

NORTHWEST EMC

ProSoft Technology, Inc.

RLX2-IHNF

RLX2-IHNF-W

RLX2-IHNF-WC

FCC 15.207:2015

FCC 15.209:2015

FCC 15.407:2015

Report # PROS0219 Rev. 1



NVLAP Lab Code: 200676-0

This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government of the United States of America. This Report may only be duplicated in its entirety

CERTIFICATE OF TEST



Last Date of Test: June 10, 2015
ProSoft Technology, Inc.
Model: RLX2-IHNF

Radio Equipment Testing

Standards

Specification	Method
FCC 15.207:2015	ANSI C63.10:2009
FCC 15.209:2015	ANSI C63.10:2009
FCC 15.407:2015	ANSI C63.10:2009

Results

Method Clause	Test Description	Applied	Results	Comments
6.2	AC Powerline Conducted Emissions	Yes	Pass	
6.5, 6.6	Spurious Radiated Emissions	Yes	Pass	
6.8	Frequency Stability	Yes	Pass	
6.9.1	Emission Bandwidth	Yes	Pass	
6.10.3	Peak Transmit Power	Yes	Pass	
6.11.1	Peak Power Spectral Density	Yes	Pass	
7.5	Duty Cycle	Yes	N/A	Characterization of radio operation.

Deviations From Test Standards

None

Approved By:

Victor Ratnoff, Operations Manager

Product compliance is the responsibility of the client; therefore, the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test.

REVISION HISTORY

Revision Number	Description	Date	Page Number
01	Updated model from RLX2-IHNF-Wxx to RLX2-IHNF-WC	10/9/2015	1, 7
01	Delete Peak Excursion testing, due to new rule	10/9/2015	1, 11, 105-139
01	Deleted configuration 3	10/9/2015	10

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

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

European Union

European Commission – Validated by the European Commission as a Conformity Assessment Body (CAB) under the EMC directive and as a Notified Body under the R&TTE Directive.

Australia/New Zealand

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

Korea

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

Japan

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

Taiwan

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

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

Singapore

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

Israel

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

Hong Kong

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

Vietnam

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

SCOPE

For details on the Scopes of our Accreditations, please visit:

<http://www.nwemc.com/accreditations/>
<http://gsi.nist.gov/global/docs/cabs/designations.html>

MEASUREMENT UNCERTAINTY

Measurement Uncertainty

When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. Measurement uncertainty is a statistical expression of measurement error qualified by a probability distribution.

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) for each test is on each data sheet. Our measurement data meets or exceeds the measurement uncertainty requirements of the applicable specification; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for estimating measurement uncertainty are based upon ETSI TR 100 028 (or CISPR 16-4-2 as applicable), and are available upon request.

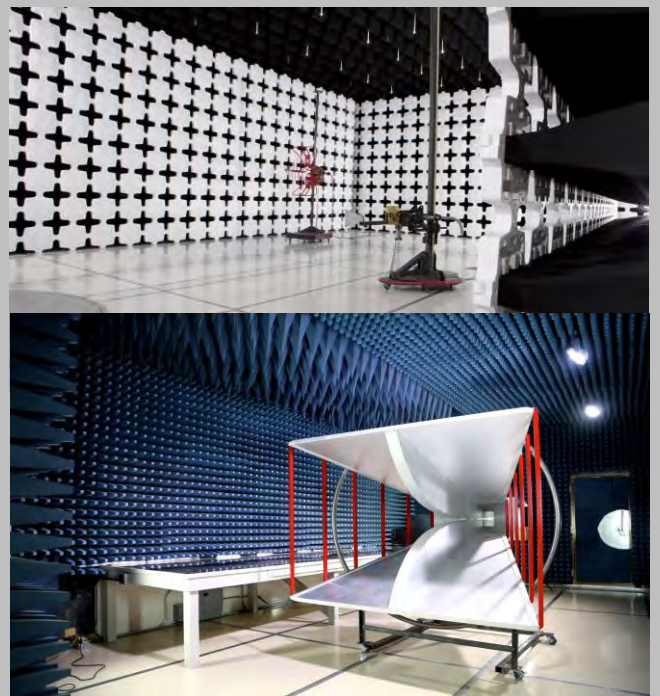
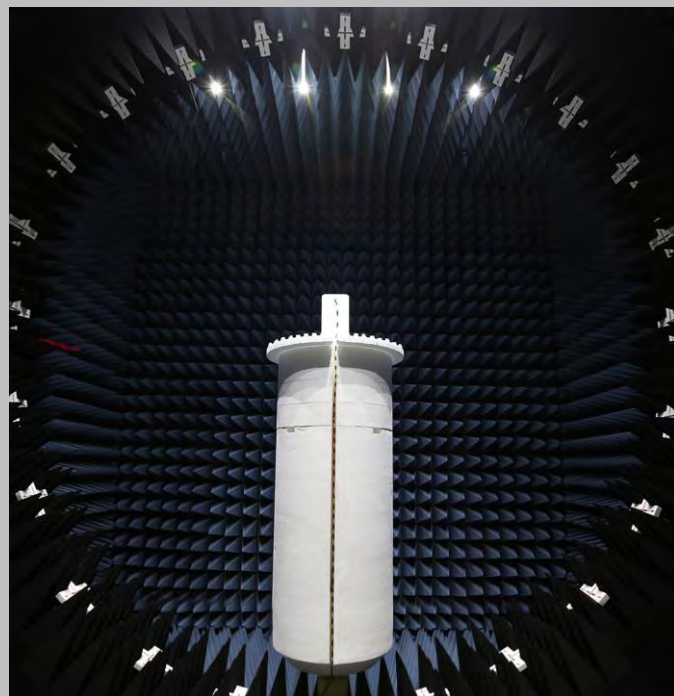
The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

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

FACILITIES



California Labs OC01-13 41 Tesla Irvine, CA 92618 (949) 861-8918	Minnesota Labs MN01-08, MN10 9349 W Broadway Ave. Brooklyn Park, MN 55445 (612)-638-5136	New York Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 554-8214	Oregon Labs EV01-12 22975 NW Evergreen Pkwy Hillsboro, OR 97124 (503) 844-4066	Texas Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	Washington Labs NC01-05 19201 120 th Ave NE Bothell, WA 9801 (425)984-6600
NVLAP					
NVLAP Lab Code: 200676-0	NVLAP Lab Code: 200881-0	NVLAP Lab Code: 200761-0	NVLAP Lab Code: 200630-0	NVLAP Lab Code:201049-0	NVLAP Lab Code: 200629-0
Industry Canada					
2834B-1, 2834B-3	2834E-1	N/A	2834D-1, 2834D-2	2834G-1	2834F-1
BSMI					
SL2-IN-E-1154R	SL2-IN-E-1152R	N/A	SL2-IN-E-1017	SL2-IN-E-1158R	SL2-IN-E-1153R
VCCI					
A-0029	A-0109	N/A	A-0108	A-0201	A-0110
Recognized Phase I CAB for ACMA, BSMI, IDA, KCC/RRR, MIC, MOC, NCC, OFCA					
US0158	US0175	N/A	US0017	US0191	US0157



PRODUCT DESCRIPTION

Client and Equipment Under Test (EUT) Information

Company Name:	ProSoft Technology, Inc.
Address:	5201 Truxtun Ave., 3rd Floor
City, State, Zip:	Bakersfield, CA 93309
Test Requested By:	Frank Hardy
Model:	RLX2-IHNF
First Date of Test:	April 30, 2015
Last Date of Test:	June 10, 2015
Receipt Date of Samples:	April 30, 2015
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT:

802.11 abgn, 2x2 MIMO radio module with one antenna type.

RLX2-IHNF, RLX2-IHNF-W and RLX2-IHNF-WC use the same radio. The outer enclosure on RLX2-IHNF is different from RLX2-IHNF-W and RLX2-IHNF-WC. The power termination on RLX2-IHNF-W and RLX2-IHNF-WC are different from one another. The RLX2-IHNF-W has a M12 termination; while RLX2-IHNF-WC has a conduit termination.

Testing Objective:

To demonstrate compliance of the 802.11 radio under FCC 15.407 for operation in the 5.2 GHz band(s).

CONFIGURATIONS

Configuration PROS0216- 1

Software/Firmware Running during test					
Description				Version	
RadioLinx Industrial Hotspot Browser				3.1.23	

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
802.11abgn Fast Industrial Hotspot	ProSoft Technology, Inc.	RLX2-IHNF	000D8DF095CE
AC/DC Power Supply	GME	GFP241DA-1217B-1	1309-0001954

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Host Laptop	Dell	PP05L	CN-0G5152-48643-483-5893
Host Laptop Power Supply	Dell	DA65NS0-00	CN-0CF745-48661-62F-1Z7L

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
DC Cable	No	1.3m	No	802.11abgn Fast Industrial Hotspot	AC/DC Power Supply
Ethernet Cable	No	3.0m	No	802.11abgn Fast Industrial Hotspot	Host Laptop
AC Cable	No	1.0m	No	AC Mains	Host Laptop Power Supply
DC Cable	No	1.8m	Yes	Host Laptop	Host Laptop Power Supply

CONFIGURATIONS

Configuration PROS0216- 2

Software/Firmware Running during test	
Description	Version
RadioLinx Industrial Hotspot Browser	3.1.23

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
802.11abgn Fast Industrial Hotspot	ProSoft Technology, Inc.	RLX2-IHNF	000D8DF095CE
AC/DC Power Supply	GME	GFP241DA-1217B-1	1309-0001954
2 dBi Omni-Directional Stub Antenna (3 ea)	Generic	A2502S-OA	None

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Host Laptop	Dell	PP05L	CN-0G5152-48643-483-5893
Host Laptop Power Supply	Dell	DA65NS0-00	CN-0CF745-48661-62F-1Z7L

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
DC Cable	No	1.3m	No	802.11abgn Fast Industrial Hotspot	AC/DC Power Supply
Ethernet Cable	No	3.0m	No	802.11abgn Fast Industrial Hotspot	Host Laptop
AC Cable	No	1.0m	No	AC Mains	Host Laptop Power Supply
DC Cable	No	1.8m	Yes	Host Laptop	Host Laptop Power Supply
Serial Cable	No	3.0m	No	802.11abgn Fast Industrial Hotspot	Unterminated

MODIFICATIONS

Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	4/30/2015	Emission Bandwidth	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
2	4/30/2015	Peak Transmit Power	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
3	4/30/2015	Peak Power Spectral Density	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
4	4/30/2015	Frequency Stability	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
5	5/4/2015	AC Powerline Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
6	5/4/2015	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

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.

MODES OF OPERATION

Continuously Transmitting, Ch. 36 (5180MHz), Data Rate: 6Mbps

Continuously Transmitting, Ch. 48 (5240MHz), Data Rate: 6Mbps

POWER SETTINGS INVESTIGATED

120VAC/60Hz

CONFIGURATIONS INVESTIGATED

PROS0216 - 2

SAMPLE CALCULATIONS

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Attenuator	Pasternack	6N10W-20	AWC	12/4/2014	12 mo
LISN	Solar Electronics	9252-50-24-BNC	LIB	1/29/2015	12 mo
LISN	Solar Electronics	9252-50-24-BNC	LIA	3/4/2015	12 mo
High Pass Filter	TTE	H97-100K-50-720B	HFP	1/27/2015	12 mo
OC06 Cables	N/A	Telecom Cables	OCP	8/15/2014	12 mo
Receiver	Rohde & Schwarz	ESCI	ARG	5/13/2014	12 mo

MEASUREMENT BANDWIDTHS

Frequency Range (MHz)	BW (kHz)
0.15 - 30.0	1.0
30.0 - 400.0	10.0
400.0 - 1000.0	100.0
1000.0 - 6000.0	1000.0

TEST DESCRIPTION

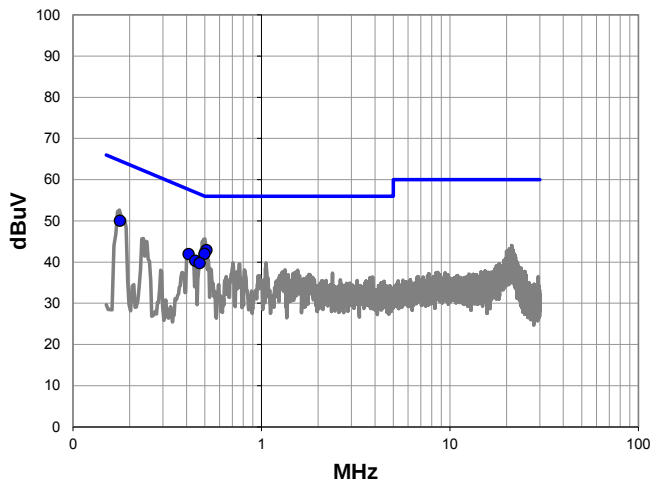
The EUT will be powered either directly or indirectly from the AC power line. Therefore, conducted emissions measurements were made on the AC input of the EUT, or on the AC input of the device used to power the EUT. The AC power line conducted emissions were measured with the EUT operating at the lowest, the highest, and a middle channel in the operational band. The EUT was transmitting at its maximum data rate. For each mode, the spectrum was scanned from 150 kHz to 30 MHz. The test setup and procedures were in accordance with ANSI C63.10-2009.

Work Order:	PROS0216	Date:	05/04/15		
Project:	None	Temperature:	20 °C		
Job Site:	OC04	Humidity:	47% RH		
Serial Number:	000D8DF095CE	Barometric Pres.:	1015 mbar	Tested by:	Nathan Gass & Johnny Candelas
EUT:	RLX2-IHNF				
Configuration:	2				
Customer:	ProSoft Technology, Inc.				
Attendees:	None				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuously Transmitting, Ch. 36 (5180MHz), Data Rate: 6Mbps				
Deviations:	None				
Comments:	None				

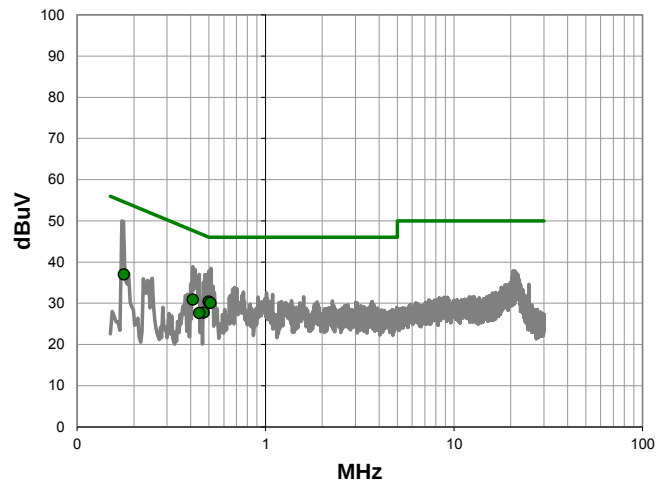
Test Specifications	Test Method
FCC 15.207:2015	ANSI C63.10:2009

Run #	2	Line:	High Line	Ext. Attenuation:	20	Results	Pass
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Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.510	22.6	20.3	42.9	56.0	-13.1
0.498	21.7	20.3	42.0	56.0	-14.0
0.177	29.4	20.6	50.0	64.6	-14.6
0.411	21.6	20.3	41.9	57.6	-15.7
0.445	20.0	20.3	40.3	57.0	-16.7
0.469	19.4	20.3	39.7	56.5	-16.8

Average Data - vs - Average Limit

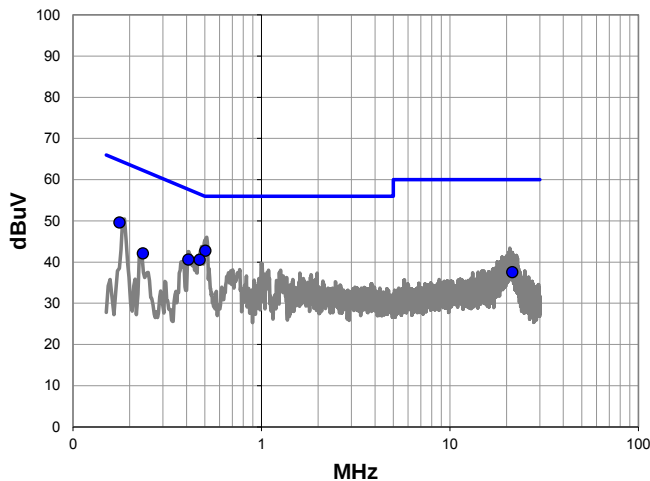
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.498	10.1	20.3	30.4	46.0	-15.6
0.510	9.8	20.3	30.1	46.0	-15.9
0.411	10.6	20.3	30.9	47.6	-16.7
0.177	16.4	20.6	37.0	54.6	-17.6
0.469	7.4	20.3	27.7	46.5	-18.8
0.445	7.3	20.3	27.6	47.0	-19.4

Work Order:	PROS0216	Date:	05/04/15		
Project:	None	Temperature:	20 °C		
Job Site:	OC04	Humidity:	47% RH		
Serial Number:	000D8DF095CE	Barometric Pres.:	1015 mbar	Tested by:	Nathan Gass & Johnny Candelas
EUT:	RLX2-IHNF				
Configuration:	2				
Customer:	ProSoft Technology, Inc.				
Attendees:	None				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuously Transmitting, Ch. 36 (5180MHz), Data Rate: 6Mbps				
Deviations:	None				
Comments:	None				

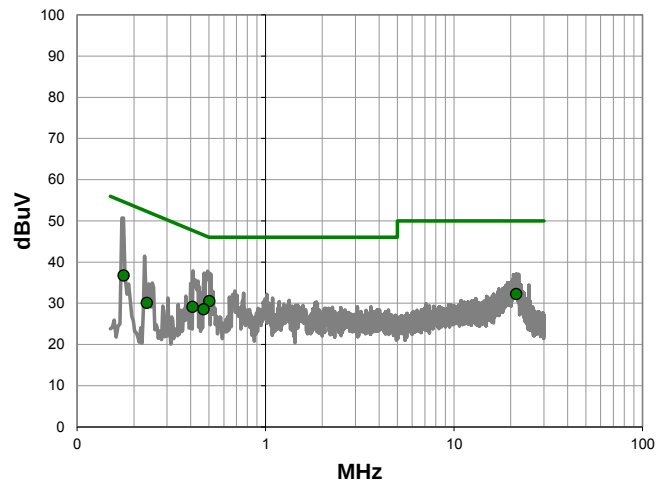
Test Specifications	Test Method
FCC 15.207:2015	ANSI C63.10:2009

Run #	3	Line:	Neutral	Ext. Attenuation:	20	Results	Pass
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Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.503	22.4	20.3	42.7	56.0	-13.3
0.176	29.0	20.6	49.6	64.7	-15.1
0.469	20.2	20.3	40.5	56.5	-16.0
0.409	20.3	20.3	40.6	57.7	-17.1
0.234	21.7	20.4	42.1	62.3	-20.2
21.401	16.1	21.4	37.5	60.0	-22.5

Average Data - vs - Average Limit

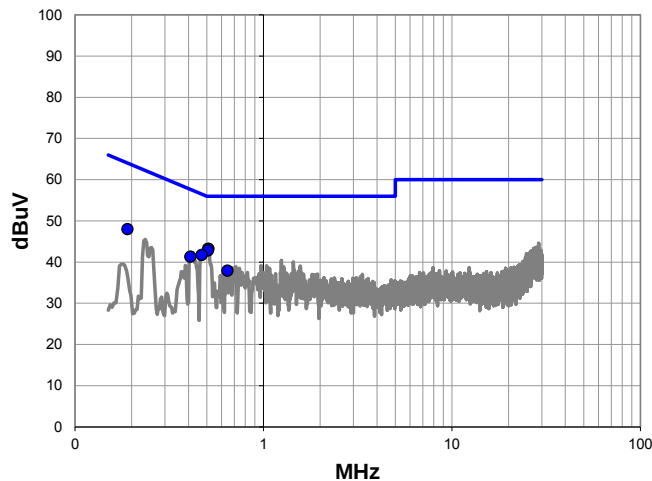
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.503	10.2	20.3	30.5	46.0	-15.5
21.401	10.8	21.4	32.2	50.0	-17.8
0.176	16.1	20.6	36.7	54.7	-18.0
0.469	8.2	20.3	28.5	46.5	-18.0
0.409	8.8	20.3	29.1	47.7	-18.6
0.234	9.7	20.4	30.1	52.3	-22.2

Work Order:	PROS0216	Date:	05/04/15		
Project:	None	Temperature:	20 °C		
Job Site:	OC04	Humidity:	47% RH		
Serial Number:	000D8DF095CE	Barometric Pres.:	1015 mbar	Tested by:	Nathan Gass & Johnny Candelas
EUT:	RLX2-IHNF				
Configuration:	2				
Customer:	ProSoft Technology, Inc.				
Attendees:	None				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuously Transmitting, Ch. 48 (5240MHz), Data Rate: 6Mbps				
Deviations:	None				
Comments:	None				

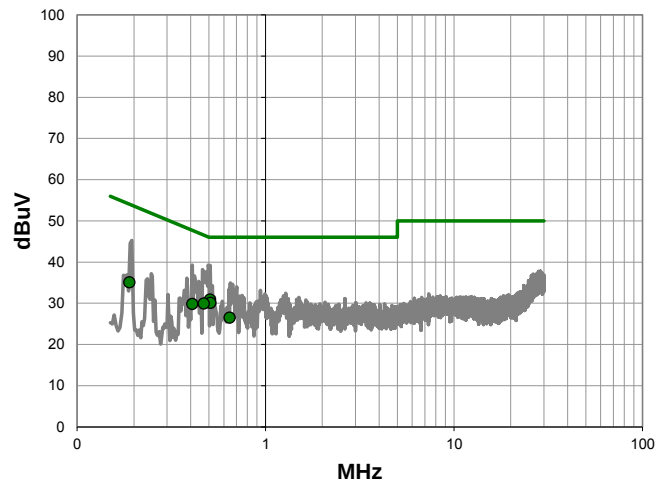
Test Specifications	Test Method
FCC 15.207:2015	ANSI C63.10:2009

Run #	4	Line:	High Line	Ext. Attenuation:	20	Results	Pass
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Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.510	22.9	20.3	43.2	56.0	-12.8
0.507	22.5	20.3	42.8	56.0	-13.2
0.470	21.4	20.3	41.7	56.5	-14.8
0.190	27.4	20.6	48.0	64.1	-16.1
0.409	21.0	20.3	41.3	57.7	-16.4
0.644	17.6	20.3	37.9	56.0	-18.1

Average Data - vs - Average Limit

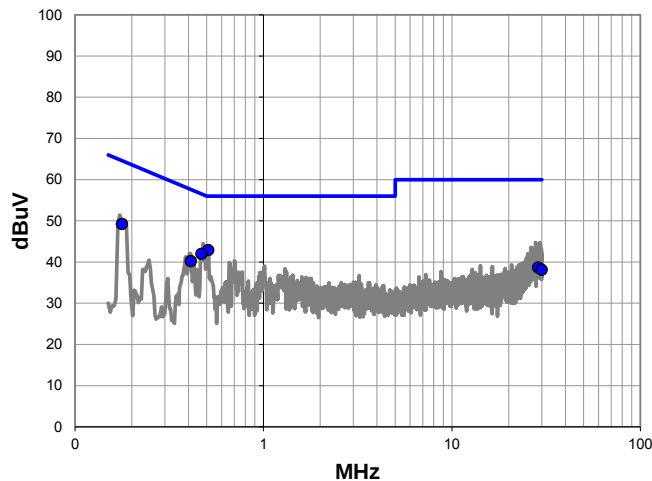
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.507	10.6	20.3	30.9	46.0	-15.1
0.510	9.8	20.3	30.1	46.0	-15.9
0.470	9.6	20.3	29.9	46.5	-16.6
0.409	9.5	20.3	29.8	47.7	-17.9
0.190	14.5	20.6	35.1	54.1	-19.0
0.644	6.2	20.3	26.5	46.0	-19.5

Work Order:	PROS0216	Date:	05/04/15		
Project:	None	Temperature:	20 °C		
Job Site:	OC04	Humidity:	47% RH		
Serial Number:	000D8DF095CE	Barometric Pres.:	1015 mbar	Tested by:	Nathan Gass & Johnny Candelas
EUT:	RLX2-IHNF				
Configuration:	2				
Customer:	ProSoft Technology, Inc.				
Attendees:	None				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuously Transmitting, Ch. 48 (5240MHz), Data Rate: 6Mbps				
Deviations:	None				
Comments:	None				

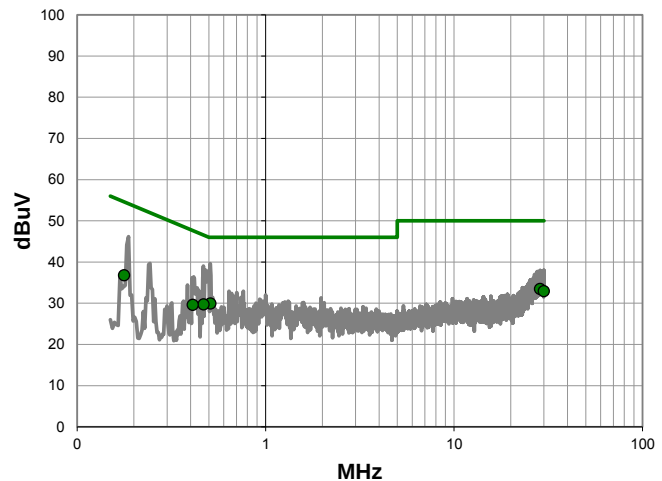
Test Specifications	Test Method
FCC 15.207:2015	ANSI C63.10:2009

Run #	5	Line:	Neutral	Ext. Attenuation:	20	Results	Pass
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Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.509	22.6	20.3	42.9	56.0	-13.1
0.469	21.7	20.3	42.0	56.5	-14.5
0.177	28.6	20.6	49.2	64.6	-15.4
0.411	19.9	20.3	40.2	57.6	-17.4
28.637	16.4	22.3	38.7	60.0	-21.3
29.955	15.9	22.2	38.1	60.0	-21.9

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.509	9.6	20.3	29.9	46.0	-16.1
28.637	11.2	22.3	33.5	50.0	-16.5
0.469	9.4	20.3	29.7	46.5	-16.8
29.955	10.7	22.2	32.9	50.0	-17.1
0.177	16.2	20.6	36.8	54.6	-17.8
0.411	9.3	20.3	29.6	47.6	-18.0

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.

CHANNELS OF OPERATION

Low Ch. 36 (5180MHz)
High Ch. 48 (5240MHz)
Ch. 36/40 (5190MHz)
Ch. 44/48 (5230MHz)

MODES OF OPERATION

6 Mbps
36 Mbps
54 Mbps
MCS0
MCS7

POWER SETTINGS INVESTIGATED

110VAC/60Hz

CONFIGURATIONS INVESTIGATED

PROS0216 - 2

FREQUENCY RANGE INVESTIGATED

Start Frequency 30 MHz	Stop Frequency 40000 MHz
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SAMPLE CALCULATIONS

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Cable	Fairview Microwave	SCA1814-0505-72	OC2	6/23/2014	12 mo
Antenna, Horn	EMCO	3115	AHA	NCR	0 mo
Notch Filter, 5.15-5.35 GHz	Micro-Tronics	BRC50703	HGH	6/13/2014	12 mo
Low Pass Filter, 0 - 1000 MHz	Micro-Tronics	LPM50004	LFC	11/14/2014	12 mo
Cable	D-Coax	None	OC4	12/16/2014	12 mo
Pre-Amplifier	Miteq	JSDWK42-18004000-60-5P-HS	PAN	12/16/2014	12 mo
Antenna, Double Ridge Guide	A.H. Systems, Inc.	SAS-574	AXV	4/9/2014	24 mo
OC07 Cables	ESM Cable Corp.	8-18GHz cables	OCY	1/28/2015	12 mo
Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVP	9/15/2014	12 mo
Antenna, Horn	EMCO	3160-08	AHK	NCR	0 mo
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVL	9/15/2014	12 mo
Antenna, Horn	ETS	3160-07	AHX	NCR	0 mo
OC07 Cables	ESM Cable Corp.	1-8GHz cables	OCX	1/28/2015	12 mo
Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVJ	9/15/2014	12 mo
Antenna, Horn (DRG)	ETS Lindgren	3115	AIR	6/4/2014	24 mo
OC07 Cables	ESM Cable Corp.	30-1GHz cables	OCW	7/15/2014	12 mo
Pre-Amplifier	Miteq	AM-1402	AOZ	7/15/2014	12 mo
Antenna, Biconilog	EMCO	3142	AXA	11/25/2013	24 mo
Spectrum Analyzer	Agilent	E4446A	AAY	10/27/2014	12 mo

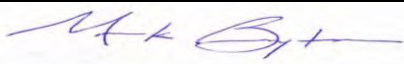
MEASUREMENT BANDWIDTHS

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

TEST DESCRIPTION

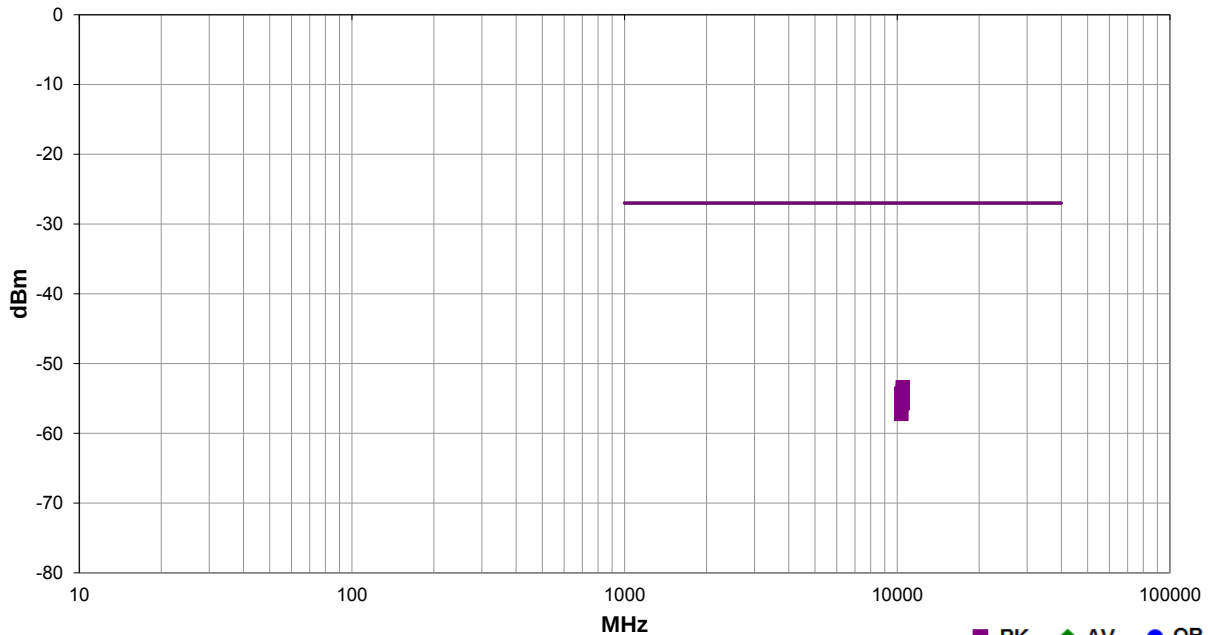
The highest gain antenna of each type to be used with the EUT were tested. The EUT was configured for the lowest, a middle, and the highest transmit frequency in each operational band. For each configuration, the spectrum was scanned throughout the specified range. Measurements were made to satisfy the three requirements of 47 CFR 15.407: Field strength under 1GHz, Restricted Bands of 47 CFR 15.205, and EIRP of 47 CFR 15.407.

While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antenna in three orthogonal axis, and adjusting the measurement antenna height and polarization (per ANSI C63.10:2009). A preamp and high pass filter (and notch filter) were used for this test in order to provide sufficient measurement sensitivity.

Work Order:	PROS0216	Date:	05/01/15	
Project:	None	Temperature:	22 °C	
Job Site:	OC07	Humidity:	45% RH	
Serial Number:	000D8DF095CE	Barometric Pres.:	1015 mbar	
EUT:	RLX2-IHNF			
Configuration:	2			
Customer:	ProSoft Technology, Inc.			
Attendees:	None			
EUT Power:	110VAC/60Hz			
Operating Mode:	Continuously Transmitting, 802.11an			
Deviations:	None			
Comments:	See Comments on data for channel, data rate, and orientation			

Test Specifications	Test Method
FCC 15.407:2015	ANSI C63.10:2009

Run #	10	Test Distance (m)	3	Antenna Height(s)	1 to 4(m)	Results	Pass
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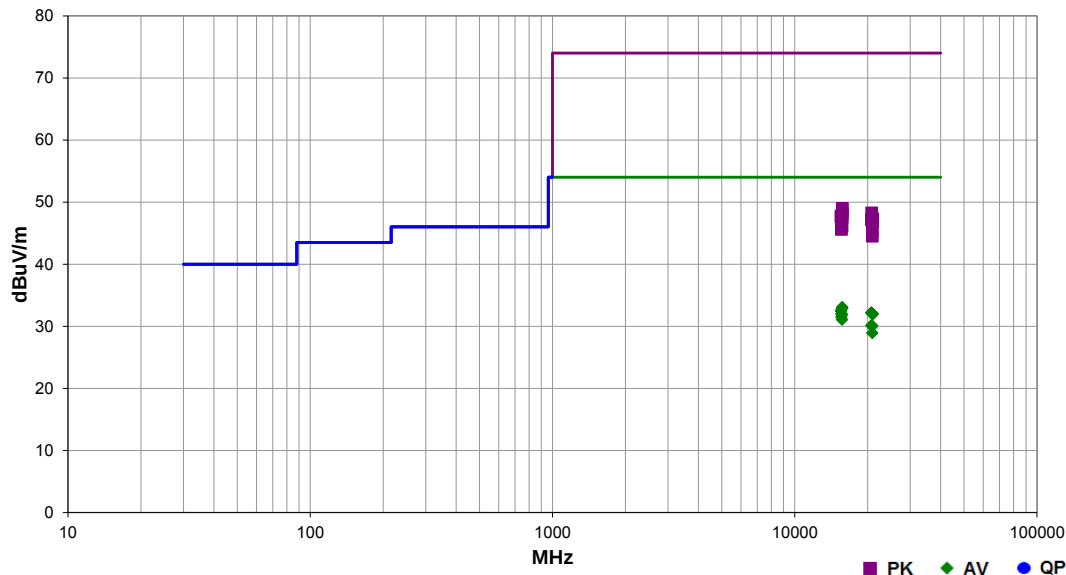


Freq (MHz)	Antenna Height (meters)	Azimuth (degrees)	Polarity/ Transducer Type	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
10479.890	1.0	195.0	Horz	PK	4.59E-09	-53.4	-27.0	-26.4	Ch. 48, EUT on Side, 54Mbps
10482.110	1.0	283.0	Vert	PK	3.99E-09	-54.0	-27.0	-27.0	Ch. 48, EUT on Side, 54Mbps
10479.710	1.0	195.0	Horz	PK	3.81E-09	-54.2	-27.0	-27.2	Ch. 48, EUT on Side, MCS7
10480.240	1.0	195.0	Horz	PK	3.64E-09	-54.4	-27.0	-27.4	Ch. 48, EUT on Side, MCS0
10480.070	1.0	283.0	Vert	PK	3.64E-09	-54.4	-27.0	-27.4	Ch. 48, EUT on Side, MCS0
10481.910	1.0	283.0	Vert	PK	3.32E-09	-54.8	-27.0	-27.8	Ch. 48, EUT on Side, MCS7
10460.230	1.0	236.0	Horz	PK	3.32E-09	-54.8	-27.0	-27.8	Ch. 44/48, EUT on Side, MCS0
10461.490	1.0	75.0	Horz	PK	2.83E-09	-55.5	-27.0	-28.5	Ch. 44/48, EUT on Side, MCS7
10481.430	1.0	47.0	Horz	PK	3.81E-09	-54.2	-27.0	-27.2	Ch. 48, EUT on Side, 6Mbps
10481.980	1.0	6.0	Vert	PK	3.81E-09	-54.2	-27.0	-27.2	Ch. 48, EUT on Side, 36Mbps
10360.330	1.0	276.0	Horz	PK	3.71E-09	-54.3	-27.0	-27.3	Ch. 36, EUT on Side, 6Mbps
10481.860	1.0	308.0	Horz	PK	3.32E-09	-54.8	-27.0	-27.8	Ch. 48, EUT Vert, 6Mbps
10478.340	1.0	282.0	Vert	PK	3.32E-09	-54.8	-27.0	-27.8	Ch. 48, EUT on Side, 6Mbps
10479.540	1.0	255.0	Horz	PK	3.25E-09	-54.9	-27.0	-27.9	Ch. 48, EUT on Side, 36Mbps
10478.800	1.0	320.0	Vert	PK	3.25E-09	-54.9	-27.0	-27.9	Ch. 48, EUT Horz, 6Mbps
10361.870	1.0	36.0	Vert	PK	3.08E-09	-55.1	-27.0	-28.1	Ch. 36, EUT on Side, 6Mbps
10480.840	1.0	346.0	Vert	PK	2.96E-09	-55.3	-27.0	-28.3	Ch. 48, EUT Vert, 6Mbps
10480.910	1.0	110.0	Horz	PK	2.70E-09	-55.7	-27.0	-28.7	Ch. 48, EUT Horz, 6Mbps
10380.120	1.0	276.0	Horz	PK	2.62E-09	-55.8	-27.0	-28.8	Ch. 36/40, EUT on Side, MCS0
10380.120	1.0	116.0	Horz	PK	1.90E-09	-57.2	-27.0	-30.2	Ch. 36/40, EUT on Side, MCS7

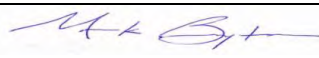
Work Order:	PROS0216	Date:	05/04/15	
Project:	None	Temperature:	20 °C	
Job Site:	OC07	Humidity:	47% RH	
Serial Number:	000D8DF095CE	Barometric Pres.:	1015 mbar	
EUT:	RLX2-IHNF			Tested by: Nathan Gass
Configuration:	2			
Customer:	ProSoft Technology, Inc.			
Attendees:	None			
EUT Power:	110VAC/60Hz			
Operating Mode:	Continuously Transmitting, 802.11an			
Deviations:	None			
Comments:	See Comments on data for channel, data rate, and orientation			

Test Specifications	Test Method
FCC 15.209:2015	ANSI C63.10:2009

Run #	12	Test Distance (m)	3	Antenna Height(s)	1 to 4(m)	Results	Pass
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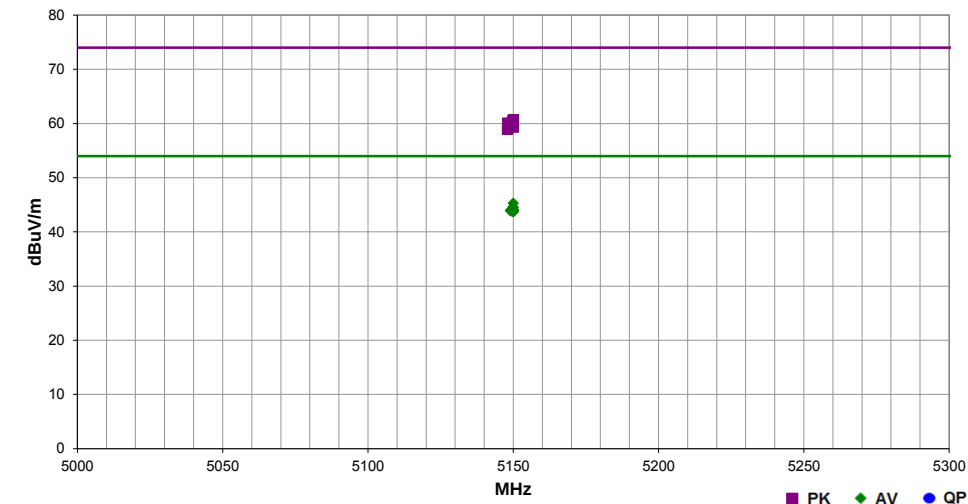


Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
15718.110	27.6	5.5	1.0	61.0	3.0	0.0	Horz	AV	0.0	33.1	54.0	-20.9	Ch. 48, EUT on Side, 6Mbps
15718.810	27.4	5.5	1.0	152.0	3.0	0.0	Vert	AV	0.0	32.9	54.0	-21.1	Ch. 48, EUT on Side, 6Mbps
15539.790	27.5	5.0	1.0	8.0	3.0	0.0	Vert	AV	0.0	32.5	54.0	-21.5	Ch. 36, EUT on Side, 6Mbps
15537.510	27.5	5.0	1.0	68.0	3.0	0.0	Horz	AV	0.0	32.5	54.0	-21.5	Ch. 36, EUT on Side, 6Mbps
20717.780	44.1	-11.9	1.2	151.0	3.0	0.0	Horz	AV	0.0	32.2	54.0	-21.8	Ch. 36, EUT on Side, 6Mbps
20718.130	44.1	-11.9	1.2	40.0	3.0	0.0	Vert	AV	0.0	32.2	54.0	-21.8	Ch. 36, EUT on Side, 6Mbps
20958.330	44.0	-12.0	1.2	212.0	3.0	0.0	Vert	AV	0.0	32.0	54.0	-22.0	Ch. 48, EUT on Side, 6Mbps
15569.910	27.0	5.0	1.0	64.0	3.0	0.0	Vert	AV	0.0	32.0	54.0	-22.0	Ch. 36/40, EUT on Side, MCS0
20957.510	43.9	-12.0	1.2	360.0	3.0	0.0	Horz	AV	0.0	31.9	54.0	-22.1	Ch. 48, EUT on Side, 6Mbps
15689.150	26.4	5.5	1.0	212.0	3.0	0.0	Vert	AV	0.0	31.9	54.0	-22.1	Ch. 44/48, EUT on Side, MCS0
15569.110	26.5	5.0	1.0	110.0	3.0	0.0	Horz	AV	0.0	31.5	54.0	-22.5	Ch. 36/40, EUT on Side, MCS0
15689.120	25.6	5.5	1.0	25.0	3.0	0.0	Horz	AV	0.0	31.1	54.0	-22.9	Ch. 44/48, EUT on Side, MCS0
20762.670	42.1	-11.9	1.2	120.0	3.0	0.0	Horz	AV	0.0	30.2	54.0	-23.8	Ch. 36/40, EUT on Side, MCS0
20918.380	42.0	-12.0	1.2	301.0	3.0	0.0	Vert	AV	0.0	30.0	54.0	-24.0	Ch. 44/48, EUT on Side, MCS0
20763.480	43.0	-11.9	1.2	83.0	3.0	0.0	Vert	AV	0.0	30.1	54.0	-24.7	Ch. 36/40, EUT on Side, MCS0
15721.280	43.5	5.5	1.0	152.0	3.0	0.0	Vert	PK	0.0	49.0	74.0	-25.0	Ch. 48, EUT on Side, 6Mbps
20917.110	40.9	-12.0	1.2	265.0	3.0	0.0	Horz	AV	0.0	28.9	54.0	-25.1	Ch. 44/48, EUT on Side, MCS0
20762.560	60.2	-11.9	1.2	120.0	3.0	0.0	Horz	PK	0.0	48.3	74.0	-25.7	Ch. 36/40, EUT on Side, MCS0
15721.950	42.7	5.5	1.0	61.0	3.0	0.0	Horz	PK	0.0	48.2	74.0	-25.8	Ch. 48, EUT on Side, 6Mbps
15540.290	42.8	5.0	1.0	68.0	3.0	0.0	Horz	PK	0.0	47.8	74.0	-26.2	Ch. 36, EUT on Side, 6Mbps
15537.680	42.6	5.0	1.0	8.0	3.0	0.0	Vert	PK	0.0	47.6	74.0	-26.4	Ch. 36, EUT on Side, 6Mbps
15691.830	42.0	5.5	1.0	212.0	3.0	0.0	Vert	PK	0.0	47.5	74.0	-26.5	Ch. 44/48, EUT on Side, MCS0
20958.480	59.3	-12.0	1.2	212.0	3.0	0.0	Vert	PK	0.0	47.3	74.0	-26.7	Ch. 48, EUT on Side, 6Mbps
20718.730	59.2	-11.9	1.2	151.0	3.0	0.0	Horz	PK	0.0	47.3	74.0	-26.7	Ch. 36, EUT on Side, 6Mbps
20761.850	59.1	-11.9	1.2	83.0	3.0	0.0	Vert	PK	0.0	47.2	74.0	-26.8	Ch. 36/40, EUT on Side, MCS0
20720.280	59.1	-11.9	1.2	40.0	3.0	0.0	Vert	PK	0.0	47.2	74.0	-26.8	Ch. 36, EUT on Side, 6Mbps
20958.200	58.8	-12.0	1.2	360.0	3.0	0.0	Horz	PK	0.0	46.8	74.0	-27.2	Ch. 48, EUT on Side, 6Mbps
20920.690	57.3	-12.0	1.2	301.0	3.0	0.0	Vert	PK	0.0	45.3	74.0	-27.7	Ch. 44/48, EUT on Side, MCS0
15691.500	40.7	5.5	1.0	25.0	3.0	0.0	Horz	PK	0.0	46.2	74.0	-27.8	Ch. 44/48, EUT on Side, MCS0
15570.720	40.8	5.0	1.0	110.0	3.0	0.0	Horz	PK	0.0	45.8	74.0	-28.2	Ch. 36/40, EUT on Side, MCS0
15568.820	40.6	5.0	1.0	64.0	3.0	0.0	Vert	PK	0.0	45.6	74.0	-28.4	Ch. 36/40, EUT on Side, MCS0
20919.230	56.5	-12.0	1.2	265.0	3.0	0.0	Horz	PK	0.0	44.5	74.0	-29.5	Ch. 44/48, EUT on Side, MCS0

Work Order:	PROS0216	Date:	05/04/15	
Project:	None	Temperature:	20 °C	
Job Site:	OC07	Humidity:	47% RH	
Serial Number:	000D8DF095CE	Barometric Pres.:	1015 mbar	
EUT:		RLX2-IHNF		
Configuration:		2		
Customer:		ProSoft Technology, Inc.		
Attendees:		None		
EUT Power:		110VAC/60Hz		
Operating Mode:		Continuously Transmitting, 802.11an		
Deviations:		None		
Comments:		See Comments on data for channel, data rate, and orientation		

Test Specifications	FCC 15.209:2015	Test Method	ANSI C63.10:2009
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Run #	18	Test Distance (m)	1	Antenna Height(s)	1 to 4(m)	Results	Pass
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Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
5150.000	18.7	36.1	1.1	178.0	1.0	0.0	Vert	AV	-9.5	45.3	54.0	-8.7	Ch. 36/40, EUT on Horiz, MCS7
5149.925	18.0	36.1	1.1	178.0	1.0	0.0	Vert	AV	-9.5	44.6	54.0	-9.4	Ch. 36/40, EUT on Horiz, MCS0
5150.000	17.9	36.1	1.1	178.0	1.0	0.0	Vert	AV	-9.5	44.5	54.0	-9.5	Ch. 36/40, EUT on Horiz, MCS0
5149.915	17.6	36.1	1.1	178.0	1.0	0.0	Vert	AV	-9.5	44.2	54.0	-9.8	Ch. 36, EUT Horiz, 6Mbps
5150.000	17.5	36.1	1.1	178.0	1.0	0.0	Vert	AV	-9.5	44.1	54.0	-9.9	Ch. 36, EUT on Vert, 6Mbps
5150.000	17.5	36.1	1.1	178.0	1.0	0.0	Vert	AV	-9.5	44.1	54.0	-9.9	Ch. 36, EUT on Vert, MCS0
5149.665	17.5	36.1	1.1	178.0	1.0	0.0	Vert	AV	-9.5	44.1	54.0	-9.9	Ch. 36, EUT on Vert, 36Mbps
5150.000	17.4	36.1	1.1	178.0	1.0	0.0	Vert	AV	-9.5	44.0	54.0	-10.0	Ch. 36, EUT on Vert, 54Mbps
5150.000	17.4	36.1	1.1	156.0	1.0	0.0	Horz	AV	-9.5	44.0	54.0	-10.0	Ch. 36, EUT on Vert, 6Mbps
5150.000	17.4	36.1	1.1	156.0	1.0	0.0	Horz	AV	-9.5	44.0	54.0	-10.0	Ch. 36, EUT on Vert, 36Mbps
5150.000	17.4	36.1	1.1	178.0	1.0	0.0	Vert	AV	-9.5	44.0	54.0	-10.0	Ch. 36, EUT Horiz, MCS7
5149.975	17.4	36.1	1.1	156.0	1.0	0.0	Horz	AV	-9.5	44.0	54.0	-10.0	Ch. 36/40, EUT on Side, MCS0
5149.570	17.4	36.1	1.1	173.0	1.0	0.0	Vert	AV	-9.5	44.0	54.0	-10.0	Ch. 36, EUT on Side, 6Mbps
5149.195	17.4	36.1	1.1	162.0	1.0	0.0	Horz	AV	-9.5	44.0	54.0	-10.0	Ch. 36, EUT Horiz, 6Mbps
5149.120	17.4	36.1	1.1	348.0	1.0	0.0	Horz	AV	-9.5	44.0	54.0	-10.0	Ch. 36, EUT on Side, 6Mbps
5149.920	17.3	36.1	1.1	156.0	1.0	0.0	Horz	AV	-9.5	43.9	54.0	-10.1	Ch. 36, EUT on Vert, MCS7
5149.495	17.3	36.1	1.1	156.0	1.0	0.0	Horz	AV	-9.5	43.9	54.0	-10.1	Ch. 36, EUT on Vert, MCS0
5149.365	17.3	36.1	1.1	156.0	1.0	0.0	Horz	AV	-9.5	43.9	54.0	-10.1	Ch. 36, EUT on Vert, 54Mbps
5149.085	17.3	36.1	1.1	291.0	1.0	0.0	Vert	AV	-9.5	43.9	54.0	-10.1	Ch. 36, EUT on Vert, 6Mbps
5150.000	17.2	36.1	1.1	156.0	1.0	0.0	Horz	AV	-9.5	43.8	54.0	-10.2	Ch. 36/40, EUT on Horiz, MCS0
5150.000	17.2	36.1	1.1	156.0	1.0	0.0	Horz	AV	-9.5	43.8	54.0	-10.2	Ch. 36/40, EUT on Horiz, MCS7
5150.000	17.2	36.1	1.1	178.0	1.0	0.0	Vert	AV	-9.5	43.8	54.0	-10.2	Ch. 36/40, EUT on Side, MCS0
5150.000	17.2	36.1	1.1	156.0	1.0	0.0	Horz	AV	-9.5	43.8	54.0	-10.2	Ch. 36/40, EUT on Horiz, MCS0
5150.000	17.1	36.1	1.1	156.0	1.0	0.0	Horz	AV	-9.5	43.7	54.0	-10.3	Ch. 36/40, EUT on Horiz, MCS0
5150.000	34.1	36.1	1.1	178.0	1.0	0.0	Vert	PK	-9.5	60.7	74.0	-13.3	Ch. 36, EUT Horiz, MCS0
5150.000	34.0	36.1	1.1	178.0	1.0	0.0	Vert	PK	-9.5	60.6	74.0	-13.4	Ch. 36/40, EUT on Horiz, MCS7
5149.795	33.8	36.1	1.1	178.0	1.0	0.0	Vert	PK	-9.5	60.4	74.0	-13.6	Ch. 36, EUT on Vert, 36Mbps
5150.000	33.6	36.1	1.1	291.0	1.0	0.0	Vert	PK	-9.5	60.2	74.0	-13.8	Ch. 36, EUT on Vert, 6Mbps
5150.000	33.5	36.1	1.1	156.0	1.0	0.0	Horz	PK	-9.5	60.1	74.0	-13.9	Ch. 36, EUT on Vert, 54Mbps
5148.042	33.5	36.1	1.1	156.0	1.0	0.0	Horz	PK	-9.5	60.1	74.0	-13.9	Ch. 36/40, EUT on Horiz, MCS0
5150.000	33.4	36.1	1.1	178.0	1.0	0.0	Vert	PK	-9.5	60.0	74.0	-14.0	Ch. 36, EUT on Vert, 6Mbps
5150.000	33.4	36.1	1.1	156.0	1.0	0.0	Horz	PK	-9.5	60.0	74.0	-14.0	Ch. 36/40, EUT on Side, MCS0
5149.575	33.4	36.1	1.1	178.0	1.0	0.0	Vert	PK	-9.5	60.0	74.0	-14.0	Ch. 36/40, EUT on Horiz, MCS0
5149.980	33.2	36.1	1.1	178.0	1.0	0.0	Vert	PK	-9.5	59.8	74.0	-14.2	Ch. 36, EUT on Vert, 54Mbps
5150.000	33.1	36.1	1.1	178.0	1.0	0.0	Vert	PK	-9.5	59.7	74.0	-14.3	Ch. 36, EUT Horiz, MCS7
5149.935	33.1	36.1	1.1	156.0	1.0	0.0	Horz	PK	-9.5	59.7	74.0	-14.3	Ch. 36, EUT on Vert, 6Mbps
5149.095	33.1	36.1	1.1	173.0	1.0	0.0	Vert	PK	-9.5	59.7	74.0	-14.3	Ch. 36, EUT on Side, 6Mbps
5150.000	33.0	36.1	1.1	178.0	1.0	0.0	Vert	PK	-9.5	59.6	74.0	-14.4	Ch. 36/40, EUT on Horiz, MCS0
5150.000	33.0	36.1	1.1	156.0	1.0	0.0	Horz	PK	-9.5	59.6	74.0	-14.4	Ch. 36, EUT on Vert, MCS0
5150.000	33.0	36.1	1.1	162.0	1.0	0.0	Horz	PK	-9.5	59.6	74.0	-14.4	Ch. 36, EUT Horiz, 6Mbps
5149.635	33.0	36.1	1.1	348.0	1.0	0.0	Horz	PK	-9.5	59.6	74.0	-14.4	Ch. 36, EUT on Side, 6Mbps
5149.545	33.0	36.1	1.1	178.0	1.0	0.0	Vert	PK	-9.5	59.6	74.0	-14.4	Ch. 36, EUT Horiz, 6Mbps
5149.925	32.9	36.1	1.1	156.0	1.0	0.0	Horz	PK	-9.5	59.5	74.0	-14.5	Ch. 36/40, EUT on Horiz, MCS7
5150.000	32.8	36.1	1.1	156.0	1.0	0.0	Horz	PK	-9.5	59.4	74.0	-14.6	Ch. 36, EUT on Vert, MCS7
5149.920	32.8	36.1	1.1	156.0	1.0	0.0	Horz	PK	-9.5	59.4	74.0	-14.6	Ch. 36, EUT on Vert, 36Mbps
5148.033	32.4	36.1	1.1	178.0	1.0	0.0	Vert	PK	-9.5	59.0	74.0	-15.0	Ch. 36/40, EUT on Side, MCS0

FREQUENCY STABILITY

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
MultiMeter	Fluke	79 III	MMD	2/4/2013	36
Humidity Temperature Chamber	Cincinnati Sub Zero (CSZ)	ZPHS-32-3.5-SCT/AC	TBE	NCR	12
Thermometer	Omega Engineering, Inc.	HH311	DUC	10/3/2014	36
OC13 Cables	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	0
Attenuator, 20dB	Fairview Microwave	SA18E-10	TKS	4/8/2015	12
40GHz DC Block	Fairview Microwave	SD3379	AMN	4/8/2015	12
Spectrum Analyzer	Agilent	E4440A	AFA	8/28/2014	12

TEST DESCRIPTION

A direct connect measurement was made between the EUT's antenna cable and a spectrum analyzer. The spectrum analyzer is equipped with a precision frequency reference that exceeds the stability requirement of the EUT.

Measurements were made at the edges of the main transmit bands as called out on the data sheets. Testing was done with modulation.

The primary supply voltage was varied from 85 % to 115% of the nominal voltage Using a temperature chamber, the transmit frequency was recorded at the extremes of the specified temperature range (-40° to +70°C) and at 10°C intervals.

Per the requirements of FCC 15.407:

"Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual."

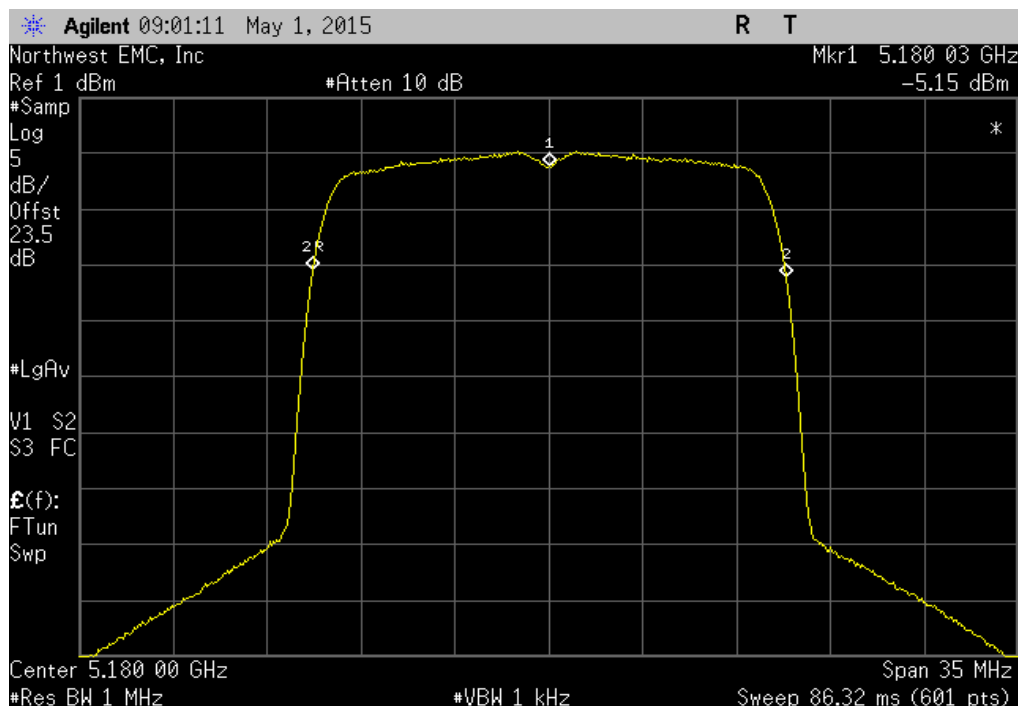
No specific limits are provided in either FCC 15.407, the product specific rule part, or FCC 2.1055, the equipment authorization procedure for testing frequency stability. While there are no limits called out, any results less than 100ppm will still allow the radio to be operating within the band.

FREQUENCY STABILITY

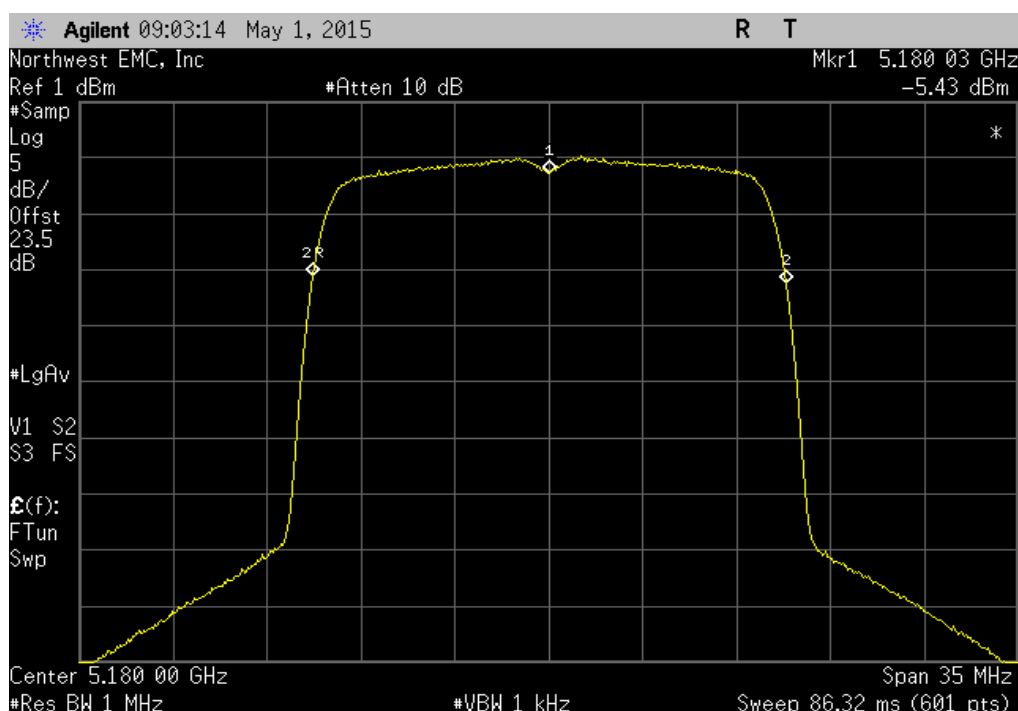
EUT: RLX2-IHNF		Work Order: PROS0216	
Serial Number: 000D8DF095CE		Date: 04/30/15	
Customer: ProSoft Technology, Inc.		Temperature: 21.1°C	
Attendees: Frank Hardy		Humidity: 46%	
Project: None		Barometric Pres.: 1012	
Tested by: Johnny Candelas		Power: 120V/60Hz	
		Job Site: OC13	
TEST SPECIFICATIONS		Test Method	
FCC 15.407:2015		ANSI C63.10:2009	
COMMENTS			
Offset 23.46dB (DC Block+20dB Attenuator+Coax Cable) for 5.2GHz			
Power Setting - Max			
Chain A tested as representative port. All ports connected to same radio module			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature 	
		Measured Value (MHz)	Assigned Value (MHz)
		Error (ppm)	Limit (ppm)
			Results
Low Channel 36, 5180 MHz			
	Voltage: 100% = 120V	5180.03	5180
	Voltage: 115% = 138V	5180.03	5180
	Voltage: 85% = 102V	5180.03	5180
	Temperature: +50°	5180.06	5180
	Temperature: +40°	5180.06	5180
	Temperature: +30°	5180.03	5180
	Temperature: +20°	5180.03	5180
	Temperature: +10°	5180.03	5180
	Temperature: 0°	5180.03	5180
	Temperature: -10°	5180.03	5180
	Temperature: -20°	5180.03	5180
	Temperature: -30°	5180.03	5180

FREQUENCY STABILITY

Low Channel 36, 5180 MHz, Voltage: 100% = 120V						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	5180.03	5180	5.8	100	Pass	

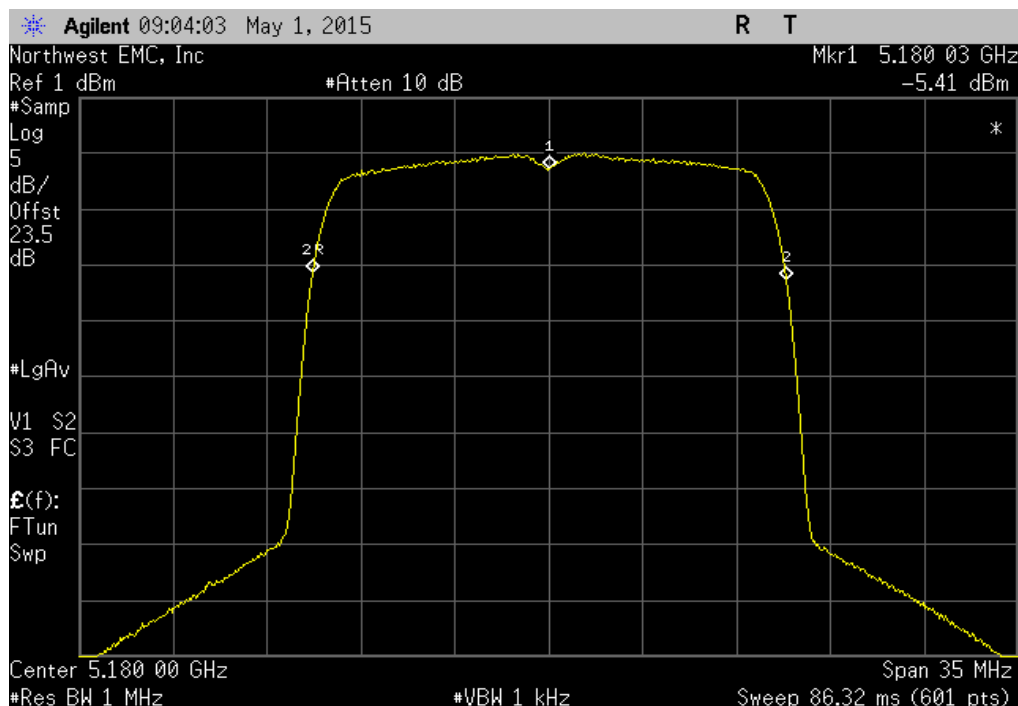


Low Channel 36, 5180 MHz, Voltage: 115% = 138V						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	5180.03	5180	5.8	100	Pass	

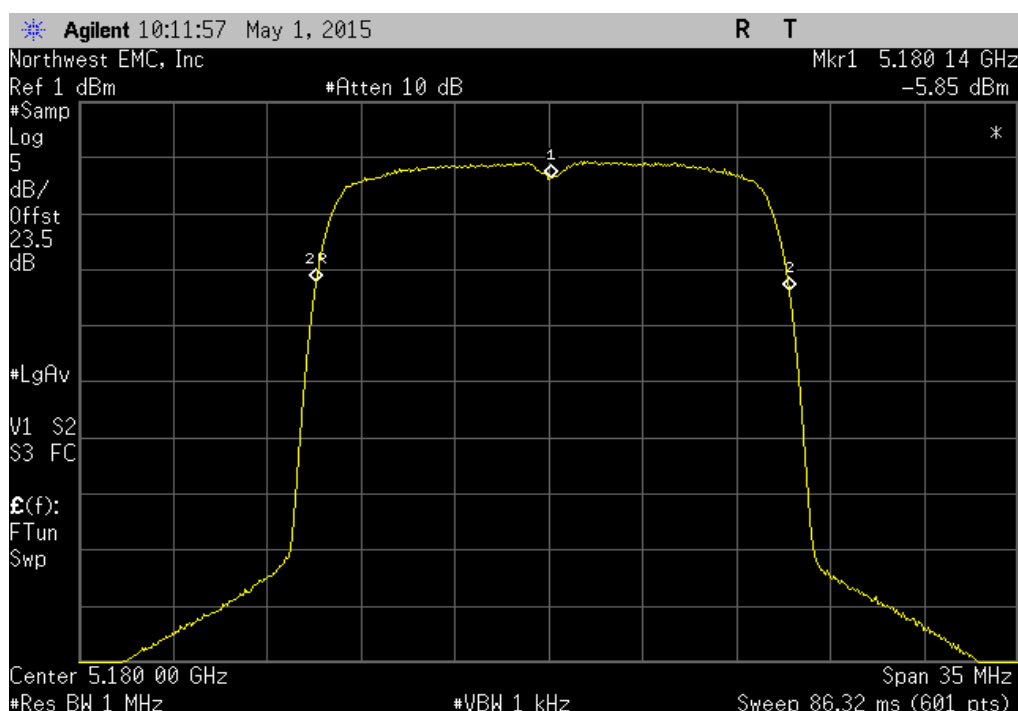


FREQUENCY STABILITY

Low Channel 36, 5180 MHz, Voltage: 85% = 102V						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	5180.03	5180	5.8	100	Pass	

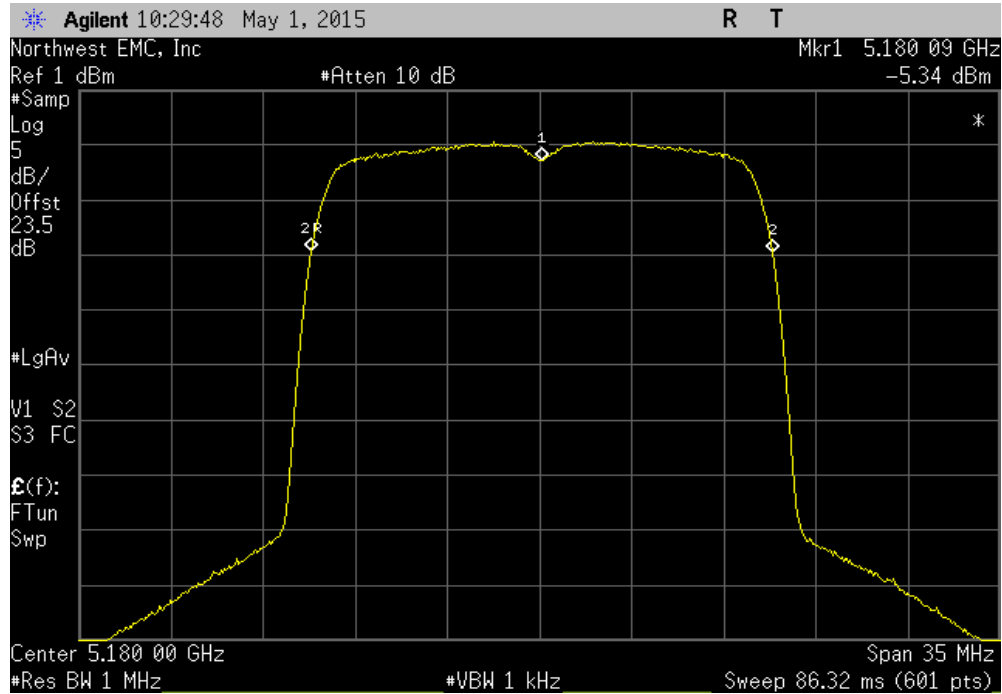


#REF!						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	5180.14	5180	27	100	Pass	

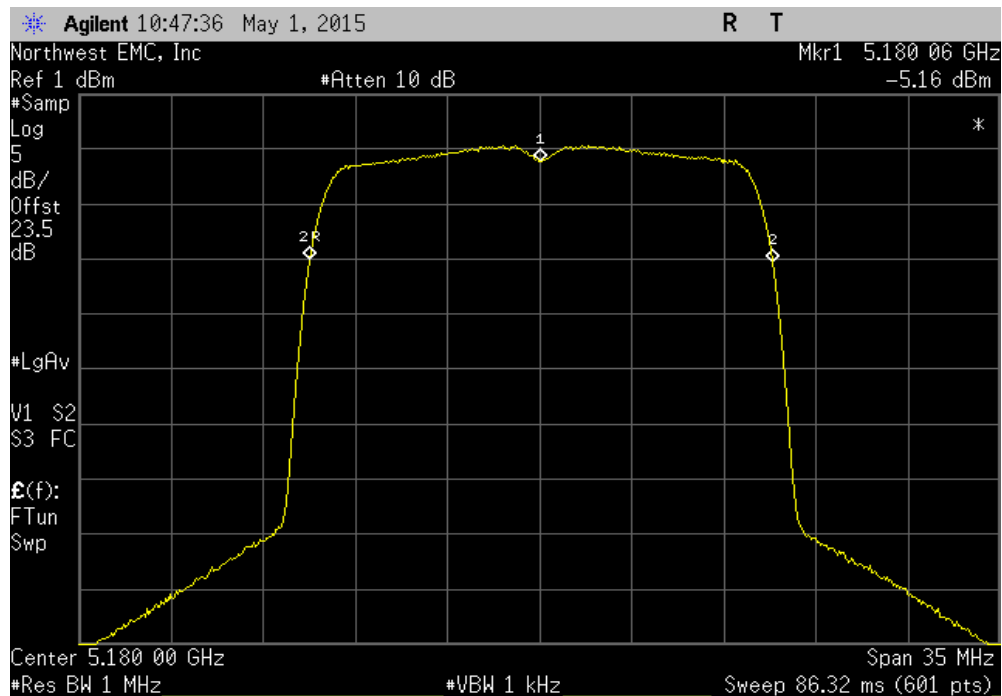


FREQUENCY STABILITY

#REF1						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	5180.09	5180	17.4	100	Pass	

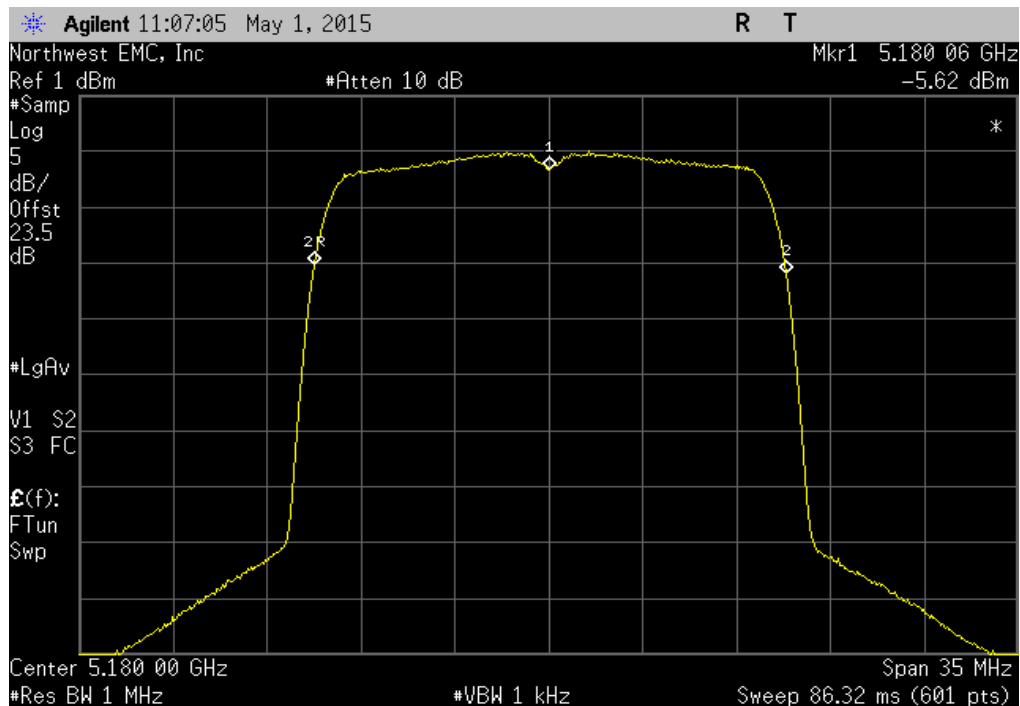


Low Channel 36, 5180 MHz, Temperature: +50°						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	5180.06	5180	11.6	100	Pass	

