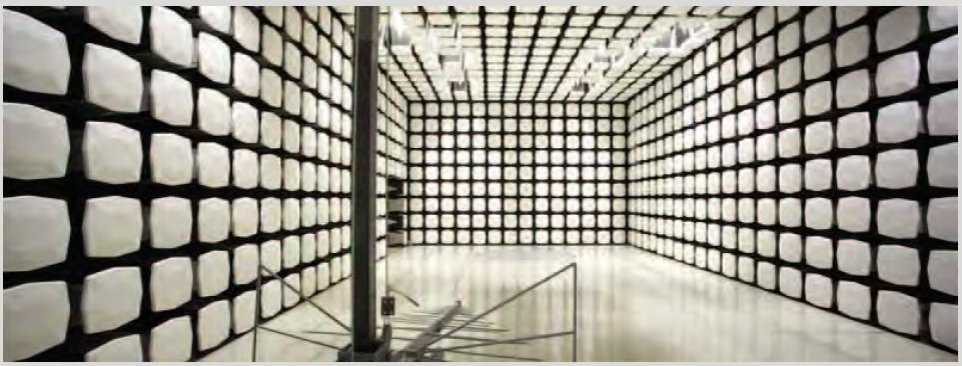
Summit Semiconductor LLC

444-2251

FCC 15.207:2014
FCC 15.407:2014

Report #: FOCU0169.4



Report Prepared By Northwest EMC Inc.

NORTHWEST EMC – (888) 364-2378 – www.nwemc.com

California – Minnesota – Oregon – New York – Washington

CERTIFICATE OF TEST

Last Date of Test: July 7, 2014
Summit Semiconductor LLC
Model: 444-2251

Emissions

Test Description	Specification	Test Method	Pass/Fail
Transmission Burst Duration	FCC 15.407:2014	ANSI C63.10:2009	Pass
Emission Bandwidth	FCC 15.407:2014	ANSI C63.10:2009	Pass
Peak Transmit Power	FCC 15.407:2014	ANSI C63.10:2009	Pass
Peak Power Spectral Density	FCC 15.407:2014	ANSI C63.10:2009	Pass
Peak Excursion of the Modulation Envelope	FCC 15.407:2014	ANSI C63.10:2009	Pass
Band Edge Compliance	FCC 15.407:2014	ANSI C63.10:2009	Pass
Frequency Stability	FCC 15.407:2014	ANSI C63.10:2009	Pass
Spurious Radiated Emissions	FCC 15.407:2014	ANSI C63.10:2009	Pass
Powerline Conducted Emissions	FCC 15.207:2014	ANSI C63.10:2009	Pass

Deviations From Test Standards

None

Approved By:

Kyle Holgate, Operations Manager

NVLAP Lab Code: 200630-0

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.

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. This Report may only be duplicated in its entirety. 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

REV 2012.08.02

Revision Number	Description	Date	Page Number
00	None		

Barometric Pressure

The recorded barometric pressure has been normalized to sea level.

NORTHWEST EMC

REV 2012.05.24

ACCREDITATIONS AND AUTHORIZATIONS

United States

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

A2LA - Accredited by A2LA to ISO / IEC Guide 65 as a product certifier. This allows Northwest EMC to certify transmitters to FCC and IC specifications.

NVLAP - Each laboratory is accredited by NVLAP to ISO 17025

Canada

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

European Union

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

Australia/New Zealand

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

Korea

KCC / 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.

Hong Kong

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

Vietnam

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

Russia

GOST – Accredited by Certinform VNIINMASH, CERTINFO, SAMTES, and Federal CHEC to perform EMC and Hygienic testing for Information Technology products to GOST standards.

SCOPE

For details on the Scopes of our Accreditations, please visit:
http://www.nwemc.com/accreditations/

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 listed below. 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 16-4-1 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.

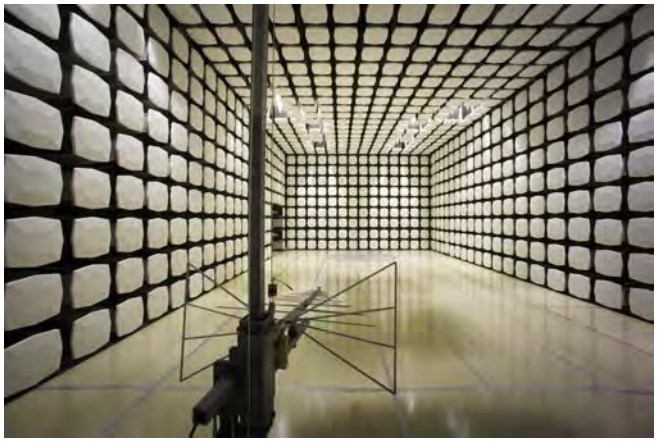
Test	+ MU	- MU
Frequency Accuracy (Hz)	0.12	-0.01
Amplitude Accuracy (dB)	0.49	-0.49
Conducted Power (dB)	0.41	-0.41
Radiated Power via Substitution (dB)	0.69	-0.68
Temperature (degrees C)	0.81	-0.81
Humidity (% RH)	2.89	-2.89
Field Strength (dB)	3.80	-3.80
AC Powerline Conducted Emissions (dB)	2.94	-2.94

NORTHWEST EMC

REV 2013.06.28

FACILITIES

Oregon	California	New York	Minnesota	Washington
Labs EV01-12 22975 NW Evergreen Pkwy Hillsboro, OR 97124 (503) 844-4066	Labs OC01-13 41 Tesla Irvine, CA 92618 (949) 861-8918	Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 685-0796	Labs MN01-08 9349 W Broadway Ave. Brooklyn Park, MN 55445 (763) 425-2281	Labs NC01-05,SU02,SU07 19201 120th Ave. NE Bothell, WA 98011 (425) 984-6600
VCCI				
A-0108	A-0029		A-0109	A-0110
Industry Canada				
2834D-1, 2834D-*2*	2834B-1, 2834B-2, 2834B-3		2834E-1	2834F-1
NVLAP				
NVLAP Lab Code: 200630-0	NVLAP Lab Code: 200676-0	NVLAP Lab Code: 200761-0	NVLAP Lab Code: 200881-0	NVLAP Lab Code: 200629-0



PRODUCT DESCRIPTION

Client and Equipment Under Test (EUT) Information

Company Name:	Summit Semiconductor LLC
Address:	22867 NW Bennett St, Suite 200
City, State, Zip:	Hillsboro, OR 97124
Test Requested By:	Paul Hamilton
Model:	444-2251
First Date of Test:	June 11, 2014
Last Date of Test:	July 7, 2014
Receipt Date of Samples:	June 09, 2014
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT (Equipment Under Test):
This is a Master device; it has 1 antenna, no diversity, and a monitor radio that shares the antenna with the working radio.

Testing Objective:
To demonstrate compliance under FCC 15.407 for operation in the 5.2 GHz, 5.3GHz, and 5.6 GHz bands.

CONFIGURATIONS

Configuration FOCU0169- 1

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Digital Wireless Master Module	Summit Semiconductor LLC	444-2251	02EA4F000062

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Glenwood-Bridge	Summit Semiconductor LLC	088R104	None
Laptop Computer Direct Connect	Dell	Latitude E5540	61FHTY1
AC/DC Adapter (DELL)	Dell	DPN-6C3W2	None

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
USB to Serial Adapter	Yes	1m	No	Glenwood-Bridge	Laptop
DC Power Cable	No	1.4m	Yes	Glenwood-Bridge	AC/DC Power Adapter
AC Power Cable x2	No	.9m	No	AC/DC Power Adapter	AC Mains
DC Power Cable	No	1.2m	Yes	Laptop	AC/DC Power Adapter

Configuration FOCU0169- 2

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Digital Wireless Master Module	Summit Semiconductor LLC	444-2251	02EA4F000061

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Glenwood-Bridge	Summit Semiconductor LLC	088R104	None

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
USB to Serial Adapter	Yes	1m	No	Glenwood-Bridge	Laptop
DC Power Cable	No	1.4m	Yes	Glenwood-Bridge	AC/DC Power Adapter
AC Power Cable	No	.9m	No	AC/DC Power Adapter	AC Mains

CONFIGURATIONS

Configuration FOCU0169- 3

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Digital Wireless Master Module	Summit Semiconductor LLC	444-2251	02EA4F000062

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Glenwood-Bridge	Summit Semiconductor LLC	088R104	None
AC/DC Adapter (DELL)	Dell	DPN-6C3W2	None
Laptop Computer Radiated	Dell	PP04X	CN-0HN341-48643-79E-0502
Ethernet Hub	D-Link	DGS-2205	P1BH481000045

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
USB to Serial Adapter	Yes	1m	No	Glenwood-Bridge	Laptop
DC Power Cable	No	1.2m	Yes	Laptop	AC/DC Power Adapter
AC Power Cable	No	.9m	No	AC/DC Power Adapter	AC Mains
Ethernet	No	1m	No	Laptop	Ethernet Hub
DC Power Cable	No	2m	No	Glenwood-Bridge	DC Power Supply

Configuration FOCU0169- 8

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Digital Wireless Master Module	Summit Semiconductor LLC	444-2251	02EA4F000062
Digital Wireless Master Module	Summit Semiconductor LLC	444-2251	02EA4F000063

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Glenwood-Bridge	Summit Semiconductor LLC	088R104	None
Laptop Computer Direct Connect	Dell	Latitude E5540	61FHTY1
AC/DC Adapter (DELL)	Dell	DPN-6C3W2	None

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
USB to Serial Adapter	Yes	1m	No	Glenwood-Bridge	Laptop
DC Power Cable	No	1.4m	Yes	Glenwood-Bridge	AC/DC Power Adapter
AC Power Cable x2	No	.9m	No	AC/DC Power Adapter	AC Mains
DC Power Cable	No	1.2m	Yes	Laptop	AC/DC Power Adapter

MODIFICATIONS

WTD 12.5.23

Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	6/11/2014	Transmission Burst Duration	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	6/11/2014	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.
3	6/11/2014	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.
4	6/11/2014	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.
5	6/11/2014	Peak Excursion of the Modulation Envelope	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	6/11/2014	Band Edge Compliance	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
7	6/11/2014	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.
8	6/12/2014	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
9	7/7/2014	Frequency Stability	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

TRANSMISSIONS BURST DURATION

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
40GHz DC Block	Miteq	DCB4000	AMD	4/28/2014	12 mo
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12 mo
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0 mo
Attenuator, 'Precision N'	S.M. Electronics	SA18N-06/SM4032	REE	12/2/2013	12 mo
Power Meter	Agilent	N1913A	SQR	4/29/2013	36 mo
Power Sensor	Agilent	E9300H	SQO	4/29/2013	36 mo
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	24 mo
MXG Analog Signal Generator	Agilent	N5181A	TIG	3/28/2014	36 mo

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 D01 General UNII Test Procedures.

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

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

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

TRANSMISSIONS BURST DURATION

EUT:	444-2251			Work Order:	FOCU0169
Serial Number:	02EA4F000062			Date:	06/11/14
Customer:	Summit Semiconductor LLC			Temperature:	22.2°C
Attendees:	Paul Hamilton			Humidity:	41%
Project:	None			Barometric Pres.:	1017
Tested by:	Brandon Hobbs	Power:	110VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.407:2014	ANSI C63.10:2009

COMMENTS

Modes of operation were provided by the client.

DEVIATIONS FROM TEST STANDARD

None

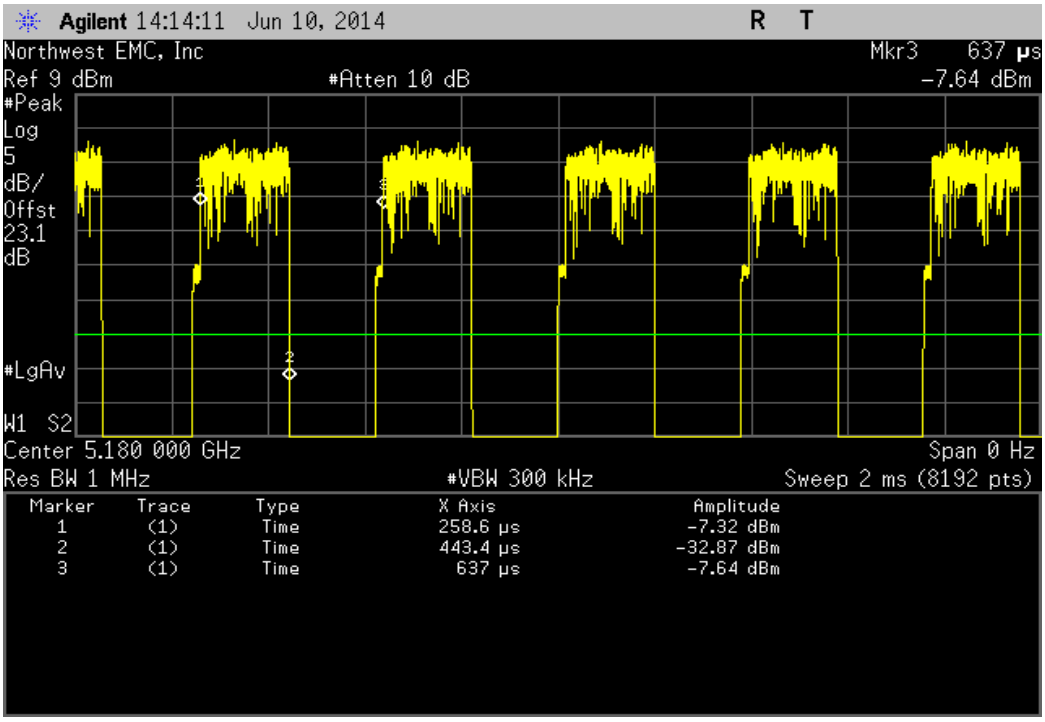
Configuration #	1	Signature

		Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
802.11(a) 6 Mbps							
	Low Channel 36, 5180MHz	184.8 uS	378.4 uS	1	48.8	N/A	N/A
	Low Channel 36, 5180MHz	N/A	N/A	5	N/A	N/A	N/A
	High Channel 48, 5240MHz	184.9 uS	377.3 uS	1	49	N/A	N/A
	High Channel 48, 5240MHz	N/A	N/A	5	N/A	N/A	N/A
	Low Channel 52, 5260MHz	184.8 uS	377.2 uS	1	49	N/A	N/A
	Low Channel 52, 5260MHz	N/A	N/A	5	N/A	N/A	N/A
	High Channel 64, 5320MHz	184.6 uS	378.5 uS	1	48.8	N/A	N/A
	High Channel 64, 5320MHz	N/A	N/A	5	N/A	N/A	N/A
	Low Channel 100, 5500MHz	184.9 uS	378.7 uS	1	48.8	N/A	N/A
	Low Channel 100, 5500MHz	N/A	N/A	5	N/A	N/A	N/A
	Mid Channel 116, 5580MHz	184.9 uS	377.3 uS	1	49	N/A	N/A
	Mid Channel 116, 5580MHz	N/A	N/A	5	N/A	N/A	N/A
	High Channel 140, 5700MHz	184.9 uS	377.3 uS	1	49	N/A	N/A
	High Channel 140, 5700MHz	N/A	N/A	5	N/A	N/A	N/A
802.11(a) 18 Mbps							
	Low Channel 36, 5180MHz	72.7 uS	278.8 uS	1	26.1	N/A	N/A
	Low Channel 36, 5180MHz	N/A	N/A	5	N/A	N/A	N/A
	High Channel 48, 5240MHz	73 uS	277.7 uS	1	26.3	N/A	N/A
	High Channel 48, 5240MHz	N/A	N/A	5	N/A	N/A	N/A
	Low Channel 52, 5260MHz	72.8 uS	278.8 uS	1	26.1	N/A	N/A
	Low Channel 52, 5260MHz	N/A	N/A	5	N/A	N/A	N/A
	High Channel 64, 5320MHz	72.7 uS	277.6 uS	1	26.2	N/A	N/A
	High Channel 64, 5320MHz	N/A	N/A	5	N/A	N/A	N/A
	Low Channel 100, 5500MHz	73 uS	286.9 uS	1	25.4	N/A	N/A
	Low Channel 100, 5500MHz	N/A	N/A	5	N/A	N/A	N/A
	Mid Channel 116, 5580MHz	72.7 uS	286.9 uS	1	25.3	N/A	N/A
	Mid Channel 116, 5580MHz	N/A	N/A	5	N/A	N/A	N/A
	High Channel 140, 5700MHz	72.7 uS	277.6 uS	1	26.2	N/A	N/A
	High Channel 140, 5700MHz	N/A	N/A	5	N/A	N/A	N/A
802.11(a) 36 Mbps							
	Low Channel 36, 5180MHz	45 uS	254 uS	1	17.7	N/A	N/A
	Low Channel 36, 5180MHz	N/A	N/A	5	N/A	N/A	N/A
	High Channel 48, 5240MHz	44.9 uS	262.9 uS	1	17.1	N/A	N/A
	High Channel 48, 5240MHz	N/A	N/A	5	N/A	N/A	N/A
	Low Channel 52, 5260MHz	44.9 uS	253.7 uS	1	17.7	N/A	N/A
	Low Channel 52, 5260MHz	N/A	N/A	5	N/A	N/A	N/A
	High Channel 64, 5320MHz	44.9 uS	253.7 uS	1	17.7	N/A	N/A
	High Channel 64, 5320MHz	N/A	N/A	5	N/A	N/A	N/A
	Low Channel 100, 5500MHz	44.9 uS	253.7 uS	1	17.7	N/A	N/A
	Low Channel 100, 5500MHz	N/A	N/A	5	N/A	N/A	N/A
	Mid Channel 116, 5580MHz	44.7 uS	253.7 uS	1	17.6	N/A	N/A
	Mid Channel 116, 5580MHz	N/A	N/A	5	N/A	N/A	N/A
	High Channel 140, 5700MHz	44.9 uS	254.9 uS	1	17.6	N/A	N/A
	High Channel 140, 5700MHz	N/A	N/A	5	N/A	N/A	N/A

TRANSMISSIONS BURST DURATION

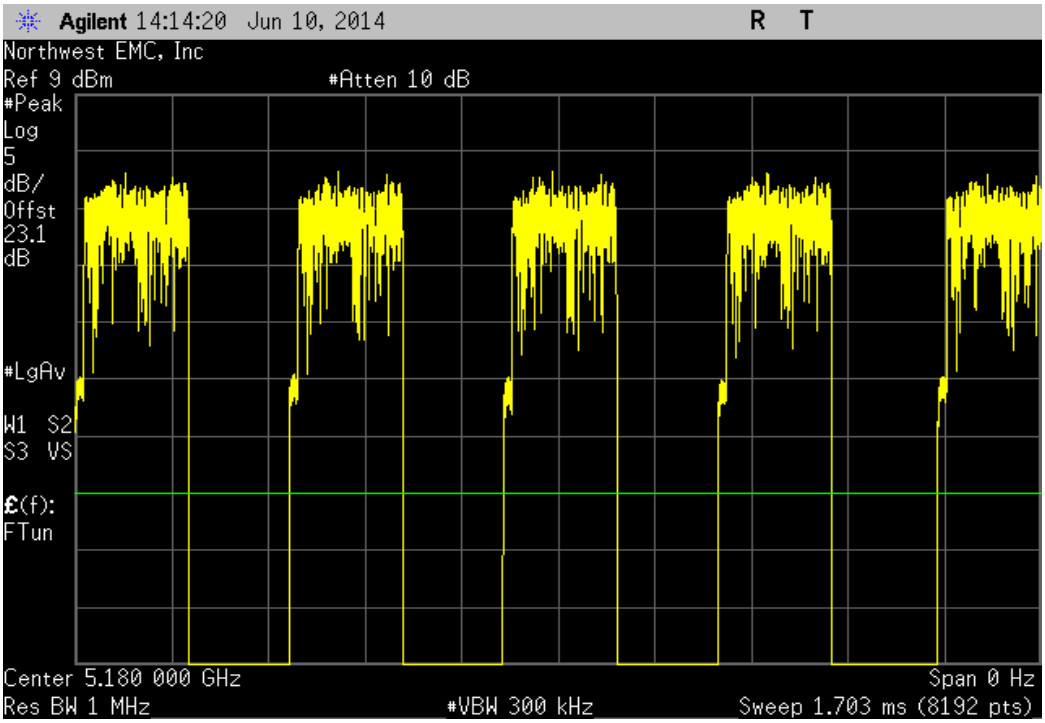
802.11(a) 6 Mbps, Low Channel 36, 5180MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	184.8 uS	378.4 uS	1	48.8	N/A	N/A



802.11(a) 6 Mbps, Low Channel 36, 5180MHz

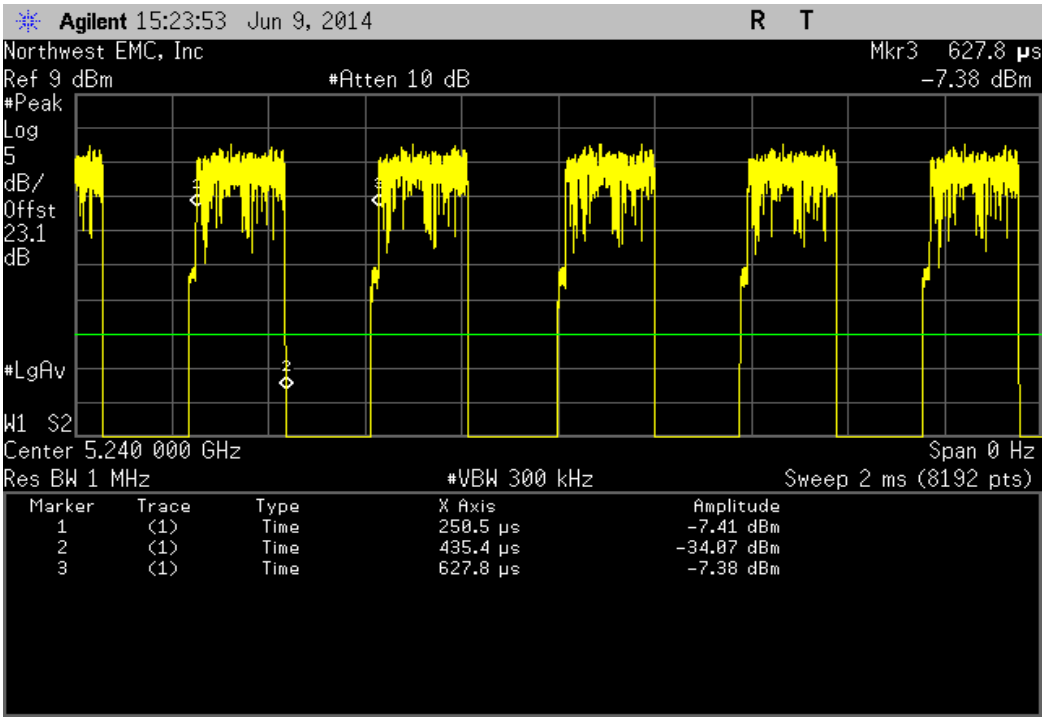
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



TRANSMISSIONS BURST DURATION

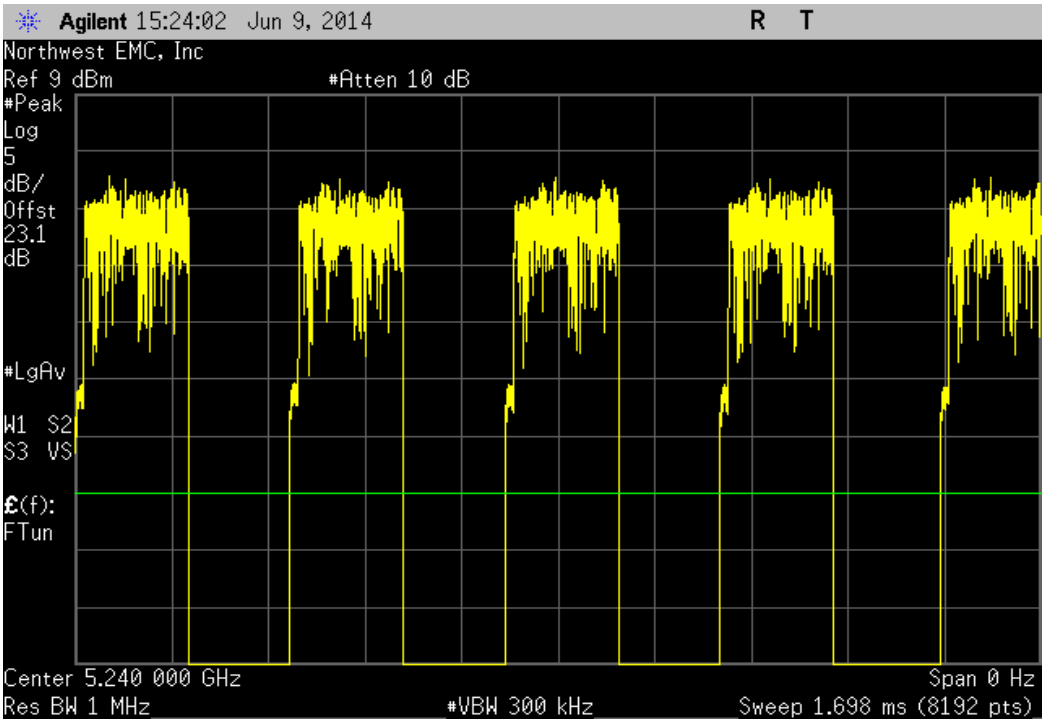
802.11(a) 6 Mbps, High Channel 48, 5240MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	184.9 uS	377.3 uS	1	49	N/A	N/A



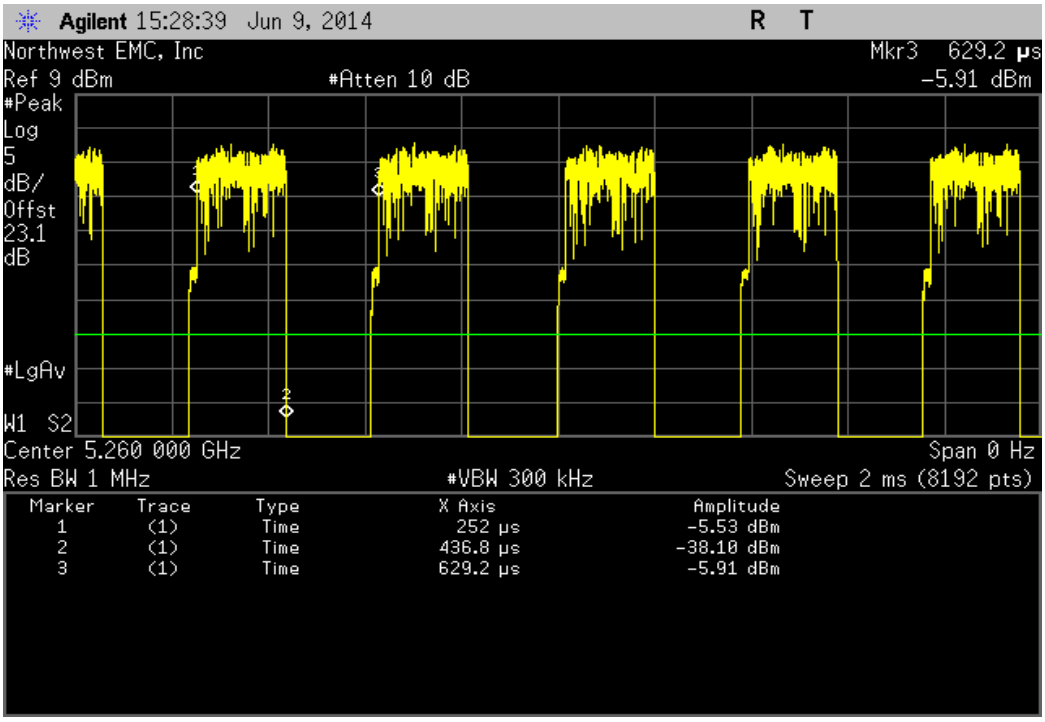
802.11(a) 6 Mbps, High Channel 48, 5240MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



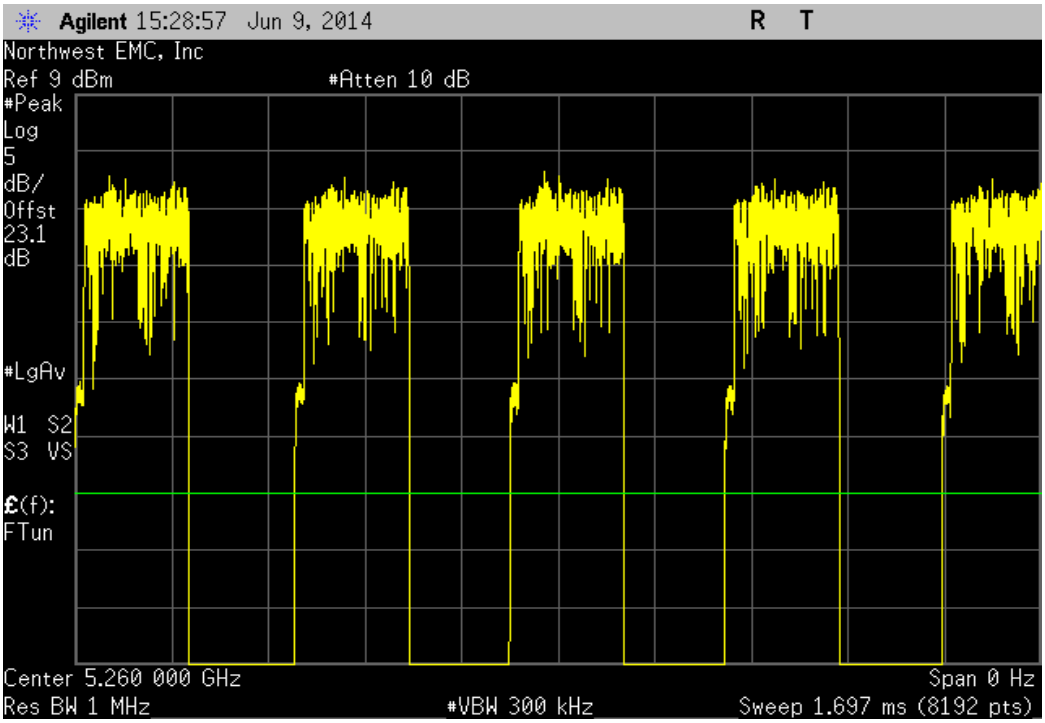
802.11(a) 6 Mbps, Low Channel 52, 5260MHz

Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
184.8 uS	377.2 uS	1	49	N/A	N/A



802.11(a) 6 Mbps, Low Channel 52, 5260MHz

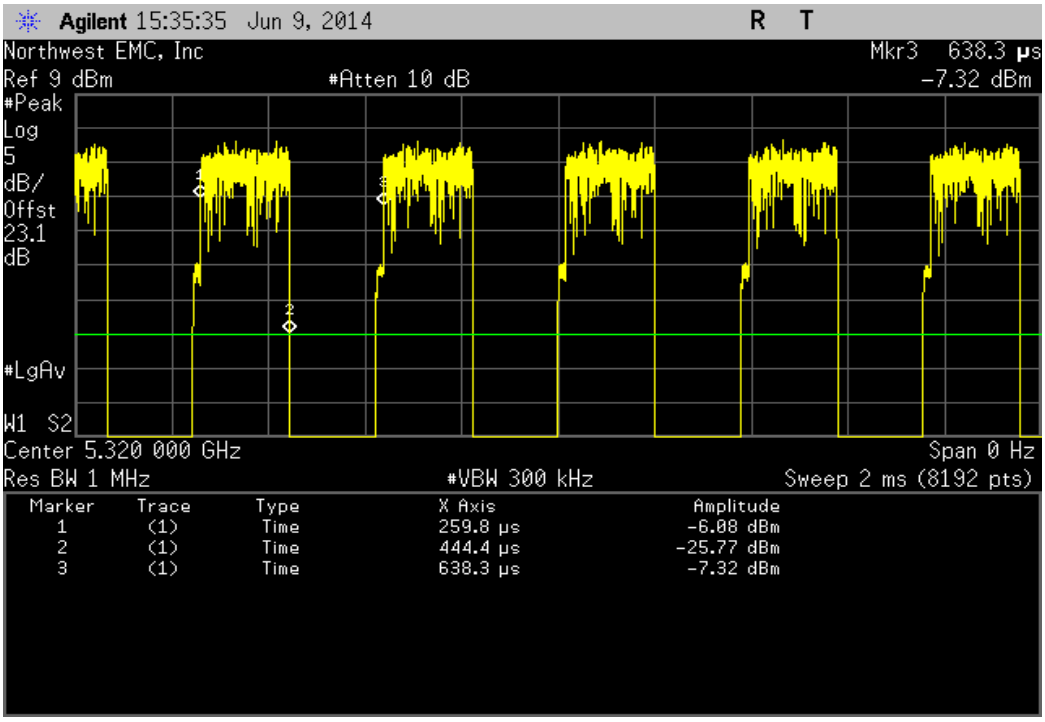
Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
N/A	N/A	5	N/A	N/A	N/A



TRANSMISSIONS BURST DURATION

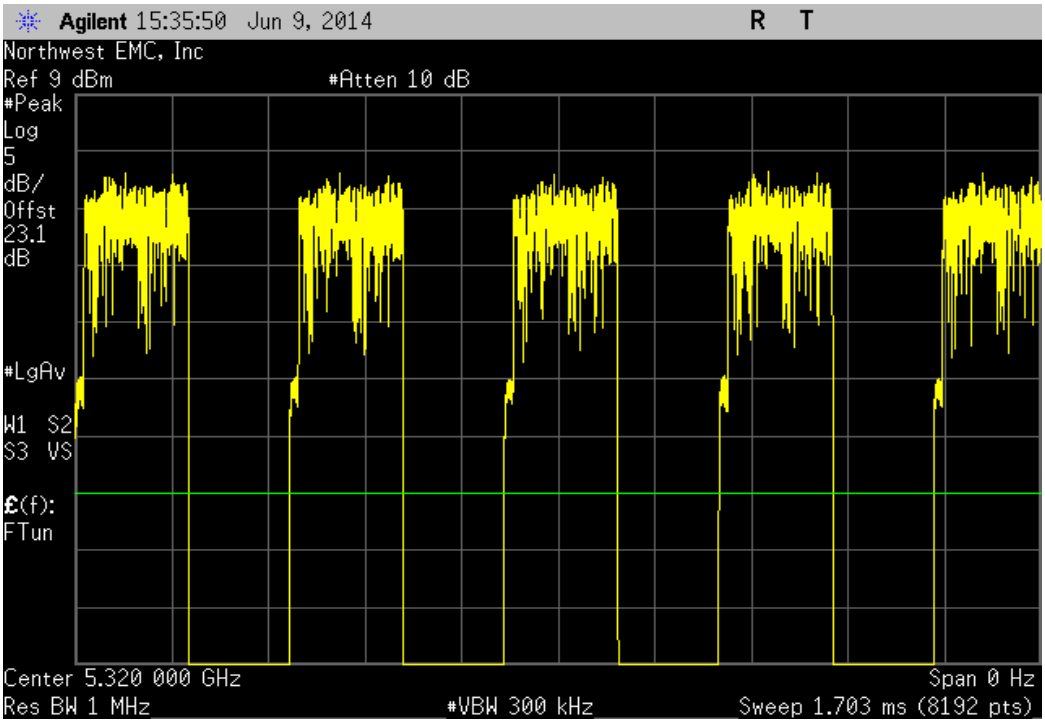
802.11(a) 6 Mbps, High Channel 64, 5320MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	184.6 uS	378.5 uS	1	48.8	N/A	N/A



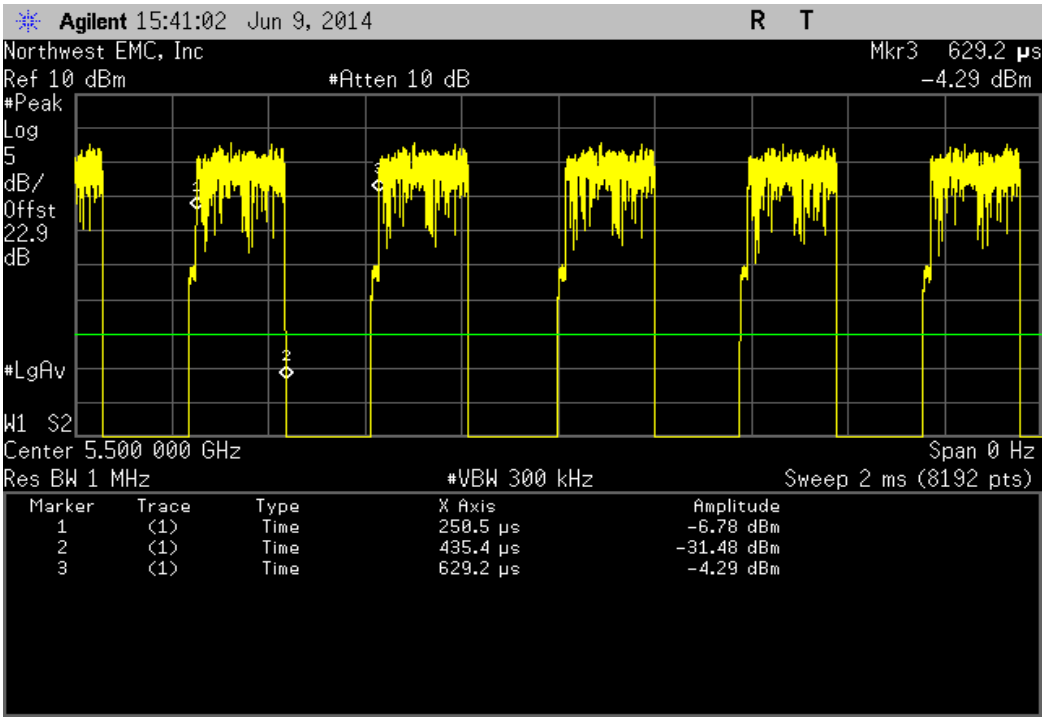
802.11(a) 6 Mbps, High Channel 64, 5320MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



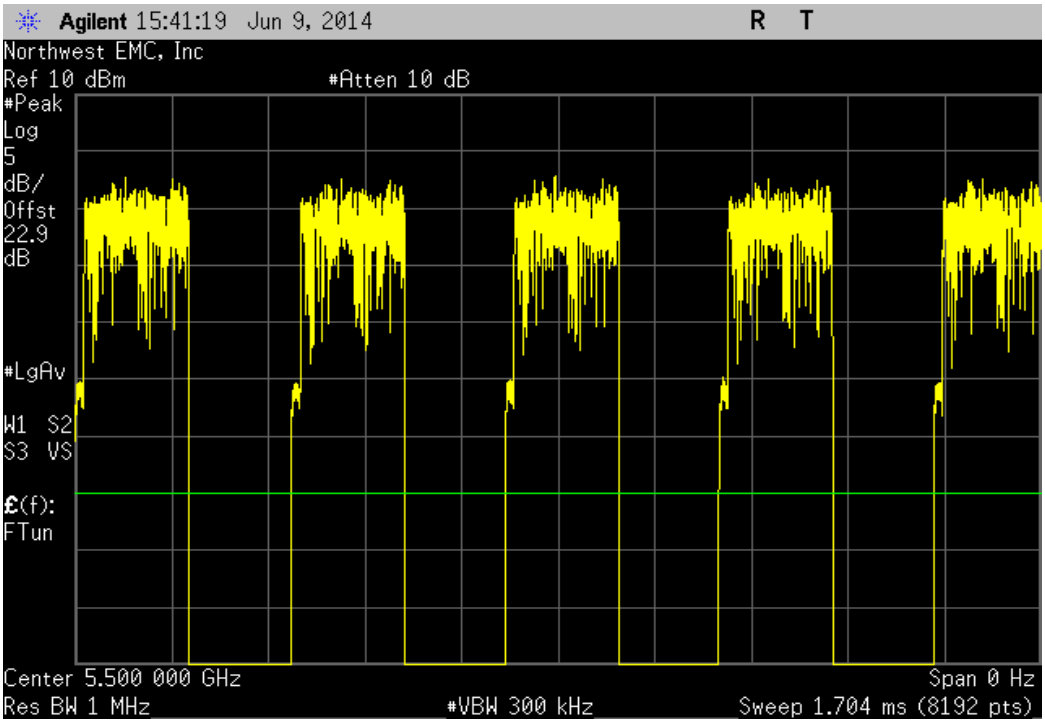
802.11(a) 6 Mbps, Low Channel 100, 5500MHz

Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
184.9 uS	378.7 uS	1	48.8	N/A	N/A



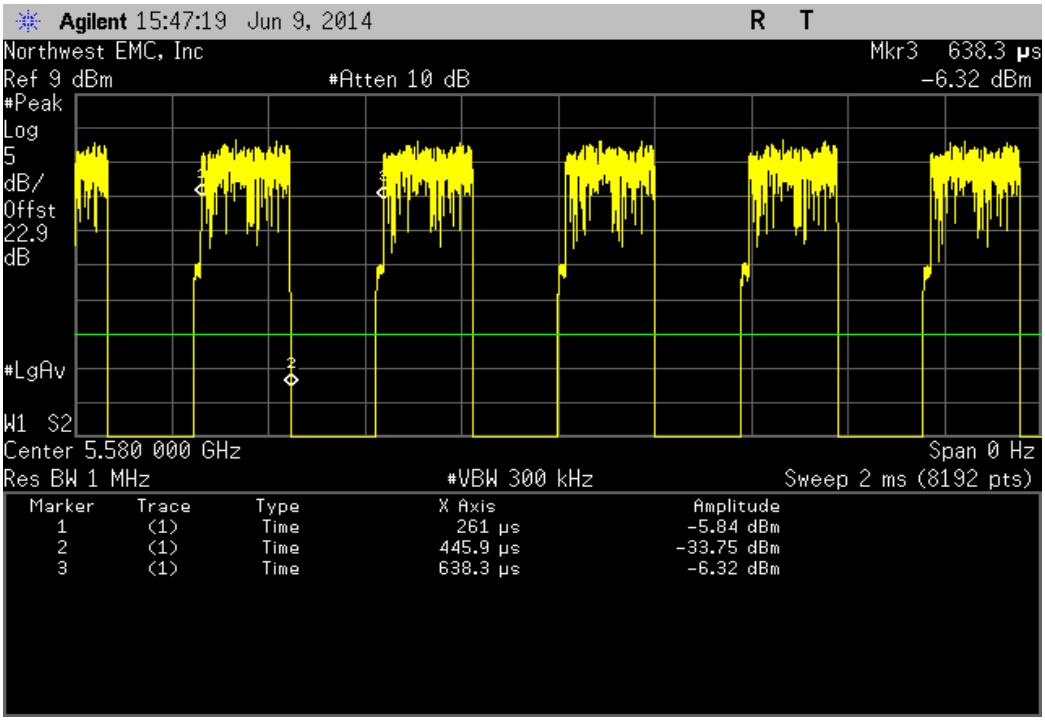
802.11(a) 6 Mbps, Low Channel 100, 5500MHz

Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
N/A	N/A	5	N/A	N/A	N/A



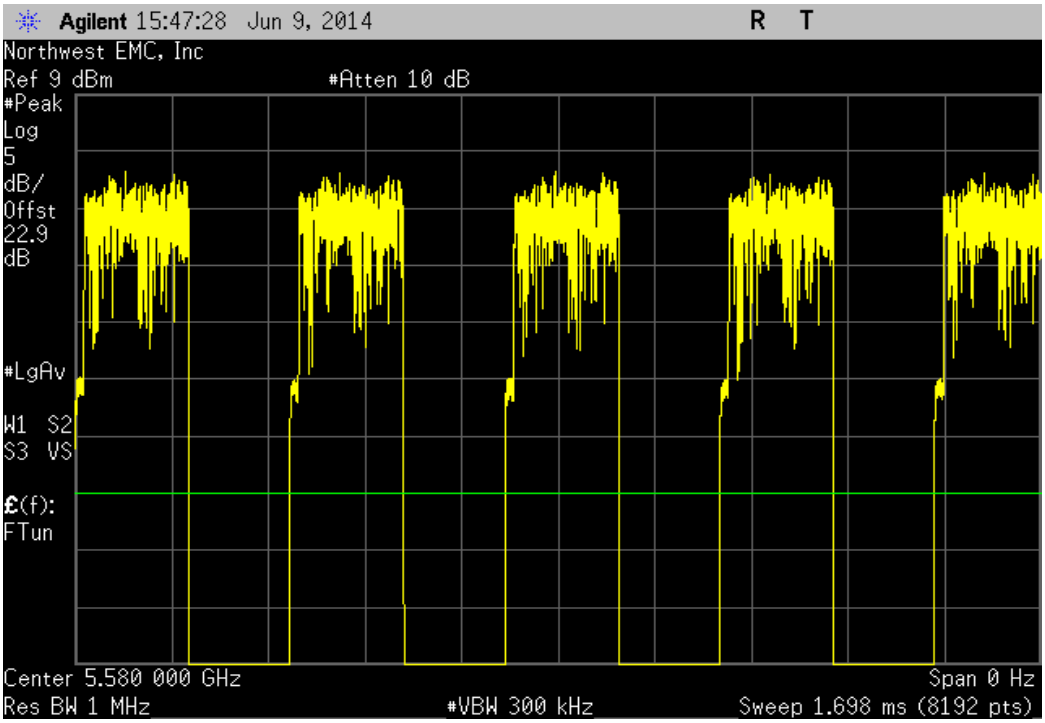
802.11(a) 6 Mbps, Mid Channel 116, 5580MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	184.9 uS	377.3 uS	1	49	N/A	N/A



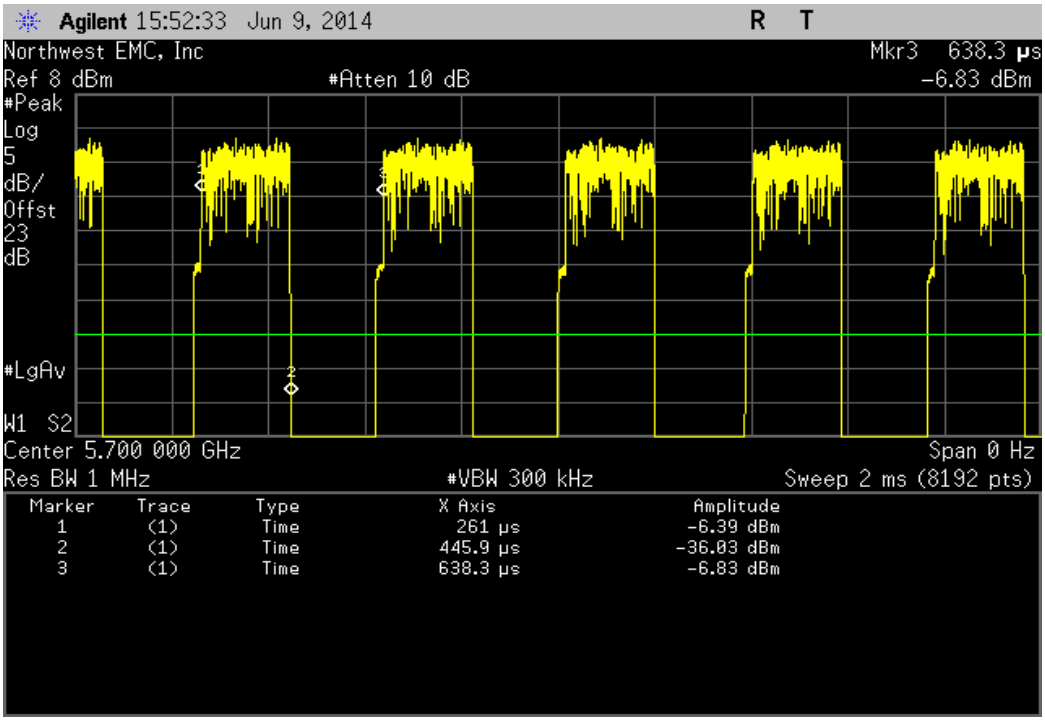
802.11(a) 6 Mbps, Mid Channel 116, 5580MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



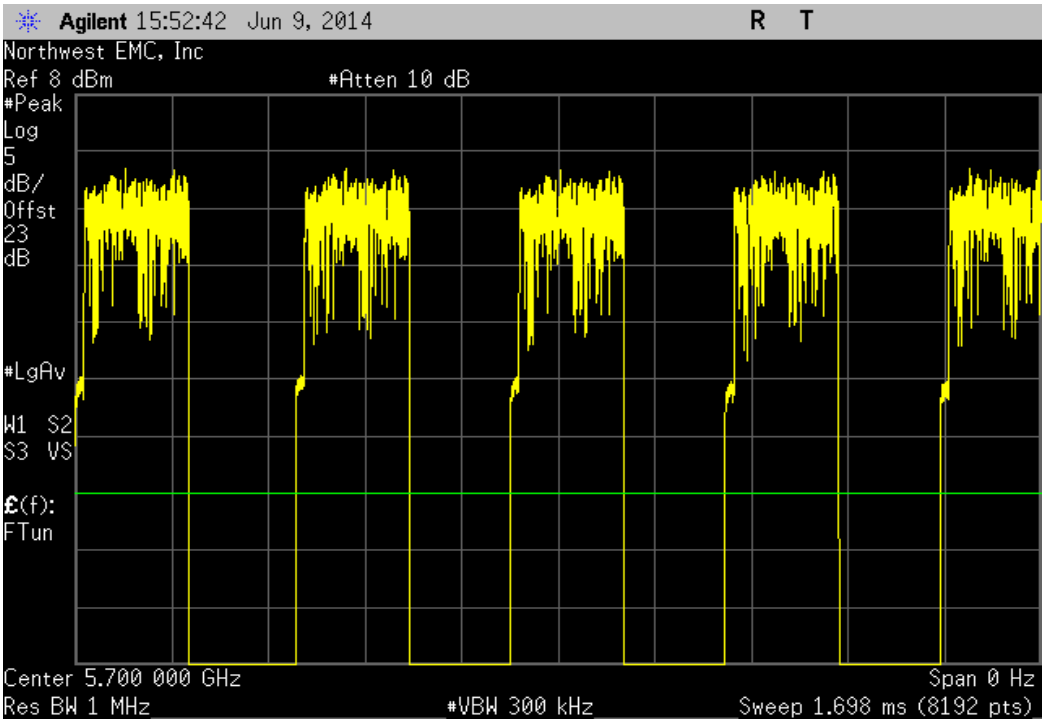
802.11(a) 6 Mbps, High Channel 140, 5700MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	184.9 uS	377.3 uS	1	49	N/A	N/A



802.11(a) 6 Mbps, High Channel 140, 5700MHz

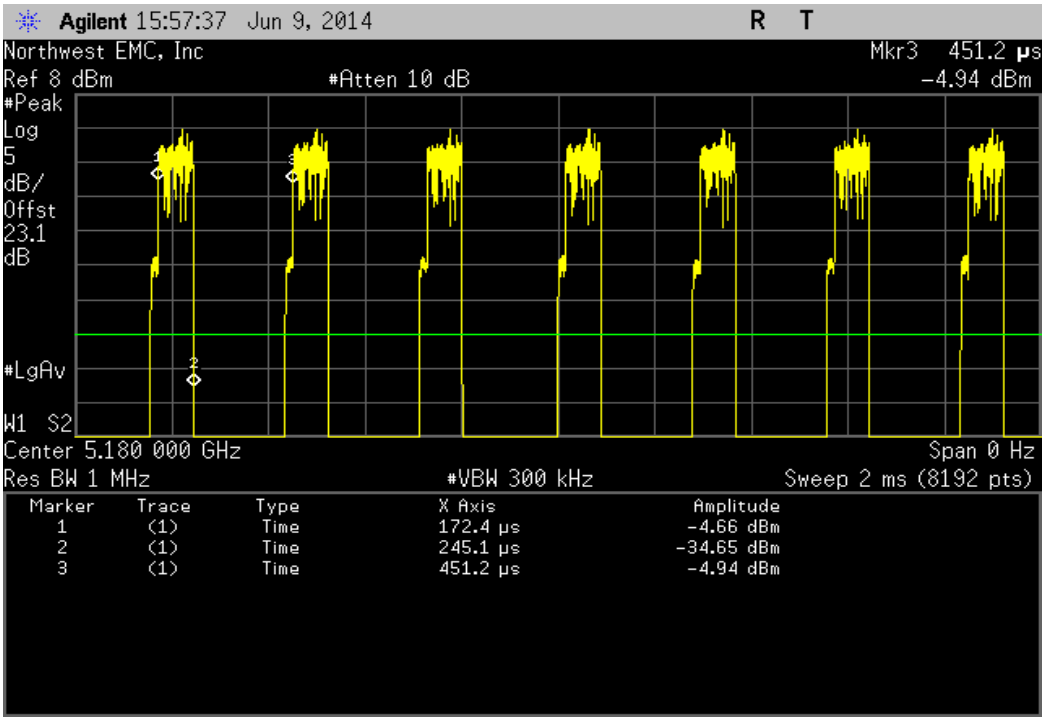
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



TRANSMISSIONS BURST DURATION

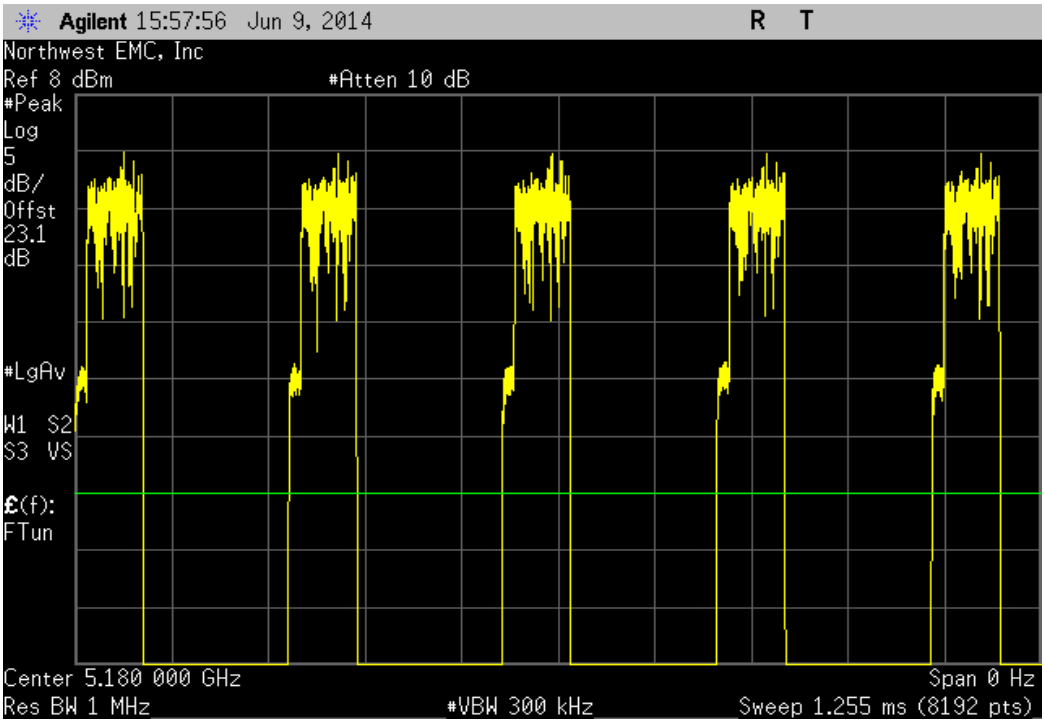
802.11(a) 18 Mbps, Low Channel 36, 5180MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	72.7 uS	278.8 uS	1	26.1	N/A	N/A



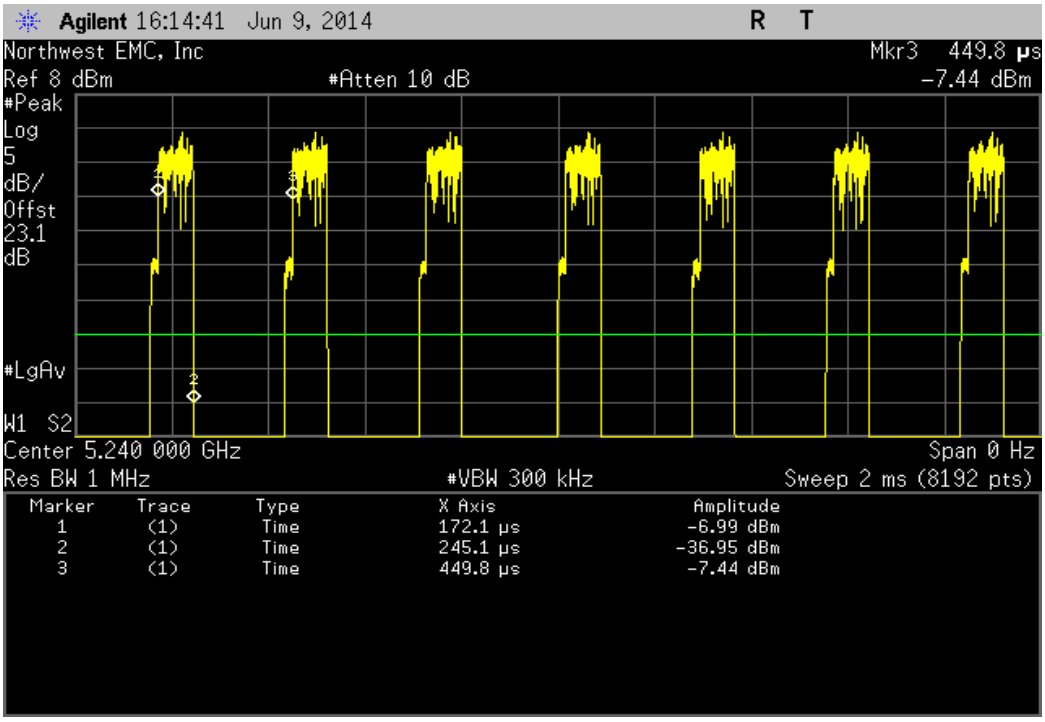
802.11(a) 18 Mbps, Low Channel 36, 5180MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



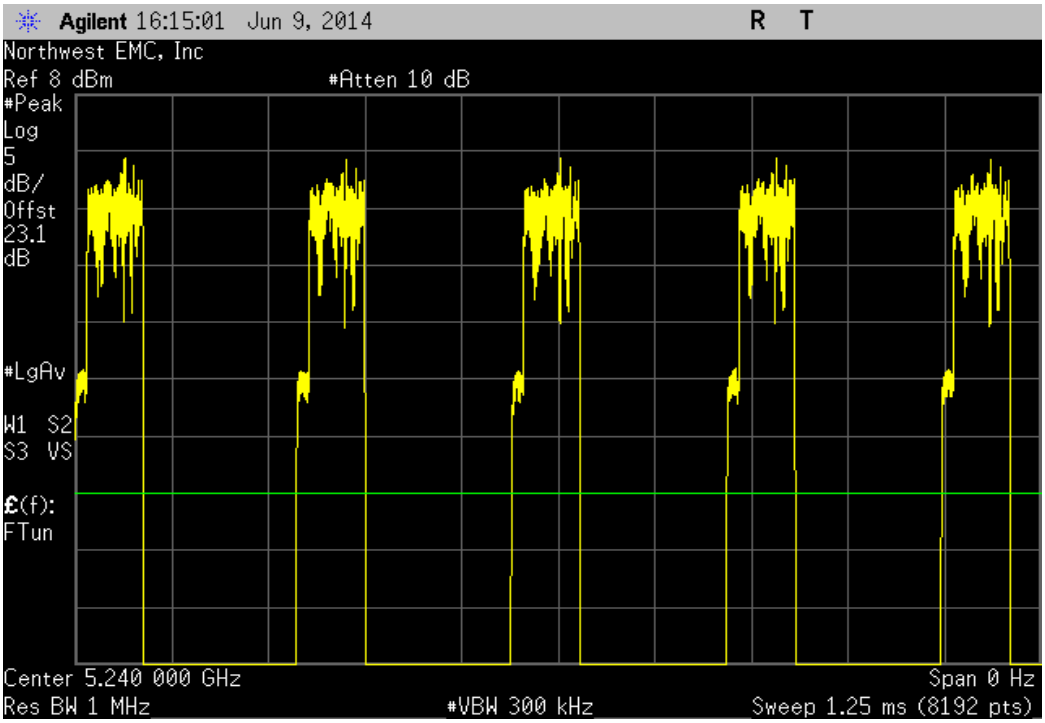
802.11(a) 18 Mbps, High Channel 48, 5240MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	73 uS	277.7 uS	1	26.3	N/A	N/A



