NORTHWEST EMC

Honeywell, Automation and Control Solutions

TH6320WF2003

FCC 15.207:2016
FCC 15.247:2016
802.11bgn SISO Radio Module

Report # HNYW0156.3

NVLAP Lab Code: 200881-0

CERTIFICATE OF TEST

NORTHWEST EMC
2014-12-10

Last Date of Test: April 28, 2016
Honeywell, Automation and Control Solutions
Model: TH6320WF2003

Radio Equipment Testing

Standards

Specification	Method
FCC 15.207:2016	ANSI C63.10:2013
FCC 15.247:2016	

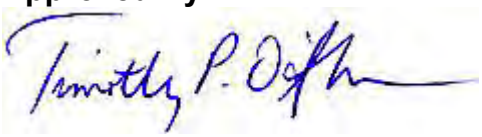
Results

Method Clause	Test Description	Applied	Results	Comments
6.2	AC - Powerline Conducted Emissions	Yes	Pass	
6.5, 6.6	Spurious Radiated Emissions	Yes	Pass	
11.6	Duty Cycle	Yes	Pass	
11.8.2	Occupied Bandwidth	Yes	Pass	
11.9.2.2.4	Output Power	Yes	Pass	
11.10.2	Power Spectral Density	Yes	Pass	
11.11	Band Edge Compliance	Yes	Pass	
11.11	Spurious Conducted Emissions	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. This report reflects only those tests from the referenced standards shown in the certificate of test. It does not include inspection or verification of labels, identification, marking or user information.

REVISION HISTORY

NORTHWEST EMC
REV 2014.10.14

Revision Number	Description	Date	Page Number
00	None		

ACCREDITATIONS AND AUTHORIZATIONS

REV 2015.2.19

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 17065 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

OFCA – Recognized by OFCA 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/
http://gsi.nist.gov/global/docs/cabs/designations.html

MEASUREMENT UNCERTAINTY

TMU.2015.07.10

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.

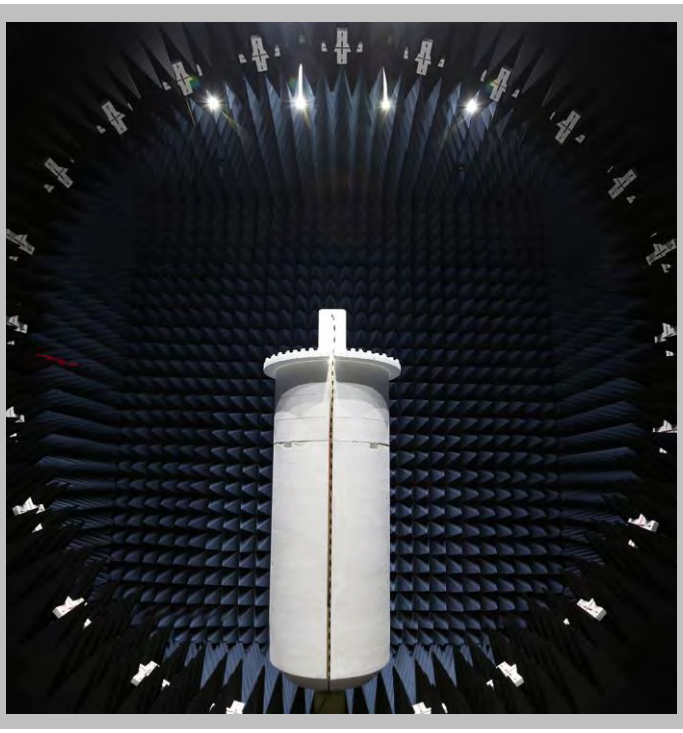
The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

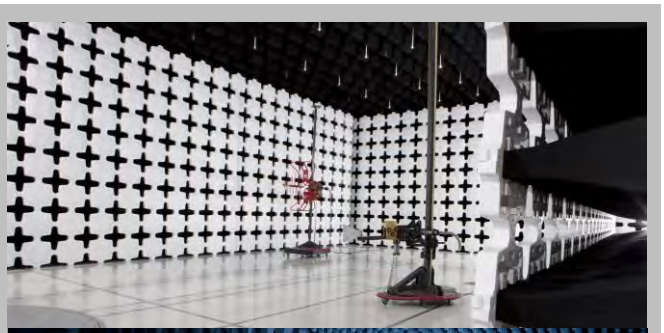
Test	+ MU	- MU
Frequency Accuracy (Hz)	0.0007%	-0.0007%
Amplitude Accuracy (dB)	1.2 dB	-1.2 dB
Conducted Power (dB)	0.3 dB	-0.3 dB
Radiated Power via Substitution (dB)	0.7 dB	-0.7 dB
Temperature (degrees C)	0.7°C	-0.7°C
Humidity (% RH)	2.5% RH	-2.5% RH
Voltage (AC)	1.0%	-1.0%
Voltage (DC)	0.7%	-0.7%
Field Strength (dB)	5.2 dB	-5.2 dB
AC Powerline Conducted Emissions (dB)	2.4 dB	-2.4 dB

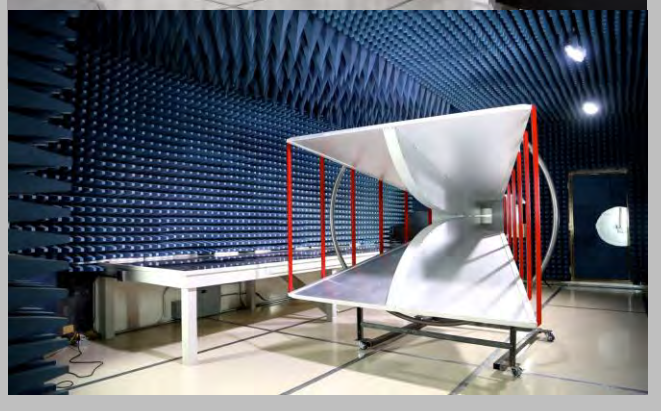
FACILITIES

NORTHWEST EMC
REV 2015.2.19

California	Minnesota	New York	Oregon	Texas	Washington
Labs OC01-13 41 Tesla Irvine, CA 92618 (949) 861-8918	Labs MN01-08, MN10 9349 W Broadway Ave. Brooklyn Park, MN 55445 (612)-638-5136	Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 554-8214	Labs EV01-12 22975 NW Evergreen Pkwy Hillsboro, OR 97124 (503) 844-4066	Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	Labs NC01-05 19201 120th Ave NE Bothell, WA 98011 (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	SL2-IN-E-1158R	SL2-IN-E-1153R
VCCI					
A-0029	A-0109	N/A	A-0108	A-0201	A-0110
Recognized Phase I CAB for ACMA, BSMI, IDA, KCC/RRA, MIC, MOC, NCC, OFCA					
US0158	US0175	N/A	US0017	US0191	US0157







PRODUCT DESCRIPTION

NORTHWEST EMC
2014-12-10

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 55422-3992
Test Requested By:	Dave Mulhouse
Model:	TH6320WF2003
First Date of Test:	April 25, 2016
Last Date of Test:	April 28, 2016
Receipt Date of Samples:	April 22, 2016
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT:
Wireless Thermostat using an 802.11bgn SISO radio module with two antennas for diversity.

Client Justification:
The EUT was tested using the power settings provided by the manufacturer. Please see their Operational Description document included with their regulatory filings for the specific power settings used for this testing.

Testing Objective:
To demonstrate compliance of the 802.11 radio under FCC 15.247 for operation in the 2.4 GHz band.

CONFIGURATIONS

NORTHWEST EMC 2014-12-10

Configuration HNYW0156- 1

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Thermostat	Honeywell Automation and Control Systems	TH6320WF2003	00D02D95E2A0

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
AC Adaptor	CUI Inc.	48A-24-500	None

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
DC Power Cable	No	1.8m	No	AC Adaptor	Thermostat

Configuration HNYW0156- 2

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Thermostat (Direct Connect)	Honeywell Automation and Control Systems	TH6320WF2003	00D02D95E598

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
AC Adaptor	CUI Inc.	48A-24-500	None

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
DC Power Cable	No	1.8m	No	AC Adaptor	Thermostat

MODIFICATIONS

NORTHWEST EMC
2014-12-10

Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	4/25/2016	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	4/27/2016	Occupied Bandwidth	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
3	4/27/2016	Output Power	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.
4	4/27/2016	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.
5	4/27/2016	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.
6	4/28/2016	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.
7	4/28/2016	Power Spectral Density	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
8	4/28/2016	Spurious Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

DUTY CYCLE

NORTHWEST EMC

XMit 2015.01.14

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 (mo)
Generator - Signal	Agilent	N5183A	TIK	10/17/2014	36
Attenuator	S.M. Electronics	SA26B-20	RFW	2/26/2016	12
Block - DC	Fairview Microwave	SD3379	AMI	9/18/2015	12
Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNU	9/18/2015	12
Analyzer - Spectrum Analyzer	Agilent	E4440A	AAX	3/24/2016	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.

There is no compliance requirement to be met by this test, so therefore no Pass / Fail criteria.

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 may have been used during some of the other tests in this report to only take the measurement during the burst duration.

DUTY CYCLE

NORTHWEST EMC

XMit 2015.01.14

EUT:	TH6320WF2003			**Work Order:**	HNYW0156
Serial Number:	00D02D95E598			**Date:**	04/28/16
Customer:	Honeywell, Automation and Control Solutions			**Temperature:**	21.3°C
Attendees:	None			**Humidity:**	31%
Project:	None			**Barometric Pres.:**	1014.8
Tested by:	Cole Ghizzone	**Power:**	110VAC/60Hz	**Job Site:**	MN08

TEST SPECIFICATIONS	**Test Method**
FCC 15.247:2016	ANSI C63.10:2013

COMMENTS

The EUT was tested using the power settings provided by the manufacturer. These settings can be found in the Power Table.

DEVIATIONS FROM TEST STANDARD

None

Configuration #	2	*Signature*

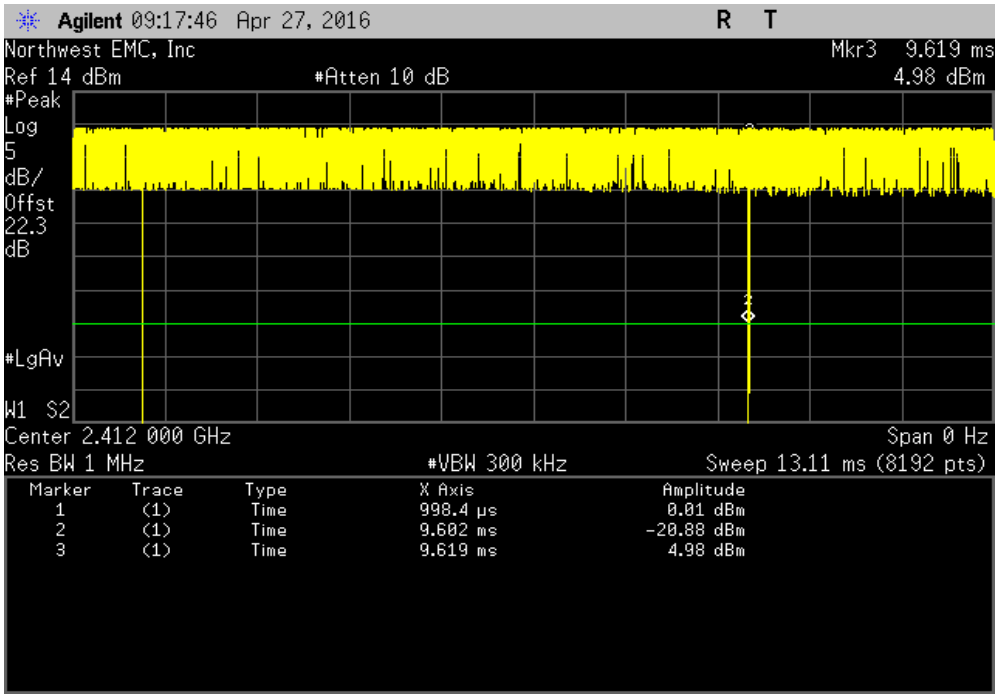
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
2400 MHz - 2483.5 MHz Band						
Antenna Port 0						
802.11(b) 1 Mbps						
Low Channel 1, 2412 MHz	8.603 ms	8.621 ms	1	99.8	N/A	N/A
Low Channel 1, 2412 MHz	N/A	N/A	5	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	8.602 ms	8.618 ms	1	99.8	N/A	N/A
Mid Channel 6, 2437 MHz	N/A	N/A	5	N/A	N/A	N/A
High Channel 11, 2462 MHz	8.602 ms	8.619 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	860.7 us	877.9 us	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	860.3 us	877.9 us	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	860.3 us	877.5 us	1	98	N/A	N/A
High Channel 11, 2462 MHz	N/A	N/A	5	N/A	N/A	N/A
802.11(g) 6 Mbps						
Low Channel 1, 2412 MHz	1.421 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	248.6 us	276.4 us	1	89.9	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	248.6 us	276.6 us	1	89.9	N/A	N/A
Mid Channel 6, 2437 MHz	N/A	N/A	5	N/A	N/A	N/A
High Channel 11, 2462 MHz	248.6 us	276.6 us	1	89.9	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	172.7 us	200 us	1	86.3	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	172.4 us	199.8 us	1	86.3	N/A	N/A
Mid Channel 6, 2437 MHz	N/A	N/A	5	N/A	N/A	N/A
High Channel 11, 2462 MHz	172.6 us	200 us	1	86.3	N/A	N/A
High Channel 11, 2462 MHz	N/A	N/A	5	N/A	N/A	N/A
802.11(n) MCS0						
Low Channel 1, 2412 MHz	1.329 ms	1.357 ms	1	97.9	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	1.328 ms	1.359 ms	1	97.8	N/A	N/A
Mid Channel 6, 2437 MHz	N/A	N/A	5	N/A	N/A	N/A
High Channel 11, 2462 MHz	1.328 ms	1.359 ms	1	97.8	N/A	N/A
High Channel 11, 2462 MHz	N/A	N/A	5	N/A	N/A	N/A
802.11(n) MCS7						
Low Channel 1, 2412 MHz	160.7 us	188.5 us	1	85.3	N/A	N/A
Low Channel 1, 2412 MHz	N/A	N/A	5	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	160.7 us	188.8 us	1	85.1	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	160.5 us	188.5 us	1	85.1	N/A	N/A
High Channel 11, 2462 MHz	N/A	N/A	5	N/A	N/A	N/A
Antenna Port 1						
802.11(b) 1 Mbps						
Low Channel 1, 2412 MHz	8.603 ms	8.621 ms	1	99.8	N/A	N/A
Low Channel 1, 2412 MHz	N/A	N/A	5	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	8.602 ms	8.619 ms	1	99.8	N/A	N/A
Mid Channel 6, 2437 MHz	N/A	N/A	5	N/A	N/A	N/A
High Channel 11, 2462 MHz	8.602 ms	8.619 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	860.3 us	877.5 us	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	860.7 us	877.9 us	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	860.7 us	877.9 us	1	98	N/A	N/A
High Channel 11, 2462 MHz	N/A	N/A	5	N/A	N/A	N/A
802.11(g) 6 Mbps						
Low Channel 1, 2412 MHz	1.421 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	248.6 us	276.4 us	1	89.9	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	248.4 us	276.4 us	1	89.9	N/A	N/A

Mid Channel 6, 2437 MHz	N/A	N/A	5	N/A	N/A	N/A
High Channel 11, 2462 MHz	248.6 us	276.4 us	1	89.9	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	172.1 us	199.7 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 us	1	86.3	N/A	N/A
Mid Channel 6, 2437 MHz	N/A	N/A	5	N/A	N/A	N/A
High Channel 11, 2462 MHz	172.4 us	200 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) MCS0						
Low Channel 1, 2412 MHz	1.329 ms	1.359 ms	1	97.8	N/A	N/A
Low Channel 1, 2412 MHz	N/A	N/A	5	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	1.329 ms	1.359 ms	1	97.8	N/A	N/A
Mid Channel 6, 2437 MHz	N/A	N/A	5	N/A	N/A	N/A
High Channel 11, 2462 MHz	1.329 ms	1.359 ms	1	97.8	N/A	N/A
High Channel 11, 2462 MHz	N/A	N/A	5	N/A	N/A	N/A
802.11(n) MCS7						
Low Channel 1, 2412 MHz	160.7 us	188.8 us	1	85.1	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	160.7 us	188.8 us	1	85.1	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	160.7 us	188.5 us	1	85.3	N/A	N/A
High Channel 11, 2462 MHz	N/A	N/A	5	N/A	N/A	N/A

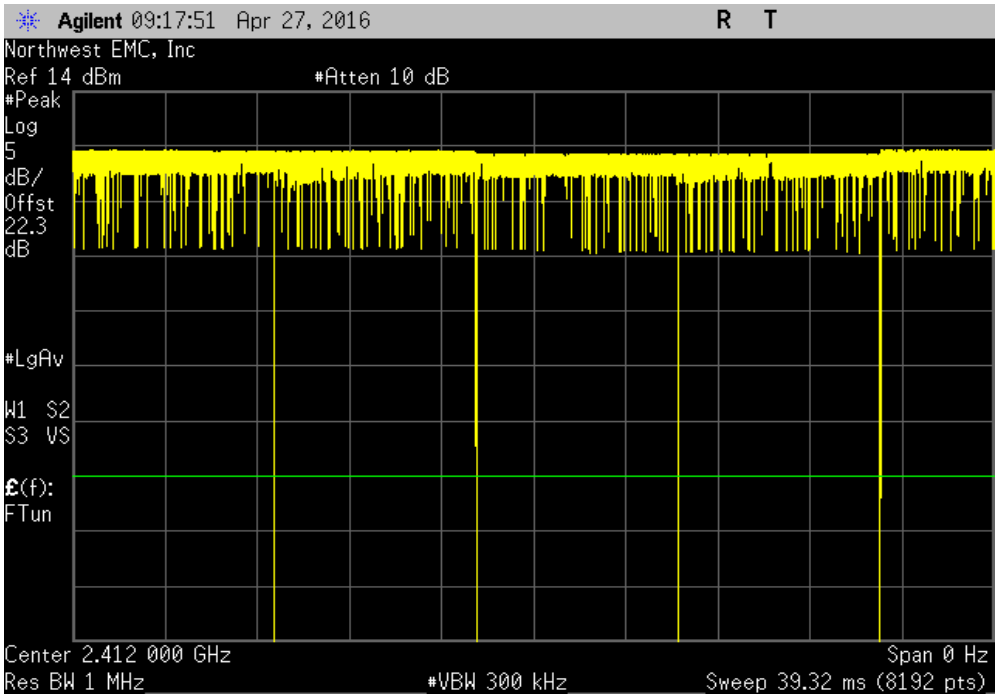
DUTY CYCLE

XMit 2015.01.14

2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	8.603 ms	8.621 ms	1	99.8	N/A	N/A



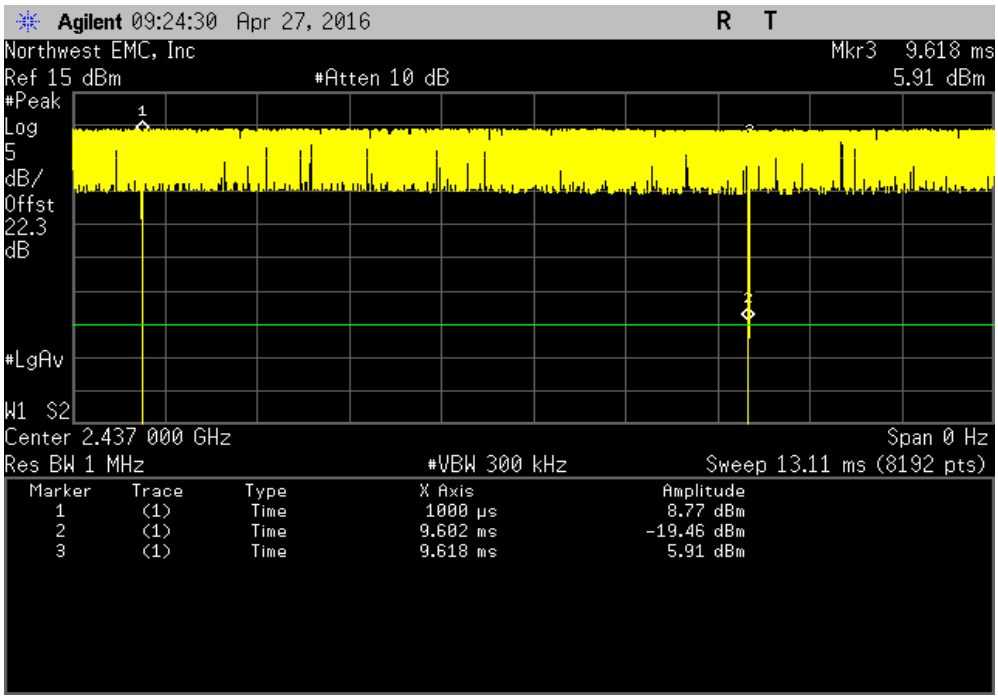
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



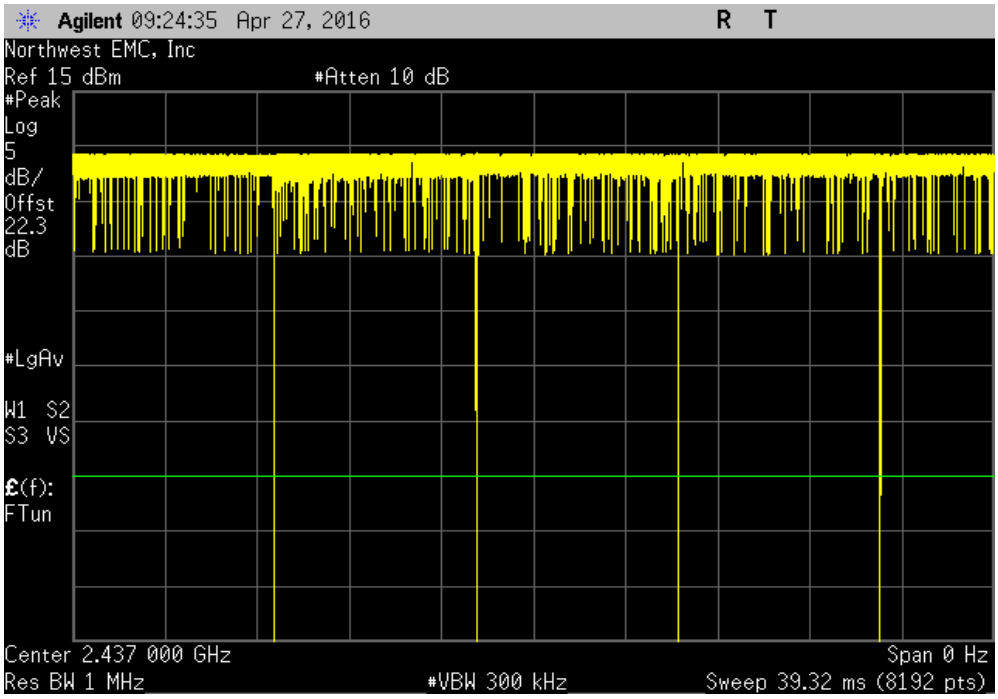
DUTY CYCLE

XMit 2015.01.14

2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	8.602 ms	8.618 ms	1	99.8	N/A	N/A



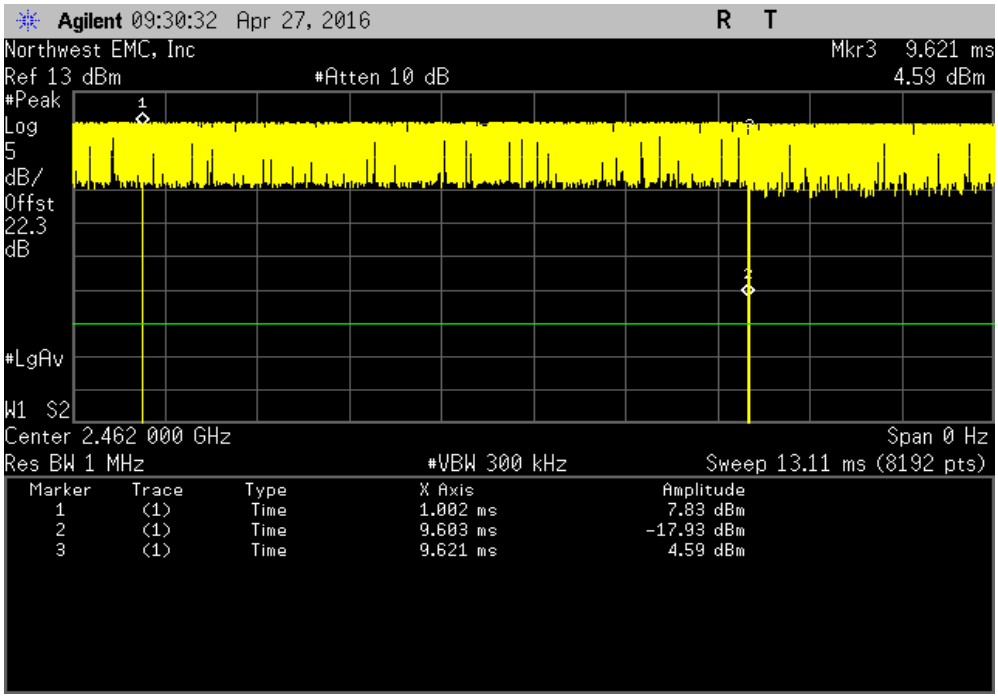
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



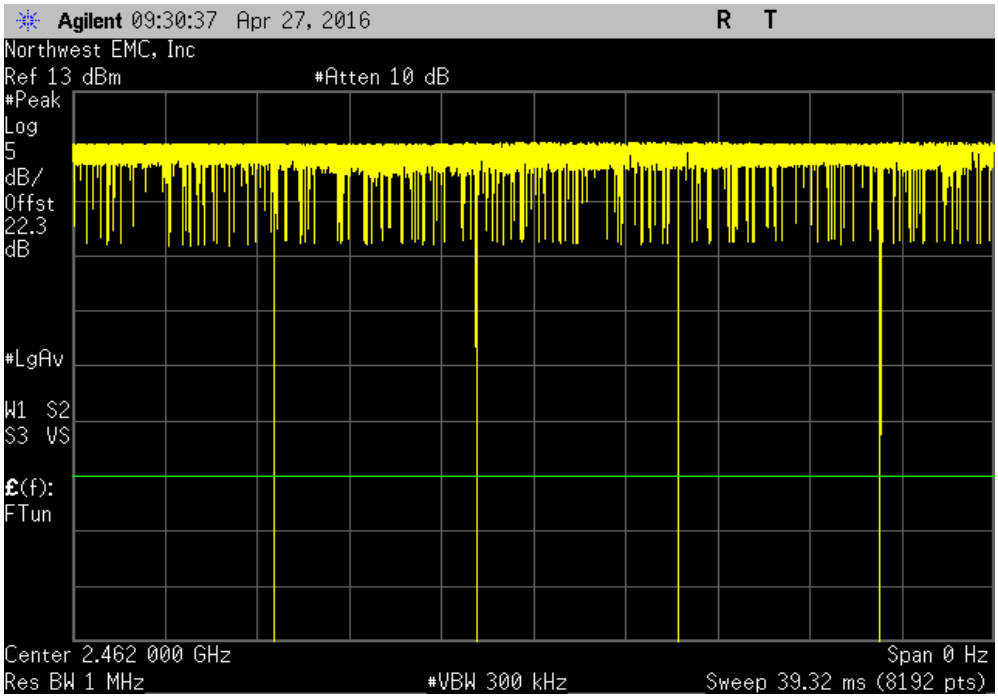
DUTY CYCLE

XMit 2015.01.14

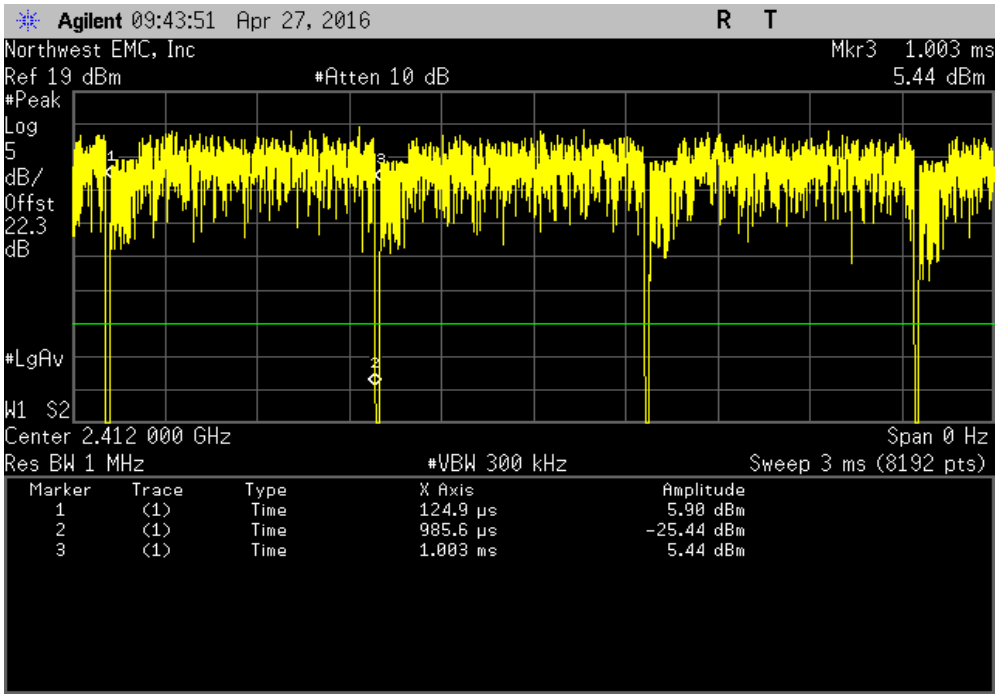
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	8.602 ms	8.619 ms	1	99.8	N/A	N/A



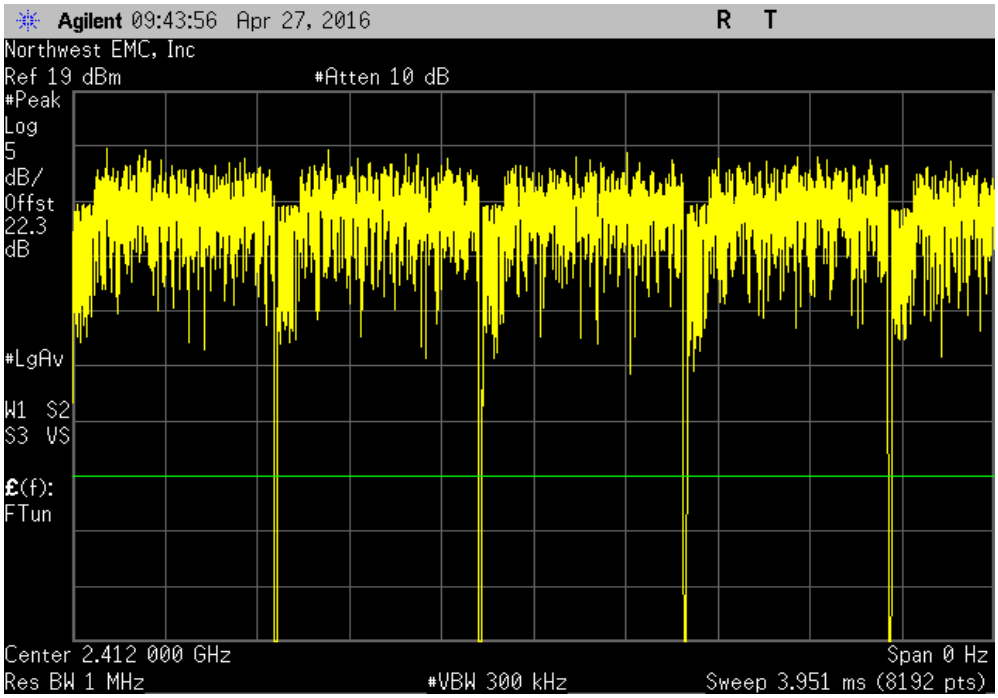
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	860.7 us	877.9 us	1	98	N/A	N/A

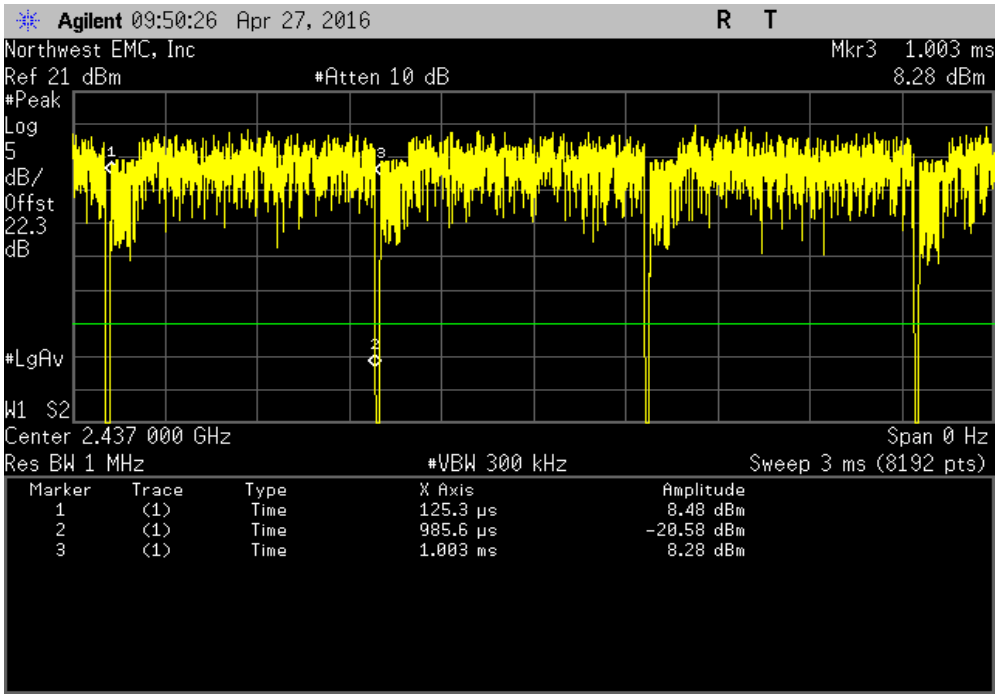


2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A

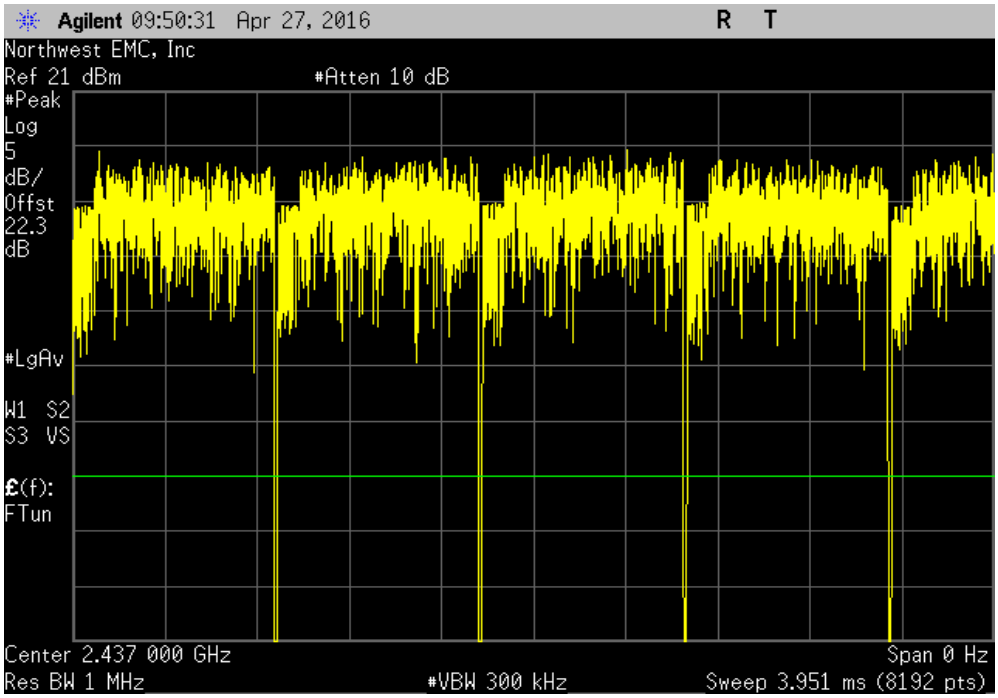


DUTY CYCLE

2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	860.3 us	877.9 us	1	98	N/A	N/A



2400 MHz - 2483.5 MHz Band, Antenna Port 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



DUTY CYCLE

NORTHWEST EMC

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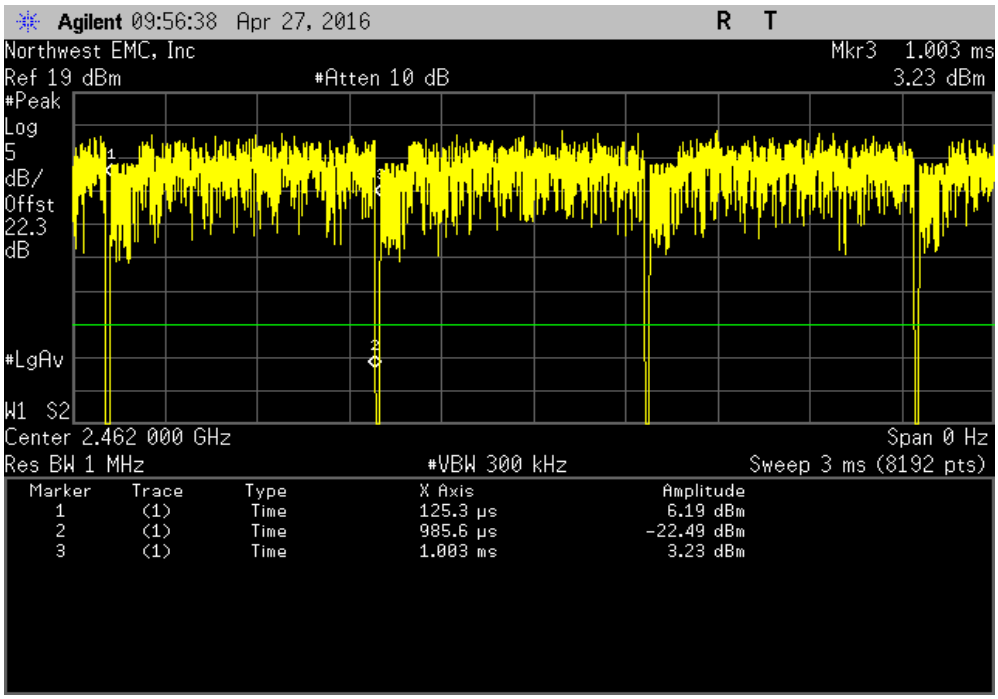
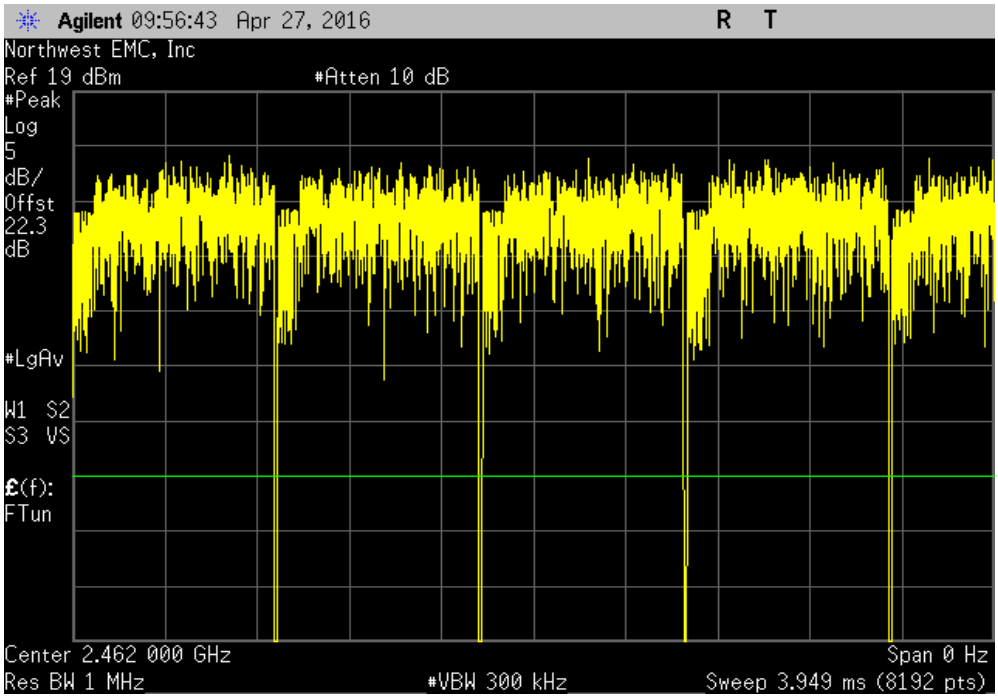
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	860.3 us	877.5 us	1	98	N/A	N/A

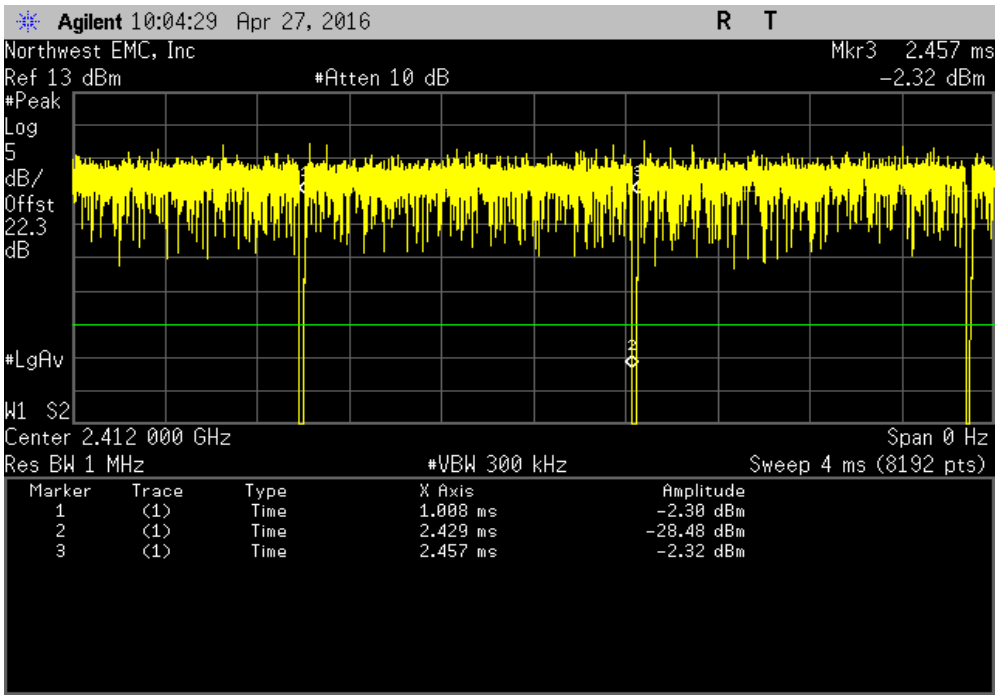


2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A

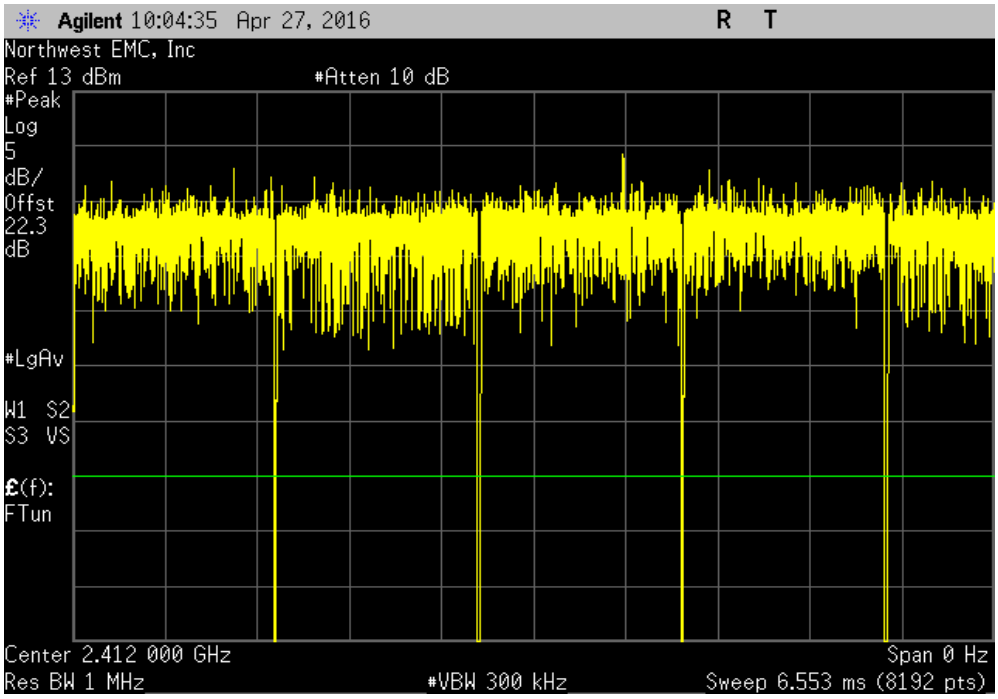


DUTY CYCLE

2400 MHz - 2483.5 MHz Band, Antenna Port 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



2400 MHz - 2483.5 MHz Band, Antenna Port 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



DUTY CYCLE

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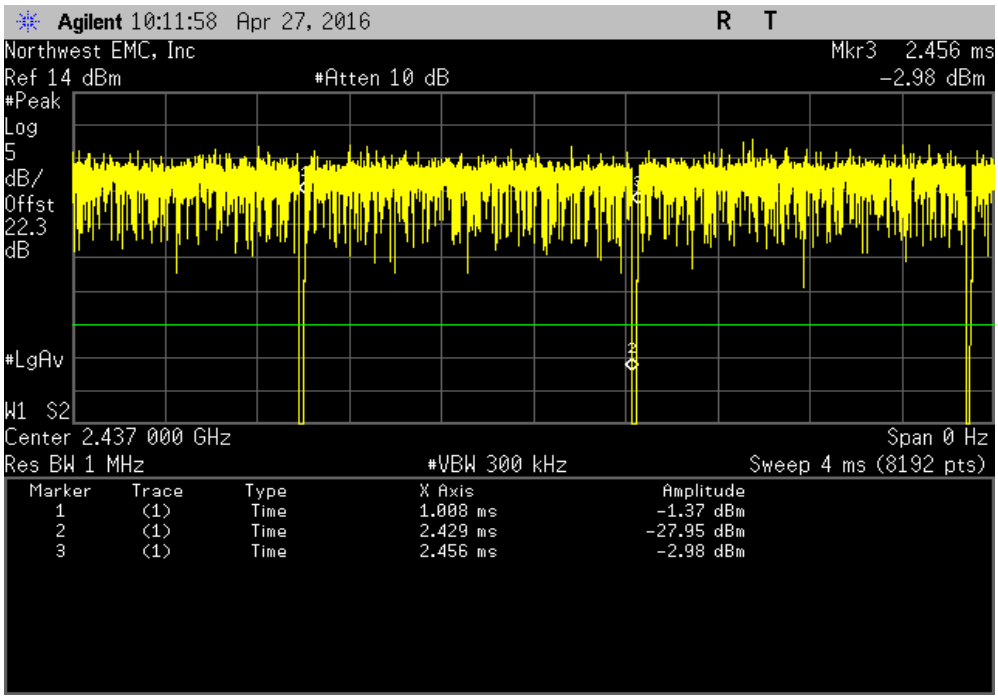
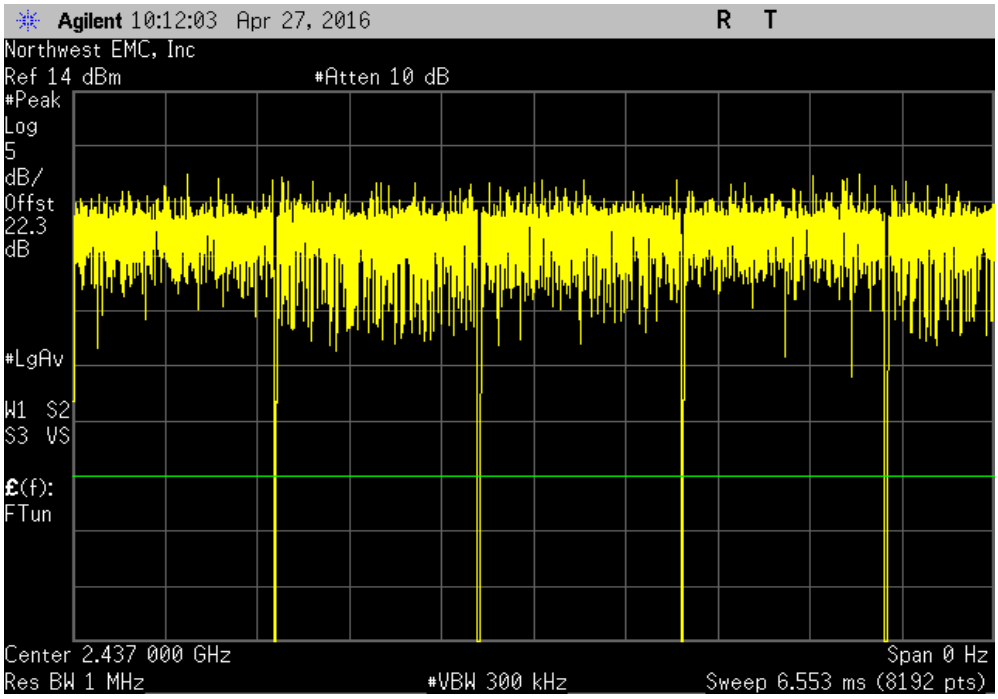
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	1.421 ms	1.448 ms	1	98.1	N/A	N/A

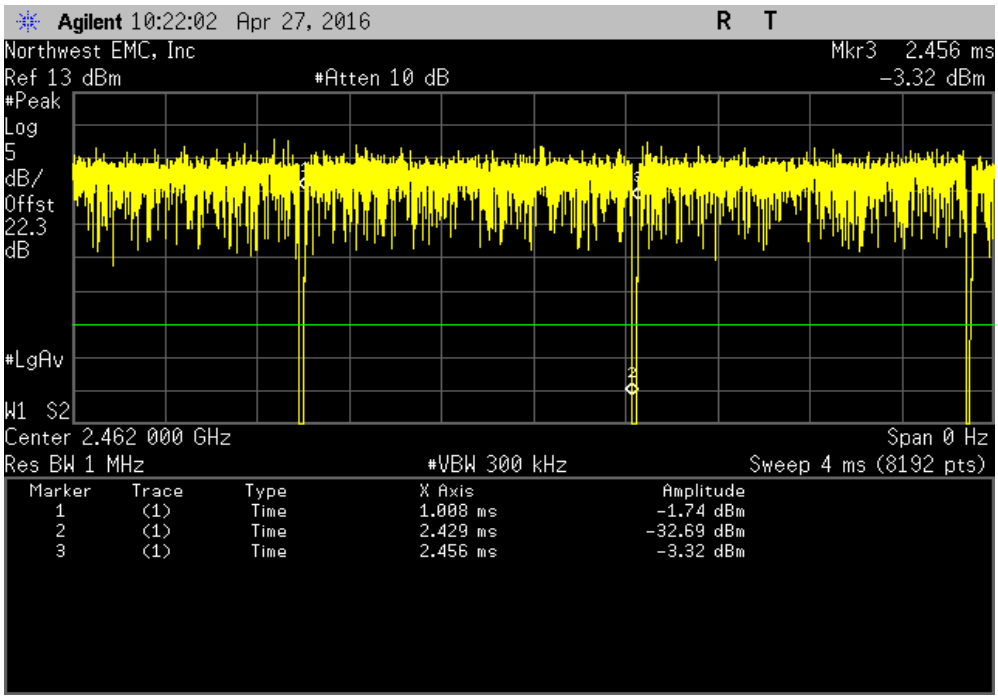


2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A

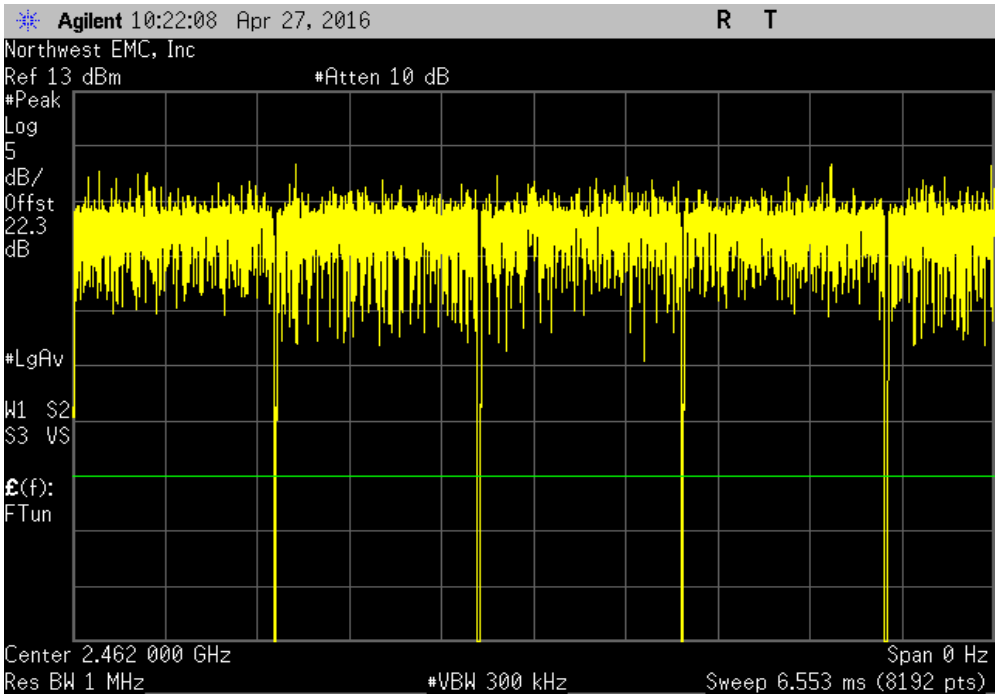


DUTY CYCLE

2400 MHz - 2483.5 MHz Band, Antenna Port 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



2400 MHz - 2483.5 MHz Band, Antenna Port 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



DUTY CYCLE

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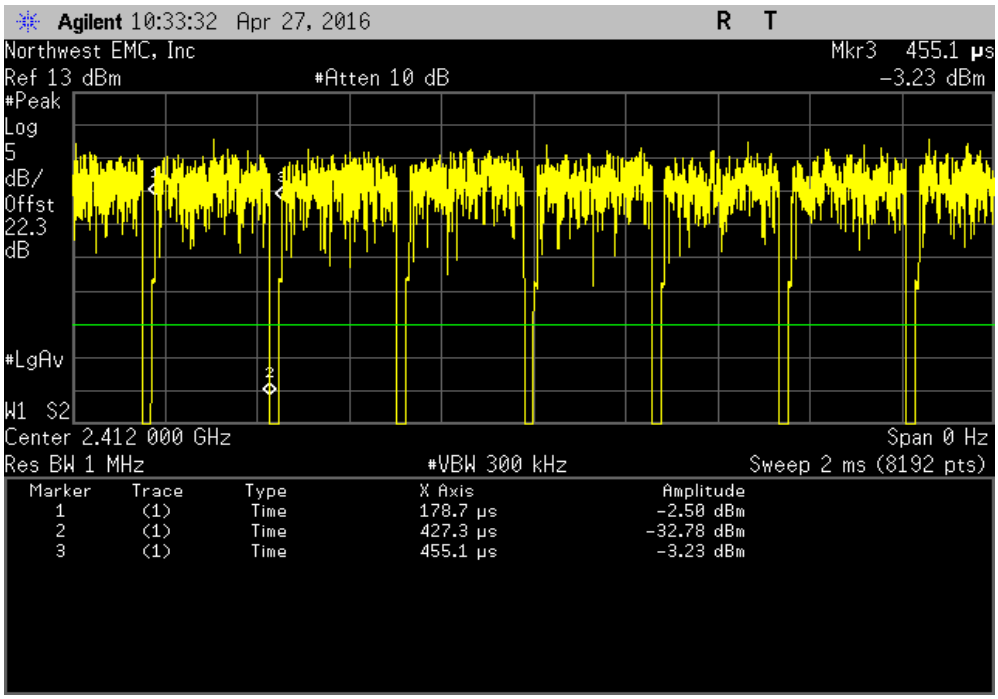
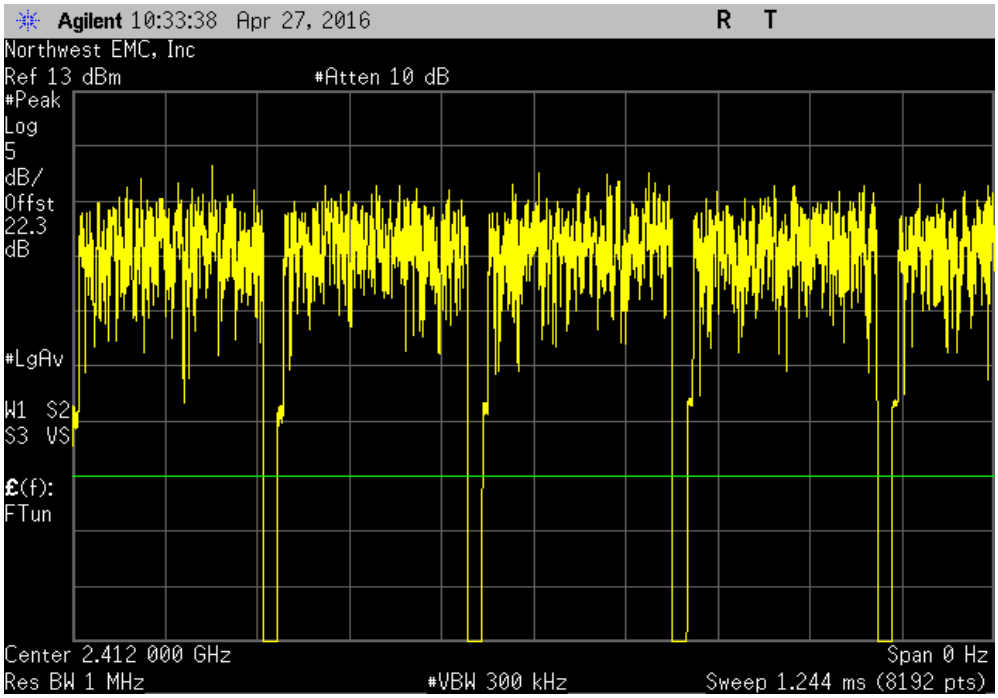
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	248.6 us	276.4 us	1	89.9	N/A	N/A



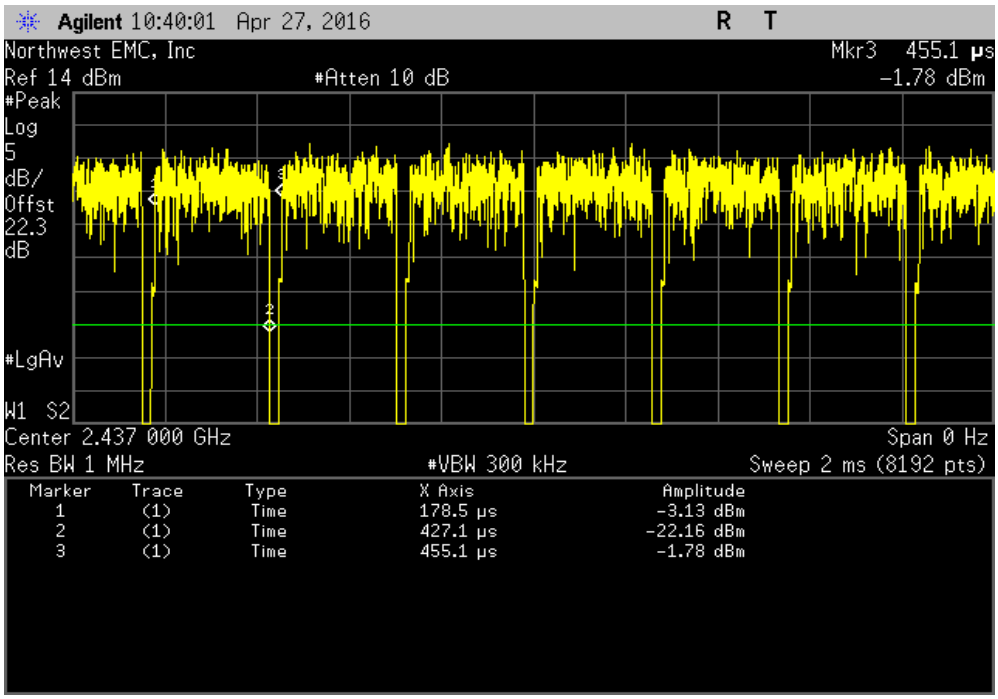
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



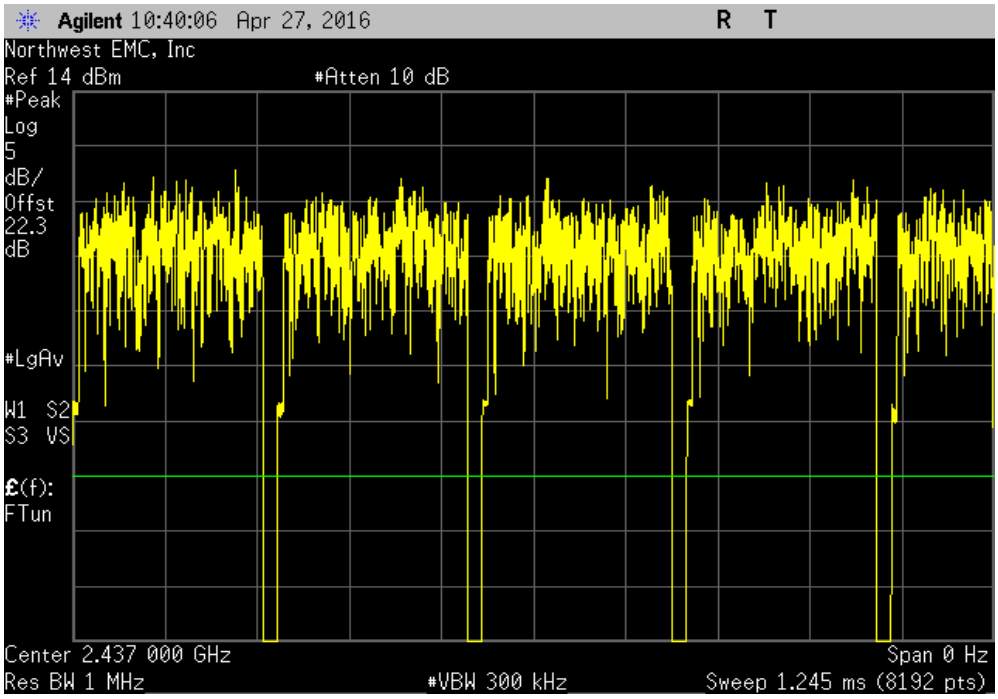
DUTY CYCLE

XMit 2015.01.14

2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	248.6 us	276.6 us	1	89.9	N/A	N/A

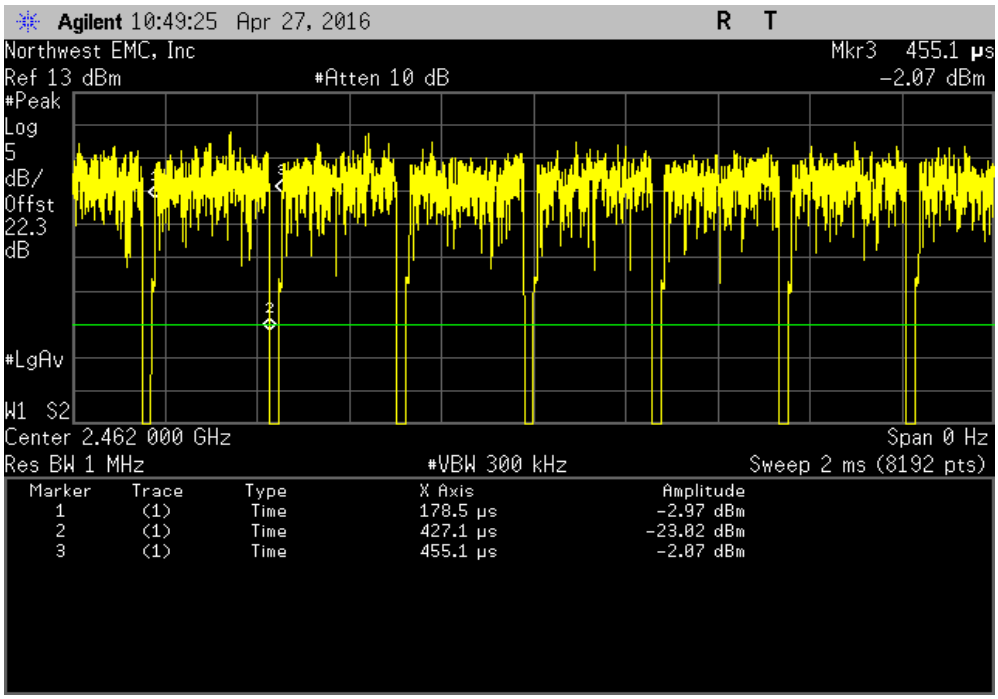


2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A

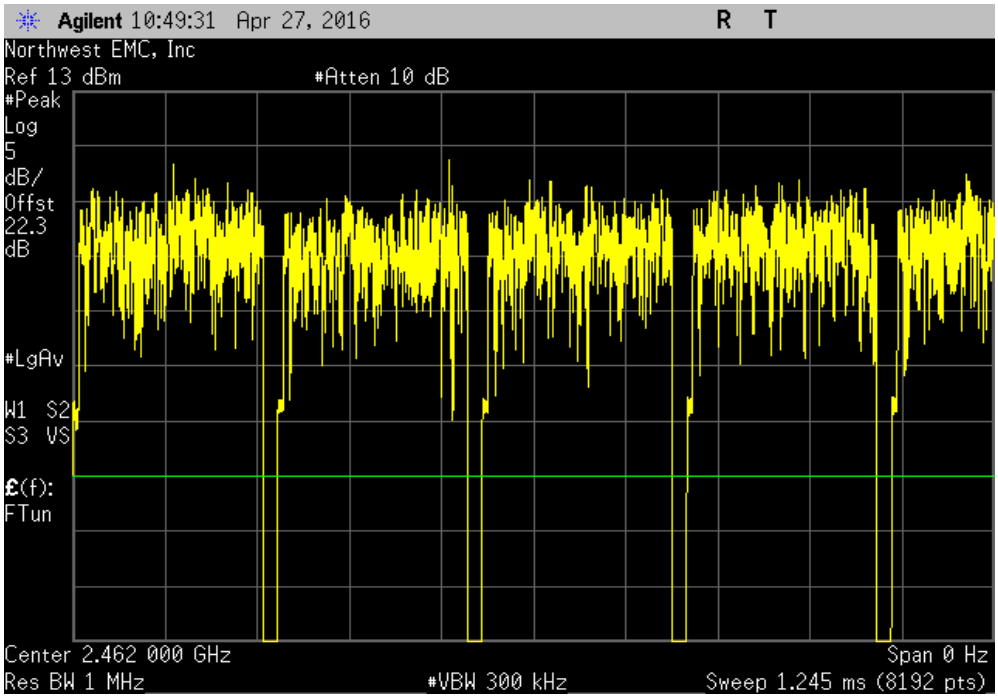


DUTY CYCLE

2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	248.6 us	276.6 us	1	89.9	N/A	N/A



2400 MHz - 2483.5 MHz Band, Antenna Port 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



DUTY CYCLE

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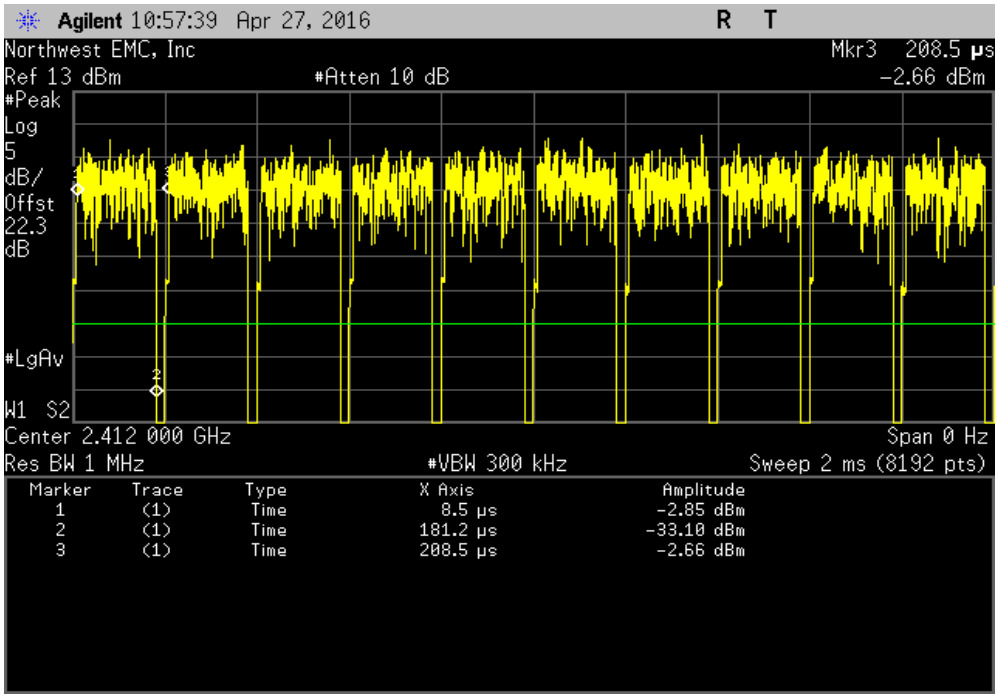
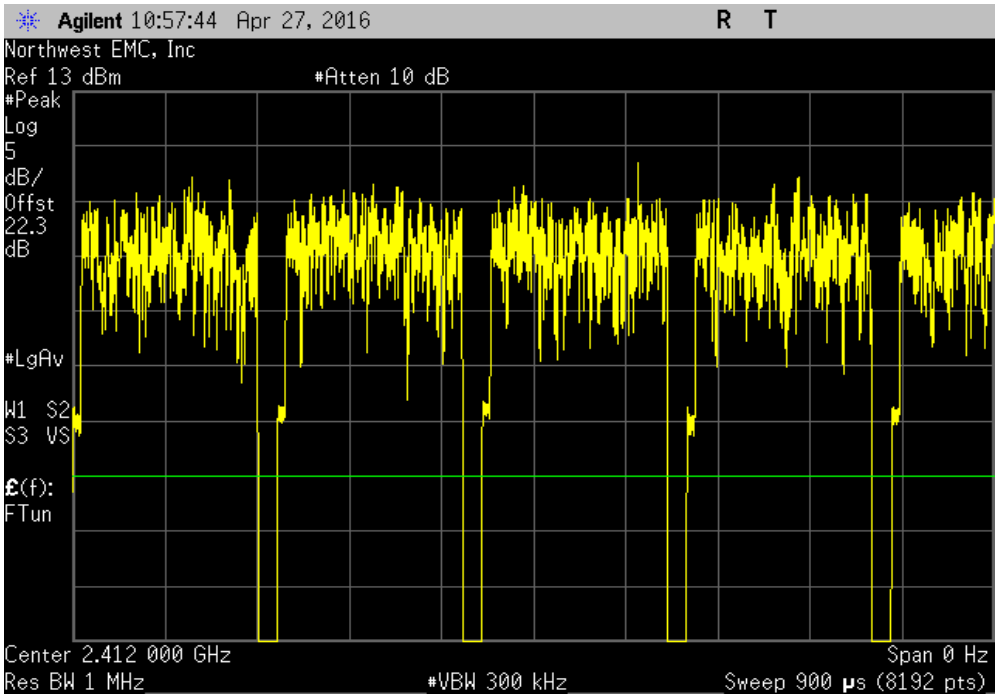
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	172.7 us	200 us	1	86.3	N/A	N/A



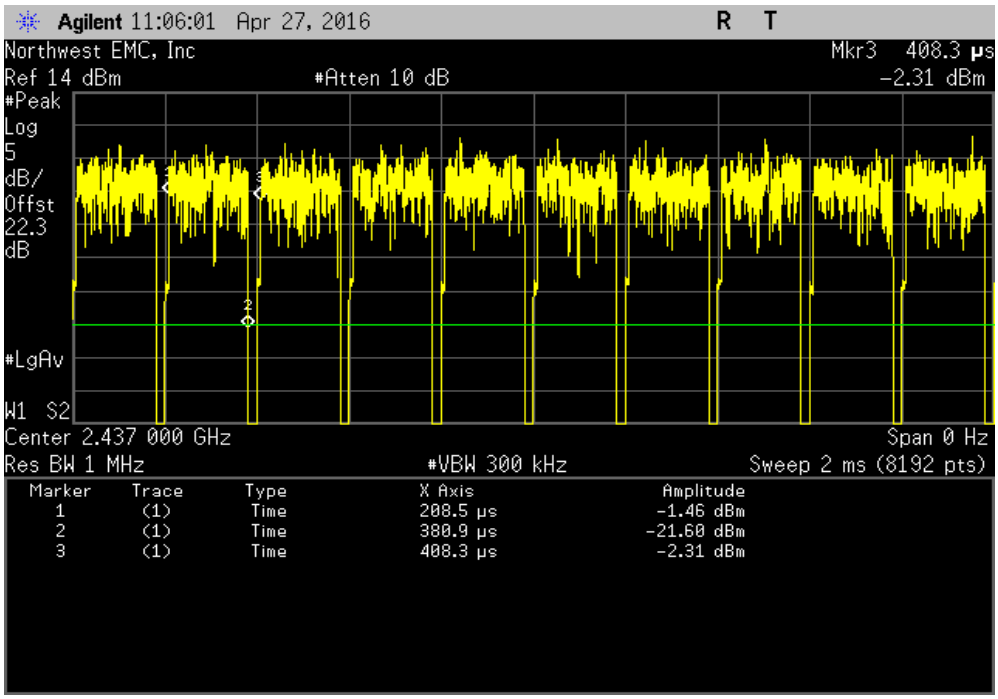
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	6	N/A	N/A	N/A



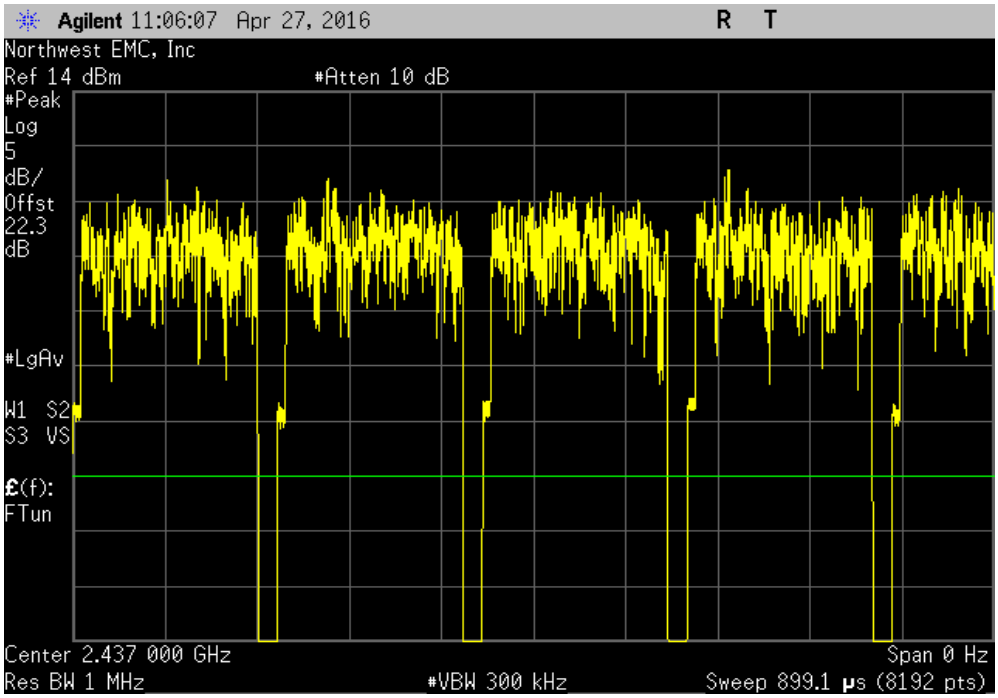
DUTY CYCLE

XMit 2015.01.14

2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	172.4 us	199.8 us	1	86.3	N/A	N/A



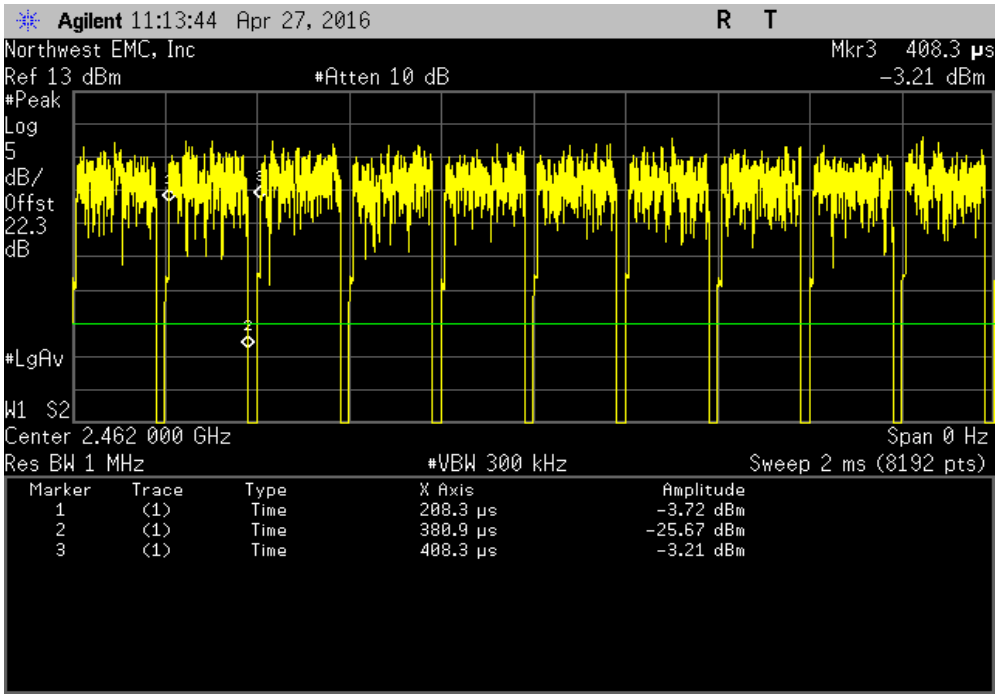
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



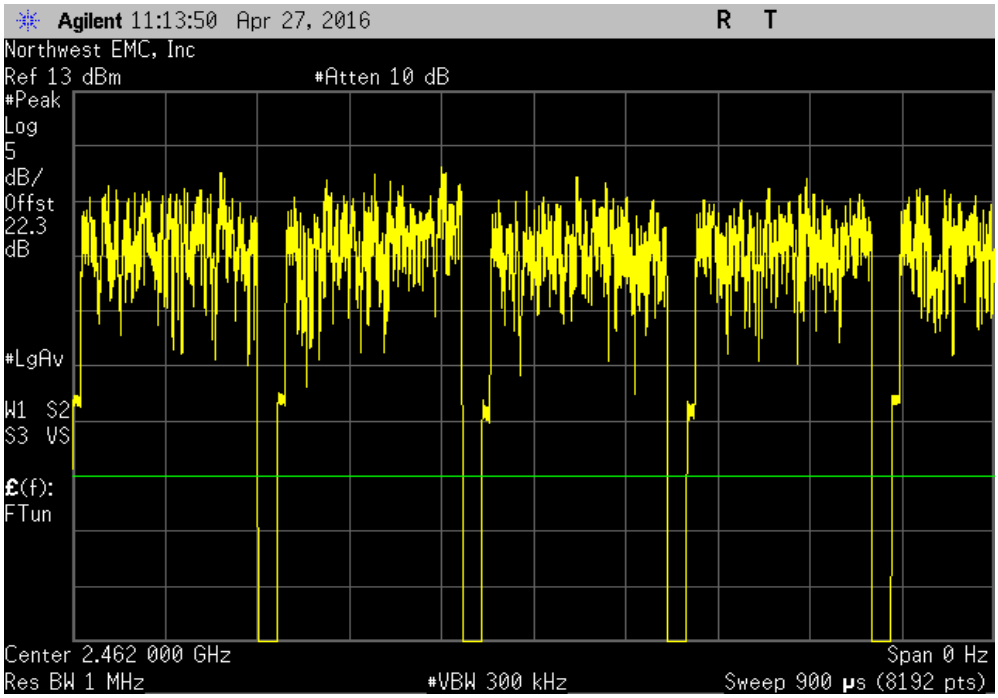
DUTY CYCLE

XMit 2015.01.14

2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	172.6 us	200 us	1	86.3	N/A	N/A

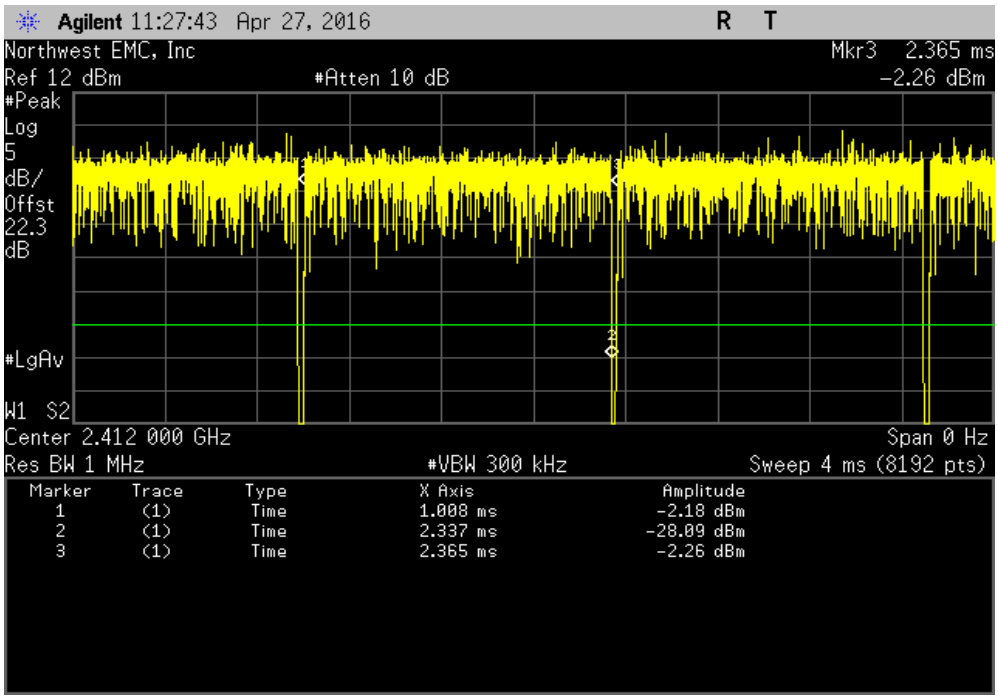


2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A

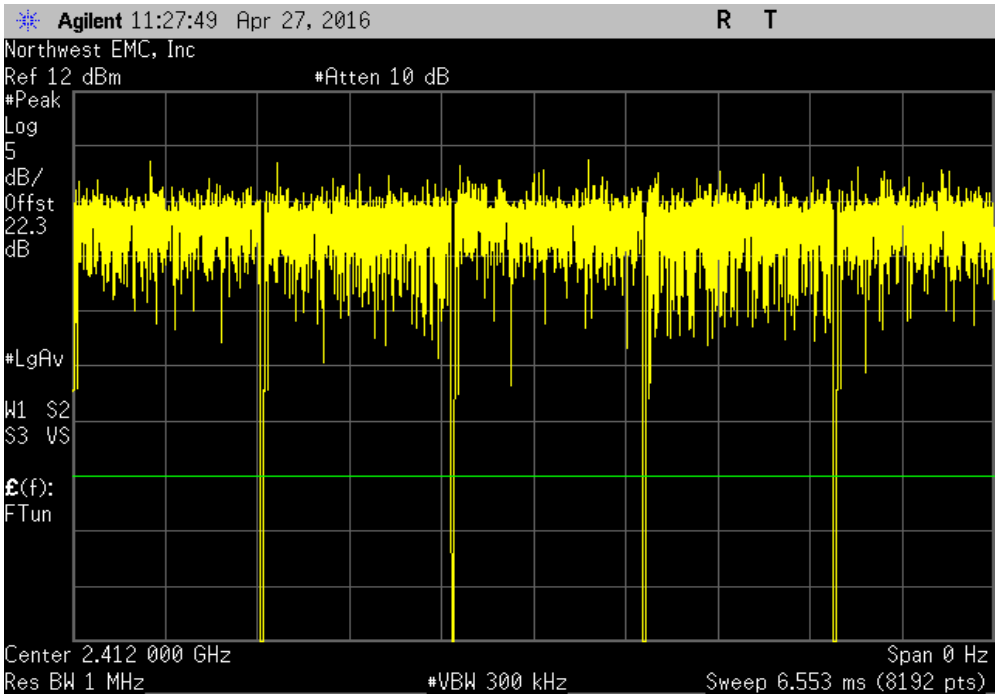


DUTY CYCLE

2400 MHz - 2483.5 MHz Band, Antenna Port 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	97.9	N/A	N/A

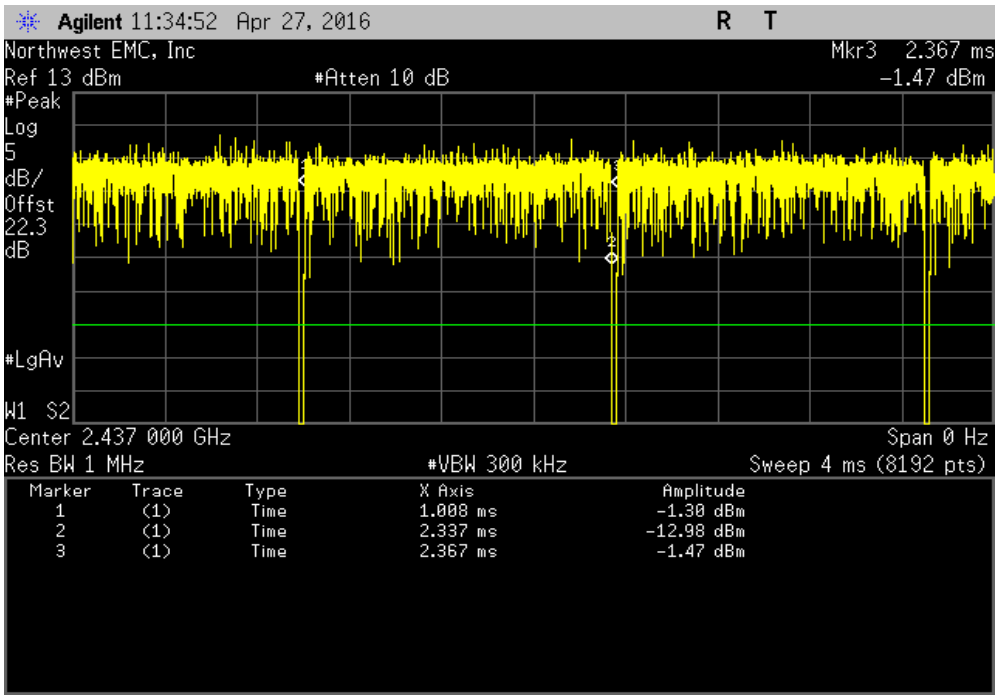


2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A

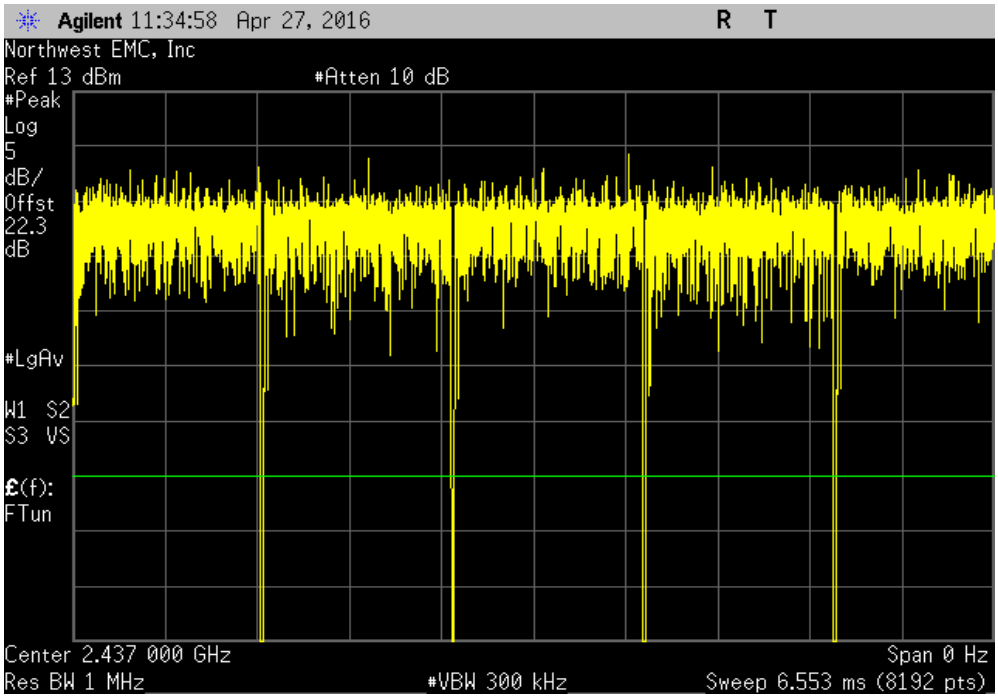


DUTY CYCLE

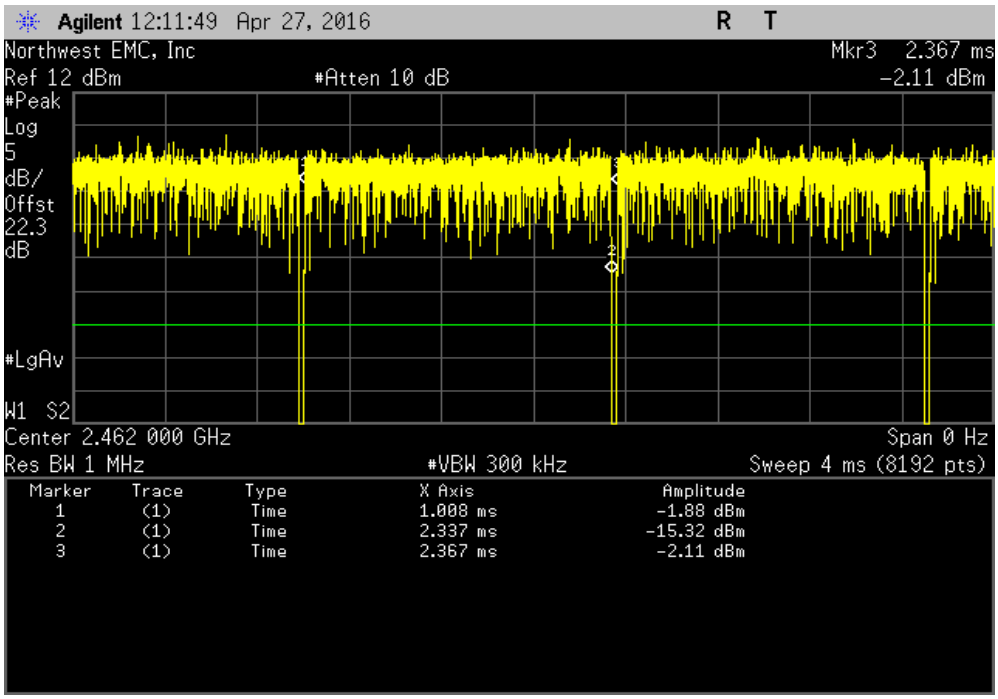
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	1.328 ms	1.359 ms	1	97.8	N/A	N/A



