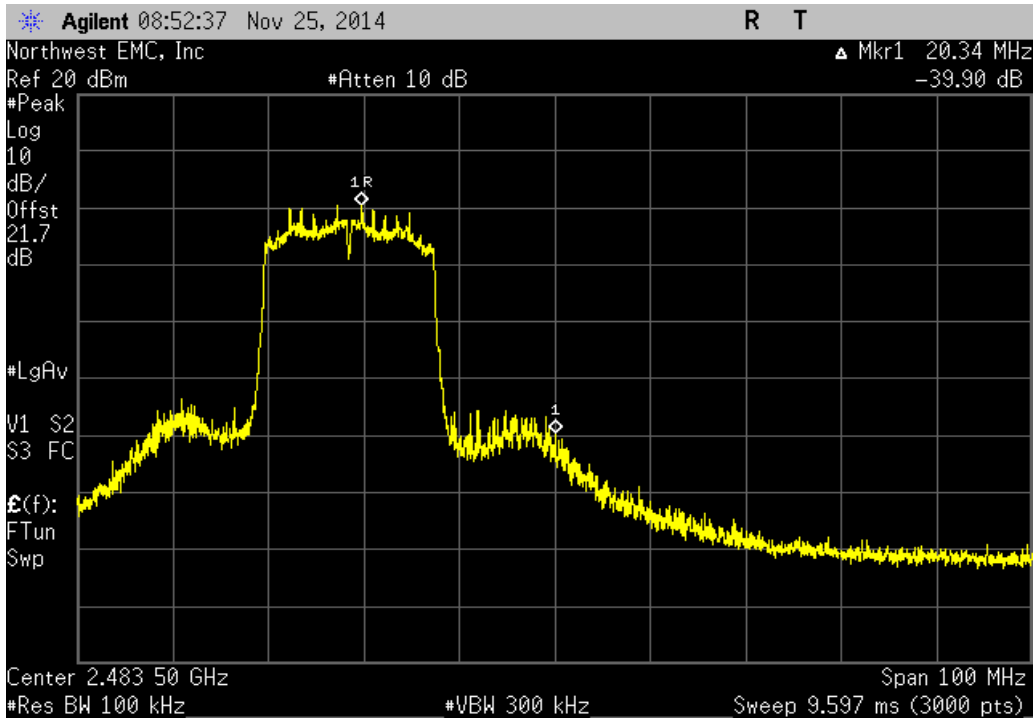
Antenna 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-44.44	-20	Pass



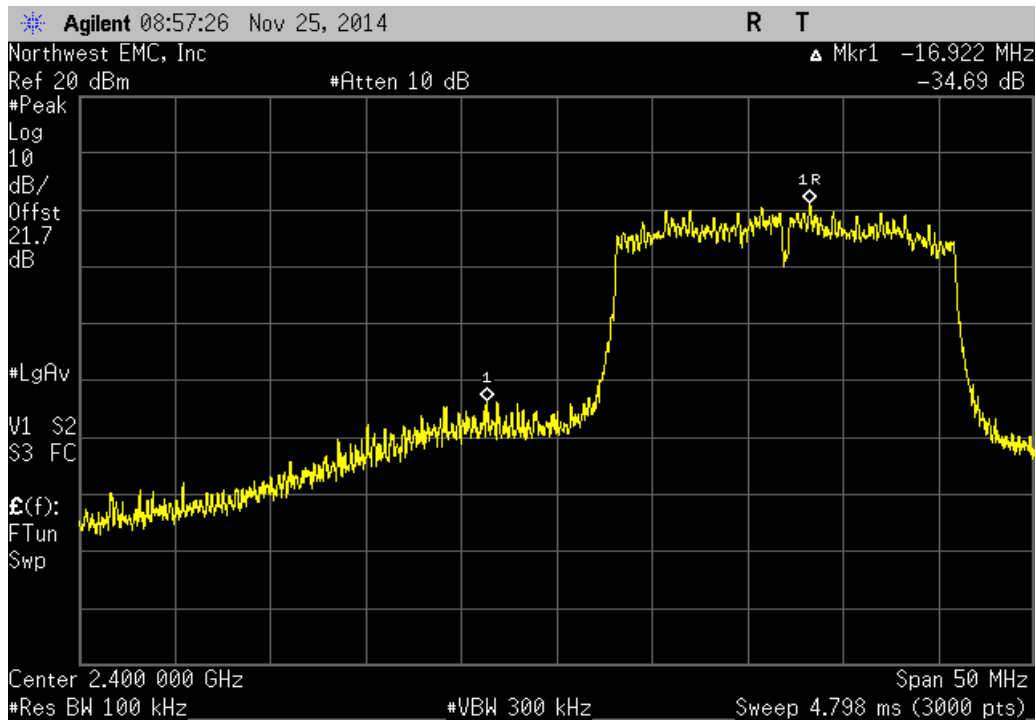
Antenna 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-30.92	-20	Pass



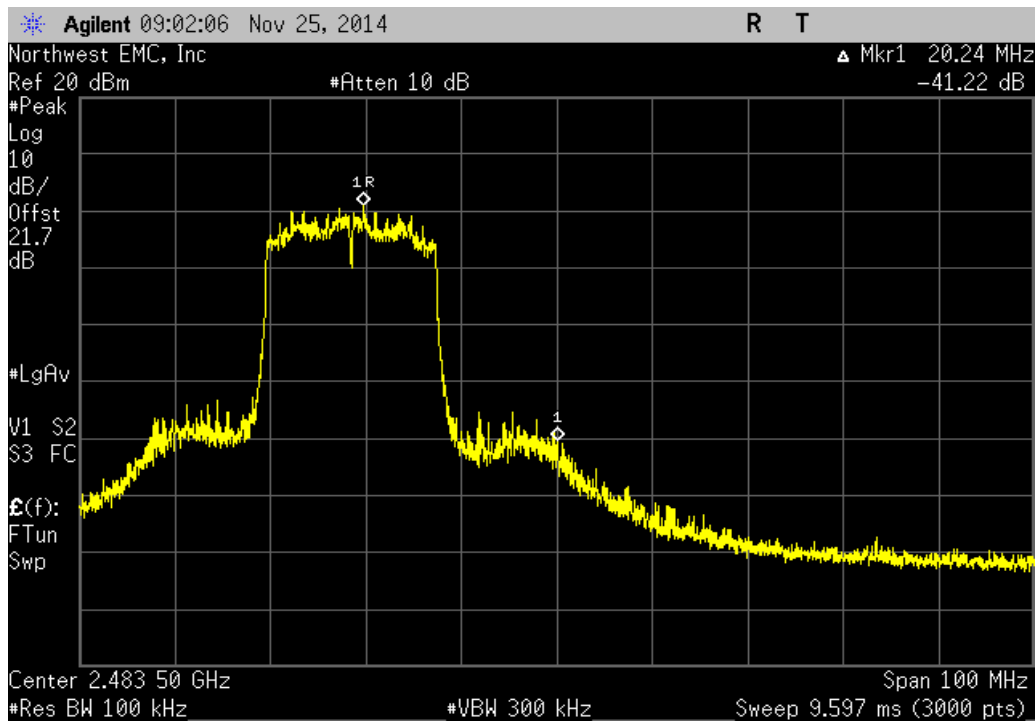
Antenna 0, 802.11(n) MCS0, High Channel 11, 2462 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-39.9	-20	Pass



Antenna 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-34.69	-20	Pass



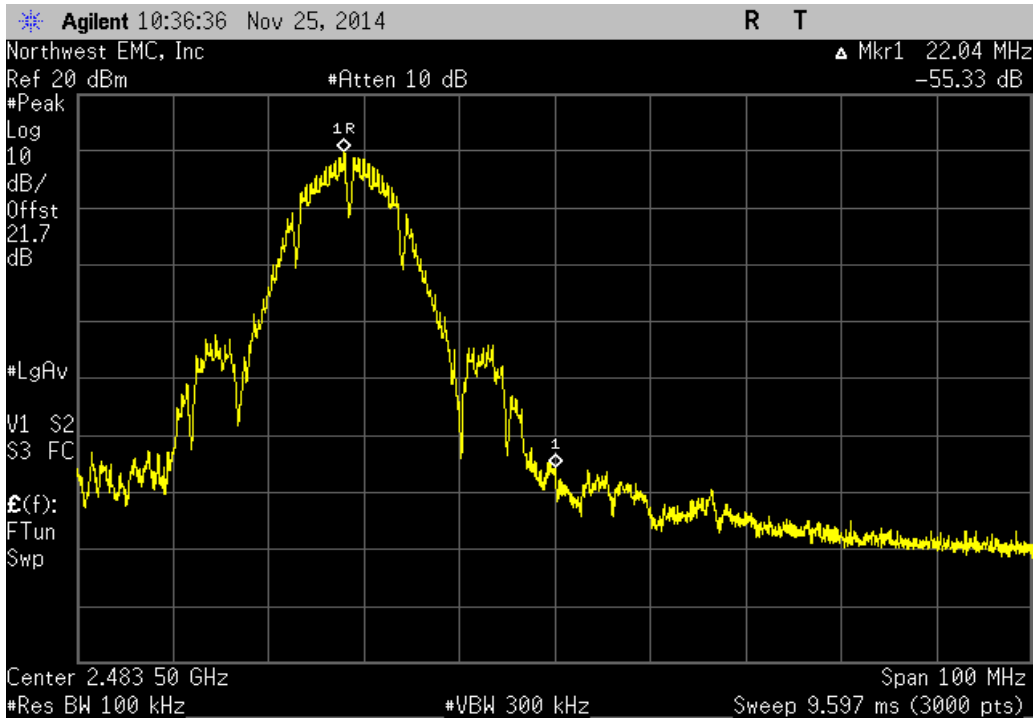
Antenna 0, 802.11(n) MCS7, High Channel 11, 2462 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-41.22	-20	Pass



Antenna 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-34.56	-20	Pass



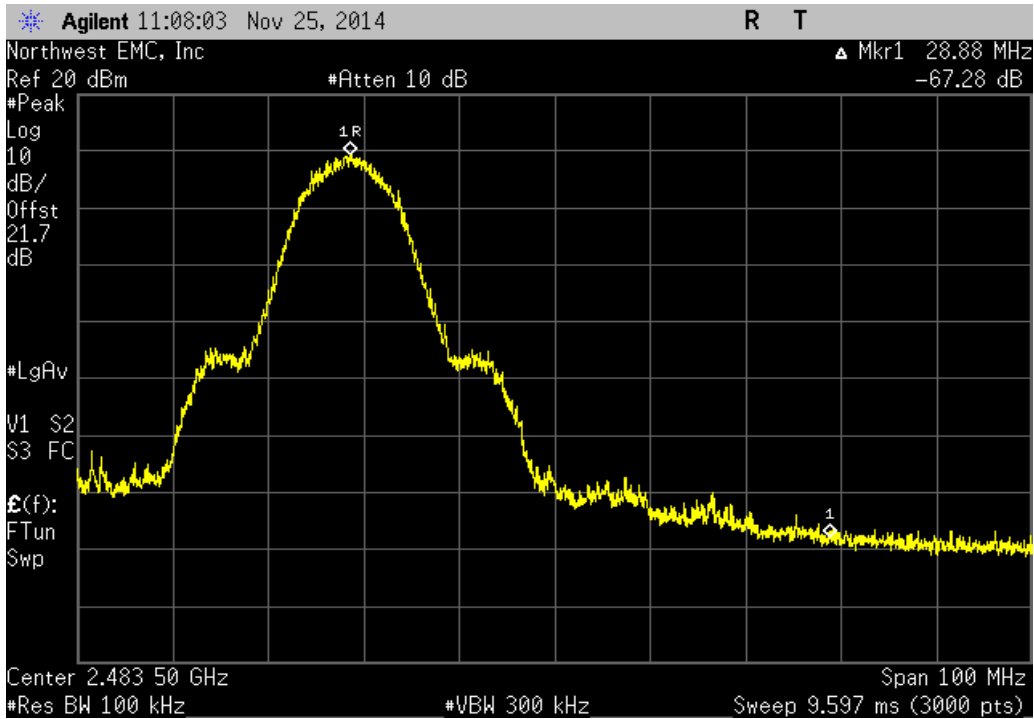
Antenna 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-55.33	-20	Pass



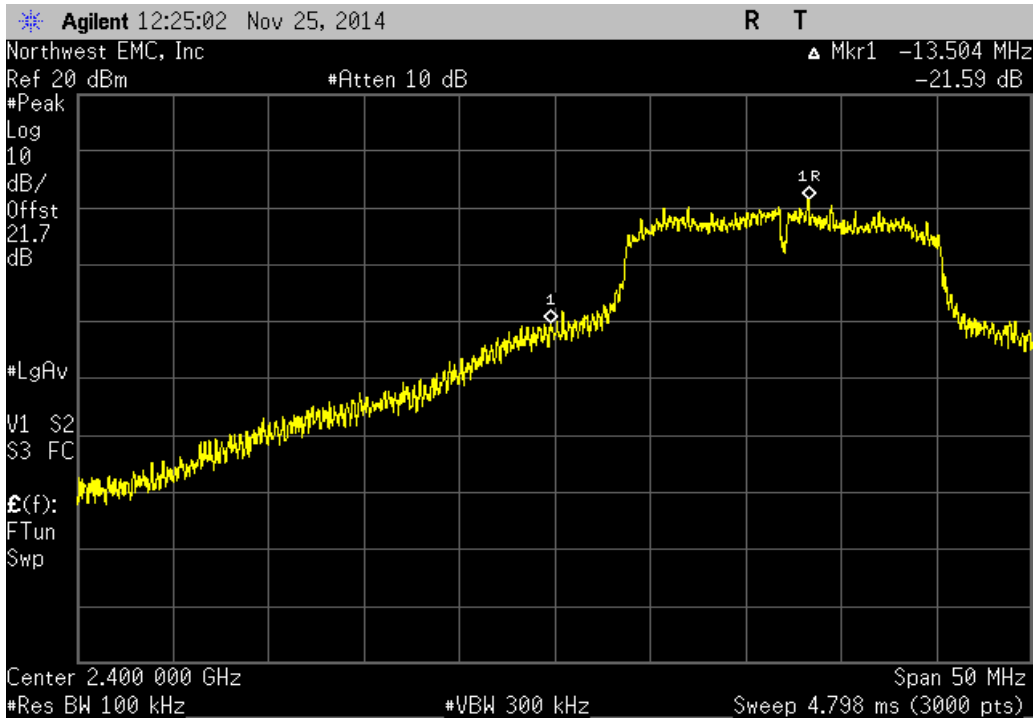
Antenna 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-35.65	-20	Pass



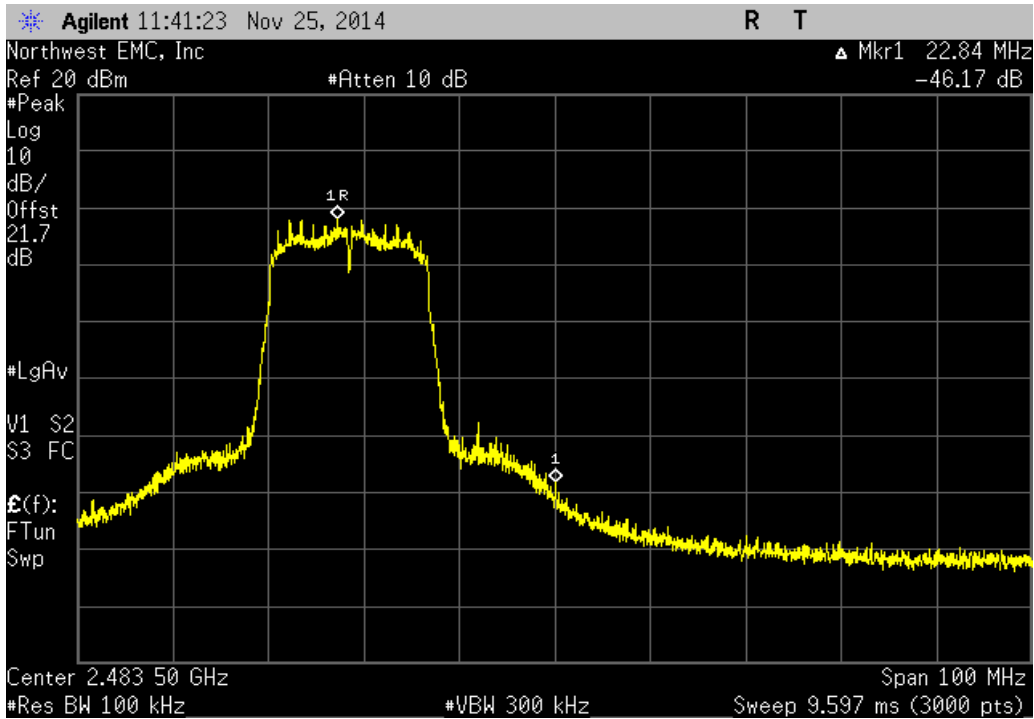
Antenna 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-67.28	-20	Pass



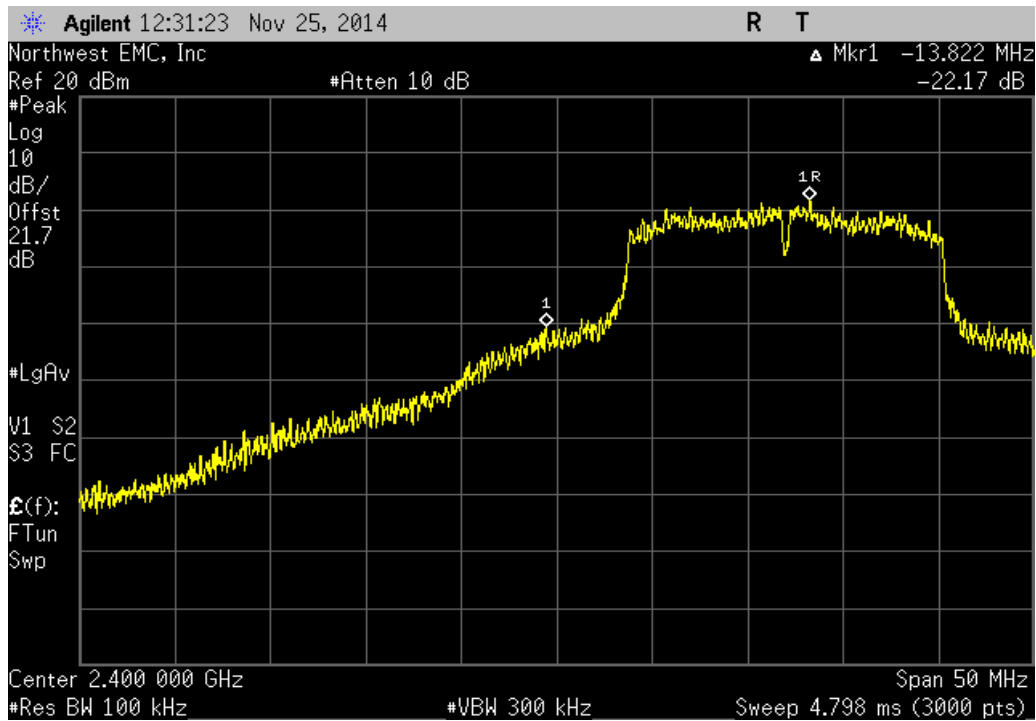
Antenna 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-21.6	-20	Pass



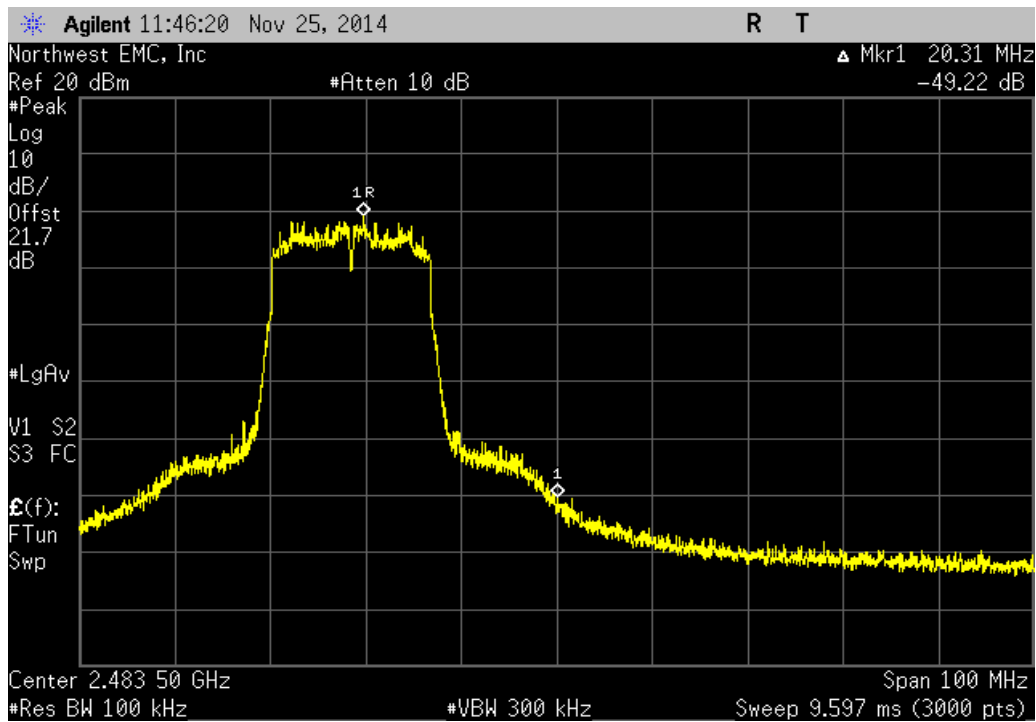
Antenna 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-46.17	-20	Pass



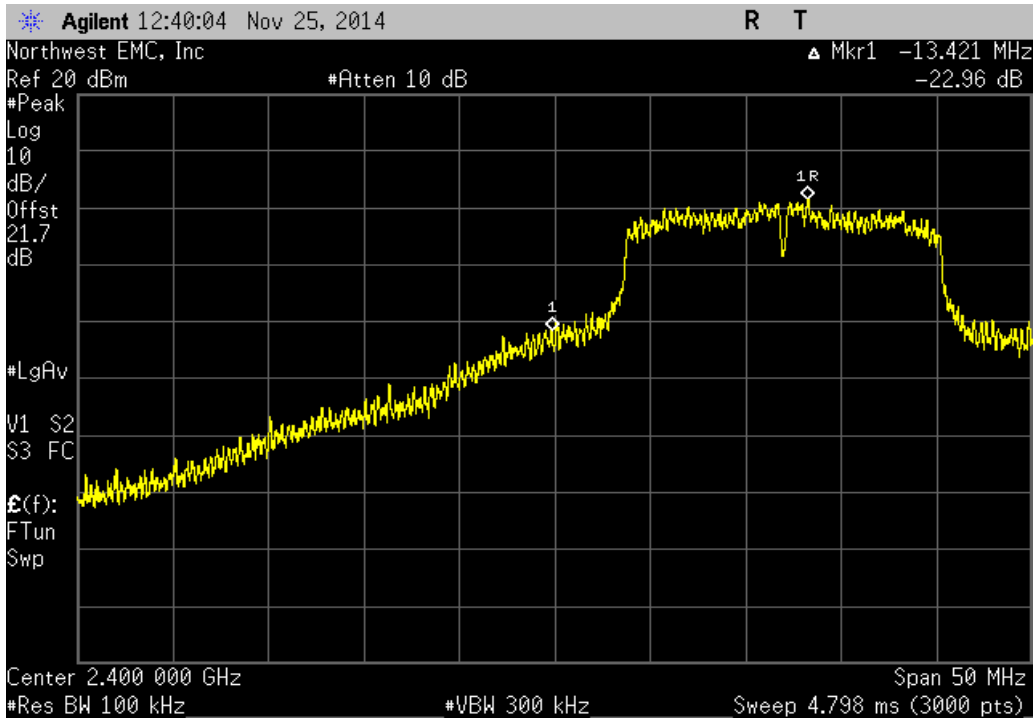
Antenna 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-22.17	-20	Pass



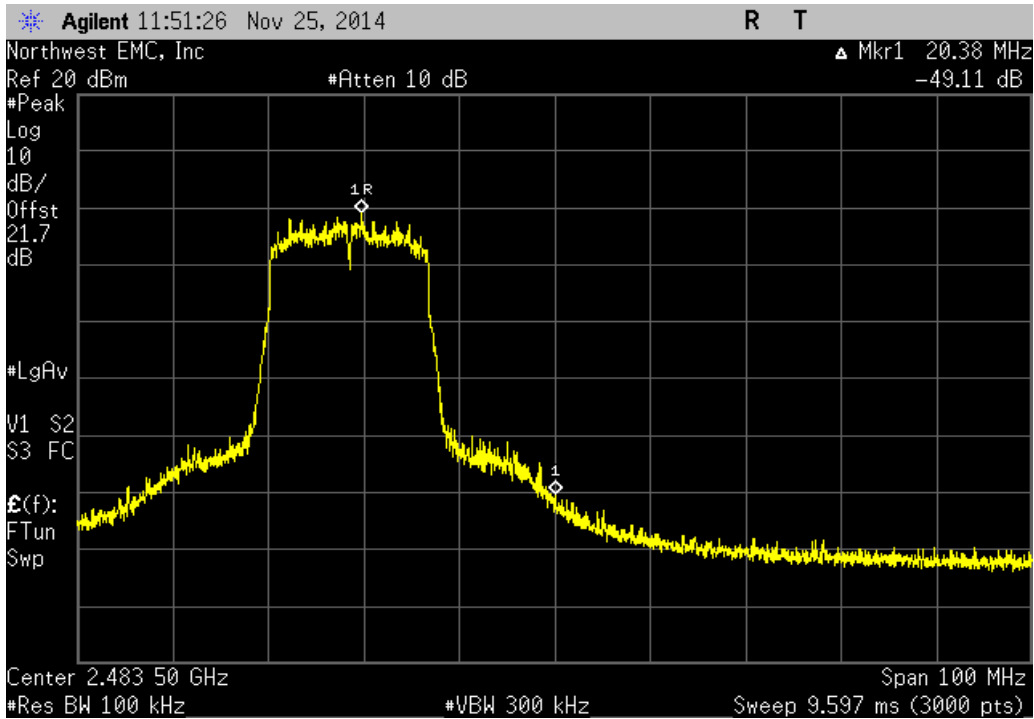
Antenna 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-49.22	-20	Pass



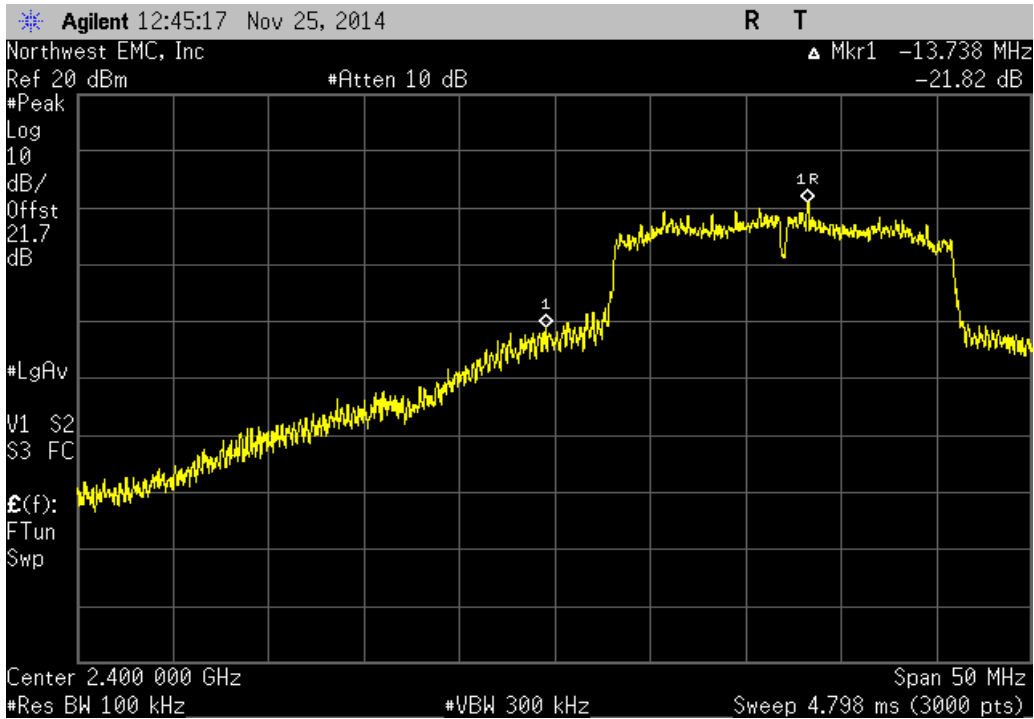
Antenna 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-22.96	-20	Pass



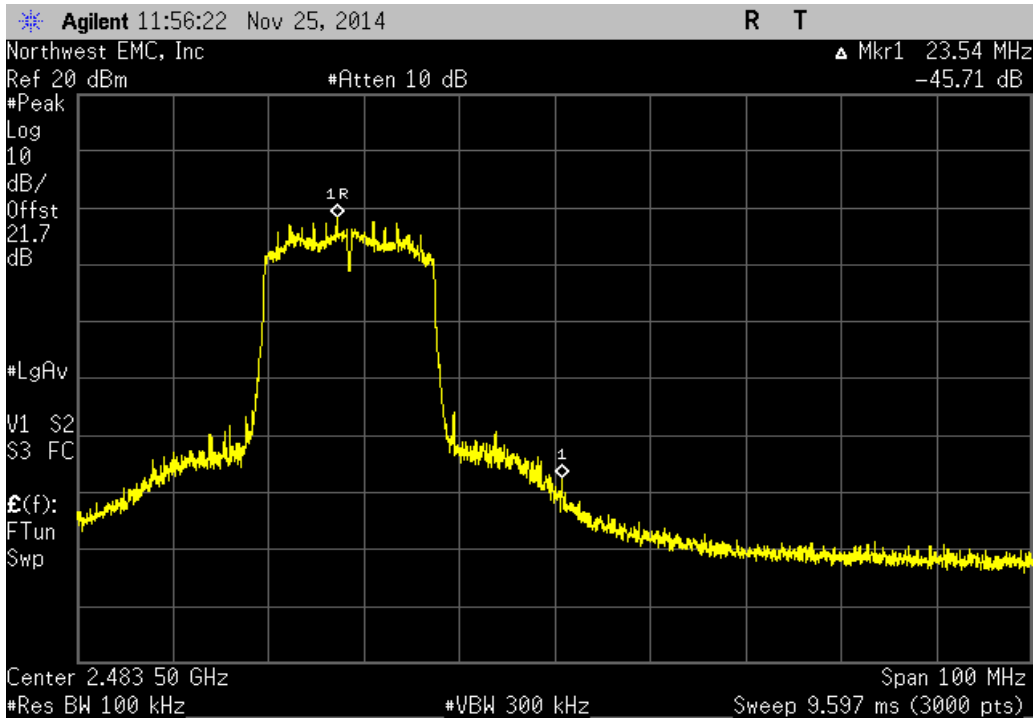
Antenna 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-49.11	-20	Pass



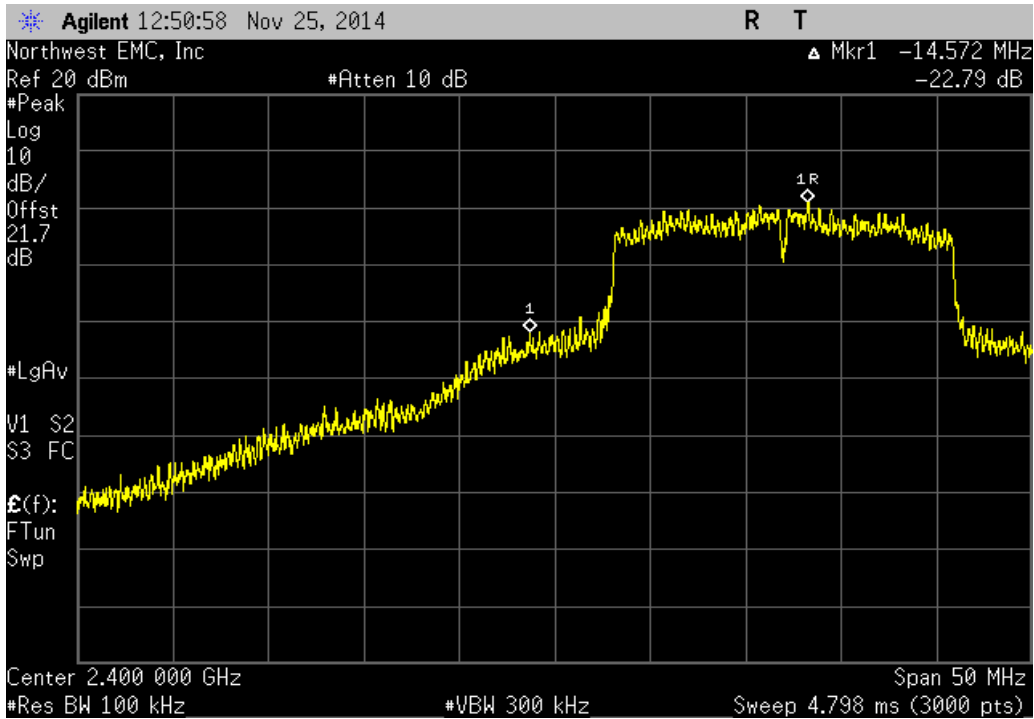
Antenna 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-21.82	-20	Pass



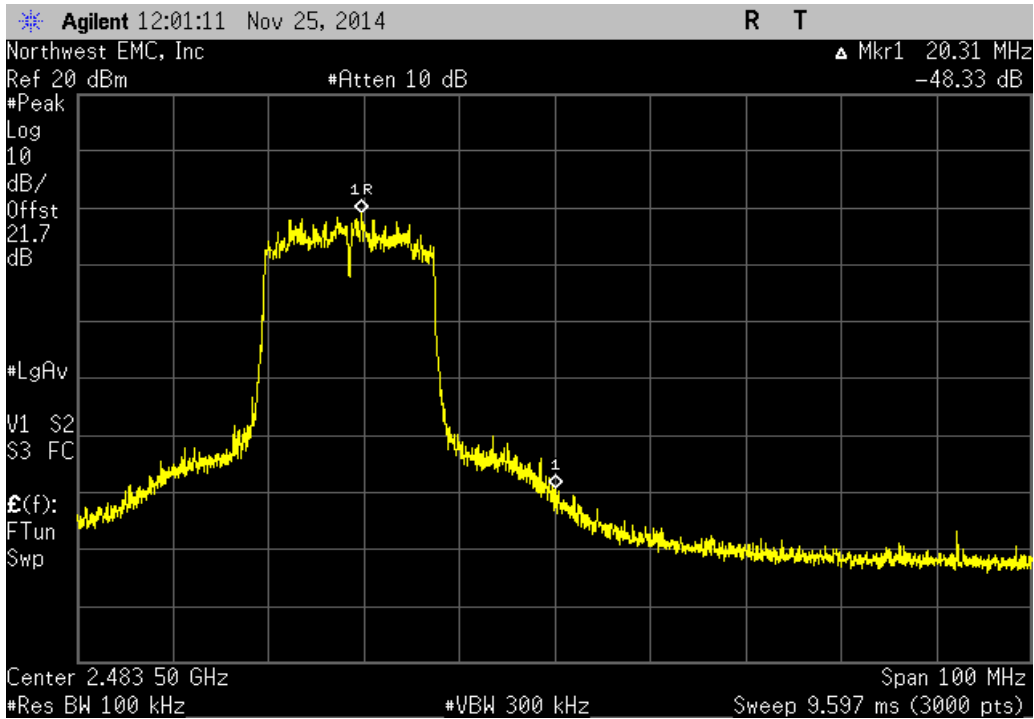
Antenna 1, 802.11(n) MCS0, High Channel 11, 2462 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-45.71	-20	Pass



Antenna 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-22.79	-20	Pass



Antenna 1, 802.11(n) MCS7, High Channel 11, 2462 MHz			
	Value (dBc)	Limit ≤ (dBc)	Result
	-48.33	-20	Pass



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 (mos)
MN08 Direct Connect Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNU	10/2/2014	12
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC Block	Fairview Microwave	SD3379	AMI	10/2/2014	12
MXG Vector Signal Generator	Agilent	N5182A	TIF	8/12/2014	36
Spectrum Analyzer	Agilent	E4440A	AAX	4/28/2014	12

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.

EUT: TH8321WF	Work Order: HNYW0116
Serial Number: 51911030061813	Date: 11/25/14
Customer: Honeywell, Automation and Control Solutions	Temperature: 23.2°C
Attendees: None	Humidity: 16%
Project: None	Barometric Pres.: 1019.9
Tested by: Trevor Buls	Power: 110VAC/60Hz
	Job Site: MN08

TEST SPECIFICATIONS	Test Method
FCC 15.247:2014	ANSI C63.10:2009

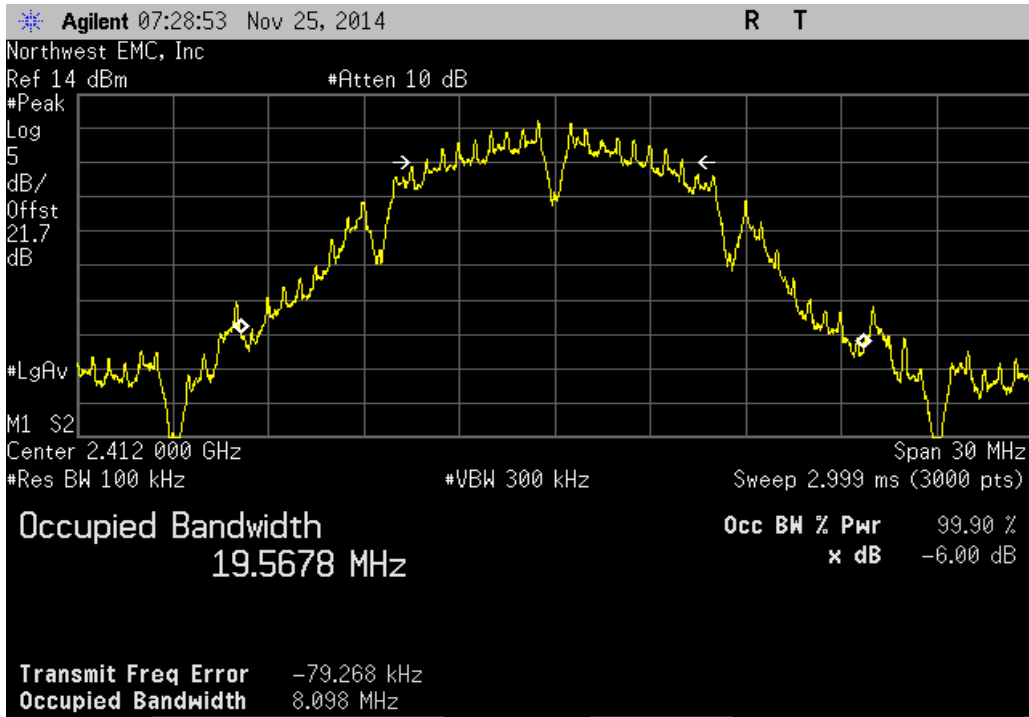
COMMENTS
None

DEVIATIONS FROM TEST STANDARD
None

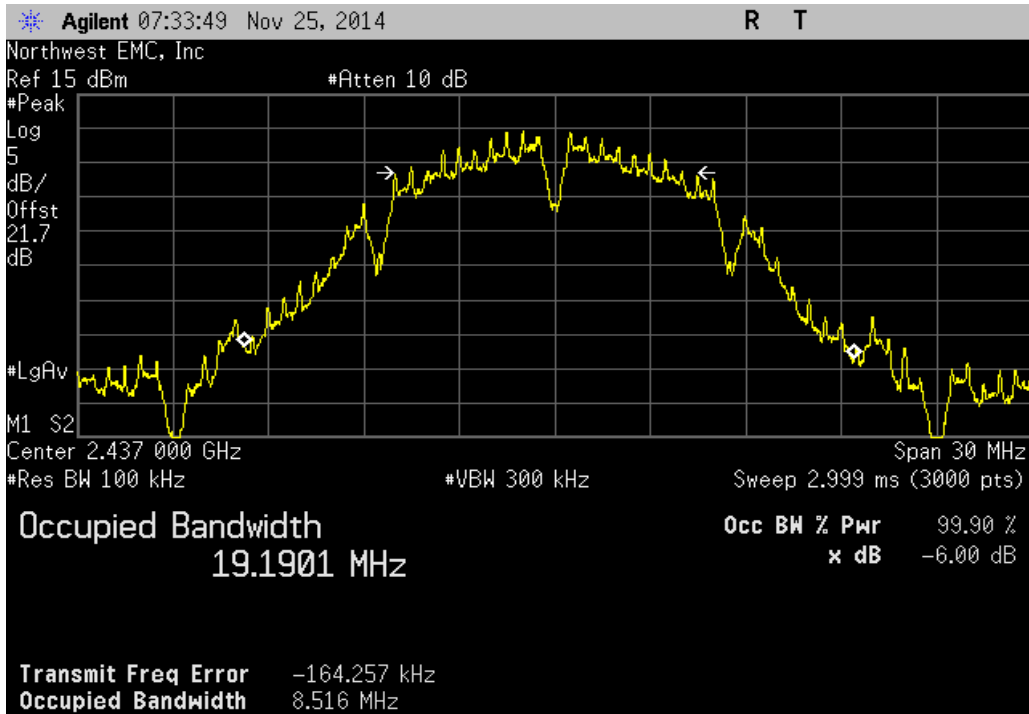
Configuration #	3	Signature	<i>Trevor Buls</i>
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		Value	Limit (>)	Result
Antenna 0				
802.11(b) 1 Mbps	Low Channel 1, 2412 MHz	8.098 MHz	500 kHz	Pass
	Mid Channel 6, 2437 MHz	8.516 MHz	500 kHz	Pass
	High Channel 11, 2462 MHz	8.109 MHz	500 kHz	Pass
802.11(b) 11 Mbps	Low Channel 1, 2412 MHz	8.239 MHz	500 kHz	Pass
	Mid Channel 6, 2437 MHz	8.713 MHz	500 kHz	Pass
	High Channel 11, 2462 MHz	8.074 MHz	500 kHz	Pass
802.11(g) 6 Mbps	Low Channel 1, 2412 MHz	15.052 MHz	500 kHz	Pass
	Mid Channel 6, 2437 MHz	15.24 MHz	500 kHz	Pass
	High Channel 11, 2462 MHz	15.118 MHz	500 kHz	Pass
802.11(g) 36 Mbps	Low Channel 1, 2412 MHz	15.997 MHz	500 kHz	Pass
	Mid Channel 6, 2437 MHz	15.319 MHz	500 kHz	Pass
	High Channel 11, 2462 MHz	15.577 MHz	500 kHz	Pass
802.11(g) 54 Mbps	Low Channel 1, 2412 MHz	15.631 MHz	500 kHz	Pass
	Mid Channel 6, 2437 MHz	15.463 MHz	500 kHz	Pass
	High Channel 11, 2462 MHz	15.529 MHz	500 kHz	Pass
802.11(n) MCS0	Low Channel 1, 2412 MHz	16.126 MHz	500 kHz	Pass
	Mid Channel 6, 2437 MHz	14.955 MHz	500 kHz	Pass
	High Channel 11, 2462 MHz	16.29 MHz	500 kHz	Pass
802.11(n) MCS7	Low Channel 1, 2412 MHz	16.283 MHz	500 kHz	Pass
	Mid Channel 6, 2437 MHz	16.555 MHz	500 kHz	Pass
	High Channel 11, 2462 MHz	16.311 MHz	500 kHz	Pass
Antenna 1				
802.11(b) 1 Mbps	Low Channel 1, 2412 MHz	8.034 MHz	500 kHz	Pass
	Mid Channel 6, 2437 MHz	8.547 MHz	500 kHz	Pass
	High Channel 11, 2462 MHz	9.111 MHz	500 kHz	Pass
802.11(b) 11 Mbps	Low Channel 1, 2412 MHz	8.236 MHz	500 kHz	Pass
	Mid Channel 6, 2437 MHz	8.137 MHz	500 kHz	Pass
	High Channel 11, 2462 MHz	8.029 MHz	500 kHz	Pass
802.11(g) 6 Mbps	Low Channel 1, 2412 MHz	16.166 MHz	500 kHz	Pass
	Mid Channel 6, 2437 MHz	15.334 MHz	500 kHz	Pass
	High Channel 11, 2462 MHz	15.22 MHz	500 kHz	Pass
802.11(g) 36 Mbps	Low Channel 1, 2412 MHz	16.081 MHz	500 kHz	Pass
	Mid Channel 6, 2437 MHz	15.126 MHz	500 kHz	Pass
	High Channel 11, 2462 MHz	15.366 MHz	500 kHz	Pass
802.11(g) 54 Mbps	Low Channel 1, 2412 MHz	16.318 MHz	500 kHz	Pass
	Mid Channel 6, 2437 MHz	15.596 MHz	500 kHz	Pass
	High Channel 11, 2462 MHz	15.667 MHz	500 kHz	Pass
802.11(n) MCS0	Low Channel 1, 2412 MHz	17.577 MHz	500 kHz	Pass
	Mid Channel 6, 2437 MHz	14.423 MHz	500 kHz	Pass
	High Channel 11, 2462 MHz	14.125 MHz	500 kHz	Pass
802.11(n) MCS7	Low Channel 1, 2412 MHz	16.581 MHz	500 kHz	Pass
	Mid Channel 6, 2437 MHz	16.964 MHz	500 kHz	Pass
	High Channel 11, 2462 MHz	16.629 MHz	500 kHz	Pass

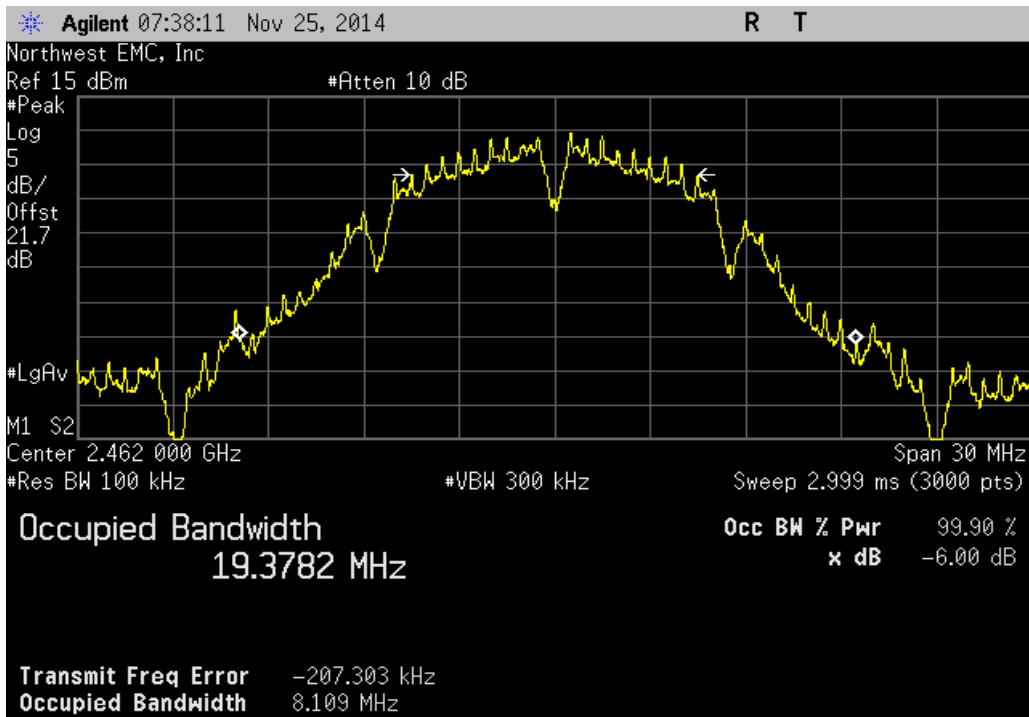
Antenna 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz			
	Value	Limit (>)	Result
	8.098 MHz	500 kHz	Pass



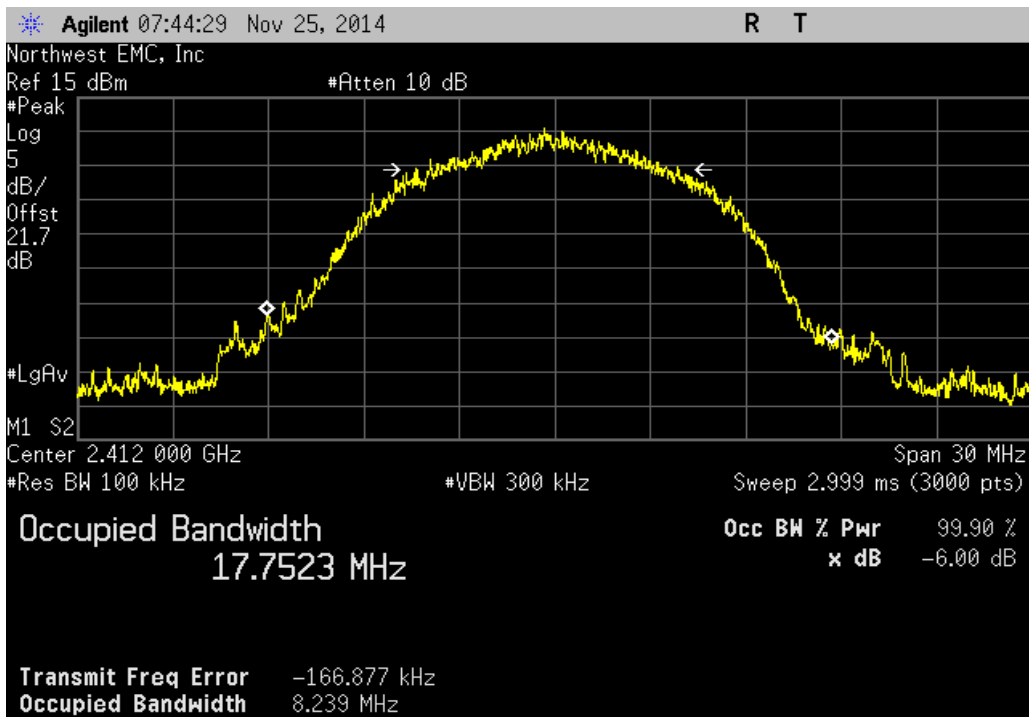
Antenna 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz			
	Value	Limit (>)	Result
	8.516 MHz	500 kHz	Pass



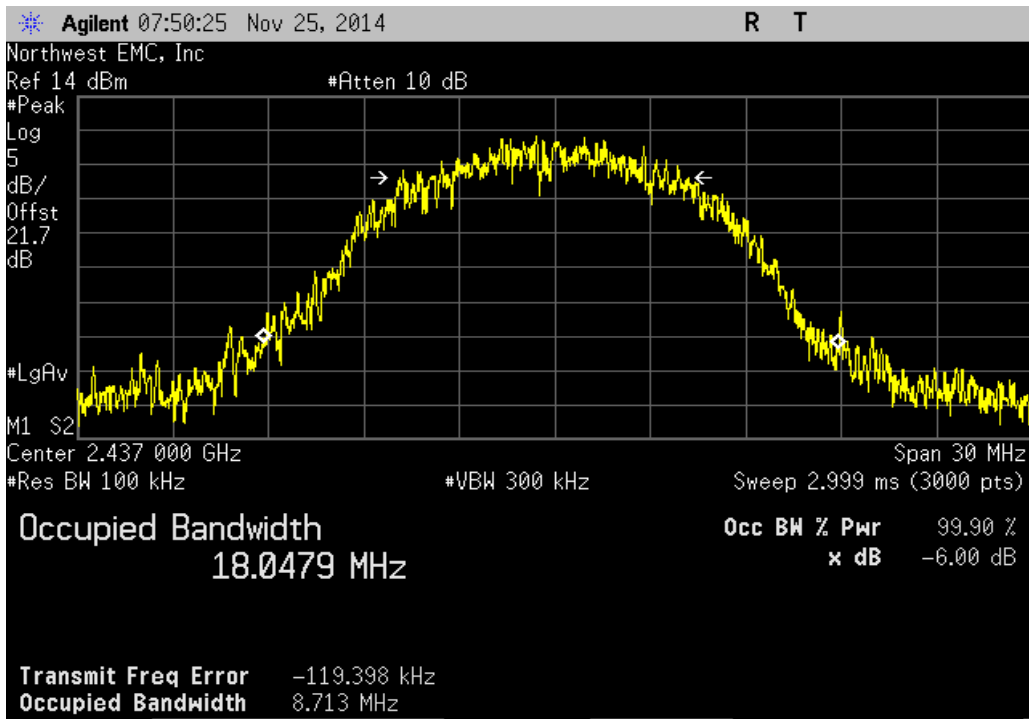
Antenna 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz			
	Value	Limit (>)	Result
	8.109 MHz	500 kHz	Pass



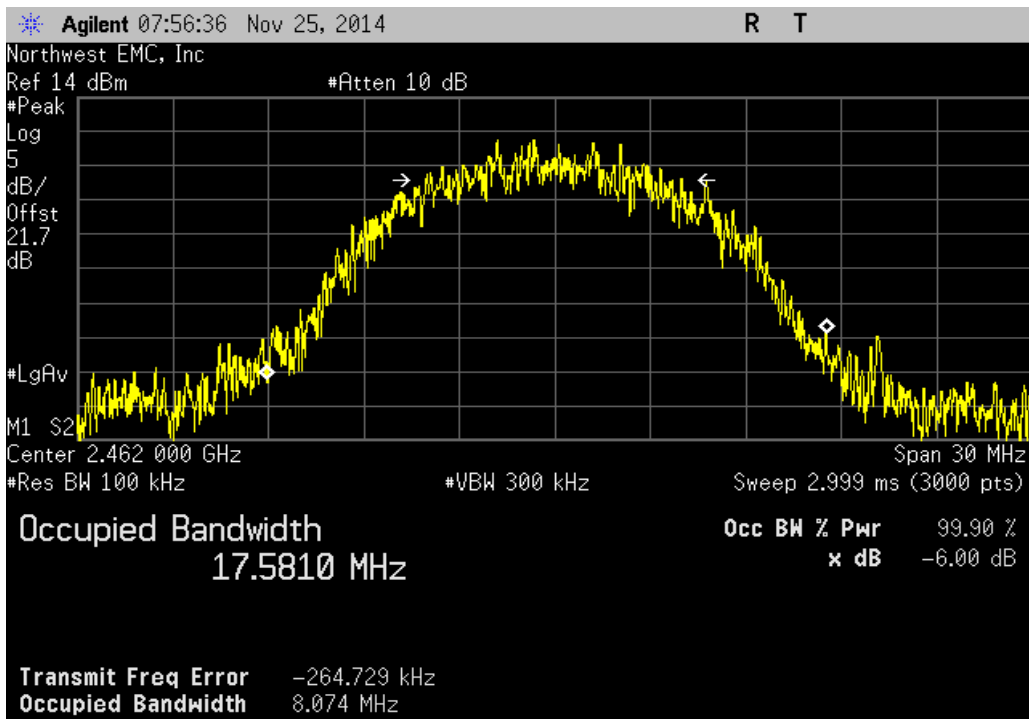
Antenna 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz			
	Value	Limit (>)	Result
	8.239 MHz	500 kHz	Pass



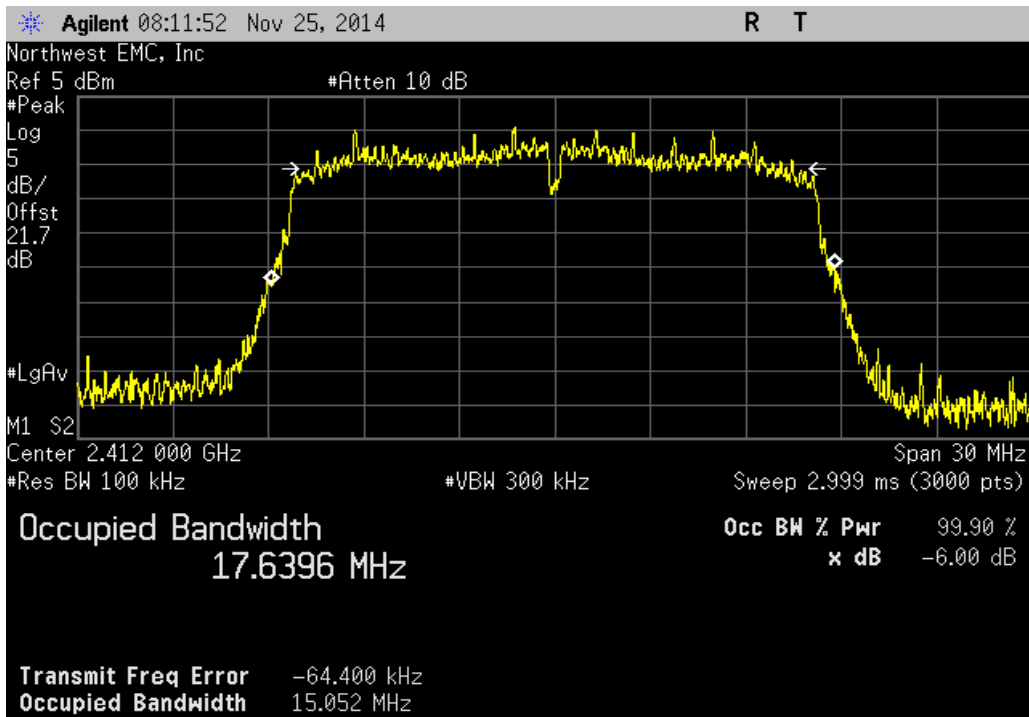
Antenna 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz			
	Value	Limit (>)	Result
	8.713 MHz	500 kHz	Pass



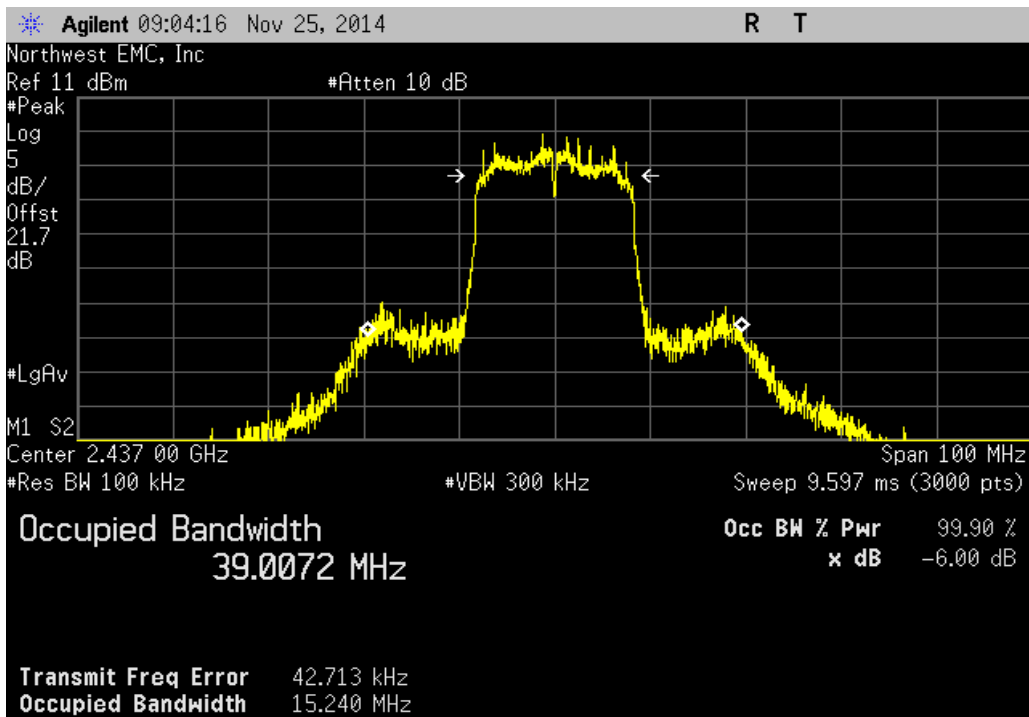
Antenna 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz			
	Value	Limit (>)	Result
	8.074 MHz	500 kHz	Pass



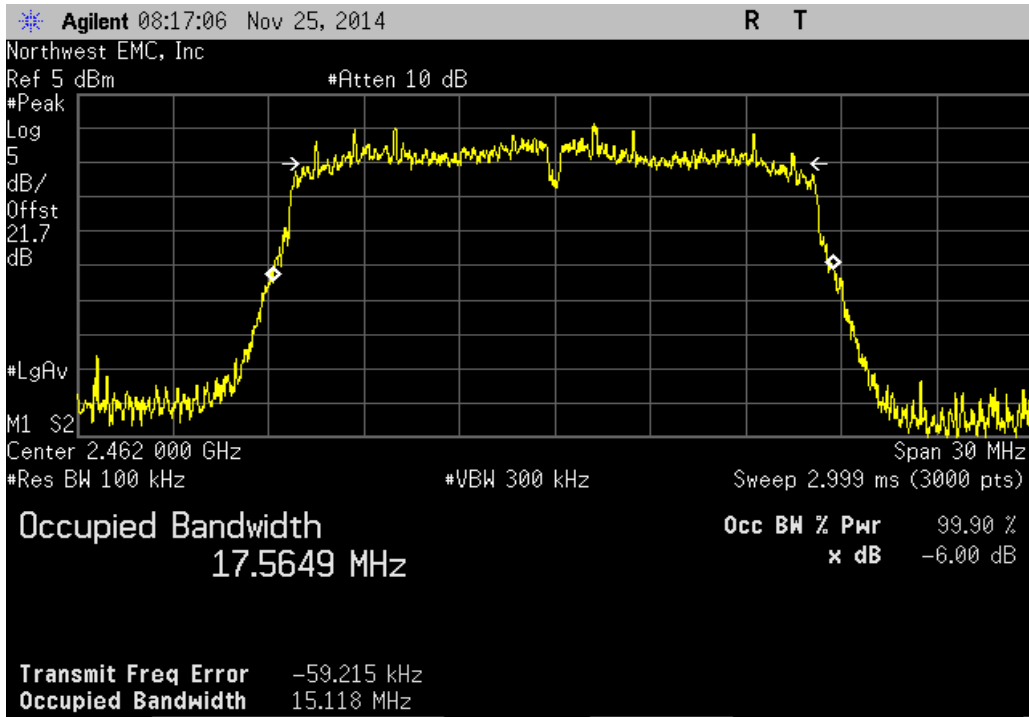
Antenna 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz			
	Value	Limit (>)	Result
	15.052 MHz	500 kHz	Pass



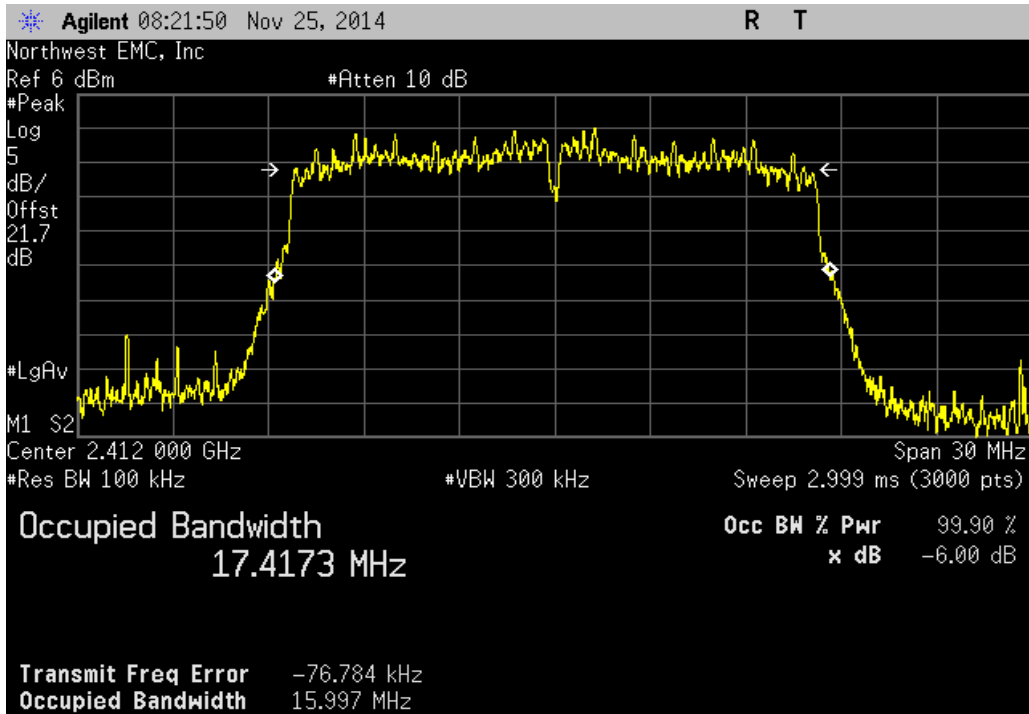
Antenna 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz			
	Value	Limit (>)	Result
	15.24 MHz	500 kHz	Pass



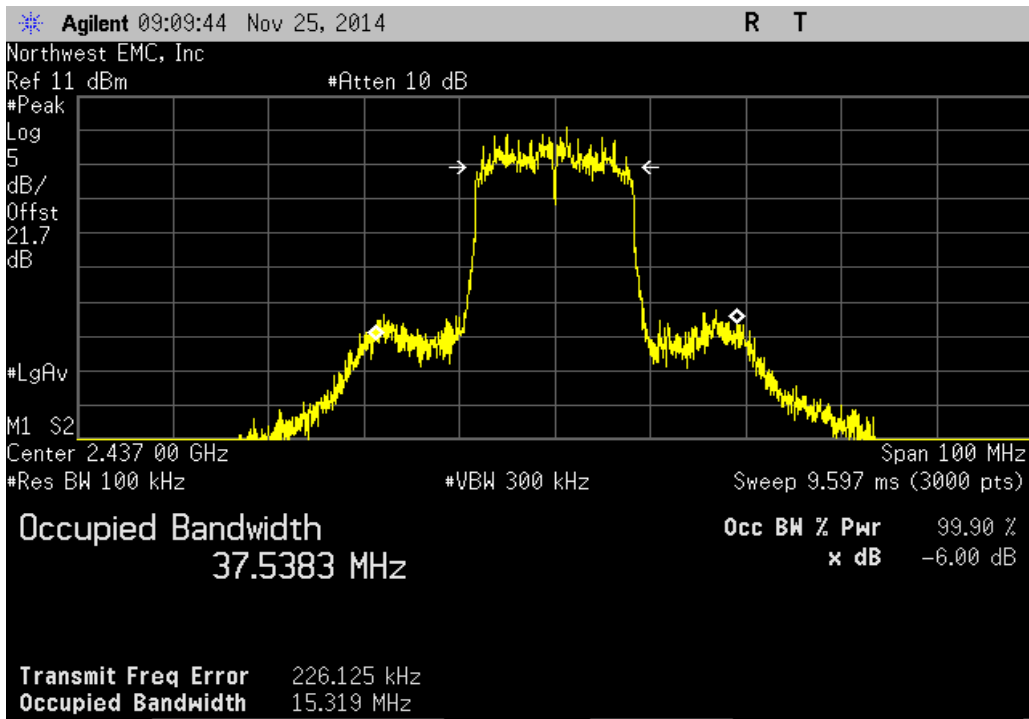
Antenna 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz			
	Value	Limit (>)	Result
	15.118 MHz	500 kHz	Pass



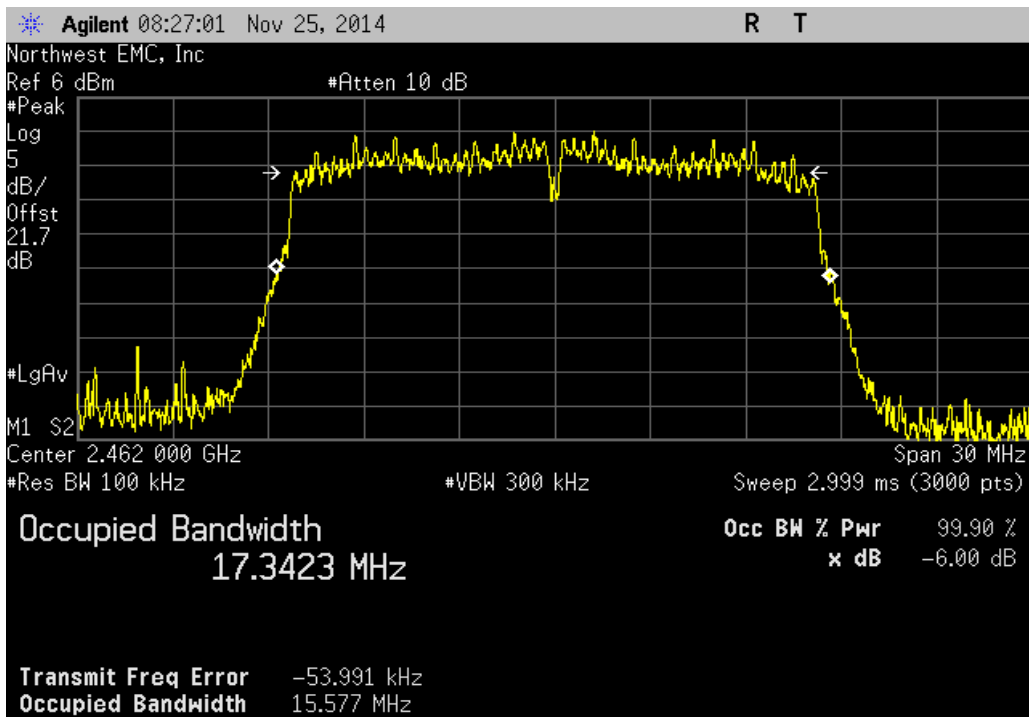
Antenna 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz			
	Value	Limit (>)	Result
	15.997 MHz	500 kHz	Pass



