Etherios Design Solutions

ConnectCore i.MX6 WiFi/Bluetooth

FCC 15.207:2014

FCC 15.407:2014

Report # ETHE0009.1

NVLAP Lab Code: 200630-0
NVLAP Lab Code: 200881-0

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

NORTHWEST EMC

WTD 13.9.30

CERTIFICATE OF TEST

Last Date of Test: October 20, 2014
Etherios Design Solutions
Model: ConnectCore i.MX6 WiFi/Bluetooth

Radio Equipment Testing

Standards

Specification	Method
FCC 15.207:2014	ANSI C63.10:2009
FCC 15.407:2014	ANSI C63.10:2009

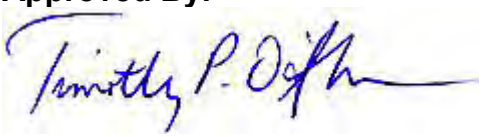
Results

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

Deviations From Test Standards

None

Approved By:



Tim O'Shea, Operations Manager

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

REVISION HISTORY

NORTHWEST EMC
REV 2014.10.14

Revision Number	Description	Date	Page Number
00	None		

ACCREDITATIONS AND AUTHORIZATIONS

NORTHWEST EMC
REV 2014.10.08

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

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

Japan

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

Taiwan

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

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

Singapore

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

Israel

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

Hong Kong

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.

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 on each data sheet. Our measurement data meets or exceeds the measurement uncertainty requirements of the applicable specification; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for estimating measurement uncertainty are based upon ETSI TR 100 028 (or CISPR 16-4-2 as applicable), and are available upon request.

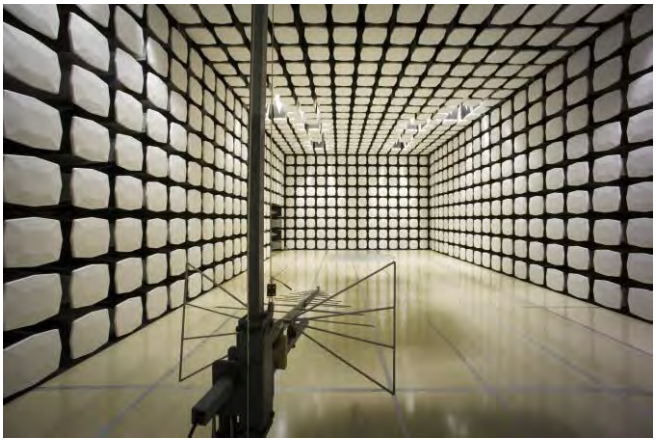
The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

Test	+ MU	- MU
Frequency Accuracy (Hz)	0.0007%	-0.0007%
Amplitude Accuracy (dB)	1.19 dB	-1.19 dB
Conducted Power (dB)	0.29 dB	-0.29 dB
Radiated Power via Substitution (dB)	0.71 dB	-0.71 dB
Temperature (degrees C)	0.7°C	-0.7°C
Humidity (% RH)	2.5% RH	-2.5% RH
Voltage (AC)	1.0%	-1.0%
Voltage (DC)	0.7%	-0.7%
Field Strength (dB)	4.7 dB	-4.7 dB
AC Powerline Conducted Emissions (dB)	2.9 dB	-2.9 dB

FACILITIES

NORTHWEST EMC
REV 2014.10.08

Oregon Labs EV01-12 22975 NW Evergreen Pkwy Hillsboro, OR 97124 (503) 844-4066	**California** Labs OC01-13 41 Tesla Irvine, CA 92618 (949) 861-8918	**New York** Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 685-0796	**Minnesota** Labs MN01-08 9349 W Broadway Ave. Brooklyn Park, MN 55445 (763) 425-2281	**Washington** 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:	Digi International
Address:	11001 Bren Road East
City, State, Zip:	Minnetonka, MN 55343
Test Requested By:	Collin LaFave
Model:	ConnectCore i.MX6 WiFi/Bluetooth
First Date of Test:	September 23, 2014
Last Date of Test:	October 20, 2014
Receipt Date of Samples:	September 12, 2014
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT:
802.11abgn SISO / Bluetooth radio module with quad core i.MX6 processor, and Kinetis microcontroller. Three possible antenna models for 2.4 GHz operation and two possible antenna models for 5 GHz operation.

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

CONFIGURATIONS

Configuration ETHE0009- 1

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
ConnectCore i.MX6 WiFi/Bluetooth	Etherios Design Solutions	5001475-02	00409D 7C03B4

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Laptop Supply	Lenovo	92P1160	None
Laptop	Lenovo	T400	L3-A9984 08/09
Power Supply	Agilent	U8002A	TPZ

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
AC Mains Cable	No	1.8m	No	AC Mains	Laptop Supply
USB to Serial	Yes	2.2m	No	Laptop	ConnectCore i.MX6 WiFi/Bluetooth
AC Mains Cable	No	1.80m	No	AC Mains	Power Supply
DC Power	No	1.80m	Yes	Laptop Supply	Laptop
DC Power	No	1.20m	No	Power Supply	ConnectCore i.MX6 WiFi/Bluetooth

Configuration ETHE0009- 2

Software/Firmware Running during test	
Description	**Version**
Windows XP	SP3
iPerf via command prompt	Unknown

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
ConnectCore i.MX6 WiFi/Bluetooth	Etherios Design Solutions	5001475-02	00409D 7C03CE
ANT-DB1-RAF(Antenna)	Unknown	ANT-DB1-RAF-XXX	None

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Laptop Supply	Lenovo	92P1160	None
Laptop	Lenovo	T400	L3-A9984 08/09
Power Supply	Agilent	U8002A	TPZ

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
AC Mains Cable	No	1.8m	No	AC Mains	Laptop Supply
USB to Serial	Yes	2.2m	No	Laptop	ConnectCore i.MX6 WiFi/Bluetooth
AC Mains Cable	No	1.80m	No	AC Mains	Power Supply
DC Power	No	1.80m	Yes	Laptop Supply	Laptop
DC Power	No	1.20m	No	Power Supply	ConnectCore i.MX6 WiFi/Bluetooth

Configuration ETHE0009- 4

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
ConnectCore i.MX6 WiFi/Bluetooth	Etherios Design Solutions	5001475-02	00409D 7C03CA

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
DC Power Supply	EZ	GP-4303D	TPY
AF Dual Band Antenna	Antenna Factor	ANT-DB1-RAF-XXX	None

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
AC Mains Cable	No	1.80m	No	AC Mains	Power Supply
DC Power	No	1.20m	No	Power Supply	ConnectCore i.MX6 WiFi/Bluetooth

CONFIGURATIONS

Configuration ETHE0009- 6

Software/Firmware Running during test	
Description	**Version**
Windows XP	SP3
iPerf via command prompt	Unknown

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
ConnectCore i.MX6 WiFi/Bluetooth	Etherios Design Solutions	5001475-02	00409D 7C03CE
Ethertronics Antenna	Etherios Design Solutions	Unknown	None

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Laptop Supply	Lenovo	92P1160	None
Laptop	Lenovo	T400	L3-A9984 08/09
Power Supply	Agilent	U8002A	TPZ

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
AC Mains Cable	No	1.8m	No	AC Mains	Laptop Supply
USB to Serial	Yes	2.2m	No	Laptop	ConnectCore i.MX6 WiFi/Bluetooth
AC Mains Cable	No	1.80m	No	AC Mains	Power Supply
DC Power	No	1.80m	Yes	Laptop Supply	Laptop
DC Power	No	1.20m	No	Power Supply	ConnectCore i.MX6 WiFi/Bluetooth

MODIFICATIONS

Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	9/23/2014	Frequency Stability	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
2	9/26/2014	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.
3	9/26/2014	Band Edge	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	9/29/2014	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.
5	9/29/2014	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.
6	9/29/2014	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.
7	9/29/2014	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.
8	10/20/2014	Powerline Conducted Emissions	Modified from delivered configuration.	Customer added filtering to power supply. Modification authorized by Moshe Peri.	Scheduled testing was completed.

