

Awarepoint Corporation

BLEE

FCC 15.247:2016 802.11bg SISO Radio

Report # AWAR0022.2





NVLAP Lab Code: 200676-0

CERTIFICATE OF TEST



Last Date of Test: August 9, 2016
Awarepoint Corporation
Model: BLEE

Radio Equipment Testing

Standards

Specification	Method	
FCC 15.247:2016	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	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:

Victor Ratinoff, 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 Northwest EMC 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://www.nwemc.com/accreditations/ 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 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	<u>- MU</u>
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





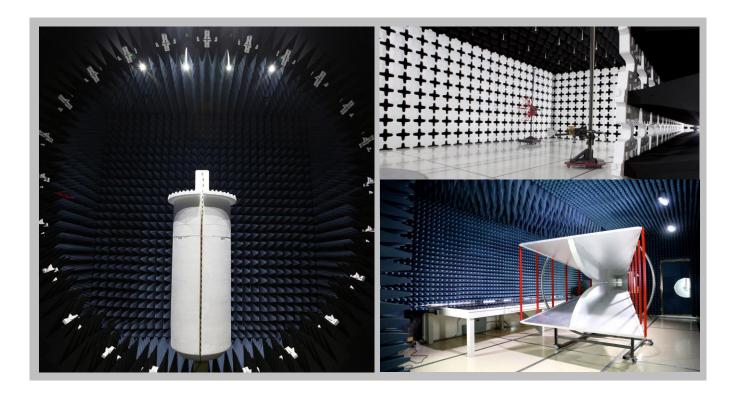


California
Labs OC01-13
41 Tesla
Irvine, CA 92618
(949) 861-8918

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

WashingtonLabs NC01-05
19201 120th Ave NE
Bothell, WA 98011
(425)984-6600

(949) 861-8918	(612)-638-5136	(315) 554-8214	(503) 844-4066	(469) 304-5255	(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		
	Innov	ation, Science and Eco	nomic Development Can	ada			
2834B-1, 2834B-3	2834E-1	N/A	2834D-1, 2834D-2	2834G-1	2834F-1		
		BS	МІ				
SL2-IN-E-1154R	SL2-IN-E-1152R	N/A	SL2-IN-E-1017	SL2-IN-E-1158R	SL2-IN-E-1153R		
		VC	CI				
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		

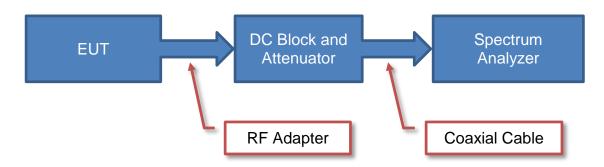


Report No. AWAR0022.2

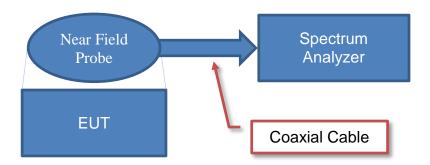
Test Setup Block Diagrams



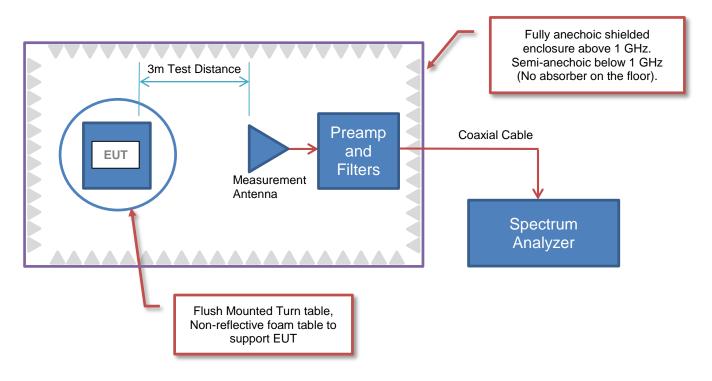
Antenna Port Conducted Measurements



Near Field Test Fixture Measurements



Spurious Radiated Emissions



Report No. AWAR0022.2 7/94

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:	BLEE
First Date of Test:	July 29, 2016
Last Date of Test:	August 9, 2016
Receipt Date of Samples:	July 29, 2016
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT:

(BLE Environmental Tag) Bluetooth Low Energy scanner (Receiver) that measures RSSI of BLE beacons and then periodically connects with a WiFi access point to transmit collected BLE scans for the purpose of location tracking or for configuration and firmware updates. Additional functionality of reporting readings from one of a variety of connected environmental sensors.

Testing Objective:

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

CONFIGURATIONS



Configuration AWAR0022- 4

Software/Firmware Running during test				
Description	Version			
RadioTool GUI	1.2.5942.19689			

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
WiFi and Bluetooth Radio	Awarepoint Corporation	BLEE	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		
AC Cable	No	.75m	No	AC mains	AC/DC Power Supply		
DC Cable	No	1.5m	Yes	AC/DC Power Supply	Laptop		
Ribbon Cable	No	0.1m	No	WiFi Interface Board	WiFi and Bluetooth Radio		
Micro USB Cable	No	1.0m	No	WiFi Interface Board	Laptop		

Report No. AWAR0022.2

MODIFICATIONS



Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
		Spurious	Tested as	No EMI suppression	EUT remained at
1	7/29/2016	Radiated	delivered to	devices were added or	Northwest EMC
		Emissions	Test Station.	modified during this test.	following the test.
			Tested as	No EMI suppression	EUT remained at
2	8/9/2016	Duty Cycle	delivered to	devices were added or	Northwest EMC
			Test Station.	modified during this test.	following the test.
		Occupied	Tested as	No EMI suppression	EUT remained at
3	8/9/2016	Bandwidth	delivered to	devices were added or	Northwest EMC
		Danuwium	Test Station.	modified during this test.	following the test.
		Output	Tested as	No EMI suppression	EUT remained at
4	8/9/2016	Power	delivered to	devices were added or	Northwest EMC
		rowei	Test Station.	modified during this test.	following the test.
		Power	Tested as	No EMI suppression	EUT remained at
5	8/9/2016	Spectral	delivered to	devices were added or	Northwest EMC
		Density	Test Station.	modified during this test.	following the test.
		Band Edge	Tested as	No EMI suppression	EUT remained at
6	8/9/2016	Compliance	delivered to	devices were added or	Northwest EMC
		Compliance	Test Station.	modified during this test.	following the test.
		Spurious	Tested as	No EMI suppression	Scheduled testing
7	8/9/2016	Conducted	delivered to	devices were added or	was completed.
		Emissions	Test Station.	modified during this test.	was completed.

Report No. AWAR0022.2

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 802.11bg at Low Channel 1 (2412MHz), Mid Channel 6 (2437MHz), and High Channel 11 (2462MHz)

POWER SETTINGS INVESTIGATED

USB Powered

CONFIGURATIONS INVESTIGATED

AWAR0022 - 4

FREQUENCY RANGE INVESTIGATED

Start Frequency 30 MHz Stop Frequency 26000 MHz

SAMPLE CALCULATIONS

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Filter - Low Pass	Micro-Tronics	LPM50004	LFC	11/3/2015	12 mo
Attenuator	Coaxicom	66702 3910AF-20	TKI	3/3/2016	12 mo
Cable	Northwest EMC	8-18GHz RE Cables	OCO	8/26/2015	12 mo
Cable	Northwest EMC	18-26GHz RE Cables	OCK	1/6/2016	12 mo
Cable	Northwest EMC	1-8GHz RE Cables	OCJ	8/26/2015	12 mo
Cable	Northwest EMC	10kHz-1GHz RE Cables	OCH	3/3/2016	12 mo
Filter - High Pass	Micro-Tronics	HPM50111	HFM	2/9/2016	12 mo
Antenna - Biconilog	EMCO	3142B	AXK	10/6/2014	24 mo
Amplifier - Pre-Amplifier	Miteq	AMF-4D-010120-30-10P-1	AOP	8/26/2015	12 mo
Amplifier - Pre-Amplifier	Miteq	AM-1064-9079	AOO	3/3/2016	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-18002650-25-10P	AOI	1/6/2016	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AOF	8/31/2015	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AOE	8/31/2015	12 mo
Antenna - Standard Gain	ETS Lindgren	3160-08	AHT	NCR	0 mo
Antenna - Standard Gain	ETS Lindgren	3160-07	AHR	NCR	0 mo
Antenna - Standard Gain	ETS Lindgren	3160-09	AHN	NCR	0 mo
Antenna - Double Ridge	EMCO	3115	AHB	3/21/2016	24 mo
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFJ	2/9/2016	12 mo

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.

Report No. AWAR0022.2 11/94

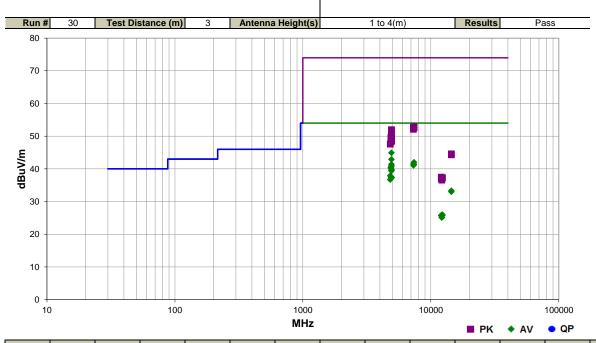
SPURIOUS RADIATED EMISSIONS



Work Order:	AWAR0022	Date:	07/29/16	0 - 0
Project:	None	Temperature:	22.1 °C	And My
Job Site:	OC03	Humidity:	47.3% RH	
Serial Number:	None	Barometric Pres.:	1013 mbar	Tested by: Mike Tran
EUT:	BLEE			
Configuration:	4			
Customer:	Awarepoint Corporation	on		
Attendees:	None			
EUT Power:	USB Powered			
Operating Mode:	Transmitting 802.11b	g at Low Channel 1 (24	12MHz), Mid Channe	el 6 (2437MHz), and High Channel 11 (2462MHz)
Deviations:	None			
Comments:	None			

Test Specifications
FCC 15.247:2016

Test Method ANSI C63.10:2013



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)	
(111112)	` ′	` '	, ,	, , ,	, ,	` '			` ′	, ,	, ,	` '	Comments
4923.992	34.2	10.7	1.2	270.0	3.0	0.0	Vert	AV	0.0	44.9	54.0	-9.1	High Ch 11, 1Mbps, EUT Horz
4924.000	32.2	10.7	1.2	268.0	3.0	0.0	Vert	AV	0.0	42.9	54.0	-11.1	High Ch 11, 11Mbps, EUT Horz
7385.000	25.6	16.4	1.7	264.0	3.0	0.0	Vert	AV	0.0	42.0	54.0	-12.0	High Ch 11, 1Mbps, EUT Horz
7312.250	25.3	16.2	1.7	187.0	3.0	0.0	Vert	AV	0.0	41.5	54.0	-12.5	Mid Ch 6, 1Mbps, EUT Horz
4923.975	30.7	10.7	1.2	62.0	3.0	0.0	Horz	AV	0.0	41.4	54.0	-12.6	High Ch 11, 1Mbps, EUT Horz
7385.225	24.9	16.4	1.7	293.0	3.0	0.0	Horz	AV	0.0	41.3	54.0	-12.7	High Ch 11, 1Mbps, EUT Horz
7312.558	24.9	16.2	3.8	360.0	3.0	0.0	Horz	AV	0.0	41.1	54.0	-12.9	Mid Ch 6, 1Mbps, EUT Horz
4923.983	30.2	10.7	1.2	64.0	3.0	0.0	Horz	AV	0.0	40.9	54.0	-13.1	High Ch 11, 11Mbps, EUT Horz
4924.083	30.1	10.7	1.6	138.0	3.0	0.0	Vert	AV	0.0	40.8	54.0	-13.2	High Ch 11, 1Mbps, EUT on Side
4874.058	29.9	10.6	1.7	133.0	3.0	0.0	Vert	AV	0.0	40.5	54.0	-13.5	Mid Ch 6, 1Mbps, EUT Horz
4873.967	29.7	10.6	1.7	29.0	3.0	0.0	Horz	AV	0.0	40.3	54.0	-13.7	Mid Ch 6, 1Mbps, EUT Horz
4924.050	29.2	10.7	1.2	305.0	3.0	0.0	Horz	AV	0.0	39.9	54.0	-14.1	High Ch 11, 1Mbps, EUT Vert
4924.042	28.9	10.7	1.2	70.0	3.0	0.0	Horz	AV	0.0	39.6	54.0	-14.4	High Ch 11, 1Mbps, EUT on Side
4924.033	28.7	10.7	1.2	207.0	3.0	0.0	Vert	AV	0.0	39.4	54.0	-14.6	High Ch 11, 1Mbps, EUT Vert
4823.983	27.4	10.5	1.7	312.0	3.0	0.0	Vert	AV	0.0	37.9	54.0	-16.1	Low Ch 1, 1Mbps, EUT Horz
4923.558	26.7	10.7	1.9	66.0	3.0	0.0	Horz	AV	0.0	37.4	54.0	-16.6	High Ch 11, 6Mbps, EUT Horz
4925.092	26.7	10.7	1.2	58.0	3.0	0.0	Horz	AV	0.0	37.4	54.0	-16.6	High Ch 11, 36Mbps, EUT Horz
4926.333	26.7	10.7	1.2	360.0	3.0	0.0	Vert	AV	0.0	37.4	54.0	-16.6	High Ch 11, 54Mbps, EUT Horz
4926.367	26.6	10.7	1.2	83.0	3.0	0.0	Vert	AV	0.0	37.3	54.0	-16.7	High Ch 11, 6Mbps, EUT Horz
4925.150	26.6	10.7	1.2	185.0	3.0	0.0	Vert	AV	0.0	37.3	54.0	-16.7	High Ch 11, 36Mbps, EUT Horz
4922.008	26.6	10.7	1.2	97.0	3.0	0.0	Horz	AV	0.0	37.3	54.0	-16.7	High Ch 11, 54Mbps, EUT Horz
4823.975	26.2	10.5	1.7	112.0	3.0	0.0	Horz	AV	0.0	36.7	54.0	-17.3	Low Ch 1, 1Mbps, EUT Horz
14473.470	26.7	6.6	4.0	34.0	3.0	0.0	Horz	AV	0.0	33.3	54.0	-20.7	Low Ch 1, 1Mbps, 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
14469.710	26.4	6.6	1.7	258.0	3.0	0.0	Vert	AV	0.0	33.0	54.0	-21.0	Low Ch 1, 1Mbps, EUT Horz
7387.117	36.5	16.4	1.7	293.0	3.0	0.0	Horz	PK	0.0	52.9	74.0	-21.1	High Ch 11, 1Mbps, EUT Horz
7312.992	36.6	16.2	1.7	187.0	3.0	0.0	Vert	PK	0.0	52.8	74.0	-21.2	Mid Ch 6, 1Mbps, EUT Horz
7386.750	36.2	16.4	1.7	264.0	3.0	0.0	Vert	PK	0.0	52.6	74.0	-21.4	High Ch 11, 1Mbps, EUT Horz
7311.642	35.9	16.2	3.8	360.0	3.0	0.0	Horz	PK	0.0	52.1	74.0	-21.9	Mid Ch 6, 1Mbps, EUT Horz
4923.900	41.3	10.7	1.2	270.0	3.0	0.0	Vert	PK	0.0	52.0	74.0	-22.0	High Ch 11, 1Mbps, EUT Horz
4924.000	41.1	10.7	1.2	268.0	3.0	0.0	Vert	PK	0.0	51.8	74.0	-22.2	High Ch 11, 11Mbps, EUT Horz
4924.075	40.1	10.7	1.2	64.0	3.0	0.0	Horz	PK	0.0	50.8	74.0	-23.2	High Ch 11, 11Mbps, EUT Horz
4924.200	39.3	10.7	1.2	62.0	3.0	0.0	Horz	PK	0.0	50.0	74.0	-24.0	High Ch 11, 1Mbps, EUT Horz
4874.008	39.0	10.6	1.7	29.0	3.0	0.0	Horz	PK	0.0	49.6	74.0	-24.4	Mid Ch 6, 1Mbps, EUT Horz
4874.050	39.0	10.6	1.7	133.0	3.0	0.0	Vert	PK	0.0	49.6	74.0	-24.4	Mid Ch 6, 1Mbps, EUT Horz
4924.008	38.8	10.7	1.6	138.0	3.0	0.0	Vert	PK	0.0	49.5	74.0	-24.5	High Ch 11, 1Mbps, EUT on Side
4923.967	38.7	10.7	1.2	207.0	3.0	0.0	Vert	PK	0.0	49.4	74.0	-24.6	High Ch 11, 1Mbps, EUT Vert
4924.050	38.6	10.7	1.2	305.0	3.0	0.0	Horz	PK	0.0	49.3	74.0	-24.7	High Ch 11, 1Mbps, EUT Vert
4923.983	38.3	10.7	1.2	70.0	3.0	0.0	Horz	PK	0.0	49.0	74.0	-25.0	High Ch 11, 1Mbps, EUT on Side
4924.442	38.3	10.7	1.2	83.0	3.0	0.0	Vert	PK	0.0	49.0	74.0	-25.0	High Ch 11, 6Mbps, EUT Horz
4925.942	38.3	10.7	1.2	360.0	3.0	0.0	Vert	PK	0.0	49.0	74.0	-25.0	High Ch 11, 54Mbps, EUT Horz
4921.192	38.2	10.7	1.2	58.0	3.0	0.0	Horz	PK	0.0	48.9	74.0	-25.1	High Ch 11, 36Mbps, EUT Horz
4923.683	37.9	10.7	1.2	97.0	3.0	0.0	Horz	PK	0.0	48.6	74.0	-25.4	High Ch 11, 54Mbps, EUT Horz
4922.350	37.8	10.7	1.2	185.0	3.0	0.0	Vert	PK	0.0	48.5	74.0	-25.5	High Ch 11, 36Mbps, EUT Horz
4923.142	37.7	10.7	1.9	66.0	3.0	0.0	Horz	PK	0.0	48.4	74.0	-25.6	High Ch 11, 6Mbps, EUT Horz
4823.758	37.1	10.5	1.7	112.0	3.0	0.0	Horz	PK	0.0	47.6	74.0	-26.4	Low Ch 1, 1Mbps, EUT Horz
4825.192	37.1	10.5	1.7	312.0	3.0	0.0	Vert	PK	0.0	47.6	74.0	-26.4	Low Ch 1, 1Mbps, EUT Horz
12307.530	33.9	-7.9	3.9	53.0	3.0	0.0	Vert	AV	0.0	26.0	54.0	-28.0	High Ch 11, 1Mbps, EUT Horz
12057.810	34.1	-8.3	1.7	277.0	3.0	0.0	Vert	AV	0.0	25.8	54.0	-28.2	Low Ch 1, 1Mbps, EUT Horz
12310.410	33.7	-7.9	1.7	64.0	3.0	0.0	Horz	AV	0.0	25.8	54.0	-28.2	High Ch 11, 1Mbps, EUT Horz
12057.510	34.0	-8.3	1.7	349.0	3.0	0.0	Horz	AV	0.0	25.7	54.0	-28.3	Low Ch 1, 1Mbps, EUT Horz
12182.850	33.2	-8.0	1.7	79.0	3.0	0.0	Vert	AV	0.0	25.2	54.0	-28.8	Mid Ch 6, 1Mbps, EUT Horz
12183.350	33.1	-8.0	1.7	174.0	3.0	0.0	Horz	AV	0.0	25.1	54.0	-28.9	Mid Ch 6, 1Mbps, EUT Horz
14473.630	38.0	6.6	4.0	34.0	3.0	0.0	Horz	PK	0.0	44.6	74.0	-29.4	Low Ch 1, 1Mbps, EUT Horz
14473.110	37.7	6.6	1.7	258.0	3.0	0.0	Vert	PK	0.0	44.3	74.0	-29.7	Low Ch 1, 1Mbps, EUT Horz
12060.530	45.8	-8.3	1.7	349.0	3.0	0.0	Horz	PK	0.0	37.5	74.0	-36.5	Low Ch 1, 1Mbps, EUT Horz
12308.330	45.2	-7.9	1.7	64.0	3.0	0.0	Horz	PK	0.0	37.3	74.0	-36.7	High Ch 11, 1Mbps, EUT Horz
12311.630	45.2	-7.9	3.9	53.0	3.0	0.0	Vert	PK	0.0	37.3	74.0	-36.7	High Ch 11, 1Mbps, EUT Horz
12061.960	45.3	-8.3	1.7	277.0	3.0	0.0	Vert	PK	0.0	37.0	74.0	-37.0	Low Ch 1, 1Mbps, EUT Horz
12184.280	44.8	-8.0	1.7	174.0	3.0	0.0	Horz	PK	0.0	36.8	74.0	-37.2	Mid Ch 6, 1Mbps, EUT Horz
12182.620	44.6	-8.0	1.7	79.0	3.0	0.0	Vert	PK	0.0	36.6	74.0	-37.4	Mid Ch 6, 1Mbps, EUT Horz

SPURIOUS RADIATED EMISSIONS



14/94

Work Order:	AWAR0022	Date:	07/29/16	0 - 0
Project:	None	Temperature:	22.1 °C	And My
Job Site:	OC03	Humidity:	47.3% RH	
Serial Number:	None	Barometric Pres.:	1013 mbar	Tested by: Mike Tran
EUT:	BLEE			
Configuration:	4			
Customer:	Awarepoint Corporation	on		
Attendees:	None			
EUT Power:	USB Powered			
Operating Mode:	Transmitting 802.11b	g at Low Channel 1 (24	12MHz) and High Ch	nannel 11 (2462MHz)
Deviations:	None			
Comments:	None			

ANSI C63.10:2013

Test Specifications
FCC 15.247:2016 Test Method

Antenna Height(s) Run # Test Distance (m) 1 to 4(m) Results Pass 80 70 60 50 **m//ngp** 30 20 10 10 100 1000 100000 MHz QP ■ PK ◆ AV