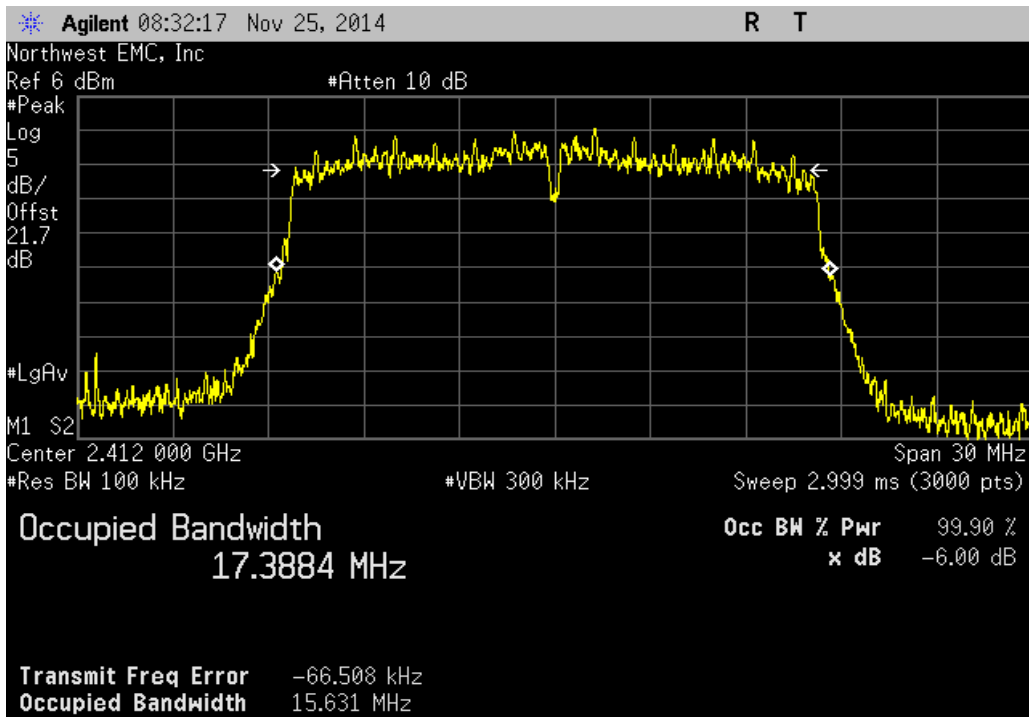
Antenna 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz			
	Value	Limit (>)	Result
	15.319 MHz	500 kHz	Pass



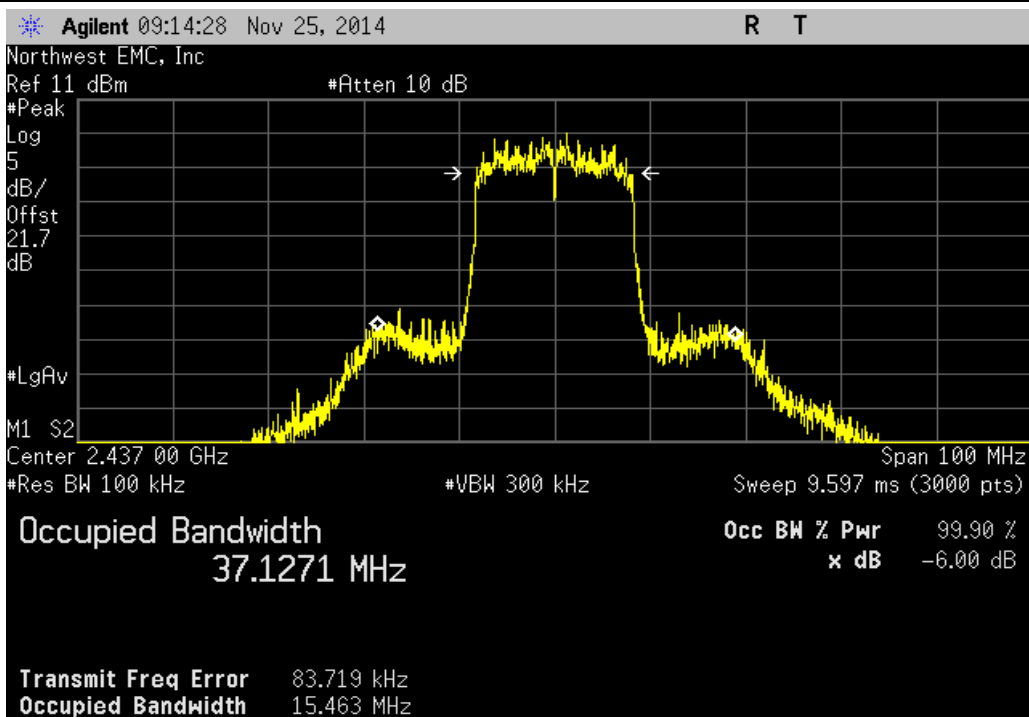
Antenna 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz			
	Value	Limit (>)	Result
	15.577 MHz	500 kHz	Pass



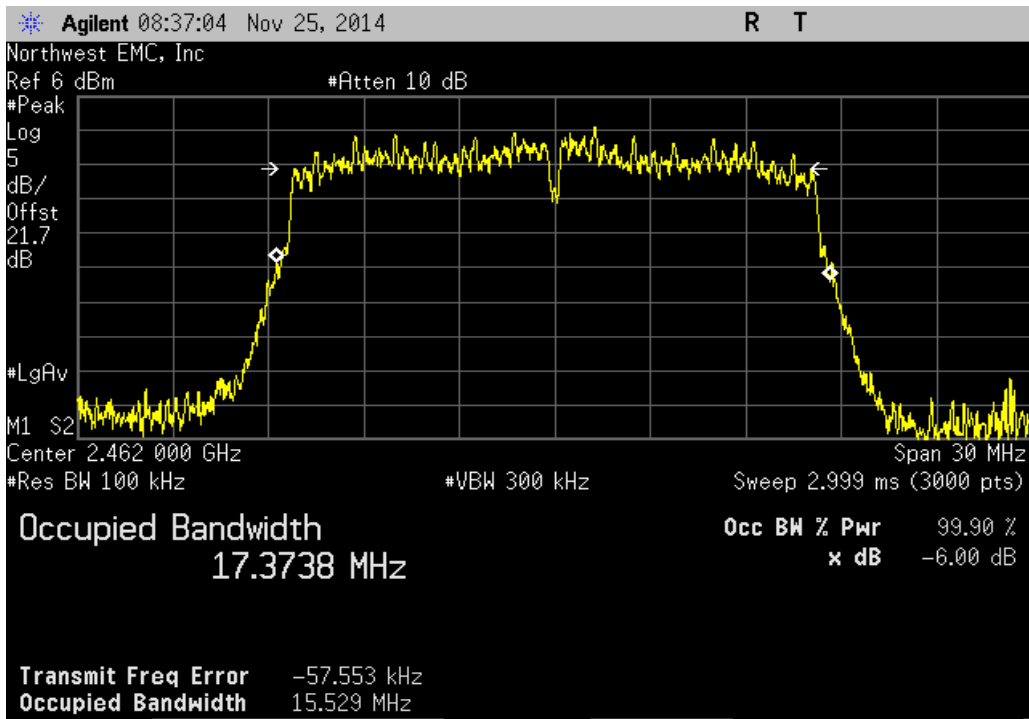
Antenna 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz			
	Value	Limit (>)	Result
	15.631 MHz	500 kHz	Pass



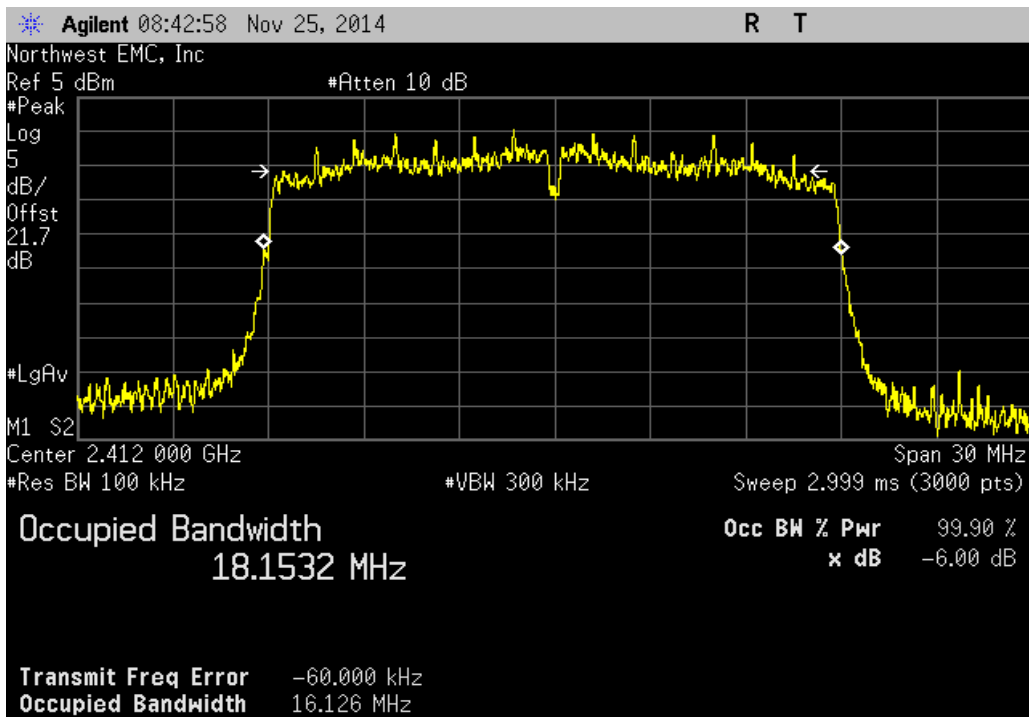
Antenna 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz			
	Value	Limit (>)	Result
	15.463 MHz	500 kHz	Pass



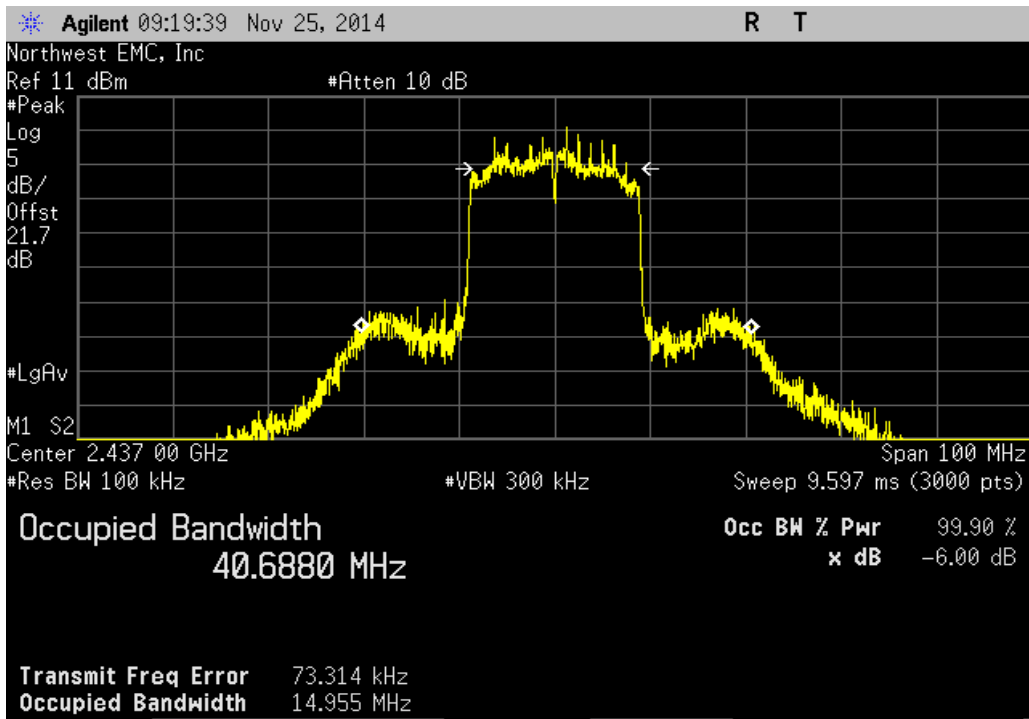
Antenna 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz			
	Value	Limit (>)	Result
	15.529 MHz	500 kHz	Pass



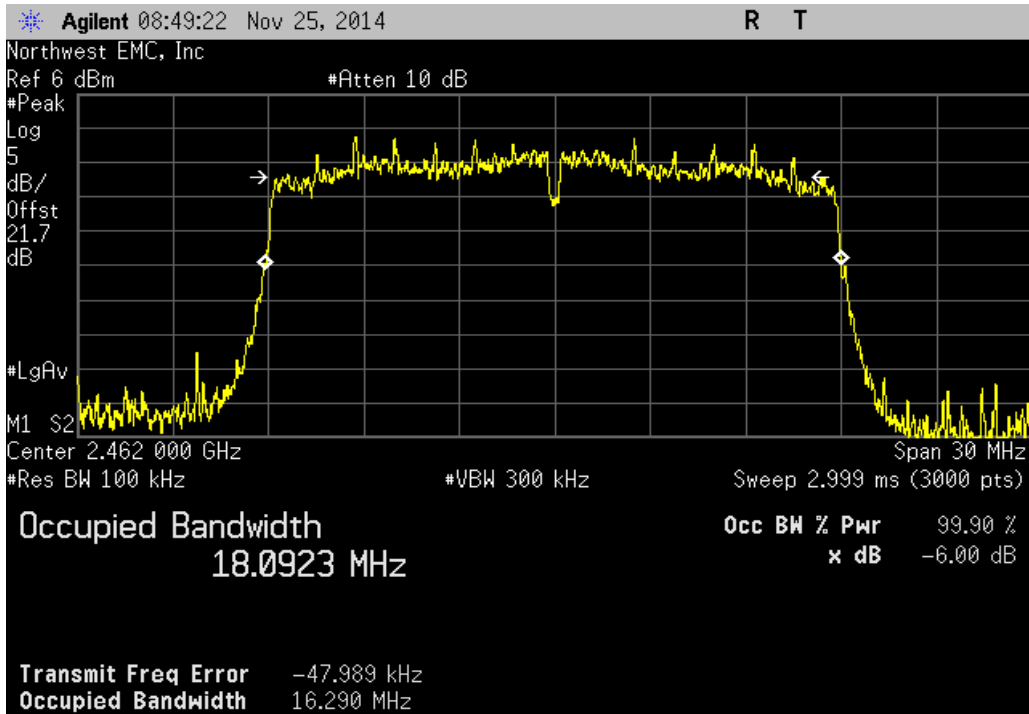
Antenna 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz			
	Value	Limit (>)	Result
	16.126 MHz	500 kHz	Pass



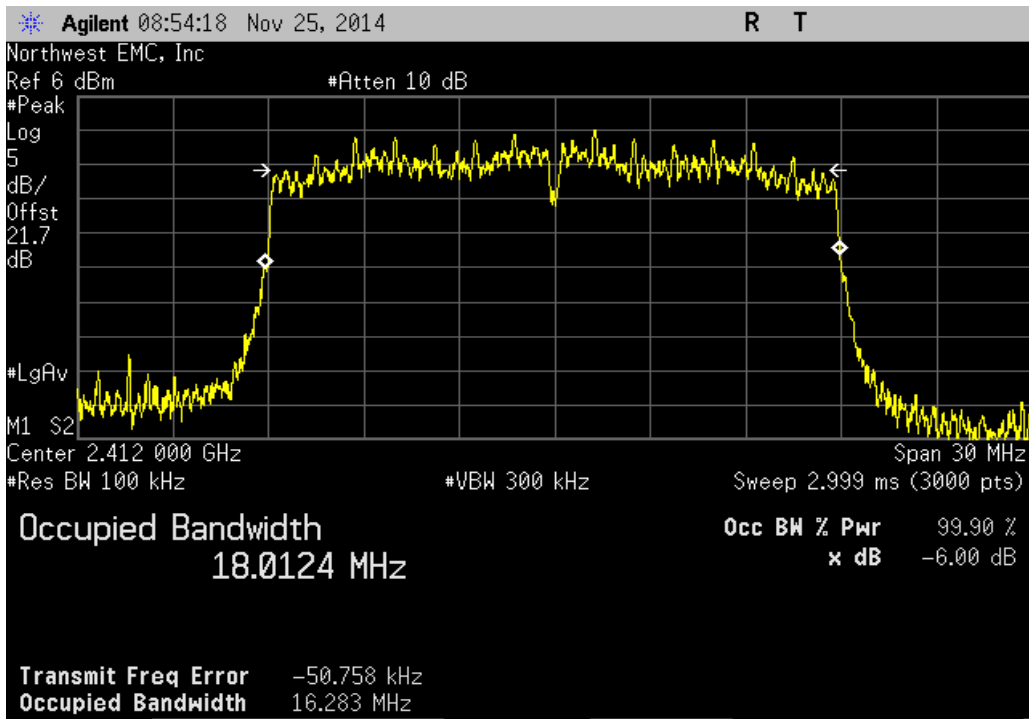
Antenna 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz			
	Value	Limit (>)	Result
	14.955 MHz	500 kHz	Pass



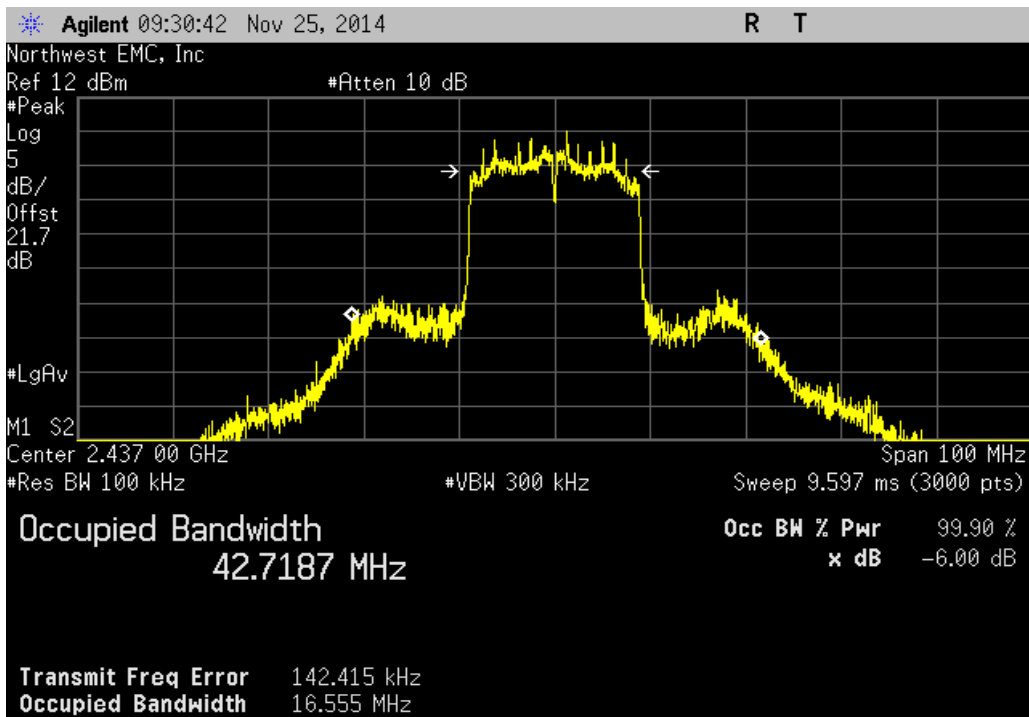
Antenna 0, 802.11(n) MCS0, High Channel 11, 2462 MHz			
	Value	Limit (>)	Result
	16.29 MHz	500 kHz	Pass



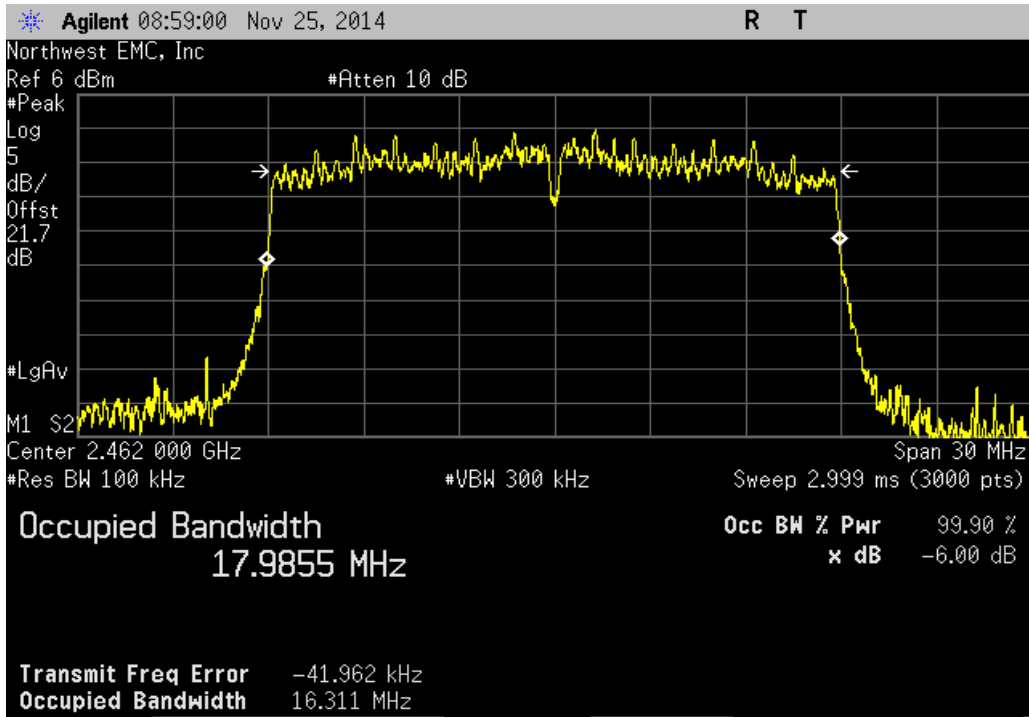
Antenna 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz			
	Value	Limit (>)	Result
	16.283 MHz	500 kHz	Pass



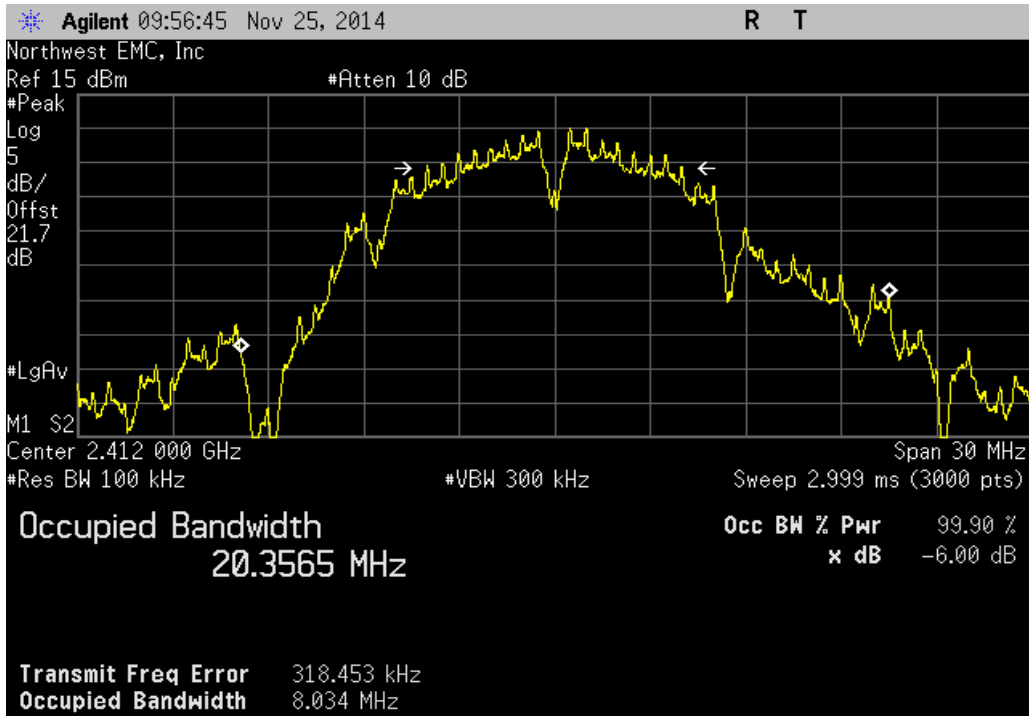
Antenna 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz			
	Value	Limit (>)	Result
	16.555 MHz	500 kHz	Pass



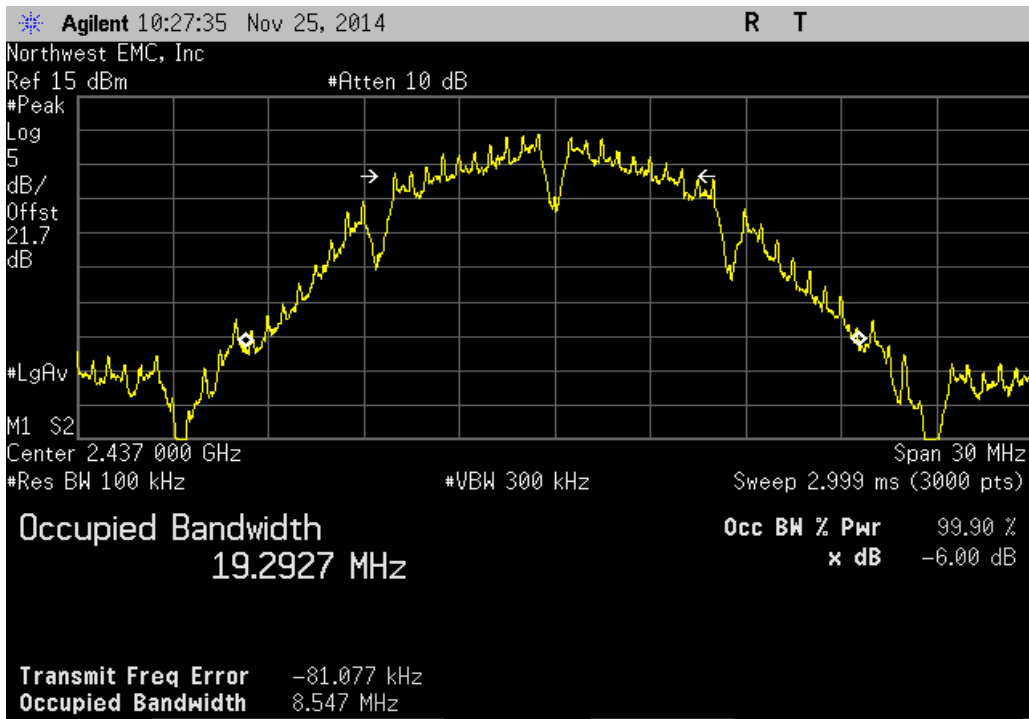
Antenna 0, 802.11(n) MCS7, High Channel 11, 2462 MHz			
	Value	Limit (>)	Result
	16.311 MHz	500 kHz	Pass



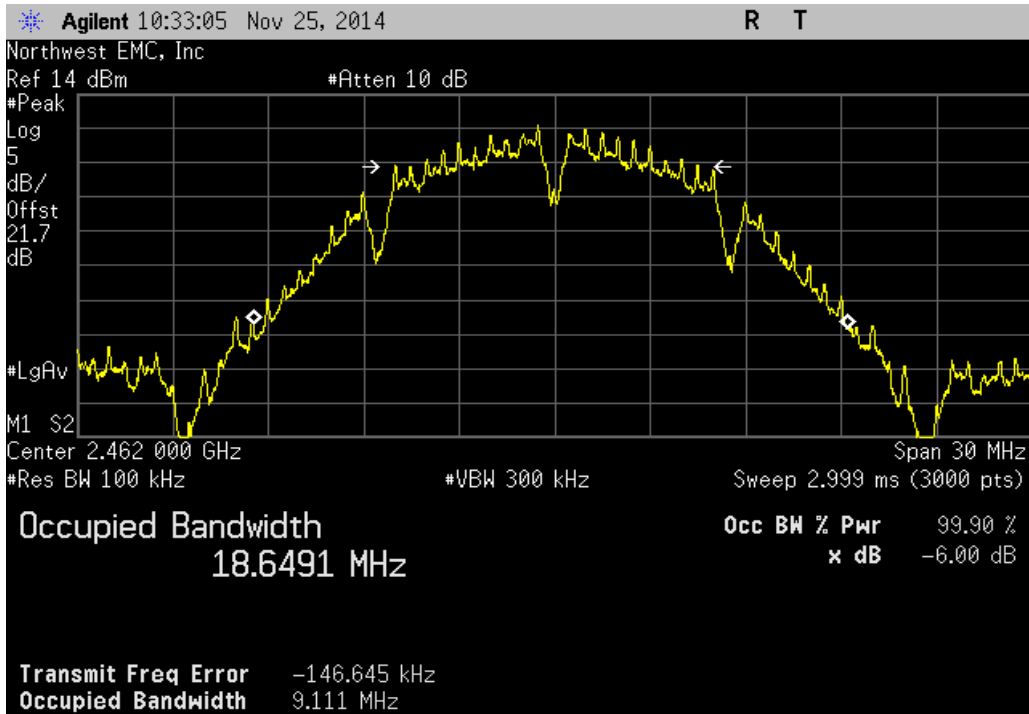
Antenna 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz			
	Value	Limit (>)	Result
	8.034 MHz	500 kHz	Pass



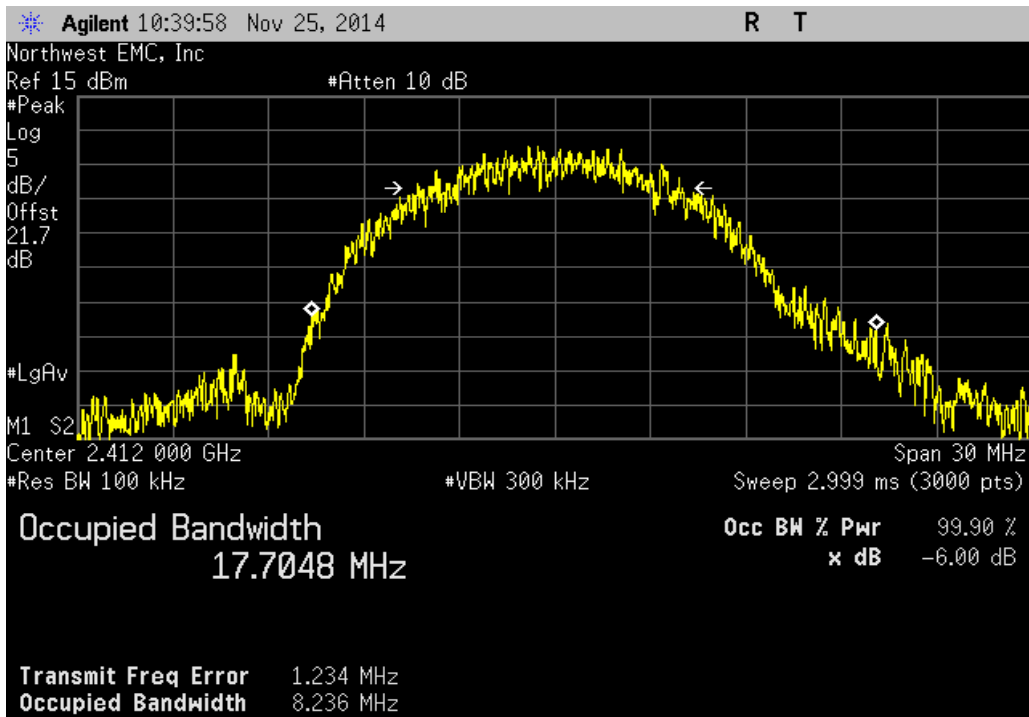
Antenna 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz			
	Value	Limit (>)	Result
	8.547 MHz	500 kHz	Pass



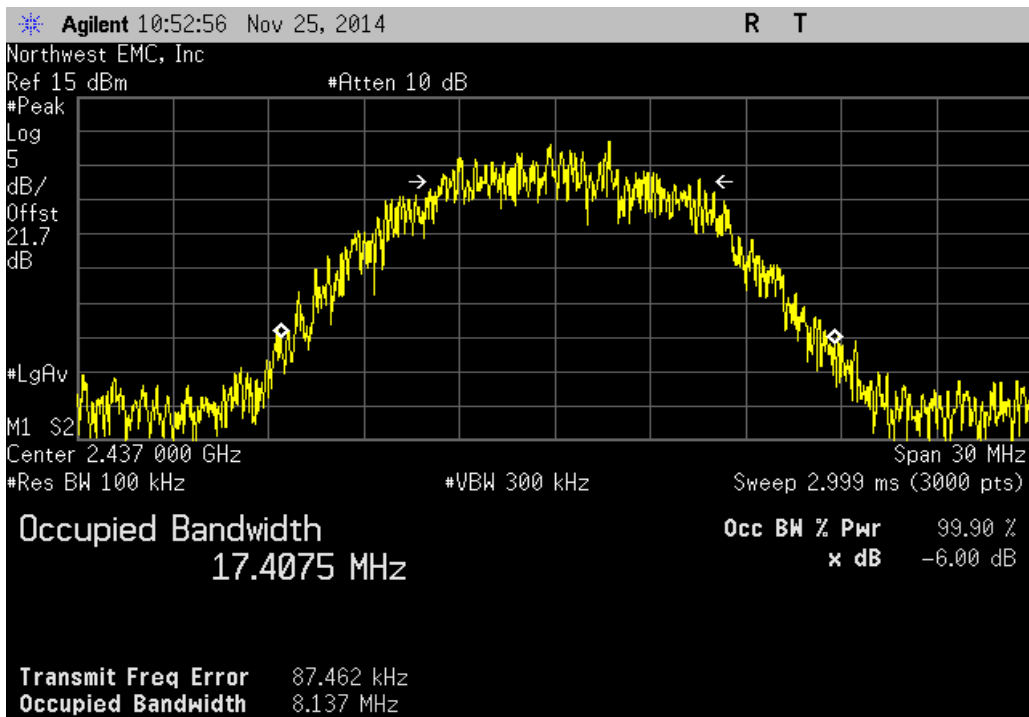
Antenna 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz			
	Value	Limit (>)	Result
	9.111 MHz	500 kHz	Pass



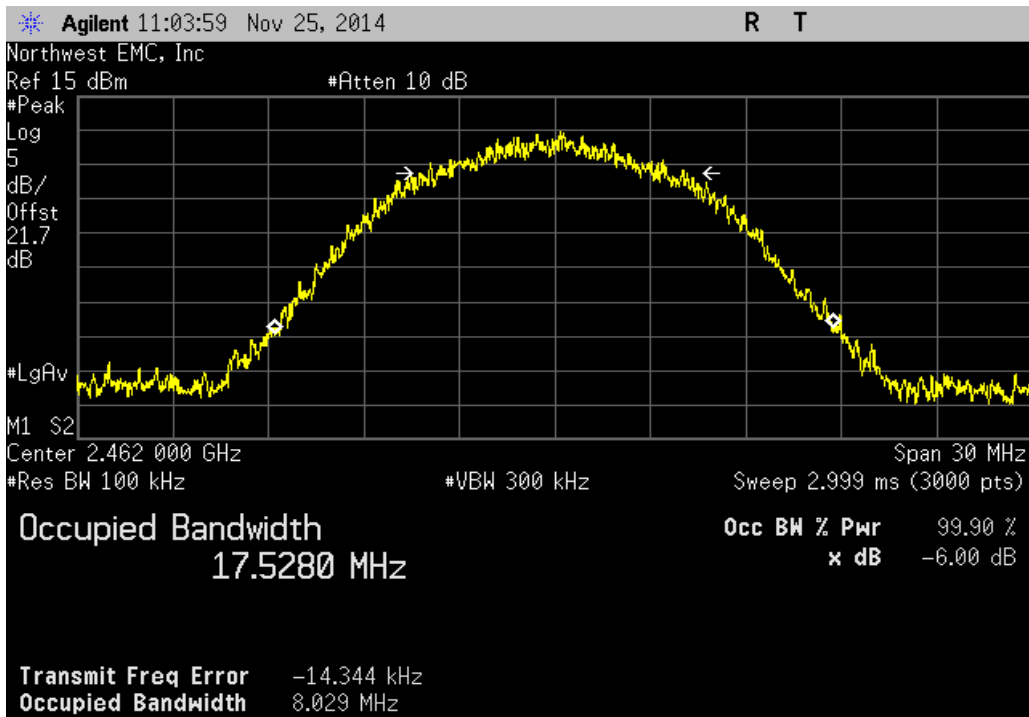
Antenna 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz			
	Value	Limit (>)	Result
	8.236 MHz	500 kHz	Pass



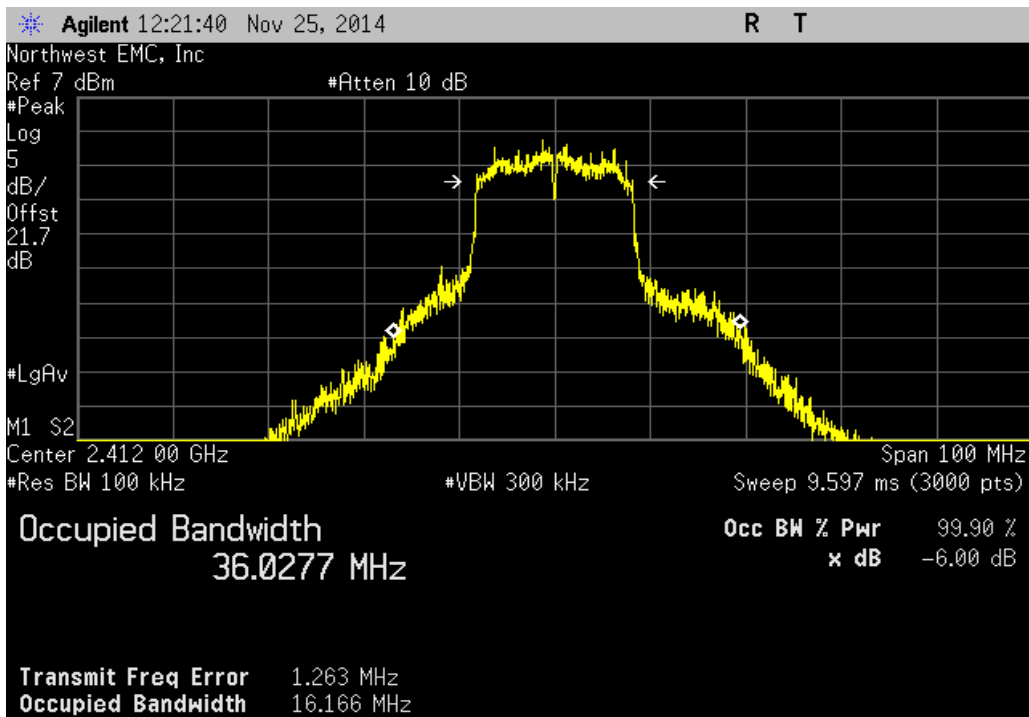
Antenna 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz			
	Value	Limit (>)	Result
	8.137 MHz	500 kHz	Pass



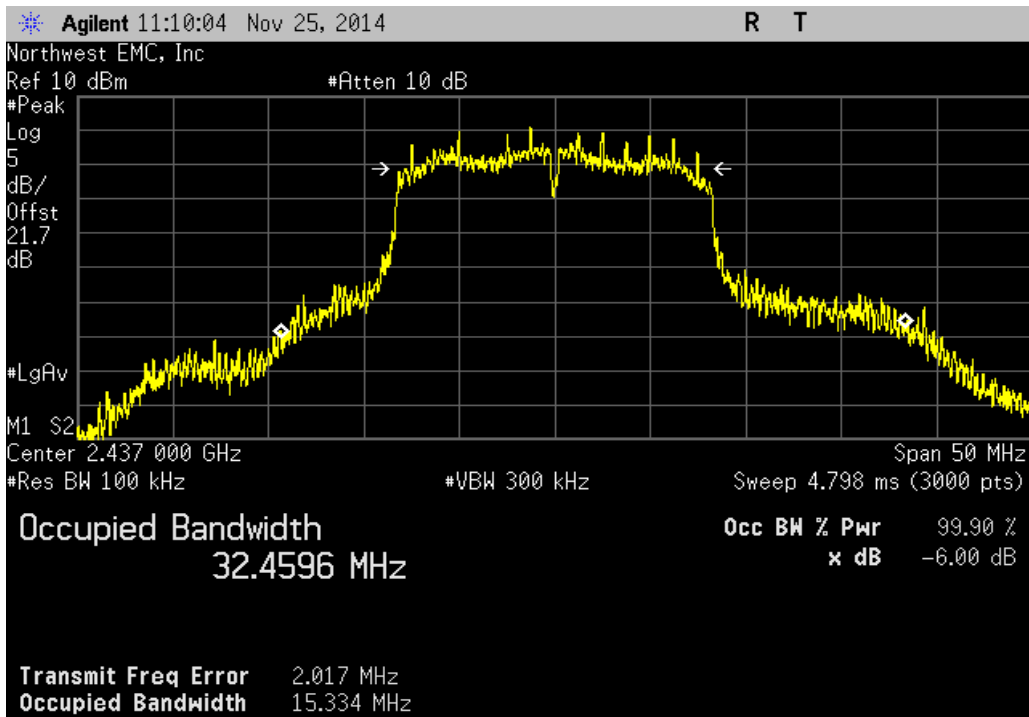
Antenna 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz			
	Value	Limit (>)	Result
	8.029 MHz	500 kHz	Pass



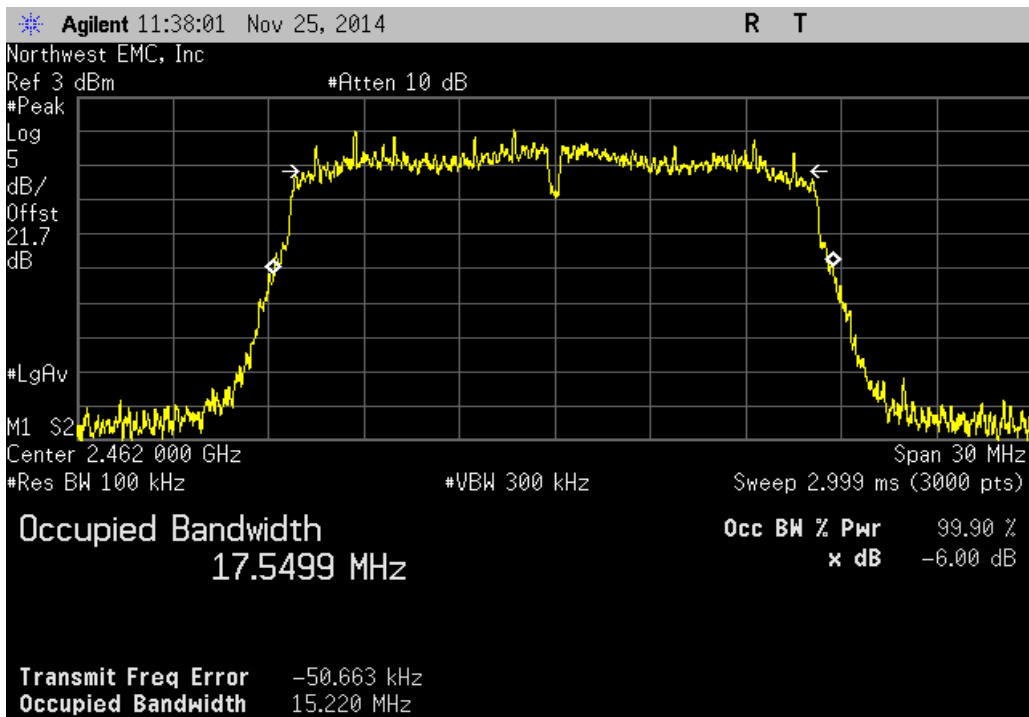
Antenna 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz			
	Value	Limit (>)	Result
	16.166 MHz	500 kHz	Pass



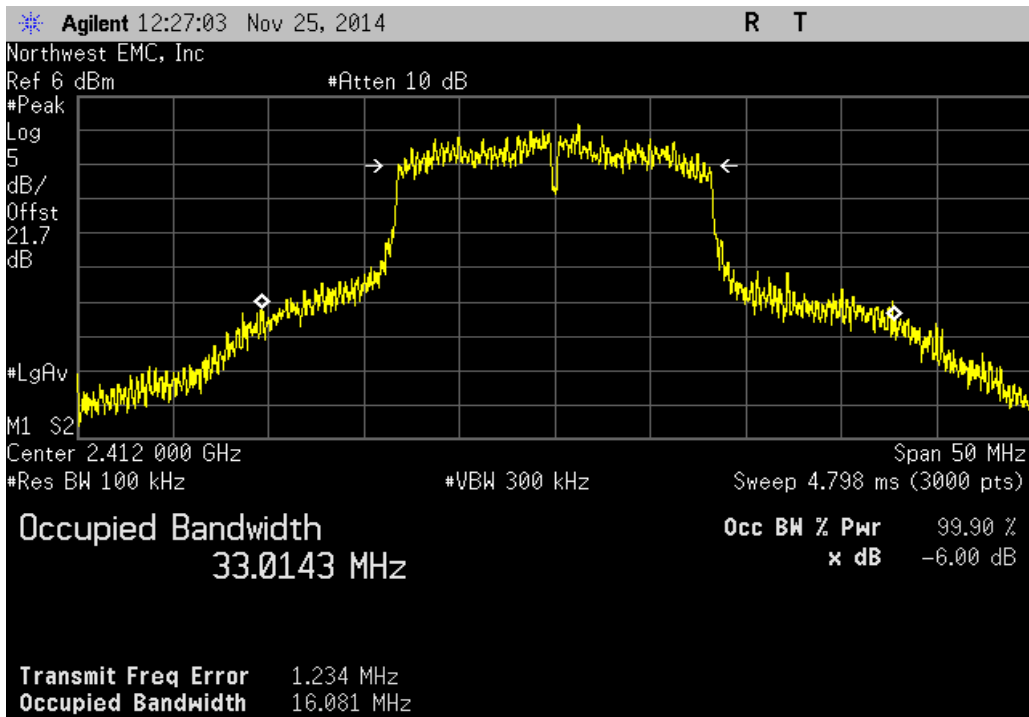
Antenna 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz			
	Value	Limit (>)	Result
	15.334 MHz	500 kHz	Pass



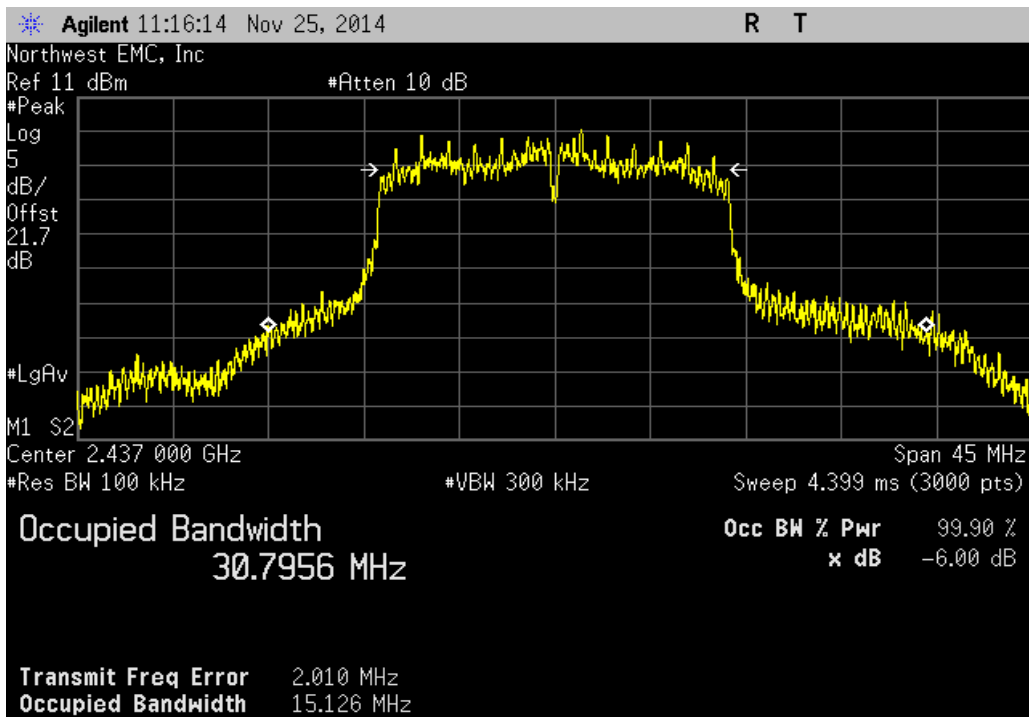
Antenna 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz			
	Value	Limit (>)	Result
	15.22 MHz	500 kHz	Pass



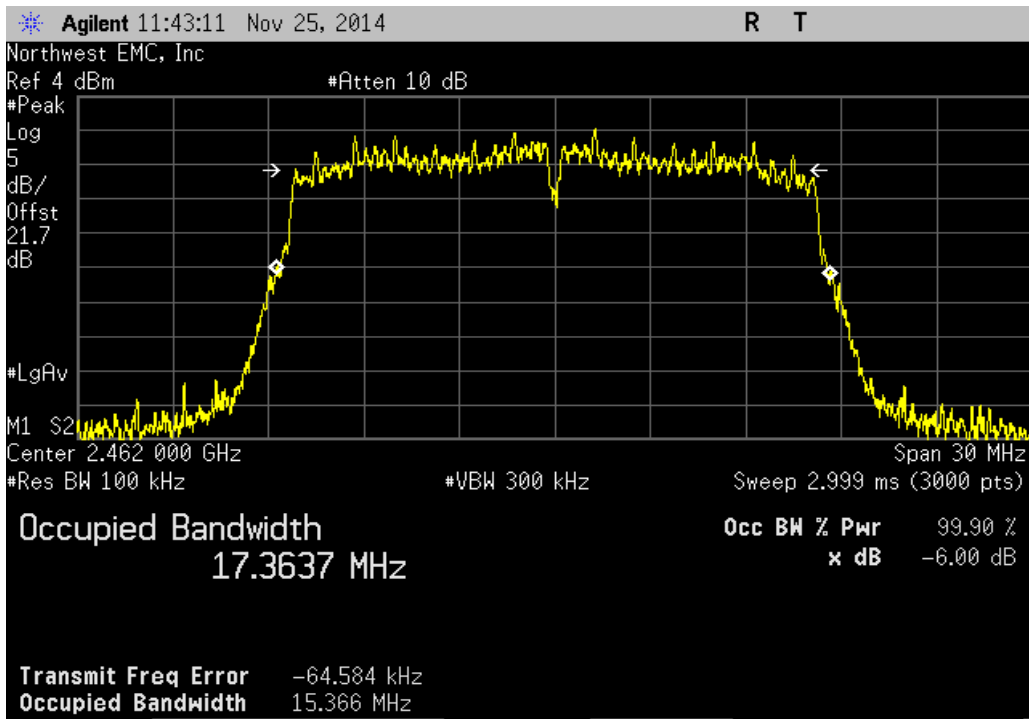
Antenna 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz			
	Value	Limit (>)	Result
	16.081 MHz	500 kHz	Pass



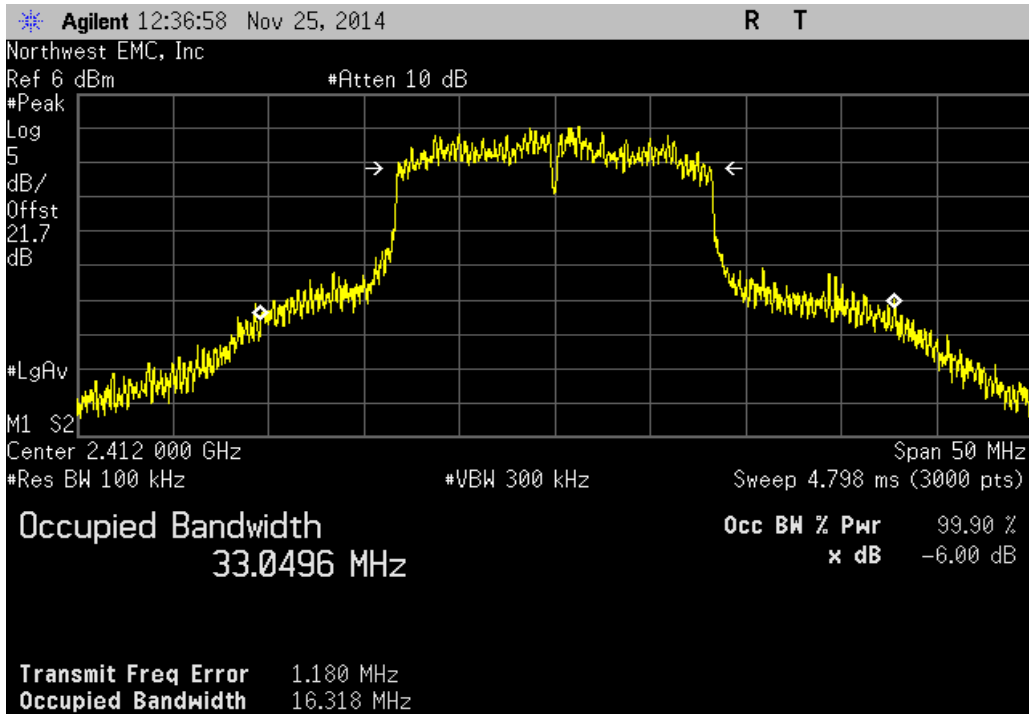
Antenna 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz			
	Value	Limit (>)	Result
	15.126 MHz	500 kHz	Pass



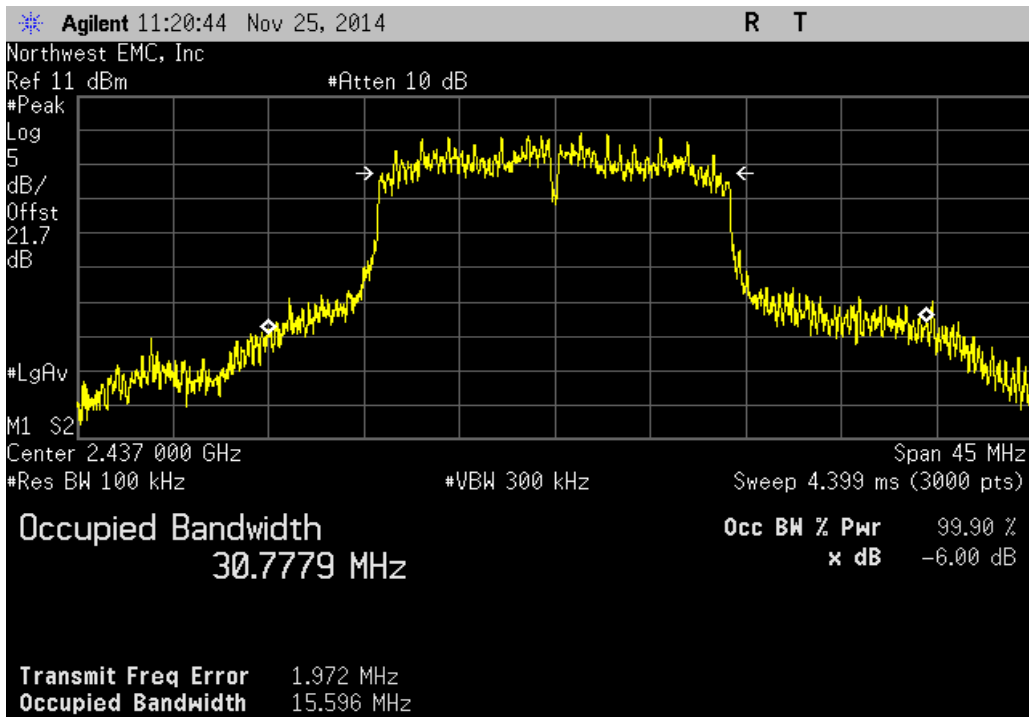
Antenna 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz			
	Value	Limit (>)	Result
	15.366 MHz	500 kHz	Pass



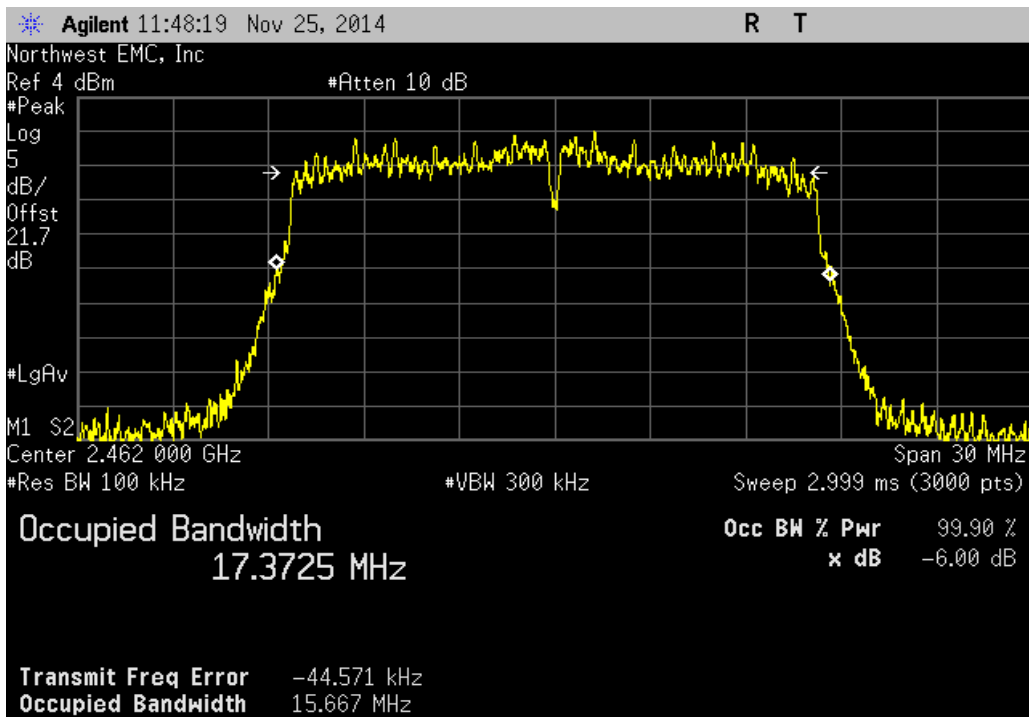
Antenna 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz			
	Value	Limit (>)	Result
	16.318 MHz	500 kHz	Pass



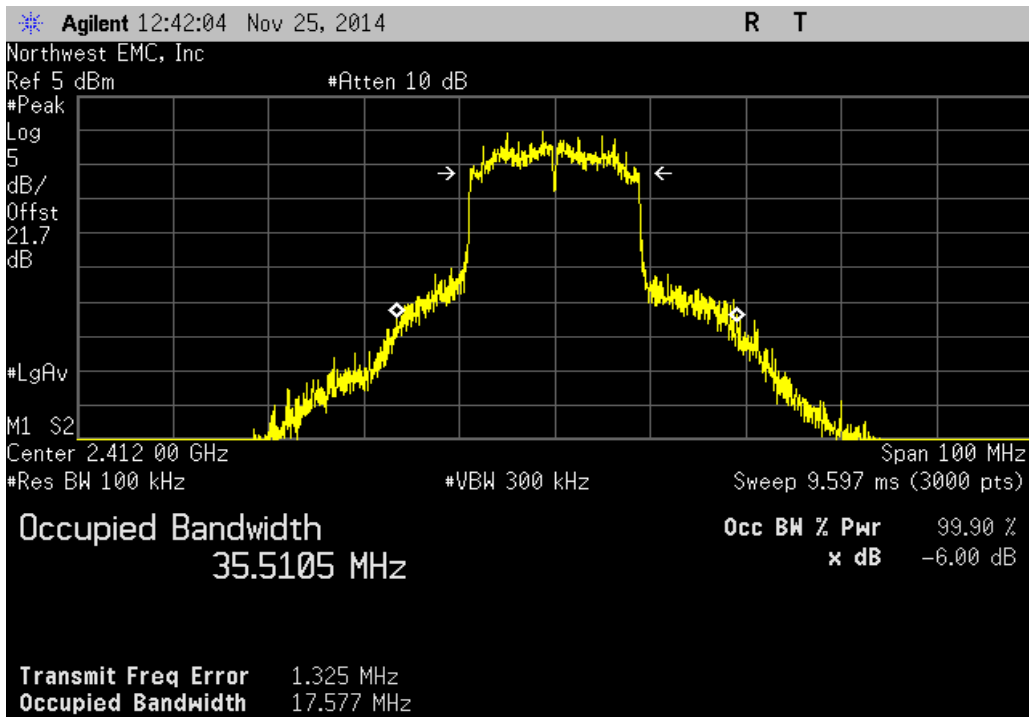
Antenna 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz			
	Value	Limit (>)	Result
	15.596 MHz	500 kHz	Pass



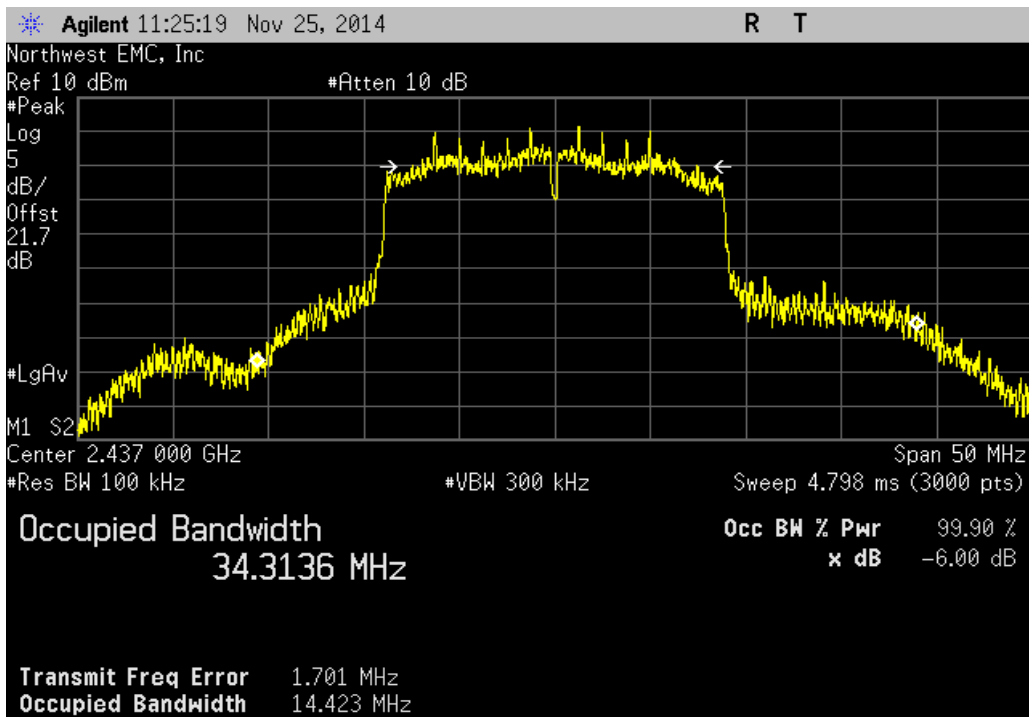
Antenna 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz			
	Value	Limit (>)	Result
	15.667 MHz	500 kHz	Pass



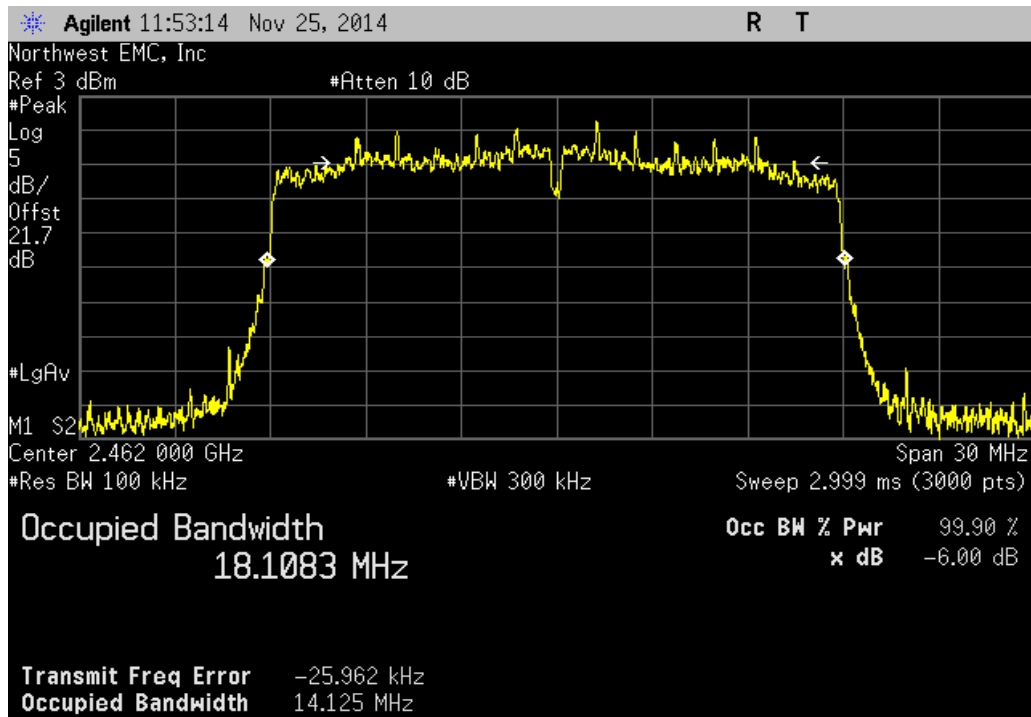
Antenna 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz			
	Value	Limit (>)	Result
	17.577 MHz	500 kHz	Pass



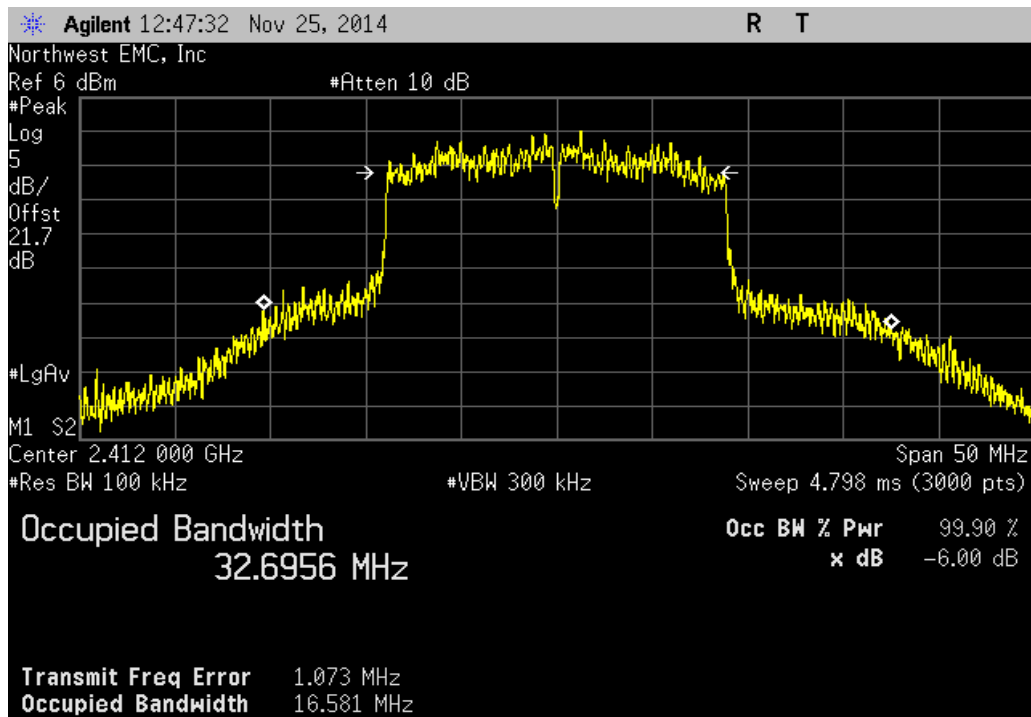
Antenna 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz			
	Value	Limit (>)	Result
	14.423 MHz	500 kHz	Pass



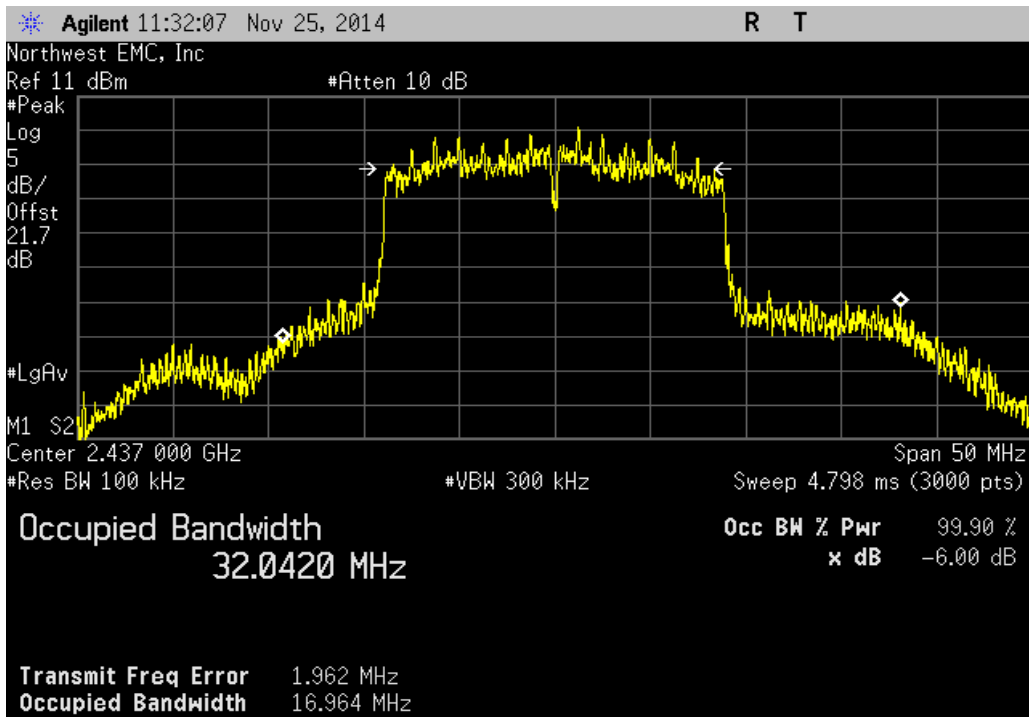
Antenna 1, 802.11(n) MCS0, High Channel 11, 2462 MHz			
	Value	Limit (>)	Result
	14.125 MHz	500 kHz	Pass



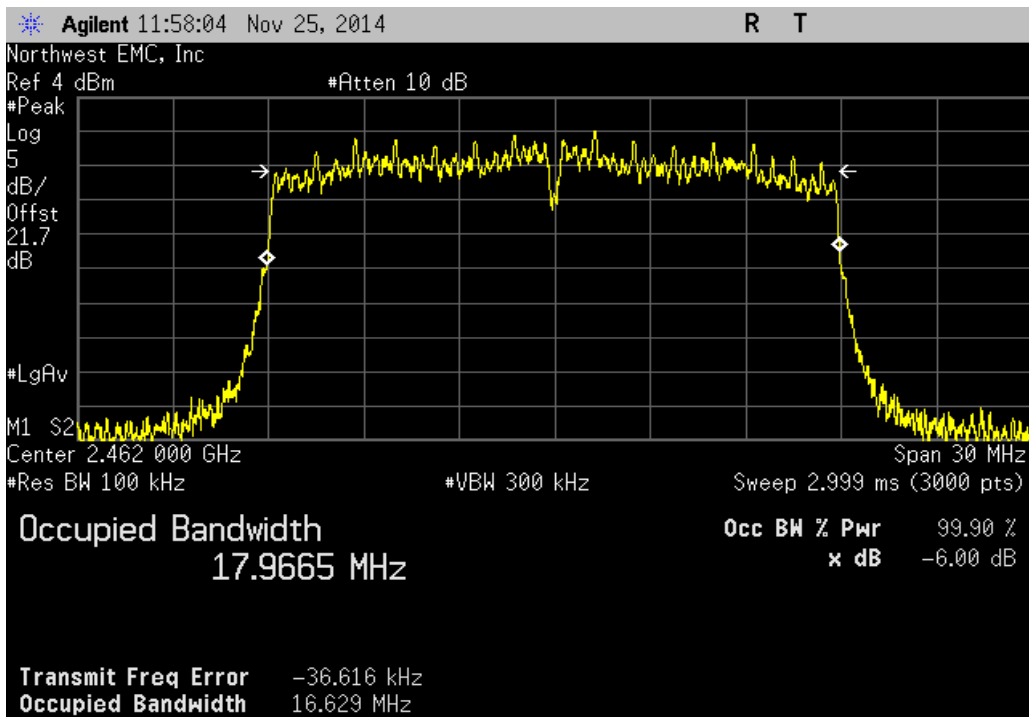
Antenna 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz			
	Value	Limit (>)	Result
	16.581 MHz	500 kHz	Pass



Antenna 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz			
	Value	Limit (>)	Result
	16.964 MHz	500 kHz	Pass



Antenna 1, 802.11(n) MCS7, High Channel 11, 2462 MHz			
	Value	Limit (>)	Result
	16.629 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 (mos)
MN08 Direct Connect Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNU	10/2/2014	12
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC Block	Fairview Microwave	SD3379	AMI	10/2/2014	12
MXG Vector Signal Generator	Agilent	N5182A	TIF	8/12/2014	36
Spectrum Analyzer	Agilent	E4440A	AAX	4/28/2014	12

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.