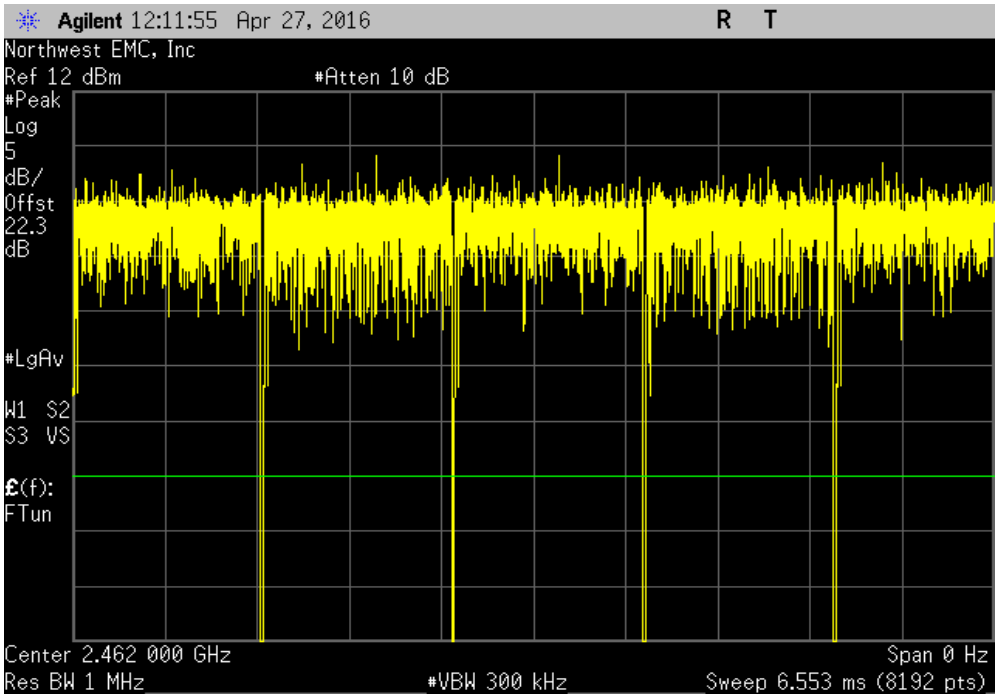
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



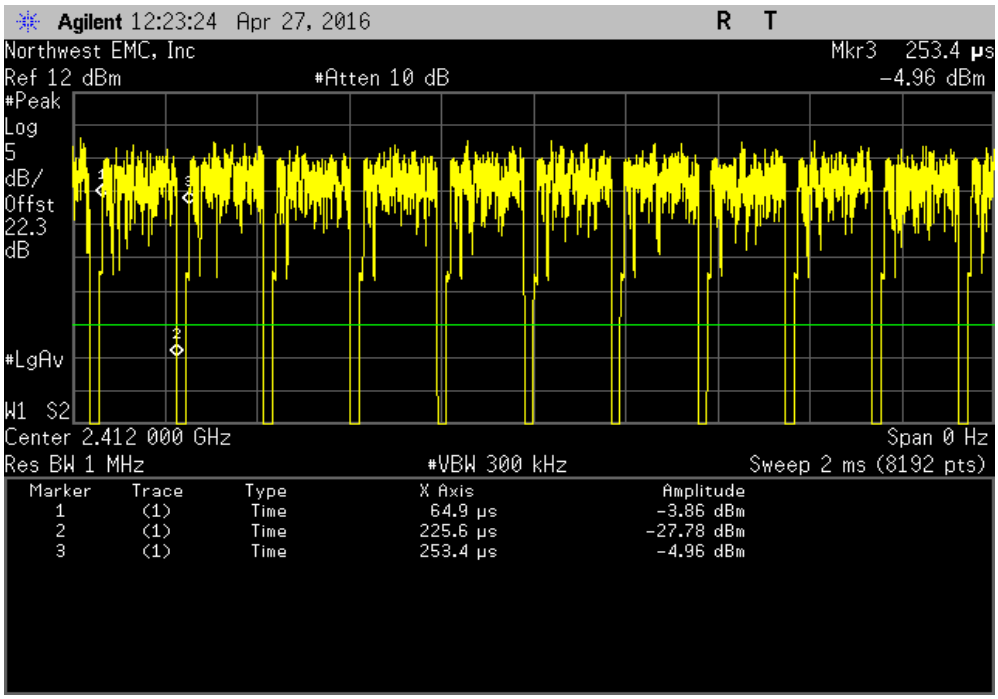
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	1.328 ms	1.359 ms	1	97.8	N/A	N/A



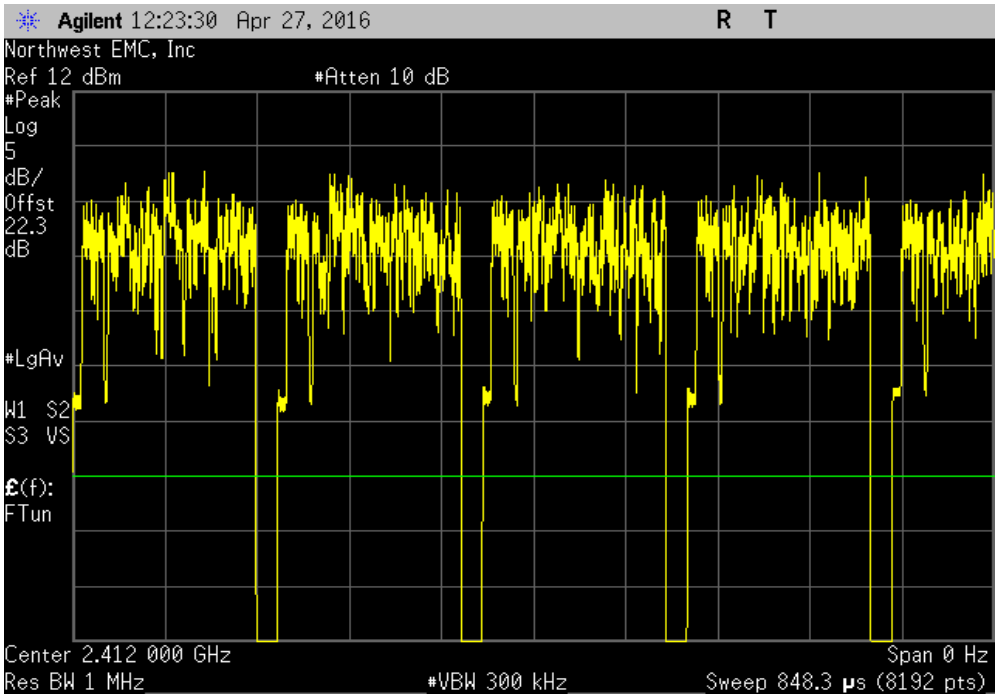
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	160.7 us	188.5 us	1	85.3	N/A	N/A



2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, 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



DUTY CYCLE

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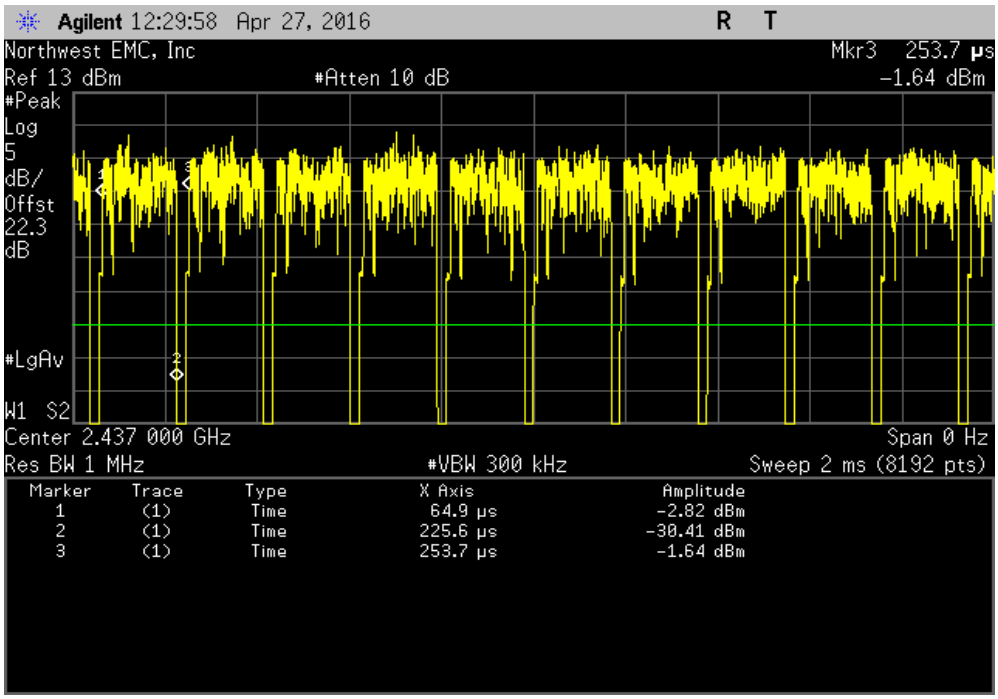
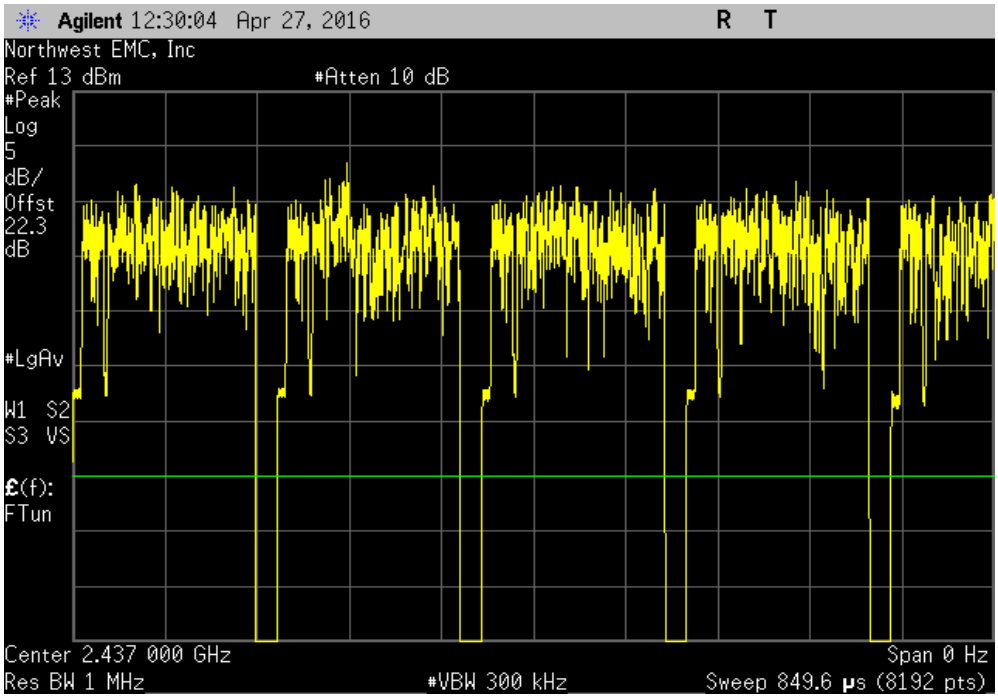
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	160.7 us	188.8 us	1	85.1	N/A	N/A



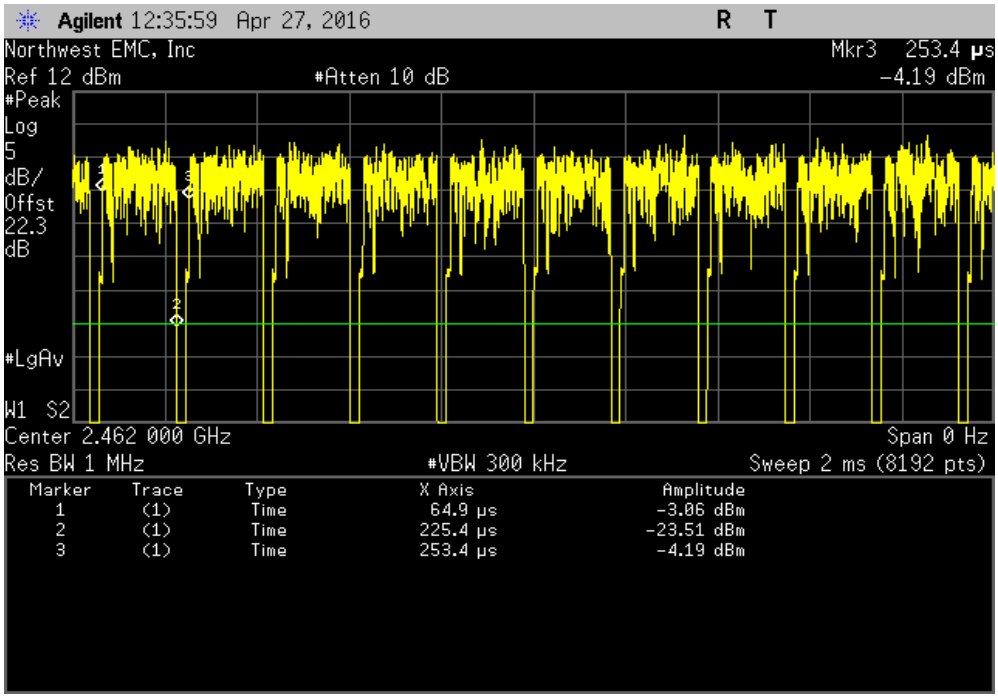
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



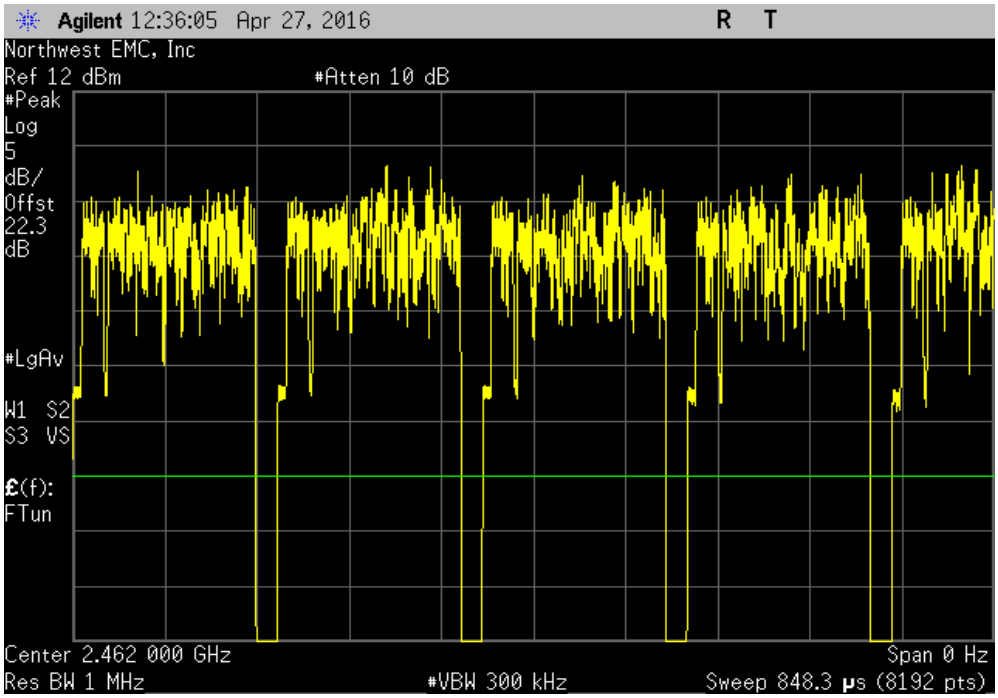
DUTY CYCLE

XMit 2015.01.14

2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	160.5 us	188.5 us	1	85.1	N/A	N/A



2400 MHz - 2483.5 MHz Band, Antenna Port 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



DUTY CYCLE

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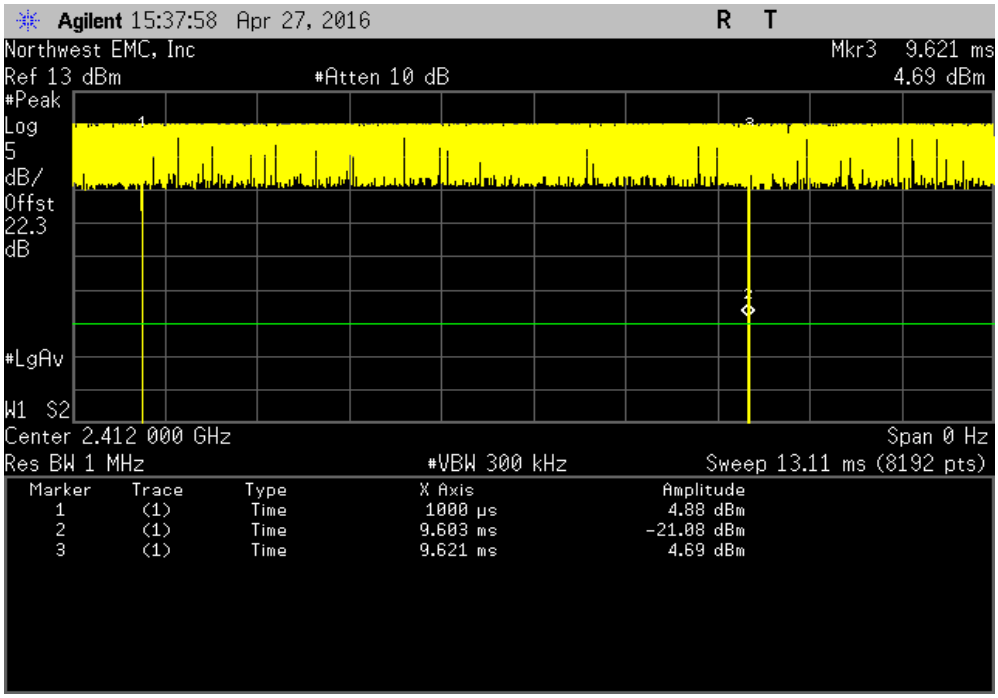
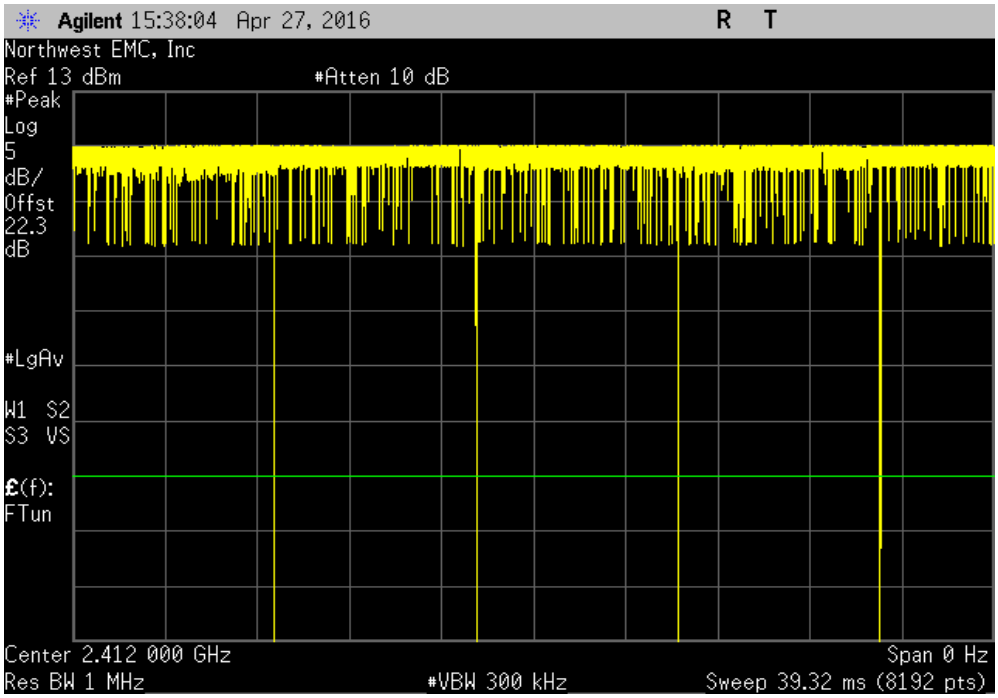
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	8.603 ms	8.621 ms	1	99.8	N/A	N/A



2400 MHz - 2483.5 MHz Band, Antenna Port 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



DUTY CYCLE

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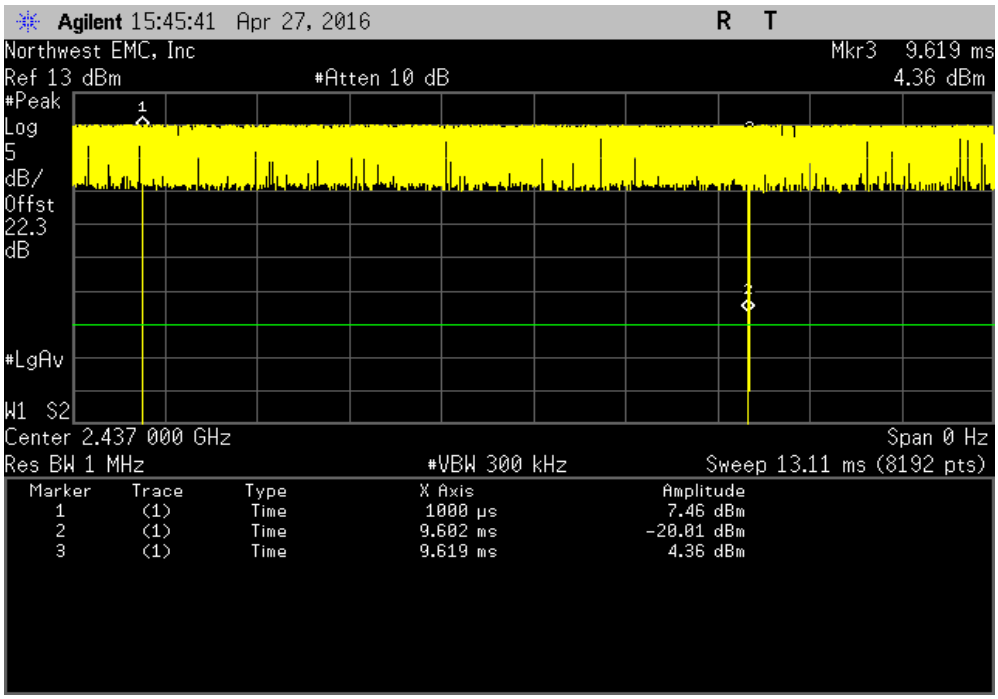
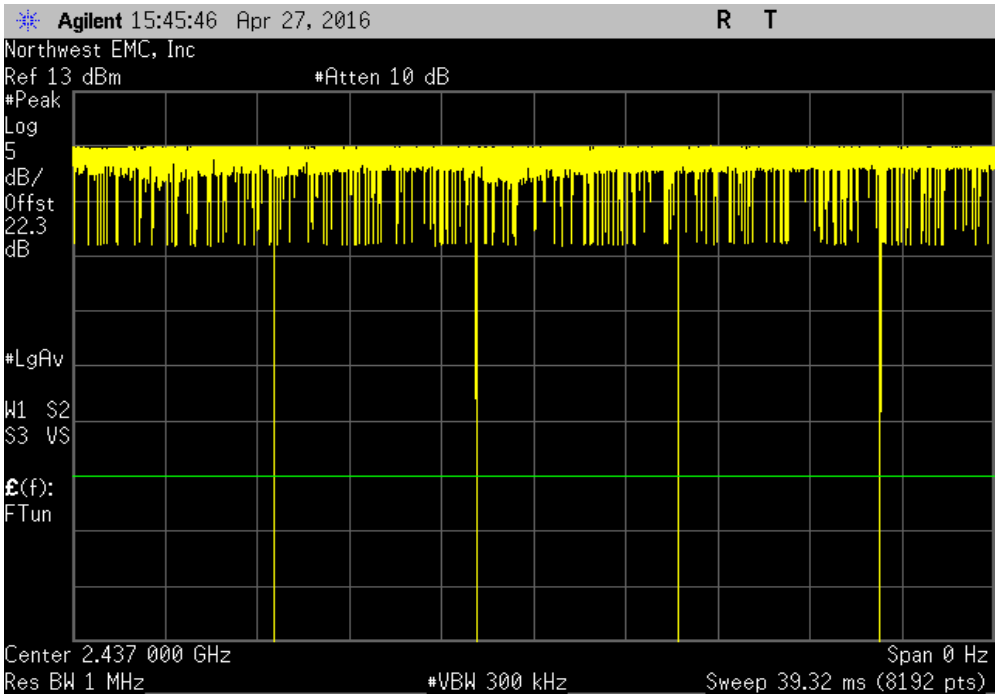
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	8.602 ms	8.619 ms	1	99.8	N/A	N/A



2400 MHz - 2483.5 MHz Band, Antenna Port 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



DUTY CYCLE

NORTHWEST EMC

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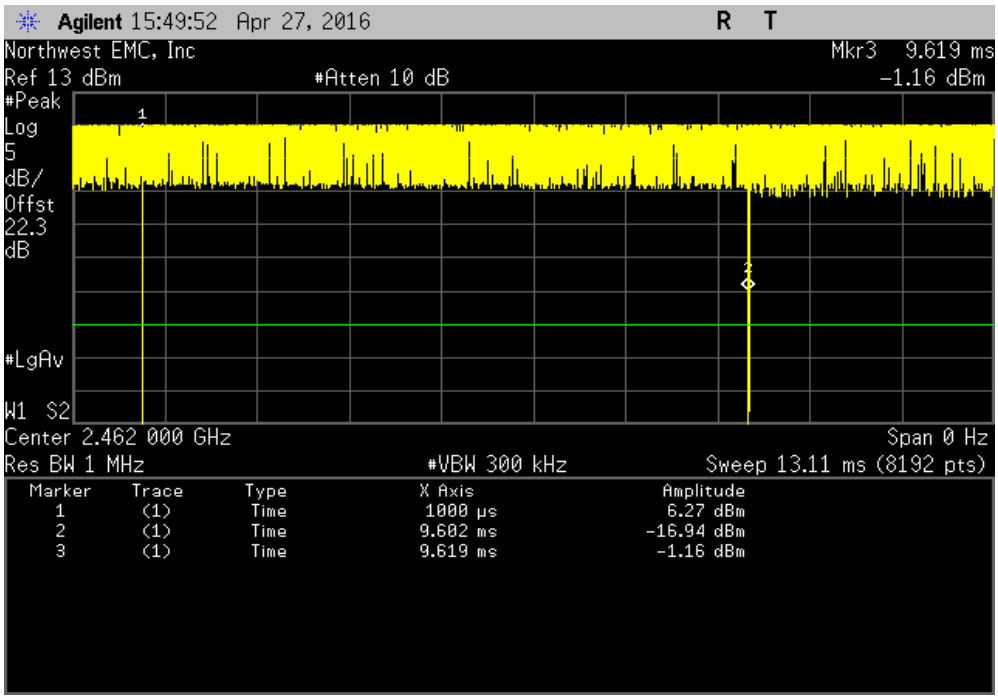
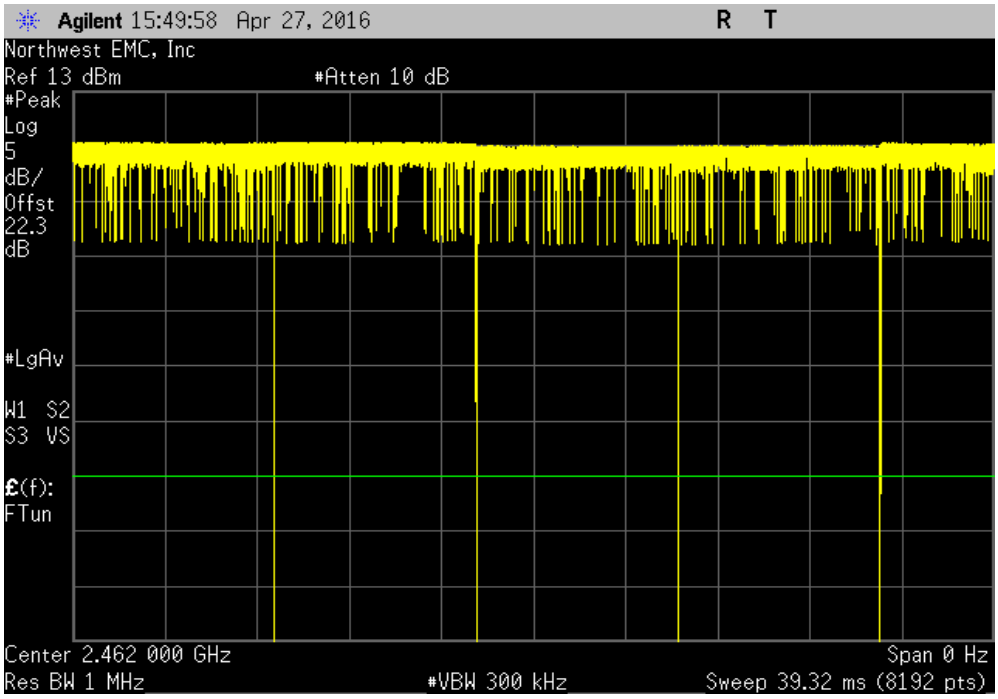
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	8.602 ms	8.619 ms	1	99.8	N/A	N/A

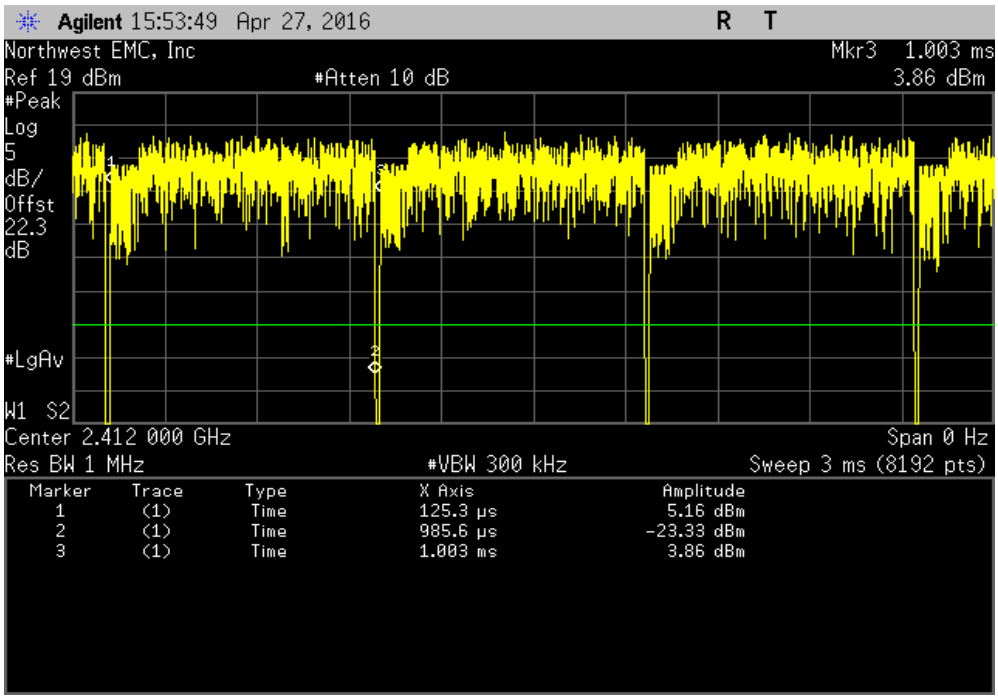


2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A

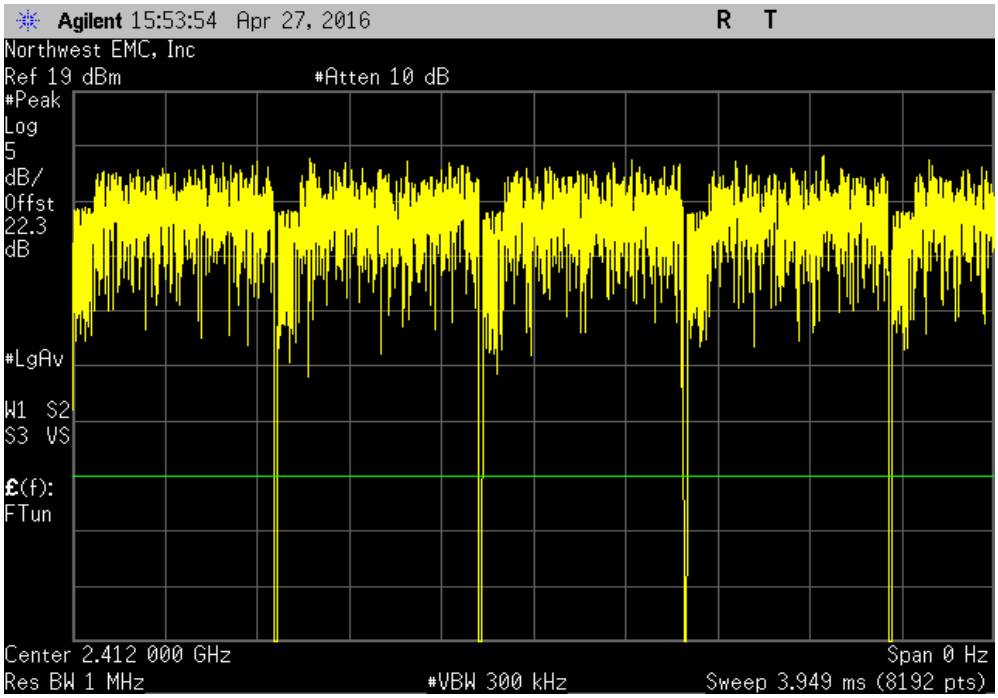


DUTY CYCLE

2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	860.3 us	877.5 us	1	98	N/A	N/A



2400 MHz - 2483.5 MHz Band, Antenna Port 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



DUTY CYCLE

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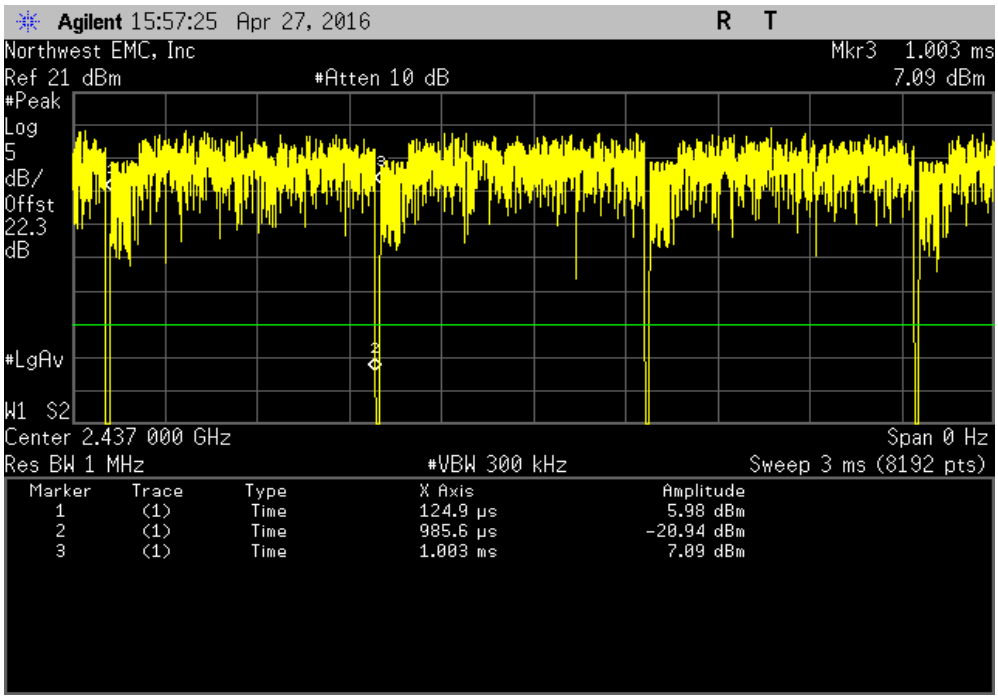
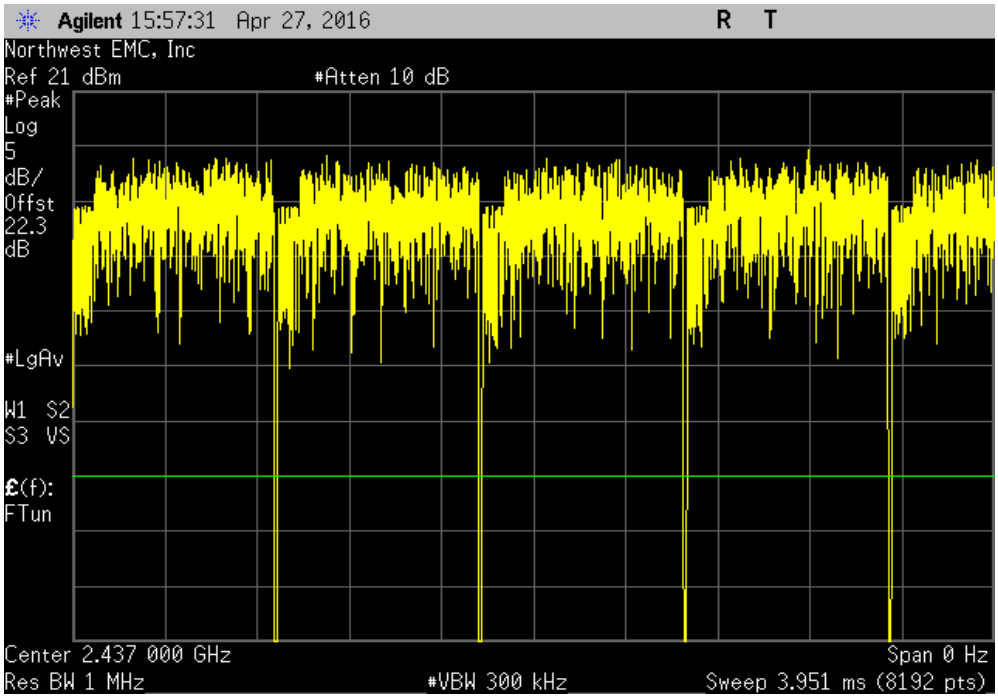
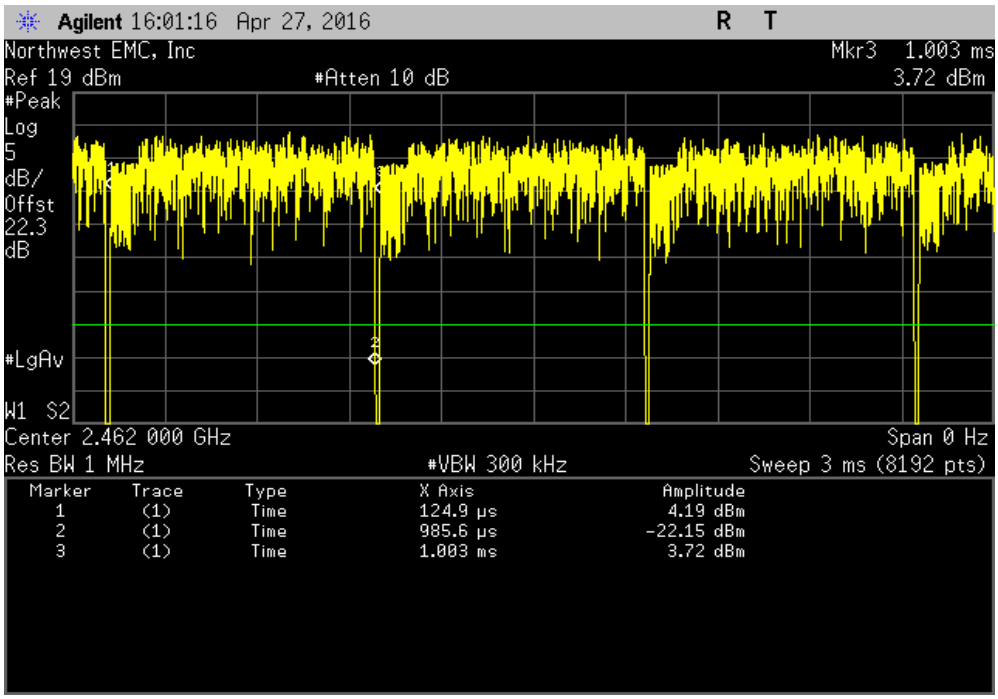
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	860.7 us	877.9 us	1	98	N/A	N/A



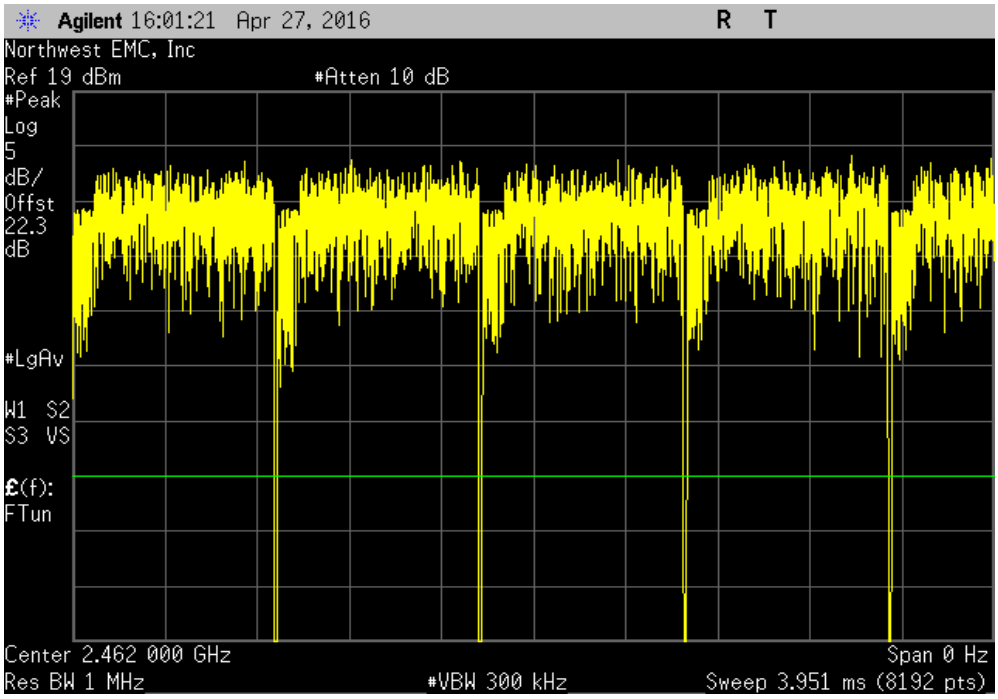
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	860.7 us	877.9 us	1	98	N/A	N/A

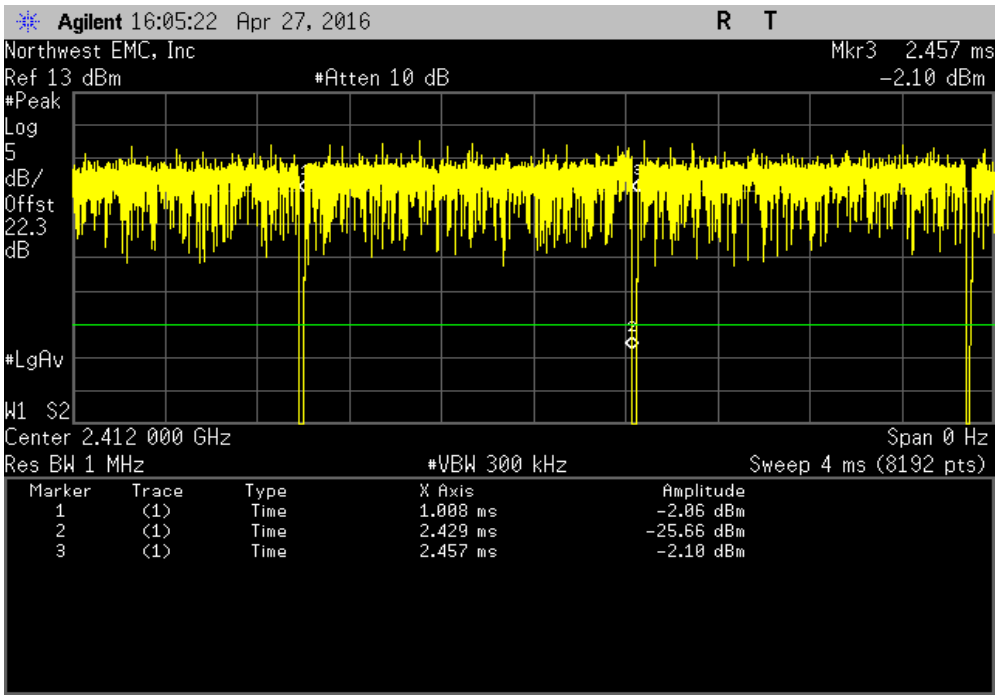


2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A

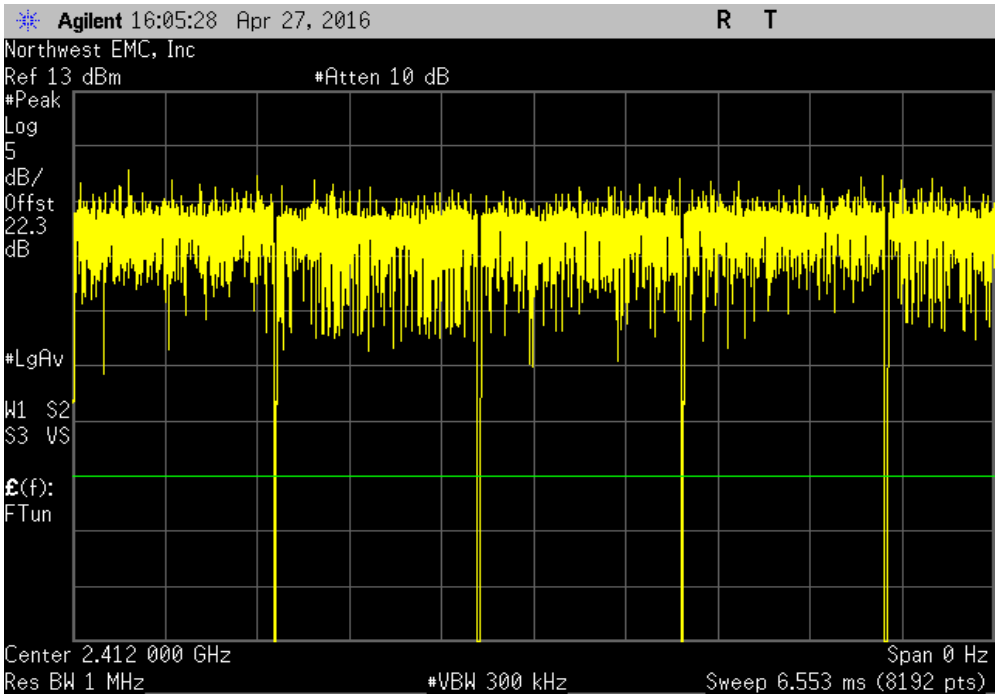


DUTY CYCLE

2400 MHz - 2483.5 MHz Band, Antenna Port 1, 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



2400 MHz - 2483.5 MHz Band, Antenna Port 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



DUTY CYCLE

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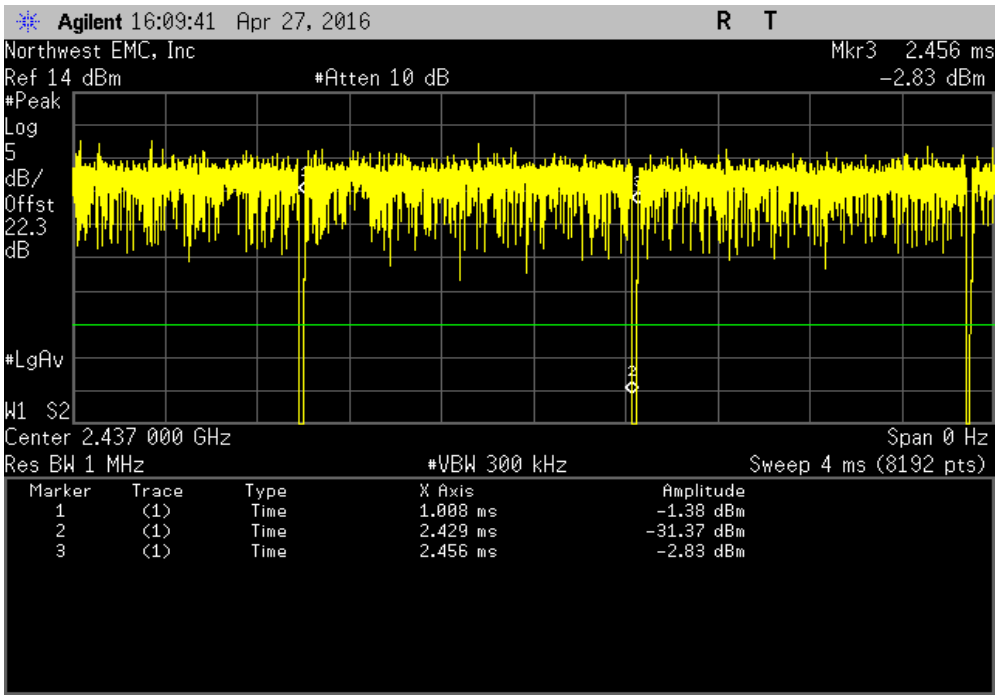
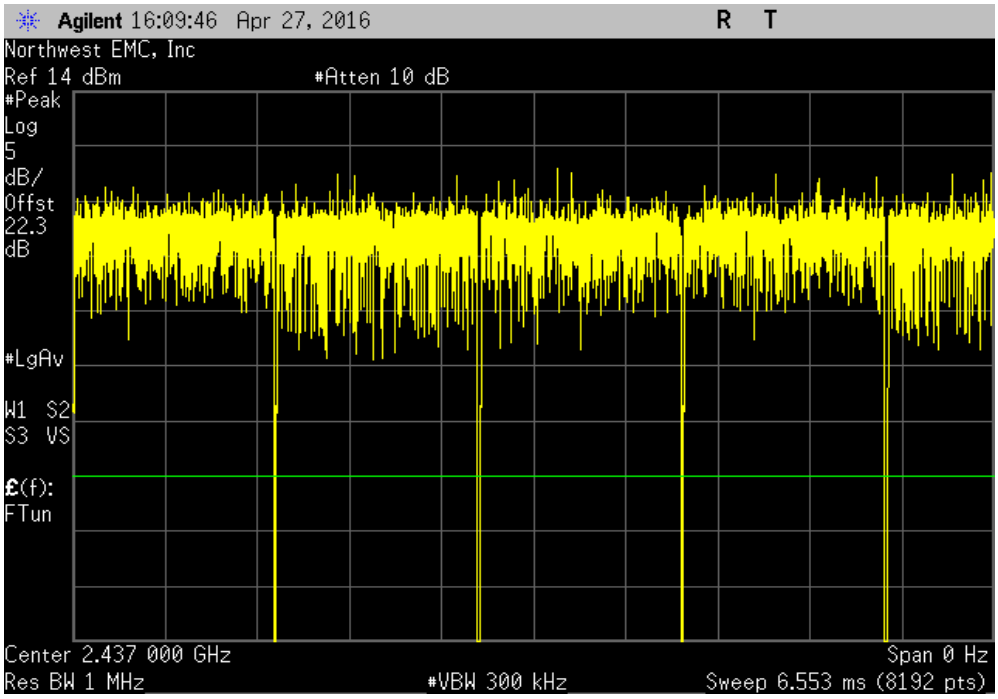
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	1.421 ms	1.448 ms	1	98.1	N/A	N/A

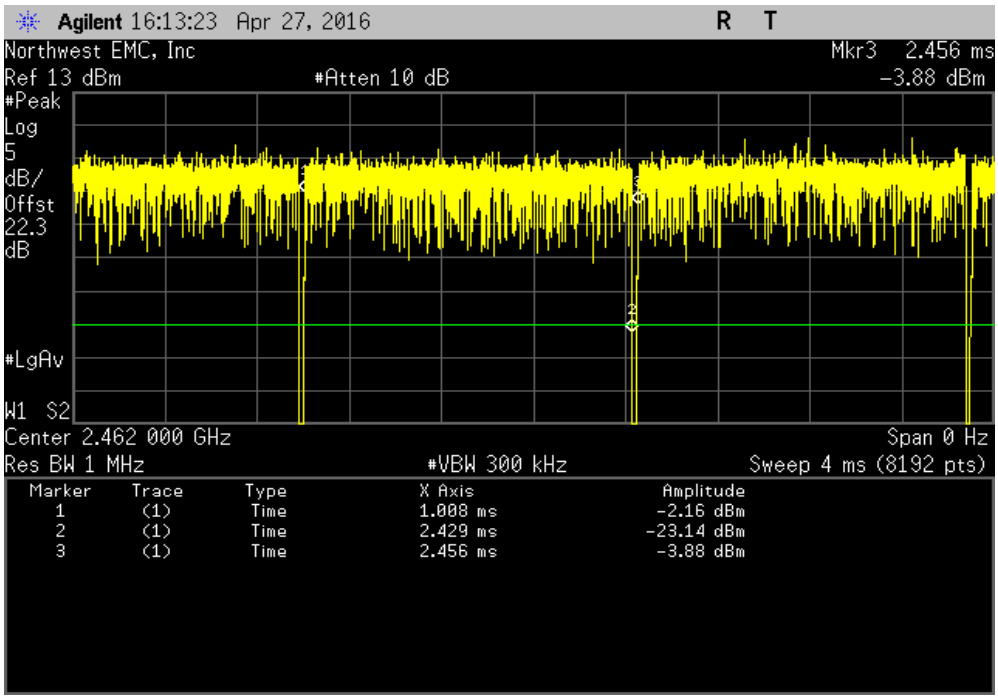


2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A

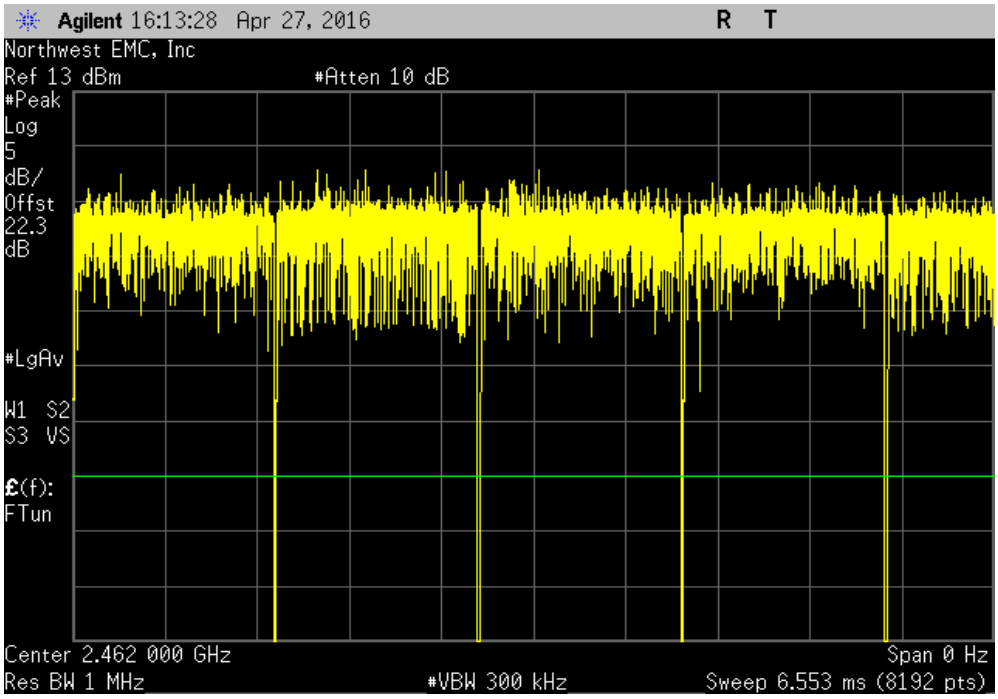


DUTY CYCLE

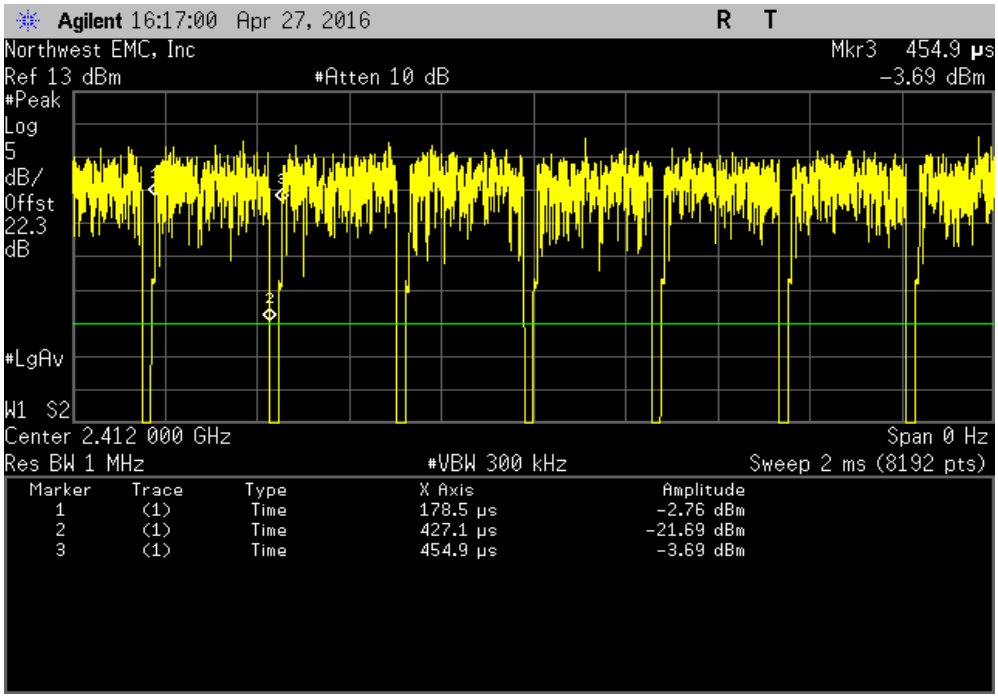
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	1.421 ms	1.448 ms	1	98.1	N/A	N/A



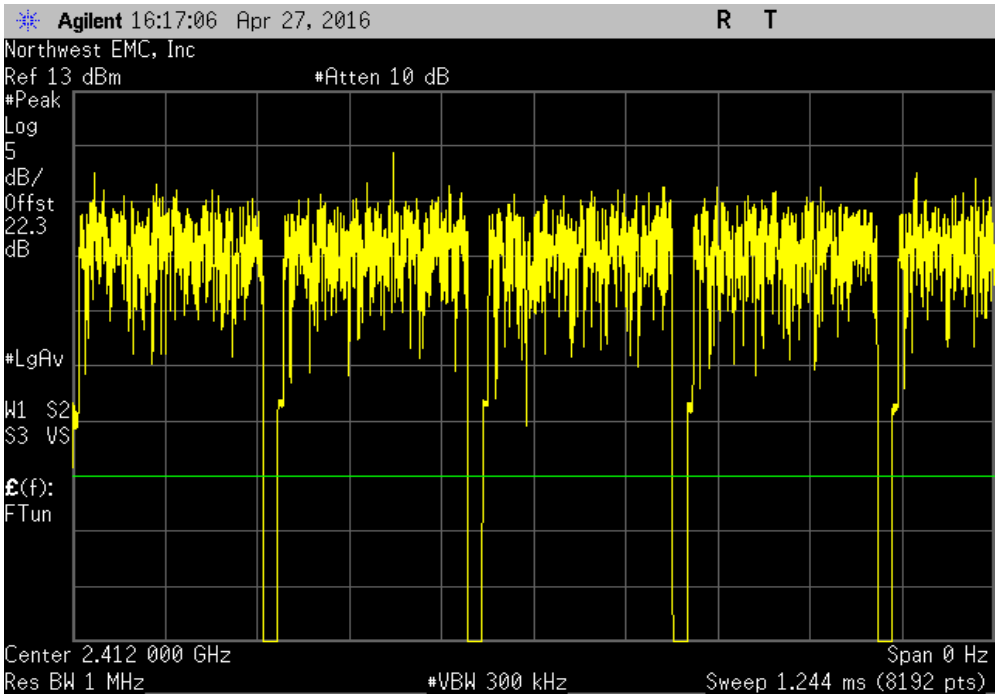
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	248.6 us	276.4 us	1	89.9	N/A	N/A



2400 MHz - 2483.5 MHz Band, Antenna Port 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



DUTY CYCLE

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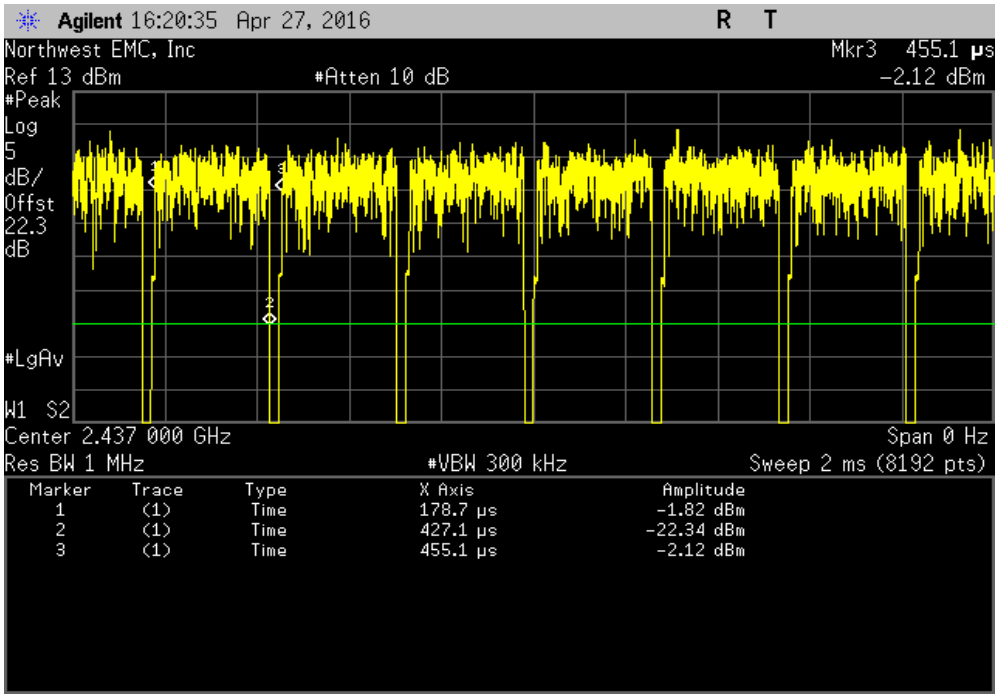
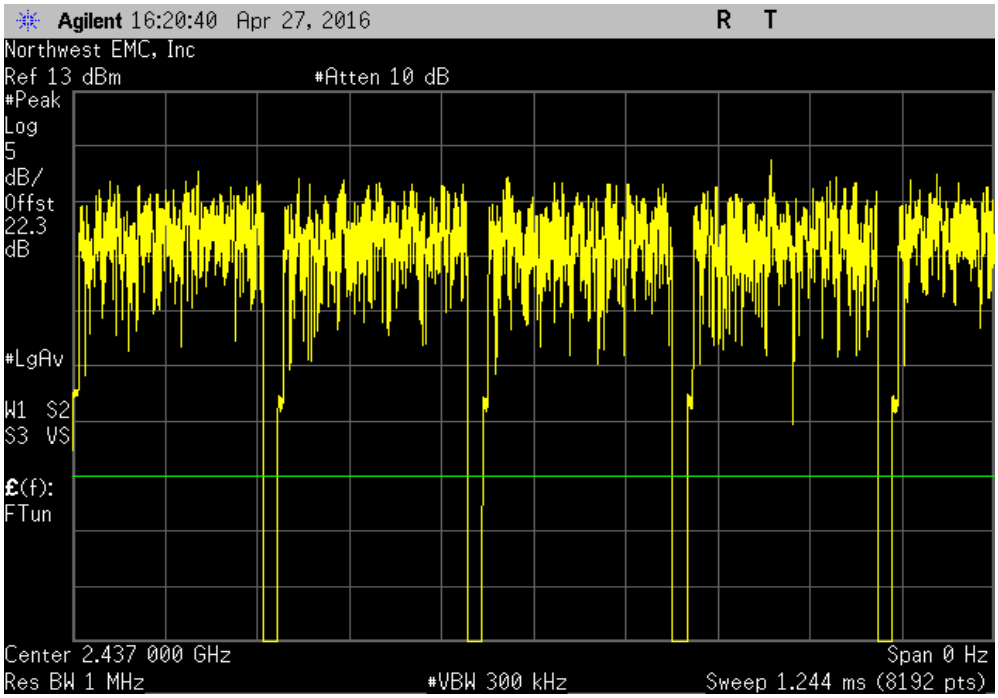
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	248.4 us	276.4 us	1	89.9	N/A	N/A



2400 MHz - 2483.5 MHz Band, Antenna Port 1, 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



DUTY CYCLE

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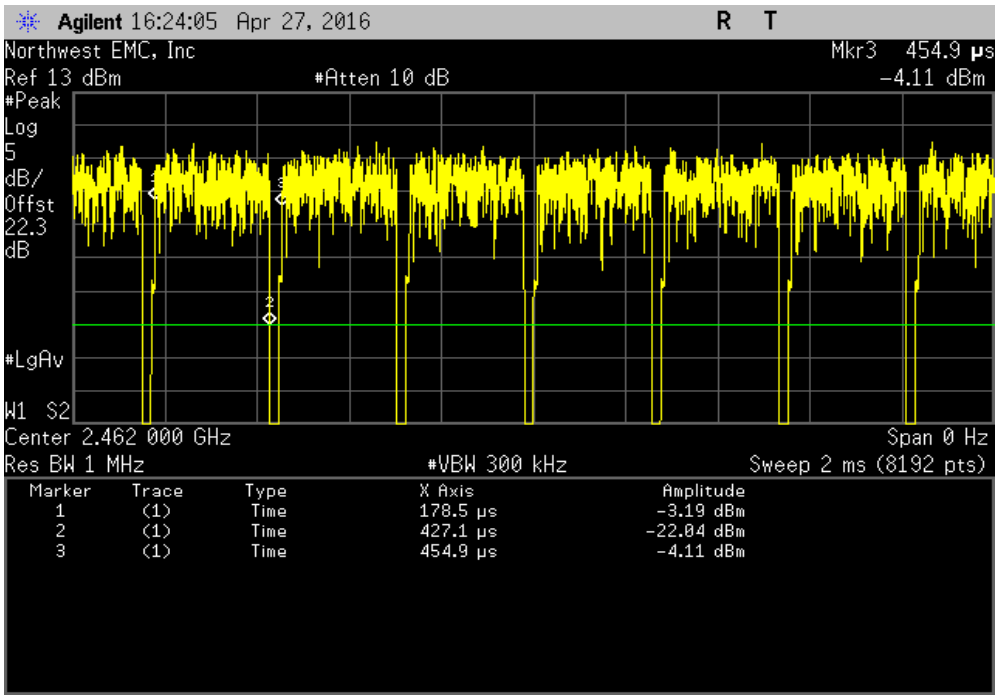
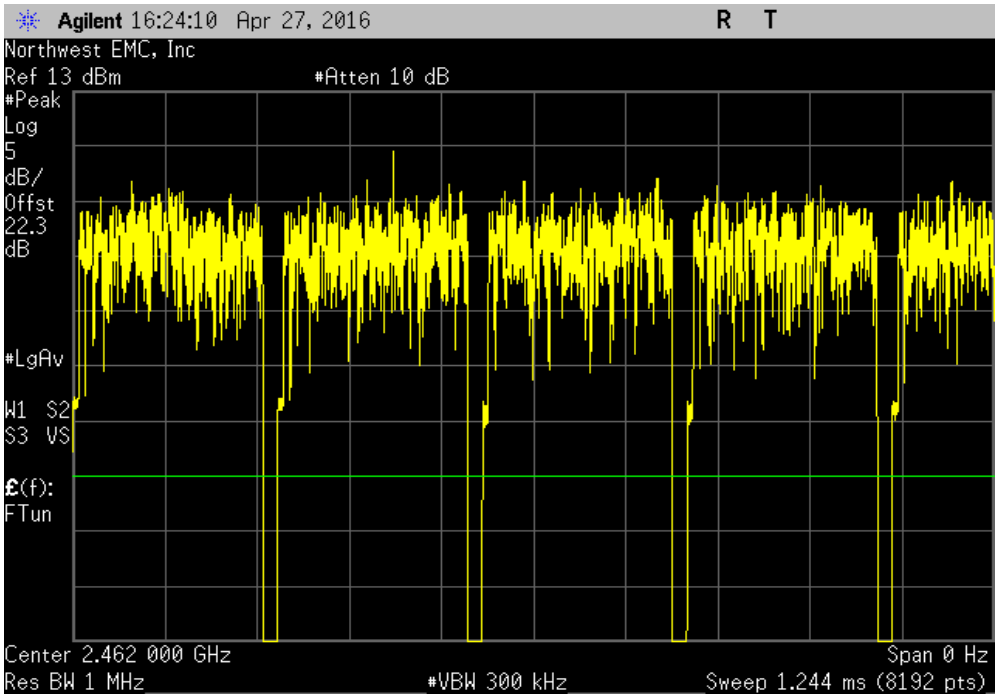
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	248.6 us	276.4 us	1	89.9	N/A	N/A



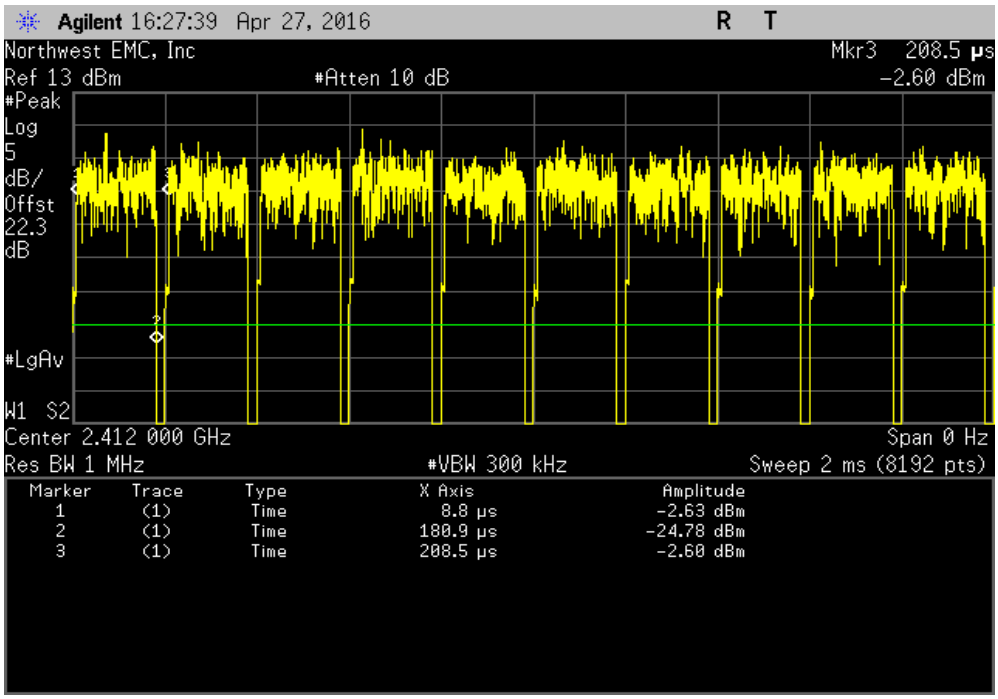
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



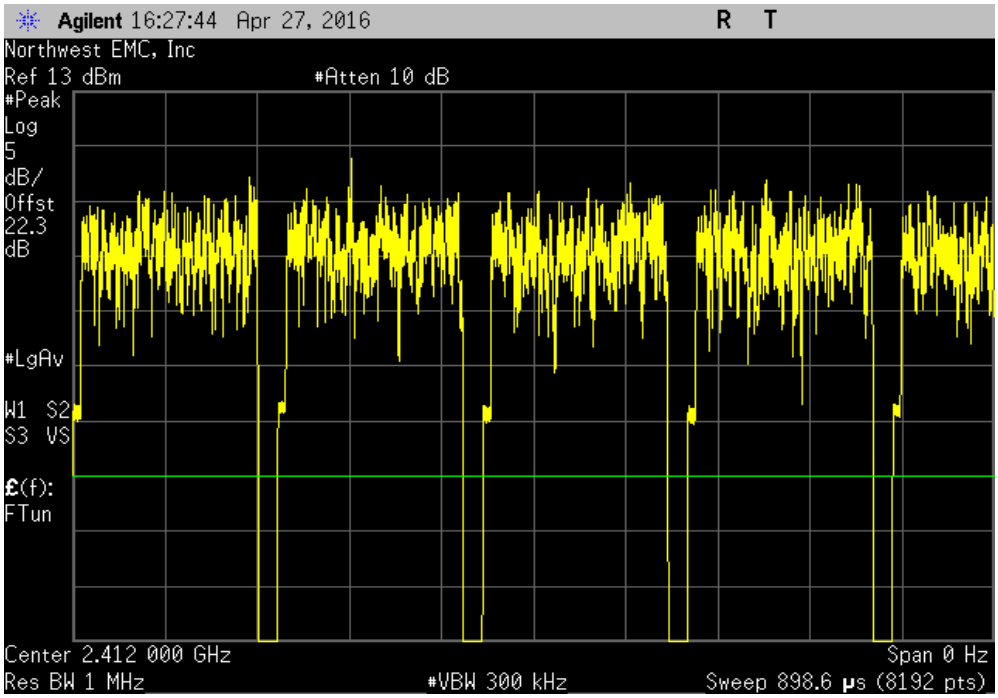
DUTY CYCLE

XMit 2015.01.14

2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	172.1 us	199.7 us	1	86.2	N/A	N/A



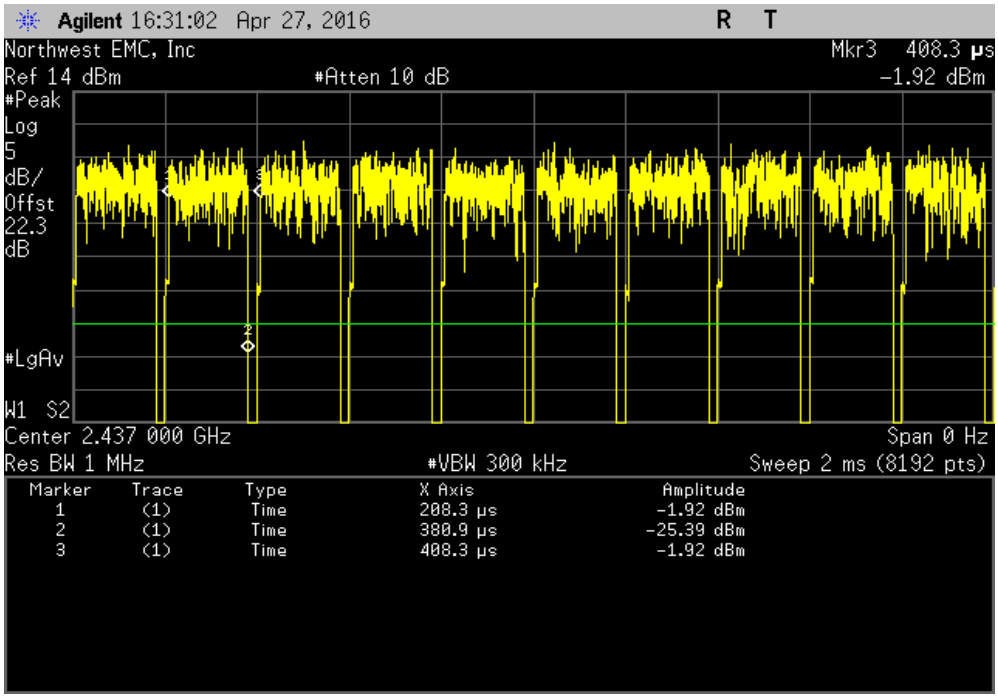
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



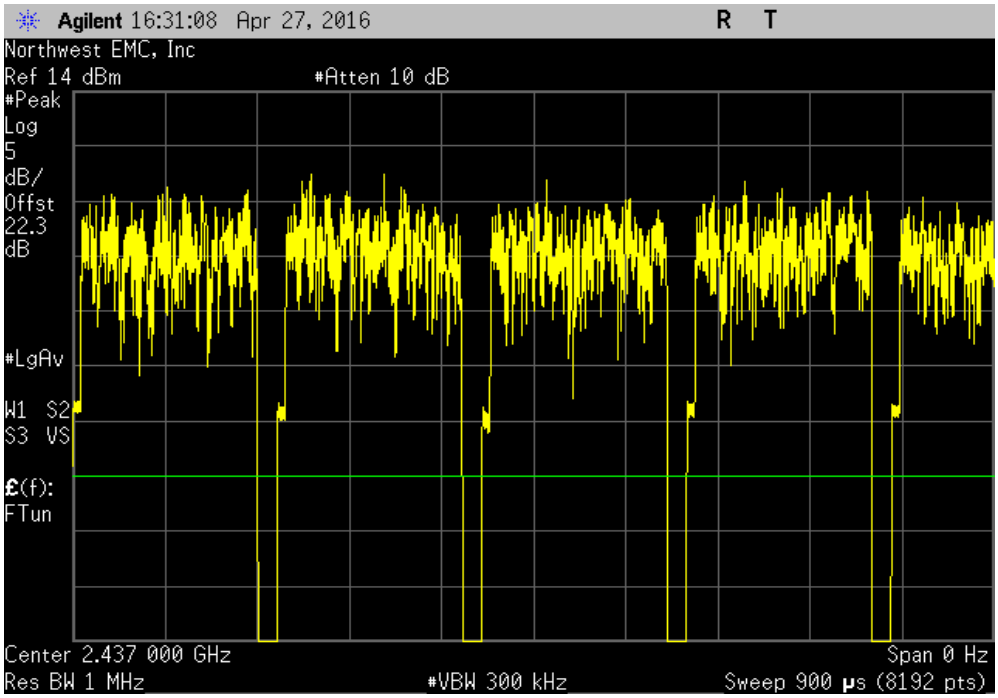
DUTY CYCLE

XMit 2015.01.14

2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	172.6 us	200 us	1	86.3	N/A	N/A



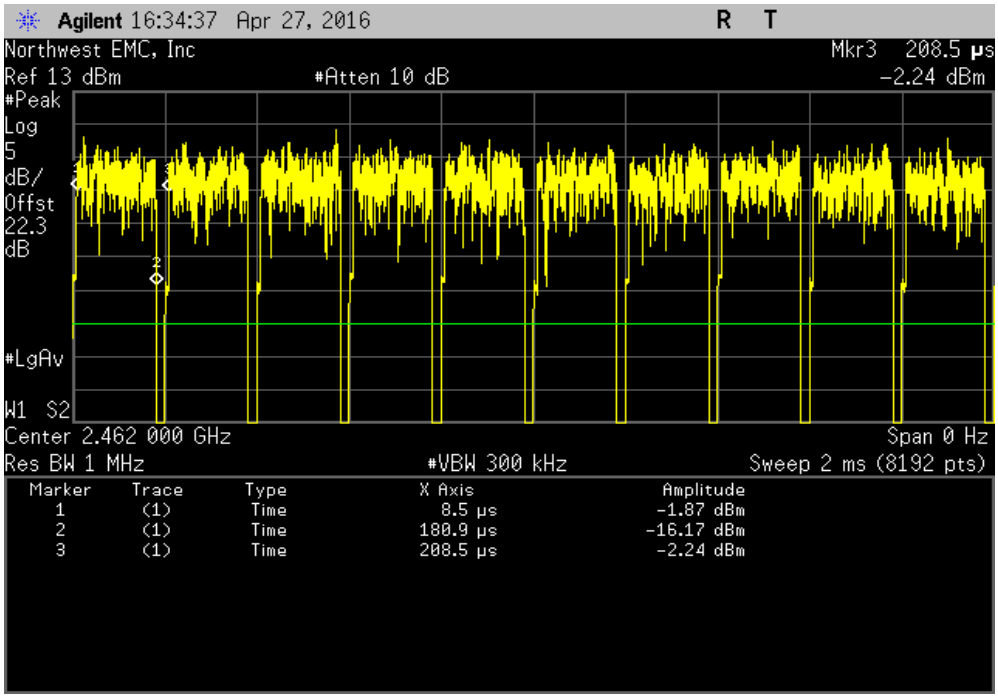
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



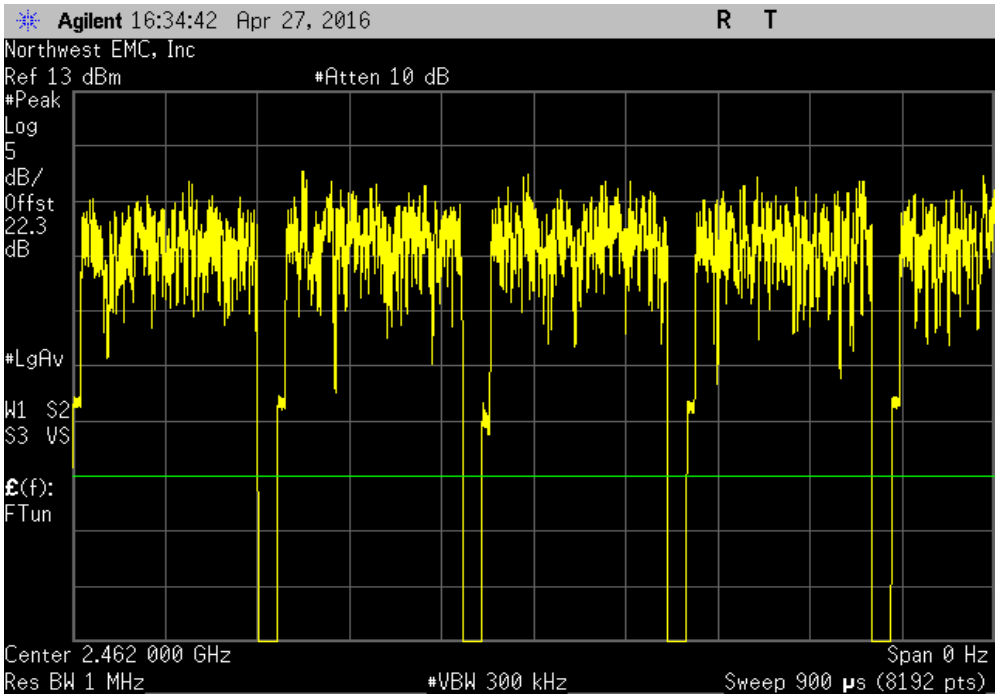
DUTY CYCLE

XMit 2015.01.14

2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	172.4 us	200 us	1	86.2	N/A	N/A



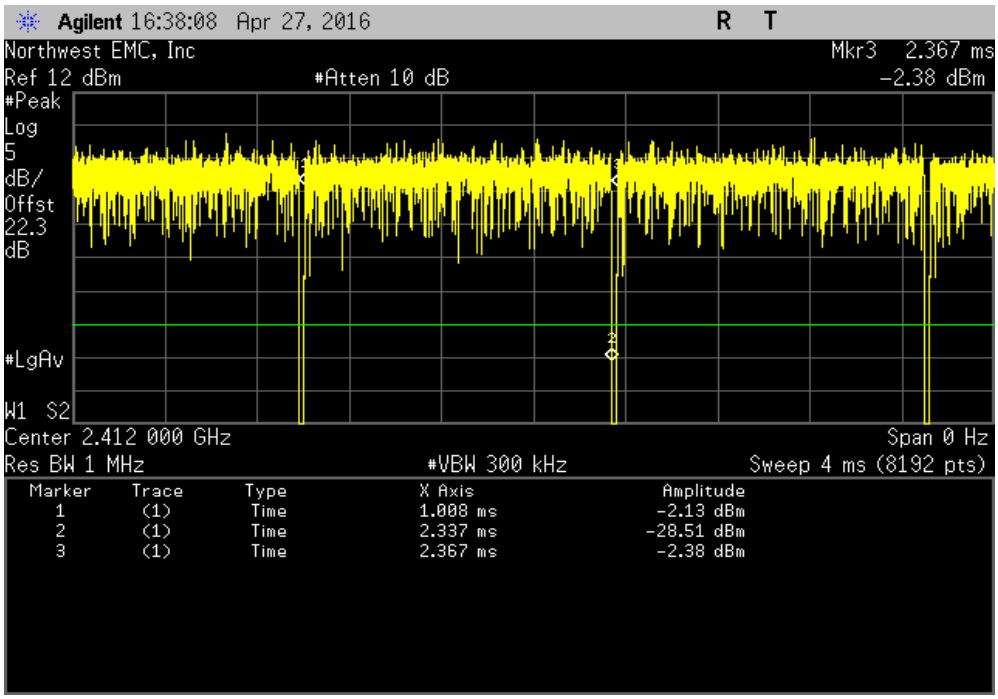
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



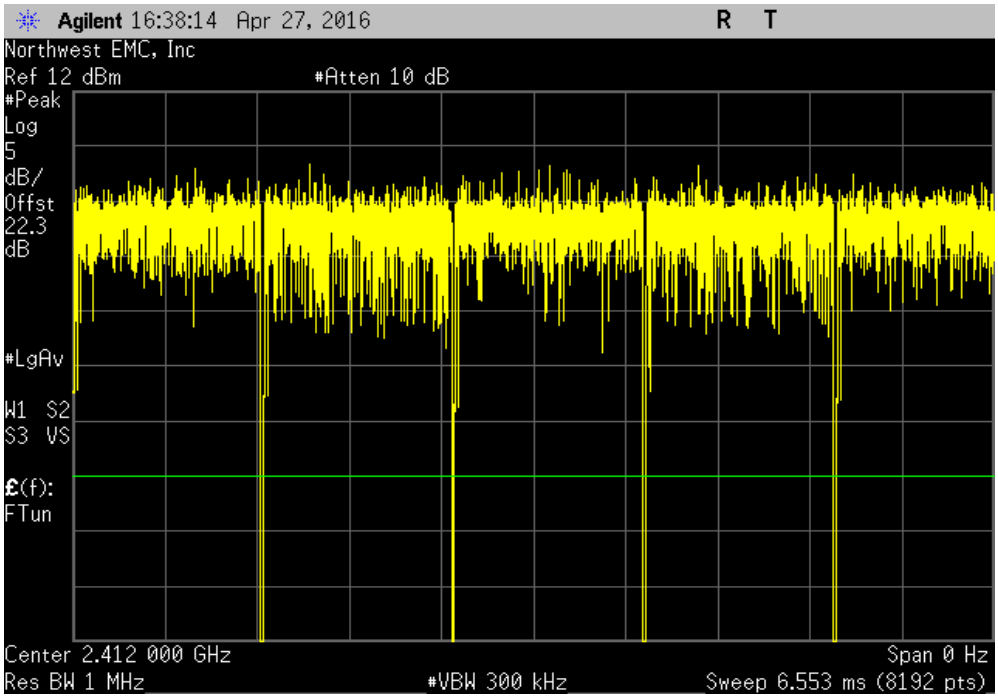
DUTY CYCLE

XMit 2015.01.14

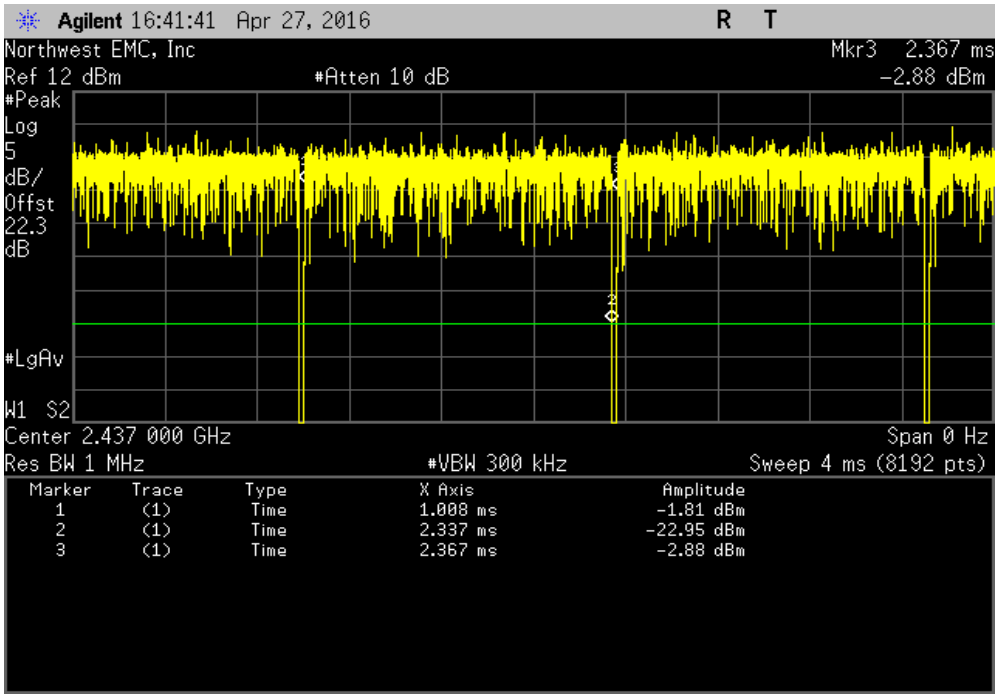
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	1.329 ms	1.359 ms	1	97.8	N/A	N/A