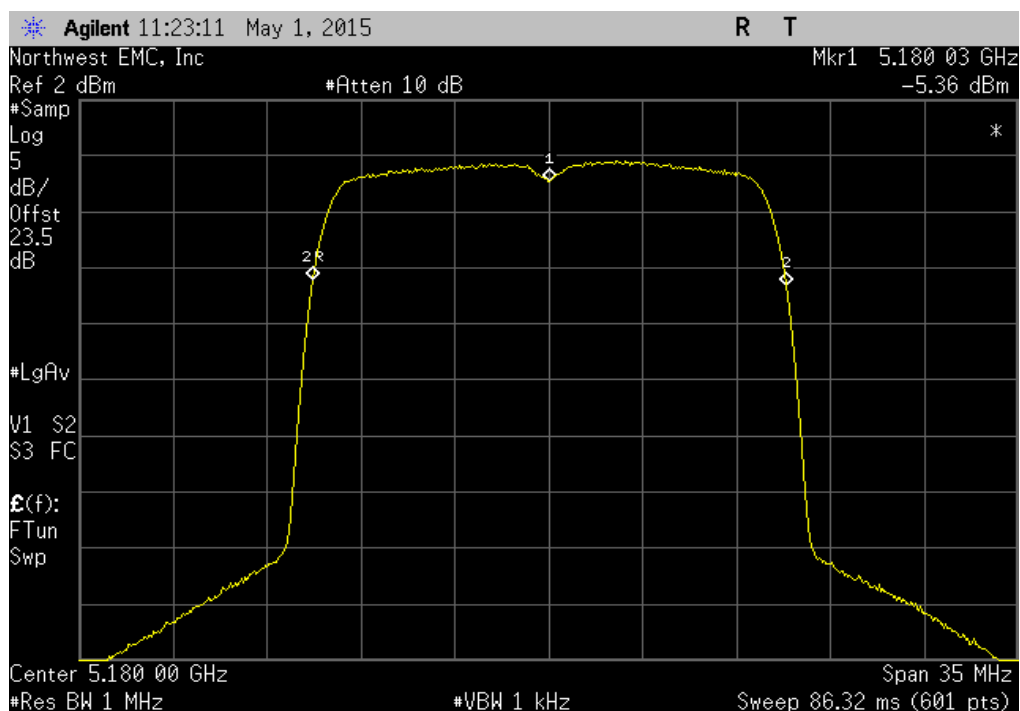


FREQUENCY STABILITY

Low Channel 36, 5180 MHz, Temperature: +40°						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	5180.06	5180	11.6	100	Pass	

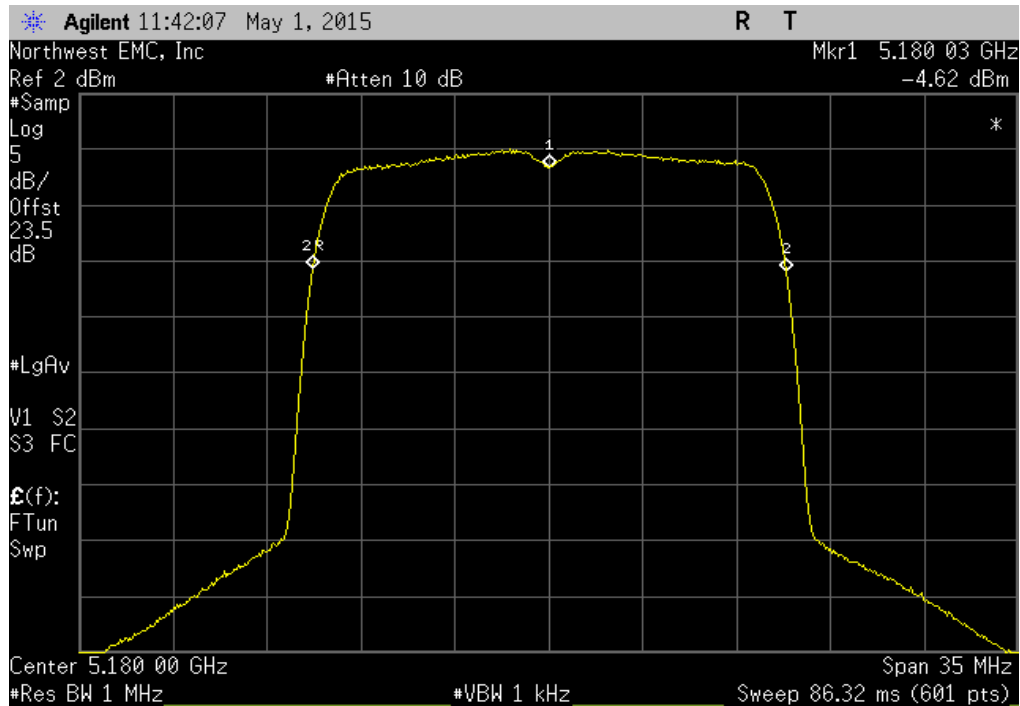


Low Channel 36, 5180 MHz, Temperature: +30°						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	5180.03	5180	5.8	100	Pass	

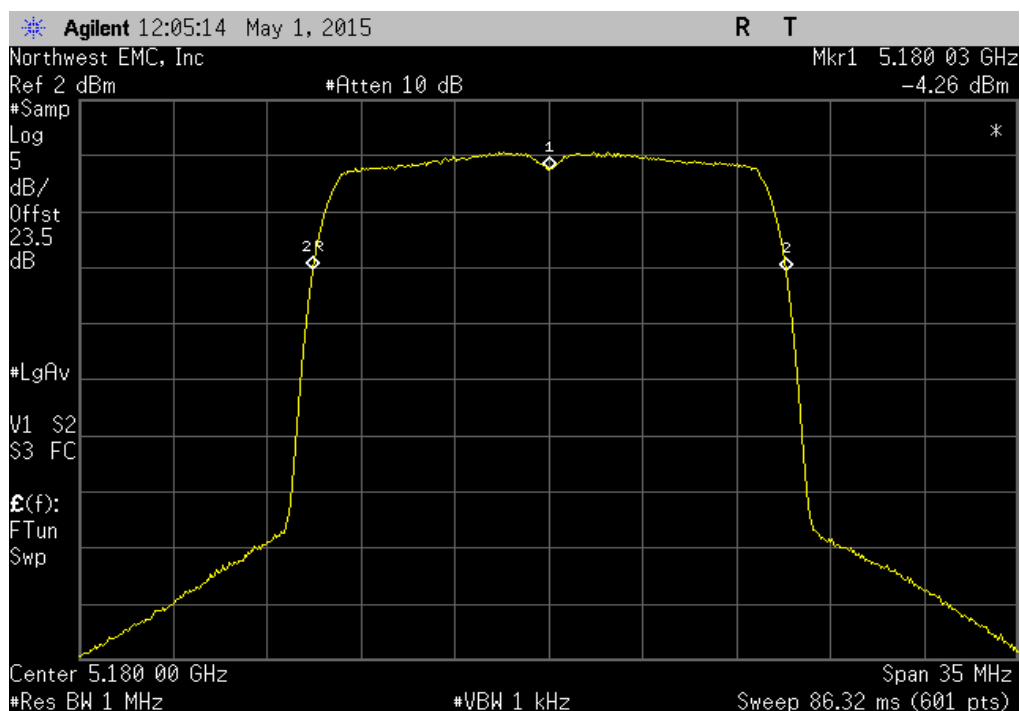


FREQUENCY STABILITY

Low Channel 36, 5180 MHz, Temperature: +20°						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	5180.03	5180	5.8	100	Pass	

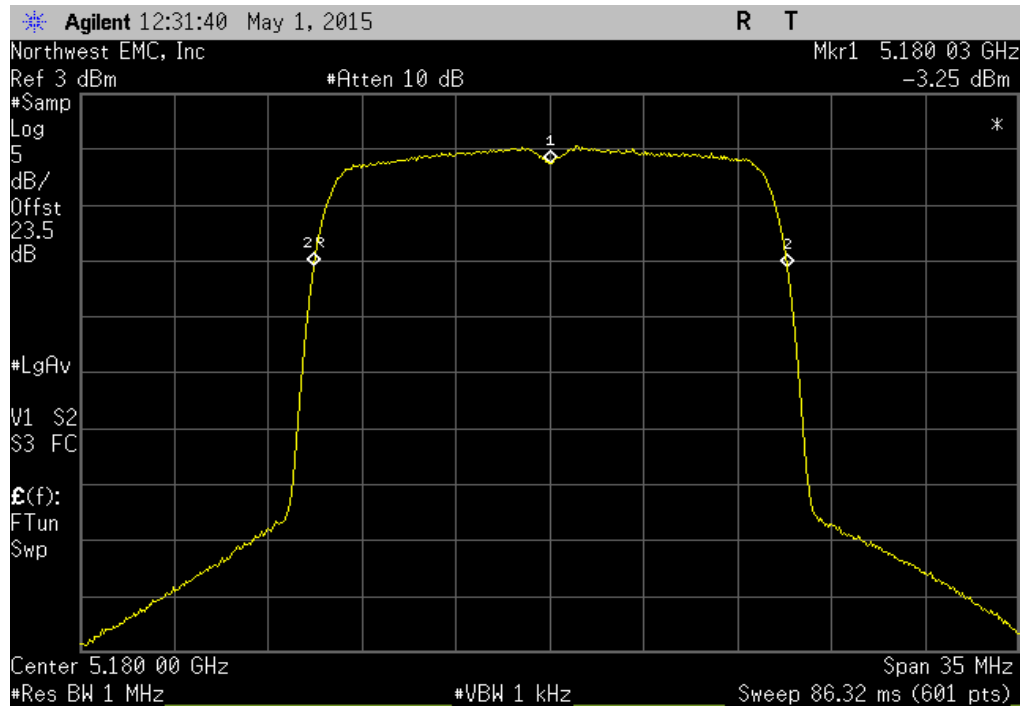


Low Channel 36, 5180 MHz, Temperature: +10°						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	5180.03	5180	5.8	100	Pass	

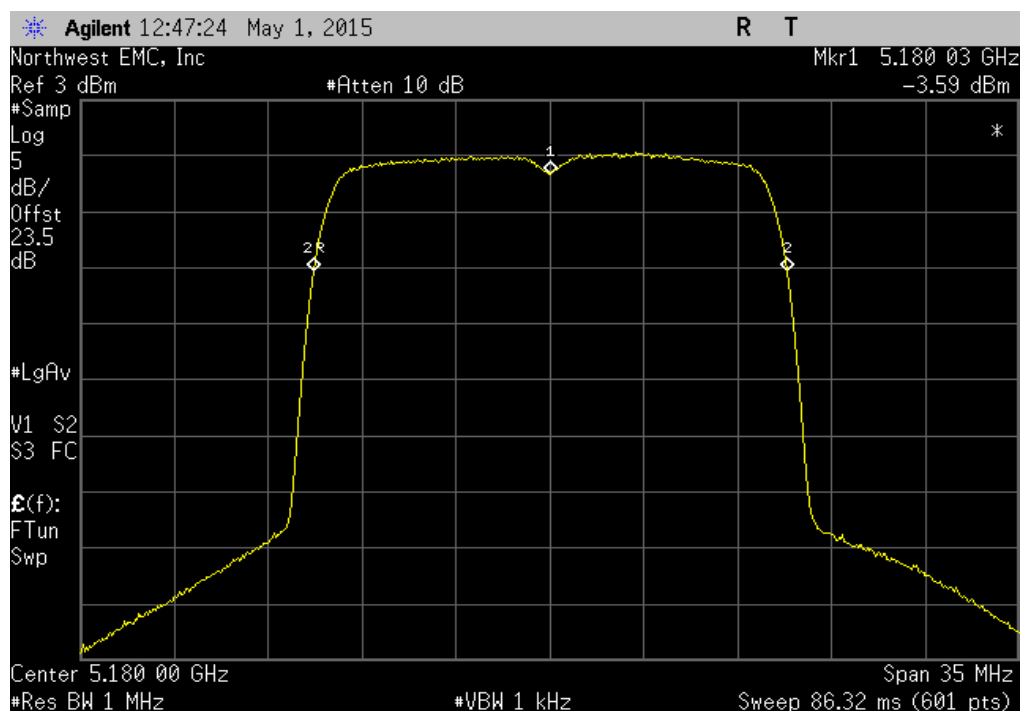


FREQUENCY STABILITY

Low Channel 36, 5180 MHz, Temperature: 0°						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	5180.03	5180	5.8	100	Pass	

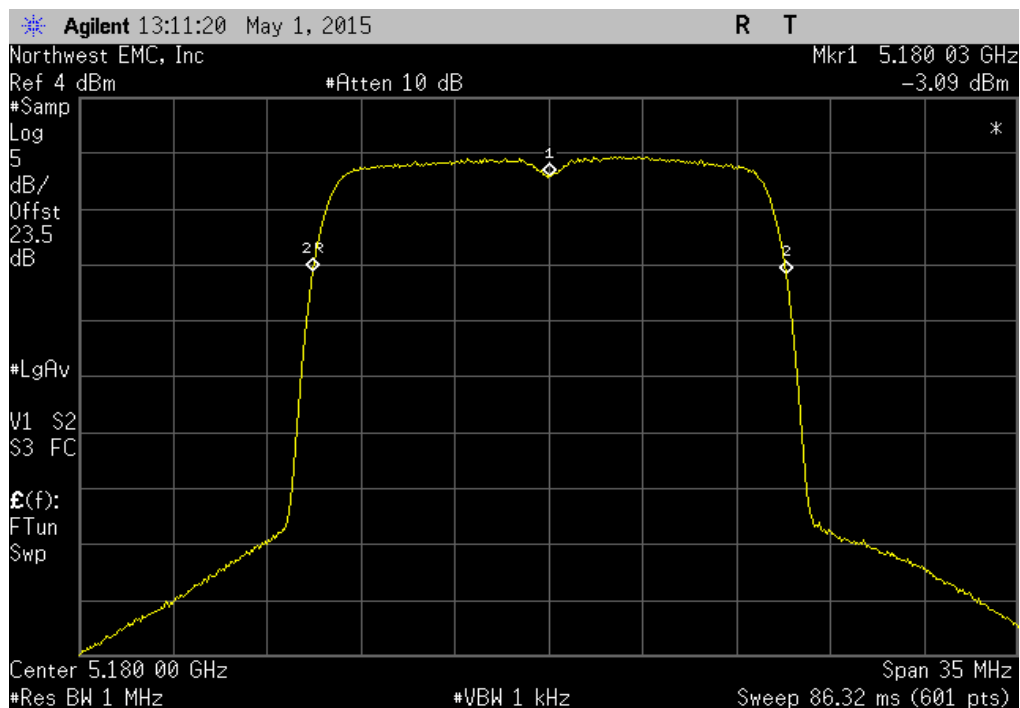


Low Channel 36, 5180 MHz, Temperature: -10°						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	5180.03	5180	5.8	100	Pass	

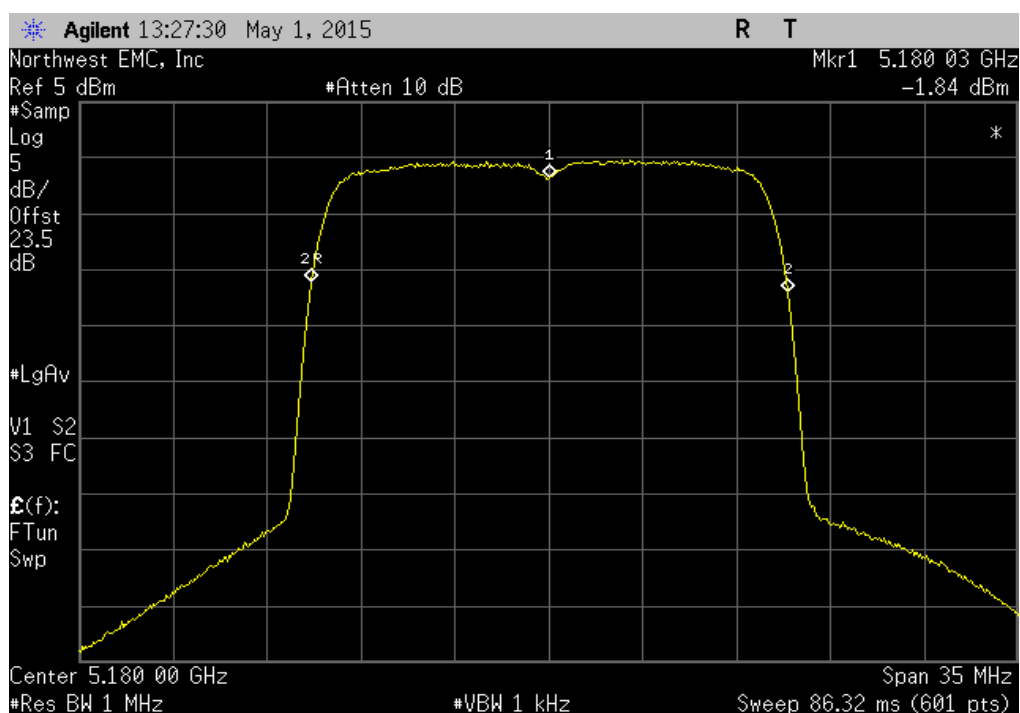


FREQUENCY STABILITY

Low Channel 36, 5180 MHz, Temperature: -20°						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	5180.03	5180	5.8	100	Pass	

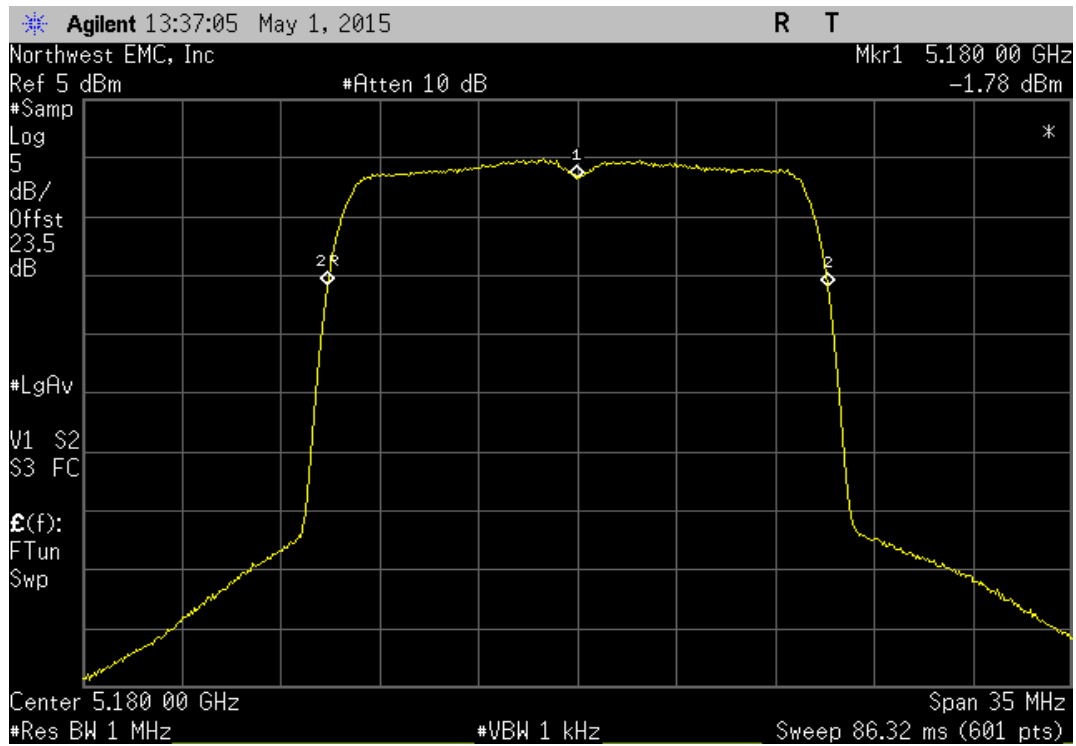


Low Channel 36, 5180 MHz, Temperature: -30°						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	5180.03	5180	5.8	100	Pass	



FREQUENCY STABILITY

#REF!						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	5180	5180	0	100	Pass	



EMISSION BANDWIDTH

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
OC13 Cables	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	0
Attenuator, 20dB	Fairview Microwave	SA18E-10	TKS	4/8/2015	12
40GHz DC Block	Fairview Microwave	SD3379	AMN	4/8/2015	12
Spectrum Analyzer	Agilent	E4440A	AFA	8/28/2014	12

TEST DESCRIPTION

FCC KDB 789033 D02 General UNII Test Procedures New Rules v01 were followed.

The transmit frequencies and data rates listed in the datasheet were measured in each band utilized by the radio. The transmit power was set to its default maximum.

A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

The spectrum analyzer settings were as follows:

- RBW = Approx. 1% of the emission bandwidth (B). This was an iterative process to determine the RBW based on the emissions bandwidth (B).
- VBW = > RBW
- A peak detector was used
- Trace max hold.

The spectrum analyzer occupied bandwidth measurement function was then used to measure 26 dB emission bandwidth.

There is no required limit to be met in the rule part for this test. The purpose of the test is to both report the results as required by the KDB, and to utilize the emission bandwidth for setting the channel power integration bandwidth during conducted output power testing.

EMISSION BANDWIDTH

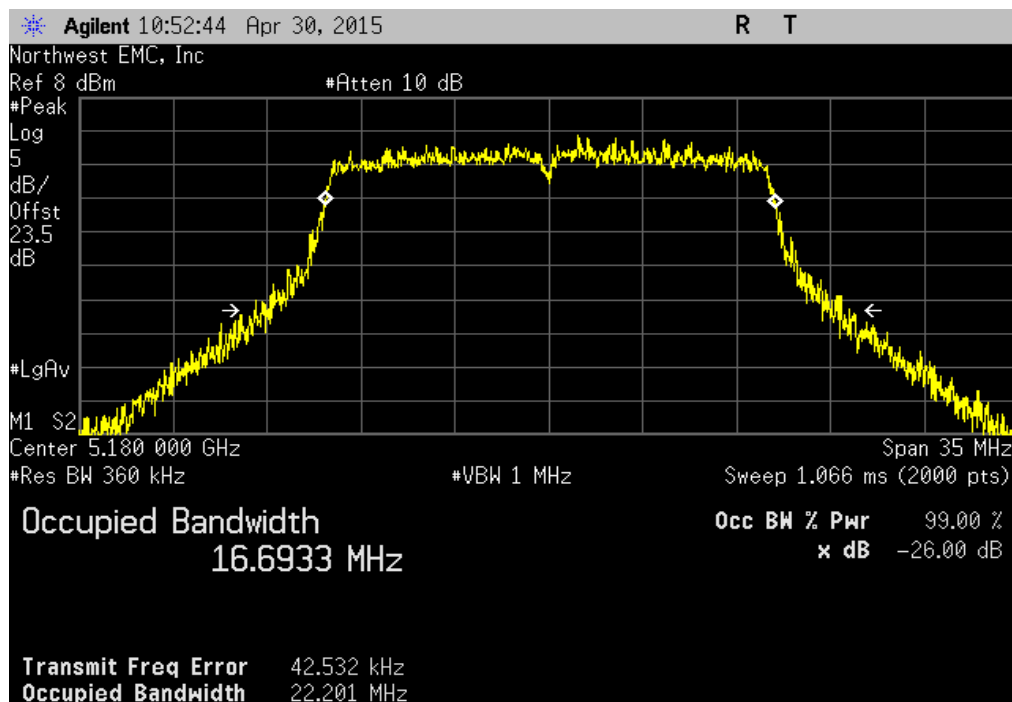


XMR 2015.01.14

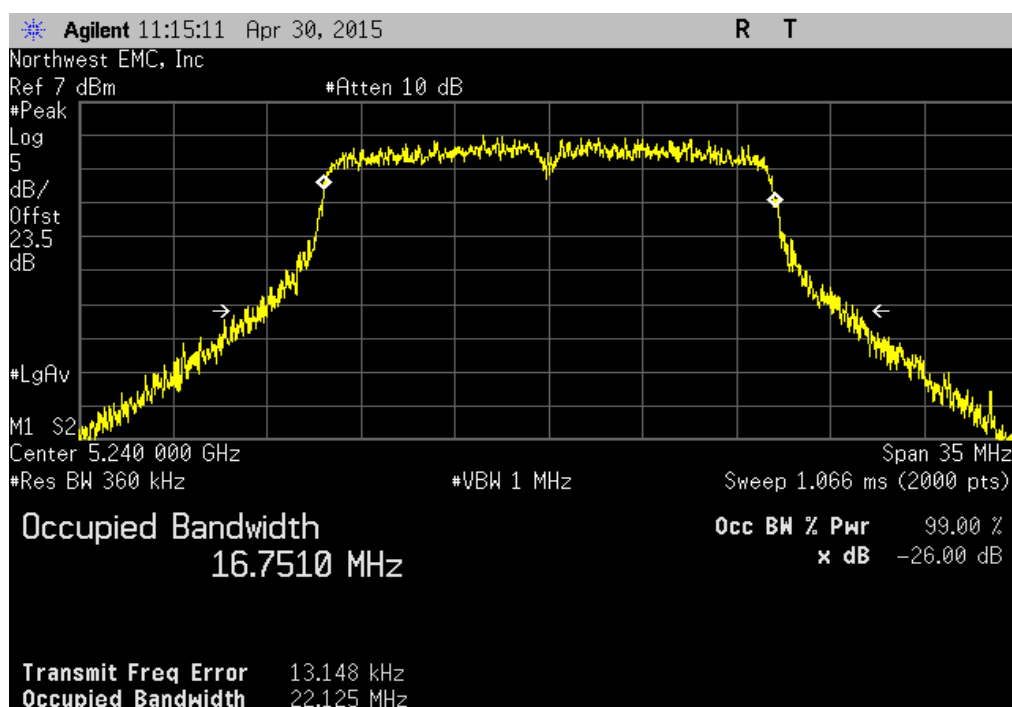
EUT: RLX2-IHNF		Work Order: PROS0216	
Serial Number: 000D8DF095CE		Date: 04/30/15	
Customer: ProSoft Technology, Inc.		Temperature: 21.1°C	
Attendees: Frank Hardy		Humidity: 46%	
Project: None		Barometric Pres.: 1012	
Tested by: Johnny Candelas		Power: 120V/60Hz	
		Job Site: OC13	
TEST SPECIFICATIONS		Test Method	
FCC 15.407:2015		ANSI C63.10:2009	
COMMENTS			
Offset 23.46dB (DC Block+20dB Attenuator+Coax Cable) for 5.2GHz			
Power Setting - Max			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature 	
		Value	Limit (N/A)
20 MHz			
Chain A			
802.11(n) MCS8			
Low Channel 36, 5180MHz		22.201 MHz	N/A
High Channel 48, 5240MHz		22.125 MHz	N/A
802.11(n) MCS15			
Low Channel 36, 5180MHz		23.208 MHz	N/A
High Channel 48, 5240MHz		22.373 MHz	N/A
Chain B			
802.11(n) MCS8			
Low Channel 36, 5180MHz		24.333 MHz	N/A
High Channel 48, 5240MHz		24.688 MHz	N/A
802.11(n) MCS15			
Low Channel 36, 5180MHz		23.133 MHz	N/A
High Channel 48, 5240MHz		23.018 MHz	N/A
Chain C			
802.11(n) MCS8			
Low Channel 36, 5180MHz		23.567 MHz	N/A
High Channel 48, 5240MHz		24.214 MHz	N/A
802.11(n) MCS15			
Low Channel 36, 5180MHz		23.678 MHz	N/A
High Channel 48, 5240MHz		23.087 MHz	N/A
40 MHz			
Chain A			
802.11(n) MCS8			
Low Channel 36, 5180MHz		46.41 MHz	N/A
High Channel 48, 5240MHz		46.326 MHz	N/A
802.11(n) MCS15			
Low Channel 36, 5180MHz		46.202 MHz	N/A
High Channel 48, 5240MHz		45.473 MHz	N/A
Chain B			
802.11(n) MCS8			
Low Channel 36, 5180MHz		46.876 MHz	N/A
High Channel 48, 5240MHz		46.477 MHz	N/A
802.11(n) MCS15			
Low Channel 36, 5180MHz		46.55 MHz	N/A
High Channel 48, 5240MHz		46.652 MHz	N/A
Chain C			
802.11(n) MCS8			
Low Channel 36, 5180MHz		49.798 MHz	N/A
High Channel 48, 5240MHz		47.621 MHz	N/A
802.11(n) MCS15			
Low Channel 36, 5180MHz		47.795 MHz	N/A
High Channel 48, 5240MHz		45.767 MHz	N/A

EMISSION BANDWIDTH

20 MHz, Chain A, 802.11(n) MCS8, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				22.201 MHz	N/A	N/A

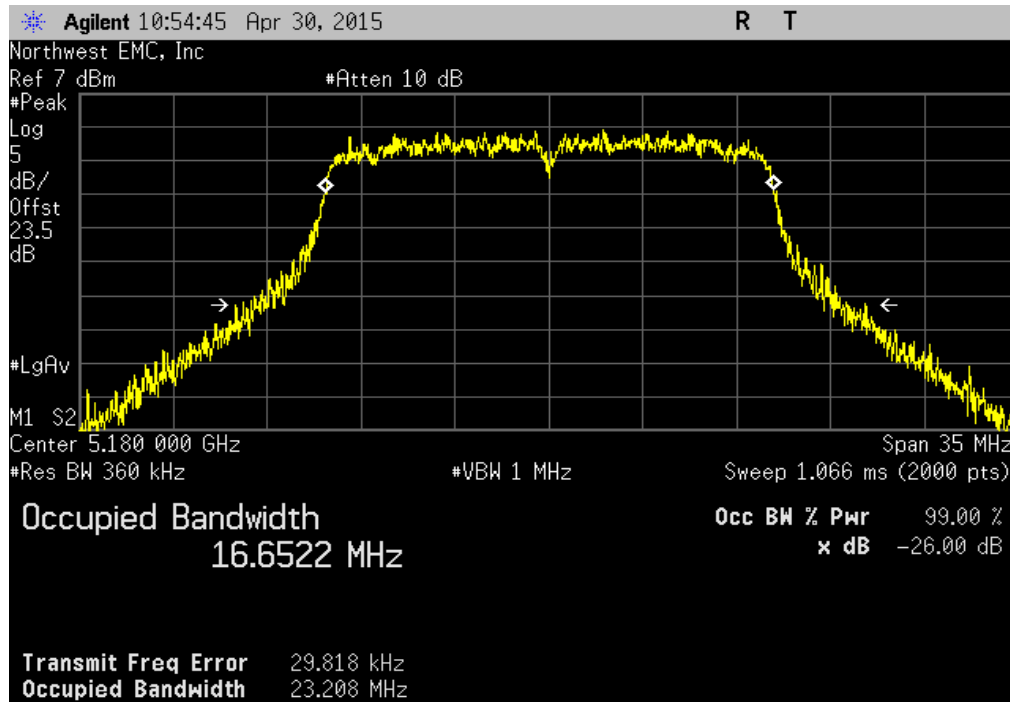


20 MHz, Chain A, 802.11(n) MCS8, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				22.125 MHz	N/A	N/A

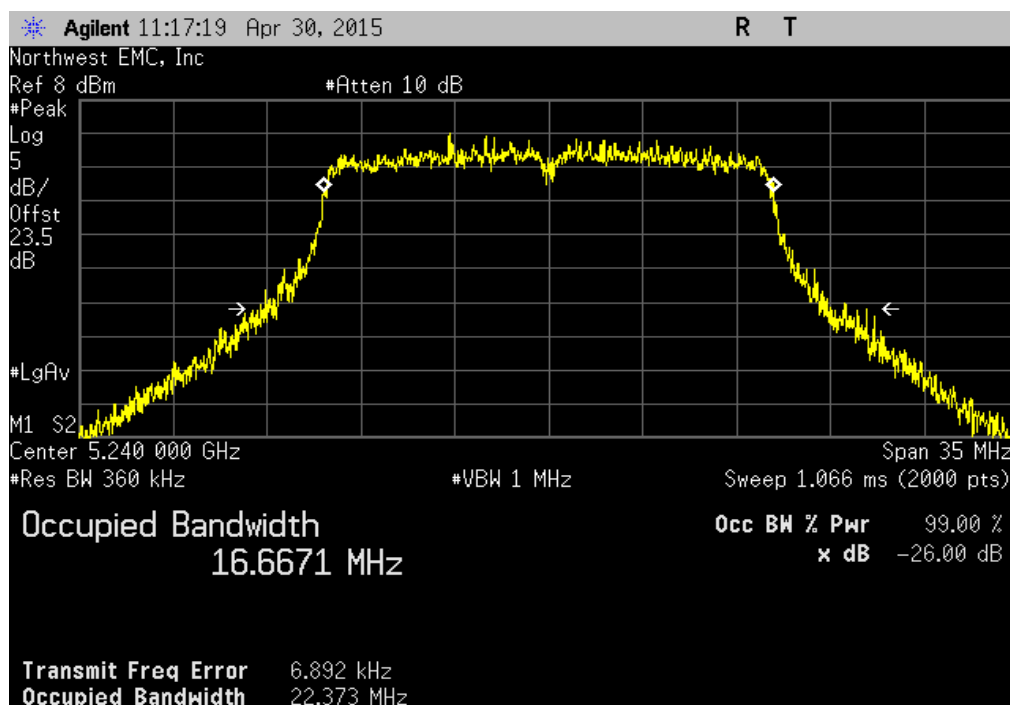


EMISSION BANDWIDTH

20 MHz, Chain A, 802.11(n) MCS15, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				23.208 MHz	N/A	N/A

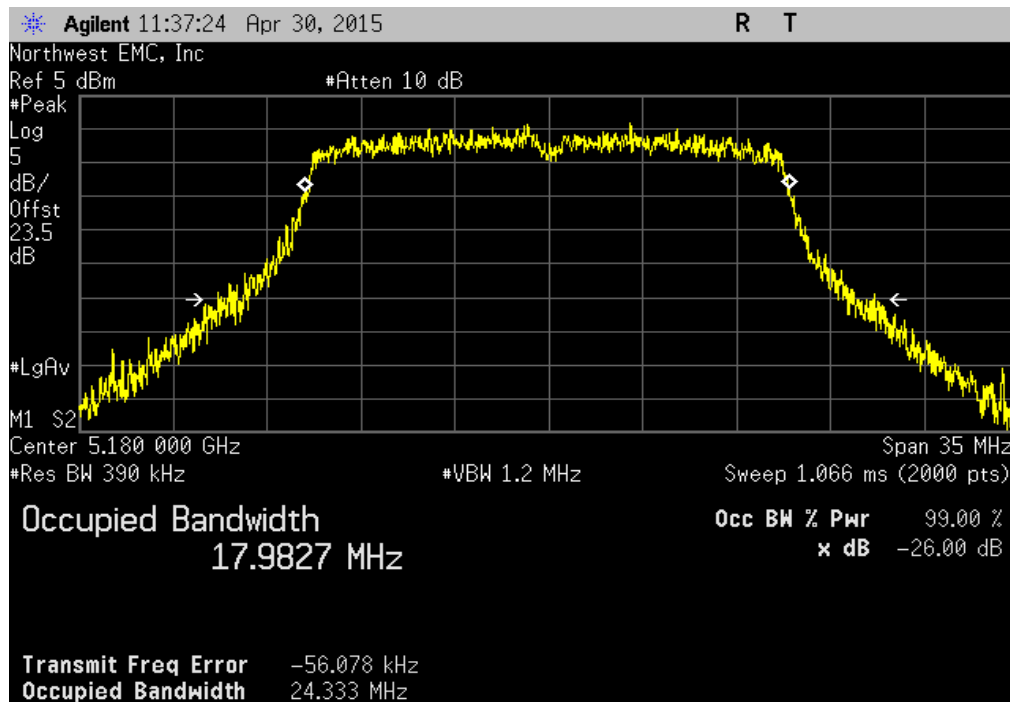


20 MHz, Chain A, 802.11(n) MCS15, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				22.373 MHz	N/A	N/A

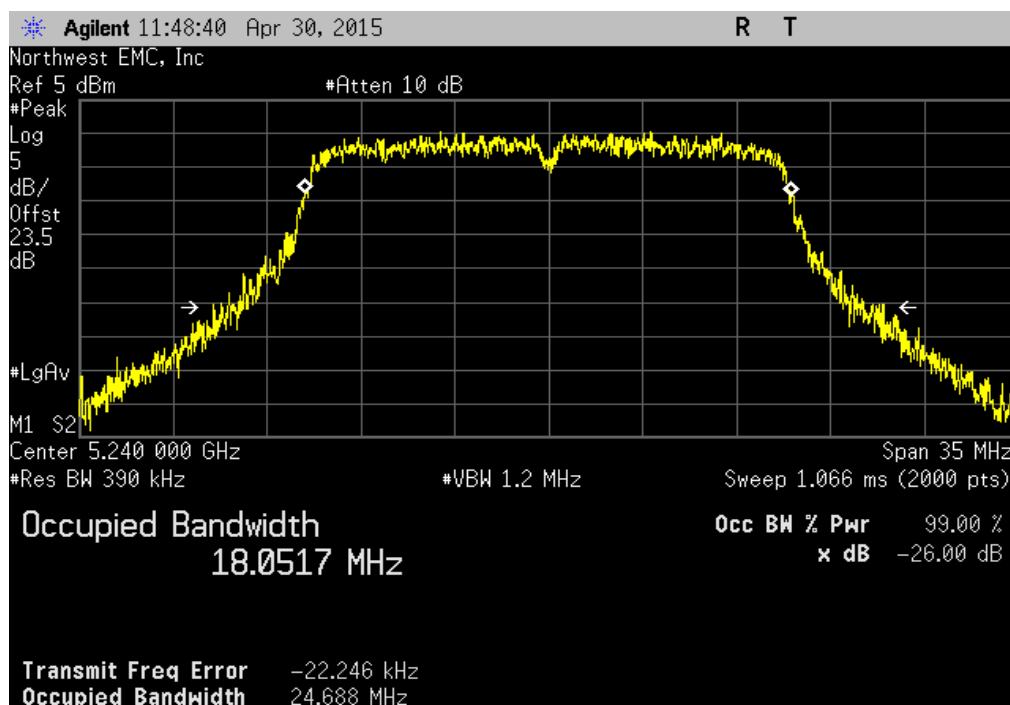


EMISSION BANDWIDTH

20 MHz, Chain B, 802.11(n) MCS8, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				24.333 MHz	N/A	N/A

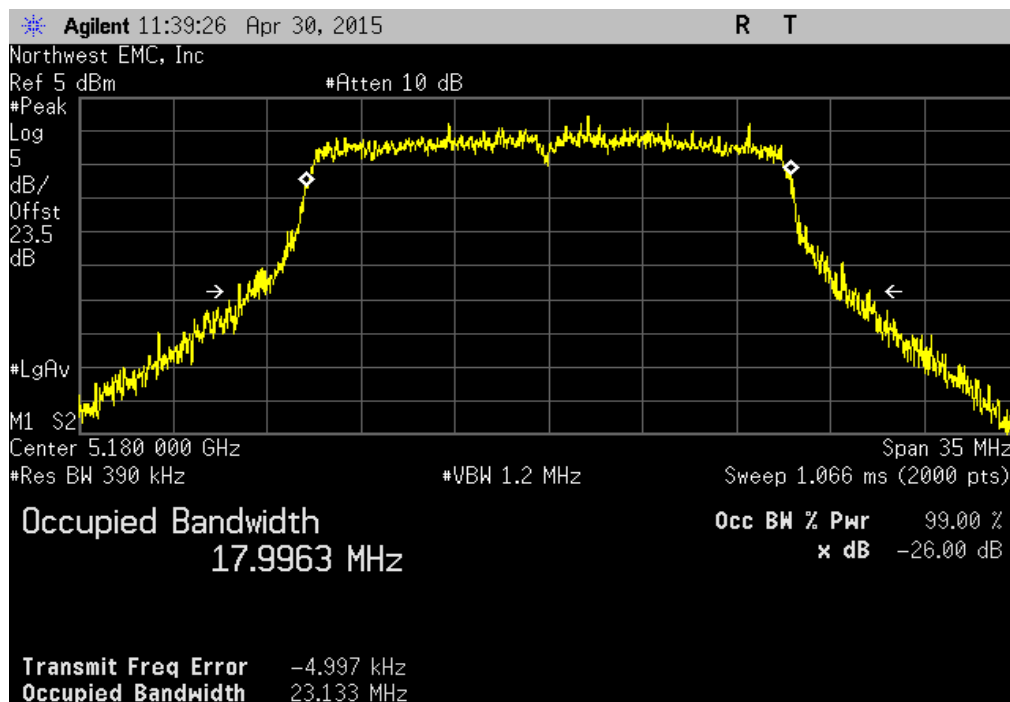


20 MHz, Chain B, 802.11(n) MCS8, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				24.688 MHz	N/A	N/A

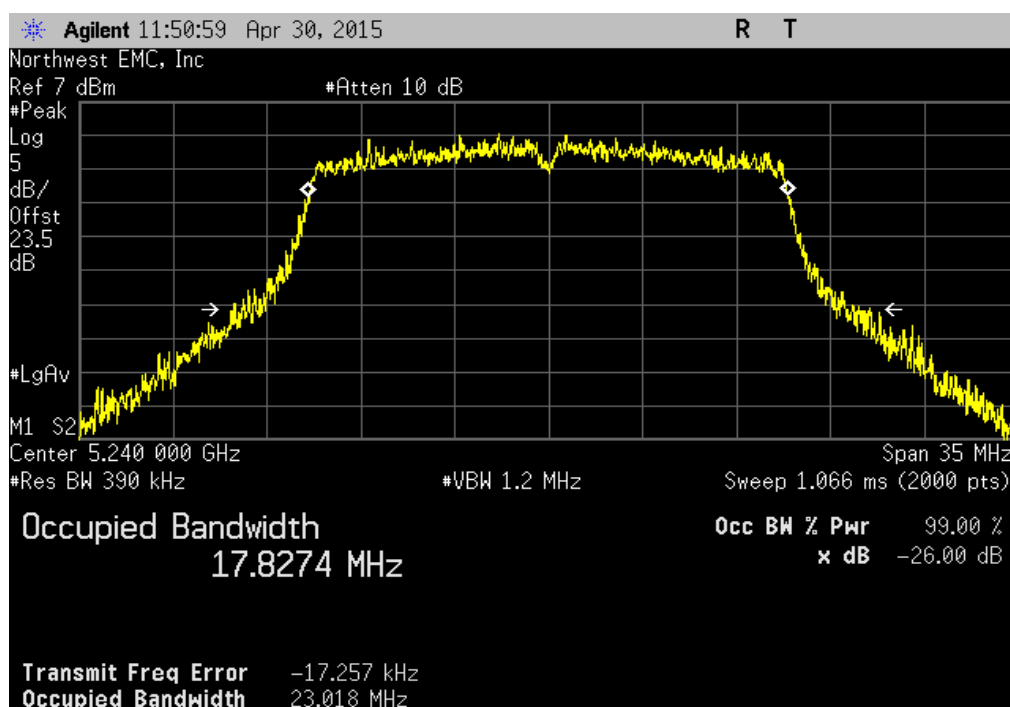


EMISSION BANDWIDTH

20 MHz, Chain B, 802.11(n) MCS15, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				23.133 MHz	N/A	N/A

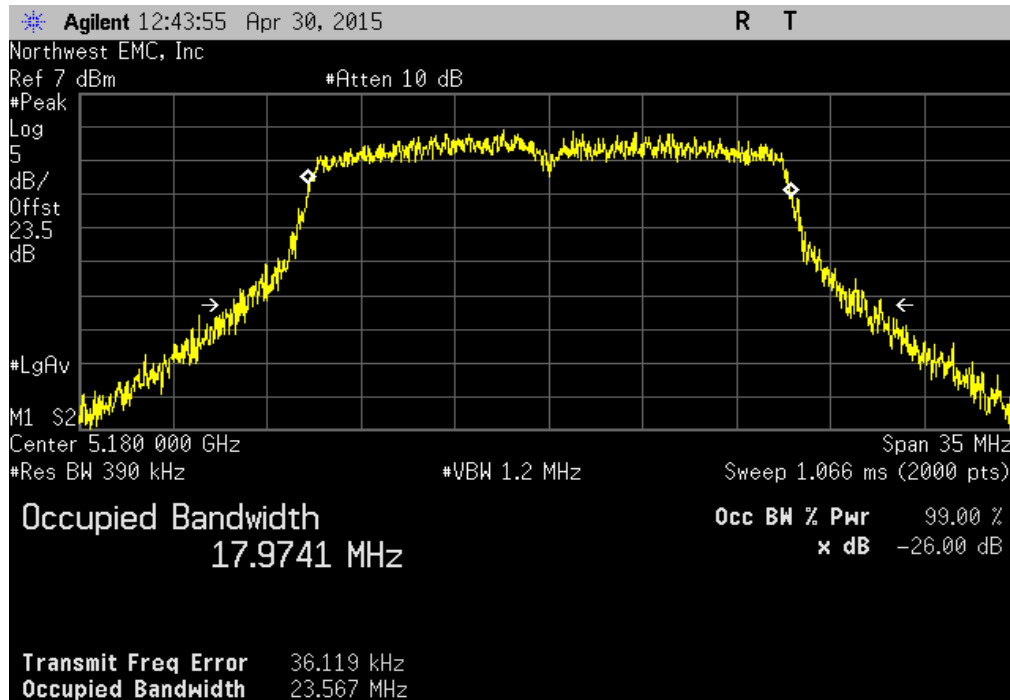


20 MHz, Chain B, 802.11(n) MCS15, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				23.018 MHz	N/A	N/A

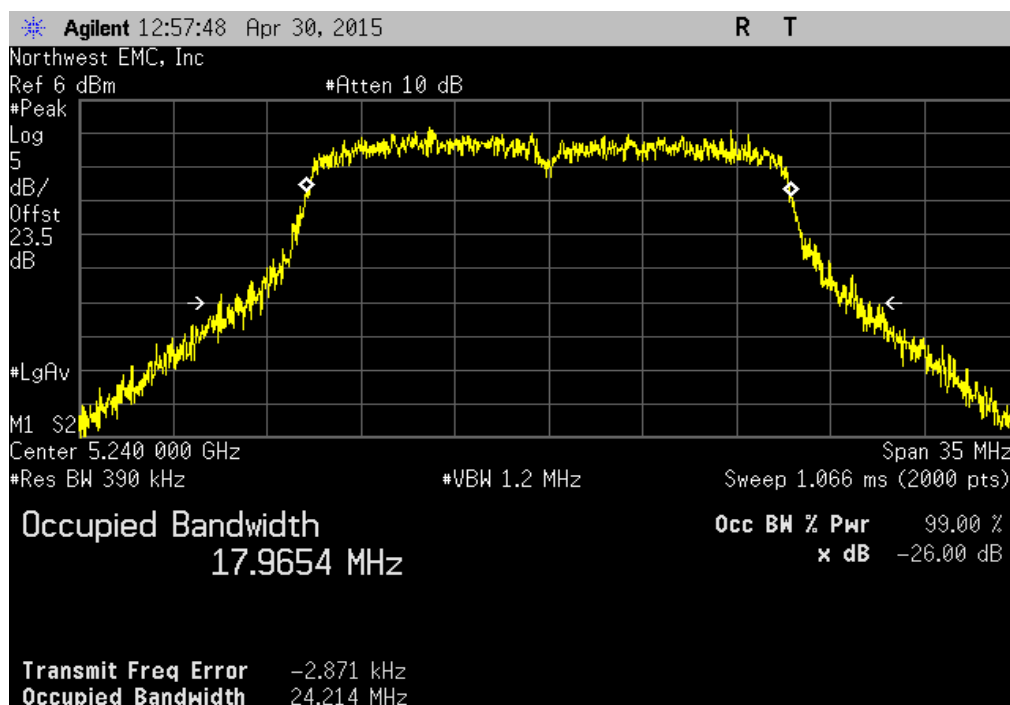


EMISSION BANDWIDTH

20 MHz, Chain C, 802.11(n) MCS8, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				23.567 MHz	N/A	N/A

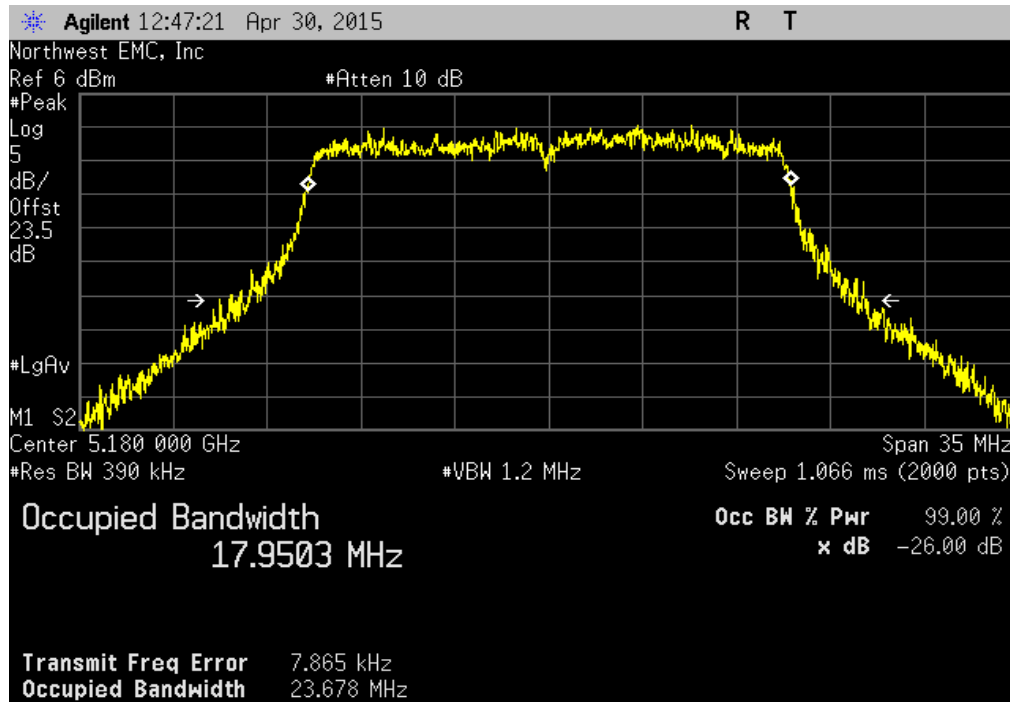


20 MHz, Chain C, 802.11(n) MCS8, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				24.214 MHz	N/A	N/A

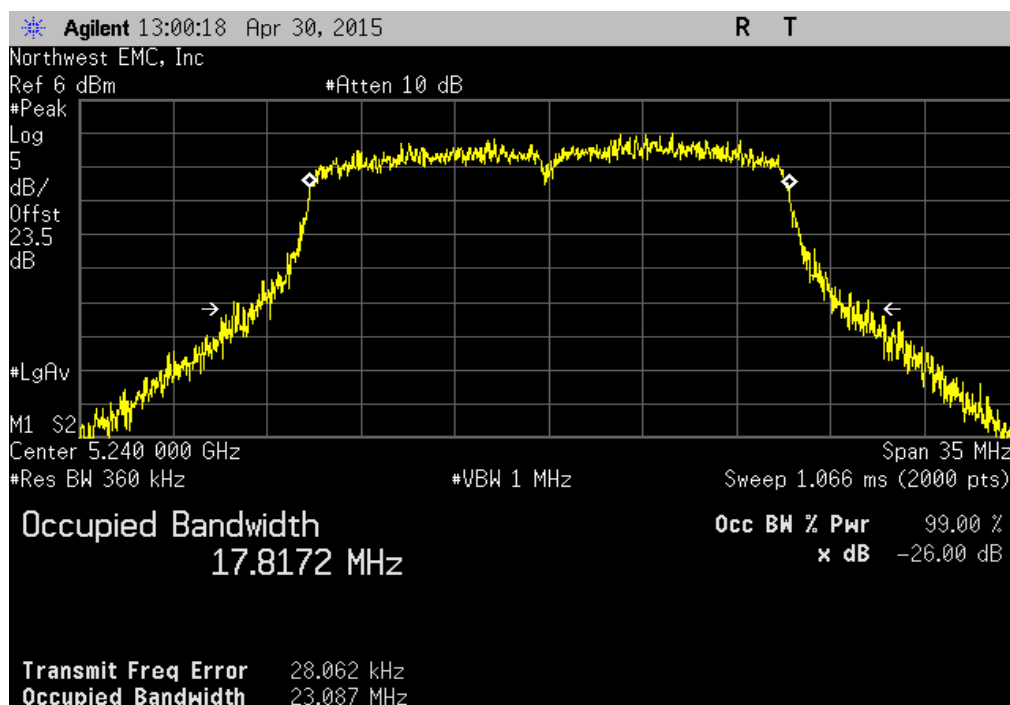


EMISSION BANDWIDTH

20 MHz, Chain C, 802.11(n) MCS15, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				23.678 MHz	N/A	N/A

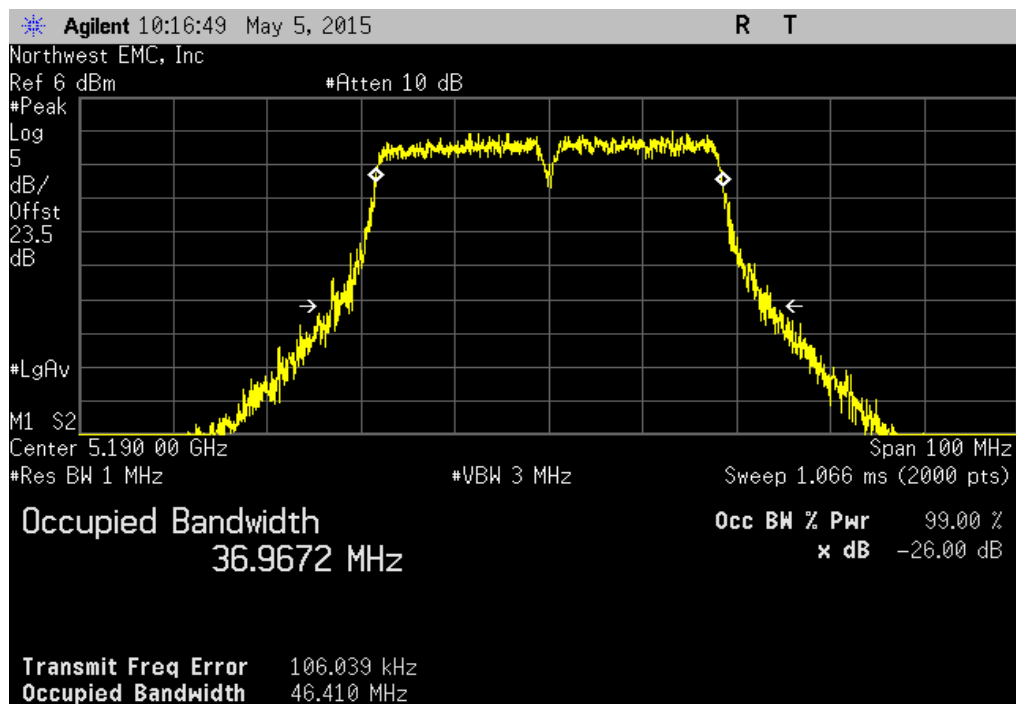


20 MHz, Chain C, 802.11(n) MCS15, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				23.087 MHz	N/A	N/A

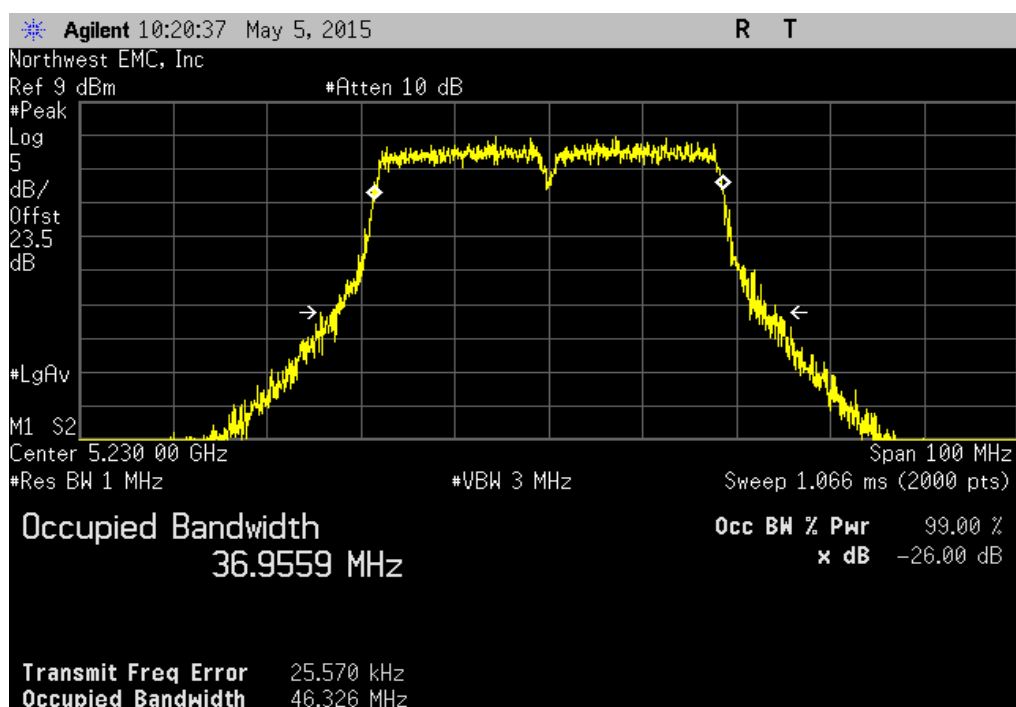


EMISSION BANDWIDTH

40 MHz, Chain A, 802.11(n) MCS8, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				46.41 MHz	N/A	N/A

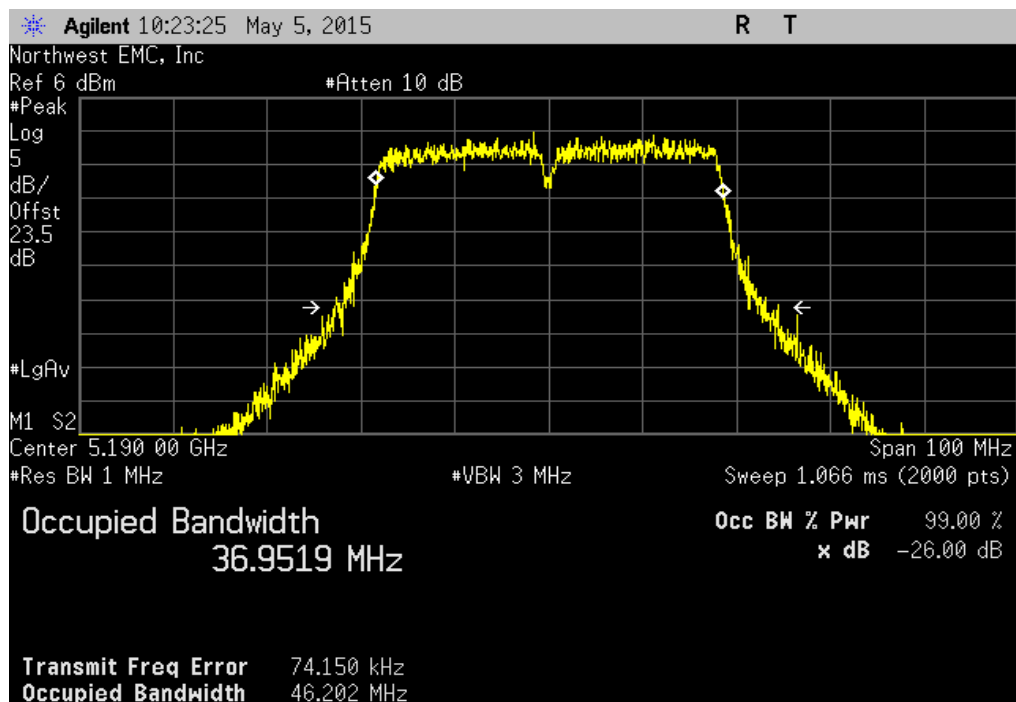


40 MHz, Chain A, 802.11(n) MCS8, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				46.326 MHz	N/A	N/A

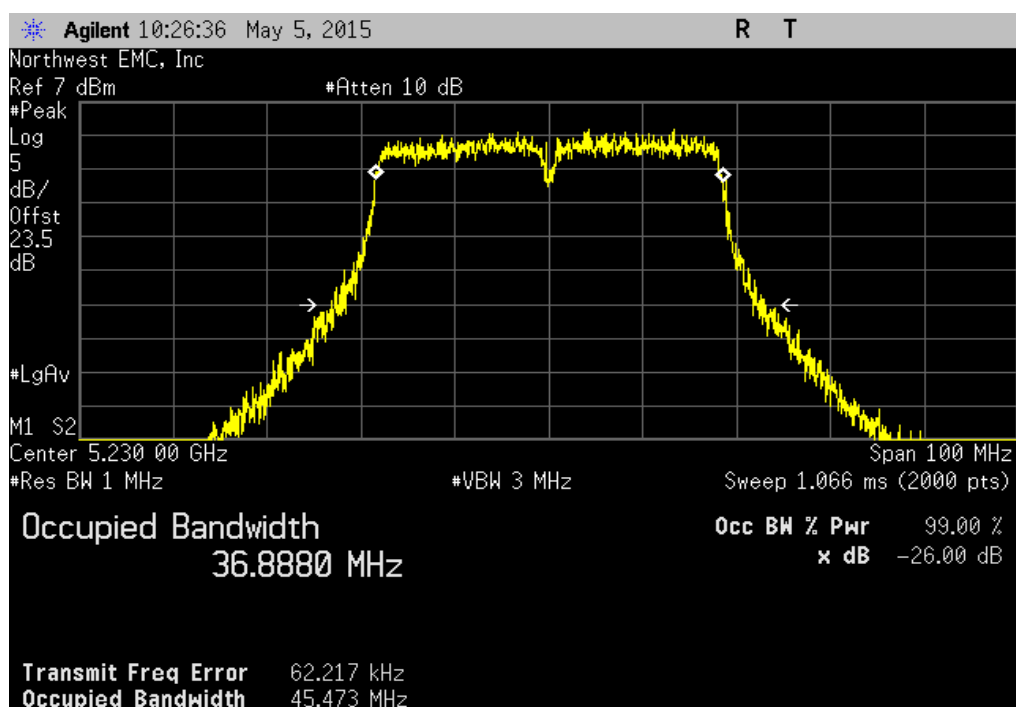


EMISSION BANDWIDTH

40 MHz, Chain A, 802.11(n) MCS15, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				46.202 MHz	N/A	N/A

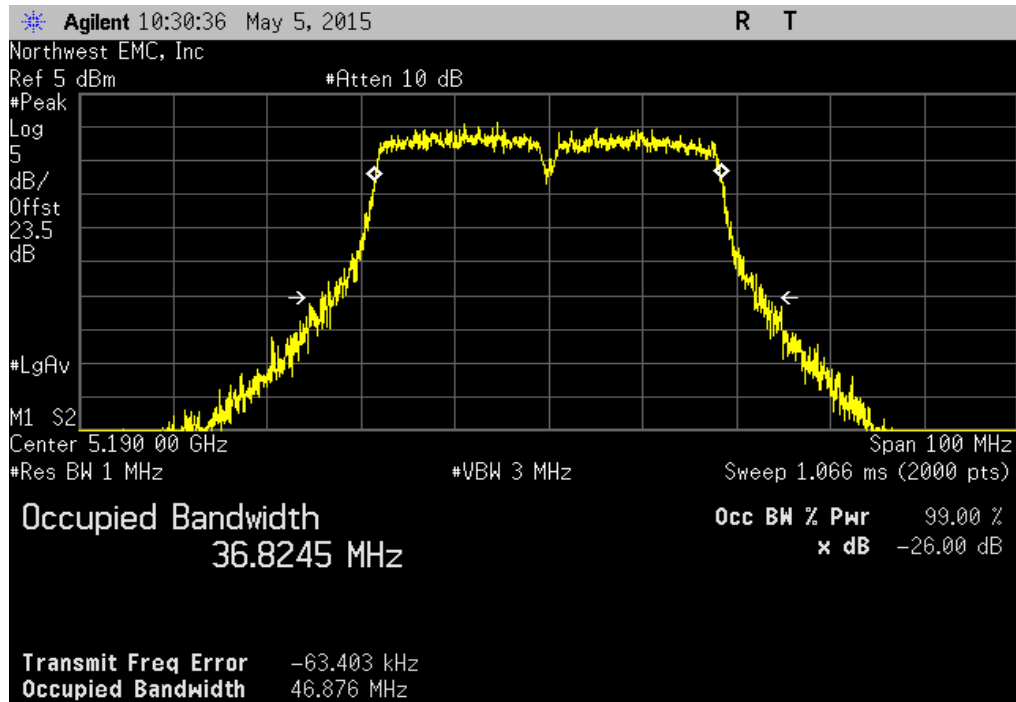


40 MHz, Chain A, 802.11(n) MCS15, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				45.473 MHz	N/A	N/A

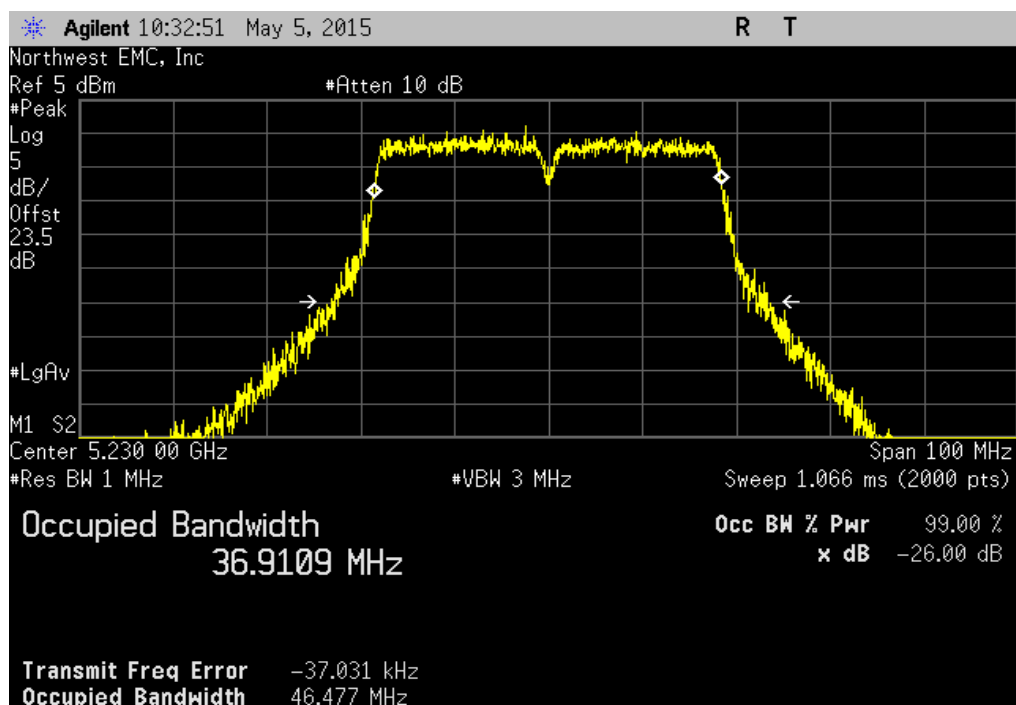


EMISSION BANDWIDTH

40 MHz, Chain B, 802.11(n) MCS8, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				46.876 MHz	N/A	N/A

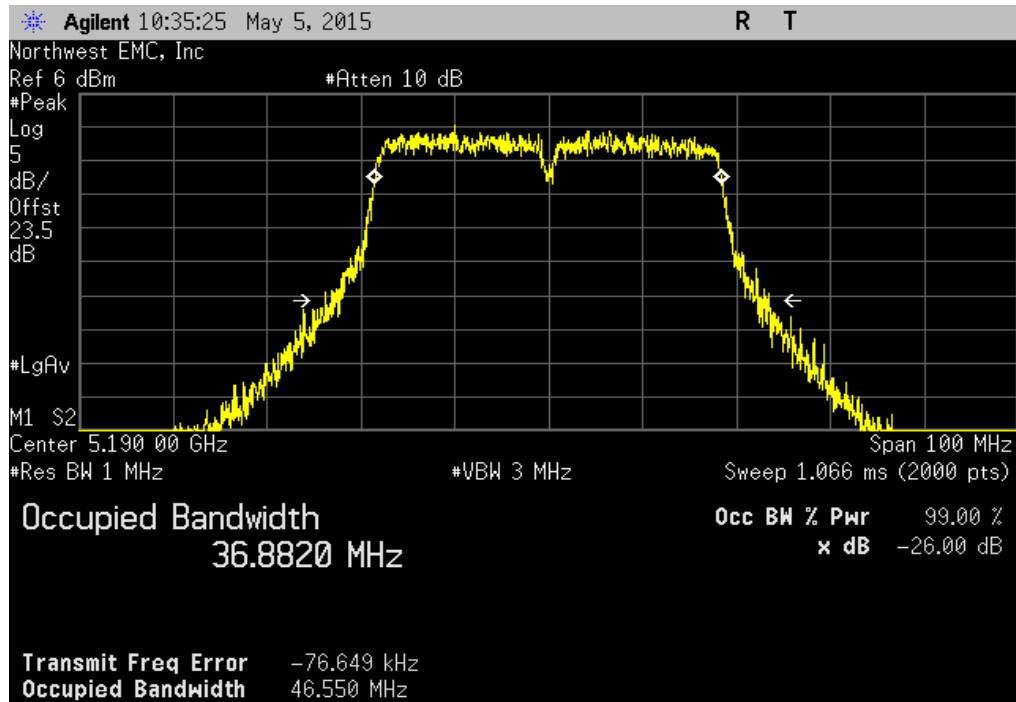


40 MHz, Chain B, 802.11(n) MCS8, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				46.477 MHz	N/A	N/A

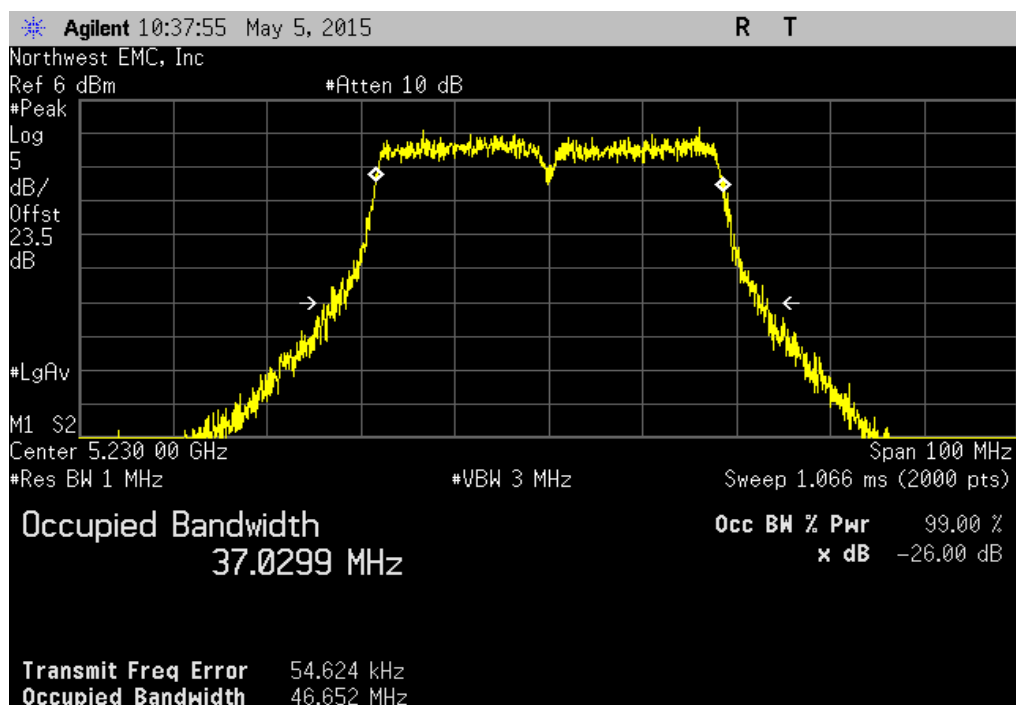


EMISSION BANDWIDTH

40 MHz, Chain B, 802.11(n) MCS15, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				46.55 MHz	N/A	N/A

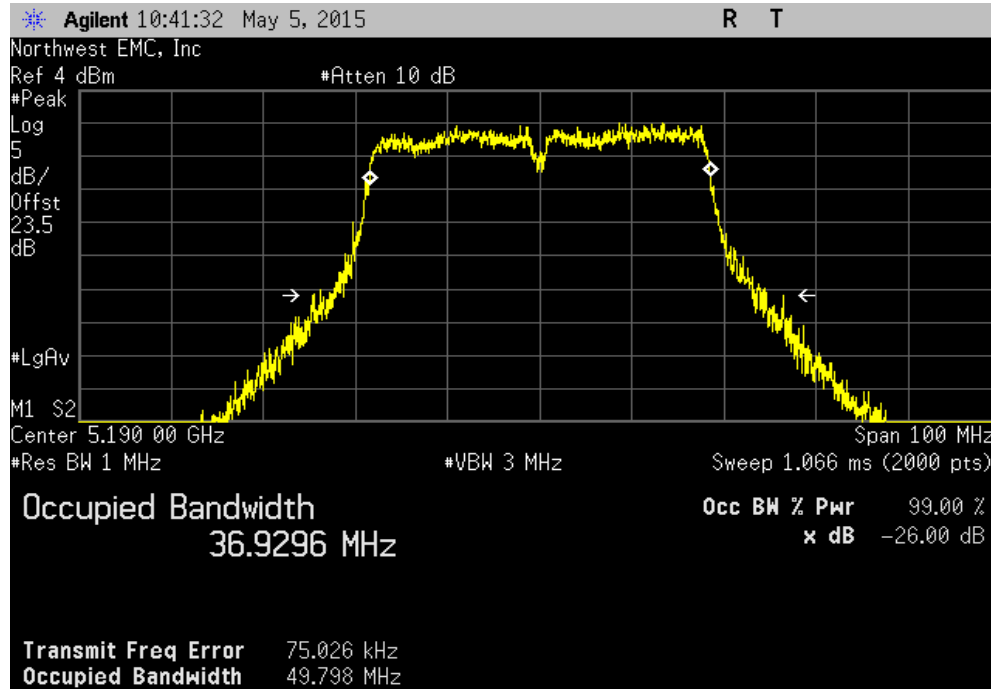


40 MHz, Chain B, 802.11(n) MCS15, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				46.652 MHz	N/A	N/A

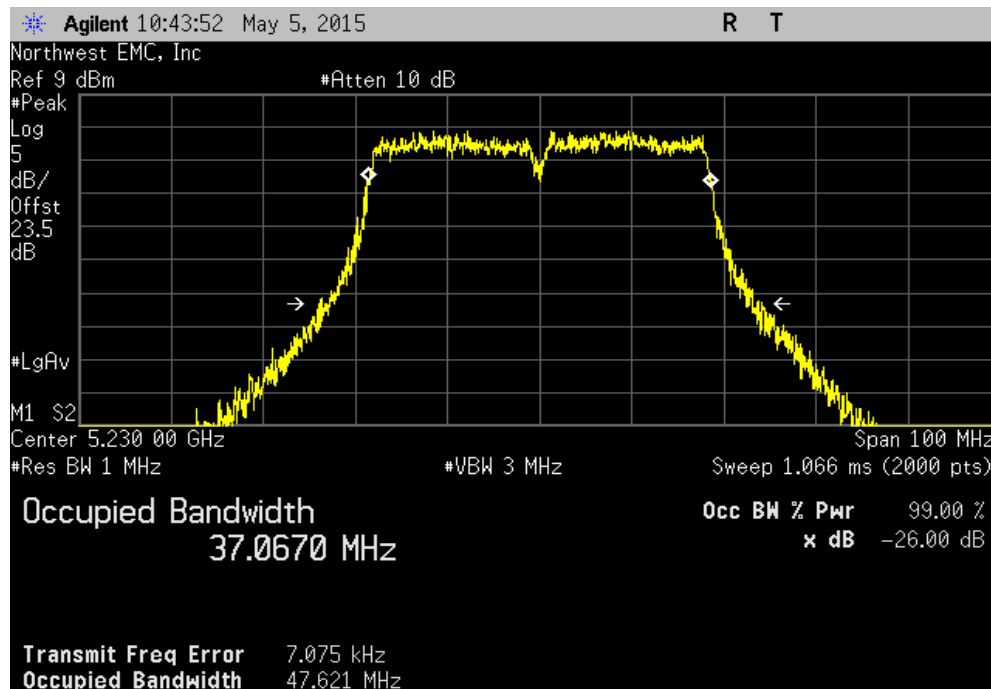


EMISSION BANDWIDTH

40 MHz, Chain C, 802.11(n) MCS8, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				49.798 MHz	N/A	N/A

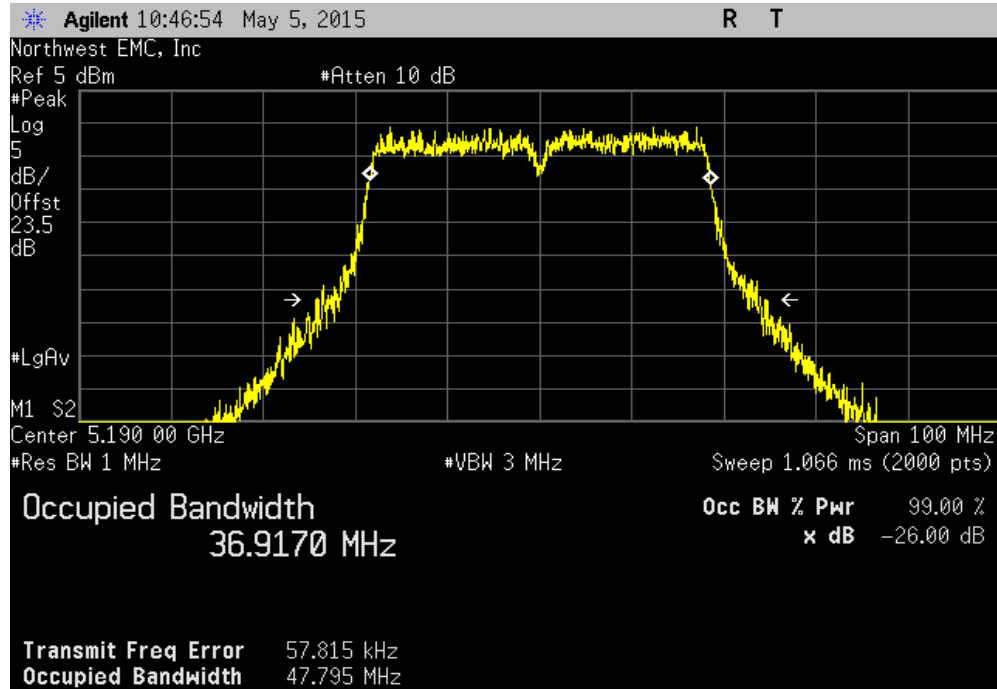


40 MHz, Chain C, 802.11(n) MCS8, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				47.621 MHz	N/A	N/A

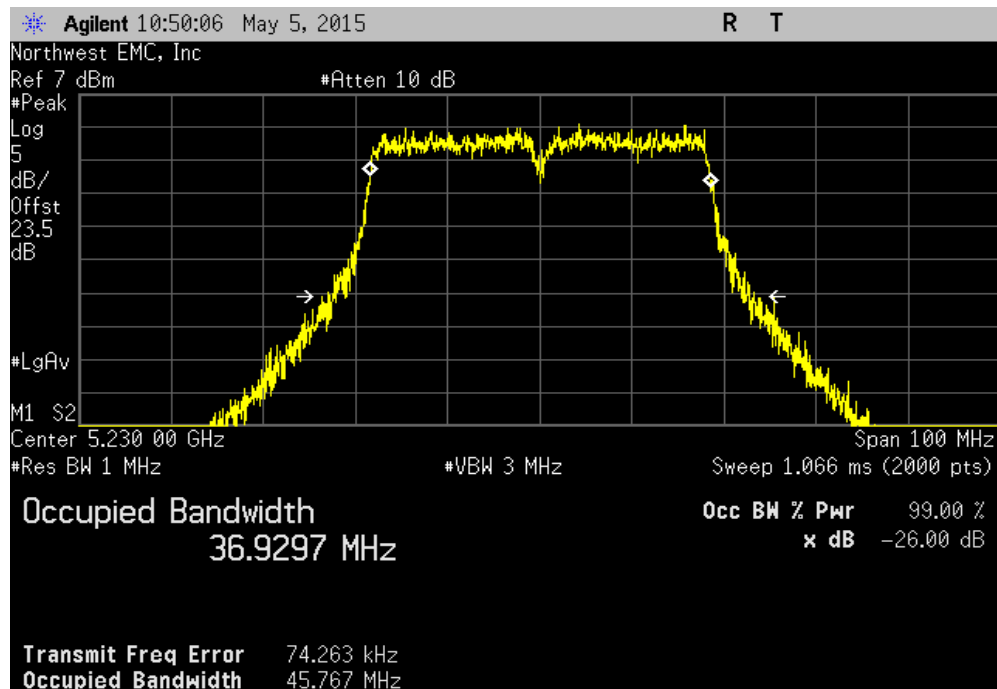


EMISSION BANDWIDTH

40 MHz, Chain C, 802.11(n) MCS15, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				47.795 MHz	N/A	N/A



40 MHz, Chain C, 802.11(n) MCS15, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				45.767 MHz	N/A	N/A



EMISSION BANDWIDTH

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
OC13 Cables	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	0
Attenuator, 20dB	Fairview Microwave	SA18E-10	TKS	4/8/2015	12
40GHz DC Block	Fairview Microwave	SD3379	AMN	4/8/2015	12
Spectrum Analyzer	Agilent	E4440A	AFA	8/28/2014	12

TEST DESCRIPTION

FCC KDB 789033 D02 General UNII Test Procedures New Rules v01 were followed.