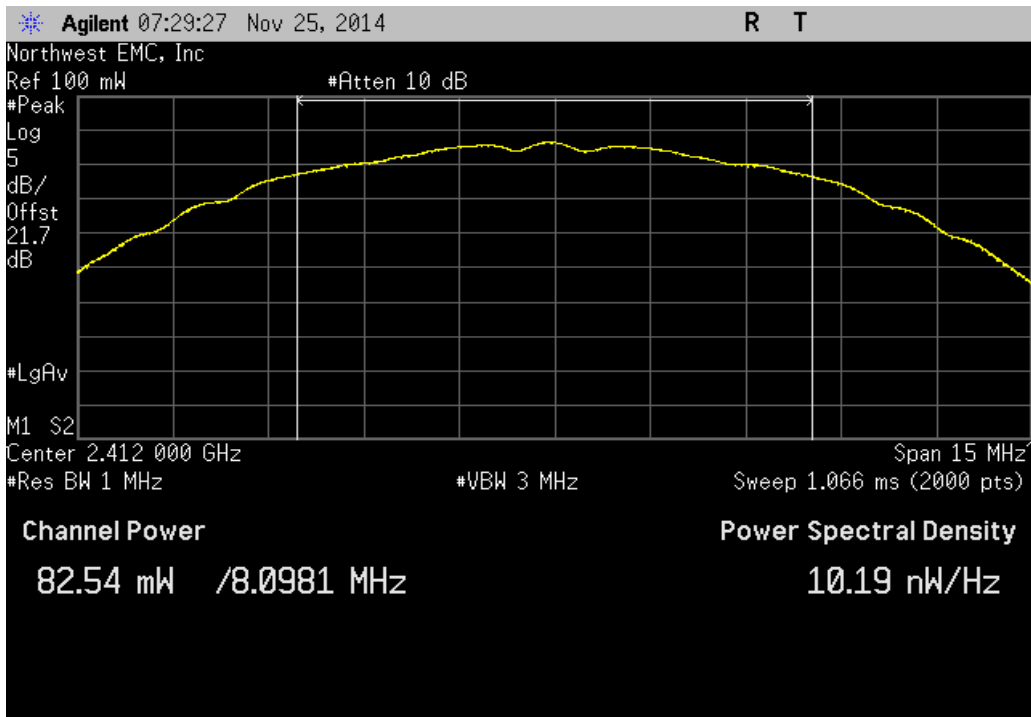
Prior to measuring peak transmit power; the emission bandwidth (B) and the transmission pulse duration (T) were measured. Both are required to determine the method of measuring Maximum Conducted Output Power. The transmission pulse duration (T) was measured using a zero span on the spectrum analyzer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

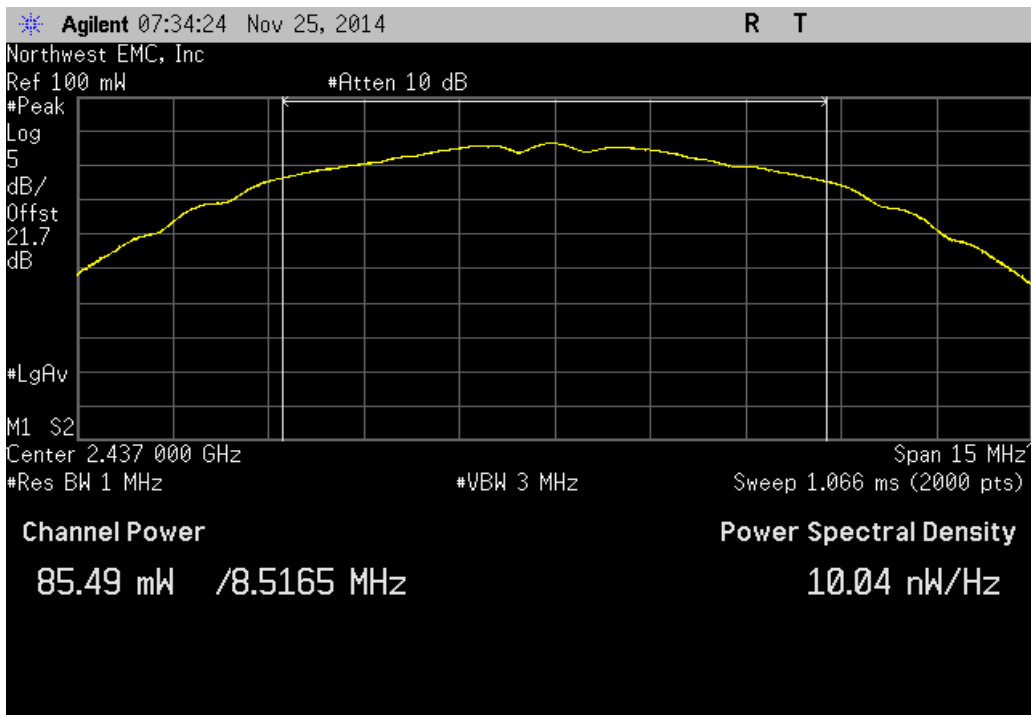
De Facto EIRP Limit: Per 47 CFR 15.247 (b)(1-3), the EUT meets the de facto EIRP limit of +36 dBm.

EUT: TH8321WF		Work Order: HNYW0116	
Serial Number: 51911030061813		Date: 11/25/14	
Customer: Honeywell, Automation and Control Solutions		Temperature: 23.2°C	
Attendees: None		Humidity: 16%	
Project: None		Barometric Pres.: 1019.9	
Tested by: Trevor Buls		Power: 110VAC/60Hz	
		Job Site: MN08	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2014		ANSI C63.10:2009	
COMMENTS			
None			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	3	Signature <i>Trevor Buls</i>	
		Value	Limit (<)
Antenna 0			
802.11(b) 1 Mbps			
	Low Channel 1, 2412 MHz	82.544 mW	1 W
	Mid Channel 6, 2437 MHz	85.488 mW	1 W
	High Channel 11, 2462 MHz	84.13 mW	1 W
802.11(b) 11 Mbps			
	Low Channel 1, 2412 MHz	81.216 mW	1 W
	Mid Channel 6, 2437 MHz	84.754 mW	1 W
	High Channel 11, 2462 MHz	81.811 mW	1 W
802.11(g) 6 Mbps			
	Low Channel 1, 2412 MHz	20.991 mW	1 W
	Mid Channel 6, 2437 MHz	63.734 mW	1 W
	High Channel 11, 2462 MHz	20.757 mW	1 W
802.11(g) 36 Mbps			
	Low Channel 1, 2412 MHz	21.698 mW	1 W
	Mid Channel 6, 2437 MHz	64.085 mW	1 W
	High Channel 11, 2462 MHz	21.384 mW	1 W
802.11(g) 54 Mbps			
	Low Channel 1, 2412 MHz	20.207 mW	1 W
	Mid Channel 6, 2437 MHz	64.446 mW	1 W
	High Channel 11, 2462 MHz	20.646 mW	1 W
802.11(n) MCS0			
	Low Channel 1, 2412 MHz	18.449 mW	1 W
	Mid Channel 6, 2437 MHz	61.127 mW	1 W
	High Channel 11, 2462 MHz	18.981 mW	1 W
802.11(n) MCS7			
	Low Channel 1, 2412 MHz	18.718 mW	1 W
	Mid Channel 6, 2437 MHz	79.365 mW	1 W
	High Channel 11, 2462 MHz	19.258 mW	1 W
Antenna 1			
802.11(b) 1 Mbps			
	Low Channel 1, 2412 MHz	83.781 mW	1 W
	Mid Channel 6, 2437 MHz	85.735 mW	1 W
	High Channel 11, 2462 MHz	81.805 mW	1 W
802.11(b) 11 Mbps			
	Low Channel 1, 2412 MHz	79.107 mW	1 W
	Mid Channel 6, 2437 MHz	84.111 mW	1 W
	High Channel 11, 2462 MHz	80.083 mW	1 W
802.11(g) 6 Mbps			
	Low Channel 1, 2412 MHz	24.922 mW	1 W
	Mid Channel 6, 2437 MHz	57.739 mW	1 W
	High Channel 11, 2462 MHz	12.572 mW	1 W
802.11(g) 36 Mbps			
	Low Channel 1, 2412 MHz	25.764 mW	1 W
	Mid Channel 6, 2437 MHz	57.369 mW	1 W
	High Channel 11, 2462 MHz	12.561 mW	1 W
802.11(g) 54 Mbps			
	Low Channel 1, 2412 MHz	24.255 mW	1 W
	Mid Channel 6, 2437 MHz	56.719 mW	1 W
	High Channel 11, 2462 MHz	12.012 mW	1 W
802.11(n) MCS0			
	Low Channel 1, 2412 MHz	21.72 mW	1 W
	Mid Channel 6, 2437 MHz	52.381 mW	1 W
	High Channel 11, 2462 MHz	11.197 mW	1 W
802.11(n) MCS7			
	Low Channel 1, 2412 MHz	20.003 mW	1 W
	Mid Channel 6, 2437 MHz	57.494 mW	1 W
	High Channel 11, 2462 MHz	12.075 mW	1 W

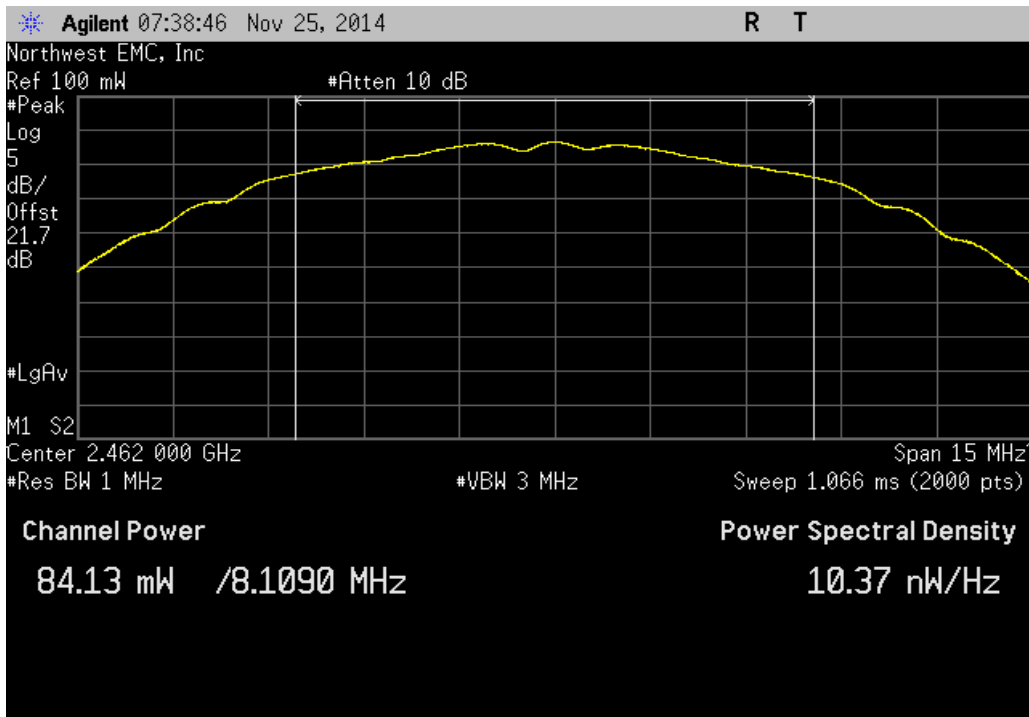
Antenna 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz			
	Value	Limit (<)	Result
	82.544 mW	1 W	Pass



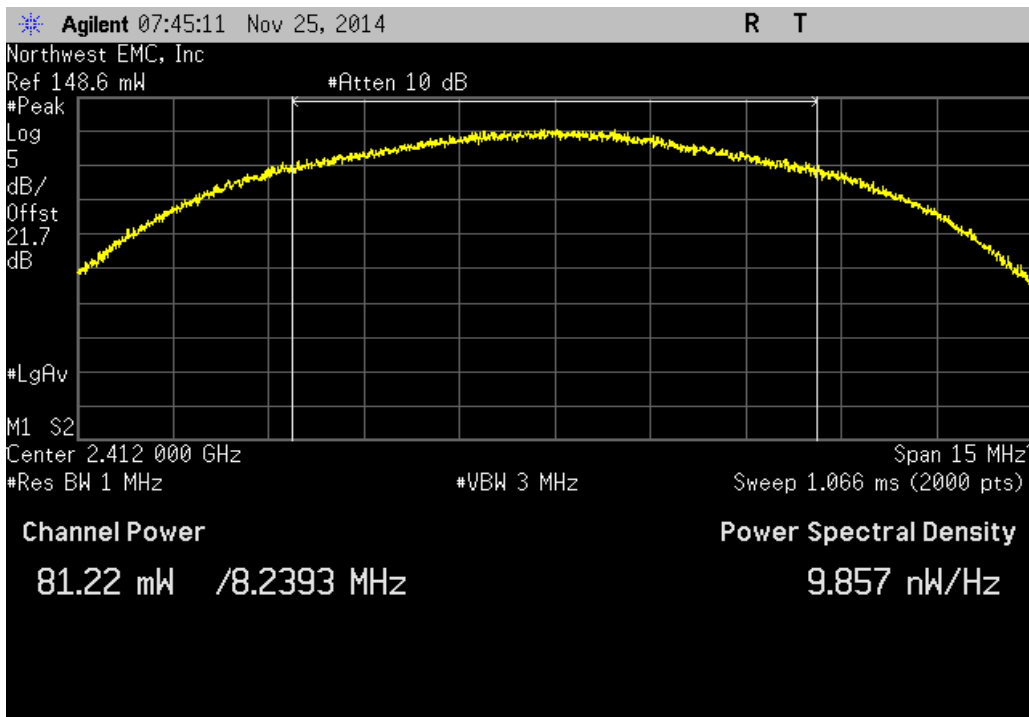
Antenna 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz			
	Value	Limit (<)	Result
	85.488 mW	1 W	Pass



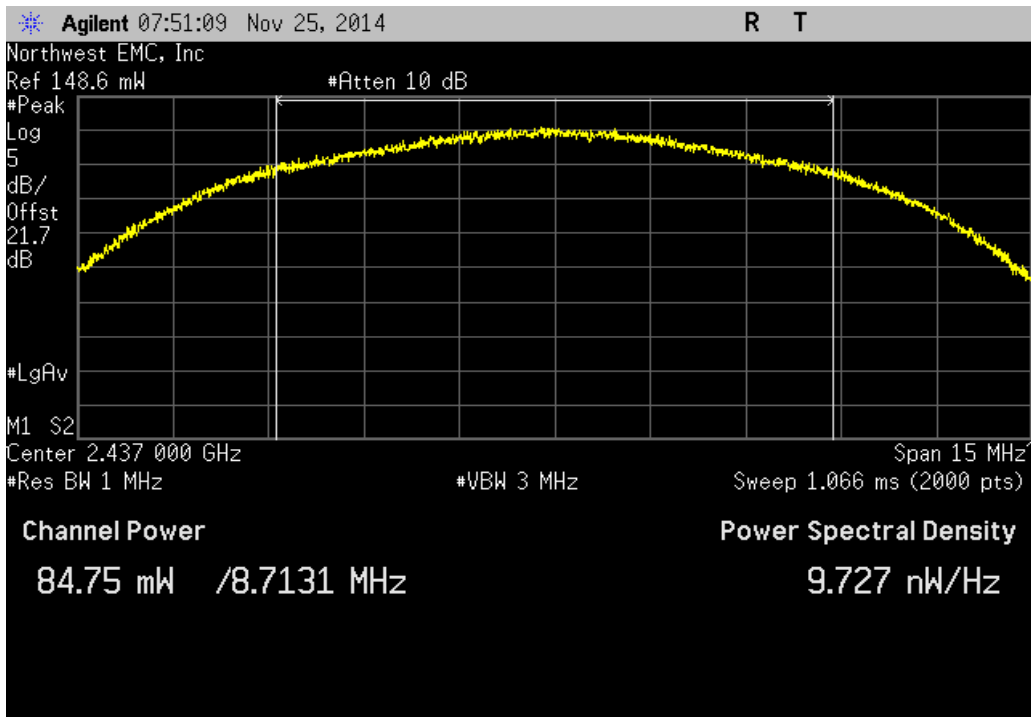
Antenna 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz			Value	Limit (<)	Result
			84.13 mW	1 W	Pass



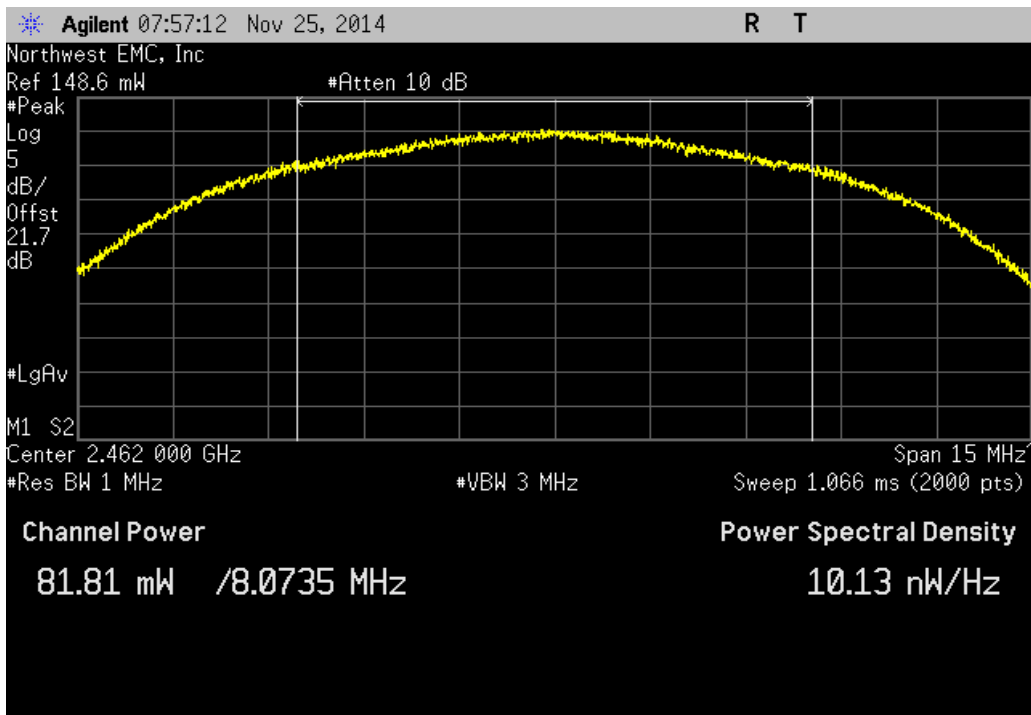
Antenna 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz			Value	Limit (<)	Result
			81.216 mW	1 W	Pass



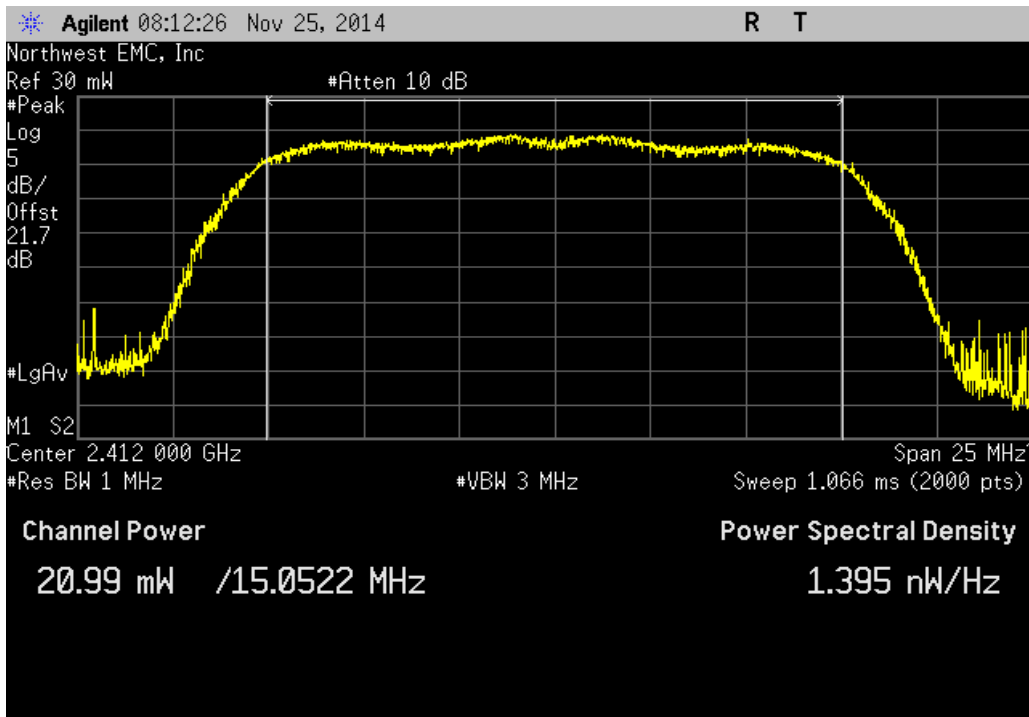
Antenna 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz			Value	Limit (<)	Result
			84.754 mW	1 W	Pass



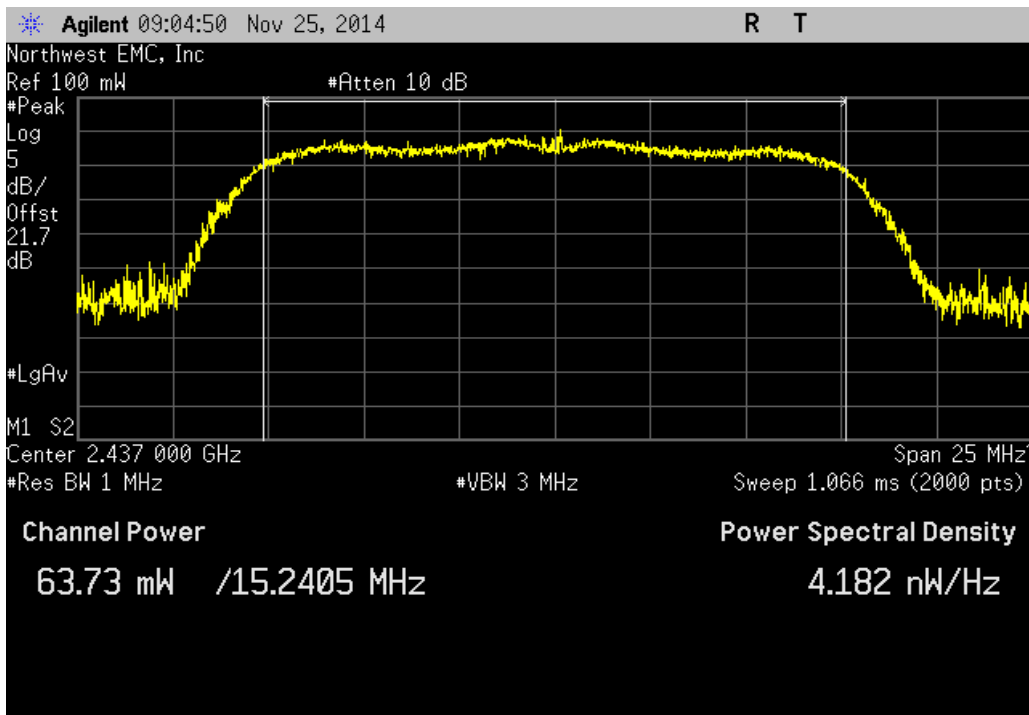
Antenna 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz			Value	Limit (<)	Result
			81.811 mW	1 W	Pass



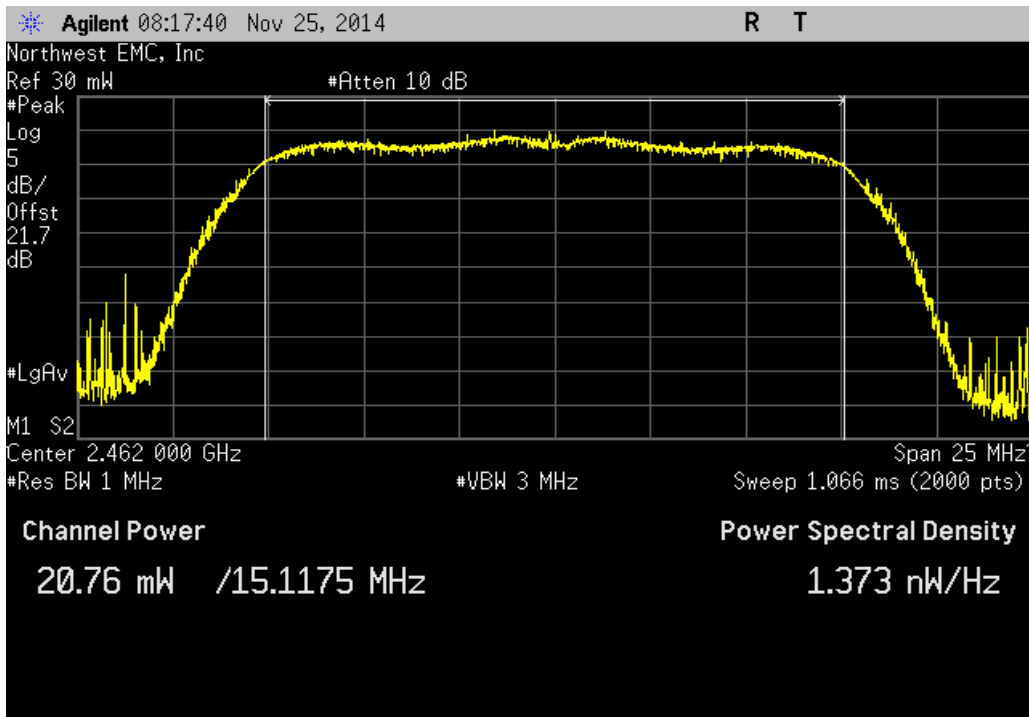
Antenna 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz			
	Value	Limit (<)	Result
	20.991 mW	1 W	Pass



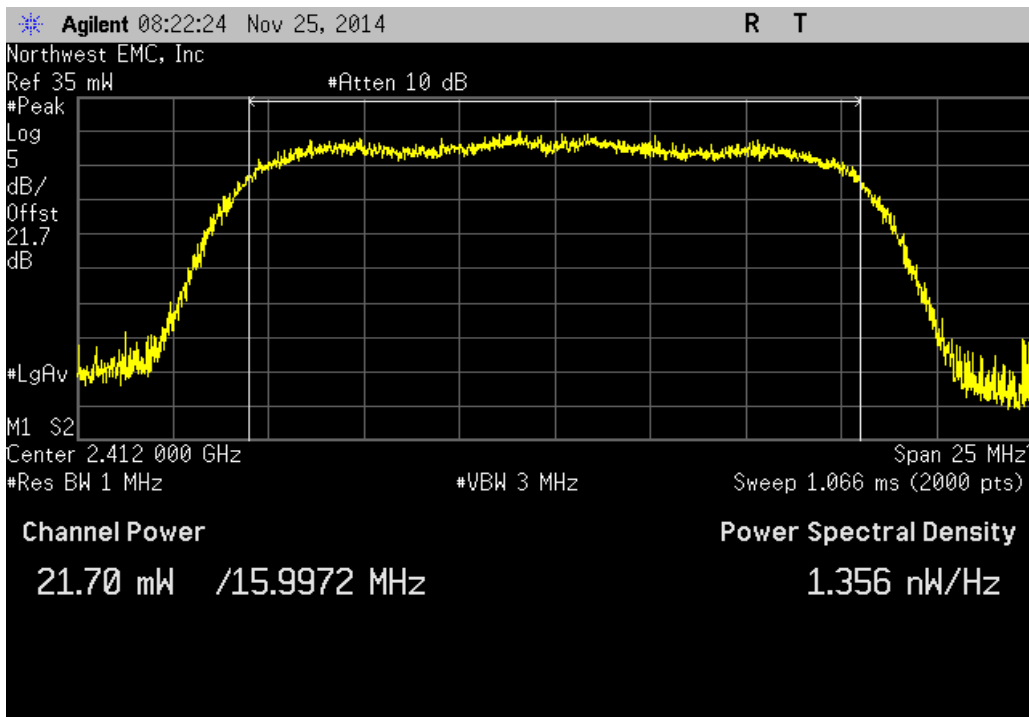
Antenna 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz			
	Value	Limit (<)	Result
	63.734 mW	1 W	Pass



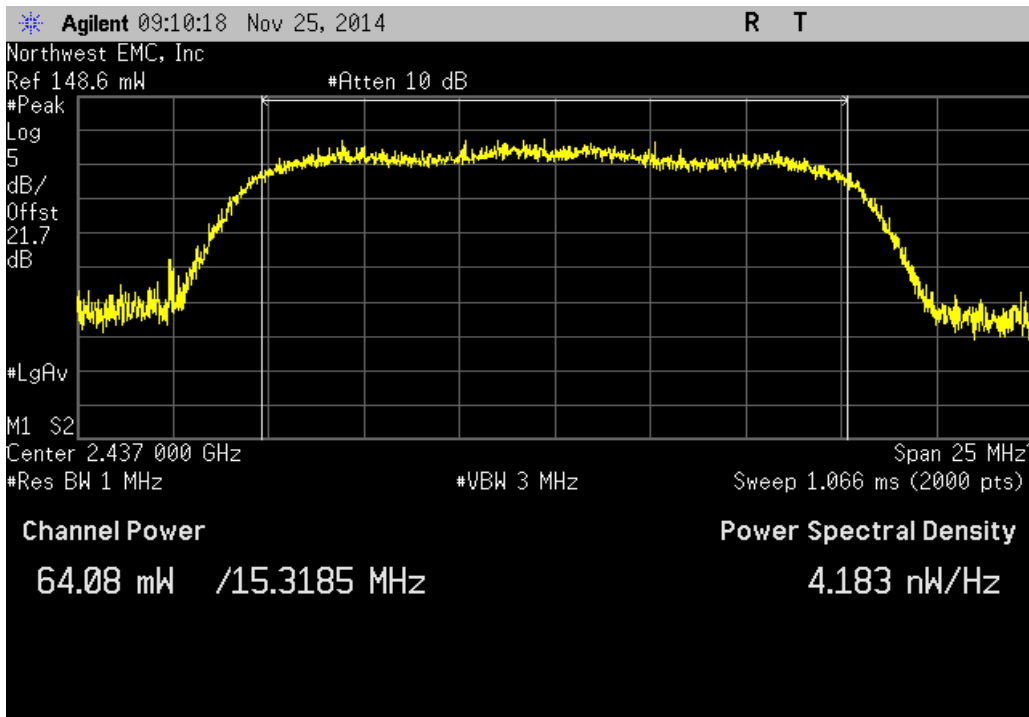
Antenna 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz		
Value	Limit (<)	Result
20.757 mW	1 W	Pass



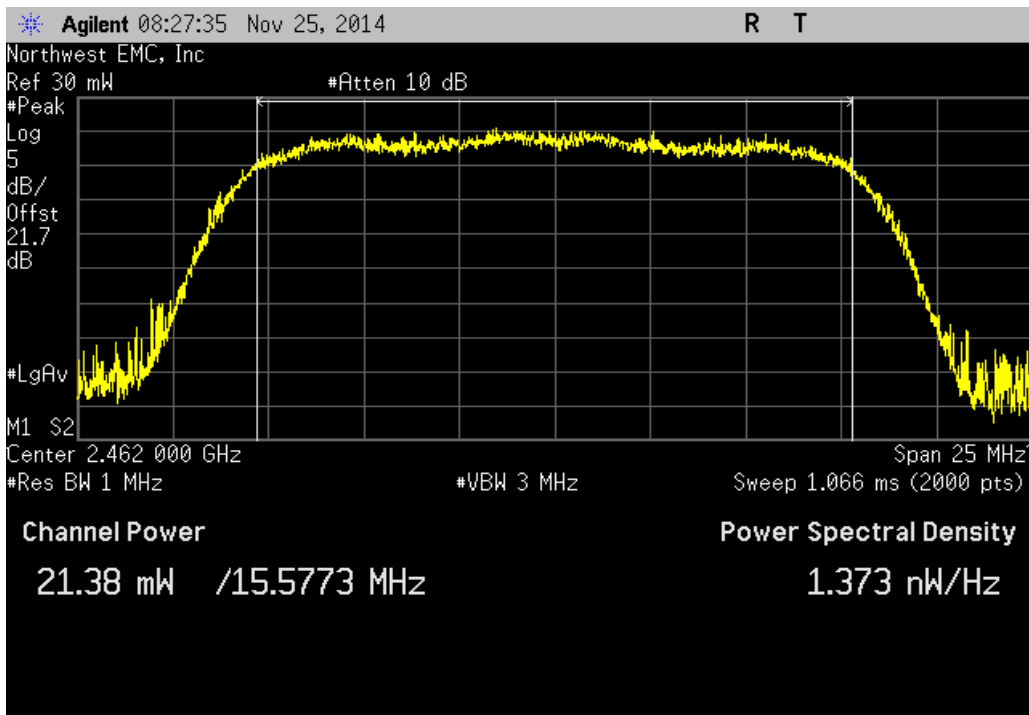
Antenna 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz		
Value	Limit (<)	Result
21.698 mW	1 W	Pass



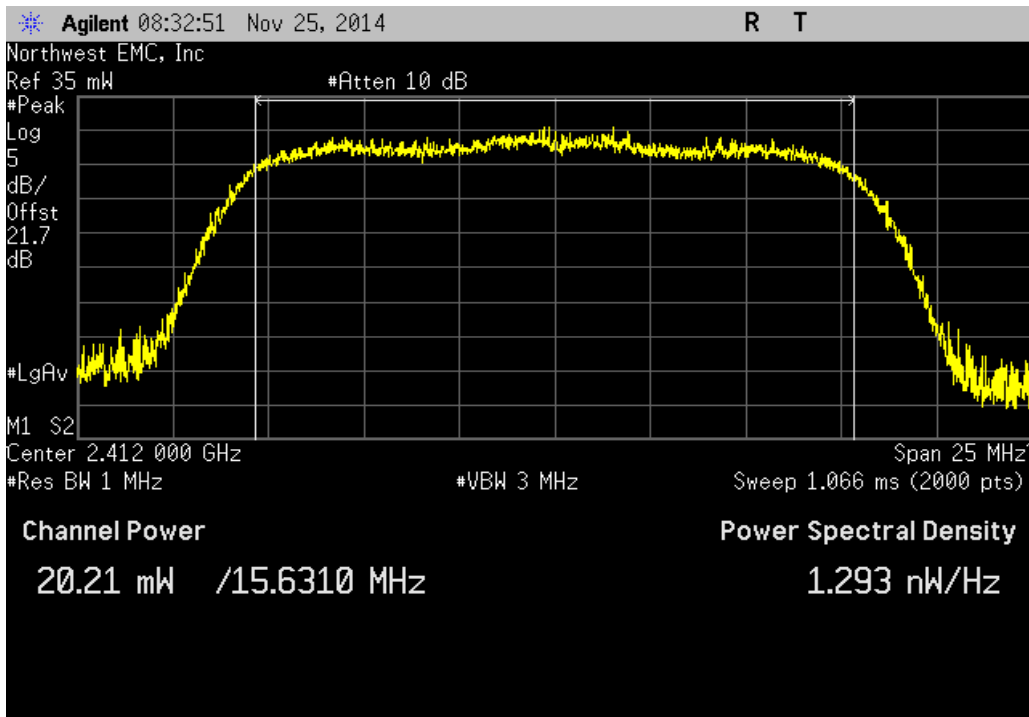
Antenna 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz		
Value	Limit (<)	Result
64.085 mW	1 W	Pass



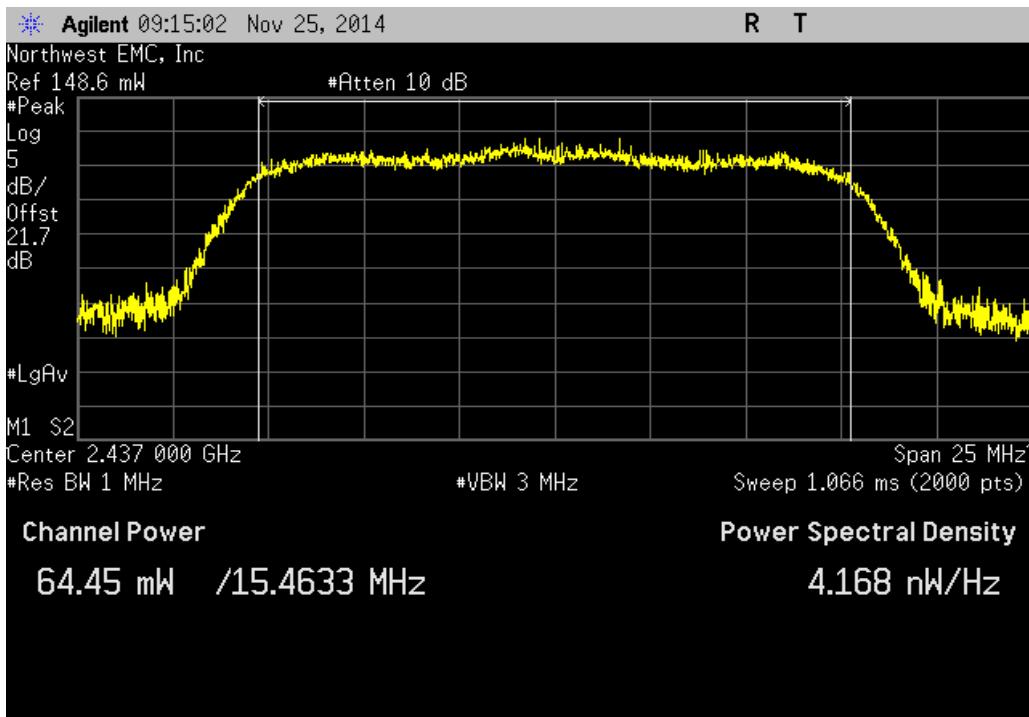
Antenna 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz		
Value	Limit (<)	Result
21.384 mW	1 W	Pass



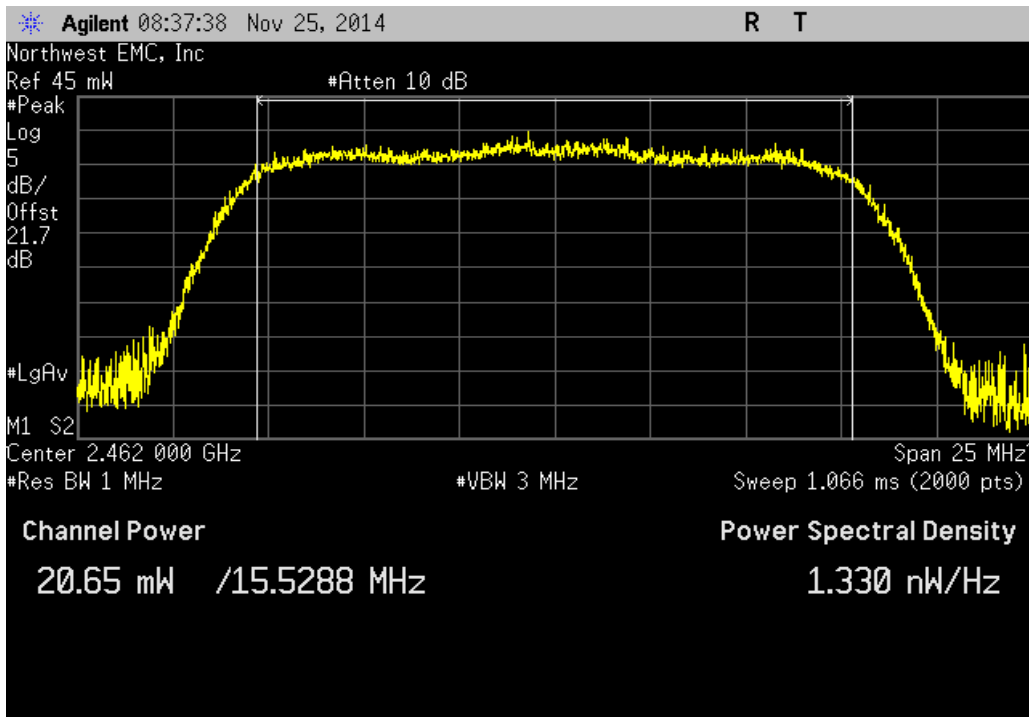
Antenna 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz		
Value	Limit (<)	Result
20.207 mW	1 W	Pass



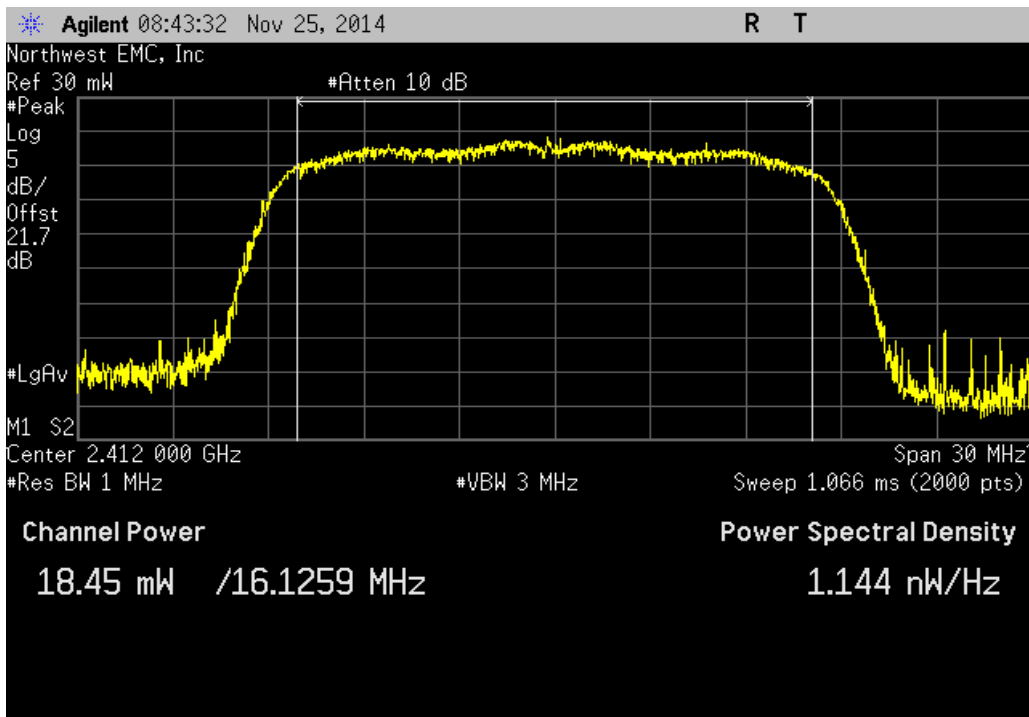
Antenna 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz		
Value	Limit (<)	Result
64.446 mW	1 W	Pass



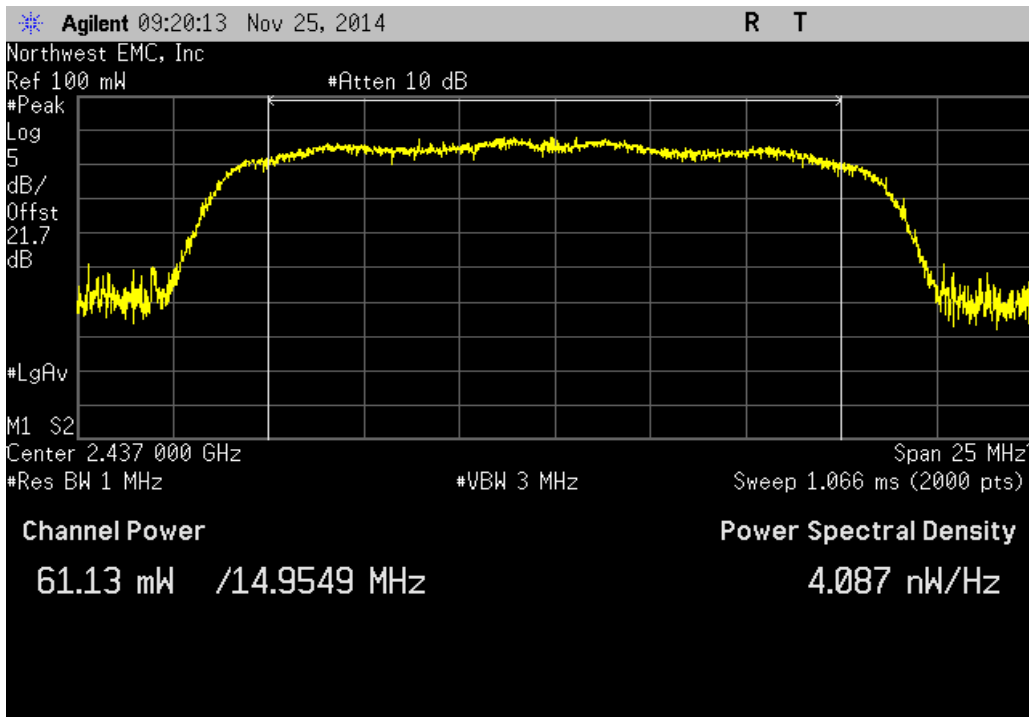
Antenna 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz		
Value	Limit (<)	Result
20.646 mW	1 W	Pass



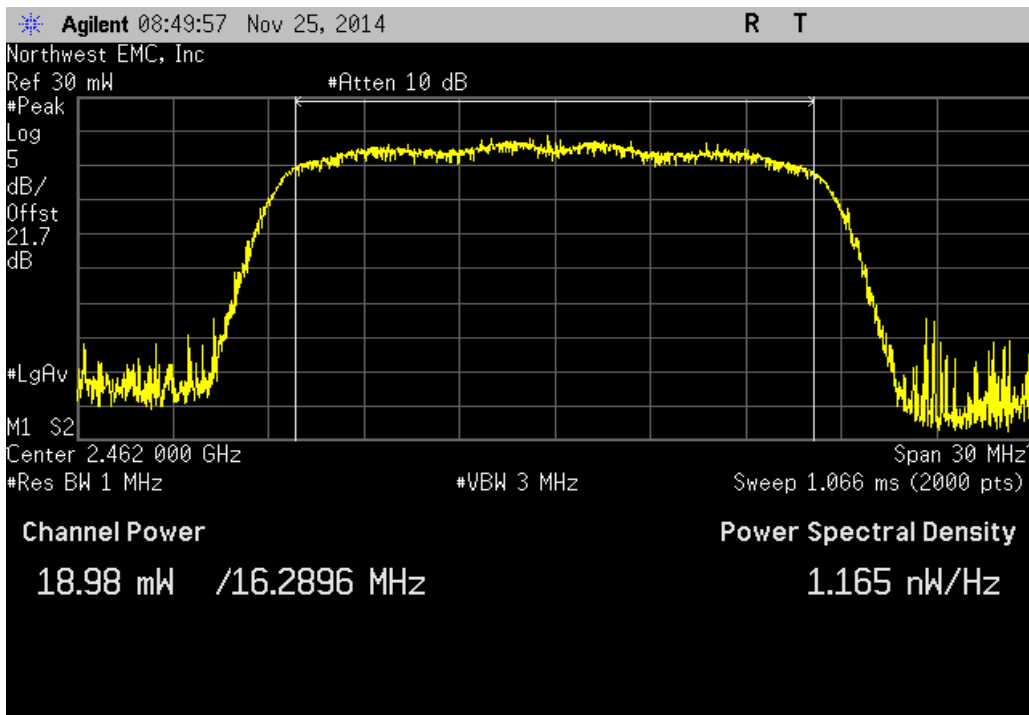
Antenna 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz		
Value	Limit (<)	Result
18.449 mW	1 W	Pass



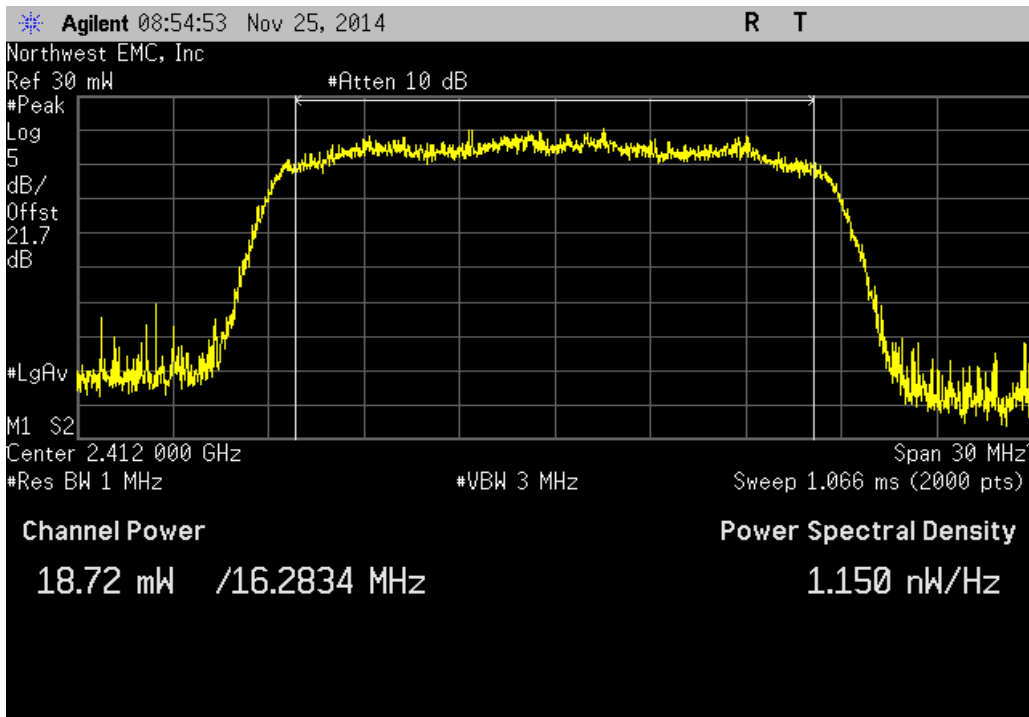
Antenna 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz		
Value	Limit (<)	Result
61.127 mW	1 W	Pass



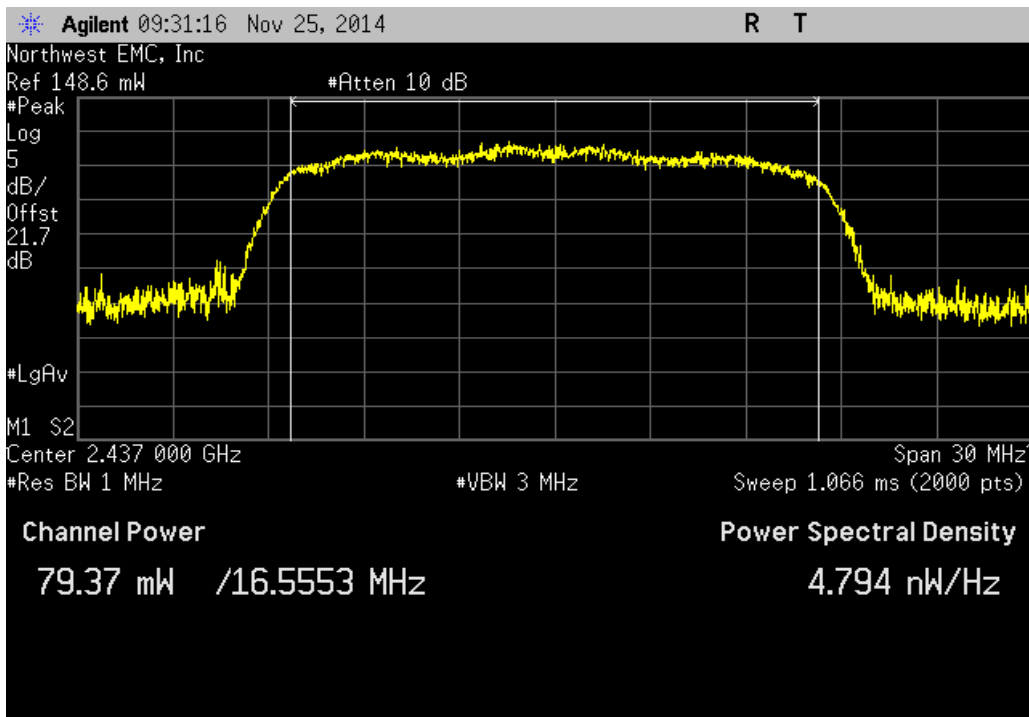
Antenna 0, 802.11(n) MCS0, High Channel 11, 2462 MHz		
Value	Limit (<)	Result
18.981 mW	1 W	Pass



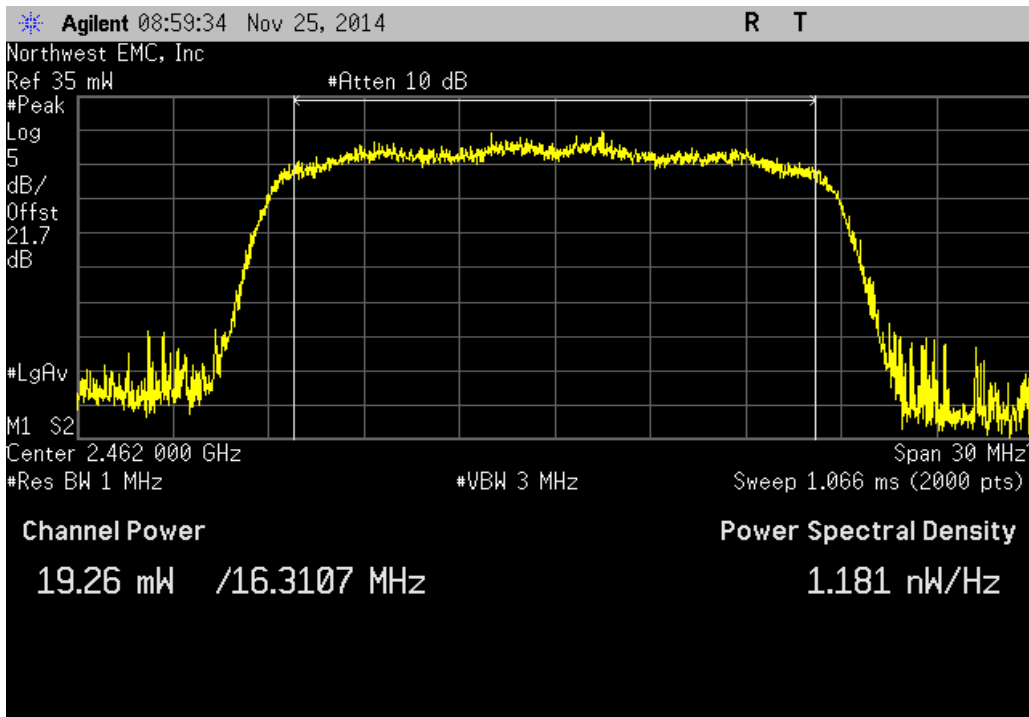
Antenna 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz			
	Value	Limit (<)	Result
	18.718 mW	1 W	Pass



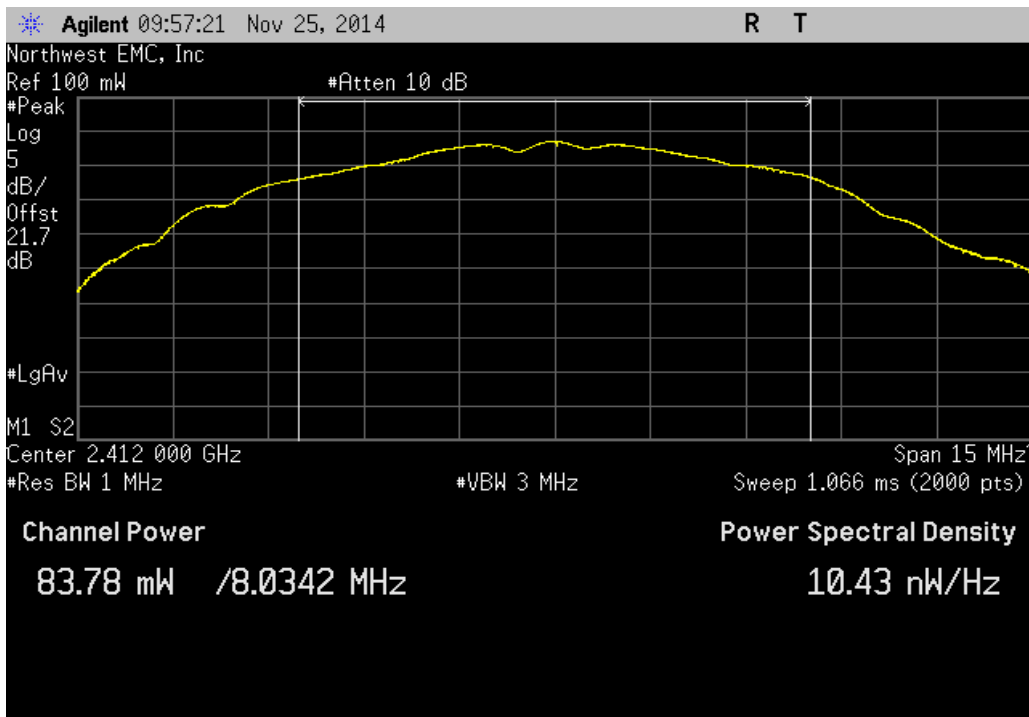
Antenna 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz			
	Value	Limit (<)	Result
	79.365 mW	1 W	Pass



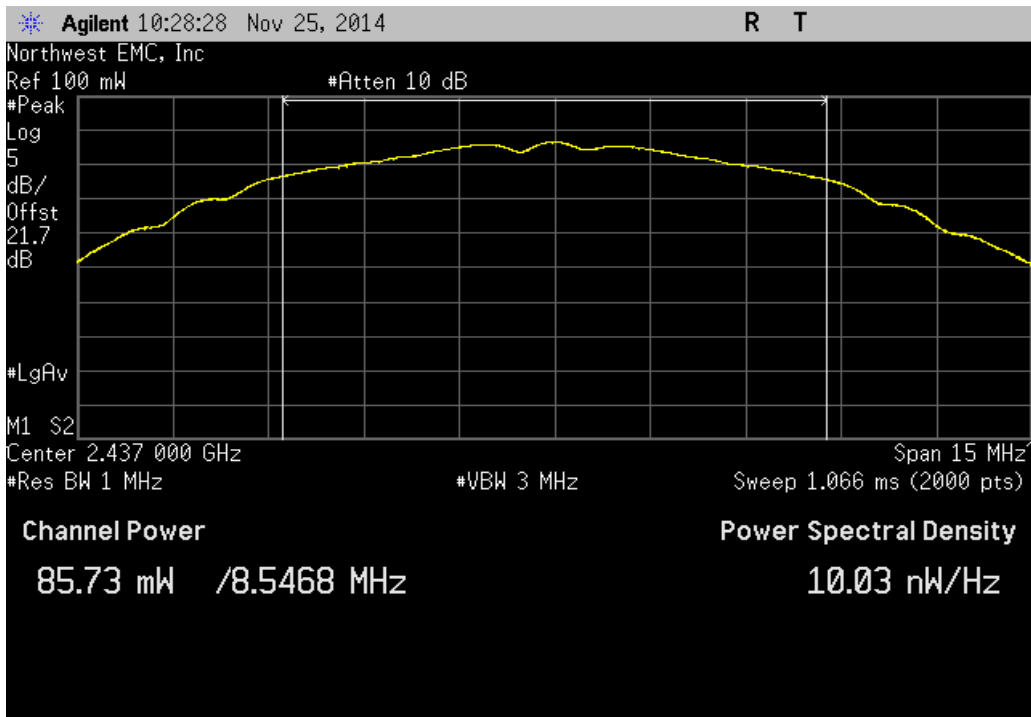
Antenna 0, 802.11(n) MCS7, High Channel 11, 2462 MHz			
	Value	Limit (<)	Result
	19.258 mW	1 W	Pass



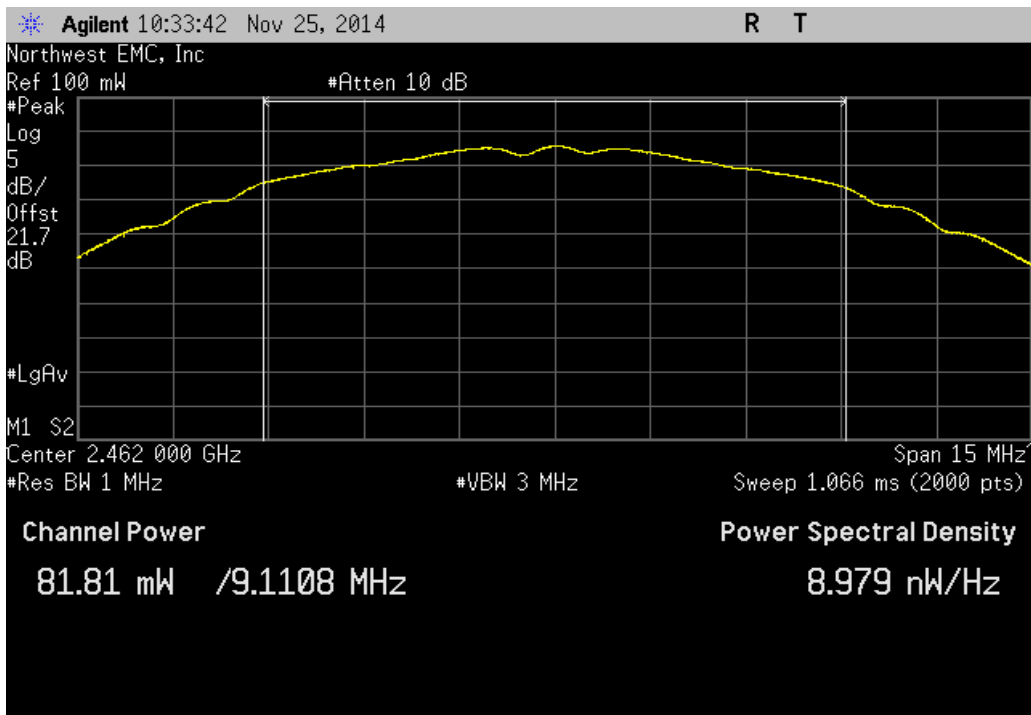
Antenna 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz			
	Value	Limit (<)	Result
	83.781 mW	1 W	Pass



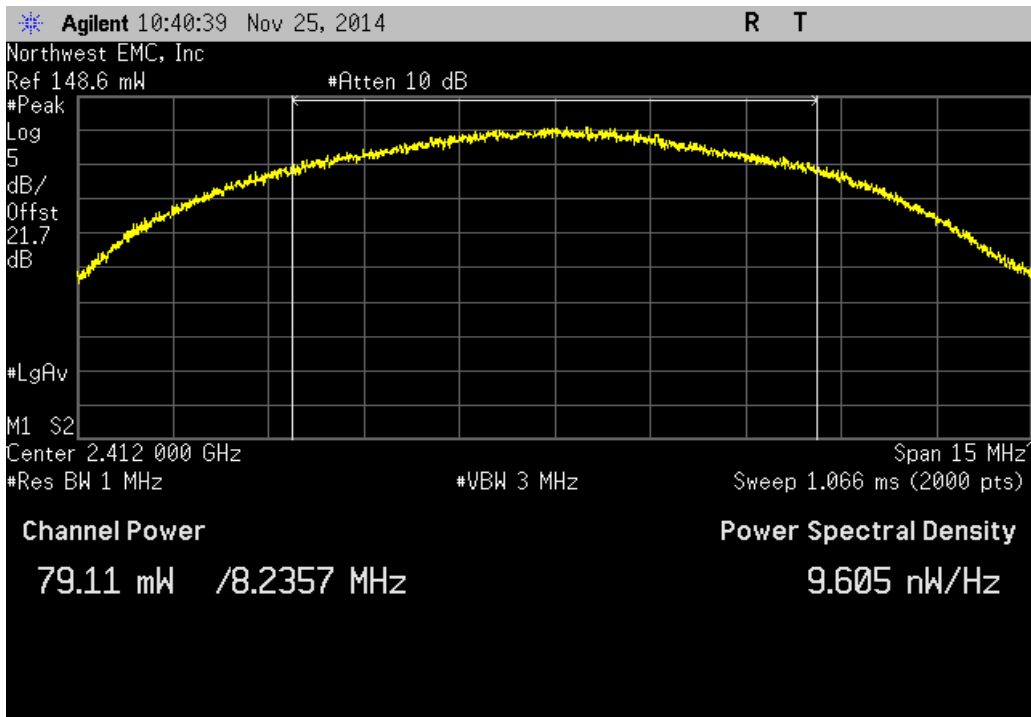
Antenna 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz			
	Value	Limit (<)	Result
	85.735 mW	1 W	Pass