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
Receiver	Rohde & Schwarz	ESR7	ARI	05/06/2014	12 mo
Attenuator 20dB, BNC	Fairview Microwave	SA01B-20	AQP	07/22/2014	12 mo
High Pass Filter	TTE	H97-100K-50-720B	HGN	05/23/2014	24 mo
LISN	Solar Electronics	9252-50-R-24-BNC	LIY	05/15/2014	12 mo
MN03 Cables	ESM Cable Corp.	Conducted Cables	MNC	12/05/2013	12 mo
DC Power Supply	EZ Digital Co	GP-4303D	TPY	NCR	0 mo

MEASUREMENT UNCERTAINTY

Description		
Expanded k=2	2.9 dB	-2.9 dB

CONFIGURATIONS INVESTIGATED

ETHE0009-4

MODES INVESTIGATED

Transmitting 802.11 5180 MHz, 6 mbps
Transmitting 802.11 5240 MHz, 6 mbps
Transmitting 802.11 5260 MHz, 6 mbps
Transmitting 802.11 5320 MHz, 6 mbps
Transmitting 802.11 5500 MHz, 6 mbps
Transmitting 802.11 5580 MHz, 6 mbps
Transmitting 802.11 5700 MHz, 6 mbps

POWERLINE CONDUCTED EMISSIONS

EUT:	ConnectCore i.MX6 WiFi/Bluetooth	Work Order:	ETHE0009
Serial Number:	00409D 7C03CA	Date:	10/17/2014
Customer:	Etherios Design Solutions	Temperature:	22.3°C
Attendees:	None	Relative Humidity:	38.4%
Customer Project:	None	Bar. Pressure:	1007 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	5VDC	Configuration:	ETHE0009-4

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	29	Line:	Negative Lead	Ext. Attenuation (dB):	20

COMMENTS

Customer added filtering to power supply. Modification authorized by Moshe Peri.

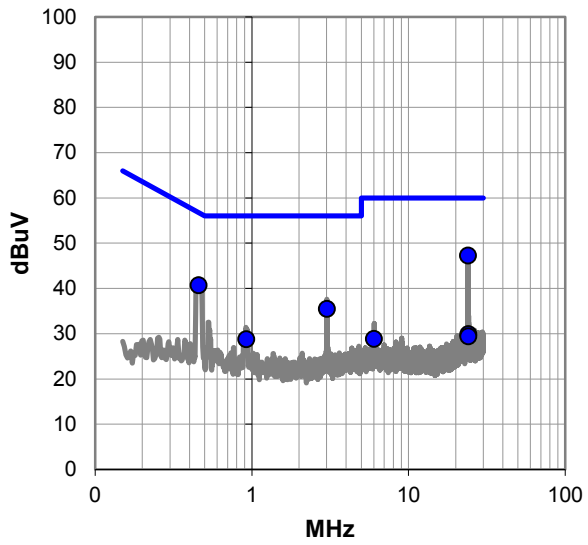
EUT OPERATING MODES

Transmitting 802.11 5180 MHz, 6 mbps

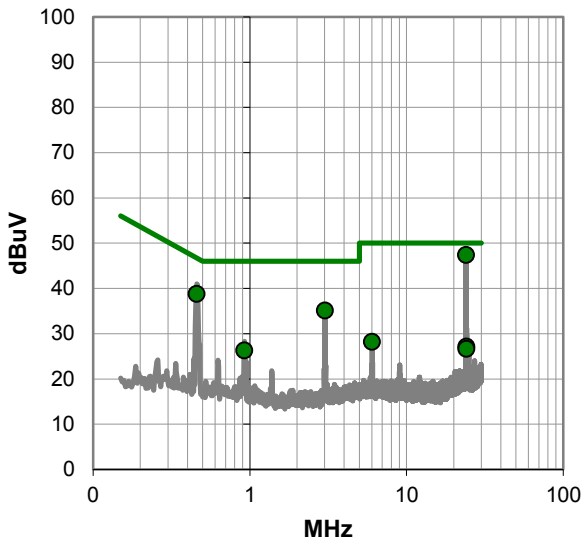
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



NORTHWEST EMC

WTD.2014.08.28, PSA-ESCI 2014.09.10, EmiR5 2014.07.09

POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #29

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.999	25.5	21.7	47.2	60.0	-12.8
0.459	20.5	20.2	40.7	56.7	-16.0
3.019	15.1	20.3	35.4	56.0	-20.6
0.921	8.5	20.3	28.8	56.0	-27.2
24.160	8.1	21.8	29.9	60.0	-30.1
24.189	7.6	21.8	29.4	60.0	-30.6
6.037	8.3	20.5	28.8	60.0	-31.2

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.999	25.6	21.7	47.3	50.0	-2.7
0.459	18.6	20.2	38.8	46.7	-7.9
3.019	14.8	20.3	35.1	46.0	-10.9
0.921	6.0	20.3	26.3	46.0	-19.7
6.037	7.7	20.5	28.2	50.0	-21.8
24.189	5.4	21.8	27.2	50.0	-22.8
24.160	4.9	21.8	26.7	50.0	-23.3

CONCLUSION

Pass

Trevor Buls

Tested By

POWERLINE CONDUCTED EMISSIONS

WTD.2014.08.28, PSA-ESCI 2014.09.10, EmiR5 2014.07.09

EUT:	ConnectCore i.MX6 WiFi/Bluetooth	Work Order:	ETHE0009
Serial Number:	00409D 7C03CA	Date:	10/17/2014
Customer:	Etherios Design Solutions	Temperature:	22.3°C
Attendees:	None	Relative Humidity:	38.4%
Customer Project:	None	Bar. Pressure:	1007 mb
Tested By:	Trevor Buls	Job Site:	MN03
Power:	5VDC	Configuration:	ETHE0009-4

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	30	Line:	Positive Lead	Ext. Attenuation (dB):	20

COMMENTS

Customer added filtering to power supply. Modification authorized by Moshe Peri.

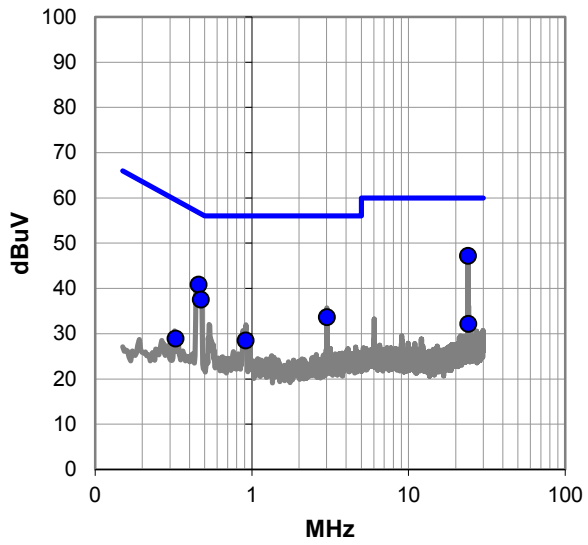
EUT OPERATING MODES

Transmitting 802.11 5180 MHz, 6 mbps

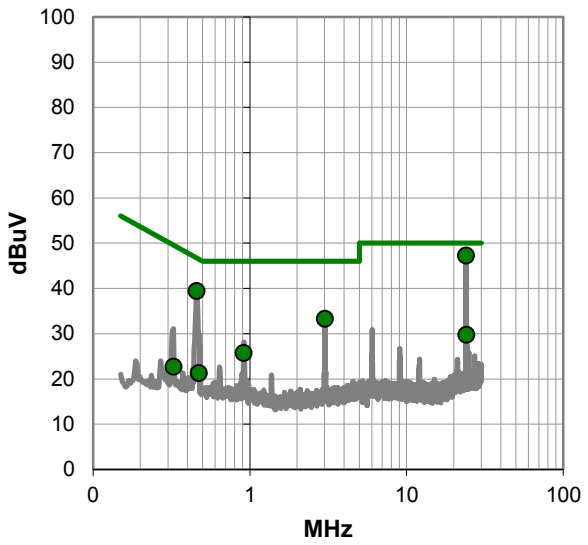
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