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
2484.660	26.7	1.8	1.7	344.0	3.0	20.0	Horz	AV	0.0	48.5	54.0	-5.5	High Ch 11, 6Mbps, Eut Vert
2485.123	26.6	1.8	1.7	72.0	3.0	20.0	Vert	AV	0.0	48.4	54.0	-5.6	High Ch 11, 6Mbps, Eut Vert
2485.137	26.6	1.8	1.7	194.0	3.0	20.0	Horz	AV	0.0	48.4	54.0	-5.6	High Ch 11, 6Mbps, EUT on Side
2484.050	26.6	1.8	1.7	344.0	3.0	20.0	Horz	AV	0.0	48.4	54.0	-5.6	High Ch 11, 1Mbps, EUT Vert
2484.317	26.6	1.8	1.7	344.0	3.0	20.0	Horz	AV	0.0	48.4	54.0	-5.6	High Ch 11, 11Mbps, EUT Vert
2484.720	26.6	1.8	1.7	344.0	3.0	20.0	Horz	AV	0.0	48.4	54.0	-5.6	High Ch 11, 36Mbps, EUT Vert
2485.497	26.6	1.8	1.7	344.0	3.0	20.0	Horz	AV	0.0	48.4	54.0	-5.6	High Ch 11, 54Mbps, EUT Vert
2484.757	26.5	1.8	1.7	160.0	3.0	20.0	Horz	AV	0.0	48.3	54.0	-5.7	High Ch 11, 6Mbps, EUT Horz
2484.990	26.5	1.8	2.7	120.0	3.0	20.0	Vert	AV	0.0	48.3	54.0	-5.7	High Ch 11, 6Mbps, EUT Horz
2484.393	26.5	1.8	1.7	349.0	3.0	20.0	Vert	AV	0.0	48.3	54.0	-5.7	High Ch 11, 6Mbps, EUT on Side
2389.903	26.6	1.3	1.7	311.0	3.0	20.0	Horz	AV	0.0	47.9	54.0	-6.1	Low Ch 1, 1Mbps, EUT Vert
2389.527	26.6	1.3	1.7	155.0	3.0	20.0	Vert	AV	0.0	47.9	54.0	-6.1	Low Ch 1, 1Mbps, EUT Vert
2389.697	26.5	1.3	1.7	306.0	3.0	20.0	Horz	AV	0.0	47.8	54.0	-6.2	Low Ch 1, 6Mbps, EUT Vert
2389.343	26.5	1.3	1.7	104.0	3.0	20.0	Vert	AV	0.0	47.8	54.0	-6.2	Low Ch 1, 6Mbps, EUT Vert
2484.730	38.6	1.8	1.7	344.0	3.0	20.0	Horz	PK	0.0	60.4	74.0	-13.6	High Ch 11, 1Mbps, EUT Vert
2484.967	38.3	1.8	1.7	344.0	3.0	20.0	Horz	PK	0.0	60.1	74.0	-13.9	High Ch 11, 36Mbps, EUT Vert
2484.677	38.0	1.8	1.7	349.0	3.0	20.0	Vert	PK	0.0	59.8	74.0	-14.2	High Ch 11, 6Mbps, EUT on Side
2485.223	37.9	1.8	1.7	344.0	3.0	20.0	Horz	PK	0.0	59.7	74.0	-14.3	High Ch 11, 6Mbps, Eut Vert
2483.597	37.8	1.8	2.7	120.0	3.0	20.0	Vert	PK	0.0	59.6	74.0	-14.4	High Ch 11, 6Mbps, EUT Horz
2484.943	37.8	1.8	1.7	344.0	3.0	20.0	Horz	PK	0.0	59.6	74.0	-14.4	High Ch 11, 54Mbps, EUT Vert
2483.747	37.6	1.8	1.7	160.0	3.0	20.0	Horz	PK	0.0	59.4	74.0	-14.6	High Ch 11, 6Mbps, EUT Horz
2389.967	38.1	1.3	1.7	155.0	3.0	20.0	Vert	PK	0.0	59.4	74.0	-14.6	Low Ch 1, 1Mbps, EUT Vert
2484.667	37.5	1.8	1.7	194.0	3.0	20.0	Horz	PK	0.0	59.3	74.0	-14.7	High Ch 11, 6Mbps, 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
2484.507	37.5	1.8	1.7	344.0	3.0	20.0	Horz	PK	0.0	59.3	74.0	-14.7	High Ch 11, 11Mbps, EUT Vert
2485.347	37.4	1.8	1.7	72.0	3.0	20.0	Vert	PK	0.0	59.2	74.0	-14.8	High Ch 11, 6Mbps, Eut Vert
2389.167	37.8	1.3	1.7	306.0	3.0	20.0	Horz	PK	0.0	59.1	74.0	-14.9	Low Ch 1, 6Mbps, EUT Vert
2388.887	37.5	1.3	1.7	104.0	3.0	20.0	Vert	PK	0.0	58.8	74.0	-15.2	Low Ch 1, 6Mbps, EUT Vert
2388.607	37.3	1.3	1.7	311.0	3.0	20.0	Horz	PK	0.0	58.6	74.0	-15.4	Low Ch 1, 1Mbps, EUT Vert



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	11/19/2015	11/19/2016
Generator - Signal	Keysight	N5182B	TFX	4/16/2015	4/16/2018
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Attenuator	Fairview Microwave	SA18E-20	TKS	4/4/2016	4/4/2017
Block - DC	Aeroflex	INMET 8535	AMO	4/4/2016	4/4/2017

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. 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.

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.

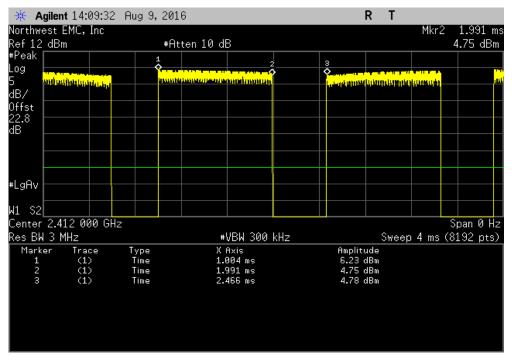


Serial Number; None	FIIT-	BLEE						Work Order:	AW A D 0022	
Customer Average in Corporation Power State State Pulse Power State Pulse										
Attenderes None Project None Property None Property None Project None Project None										
Project None										
Tested by: Miles Tran										
Test Septimications ANSI Cels 10:2013 ANSI Cels 10:2013				Power	HCD Doworod					
Comments Configuration # ANSI C63.10.2013				rower.				Job Site.	0013	
DEVIATIONS FROM TEST STANDARD		IONS								
DEVIATIONS FROM TEST STANDARD	FCC 15.247:2016				ANSI C63.10:2013					
DEVIATIONS FROM TEST STANDARD	COMMENTS									
Pulse Width Period Value Limit Pulse Width Pul										
Signature	l otal reference leve	el offset: DC Block + 20dB	attenuator + RF Cable + Patch Cable	e = 22.75 dB. Powe	r setting = 0.					
Signature										
Signature	DEVIATIONS FROM	/ TEST STANDARD								
A	None									
Signature Pulse Width Period Number of Pulse Value Limit Period Pulse Value CV6 Pulse VAlue				0 - 0						
Pulse Width Period Pulse	Configuration #	4		And the	щ					
### Pulse Width Period Pulse (%) (%) Results ### Resul			Signature							
2400 MHz - 2483.5 MHz Band 2412 MHz							Number of		Limit	
802.11(b) 1 Mbps					Pulse Width	Period	Pulses	(%)	(%)	Results
Low Channel 1, 2412 MHz	2400 MHz - 2483.5 M	MHz Band								
Low Channel 1, 2412 MHz 98.893 us 1,742 ms 1 56.8 N/A N/A N/A Mid Channel 6, 2437 MHz 98.893 us 1,742 ms 1 56.8 N/A N/A N/A N/A Mid Channel 6, 2437 MHz 98.405 us 1,435 ms 1 68.9 N/A										
Mid Channel 6, 2437 MHz Mid Channel 6, 2437 MHz Mid Channel 6, 2437 MHz Mid Channel 11, 2462 MHz Mid Channel 12, 2412 MHz Mid Channel 11, 2462 MHz Mid Channel 12, 2412 MHz Mid Channel 12, 2412 MHz Mid Channel 11, 2462 MHz Mid Channel 12, 2412 MHz Mid Channel 11, 2462 MHz										
Mid Channel 6, 2437 MHz		Low Channel 1	1, 2412 MHz				5			
High Channel 11, 2462 MHz		Mid Channel 6,	, 2437 MHz		988.893 us	1.742 ms		56.8	N/A	N/A
High Channel 11, 2462 MHz 802.11(b) 11 Mbps Low Channel 1, 2412 MHz N/A Mid Channel 6, 2437 MHz Mid Channel 6, 2437 MHz Mid Channel 6, 2437 MHz Mid Channel 11, 2462 MHz N/A Mid Channel 6, 2437 MHz Mid Channel 11, 2462 MHz N/A Mid Channel 6, 2437 MHz Mid Channel 11, 2462 MHz N/A Mid Channel 6, 2437 MHz Mid Channel 1, 2462 MHz N/A Mid Channel 11, 2462 MHz N/A Mid Channel 6, 2437 M		Mid Channel 6,	, 2437 MHz		N/A	N/A	6	N/A	N/A	N/A
B02.11(b) 11 Mbps		High Channel 1	11, 2462 MHz		988.405 us	1.435 ms	1	68.9	N/A	N/A
Low Channel 1, 2412 MHz		High Channel 1	11, 2462 MHz		N/A	N/A	5	N/A	N/A	N/A
Low Channel 1, 2412 MHz N/A		802.11(b) 11 Mbps								
Mid Channel 6, 2437 MHz 261.593 us 644.644 us 1 40.6 N/A N/A Mid Channel 6, 2437 MHz N/A N/A N/A 6 N/A N/A <td></td> <td>Low Channel 1</td> <td>1, 2412 MHz</td> <td></td> <td>261.493 us</td> <td>635.544 us</td> <td></td> <td>41.1</td> <td>N/A</td> <td>N/A</td>		Low Channel 1	1, 2412 MHz		261.493 us	635.544 us		41.1	N/A	N/A
Mid Channel 6, 2437 MHz High Channel 11, 2462 MHz High Channel 11, 2462 MHz High Channel 11, 2462 MHz N/A		Low Channel 1	1, 2412 MHz		N/A	N/A	5	N/A	N/A	N/A
High Channel 11, 2462 MHz High Channel 11, 2462 MHz N/A		Mid Channel 6,	, 2437 MHz		261.593 us	644.644 us	1	40.6	N/A	N/A
High Channel 11, 2462 MHz		Mid Channel 6,	, 2437 MHz		N/A	N/A	6	N/A	N/A	N/A
B02.11(g) 6 Mbps		High Channel 1	11, 2462 MHz		261.449 us	572.3 us	1	45.7	N/A	N/A
Low Channel 1, 2412 MHz 150.389 us 391.909 us 1 38.4 N/A N/A N/A N/A Low Channel 1, 2412 MHz N/A		High Channel 1	11, 2462 MHz		N/A	N/A	5	N/A	N/A	N/A
Low Channel 1, 2412 MHz N/A		802.11(g) 6 Mbps								
Mid Channel 6, 2437 MHz 149,412 us 319,879 us 1 46.7 N/A N/A Mid Channel 6, 2437 MHz N/A N/A N/A 4 N/A N/A N/A High Channel 11, 2462 MHz 148,191 us 265,426 us 1 55.8 N/A N/A High Channel 11, 2462 MHz N/A N/A N/A 3 N/A N/A N/A B02.11(g) 36 Mbps Low Channel 1, 2412 MHz 33.457 us 230.524 us 1 14.5 N/A N/A Low Channel 1, 2412 MHz N/A		Low Channel 1	1, 2412 MHz		150.389 us	391.909 us	1	38.4	N/A	N/A
Mid Channel 6, 2437 MHz Mid Channel 6, 2437 MHz Mid Channel 6, 2437 MHz Mid Channel 1, 2462 MHz Mig Channel 11, 2462 MHz Mig Channel 1, 2412 MHz Mid Channel 1, 2412 MHz Mid Channel 1, 2412 MHz Mid Channel 6, 2437 MHz Mid Channel 6, 2437 MHz Mid Channel 1, 2462 MHz Mid Channel 6, 2437 MHz Mid Channel 11, 2462 MHz Mid Channel 11, 2412 MHz Mid Channel 1, 241		Low Channel 1	1, 2412 MHz		N/A	N/A	4	N/A	N/A	N/A
Mid Channel 6, 2437 MHz N/A N/A 4 N/A N/A N/A High Channel 11, 2462 MHz 148.191 us 265.426 us 1 55.8 N/A N/A High Channel 11, 2462 MHz N/A N/A N/A N/A N/A N/A B02.11(g) 36 Mbps S US S0.524 us 1 14.5 N/A N/A Low Channel 1, 2412 MHz N/A					149.412 us		1		N/A	
High Channel 11, 2462 MHz					N/A	N/A	4	N/A	N/A	N/A
High Channel 11, 2462 MHz		High Channel 1	11, 2462 MHz		148.191 us	265.426 us	1	55.8	N/A	N/A
B02.11(g) 36 Mbps		High Channel 1	11, 2462 MHz		N/A	N/A	3	N/A	N/A	N/A
Low Channel 1, 2412 MHz Low Channel 1, 2412 MHz Low Channel 1, 2412 MHz N/A										
Mid Channel 6, 2437 MHz 34.145 us 177.053 us 1 19.3 N/A N/A Mid Channel 6, 2437 MHz N/A N/A N/A 5 N/A N/A N/A N/A High Channel 11, 2462 MHz 35.122 us 233.354 us 1 15.1 N/A N/A High Channel 11, 2462 MHz N/A N/A N/A 6 N/A N/A N/A 802.11(g) 54 Mbps 1 13.7 N/A N/A Low Channel 1, 2412 MHz 26.777 us 195.267 us 1 13.7 N/A N/A Low Channel 1, 2412 MHz N/A N/A N/A 6 N/A N/A N/A Mid Channel 6, 2437 MHz 32.393 us 213.39 us 1 15.2 N/A N/A Mid Channel 1, 2462 MHz N/A			1, 2412 MHz		33.457 us	230.524 us	1	14.5	N/A	N/A
Mid Channel 6, 2437 MHz N/A N/A 5 N/A N/A N/A High Channel 11, 2462 MHz 35.122 us 233.354 us 1 15.1 N/A N/A N/A High Channel 11, 2462 MHz N/A N/A N/A 6 N/A N/A N/A 802.11(g) 54 Mbps Low Channel 1, 2412 MHz 26.777 us 195.267 us 1 13.7 N/A N/A Low Channel 1, 2412 MHz N/A N/A N/A N/A N/A N/A N/A N/A Mid Channel 6, 2437 MHz 32.393 us 213.39 us 1 15.2 N/A N/A Mid Channel 6, 2437 MHz N/A N/A N/A N/A N/A N/A High Channel 11, 2462 MHz 32.549 us 201.035 us 1 16.2 N/A N/A		Low Channel 1	1, 2412 MHz		N/A	N/A	5	N/A	N/A	N/A
High Channel 11, 2462 MHz 35.122 us 233.354 us 1 15.1 N/A N/A High Channel 11, 2462 MHz N/A N/A N/A 6 N/A		Mid Channel 6,	, 2437 MHz		34.145 us	177.053 us	1	19.3	N/A	N/A
High Channel 11, 2462 MHz		Mid Channel 6,	, 2437 MHz		N/A	N/A	5	N/A	N/A	N/A
High Channel 11, 2462 MHz N/A N/A N/A N/A N/A 802.11(g) 54 Mbps 26.777 us 195.267 us 1 13.7 N/A N/A Low Channel 1, 2412 MHz 8.77 us 195.267 us 1 13.7 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 32.393 us 213.39 us 1 15.2 N/A N/A Mid Channel 6, 2437 MHz N/A N/A N/A 6 N/A N/A N/A High Channel 11, 2462 MHz 32.549 us 201.035 us 1 16.2 N/A N/A					35.122 us	233,354 us	1	15.1	N/A	N/A
802.11(g) 54 Mbps Low Channel 1, 2412 MHz Low Channel 1, 2412 MHz N/A N/A N/A N/A N/A N/A N/A N/							6			
Low Channel 1, 2412 MHz 26.777 us 195.267 us 1 13.7 N/A N/A Low Channel 1, 2412 MHz N/A N/A <td></td>										
Low Channel 1, 2412 MHz N/A N/A N/A N/A N/A N/A N/A Mid Channel 6, 2437 MHz 32.393 us 213.39 us 1 15.2 N/A N/A Mid Channel 6, 2437 MHz N/A N/A N/A 6 N/A N/A N/A High Channel 11, 2462 MHz 32.549 us 201.035 us 1 16.2 N/A N/A			1, 2412 MHz		26.777 us	195.267 us	1	13.7	N/A	N/A
Mid Channel 6, 2437 MHz 32.393 us 213.39 us 1 15.2 N/A N/A Mid Channel 6, 2437 MHz N/A N/A N/A 6 N/A N/A N/A High Channel 11, 2462 MHz 32.549 us 201.035 us 1 16.2 N/A N/A							6			
Mid Channel 6, 2437 MHz N/A N/A N/A 6 N/A N/A N/A N/A High Channel 11, 2462 MHz 32.549 us 201.035 us 1 16.2 N/A N/A										
High Channel 11, 2462 MHz 32.549 us 201.035 us 1 16.2 N/A N/A							•			
							-			
High Channel 11, 2462 MHz N/A N/A N/A 6 N/A N/A N/A N/A							6			N/A

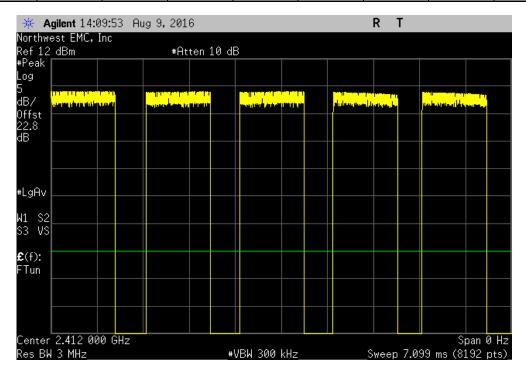
Report No. AWAR0022.2 17/94



	2400 MHz - 2	2483.5 MHz Band	d, 802.11(b) 1 Mb	ps, Low Channel	1, 2412 MHz		
			Number of	Value	Limit		
	Pulse Width	Period	Pulses	(%)	(%)	Results	
	987.44 us	1.462 ms	1	67.5	N/A	N/A	

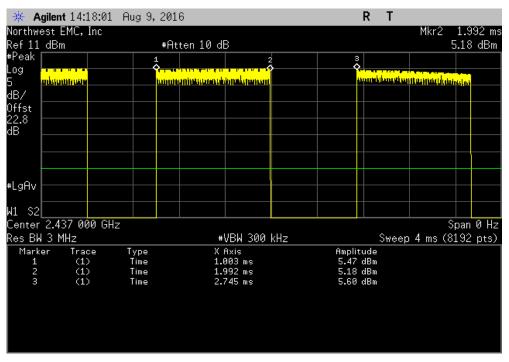


	2400 MHz - 2	2483.5 MHz Band	l, 802.11(b) 1 Mb	ps, Low Channel	1, 2412 MHz	
			Number of	Value	Limit	
	 Pulse Width	Period	Pulses	(%)	(%)	Results
i	N/A	N/A	5	N/A	N/A	N/A

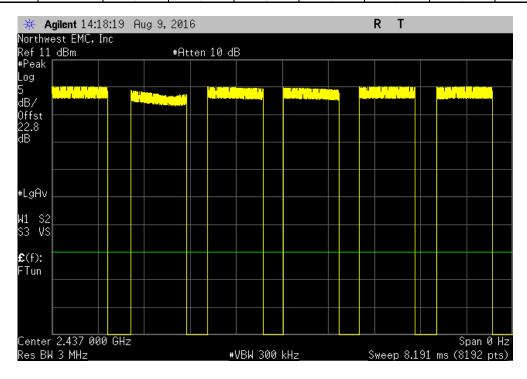




	2400 MHz - 2	2483.5 MHz Band	d, 802.11(b) 1 Mb	ps, Mid Channel	6, 2437 MHz		
			Number of	Value	Limit		
	Pulse Width	Period	Pulses	(%)	(%)	Results	
Г	988.893 us	1.742 ms	1	56.8	N/A	N/A	I

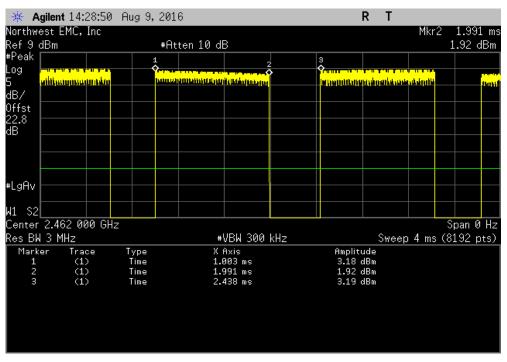


	2400 MHz - 2	2483.5 MHz Band	d, 802.11(b) 1 Mb	ps, Mid Channel	6, 2437 MHz	
			Number of	Value	Limit	
	Pulse Width	Period	Pulses	(%)	(%)	Results
1	N/A	N/A	6	N/A	N/A	N/A

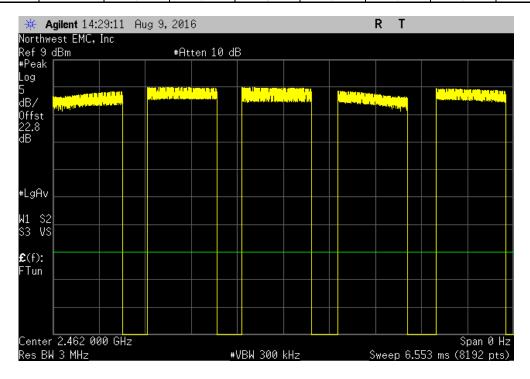




	2400 MHz - 2	483.5 MHz Band,	, 802.11(b) 1 Mbp	s, High Channel	11, 2462 MHz		
			Number of	Value	Limit		
	Pulse Width	Period	Pulses	(%)	(%)	Results	
	988.405 us	1.435 ms	1	68.9	N/A	N/A	l

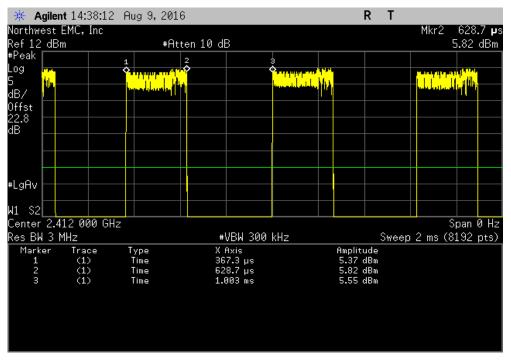


2400 MHz - 2	483.5 MHz Band	, 802.11(b) 1 Mbp	s, High Channel	11, 2462 MHz	
		Number of	Value	Limit	
 Pulse Width	Period	Pulses	(%)	(%)	Results
N/A	N/A	5	N/A	N/A	N/A

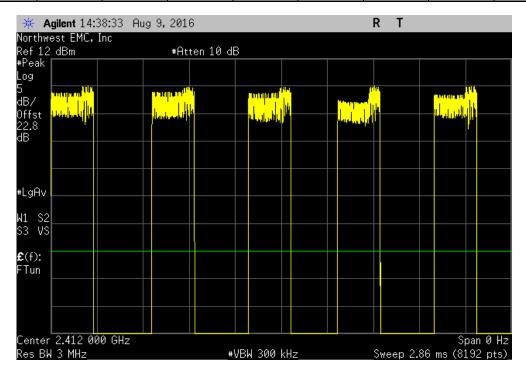




2400 MHz - 2	2483.5 MHz Band	, 802.11(b) 11 Mi	ps, Low Channe	1, 2412 MHz	
		Number of	Value	Limit	
Pulse Width	Period	Pulses	(%)	(%)	Results
261.493 us	635.544 us	1	41.1	N/A	N/A