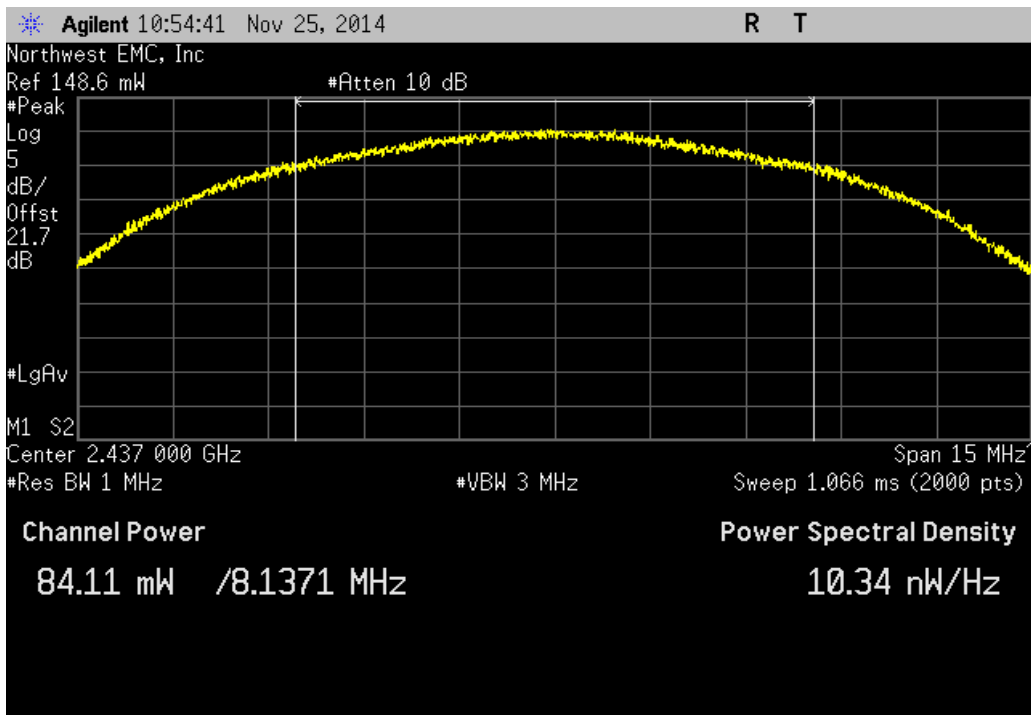
Antenna 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz			
	Value	Limit (<)	Result
	81.805 mW	1 W	Pass



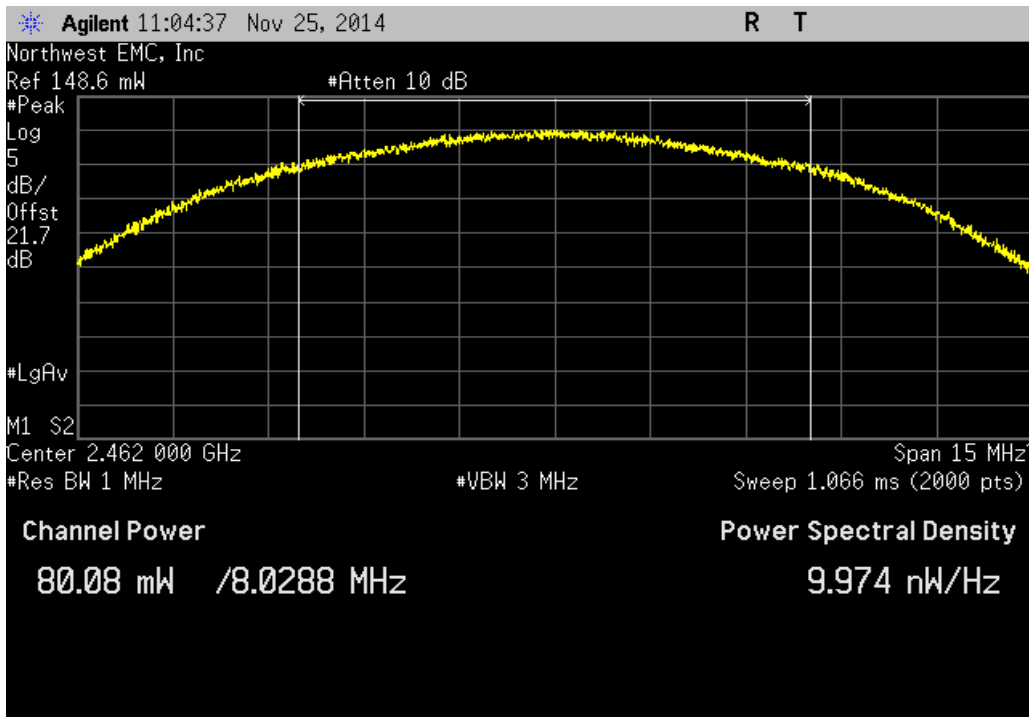
Antenna 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz			
	Value	Limit (<)	Result
	79.107 mW	1 W	Pass



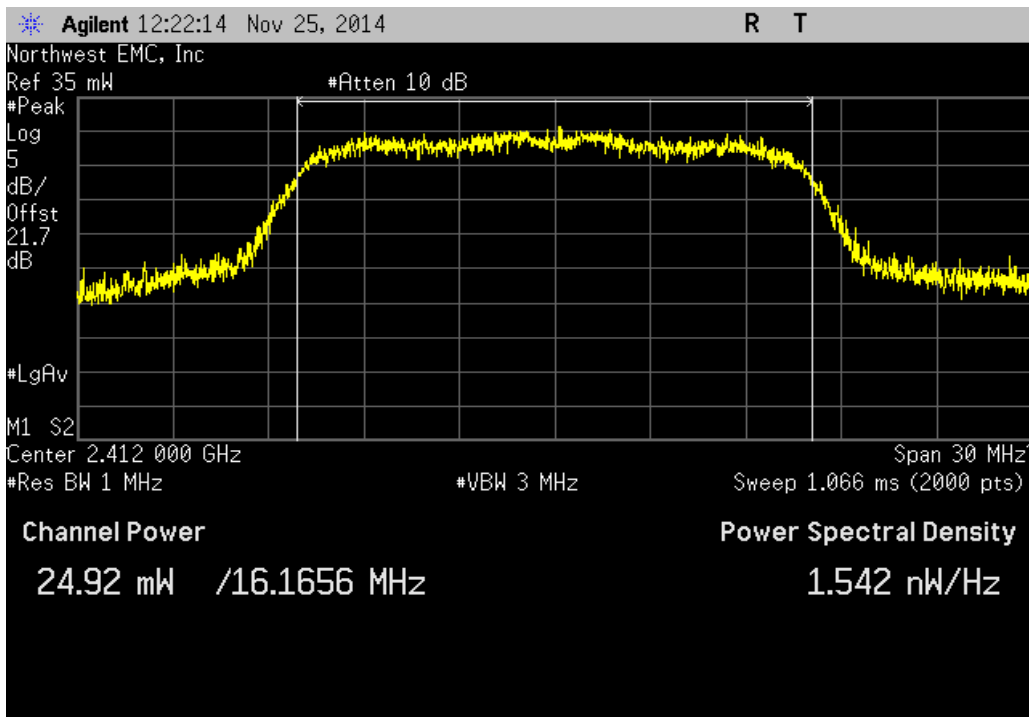
Antenna 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz			
	Value	Limit (<)	Result
	84.111 mW	1 W	Pass



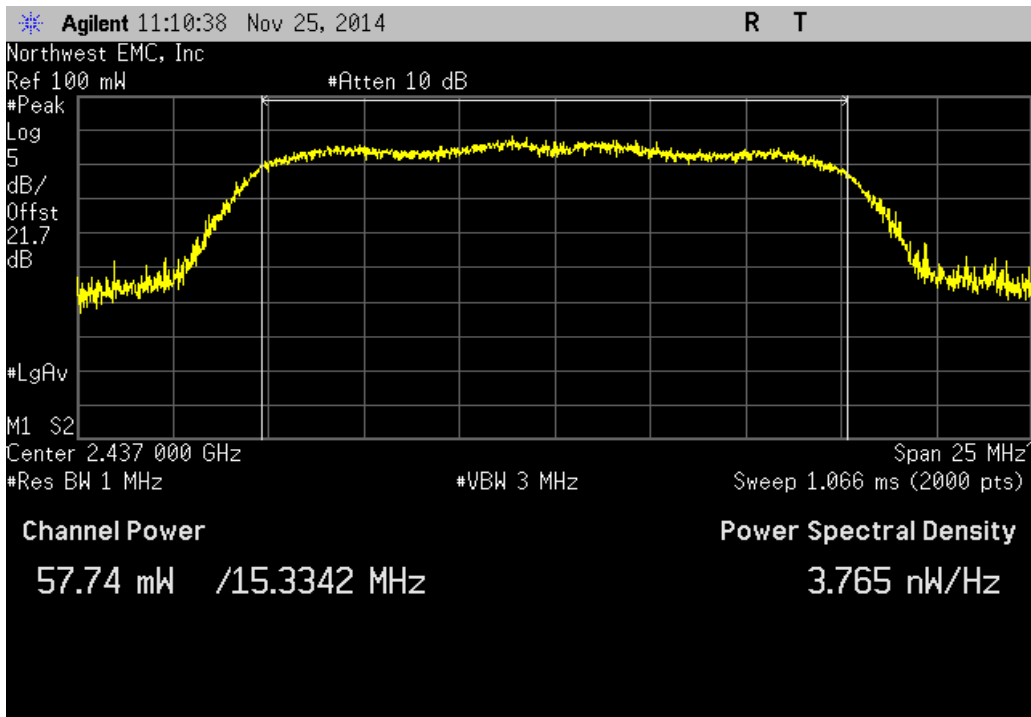
Antenna 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz			
	Value	Limit (<)	Result
	80.083 mW	1 W	Pass



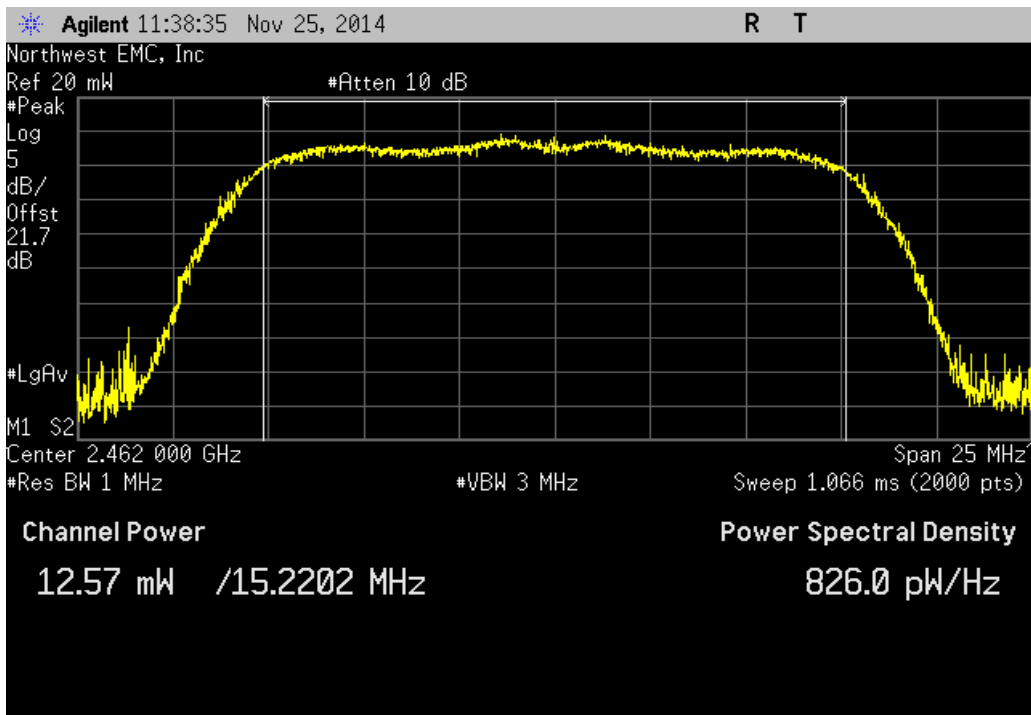
Antenna 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz			
	Value	Limit (<)	Result
	24.922 mW	1 W	Pass



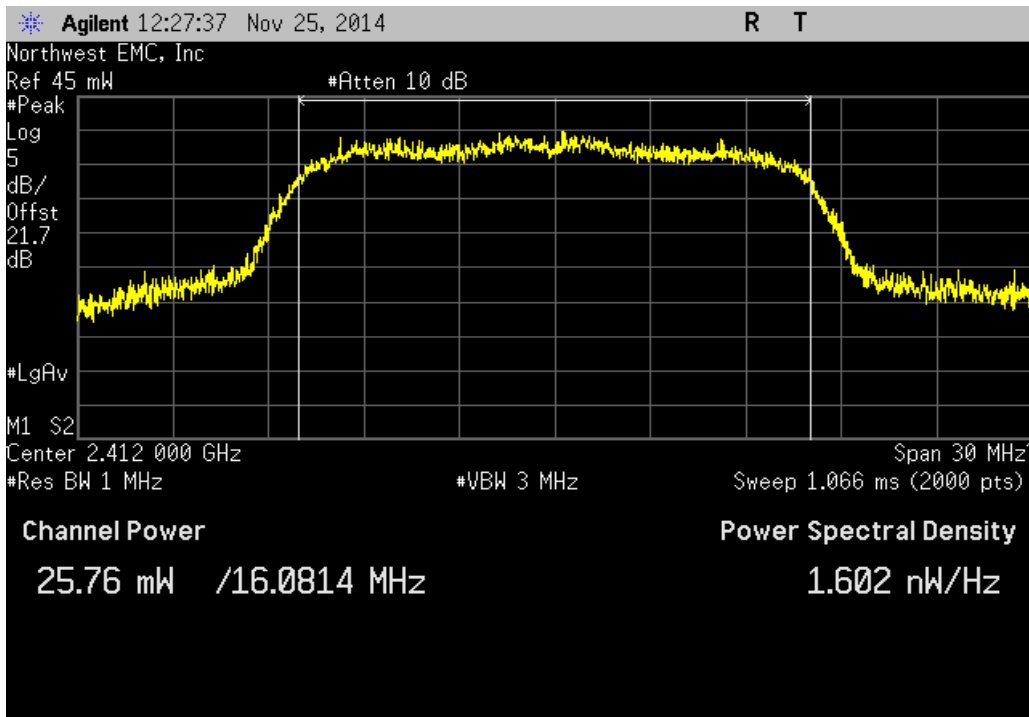
Antenna 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz		
Value	Limit (<)	Result
57.739 mW	1 W	Pass



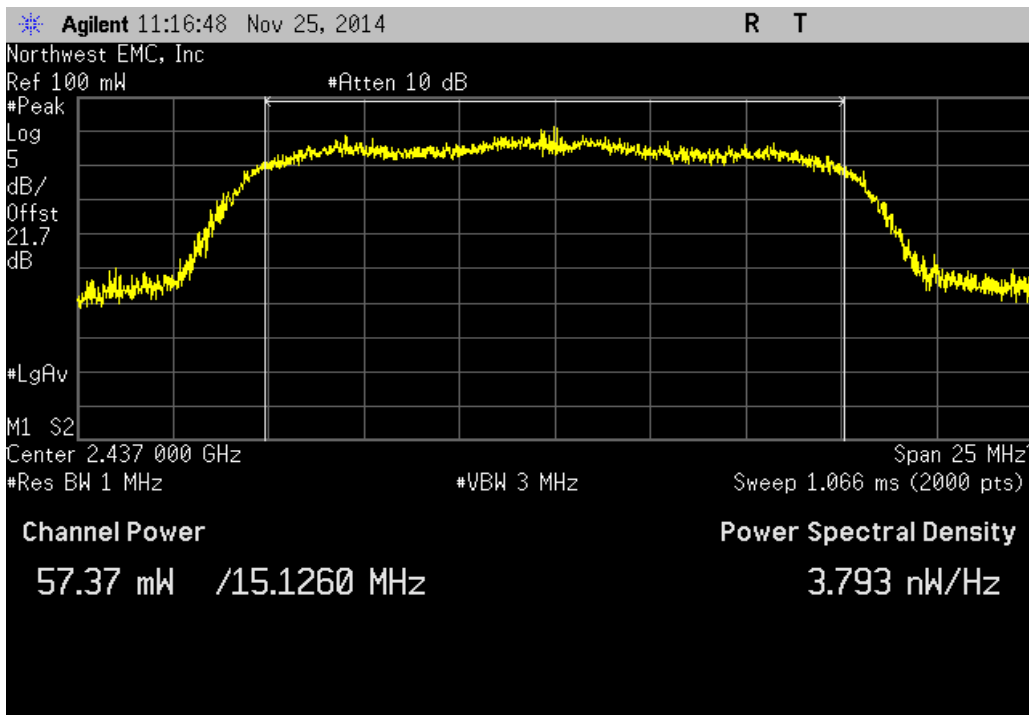
Antenna 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz		
Value	Limit (<)	Result
12.572 mW	1 W	Pass



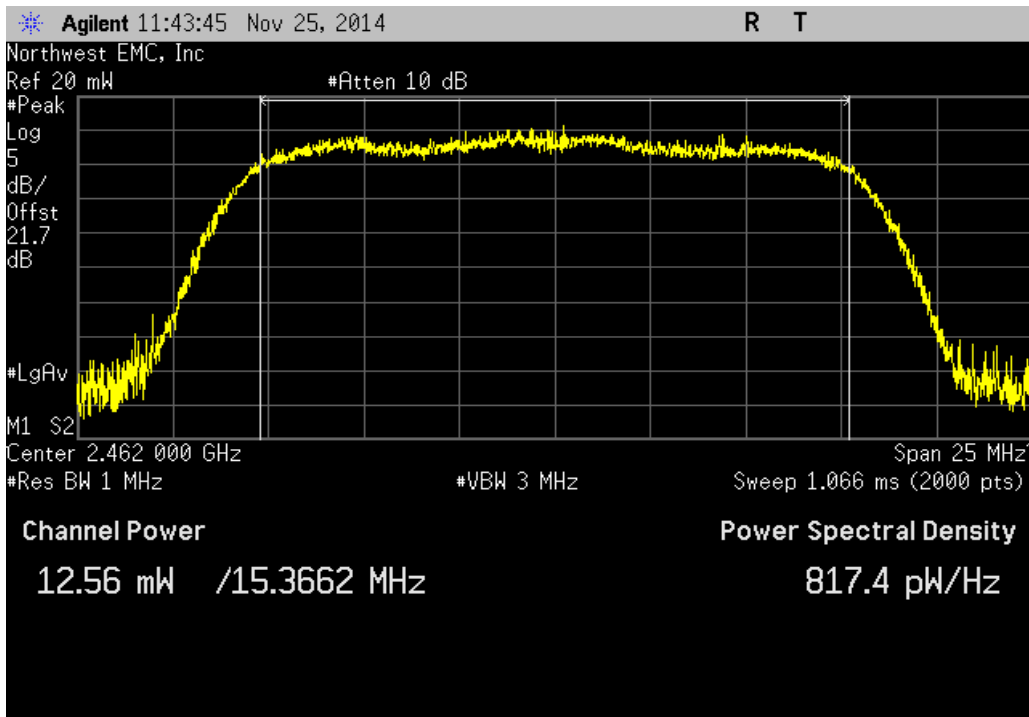
Antenna 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz			
	Value	Limit (<)	Result
	25.764 mW	1 W	Pass



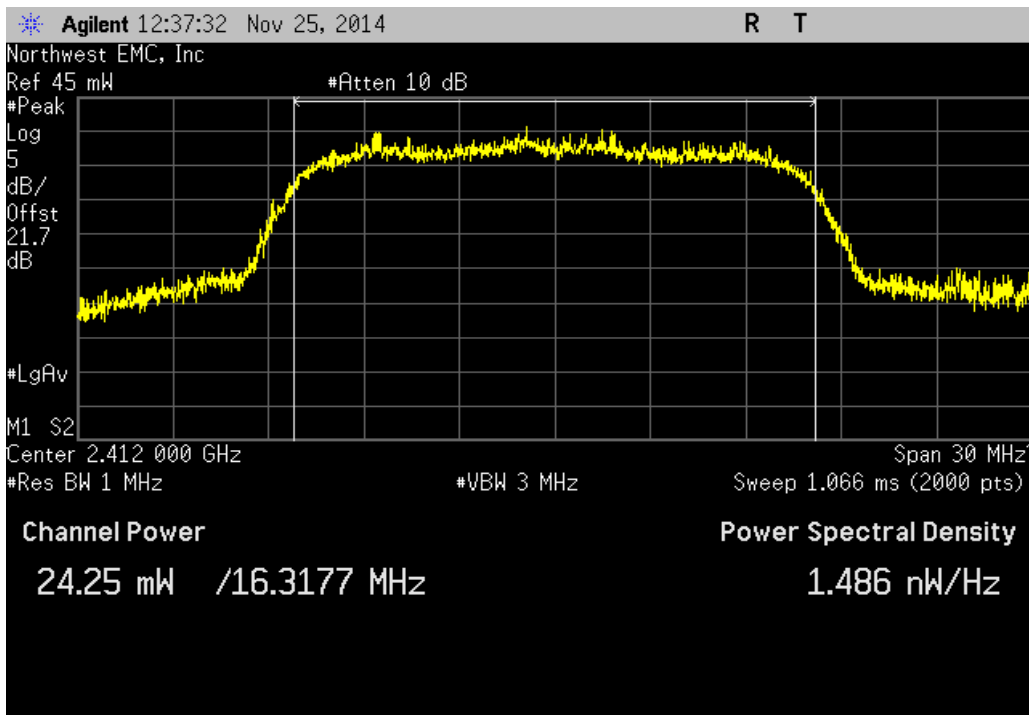
Antenna 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz			
	Value	Limit (<)	Result
	57.369 mW	1 W	Pass



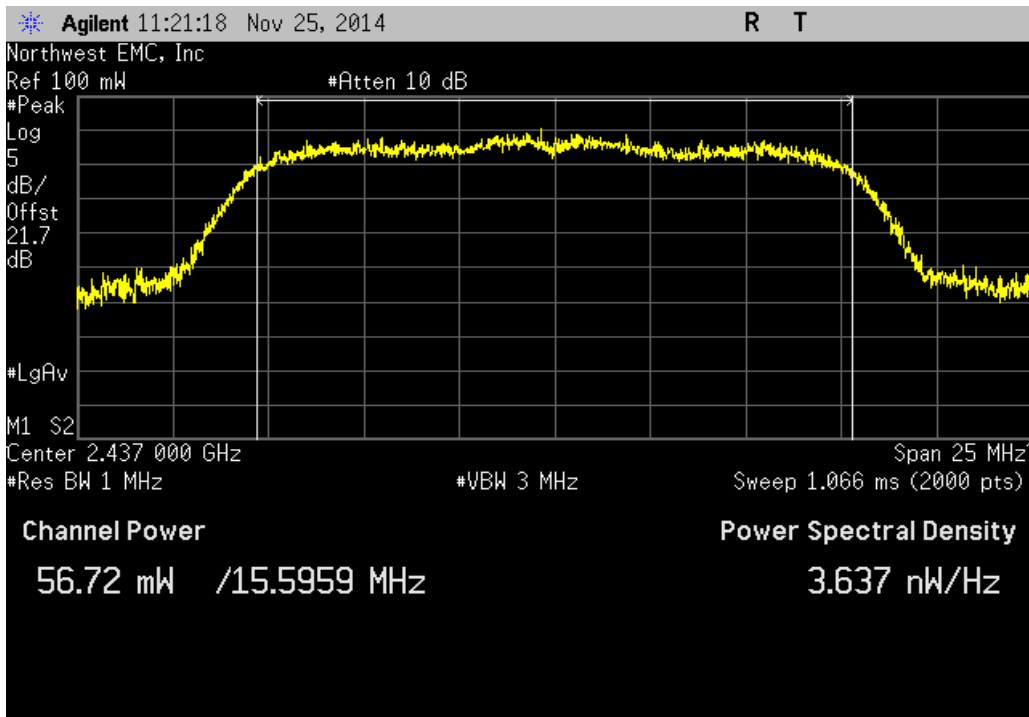
Antenna 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz		
Value	Limit (<)	Result
12.561 mW	1 W	Pass



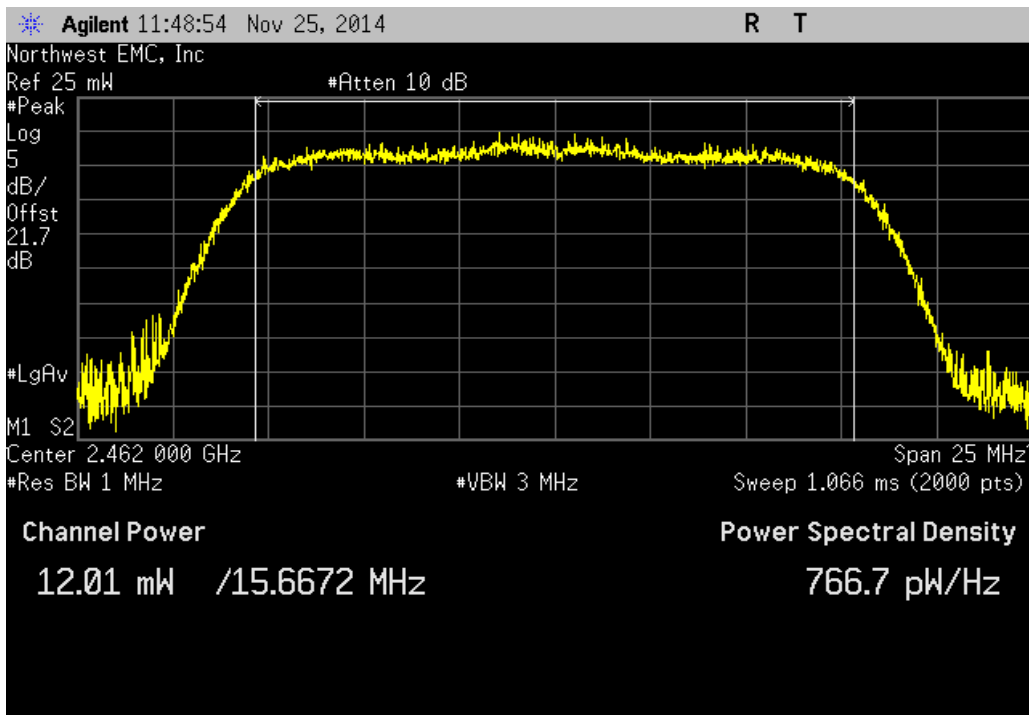
Antenna 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz		
Value	Limit (<)	Result
24.255 mW	1 W	Pass



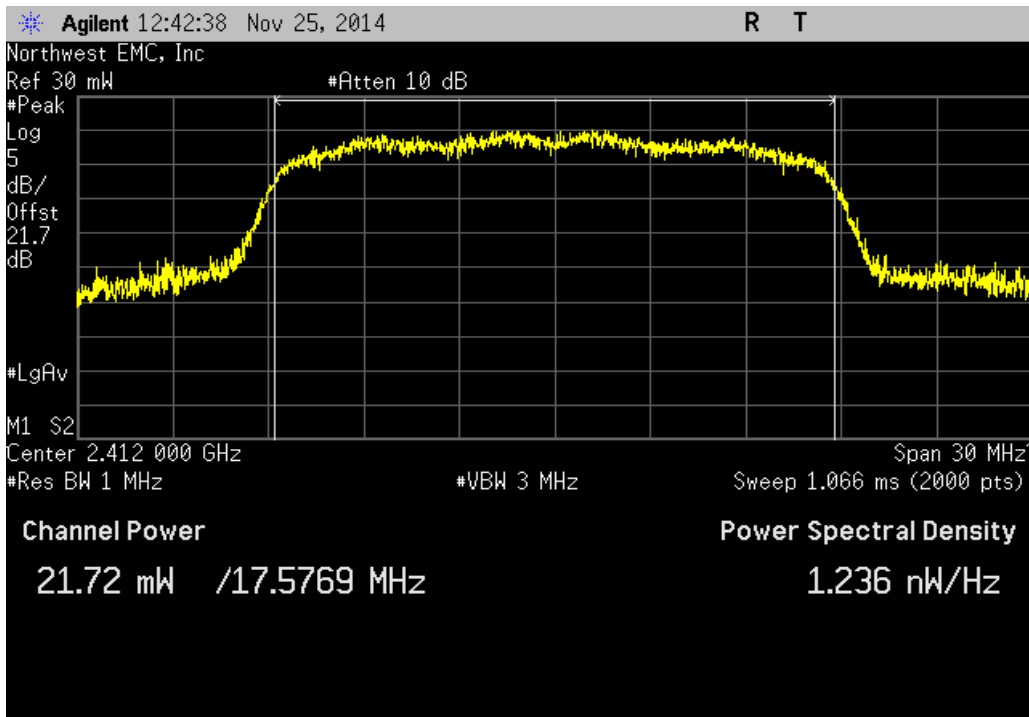
Antenna 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz		
Value	Limit (<)	Result
56.719 mW	1 W	Pass



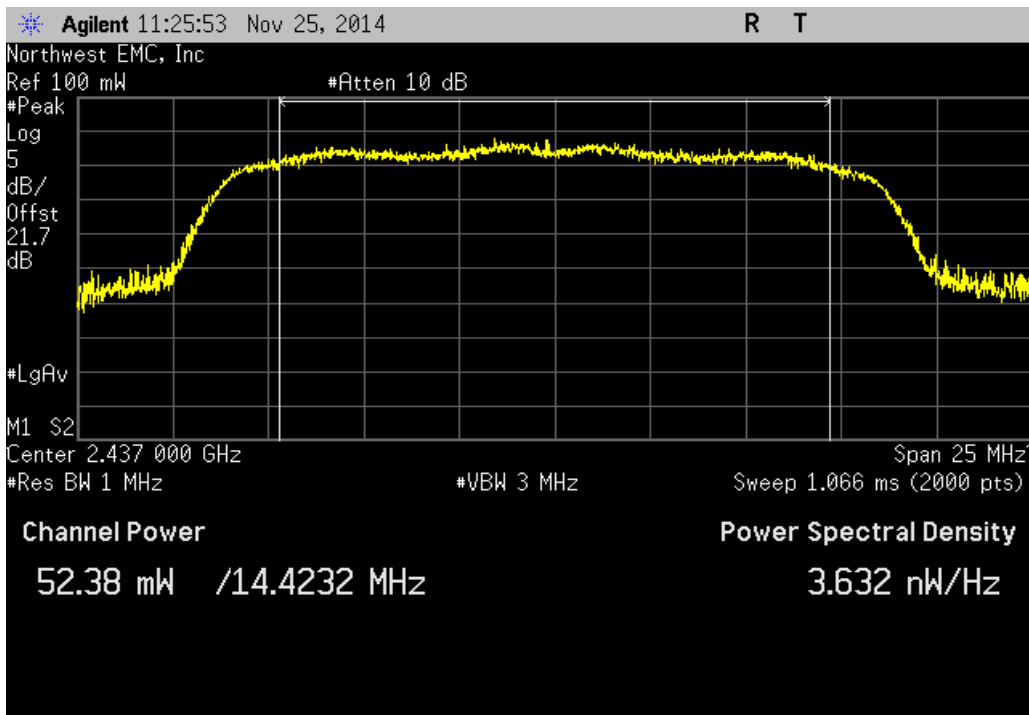
Antenna 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz		
Value	Limit (<)	Result
12.012 mW	1 W	Pass



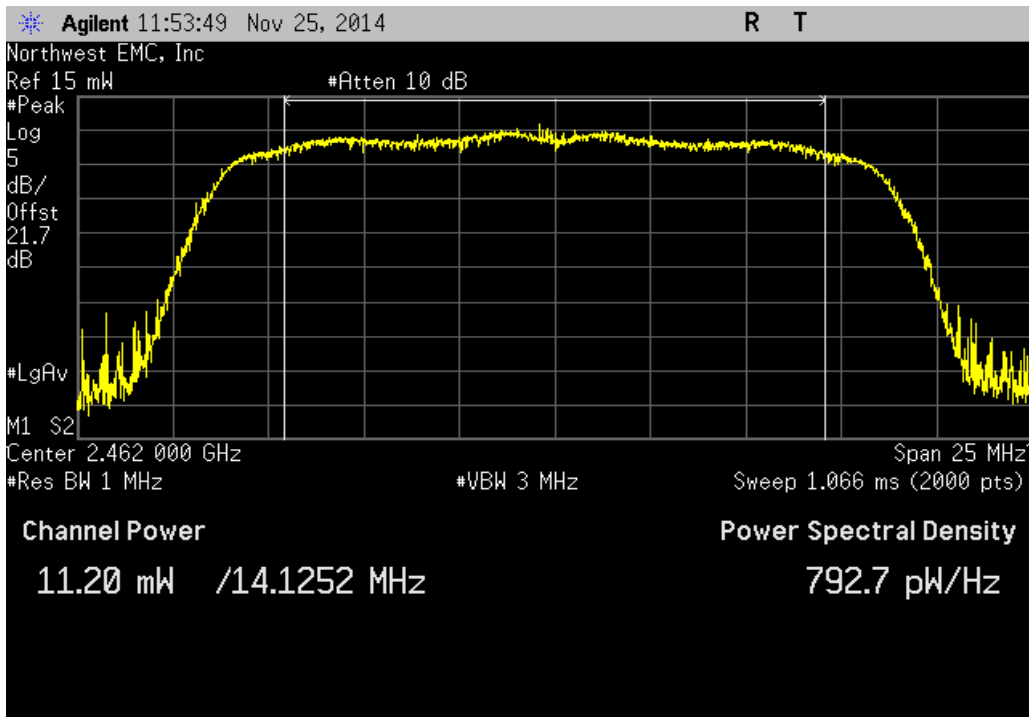
Antenna 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz			Value	Limit (<)	Result
			21.72 mW	1 W	Pass



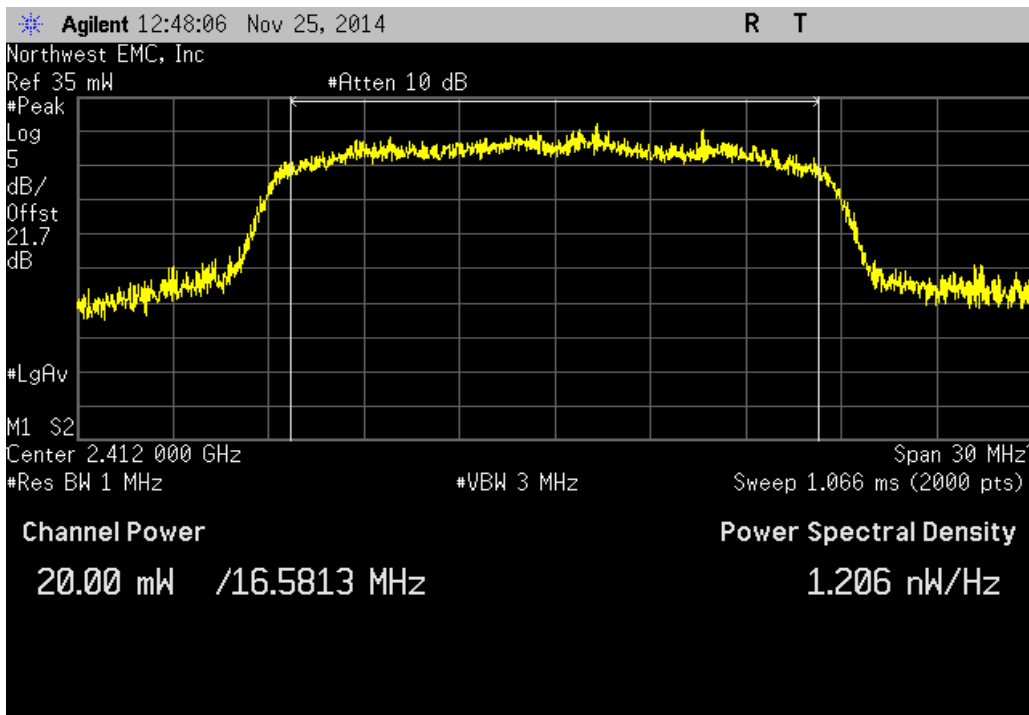
Antenna 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz			Value	Limit (<)	Result
			52.381 mW	1 W	Pass



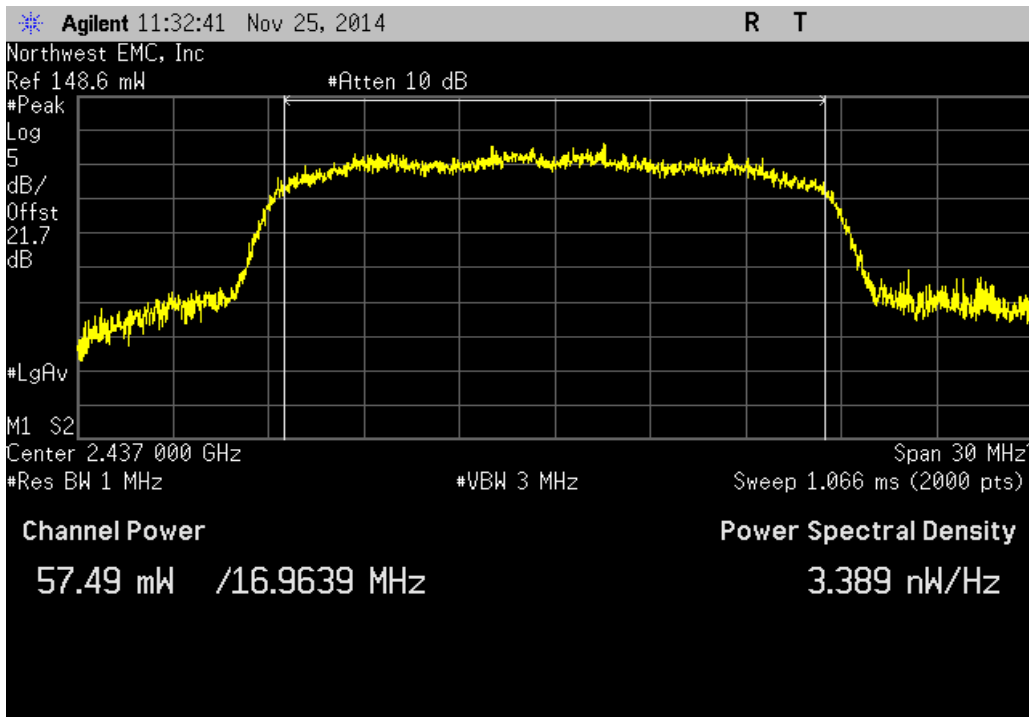
Antenna 1, 802.11(n) MCS0, High Channel 11, 2462 MHz		
Value	Limit (<)	Result
11.197 mW	1 W	Pass



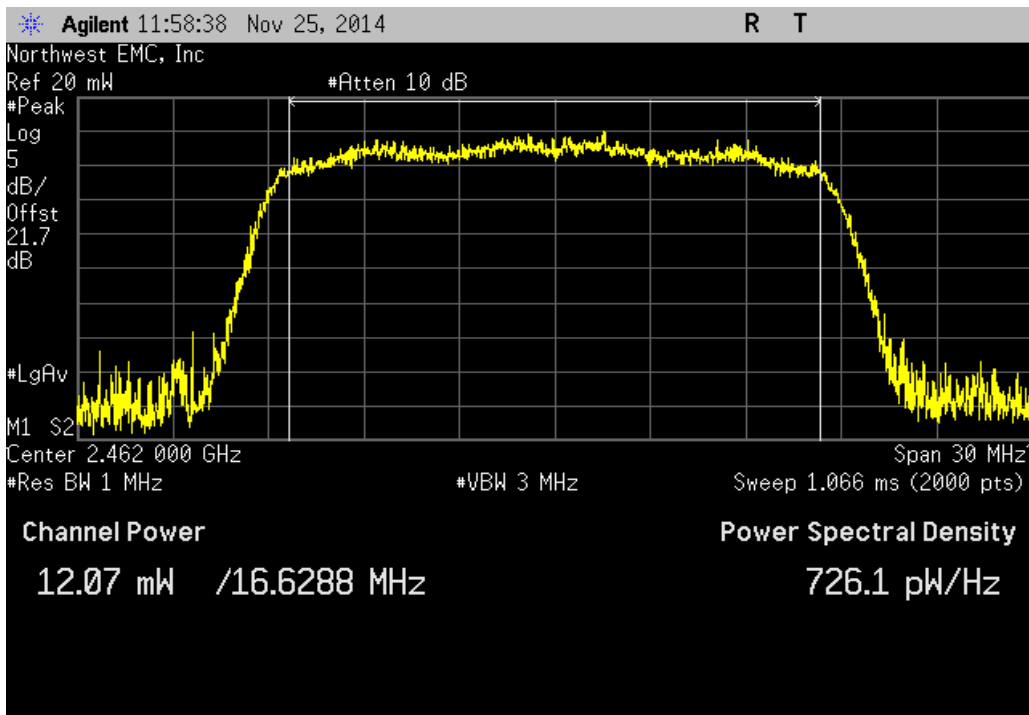
Antenna 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz		
Value	Limit (<)	Result
20.003 mW	1 W	Pass



Antenna 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz		
Value	Limit (<)	Result
57.494 mW	1 W	Pass



Antenna 1, 802.11(n) MCS7, High Channel 11, 2462 MHz		
Value	Limit (<)	Result
12.075 mW	1 W	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 (mos)
MN08 Direct Connect Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNU	10/2/2014	12
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC Block	Fairview Microwave	SD3379	AMI	10/2/2014	12
MXG Vector Signal Generator	Agilent	N5182A	TIF	8/12/2014	36
Spectrum Analyzer	Agilent	E4440A	AAX	4/28/2014	12

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:

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

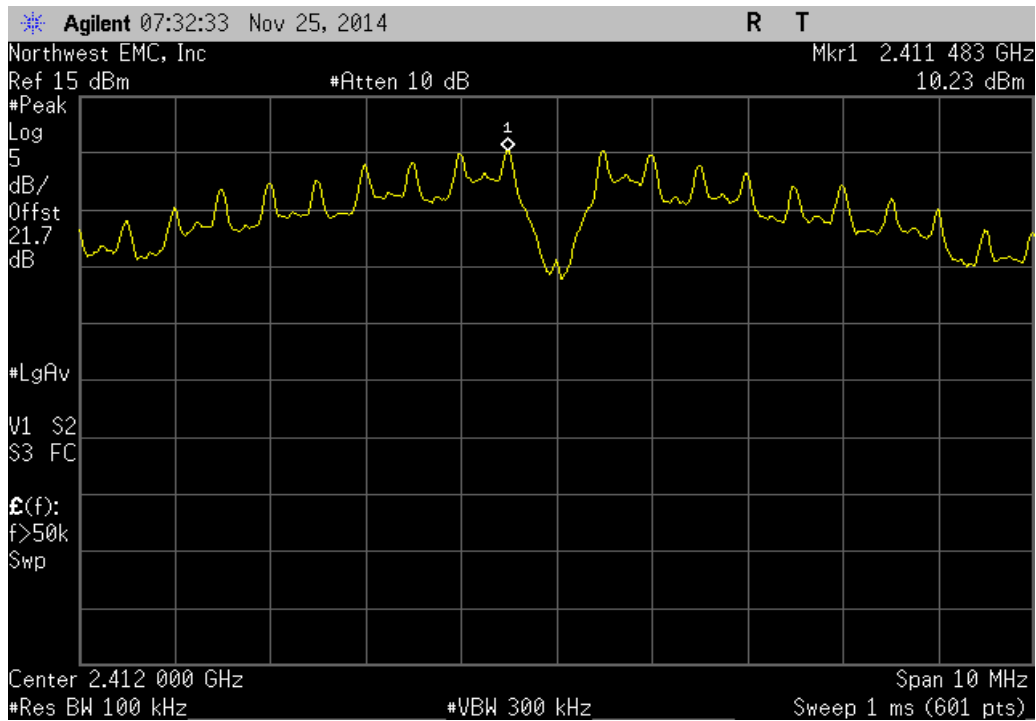


POWER SPECTRAL DENSITY

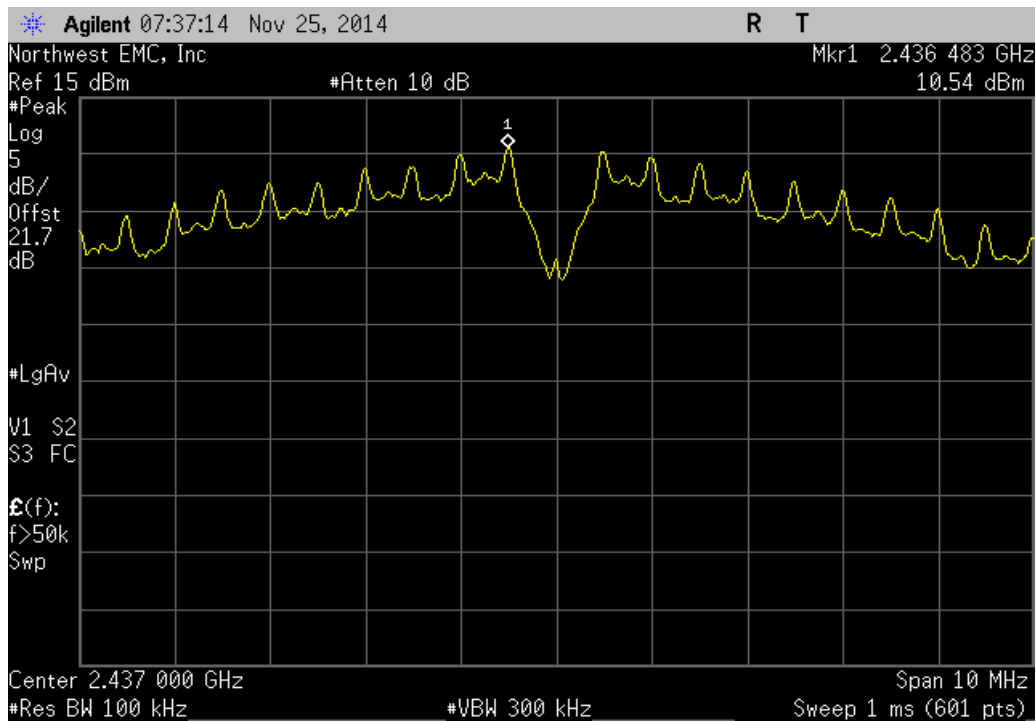
XMI 2014.02.07
NweTx 2014.11.06

EUT: TH8321WF		Work Order: HNYW0116	
Serial Number: 51911030061813		Date: 11/25/14	
Customer: Honeywell, Automation and Control Solutions		Temperature: 23.2°C	
Attendees: None		Humidity: 16%	
Project: None		Barometric Pres.: 1019.9	
Tested by: Trevor Buls		Power: 110VAC/60Hz	
		Job Site: MN08	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2014		ANSI C63.10:2009	
COMMENTS			
None			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	3	Signature <i>Trevor Buls</i>	
		Value	Limit
		dBm/100kHz	dBm/3kHz
		To dBm/3kHz	
		Value	Results
		dBm/3kHz	
Antenna 0			
802.11(b) 1 Mbps			
	Low Channel 1, 2412 MHz	10.229	-15.2
	Mid Channel 6, 2437 MHz	10.544	-15.2
	High Channel 11, 2462 MHz	10.191	-15.2
		-4.971	8
		-4.656	8
		-5.009	8
			Pass
			Pass
			Pass
802.11(b) 11 Mbps			
	Low Channel 1, 2412 MHz	10.717	-15.2
	Mid Channel 6, 2437 MHz	10.473	-15.2
	High Channel 11, 2462 MHz	11.027	-15.2
		-4.483	8
		-4.727	8
		-4.173	8
			Pass
			Pass
			Pass
802.11(g) 6 Mbps			
	Low Channel 1, 2412 MHz	1.288	-15.2
	Mid Channel 6, 2437 MHz	6.428	-15.2
	High Channel 11, 2462 MHz	1.321	-15.2
		-13.912	8
		-8.772	8
		-13.879	8
			Pass
			Pass
			Pass
802.11(g) 36 Mbps			
	Low Channel 1, 2412 MHz	1.363	-15.2
	Mid Channel 6, 2437 MHz	6.543	-15.2
	High Channel 11, 2462 MHz	1.485	-15.2
		-13.837	8
		-8.657	8
		-13.715	8
			Pass
			Pass
			Pass
802.11(g) 54 Mbps			
	Low Channel 1, 2412 MHz	1.403	-15.2
	Mid Channel 6, 2437 MHz	6.151	-15.2
	High Channel 11, 2462 MHz	1.489	-15.2
		-13.797	8
		-9.049	8
		-13.711	8
			Pass
			Pass
			Pass
802.11(n) MCS0			
	Low Channel 1, 2412 MHz	1.03	-15.2
	Mid Channel 6, 2437 MHz	6.407	-15.2
	High Channel 11, 2462 MHz	0.993	-15.2
		-14.17	8
		-8.793	8
		-14.207	8
			Pass
			Pass
			Pass
802.11(n) MCS7			
	Low Channel 1, 2412 MHz	1.121	-15.2
	Mid Channel 6, 2437 MHz	7.517	-15.2
	High Channel 11, 2462 MHz	1.029	-15.2
		-14.079	8
		-7.683	8
		-14.171	8
			Pass
			Pass
			Pass
Antenna 1			
802.11(b) 1 Mbps			
	Low Channel 1, 2412 MHz	10.448	-15.2
	Mid Channel 6, 2437 MHz	9.93	-15.2
	High Channel 11, 2462 MHz	9.755	-15.2
		-4.752	8
		-5.27	8
		-5.445	8
			Pass
			Pass
			Pass
802.11(b) 11 Mbps			
	Low Channel 1, 2412 MHz	10.572	-15.2
	Mid Channel 6, 2437 MHz	10.546	-15.2
	High Channel 11, 2462 MHz	10.122	-15.2
		-4.628	8
		-4.654	8
		-5.078	8
			Pass
			Pass
			Pass
802.11(g) 6 Mbps			
	Low Channel 1, 2412 MHz	1.607	-15.2
	Mid Channel 6, 2437 MHz	5.631	-15.2
	High Channel 11, 2462 MHz	-0.822	-15.2
		-13.593	8
		-9.569	8
		-16.022	8
			Pass
			Pass
			Pass
802.11(g) 36 Mbps			
	Low Channel 1, 2412 MHz	1.693	-15.2
	Mid Channel 6, 2437 MHz	6.384	-15.2
	High Channel 11, 2462 MHz	-0.647	-15.2
		-13.507	8
		-8.816	8
		-15.847	8
			Pass
			Pass
			Pass
802.11(g) 54 Mbps			
	Low Channel 1, 2412 MHz	2.463	-15.2
	Mid Channel 6, 2437 MHz	6.404	-15.2
	High Channel 11, 2462 MHz	-0.887	-15.2
		-12.737	8
		-8.796	8
		-16.087	8
			Pass
			Pass
			Pass
802.11(n) MCS0			
	Low Channel 1, 2412 MHz	0.977	-15.2
	Mid Channel 6, 2437 MHz	6.322	-15.2
	High Channel 11, 2462 MHz	-0.687	-15.2
		-14.223	8
		-8.878	8
		-15.887	8
			Pass
			Pass
			Pass
802.11(n) MCS7			
	Low Channel 1, 2412 MHz	1.059	-15.2
	Mid Channel 6, 2437 MHz	6.468	-15.2
	High Channel 11, 2462 MHz	-0.854	-15.2
		-14.141	8
		-8.732	8
		-16.054	8
			Pass
			Pass
			Pass

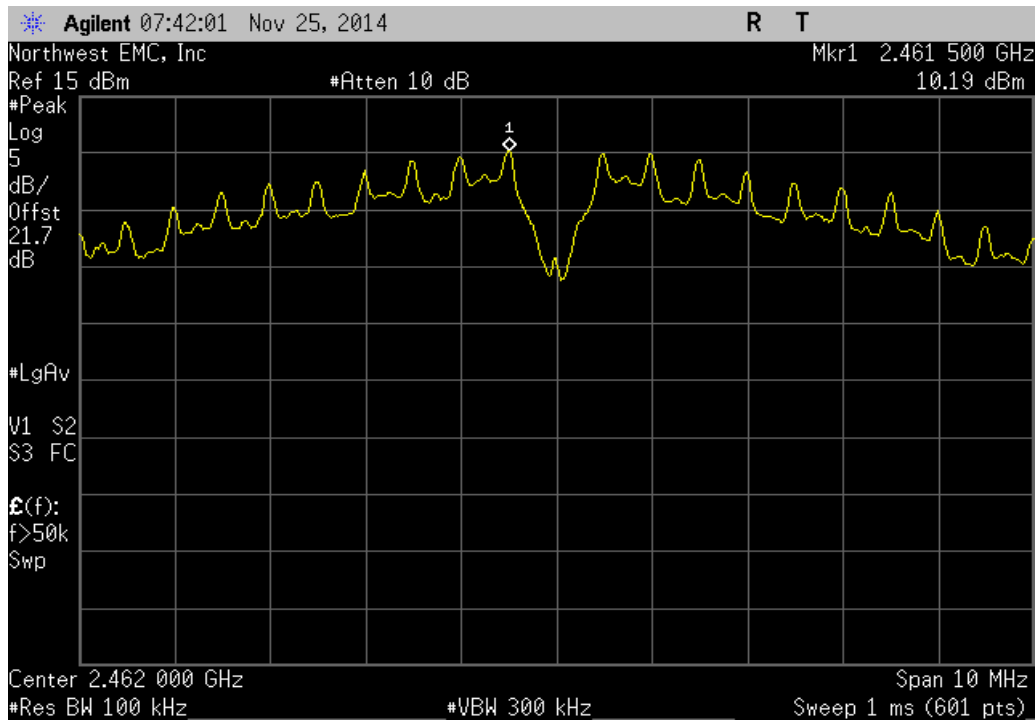
Antenna 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz					
Value	dBm/100kHz	To dBm/3kHz	Value	Limit	Results
	dBm/100kHz		dBm/3kHz		
	10.229	-15.2	-4.971	8	Pass



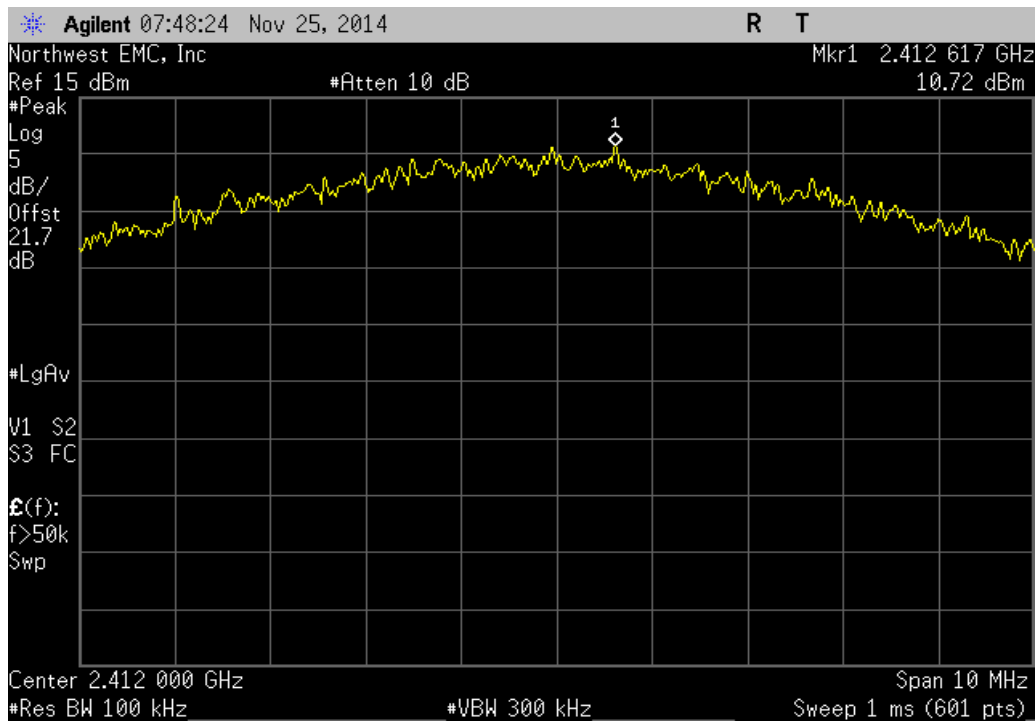
Antenna 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz					
Value	dBm/100kHz	To dBm/3kHz	Value	Limit	Results
	dBm/100kHz		dBm/3kHz		
	10.544	-15.2	-4.656	8	Pass



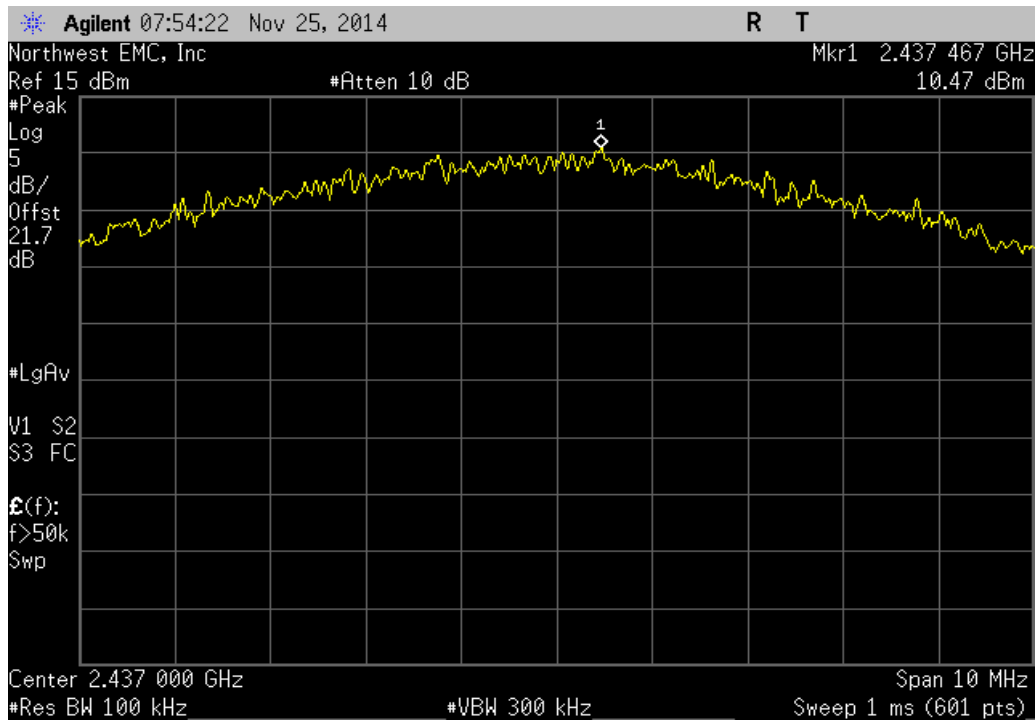
Antenna 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz					
	Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
	10.191	-15.2	-5.009	8	Pass



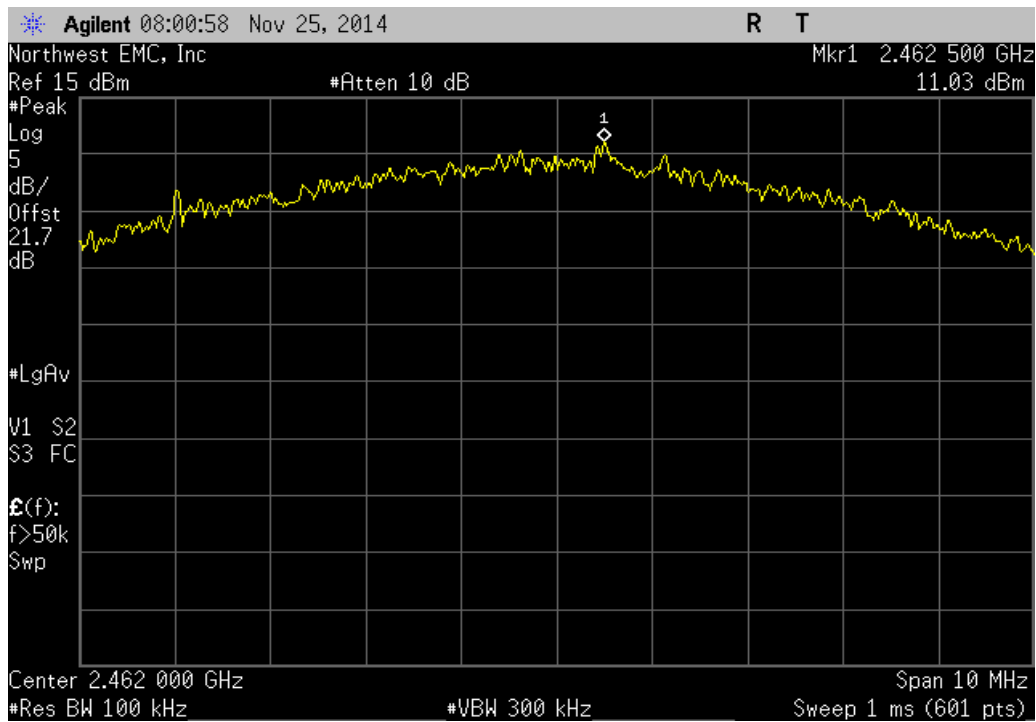
Antenna 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz					
	Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
	10.717	-15.2	-4.483	8	Pass



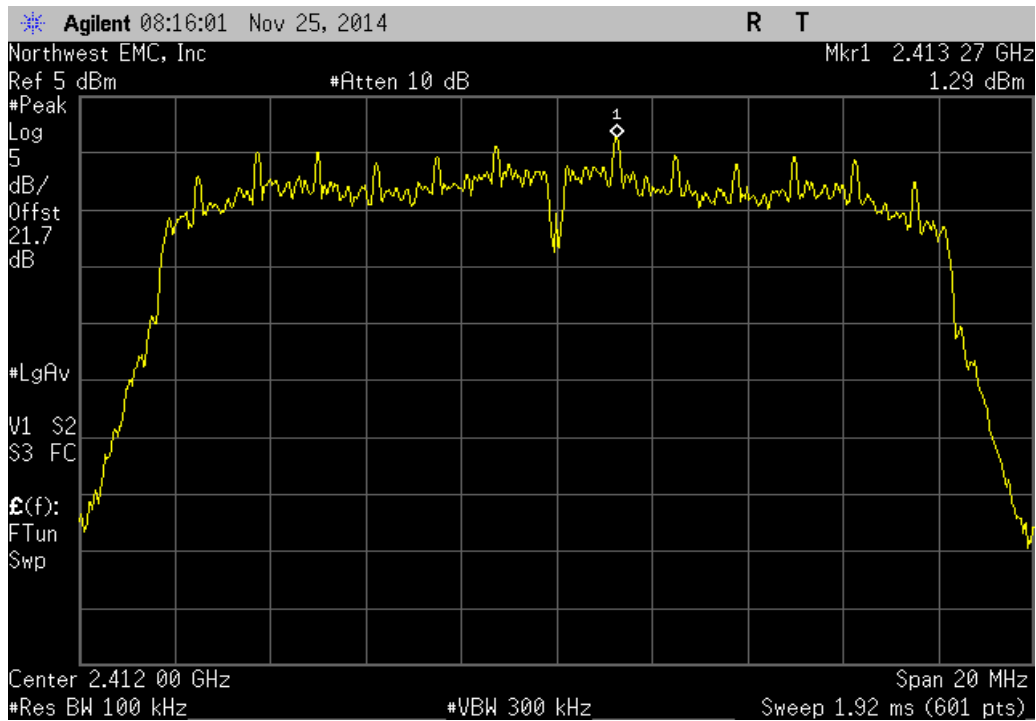
Antenna 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit		
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	10.473	-15.2	-4.727	8	Pass	



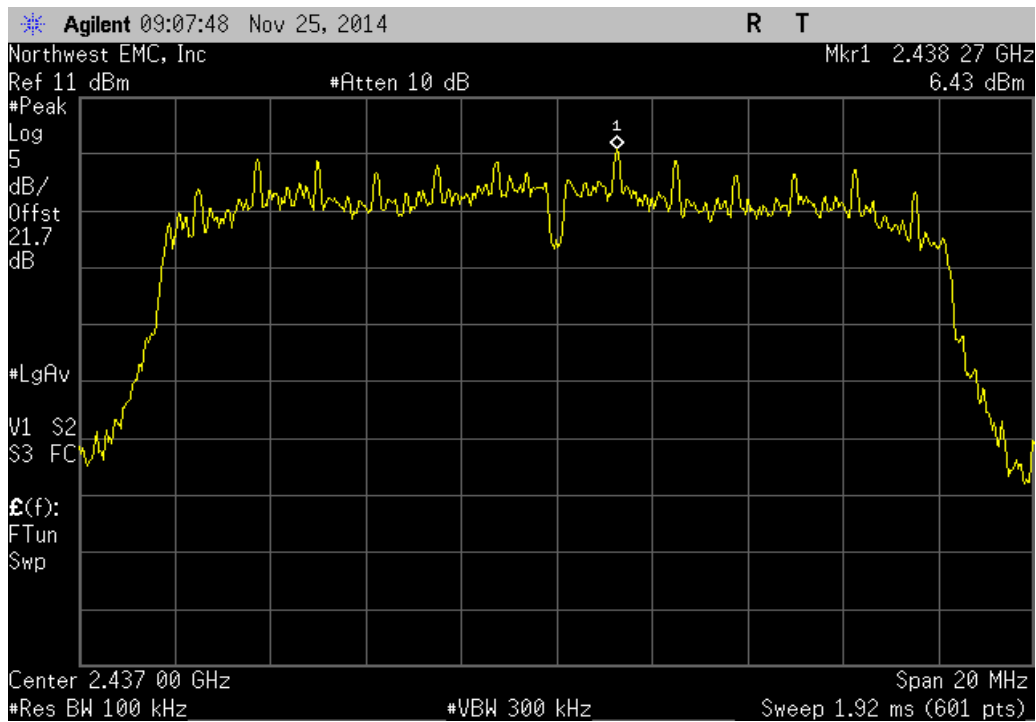
Antenna 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit		
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	11.027	-15.2	-4.173	8	Pass	



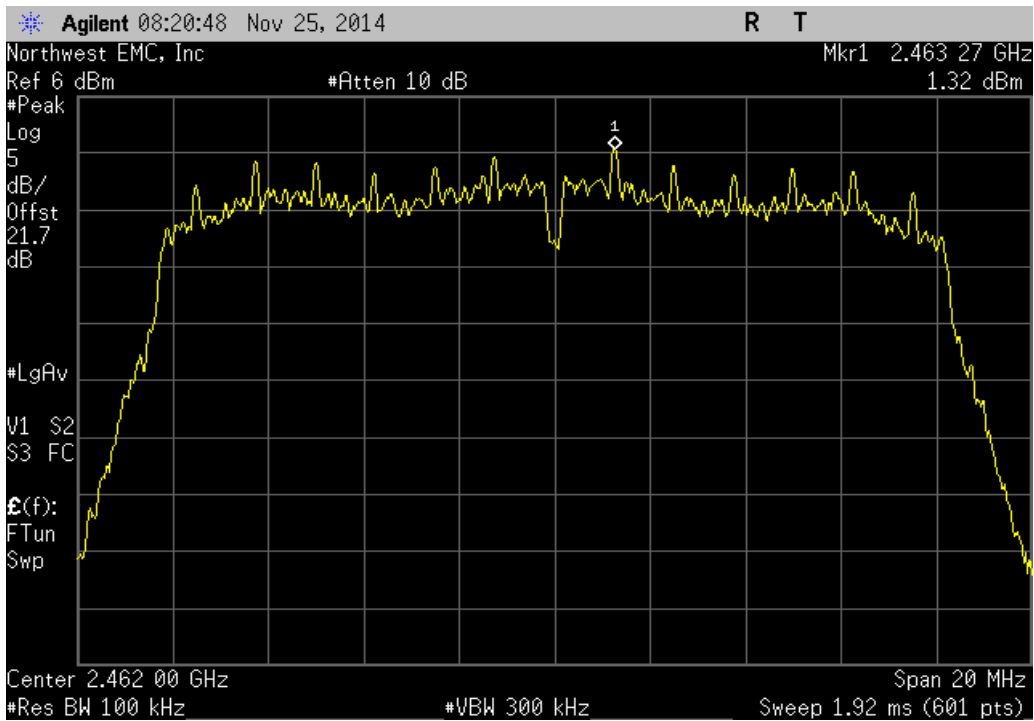
Antenna 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz					
Value	dBm/100kHz	Value	Limit		
	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	1.288	-15.2	-13.912	8	Pass



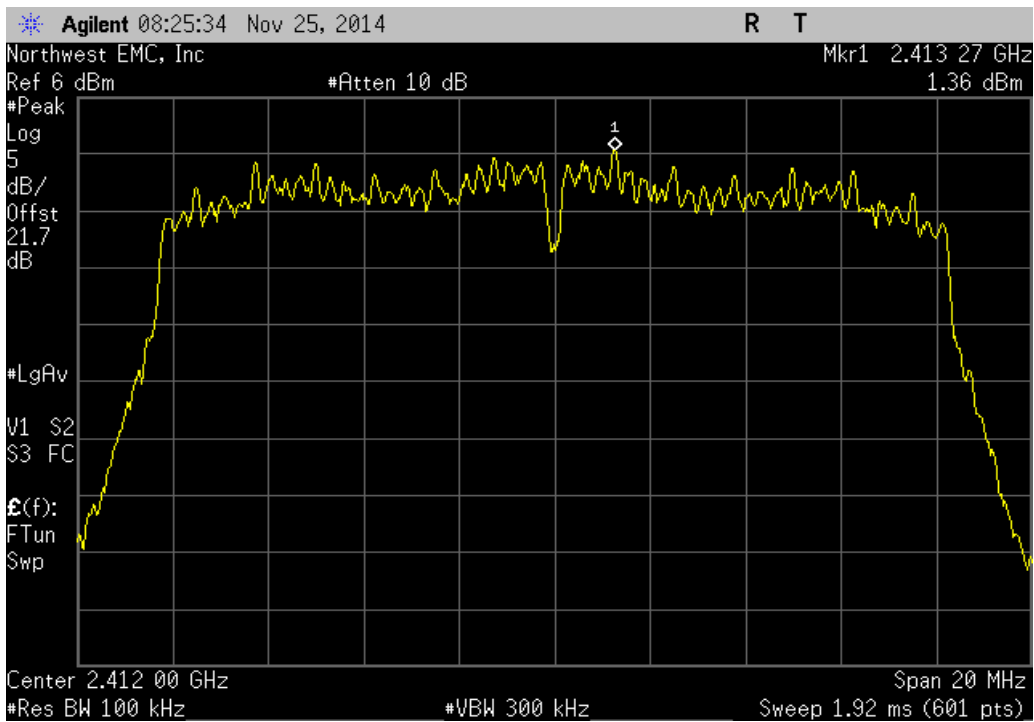
Antenna 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz					
Value	dBm/100kHz	Value	Limit		
	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	6.428	-15.2	-8.772	8	Pass