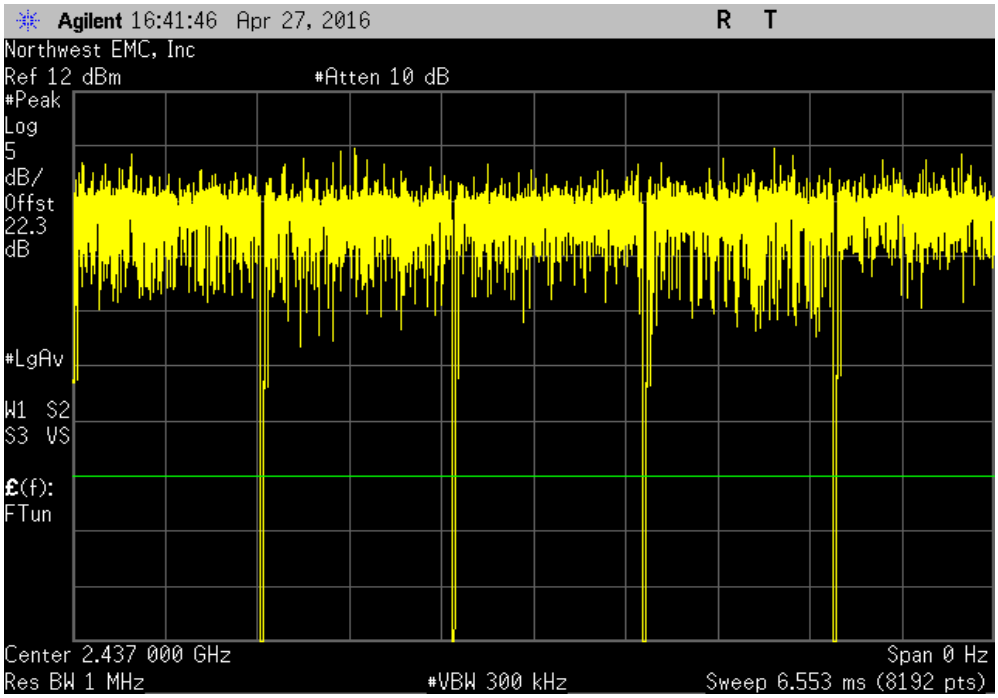
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	1.329 ms	1.359 ms	1	97.8	N/A	N/A



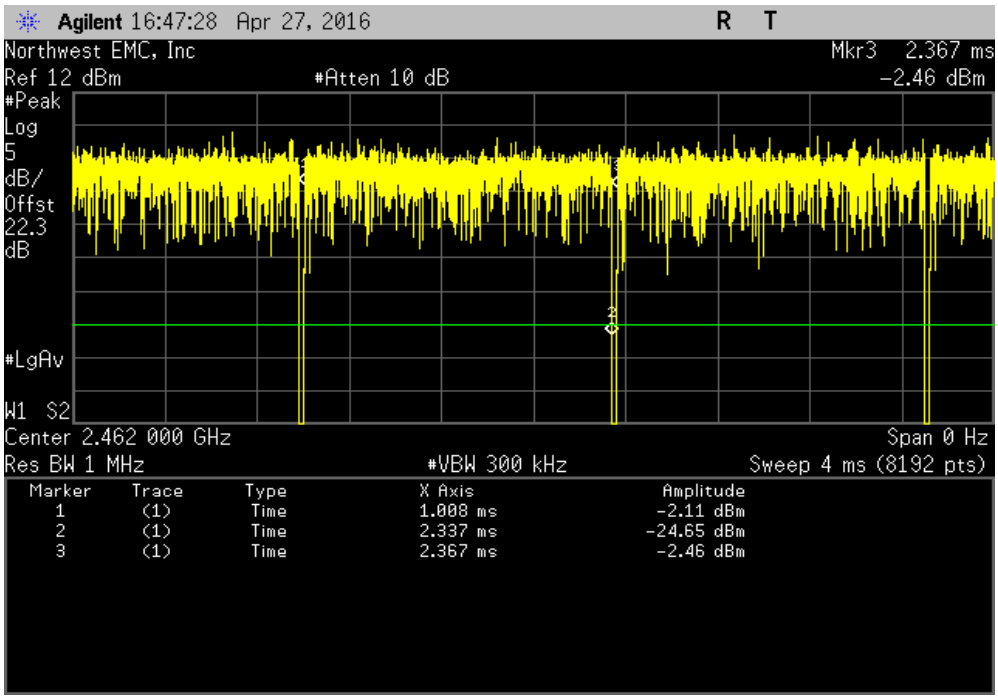
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



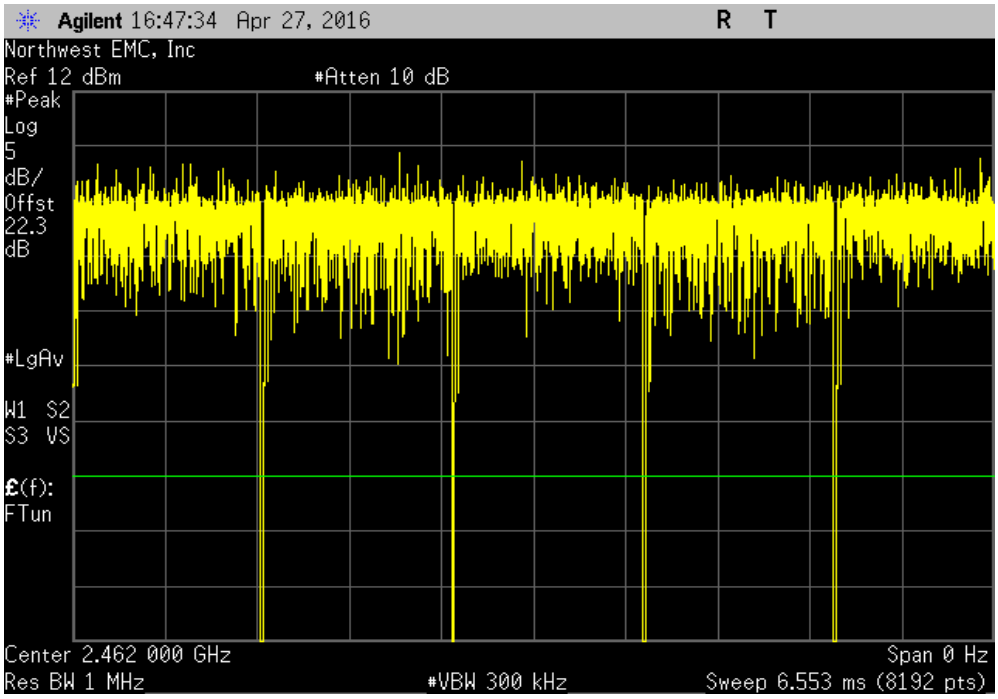
DUTY CYCLE

XMit 2015.01.14

2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS0, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	1.329 ms	1.359 ms	1	97.8	N/A	N/A



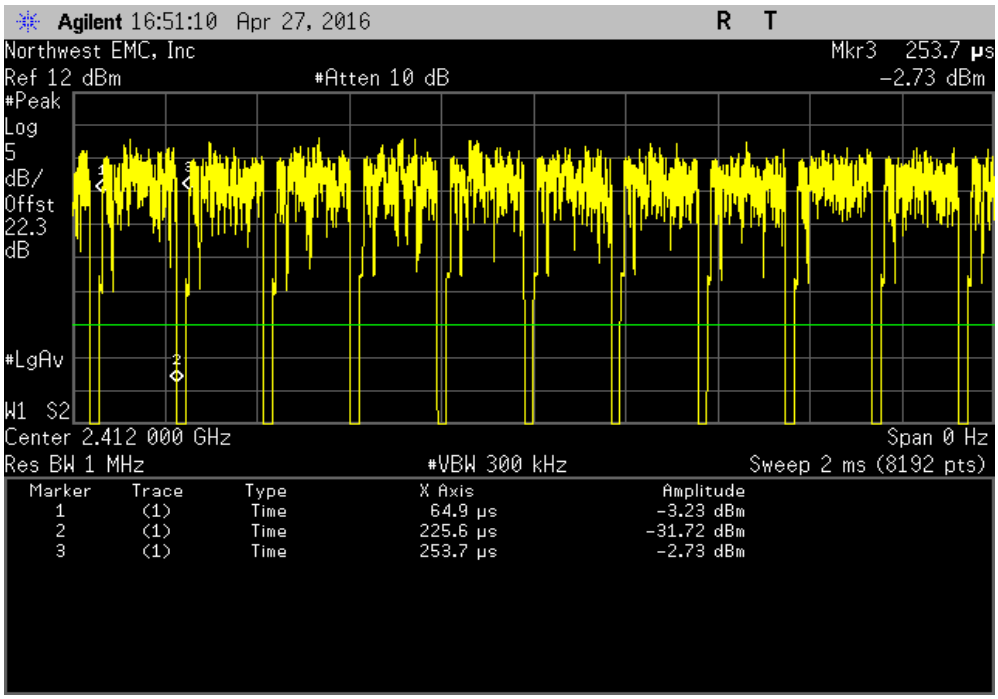
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS0, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



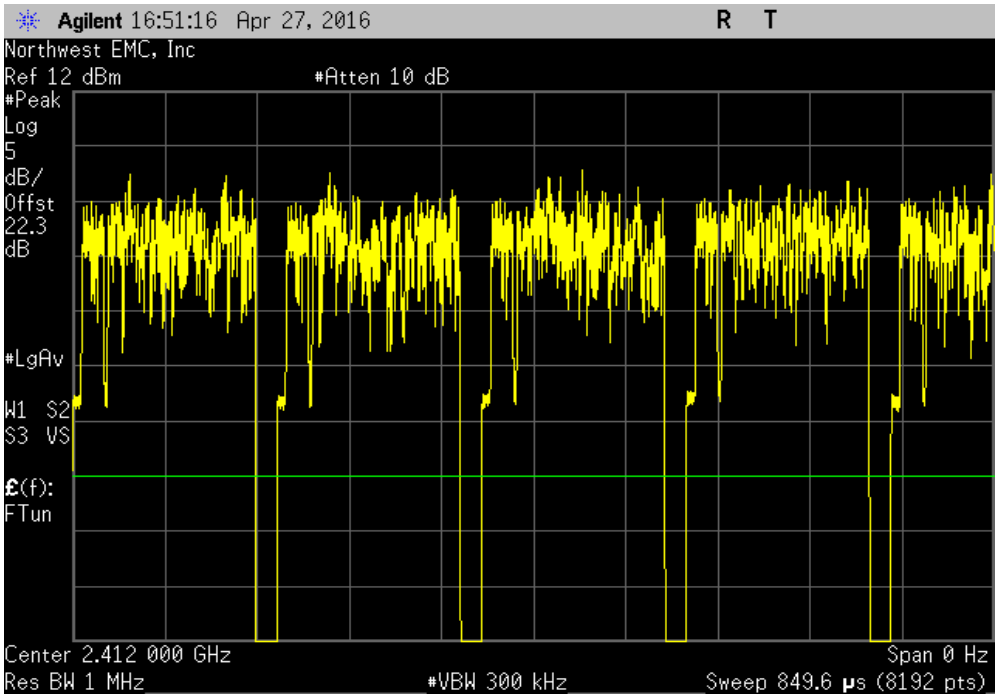
DUTY CYCLE

XMit 2015.01.14

2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	160.7 us	188.8 us	1	85.1	N/A	N/A

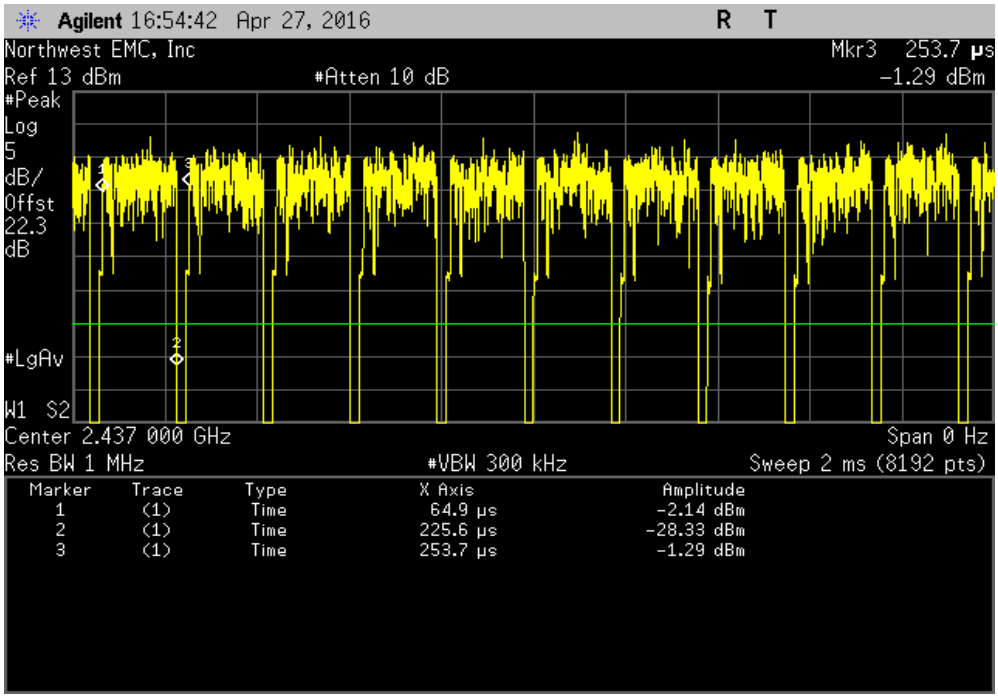


2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A

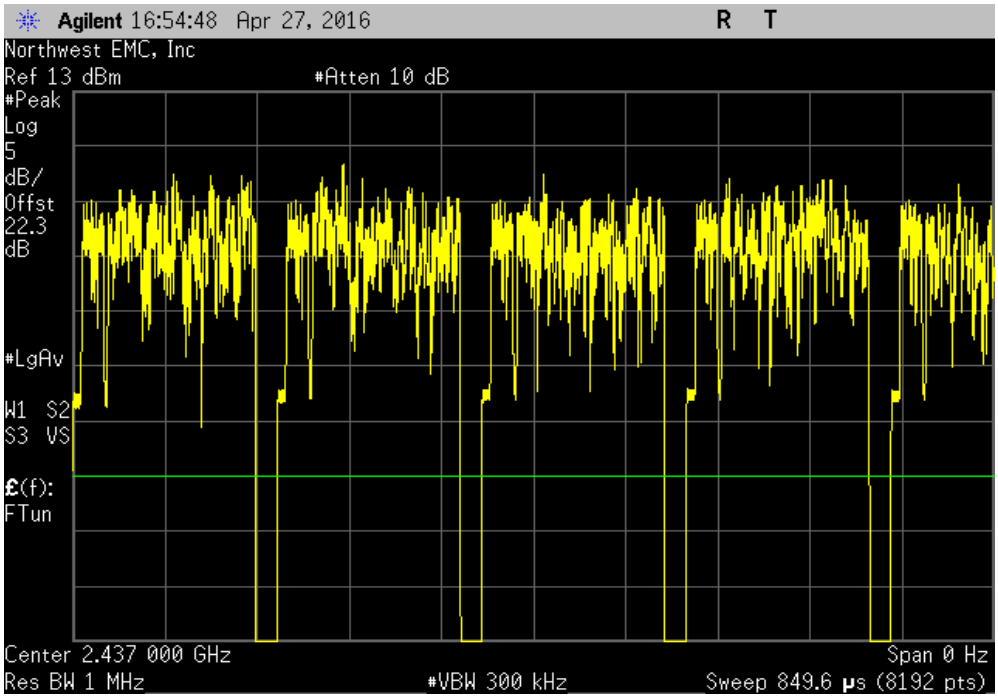


DUTY CYCLE

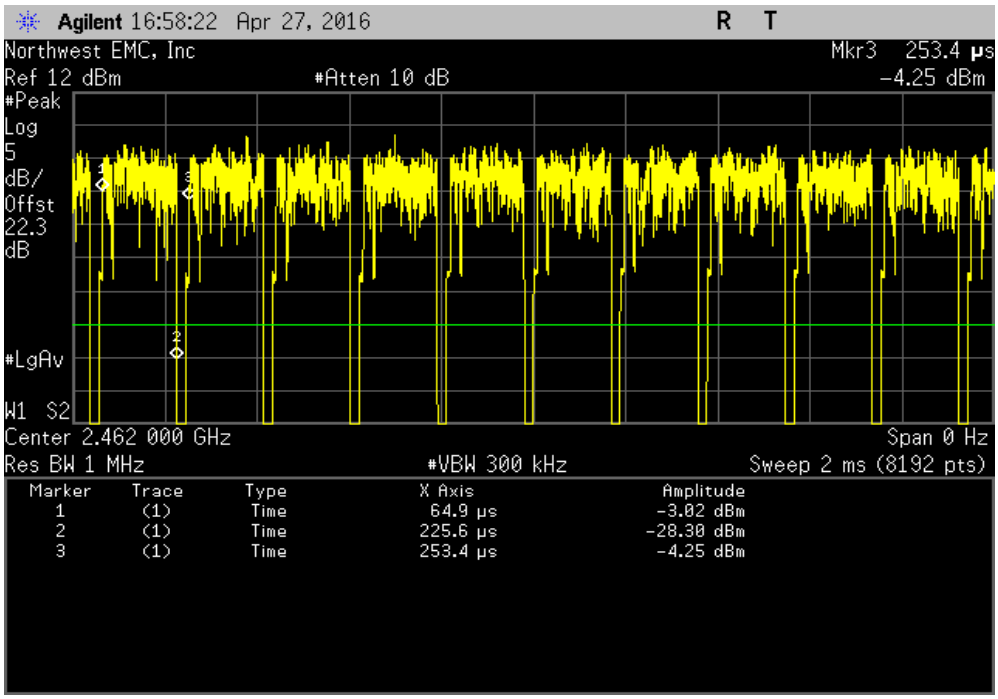
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	160.7 us	188.8 us	1	85.1	N/A	N/A



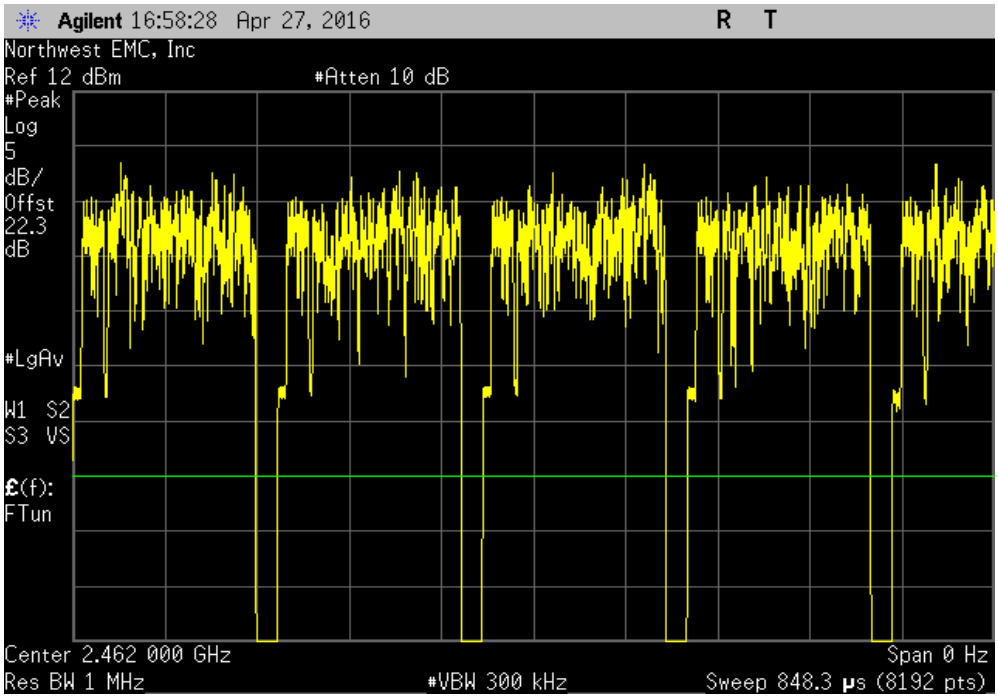
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	N/A	N/A	5	N/A	N/A	N/A



2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS7, High Channel 11, 2462 MHz						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results
	160.7 us	188.5 us	1	85.3	N/A	N/A



2400 MHz - 2483.5 MHz Band, Antenna Port 1, 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



OCCUPIED BANDWIDTH

XMit 2015.01.14

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 (mo)
Generator - Signal	Agilent	N5182A	TIF	8/12/2014	36
Attenuator	S.M. Electronics	SA26B-20	RFW	2/26/2016	12
Block - DC	Fairview Microwave	SD3379	AMI	9/18/2015	12
Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNU	9/18/2015	12
Analyzer - Spectrum Analyzer	Agilent	E4440A	AAX	3/24/2016	12

TEST DESCRIPTION

The 6dB DTS bandwidth was measured using 100 kHz resolution bandwidth and 300 kHz video bandwidth. The 99.0% occupied bandwidth was also measured at the same time.

The EUT was set to the channels and modes listed in the datasheet. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer.

OCCUPIED BANDWIDTH

NORTHWEST EMC

XMit 2015.01.14

EUT:	TH6320WF2003			**Work Order:**	HNYW0156
Serial Number:	00D02D95E598			**Date:**	04/27/16
Customer:	Honeywell, Automation and Control Solutions			**Temperature:**	21.3°C
Attendees:	None			**Humidity:**	31%
Project:	None			**Barometric Pres.:**	1014.8
Tested by:	Cole Ghizzone	**Power:**	110VAC/60Hz	**Job Site:**	MN08

TEST SPECIFICATIONS	Test Method
FCC 15.247:2016	ANSI C63.10:2013

COMMENTS

The EUT was tested using the power settings provided by the manufacturer. These settings can be found in the Power Table.

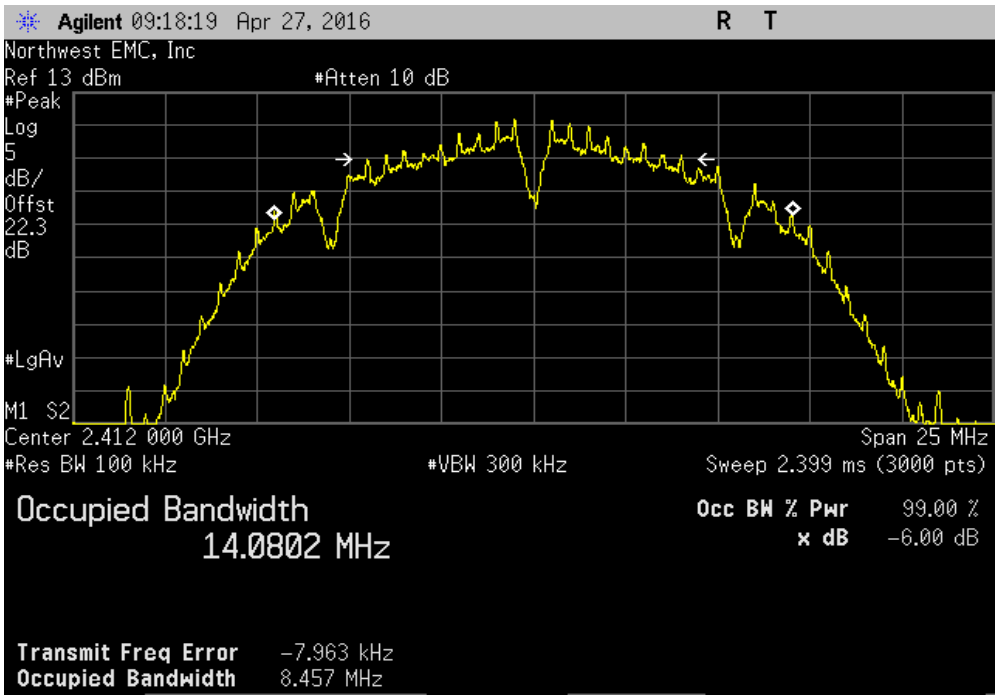
DEVIATIONS FROM TEST STANDARD

None

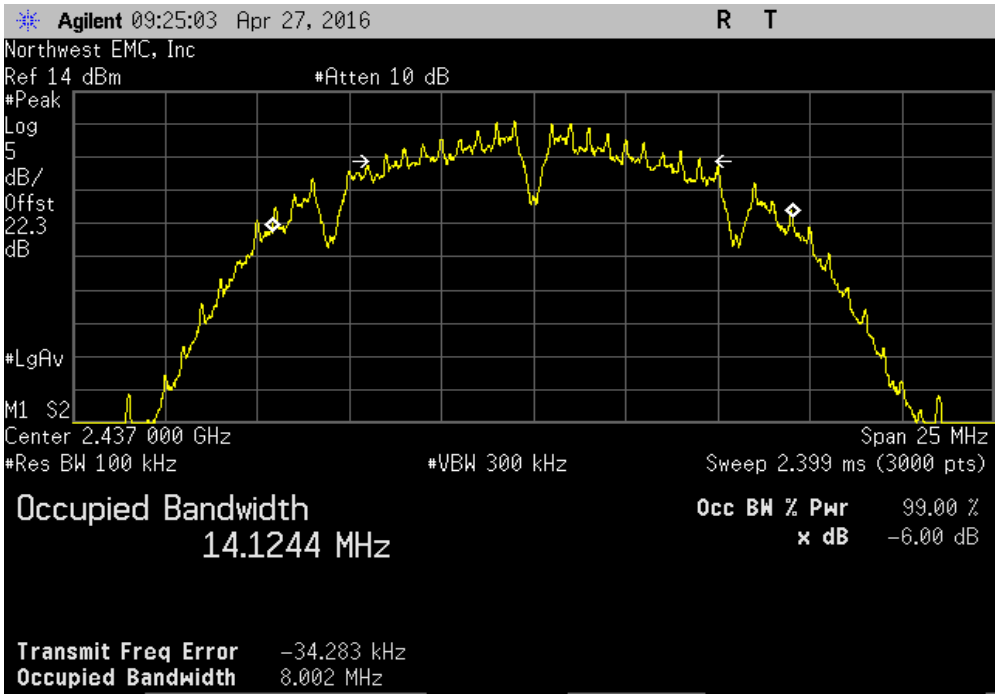
Configuration #	2	Signature

	Value	Limit (>)	Result
2400 MHz - 2483.5 MHz Band			
Antenna Port 0			
802.11(b) 1 Mbps			
Low Channel 1, 2412 MHz	8.457 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	8.002 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	8.539 MHz	500 kHz	Pass
802.11(b) 11 Mbps			
Low Channel 1, 2412 MHz	8.223 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	7.535 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	9.295 MHz	500 kHz	Pass
802.11(g) 6 Mbps			
Low Channel 1, 2412 MHz	15.008 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	15.017 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	15.438 MHz	500 kHz	Pass
802.11(g) 36 Mbps			
Low Channel 1, 2412 MHz	15.59 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	15.277 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	15.091 MHz	500 kHz	Pass
802.11(g) 54 Mbps			
Low Channel 1, 2412 MHz	15.368 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	15.109 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	15.498 MHz	500 kHz	Pass
802.11(n) MCS0			
Low Channel 1, 2412 MHz	14.718 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	15.097 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	15.105 MHz	500 kHz	Pass
802.11(n) MCS7			
Low Channel 1, 2412 MHz	15.302 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	15.125 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	15.119 MHz	500 kHz	Pass
Antenna Port 1			
802.11(b) 1 Mbps			
Low Channel 1, 2412 MHz	8.082 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	8.851 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	9.001 MHz	500 kHz	Pass
802.11(b) 11 Mbps			
Low Channel 1, 2412 MHz	9.15 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	8.952 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	7.666 MHz	500 kHz	Pass
802.11(g) 6 Mbps			
Low Channel 1, 2412 MHz	15.168 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	14.593 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	15.048 MHz	500 kHz	Pass
802.11(g) 36 Mbps			
Low Channel 1, 2412 MHz	15.078 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	15.12 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	15.121 MHz	500 kHz	Pass
802.11(g) 54 Mbps			
Low Channel 1, 2412 MHz	15.364 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	15.088 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	15.144 MHz	500 kHz	Pass
802.11(n) MCS0			
Low Channel 1, 2412 MHz	14.957 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	15.05 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	14.762 MHz	500 kHz	Pass
802.11(n) MCS7			
Low Channel 1, 2412 MHz	15.396 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	15.122 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	15.4 MHz	500 kHz	Pass

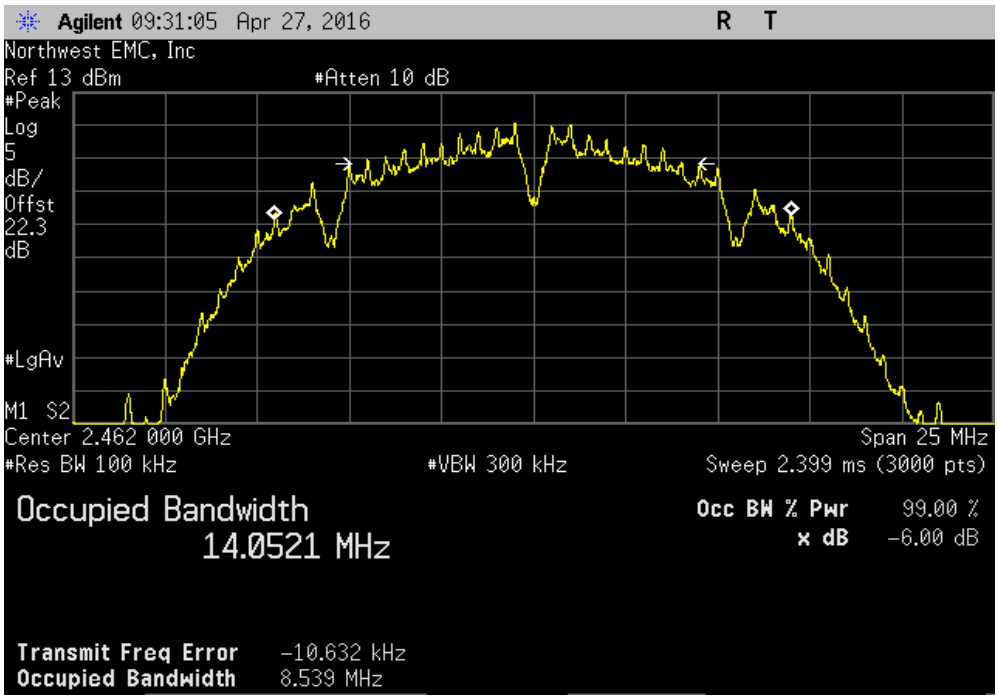
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				8.457 MHz	500 kHz	Pass



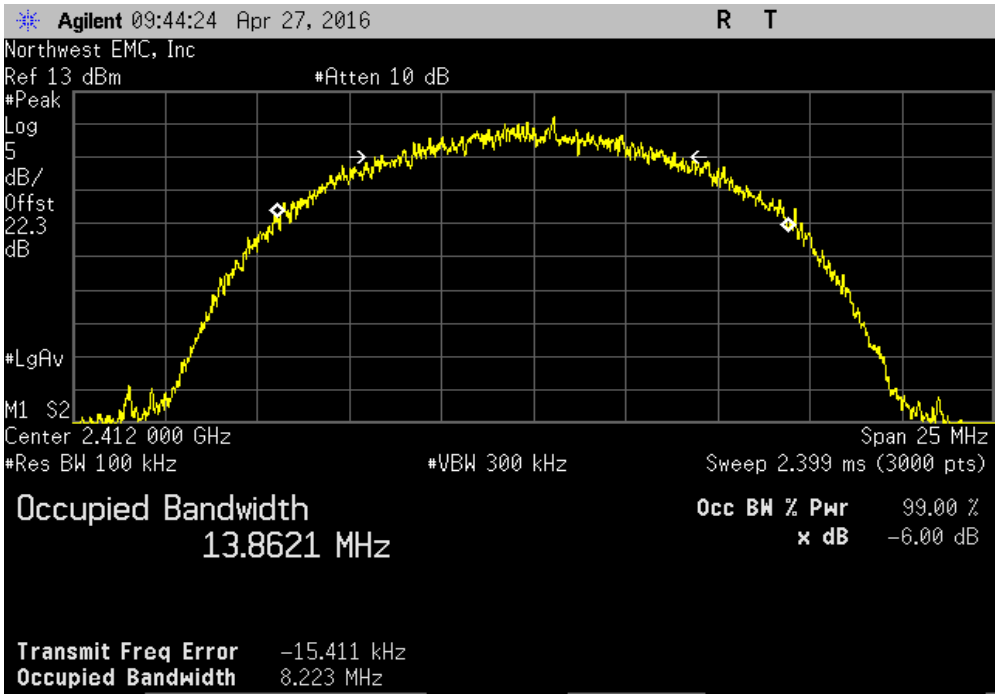
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				8.002 MHz	500 kHz	Pass



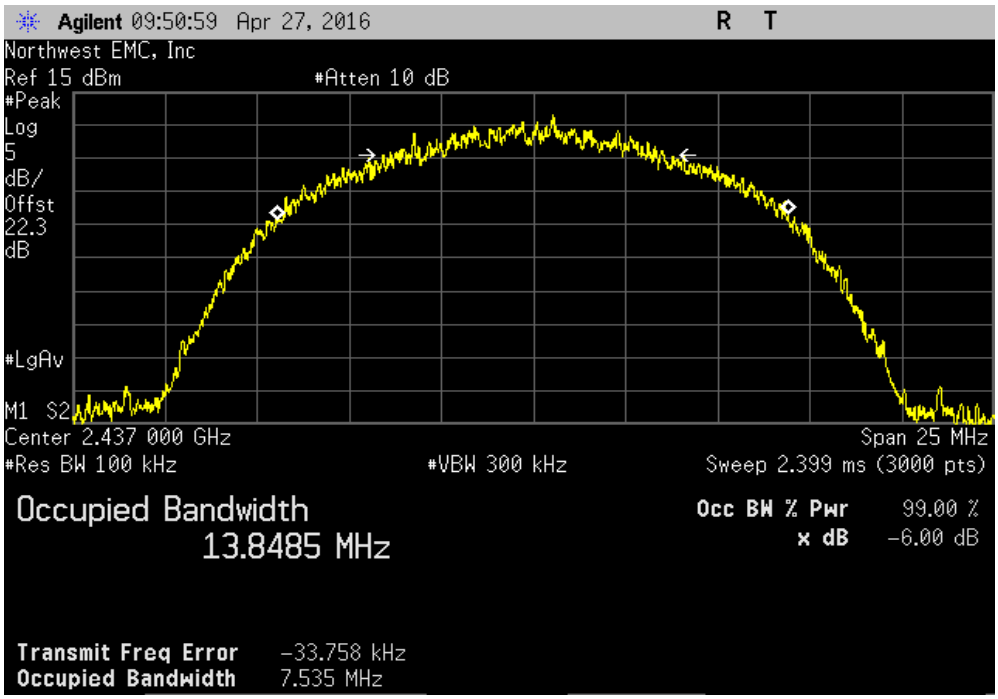
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				8.539 MHz	500 kHz	Pass



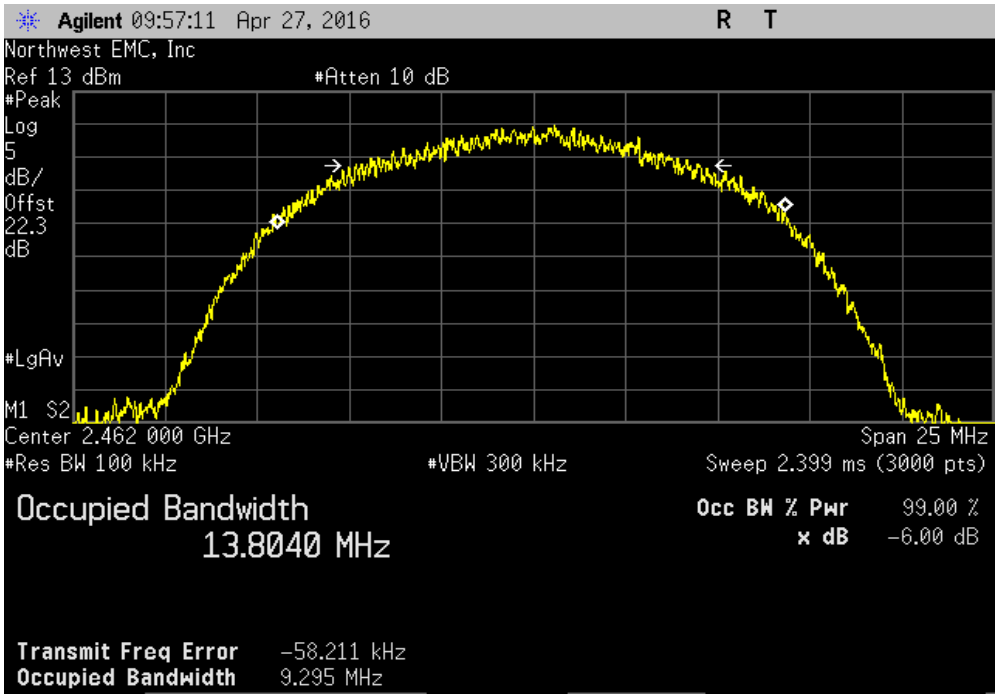
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				8.223 MHz	500 kHz	Pass



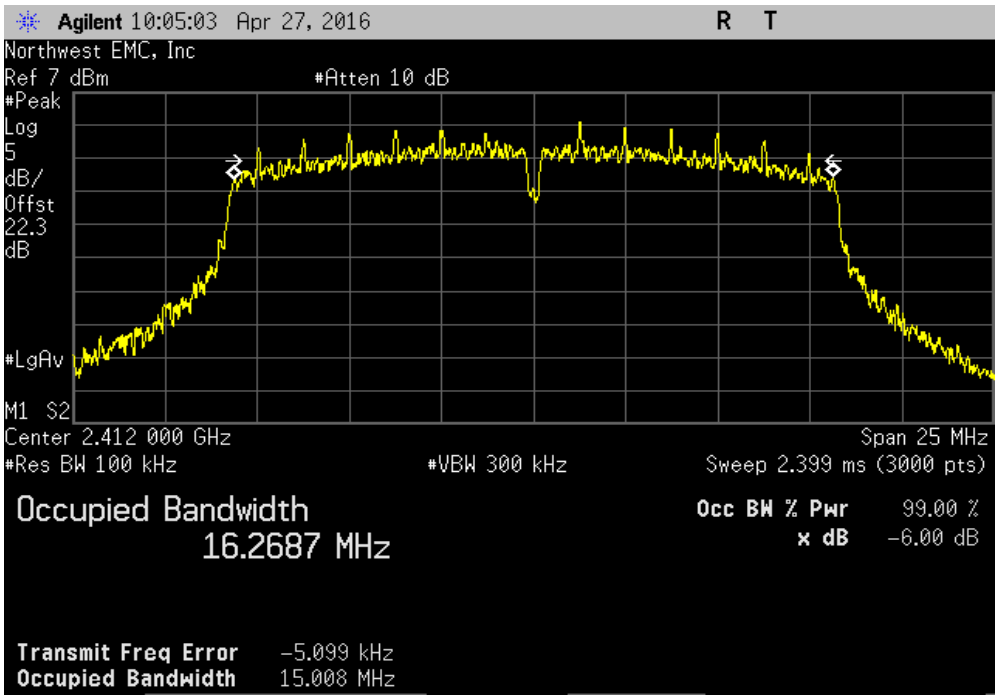
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				7.535 MHz	500 kHz	Pass



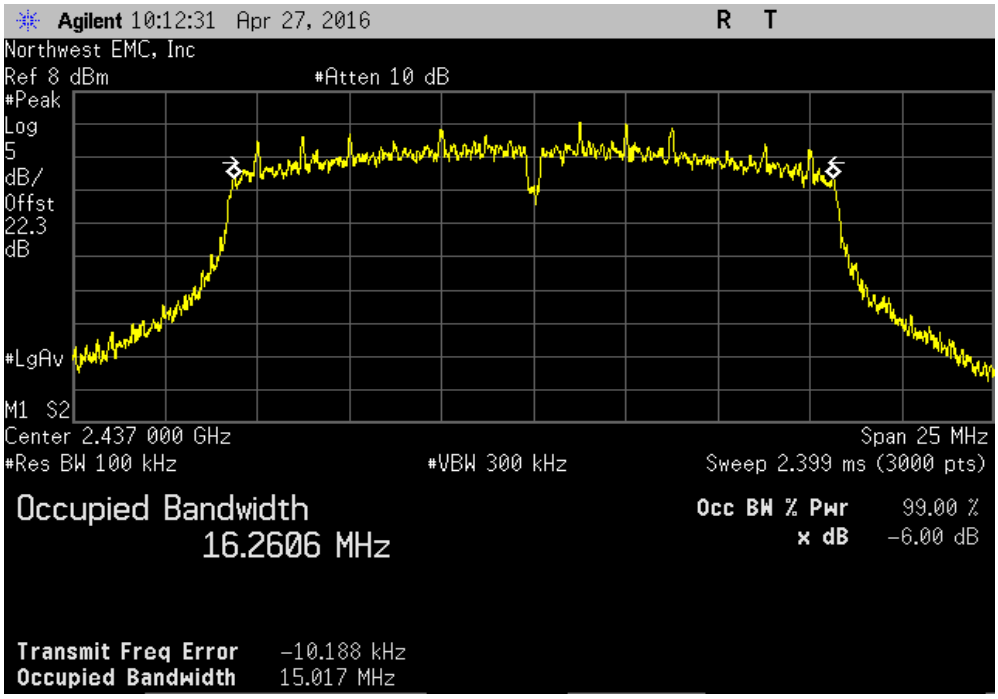
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				9.295 MHz	500 kHz	Pass



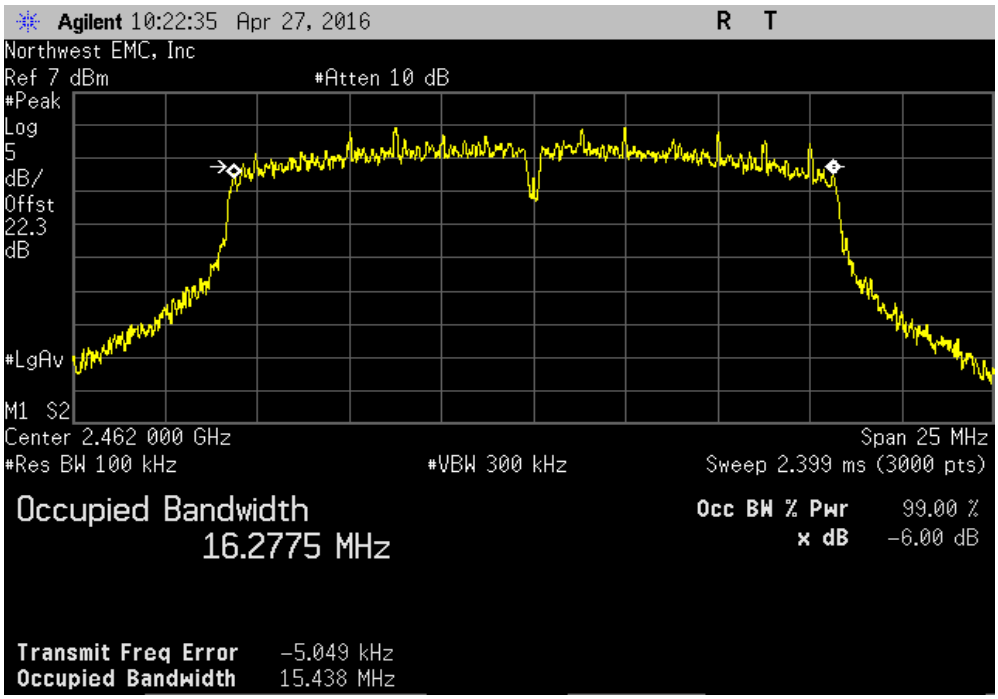
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				15.008 MHz	500 kHz	Pass



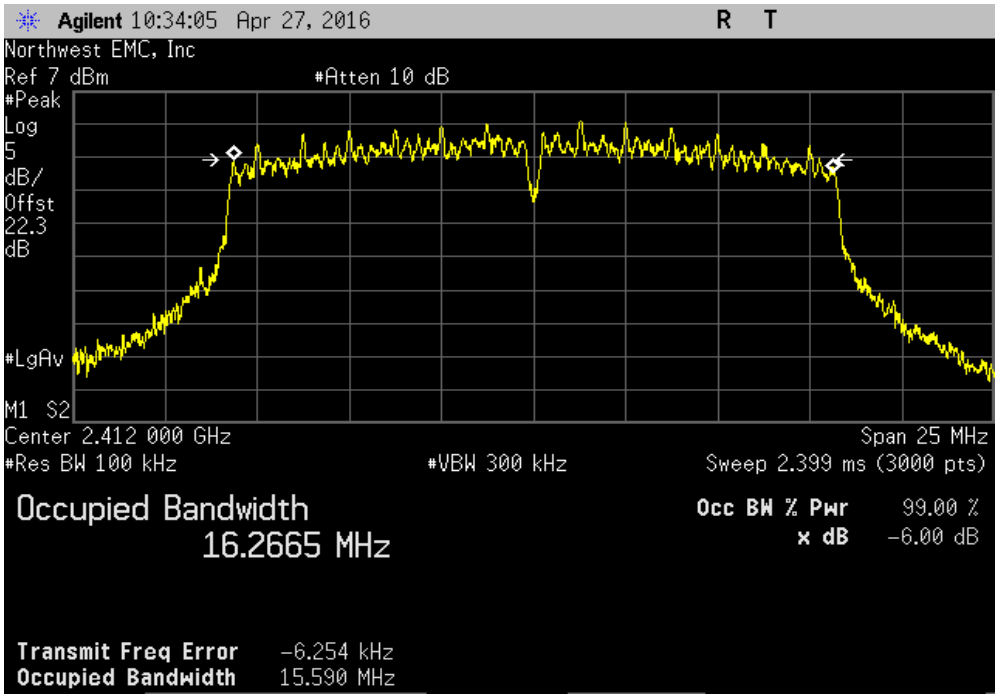
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				15.017 MHz	500 kHz	Pass



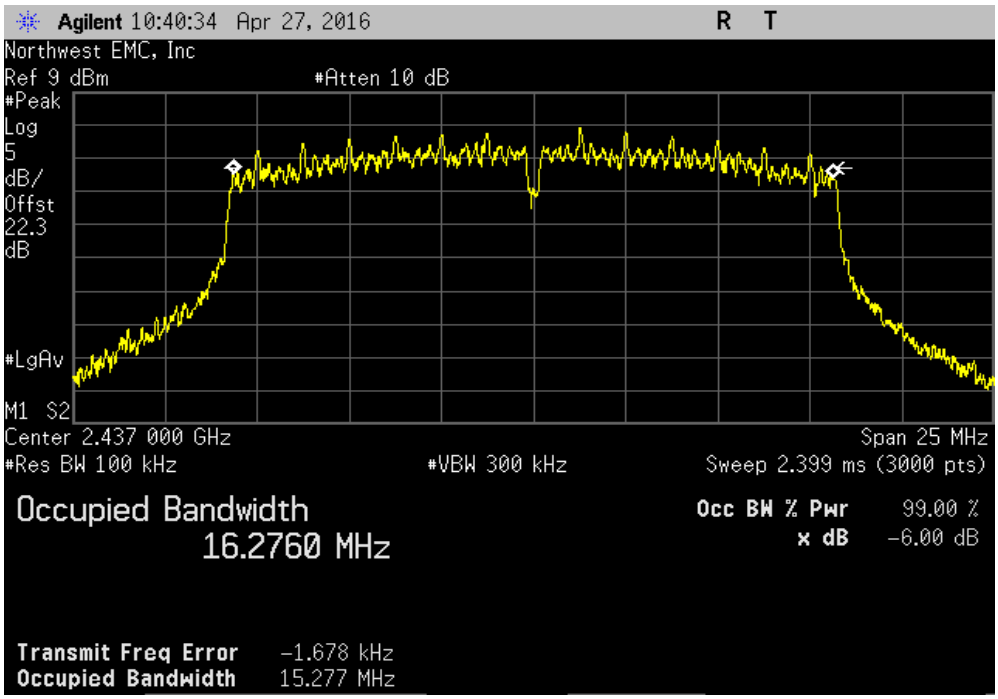
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				15.438 MHz	500 kHz	Pass



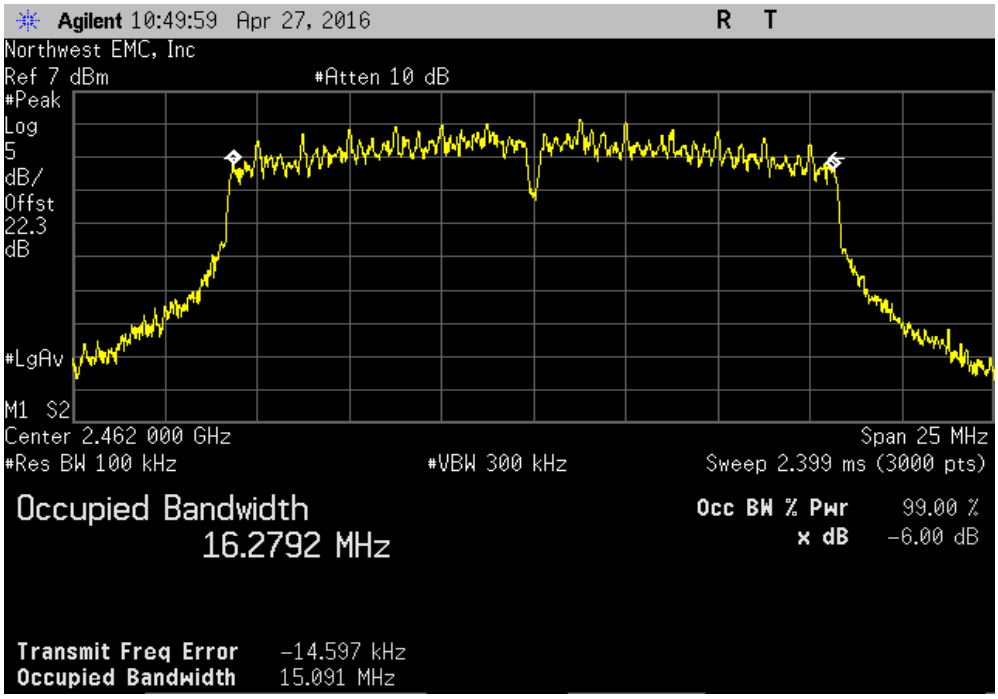
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				15.59 MHz	500 kHz	Pass



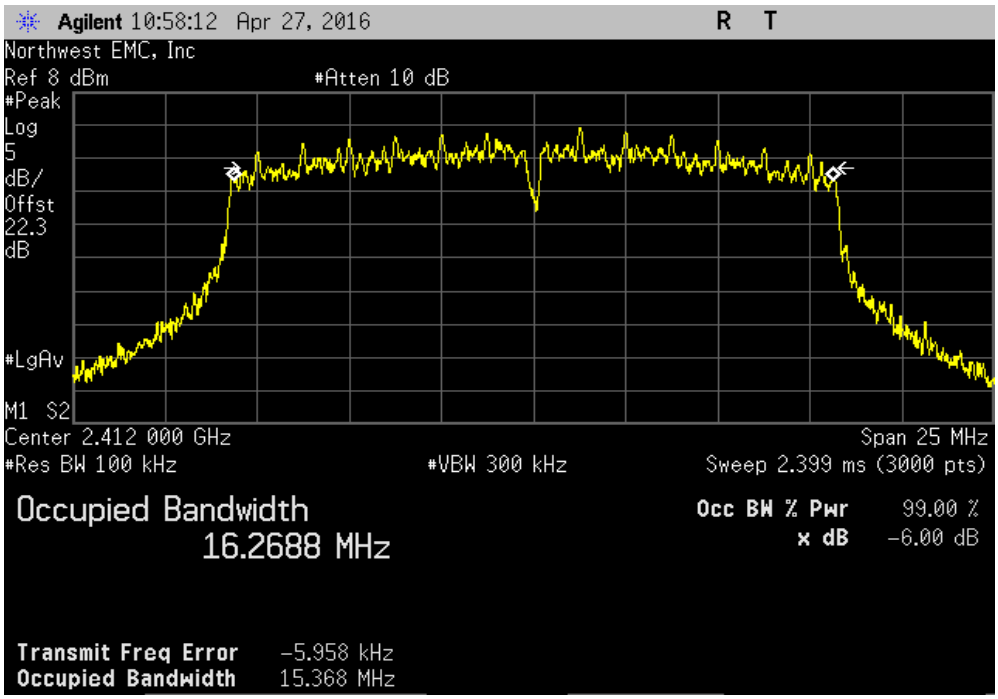
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				15.277 MHz	500 kHz	Pass



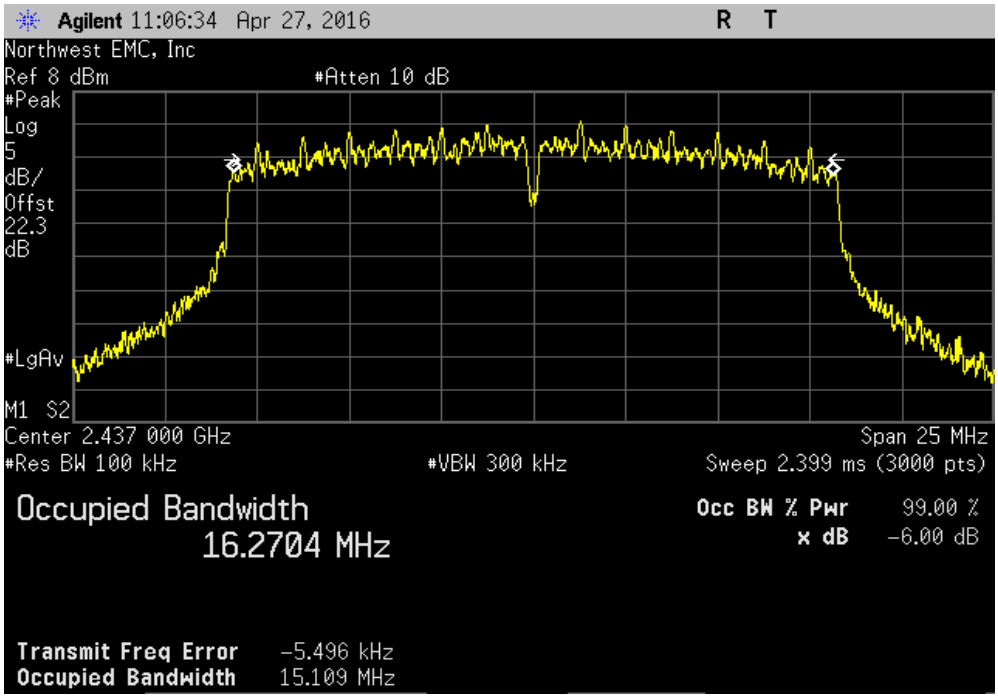
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				15.091 MHz	500 kHz	Pass



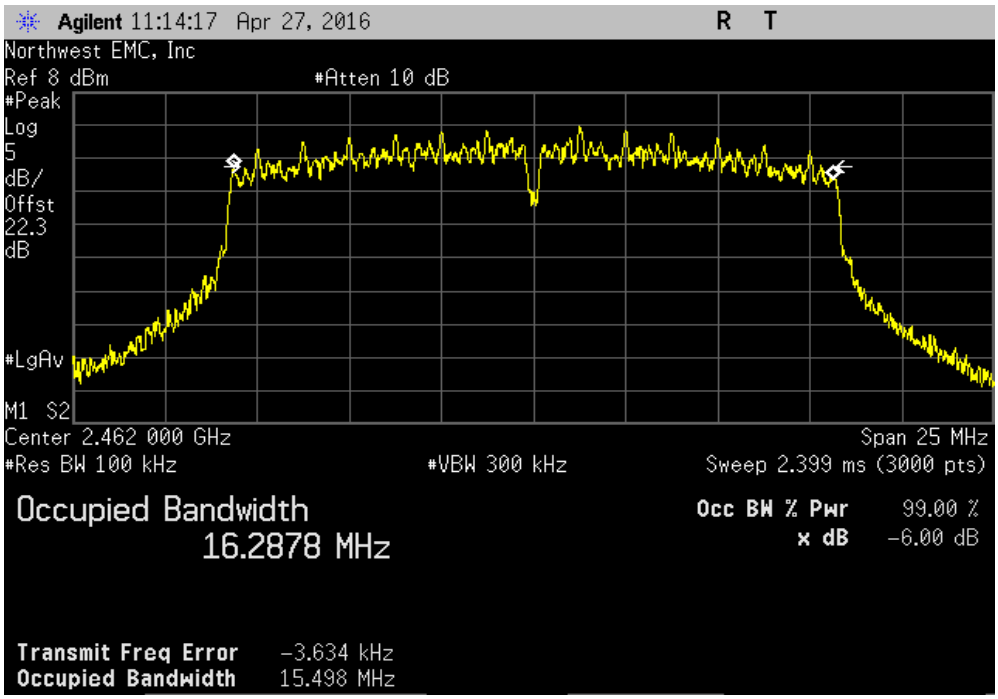
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				15.368 MHz	500 kHz	Pass



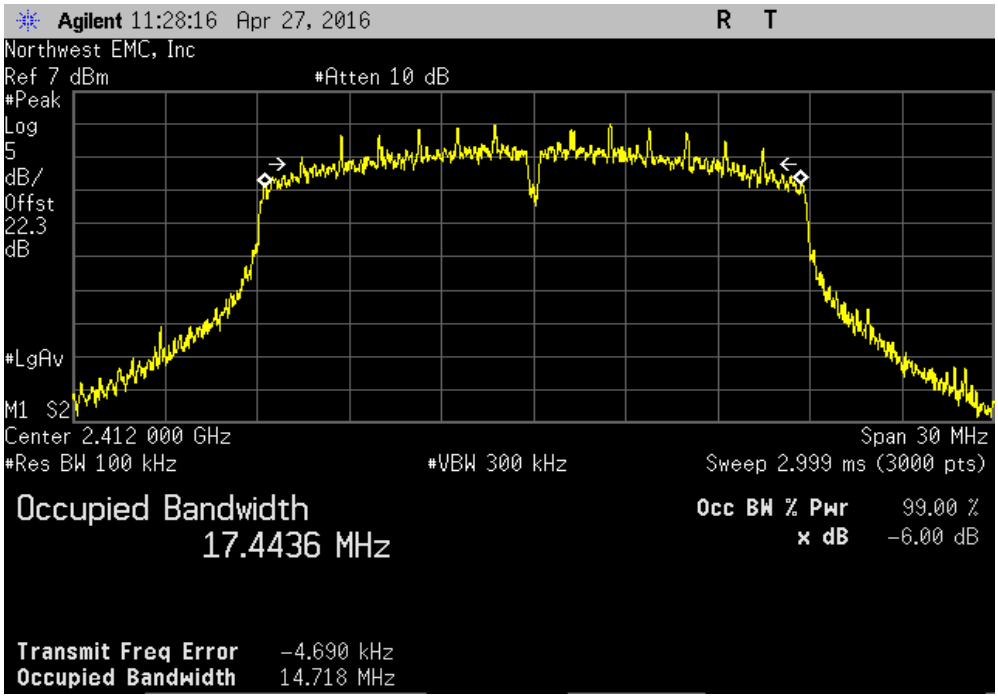
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				15.109 MHz	500 kHz	Pass



2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				15.498 MHz	500 kHz	Pass



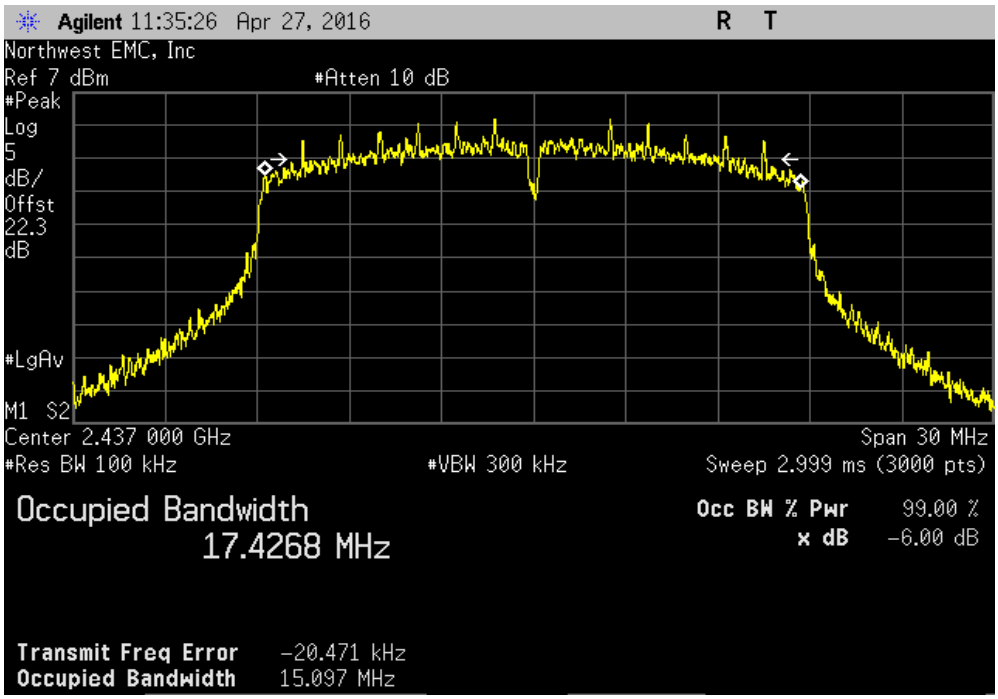
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				14.718 MHz	500 kHz	Pass



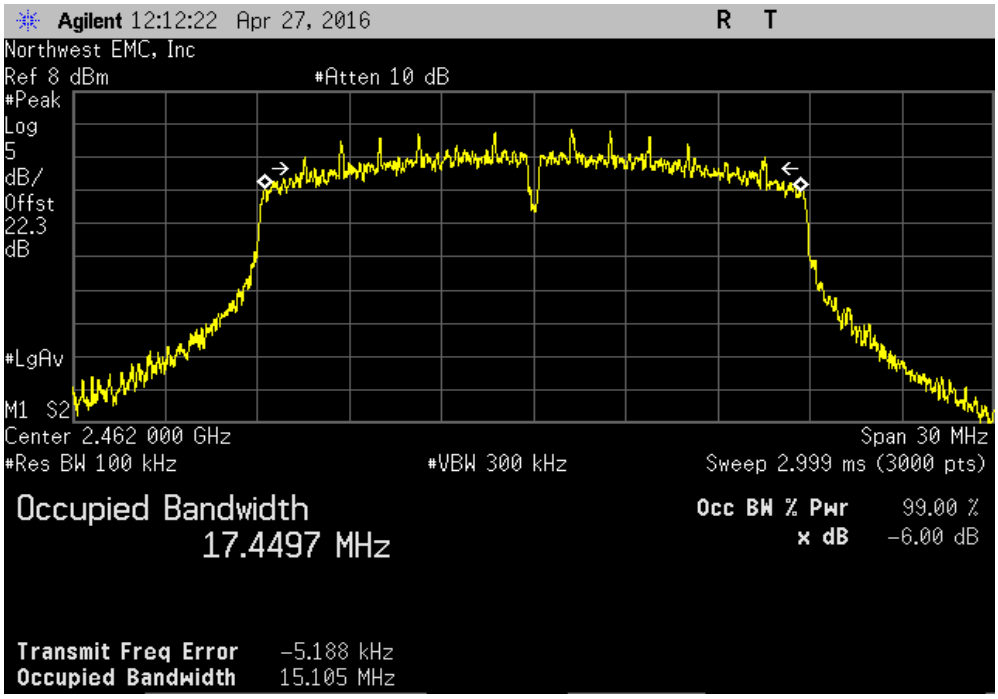
OCCUPIED BANDWIDTH

XMit 2015.01.14

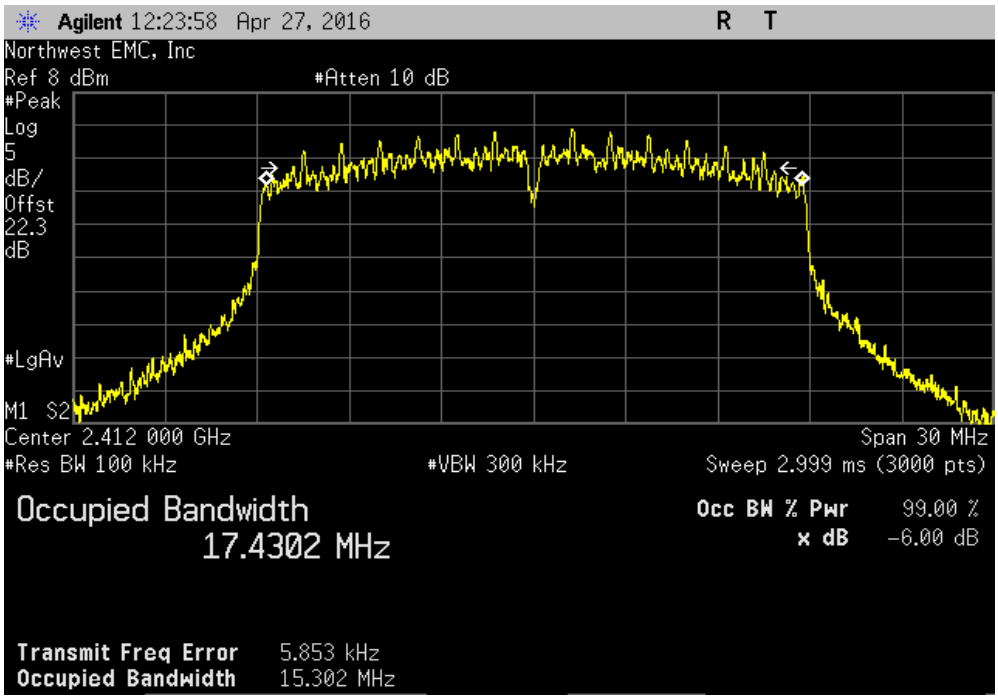
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				15.097 MHz	500 kHz	Pass



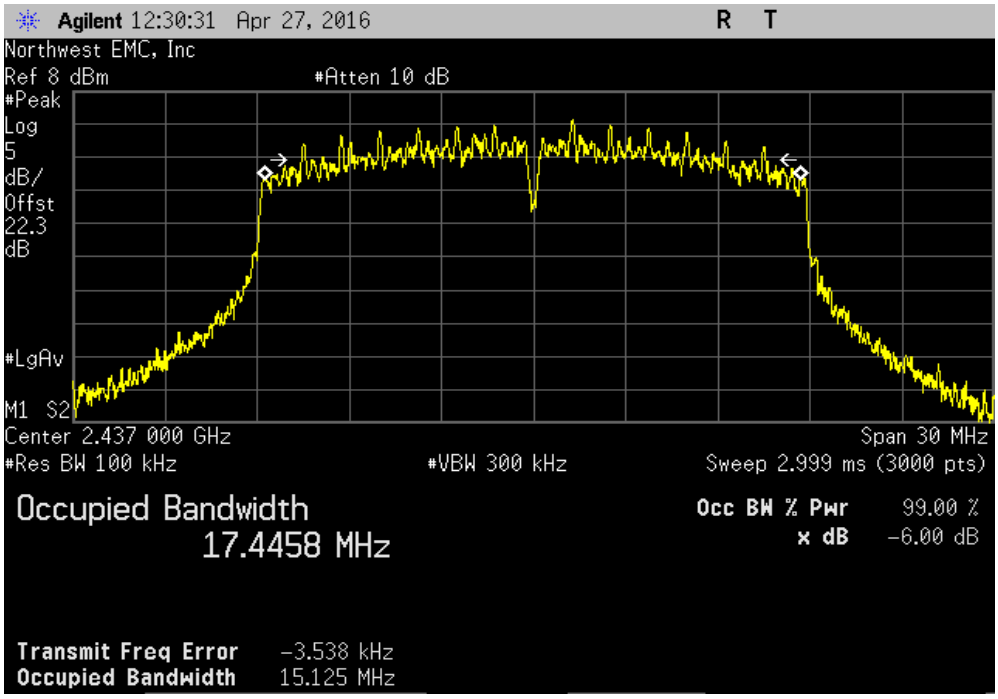
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				15.105 MHz	500 kHz	Pass



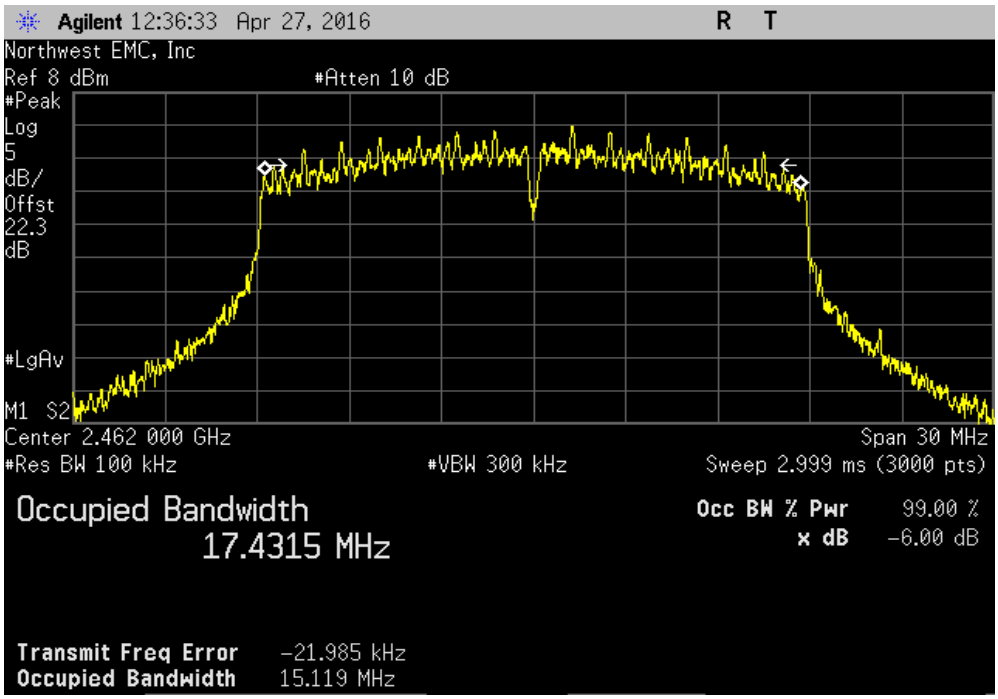
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				15.302 MHz	500 kHz	Pass



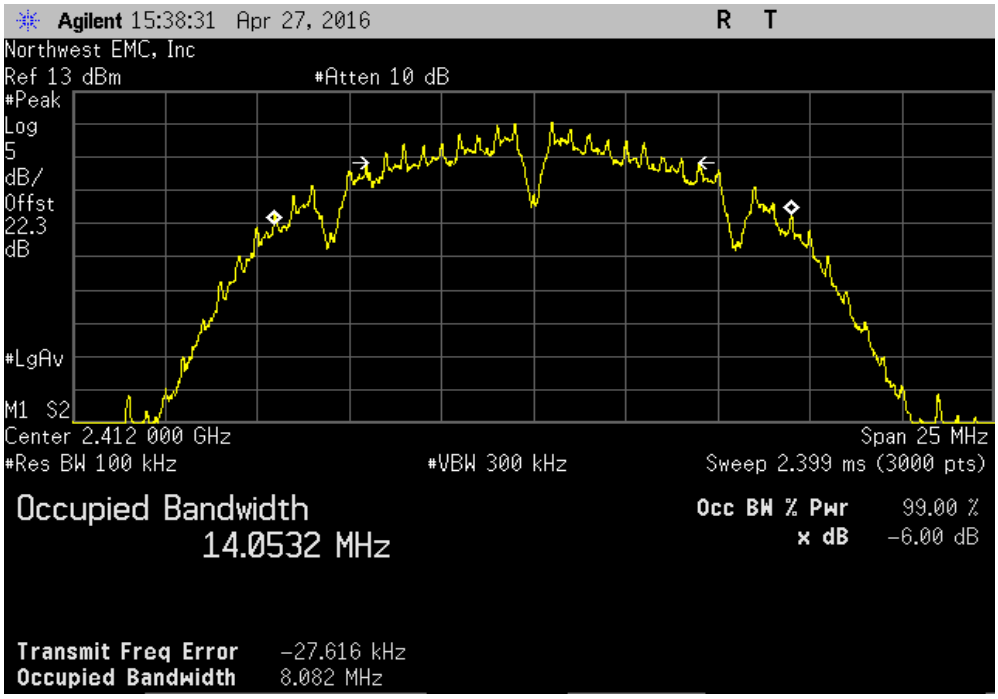
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				15.125 MHz	500 kHz	Pass



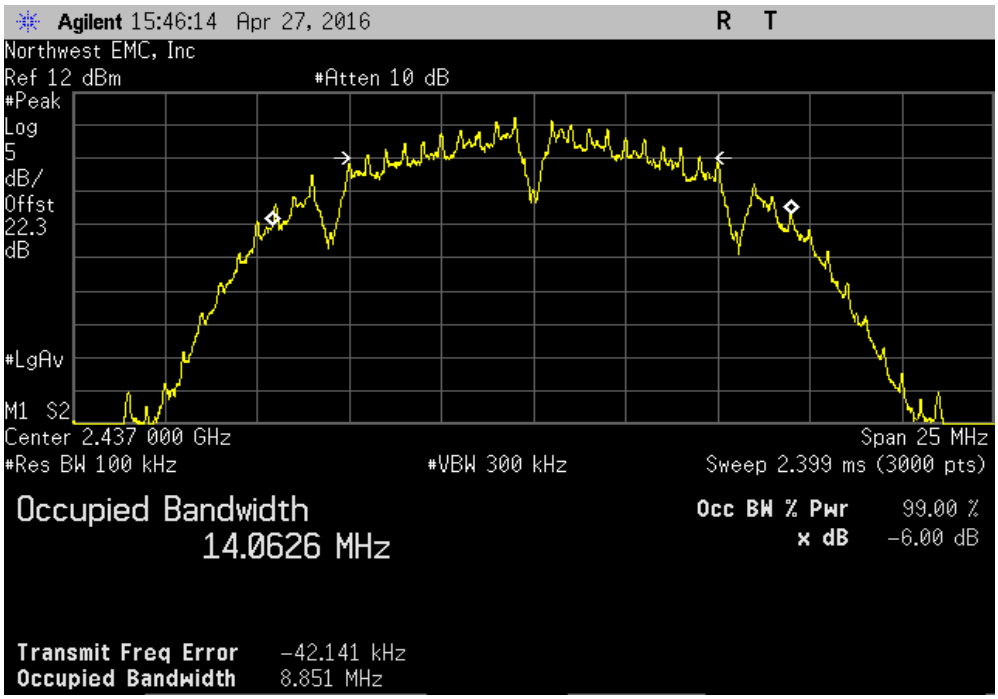
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				15.119 MHz	500 kHz	Pass



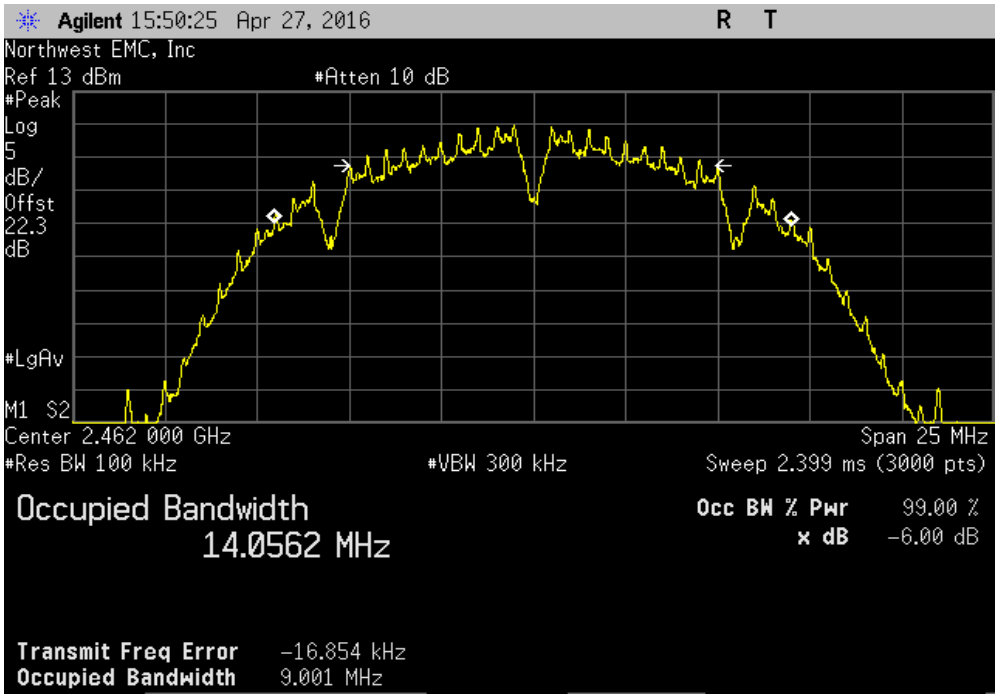
2400 MHz - 2483.5 MHz Band, 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				8.082 MHz	500 kHz	Pass



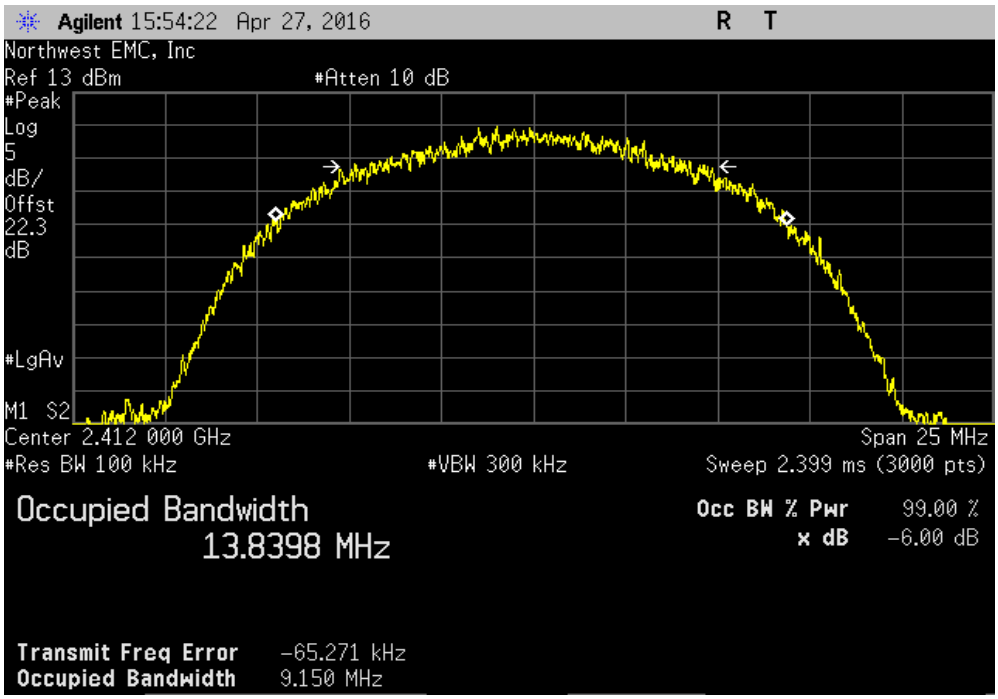
2400 MHz - 2483.5 MHz Band, 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				8.851 MHz	500 kHz	Pass



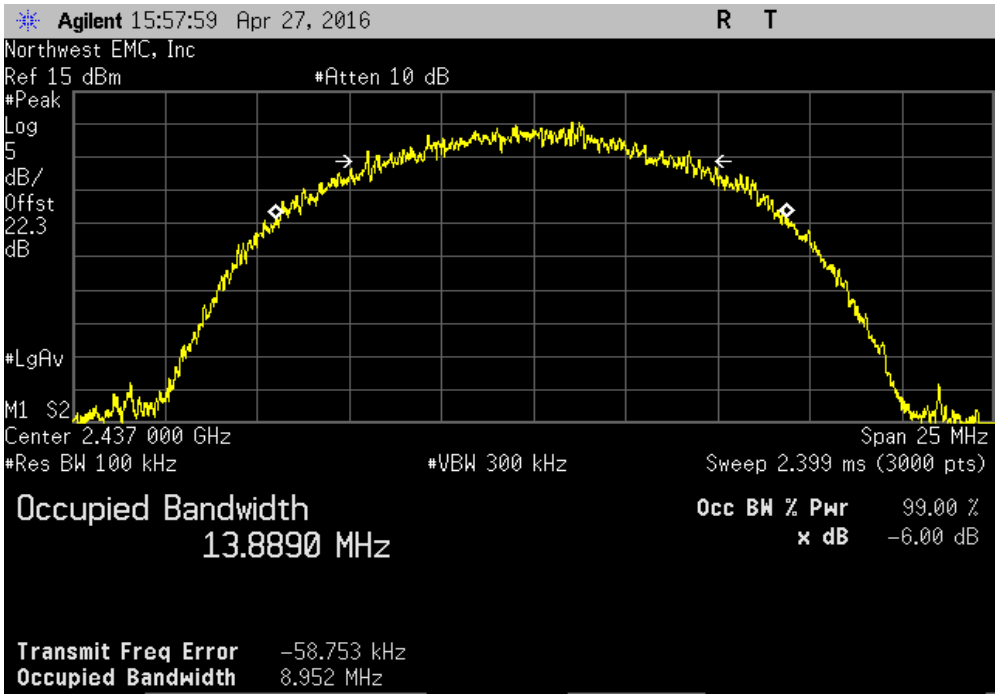
2400 MHz - 2483.5 MHz Band, 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				9.001 MHz	500 kHz	Pass



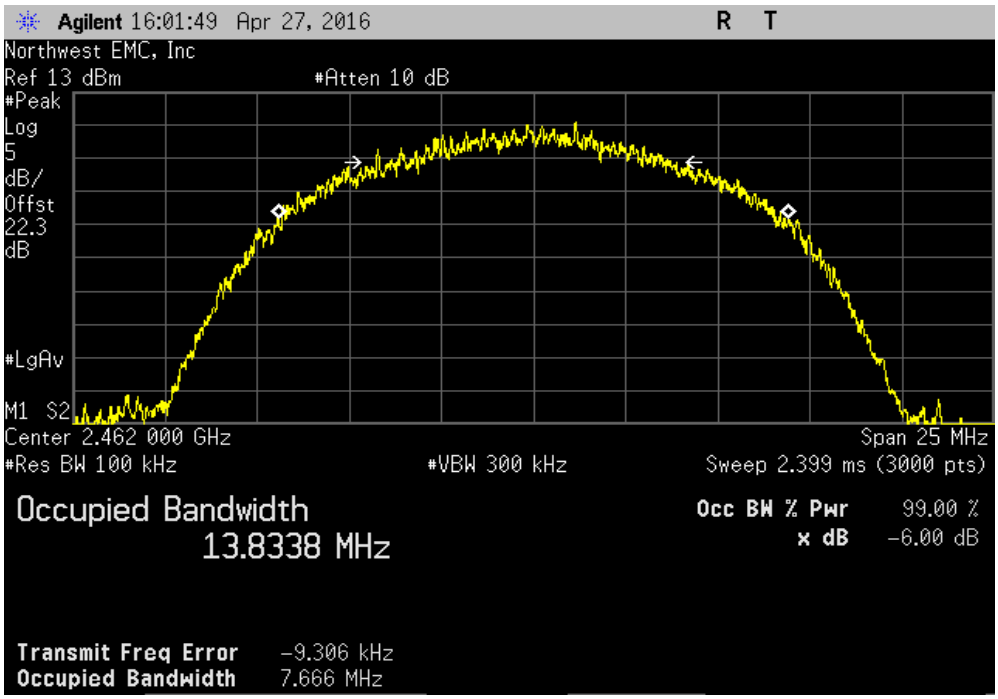
2400 MHz - 2483.5 MHz Band, 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				9.15 MHz	500 kHz	Pass



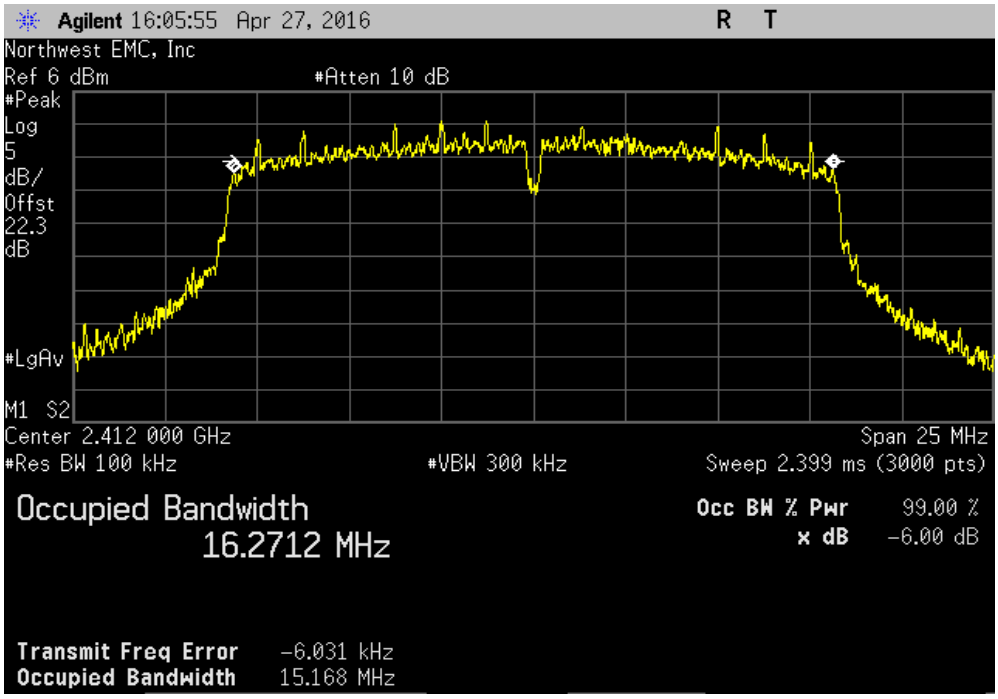
2400 MHz - 2483.5 MHz Band, 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				8.952 MHz	500 kHz	Pass



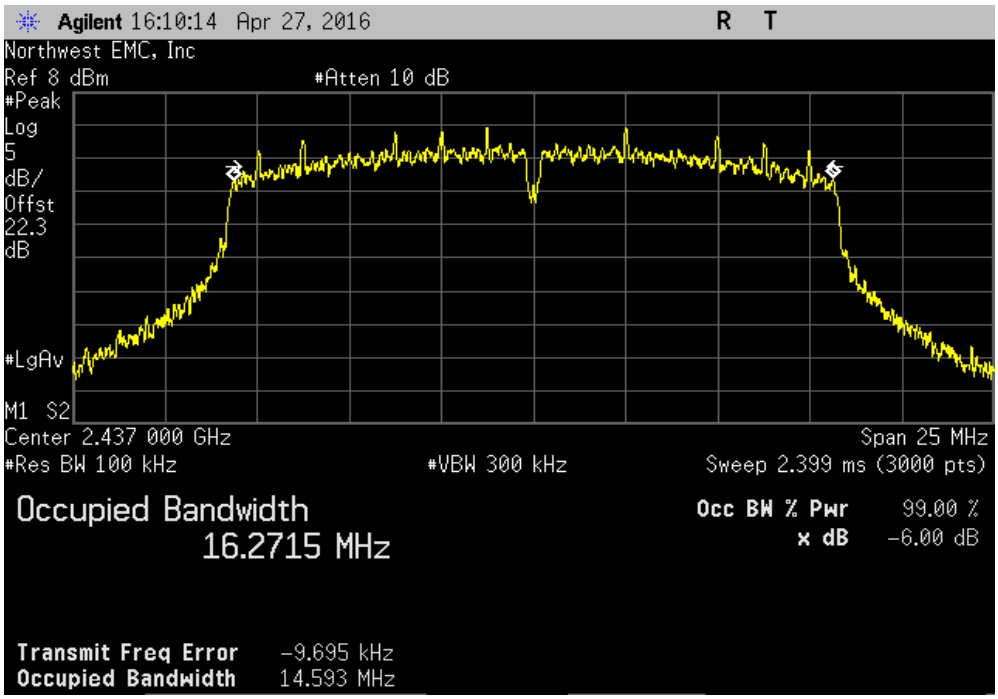
2400 MHz - 2483.5 MHz Band, 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				7.666 MHz	500 kHz	Pass



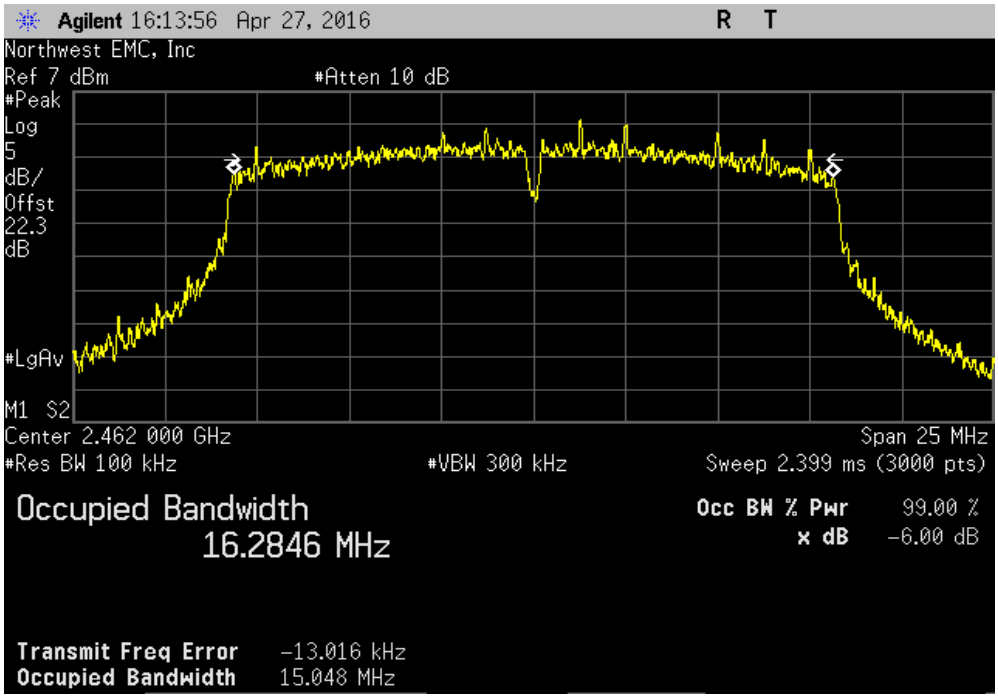
2400 MHz - 2483.5 MHz Band, 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				15.168 MHz	500 kHz	Pass