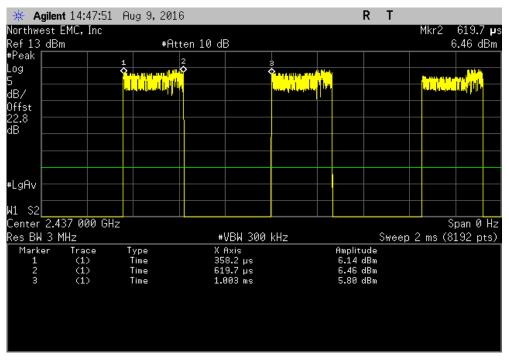


	2400 MHz - 2	483.5 MHz Band	, 802.11(b) 11 Mb	ps, Low Channel	1, 2412 MHz	
			Number of	Value	Limit	
	 Pulse Width	Period	Pulses	(%)	(%)	Results
i	N/A	N/A	5	N/A	N/A	N/A

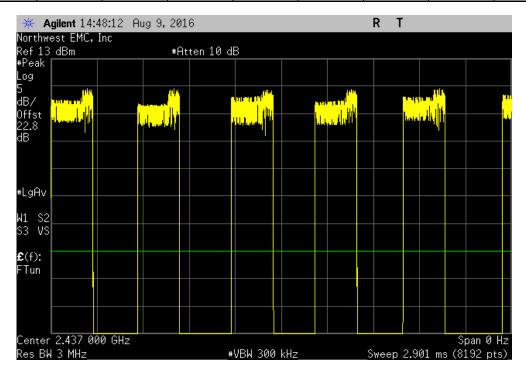




	2400 MHz - 2	483.5 MHz Band	l, 802.11(b) 11 MI	pps, Mid Channel	6, 2437 MHz	
			Number of	Value	Limit	
	Pulse Width	Period	Pulses	(%)	(%)	Results
	261.593 us	644.644 us	1	40.6	N/A	N/A

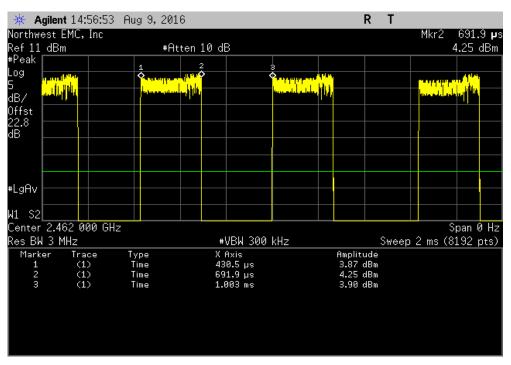


	2400 MHz - 2	2483.5 MHz Band	l, 802.11(b) 11 MI	bps, Mid Channel	6, 2437 MHz	
			Number of	Value	Limit	
	 Pulse Width	Period	Pulses	(%)	(%)	Results
i	N/A	N/A	6	N/A	N/A	N/A

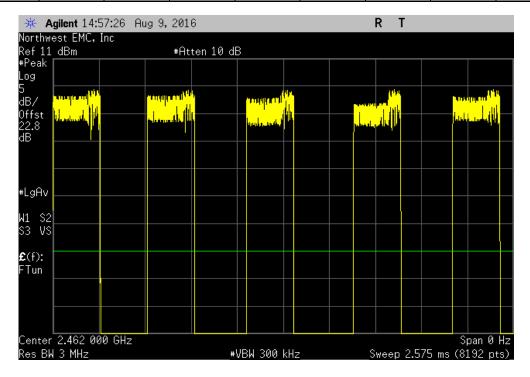




	2400 MHz - 24	183.5 MHz Band,	802.11(b) 11 Mb	os, High Channel	11, 2462 MHz		
			Number of	Value	Limit		
	Pulse Width	Period	Pulses	(%)	(%)	Results	
	261.449 us	572.3 us	1	45.7	N/A	N/A	

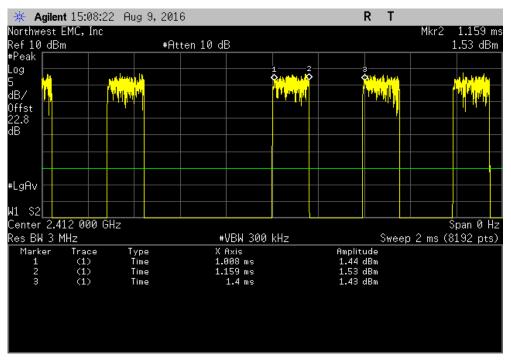


	2400 MHz - 24	183.5 MHz Band,	802.11(b) 11 Mb	ps, High Channel	11, 2462 MHz	
			Number of	Value	Limit	
	Pulse Width	Period	Pulses	(%)	(%)	Results
	N/A	N/A	5	N/A	N/A	N/A

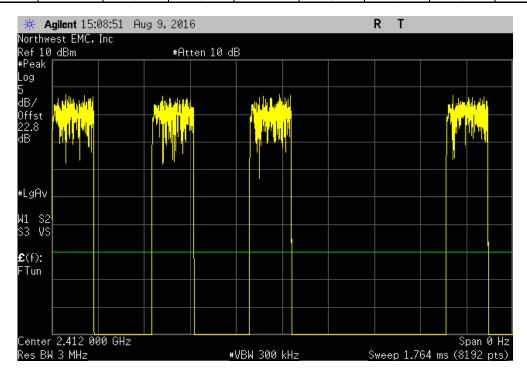




	2400 MHz - 2	2483.5 MHz Band	d, 802.11(g) 6 Mb	ps, Low Channel	1, 2412 MHz		
			Number of	Value	Limit		
	Pulse Width	Period	Pulses	(%)	(%)	Results	
	150.389 us	391.909 us	1	38.4	N/A	N/A	

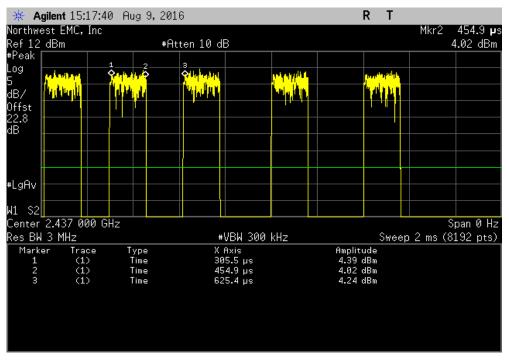


	2400 MHz - 2	2483.5 MHz Band	d, 802.11(g) 6 Mb	ps, Low Channel	1, 2412 MHz	
			Number of	Value	Limit	
	Pulse Width	Period	Pulses	(%)	(%)	Results
1	N/A	N/A	4	N/A	N/A	N/A

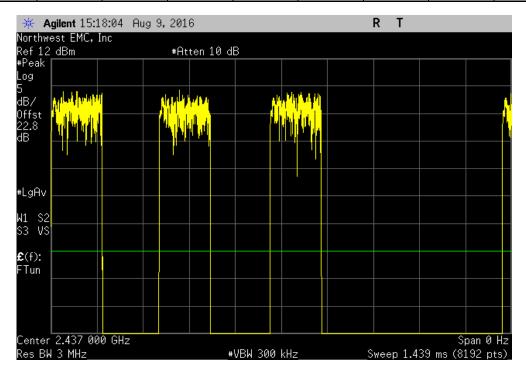




2400 MHz -	2483.5 MHz Band	d, 802.11(g) 6 Mb	ps, Mid Channel	6, 2437 MHz	
		Number of	Value	Limit	
Pulse Width	Period	Pulses	(%)	(%)	Results
149.412 us	319.879 us	1	46.7	N/A	N/A

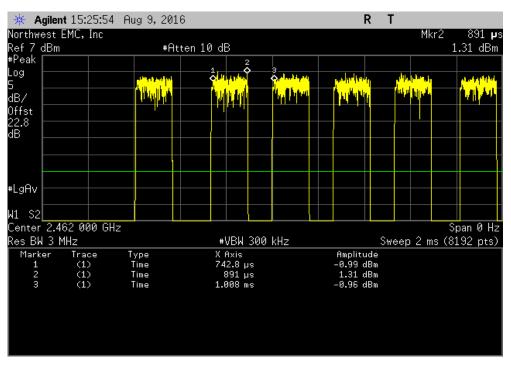


	2400 MHz - 2	2483.5 MHz Band	d, 802.11(g) 6 Mb	ps, Mid Channel	6, 2437 MHz	
			Number of	Value	Limit	
	 Pulse Width	Period	Pulses	(%)	(%)	Results
1	N/A	N/A	4	N/A	N/A	N/A

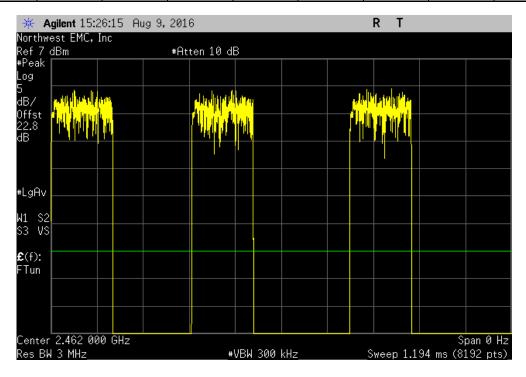




2400 MHz - 2	483.5 MHz Band,	802.11(g) 6 Mbp	s, High Channel	11, 2462 MHz	
		Number of	Value	Limit	
Pulse Width	Period	Pulses	(%)	(%)	Results
148.191 us	265.426 us	1	55.8	N/A	N/A

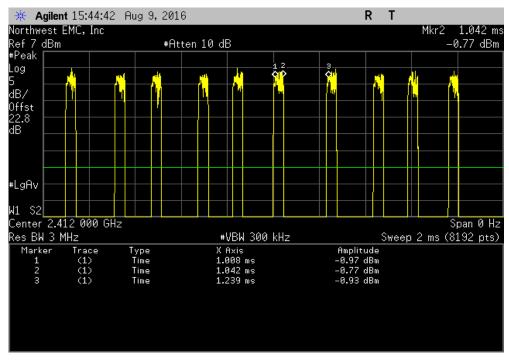


	2400 MHz - 2	483.5 MHz Band,	, 802.11(g) 6 Mbp	s, High Channel	11, 2462 MHz	
			Number of	Value	Limit	
	 Pulse Width	Period	Pulses	(%)	(%)	Results
1	N/A	N/A	3	N/A	N/A	N/A

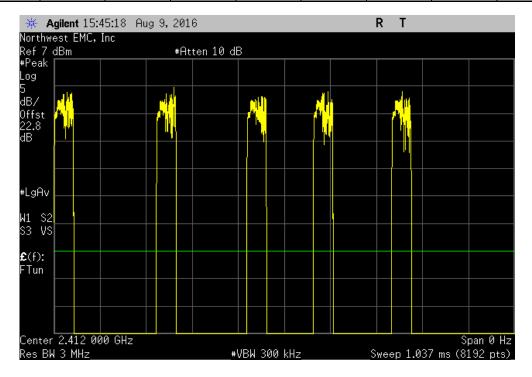




2400 MHz - 2	483.5 MHz Band	, 802.11(g) 36 Mb	ops, Low Channel	1, 2412 MHz	
		Number of	Value	Limit	
Pulse Width	Period	Pulses	(%)	(%)	Results
33.457 us	230.524 us	1	14.5	N/A	N/A

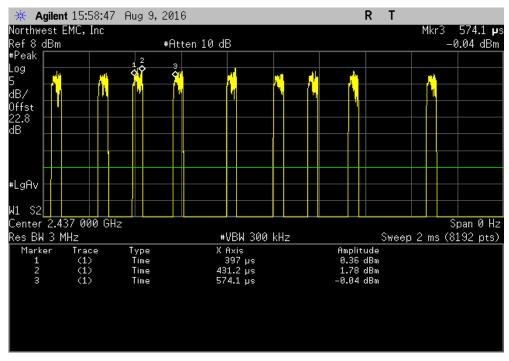


	2400 MHz - 2	483.5 MHz Band	, 802.11(g) 36 Mb	ps, Low Channel	1, 2412 MHz	
			Number of	Value	Limit	
	 Pulse Width	Period	Pulses	(%)	(%)	Results
i	N/A	N/A	5	N/A	N/A	N/A

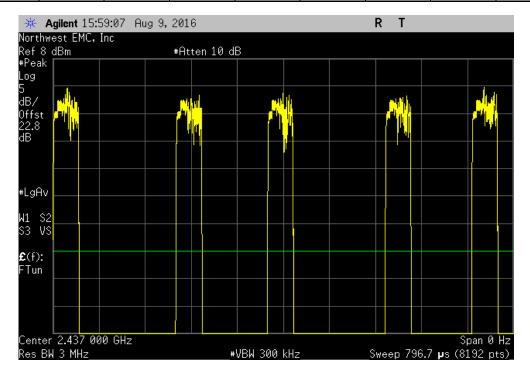




2400 MHz - 2	2483.5 MHz Band	, 802.11(g) 36 MI	pps, Mid Channel	6, 2437 MHz	
		Number of	Value	Limit	
Pulse Width	Period	Pulses	(%)	(%)	Results
34.145 us	177.053 us	1	19.3	N/A	N/A

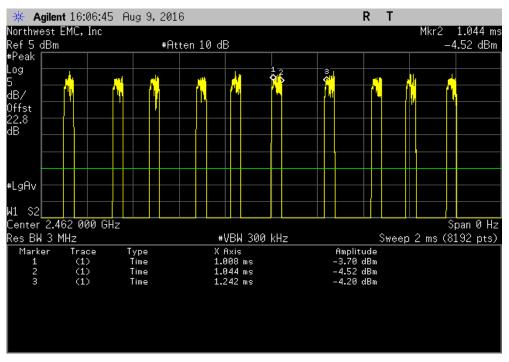


	2400 MHz - 2	483.5 MHz Band	, 802.11(g) 36 Mi	ps, Mid Channel	6, 2437 MHz	
			Number of	Value	Limit	
	 Pulse Width	Period	Pulses	(%)	(%)	Results
i	N/A	N/A	5	N/A	N/A	N/A

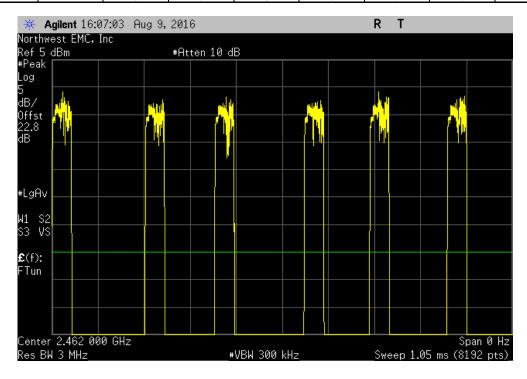




	2400 MHz - 24	83.5 MHz Band,	802.11(g) 36 Mb	ps, High Channel	11, 2462 MHz		
			Number of	Value	Limit		
	Pulse Width	Period	Pulses	(%)	(%)	Results	
	35.122 us	233.354 us	1	15.1	N/A	N/A	

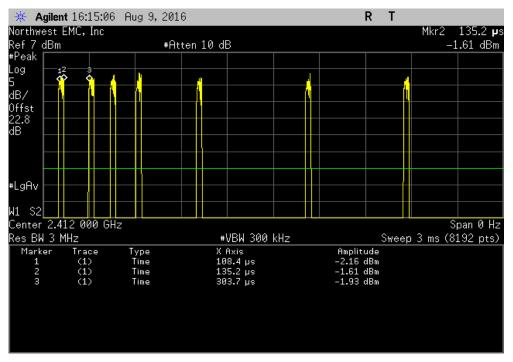


2400 MHz - 24	483.5 MHz Band,	802.11(g) 36 Mb	ps, High Channel	11, 2462 MHz	
		Number of	Value	Limit	
 Pulse Width	Period	Pulses	(%)	(%)	Results
N/A	N/A	6	N/A	N/A	N/A

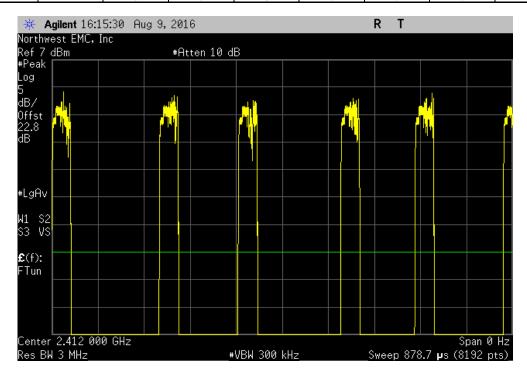




	2400 MHz - 2	483.5 MHz Band	, 802.11(g) 54 Mb	ps, Low Channel	1, 2412 MHz		
			Number of	Value	Limit		
	Pulse Width	Period	Pulses	(%)	(%)	Results	
	26.777 us	195.267 us	1	13.7	N/A	N/A	

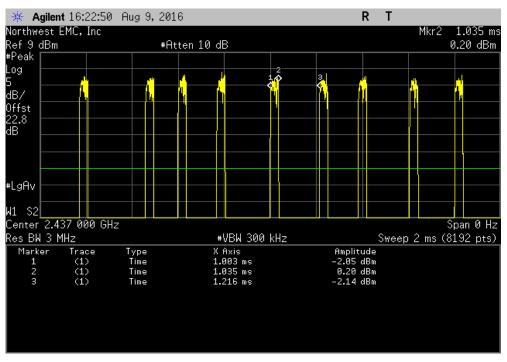


2400 MHz - 2	483.5 MHz Band	, 802.11(g) 54 Mb	ps, Low Channel	1, 2412 MHz	
		Number of	Value	Limit	
 Pulse Width	Period	Pulses	(%)	(%)	Results
N/A	N/A	6	N/A	N/A	N/A

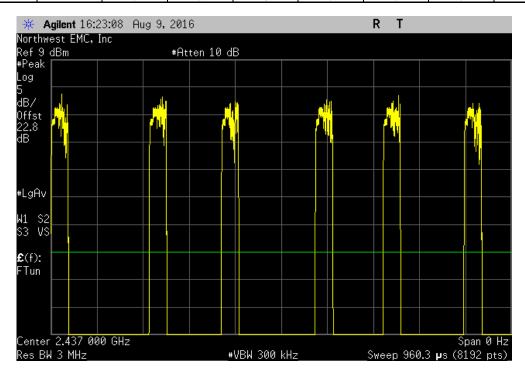




	2400 MHz - 2	483.5 MHz Band	l, 802.11(g) 54 MI	pps, Mid Channel	6, 2437 MHz	
			Number of	Value	Limit	
	Pulse Width	Period	Pulses	(%)	(%)	Results
	32.393 us	213.39 us	1	15.2	N/A	N/A

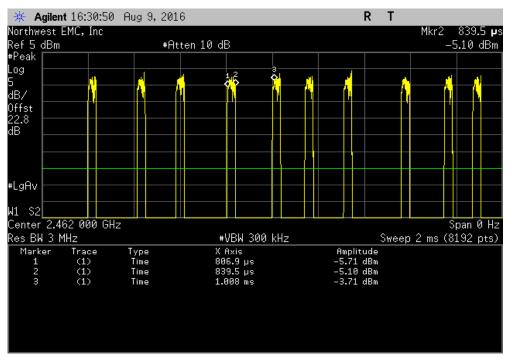


2400 MHz - 2	2483.5 MHz Band	l, 802.11(g) 54 MI	bps, Mid Channel	6, 2437 MHz	
		Number of	Value	Limit	
 Pulse Width	Period	Pulses	(%)	(%)	Results
N/A	N/A	6	N/A	N/A	N/A

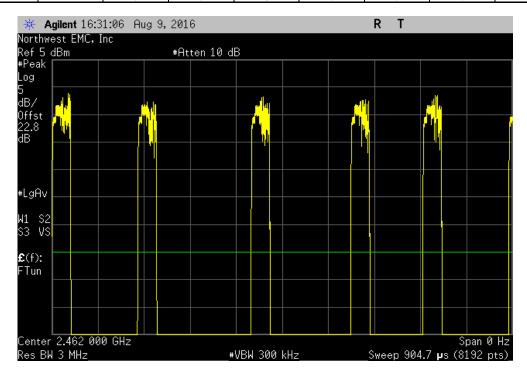




2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz					
	Number of Value Limit				
Pulse Width	Period	Pulses	(%)	(%)	Results
32.549 us	201.035 us	1	16.2	N/A	N/A



2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
	Number of Value Limit					
	Pulse Width	Period	Pulses	(%)	(%)	Results
	N/A	N/A	6	N/A	N/A	N/A





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	11/19/2015	11/19/2016
Generator - Signal	Keysight	N5182B	TFX	4/16/2015	4/16/2018
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Attenuator	Fairview Microwave	SA18E-20	TKS	4/4/2016	4/4/2017
Block - DC	Aeroflex	INMET 8535	AMO	4/4/2016	4/4/2017

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.

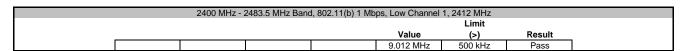
The 6dB occupied bandwidth was measured using 100 kHz resolution bandwidth and 300 kHz video bandwidth. The 99.0% occupied bandwidth was also measured at the same time which can be needed during Output Power depending on the applicable method.