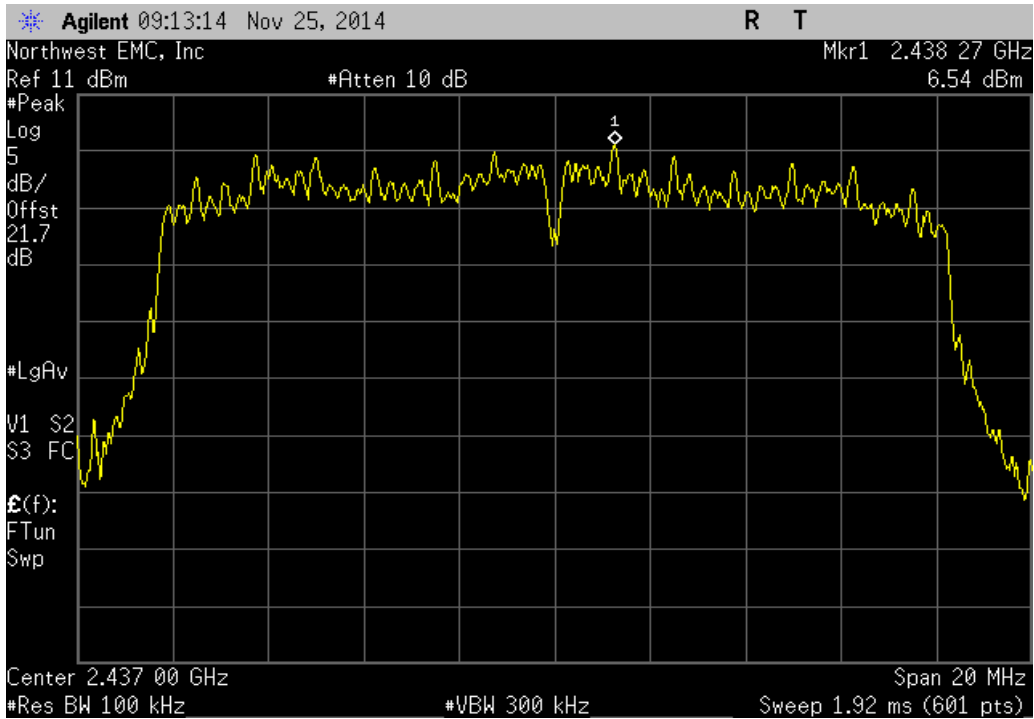
Antenna 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz					
	Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
	1.321	-15.2	-13.879	8	Pass



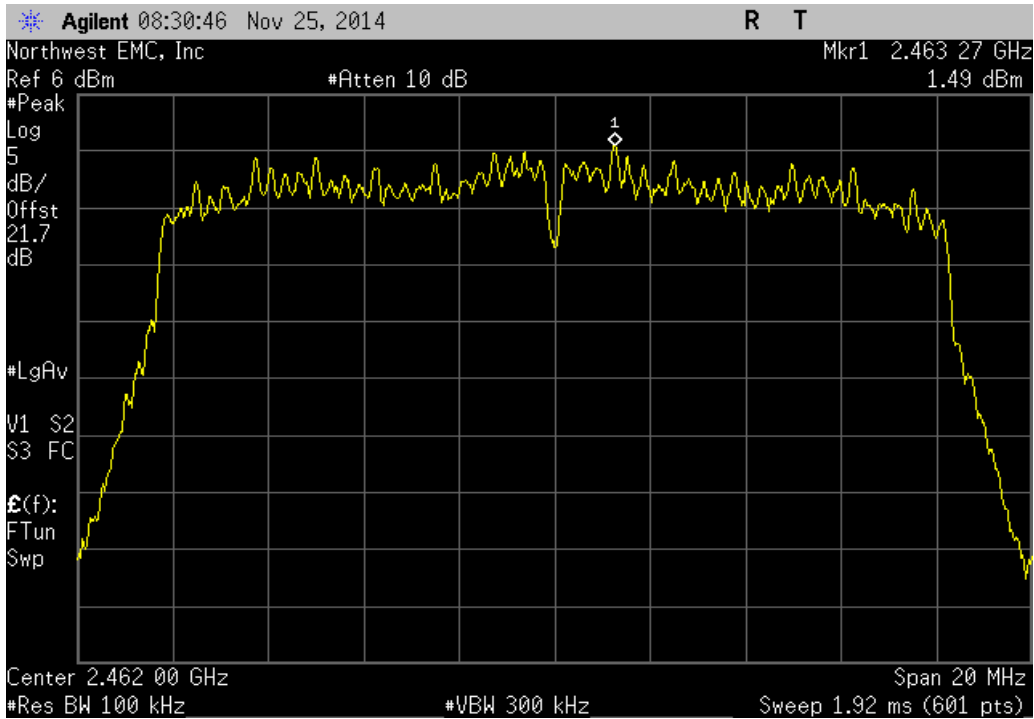
Antenna 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz					
	Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
	1.363	-15.2	-13.837	8	Pass



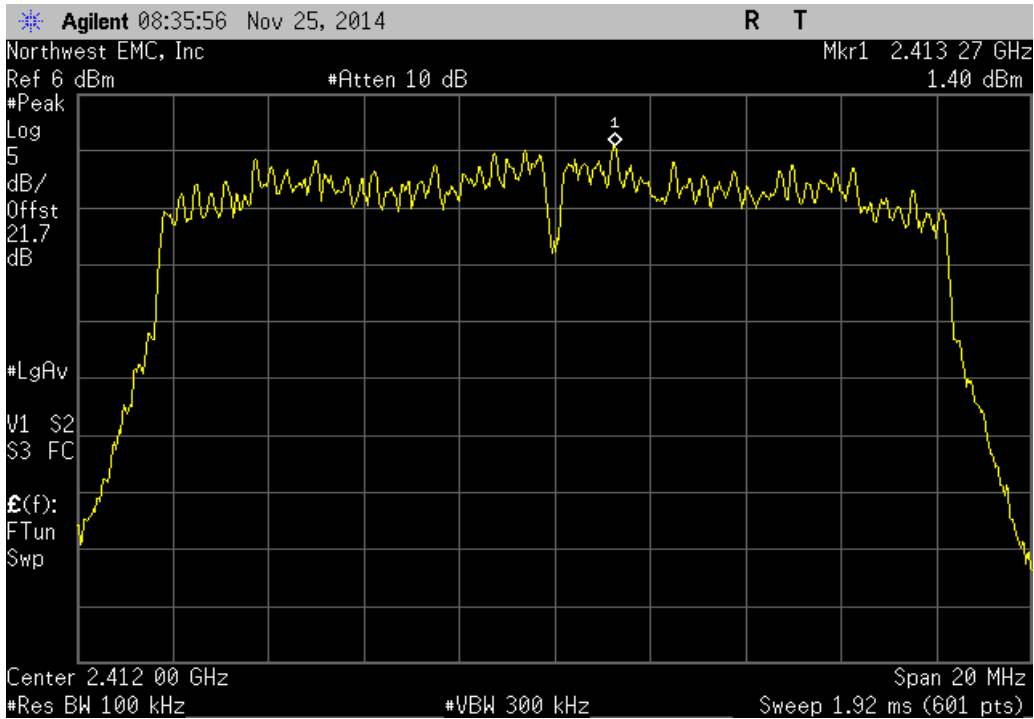
Antenna 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit		
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	6.543	-15.2	-8.657	8	Pass	



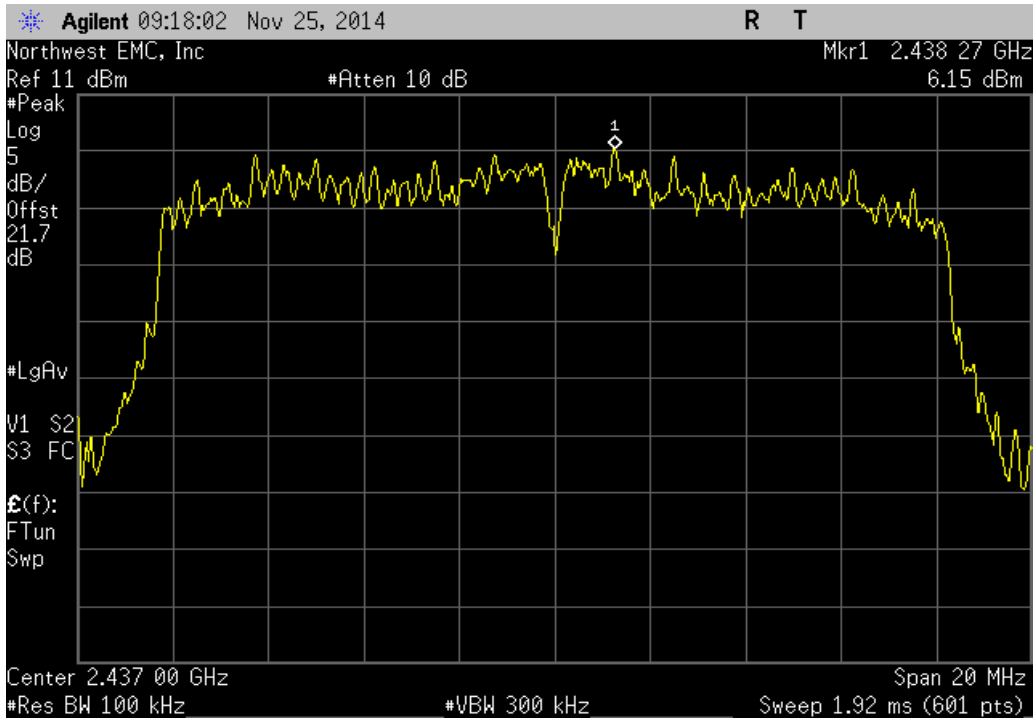
Antenna 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit		
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	1.485	-15.2	-13.715	8	Pass	



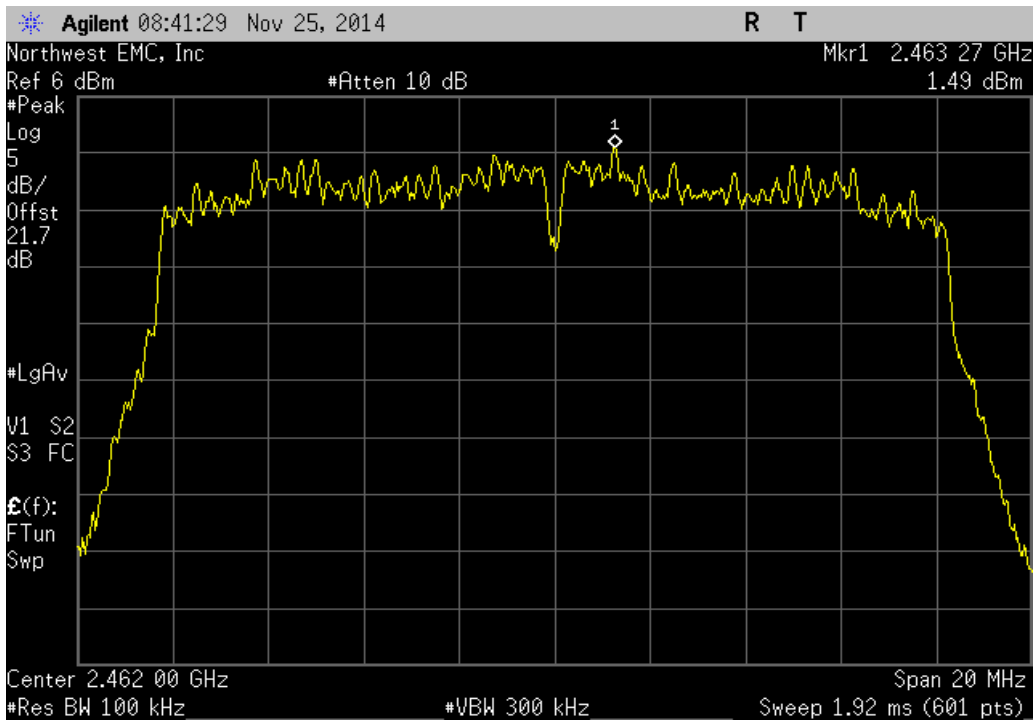
Antenna 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz					
Value	dBm/100kHz	Value	Limit		
	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	1.403	-15.2	-13.797	8	Pass



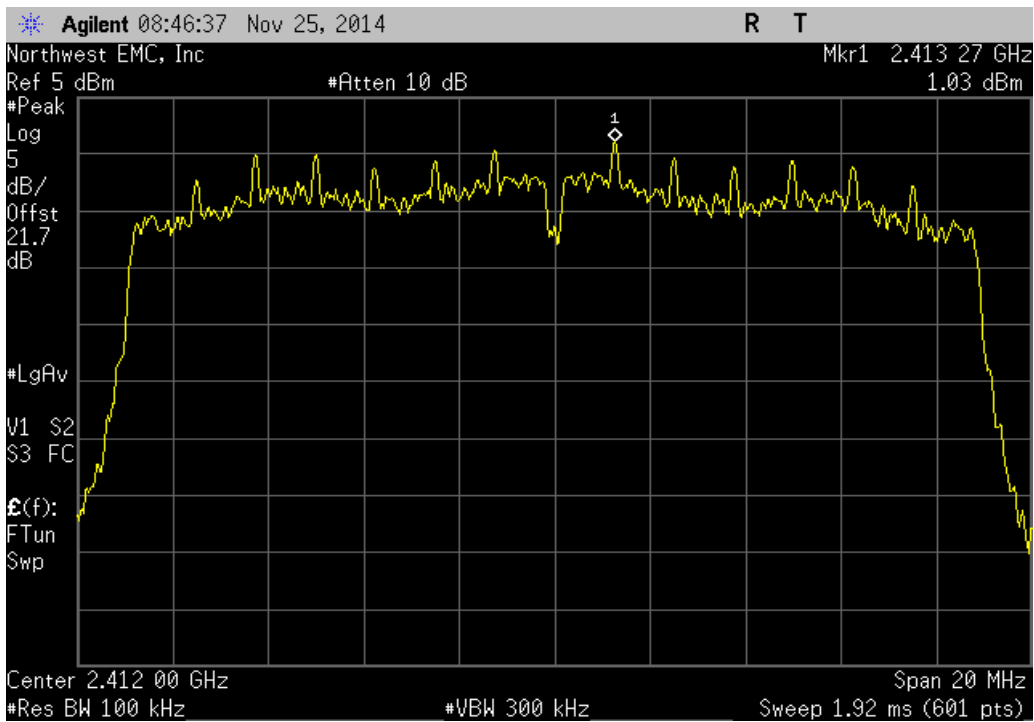
Antenna 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz					
Value	dBm/100kHz	Value	Limit		
	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	6.151	-15.2	-9.049	8	Pass



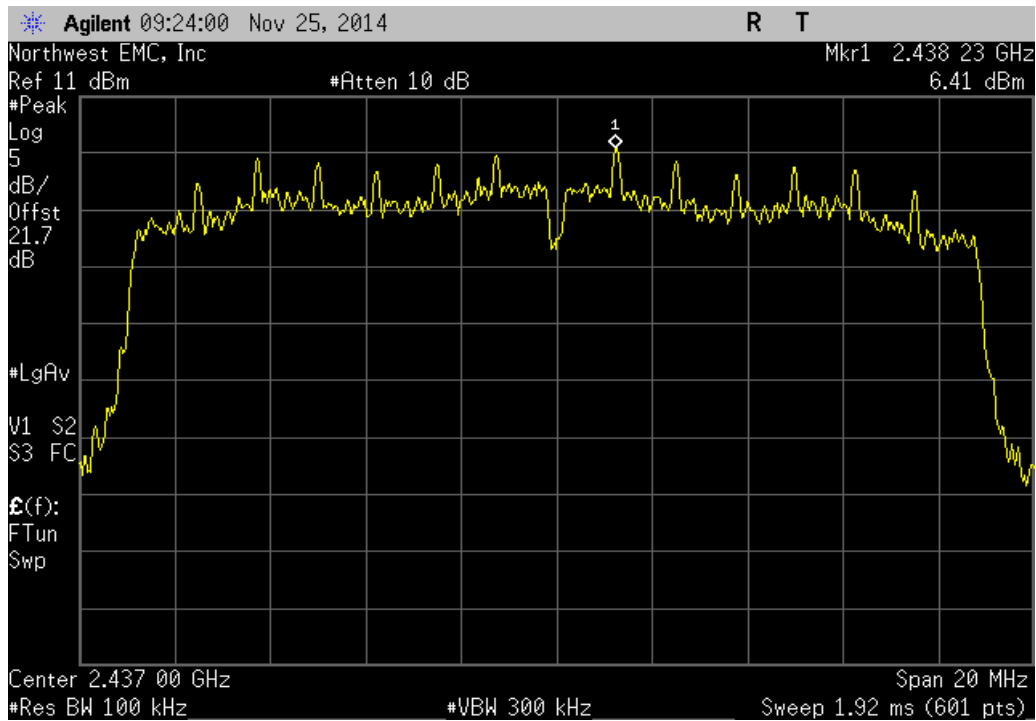
Antenna 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit		
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	1.489	-15.2	-13.711	8	Pass	



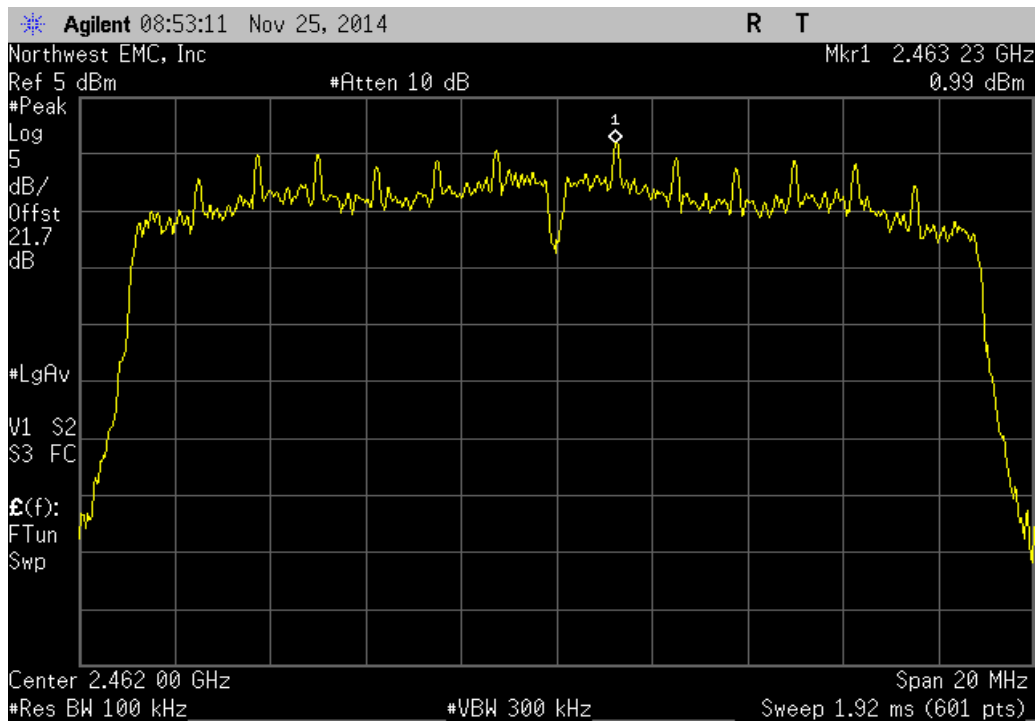
Antenna 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit		
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	1.03	-15.2	-14.17	8	Pass	



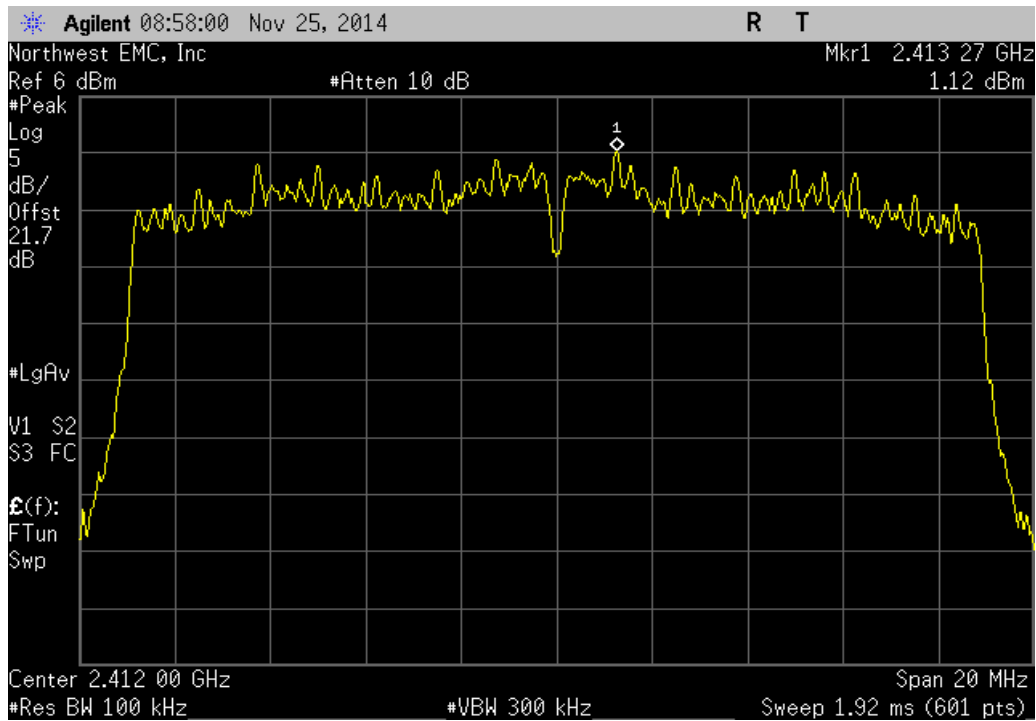
Antenna 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz					
Value	dBm/100kHz	Value	Limit		
	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	6.407	-15.2	-8.793	8	Pass



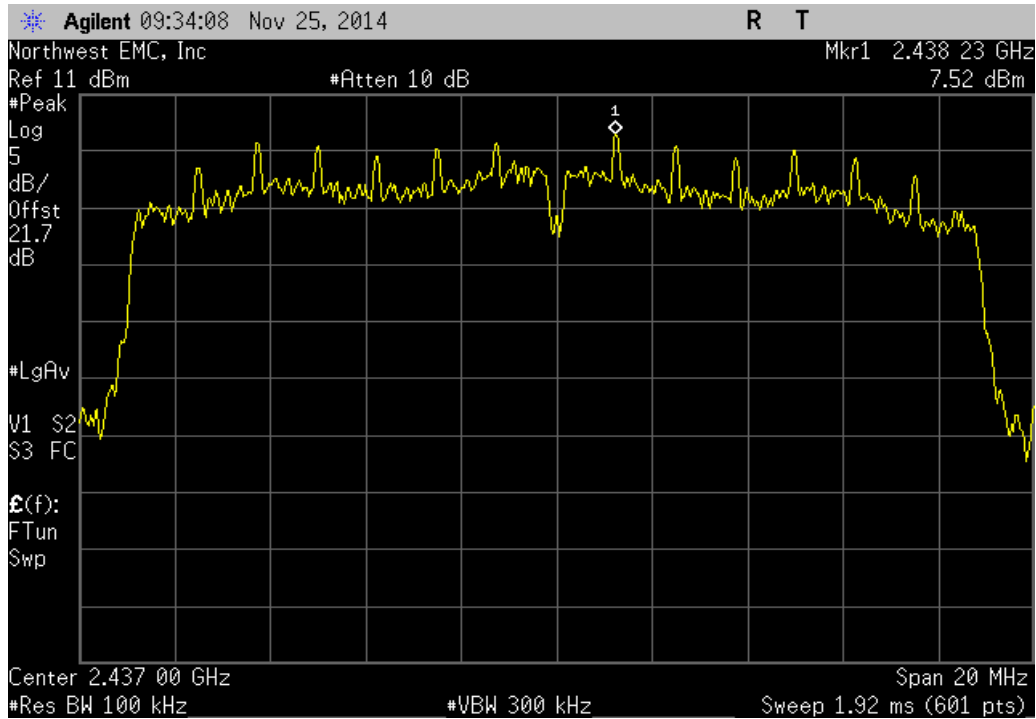
Antenna 0, 802.11(n) MCS0, High Channel 11, 2462 MHz					
Value	dBm/100kHz	Value	Limit		
	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	0.993	-15.2	-14.207	8	Pass



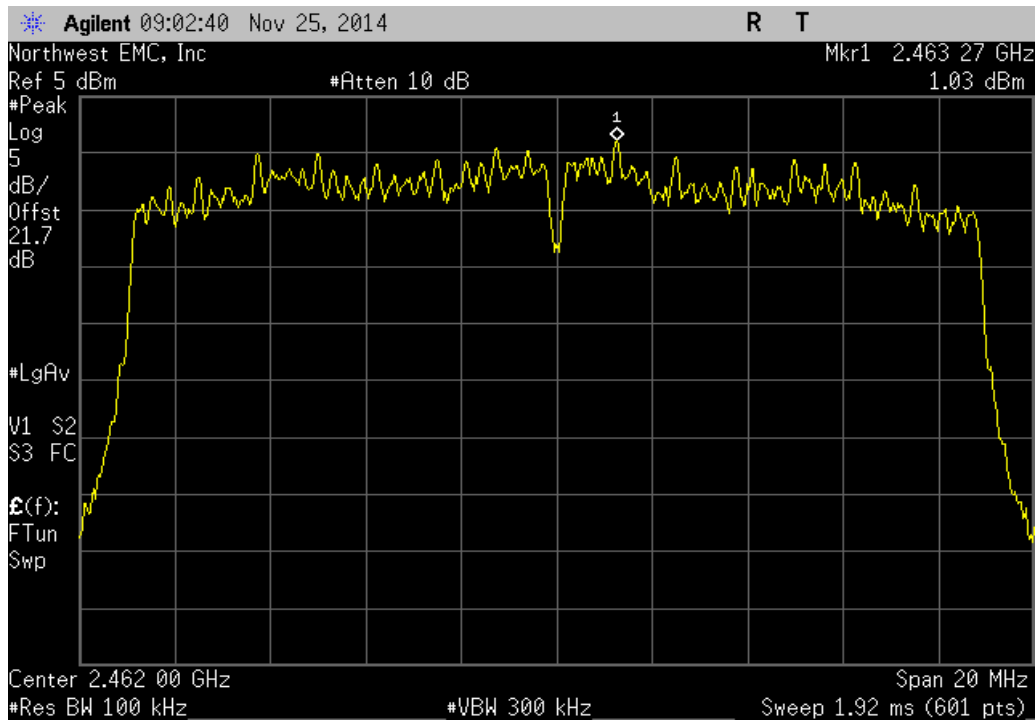
Antenna 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz					
Value	dBm/100kHz	Value	Limit		
	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	1.121	-15.2	-14.079	8	Pass



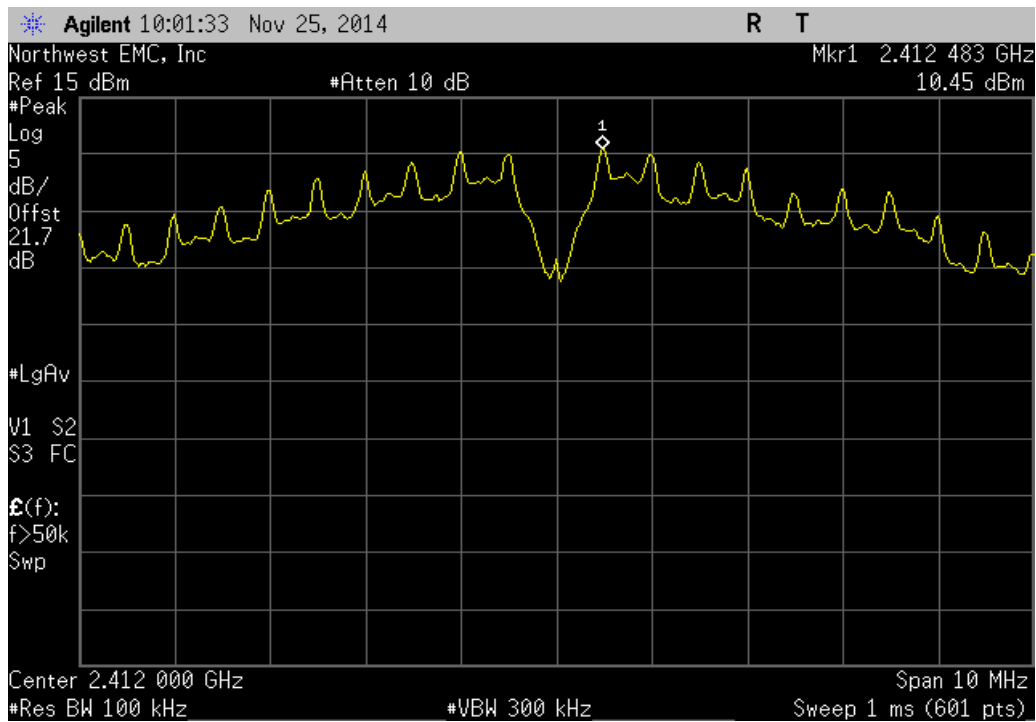
Antenna 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz					
Value	dBm/100kHz	Value	Limit		
	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	7.517	-15.2	-7.683	8	Pass



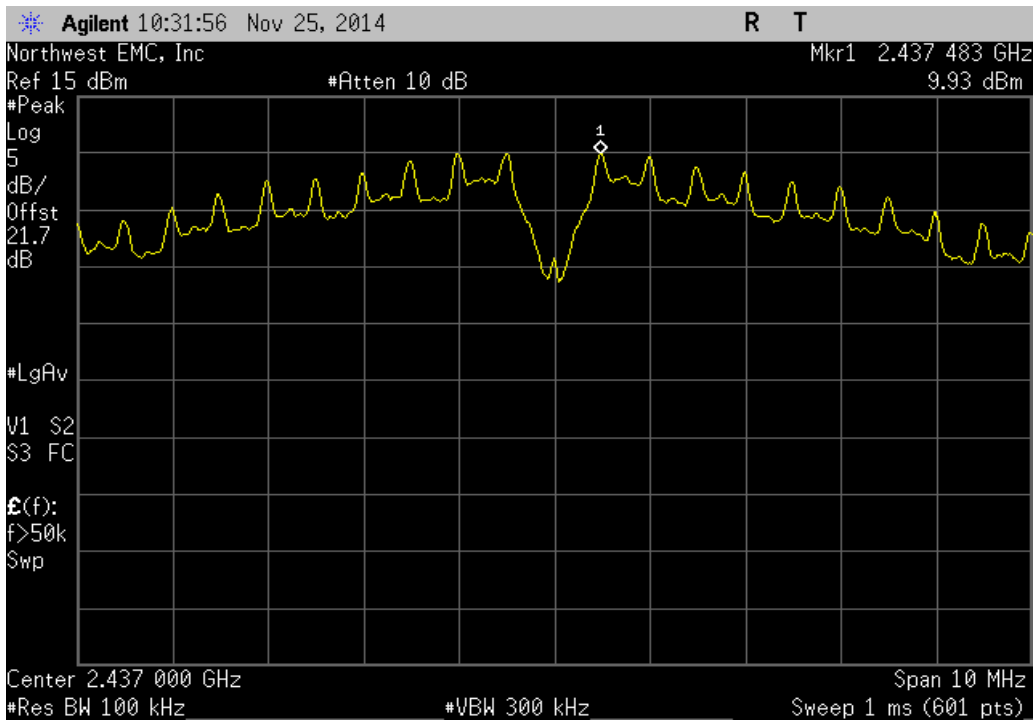
Antenna 0, 802.11(n) MCS7, High Channel 11, 2462 MHz					
Value	dBm/100kHz	Value	Limit		
	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	1.029	-15.2	-14.171	8	Pass



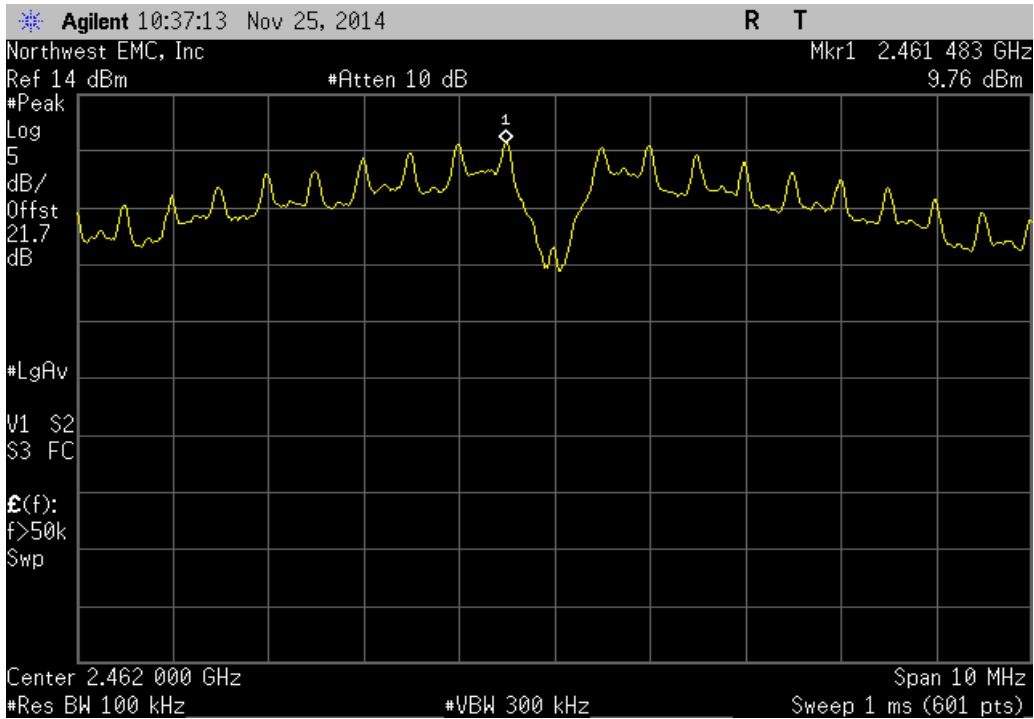
Antenna 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz					
Value	dBm/100kHz	Value	Limit		
	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	10.448	-15.2	-4.752	8	Pass



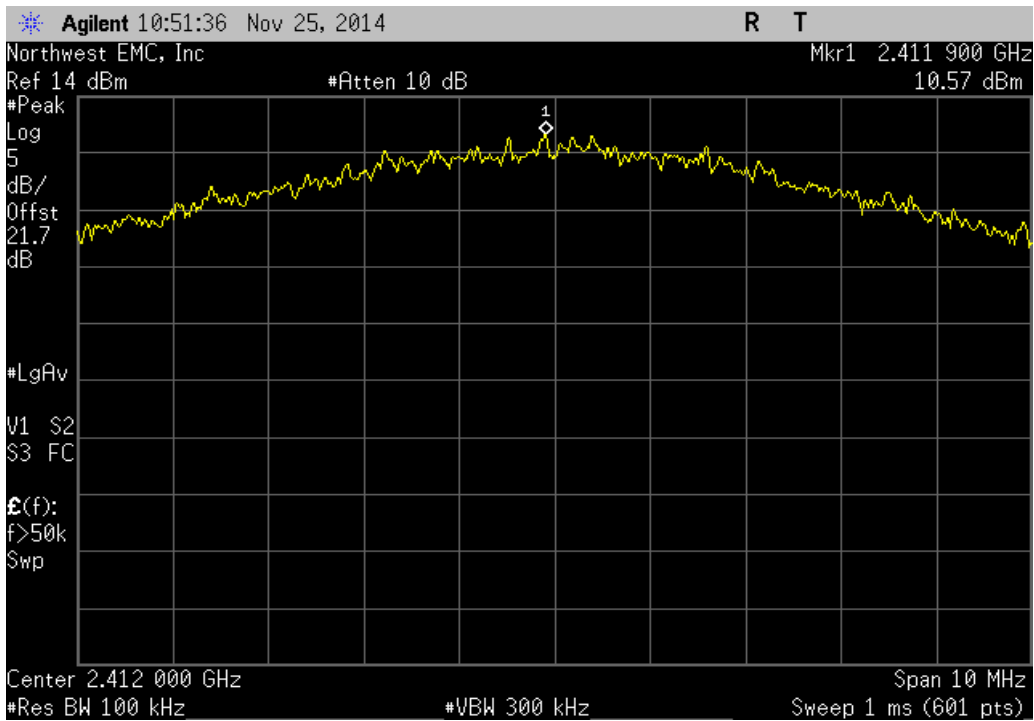
Antenna 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit		
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	9.93	-15.2	-5.27	8	Pass	



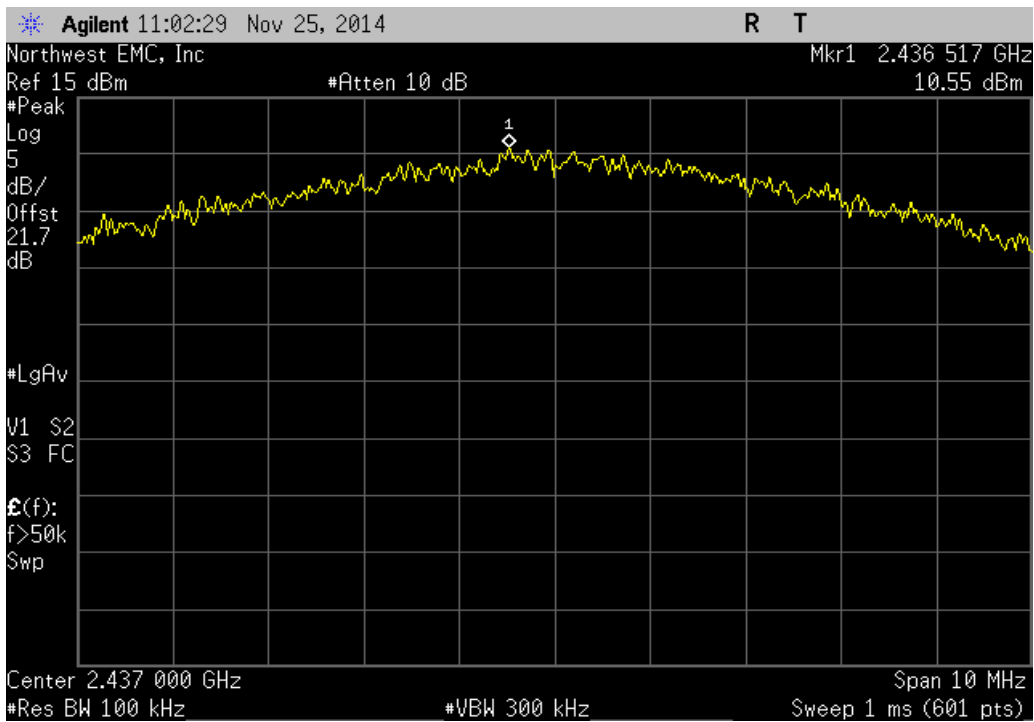
Antenna 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit		
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	9.755	-15.2	-5.445	8	Pass	



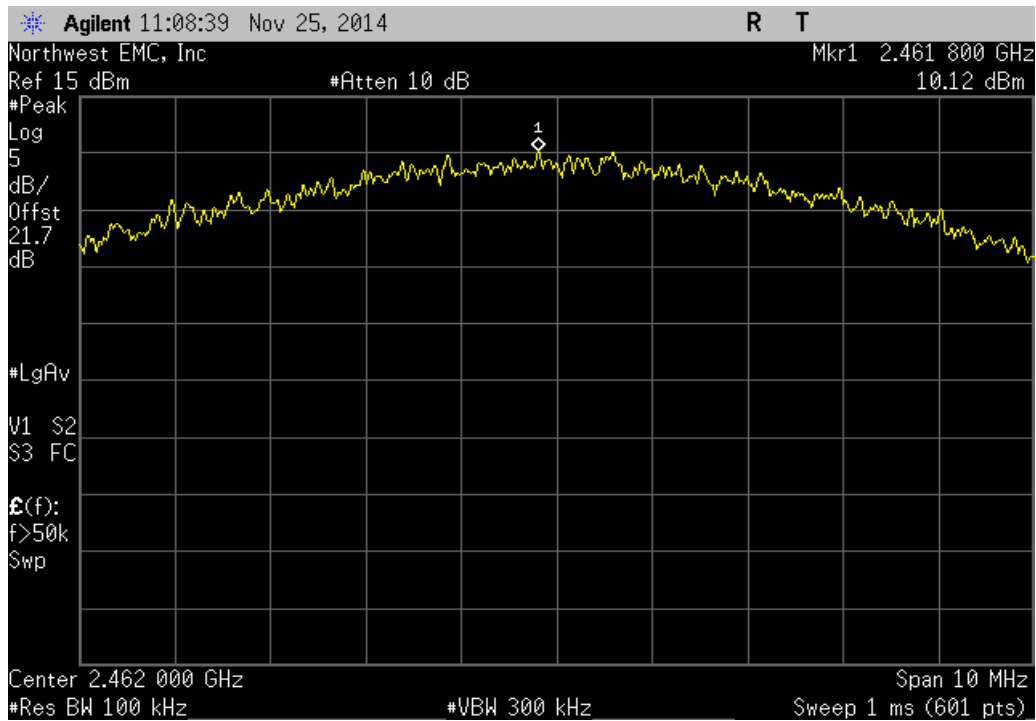
Antenna 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz					
Value	dBm/100kHz	To dBm/3kHz	Value	Limit	Results
			dBm/3kHz		
	10.572	-15.2	-4.628	8	Pass



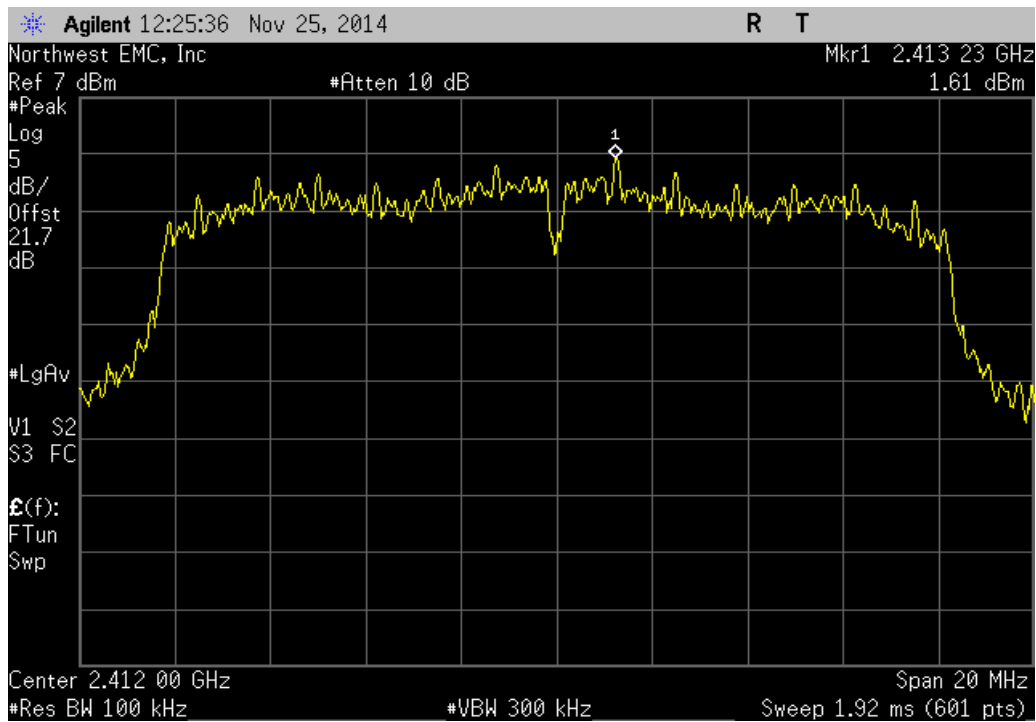
Antenna 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz					
Value	dBm/100kHz	To dBm/3kHz	Value	Limit	Results
			dBm/3kHz		
	10.546	-15.2	-4.654	8	Pass



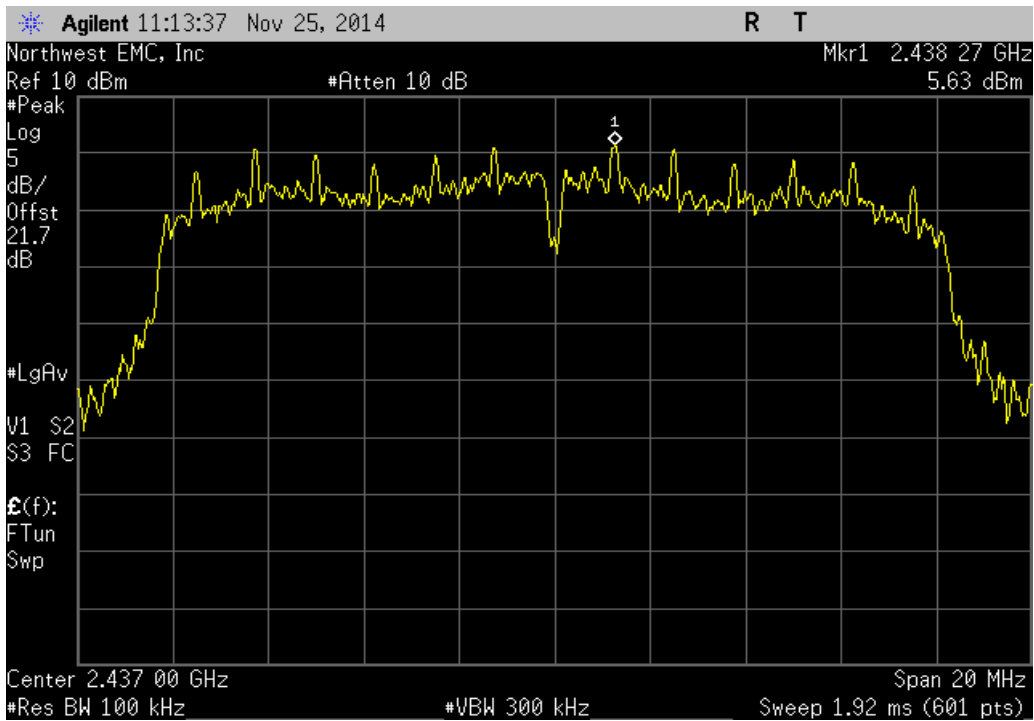
Antenna 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz					
	Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
	10.122	-15.2	-5.078	8	Pass



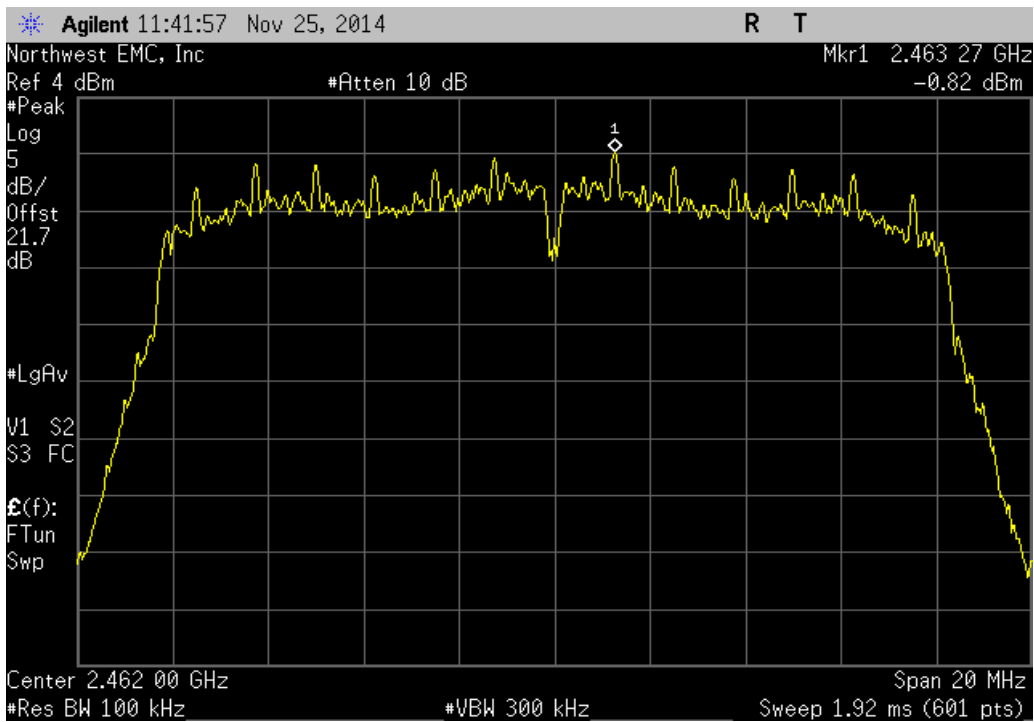
Antenna 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz					
	Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
	1.607	-15.2	-13.593	8	Pass



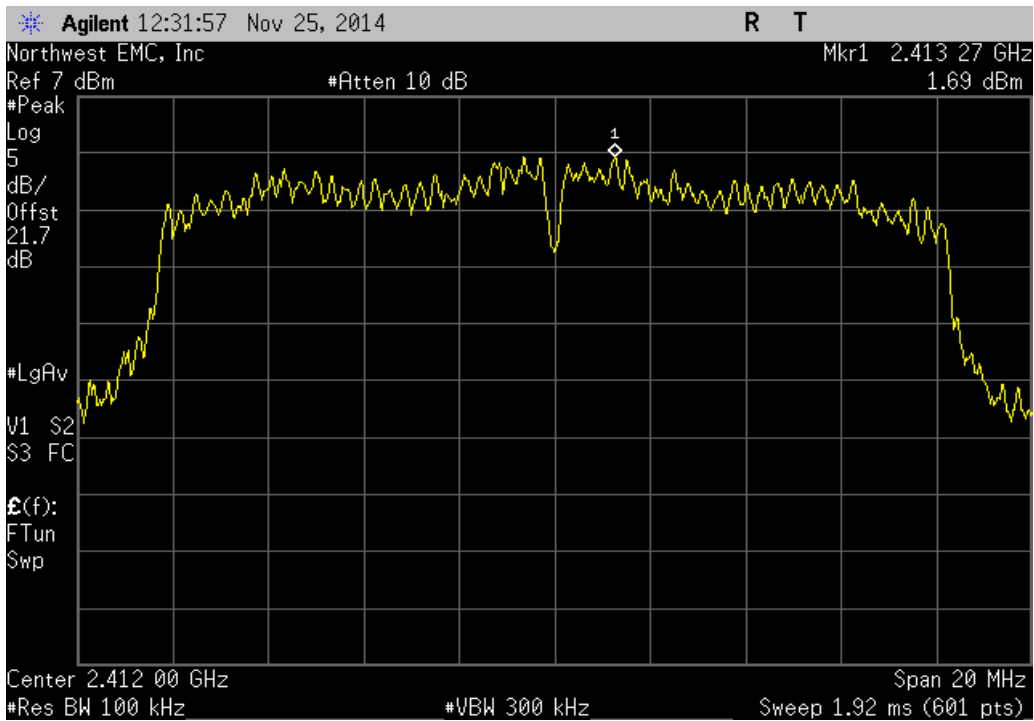
Antenna 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz					
Value	dBm/100kHz	To dBm/3kHz	Value	Limit	Results
			dBm/3kHz		
	5.631	-15.2	-9.569	8	Pass



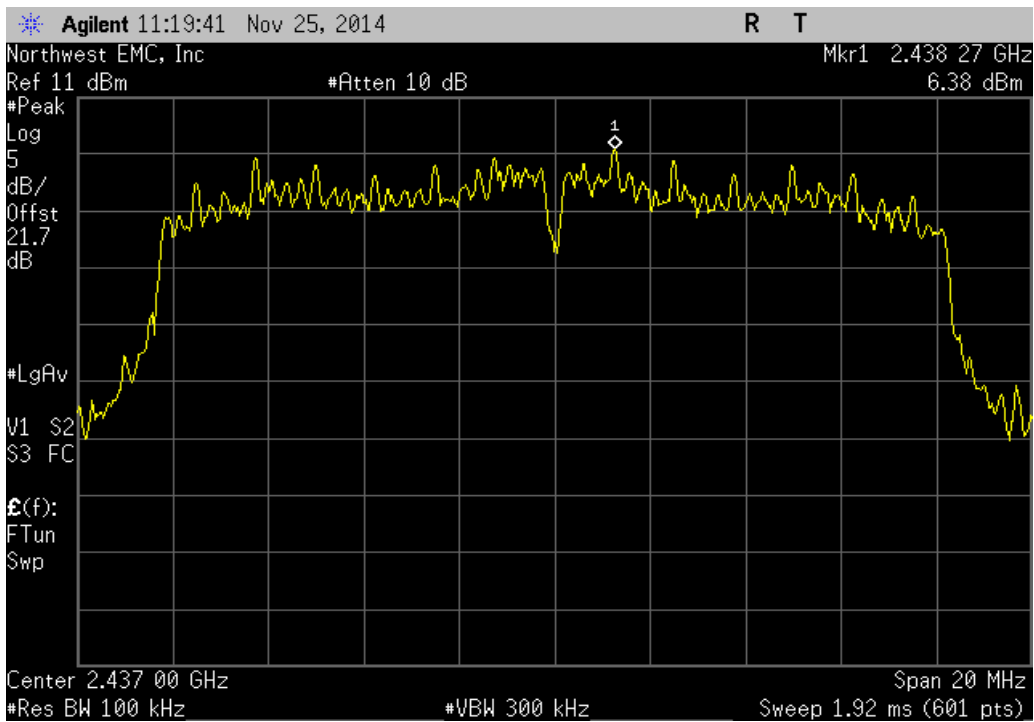
Antenna 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz					
Value	dBm/100kHz	To dBm/3kHz	Value	Limit	Results
			dBm/3kHz		
	-0.822	-15.2	-16.022	8	Pass



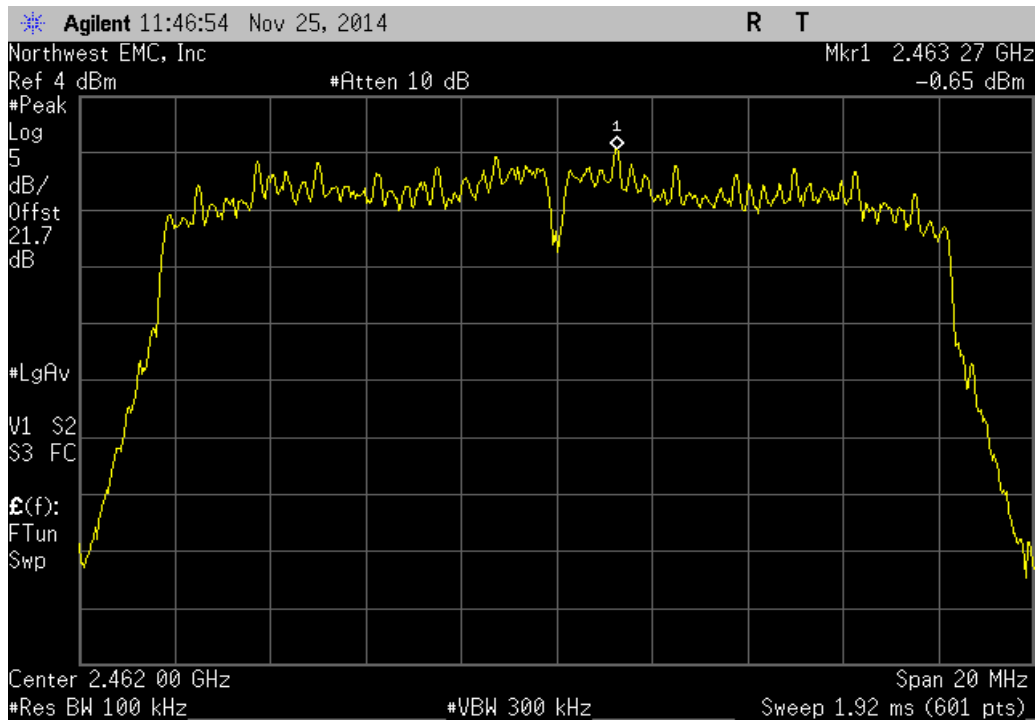
Antenna 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz					
Value	dBm/100kHz	Value	Limit		
	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	1.693	-15.2	-13.507	8	Pass



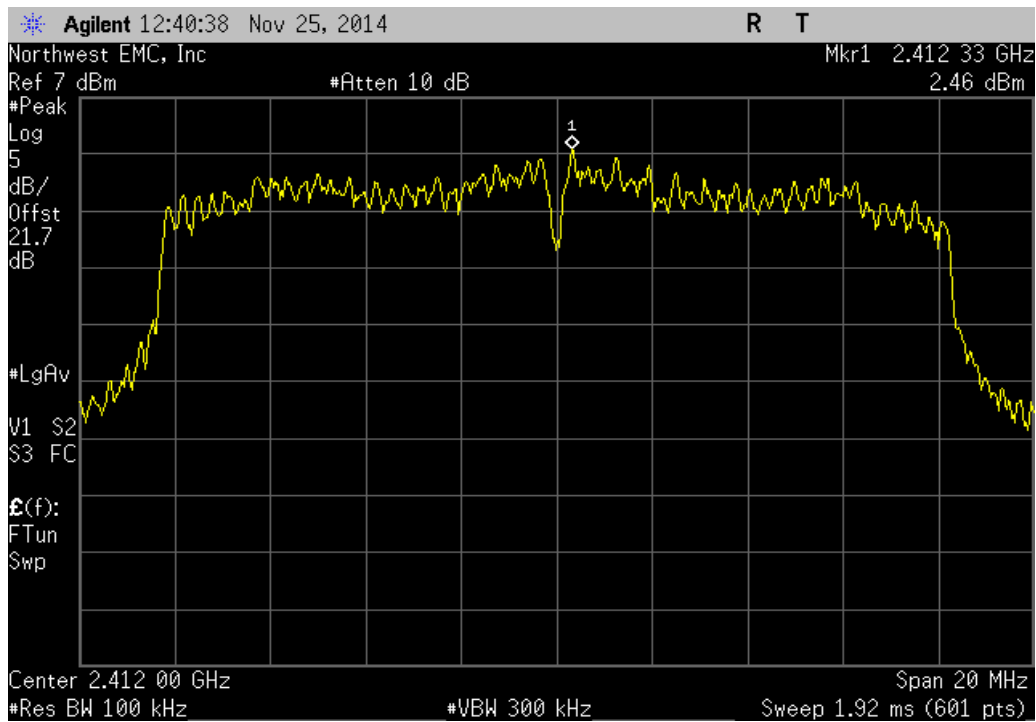
Antenna 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz					
Value	dBm/100kHz	Value	Limit		
	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	6.384	-15.2	-8.816	8	Pass



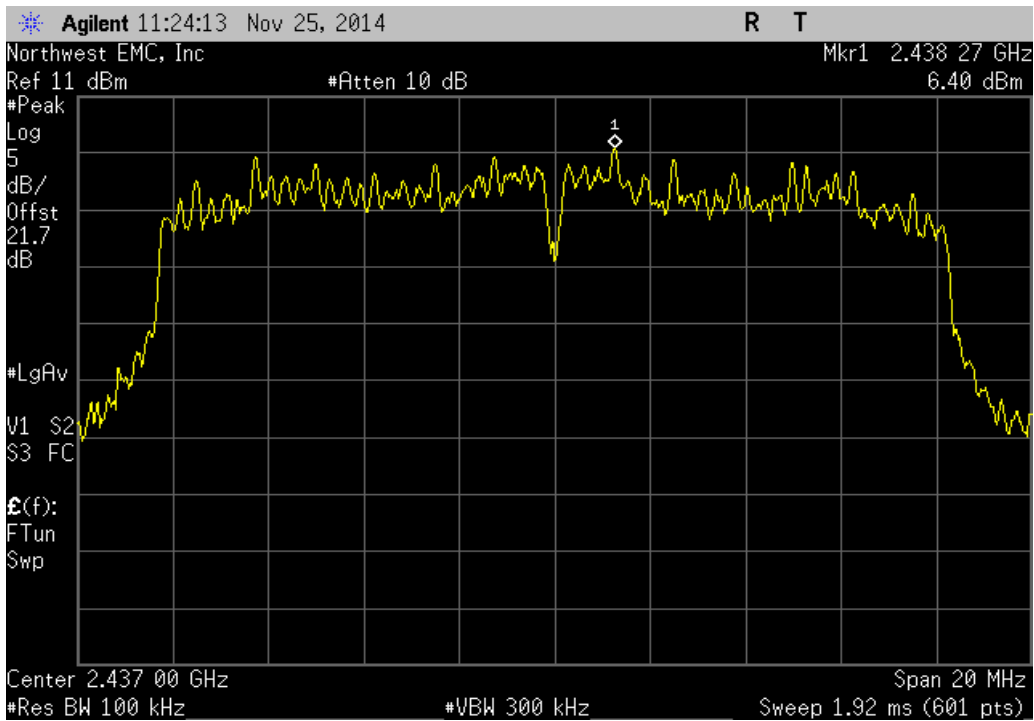
Antenna 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit		
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	-0.647	-15.2	-15.847	8	Pass	



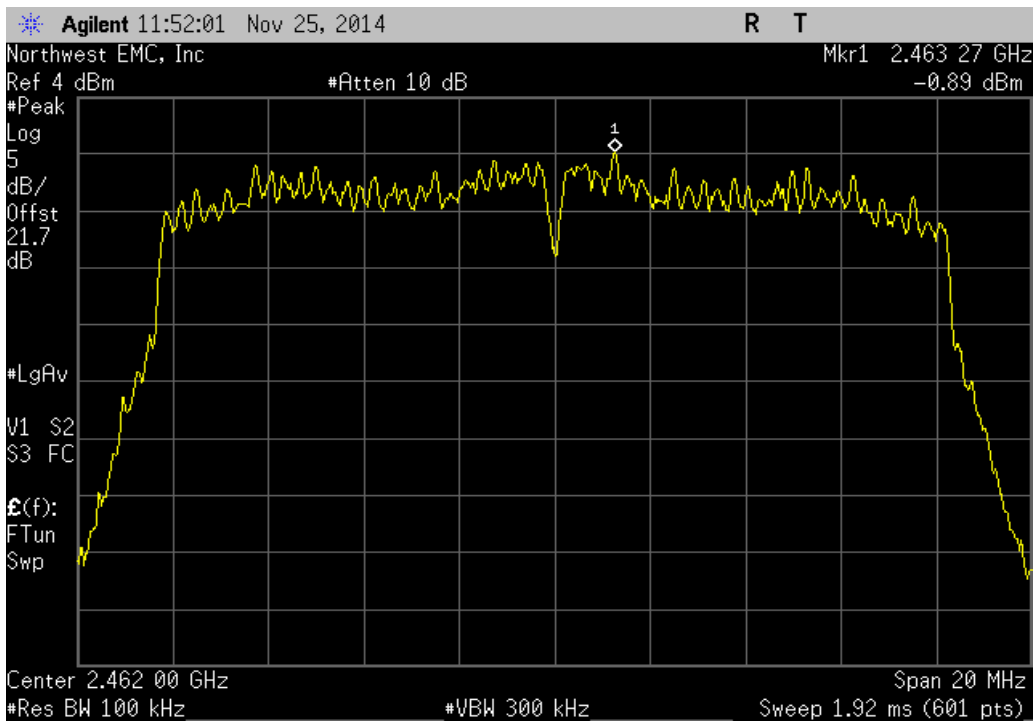
Antenna 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
	Value	dBm/100kHz	Value	Limit		
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	2.463	-15.2	-12.737	8	Pass	



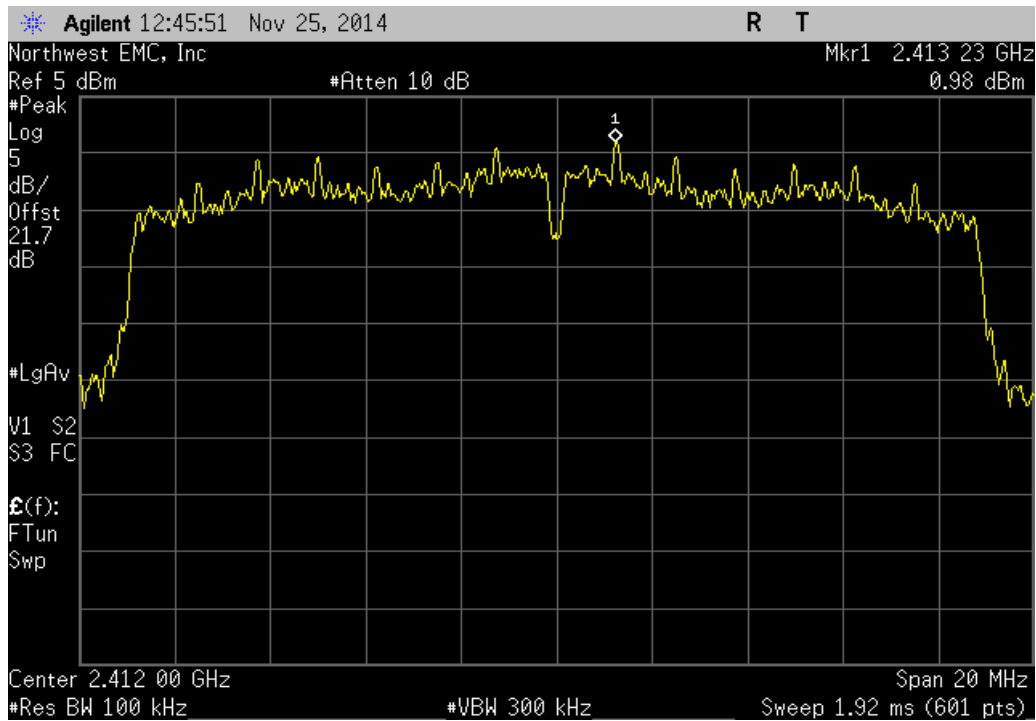
Antenna 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
	Value	dBm/100kHz	Value	Limit		
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	6.404	-15.2	-8.796	8	Pass	



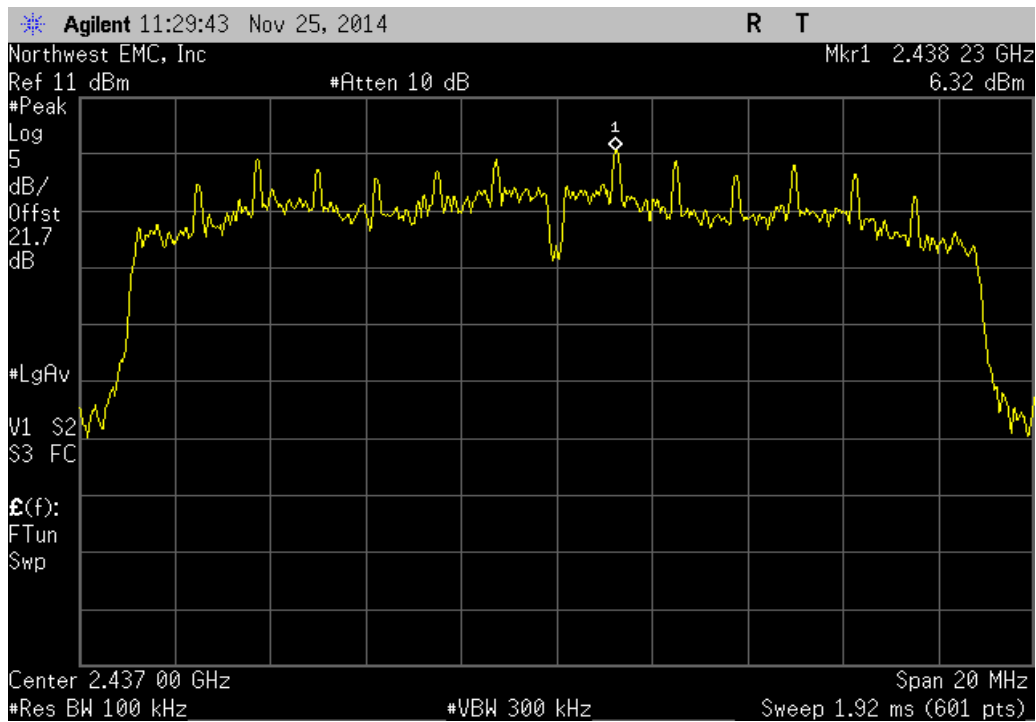
Antenna 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
	Value	dBm/100kHz	Value	Limit		
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	Results	
	-0.887	-15.2	-16.087	8	Pass	



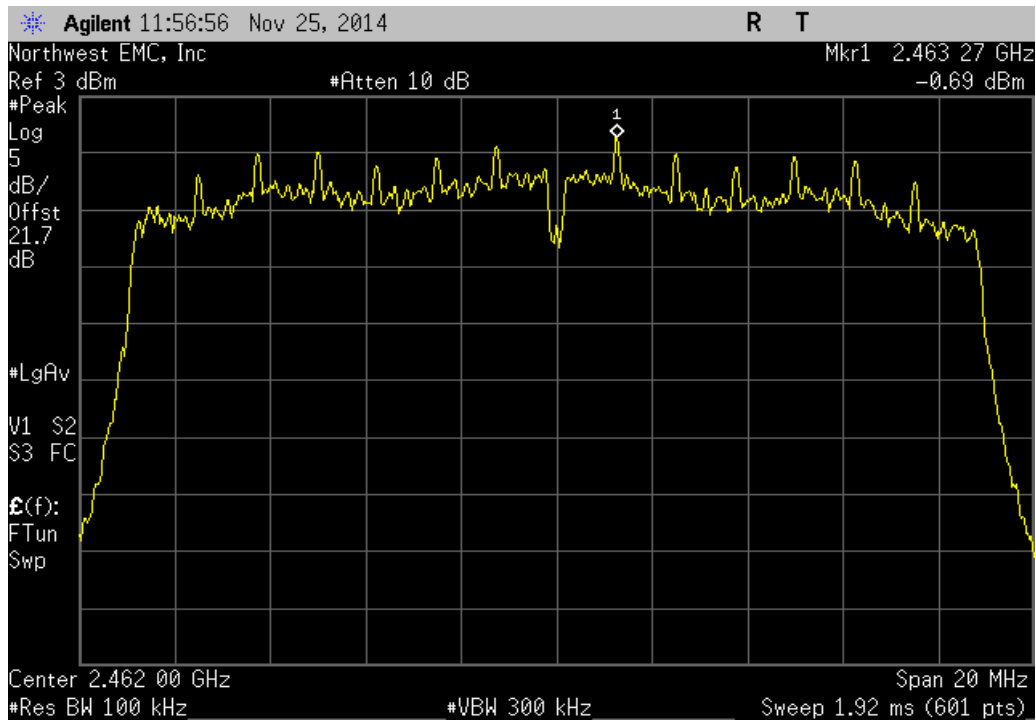
Antenna 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz					
	Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
	0.977	-15.2	-14.223	8	Pass



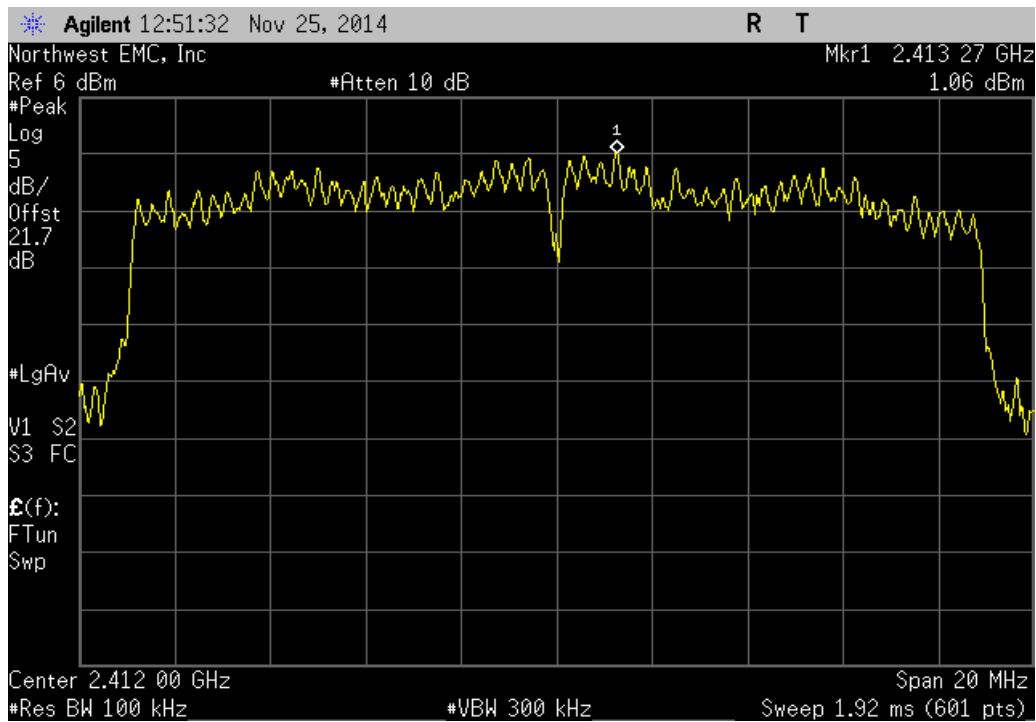
Antenna 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz					
	Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
	6.322	-15.2	-8.878	8	Pass



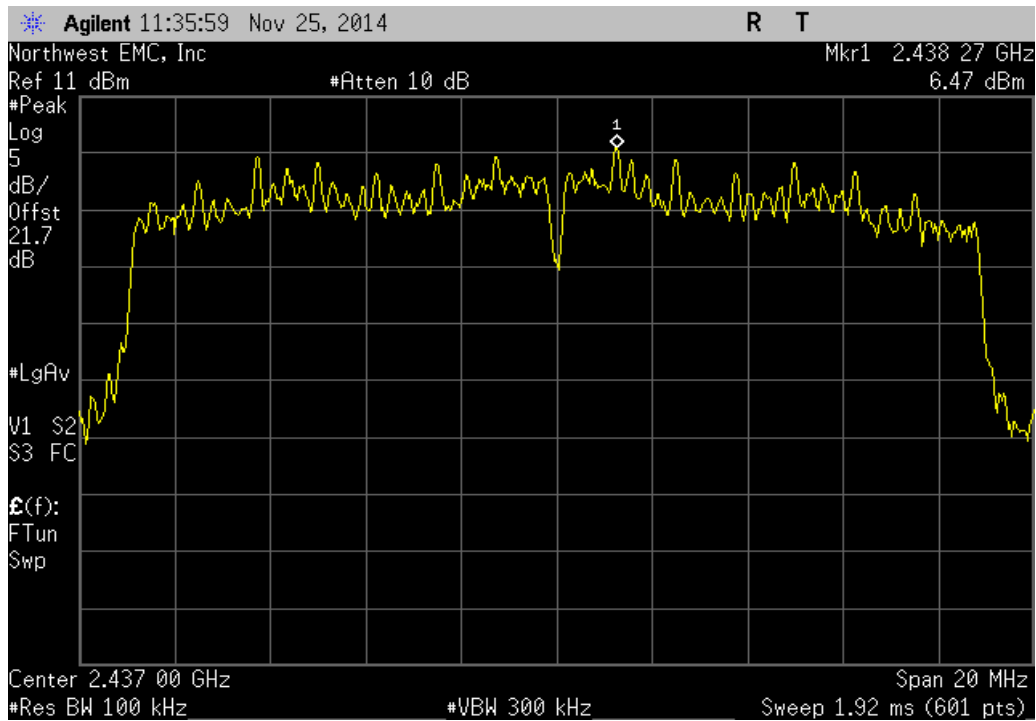
Antenna 1, 802.11(n) MCS0, High Channel 11, 2462 MHz					
	Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
	-0.687	-15.2	-15.887	8	Pass



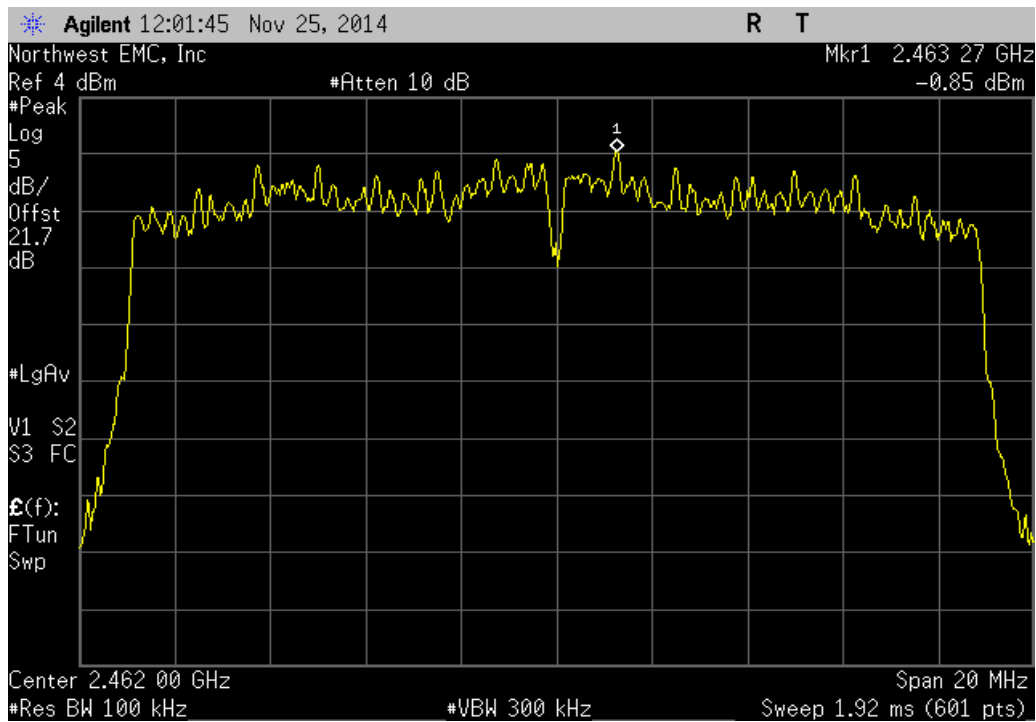
Antenna 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz					
	Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
	1.059	-15.2	-14.141	8	Pass



Antenna 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz					
	Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
	6.468	-15.2	-8.732	8	Pass



Antenna 1, 802.11(n) MCS7, High Channel 11, 2462 MHz					
	Value	dBm/100kHz	Value	Limit	Results
	dBm/100kHz	To dBm/3kHz	dBm/3kHz	dBm/3kHz	
	-0.854	-15.2	-16.054	8	Pass



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 (mos)
MN08 Direct Connect Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNU	10/2/2014	12
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC Block	Fairview Microwave	SD3379	AMI	10/2/2014	12
MXG Vector Signal Generator	Agilent	N5182A	TIF	8/12/2014	36
Spectrum Analyzer	Agilent	E4440A	AAX	4/28/2014	12

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.