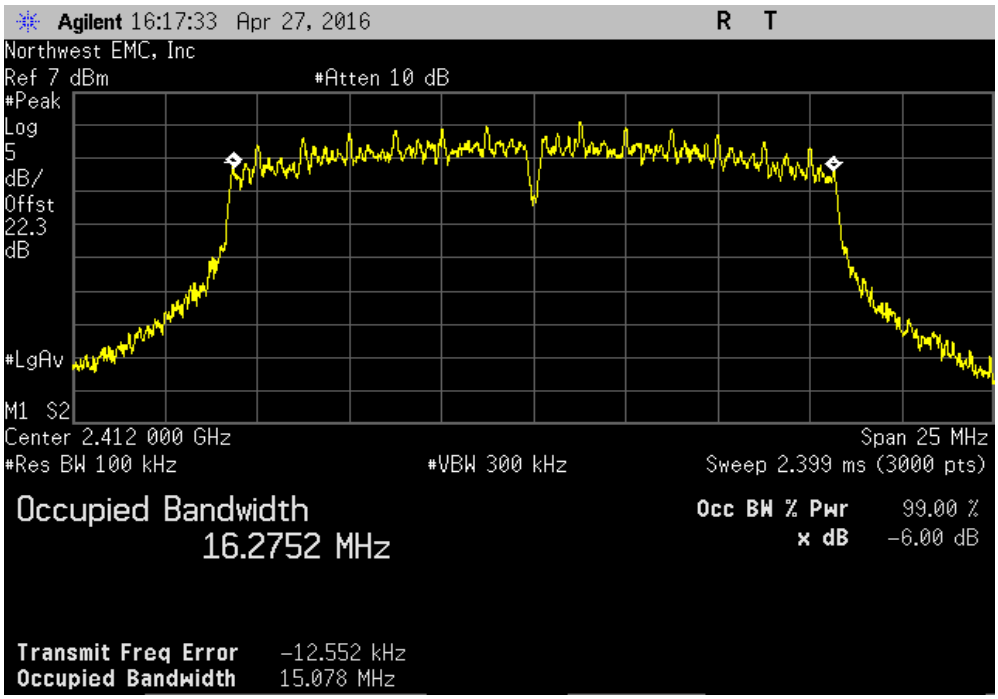
2400 MHz - 2483.5 MHz Band, 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				14.593 MHz	500 kHz	Pass



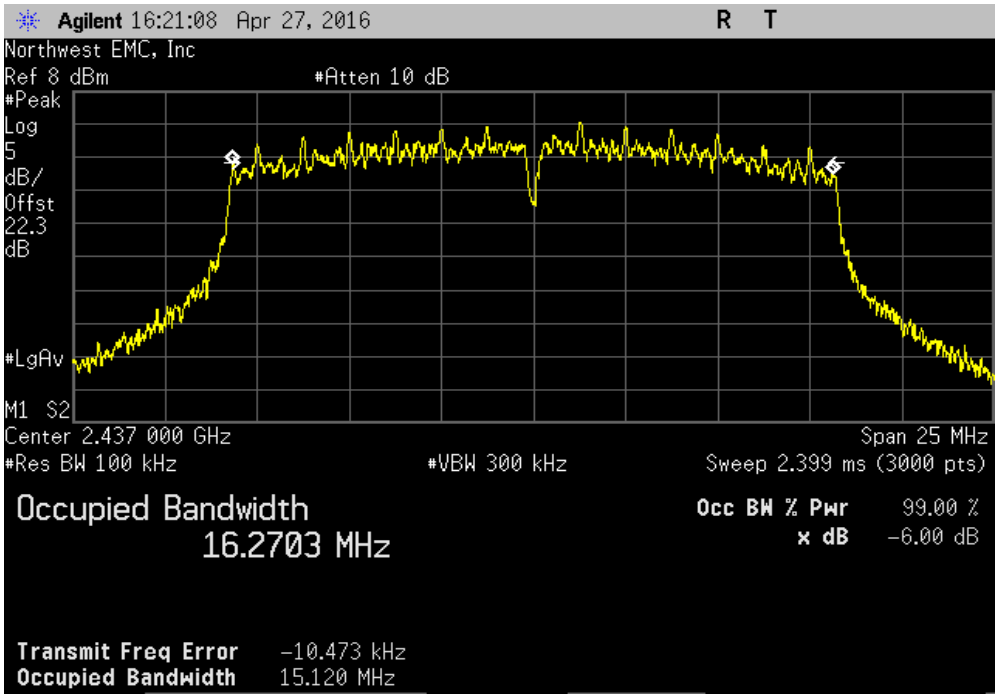
2400 MHz - 2483.5 MHz Band, 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				15.048 MHz	500 kHz	Pass



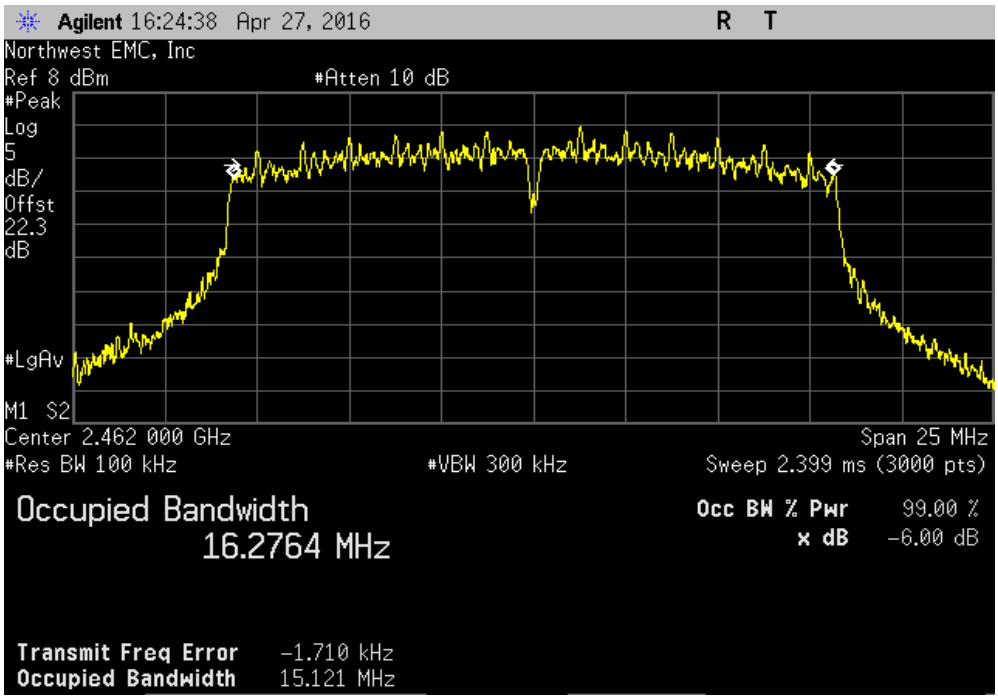
2400 MHz - 2483.5 MHz Band, 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				15.078 MHz	500 kHz	Pass



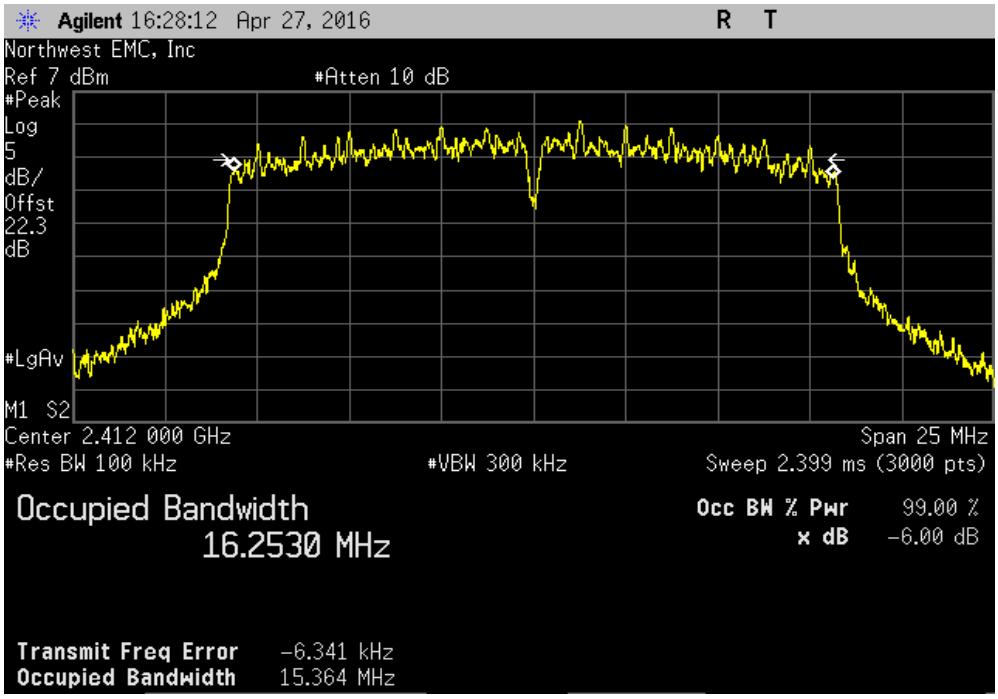
2400 MHz - 2483.5 MHz Band, 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				15.12 MHz	500 kHz	Pass



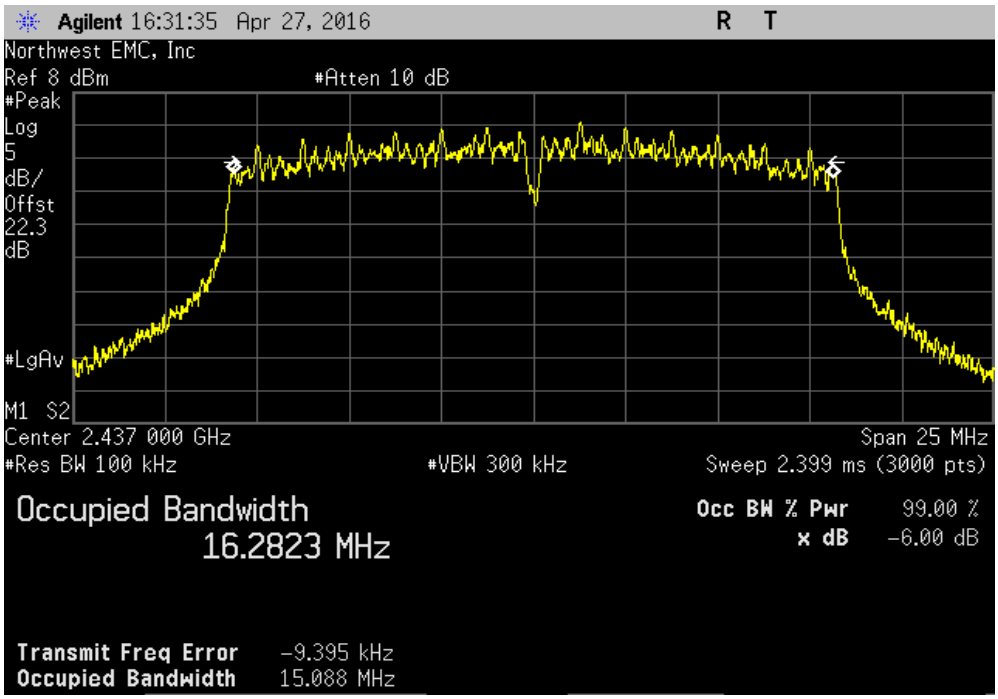
2400 MHz - 2483.5 MHz Band, 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				15.121 MHz	500 kHz	Pass



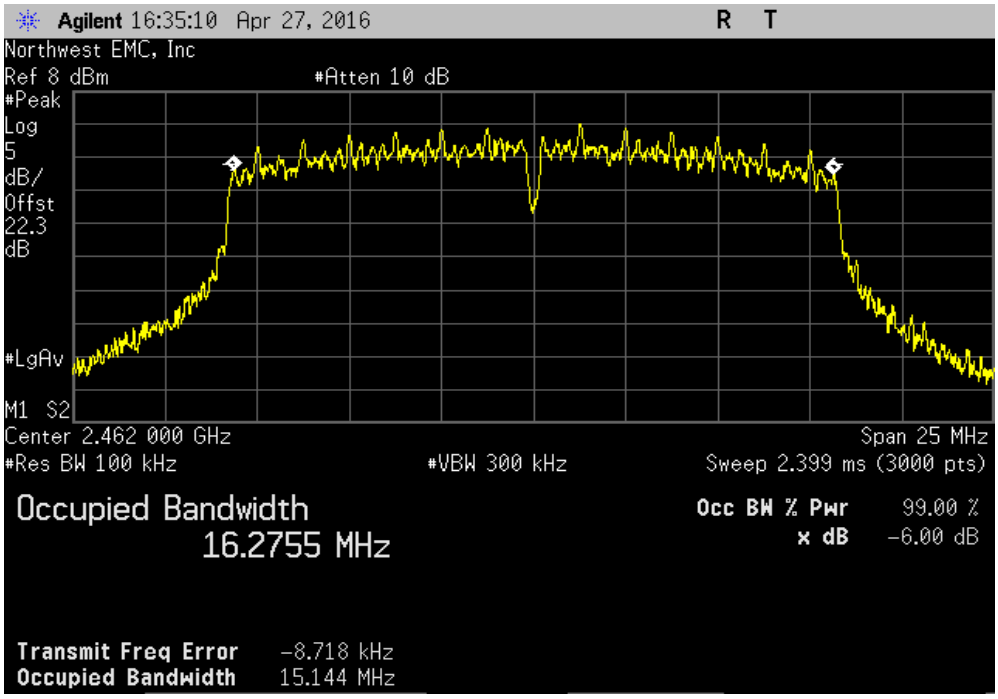
2400 MHz - 2483.5 MHz Band, 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				15.364 MHz	500 kHz	Pass



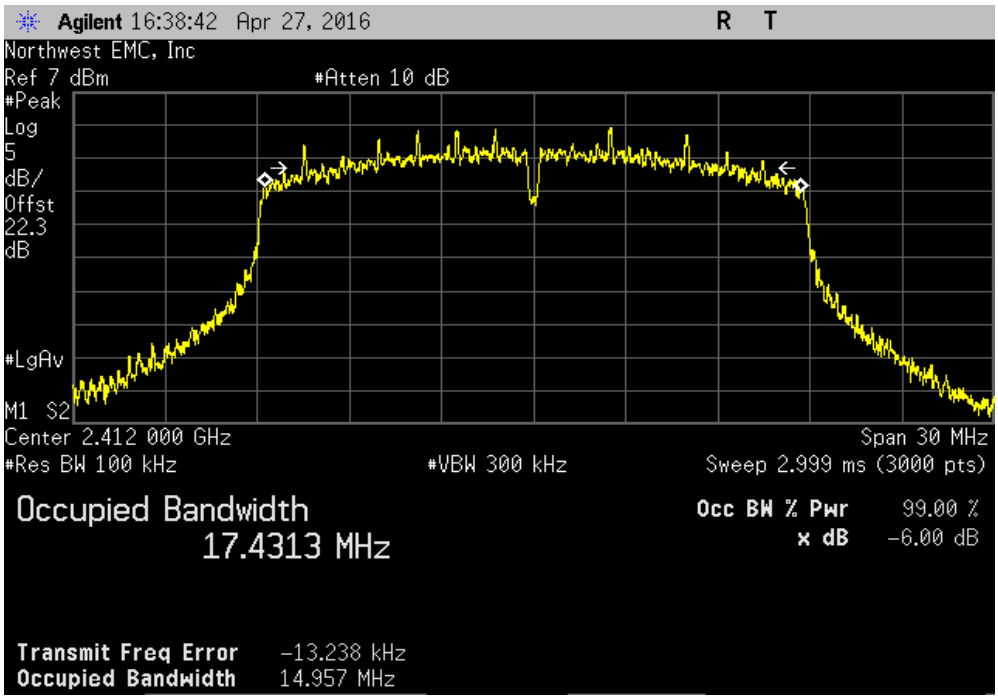
2400 MHz - 2483.5 MHz Band, 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				15.088 MHz	500 kHz	Pass



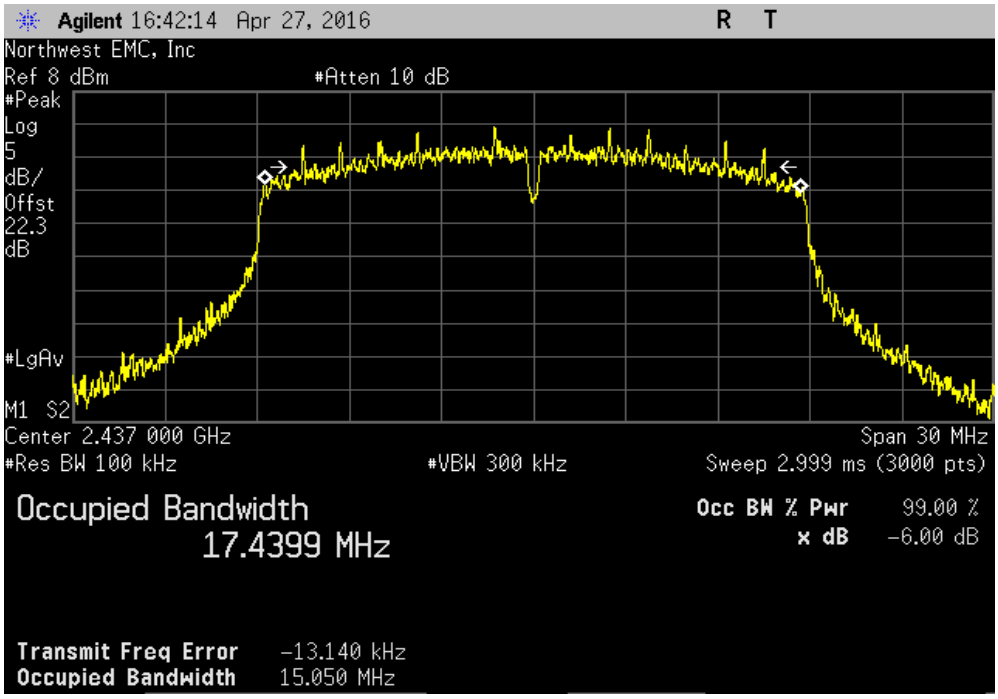
2400 MHz - 2483.5 MHz Band, 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				15.144 MHz	500 kHz	Pass



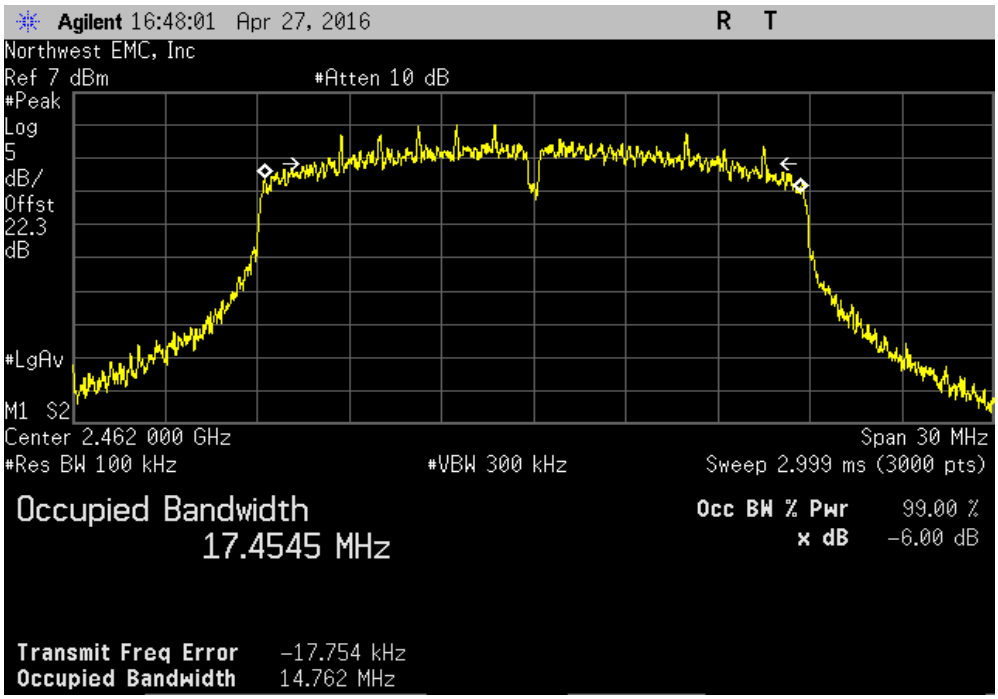
2400 MHz - 2483.5 MHz Band, 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				14.957 MHz	500 kHz	Pass



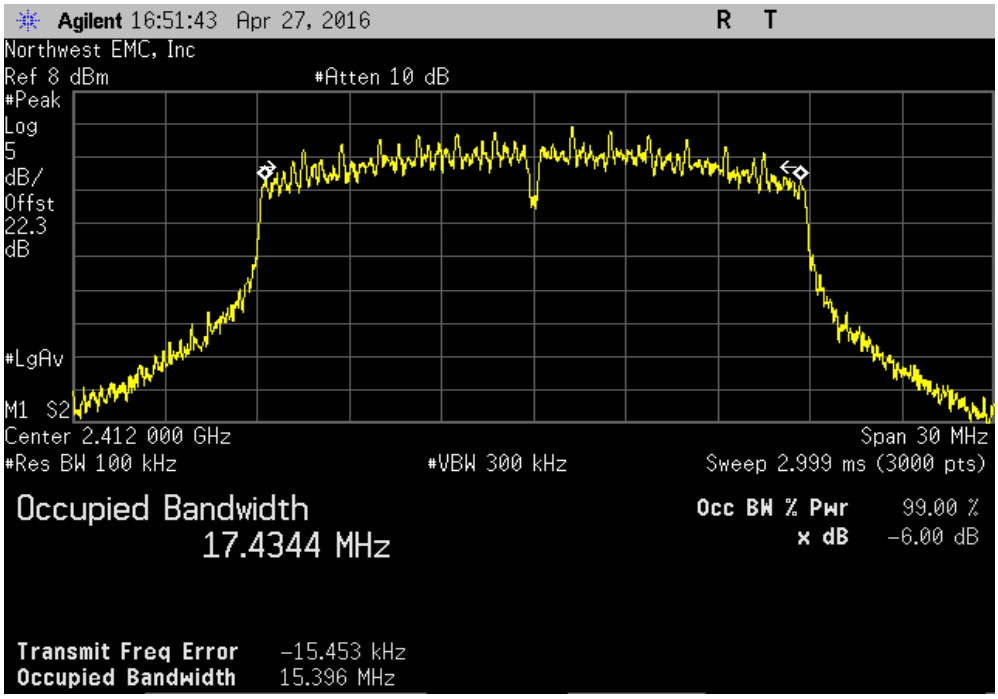
2400 MHz - 2483.5 MHz Band, 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				15.05 MHz	500 kHz	Pass



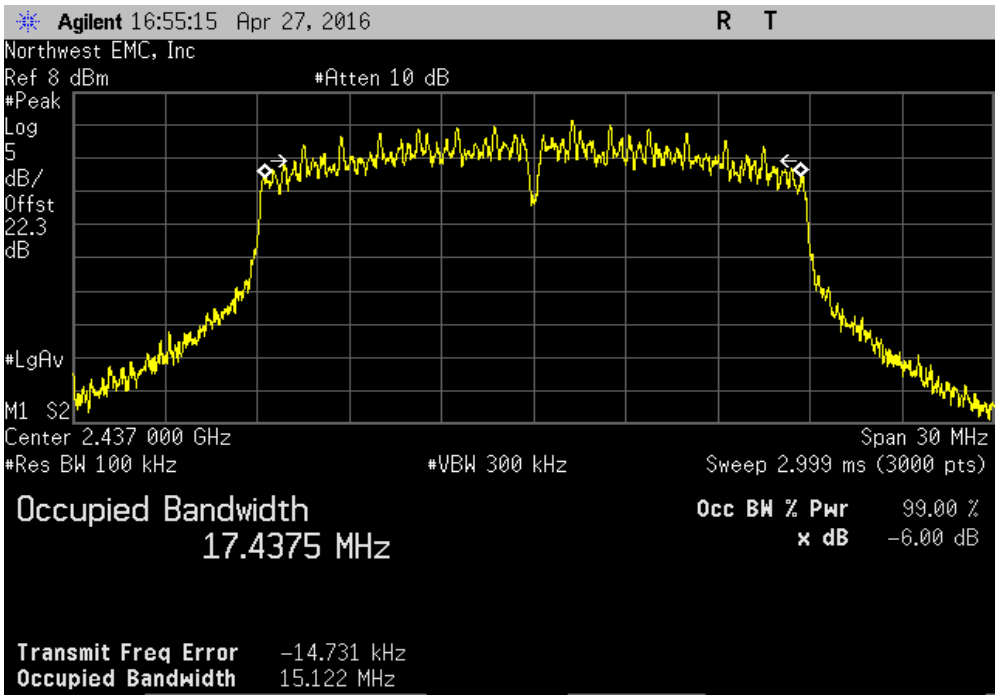
2400 MHz - 2483.5 MHz Band, 1, 802.11(n) MCS0, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				14.762 MHz	500 kHz	Pass



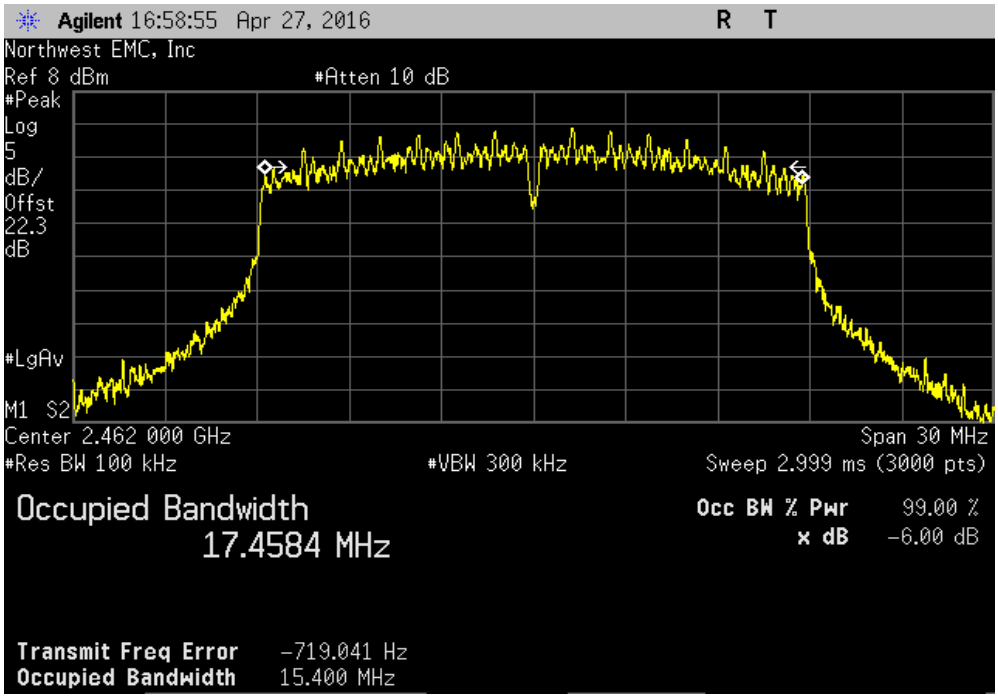
2400 MHz - 2483.5 MHz Band, 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				15.396 MHz	500 kHz	Pass



2400 MHz - 2483.5 MHz Band, 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				15.122 MHz	500 kHz	Pass



2400 MHz - 2483.5 MHz Band, 1, 802.11(n) MCS7, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				15.4 MHz	500 kHz	Pass



OUTPUT POWER

XMit 2015.01.14

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 (mo)
Generator - Signal	Agilent	N5183A	TIK	10/17/2014	36
Attenuator	S.M. Electronics	SA26B-20	RFW	2/26/2016	12
Block - DC	Fairview Microwave	SD3379	AMI	9/18/2015	12
Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNU	9/18/2015	12
Analyzer - Spectrum Analyzer	Agilent	E4440A	AAX	3/24/2016	12

TEST DESCRIPTION

The fundamental emission output power (maximum average conducted output power) was measured using the channels and modes as called out on the following data sheets. 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. External 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 output 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 method AVGSA-2 in section 11.9.2.2.4 of ANSI C63.10:2013 was used to make the measurement. This method uses trace averaging across ON and OFF times of the EUT transmissions in the spectrum analyzer channel power function using an RMS detector. Following the measurement a duty cycle correction was applied by adding [10 log (1 / D)], where D is the duty cycle, to the measured power to compute the average power during the actual transmission times.

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

OUTPUT POWER

NORTHWEST EMC

XMit 2015.01.14

EUT:	TH6320WF2003			**Work Order:**	HNYW0156
Serial Number:	00D02D95E598			**Date:**	04/27/16
Customer:	Honeywell, Automation and Control Solutions			**Temperature:**	21.3°C
Attendees:	None			**Humidity:**	31%
Project:	None			**Barometric Pres.:**	1014.8
Tested by:	Cole Ghizzone	**Power:**	110VAC/60Hz	**Job Site:**	MN08

TEST SPECIFICATIONS	**Test Method**
FCC 15.247:2016	ANSI C63.10:2013

COMMENTS

The EUT was tested using the power settings provided by the manufacturer. These settings can be found in the Power Table.

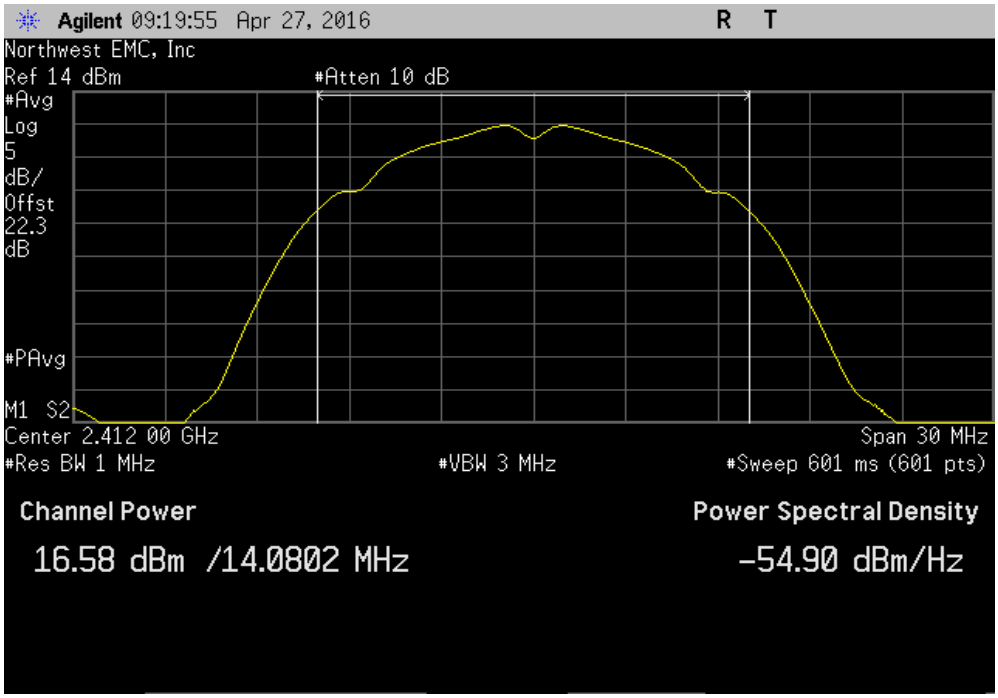
DEVIATIONS FROM TEST STANDARD

None

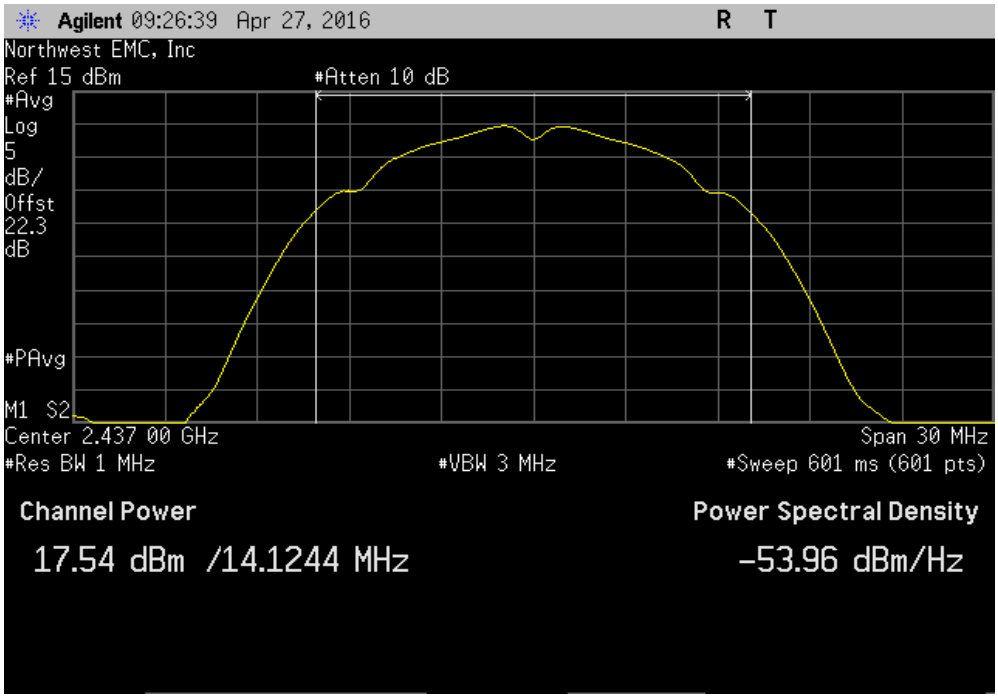
Configuration #	2	*Signature*

	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Value (dBm)	Limit (dBm)	Results
2400 MHz - 2483.5 MHz Band					
Antenna Port 0					
802.11(b) 1 Mbps					
Low Channel 1, 2412 MHz	16.582	0	16.6	30	Pass
Mid Channel 6, 2437 MHz	17.544	0	17.6	30	Pass
High Channel 11, 2462 MHz	16.373	0	16.4	30	Pass
802.11(b) 11 Mbps					
Low Channel 1, 2412 MHz	16.727	0.1	16.8	30	Pass
Mid Channel 6, 2437 MHz	18.947	0.1	19	30	Pass
High Channel 11, 2462 MHz	16.437	0.1	16.5	30	Pass
802.11(g) 6 Mbps					
Low Channel 1, 2412 MHz	12.519	0.1	12.6	30	Pass
Mid Channel 6, 2437 MHz	13.484	0.1	13.6	30	Pass
High Channel 11, 2462 MHz	12.787	0.1	12.9	30	Pass
802.11(g) 36 Mbps					
Low Channel 1, 2412 MHz	12.315	0.5	12.8	30	Pass
Mid Channel 6, 2437 MHz	13.266	0.5	13.7	30	Pass
High Channel 11, 2462 MHz	12.55	0.5	13	30	Pass
802.11(g) 54 Mbps					
Low Channel 1, 2412 MHz	12.151	0.6	12.8	30	Pass
Mid Channel 6, 2437 MHz	13.088	0.6	13.7	30	Pass
High Channel 11, 2462 MHz	12.415	0.6	13.1	30	Pass
802.11(n) MCS0					
Low Channel 1, 2412 MHz	12.436	0.1	12.5	30	Pass
Mid Channel 6, 2437 MHz	13.305	0.1	13.4	30	Pass
High Channel 11, 2462 MHz	12.691	0.1	12.8	30	Pass
802.11(n) MCS7					
Low Channel 1, 2412 MHz	11.977	0.7	12.7	30	Pass
Mid Channel 6, 2437 MHz	12.898	0.7	13.6	30	Pass
High Channel 11, 2462 MHz	12.2	0.7	12.9	30	Pass
Antenna Port 1					
802.11(b) 1 Mbps					
Low Channel 1, 2412 MHz	16.253	0	16.3	30	Pass
Mid Channel 6, 2437 MHz	16.152	0	16.2	30	Pass
High Channel 11, 2462 MHz	16.405	0	16.4	30	Pass
802.11(b) 11 Mbps					
Low Channel 1, 2412 MHz	16.388	0.1	16.5	30	Pass
Mid Channel 6, 2437 MHz	18.794	0.1	18.9	30	Pass
High Channel 11, 2462 MHz	16.372	0.1	16.5	30	Pass
802.11(g) 6 Mbps					
Low Channel 1, 2412 MHz	12.482	0.1	12.6	30	Pass
Mid Channel 6, 2437 MHz	13.307	0.1	13.4	30	Pass
High Channel 11, 2462 MHz	12.666	0.1	12.7	30	Pass
802.11(g) 36 Mbps					
Low Channel 1, 2412 MHz	12.255	0.5	12.7	30	Pass
Mid Channel 6, 2437 MHz	13.118	0.5	13.6	30	Pass
High Channel 11, 2462 MHz	12.48	0.5	12.9	30	Pass
802.11(g) 54 Mbps					
Low Channel 1, 2412 MHz	12.103	0.6	12.7	30	Pass
Mid Channel 6, 2437 MHz	12.908	0.6	13.5	30	Pass
High Channel 11, 2462 MHz	12.575	0.6	13.2	30	Pass
802.11(n) MCS0					
Low Channel 1, 2412 MHz	12.349	0.1	12.4	30	Pass
Mid Channel 6, 2437 MHz	13.199	0.1	13.3	30	Pass
High Channel 11, 2462 MHz	12.791	0.1	12.9	30	Pass
802.11(n) MCS7					
Low Channel 1, 2412 MHz	11.974	0.7	12.7	30	Pass
Mid Channel 6, 2437 MHz	12.964	0.7	13.7	30	Pass
High Channel 11, 2462 MHz	12.121	0.7	12.8	30	Pass

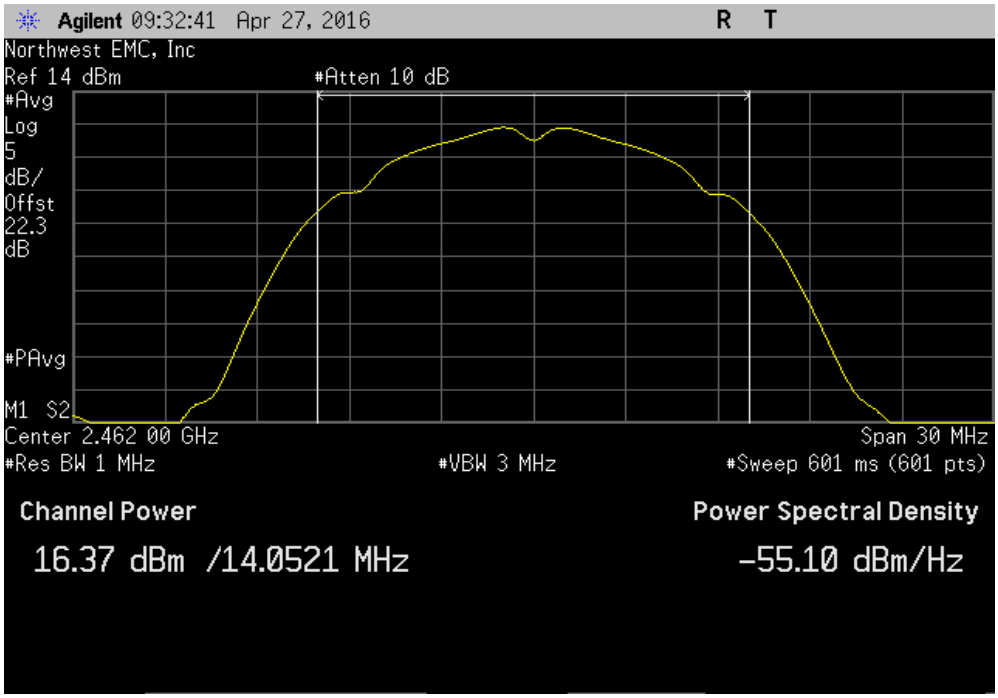
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	16.582	0		16.6	30	Pass



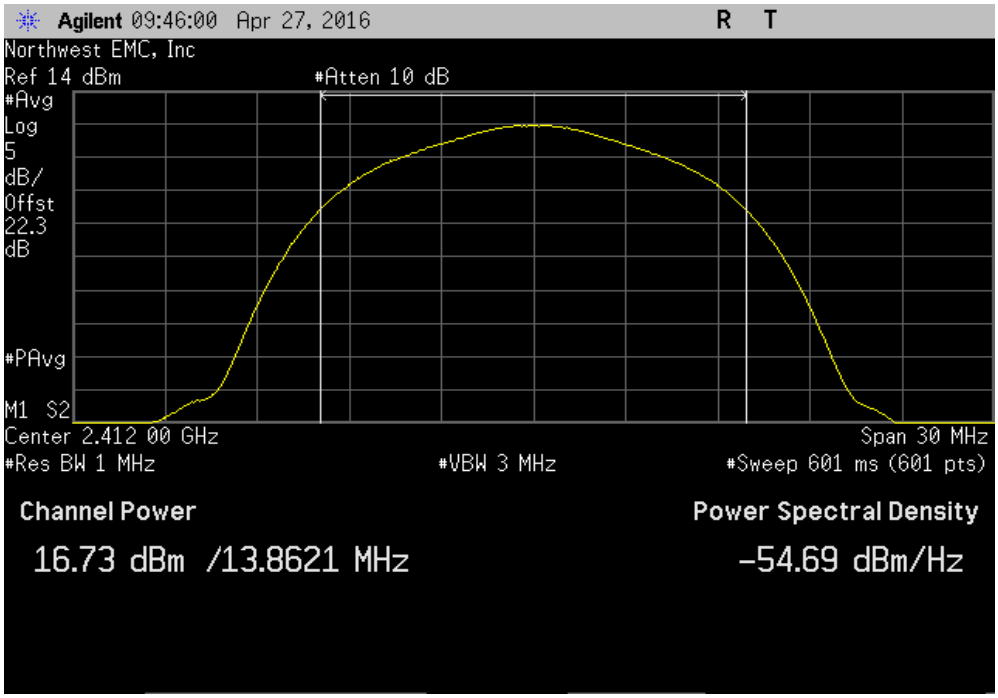
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	17.544	0		17.6	30	Pass



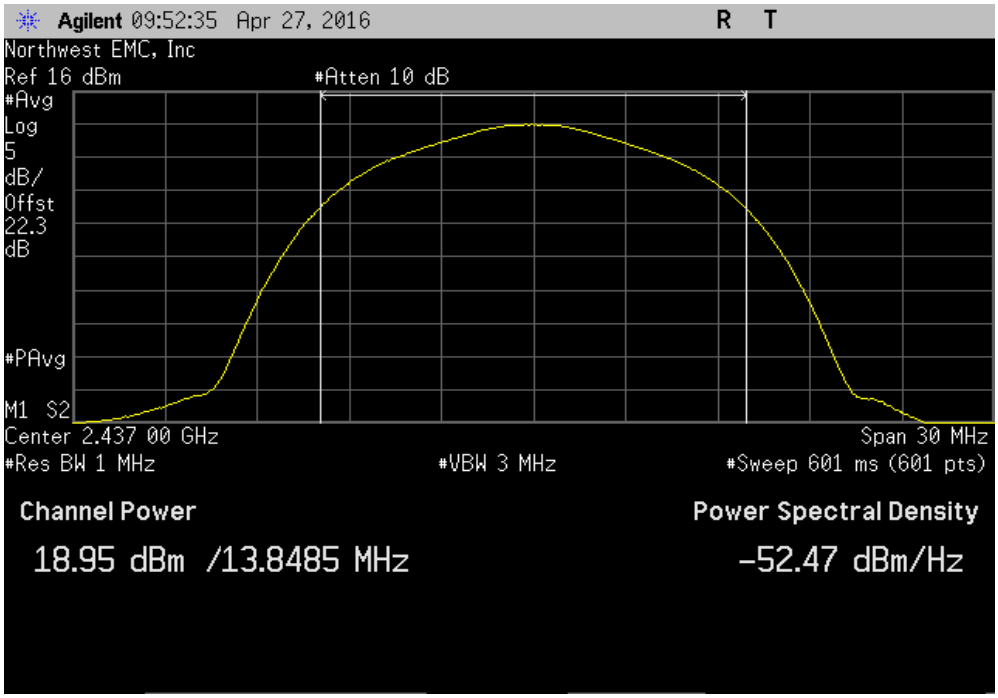
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	16.373	0		16.4	30	Pass



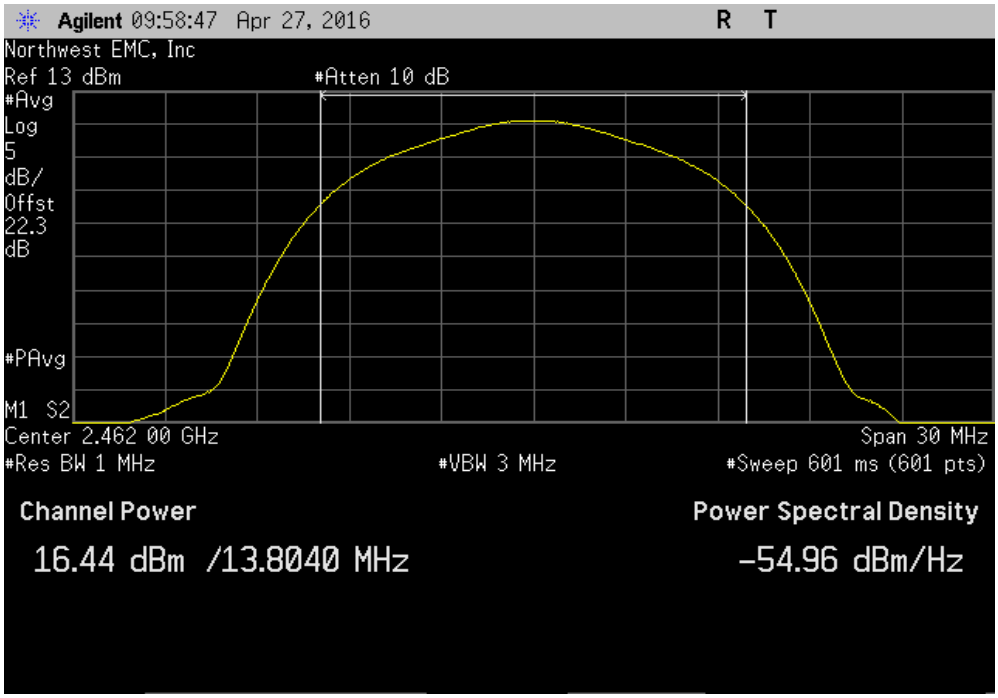
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	16.727	0.1		16.8	30	Pass



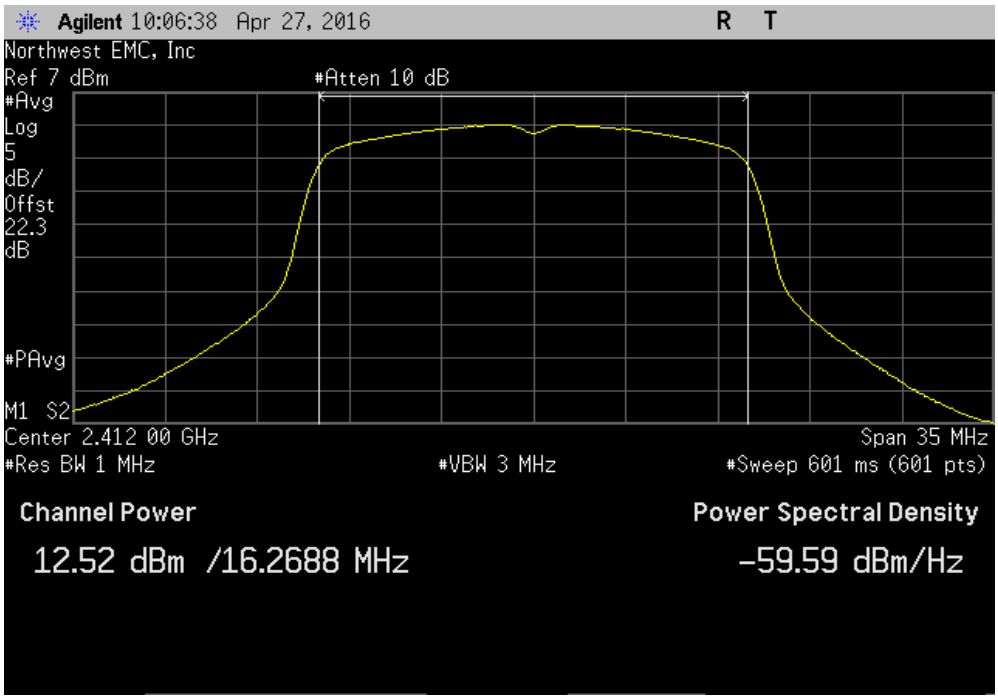
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	18.947	0.1		19	30	Pass



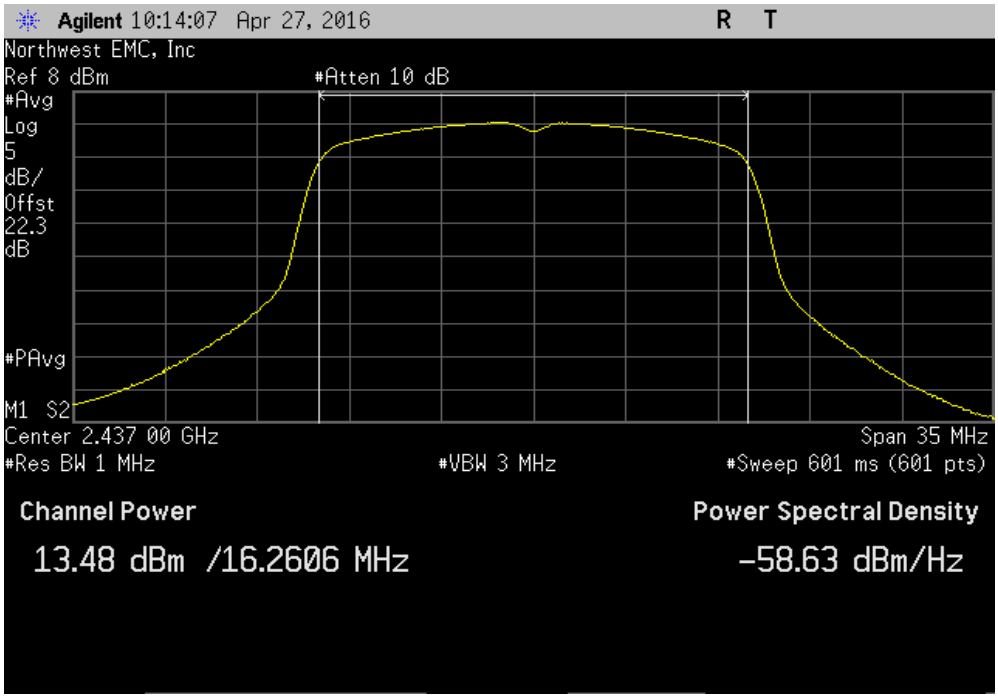
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	16.437	0.1		16.5	30	Pass



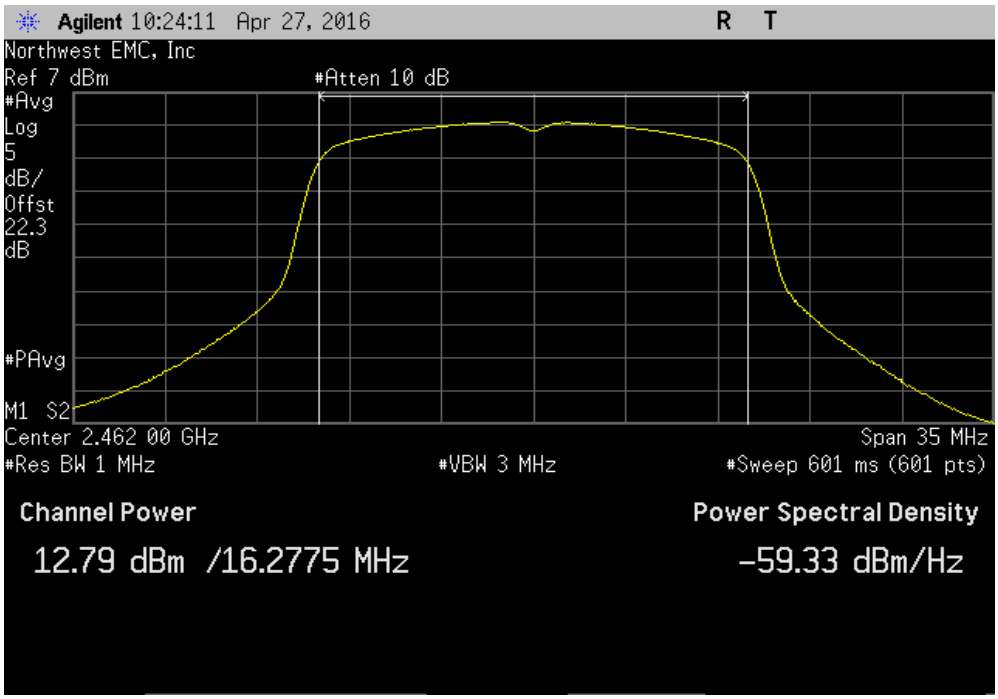
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.519	0.1		12.6	30	Pass



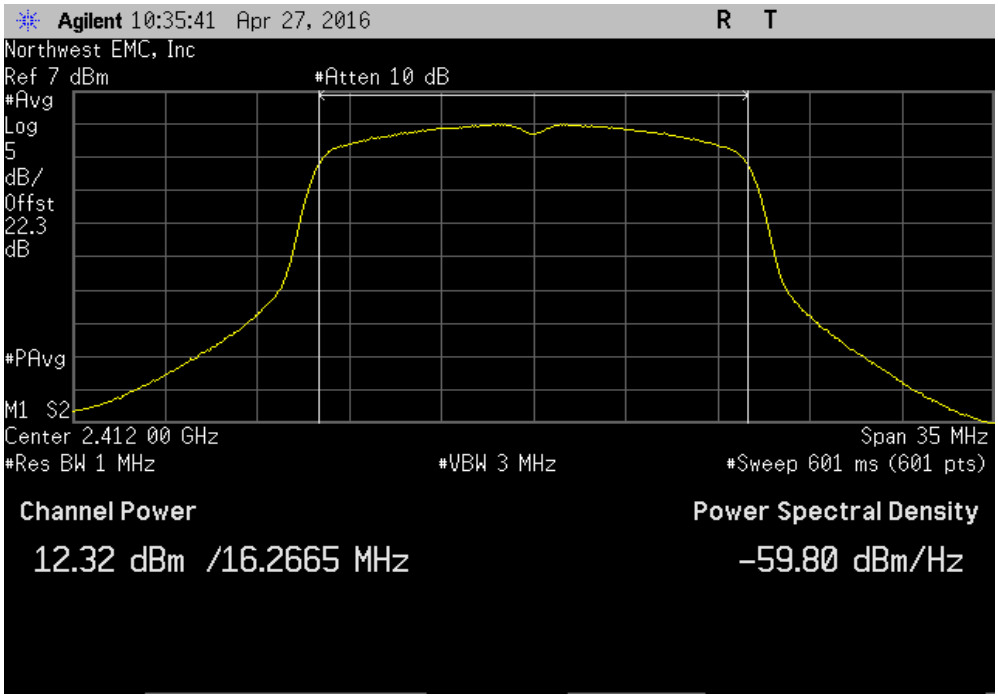
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	13.484	0.1		13.6	30	Pass



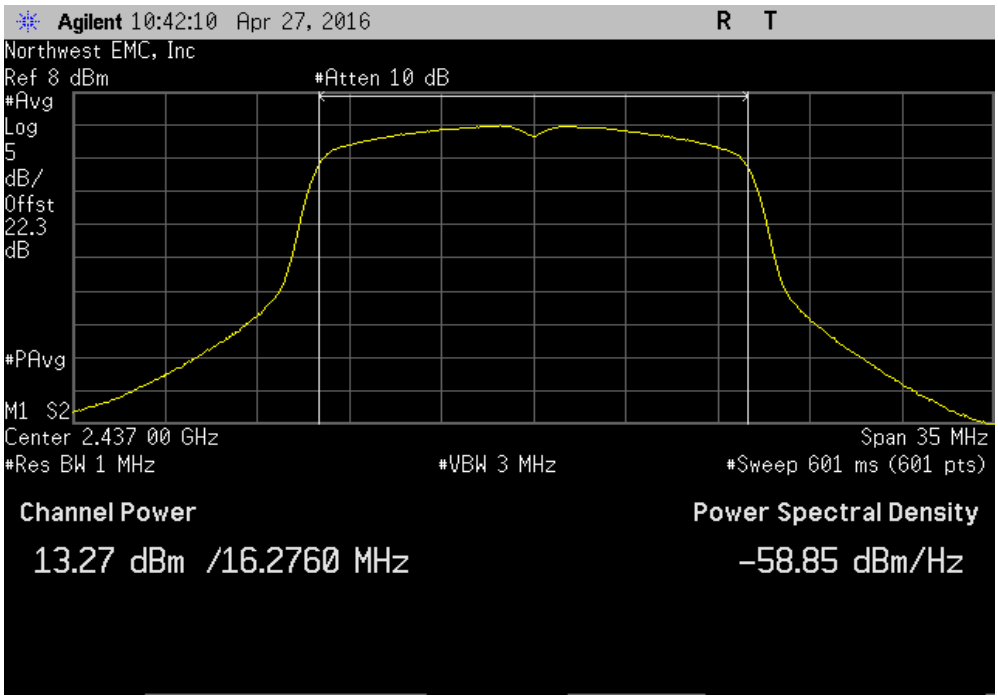
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.787	0.1		12.9	30	Pass



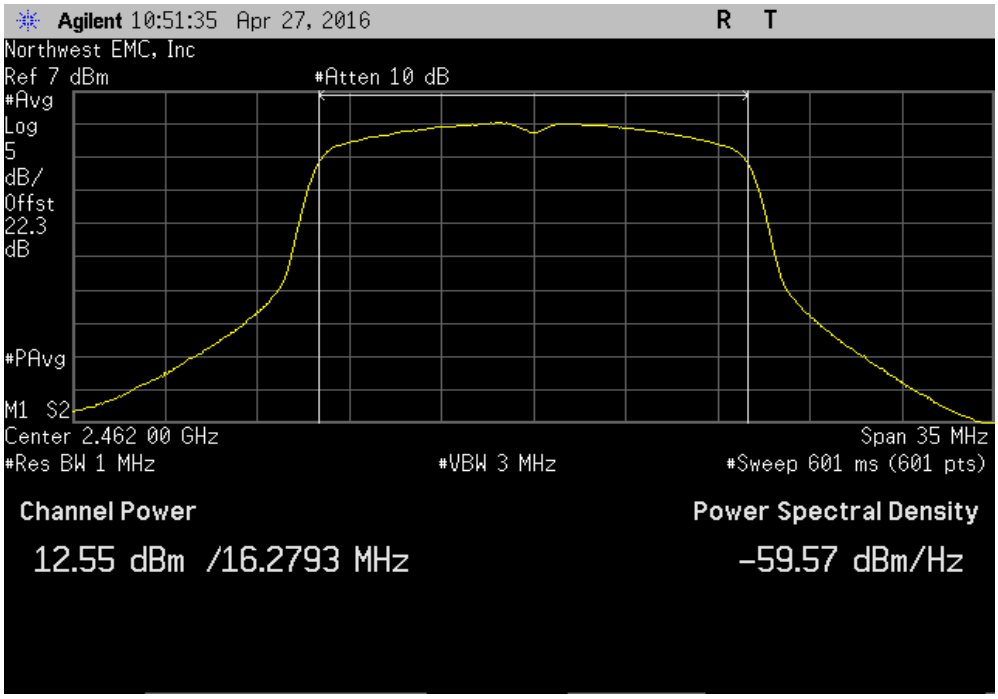
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.315	0.5		12.8	30	Pass



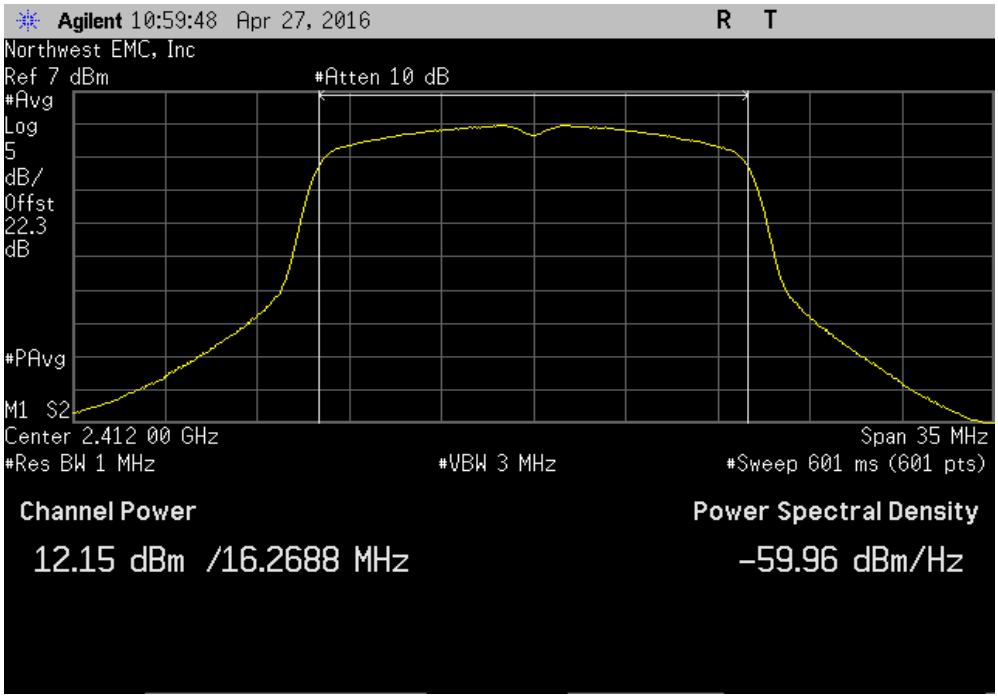
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	13.266	0.5		13.7	30	Pass



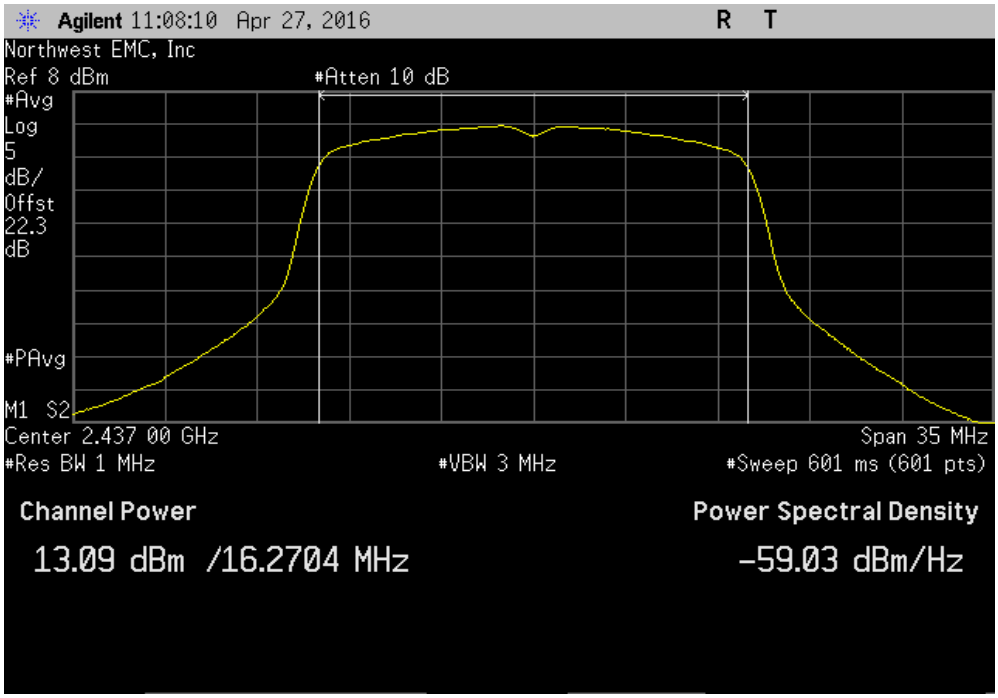
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.55	0.5		13	30	Pass



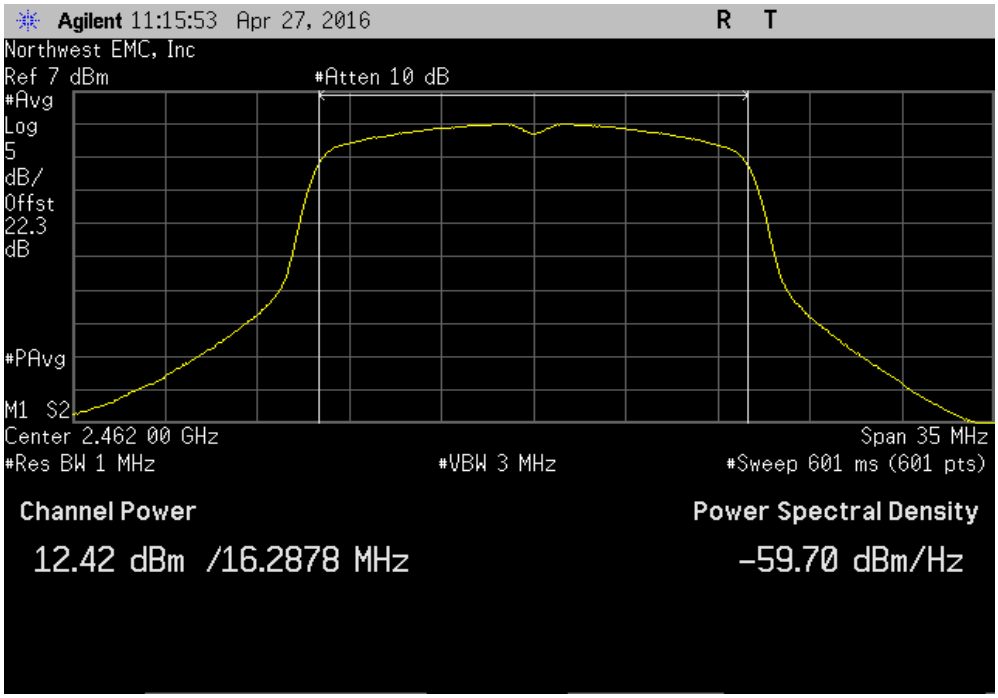
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.151	0.6		12.8	30	Pass



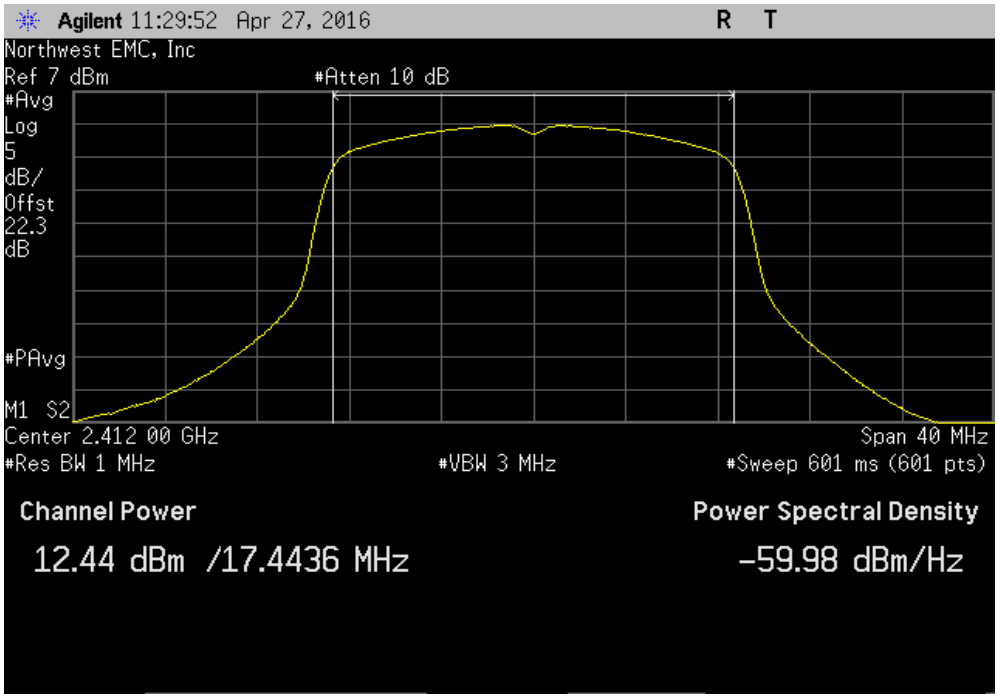
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	13.088	0.6		13.7	30	Pass



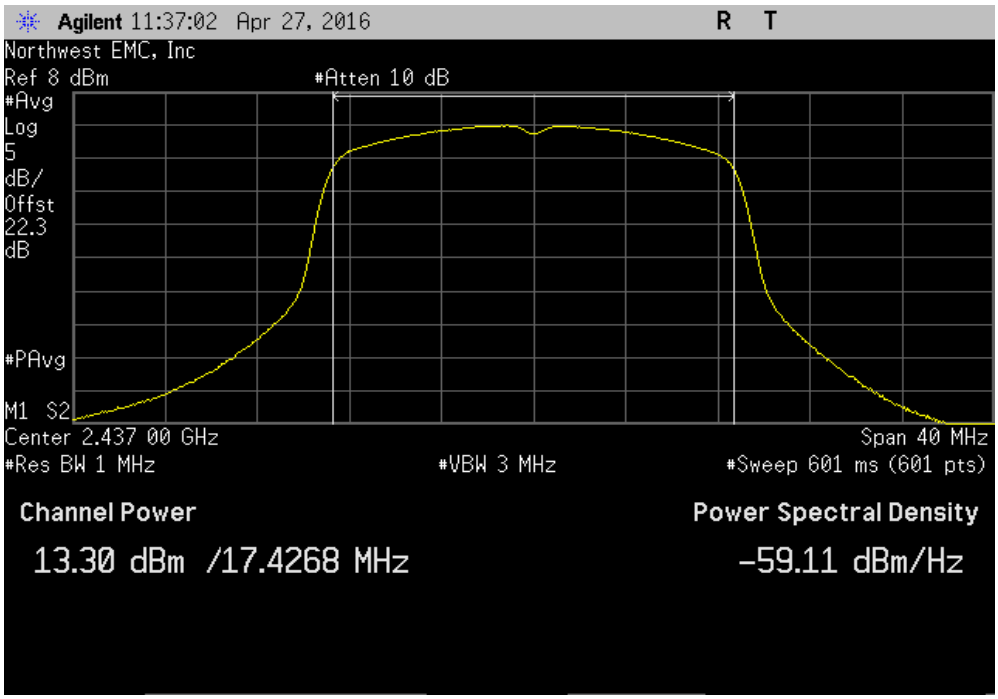
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.415	0.6		13.1	30	Pass



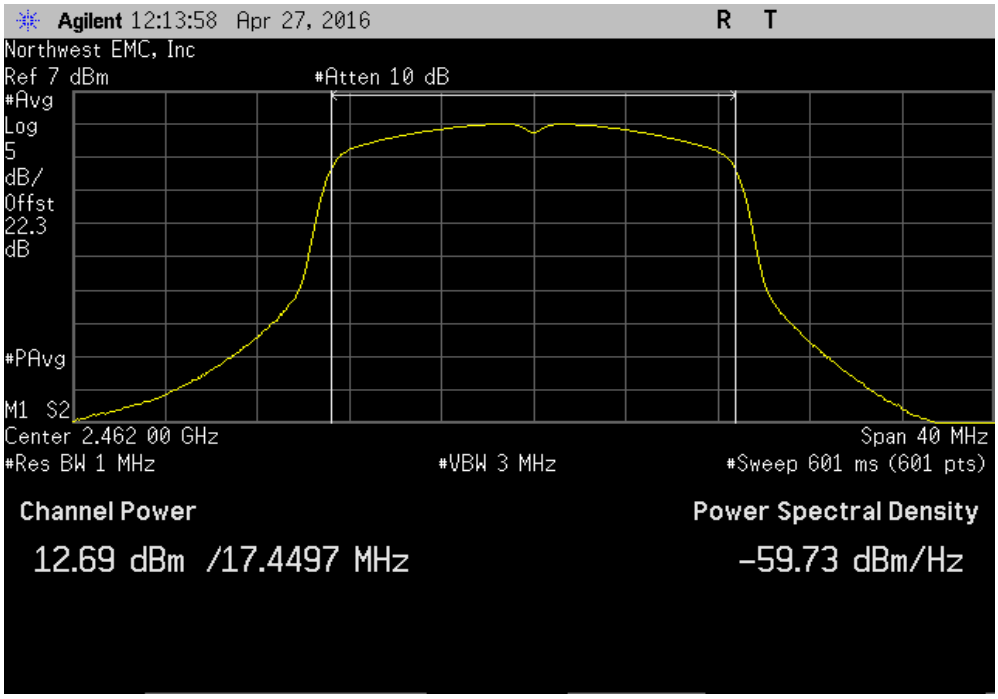
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.436	0.1		12.5	30	Pass



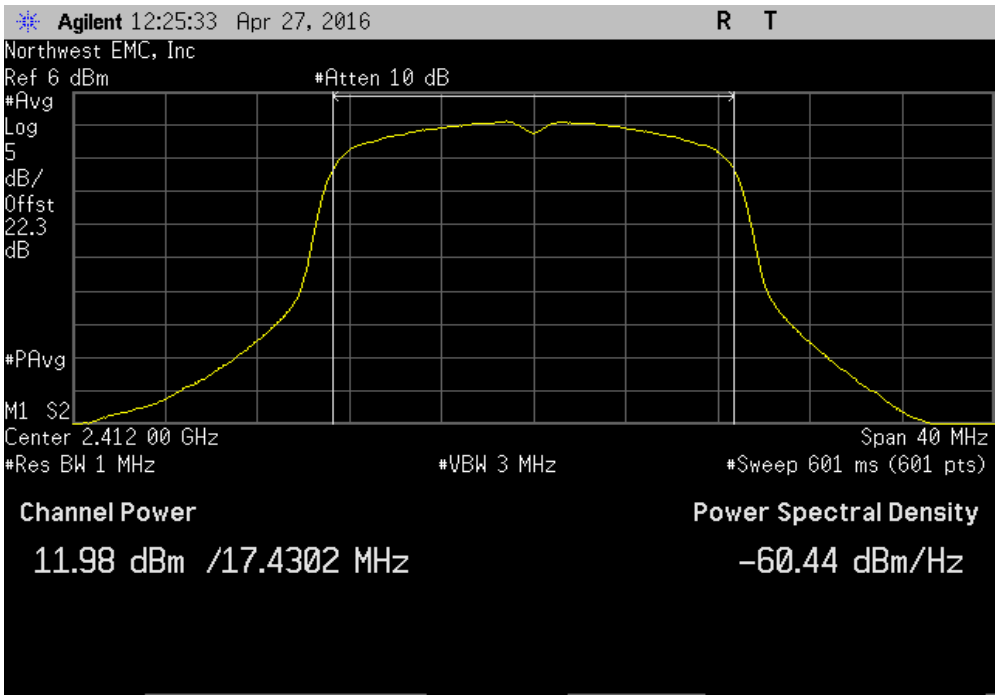
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	13.305	0.1		13.4	30	Pass



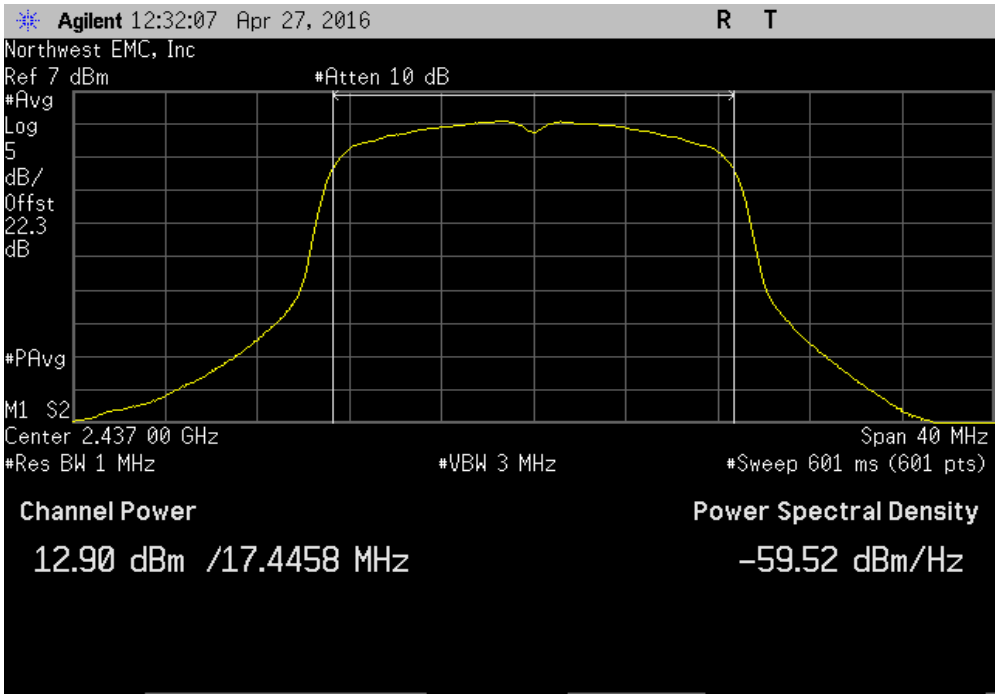
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, High Channel 11, 2462 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.691	0.1		12.8	30	Pass



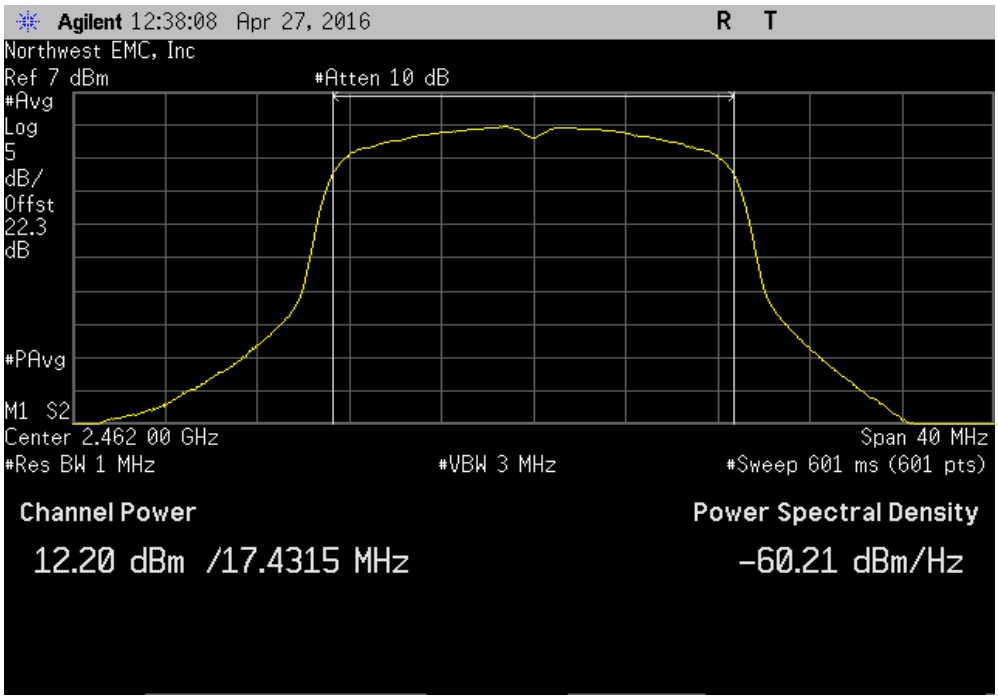
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	11.977	0.7		12.7	30	Pass



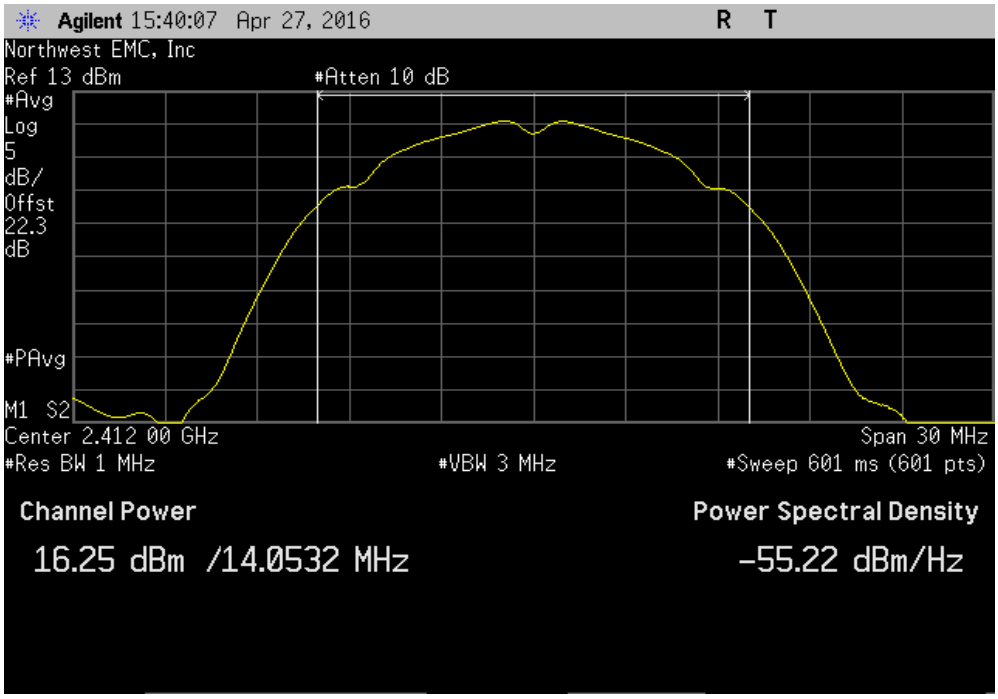
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.898	0.7		13.6	30	Pass



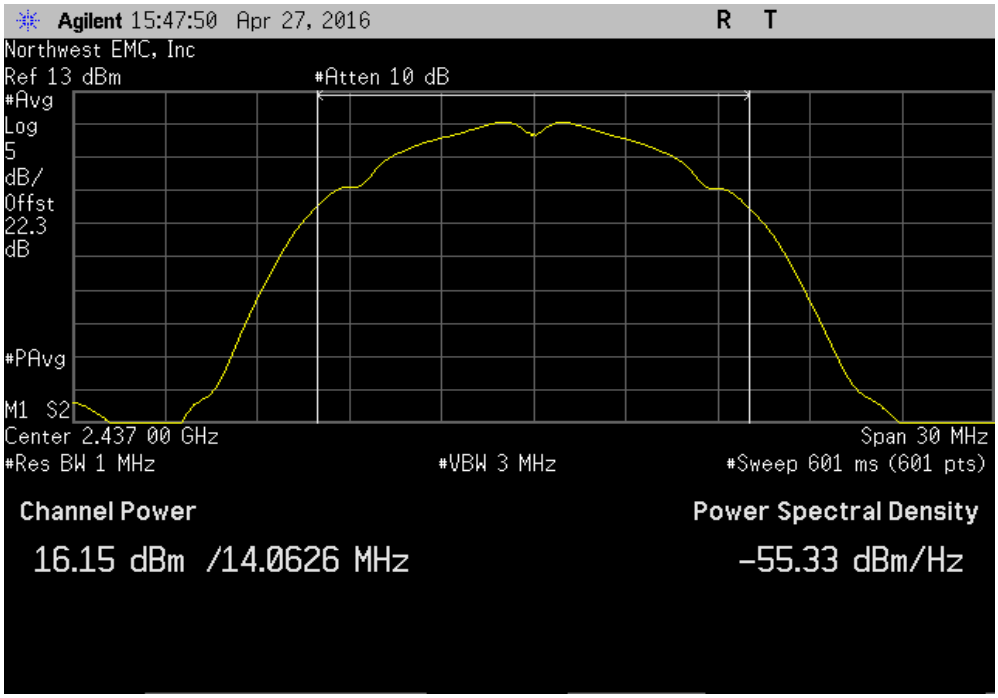
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, High Channel 11, 2462 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.2	0.7		12.9	30	Pass



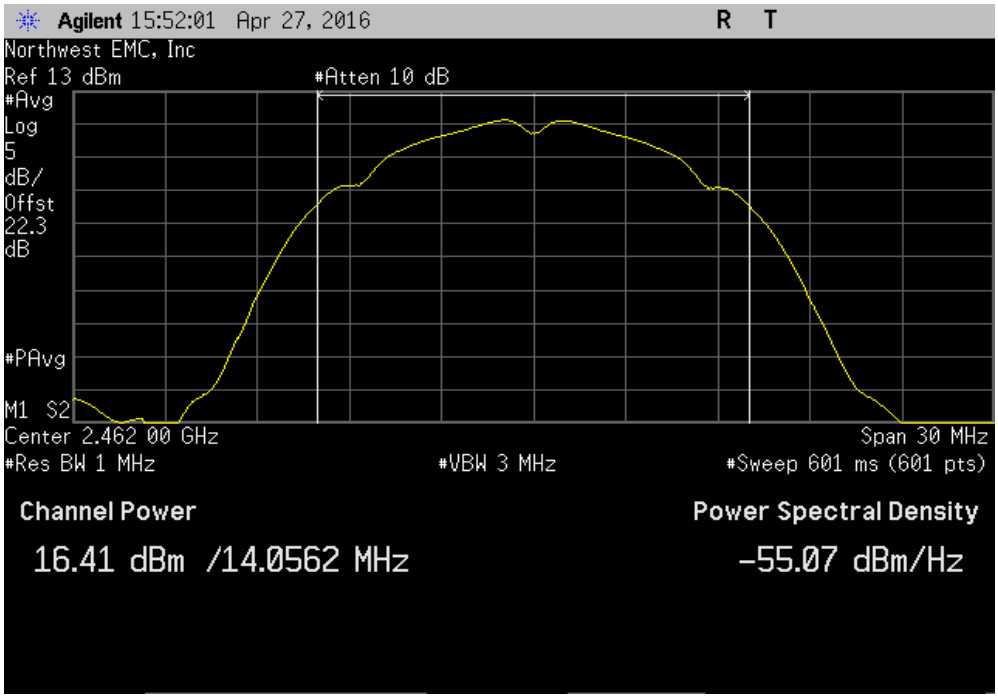
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	16.253	0		16.3	30	Pass



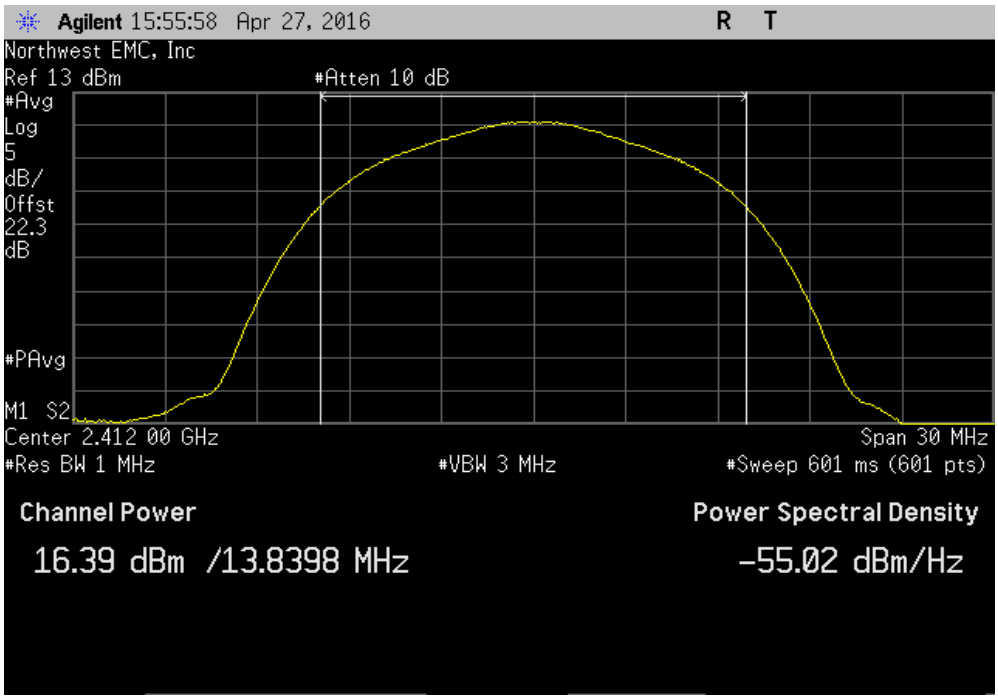
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	16.152	0		16.2	30	Pass



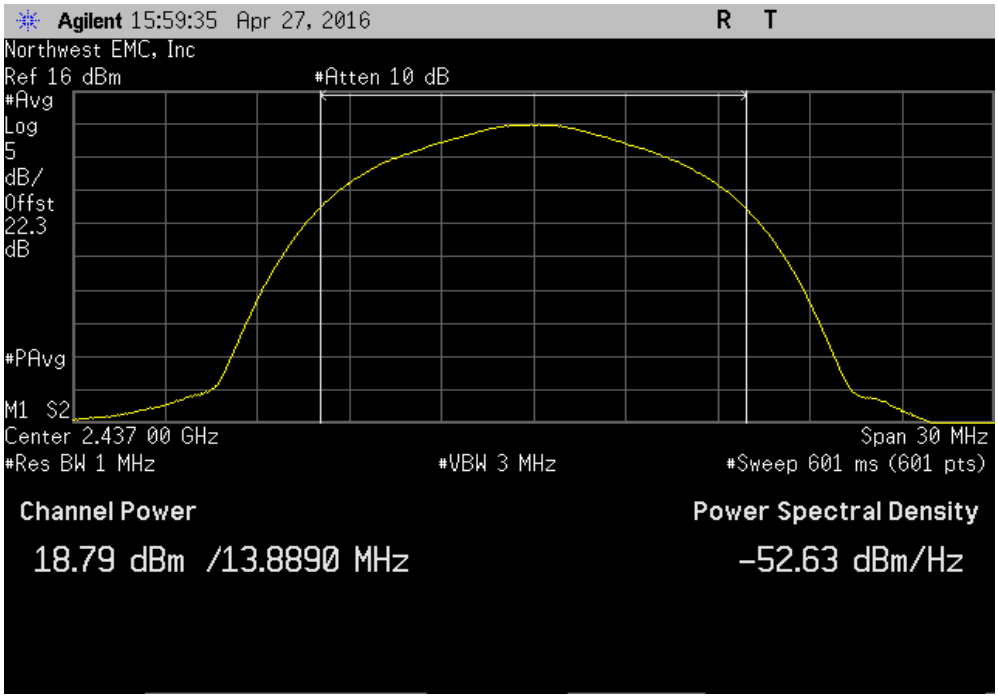
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	16.405	0		16.4	30	Pass



