



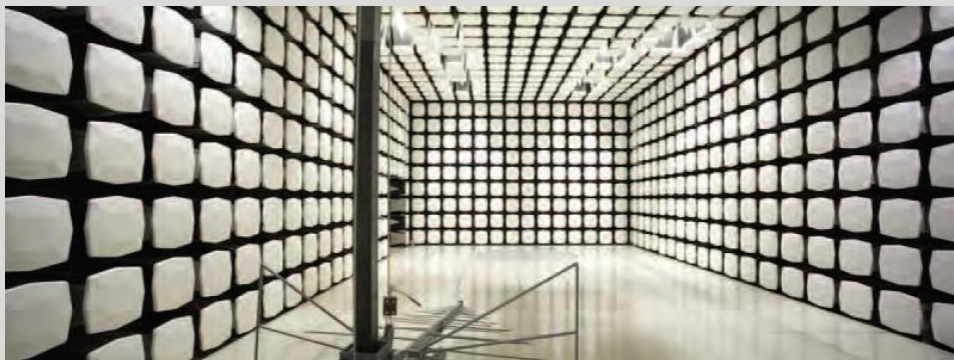
Awarepoint Corporation

BLED

FCC 15.247:2017

802.11bg SISO Radio

Report # AWAR0024.1



NVLAP Lab Code: 200676-0

This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government of the United States of America. This Report shall not be reproduced, except in full without written approval of the laboratory.



CERTIFICATE OF TEST

Last Date of Test: March 20, 2017

Awarepoint Corporation

Model: BLED

Radio Equipment Testing

Standards

Specification	Method
FCC 15.247:2017	ANSI C63.10:2013, KDB 558074

Results

Method Clause	Test Description	Applied	Results	Comments
6.2	Powerline Conducted Emissions	No	N/A	Not required for a battery powered EUT.
6.5, 6.6, 11.12.1, 11.13.2	Spurious Radiated Emissions	Yes	Pass	
11.6	Duty Cycle	No	N/A	Not required, addressed under the output power test.
11.8.2	Occupied Bandwidth	Yes	Pass	
11.9.2.3.2	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:

Victor Ratnoff, 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



Revision Number		Description	Date	Page Number
00		None		

ACCREDITATIONS AND AUTHORIZATIONS



United States

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

A2LA - Accredited by A2LA to ISO / IEC 17065 as a product certifier. This allows Element to certify transmitters to FCC and IC specifications.

NVLAP - Each laboratory is accredited by NVLAP to ISO 17025

Canada

ISED - Recognized by Innovation, Science and Economic Development Canada as a Certification Body (CB). Certification chambers and Open Area Test Sites are filed with ISED.

European Union

European Commission – Validated by the European Commission 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://portlandcustomer.element.com/ts/scope/scope.htm>

<http://gsi.nist.gov/global/docs/cabs/designations.html>

MEASUREMENT UNCERTAINTY



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 QM205.4.6. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) can be found included as part of the applicable test description page. 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.

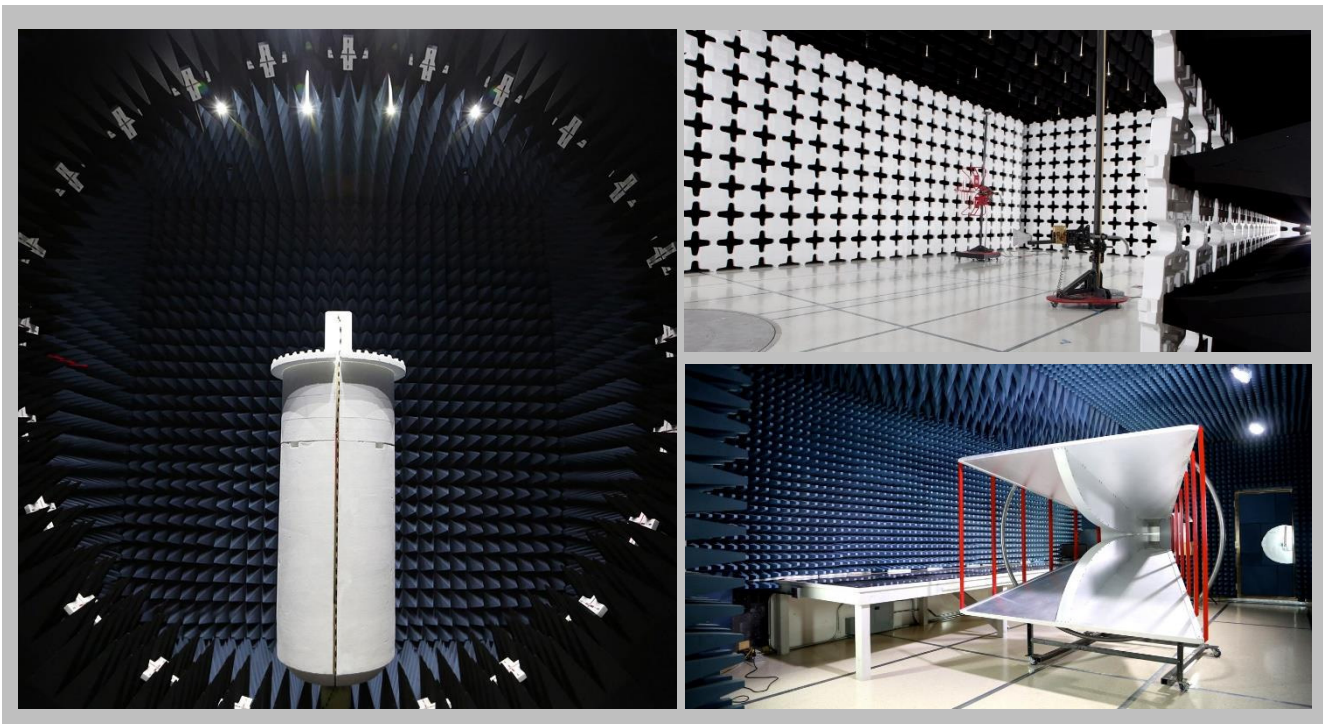
The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

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

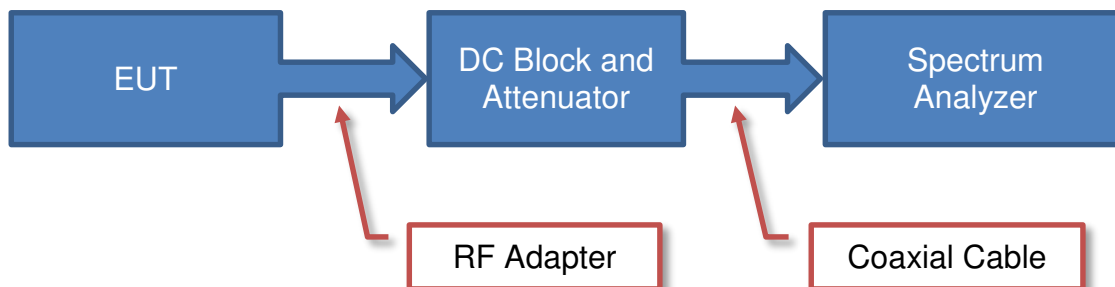


California Labs OC01-13 41 Tesla Irvine, CA 92618 (949) 861-8918	Minnesota Labs MN01-08, MN10 9349 W Broadway Ave. Brooklyn Park, MN 55445 (612)-638-5136	New York Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 554-8214	Oregon Labs EV01-12 22975 NW Evergreen Pkwy Hillsboro, OR 97124 (503) 844-4066	Texas Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	Washington Labs NC01-05 19201 120 th Ave NE Bothell, WA 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
Innovation, Science and Economic Development 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

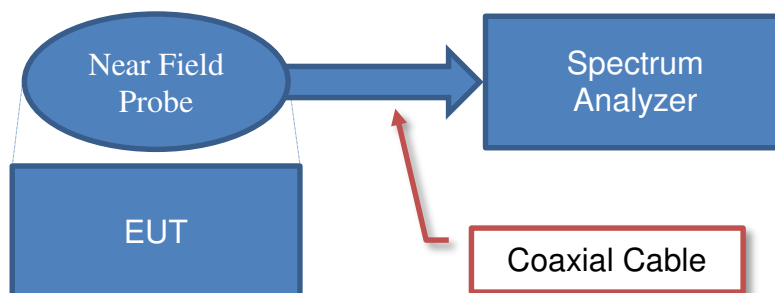


Test Setup Block Diagrams

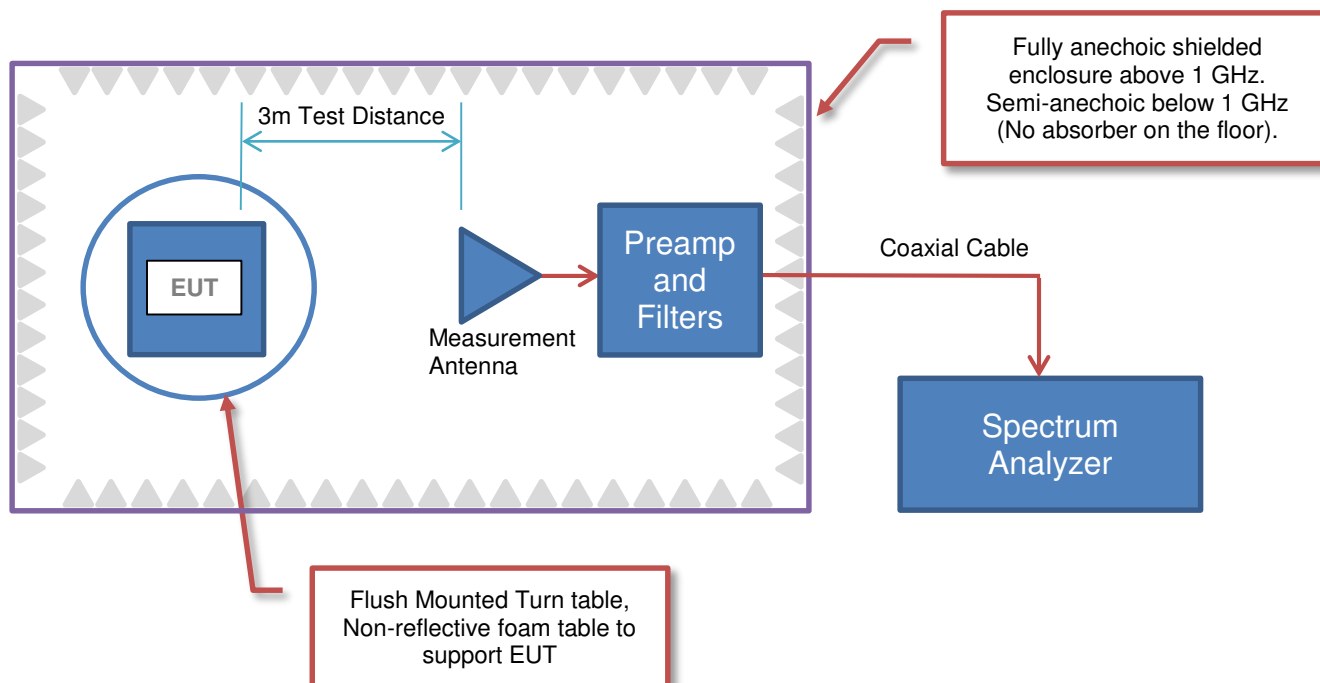
Antenna Port Conducted Measurements



Near Field Test Fixture Measurements



Spurious Radiated Emissions





PRODUCT DESCRIPTION

Client and Equipment Under Test (EUT) Information

Company Name:	Awarepoint Corporation
Address:	600 W. Broadway Suite 250
City, State, Zip:	San Diego, CA 92101
Test Requested By:	John Taylor
Model:	BLED
First Date of Test:	March 15, 2017
Last Date of Test:	March 20, 2017
Receipt Date of Samples:	March 14, 2017
Equipment Design Stage:	Production
Equipment Condition:	No Damage
Purchase Authorization:	Verified

Information Provided by the Party Requesting the Test

Functional Description of the EUT:

The BLED (BLE Display) contains a Bluetooth Low Energy radio and an 802.11bg radio.

Testing Objective:

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

CONFIGURATIONS



Configuration Awar0024- 2

Software/Firmware Running during test	
Description	Version
SmartRF Studio 7	2.3.1
RadioTool GUI	1.2.5942.19689

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
WiFi and Bluetooth Radio	Awarepoint Corporation	BLEd	None

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Laptop	Dell	VOSTRO 3550	FJRVLR1
AC/DC Power Supply	Dell	LA90PS0-00	CN-0DF266-71615-73O-0B34
WiFi Interface Board	Texas Instruments	CC3100BOOST	A8013723

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
Micro USB Cable	No	1.0m	No	USB Cable	BLE Interface Board
AC Cable	No	0.75m	No	AC mains	AC/DC Power Supply
Ribbon Cable	No	0.1m	No	WiFi Interface Board	WiFi and Bluetooth Radio
Micro USB Cable	No	1.0m	No	WiFi Interface Board	Laptop

MODIFICATIONS



Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	3/15/2017	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
2	3/20/2017	Band Edge Compliance	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
3	3/20/2017	Occupied Bandwidth	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
4	3/20/2017	Output Power	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
5	3/20/2017	Power Spectral Density	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
6	3/20/2017	Spurious Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

SPURIOUS RADIATED EMISSIONS



PSA-ESCI 2017.01.26

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

Operating 802.11bg Transmit Mode: Low Ch. 1 (2412MHz), Mid Ch. 6 (2437MHz), High Ch. 11 (2462MHz)

Operating 802.11bg Transmit Mode: Low Ch. 1 (2412MHz), High Ch. 11 (2462MHz)

POWER SETTINGS INVESTIGATED

Battery

CONFIGURATIONS INVESTIGATED

AWAR0024 - 2

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	26000 MHz
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SAMPLE CALCULATIONS

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Cable	Northwest EMC	18-26GHz RE Cables	OCK	1/3/2017	12 mo
Filter - Low Pass	Micro-Tronics	LPM50004	LFC	10/17/2016	12 mo
Attenuator	Weinschel Corp	4H-20	AWB	3/3/2017	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-18002650-25-10P	AOI	1/3/2017	12 mo
Antenna - Standard Gain	ETS Lindgren	3160-09	AHN	NCR	0 mo
Amplifier - Pre-Amplifier	Miteq	AM-1616-1000	PAD	8/15/2016	12 mo
Cable	ESM Cable Corp.	8-18GHz cables	OCY	10/17/2016	12 mo
Cable	ESM Cable Corp.	1-8GHz cables	OCX	9/19/2016	12 mo
Cable	ESM Cable Corp.	30-1GHz cables	OCW	9/19/2016	12 mo
Antenna - Biconilog	EMCO	3142	AXA	10/24/2016	24 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVP	8/15/2016	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVL	10/17/2016	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVJ	8/15/2016	12 mo
Antenna - Double Ridge	ETS Lindgren	3115	AIR	6/23/2016	24 mo
Antenna - Standard Gain	ETS Lindgren	3160-07	AHX	NCR	0 mo
Antenna - Standard Gain	EMCO	3160-08	AHK	NCR	0 mo
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFJ	1/28/2017	12 mo

MEASUREMENT BANDWIDTHS

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

TEST DESCRIPTION

The highest gain antenna of each type to be used with the EUT was tested. The EUT was configured for the required transmit frequencies and the modes as showed in the data sheets.

For each configuration, the spectrum was scanned throughout the specified range as part of the exploratory investigation of the emissions. These "pre-scans" are not included in the report. Final measurements on individual emissions were then made and included in this test report.

The individual emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antenna in three orthogonal axis if required, and adjusting the measurement antenna height and polarization (per ANSI C63.10). A preamp and high pass filter (and notch filter) were used for this test in order to provide sufficient measurement sensitivity.

Measurements were made with the required detectors and annotated on the data for each individual point using the following annotation:

QP = Quasi-Peak Detector
PK = Peak Detector
AV = RMS Detector

Measurements were made to satisfy the specific requirements of the test specification for out of band emissions as well as the restricted band requirements.

If there are no detectable emissions above the noise floor, the data included may show noise floor measurements for reference only.

Measurements at the edges of the allowable band may be presented in an alternative method as provided for in the ANSI C63.10 Marker-Delta method. This method involves performing an in-band fundamental measurement followed by a screen capture of the fundamental and out-of-band emission using reduced measurement instrumentation bandwidths. The amplitude delta measured on this screen capture is applied to the fundamental emission value to show the out-of-band emission level as applied to the limit.

SPURIOUS RADIATED EMISSIONS



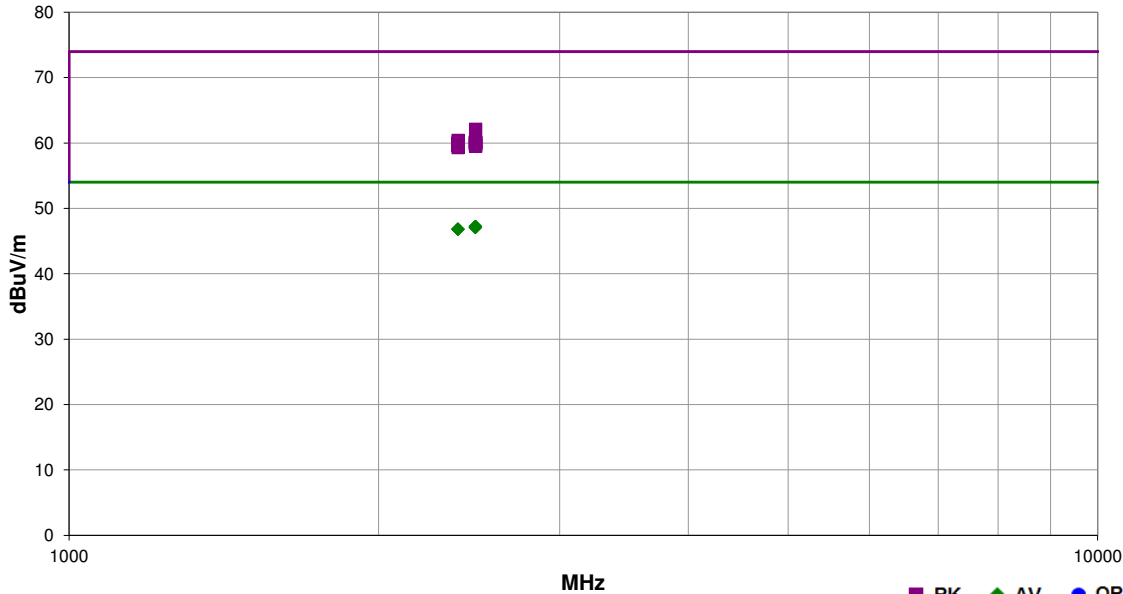
EmiRS 2017.01.25

PSA-ESCI 2017.01.26

Work Order:	AWAR0024	Date:	03/15/17	
Project:	None	Temperature:	22.7 °C	
Job Site:	OC10	Humidity:	47.2% RH	
Serial Number:	None	Barometric Pres.:	1020 mbar	
Tested by: Mark Baytan				
EUT:	BLED			
Configuration:	2			
Customer:	Awarepoint Corporation			
Attendees:	None			
EUT Power:	Battery			
Operating Mode:	Operating 802.11bg Transmit Mode: Low Ch. 1 (2412MHz), High Ch. 11 (2462MHz)			
Deviations:	None			
Comments:	Power Setting = 0			

Test Specifications	FCC 15.247:2017	Test Method	ANSI C63.10:2013
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Run #	6	Test Distance (m)	3	Antenna Height(s)	1 to 4(m)	Results	Pass
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Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
2483.920	24.9	2.3	2.8	153.0	3.0	20.0	Horz	AV	0.0	47.2	54.0	-6.8	High Ch 11, 1 Mbps, EUT Horz
2483.910	24.9	2.3	1.0	191.0	3.0	20.0	Vert	AV	0.0	47.2	54.0	-6.8	High Ch 11, 1 Mbps, EUT Horz
2483.953	24.9	2.3	1.0	78.0	3.0	20.0	Horz	AV	0.0	47.2	54.0	-6.8	High Ch 11, 1 Mbps, EUT Vert
2484.730	24.9	2.3	1.0	49.0	3.0	20.0	Vert	AV	0.0	47.2	54.0	-6.8	High Ch 11, 1 Mbps, EUT on Side
2485.017	24.9	2.3	1.0	244.0	3.0	20.0	Horz	AV	0.0	47.2	54.0	-6.8	High Ch 11, 1 Mbps, EUT on Side
2483.537	24.9	2.3	2.8	153.0	3.0	20.0	Horz	AV	0.0	47.2	54.0	-6.8	High Ch 11, 11 Mbps, EUT on Side
2483.913	24.8	2.3	1.0	59.0	3.0	20.0	Vert	AV	0.0	47.1	54.0	-6.9	High Ch 11, 1 Mbps, EUT Vert
2483.610	24.8	2.3	2.8	153.0	3.0	20.0	Horz	AV	0.0	47.1	54.0	-6.9	High Ch 11, 36 Mbps, EUT on Side
2483.627	24.8	2.3	2.8	153.0	3.0	20.0	Horz	AV	0.0	47.1	54.0	-6.9	High Ch 11, 6 Mbps, EUT on Side
2483.617	24.8	2.3	2.8	153.0	3.0	20.0	Horz	AV	0.0	47.1	54.0	-6.9	High Ch 11, 54 Mbps, EUT on Side
2389.220	24.8	2.0	1.0	203.0	3.0	20.0	Horz	AV	0.0	46.8	54.0	-7.2	Low Ch 1, 1 Mbps, EUT Horz
2388.563	24.8	2.0	2.4	234.0	3.0	20.0	Vert	AV	0.0	46.8	54.0	-7.2	Low Ch 1, 1 Mbps, EUT Horz
2388.980	24.8	2.0	2.4	234.0	3.0	20.0	Vert	AV	0.0	46.8	54.0	-7.2	Low Ch 1, 6 Mbps, EUT Horz
2388.017	24.8	2.0	1.0	203.0	3.0	20.0	Horz	AV	0.0	46.8	54.0	-7.2	Low Ch 1, 6 Mbps, EUT Horz
2484.860	39.8	2.3	2.8	153.0	3.0	20.0	Horz	PK	0.0	62.1	74.0	-11.9	High Ch 11, 1 Mbps, EUT Horz
2389.403	38.4	2.0	1.0	203.0	3.0	20.0	Horz	PK	0.0	60.4	74.0	-13.6	Low Ch 1, 1 Mbps, EUT Horz
2483.610	37.9	2.3	1.0	78.0	3.0	20.0	Horz	PK	0.0	60.2	74.0	-13.8	High Ch 11, 1 Mbps, EUT Vert
2484.203	37.8	2.3	1.0	191.0	3.0	20.0	Vert	PK	0.0	60.1	74.0	-13.9	High Ch 11, 1 Mbps, EUT Horz
2485.097	37.8	2.3	1.0	49.0	3.0	20.0	Vert	PK	0.0	60.1	74.0	-13.9	High Ch 11, 1 Mbps, EUT on Side
2483.513	37.8	2.3	2.8	153.0	3.0	20.0	Horz	PK	0.0	60.1	74.0	-13.9	High Ch 11, 1 Mbps, EUT on Side
2484.463	37.7	2.3	1.0	244.0	3.0	20.0	Horz	PK	0.0	60.0	74.0	-14.0	High Ch 11, 1 Mbps, EUT on Side
2484.143	37.7	2.3	2.8	153.0	3.0	20.0	Horz	PK	0.0	60.0	74.0	-14.0	High Ch 11, 6 Mbps, EUT on Side
2388.017	38.0	2.0	1.0	203.0	3.0	20.0	Horz	PK	0.0	60.0	74.0	-14.0	Low Ch 1, 6 Mbps, EUT Horz

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
2484.813	37.4	2.3	2.8	153.0	3.0	20.0	Horz	PK	0.0	59.7	74.0	-14.3	High Ch 11, 11 Mbps, EUT on Side
2483.653	37.4	2.3	2.8	153.0	3.0	20.0	Horz	PK	0.0	59.7	74.0	-14.3	High Ch 11, 54 Mbps, EUT on Side
2388.157	37.7	2.0	2.4	234.0	3.0	20.0	Vert	PK	0.0	59.7	74.0	-14.3	Low Ch 1, 1 Mbps, EUT Horz
2484.890	37.2	2.3	1.0	59.0	3.0	20.0	Vert	PK	0.0	59.5	74.0	-14.5	High Ch 11, 1 Mbps, EUT Vert
2389.427	37.3	2.0	2.4	234.0	3.0	20.0	Vert	PK	0.0	59.3	74.0	-14.7	Low Ch 1, 6 Mbps, EUT Horz

SPURIOUS RADIATED EMISSIONS



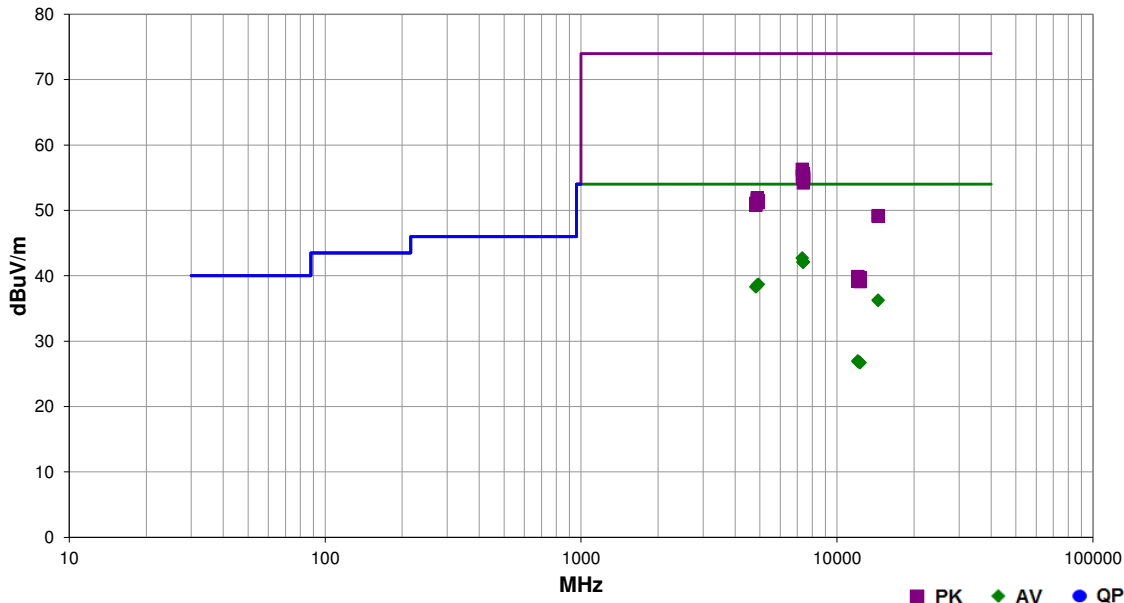
EmiRS 2017.01.25

PSA-ESCI 2017.01.26

Work Order:	AWAR0024	Date:	03/15/17		
Project:	None	Temperature:	22.7 °C		
Job Site:	OC10	Humidity:	47.2% RH		
Serial Number:	None	Barometric Pres.:	1020 mbar	Tested by:	Mark Baytan
EUT:	BLED				
Configuration:	2				
Customer:	Awarepoint Corporation				
Attendees:	None				
EUT Power:	Battery				
Operating Mode:	Operating 802.11bg Transmit Mode: Low Ch. 1 (2412MHz), Mid Ch. 6 (2437MHz), High Ch. 11 (2462MHz)				
Deviations:	None				
Comments:	Power Setting = 0				

Test Specifications	FCC 15.247:2017	Test Method	ANSI C63.10:2013
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Run #	9	Test Distance (m)	3	Antenna Height(s)	1 to 4(m)	Results	Pass
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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
7310.070	24.7	18.0	1.0	191.0	3.0	0.0	Horz	AV	0.0	42.7	54.0	-11.3	Mid Ch 6, 1 Mbps, EUT Horz
7309.535	24.7	18.0	1.7	153.0	3.0	0.0	Vert	AV	0.0	42.7	54.0	-11.3	Mid Ch 6, 1 Mbps, EUT Horz
7384.865	24.2	17.9	1.0	317.0	3.0	0.0	Horz	AV	0.0	42.1	54.0	-11.9	High Ch 11, 1 Mbps, EUT Horz
7384.525	24.2	17.9	1.0	333.0	3.0	0.0	Vert	AV	0.0	42.1	54.0	-11.9	High Ch 11, 1 Mbps, EUT Horz
7384.760	24.2	17.9	1.0	17.0	3.0	0.0	Horz	AV	0.0	42.1	54.0	-11.9	High Ch 11, 1 Mbps, EUT on Side
7384.655	24.2	17.9	1.7	70.0	3.0	0.0	Vert	AV	0.0	42.1	54.0	-11.9	High Ch 11, 1 Mbps, EUT Vert
7384.580	24.2	17.9	1.0	46.0	3.0	0.0	Horz	AV	0.0	42.1	54.0	-11.9	High Ch 11, 1 Mbps, EUT Vert
7384.655	24.2	17.9	1.0	79.0	3.0	0.0	Vert	AV	0.0	42.1	54.0	-11.9	High Ch 11, 1 Mbps, EUT on Side
7384.830	24.2	17.9	1.0	315.0	3.0	0.0	Horz	AV	0.0	42.1	54.0	-11.9	High Ch 11, 6 Mbps, EUT Horz
7384.900	24.2	17.9	1.0	315.0	3.0	0.0	Horz	AV	0.0	42.1	54.0	-11.9	High Ch 11, 36 Mbps, EUT Horz
7384.575	24.2	17.9	1.0	315.0	3.0	0.0	Horz	AV	0.0	42.1	54.0	-11.9	High Ch 11, 11 Mbps, EUT Horz
7384.525	24.2	17.9	1.0	315.0	3.0	0.0	Horz	AV	0.0	42.1	54.0	-11.9	High Ch 11, 54 Mbps, EUT Horz
7384.580	24.2	17.9	1.0	333.0	3.0	0.0	Vert	AV	0.0	42.1	54.0	-11.9	High Ch 11, 6 Mbps, EUT Horz
7384.775	24.2	17.9	1.0	333.0	3.0	0.0	Vert	AV	0.0	42.1	54.0	-11.9	High Ch 11, 36 Mbps, EUT Horz
7384.795	24.2	17.9	1.0	333.0	3.0	0.0	Vert	AV	0.0	42.1	54.0	-11.9	High Ch 11, 11 Mbps, EUT Horz
7384.650	24.2	17.9	1.0	333.0	3.0	0.0	Vert	AV	0.0	42.1	54.0	-11.9	High Ch 11, 54 Mbps, EUT Horz
4922.580	25.9	12.8	1.8	322.0	3.0	0.0	Horz	AV	0.0	38.7	54.0	-15.3	High Ch 11, 1 Mbps, EUT Horz
4922.745	25.9	12.8	1.0	265.0	3.0	0.0	Vert	AV	0.0	38.7	54.0	-15.3	High Ch 11, 1 Mbps, EUT Horz
4875.490	25.8	12.8	1.0	185.0	3.0	0.0	Vert	AV	0.0	38.6	54.0	-15.4	Mid Ch 6, 1 Mbps, EUT Horz
4875.060	25.7	12.8	1.0	360.0	3.0	0.0	Horz	AV	0.0	38.5	54.0	-15.5	Mid Ch 6, 1 Mbps, EUT Horz
4824.155	25.5	12.8	1.0	302.0	3.0	0.0	Horz	AV	0.0	38.3	54.0	-15.7	Low Ch 1, 1 Mbps, EUT Horz
4824.045	25.5	12.8	1.0	86.0	3.0	0.0	Vert	AV	0.0	38.3	54.0	-15.7	Low Ch 1, 1 Mbps, EUT Horz
7310.780	38.3	18.0	1.0	191.0	3.0	0.0	Horz	PK	0.0	56.3	74.0	-17.7	Mid Ch 6, 1 Mbps, EUT Horz

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
14470.510	24.6	11.7	1.0	173.0	3.0	0.0	Vert	AV	0.0	36.3	54.0	-17.7	Low Ch 1, 1 Mbps, EUT Horz
14470.900	24.5	11.7	1.8	216.0	3.0	0.0	Horz	AV	0.0	36.2	54.0	-17.8	Low Ch 1, 1 Mbps, EUT Horz
7386.345	37.7	17.9	1.0	317.0	3.0	0.0	Horz	PK	0.0	55.6	74.0	-18.4	High Ch 11, 1 Mbps, EUT Horz
7386.885	37.6	17.9	1.0	17.0	3.0	0.0	Horz	PK	0.0	55.5	74.0	-18.5	High Ch 11, 1 Mbps, EUT on Side
7385.350	37.4	17.9	1.0	333.0	3.0	0.0	Vert	PK	0.0	55.3	74.0	-18.7	High Ch 11, 1 Mbps, EUT Horz
7309.890	37.3	18.0	1.7	153.0	3.0	0.0	Vert	PK	0.0	55.3	74.0	-18.7	Mid Ch 6, 1 Mbps, EUT Horz
7384.590	37.3	17.9	1.7	70.0	3.0	0.0	Vert	PK	0.0	55.2	74.0	-18.8	High Ch 11, 1 Mbps, EUT Vert
7387.475	37.3	17.9	1.0	79.0	3.0	0.0	Vert	PK	0.0	55.2	74.0	-18.8	High Ch 11, 1 Mbps, EUT on Side
7386.505	37.1	17.9	1.0	315.0	3.0	0.0	Horz	PK	0.0	55.0	74.0	-19.0	High Ch 11, 11 Mbps, EUT Horz
7386.175	37.1	17.9	1.0	315.0	3.0	0.0	Horz	PK	0.0	55.0	74.0	-19.0	High Ch 11, 6 Mbps, EUT Horz
7387.155	37.1	17.9	1.0	333.0	3.0	0.0	Vert	PK	0.0	55.0	74.0	-19.0	High Ch 11, 6 Mbps, EUT Horz
7386.895	37.0	17.9	1.0	333.0	3.0	0.0	Vert	PK	0.0	54.9	74.0	-19.1	High Ch 11, 11 Mbps, EUT Horz
7387.215	37.0	17.9	1.0	333.0	3.0	0.0	Vert	PK	0.0	54.9	74.0	-19.1	High Ch 11, 54 Mbps, EUT Horz
7386.635	36.9	17.9	1.0	315.0	3.0	0.0	Horz	PK	0.0	54.8	74.0	-19.2	High Ch 11, 36 Mbps, EUT Horz
7385.975	36.9	17.9	1.0	315.0	3.0	0.0	Horz	PK	0.0	54.8	74.0	-19.2	High Ch 11, 54 Mbps, EUT Horz
7387.145	36.8	17.9	1.0	46.0	3.0	0.0	Horz	PK	0.0	54.7	74.0	-19.3	High Ch 11, 1 Mbps, EUT Vert
7385.770	36.3	17.9	1.0	333.0	3.0	0.0	Vert	PK	0.0	54.2	74.0	-19.8	High Ch 11, 36 Mbps, EUT Horz
4874.200	39.1	12.8	1.0	185.0	3.0	0.0	Vert	PK	0.0	51.9	74.0	-22.1	Mid Ch 6, 1 Mbps, EUT Horz
4875.490	38.8	12.8	1.0	360.0	3.0	0.0	Horz	PK	0.0	51.6	74.0	-22.4	Mid Ch 6, 1 Mbps, EUT Horz
4923.080	38.7	12.8	1.0	265.0	3.0	0.0	Vert	PK	0.0	51.5	74.0	-22.5	High Ch 11, 1 Mbps, EUT Horz
4923.840	38.4	12.8	1.8	322.0	3.0	0.0	Horz	PK	0.0	51.2	74.0	-22.8	High Ch 11, 1 Mbps, EUT Horz
4822.750	38.3	12.8	1.0	86.0	3.0	0.0	Vert	PK	0.0	51.1	74.0	-22.9	Low Ch 1, 1 Mbps, EUT Horz
4825.235	38.0	12.8	1.0	302.0	3.0	0.0	Horz	PK	0.0	50.8	74.0	-23.2	Low Ch 1, 1 Mbps, EUT Horz
14471.060	37.5	11.7	1.0	173.0	3.0	0.0	Vert	PK	0.0	49.2	74.0	-24.8	Low Ch 1, 1 Mbps, EUT Horz
14470.770	37.4	11.7	1.8	216.0	3.0	0.0	Horz	PK	0.0	49.1	74.0	-24.9	Low Ch 1, 1 Mbps, EUT Horz
12058.520	30.7	-3.7	2.7	76.0	3.0	0.0	Horz	AV	0.0	27.0	54.0	-27.0	Low Ch 1, 1 Mbps, EUT Horz
12058.510	30.6	-3.7	1.0	38.0	3.0	0.0	Vert	AV	0.0	26.9	54.0	-27.1	Low Ch 1, 1 Mbps, EUT Horz
12183.510	29.6	-2.8	1.0	69.0	3.0	0.0	Horz	AV	0.0	26.8	54.0	-27.2	Mid Ch 6, 1 Mbps, EUT Horz
12183.590	29.6	-2.8	1.0	45.0	3.0	0.0	Vert	AV	0.0	26.8	54.0	-27.2	Mid Ch 6, 1 Mbps, EUT Horz
12308.870	29.7	-3.0	1.0	324.0	3.0	0.0	Horz	AV	0.0	26.7	54.0	-27.3	High Ch 11, 1 Mbps, EUT Horz
12308.590	29.7	-3.0	1.0	266.0	3.0	0.0	Vert	AV	0.0	26.7	54.0	-27.3	High Ch 11, 1 Mbps, EUT Horz
12058.800	43.6	-3.7	1.0	38.0	3.0	0.0	Vert	PK	0.0	39.9	74.0	-34.1	Low Ch 1, 1 Mbps, EUT Horz
12311.430	42.7	-3.0	1.0	266.0	3.0	0.0	Vert	PK	0.0	39.7	74.0	-34.3	High Ch 11, 1 Mbps, EUT Horz
12185.800	42.4	-2.8	1.0	45.0	3.0	0.0	Vert	PK	0.0	39.6	74.0	-34.4	Mid Ch 6, 1 Mbps, EUT Horz
12184.140	42.3	-2.8	1.0	69.0	3.0	0.0	Horz	PK	0.0	39.5	74.0	-34.5	Mid Ch 6, 1 Mbps, EUT Horz
12060.710	42.9	-3.7	2.7	76.0	3.0	0.0	Horz	PK	0.0	39.2	74.0	-34.8	Low Ch 1, 1 Mbps, EUT Horz
12309.220	42.1	-3.0	1.0	324.0	3.0	0.0	Horz	PK	0.0	39.1	74.0	-34.9	High Ch 11, 1 Mbps, EUT Horz

OCCUPIED BANDWIDTH



XMI 2017.01.26

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.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFA	11/2/2016	11/2/2017
Block - DC	Fairview Microwave	SD3379	AMV	1/11/2017	1/11/2018
Attenuator	Fairview Microwave	SA18H-20	TKR	1/5/2017	1/5/2018
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Generator - Signal	Agilent	E8257D	TGU	2/5/2015	2/5/2018

TEST DESCRIPTION

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

The 6dB occupied 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 which can be needed during Output Power depending on the applicable method.