NORTHWEST EMC

WTD.2014.08.28, PSA-ESCI 2014.09.10, EmiR5 2014.07.09

POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #30

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.999	25.4	21.7	47.1	60.0	-12.9
0.459	20.6	20.2	40.8	56.7	-15.9
0.473	17.3	20.2	37.5	56.5	-19.0
3.018	13.3	20.3	33.6	56.0	-22.4
0.916	8.2	20.3	28.5	56.0	-27.5
24.143	10.4	21.8	32.2	60.0	-27.8
0.327	8.7	20.2	28.9	59.5	-30.6

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.999	25.5	21.7	47.2	50.0	-2.8
0.459	19.2	20.2	39.4	46.7	-7.3
3.018	12.9	20.3	33.2	46.0	-12.8
24.143	8.0	21.8	29.8	50.0	-20.2
0.916	5.4	20.3	25.7	46.0	-20.3
0.473	1.1	20.2	21.3	46.5	-25.2
0.327	2.5	20.2	22.7	49.5	-26.8

CONCLUSION

Pass

Trevor Buls

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	ConnectCore i.MX6 WiFi/Bluetooth	Work Order:	ETHE0009
Serial Number:	00409D 7C03CA	Date:	10/20/2014
Customer:	Etherios Design Solutions	Temperature:	21.5°C
Attendees:	None	Relative Humidity:	38.7%
Customer Project:	None	Bar. Pressure:	1016.9 mb
Tested By:	Dustin Sparks	Job Site:	MN03
Power:	5VDC	Configuration:	ETHE0009-4

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	42	Line:	Negative Lead	Ext. Attenuation (dB):	20

COMMENTS

Customer added filtering to power supply. Modification authorized by Moshe Peri.

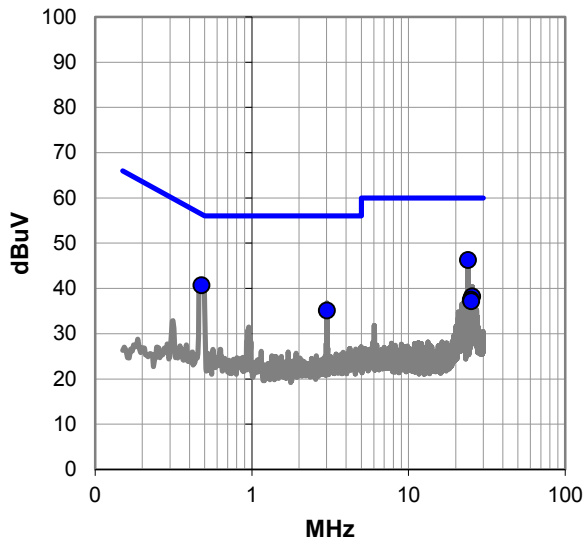
EUT OPERATING MODES

Transmitting 802.11 5240 MHz, 6 mbps

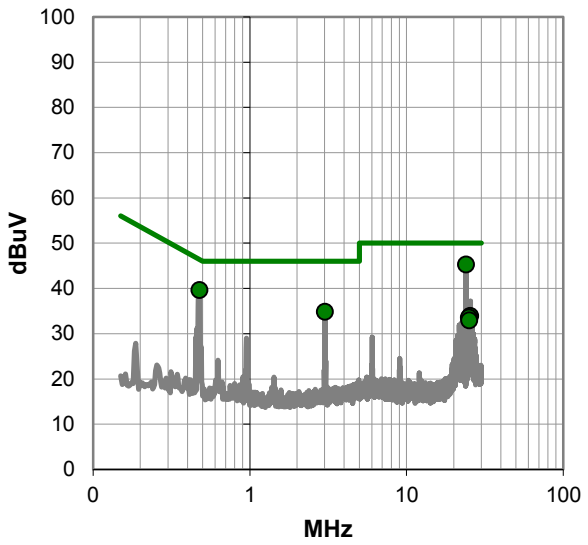
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #42

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.999	24.5	21.7	46.2	60.0	-13.8
0.477	20.5	20.2	40.7	56.4	-15.7
3.020	14.8	20.3	35.1	56.0	-20.9
25.594	16.3	21.9	38.2	60.0	-21.8
25.063	15.7	21.8	37.5	60.0	-22.5
25.167	15.3	21.8	37.1	60.0	-22.9

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.999	23.5	21.7	45.2	50.0	-4.8
0.477	19.4	20.2	39.6	46.4	-6.8
3.020	14.5	20.3	34.8	46.0	-11.2
25.594	12.0	21.9	33.9	50.0	-16.1
25.063	11.7	21.8	33.5	50.0	-16.5
25.167	11.1	21.8	32.9	50.0	-17.1

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	ConnectCore i.MX6 WiFi/Bluetooth	Work Order:	ETHE0009
Serial Number:	00409D 7C03CA	Date:	10/20/2014
Customer:	Etherios Design Solutions	Temperature:	21.5°C
Attendees:	None	Relative Humidity:	38.7%
Customer Project:	None	Bar. Pressure:	1016.9 mb
Tested By:	Dustin Sparks	Job Site:	MN03
Power:	5VDC	Configuration:	ETHE0009-4

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	43	Line:	Positive Lead	Ext. Attenuation (dB):	20

COMMENTS

Customer added filtering to power supply. Modification authorized by Moshe Peri.

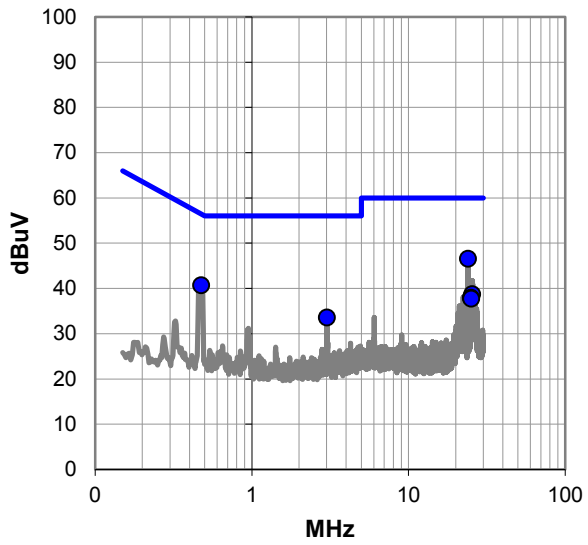
EUT OPERATING MODES

Transmitting 802.11 5240 MHz, 6 mbps

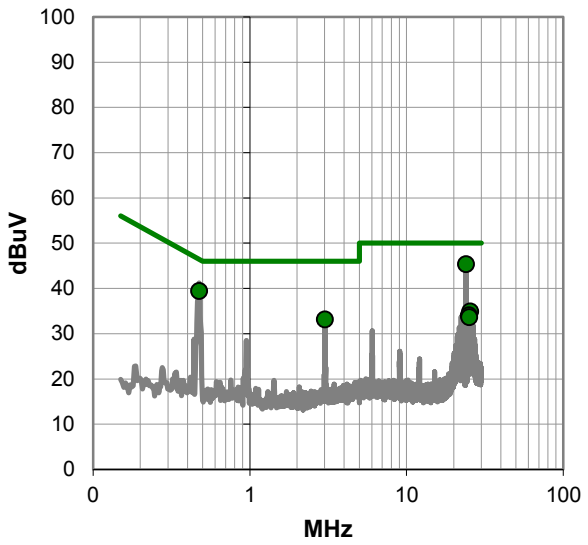
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