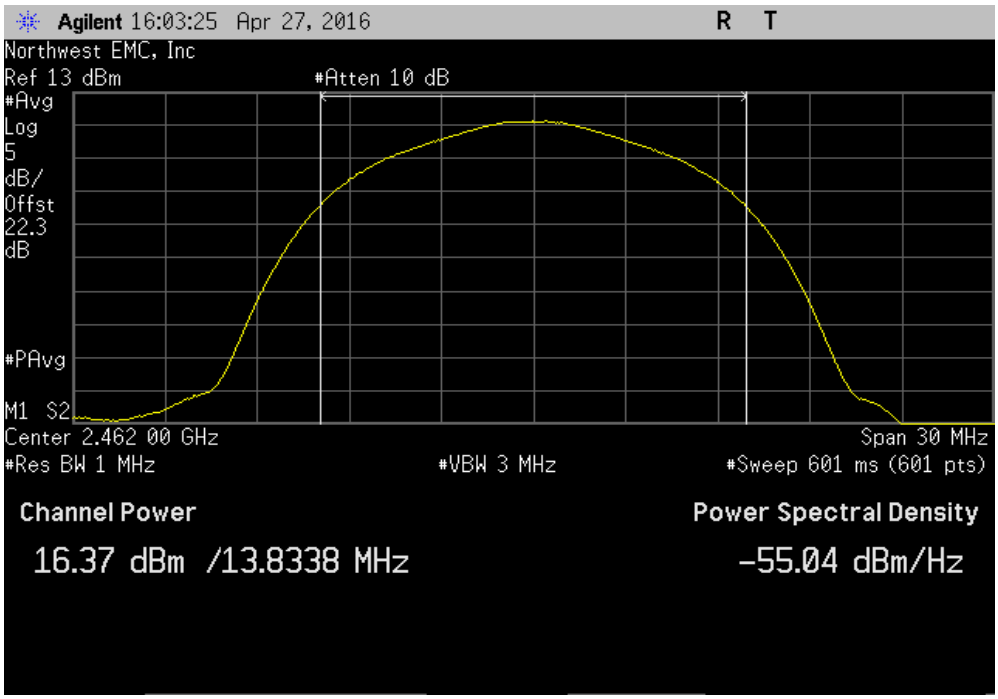
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	16.388	0.1		16.5	30	Pass



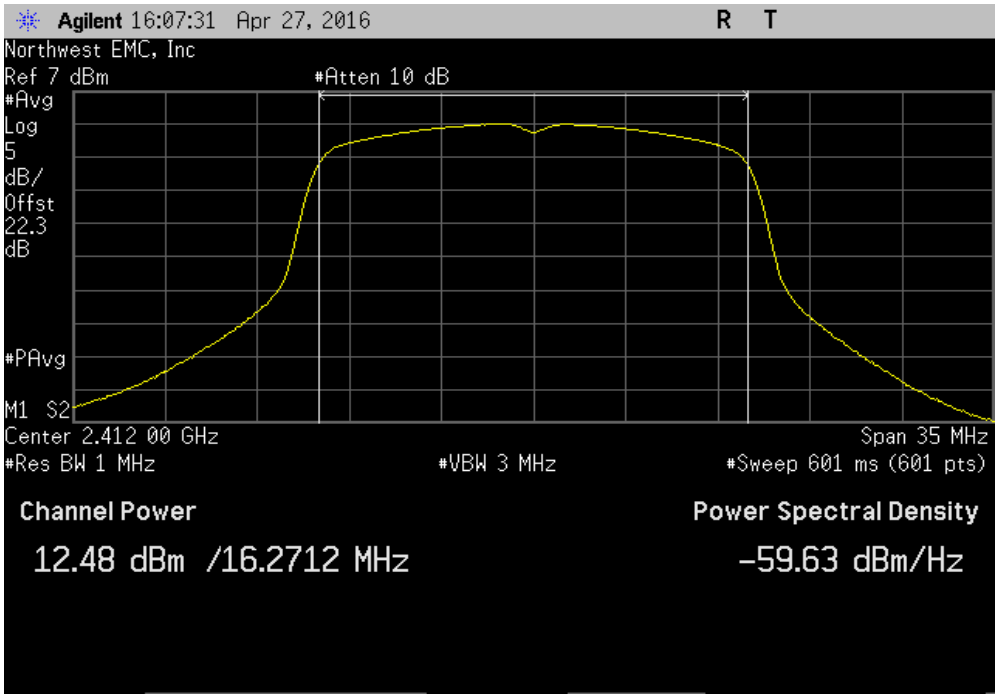
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	18.794	0.1		18.9	30	Pass



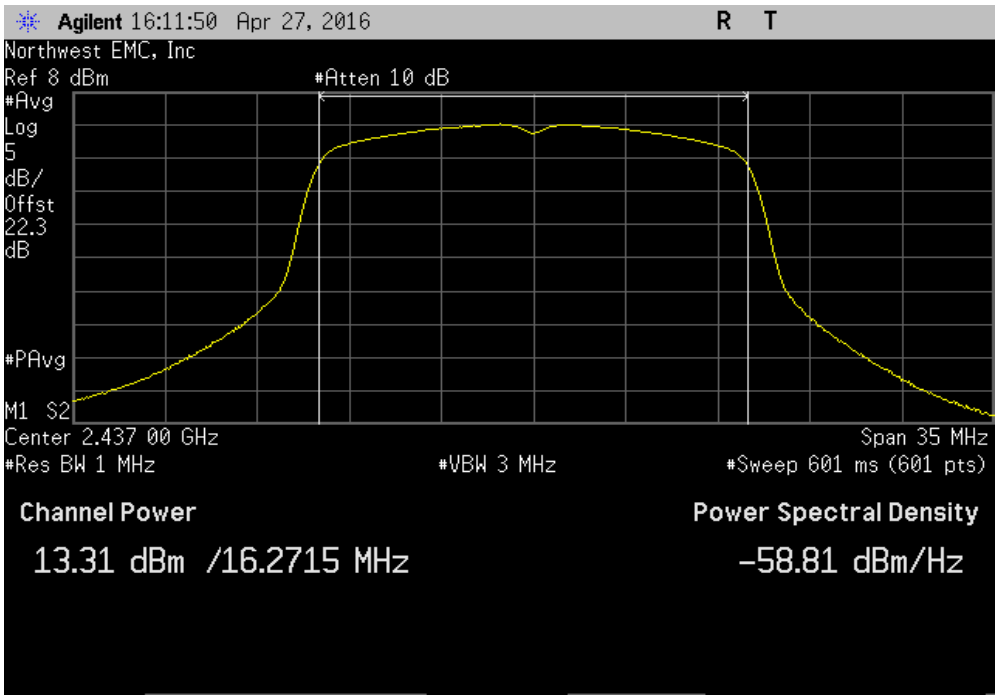
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	16.372	0.1		16.5	30	Pass



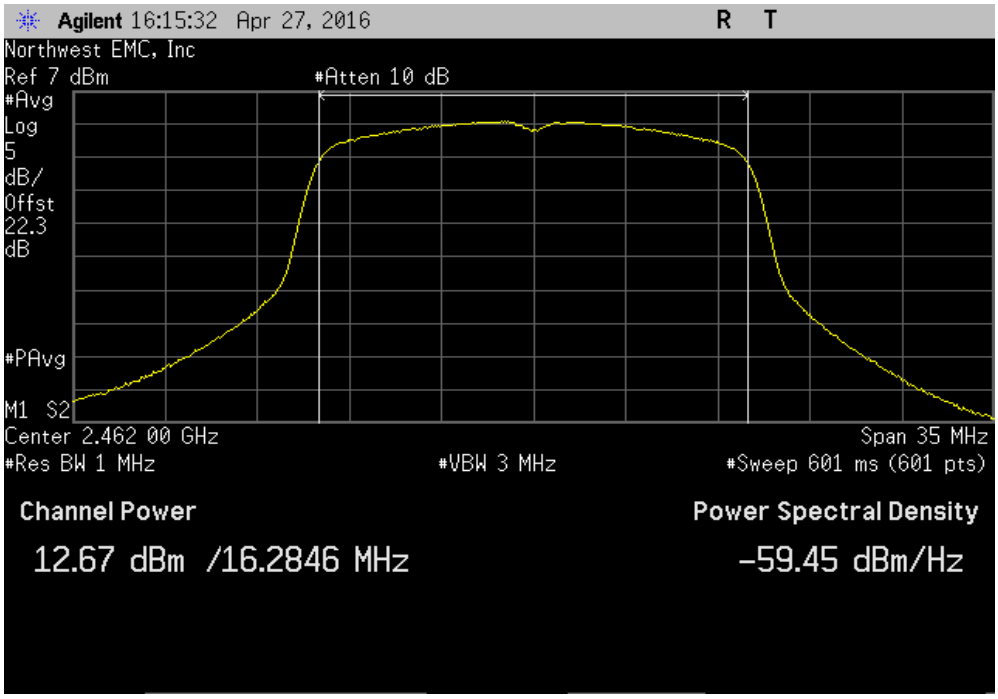
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.482	0.1		12.6	30	Pass



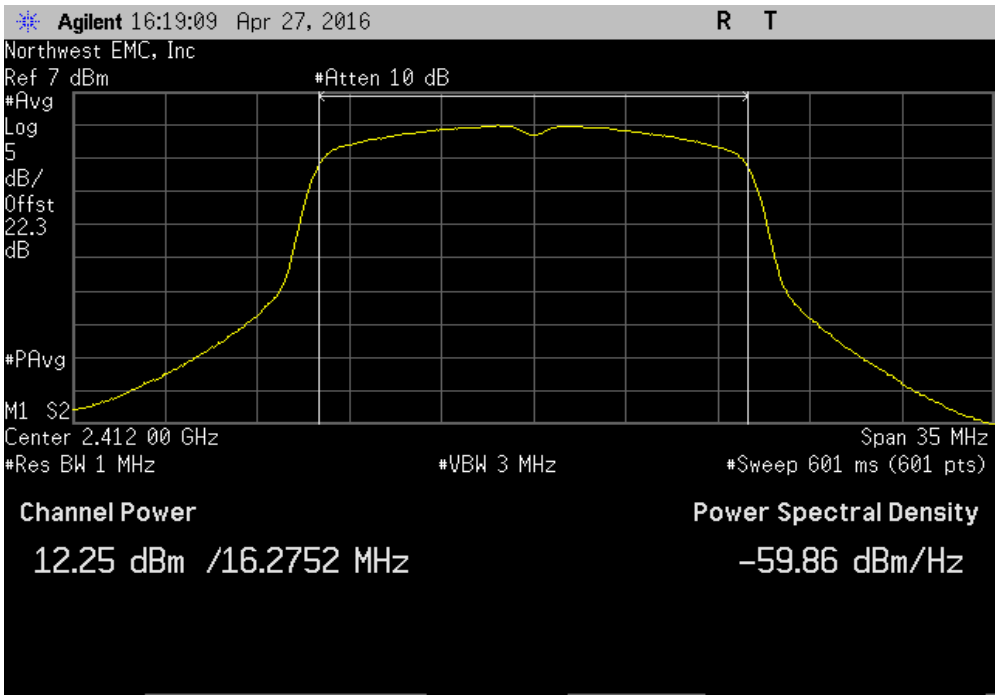
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	13.307	0.1		13.4	30	Pass



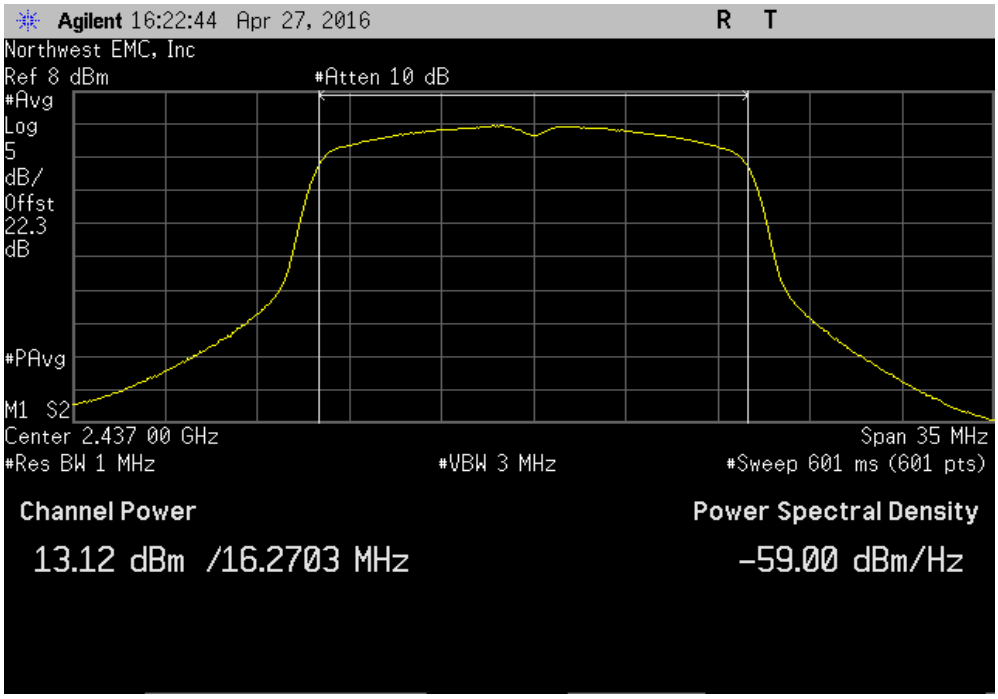
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.666	0.1		12.7	30	Pass



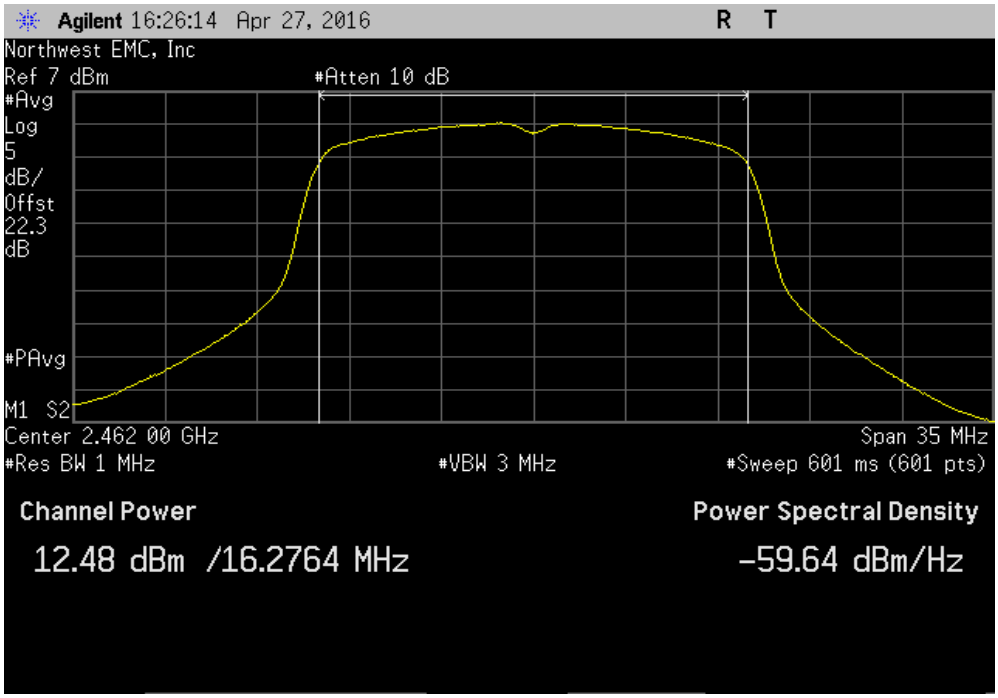
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.255	0.5		12.7	30	Pass



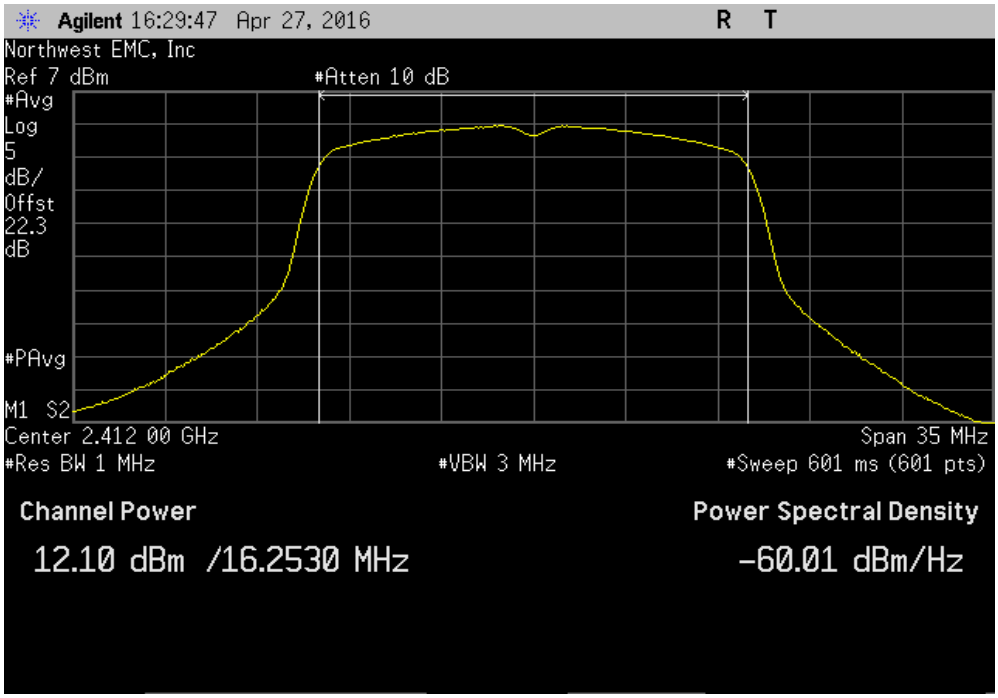
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	13.118	0.5		13.6	30	Pass



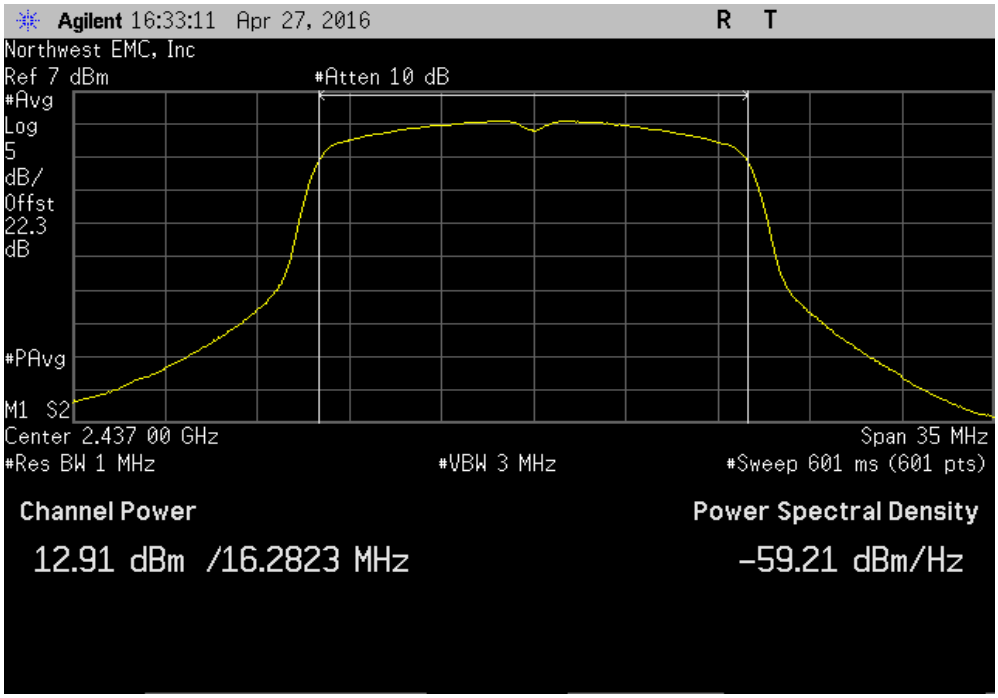
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.48	0.5		12.9	30	Pass



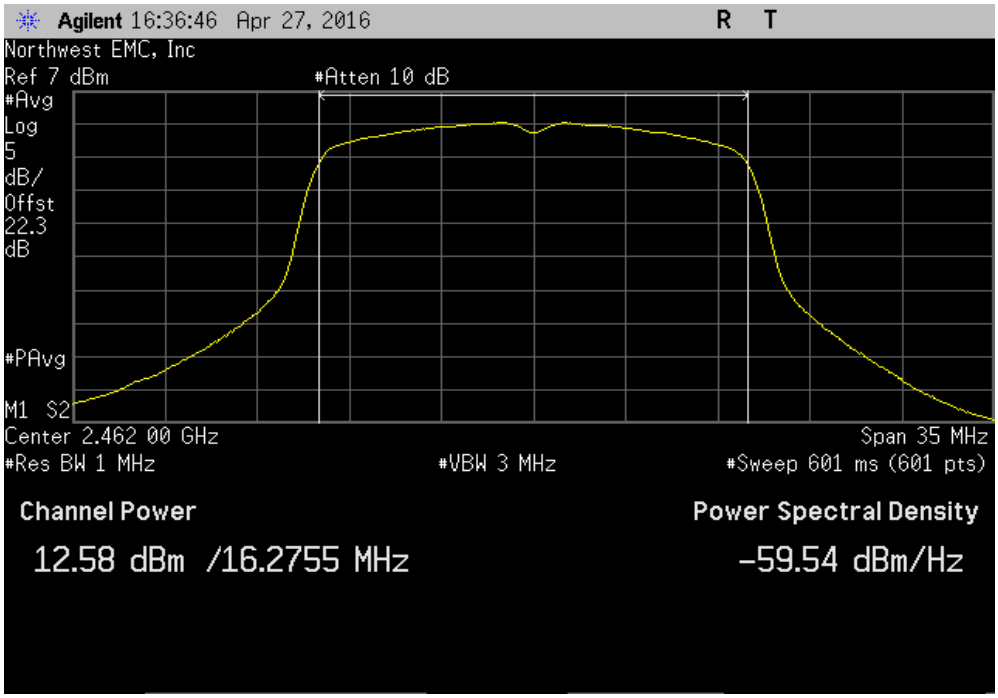
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.103	0.6		12.7	30	Pass



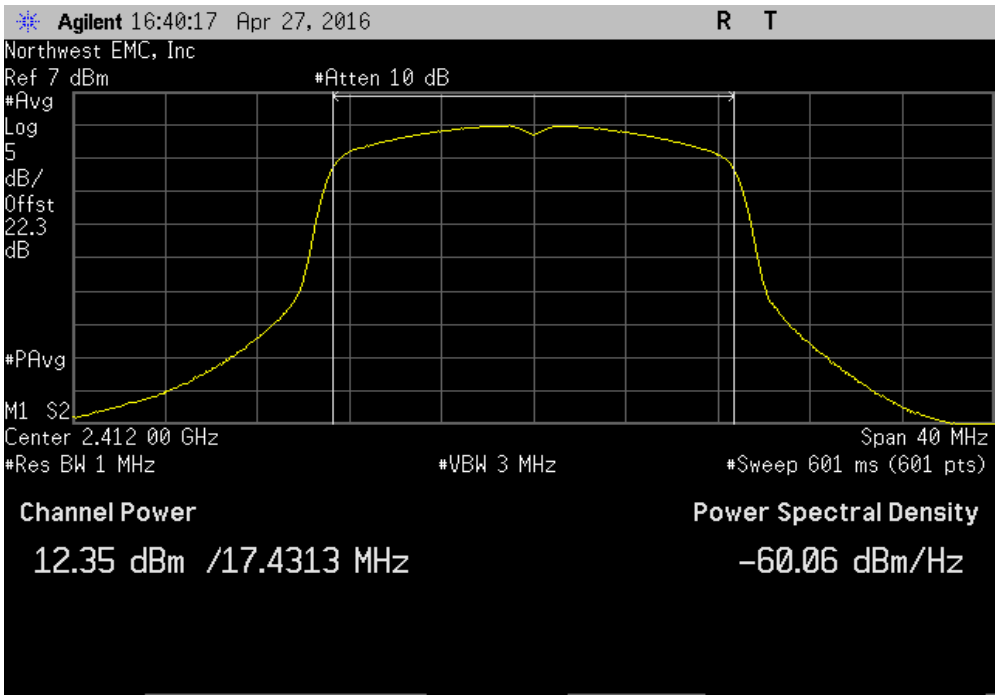
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.908	0.6		13.5	30	Pass



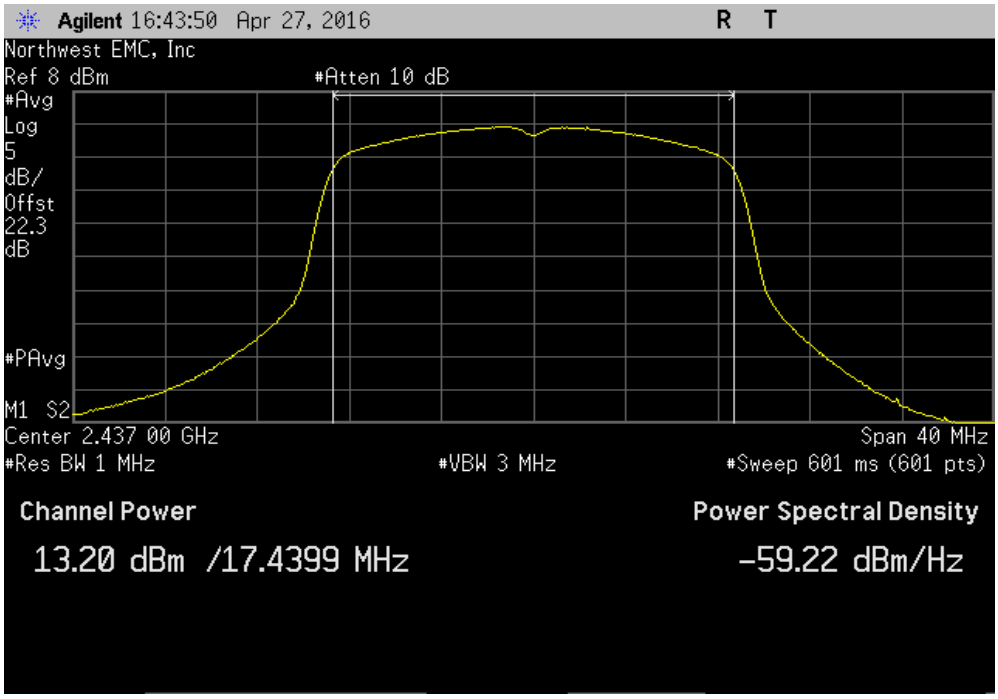
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.575	0.6		13.2	30	Pass



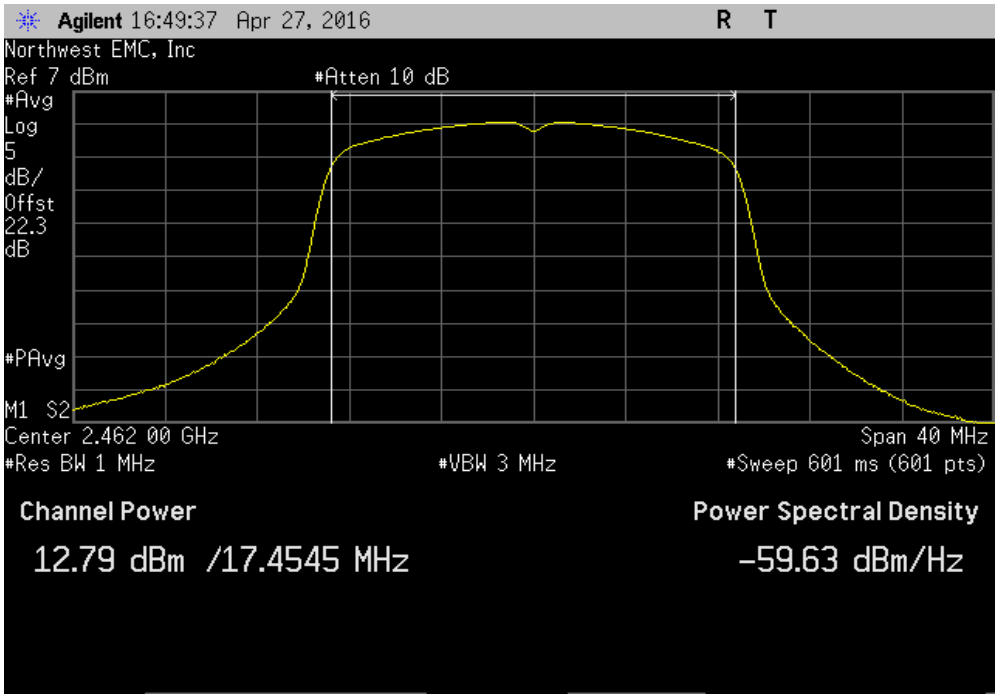
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.349	0.1		12.4	30	Pass



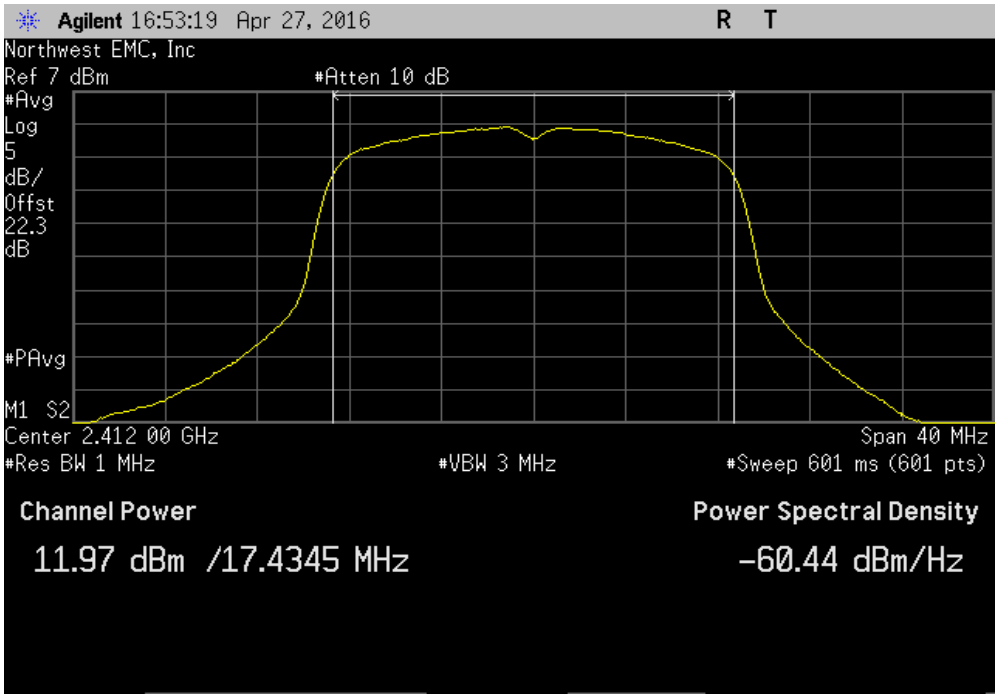
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	13.199	0.1		13.3	30	Pass



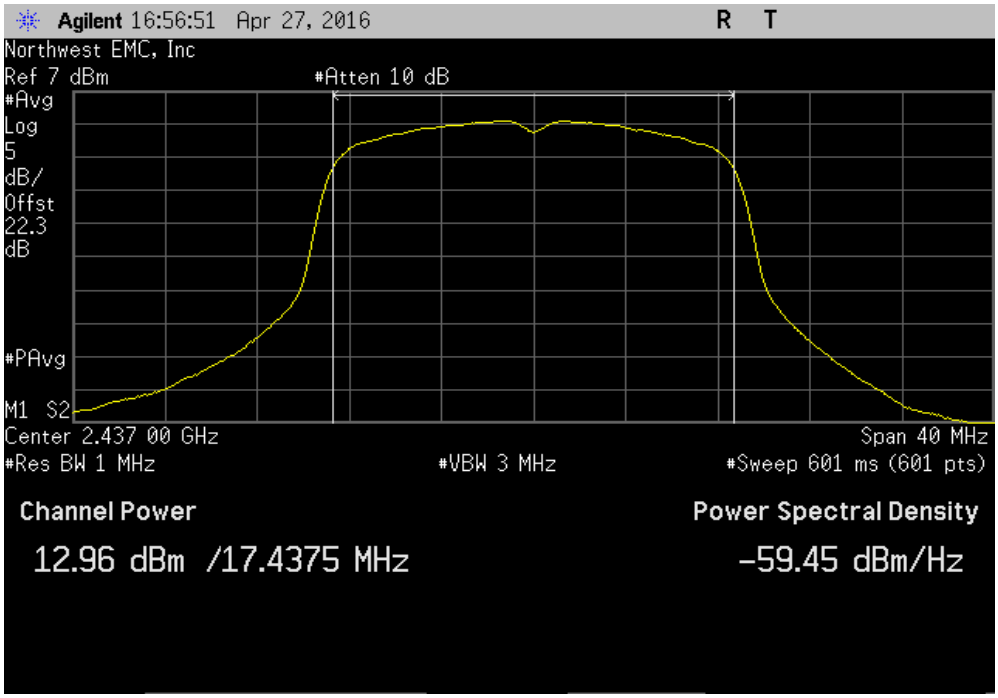
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS0, High Channel 11, 2462 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.791	0.1		12.9	30	Pass



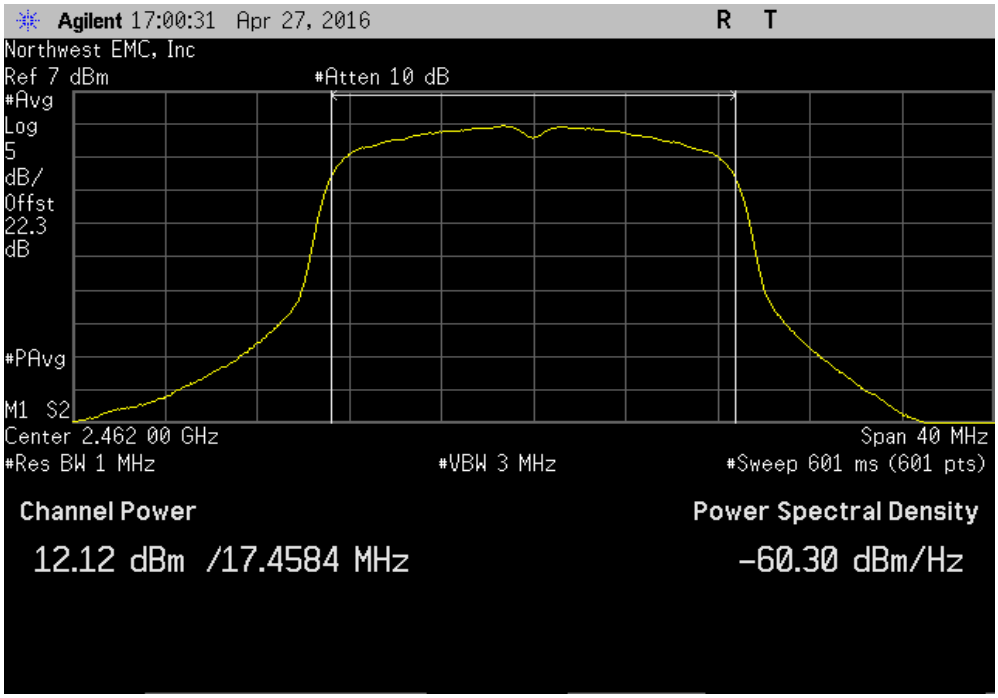
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	11.974	0.7		12.7	30	Pass



2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.964	0.7		13.7	30	Pass



2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS7, High Channel 11, 2462 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)		Value (dBm)	Limit (dBm)	Results
	12.121	0.7		12.8	30	Pass



POWER SPECTRAL DENSITY

NORTHWEST EMC

XMit 2015.01.14

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 (mo)
Generator - Signal	Agilent	N5183A	TIK	10/17/2014	36
Attenuator	S.M. Electronics	SA26B-20	RFW	2/26/2016	12
Block - DC	Fairview Microwave	SD3379	AMI	9/18/2015	12
Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNU	9/18/2015	12
Analyzer - Spectrum Analyzer	Agilent	E4440A	AAX	3/24/2016	12

TEST DESCRIPTION

The maximum power spectral density measurements was measured using the channels and modes as called out on the following data sheets.

A direct connection was made between the RF output of the EUT and a spectrum analyzer. External 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.

Per the procedure outlined in ANSI C63.10 the peak power spectral density was measured in a 3 kHz RBW.

POWER SPECTRAL DENSITY

NORTHWEST EMC

XMit 2015.01.14

EUT:	TH6320WF2003			**Work Order:**	HNYW0156
Serial Number:	00D02D95E598			**Date:**	04/28/16
Customer:	Honeywell, Automation and Control Solutions			**Temperature:**	21.3°C
Attendees:	None			**Humidity:**	31%
Project:	None			**Barometric Pres.:**	1014.8
Tested by:	Cole Ghizzone	**Power:**	110VAC/60Hz	**Job Site:**	MN08

TEST SPECIFICATIONS	**Test Method**
FCC 15.247:2016	ANSI C63.10:2013

COMMENTS

The EUT was tested using the power settings provided by the manufacturer. These settings can be found in the Power Table.

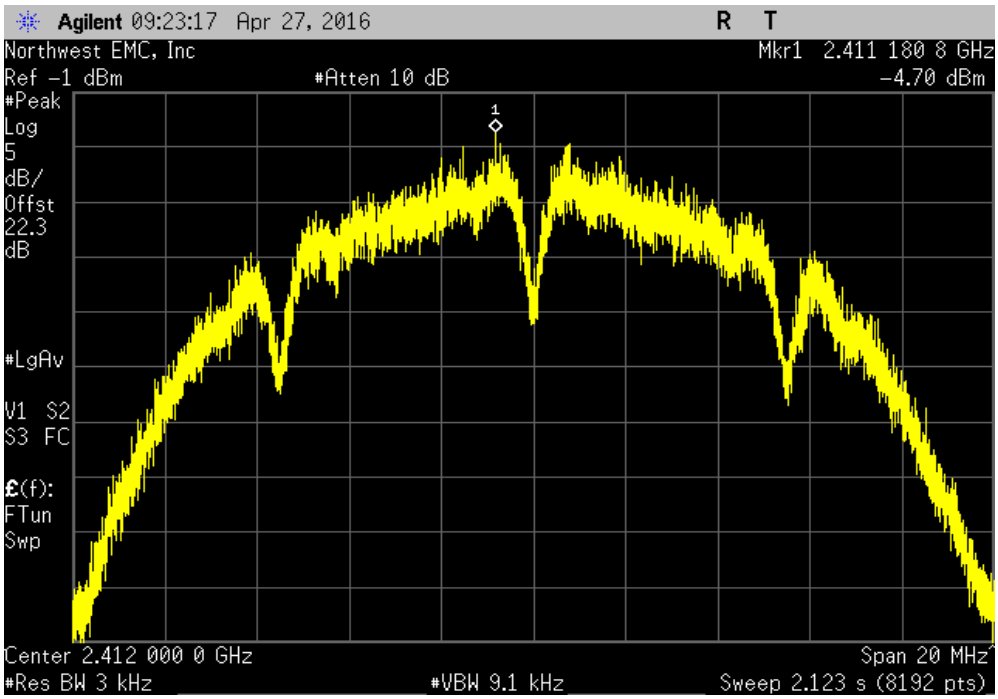
DEVIATIONS FROM TEST STANDARD

None

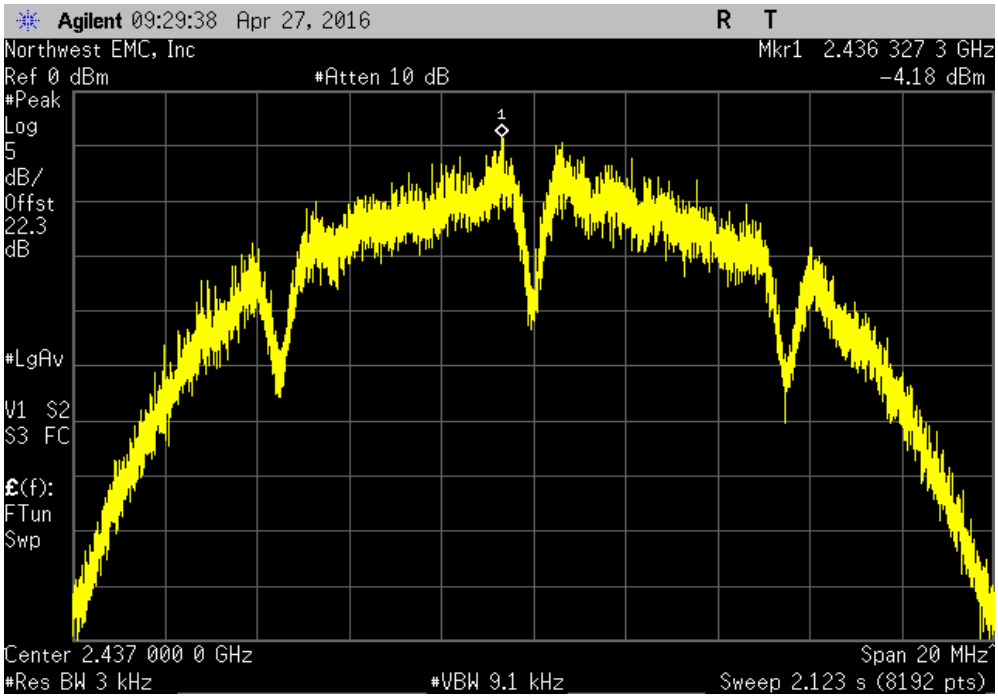
Configuration #	2	*Signature*

	Value dBm/3kHz	Limit < dBm/3kHz	Results
2400 MHz - 2483.5 MHz Band			
Antenna Port 0			
802.11(b) 1 Mbps			
Low Channel 1, 2412 MHz	-4.7	8	Pass
Mid Channel 6, 2437 MHz	-4.182	8	Pass
High Channel 11, 2462 MHz	-5.072	8	Pass
802.11(b) 11 Mbps			
Low Channel 1, 2412 MHz	-6.173	8	Pass
Mid Channel 6, 2437 MHz	-4.017	8	Pass
High Channel 11, 2462 MHz	-6.118	8	Pass
802.11(g) 6 Mbps			
Low Channel 1, 2412 MHz	-11.929	8	Pass
Mid Channel 6, 2437 MHz	-10.268	8	Pass
High Channel 11, 2462 MHz	-11.877	8	Pass
802.11(g) 36 Mbps			
Low Channel 1, 2412 MHz	-11.474	8	Pass
Mid Channel 6, 2437 MHz	-10.759	8	Pass
High Channel 11, 2462 MHz	-11.077	8	Pass
802.11(g) 54 Mbps			
Low Channel 1, 2412 MHz	-11.211	8	Pass
Mid Channel 6, 2437 MHz	-11.159	8	Pass
High Channel 11, 2462 MHz	-11.743	8	Pass
802.11(n) MCS0			
Low Channel 1, 2412 MHz	-11.248	8	Pass
Mid Channel 6, 2437 MHz	-9.881	8	Pass
High Channel 11, 2462 MHz	-11.491	8	Pass
802.11(n) MCS7			
Low Channel 1, 2412 MHz	-11.055	8	Pass
Mid Channel 6, 2437 MHz	-10.912	8	Pass
High Channel 11, 2462 MHz	-11.314	8	Pass
Antenna Port 1			
802.11(b) 1 Mbps			
Low Channel 1, 2412 MHz	-5.163	8	Pass
Mid Channel 6, 2437 MHz	-5.804	8	Pass
High Channel 11, 2462 MHz	-5.341	8	Pass
802.11(b) 11 Mbps			
Low Channel 1, 2412 MHz	-6.004	8	Pass
Mid Channel 6, 2437 MHz	-3.161	8	Pass
High Channel 11, 2462 MHz	-6.668	8	Pass
802.11(g) 6 Mbps			
Low Channel 1, 2412 MHz	-12.048	8	Pass
Mid Channel 6, 2437 MHz	-9.983	8	Pass
High Channel 11, 2462 MHz	-11.173	8	Pass
802.11(g) 36 Mbps			
Low Channel 1, 2412 MHz	-11.729	8	Pass
Mid Channel 6, 2437 MHz	-10.503	8	Pass
High Channel 11, 2462 MHz	-10.081	8	Pass
802.11(g) 54 Mbps			
Low Channel 1, 2412 MHz	-11.432	8	Pass
Mid Channel 6, 2437 MHz	-9.942	8	Pass
High Channel 11, 2462 MHz	-11.826	8	Pass
802.11(n) MCS0			
Low Channel 1, 2412 MHz	-11.426	8	Pass
Mid Channel 6, 2437 MHz	-10.298	8	Pass
High Channel 11, 2462 MHz	-11.572	8	Pass
802.11(n) MCS7			
Low Channel 1, 2412 MHz	-12.093	8	Pass
Mid Channel 6, 2437 MHz	-10.446	8	Pass
High Channel 11, 2462 MHz	-11.81	8	Pass

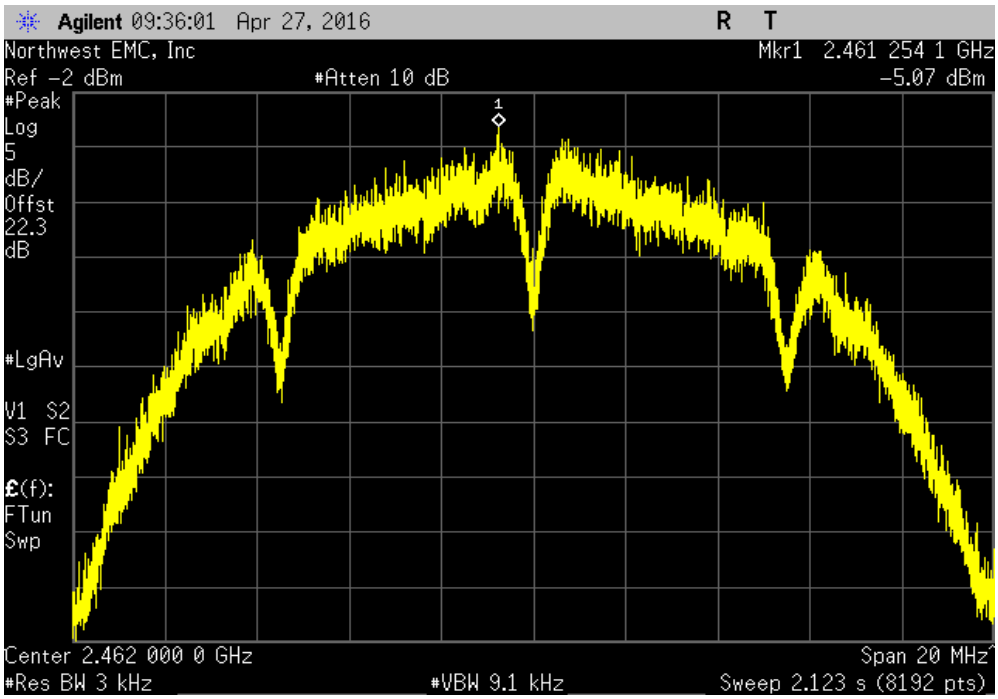
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-4.7	8	Pass



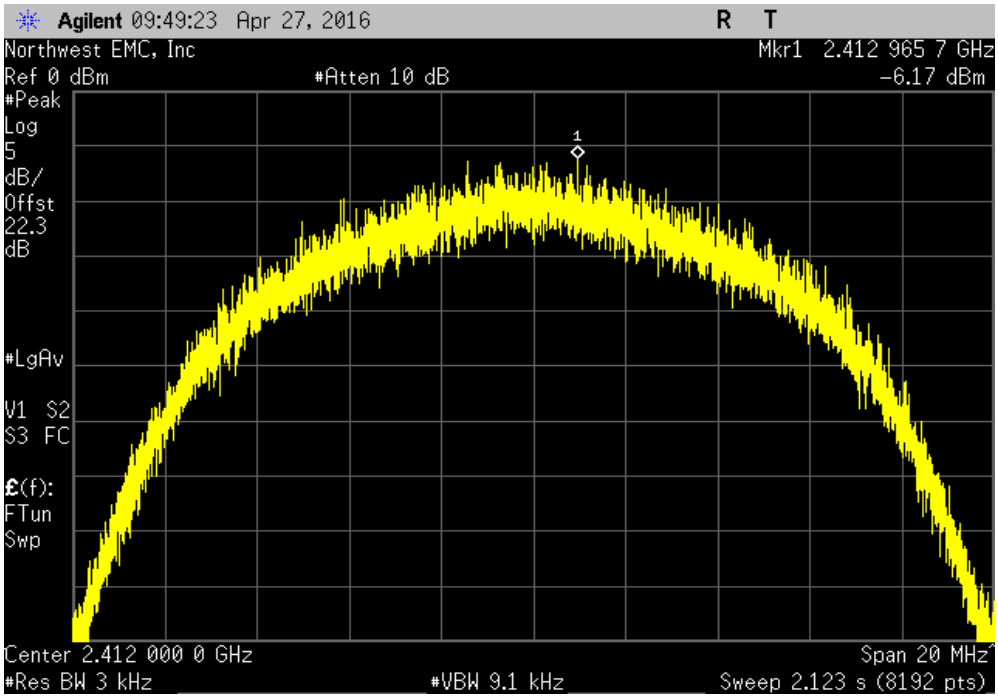
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-4.182	8	Pass



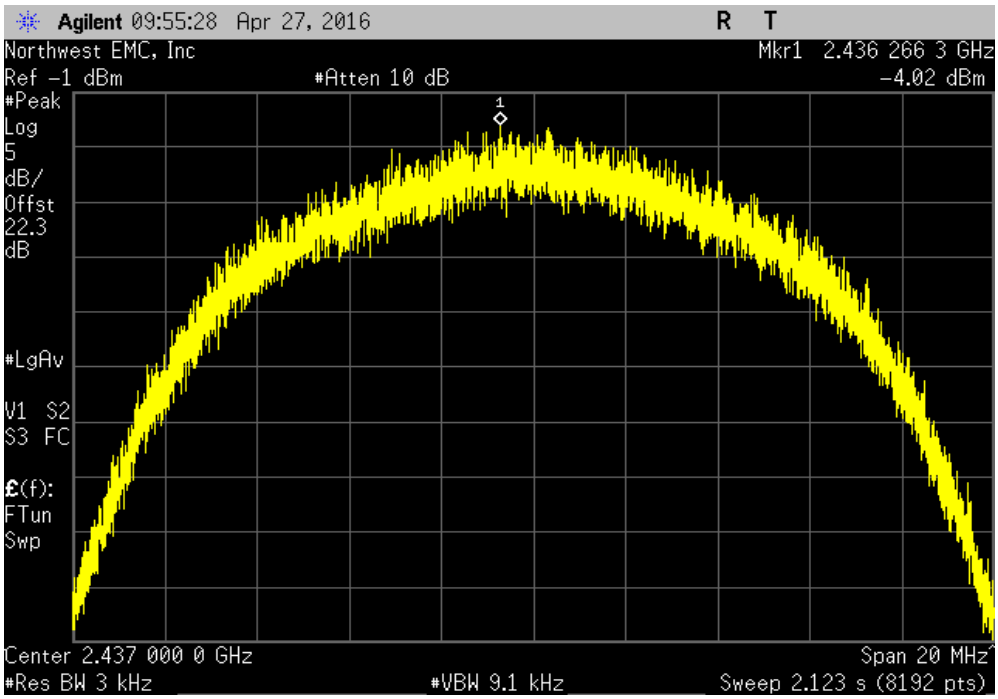
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-5.072	8	Pass



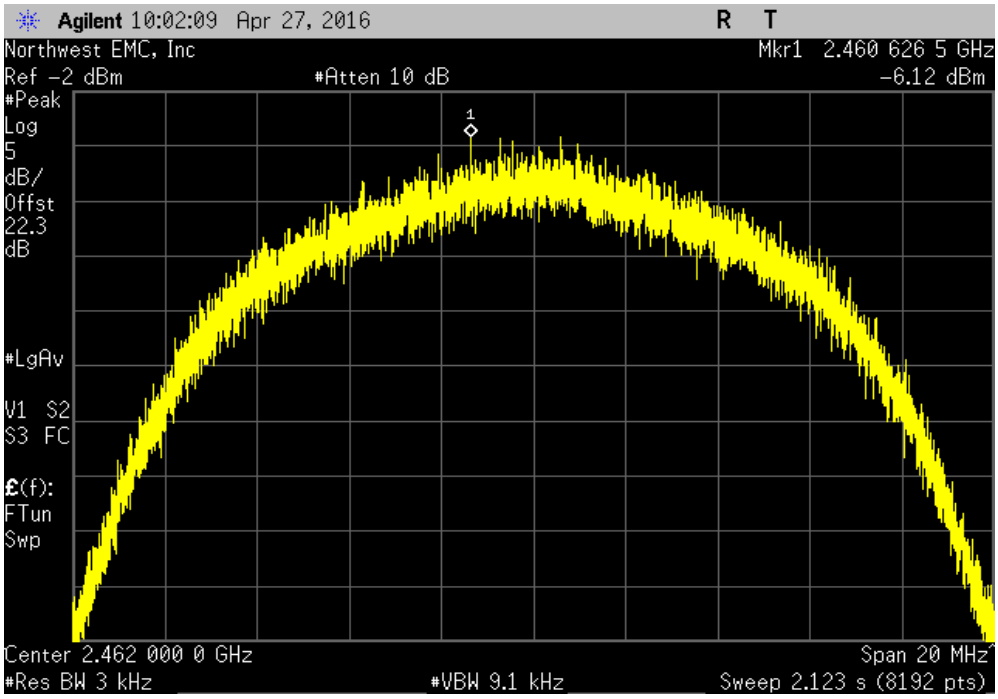
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-6.173	8	Pass



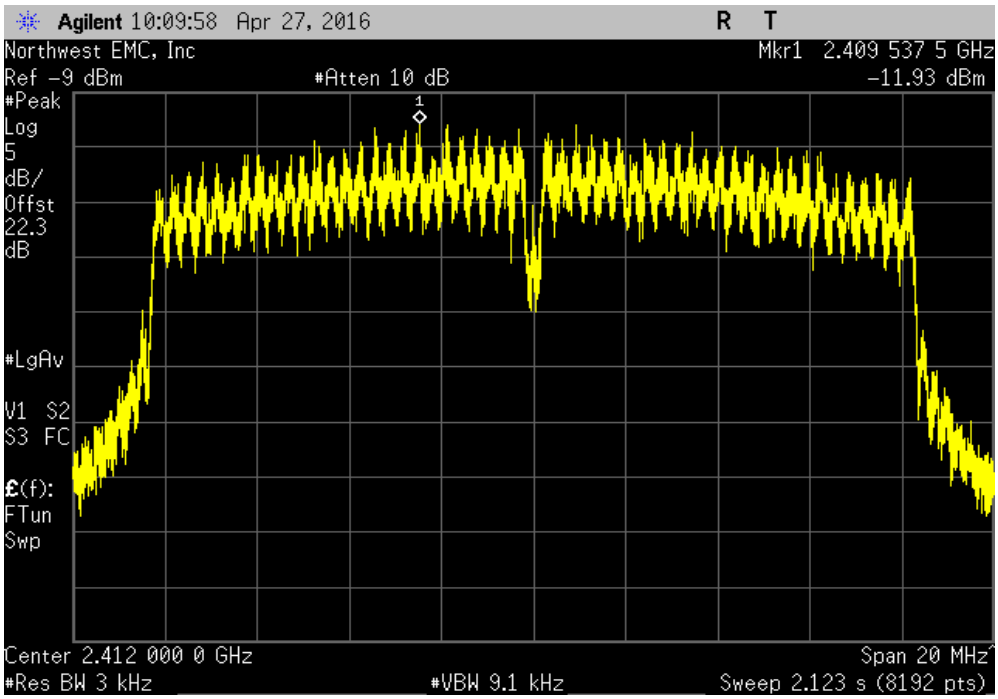
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-4.017	8	Pass



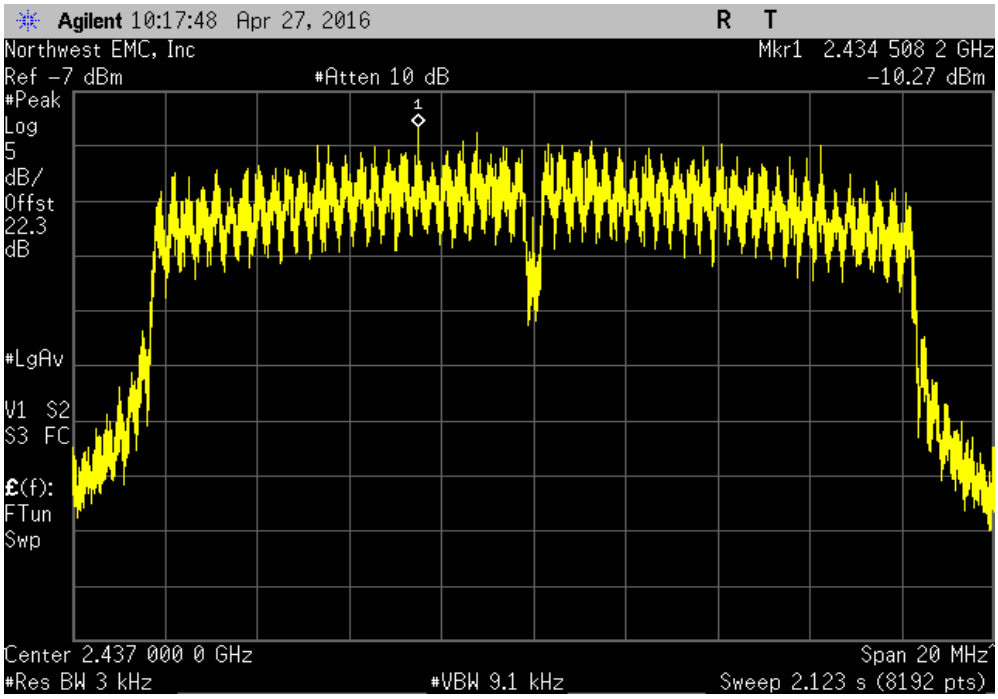
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-6.118	8	Pass



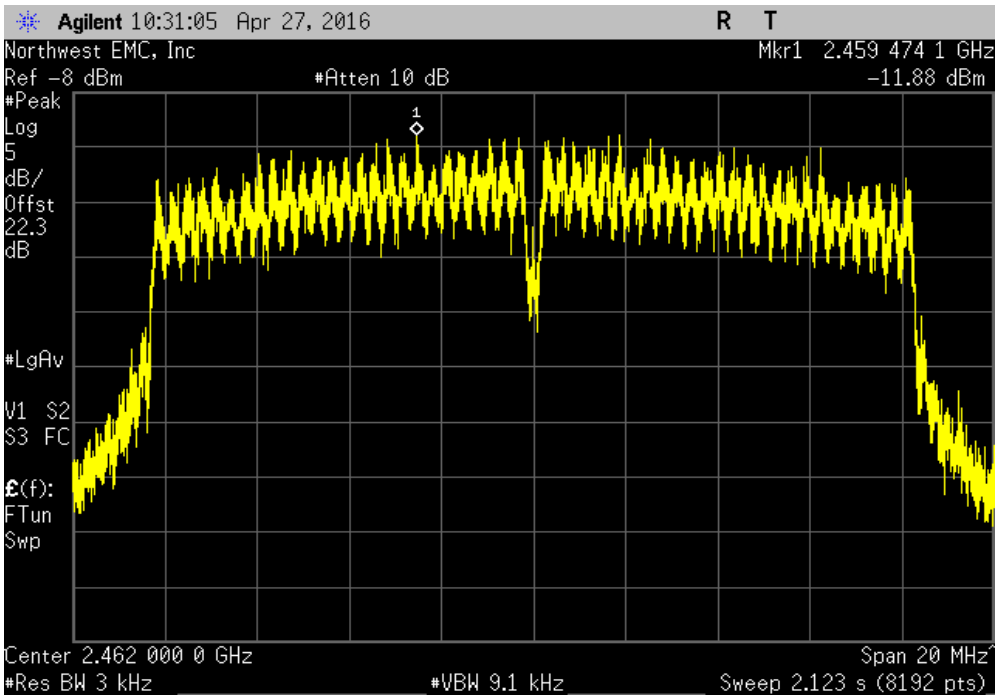
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-11.929	8	Pass



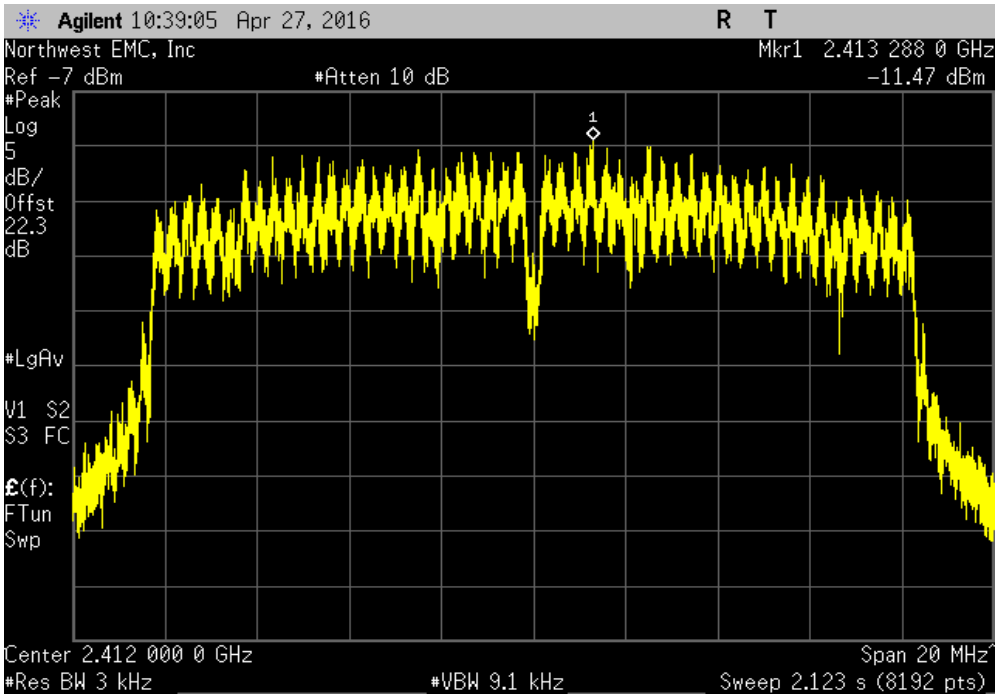
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-10.268	8	Pass



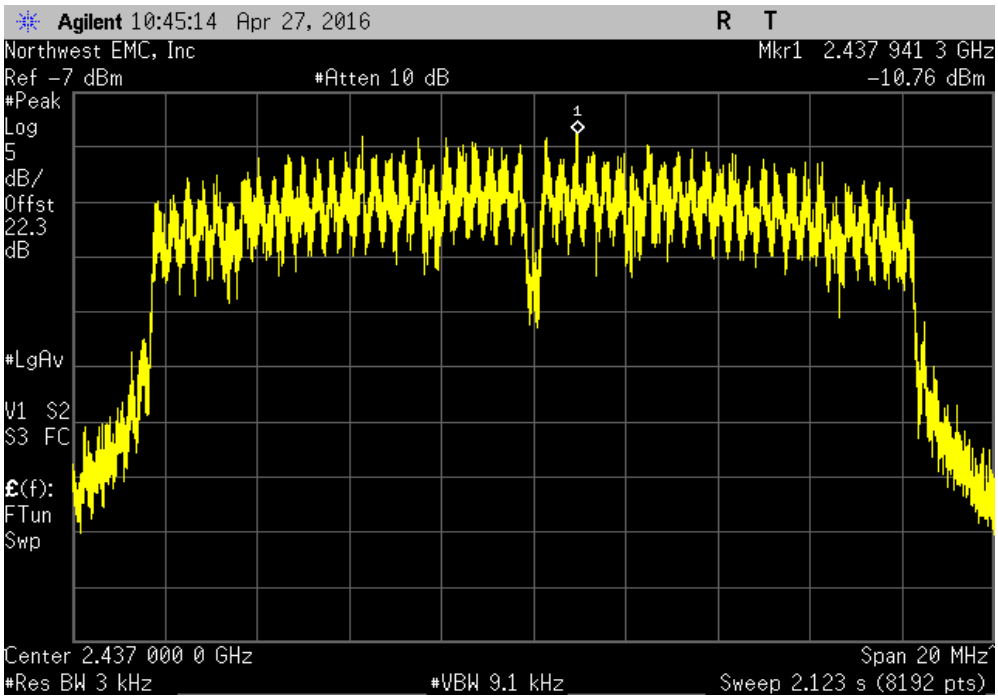
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-11.877	8	Pass



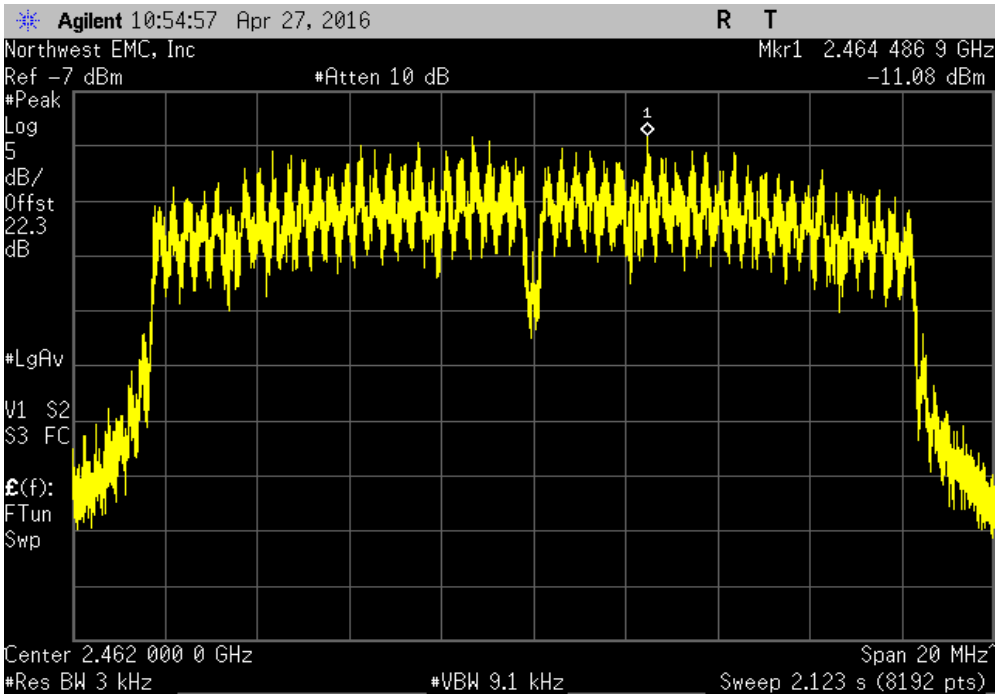
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-11.474	8	Pass



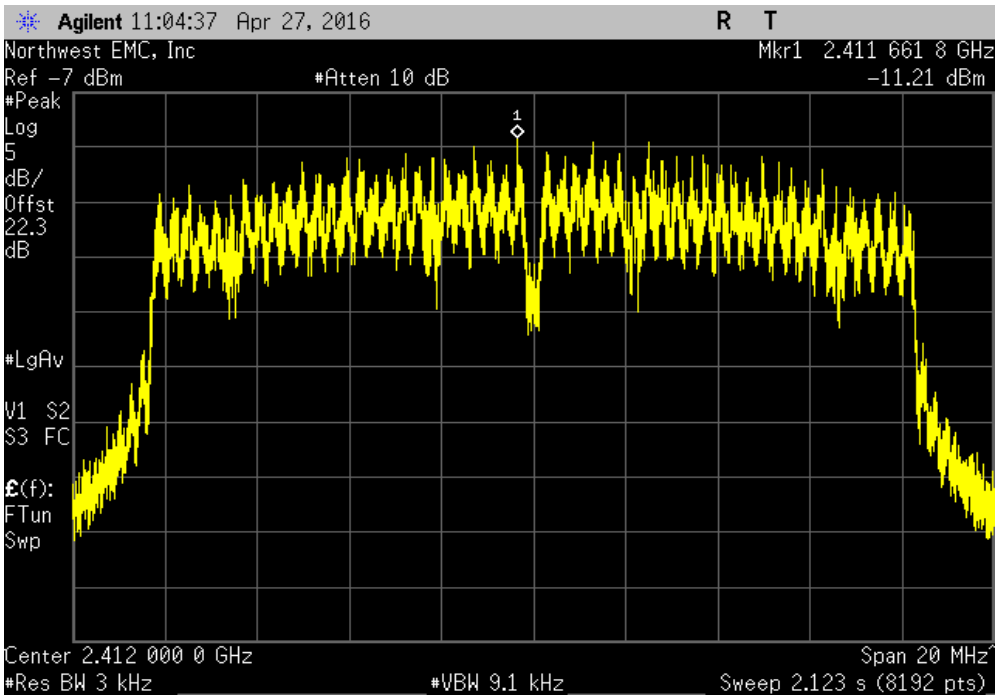
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-10.759	8	Pass



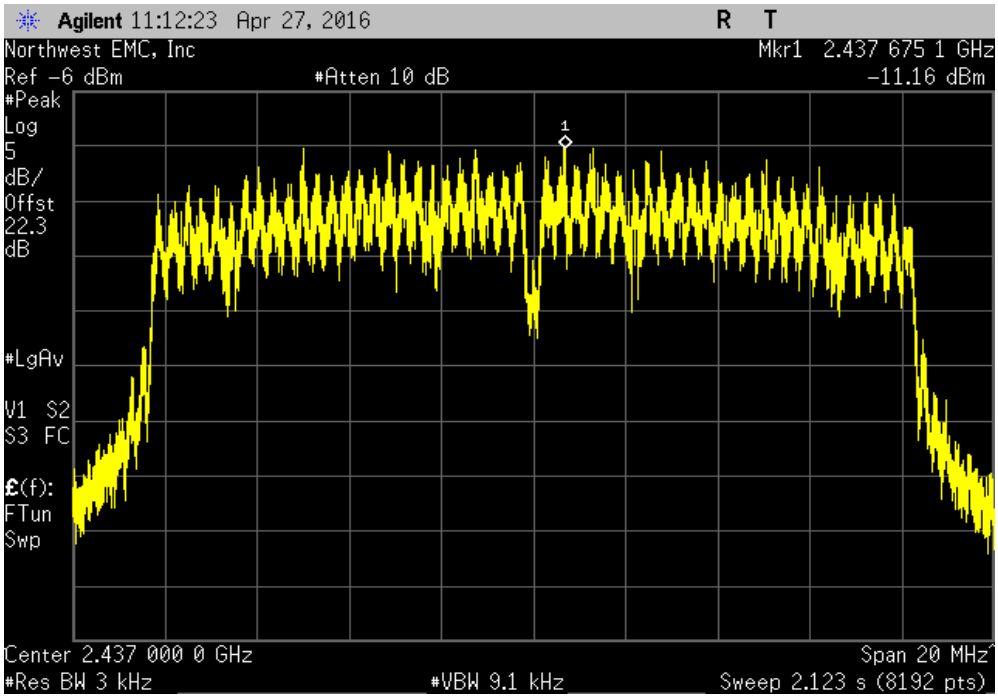
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-11.077	8	Pass



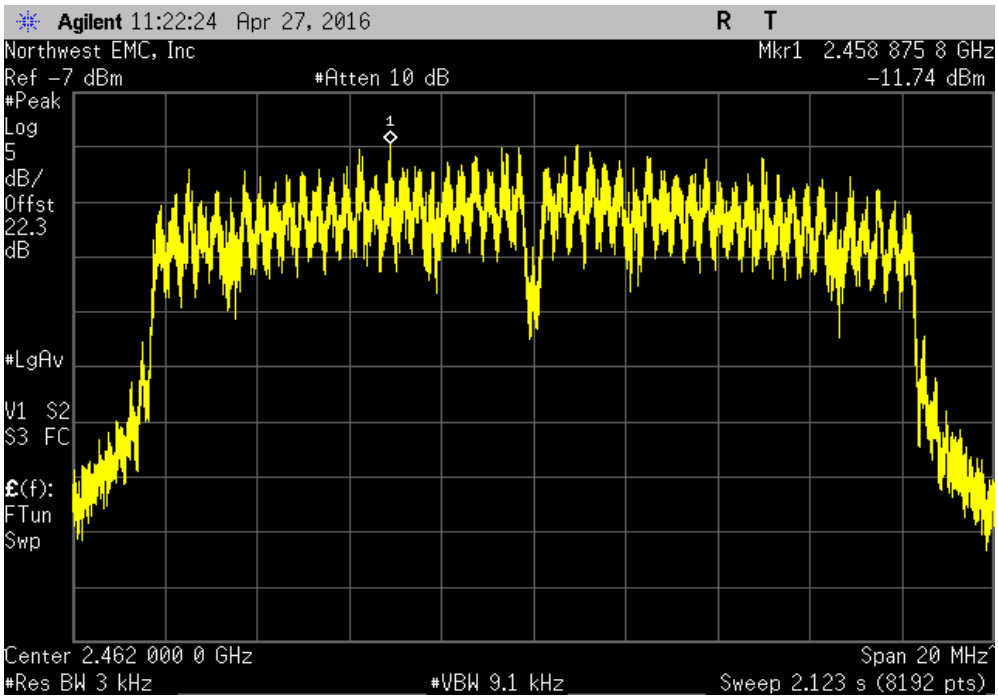
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-11.211	8	Pass



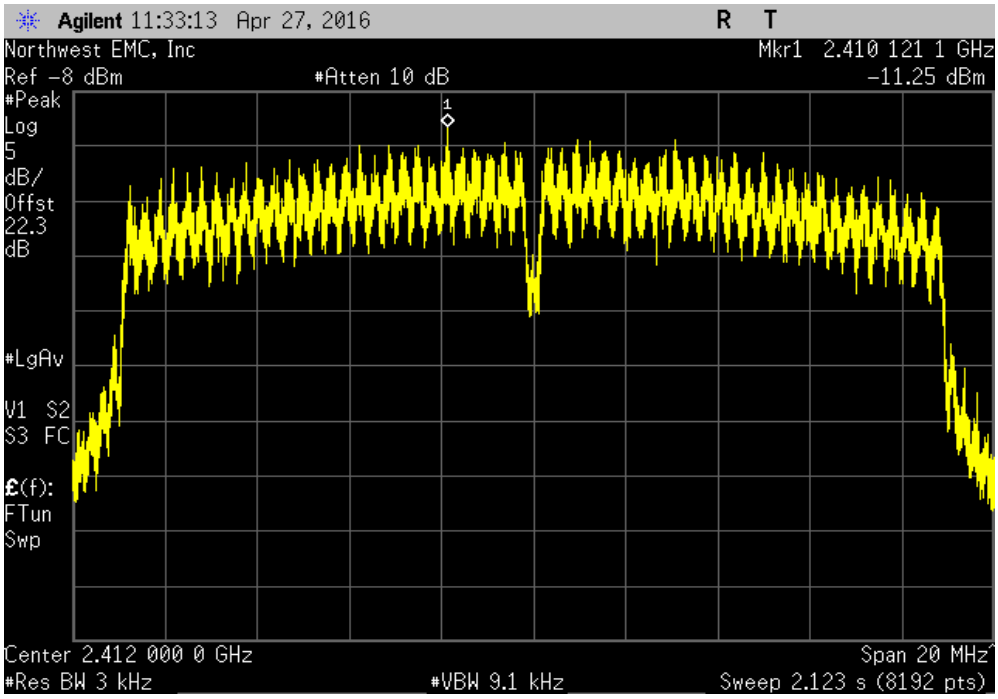
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-11.159	8	Pass



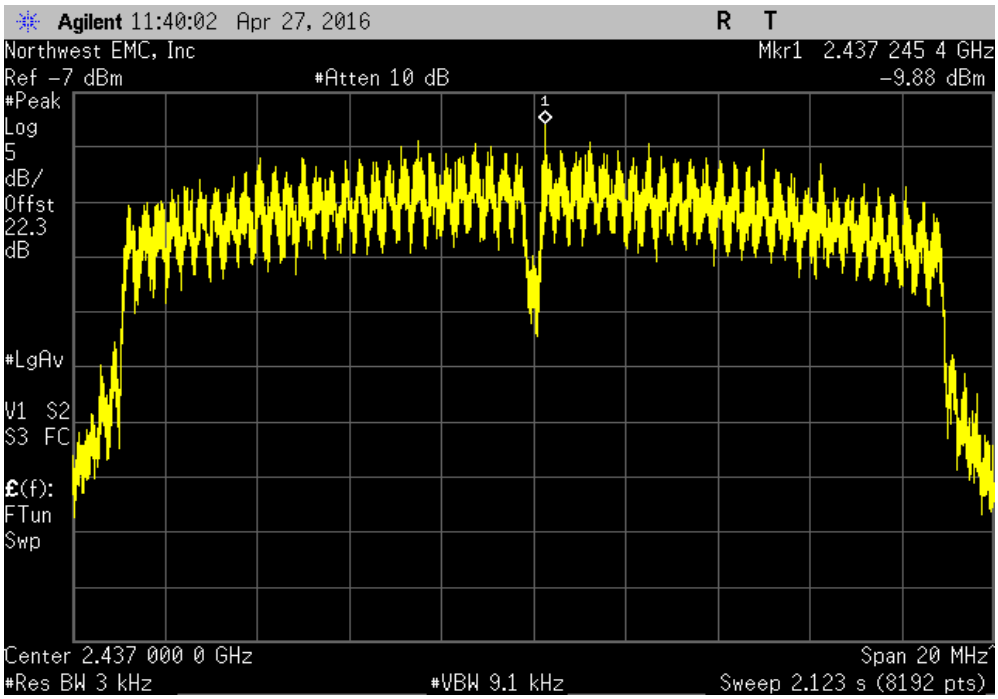
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-11.743	8	Pass



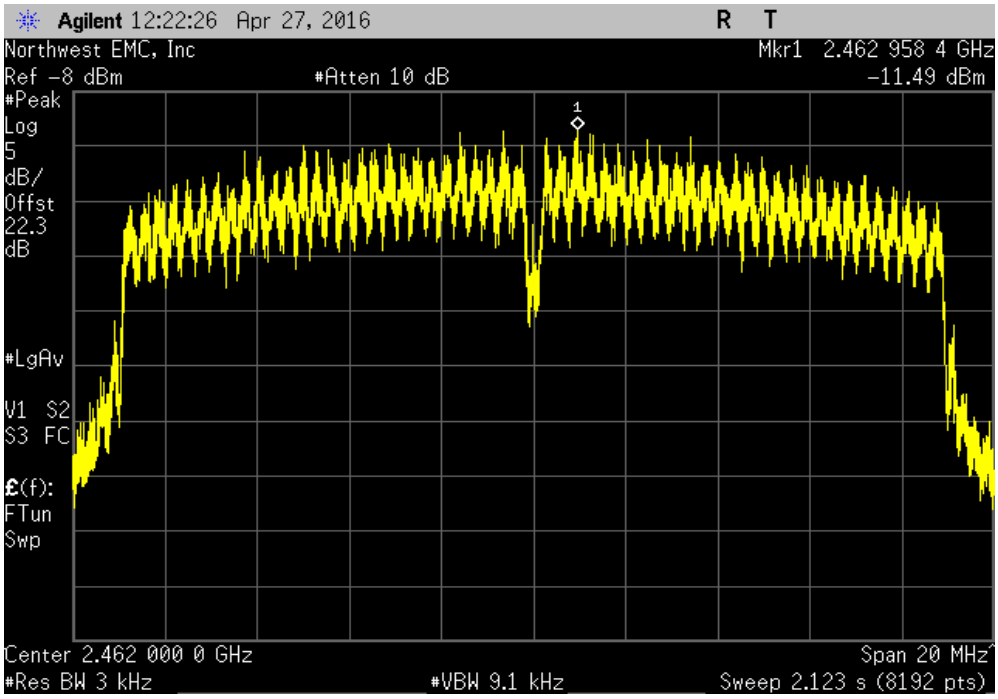
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-11.248	8	Pass



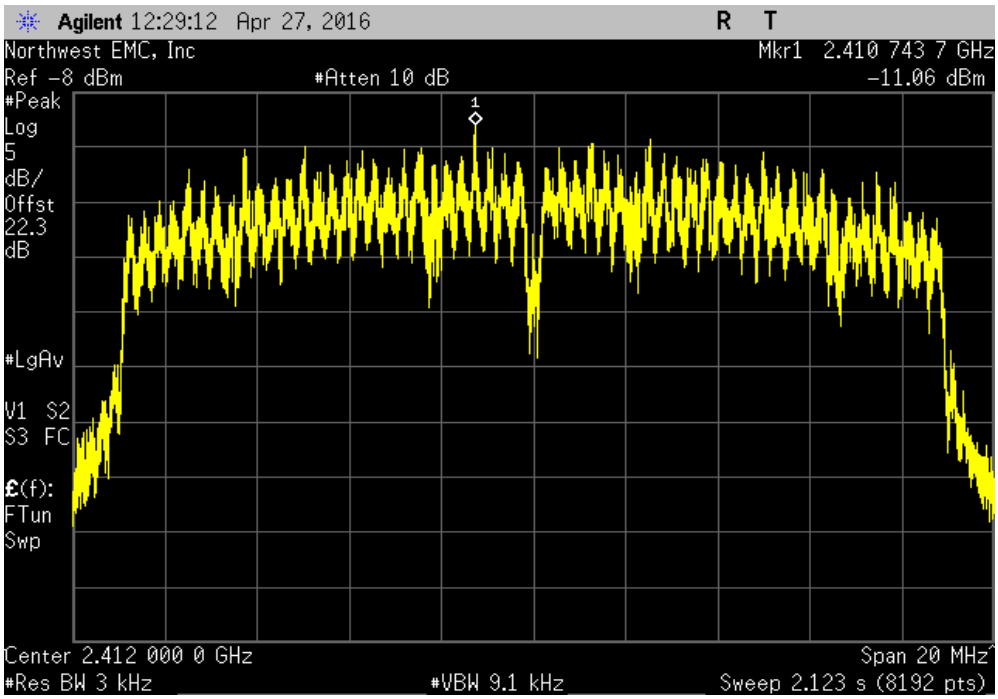
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-9.881	8	Pass



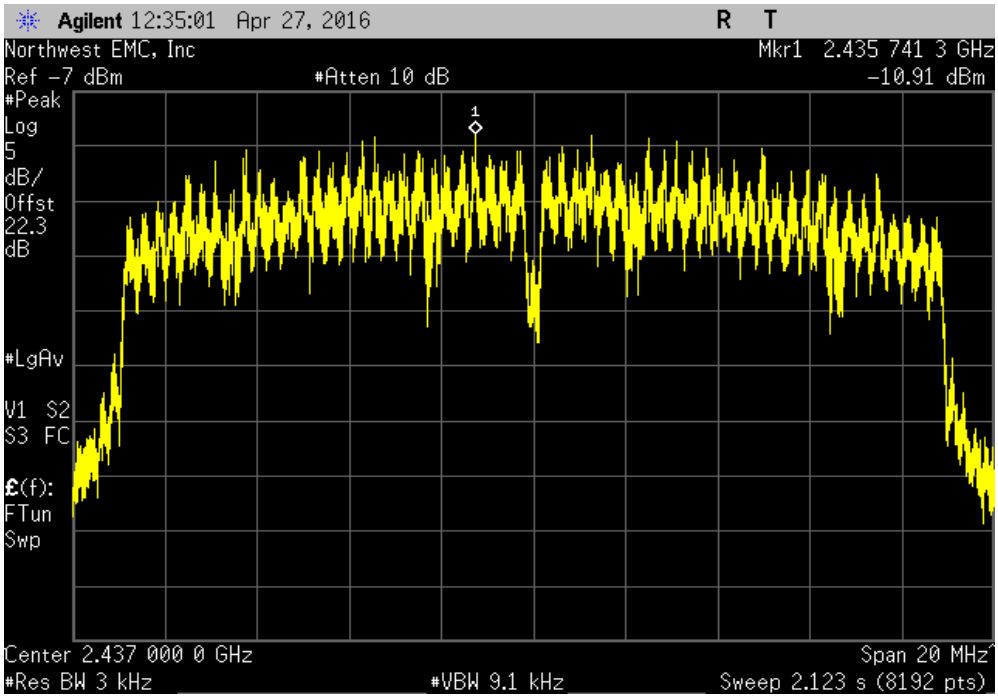
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, High Channel 11, 2462 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-11.491	8	Pass



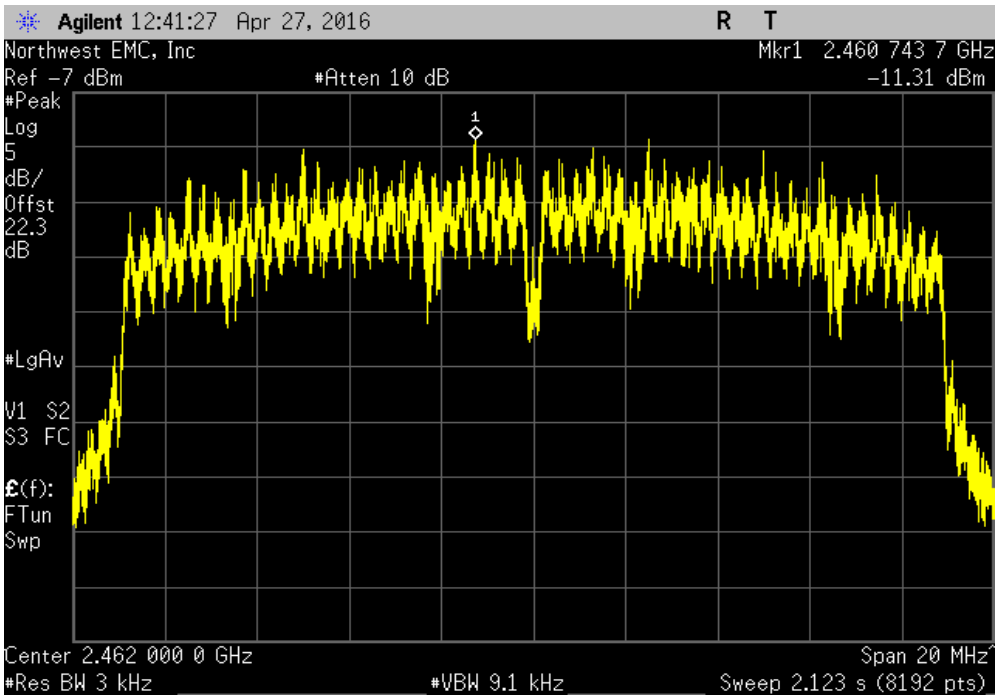
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-11.055	8	Pass



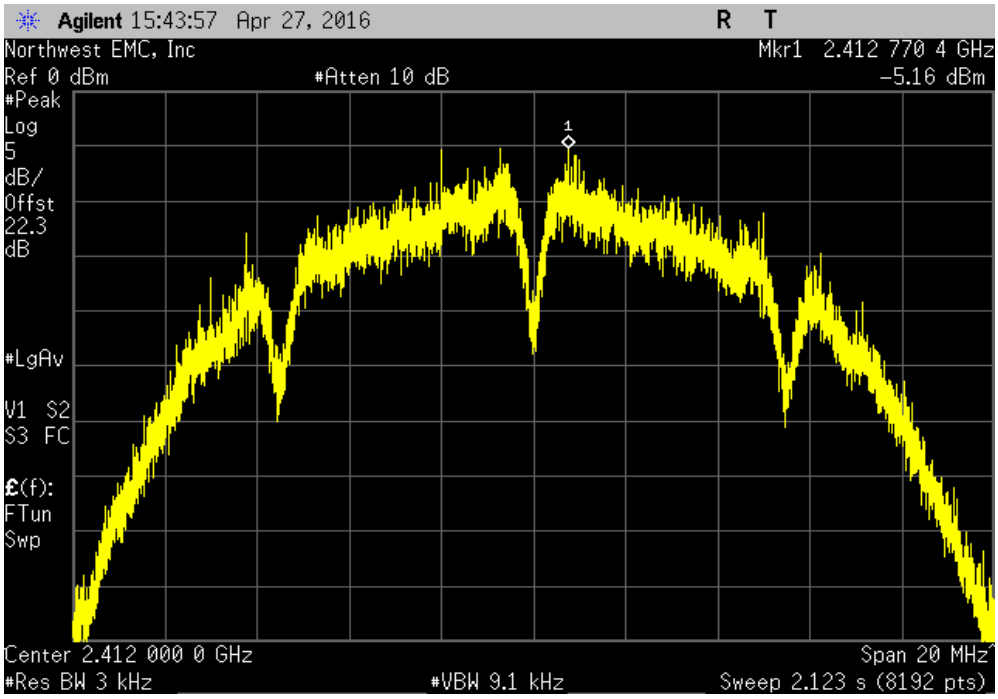
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-10.912	8	Pass