OCCUPIED BANDWIDTH



NeeTx 2016.09.14.2 XMi 2017.01.25

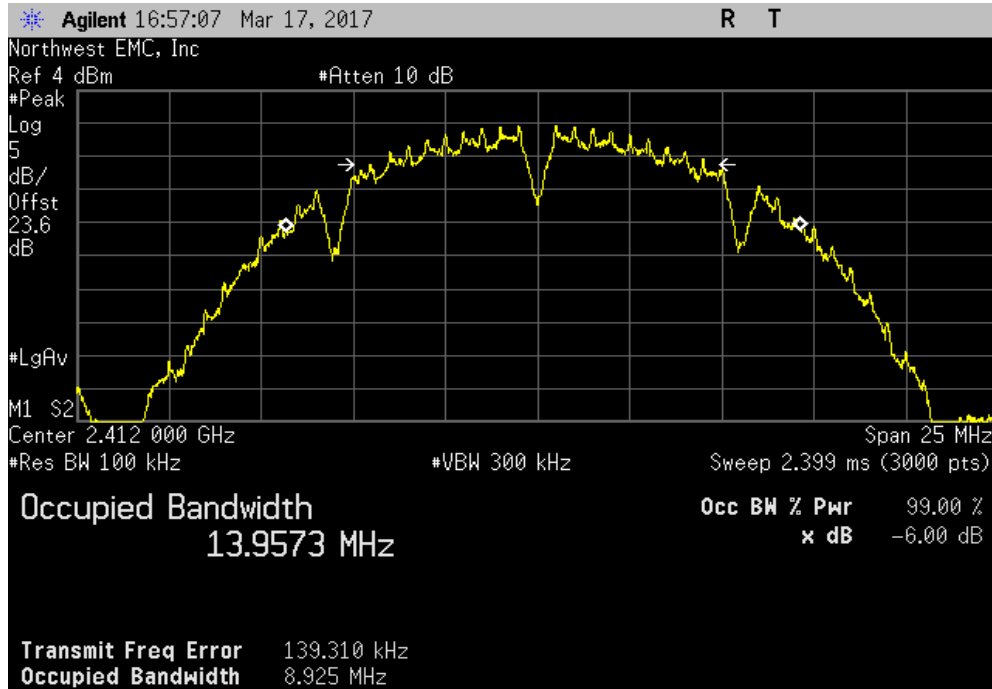
EUT: BLED		Work Order: AWAR0024	
Serial Number: None		Date: 03/20/17	
Customer: Awarepoint Corporation		Temperature: 22.4 °C	
Attendees: None		Humidity: 48.6% RH	
Project: None		Barometric Pres.: 1020 mbar	
Tested by: Mark Baytan	Power: Battery	Job Site: OC13	
TEST SPECIFICATIONS			
FCC 15.247:2017		Test Method	
		ANSI C63.10:2013	
COMMENTS			
Reference level offset (DC block + 20 dB attenuator + direct connect cable + patch cable) = 23.6 dB. Power setting = 0.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	<i>Signature</i> 	
		Value	Limit (>)
Low Channel 1, 2412 MHz			
	802.11(b) 1 Mbps	8.925 MHz	500 kHz
	802.11(b) 11 Mbps	8.901 MHz	500 kHz
	802.11(g) 6 Mbps	14.647 MHz	500 kHz
	802.11(g) 36 Mbps	16.249 MHz	500 kHz
	802.11(g) 54 Mbps	15.983 MHz	500 kHz
Mid Channel 6, 2437 MHz			
	802.11(b) 1 Mbps	9.525 MHz	500 kHz
	802.11(b) 11 Mbps	8.983 MHz	500 kHz
	802.11(g) 6 Mbps	13.801 MHz	500 kHz
	802.11(g) 36 Mbps	16.349 MHz	500 kHz
	802.11(g) 54 Mbps	16.208 MHz	500 kHz
High Channel 11, 2462 MHz			
	802.11(b) 1 Mbps	9.462 MHz	500 kHz
	802.11(b) 11 Mbps	8.866 MHz	500 kHz
	802.11(g) 6 Mbps	14.915 MHz	500 kHz
	802.11(g) 36 Mbps	16.005 MHz	500 kHz
	802.11(g) 54 Mbps	16.21 MHz	500 kHz

OCCUPIED BANDWIDTH

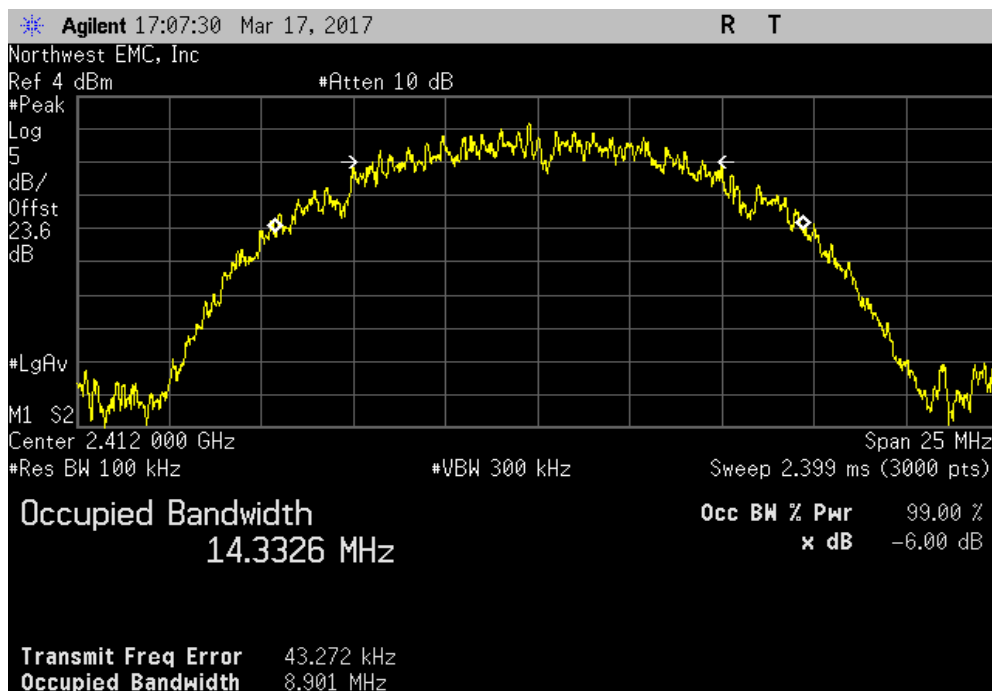


NwTz 2016.09.14.2 XMI 2017.01.26

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



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

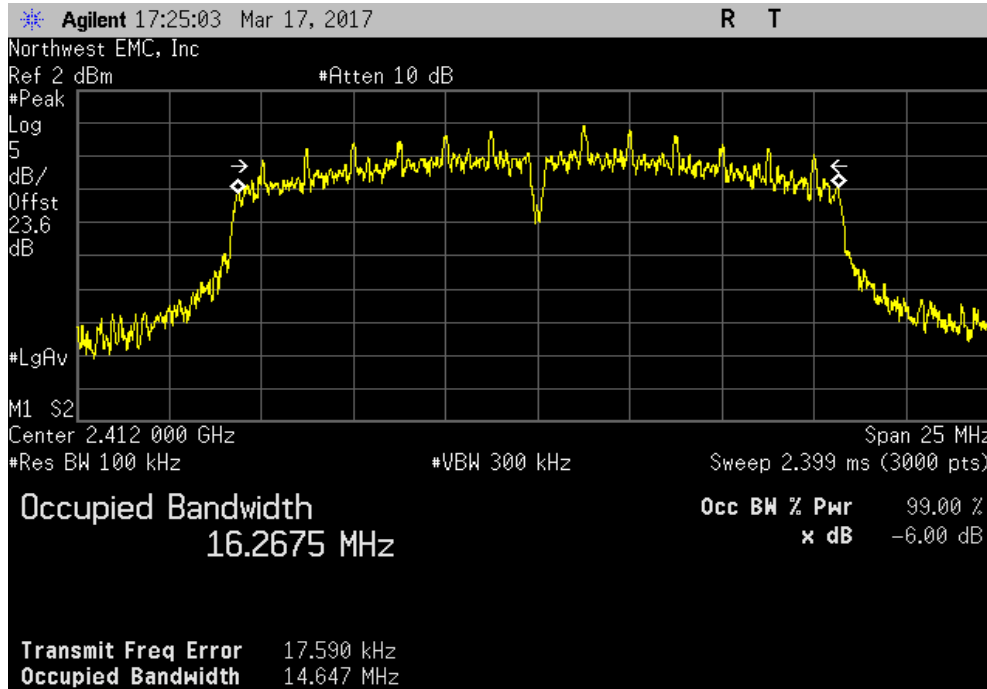


OCCUPIED BANDWIDTH

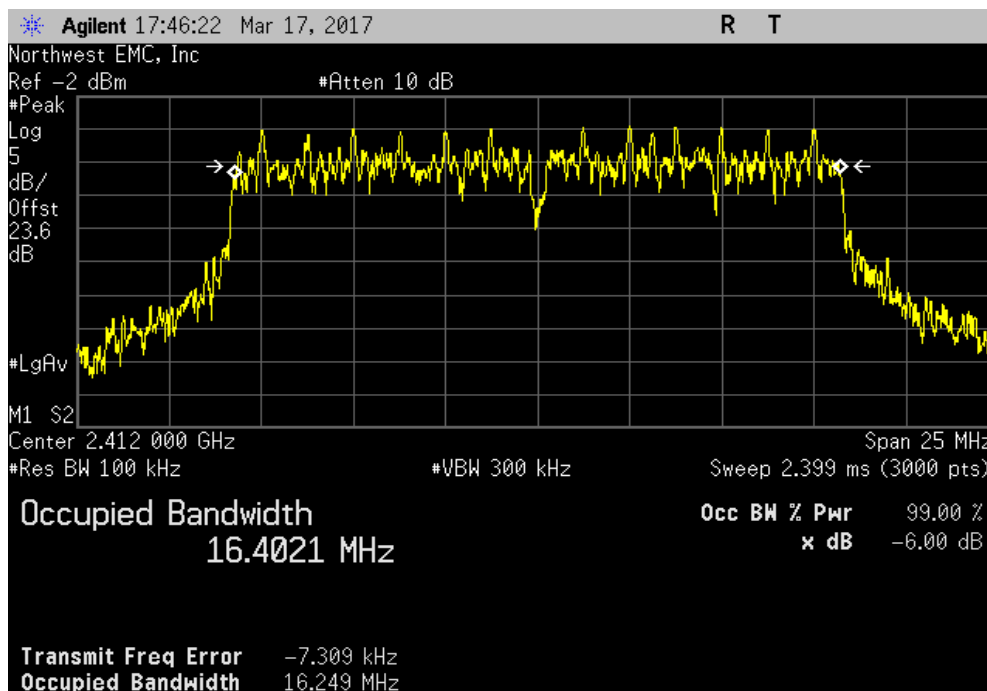


NwTz 2016.09.14.2 XMI 2017.01.26

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



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

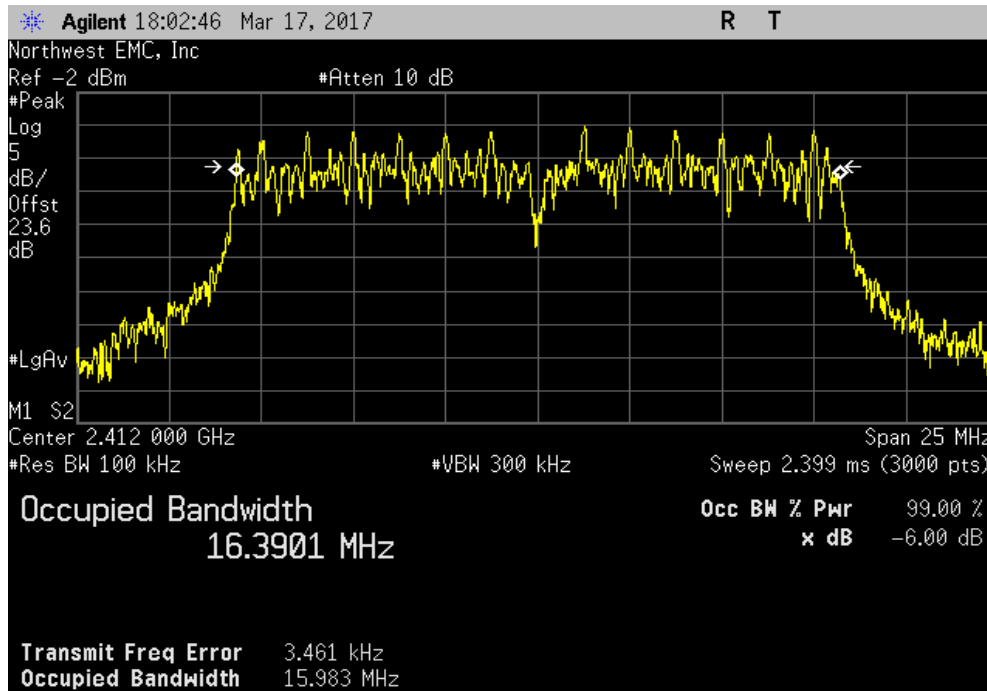


OCCUPIED BANDWIDTH

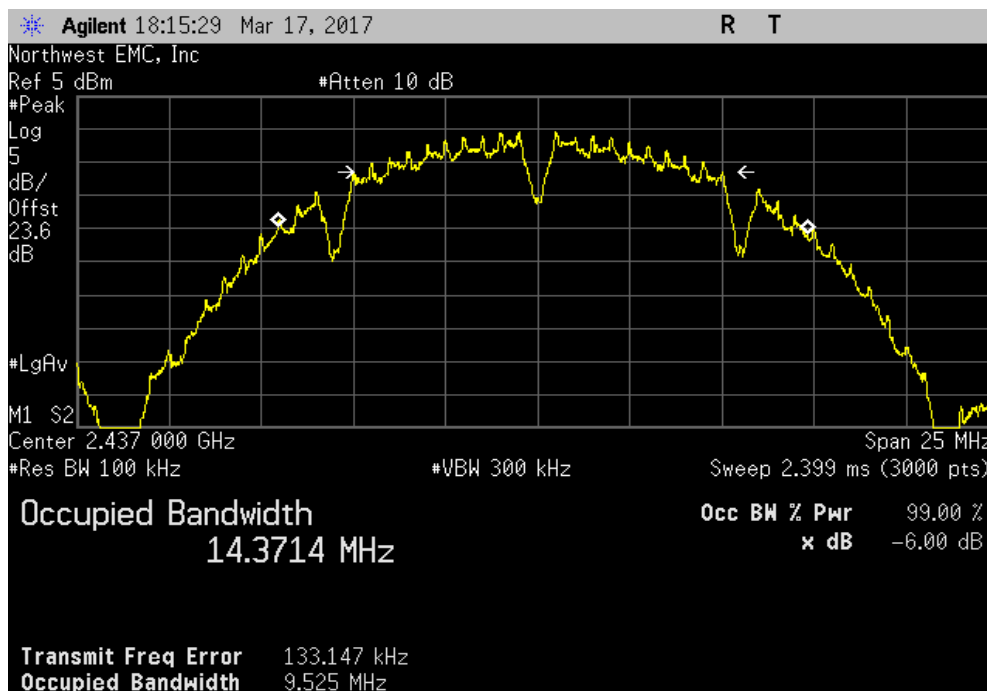


NwTx 2016.09.14.2 XMI 2017.01.26

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



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

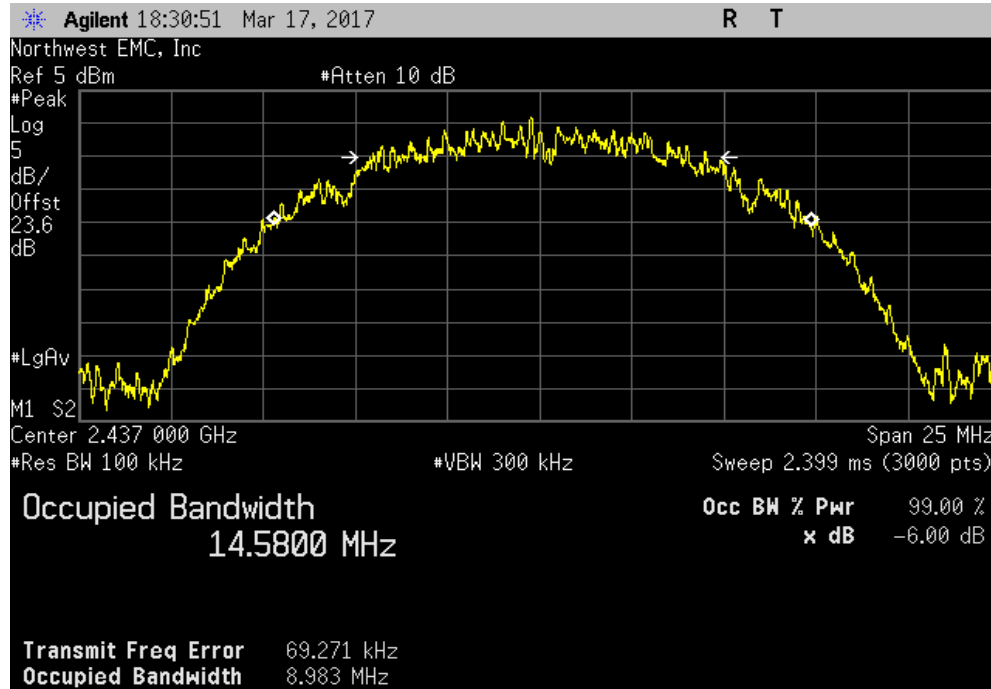


OCCUPIED BANDWIDTH

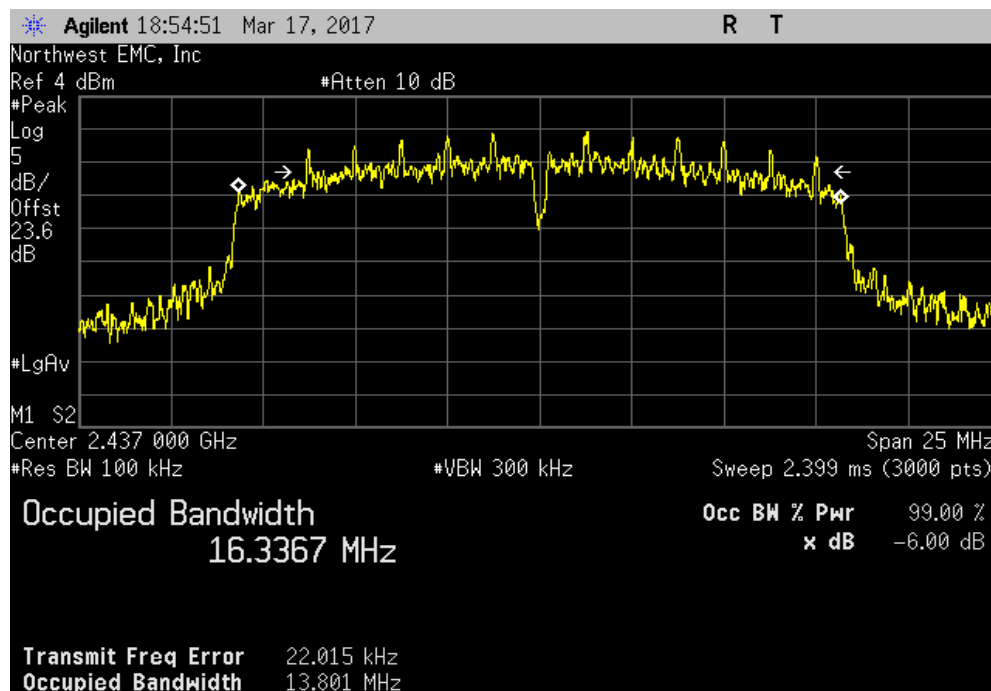


NweTx 2016.09.14.2 XMI 2017.01.26

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



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

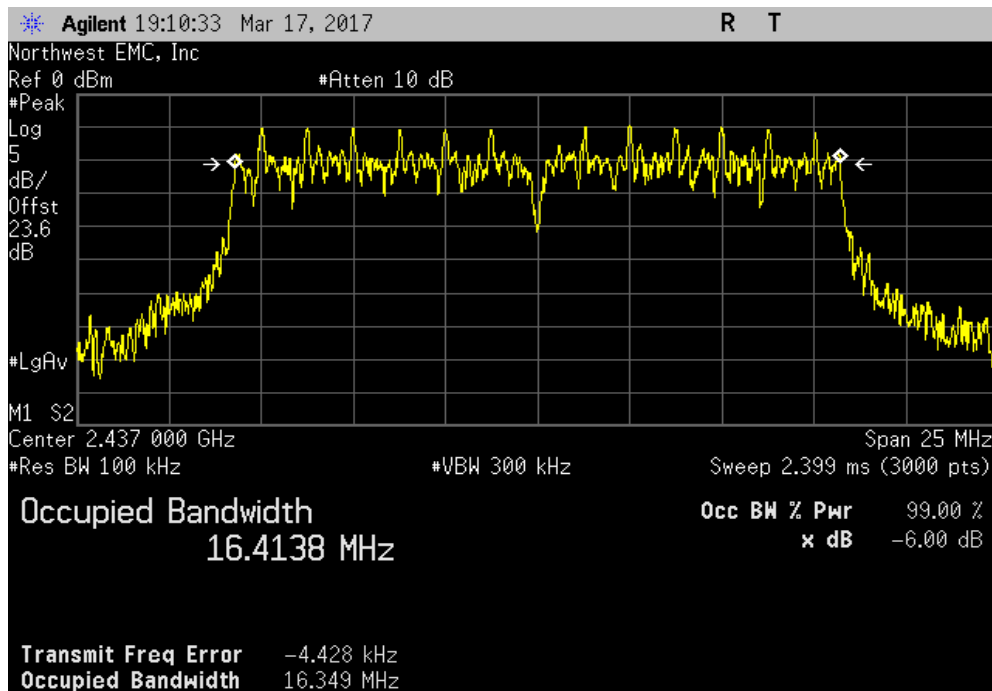


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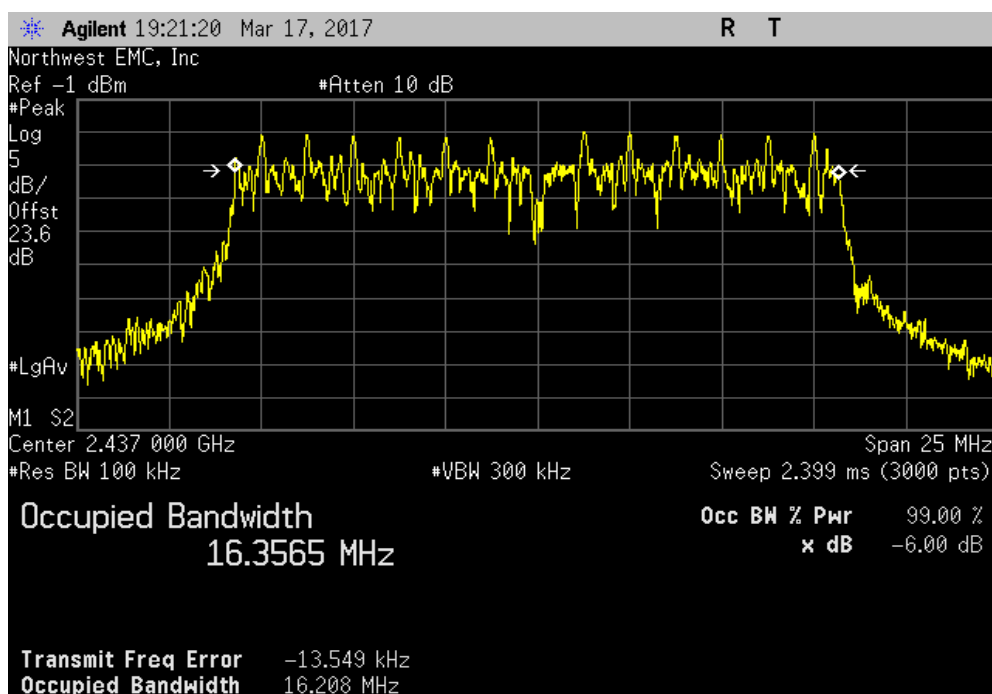


NwTx 2016.09.14.2 XMI 2017.01.26

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



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

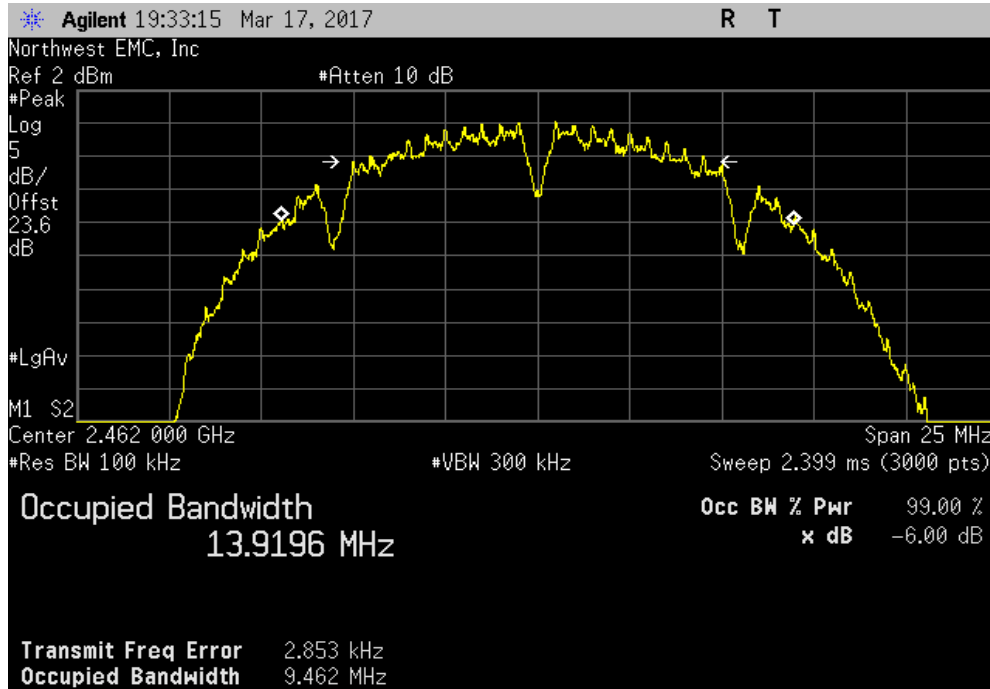


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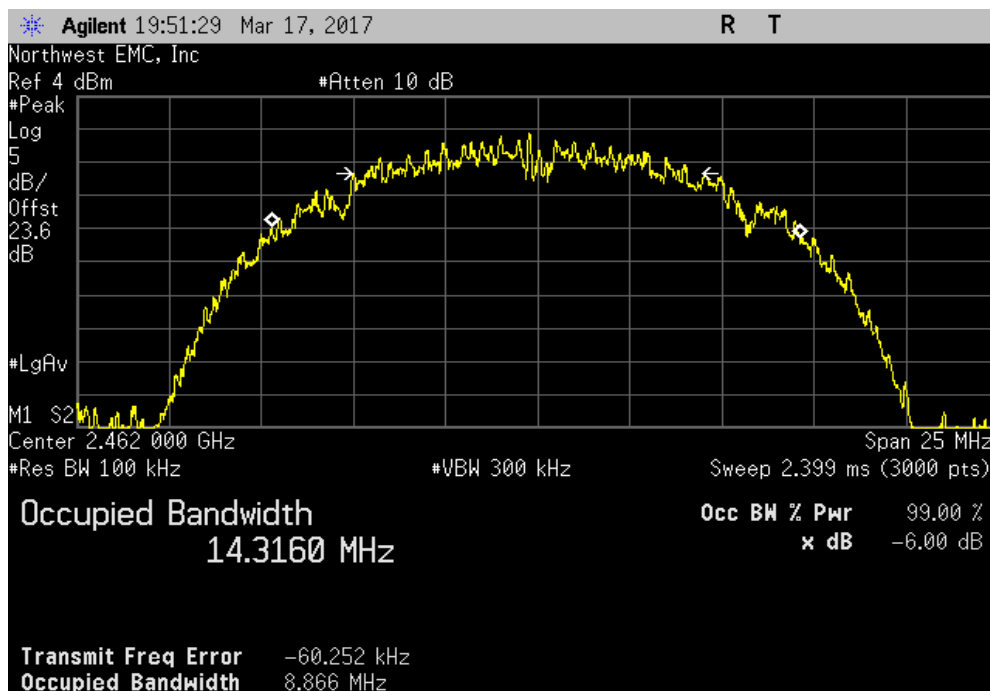


NwTx 2016.09.14.2 XML 2017.01.26

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



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

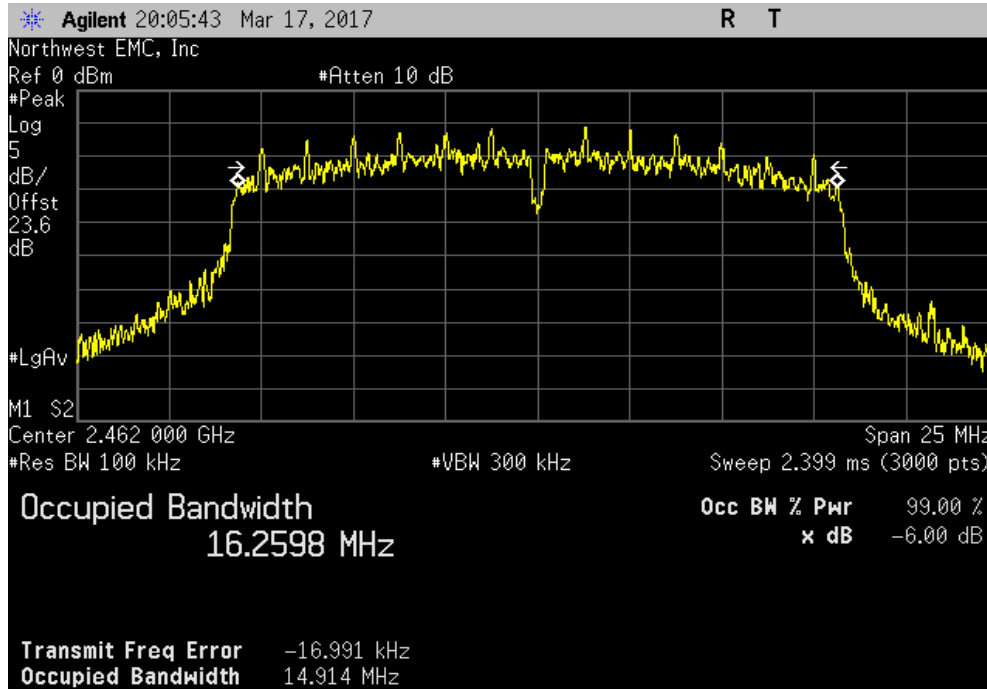


OCCUPIED BANDWIDTH

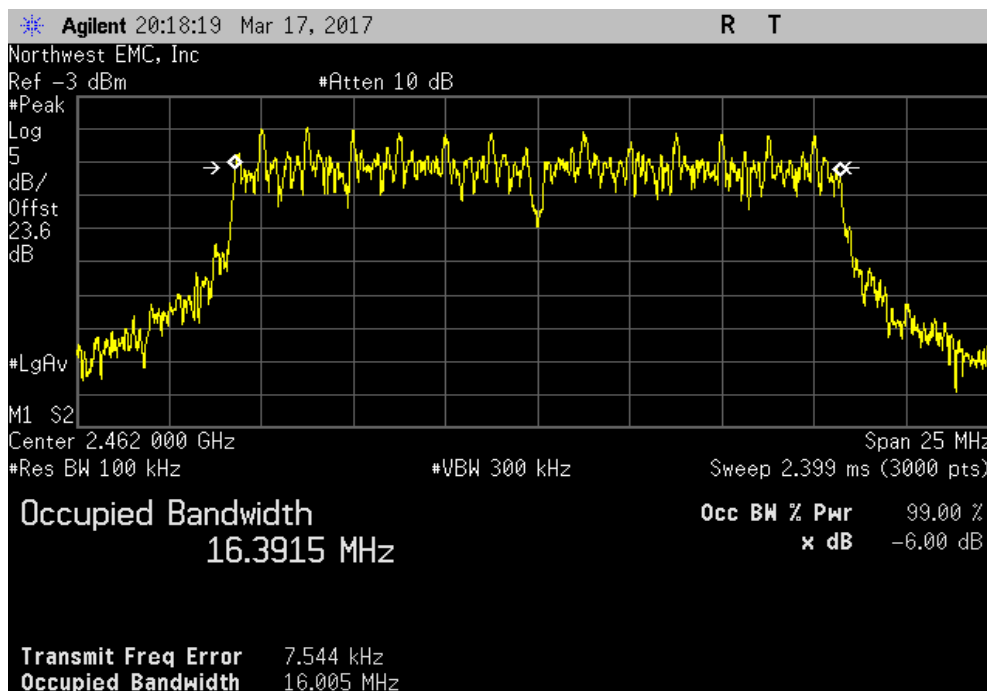


NwTx 2016.09.14.2 XMI 2017.01.26

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



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

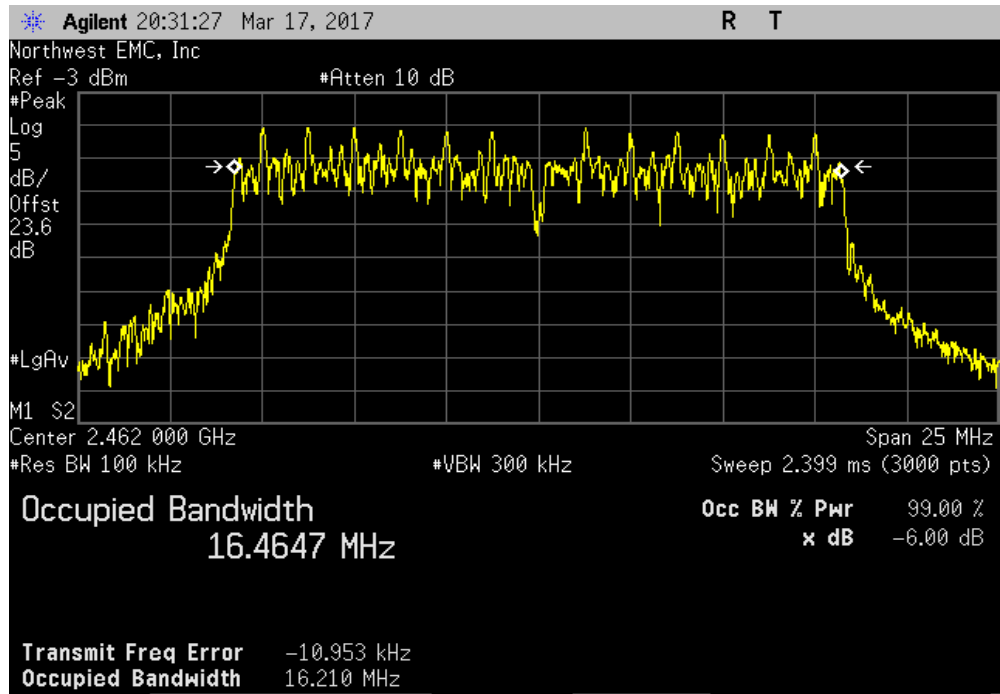


OCCUPIED BANDWIDTH



NwTx 2016.09.14.2 XML 2017.01.26

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



OUTPUT POWER



XMIT 2017.01.26

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.	Cal. Due
Meter - Power	ETS Lindgren	7002-006	SRB	12/6/2016	12/6/2017
Block - DC	Fairview Microwave	SD3379	AMV	1/11/2017	1/11/2018
Attenuator	Fairview Microwave	SA18H-20	TKR	1/5/2017	1/5/2018
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Generator - Signal	Agilent	E8257D	TGU	2/5/2015	2/5/2018

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and an RF average power meter. 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 gated RF average power meter was used due to the irregular duty cycle of the EUT. Per FCC KDB 558074 D01 v03r05, Section 9.2.3.2 (ANSI C63.10:2013, section 11.9.2.3.2):

"Alternatively, measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since this measurement is made only during the ON time of the transmitter, no duty cycle correction is required."