The transmit frequencies and data rates listed in the datasheet were measured in each band utilized by the radio. The transmit power was set to its default maximum.

A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

The spectrum analyzer settings were as follows:

- RBW = Approx. 1% of the emission bandwidth (B). This was an iterative process to determine the RBW based on the emissions bandwidth (B).
- VBW = > RBW
- A peak detector was used
- Trace max hold.

The spectrum analyzer occupied bandwidth measurement function was then used to measure 26 dB emission bandwidth.

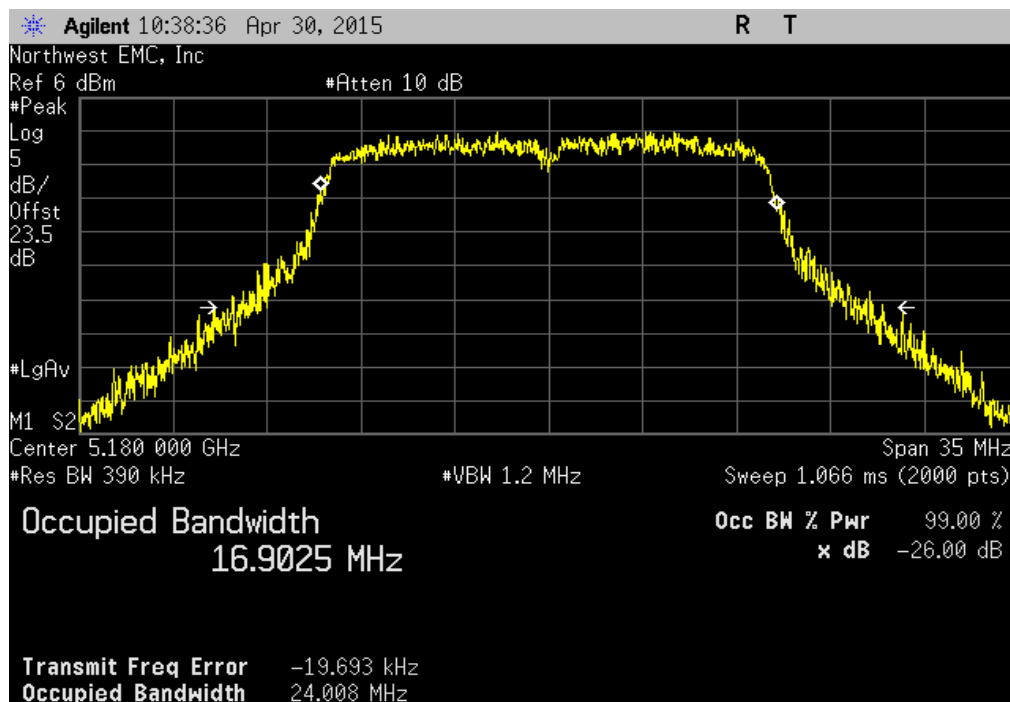
There is no required limit to be met in the rule part for this test. The purpose of the test is to both report the results as required by the KDB, and to utilize the emission bandwidth for setting the channel power integration bandwidth during conducted output power testing.

EMISSION BANDWIDTH

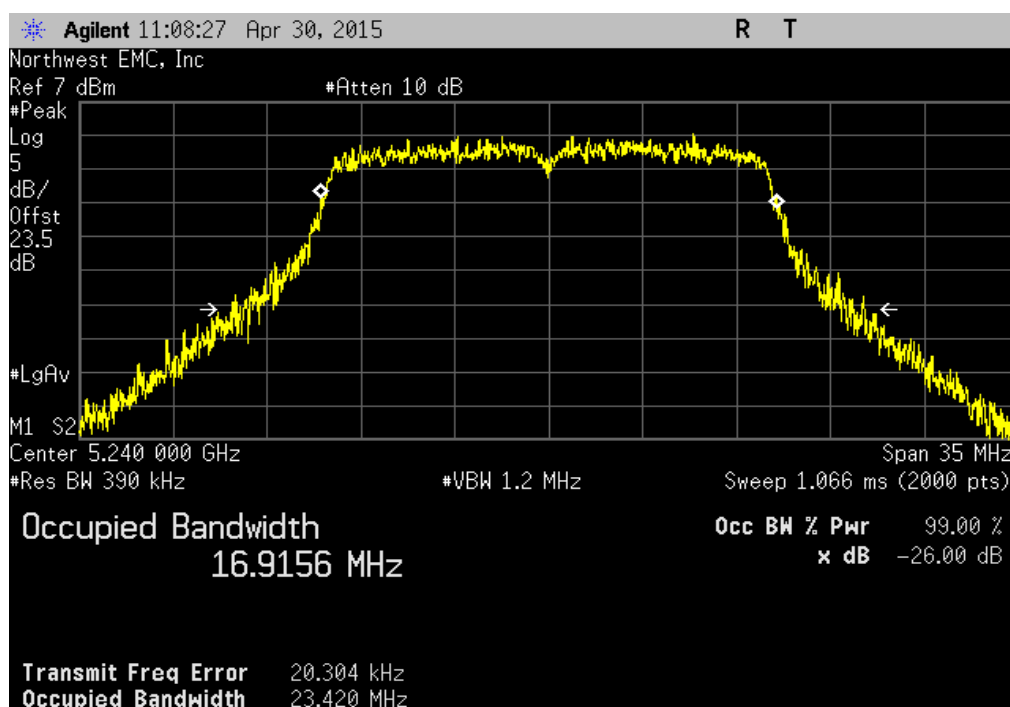
EUT: RLX2-IHNF		Work Order: PROS0216	
Serial Number: 000D8DF095CE		Date: 04/30/15	
Customer: ProSoft Technology, Inc.		Temperature: 21.1°C	
Attendees: Frank Hardy		Humidity: 46%	
Project: None		Barometric Pres.: 1012	
Tested by: Johnny Candelas		Power: 120V/60Hz	
		Job Site: OC13	
TEST SPECIFICATIONS		Test Method	
FCC 15.407:2015		ANSI C63.10:2009	
COMMENTS			
Offset 23.46dB (DC Block+20dB Attenuator+Coax Cable) for 5.2GHz			
Power Setting - Max			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature 	
		Value	Limit (N/A)
20 MHz			Result
Chain A			
802.11(a) 6 Mbps			
Low Channel 36, 5180MHz		24.008 MHz	N/A
High Channel 48, 5240MHz		23.42 MHz	N/A
802.11(a) 36 Mbps			
Low Channel 36, 5180MHz		22.502 MHz	N/A
High Channel 48, 5240MHz		22.354 MHz	N/A
802.11(a) 54 Mbps			
Low Channel 36, 5180MHz		22.057 MHz	N/A
High Channel 48, 5240MHz		21.697 MHz	N/A
802.11(n) MCS0			
Low Channel 36, 5180MHz		22.201 MHz	N/A
High Channel 48, 5240MHz		22.125 MHz	N/A
802.11(n) MCS7			
Low Channel 36, 5180MHz		23.208 MHz	N/A
High Channel 48, 5240MHz		22.373 MHz	N/A
Chain B			
802.11(a) 6 Mbps			
Low Channel 36, 5180MHz		23.392 MHz	N/A
High Channel 48, 5240MHz		22.405 MHz	N/A
802.11(a) 36 Mbps			
Low Channel 36, 5180MHz		22.156 MHz	N/A
High Channel 48, 5240MHz		22.06 MHz	N/A
802.11(a) 54 Mbps			
Low Channel 36, 5180MHz		22.493 MHz	N/A
High Channel 48, 5240MHz		22.304 MHz	N/A
802.11(n) MCS0			
Low Channel 36, 5180MHz		24.333 MHz	N/A
High Channel 48, 5240MHz		24.688 MHz	N/A
802.11(n) MCS7			
Low Channel 36, 5180MHz		23.133 MHz	N/A
High Channel 48, 5240MHz		23.018 MHz	N/A
Chain C			
802.11(a) 6 Mbps			
Low Channel 36, 5180MHz		22.215 MHz	N/A
High Channel 48, 5240MHz		22.885 MHz	N/A
802.11(a) 36 Mbps			
Low Channel 36, 5180MHz		22.68 MHz	N/A
High Channel 48, 5240MHz		22.292 MHz	N/A
802.11(a) 54 Mbps			
Low Channel 36, 5180MHz		22.192 MHz	N/A
High Channel 48, 5240MHz		21.737 MHz	N/A
802.11(n) MCS0			
Low Channel 36, 5180MHz		23.567 MHz	N/A
High Channel 48, 5240MHz		24.214 MHz	N/A
802.11(n) MCS7			
Low Channel 36, 5180MHz		23.678 MHz	N/A
High Channel 48, 5240MHz		23.087 MHz	N/A
40 MHz			
Chain A			
802.11(n) MCS0			
Low Channel 36, 5180MHz		46.41 MHz	N/A
High Channel 48, 5240MHz		46.326 MHz	N/A
802.11(n) MCS7			
Low Channel 36, 5180MHz		46.202 MHz	N/A
High Channel 48, 5240MHz		45.473 MHz	N/A
Chain B			
802.11(n) MCS0			
Low Channel 36, 5180MHz		46.876 MHz	N/A
High Channel 48, 5240MHz		46.477 MHz	N/A
802.11(n) MCS7			
Low Channel 36, 5180MHz		46.55 MHz	N/A
High Channel 48, 5240MHz		46.652 MHz	N/A
Chain C			
802.11(n) MCS0			
Low Channel 36, 5180MHz		49.798 MHz	N/A
High Channel 48, 5240MHz		47.621 MHz	N/A
802.11(n) MCS7			
Low Channel 36, 5180MHz		47.795 MHz	N/A
High Channel 48, 5240MHz		45.767 MHz	N/A

EMISSION BANDWIDTH

20 MHz, Chain A, 802.11(a) 6 Mbps, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				24.008 MHz	N/A	N/A

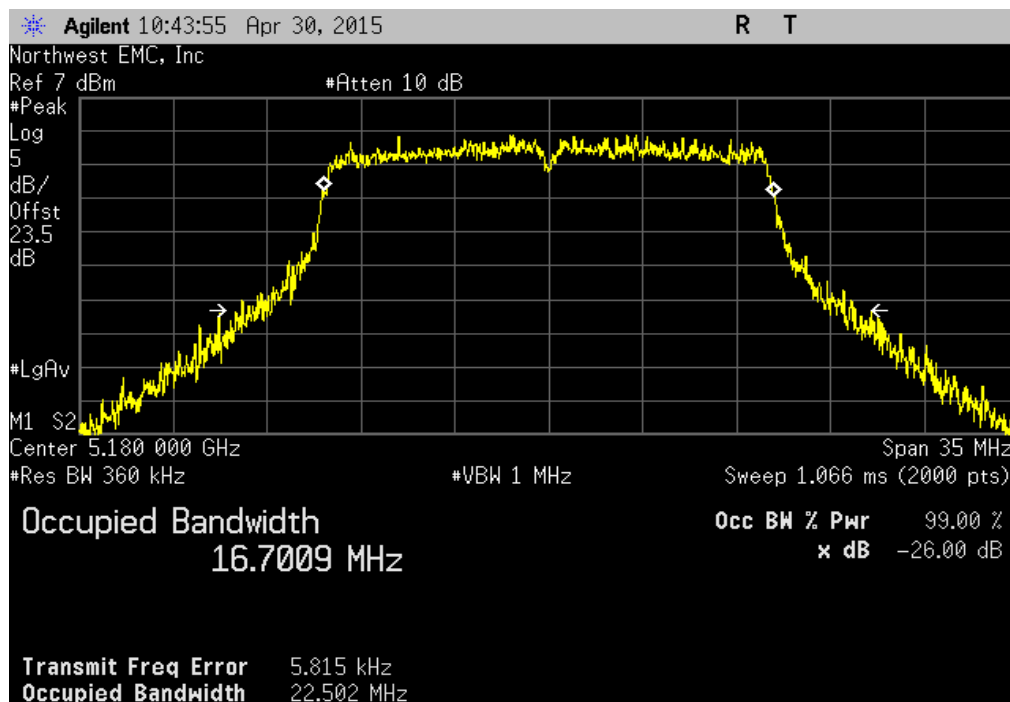


20 MHz, Chain A, 802.11(a) 6 Mbps, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				23.42 MHz	N/A	N/A

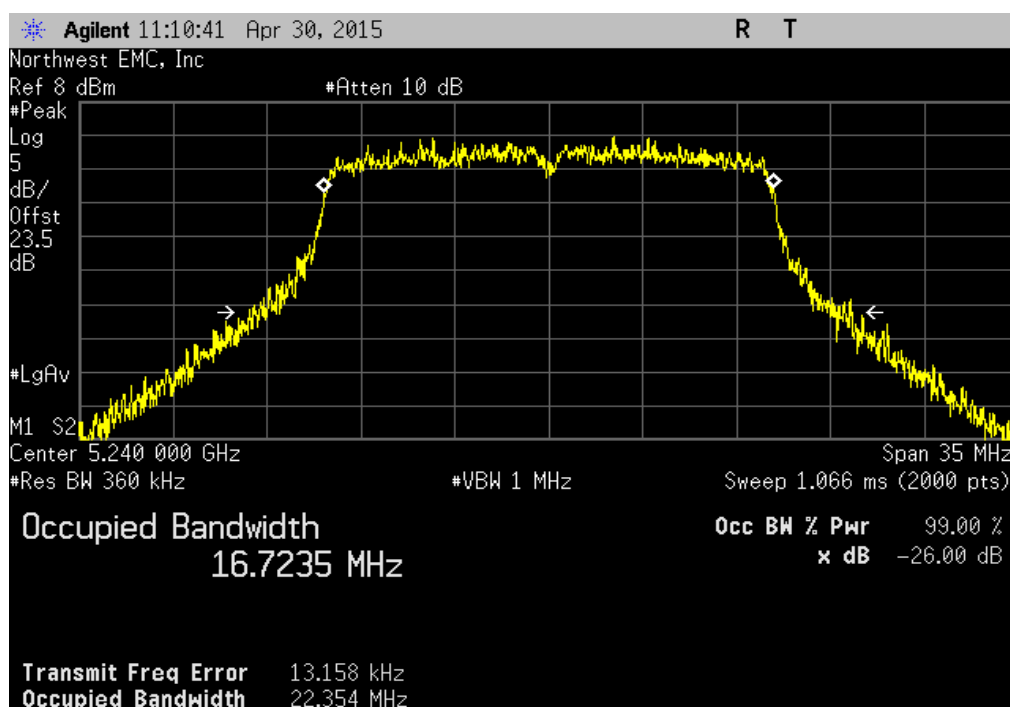


EMISSION BANDWIDTH

20 MHz, Chain A, 802.11(a) 36 Mbps, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				22.502 MHz	N/A	N/A

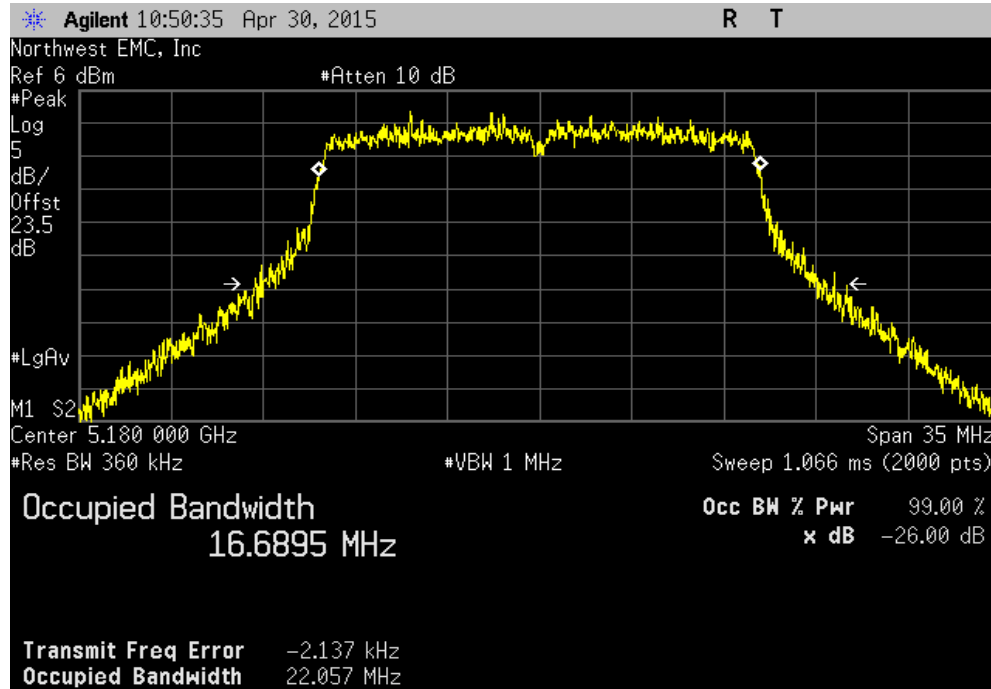


20 MHz, Chain A, 802.11(a) 36 Mbps, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				22.354 MHz	N/A	N/A

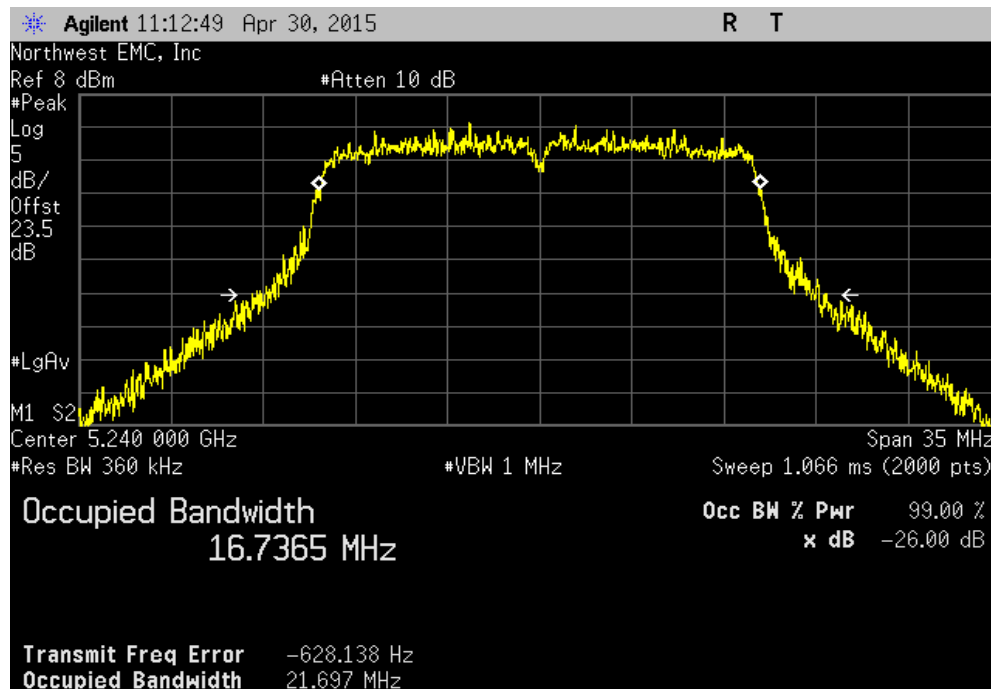


EMISSION BANDWIDTH

20 MHz, Chain A, 802.11(a) 54 Mbps, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				22.057 MHz	N/A	N/A

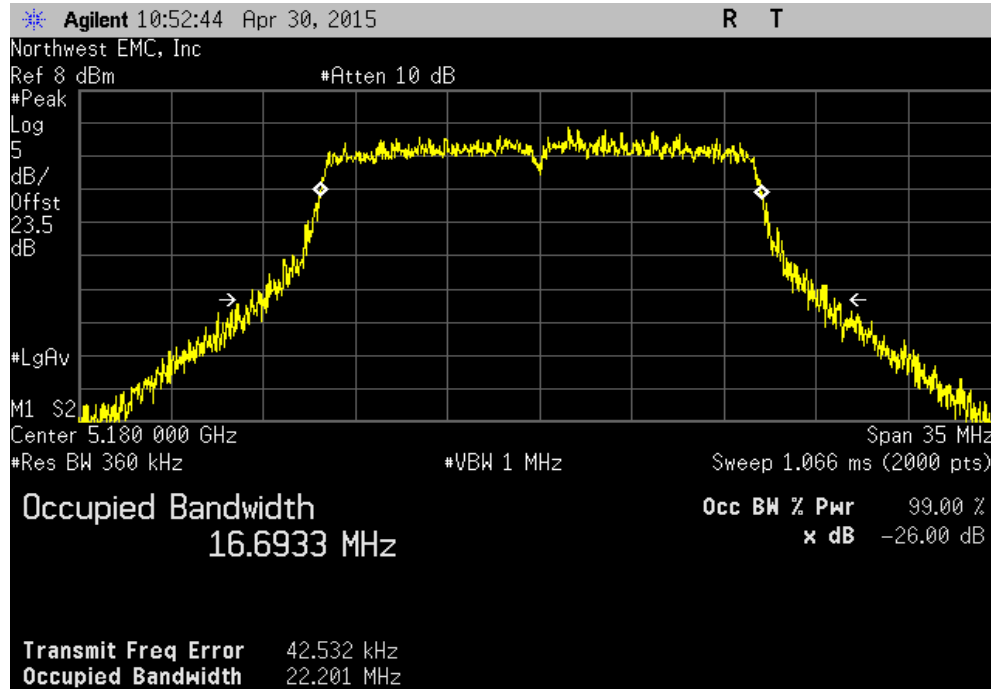


20 MHz, Chain A, 802.11(a) 54 Mbps, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				21.697 MHz	N/A	N/A

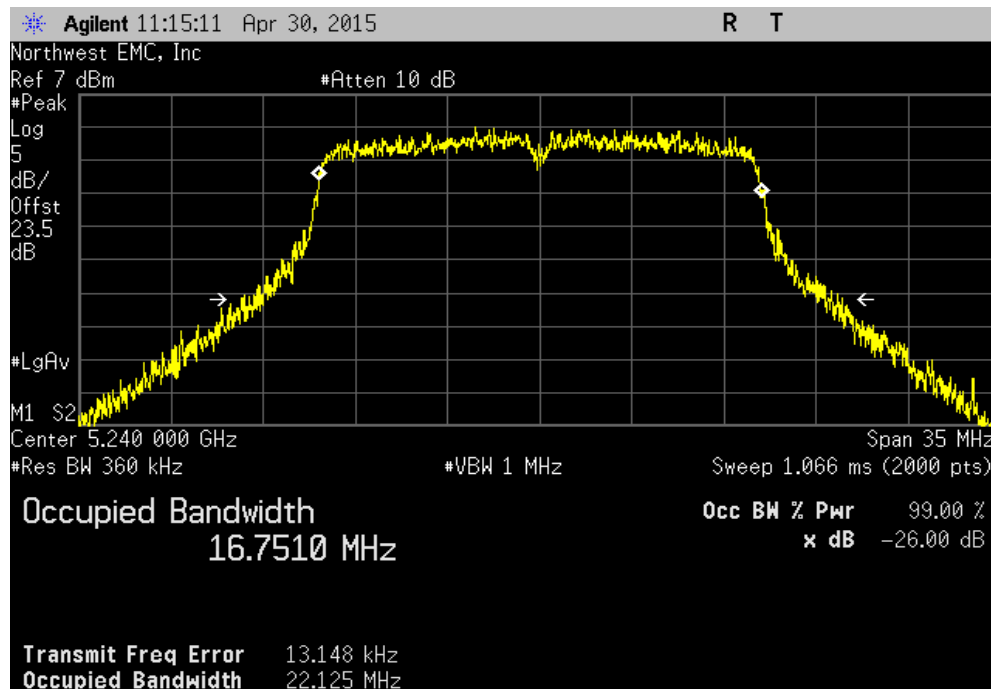


EMISSION BANDWIDTH

20 MHz, Chain A, 802.11(n) MCS0, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				22.201 MHz	N/A	N/A

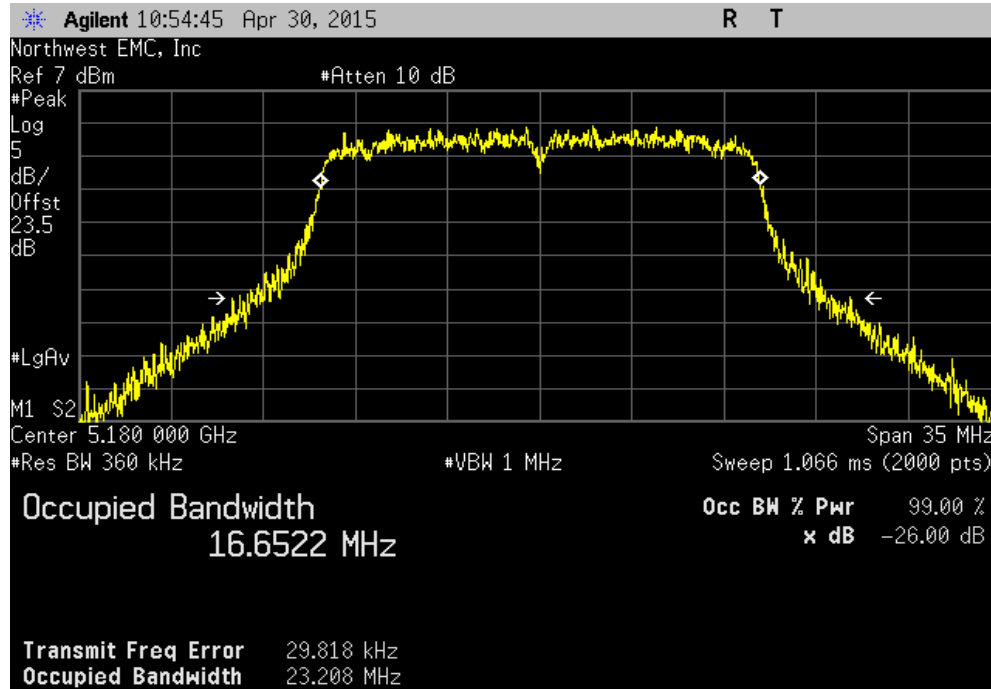


20 MHz, Chain A, 802.11(n) MCS0, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				22.125 MHz	N/A	N/A

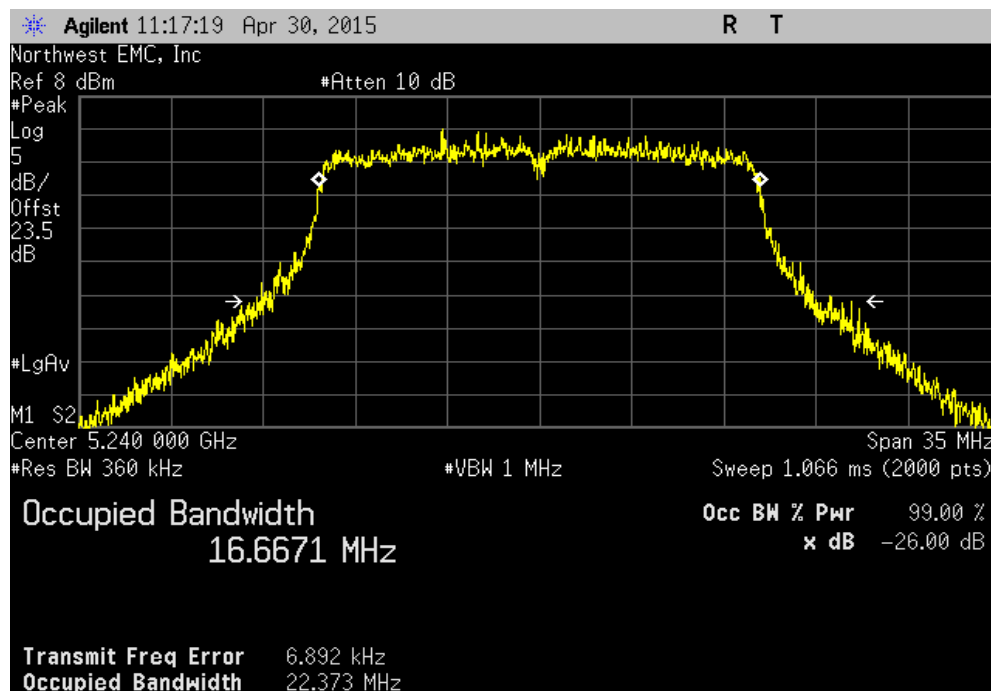


EMISSION BANDWIDTH

20 MHz, Chain A, 802.11(n) MCS7, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				23.208 MHz	N/A	N/A

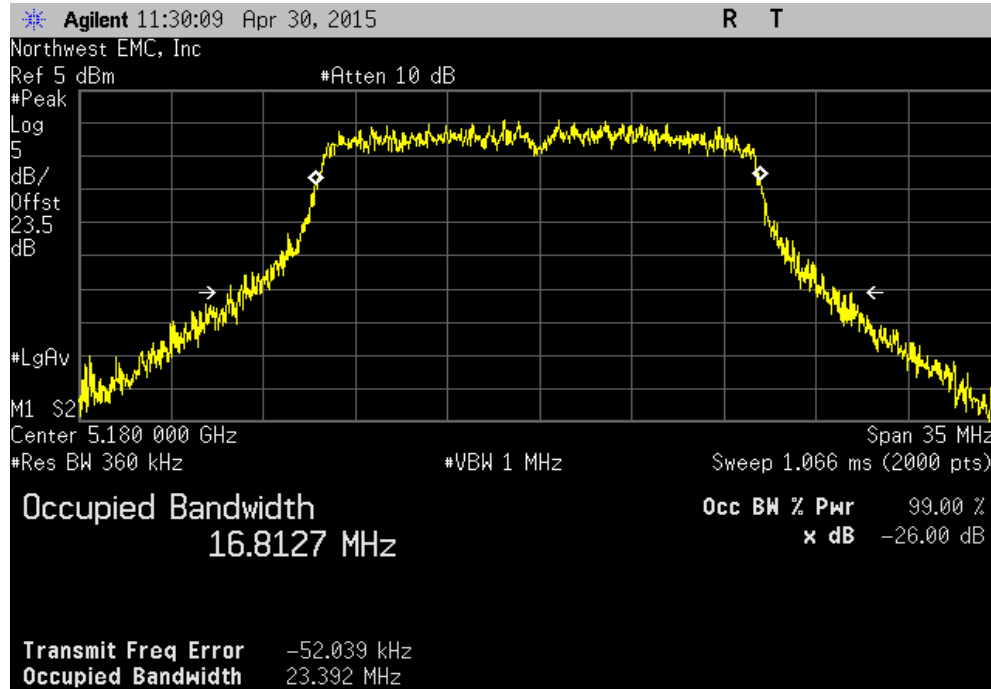


20 MHz, Chain A, 802.11(n) MCS7, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				22.373 MHz	N/A	N/A

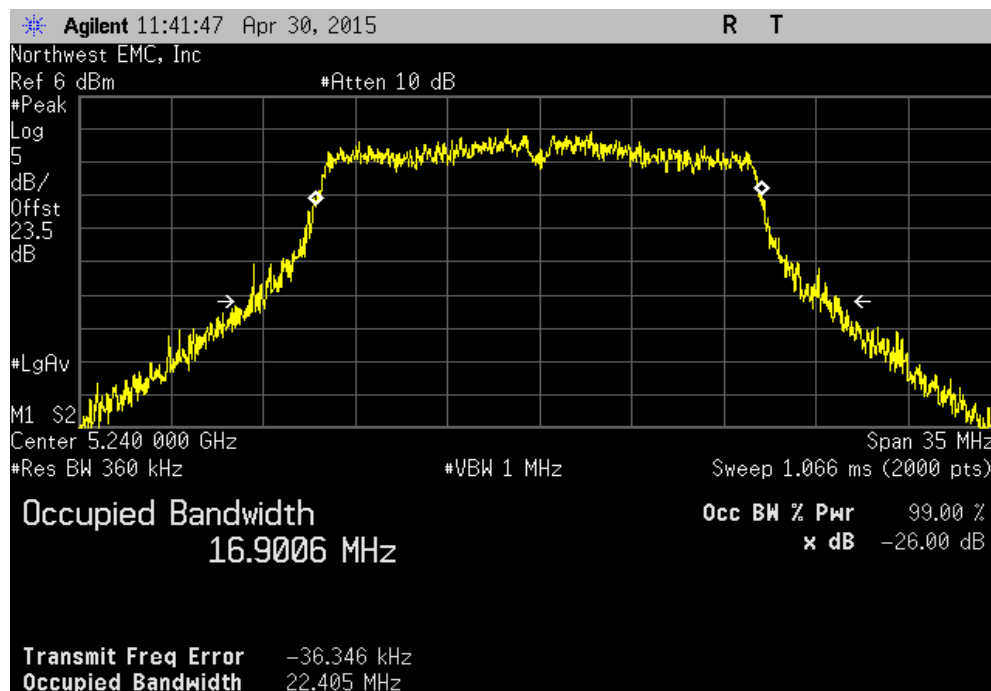


EMISSION BANDWIDTH

20 MHz, Chain B, 802.11(a) 6 Mbps, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				23.392 MHz	N/A	N/A



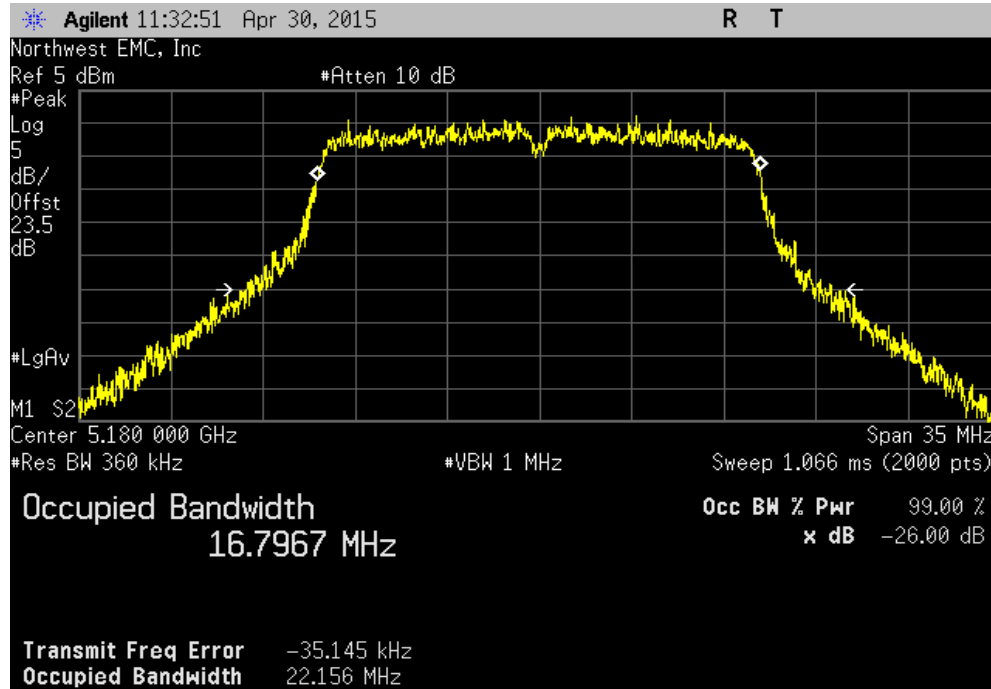
20 MHz, Chain B, 802.11(a) 6 Mbps, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				22.405 MHz	N/A	N/A



EMISSION BANDWIDTH

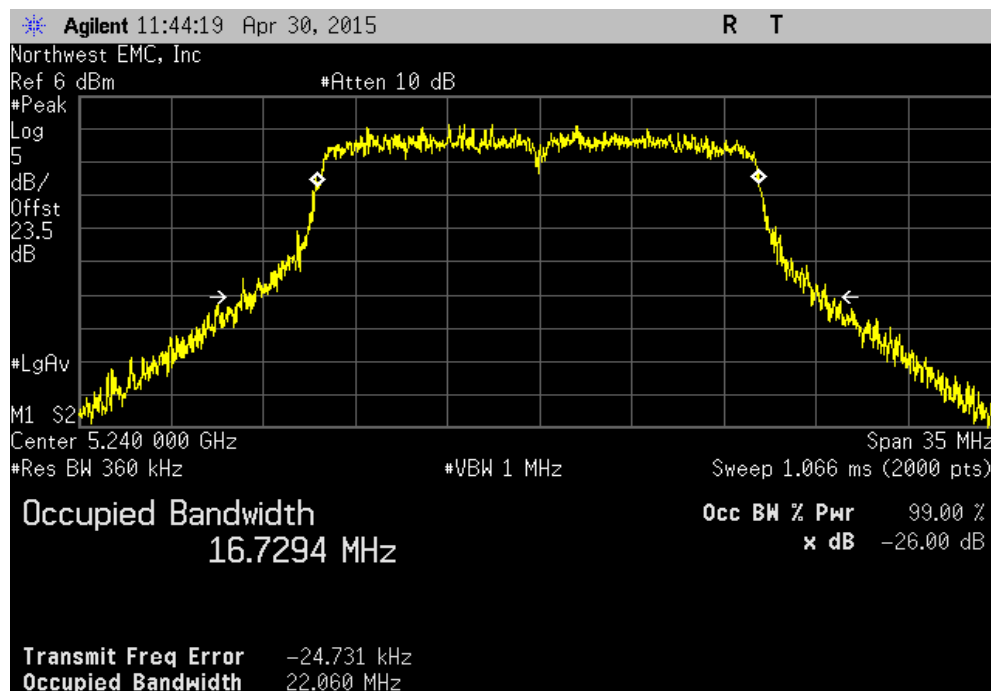
20 MHz, Chain B, 802.11(a) 36 Mbps, Low Channel 36, 5180MHz

	Value	Limit (N/A)	Result
	22.156 MHz	N/A	N/A



20 MHz, Chain B, 802.11(a) 36 Mbps, High Channel 48, 5240MHz

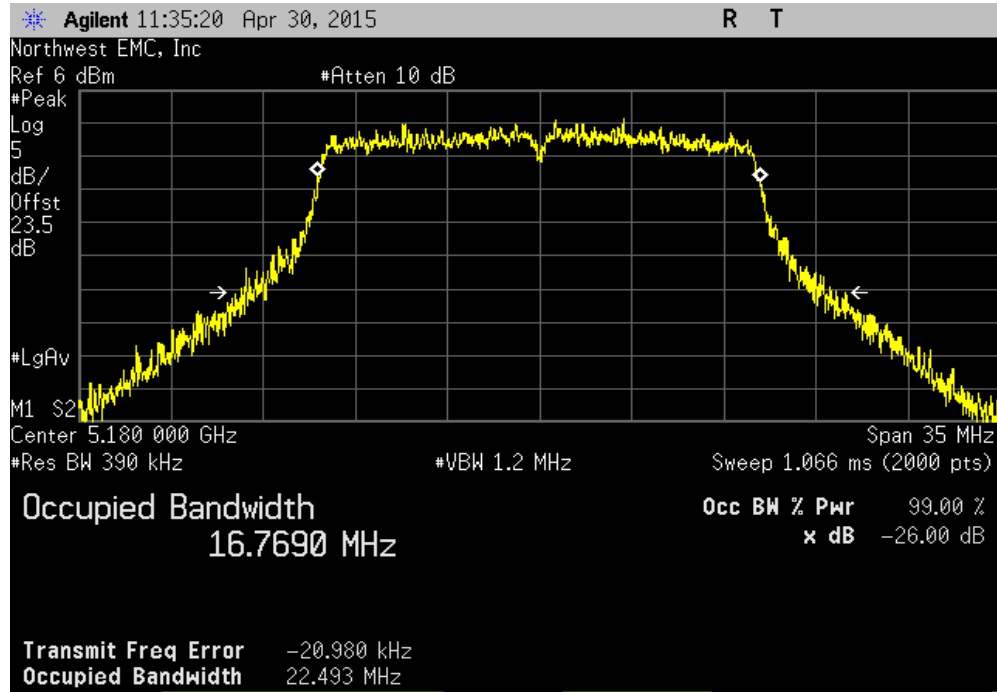
	Value	Limit (N/A)	Result
	22.06 MHz	N/A	N/A



EMISSION BANDWIDTH

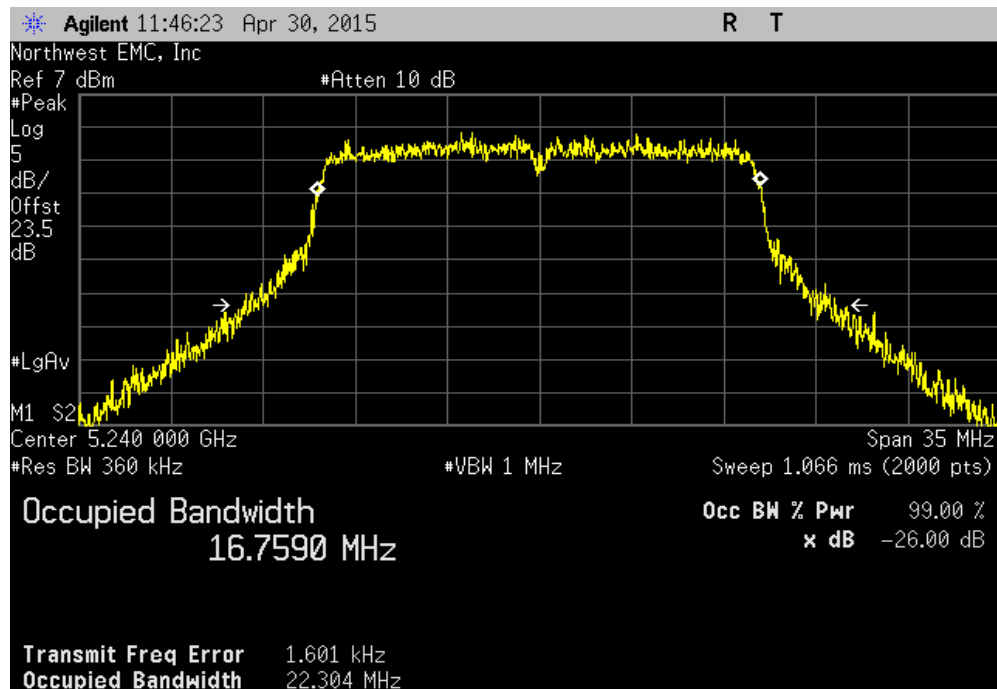
20 MHz, Chain B, 802.11(a) 54 Mbps, Low Channel 36, 5180MHz

	Value	Limit (N/A)	Result
	22.493 MHz	N/A	N/A



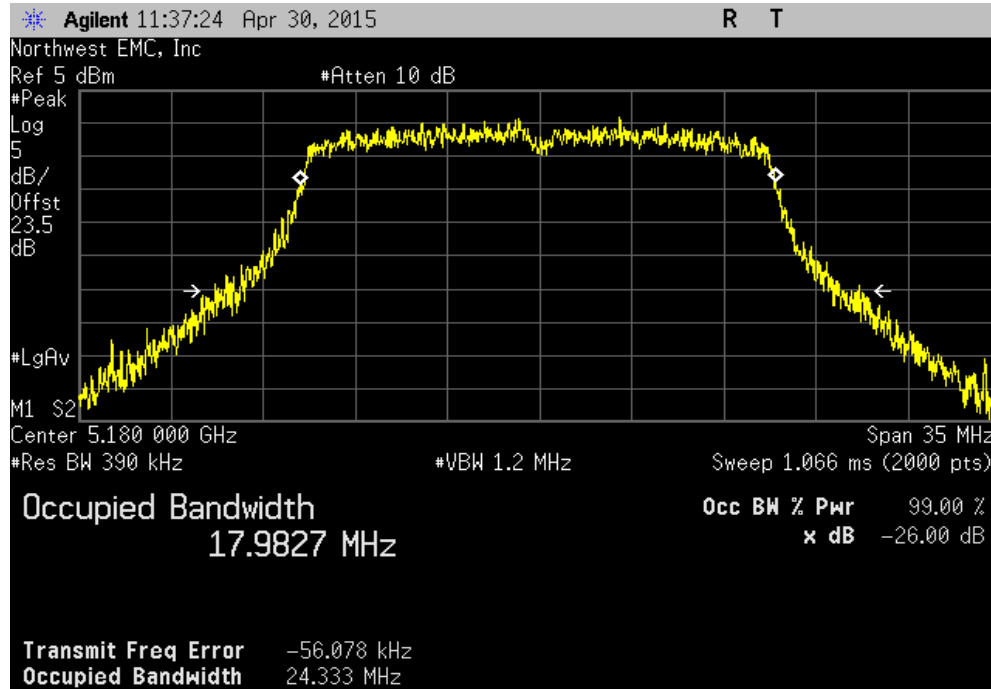
20 MHz, Chain B, 802.11(a) 54 Mbps, High Channel 48, 5240MHz