802.11(a) 18 Mbps, High Channel 48, 5240MHz

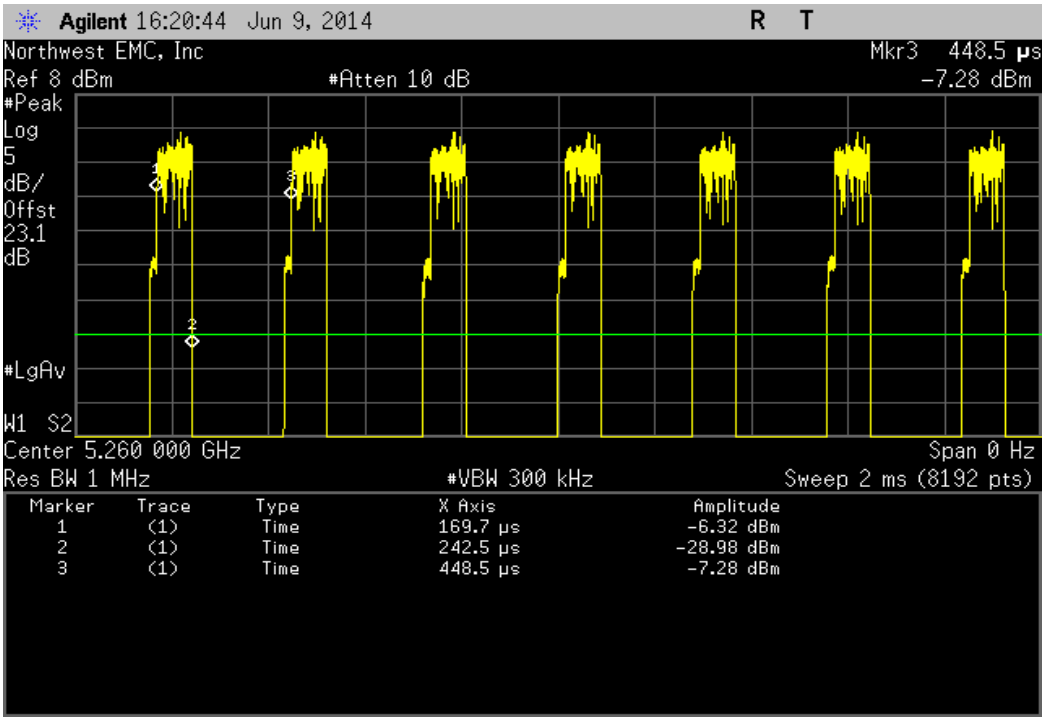
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



TRANSMISSIONS BURST DURATION

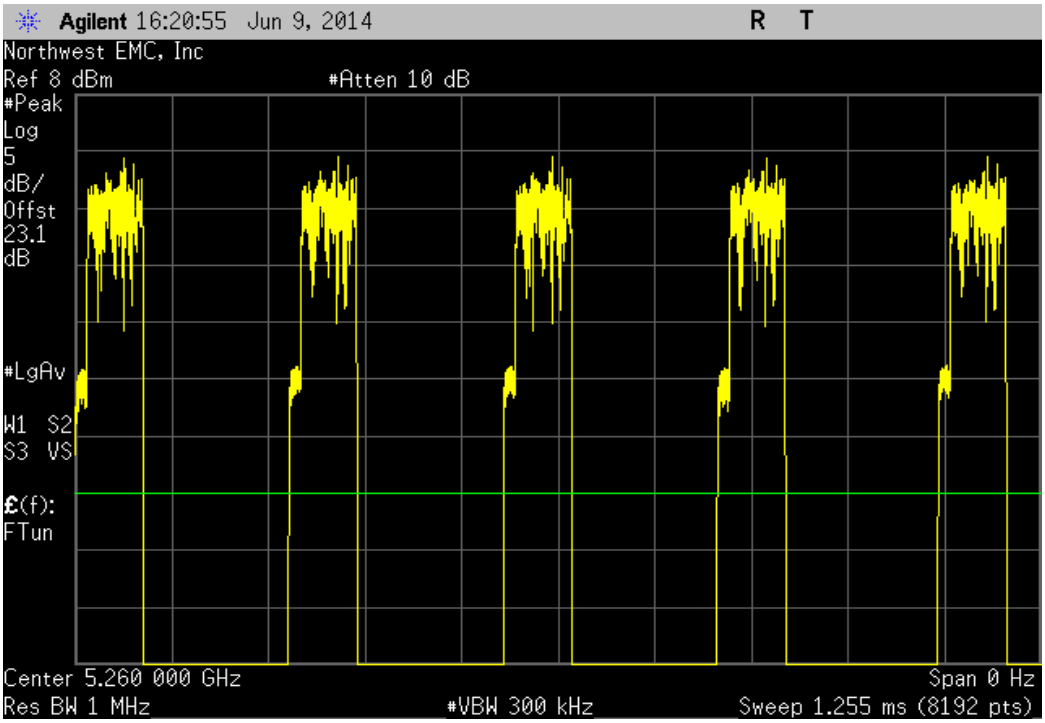
802.11(a) 18 Mbps, Low Channel 52, 5260MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	72.8 uS	278.8 uS	1	26.1	N/A	N/A



802.11(a) 18 Mbps, Low Channel 52, 5260MHz

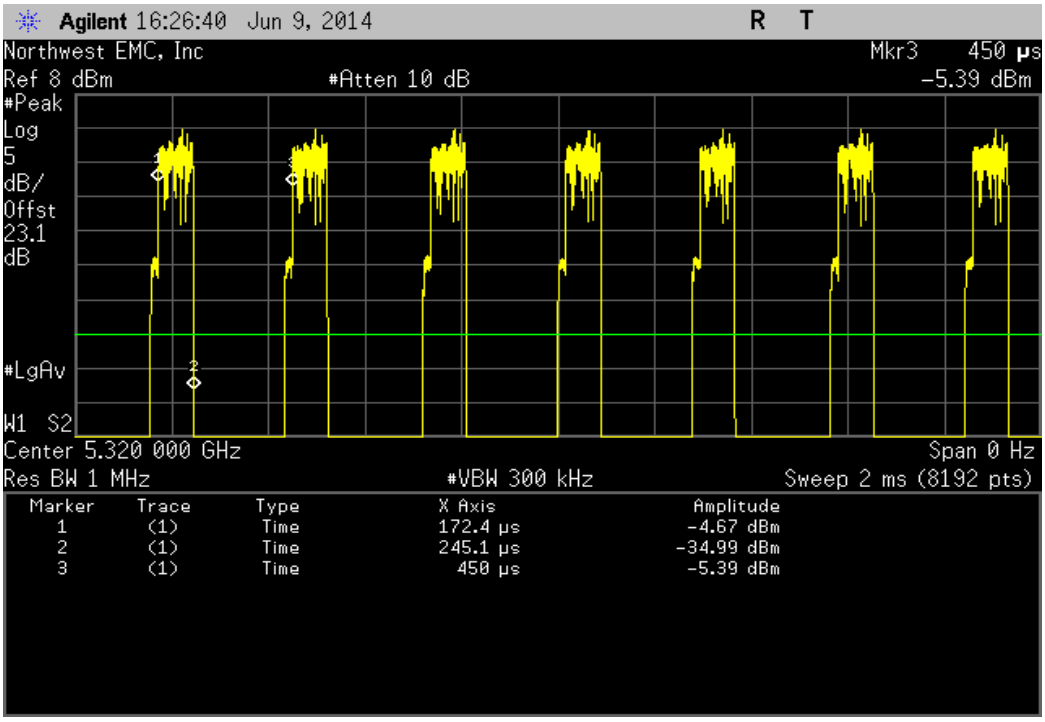
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



TRANSMISSIONS BURST DURATION

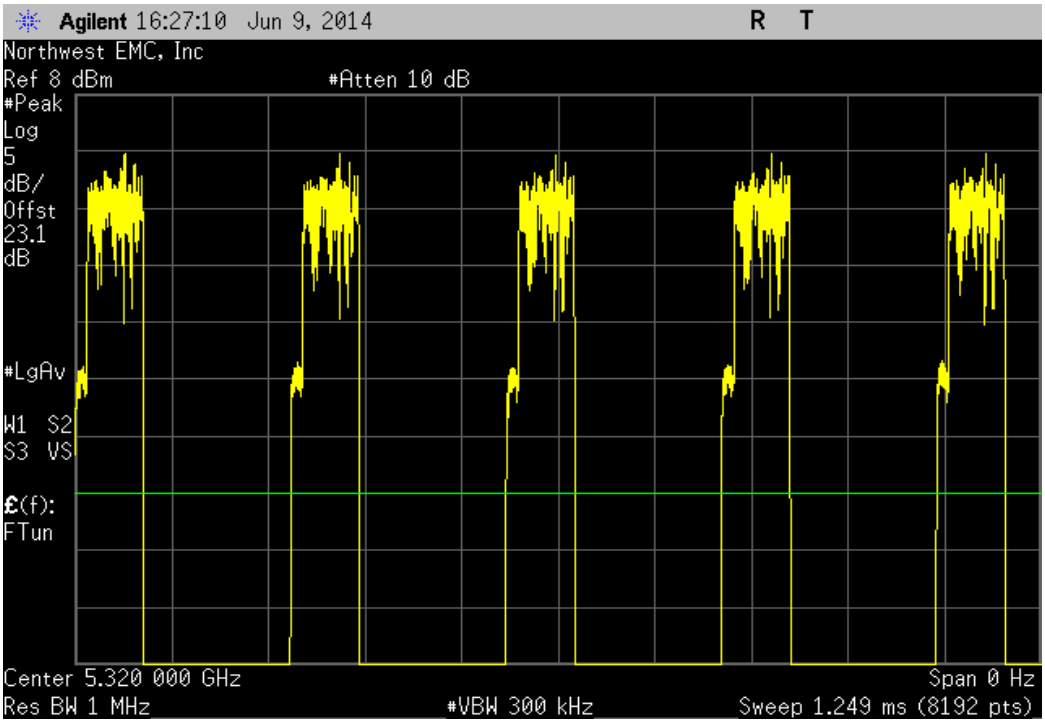
802.11(a) 18 Mbps, High Channel 64, 5320MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	72.7 uS	277.6 uS	1	26.2	N/A	N/A



802.11(a) 18 Mbps, High Channel 64, 5320MHz

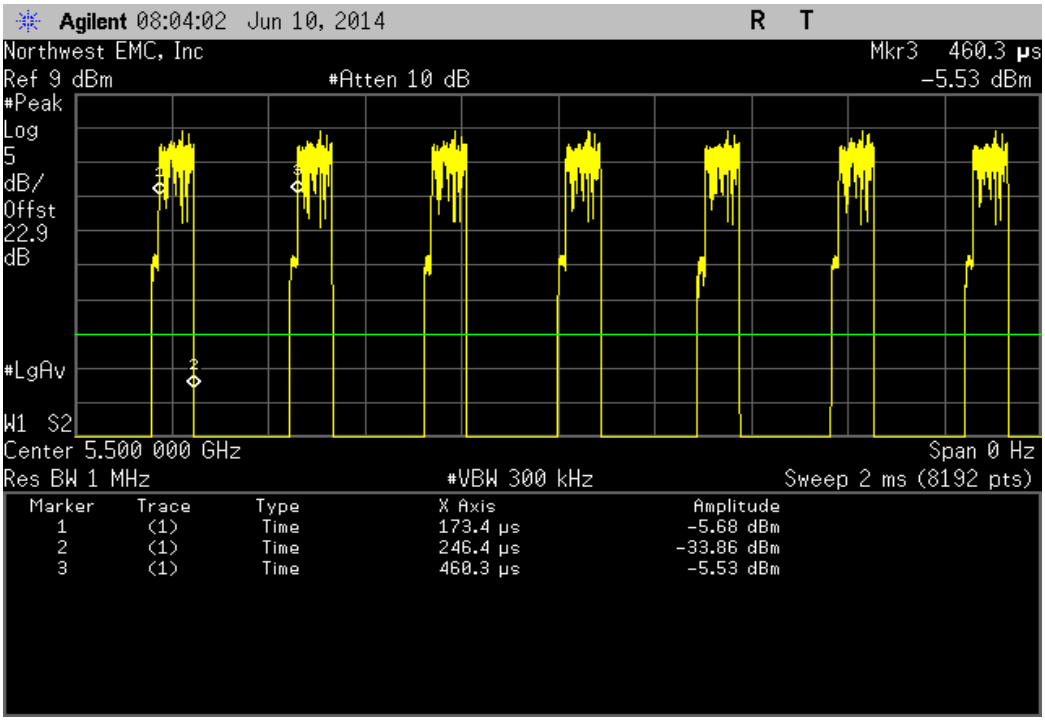
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



TRANSMISSIONS BURST DURATION

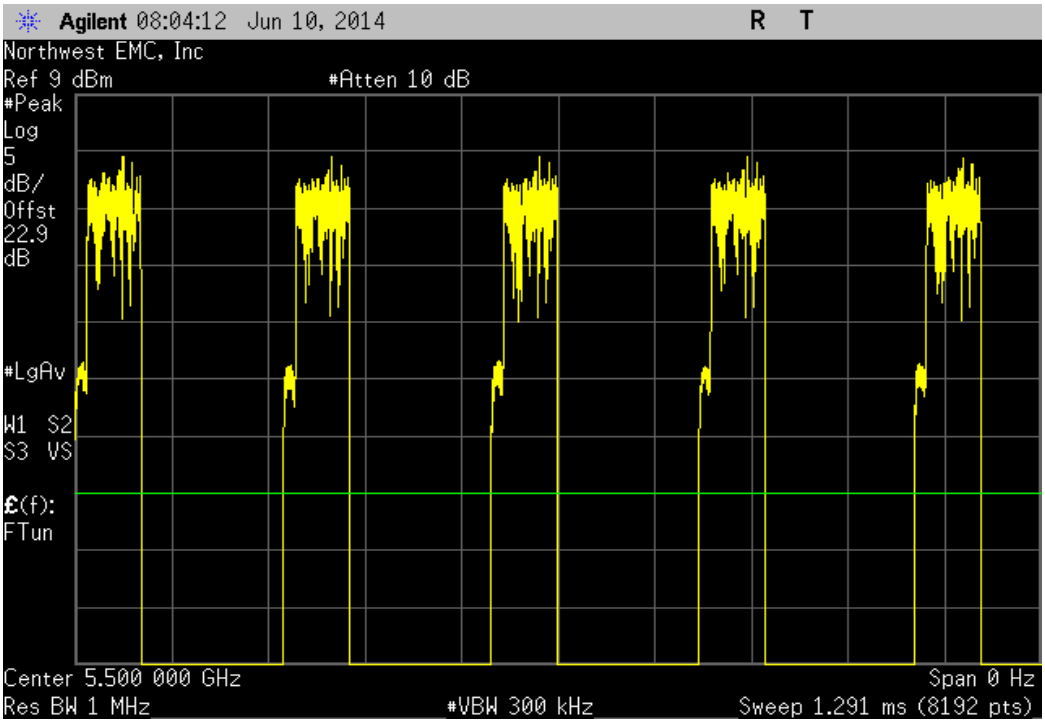
802.11(a) 18 Mbps, Low Channel 100, 5500MHz

Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
73 uS	286.9 uS	1	25.4	N/A	N/A



802.11(a) 18 Mbps, Low Channel 100, 5500MHz

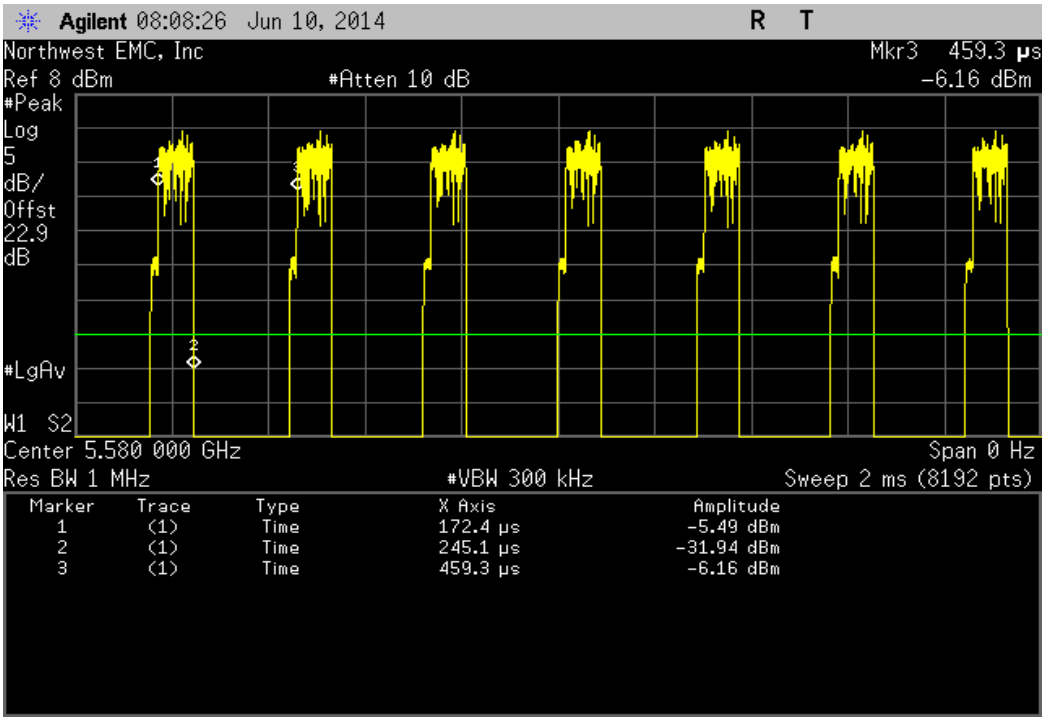
Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
N/A	N/A	5	N/A	N/A	N/A



TRANSMISSIONS BURST DURATION

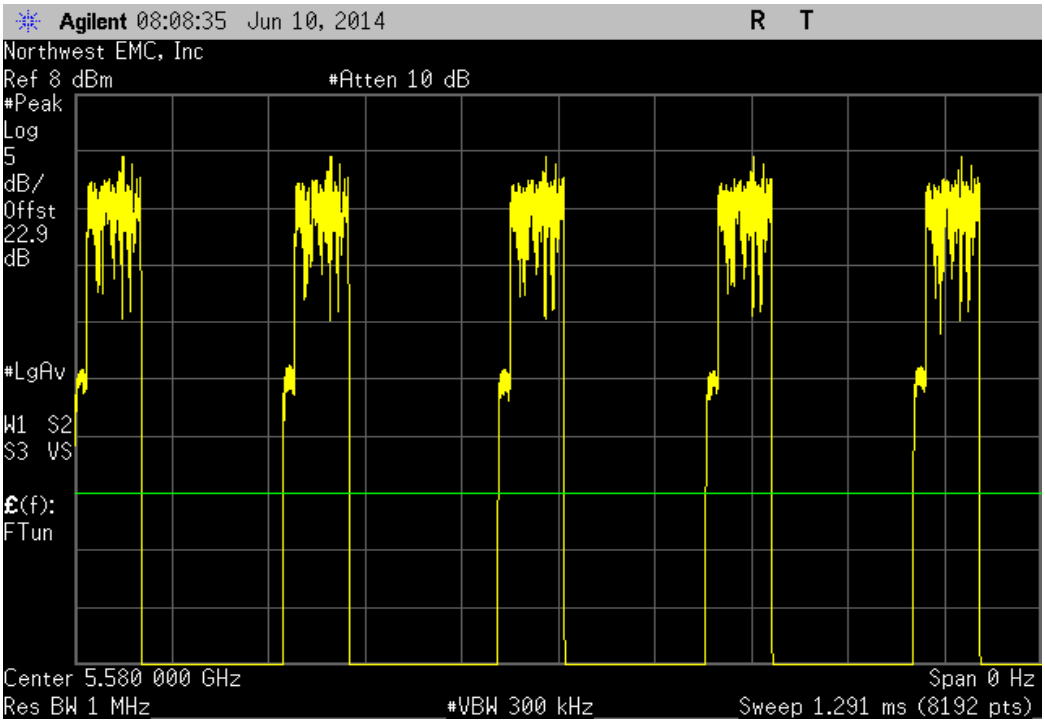
802.11(a) 18 Mbps, Mid Channel 116, 5580MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	72.7 uS	286.9 uS	1	25.3	N/A	N/A



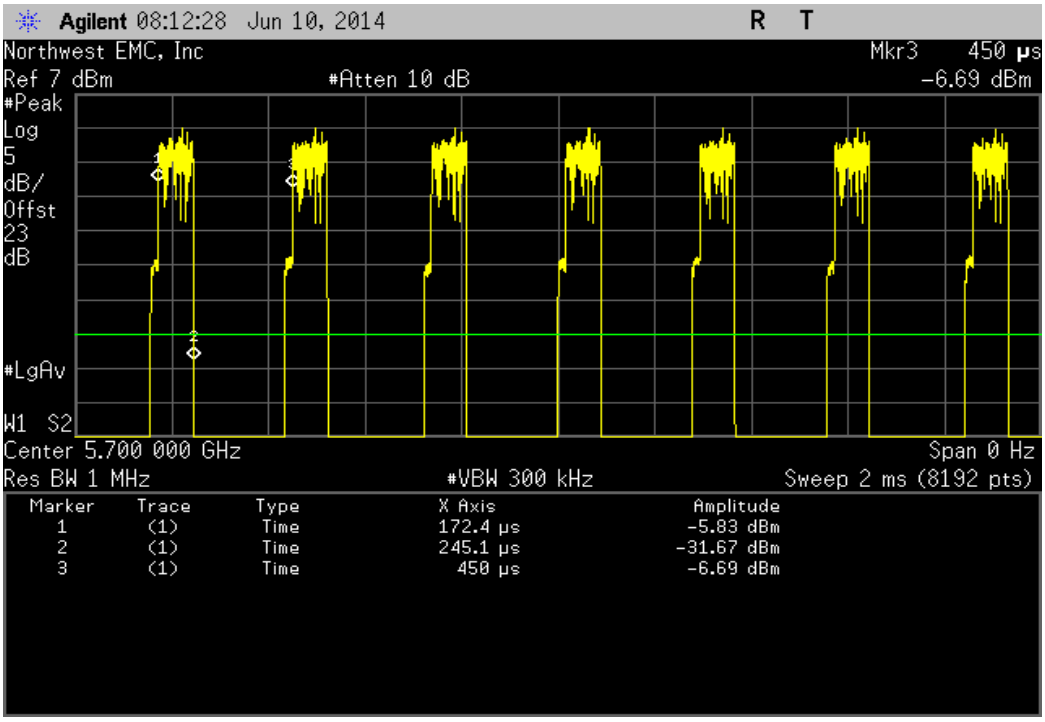
802.11(a) 18 Mbps, Mid Channel 116, 5580MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



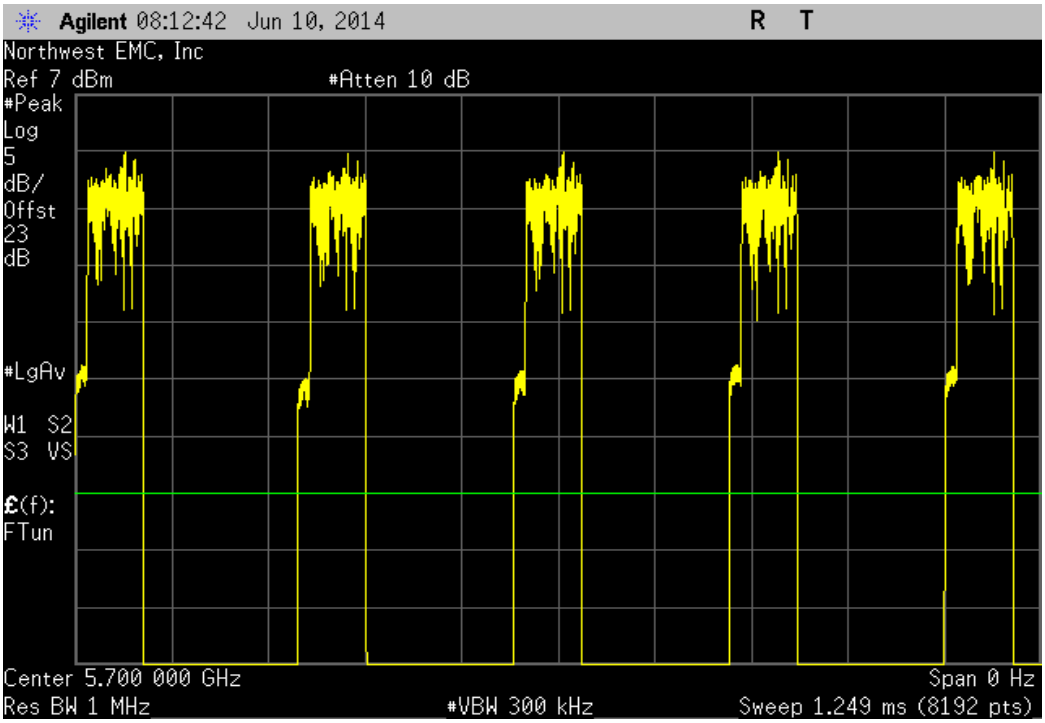
802.11(a) 18 Mbps, High Channel 140, 5700MHz

Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
72.7 uS	277.6 uS	1	26.2	N/A	N/A



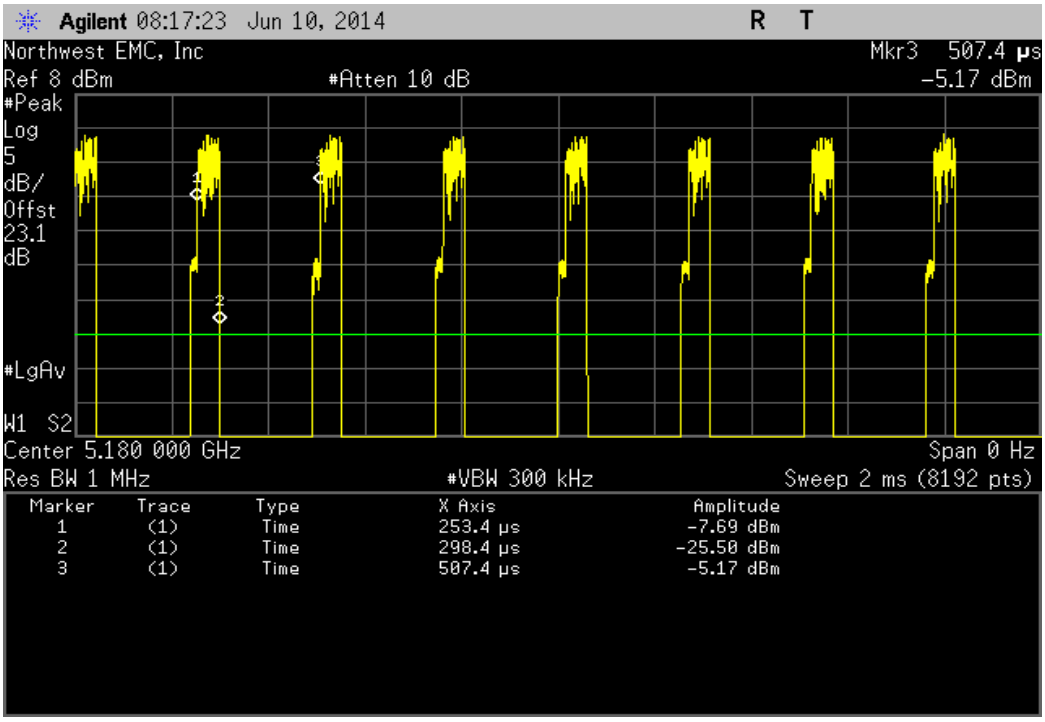
802.11(a) 18 Mbps, High Channel 140, 5700MHz

Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
N/A	N/A	5	N/A	N/A	N/A



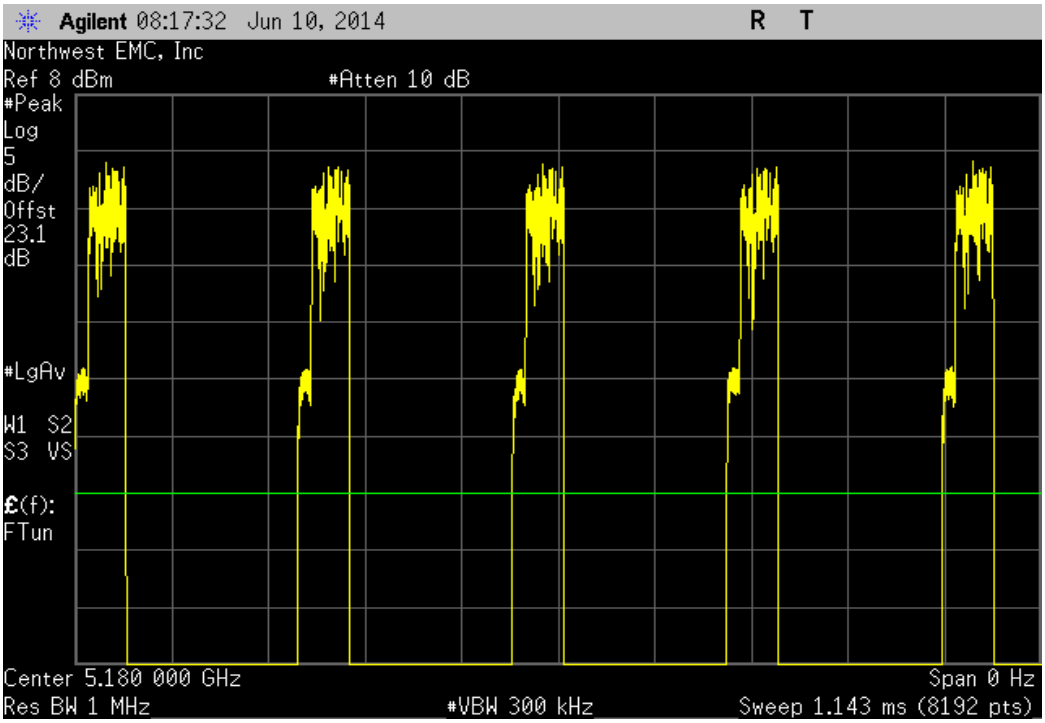
802.11(a) 36 Mbps, Low Channel 36, 5180MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	45 uS	254 uS	1	17.7	N/A	N/A



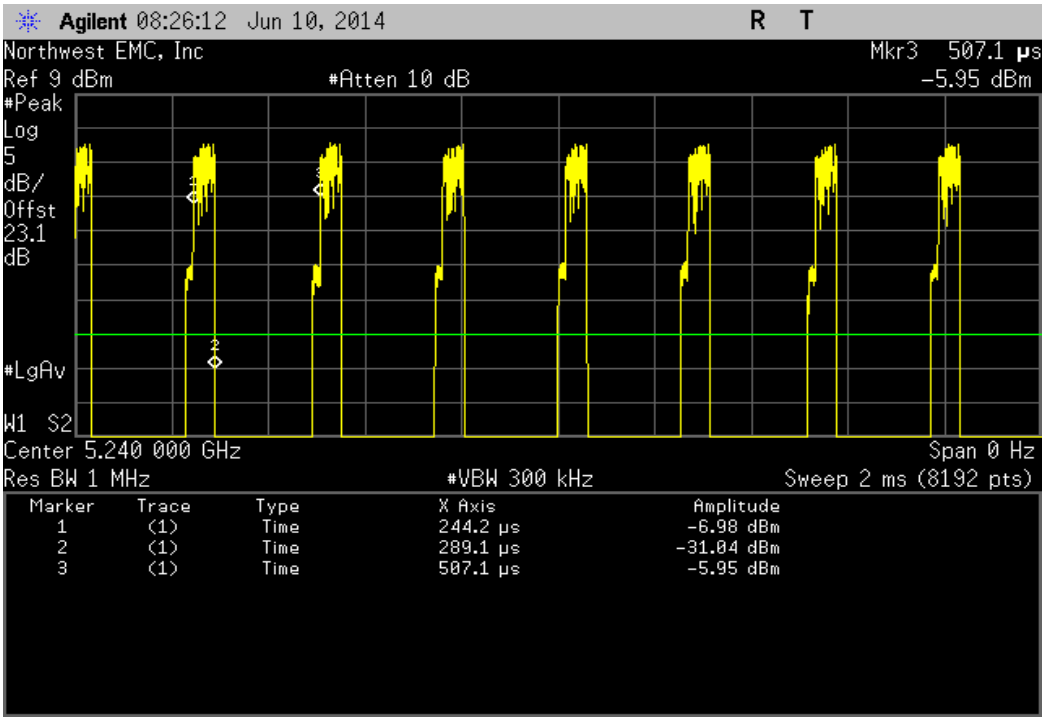
802.11(a) 36 Mbps, Low Channel 36, 5180MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



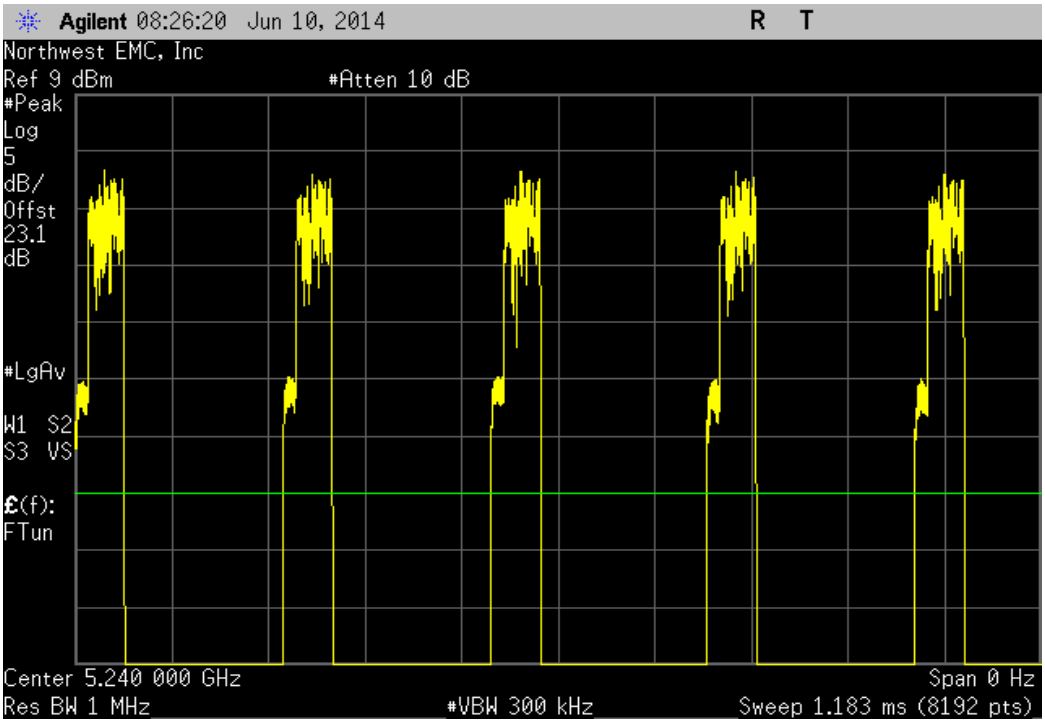
802.11(a) 36 Mbps, High Channel 48, 5240MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	44.9 uS	262.9 uS	1	17.1	N/A	N/A



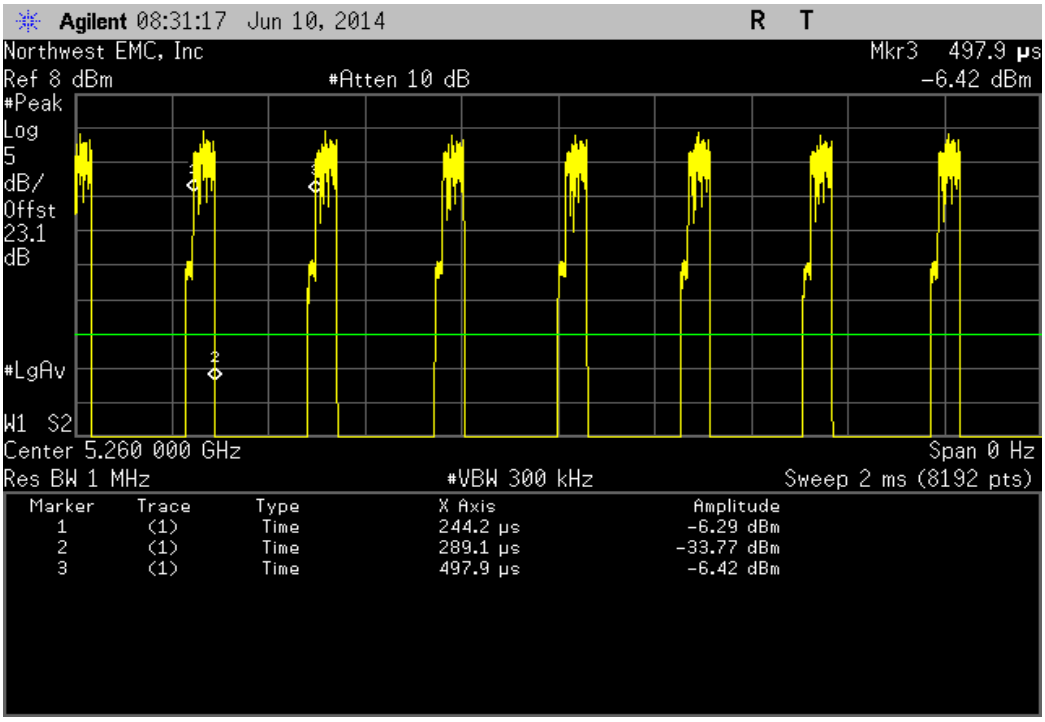
802.11(a) 36 Mbps, High Channel 48, 5240MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



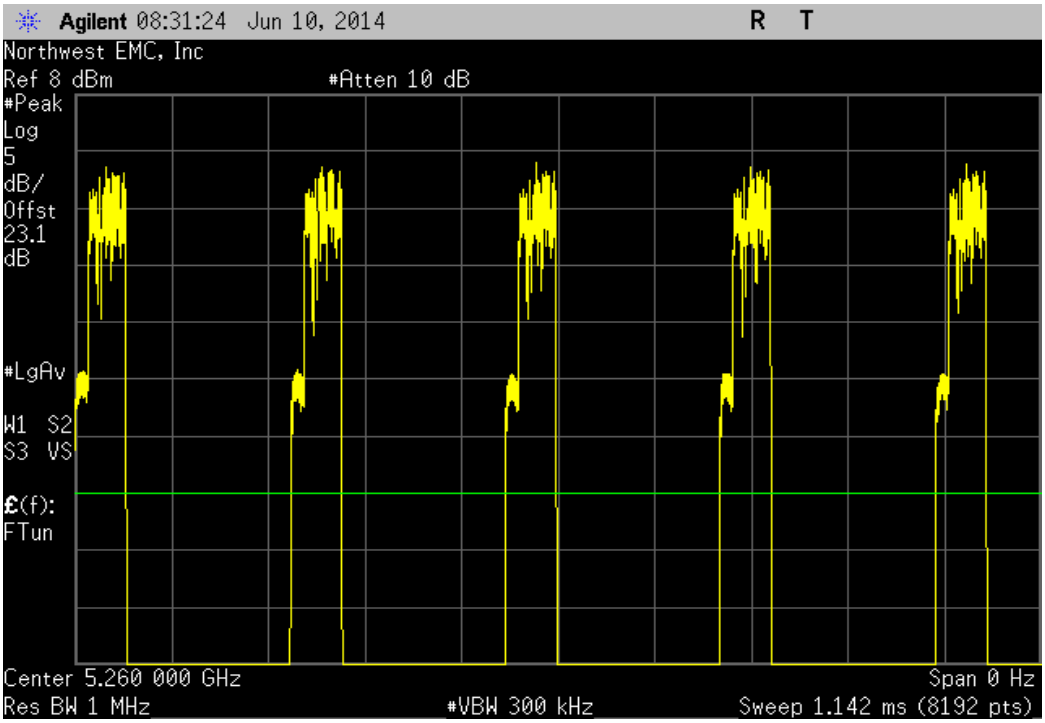
802.11(a) 36 Mbps, Low Channel 52, 5260MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	44.9 uS	253.7 uS	1	17.7	N/A	N/A



802.11(a) 36 Mbps, Low Channel 52, 5260MHz

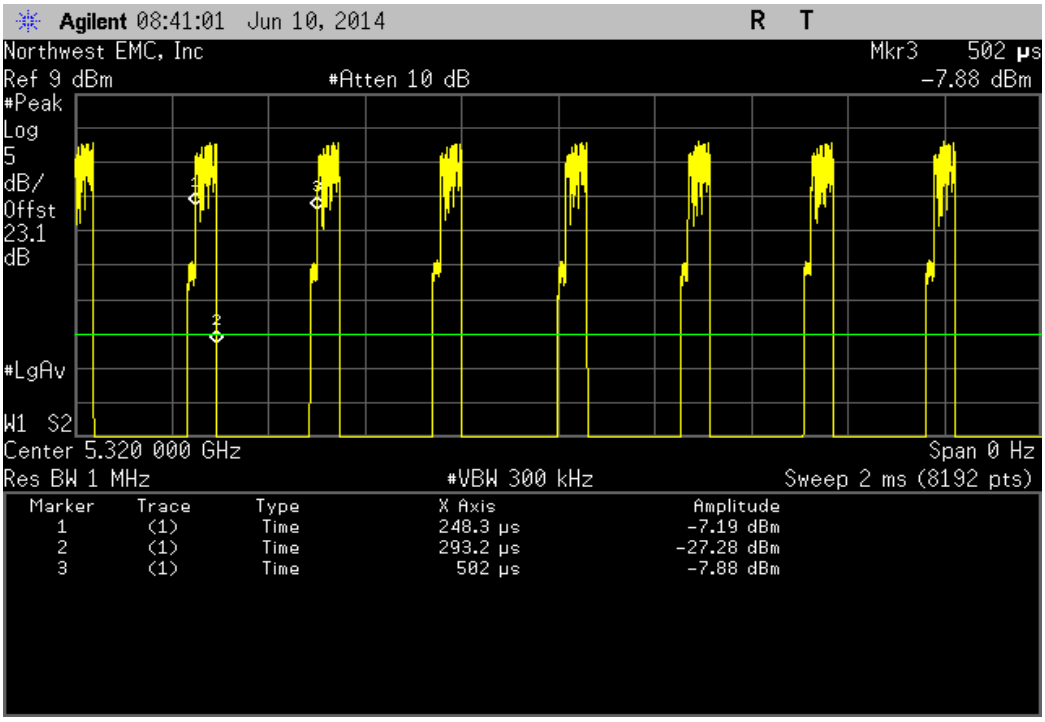
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



TRANSMISSIONS BURST DURATION

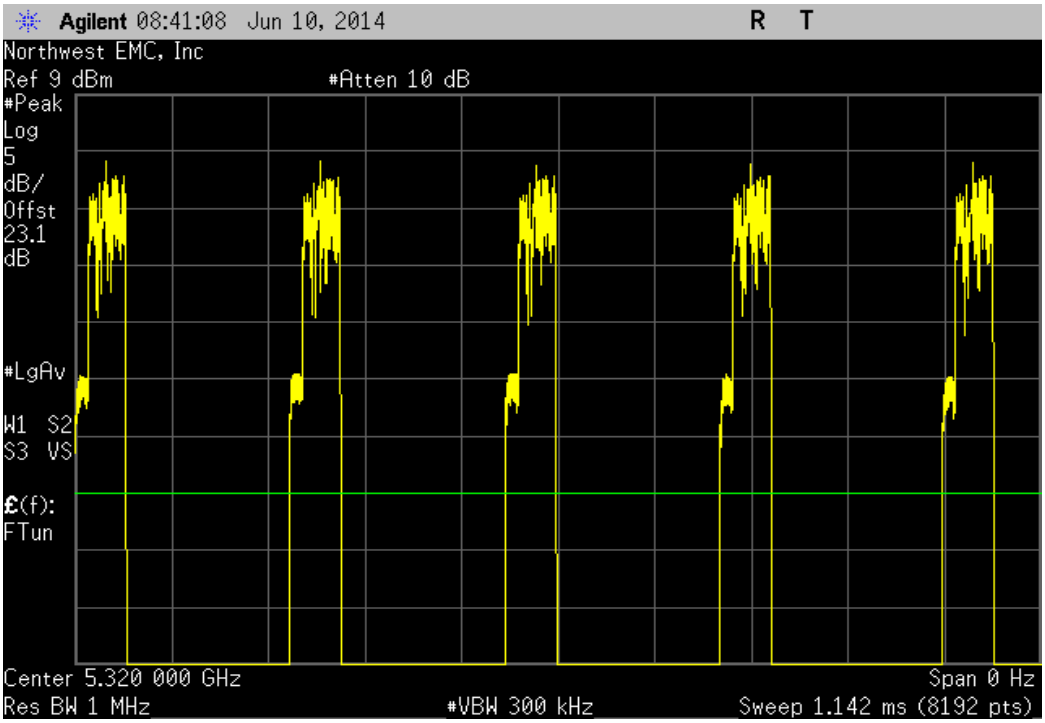
802.11(a) 36 Mbps, High Channel 64, 5320MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	44.9 uS	253.7 uS	1	17.7	N/A	N/A



802.11(a) 36 Mbps, High Channel 64, 5320MHz

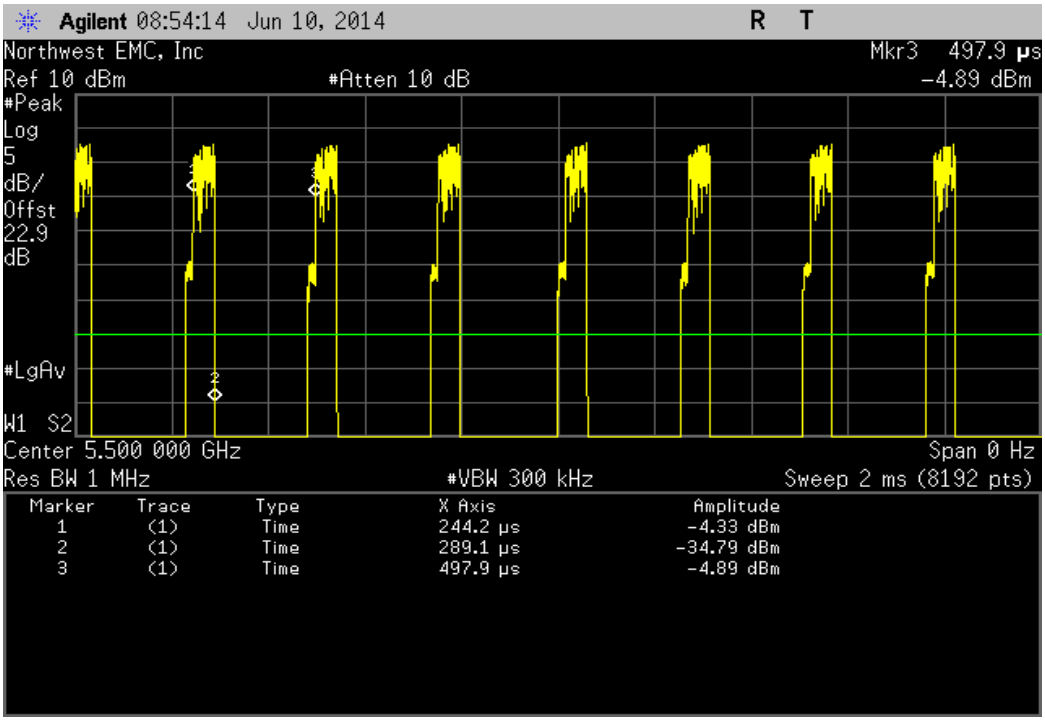
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



TRANSMISSIONS BURST DURATION

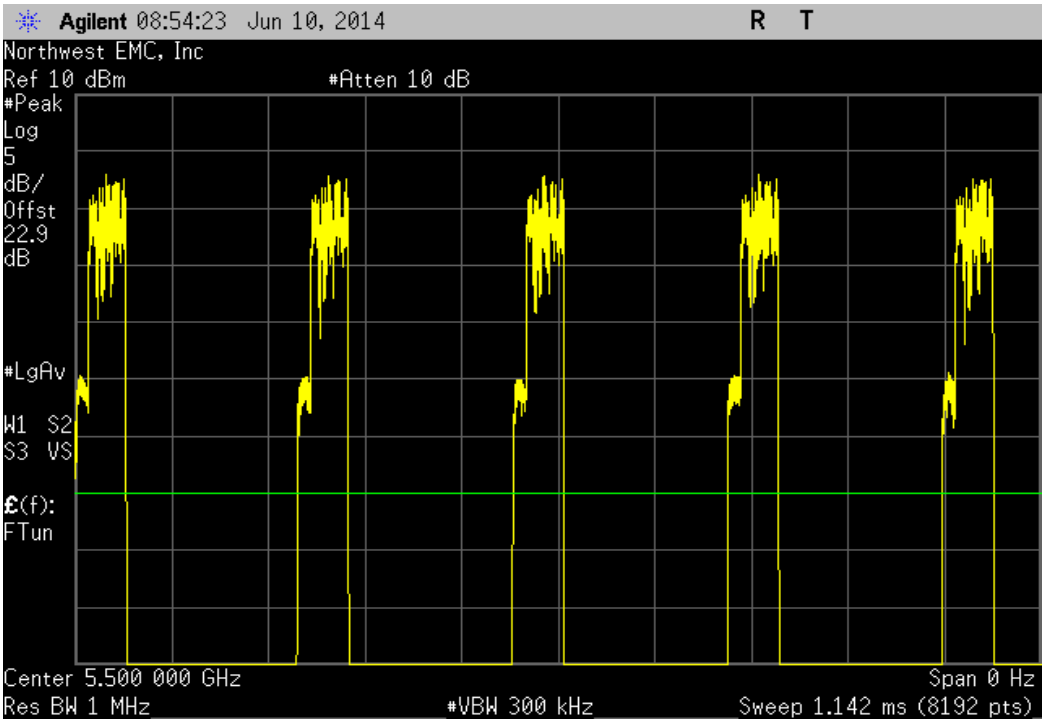
802.11(a) 36 Mbps, Low Channel 100, 5500MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	44.9 uS	253.7 uS	1	17.7	N/A	N/A



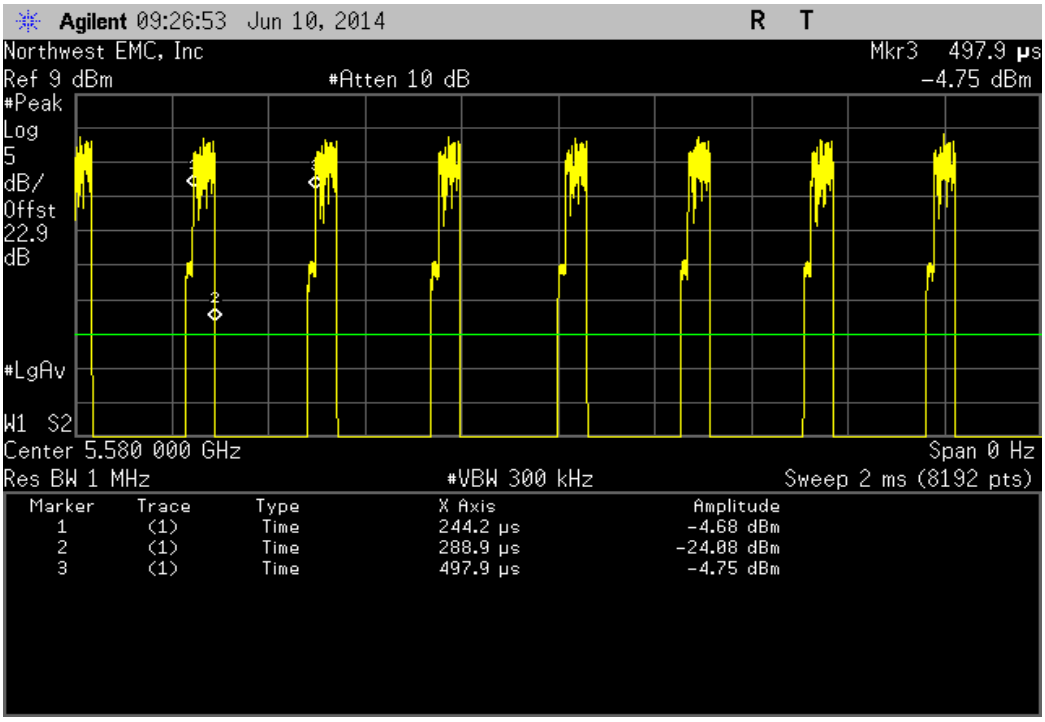
802.11(a) 36 Mbps, Low Channel 100, 5500MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



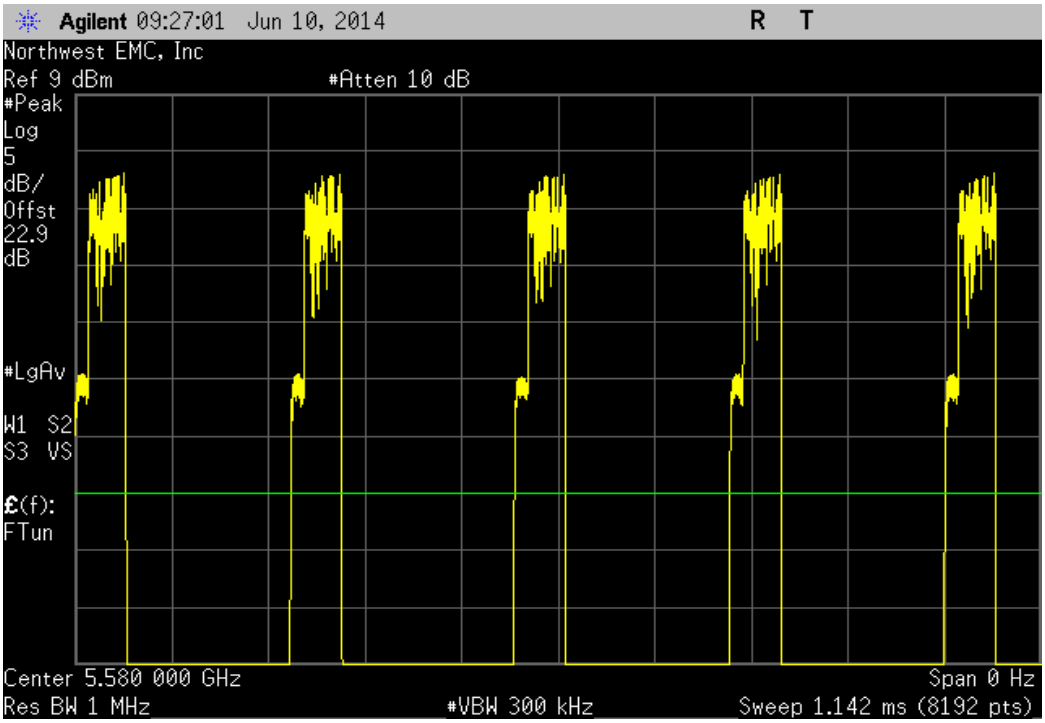
802.11(a) 36 Mbps, Mid Channel 116, 5580MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	44.7 uS	253.7 uS	1	17.6	N/A	N/A



802.11(a) 36 Mbps, Mid Channel 116, 5580MHz

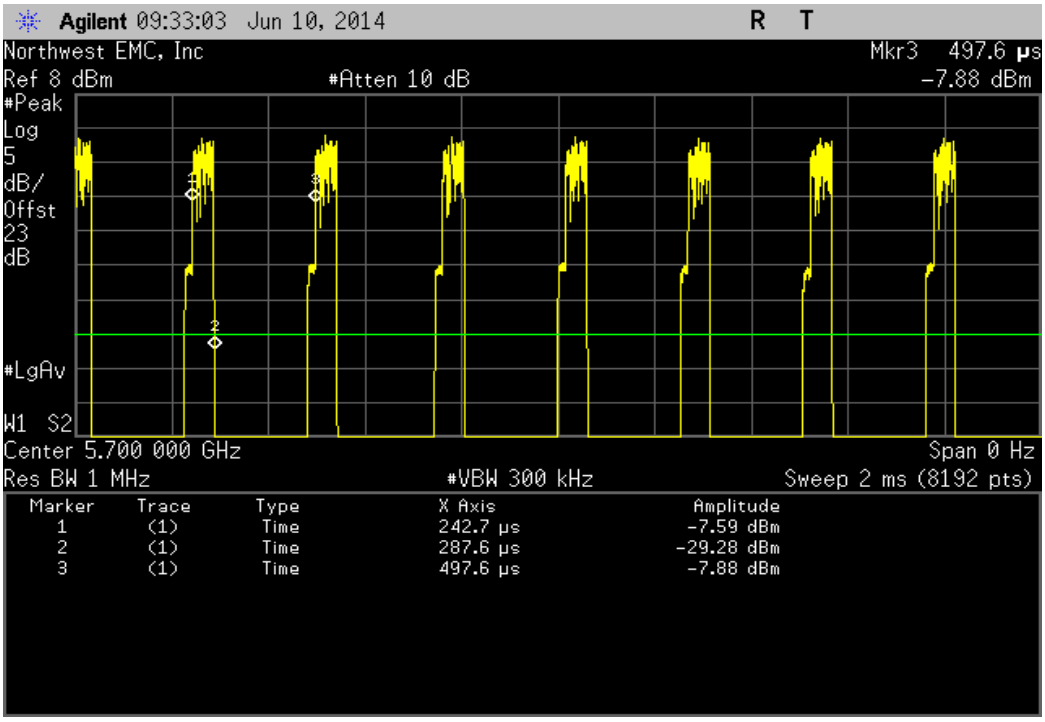
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



TRANSMISSIONS BURST DURATION

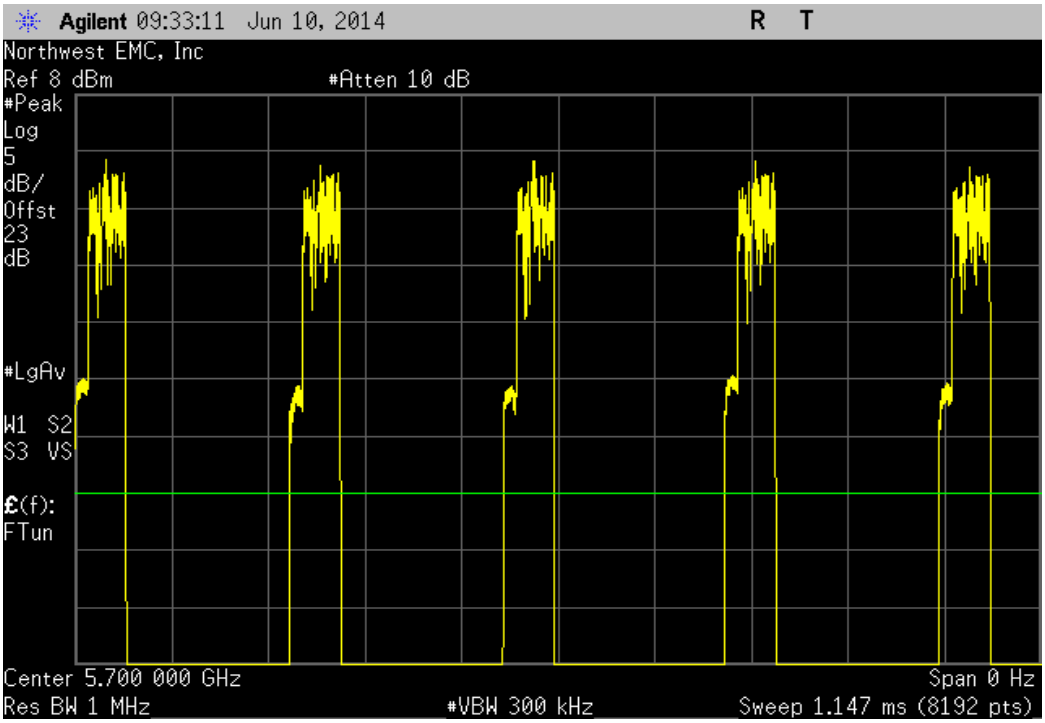
802.11(a) 36 Mbps, High Channel 140, 5700MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	44.9 uS	254.9 uS	1	17.6	N/A	N/A



802.11(a) 36 Mbps, High Channel 140, 5700MHz

	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	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
40GHz DC Block	Miteq	DCB4000	AMD	4/28/2014	12 mo
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12 mo
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0 mo
Attenuator, 'Precision N'	S.M. Electronics	SA18N-06/SM4032	REE	12/2/2013	12 mo
Power Meter	Agilent	N1913A	SQR	4/29/2013	36 mo
Power Sensor	Agilent	E9300H	SQO	4/29/2013	36 mo
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	24 mo
MXG Analog Signal Generator	Agilent	N5181A	TIG	3/28/2014	36 mo

TEST DESCRIPTION

FCC KDB 789033 D01 General UNII Test Procedures 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.

EMISSION BANDWIDTH

EUT:	444-2251			Work Order:	FOCU0169
Serial Number:	02EA4F000062			Date:	06/11/14
Customer:	Summit Semiconductor LLC			Temperature:	22.2°C
Attendees:	Paul Hamilton			Humidity:	41%
Project:	None			Barometric Pres.:	1017
Tested by:	Brandon Hobbs	Power:	110VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.407:2014	ANSI C63.10:2009

COMMENTS

Modes of operation were provided by the client.