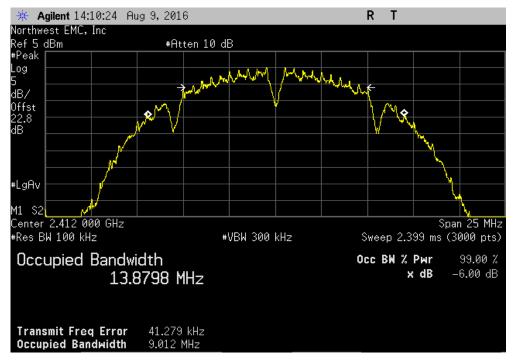


EUT:	BLEE				Work Order:	AWAR0022					
Serial Number: None						08/09/16					
	Awarepoint Corporation				Temperature:						
Attendees: None						Humidity: 44.8% RH					
Project:				Barometric Pres.: 1014 mbar							
Tested by:				USB Powered	Job Site:	OC13					
TEST SPECIFICATION	ONS			Test Method							
FCC 15.247:2016				ANSI C63.10:2013							
COMMENTS											
Total reference leve	el offset: DC Block + 20dB	3 attenuator + RF Cable + Patch Ca	able = 22.75 dB. Powe	r setting = 0.							
DEVIATIONS FROM	I TEST STANDARD										
None											
	_		11 9-	-0							
Configuration #	4		and.	Muy							
		Signature									
					Value	Limit	Result				
2400 MHz - 2483.5 M	Alla Dond				value	(>)	Result				
	802.11(b) 1 Mbps										
,	Low Channel	1 2412 MHz			9.012 MHz	500 kHz	Pass				
	Mid Channel 6				9.026 MHz	500 kHz	Pass				
						000 KHZ	1 433				
	High Channel	11 2462 MHz			9 003 MHz	500 kHz	Page				
		11, 2462 MHz			9.003 MHz	500 kHz	Pass				
-	802.11(b) 11 Mbps										
I	802.11(b) 11 Mbps Low Channel	1, 2412 MHz			9.936 MHz	500 kHz	Pass				
l	802.11(b) 11 Mbps Low Channel Mid Channel 6	1, 2412 MHz 6, 2437 MHz			9.936 MHz 9.595 MHz	500 kHz 500 kHz	Pass Pass				
	802.11(b) 11 Mbps Low Channel Mid Channel 6 High Channel	1, 2412 MHz			9.936 MHz	500 kHz	Pass				
	802.11(b) 11 Mbps Low Channel Mid Channel 6	1, 2412 MHz 6, 2437 MHz 11, 2462 MHz			9.936 MHz 9.595 MHz	500 kHz 500 kHz	Pass Pass				
	802.11(b) 11 Mbps Low Channel Mid Channel High Channel 802.11(g) 6 Mbps	1, 2412 MHz 6, 2437 MHz 11, 2462 MHz 1, 2412 MHz			9.936 MHz 9.595 MHz 9.568 MHz	500 kHz 500 kHz 500 kHz	Pass Pass Pass				
	802.11(b) 11 Mbps Low Channel Mid Channel High Channel 6 High Channel 802.11(g) 6 Mbps Low Channel Mid Channel 6	1, 2412 MHz 6, 2437 MHz 11, 2462 MHz 1, 2412 MHz 6, 2437 MHz			9.936 MHz 9.595 MHz 9.568 MHz 14.946 MHz	500 kHz 500 kHz 500 kHz 500 kHz 500 kHz	Pass Pass Pass Pass Pass				
ı	802.11(b) 11 Mbps Low Channel Mid Channel (High Channel 802.11(g) 6 Mbps Low Channel (Mid Channel (High Channel (1, 2412 MHz 6, 2437 MHz 11, 2462 MHz 1, 2412 MHz			9.936 MHz 9.595 MHz 9.568 MHz 14.946 MHz 14.843 MHz	500 kHz 500 kHz 500 kHz 500 kHz	Pass Pass Pass				
ı	802.11(b) 11 Mbps Low Channel Mid Channel High Channel 6 High Channel 802.11(g) 6 Mbps Low Channel Mid Channel 6	1, 2412 MHz 6, 2437 MHz 11, 2462 MHz 1, 2412 MHz 6, 2437 MHz 11, 2462 MHz			9.936 MHz 9.595 MHz 9.568 MHz 14.946 MHz 14.843 MHz	500 kHz 500 kHz 500 kHz 500 kHz 500 kHz	Pass Pass Pass Pass Pass				
ı	802.11(b) 11 Mbps Low Channel Mid Channel t High Channel 802.11(g) 6 Mbps Low Channel Mid Channel t High Channel 802.11(g) 36 Mbps	1, 2412 MHz 6, 2437 MHz 11, 2462 MHz 1, 2412 MHz 6, 2437 MHz 11, 2462 MHz 1, 2412 MHz			9.936 MHz 9.595 MHz 9.568 MHz 14.946 MHz 14.843 MHz 14.579 MHz	500 kHz 500 kHz 500 kHz 500 kHz 500 kHz 500 kHz	Pass Pass Pass Pass Pass Pass				
ı	802.11(b) 11 Mbps Low Channel Mid Channel I High Channel 802.11(g) 6 Mbps Low Channel Mid Channel I High Channel 802.11(g) 36 Mbps Low Channel Mid Channel I	1, 2412 MHz 6, 2437 MHz 11, 2462 MHz 1, 2412 MHz 6, 2437 MHz 11, 2462 MHz 1, 2412 MHz 6, 2437 MHz			9.936 MHz 9.595 MHz 9.568 MHz 14.946 MHz 14.843 MHz 14.579 MHz 16.209 MHz 16.261 MHz	500 kHz 500 kHz 500 kHz 500 kHz 500 kHz 500 kHz 500 kHz	Pass Pass Pass Pass Pass Pass Pass Pass				
1	802.11(b) 11 Mbps Low Channel Mid Channel (High Channel (High Channel (Mid Channel (High Channel (Mid Channel (High Channel (Mid Channel (Migh Channel (1, 2412 MHz 6, 2437 MHz 11, 2462 MHz 1, 2412 MHz 6, 2437 MHz 11, 2462 MHz 1, 2412 MHz			9.936 MHz 9.595 MHz 9.568 MHz 14.946 MHz 14.843 MHz 14.579 MHz	500 kHz 500 kHz 500 kHz 500 kHz 500 kHz 500 kHz 500 kHz	Pass Pass Pass Pass Pass Pass Pass				
1	802.11(b) 11 Mbps Low Channel Mid Channel I High Channel 802.11(g) 6 Mbps Low Channel Mid Channel I High Channel 802.11(g) 36 Mbps Low Channel Mid Channel I	1, 2412 MHz 6, 2437 MHz 11, 2462 MHz 1, 2412 MHz 6, 2437 MHz 11, 2462 MHz 1, 2412 MHz 6, 2437 MHz 1, 2412 MHz 6, 2437 MHz 11, 2462 MHz			9.936 MHz 9.595 MHz 9.568 MHz 14.946 MHz 14.843 MHz 14.579 MHz 16.209 MHz 16.261 MHz	500 kHz 500 kHz 500 kHz 500 kHz 500 kHz 500 kHz 500 kHz	Pass Pass Pass Pass Pass Pass Pass Pass				
1	802.11(b) 11 Mbps Low Channel Mid Channel (High Channel of High Channel of Hig	1, 2412 MHz 6, 2437 MHz 11, 2462 MHz 1, 2412 MHz 6, 2437 MHz 11, 2462 MHz 11, 2412 MHz 6, 2437 MHz 11, 2462 MHz 11, 2462 MHz			9.936 MHz 9.595 MHz 9.568 MHz 14.946 MHz 14.843 MHz 14.579 MHz 16.209 MHz 16.261 MHz 16.323 MHz	500 kHz 500 kHz 500 kHz 500 kHz 500 kHz 500 kHz 500 kHz 500 kHz 500 kHz	Pass Pass Pass Pass Pass Pass Pass Pass				

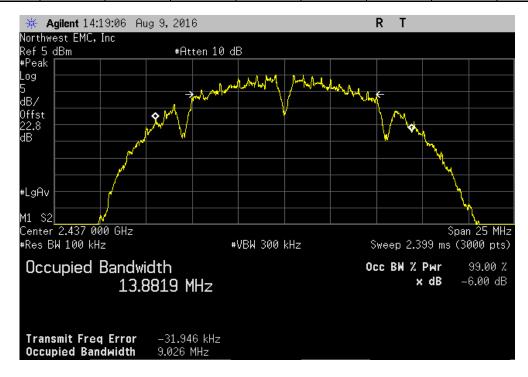
Report No. AWAR0022.2



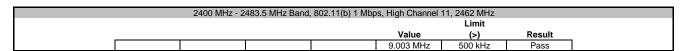




2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz								
	Limit							
					Value	(>)	Result	
					9.026 MHz	500 kHz	Pass	

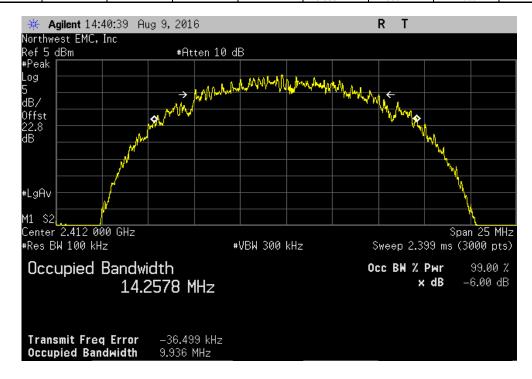




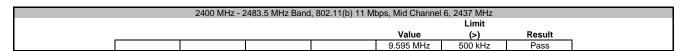


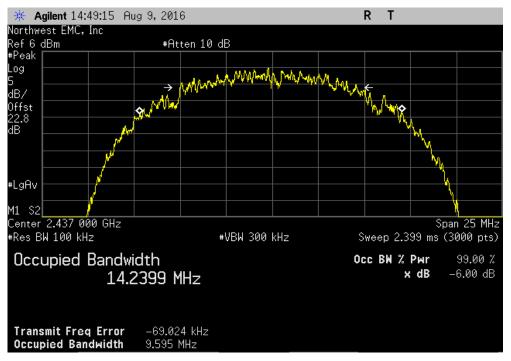


2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz								
	Limit							
_					Value	(>)	Result	
					9.936 MHz	500 kHz	Pass	

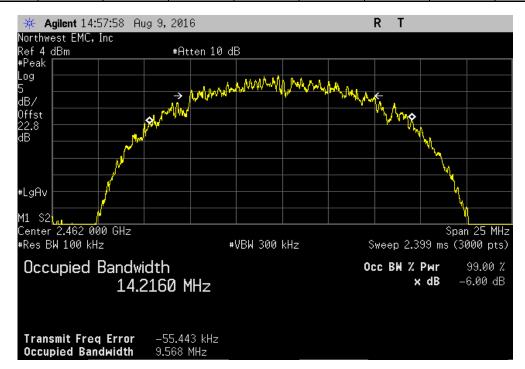




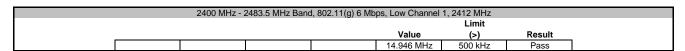


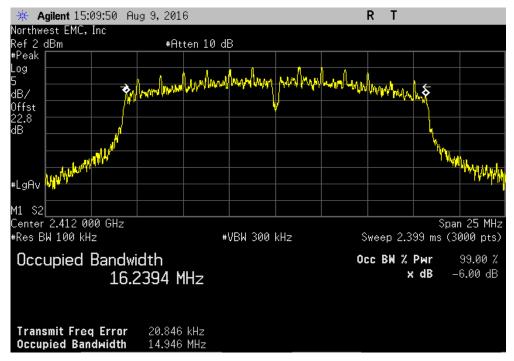


	2400 MHz - 24	183.5 MHz Band,	802.11(b) 11 Mb	os, High Channel	11, 2462 MHz	
					Limit	
				Value	(>)	Result
				9.568 MHz	500 kHz	Pass

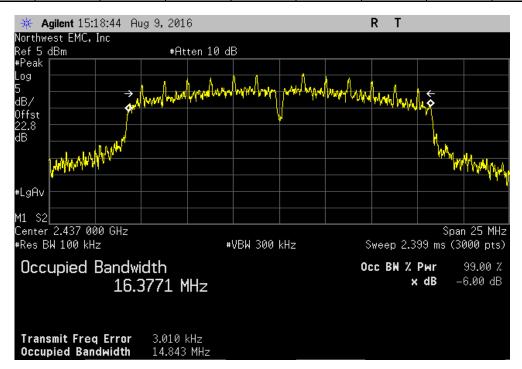




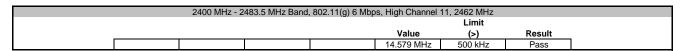


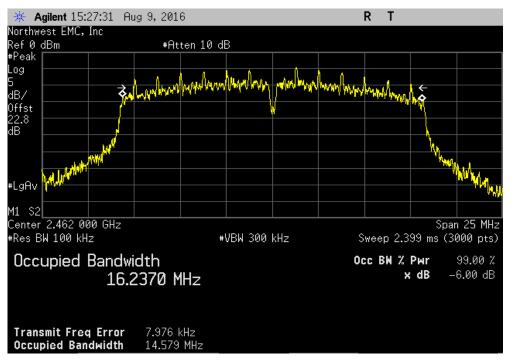


	2400 MHz -	2483.5 MHz Band	d, 802.11(g) 6 Mb	ps, Mid Channel	6, 2437 MHz		
					Limit		
				Value	(>)	Result	
				14.843 MHz	500 kHz	Pass	

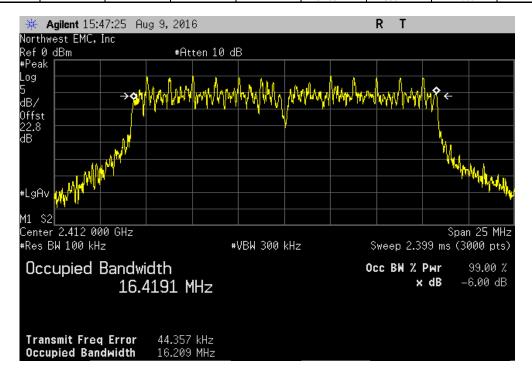








	2400 MHz - 2	2483.5 MHz Band	, 802.11(g) 36 Mi	ps, Low Channel	1, 2412 MHz	
					Limit	
_				Value	(>)	Result
				16.209 MHz	500 kHz	Pass



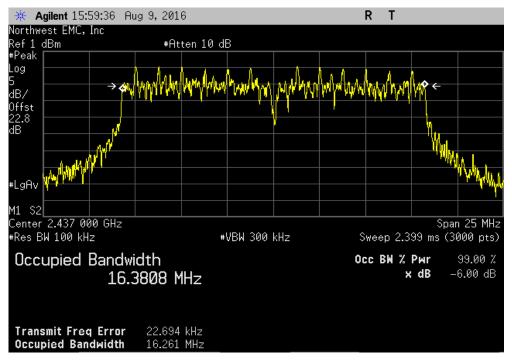


2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz

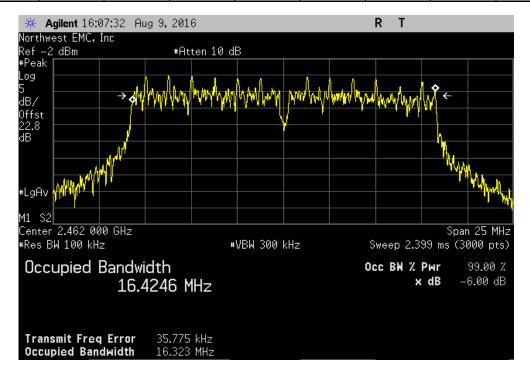
Limit

Value (>) Result

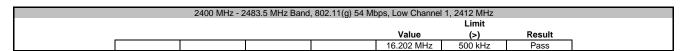
16.261 MHz 500 kHz Pass

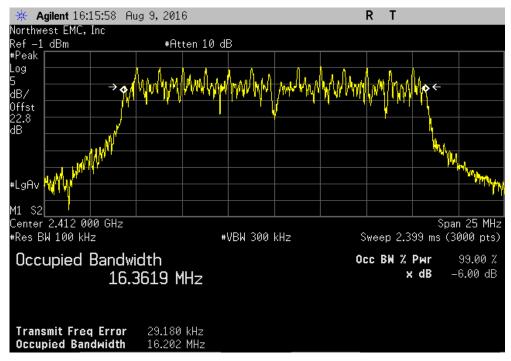


	2400 MHz - 24	483.5 MHz Band,	802.11(g) 36 Mb	os, High Channel	11, 2462 MHz	
					Limit	
				Value	(>)	Result
				16.323 MHz	500 kHz	Pass

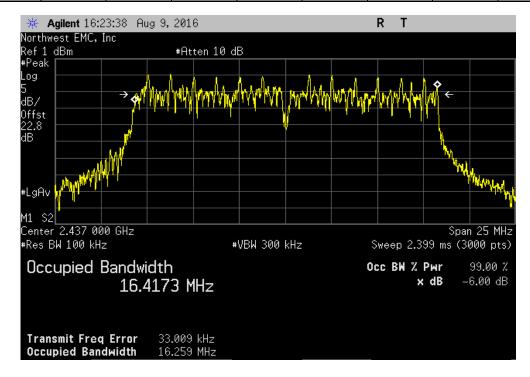






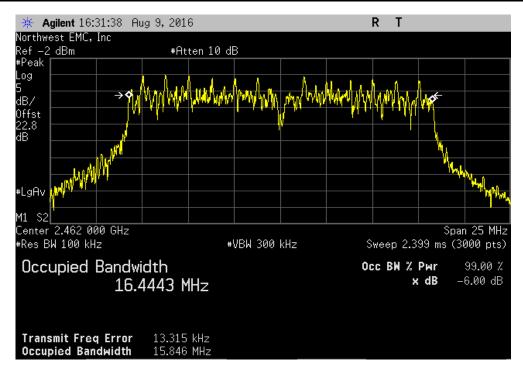


	2400 MHz - 2	2483.5 MHz Band	, 802.11(g) 54 MI	ps, Mid Channel	6, 2437 MHz	
					Limit	
				Value	(>)	Result
				16.259 MHz	500 kHz	Pass





	2400 MHz - 24	83.5 MHz Band,	802.11(g) 54 Mb	os, High Channel	11, 2462 MHz		
					Limit		
				Value	(>)	Result	_
				15.846 MHz	500 kHz	Pass	





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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFA	11/19/2015	11/19/2016
Generator - Signal	Keysight	N5182B	TFX	4/16/2015	4/16/2018
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Attenuator	Fairview Microwave	SA18E-20	TKS	4/4/2016	4/4/2017
Block - DC	Aeroflex	INMET 8535	AMO	4/4/2016	4/4/2017

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. 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.

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.

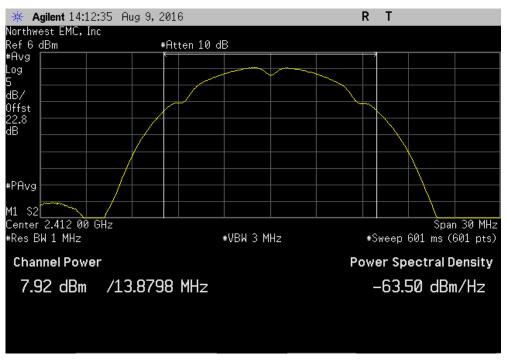
De Facto EIRP Limit: The EUT meets the de facto EIRP limit of +36 dBm.



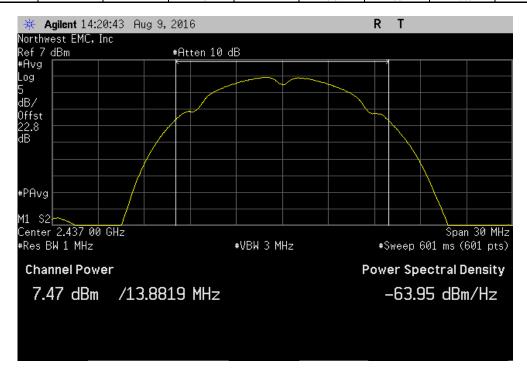
	BLEE				Work Order:		
Serial Number:		•				08/09/16	•
Customer:	Awarepoint Corporation				Temperature:	23 °C	
Attendees:					Humidity:		
Project:					Barometric Pres.:	1014 mbar	
Tested by:			Power: USB Powered		Job Site:	OC13	
TEST SPECIFICATION	ONS		Test Method				
FCC 15.247:2016			ANSI C63.10:201	3			
COMMENTS							
Total reference leve	el offset: DC Block + 20dE	3 attenuator + RF Cable + Patch Cable	= 22.75 dB. Power setting = 0.				
DEVIATIONS FROM	TEST STANDARD						
None							
Configuration #	4		Down chay				
Configuration #	4	Cimnatura	ven any				
		Signature	Avg Cond	Duty Cycle	Value	Limit	
			Pwr (dBm)	Factor (dB)	(dBm)	(dBm)	Results
2400 MHz - 2483.5 N	MHz Band		T #T (dBIII)	ractor (ab)	(ubiii)	(ubiii)	results
	802.11(b) 1 Mbps						
	Low Channel	1 2412 MHz	7.92	1.7	9.6	30	Pass
		6, 2437 MHz	7.472	2.5	9.9	30	Pass
		I 11, 2462 MHz		1.6	7.3		
	High Channe	I 11, 2462 MHz	5.703	1.6	7.3	30	Pass
	High Channe 802.11(b) 11 Mbps		5.703			30	Pass
	High Channe 802.11(b) 11 Mbps	1, 2412 MHz		3.9	7.3 9.9 10.6	30	
	High Channe 802.11(b) 11 Mbps Low Channel Mid Channel	1, 2412 MHz	5.703 6.064		9.9	30	Pass Pass
	High Channe 802.11(b) 11 Mbps Low Channel Mid Channel	1, 2412 MHz 6, 2437 MHz	5.703 6.064 6.638	3.9 3.9	9.9 10.6	30 30 30	Pass Pass Pass
	High Channe 802.11(b) 11 Mbps Low Channel Mid Channel High Channe 802.11(g) 6 Mbps	1, 2412 MHz 6, 2437 MHz	5.703 6.064 6.638	3.9 3.9	9.9 10.6	30 30 30	Pass Pass Pass
	High Channe 802.11(b) 11 Mbps Low Channel Mid Channel High Channe 802.11(g) 6 Mbps	1, 2412 MHz 6, 2437 MHz I 11, 2462 MHz 1, 2412 MHz	5.703 6.064 6.638 4.43	3.9 3.9 3.4	9.9 10.6 7.8	30 30 30 30 30	Pass Pass Pass Pass
	High Channe 802.11(b) 11 Mbps Low Channel Mid Channel High Channel 802.11(g) 6 Mbps Low Channel Mid Channel	1, 2412 MHz 6, 2437 MHz 111, 2462 MHz 1, 2412 MHz 6, 2437 MHz	5.703 6.064 6.638 4.43 2.579	3.9 3.9 3.4 4.2	9.9 10.6 7.8 6.7	30 30 30 30 30	Pass Pass Pass Pass Pass
	High Channe 802.11(b) 11 Mbps Low Channel Mid Channel High Channel 802.11(g) 6 Mbps Low Channel Mid Channel	1, 2412 MHz 6, 2437 MHz I 11, 2462 MHz 1, 2412 MHz	5.703 6.064 6.638 4.43 2.579 4.941	3.9 3.9 3.4 4.2 3.3	9.9 10.6 7.8 6.7 8.2	30 30 30 30 30 30	Pass Pass Pass Pass Pass Pass
	High Channe 802.11(b) 11 Mbps Low Channel Mid Channel High Channe 802.11(g) 6 Mbps Low Channel Mid Channel High Channel 802.11(g) 36 Mbps	1, 2412 MHz 6, 2437 MHz 111, 2462 MHz 1, 2412 MHz 6, 2437 MHz	5.703 6.064 6.638 4.43 2.579 4.941	3.9 3.9 3.4 4.2 3.3	9.9 10.6 7.8 6.7 8.2	30 30 30 30 30 30	Pass Pass Pass Pass Pass Pass
	High Channe 802.11(b) 11 Mbps Low Channel Mid Channel High Channe 802.11(g) 6 Mbps Low Channel Mid Channel High Channel 802.11(g) 36 Mbps	1, 2412 MHz 6, 2437 MHz 1 11, 2462 MHz 1, 2412 MHz 6, 2437 MHz 1 11, 2462 MHz 1, 2412 MHz	5.703 6.064 6.638 4.43 2.579 4.941 0.28	3.9 3.9 3.4 4.2 3.3 2.5	9.9 10.6 7.8 6.7 8.2 2.8	30 30 30 30 30 30 30 30	Pass Pass Pass Pass Pass Pass Pass Pass
	High Channe 802.11(b) 11 Mbps Low Channel Mid Channel High Channe 802.11(g) 6 Mbps Low Channel Mid Channel High Channe 802.11(g) 36 Mbps Low Channel Mid Channel Mid Channel	1, 2412 MHz 6, 2437 MHz 1 11, 2462 MHz 1, 2412 MHz 6, 2437 MHz 1 11, 2462 MHz 1, 2412 MHz	5.703 6.064 6.638 4.43 2.579 4.941 0.28	3.9 3.9 3.4 4.2 3.3 2.5	9.9 10.6 7.8 6.7 8.2 2.8	30 30 30 30 30 30 30 30 30	Pass Pass Pass Pass Pass Pass Pass Pass
	High Channe 802.11(b) 11 Mbps Low Channel Mid Channel High Channe 802.11(g) 6 Mbps Low Channel Mid Channel High Channe 802.11(g) 36 Mbps Low Channel Mid Channel Mid Channel	1, 2412 MHz 6, 2437 MHz I 11, 2462 MHz 1, 2412 MHz 6, 2437 MHz I 11, 2462 MHz 1, 2412 MHz 6, 2437 MHz	5.703 6.064 6.638 4.43 2.579 4.941 0.28 -4.763 -3.501	3.9 3.9 3.4 4.2 3.3 2.5	9.9 10.6 7.8 6.7 8.2 2.8 3.6 3.6	30 30 30 30 30 30 30 30 30 30	Pass Pass Pass Pass Pass Pass Pass Pass
	High Channe 802.11(b) 11 Mips Low Channel Mid Channel High Channe 802.11(g) 6 Mips Low Channel Mid Channel High Channe 802.11(g) 36 Mips Low Channel Mid Channel Mid Channel Mid Channel	1, 2412 MHz 6, 2437 MHz 1 11, 2462 MHz 1, 2412 MHz 6, 2437 MHz 1 11, 2462 MHz 1, 2412 MHz 6, 2437 MHz 1, 2462 MHz 1, 2462 MHz 1, 1, 2462 MHz	5.703 6.064 6.638 4.43 2.579 4.941 0.28 -4.763 -3.501	3.9 3.9 3.4 4.2 3.3 2.5	9.9 10.6 7.8 6.7 8.2 2.8 3.6 3.6	30 30 30 30 30 30 30 30 30 30	Pass Pass Pass Pass Pass Pass Pass Pass
	High Channe 802.11(b) 11 Mbps Low Channel Hid Channel High Channel High Channel Mid Channel High Channel High Channel High Channel Mid Channel High Channel High Channel High Channel High Channel High Channel High Channel	1, 2412 MHz 6, 2437 MHz 1 11, 2462 MHz 1, 2412 MHz 6, 2437 MHz 1 11, 2462 MHz 1, 2412 MHz 6, 2437 MHz 1, 2412 MHz 6, 2437 MHz 1, 2412 MHz 1, 2424 MHz	5.703 6.064 6.638 4.43 2.579 4.941 0.28 -4.763 -3.501 -7.324	3.9 3.9 3.4 4.2 3.3 2.5 8.4 7.1 8.2	9.9 10.6 7.8 6.7 8.2 2.8 3.6 3.6 0.9	30 30 30 30 30 30 30 30 30 30 30	Pass Pass Pass Pass Pass Pass Pass Pass