	Value	Limit (N/A)	Result
	22.304 MHz	N/A	N/A

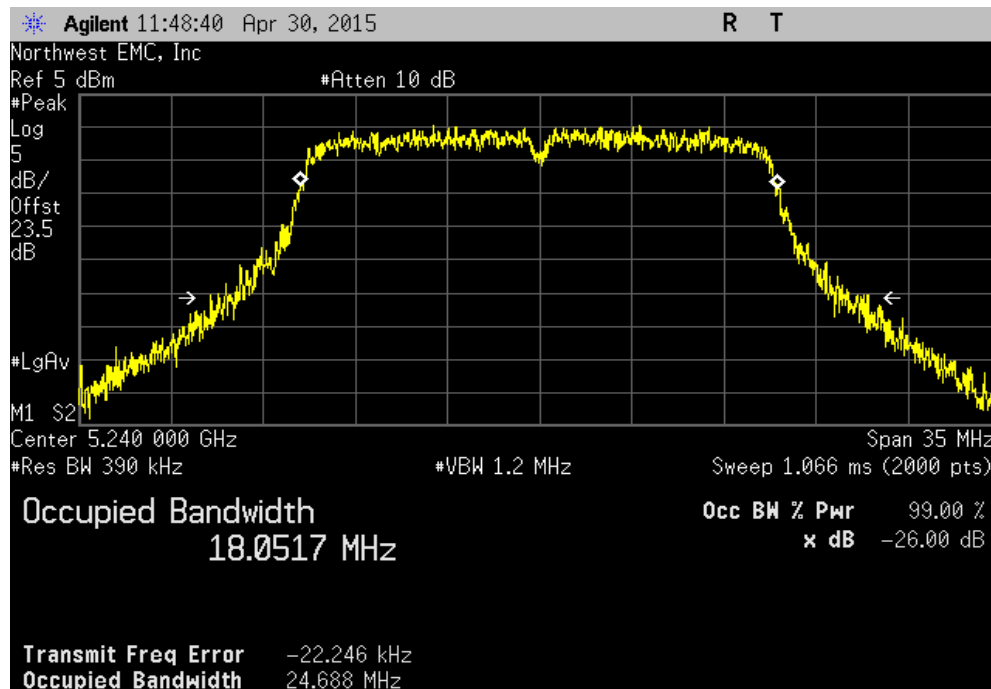


EMISSION BANDWIDTH

20 MHz, Chain B, 802.11(n) MCS0, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				24.333 MHz	N/A	N/A

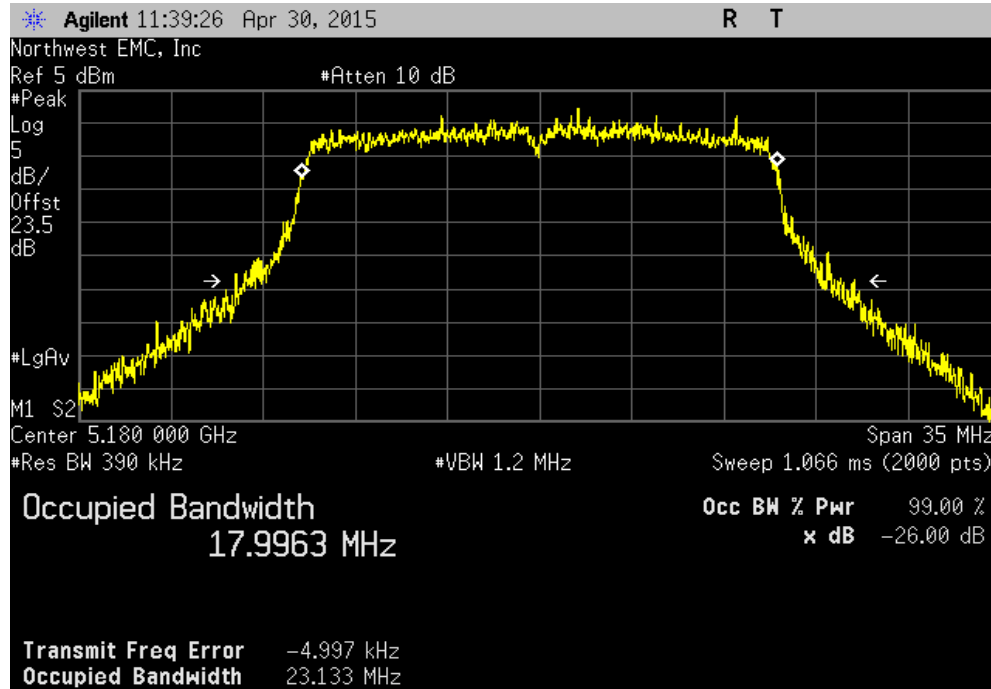


20 MHz, Chain B, 802.11(n) MCS0, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				24.688 MHz	N/A	N/A

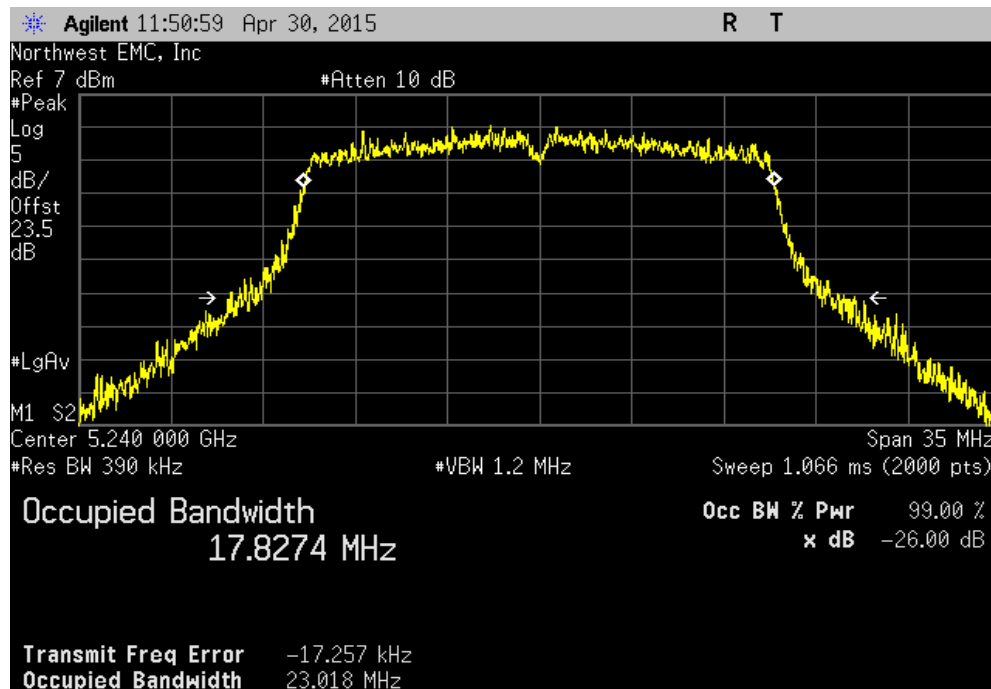


EMISSION BANDWIDTH

20 MHz, Chain B, 802.11(n) MCS7, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				23.133 MHz	N/A	N/A

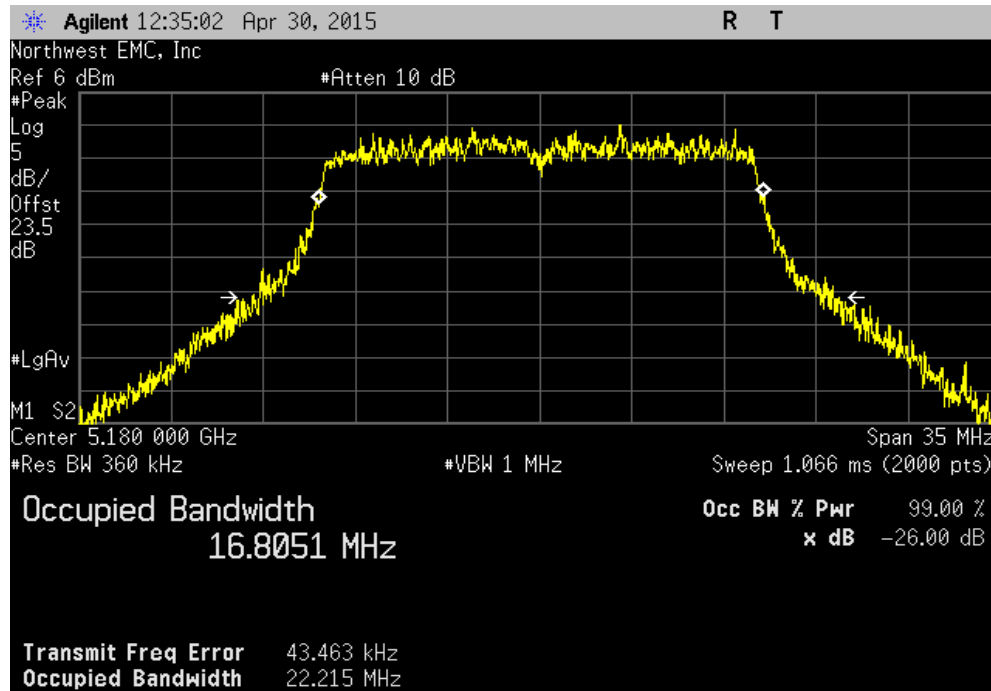


20 MHz, Chain B, 802.11(n) MCS7, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				23.018 MHz	N/A	N/A

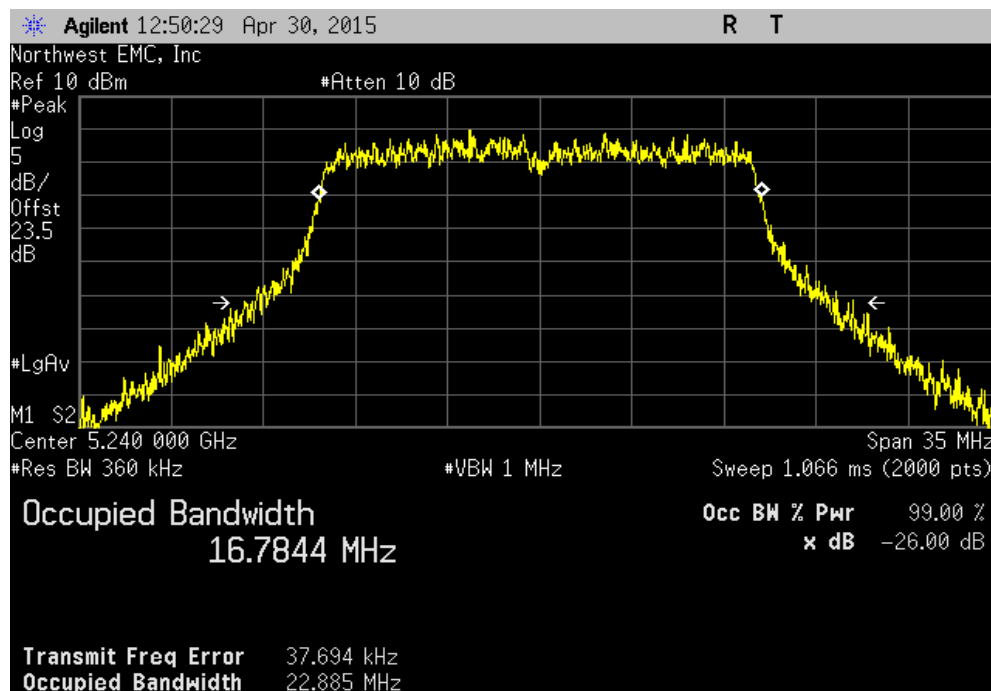


EMISSION BANDWIDTH

20 MHz, Chain C, 802.11(a) 6 Mbps, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				22.215 MHz	N/A	N/A

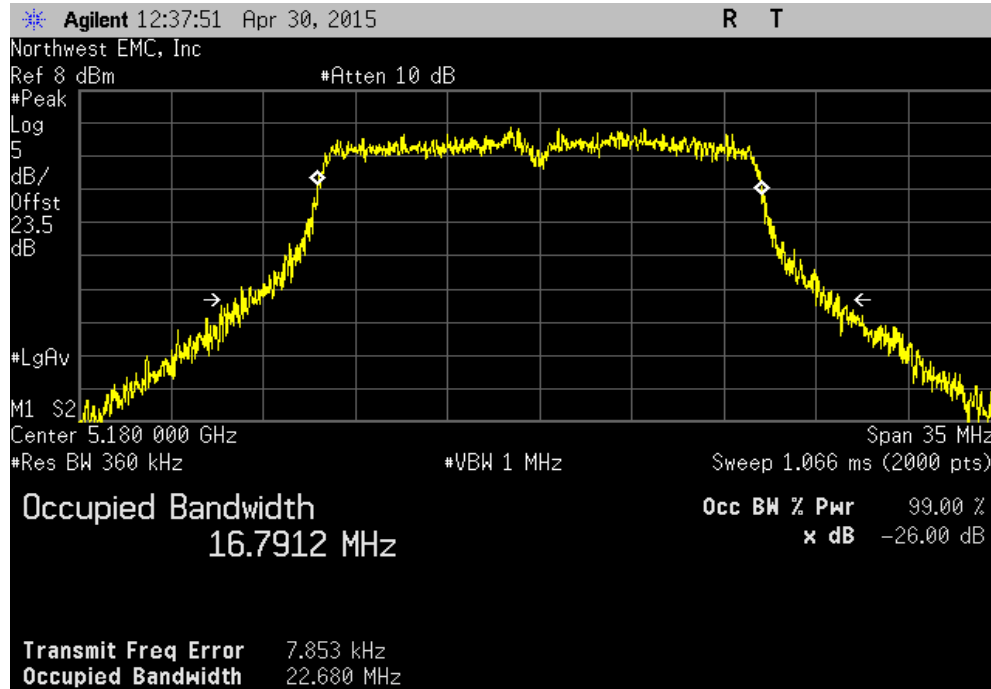


20 MHz, Chain C, 802.11(a) 6 Mbps, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				22.885 MHz	N/A	N/A

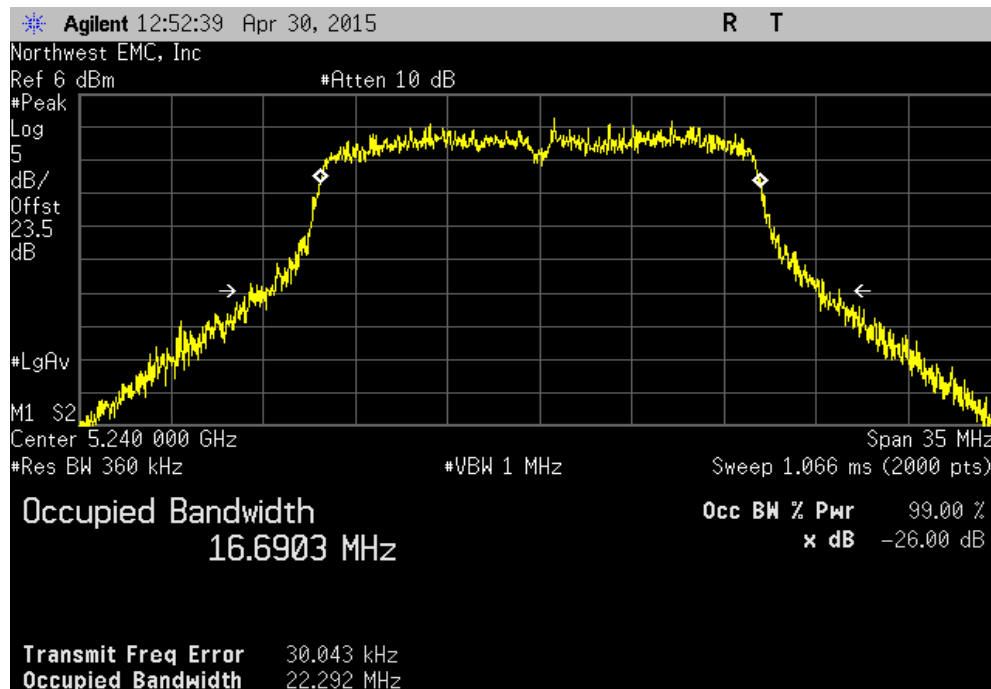


EMISSION BANDWIDTH

20 MHz, Chain C, 802.11(a) 36 Mbps, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				22.68 MHz	N/A	N/A

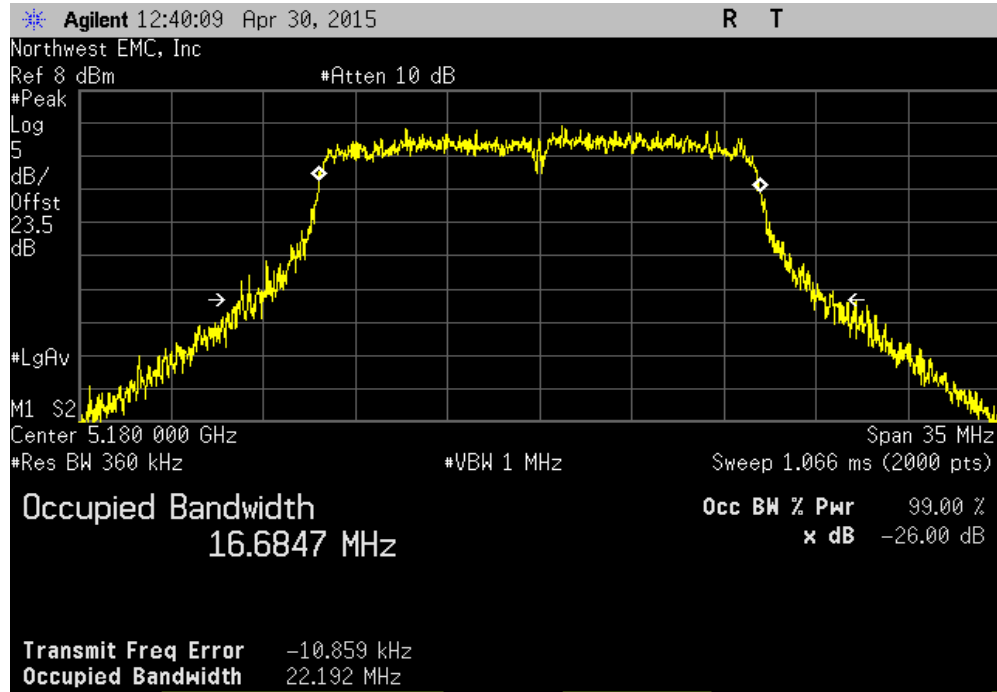


20 MHz, Chain C, 802.11(a) 36 Mbps, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				22.292 MHz	N/A	N/A

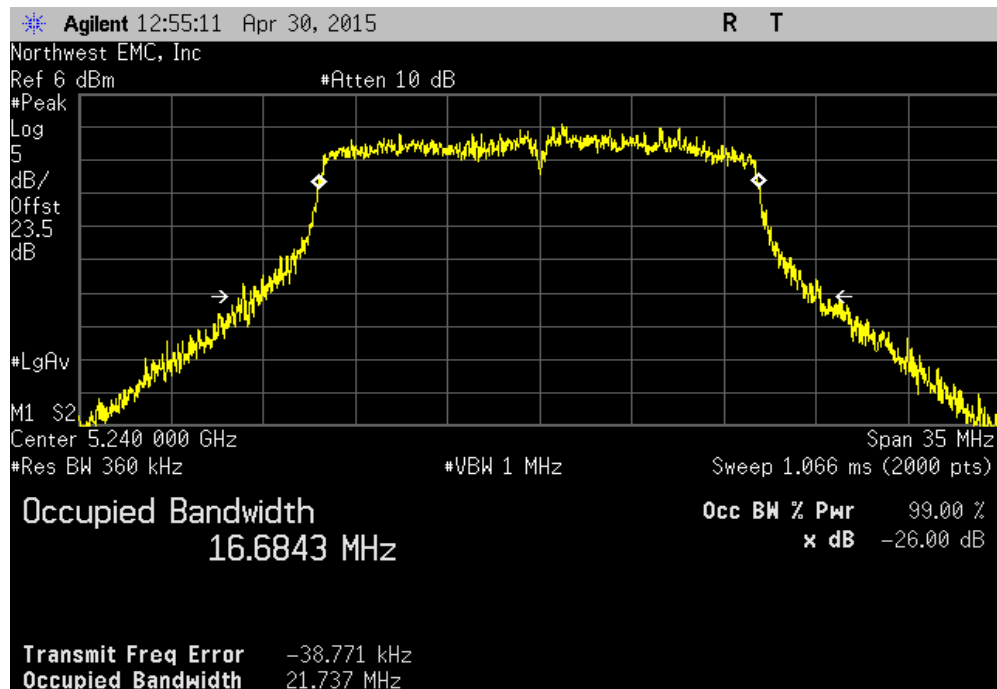


EMISSION BANDWIDTH

20 MHz, Chain C, 802.11(a) 54 Mbps, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				22.192 MHz	N/A	N/A

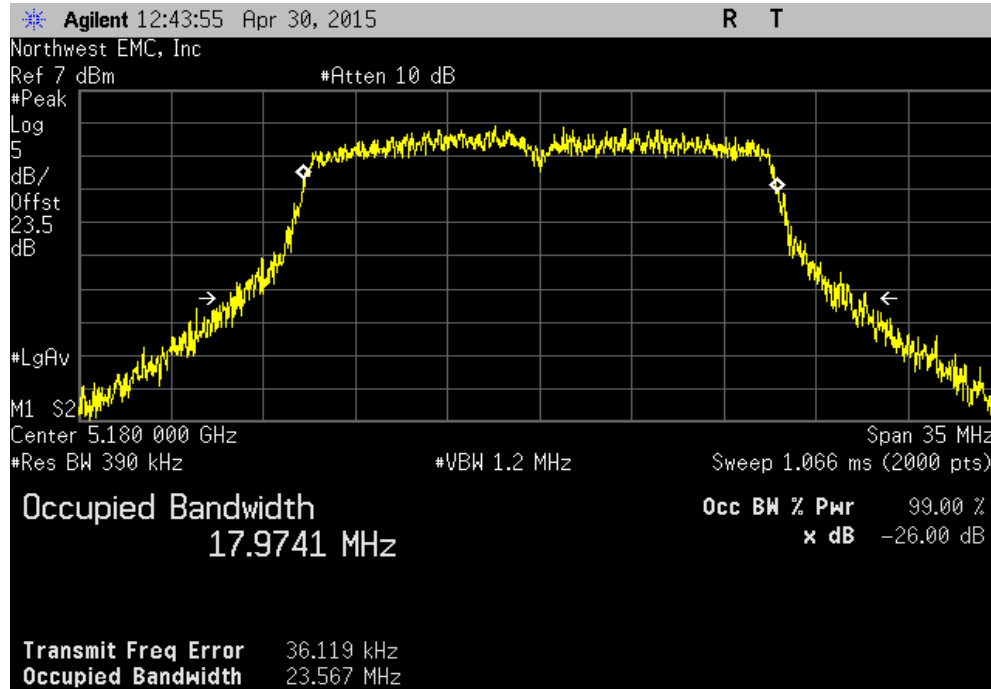


20 MHz, Chain C, 802.11(a) 54 Mbps, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				21.737 MHz	N/A	N/A

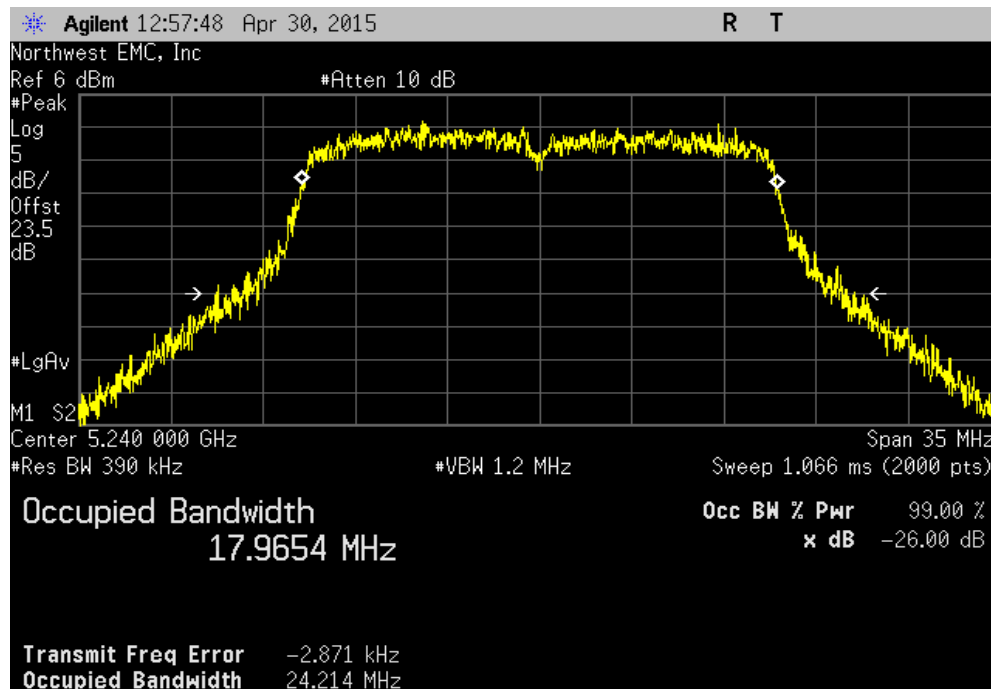


EMISSION BANDWIDTH

20 MHz, Chain C, 802.11(n) MCS0, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				23.567 MHz	N/A	N/A

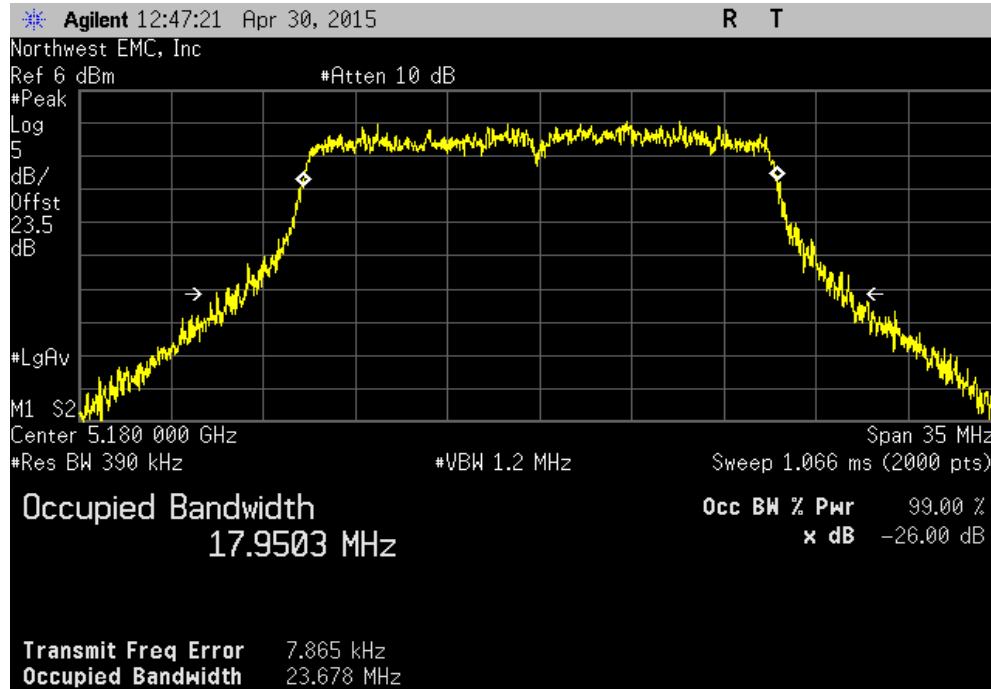


20 MHz, Chain C, 802.11(n) MCS0, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				24.214 MHz	N/A	N/A

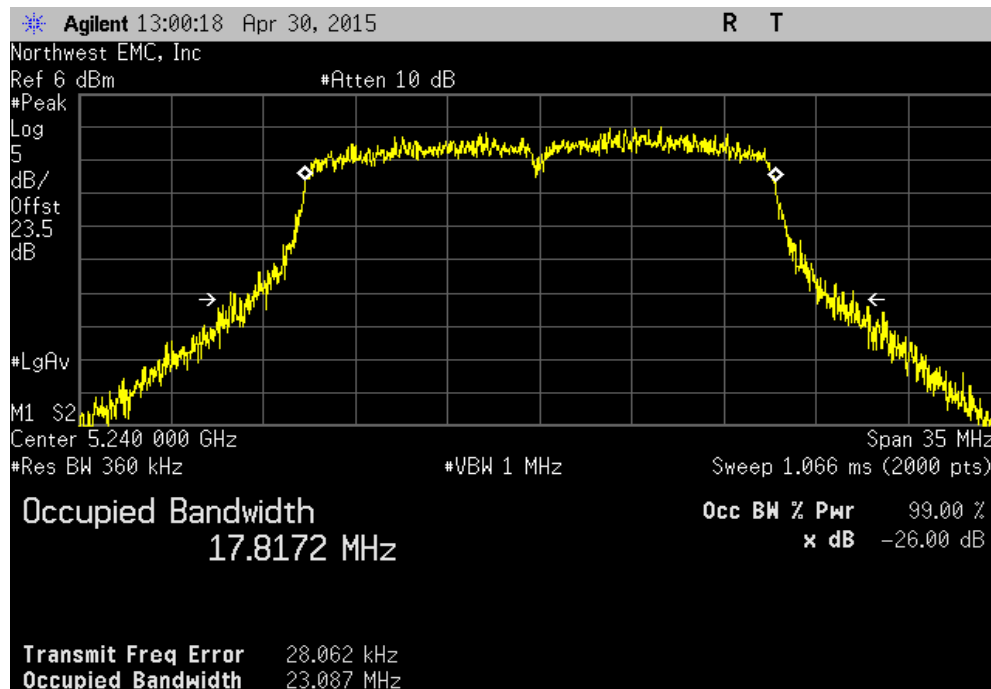


EMISSION BANDWIDTH

20 MHz, Chain C, 802.11(n) MCS7, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				23.678 MHz	N/A	N/A

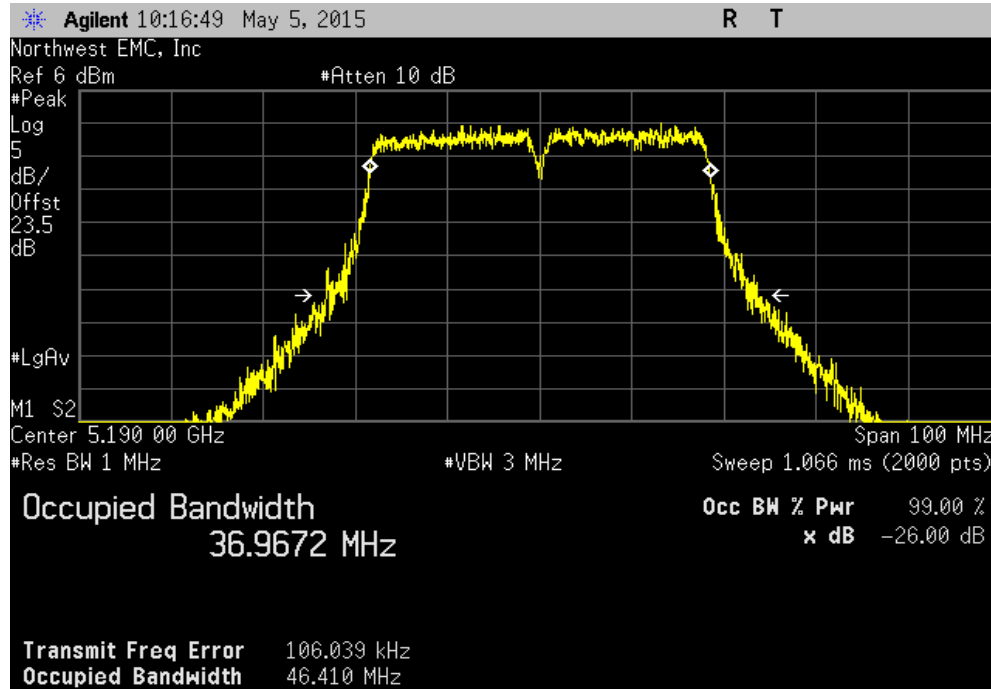


20 MHz, Chain C, 802.11(n) MCS7, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				23.087 MHz	N/A	N/A

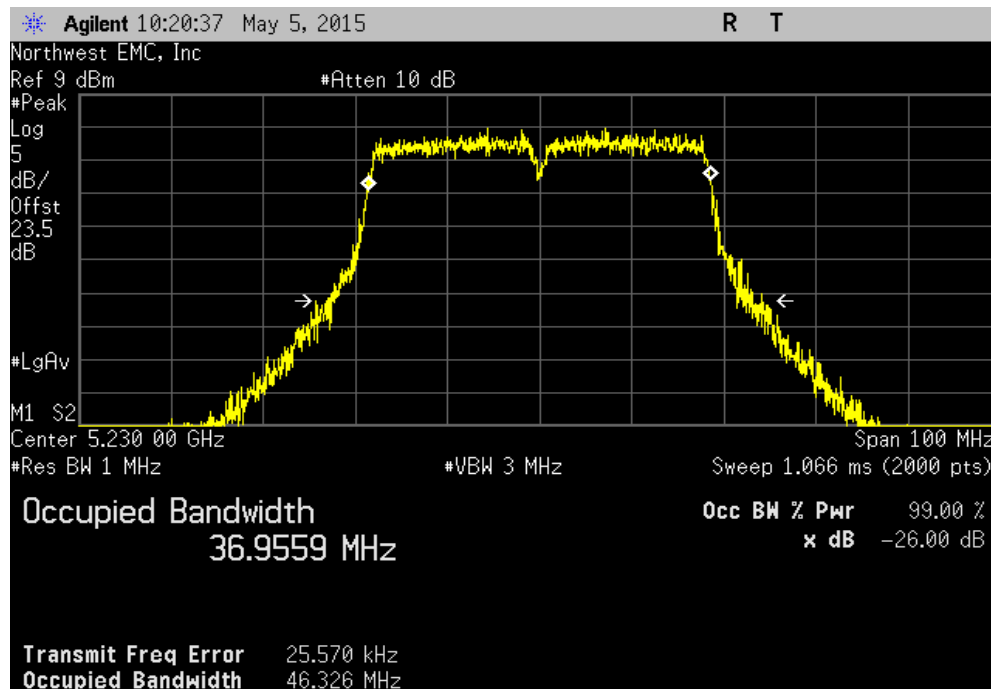


EMISSION BANDWIDTH

40 MHz, Chain A, 802.11(n) MCS0, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				46.41 MHz	N/A	N/A

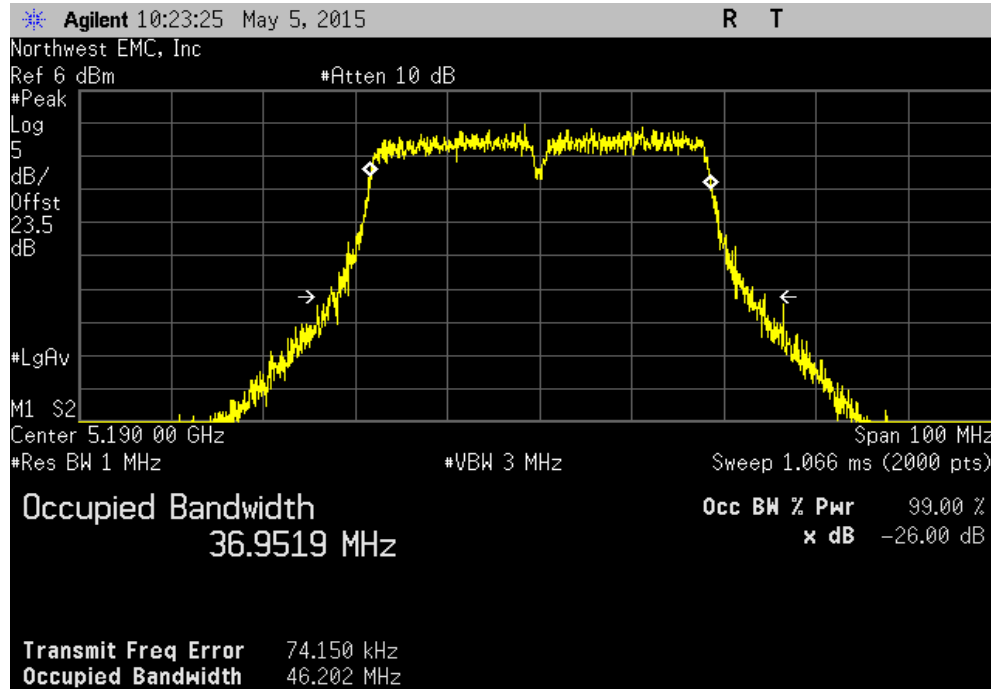


40 MHz, Chain A, 802.11(n) MCS0, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				46.326 MHz	N/A	N/A

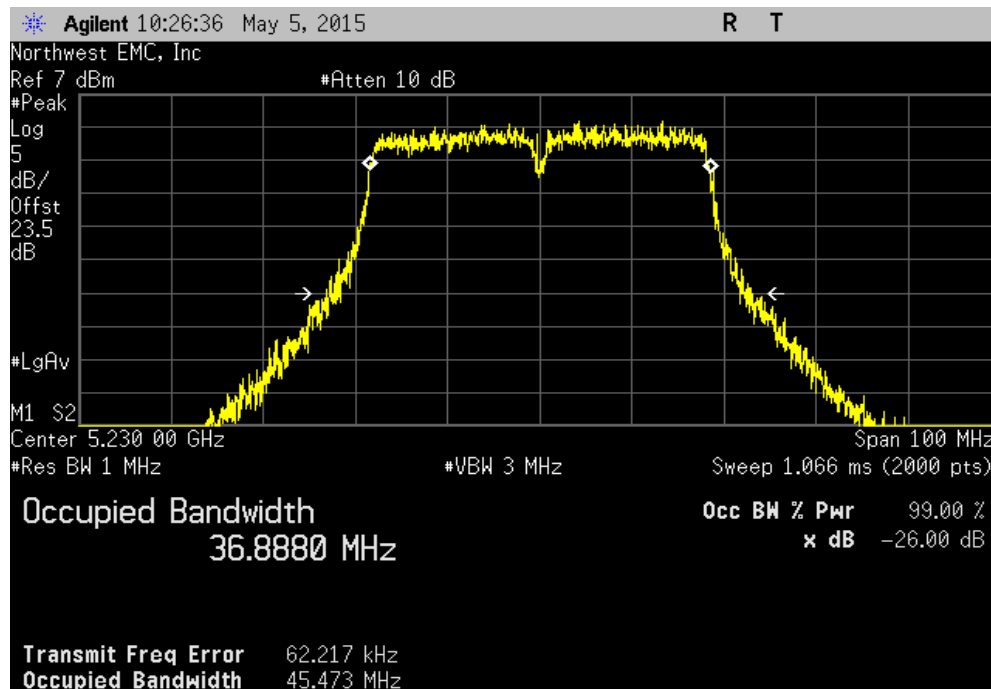


EMISSION BANDWIDTH

40 MHz, Chain A, 802.11(n) MCS7, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				46.202 MHz	N/A	N/A

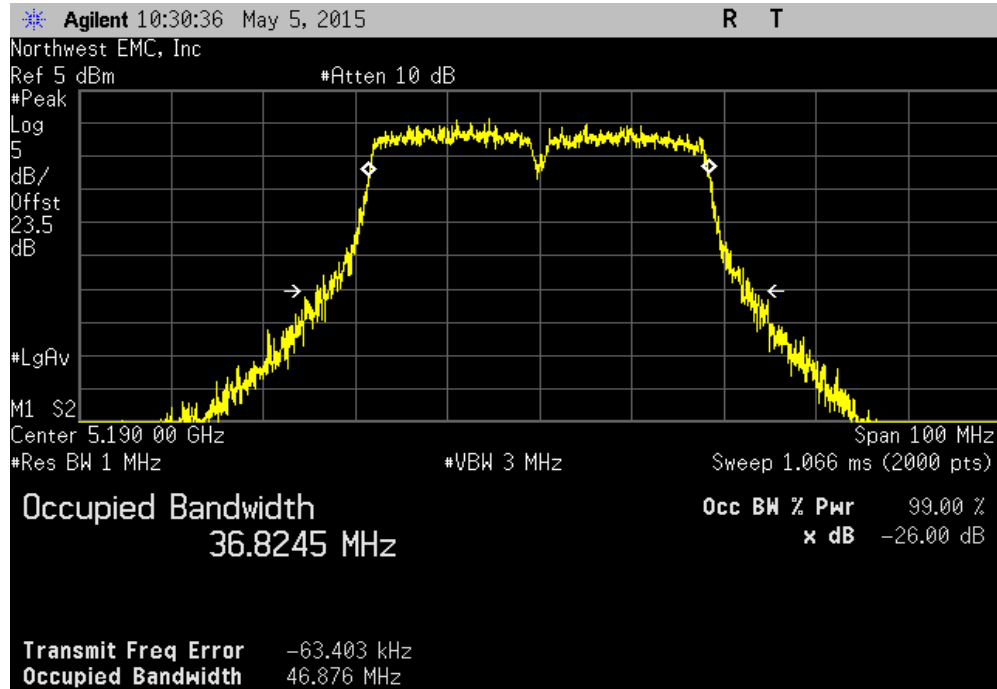


40 MHz, Chain A, 802.11(n) MCS7, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				45.473 MHz	N/A	N/A

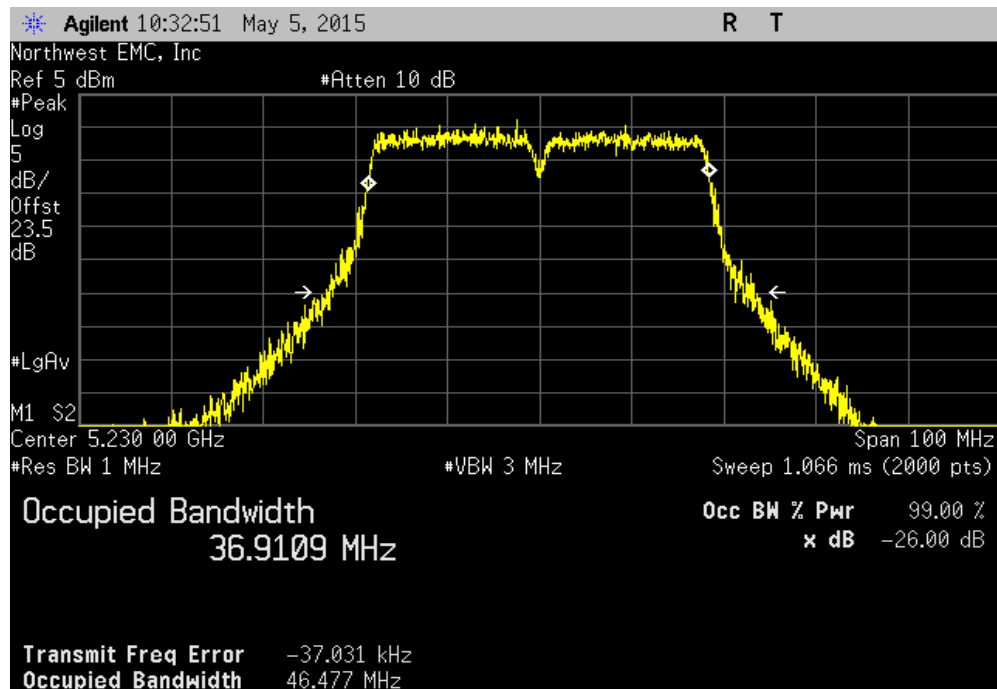


EMISSION BANDWIDTH

40 MHz, Chain B, 802.11(n) MCS0, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				46.876 MHz	N/A	N/A

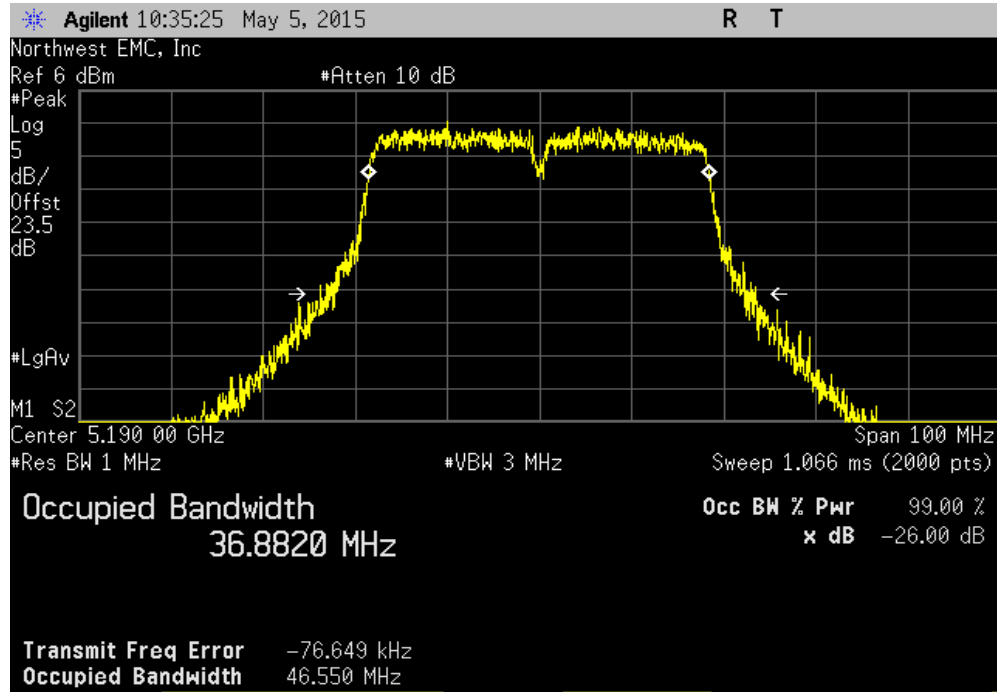


40 MHz, Chain B, 802.11(n) MCS0, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				46.477 MHz	N/A	N/A

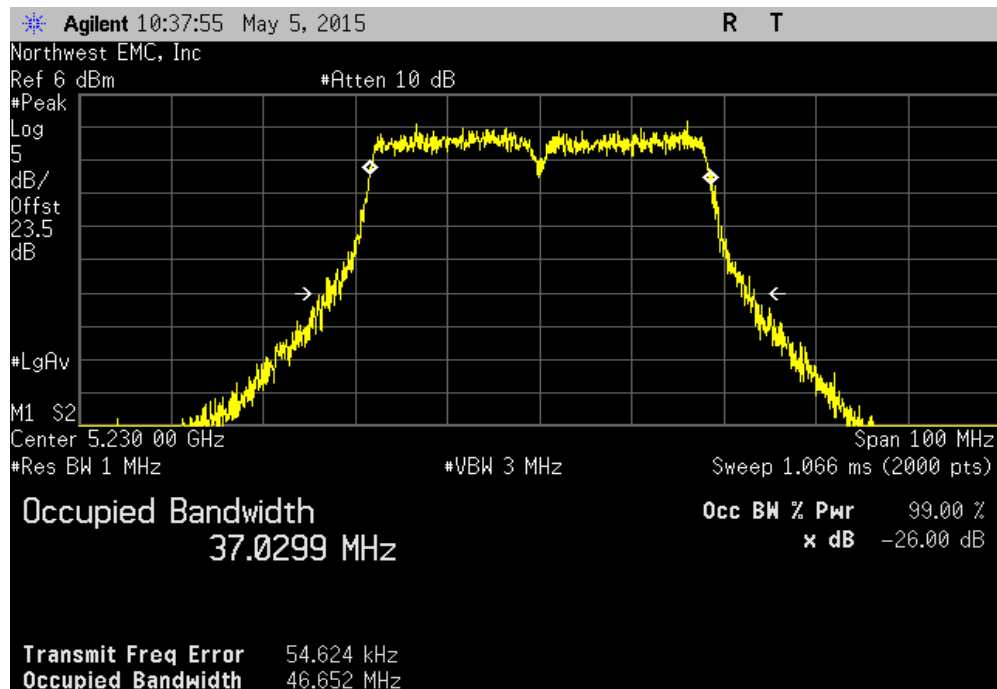


EMISSION BANDWIDTH

40 MHz, Chain B, 802.11(n) MCS7, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				46.55 MHz	N/A	N/A

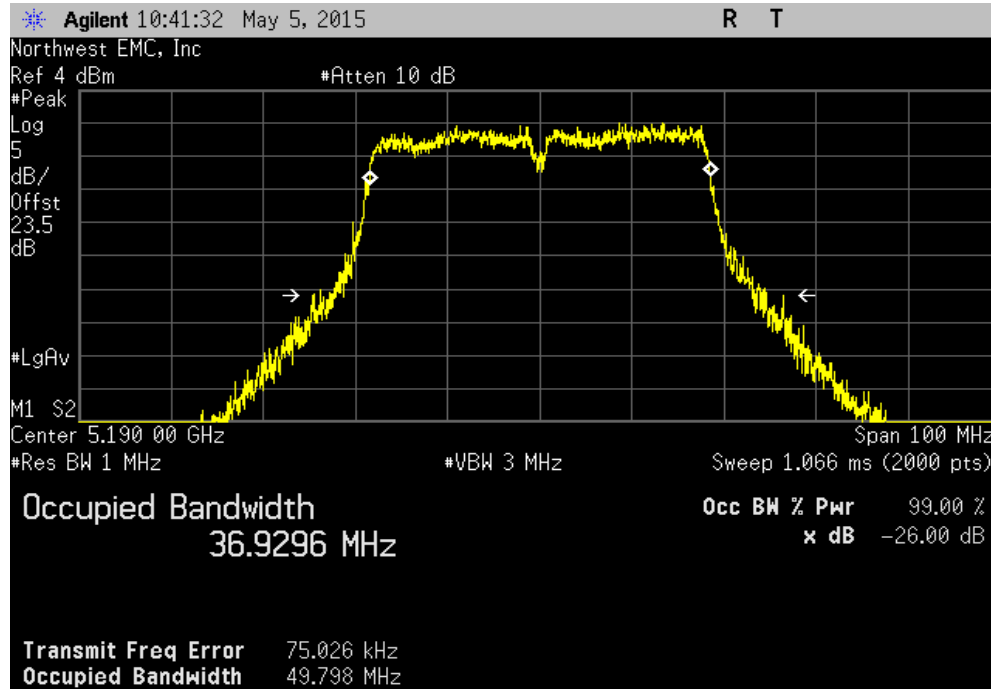


40 MHz, Chain B, 802.11(n) MCS7, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				46.652 MHz	N/A	N/A

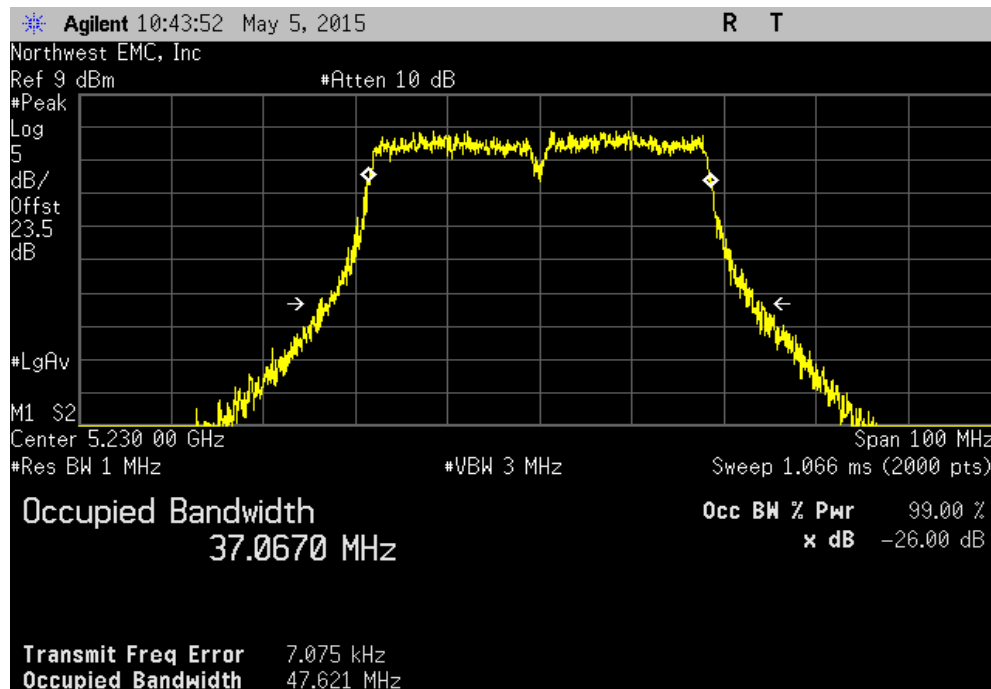


EMISSION BANDWIDTH

40 MHz, Chain C, 802.11(n) MCS0, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				49.798 MHz	N/A	N/A

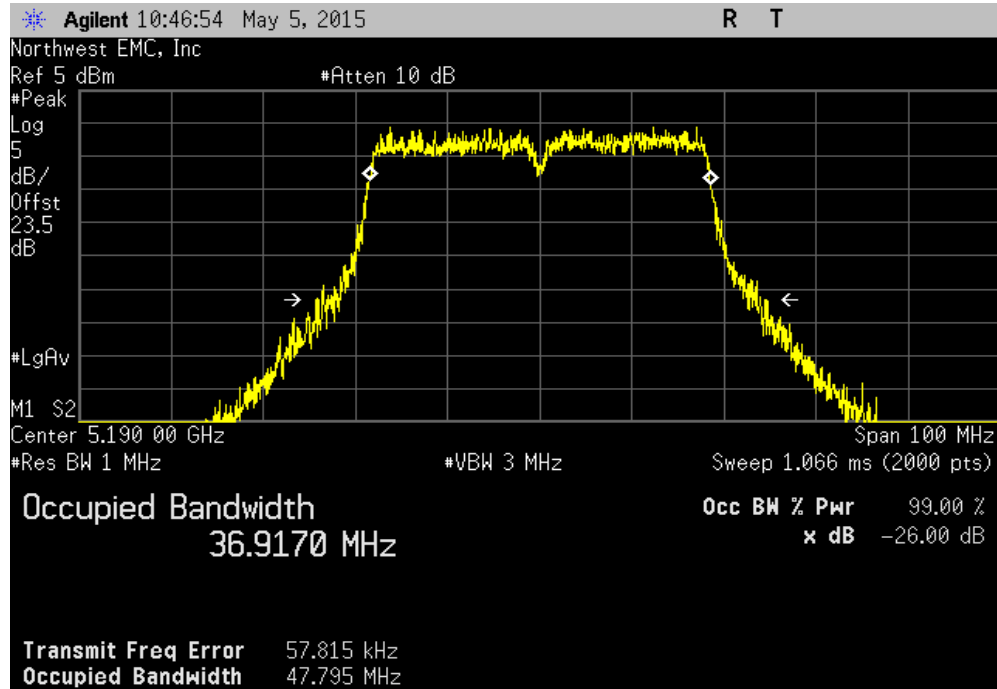


40 MHz, Chain C, 802.11(n) MCS0, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				47.621 MHz	N/A	N/A

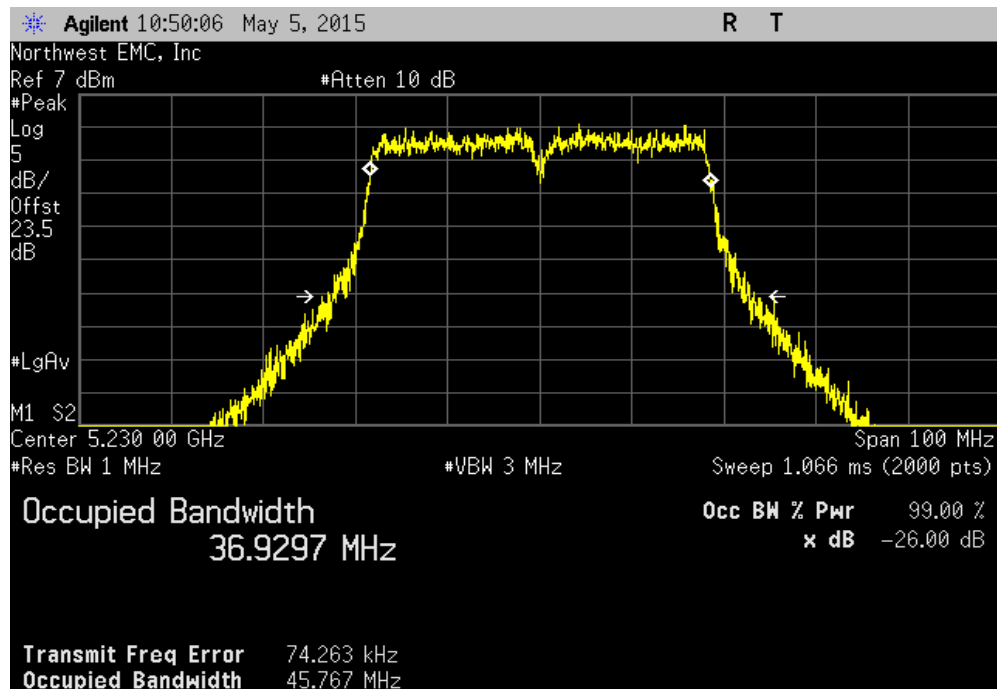


EMISSION BANDWIDTH

40 MHz, Chain C, 802.11(n) MCS7, Low Channel 36, 5180MHz						
				Value	Limit (N/A)	Result
				47.795 MHz	N/A	N/A



40 MHz, Chain C, 802.11(n) MCS7, High Channel 48, 5240MHz						
				Value	Limit (N/A)	Result
				45.767 MHz	N/A	N/A



PEAK TRANSMIT POWER

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
OC13 Cables	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	0
Attenuator, 20dB	Fairview Microwave	SA18E-10	TKS	4/8/2015	12
40GHz DC Block	Fairview Microwave	SD3379	AMN	4/8/2015	12
Spectrum Analyzer	Agilent	E4440A	AFA	8/28/2014	12

TEST DESCRIPTION

FCC KDB 789033 D02 General UNII Test Procedures New Rules v01 Section E was followed. The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

Prior to measuring peak transmit power; the emission bandwidth (B) and the transmission pulse duration (T) were measured. The method of measuring the emission bandwidth and the associated data are found elsewhere in this test report. The transmission pulse duration (T) was measured using a zero span on the spectrum analyzer to see the pulses in the time domain.

Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep) was used for this test.

The spectrum analyzer settings were set per the guidance as well as the following specifics:

- RBW = 1 MHz, VBW = 3 MHz
- Sample Detector
- The number of points was set to 601. This satisfied the requirement of being $> 2 * \text{span} / \text{RBW}$
- Trace average 100 traces in power averaging mode.
- Power was integrated across "B", by using the channel power function of the analyzer.

PEAK TRANSMIT POWER

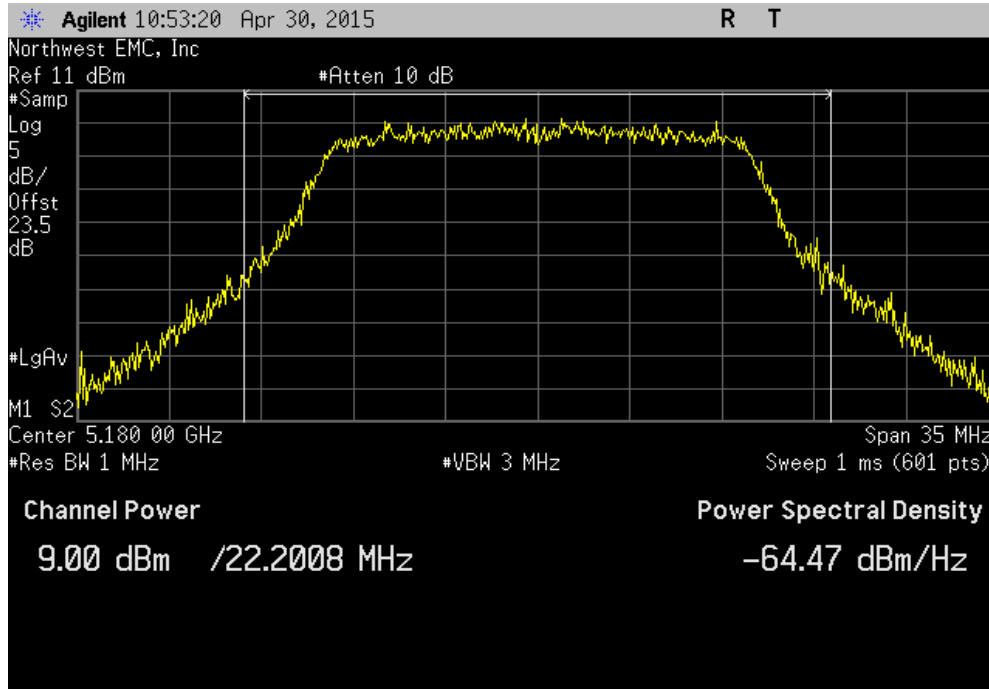


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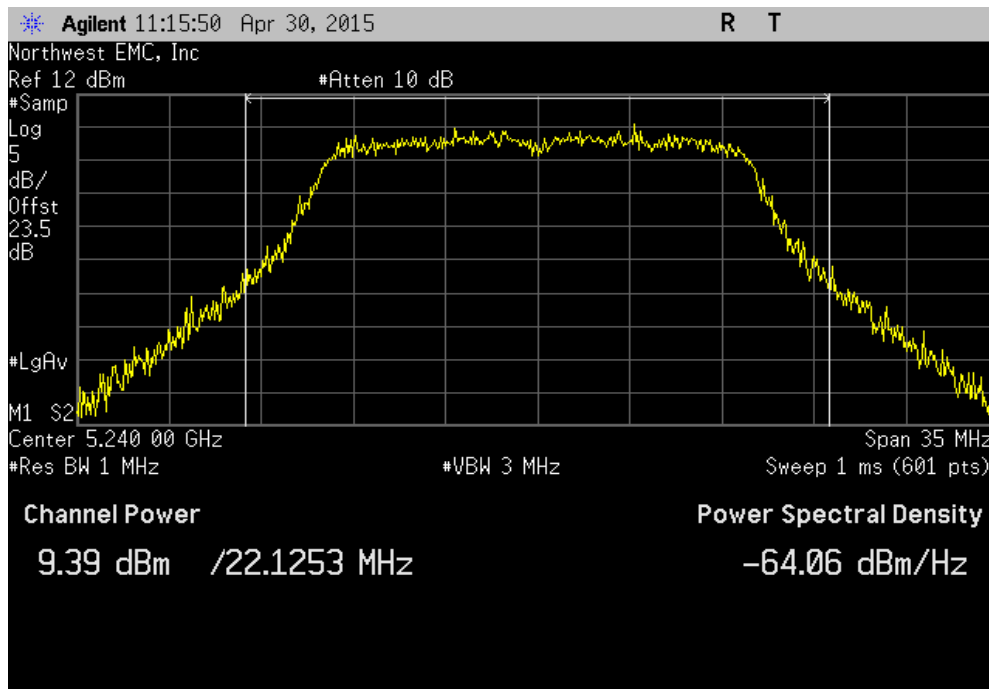
EUT: RLX2-IHNF		Work Order: PROS0216		
Serial Number: 000D8DF095CE		Date: 04/30/15		
Customer: ProSoft Technology, Inc.		Temperature: 21.1°C		
Attendees: Frank Hardy		Humidity: 46%		
Project: None		Barometric Pres.: 1012		
Tested by: Johnny Candelas		Job Site: OC13		
Power: 120V/60Hz				
TEST SPECIFICATIONS		Test Method		
FCC 15.407:2015		ANSI C63.10:2009		
COMMENTS				
Offset 23.46dB (DC Block+20dB Attenuator+Coax Cable) for 5.2GHz				
Power Setting - Max				
Radio test software transmitting on all three ports across all modes of operation.				
DEVIATIONS FROM TEST STANDARD				
None				
Configuration #	1	Signature 		
		Value	Limit ($\leq$)	Result
20 MHz				
Chain A				
802.11(n) MCS8				
Low Channel 36, 5180 MHz		8.995 dBm	30 dBm	Pass
High Channel 48, 5240 MHz		9.391 dBm	30 dBm	Pass
802.11(n) MCS15				
Low Channel 36, 5180 MHz		9.068 dBm	30 dBm	Pass
High Channel 48, 5240 MHz		9.34 dBm	30 dBm	Pass
Chain B				
802.11(n) MCS8				
Low Channel 36, 5180 MHz		8.026 dBm	30 dBm	Pass
High Channel 48, 5240 MHz		8.301 dBm	30 dBm	Pass
802.11(n) MCS15				
Low Channel 36, 5180 MHz		8.017 dBm	30 dBm	Pass
High Channel 48, 5240 MHz		8.879 dBm	30 dBm	Pass
Chain C				
802.11(n) MCS8				
Low Channel 36, 5180 MHz		8.924 dBm	30 dBm	Pass
High Channel 48, 5240 MHz		9.072 dBm	30 dBm	Pass
802.11(n) MCS15				
Low Channel 36, 5180 MHz		8.262 dBm	30 dBm	Pass
High Channel 48, 5240 MHz		8.063 dBm	30 dBm	Pass
40 MHz				
Chain A				
802.11(n) MCS8				
Low Channel 36/40, 5190 MHz		6.636 dBm	30 dBm	Pass
High Channel 44/48, 5230 MHz		9.289 dBm	30 dBm	Pass
802.11(n) MCS15				
Low Channel 36/40, 5190 MHz		5.668 dBm	30 dBm	Pass
High Channel 44/48, 5230 MHz		7.91 dBm	30 dBm	Pass
Chain B				
802.11(n) MCS8				
Low Channel 36/40, 5190 MHz		5.742 dBm	30 dBm	Pass
High Channel 44/48, 5230 MHz		6.061 dBm	30 dBm	Pass
802.11(n) MCS15				
Low Channel 36/40, 5190 MHz		6.095 dBm	30 dBm	Pass
High Channel 44/48, 5230 MHz		6.391 dBm	30 dBm	Pass
Chain C				
802.11(n) MCS8				
Low Channel 36/40, 5190 MHz		4.695 dBm	30 dBm	Pass
High Channel 44/48, 5230 MHz		9.394 dBm	30 dBm	Pass
802.11(n) MCS15				
Low Channel 36/40, 5190 MHz		4.615 dBm	30 dBm	Pass
High Channel 44/48, 5230 MHz		7.34 dBm	30 dBm	Pass
Power Summing Chain AB				
20 MHz				
802.11(n) MCS8		(dBm) Chain A (mw)	(dBm) Chain B (mw)	Summed Power (dBm) Results
Low Channel 36, 5180 MHz		8.995 7.934	8.026 6.347	11.5 Pass
High Channel 48, 5240 MHz		9.391 8.692	8.301 6.762	11.9 Pass
802.11(n) MCS15		9.068 8.069	8.017 6.334	11.6 Pass
High Channel 48, 5240 MHz		9.340 8.590	8.879 7.725	12.1 Pass
40 MHz				
802.11(n) MCS8		6.636 4.609	5.742 3.751	9.2 Pass
Low Channel 36/40, 5190 MHz		9.289 8.490	6.061 4.037	11.0 Pass
High Channel 44/48, 5230 MHz		5.668 3.688	6.095 4.069	8.9 Pass
802.11(n) MCS15		7.910 6.180	6.391 4.356	10.2 Pass
Low Channel 36/40, 5190 MHz		High Channel 44/48, 5230 MHz		
Power Summing Chain AC				
20 MHz				
802.11(n) MCS8		(dBm) Chain A (mw)	(dBm) Chain C (mw)	Summed Power (dBm) Results
Low Channel 36, 5180 MHz		8.995 7.934	8.924 7.805	12.0 Pass
High Channel 48, 5240 MHz		9.391 8.692	9.072 8.076	12.2 Pass
802.11(n) MCS15		9.068 8.069	8.262 6.702	11.7 Pass
Low Channel 36, 5180 MHz		9.340 8.590	8.063 6.402	11.8 Pass
High Channel 48, 5240 MHz				
40 MHz				
802.11(n) MCS8		6.636 4.609	4.695 2.948	8.8 Pass
Low Channel 36/40, 5190 MHz		9.289 8.490	9.394 8.698	12.4 Pass
High Channel 44/48, 5230 MHz		5.668 3.688	4.615 2.894	8.2 Pass
802.11(n) MCS15		7.910 6.180	7.340 5.420	10.6 Pass
Low Channel 36/40, 5190 MHz		High Channel 44/48, 5230 MHz		
Power Summing Chain BC				
20 MHz				
802.11(n) MCS8		(dBm) Chain B (mw)	(dBm) Chain C (mw)	Summed Power (dBm) Results
Low Channel 36, 5180 MHz		8.026 6.347	8.924 7.805	11.5 Pass
High Channel 48, 5240 MHz		8.301 6.762	9.072 8.076	11.7 Pass
802.11(n) MCS15		8.017 6.334	8.262 6.702	11.2 Pass
Low Channel 36, 5180 MHz		8.879 7.725	8.063 6.402	11.5 Pass
High Channel 48, 5240 MHz				
40 MHz				
802.11(n) MCS8		5.742 3.751	4.695 2.948	8.3 Pass
Low Channel 36/40, 5190 MHz		6.061 4.037	9.394 8.698	11.0 Pass
High Channel 44/48, 5230 MHz		6.095 4.069	4.615 2.894	8.4 Pass
802.11(n) MCS15		6.391 4.356	7.340 5.420	9.9 Pass
Low Channel 36/40, 5190 MHz		High Channel 44/48, 5230 MHz		

PEAK TRANSMIT POWER

20 MHz, Chain A, 802.11(n) MCS8, Low Channel 36, 5180 MHz						
				Value	Limit ($\leq$)	Result
				8.995 dBm	30 dBm	Pass

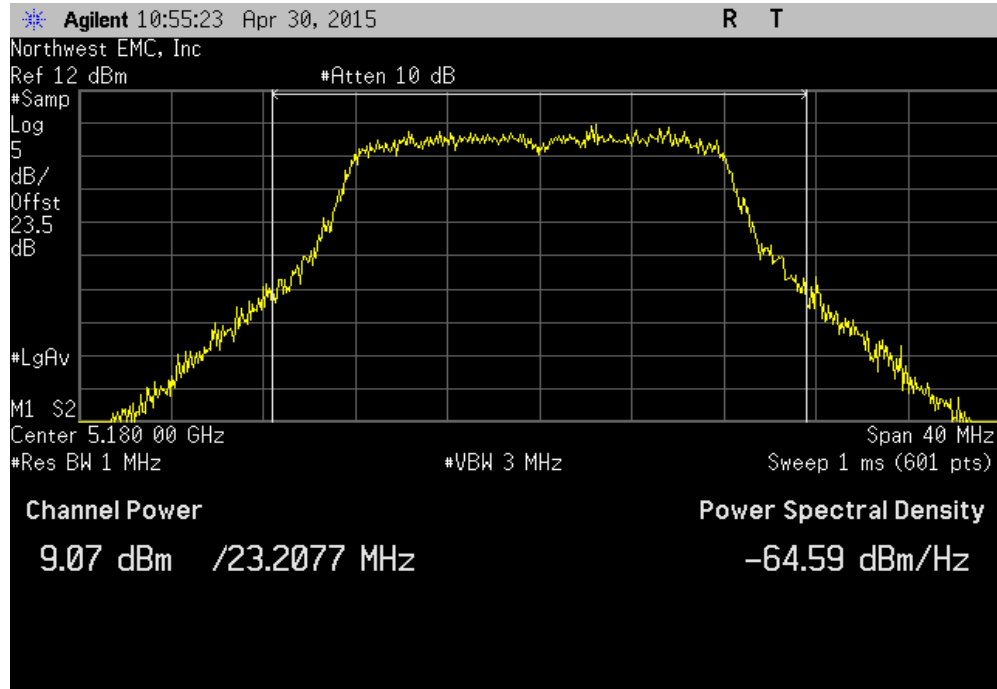


20 MHz, Chain A, 802.11(n) MCS8, High Channel 48, 5240 MHz						
				Value	Limit ($\leq$)	Result
				9.391 dBm	30 dBm	Pass

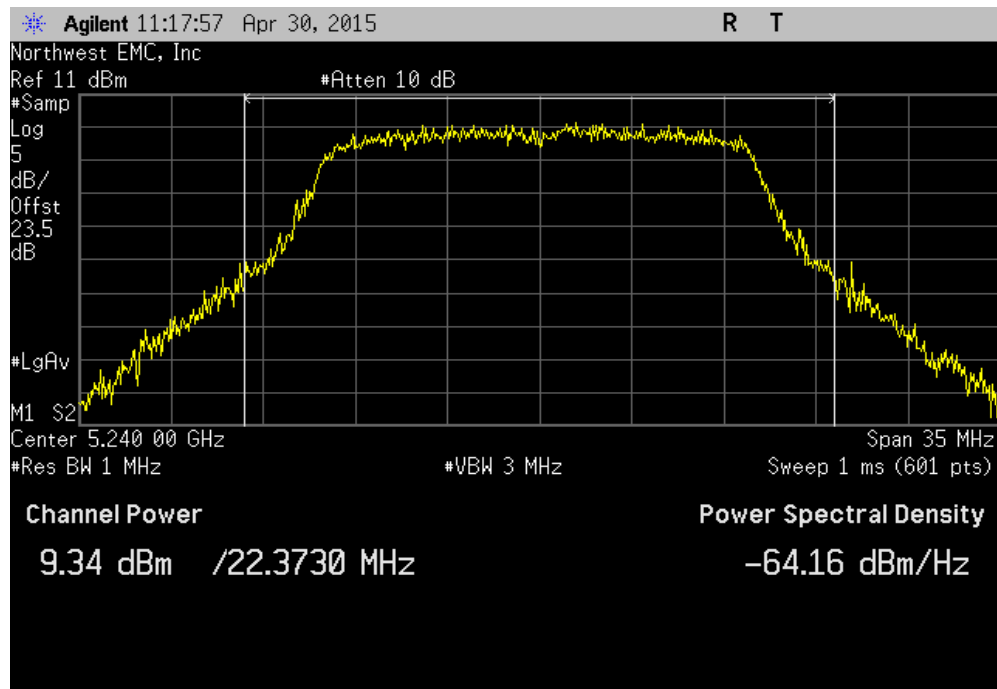


PEAK TRANSMIT POWER

20 MHz, Chain A, 802.11(n) MCS15, Low Channel 36, 5180 MHz						
				Value	Limit (<)	Result
				9.068 dBm	30 dBm	Pass

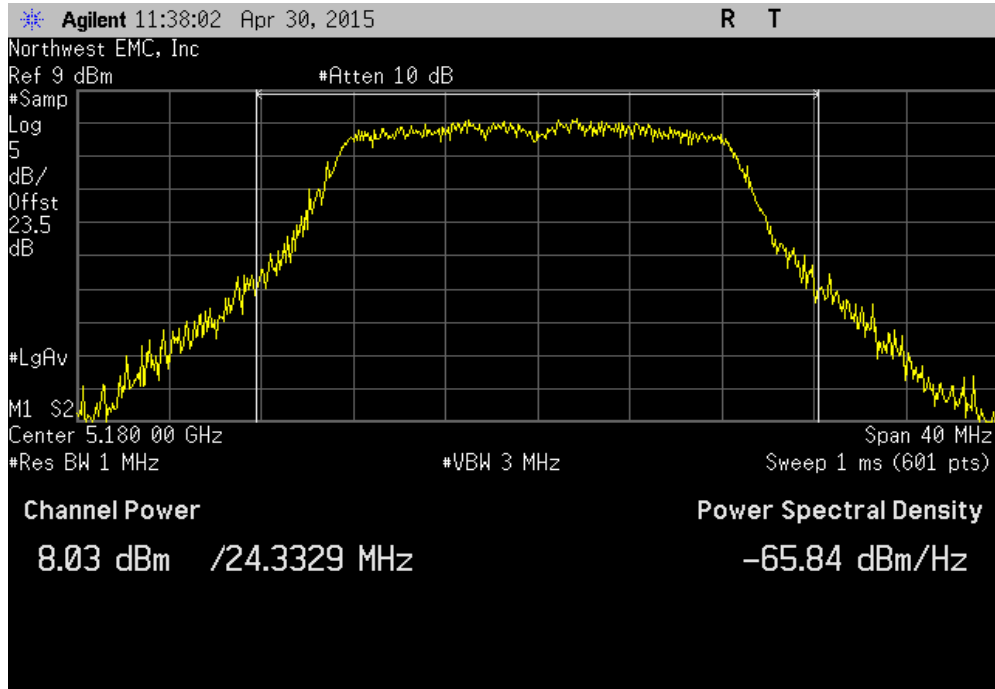


20 MHz, Chain A, 802.11(n) MCS15, High Channel 48, 5240 MHz						
				Value	Limit (<)	Result
				9.34 dBm	30 dBm	Pass

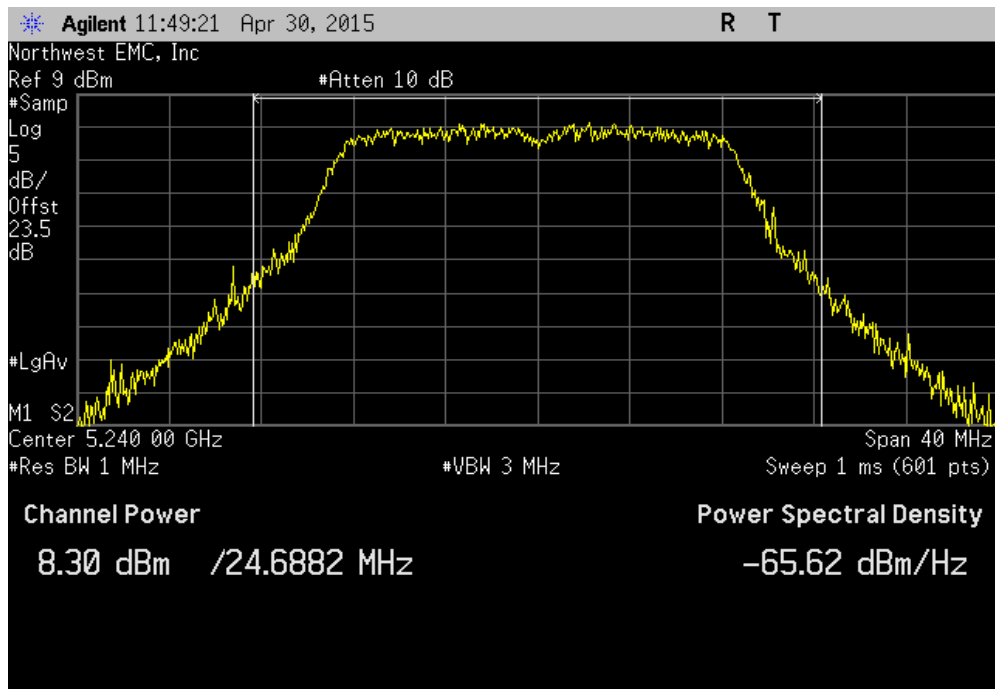


PEAK TRANSMIT POWER

20 MHz, Chain B, 802.11(n) MCS8, Low Channel 36, 5180 MHz						
				Value	Limit ($\leq$)	Result
				8.026 dBm	30 dBm	Pass

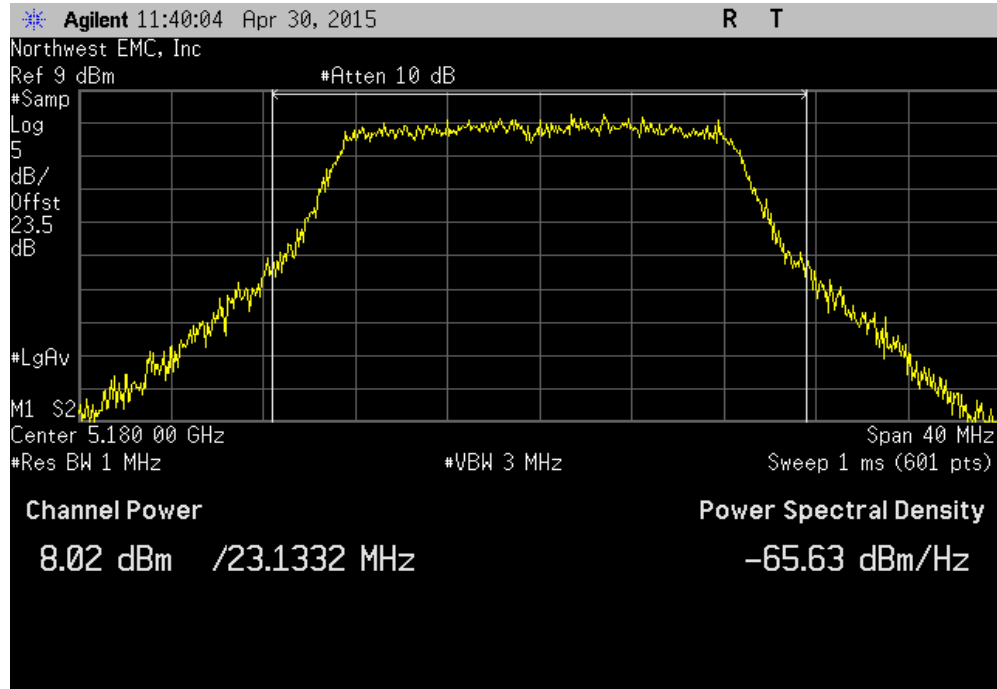


20 MHz, Chain B, 802.11(n) MCS8, High Channel 48, 5240 MHz						
				Value	Limit ($\leq$)	Result
				8.301 dBm	30 dBm	Pass

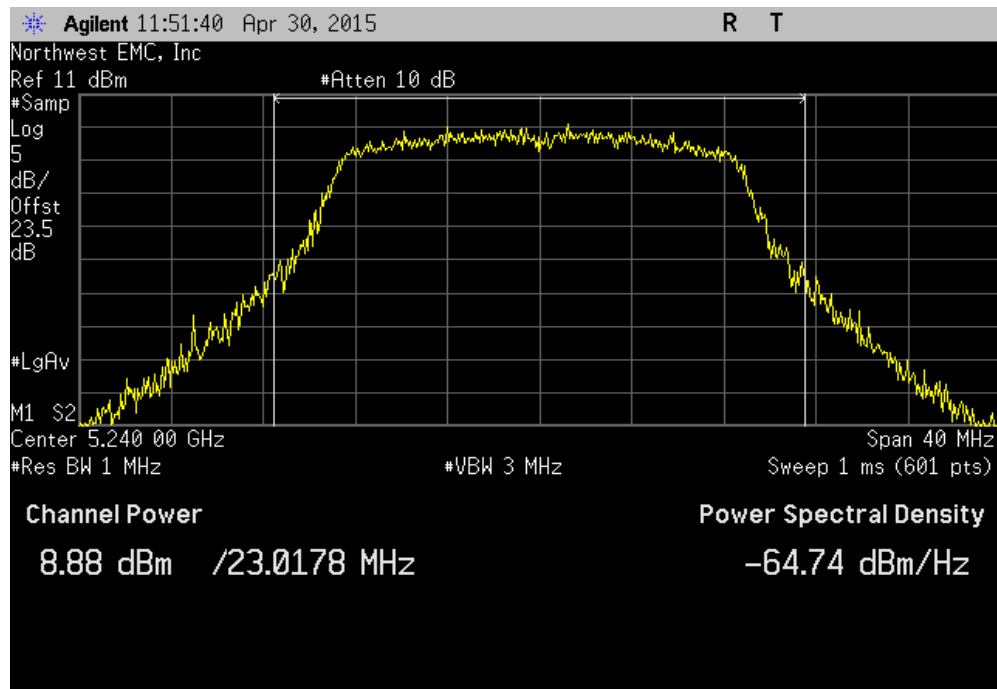


PEAK TRANSMIT POWER

20 MHz, Chain B, 802.11(n) MCS15, Low Channel 36, 5180 MHz						
				Value	Limit ($\leq$)	Result
				8.017 dBm	30 dBm	Pass

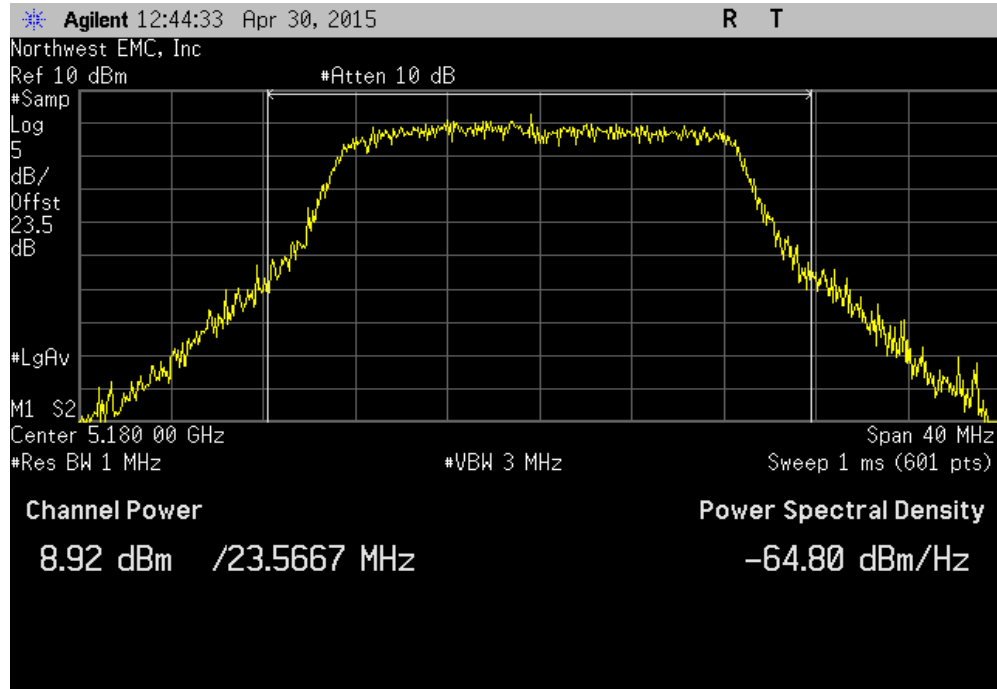


20 MHz, Chain B, 802.11(n) MCS15, High Channel 48, 5240 MHz						
				Value	Limit ($\leq$)	Result
				8.879 dBm	30 dBm	Pass

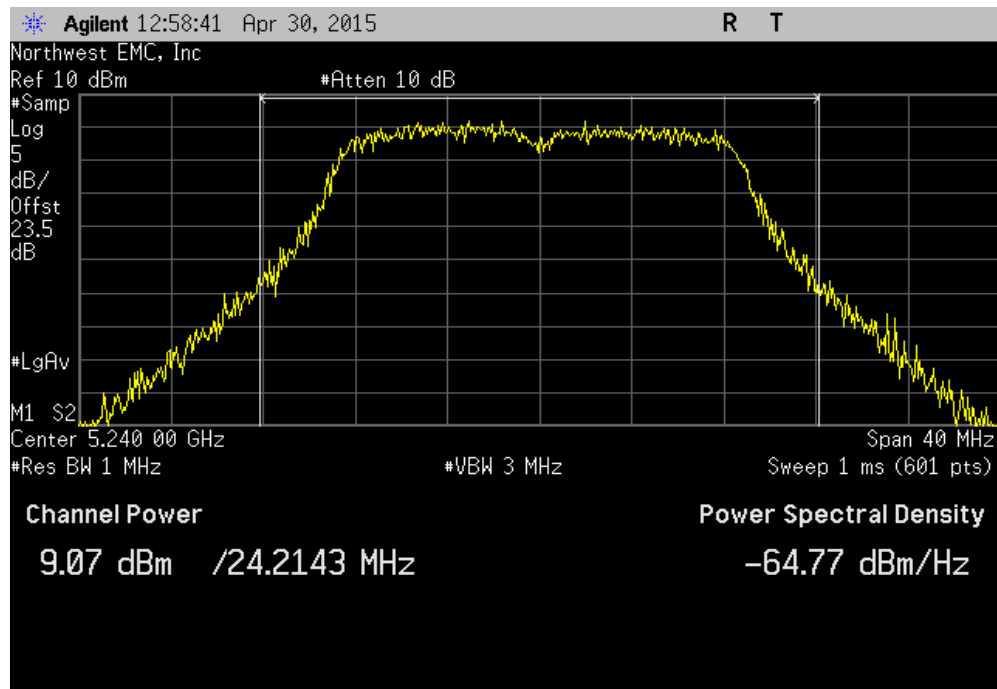


PEAK TRANSMIT POWER

20 MHz, Chain C, 802.11(n) MCS8, Low Channel 36, 5180 MHz						
				Value	Limit (<)	Result
				8.924 dBm	30 dBm	Pass

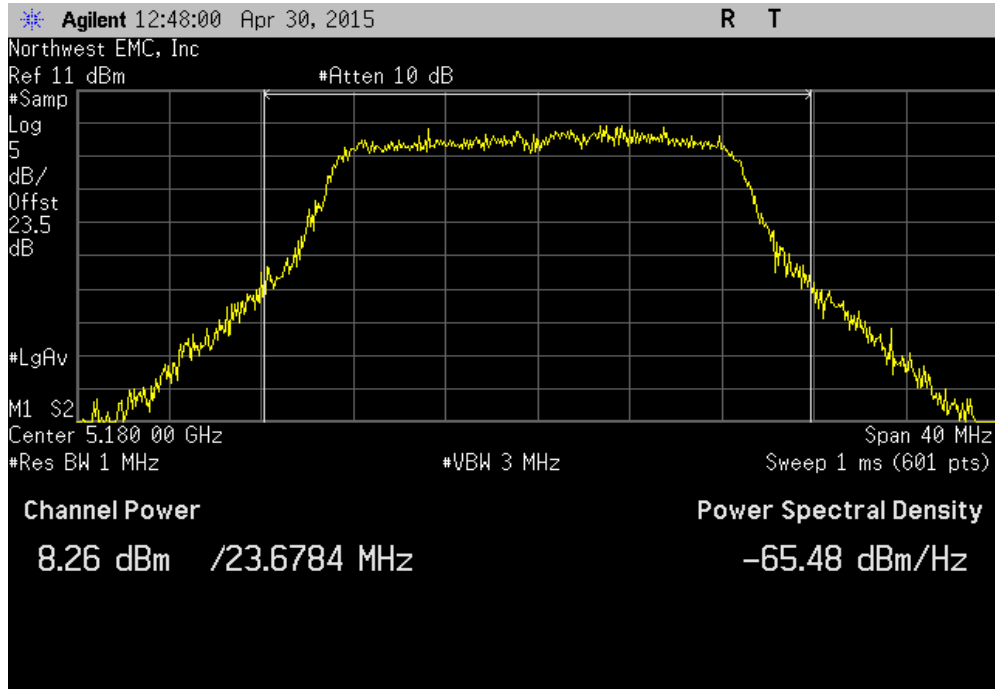


20 MHz, Chain C, 802.11(n) MCS8, High Channel 48, 5240 MHz						
				Value	Limit (<)	Result
				9.072 dBm	30 dBm	Pass

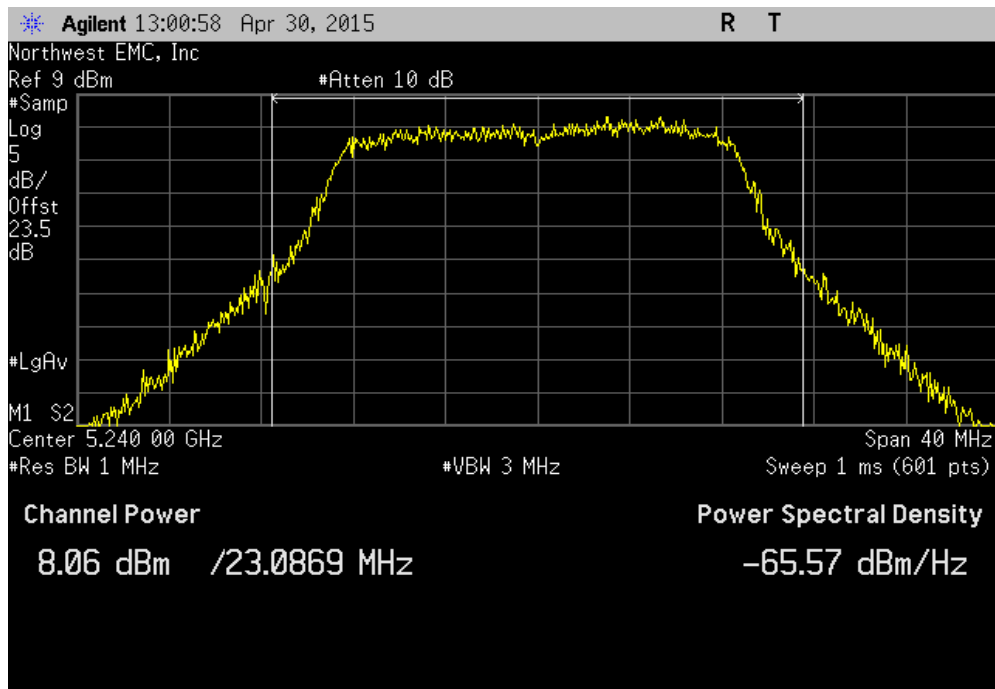


PEAK TRANSMIT POWER

20 MHz, Chain C, 802.11(n) MCS15, Low Channel 36, 5180 MHz						
Value				Limit	Result	
				(<)		
8.262 dBm				30 dBm	Pass	

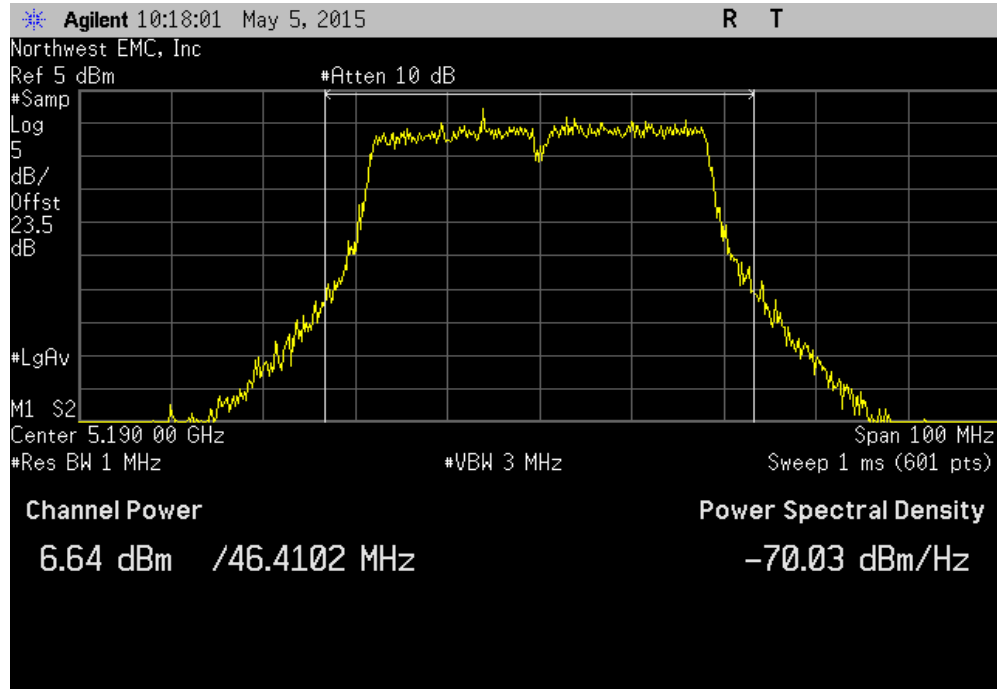


20 MHz, Chain C, 802.11(n) MCS15, High Channel 48, 5240 MHz						
Value				Limit	Result	
				(<)		
8.063 dBm				30 dBm	Pass	