DEVIATIONS FROM TEST STANDARD

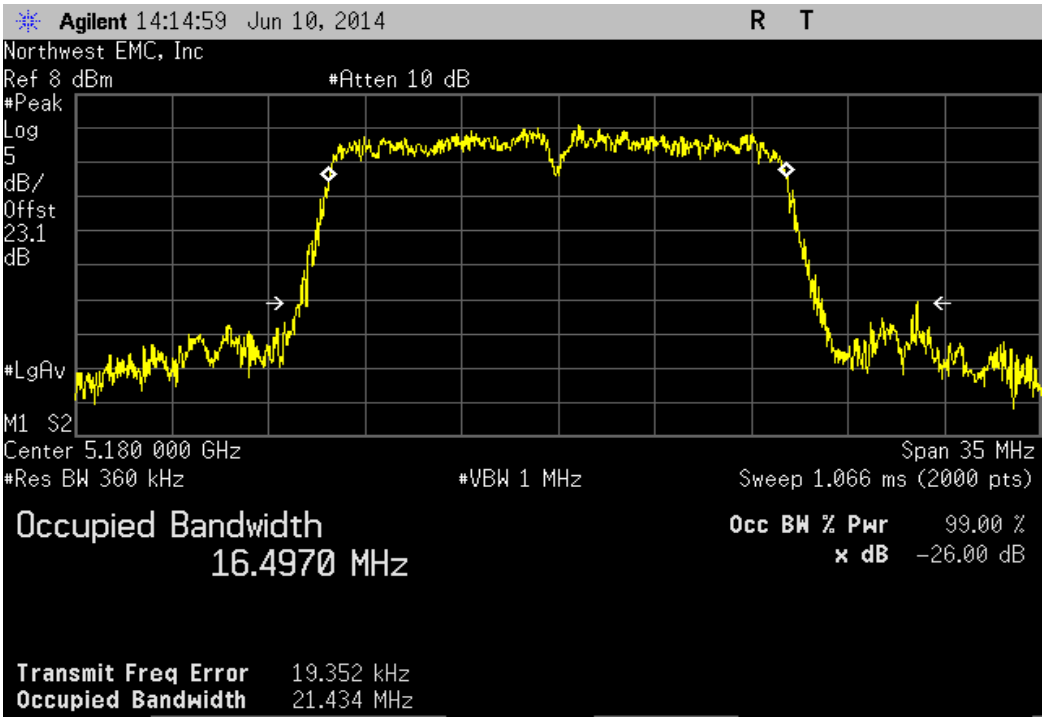
None

Configuration #	1	Signature

		Value	Limit	Result
802.11(a) 6 Mbps				
	Low Channel 36, 5180MHz	21.434 MHz	> 500 kHz	Pass
	High Channel 48, 5240MHz	22.555 MHz	> 500 kHz	Pass
	Low Channel 52, 5260MHz	21.699 MHz	> 500 kHz	Pass
	High Channel 64, 5320MHz	22.474 MHz	> 500 kHz	Pass
	Low Channel 100, 5500MHz	22.615 MHz	> 500 kHz	Pass
	Mid Channel 116, 5580MHz	22.891 MHz	> 500 kHz	Pass
	High Channel 140, 5700MHz	22.18 MHz	> 500 kHz	Pass
802.11(a) 18 Mbps				
	Low Channel 36, 5180MHz	18.437 MHz	> 500 kHz	Pass
	High Channel 48, 5240MHz	18.724 MHz	> 500 kHz	Pass
	Low Channel 52, 5260MHz	18.668 MHz	> 500 kHz	Pass
	High Channel 64, 5320MHz	18.677 MHz	> 500 kHz	Pass
	Low Channel 100, 5500MHz	18.891 MHz	> 500 kHz	Pass
	Mid Channel 116, 5580MHz	18.614 MHz	> 500 kHz	Pass
	High Channel 140, 5700MHz	18.705 MHz	> 500 kHz	Pass
802.11(a) 36 Mbps				
	Low Channel 36, 5180MHz	18.454 MHz	> 500 kHz	Pass
	High Channel 48, 5240MHz	18.47 MHz	> 500 kHz	Pass
	Low Channel 52, 5260MHz	18.517 MHz	> 500 kHz	Pass
	High Channel 64, 5320MHz	18.208 MHz	> 500 kHz	Pass
	Low Channel 100, 5500MHz	18.608 MHz	> 500 kHz	Pass
	Mid Channel 116, 5580MHz	18.586 MHz	> 500 kHz	Pass
	High Channel 140, 5700MHz	18.457 MHz	> 500 kHz	Pass

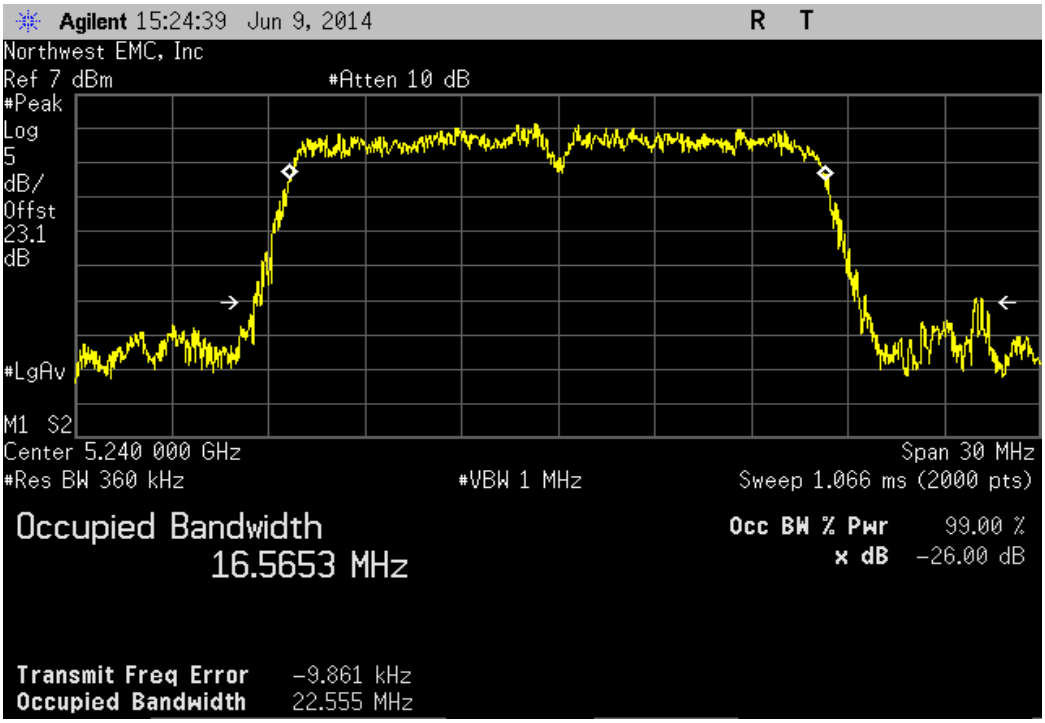
802.11(a) 6 Mbps, Low Channel 36, 5180MHz

				Value	Limit	Result
				21.434 MHz	> 500 kHz	Pass



802.11(a) 6 Mbps, High Channel 48, 5240MHz

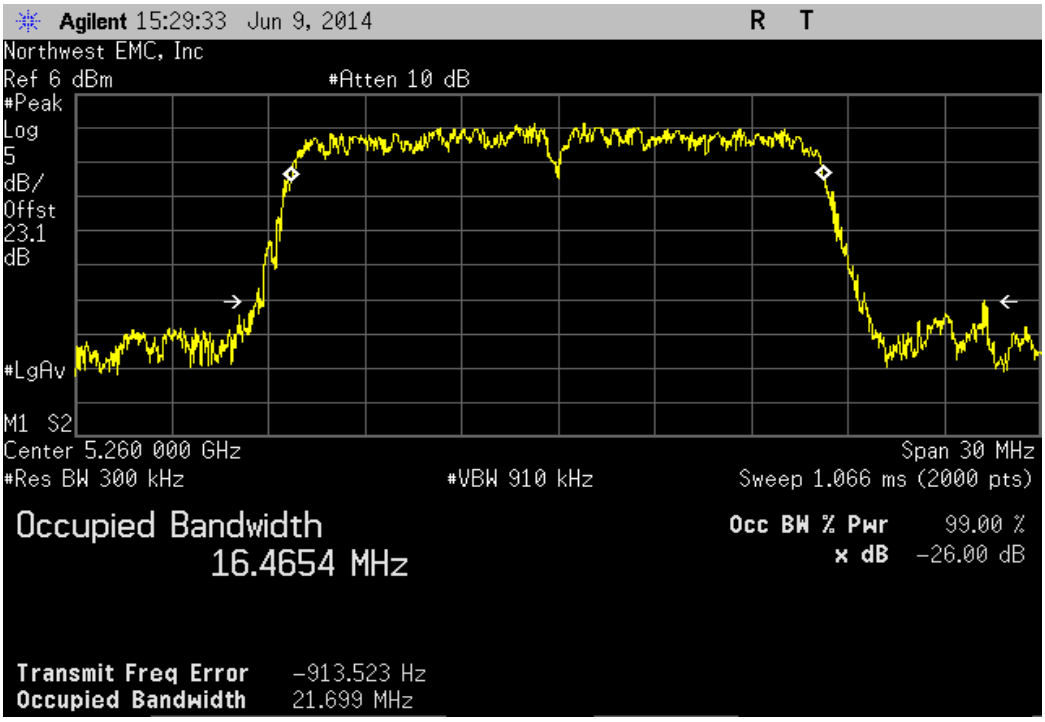
				Value	Limit	Result
				22.555 MHz	> 500 kHz	Pass



EMISSION BANDWIDTH

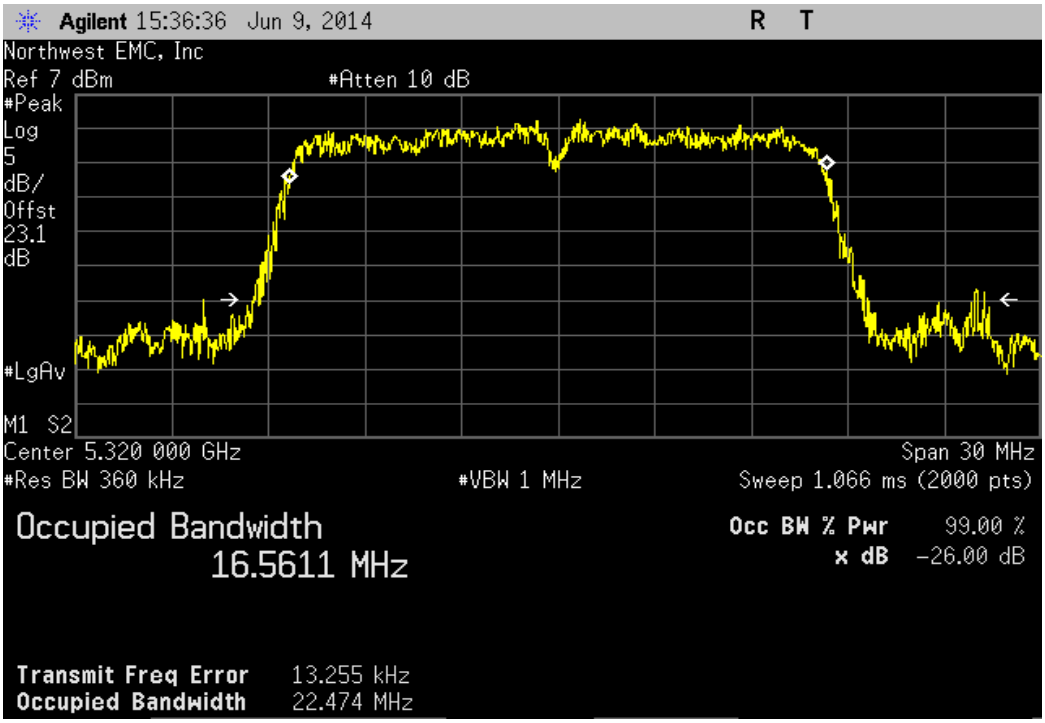
802.11(a) 6 Mbps, Low Channel 52, 5260MHz

				Value	Limit	Result
				21.699 MHz	> 500 kHz	Pass



802.11(a) 6 Mbps, High Channel 64, 5320MHz

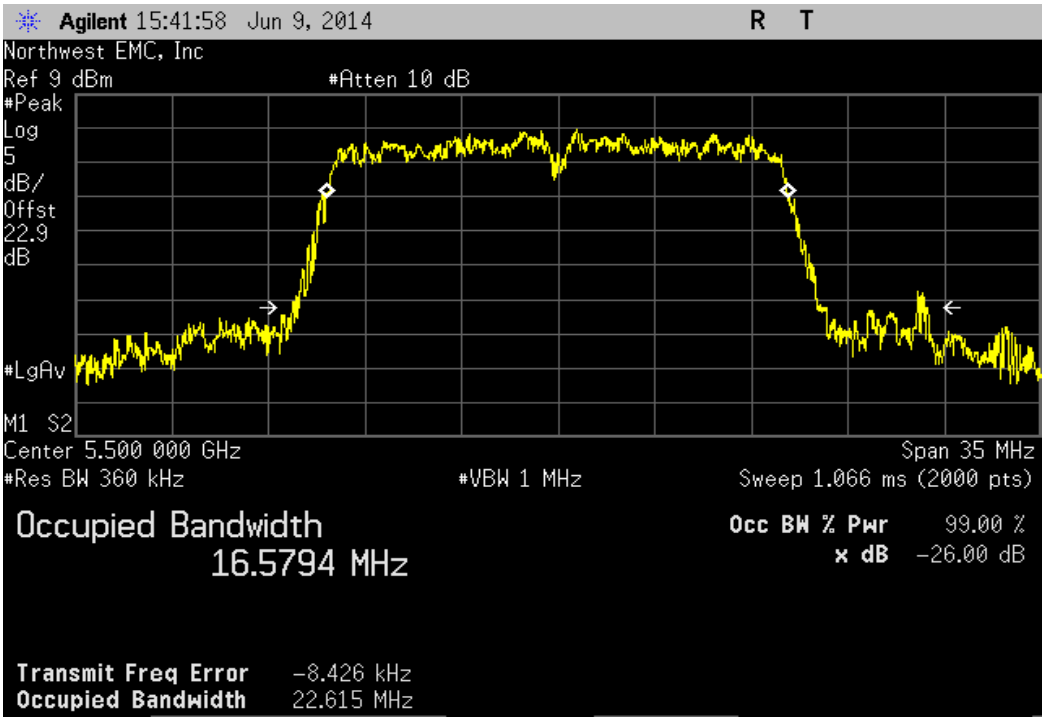
				Value	Limit	Result
				22.474 MHz	> 500 kHz	Pass



EMISSION BANDWIDTH

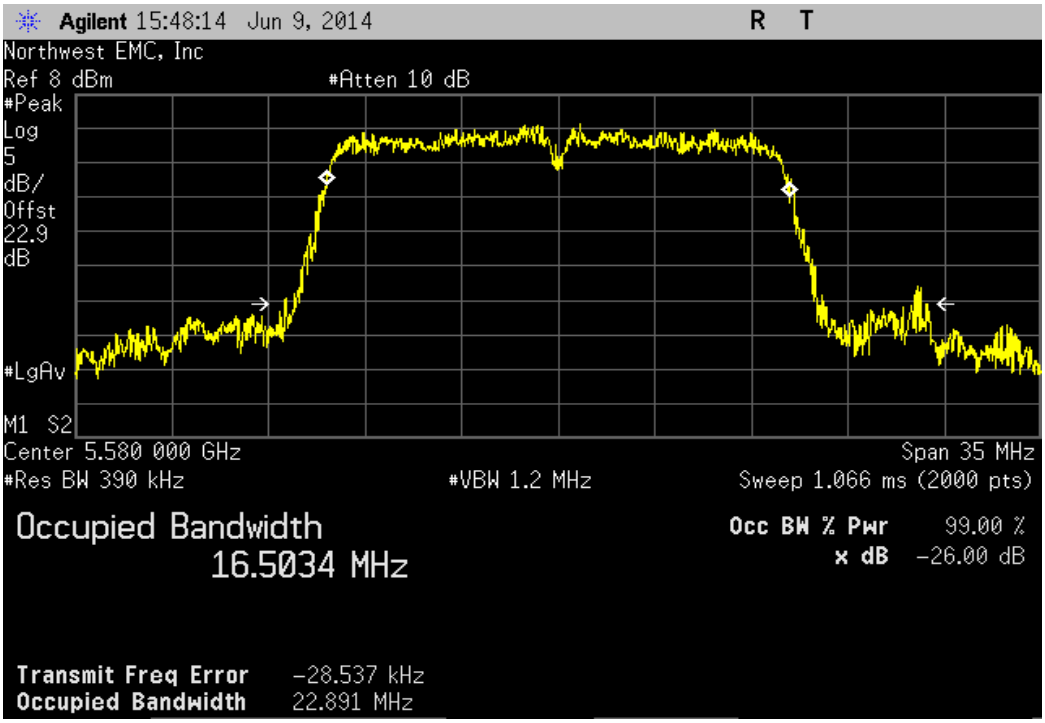
802.11(a) 6 Mbps, Low Channel 100, 5500MHz

				Value	Limit	Result
				22.615 MHz	> 500 kHz	Pass



802.11(a) 6 Mbps, Mid Channel 116, 5580MHz

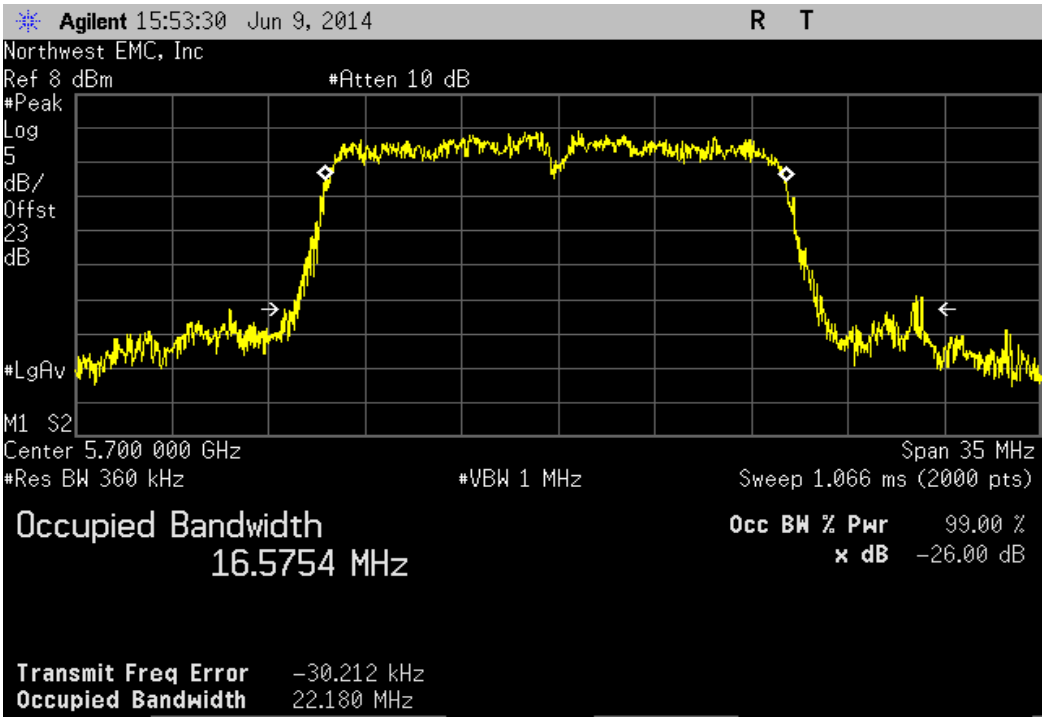
				Value	Limit	Result
				22.891 MHz	> 500 kHz	Pass



EMISSION BANDWIDTH

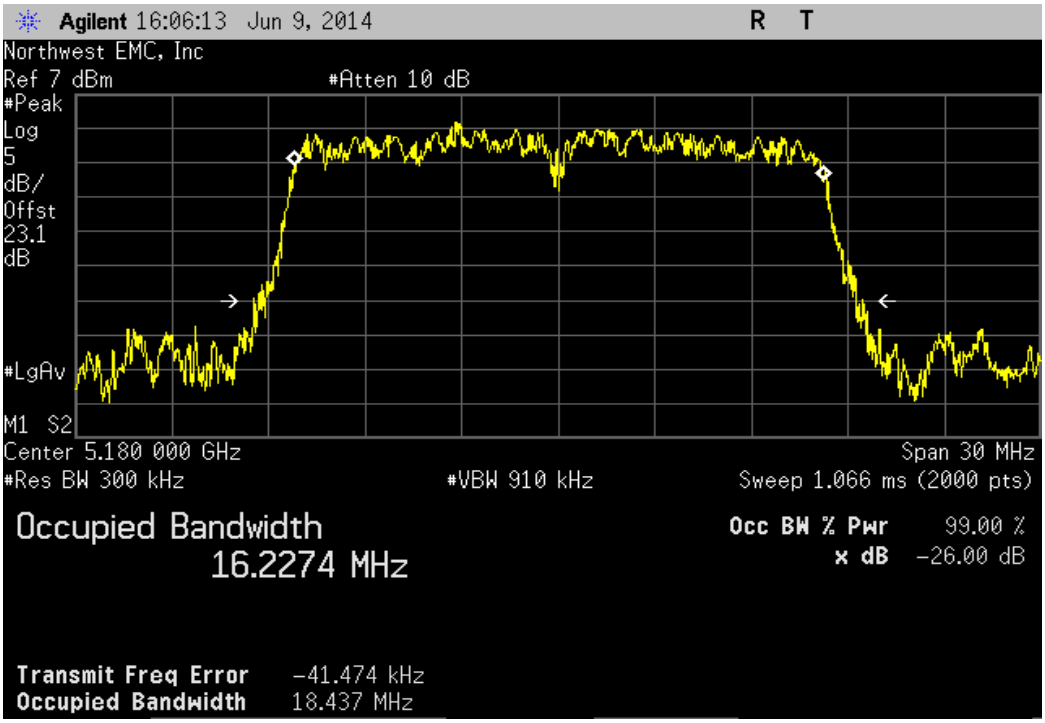
802.11(a) 6 Mbps, High Channel 140, 5700MHz

				Value	Limit	Result
				22.18 MHz	> 500 kHz	Pass



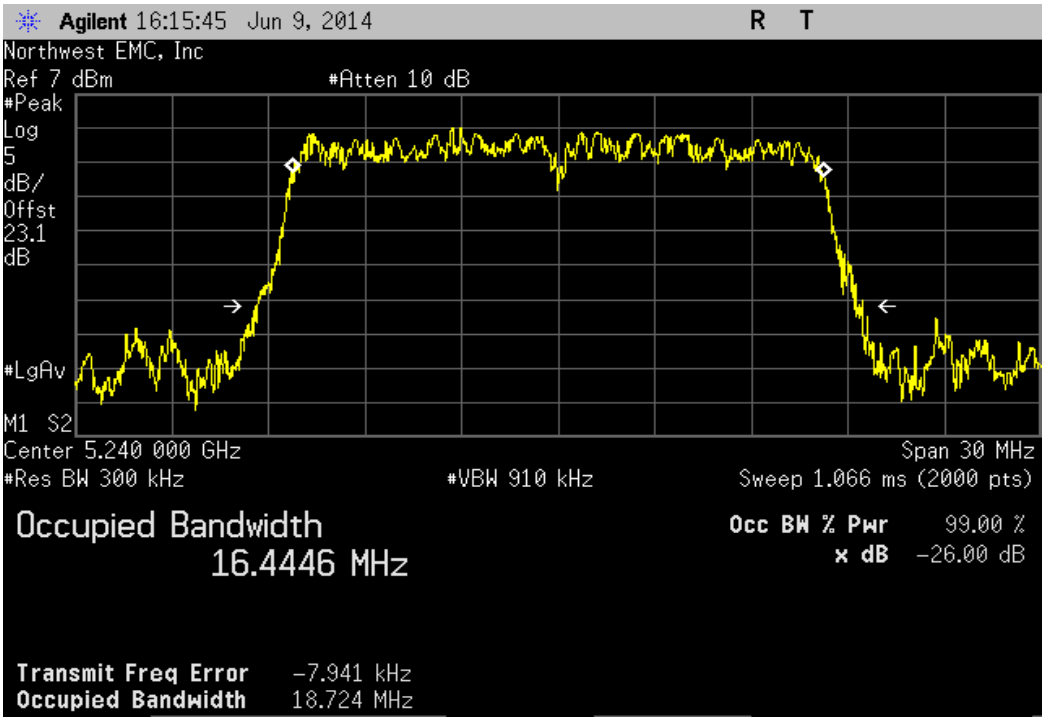
802.11(a) 18 Mbps, Low Channel 36, 5180MHz

				Value	Limit	Result
				18.437 MHz	> 500 kHz	Pass



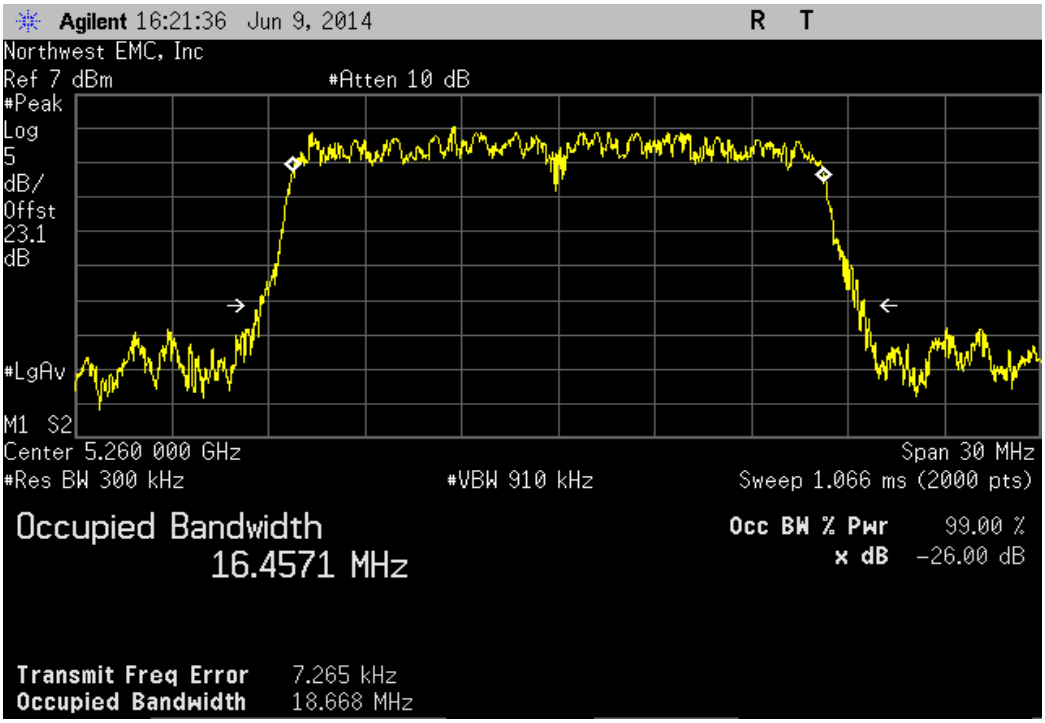
802.11(a) 18 Mbps, High Channel 48, 5240MHz

				Value	Limit	Result
				18.724 MHz	> 500 kHz	Pass



802.11(a) 18 Mbps, Low Channel 52, 5260MHz

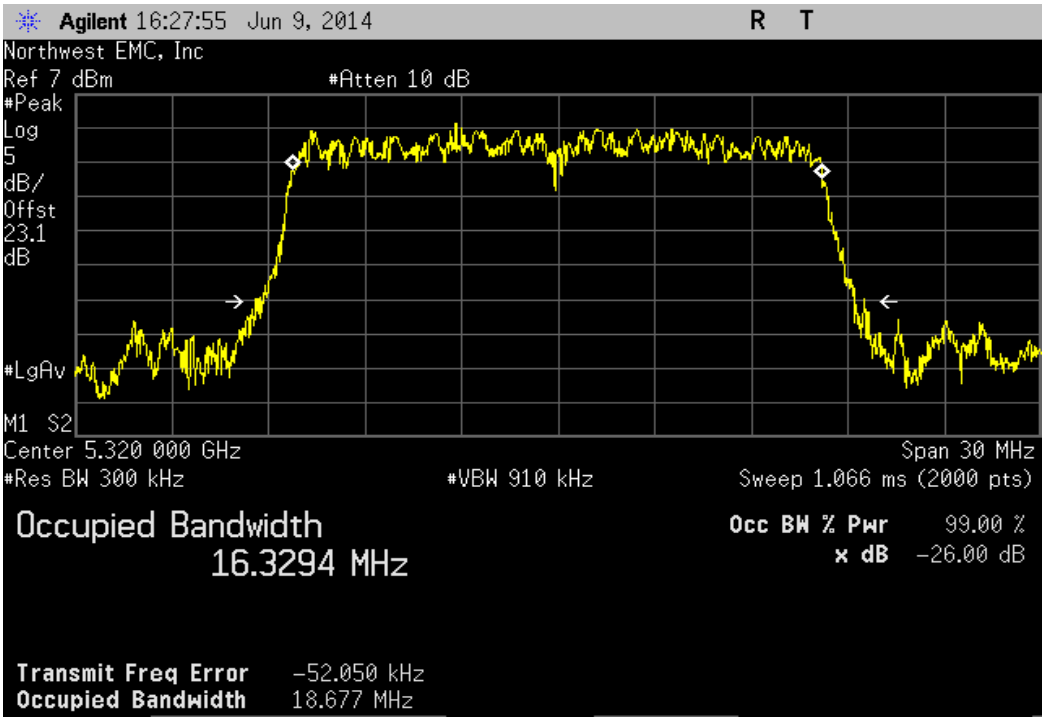
				Value	Limit	Result
				18.668 MHz	> 500 kHz	Pass



EMISSION BANDWIDTH

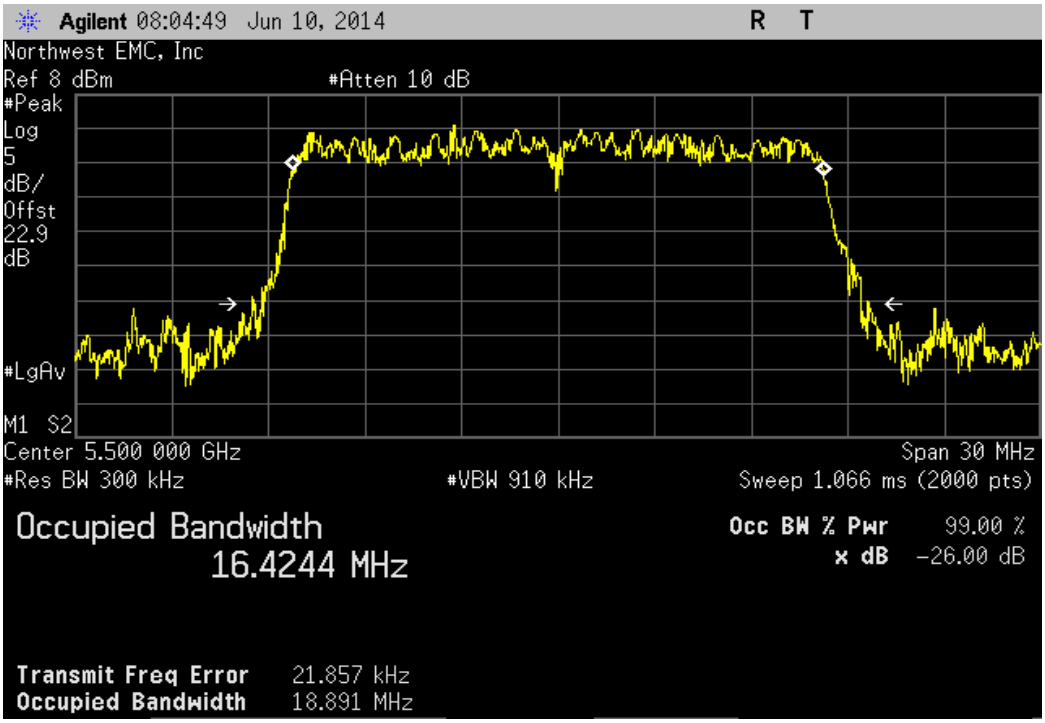
802.11(a) 18 Mbps, High Channel 64, 5320MHz

				Value	Limit	Result
				18.677 MHz	> 500 kHz	Pass



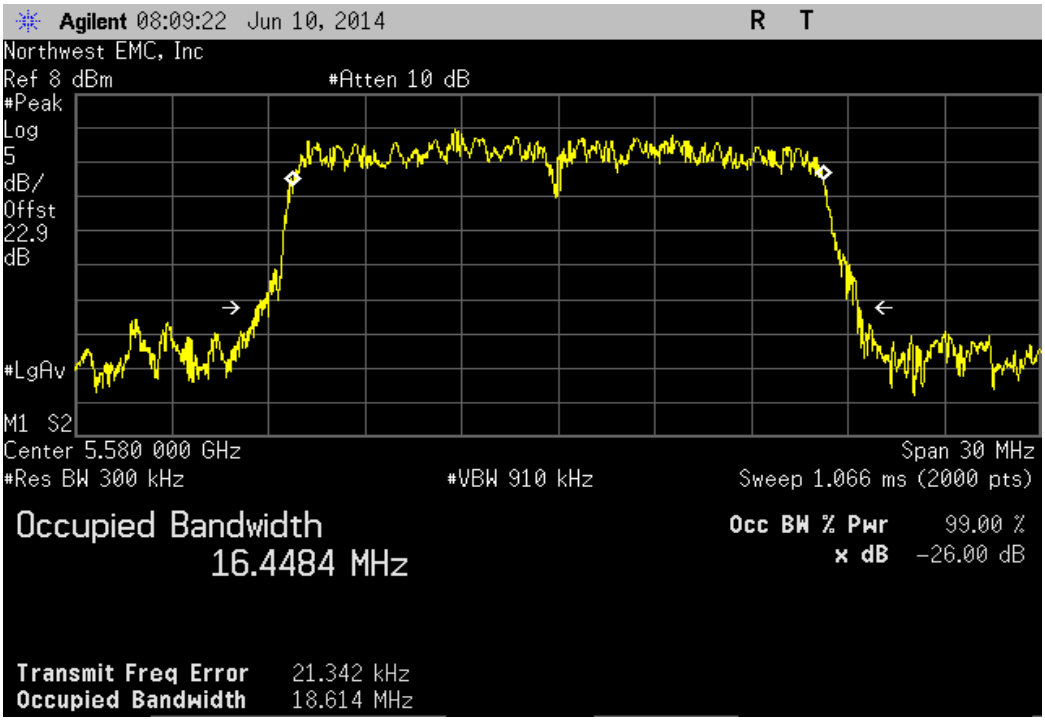
802.11(a) 18 Mbps, Low Channel 100, 5500MHz

				Value	Limit	Result
				18.891 MHz	> 500 kHz	Pass



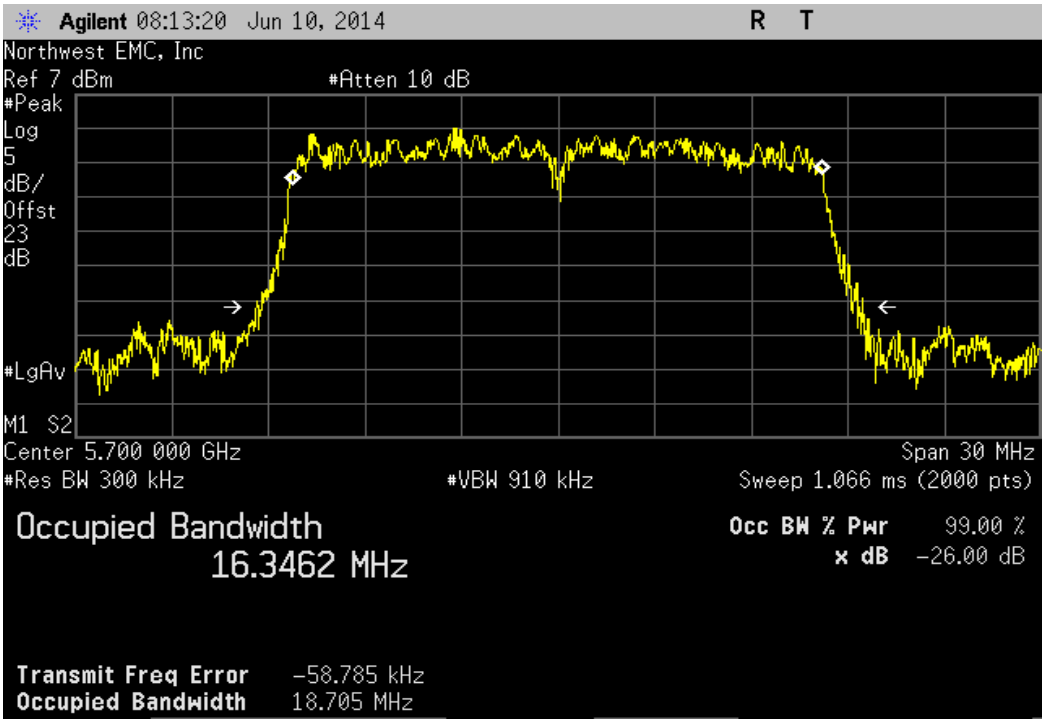
802.11(a) 18 Mbps, Mid Channel 116, 5580MHz

				Value	Limit	Result
				18.614 MHz	> 500 kHz	Pass



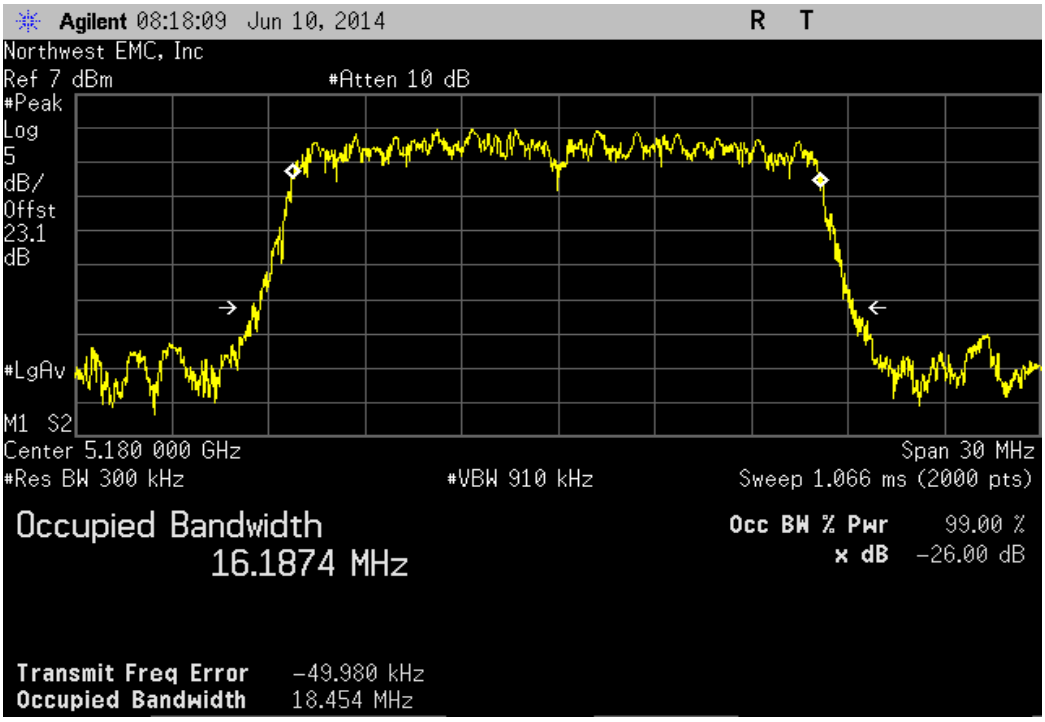
802.11(a) 18 Mbps, High Channel 140, 5700MHz

				Value	Limit	Result
				18.705 MHz	> 500 kHz	Pass



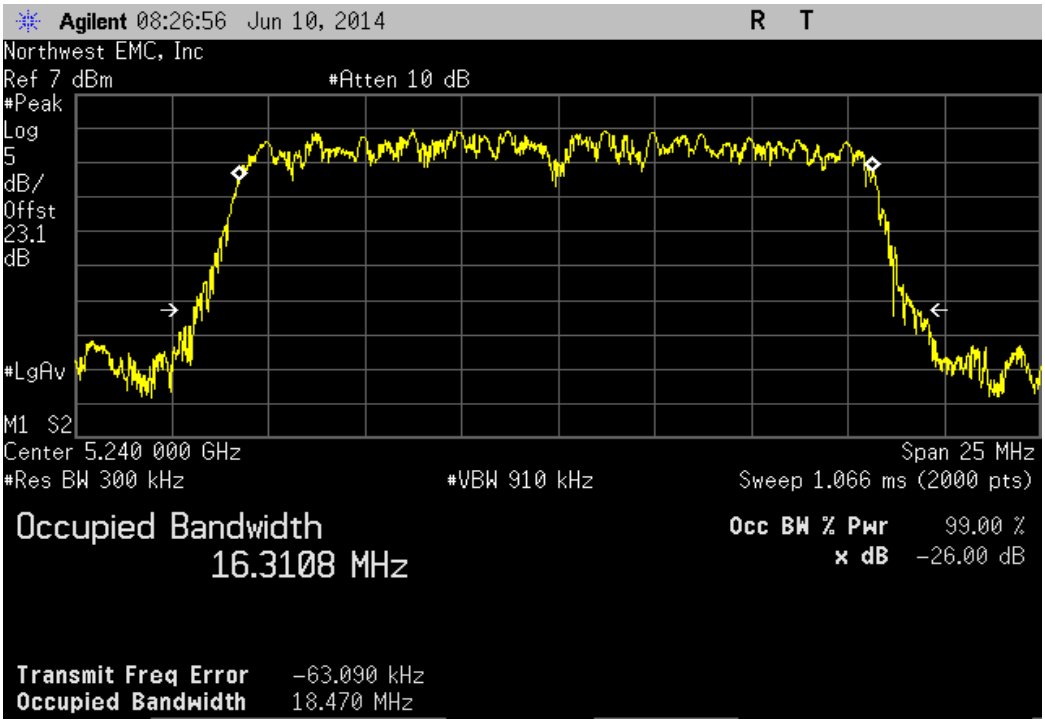
802.11(a) 36 Mbps, Low Channel 36, 5180MHz

				Value	Limit	Result
				18.454 MHz	> 500 kHz	Pass



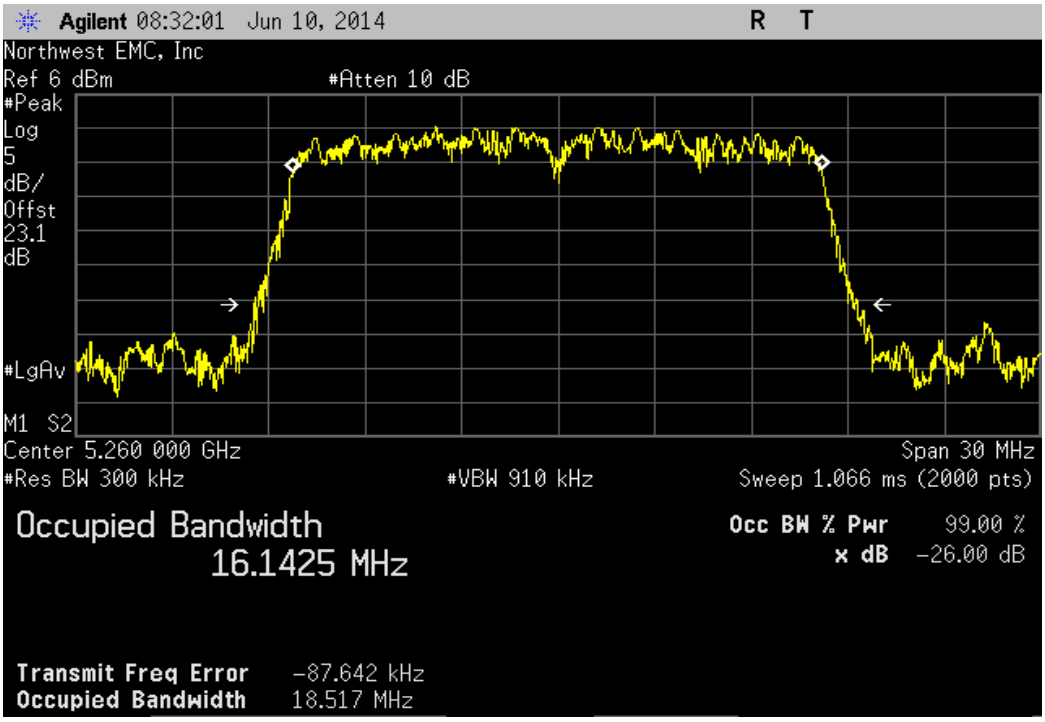
802.11(a) 36 Mbps, High Channel 48, 5240MHz

				Value	Limit	Result
				18.47 MHz	> 500 kHz	Pass



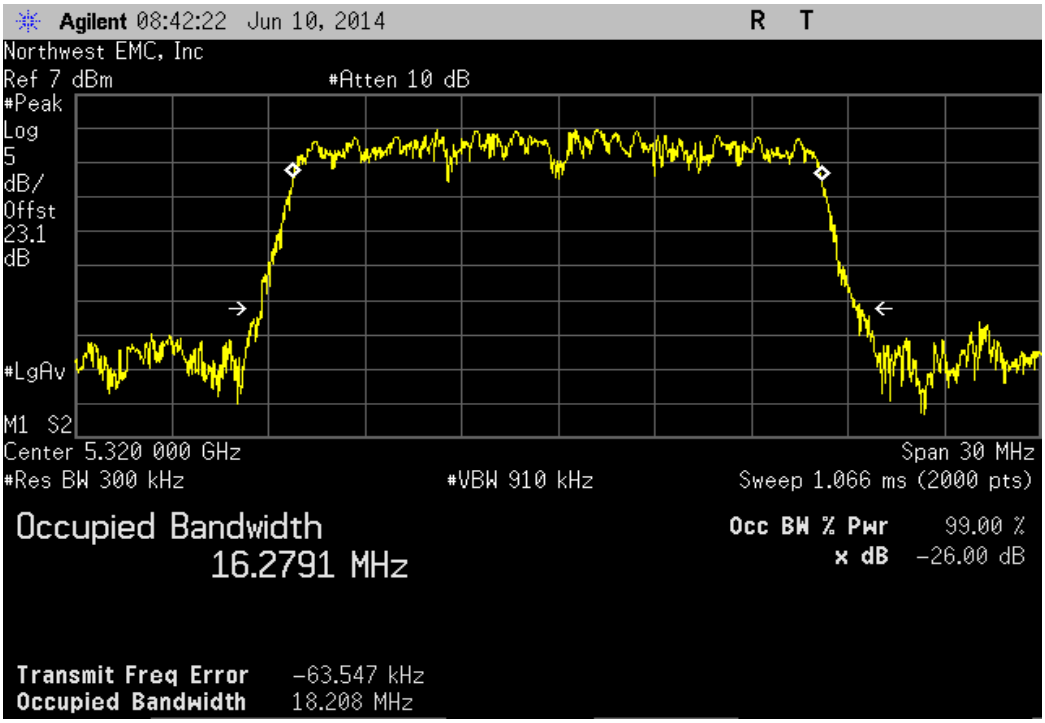
802.11(a) 36 Mbps, Low Channel 52, 5260MHz

				Value	Limit	Result
				18.517 MHz	> 500 kHz	Pass



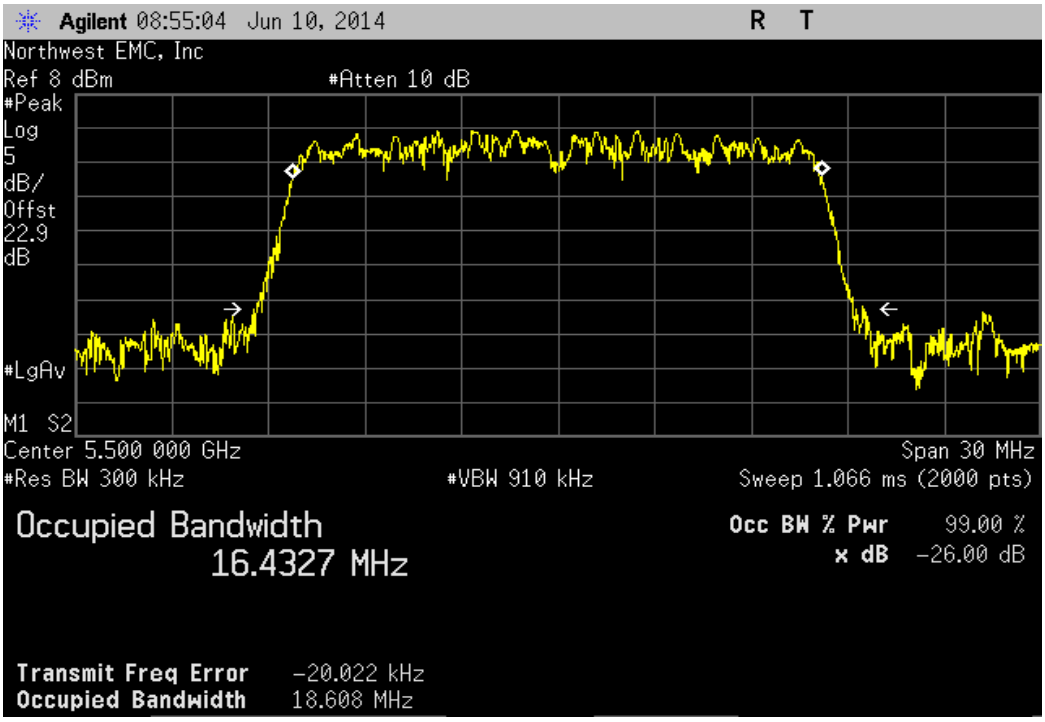
802.11(a) 36 Mbps, High Channel 64, 5320MHz

				Value	Limit	Result
				18.208 MHz	> 500 kHz	Pass



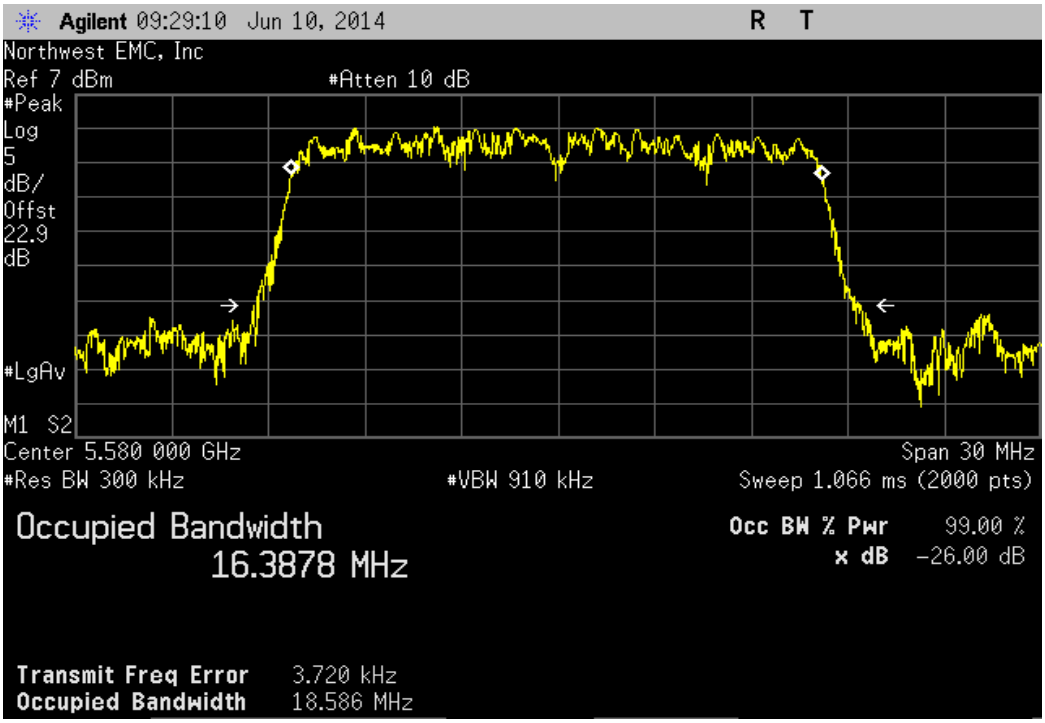
802.11(a) 36 Mbps, Low Channel 100, 5500MHz

				Value	Limit	Result
				18.608 MHz	> 500 kHz	Pass



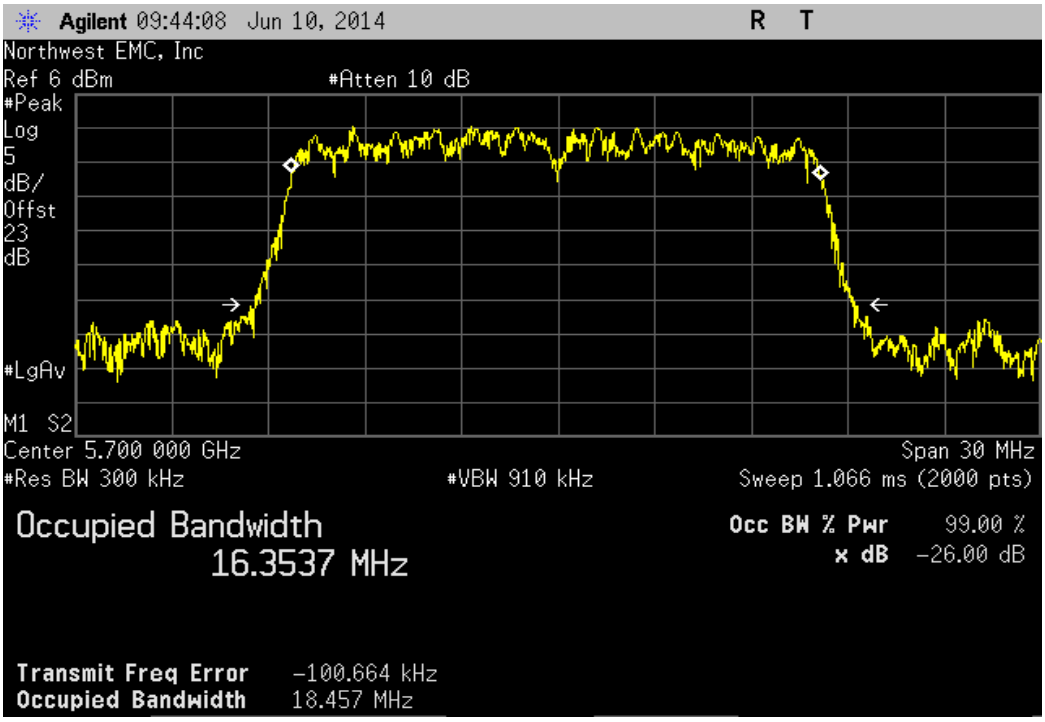
802.11(a) 36 Mbps, Mid Channel 116, 5580MHz

				Value	Limit	Result
				18.586 MHz	> 500 kHz	Pass



802.11(a) 36 Mbps, High Channel 140, 5700MHz

				Value	Limit	Result
				18.457 MHz	> 500 kHz	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
40GHz DC Block	Miteq	DCB4000	AMD	4/28/2014	12 mo
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12 mo
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0 mo
Attenuator, 'Precision N'	S.M. Electronics	SA18N-06/SM4032	REE	12/2/2013	12 mo
Power Meter	Agilent	N1913A	SQR	4/29/2013	36 mo
Power Sensor	Agilent	E9300H	SQO	4/29/2013	36 mo
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	24 mo
MXG Analog Signal Generator	Agilent	N5181A	TIG	3/28/2014	36 mo

TEST DESCRIPTION

FCC KDB 789033 D01 General UNII Test Procedures Section C 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 * span / 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

EUT:	444-2251			Work Order:	FOCU0169
Serial Number:	02EA4F000062			Date:	06/11/14
Customer:	Summit Semiconductor LLC			Temperature:	22.2°C
Attendees:	Paul Hamilton			Humidity:	41%
Project:	None			Barometric Pres.:	1017
Tested by:	Brandon Hobbs	Power:	110VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.407:2014	ANSI C63.10:2009

COMMENTS

Modes of operation were provided by the client.