	2400 MHz - 2	2483.5 MHz Band	l, 802.11(b) 1 Mb	ps, Low Channel	1, 2412 MHz		
	Avg Cond	Duty Cycle		Value	Limit		
	Pwr (dBm)	Factor (dB)		(dBm)	(dBm)	Results	
1	7.92	1.7		9.6	30	Pass	

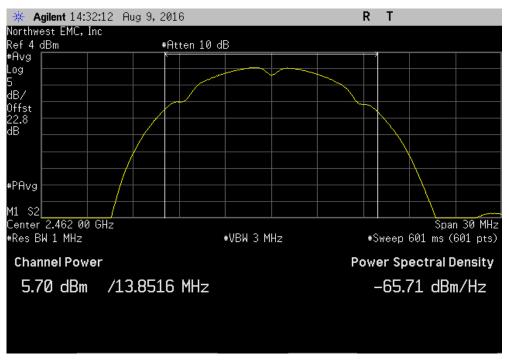


2400 MHz -	2483.5 MHz Band	d, 802.11(b) 1 Mb	ps, Mid Channel	6, 2437 MHz	
Avg Cond	Duty Cycle		Value	Limit	
 Pwr (dBm)	Factor (dB)		(dBm)	(dBm)	Results
7.472	2.5		9.9	30	Pass

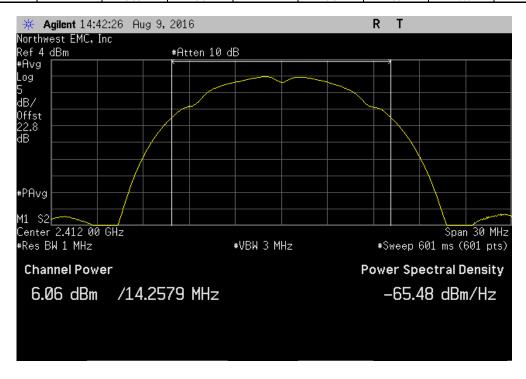




2400 MHz - 2	483.5 MHz Band,	, 802.11(b) 1 Mbp	s, High Channel	11, 2462 MHz	
Avg Cond	Duty Cycle		Value	Limit	
Pwr (dBm)	Factor (dB)		(dBm)	(dBm)	Results
5.703	1.6		7.3	30	Pass

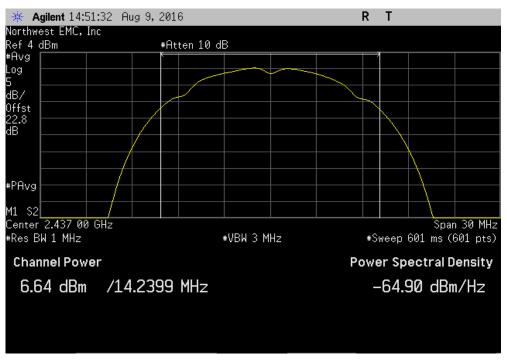


2400 MHz - 2	2483.5 MHz Band	, 802.11(b) 11 Mbps, Low Channe	el 1, 2412 MHz	
Avg Cond	Duty Cycle	Value	Limit	
 Pwr (dBm)	Factor (dB)	(dBm)	(dBm)	Results
6.064	3.9	9.9	30	Pass





2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz								
		Avg Cond	Duty Cycle		Value	Limit		
		Pwr (dBm)	Factor (dB)		(dBm)	(dBm)	Results	
1		6.638	3.9		10.6	30	Pass	I

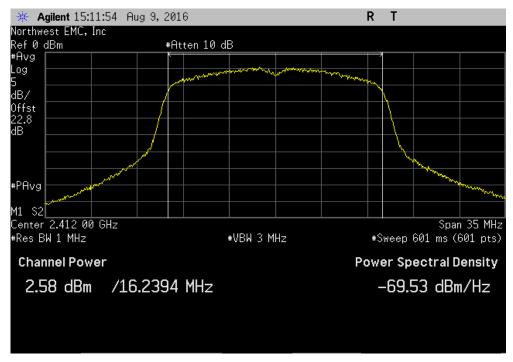


2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz									
	Avg Cond	Duty Cycle		Value	Limit				
<u></u>	Pwr (dBm)	Factor (dB)		(dBm)	(dBm)	Results			
	4.43	3.4		7.8	30	Pass			

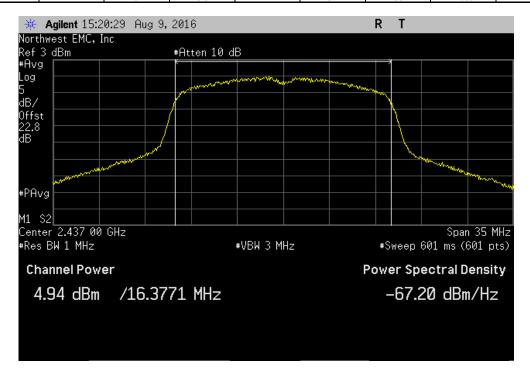




2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz									
	Avg Cond	Duty Cycle		Value	Limit				
	Pwr (dBm)	Factor (dB)		(dBm)	(dBm)	Results			
	2.579	4.2		6.7	30	Pass			

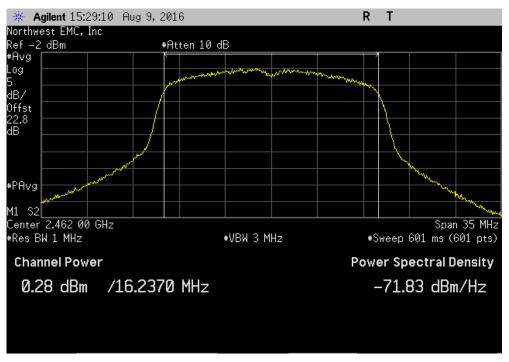


2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz									
Avg Cond	Duty Cycle	Value	Limit						
 Pwr (dBm)	Factor (dB)	(dBm)	(dBm)	Results					
4.941	3.3	8.2	30	Pass					

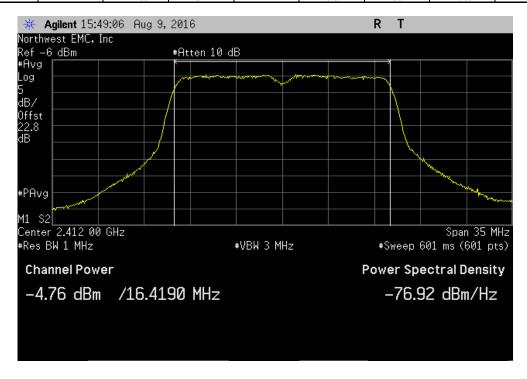




2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz									
Avg Cond	Duty Cycle		Value	Limit					
Pwr (dBm)	Factor (dB)		(dBm)	(dBm)	Results				
0.28	2.5		2.8	30	Pass				

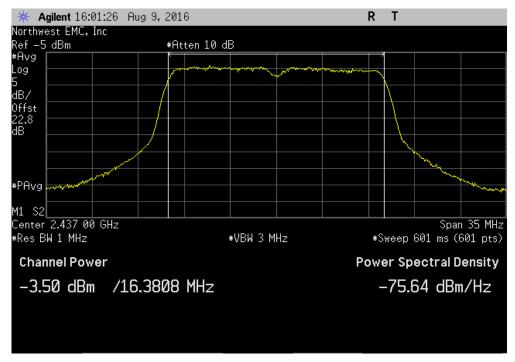


	2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz									
		Avg Cond	Duty Cycle		Value	Limit				
_		Pwr (dBm)	Factor (dB)		(dBm)	(dBm)	Results			
1 [<u> </u>	-4.763	8.4		3.6	30	Pass			

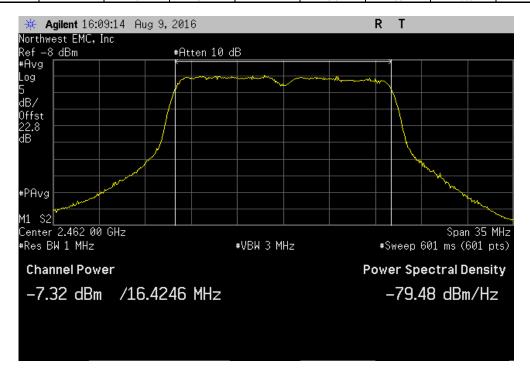




2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz								
	Avg Cond	Duty Cycle		Value	Limit			
	Pwr (dBm)	Factor (dB)		(dBm)	(dBm)	Results		
	-3.501	7.1		3.6	30	Pass		

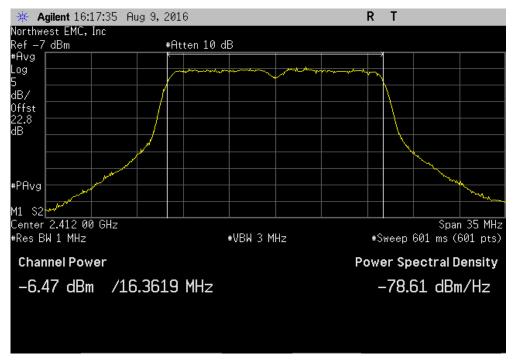


	2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz										
		Avg Cond	Duty Cycle		Value	Limit					
<u>.</u>		Pwr (dBm)	Factor (dB)		(dBm)	(dBm)	Results				
		-7.324	8.2		0.9	30	Pass				

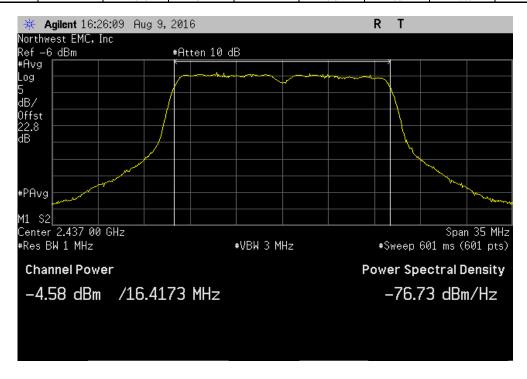




2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz								
		Avg Cond	Duty Cycle		Value	Limit		
		Pwr (dBm)	Factor (dB)		(dBm)	(dBm)	Results	
		-6.468	8.6		2.2	30	Pass	

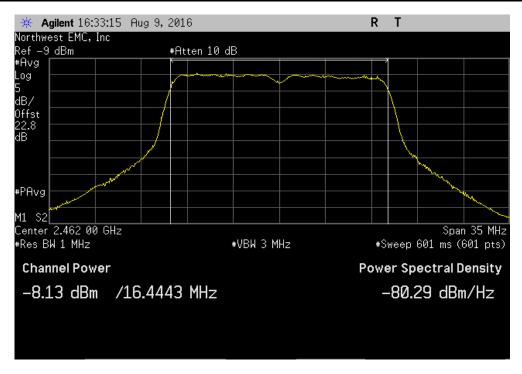


2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz									
Avg Cond	Duty Cycle	Value	Limit						
 Pwr (dBm)	Factor (dB)	(dBm)	(dBm)	Results					
-4.575	8.2	3.6	30	Pass					





2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz									
		Avg Cond	Duty Cycle		Value	Limit			
		Pwr (dBm)	Factor (dB)		(dBm)	(dBm)	Results		
		-8.131	7.9		-0.2	30	Pass		





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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFA	11/19/2015	11/19/2016
Generator - Signal	Keysight	N5182B	TFX	4/16/2015	4/16/2018
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Attenuator	Fairview Microwave	SA18E-20	TKS	4/4/2016	4/4/2017
Block - DC	Aeroflex	INMET 8535	AMO	4/4/2016	4/4/2017

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.

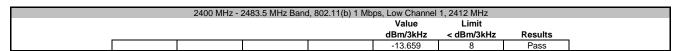
Per the procedure outlined in ANSI C63.10 the peak power spectral density was measured in a 3 kHz RBW.

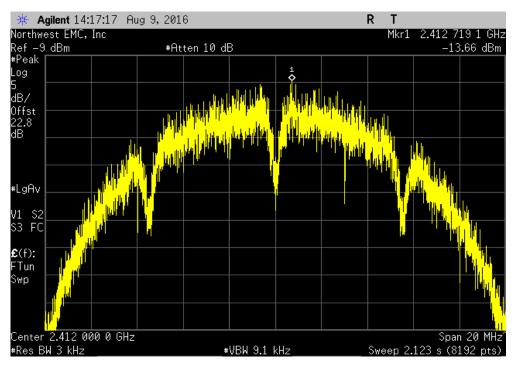


EUT	f: BLEE			Work Order:	AWAR0022	
Serial Number	r: None			Date:	08/09/16	
Customer	r: Awarepoint Corporation			Temperature:	23 °C	
Attendees				Humidity:		
Project	t: None			Barometric Pres.:		
Tested by	y: Mark Baytan	Power: USB Powe		Job Site:	OC13	
TEST SPECIFICAT	TIONS	Test Metho				
FCC 15.247:2016		ANSI C63.1	0:2013			
COMMENTS						
Total reference le	vel offset: DC Block + 20dB attenuator + RF Cable + Patch Cable = 2	2.75 dB. Power setting = 0).			
	OM TEST STANDARD					
None						
Configuration #	4 Signature	1-69+				
				Value dBm/3kHz	Limit < dBm/3kHz	Results
2400 MHz - 2483.5						
	802.11(b) 1 Mbps					
	Low Channel 1, 2412 MHz			-13.659	8	Pass
	Mid Channel 6, 2437 MHz			-13.352	8	Pass
	High Channel 11, 2462 MHz			-15.62	8	Pass
	802.11(b) 11 Mbps					<u>-</u>
	Low Channel 1, 2412 MHz			-13.155	8	Pass
	Mid Channel 6, 2437 MHz			-12.771	8	Pass
	High Channel 11, 2462 MHz			-15.043	8	Pass
	802.11(g) 6 Mbps Low Channel 1, 2412 MHz			-18.919	8	Pass
	Mid Channel 6, 2437 MHz			-16.32	8	Pass
				-16.32	8	Pass
	High Channel 11, 2462 MHz 802.11(g) 36 Mbps			-21.303	•	Pass
	Low Channel 1, 2412 MHz			-24.292	8	Pass
	Mid Channel 6, 2437 MHz			-22.704	8	Pass
	High Channel 11, 2462 MHz			-26.069	8	Pass
	802.11(q) 54 Mbps			-20.009	U	1 055
	Low Channel 1, 2412 MHz			-24,472	8	Pass
	Mid Channel 6, 2437 MHz			-22.111	8	Pass
	High Channel 11, 2462 MHz			-25.672	8	Pass
	g., 0.10.110, 2.102.111.12			20.012	-	. 400

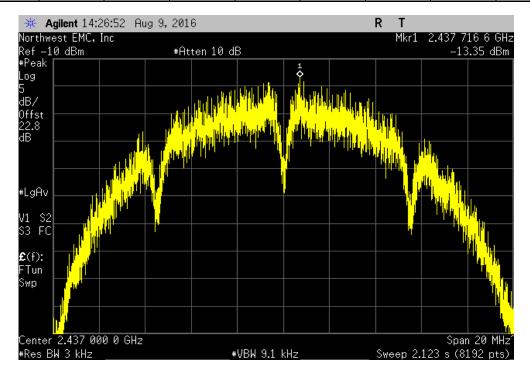
Report No. AWAR0022.2



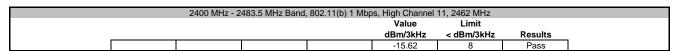


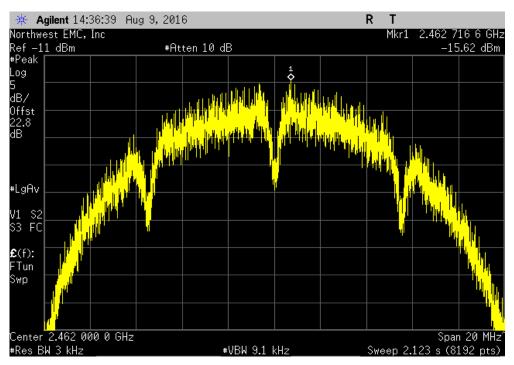


	2400 MHz -	2483.5 MHz Band	d, 802.11(b) 1 Mb	ps, Mid Channel	6, 2437 MHz	
				Value	Limit	
				dBm/3kHz	< dBm/3kHz	Results
				-13.352	8	Pass

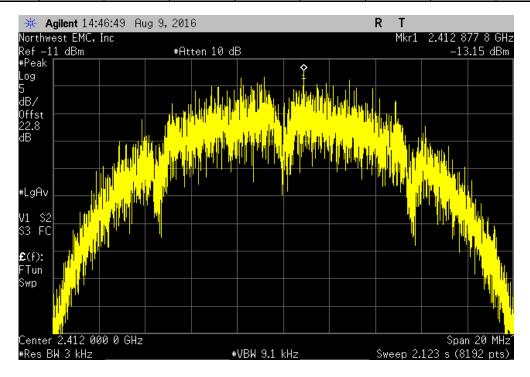




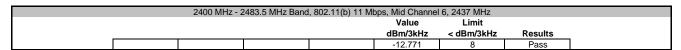


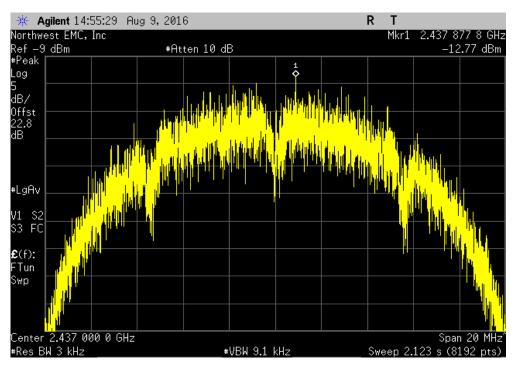


	2400 MHz - 2	483.5 MHz Band	, 802.11(b) 11 Mb	ps, Low Channel	1, 2412 MHz	
				Value	Limit	
				dBm/3kHz	< dBm/3kHz	Results
				-13,155	8	Pass

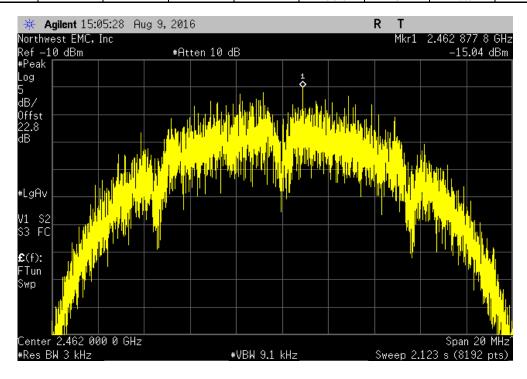




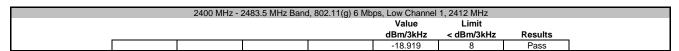


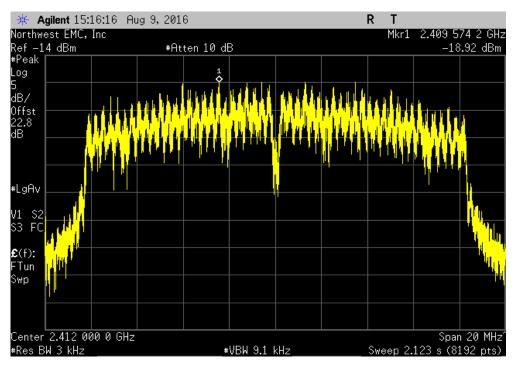


	2400 MHz - 24	183.5 MHz Band,	802.11(b) 11 Mb	ps, High Channel	11, 2462 MHz	
				Value	Limit	
				dBm/3kHz	< dBm/3kHz	Results
				-15.043	8	Pass