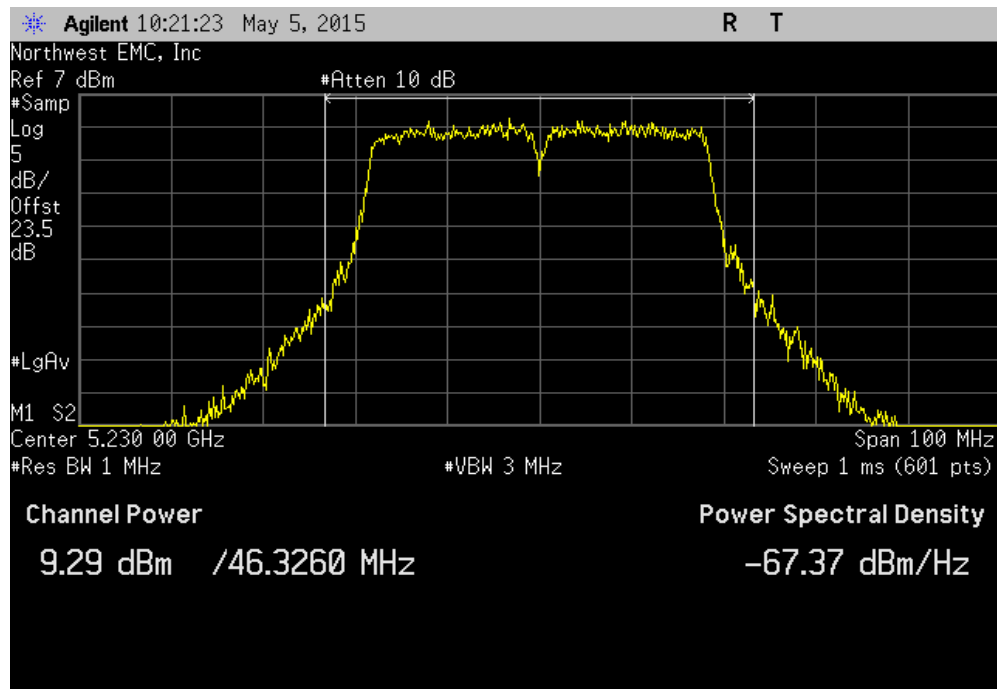


PEAK TRANSMIT POWER

40 MHz, Chain A, 802.11(n) MCS8, Low Channel 36/40, 5190 MHz						
				Value	Limit (<)	Result
				6.636 dBm	30 dBm	Pass

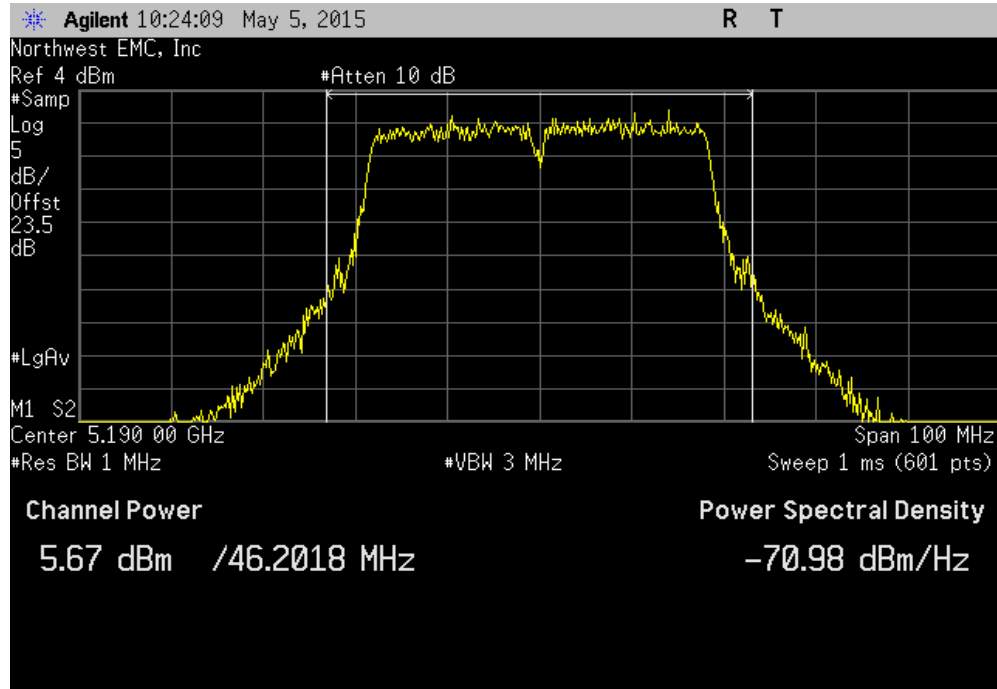


40 MHz, Chain A, 802.11(n) MCS8, High Channel 44/48, 5230 MHz						
				Value	Limit (<)	Result
				9.289 dBm	30 dBm	Pass

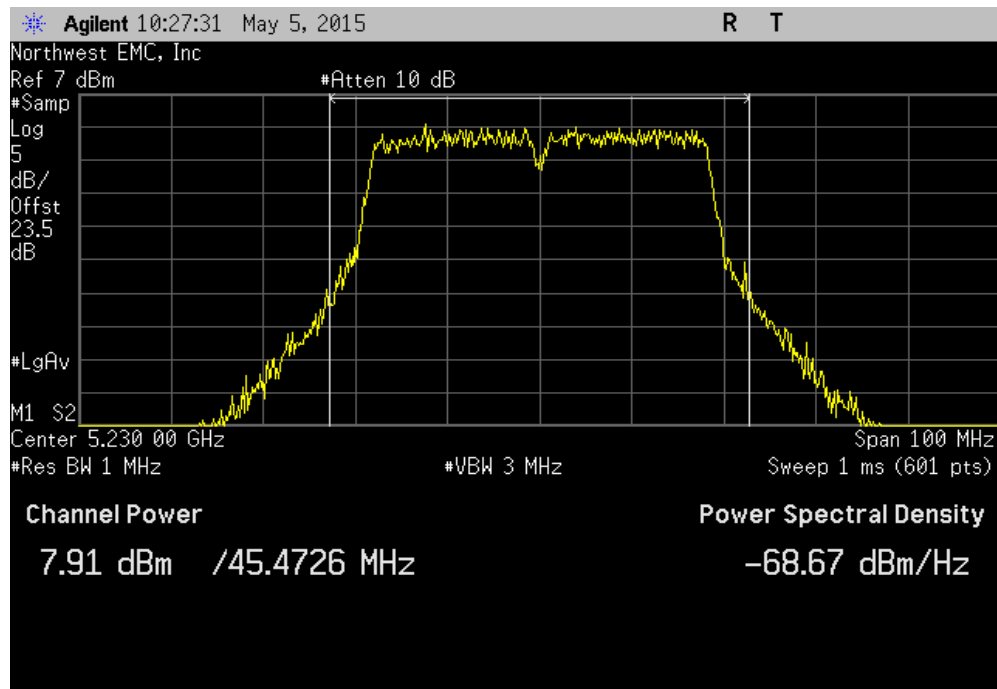


PEAK TRANSMIT POWER

40 MHz, Chain A, 802.11(n) MCS15, Low Channel 36/40, 5190 MHz						
				Value	Limit (<)	Result
				5.668 dBm	30 dBm	Pass

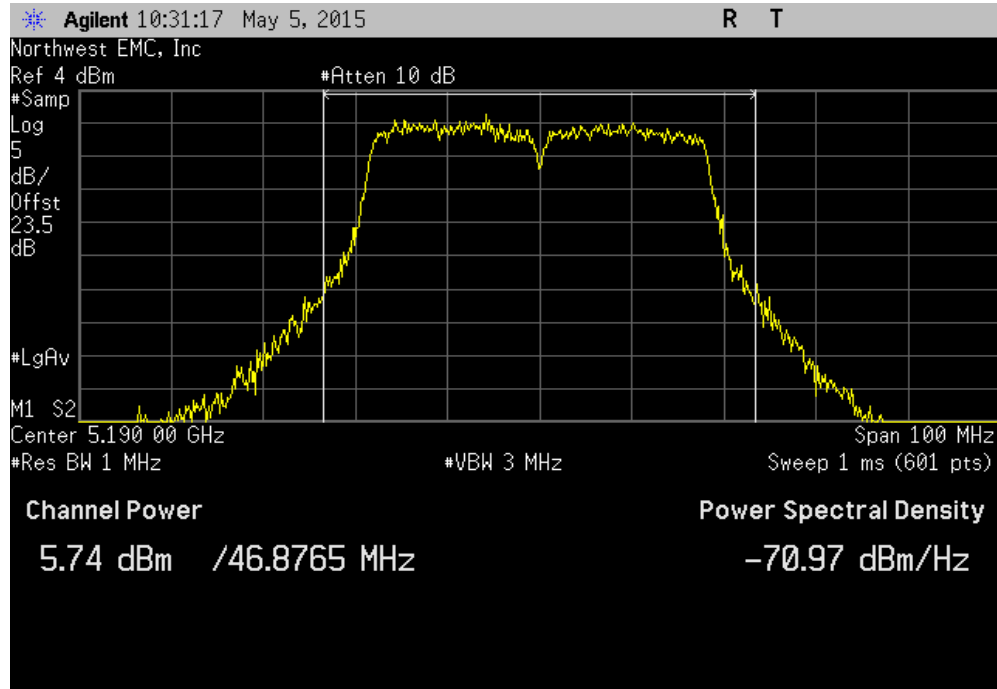


40 MHz, Chain A, 802.11(n) MCS15, High Channel 44/48, 5230 MHz						
				Value	Limit (<)	Result
				7.91 dBm	30 dBm	Pass

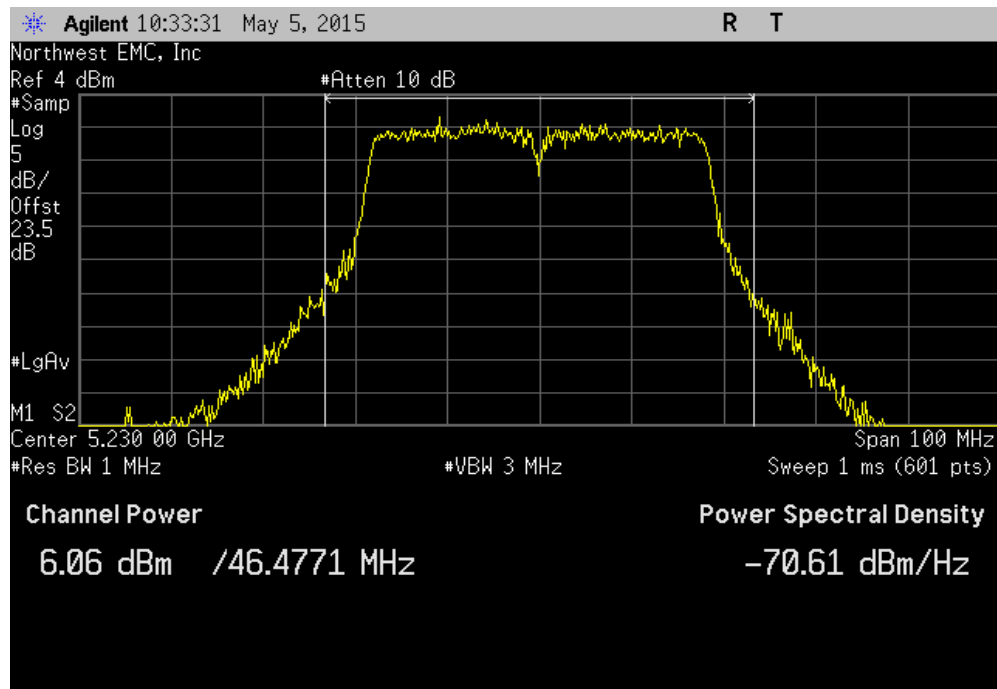


PEAK TRANSMIT POWER

40 MHz, Chain B, 802.11(n) MCS8, Low Channel 36/40, 5190 MHz						
				Value	Limit ($\leq$)	Result
				5.742 dBm	30 dBm	Pass

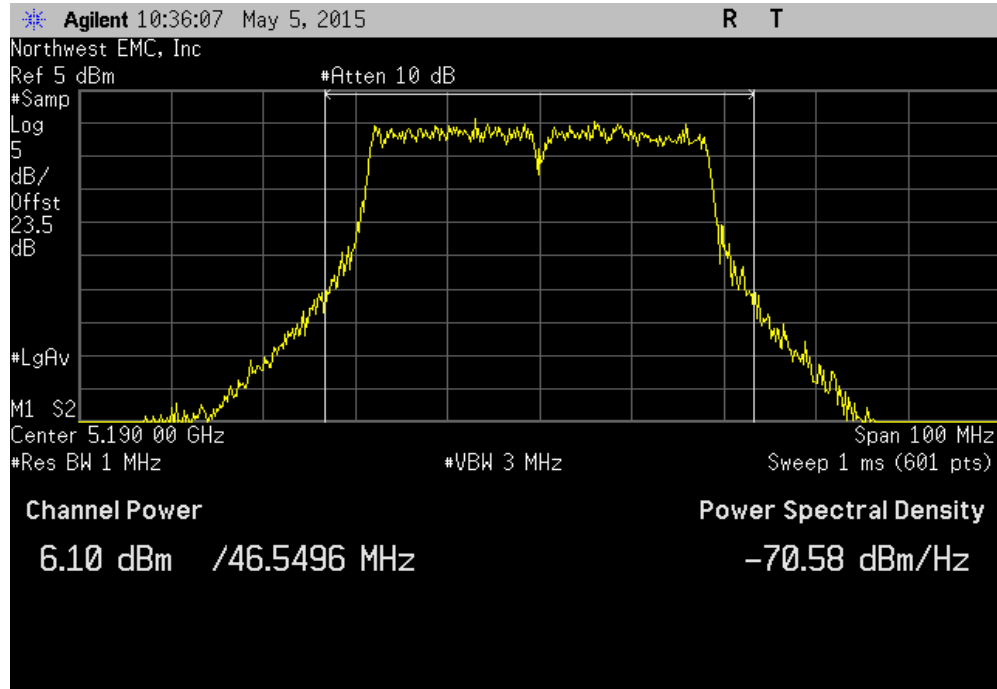


40 MHz, Chain B, 802.11(n) MCS8, High Channel 44/48, 5230 MHz						
				Value	Limit ($\leq$)	Result
				6.061 dBm	30 dBm	Pass

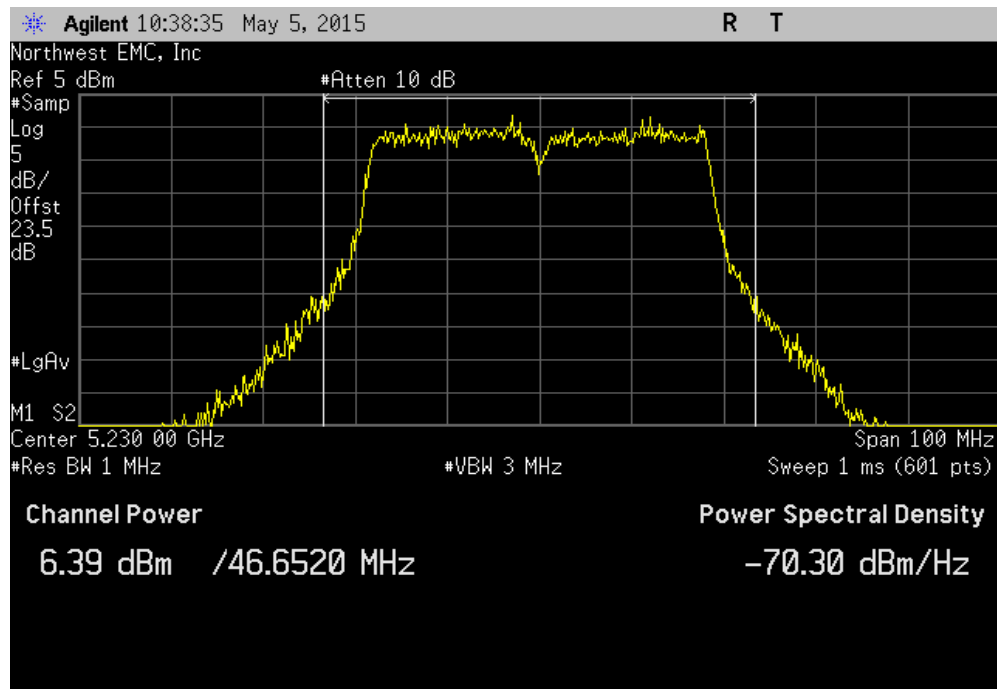


PEAK TRANSMIT POWER

40 MHz, Chain B, 802.11(n) MCS15, Low Channel 36/40, 5190 MHz						
				Value	Limit ($\leq$)	Result
				6.095 dBm	30 dBm	Pass

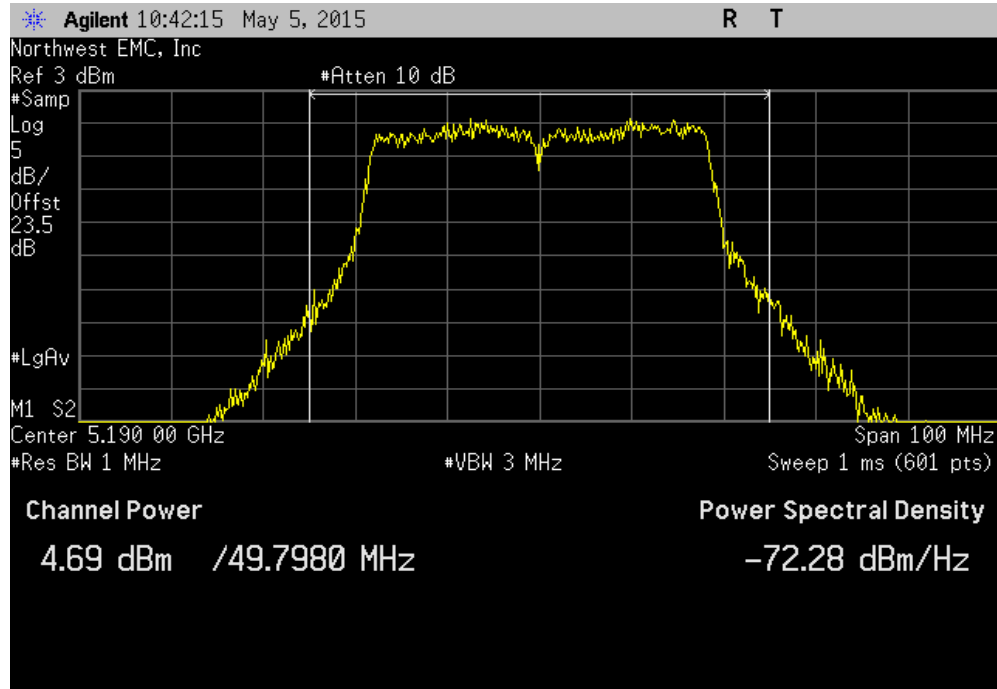


40 MHz, Chain B, 802.11(n) MCS15, High Channel 44/48, 5230 MHz						
				Value	Limit ($\leq$)	Result
				6.391 dBm	30 dBm	Pass

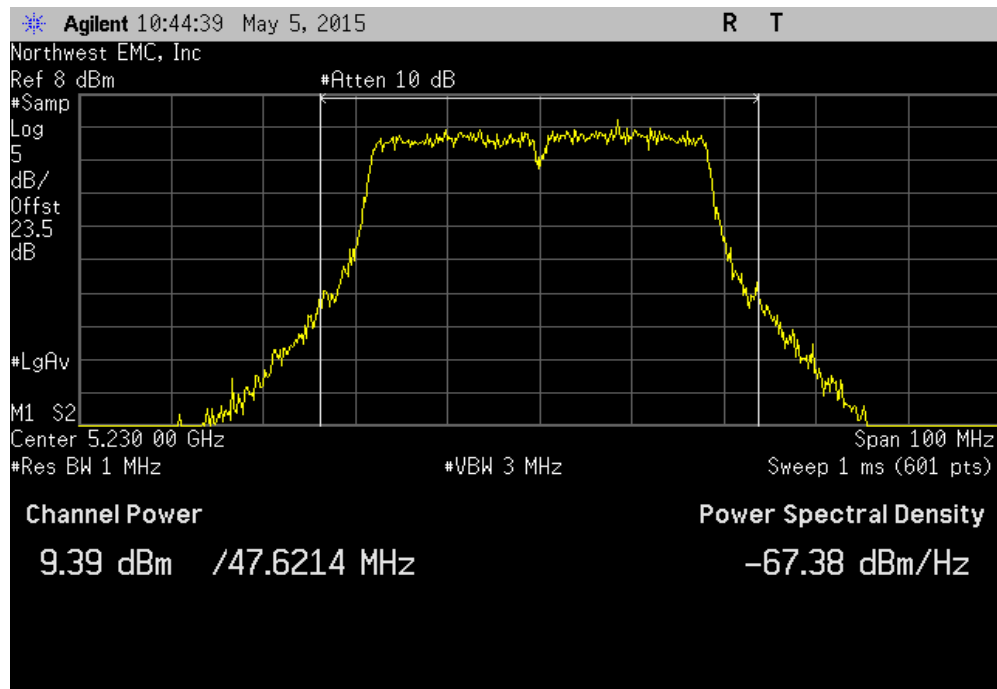


PEAK TRANSMIT POWER

40 MHz, Chain C, 802.11(n) MCS8, Low Channel 36/40, 5190 MHz						
				Value	Limit ($\leq$)	Result
				4.695 dBm	30 dBm	Pass

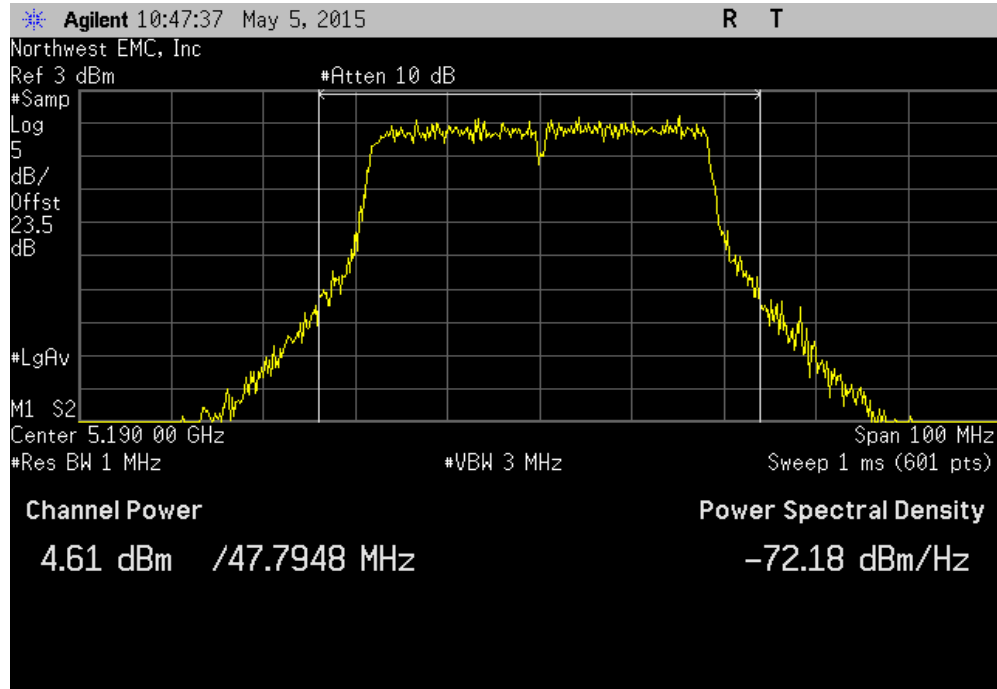


40 MHz, Chain C, 802.11(n) MCS8, High Channel 44/48, 5230 MHz						
				Value	Limit ($\leq$)	Result
				9.394 dBm	30 dBm	Pass

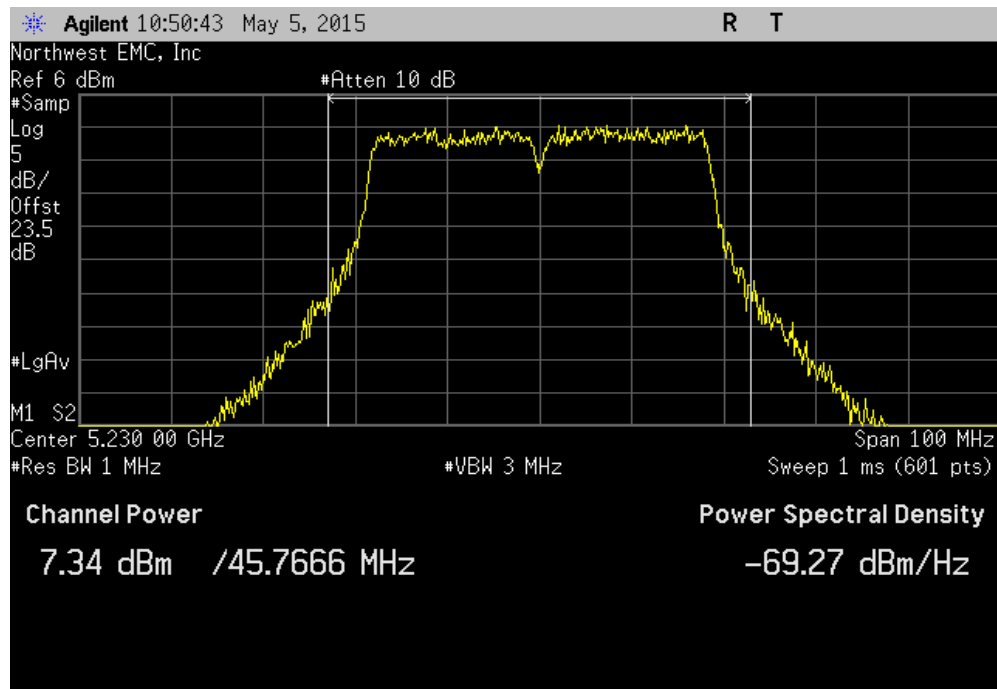


PEAK TRANSMIT POWER

40 MHz, Chain C, 802.11(n) MCS15, Low Channel 36/40, 5190 MHz						
				Value	Limit ($\leq$)	Result
				4.615 dBm	30 dBm	Pass



40 MHz, Chain C, 802.11(n) MCS15, High Channel 44/48, 5230 MHz						
				Value	Limit ($\leq$)	Result
				7.34 dBm	30 dBm	Pass



PEAK TRANSMIT POWER

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
OC13 Cables	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	0
Attenuator, 20dB	Fairview Microwave	SA18E-10	TKS	4/8/2015	12
40GHz DC Block	Fairview Microwave	SD3379	AMN	4/8/2015	12
Spectrum Analyzer	Agilent	E4440A	AFA	8/28/2014	12

TEST DESCRIPTION

FCC KDB 789033 D02 General UNII Test Procedures New Rules v01 Section E was followed. The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

Prior to measuring peak transmit power; the emission bandwidth (B) and the transmission pulse duration (T) were measured. The method of measuring the emission bandwidth and the associated data are found elsewhere in this test report. The transmission pulse duration (T) was measured using a zero span on the spectrum analyzer to see the pulses in the time domain.

Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep) was used for this test.

The spectrum analyzer settings were set per the guidance as well as the following specifics:

- RBW = 1 MHz, VBW = 3 MHz
- Sample Detector
- The number of points was set to 601. This satisfied the requirement of being $> 2 * \text{span} / \text{RBW}$
- Trace average 100 traces in power averaging mode.
- Power was integrated across "B", by using the channel power function of the analyzer.

PEAK TRANSMIT POWER

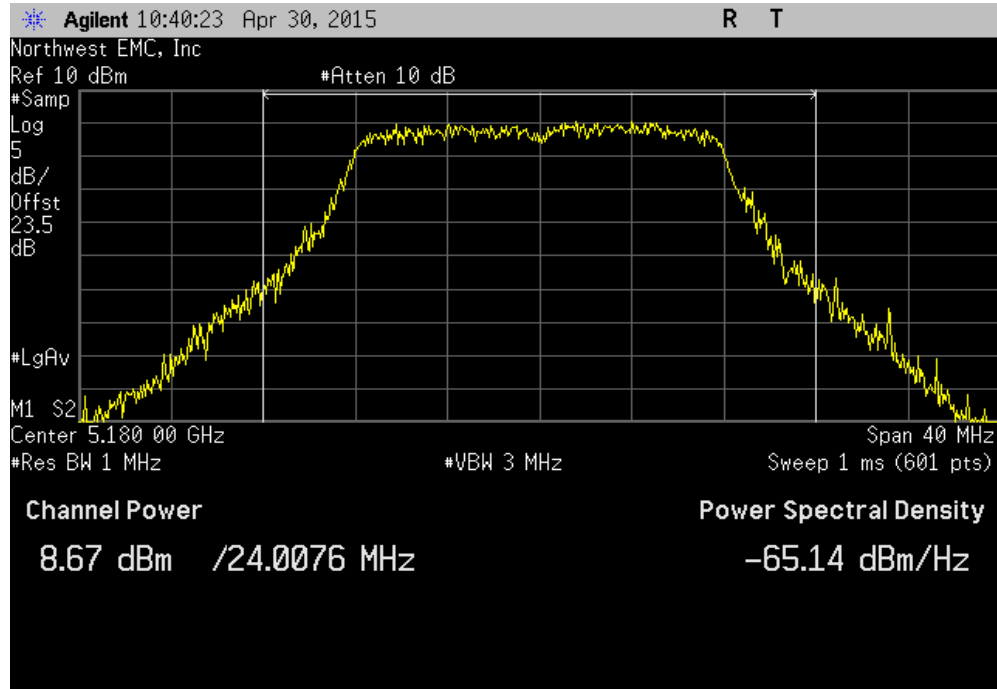


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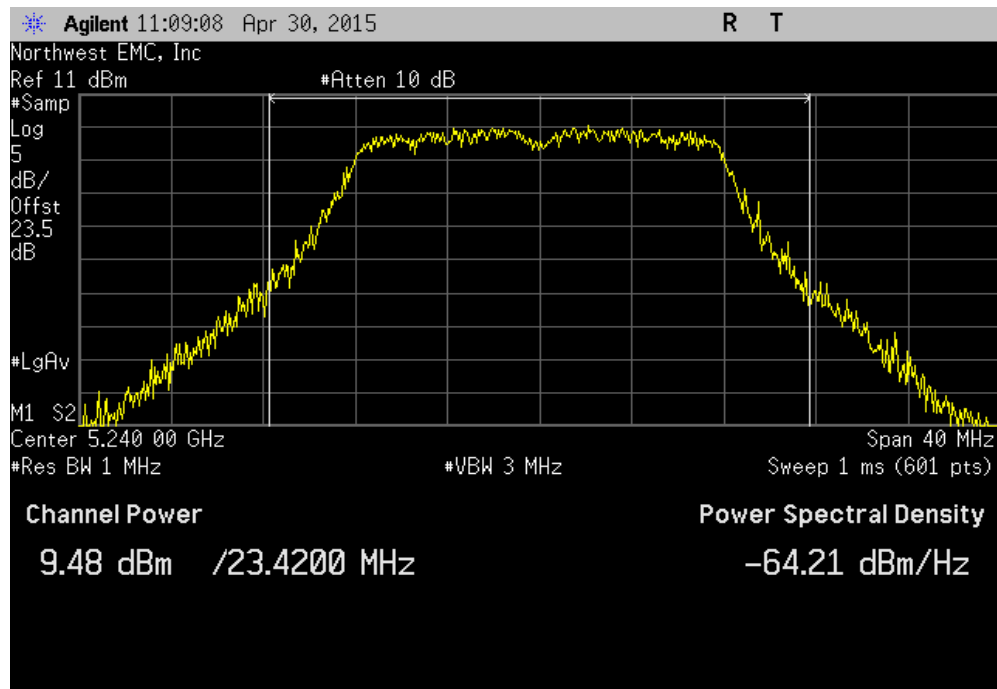
EUT: RLX2-IHNF		Work Order: PROS0216	
Serial Number: 000D8DF095CE		Date: 04/30/15	
Customer: ProSoft Technology, Inc.		Temperature: 21.1°C	
Attendees: Frank Hardy		Humidity: 46%	
Project: None		Barometric Pres.: 1012	
Tested by: Johnny Candelas		Power: 120V/60Hz	
		Job Site: OC13	
TEST SPECIFICATIONS		Test Method	
FCC 15.407:2015		ANSI C63.10:2009	
COMMENTS			
Offset 23.46dB (DC Block+20dB Attenuator+Coax Cable) for 5.2GHz			
Power Setting - Max			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature 	
		Value	Limit (<) Result
20 MHz			
Chain A			
802.11(a) 6 Mbps			
Low Channel 36, 5180MHz		8.668 dBm	30 dBm Pass
High Channel 48, 5240MHz		9.481 dBm	30 dBm Pass
802.11(a) 36 Mbps			
Low Channel 36, 5180MHz		9.085 dBm	30 dBm Pass
High Channel 48, 5240MHz		9.825 dBm	30 dBm Pass
802.11(a) 54 Mbps			
Low Channel 36, 5180MHz		9.112 dBm	30 dBm Pass
High Channel 48, 5240MHz		9.9 dBm	30 dBm Pass
802.11(n) MCS0			
Low Channel 36, 5180MHz		8.995 dBm	30 dBm Pass
High Channel 48, 5240MHz		9.391 dBm	30 dBm Pass
802.11(n) MCS7			
Low Channel 36, 5180MHz		9.068 dBm	30 dBm Pass
High Channel 48, 5240MHz		9.34 dBm	30 dBm Pass
Chain B			
802.11(a) 6 Mbps			
Low Channel 36, 5180MHz		8.088 dBm	30 dBm Pass
High Channel 48, 5240MHz		7.829 dBm	30 dBm Pass
802.11(a) 36 Mbps			
Low Channel 36, 5180MHz		8.065 dBm	30 dBm Pass
High Channel 48, 5240MHz		8.821 dBm	30 dBm Pass
802.11(a) 54 Mbps			
Low Channel 36, 5180MHz		8.054 dBm	30 dBm Pass
High Channel 48, 5240MHz		8.394 dBm	30 dBm Pass
802.11(n) MCS0			
Low Channel 36, 5180MHz		8.026 dBm	30 dBm Pass
High Channel 48, 5240MHz		8.301 dBm	30 dBm Pass
802.11(n) MCS7			
Low Channel 36, 5180MHz		8.017 dBm	30 dBm Pass
High Channel 48, 5240MHz		8.879 dBm	30 dBm Pass
Chain C			
802.11(a) 6 Mbps			
Low Channel 36, 5180MHz		7.737 dBm	30 dBm Pass
High Channel 48, 5240MHz		11.785 dBm	30 dBm Pass
802.11(a) 36 Mbps			
Low Channel 36, 5180MHz		9.568 dBm	30 dBm Pass
High Channel 48, 5240MHz		8.634 dBm	30 dBm Pass
802.11(a) 54 Mbps			
Low Channel 36, 5180MHz		9.512 dBm	30 dBm Pass
High Channel 48, 5240MHz		8.017 dBm	30 dBm Pass
802.11(n) MCS0			
Low Channel 36, 5180MHz		8.924 dBm	30 dBm Pass
High Channel 48, 5240MHz		9.072 dBm	30 dBm Pass
802.11(n) MCS7			
Low Channel 36, 5180MHz		8.262 dBm	30 dBm Pass
High Channel 48, 5240MHz		8.063 dBm	30 dBm Pass
40 MHz			
Chain A			
802.11(n) MCS0			
Low Channel 36, 5180MHz		6.636 dBm	30 dBm Pass
High Channel 48, 5240MHz		9.289 dBm	30 dBm Pass
802.11(n) MCS7			
Low Channel 36, 5180MHz		5.668 dBm	30 dBm Pass
High Channel 48, 5240MHz		7.91 dBm	30 dBm Pass
Chain B			
802.11(n) MCS0			
Low Channel 36, 5180MHz		5.742 dBm	30 dBm Pass
High Channel 48, 5240MHz		6.061 dBm	30 dBm Pass
802.11(n) MCS7			
Low Channel 36, 5180MHz		6.095 dBm	30 dBm Pass
High Channel 48, 5240MHz		6.391 dBm	30 dBm Pass
Chain C			
802.11(n) MCS0			
Low Channel 36, 5180MHz		4.695 dBm	30 dBm Pass
High Channel 48, 5240MHz		9.394 dBm	30 dBm Pass
802.11(n) MCS7			
Low Channel 36, 5180MHz		4.615 dBm	30 dBm Pass
High Channel 48, 5240MHz		7.34 dBm	30 dBm Pass

PEAK TRANSMIT POWER

20 MHz, Chain A, 802.11(a) 6 Mbps, Low Channel 36, 5180MHz						
Value				Limit	Result	
				(<)		
8.668 dBm				30 dBm	Pass	

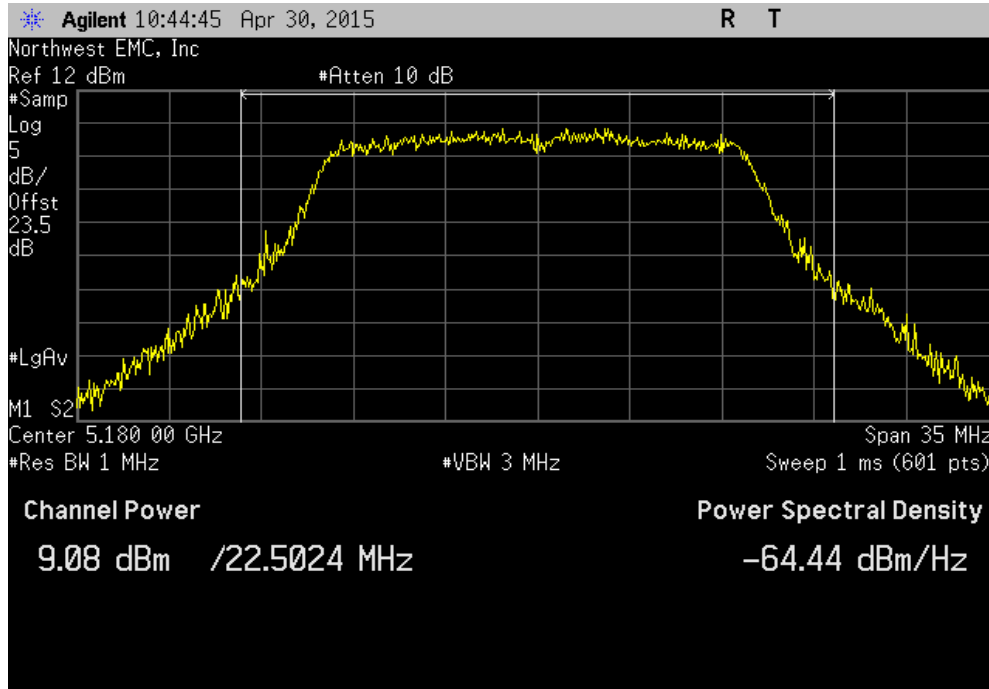


20 MHz, Chain A, 802.11(a) 6 Mbps, High Channel 48, 5240MHz						
Value				Limit	Result	
				(<)		
9.481 dBm				30 dBm	Pass	

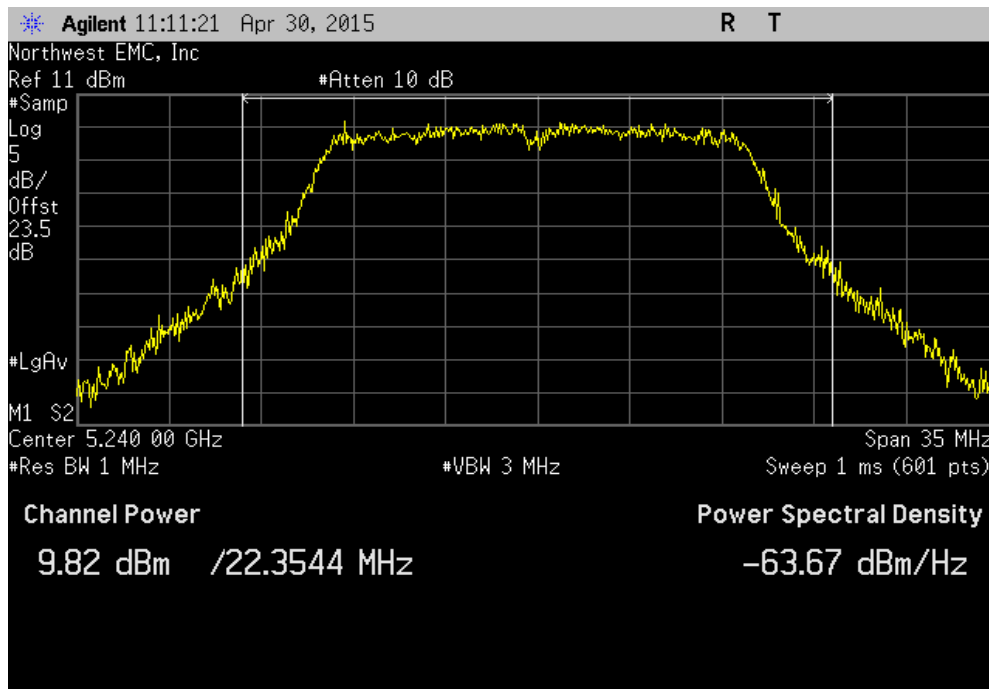


PEAK TRANSMIT POWER

20 MHz, Chain A, 802.11(a) 36 Mbps, Low Channel 36, 5180MHz						
				Value	Limit (<)	Result
				9.085 dBm	30 dBm	Pass

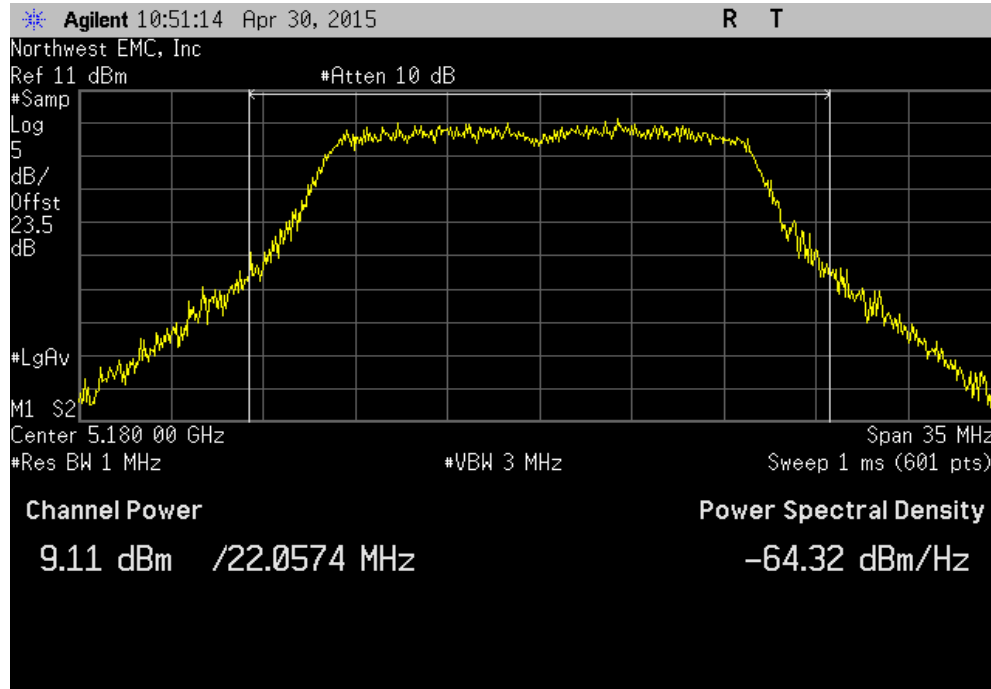


20 MHz, Chain A, 802.11(a) 36 Mbps, High Channel 48, 5240MHz						
				Value	Limit (<)	Result
				9.825 dBm	30 dBm	Pass

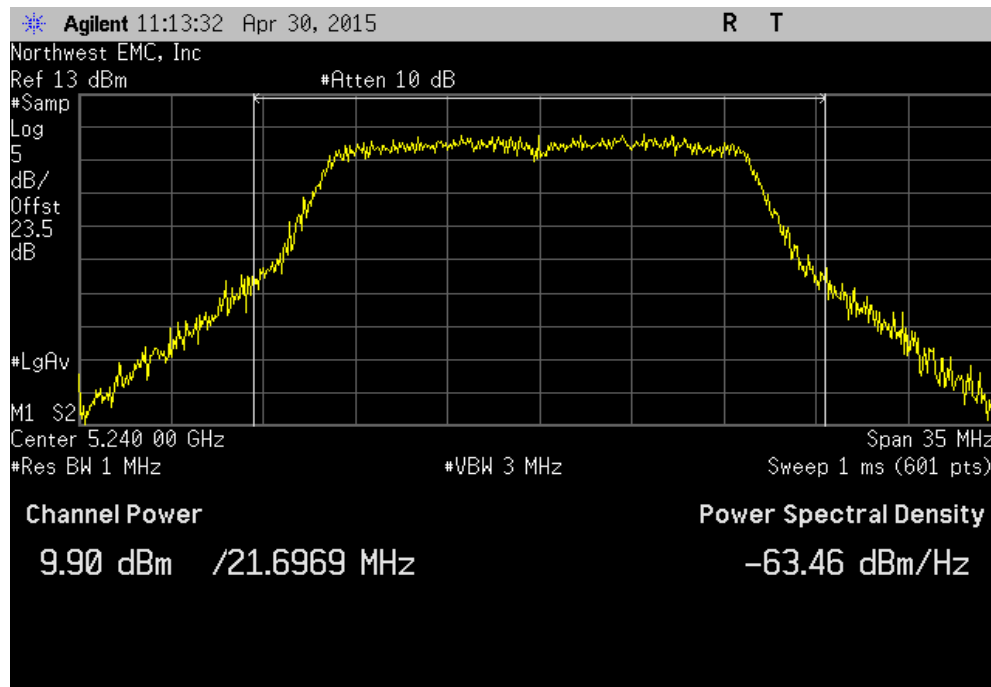


PEAK TRANSMIT POWER

20 MHz, Chain A, 802.11(a) 54 Mbps, Low Channel 36, 5180MHz						
				Value	Limit (<)	Result
				9.112 dBm	30 dBm	Pass

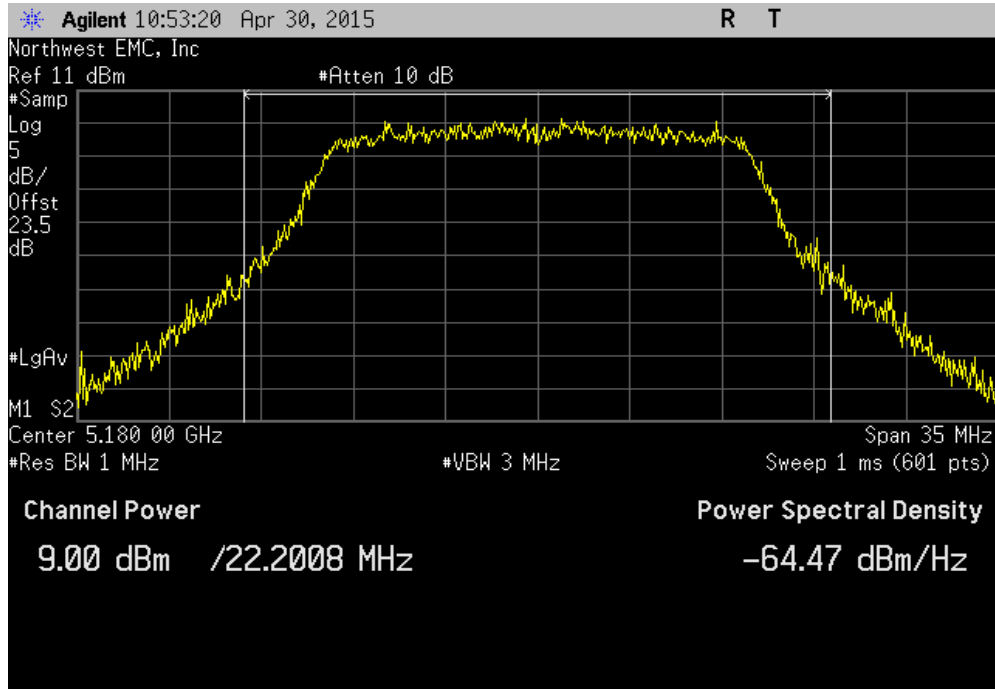


20 MHz, Chain A, 802.11(a) 54 Mbps, High Channel 48, 5240MHz						
				Value	Limit (<)	Result
				9.9 dBm	30 dBm	Pass

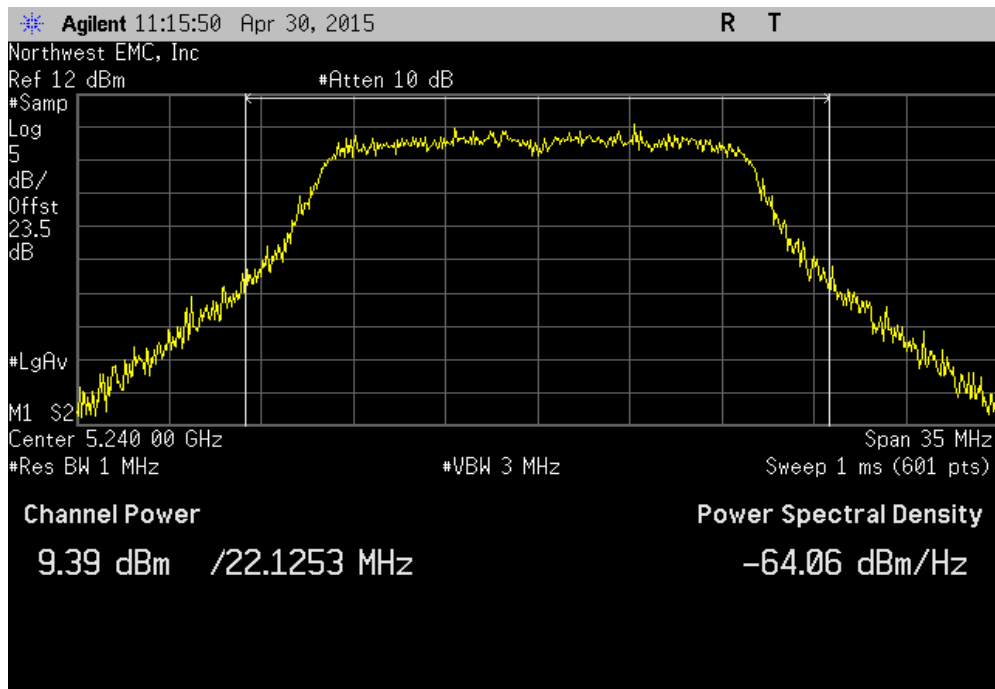


PEAK TRANSMIT POWER

20 MHz, Chain A, 802.11(n) MCS0, Low Channel 36, 5180MHz						
				Value	Limit (<)	Result
				8.995 dBm	30 dBm	Pass

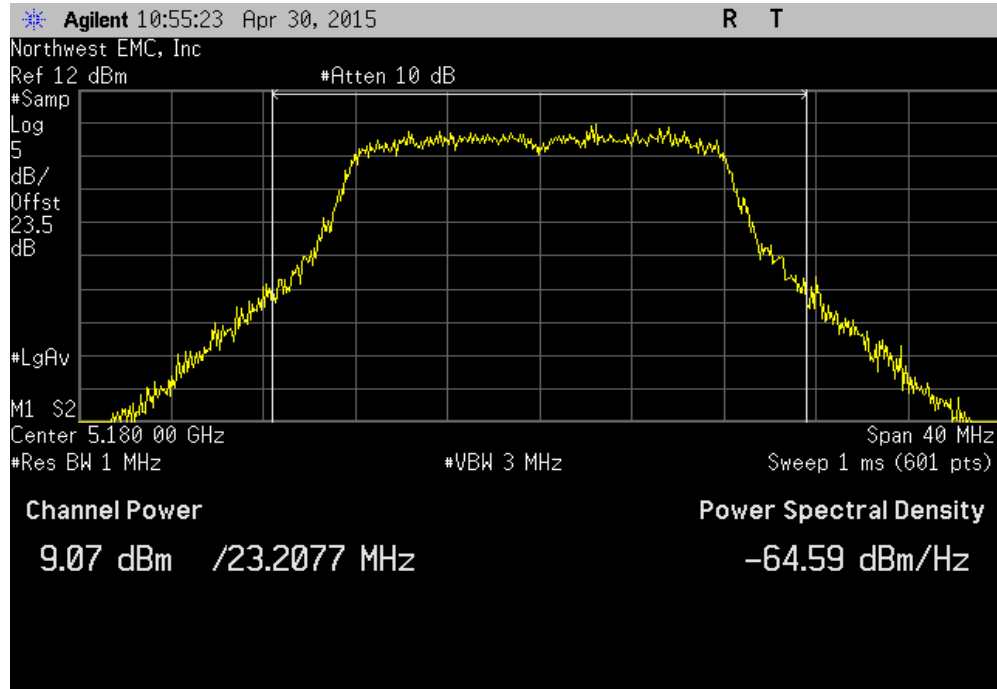


20 MHz, Chain A, 802.11(n) MCS0, High Channel 48, 5240MHz						
				Value	Limit (<)	Result
				9.391 dBm	30 dBm	Pass

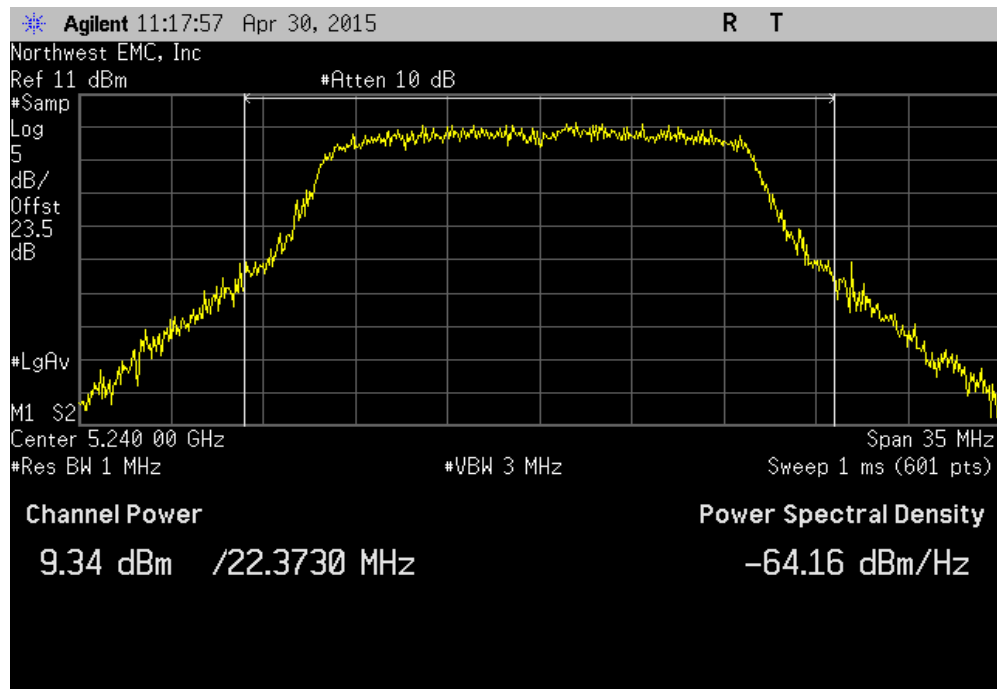


PEAK TRANSMIT POWER

20 MHz, Chain A, 802.11(n) MCS7, Low Channel 36, 5180MHz						
				Value	Limit (<)	Result
				9.068 dBm	30 dBm	Pass

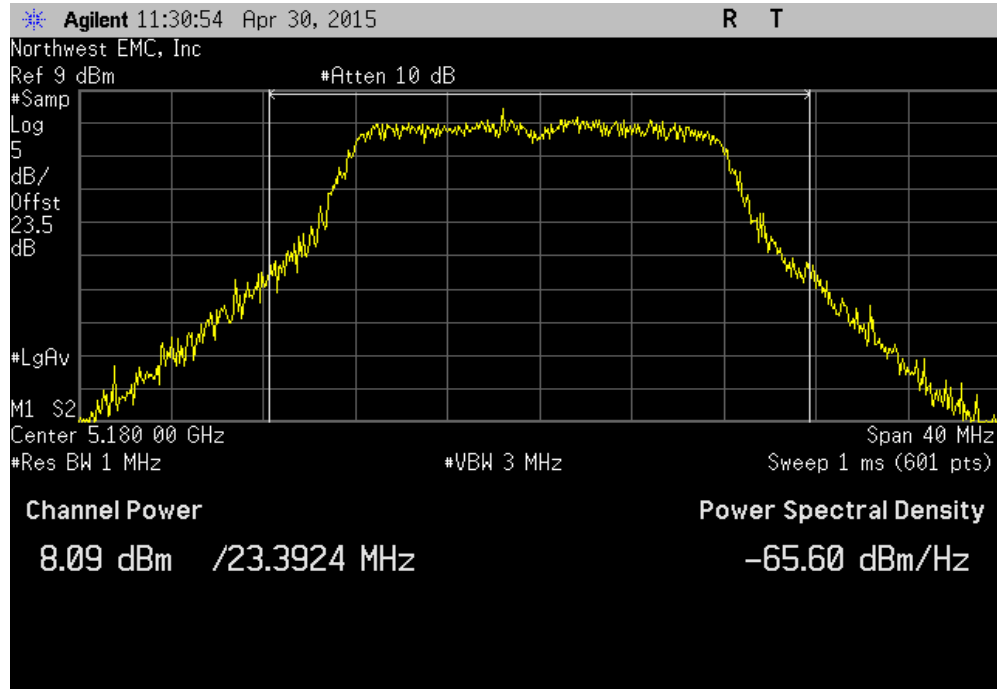


20 MHz, Chain A, 802.11(n) MCS7, High Channel 48, 5240MHz						
				Value	Limit (<)	Result
				9.34 dBm	30 dBm	Pass

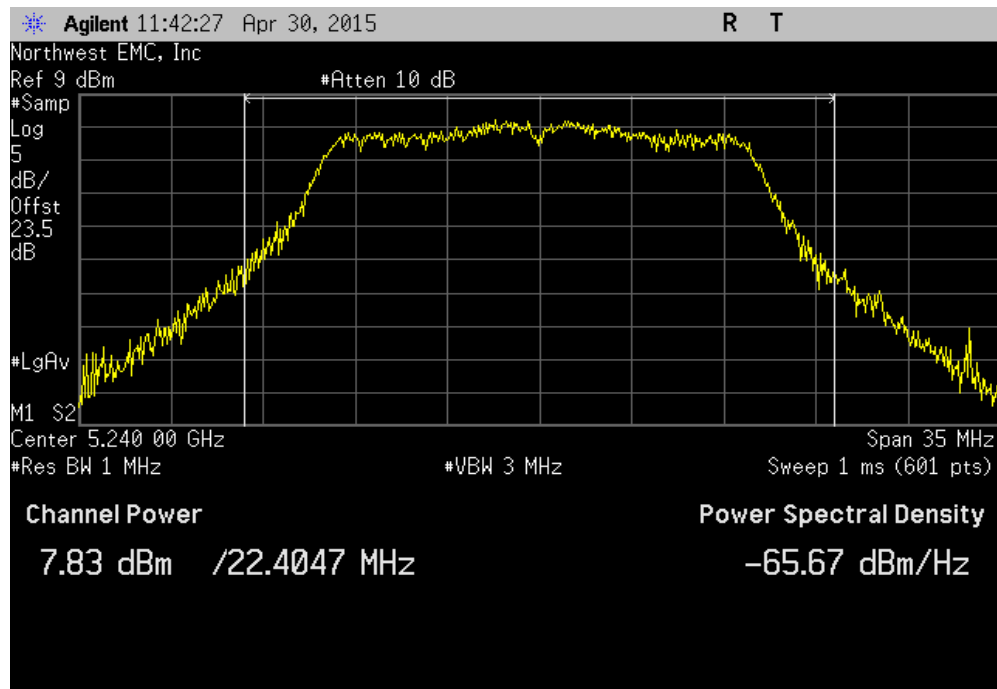


PEAK TRANSMIT POWER

20 MHz, Chain B, 802.11(a) 6 Mbps, Low Channel 36, 5180MHz						
				Value	Limit (<)	Result
				8.088 dBm	30 dBm	Pass

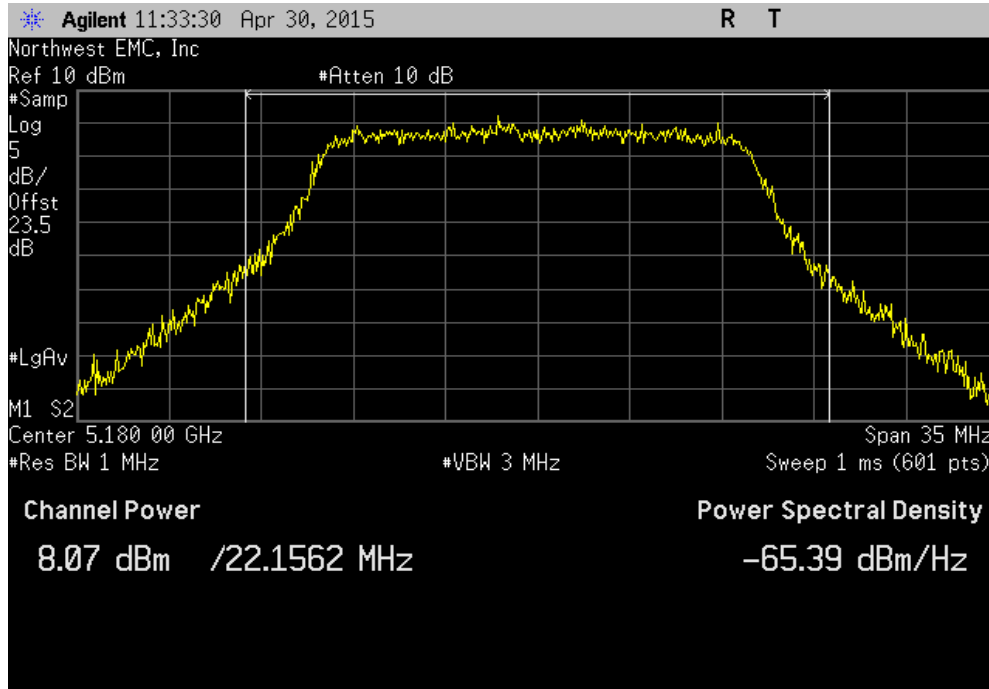


20 MHz, Chain B, 802.11(a) 6 Mbps, High Channel 48, 5240MHz						
				Value	Limit (<)	Result
				7.829 dBm	30 dBm	Pass

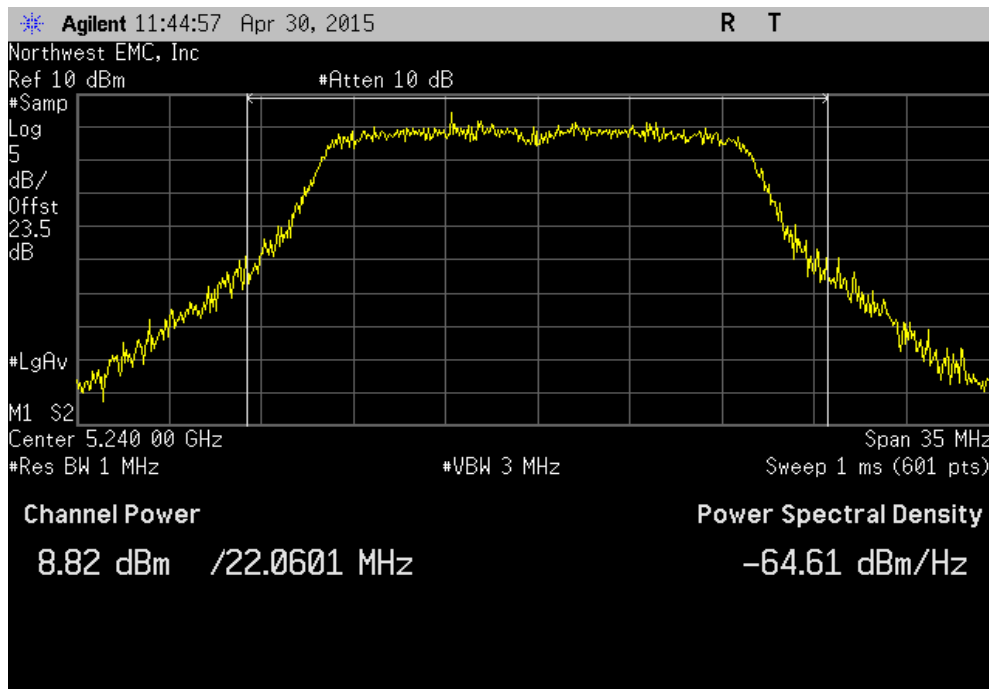


PEAK TRANSMIT POWER

20 MHz, Chain B, 802.11(a) 36 Mbps, Low Channel 36, 5180MHz						
				Value	Limit (<)	Result
				8.065 dBm	30 dBm	Pass

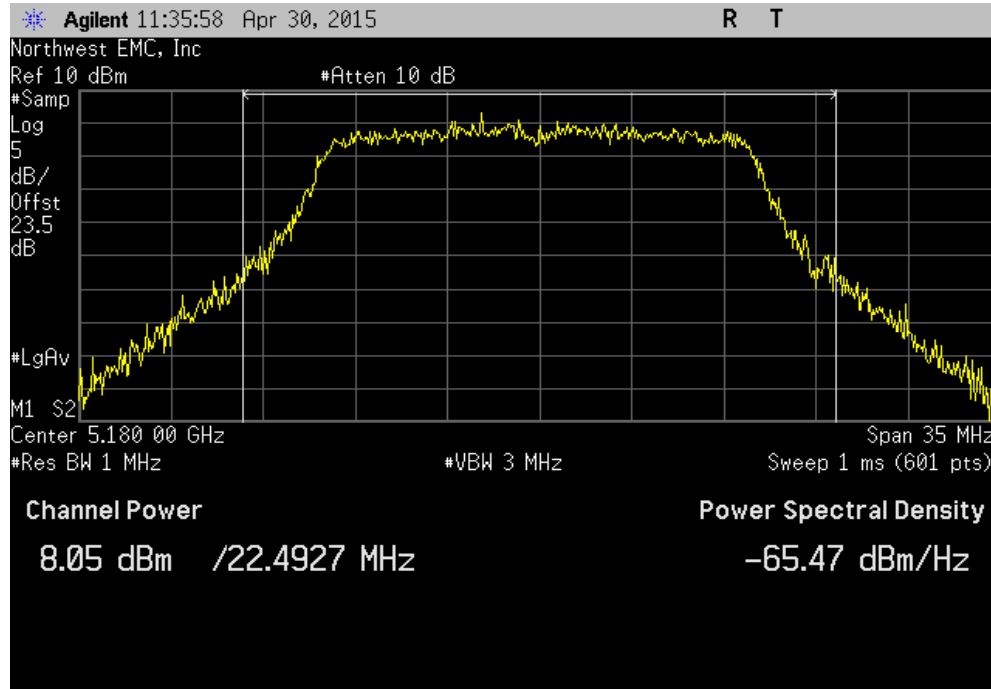


20 MHz, Chain B, 802.11(a) 36 Mbps, High Channel 48, 5240MHz						
				Value	Limit (<)	Result
				8.821 dBm	30 dBm	Pass

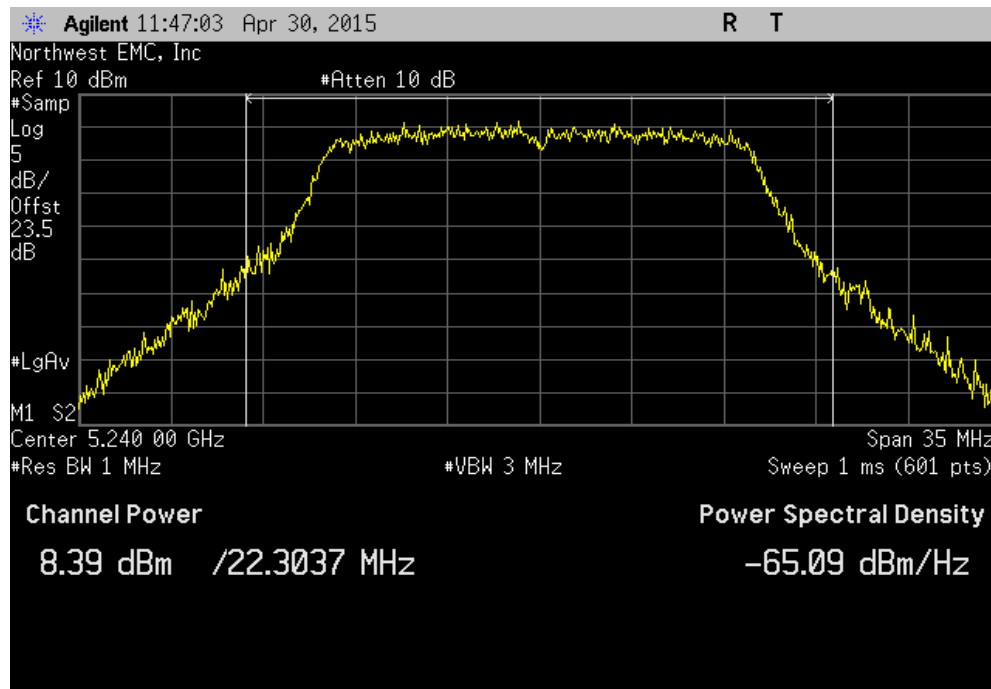


PEAK TRANSMIT POWER

20 MHz, Chain B, 802.11(a) 54 Mbps, Low Channel 36, 5180MHz						
				Value	Limit ($\leq$)	Result
				8.054 dBm	30 dBm	Pass

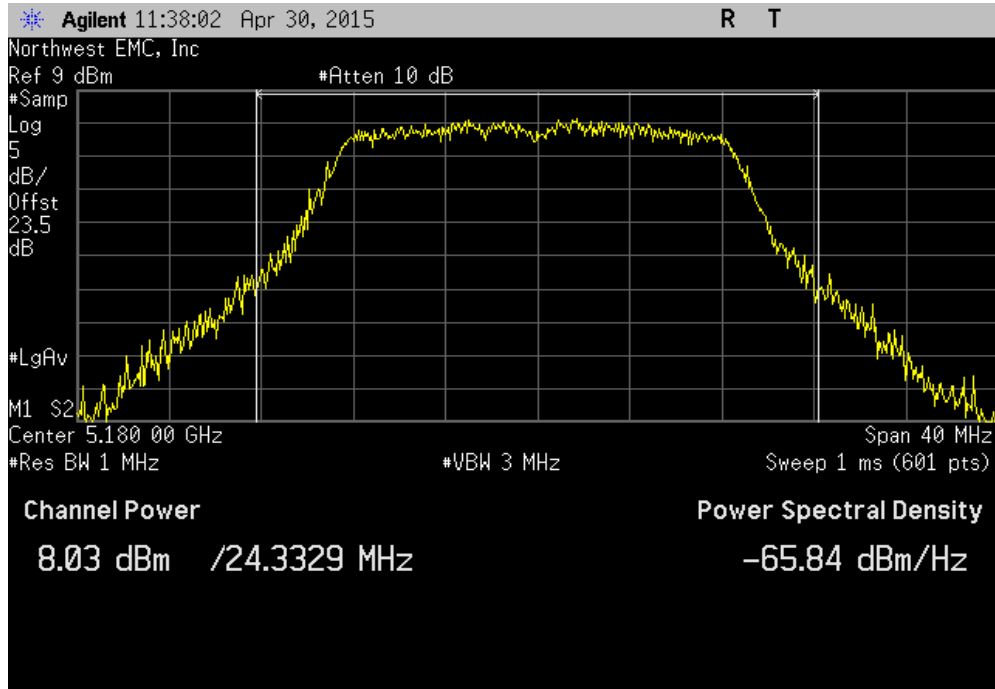


20 MHz, Chain B, 802.11(a) 54 Mbps, High Channel 48, 5240MHz						
				Value	Limit ($\leq$)	Result
				8.394 dBm	30 dBm	Pass