DEVIATIONS FROM TEST STANDARD

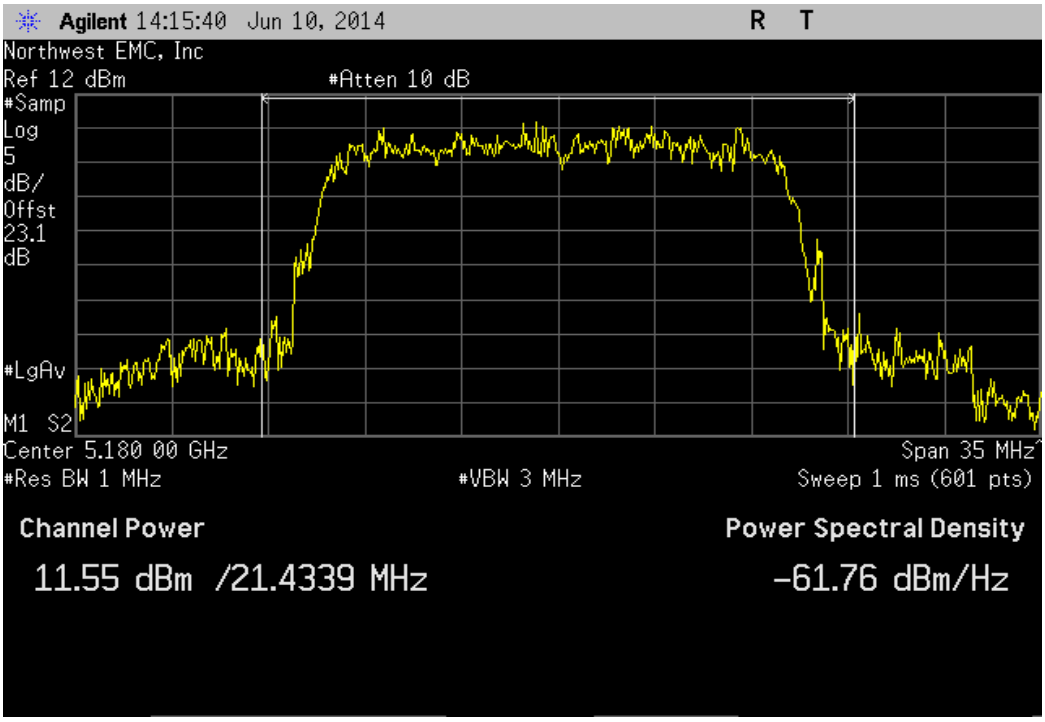
None

Configuration #	1	Signature 

		Value	Limit	Result
802.11(a) 6 Mbps				
	Low Channel 36, 5180MHz	11.555 dBm	< 17 dBm	Pass
	High Channel 48, 5240MHz	10.937 dBm	< 17 dBm	Pass
	Low Channel 52, 5260MHz	11.34 dBm	< 24 dBm	Pass
	High Channel 64, 5320MHz	11.325 dBm	< 24 dBm	Pass
	Low Channel 100, 5500MHz	12.322 dBm	< 24 dBm	Pass
	Mid Channel 116, 5580MHz	11.736 dBm	< 24 dBm	Pass
	High Channel 140, 5700MHz	11.062 dBm	< 24 dBm	Pass
802.11(a) 18 Mbps				
	Low Channel 36, 5180MHz	11.836 dBm	< 17 dBm	Pass
	High Channel 48, 5240MHz	11.422 dBm	< 17 dBm	Pass
	Low Channel 52, 5260MHz	11.394 dBm	< 24 dBm	Pass
	High Channel 64, 5320MHz	11.743 dBm	< 24 dBm	Pass
	Low Channel 100, 5500MHz	12.741 dBm	< 24 dBm	Pass
	Mid Channel 116, 5580MHz	11.515 dBm	< 24 dBm	Pass
	High Channel 140, 5700MHz	10.833 dBm	< 24 dBm	Pass
802.11(a) 36 Mbps				
	Low Channel 36, 5180MHz	11.438 dBm	< 17 dBm	Pass
	High Channel 48, 5240MHz	11.476 dBm	< 17 dBm	Pass
	Low Channel 52, 5260MHz	11.095 dBm	< 24 dBm	Pass
	High Channel 64, 5320MHz	11.766 dBm	< 24 dBm	Pass
	Low Channel 100, 5500MHz	12.586 dBm	< 24 dBm	Pass
	Mid Channel 116, 5580MHz	11.976 dBm	< 24 dBm	Pass
	High Channel 140, 5700MHz	10.981 dBm	< 24 dBm	Pass

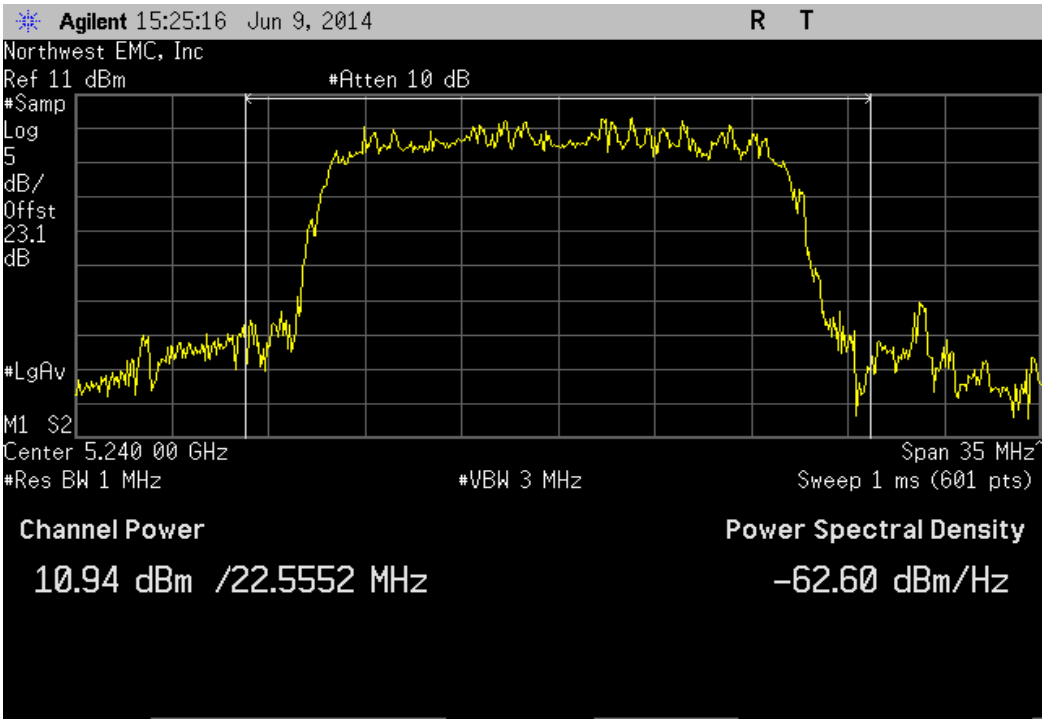
802.11(a) 6 Mbps, Low Channel 36, 5180MHz

				Value	Limit	Result
				11.555 dBm	< 17 dBm	Pass



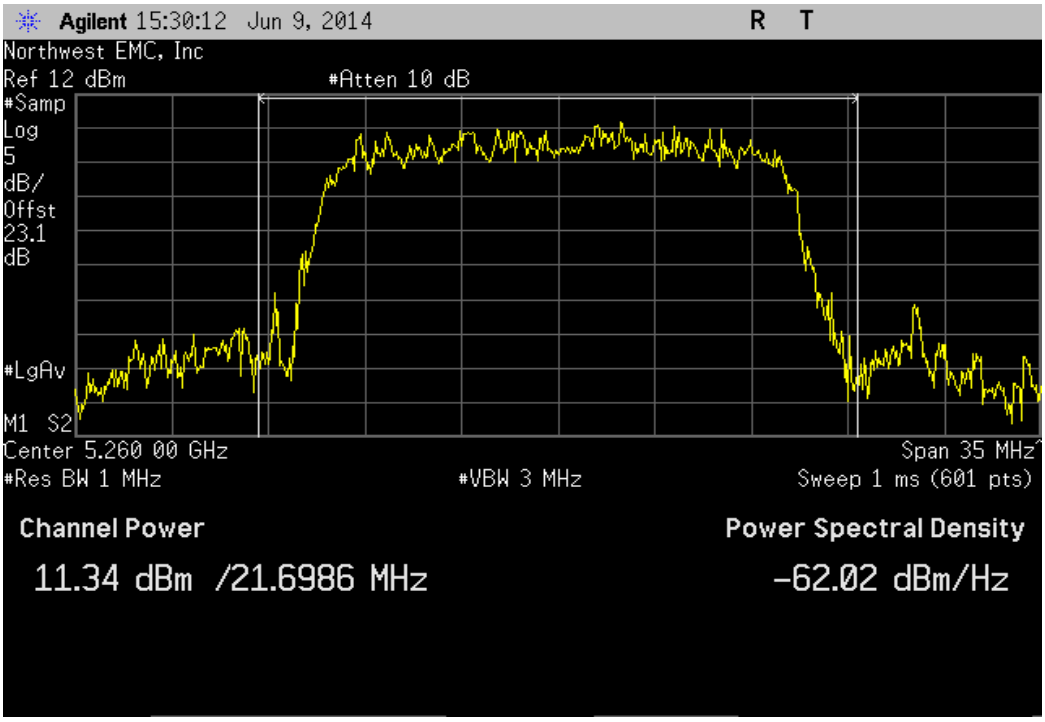
802.11(a) 6 Mbps, High Channel 48, 5240MHz

				Value	Limit	Result
				10.937 dBm	< 17 dBm	Pass



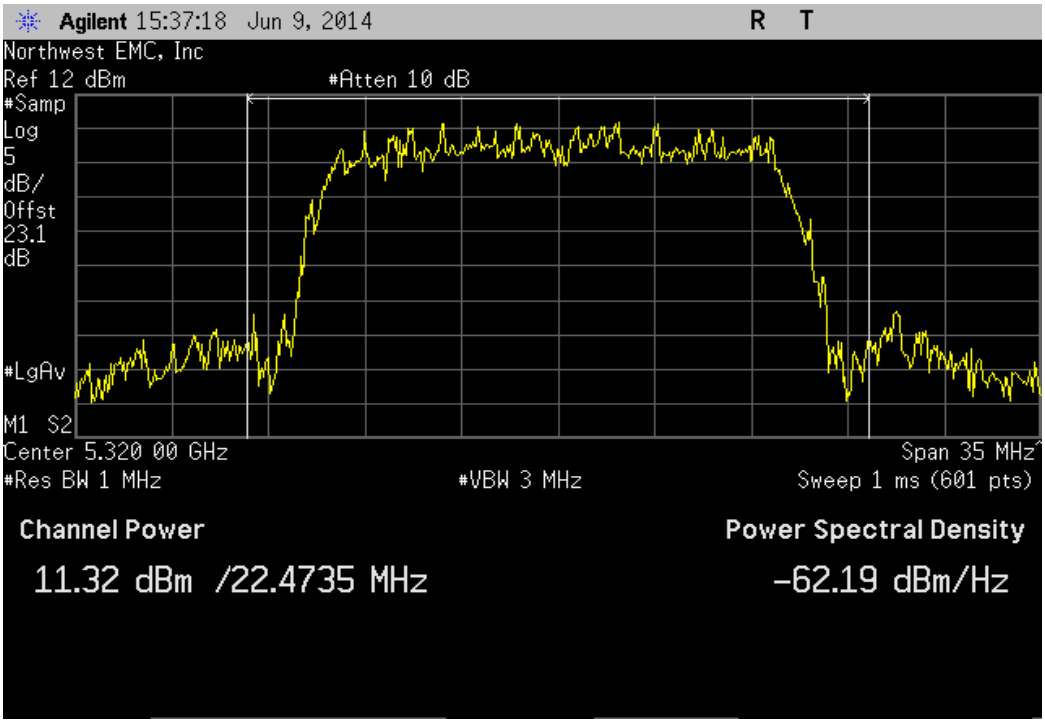
802.11(a) 6 Mbps, Low Channel 52, 5260MHz

				Value	Limit	Result
				11.34 dBm	< 24 dBm	Pass



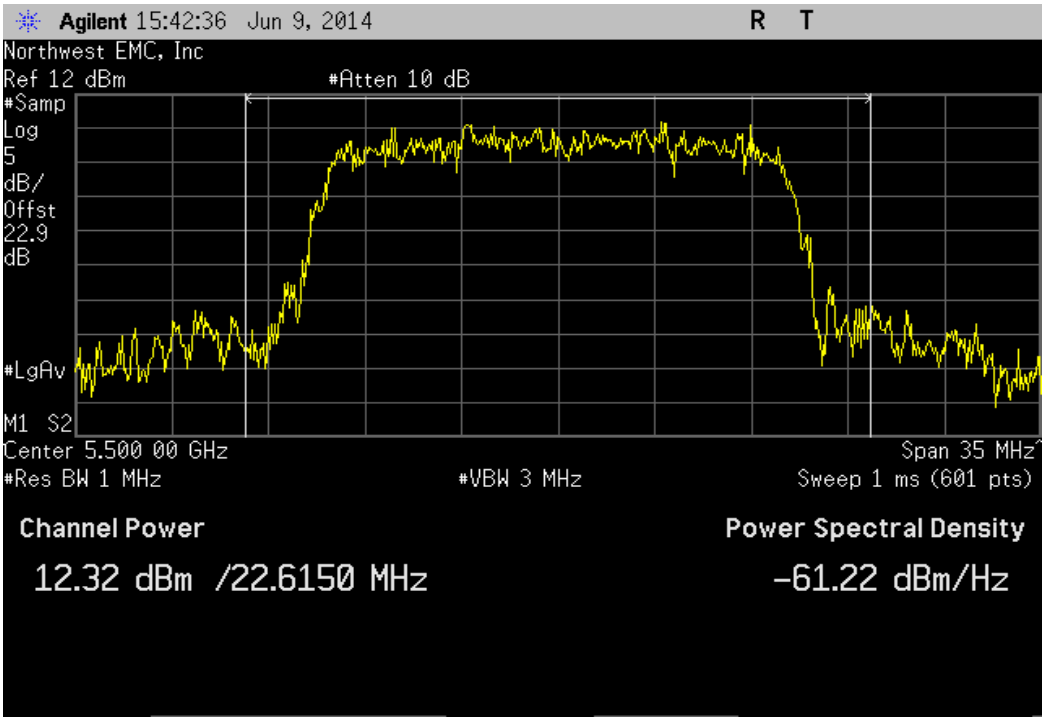
802.11(a) 6 Mbps, High Channel 64, 5320MHz

				Value	Limit	Result
				11.325 dBm	< 24 dBm	Pass



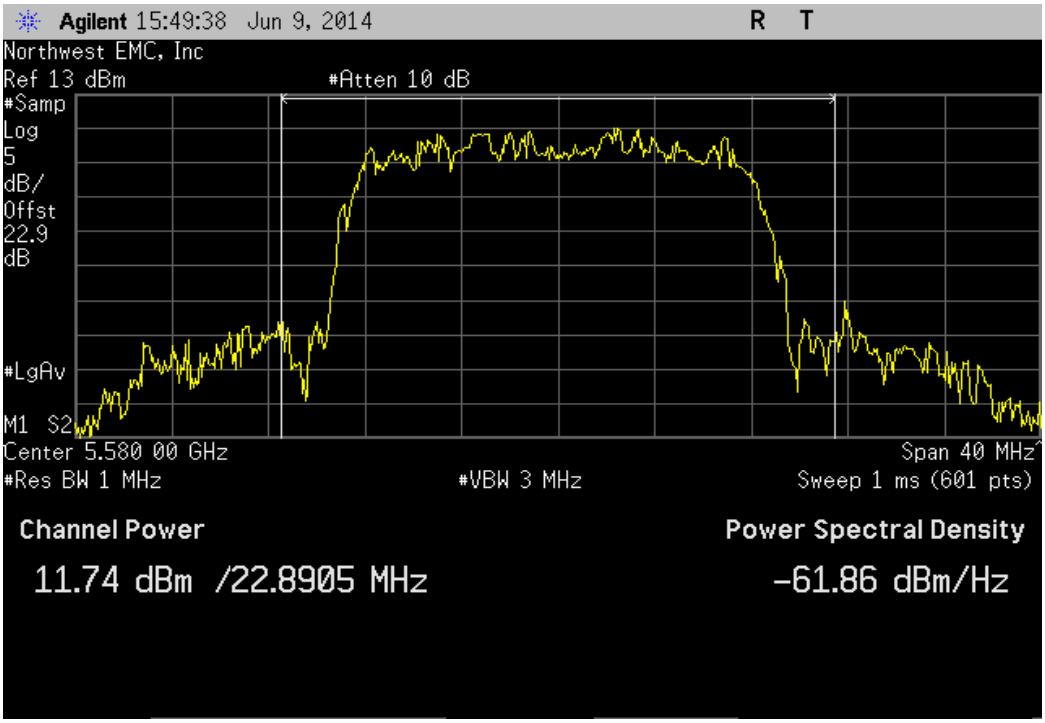
802.11(a) 6 Mbps, Low Channel 100, 5500MHz

				Value	Limit	Result
				12.322 dBm	< 24 dBm	Pass



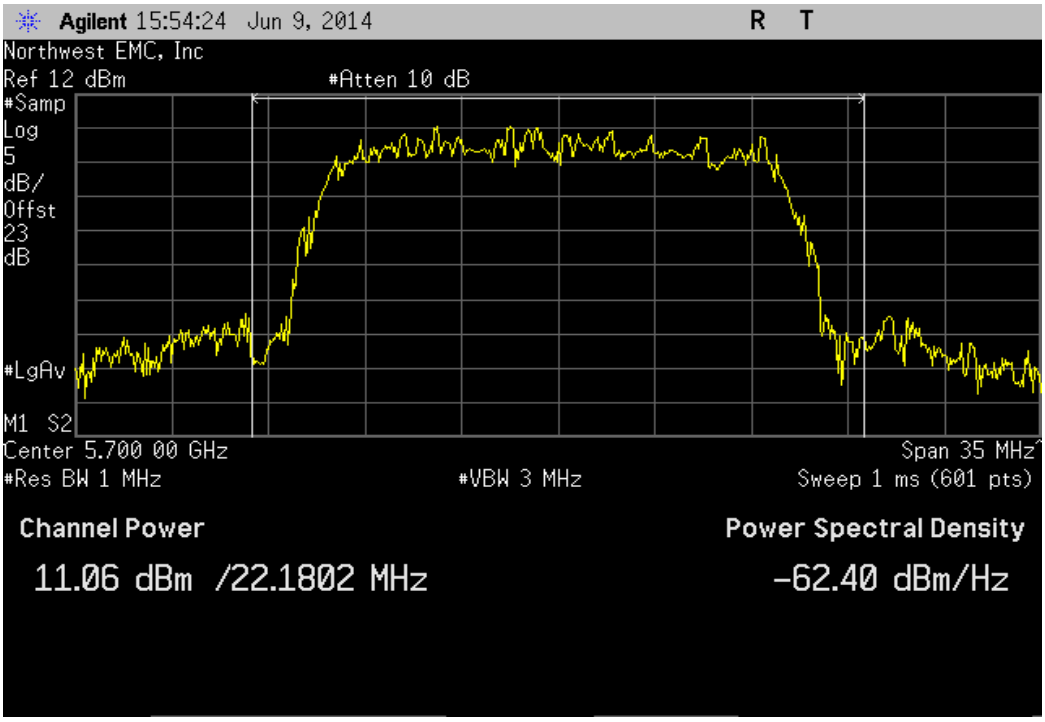
802.11(a) 6 Mbps, Mid Channel 116, 5580MHz

				Value	Limit	Result
				11.736 dBm	< 24 dBm	Pass



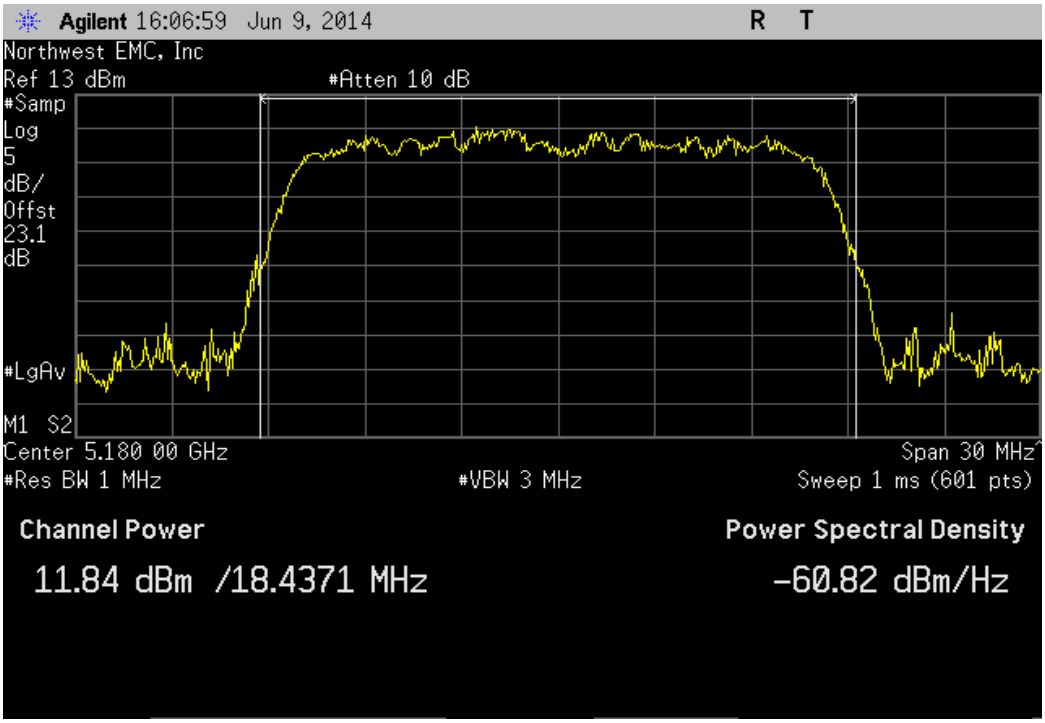
802.11(a) 6 Mbps, High Channel 140, 5700MHz

				Value	Limit	Result
				11.062 dBm	< 24 dBm	Pass



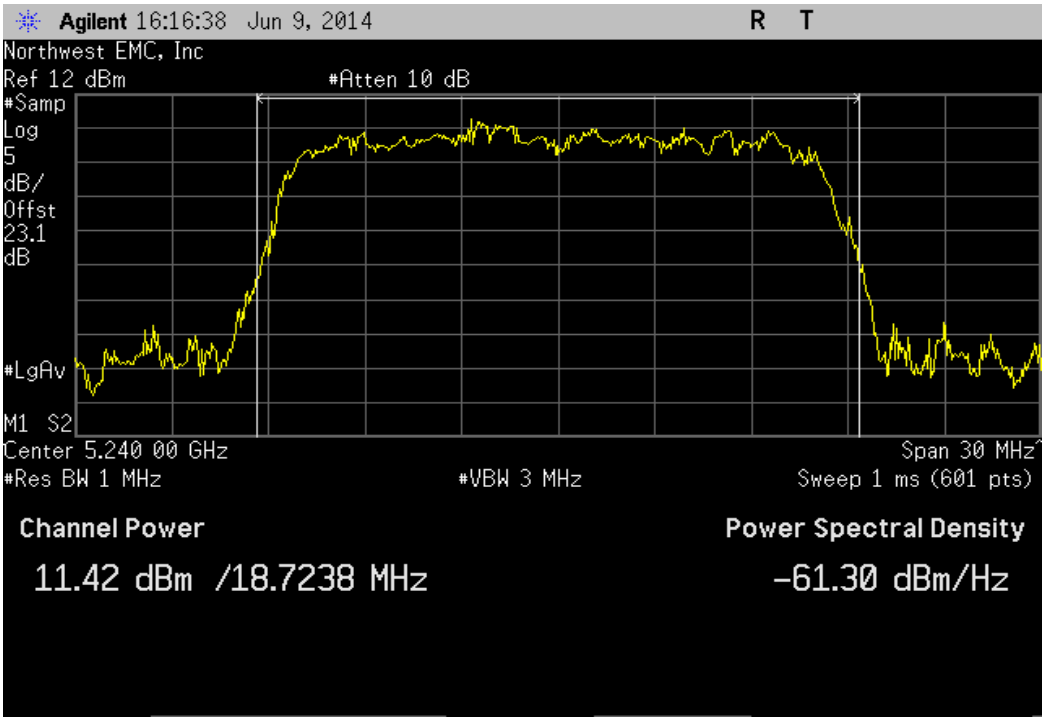
802.11(a) 18 Mbps, Low Channel 36, 5180MHz

				Value	Limit	Result
				11.836 dBm	< 17 dBm	Pass



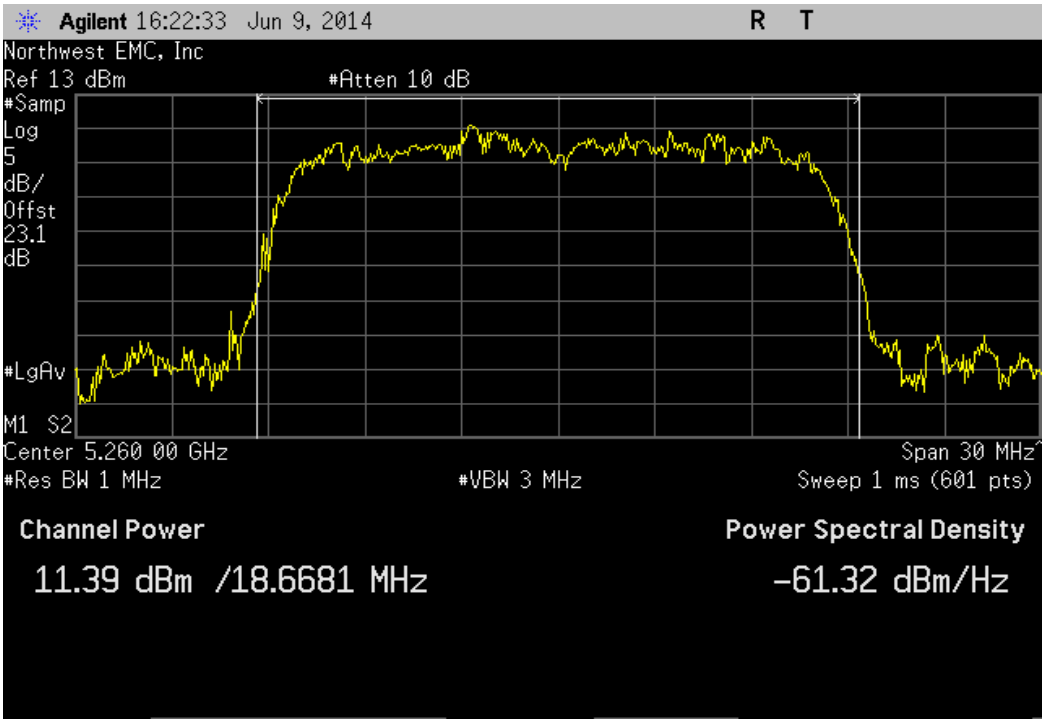
802.11(a) 18 Mbps, High Channel 48, 5240MHz

				Value	Limit	Result
				11.422 dBm	< 17 dBm	Pass



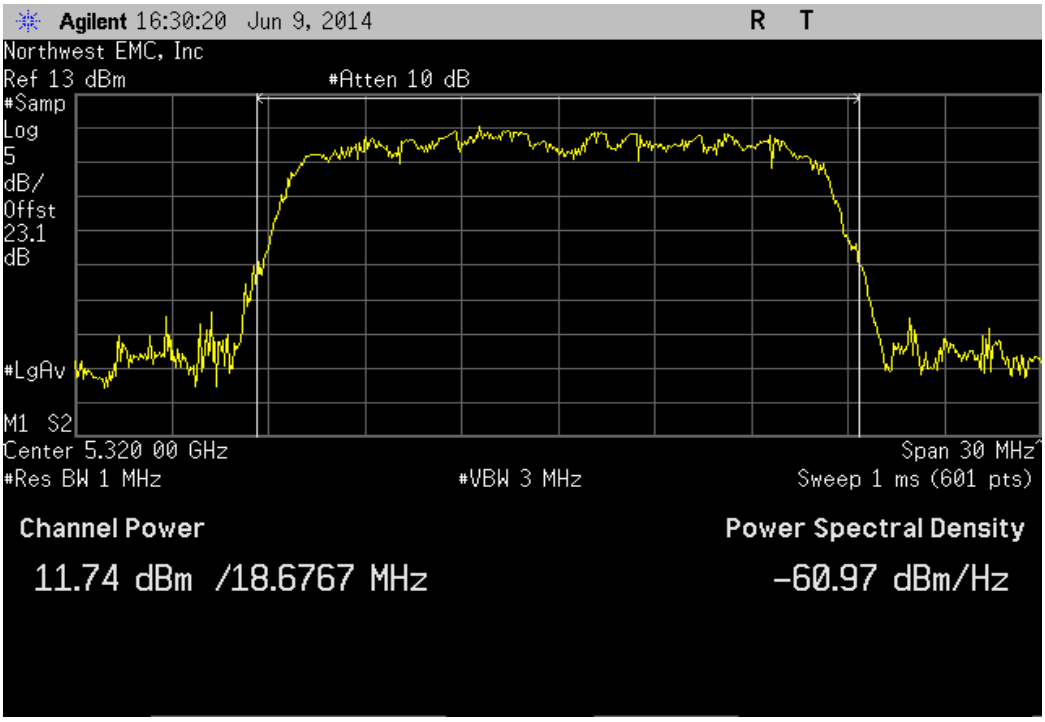
802.11(a) 18 Mbps, Low Channel 52, 5260MHz

				Value	Limit	Result
				11.394 dBm	< 24 dBm	Pass



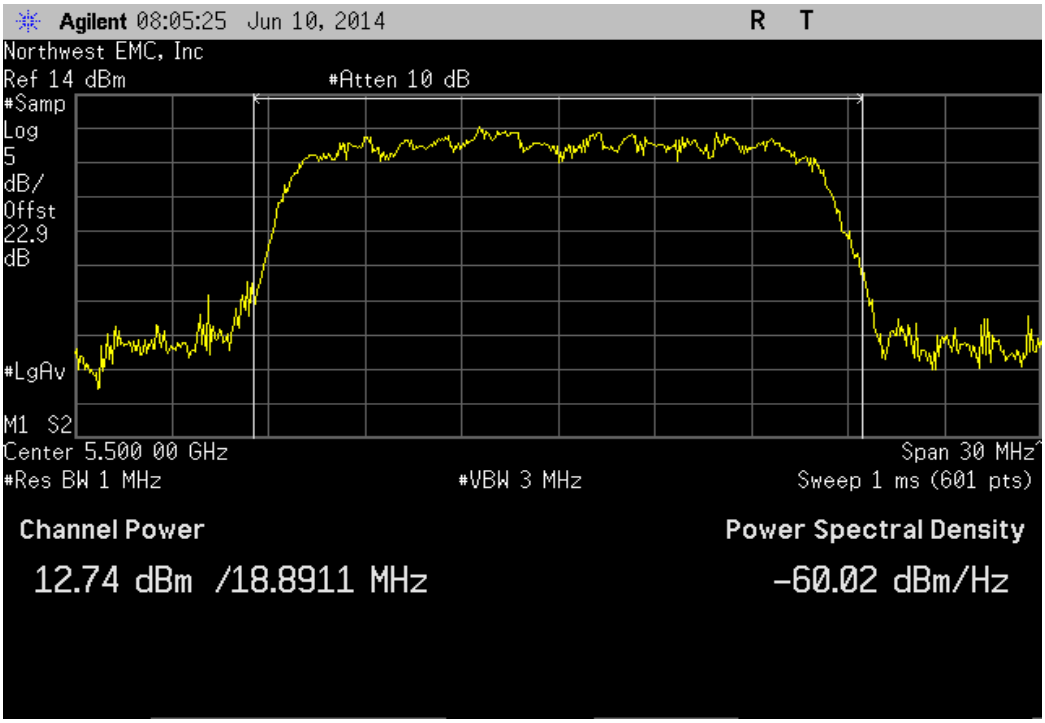
802.11(a) 18 Mbps, High Channel 64, 5320MHz

				Value	Limit	Result
				11.743 dBm	< 24 dBm	Pass



802.11(a) 18 Mbps, Low Channel 100, 5500MHz

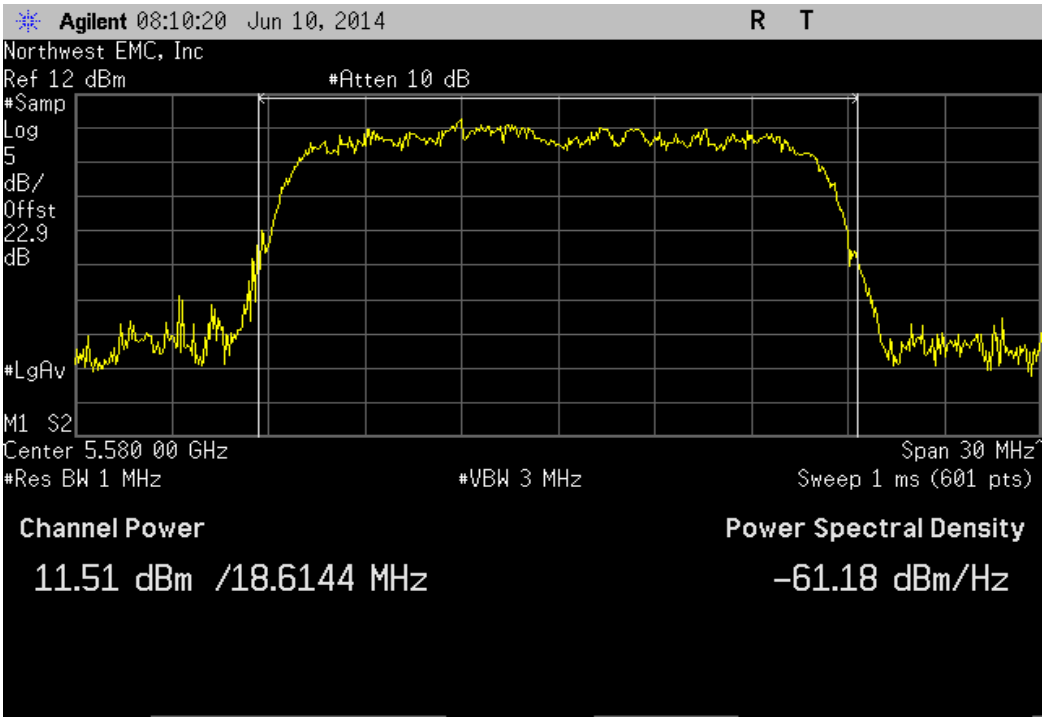
				Value	Limit	Result
				12.741 dBm	< 24 dBm	Pass



PEAK TRANSMIT POWER

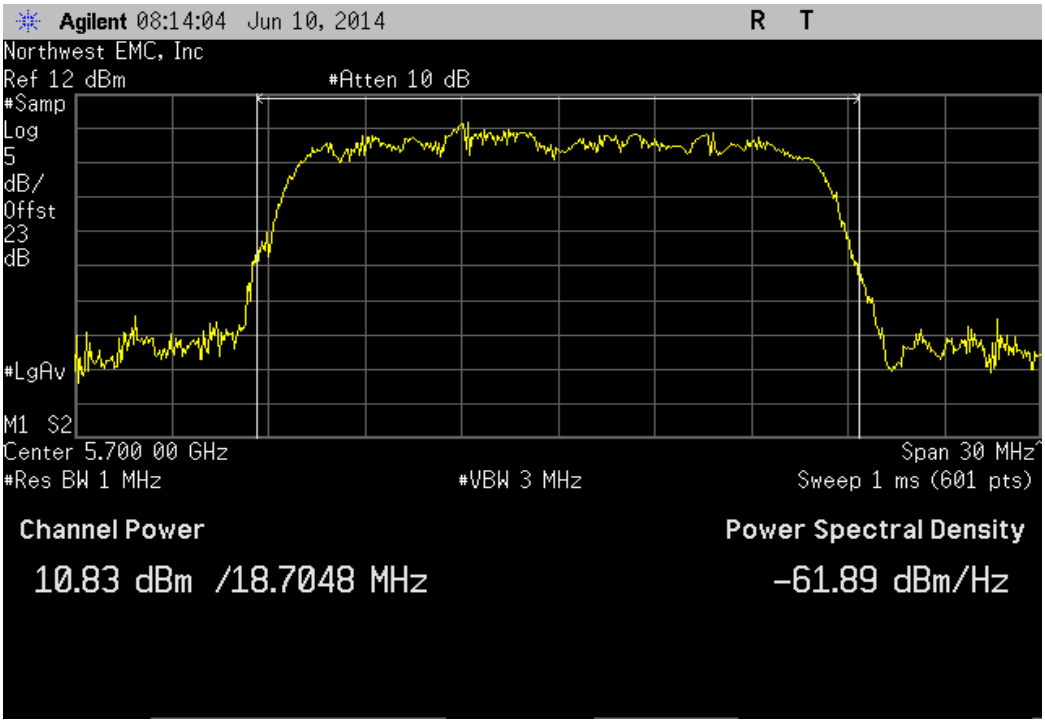
802.11(a) 18 Mbps, Mid Channel 116, 5580MHz

				Value	Limit	Result
				11.515 dBm	< 24 dBm	Pass



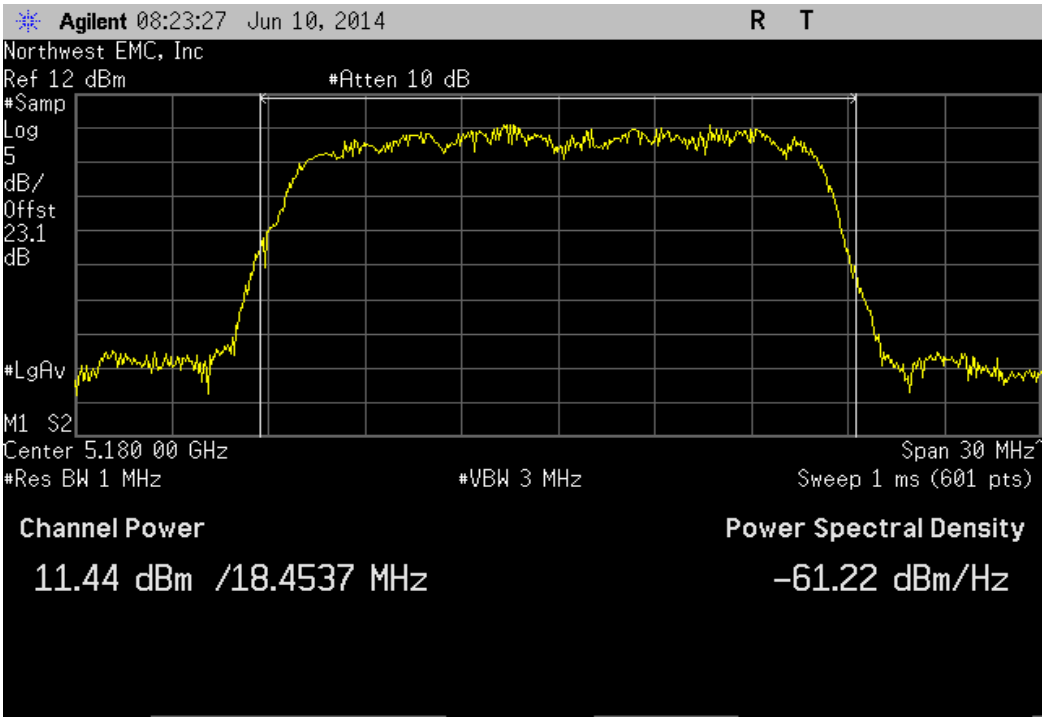
802.11(a) 18 Mbps, High Channel 140, 5700MHz

				Value	Limit	Result
				10.833 dBm	< 24 dBm	Pass



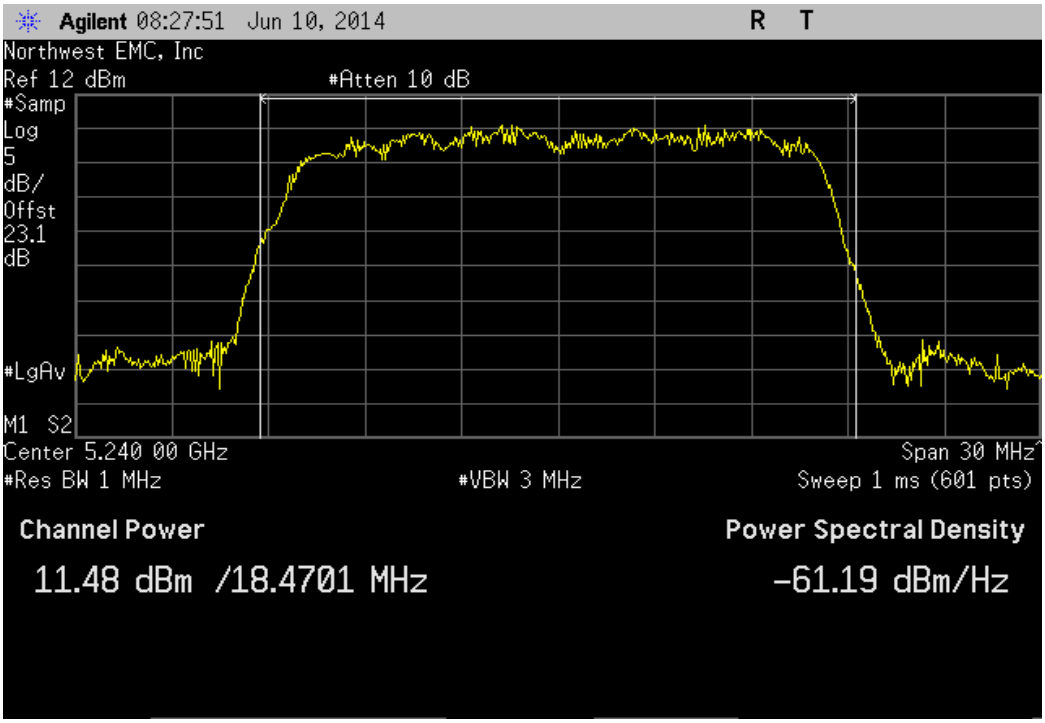
802.11(a) 36 Mbps, Low Channel 36, 5180MHz

				Value	Limit	Result
				11.438 dBm	< 17 dBm	Pass



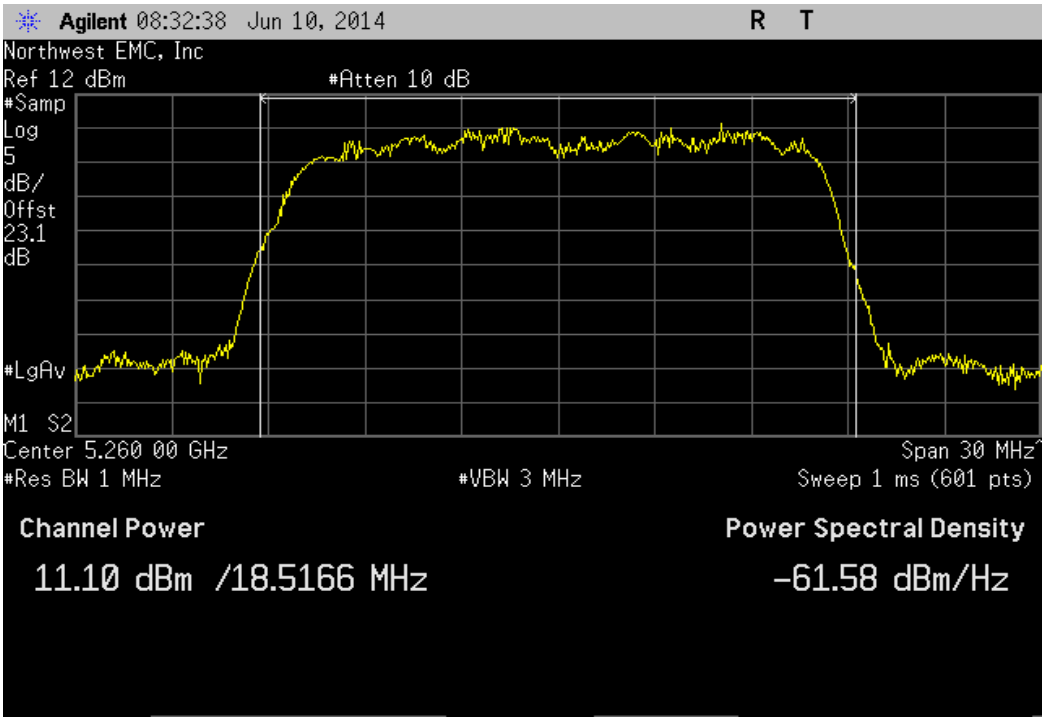
802.11(a) 36 Mbps, High Channel 48, 5240MHz

				Value	Limit	Result
				11.476 dBm	< 17 dBm	Pass



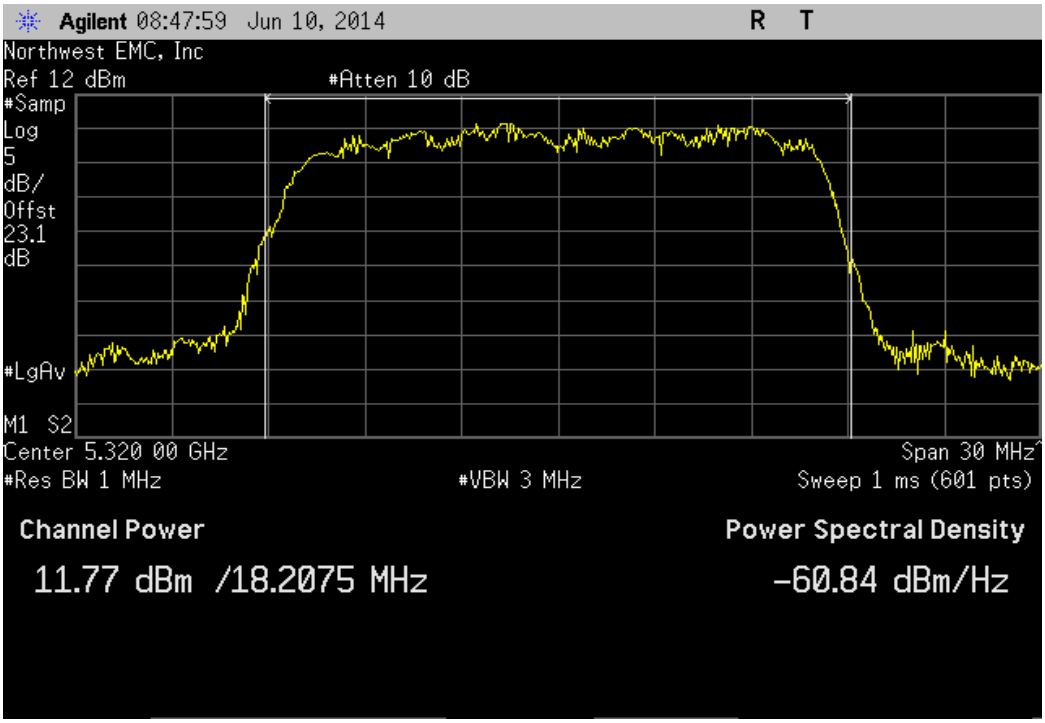
802.11(a) 36 Mbps, Low Channel 52, 5260MHz

				Value	Limit	Result
				11.095 dBm	< 24 dBm	Pass



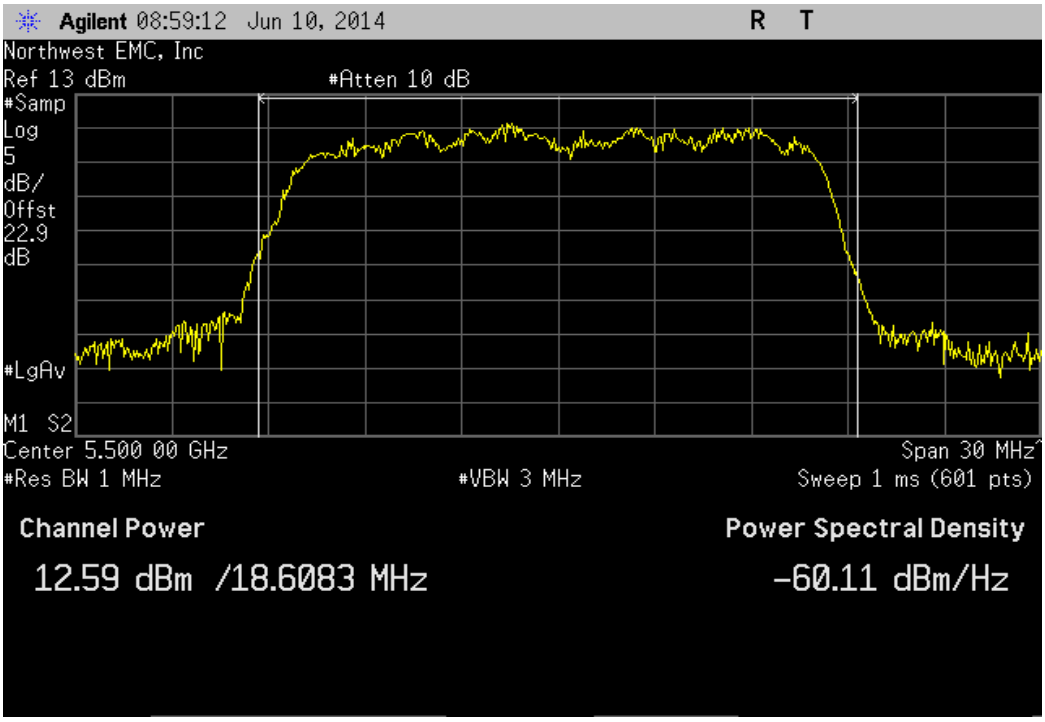
802.11(a) 36 Mbps, High Channel 64, 5320MHz

				Value	Limit	Result
				11.766 dBm	< 24 dBm	Pass



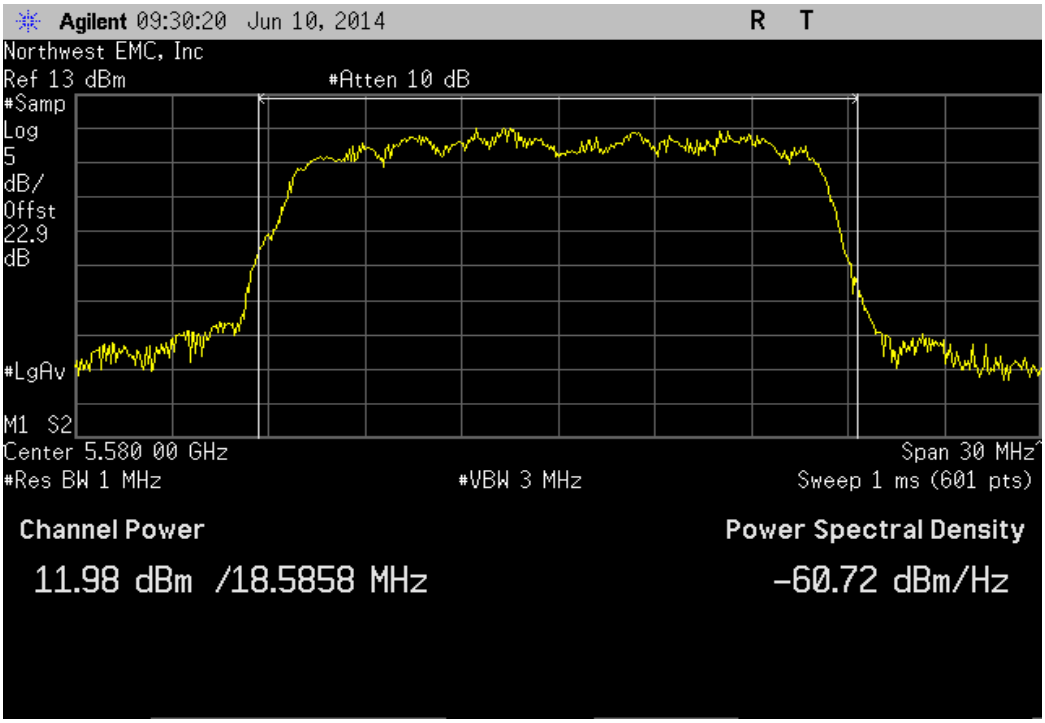
802.11(a) 36 Mbps, Low Channel 100, 5500MHz

				Value	Limit	Result
				12.586 dBm	< 24 dBm	Pass



802.11(a) 36 Mbps, Mid Channel 116, 5580MHz

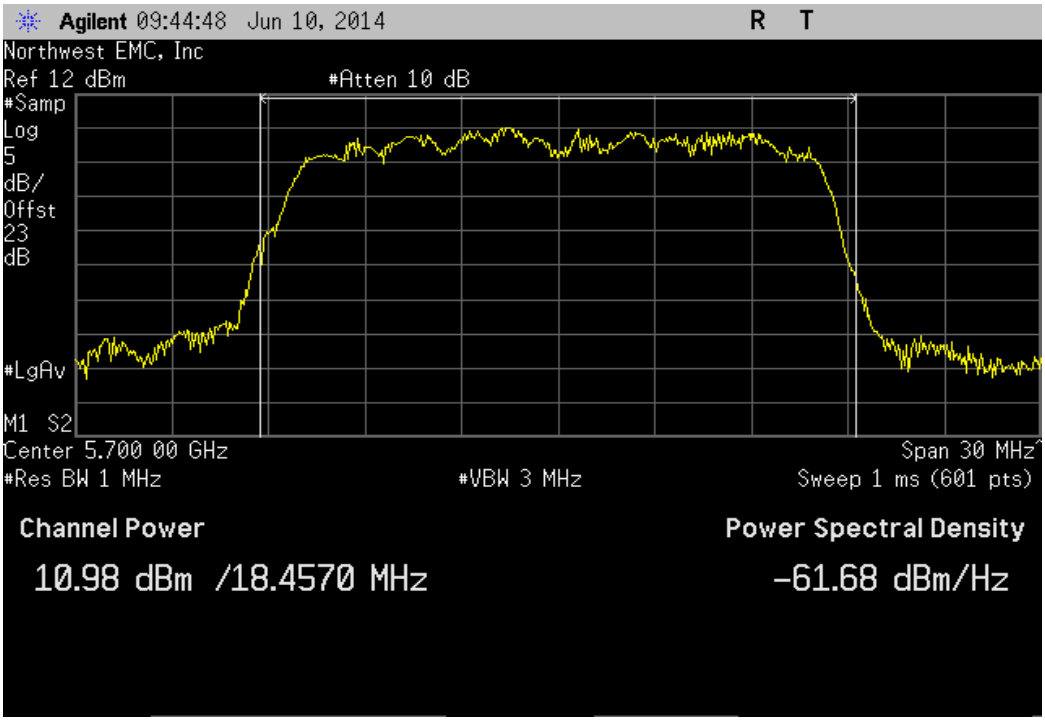
				Value	Limit	Result
				11.976 dBm	< 24 dBm	Pass



PEAK TRANSMIT POWER

802.11(a) 36 Mbps, High Channel 140, 5700MHz

				Value	Limit	Result
				10.981 dBm	< 24 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
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	24 mo
40GHz DC Block	Miteq	DCB4000	AMD	4/28/2014	12 mo
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12 mo
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0 mo
Attenuator, 'Precision N'	S.M. Electronics	SA18N-06/SM4032	REE	12/2/2013	12 mo
Power Meter	Agilent	N1913A	SQR	4/29/2013	36 mo
Power Sensor	Agilent	E9300H	SQO	4/29/2013	36 mo
MXG Analog Signal Generator	Agilent	N5181A	TIG	3/28/2014	36 mo

TEST DESCRIPTION

FCC KDB 789033 D01 General UNII Test Procedures 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. 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

EUT:	444-2251			Work Order:	FOCU0169
Serial Number:	02EA4F000062			Date:	06/11/14
Customer:	Summit Semiconductor LLC			Temperature:	22.2°C
Attendees:	Paul Hamilton			Humidity:	41%
Project:	None			Barometric Pres.:	1017
Tested by:	Brandon Hobbs	Power:	110VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.407:2014	ANSI C63.10:2009

COMMENTS

Modes of operation were provided by the client.

DEVIATIONS FROM TEST STANDARD

None

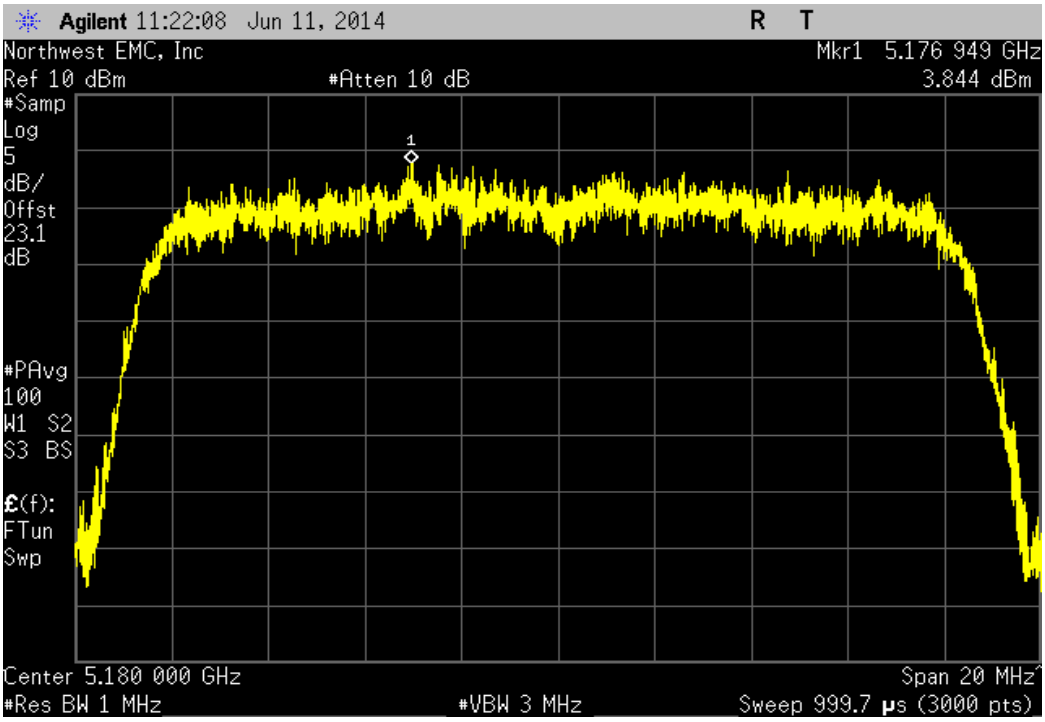
Configuration #	1	Signature 

		Value (dBm / MHz)	Limit (dBm / MHz)	Result
802.11(a) 6 Mbps				
	Low Channel 36, 5180MHz	3.844	4	Pass
	High Channel 48, 5240MHz	3.995	4	Pass
	Low Channel 52, 5260MHz	3.632	11	Pass
	High Channel 64, 5320MHz	3.467	11	Pass
	Low Channel 100, 5500MHz	5.757	11	Pass
	Mid Channel 116, 5580MHz	3.937	11	Pass
	High Channel 140, 5700MHz	2.517	11	Pass
802.11(a) 18 Mbps				
	Low Channel 36, 5180MHz	3.671	4	Pass
	High Channel 48, 5240MHz	3.277	4	Pass
	Low Channel 52, 5260MHz	3.717	11	Pass
	High Channel 64, 5320MHz	3.421	11	Pass
	Low Channel 100, 5500MHz	5.641	11	Pass
	Mid Channel 116, 5580MHz	4.381	11	Pass
	High Channel 140, 5700MHz	1.905	11	Pass
802.11(a) 36 Mbps				
	Low Channel 36, 5180MHz	1.974	4	Pass
	High Channel 48, 5240MHz	1.103	4	Pass
	Low Channel 52, 5260MHz	1.768	11	Pass
	High Channel 64, 5320MHz	1.426	11	Pass
	Low Channel 100, 5500MHz	2.898	11	Pass
	Mid Channel 116, 5580MHz	2.159	11	Pass
	High Channel 140, 5700MHz	1.16	11	Pass

PEAK POWER SPECTRAL DENSITY

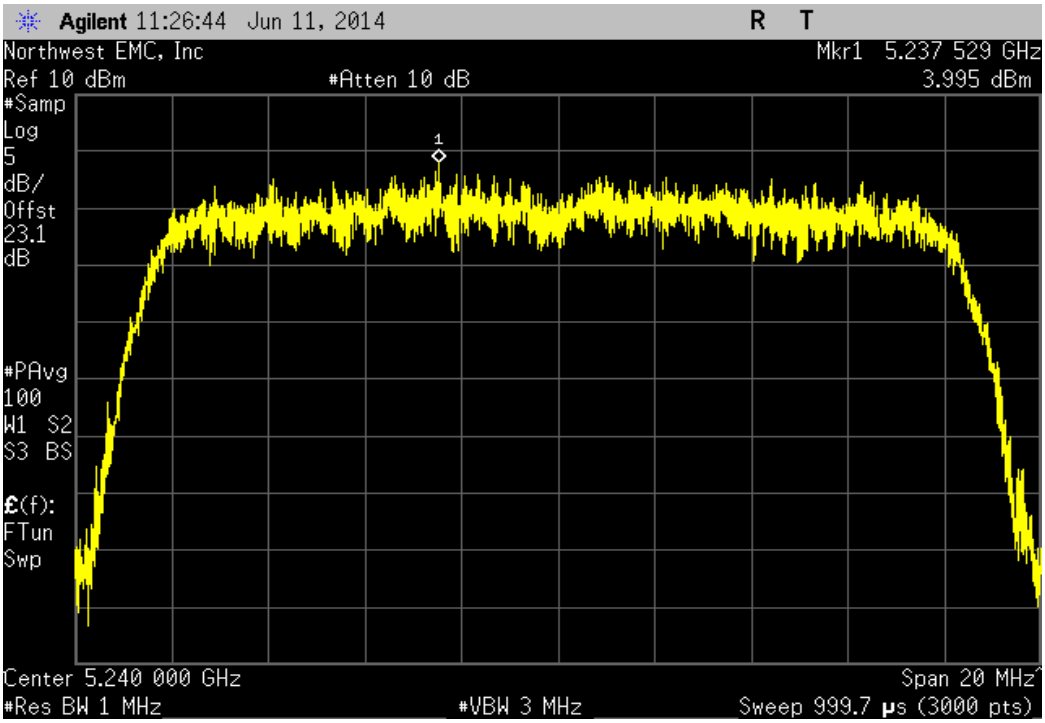
802.11(a) 6 Mbps, Low Channel 36, 5180MHz

				Value (dBm / MHz)	Limit (dBm / MHz)	Result
				3.844	4	Pass



802.11(a) 6 Mbps, High Channel 48, 5240MHz

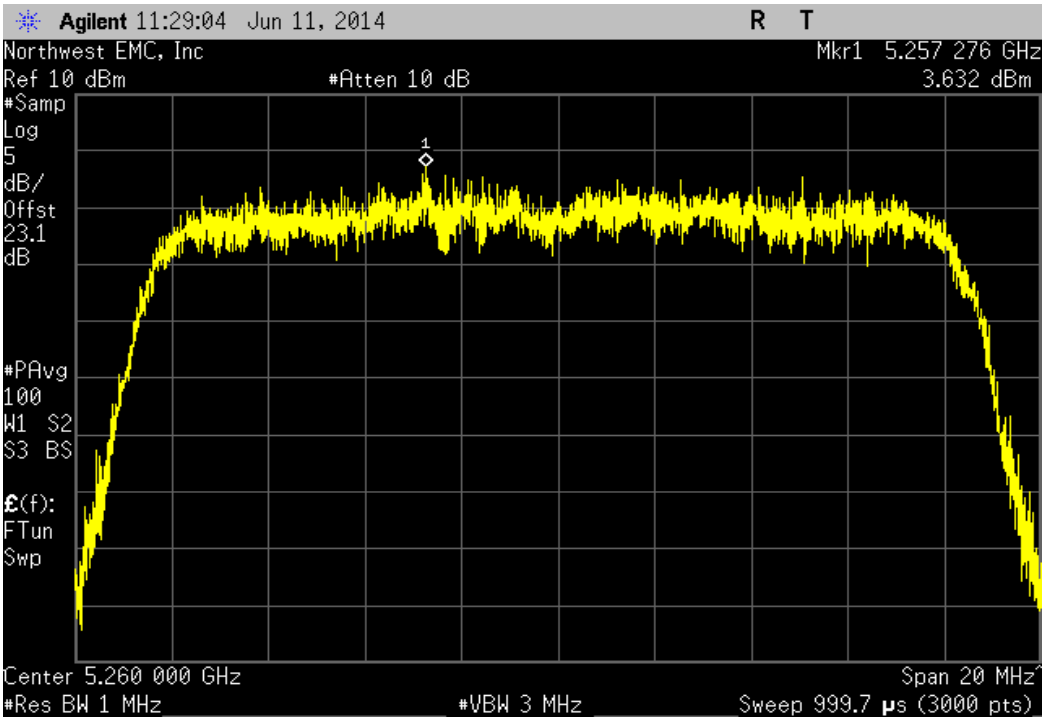
				Value (dBm / MHz)	Limit (dBm / MHz)	Result
				3.995	4	Pass



PEAK POWER SPECTRAL DENSITY

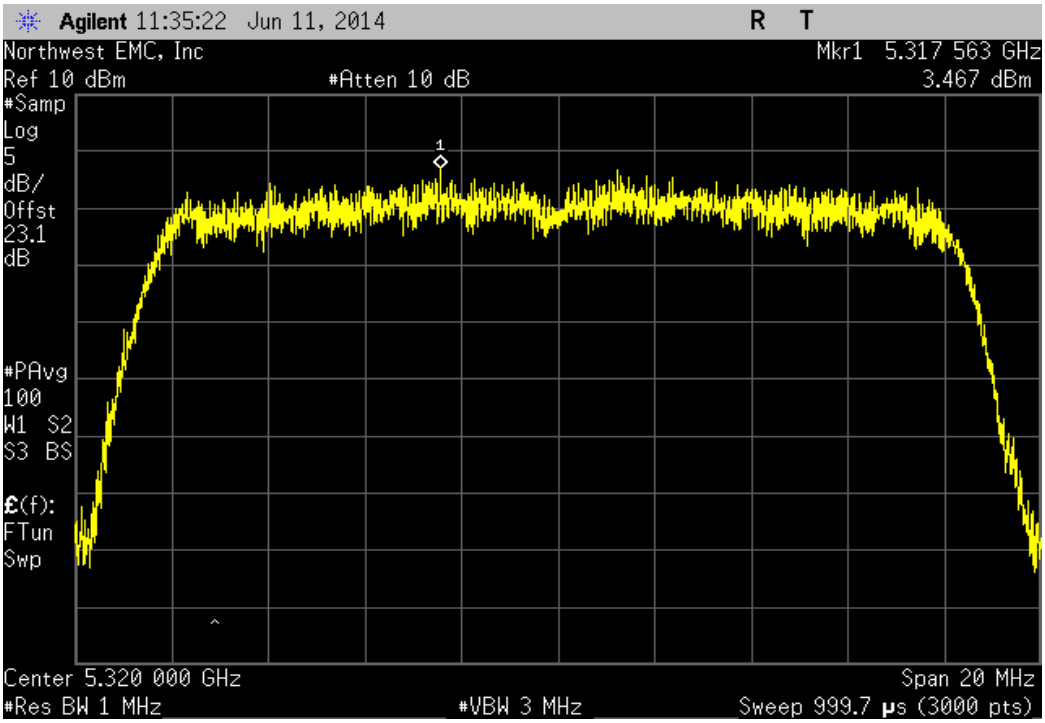
802.11(a) 6 Mbps, Low Channel 52, 5260MHz