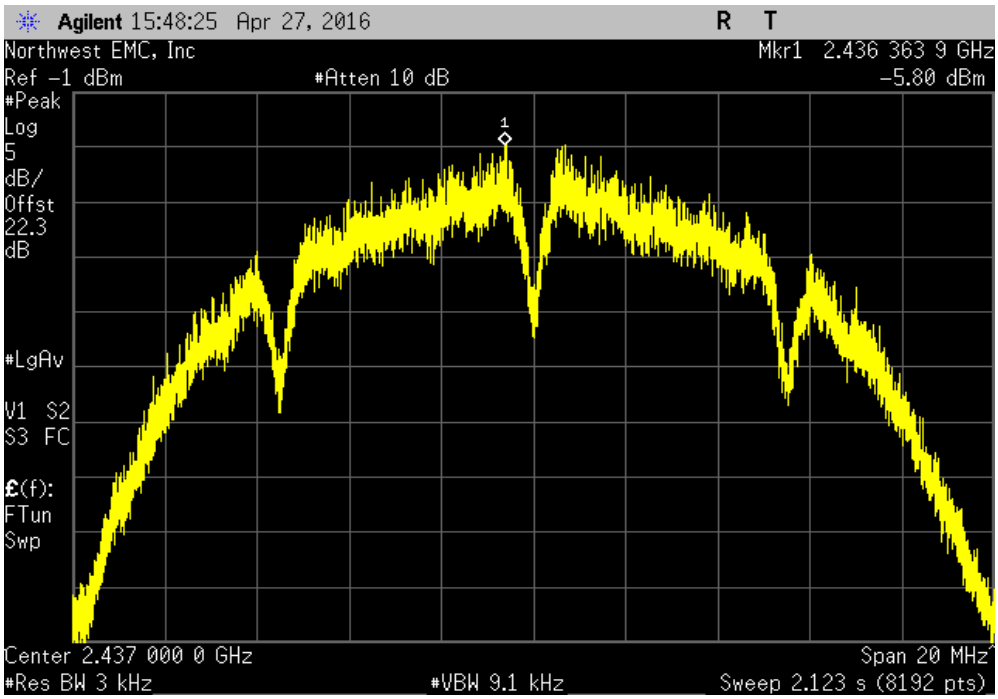
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, High Channel 11, 2462 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-11.314	8	Pass



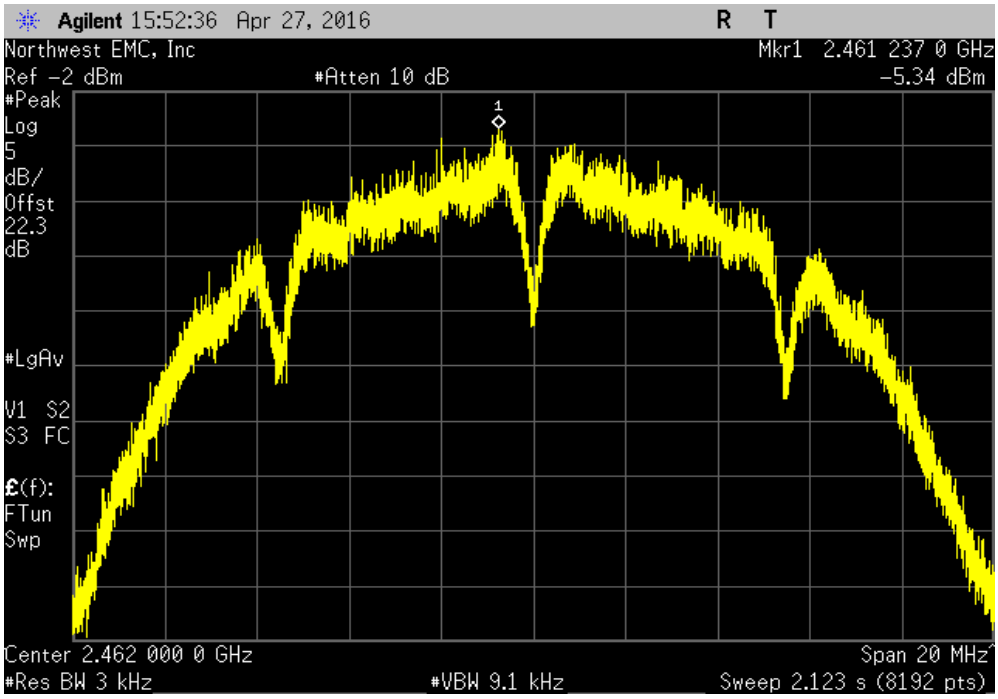
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-5.163	8	Pass



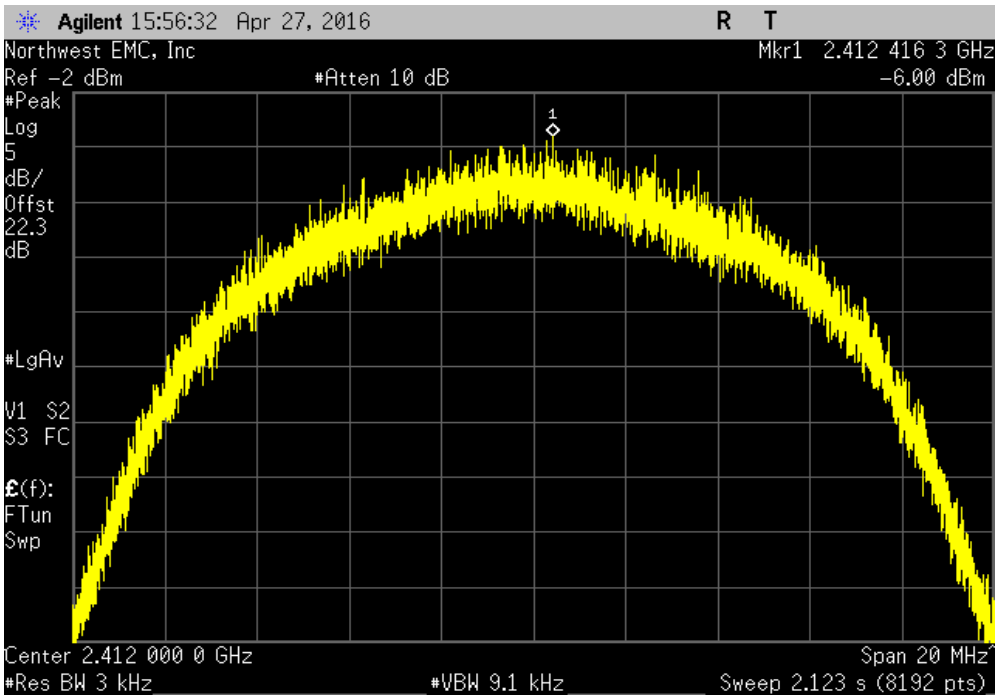
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-5.804	8	Pass



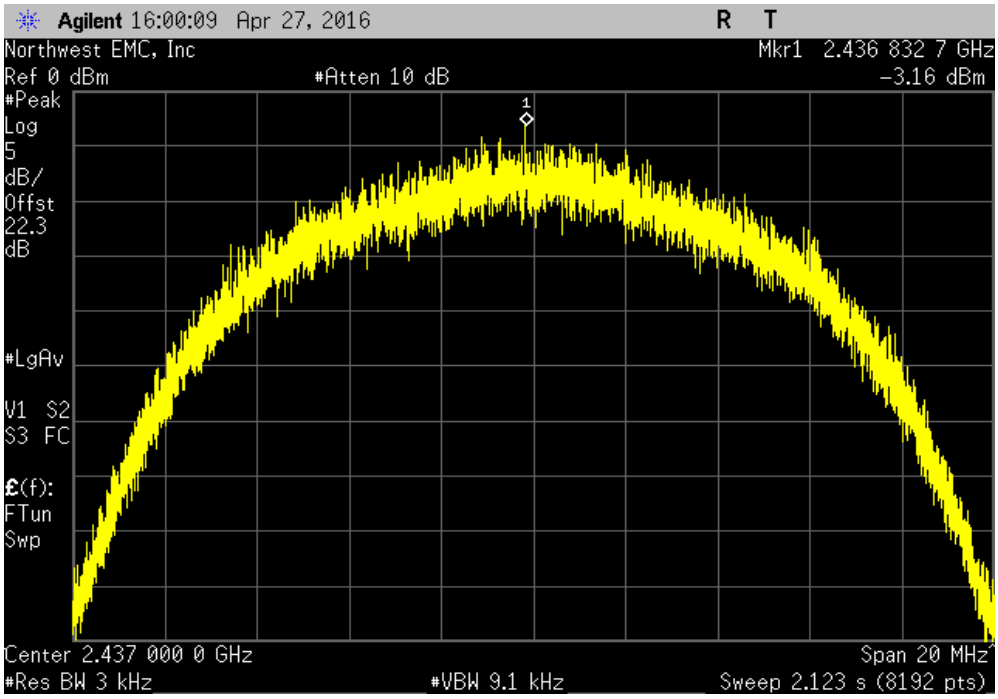
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-5.341	8	Pass



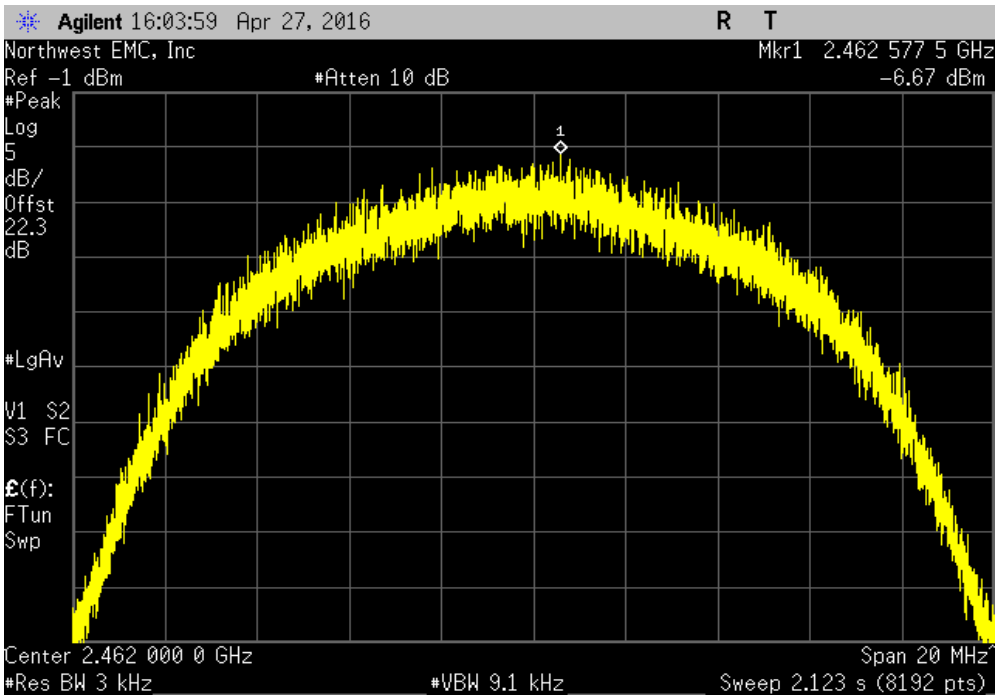
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-6.004	8	Pass



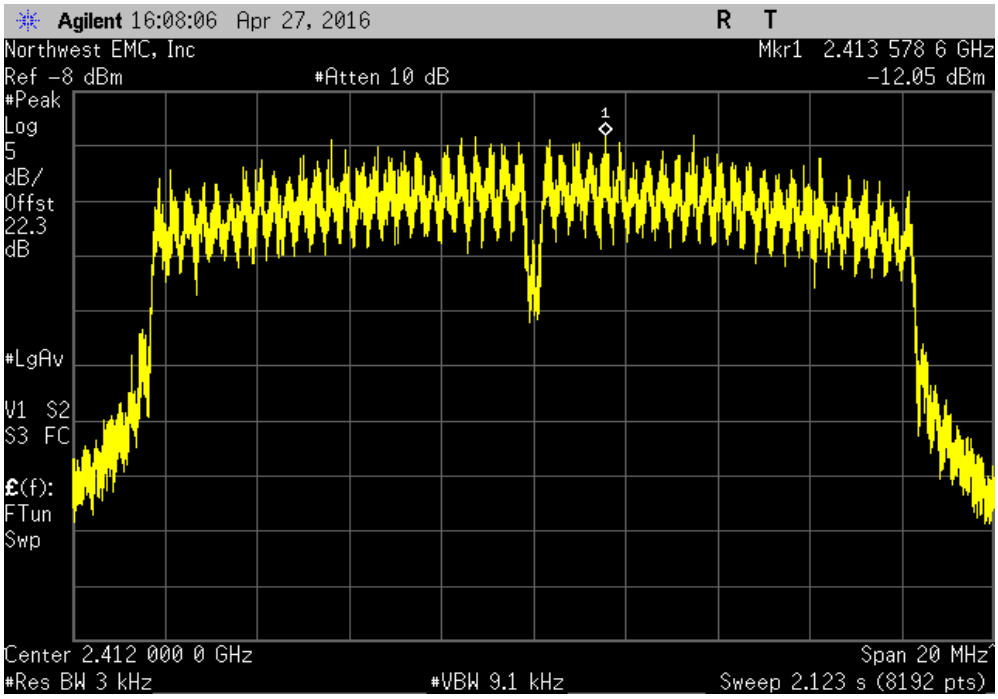
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-3.161	8	Pass



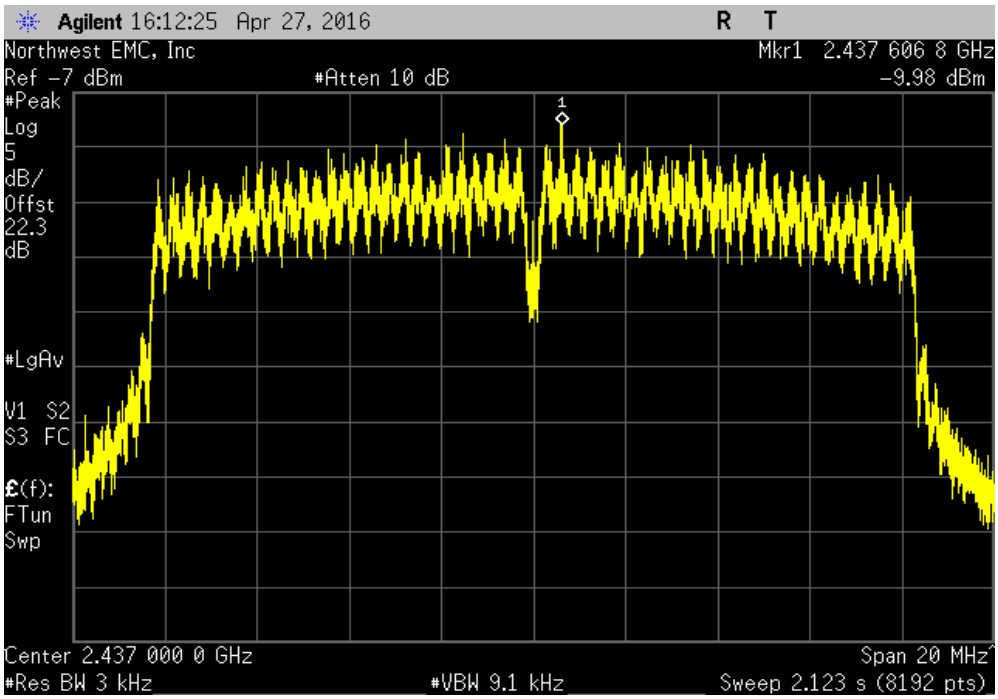
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-6.668	8	Pass



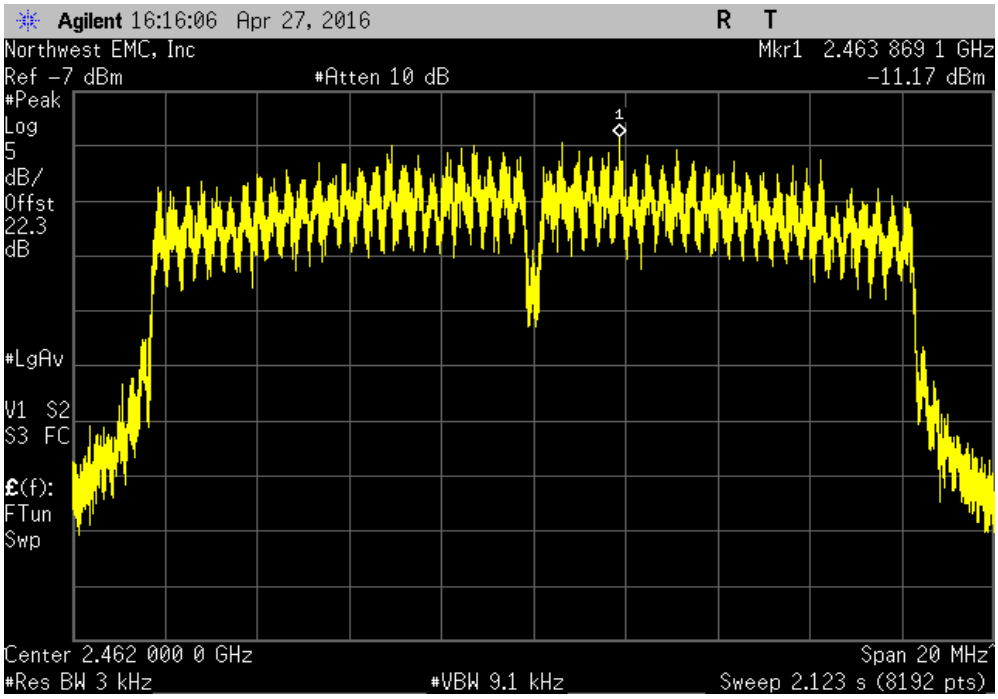
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-12.048	8	Pass



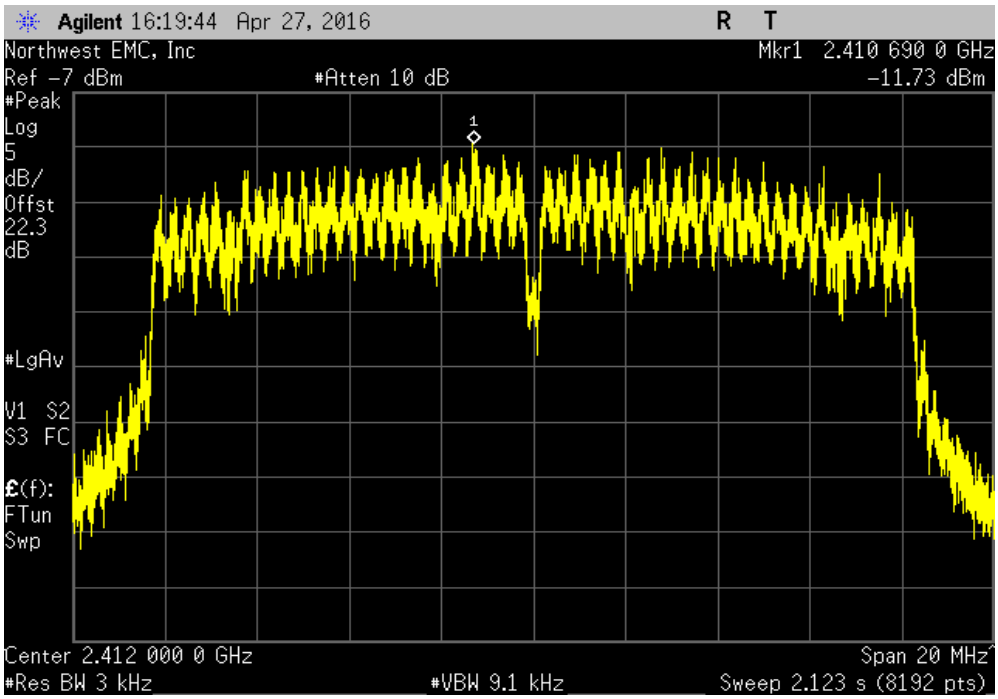
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-9.983	8	Pass



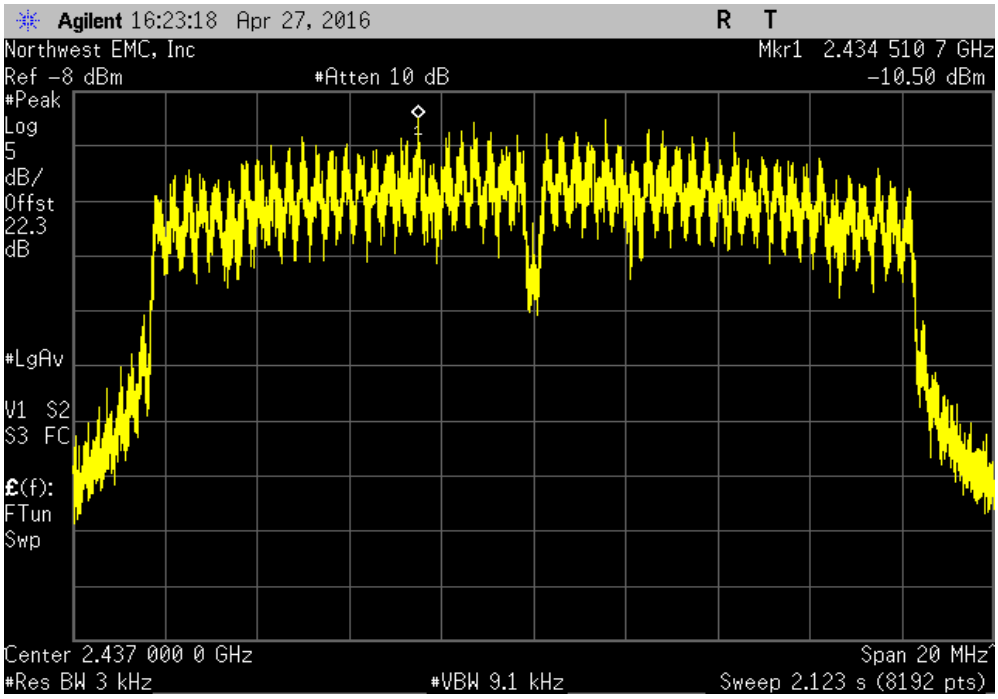
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-11.173	8	Pass



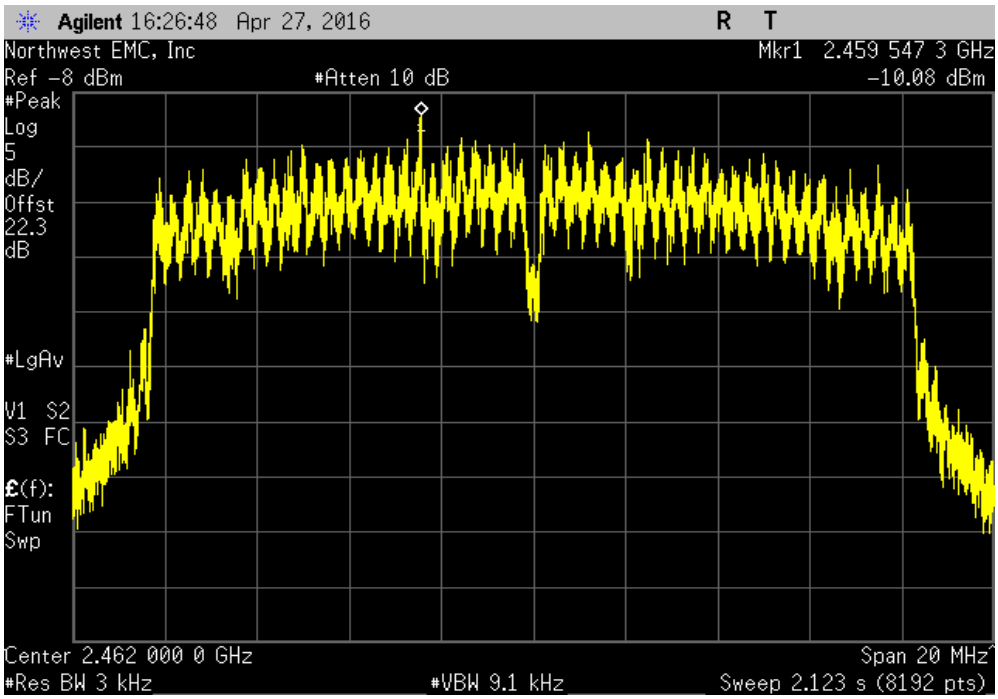
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-11.729	8	Pass



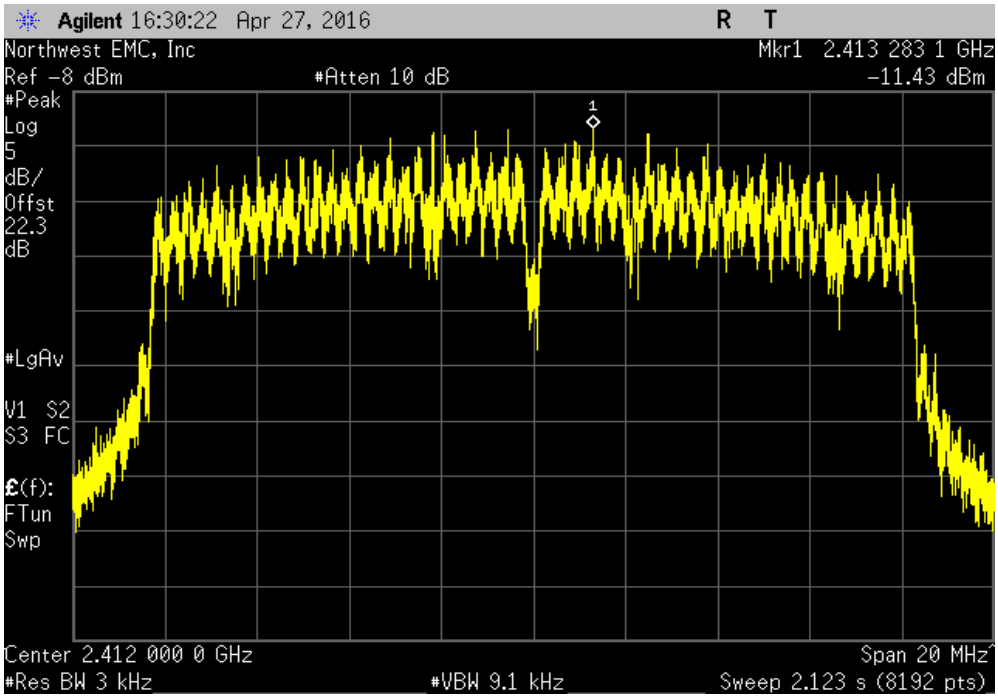
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-10.503	8	Pass



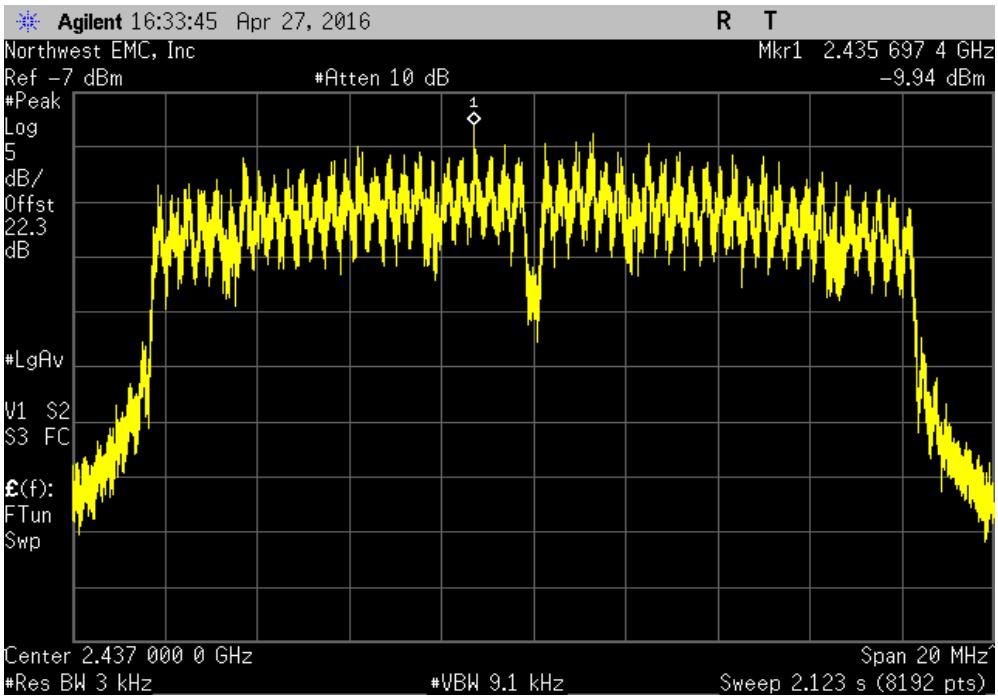
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-10.081	8	Pass



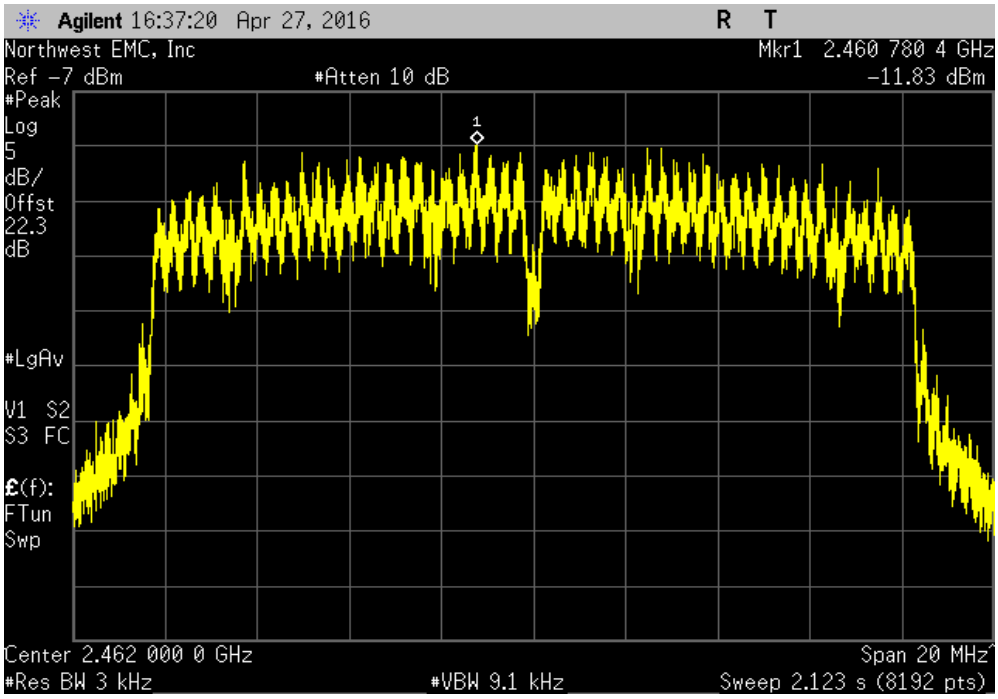
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-11.432	8	Pass



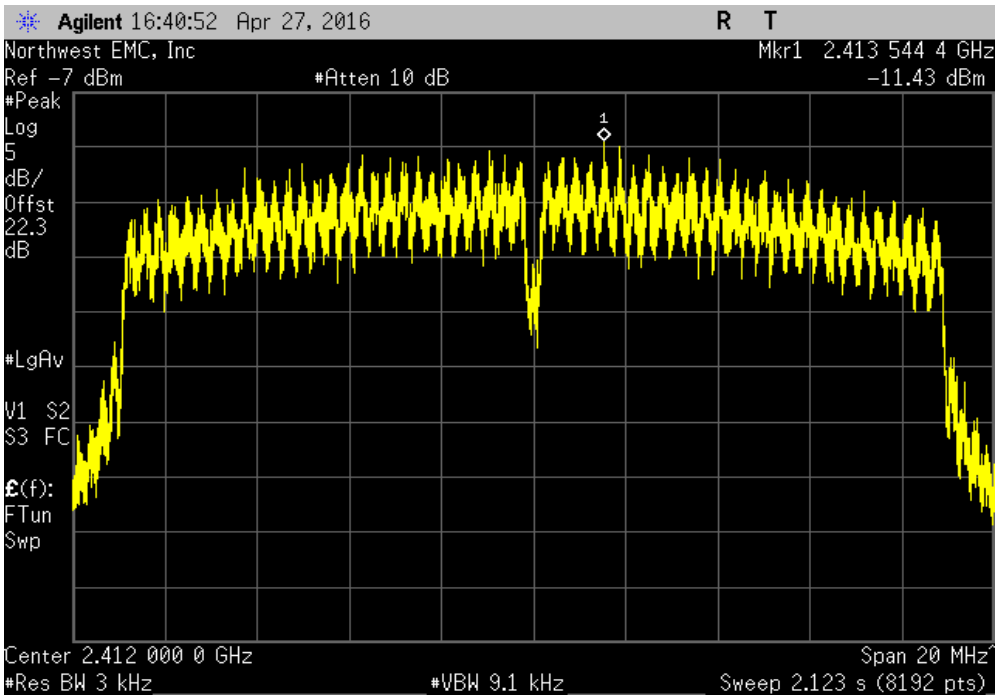
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-9.942	8	Pass



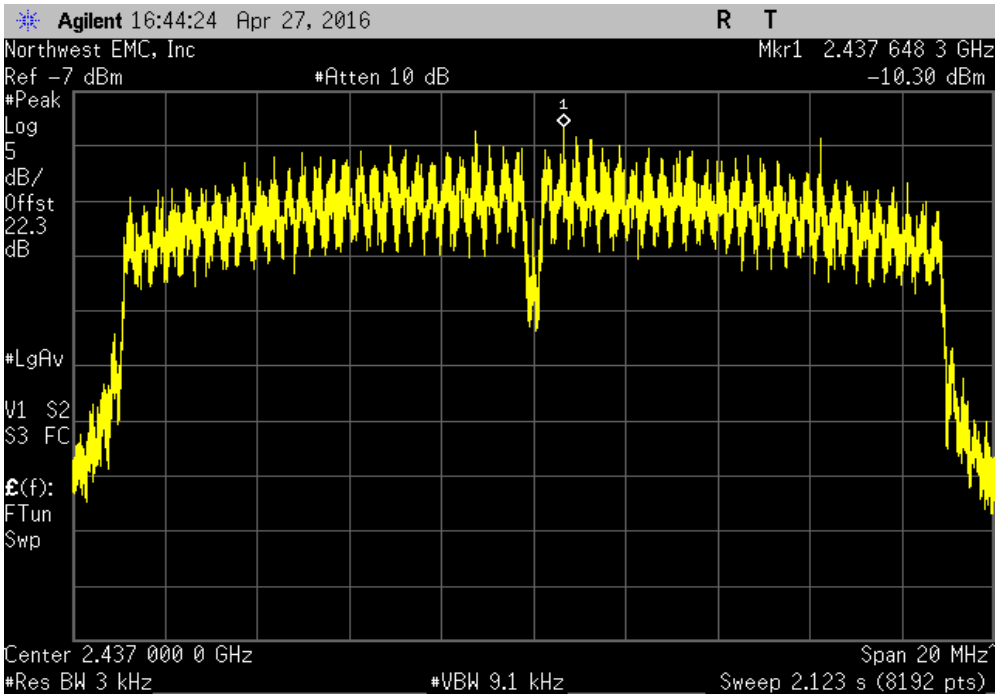
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-11.826	8	Pass



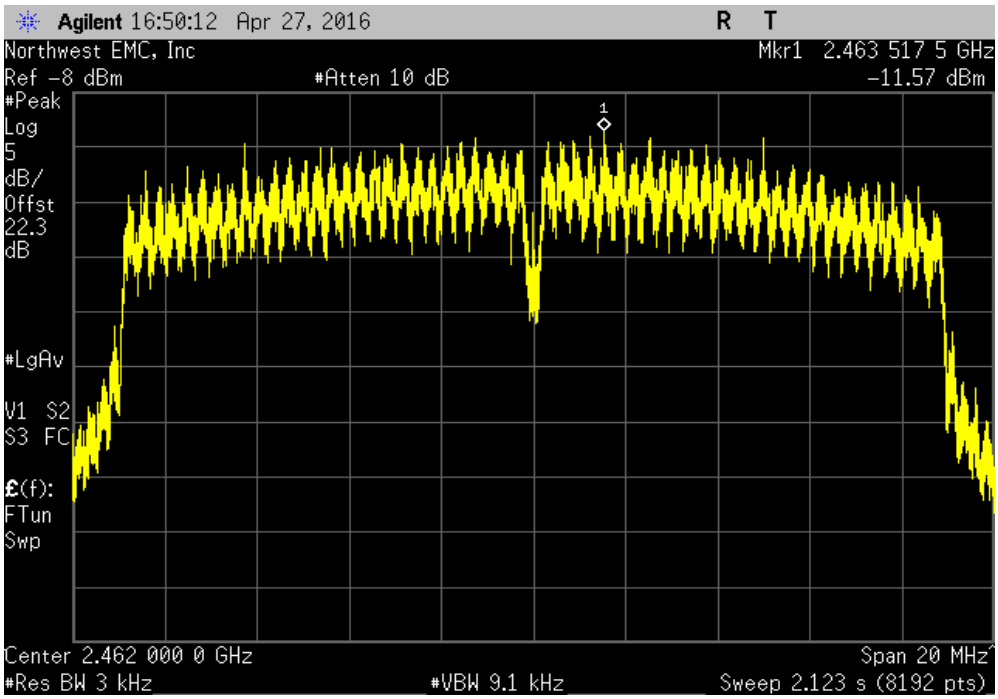
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-11.426	8	Pass



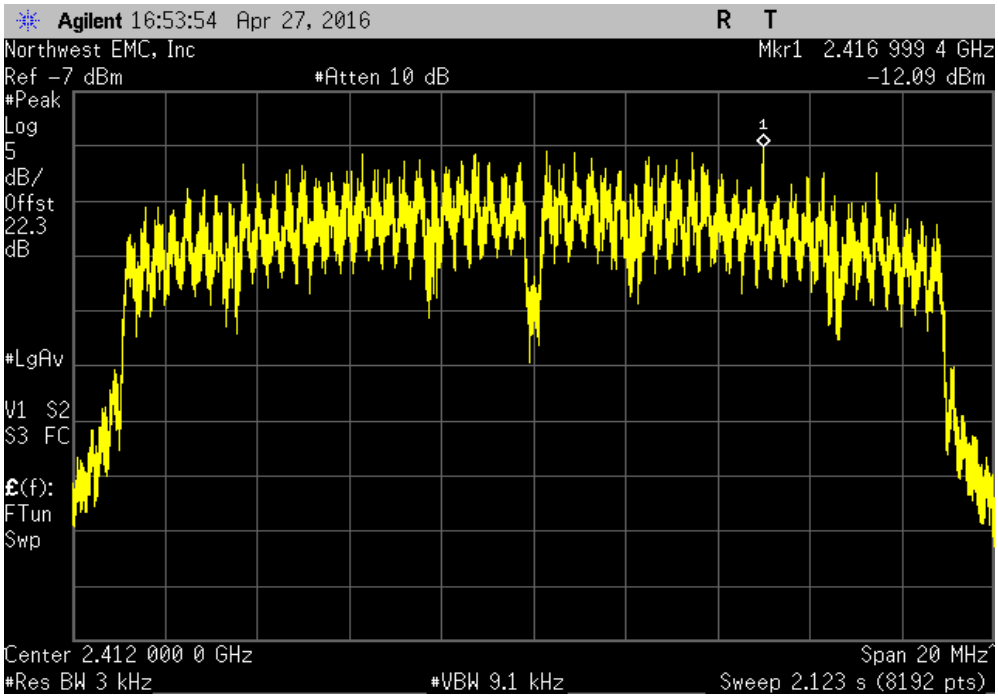
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-10.298	8	Pass



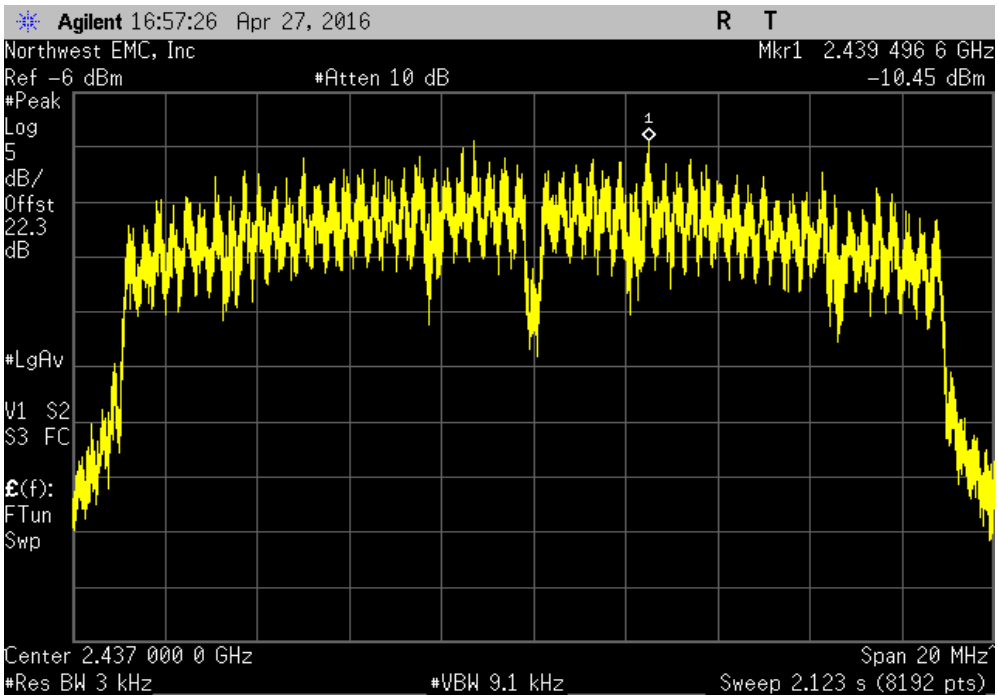
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS0, High Channel 11, 2462 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-11.572	8	Pass



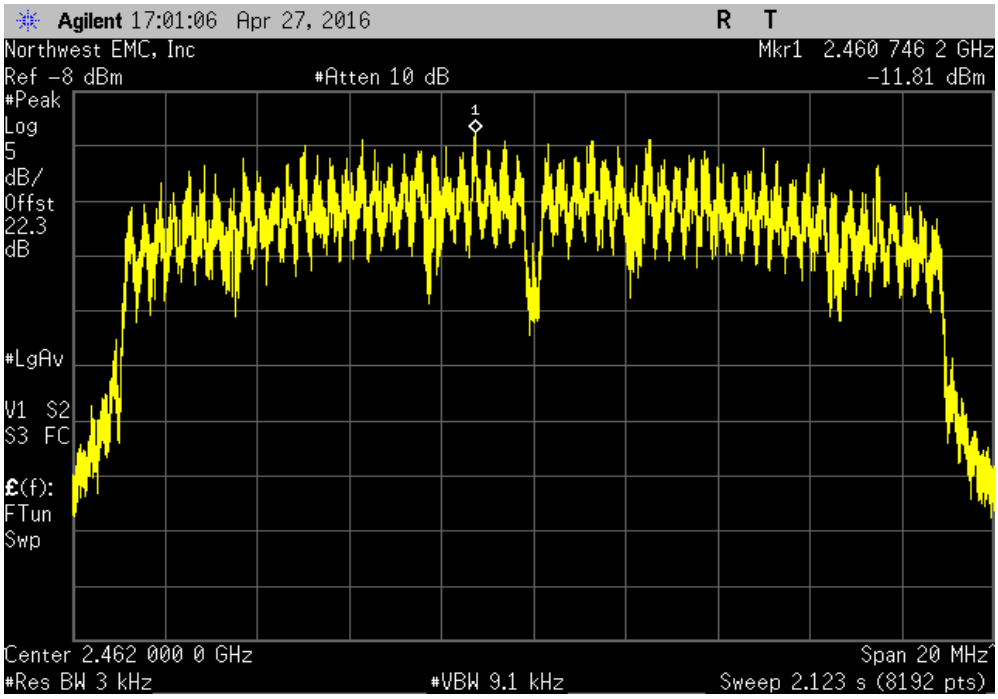
2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-12.093	8	Pass



2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-10.446	8	Pass



2400 MHz - 2483.5 MHz Band, Antenna Port 1, 802.11(n) MCS7, High Channel 11, 2462 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-11.81	8	Pass



BAND EDGE COMPLIANCE

XMit 2015.01.14

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 (mo)
Generator - Signal	Agilent	N5183A	TIK	10/17/2014	36
Attenuator	S.M. Electronics	SA26B-20	RFW	2/26/2016	12
Block - DC	Fairview Microwave	SD3379	AMI	9/18/2015	12
Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNU	9/18/2015	12
Analyzer - Spectrum Analyzer	Agilent	E4440A	AAX	3/24/2016	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.

An RMS detector was used to match the method called out for Output Power. Because the reference level was taken with an RMS detector, the attenuation requirement is -30 dBc.

BAND EDGE COMPLIANCE

NORTHWEST EMC

XMit 2015.01.14

EUT:	TH6320WF2003			**Work Order:**	HNYW0156
Serial Number:	00D02D95E598			**Date:**	04/27/16
Customer:	Honeywell, Automation and Control Solutions			**Temperature:**	21.3°C
Attendees:	None			**Humidity:**	31%
Project:	None			**Barometric Pres.:**	1014.8
Tested by:	Cole Ghizzone	**Power:**	110VAC/60Hz	**Job Site:**	MN08

TEST SPECIFICATIONS	Test Method
FCC 15.247:2016	ANSI C63.10:2013

COMMENTS

The EUT was tested using the power settings provided by the manufacturer. These settings can be found in the Power Table.

DEVIATIONS FROM TEST STANDARD

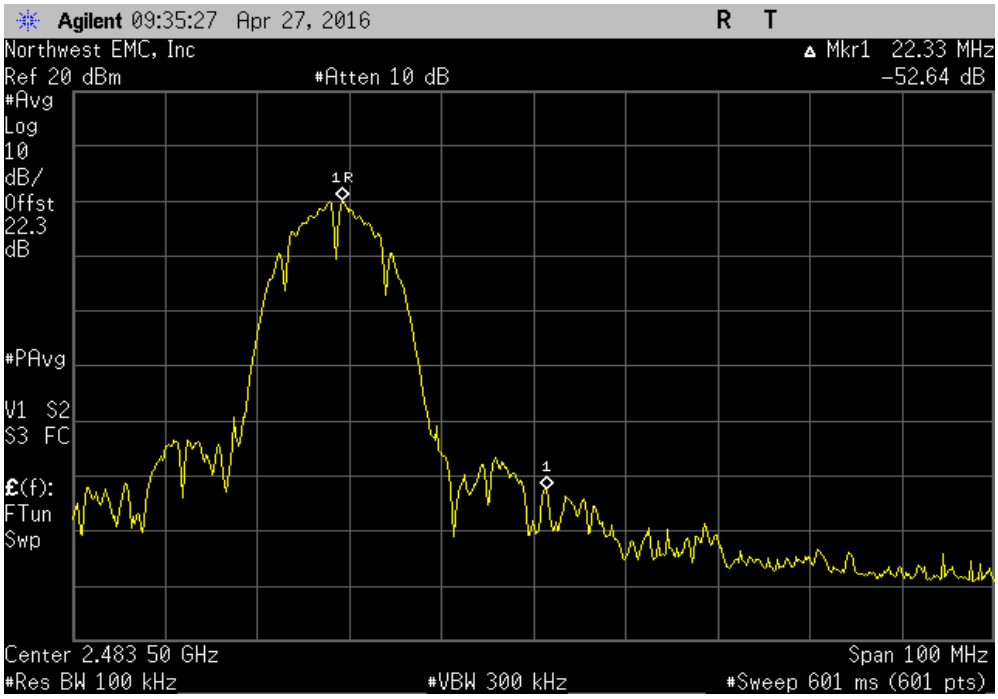
None

Configuration #	2	Signature

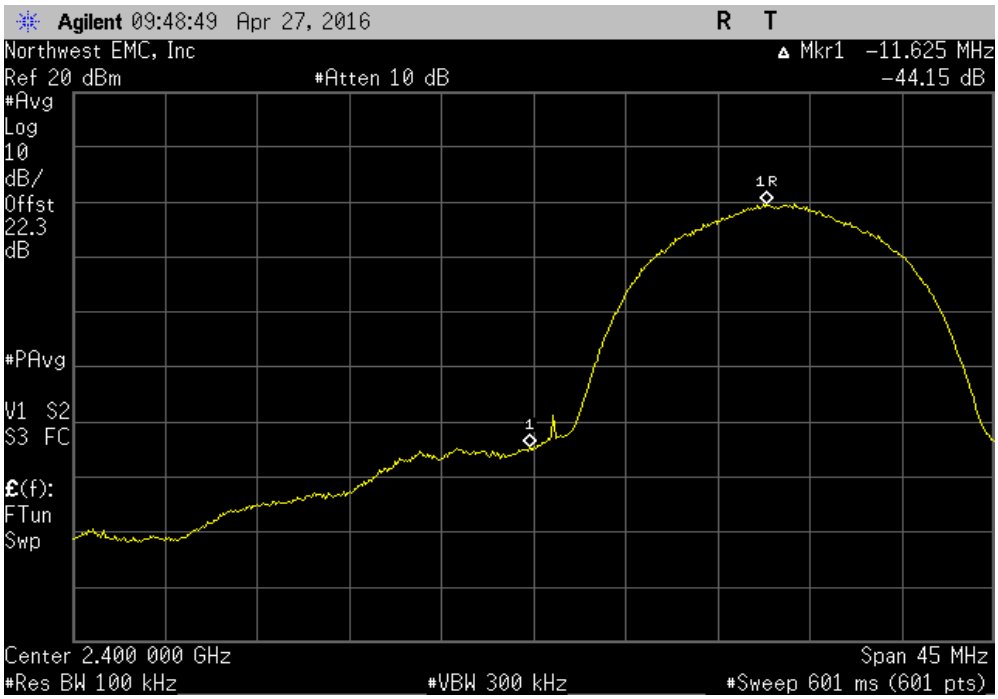
	Value (dBc)	Limit ≤ (dBc)	Result
2400 MHz - 2483.5 MHz Band			
Antenna Port 0			
802.11(b) 1 Mbps			
Low Channel 1, 2412 MHz	-42.64	-30	Pass
High Channel 11, 2462 MHz	-52.64	-30	Pass
802.11(b) 11 Mbps			
Low Channel 1, 2412 MHz	-44.15	-30	Pass
High Channel 11, 2462 MHz	-55.34	-30	Pass
802.11(g) 6 Mbps			
Low Channel 1, 2412 MHz	-34.77	-30	Pass
High Channel 11, 2462 MHz	-48.81	-30	Pass
802.11(g) 36 Mbps			
Low Channel 1, 2412 MHz	-35.42	-30	Pass
High Channel 11, 2462 MHz	-49.88	-30	Pass
802.11(g) 54 Mbps			
Low Channel 1, 2412 MHz	-35.48	-30	Pass
High Channel 11, 2462 MHz	-49.76	-30	Pass
802.11(n) MCS0			
Low Channel 1, 2412 MHz	-34.08	-30	Pass
High Channel 11, 2462 MHz	-48.83	-30	Pass
802.11(n) MCS7			
Low Channel 1, 2412 MHz	-35.49	-30	Pass
High Channel 11, 2462 MHz	-50.05	-30	Pass

2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-42.64	-30	Pass

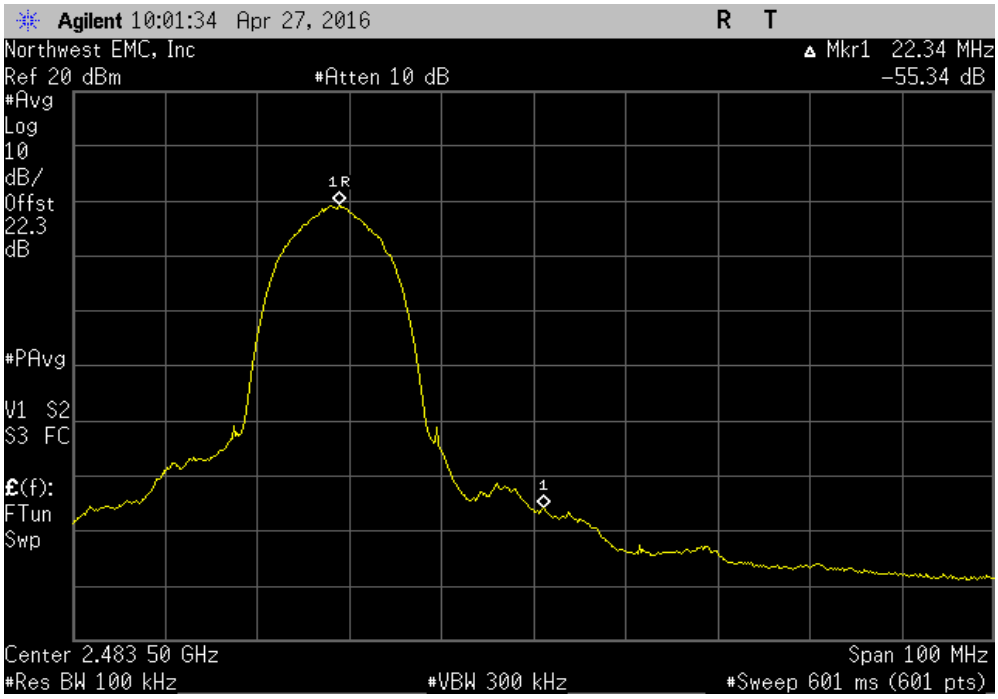
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-52.64	-30	Pass



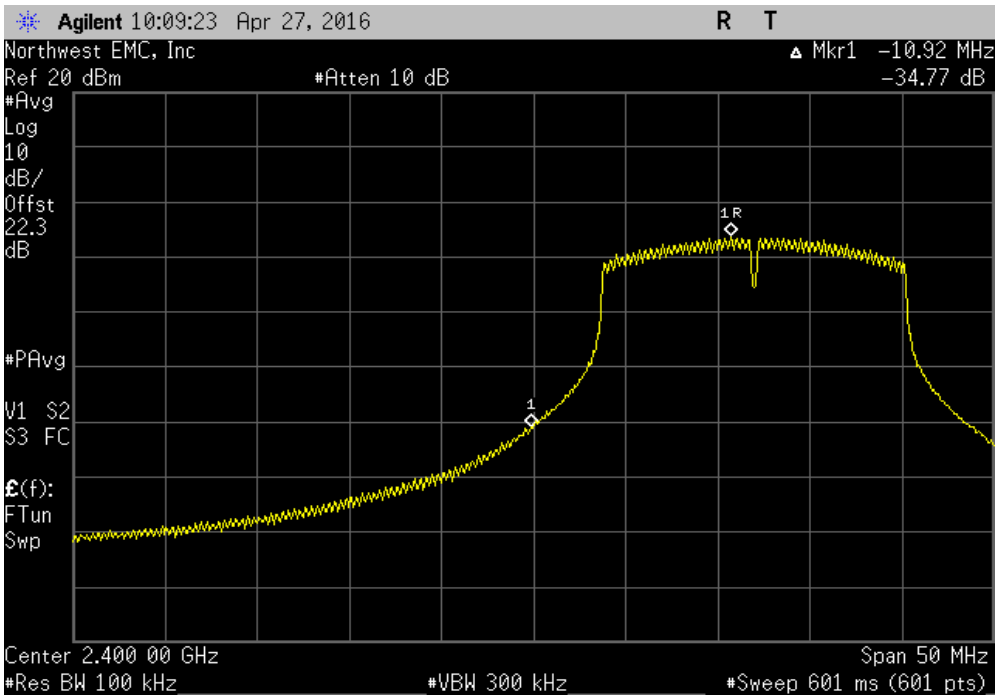
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-44.15	-30	Pass



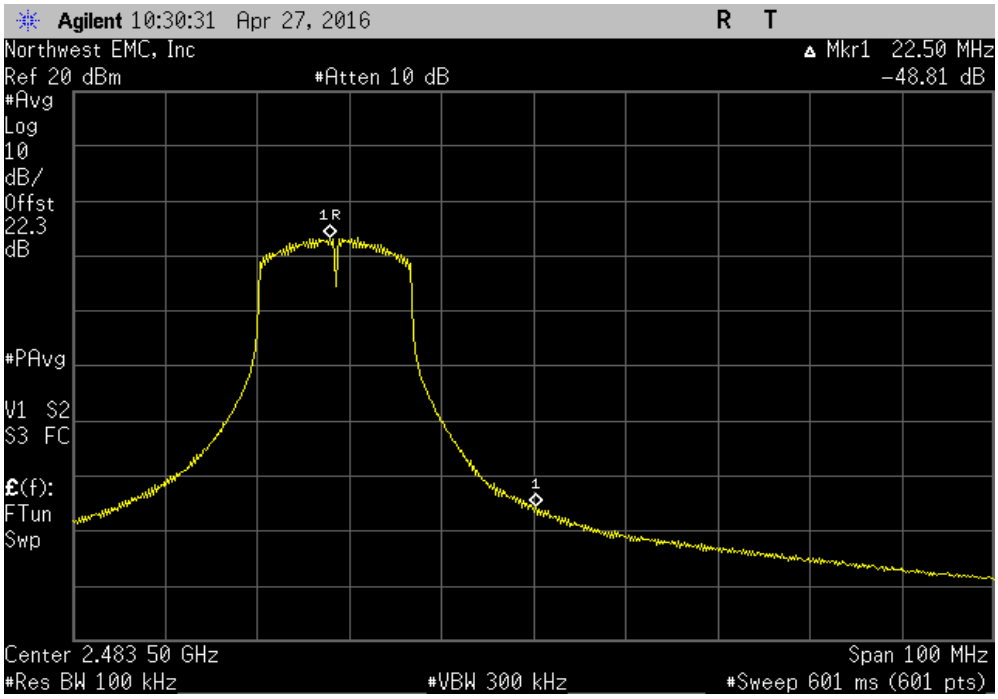
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-55.34	-30	Pass



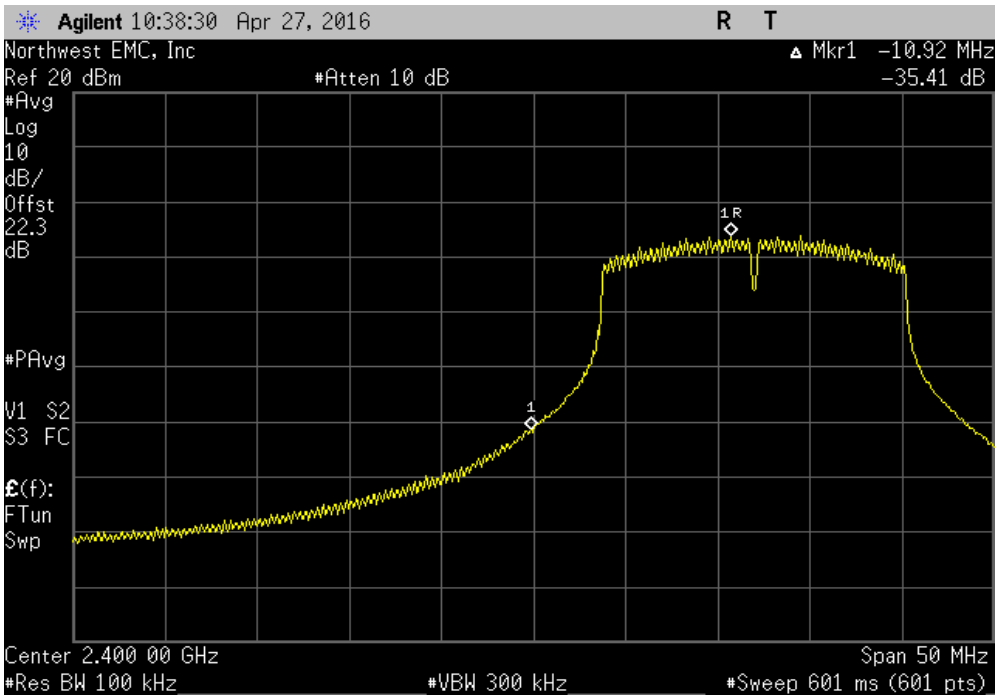
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-34.77	-30	Pass



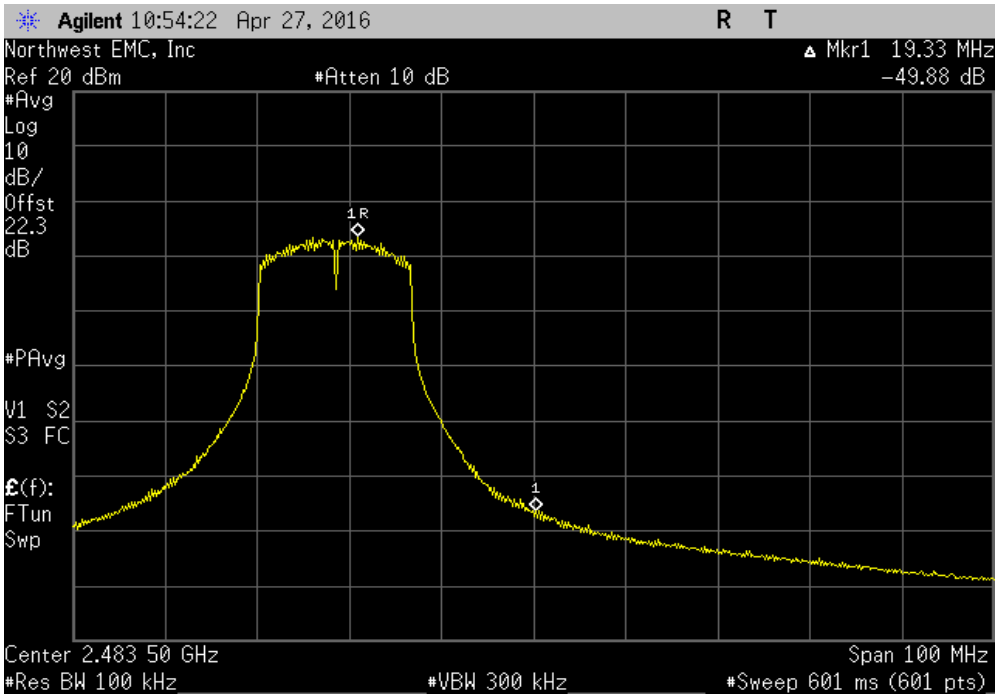
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-48.81	-30	Pass



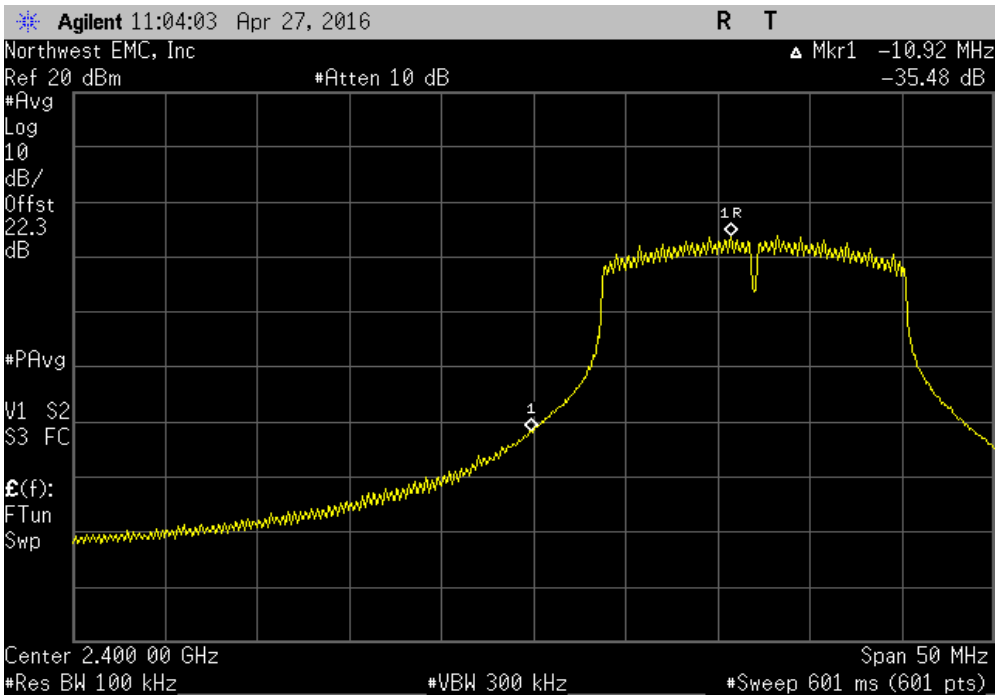
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-35.42	-30	Pass



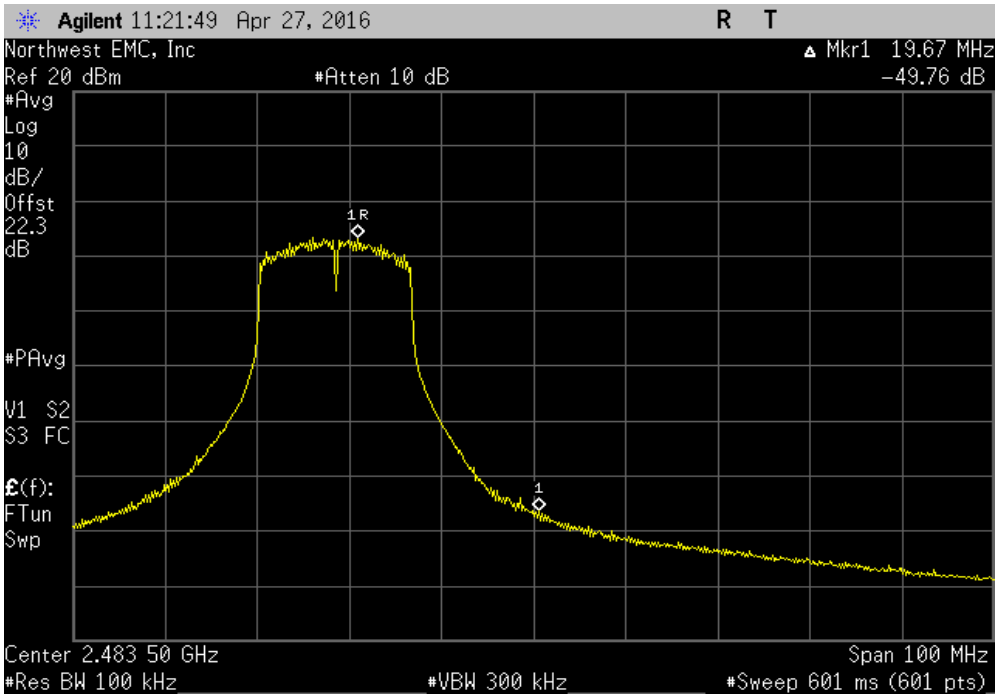
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-49.88	-30	Pass



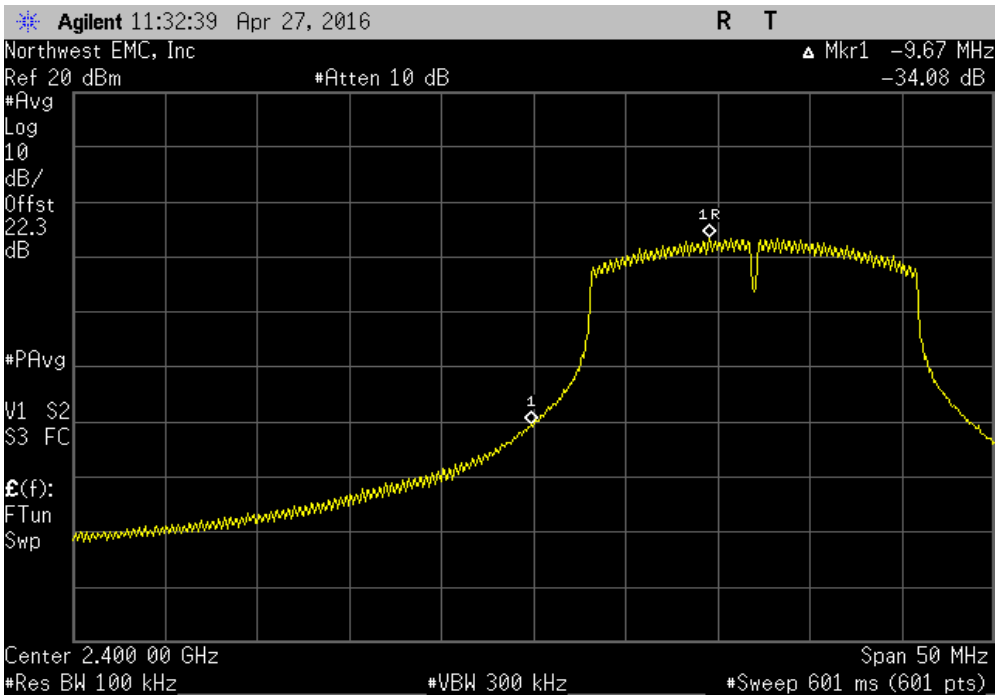
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-35.48	-30	Pass



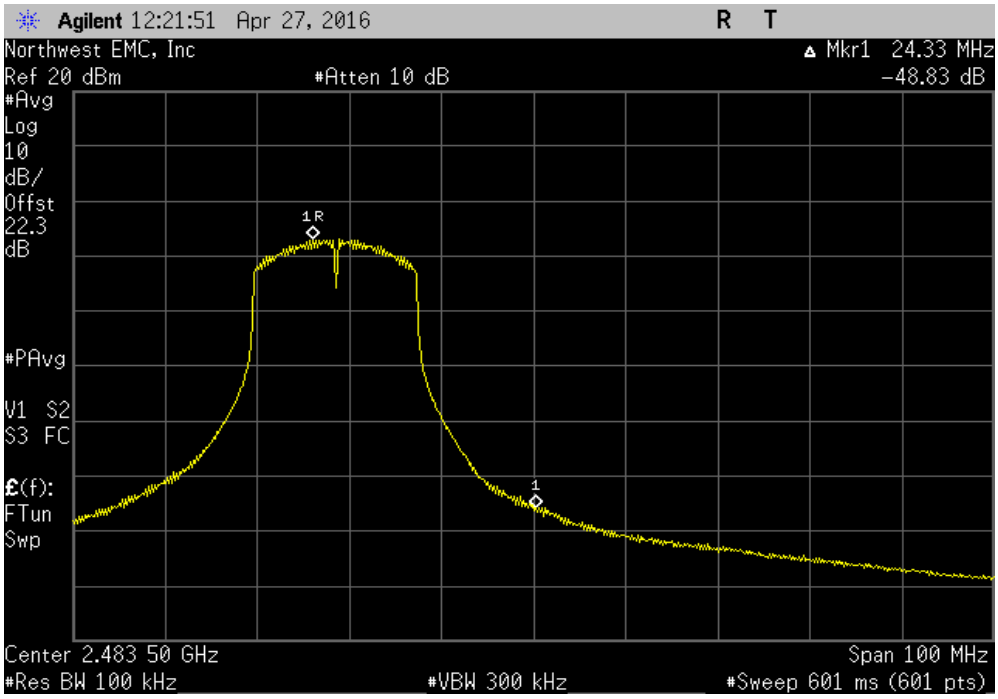
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-49.76	-30	Pass



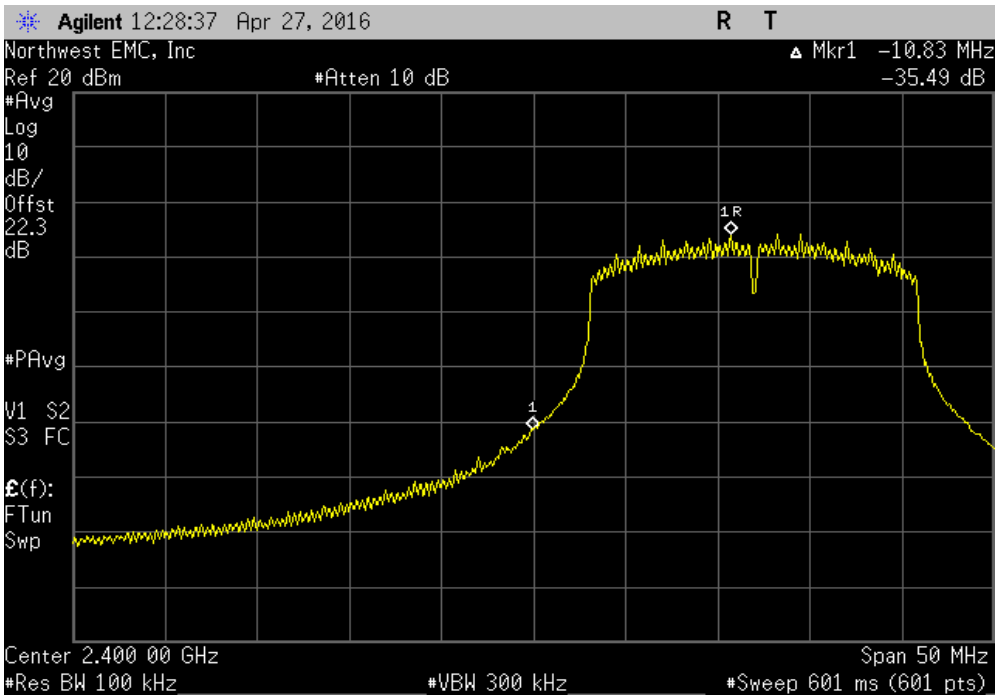
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-34.08	-30	Pass



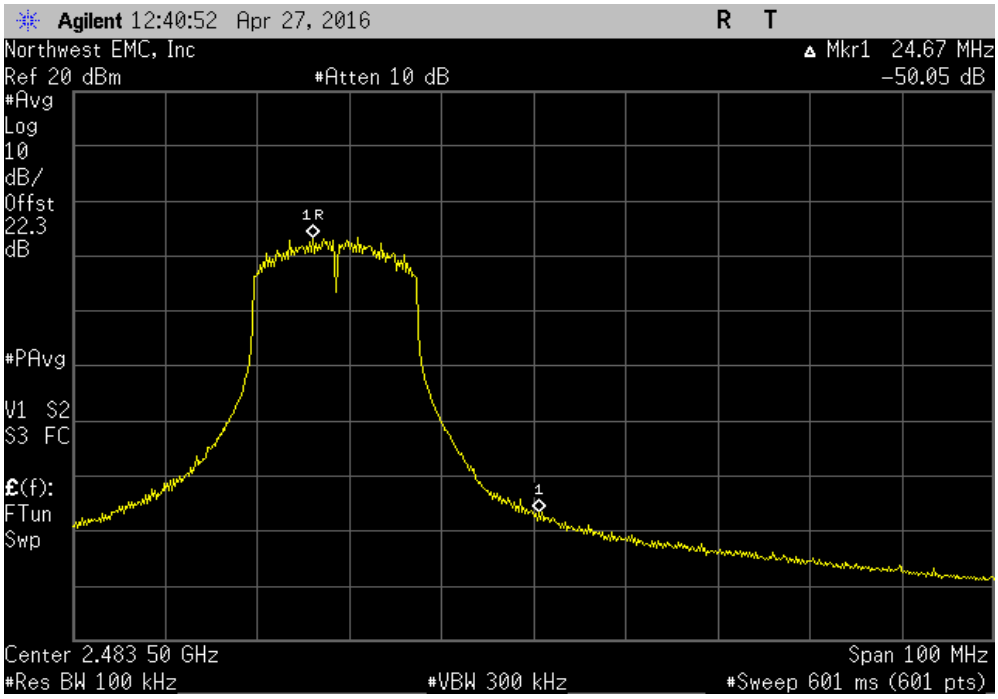
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, High Channel 11, 2462 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-48.83	-30	Pass



2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-35.49	-30	Pass



2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, High Channel 11, 2462 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-50.05	-30	Pass



SPURIOUS CONDUCTED EMISSIONS

XMit 2015.01.14

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 (mo)
Generator - Signal	Agilent	N5183A	TIK	10/17/2014	36
Attenuator	S.M. Electronics	SA26B-20	RFW	2/26/2016	12
Block - DC	Fairview Microwave	SD3379	AMI	9/18/2015	12
Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNU	9/18/2015	12
Analyzer - Spectrum Analyzer	Agilent	E4440A	AAX	3/24/2016	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

NORTHWEST EMC

XMit 2015.01.14

EUT:	TH6320WF2003			**Work Order:**	HNYW0156
Serial Number:	00D02D95E598			**Date:**	04/28/16
Customer:	Honeywell, Automation and Control Solutions			**Temperature:**	21.3°C
Attendees:	None			**Humidity:**	31%
Project:	None			**Barometric Pres.:**	1014.8
Tested by:	Cole Ghizzone	**Power:**	110VAC/60Hz	**Job Site:**	MN08

TEST SPECIFICATIONS	**Test Method**
FCC 15.247:2016	ANSI C63.10:2013

COMMENTS

The EUT was tested using the power settings provided by the manufacturer. These settings can be found in the Power Table.

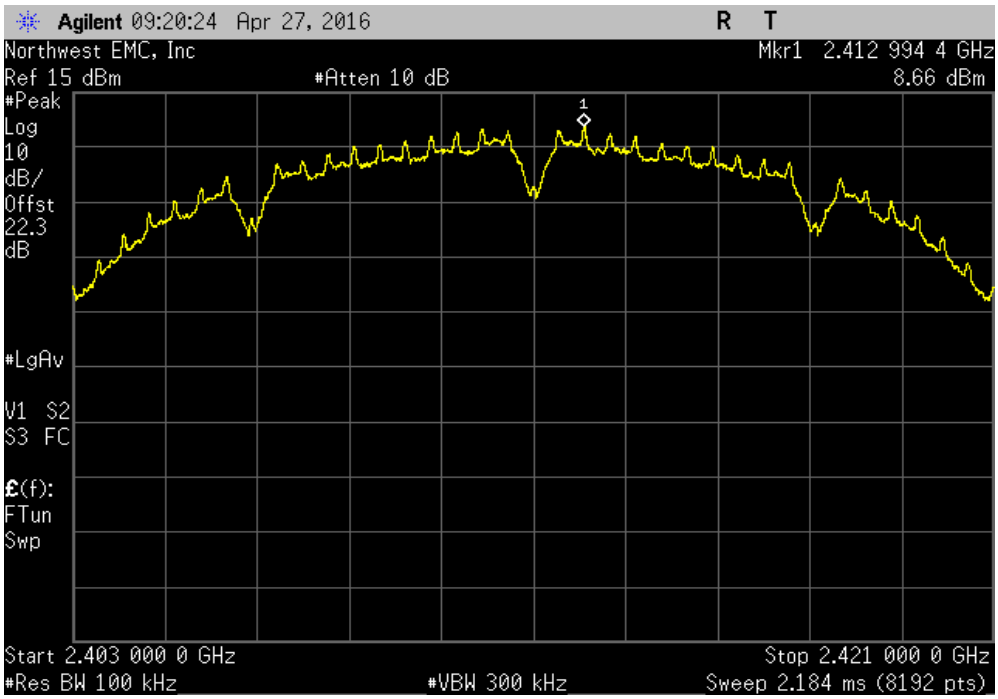
DEVIATIONS FROM TEST STANDARD

None

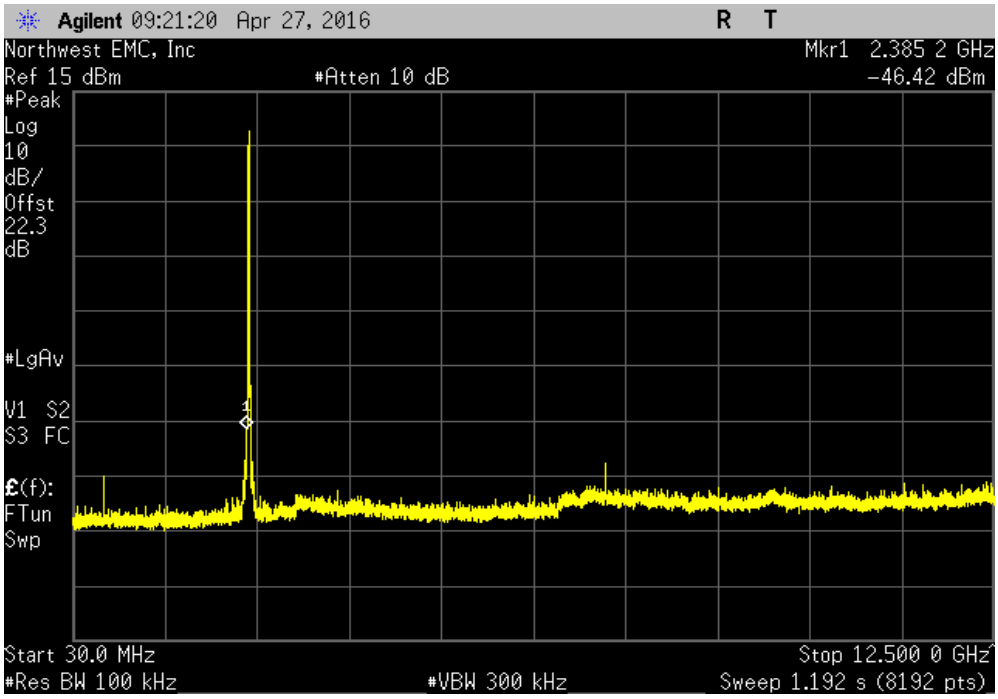
Configuration #	2	*Signature*

	Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result
2400 MHz - 2483.5 MHz Band				
Antenna Port 0				
802.11(b) 1 Mbps				
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-55.08	-30	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-61.2	-30	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-61.14	-30	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-62.14	-30	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-60.71	-30	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-59.67	-30	Pass
802.11(b) 11 Mbps				
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-55.67	-30	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-61.17	-30	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-61.76	-30	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-62.6	-30	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-61.99	-30	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-60.44	-30	Pass
802.11(g) 6 Mbps				
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-49.91	-30	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-54.21	-30	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-58.87	-30	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-55.17	-30	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-57.56	-30	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-55.02	-30	Pass
802.11(g) 36 Mbps				
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-50.47	-30	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-54.55	-30	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-59.76	-30	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-55.7	-30	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-57.11	-30	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-54.27	-30	Pass
802.11(g) 54 Mbps				
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-50.1	-30	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-55.09	-30	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-59.07	-30	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-54.84	-30	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-56.3	-30	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-55.13	-30	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	-49.74	-30	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-53.62	-30	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-59.19	-30	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-55.53	-30	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-56.86	-30	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-54.82	-30	Pass
802.11(n) MCS7				
Low Channel 1, 2412 MHz	Fundamental	N/A	N/A	N/A
Low Channel 1, 2412 MHz	30 MHz - 12.5 GHz	-50.22	-30	Pass
Low Channel 1, 2412 MHz	12.5 GHz - 25 GHz	-54.22	-30	Pass
Mid Channel 6, 2437 MHz	Fundamental	N/A	N/A	N/A
Mid Channel 6, 2437 MHz	30 MHz - 12.5 GHz	-58.89	-30	Pass
Mid Channel 6, 2437 MHz	12.5 GHz - 25 GHz	-55.16	-30	Pass
High Channel 11, 2462 MHz	Fundamental	N/A	N/A	N/A
High Channel 11, 2462 MHz	30 MHz - 12.5 GHz	-58.01	-30	Pass
High Channel 11, 2462 MHz	12.5 GHz - 25 GHz	-54.59	-30	Pass

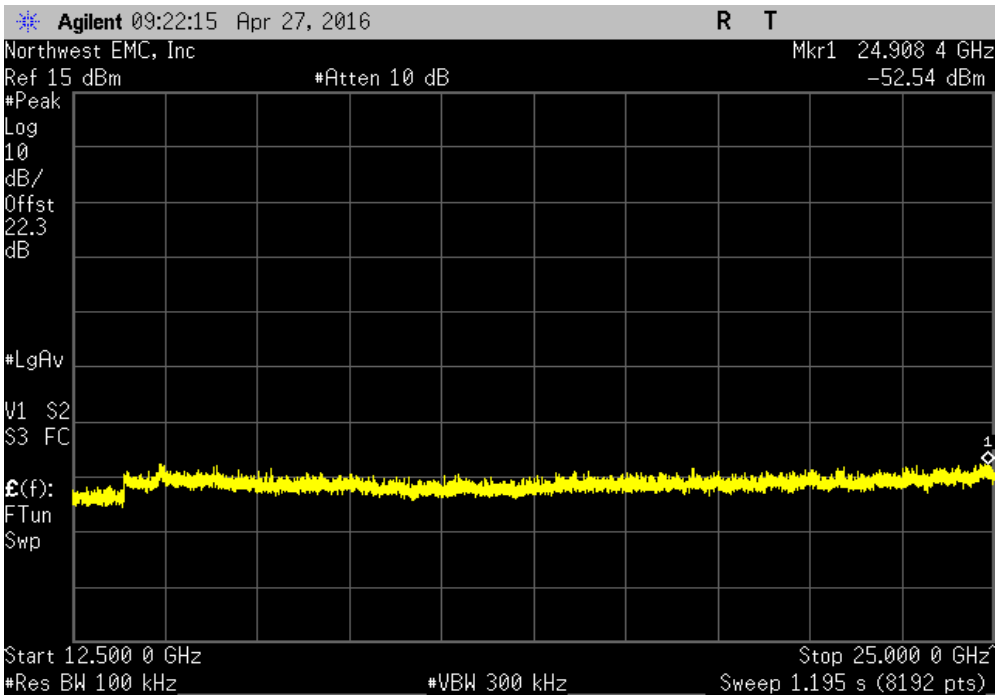
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
	Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
	Fundamental			N/A	N/A	N/A



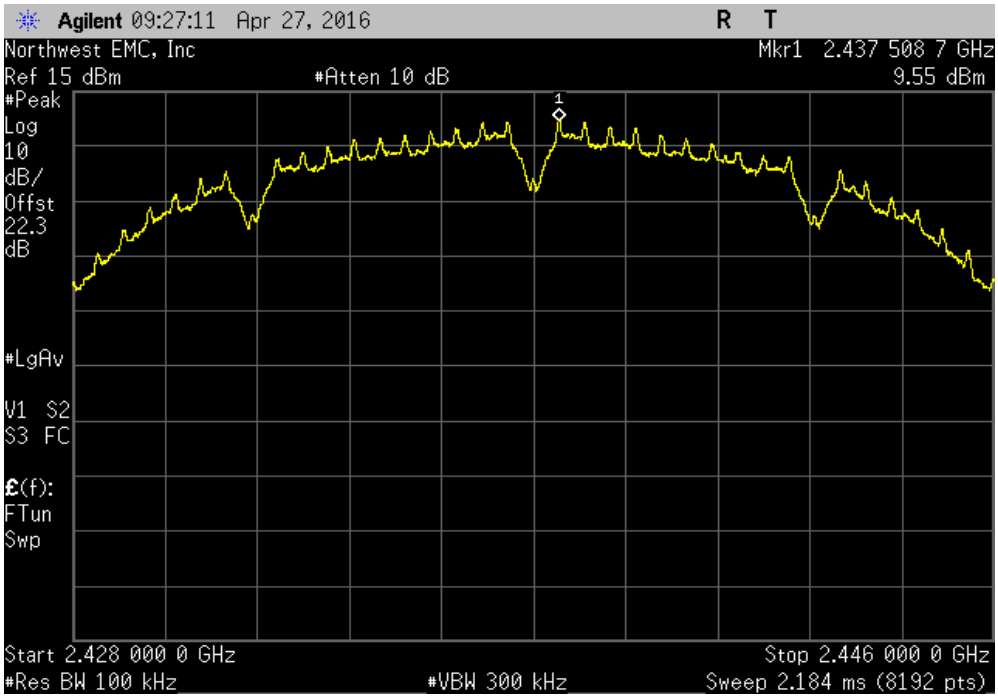
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz					
Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz			-55.08	-30	Pass



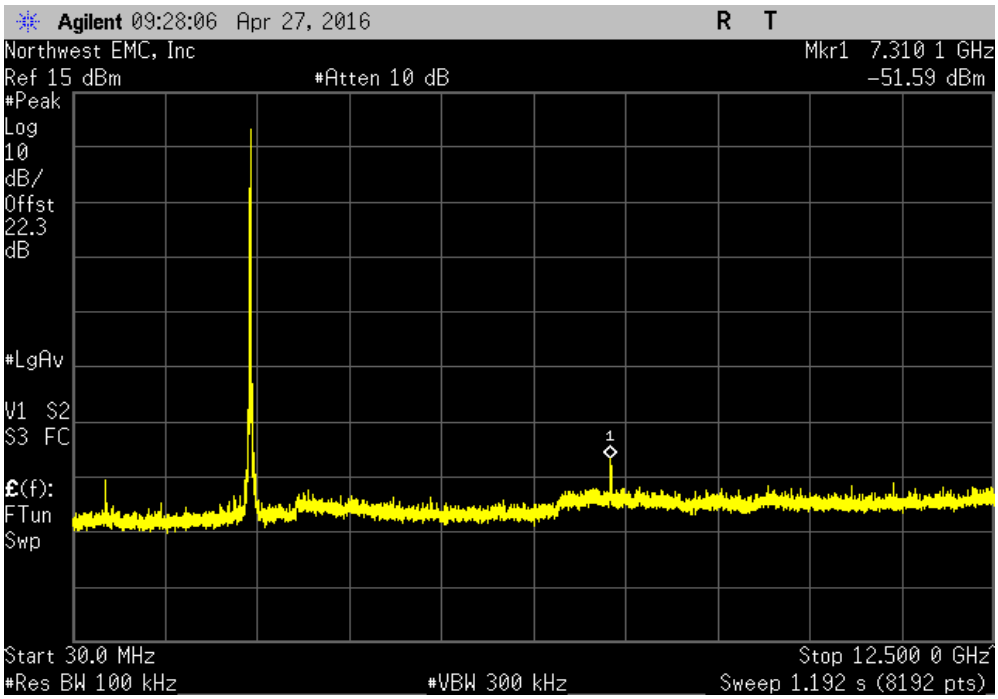
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-61.2	-30	Pass



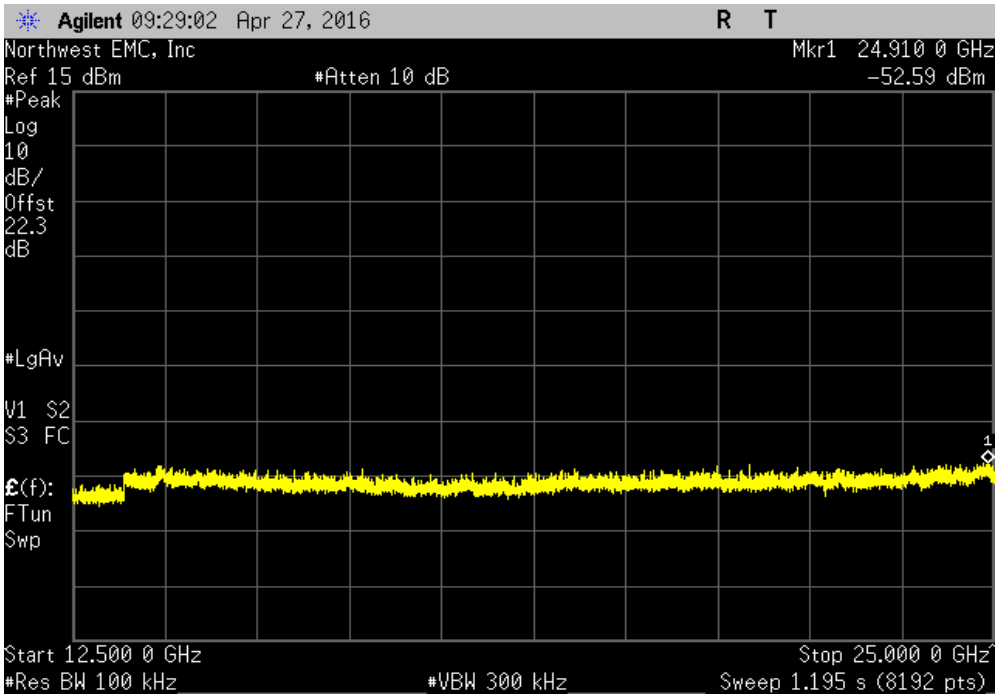
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz						
	Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
	Fundamental			N/A	N/A	N/A