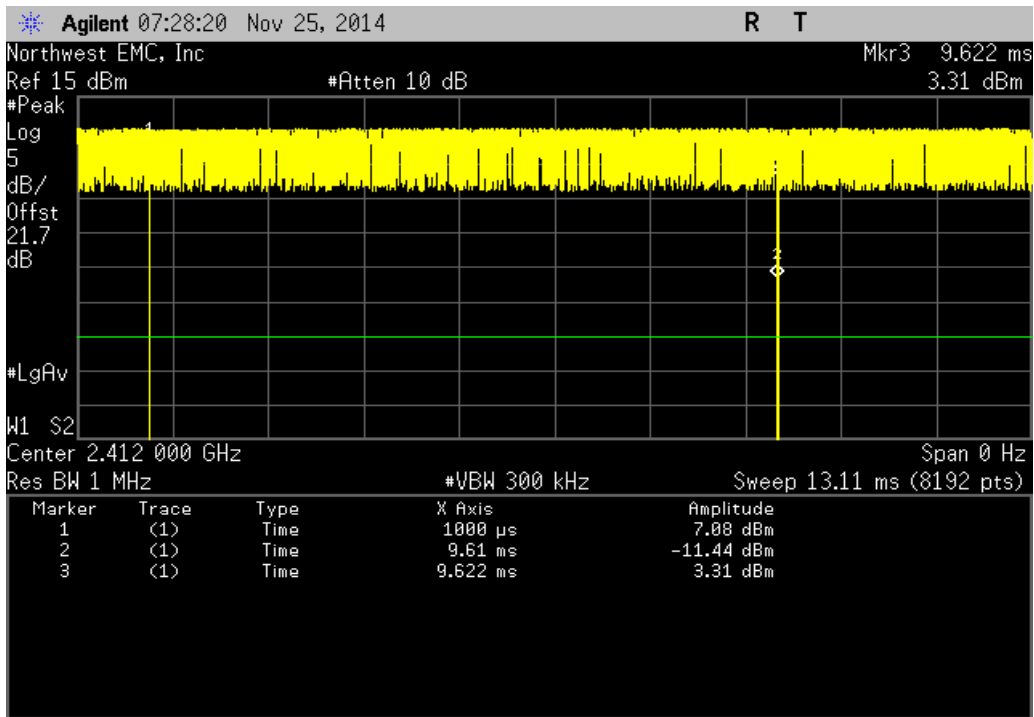
The measurements were made using a zero span on the spectrum analyzer to see the pulses in the time domain. The transmit power was set to its default maximum. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used.

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

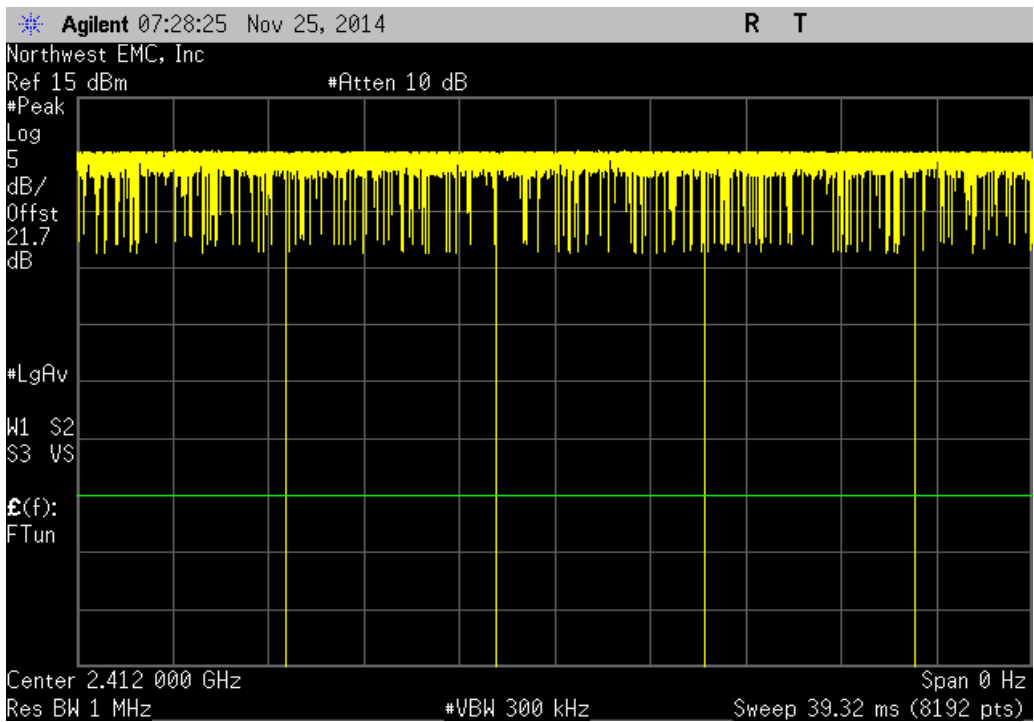
If the transmit duty cycle < 98 percent, burst gating was used during some of the other tests in this report to only measure during the burst duration.

EUT: TH8321WF		Work Order: HNYW0116					
Serial Number: 51911030061813		Date: 11/25/14					
Customer: Honeywell, Automation and Control Solutions		Temperature: 23.2°C					
Attendees: None		Humidity: 16%					
Project: None		Barometric Pres.: 1019.9					
Tested by: Trevor Buls		Power: 110VAC/60Hz					
TEST SPECIFICATIONS		Test Method					
FCC 15.247:2014		ANSI C63.10:2009					
COMMENTS							
None							
DEVIATIONS FROM TEST STANDARD							
None							
Configuration #	3	Signature	<i>Trevor Buls</i>				
		Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
Antenna 0							
802.11(b) 1 Mbps							
	Low Channel 1, 2412 MHz	8.61 ms	8.622 ms	1	99.9	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	8.61 ms	8.624 ms	1	99.8	N/A	N/A
	Mid Channel 6, 2437 MHz	N/A	N/A	5	N/A	N/A	N/A
	High Channel 11, 2462 MHz	8.61 ms	8.622 ms	1	99.9	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	958.2 us	972.4 us	1	98.5	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	958.1 us	972.4 us	1	98.5	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	957.8 us	972.4 us	1	98.5	N/A	N/A
	High Channel 11, 2462 MHz	N/A	N/A	5	N/A	N/A	N/A
802.11(a) 6 Mbps							
	Low Channel 1, 2412 MHz	1.421 ms	1.448 ms	1	98.1	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	1.421 ms	1.448 ms	1	98.1	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	1.421 ms	1.448 ms	1	98.1	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	248.8 us	276.4 us	1	90	N/A	N/A
	Low Channel 1, 2412 MHz	N/A	N/A	6	N/A	N/A	N/A
	Mid Channel 6, 2437 MHz	248.8 us	276.4 us	1	90	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	247.8 us	276.4 us	1	89.7	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	172.9 us	200.2 us	1	86.4	N/A	N/A
	Low Channel 1, 2412 MHz	N/A	N/A	5	N/A	N/A	N/A
	Mid Channel 6, 2437 MHz	172.9 us	200.5 us	1	86.2	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	172.6 us	200.2 us	1	86.2	N/A	N/A
	High Channel 11, 2462 MHz	N/A	N/A	5	N/A	N/A	N/A
802.11(n) MCS9							
	Low Channel 1, 2412 MHz	1.329 ms	1.357 ms	1	98	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	1.329 ms	1.357 ms	1	98	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	1.329 ms	1.356 ms	1	98	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	160.9 us	188.5 us	1	85.4	N/A	N/A
	Low Channel 1, 2412 MHz	N/A	N/A	6	N/A	N/A	N/A
	Mid Channel 6, 2437 MHz	1.329 ms	1.357 ms	1	98	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	160.6 us	188.2 us	1	85.3	N/A	N/A
	High Channel 11, 2462 MHz	N/A	N/A	5	N/A	N/A	N/A
Antenna 1							
802.11(b) 1 Mbps							
	Low Channel 1, 2412 MHz	8.61 ms	8.626 ms	1	99.8	N/A	N/A
	Low Channel 1, 2412 MHz	N/A	N/A	5	N/A	N/A	N/A
	Mid Channel 6, 2437 MHz	8.61 ms	8.624 ms	1	99.8	N/A	N/A
	Mid Channel 6, 2437 MHz	N/A	N/A	5	N/A	N/A	N/A
	High Channel 11, 2462 MHz	8.61 ms	8.624 ms	1	99.8	N/A	N/A
	High Channel 11, 2462 MHz	N/A	N/A	5	N/A	N/A	N/A
802.11(b) 11 Mbps							
	Low Channel 1, 2412 MHz	958.1 us	972.4 us	1	98.5	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	957.8 us	972.4 us	1	98.5	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	957.8 us	972.4 us	1	98.5	N/A	N/A
	High Channel 11, 2462 MHz	N/A	N/A	5	N/A	N/A	N/A
802.11(a) 6 Mbps							
	Low Channel 1, 2412 MHz	1.421 ms	1.449 ms	1	98.1	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	1.421 ms	1.448 ms	1	98.1	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	1.421 ms	1.448 ms	1	98.1	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	248.8 us	276.4 us	1	90	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	249 us	276.4 us	1	90.1	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	249 us	276.4 us	1	90.1	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	172.9 us	200.5 us	1	86.2	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	172.6 us	200.5 us	1	86.1	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	172.6 us	200.4 us	1	86.1	N/A	N/A
	High Channel 11, 2462 MHz	N/A	N/A	5	N/A	N/A	N/A
802.11(n) MCS9							
	Low Channel 1, 2412 MHz	1.329 ms	1.357 ms	1	98	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	1.329 ms	1.357 ms	1	98	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	1.329 ms	1.356 ms	1	98	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	160.6 us	188.5 us	1	85.2	N/A	N/A
	Low Channel 1, 2412 MHz	N/A	N/A	6	N/A	N/A	N/A
	Mid Channel 6, 2437 MHz	160.9 us	188.3 us	1	85.4	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	160.9 us	188.5 us	1	85.4	N/A	N/A
	High Channel 11, 2462 MHz	N/A	N/A	6	N/A	N/A	N/A

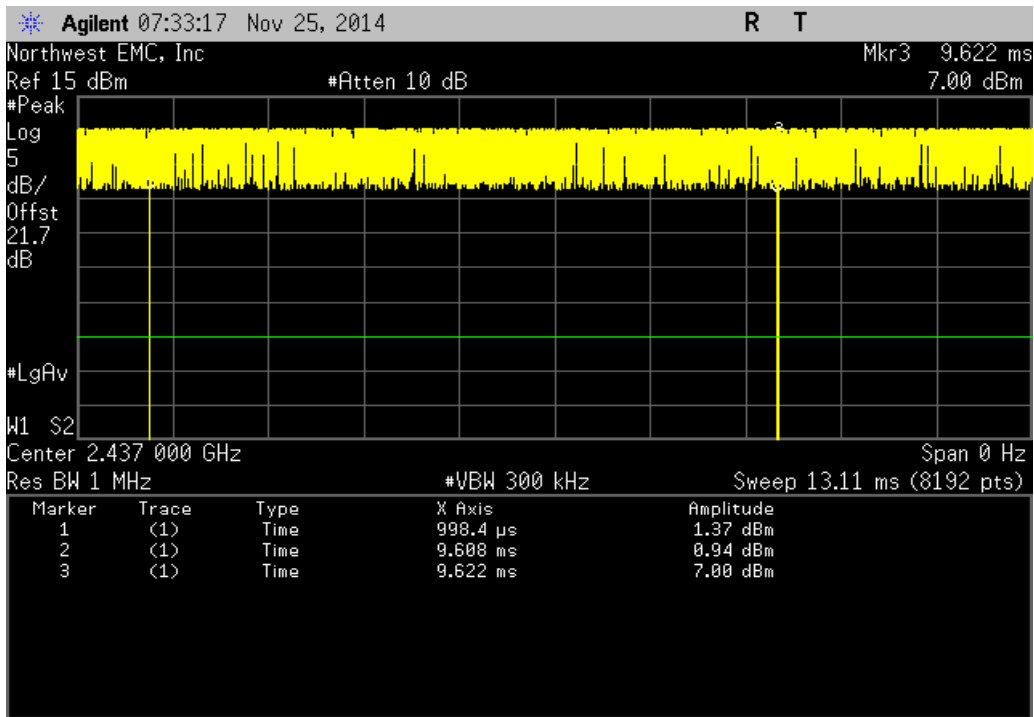
Antenna 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	8.61 ms	8.622 ms	1	99.9	N/A	N/A



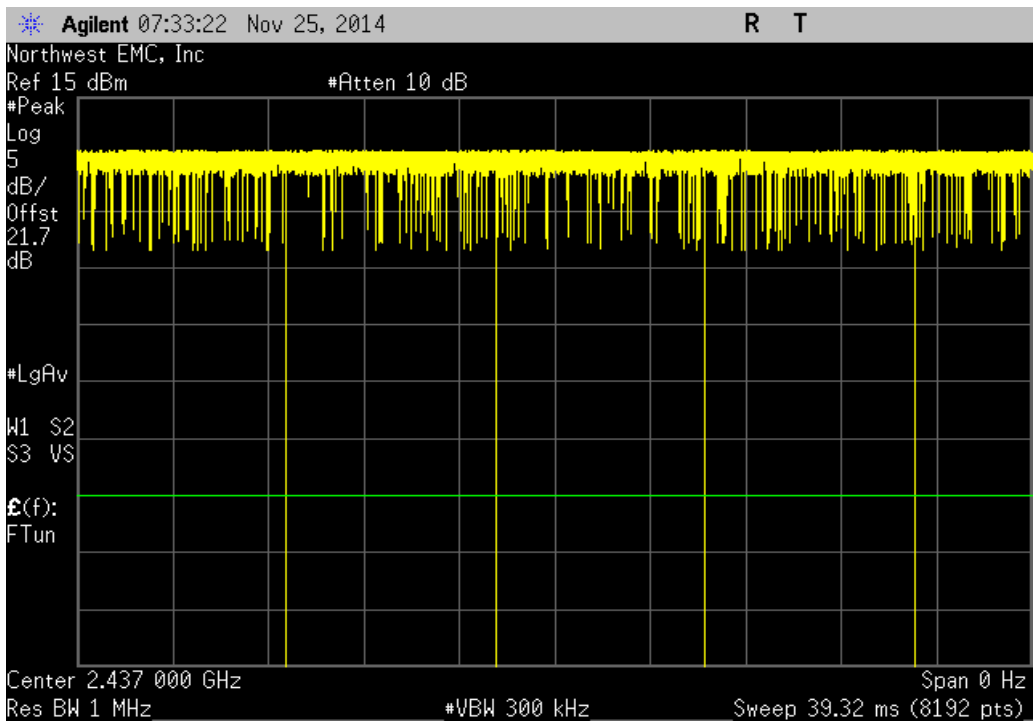
Antenna 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



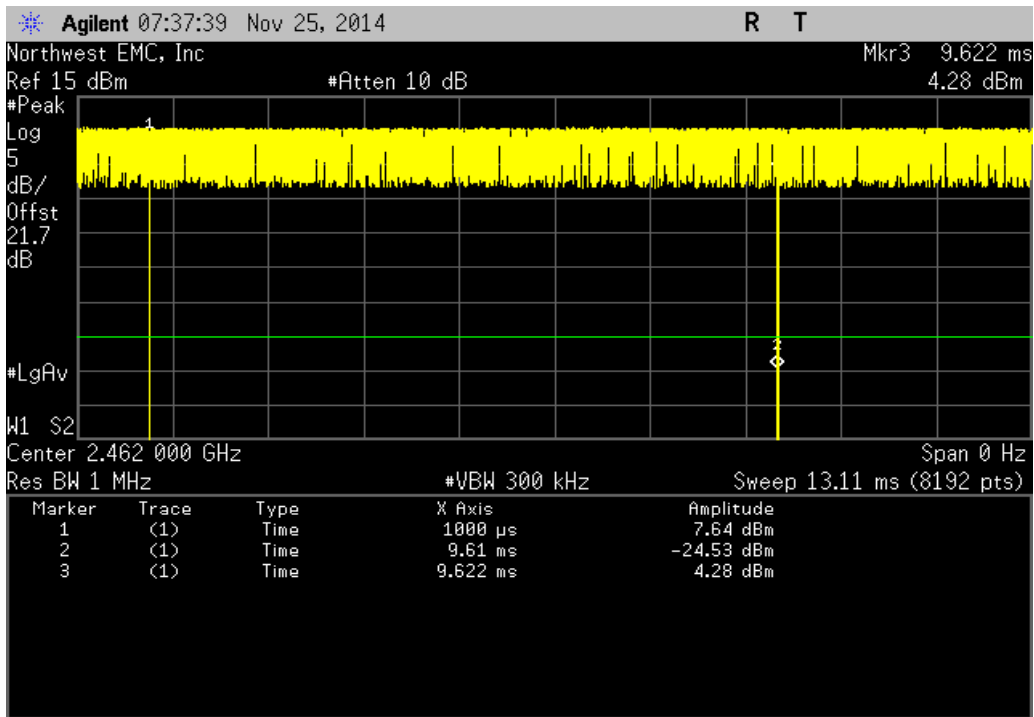
Antenna 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
8.61 ms	8.624 ms	1	99.8	N/A	N/A	



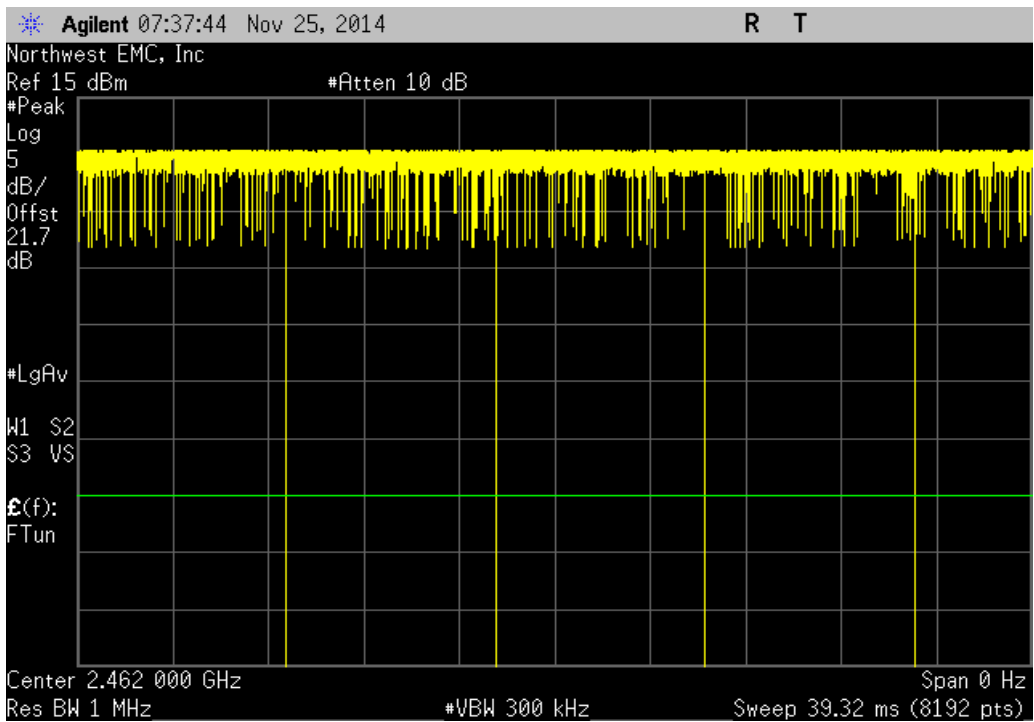
Antenna 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



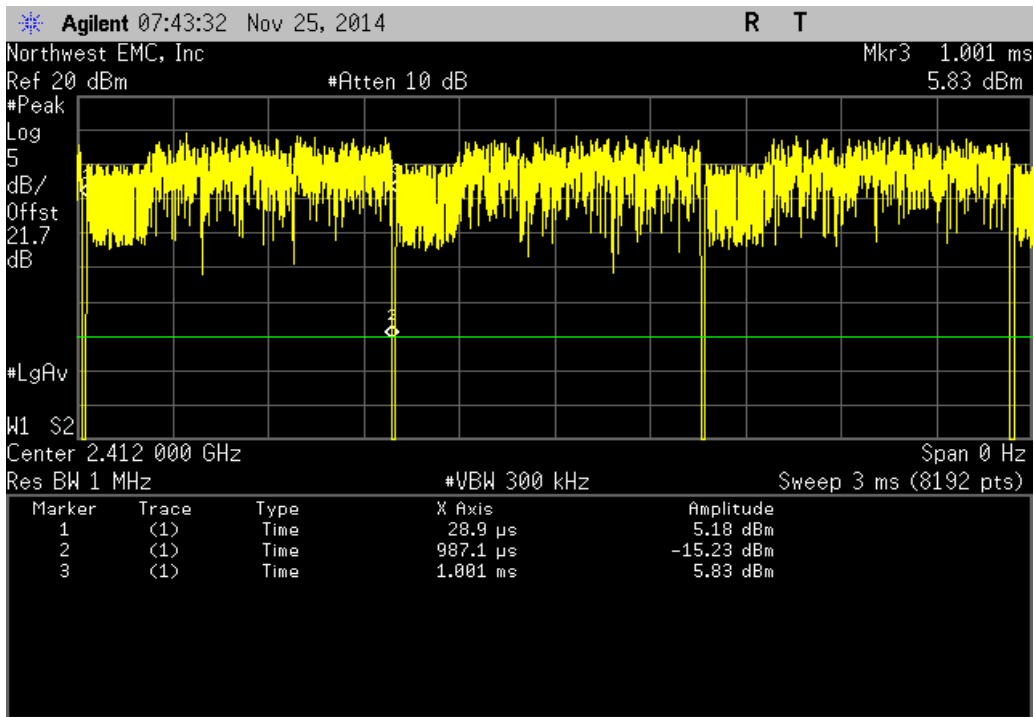
Antenna 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
8.61 ms	8.622 ms	1	99.9	N/A	N/A	



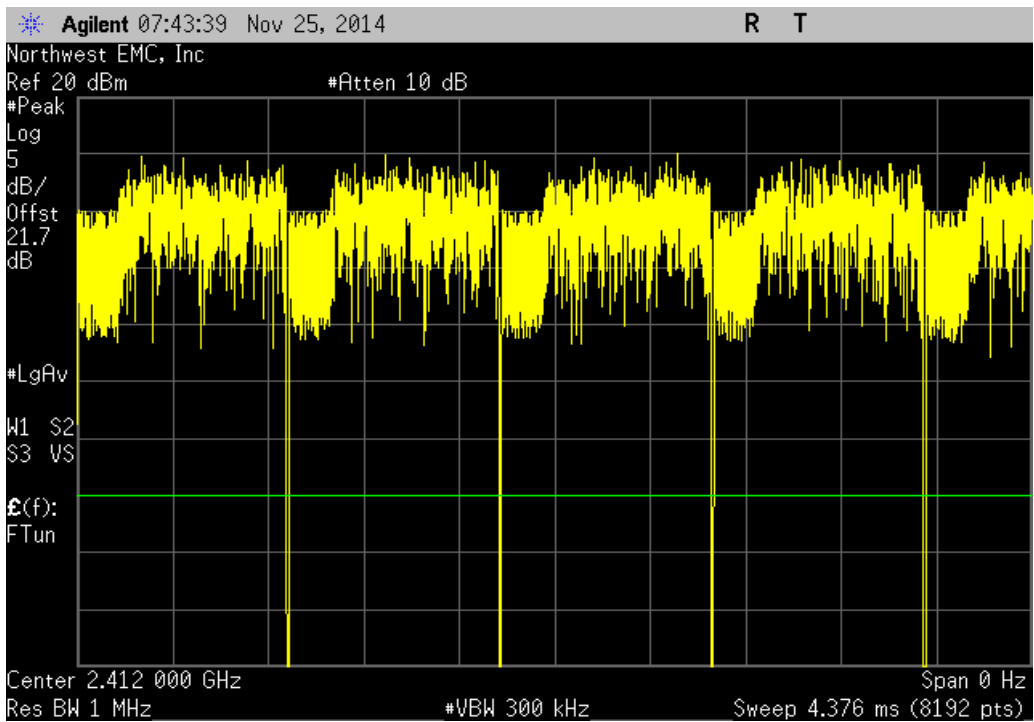
Antenna 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



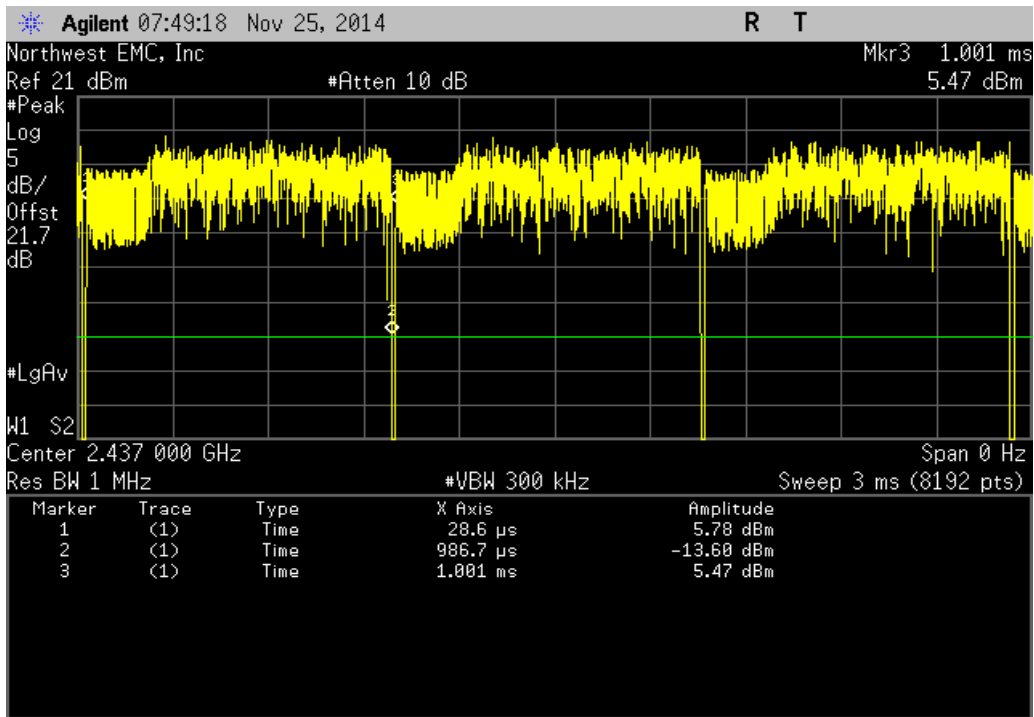
Antenna 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
958.2 us	972.4 us	1	98.5	N/A	N/A	



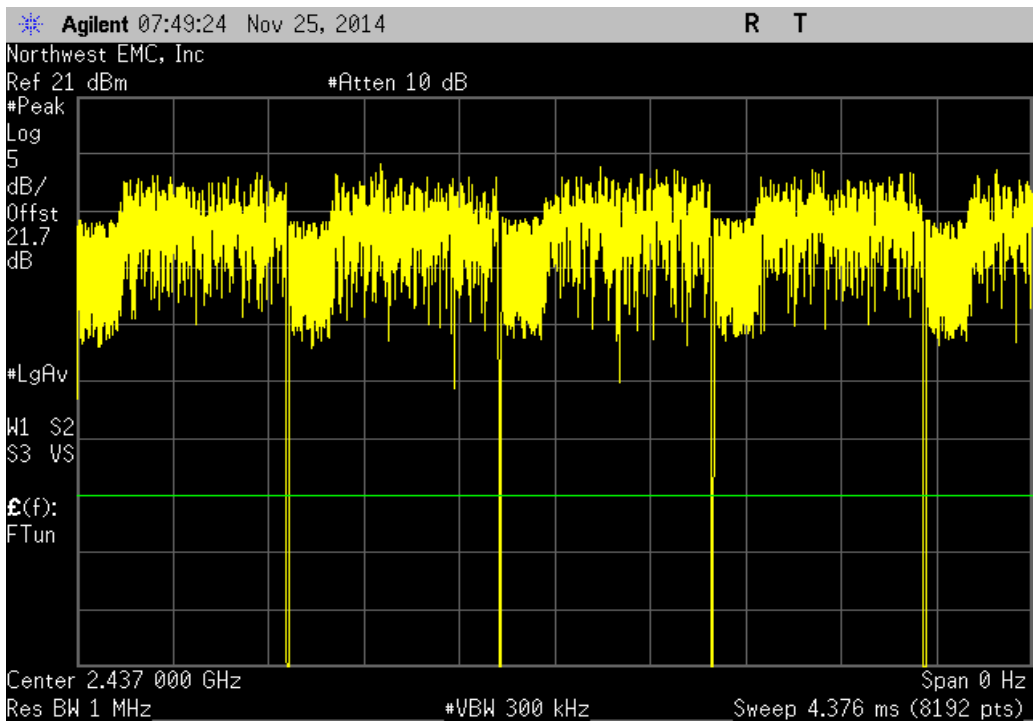
Antenna 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



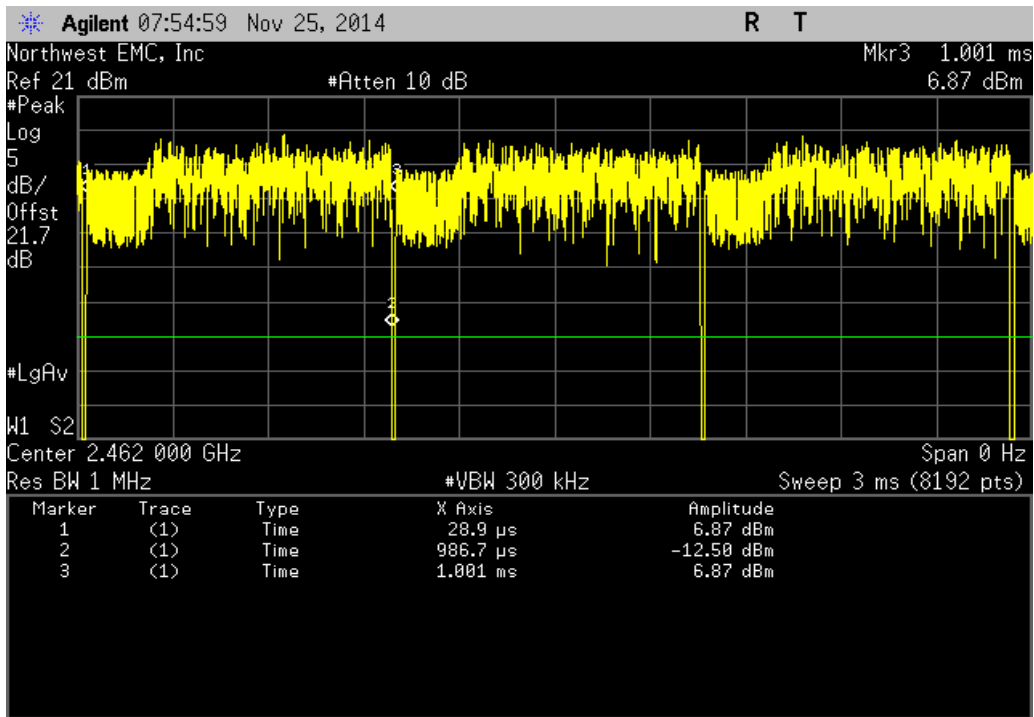
Antenna 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
958.1 us	972.4 us	1	98.5	N/A	N/A	



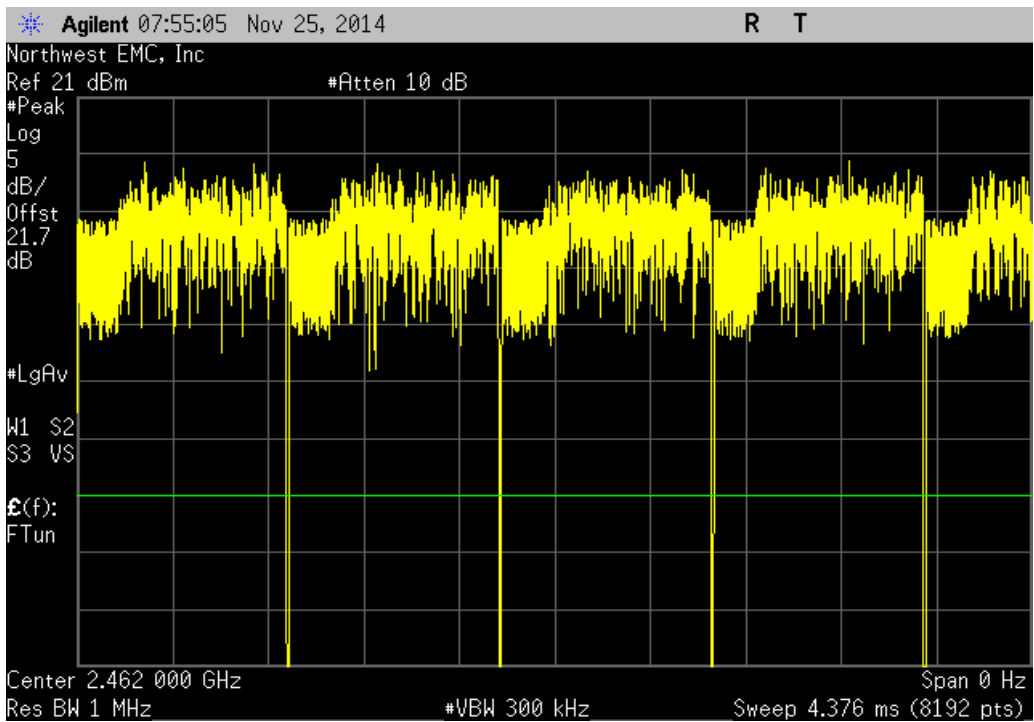
Antenna 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



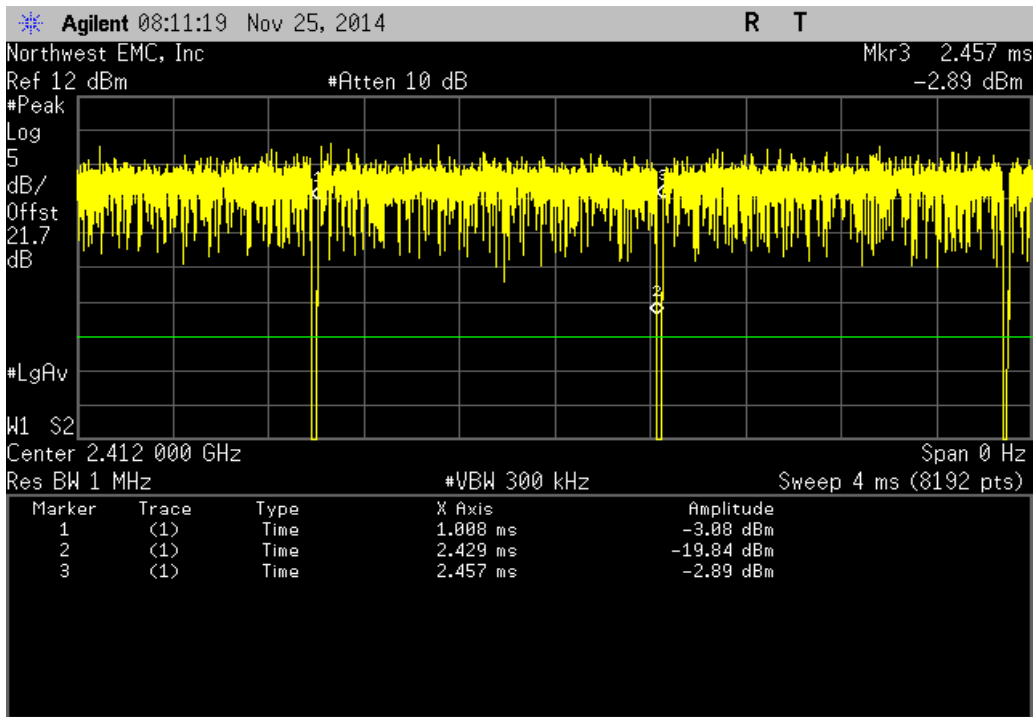
Antenna 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
957.8 us	972.4 us	1	98.5	N/A	N/A	



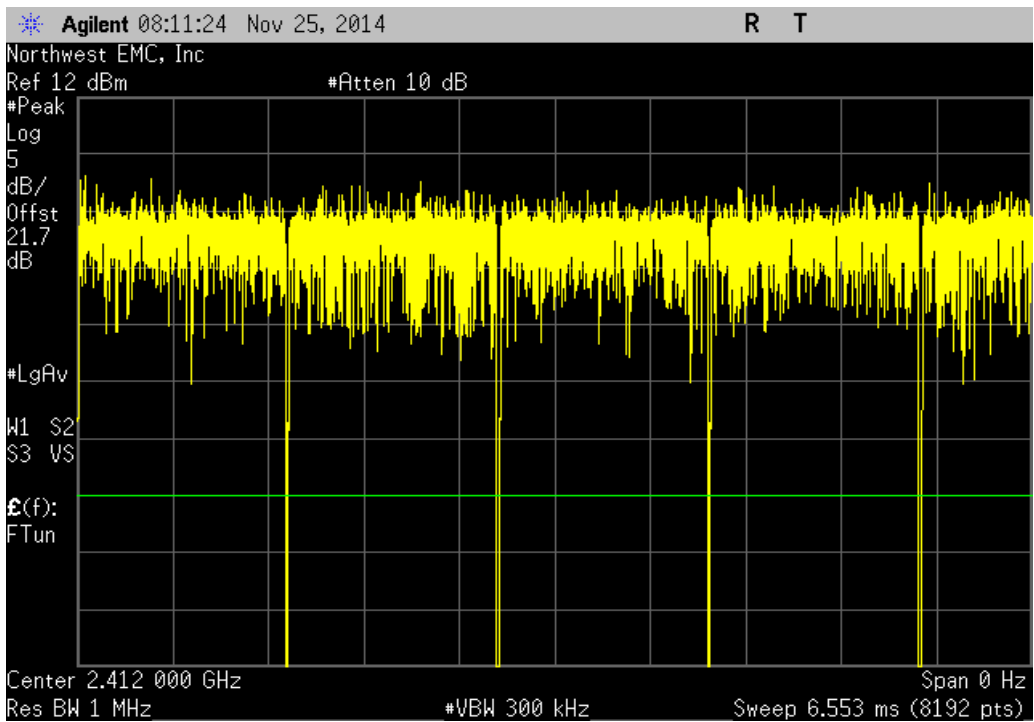
Antenna 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



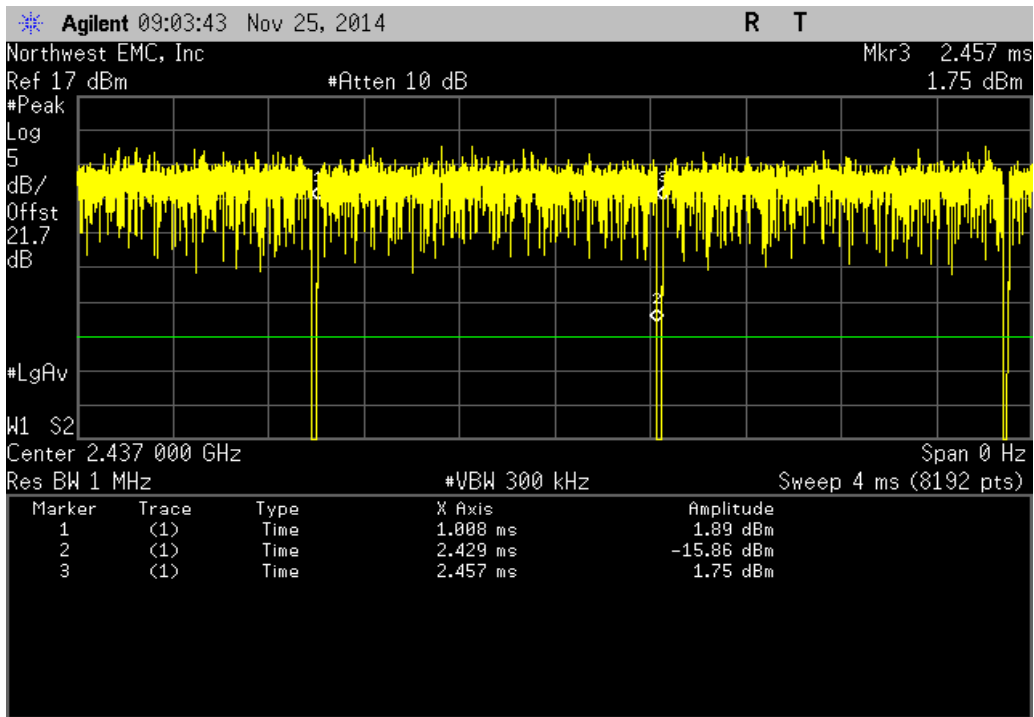
Antenna 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
1.421 ms	1.448 ms	1	98.1	N/A	N/A	



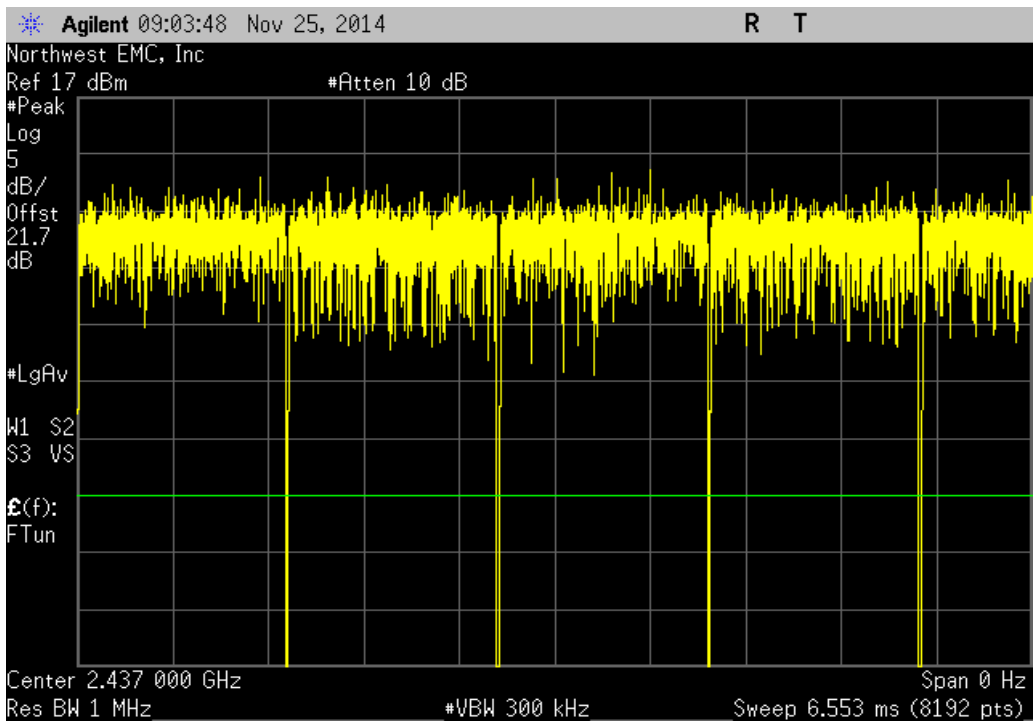
Antenna 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



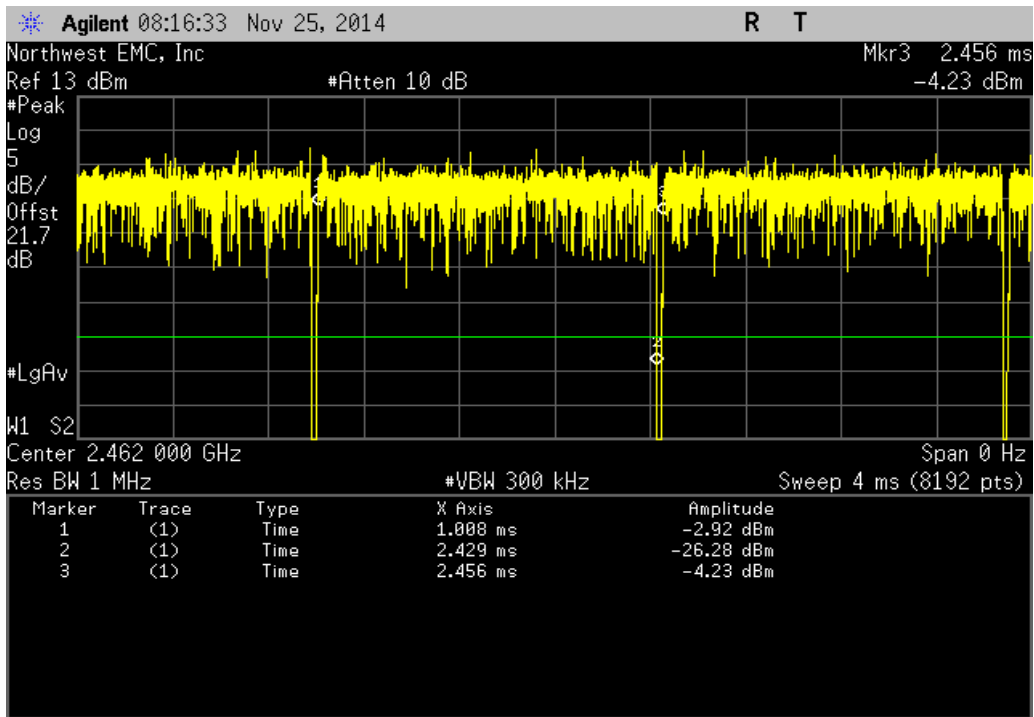
Antenna 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
1.421 ms	1.448 ms	1	98.1	N/A	N/A	



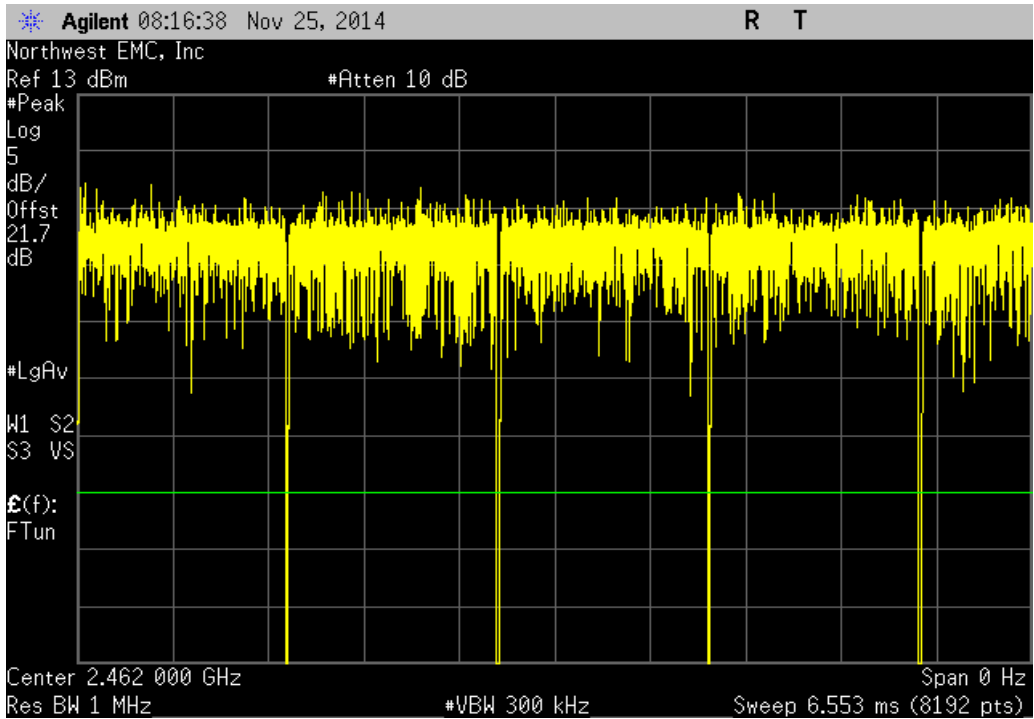
Antenna 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



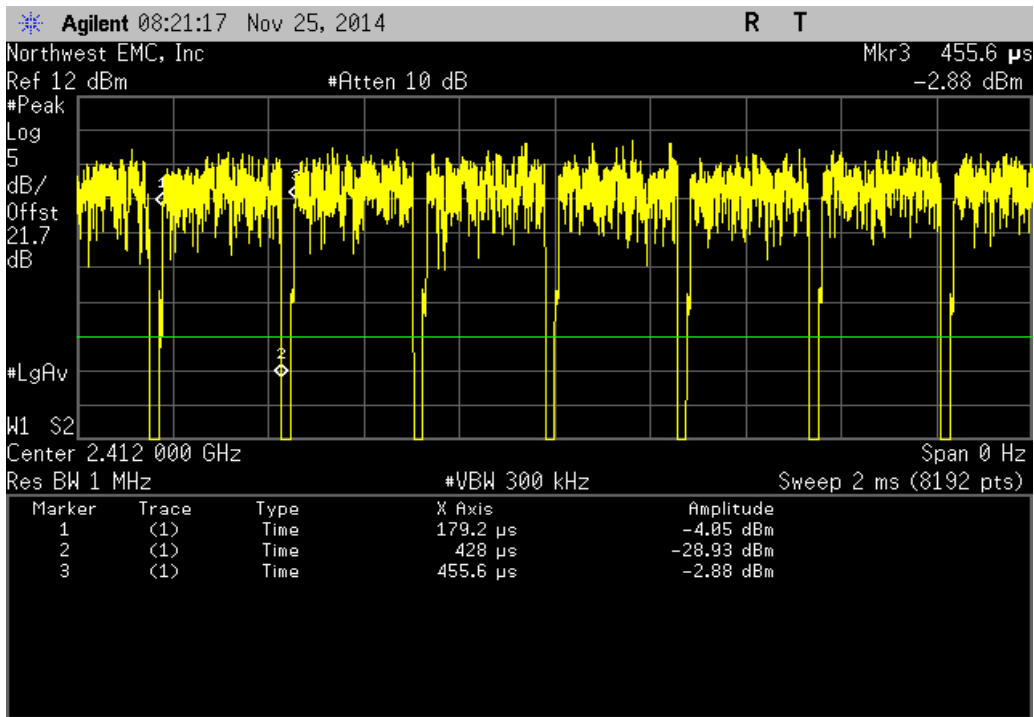
Antenna 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
1.421 ms	1.448 ms	1	98.1	N/A	N/A	



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



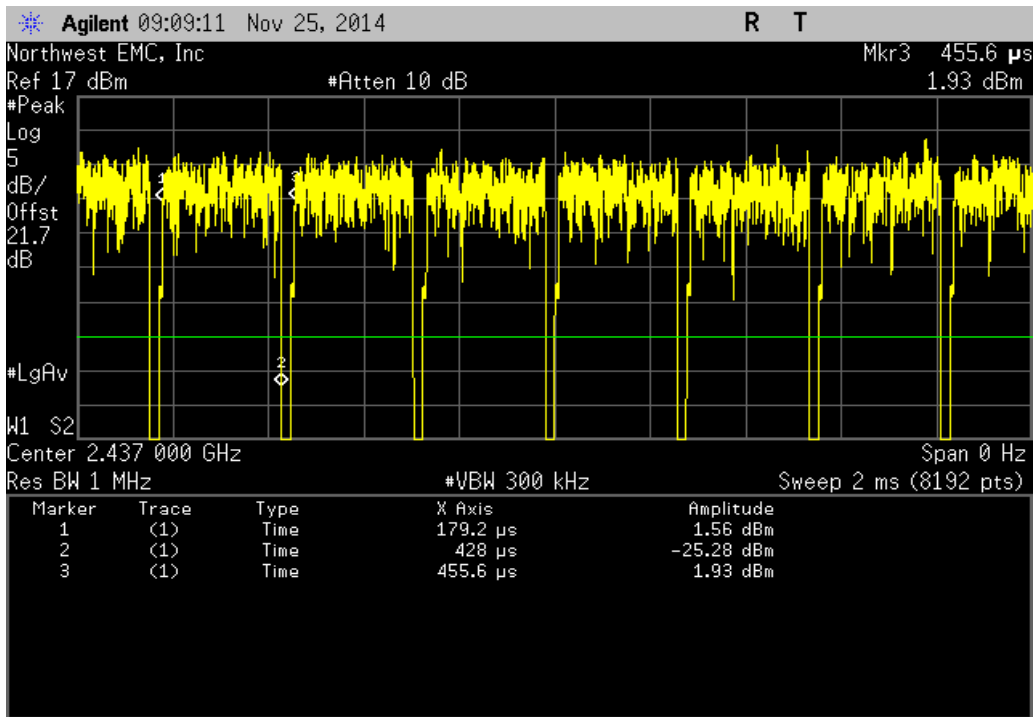
Antenna 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
248.8 us	276.4 us	1	90	N/A	N/A	



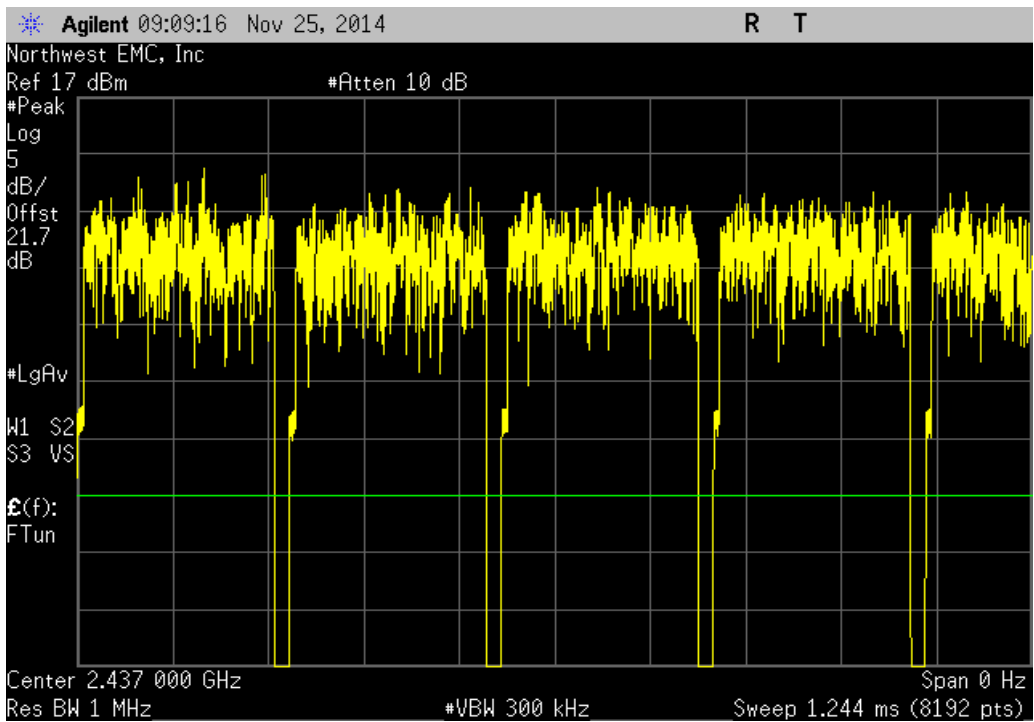
Antenna 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	6	N/A	N/A	N/A	



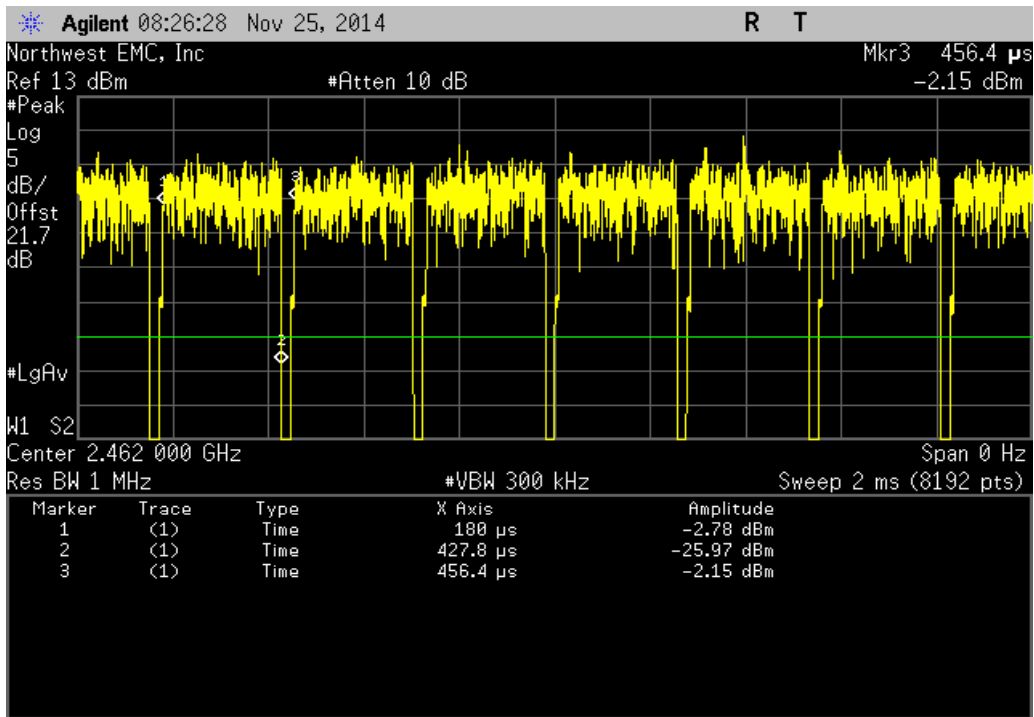
Antenna 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
248.8 us	276.4 us	1	90	N/A	N/A	



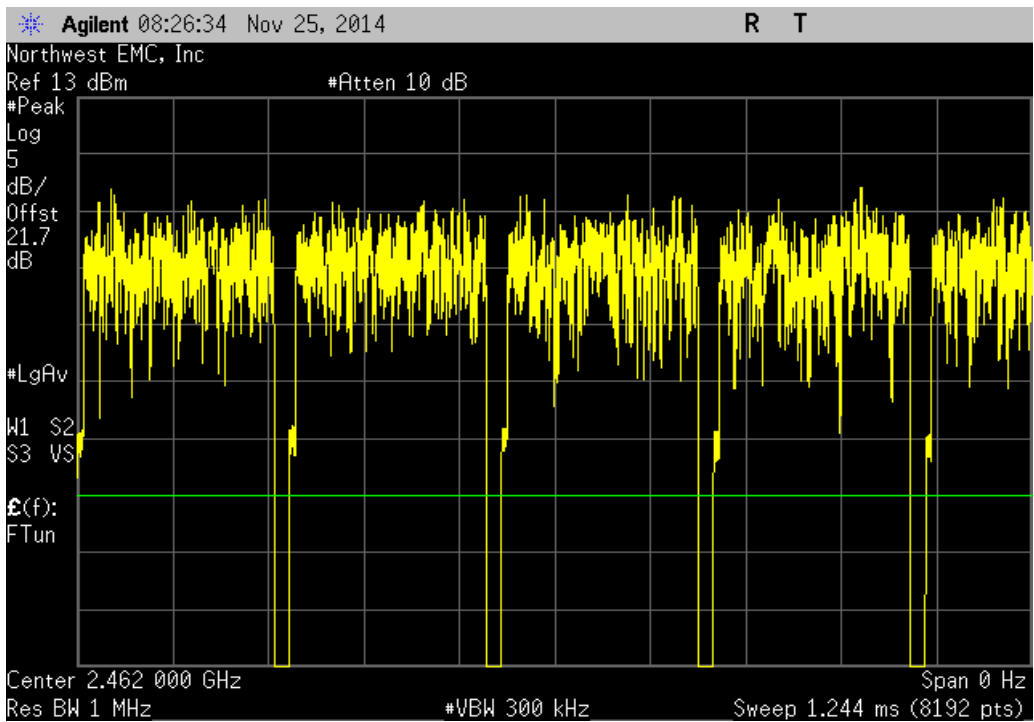
Antenna 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