The duty cycle was reported for information purposes.

OUTPUT POWER



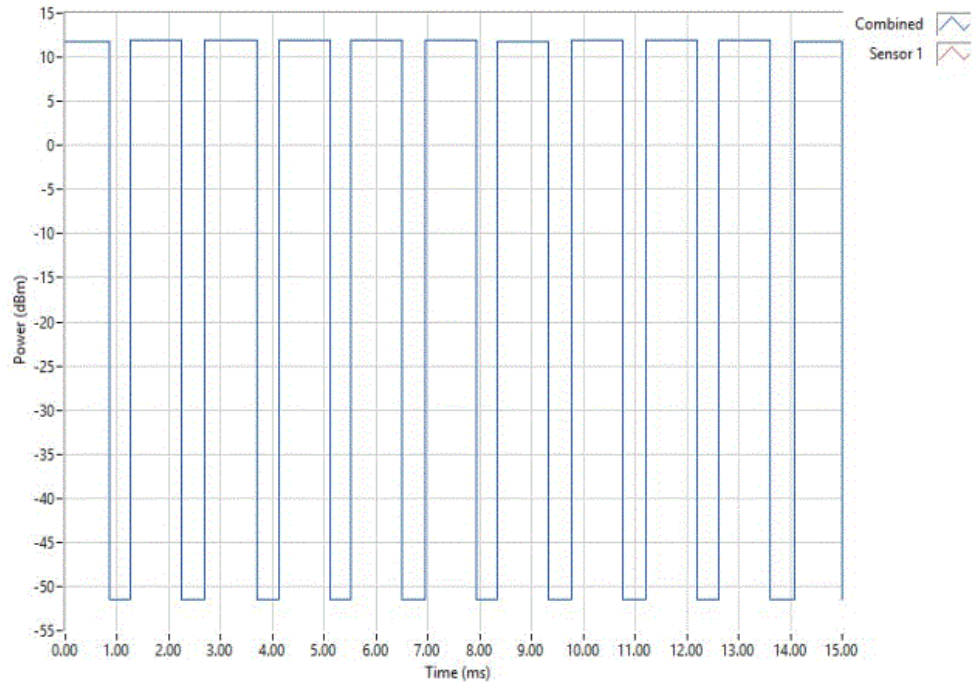
EUT: BLED		Work Order: AWAR0024	
Serial Number: None		Date: 03/20/17	
Customer: Awarepoint Corporation		Temperature: 22.4 °C	
Attendees: None		Humidity: 48.6% RH	
Project: None		Barometric Pres.: 1020 mbar	
Tested by: Mark Baytan		Power: Battery	
Job Site: OC13			
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2017		ANSI C63.10:2013	
COMMENTS			
Reference level offset (DC block + 20 dB attenuator + direct connect cable + patch cable) = 23.5 dB. Power setting = 0.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature	
		Duty Cycle (%)	Avg Cond Pwr (dBm)
			Limit (dBm)
			Results
Low Channel 1, 2412 MHz			
	802.11(b) 1 Mbps	72.195	11.93
	802.11(b) 11 Mbps	44.731	12.29
	802.11(g) 6 Mbps	33.711	10.19
	802.11(g) 36 Mbps	16.369	8.55
	802.11(g) 54 Mbps	13.876	8.84
Mid Channel 6, 2437 MHz			
	802.11(b) 1 Mbps	72.571	13.14
	802.11(b) 11 Mbps	48.304	13.49
	802.11(g) 6 Mbps	34.27	13.24
	802.11(g) 36 Mbps	19.108	10.83
	802.11(g) 54 Mbps	15.676	10.82
High Channel 11, 2462 MHz			
	802.11(b) 1 Mbps	71.263	12.32
	802.11(b) 11 Mbps	48.921	12.83
	802.11(g) 6 Mbps	33.938	10.5
	802.11(g) 36 Mbps	16.788	9.09
	802.11(g) 54 Mbps	19.438	9.29

OUTPUT POWER

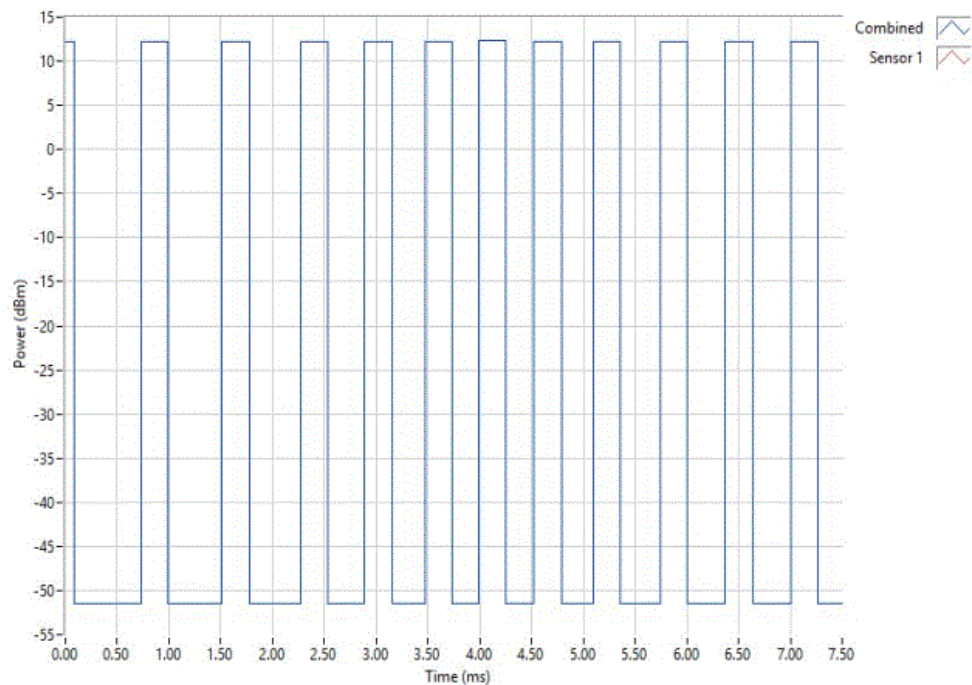


NweTx 2016.09.14.2 XMI 2017.01.28

Low Channel 1, 2412 MHz, 802.11(b) 1 Mbps						
	Duty Cycle (%)		Avg Cond Pwr (dBm)		Limit (dBm)	Results
	72.195		11.93		30	Pass



Low Channel 1, 2412 MHz, 802.11(b) 11 Mbps						
	Duty Cycle (%)		Avg Cond Pwr (dBm)		Limit (dBm)	Results
	44.731		12.29		30	Pass

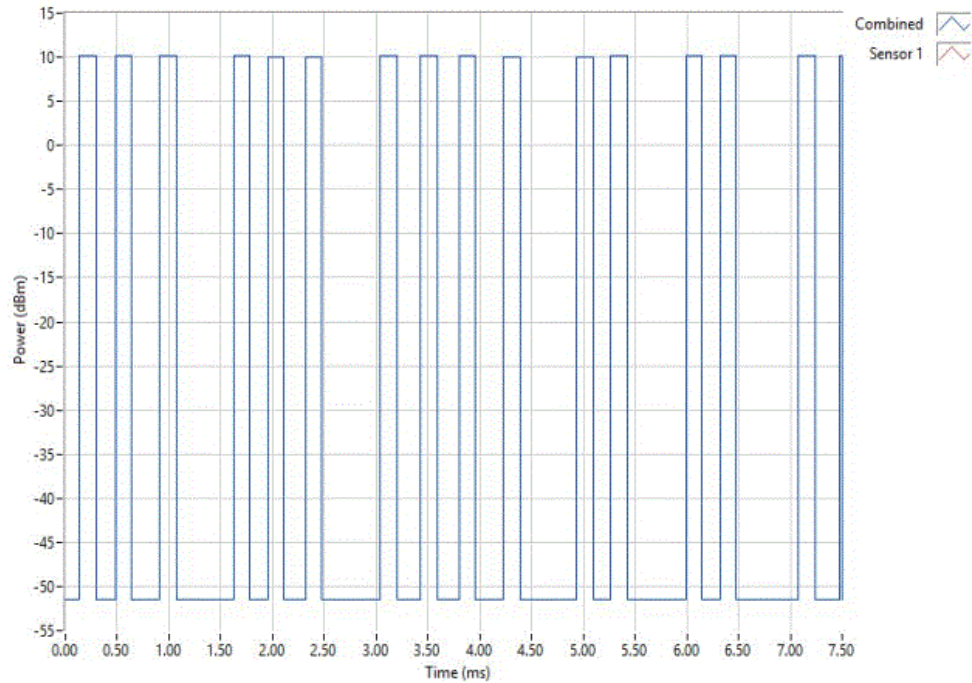


OUTPUT POWER

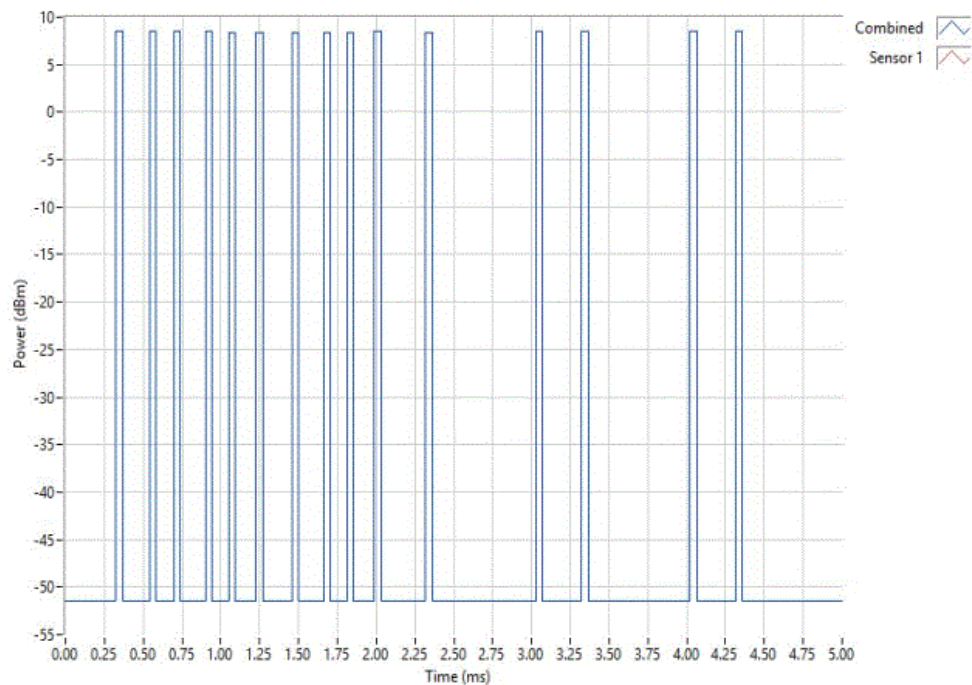


NweTx 2016.09.14.2 XMI 2017.01.28

Low Channel 1, 2412 MHz, 802.11(g) 6 Mbps						
	Duty Cycle (%)	Avg Cond Pwr (dBm)	Limit (dBm)	Results		
	33.711	10.19	30	Pass		



Low Channel 1, 2412 MHz, 802.11(g) 36 Mbps						
	Duty Cycle (%)	Avg Cond Pwr (dBm)	Limit (dBm)	Results		
	16.369	8.55	30	Pass		

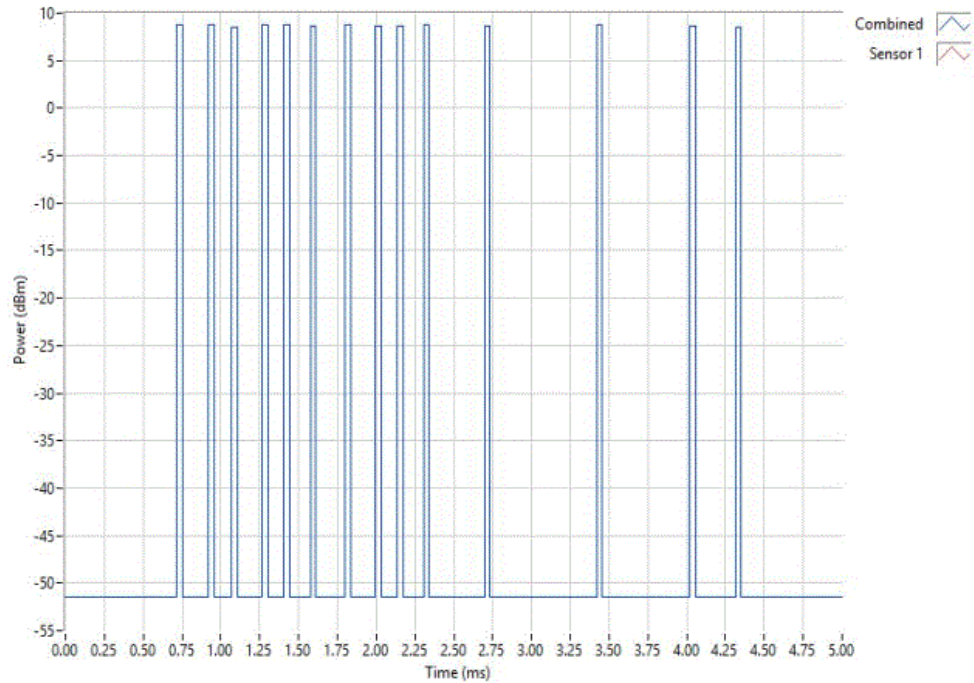


OUTPUT POWER

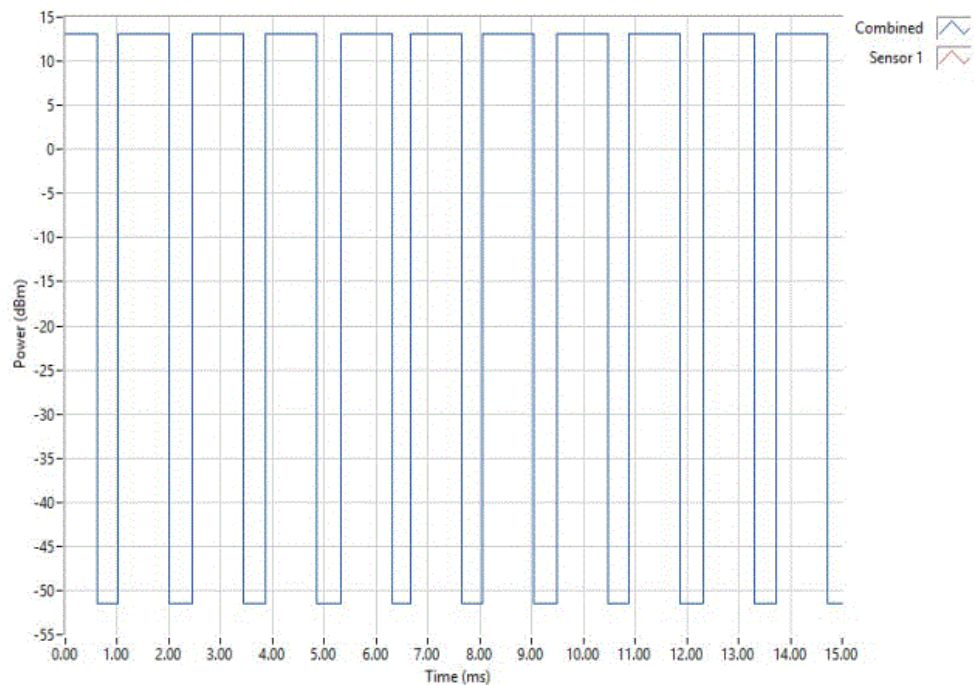


NweTx 2016.09.14.2 XMI 2017.01.28

Low Channel 1, 2412 MHz, 802.11(g) 54 Mbps						
	Duty Cycle (%)	Avg Cond Pwr (dBm)	Limit (dBm)	Results		
	13.876	8.84	30	Pass		



Mid Channel 6, 2437 MHz, 802.11(b) 1 Mbps						
	Duty Cycle (%)	Avg Cond Pwr (dBm)	Limit (dBm)	Results		
	72.571	13.14	30	Pass		

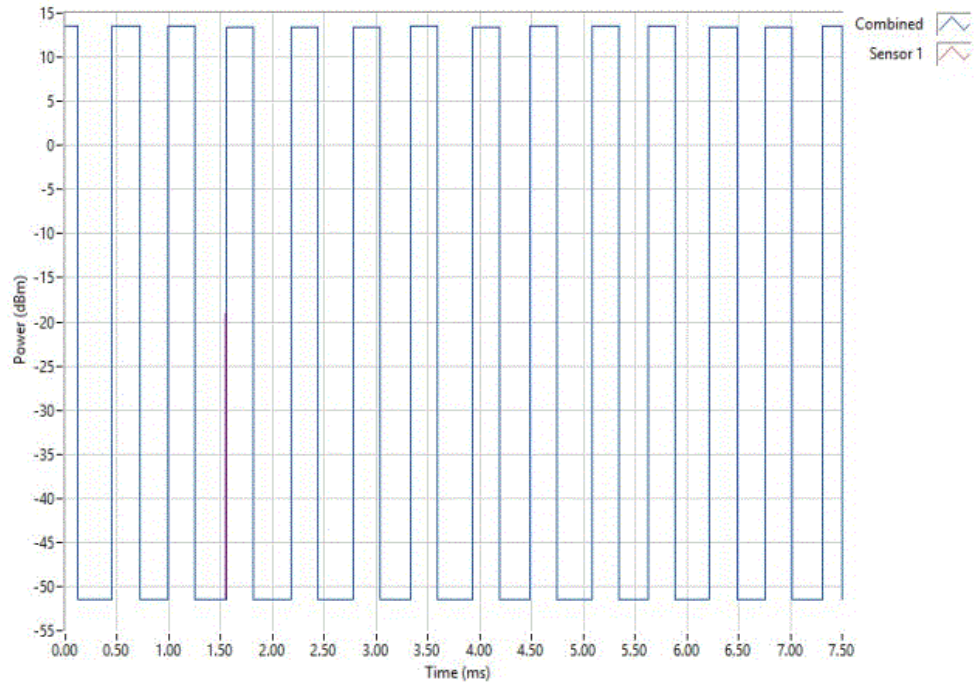


OUTPUT POWER

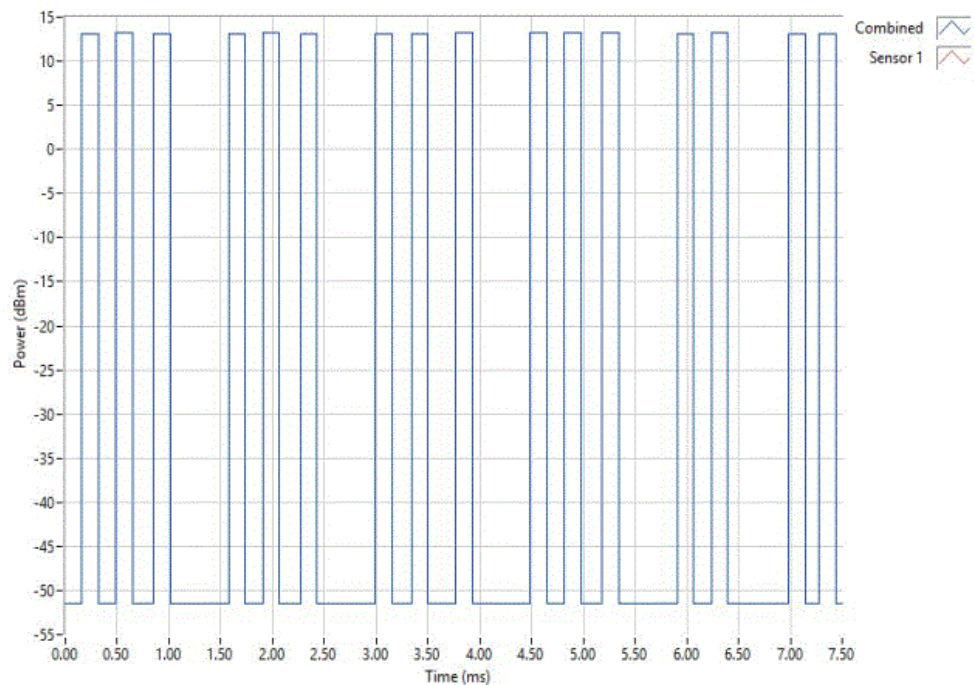


NweTx 2016.09.14.2 XMI 2017.01.28

Mid Channel 6, 2437 MHz, 802.11(b) 11 Mbps						
	Duty Cycle (%)		Avg Cond Pwr (dBm)		Limit (dBm)	Results
	48.304		13.49		30	Pass



Mid Channel 6, 2437 MHz, 802.11(g) 6 Mbps						
	Duty Cycle (%)		Avg Cond Pwr (dBm)		Limit (dBm)	Results
	34.27		13.24		30	Pass

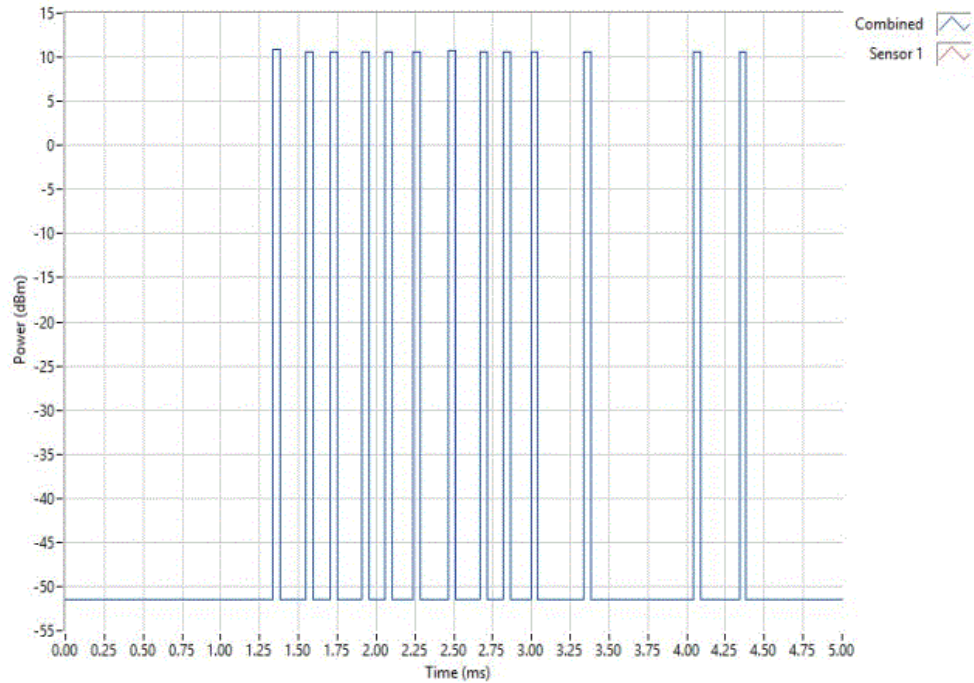


OUTPUT POWER

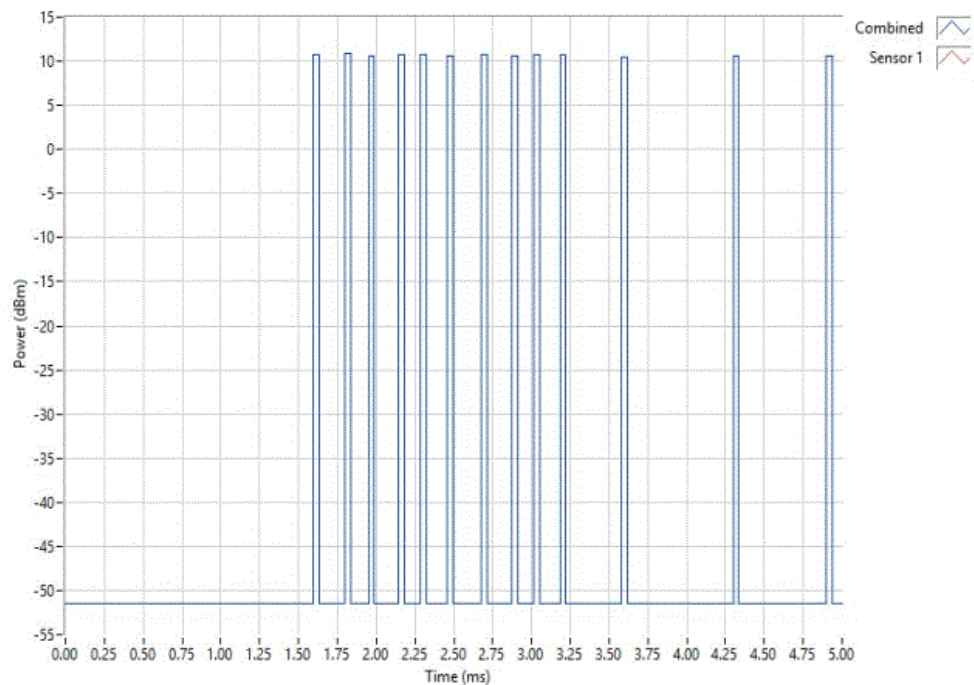


NweTx 2016.09.14.2 XMI 2017.01.28

Mid Channel 6, 2437 MHz, 802.11(g) 36 Mbps						
	Duty Cycle (%)		Avg Cond Pwr (dBm)		Limit (dBm)	Results
	19.108		10.83		30	Pass



Mid Channel 6, 2437 MHz, 802.11(g) 54 Mbps						
	Duty Cycle (%)		Avg Cond Pwr (dBm)		Limit (dBm)	Results
	15.676		10.82		30	Pass

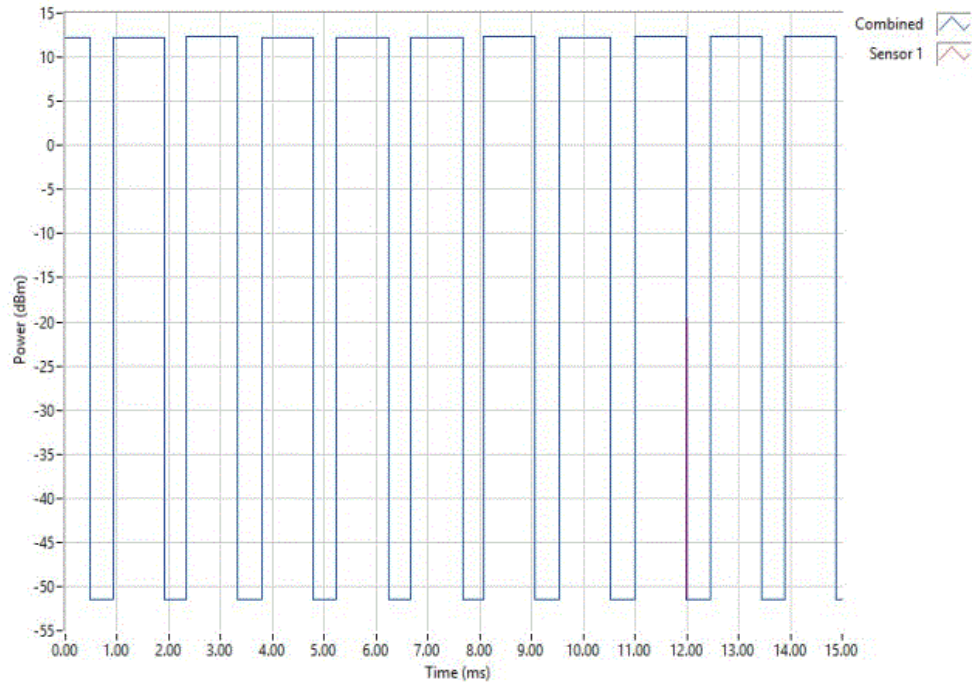


OUTPUT POWER

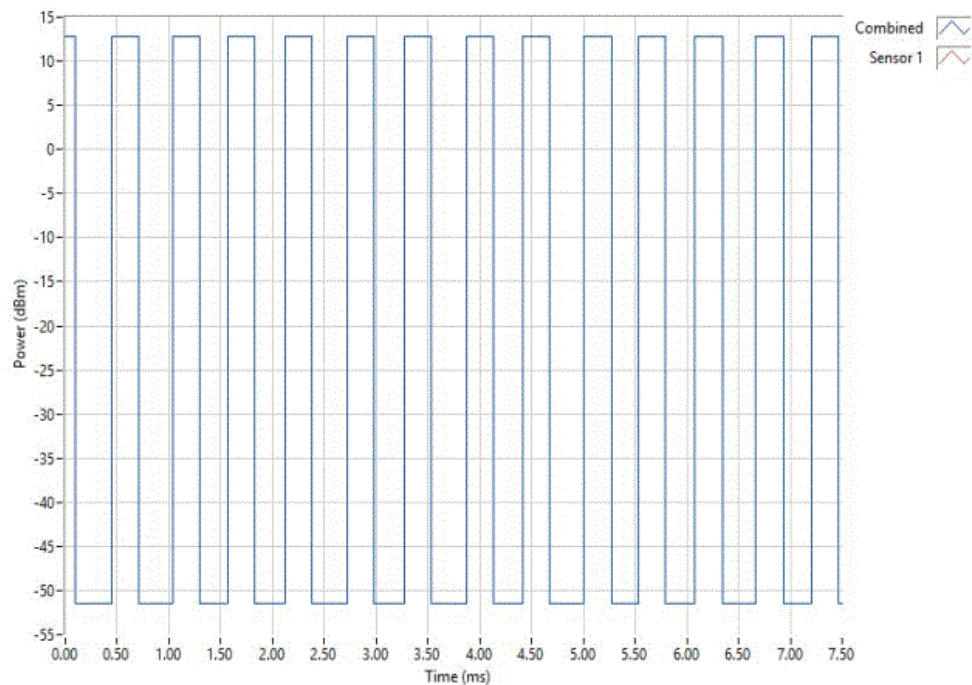


NweTx 2016.09.14.2 XMI 2017.01.28

High Channel 11, 2462 MHz, 802.11(b) 1 Mbps						
	Duty Cycle (%)		Avg Cond Pwr (dBm)		Limit (dBm)	Results
	71.263		12.32		30	Pass



High Channel 11, 2462 MHz, 802.11(b) 11 Mbps						
	Duty Cycle (%)		Avg Cond Pwr (dBm)		Limit (dBm)	Results
	48.921		12.83		30	Pass