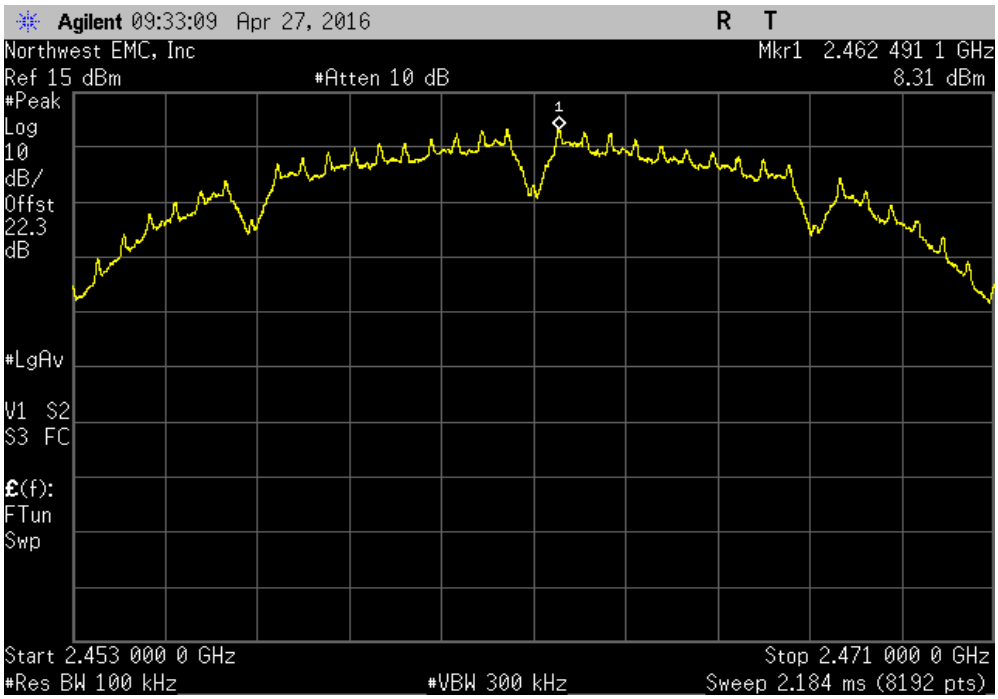
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-61.14	-30	Pass



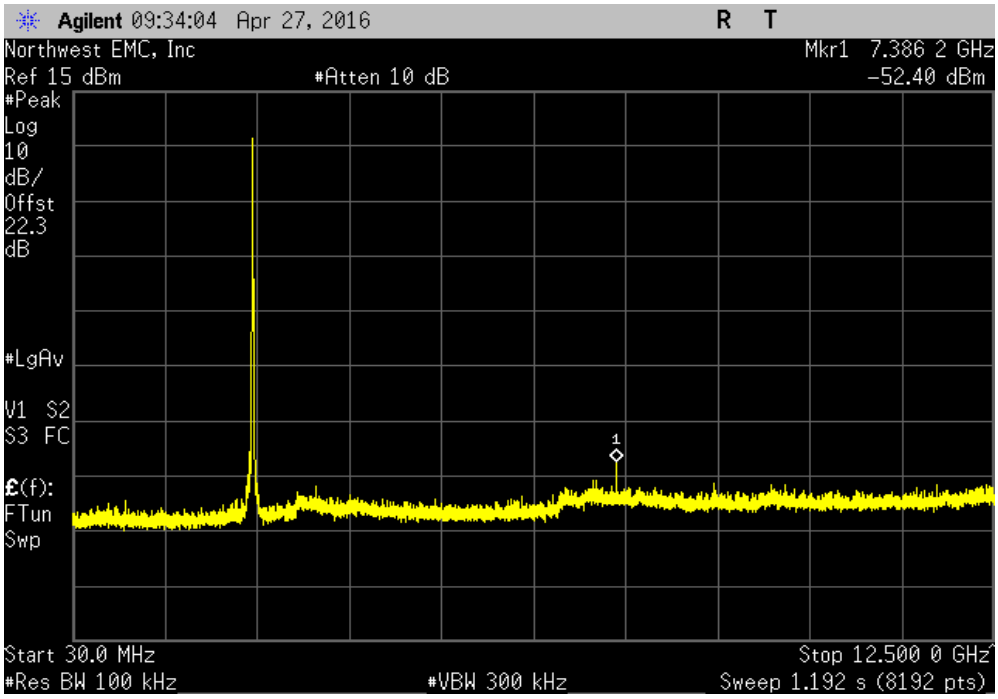
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-62.14	-30	Pass



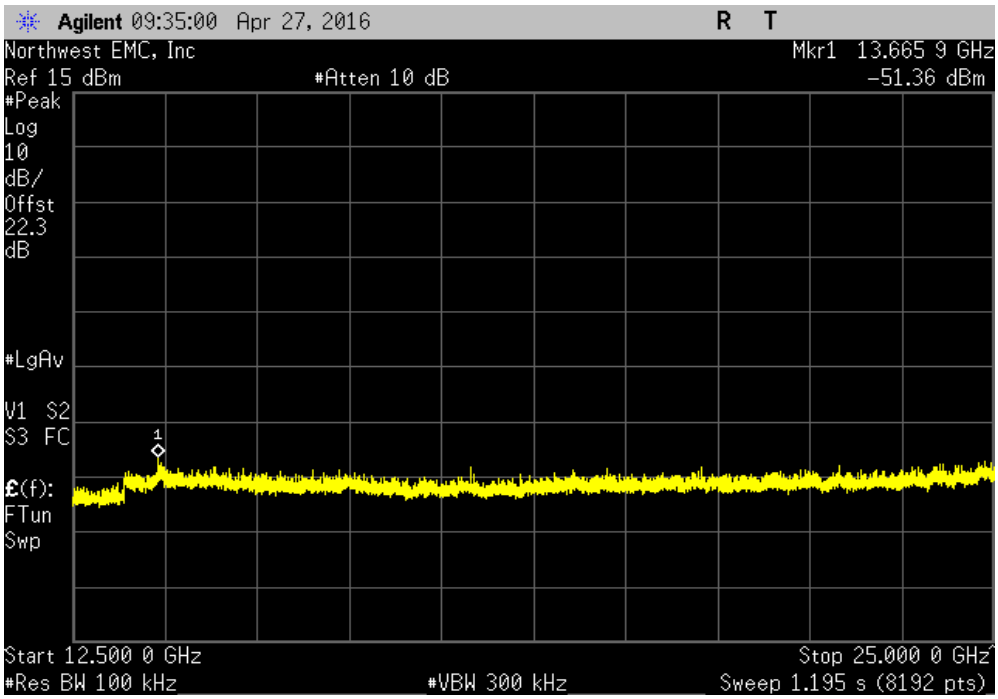
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



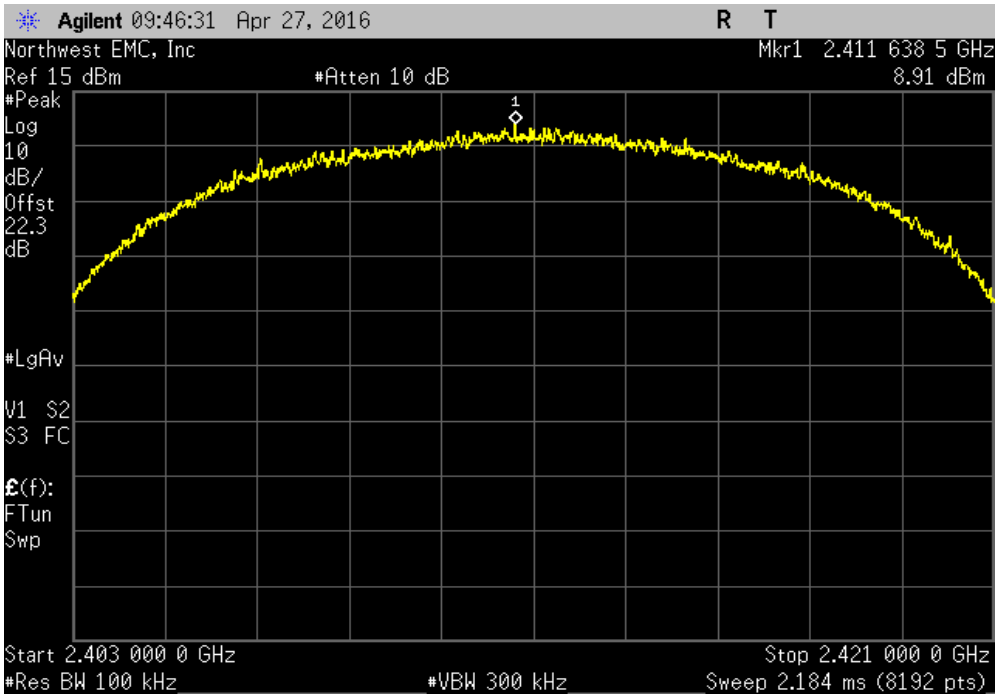
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz					
Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz			-60.71	-30	Pass



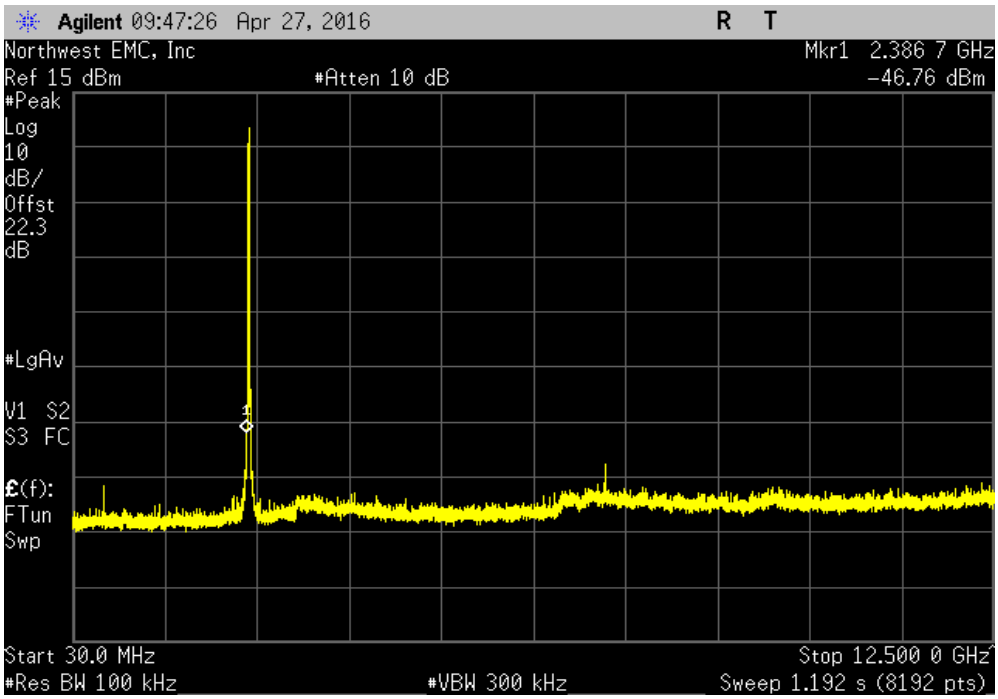
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-59.67	-30	Pass



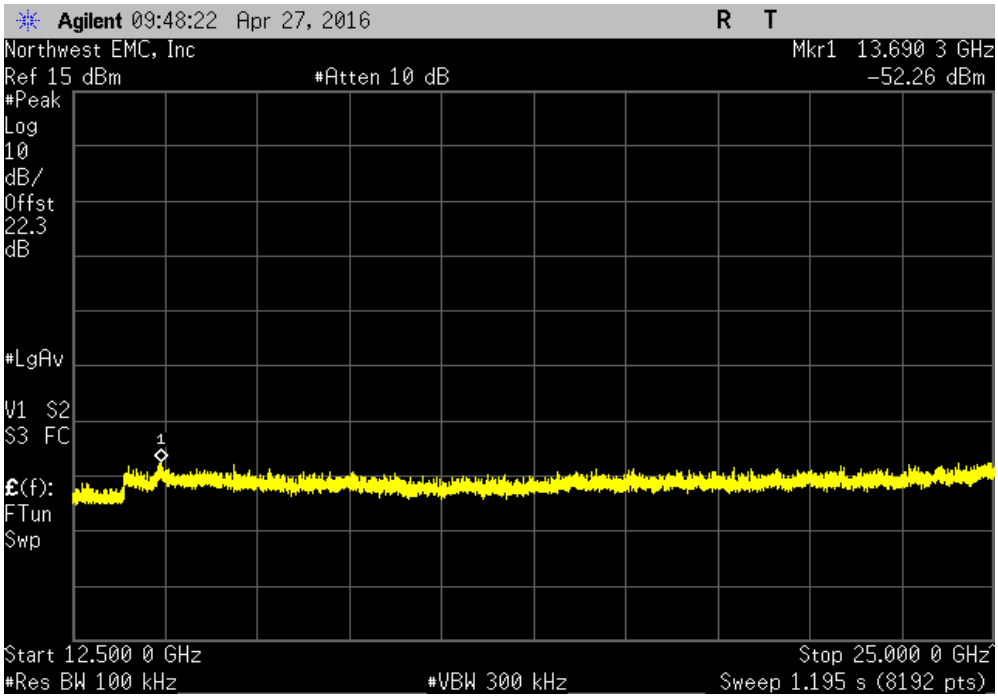
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
	Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
	Fundamental			N/A	N/A	N/A



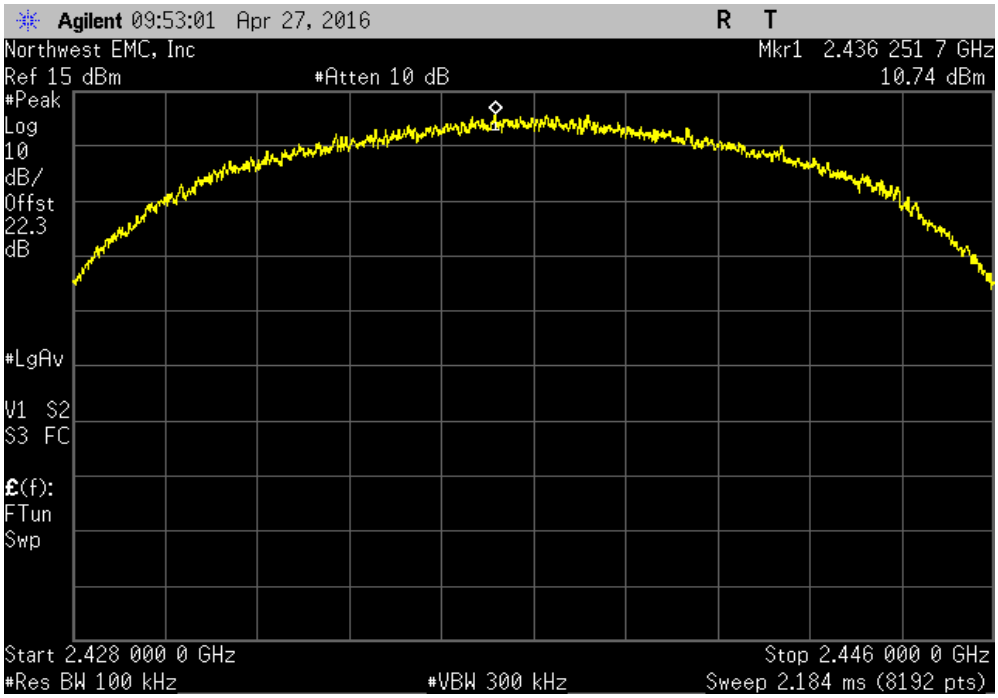
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-55.67	-30	Pass



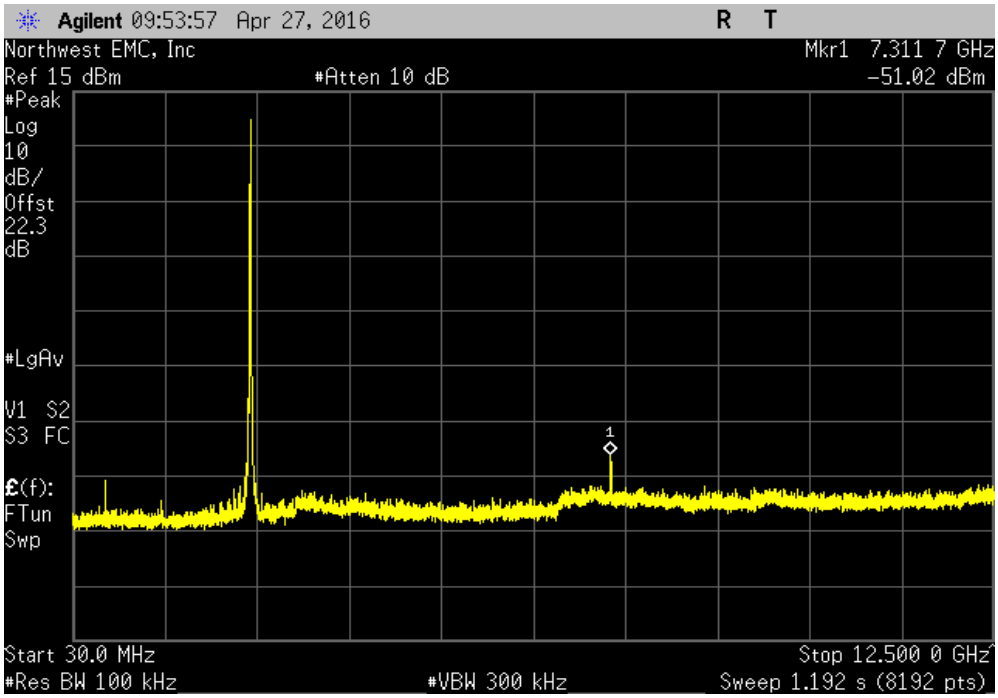
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-61.17	-30	Pass



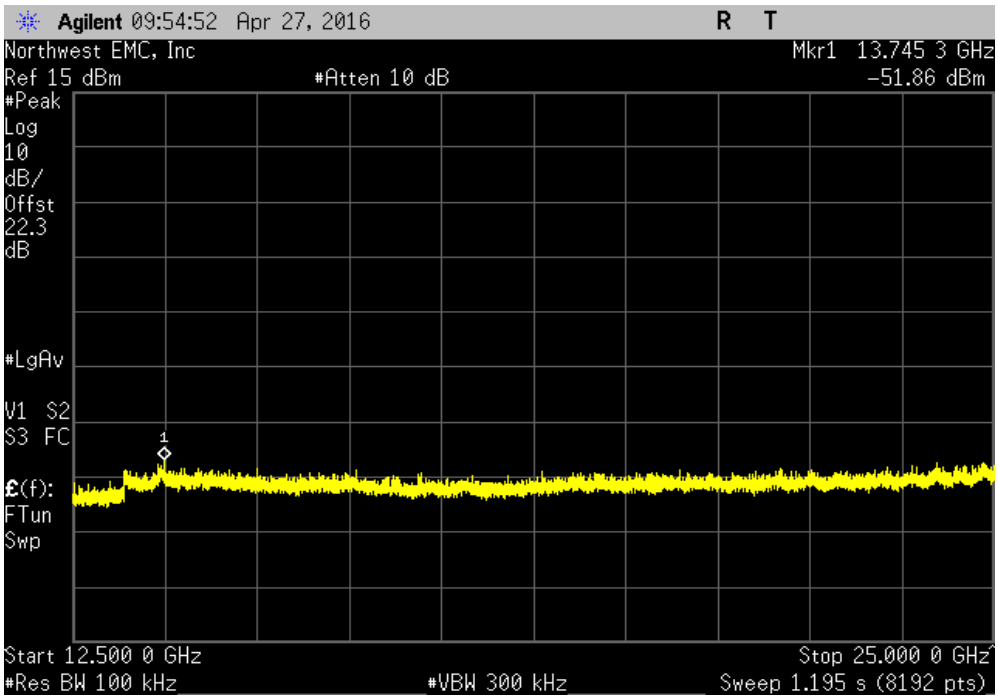
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



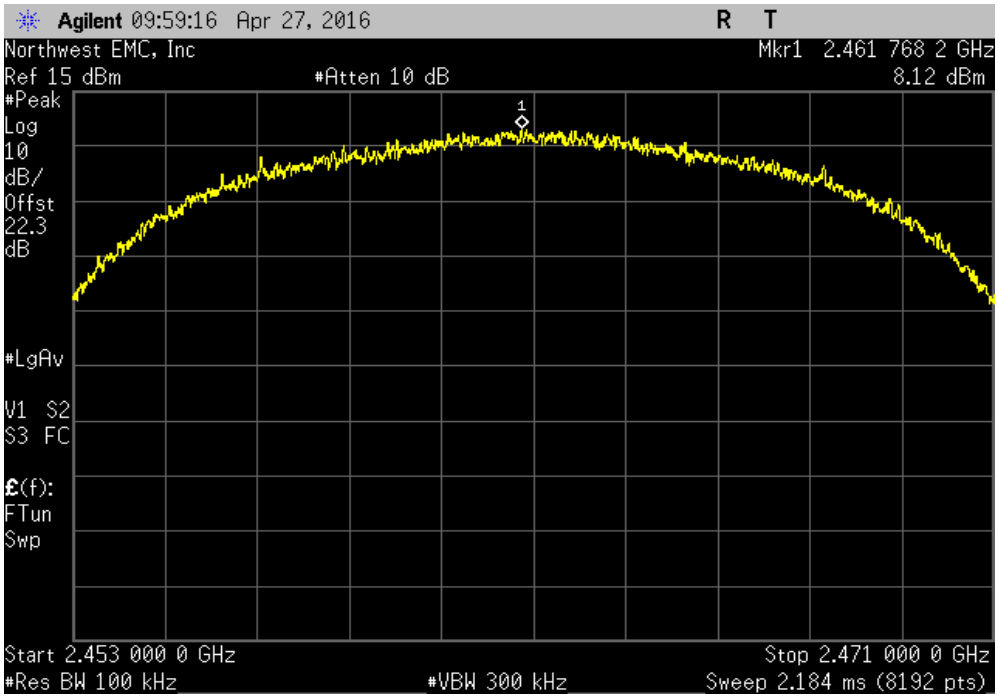
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz					
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz		-61.76	-30	Pass	



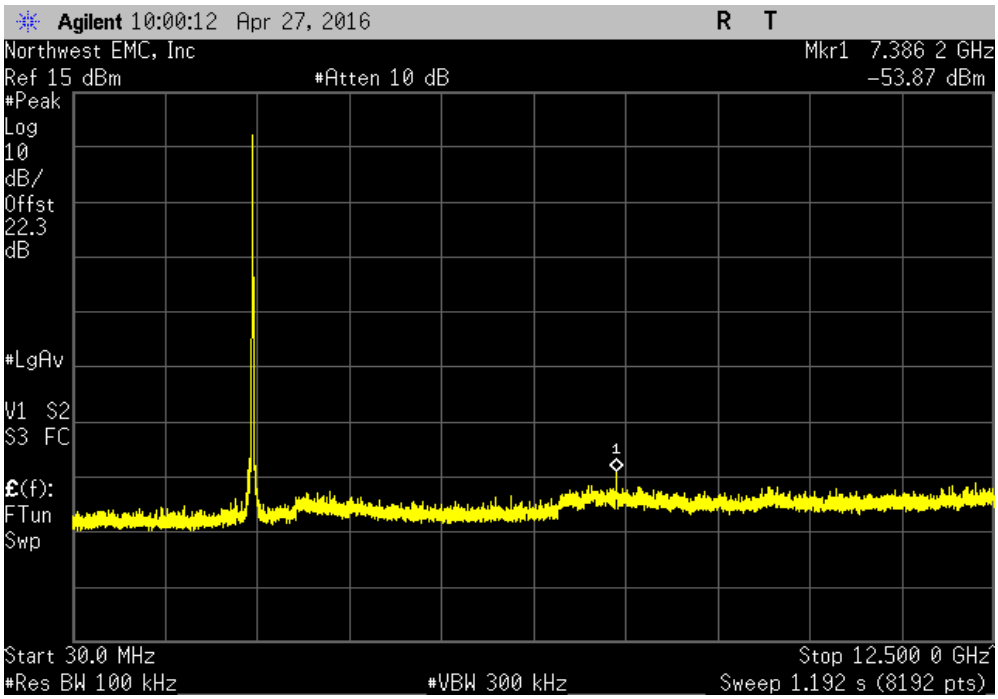
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-62.6	-30	Pass



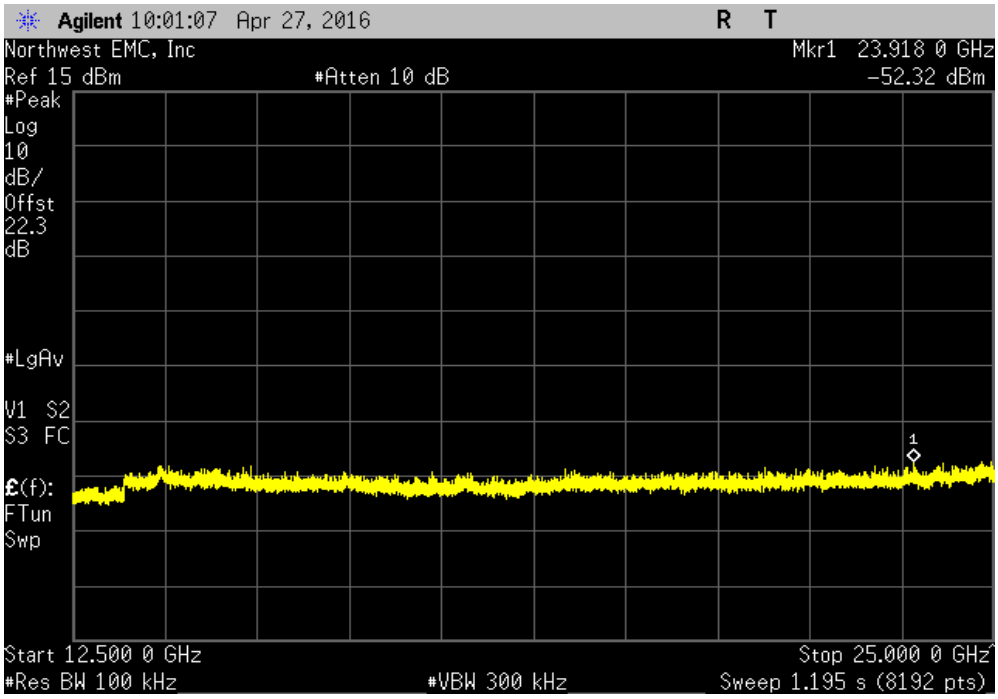
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
	Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
	Fundamental			N/A	N/A	N/A



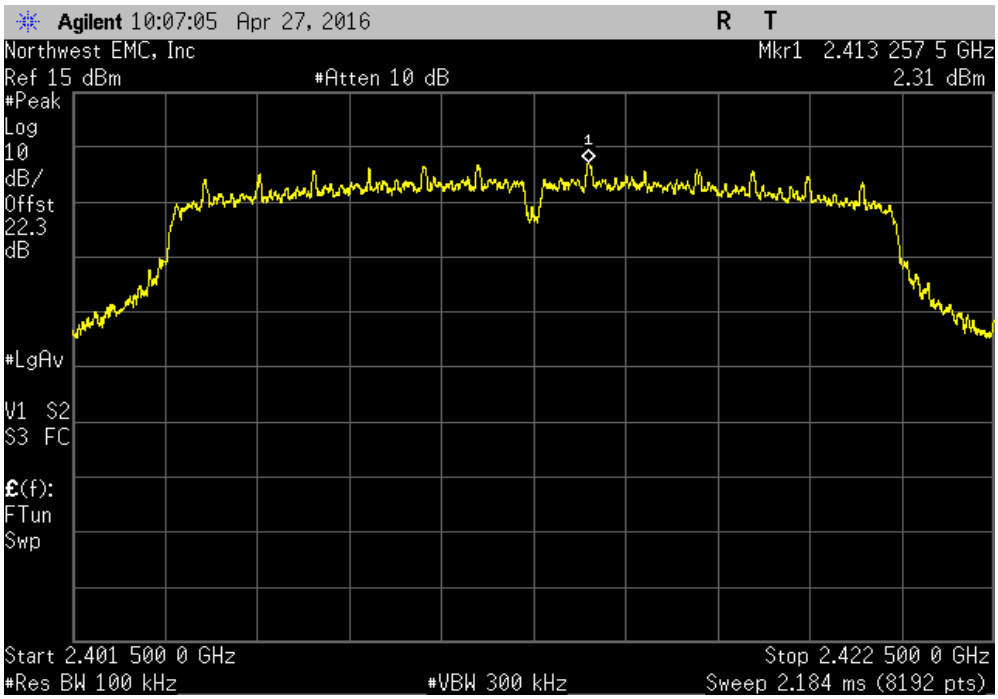
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-61.99	-30	Pass



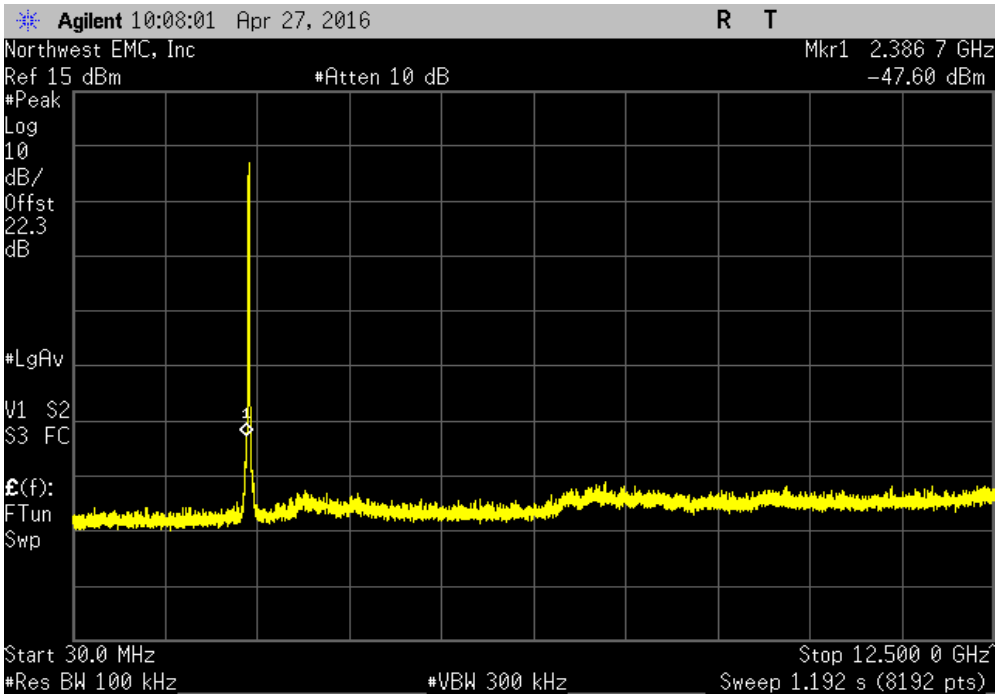
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-60.44	-30	Pass



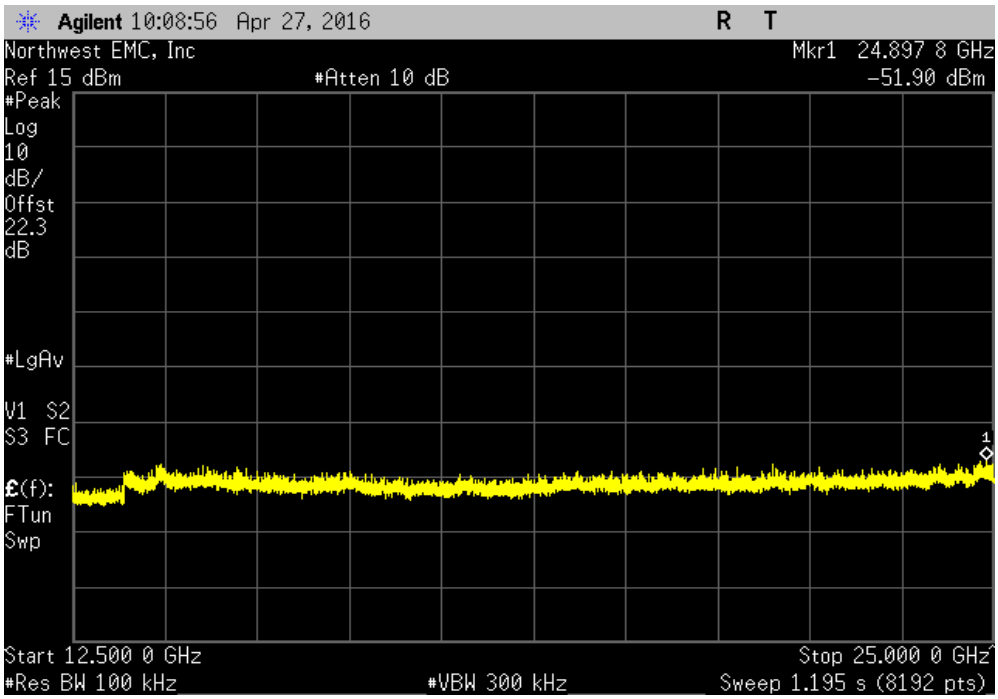
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz						
	Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
	Fundamental			N/A	N/A	N/A



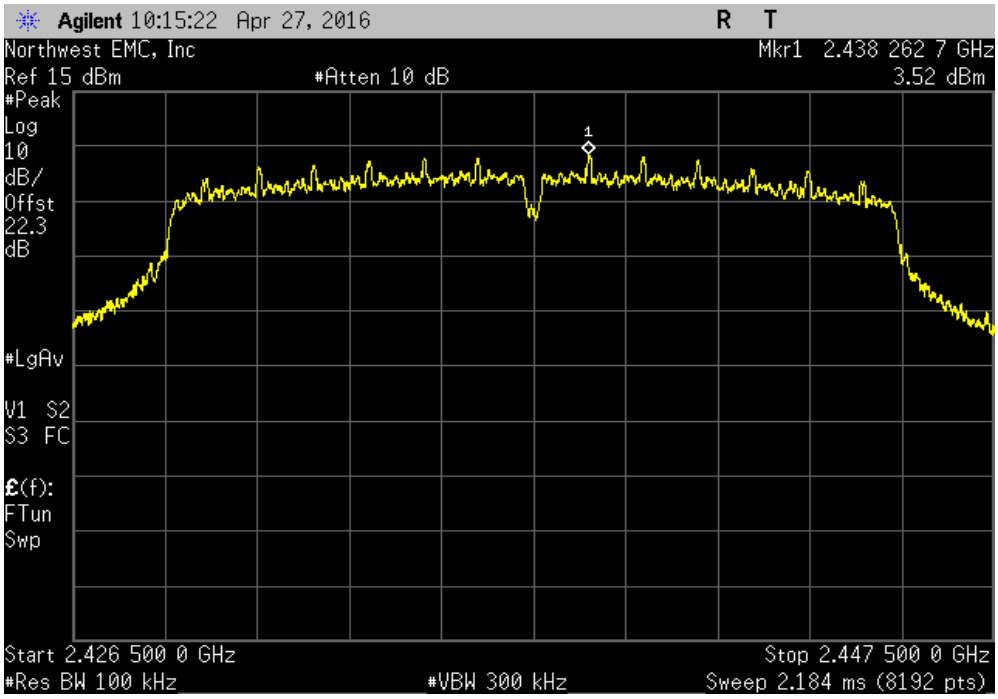
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz					
Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz			-49.91	-30	Pass



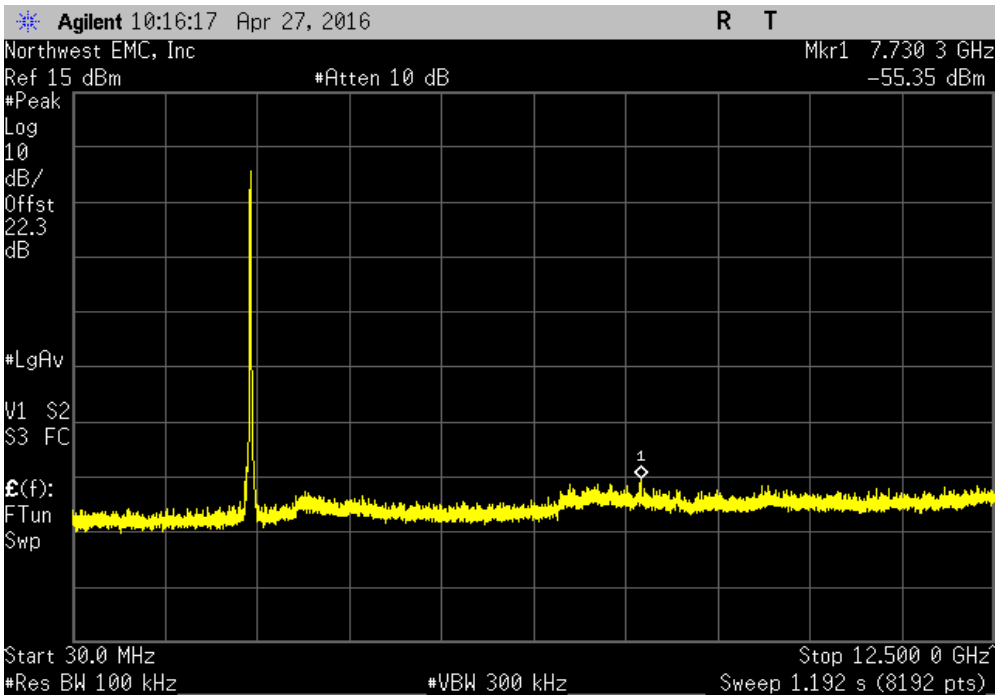
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-54.21	-30	Pass



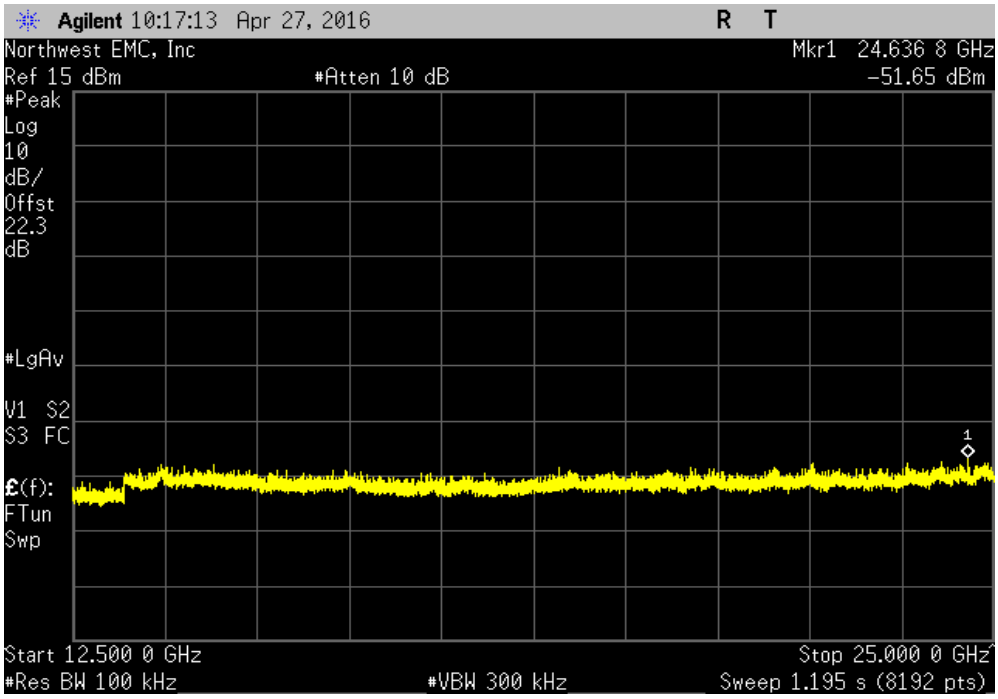
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
	Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
	Fundamental			N/A	N/A	N/A



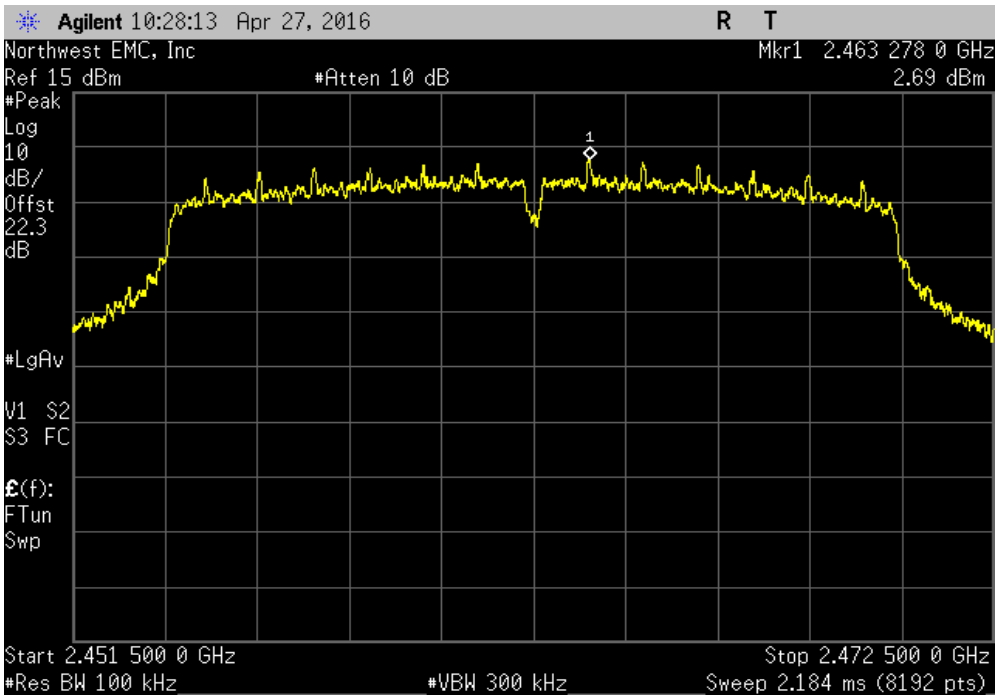
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-58.87	-30	Pass



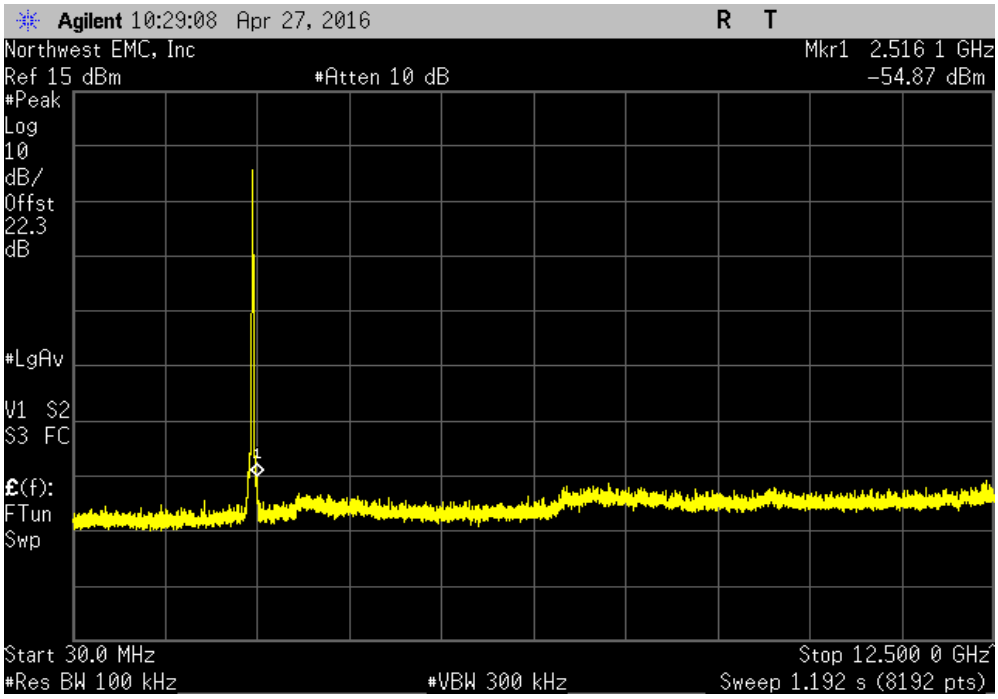
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-55.17	-30	Pass



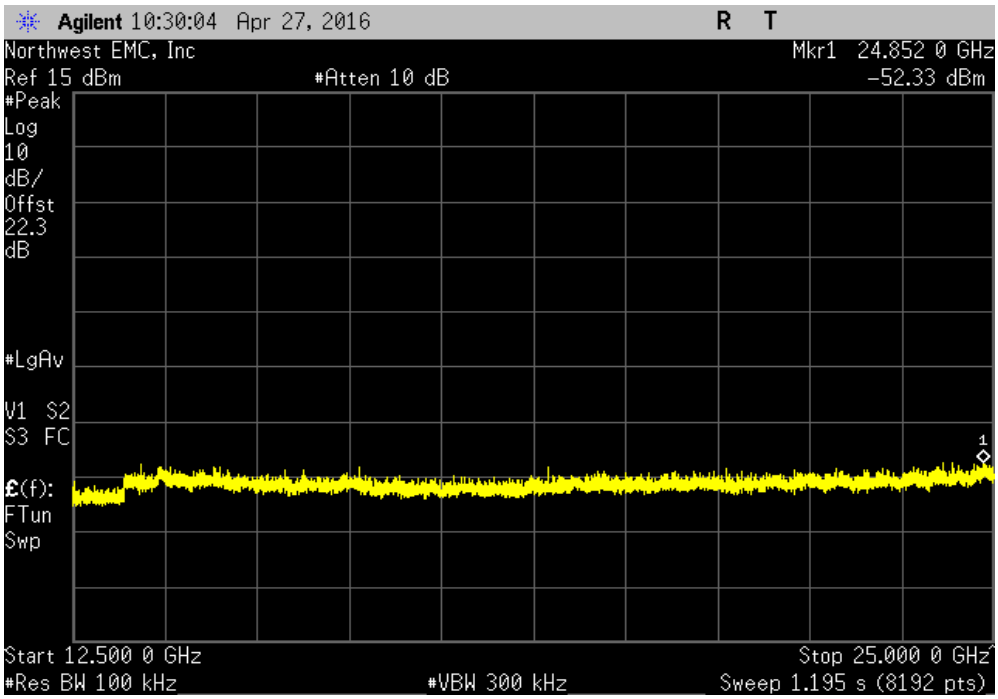
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



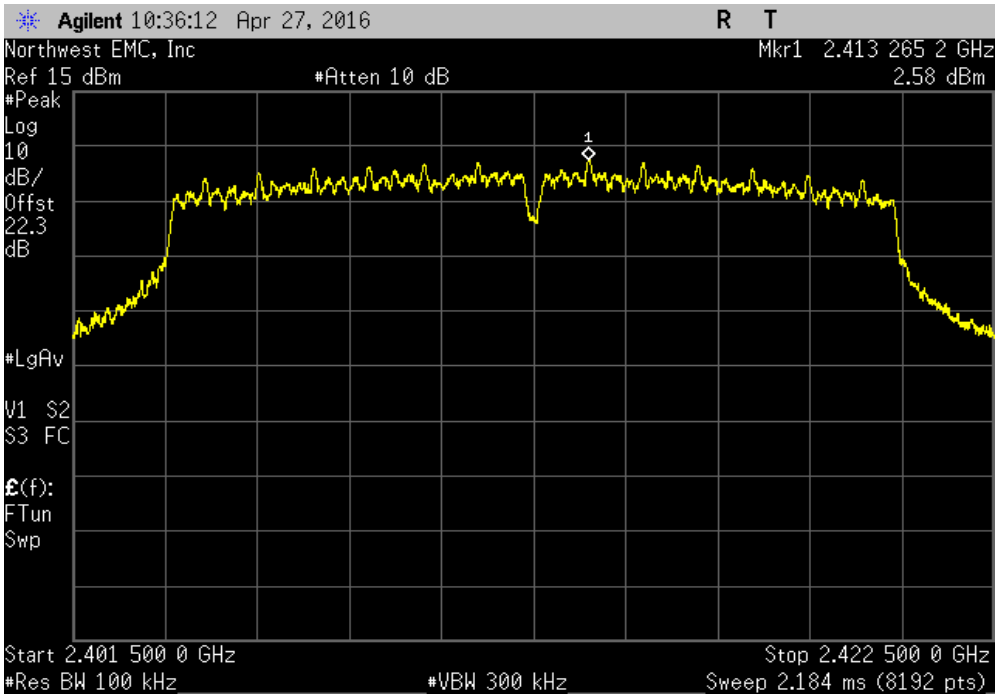
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz					
Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz			-57.56	-30	Pass



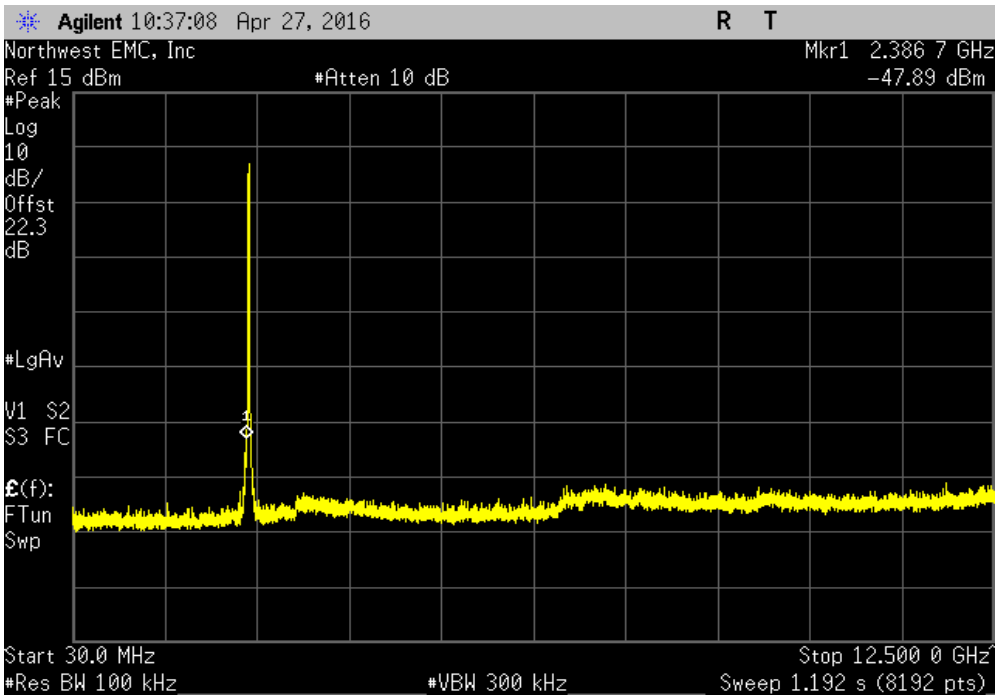
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-55.02	-30	Pass



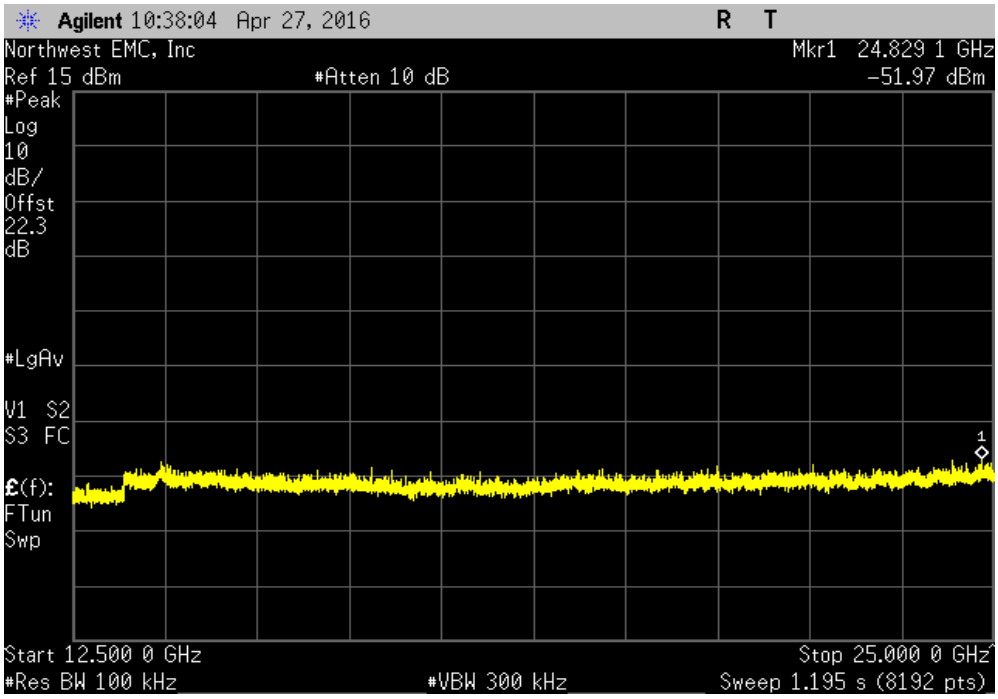
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
	Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
	Fundamental			N/A	N/A	N/A



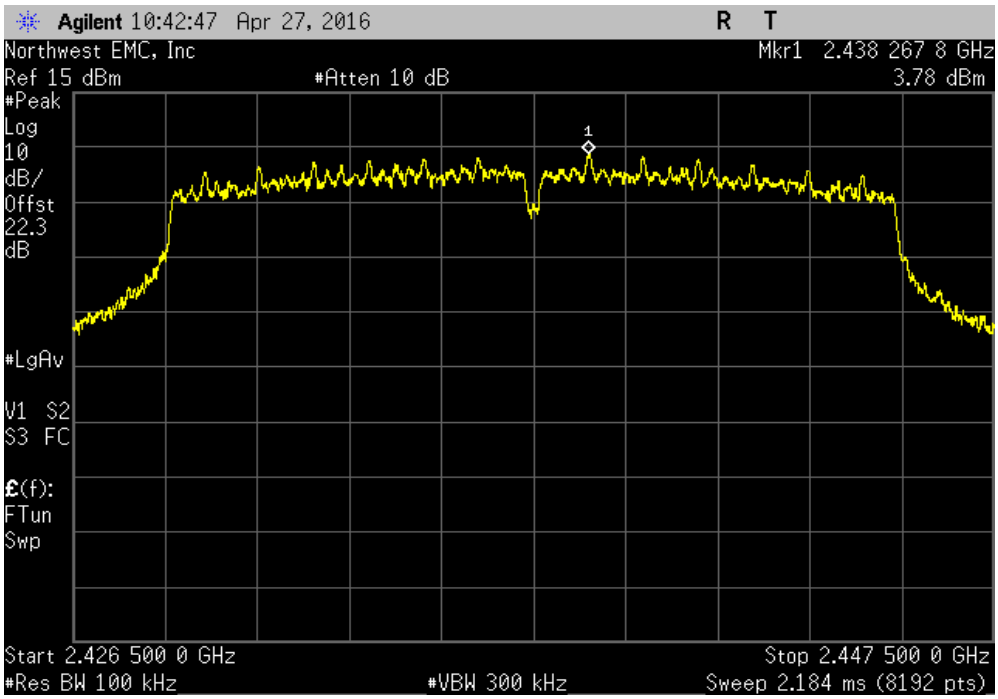
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-50.47	-30	Pass



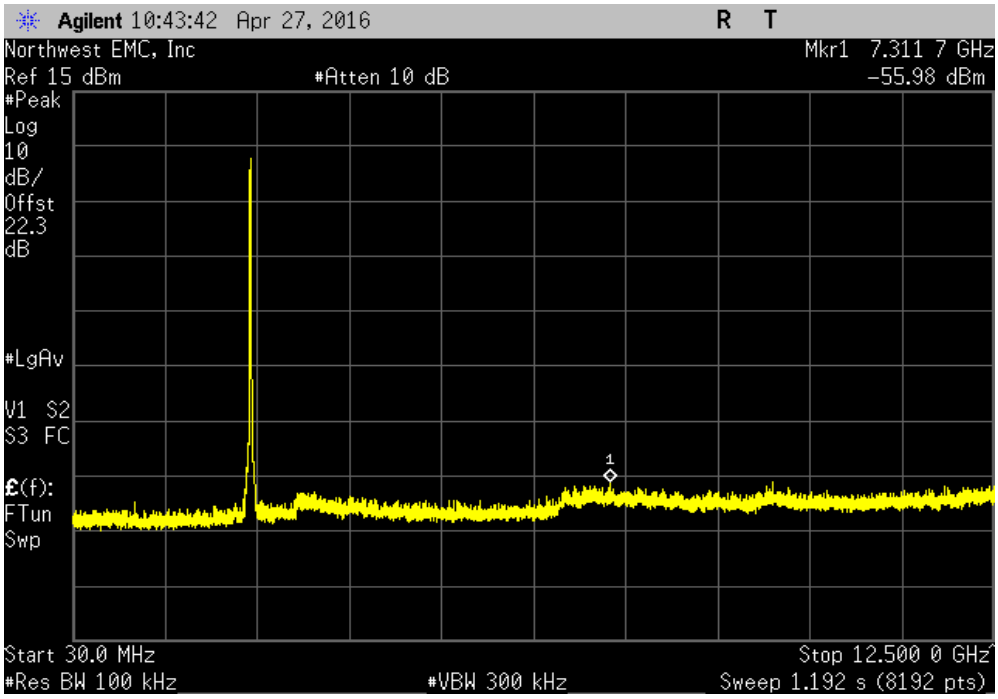
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-54.55	-30	Pass



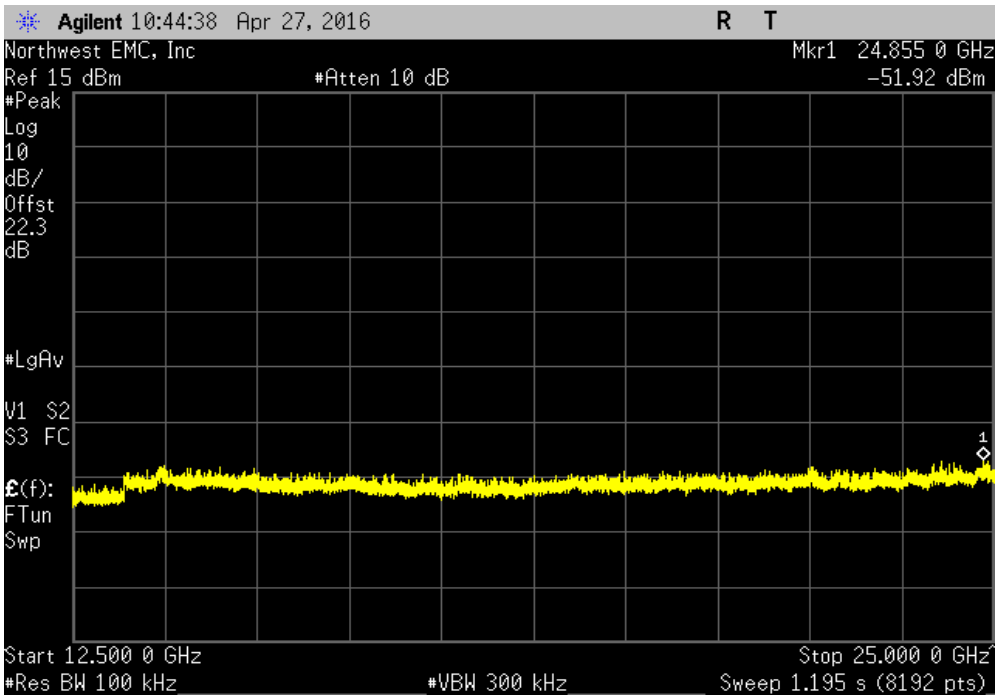
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
	Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
	Fundamental			N/A	N/A	N/A



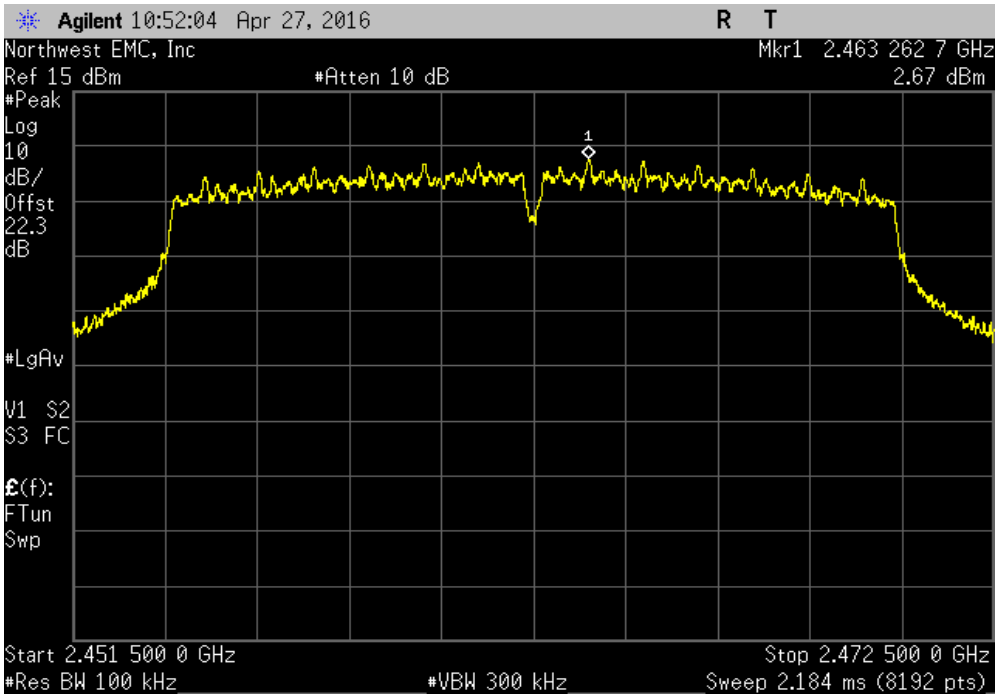
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz					
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-59.76	-30	Pass



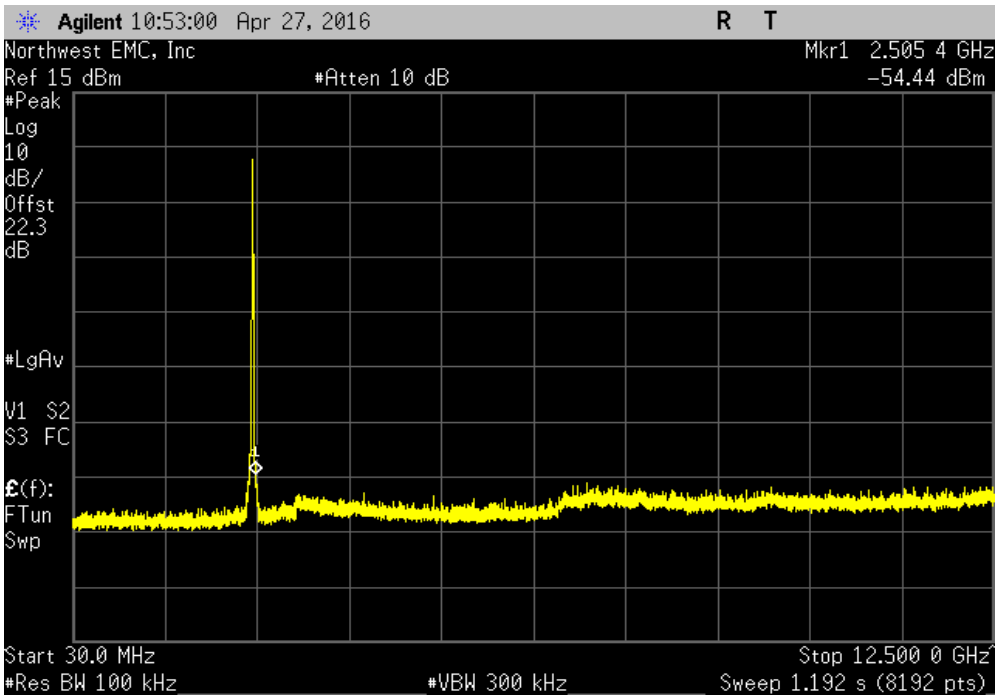
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-55.7	-30	Pass



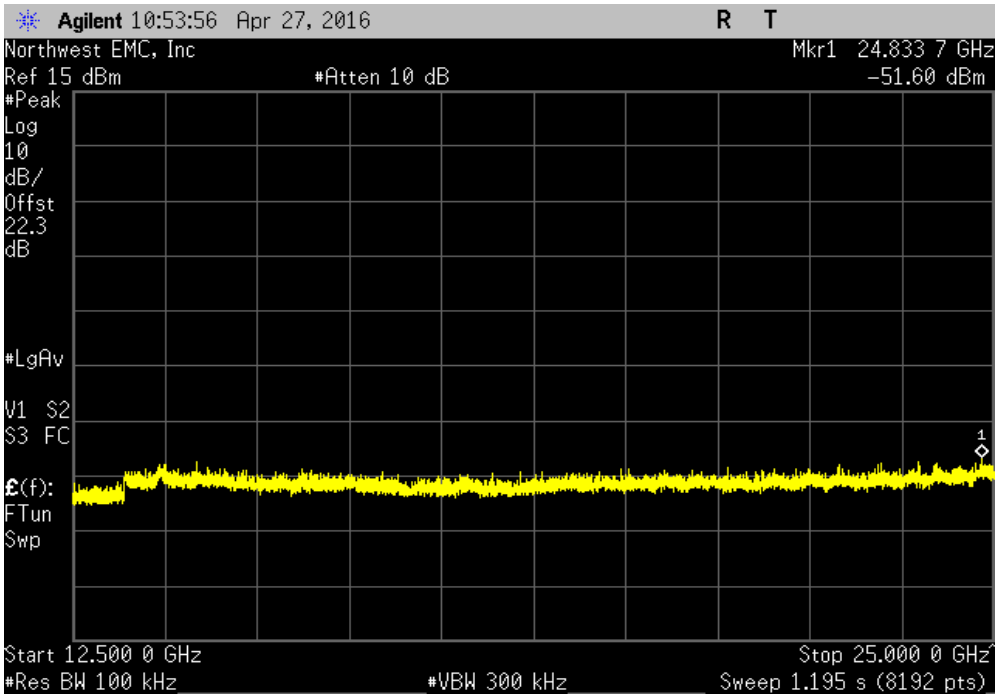
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
	Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
	Fundamental			N/A	N/A	N/A



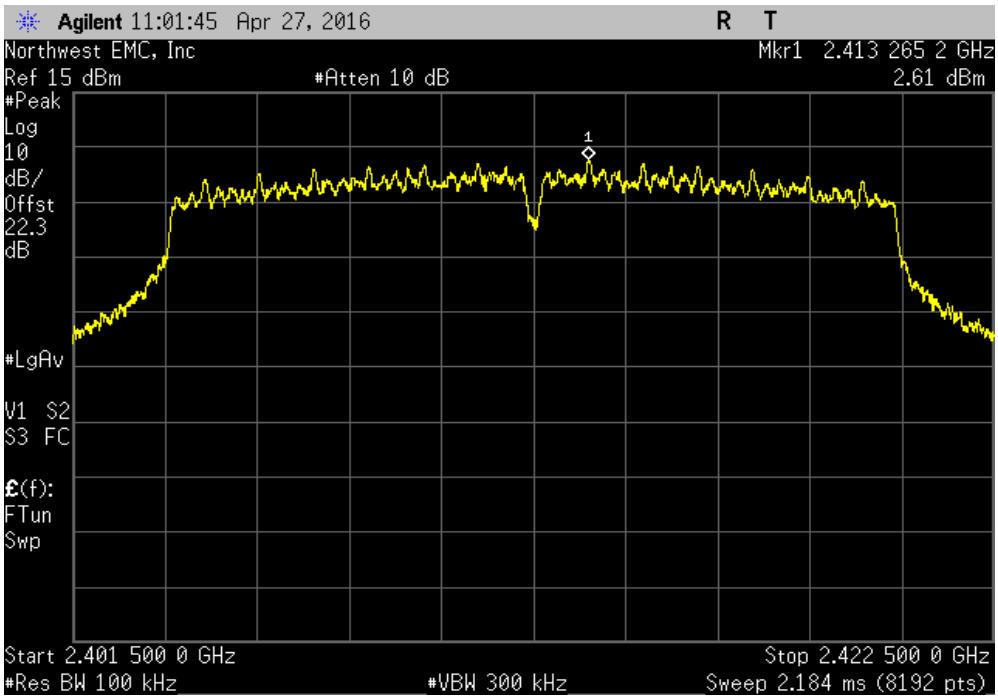
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-57.11	-30	Pass



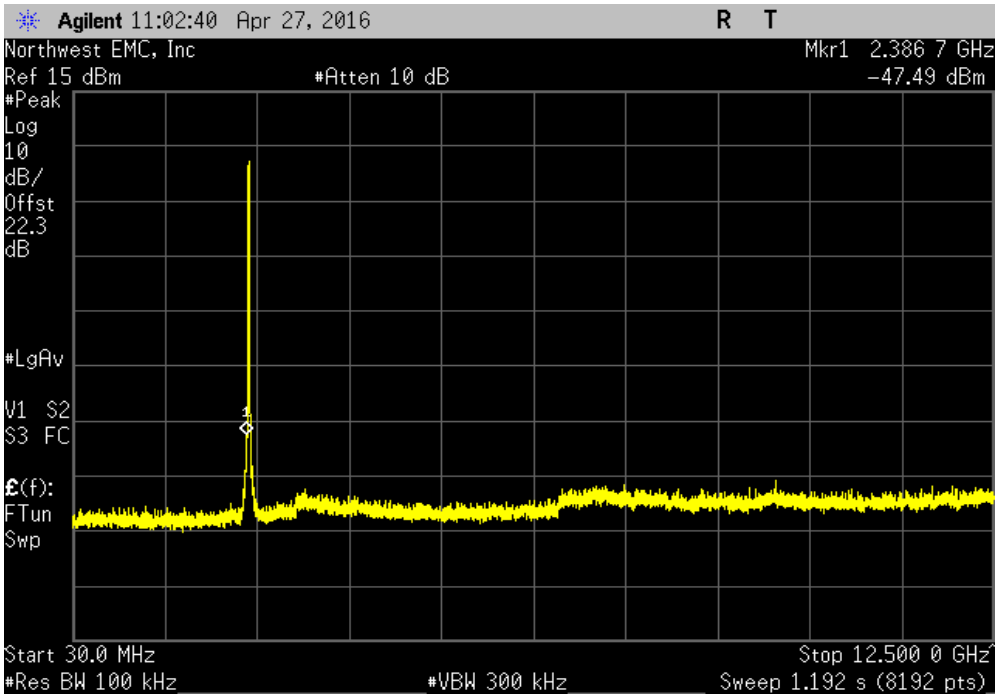
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-54.27	-30	Pass



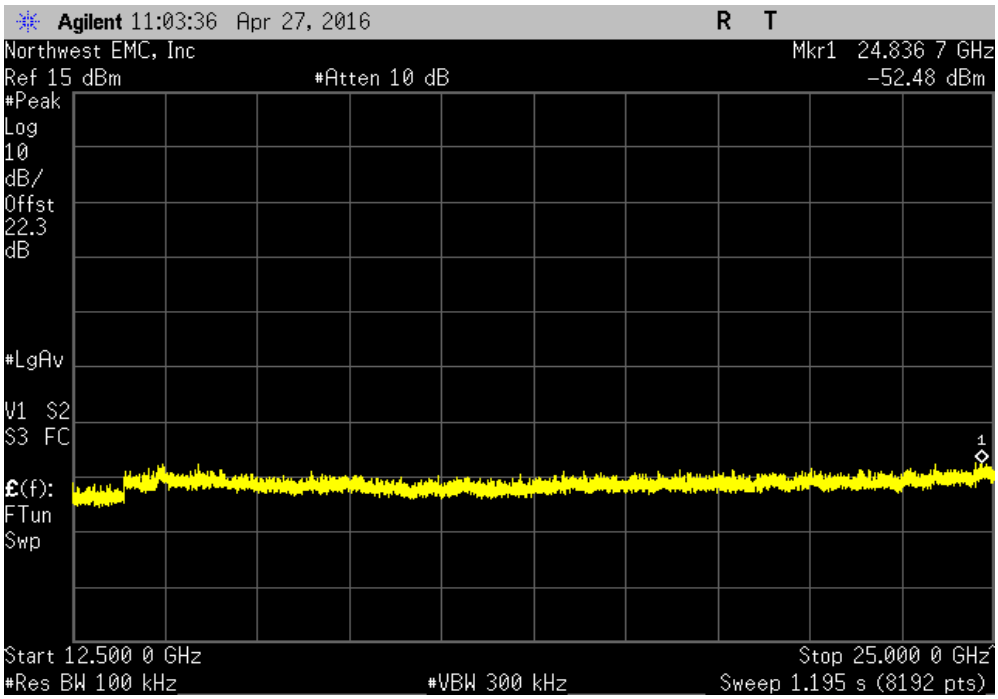
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



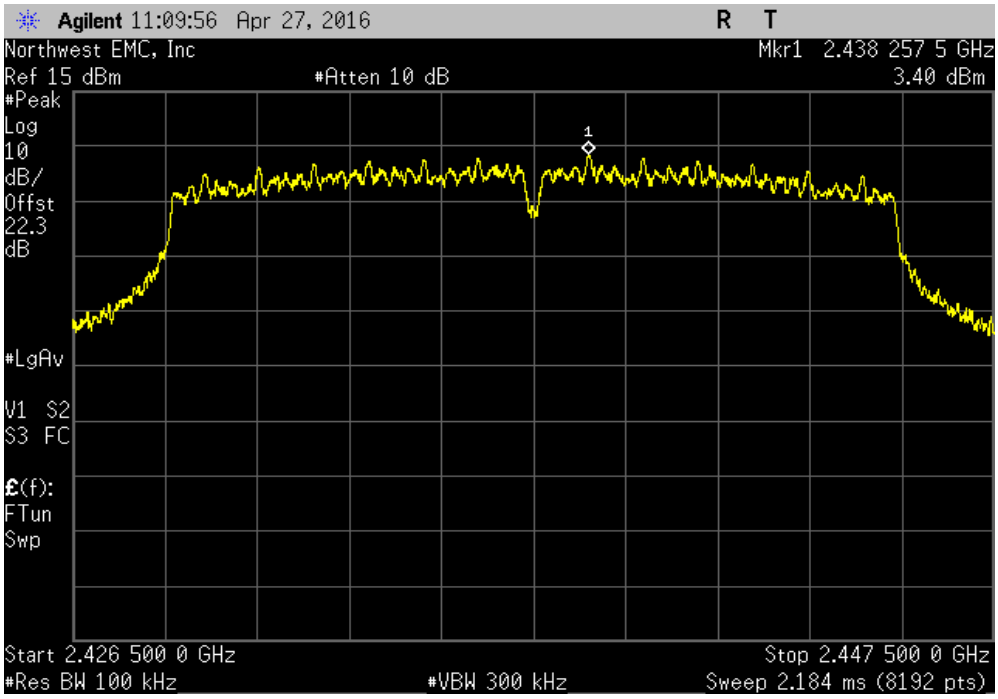
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz					
Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz			-50.1	-30	Pass



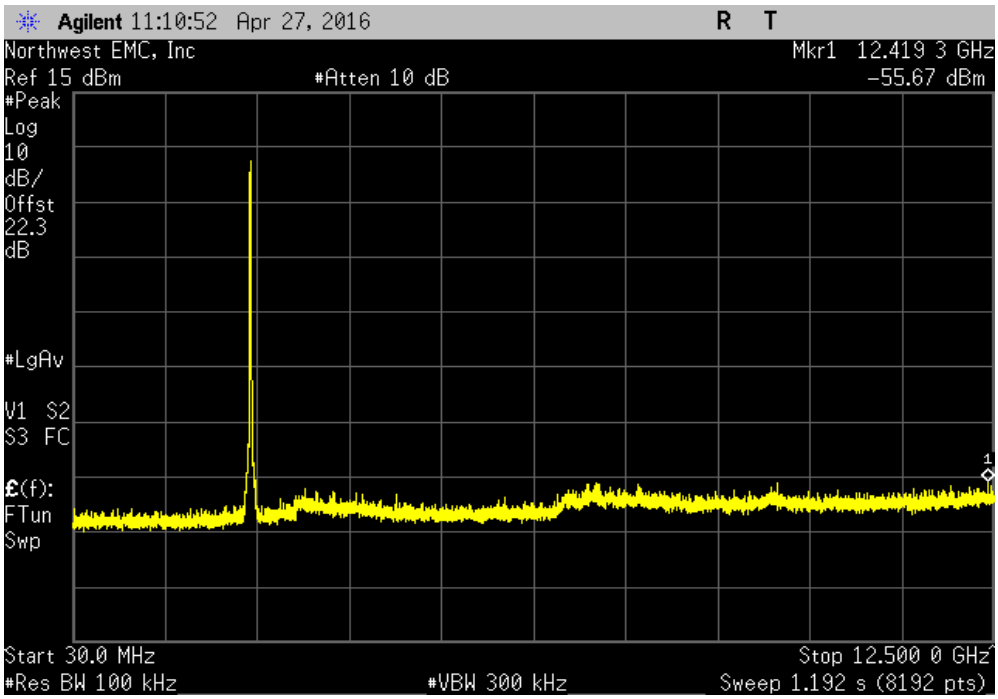
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-55.09	-30	Pass



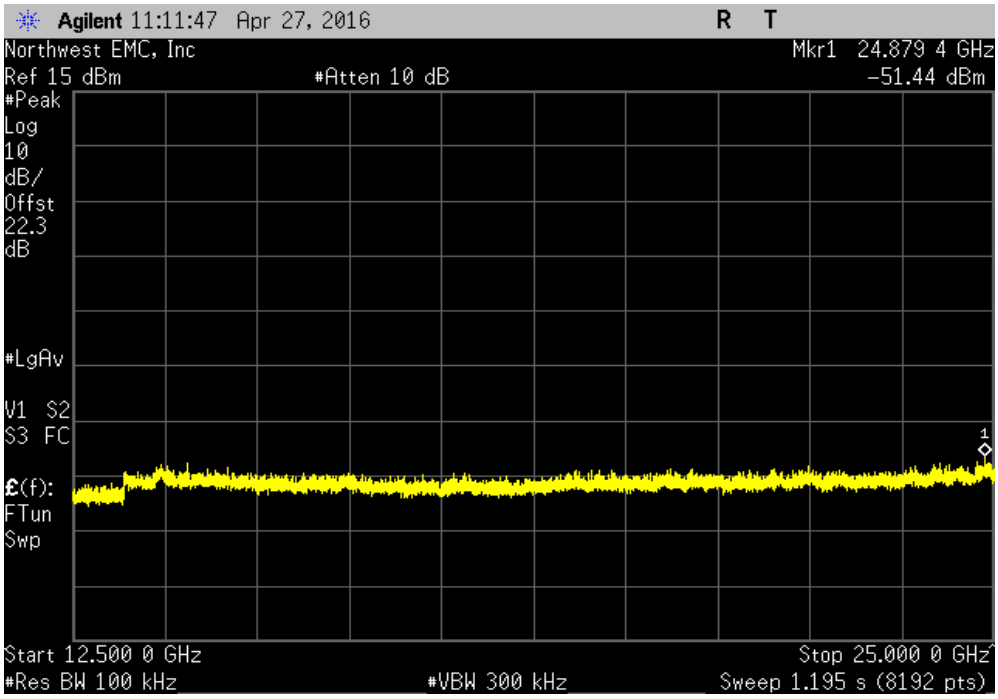
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
	Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
	Fundamental			N/A	N/A	N/A



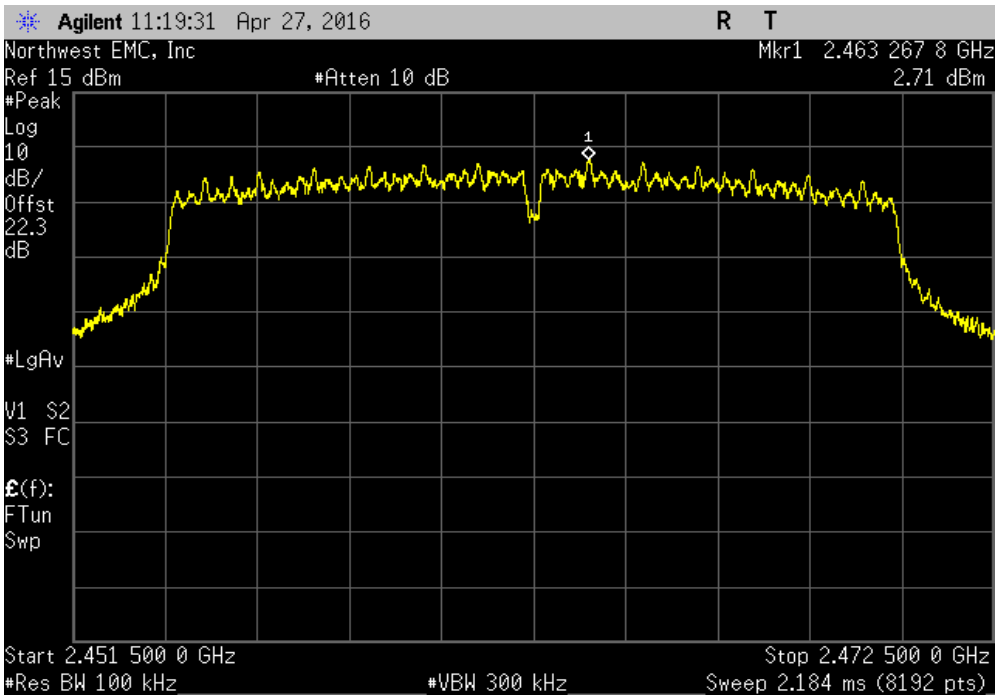
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-59.07	-30	Pass



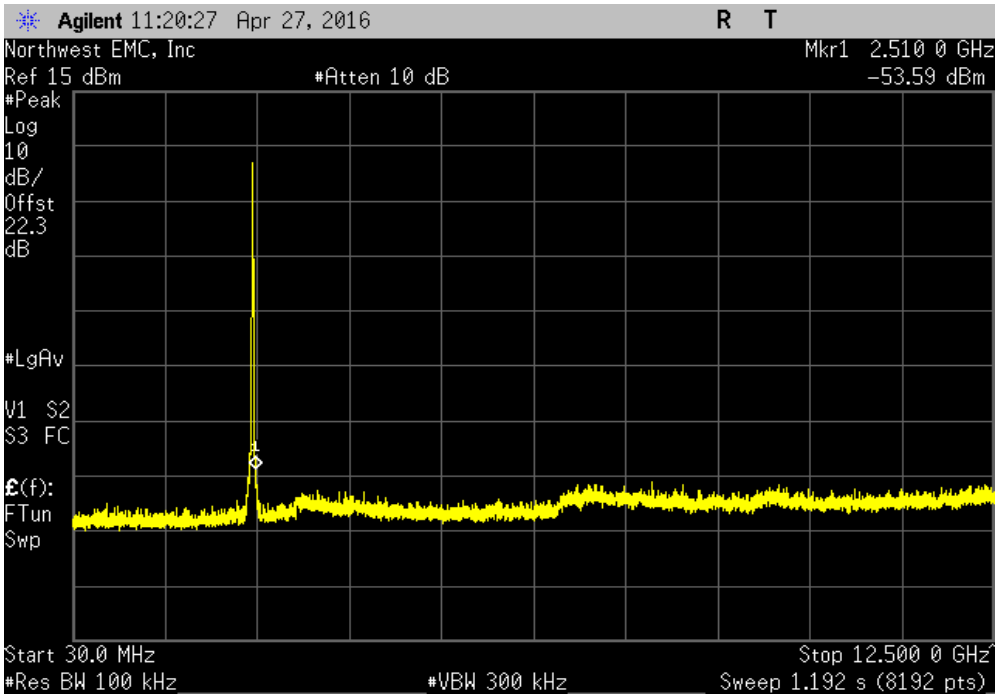
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-54.84	-30	Pass



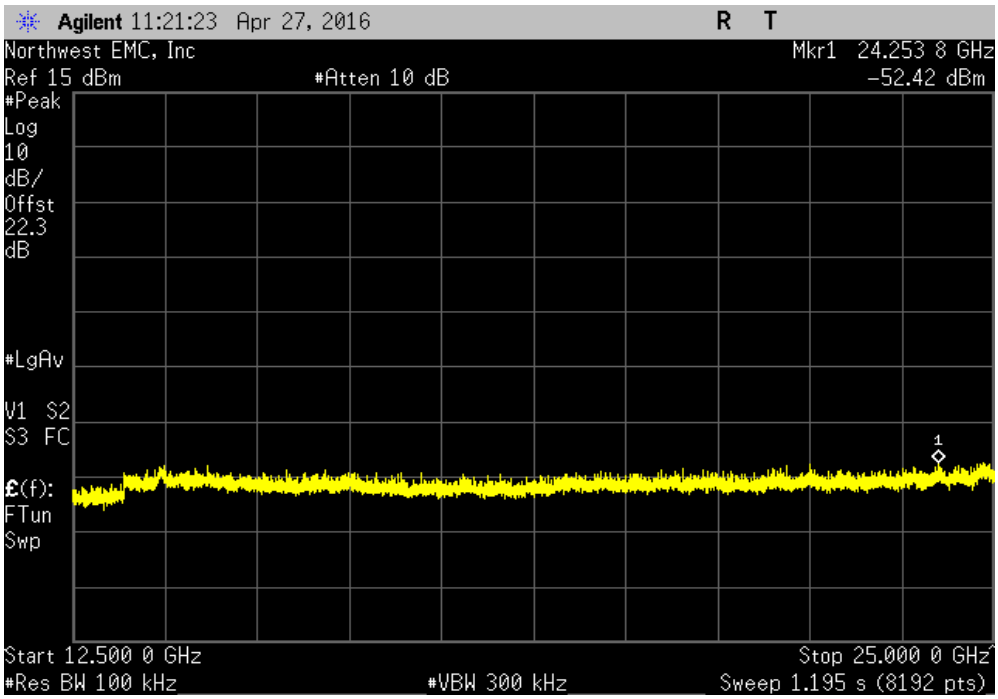
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



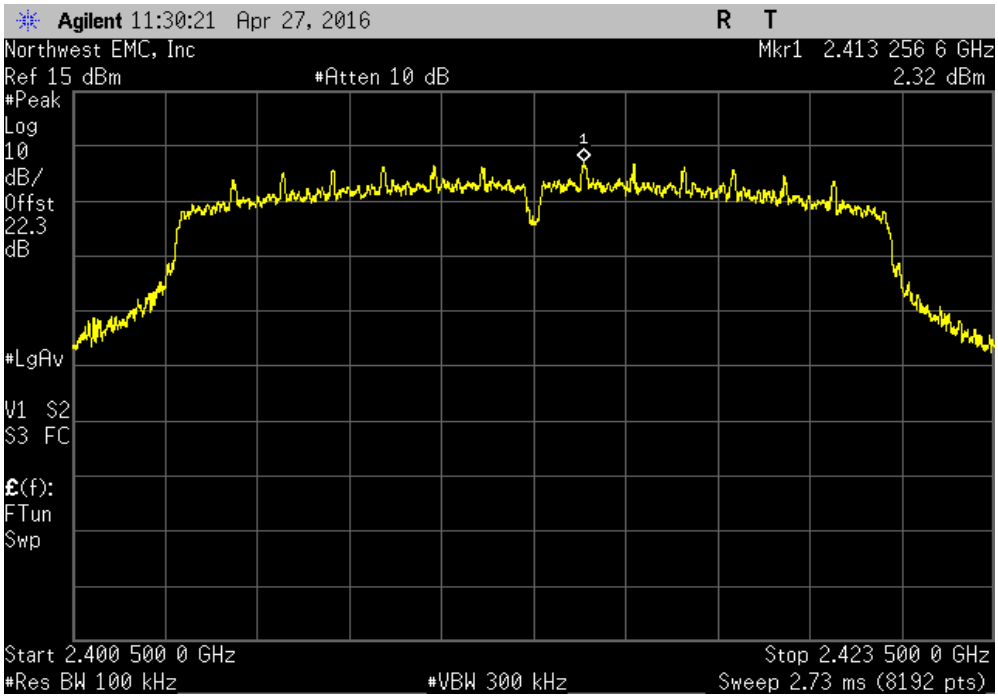
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz					
Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz			-56.3	-30	Pass



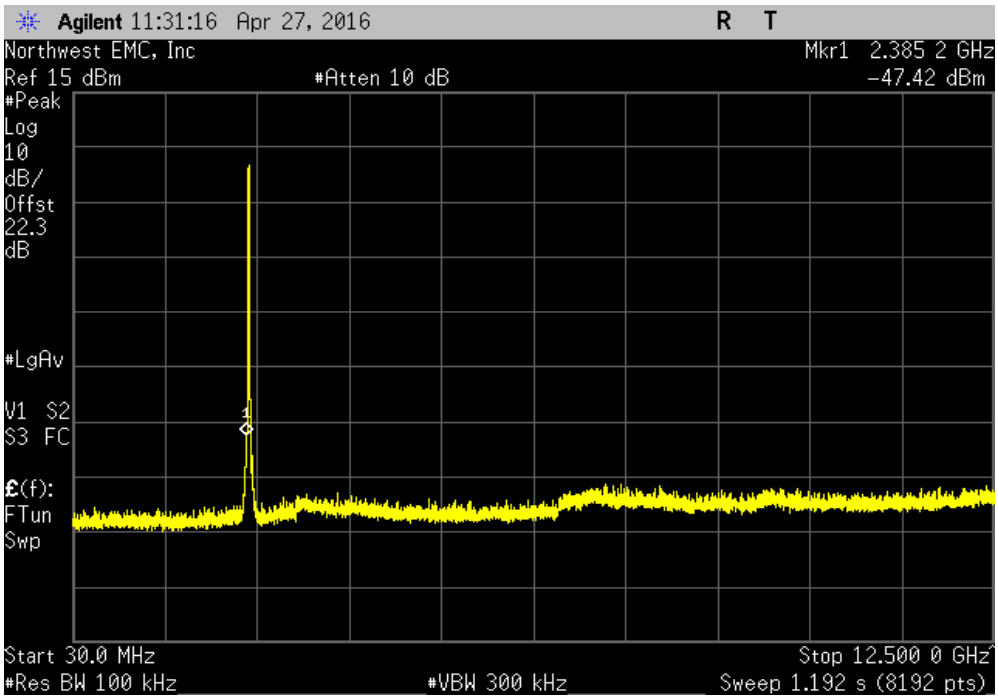
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-55.13	-30	Pass