				Value (dBm / MHz)	Limit (dBm / MHz)	Result
				3.632	11	Pass



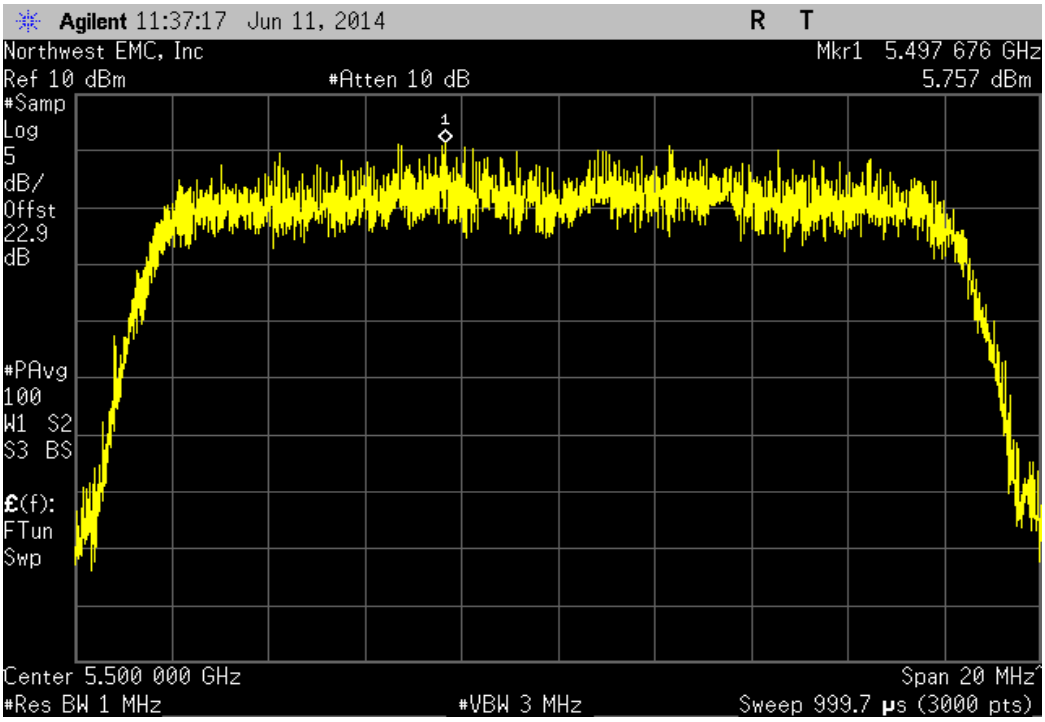
802.11(a) 6 Mbps, High Channel 64, 5320MHz

				Value (dBm / MHz)	Limit (dBm / MHz)	Result
				3.467	11	Pass



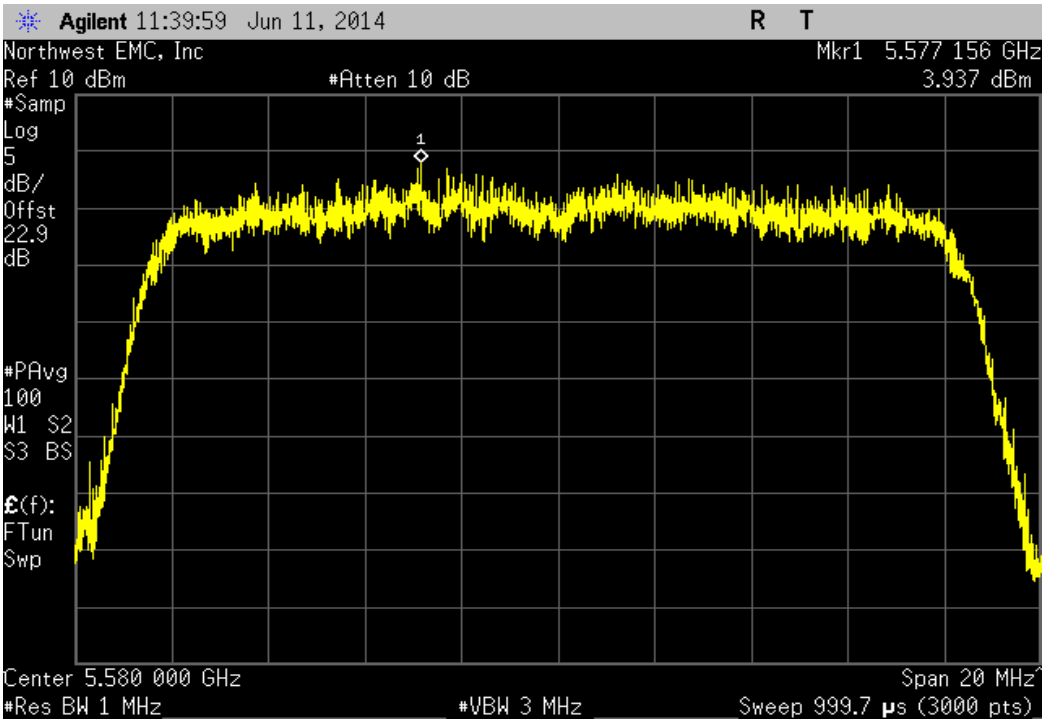
802.11(a) 6 Mbps, Low Channel 100, 5500MHz

				Value (dBm / MHz)	Limit (dBm / MHz)	Result
				5.757	11	Pass



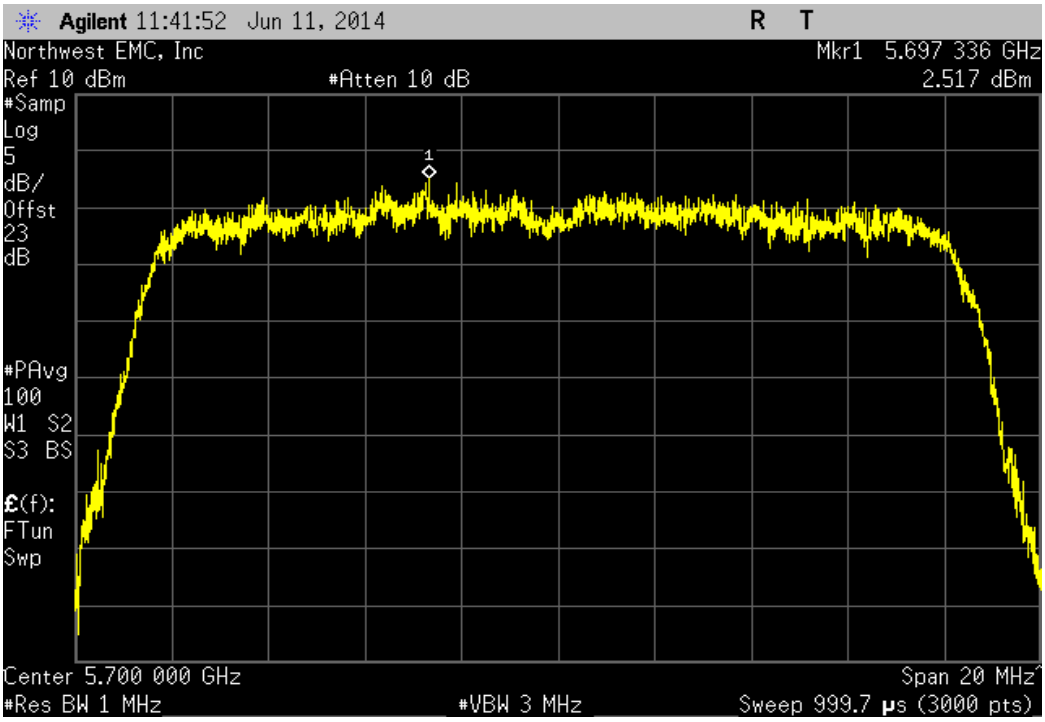
802.11(a) 6 Mbps, Mid Channel 116, 5580MHz

				Value (dBm / MHz)	Limit (dBm / MHz)	Result
				3.937	11	Pass

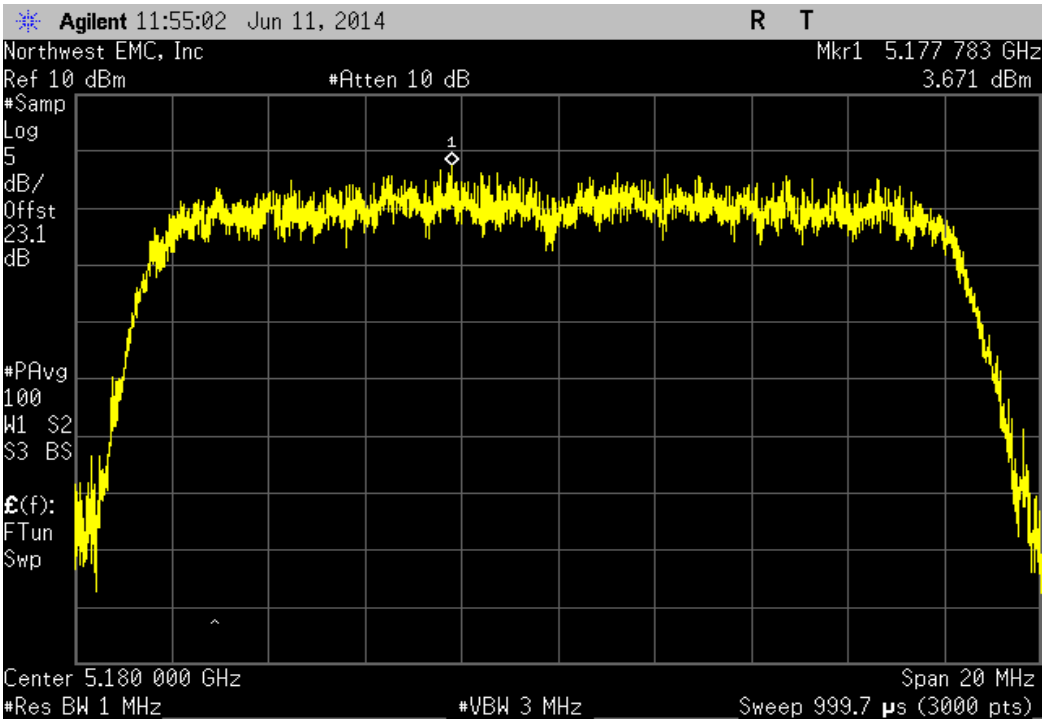


PEAK POWER SPECTRAL DENSITY

802.11(a) 6 Mbps, High Channel 140, 5700MHz							
					Value (dBm / MHz)	Limit (dBm / MHz)	Result
					2.517	11	Pass

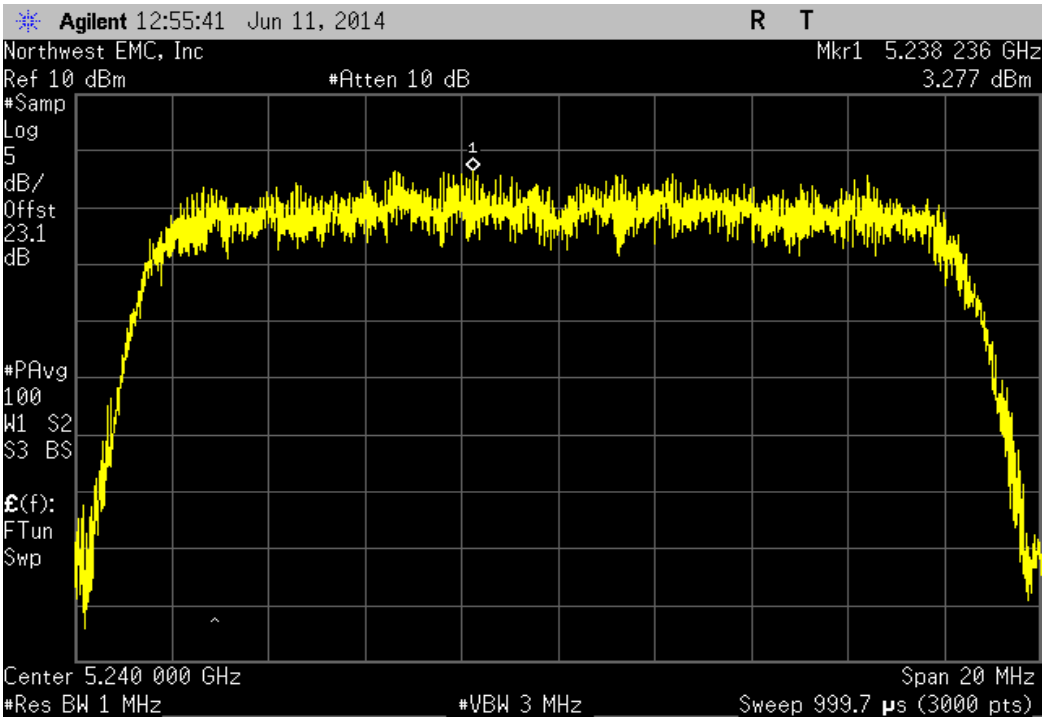


802.11(a) 18 Mbps, Low Channel 36, 5180MHz							
					Value (dBm / MHz)	Limit (dBm / MHz)	Result
					3.671	4	Pass



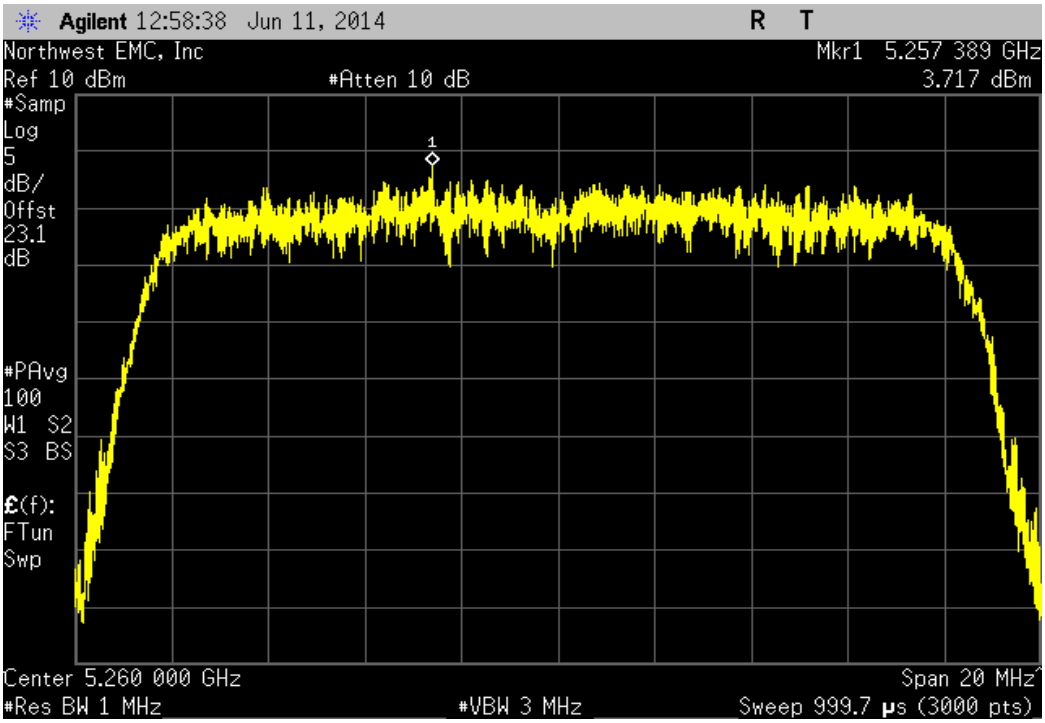
802.11(a) 18 Mbps, High Channel 48, 5240MHz

				Value (dBm / MHz)	Limit (dBm / MHz)	Result
				3.277	4	Pass



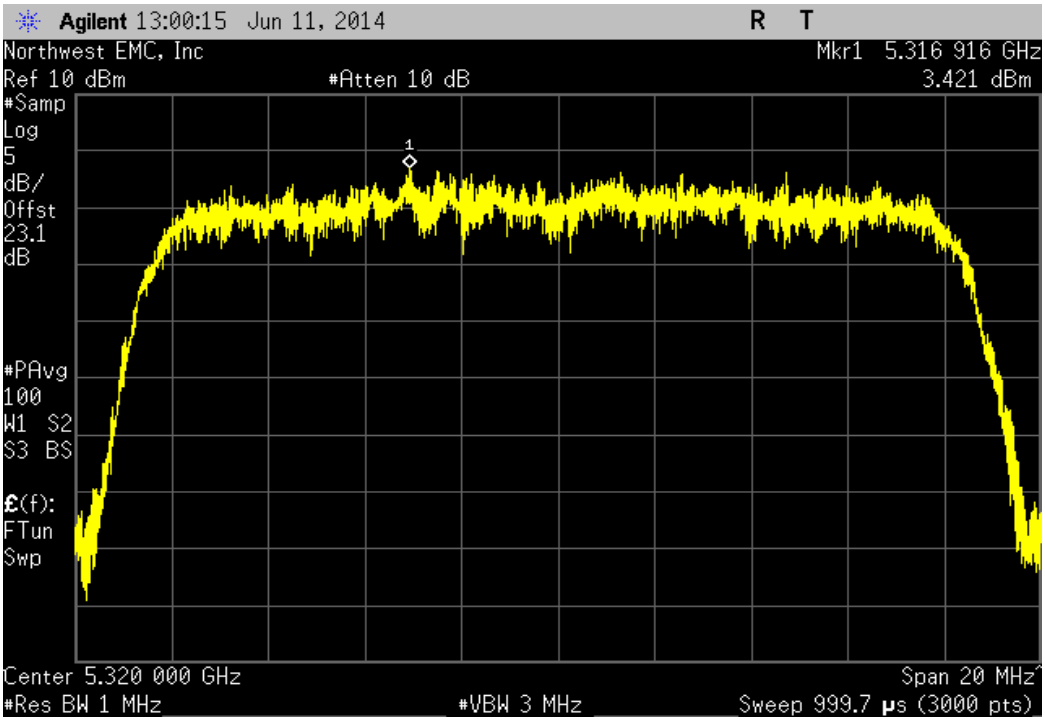
802.11(a) 18 Mbps, Low Channel 52, 5260MHz

				Value (dBm / MHz)	Limit (dBm / MHz)	Result
				3.717	11	Pass



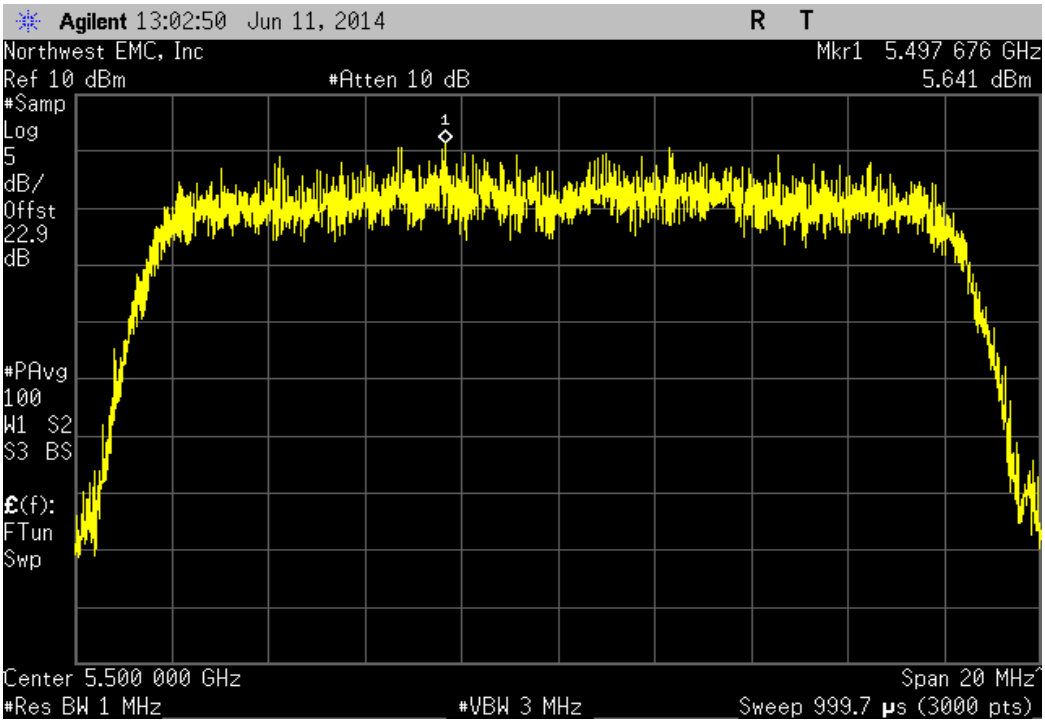
802.11(a) 18 Mbps, High Channel 64, 5320MHz

				Value (dBm / MHz)	Limit (dBm / MHz)	Result
				3.421	11	Pass



802.11(a) 18 Mbps, Low Channel 100, 5500MHz

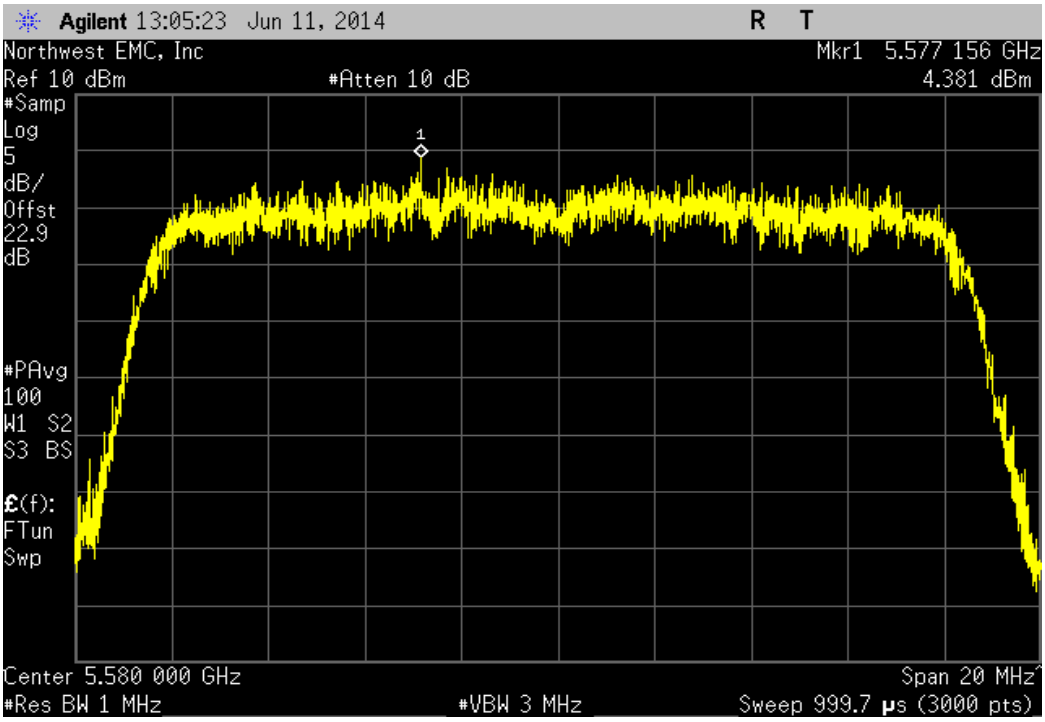
				Value (dBm / MHz)	Limit (dBm / MHz)	Result
				5.641	11	Pass



PEAK POWER SPECTRAL DENSITY

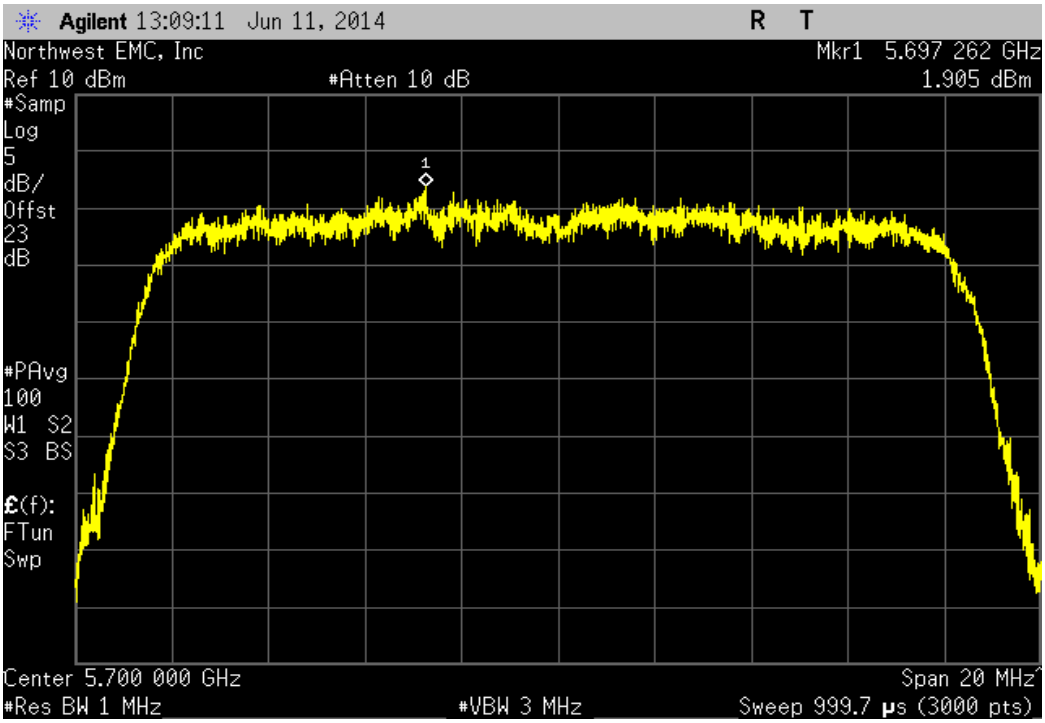
802.11(a) 18 Mbps, Mid Channel 116, 5580MHz

				Value (dBm / MHz)	Limit (dBm / MHz)	Result
				4.381	11	Pass



802.11(a) 18 Mbps, High Channel 140, 5700MHz

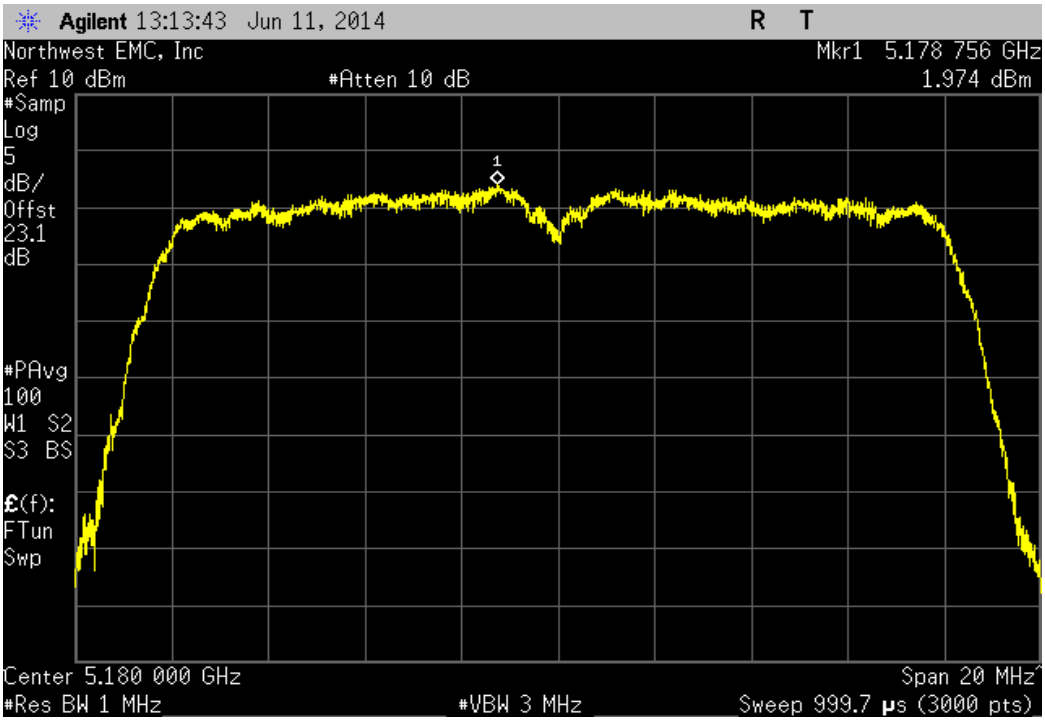
				Value (dBm / MHz)	Limit (dBm / MHz)	Result
				1.905	11	Pass



PEAK POWER SPECTRAL DENSITY

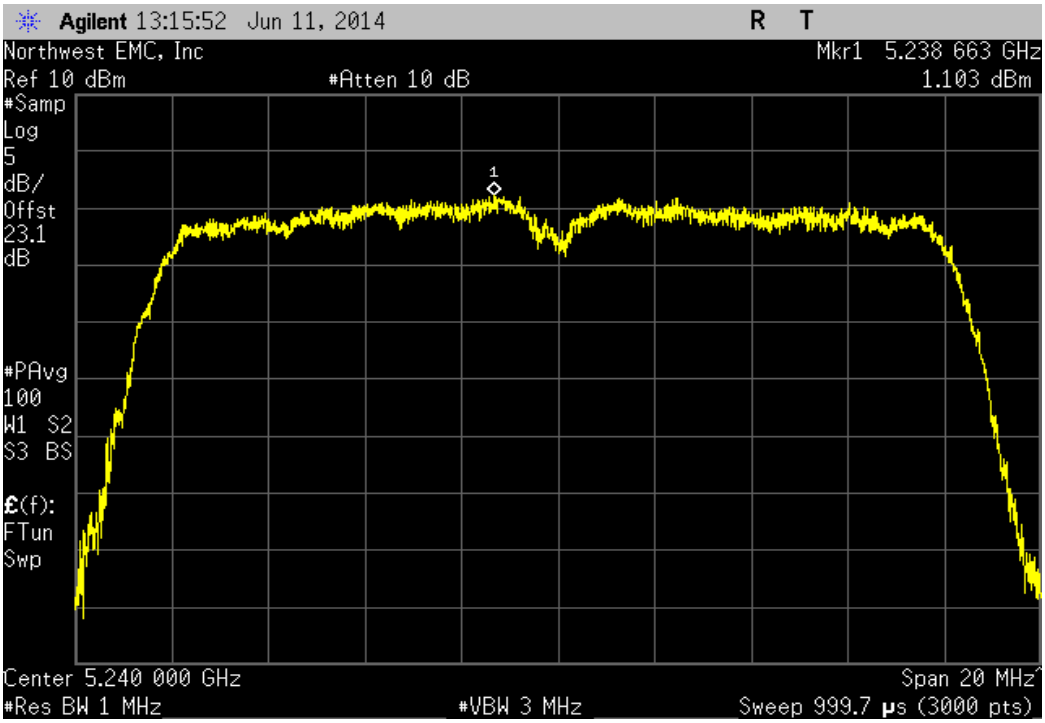
802.11(a) 36 Mbps, Low Channel 36, 5180MHz

				Value (dBm / MHz)	Limit (dBm / MHz)	Result
				1.974	4	Pass



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

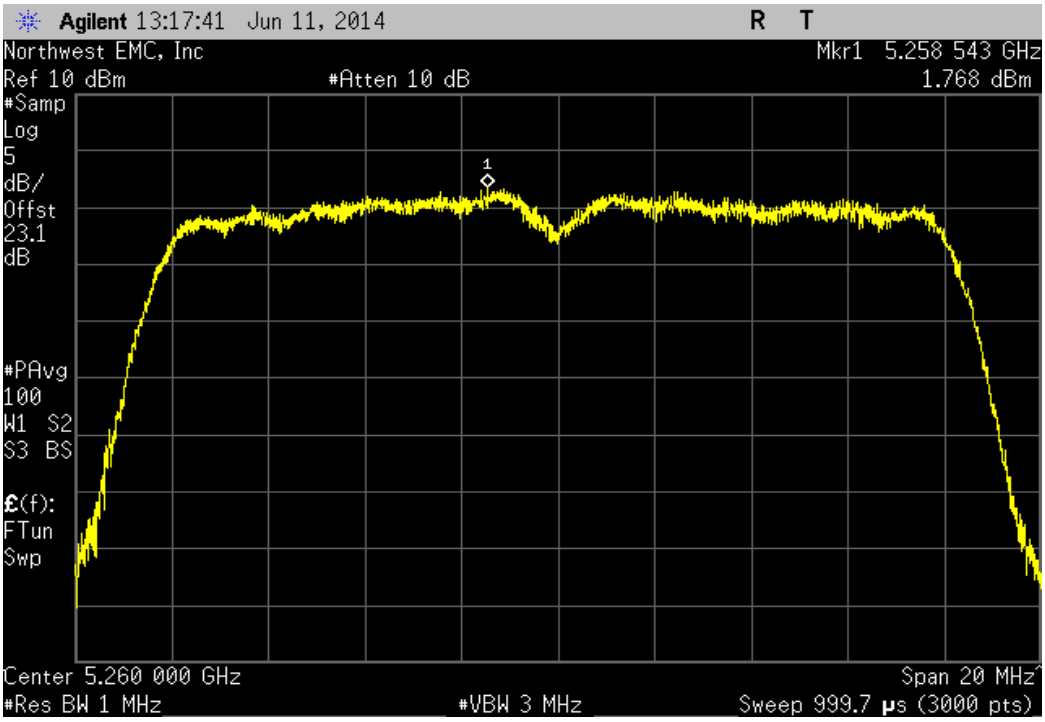
				Value (dBm / MHz)	Limit (dBm / MHz)	Result
				1.103	4	Pass



PEAK POWER SPECTRAL DENSITY

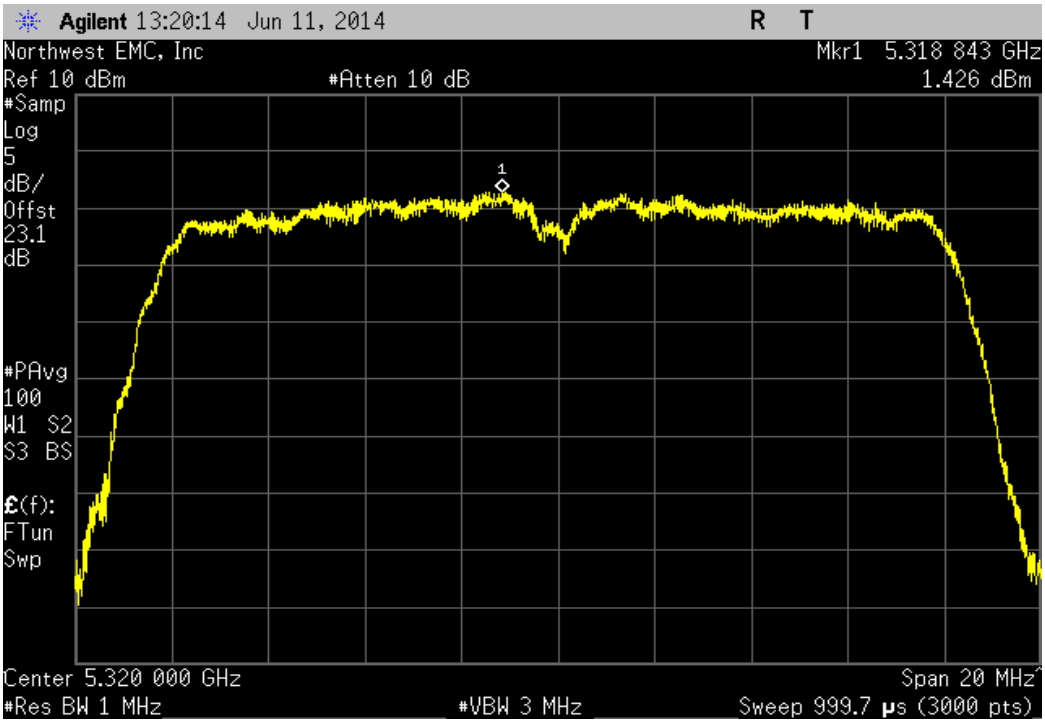
802.11(a) 36 Mbps, Low Channel 52, 5260MHz

				Value (dBm / MHz)	Limit (dBm / MHz)	Result
				1.768	11	Pass



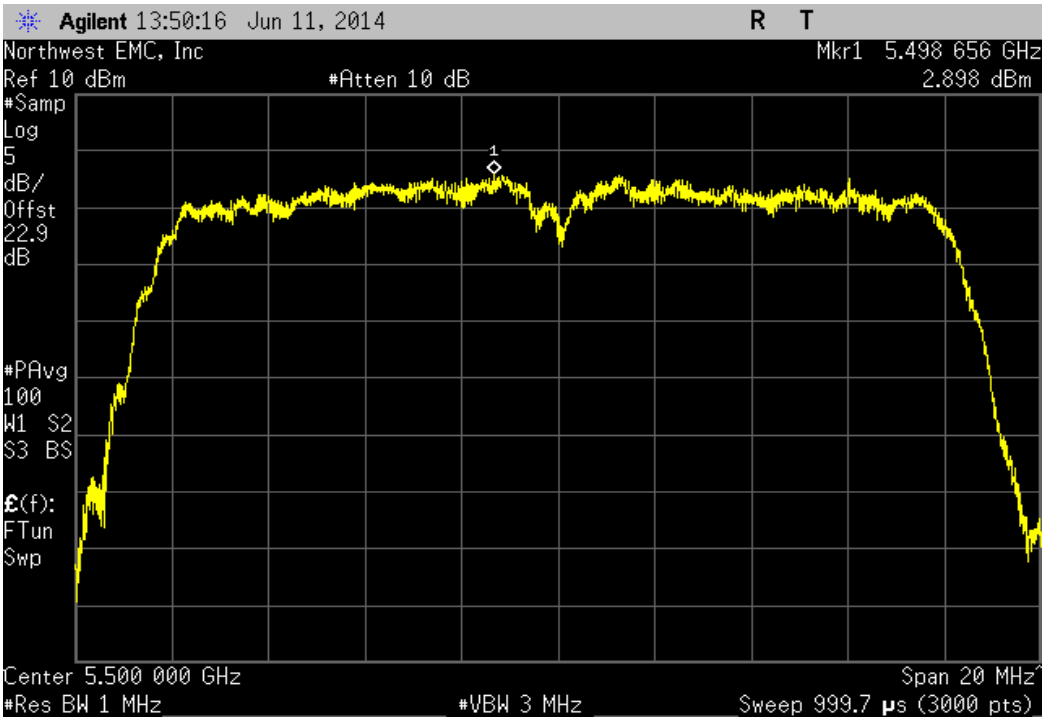
802.11(a) 36 Mbps, High Channel 64, 5320MHz

				Value (dBm / MHz)	Limit (dBm / MHz)	Result
				1.426	11	Pass

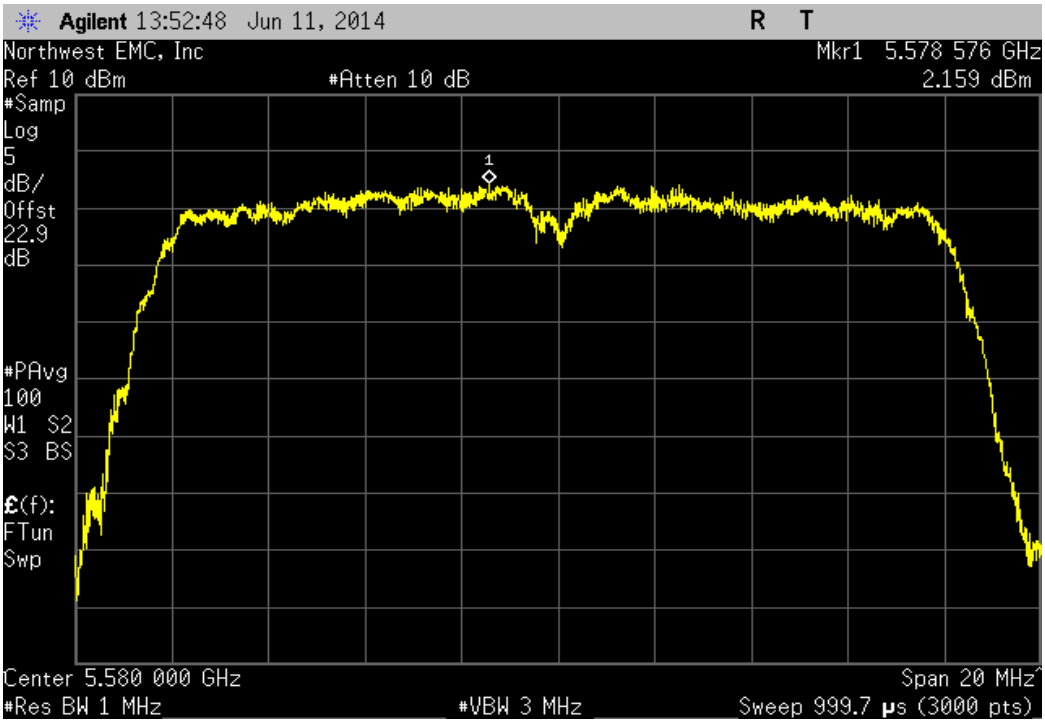


PEAK POWER SPECTRAL DENSITY

802.11(a) 36 Mbps, Low Channel 100, 5500MHz							
					Value (dBm / MHz)	Limit (dBm / MHz)	Result
					2.898	11	Pass

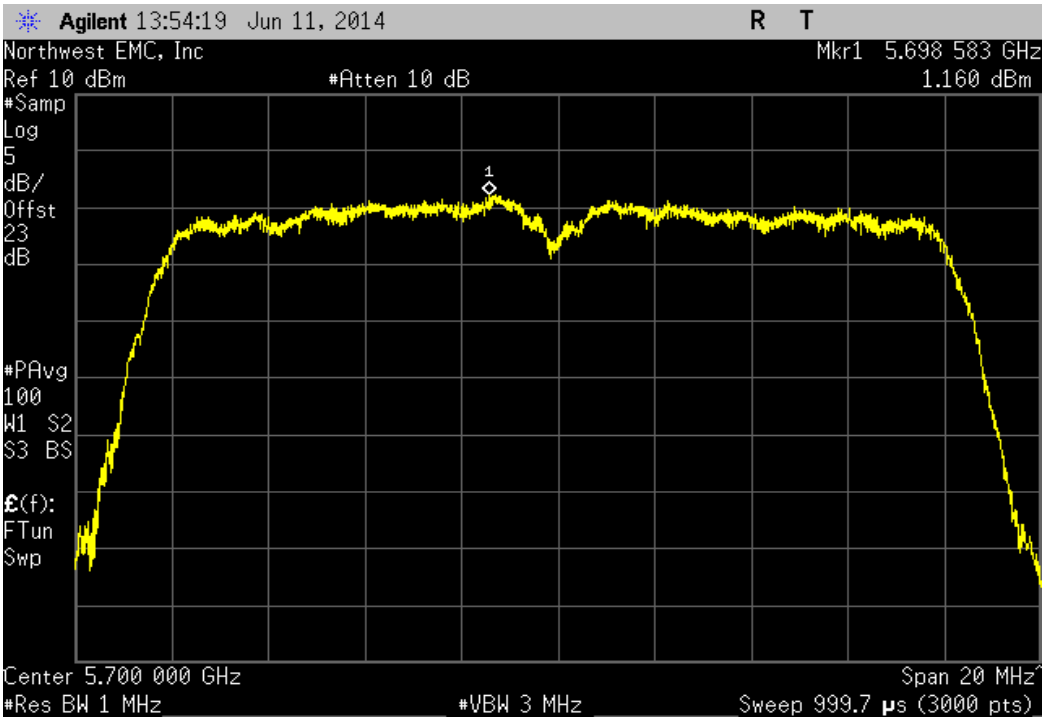


802.11(a) 36 Mbps, Mid Channel 116, 5580MHz							
					Value (dBm / MHz)	Limit (dBm / MHz)	Result
					2.159	11	Pass



PEAK POWER SPECTRAL DENSITY

802.11(a) 36 Mbps, High Channel 140, 5700MHz						
				Value (dBm / MHz)	Limit (dBm / MHz)	Result
				1.16	11	Pass



PEAK EXCURSION OF THE MODULATION ENVELOPE

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
40GHz DC Block	Miteq	DCB4000	AMD	4/28/2014	12 mo
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12 mo
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0 mo
Attenuator, 'Precision N'	S.M. Electronics	SA18N-06/SM4032	REE	12/2/2013	12 mo
Power Sensor	Agilent	E9300H	SQO	4/29/2013	36 mo
Power Meter	Agilent	N1913A	SQR	4/29/2013	36 mo
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	24 mo
MXG Analog Signal Generator	Agilent	N5181A	TIG	3/28/2014	36 mo

TEST DESCRIPTION

FCC KDB 789033 D01 General UNII Test Procedures Section F was followed to show that the radio of the maximum peak-max-hold spectrum to the maximum of the average spectrum does not exceed 13 dBm.

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.

The spectrum analyzer settings were as follows:

Span set to encompass the entire emission bandwidth (B), centered on the transmit channel.

Using the marker delta function, the largest difference between the following two traces was measured:

- 1st Trace: RBW = 1 MHz, VBW >= 3 MHz with peak detector and trace max-hold..
- 2nd Trace: The same procedure and settings as was used for peak power spectral density

PEAK EXCURSION OF THE MODULATION ENVELOPE

EUT:	444-2251			Work Order:	FOCU0169
Serial Number:	02EA4F000062			Date:	06/11/14
Customer:	Summit Semiconductor LLC			Temperature:	22.2°C
Attendees:	Paul Hamilton			Humidity:	41%
Project:	None			Barometric Pres.:	1017
Tested by:	Brandon Hobbs	Power:	110VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.407:2014	ANSI C63.10:2009

COMMENTS

Modes of operation were provided by the client.

DEVIATIONS FROM TEST STANDARD

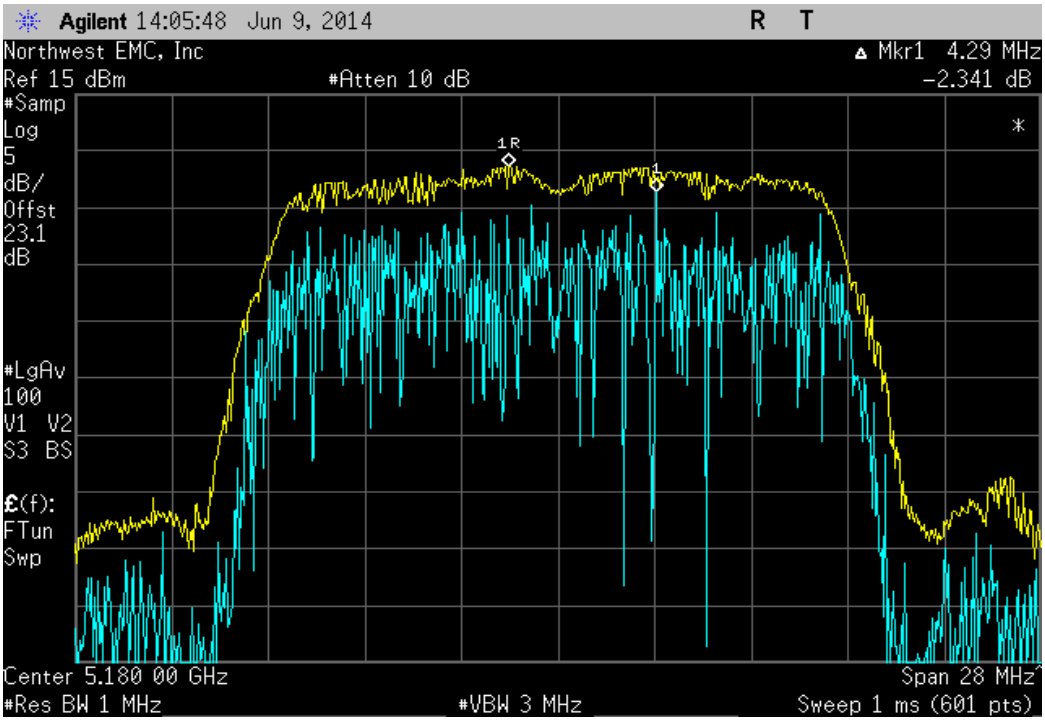
None

Configuration #	1	Signature

		Value	Limit	Result
802.11(a) 6 Mbps				
	Low Channel 36, 5180MHz	2.341 dB	≤ 13 dB	Pass
	High Channel 48, 5240MHz	4.269 dB	≤ 13 dB	Pass
	Low Channel 52, 5260MHz	4.048 dB	≤ 13 dB	Pass
	High Channel 64, 5320MHz	2.826 dB	≤ 13 dB	Pass
	Low Channel 100, 5500MHz	3.807 dB	≤ 13 dB	Pass
	Mid Channel 116, 5580MHz	4.267 dB	≤ 13 dB	Pass
	High Channel 140, 5700MHz	6.036 dB	≤ 13 dB	Pass
802.11(a) 18 Mbps				
	Low Channel 36, 5180MHz	8.631 dB	≤ 13 dB	Pass
	High Channel 48, 5240MHz	8.157 dB	≤ 13 dB	Pass
	Low Channel 52, 5260MHz	8.377 dB	≤ 13 dB	Pass
	High Channel 64, 5320MHz	9.064 dB	≤ 13 dB	Pass
	Low Channel 100, 5500MHz	8.966 dB	≤ 13 dB	Pass
	Mid Channel 116, 5580MHz	9.033 dB	≤ 13 dB	Pass
	High Channel 140, 5700MHz	9.456 dB	≤ 13 dB	Pass
802.11(a) 36 Mbps				
	Low Channel 36, 5180MHz	8.764 dB	≤ 13 dB	Pass
	High Channel 48, 5240MHz	7.312 dB	≤ 13 dB	Pass
	Low Channel 52, 5260MHz	8.744 dB	≤ 13 dB	Pass
	High Channel 64, 5320MHz	8.368 dB	≤ 13 dB	Pass
	Low Channel 100, 5500MHz	8.301 dB	≤ 13 dB	Pass
	Mid Channel 116, 5580MHz	8.159 dB	≤ 13 dB	Pass
	High Channel 140, 5700MHz	8.291 dB	≤ 13 dB	Pass

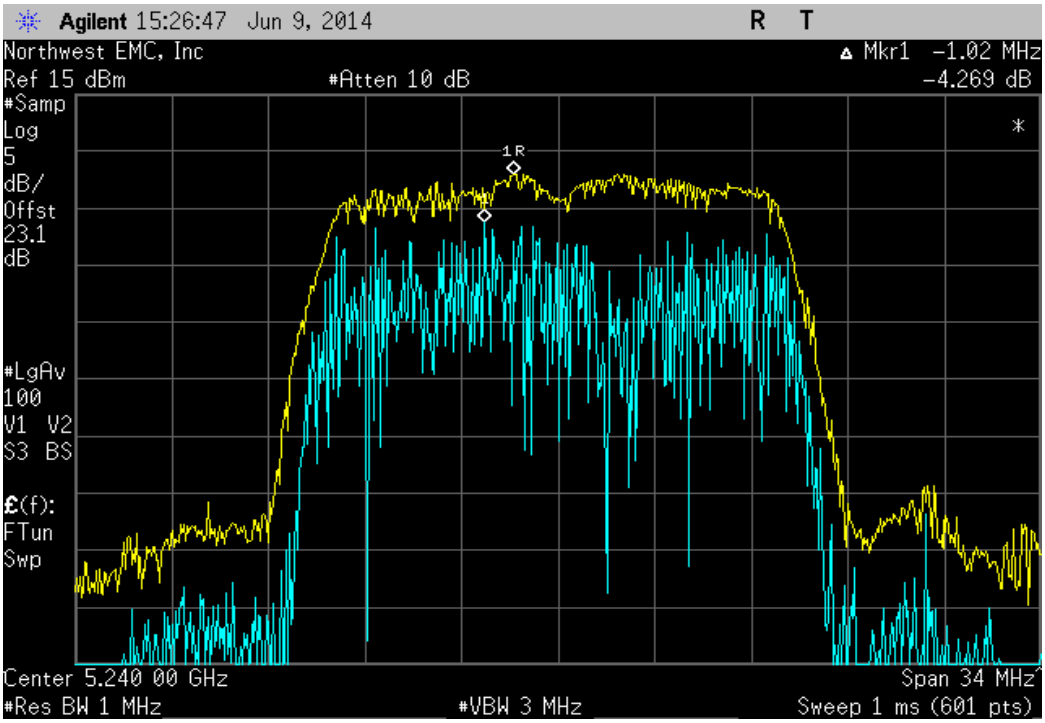
802.11(a) 6 Mbps, Low Channel 36, 5180MHz

				Value	Limit	Result
				2.341 dB	≤ 13 dB	Pass



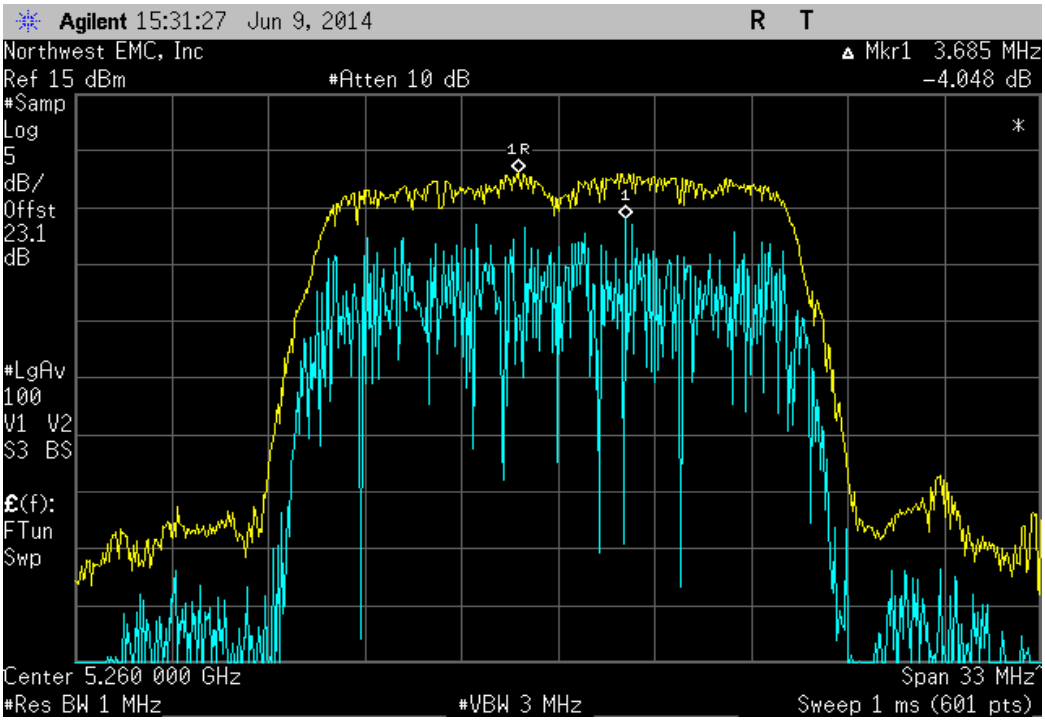
802.11(a) 6 Mbps, High Channel 48, 5240MHz

				Value	Limit	Result
				4.269 dB	≤ 13 dB	Pass



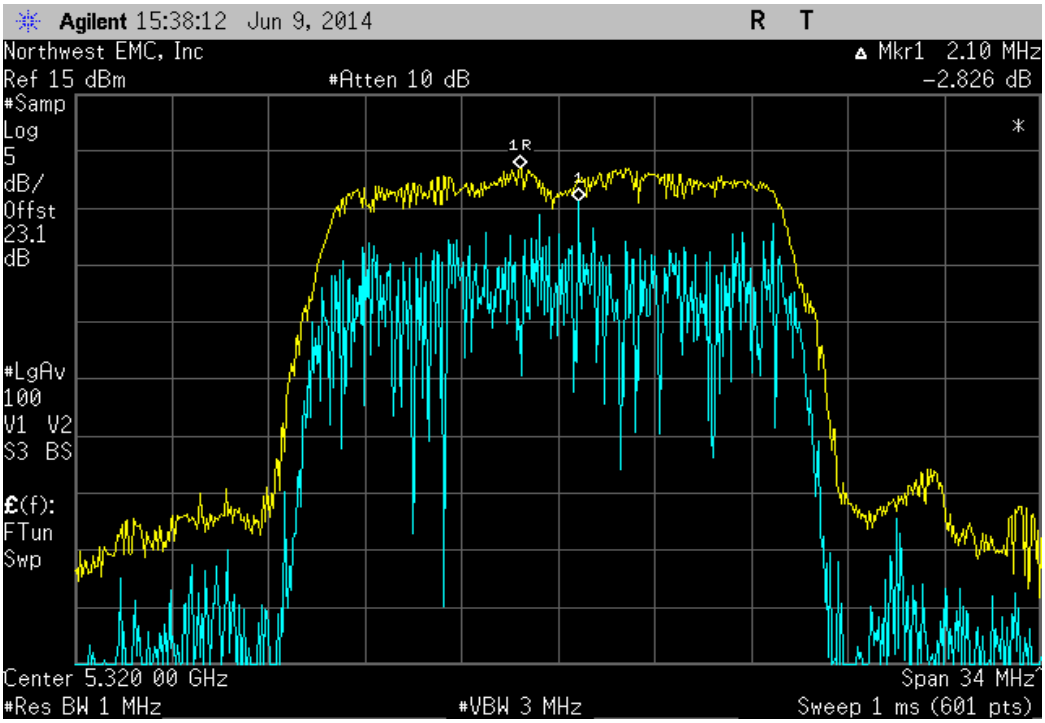
802.11(a) 6 Mbps, Low Channel 52, 5260MHz

				Value	Limit	Result
				4.048 dB	≤ 13 dB	Pass



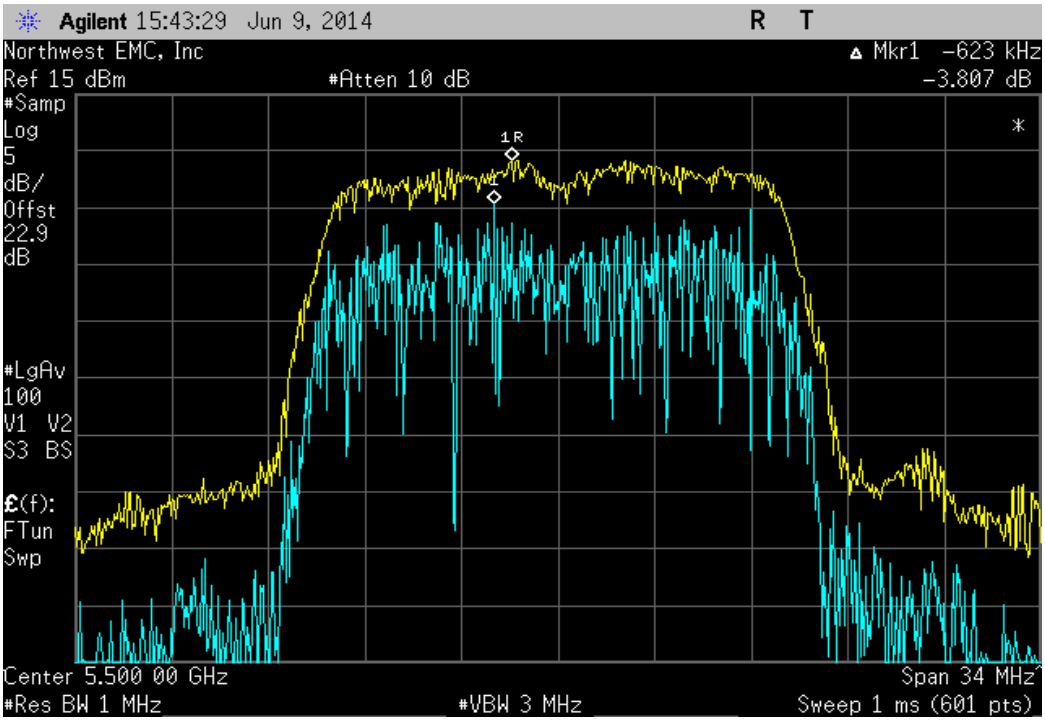
802.11(a) 6 Mbps, High Channel 64, 5320MHz

				Value	Limit	Result
				2.826 dB	≤ 13 dB	Pass



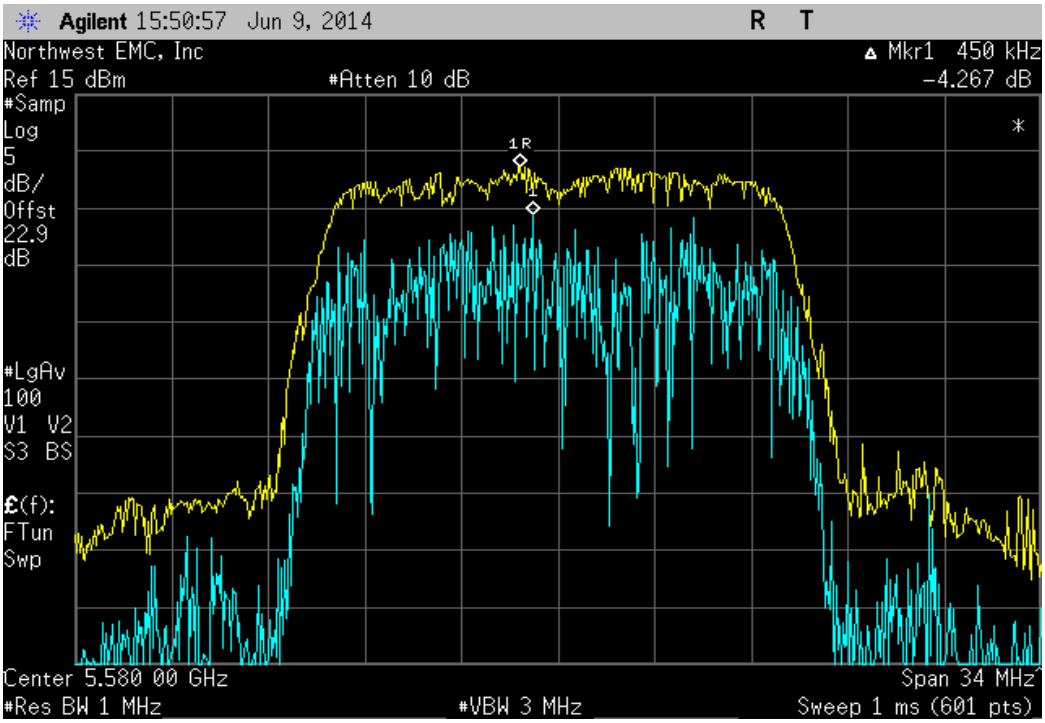
802.11(a) 6 Mbps, Low Channel 100, 5500MHz