NORTHWEST EMC

WTD.2014.08.28, PSA-ESCI 2014.09.10, EmiR5 2014.07.09

POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #43

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.999	24.8	21.7	46.5	60.0	-13.5
0.475	20.5	20.2	40.7	56.4	-15.7
25.597	16.8	21.9	38.7	60.0	-21.3
25.065	16.1	21.8	37.9	60.0	-22.1
25.171	15.9	21.8	37.7	60.0	-22.3
3.019	13.2	20.3	33.5	56.0	-22.5

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.999	23.6	21.7	45.3	50.0	-4.7
0.475	19.2	20.2	39.4	46.4	-7.0
3.019	12.8	20.3	33.1	46.0	-12.9
25.597	13.0	21.9	34.9	50.0	-15.1
25.065	12.2	21.8	34.0	50.0	-16.0
25.171	11.8	21.8	33.6	50.0	-16.4

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	ConnectCore i.MX6 WiFi/Bluetooth	Work Order:	ETHE0009
Serial Number:	00409D 7C03CA	Date:	10/20/2014
Customer:	Etherios Design Solutions	Temperature:	21.5°C
Attendees:	None	Relative Humidity:	38.7%
Customer Project:	None	Bar. Pressure:	1016.9 mb
Tested By:	Dustin Sparks	Job Site:	MN03
Power:	5VDC	Configuration:	ETHE0009-4

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	44	Line:	Positive Lead	Ext. Attenuation (dB):	20

COMMENTS

Customer added filtering to power supply. Modification authorized by Moshe Peri.

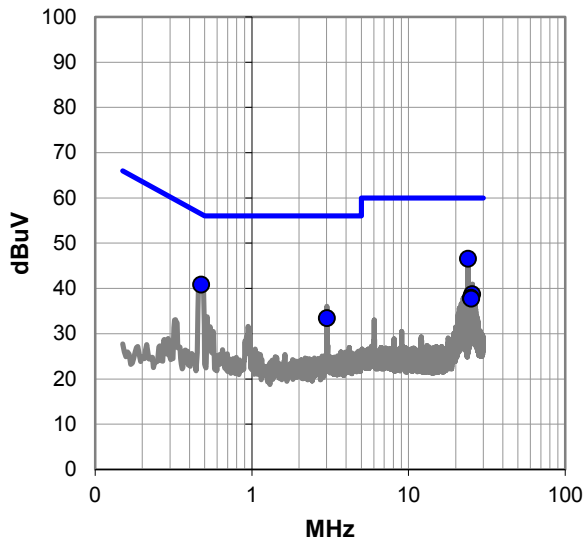
EUT OPERATING MODES

Transmitting 802.11 5260 MHz, 6 mbps

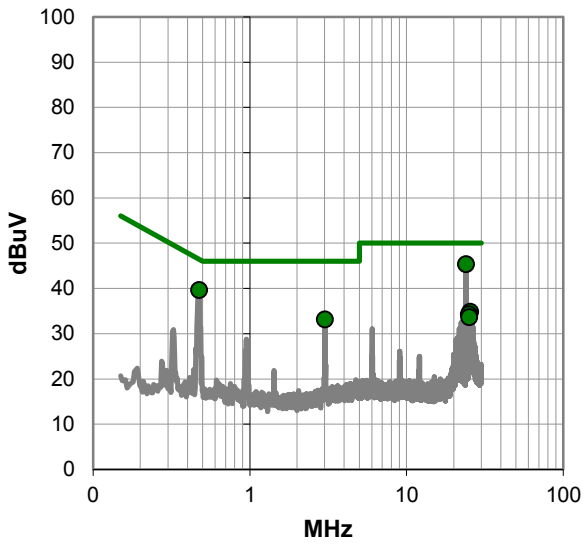
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



NORTHWEST EMC

WTD.2014.08.28, PSA-ESCI 2014.09.10, EmiR5 2014.07.09

POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #44

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.999	24.8	21.7	46.5	60.0	-13.5
0.476	20.6	20.2	40.8	56.4	-15.6
25.595	16.8	21.9	38.7	60.0	-21.3
25.063	16.1	21.8	37.9	60.0	-22.1
25.169	15.9	21.8	37.7	60.0	-22.3
3.019	13.1	20.3	33.4	56.0	-22.6

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.999	23.6	21.7	45.3	50.0	-4.7
0.476	19.4	20.2	39.6	46.4	-6.8
3.019	12.8	20.3	33.1	46.0	-12.9
25.595	12.9	21.9	34.8	50.0	-15.2
25.063	12.4	21.8	34.2	50.0	-15.8
25.169	11.8	21.8	33.6	50.0	-16.4

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	ConnectCore i.MX6 WiFi/Bluetooth	Work Order:	ETHE0009
Serial Number:	00409D 7C03CA	Date:	10/20/2014
Customer:	Etherios Design Solutions	Temperature:	21.5°C
Attendees:	None	Relative Humidity:	38.7%
Customer Project:	None	Bar. Pressure:	1016.9 mb
Tested By:	Dustin Sparks	Job Site:	MN03
Power:	5VDC	Configuration:	ETHE0009-4

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	45	Line:	Negative Lead	Ext. Attenuation (dB):	20

COMMENTS

Customer added filtering to power supply. Modification authorized by Moshe Peri.

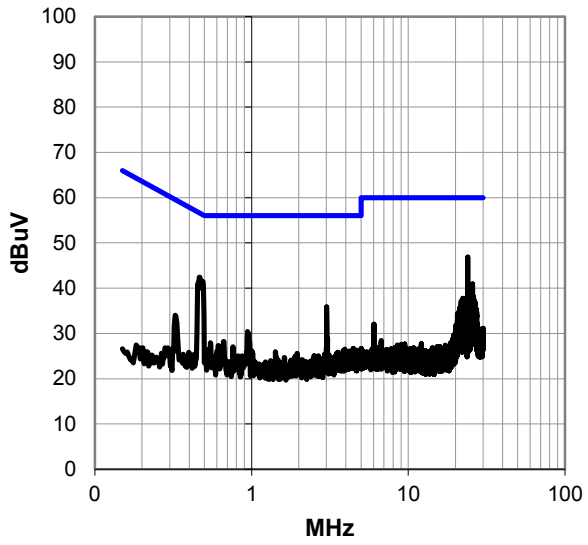
EUT OPERATING MODES

Transmitting 802.11 5260 MHz, 6 mbps

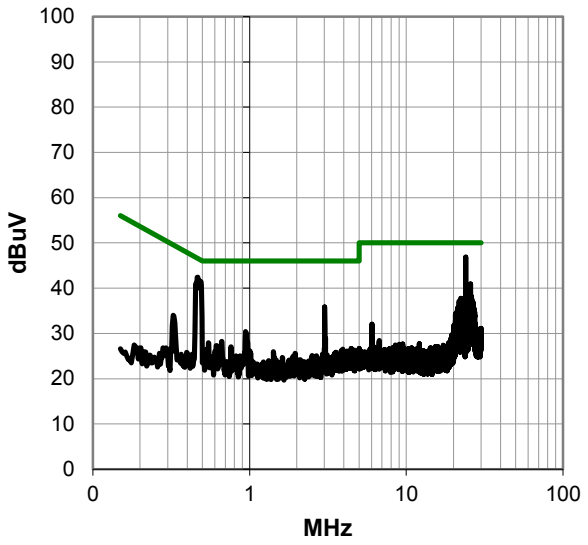
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #45