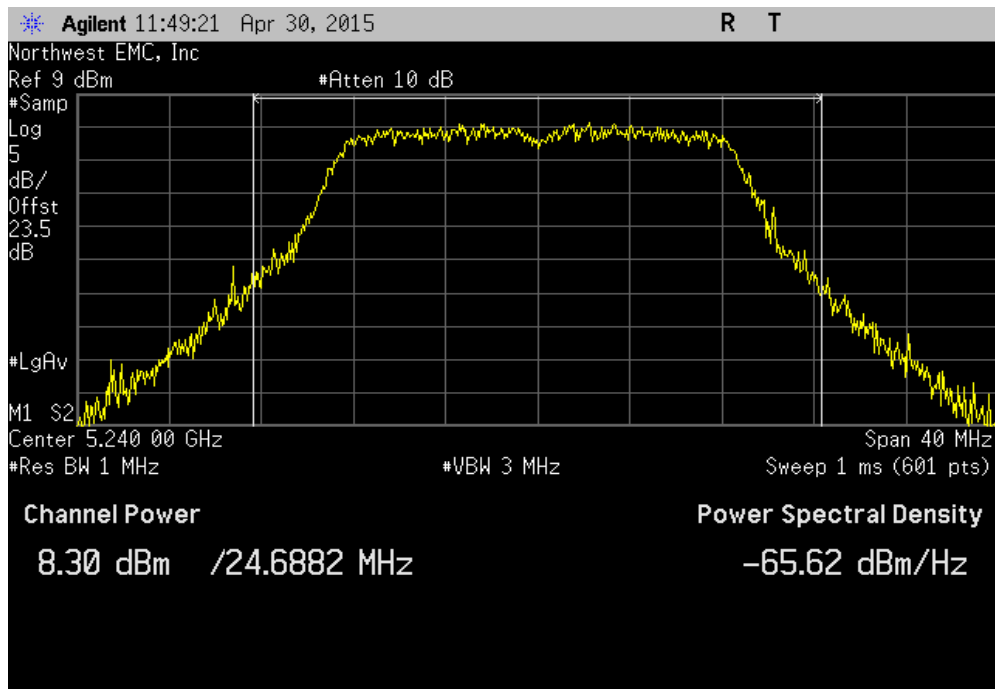


PEAK TRANSMIT POWER

20 MHz, Chain B, 802.11(n) MCS0, Low Channel 36, 5180MHz						
Value				Limit	Result	
				(<)		
8.026 dBm				30 dBm	Pass	

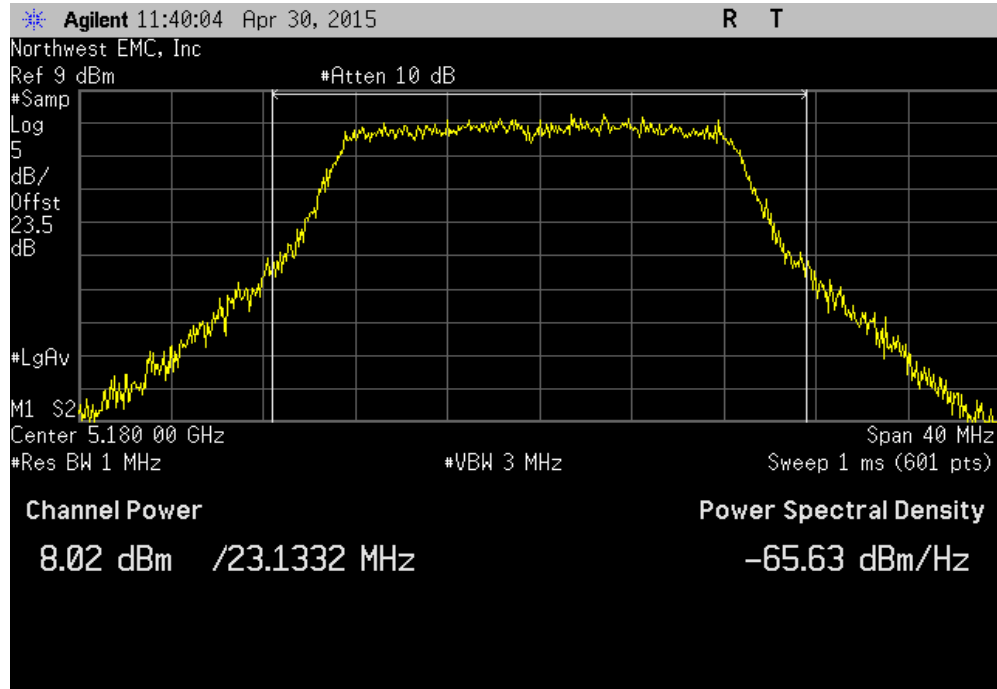


20 MHz, Chain B, 802.11(n) MCS0, High Channel 48, 5240MHz						
Value				Limit	Result	
				(<)		
8.301 dBm				30 dBm	Pass	

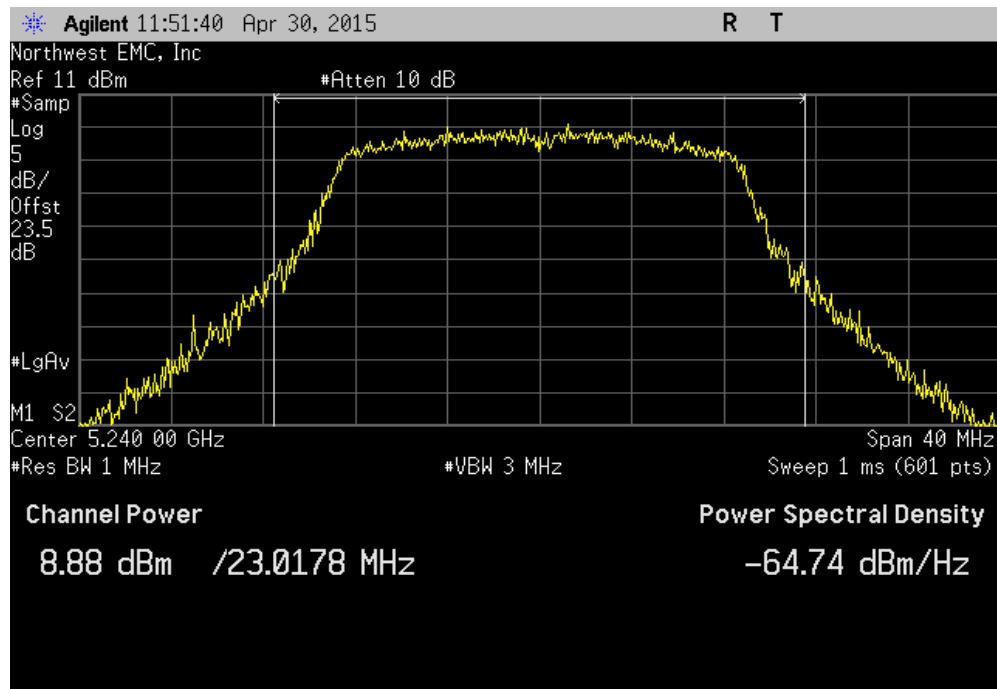


PEAK TRANSMIT POWER

20 MHz, Chain B, 802.11(n) MCS7, Low Channel 36, 5180MHz						
				Value	Limit ($\leq$)	Result
				8.017 dBm	30 dBm	Pass

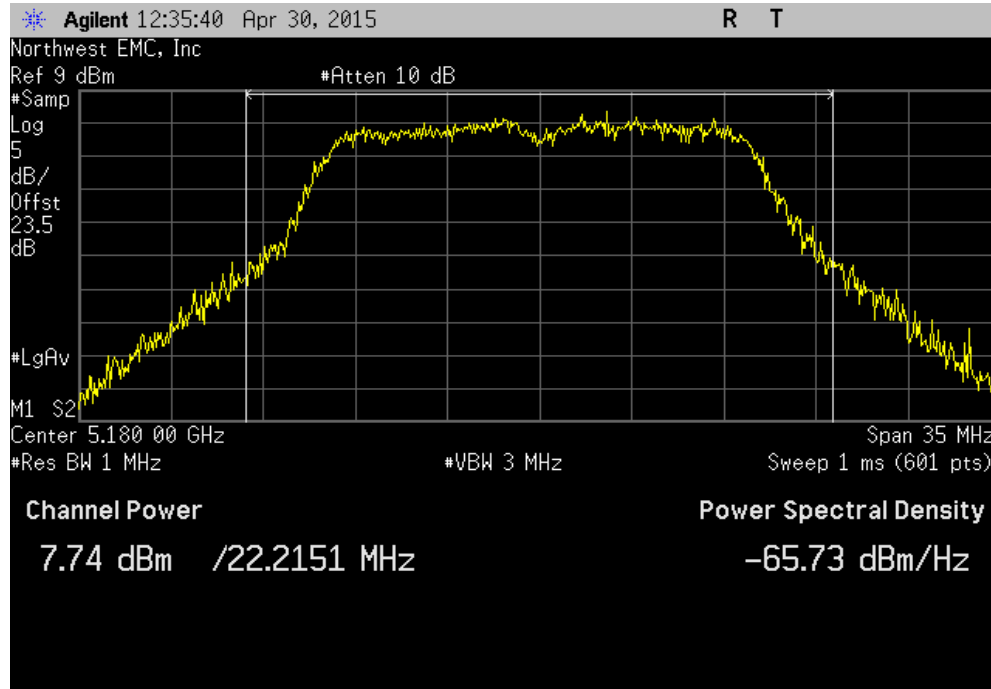


20 MHz, Chain B, 802.11(n) MCS7, High Channel 48, 5240MHz						
				Value	Limit ($\leq$)	Result
				8.879 dBm	30 dBm	Pass

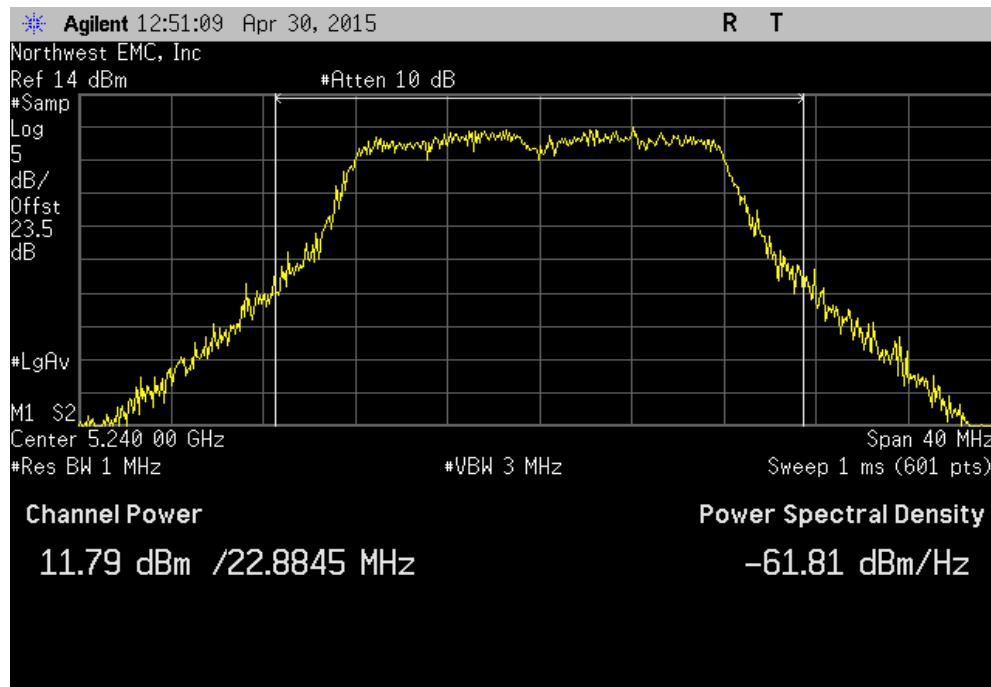


PEAK TRANSMIT POWER

20 MHz, Chain C, 802.11(a) 6 Mbps, Low Channel 36, 5180MHz						
				Value	Limit (<)	Result
				7.737 dBm	30 dBm	Pass

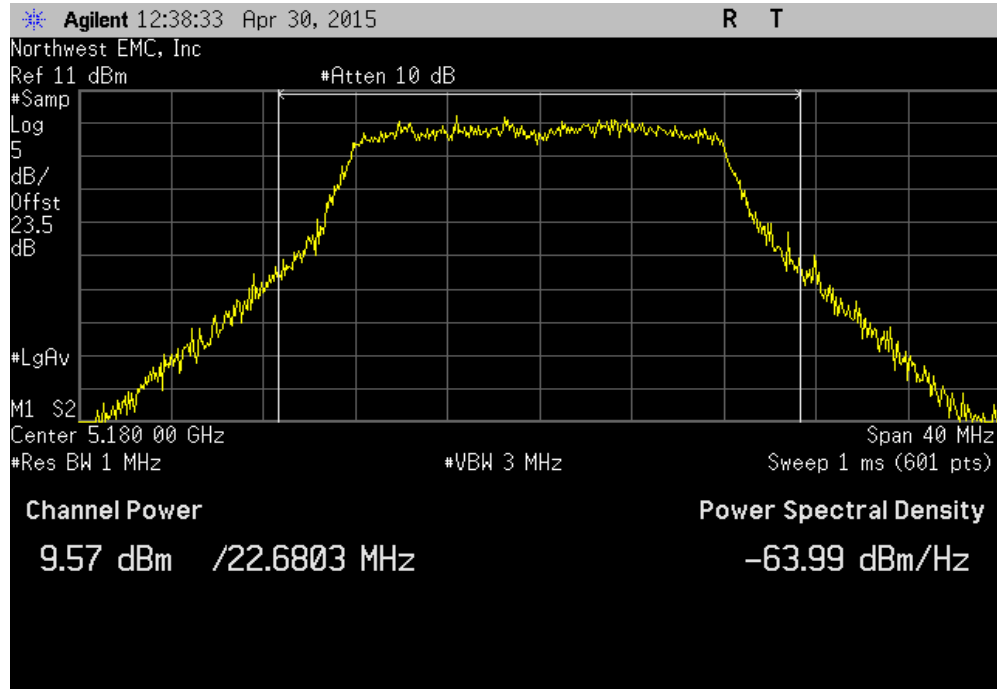


20 MHz, Chain C, 802.11(a) 6 Mbps, High Channel 48, 5240MHz						
				Value	Limit (<)	Result
				11.785 dBm	30 dBm	Pass

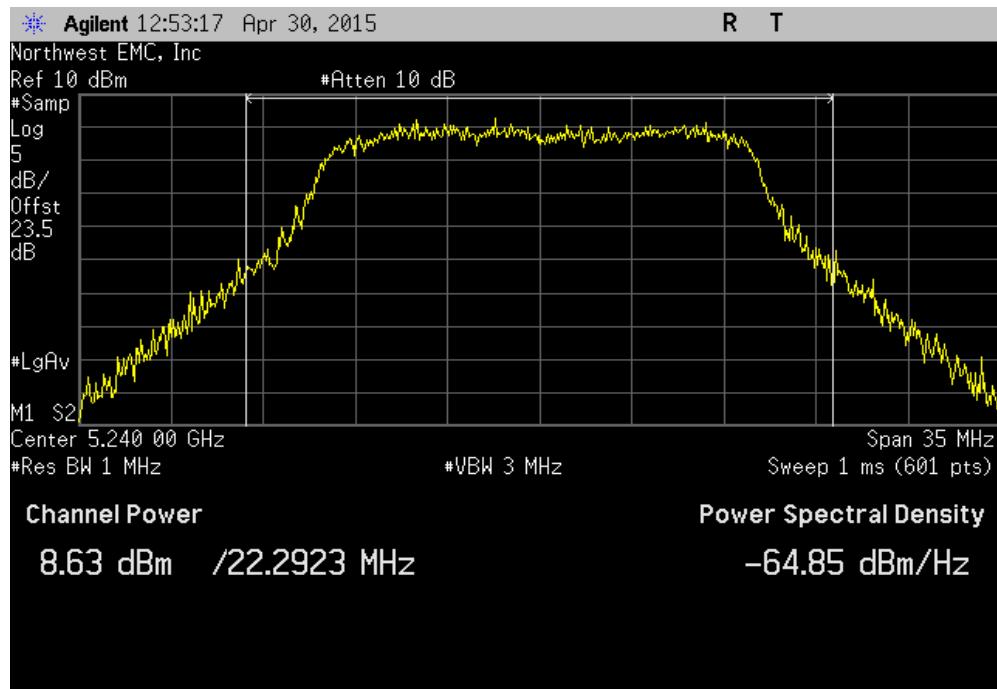


PEAK TRANSMIT POWER

20 MHz, Chain C, 802.11(a) 36 Mbps, Low Channel 36, 5180MHz						
				Value	Limit ($\leq$)	Result
				9.568 dBm	30 dBm	Pass

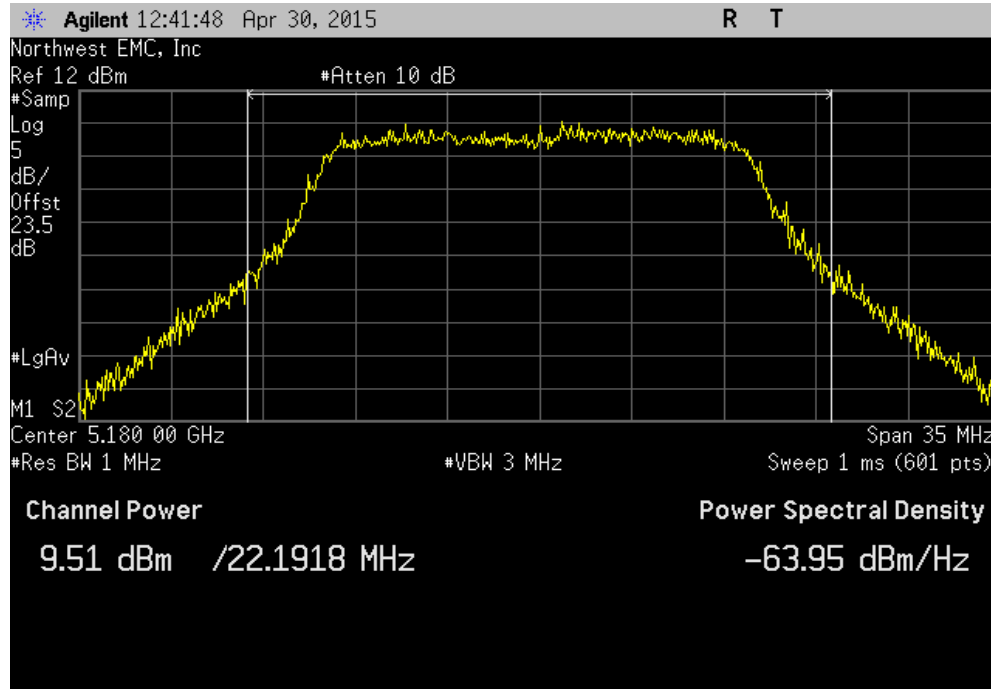


20 MHz, Chain C, 802.11(a) 36 Mbps, High Channel 48, 5240MHz						
				Value	Limit ($\leq$)	Result
				8.634 dBm	30 dBm	Pass

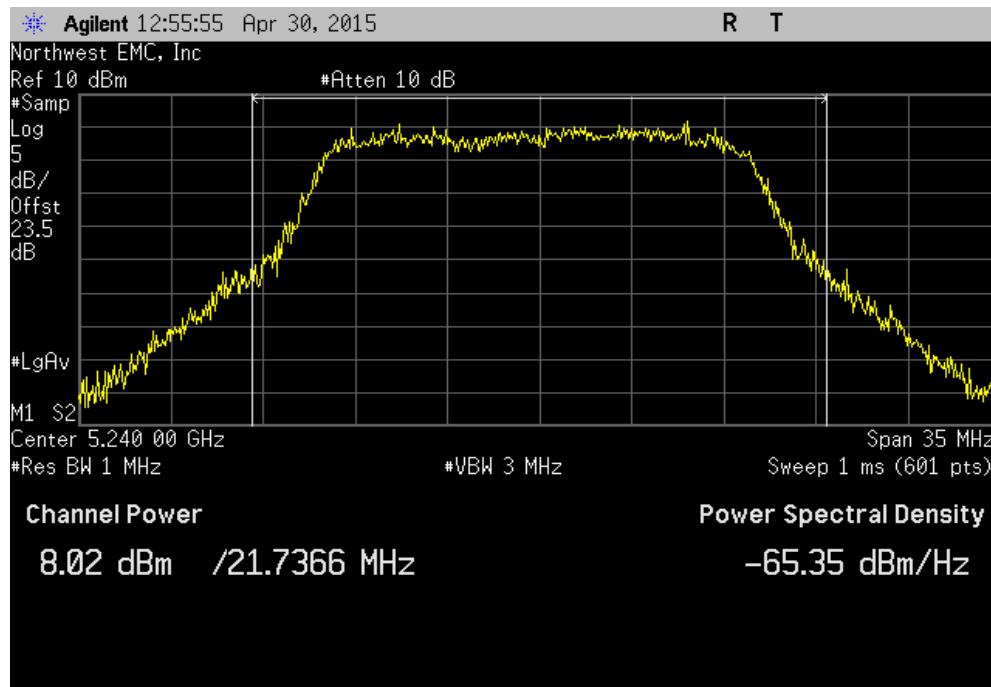


PEAK TRANSMIT POWER

20 MHz, Chain C, 802.11(a) 54 Mbps, Low Channel 36, 5180MHz						
				Value	Limit (<)	Result
				9.512 dBm	30 dBm	Pass

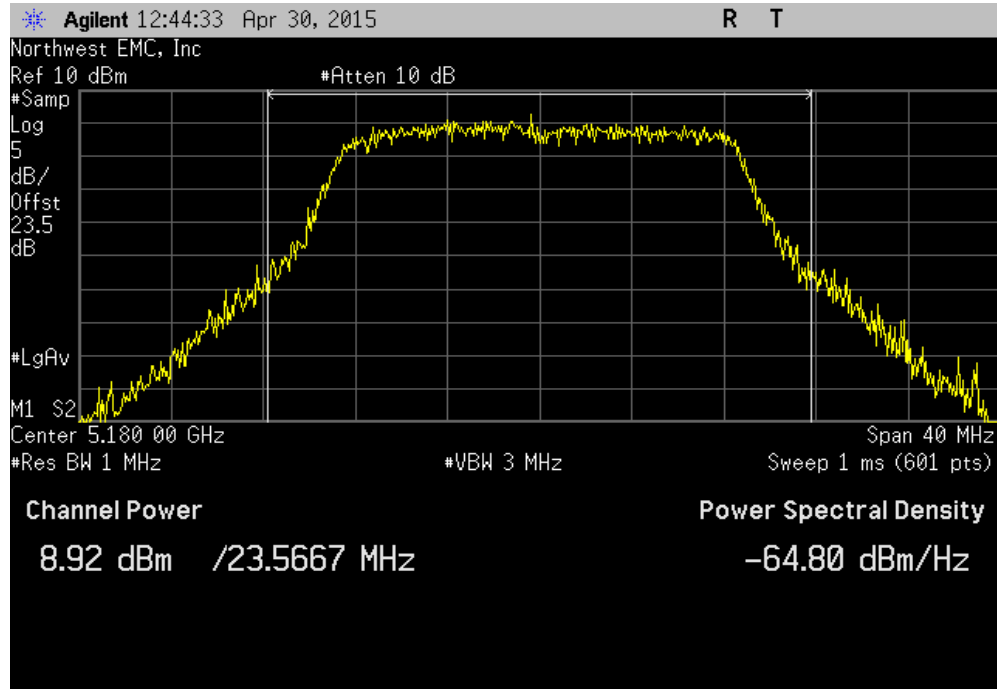


20 MHz, Chain C, 802.11(a) 54 Mbps, High Channel 48, 5240MHz						
				Value	Limit (<)	Result
				8.017 dBm	30 dBm	Pass

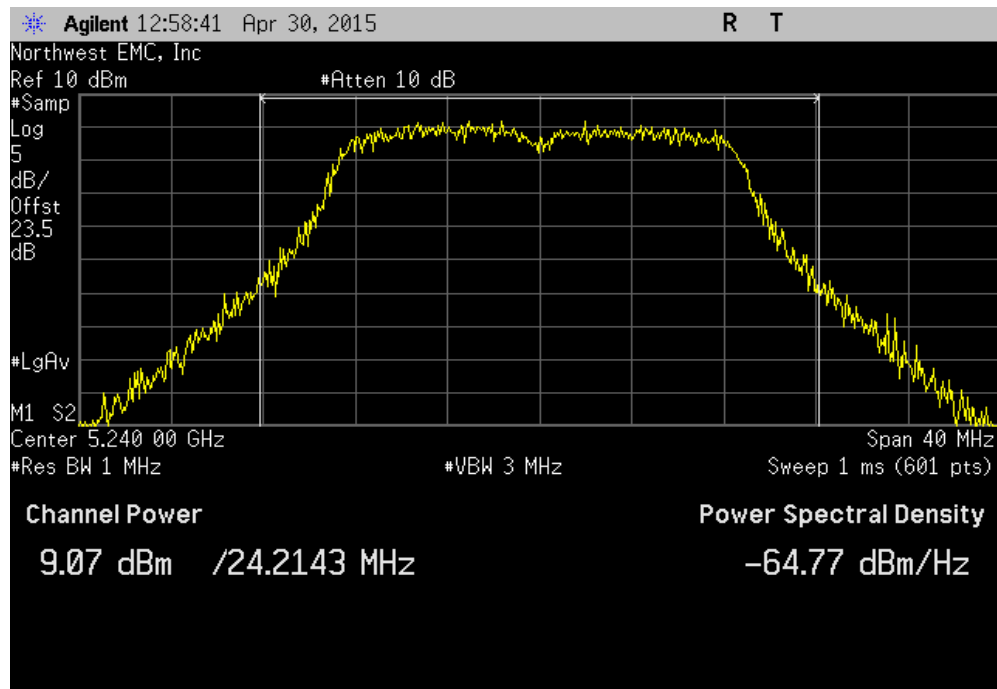


PEAK TRANSMIT POWER

20 MHz, Chain C, 802.11(n) MCS0, Low Channel 36, 5180MHz						
Value				Limit	Result	
				(<)		
8.924 dBm				30 dBm	Pass	

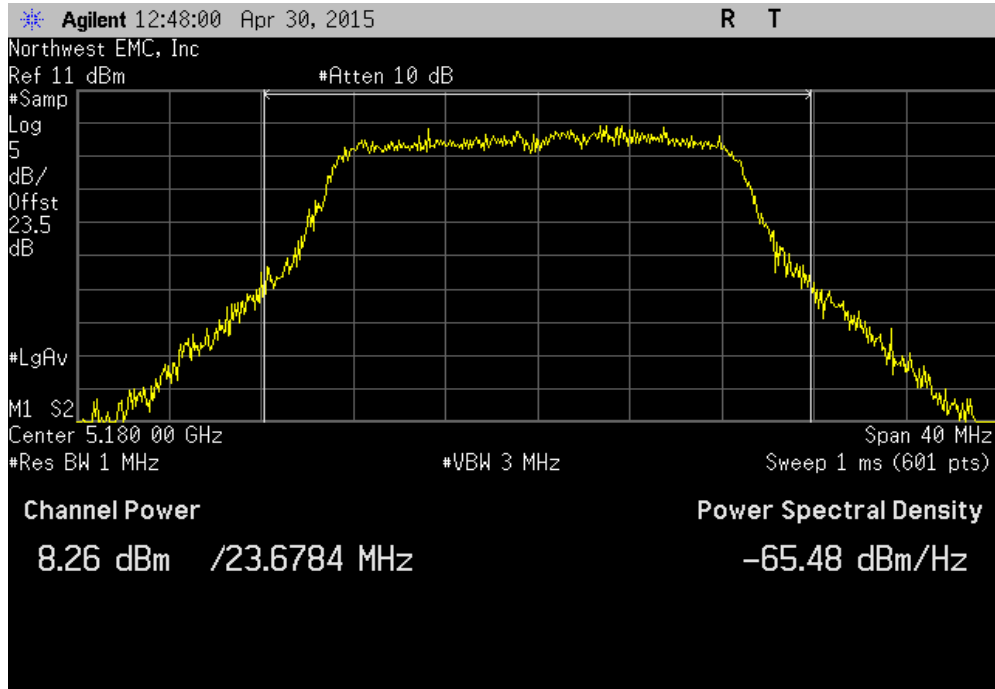


20 MHz, Chain C, 802.11(n) MCS0, High Channel 48, 5240MHz						
Value				Limit	Result	
				(<)		
9.072 dBm				30 dBm	Pass	

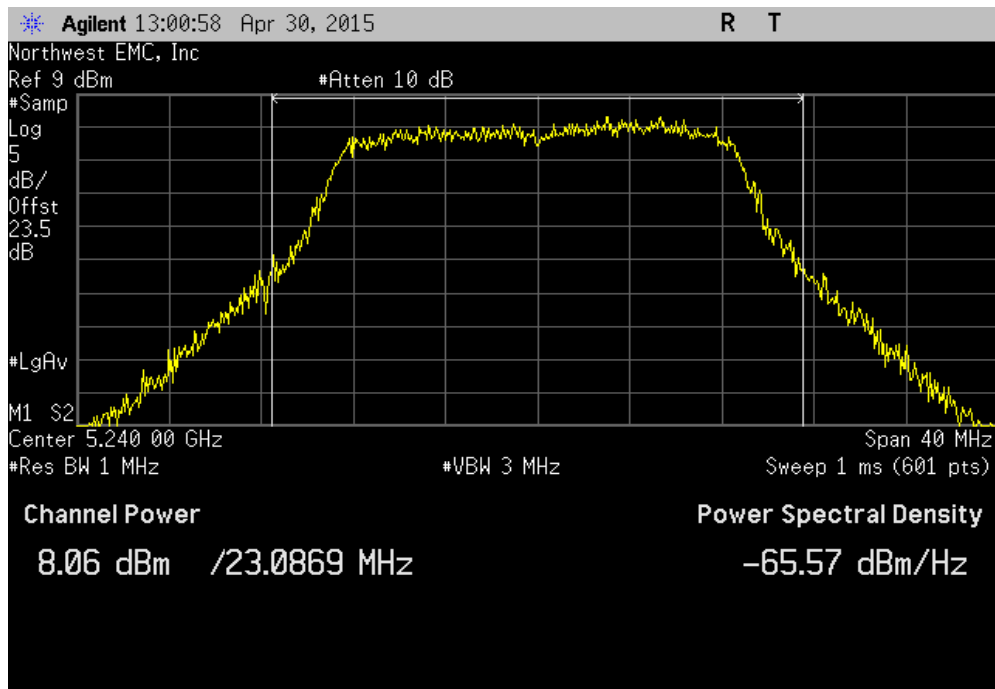


PEAK TRANSMIT POWER

20 MHz, Chain C, 802.11(n) MCS7, Low Channel 36, 5180MHz						
Value				Limit	Result	
				(<)		
8.262 dBm				30 dBm	Pass	

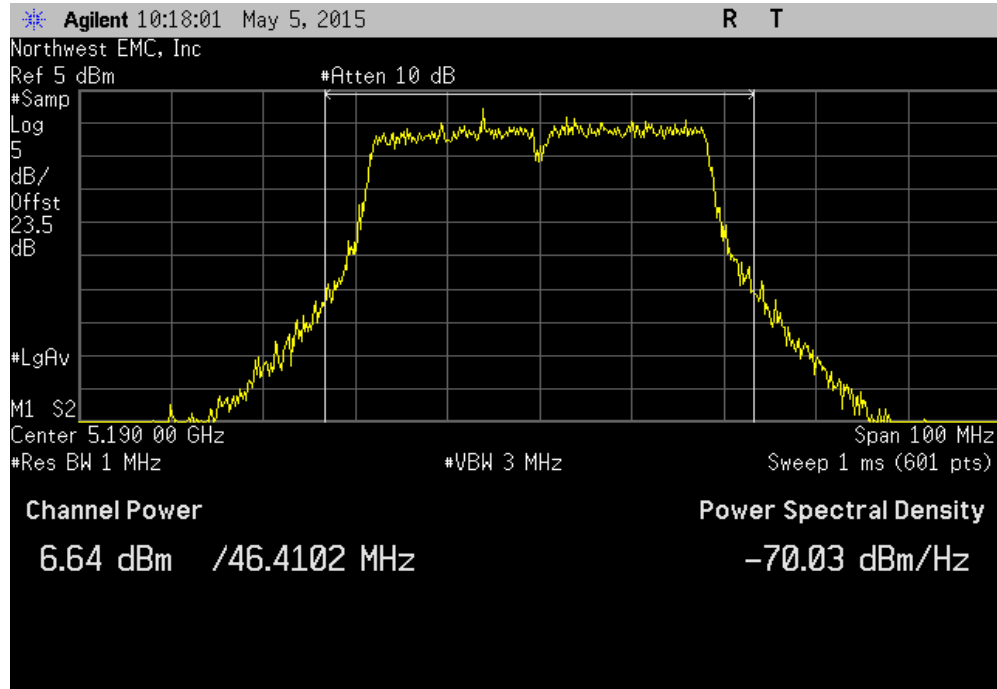


20 MHz, Chain C, 802.11(n) MCS7, High Channel 48, 5240MHz						
Value				Limit	Result	
				(<)		
8.063 dBm				30 dBm	Pass	

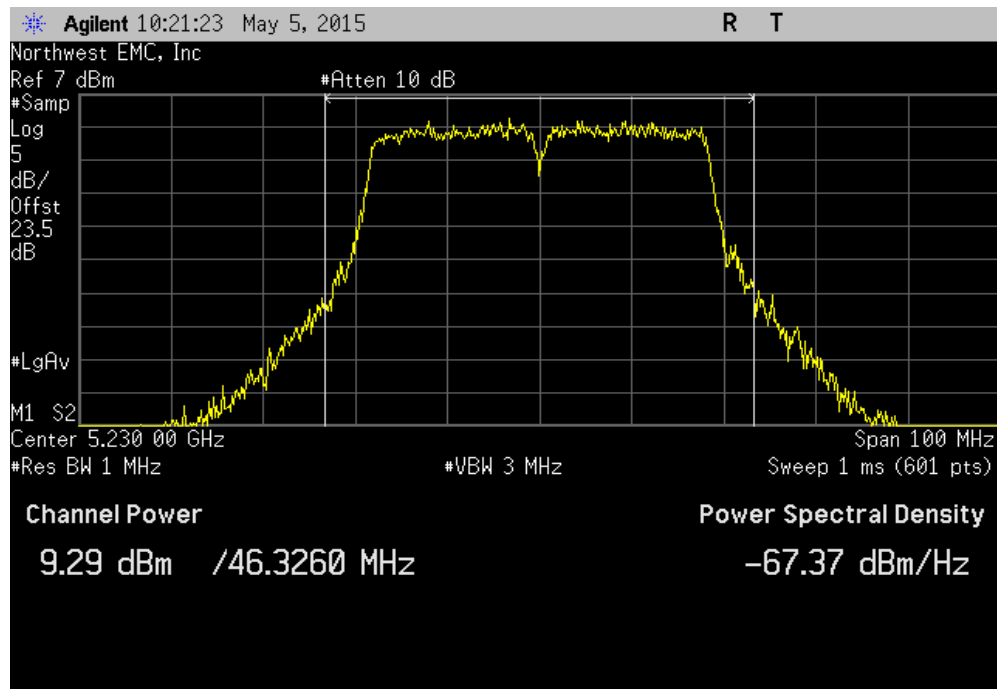


PEAK TRANSMIT POWER

40 MHz, Chain A, 802.11(n) MCS0, Low Channel 36, 5180MHz						
				Value	Limit (<)	Result
				6.636 dBm	30 dBm	Pass

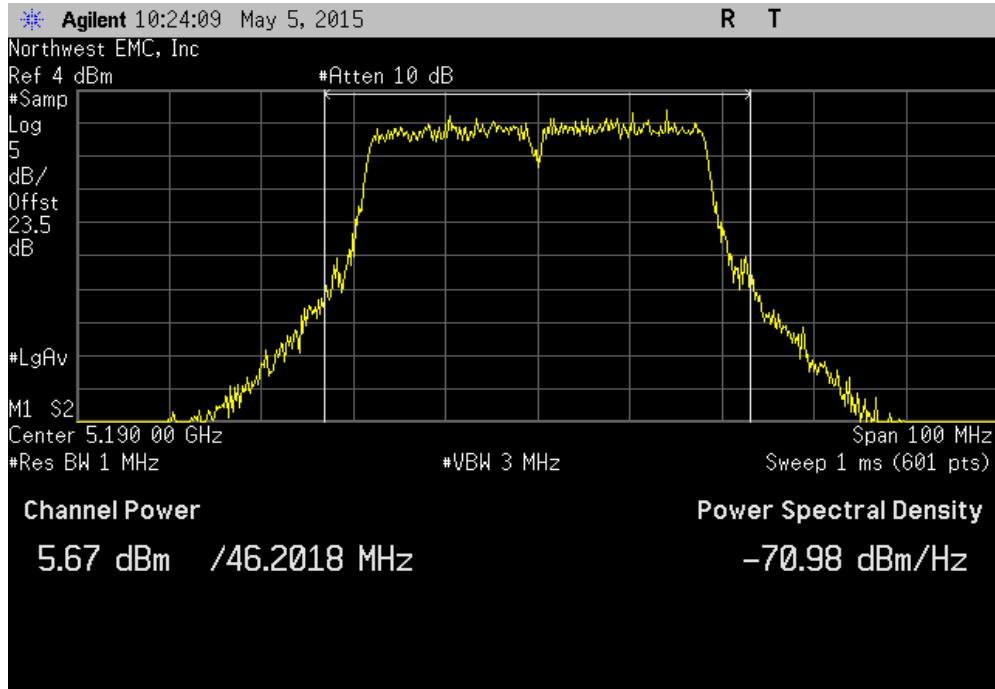


40 MHz, Chain A, 802.11(n) MCS0, High Channel 48, 5240MHz						
				Value	Limit (<)	Result
				9.289 dBm	30 dBm	Pass

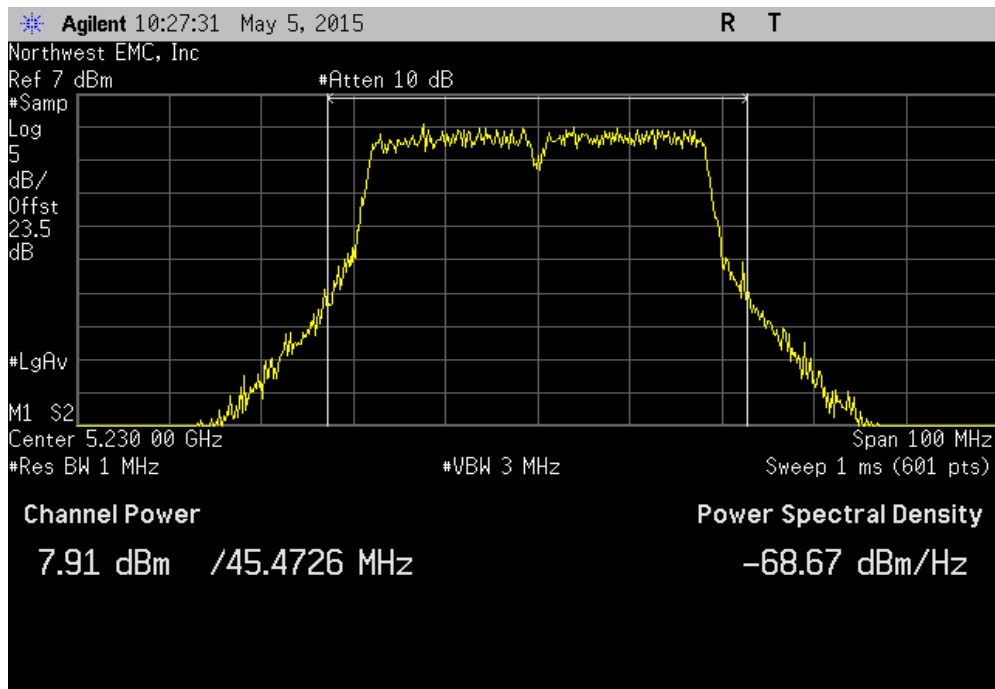


PEAK TRANSMIT POWER

40 MHz, Chain A, 802.11(n) MCS7, Low Channel 36, 5180MHz						
				Value	Limit ($\leq$)	Result
				5.668 dBm	30 dBm	Pass

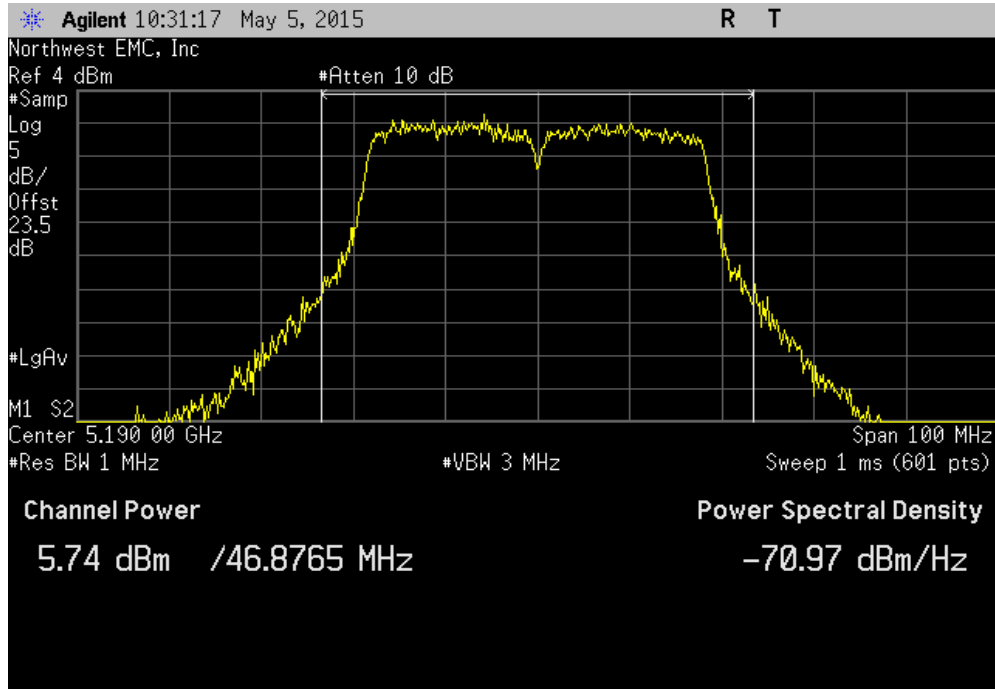


40 MHz, Chain A, 802.11(n) MCS7, High Channel 48, 5240MHz						
				Value	Limit ($\leq$)	Result
				7.91 dBm	30 dBm	Pass

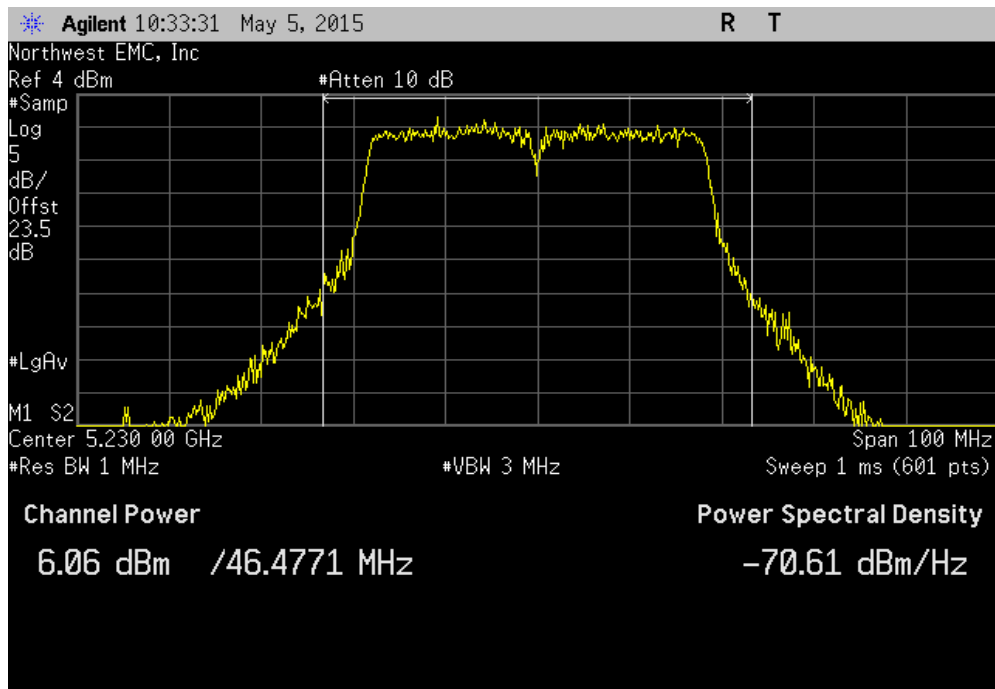


PEAK TRANSMIT POWER

40 MHz, Chain B, 802.11(n) MCS0, Low Channel 36, 5180MHz						
				Value	Limit ($\leq$)	Result
				5.742 dBm	30 dBm	Pass

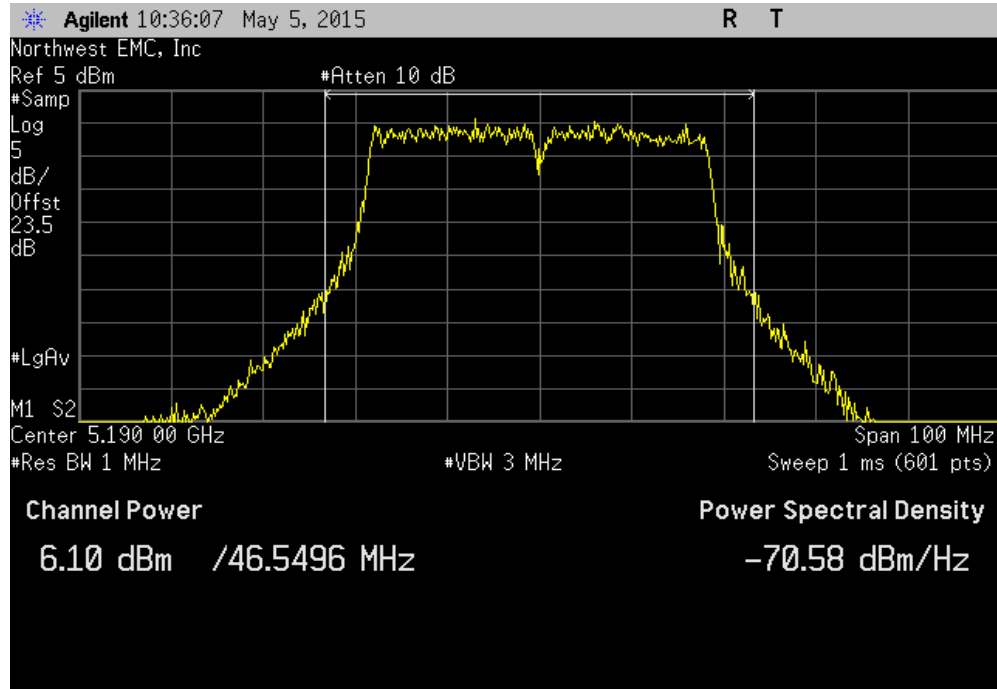


40 MHz, Chain B, 802.11(n) MCS0, High Channel 48, 5240MHz						
				Value	Limit ($\leq$)	Result
				6.061 dBm	30 dBm	Pass

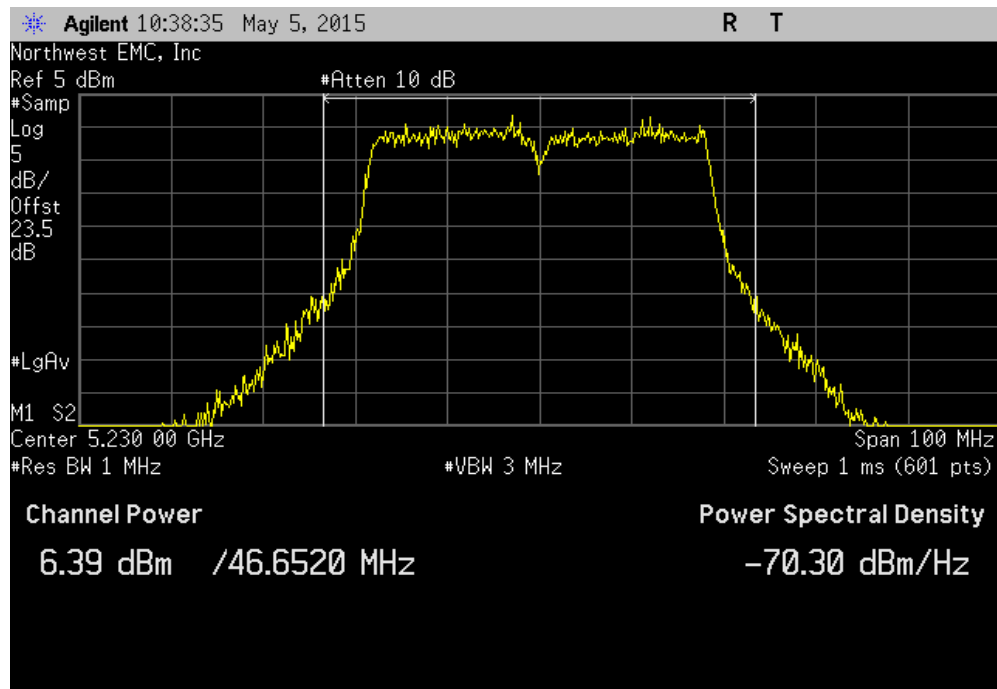


PEAK TRANSMIT POWER

40 MHz, Chain B, 802.11(n) MCS7, Low Channel 36, 5180MHz						
				Value	Limit ($\leq$)	Result
				6.095 dBm	30 dBm	Pass

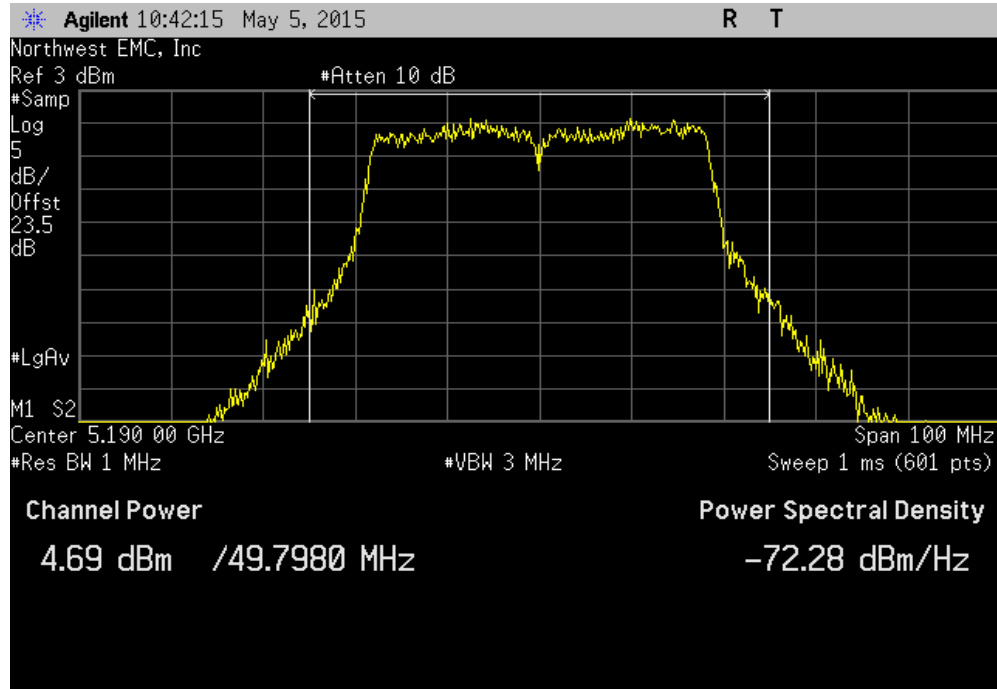


40 MHz, Chain B, 802.11(n) MCS7, High Channel 48, 5240MHz						
				Value	Limit ($\leq$)	Result
				6.391 dBm	30 dBm	Pass

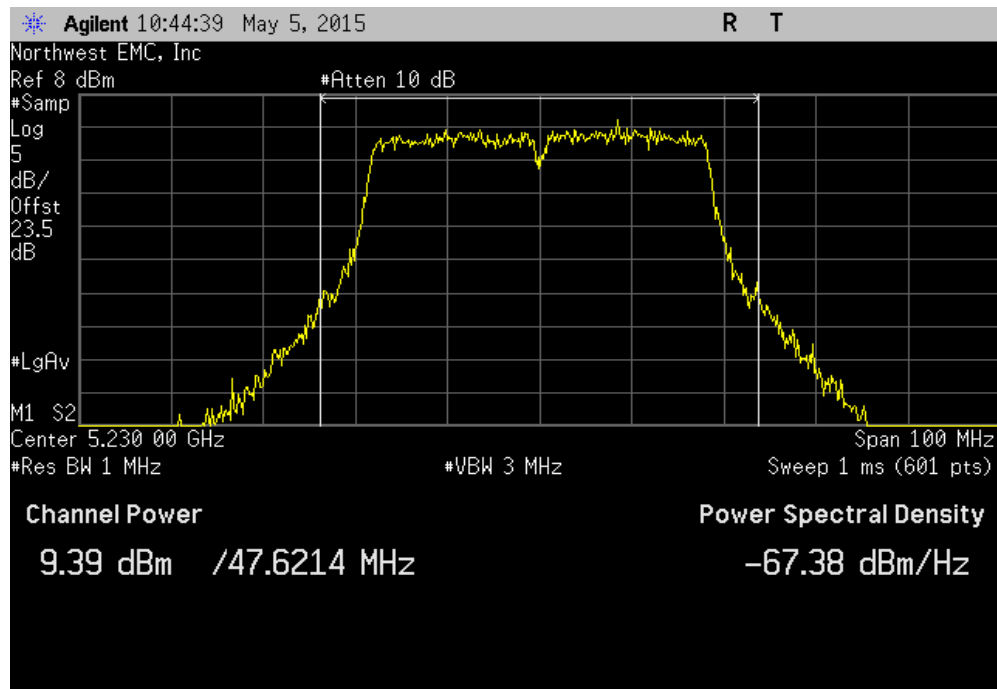


PEAK TRANSMIT POWER

40 MHz, Chain C, 802.11(n) MCS0, Low Channel 36, 5180MHz						
				Value	Limit (<)	Result
				4.695 dBm	30 dBm	Pass

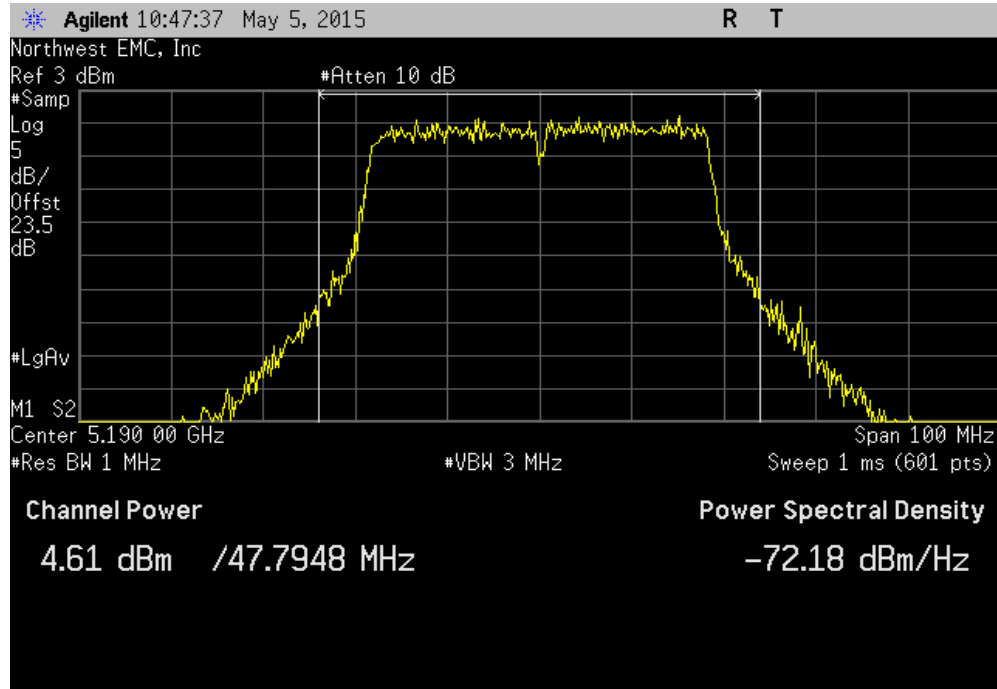


40 MHz, Chain C, 802.11(n) MCS0, High Channel 48, 5240MHz						
				Value	Limit (<)	Result
				9.394 dBm	30 dBm	Pass

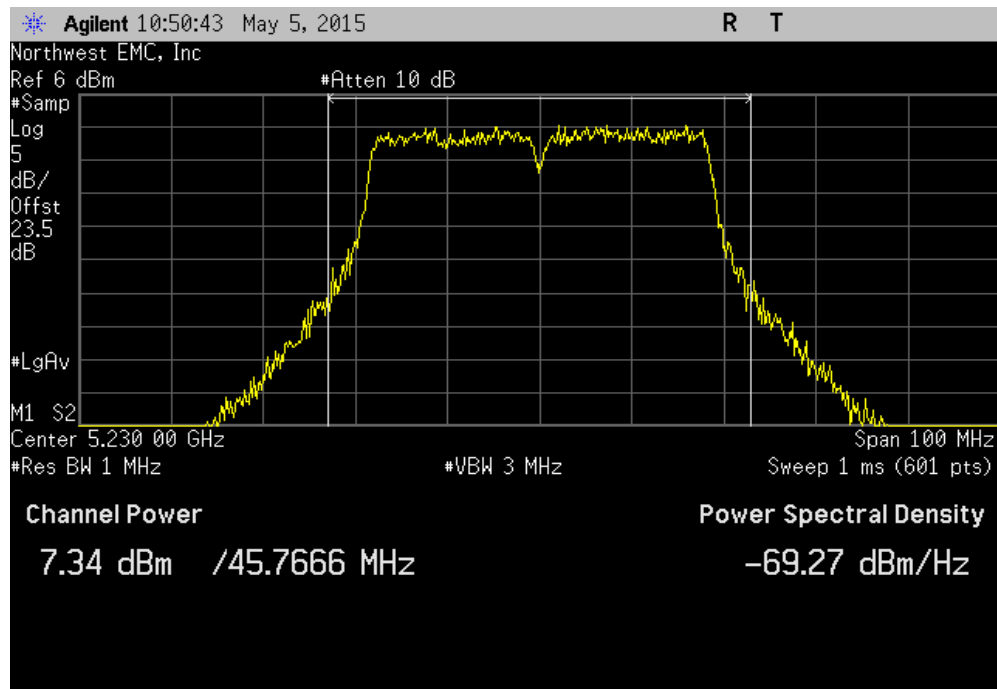


PEAK TRANSMIT POWER

40 MHz, Chain C, 802.11(n) MCS7, Low Channel 36, 5180MHz						
				Value	Limit (<)	Result
				4.615 dBm	30 dBm	Pass



40 MHz, Chain C, 802.11(n) MCS7, High Channel 48, 5240MHz						
				Value	Limit (<)	Result
				7.34 dBm	30 dBm	Pass



PEAK POWER SPECTRAL DENSITY

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
OC13 Cables	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	0
Attenuator, 20dB	Fairview Microwave	SA18E-10	TKS	4/8/2015	12
40GHz DC Block	Fairview Microwave	SD3379	AMN	4/8/2015	12
Spectrum Analyzer	Agilent	E4440A	AFA	8/28/2014	12

TEST DESCRIPTION

FCC KDB 789033 D02 General UNII Test Procedures New Rules v01 Section F was followed. The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum. The data rate(s) listed in the datasheet were tested. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

Prior to measuring peak power spectral density, the transmission pulse duration (T) was measured. The transmission pulse duration and the associated data are found elsewhere in this test report.

The spectrum analyzer settings were as follows:

- The span was set to encompass entire emission bandwidth (B), centered on the transmit channel.
- RBW = 1 MHz, VBW ≥ 3 MHz
- Sample detector was used because Method SA-1 Alternate was used to measure the Maximum Conducted Output Power.
- Trace average 100 traces in power averaging mode (not video averaging).

The peak power spectral density (PPSD) was determined to be the highest level found across the emission in any 1 MHz band after 100 sweeps of power averaging (not video averaging).

PEAK POWER SPECTRAL DENSITY

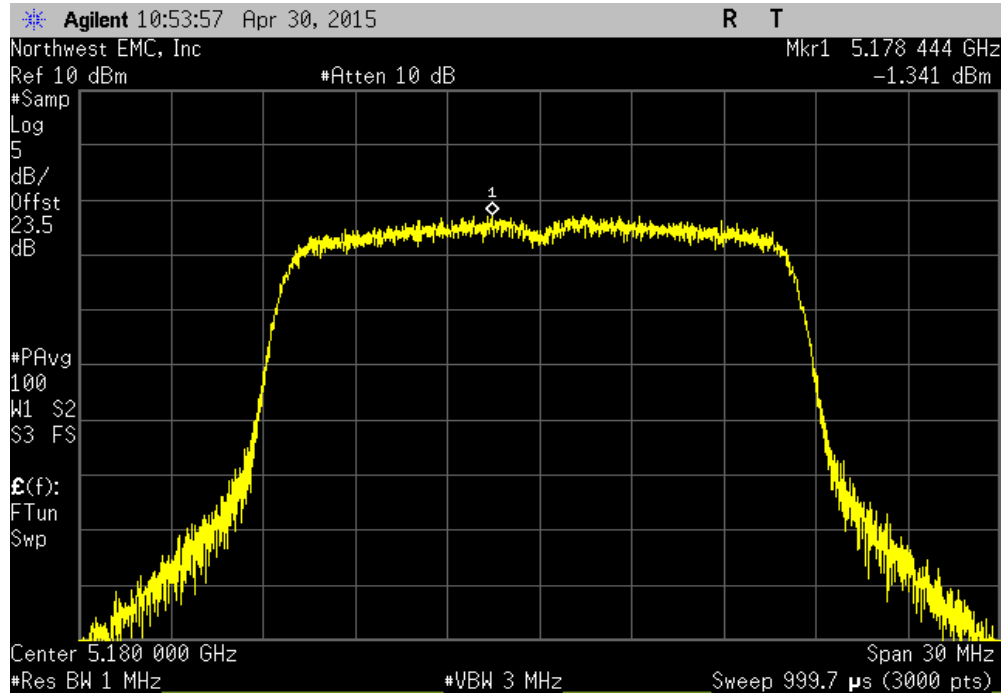


XMIT 2015.01.14

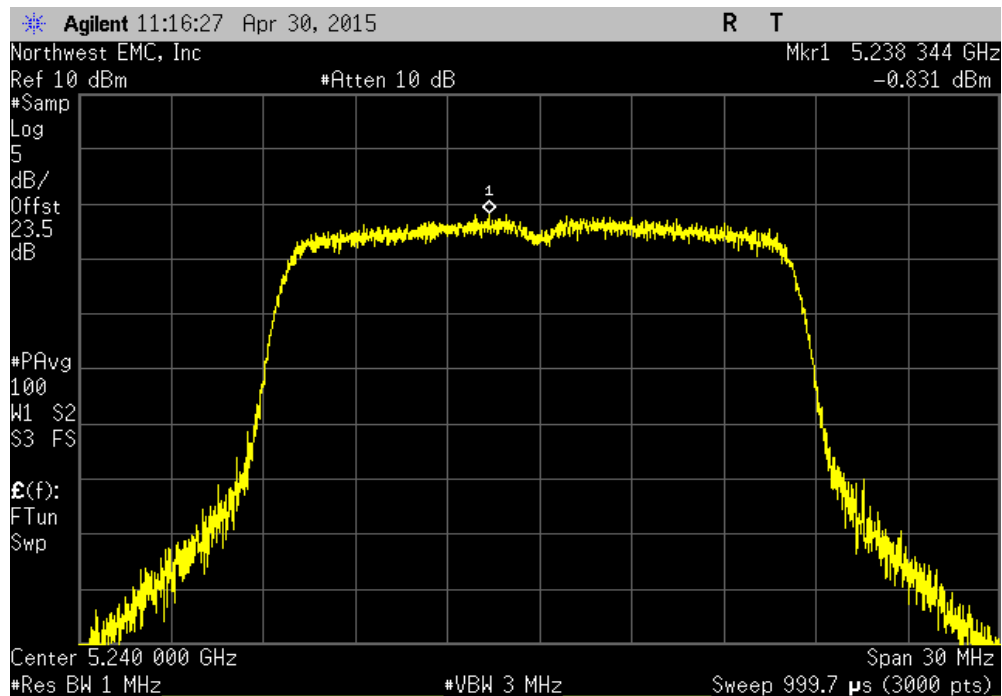
EUT: RLX2-IHNF		Work Order: PROS0216				
Serial Number: 000D8DF095CE		Date: 04/30/15				
Customer: ProSoft Technology, Inc.		Temperature: 21.1°C				
Attendees: Frank Hardy		Humidity: 46%				
Project: None		Barometric Pres.: 1012				
Tested by: Johnny Candelas		Power: 120V/60Hz				
		Job Site: OC13				
TEST SPECIFICATIONS		Test Method				
FCC 15.407:2015		ANSI C63.10:2009				
COMMENTS						
Offset 23.46dB (DC Block+20dB Attenuator+Coax Cable) for 5.2GHz						
Power Setting - Max						
Radio test software transmitting on all ports during all modes.						
DEVIATIONS FROM TEST STANDARD						
None						
Configuration #	1	Signature 				
		Value (dBm / MHz)	Limit (dBm / Ref BW)	Results		
20 MHz						
Chain A						
802.11(n) MCS8						
Low Channel 36, 5180 MHz		-1.341	17	Pass		
High Channel 48, 5240 MHz		-0.831	17	Pass		
802.11(n) MCS15						
Low Channel 36, 5180 MHz		-1.17	17	Pass		
High Channel 48, 5240 MHz		-1.051	17	Pass		
Chain B						
802.11(n) MCS8						
Low Channel 36, 5180 MHz		-2.59	17	Pass		
High Channel 48, 5240 MHz		-2.351	17	Pass		
802.11(n) MCS15						
Low Channel 36, 5180 MHz		-2.513	17	Pass		
High Channel 48, 5240 MHz		-1.275	17	Pass		
Chain C						
802.11(n) MCS8						
Low Channel 36, 5180 MHz		-1.757	17	Pass		
High Channel 48, 5240 MHz		-1.504	17	Pass		
802.11(n) MCS15						
Low Channel 36, 5180 MHz		-1.749	17	Pass		
High Channel 48, 5240 MHz		-1.799	17	Pass		
40 MHz						
Chain A						
802.11(n) MCS8						
Low Channel 36/40, 5190 MHz		-7.388	17	Pass		
High Channel 44/48, 5230 MHz		-4.37	17	Pass		
802.11(n) MCS15						
Low Channel 36/40, 5190 MHz		-8.053	17	Pass		
High Channel 44/48, 5230 MHz		-6.023	17	Pass		
Chain B						
802.11(n) MCS8						
Low Channel 36/40, 5190 MHz		-7.864	17	Pass		
High Channel 44/48, 5230 MHz		-7.937	17	Pass		
802.11(n) MCS15						
Low Channel 36/40, 5190 MHz		-7.744	17	Pass		
High Channel 44/48, 5230 MHz		-6.867	17	Pass		
Chain C						
802.11(n) MCS8						
Low Channel 36/40, 5190 MHz		-8.765	17	Pass		
High Channel 44/48, 5230 MHz		-4.216	17	Pass		
802.11(n) MCS15						
Low Channel 36/40, 5190 MHz		-9.07	17	Pass		
High Channel 44/48, 5230 MHz		-6.108	17	Pass		
Power Summing, 20 MHz						
Chain A						
802.11(n) MCS8		Value (dBm / MHz)	Summing Factor (dBm)	Summed Value (dBm / MHz)	Limit (dBm / MHz)	Result
Low Channel 36, 5180 MHz		-1.341	3	1.7	17	Pass
High Channel 48, 5240 MHz		-0.831	3	2.2	17	Pass
802.11(n) MCS15		-1.17	3	1.8	17	Pass
High Channel 48, 5240 MHz		-1.051	3	1.9	17	Pass
Chain B						
802.11(n) MCS8		-2.59	3	0.4	17	Pass
High Channel 48, 5240 MHz		-2.351	3	0.6	17	Pass
802.11(n) MCS15		-2.513	3	0.5	17	Pass
High Channel 48, 5240 MHz		-1.275	3	1.7	17	Pass
Chain C						
802.11(n) MCS8		-1.757	3	1.2	17	Pass
High Channel 48, 5240 MHz		-1.504	3	1.5	17	Pass
802.11(n) MCS15		-1.749	3	1.3	17	Pass
High Channel 48, 5240 MHz		-1.799	3	1.2	17	Pass
Power Summing, 40 MHz						
Chain A						
802.11(n) MCS8		Value (dBm / MHz)	Summing Factor (dBm)	Summed Value (dBm / MHz)	Limit (dBm / MHz)	Result
Low Channel 36/40, 5190 MHz		-7.388	3	-4.4	17	Pass
High Channel 44/48, 5230 MHz		-4.37	3	-1.4	17	Pass
802.11(n) MCS15		-8.053	3	-5.1	17	Pass
High Channel 44/48, 5230 MHz		-6.023	3	-3.0	17	Pass
Chain B						
802.11(n) MCS8		-7.864	3	-4.9	17	Pass
High Channel 44/48, 5230 MHz		-7.937	3	-4.9	17	Pass
802.11(n) MCS15		-7.744	3	-4.7	17	Pass
High Channel 44/48, 5230 MHz		-6.867	3	-3.9	17	Pass
Chain C						
802.11(n) MCS8		-8.765	3	-5.8	17	Pass
Low Channel 36/40, 5190 MHz		-4.216	3	-1.2	17	Pass
High Channel 44/48, 5230 MHz		-9.07	3	-6.1	17	Pass
Low Channel 36/40, 5190 MHz		-6.108	3	-3.1	17	Pass
High Channel 44/48, 5230 MHz						

PEAK POWER SPECTRAL DENSITY

20 MHz, Chain A, 802.11(n) MCS8, Low Channel 36, 5180 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.341	17	Pass			

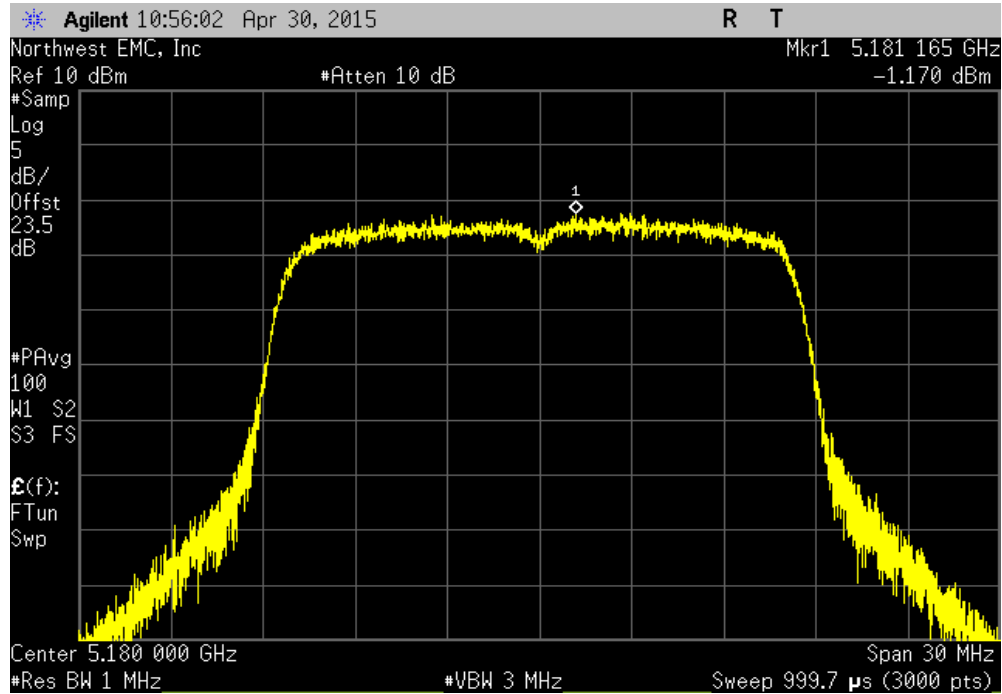


20 MHz, Chain A, 802.11(n) MCS8, High Channel 48, 5240 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-0.831	17	Pass			

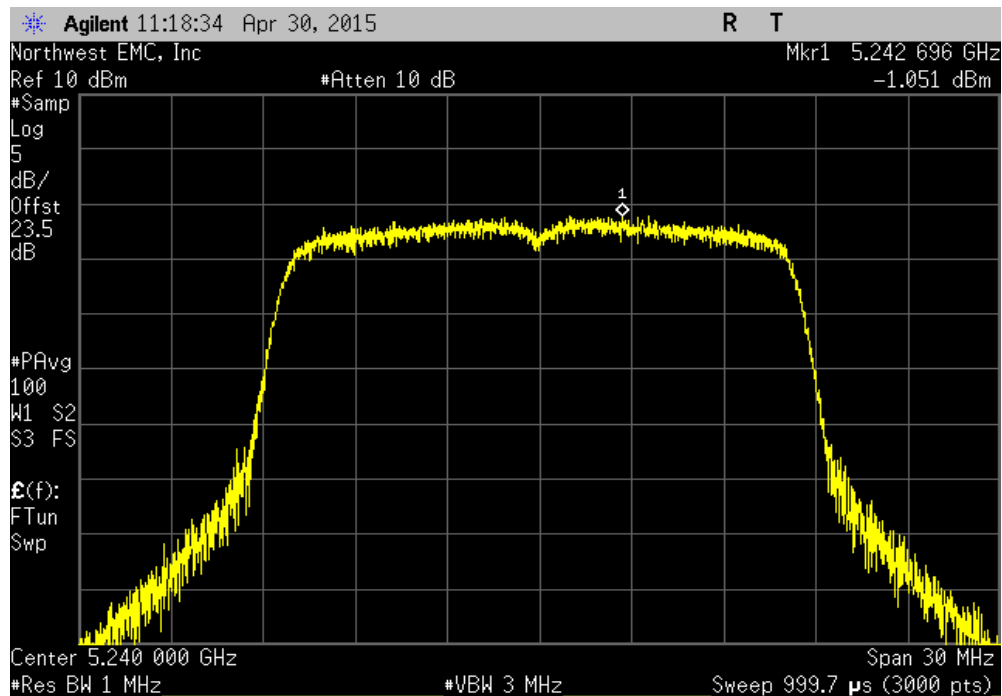


PEAK POWER SPECTRAL DENSITY

20 MHz, Chain A, 802.11(n) MCS15, Low Channel 36, 5180 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.17	17	Pass			

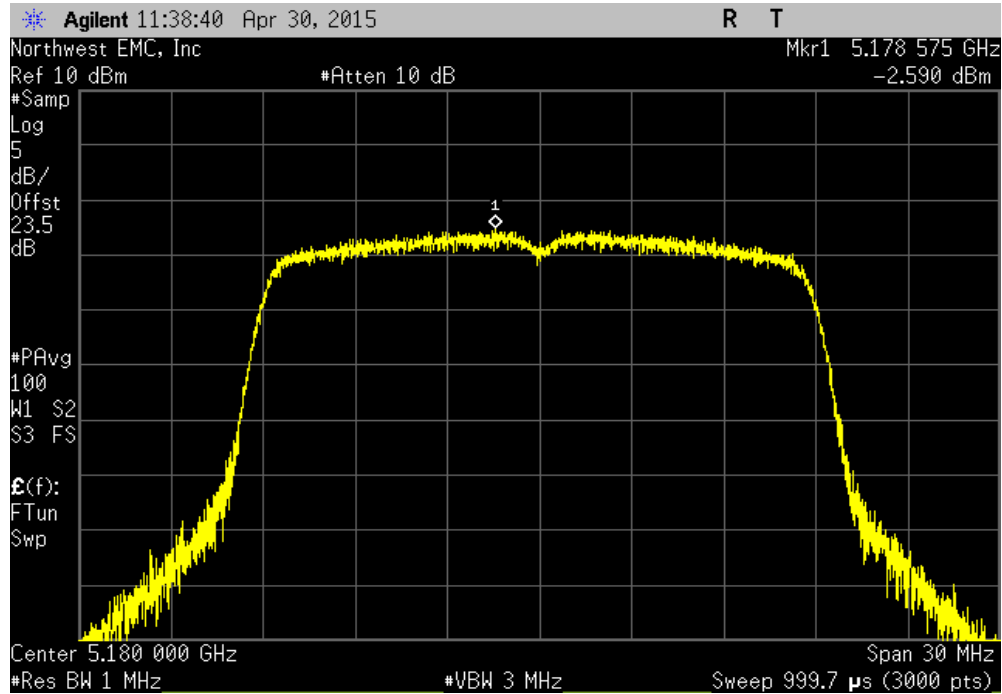


20 MHz, Chain A, 802.11(n) MCS15, High Channel 48, 5240 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.051	17	Pass			