				Value	Limit	Result
				3.807 dB	≤ 13 dB	Pass



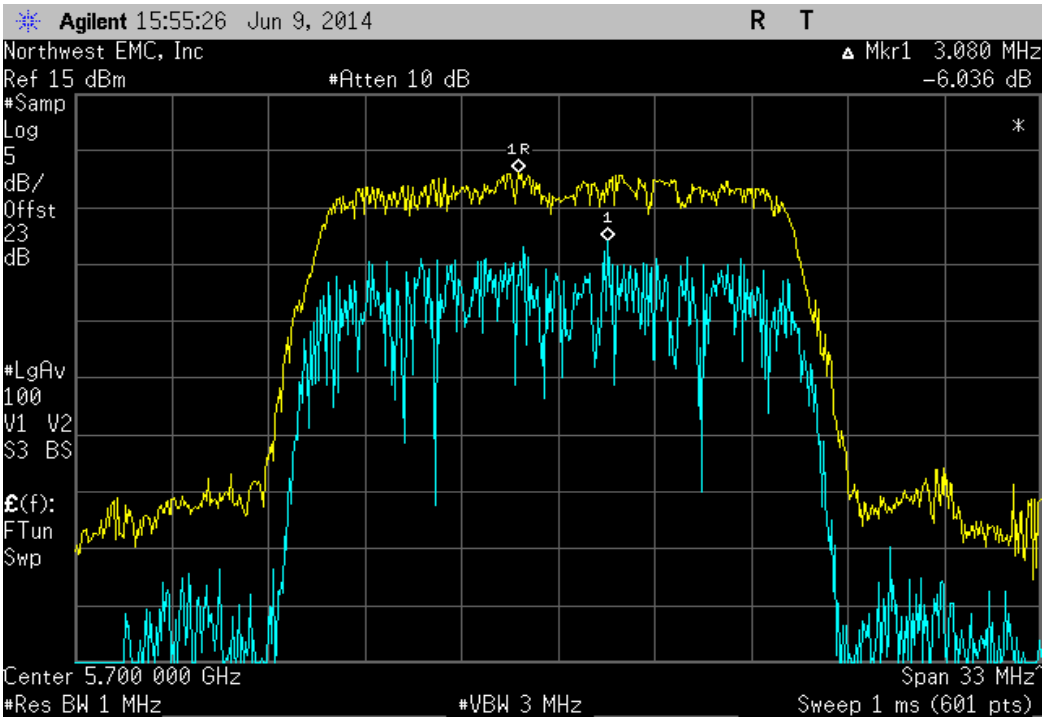
802.11(a) 6 Mbps, Mid Channel 116, 5580MHz

				Value	Limit	Result
				4.267 dB	≤ 13 dB	Pass



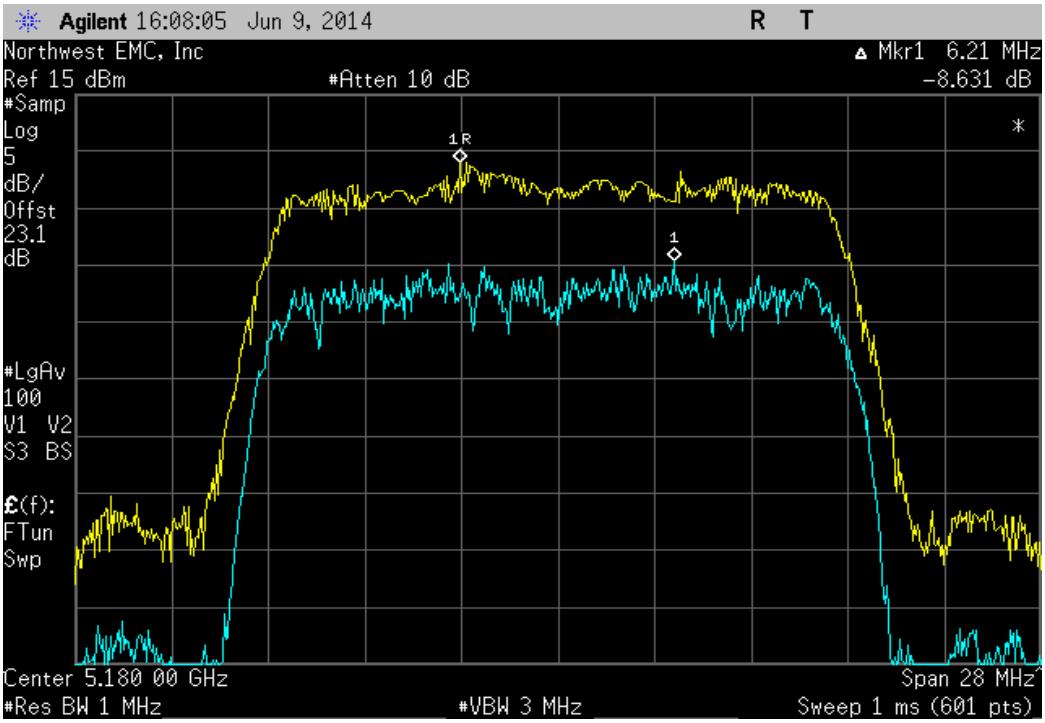
802.11(a) 6 Mbps, High Channel 140, 5700MHz

				Value	Limit	Result
				6.036 dB	≤ 13 dB	Pass



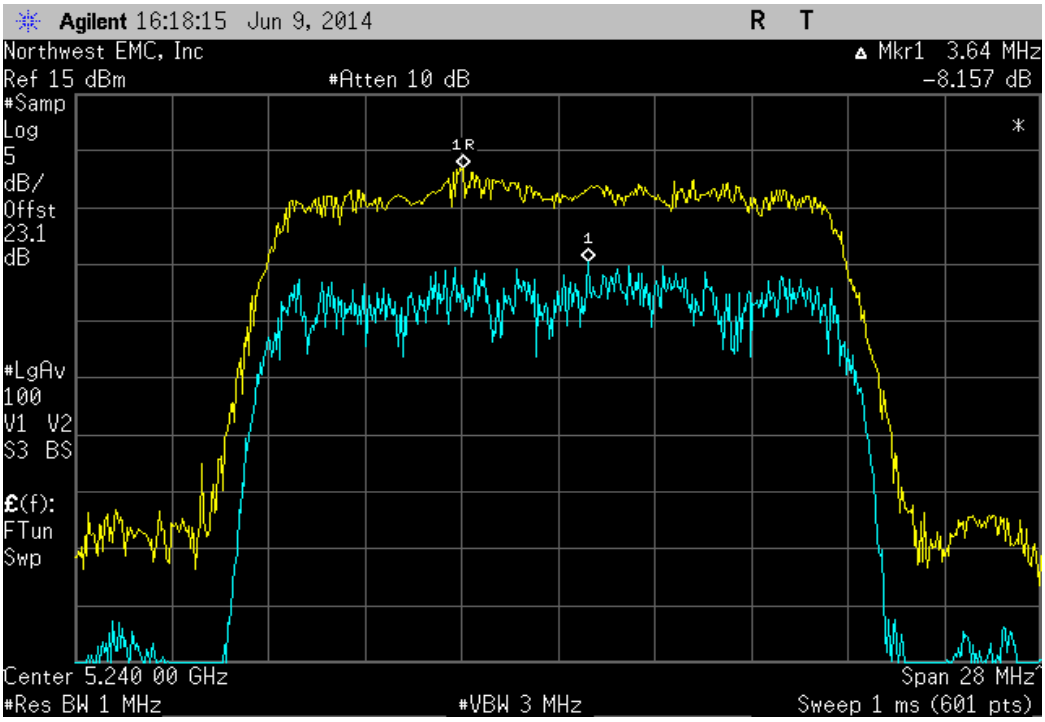
802.11(a) 18 Mbps, Low Channel 36, 5180MHz

				Value	Limit	Result
				8.631 dB	≤ 13 dB	Pass



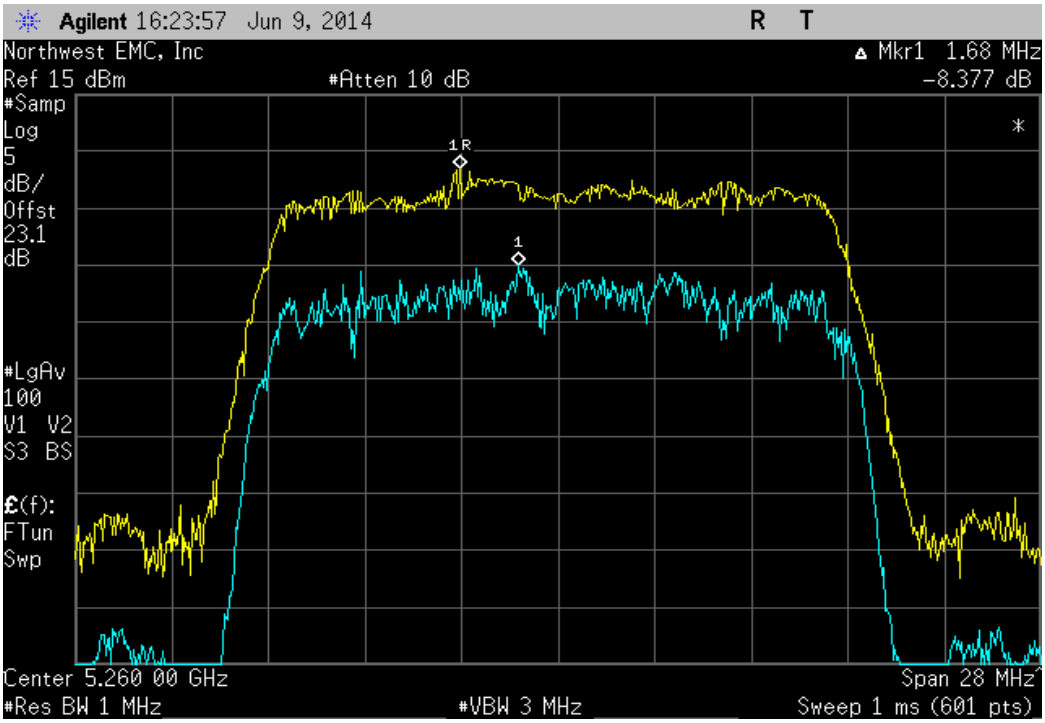
802.11(a) 18 Mbps, High Channel 48, 5240MHz

Value	Limit	Result
8.157 dB	≤ 13 dB	Pass



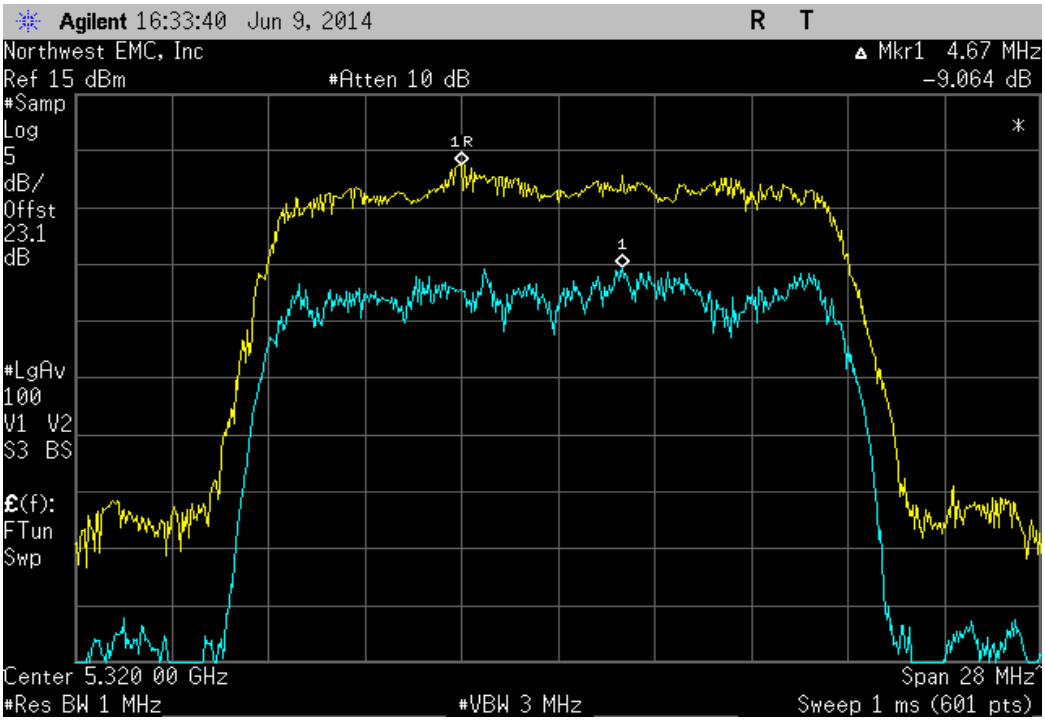
802.11(a) 18 Mbps, Low Channel 52, 5260MHz

Value	Limit	Result
8.377 dB	≤ 13 dB	Pass



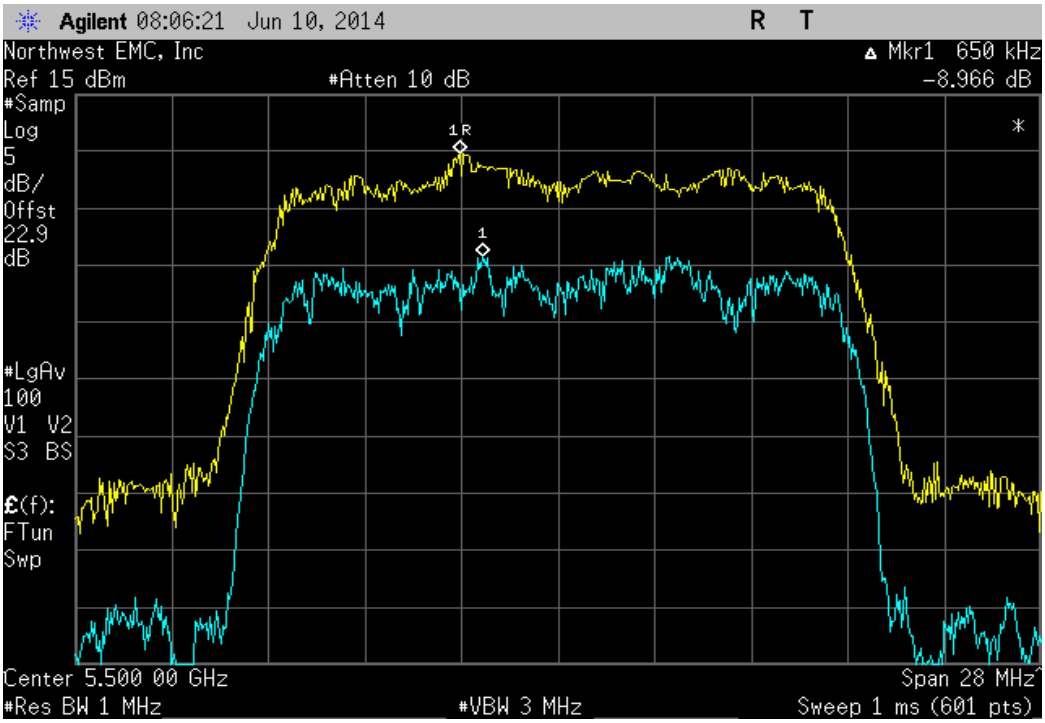
802.11(a) 18 Mbps, High Channel 64, 5320MHz

Value	Limit	Result
9.064 dB	≤ 13 dB	Pass



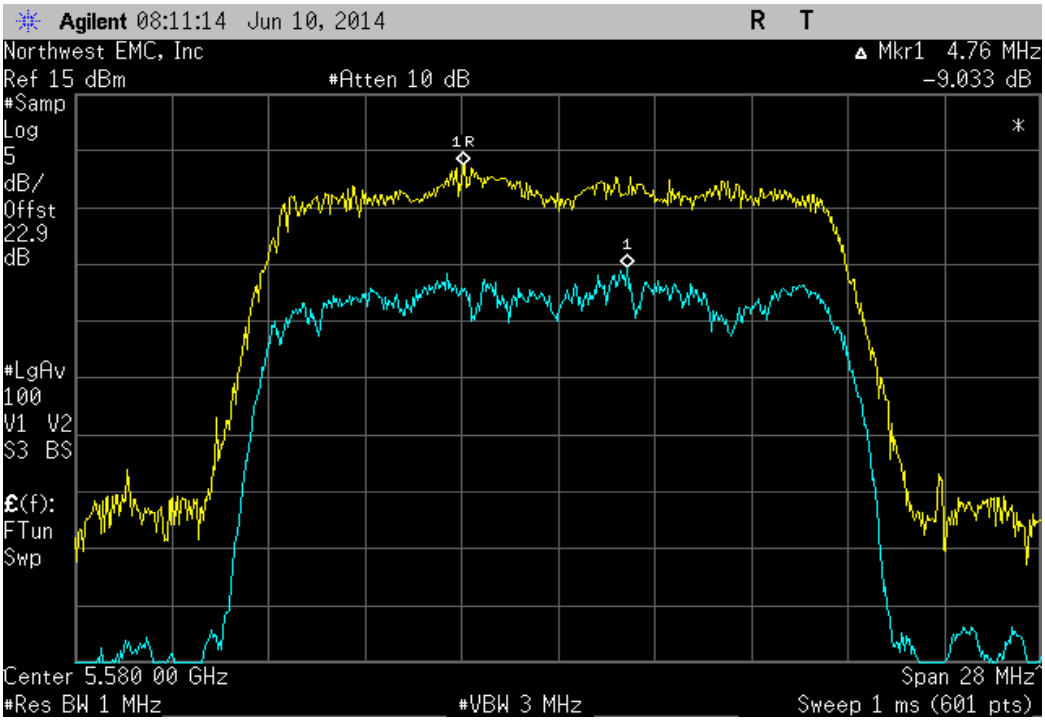
802.11(a) 18 Mbps, Low Channel 100, 5500MHz

Value	Limit	Result
8.966 dB	≤ 13 dB	Pass



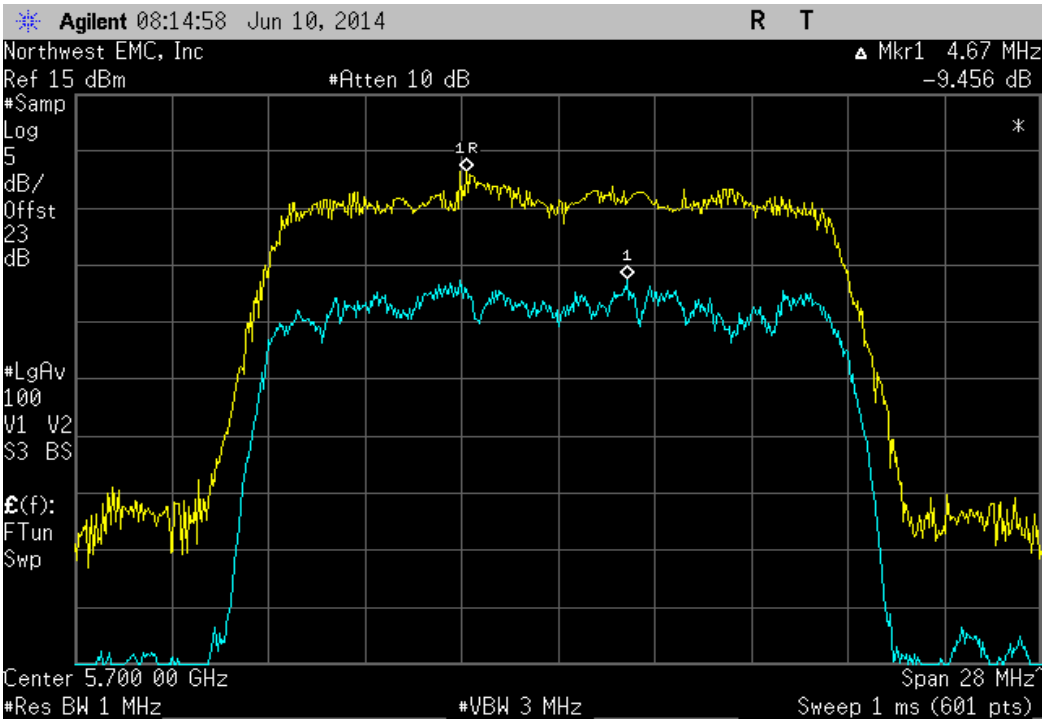
802.11(a) 18 Mbps, Mid Channel 116, 5580MHz

				Value	Limit	Result
				9.033 dB	≤ 13 dB	Pass



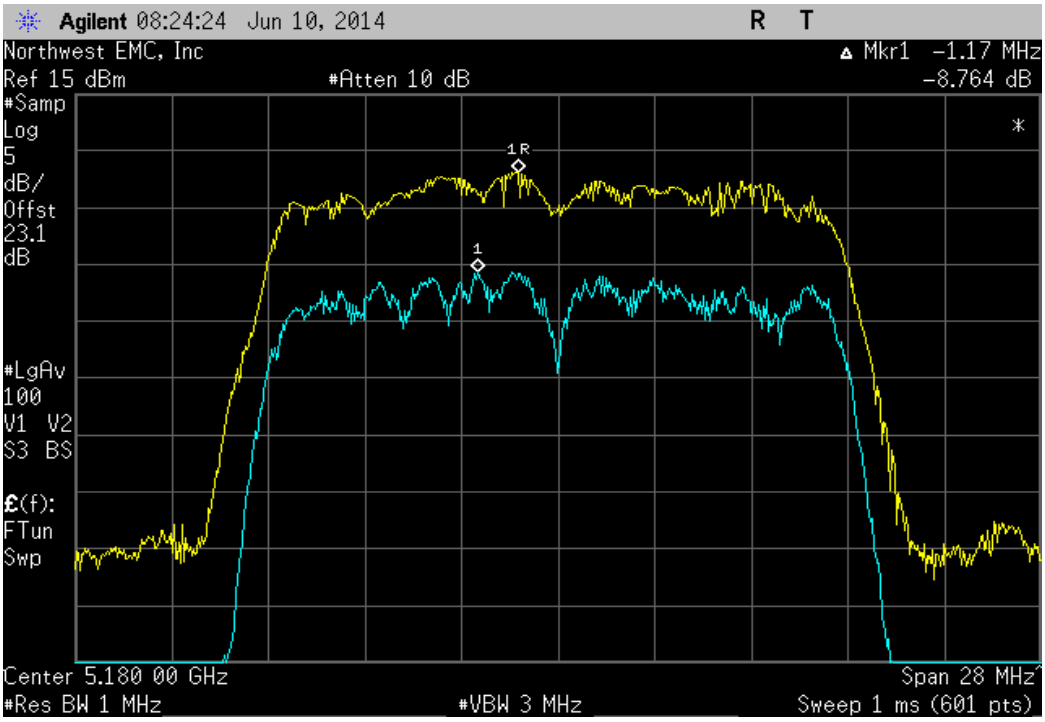
802.11(a) 18 Mbps, High Channel 140, 5700MHz

				Value	Limit	Result
				9.456 dB	≤ 13 dB	Pass



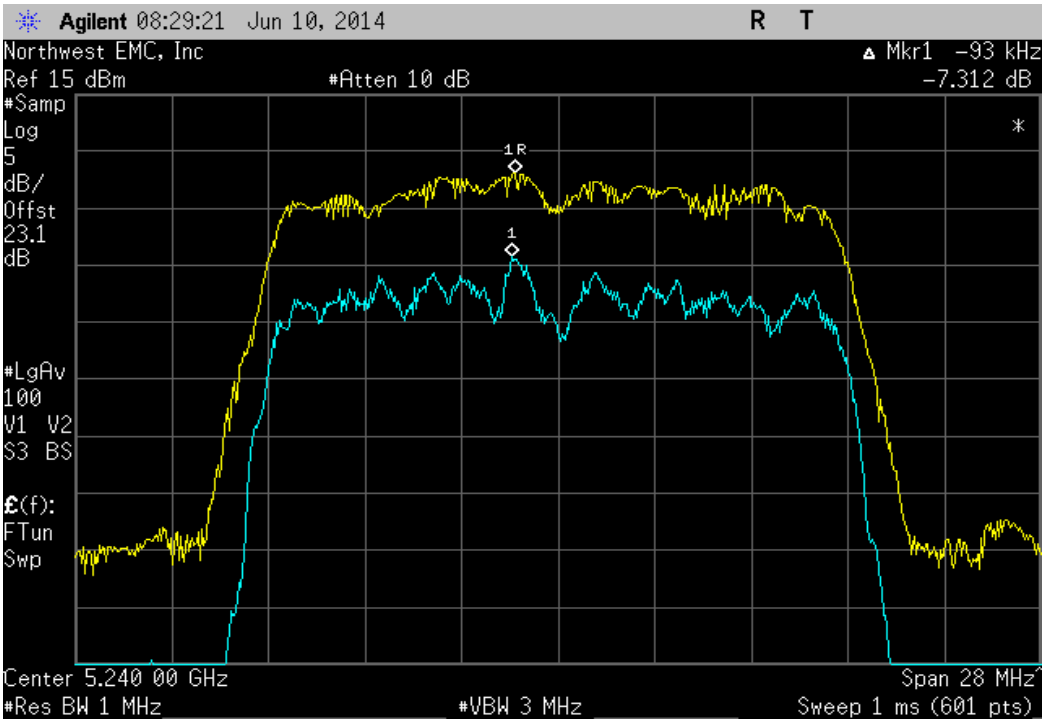
802.11(a) 36 Mbps, Low Channel 36, 5180MHz

				Value	Limit	Result
				8.764 dB	≤ 13 dB	Pass



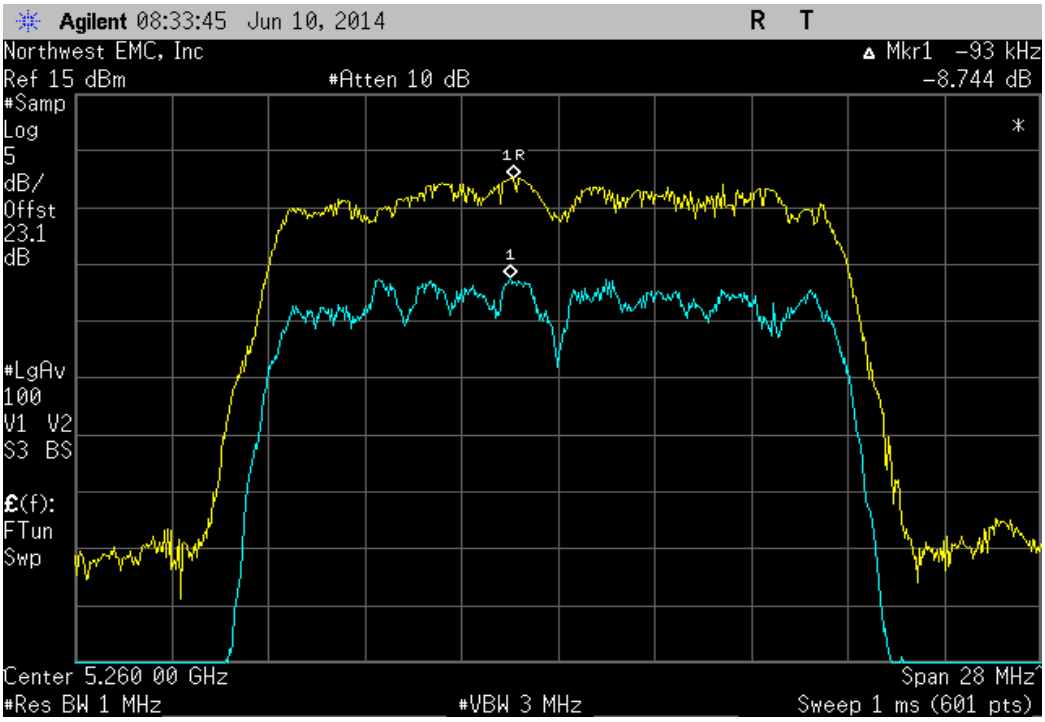
802.11(a) 36 Mbps, High Channel 48, 5240MHz

				Value	Limit	Result
				7.312 dB	≤ 13 dB	Pass



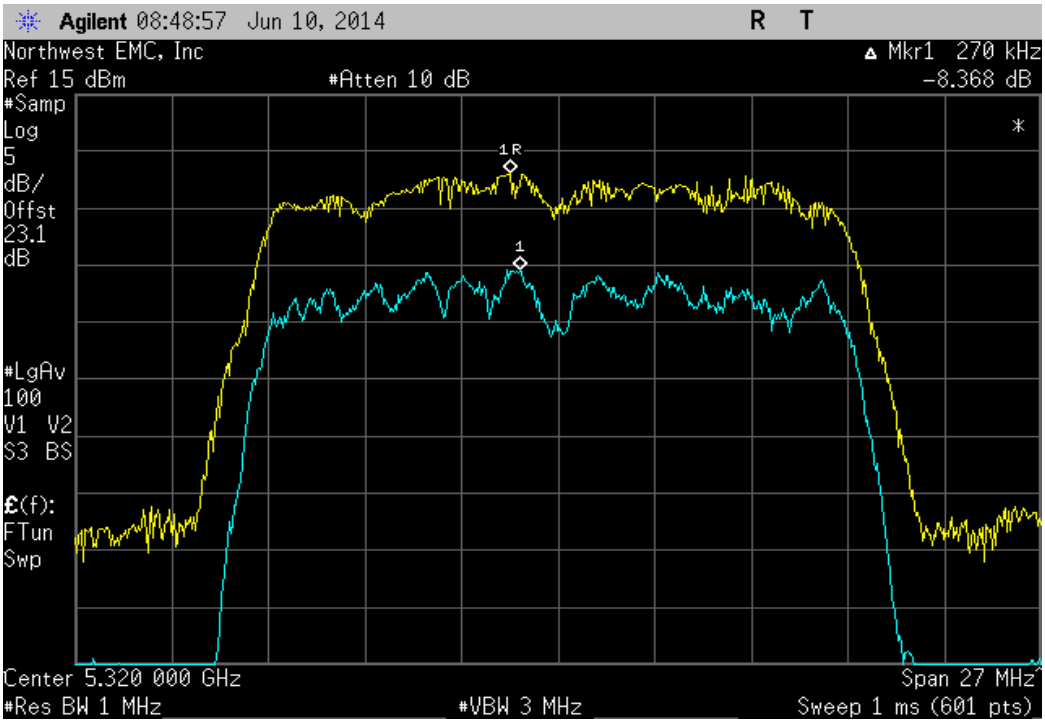
802.11(a) 36 Mbps, Low Channel 52, 5260MHz

Value	Limit	Result
8.744 dB	≤ 13 dB	Pass



802.11(a) 36 Mbps, High Channel 64, 5320MHz

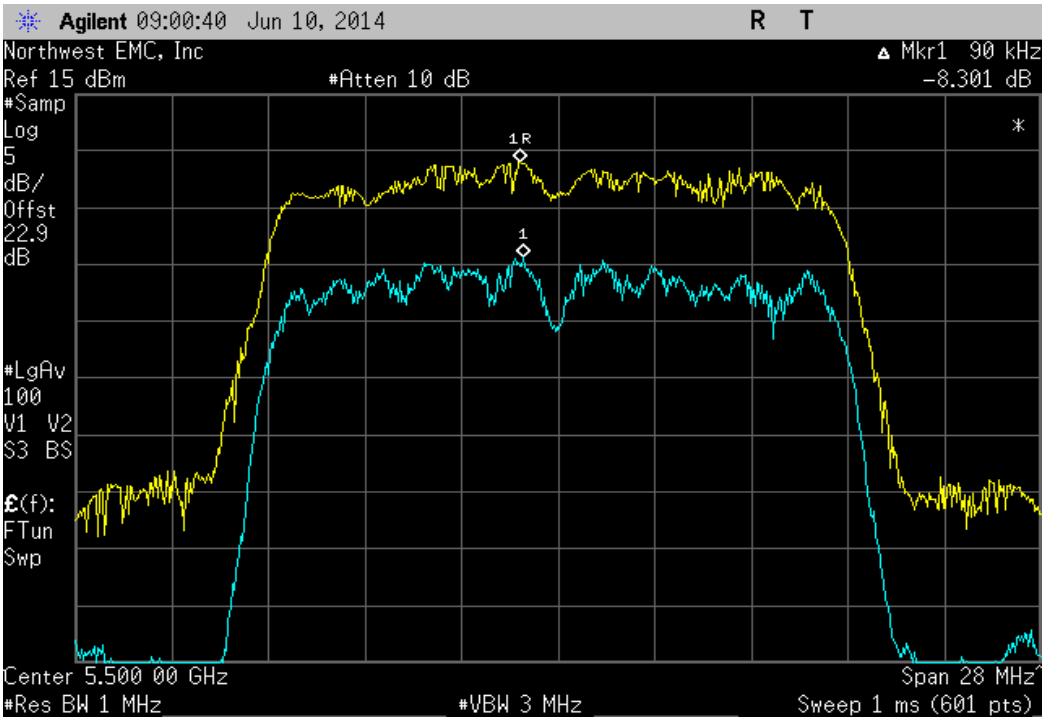
Value	Limit	Result
8.368 dB	≤ 13 dB	Pass



PEAK EXCURSION OF THE MODULATION ENVELOPE

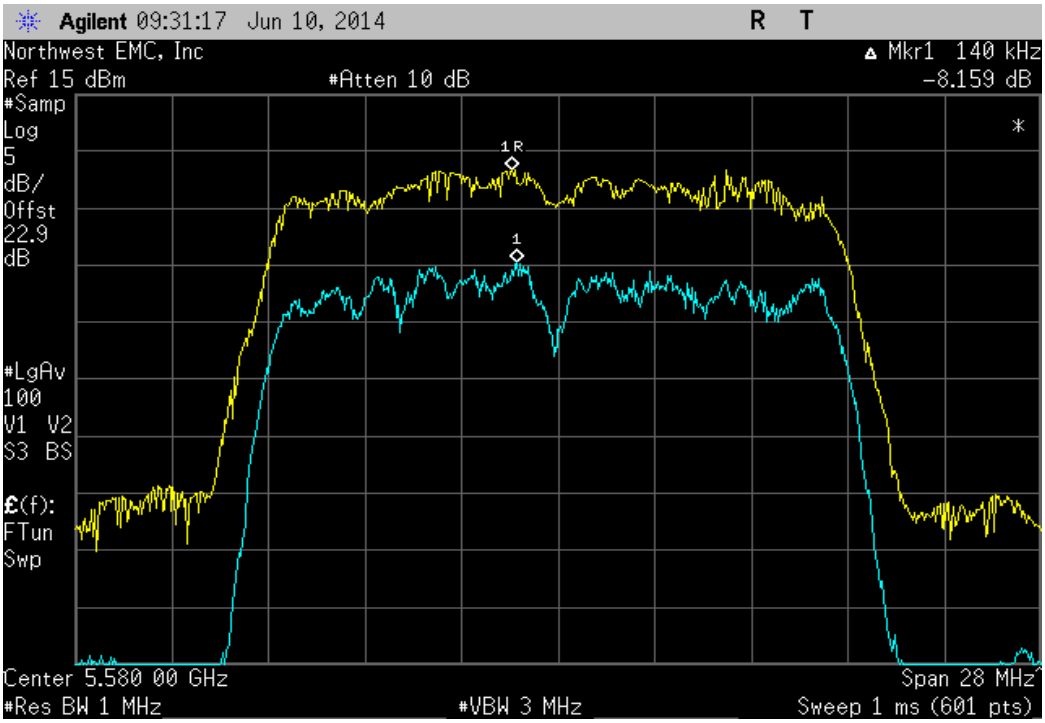
802.11(a) 36 Mbps, Low Channel 100, 5500MHz

Value	Limit	Result
8.301 dB	≤ 13 dB	Pass



802.11(a) 36 Mbps, Mid Channel 116, 5580MHz

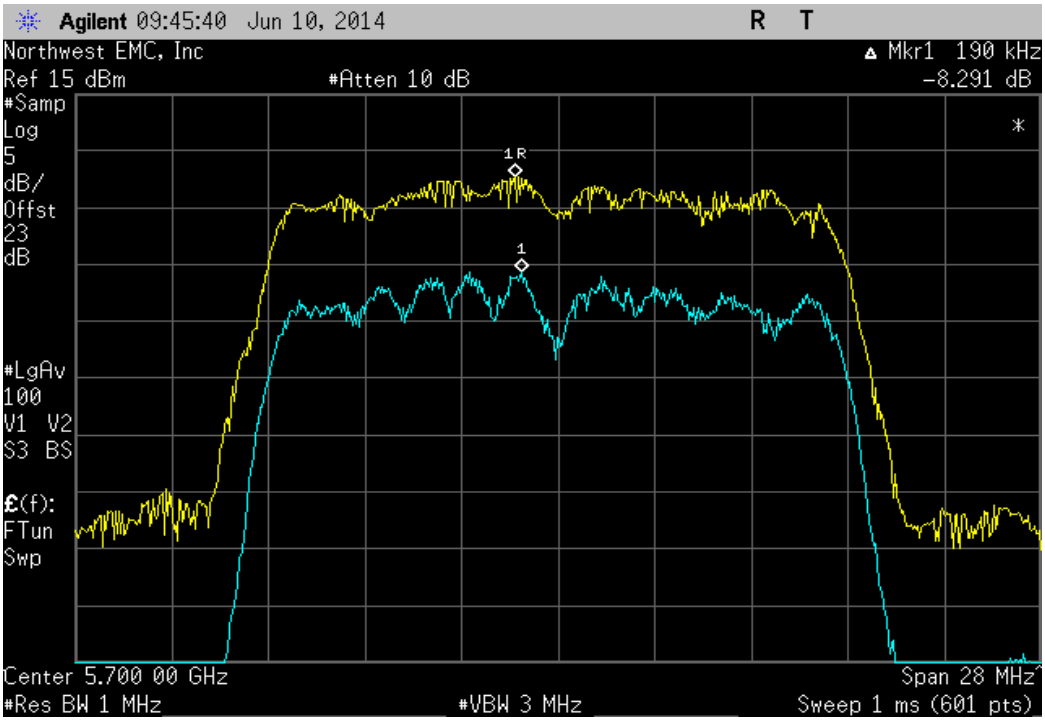
Value	Limit	Result
8.159 dB	≤ 13 dB	Pass



PEAK EXCURSION OF THE MODULATION ENVELOPE

802.11(a) 36 Mbps, High Channel 140, 5700MHz

				Value	Limit	Result
				8.291 dB	≤ 13 dB	Pass



BAND EDGE COMPLIANCE

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
40GHz DC Block	Miteq	DCB4000	AMD	4/28/2014	12 mo
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12 mo
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0 mo
Attenuator, 'Precision N'	S.M. Electronics	SA18N-06/SM4032	REE	12/2/2013	12 mo
Power Meter	Agilent	N1913A	SQR	4/29/2013	36 mo
Power Sensor	Agilent	E9300H	SQO	4/29/2013	36 mo
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	24 mo
MXG Analog Signal Generator	Agilent	N5181A	TIG	3/28/2014	36 mo

TEST DESCRIPTION

The spurious RF conducted emissions at the edges of the authorized bands were measured with the EUT set to low and high transmit frequencies in each available band. The channels closest to the band edges were selected. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at the data rate(s) listed in the datasheet.

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

BAND EDGE COMPLIANCE

EUT:	444-2251			Work Order:	FOCU0169
Serial Number:	02EA4F000062			Date:	06/11/14
Customer:	Summit Semiconductor LLC			Temperature:	22.2°C
Attendees:	Paul Hamilton			Humidity:	41%
Project:	None			Barometric Pres.:	1017
Tested by:	Brandon Hobbs	Power:	110VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.407:2014	ANSI C63.10:2009

COMMENTS

Modes of operation were provided by the client.

DEVIATIONS FROM TEST STANDARD

None

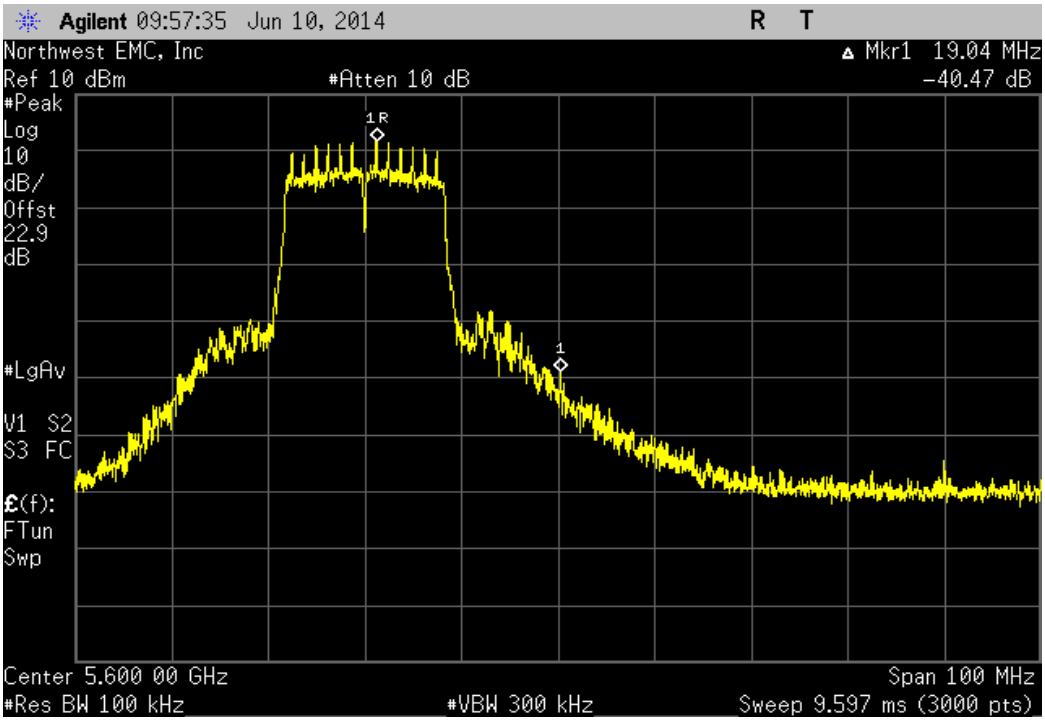
Configuration #	1	Signature

		Value	Limit	Result
802.11(a) 6 Mbps				
	5600 MHz Band Edge			
	Channel 116, 5580 MHz	-40.47 dBc	≤ -20 dBc	Pass
	5650 MHz Band Edge			
	Channel 132, 5660 MHz	-30.14 dBc	≤ -20 dBc	Pass
802.11(a) 18 Mbps				
	5600 MHz Band Edge			
	Channel 116, 5580 MHz	-42.96 dBc	≤ -20 dBc	Pass
	5650 MHz Band Edge			
	Channel 132, 5660 MHz	-31.22 dBc	≤ -20 dBc	Pass
802.11(a) 36 Mbps				
	5600 MHz Band Edge			
	Channel 116, 5580 MHz	-42.99 dBc	≤ -20 dBc	Pass
	5650 MHz Band Edge			
	Channel 132, 5660 MHz	-32.06 dBc	≤ -20 dBc	Pass

BAND EDGE COMPLIANCE

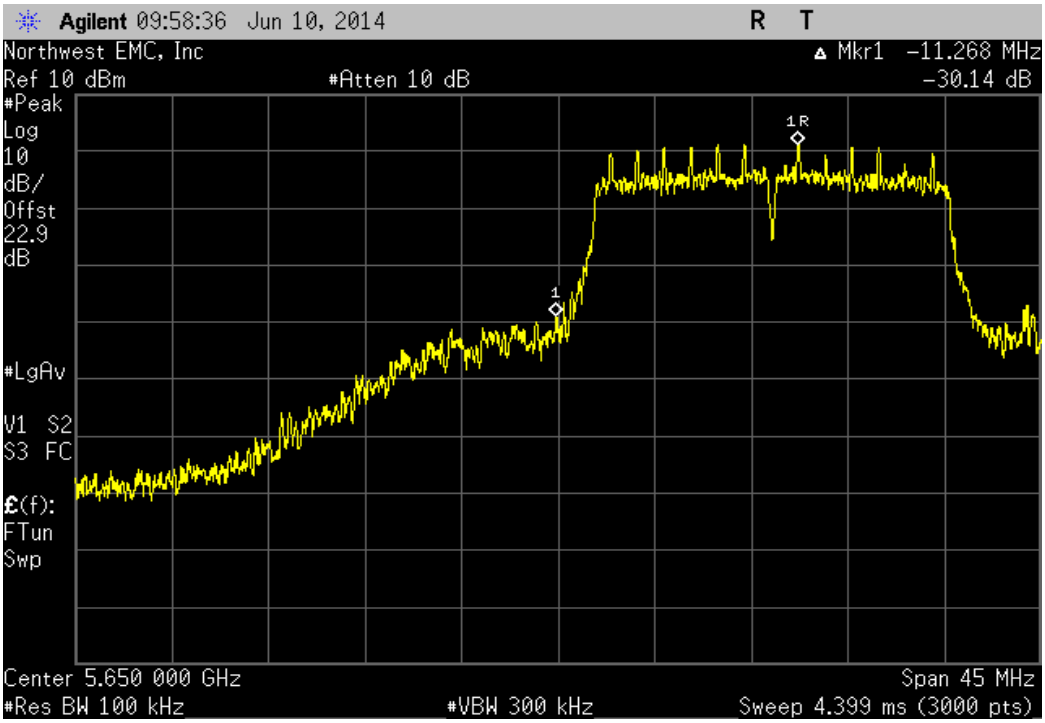
802.11(a) 6 Mbps, 5600 MHz Band Edge, Channel 116, 5580 MHz

				Value	Limit	Result
				-40.47 dBc	≤ -20 dBc	Pass



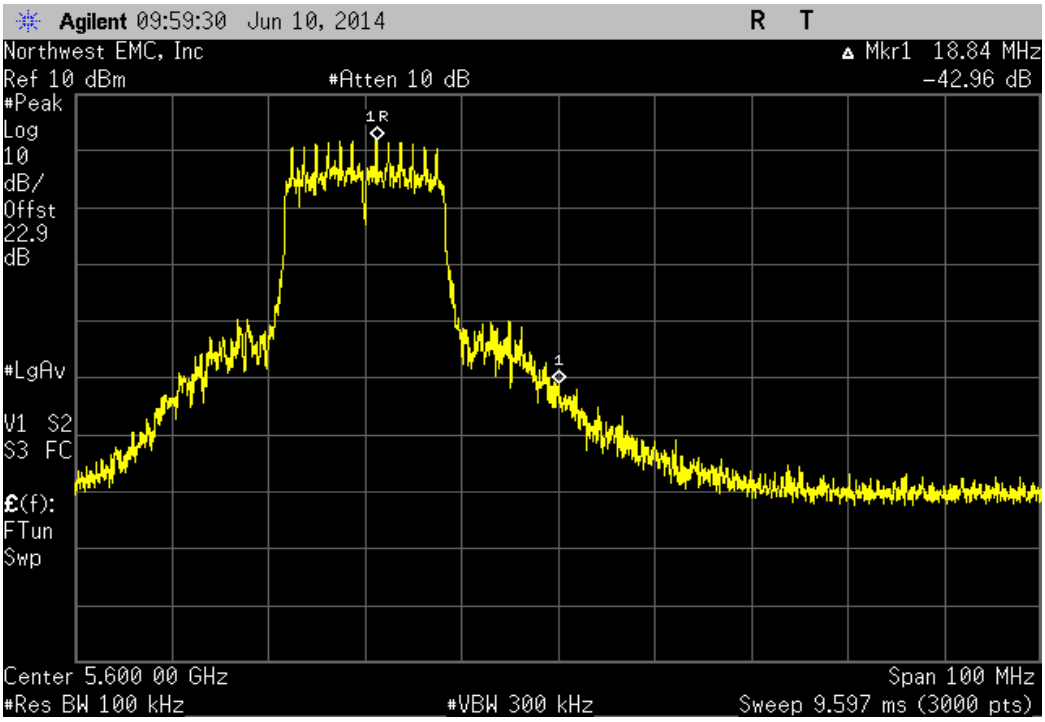
802.11(a) 6 Mbps, 5650 MHz Band Edge, Channel 132, 5660 MHz

				Value	Limit	Result
				-30.14 dBc	≤ -20 dBc	Pass



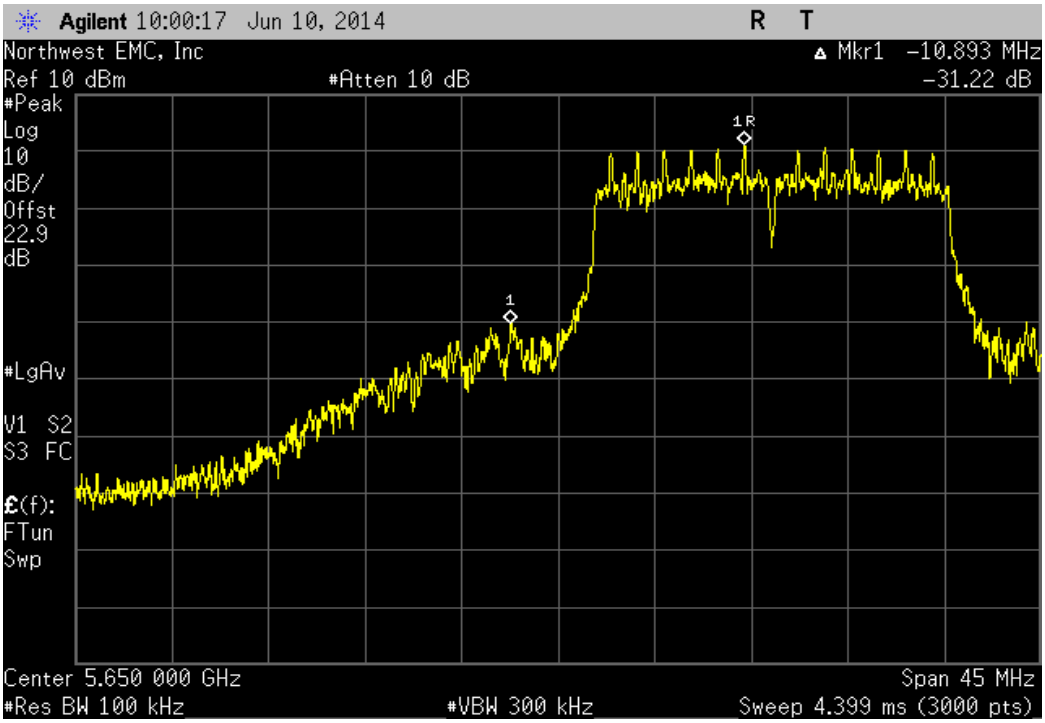
802.11(a) 18 Mbps, 5600 MHz Band Edge, Channel 116, 5580 MHz

				Value	Limit	Result
				-42.96 dBc	≤ -20 dBc	Pass



802.11(a) 18 Mbps, 5650 MHz Band Edge, Channel 132, 5660 MHz

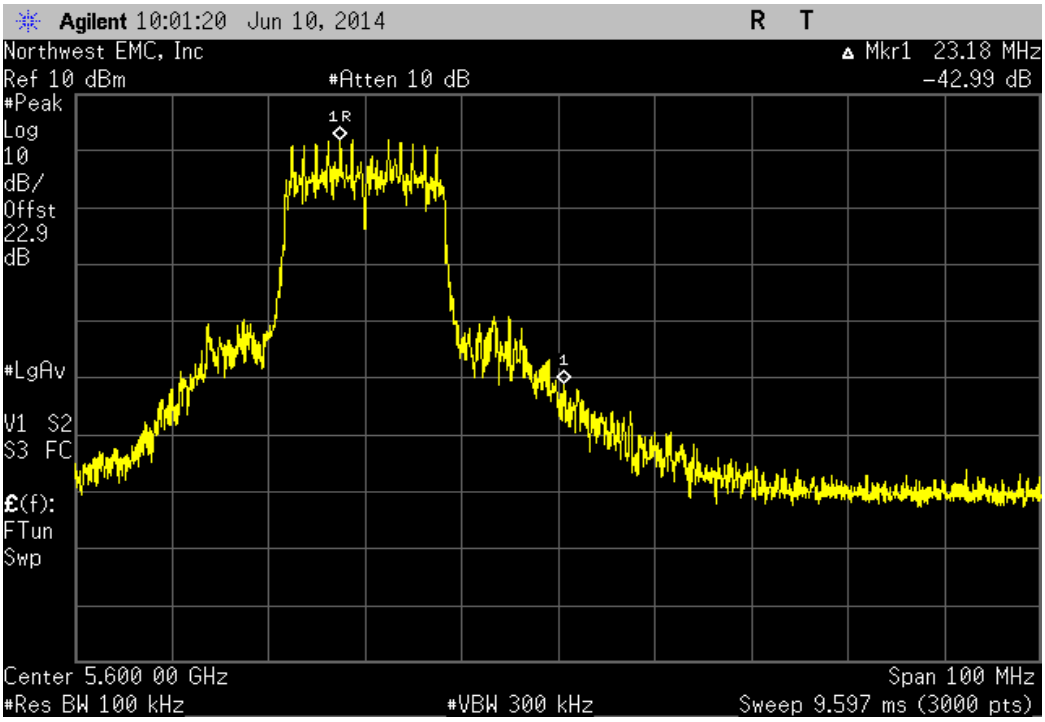
				Value	Limit	Result
				-31.22 dBc	≤ -20 dBc	Pass



BAND EDGE COMPLIANCE

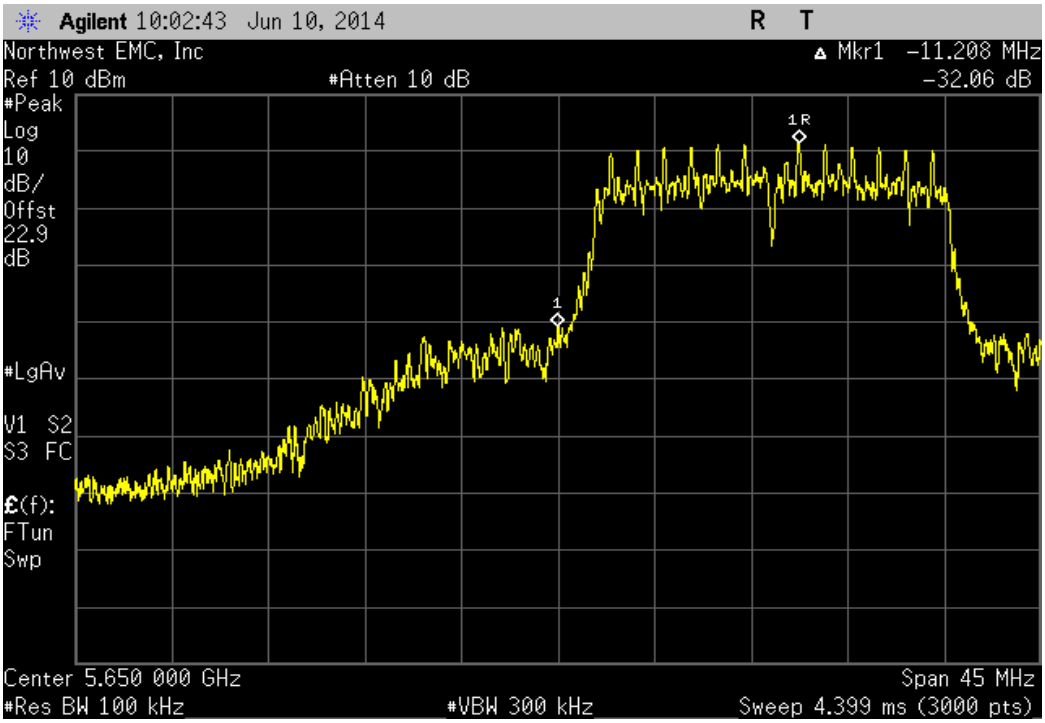
802.11(a) 36 Mbps, 5600 MHz Band Edge, Channel 116, 5580 MHz

				Value	Limit	Result
				-42.99 dBc	≤ -20 dBc	Pass



802.11(a) 36 Mbps, 5650 MHz Band Edge, Channel 132, 5660 MHz

				Value	Limit	Result
				-32.06 dBc	≤ -20 dBc	Pass



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
Spectrum Analyzer	Agilent	E4440	AFE	11/4/2013	12 mo
Multimeter	Tektronix	DMM912	MMH	2/5/2013	24 mo
DC Power Supply	Tektronix	PS280	TPM	NCR	0 mo
DC Power Supply	Topward	TPS-2000	TPD	NCR	0 mo
Multimeter	Tektronix	DMM912	MMH	2/5/2013	24 mo
Humidity Temperature Meter	Omega	HH311	DUH	2/19/2013	36 mo
EV01 Cable	ESM Cable Corp.	TTBJ-141 KMKM-72	ECC	8/26/2013	12 mo
18GHz DC Block, 'N'	Fairview Microwave	SD3074	AMF	NCR	13 mo
Spectrum Analyzer	Agilent	E4407B	AAU	10/23/2012	24 mo
Chamber Temp. & Humidity Controller	Extech	445703	CP100795	1/11//2013	24 mo
Chamber, Temp./Humidity Chamber	Thermotron	SE/600/10/10	32292	6/18/2014	12 mo

TEST DESCRIPTION

Variation of Supply Voltage
The primary supply voltage was varied from 85% of nominal to 115% of nominal DC voltage of 18 VDC.

Variation of Ambient Temperature
Using a temperature chamber, the transmit frequency was recorded at the extremes of the specified temperature range (-30° to +50° C) and at 10°C intervals.

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 lowest and highest channel of each band to determine frequency stability.

FREQUENCY STABILITY

EUT:	444-2251			Work Order:	FOCU0169
Serial Number:	02EA4F000062,02EA4F000063			Date:	07/07/14
Customer:	Summit Semiconductor			Temperature:	27.4°C
Attendees:	None			Humidity:	37%
Project:	None			Barometric Pres.:	1017.2 mb
Tested by:	Brandon Hobbs, Jared Ison	Power:	3.3,1.2VDC	Job Site:	Cascade Tek, EV06

TEST SPECIFICATIONS	Test Method
FCC 15.407:2012	ANSI C63.10:2009

COMMENTS

A 20 dB attenuator was used inline with the DC block in front of the spectrum analyzer. A SMA 60" extention was used for measurement. Voltage was varied from 110% to the operating end point voltage of 3.06VDC,1.12VDC. Extreme voltage test was performed on EUT s/n:02EA4F000063.