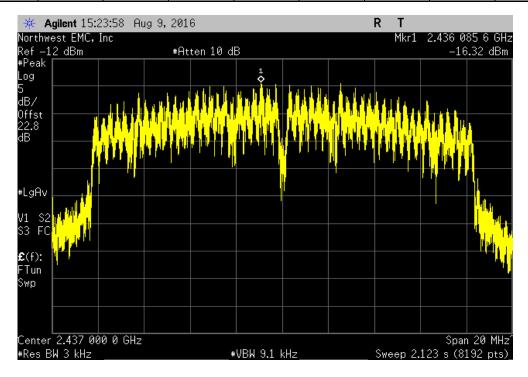




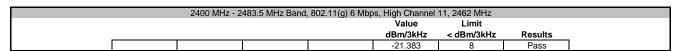


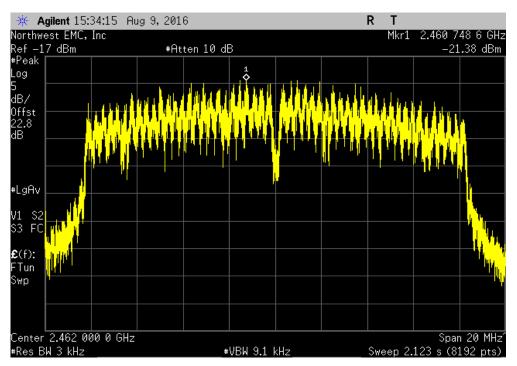


	2400 MHz -	2483.5 MHz Band	d, 802.11(g) 6 Mb	ps, Mid Channel	6, 2437 MHz	
				Value	Limit	
				dBm/3kHz	< dBm/3kHz	Results
				-16.32	8	Pass

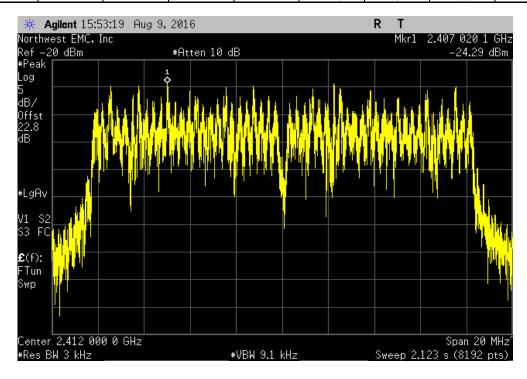




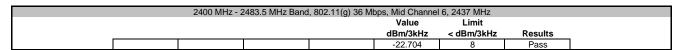


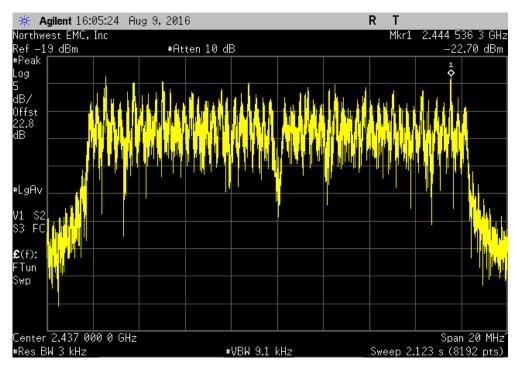


	2400 MHz - 2	483.5 MHz Band	, 802.11(g) 36 Mb	ps, Low Channel	l 1, 2412 MHz	
				Value	Limit	
				dBm/3kHz	< dBm/3kHz	Results
				-24.292	8	Pass

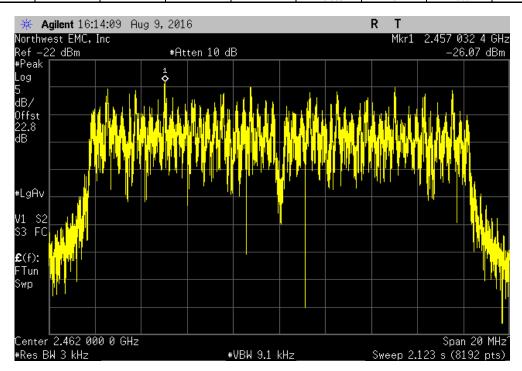




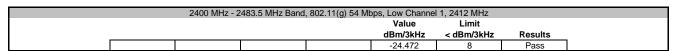


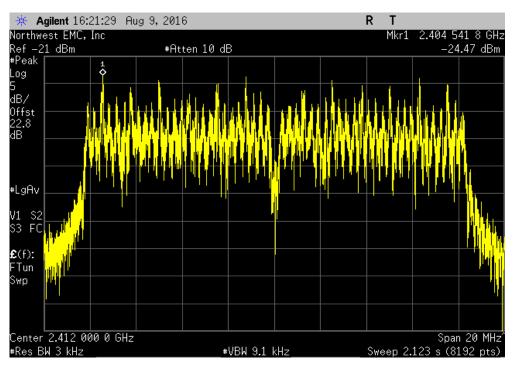


	2400 MHz - 24	483.5 MHz Band,	802.11(g) 36 Mb	os, High Channel	11, 2462 MHz	
				Value	Limit	
				dBm/3kHz	< dBm/3kHz	Results
				-26.069	8	Pass

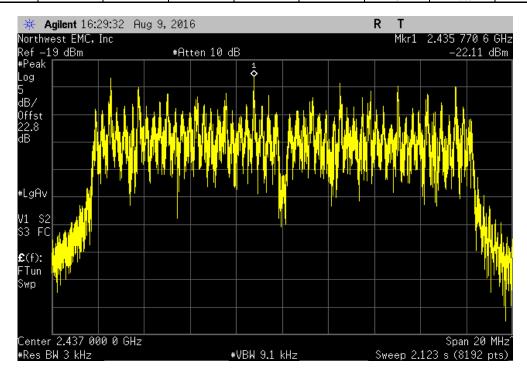






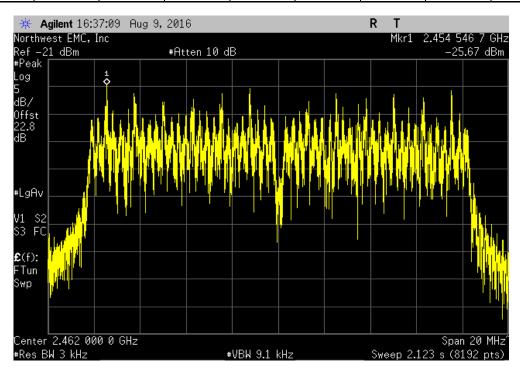


	2400 MHz - 2	2483.5 MHz Band	, 802.11(g) 54 MI	ops, Mid Channel	6, 2437 MHz	
				Value	Limit	
				dBm/3kHz	< dBm/3kHz	Results
				-22.111	8	Pass





	2400 MHz - 24	183.5 MHz Band,	802.11(g) 54 Mb	os, High Channel	11, 2462 MHz	
				Value	Limit	
_				dBm/3kHz	< dBm/3kHz	Results
				-25.672	8	Pass





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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFA	11/19/2015	11/19/2016
Generator - Signal	Keysight	N5182B	TFX	4/16/2015	4/16/2018
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Attenuator	Fairview Microwave	SA18E-20	TKS	4/4/2016	4/4/2017
Block - DC	Aeroflex	INMET 8535	AMO	4/4/2016	4/4/2017

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.

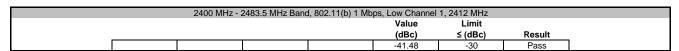
The spectrum was scanned below the lower band edge and above the higher band edge.

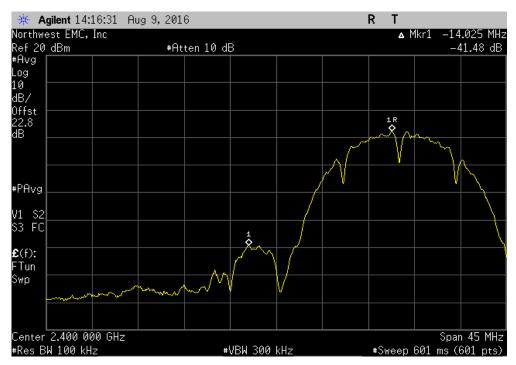


EUT:	BLEE				Work Orde	r: AWAR0022	
Serial Number:	None				Date	9: 08/09/16	
	Awarepoint Corporation				Temperature		
Attendees:						/: 44.8% RH	
Project:					Barometric Pres		
	: Mike Tran		Power:	USB Powered	Job Site	e: OC13	
TEST SPECIFICAT	TONS			Test Method			
FCC 15.247:2016				ANSI C63.10:2013			
COMMENTS							
Total reference lev	el offset: DC Block + 20di	B attenuator + RF Cable + Patch Cable	e = 22.75 dB. Powe	er setting = 0.			
I							
DEVIATIONS FROM	M TEST STANDARD						
None							
			n				
Configuration #	4		un	They			
		Signature					
					Value	Limit	
0400 MH - 0400 F	MILE David				(dBc)	≤ (dBc)	Result
2400 MHz - 2483.5	802.11(b) 1 Mbps						
		I 1. 2412 MHz			-41.48	-30	Pass
		11, 2462 MHz			-56.78	-30	Pass
	802.11(b) 11 Mbps	I II, ETOE WILL			30.70	- 50	1 433
		I 1. 2412 MHz			-42.54	-30	Pass
		el 11, 2462 MHz			-55.79	-30	Pass
	802.11(g) 6 Mbps						
	Low Channel	I 1, 2412 MHz			-33.88	-30	Pass
	High Channe	el 11, 2462 MHz			-49.75	-30	Pass
	802.11(g) 36 Mbps						
	Low Channe	l 1, 2412 MHz			-35.23	-30	Pass
	High Channe	el 11, 2462 MHz			-48.28	-30	Pass
	802.11(g) 54 Mbps						
		l 1, 2412 MHz			-34.95	-30	Pass
	High Channe	el 11, 2462 MHz			-47.77	-30	Pass

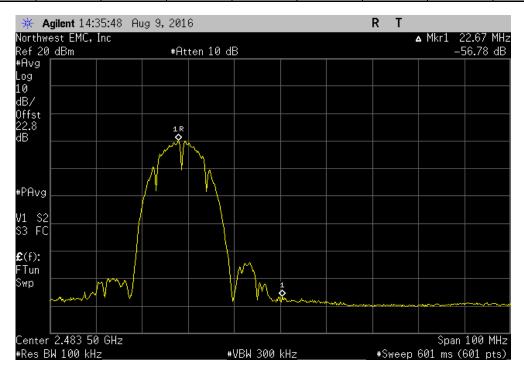
Report No. AWAR0022.2



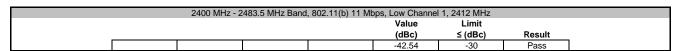


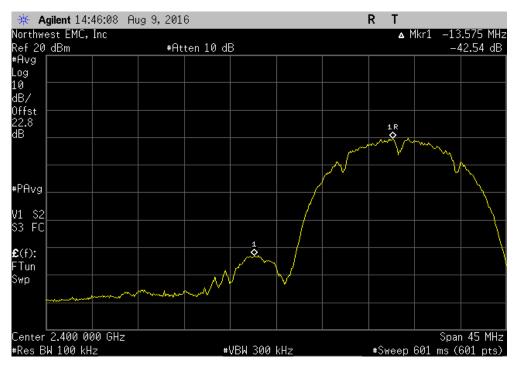


	2400 MHz - 2	483.5 MHz Band,	802.11(b) 1 Mbp	s, High Channel	11, 2462 MHz	
				Value	Limit	
				(dBc)	≤ (dBc)	Result
				-56.78	-30	Pass

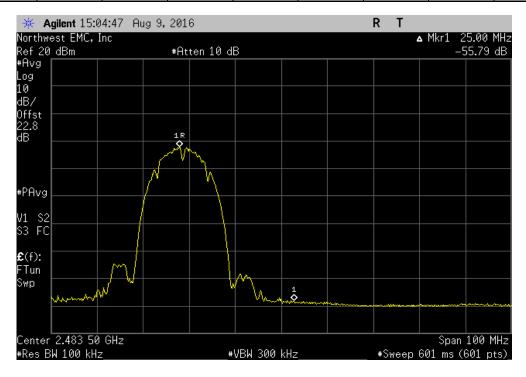




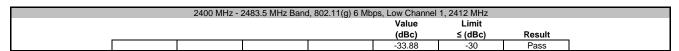


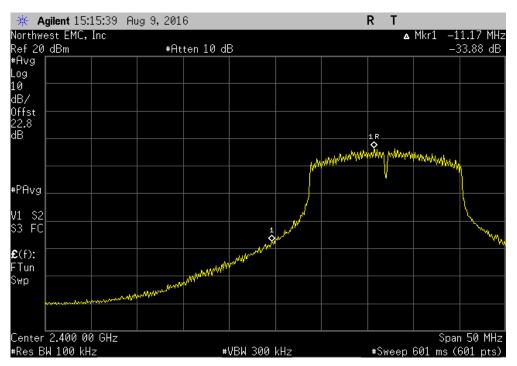


	2400 MHz - 24	183.5 MHz Band,	802.11(b) 11 Mb	os, High Channel	11, 2462 MHz	
				Value	Limit	
				(dBc)	≤ (dBc)	Result
				-55.79	-30	Pass

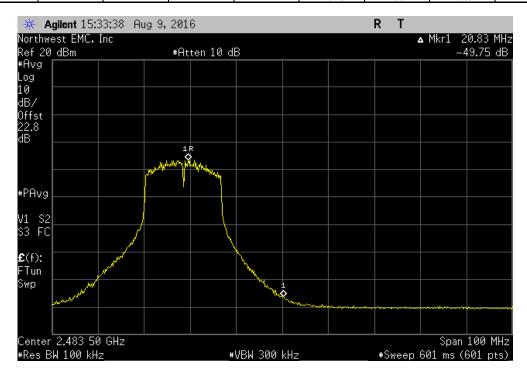




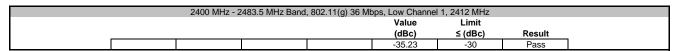


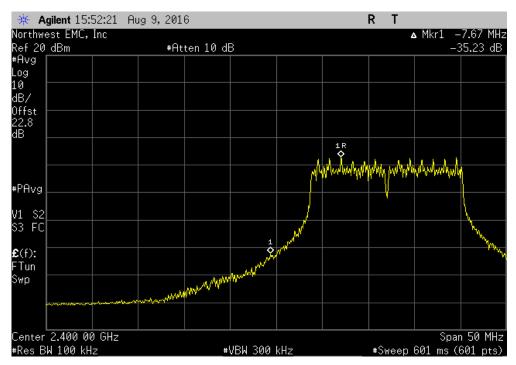


	2400 MHz - 2	483.5 MHz Band,	, 802.11(g) 6 Mbp	s, High Channel	11, 2462 MHz	
				Value	Limit	
				(dBc)	≤ (dBc)	Result
				-49.75	-30	Pass

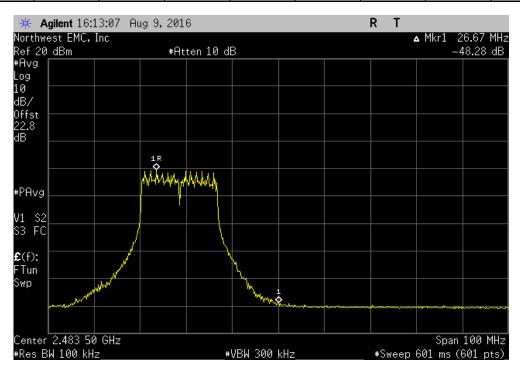




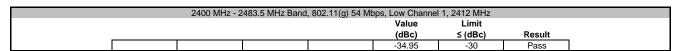


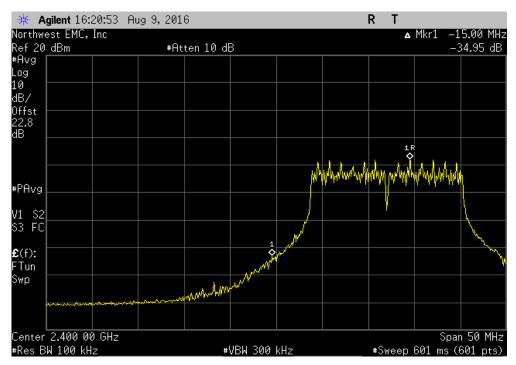


	2400 MHz - 24	483.5 MHz Band,	802.11(g) 36 Mb	os, High Channel	11, 2462 MHz	
				Value	Limit	
				(dBc)	≤ (dBc)	Result
				-48.28	-30	Pass

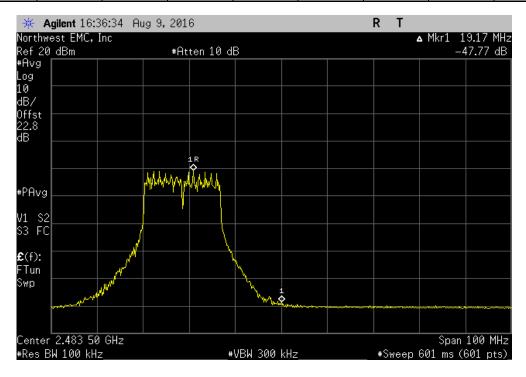








	2400 MHz - 24	483.5 MHz Band,	802.11(g) 54 Mb	ps, High Channel	11, 2462 MHz	
				Value	Limit	
				(dBc)	≤ (dBc)	Result
				-47.77	-30	Pass



SPURIOUS CONDUCTED EMISSIONS



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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFA	11/19/2015	11/19/2016
Generator - Signal	Keysight	N5182B	TFX	4/16/2015	4/16/2018
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Attenuator	Fairview Microwave	SA18E-20	TKS	4/4/2016	4/4/2017
Block - DC	Aeroflex	INMET 8535	AMO	4/4/2016	4/4/2017