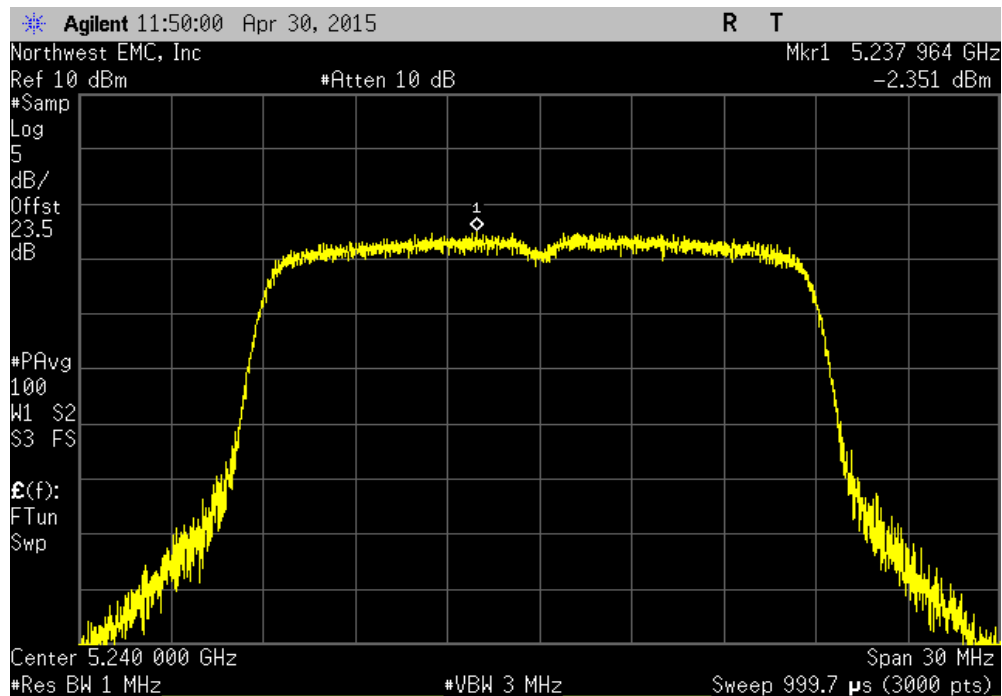


PEAK POWER SPECTRAL DENSITY

20 MHz, Chain B, 802.11(n) MCS8, Low Channel 36, 5180 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-2.59	17	Pass			

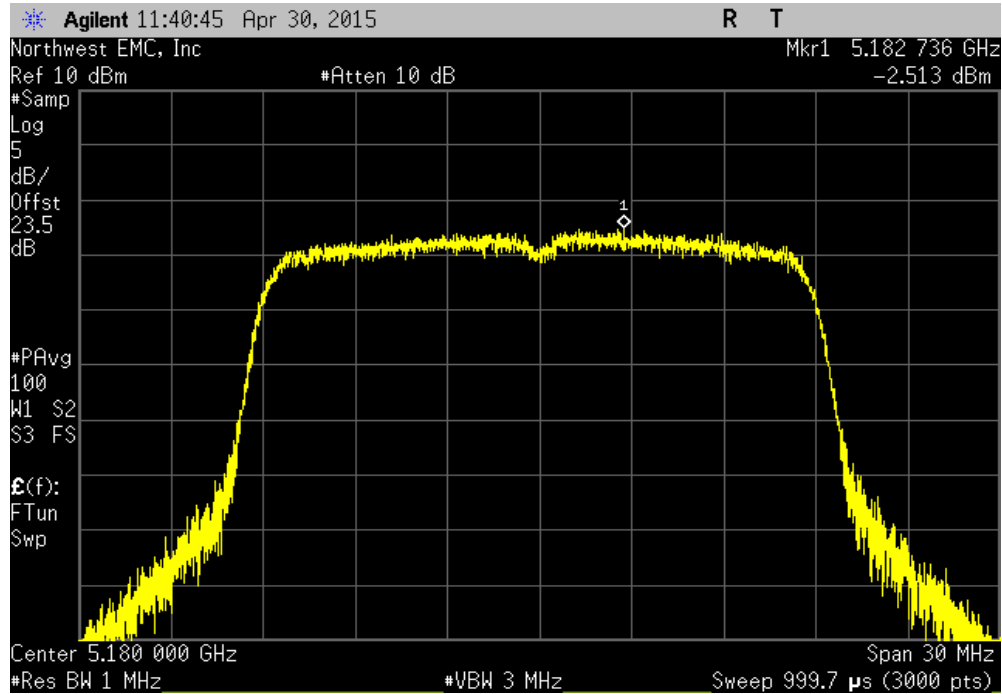


20 MHz, Chain B, 802.11(n) MCS8, High Channel 48, 5240 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-2.351	17	Pass			

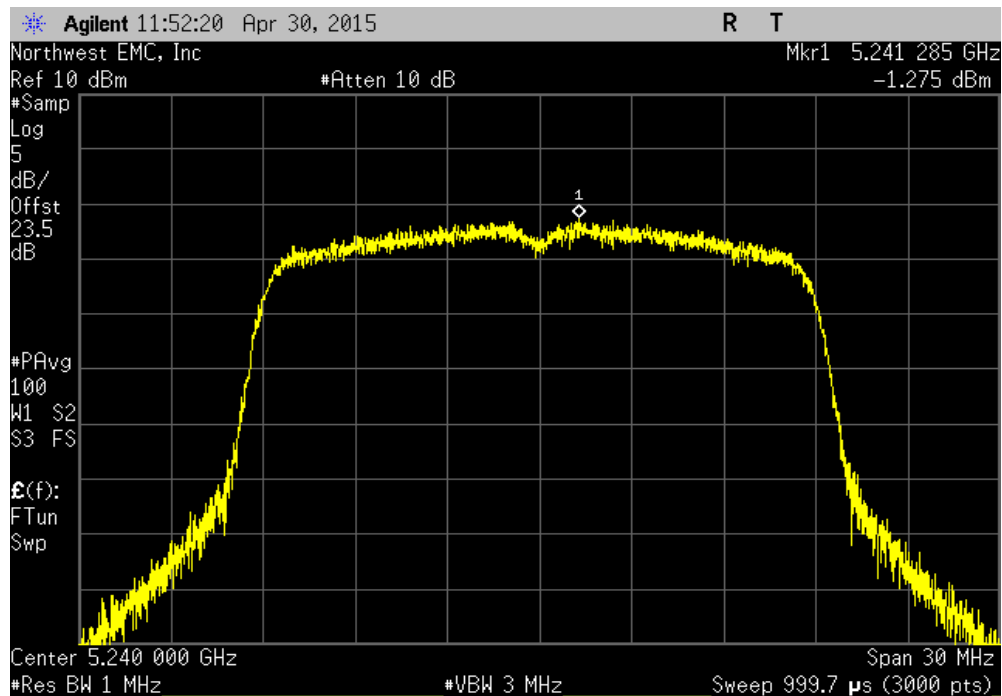


PEAK POWER SPECTRAL DENSITY

20 MHz, Chain B, 802.11(n) MCS15, Low Channel 36, 5180 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-2.513	17	Pass			

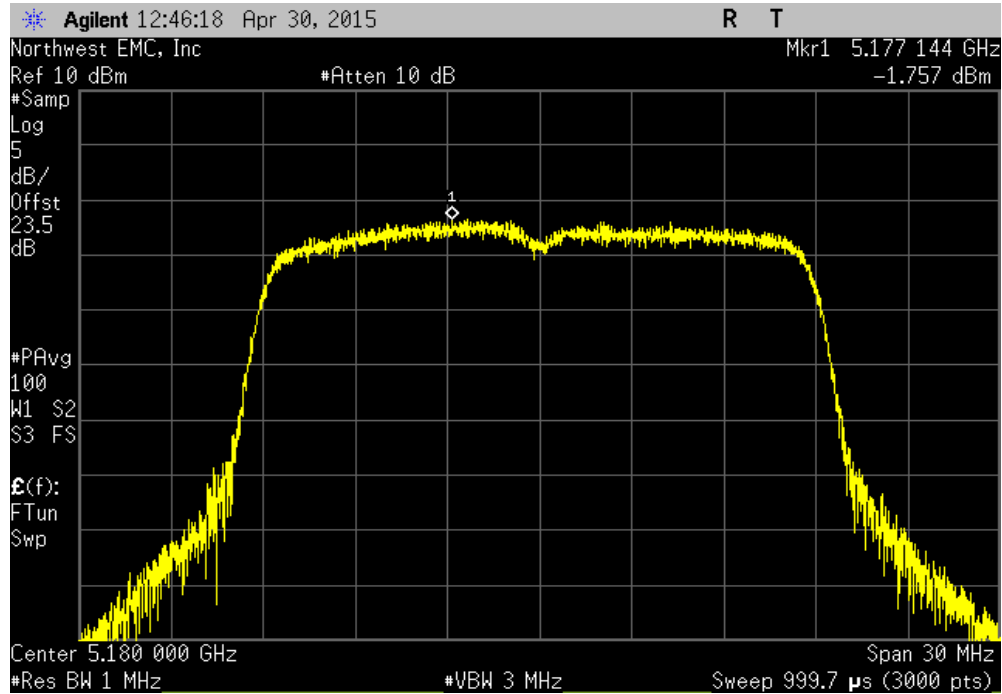


20 MHz, Chain B, 802.11(n) MCS15, High Channel 48, 5240 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.275	17	Pass			

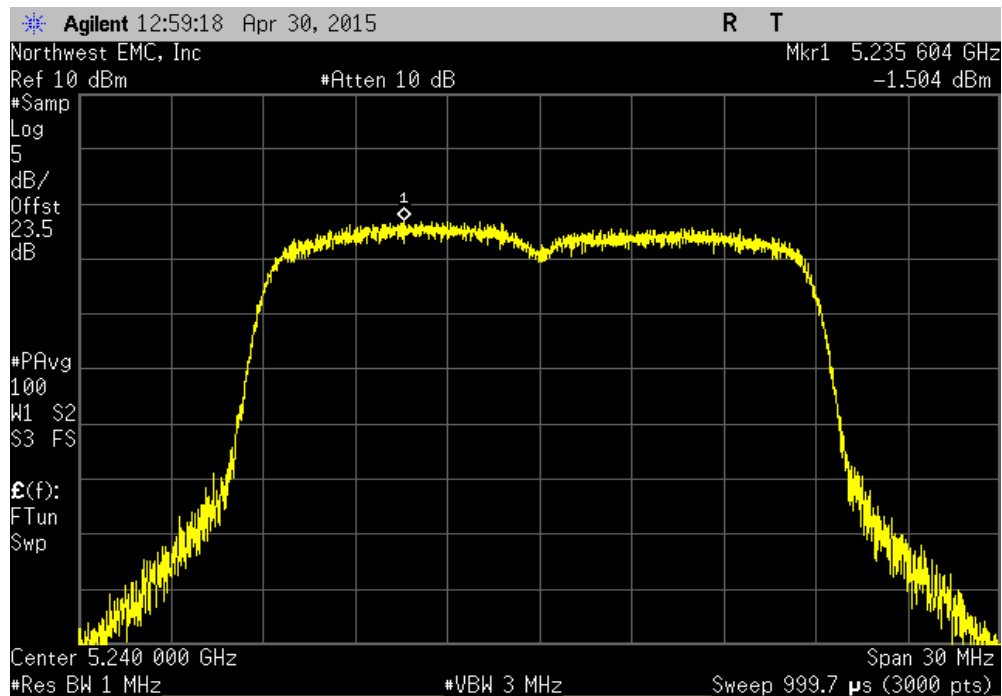


PEAK POWER SPECTRAL DENSITY

20 MHz, Chain C, 802.11(n) MCS8, Low Channel 36, 5180 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.757	17	Pass			

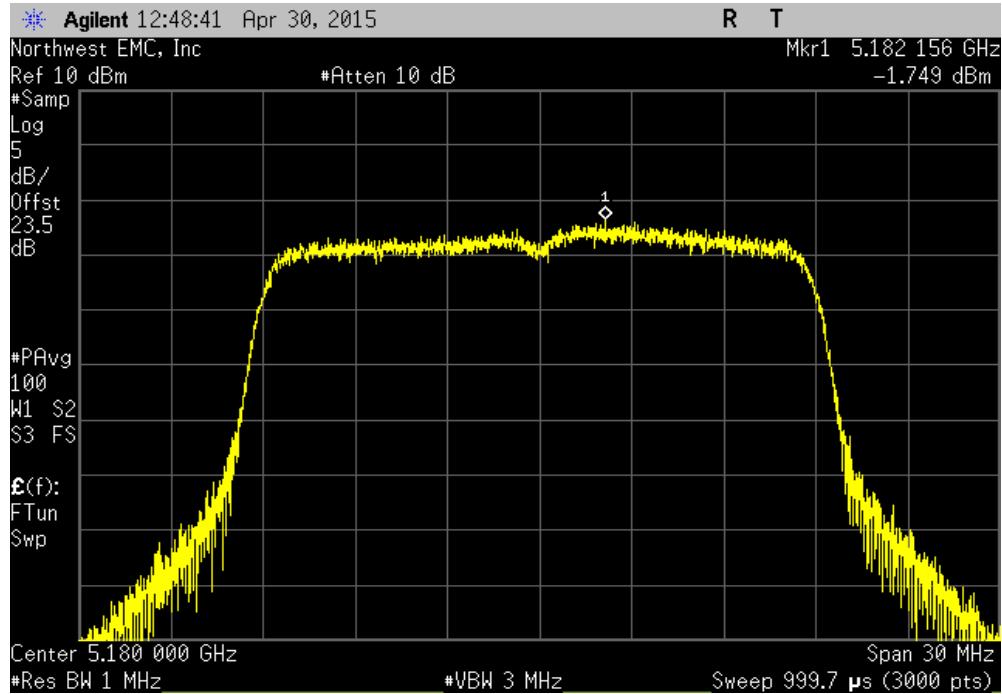


20 MHz, Chain C, 802.11(n) MCS8, High Channel 48, 5240 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.504	17	Pass			

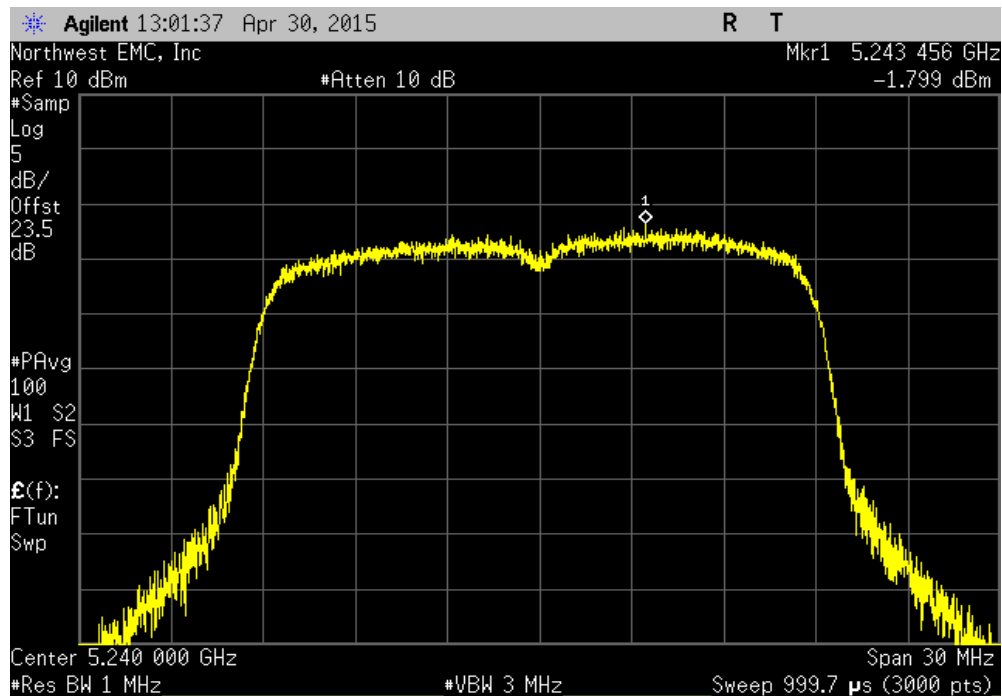


PEAK POWER SPECTRAL DENSITY

20 MHz, Chain C, 802.11(n) MCS15, Low Channel 36, 5180 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.749	17	Pass			

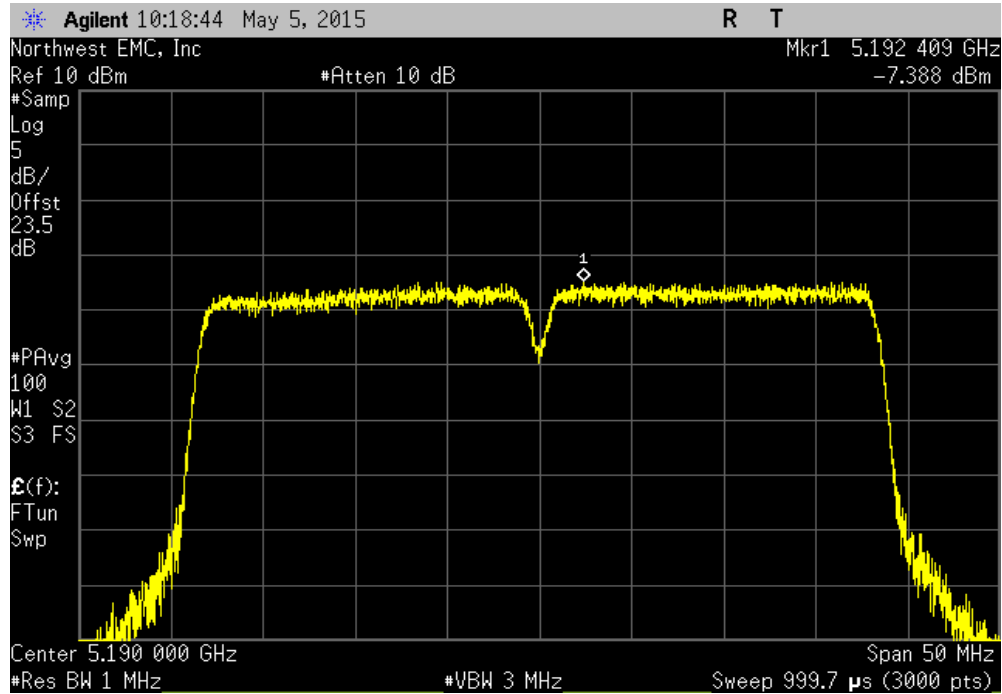


20 MHz, Chain C, 802.11(n) MCS15, High Channel 48, 5240 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.799	17	Pass			

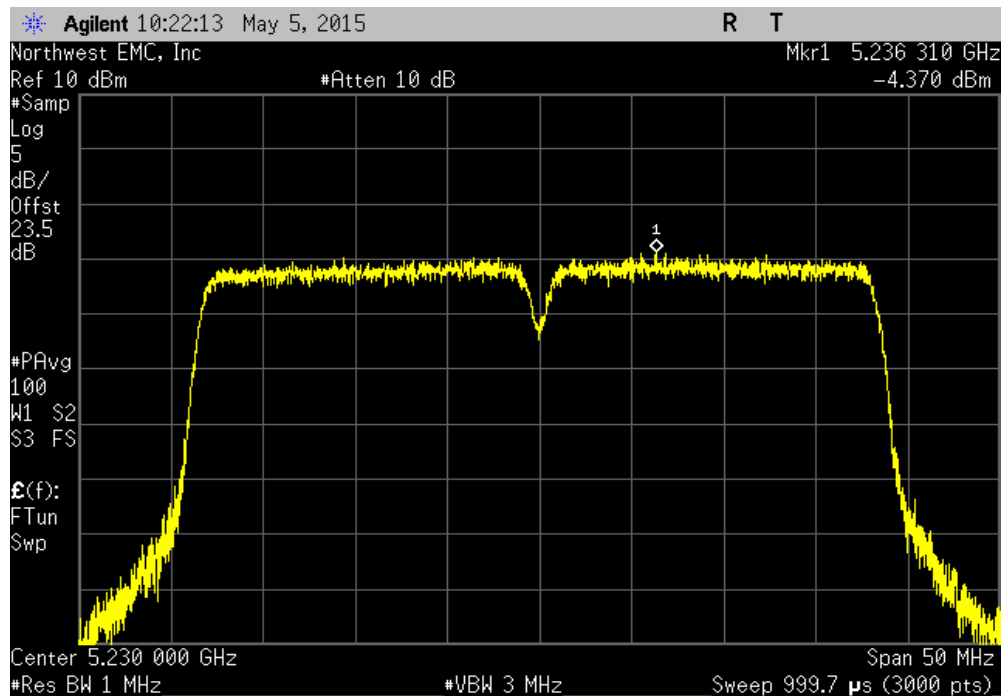


PEAK POWER SPECTRAL DENSITY

40 MHz, Chain A, 802.11(n) MCS8, Low Channel 36/40, 5190 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-7.388	17	Pass			

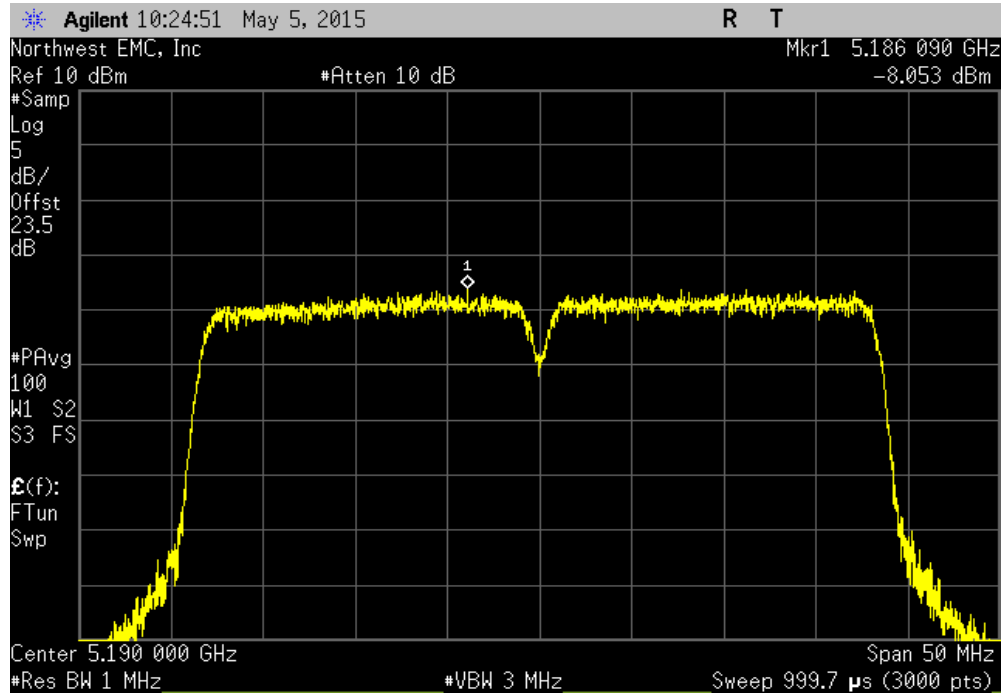


40 MHz, Chain A, 802.11(n) MCS8, High Channel 44/48, 5230 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-4.37	17	Pass			

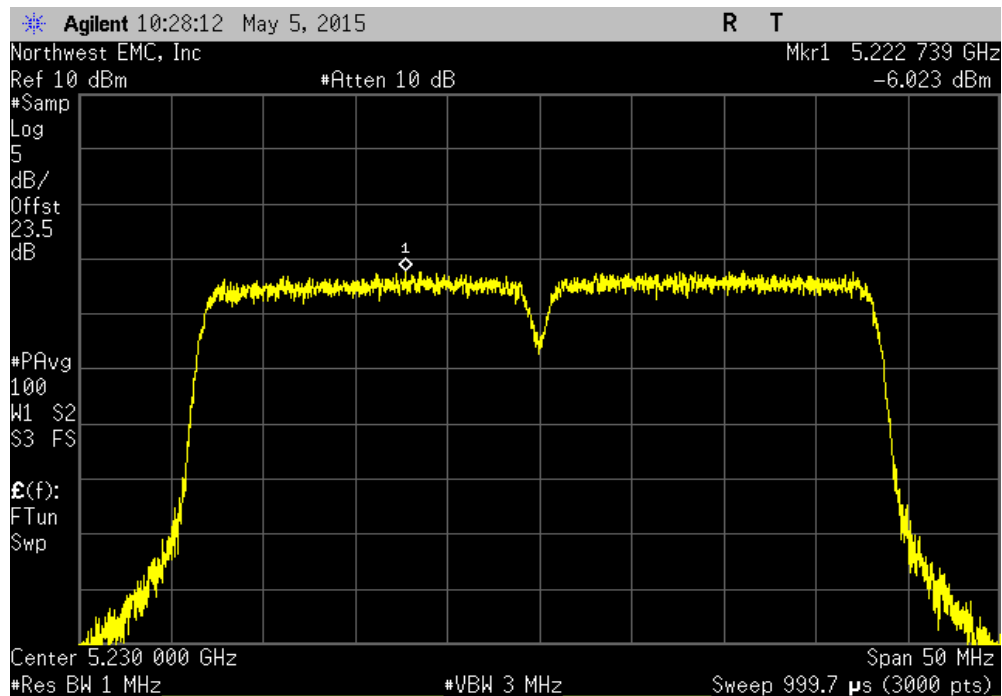


PEAK POWER SPECTRAL DENSITY

40 MHz, Chain A, 802.11(n) MCS15, Low Channel 36/40, 5190 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-8.053	17	Pass			

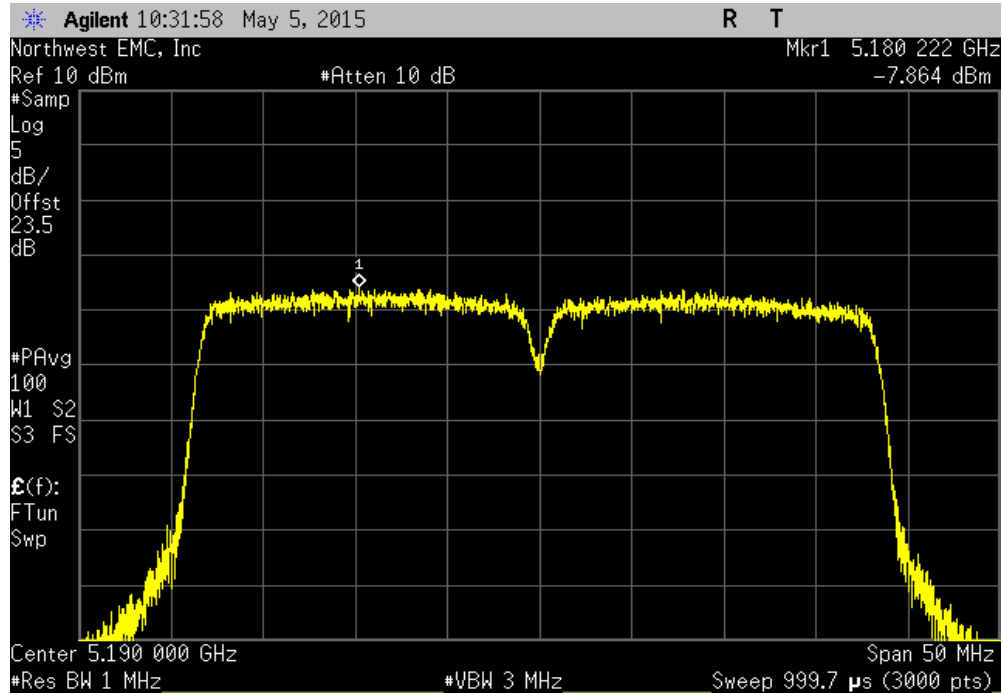


40 MHz, Chain A, 802.11(n) MCS15, High Channel 44/48, 5230 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-6.023	17	Pass			

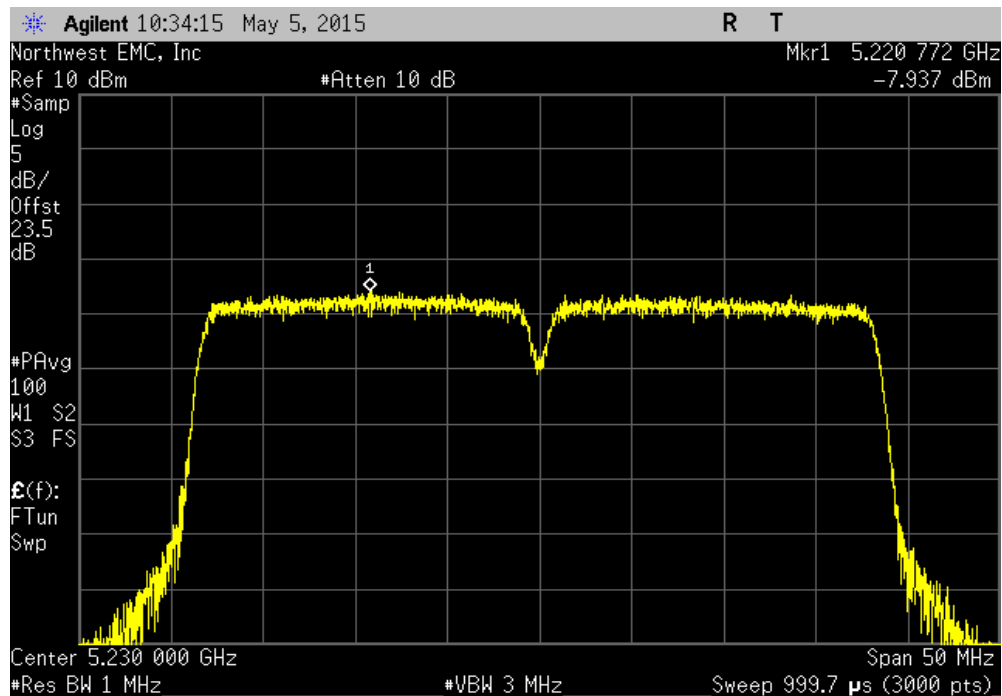


PEAK POWER SPECTRAL DENSITY

40 MHz, Chain B, 802.11(n) MCS8, Low Channel 36/40, 5190 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-7.864	17	Pass			

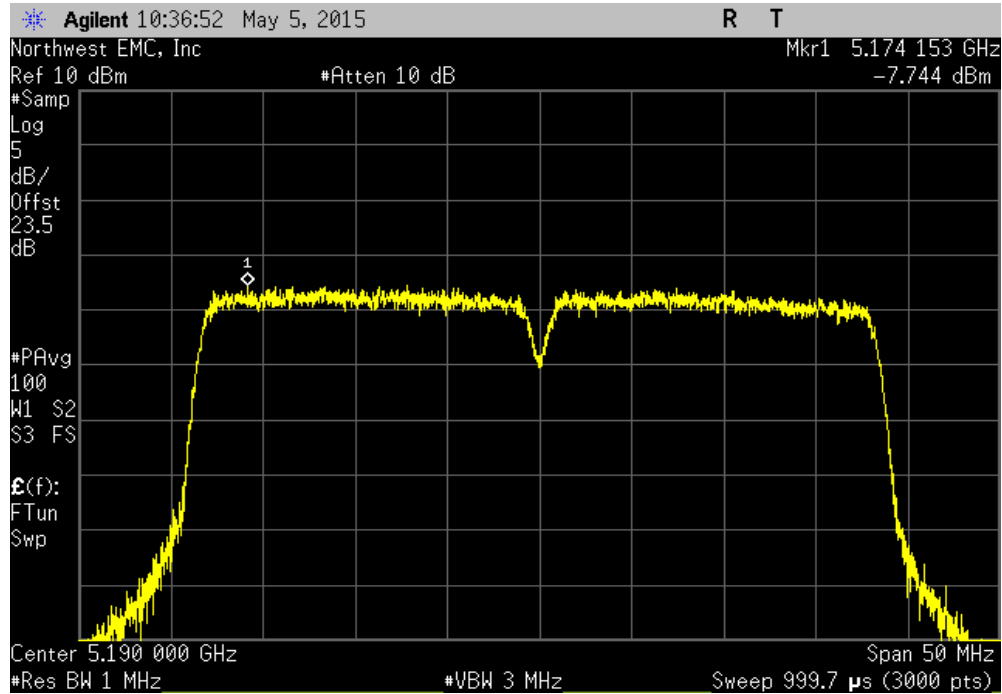


40 MHz, Chain B, 802.11(n) MCS8, High Channel 44/48, 5230 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-7.937	17	Pass			

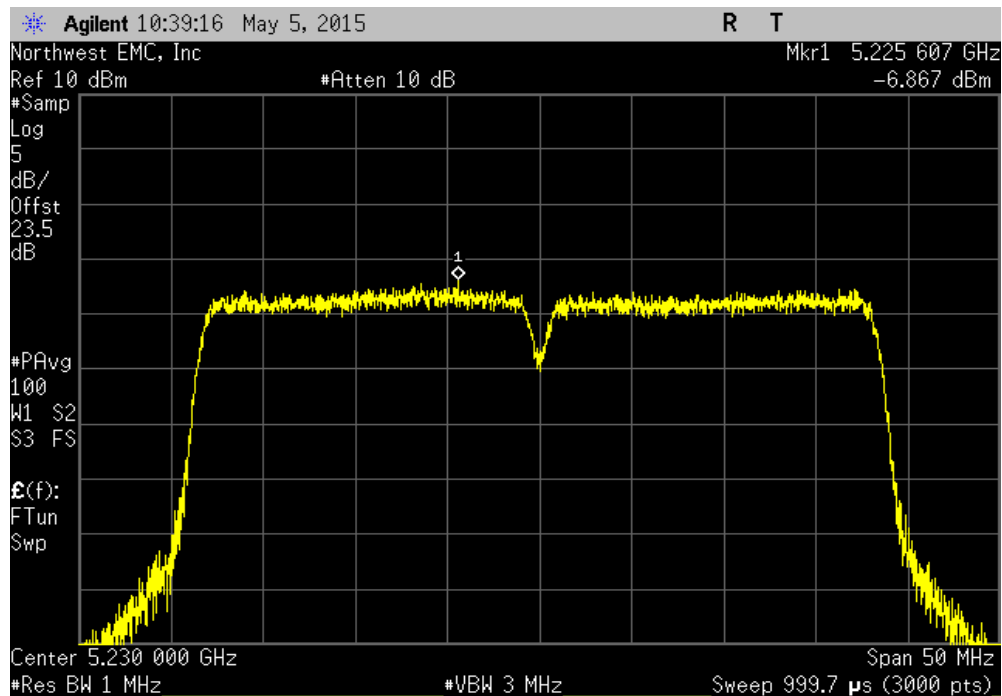


PEAK POWER SPECTRAL DENSITY

40 MHz, Chain B, 802.11(n) MCS15, Low Channel 36/40, 5190 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-7.744	17	Pass			

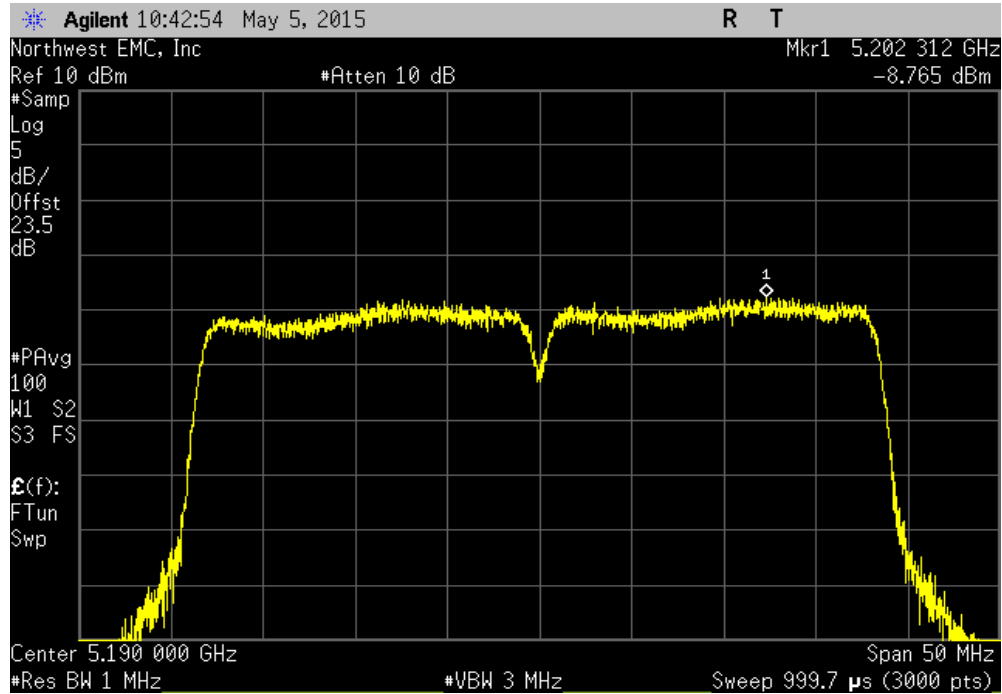


40 MHz, Chain B, 802.11(n) MCS15, High Channel 44/48, 5230 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-6.867	17	Pass			

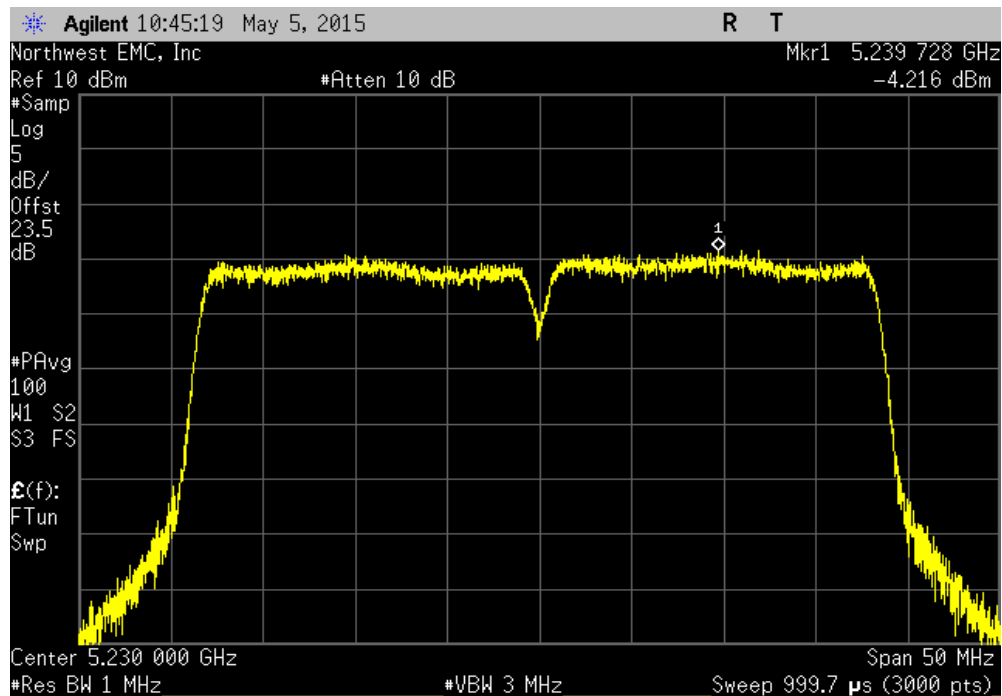


PEAK POWER SPECTRAL DENSITY

40 MHz, Chain C, 802.11(n) MCS8, Low Channel 36/40, 5190 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-8.765	17	Pass			

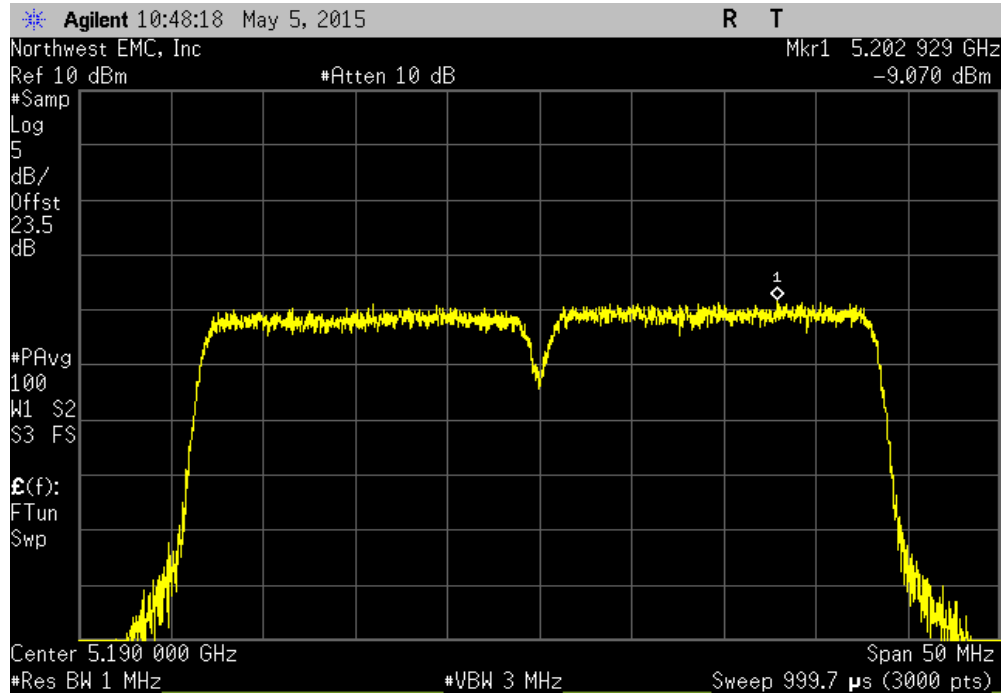


40 MHz, Chain C, 802.11(n) MCS8, High Channel 44/48, 5230 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-4.216	17	Pass			

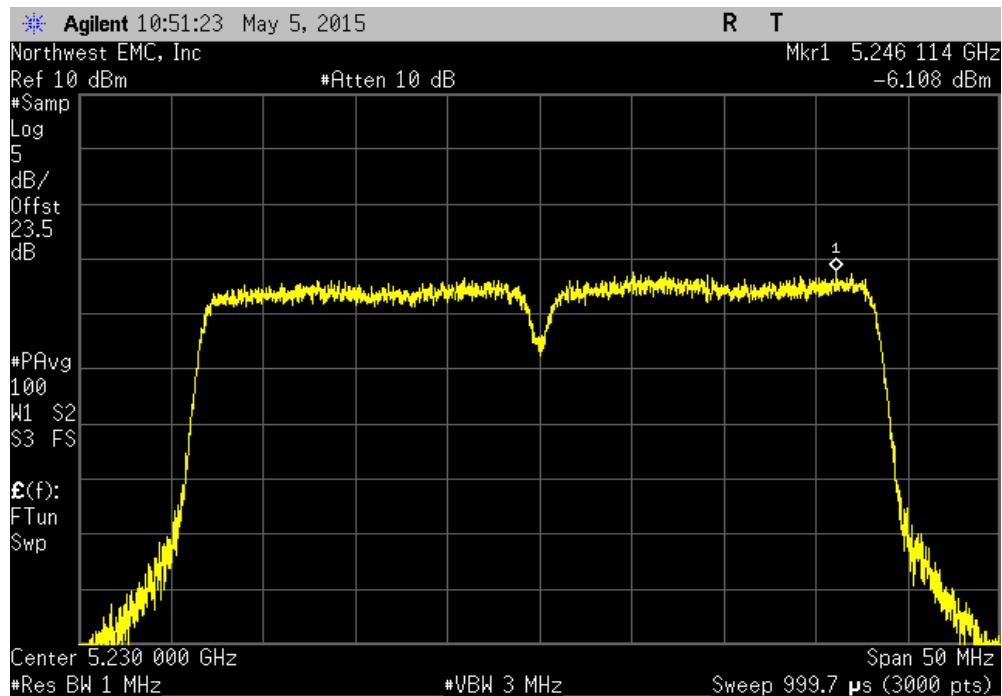


PEAK POWER SPECTRAL DENSITY

40 MHz, Chain C, 802.11(n) MCS15, Low Channel 36/40, 5190 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-9.07	17	Pass			



40 MHz, Chain C, 802.11(n) MCS15, High Channel 44/48, 5230 MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-6.108	17	Pass			



PEAK POWER SPECTRAL DENSITY

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mos)
OC13 Cables	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	0
Attenuator, 20dB	Fairview Microwave	SA18E-10	TKS	4/8/2015	12
40GHz DC Block	Fairview Microwave	SD3379	AMN	4/8/2015	12
Spectrum Analyzer	Agilent	E4440A	AFA	8/28/2014	12

TEST DESCRIPTION

FCC KDB 789033 D02 General UNII Test Procedures New Rules v01 Section F was followed. The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum. The data rate(s) listed in the datasheet were tested. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

Prior to measuring peak power spectral density, the transmission pulse duration (T) was measured. The transmission pulse duration and the associated data are found elsewhere in this test report.

The spectrum analyzer settings were as follows:

- The span was set to encompass entire emission bandwidth (B), centered on the transmit channel.
- RBW = 1 MHz, VBW ≥ 3 MHz
- Sample detector was used because Method SA-1 Alternate was used to measure the Maximum Conducted Output Power.
- Trace average 100 traces in power averaging mode (not video averaging).

The peak power spectral density (PPSD) was determined to be the highest level found across the emission in any 1 MHz band after 100 sweeps of power averaging (not video averaging).

PEAK POWER SPECTRAL DENSITY

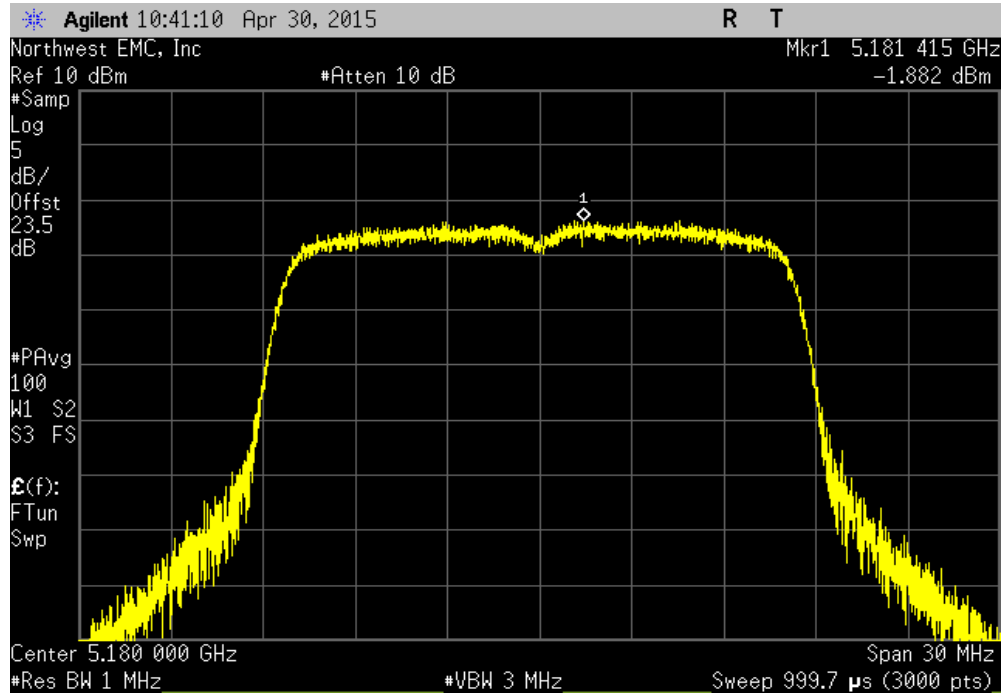


XMR 2015.01.14

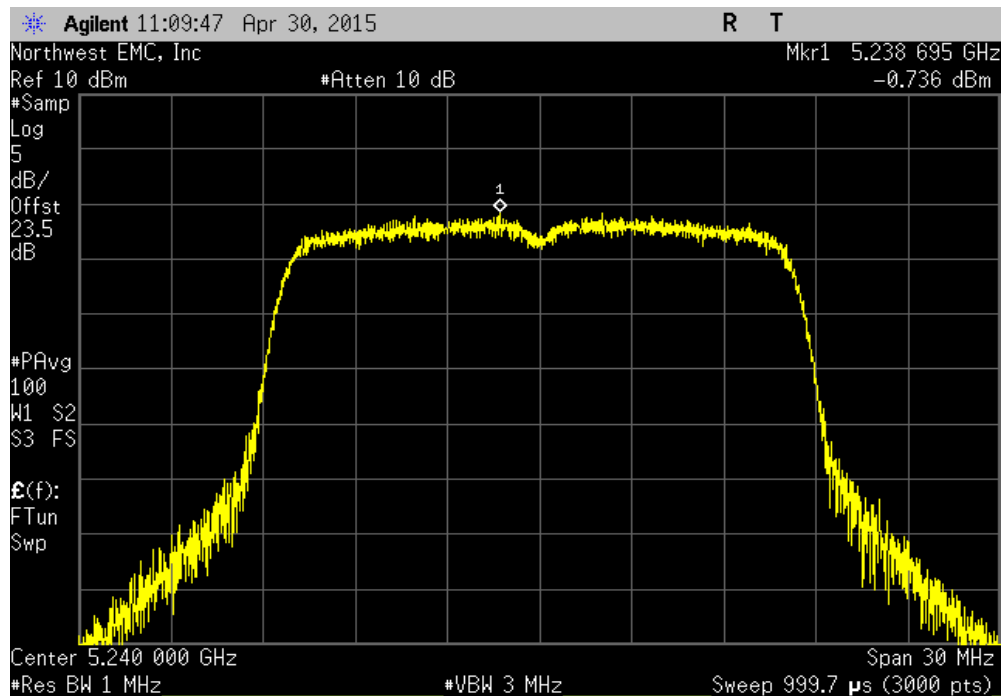
EUT: RLX2-IHNF		Work Order: PROS0216	
Serial Number: 000D8DF095CE		Date: 04/30/15	
Customer: ProSoft Technology, Inc.		Temperature: 21.1°C	
Attendees: Frank Hardy		Humidity: 46%	
Project: None		Barometric Pres.: 1012	
Tested by: Johnny Candelas		Power: 120V/60Hz	
		Job Site: OC13	
TEST SPECIFICATIONS		Test Method	
FCC 15.407:2015		ANSI C63.10:2009	
COMMENTS			
Offset 23.46dB (DC Block+20dB Attenuator+Coax Cable) for 5.2GHz			
Power Setting - Max			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature 	
		Value (dBm / MHz)	Limit (dBm / Ref BW)
Results			
20 MHz			
Chain A			
802.11(a) 6 Mbps			
Low Channel 36, 5180MHz		-1.882	17
High Channel 48, 5240MHz		-0.736	17
802.11(a) 36 Mbps			
Low Channel 36, 5180MHz		-1.262	17
High Channel 48, 5240MHz		-0.348	17
802.11(a) 54 Mbps			
Low Channel 36, 5180MHz		-1.412	17
High Channel 48, 5240MHz		-0.62	17
802.11(n) MCS0			
Low Channel 36, 5180MHz		-1.341	17
High Channel 48, 5240MHz		-0.831	17
802.11(n) MCS7			
Low Channel 36, 5180MHz		-1.17	17
High Channel 48, 5240MHz		-1.051	17
Chain B			
802.11(a) 6 Mbps			
Low Channel 36, 5180MHz		-2.283	17
High Channel 48, 5240MHz		-1.808	17
802.11(a) 36 Mbps			
Low Channel 36, 5180MHz		-2.074	17
High Channel 48, 5240MHz		-1.488	17
802.11(a) 54 Mbps			
Low Channel 36, 5180MHz		-2.253	17
High Channel 48, 5240MHz		-1.974	17
802.11(n) MCS0			
Low Channel 36, 5180MHz		-2.59	17
High Channel 48, 5240MHz		-2.351	17
802.11(n) MCS7			
Low Channel 36, 5180MHz		-2.513	17
High Channel 48, 5240MHz		-1.275	17
Chain C			
802.11(a) 6 Mbps			
Low Channel 36, 5180MHz		-2.354	17
High Channel 48, 5240MHz		1.363	17
802.11(a) 36 Mbps			
Low Channel 36, 5180MHz		-0.493	17
High Channel 48, 5240MHz		-1.678	17
802.11(a) 54 Mbps			
Low Channel 36, 5180MHz		-0.589	17
High Channel 48, 5240MHz		-1.908	17
802.11(n) MCS0			
Low Channel 36, 5180MHz		-1.757	17
High Channel 48, 5240MHz		-1.504	17
802.11(n) MCS7			
Low Channel 36, 5180MHz		-1.749	17
High Channel 48, 5240MHz		-1.799	17
40 MHz			
Chain A			
802.11(n) MCS0			
Low Channel 36, 5180MHz		-7.388	17
High Channel 48, 5240MHz		-4.37	17
802.11(n) MCS7			
Low Channel 36, 5180MHz		-8.053	17
High Channel 48, 5240MHz		-6.023	17
Chain B			
802.11(n) MCS0			
Low Channel 36, 5180MHz		-7.864	17
High Channel 48, 5240MHz		-7.937	17
802.11(n) MCS7			
Low Channel 36, 5180MHz		-7.744	17
High Channel 48, 5240MHz		-6.867	17
Chain C			
802.11(n) MCS0			
Low Channel 36, 5180MHz		-8.765	17
High Channel 48, 5240MHz		-4.216	17
802.11(n) MCS7			
Low Channel 36, 5180MHz		-9.07	17
High Channel 48, 5240MHz		-6.108	17

PEAK POWER SPECTRAL DENSITY

20 MHz, Chain A, 802.11(a) 6 Mbps, Low Channel 36, 5180MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.882	17	Pass			

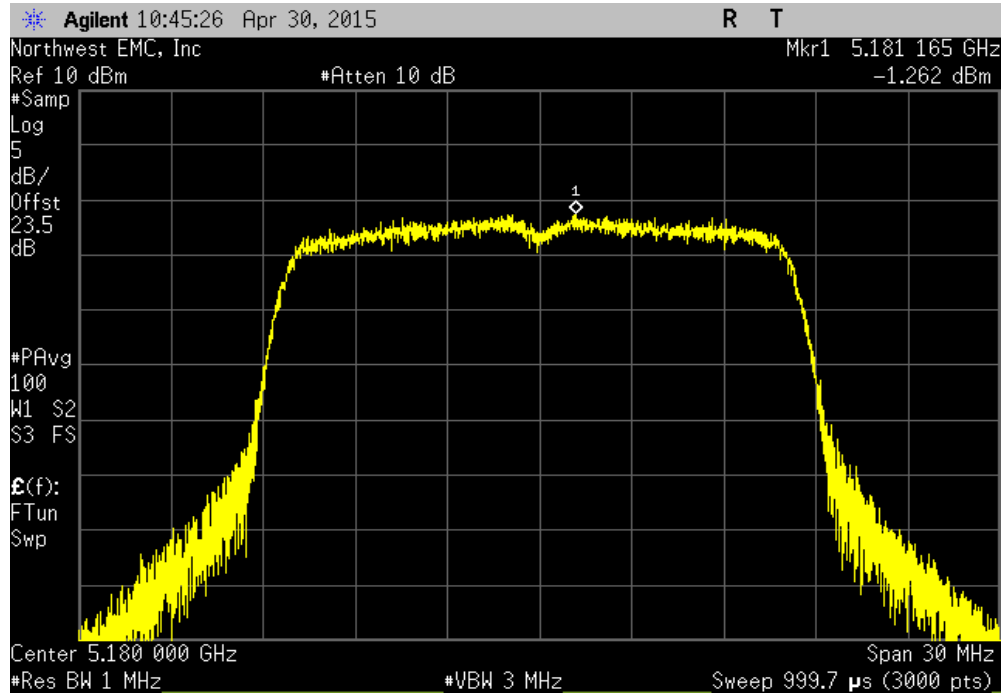


20 MHz, Chain A, 802.11(a) 6 Mbps, High Channel 48, 5240MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-0.736	17	Pass			

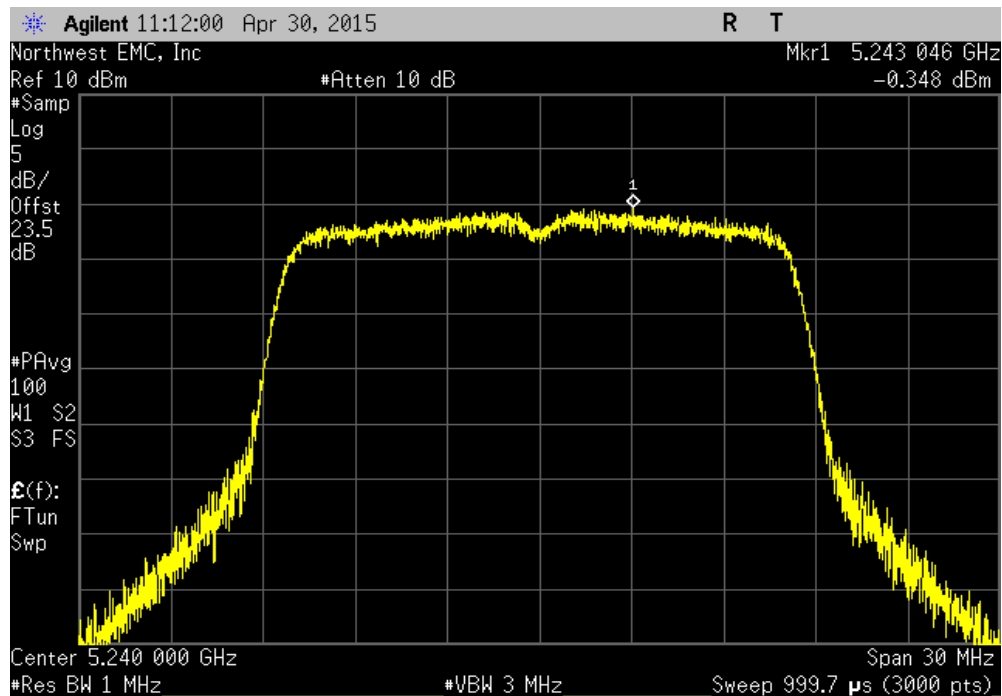


PEAK POWER SPECTRAL DENSITY

20 MHz, Chain A, 802.11(a) 36 Mbps, Low Channel 36, 5180MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.262	17	Pass			

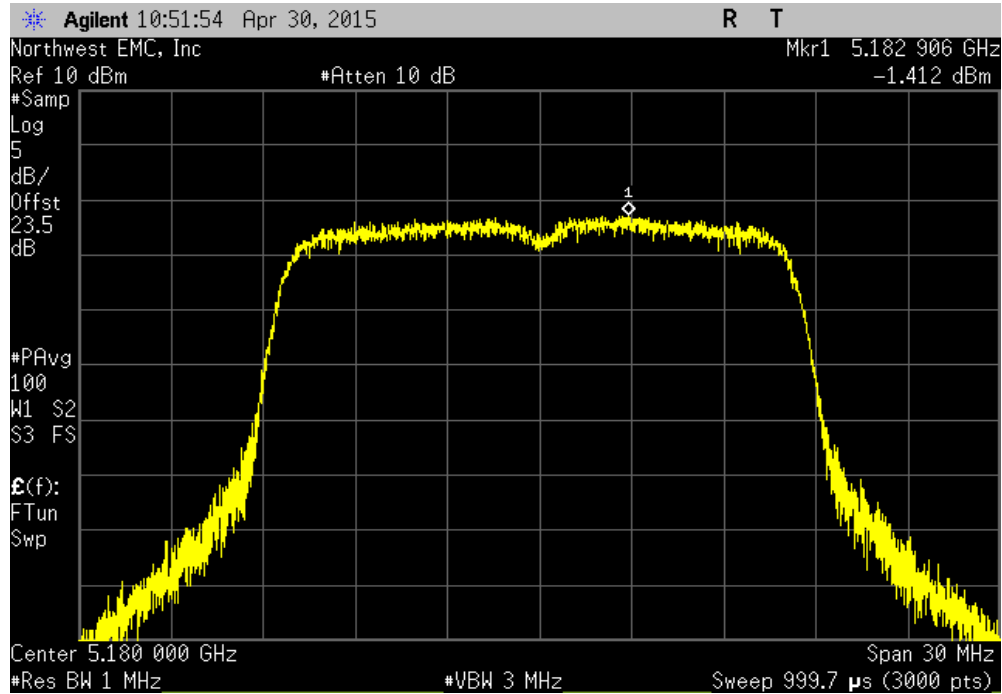


20 MHz, Chain A, 802.11(a) 36 Mbps, High Channel 48, 5240MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-0.348	17	Pass			

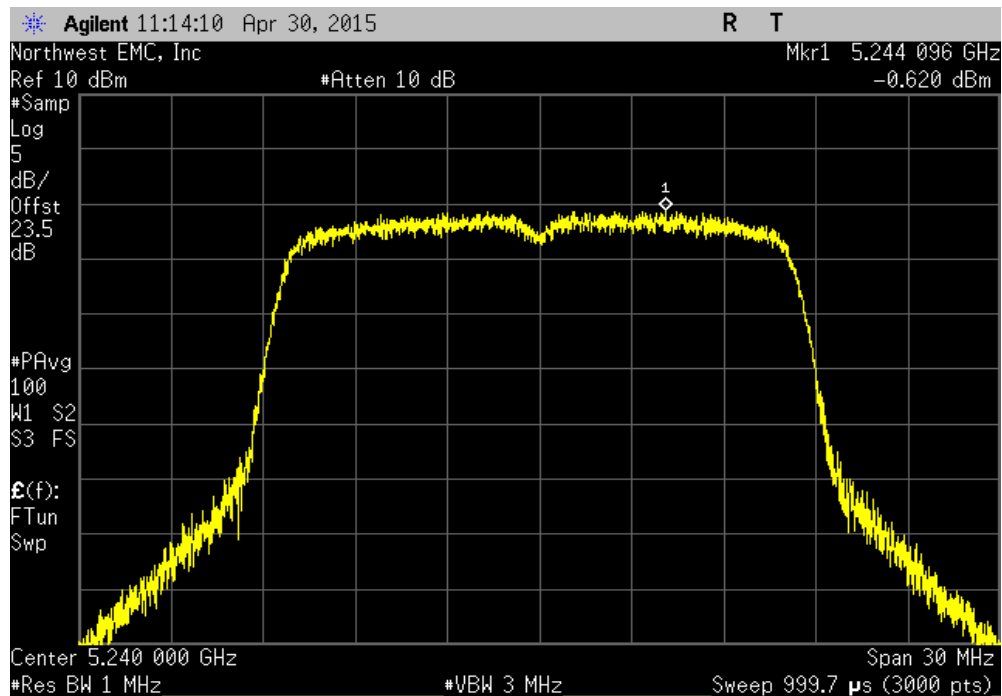


PEAK POWER SPECTRAL DENSITY

20 MHz, Chain A, 802.11(a) 54 Mbps, Low Channel 36, 5180MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.412	17	Pass			

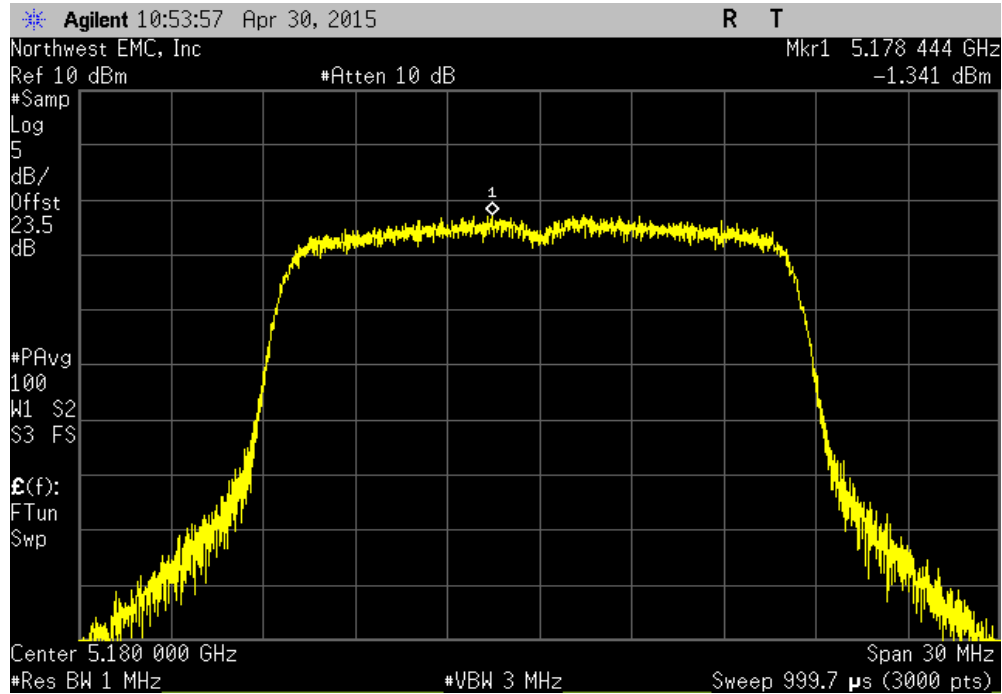


20 MHz, Chain A, 802.11(a) 54 Mbps, High Channel 48, 5240MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-0.62	17	Pass			

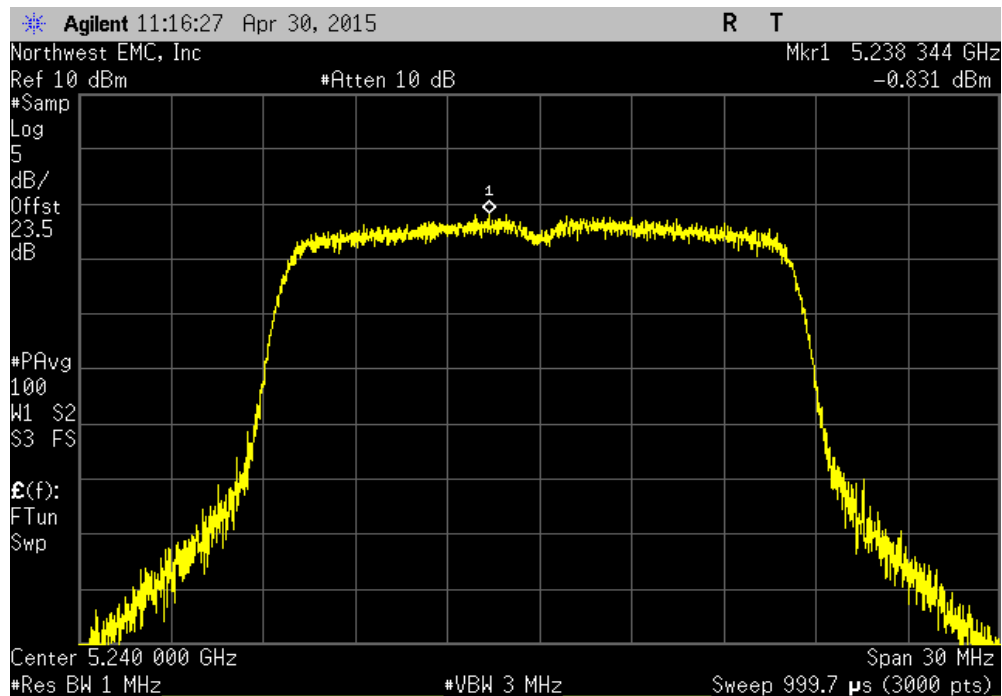


PEAK POWER SPECTRAL DENSITY

20 MHz, Chain A, 802.11(n) MCS0, Low Channel 36, 5180MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.341	17	Pass			

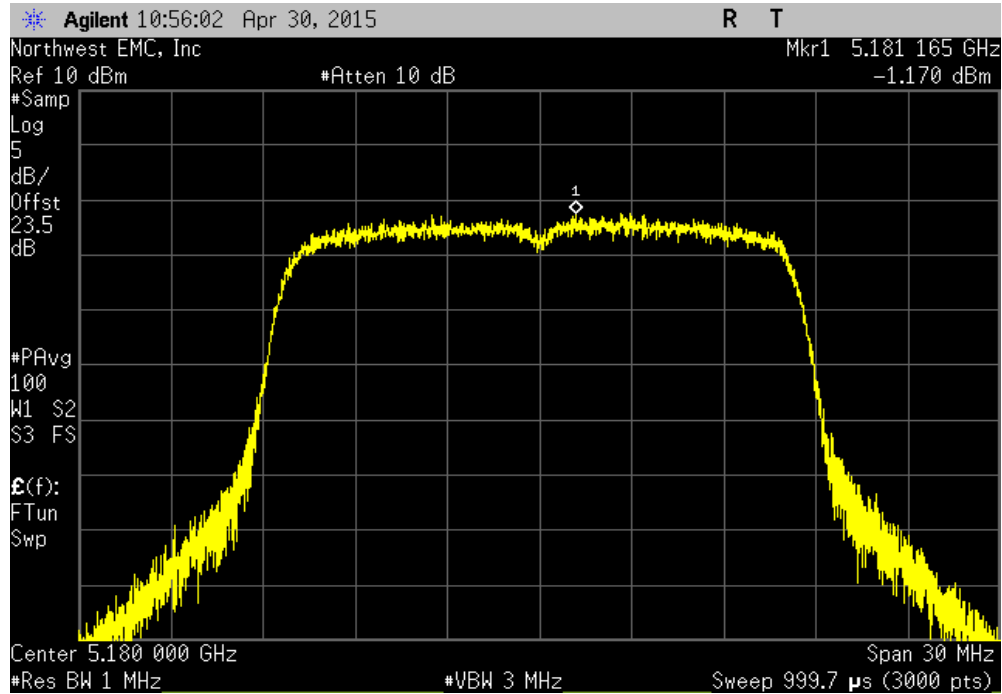


20 MHz, Chain A, 802.11(n) MCS0, High Channel 48, 5240MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-0.831	17	Pass			

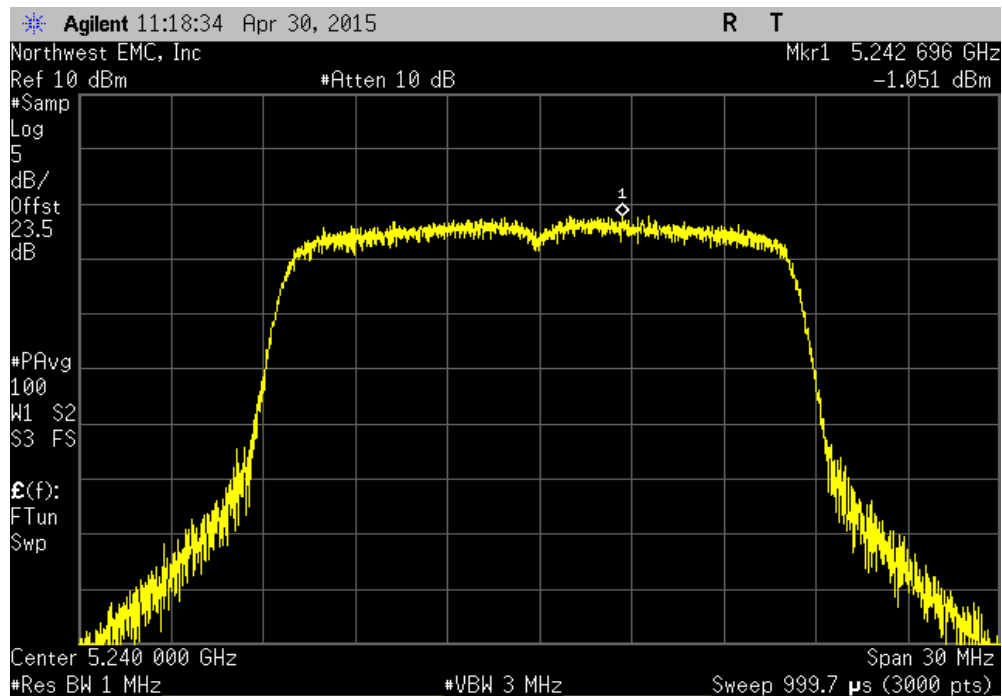


PEAK POWER SPECTRAL DENSITY

20 MHz, Chain A, 802.11(n) MCS7, Low Channel 36, 5180MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.17	17	Pass			

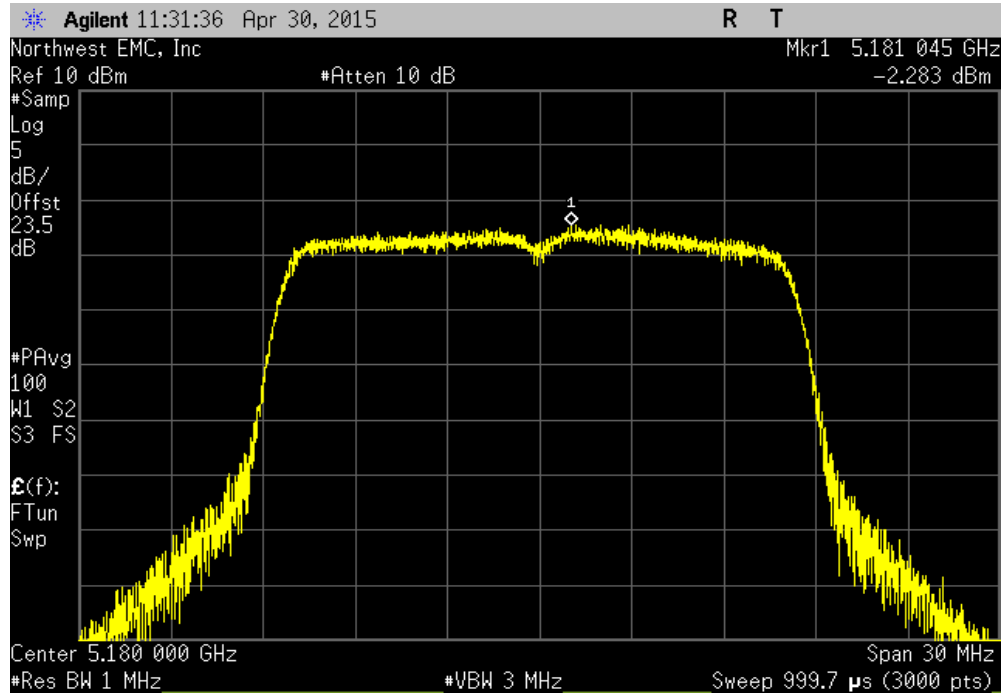


20 MHz, Chain A, 802.11(n) MCS7, High Channel 48, 5240MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.051	17	Pass			

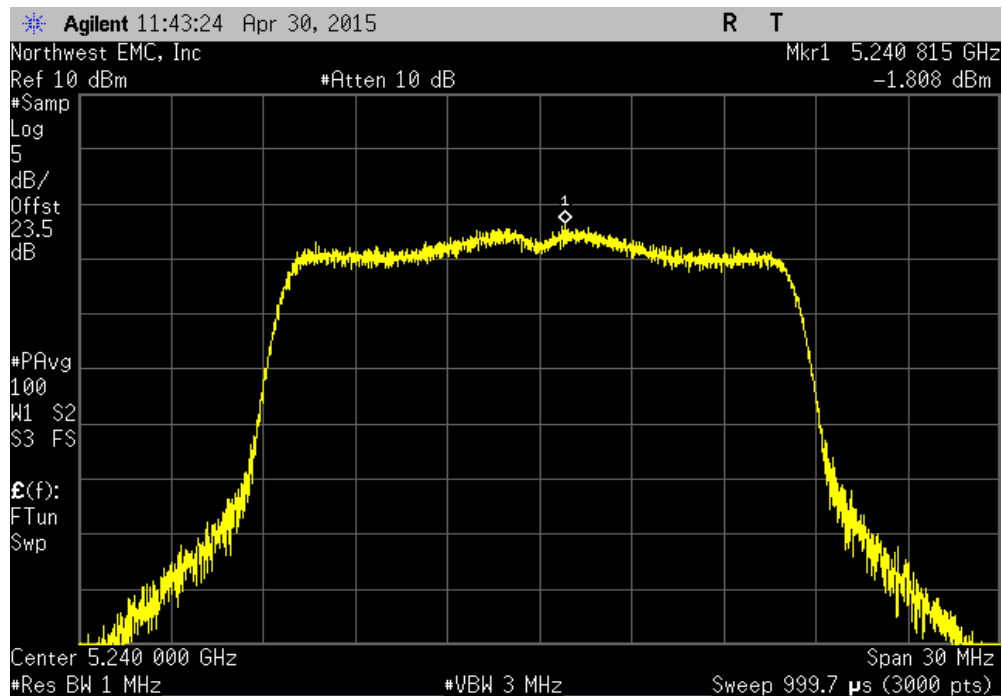


PEAK POWER SPECTRAL DENSITY

20 MHz, Chain B, 802.11(a) 6 Mbps, Low Channel 36, 5180MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-2.283	17	Pass			