DEVIATIONS FROM TEST STANDARD

None

Configuration #	8	Signature

444-2251

Low Channel, 5150 MHz - 5250 MHz Band

Frequency Stability with Variation of DC Voltage (Ambient Temperature = 20°C)

Voltage (VDC)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
3.63, 1.32 (110%)	5180.000000	5179.959612	7.80	100
3.3, 1.2 (100%)	5180.000000	5179.968074	6.16	100
3.06, 1.12	5180.000000	5179.961780	7.38	100

Frequency Stability with Variation of Ambient Temperature (Primary Supply = 18 VDC]

Temp (°C)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
50	5180.000000	5179.975000	4.83	100
40	5180.000000	5179.967750	6.23	100
30	5180.000000	5179.968750	6.03	100
20	5180.000000	5179.975000	4.83	100
10	5180.000000	5179.983250	3.23	100
0	5180.000000	5179.989500	2.03	100
-10	5180.000000	5179.990250	1.88	100
-20	5180.000000	5179.981250	3.62	100
-30	5180.000000	5179.962750	7.19	100

High Channel, 5250 MHz - 5350 MHz Band

Frequency Stability with Variation of DC Voltage (Ambient Temperature = 20°C)

Voltage (VDC)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
3.63, 1.32 (110%)	5320.000000	5319.959032	7.70	100
3.3, 1.2 (100%)	5320.000000	5319.967730	6.07	100
3.06, 1.12	5320.000000	5319.961222	7.29	100

Frequency Stability with Variation of Ambient Temperature (Primary Supply = 18 VDC]

Temp (°C)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
50	5320.000000	5319.973750	4.93	n/a
40	5320.000000	5319.967000	6.20	100
30	5320.000000	5319.968250	5.97	100
20	5320.000000	5319.974500	4.79	100
10	5320.000000	5319.975500	4.61	100
0	5320.000000	5319.989000	2.07	100
-10	5320.000000	5319.989750	1.93	100
-20	5320.000000	5319.981750	3.43	100
-30	5320.000000	5319.961250	7.28	100

Low Channel, 5470 MHz - 5725 MHz Band

Frequency Stability with Variation of DC Voltage (Ambient Temperature = 20°C)

Voltage (VDC)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
3.63, 1.32 (110%)	5500.000000	5499.958273	7.59	100
3.3, 1.2 (100%)	5500.000000	5499.966465	6.10	100
3.06, 1.12	5500.000000	5499.959459	7.37	100

Frequency Stability with Variation of Ambient Temperature (Primary Supply = 18 VDC]

Temp (°C)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
50	5500.000000	5499.973500	4.82	100
40	5500.000000	5499.965750	6.23	100
30	5500.000000	5499.969500	5.55	100
20	5500.000000	5499.974750	4.59	100
10	5500.000000	5499.982000	3.27	100
0	5500.000000	5499.991750	1.50	100
-10	5500.000000	5499.989250	1.95	100
-20	5500.000000	5499.982250	3.23	100
-30	5500.000000	5499.963250	6.68	100

High Channel, 5470 MHz - 5725 MHz Band

Frequency Stability with Variation of DC Voltage (Ambient Temperature = 20°C)

Voltage (VDC)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
3.63, 1.32 (110%)	5700.000000	5699.956981	7.55	100
3.3, 1.2 (100%)	5700.000000	5699.965452	6.06	100
3.06, 1.12	5700.000000	5699.958034	7.36	100

Frequency Stability with Variation of Ambient Temperature (Primary Supply = 18 VDC)

Temp (°C)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
50	5700.000000	5699.972250	4.87	100
40	5700.000000	5699.964500	6.23	100
30	5700.000000	5699.968250	5.57	100
20	5700.000000	5699.975000	4.39	100
10	5700.000000	5699.984000	2.81	100
0	5700.000000	5699.991000	1.58	100
-10	5700.000000	5699.988750	1.97	100
-20	5700.000000	5699.980500	3.42	100
-30	5700.000000	5699.960500	6.93	100

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, 5180 MHz
High Ch. 48, 5240 MHz
Low Ch. 52, 5260 MHz
High Ch. 64, 5320 MHz
Low Ch. 100, 5500 MHz
Mid Ch. 116, 5580 MHz
High Ch. 140, 5700 MHz

MODES OF OPERATION

6 Mbps
18 Mbps
36 Mbps

POWER SETTINGS INVESTIGATED

110VAC/60Hz

CONFIGURATIONS INVESTIGATED

FOCU0169 - 2

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	40 GHz

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
5.47-5.725 Notch Filter	Micro-Tronics	BRC50704	HGI	10/4/2012	24 mo
5.725-5.875 Notch Filter	Micro-Tronics	BRC50705	HGJ	2/18/2014	24 mo
BP Filter	Micro-Tronics	BRC50703	HHJ	6/20/2013	36 mo
Spectrum Analyzer	Agilent	E4440A	AFD	7/5/2012	24 mo
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	24 mo
EV01 Cable	ESM Cable Corp.	TTBJ-141 KMKM-72	ECC	8/26/2013	12 mo
Antenna, Horn	EMCO	3115	AHF	10/6/2011	36 mo
LP Filter	Micro-Tronics	LPM50004	LFD	7/6/2012	24 mo
OC Cable	ESM Cable Corp.	KMKM-72	OCV	6/24/2013	12 mo
Pre-Amplifier	Miteq	JSW45-26004000-40-5P	AVR	6/24/2013	12 mo
Antenna, Horn	ETS Lindgren	3160-10	AIW	NCR	0 mo
Cable	ESM Cable Corp.	KMKM-72	EVY	9/10/2013	12 mo
Pre-Amplifier	Miteq	AMF-6F-18002650-25-10P	AVU	9/10/2013	12 mo
Antenna, Horn	ETS Lindgren	3160-09	AIV	NCR	0 mo
Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVD	2/18/2014	12 mo
Antenna, Horn	ETS	3160-08	AHV	NCR	0 mo
EV01 Cables	N/A	Standard Gain Horns Cables	EVF	2/18/2014	12 mo
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVC	2/18/2014	12 mo
Antenna, Horn	ETS	3160-07	AHU	NCR	0 mo
EV01 Cables	N/A	Double Ridge Horn Cables	EVB	2/18/2014	12 mo
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	2/18/2014	12 mo
Antenna, Horn	ETS	3115	AIZ	1/27/2014	36 mo
EV01 Cables	N/A	Bilog Cables	EVA	2/18/2014	12 mo
Pre-Amplifier	Miteq	AM-1616-1000	AOL	2/18/2014	12 mo
Antenna, Biconilog	EMCO	3141	AXG	4/10/2012	36 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.

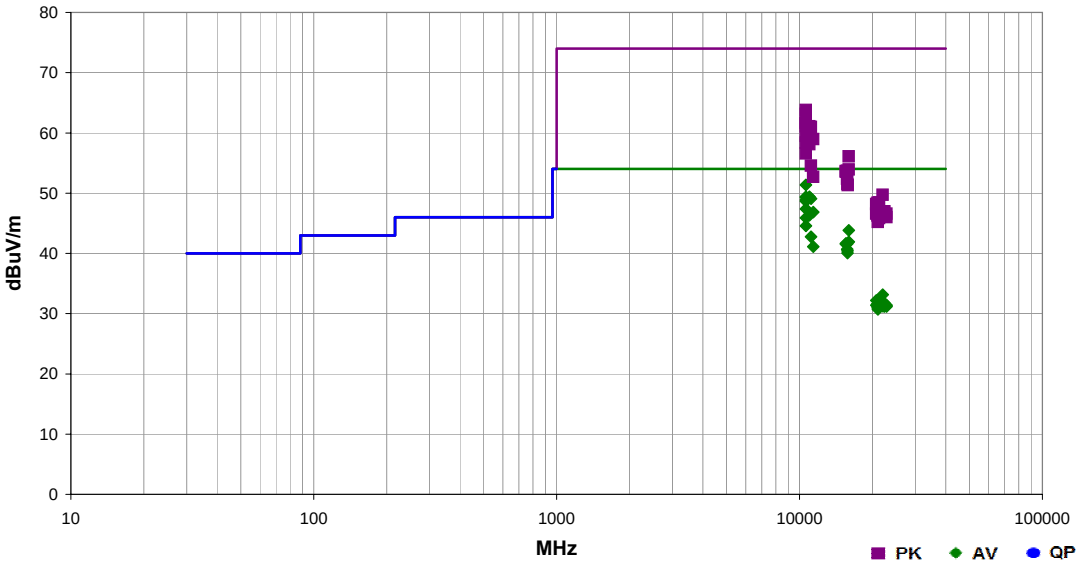
While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antenna in three orthogonal axis, and adjusting the measurement antenna height and polarization (per ANSI C63.10:2009). A preamp and high pass filter (and notch filter)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

SPURIOUS RADIATED EMISSIONS

Work Order:	FOCU0169	**Date:**	06/12/14		
Project:	None	**Temperature:**	24 °C		
Job Site:	EV01	**Humidity:**	40.1% RH		
Serial Number:	02EAF000061	**Barometric Pres.:**	1011.7 mbar	**Tested by:**	Brandon Hobbs
EUT:	444-2251				
Configuration:	2				
Customer:	Summit Semiconductor LLC				
Attendees:	None				
EUT Power:	110VAC/60Hz				
Operating Mode:	Tx				
Deviations:	None				
Comments:	Please Reference data comments for EUT orientation, Data Rate and frequency				

Test Specifications	**Test Method**
FCC 15.407:2014	ANSI C63.10:2009

Run #	30	**Test Distance (m)**	3	**Antenna Height(s)**	1-4m	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
10638.620	61.2	-9.8	1.0	327.0	3.0	0.0	Horz	AV	0.0	51.4	54.0	-2.6	Ch.64, 5320MHz, 6Mbps, EUT Vert
11000.880	58.0	-8.6	1.0	311.0	3.0	0.0	Horz	AV	0.0	49.4	54.0	-4.6	Ch.100, 5500MHz, 6Mbps, EUT Vert
10640.960	59.2	-9.8	1.2	245.0	3.0	0.0	Horz	AV	0.0	49.4	54.0	-4.6	Ch.64, 5320MHz, 6Mbps, EUT Horz
10638.620	59.1	-9.8	1.0	329.0	3.0	0.0	Horz	AV	0.0	49.3	54.0	-4.7	Ch.64, 5320MHz, 18Mbps, EUT Vert
11158.540	56.5	-7.4	1.0	313.0	3.0	0.0	Horz	AV	0.0	49.1	54.0	-4.9	Ch.116, 5580MHz, 6Mbps, EUT Vert
10641.040	58.7	-9.8	1.0	66.0	3.0	0.0	Vert	AV	0.0	48.9	54.0	-5.1	Ch.64, 5320MHz, 6Mbps, EUT On Side
10638.580	58.5	-9.8	1.0	329.0	3.0	0.0	Horz	AV	0.0	48.7	54.0	-5.3	Ch.64, 5320MHz, 36Mbps, EUT Vert
10640.960	57.2	-9.8	1.6	308.0	3.0	0.0	Vert	AV	0.0	47.4	54.0	-6.6	Ch.64, 5320MHz, 6Mbps, EUT Vert
11401.040	51.9	-5.1	1.0	311.0	3.0	0.0	Horz	AV	0.0	46.8	54.0	-7.2	Ch.140, 5700MHz, 6Mbps, EUT Vert
11001.040	54.9	-8.6	1.0	63.0	3.0	0.0	Vert	AV	0.0	46.3	54.0	-7.7	Ch.100, 5500MHz, 6Mbps, EUT On Side
10641.080	55.7	-9.8	1.2	326.0	3.0	0.0	Vert	AV	0.0	45.9	54.0	-8.1	Ch.64, 5320MHz, 6Mbps, EUT Horz
10638.670	54.4	-9.8	1.0	326.0	3.0	0.0	Horz	AV	0.0	44.6	54.0	-9.4	Ch.64, 5320MHz, 6Mbps, EUT On Side
15959.790	31.4	12.4	1.0	330.0	3.0	0.0	Horz	AV	0.0	43.8	54.0	-10.2	Ch.64, 5320MHz, 6Mbps, EUT Vert
10637.750	73.6	-9.8	1.0	327.0	3.0	0.0	Horz	PK	0.0	63.8	74.0	-10.2	Ch.64, 5320MHz, 6Mbps, EUT Vert
10638.380	73.0	-9.8	1.0	329.0	3.0	0.0	Horz	PK	0.0	63.2	74.0	-10.8	Ch.64, 5320MHz, 36Mbps, EUT Vert
11158.460	50.2	-7.4	1.0	41.0	3.0	0.0	Vert	AV	0.0	42.8	54.0	-11.2	Ch.116, 5580MHz, 6Mbps, EUT On Side
15960.040	29.5	12.4	1.0	12.0	3.0	0.0	Vert	AV	0.0	41.9	54.0	-12.1	Ch.64, 5320MHz, 6Mbps, EUT On Side
10637.880	71.5	-9.8	1.2	245.0	3.0	0.0	Horz	PK	0.0	61.7	74.0	-12.3	Ch.64, 5320MHz, 6Mbps, EUT Horz
15539.960	29.6	12.0	1.0	104.0	3.0	0.0	Vert	AV	0.0	41.6	54.0	-12.4	Ch.36, 5180MHz, 6Mbps, EUT On Side
15719.330	29.1	12.5	1.0	340.0	3.0	0.0	Horz	AV	0.0	41.6	54.0	-12.4	Ch.48, 5240MHz, 6Mbps, EUT Vert
10636.330	71.4	-9.8	1.0	329.0	3.0	0.0	Horz	PK	0.0	61.6	74.0	-12.4	Ch.64, 5320MHz, 18Mbps, EUT Vert
15539.920	29.5	12.0	1.0	45.0	3.0	0.0	Horz	AV	0.0	41.5	54.0	-12.5	Ch.36, 5180MHz, 6Mbps, EUT Vert
11401.040	46.2	-5.1	1.0	42.0	3.0	0.0	Vert	AV	0.0	41.1	54.0	-12.9	Ch.140, 5700MHz, 6Mbps, EUT On Side
10997.670	69.7	-8.6	1.0	311.0	3.0	0.0	Horz	PK	0.0	61.1	74.0	-12.9	Ch.100, 5500MHz, 6Mbps, EUT Vert
10637.790	70.9	-9.8	1.0	66.0	3.0	0.0	Vert	PK	0.0	61.1	74.0	-12.9	Ch.64, 5320MHz, 6Mbps, EUT On Side
11157.710	68.4	-7.4	1.0	313.0	3.0	0.0	Horz	PK	0.0	61.0	74.0	-13.0	Ch.116, 5580MHz, 6Mbps, EUT Vert
15719.920	28.2	12.5	1.0	104.0	3.0	0.0	Vert	AV	0.0	40.7	54.0	-13.3	Ch.48, 5240MHz, 6Mbps, EUT On Side
15779.830	27.9	12.5	1.0	109.0	3.0	0.0	Vert	AV	0.0	40.4	54.0	-13.6	Ch.52, 5260MHz, 6Mbps, EUT On Side
15779.920	27.5	12.5	1.0	320.0	3.0	0.0	Horz	AV	0.0	40.0	54.0	-14.0	Ch.52, 5260MHz, 6Mbps, EUT Vert
10637.750	69.3	-9.8	1.6	308.0	3.0	0.0	Vert	PK	0.0	59.5	74.0	-14.5	Ch.64, 5320MHz, 6Mbps, EUT Vert
11402.670	64.0	-5.0	1.0	311.0	3.0	0.0	Horz	PK	0.0	59.0	74.0	-15.0	Ch.140, 5700MHz, 6Mbps, EUT Vert
10639.620	68.2	-9.8	1.2	326.0	3.0	0.0	Vert	PK	0.0	58.4	74.0	-15.6	Ch.64, 5320MHz, 6Mbps, EUT Horz
10992.170	66.7	-8.6	1.0	63.0	3.0	0.0	Vert	PK	0.0	58.1	74.0	-15.9	Ch.100, 5500MHz, 6Mbps, EUT On Side
10632.170	66.4	-9.8	1.0	326.0	3.0	0.0	Horz	PK	0.0	56.6	74.0	-17.4	Ch.64, 5320MHz, 6Mbps, EUT On Side

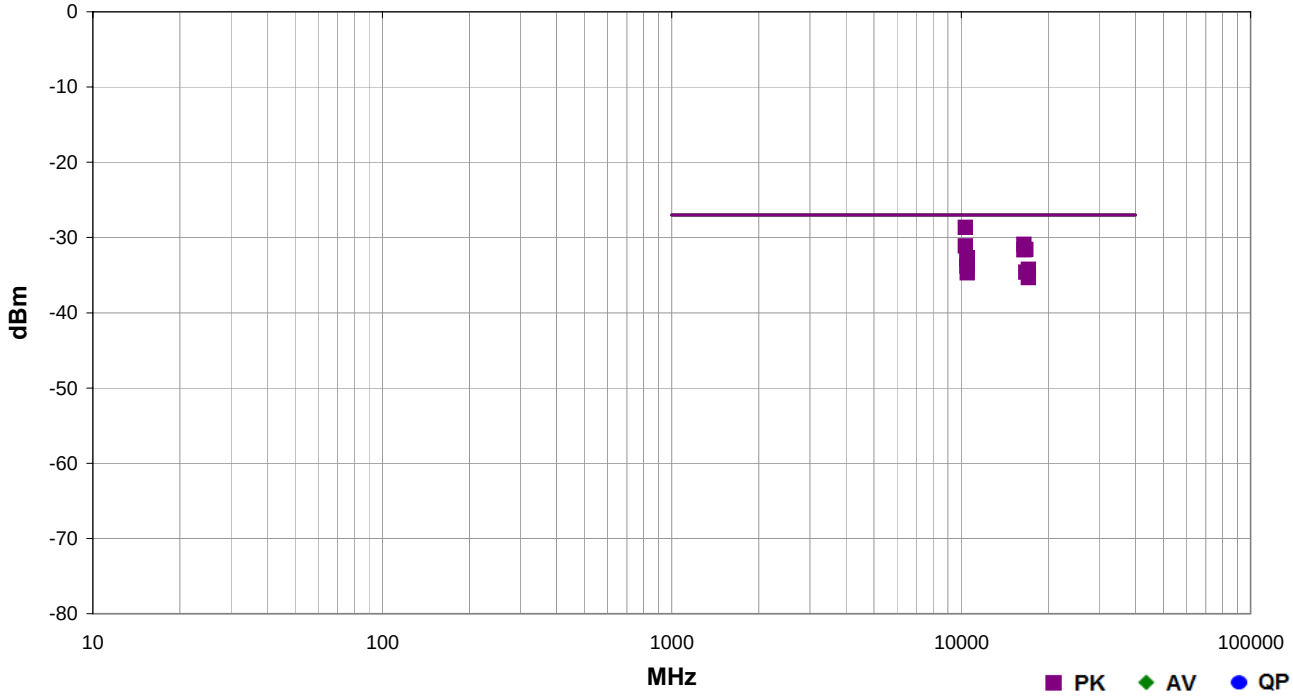
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
15962.670	43.7	12.4	1.0	330.0	3.0	0.0	Horz	PK	0.0	56.1	74.0	-17.9	Ch.64, 5320MHz, 6Mbps, EUT Vert
11155.580	62.0	-7.4	1.0	41.0	3.0	0.0	Vert	PK	0.0	54.6	74.0	-19.4	Ch.116, 5580MHz, 6Mbps, EUT On Side
15962.040	41.5	12.4	1.0	12.0	3.0	0.0	Vert	PK	0.0	53.9	74.0	-20.1	Ch.64, 5320MHz, 6Mbps, EUT On Side
15716.710	41.2	12.5	1.0	340.0	3.0	0.0	Horz	PK	0.0	53.7	74.0	-20.3	Ch.48, 5240MHz, 6Mbps, EUT Vert
15542.250	41.6	12.1	1.0	45.0	3.0	0.0	Horz	PK	0.0	53.7	74.0	-20.3	Ch.36, 5180MHz, 6Mbps, EUT Vert
15544.790	41.5	12.1	1.0	104.0	3.0	0.0	Vert	PK	0.0	53.6	74.0	-20.4	Ch.36, 5180MHz, 6Mbps, EUT On Side
22002.120	32.9	0.2	1.1	317.0	3.0	0.0	Horz	AV	0.0	33.1	54.0	-20.9	Ch.100, 5500MHz, 6Mbps, EUT Vert
11396.000	57.8	-5.1	1.0	42.0	3.0	0.0	Vert	PK	0.0	52.7	74.0	-21.3	Ch.140, 5700MHz, 6Mbps, EUT On Side
15717.040	39.9	12.5	1.0	104.0	3.0	0.0	Vert	PK	0.0	52.4	74.0	-21.6	Ch.48, 5240MHz, 6Mbps, EUT On Side
20722.330	32.7	-0.5	1.1	314.0	3.0	0.0	Horz	AV	0.0	32.2	54.0	-21.8	Ch.36, 5180MHz, 6Mbps, EUT Vert
22322.380	31.4	0.4	1.1	318.0	3.0	0.0	Horz	AV	0.0	31.8	54.0	-22.2	Ch.116, 5580MHz, 6Mbps, EUT Vert
21281.920	32.0	-0.2	1.1	317.0	3.0	0.0	Horz	AV	0.0	31.8	54.0	-22.2	Ch.64, 5320MHz, 6Mbps, EUT Vert
20962.170	32.0	-0.3	1.1	318.0	3.0	0.0	Horz	AV	0.0	31.7	54.0	-22.3	Ch.48, 5240MHz, 6Mbps, EUT Vert
21042.290	31.9	-0.3	1.1	318.0	3.0	0.0	Horz	AV	0.0	31.6	54.0	-22.4	Ch.52, 5260MHz, 6Mbps, EUT Vert
15769.000	39.0	12.6	1.0	320.0	3.0	0.0	Horz	PK	0.0	51.6	74.0	-22.4	Ch.52, 5260MHz, 6Mbps, EUT Vert
22802.250	31.0	0.4	1.1	319.0	3.0	0.0	Horz	AV	0.0	31.4	54.0	-22.6	Ch.140, 5700MHz, 6Mbps, EUT Vert
20728.790	31.9	-0.5	1.1	181.0	3.0	0.0	Vert	AV	0.0	31.4	54.0	-22.6	Ch.36, 5180MHz, 6Mbps, EUT On Side
15789.460	38.8	12.5	1.0	109.0	3.0	0.0	Vert	PK	0.0	51.3	74.0	-22.7	Ch.52, 5260MHz, 6Mbps, EUT On Side
22004.880	31.0	0.2	1.1	334.0	3.0	0.0	Vert	AV	0.0	31.2	54.0	-22.8	Ch.100, 5500MHz, 6Mbps, EUT On Side
22802.330	30.8	0.4	1.1	319.0	3.0	0.0	Vert	AV	0.0	31.2	54.0	-22.8	Ch.140, 5700MHz, 6Mbps, EUT On Side
22331.830	30.8	0.4	1.1	334.0	3.0	0.0	Vert	AV	0.0	31.2	54.0	-22.8	Ch.116, 5580MHz, 6Mbps, EUT On Side
21267.620	31.4	-0.2	1.1	170.0	3.0	0.0	Vert	AV	0.0	31.2	54.0	-22.8	Ch.64, 5320MHz, 6Mbps, EUT On Side
20957.540	31.3	-0.3	1.1	360.0	3.0	0.0	Vert	AV	0.0	31.0	54.0	-23.0	Ch.48, 5240MHz, 6Mbps, EUT On Side
21027.670	31.0	-0.3	1.1	170.0	3.0	0.0	Vert	AV	0.0	30.7	54.0	-23.3	Ch.52, 5260MHz, 6Mbps, EUT On Side
22012.290	49.5	0.2	1.1	317.0	3.0	0.0	Horz	PK	0.0	49.7	74.0	-24.3	Ch.100, 5500MHz, 6Mbps, EUT Vert
21282.920	48.7	-0.2	1.1	317.0	3.0	0.0	Horz	PK	0.0	48.5	74.0	-25.5	Ch.64, 5320MHz, 6Mbps, EUT Vert
20963.420	48.7	-0.3	1.1	318.0	3.0	0.0	Horz	PK	0.0	48.4	74.0	-25.6	Ch.48, 5240MHz, 6Mbps, EUT Vert
20715.290	48.7	-0.5	1.1	314.0	3.0	0.0	Horz	PK	0.0	48.2	74.0	-25.8	Ch.36, 5180MHz, 6Mbps, EUT Vert
21046.790	48.3	-0.3	1.1	318.0	3.0	0.0	Horz	PK	0.0	48.0	74.0	-26.0	Ch.52, 5260MHz, 6Mbps, EUT Vert
22324.620	46.6	0.4	1.1	334.0	3.0	0.0	Vert	PK	0.0	47.0	74.0	-27.0	Ch.116, 5580MHz, 6Mbps, EUT On Side
22317.710	46.6	0.4	1.1	318.0	3.0	0.0	Horz	PK	0.0	47.0	74.0	-27.0	Ch.116, 5580MHz, 6Mbps, EUT Vert
22799.250	46.2	0.4	1.1	319.0	3.0	0.0	Horz	PK	0.0	46.6	74.0	-27.4	Ch.140, 5700MHz, 6Mbps, EUT Vert
20726.120	47.1	-0.5	1.1	181.0	3.0	0.0	Vert	PK	0.0	46.6	74.0	-27.4	Ch.36, 5180MHz, 6Mbps, EUT On Side
20962.210	46.6	-0.3	1.1	360.0	3.0	0.0	Vert	PK	0.0	46.3	74.0	-27.7	Ch.48, 5240MHz, 6Mbps, EUT On Side
22003.210	46.0	0.2	1.1	334.0	3.0	0.0	Vert	PK	0.0	46.2	74.0	-27.8	Ch.100, 5500MHz, 6Mbps, EUT On Side
22789.120	45.6	0.4	1.1	319.0	3.0	0.0	Vert	PK	0.0	46.0	74.0	-28.0	Ch.140, 5700MHz, 6Mbps, EUT On Side
21291.500	46.1	-0.2	1.1	170.0	3.0	0.0	Vert	PK	0.0	45.9	74.0	-28.1	Ch.64, 5320MHz, 6Mbps, EUT On Side
21038.330	45.5	-0.3	1.1	170.0	3.0	0.0	Vert	PK	0.0	45.2	74.0	-28.8	Ch.52, 5260MHz, 6Mbps, EUT On Side

SPURIOUS RADIATED EMISSIONS

Work Order:	FOCU0169	**Date:**	06/12/14		
Project:	None	**Temperature:**	24 °C		
Job Site:	EV01	**Humidity:**	40.1% RH		
Serial Number:	02EAF000061	**Barometric Pres.:**	1011.7 mbar	**Tested by:**	Brandon Hobbs
EUT:	444-2251				
Configuration:	2				
Customer:	Summit Semiconductor LLC				
Attendees:	None				
EUT Power:	110VAC/60Hz				
Operating Mode:	Tx				
Deviations:	None				
Comments:	Please Reference data comments for EUT orientation, Data Rate and frequency				

Test Specifications	**Test Method**
FCC 15.407:2014	ANSI C63.10:2009

Run #	32	**Test Distance (m)**	3	**Antenna Height(s)**	1-4m	**Results**	Pass



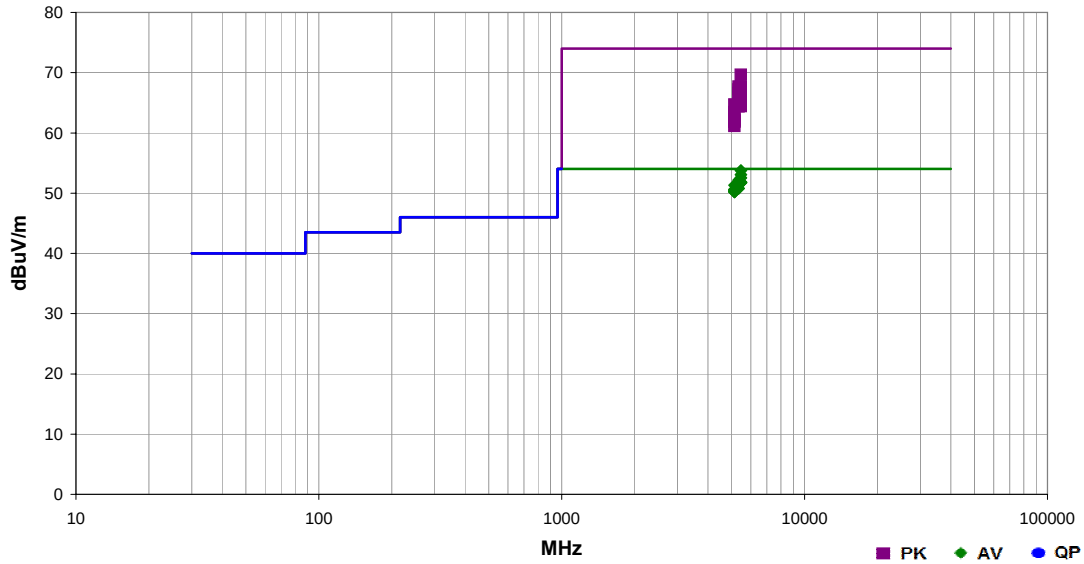
	Freq (MHz)	Antenna Height (meters)	Azimuth (degrees)	Polarity/ Transducer Type	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
	10360.920	1.0	330.0	Horz	PK	1.36E-06	-28.7	-27.0	-1.7	Ch.36, 5180MHz, 6Mbps, EUT Vert
	16507.120	1.0	339.0	Horz	PK	8.07E-07	-30.9	-27.0	-3.9	Ch.100, 5500MHz, 6Mbps, EUT Vert
	10361.170	1.0	320.0	Vert	PK	7.67E-07	-31.1	-27.0	-4.1	Ch.36, 5180MHz, 6Mbps, EUT On Side
	16744.380	1.0	341.0	Horz	PK	6.89E-07	-31.6	-27.0	-4.6	Ch.116, 5580MHz, 6Mbps, EUT Vert
	16499.250	1.6	304.0	Vert	PK	6.87E-07	-31.6	-27.0	-4.6	Ch.100, 5500MHz, 6Mbps, EUT On Side
	10517.790	1.0	330.0	Horz	PK	5.37E-07	-32.7	-27.0	-5.7	Ch.52, 5260MHz, 6Mbps, EUT Vert
	10477.790	1.0	330.0	Horz	PK	5.23E-07	-32.8	-27.0	-5.8	Ch.48, 5240MHz, 6Mbps, EUT Vert
	10477.880	1.0	314.0	Vert	PK	4.15E-07	-33.8	-27.0	-6.8	Ch.48, 5240MHz, 6Mbps, EUT On Side
	17102.250	1.1	17.0	Vert	PK	3.76E-07	-34.3	-27.0	-7.3	Ch.140, 5700MHz, 6Mbps, EUT On Side
	16741.830	1.1	17.0	Vert	PK	3.45E-07	-34.6	-27.0	-7.6	Ch.116, 5580MHz, 6Mbps, EUT On Side
	10517.710	1.0	314.0	Vert	PK	3.39E-07	-34.7	-27.0	-7.7	Ch.52, 5260MHz, 6Mbps, EUT On Side
	17101.920	1.0	347.0	Horz	PK	2.92E-07	-35.4	-27.0	-8.4	Ch.140, 5700MHz, 6Mbps, EUT Vert

SPURIOUS RADIATED EMISSIONS

Work Order:	FOCU0169	**Date:**	06/12/14		
Project:	None	**Temperature:**	21.6 °C		
Job Site:	EV01	**Humidity:**	42.8% RH		
Serial Number:	02EAF000061	**Barometric Pres.:**	1012 mbar	**Tested by:**	Brandon Hobbs
EUT:	444-2251				
Configuration:	2				
Customer:	Summit Semiconductor LLC				
Attendees:	None				
EUT Power:	110VAC/60Hz				
Operating Mode:	Tx				
Deviations:	None				
Comments:	Please Reference data comments for EUT orientation, Data Rate and frequency				

Test Specifications	**Test Method**
FCC 15.407:2014	ANSI C63.10:2009

Run #	49	**Test Distance (m)**	1	**Antenna Height(s)**	1-4m	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
5469.487	24.8	38.5	1.1	266.0	1.0	0.0	Horz	AV	-9.5	53.8	54.0	-0.2	Ch.100, 5500MHz, 36Mbps, EUT Vert
5469.987	24.1	38.5	1.1	266.0	1.0	0.0	Horz	AV	-9.5	53.1	54.0	-0.9	Ch.100, 5500MHz, 6Mbps, EUT Vert
5469.743	23.6	38.5	1.1	266.0	1.0	0.0	Horz	AV	-9.5	52.6	54.0	-1.4	Ch.100, 5500MHz, 18Mbps, EUT Vert
5350.023	23.5	38.2	1.1	168.0	1.0	0.0	Vert	AV	-9.5	52.2	54.0	-1.8	Ch.64, 5320MHz, 18Mbps, EUT On Side
5469.840	22.9	38.5	1.1	148.0	1.0	0.0	Vert	AV	-9.5	51.9	54.0	-2.1	Ch.100, 5500MHz, 6Mbps, EUT On Side
5350.053	23.1	38.2	1.1	140.0	1.0	0.0	Horz	AV	-9.5	51.8	54.0	-2.2	Ch.64, 5320MHz, 6Mbps, EUT Vert
5469.923	22.8	38.5	1.1	148.0	1.0	0.0	Vert	AV	-9.5	51.8	54.0	-2.2	Ch.100, 5500MHz, 36Mbps, EUT On Side
5469.953	22.8	38.5	1.1	65.0	1.0	0.0	Horz	AV	-9.5	51.8	54.0	-2.2	Ch.100, 5500MHz, 6Mbps, EUT Vert
5469.897	22.8	38.5	1.1	148.0	1.0	0.0	Vert	AV	-9.5	51.8	54.0	-2.2	Ch.100, 5500MHz, 18Mbps, EUT On Side
5350.053	22.9	38.2	1.1	168.0	1.0	0.0	Vert	AV	-9.5	51.6	54.0	-2.4	Ch.64, 5320MHz, 6Mbps, EUT On Side
5350.060	22.8	38.2	1.1	140.0	1.0	0.0	Horz	AV	-9.5	51.5	54.0	-2.5	Ch.64, 5320MHz, 18Mbps, EUT Vert
5350.147	22.7	38.2	1.1	140.0	1.0	0.0	Horz	AV	-9.5	51.4	54.0	-2.6	Ch.64, 5320MHz, 36Mbps, EUT Vert
5149.883	23.0	37.9	1.1	142.0	1.0	0.0	Horz	AV	-9.5	51.3	54.0	-2.7	Ch.36, 5180MHz, 6Mbps, EUT Vert
5350.160	22.1	38.2	1.1	168.0	1.0	0.0	Vert	AV	-9.5	50.8	54.0	-3.2	Ch.64, 5320MHz, 36Mbps, EUT On Side
5148.190	22.3	37.9	1.1	144.0	1.0	0.0	Horz	AV	-9.5	50.6	54.0	-3.4	Ch.36, 5180MHz, 36Mbps, EUT Vert
5149.903	22.2	37.9	1.1	132.0	1.0	0.0	Vert	AV	-9.5	50.5	54.0	-3.5	Ch.36, 5180MHz, 6Mbps, EUT On Side
5149.770	22.2	37.9	1.1	85.0	1.0	0.0	Vert	AV	-9.5	50.5	54.0	-3.5	Ch.36, 5180MHz, 6Mbps, EUT Horz
5149.987	22.0	37.9	1.1	195.0	1.0	0.0	Horz	AV	-9.5	50.3	54.0	-3.7	Ch.36, 5180MHz, 6Mbps, EUT On Side
5149.957	22.0	37.9	1.1	277.0	1.0	0.0	Horz	AV	-9.5	50.3	54.0	-3.7	Ch.36, 5180MHz, 6Mbps, EUT Horz
5148.410	21.9	37.9	1.1	97.0	1.0	0.0	Vert	AV	-9.5	50.2	54.0	-3.8	Ch.36, 5180MHz, 6Mbps, EUT Vert
5148.207	21.9	37.9	1.1	144.0	1.0	0.0	Horz	AV	-9.5	50.2	54.0	-3.8	Ch.36, 5180MHz, 18Mbps, EUT Vert
5469.923	40.7	38.5	1.1	266.0	1.0	0.0	Horz	PK	-9.5	69.7	74.0	-4.3	Ch.100, 5500MHz, 6Mbps, EUT Vert
5350.670	39.0	38.2	1.1	140.0	1.0	0.0	Horz	PK	-9.5	67.7	74.0	-6.3	Ch.64, 5320MHz, 36Mbps, EUT Vert
5468.387	38.6	38.5	1.1	266.0	1.0	0.0	Horz	PK	-9.5	67.6	74.0	-6.4	Ch.100, 5500MHz, 18Mbps, EUT Vert
5350.000	38.5	38.2	1.1	140.0	1.0	0.0	Horz	PK	-9.5	67.2	74.0	-6.8	Ch.64, 5320MHz, 6Mbps, EUT Vert
5350.140	37.9	38.2	1.1	168.0	1.0	0.0	Vert	PK	-9.5	66.6	74.0	-7.4	Ch.64, 5320MHz, 6Mbps, EUT On Side
5469.663	37.1	38.5	1.1	266.0	1.0	0.0	Horz	PK	-9.5	66.1	74.0	-7.9	Ch.100, 5500MHz, 36Mbps, EUT Vert
5350.600	37.2	38.2	1.1	140.0	1.0	0.0	Horz	PK	-9.5	65.9	74.0	-8.1	Ch.64, 5320MHz, 18Mbps, EUT Vert
5469.350	36.2	38.5	1.1	148.0	1.0	0.0	Vert	PK	-9.5	65.2	74.0	-8.8	Ch.100, 5500MHz, 36Mbps, EUT On Side
5350.497	36.3	38.2	1.1	168.0	1.0	0.0	Vert	PK	-9.5	65.0	74.0	-9.0	Ch.64, 5320MHz, 36Mbps, EUT On Side
5468.450	36.0	38.5	1.1	65.0	1.0	0.0	Horz	PK	-9.5	65.0	74.0	-9.0	Ch.100, 5500MHz, 6Mbps, EUT Vert
5148.593	36.4	37.9	1.1	142.0	1.0	0.0	Horz	PK	-9.5	64.7	74.0	-9.3	Ch.36, 5180MHz, 6Mbps, EUT Vert
5469.397	35.6	38.5	1.1	148.0	1.0	0.0	Vert	PK	-9.5	64.6	74.0	-9.4	Ch.100, 5500MHz, 18Mbps, EUT On Side
5469.113	35.5	38.5	1.1	148.0	1.0	0.0	Vert	PK	-9.5	64.5	74.0	-9.5	Ch.100, 5500MHz, 6Mbps, EUT On Side

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
5350.270	35.7	38.2	1.1	168.0	1.0	0.0	Vert	PK	-9.5	64.4	74.0	-9.6	Ch.64, 5320MHz, 18Mbps, EUT On Side
5149.640	35.1	37.9	1.1	144.0	1.0	0.0	Horz	PK	-9.5	63.4	74.0	-10.6	Ch.36, 5180MHz, 36Mbps, EUT Vert
5149.227	34.6	37.9	1.1	132.0	1.0	0.0	Vert	PK	-9.5	62.9	74.0	-11.1	Ch.36, 5180MHz, 6Mbps, EUT On Side
5149.353	33.9	37.9	1.1	97.0	1.0	0.0	Vert	PK	-9.5	62.2	74.0	-11.8	Ch.36, 5180MHz, 6Mbps, EUT Vert
5149.277	33.7	37.9	1.1	85.0	1.0	0.0	Vert	PK	-9.5	62.0	74.0	-12.0	Ch.36, 5180MHz, 6Mbps, EUT Horz
5148.710	33.6	37.9	1.1	195.0	1.0	0.0	Horz	PK	-9.5	61.9	74.0	-12.1	Ch.36, 5180MHz, 6Mbps, EUT On Side
5148.097	33.5	37.9	1.1	277.0	1.0	0.0	Horz	PK	-9.5	61.8	74.0	-12.2	Ch.36, 5180MHz, 6Mbps, EUT Horz
5148.790	32.8	37.9	1.1	144.0	1.0	0.0	Horz	PK	-9.5	61.1	74.0	-12.9	Ch.36, 5180MHz, 18Mbps, EUT Vert

POWERLINE CONDUCTED EMISSIONS

TEST DESCRIPTION

Using the mode of operation and configuration noted within this report, conducted emissions tests were performed. The frequency range investigated (scanned), is also noted in this report. Conducted power line measurements are made, unless otherwise specified, over the frequency range from 150 kHz to 30 MHz to determine the line-to-ground radio-noise voltage that is conducted from the EUT power-input terminals that are directly (or indirectly via separate transformer or power supplies) connected to a public power network. Equipment is tested with power cords that are normally used or that have electrical or shielding characteristics that are the same as those cords normally used. Typically those measurements are made using a LISN (Line Impedance Stabilization Network), the 50 Ω measuring port is terminated by a 50 Ω EMI meter or a 50 Ω resistive load. All 50 Ω measuring ports of the LISN are terminated by 50Ω.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
EV07 Cables	N/A	Conducted Cables	EVG	03/07/2014	12 mo
Attenuator	Fairview Microwave	SA6B10W-20	RKA	10/24/2013	12 mo
High Pass Filter	TTE	H97-100K-50-720B	HHD	01/22/2014	12 mo
Receiver	Rohde & Schwarz	ESCI	ARH	02/05/2014	12 mo
DC Power Supply	Topward	TPS-2000	TPD	NCR	0 mo
LISN	Solar	9252-50-R-24-BNC	LIP	02/16/2014	12 mo
LISN	Solar	9252-50-R-24-BNC	LIR	10/09/2013	12 mo

MEASUREMENT UNCERTAINTY

Description		
Expanded k=2	2.94 dB	-2.94 dB

CONFIGURATIONS INVESTIGATED

FOCU0169-3

MODES INVESTIGATED

Tx 6Mbps High Channel 140, 5700MHz
Tx 6Mbps High Channel 48, 5240MHz
Tx 6Mbps High Channel 64, 5320MHz
Tx 6Mbps Low Channel 100, 5500MHz
Tx 6Mbps Low Channel 36, 5180MHz
Tx 6Mbps Low Channel 52, 5260MHz
Tx 6Mbps Mid Channel 116, 5580MHz

POWERLINE CONDUCTED EMISSIONS

EUT:	444-2251	Work Order:	FOCU0169
Serial Number:	02EAF000061	Date:	06/11/2014
Customer:	Summit Semiconductor LLC	Temperature:	24.1°C
Attendees:	None	Relative Humidity:	42.9%
Customer Project:	None	Bar. Pressure:	1012.3 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	FOCU0169-3

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	1	Line:	High Line	Ext. Attenuation (dB):	20

COMMENTS

None

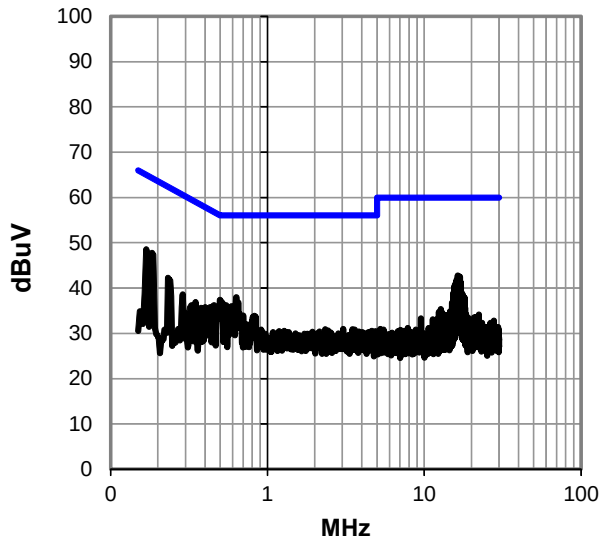
EUT OPERATING MODES

Tx 6Mbps Low Channel 36, 5180MHz

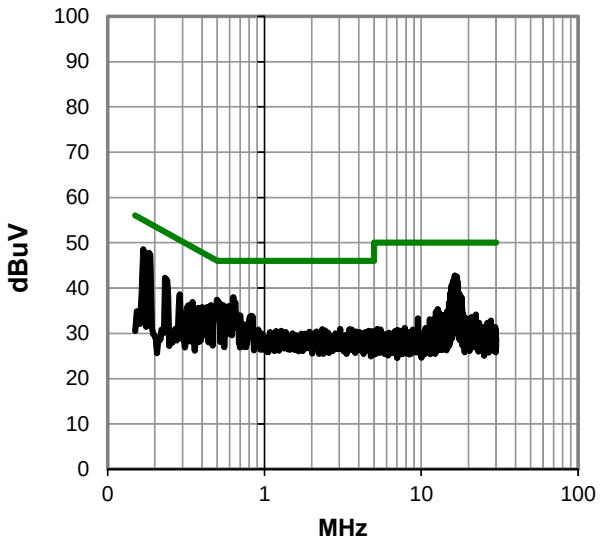
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #1

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.169	28.8	19.7	48.5	65.0	-16.5
0.184	28.0	19.7	47.7	64.3	-16.6
16.368	23.2	19.6	42.8	60.0	-17.2
16.629	23.0	19.6	42.6	60.0	-17.4
16.897	22.9	19.6	42.5	60.0	-17.5
0.631	18.2	19.8	38.0	56.0	-18.0
16.103	22.2	19.6	41.8	60.0	-18.2
0.497	17.6	19.8	37.4	56.1	-18.7
17.062	21.7	19.6	41.3	60.0	-18.7
16.991	21.7	19.6	41.3	60.0	-18.7
15.845	21.4	19.6	41.0	60.0	-19.0
17.036	21.3	19.6	40.9	60.0	-19.1
0.654	17.0	19.8	36.8	56.0	-19.2
17.166	20.9	19.6	40.5	60.0	-19.5
15.577	20.8	19.6	40.4	60.0	-19.6
15.980	20.7	19.6	40.3	60.0	-19.7
0.545	16.4	19.8	36.2	56.0	-19.8
15.935	20.4	19.6	40.0	60.0	-20.0
0.590	16.2	19.8	36.0	56.0	-20.0
0.616	16.2	19.8	36.0	56.0	-20.0
0.232	22.5	19.7	42.2	62.4	-20.1
0.564	15.7	19.8	35.5	56.0	-20.5
0.456	16.4	19.8	36.2	56.8	-20.6
17.427	19.3	19.6	38.9	60.0	-21.1
15.316	19.3	19.6	38.9	60.0	-21.1
0.430	16.0	19.8	35.8	57.3	-21.5

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.169	28.8	19.7	48.5	55.0	-6.5
0.184	28.0	19.7	47.7	54.3	-6.6
16.368	23.2	19.6	42.8	50.0	-7.2
16.629	23.0	19.6	42.6	50.0	-7.4
16.897	22.9	19.6	42.5	50.0	-7.5
0.631	18.2	19.8	38.0	46.0	-8.0
16.103	22.2	19.6	41.8	50.0	-8.2
0.497	17.6	19.8	37.4	46.1	-8.7
17.062	21.7	19.6	41.3	50.0	-8.7
16.991	21.7	19.6	41.3	50.0	-8.7
15.845	21.4	19.6	41.0	50.0	-9.0
17.036	21.3	19.6	40.9	50.0	-9.1
0.654	17.0	19.8	36.8	46.0	-9.2
17.166	20.9	19.6	40.5	50.0	-9.5
15.577	20.8	19.6	40.4	50.0	-9.6
15.980	20.7	19.6	40.3	50.0	-9.7
0.545	16.4	19.8	36.2	46.0	-9.8
15.935	20.4	19.6	40.0	50.0	-10.0
0.590	16.2	19.8	36.0	46.0	-10.0
0.616	16.2	19.8	36.0	46.0	-10.0
0.232	22.5	19.7	42.2	52.4	-10.1
0.564	15.7	19.8	35.5	46.0	-10.5
0.456	16.4	19.8	36.2	46.8	-10.6
17.427	19.3	19.6	38.9	50.0	-11.1
15.316	19.3	19.6	38.9	50.0	-11.1
0.430	16.0	19.8	35.8	47.3	-11.5

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

WTD.2013.07.23, PSA-ESCI 2014.04.28, EmiR5 2014.02.04

EUT:	444-2251	Work Order:	FOCU0169
Serial Number:	02EAF000061	Date:	06/11/2014
Customer:	Summit Semiconductor LLC	Temperature:	24.1°C
Attendees:	None	Relative Humidity:	42.9%
Customer Project:	None	Bar. Pressure:	1012.3 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	FOCU0169-3

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	2	Line:	Neutral	Ext. Attenuation (dB):	20

COMMENTS

None

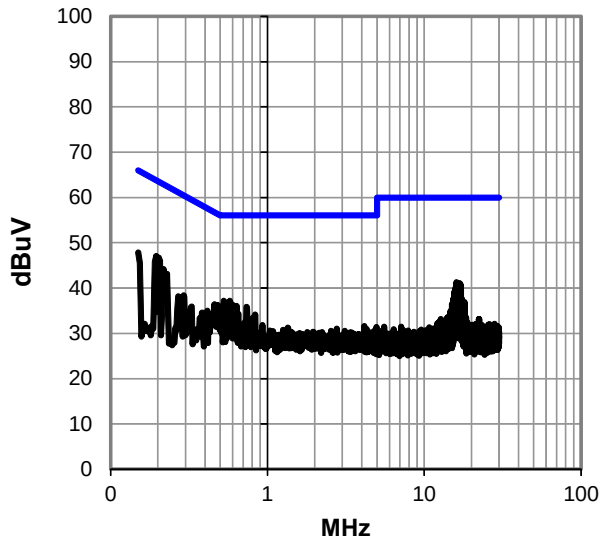
EUT OPERATING MODES

Tx 6Mbps Low Channel 36, 5180MHz

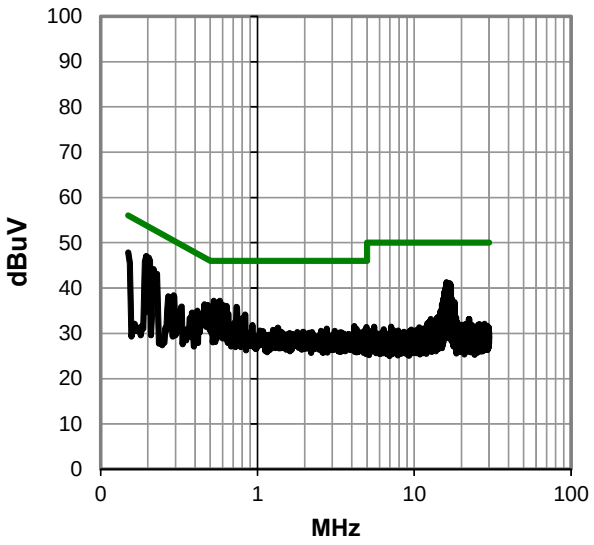
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #2

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.202	27.0	19.7	46.7	63.5	-16.8
0.195	27.3	19.7	47.0	63.8	-16.8
0.150	28.2	19.6	47.8	66.0	-18.2
16.088	21.7	19.6	41.3	60.0	-18.7
0.217	24.4	19.7	44.1	62.9	-18.8
0.527	17.4	19.8	37.2	56.0	-18.8
0.575	17.4	19.8	37.2	56.0	-18.8
16.883	21.5	19.6	41.1	60.0	-18.9
16.614	21.4	19.6	41.0	60.0	-19.0
17.039	21.3	19.6	40.9	60.0	-19.1
16.360	21.0	19.6	40.6	60.0	-19.4
17.147	20.9	19.6	40.5	60.0	-19.5
0.594	16.6	19.8	36.4	56.0	-19.6
0.616	16.3	19.8	36.1	56.0	-19.9
0.635	16.3	19.8	36.1	56.0	-19.9
16.983	20.4	19.6	40.0	60.0	-20.0
0.482	16.5	19.8	36.3	56.3	-20.0
15.827	20.4	19.6	40.0	60.0	-20.0
0.736	16.1	19.8	35.9	56.0	-20.1
0.460	16.6	19.8	36.4	56.7	-20.3
15.972	19.7	19.6	39.3	60.0	-20.7
15.558	19.5	19.6	39.1	60.0	-20.9
0.512	15.0	19.8	34.8	56.0	-21.2
15.916	19.1	19.6	38.7	60.0	-21.3
0.650	14.5	19.8	34.3	56.0	-21.7
0.833	14.4	19.7	34.1	56.0	-21.9

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.202	27.0	19.7	46.7	53.5	-6.8
0.195	27.3	19.7	47.0	53.8	-6.8
0.150	28.2	19.6	47.8	56.0	-8.2
16.088	21.7	19.6	41.3	50.0	-8.7
0.217	24.4	19.7	44.1	52.9	-8.8
0.527	17.4	19.8	37.2	46.0	-8.8
0.575	17.4	19.8	37.2	46.0	-8.8
16.883	21.5	19.6	41.1	50.0	-8.9
16.614	21.4	19.6	41.0	50.0	-9.0
17.039	21.3	19.6	40.9	50.0	-9.1
16.360	21.0	19.6	40.6	50.0	-9.4
17.147	20.9	19.6	40.5	50.0	-9.5
0.594	16.6	19.8	36.4	46.0	-9.6
0.616	16.3	19.8	36.1	46.0	-9.9
0.635	16.3	19.8	36.1	46.0	-9.9
16.983	20.4	19.6	40.0	50.0	-10.0
0.482	16.5	19.8	36.3	46.3	-10.0
15.827	20.4	19.6	40.0	50.0	-10.0
0.736	16.1	19.8	35.9	46.0	-10.1
0.460	16.6	19.8	36.4	46.7	-10.3
15.972	19.7	19.6	39.3	50.0	-10.7
15.558	19.5	19.6	39.1	50.0	-10.9
0.512	15.0	19.8	34.8	46.0	-11.2
15.916	19.1	19.6	38.7	50.0	-11.3
0.650	14.5	19.8	34.3	46.0	-11.7
0.833	14.4	19.7	34.1	46.0	-11.9

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

WTD.2013.07.23, PSA-ESCI 2014.04.28, EmiR5 2014.02.04

EUT:	444-2251	Work Order:	FOCU0169
Serial Number:	02EAF000061	Date:	06/11/2014
Customer:	Summit Semiconductor LLC	Temperature:	24.1°C
Attendees:	None	Relative Humidity:	42.9%
Customer Project:	None	Bar. Pressure:	1012.3 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	FOCU0169-3

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	3	Line:	High Line	Ext. Attenuation (dB):	20

COMMENTS

None

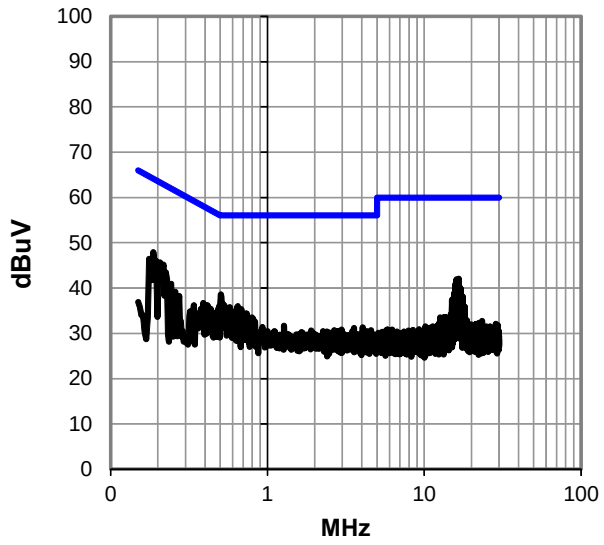
EUT OPERATING MODES

Tx 6Mbps High Channel 48, 5240MHz

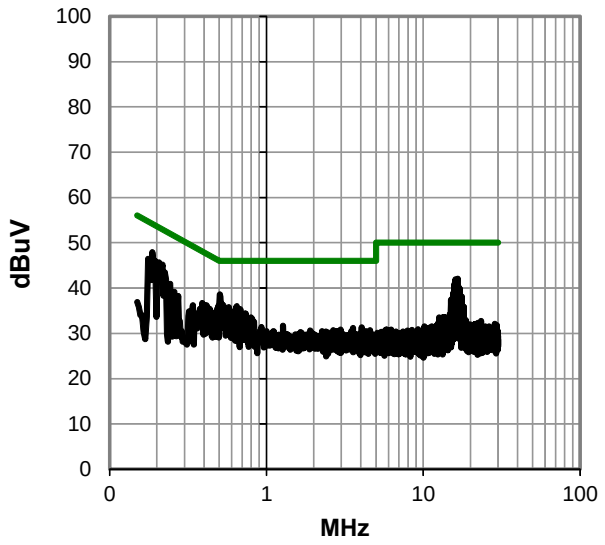
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #3

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.187	28.2	19.7	47.9	64.2	-16.2
0.504	18.8	19.8	38.6	56.0	-17.4
0.206	25.9	19.7	45.6	63.4	-17.7
16.603	22.5	19.6	42.1	60.0	-17.9
16.073	22.3	19.6	41.9	60.0	-18.1
0.176	26.7	19.7	46.4	64.7	-18.2
16.334	21.9	19.6	41.5	60.0	-18.5
0.225	23.7	19.7	43.4	62.6	-19.2
15.808	21.2	19.6	40.8	60.0	-19.2
16.856	20.6	19.6	40.2	60.0	-19.8
0.531	16.4	19.8	36.2	56.0	-19.8
0.646	16.2	19.8	36.0	56.0	-20.0
0.493	16.2	19.8	36.0	56.1	-20.1
17.125	20.2	19.6	39.8	60.0	-20.2
16.983	20.2	19.6	39.8	60.0	-20.2
0.575	16.0	19.8	35.8	56.0	-20.2
16.939	19.8	19.6	39.4	60.0	-20.6
0.680	15.6	19.8	35.4	56.0	-20.6
0.657	15.4	19.8	35.2	56.0	-20.8
16.017	19.5	19.6	39.1	60.0	-20.9
0.243	21.2	19.7	40.9	62.0	-21.0
15.543	19.3	19.6	38.9	60.0	-21.1
0.616	15.0	19.8	34.8	56.0	-21.2
0.415	16.4	19.8	36.2	57.5	-21.3
0.389	16.9	19.8	36.7	58.1	-21.4
17.084	19.0	19.6	38.6	60.0	-21.4

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.187	28.2	19.7	47.9	54.2	-6.2
0.504	18.8	19.8	38.6	46.0	-7.4
0.206	25.9	19.7	45.6	53.4	-7.7
16.603	22.5	19.6	42.1	50.0	-7.9
16.073	22.3	19.6	41.9	50.0	-8.1
0.176	26.7	19.7	46.4	54.7	-8.2
16.334	21.9	19.6	41.5	50.0	-8.5
0.225	23.7	19.7	43.4	52.6	-9.2
15.808	21.2	19.6	40.8	50.0	-9.2
16.856	20.6	19.6	40.2	50.0	-9.8
0.531	16.4	19.8	36.2	46.0	-9.8
0.646	16.2	19.8	36.0	46.0	-10.0
0.493	16.2	19.8	36.0	46.1	-10.1
17.125	20.2	19.6	39.8	50.0	-10.2
16.983	20.2	19.6	39.8	50.0	-10.2
0.575	16.0	19.8	35.8	46.0	-10.2
16.939	19.8	19.6	39.4	50.0	-10.6
0.680	15.6	19.8	35.4	46.0	-10.6
0.657	15.4	19.8	35.2	46.0	-10.8
16.017	19.5	19.6	39.1	50.0	-10.9
0.243	21.2	19.7	40.9	52.0	-11.0
15.543	19.3	19.6	38.9	50.0	-11.1
0.616	15.0	19.8	34.8	46.0	-11.2
0.415	16.4	19.8	36.2	47.5	-11.3
0.389	16.9	19.8	36.7	48.1	-11.4
17.084	19.0	19.6	38.6	50.0	-11.4

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	444-2251	Work Order:	FOCU0169
Serial Number:	02EAF000061	Date:	06/11/2014
Customer:	Summit Semiconductor LLC	Temperature:	24.1°C
Attendees:	None	Relative Humidity:	42.9%
Customer Project:	None	Bar. Pressure:	1012.3 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	FOCU0169-3

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	4	Line:	Neutral	Ext. Attenuation (dB):	20

COMMENTS

None

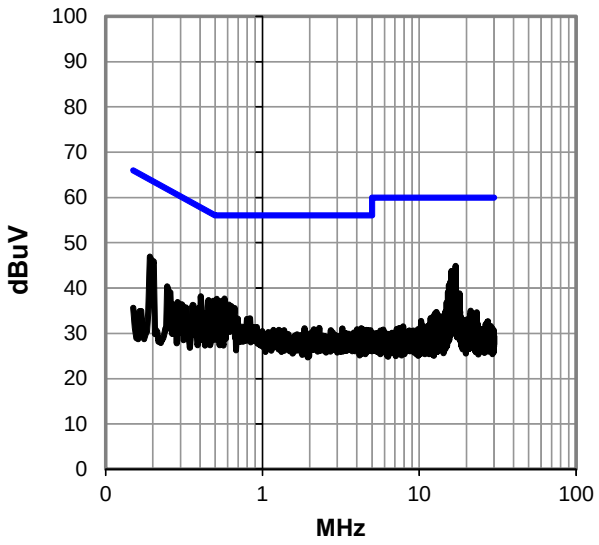
EUT OPERATING MODES

Tx 6Mbps High Channel 48, 5240MHz

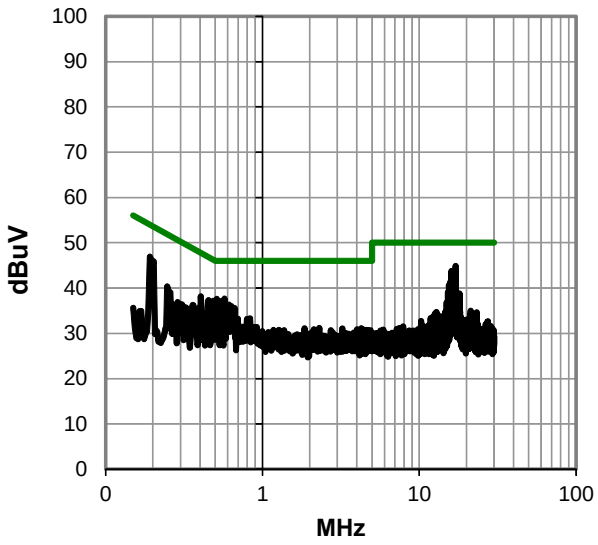
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #4

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
17.088	25.3	19.6	44.9	60.0	-15.1
16.039	24.2	19.6	43.8	60.0	-16.2
16.301	24.1	19.6	43.7	60.0	-16.3
0.191	27.2	19.7	46.9	64.0	-17.1
16.562	22.9	19.6	42.5	60.0	-17.5
16.827	22.5	19.6	42.1	60.0	-17.9
0.572	17.9	19.8	37.7	56.0	-18.3
0.512	17.8	19.8	37.6	56.0	-18.4
16.994	21.9	19.6	41.5	60.0	-18.5
15.771	21.7	19.6	41.3	60.0	-18.7
0.545	17.3	19.8	37.1	56.0	-18.9
0.486	17.4	19.8	37.2	56.2	-19.0
0.527	16.9	19.8	36.7	56.0	-19.3
15.510	21.1	19.6	40.7	60.0	-19.3
0.452	17.5	19.8	37.3	56.8	-19.5
0.404	18.4	19.8	38.2	57.8	-19.6
0.613	16.6	19.8	36.4	56.0	-19.6
0.635	16.2	19.8	36.0	56.0	-20.0
15.954	20.1	19.6	39.7	60.0	-20.3
0.665	15.8	19.8	35.6	56.0	-20.4
15.248	19.5	19.6	39.1	60.0	-20.9
17.353	19.4	19.6	39.0	60.0	-21.0
0.598	15.2	19.8	35.0	56.0	-21.0
18.058	19.2	19.6	38.8	60.0	-21.2
0.247	20.6	19.7	40.3	61.9	-21.5
17.069	18.2	19.6	37.8	60.0	-22.2