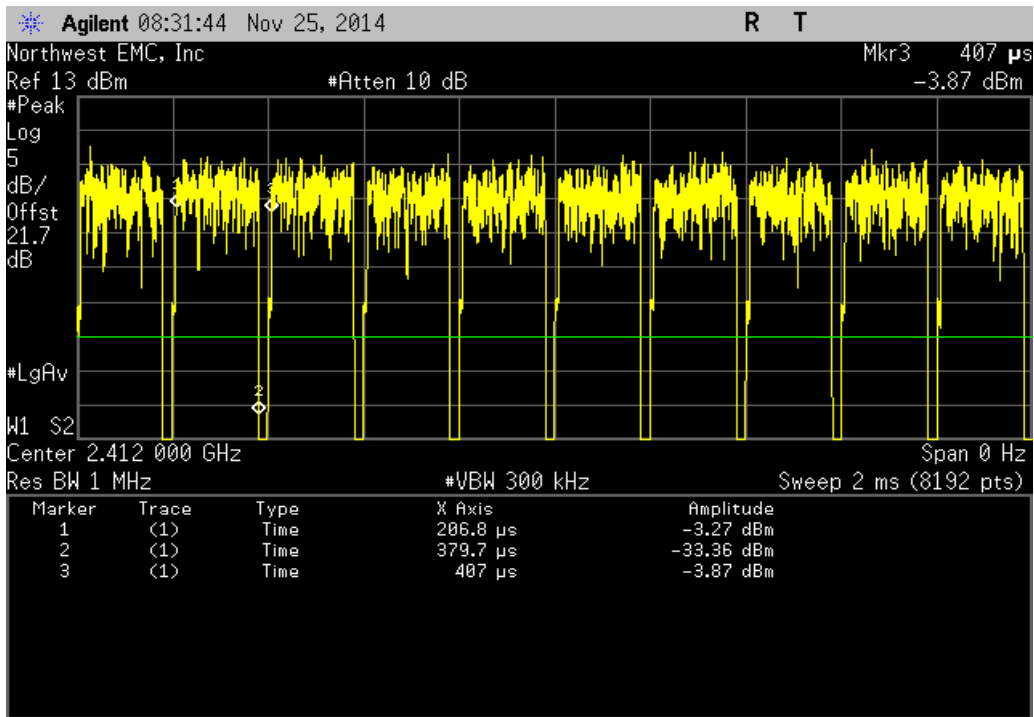
Antenna 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
247.8 us	276.4 us	1	89.7	N/A	N/A	



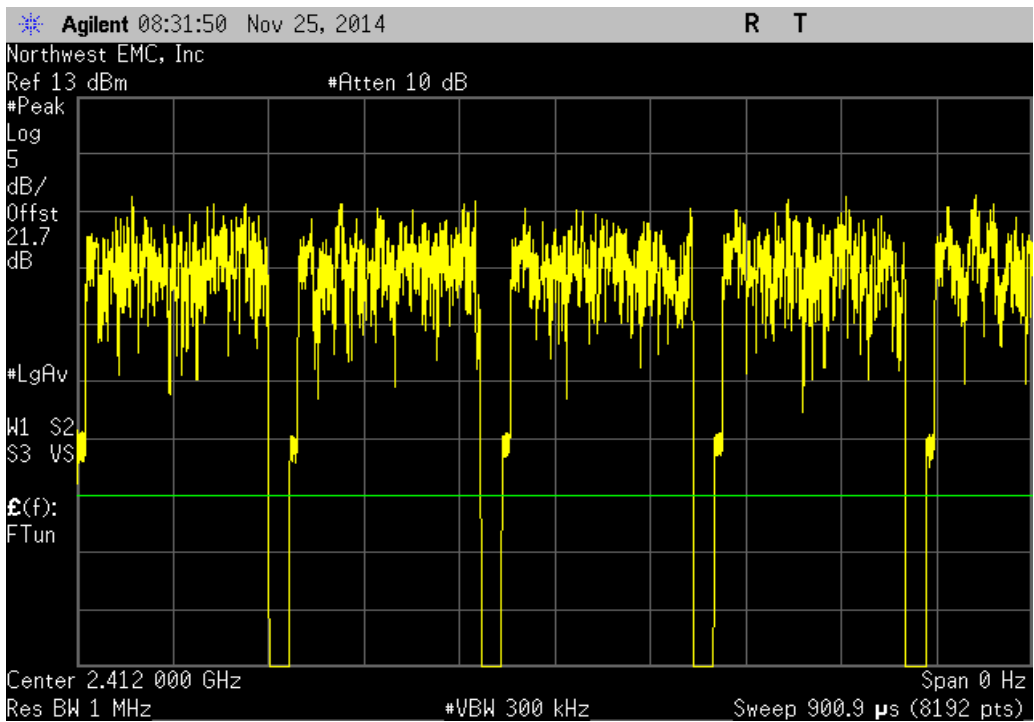
Antenna 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



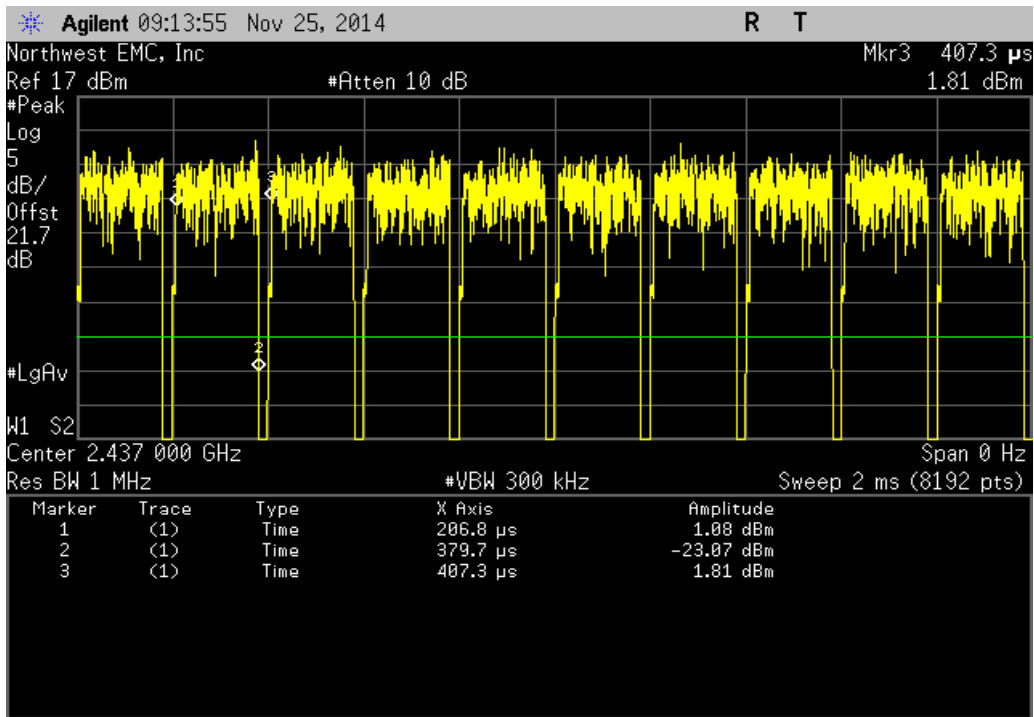
Antenna 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
172.9 us	200.2 us	1	86.4	N/A	N/A	



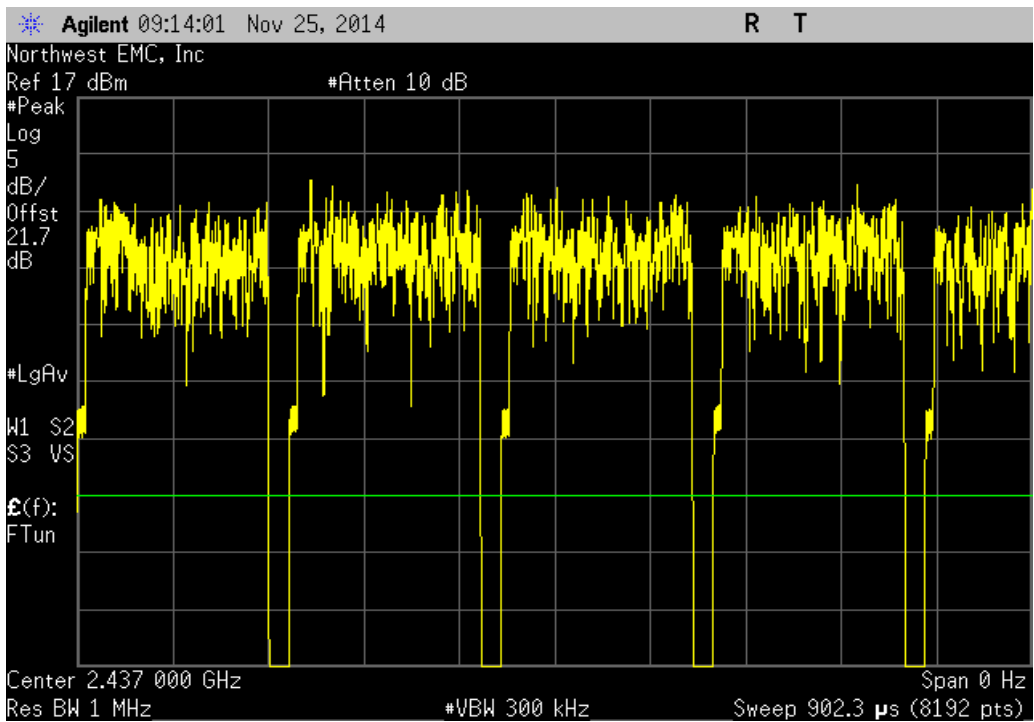
Antenna 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



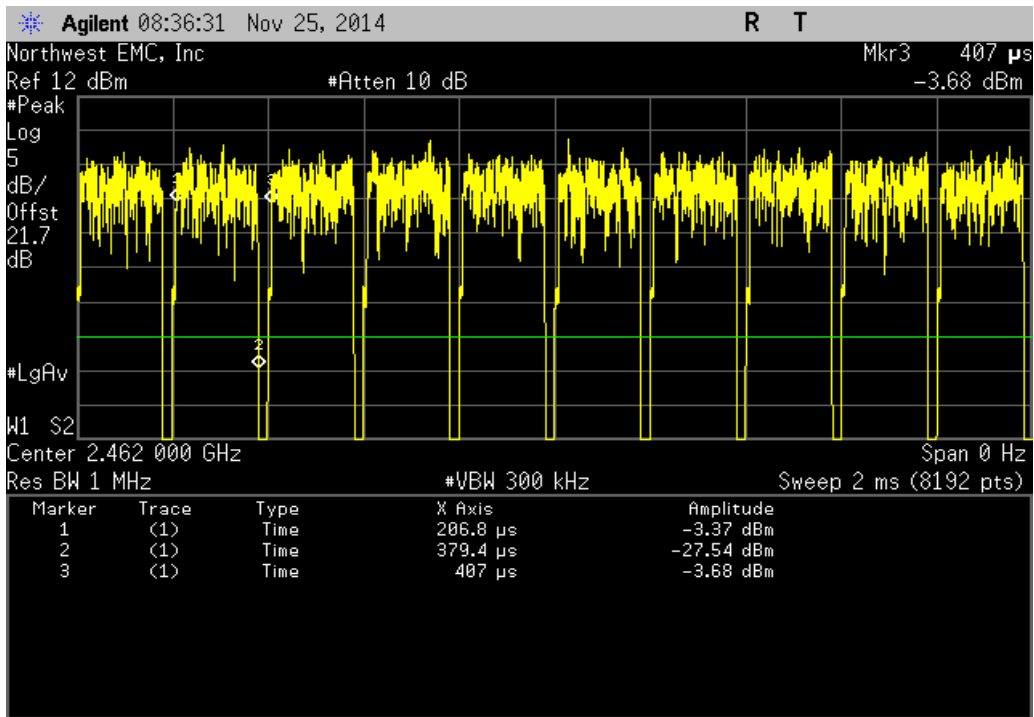
Antenna 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
172.9 us	200.5 us	1	86.2	N/A	N/A	



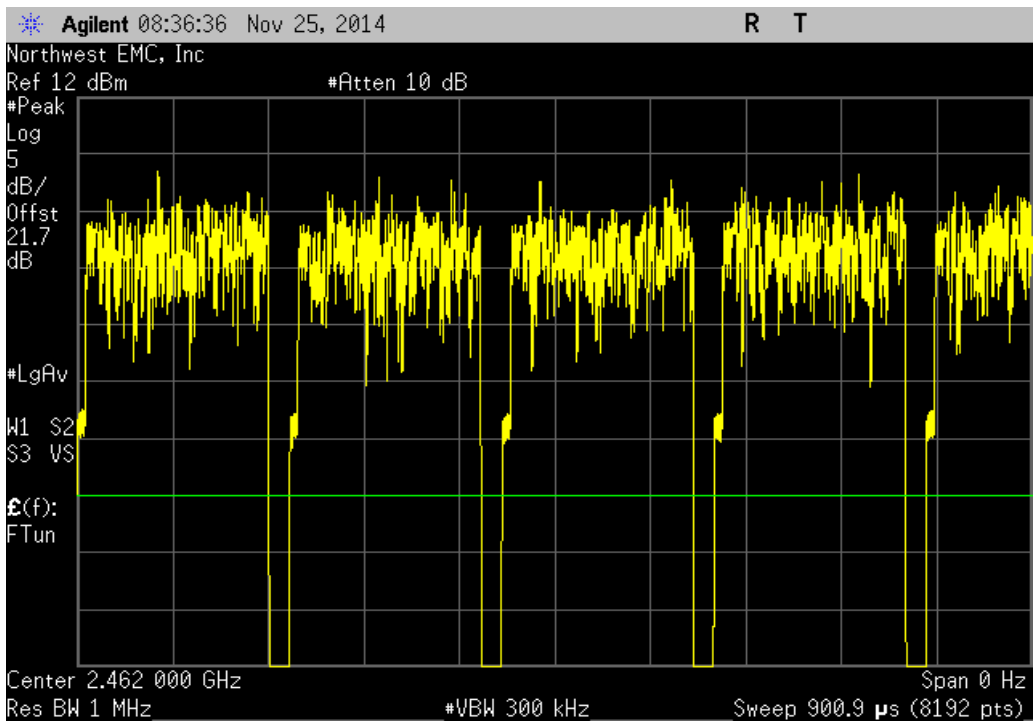
Antenna 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	6	N/A	N/A	N/A	



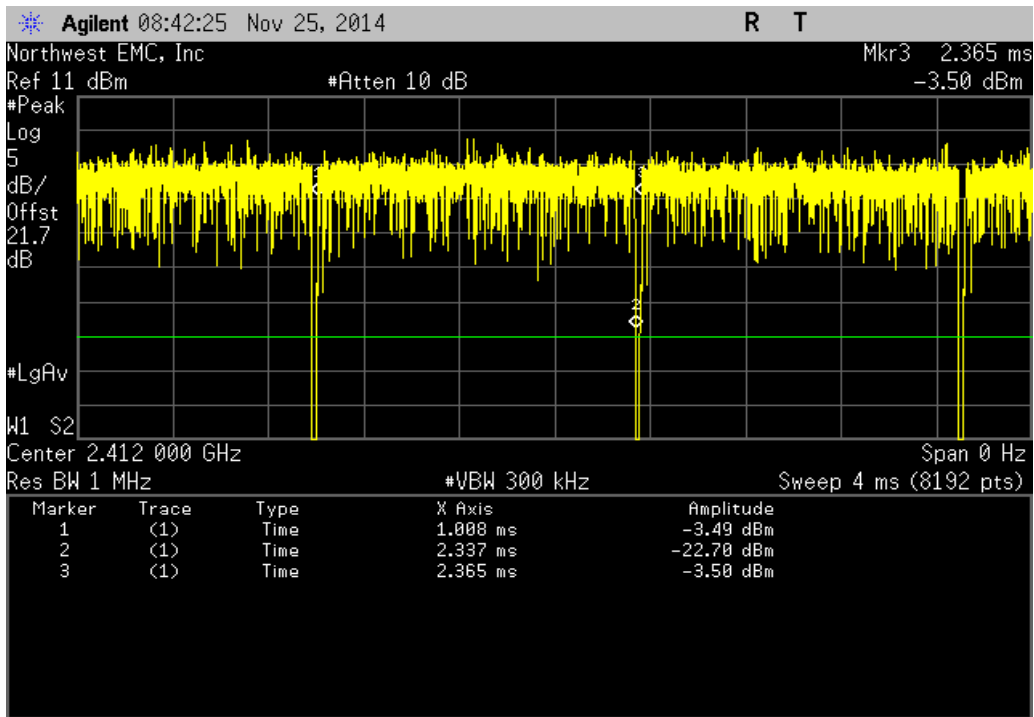
Antenna 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
172.6 us	200.2 us	1	86.2	N/A	N/A	



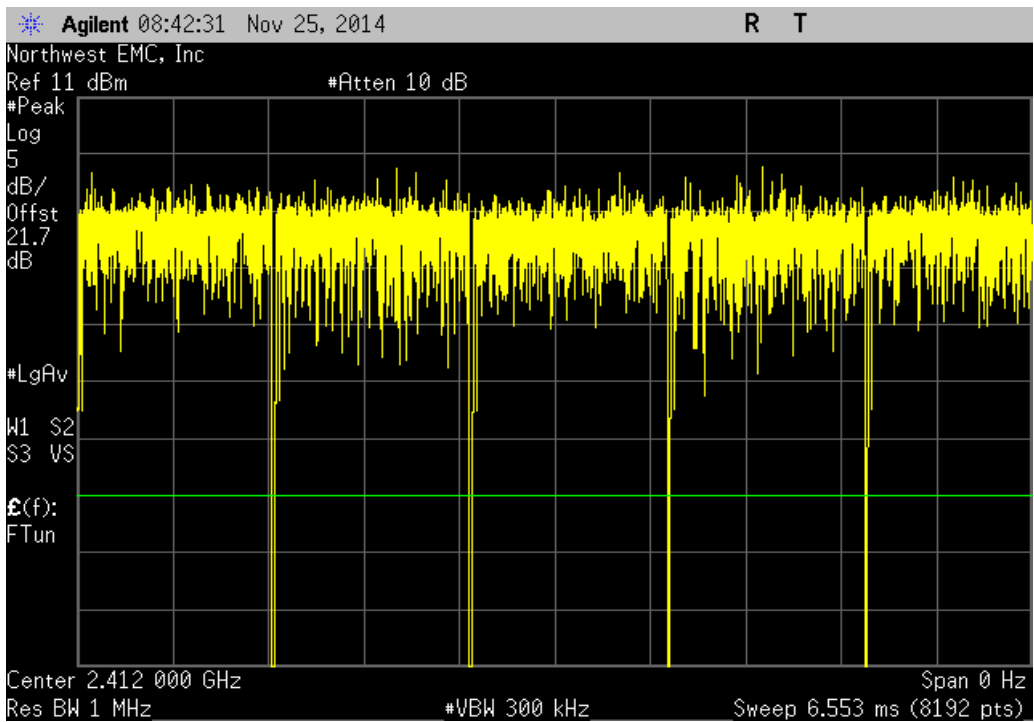
Antenna 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



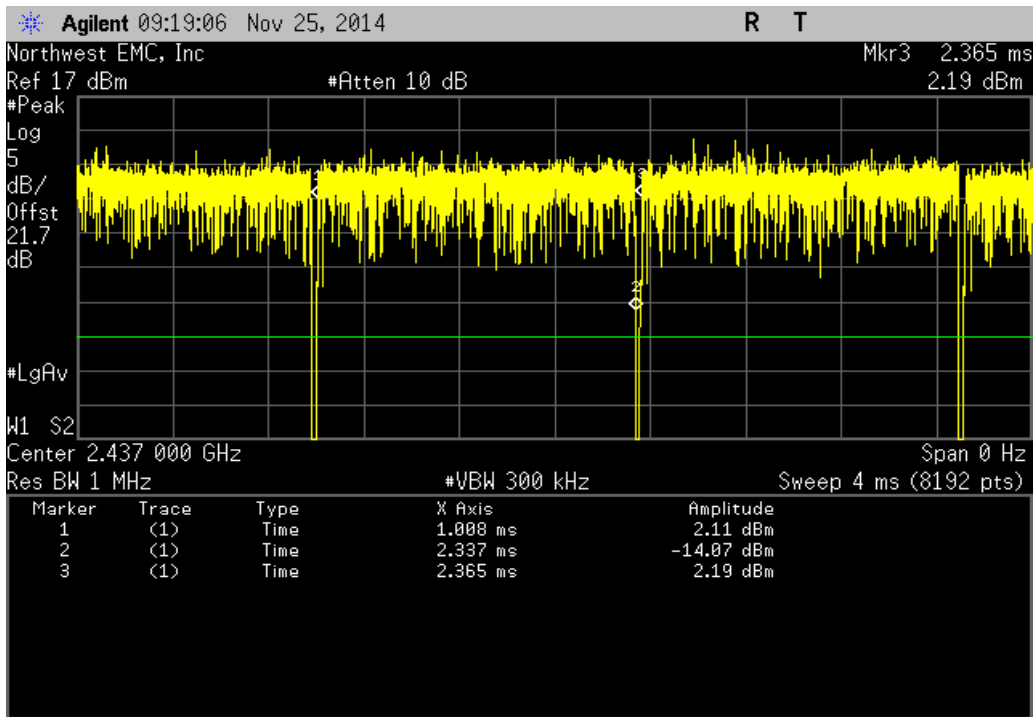
Antenna 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
1.329 ms	1.357 ms	1	98	N/A	N/A	



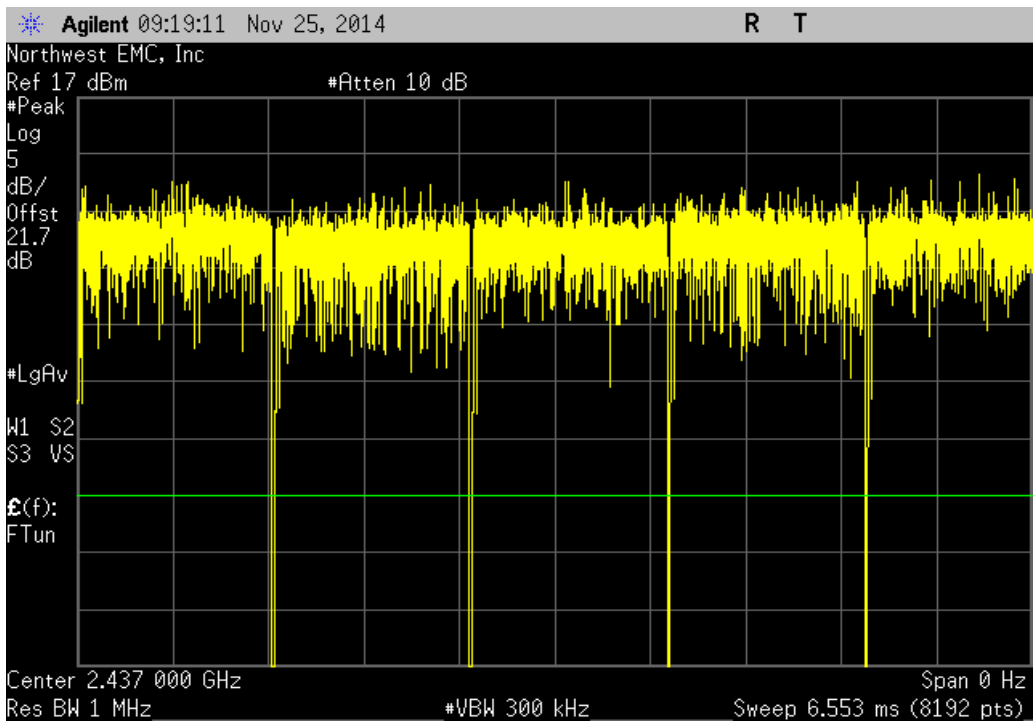
Antenna 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



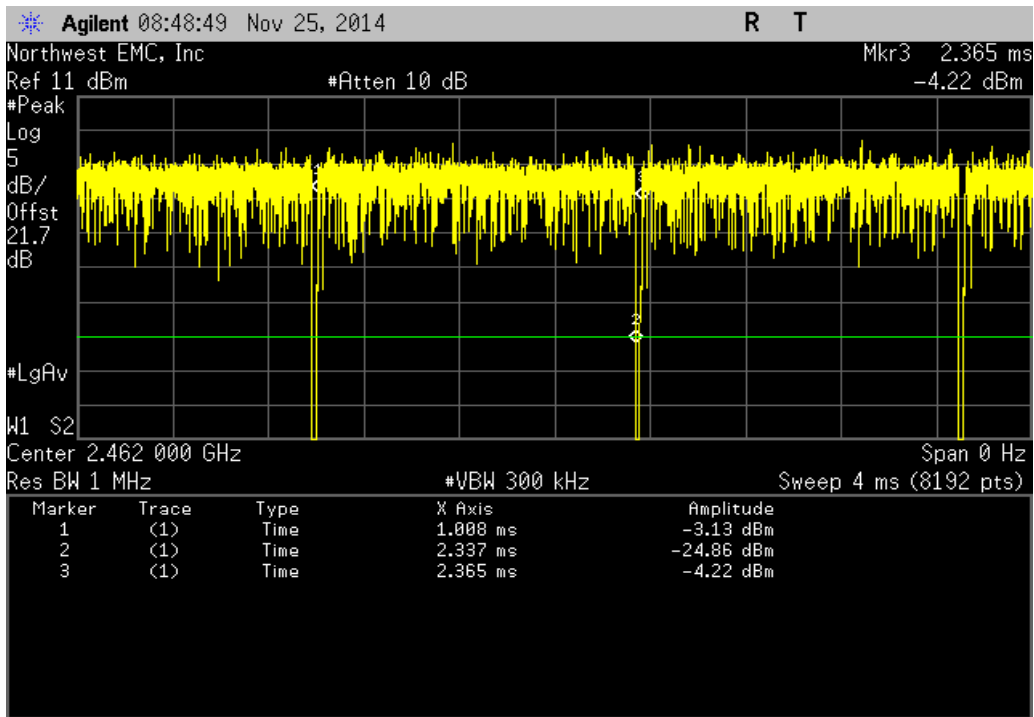
Antenna 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
1.329 ms	1.357 ms	1	98	N/A	N/A	



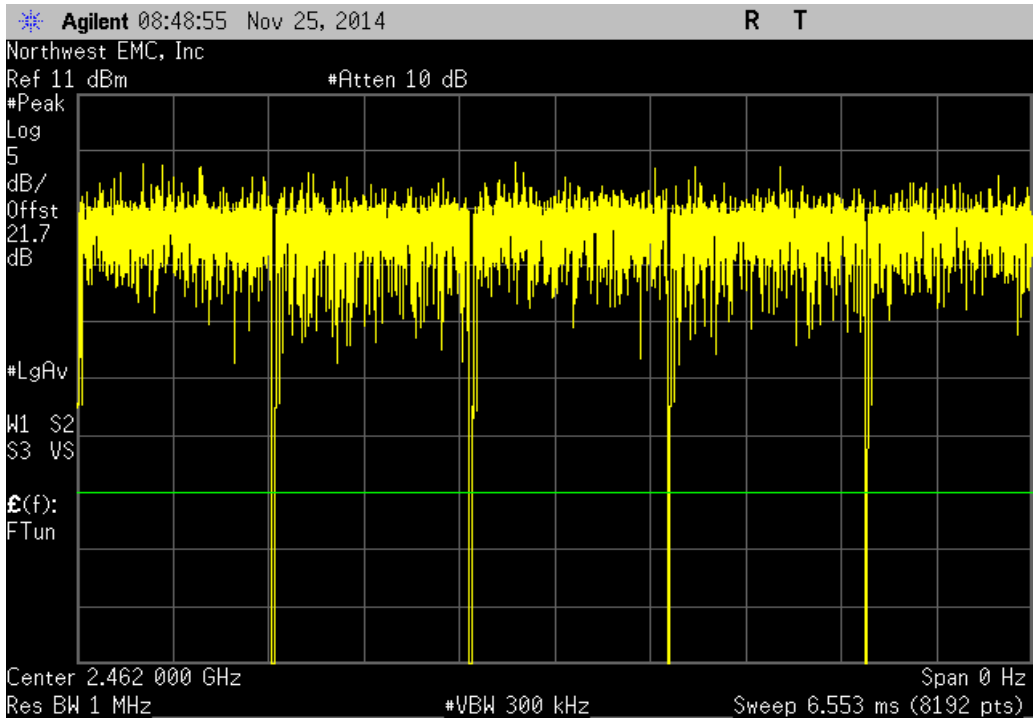
Antenna 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



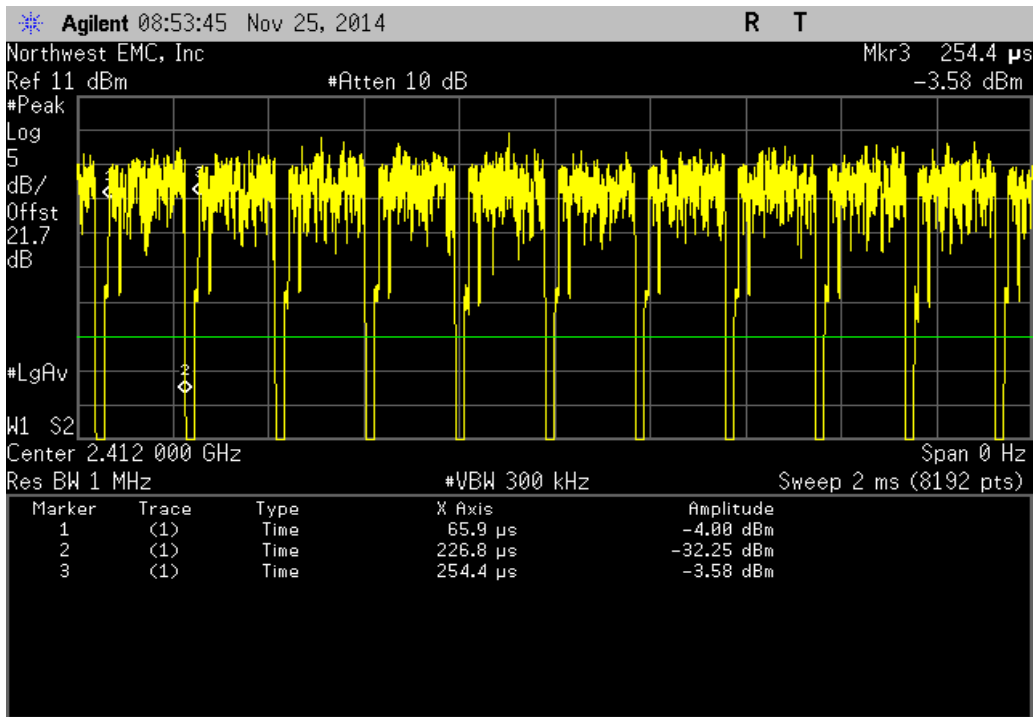
Antenna 0, 802.11(n) MCS0, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
1.329 ms	1.356 ms	1	98	N/A	N/A	



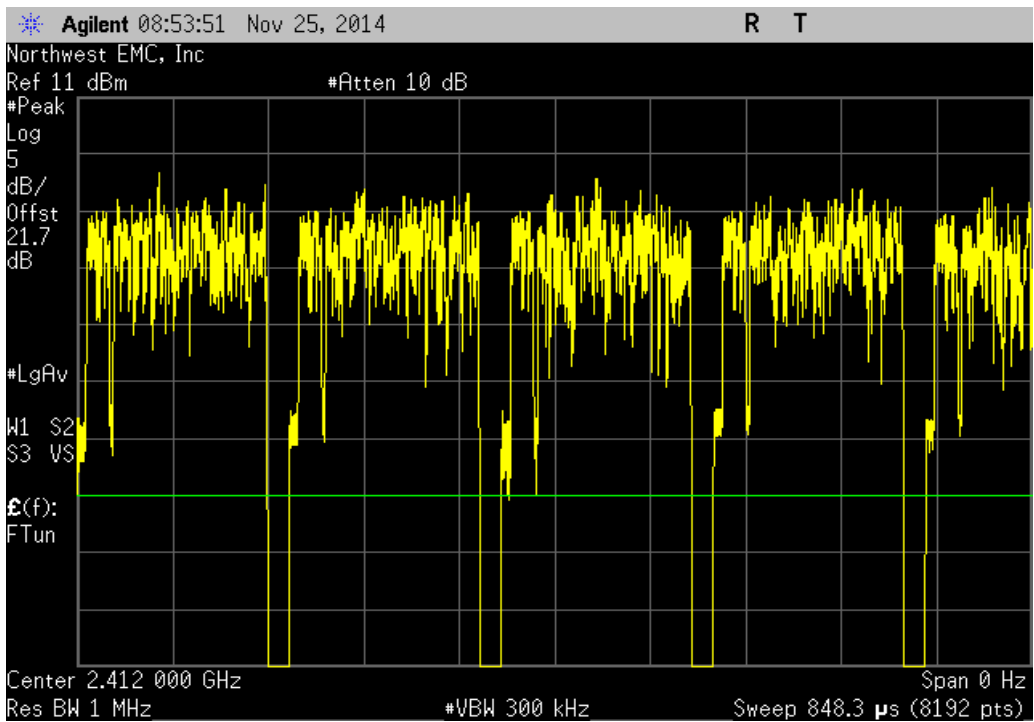
Antenna 0, 802.11(n) MCS0, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



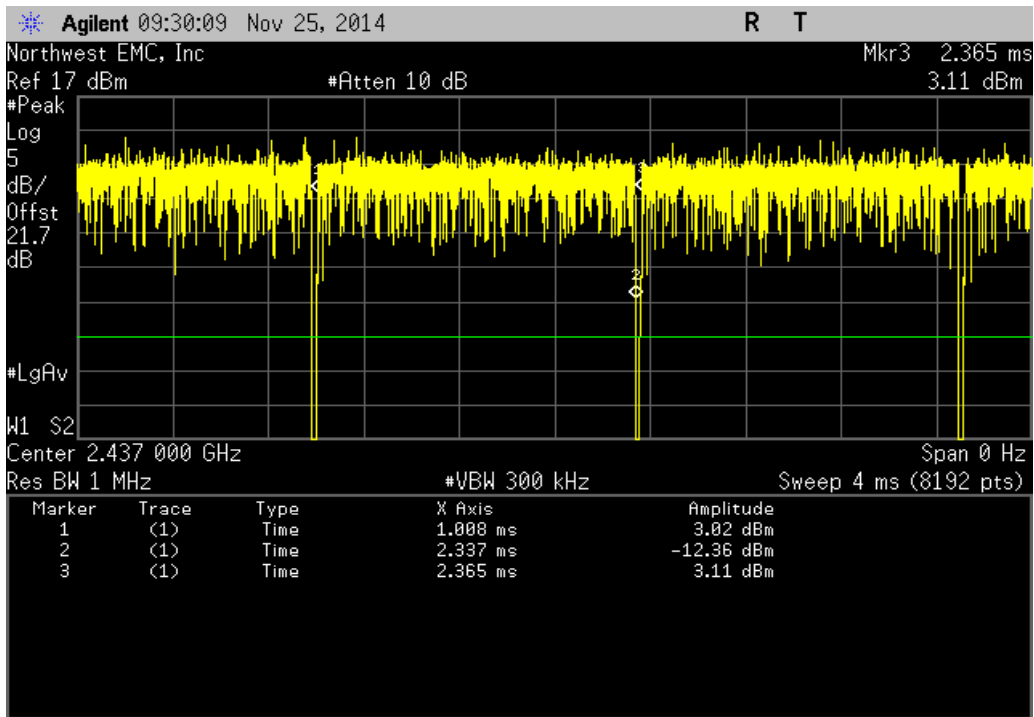
Antenna 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
160.9 us	188.5 us	1	85.4	N/A	N/A	



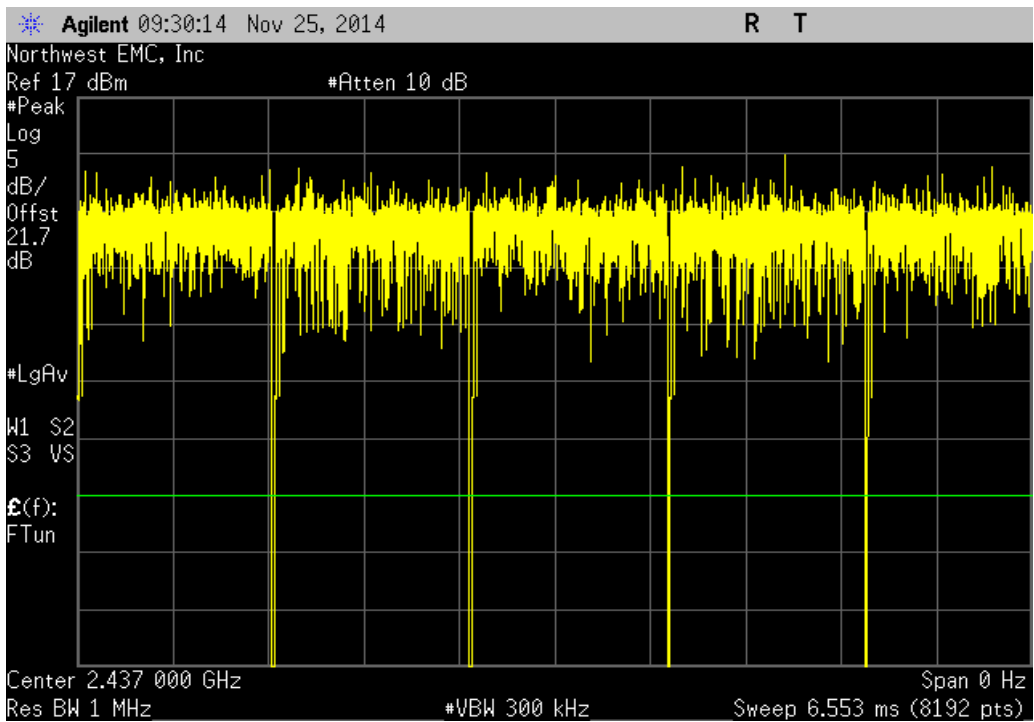
Antenna 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	6	N/A	N/A	N/A	



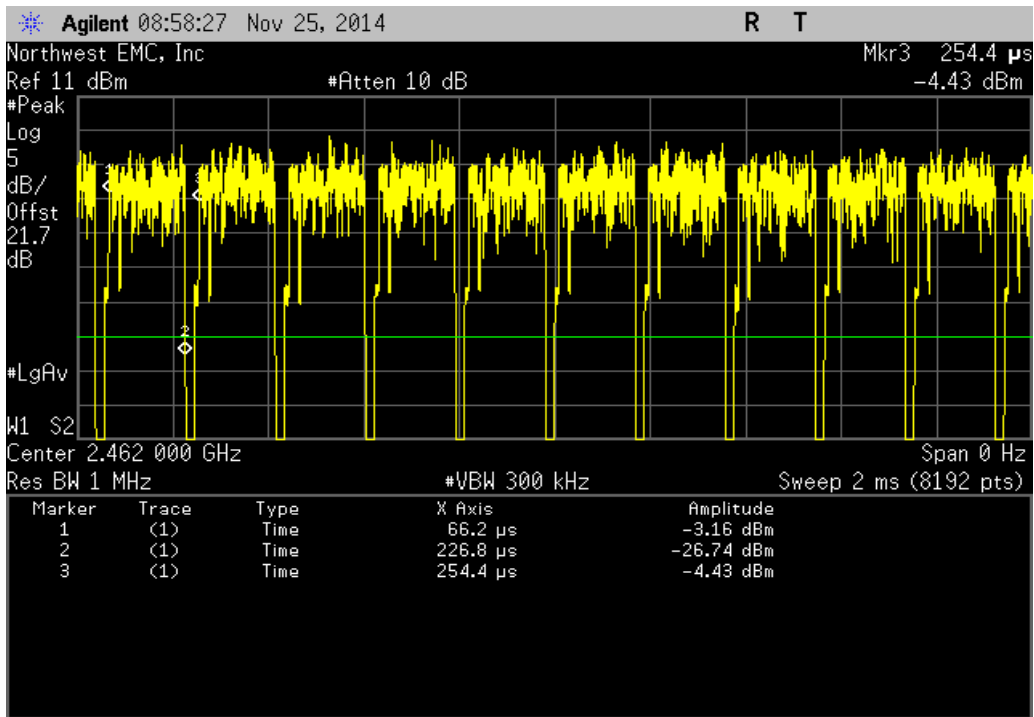
Antenna 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
1.329 ms	1.357 ms	1	98	N/A	N/A	



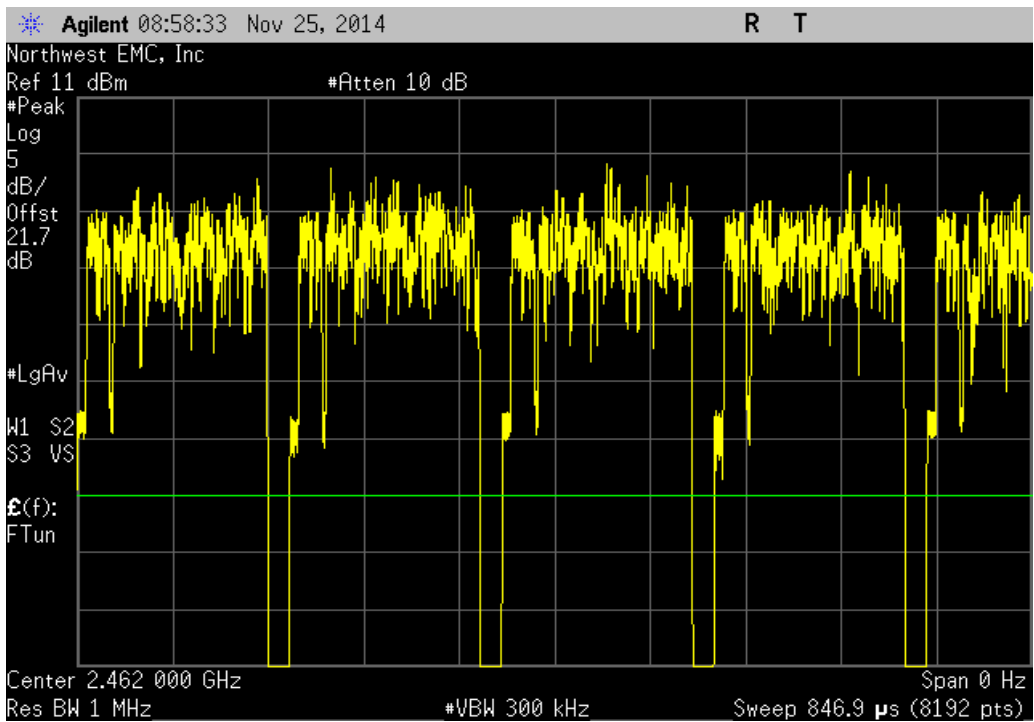
Antenna 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



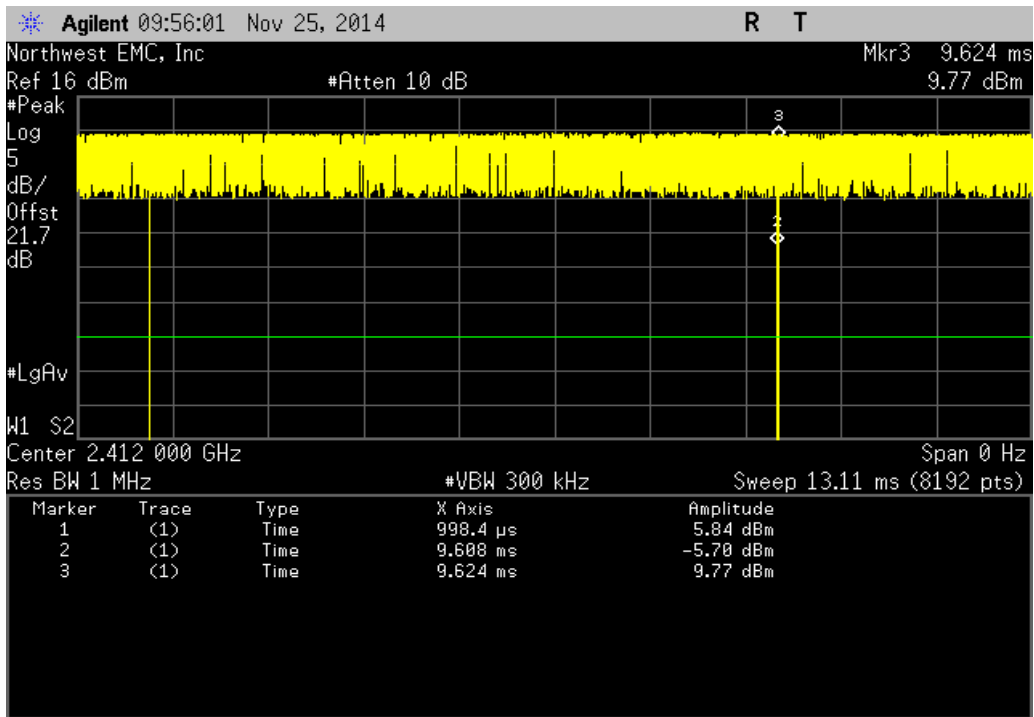
Antenna 0, 802.11(n) MCS7, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
160.6 us	188.2 us	1	85.3	N/A	N/A	



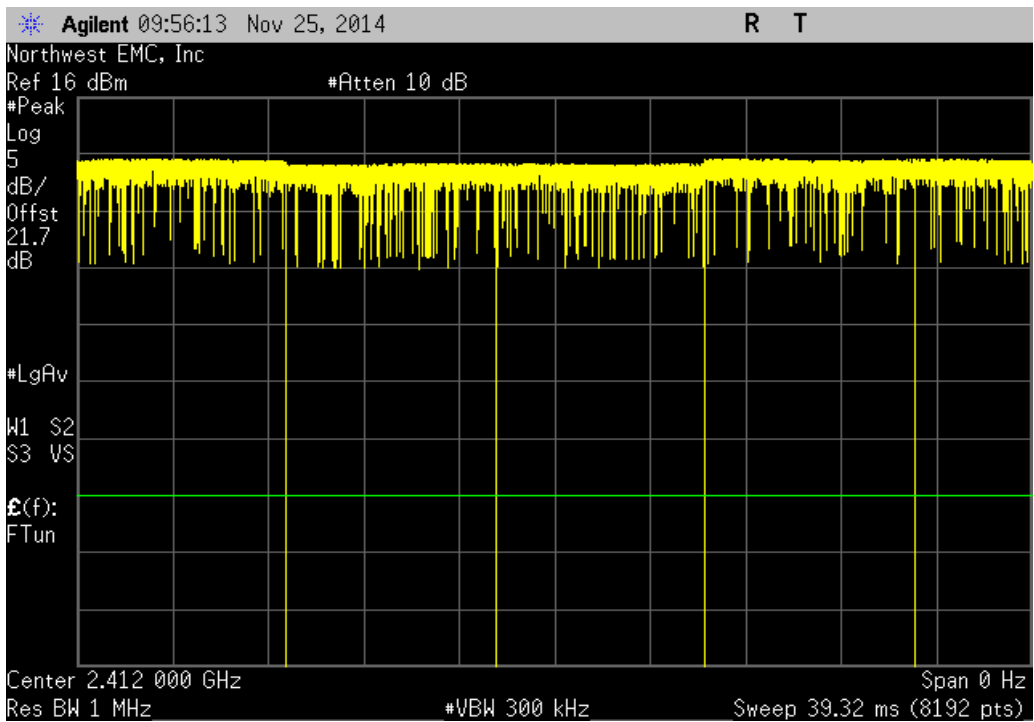
Antenna 0, 802.11(n) MCS7, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



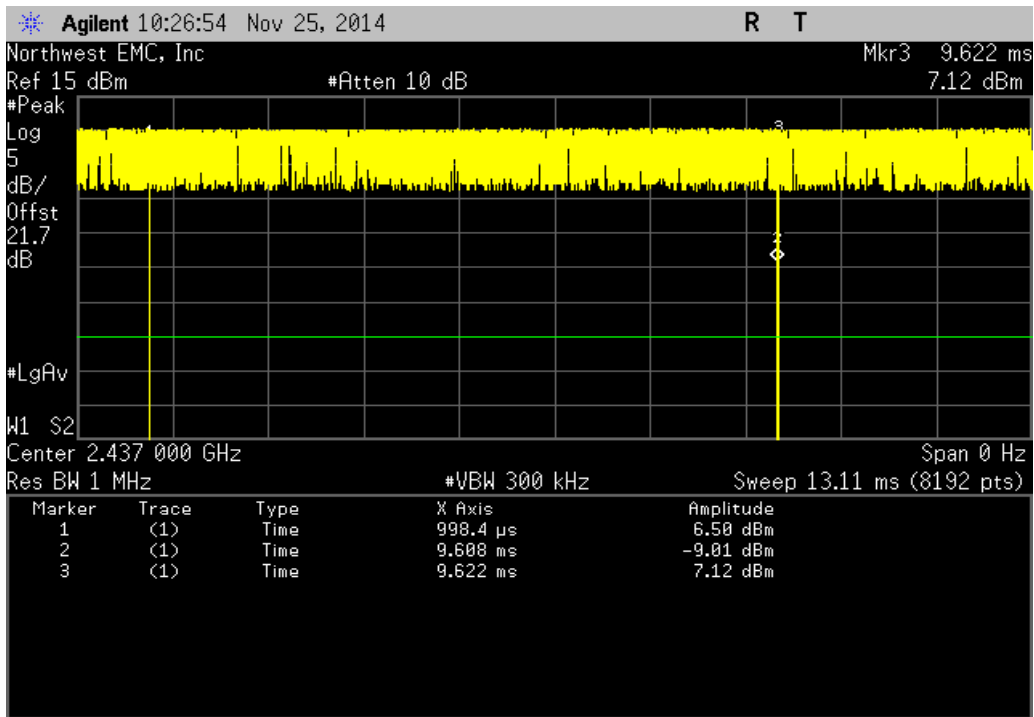
Antenna 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
8.61 ms	8.626 ms	1	99.8	N/A	N/A	



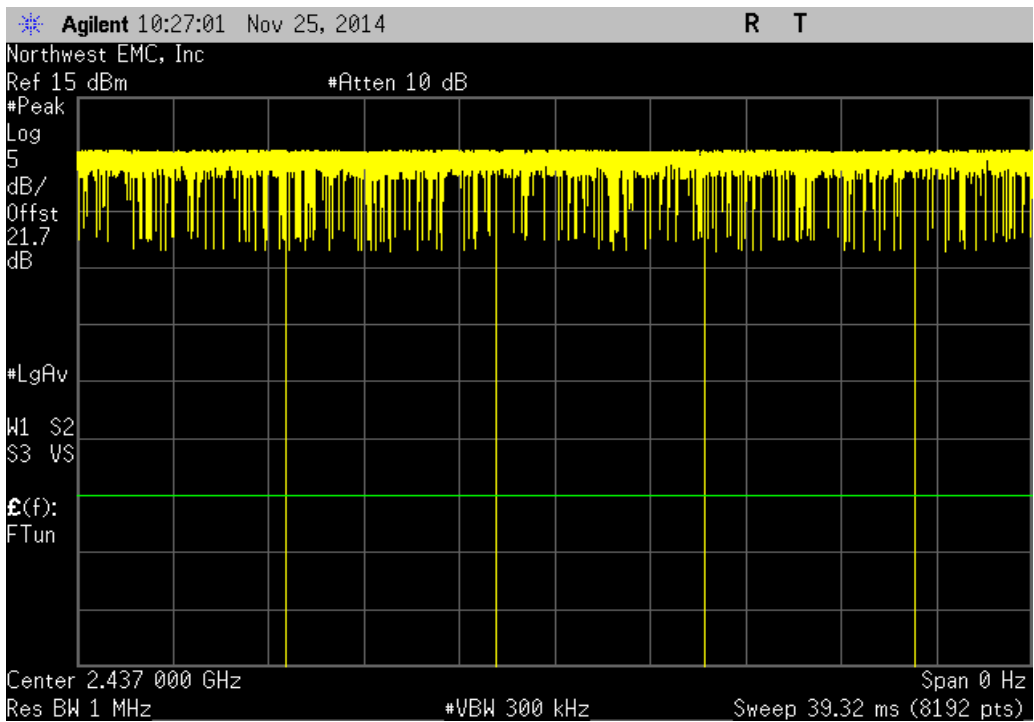
Antenna 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



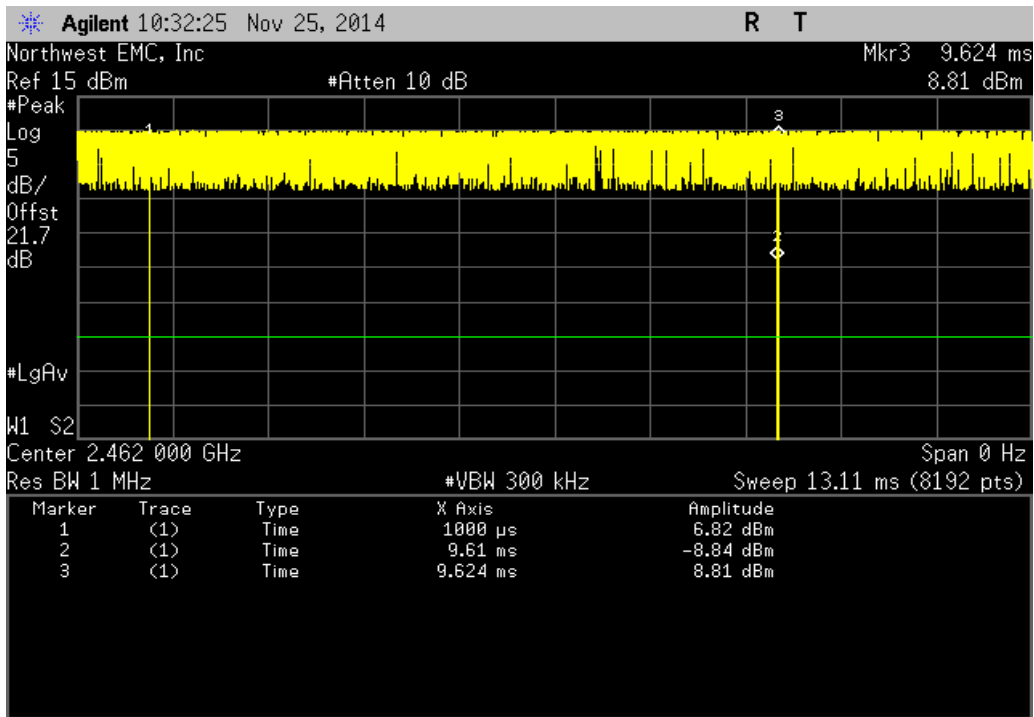
Antenna 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
8.61 ms	8.624 ms	1	99.8	N/A	N/A	



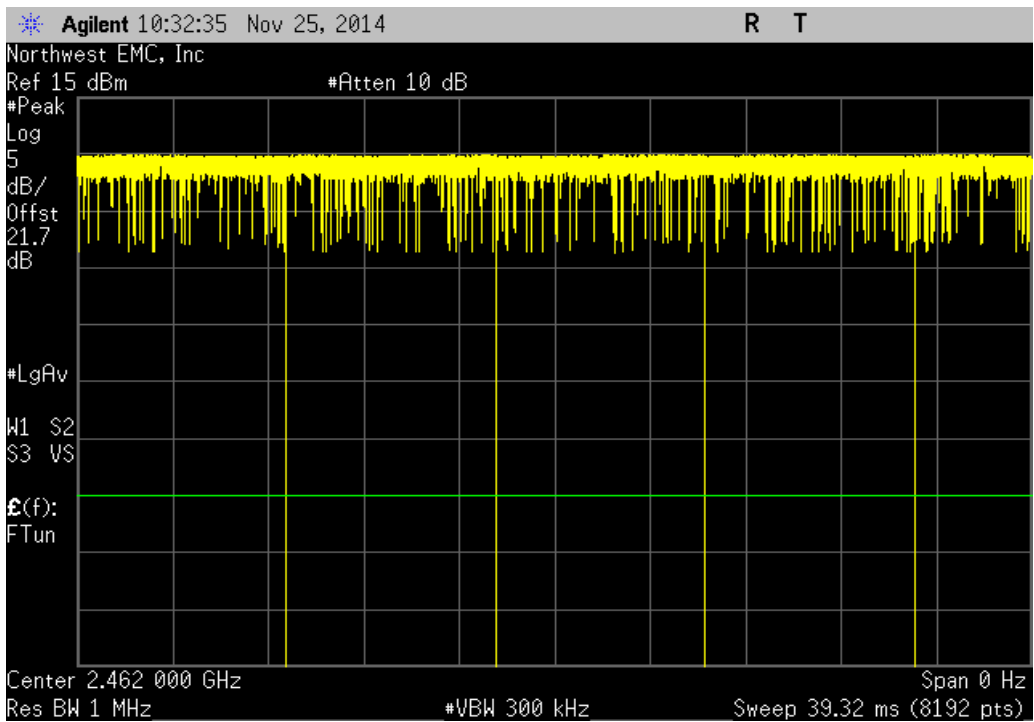
Antenna 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



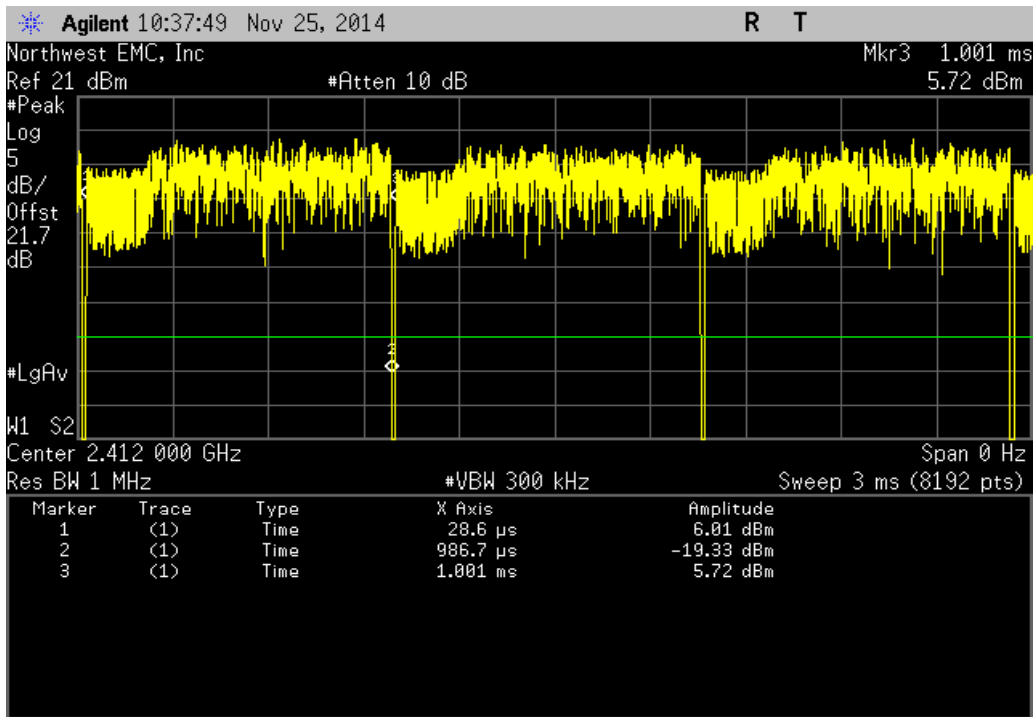
Antenna 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
8.61 ms	8.624 ms	1	99.8	N/A	N/A	



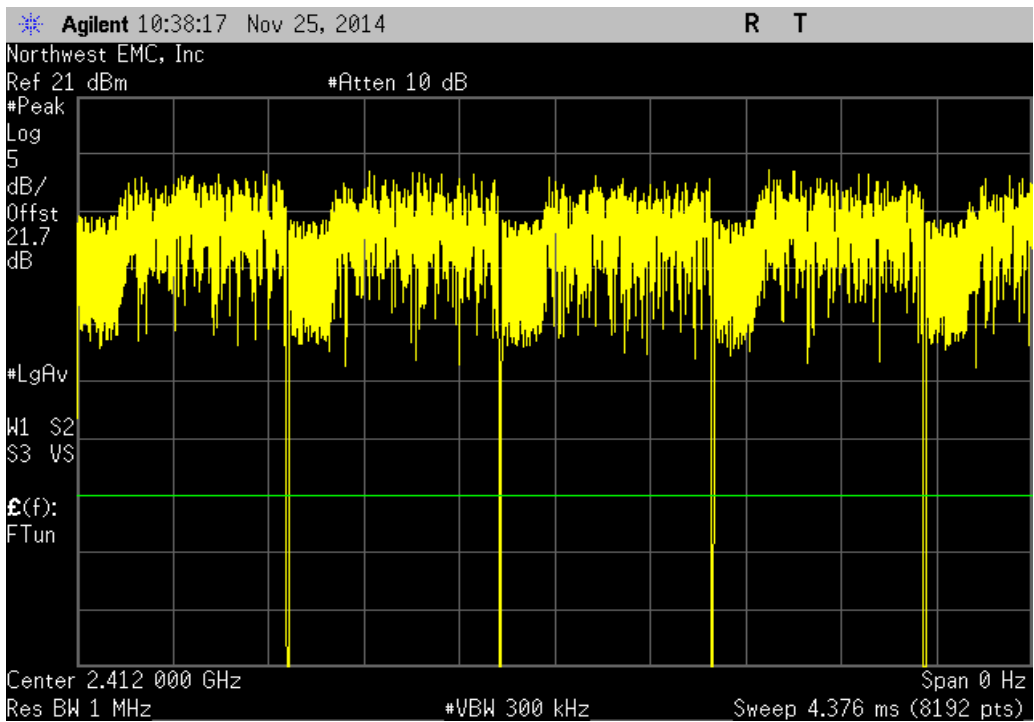
Antenna 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



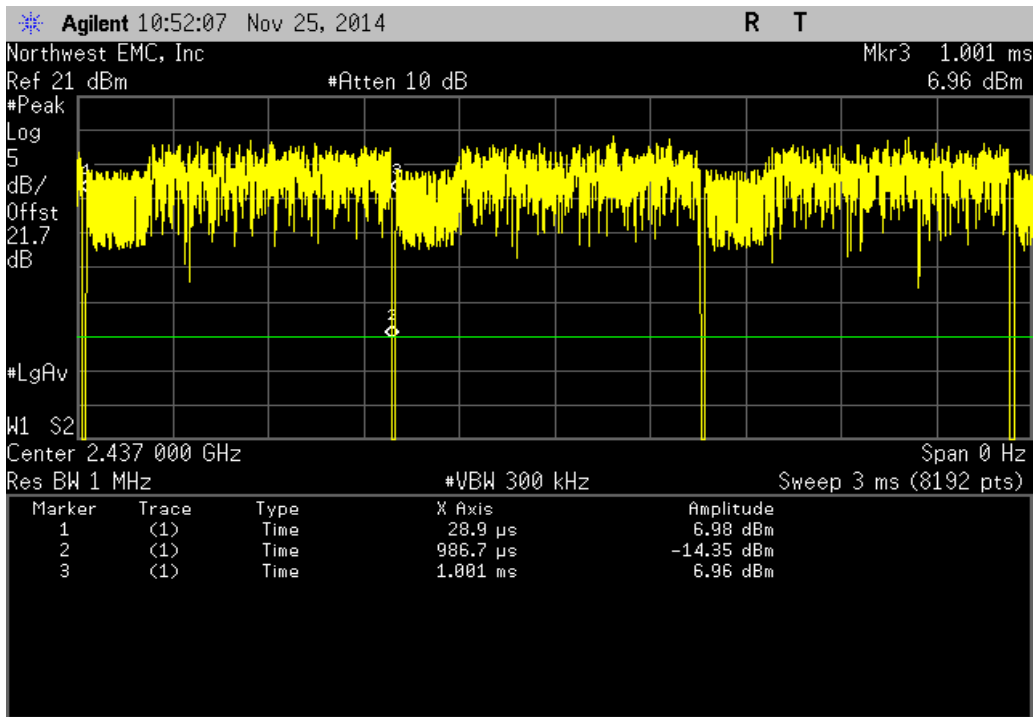
Antenna 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
958.1 us	972.4 us	1	98.5	N/A	N/A	



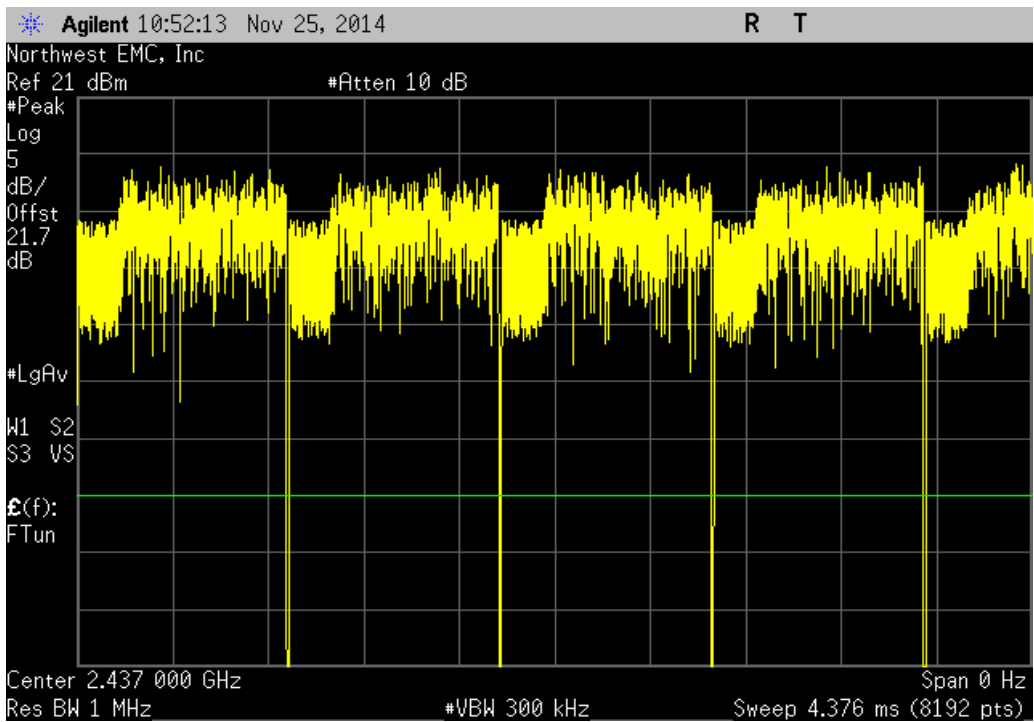
Antenna 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



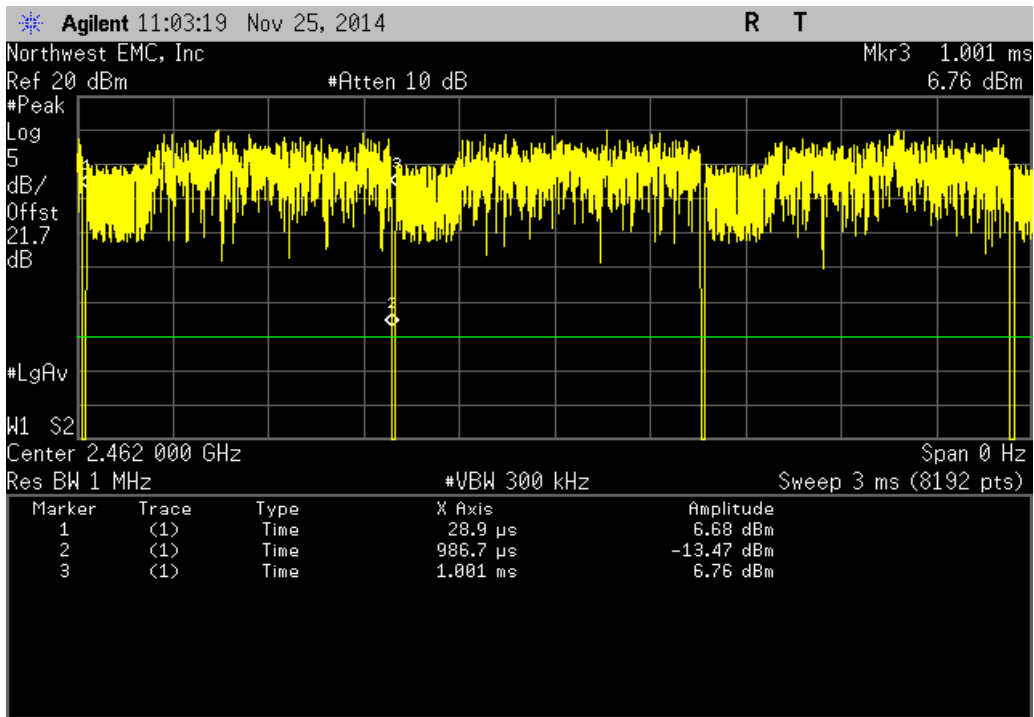
Antenna 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
957.8 us	972.4 us	1	98.5	N/A	N/A	