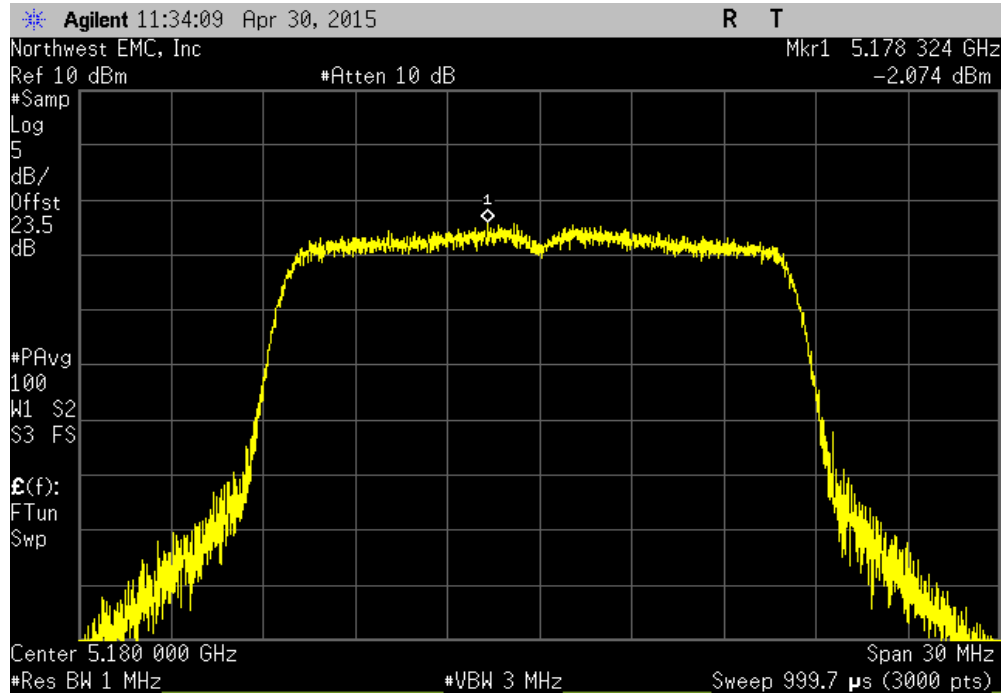


20 MHz, Chain B, 802.11(a) 6 Mbps, High Channel 48, 5240MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.808	17	Pass			

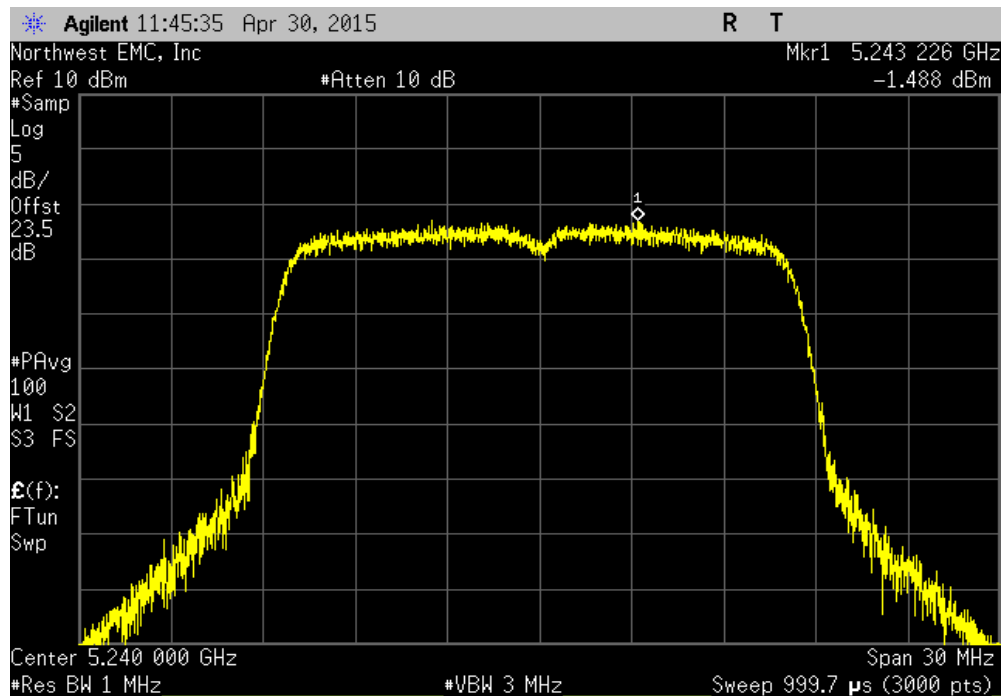


PEAK POWER SPECTRAL DENSITY

20 MHz, Chain B, 802.11(a) 36 Mbps, Low Channel 36, 5180MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-2.074	17	Pass			

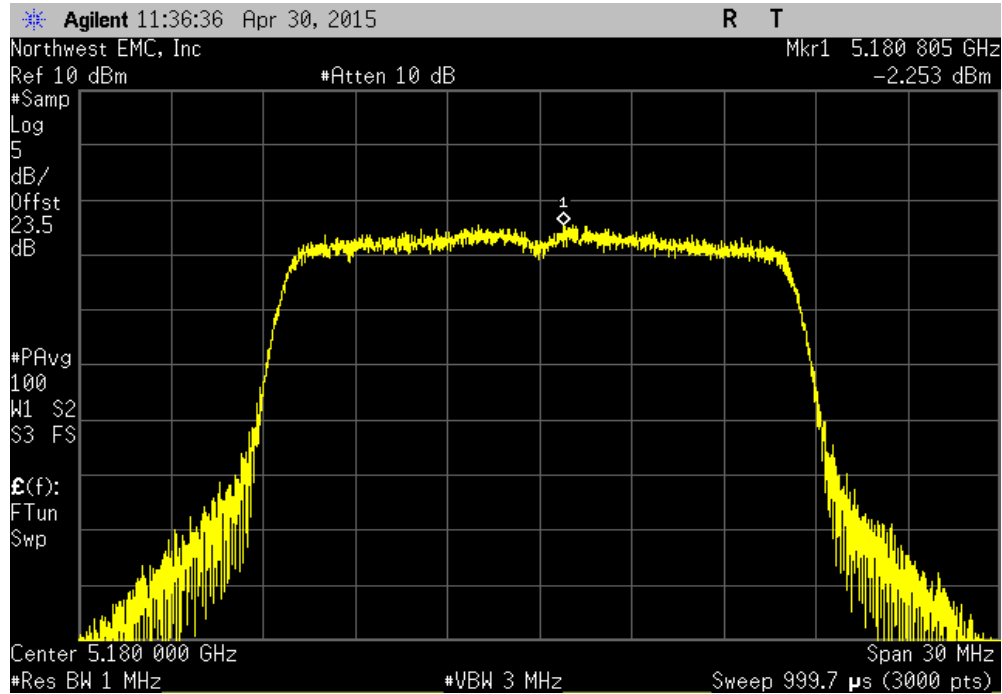


20 MHz, Chain B, 802.11(a) 36 Mbps, High Channel 48, 5240MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.488	17	Pass			

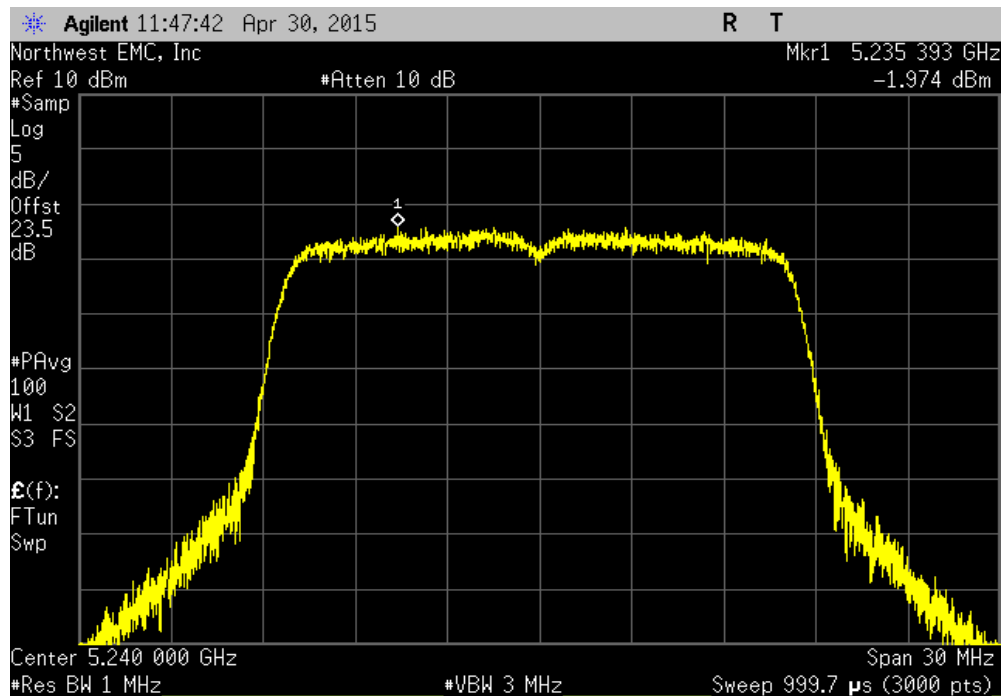


PEAK POWER SPECTRAL DENSITY

20 MHz, Chain B, 802.11(a) 54 Mbps, Low Channel 36, 5180MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-2.253	17	Pass			

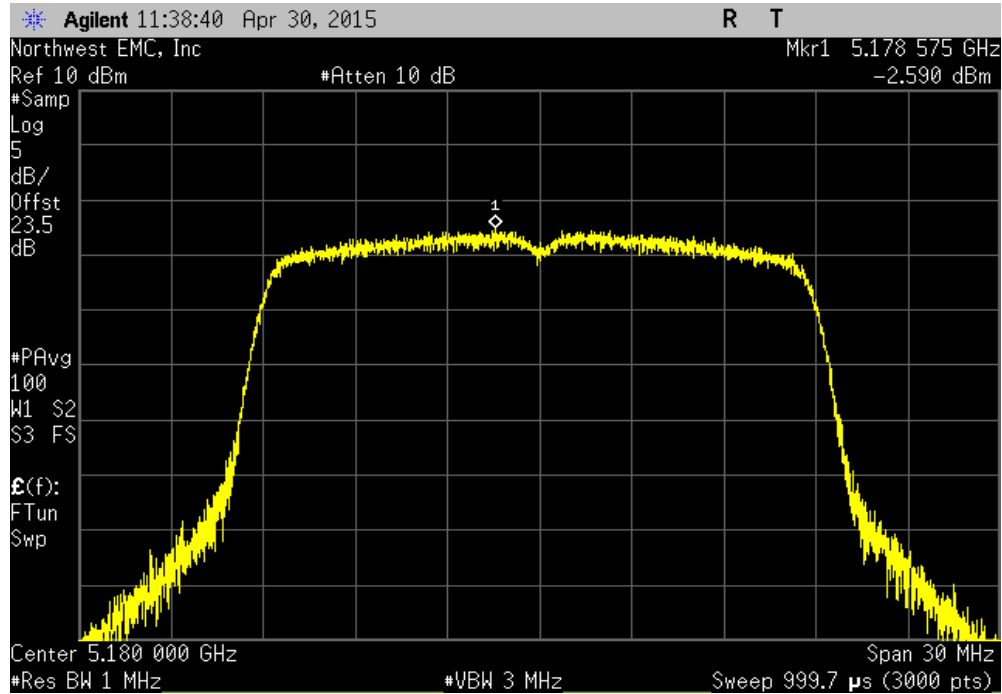


20 MHz, Chain B, 802.11(a) 54 Mbps, High Channel 48, 5240MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.974	17	Pass			

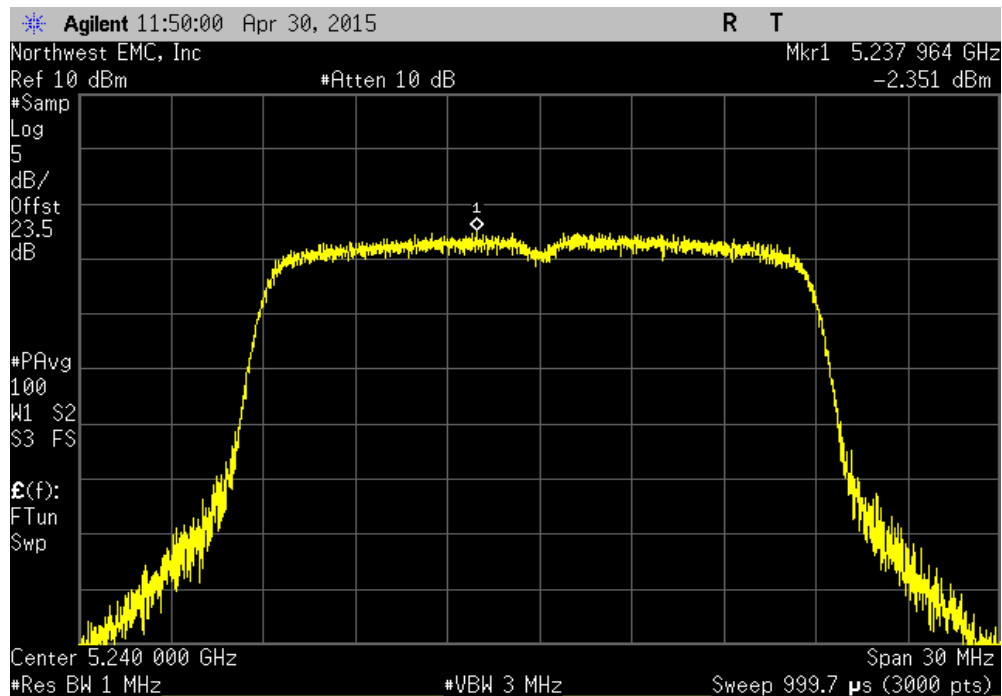


PEAK POWER SPECTRAL DENSITY

20 MHz, Chain B, 802.11(n) MCS0, Low Channel 36, 5180MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-2.59	17	Pass			

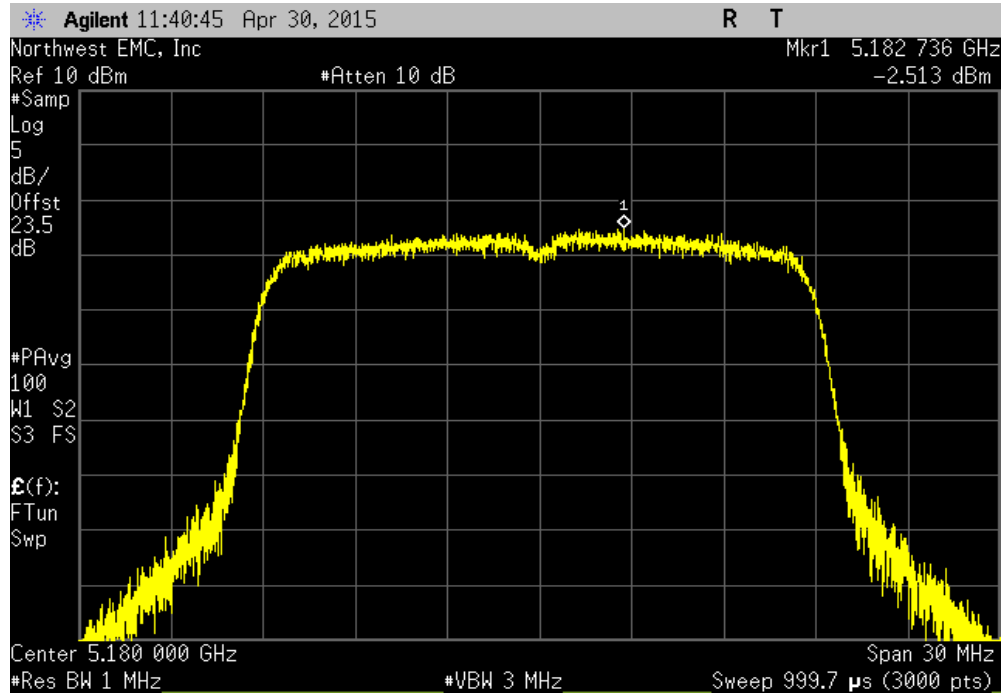


20 MHz, Chain B, 802.11(n) MCS0, High Channel 48, 5240MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-2.351	17	Pass			

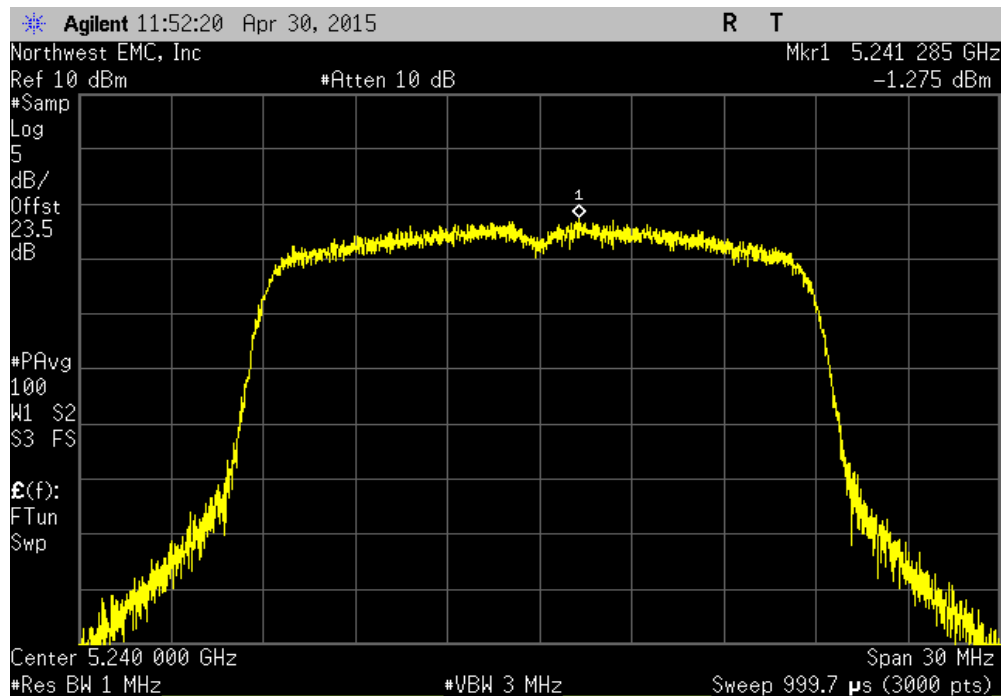


PEAK POWER SPECTRAL DENSITY

20 MHz, Chain B, 802.11(n) MCS7, Low Channel 36, 5180MHz						
				Value	Limit	Results
				(dBm / MHz)	(dBm / Ref BW)	
				-2.513	17	Pass

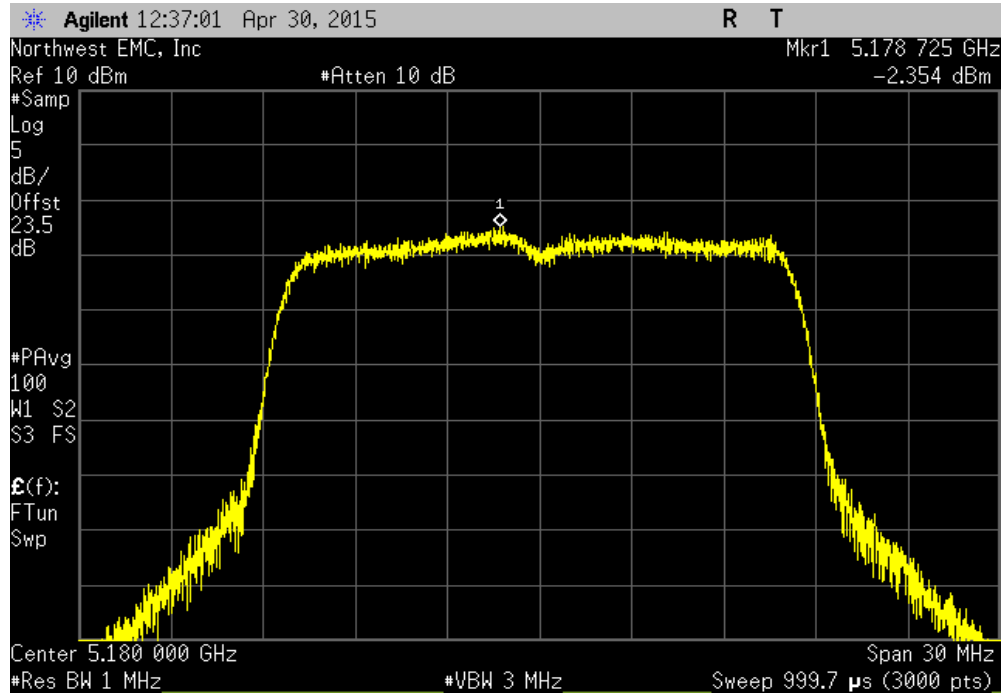


20 MHz, Chain B, 802.11(n) MCS7, High Channel 48, 5240MHz						
				Value	Limit	Results
				(dBm / MHz)	(dBm / Ref BW)	
				-1.275	17	Pass

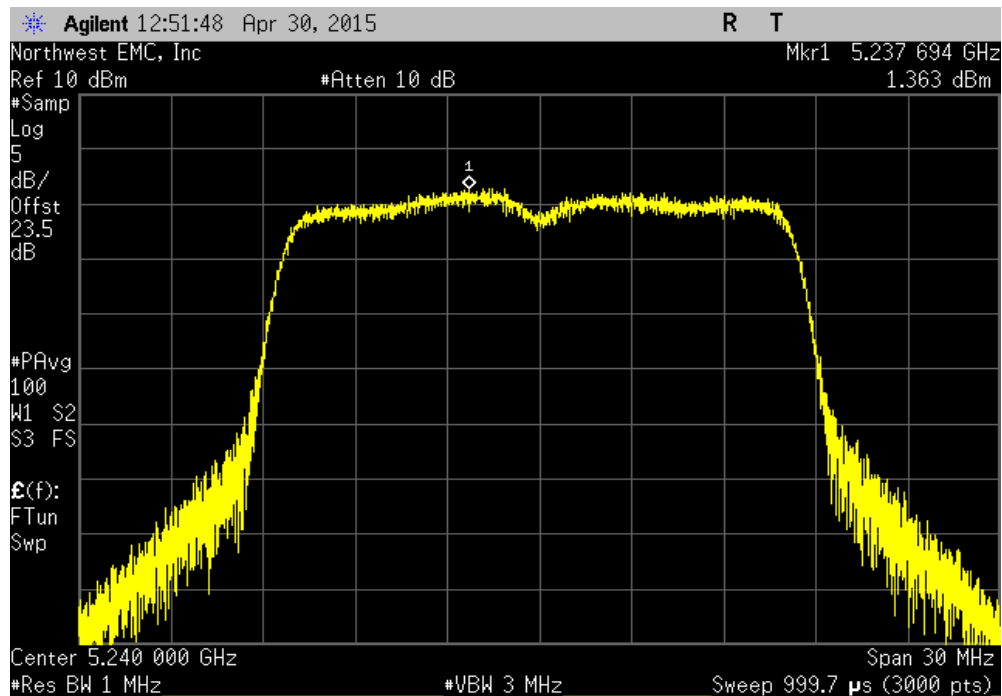


PEAK POWER SPECTRAL DENSITY

20 MHz, Chain C, 802.11(a) 6 Mbps, Low Channel 36, 5180MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-2.354	17	Pass			

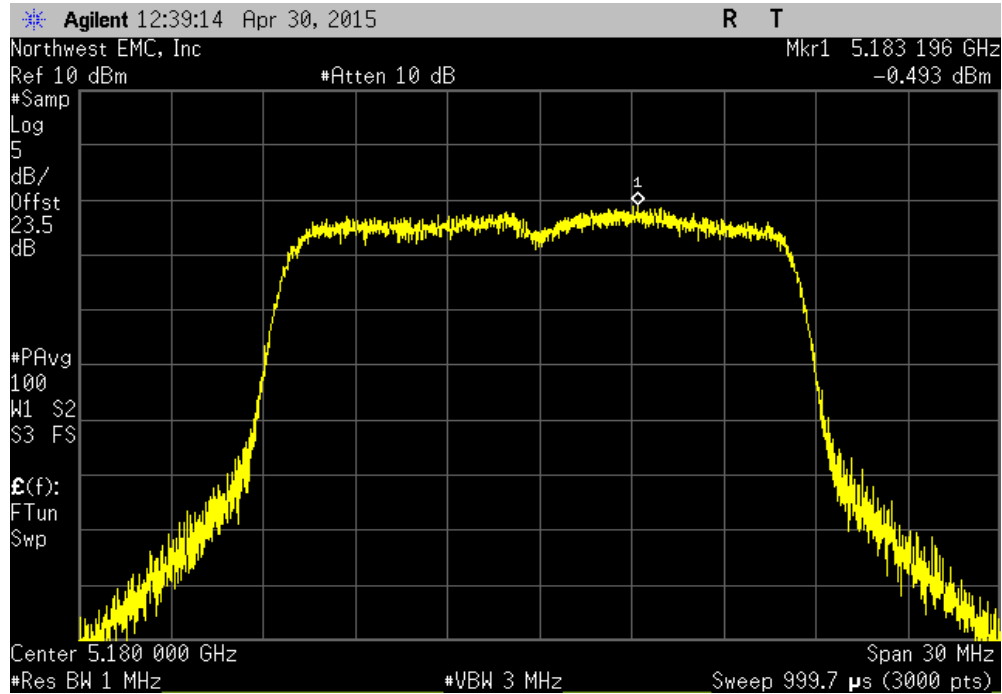


20 MHz, Chain C, 802.11(a) 6 Mbps, High Channel 48, 5240MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	1.363	17	Pass			

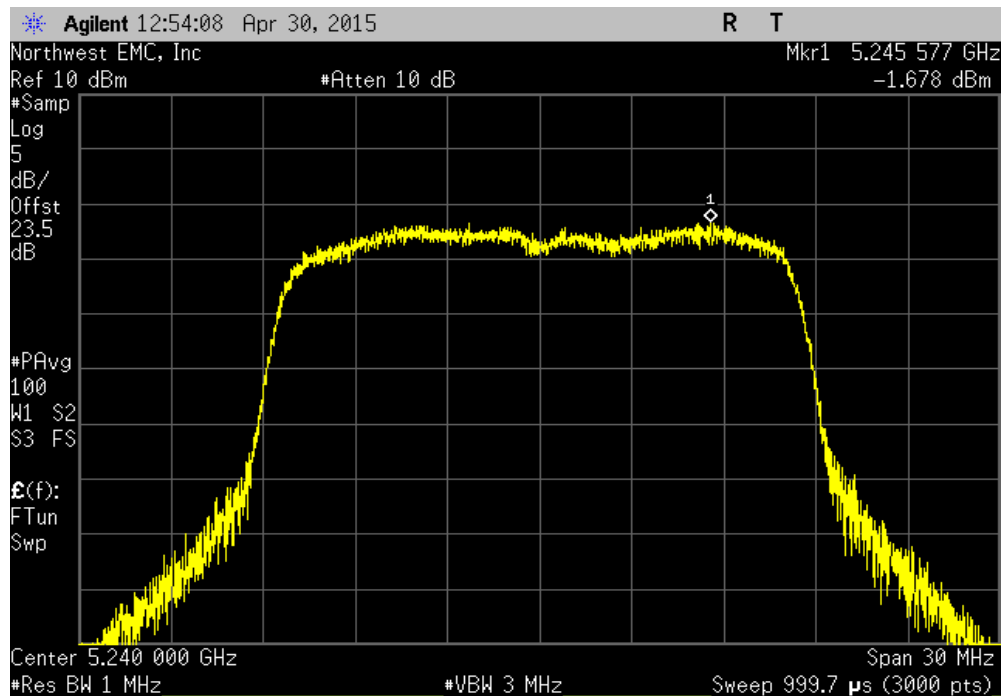


PEAK POWER SPECTRAL DENSITY

20 MHz, Chain C, 802.11(a) 36 Mbps, Low Channel 36, 5180MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-0.493	17	Pass			

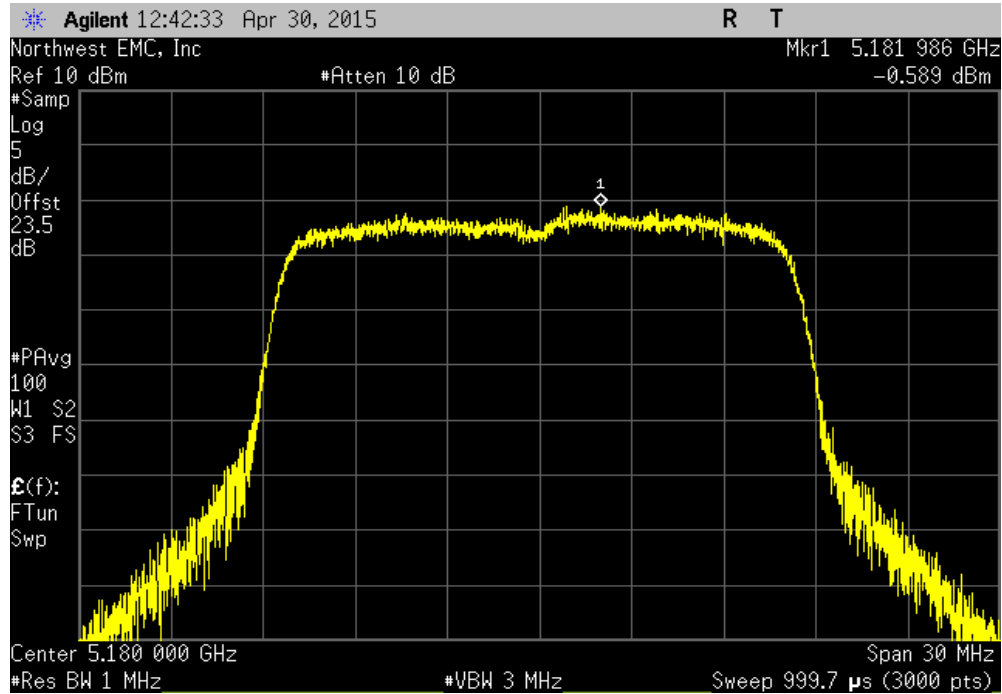


20 MHz, Chain C, 802.11(a) 36 Mbps, High Channel 48, 5240MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.678	17	Pass			

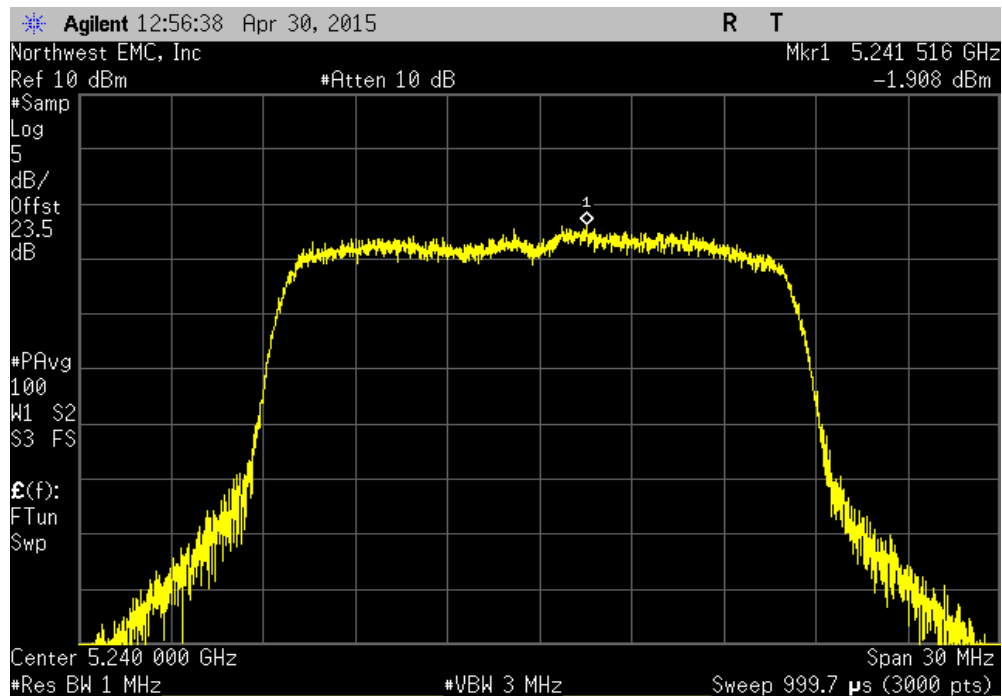


PEAK POWER SPECTRAL DENSITY

20 MHz, Chain C, 802.11(a) 54 Mbps, Low Channel 36, 5180MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-0.589	17	Pass			

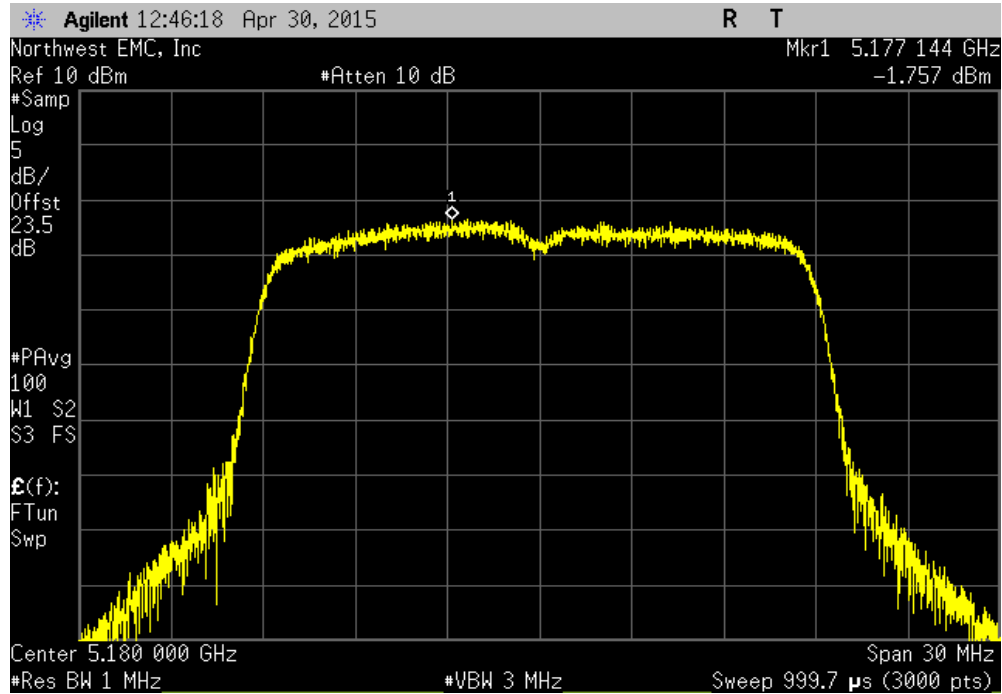


20 MHz, Chain C, 802.11(a) 54 Mbps, High Channel 48, 5240MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.908	17	Pass			

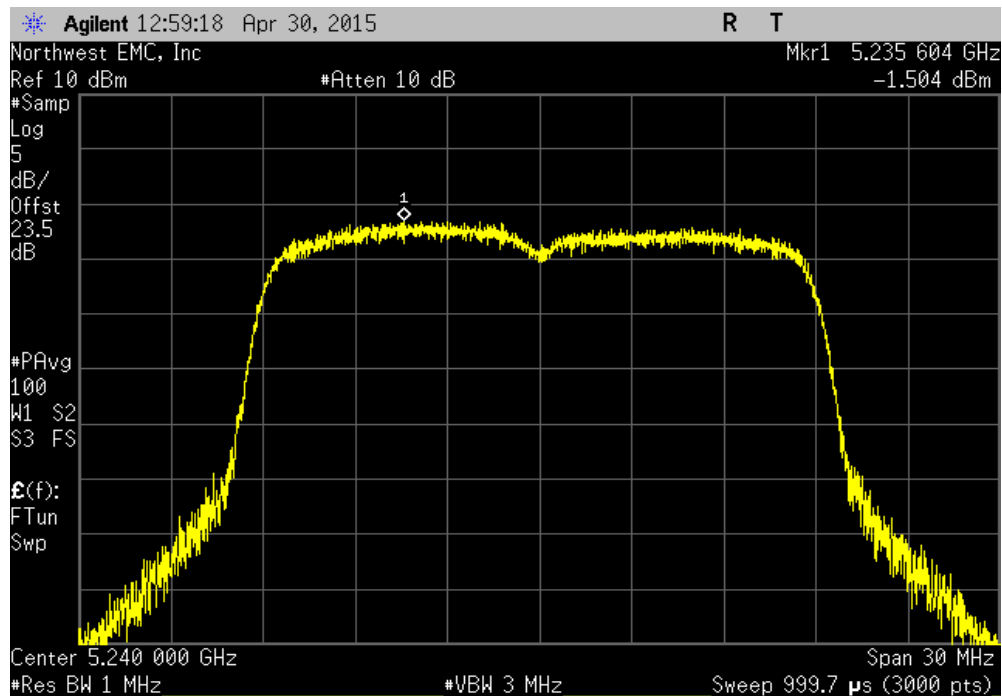


PEAK POWER SPECTRAL DENSITY

20 MHz, Chain C, 802.11(n) MCS0, Low Channel 36, 5180MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.757	17	Pass			

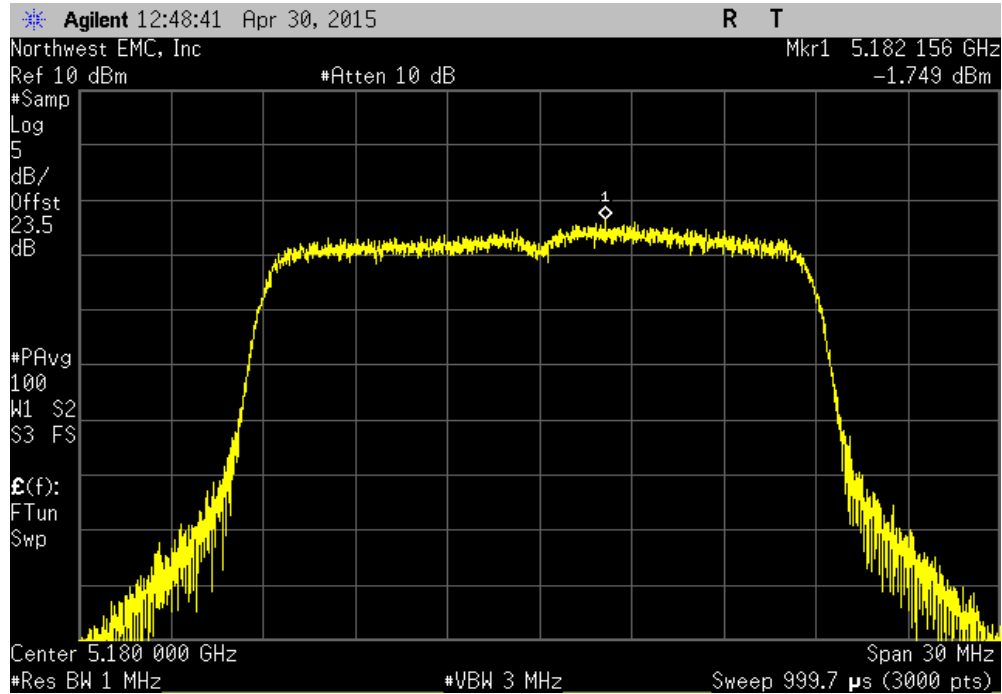


20 MHz, Chain C, 802.11(n) MCS0, High Channel 48, 5240MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.504	17	Pass			

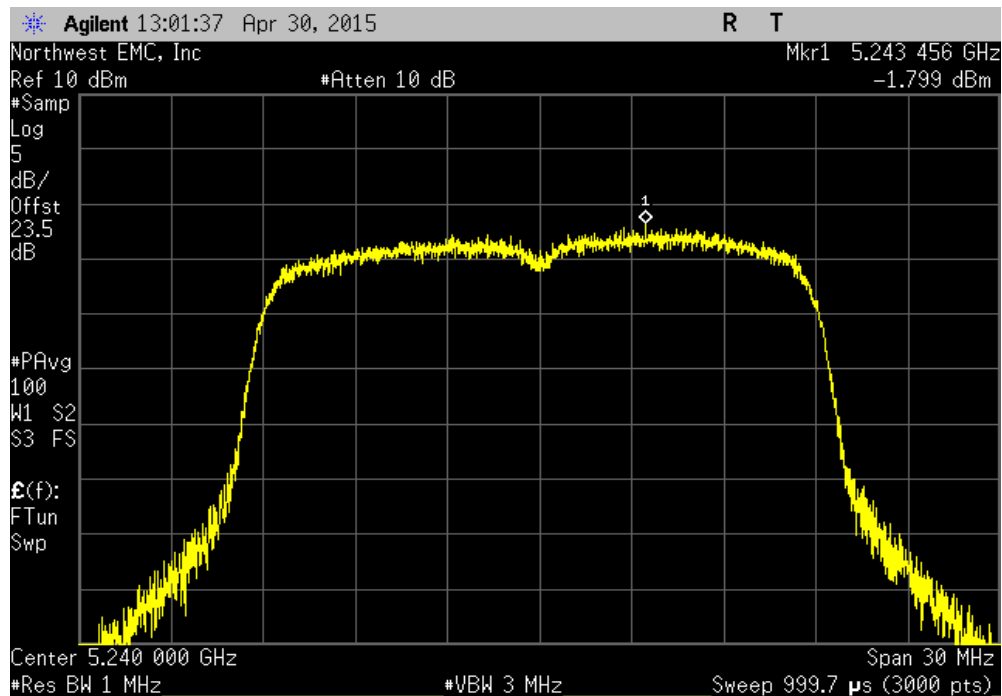


PEAK POWER SPECTRAL DENSITY

20 MHz, Chain C, 802.11(n) MCS7, Low Channel 36, 5180MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.749	17	Pass			

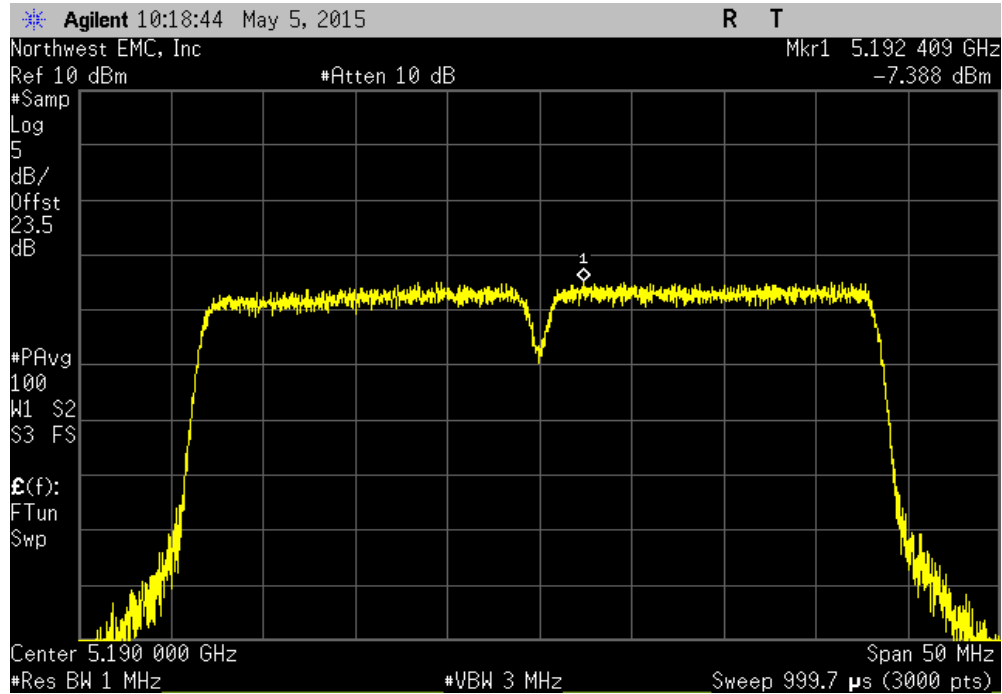


20 MHz, Chain C, 802.11(n) MCS7, High Channel 48, 5240MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-1.799	17	Pass			

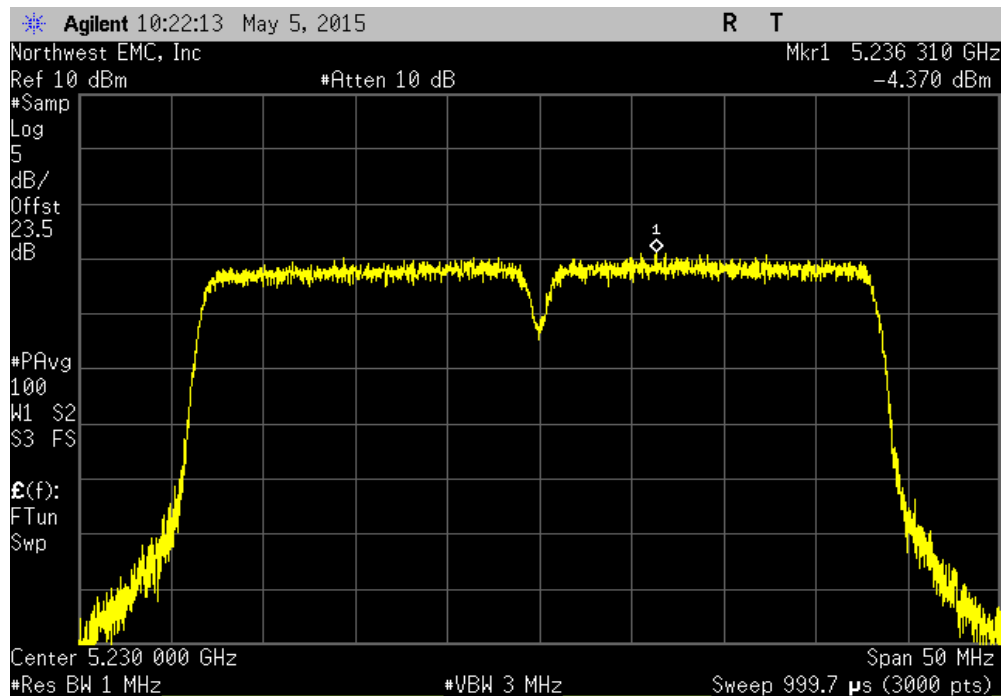


PEAK POWER SPECTRAL DENSITY

40 MHz, Chain A, 802.11(n) MCS0, Low Channel 36, 5180MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-7.388	17	Pass			

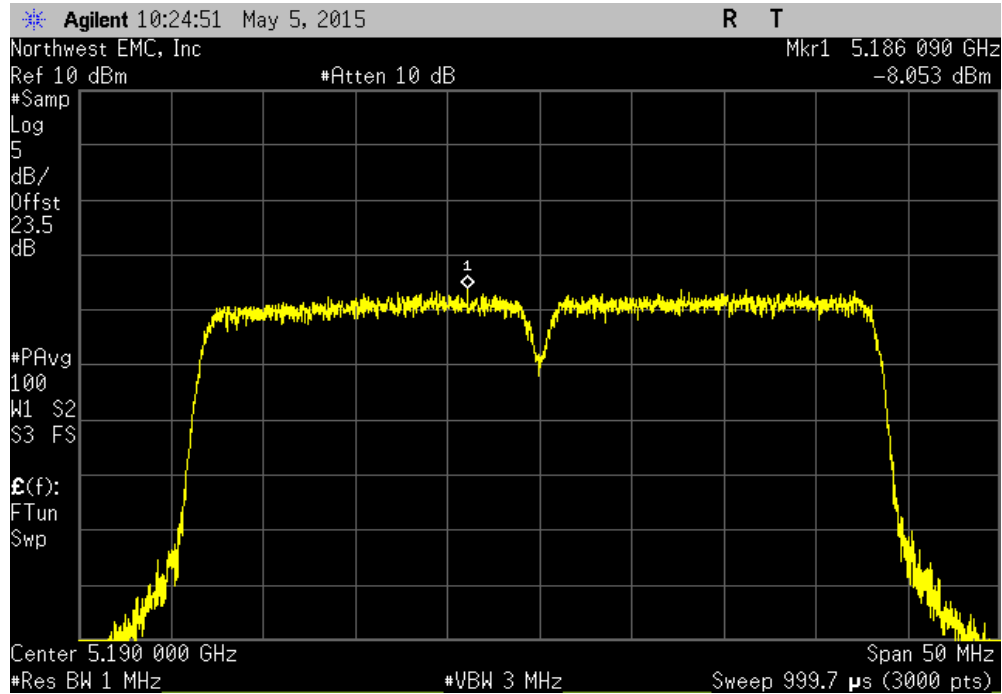


40 MHz, Chain A, 802.11(n) MCS0, High Channel 48, 5240MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-4.37	17	Pass			

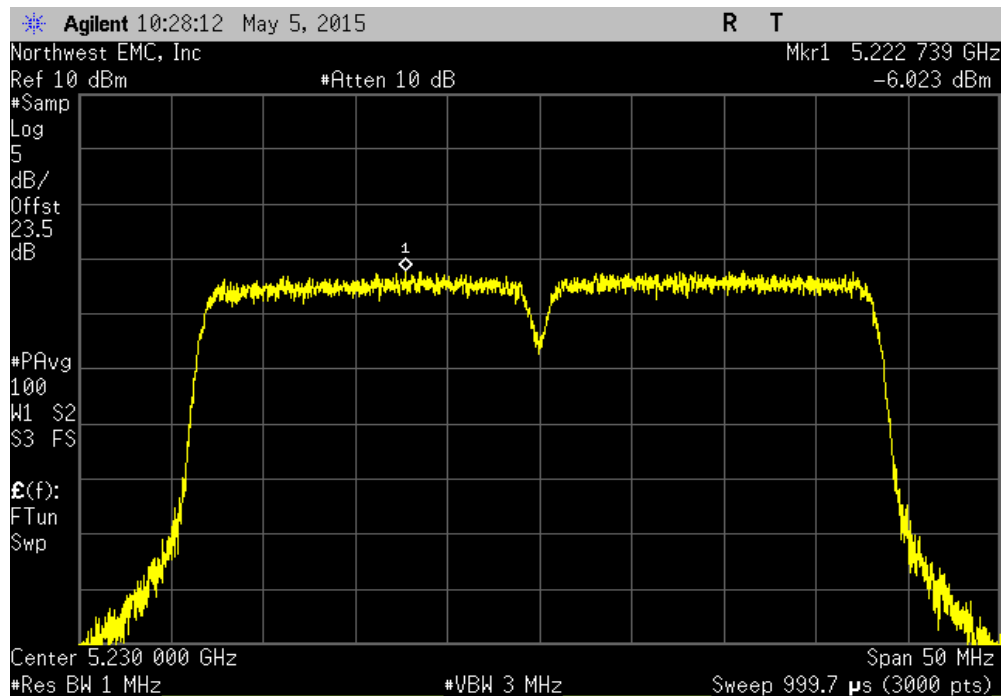


PEAK POWER SPECTRAL DENSITY

40 MHz, Chain A, 802.11(n) MCS7, Low Channel 36, 5180MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-8.053	17	Pass			

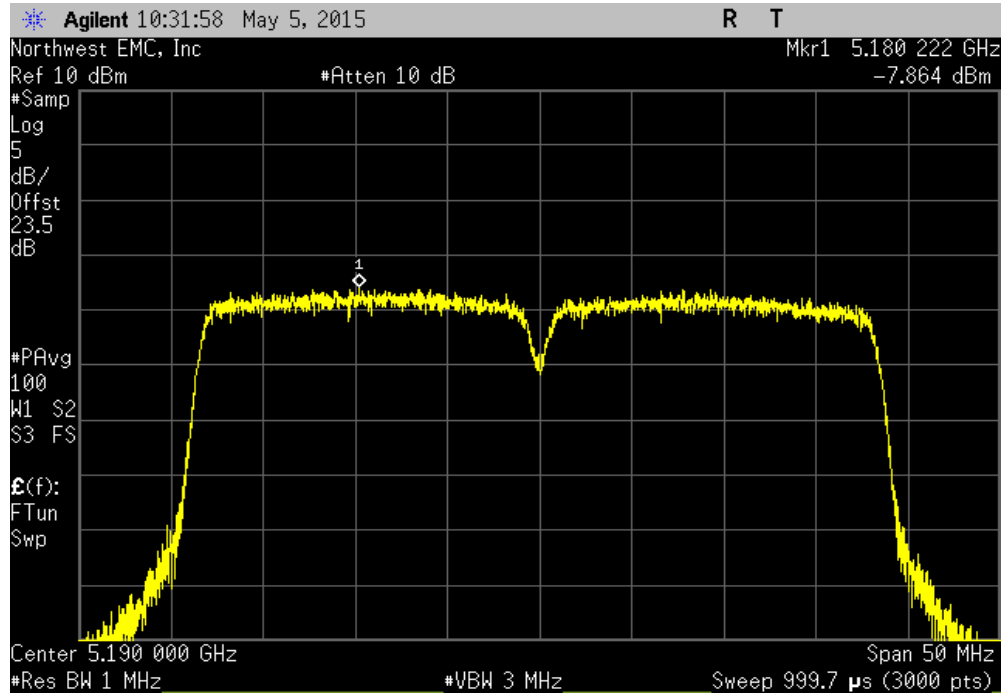


40 MHz, Chain A, 802.11(n) MCS7, High Channel 48, 5240MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-6.023	17	Pass			

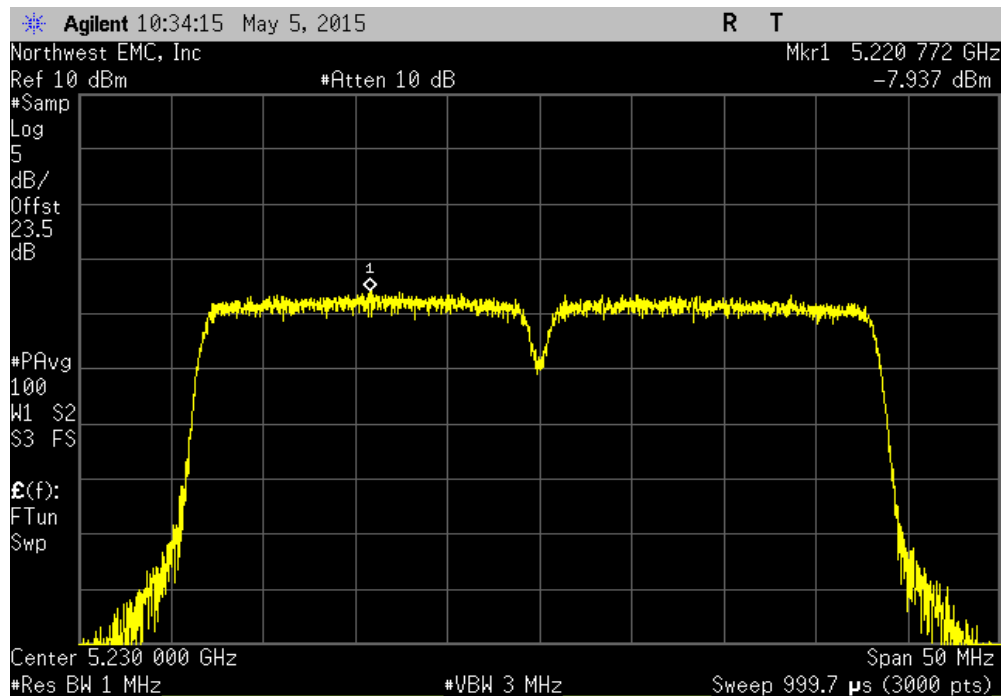


PEAK POWER SPECTRAL DENSITY

40 MHz, Chain B, 802.11(n) MCS0, Low Channel 36, 5180MHz						
				Value	Limit	Results
				(dBm / MHz)	(dBm / Ref BW)	
				-7.864	17	Pass

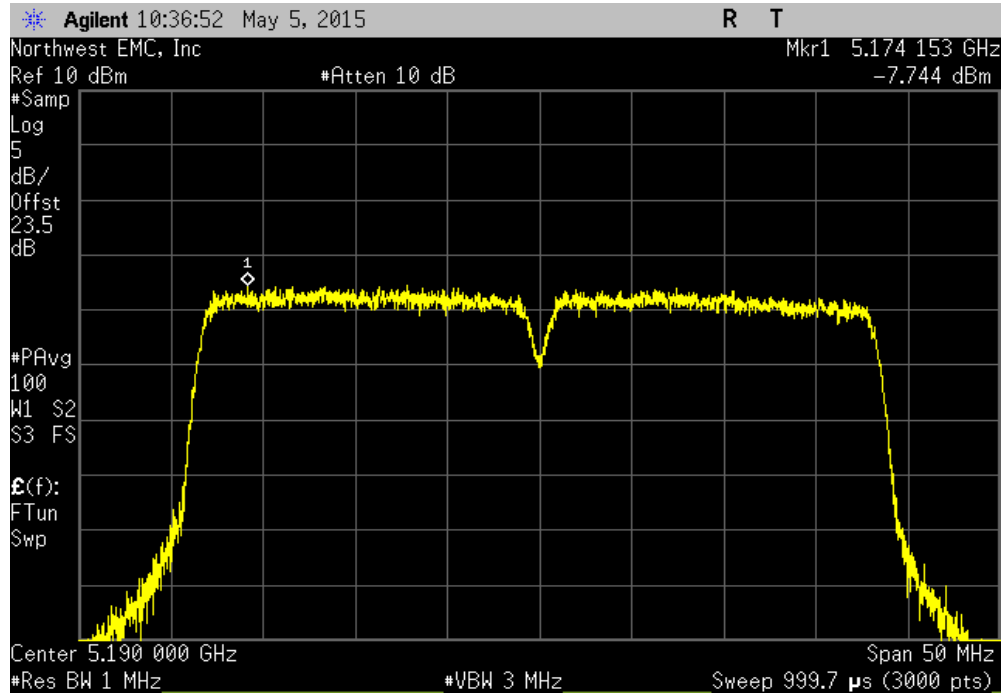


40 MHz, Chain B, 802.11(n) MCS0, High Channel 48, 5240MHz						
				Value	Limit	Results
				(dBm / MHz)	(dBm / Ref BW)	
				-7.937	17	Pass

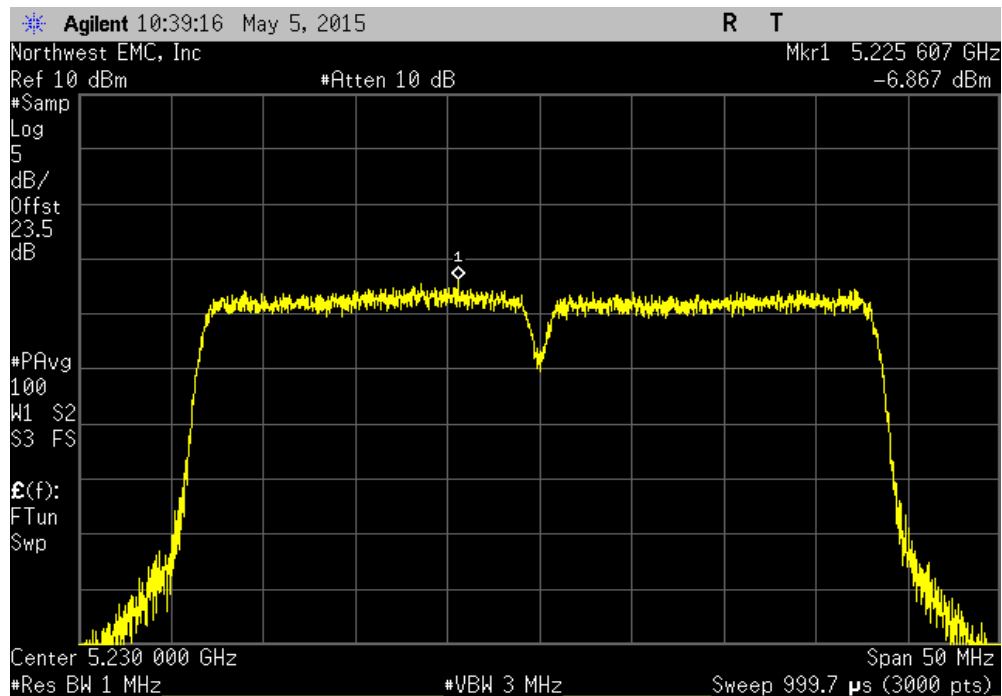


PEAK POWER SPECTRAL DENSITY

40 MHz, Chain B, 802.11(n) MCS7, Low Channel 36, 5180MHz						
				Value	Limit	Results
				(dBm / MHz)	(dBm / Ref BW)	
				-7.744	17	Pass

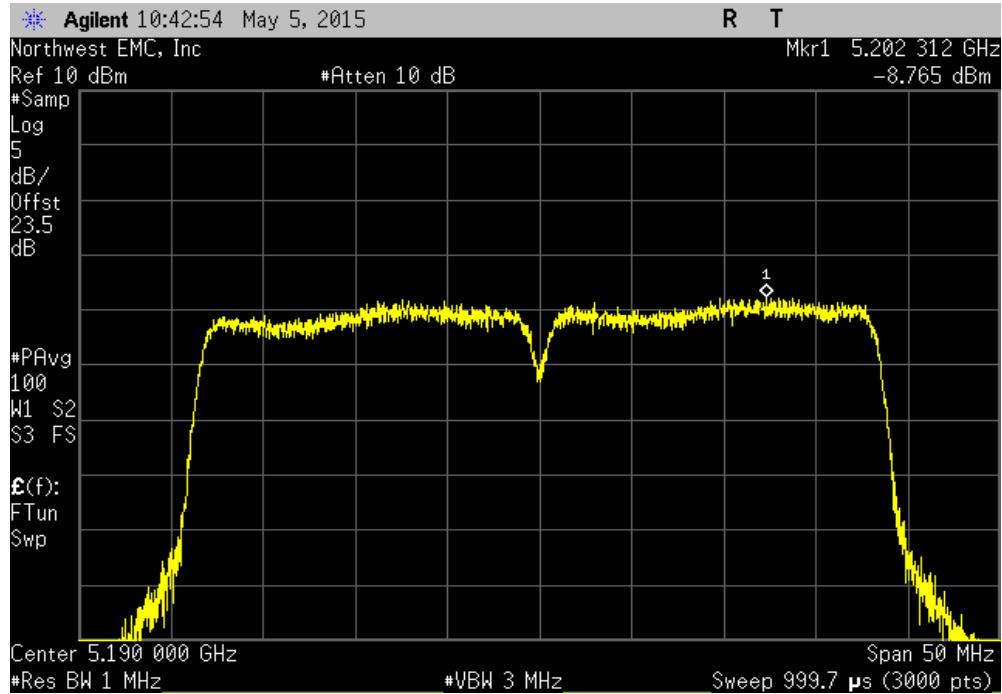


40 MHz, Chain B, 802.11(n) MCS7, High Channel 48, 5240MHz						
				Value	Limit	Results
				(dBm / MHz)	(dBm / Ref BW)	
				-6.867	17	Pass

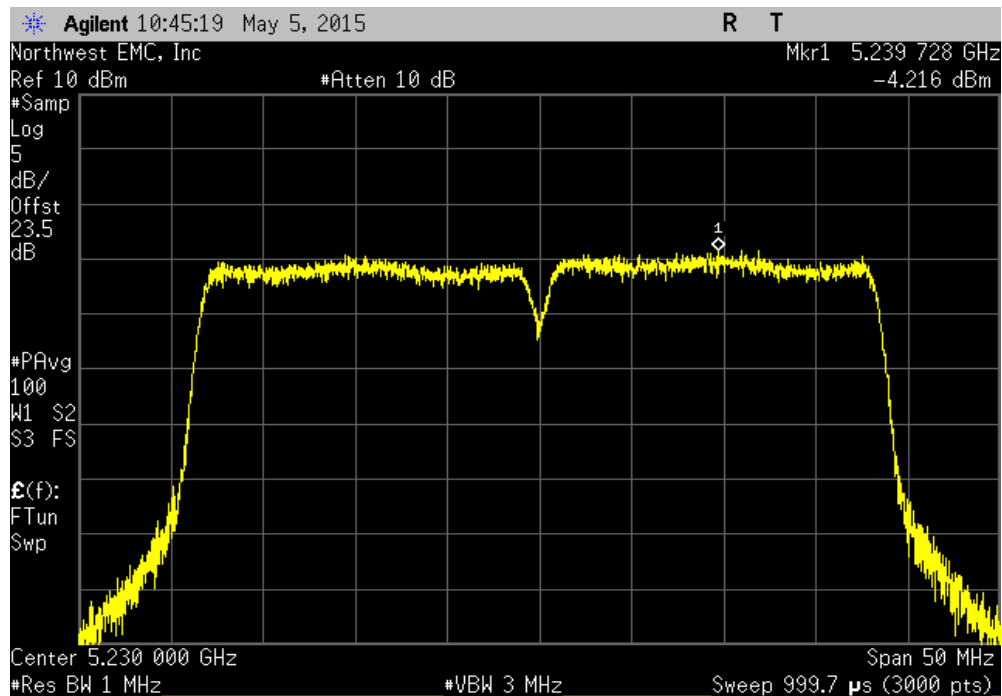


PEAK POWER SPECTRAL DENSITY

40 MHz, Chain C, 802.11(n) MCS0, Low Channel 36, 5180MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-8.765	17	Pass			

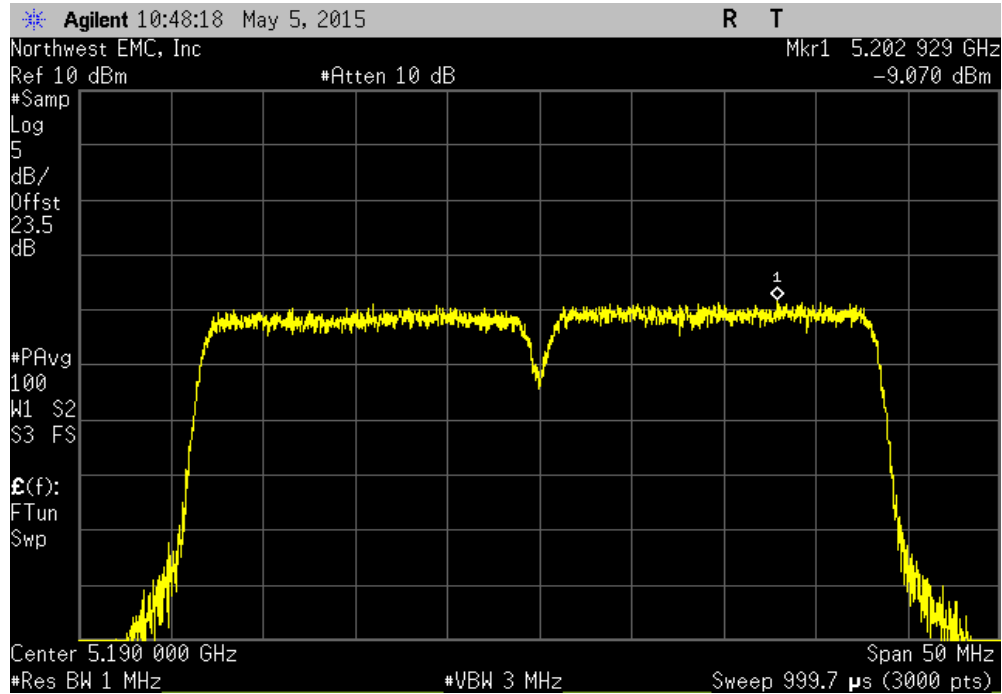


40 MHz, Chain C, 802.11(n) MCS0, High Channel 48, 5240MHz						
	Value	Limit				
	(dBm / MHz)	(dBm / Ref BW)	Results			
	-4.216	17	Pass			

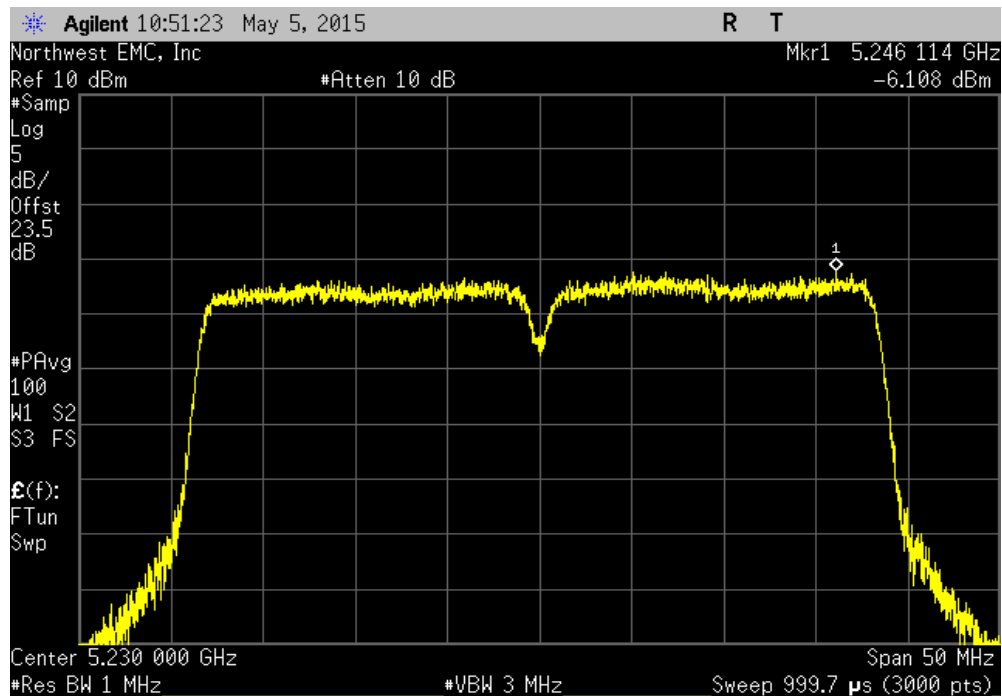


PEAK POWER SPECTRAL DENSITY

40 MHz, Chain C, 802.11(n) MCS7, Low Channel 36, 5180MHz						
				Value	Limit	Results
				(dBm / MHz)	(dBm / Ref BW)	
				-9.07	17	Pass



40 MHz, Chain C, 802.11(n) MCS7, High Channel 48, 5240MHz						
				Value	Limit	Results
				(dBm / MHz)	(dBm / Ref BW)	
				-6.108	17	Pass



DUTY CYCLE

TEST DESCRIPTION

The transmission pulse duration (T) and Duty Cycle (x) were measured for each of the EUT operating modes per the FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.

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

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

If the transmit duty cycle < 98 percent, a duty cycle correction factor in dB can be calculated to add to power measurements if required in the method guidance.

$$10 * \text{LOG} (1/x) = \text{dB}$$

The EUT was operating at 100% duty cycle