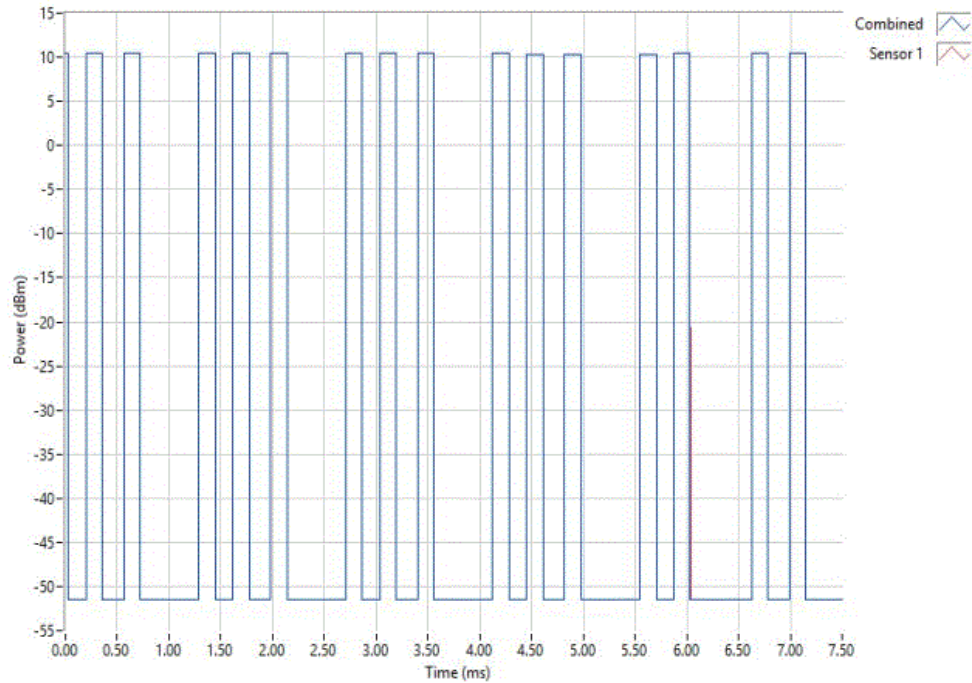


OUTPUT POWER

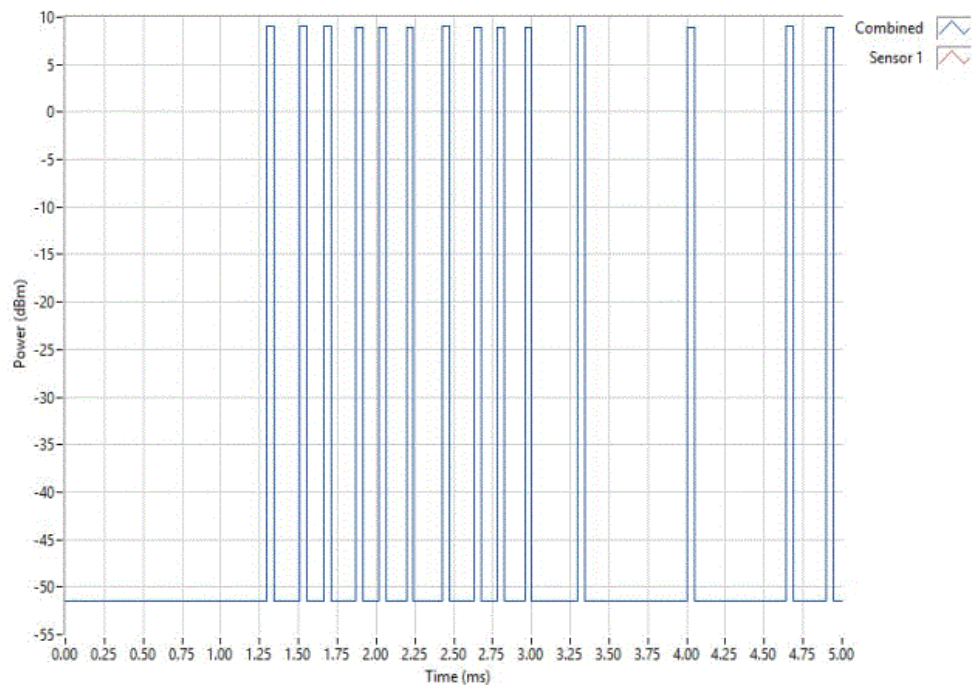


NweTx 2016.09.14.2 XMI 2017.01.28

High Channel 11, 2462 MHz, 802.11(g) 6 Mbps						
	Duty Cycle (%)	Avg Cond Pwr (dBm)	Limit (dBm)	Results		
	33.938	10.5	30	Pass		



High Channel 11, 2462 MHz, 802.11(g) 36 Mbps						
	Duty Cycle (%)	Avg Cond Pwr (dBm)	Limit (dBm)	Results		
	16.788	9.09	30	Pass		

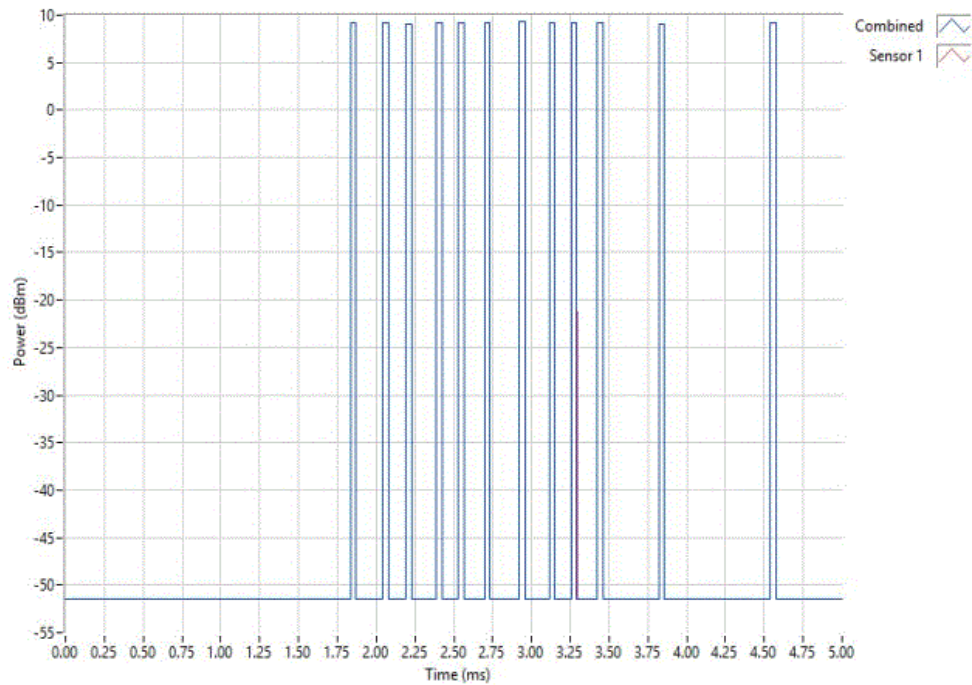


OUTPUT POWER



NweTx 2016.09.14.2 XMI 2017.01.28

High Channel 11, 2462 MHz, 802.11(g) 54 Mbps						
Duty Cycle (%)		Avg Cond Pwr (dBm)		Limit (dBm)	Results	
19.438		9.29		30	Pass	



POWER SPECTRAL DENSITY



XMit 2017.01.26

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.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFA	11/2/2016	11/2/2017
Block - DC	Fairview Microwave	SD3379	AMV	1/11/2017	1/11/2018
Attenuator	Fairview Microwave	SA18H-20	TKR	1/5/2017	1/5/2018
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Generator - Signal	Agilent	E8257D	TGU	2/5/2015	2/5/2018

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The maximum power spectral density measurements was measured using the channels and modes as called out on the following data sheets.

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

POWER SPECTRAL DENSITY



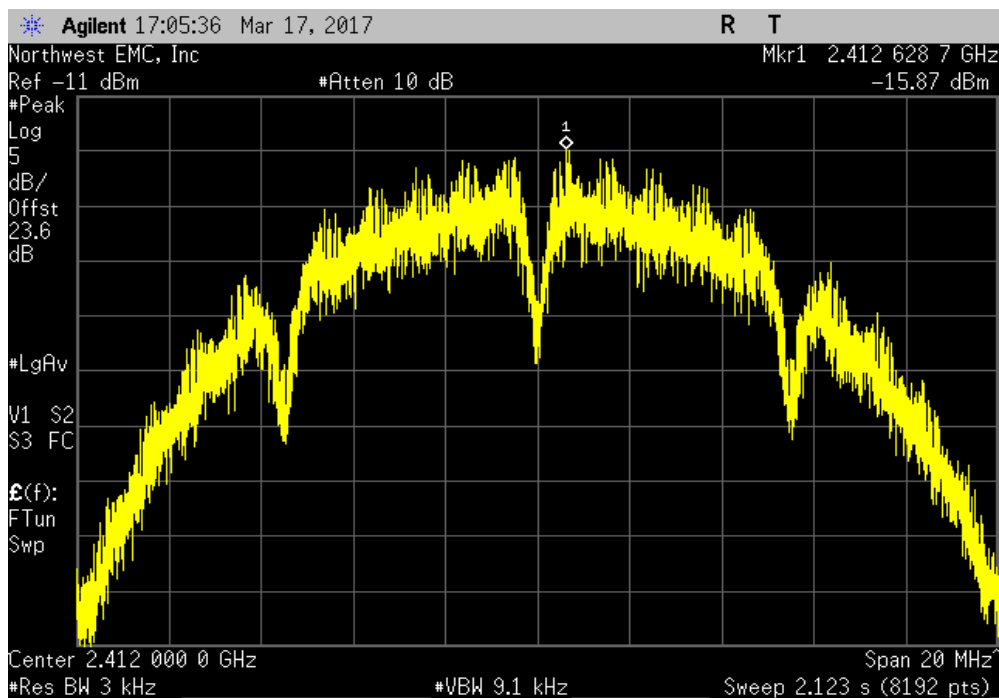
EUT: BLED		Work Order: AWAR0024	
Serial Number: None		Date: 03/20/17	
Customer: Awarepoint Corporation		Temperature: 22.4 °C	
Attendees: None		Humidity: 48.6% RH	
Project: None		Barometric Pres.: 1020 mbar	
Tested by: Mark Baytan		Power: Battery	
		Job Site: OC13	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2017		ANSI C63.10:2013	
COMMENTS			
Reference level offset (DC block + 20 dB attenuator + direct connect cable + patch cable) = 23.6 dB. Power setting = 0.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature 	
		Value dBm/3kHz	Limit < dBm/3kHz
Results			
Low Channel 1, 2412 MHz			
802.11(b) 1 Mbps		-15.869	8
802.11(b) 11 Mbps		-15.138	8
802.11(g) 6 Mbps		-19.974	8
802.11(g) 36 Mbps		-25.074	8
802.11(g) 54 Mbps		-26.809	8
Mid Channel 6, 2437 MHz			
802.11(b) 1 Mbps		-14.497	8
802.11(b) 11 Mbps		-13.885	8
802.11(g) 6 Mbps		-17.531	8
802.11(g) 36 Mbps		-23.003	8
802.11(g) 54 Mbps		-24.249	8
High Channel 11, 2462 MHz			
802.11(b) 1 Mbps		-16.807	8
802.11(b) 11 Mbps		-16.67	8
802.11(g) 6 Mbps		-21.773	8
802.11(g) 36 Mbps		-26.39	8
802.11(g) 54 Mbps		-27.453	8

POWER SPECTRAL DENSITY

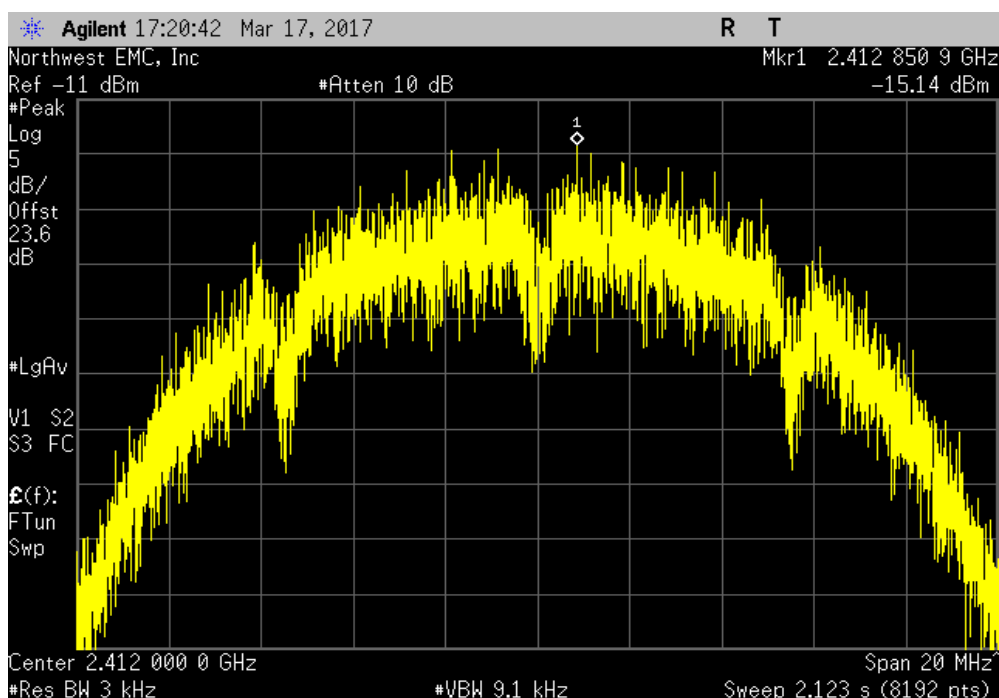


NwTx 2016.09.14.2 XMI 2017.01.26

Low Channel 1, 2412 MHz, 802.11(b) 1 Mbps						
	Value	Limit	Results			
	dBm/3kHz	< dBm/3kHz				
	-15.869	8	Pass			



Low Channel 1, 2412 MHz, 802.11(b) 11 Mbps						
	Value	Limit	Results			
	dBm/3kHz	< dBm/3kHz				
	-15.138	8	Pass			

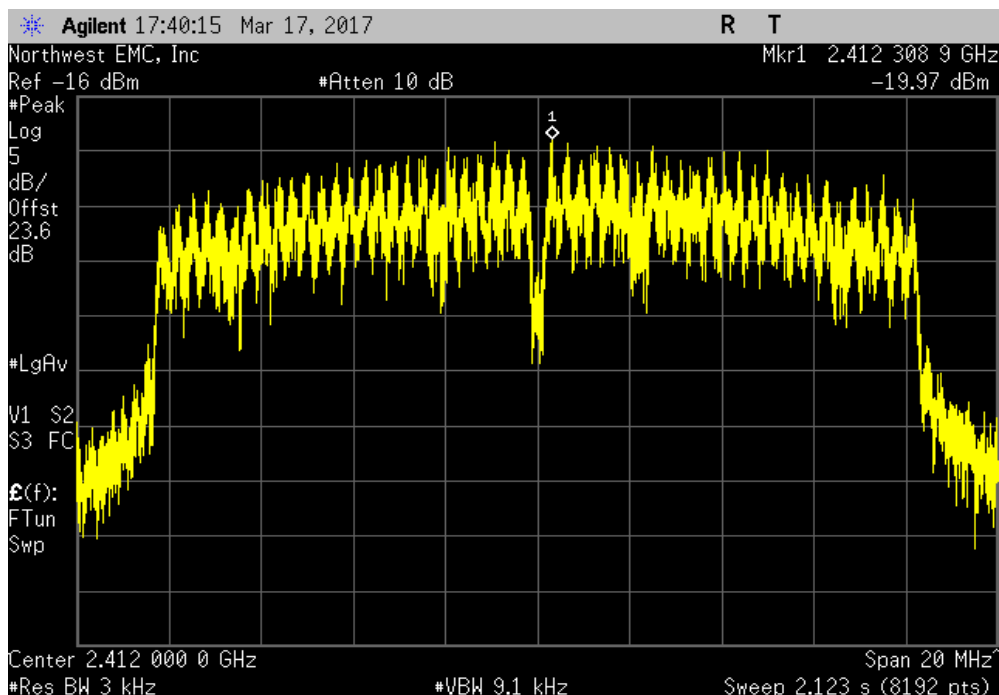


POWER SPECTRAL DENSITY

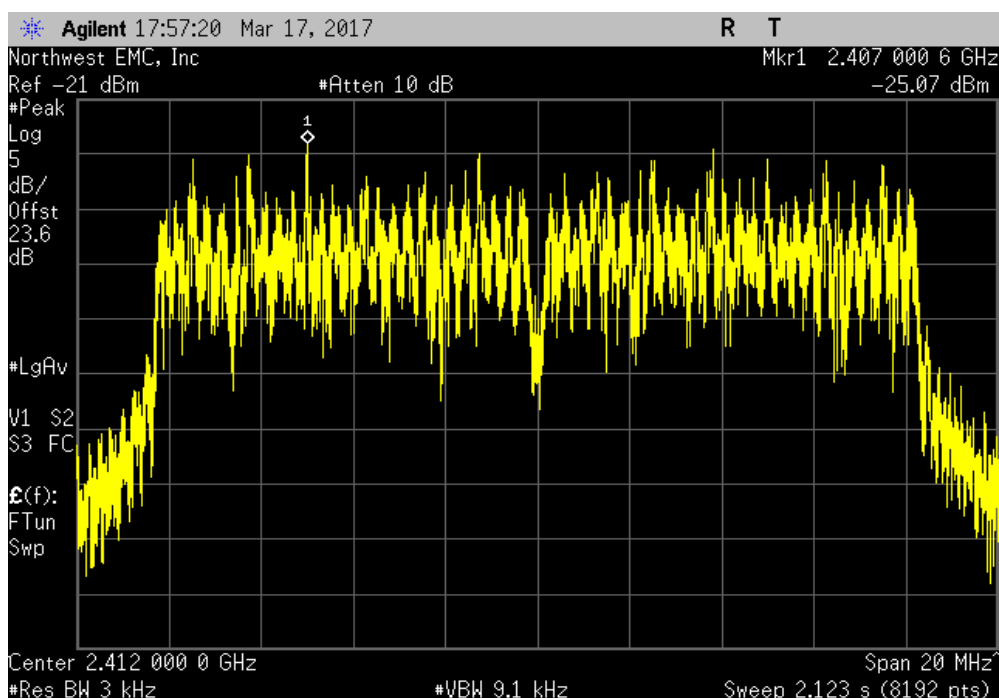


NwTx 2016.09.14.2 XML 2017.01.26

Low Channel 1, 2412 MHz, 802.11(g) 6 Mbps						
	Value	Limit	Results			
	dBm/3kHz	< dBm/3kHz				
	-19.974	8	Pass			



Low Channel 1, 2412 MHz, 802.11(g) 36 Mbps						
	Value	Limit	Results			
	dBm/3kHz	< dBm/3kHz				
	-25.074	8	Pass			

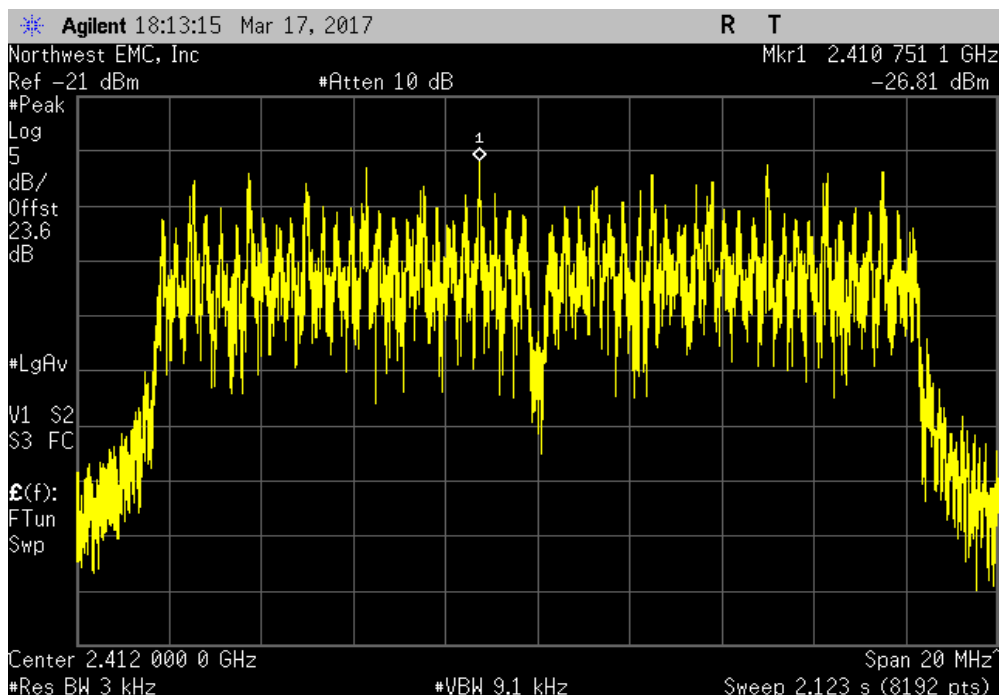


POWER SPECTRAL DENSITY

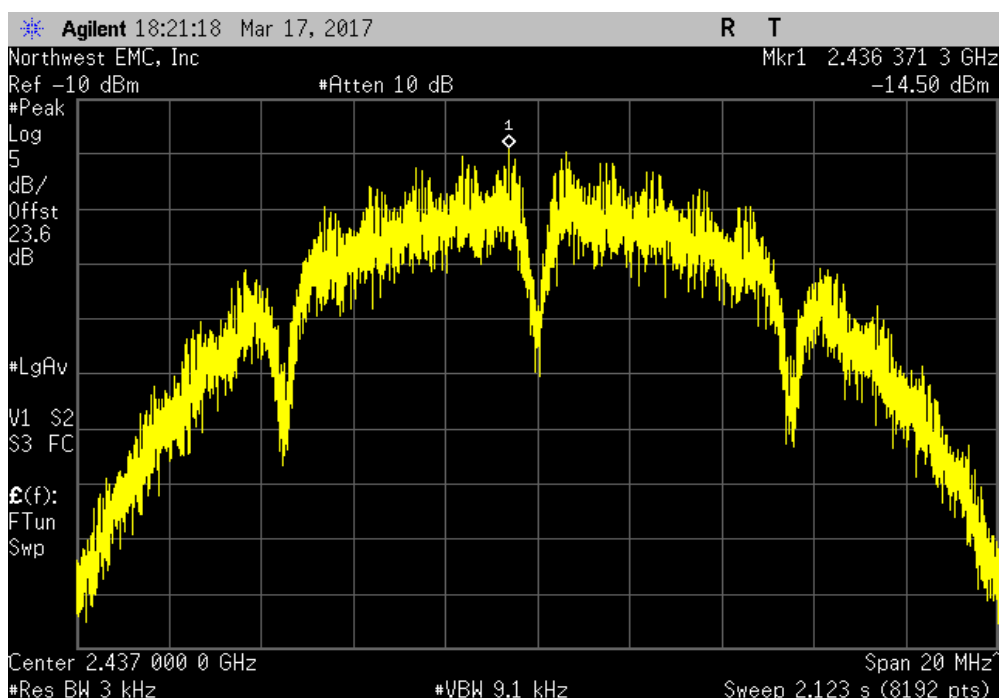


NwTx 2016.09.14.2 XMI 2017.01.26

Low Channel 1, 2412 MHz, 802.11(g) 54 Mbps						
	Value	Limit	Results			
	dBm/3kHz	< dBm/3kHz				
	-26.809	8	Pass			



Mid Channel 6, 2437 MHz, 802.11(b) 1 Mbps						
	Value	Limit	Results			
	dBm/3kHz	< dBm/3kHz				
	-14.497	8	Pass			

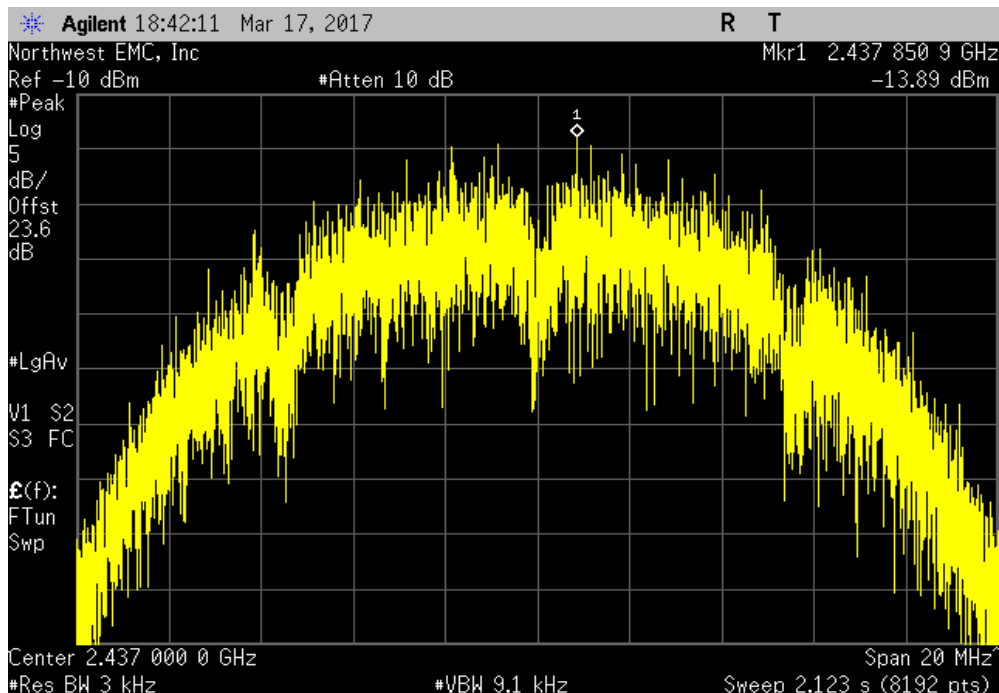


POWER SPECTRAL DENSITY

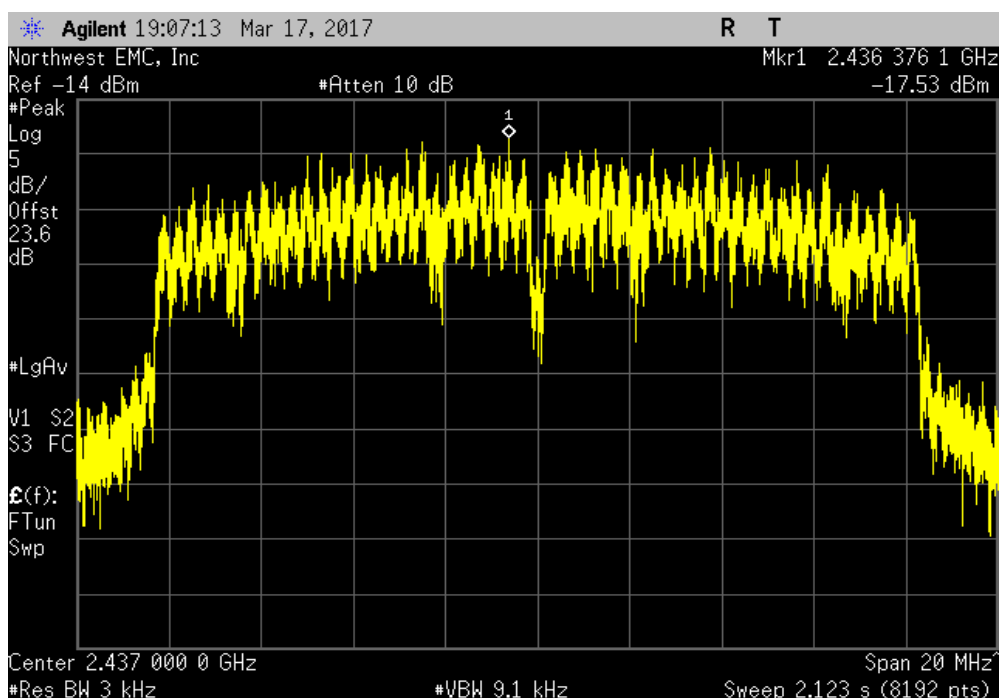


NweTx 2016.09.14.2 XMI 2017.01.26

Mid Channel 6, 2437 MHz, 802.11(b) 11 Mbps						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-13.885	8	Pass



Mid Channel 6, 2437 MHz, 802.11(g) 6 Mbps						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-17.531	8	Pass

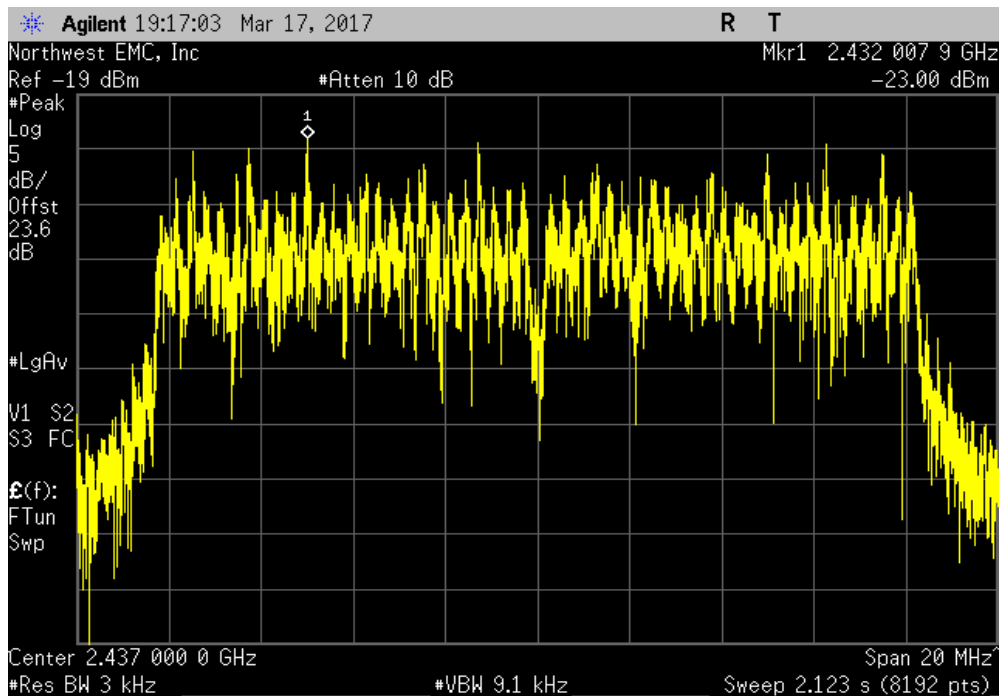


POWER SPECTRAL DENSITY

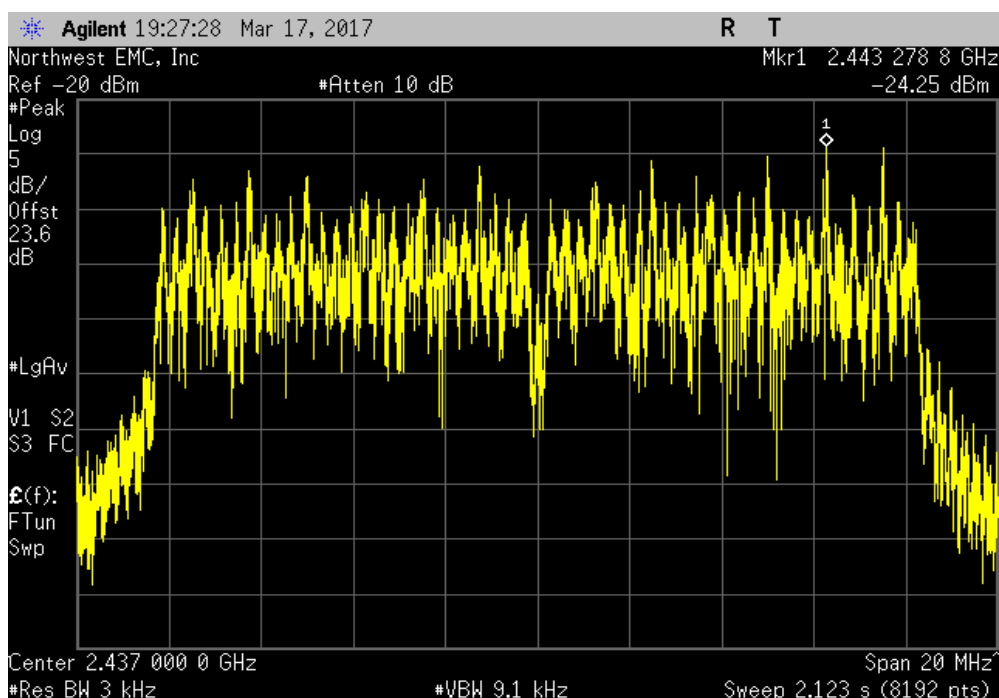


NwTx 2016.09.14.2 XMI 2017.01.26

Mid Channel 6, 2437 MHz, 802.11(g) 36 Mbps						
				Value	Limit	Results
				dBm/3kHz	< dBm/3kHz	
				-23.003	8	Pass



Mid Channel 6, 2437 MHz, 802.11(g) 54 Mbps						
				Value	Limit	Results
				dBm/3kHz	< dBm/3kHz	
				-24.249	8	Pass

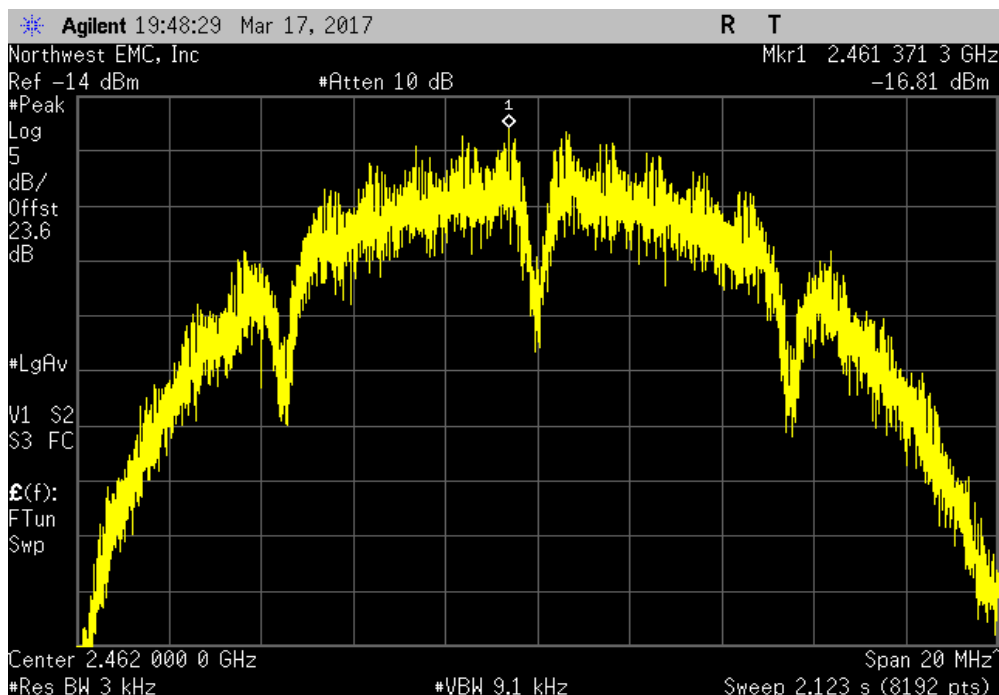


POWER SPECTRAL DENSITY

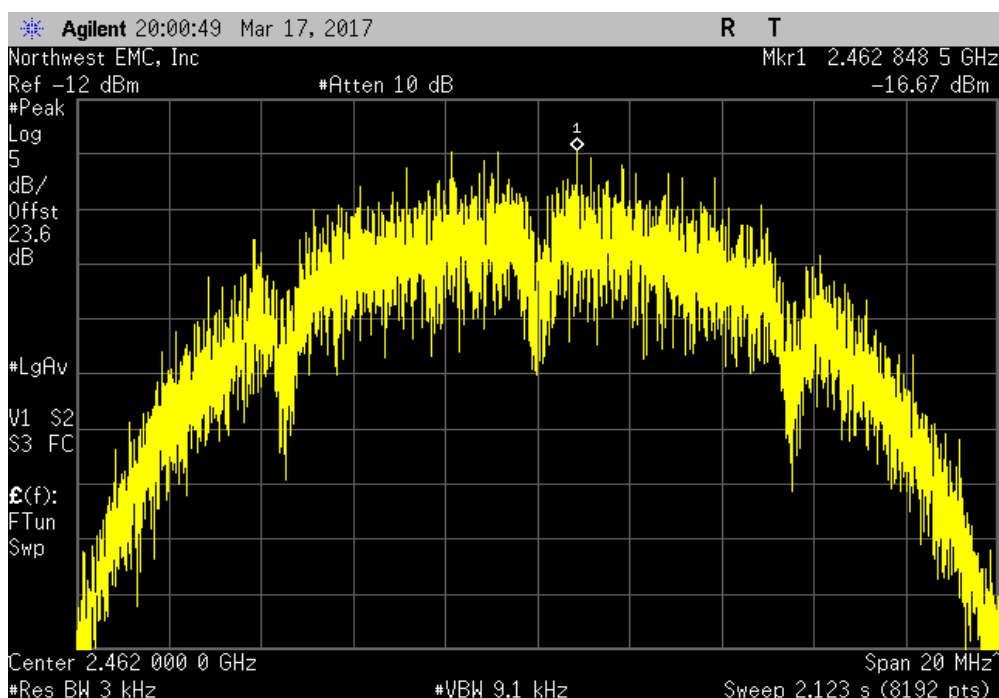


NwTx 2016.09.14.2 XML 2017.01.26

High Channel 11, 2462 MHz, 802.11(b) 1 Mbps						
				Value	Limit	Results
				dBm/3kHz	< dBm/3kHz	
				-16.807	8	Pass