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.997	25.1	21.7	46.8	60.0	-13.2
0.463	22.2	20.2	42.4	56.6	-14.2
25.695	19.0	21.9	40.9	60.0	-19.1
25.590	18.7	21.9	40.6	60.0	-19.4
3.015	15.5	20.3	35.8	56.0	-20.2
25.064	17.9	21.8	39.7	60.0	-20.3
25.172	17.8	21.8	39.6	60.0	-20.4
25.489	16.7	21.9	38.6	60.0	-21.4
24.960	16.7	21.8	38.5	60.0	-21.5
26.124	16.2	22.0	38.2	60.0	-21.8
22.292	16.1	21.6	37.7	60.0	-22.3
26.239	15.6	22.0	37.6	60.0	-22.4
26.019	15.5	21.9	37.4	60.0	-22.6
24.534	15.6	21.8	37.4	60.0	-22.6
24.635	15.5	21.8	37.3	60.0	-22.7
21.766	15.5	21.6	37.1	60.0	-22.9
26.265	14.9	22.0	36.9	60.0	-23.1
25.273	15.0	21.9	36.9	60.0	-23.1
26.657	14.8	22.0	36.8	60.0	-23.2
26.336	14.7	22.0	36.7	60.0	-23.3
25.810	14.6	21.9	36.5	60.0	-23.5
26.057	14.2	21.9	36.1	60.0	-23.9
22.400	14.3	21.6	35.9	60.0	-24.1
25.128	14.1	21.8	35.9	60.0	-24.1
26.702	13.9	22.0	35.9	60.0	-24.1
22.938	14.1	21.7	35.8	60.0	-24.2

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.997	25.1	21.7	46.8	50.0	-3.2
0.463	22.2	20.2	42.4	46.6	-4.2
25.695	19.0	21.9	40.9	50.0	-9.1
25.590	18.7	21.9	40.6	50.0	-9.4
3.015	15.5	20.3	35.8	46.0	-10.2
25.064	17.9	21.8	39.7	50.0	-10.3
25.172	17.8	21.8	39.6	50.0	-10.4
25.489	16.7	21.9	38.6	50.0	-11.4
24.960	16.7	21.8	38.5	50.0	-11.5
26.124	16.2	22.0	38.2	50.0	-11.8
22.292	16.1	21.6	37.7	50.0	-12.3
26.239	15.6	22.0	37.6	50.0	-12.4
26.019	15.5	21.9	37.4	50.0	-12.6
24.534	15.6	21.8	37.4	50.0	-12.6
24.635	15.5	21.8	37.3	50.0	-12.7
21.766	15.5	21.6	37.1	50.0	-12.9
26.265	14.9	22.0	36.9	50.0	-13.1
25.273	15.0	21.9	36.9	50.0	-13.1
26.657	14.8	22.0	36.8	50.0	-13.2
26.336	14.7	22.0	36.7	50.0	-13.3
25.810	14.6	21.9	36.5	50.0	-13.5
26.057	14.2	21.9	36.1	50.0	-13.9
22.400	14.3	21.6	35.9	50.0	-14.1
25.128	14.1	21.8	35.9	50.0	-14.1
26.702	13.9	22.0	35.9	50.0	-14.1
22.938	14.1	21.7	35.8	50.0	-14.2

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	ConnectCore i.MX6 WiFi/Bluetooth	Work Order:	ETHE0009
Serial Number:	00409D 7C03CA	Date:	10/20/2014
Customer:	Etherios Design Solutions	Temperature:	21.5°C
Attendees:	None	Relative Humidity:	38.7%
Customer Project:	None	Bar. Pressure:	1016.9 mb
Tested By:	Dustin Sparks	Job Site:	MN03
Power:	5VDC	Configuration:	ETHE0009-4

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	46	Line:	Negative Lead	Ext. Attenuation (dB):	20

COMMENTS

Customer added filtering to power supply. Modification authorized by Moshe Peri.

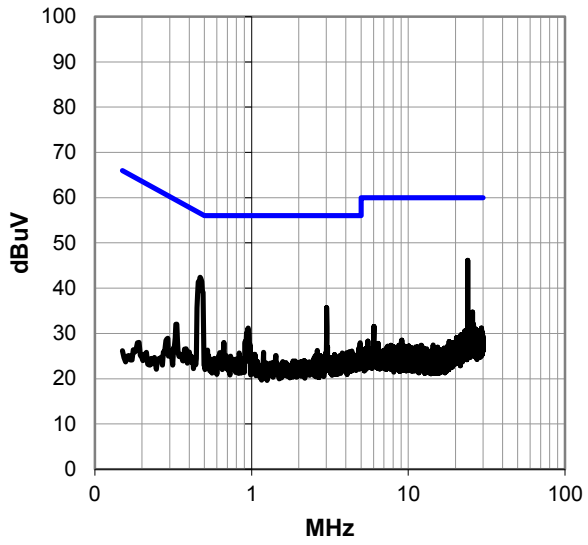
EUT OPERATING MODES

Transmitting 802.11 5320 MHz, 6 mbps

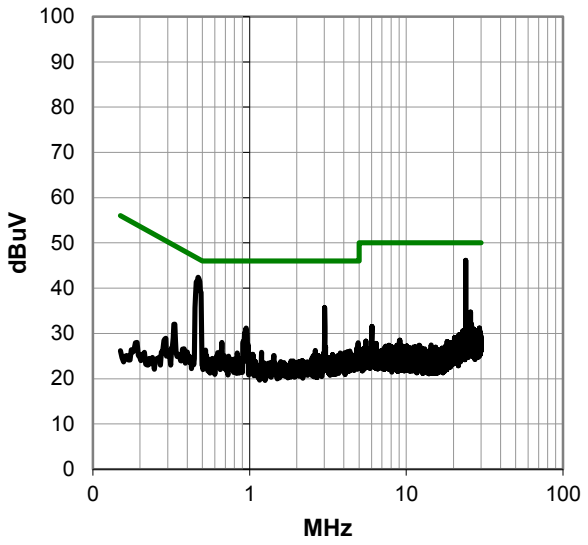
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



NORTHWEST EMC

WTD.2014.08.28, PSA-ESCI 2014.09.10, EmiR5 2014.07.09

POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #46

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.997	24.4	21.7	46.1	60.0	-13.9
0.471	22.2	20.2	42.4	56.5	-14.1
3.015	15.4	20.3	35.7	56.0	-20.3
0.952	10.9	20.3	31.2	56.0	-24.8
25.698	12.8	21.9	34.7	60.0	-25.3
24.135	10.9	21.8	32.7	60.0	-27.3
25.598	10.7	21.9	32.6	60.0	-27.4
24.102	10.8	21.8	32.6	60.0	-27.4
0.329	11.8	20.2	32.0	59.5	-27.5
0.911	8.0	20.3	28.3	56.0	-27.7
25.060	10.3	21.8	32.1	60.0	-27.9
26.127	10.1	22.0	32.1	60.0	-27.9
0.665	7.8	20.2	28.0	56.0	-28.0
4.925	7.5	20.5	28.0	56.0	-28.0
24.176	10.1	21.8	31.9	60.0	-28.1
25.161	9.9	21.8	31.7	60.0	-28.3
24.997	9.7	21.8	31.5	60.0	-28.5
6.033	11.0	20.5	31.5	60.0	-28.5
0.978	7.2	20.3	27.5	56.0	-28.5
26.224	9.5	22.0	31.5	60.0	-28.5
24.665	9.5	21.8	31.3	60.0	-28.7
29.302	8.9	22.3	31.2	60.0	-28.8
24.441	9.4	21.8	31.2	60.0	-28.8
3.053	6.7	20.3	27.0	56.0	-29.0
26.870	8.9	22.0	30.9	60.0	-29.1
25.486	9.0	21.9	30.9	60.0	-29.1