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

Report No. AWAR0022.2

SPURIOUS CONDUCTED EMISSIONS



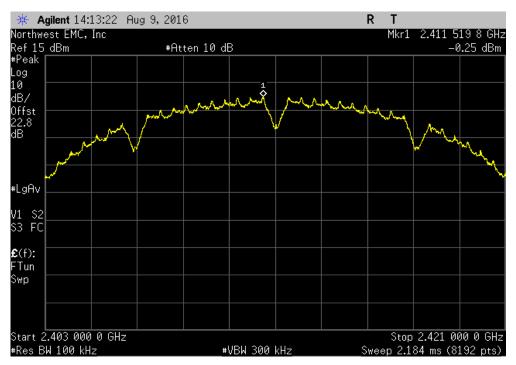
EUT:				Work Order:		
Serial Number:					08/09/16	
Attendees:	Awarepoint Corporation			Temperature:	23 °C 44.8% RH	
Project:				Barometric Pres.:	44.0% КП 1014 mbar	
Tested by:			Power: USB Powered	Job Site:		
TEST SPECIFICATION			Test Method	JOD Site.	0013	
FCC 15.247:2016	0.10		ANSI C63.10:2013			
			7.11.01.000110.12010			
COMMENTS						
	el offset: DC Block + 20dB at	ttenuator + RF Cable + Patch (Cable = 22.75 dB. Power setting = 0.			
DEVIATIONS FROM	I TEST STANDARD					
None						
0			And they			
Configuration #	4	0:	now any			
		Signature	Francisco	Max Value	Limit	
			Frequency Range	Max value (dBc)	Limit ≤ (dBc)	Result
2400 MHz - 2483.5 M	AUT Road		Kaliye	(ивс)	3 (UBC)	Resuit
	802.11(b) 1 Mbps					
	Low Channel 1,	2412 MHz	Fundamental	N/A	N/A	N/A
	Low Channel 1,		30 MHz - 12.5 GHz	-47.1	-30	Pass
	Low Channel 1,		12.5 GHz - 25 GHz	-52.25	-30	Pass
	Mid Channel 6, 2		Fundamental	N/A	N/A	N/A
	Mid Channel 6, 2		30 MHz - 12.5 GHz	-50.47	-30	Pass
	Mid Channel 6, 2		12.5 GHz - 25 GHz	-50.74	-30	Pass
	High Channel 11		Fundamental	N/A	N/A	N/A
	High Channel 11		30 MHz - 12.5 GHz	-49.98	-30	Pass
	High Channel 11		12.5 GHz - 25 GHz	-50.41	-30	Pass
	802.11(b) 11 Mbps					
	Low Channel 1,	2412 MHz	Fundamental	N/A	N/A	N/A
	Low Channel 1,		30 MHz - 12.5 GHz	-48.21	-30	Pass
	Low Channel 1,	2412 MHz	12.5 GHz - 25 GHz	-52.81	-30	Pass
	Mid Channel 6, 2	2437 MHz	Fundamental	N/A	N/A	N/A
	Mid Channel 6, 2	2437 MHz	30 MHz - 12.5 GHz	-50.16	-30	Pass
	Mid Channel 6, 2		12.5 GHz - 25 GHz	-53.36	-30	Pass
	High Channel 11		Fundamental	N/A	N/A	N/A
	High Channel 11		30 MHz - 12.5 GHz	-50.92	-30	Pass
	High Channel 11		12.5 GHz - 25 GHz	-51.7	-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	-44.9	-30	Pass
	Low Channel 1,	2412 MHz	12.5 GHz - 25 GHz	-50.11	-30	Pass
	Mid Channel 6, 2		Fundamental	N/A	N/A	N/A
	Mid Channel 6, 2		30 MHz - 12.5 GHz	-49.32	-30	Pass
	Mid Channel 6, 2		12.5 GHz - 25 GHz	-52.37	-30	Pass
	High Channel 11		Fundamental	N/A	N/A	N/A
	High Channel 11		30 MHz - 12.5 GHz	-46.62	-30	Pass
	High Channel 11	1, 2462 MHz	12.5 GHz - 25 GHz	-47.19	-30	Pass
	802.11(g) 36 Mbps					
	Low Channel 1,		Fundamental	N/A	N/A	N/A
	Low Channel 1,		30 MHz - 12.5 GHz	-36.13	-30	Pass
	Low Channel 1.	2412 MHz	12.5 GHz - 25 GHz	-47.66	-30	Pass
						N/A
	Mid Channel 6, 2		Fundamental	N/A	N/A	
	Mid Channel 6, 2 Mid Channel 6, 2	2437 MHz	30 MHz - 12.5 GHz	-49.64	-30	Pass
	Mid Channel 6, 2 Mid Channel 6, 2 Mid Channel 6, 2	2437 MHz 2437 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	-49.64 -48.29	-30 -30	Pass Pass
	Mid Channel 6, 2 Mid Channel 6, 2 Mid Channel 6, 2 High Channel 11	2437 MHz 2437 MHz 1, 2462 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental	-49.64 -48.29 N/A	-30 -30 N/A	Pass Pass N/A
	Mid Channel 6, 2 Mid Channel 6, 2 Mid Channel 6, 2 High Channel 11 High Channel 11	2437 MHz 2437 MHz 1, 2462 MHz 1, 2462 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz	-49.64 -48.29 N/A -43.61	-30 -30 N/A -30	Pass Pass N/A Pass
	Mid Channel 6, 2 Mid Channel 6, 2 Mid Channel 6, 2 High Channel 11 High Channel 11 High Channel 11	2437 MHz 2437 MHz 1, 2462 MHz 1, 2462 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental	-49.64 -48.29 N/A	-30 -30 N/A	Pass Pass N/A
1	Mid Channel 6, 2 Mid Channel 6, 2 Mid Channel 6, 2 High Channel 11 High Channel 11 High Channel 11 802.11(g) 54 Mbps	2437 MHz 2437 MHz 1, 2462 MHz 1, 2462 MHz 1, 2462 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	-49.64 -48.29 N/A -43.61 -45.07	-30 -30 N/A -30 -30	Pass Pass N/A Pass Pass
ı	Mid Channel 6, 2 Mid Channel 6, 2 Mid Channel 6, 2 High Channel 11 High Channel 11 High Channel 11 802.11(g) 54 Mbps Low Channel 1,	2437 MHz 2437 MHz 1, 2462 MHz 1, 2462 MHz 1, 2462 MHz 2412 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental	-49.64 -48.29 N/A -43.61 -45.07	-30 -30 N/A -30 -30	Pass Pass N/A Pass Pass
	Mid Channel 6, 2 Mid Channel 6, 2 Mid Channel 6, 2 High Channel 11 High Channel 11 High Channel 11 802.11(g) 54 Mbps Low Channel 1,	2437 MHz 2437 MHz 1, 2462 MHz 1, 2462 MHz 1, 2462 MHz 2412 MHz 2412 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz	-49.64 -48.29 N/A -43.61 -45.07 N/A -42.64	-30 -30 N/A -30 -30 N/A -30	Pass Pass N/A Pass Pass
1	Mid Channel 6, 2 Mid Channel 6, 2 Mid Channel 6, 2 Mid Channel 1, 2 High Channel 11 High Channel 11 High Channel 11 802.11(g) 54 Mbps Low Channel 1, Low Channel 1,	2437 MHz 2437 MHz 1, 2462 MHz 1, 2462 MHz 1, 2462 MHz 2412 MHz 2412 MHz 2412 MHz 2412 MHz 2412 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	-49.64 -48.29 N/A -43.61 -45.07 N/A -42.64 -46.99	-30 -30 N/A -30 -30 -30	Pass Pass N/A Pass Pass N/A Pass Pass
ı	Mid Channel 6, 2 Mid Channel 6, 2 Mid Channel 6, 2 High Channel 11 High Channel 11 High Channel 11 High Channel 11 B02.11(g) 54 Mbps Low Channel 1, Low Channel 1, Mid Channel 1,	2437 MHz 2437 MHz 1, 2462 MHz 1, 2462 MHz 1, 2462 MHz 2412 MHz 2412 MHz 2412 MHz 2437 MHz 2437 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental	-49.64 -48.29 N/A -43.61 -45.07 N/A -42.64 -46.99 N/A	-30 -30 N/A -30 -30 -30 N/A -30 -30 N/A	Pass Pass N/A Pass Pass N/A Pass Pass N/A Pass Pass
I	Mid Channel 6, 2 Mid Channel 6, 2 Mid Channel 6, 2 Mid Channel 1, 2 High Channel 11 High Channel 11 High Channel 11 Low Channel 1, Low Channel 1, Low Channel 1, Mid Channel 6, 2	2437 MHz 2437 MHz 1, 2462 MHz 1, 2462 MHz 1, 2462 MHz 2412 MHz 2412 MHz 2412 MHz 2437 MHz 2437 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz Fundamental 30 MHz - 12.5 GHz	-49.64 -48.29 N/A -43.61 -45.07 N/A -42.64 -46.99 N/A -46.15	-30 -30 N/A -30 -30 -30 N/A -30 N/A -30	Pass Pass N/A Pass Pass N/A Pass N/A Pass Pass N/A Pass
ı	Mid Channel 6, 2 Mid Channel 6, 2 Mid Channel 6, 2 Mid Channel 6, 2 High Channel 11 High Channel 11 High Channel 11 802.11(g) 54 Mbps Low Channel 1, Low Channel 1, Mid Channel 6, 2 Mid Channel 6, 2	2437 MHz 2437 MHz 1, 2462 MHz 1, 2462 MHz 1, 2462 MHz 2412 MHz 2412 MHz 2412 MHz 2437 MHz 2437 MHz 2437 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz 12.5 GHz - 25 GHz 12.5 GHz 12.5 GHz - 25 GHz 12.5 GHz - 25 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz 12.5 GHz - 12.5 GHz	-49.64 -48.29 N/A -43.61 -45.07 N/A -42.64 -46.99 N/A -46.15	-30 -30 N/A -30 -30 -30 N/A -30 N/A -30 -30	Pass Pass N/A Pass Pass N/A Pass Pass Pass N/A Pass Pass Pass
ı	Mid Channel 6, 2 Mid Channel 6, 2 Mid Channel 6, 2 Mid Channel 11 High Channel 11 High Channel 11 High Channel 11 Low Channel 11 Low Channel 1, Low Channel 6, 2 Mid Channel 6, 2 Mid Channel 6, 2 High Channel 6, 2 High Channel 1	2437 MHz 2437 MHz 1, 2462 MHz 1, 2462 MHz 1, 2462 MHz 2412 MHz 2412 MHz 2412 MHz 2413 MHz 2437 MHz 2437 MHz 1, 2462 MHz 1, 2462 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz Fundamental 30 MHz - 12.5 GHz Fundamental 30 MHz - 12.5 GHz Fundamental	-49.64 -48.29 N/A -43.61 -45.07 N/A -42.64 -46.99 N/A -46.15 -47.82 N/A	-30 -30 N/A -30 -30 -30 N/A -30 N/A -30 N/A	Pass Pass N/A Pass
I	Mid Channel 6, 2 Mid Channel 6, 2 Mid Channel 6, 2 Mid Channel 6, 2 High Channel 11 High Channel 11 High Channel 11 802.11(g) 54 Mbps Low Channel 1, Low Channel 1, Mid Channel 6, 2 Mid Channel 6, 2	2437 MHz 2437 MHz 1, 2462 MHz 1, 2462 MHz 1, 2462 MHz 2412 MHz 2412 MHz 2412 MHz 2437 MHz 2437 MHz 2437 MHz 1, 2462 MHz 1, 2462 MHz	30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz 12.5 GHz - 25 GHz 12.5 GHz 12.5 GHz - 25 GHz 12.5 GHz - 25 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz 12.5 GHz - 12.5 GHz	-49.64 -48.29 N/A -43.61 -45.07 N/A -42.64 -46.99 N/A -46.15	-30 -30 N/A -30 -30 -30 N/A -30 N/A -30 -30	Pass Pass N/A Pass Pass N/A Pass Pass Pass N/A Pass Pass Pass

Report No. AWAR0022.2 71/94

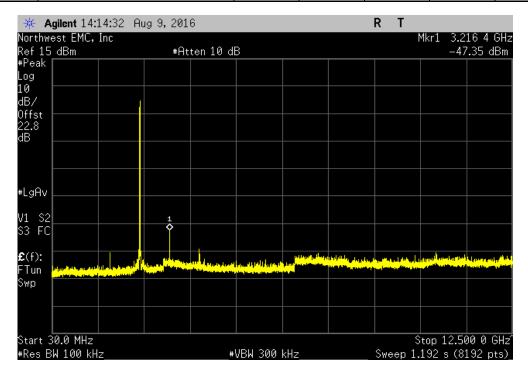
SPURIOUS CONDUCTED EMISSIONS



2400 MHz - 2483	3.5 MHz Band, 802.11(b) 1 Mbps, Low Channe	l 1, 2412 MHz	
Frequency	Max Value	Limit	
Range	(dBc)	≤ (dBc)	Result
Fundamental	I N/A	N/A	N/A

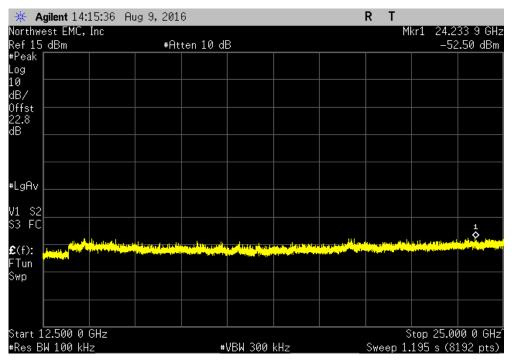


	2400 MHz - 2483.5 MHz Ban	d, 802.11(b) 1 Mb	ps, Low Channel	1, 2412 MHz	
	Frequency		Max Value	Limit	
_	Range		(dBc)	≤ (dBc)	Result
	30 MHz - 12.5 GHz		-47.1	-30	Pass

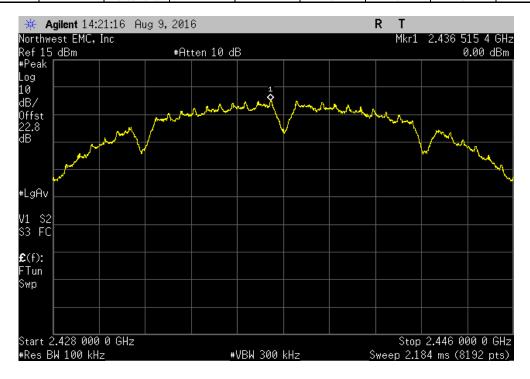




2400 MHz - 2483.5 MHz Band	I, 802.11(b) 1 Mb	ps, Low Channel	1, 2412 MHz		
Frequency		Max Value	Limit		
Range		(dBc)	≤ (dBc)	Result	
12.5 GHz - 25 GHz		-52.25	-30	Pass	

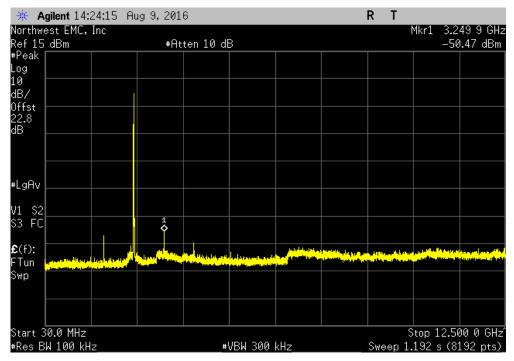


2400 MHz - 2	2483.5 MHz Band, 802.11(b) 1 Mb	ps, Mid Channel	6, 2437 MHz	
Frequency		Max Value	Limit	
Range		(dBc)	≤ (dBc)	Result
Fundamental		N/A	N/A	N/A

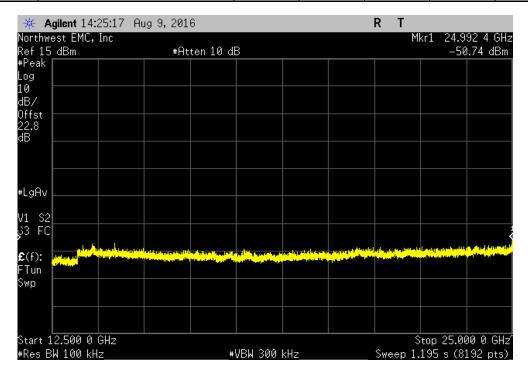




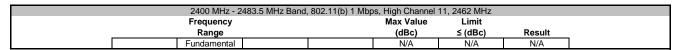
2400 MHz - 2483.5 MHz Band,	, 802.11(b) 1 Mbps, Mid Channel	6, 2437 MHz	
Frequency	Max Value	Limit	
Range	(dBc)	≤ (dBc)	Result
30 MHz - 12.5 GHz	-50.47	-30	Pass

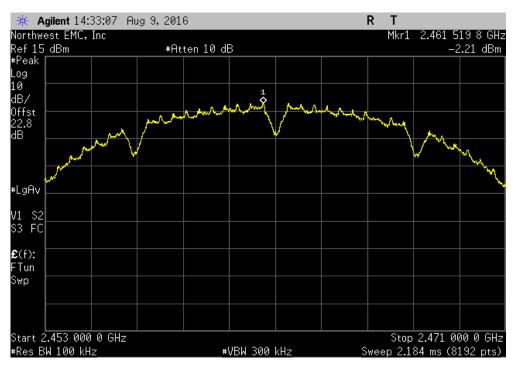


	2400 MHz - 2483.5 MHz Ban	d, 802.11(b) 1 Mb	ps, Mid Channel	6, 2437 MHz	
	Frequency		Max Value	Limit	
_	Range		(dBc)	≤ (dBc)	Result
ĺ	12.5 GHz - 25 GHz		-50.74	-30	Pass

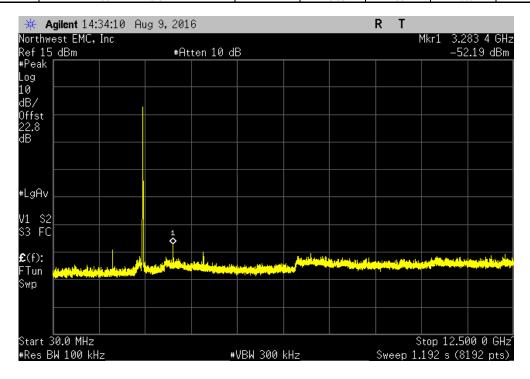






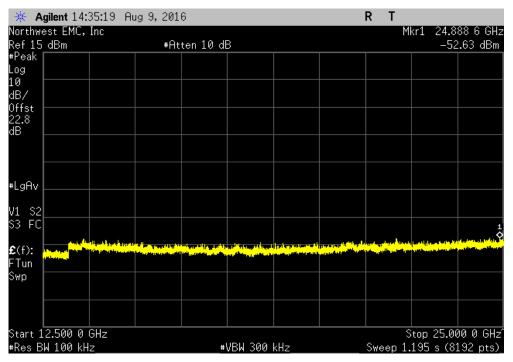


2400 MHz - 2483.5 MHz Band, 802.	11(b) 1 Mbps, High Channel	11, 2462 MHz	
Frequency	Max Value	Limit	
Range	(dBc)	≤ (dBc)	Result
30 MHz - 12.5 GHz	-49.98	-30	Pass

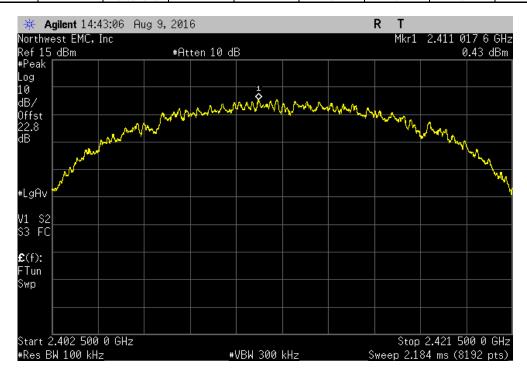




2400 MHz - 2483.5 MHz Band, 8	802.11(b) 1 Mbps, High Channel	11, 2462 MHz	
Frequency	Max Value	Limit	
Range	(dBc)	≤ (dBc)	Result
12.5 GHz - 25 GHz	-50.41	-30	Pass

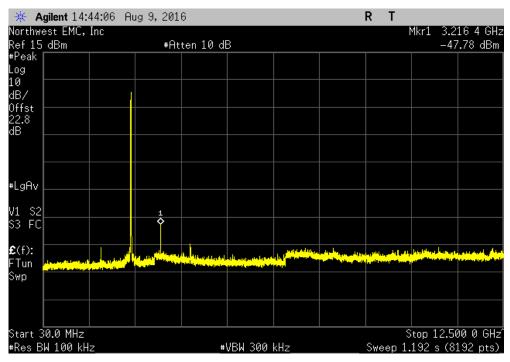


2400 MHz - 2483.5 MHz Band, 8	802.11(b) 11 Mbps, Low Channe	l 1, 2412 MHz	
Frequency	Max Value	Limit	
Range	(dBc)	≤ (dBc)	Result
Fundamental	N/A	N/A	N/A

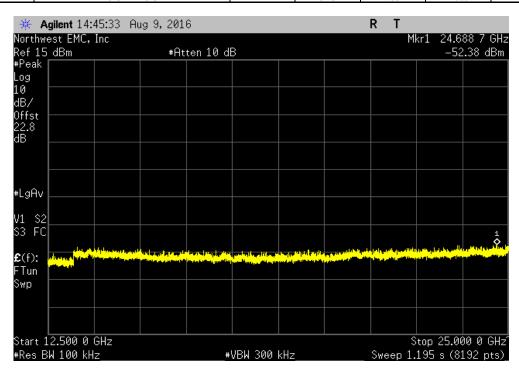




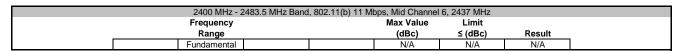
2400 MHz - 2483.5 MHz Band,	802.11(b) 11 Mbps, Low Channel	1, 2412 MHz	
Frequency	Max Value	Limit	
Range	(dBc)	≤ (dBc)	Result
30 MHz - 12.5 GHz	-48.21	-30	Pass

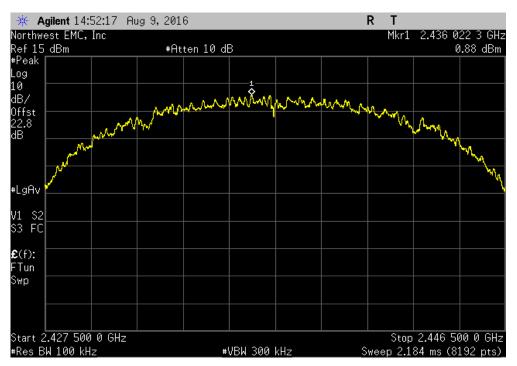


2400 MHz - 2483.5 MHz Band, 8	802.11(b) 11 Mbps, Low Channel	1, 2412 MHz	
Frequency	Max Value	Limit	
Range	(dBc)	≤ (dBc)	Result
12.5 GHz - 25 GHz	-52.81	-30	Pass

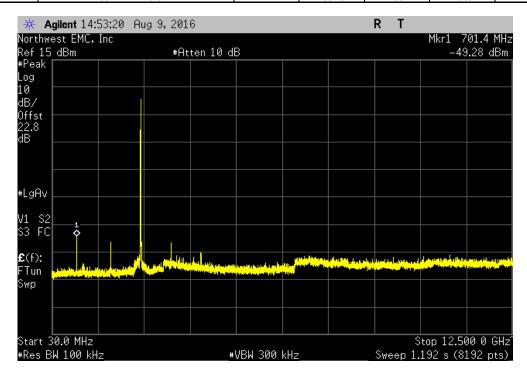






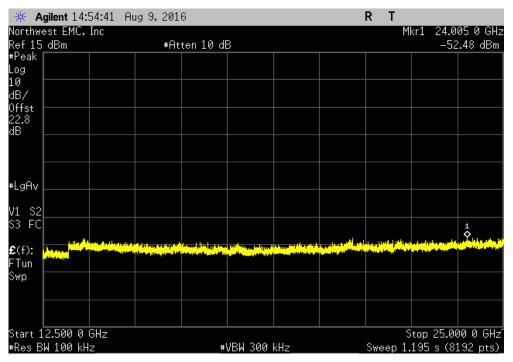


2400 MHz - 2483.5 MHz Band, 8	302.11(b) 11 Mbps, Mid Channel	6, 2437 MHz	
Frequency	Max Value	Limit	
Range	(dBc)	≤ (dBc)	Result
30 MHz - 12.5 GHz	-50.16	-30	Pass

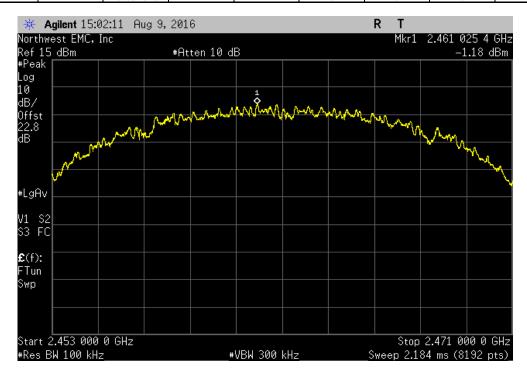




2400 MHz - 2483.5 MHz Band.	802.11(b) 11 Mbps, Mid Channel	6. 2437 MHz	
	Max Value	Limit	
Frequency	wax value	Limit	
Range	(dBc)	≤ (dBc)	Result
10.5.011	50.00	(, , ,	
12.5 GHz - 25 GHz	-53.36	-30	Pass

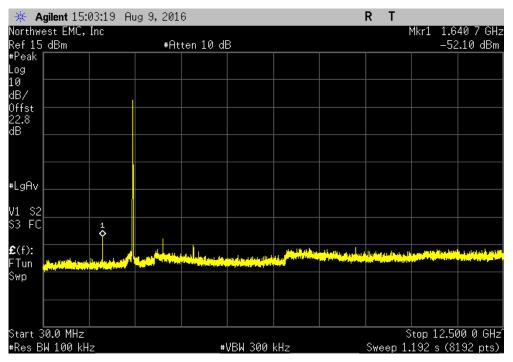


2400 MHz - 2483.5 MHz Band,	802.11(b) 11 Mbps, High Channe	I 11, 2462 MHz	
Frequency	Max Value	Limit	
Range	(dBc)	≤ (dBc)	Result
Fundamental	N/A	N/A	N/A

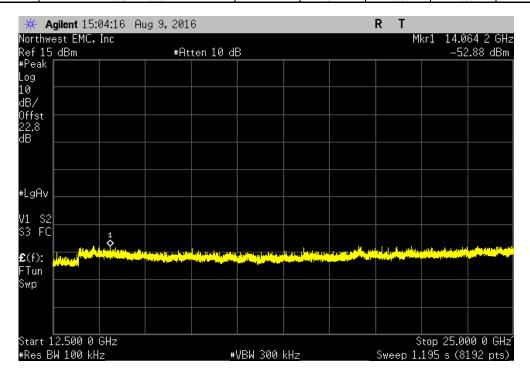




2400 MHz - 2483.5 MHz Band, 8	302.11(b) 11 Mbps, High C	nannel 11, 2462 MHz	
Frequency	Max Va	lue Limit	
Range	(dBd	:) ≤ (dBc)	Result
30 MHz - 12.5 GHz	-50.9	2 -30	Pass

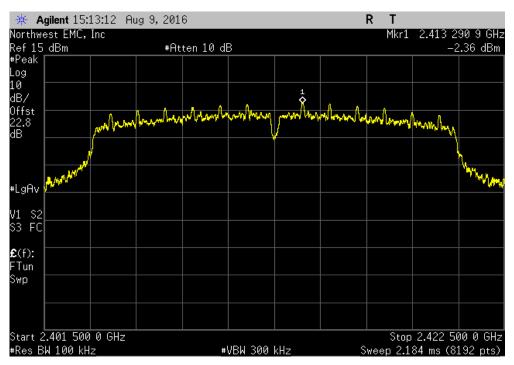


2400 MHz - 2483.5 MHz Band, 802.1	1(b) 11 Mbps, High Channel	11, 2462 MHz	
Frequency	Max Value	Limit	
Range	(dBc)	≤ (dBc)	Result
12.5 GHz - 25 GHz	-51.7	-30	Pass

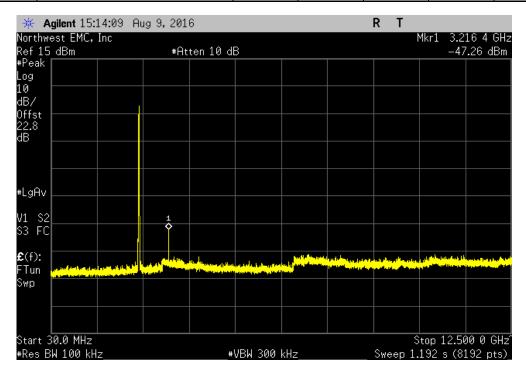




2400 MHz - 2483.5 MHz	Rand 802 11(a) 6 Mh	ns Low Channel	1 2412 MHz	
2100 WH 12 2100.0 WH 12	barra, coz. r r(g) o ivic			
Frequency		Max Value	Limit	
rroquonoy		max value		
Range		(dBc)	≤ (dBc)	Result
 ivalige		(ubc)	3 (UDC)	Nesuit
Fundamental		N/A	N/A	N/A
runuantentai l			I IN/A	I IN/A