High Channel 11, 2462 MHz, 802.11(b) 11 Mbps						
				Value	Limit	Results
				dBm/3kHz	< dBm/3kHz	
				-16.67	8	Pass

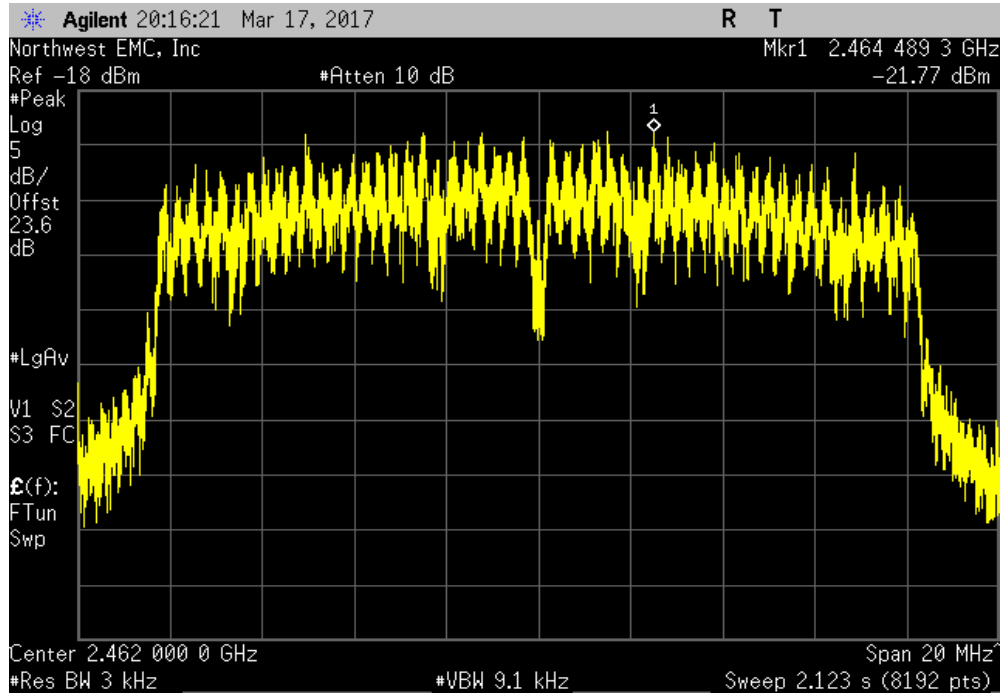


POWER SPECTRAL DENSITY

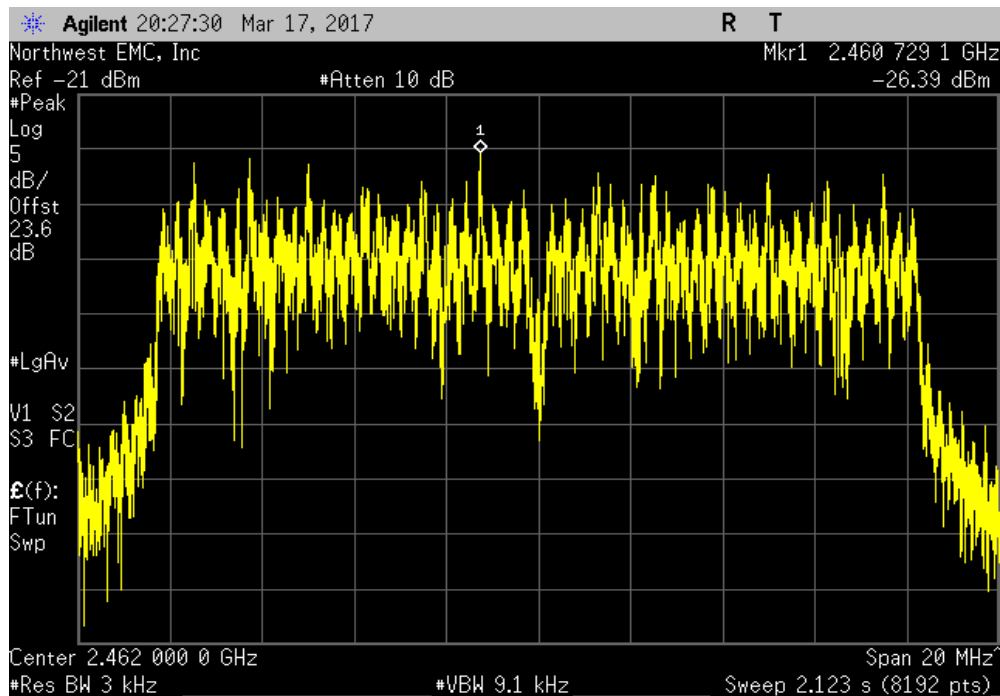


NwTx 2016.09.14.2 XMI 2017.01.26

High Channel 11, 2462 MHz, 802.11(g) 6 Mbps						
	Value	Limit				
	dBm/3kHz	< dBm/3kHz	Results			
	-21.773	8	Pass			



High Channel 11, 2462 MHz, 802.11(g) 36 Mbps						
	Value	Limit				
	dBm/3kHz	< dBm/3kHz	Results			
	-26.39	8	Pass			

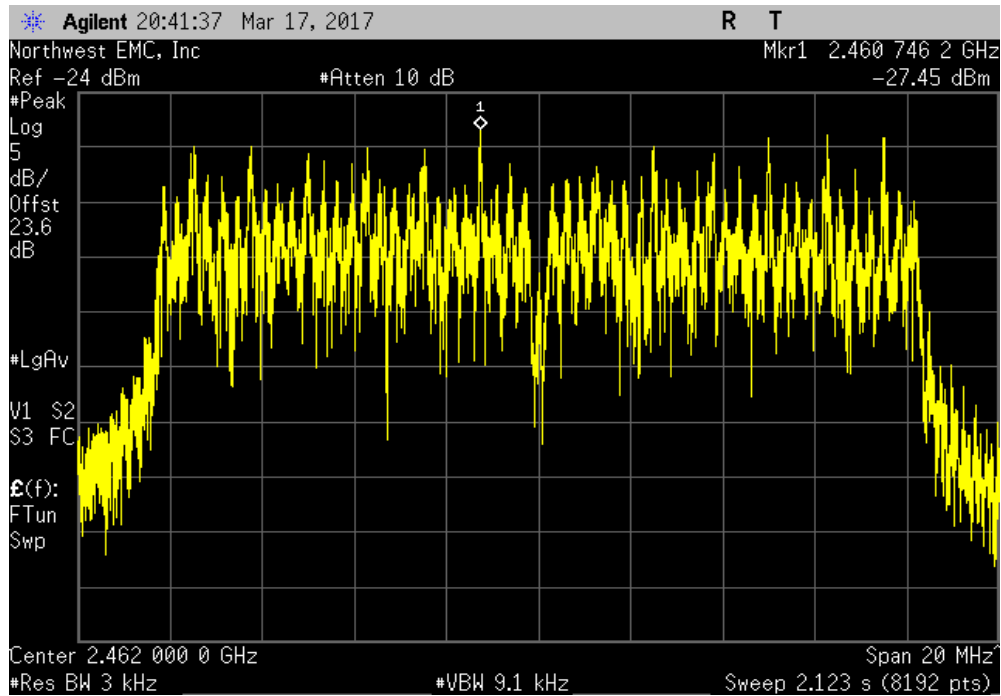


POWER SPECTRAL DENSITY



NwTz 2016.09.14.2 XML 2017.01.26

High Channel 11, 2462 MHz, 802.11(g) 54 Mbps						
			Value	Limit		
			dBm/3kHz	< dBm/3kHz	Results	
			-27.453	8	Pass	



BAND EDGE COMPLIANCE



XMIT 2017.01.26

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.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFA	11/2/2016	11/2/2017
Block - DC	Fairview Microwave	SD3379	AMV	1/11/2017	1/11/2018
Attenuator	Fairview Microwave	SA18H-20	TKR	1/5/2017	1/5/2018
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Generator - Signal	Agilent	E8257D	TGU	2/5/2015	2/5/2018

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. 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 EUT was transmitting at the data rate(s) listed in the datasheet.

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

BAND EDGE COMPLIANCE



NweTx 2016.09.14.2 XMit 2017.01.25

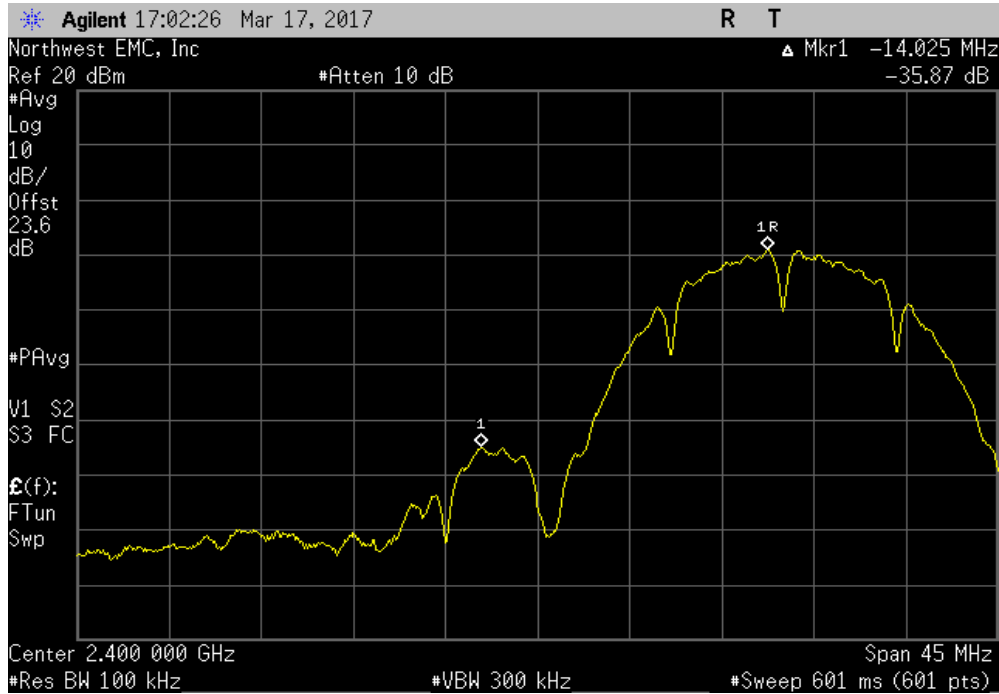
EUT: BLED		Work Order: AWAR0024	
Serial Number: None		Date: 03/20/17	
Customer: Awarepoint Corporation		Temperature: 22.4 °C	
Attendees: None		Humidity: 48.6% RH	
Project: None		Barometric Pres.: 1020 mbar	
Tested by: Mark Baytan	Power: Battery	Job Site: OC13	
TEST SPECIFICATIONS			
FCC 15.247:2017		Test Method	
		ANSI C63.10:2013	
COMMENTS			
Reference level offset (DC block + 20 dB attenuator + direct connect cable + patch cable) = 23.6 dB. Power setting = 0.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	<i>Signature</i> 	
		Value (dBc)	Limit ≤ (dBc)
Low Channel 1, 2412 MHz			
	802.11(b) 1 Mbps	-35.87	-30
	802.11(b) 11 Mbps	-34.33	-30
	802.11(g) 6 Mbps	-31.46	-30
	802.11(g) 36 Mbps	-33.18	-30
	802.11(g) 54 Mbps	-34.34	-30
High Channel 11, 2462 MHz			
	802.11(b) 1 Mbps	-50.19	-30
	802.11(b) 11 Mbps	-48.49	-30
	802.11(g) 6 Mbps	-45.54	-30
	802.11(g) 36 Mbps	-45.93	-30
	802.11(g) 54 Mbps	-45.92	-30

BAND EDGE COMPLIANCE

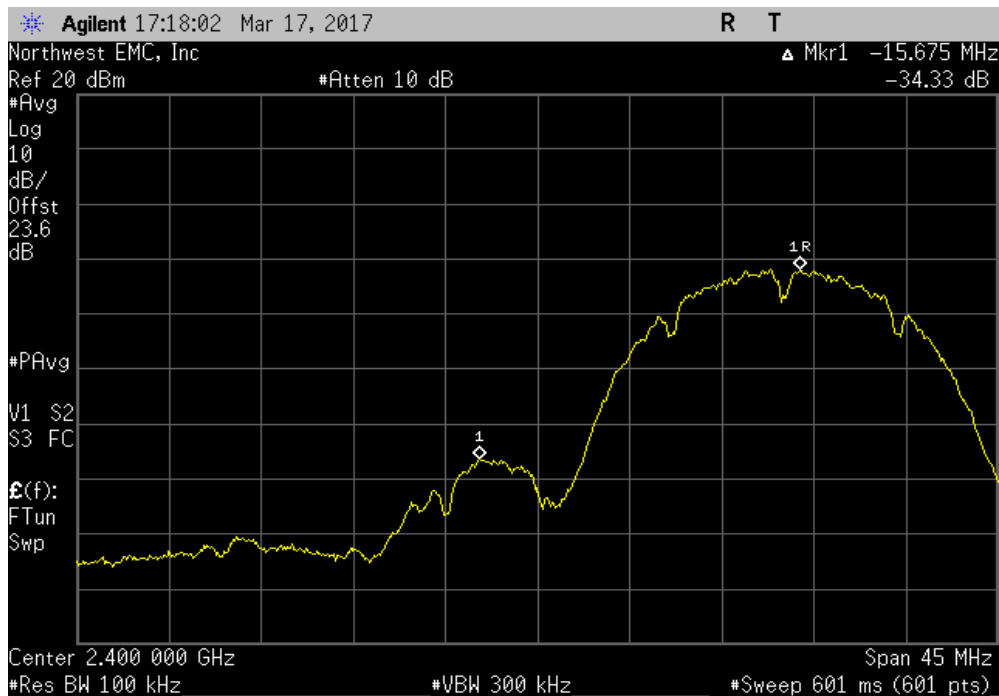


NwTx 2016.09.14.2 XMI 2017.01.26

Low Channel 1, 2412 MHz, 802.11(b) 1 Mbps						
				Value (dBc)	Limit ≤ (dBc)	Result
				-35.87	-30	Pass



Low Channel 1, 2412 MHz, 802.11(b) 11 Mbps						
				Value (dBc)	Limit ≤ (dBc)	Result
				-34.33	-30	Pass

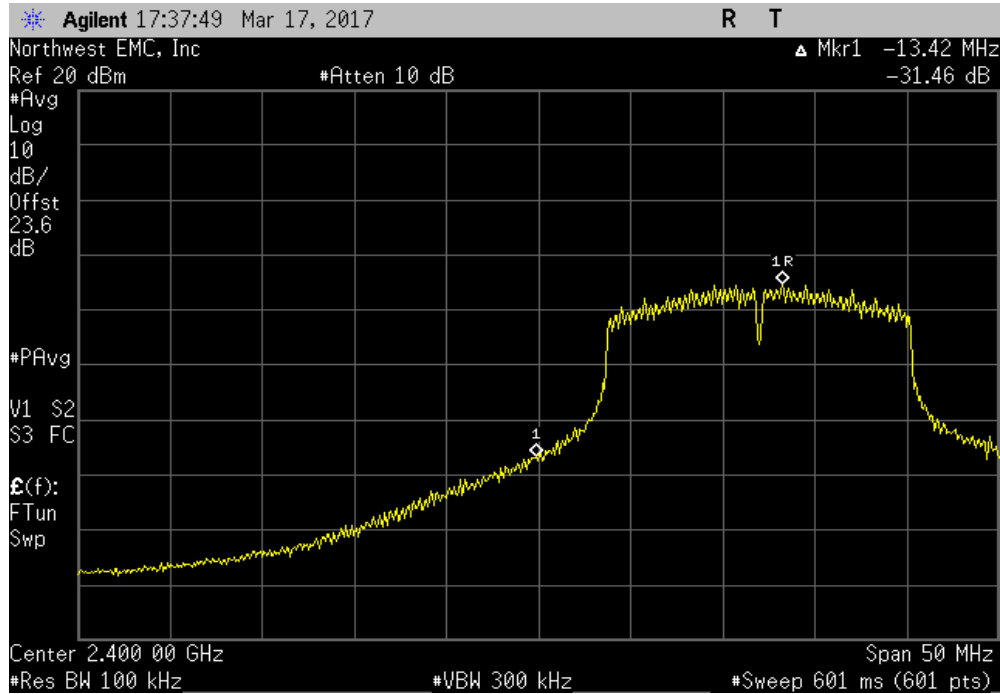


BAND EDGE COMPLIANCE

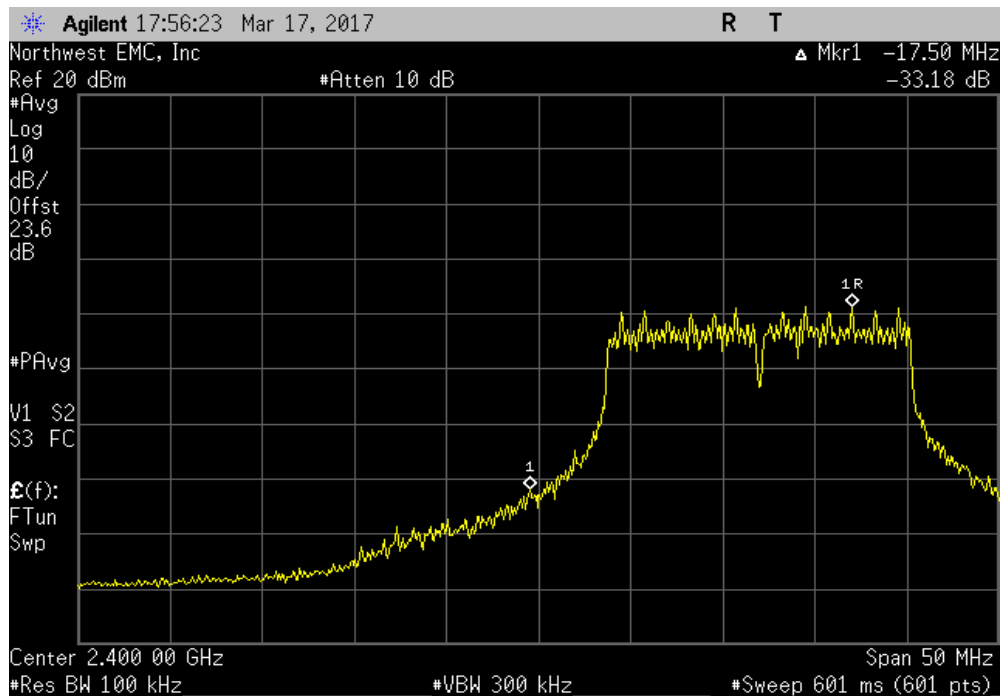


NwTz 2016.09.14.2 XMI 2017.01.26

Low Channel 1, 2412 MHz, 802.11(g) 6 Mbps						
				Value (dBc)	Limit ≤ (dBc)	Result
				-31.46	-30	Pass



Low Channel 1, 2412 MHz, 802.11(g) 36 Mbps						
				Value (dBc)	Limit ≤ (dBc)	Result
				-33.18	-30	Pass

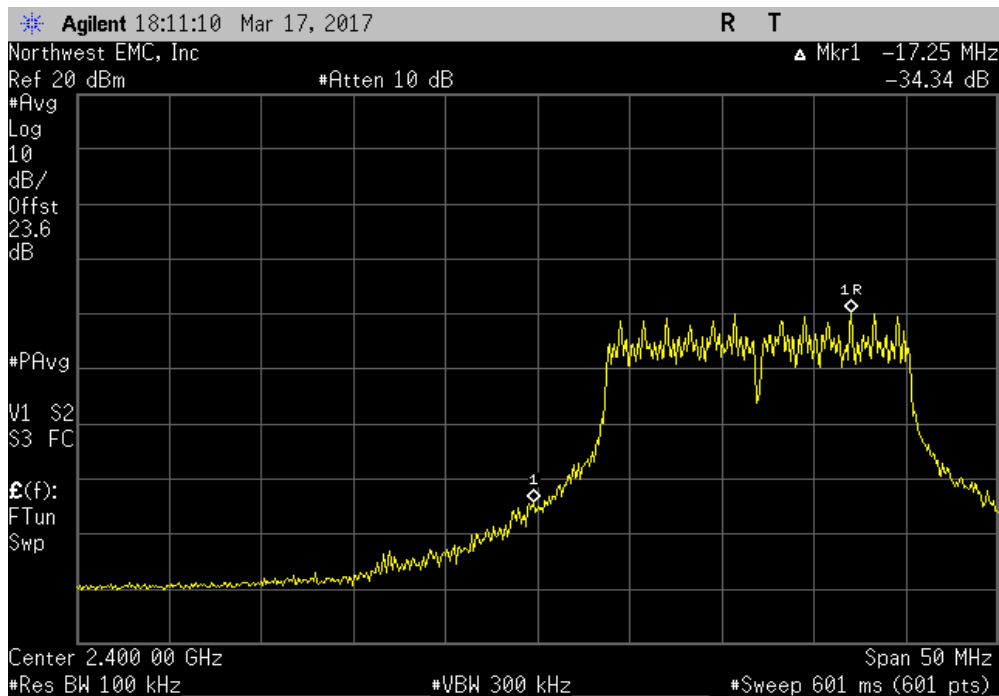


BAND EDGE COMPLIANCE

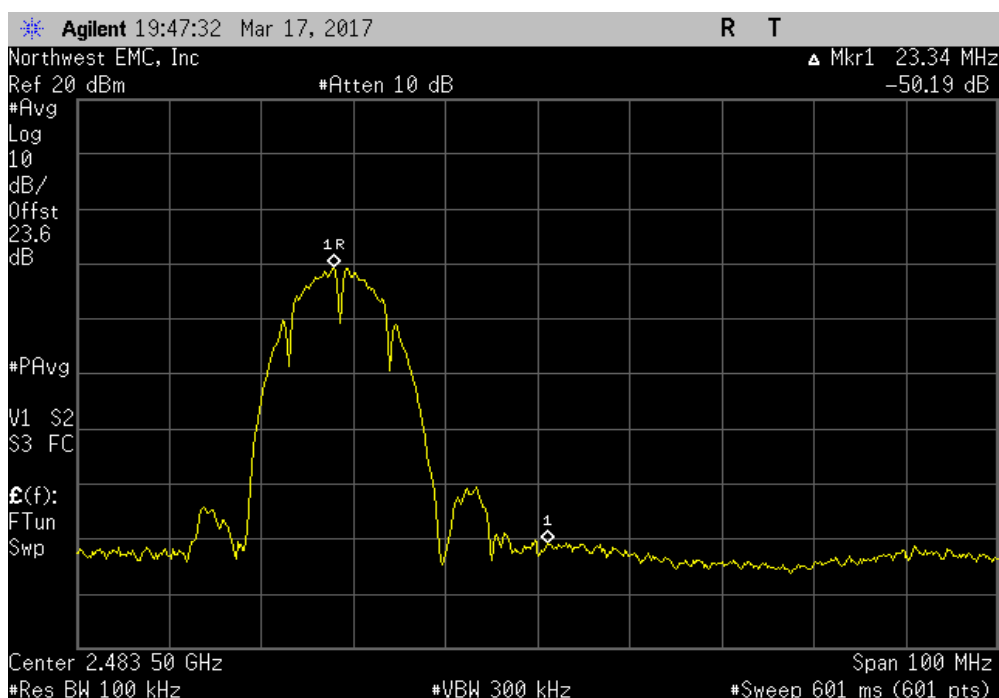


NwTx 2016.09.14.2 XMI 2017.01.26

Low Channel 1, 2412 MHz, 802.11(g) 54 Mbps						
				Value (dBc)	Limit ≤ (dBc)	Result
				-34.34	-30	Pass



High Channel 11, 2462 MHz, 802.11(b) 1 Mbps						
				Value (dBc)	Limit ≤ (dBc)	Result
				-50.19	-30	Pass

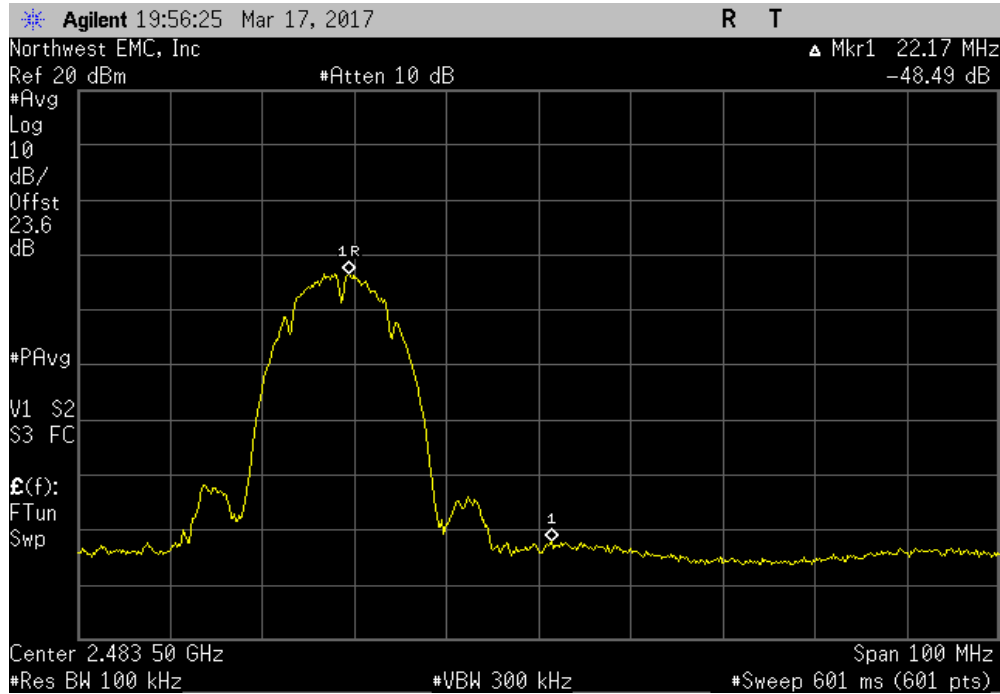


BAND EDGE COMPLIANCE

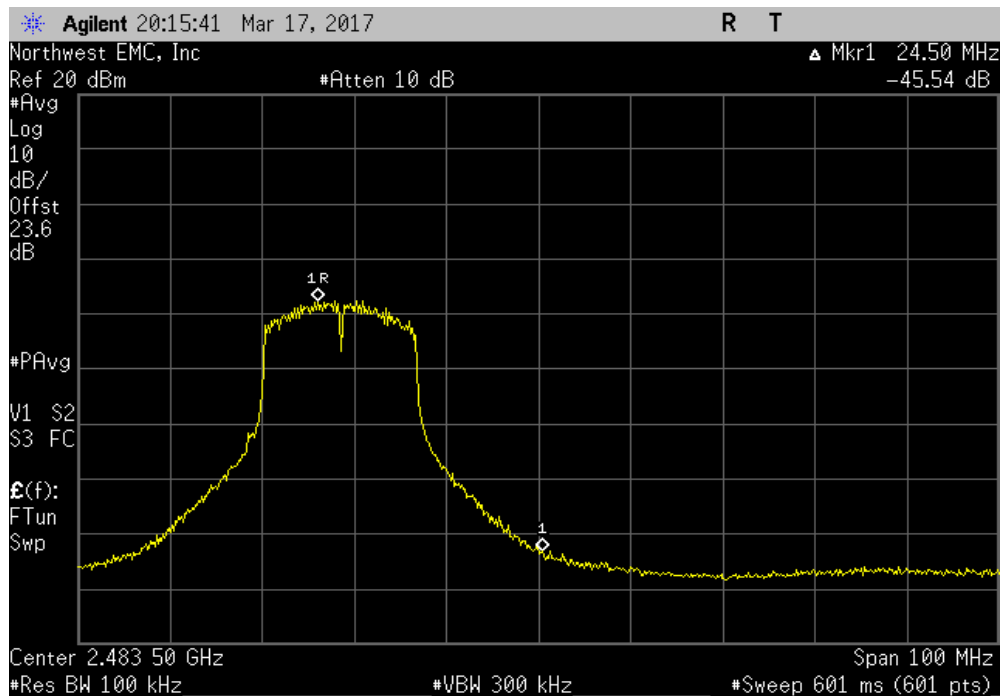


NwTx 2016.09.14.2 XMI 2017.01.26

High Channel 11, 2462 MHz, 802.11(b) 11 Mbps						
				Value (dBc)	Limit ≤ (dBc)	Result
				-48.49	-30	Pass



High Channel 11, 2462 MHz, 802.11(g) 6 Mbps						
				Value (dBc)	Limit ≤ (dBc)	Result
				-45.54	-30	Pass

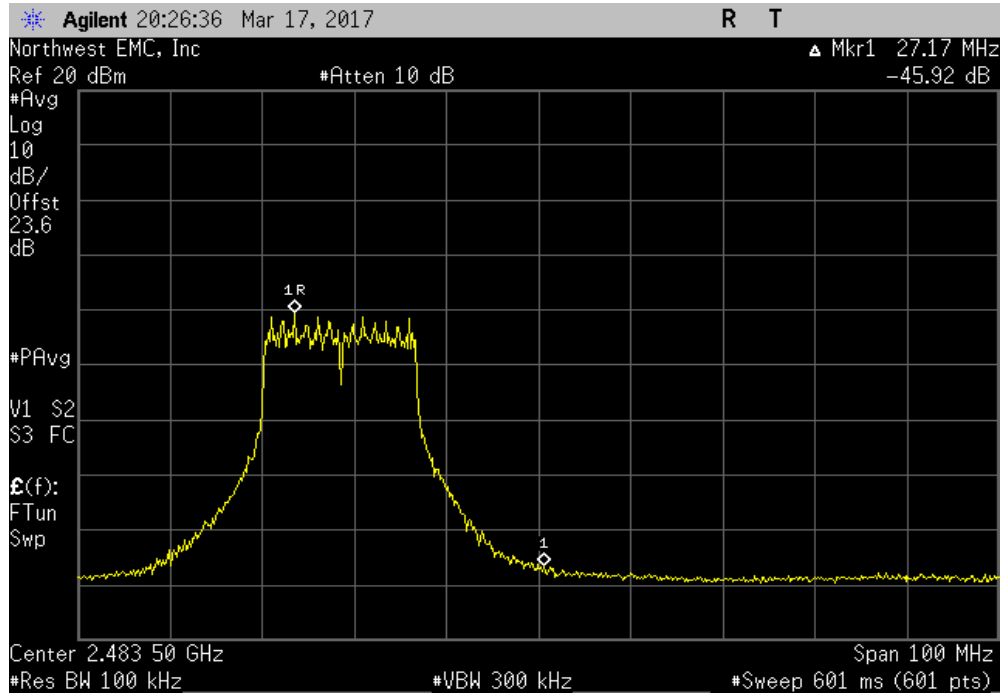


BAND EDGE COMPLIANCE

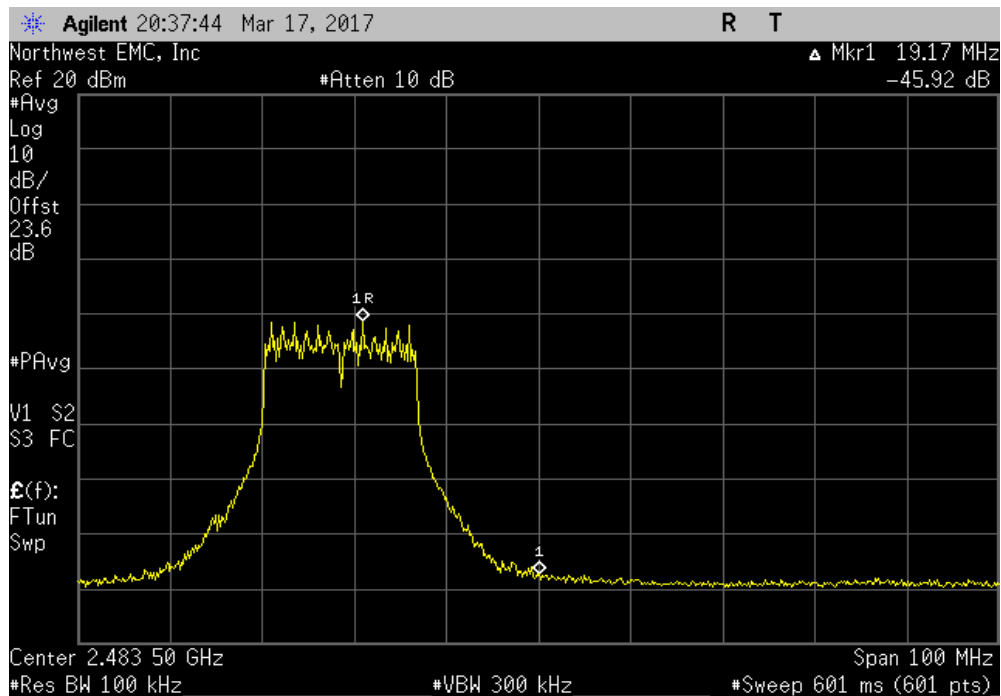


NwTx 2016.09.14.2 XMI 2017.01.26

High Channel 11, 2462 MHz, 802.11(g) 36 Mbps						
				Value (dBc)	Limit ≤ (dBc)	Result
				-45.93	-30	Pass



High Channel 11, 2462 MHz, 802.11(g) 54 Mbps						
				Value (dBc)	Limit ≤ (dBc)	Result
				-45.92	-30	Pass



SPURIOUS CONDUCTED EMISSIONS



XMit 2017.01.26

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.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFA	11/2/2016	11/2/2017
Block - DC	Fairview Microwave	SD3379	AMV	1/11/2017	1/11/2018
Attenuator	Fairview Microwave	SA18H-20	TKR	1/5/2017	1/5/2018
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Generator - Signal	Agilent	E8257D	TGU	2/5/2015	2/5/2018

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The spurious RF conducted emissions were measured with the EUT set to low, medium and high transmit frequencies. 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



EUT: BLED

Serial Number: None

Customer: Awarepoint Corporation

Attendees: None

Project: None

Tested by: Mark Baytan

Power: Battery

Work Order: AWA0024

Date: 03/20/17

Temperature: 22.4 °C

Humidity: 48.6% RH

Barometric Pres.: 1020 mbar

Job Site: OC13

TEST SPECIFICATIONS

FCC 15.247:2017

Test Method

ANSI C63.10:2013

COMMENTS

Reference level offset (DC block + 20 dB attenuator + direct connect cable + patch cable) = 23.6 dB. Power setting = 0.