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.997	24.4	21.7	46.1	50.0	-3.9
0.471	22.2	20.2	42.4	46.5	-4.1
3.015	15.4	20.3	35.7	46.0	-10.3
0.952	10.9	20.3	31.2	46.0	-14.8
25.698	12.8	21.9	34.7	50.0	-15.3
24.135	10.9	21.8	32.7	50.0	-17.3
25.598	10.7	21.9	32.6	50.0	-17.4
24.102	10.8	21.8	32.6	50.0	-17.4
0.329	11.8	20.2	32.0	49.5	-17.5
0.911	8.0	20.3	28.3	46.0	-17.7
25.060	10.3	21.8	32.1	50.0	-17.9
26.127	10.1	22.0	32.1	50.0	-17.9
0.665	7.8	20.2	28.0	46.0	-18.0
4.925	7.5	20.5	28.0	46.0	-18.0
24.176	10.1	21.8	31.9	50.0	-18.1
25.161	9.9	21.8	31.7	50.0	-18.3
24.997	9.7	21.8	31.5	50.0	-18.5
6.033	11.0	20.5	31.5	50.0	-18.5
0.978	7.2	20.3	27.5	46.0	-18.5
26.224	9.5	22.0	31.5	50.0	-18.5
24.665	9.5	21.8	31.3	50.0	-18.7
29.302	8.9	22.3	31.2	50.0	-18.8
24.441	9.4	21.8	31.2	50.0	-18.8
3.053	6.7	20.3	27.0	46.0	-19.0
26.870	8.9	22.0	30.9	50.0	-19.1
25.486	9.0	21.9	30.9	50.0	-19.1

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	ConnectCore i.MX6 WiFi/Bluetooth	Work Order:	ETHE0009
Serial Number:	00409D 7C03CA	Date:	10/20/2014
Customer:	Etherios Design Solutions	Temperature:	21.5°C
Attendees:	None	Relative Humidity:	38.7%
Customer Project:	None	Bar. Pressure:	1016.9 mb
Tested By:	Dustin Sparks	Job Site:	MN03
Power:	5VDC	Configuration:	ETHE0009-4

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	47	Line:	Positive Lead	Ext. Attenuation (dB):	20

COMMENTS

Customer added filtering to power supply. Modification authorized by Moshe Peri.

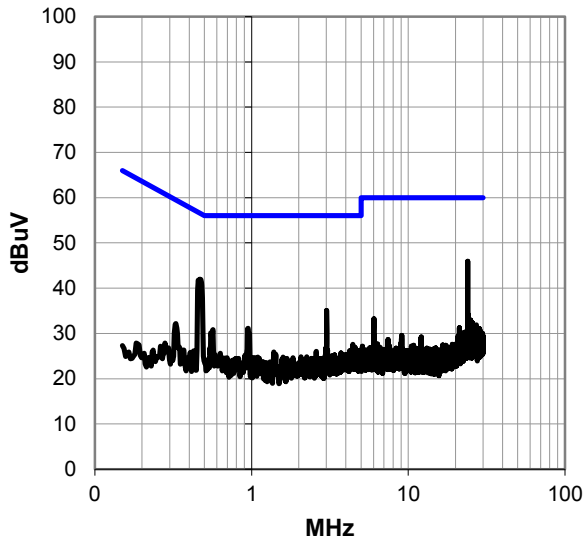
EUT OPERATING MODES

Transmitting 802.11 5320 MHz, 6 mbps

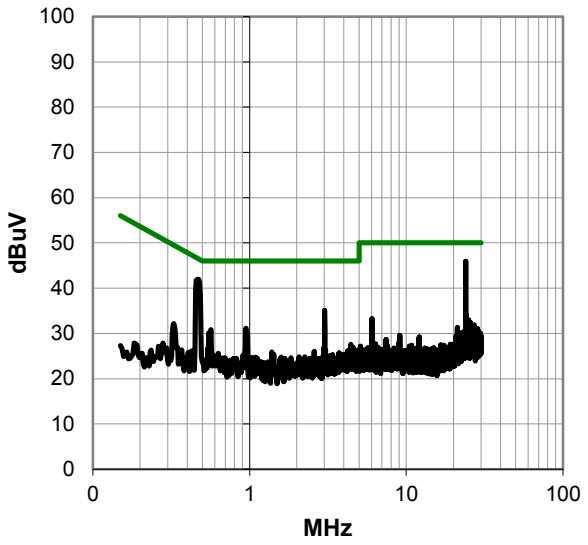
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



NORTHWEST EMC

WTD.2014.08.28, PSA-ESCI 2014.09.10, EmiR5 2014.07.09

POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #47

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.997	24.2	21.7	45.9	60.0	-14.1
0.467	21.8	20.2	42.0	56.6	-14.6
3.015	14.7	20.3	35.0	56.0	-21.0
0.952	10.8	20.3	31.1	56.0	-24.9
0.568	10.6	20.2	30.8	56.0	-25.2
24.146	12.4	21.8	34.2	60.0	-25.8
0.971	9.7	20.3	30.0	56.0	-26.0
24.176	11.7	21.8	33.5	60.0	-26.5
24.113	11.6	21.8	33.4	60.0	-26.6
6.037	12.7	20.5	33.2	60.0	-26.8
24.956	11.1	21.8	32.9	60.0	-27.1
0.329	12.0	20.2	32.2	59.5	-27.3
25.165	10.7	21.8	32.5	60.0	-27.5
25.698	10.4	21.9	32.3	60.0	-27.7
25.594	10.4	21.9	32.3	60.0	-27.7
25.064	10.4	21.8	32.2	60.0	-27.8
25.799	10.1	21.9	32.0	60.0	-28.0
24.068	10.2	21.8	32.0	60.0	-28.0
27.153	9.8	22.1	31.9	60.0	-28.1
4.422	7.2	20.4	27.6	56.0	-28.4
26.210	9.4	22.0	31.4	60.0	-28.6
26.336	9.3	22.0	31.3	60.0	-28.7
21.240	9.7	21.6	31.3	60.0	-28.7
26.583	9.2	22.0	31.2	60.0	-28.8
28.545	8.8	22.2	31.0	60.0	-29.0
24.534	9.2	21.8	31.0	60.0	-29.0

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.997	24.2	21.7	45.9	50.0	-4.1
0.467	21.8	20.2	42.0	46.6	-4.6
3.015	14.7	20.3	35.0	46.0	-11.0
0.952	10.8	20.3	31.1	46.0	-14.9
0.568	10.6	20.2	30.8	46.0	-15.2
24.146	12.4	21.8	34.2	50.0	-15.8
0.971	9.7	20.3	30.0	46.0	-16.0
24.176	11.7	21.8	33.5	50.0	-16.5
24.113	11.6	21.8	33.4	50.0	-16.6
6.037	12.7	20.5	33.2	50.0	-16.8
24.956	11.1	21.8	32.9	50.0	-17.1
0.329	12.0	20.2	32.2	49.5	-17.3
25.165	10.7	21.8	32.5	50.0	-17.5
25.698	10.4	21.9	32.3	50.0	-17.7
25.594	10.4	21.9	32.3	50.0	-17.7
25.064	10.4	21.8	32.2	50.0	-17.8
25.799	10.1	21.9	32.0	50.0	-18.0
24.068	10.2	21.8	32.0	50.0	-18.0
27.153	9.8	22.1	31.9	50.0	-18.1
4.422	7.2	20.4	27.6	46.0	-18.4
26.210	9.4	22.0	31.4	50.0	-18.6
26.336	9.3	22.0	31.3	50.0	-18.7
21.240	9.7	21.6	31.3	50.0	-18.7
26.583	9.2	22.0	31.2	50.0	-18.8
28.545	8.8	22.2	31.0	50.0	-19.0
24.534	9.2	21.8	31.0	50.0	-19.0

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	ConnectCore i.MX6 WiFi/Bluetooth	Work Order:	ETHE0009
Serial Number:	00409D 7C03CA	Date:	10/20/2014
Customer:	Etherios Design Solutions	Temperature:	21.5°C
Attendees:	None	Relative Humidity:	38.7%
Customer Project:	None	Bar. Pressure:	1016.9 mb
Tested By:	Dustin Sparks	Job Site:	MN03
Power:	5VDC	Configuration:	ETHE0009-4

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	48	Line:	Positive Lead	Ext. Attenuation (dB):	20

COMMENTS

Customer added filtering to power supply. Modification authorized by Moshe Peri.