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
17.088	25.3	19.6	44.9	50.0	-5.1
16.039	24.2	19.6	43.8	50.0	-6.2
16.301	24.1	19.6	43.7	50.0	-6.3
0.191	27.2	19.7	46.9	54.0	-7.1
16.562	22.9	19.6	42.5	50.0	-7.5
16.827	22.5	19.6	42.1	50.0	-7.9
0.572	17.9	19.8	37.7	46.0	-8.3
0.512	17.8	19.8	37.6	46.0	-8.4
16.994	21.9	19.6	41.5	50.0	-8.5
15.771	21.7	19.6	41.3	50.0	-8.7
0.545	17.3	19.8	37.1	46.0	-8.9
0.486	17.4	19.8	37.2	46.2	-9.0
0.527	16.9	19.8	36.7	46.0	-9.3
15.510	21.1	19.6	40.7	50.0	-9.3
0.452	17.5	19.8	37.3	46.8	-9.5
0.404	18.4	19.8	38.2	47.8	-9.6
0.613	16.6	19.8	36.4	46.0	-9.6
0.635	16.2	19.8	36.0	46.0	-10.0
15.954	20.1	19.6	39.7	50.0	-10.3
0.665	15.8	19.8	35.6	46.0	-10.4
15.248	19.5	19.6	39.1	50.0	-10.9
17.353	19.4	19.6	39.0	50.0	-11.0
0.598	15.2	19.8	35.0	46.0	-11.0
18.058	19.2	19.6	38.8	50.0	-11.2
0.247	20.6	19.7	40.3	51.9	-11.5
17.069	18.2	19.6	37.8	50.0	-12.2

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

WTD.2013.07.23, PSA-ESCI 2014.04.28, EmiR5 2014.02.04

EUT:	444-2251	Work Order:	FOCU0169
Serial Number:	02EAF000061	Date:	06/11/2014
Customer:	Summit Semiconductor LLC	Temperature:	24.1°C
Attendees:	None	Relative Humidity:	42.9%
Customer Project:	None	Bar. Pressure:	1012.3 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	FOCU0169-3

TEST SPECIFICATIONS

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

TEST PARAMETERS

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

COMMENTS

None

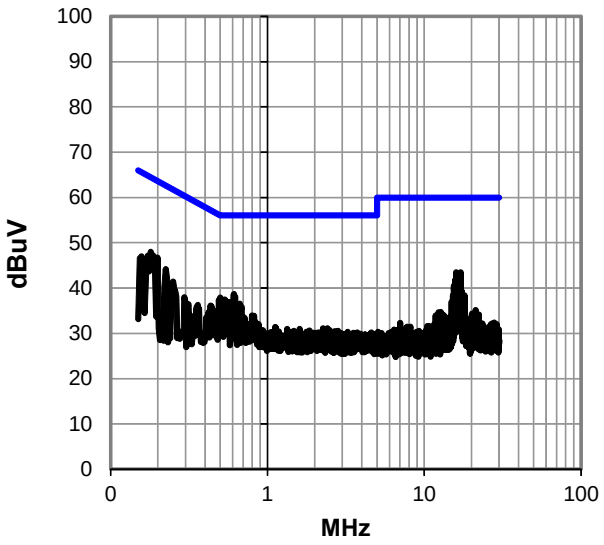
EUT OPERATING MODES

Tx 6Mbps Low Channel 52, 5260MHz

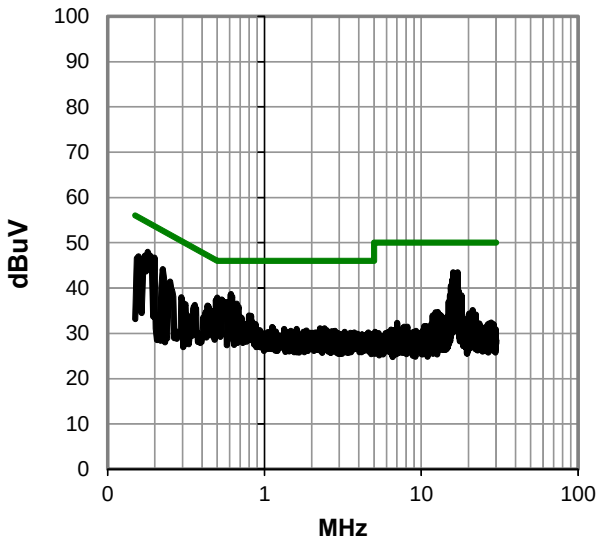
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #5

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
17.084	23.9	19.6	43.5	60.0	-16.5
16.032	23.9	19.6	43.5	60.0	-16.5
0.180	28.2	19.7	47.9	64.5	-16.5
16.289	23.7	19.6	43.3	60.0	-16.7
0.199	27.0	19.7	46.7	63.7	-16.9
0.613	18.9	19.8	38.7	56.0	-17.3
16.815	22.9	19.6	42.5	60.0	-17.5
16.554	22.8	19.6	42.4	60.0	-17.6
0.172	27.4	19.7	47.1	64.8	-17.7
0.624	18.3	19.8	38.1	56.0	-17.9
0.501	18.1	19.8	37.9	56.0	-18.1
16.991	22.2	19.6	41.8	60.0	-18.2
15.767	22.2	19.6	41.8	60.0	-18.2
0.225	24.4	19.7	44.1	62.6	-18.5
0.534	17.7	19.8	37.5	56.0	-18.5
0.157	27.3	19.7	47.0	65.6	-18.6
0.490	17.6	19.8	37.4	56.2	-18.8
0.665	16.8	19.8	36.6	56.0	-19.4
15.502	20.9	19.6	40.5	60.0	-19.5
15.927	20.6	19.6	40.2	60.0	-19.8
0.684	16.1	19.8	35.9	56.0	-20.1
0.251	21.7	19.8	41.5	61.7	-20.3
17.353	19.8	19.6	39.4	60.0	-20.6
0.434	16.3	19.8	36.1	57.2	-21.1
0.478	15.3	19.8	35.1	56.4	-21.3
18.054	18.8	19.6	38.4	60.0	-21.6

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
17.084	23.9	19.6	43.5	50.0	-6.5
16.032	23.9	19.6	43.5	50.0	-6.5
0.180	28.2	19.7	47.9	54.5	-6.5
16.289	23.7	19.6	43.3	50.0	-6.7
0.199	27.0	19.7	46.7	53.7	-6.9
0.613	18.9	19.8	38.7	46.0	-7.3
16.815	22.9	19.6	42.5	50.0	-7.5
16.554	22.8	19.6	42.4	50.0	-7.6
0.172	27.4	19.7	47.1	54.8	-7.7
0.624	18.3	19.8	38.1	46.0	-7.9
0.501	18.1	19.8	37.9	46.0	-8.1
16.991	22.2	19.6	41.8	50.0	-8.2
15.767	22.2	19.6	41.8	50.0	-8.2
0.225	24.4	19.7	44.1	52.6	-8.5
0.534	17.7	19.8	37.5	46.0	-8.5
0.157	27.3	19.7	47.0	55.6	-8.6
0.490	17.6	19.8	37.4	46.2	-8.8
0.665	16.8	19.8	36.6	46.0	-9.4
15.502	20.9	19.6	40.5	50.0	-9.5
15.927	20.6	19.6	40.2	50.0	-9.8
0.684	16.1	19.8	35.9	46.0	-10.1
0.251	21.7	19.8	41.5	51.7	-10.3
17.353	19.8	19.6	39.4	50.0	-10.6
0.434	16.3	19.8	36.1	47.2	-11.1
0.478	15.3	19.8	35.1	46.4	-11.3
18.054	18.8	19.6	38.4	50.0	-11.6

CONCLUSION

Pass

Tested By

NORTHWEST EMC

WTD.2013.07.23, PSA-ESCI 2014.04.28, EmiR5 2014.02.04

POWERLINE CONDUCTED EMISSIONS

EUT:	444-2251	Work Order:	FOCU0169
Serial Number:	02EAF000061	Date:	06/11/2014
Customer:	Summit Semiconductor LLC	Temperature:	24.1°C
Attendees:	None	Relative Humidity:	42.9%
Customer Project:	None	Bar. Pressure:	1012.3 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	FOCU0169-3

TEST SPECIFICATIONS

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

TEST PARAMETERS

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

COMMENTS

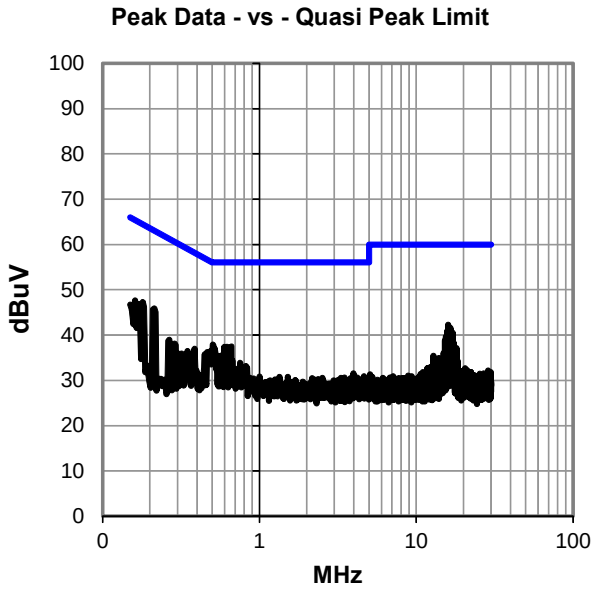
None

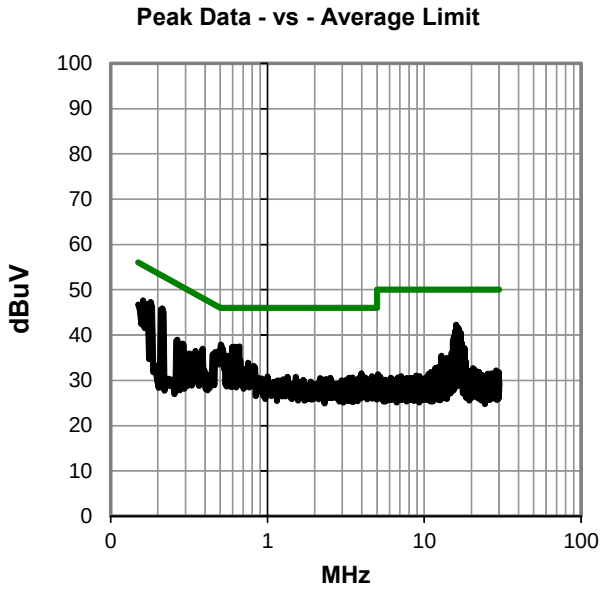
EUT OPERATING MODES

Tx 6Mbps Low Channel 52, 5260MHz

DEVIATIONS FROM TEST STANDARD

None





POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #6

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.213	26.1	19.7	45.8	63.1	-17.2
0.180	27.5	19.7	47.2	64.5	-17.2
16.024	22.7	19.6	42.3	60.0	-17.7
0.161	27.9	19.7	47.6	65.4	-17.8
0.504	18.1	19.8	37.9	56.0	-18.1
0.169	27.1	19.7	46.8	65.0	-18.2
16.554	22.0	19.6	41.6	60.0	-18.4
0.661	17.7	19.8	37.5	56.0	-18.5
0.598	17.6	19.8	37.4	56.0	-18.6
0.620	17.6	19.8	37.4	56.0	-18.6
16.289	21.7	19.6	41.3	60.0	-18.7
15.771	21.3	19.6	40.9	60.0	-19.1
0.150	27.1	19.6	46.7	66.0	-19.3
17.080	20.9	19.6	40.5	60.0	-19.5
16.812	20.7	19.6	40.3	60.0	-19.7
16.991	20.4	19.6	40.0	60.0	-20.0
15.498	20.1	19.6	39.7	60.0	-20.3
0.534	15.7	19.8	35.5	56.0	-20.5
0.572	15.7	19.8	35.5	56.0	-20.5
0.448	16.0	19.8	35.8	56.9	-21.1
0.587	15.1	19.8	34.9	56.0	-21.1
0.385	17.2	19.8	37.0	58.2	-21.2
15.241	19.2	19.6	38.8	60.0	-21.2
15.927	19.0	19.6	38.6	60.0	-21.4
0.672	14.6	19.8	34.4	56.0	-21.6
17.341	18.7	19.6	38.3	60.0	-21.7

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.213	26.1	19.7	45.8	53.1	-7.2
0.180	27.5	19.7	47.2	54.5	-7.2
16.024	22.7	19.6	42.3	50.0	-7.7
0.161	27.9	19.7	47.6	55.4	-7.8
0.504	18.1	19.8	37.9	46.0	-8.1
0.169	27.1	19.7	46.8	55.0	-8.2
16.554	22.0	19.6	41.6	50.0	-8.4
0.661	17.7	19.8	37.5	46.0	-8.5
0.598	17.6	19.8	37.4	46.0	-8.6
0.620	17.6	19.8	37.4	46.0	-8.6
16.289	21.7	19.6	41.3	50.0	-8.7
15.771	21.3	19.6	40.9	50.0	-9.1
0.150	27.1	19.6	46.7	56.0	-9.3
17.080	20.9	19.6	40.5	50.0	-9.5
16.812	20.7	19.6	40.3	50.0	-9.7
16.991	20.4	19.6	40.0	50.0	-10.0
15.498	20.1	19.6	39.7	50.0	-10.3
0.534	15.7	19.8	35.5	46.0	-10.5
0.572	15.7	19.8	35.5	46.0	-10.5
0.448	16.0	19.8	35.8	46.9	-11.1
0.587	15.1	19.8	34.9	46.0	-11.1
0.385	17.2	19.8	37.0	48.2	-11.2
15.241	19.2	19.6	38.8	50.0	-11.2
15.927	19.0	19.6	38.6	50.0	-11.4
0.672	14.6	19.8	34.4	46.0	-11.6
17.341	18.7	19.6	38.3	50.0	-11.7

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	444-2251	Work Order:	FOCU0169
Serial Number:	02EAF000061	Date:	06/11/2014
Customer:	Summit Semiconductor LLC	Temperature:	24.1°C
Attendees:	None	Relative Humidity:	42.9%
Customer Project:	None	Bar. Pressure:	1012.3 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	FOCU0169-3

TEST SPECIFICATIONS

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

TEST PARAMETERS

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

COMMENTS

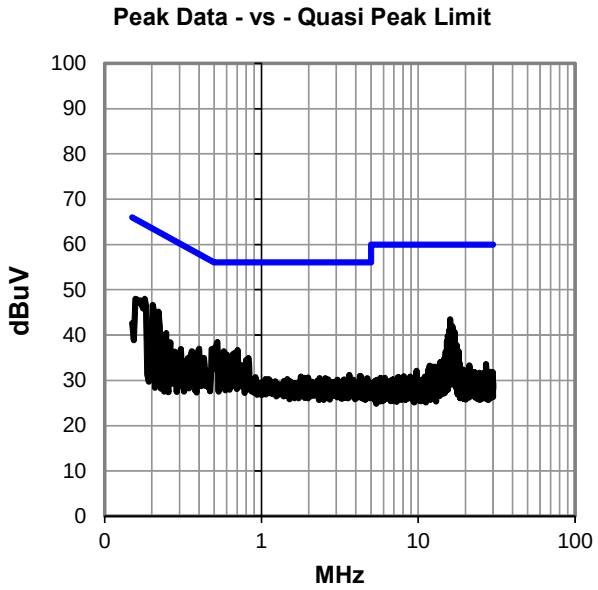
None

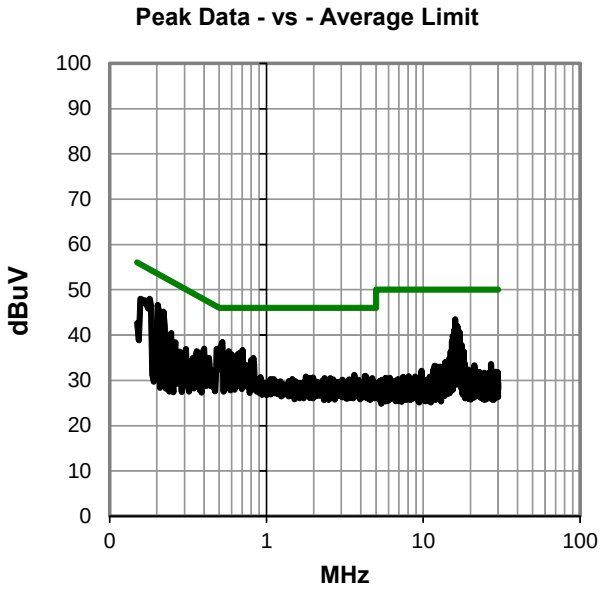
EUT OPERATING MODES

Tx 6Mbps High Channel 64, 5320MHz

DEVIATIONS FROM TEST STANDARD

None





POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #7

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
16.024	23.9	19.6	43.5	60.0	-16.5
0.202	26.9	19.7	46.6	63.5	-16.9
0.523	18.7	19.8	38.5	56.0	-17.5
0.157	28.3	19.7	48.0	65.6	-17.6
0.221	25.4	19.7	45.1	62.8	-17.6
16.547	22.3	19.6	41.9	60.0	-18.1
15.760	21.5	19.6	41.1	60.0	-18.9
16.812	21.3	19.6	40.9	60.0	-19.1
0.706	16.9	19.8	36.7	56.0	-19.3
17.069	21.0	19.6	40.6	60.0	-19.4
0.482	17.1	19.8	36.9	56.3	-19.4
16.282	21.0	19.6	40.6	60.0	-19.4
17.024	20.9	19.6	40.5	60.0	-19.5
0.575	16.6	19.8	36.4	56.0	-19.6
0.676	16.3	19.8	36.1	56.0	-19.9
16.991	20.2	19.6	39.8	60.0	-20.2
15.498	20.2	19.6	39.8	60.0	-20.2
0.657	16.0	19.8	35.8	56.0	-20.2
0.601	15.9	19.8	35.7	56.0	-20.3
0.549	15.7	19.8	35.5	56.0	-20.5
0.400	17.2	19.8	37.0	57.9	-20.9
0.825	15.2	19.7	34.9	56.0	-21.1
0.616	15.0	19.8	34.8	56.0	-21.2
15.230	19.1	19.6	38.7	60.0	-21.3
0.247	20.7	19.7	40.4	61.9	-21.4
0.799	14.8	19.7	34.5	56.0	-21.5

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
16.024	23.9	19.6	43.5	50.0	-6.5
0.202	26.9	19.7	46.6	53.5	-6.9
0.523	18.7	19.8	38.5	46.0	-7.5
0.157	28.3	19.7	48.0	55.6	-7.6
0.221	25.4	19.7	45.1	52.8	-7.6
16.547	22.3	19.6	41.9	50.0	-8.1
15.760	21.5	19.6	41.1	50.0	-8.9
16.812	21.3	19.6	40.9	50.0	-9.1
0.706	16.9	19.8	36.7	46.0	-9.3
17.069	21.0	19.6	40.6	50.0	-9.4
0.482	17.1	19.8	36.9	46.3	-9.4
16.282	21.0	19.6	40.6	50.0	-9.4
17.024	20.9	19.6	40.5	50.0	-9.5
0.575	16.6	19.8	36.4	46.0	-9.6
0.676	16.3	19.8	36.1	46.0	-9.9
16.991	20.2	19.6	39.8	50.0	-10.2
15.498	20.2	19.6	39.8	50.0	-10.2
0.657	16.0	19.8	35.8	46.0	-10.2
0.601	15.9	19.8	35.7	46.0	-10.3
0.549	15.7	19.8	35.5	46.0	-10.5
0.400	17.2	19.8	37.0	47.9	-10.9
0.825	15.2	19.7	34.9	46.0	-11.1
0.616	15.0	19.8	34.8	46.0	-11.2
15.230	19.1	19.6	38.7	50.0	-11.3
0.247	20.7	19.7	40.4	51.9	-11.4
0.799	14.8	19.7	34.5	46.0	-11.5

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	444-2251	Work Order:	FOCU0169
Serial Number:	02EAF000061	Date:	06/11/2014
Customer:	Summit Semiconductor LLC	Temperature:	24.1°C
Attendees:	None	Relative Humidity:	42.9%
Customer Project:	None	Bar. Pressure:	1012.3 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	FOCU0169-3

TEST SPECIFICATIONS

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

TEST PARAMETERS

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

COMMENTS

None

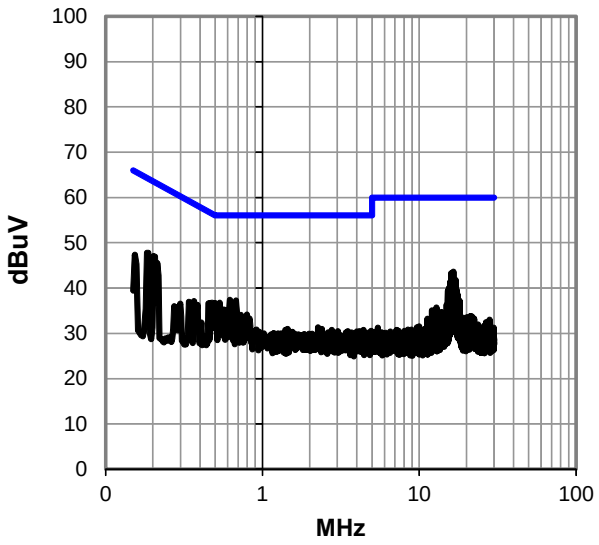
EUT OPERATING MODES

Tx 6Mbps High Channel 64, 5320MHz

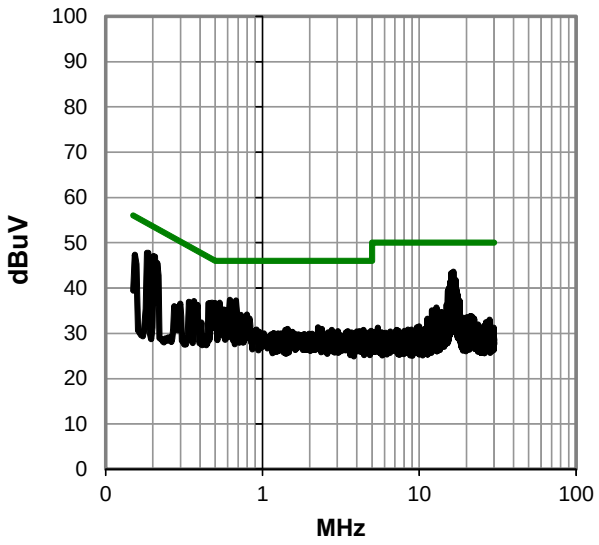
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #8

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
16.543	24.0	19.6	43.6	60.0	-16.4
0.202	27.3	19.7	47.0	63.5	-16.5
0.184	28.0	19.7	47.7	64.3	-16.6
16.282	23.7	19.6	43.3	60.0	-16.7
16.024	23.7	19.6	43.3	60.0	-16.7
0.213	25.8	19.7	45.5	63.1	-17.5
17.069	22.2	19.6	41.8	60.0	-18.2
16.812	22.2	19.6	41.8	60.0	-18.2
0.154	27.7	19.7	47.4	65.8	-18.4
17.017	21.9	19.6	41.5	60.0	-18.5
16.991	21.8	19.6	41.4	60.0	-18.6
15.760	21.8	19.6	41.4	60.0	-18.6
0.620	17.6	19.8	37.4	56.0	-18.6
0.680	17.5	19.8	37.3	56.0	-18.7
0.534	17.0	19.8	36.8	56.0	-19.2
0.501	16.9	19.8	36.7	56.0	-19.3
0.475	17.0	19.8	36.8	56.4	-19.6
0.490	16.6	19.8	36.4	56.2	-19.8
16.043	20.6	19.6	40.2	60.0	-19.8
15.924	20.6	19.6	40.2	60.0	-19.8
15.491	20.4	19.6	40.0	60.0	-20.0
0.456	16.9	19.8	36.7	56.8	-20.1
17.330	20.0	19.6	39.6	60.0	-20.4
15.226	19.9	19.6	39.5	60.0	-20.5
0.564	15.4	19.8	35.2	56.0	-20.8
15.976	19.2	19.6	38.8	60.0	-21.2

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
16.543	24.0	19.6	43.6	50.0	-6.4
0.202	27.3	19.7	47.0	53.5	-6.5
0.184	28.0	19.7	47.7	54.3	-6.6
16.282	23.7	19.6	43.3	50.0	-6.7
16.024	23.7	19.6	43.3	50.0	-6.7
0.213	25.8	19.7	45.5	53.1	-7.5
17.069	22.2	19.6	41.8	50.0	-8.2
16.812	22.2	19.6	41.8	50.0	-8.2
0.154	27.7	19.7	47.4	55.8	-8.4
17.017	21.9	19.6	41.5	50.0	-8.5
16.991	21.8	19.6	41.4	50.0	-8.6
15.760	21.8	19.6	41.4	50.0	-8.6
0.620	17.6	19.8	37.4	46.0	-8.6
0.680	17.5	19.8	37.3	46.0	-8.7
0.534	17.0	19.8	36.8	46.0	-9.2
0.501	16.9	19.8	36.7	46.0	-9.3
0.475	17.0	19.8	36.8	46.4	-9.6
0.490	16.6	19.8	36.4	46.2	-9.8
16.043	20.6	19.6	40.2	50.0	-9.8
15.924	20.6	19.6	40.2	50.0	-9.8
15.491	20.4	19.6	40.0	50.0	-10.0
0.456	16.9	19.8	36.7	46.8	-10.1
17.330	20.0	19.6	39.6	50.0	-10.4
15.226	19.9	19.6	39.5	50.0	-10.5
0.564	15.4	19.8	35.2	46.0	-10.8
15.976	19.2	19.6	38.8	50.0	-11.2

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	444-2251	Work Order:	FOCU0169
Serial Number:	02EAF000061	Date:	06/11/2014
Customer:	Summit Semiconductor LLC	Temperature:	24.1°C
Attendees:	None	Relative Humidity:	42.9%
Customer Project:	None	Bar. Pressure:	1012.3 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	FOCU0169-3

TEST SPECIFICATIONS

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

TEST PARAMETERS

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

COMMENTS

None

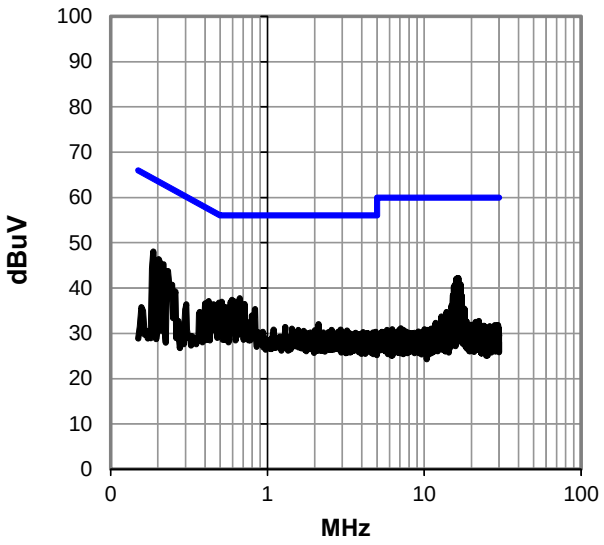
EUT OPERATING MODES

Tx 6Mbps Low Channel 100, 5500MHz

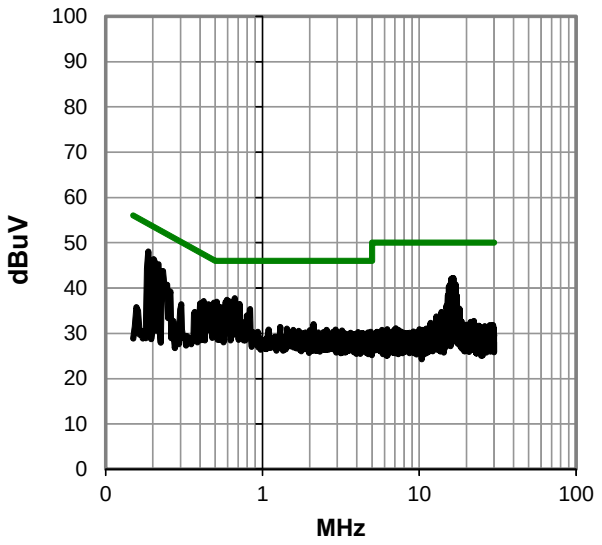
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #9

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.187	28.3	19.7	48.0	64.2	-16.1
0.202	26.6	19.7	46.3	63.5	-17.2
0.217	25.5	19.7	45.2	62.9	-17.7
16.539	22.6	19.6	42.2	60.0	-17.8
16.274	22.6	19.6	42.2	60.0	-17.8
16.017	22.4	19.6	42.0	60.0	-18.0
0.665	18.0	19.8	37.8	56.0	-18.2
0.594	17.6	19.8	37.4	56.0	-18.6
0.232	24.0	19.7	43.7	62.4	-18.6
0.616	17.3	19.8	37.1	56.0	-18.9
0.512	17.2	19.8	37.0	56.0	-19.0
0.583	17.2	19.8	37.0	56.0	-19.0
17.065	21.2	19.6	40.8	60.0	-19.2
15.752	21.2	19.6	40.8	60.0	-19.2
0.490	17.0	19.8	36.8	56.2	-19.4
16.797	20.9	19.6	40.5	60.0	-19.5
0.713	16.7	19.8	36.5	56.0	-19.5
15.487	20.8	19.6	40.4	60.0	-19.6
16.998	20.3	19.6	39.9	60.0	-20.1
0.684	16.1	19.8	35.9	56.0	-20.1
0.542	16.0	19.8	35.8	56.0	-20.2
0.422	17.3	19.8	37.1	57.4	-20.3
0.463	16.5	19.8	36.3	56.6	-20.3
0.557	15.8	19.8	35.6	56.0	-20.4
0.452	16.6	19.8	36.4	56.8	-20.4
0.531	15.6	19.8	35.4	56.0	-20.6

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.187	28.3	19.7	48.0	54.2	-6.1
0.202	26.6	19.7	46.3	53.5	-7.2
0.217	25.5	19.7	45.2	52.9	-7.7
16.539	22.6	19.6	42.2	50.0	-7.8
16.274	22.6	19.6	42.2	50.0	-7.8
16.017	22.4	19.6	42.0	50.0	-8.0
0.665	18.0	19.8	37.8	46.0	-8.2
0.594	17.6	19.8	37.4	46.0	-8.6
0.232	24.0	19.7	43.7	52.4	-8.6
0.616	17.3	19.8	37.1	46.0	-8.9
0.512	17.2	19.8	37.0	46.0	-9.0
0.583	17.2	19.8	37.0	46.0	-9.0
17.065	21.2	19.6	40.8	50.0	-9.2
15.752	21.2	19.6	40.8	50.0	-9.2
0.490	17.0	19.8	36.8	46.2	-9.4
16.797	20.9	19.6	40.5	50.0	-9.5
0.713	16.7	19.8	36.5	46.0	-9.5
15.487	20.8	19.6	40.4	50.0	-9.6
16.998	20.3	19.6	39.9	50.0	-10.1
0.684	16.1	19.8	35.9	46.0	-10.1
0.542	16.0	19.8	35.8	46.0	-10.2
0.422	17.3	19.8	37.1	47.4	-10.3
0.463	16.5	19.8	36.3	46.6	-10.3
0.557	15.8	19.8	35.6	46.0	-10.4
0.452	16.6	19.8	36.4	46.8	-10.4
0.531	15.6	19.8	35.4	46.0	-10.6

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	444-2251	Work Order:	FOCU0169
Serial Number:	02EAF000061	Date:	06/11/2014
Customer:	Summit Semiconductor LLC	Temperature:	24.1°C
Attendees:	None	Relative Humidity:	42.9%
Customer Project:	None	Bar. Pressure:	1012.3 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	FOCU0169-3

TEST SPECIFICATIONS

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

TEST PARAMETERS

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

COMMENTS

None

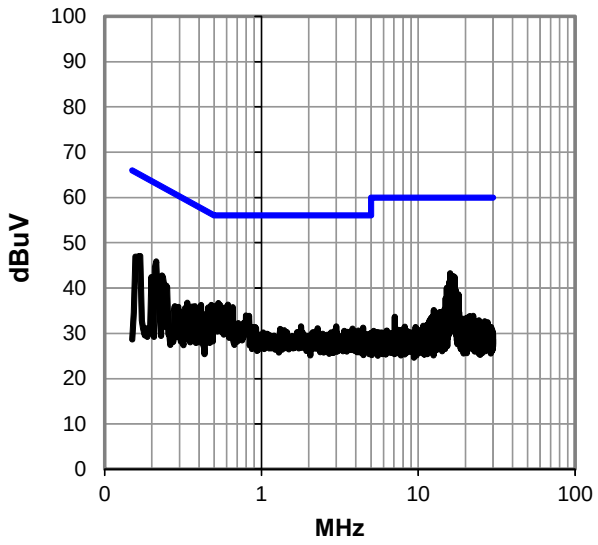
EUT OPERATING MODES

Tx 6Mbps Low Channel 100, 5500MHz

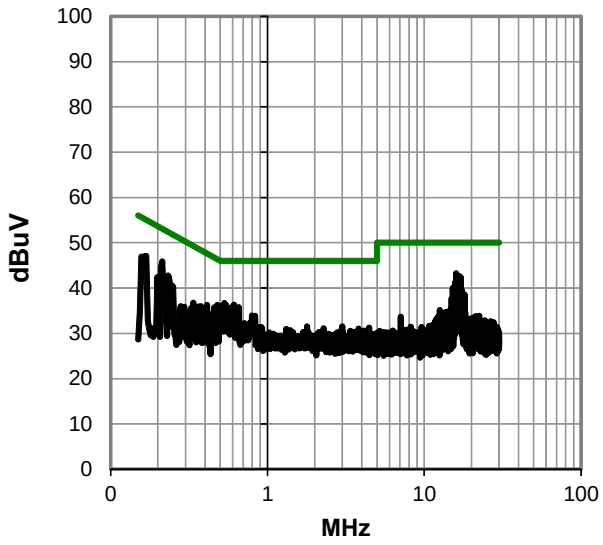
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #10

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
16.010	23.7	19.6	43.3	60.0	-16.7
16.274	23.2	19.6	42.8	60.0	-17.2
0.213	26.1	19.7	45.8	63.1	-17.2
16.800	23.0	19.6	42.6	60.0	-17.4
17.062	22.8	19.6	42.4	60.0	-17.6
16.536	22.7	19.6	42.3	60.0	-17.7
0.169	27.3	19.7	47.0	65.0	-18.0
17.021	22.2	19.6	41.8	60.0	-18.2
15.748	21.7	19.6	41.3	60.0	-18.7
16.980	21.3	19.6	40.9	60.0	-19.1
0.531	16.9	19.8	36.7	56.0	-19.3
0.613	16.6	19.8	36.4	56.0	-19.6
0.232	23.0	19.7	42.7	62.4	-19.6
15.226	20.5	19.6	40.1	60.0	-19.9
0.504	16.2	19.8	36.0	56.0	-20.0
0.478	16.5	19.8	36.3	56.4	-20.1
15.484	20.3	19.6	39.9	60.0	-20.1
15.931	20.2	19.6	39.8	60.0	-20.2
0.657	16.0	19.8	35.8	56.0	-20.2
17.327	20.0	19.6	39.6	60.0	-20.4
15.946	20.0	19.6	39.6	60.0	-20.4
0.221	22.6	19.7	42.3	62.8	-20.4
0.631	15.3	19.8	35.1	56.0	-20.9
0.456	15.9	19.8	35.7	56.8	-21.1
0.572	15.0	19.8	34.8	56.0	-21.2
0.199	22.7	19.7	42.4	63.7	-21.2

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
16.010	23.7	19.6	43.3	50.0	-6.7
16.274	23.2	19.6	42.8	50.0	-7.2
0.213	26.1	19.7	45.8	53.1	-7.2
16.800	23.0	19.6	42.6	50.0	-7.4
17.062	22.8	19.6	42.4	50.0	-7.6
16.536	22.7	19.6	42.3	50.0	-7.7
0.169	27.3	19.7	47.0	55.0	-8.0
17.021	22.2	19.6	41.8	50.0	-8.2
15.748	21.7	19.6	41.3	50.0	-8.7
16.980	21.3	19.6	40.9	50.0	-9.1
0.531	16.9	19.8	36.7	46.0	-9.3
0.613	16.6	19.8	36.4	46.0	-9.6
0.232	23.0	19.7	42.7	52.4	-9.6
15.226	20.5	19.6	40.1	50.0	-9.9
0.504	16.2	19.8	36.0	46.0	-10.0
0.478	16.5	19.8	36.3	46.4	-10.1
15.484	20.3	19.6	39.9	50.0	-10.1
15.931	20.2	19.6	39.8	50.0	-10.2
0.657	16.0	19.8	35.8	46.0	-10.2
17.327	20.0	19.6	39.6	50.0	-10.4
15.946	20.0	19.6	39.6	50.0	-10.4
0.221	22.6	19.7	42.3	52.8	-10.4
0.631	15.3	19.8	35.1	46.0	-10.9
0.456	15.9	19.8	35.7	46.8	-11.1
0.572	15.0	19.8	34.8	46.0	-11.2
0.199	22.7	19.7	42.4	53.7	-11.2

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	444-2251	Work Order:	FOCU0169
Serial Number:	02EAF000061	Date:	06/11/2014
Customer:	Summit Semiconductor LLC	Temperature:	24.1°C
Attendees:	None	Relative Humidity:	42.9%
Customer Project:	None	Bar. Pressure:	1012.3 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	FOCU0169-3

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	11	Line:	Neutral	Ext. Attenuation (dB):	20

COMMENTS

None

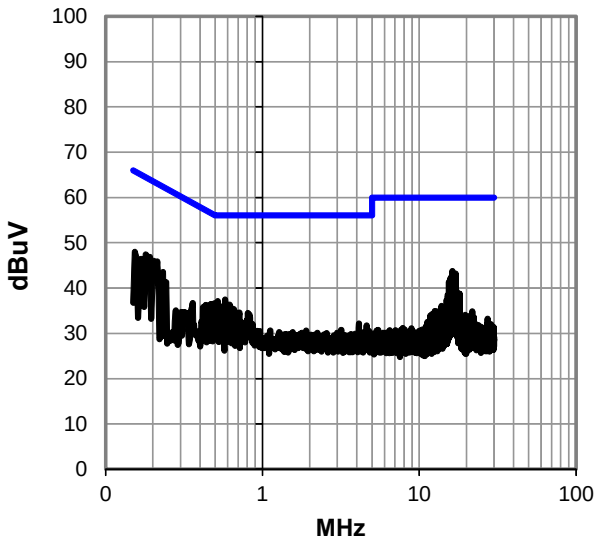
EUT OPERATING MODES

Tx 6Mbps Mid Channel 116, 5580MHz

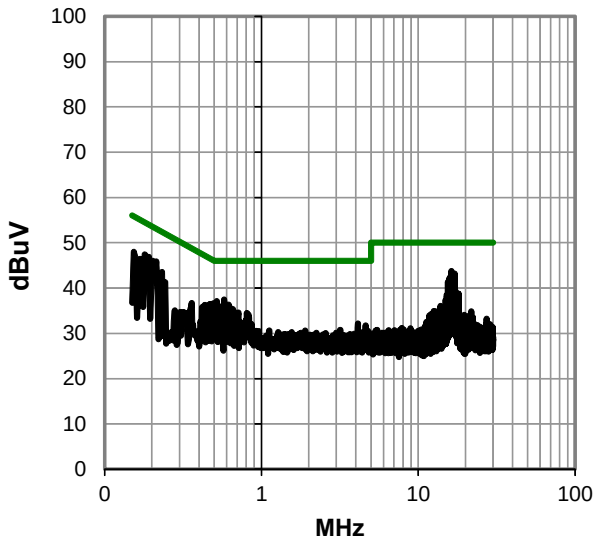
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #11

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
16.271	24.2	19.6	43.8	60.0	-16.2
16.532	23.7	19.6	43.3	60.0	-16.7
17.054	23.6	19.6	43.2	60.0	-16.8
0.180	27.7	19.7	47.4	64.5	-17.0
0.213	26.1	19.7	45.8	63.1	-17.2
0.202	26.3	19.7	46.0	63.5	-17.5
16.006	22.8	19.6	42.4	60.0	-17.6
0.154	28.3	19.7	48.0	65.8	-17.8
16.994	22.5	19.6	42.1	60.0	-17.9
15.745	22.5	19.6	42.1	60.0	-17.9
16.793	22.0	19.6	41.6	60.0	-18.4
0.579	17.7	19.8	37.5	56.0	-18.5
0.169	26.7	19.7	46.4	65.0	-18.6
15.484	21.8	19.6	41.4	60.0	-18.6
0.232	23.8	19.7	43.5	62.4	-18.8
0.519	17.3	19.8	37.1	56.0	-18.9
15.924	21.2	19.6	40.8	60.0	-19.2
0.616	16.6	19.8	36.4	56.0	-19.6
17.091	20.7	19.6	40.3	60.0	-19.7
17.017	20.6	19.6	40.2	60.0	-19.8
0.467	16.7	19.8	36.5	56.6	-20.1
0.534	16.1	19.8	35.9	56.0	-20.1
0.542	16.1	19.8	35.9	56.0	-20.1
0.657	15.6	19.8	35.4	56.0	-20.6
17.323	19.7	19.6	39.3	60.0	-20.7
0.240	21.6	19.7	41.3	62.1	-20.8

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
16.271	24.2	19.6	43.8	50.0	-6.2
16.532	23.7	19.6	43.3	50.0	-6.7
17.054	23.6	19.6	43.2	50.0	-6.8
0.180	27.7	19.7	47.4	54.5	-7.0
0.213	26.1	19.7	45.8	53.1	-7.2
0.202	26.3	19.7	46.0	53.5	-7.5
16.006	22.8	19.6	42.4	50.0	-7.6
0.154	28.3	19.7	48.0	55.8	-7.8
16.994	22.5	19.6	42.1	50.0	-7.9
15.745	22.5	19.6	42.1	50.0	-7.9
16.793	22.0	19.6	41.6	50.0	-8.4
0.579	17.7	19.8	37.5	46.0	-8.5
0.169	26.7	19.7	46.4	55.0	-8.6
15.484	21.8	19.6	41.4	50.0	-8.6
0.232	23.8	19.7	43.5	52.4	-8.8
0.519	17.3	19.8	37.1	46.0	-8.9
15.924	21.2	19.6	40.8	50.0	-9.2
0.616	16.6	19.8	36.4	46.0	-9.6
17.091	20.7	19.6	40.3	50.0	-9.7
17.017	20.6	19.6	40.2	50.0	-9.8
0.467	16.7	19.8	36.5	46.6	-10.1
0.534	16.1	19.8	35.9	46.0	-10.1
0.542	16.1	19.8	35.9	46.0	-10.1
0.657	15.6	19.8	35.4	46.0	-10.6
17.323	19.7	19.6	39.3	50.0	-10.7
0.240	21.6	19.7	41.3	52.1	-10.8

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	444-2251	Work Order:	FOCU0169
Serial Number:	02EAF000061	Date:	06/11/2014
Customer:	Summit Semiconductor LLC	Temperature:	24.1°C
Attendees:	None	Relative Humidity:	42.9%
Customer Project:	None	Bar. Pressure:	1012.3 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	FOCU0169-3

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	12	Line:	High Line	Ext. Attenuation (dB):	20

COMMENTS

None

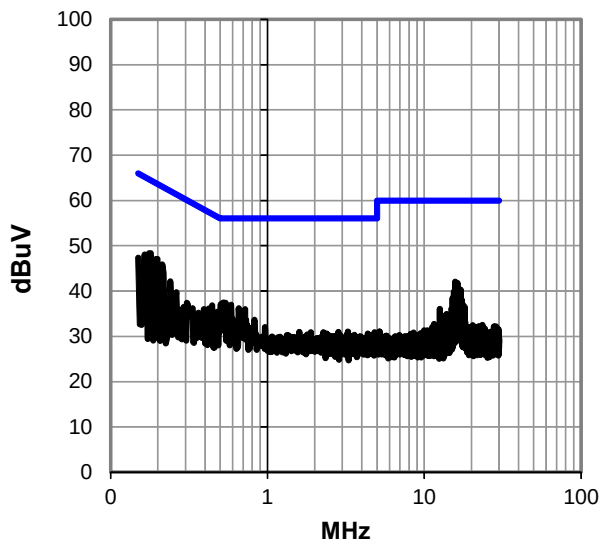
EUT OPERATING MODES

Tx 6Mbps Mid Channel 116, 5580MHz

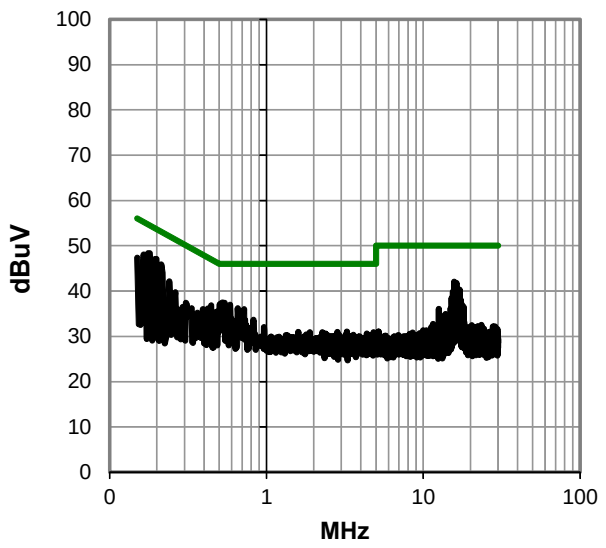
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #12

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.180	28.6	19.7	48.3	64.5	-16.1
0.195	27.3	19.7	47.0	63.8	-16.8
0.165	28.3	19.7	48.0	65.2	-17.2
0.213	26.1	19.7	45.8	63.1	-17.2
15.741	22.5	19.6	42.1	60.0	-17.9
16.263	22.2	19.6	41.8	60.0	-18.2
0.523	17.7	19.8	37.5	56.0	-18.5
0.538	17.6	19.8	37.4	56.0	-18.6
0.150	27.7	19.6	47.3	66.0	-18.7
16.002	21.6	19.6	41.2	60.0	-18.8
0.504	17.3	19.8	37.1	56.0	-18.9
0.587	17.2	19.8	37.0	56.0	-19.0
16.524	20.9	19.6	40.5	60.0	-19.5
16.789	20.8	19.6	40.4	60.0	-19.6
17.054	20.7	19.6	40.3	60.0	-19.7
0.657	16.4	19.8	36.2	56.0	-19.8
0.240	22.4	19.7	42.1	62.1	-20.0
0.721	16.2	19.8	36.0	56.0	-20.0
17.021	20.3	19.6	39.9	60.0	-20.1
15.484	20.3	19.6	39.9	60.0	-20.1
0.445	17.0	19.8	36.8	57.0	-20.2
0.691	15.7	19.8	35.5	56.0	-20.5
16.972	19.8	19.6	39.4	60.0	-20.6
0.493	15.7	19.8	35.5	56.1	-20.6
0.557	15.3	19.8	35.1	56.0	-20.9
0.672	15.3	19.8	35.1	56.0	-20.9

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.180	28.6	19.7	48.3	54.5	-6.1
0.195	27.3	19.7	47.0	53.8	-6.8
0.165	28.3	19.7	48.0	55.2	-7.2
0.213	26.1	19.7	45.8	53.1	-7.2
15.741	22.5	19.6	42.1	50.0	-7.9
16.263	22.2	19.6	41.8	50.0	-8.2
0.523	17.7	19.8	37.5	46.0	-8.5
0.538	17.6	19.8	37.4	46.0	-8.6
0.150	27.7	19.6	47.3	56.0	-8.7
16.002	21.6	19.6	41.2	50.0	-8.8
0.504	17.3	19.8	37.1	46.0	-8.9
0.587	17.2	19.8	37.0	46.0	-9.0
16.524	20.9	19.6	40.5	50.0	-9.5
16.789	20.8	19.6	40.4	50.0	-9.6
17.054	20.7	19.6	40.3	50.0	-9.7
0.657	16.4	19.8	36.2	46.0	-9.8
0.240	22.4	19.7	42.1	52.1	-10.0
0.721	16.2	19.8	36.0	46.0	-10.0
17.021	20.3	19.6	39.9	50.0	-10.1
15.484	20.3	19.6	39.9	50.0	-10.1
0.445	17.0	19.8	36.8	47.0	-10.2
0.691	15.7	19.8	35.5	46.0	-10.5
16.972	19.8	19.6	39.4	50.0	-10.6
0.493	15.7	19.8	35.5	46.1	-10.6
0.557	15.3	19.8	35.1	46.0	-10.9
0.672	15.3	19.8	35.1	46.0	-10.9

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	444-2251	Work Order:	FOCU0169
Serial Number:	02EAF000061	Date:	06/11/2014
Customer:	Summit Semiconductor LLC	Temperature:	24.1°C
Attendees:	None	Relative Humidity:	42.9%
Customer Project:	None	Bar. Pressure:	1012.3 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	FOCU0169-3

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	13	Line:	High Line	Ext. Attenuation (dB):	20

COMMENTS

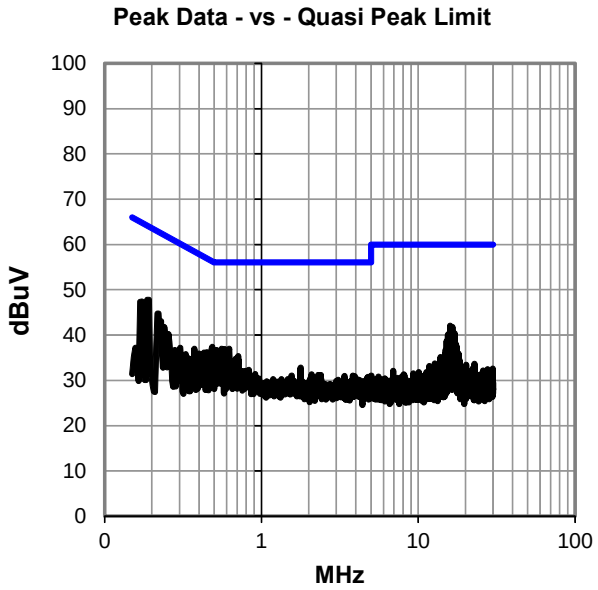
None

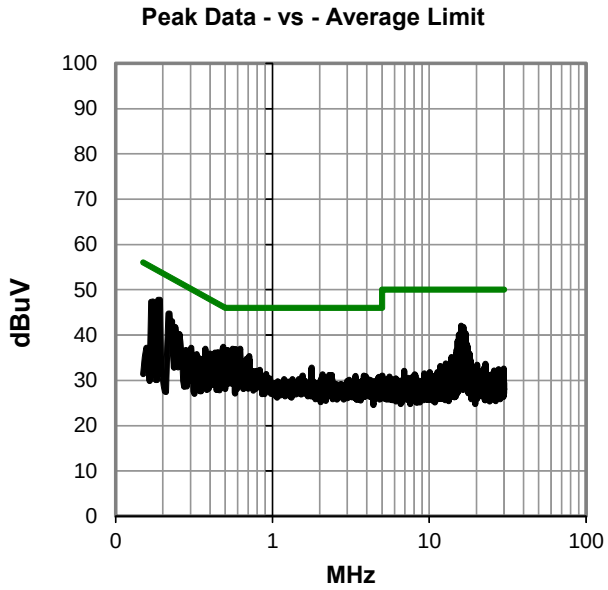
EUT OPERATING MODES

Tx 6Mbps High Channel 140, 5700MHz

DEVIATIONS FROM TEST STANDARD

None





POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #13

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.187	28.0	19.7	47.7	64.2	-16.4
0.172	27.7	19.7	47.4	64.8	-17.4
15.998	22.5	19.6	42.1	60.0	-17.9
0.221	25.0	19.7	44.7	62.8	-18.0
16.528	22.2	19.6	41.8	60.0	-18.2
0.486	17.6	19.8	37.4	56.2	-18.8
0.557	17.2	19.8	37.0	56.0	-19.0
0.624	17.2	19.8	37.0	56.0	-19.0
0.583	17.1	19.8	36.9	56.0	-19.1
0.516	16.9	19.8	36.7	56.0	-19.3
16.267	21.0	19.6	40.6	60.0	-19.4
0.228	23.3	19.7	43.0	62.5	-19.5
17.050	20.8	19.6	40.4	60.0	-19.6
15.737	20.8	19.6	40.4	60.0	-19.6
15.476	20.5	19.6	40.1	60.0	-19.9
0.531	16.0	19.8	35.8	56.0	-20.2
0.240	22.0	19.7	41.7	62.1	-20.4
16.789	19.8	19.6	39.4	60.0	-20.6
0.710	15.6	19.8	35.4	56.0	-20.6
0.448	16.4	19.8	36.2	56.9	-20.7
16.991	19.5	19.6	39.1	60.0	-20.9
0.430	16.3	19.8	36.1	57.3	-21.2
0.684	15.0	19.8	34.8	56.0	-21.2
15.924	19.1	19.6	38.7	60.0	-21.3
15.215	19.1	19.6	38.7	60.0	-21.3
0.601	14.9	19.8	34.7	56.0	-21.3

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.187	28.0	19.7	47.7	54.2	-6.4
0.172	27.7	19.7	47.4	54.8	-7.4
15.998	22.5	19.6	42.1	50.0	-7.9
0.221	25.0	19.7	44.7	52.8	-8.0
16.528	22.2	19.6	41.8	50.0	-8.2
0.486	17.6	19.8	37.4	46.2	-8.8
0.557	17.2	19.8	37.0	46.0	-9.0
0.624	17.2	19.8	37.0	46.0	-9.0
0.583	17.1	19.8	36.9	46.0	-9.1
0.516	16.9	19.8	36.7	46.0	-9.3
16.267	21.0	19.6	40.6	50.0	-9.4
0.228	23.3	19.7	43.0	52.5	-9.5
17.050	20.8	19.6	40.4	50.0	-9.6
15.737	20.8	19.6	40.4	50.0	-9.6
15.476	20.5	19.6	40.1	50.0	-9.9
0.531	16.0	19.8	35.8	46.0	-10.2
0.240	22.0	19.7	41.7	52.1	-10.4
16.789	19.8	19.6	39.4	50.0	-10.6
0.710	15.6	19.8	35.4	46.0	-10.6
0.448	16.4	19.8	36.2	46.9	-10.7
16.991	19.5	19.6	39.1	50.0	-10.9
0.430	16.3	19.8	36.1	47.3	-11.2
0.684	15.0	19.8	34.8	46.0	-11.2
15.924	19.1	19.6	38.7	50.0	-11.3
15.215	19.1	19.6	38.7	50.0	-11.3
0.601	14.9	19.8	34.7	46.0	-11.3

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

WTD.2013.07.23, PSA-ESCI 2014.04.28, EmiR5 2014.02.04

EUT:	444-2251	Work Order:	FOCU0169
Serial Number:	02EAF000061	Date:	06/11/2014
Customer:	Summit Semiconductor LLC	Temperature:	24.1°C
Attendees:	None	Relative Humidity:	42.9%
Customer Project:	None	Bar. Pressure:	1012.3 mb
Tested By:	Brandon Hobbs	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	FOCU0169-3

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	14	Line:	Neutral	Ext. Attenuation (dB):	20

COMMENTS

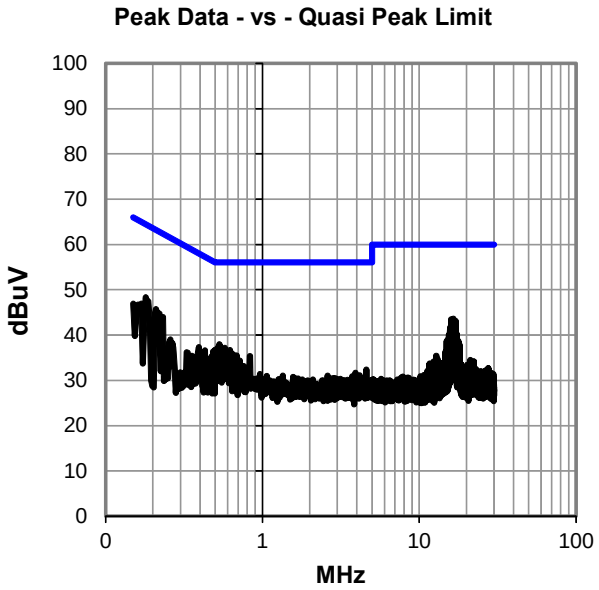
None

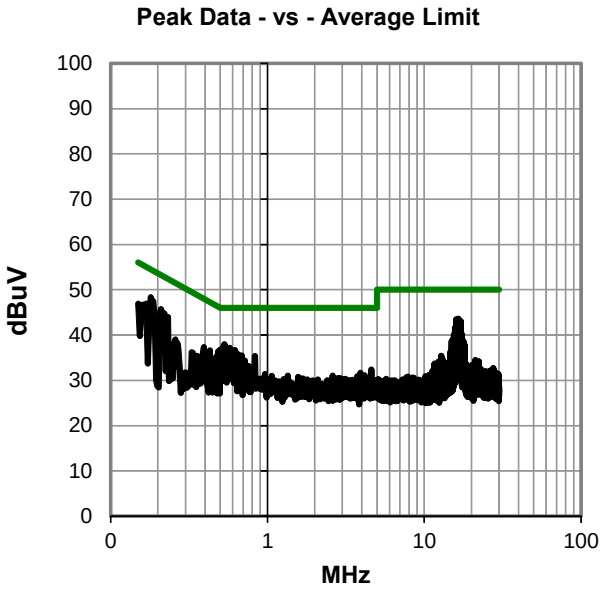
EUT OPERATING MODES

Tx 6Mbps High Channel 140, 5700MHz

DEVIATIONS FROM TEST STANDARD

None





POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #14

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.180	28.6	19.7	48.3	64.5	-16.1
16.524	24.0	19.6	43.6	60.0	-16.4
15.998	23.9	19.6	43.5	60.0	-16.5
17.047	23.5	19.6	43.1	60.0	-16.9
16.789	23.3	19.6	42.9	60.0	-17.1
0.210	26.0	19.7	45.7	63.2	-17.5
16.260	22.9	19.6	42.5	60.0	-17.5
0.531	18.2	19.8	38.0	56.0	-18.0
0.169	27.2	19.7	46.9	65.0	-18.1
15.737	22.1	19.6	41.7	60.0	-18.3
0.232	24.2	19.7	43.9	62.4	-18.4
16.987	21.9	19.6	41.5	60.0	-18.5
0.523	17.6	19.8	37.4	56.0	-18.6
0.575	17.4	19.8	37.2	56.0	-18.8
0.150	27.3	19.6	46.9	66.0	-19.1
0.501	17.0	19.8	36.8	56.0	-19.2
17.021	21.1	19.6	40.7	60.0	-19.3
0.620	16.9	19.8	36.7	56.0	-19.3
17.312	20.7	19.6	40.3	60.0	-19.7
0.486	16.6	19.8	36.4	56.2	-19.8
15.480	20.5	19.6	40.1	60.0	-19.9
0.639	16.2	19.8	36.0	56.0	-20.0
0.654	15.9	19.8	35.7	56.0	-20.3
15.954	20.0	19.6	39.6	60.0	-20.4
0.594	15.7	19.8	35.5	56.0	-20.5
0.684	15.7	19.8	35.5	56.0	-20.5

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.180	28.6	19.7	48.3	54.5	-6.1
16.524	24.0	19.6	43.6	50.0	-6.4
15.998	23.9	19.6	43.5	50.0	-6.5
17.047	23.5	19.6	43.1	50.0	-6.9
16.789	23.3	19.6	42.9	50.0	-7.1
0.210	26.0	19.7	45.7	53.2	-7.5
16.260	22.9	19.6	42.5	50.0	-7.5
0.531	18.2	19.8	38.0	46.0	-8.0
0.169	27.2	19.7	46.9	55.0	-8.1
15.737	22.1	19.6	41.7	50.0	-8.3
0.232	24.2	19.7	43.9	52.4	-8.4
16.987	21.9	19.6	41.5	50.0	-8.5
0.523	17.6	19.8	37.4	46.0	-8.6
0.575	17.4	19.8	37.2	46.0	-8.8
0.150	27.3	19.6	46.9	56.0	-9.1
0.501	17.0	19.8	36.8	46.0	-9.2
17.021	21.1	19.6	40.7	50.0	-9.3
0.620	16.9	19.8	36.7	46.0	-9.3
17.312	20.7	19.6	40.3	50.0	-9.7
0.486	16.6	19.8	36.4	46.2	-9.8
15.480	20.5	19.6	40.1	50.0	-9.9
0.639	16.2	19.8	36.0	46.0	-10.0
0.654	15.9	19.8	35.7	46.0	-10.3
15.954	20.0	19.6	39.6	50.0	-10.4
0.594	15.7	19.8	35.5	46.0	-10.5
0.684	15.7	19.8	35.5	46.0	-10.5

CONCLUSION

Pass

Tested By