DEVIATIONS FROM TEST STANDARD

None

Configuration #

2

Signature



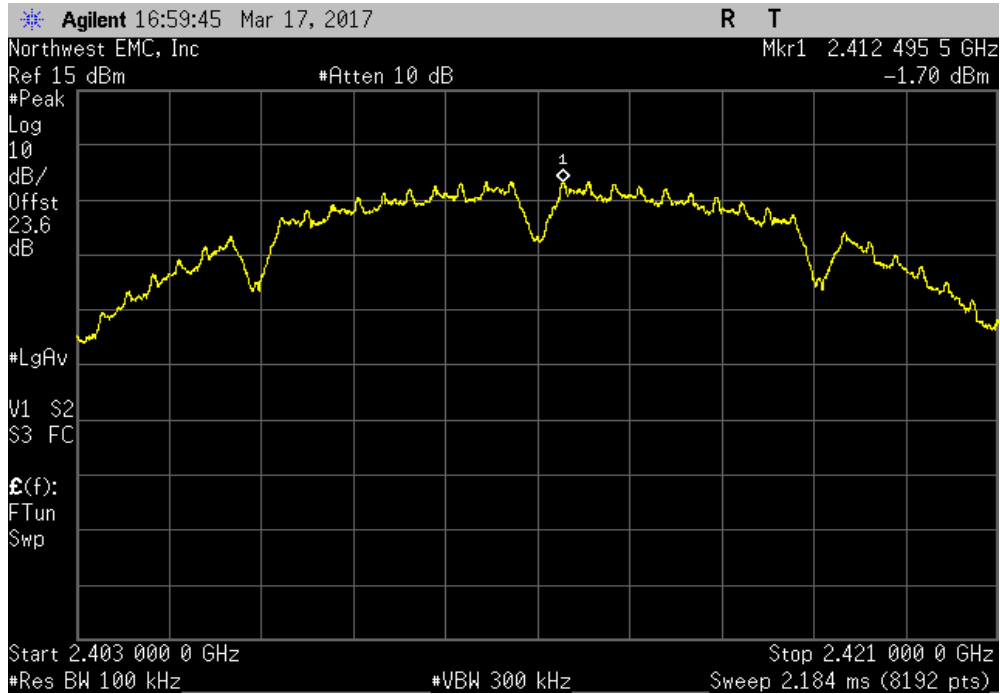
	Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result
Low Channel 1, 2412 MHz				
802.11(b) 1 Mbps	Fundamental	N/A	N/A	N/A
802.11(b) 1 Mbps	30 MHz - 12.5 GHz	-48.33	-30	Pass
802.11(b) 1 Mbps	12.5 GHz - 25 GHz	-49.58	-30	Pass
802.11(b) 11 Mbps	Fundamental	N/A	N/A	N/A
802.11(b) 11 Mbps	30 MHz - 12.5 GHz	-50.18	-30	Pass
802.11(b) 11 Mbps	12.5 GHz - 25 GHz	-51.64	-30	Pass
802.11(g) 6 Mbps	Fundamental	N/A	N/A	N/A
802.11(g) 6 Mbps	30 MHz - 12.5 GHz	-48.38	-30	Pass
802.11(g) 6 Mbps	12.5 GHz - 25 GHz	-48.26	-30	Pass
802.11(g) 36 Mbps	Fundamental	N/A	N/A	N/A
802.11(g) 36 Mbps	30 MHz - 12.5 GHz	-48.17	-30	Pass
802.11(g) 36 Mbps	12.5 GHz - 25 GHz	-44.8	-30	Pass
802.11(g) 54 Mbps	Fundamental	N/A	N/A	N/A
802.11(g) 54 Mbps	30 MHz - 12.5 GHz	-39.31	-30	Pass
802.11(g) 54 Mbps	12.5 GHz - 25 GHz	-42.91	-30	Pass
Mid Channel 6, 2437 MHz				
802.11(b) 1 Mbps	Fundamental	N/A	N/A	N/A
802.11(b) 1 Mbps	30 MHz - 12.5 GHz	-48.35	-30	Pass
802.11(b) 1 Mbps	12.5 GHz - 25 GHz	-50.69	-30	Pass
802.11(b) 11 Mbps	Fundamental	N/A	N/A	N/A
802.11(b) 11 Mbps	30 MHz - 12.5 GHz	-49.87	-30	Pass
802.11(b) 11 Mbps	12.5 GHz - 25 GHz	-52.59	-30	Pass
802.11(g) 6 Mbps	Fundamental	N/A	N/A	N/A
802.11(g) 6 Mbps	30 MHz - 12.5 GHz	-50.08	-30	Pass
802.11(g) 6 Mbps	12.5 GHz - 25 GHz	-50.6	-30	Pass
802.11(g) 36 Mbps	Fundamental	N/A	N/A	N/A
802.11(g) 36 Mbps	30 MHz - 12.5 GHz	-49.9	-30	Pass
802.11(g) 36 Mbps	12.5 GHz - 25 GHz	-46.91	-30	Pass
802.11(g) 54 Mbps	Fundamental	N/A	N/A	N/A
802.11(g) 54 Mbps	30 MHz - 12.5 GHz	-44.14	-30	Pass
802.11(g) 54 Mbps	12.5 GHz - 25 GHz	-45.88	-30	Pass
High Channel 11, 2462 MHz				
802.11(b) 1 Mbps	Fundamental	N/A	N/A	N/A
802.11(b) 1 Mbps	30 MHz - 12.5 GHz	-48.37	-30	Pass
802.11(b) 1 Mbps	12.5 GHz - 25 GHz	-48.29	-30	Pass
802.11(b) 11 Mbps	Fundamental	N/A	N/A	N/A
802.11(b) 11 Mbps	30 MHz - 12.5 GHz	-49.96	-30	Pass
802.11(b) 11 Mbps	12.5 GHz - 25 GHz	-49.83	-30	Pass
802.11(g) 6 Mbps	Fundamental	N/A	N/A	N/A
802.11(g) 6 Mbps	30 MHz - 12.5 GHz	-48.37	-30	Pass
802.11(g) 6 Mbps	12.5 GHz - 25 GHz	-46.55	-30	Pass
802.11(g) 36 Mbps	Fundamental	N/A	N/A	N/A
802.11(g) 36 Mbps	30 MHz - 12.5 GHz	-38.11	-30	Pass
802.11(g) 36 Mbps	12.5 GHz - 25 GHz	-43.66	-30	Pass
802.11(g) 54 Mbps	Fundamental	N/A	N/A	N/A
802.11(g) 54 Mbps	30 MHz - 12.5 GHz	-40.35	-30	Pass
802.11(g) 54 Mbps	12.5 GHz - 25 GHz	-43.1	-30	Pass

SPURIOUS CONDUCTED EMISSIONS

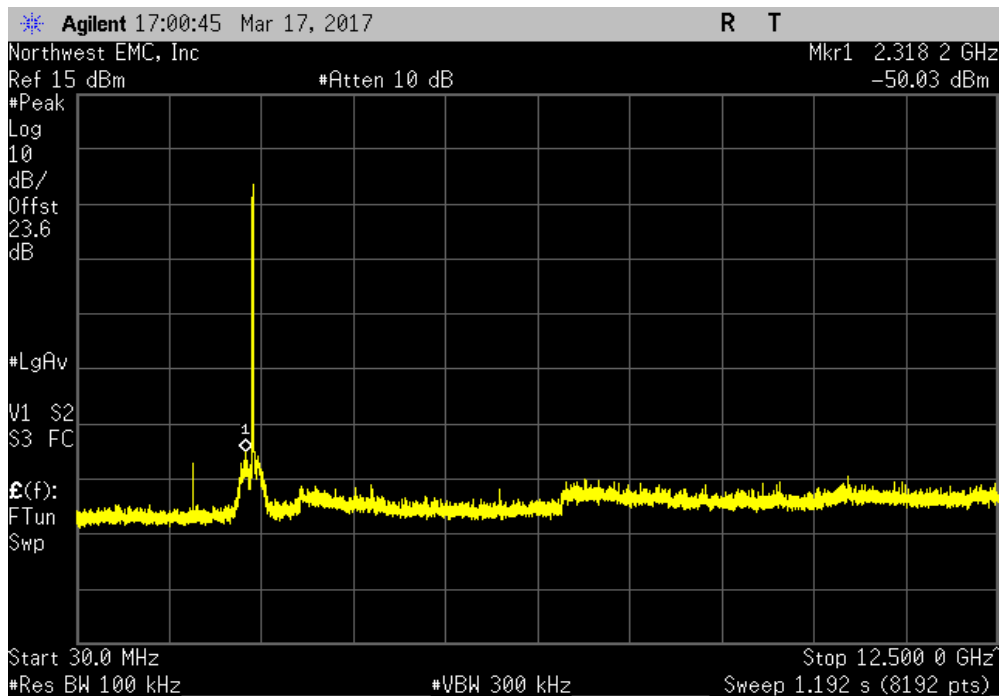


NweTs 2016.09.14.2 XMI 2017.01.26

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



Low Channel 1, 2412 MHz, 802.11(b) 1 Mbps						
Frequency Range		Max Value (dBc)		Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz		-48.33		-30	Pass	

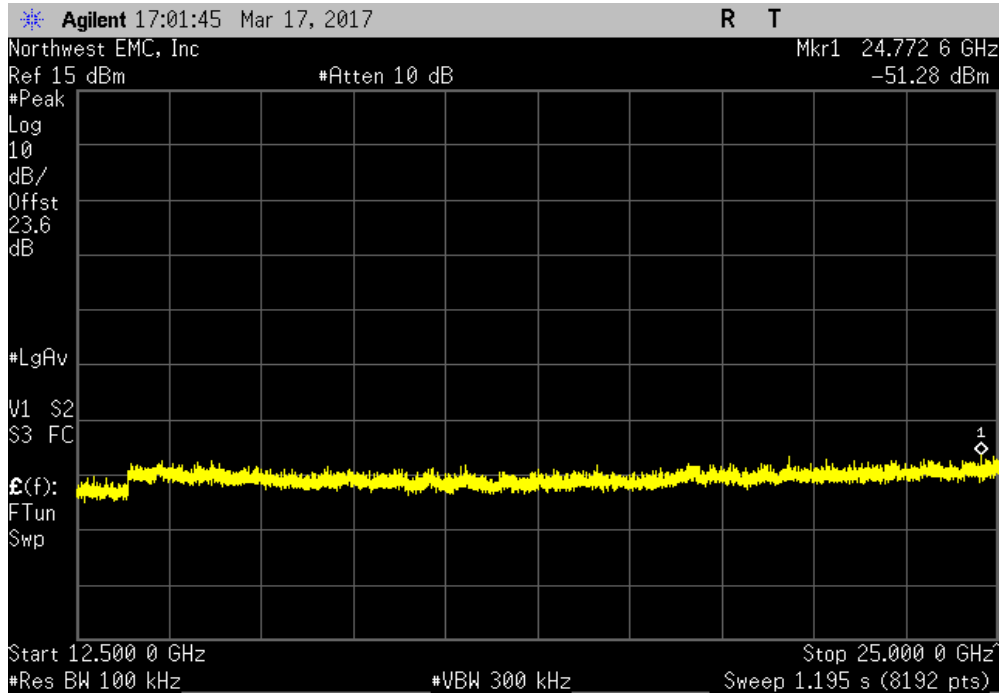


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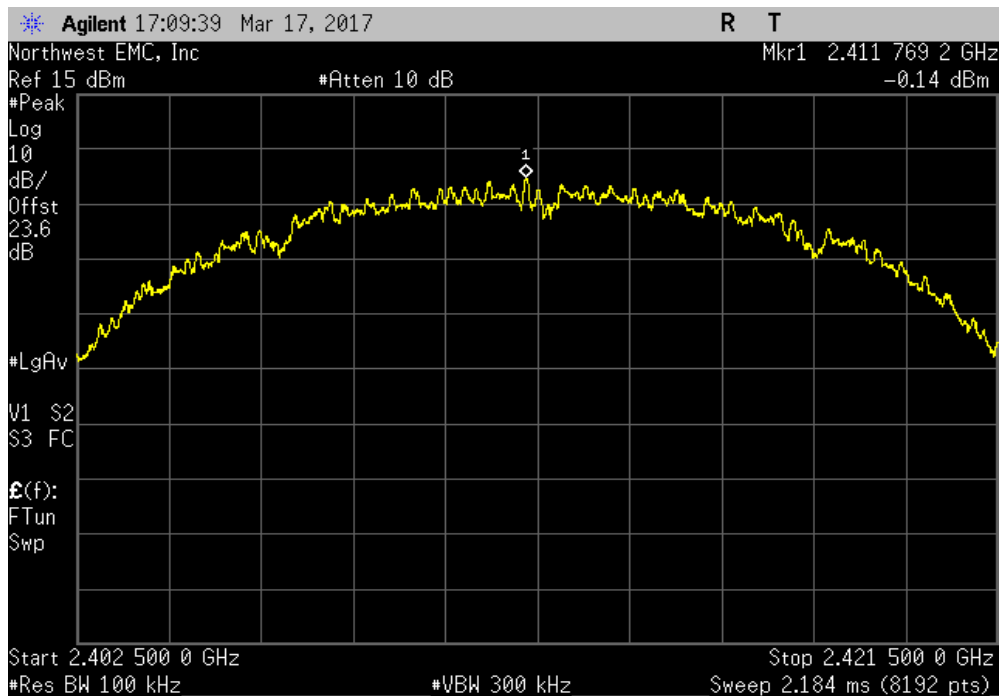


NwTx 2016.09.14.2 XMI 2017.01.26

Low Channel 1, 2412 MHz, 802.11(b) 1 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-49.58	-30	Pass	



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

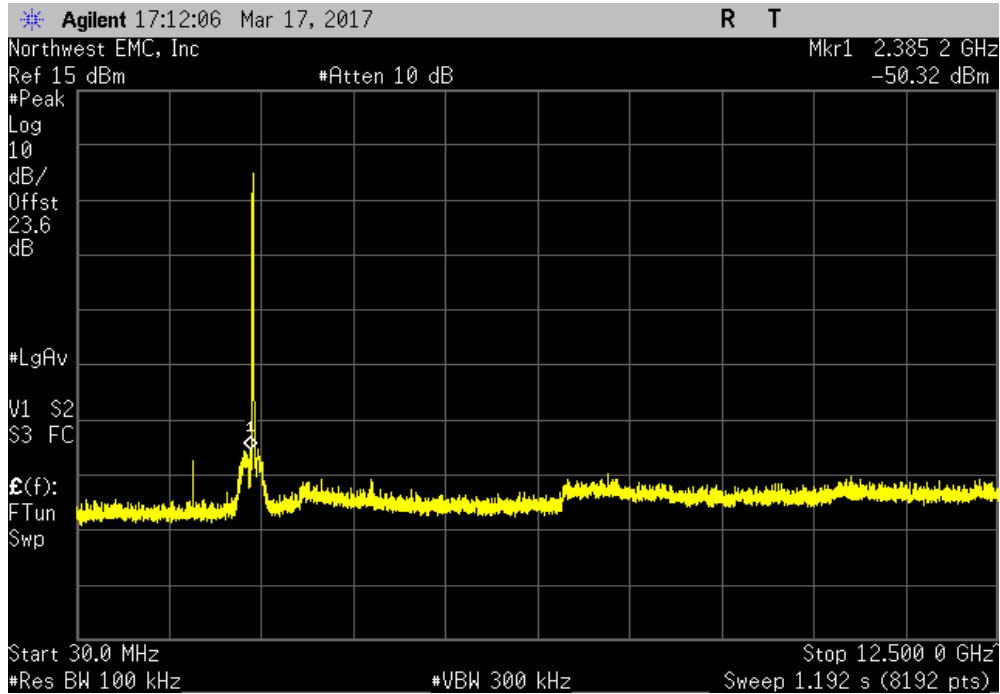


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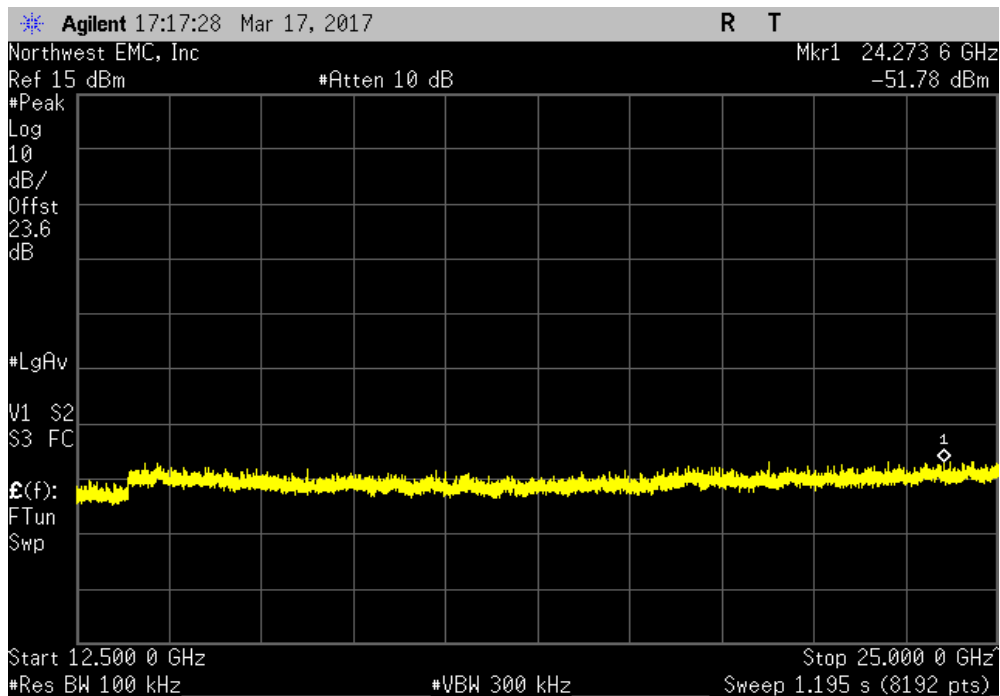


NwTx 2016.09.14.2 XMI 2017.01.26

Low Channel 1, 2412 MHz, 802.11(b) 11 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-50.18	-30	Pass	



Low Channel 1, 2412 MHz, 802.11(b) 11 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-51.64	-30	Pass	

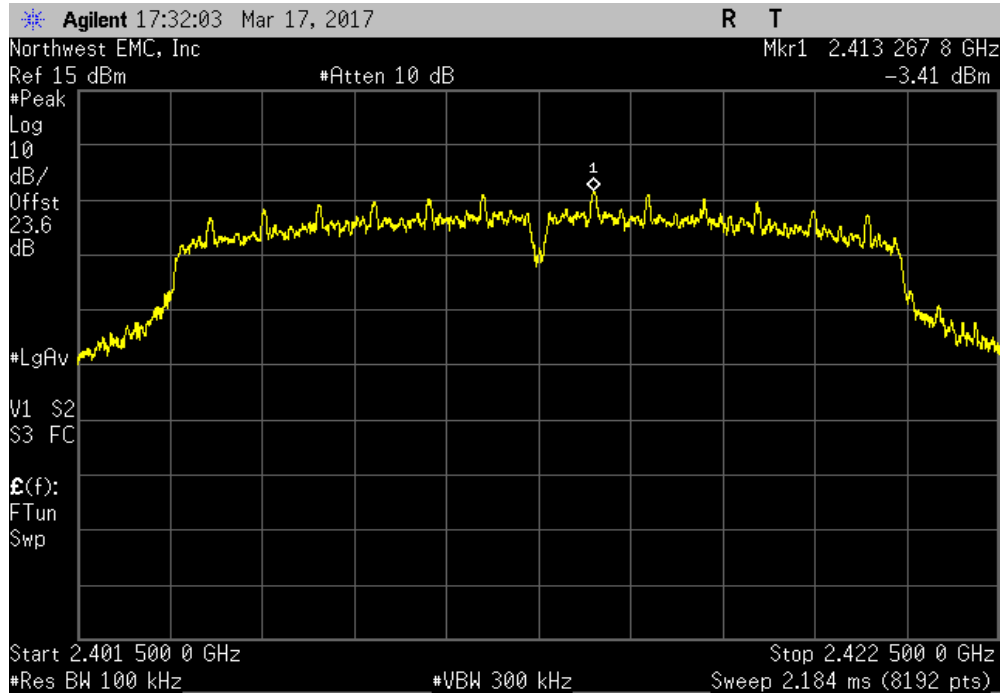


SPURIOUS CONDUCTED EMISSIONS

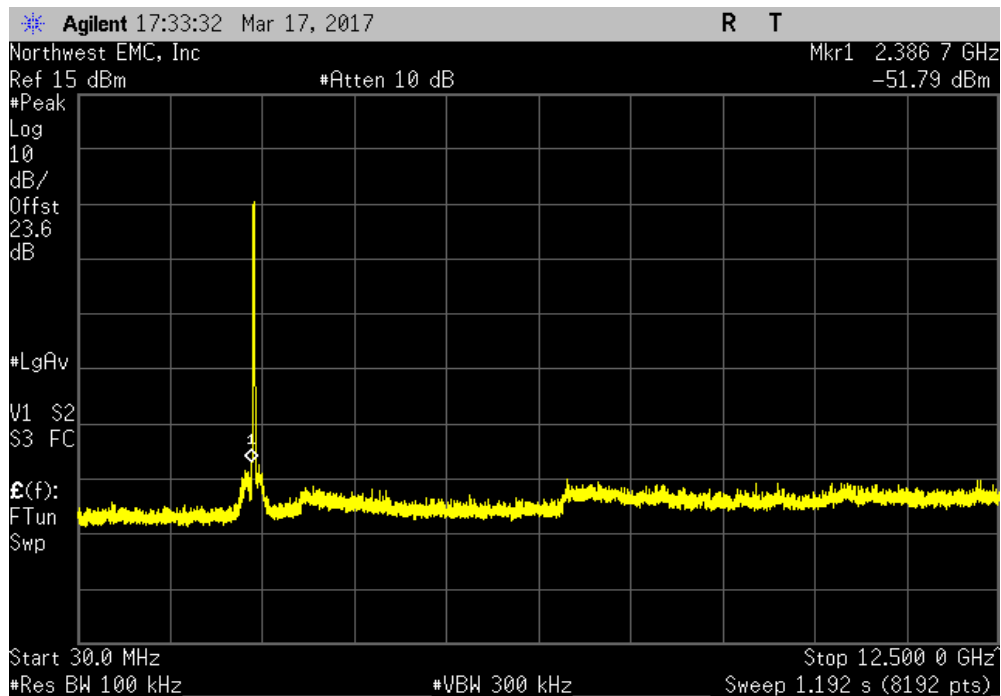


NweTs 2016.09.14.2 XML 2017.01.26

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



Low Channel 1, 2412 MHz, 802.11(g) 6 Mbps						
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result		
30 MHz - 12.5 GHz		-48.38	-30	Pass		

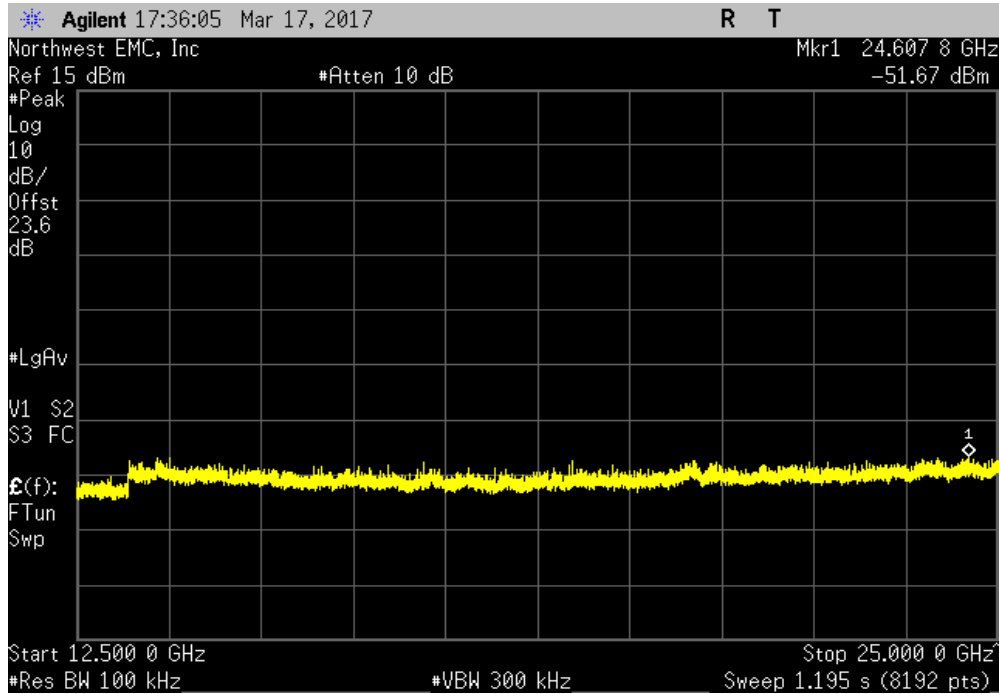


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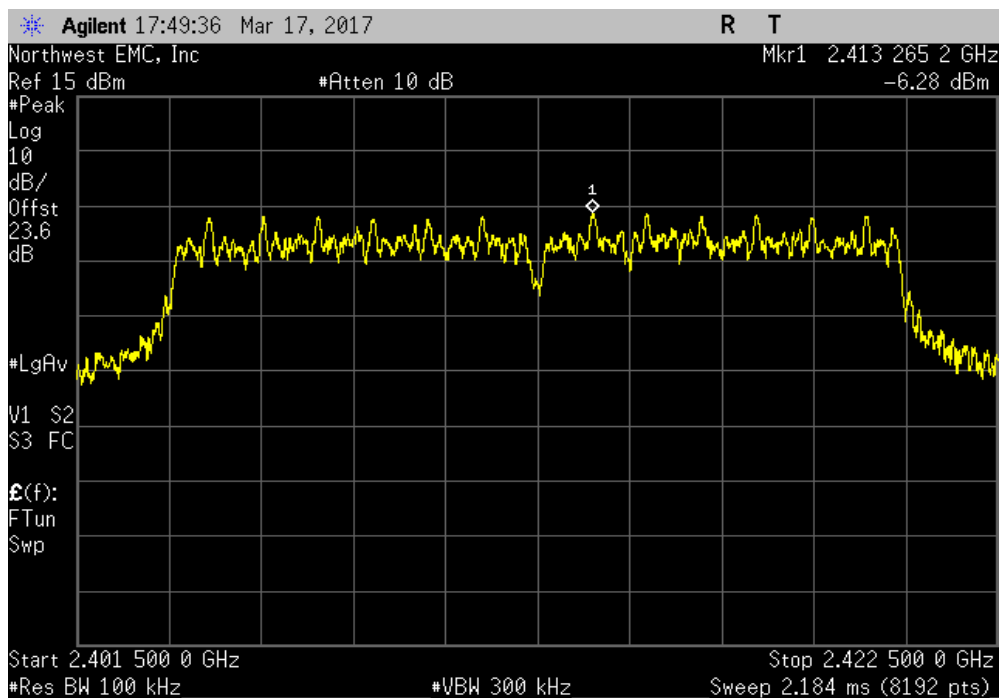


NwTx 2016.09.14.2 XMI 2017.01.26

Low Channel 1, 2412 MHz, 802.11(g) 6 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-48.26	-30	Pass	



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

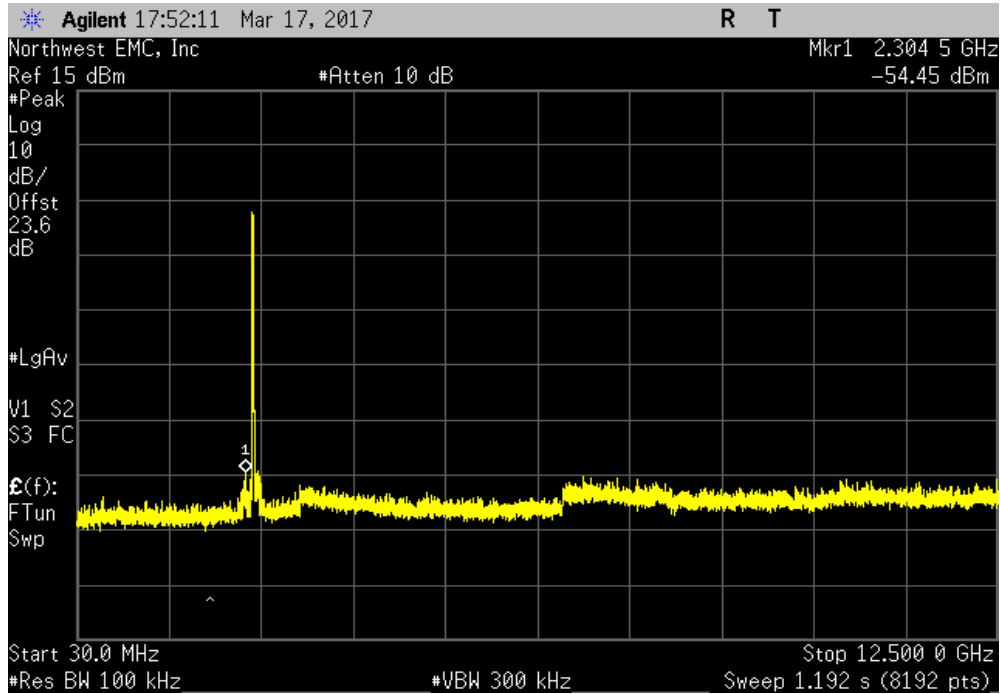


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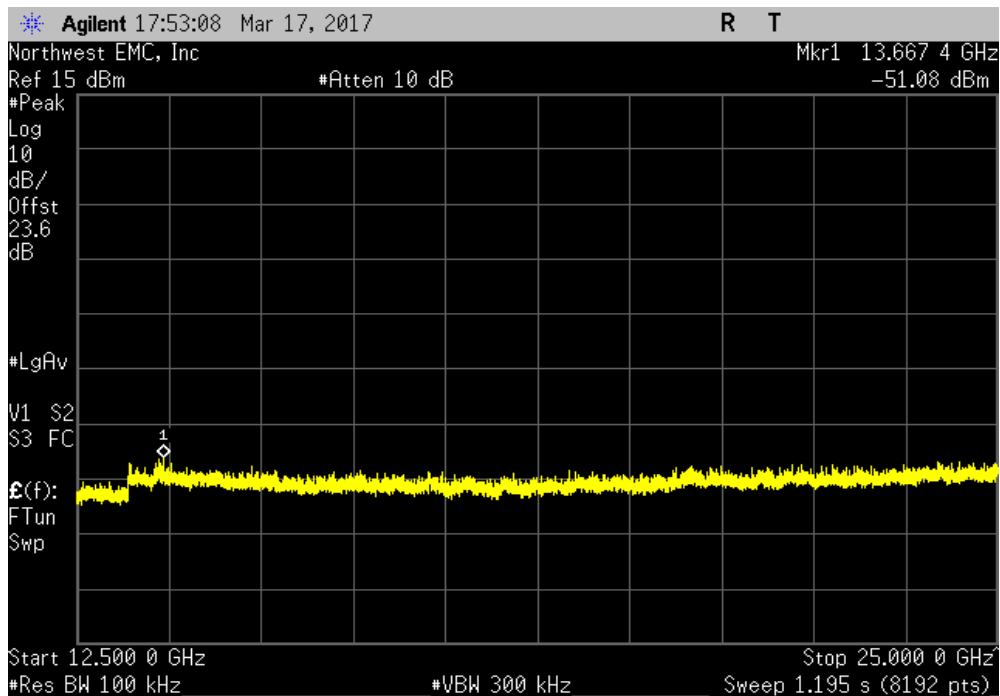


NwTx 2016.09.14.2 XMI 2017.01.26

Low Channel 1, 2412 MHz, 802.11(g) 36 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-48.17	-30	Pass	



Low Channel 1, 2412 MHz, 802.11(g) 36 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-44.8	-30	Pass	

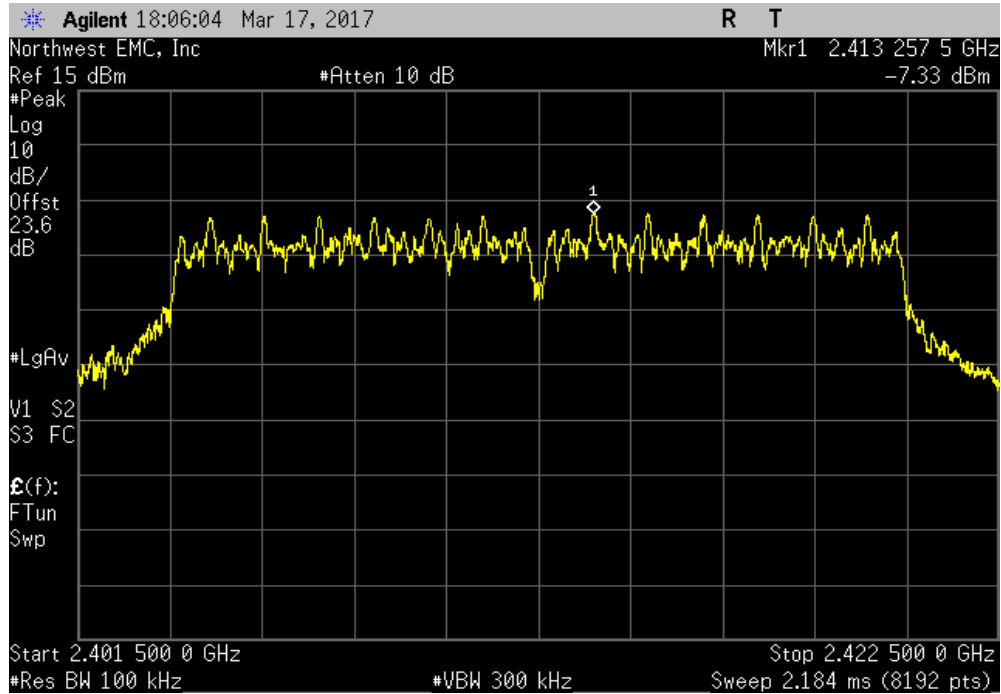


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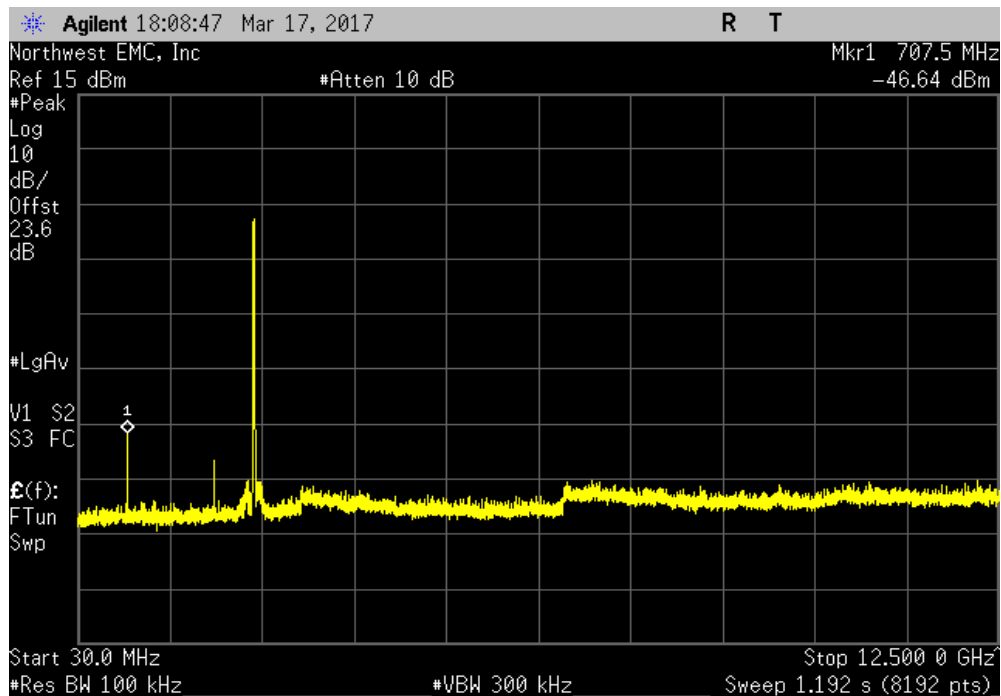