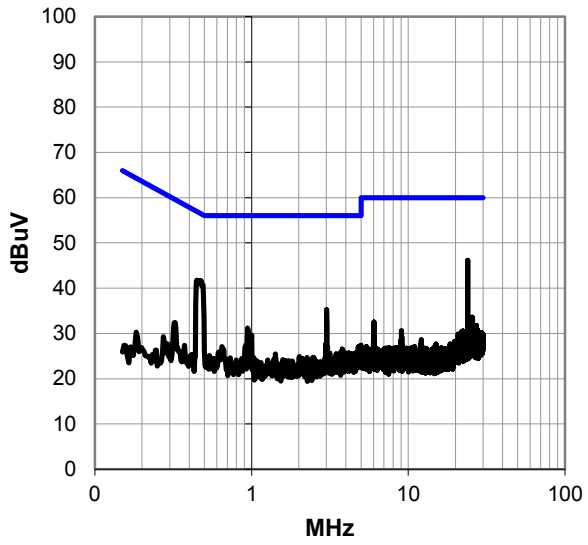
EUT OPERATING MODES

Transmitting 802.11 5500 MHz, 6 mbps

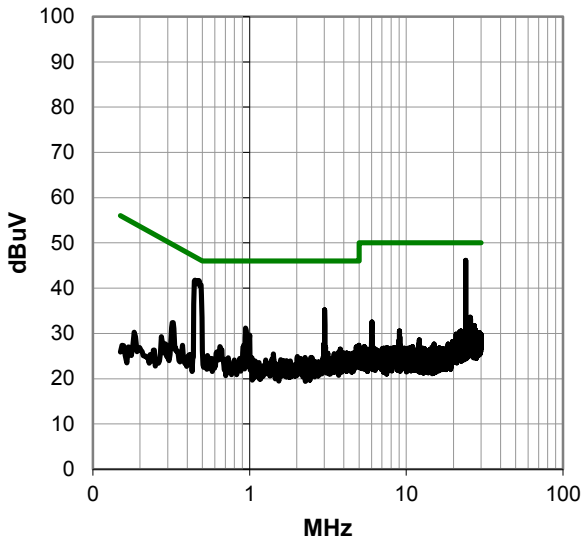
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



NORTHWEST EMC

WTD.2014.08.28, PSA-ESCI 2014.09.10, EmiR5 2014.07.09

POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #48

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.997	24.4	21.7	46.1	60.0	-13.9
0.448	21.6	20.2	41.8	56.9	-15.1
3.015	14.9	20.3	35.2	56.0	-20.8
0.945	10.9	20.3	31.2	56.0	-24.8
1.001	9.3	20.3	29.6	56.0	-26.4
25.598	11.7	21.9	33.6	60.0	-26.4
24.180	11.6	21.8	33.4	60.0	-26.6
25.169	11.5	21.8	33.3	60.0	-26.7
25.698	11.3	21.9	33.2	60.0	-26.8
24.146	11.4	21.8	33.2	60.0	-26.8
25.060	11.0	21.8	32.8	60.0	-27.2
0.322	12.2	20.2	32.4	59.7	-27.3
6.033	12.0	20.5	32.5	60.0	-27.5
24.113	10.4	21.8	32.2	60.0	-27.8
24.038	10.2	21.8	32.0	60.0	-28.0
27.168	9.7	22.1	31.8	60.0	-28.2
2.985	7.4	20.3	27.7	56.0	-28.3
0.919	7.1	20.3	27.4	56.0	-28.6
4.978	6.9	20.5	27.4	56.0	-28.6
24.217	9.6	21.8	31.4	60.0	-28.6
24.426	9.5	21.8	31.3	60.0	-28.7
26.124	9.3	22.0	31.3	60.0	-28.7
24.639	9.4	21.8	31.2	60.0	-28.8
0.646	6.9	20.2	27.1	56.0	-28.9
25.236	9.2	21.9	31.1	60.0	-29.0
4.795	6.6	20.4	27.0	56.0	-29.0

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.997	24.4	21.7	46.1	50.0	-3.9
0.448	21.6	20.2	41.8	46.9	-5.1
3.015	14.9	20.3	35.2	46.0	-10.8
0.945	10.9	20.3	31.2	46.0	-14.8
1.001	9.3	20.3	29.6	46.0	-16.4
25.598	11.7	21.9	33.6	50.0	-16.4
24.180	11.6	21.8	33.4	50.0	-16.6
25.169	11.5	21.8	33.3	50.0	-16.7
25.698	11.3	21.9	33.2	50.0	-16.8
24.146	11.4	21.8	33.2	50.0	-16.8
25.060	11.0	21.8	32.8	50.0	-17.2
0.322	12.2	20.2	32.4	49.7	-17.3
6.033	12.0	20.5	32.5	50.0	-17.5
24.113	10.4	21.8	32.2	50.0	-17.8
24.038	10.2	21.8	32.0	50.0	-18.0
27.168	9.7	22.1	31.8	50.0	-18.2
2.985	7.4	20.3	27.7	46.0	-18.3
0.919	7.1	20.3	27.4	46.0	-18.6
4.978	6.9	20.5	27.4	46.0	-18.6
24.217	9.6	21.8	31.4	50.0	-18.6
24.426	9.5	21.8	31.3	50.0	-18.7
26.124	9.3	22.0	31.3	50.0	-18.7
24.639	9.4	21.8	31.2	50.0	-18.8
0.646	6.9	20.2	27.1	46.0	-18.9
25.236	9.2	21.9	31.1	50.0	-19.0
4.795	6.6	20.4	27.0	46.0	-19.0

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	ConnectCore i.MX6 WiFi/Bluetooth	Work Order:	ETHE0009
Serial Number:	00409D 7C03CA	Date:	10/20/2014
Customer:	Etherios Design Solutions	Temperature:	21.5°C
Attendees:	None	Relative Humidity:	38.7%
Customer Project:	None	Bar. Pressure:	1016.9 mb
Tested By:	Dustin Sparks	Job Site:	MN03
Power:	5VDC	Configuration:	ETHE0009-4

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	49	Line:	Negative Lead	Ext. Attenuation (dB):	20

COMMENTS

Customer added filtering to power supply. Modification authorized by Moshe Peri.

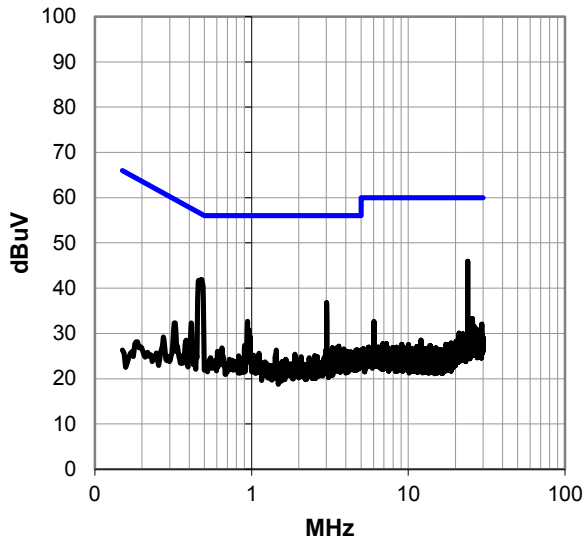
EUT OPERATING MODES

Transmitting 802.11 5500 MHz, 6 mbps

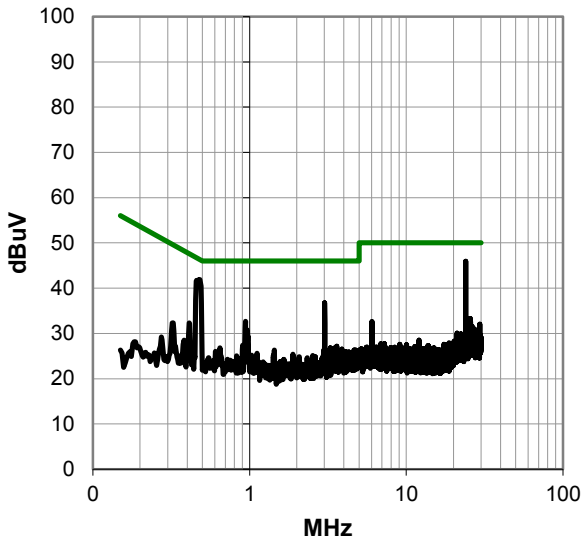
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #49