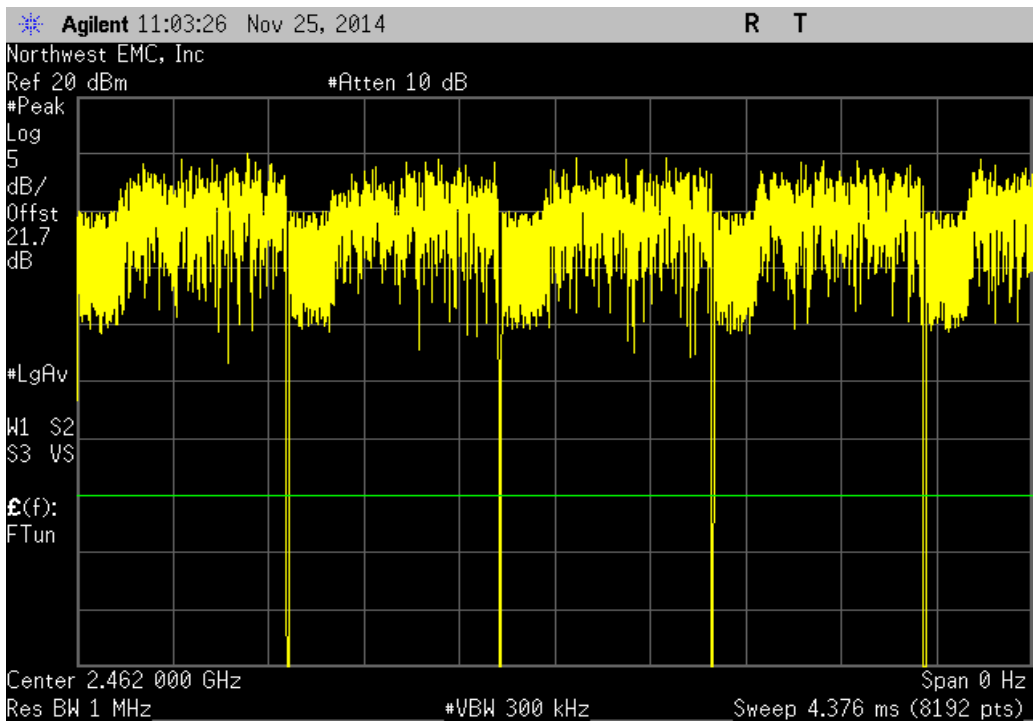
Antenna 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



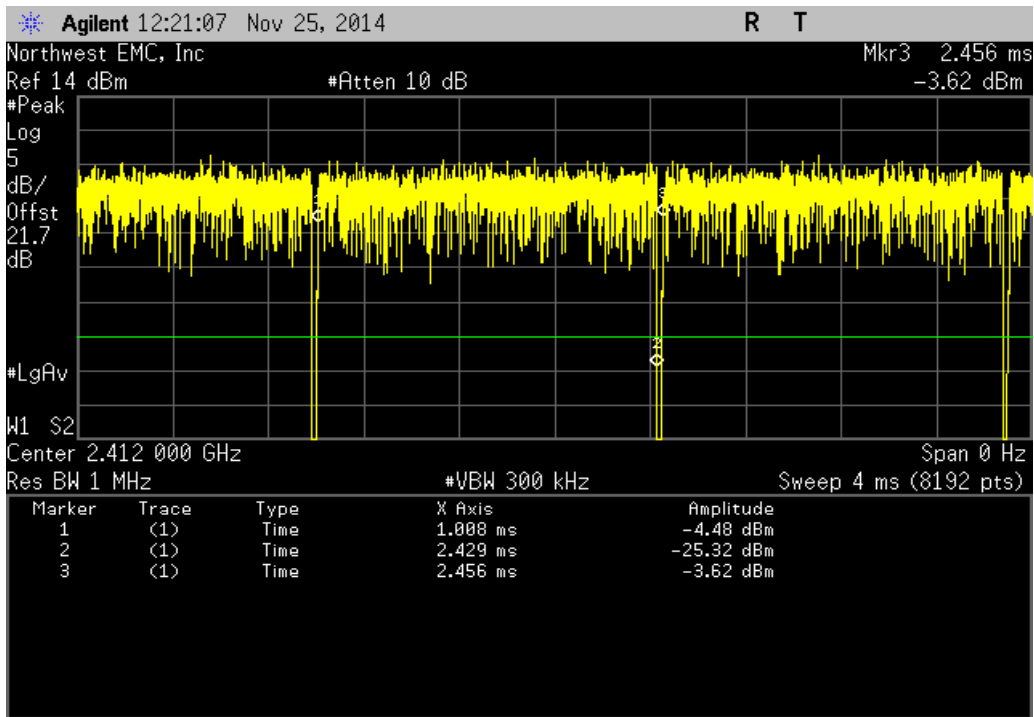
Antenna 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
957.8 us	972.4 us	1	98.5	N/A	N/A	



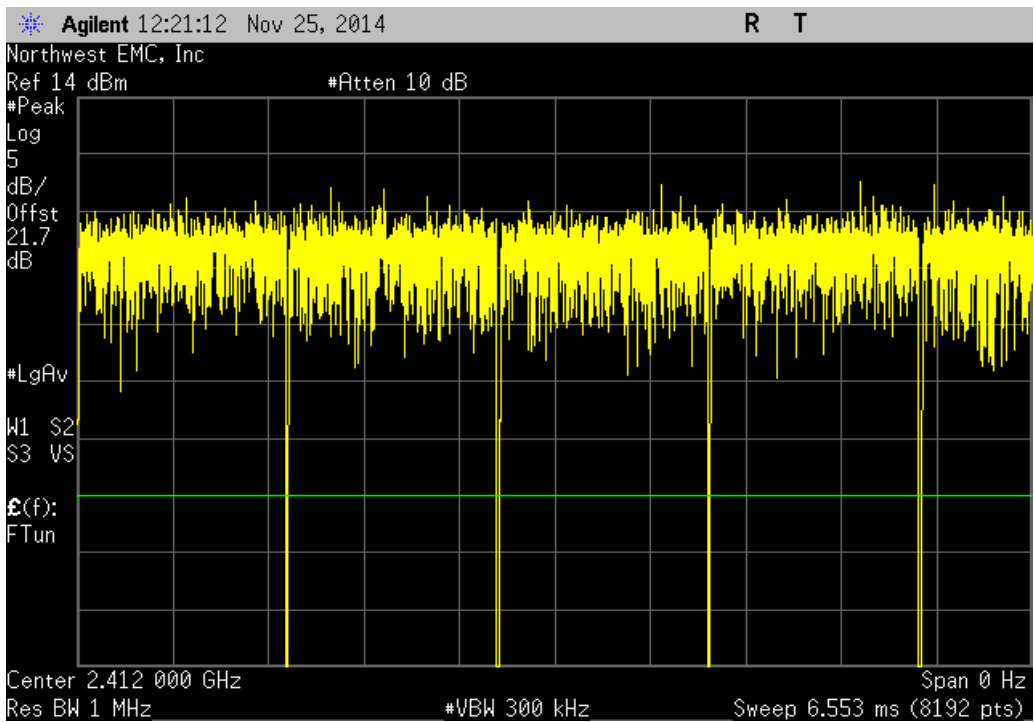
Antenna 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



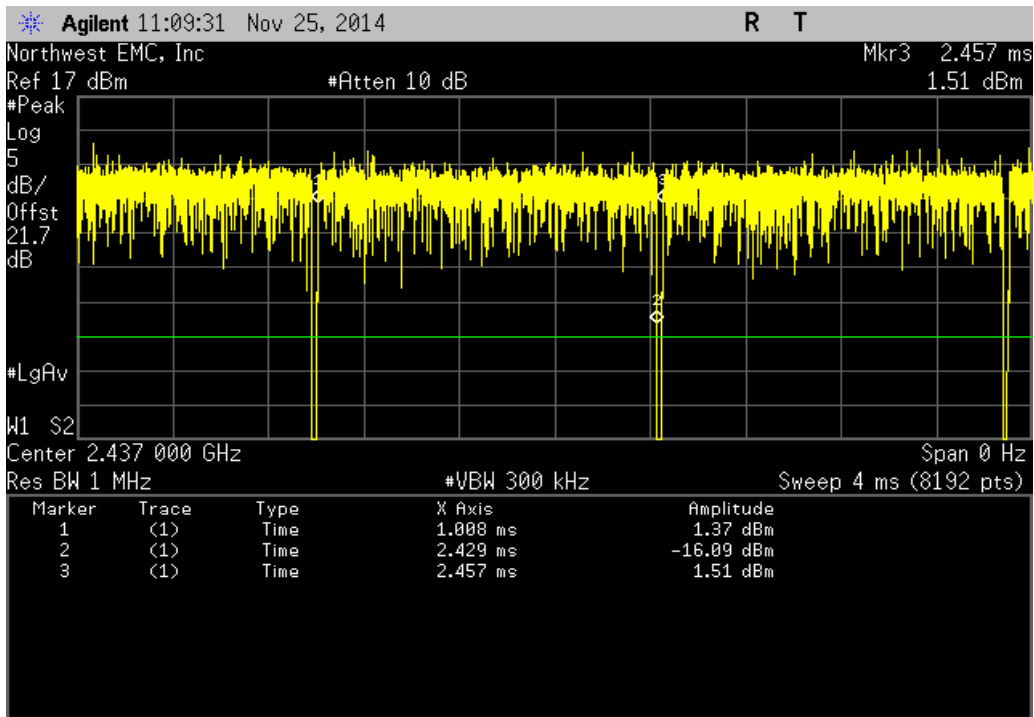
Antenna 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
1.421 ms	1.449 ms	1	98.1	N/A	N/A	



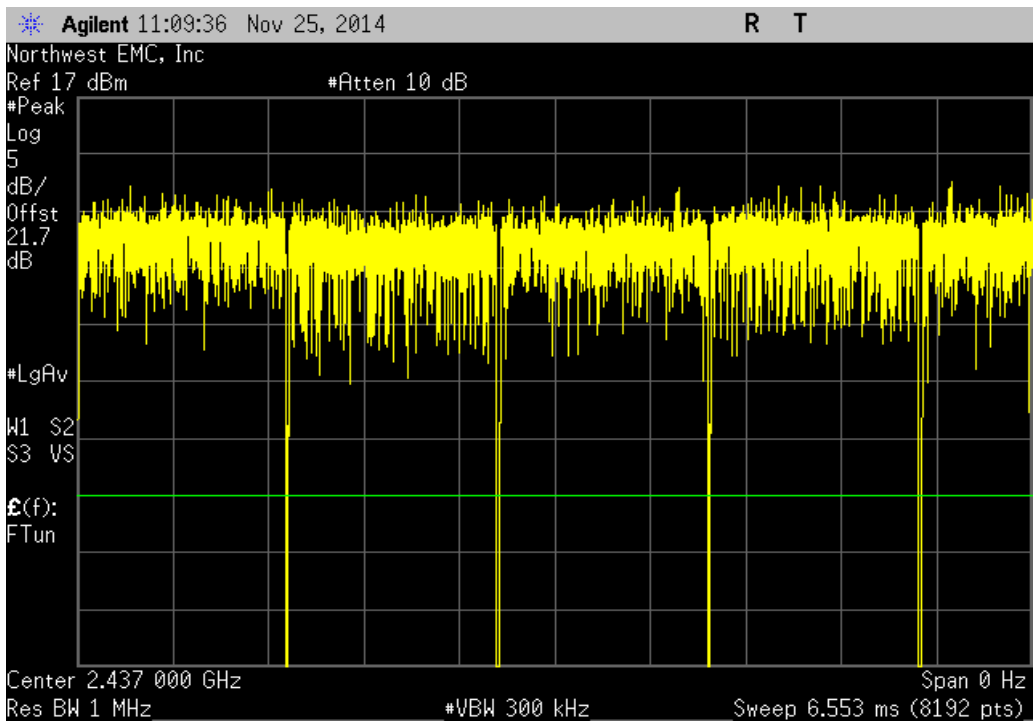
Antenna 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



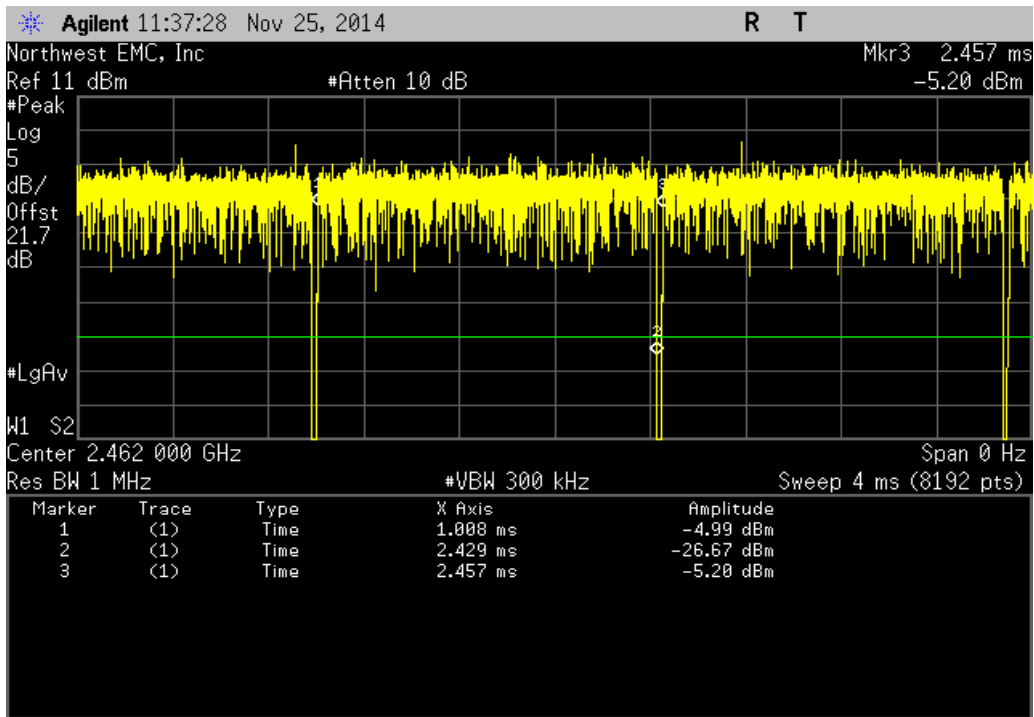
Antenna 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
1.421 ms	1.448 ms	1	98.1	N/A	N/A	



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



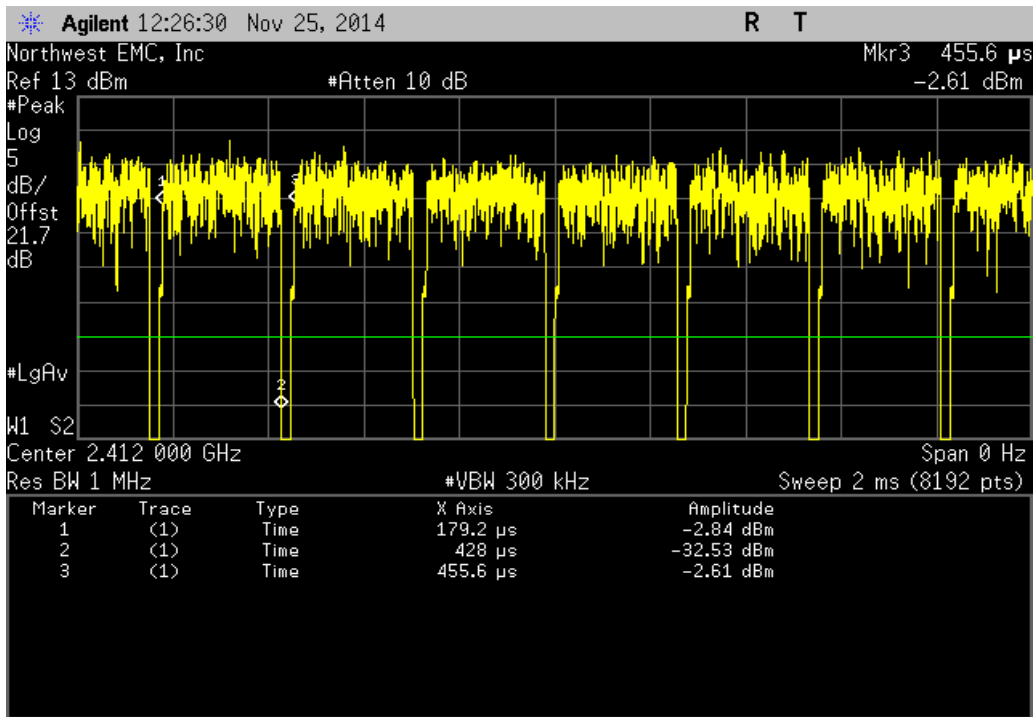
Antenna 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
1.421 ms	1.448 ms	1	98.1	N/A	N/A	



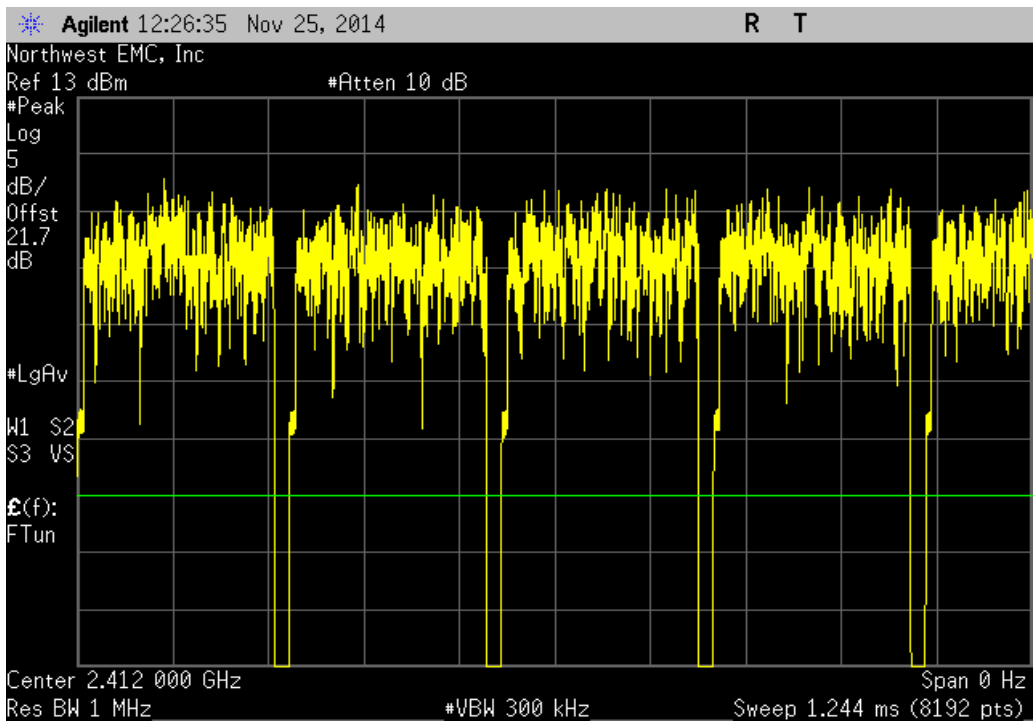
Antenna 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



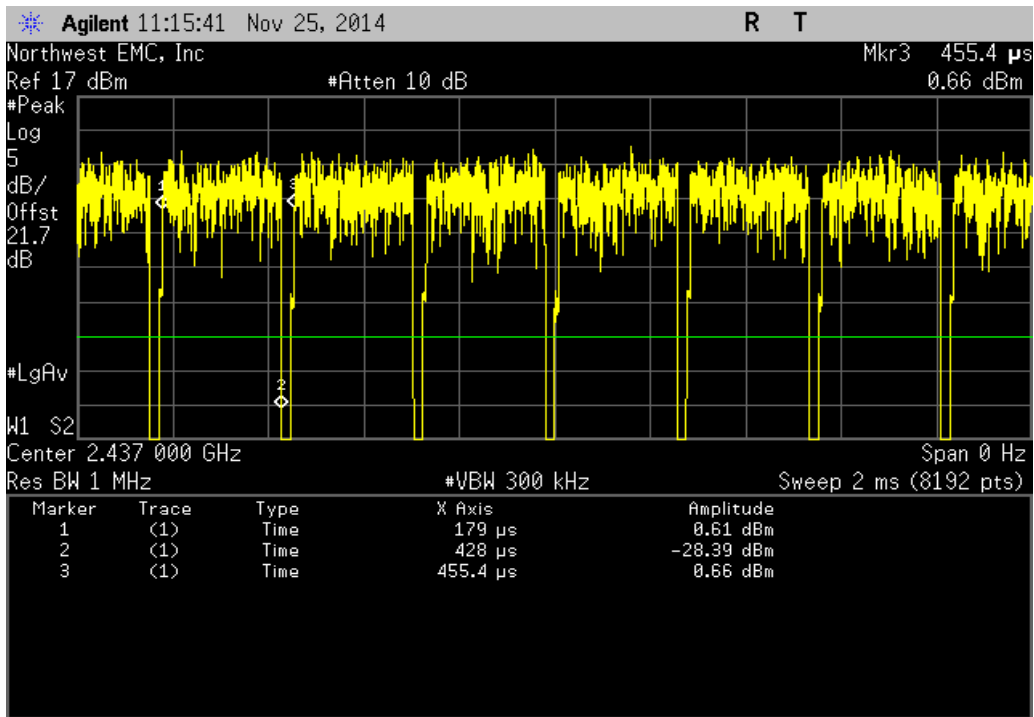
Antenna 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
248.8 us	276.4 us	1	90	N/A	N/A	



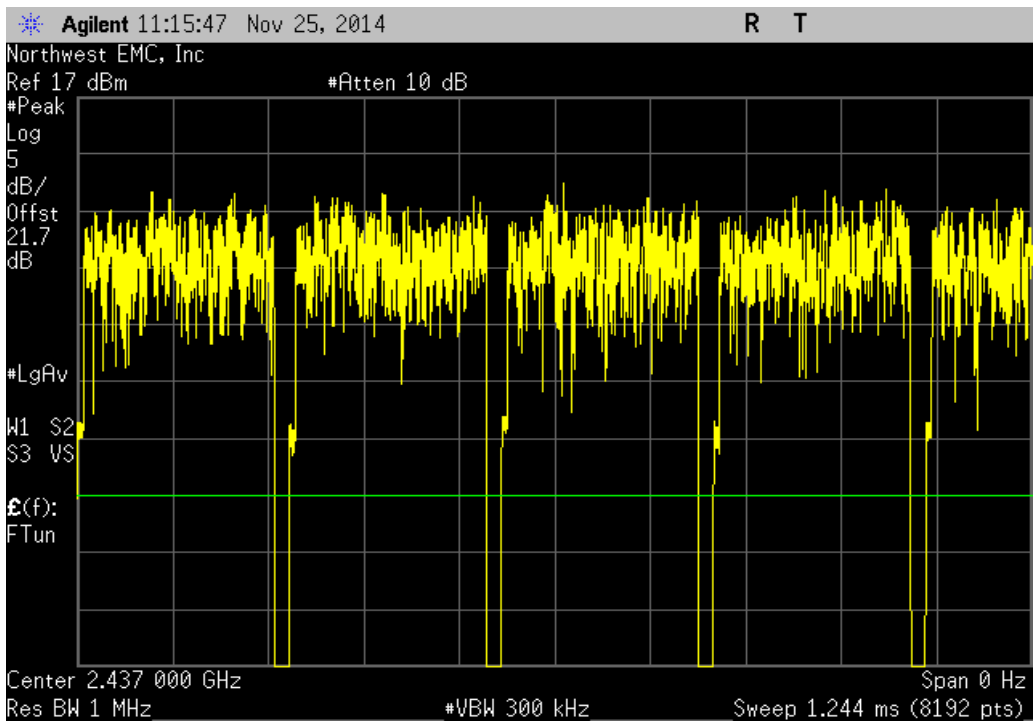
Antenna 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



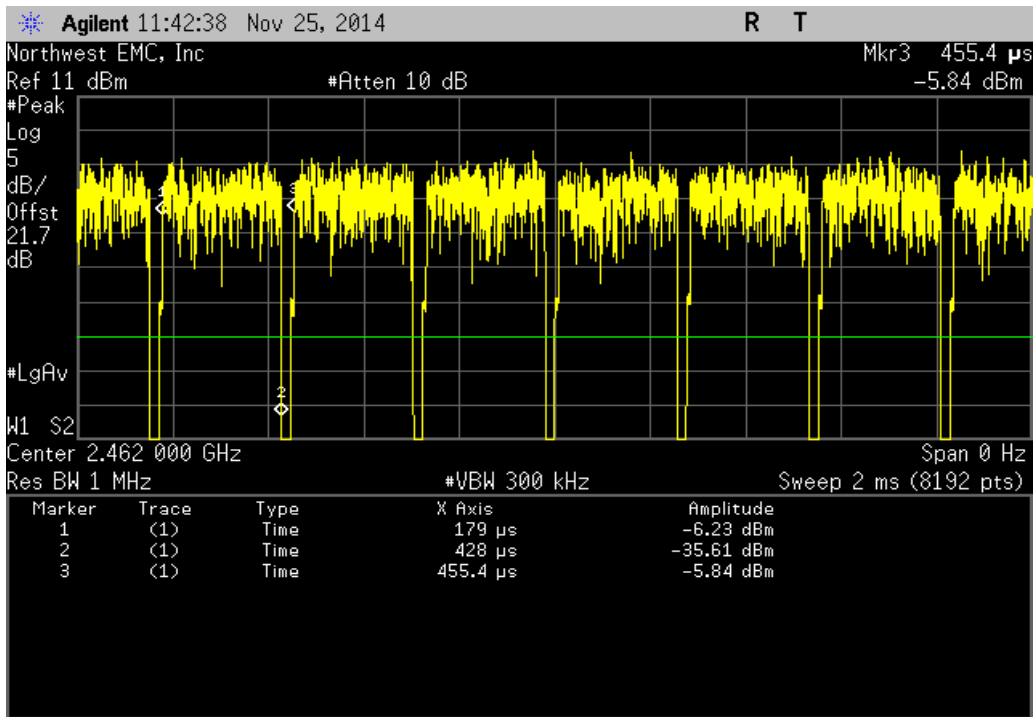
Antenna 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
249 us	276.4 us	1	90.1	N/A	N/A	



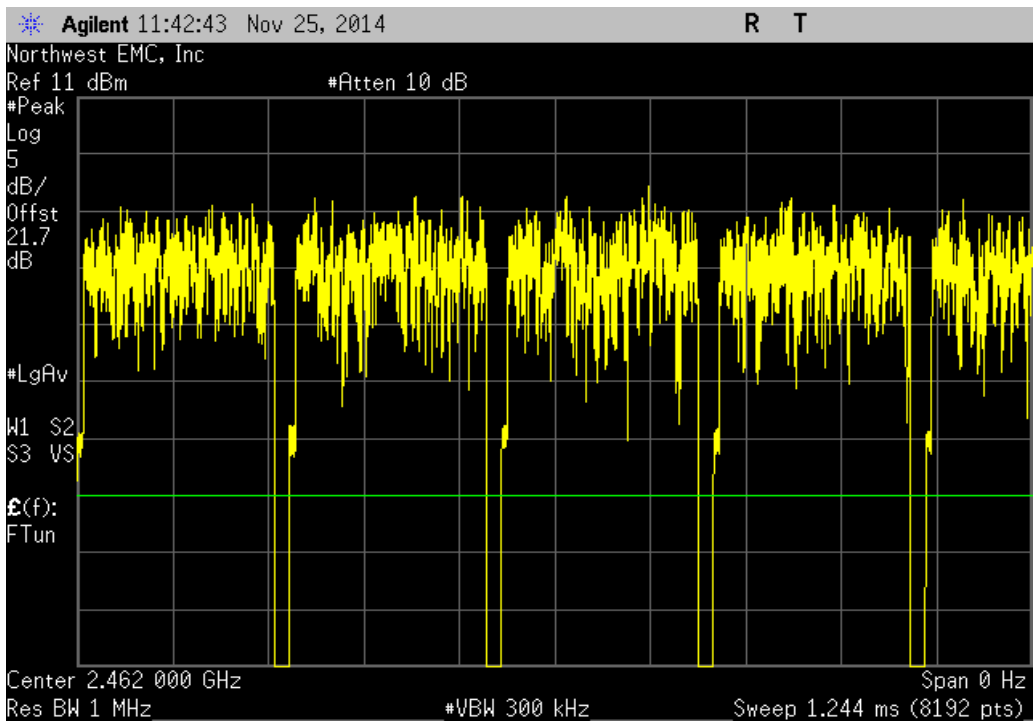
Antenna 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	6	N/A	N/A	N/A	



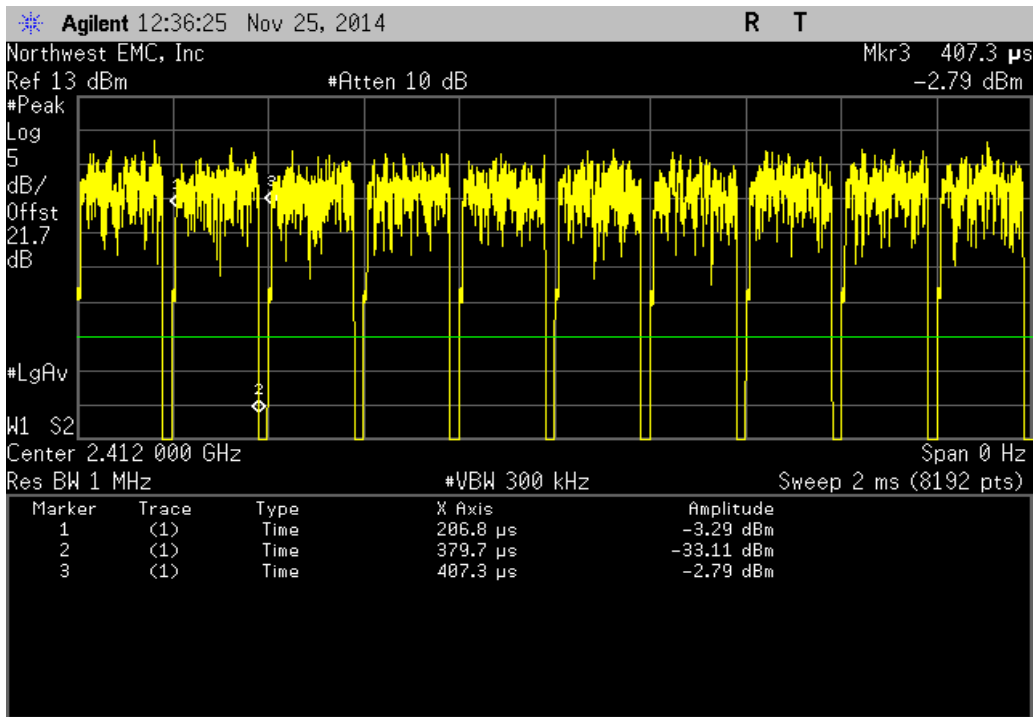
Antenna 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
249 us	276.4 us	1	90.1	N/A	N/A	



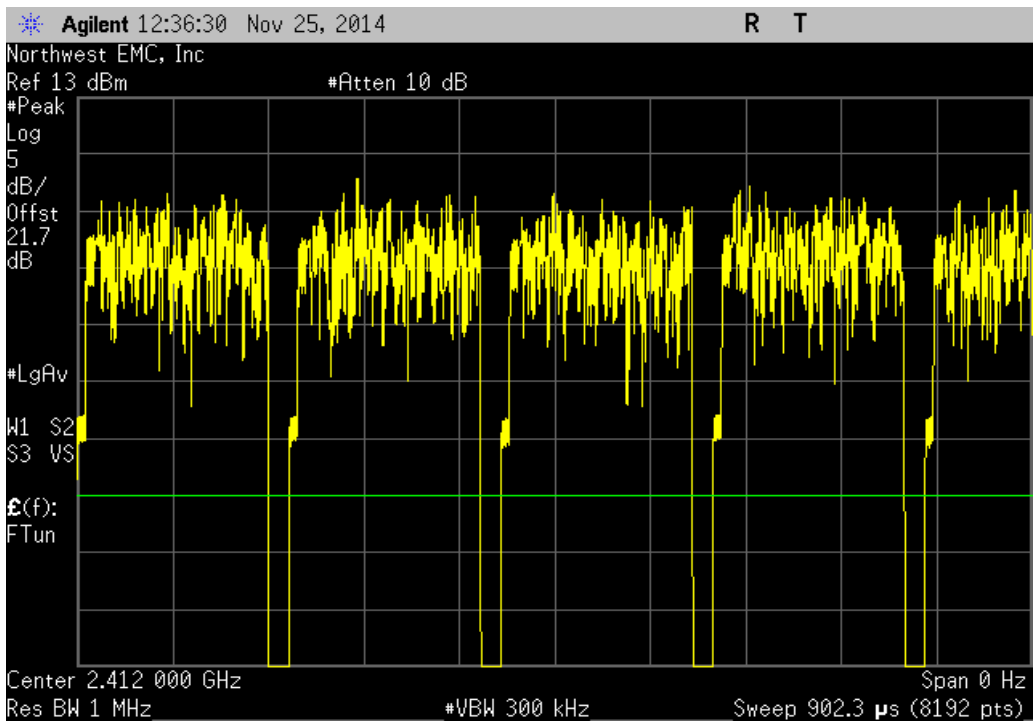
Antenna 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



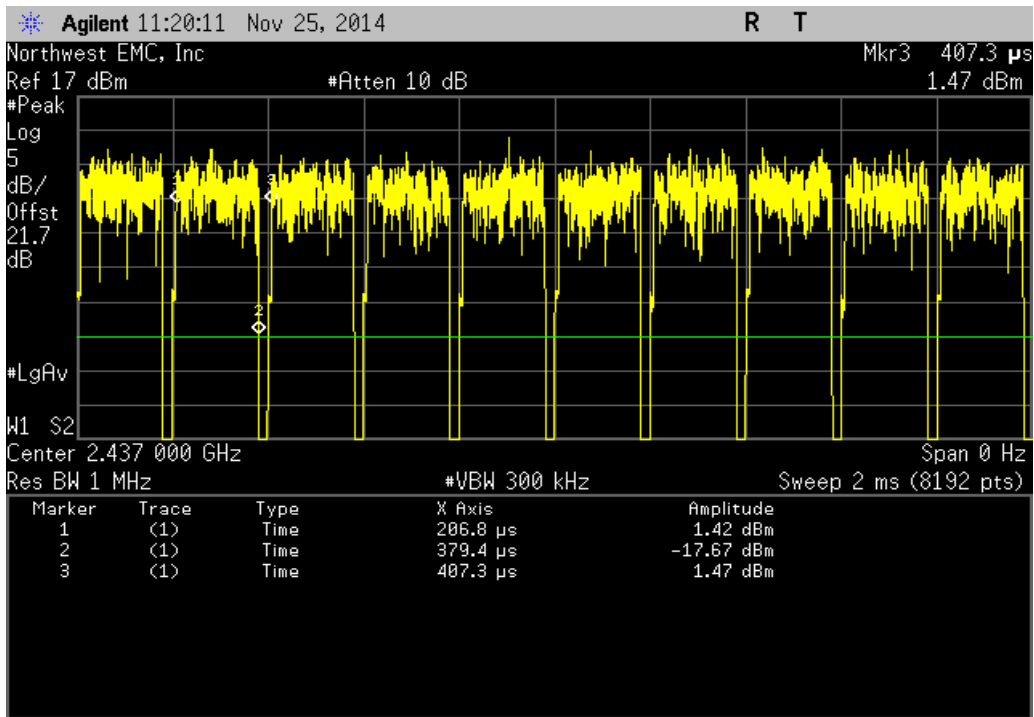
Antenna 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
172.9 us	200.5 us	1	86.2	N/A	N/A	



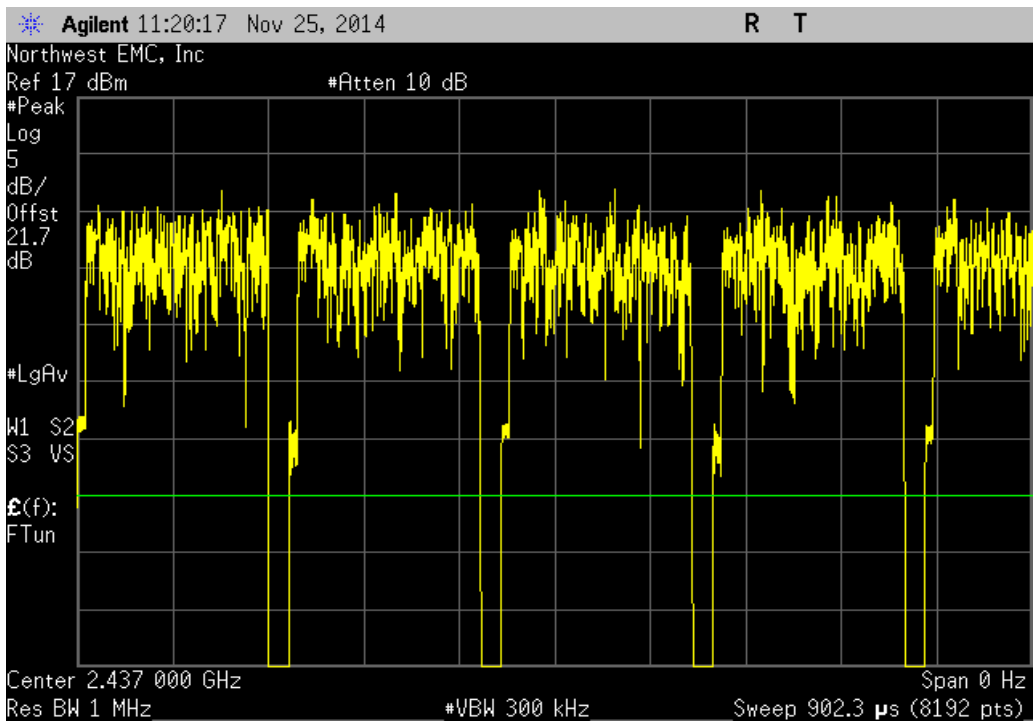
Antenna 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



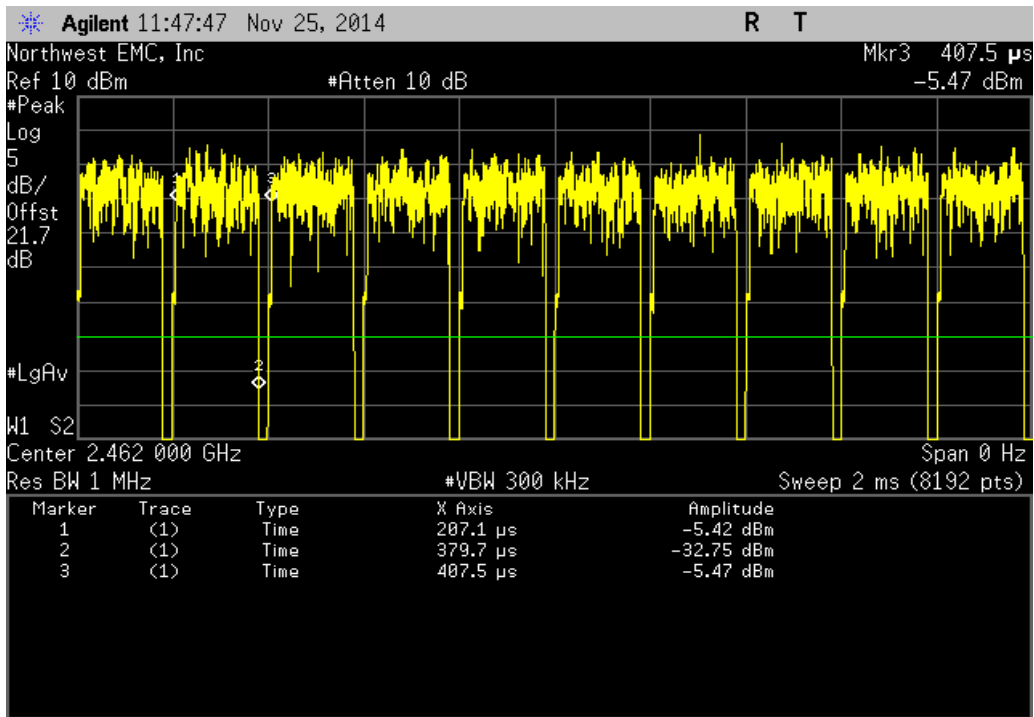
Antenna 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
172.6 us	200.5 us	1	86.1	N/A	N/A	



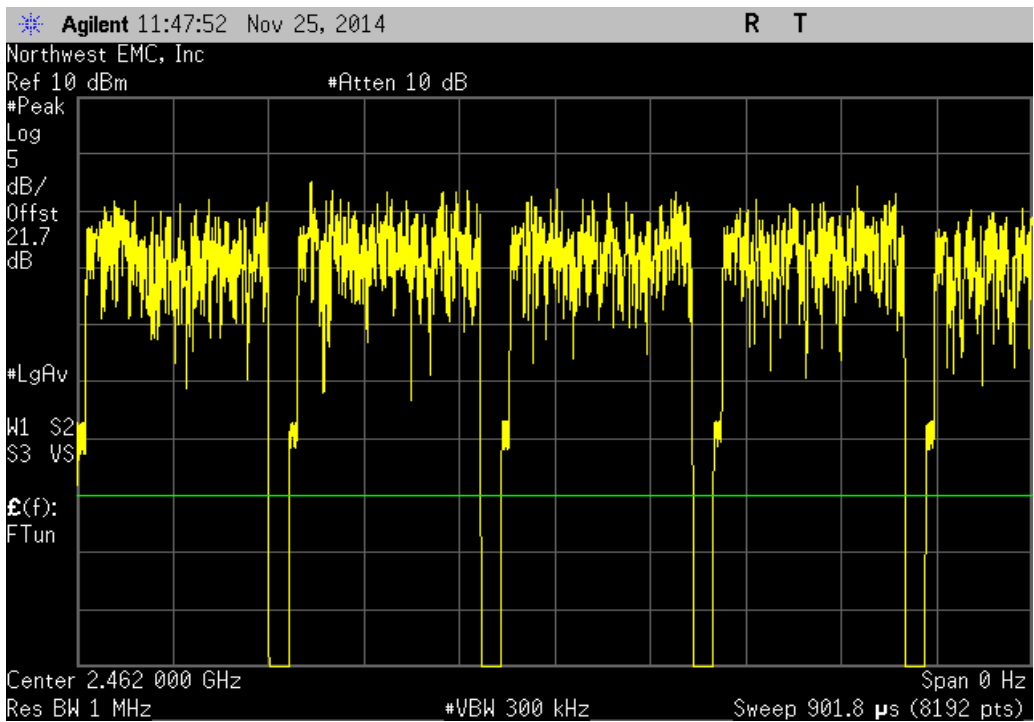
Antenna 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	6	N/A	N/A	N/A	



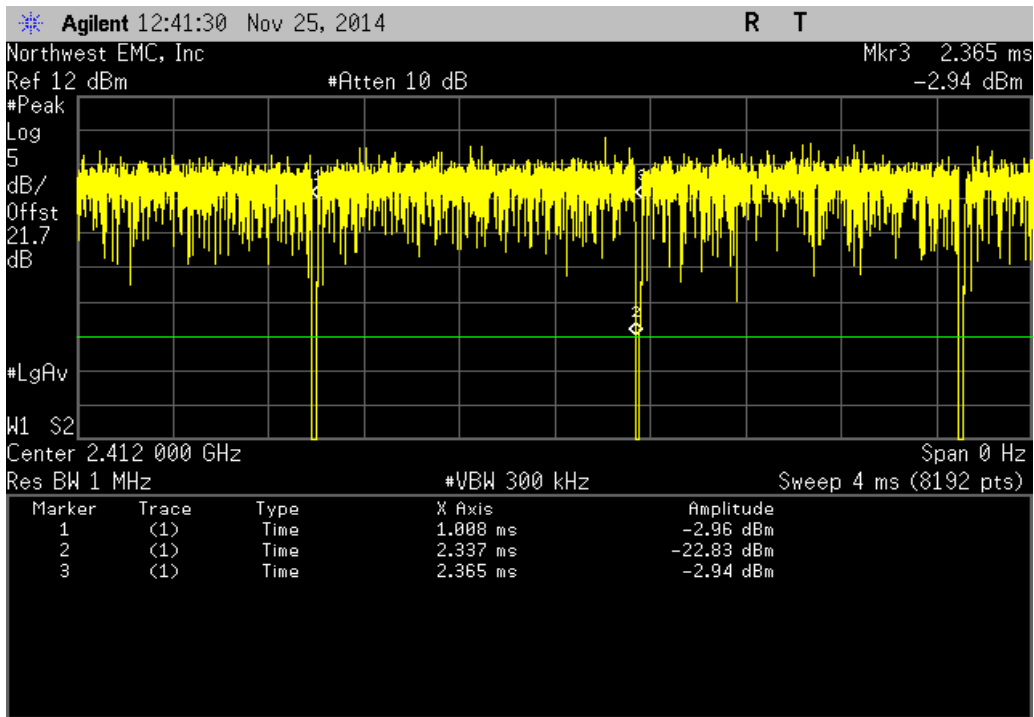
Antenna 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
172.6 us	200.4 us	1	86.1	N/A	N/A	



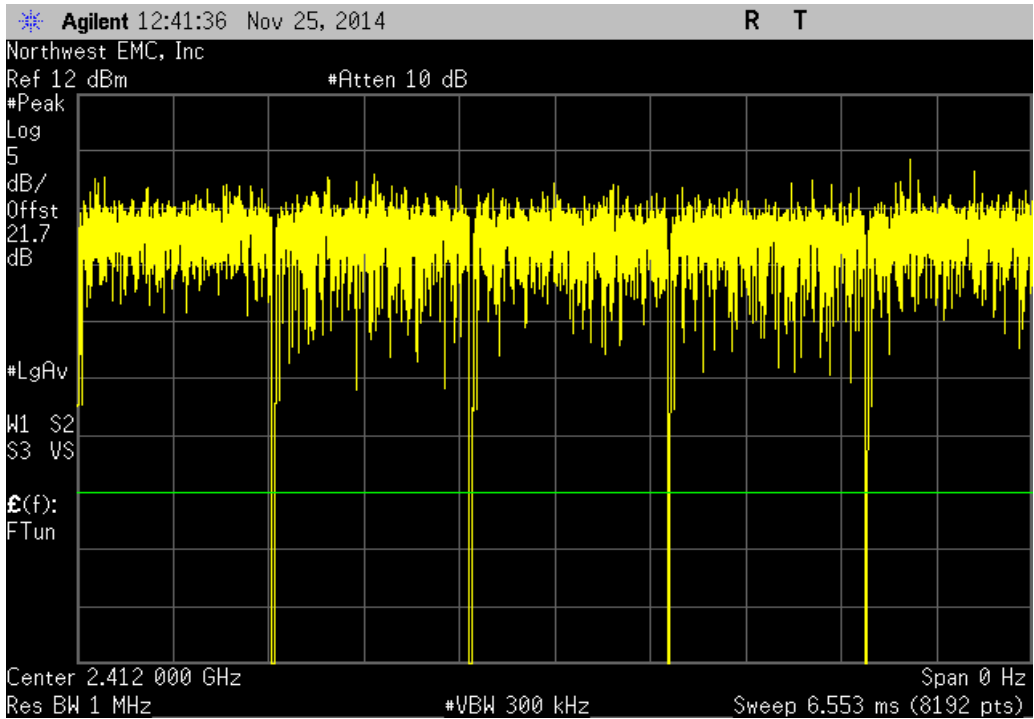
Antenna 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



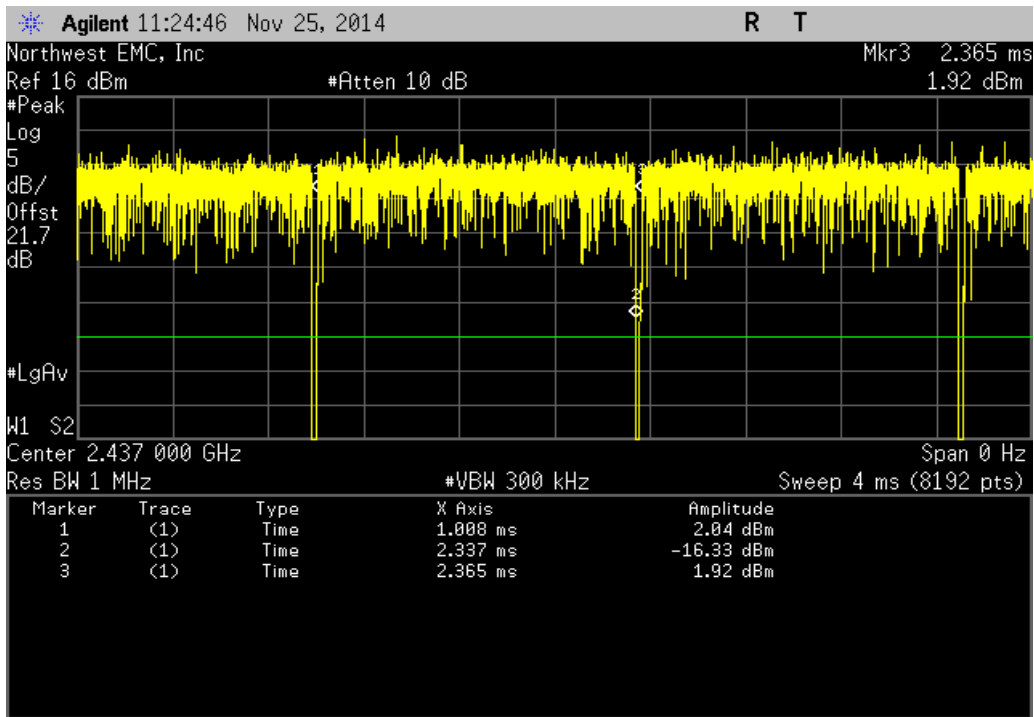
Antenna 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
1.329 ms	1.357 ms	1	98	N/A	N/A	



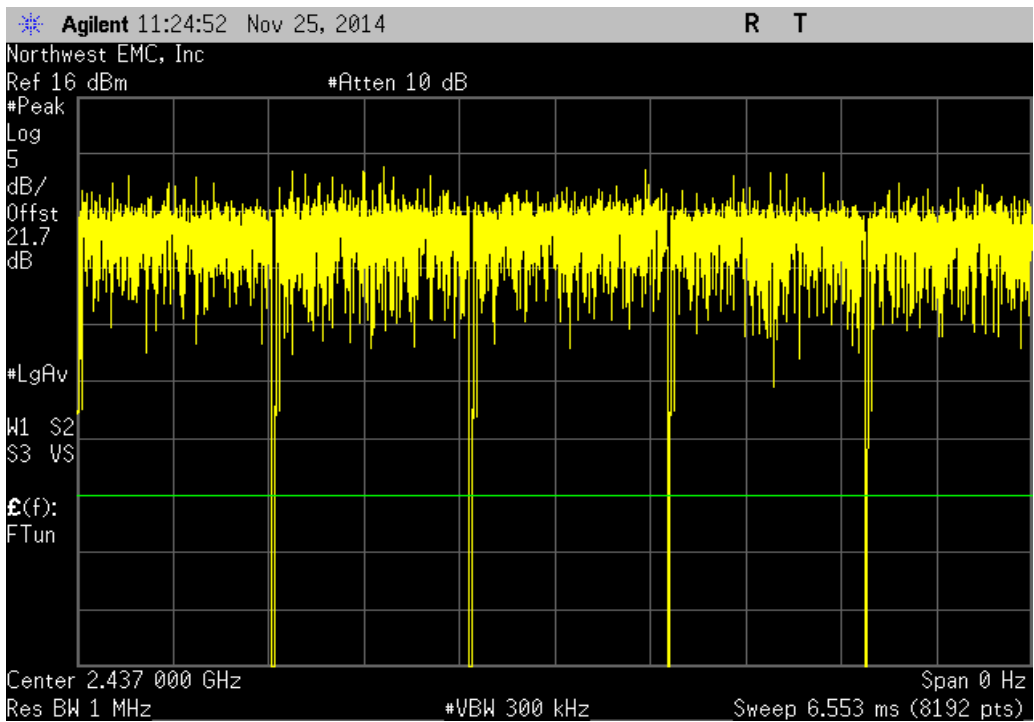
Antenna 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



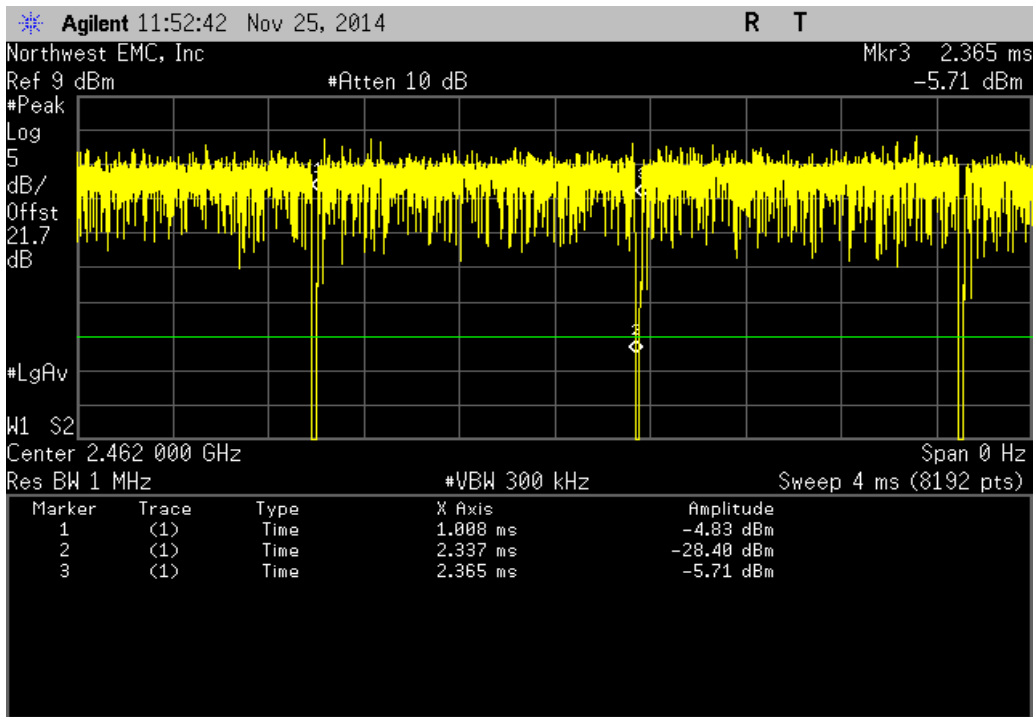
Antenna 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
1.329 ms	1.357 ms	1	98	N/A	N/A	



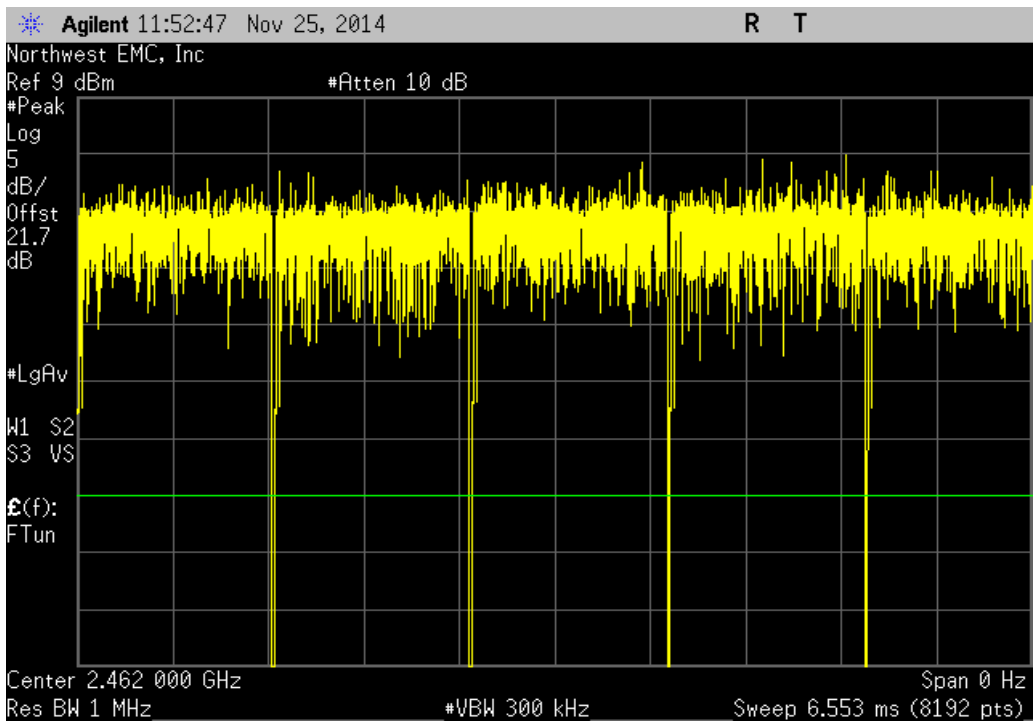
Antenna 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



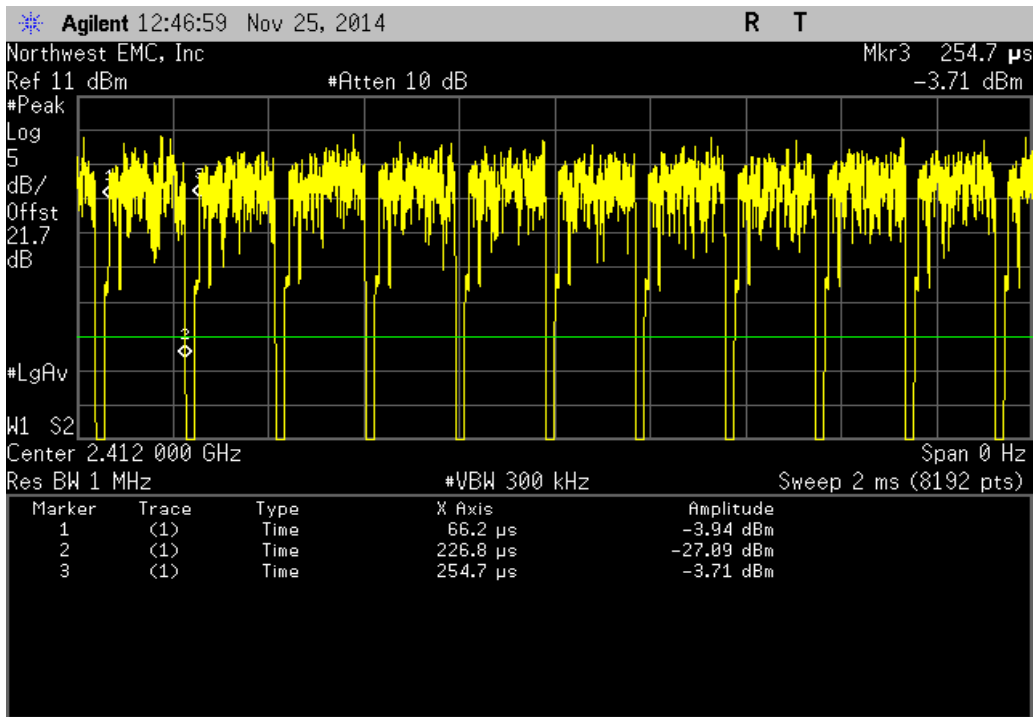
Antenna 1, 802.11(n) MCS0, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
1.329 ms	1.356 ms	1	98	N/A	N/A	



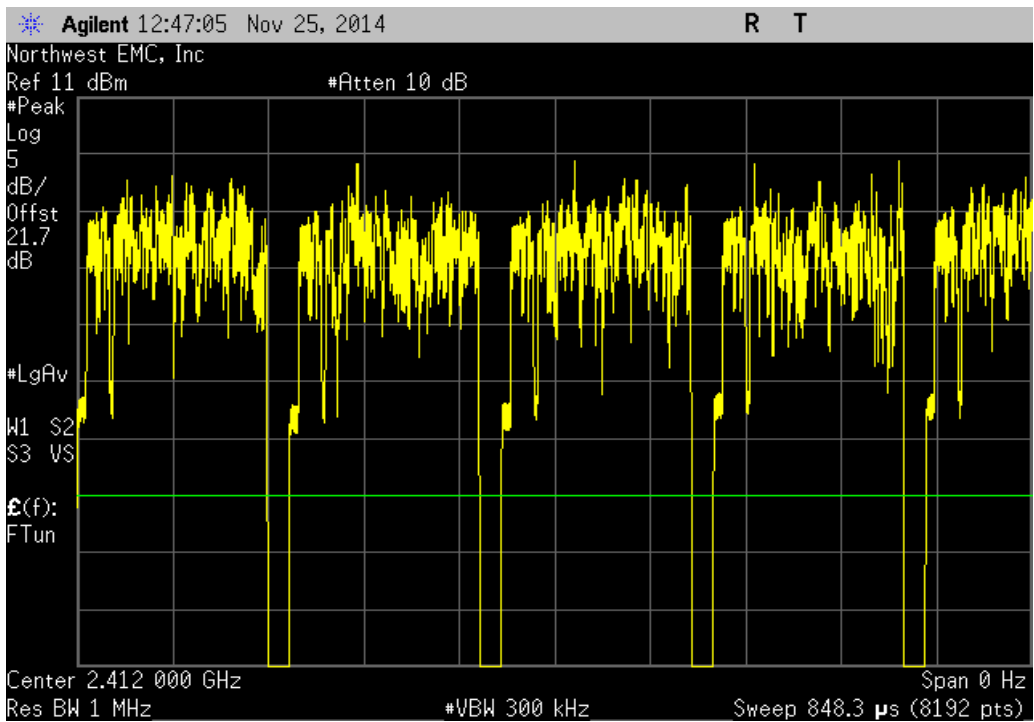
Antenna 1, 802.11(n) MCS0, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	5	N/A	N/A	N/A	



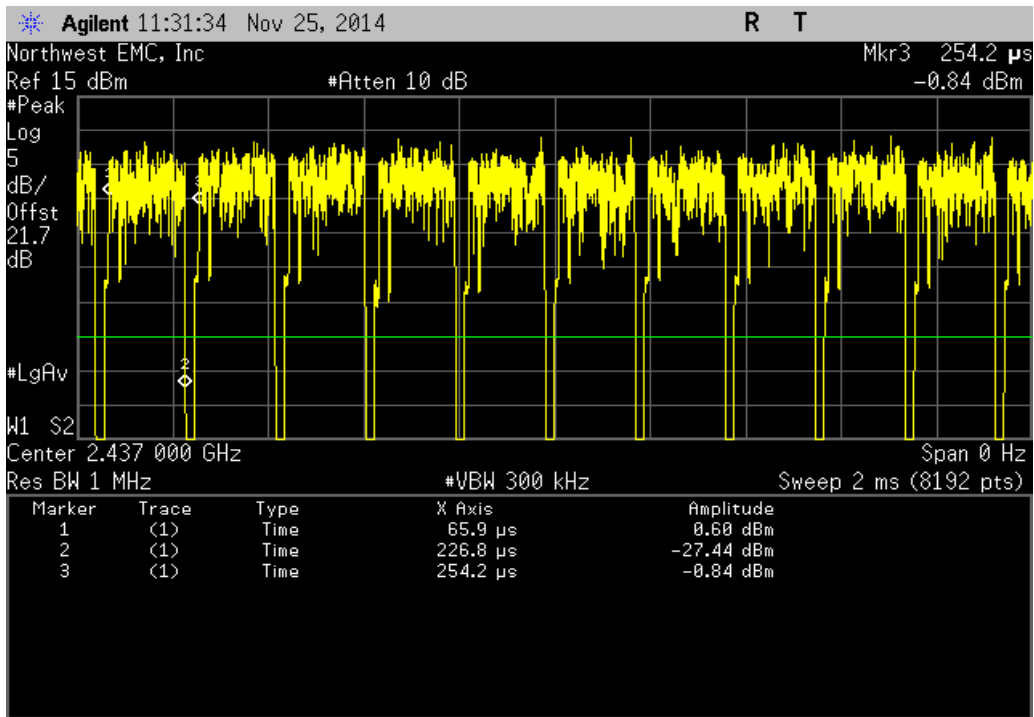
Antenna 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
160.6 us	188.5 us	1	85.2	N/A	N/A	



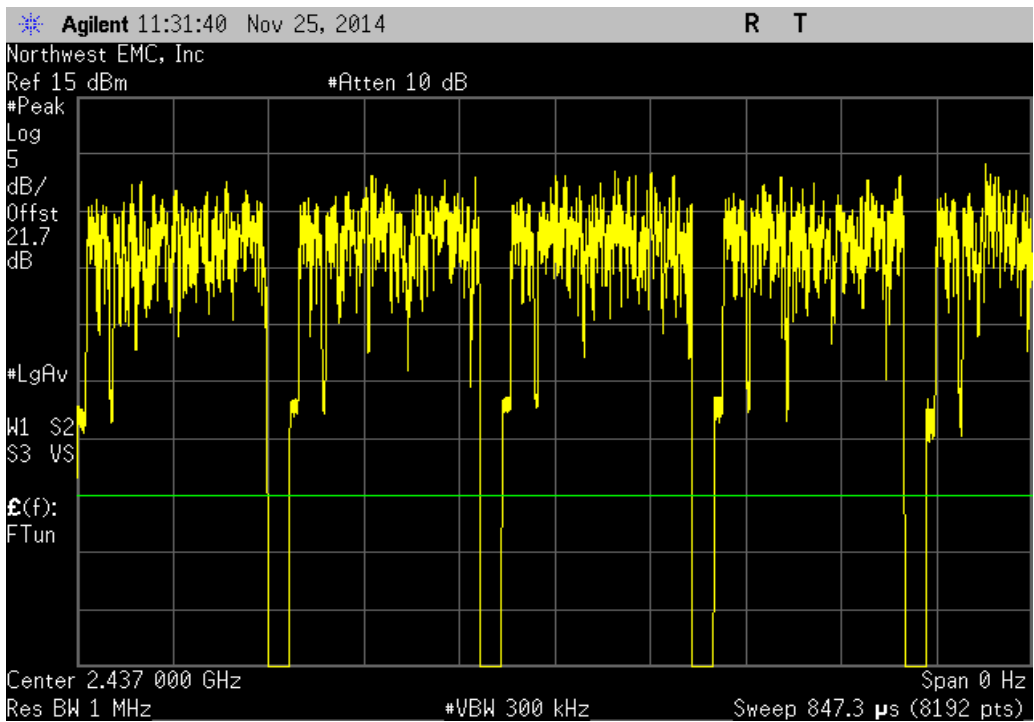
Antenna 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	6	N/A	N/A	N/A	



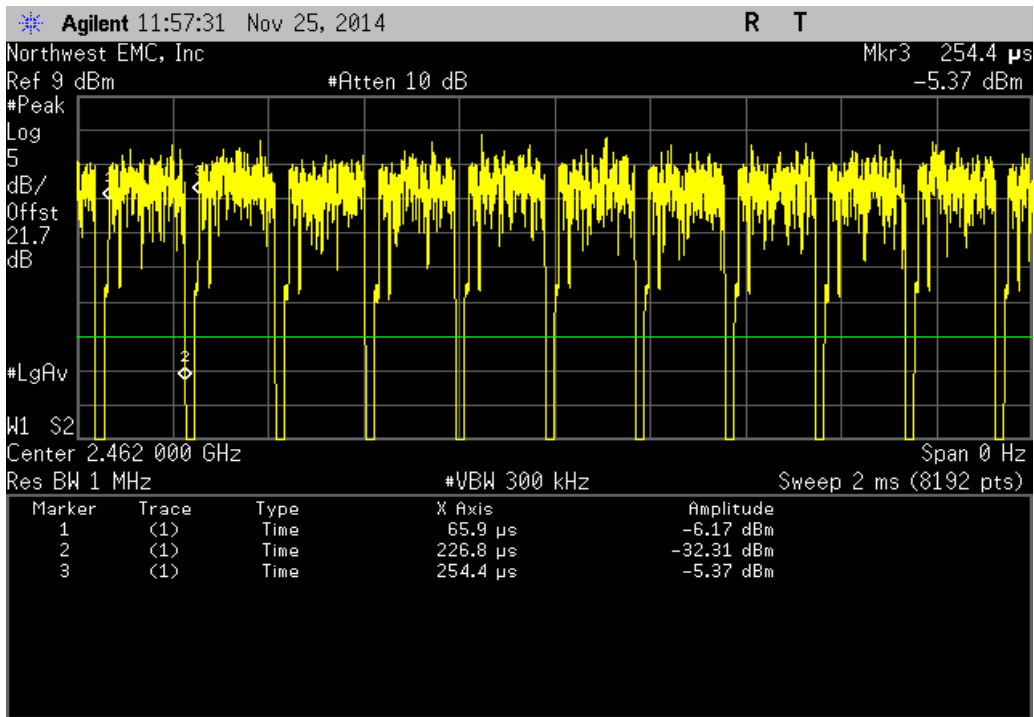
Antenna 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
160.9 us	188.3 us	1	85.4	N/A	N/A	



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



Antenna 1, 802.11(n) MCS7, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
160.9 us	188.5 us	1	85.4	N/A	N/A	



Antenna 1, 802.11(n) MCS7, High Channel 11, 2462 MHz						
Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
N/A	N/A	6	N/A	N/A	N/A	