NwTx 2016.09.14.2 XMI 2017.01.26

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



Low Channel 1, 2412 MHz, 802.11(g) 54 Mbps						
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result		
30 MHz - 12.5 GHz		-39.31	-30	Pass		

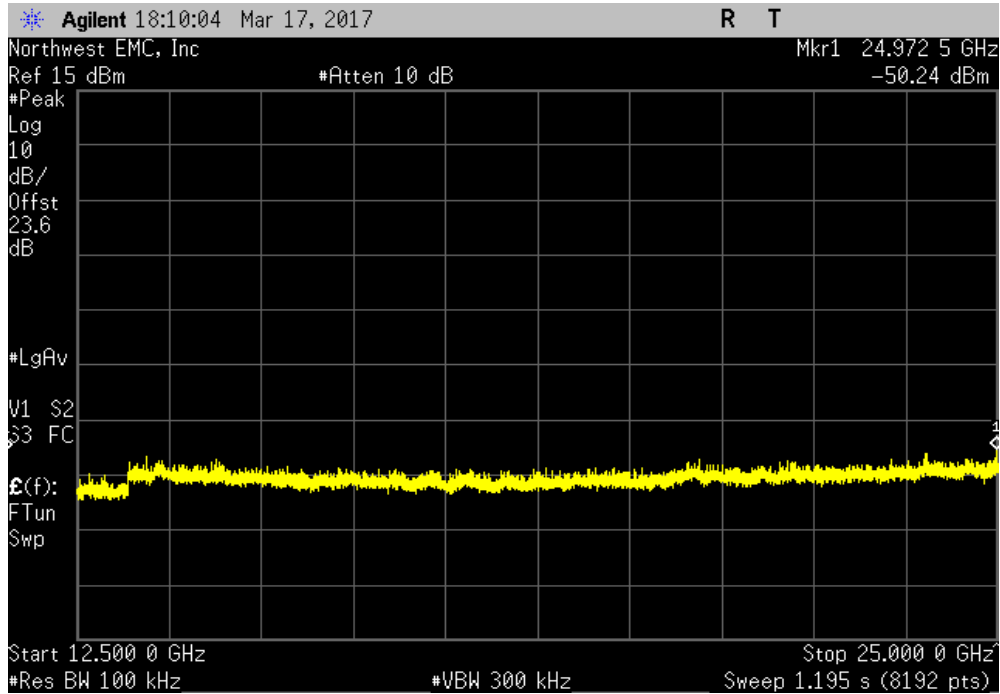


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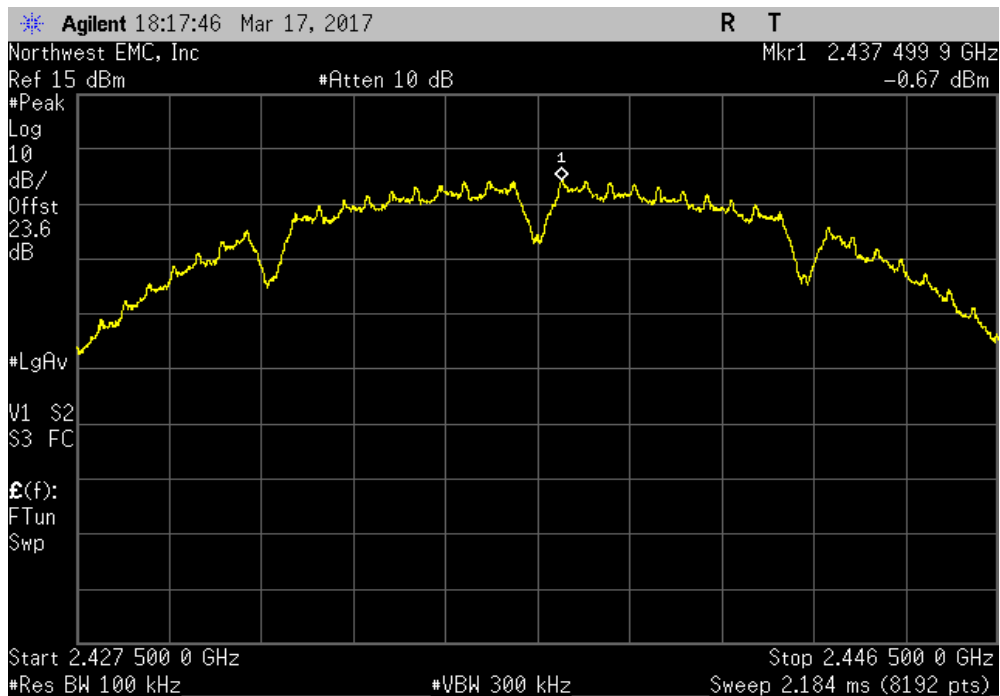


NwTx 2016.09.14.2 XMI 2017.01.26

Low Channel 1, 2412 MHz, 802.11(g) 54 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-42.91	-30	Pass	



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

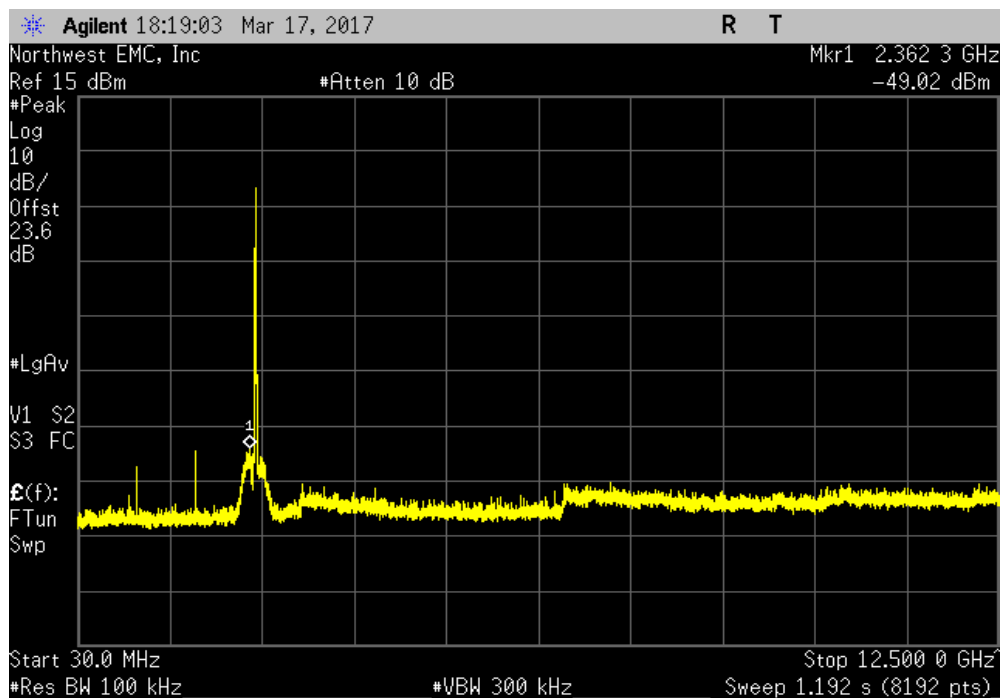


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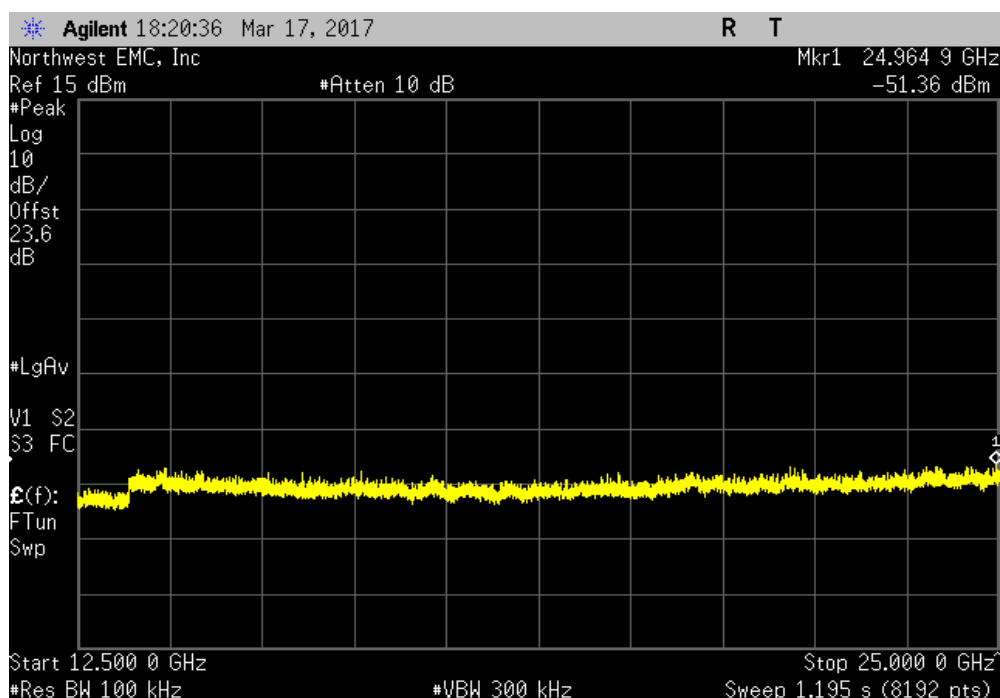


NwTx 2016.09.14.2 XMI 2017.01.26

Mid Channel 6, 2437 MHz, 802.11(b) 1 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-48.35	-30	Pass	



Mid Channel 6, 2437 MHz, 802.11(b) 1 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-50.69	-30	Pass	

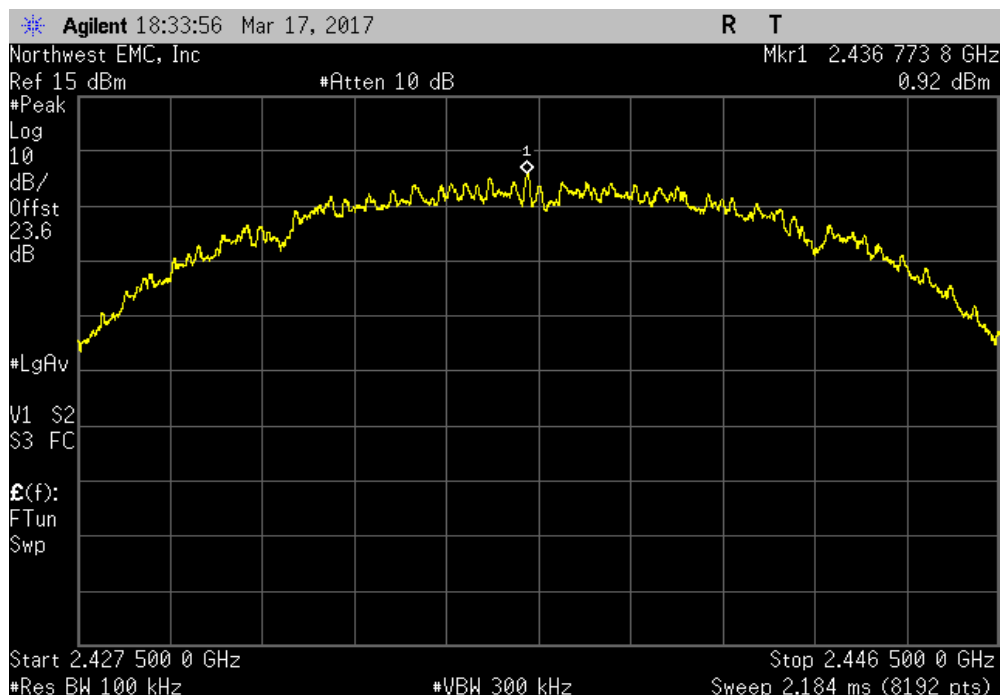


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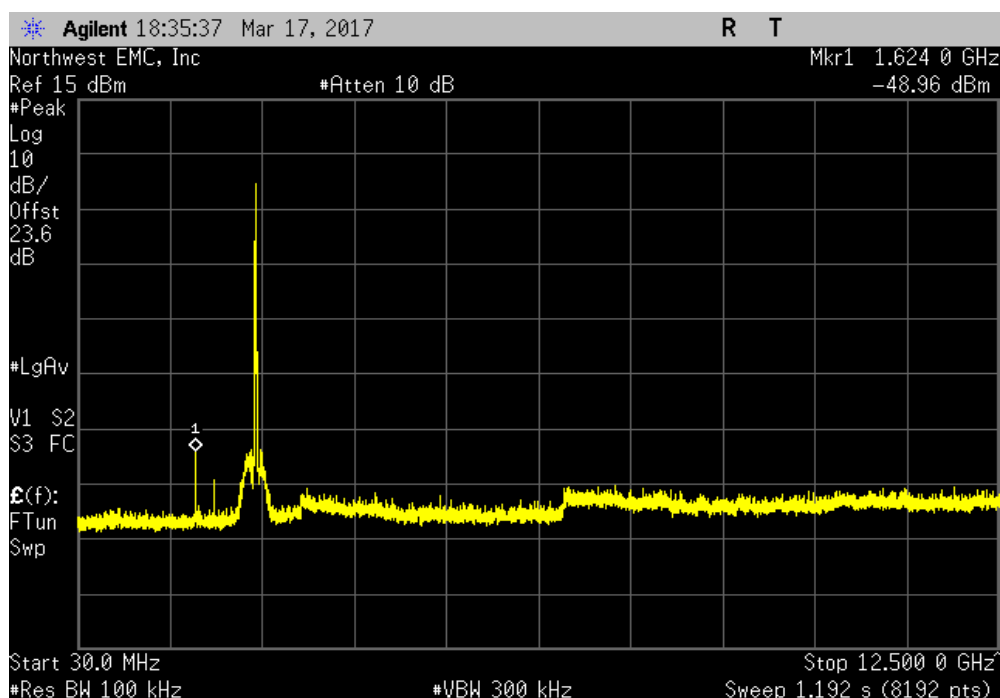


NweTs 2016.09.14.2 XMI 2017.01.26

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



Mid Channel 6, 2437 MHz, 802.11(b) 11 Mbps						
Frequency Range		Max Value (dBc)		Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz		-49.87		-30	Pass	

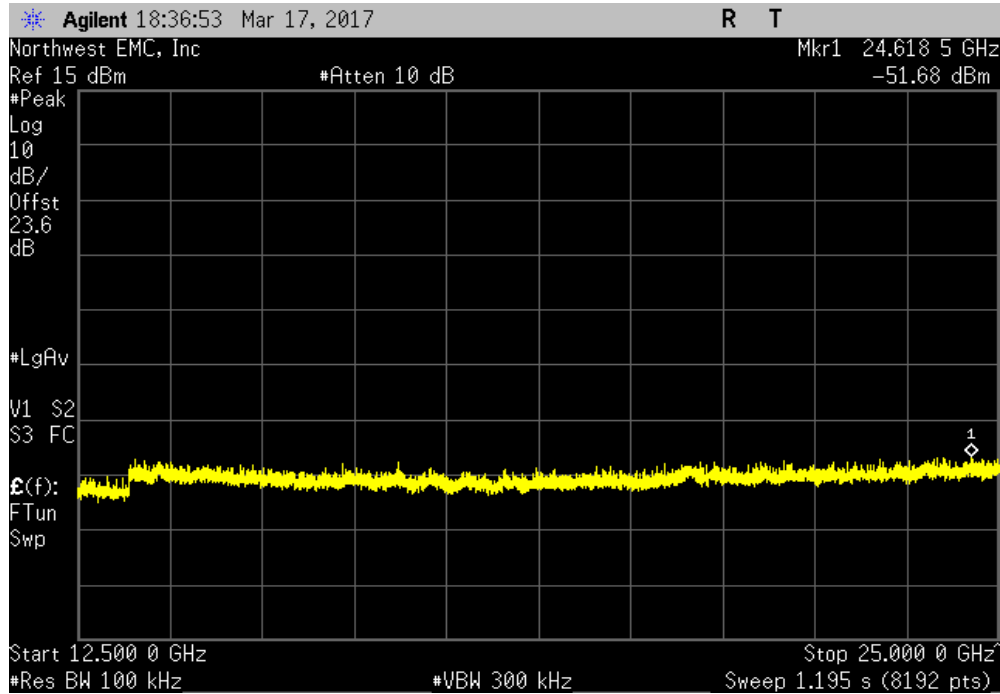


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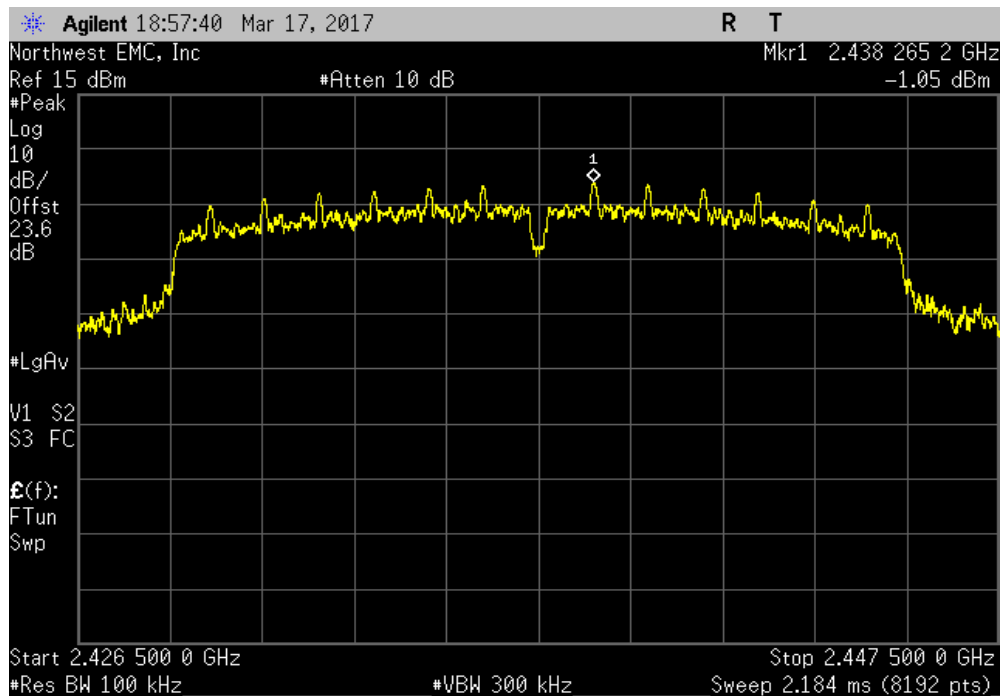


NwTx 2016.09.14.2 XMI 2017.01.26

Mid Channel 6, 2437 MHz, 802.11(b) 11 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-52.59	-30	Pass	



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

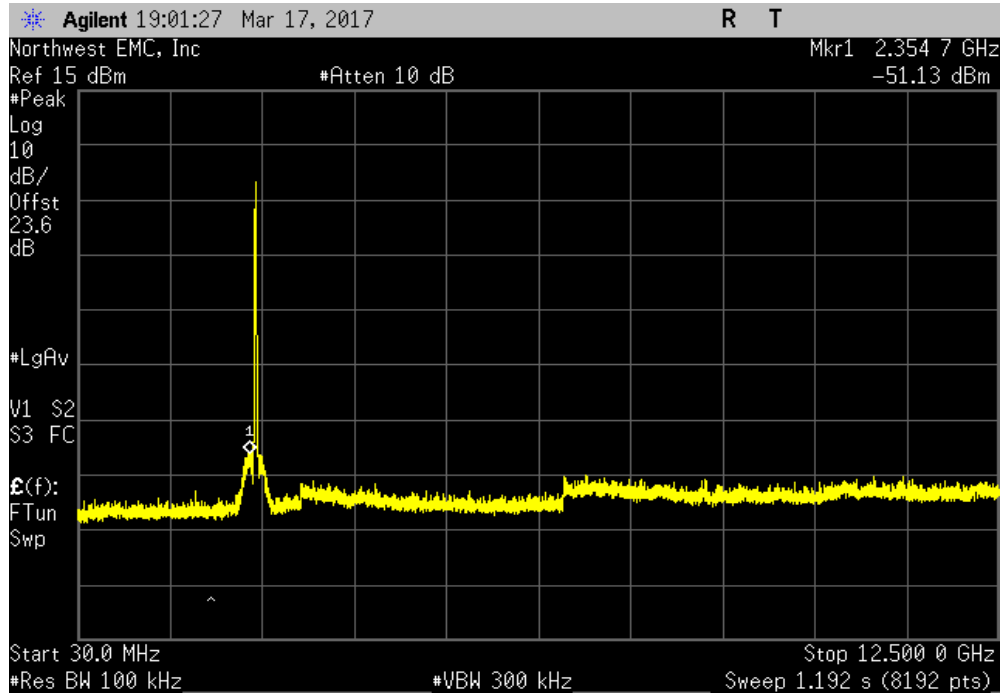


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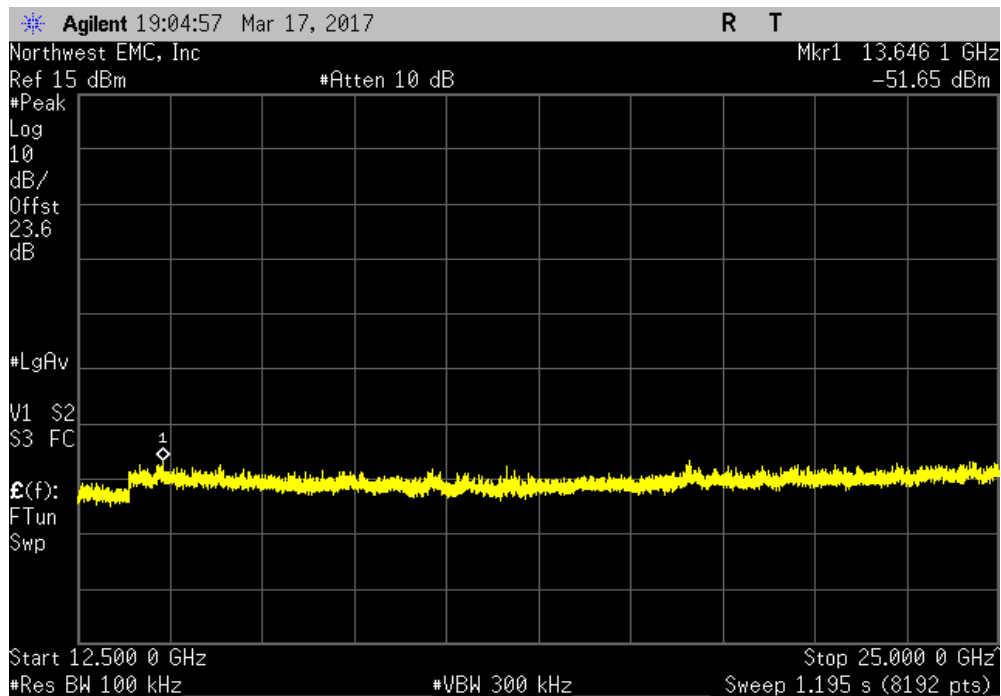


NwTx 2016.09.14.2 XMI 2017.01.26

Mid Channel 6, 2437 MHz, 802.11(g) 6 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-50.08	-30	Pass	



Mid Channel 6, 2437 MHz, 802.11(g) 6 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-50.6	-30	Pass	

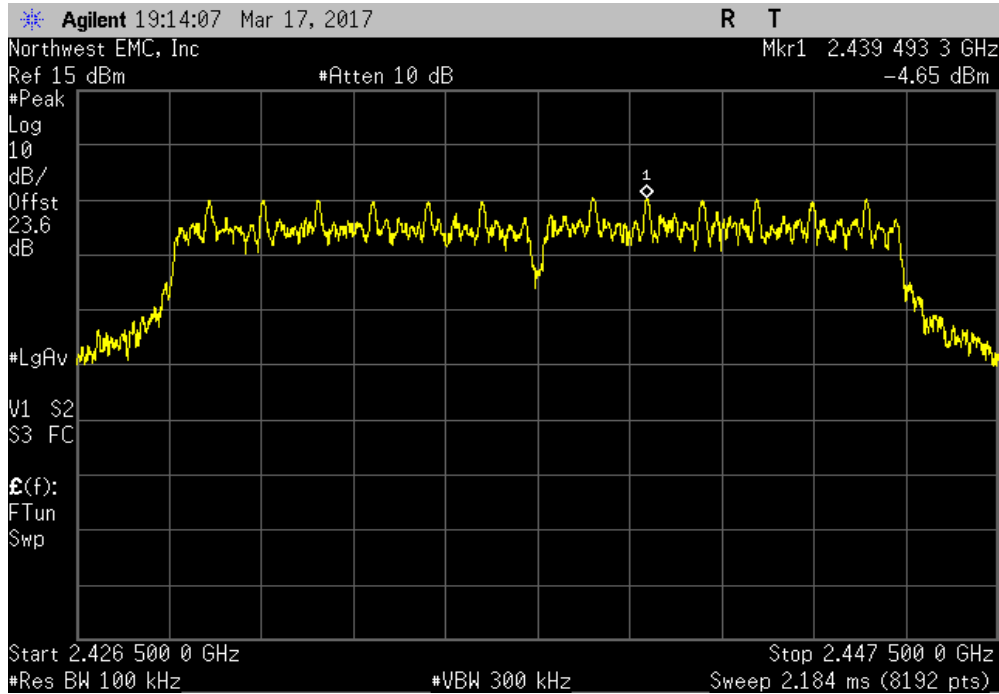


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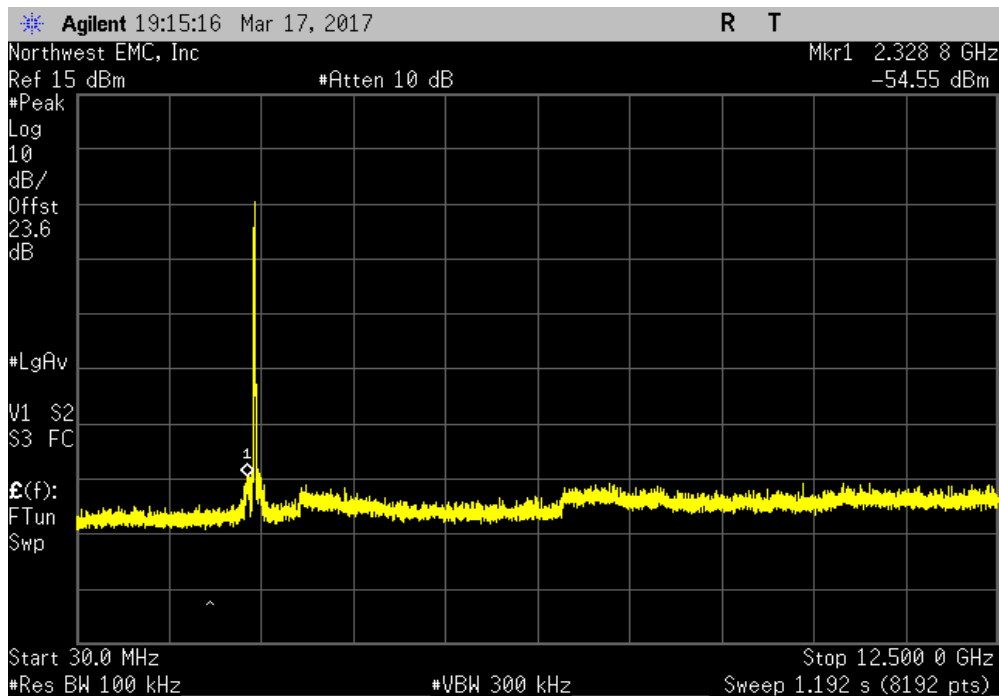


NweTx 2016.09.14.2 XMI 2017.01.26

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



Mid Channel 6, 2437 MHz, 802.11(g) 36 Mbps						
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result		
30 MHz - 12.5 GHz		-49.9	-30	Pass		

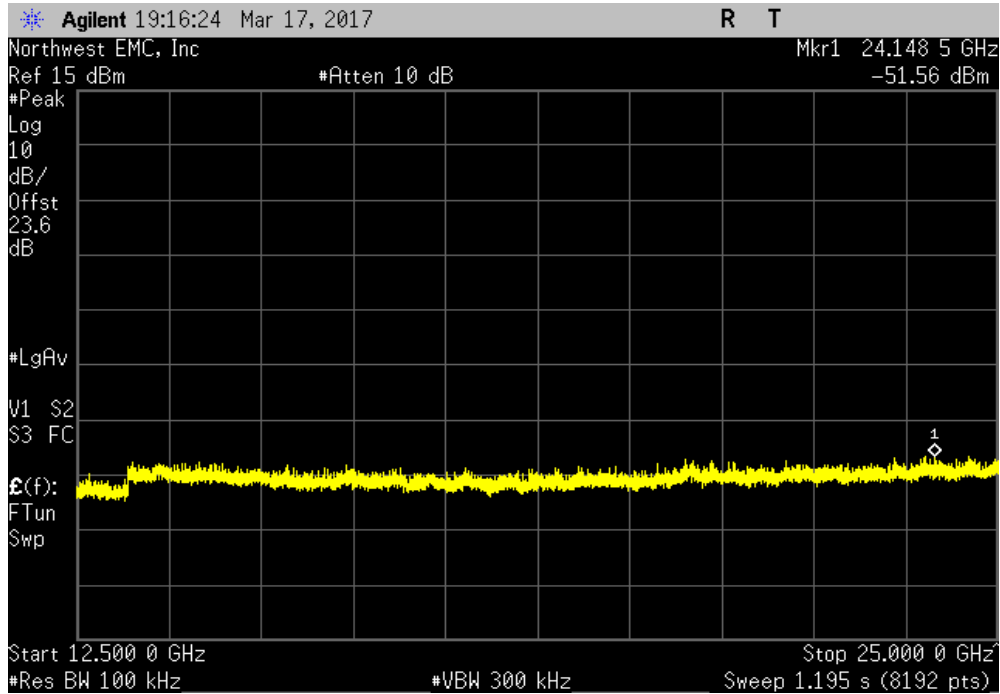


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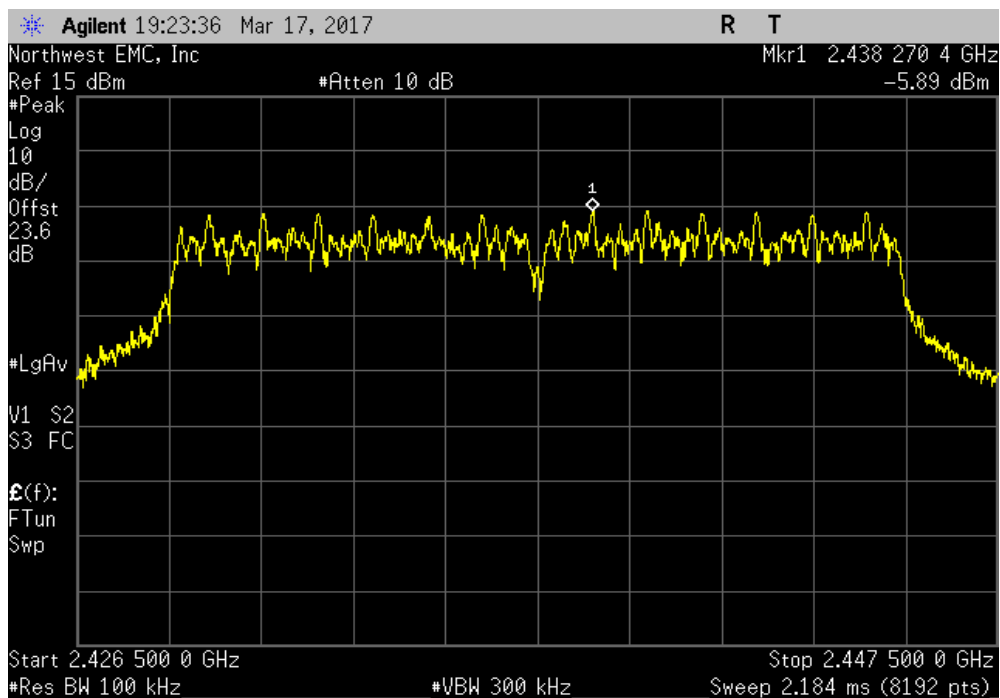


NwTx 2016.09.14.2 XMI 2017.01.26

Mid Channel 6, 2437 MHz, 802.11(g) 36 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-46.91	-30	Pass	