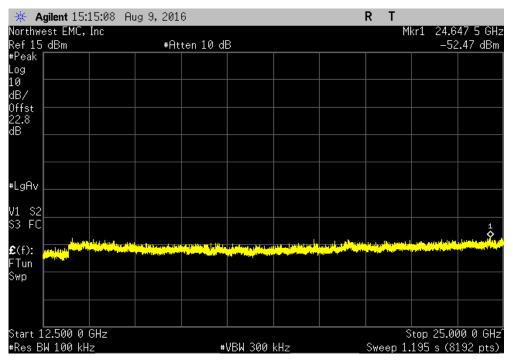


	2400 MHz - 2483.5 MHz Ban	d, 802.11(g) 6 Mb	ps, Low Channel	1, 2412 MHz	
	Frequency		Max Value	Limit	
_	Range		(dBc)	≤ (dBc)	Result
	30 MHz - 12.5 GHz		-44.9	-30	Pass

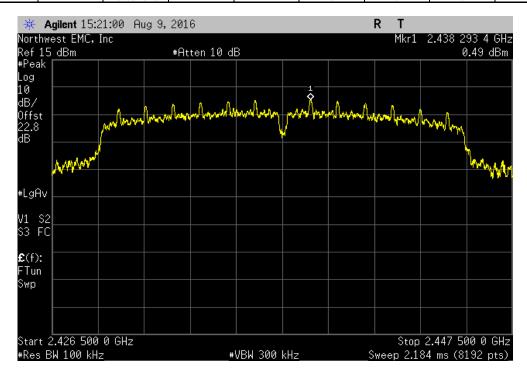




2400 MHz - 2483 5 MHz Band (802.11(g) 6 Mbps, Low Channel	1 2412 MHz	
2100 WHZ 2100.0 WHZ Balla,			
Frequency	Max Value	Limit	
requency	max value		
Range	(dBc)	≤ (dBc)	Result
Kange	(ubc)	≥ (ubc)	Result
12.5 GHz - 25 GHz	-50.11	20	Doos
12.5 GHZ - 25 GHZ	-50.11	-30	Pass

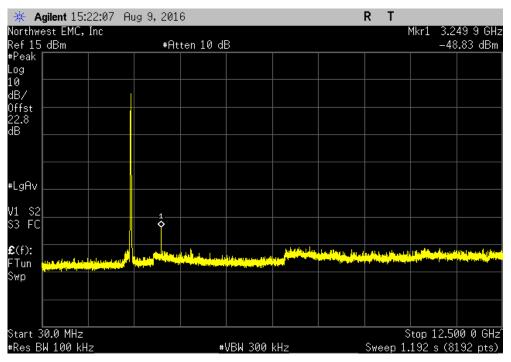


2400 MHz -	2483.5 MHz Band, 802.11(g) 6 Mb	ps, Mid Channel	6, 2437 MHz	
Frequency		Max Value	Limit	
Range		(dBc)	≤ (dBc)	Result
Fundamental		N/A	N/A	N/A

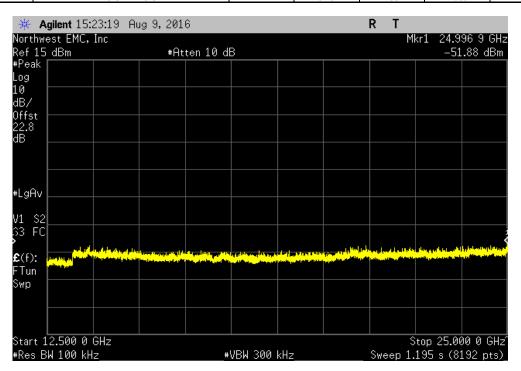




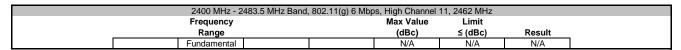
2400 MHz - 2483.5 MHz Band,	, 802.11(g) 6 Mbps, Mid Channel	6, 2437 MHz	
Frequency	Max Value	Limit	
Range	(dBc)	≤ (dBc)	Result
30 MHz - 12.5 GHz	-49.32	-30	Pass

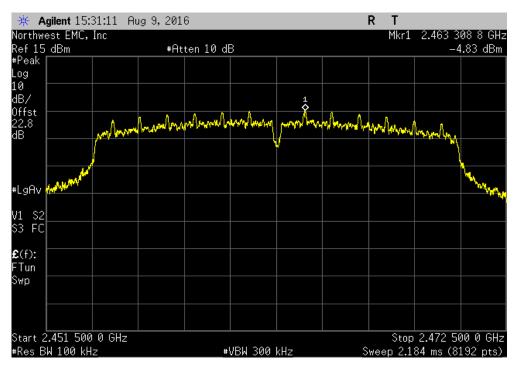


2400 MHz - 2483.5 MHz Band	, 802.11(g) 6 Mbps, Mid Channel	6, 2437 MHz	
Frequency	Max Value	Limit	
Range	(dBc)	≤ (dBc)	Result
12.5 GHz - 25 GHz	-52.37	-30	Pass

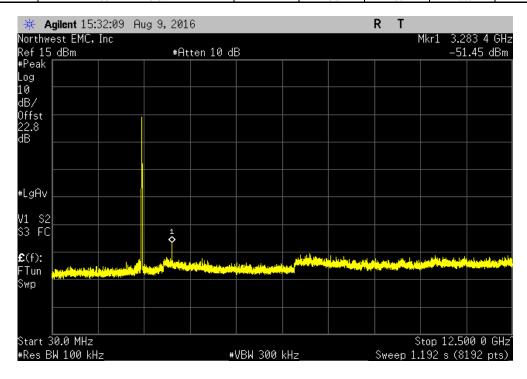






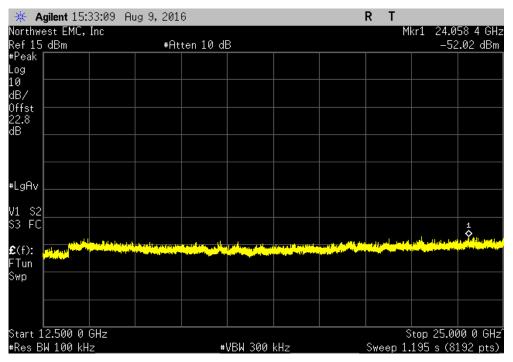


2400 MHz - 2483.5 MHz Band,	802.11(g) 6 Mbps, High Channel	11, 2462 MHz	
Frequency	Max Value	Limit	
Range	(dBc)	≤ (dBc)	Result
30 MHz - 12.5 GHz	-46.62	-30	Pass

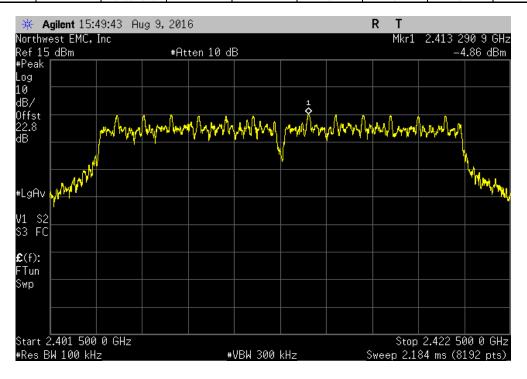




2400 MHz - 2483.5 MHz Band,	802.11(g) 6 Mbps, High Channel	11, 2462 MHz	
Frequency	Max Value	Limit	
Range	(dBc)	≤ (dBc)	Result
12.5 GHz - 25 GHz	-47.19	-30	Pass

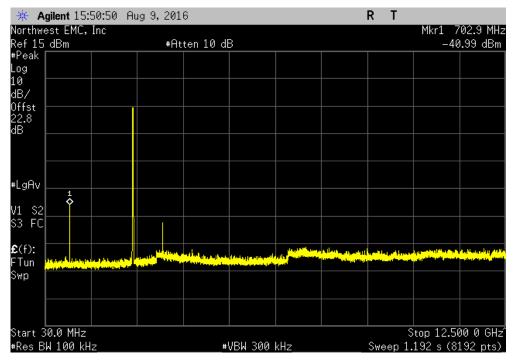


2400	//Hz - 2483.5 MHz Band	l, 802.11(g) 36 MI	ops, Low Channel	1, 2412 MHz	
Freque	ency		Max Value	Limit	
Ran	je [*]		(dBc)	≤ (dBc)	Result
Fundan	ental		N/A	N/A	N/A

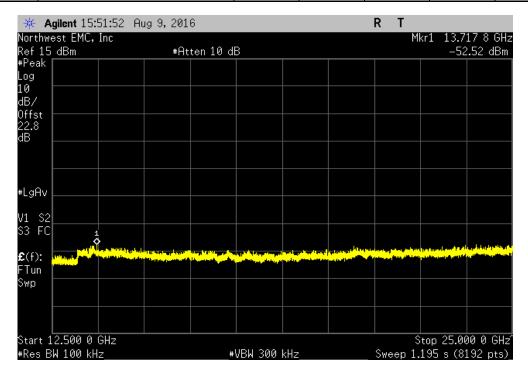




2400 MHz - 2483.5 MHz Band,	802.11(g) 36 Mbps, Low Channe	1, 2412 MHz	
Frequency	Max Value	Limit	
Range	(dBc)	≤ (dBc)	Result
30 MHz - 12.5 GHz	-36.13	-30	Pass

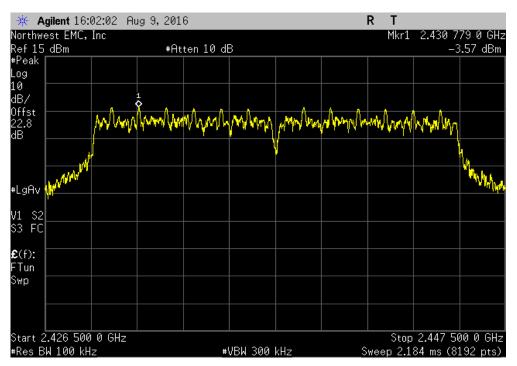


	2400 MHz - 2483.5 MHz Band	, 802.11(g) 36 Mb	ps, Low Channel	1, 2412 MHz	
	Frequency		Max Value	Limit	
_	Range		(dBc)	≤ (dBc)	Result
ſ	12.5 GHz - 25 GHz		-47.66	-30	Pass

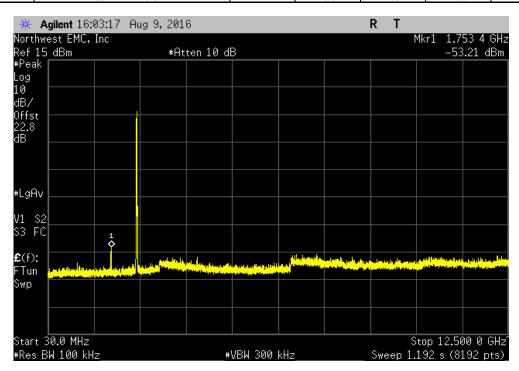




2400 MHz - 2483.5 MHz E	and, 802.11(g) 36 M	lbps, Mid Channel	6, 2437 MHz	
Frequency		Max Value	Limit	
Range		(dBc)	≤ (dBc)	Result
Fundamental		N/A	N/A	N/A

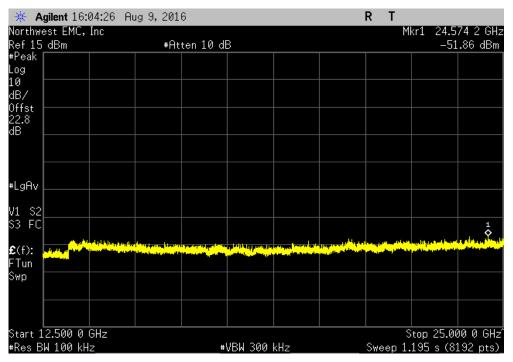


2400 MHz - 2483.5 MHz Band,	802.11(g) 36 Mbps, Mid Channel	6, 2437 MHz	
Frequency	Max Value	Limit	
Range	(dBc)	≤ (dBc)	Result
30 MHz - 12.5 GHz	-49.64	-30	Pass

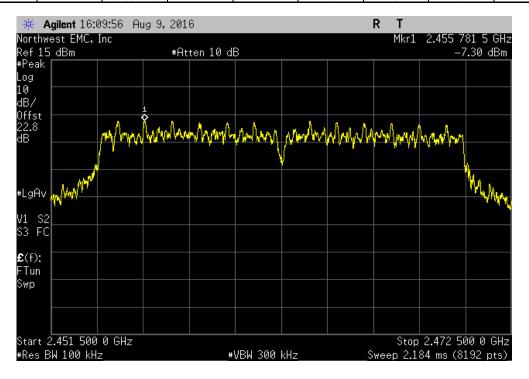




2400 MHz - 2483.5 MHz Band,	, 802.11(g) 36 Mbps, Mid Channel	6, 2437 MHz		
Frequency	Max Value	Limit		
Range	(dBc)	≤ (dBc)	Result	
12.5 GHz - 25 GHz	-48.29	-30	Pass	

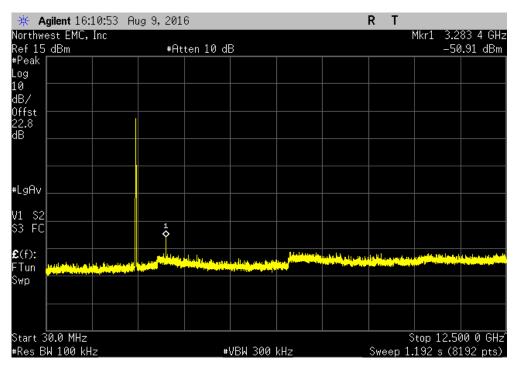


2400 MHz - 2483.5 MHz Band,	2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz				
Frequency	Max Value	Limit			
Range	(dBc)	≤ (dBc)	Result		
Fundamental	N/A	N/A	N/A		

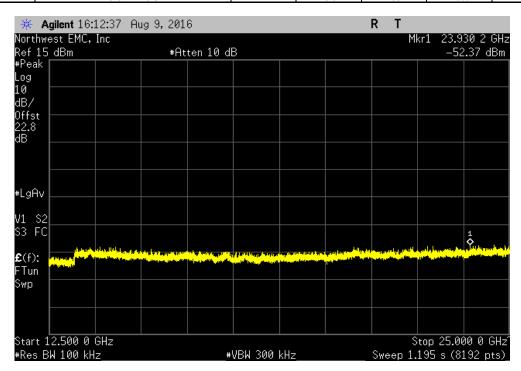




2400 MHz - 2483.5 MHz Band, 8	302.11(g) 36 Mbps	, High Channel	11, 2462 MHz	
Frequency		Max Value	Limit	
Range		(dBc)	≤ (dBc)	Result
30 MHz - 12.5 GHz		-43.61	-30	Pass

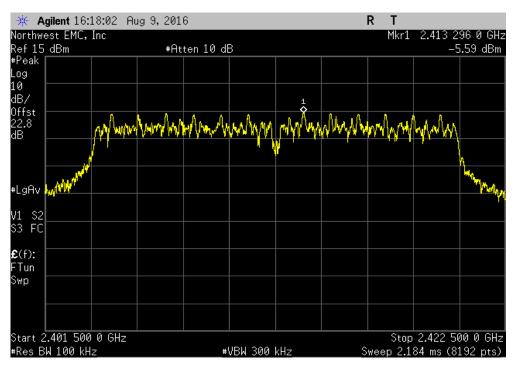


2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz				
Frequency		Max Value	Limit	
Range		(dBc)	≤ (dBc)	Result
12.5 GHz - 25 GHz		-45.07	-30	Pass

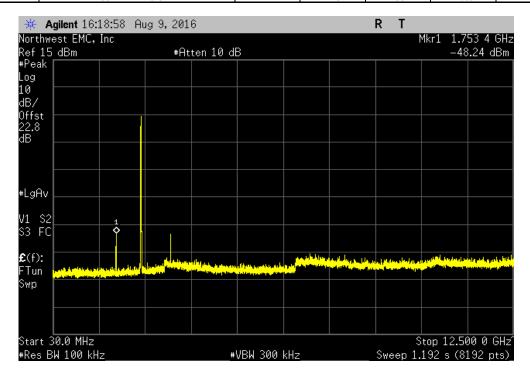




2400 MHz 2492 F MHz Bond	000 11(a) E4 Mb	na Law Channal	1 0410 MH=	
2400 MHz - 2483.5 MHz Band	, 602. I I(g) 54 IVIL			
Frequency		Max Value	Limit	
Range		(dBc)	≤ (dBc)	Result
Fundamental		N/A	N/A	N/A

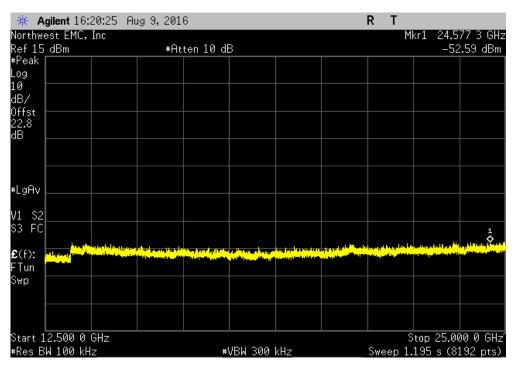


2400 MHz - 2483.5 MHz Band, 8	802.11(g) 54 Mbps, Low Channel	1, 2412 MHz	
Frequency	Max Value	Limit	
Range	(dBc)	≤ (dBc)	Result
30 MHz - 12.5 GHz	-42.64	-30	Pass

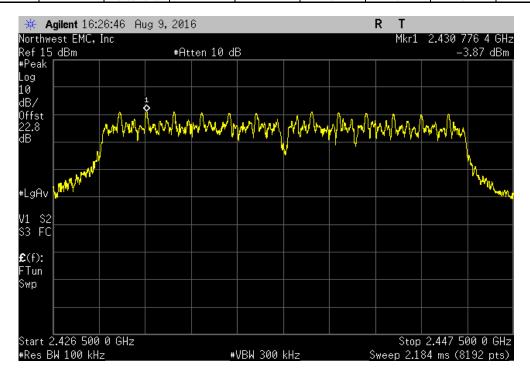




2400 MHz - 2483.5 MHz Band	, 802.11(g) 54 Mb	ps, Low Channel	1, 2412 MHz		
Frequency		Max Value	Limit		
Range		(dBc)	≤ (dBc)	Result	
12.5 GHz - 25 GHz		-46.99	-30	Pass	

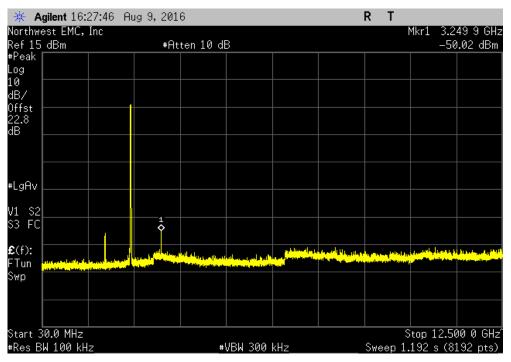


	2400 MHz - 2483.5 MHz Band	l, 802.11(g) 54 Mbps, Mid Channel	6, 2437 MHz	
	Frequency	Max Value	Limit	
_	Range	(dBc)	≤ (dBc)	Result
I	Fundamental	N/A	N/A	N/A

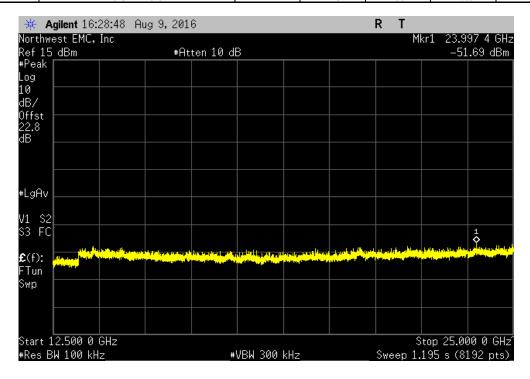




2400 MHz - 2483.5 MHz Band,	802.11(g) 54 Mbps, Mid Channel	6, 2437 MHz	
Frequency	Max Value	Limit	
Range	(dBc)	≤ (dBc)	Result
30 MHz - 12.5 GHz	-46.15	-30	Pass

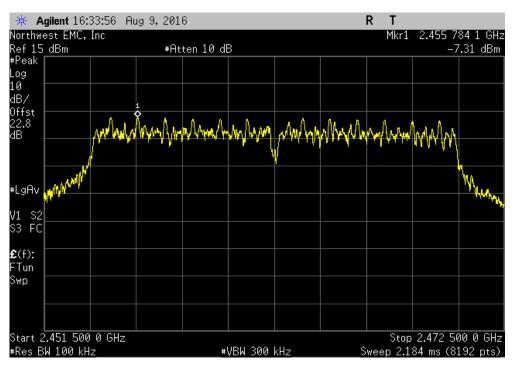


2400 MHz - 2483.5 MHz Bar	d, 802.11(g) 54 M	bps, Mid Channel	6, 2437 MHz	
Frequency		Max Value	Limit	
Range		(dBc)	≤ (dBc)	Result
12.5 GHz - 25 GHz		-47.82	-30	Pass

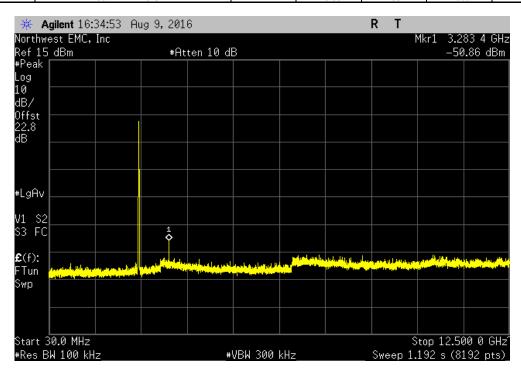




2400 MHz - 2483.5 MHz Band, 802	2.11(g) 54 Mbps, High Channel	11, 2462 MHz	
Frequency	Max Value	Limit	
			Decul
Range	(dBc)	≤ (dBc)	Result
Fundamental	N/A	N/A	N/A



2400 MHz - 2483.5 l	MHz Band, 802.11(g) 54 Mbps, High Channel	11, 2462 MHz	
Frequency		Max Value	Limit	
Range		(dBc)	≤ (dBc)	Result
30 MHz - 12.5 GHz		-43.55	-30	Pass





2400 MHz - 2483.5 MHz Band, 8	302.11(a) 54 Mbps, High Channel	11. 2462 MHz	
_	Max Value		
Frequency	wax value	Limit	
Range	(dBc)	≤ (dBc)	Result
12.5 GHz - 25 GHz	-44.85	-30	l Pass