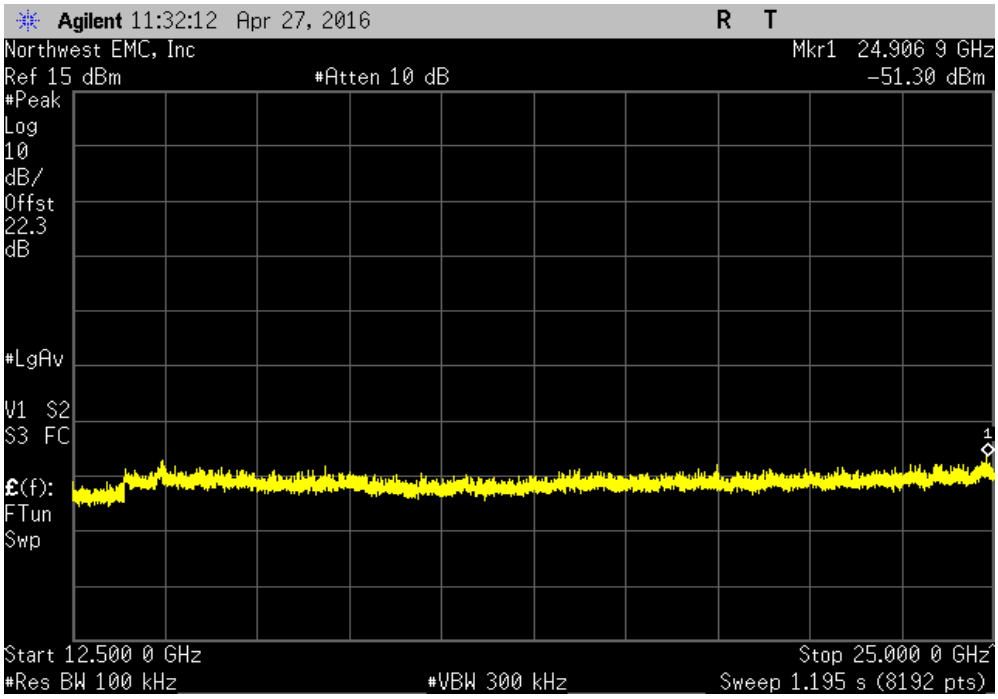
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
	Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
	Fundamental			N/A	N/A	N/A



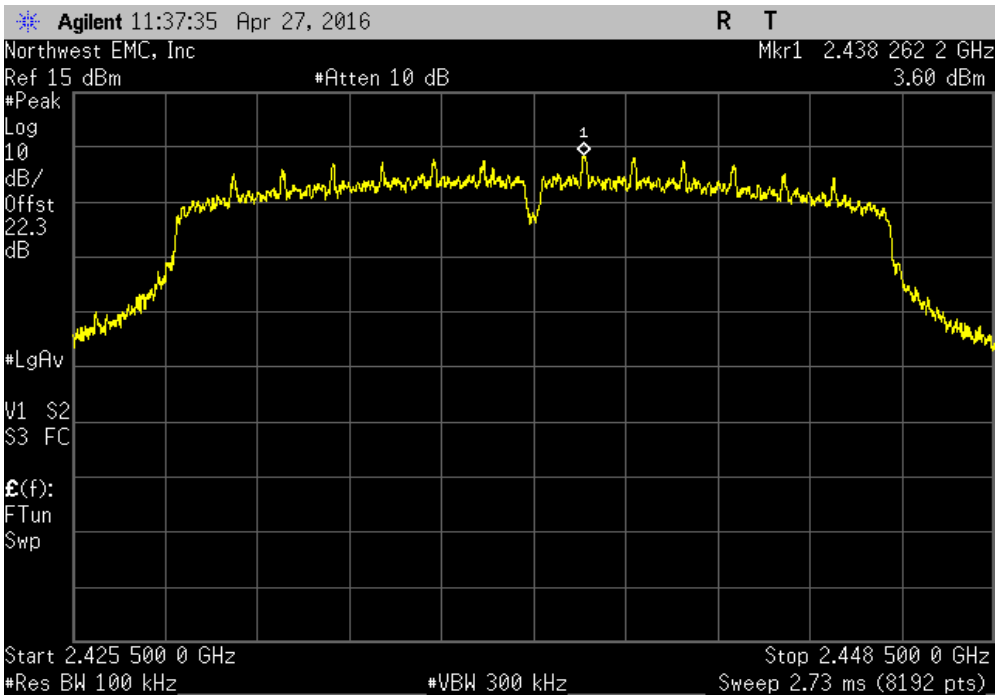
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-49.74	-30	Pass



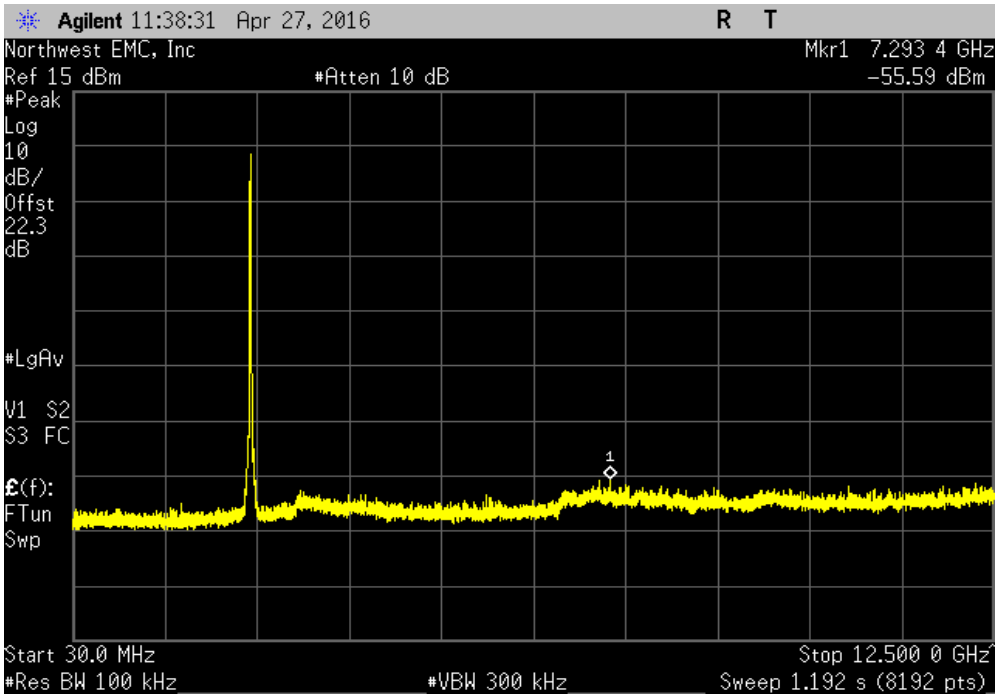
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, Low Channel 1, 2412 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-53.62	-30	Pass



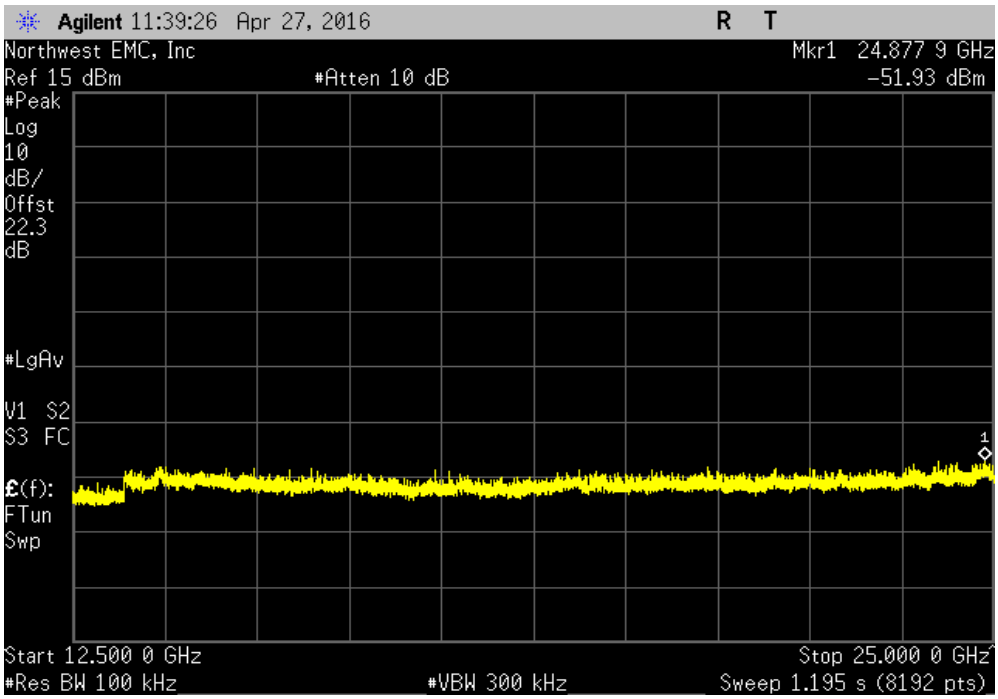
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
	Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
	Fundamental			N/A	N/A	N/A



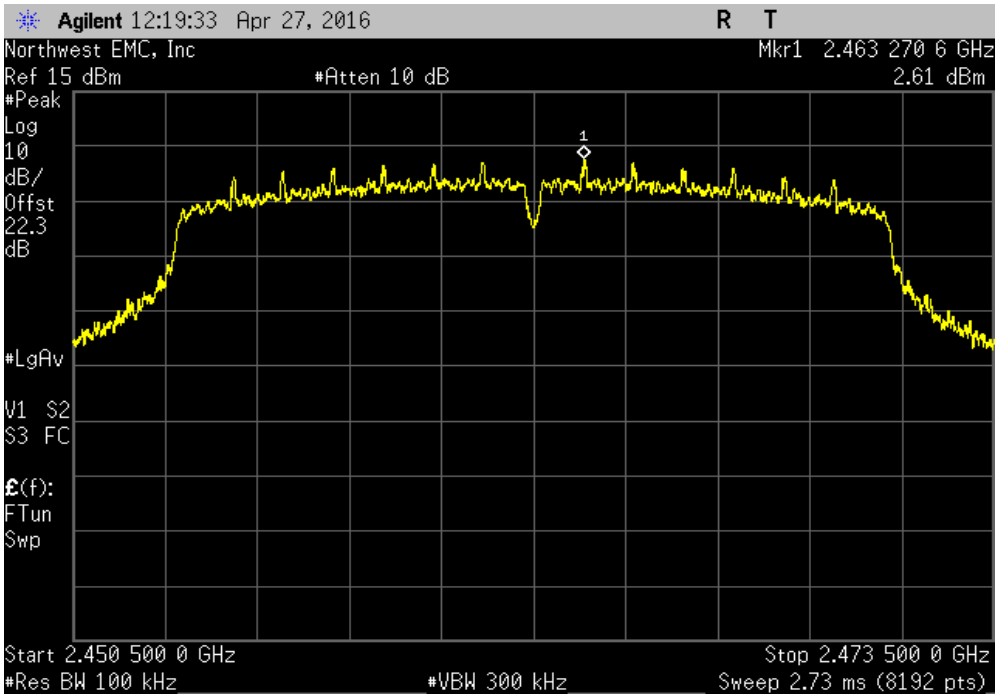
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz					
Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz			-59.19	-30	Pass



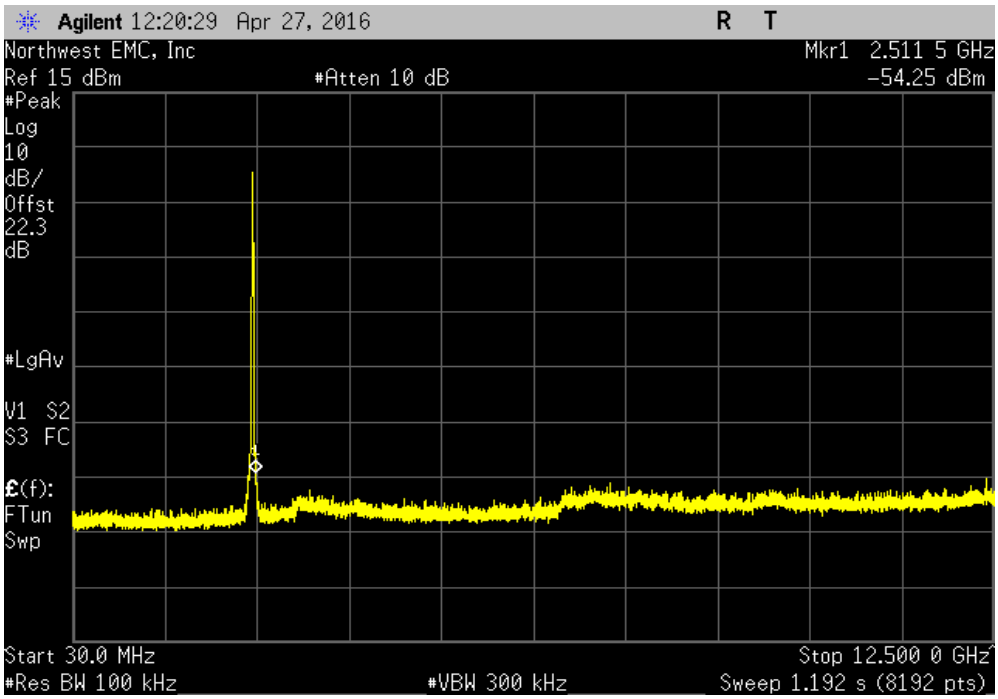
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, Mid Channel 6, 2437 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-55.53	-30	Pass



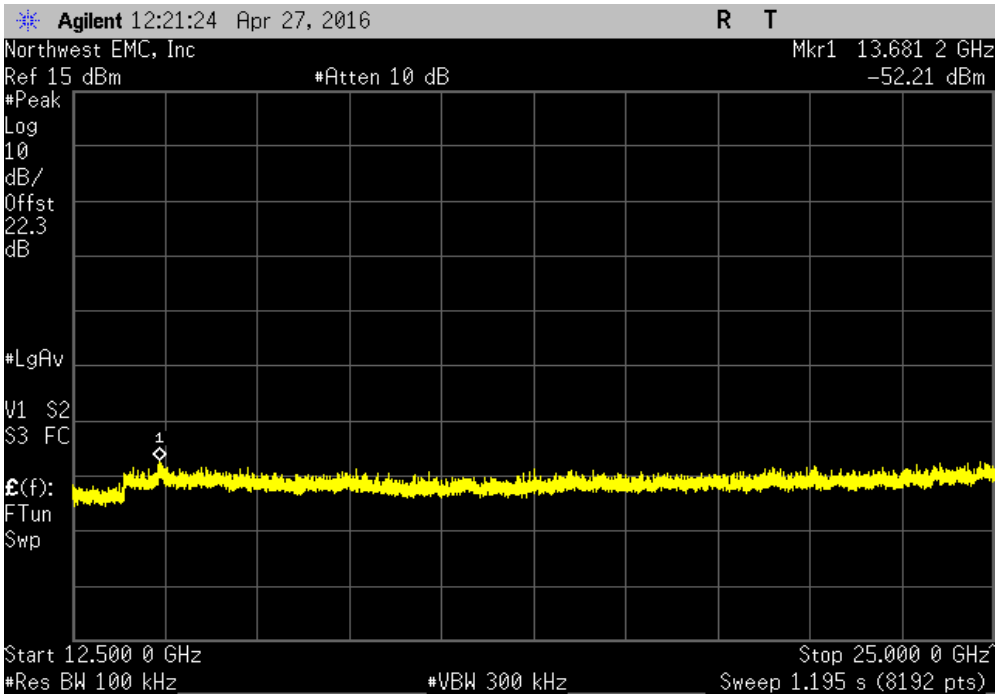
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, High Channel 11, 2462 MHz						
	Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
	Fundamental			N/A	N/A	N/A



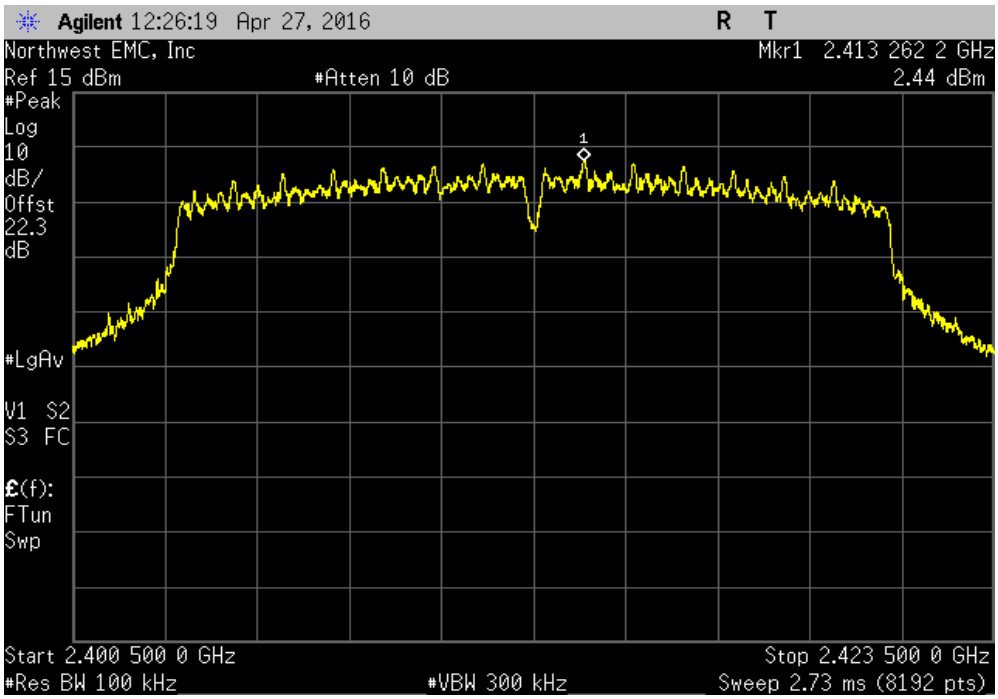
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, High Channel 11, 2462 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-56.86	-30	Pass



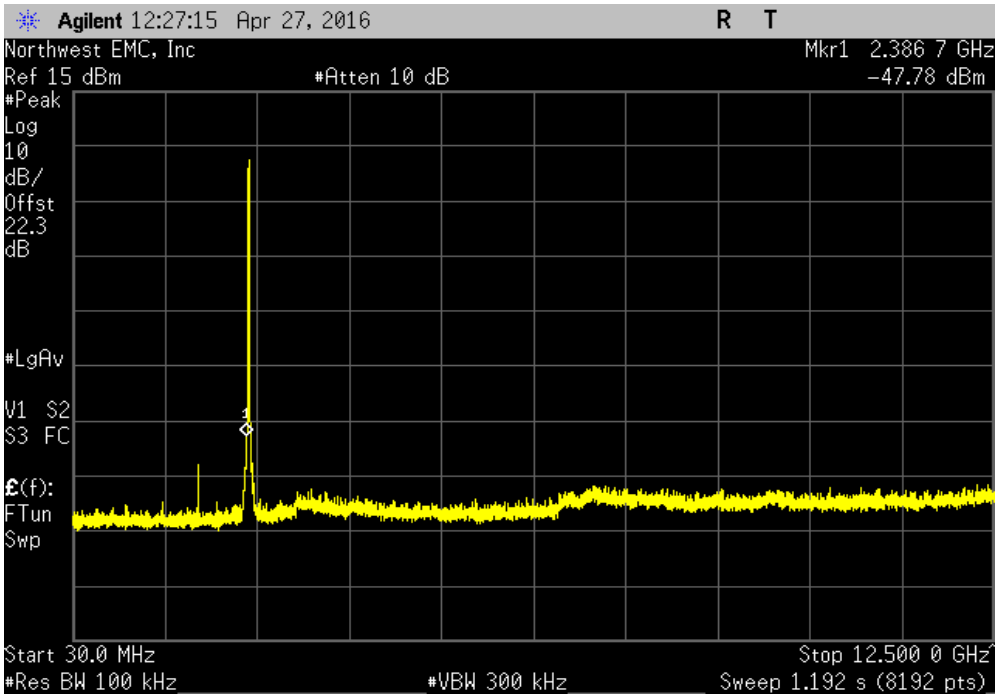
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS0, High Channel 11, 2462 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-54.82	-30	Pass



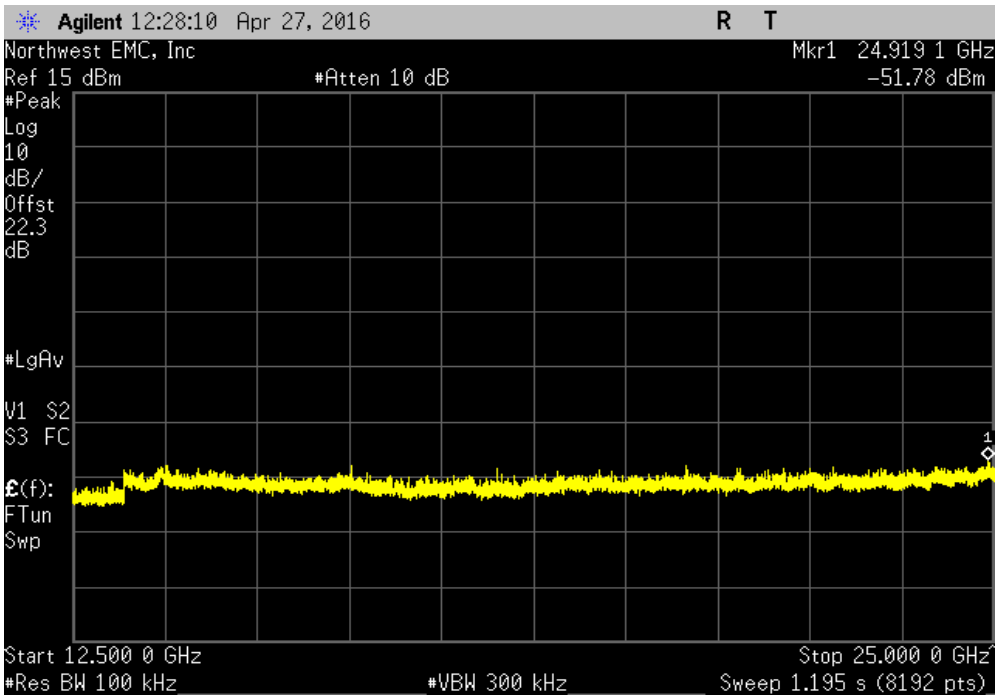
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
	Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
	Fundamental			N/A	N/A	N/A



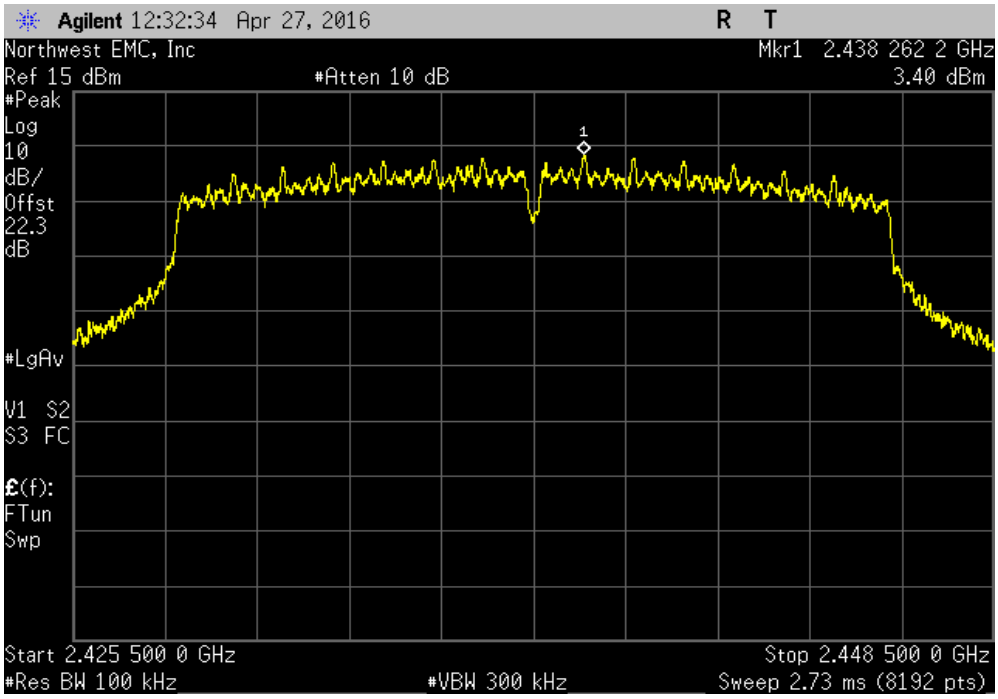
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz					
Frequency Range			**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz			-50.22	-30	Pass



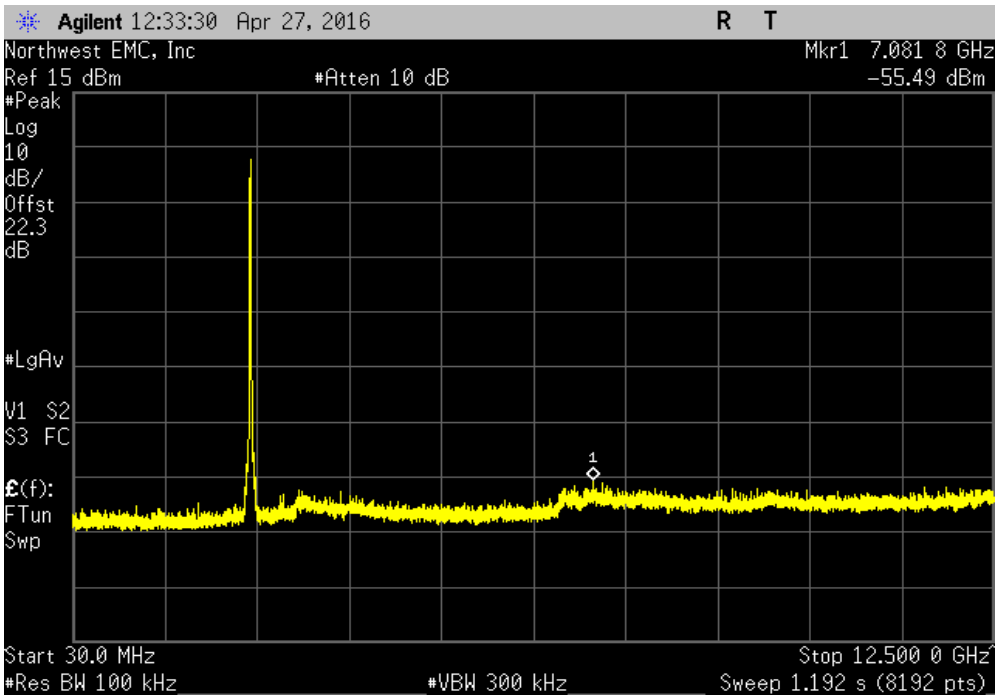
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, Low Channel 1, 2412 MHz				
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz		-54.22	-30	Pass



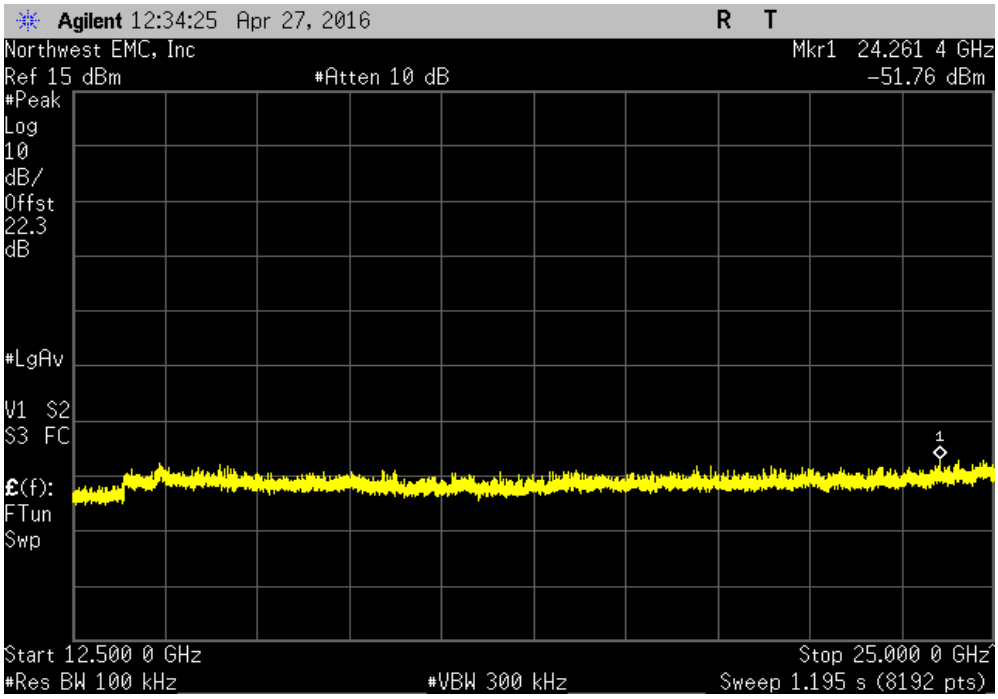
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
Frequency Range				Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



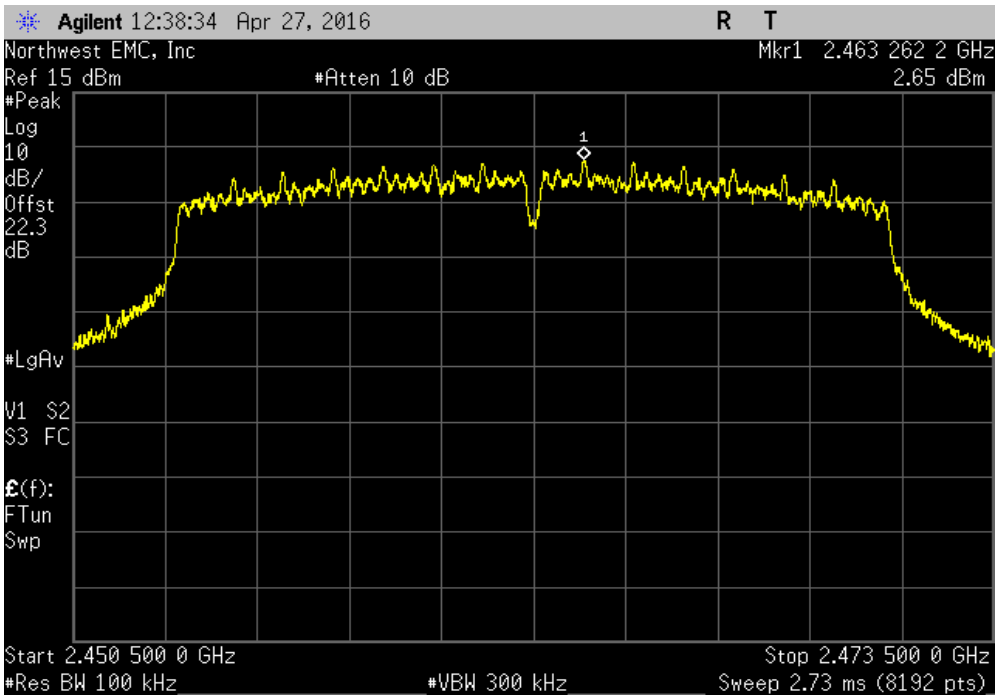
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-58.89	-30	Pass



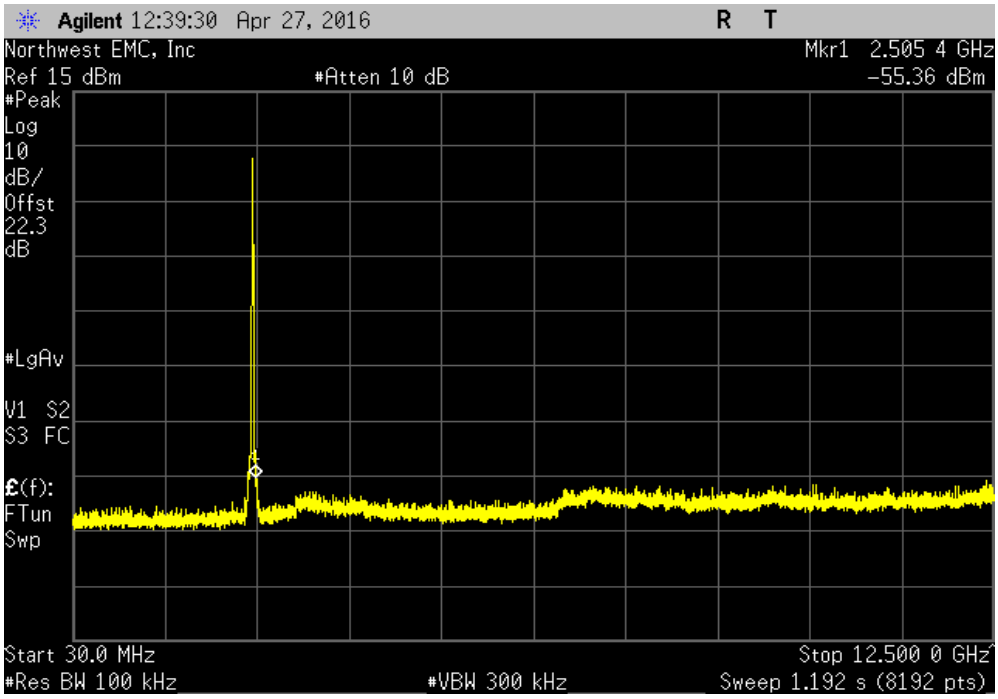
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, Mid Channel 6, 2437 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-55.16	-30	Pass



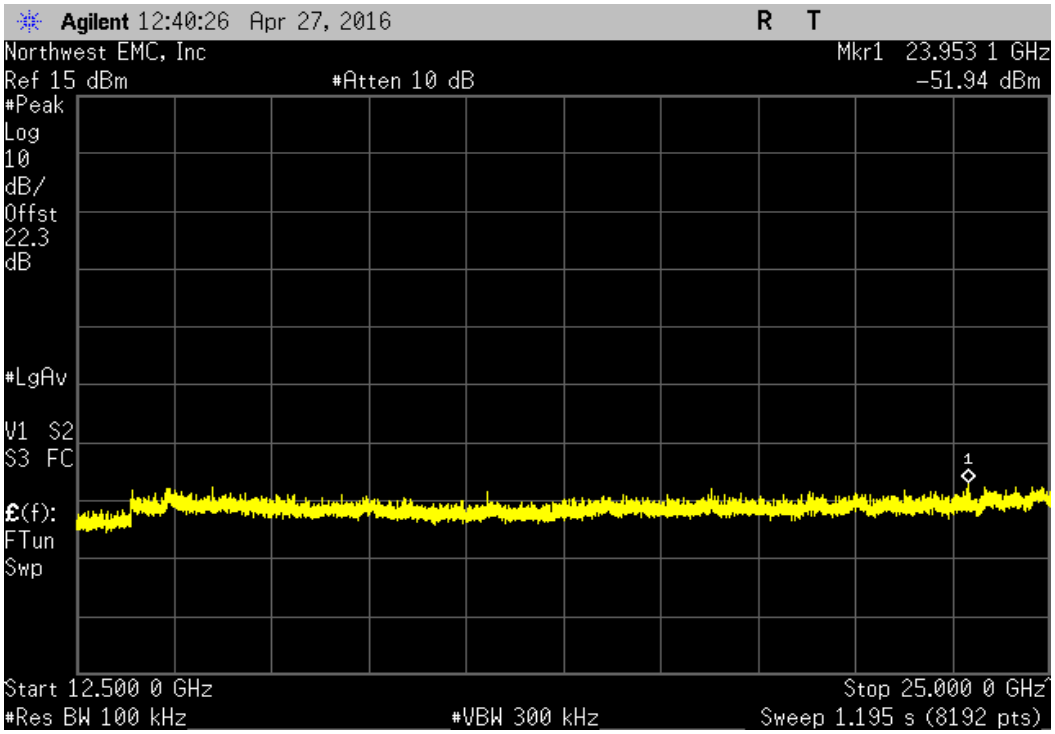
2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, High Channel 11, 2462 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, High Channel 11, 2462 MHz					
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz		-58.01	-30	Pass	



2400 MHz - 2483.5 MHz Band, Antenna Port 0, 802.11(n) MCS7, High Channel 11, 2462 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-54.59	-30	Pass



SPURIOUS RADIATED EMISSIONS

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

MODES OF OPERATION

Transmitting 802.11 - low channel (2412 MHz), mid channel (2437 MHz), and high channel (2462 MHz); 1 Mbps, 6 Mbps, 11 Mbps, 36 Mbps, 54 Mbps, MCS0, and MCS7 data rates.

POWER SETTINGS INVESTIGATED

110VAC/60Hz

CONFIGURATIONS INVESTIGATED

HNYW0156 - 1

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	26500 MHz

SAMPLE CALCULATIONS

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mo)
Filter - Low Pass	Micro-Tronics	LPM50004	LFK	10/21/2015	12
Filter - High Pass	Micro-Tronics	HPM50111	LFN	10/21/2015	12
Attenuator	Fairview Microwave	SA18E-20	TWZ	10/21/2015	12
Amplifier - Pre-Amplifier	Miteq	JSD4-18002600-26-8P	APU	9/18/2015	12
Cable	Northwest EMC	18-26GHz Standard Gain Horn Cable	MNP	9/18/2015	12
Antenna - Standard Gain	ETS Lindgren	3160-09	AHG	NCR	0
Amplifier - Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVW	3/1/2016	12
Antenna - Standard Gain	ETS Lindgren	3160-08	AIQ	NCR	0
Cable	ESM Cable Corp.	Standard Gain Horn Cables	MNJ	12/7/2015	12
Amplifier - Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVV	3/1/2016	12
Antenna - Standard Gain	ETS Lindgren	3160-07	AXP	NCR	0
Amplifier - Pre-Amplifier	Miteq	AM-1616-1000	AVO	12/10/2015	12
Cable	ESM Cable Corp.	Bilog Cables	MNH	12/7/2015	12
Antenna - Biconilog	Teseq	CBL 6141B	AYD	1/6/2016	24
Amplifier - Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVT	3/1/2016	12
Cable	ESM Cable Corp.	Double Ridge Guide Horn Cables	MNI	12/7/2015	12
Antenna - Double Ridge	ETS Lindgren	3115	AJA	6/3/2014	24
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFI	1/27/2016	12

MEASUREMENT BANDWIDTHS

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

TEST DESCRIPTION

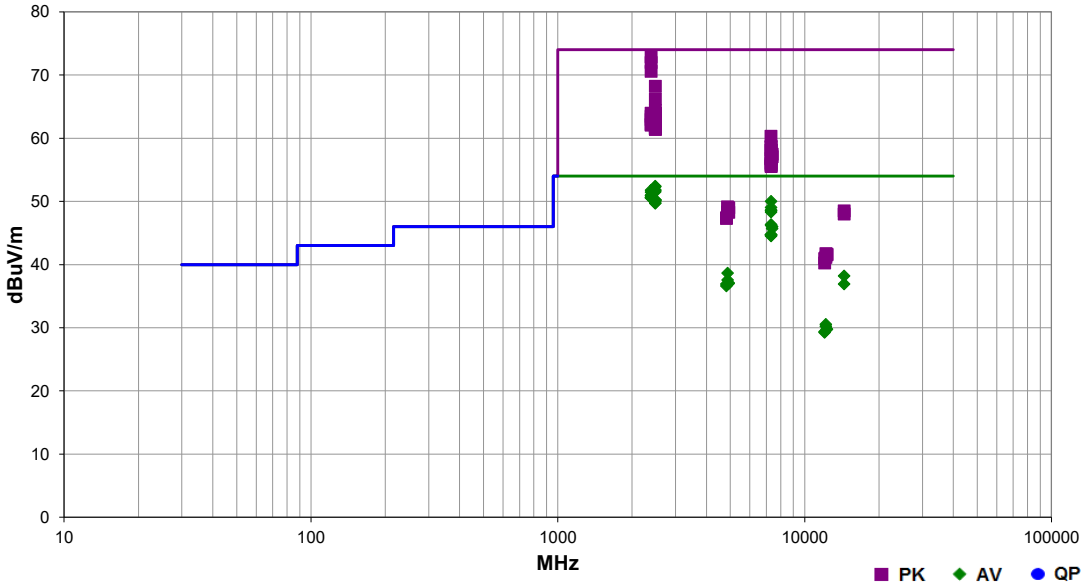
The highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for low, mid, and high band transmit frequencies. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify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

SPURIOUS RADIATED EMISSIONS

Work Order:	HNYW0156	**Date:**	04/22/16		
Project:	None	**Temperature:**	22.8 °C		
Job Site:	MN05	**Humidity:**	40.9% RH		
Serial Number:	00D02D95E2A0	**Barometric Pres.:**	1024 mbar	**Tested by:**	Dustin Sparks
EUT:	TH6320WF2003				
Configuration:	1				
Customer:	Honeywell, Automation and Control Solutions				
Attendees:	Anh Nguyen				
EUT Power:	110VAC/60Hz				
Operating Mode:	Transmitting 802.11 - low channel (2412 MHz), mid channel (2437 MHz), and high channel (2462 MHz); 1 Mbps, 6 Mbps, 11 Mbps, 36 Mbps, 54 Mbps, MCS0, and MCS7 data rates.				
Deviations:	None				
Comments:	Antenna 0				

Test Specifications	**Test Method**
FCC 15.247:2016	ANSI C63.10:2013

Run #	17	**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
2387.425	56.6	-3.7	1.0	303.0	3.0	20.0	Horz	PK	0.0	72.9	74.0	-1.1	Low ch, 36 Mbps, EUT horz
2484.800	35.8	-3.4	1.1	132.0	3.0	20.0	Horz	AV	0.0	52.4	54.0	-1.6	High ch, 1 Mbps, EUT horz
2483.525	35.7	-3.4	1.0	131.1	3.0	20.0	Horz	AV	0.0	52.3	54.0	-1.7	High ch, MCS0, EUT horz
2387.450	55.7	-3.7	1.0	303.0	3.0	20.0	Horz	PK	0.0	72.0	74.0	-2.0	Low ch, 36 Mbps, EUT horz
2483.592	35.2	-3.4	1.0	129.0	3.0	20.0	Horz	AV	0.0	51.8	54.0	-2.2	High ch, 6 Mbps, EUT horz
2389.100	35.5	-3.7	1.0	152.1	3.0	20.0	Horz	AV	0.0	51.8	54.0	-2.2	Low ch, 1 Mbps, EUT horz
2483.517	35.1	-3.4	1.0	128.0	3.0	20.0	Horz	AV	0.0	51.7	54.0	-2.3	High ch, 11 Mbps, EUT horz
2483.600	34.9	-3.4	1.0	131.1	3.0	20.0	Horz	AV	0.0	51.5	54.0	-2.5	High ch, 54 Mbps, EUT horz
2389.825	35.2	-3.7	1.0	152.1	3.0	20.0	Horz	AV	0.0	51.5	54.0	-2.5	Low ch, 11 Mbps, EUT horz
2389.825	34.7	-3.7	1.0	303.0	3.0	20.0	Horz	AV	0.0	51.0	54.0	-3.0	Low ch, MCS7, EUT horz
2389.992	34.7	-3.7	1.0	303.0	3.0	20.0	Horz	AV	0.0	51.0	54.0	-3.0	Low ch, MCS0, EUT horz
2389.633	34.4	-3.7	1.0	303.0	3.0	20.0	Horz	AV	0.0	50.7	54.0	-3.3	Low ch, 36 Mbps, EUT horz
2386.508	54.3	-3.7	1.0	303.0	3.0	20.0	Horz	PK	0.0	70.6	74.0	-3.4	Low ch, MCS0, EUT horz
2388.133	34.3	-3.7	1.0	303.0	3.0	20.0	Horz	AV	0.0	50.6	54.0	-3.4	Low ch, 36 Mbps, EUT horz
2389.700	34.3	-3.7	1.0	303.0	3.0	20.0	Horz	AV	0.0	50.6	54.0	-3.4	Low ch, 6 Mbps, EUT horz
2389.767	34.3	-3.7	1.0	303.0	3.0	20.0	Horz	AV	0.0	50.6	54.0	-3.4	Low ch, 54 Mbps, EUT horz
2483.850	33.6	-3.4	1.0	250.9	3.0	20.0	Vert	AV	0.0	50.2	54.0	-3.8	High ch, 6 Mbps, EUT vert
2483.650	33.6	-3.4	1.0	213.1	3.0	20.0	Vert	AV	0.0	50.2	54.0	-3.8	High ch, 6 Mbps, EUT on side
2483.650	33.6	-3.4	1.0	217.1	3.0	20.0	Horz	AV	0.0	50.2	54.0	-3.8	High ch, 6 Mbps, EUT vert
2483.642	33.6	-3.4	1.0	167.1	3.0	20.0	Horz	AV	0.0	50.2	54.0	-3.8	High ch, MCS7, EUT horz
7312.042	36.7	13.3	1.0	343.9	3.0	0.0	Vert	AV	0.0	50.0	54.0	-4.0	Mid ch, 1 Mbps, EUT on side
2483.742	33.4	-3.4	2.5	257.0	3.0	20.0	Horz	AV	0.0	50.0	54.0	-4.0	High ch, 36 Mbps, EUT horz
2485.525	33.1	-3.4	3.7	347.9	3.0	20.0	Horz	AV	0.0	49.7	54.0	-4.3	High ch, 6 Mbps, EUT on side
2484.433	33.1	-3.4	2.1	296.0	3.0	20.0	Vert	AV	0.0	49.7	54.0	-4.3	High ch, 6 Mbps, EUT horz
7311.942	35.7	13.3	1.8	14.0	3.0	0.0	Horz	AV	0.0	49.0	54.0	-5.0	Mid ch, 1 Mbps, EUT vert
7311.892	35.3	13.3	2.0	38.0	3.0	0.0	Vert	AV	0.0	48.6	54.0	-5.4	Mid ch, 11 Mbps, EUT on side
7312.042	35.2	13.3	1.0	198.0	3.0	0.0	Horz	AV	0.0	48.5	54.0	-5.5	Mid ch, 1 Mbps, EUT horz
7312.058	35.0	13.3	1.0	332.0	3.0	0.0	Vert	AV	0.0	48.3	54.0	-5.7	Mid ch, 1 Mbps, EUT horz
2483.808	51.6	-3.4	1.0	131.1	3.0	20.0	Horz	PK	0.0	68.2	74.0	-5.8	High ch, MCS0, EUT horz
7311.983	33.0	13.3	2.1	126.0	3.0	0.0	Horz	AV	0.0	46.3	54.0	-7.7	Mid ch, 1 Mbps, EUT on side

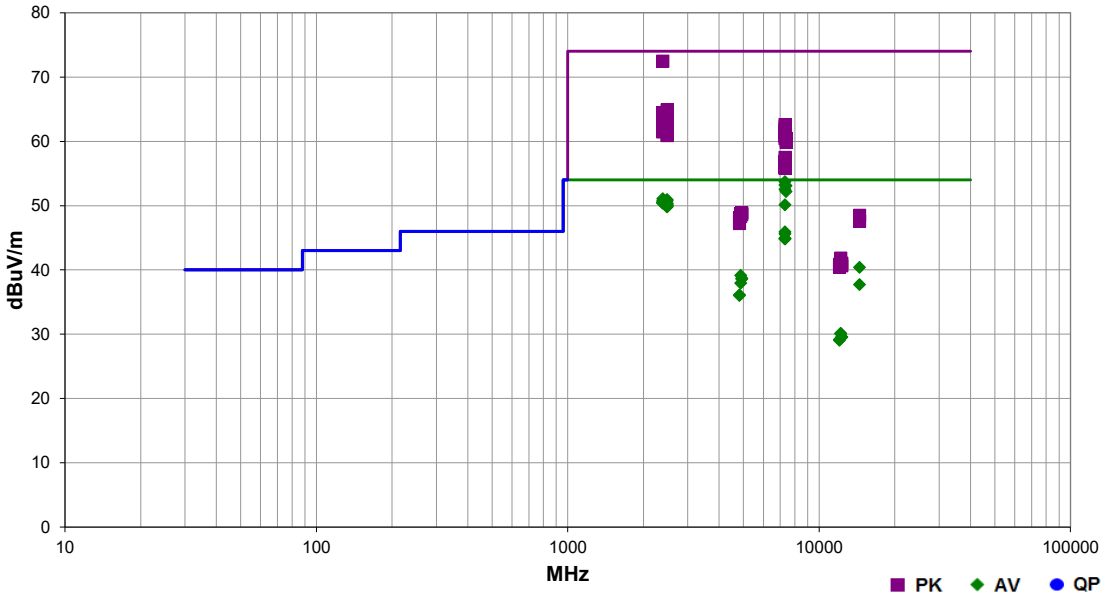
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
7311.692	32.9	13.3	1.0	326.9	3.0	0.0	Vert	AV	0.0	46.2	54.0	-7.8	Mid ch, 1 Mbps, EUT vert
2483.567	49.6	-3.4	1.0	129.0	3.0	20.0	Horz	PK	0.0	66.2	74.0	-7.8	High ch, 6 Mbps, EUT horz
7384.925	32.7	13.3	1.0	299.0	3.0	0.0	Vert	AV	0.0	46.0	54.0	-8.0	High ch, 1 Mbps, EUT on side
7385.292	32.4	13.3	1.0	360.0	3.0	0.0	Horz	AV	0.0	45.7	54.0	-8.3	High ch, 1 Mbps, EUT vert
7311.358	31.4	13.3	2.9	37.1	3.0	0.0	Vert	AV	0.0	44.7	54.0	-9.3	Mid ch, 54 Mbps, EUT on side
7312.725	31.4	13.3	1.0	133.0	3.0	0.0	Vert	AV	0.0	44.7	54.0	-9.3	Mid ch, 6 Mbps, EUT on side
7313.067	31.4	13.3	1.0	340.0	3.0	0.0	Vert	AV	0.0	44.7	54.0	-9.3	Mid ch, 36 Mbps, EUT on side
7313.483	31.3	13.3	2.2	293.9	3.0	0.0	Vert	AV	0.0	44.6	54.0	-9.4	Mid ch, MCS0, EUT on side
7313.417	31.2	13.3	1.3	328.0	3.0	0.0	Vert	AV	0.0	44.5	54.0	-9.5	Mid ch, MCS7, EUT on side
2485.525	47.8	-3.4	1.0	131.1	3.0	20.0	Horz	PK	0.0	64.4	74.0	-9.6	High ch, 54 Mbps, EUT horz
2389.083	47.7	-3.7	1.0	303.0	3.0	20.0	Horz	PK	0.0	64.0	74.0	-10.0	Low ch, 54 Mbps, EUT horz
2488.225	47.3	-3.4	1.0	128.0	3.0	20.0	Horz	PK	0.0	63.9	74.0	-10.1	High ch, 11 Mbps, EUT horz
2483.517	47.1	-3.4	1.0	213.1	3.0	20.0	Vert	PK	0.0	63.7	74.0	-10.3	High ch, 6 Mbps, EUT on side
2389.767	47.2	-3.7	1.0	303.0	3.0	20.0	Horz	PK	0.0	63.5	74.0	-10.5	Low ch, MCS7, EUT horz
2389.242	46.7	-3.7	1.0	152.1	3.0	20.0	Horz	PK	0.0	63.0	74.0	-11.0	Low ch, 11 Mbps, EUT horz
2487.692	46.1	-3.4	1.1	132.0	3.0	20.0	Horz	PK	0.0	62.7	74.0	-11.3	High ch, 1 Mbps, EUT horz
2388.875	45.9	-3.7	1.0	152.1	3.0	20.0	Horz	PK	0.0	62.2	74.0	-11.8	Low ch, 1 Mbps, EUT horz
2389.458	45.8	-3.7	1.0	303.0	3.0	20.0	Horz	PK	0.0	62.1	74.0	-11.9	Low ch, 6 Mbps, EUT horz
2488.283	45.2	-3.4	2.1	296.0	3.0	20.0	Vert	PK	0.0	61.8	74.0	-12.2	High ch, 6 Mbps, EUT horz
2483.575	45.2	-3.4	1.0	250.9	3.0	20.0	Vert	PK	0.0	61.8	74.0	-12.2	High ch, 6 Mbps, EUT vert
2485.942	44.9	-3.4	1.0	217.1	3.0	20.0	Horz	PK	0.0	61.5	74.0	-12.5	High ch, 6 Mbps, EUT vert
2483.967	44.9	-3.4	2.5	257.0	3.0	20.0	Horz	PK	0.0	61.5	74.0	-12.5	High ch, 36 Mbps, EUT horz
2486.358	44.8	-3.4	3.7	347.9	3.0	20.0	Horz	PK	0.0	61.4	74.0	-12.6	High ch, 6 Mbps, EUT on side
2483.575	44.8	-3.4	1.0	167.1	3.0	20.0	Horz	PK	0.0	61.4	74.0	-12.6	High ch, MCS7, EUT horz
7310.700	47.0	13.3	2.0	38.0	3.0	0.0	Vert	PK	0.0	60.3	74.0	-13.7	Mid ch, 11 Mbps, EUT on side
7312.875	45.4	13.3	1.8	14.0	3.0	0.0	Horz	PK	0.0	58.7	74.0	-15.3	Mid ch, 1 Mbps, EUT vert
4874.050	33.3	5.3	3.4	318.0	3.0	0.0	Vert	AV	0.0	38.6	54.0	-15.4	Mid ch, 1 Mbps, EUT on side
7311.092	45.3	13.3	1.0	343.9	3.0	0.0	Vert	PK	0.0	58.6	74.0	-15.4	Mid ch, 1 Mbps, EUT on side
14471.980	30.8	7.4	1.5	292.0	3.0	0.0	Horz	AV	0.0	38.2	54.0	-15.8	Low ch, 1 Mbps, EUT vert
7312.067	44.8	13.3	1.0	198.0	3.0	0.0	Horz	PK	0.0	58.1	74.0	-15.9	Mid ch, 1 Mbps, EUT horz
7313.225	44.8	13.3	1.0	332.0	3.0	0.0	Vert	PK	0.0	58.1	74.0	-15.9	Mid ch, 1 Mbps, EUT horz
4874.092	32.2	5.3	1.0	1.1	3.0	0.0	Horz	AV	0.0	37.5	54.0	-16.5	Mid ch, 1 Mbps, EUT vert
7386.358	44.2	13.3	1.0	360.0	3.0	0.0	Horz	PK	0.0	57.5	74.0	-16.5	High ch, 1 Mbps, EUT vert
4926.283	31.6	5.5	1.0	188.1	3.0	0.0	Horz	AV	0.0	37.1	54.0	-16.9	High ch, 1 Mbps, EUT vert
7384.867	43.8	13.3	1.0	299.0	3.0	0.0	Vert	PK	0.0	57.1	74.0	-16.9	High ch, 1 Mbps, EUT on side
4926.433	31.5	5.5	1.0	348.9	3.0	0.0	Vert	AV	0.0	37.0	54.0	-17.0	High ch, 1 Mbps, EUT on side
4824.017	31.7	5.2	1.0	119.1	3.0	0.0	Vert	AV	0.0	36.9	54.0	-17.1	Low ch, 1 Mbps, EUT on side
14471.880	29.5	7.4	1.2	23.1	3.0	0.0	Vert	AV	0.0	36.9	54.0	-17.1	Low ch, 1 Mbps, EUT on side
7313.333	43.5	13.3	1.0	133.0	3.0	0.0	Vert	PK	0.0	56.8	74.0	-17.2	Mid ch, 6 Mbps, EUT on side
7310.133	43.4	13.3	1.0	326.9	3.0	0.0	Vert	PK	0.0	56.7	74.0	-17.3	Mid ch, 1 Mbps, EUT vert
7313.033	43.4	13.3	2.1	126.0	3.0	0.0	Horz	PK	0.0	56.7	74.0	-17.3	Mid ch, 1 Mbps, EUT on side
4823.950	31.4	5.2	1.0	11.1	3.0	0.0	Horz	AV	0.0	36.6	54.0	-17.4	Low ch, 1 Mbps, EUT vert
7309.683	42.7	13.3	2.2	293.9	3.0	0.0	Vert	PK	0.0	56.0	74.0	-18.0	Mid ch, MCS0, EUT on side
7312.125	42.5	13.3	1.0	340.0	3.0	0.0	Vert	PK	0.0	55.8	74.0	-18.2	Mid ch, 36 Mbps, EUT on side
7312.258	42.3	13.3	1.3	328.0	3.0	0.0	Vert	PK	0.0	55.6	74.0	-18.4	Mid ch, MCS7, EUT on side
7311.792	42.2	13.3	2.9	37.1	3.0	0.0	Vert	PK	0.0	55.5	74.0	-18.5	Mid ch, 54 Mbps, EUT on side
12184.930	31.3	-0.8	1.0	297.9	3.0	0.0	Horz	AV	0.0	30.5	54.0	-23.5	Mid ch, 1 Mbps, EUT vert
12186.500	31.0	-0.8	1.0	199.1	3.0	0.0	Vert	AV	0.0	30.2	54.0	-23.8	Mid ch, 1 Mbps, EUT on side
12311.170	30.2	-0.5	1.0	88.1	3.0	0.0	Vert	AV	0.0	29.7	54.0	-24.3	High ch, 1 Mbps, EUT on side
12310.730	30.2	-0.5	1.0	91.1	3.0	0.0	Horz	AV	0.0	29.7	54.0	-24.3	High ch, 1 Mbps, EUT vert
12057.640	30.6	-1.2	1.0	289.9	3.0	0.0	Horz	AV	0.0	29.4	54.0	-24.6	Low ch, 1 Mbps, EUT vert
12058.480	30.5	-1.2	1.0	97.0	3.0	0.0	Vert	AV	0.0	29.3	54.0	-24.7	Low ch, 1 Mbps, EUT on side
4873.917	43.8	5.3	3.4	318.0	3.0	0.0	Vert	PK	0.0	49.1	74.0	-24.9	Mid ch, 1 Mbps, EUT on side
4925.417	43.5	5.5	1.0	348.9	3.0	0.0	Vert	PK	0.0	49.0	74.0	-25.0	High ch, 1 Mbps, EUT on side
14471.690	41.1	7.4	1.5	292.0	3.0	0.0	Horz	PK	0.0	48.5	74.0	-25.5	Low ch, 1 Mbps, EUT vert
4873.825	43.0	5.3	1.0	1.1	3.0	0.0	Horz	PK	0.0	48.3	74.0	-25.7	Mid ch, 1 Mbps, EUT vert
4924.733	42.8	5.5	1.0	188.1	3.0	0.0	Horz	PK	0.0	48.3	74.0	-25.7	High ch, 1 Mbps, EUT vert
14471.570	40.6	7.4	1.2	23.1	3.0	0.0	Vert	PK	0.0	48.0	74.0	-26.0	Low ch, 1 Mbps, EUT on side
4823.667	42.2	5.2	1.0	11.1	3.0	0.0	Horz	PK	0.0	47.4	74.0	-26.6	Low ch, 1 Mbps, EUT vert
4823.458	42.1	5.2	1.0	119.1	3.0	0.0	Vert	PK	0.0	47.3	74.0	-26.7	Low ch, 1 Mbps, EUT on side
12184.870	42.5	-0.8	1.0	297.9	3.0	0.0	Horz	PK	0.0	41.7	74.0	-32.3	Mid ch, 1 Mbps, EUT vert
12308.800	42.1	-0.5	1.0	88.1	3.0	0.0	Vert	PK	0.0	41.6	74.0	-32.4	High ch, 1 Mbps, EUT on side
12309.570	42.0	-0.5	1.0	91.1	3.0	0.0	Horz	PK	0.0	41.5	74.0	-32.5	High ch, 1 Mbps, EUT vert
12186.930	41.9	-0.8	1.0	199.1	3.0	0.0	Vert	PK	0.0	41.1	74.0	-32.9	Mid ch, 1 Mbps, EUT on side
12057.790	42.2	-1.2	1.0	97.0	3.0	0.0	Vert	PK	0.0	41.0	74.0	-33.0	Low ch, 1 Mbps, EUT on side
12060.130	41.5	-1.2	1.0	289.9	3.0	0.0	Horz	PK	0.0	40.3	74.0	-33.7	Low ch, 1 Mbps, EUT vert

SPURIOUS RADIATED EMISSIONS

Work Order:	HNYW0156	**Date:**	04/25/16		
Project:	None	**Temperature:**	22.5 °C		
Job Site:	MN05	**Humidity:**	43.9% RH		
Serial Number:	00D02D95E2A0	**Barometric Pres.:**	1003 mbar	**Tested by:**	Dustin Sparks
EUT:	TH6320WF2003				
Configuration:	1				
Customer:	Honeywell, Automation and Control Solutions				
Attendees:	None				
EUT Power:	110VAC/60Hz				
Operating Mode:	Transmitting 802.11 - low channel (2412 MHz), mid channel (2437 MHz), and high channel (2462 MHz); 1 Mbps, 6 Mbps, 11 Mbps, 36 Mbps, 54 Mbps, MCS0, and MCS7 data rates.				
Deviations:	None				
Comments:	Antenna 1				

Test Specifications	**Test Method**
FCC 15.247:2016	ANSI C63.10:2013

Run #	51	**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
7311.933	40.4	13.3	1.0	25.0	3.0	0.0	Horz	AV	0.0	53.7	54.0	-0.3	Mid ch, 1 Mbps, EUT on side
7311.875	39.9	13.3	2.0	67.0	3.0	0.0	Vert	AV	0.0	53.2	54.0	-0.8	Mid ch, 1 Mbps, EUT vert
7384.983	39.8	13.3	1.0	28.0	3.0	0.0	Horz	AV	0.0	53.1	54.0	-0.9	High ch, 1 Mbps, EUT on side
7311.917	39.2	13.3	1.0	319.9	3.0	0.0	Vert	AV	0.0	52.5	54.0	-1.5	Mid ch, 1 Mbps, EUT horz
2388.217	56.2	-3.7	1.0	78.0	3.0	20.0	Vert	PK	0.0	72.5	74.0	-1.5	Low ch, 36 Mbps, EUT vert
7385.000	38.9	13.3	2.0	71.0	3.0	0.0	Vert	AV	0.0	52.2	54.0	-1.8	High ch, 1 Mbps, EUT vert
2389.217	34.8	-3.7	1.0	78.0	3.0	20.0	Vert	AV	0.0	51.1	54.0	-2.9	Low ch, 1 Mbps, EUT vert
2483.700	34.3	-3.4	1.0	222.0	3.0	20.0	Vert	AV	0.0	50.9	54.0	-3.1	High ch, MCS0, EUT vert
2483.517	34.3	-3.4	1.0	222.0	3.0	20.0	Vert	AV	0.0	50.9	54.0	-3.1	High ch, MCS7, EUT vert
2389.975	34.5	-3.7	1.0	78.0	3.0	20.0	Vert	AV	0.0	50.8	54.0	-3.2	Low ch, MCS0, EUT vert
2488.408	34.1	-3.4	1.0	155.1	3.0	20.0	Vert	AV	0.0	50.7	54.0	-3.3	High ch, 1 Mbps, EUT vert
2389.708	34.3	-3.7	1.0	78.0	3.0	20.0	Vert	AV	0.0	50.6	54.0	-3.4	Low ch, MCS7, EUT vert
2389.633	34.2	-3.7	1.0	78.0	3.0	20.0	Vert	AV	0.0	50.5	54.0	-3.5	Low ch, 6 Mbps, EUT vert
2389.858	34.2	-3.7	1.0	78.0	3.0	20.0	Vert	AV	0.0	50.5	54.0	-3.5	Low ch, 11 Mbps, EUT vert
2390.000	34.2	-3.7	1.0	78.0	3.0	20.0	Vert	AV	0.0	50.5	54.0	-3.5	Low ch, 36 Mbps, EUT vert
2389.592	34.1	-3.7	1.0	78.0	3.0	20.0	Vert	AV	0.0	50.4	54.0	-3.6	Low ch, 54 Mbps, EUT vert
2484.042	33.7	-3.4	1.0	239.0	3.0	20.0	Vert	AV	0.0	50.3	54.0	-3.7	High ch, 6 Mbps, EUT vert
2483.883	33.7	-3.4	1.0	303.0	3.0	20.0	Vert	AV	0.0	50.3	54.0	-3.7	High ch, 6 Mbps, EUT on side
2483.658	33.6	-3.4	1.0	155.2	3.0	20.0	Vert	AV	0.0	50.2	54.0	-3.8	High ch, 11 Mbps, EUT vert
2483.517	33.6	-3.4	1.0	45.0	3.0	20.0	Vert	AV	0.0	50.2	54.0	-3.8	High ch, 54 Mbps, EUT vert
7312.675	36.8	13.3	1.0	22.1	3.0	0.0	Horz	AV	0.0	50.1	54.0	-3.9	Mid ch, 11 Mbps, EUT on side
2483.975	33.4	-3.4	4.0	26.1	3.0	20.0	Vert	AV	0.0	50.0	54.0	-4.0	High ch, 6 Mbps, EUT horz
2483.692	33.4	-3.4	1.0	360.0	3.0	20.0	Horz	AV	0.0	50.0	54.0	-4.0	High ch, 6 Mbps, EUT on side
2483.992	33.3	-3.4	1.0	5.1	3.0	20.0	Horz	AV	0.0	49.9	54.0	-4.1	High ch, 6 Mbps, EUT horz
2483.725	33.2	-3.4	1.0	330.9	3.0	20.0	Vert	AV	0.0	49.8	54.0	-4.2	High ch, 36 Mbps, EUT vert
2483.683	33.2	-3.4	1.0	54.0	3.0	20.0	Horz	AV	0.0	49.8	54.0	-4.2	High ch, 6 Mbps, EUT vert
7310.983	32.6	13.3	1.0	194.0	3.0	0.0	Horz	AV	0.0	45.9	54.0	-8.1	Mid ch, MCS0, EUT on side
7311.117	32.3	13.3	1.9	34.1	3.0	0.0	Horz	AV	0.0	45.6	54.0	-8.4	Mid ch, MCS7, EUT on side

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
7311.150	31.6	13.3	1.0	261.0	3.0	0.0	Horz	AV	0.0	44.9	54.0	-9.1	Mid ch, 6 Mbps, EUT on side
2483.675	48.3	-3.4	1.0	222.0	3.0	20.0	Vert	PK	0.0	64.9	74.0	-9.1	High ch, MCS0, EUT vert
7310.967	31.5	13.3	1.0	261.0	3.0	0.0	Horz	AV	0.0	44.8	54.0	-9.2	Mid ch, 36 Mbps, EUT on side
7311.217	31.5	13.3	1.0	261.0	3.0	0.0	Horz	AV	0.0	44.8	54.0	-9.2	Mid ch, 54 Mbps, EUT on side
2389.150	48.2	-3.7	1.0	78.0	3.0	20.0	Vert	PK	0.0	64.5	74.0	-9.5	Low ch, MCS0, EUT vert
2388.383	47.7	-3.7	1.0	78.0	3.0	20.0	Vert	PK	0.0	64.0	74.0	-10.0	Low ch, MCS7, EUT vert
2389.883	47.2	-3.7	1.0	78.0	3.0	20.0	Vert	PK	0.0	63.5	74.0	-10.5	Low ch, 54 Mbps, EUT vert
2483.692	46.5	-3.4	1.0	239.0	3.0	20.0	Vert	PK	0.0	63.1	74.0	-10.9	High ch, 6 Mbps, EUT vert
2483.508	46.1	-3.4	1.0	222.0	3.0	20.0	Vert	PK	0.0	62.7	74.0	-11.3	High ch, MCS7, EUT vert
7310.950	49.3	13.3	2.0	77.1	3.0	0.0	Vert	PK	0.0	62.6	74.0	-11.4	Mid ch, 1 Mbps, EUT vert
2387.442	46.1	-3.7	1.0	78.0	3.0	20.0	Vert	PK	0.0	62.4	74.0	-11.6	Low ch, 6 Mbps, EUT vert
2484.100	45.7	-3.4	1.0	303.0	3.0	20.0	Vert	PK	0.0	62.3	74.0	-11.7	High ch, 6 Mbps, EUT on side
7310.883	48.9	13.3	1.0	304.0	3.0	0.0	Vert	PK	0.0	62.2	74.0	-11.8	Mid ch, 1 Mbps, EUT on side
2484.233	45.4	-3.4	1.0	45.0	3.0	20.0	Vert	PK	0.0	62.0	74.0	-12.0	High ch, 54 Mbps, EUT vert
2388.917	45.6	-3.7	1.0	78.0	3.0	20.0	Vert	PK	0.0	61.9	74.0	-12.1	Low ch, 1 Mbps, EUT vert
7310.975	48.5	13.3	1.0	29.1	3.0	0.0	Horz	PK	0.0	61.8	74.0	-12.2	Mid ch, 1 Mbps, EUT on side
2484.042	45.1	-3.4	4.0	26.1	3.0	20.0	Vert	PK	0.0	61.7	74.0	-12.3	High ch, 6 Mbps, EUT horz
7311.225	48.3	13.3	2.0	77.1	3.0	0.0	Vert	PK	0.0	61.6	74.0	-12.4	Mid ch, 1 Mbps, EUT vert
2487.200	44.9	-3.4	1.0	360.0	3.0	20.0	Horz	PK	0.0	61.5	74.0	-12.5	High ch, 6 Mbps, EUT on side
2487.100	44.9	-3.4	1.0	155.1	3.0	20.0	Vert	PK	0.0	61.5	74.0	-12.5	High ch, 1 Mbps, EUT vert
2486.350	44.9	-3.4	1.0	155.2	3.0	20.0	Vert	PK	0.0	61.5	74.0	-12.5	High ch, 11 Mbps, EUT vert
2484.517	44.9	-3.4	1.0	54.0	3.0	20.0	Horz	PK	0.0	61.5	74.0	-12.5	High ch, 6 Mbps, EUT vert
2388.217	45.2	-3.7	1.0	78.0	3.0	20.0	Vert	PK	0.0	61.5	74.0	-12.5	Low ch, 11 Mbps, EUT vert
7311.083	48.0	13.3	1.0	16.1	3.0	0.0	Horz	PK	0.0	61.3	74.0	-12.7	Mid ch, 1 Mbps, EUT horz
7312.350	47.9	13.3	1.9	289.0	3.0	0.0	Horz	PK	0.0	61.2	74.0	-12.8	Mid ch, 1 Mbps, EUT vert
7313.083	47.6	13.3	1.0	25.0	3.0	0.0	Horz	PK	0.0	60.9	74.0	-13.1	Mid ch, 1 Mbps, EUT on side
2484.275	44.3	-3.4	1.0	330.9	3.0	20.0	Vert	PK	0.0	60.9	74.0	-13.1	High ch, 36 Mbps, EUT vert
2483.633	44.3	-3.4	1.0	5.1	3.0	20.0	Horz	PK	0.0	60.9	74.0	-13.1	High ch, 6 Mbps, EUT horz
7311.192	47.5	13.3	1.0	22.1	3.0	0.0	Horz	PK	0.0	60.8	74.0	-13.2	Mid ch, 11 Mbps, EUT on side
7310.983	47.4	13.3	2.0	67.0	3.0	0.0	Vert	PK	0.0	60.7	74.0	-13.3	Mid ch, 1 Mbps, EUT vert
7385.817	47.2	13.3	1.0	28.0	3.0	0.0	Horz	PK	0.0	60.5	74.0	-13.5	High ch, 1 Mbps, EUT on side
7311.967	47.1	13.3	1.0	319.9	3.0	0.0	Vert	PK	0.0	60.4	74.0	-13.6	Mid ch, 1 Mbps, EUT horz
14472.030	33.0	7.4	1.7	144.0	3.0	0.0	Horz	AV	0.0	40.4	54.0	-13.6	Low ch, 1 Mbps, EUT on side
7386.042	46.6	13.3	2.0	71.0	3.0	0.0	Vert	PK	0.0	59.9	74.0	-14.1	High ch, 1 Mbps, EUT vert
4874.100	33.8	5.3	1.0	132.0	3.0	0.0	Horz	AV	0.0	39.1	54.0	-14.9	Mid ch, 1 Mbps, EUT on side
4924.017	33.2	5.5	2.1	190.0	3.0	0.0	Horz	AV	0.0	38.7	54.0	-15.3	High ch, 1 Mbps, EUT on side
4924.025	33.1	5.5	1.0	235.9	3.0	0.0	Vert	AV	0.0	38.6	54.0	-15.4	High ch, 1 Mbps, EUT vert
4873.900	32.6	5.3	1.0	256.0	3.0	0.0	Vert	AV	0.0	37.9	54.0	-16.1	Mid ch, 1 Mbps, EUT vert
14471.970	30.3	7.4	1.0	99.0	3.0	0.0	Vert	AV	0.0	37.7	54.0	-16.3	Low ch, 1 Mbps, EUT vert
7312.117	44.2	13.3	1.9	34.1	3.0	0.0	Horz	PK	0.0	57.5	74.0	-16.5	Mid ch, MCS7, EUT on side
7310.025	43.5	13.3	1.0	194.0	3.0	0.0	Horz	PK	0.0	56.8	74.0	-17.2	Mid ch, MCS0, EUT on side
4824.017	30.9	5.2	1.0	62.1	3.0	0.0	Vert	AV	0.0	36.1	54.0	-17.9	Low ch, 1 Mbps, EUT vert
7309.375	42.7	13.3	1.0	261.0	3.0	0.0	Horz	PK	0.0	56.0	74.0	-18.0	Mid ch, 6 Mbps, EUT on side
4823.925	30.8	5.2	1.0	286.0	3.0	0.0	Horz	AV	0.0	36.0	54.0	-18.0	Low ch, 1 Mbps, EUT on side
7310.875	42.6	13.3	1.0	261.0	3.0	0.0	Horz	PK	0.0	55.9	74.0	-18.1	Mid ch, 36 Mbps, EUT on side
7310.775	42.5	13.3	1.0	261.0	3.0	0.0	Horz	PK	0.0	55.8	74.0	-18.2	Mid ch, 54 Mbps, EUT on side
12186.690	30.9	-0.8	1.0	21.0	3.0	0.0	Vert	AV	0.0	30.1	54.0	-23.9	Mid ch, 1 Mbps, EUT vert
12186.820	30.8	-0.8	1.0	139.0	3.0	0.0	Horz	AV	0.0	30.0	54.0	-24.0	Mid ch, 1 Mbps, EUT on side
12310.260	30.0	-0.5	1.0	8.1	3.0	0.0	Vert	AV	0.0	29.5	54.0	-24.5	High ch, 1 Mbps, EUT vert
12309.930	30.0	-0.5	2.0	145.1	3.0	0.0	Horz	AV	0.0	29.5	54.0	-24.5	High ch, 1 Mbps, EUT on side
12058.040	30.4	-1.2	1.0	315.9	3.0	0.0	Vert	AV	0.0	29.2	54.0	-24.8	Low ch, 1 Mbps, EUT vert
12057.840	30.3	-1.2	1.0	0.0	3.0	0.0	Horz	AV	0.0	29.1	54.0	-24.9	Low ch, 1 Mbps, EUT on side
4924.250	43.4	5.5	1.0	235.9	3.0	0.0	Vert	PK	0.0	48.9	74.0	-25.1	High ch, 1 Mbps, EUT vert
4874.242	43.4	5.3	1.0	132.0	3.0	0.0	Horz	PK	0.0	48.7	74.0	-25.3	Mid ch, 1 Mbps, EUT on side
4923.558	43.2	5.5	2.1	190.0	3.0	0.0	Horz	PK	0.0	48.7	74.0	-25.3	High ch, 1 Mbps, EUT on side
14472.060	41.1	7.4	1.7	144.0	3.0	0.0	Horz	PK	0.0	48.5	74.0	-25.5	Low ch, 1 Mbps, EUT on side
4874.175	43.0	5.3	1.0	256.0	3.0	0.0	Vert	PK	0.0	48.3	74.0	-25.7	Mid ch, 1 Mbps, EUT vert
4822.267	42.9	5.2	1.0	286.0	3.0	0.0	Horz	PK	0.0	48.1	74.0	-25.9	Low ch, 1 Mbps, EUT on side
14471.840	40.2	7.4	1.0	99.0	3.0	0.0	Vert	PK	0.0	47.6	74.0	-26.4	Low ch, 1 Mbps, EUT vert
4823.633	42.0	5.2	1.0	62.1	3.0	0.0	Vert	PK	0.0	47.2	74.0	-26.8	Low ch, 1 Mbps, EUT vert
12186.320	42.6	-0.8	1.0	139.0	3.0	0.0	Horz	PK	0.0	41.8	74.0	-32.2	Mid ch, 1 Mbps, EUT on side
12311.130	41.5	-0.5	1.0	8.1	3.0	0.0	Vert	PK	0.0	41.0	74.0	-33.0	High ch, 1 Mbps, EUT vert
12185.580	41.8	-0.8	1.0	21.0	3.0	0.0	Vert	PK	0.0	41.0	74.0	-33.0	Mid ch, 1 Mbps, EUT vert
12058.140	42.1	-1.2	1.0	0.0	3.0	0.0	Horz	PK	0.0	40.9	74.0	-33.1	Low ch, 1 Mbps, EUT on side
12309.100	41.1	-0.5	2.0	145.1	3.0	0.0	Horz	PK	0.0	40.6	74.0	-33.4	High ch, 1 Mbps, EUT on side
12057.530	41.7	-1.2	1.0	315.9	3.0	0.0	Vert	PK	0.0	40.5	74.0	-33.5	Low ch, 1 Mbps, EUT vert

AC - POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2016.03.10
PSA-ESCI 2016.03.11, EmiR5 2016.03.11

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. Per the standard, an insulating material was also added to ground plane between the EUT's power and remote I/O cables. 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 50ohm measuring port is terminated by a 50ohm EMI meter or a 50ohm resistive load. All 50ohm measuring ports of the LISN are terminated by 50ohm. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Receiver	Rohde & Schwarz	ESR7	ARI	5/21/2015	5/21/2016
LISN	Solar Electronics	9252-50-R-24-BNC	LIY	3/21/2016	3/21/2017
Cable - Conducted Cable Assembly	Northwest EMC	MNC, HGN, TYK	MNCA	1/29/2016	1/29/2017

MEASUREMENT UNCERTAINTY

Description		
Expanded k=2	2.4 dB	-2.4 dB

CONFIGURATIONS INVESTIGATED

HNYW0156-1

MODES INVESTIGATED

Transmitting 802.11 6 Mbps (2437 MHz)

AC - POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2016.03.10
PSA-ESCI 2016.03.11, EmiR5 2016.03.11

EUT:	TH6320WF2003	Work Order:	HNYW0156
Serial Number:	00D02D95E2A0	Date:	04/27/2016
Customer:	Honeywell, Automation and Control Solutions	Temperature:	21.7°C
Attendees:	None	Relative Humidity:	30.8%
Customer Project:	None	Bar. Pressure:	1014 mb
Tested By:	Dustin Sparks	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0156-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	3	Line:	Neutral	Add. Ext. Attenuation (dB):	0

COMMENTS

Antenna 1, power 70

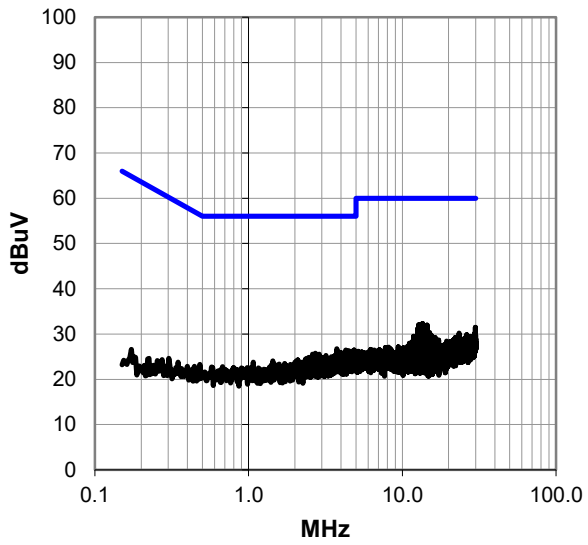
EUT OPERATING MODES

Transmitting 802.11 6 Mbps (2437 MHz)

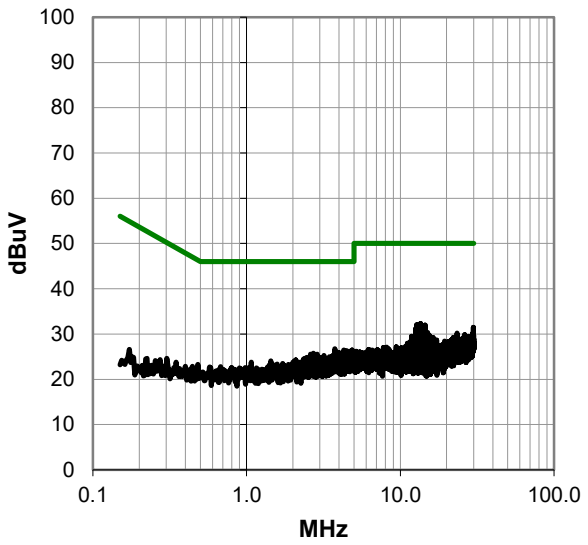
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



AC - POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2016.03.10
PSA-ESCI 2016.03.11, EmiR5 2016.03.11

RESULTS - Run #3

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
13.540	11.4	20.9	32.3	60.0	-27.7
12.797	11.2	20.9	32.1	60.0	-27.9
14.465	11.0	21.0	32.0	60.0	-28.0
29.873	8.9	22.6	31.5	60.0	-28.5
12.615	10.3	20.9	31.2	60.0	-28.8
14.096	10.0	21.0	31.0	60.0	-29.0
3.758	6.5	20.3	26.8	56.0	-29.2
13.723	9.8	20.9	30.7	60.0	-29.3
12.988	9.8	20.9	30.7	60.0	-29.3
13.909	9.7	20.9	30.6	60.0	-29.4
14.282	9.6	21.0	30.6	60.0	-29.4
13.357	9.7	20.9	30.6	60.0	-29.4
4.280	6.2	20.3	26.5	56.0	-29.5
4.851	6.1	20.4	26.5	56.0	-29.5
15.025	9.3	21.1	30.4	60.0	-29.6
4.474	6.0	20.3	26.3	56.0	-29.7
29.802	7.7	22.6	30.3	60.0	-29.7
13.170	9.4	20.9	30.3	60.0	-29.7
4.649	5.9	20.3	26.2	56.0	-29.8
23.464	8.3	21.9	30.2	60.0	-29.8
4.321	5.8	20.3	26.1	56.0	-29.9
29.590	7.5	22.5	30.0	60.0	-30.0
15.207	8.8	21.1	29.9	60.0	-30.1
3.974	5.6	20.3	25.9	56.0	-30.1
26.251	7.7	22.2	29.9	60.0	-30.1
14.652	8.8	21.0	29.8	60.0	-30.2

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
13.540	11.4	20.9	32.3	50.0	-17.7
12.797	11.2	20.9	32.1	50.0	-17.9
14.465	11.0	21.0	32.0	50.0	-18.0
29.873	8.9	22.6	31.5	50.0	-18.5
12.615	10.3	20.9	31.2	50.0	-18.8
14.096	10.0	21.0	31.0	50.0	-19.0
3.758	6.5	20.3	26.8	46.0	-19.2
13.723	9.8	20.9	30.7	50.0	-19.3
12.988	9.8	20.9	30.7	50.0	-19.3
13.909	9.7	20.9	30.6	50.0	-19.4
14.282	9.6	21.0	30.6	50.0	-19.4
13.357	9.7	20.9	30.6	50.0	-19.4
4.280	6.2	20.3	26.5	46.0	-19.5
4.851	6.1	20.4	26.5	46.0	-19.5
15.025	9.3	21.1	30.4	50.0	-19.6
4.474	6.0	20.3	26.3	46.0	-19.7
29.802	7.7	22.6	30.3	50.0	-19.7
13.170	9.4	20.9	30.3	50.0	-19.7
4.649	5.9	20.3	26.2	46.0	-19.8
23.464	8.3	21.9	30.2	50.0	-19.8
4.321	5.8	20.3	26.1	46.0	-19.9
29.590	7.5	22.5	30.0	50.0	-20.0
15.207	8.8	21.1	29.9	50.0	-20.1
3.974	5.6	20.3	25.9	46.0	-20.1
26.251	7.7	22.2	29.9	50.0	-20.1
14.652	8.8	21.0	29.8	50.0	-20.2

CONCLUSION

Pass

Tested By

AC - POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2016.03.10
PSA-ESCI 2016.03.11, EmiR5 2016.03.11

EUT:	TH6320WF2003	Work Order:	HNYW0156
Serial Number:	00D02D95E2A0	Date:	04/27/2016
Customer:	Honeywell, Automation and Control Solutions	Temperature:	21.7°C
Attendees:	None	Relative Humidity:	30.8%
Customer Project:	None	Bar. Pressure:	1014 mb
Tested By:	Dustin Sparks	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	HNYW0156-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	4	Line:	High Line	Add. Ext. Attenuation (dB):	0

COMMENTS

Antenna 1, power 70

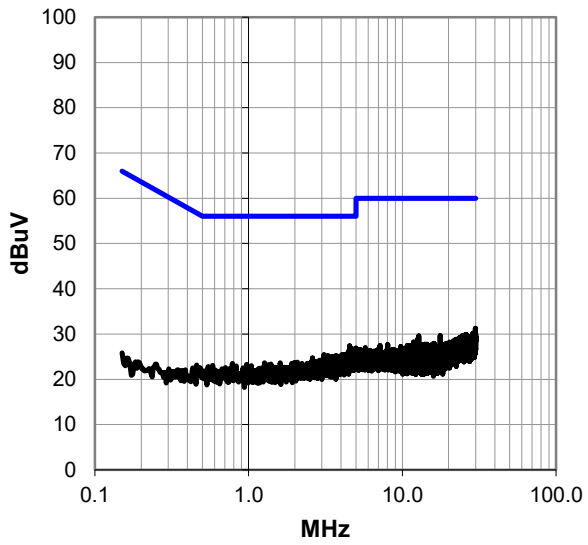
EUT OPERATING MODES

Transmitting 802.11 6 Mbps (2437 MHz)

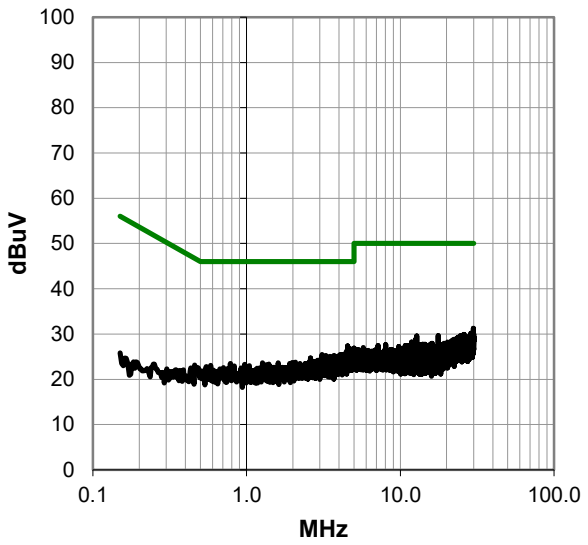
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



AC - POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2016.03.10
PSA-ESCI 2016.03.11, EmiR5 2016.03.11

RESULTS - Run #4

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
4.537	7.1	20.3	27.4	56.0	-28.6
29.896	8.7	22.6	31.3	60.0	-28.7
4.690	6.5	20.3	26.8	56.0	-29.2
29.832	8.2	22.6	30.8	60.0	-29.2
4.914	6.1	20.4	26.5	56.0	-29.5
29.877	7.7	22.6	30.3	60.0	-29.7
4.448	5.9	20.3	26.2	56.0	-29.8
28.817	7.7	22.4	30.1	60.0	-29.9
4.970	5.7	20.4	26.1	56.0	-29.9
4.619	5.7	20.3	26.0	56.0	-30.0
29.985	7.4	22.6	30.0	60.0	-30.0
25.971	7.8	22.1	29.9	60.0	-30.1
4.855	5.4	20.4	25.8	56.0	-30.2
4.810	5.4	20.4	25.8	56.0	-30.2
25.273	7.6	22.1	29.7	60.0	-30.3
4.784	5.3	20.4	25.7	56.0	-30.3
17.621	8.3	21.3	29.6	60.0	-30.4
28.620	7.2	22.4	29.6	60.0	-30.4
24.475	7.6	22.0	29.6	60.0	-30.4
29.731	7.0	22.6	29.6	60.0	-30.4
12.797	8.7	20.9	29.6	60.0	-30.4
29.355	7.0	22.5	29.5	60.0	-30.5
4.269	5.2	20.3	25.5	56.0	-30.5
3.090	5.2	20.2	25.4	56.0	-30.6
4.108	5.1	20.3	25.4	56.0	-30.6
4.037	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)
4.537	7.1	20.3	27.4	46.0	-18.6
29.896	8.7	22.6	31.3	50.0	-18.7
4.690	6.5	20.3	26.8	46.0	-19.2
29.832	8.2	22.6	30.8	50.0	-19.2
4.914	6.1	20.4	26.5	46.0	-19.5
29.877	7.7	22.6	30.3	50.0	-19.7
4.448	5.9	20.3	26.2	46.0	-19.8
28.817	7.7	22.4	30.1	50.0	-19.9
4.970	5.7	20.4	26.1	46.0	-19.9
4.619	5.7	20.3	26.0	46.0	-20.0
29.985	7.4	22.6	30.0	50.0	-20.0
25.971	7.8	22.1	29.9	50.0	-20.1
4.855	5.4	20.4	25.8	46.0	-20.2
4.810	5.4	20.4	25.8	46.0	-20.2
25.273	7.6	22.1	29.7	50.0	-20.3
4.784	5.3	20.4	25.7	46.0	-20.3
17.621	8.3	21.3	29.6	50.0	-20.4
28.620	7.2	22.4	29.6	50.0	-20.4
24.475	7.6	22.0	29.6	50.0	-20.4
29.731	7.0	22.6	29.6	50.0	-20.4
12.797	8.7	20.9	29.6	50.0	-20.4
29.355	7.0	22.5	29.5	50.0	-20.5
4.269	5.2	20.3	25.5	46.0	-20.5
3.090	5.2	20.2	25.4	46.0	-20.6
4.108	5.1	20.3	25.4	46.0	-20.6
4.037	5.1	20.3	25.4	46.0	-20.6

CONCLUSION

Pass

Tested By