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

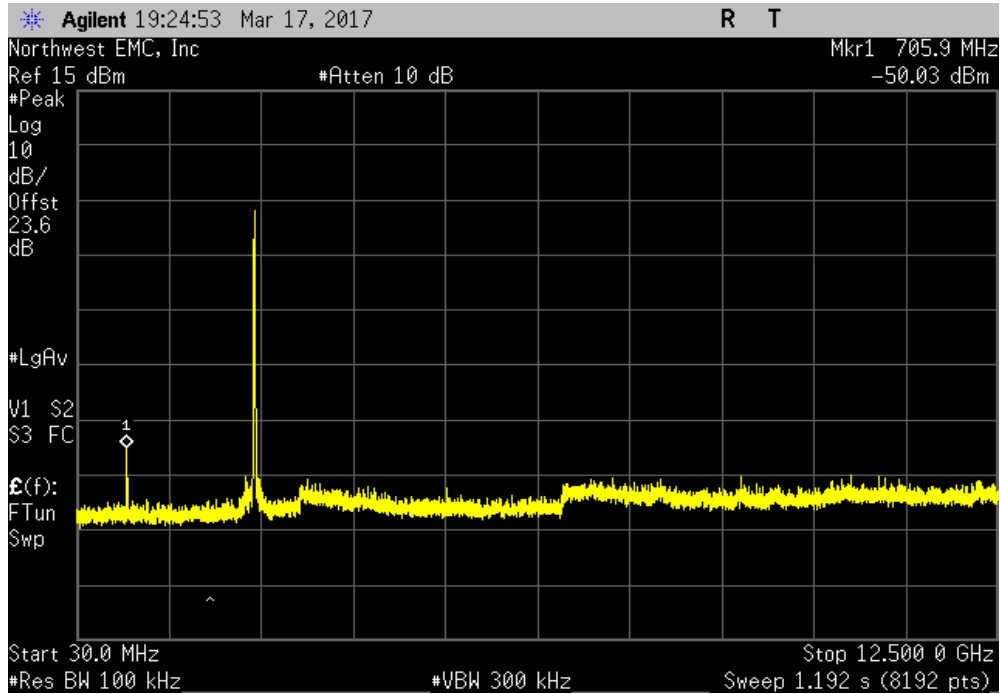


SPURIOUS CONDUCTED EMISSIONS

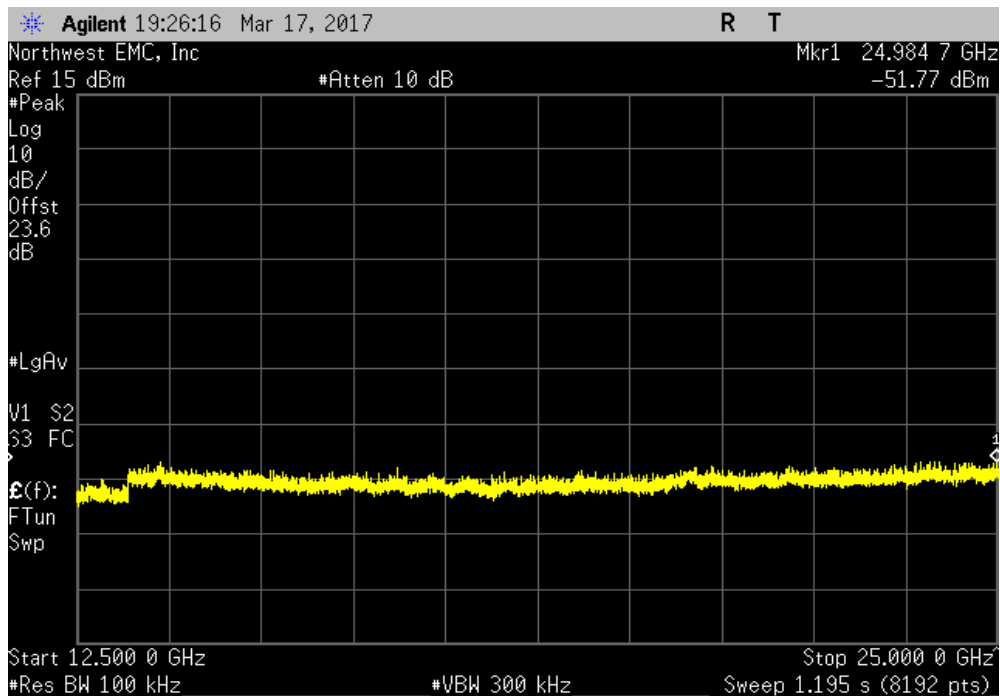


NwEM 2016.09.14.2 XMI 2017.01.26

Mid Channel 6, 2437 MHz, 802.11(g) 54 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-44.14	-30	Pass	



Mid Channel 6, 2437 MHz, 802.11(g) 54 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-45.88	-30	Pass	

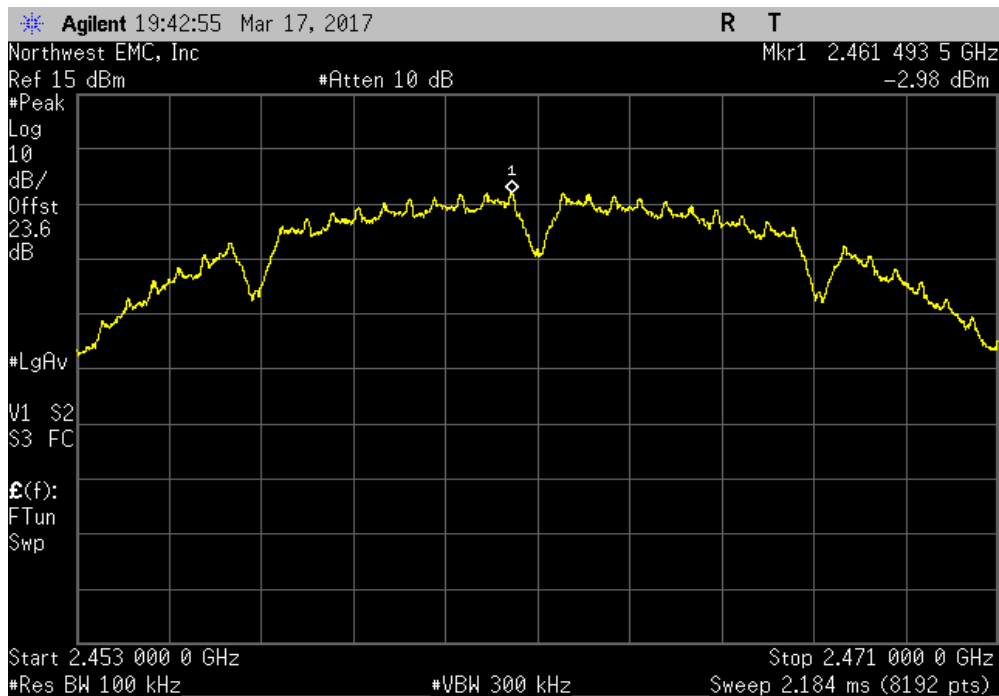


SPURIOUS CONDUCTED EMISSIONS

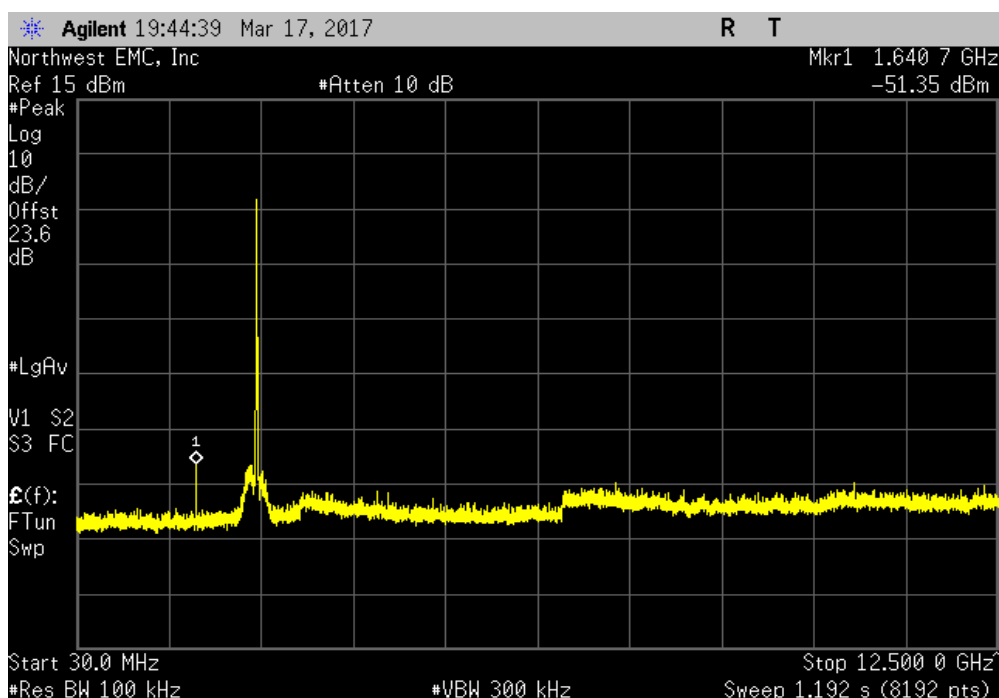


NwTx 2016.09.14.2 XMI 2017.01.26

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



High Channel 11, 2462 MHz, 802.11(b) 1 Mbps						
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result		
30 MHz - 12.5 GHz		-48.37	-30	Pass		

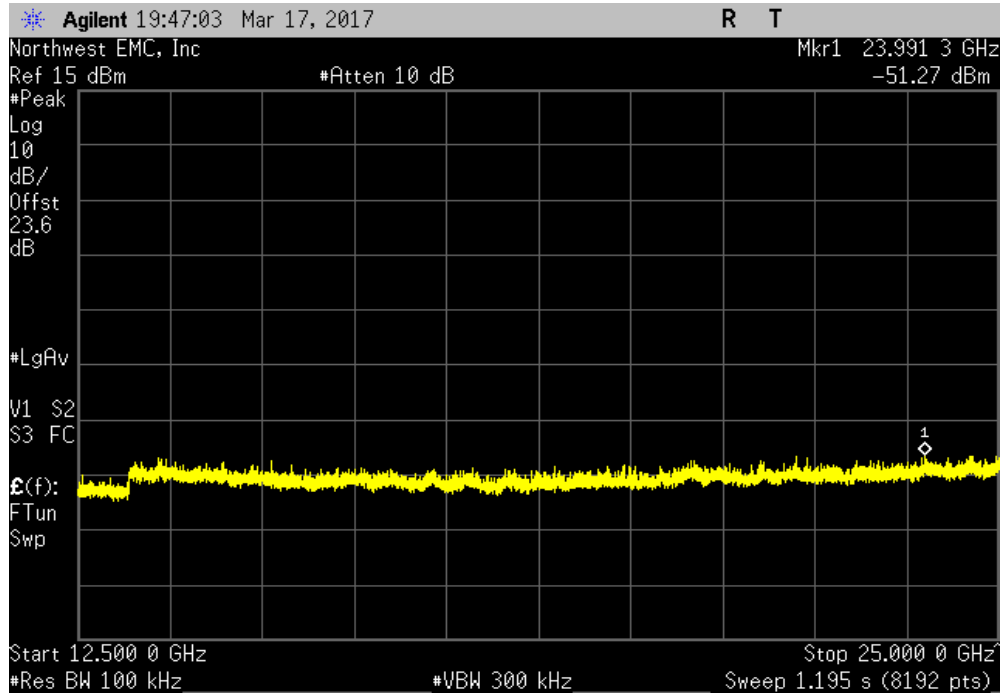


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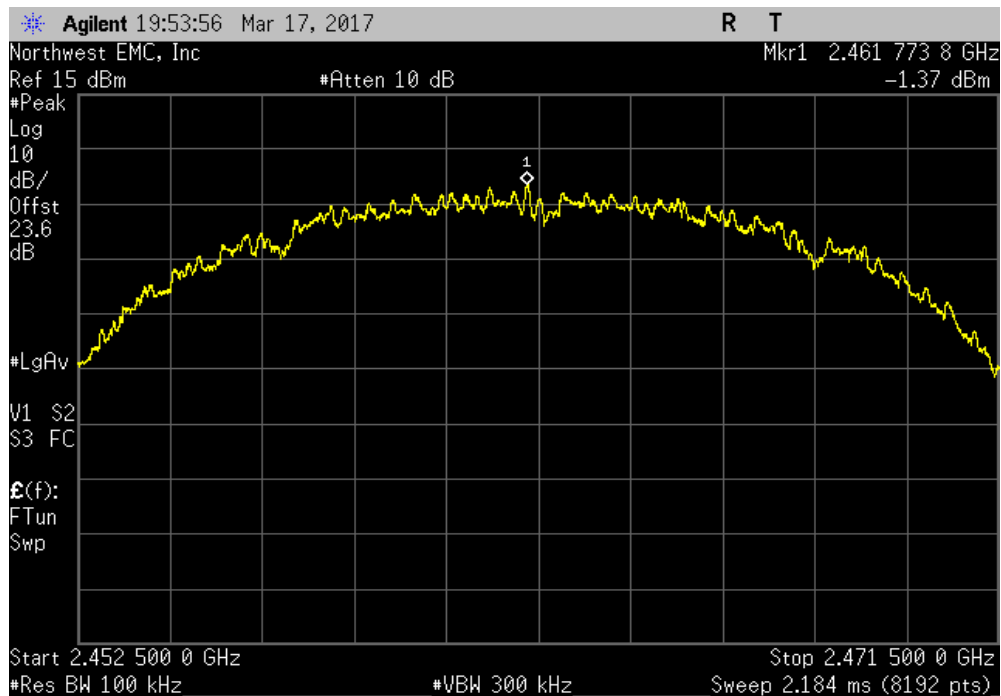


NwTx 2016.09.14.2 XMI 2017.01.26

High Channel 11, 2462 MHz, 802.11(b) 1 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-48.29	-30	Pass	



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

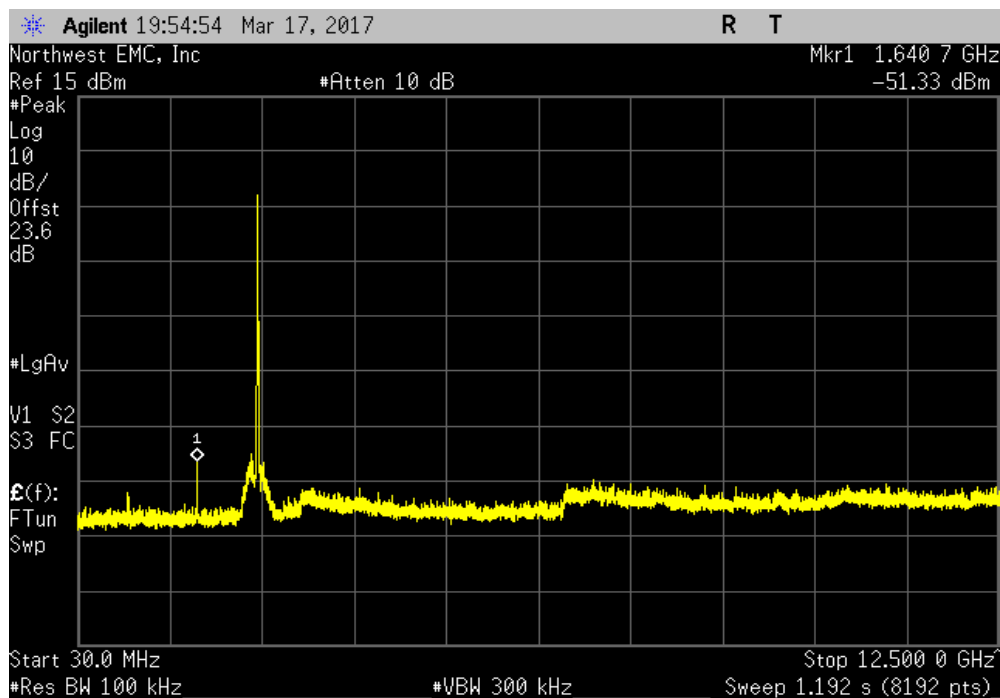


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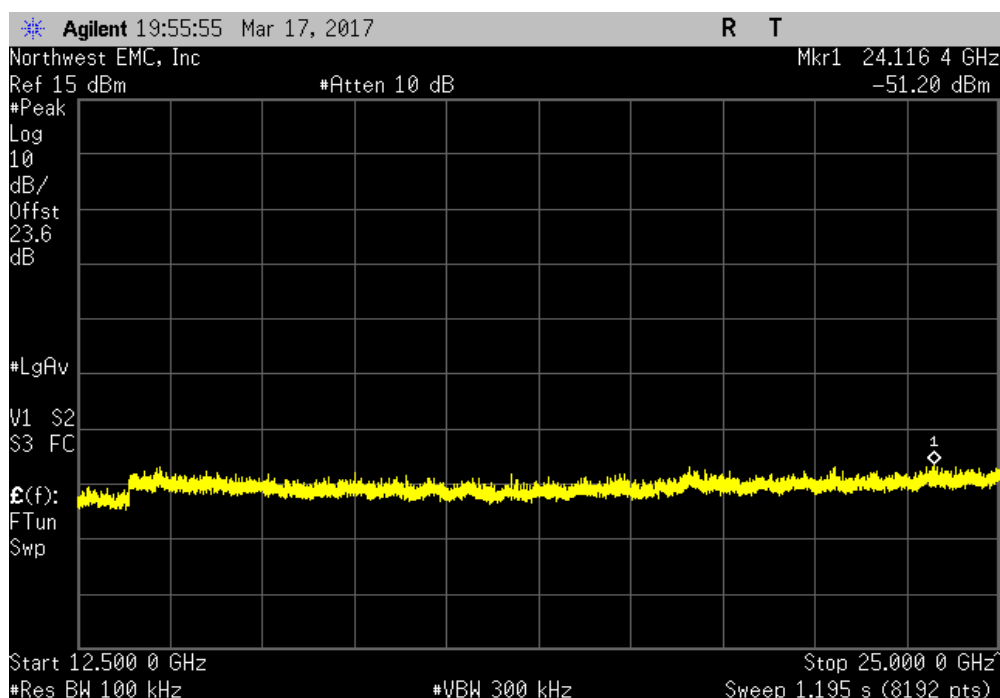


NwTx 2016.09.14.2 XMI 2017.01.26

High Channel 11, 2462 MHz, 802.11(b) 11 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-49.96	-30	Pass	



High Channel 11, 2462 MHz, 802.11(b) 11 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-49.83	-30	Pass	

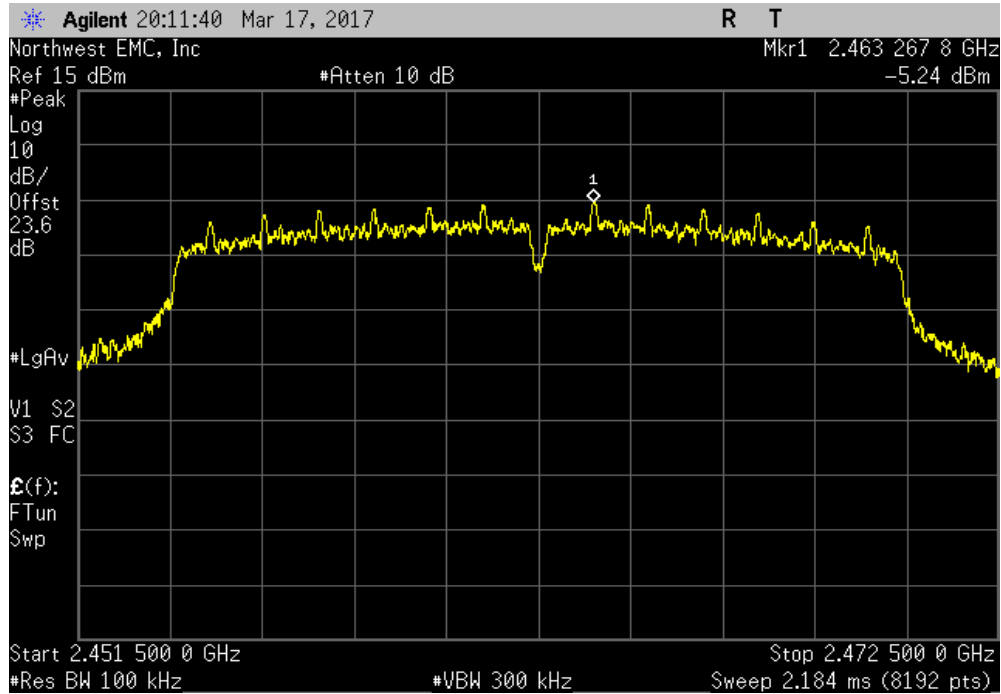


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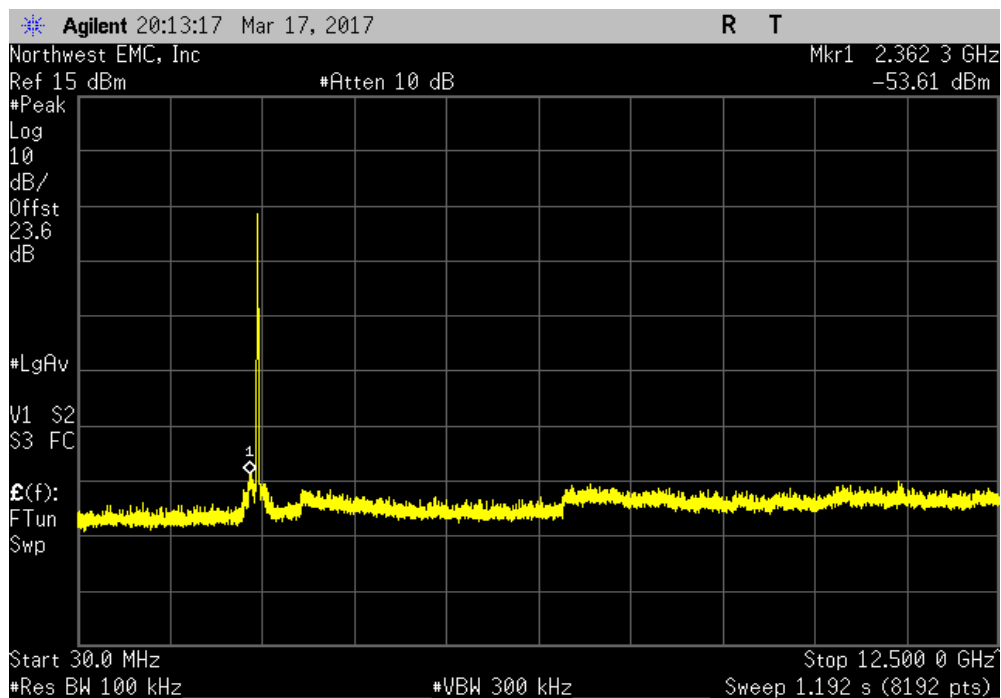


NweTx 2016.09.14.2 XMI 2017.01.26

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



High Channel 11, 2462 MHz, 802.11(g) 6 Mbps						
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result		
30 MHz - 12.5 GHz		-48.37	-30	Pass		

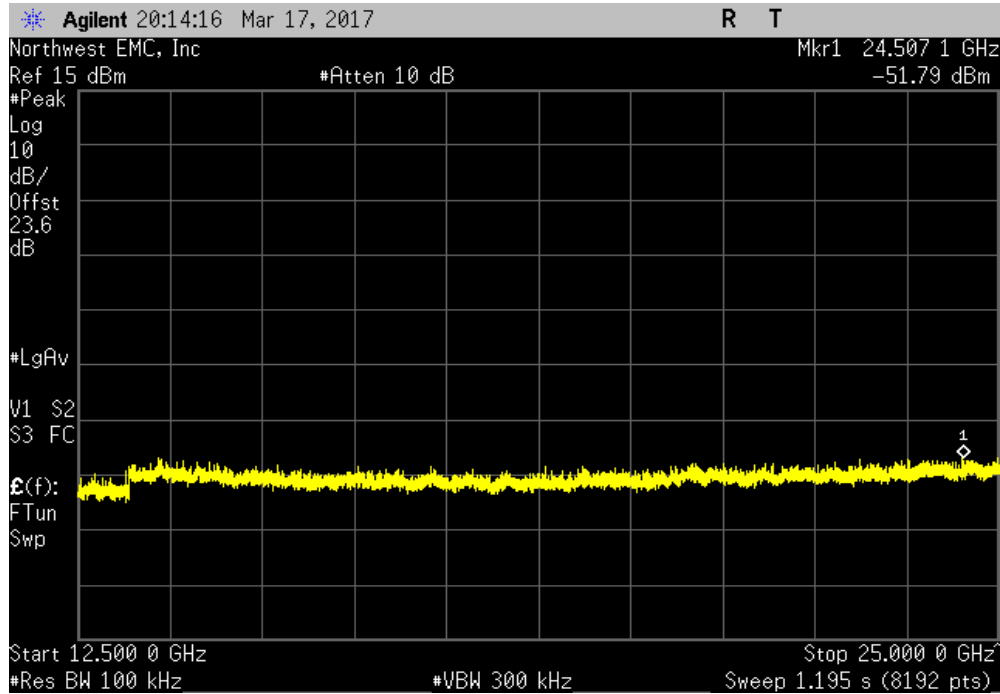


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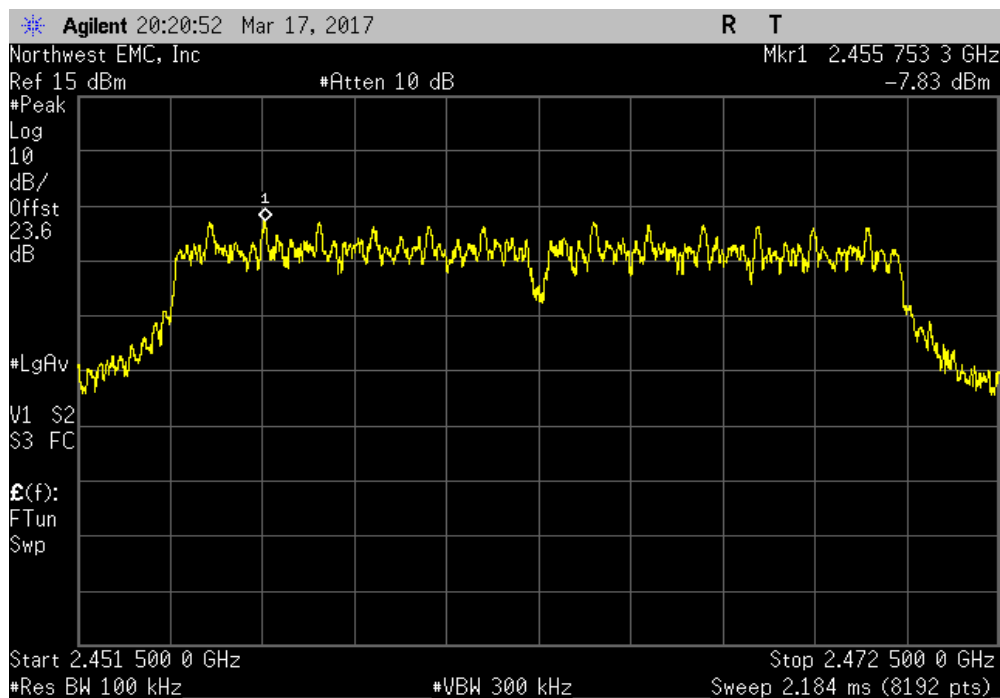


NwTx 2016.09.14.2 XMI 2017.01.26

High Channel 11, 2462 MHz, 802.11(g) 6 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-46.55	-30	Pass	



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

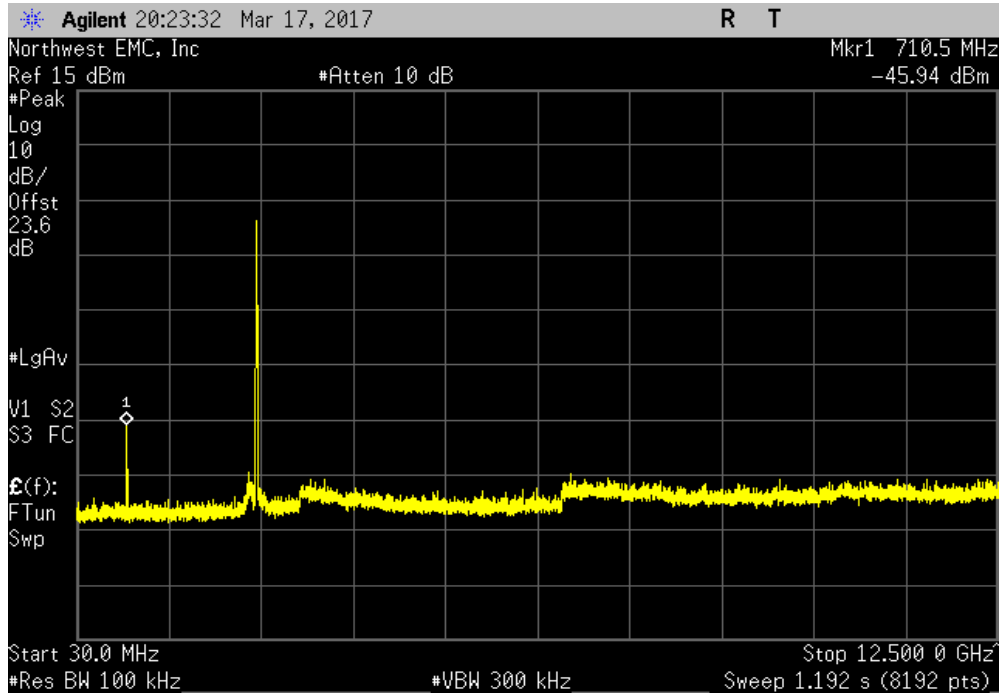


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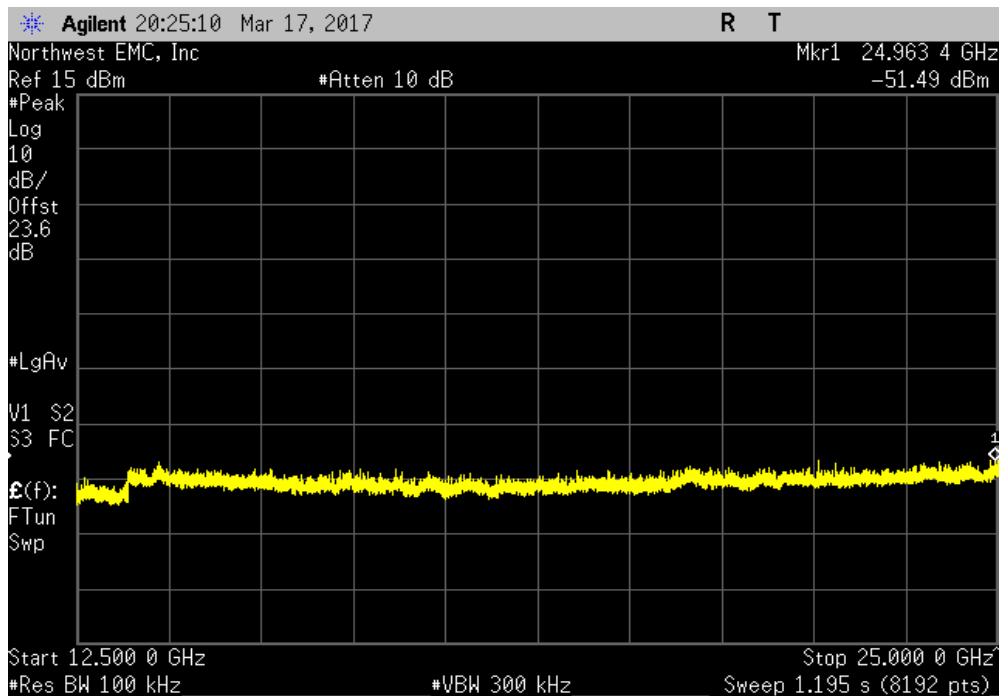


NwTx 2016.09.14.2 XMI 2017.01.26

High Channel 11, 2462 MHz, 802.11(g) 36 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
30 MHz - 12.5 GHz	-38.11	-30	Pass	



High Channel 11, 2462 MHz, 802.11(g) 36 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-43.66	-30	Pass	

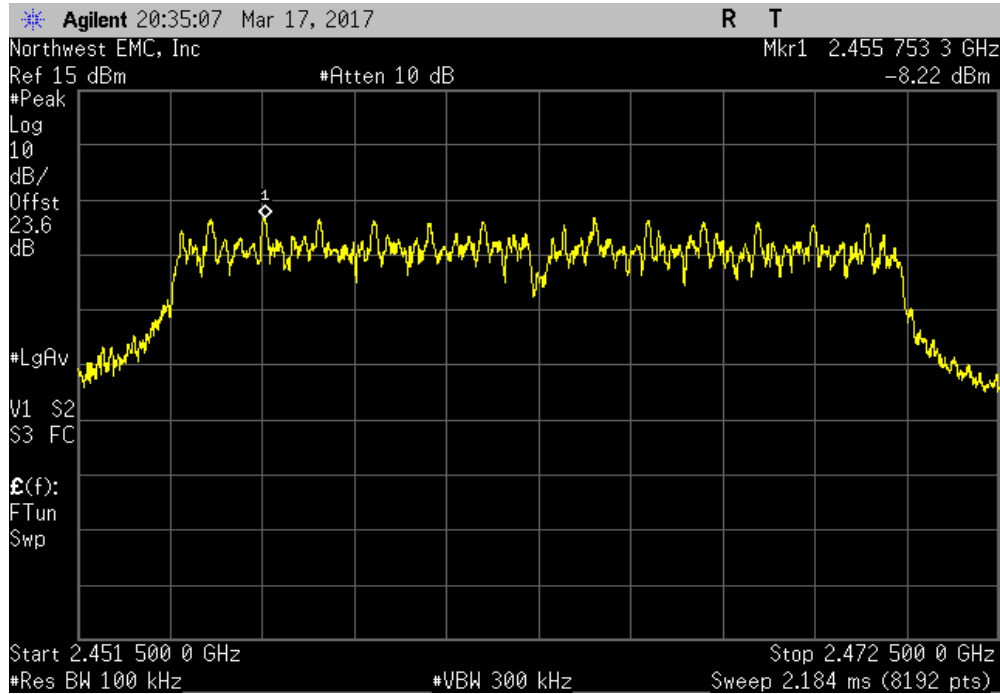


SPURIOUS CONDUCTED EMISSIONS

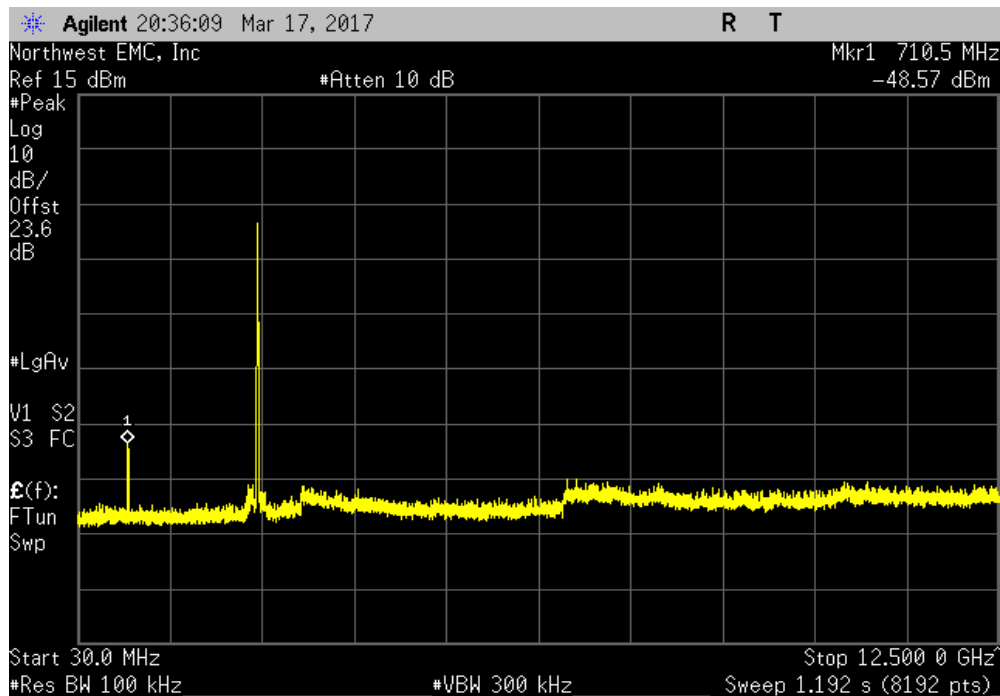


NweTs 2016.09.14.2 XMI 2017.01.26

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



High Channel 11, 2462 MHz, 802.11(g) 54 Mbps						
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result		
30 MHz - 12.5 GHz		-40.35	-30	Pass		



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High Channel 11, 2462 MHz, 802.11(g) 54 Mbps				
Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result	
12.5 GHz - 25 GHz	-43.1	-30	Pass	