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.997	24.2	21.7	45.9	60.0	-14.1
0.478	21.7	20.2	41.9	56.4	-14.5
3.015	16.4	20.3	36.7	56.0	-19.3
0.941	12.4	20.3	32.7	56.0	-23.3
0.411	12.1	20.2	32.3	57.6	-25.3
25.594	11.4	21.9	33.3	60.0	-26.7
24.143	11.4	21.8	33.2	60.0	-26.8
0.322	12.1	20.2	32.3	59.7	-27.4
6.037	12.1	20.5	32.6	60.0	-27.4
25.695	10.7	21.9	32.6	60.0	-27.4
25.489	10.4	21.9	32.3	60.0	-27.7
29.429	9.7	22.3	32.0	60.0	-28.0
25.064	10.1	21.8	31.9	60.0	-28.1
24.113	9.9	21.8	31.7	60.0	-28.3
25.161	9.8	21.8	31.6	60.0	-28.4
26.299	9.6	22.0	31.6	60.0	-28.4
25.001	9.6	21.8	31.4	60.0	-28.6
0.904	7.1	20.3	27.4	56.0	-28.6
25.803	9.4	21.9	31.3	60.0	-28.7
3.605	6.8	20.4	27.2	56.0	-28.8
24.173	9.3	21.8	31.1	60.0	-28.9
24.057	9.3	21.8	31.1	60.0	-28.9
27.168	8.9	22.1	31.0	60.0	-29.0
26.019	9.0	21.9	30.9	60.0	-29.1
24.281	9.1	21.8	30.9	60.0	-29.1
26.232	8.9	22.0	30.9	60.0	-29.1

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.997	24.2	21.7	45.9	50.0	-4.1
0.478	21.7	20.2	41.9	46.4	-4.5
3.015	16.4	20.3	36.7	46.0	-9.3
0.941	12.4	20.3	32.7	46.0	-13.3
0.411	12.1	20.2	32.3	47.6	-15.3
25.594	11.4	21.9	33.3	50.0	-16.7
24.143	11.4	21.8	33.2	50.0	-16.8
0.322	12.1	20.2	32.3	49.7	-17.4
6.037	12.1	20.5	32.6	50.0	-17.4
25.695	10.7	21.9	32.6	50.0	-17.4
25.489	10.4	21.9	32.3	50.0	-17.7
29.429	9.7	22.3	32.0	50.0	-18.0
25.064	10.1	21.8	31.9	50.0	-18.1
24.113	9.9	21.8	31.7	50.0	-18.3
25.161	9.8	21.8	31.6	50.0	-18.4
26.299	9.6	22.0	31.6	50.0	-18.4
25.001	9.6	21.8	31.4	50.0	-18.6
0.904	7.1	20.3	27.4	46.0	-18.6
25.803	9.4	21.9	31.3	50.0	-18.7
3.605	6.8	20.4	27.2	46.0	-18.8
24.173	9.3	21.8	31.1	50.0	-18.9
24.057	9.3	21.8	31.1	50.0	-18.9
27.168	8.9	22.1	31.0	50.0	-19.0
26.019	9.0	21.9	30.9	50.0	-19.1
24.281	9.1	21.8	30.9	50.0	-19.1
26.232	8.9	22.0	30.9	50.0	-19.1

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	ConnectCore i.MX6 WiFi/Bluetooth	Work Order:	ETHE0009
Serial Number:	00409D 7C03CA	Date:	10/20/2014
Customer:	Etherios Design Solutions	Temperature:	21.5°C
Attendees:	None	Relative Humidity:	38.7%
Customer Project:	None	Bar. Pressure:	1016.9 mb
Tested By:	Dustin Sparks	Job Site:	MN03
Power:	5VDC	Configuration:	ETHE0009-4

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	50	Line:	Negative Lead	Ext. Attenuation (dB):	20

COMMENTS

Customer added filtering to power supply. Modification authorized by Moshe Peri.

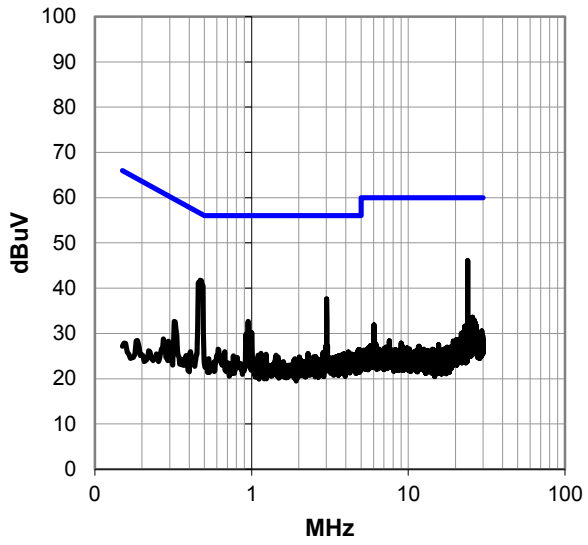
EUT OPERATING MODES

Transmitting 802.11 5580 MHz, 6 mbps

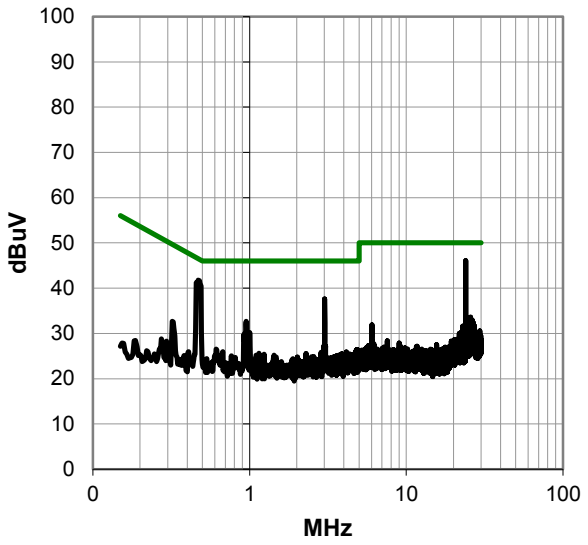
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



NORTHWEST EMC

WTD.2014.08.28, PSA-ESCI 2014.09.10, EmiR5 2014.07.09

POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #50

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.997	24.3	21.7	46.0	60.0	-14.0
0.471	21.6	20.2	41.8	56.5	-14.7
3.015	17.3	20.3	37.6	56.0	-18.4
0.952	12.4	20.3	32.7	56.0	-23.3
1.001	9.9	20.3	30.2	56.0	-25.8
0.926	9.6	20.3	29.9	56.0	-26.1
25.702	11.7	21.9	33.6	60.0	-26.4
25.594	11.6	21.9	33.5	60.0	-26.5
0.322	12.5	20.2	32.7	59.7	-27.0
26.340	11.0	22.0	33.0	60.0	-27.0
24.143	10.7	21.8	32.5	60.0	-27.5
26.874	10.3	22.0	32.3	60.0	-27.7
24.176	10.5	21.8	32.3	60.0	-27.7
24.639	10.4	21.8	32.2	60.0	-27.8
25.165	10.3	21.8	32.1	60.0	-27.9
25.057	10.2	21.8	32.0	60.0	-28.0
24.105	10.2	21.8	32.0	60.0	-28.0
6.033	11.4	20.5	31.9	60.0	-28.1
25.348	9.9	21.9	31.8	60.0	-28.2
26.736	9.7	22.0	31.7	60.0	-28.3
27.168	9.6	22.1	31.7	60.0	-28.3
26.127	9.7	22.0	31.7	60.0	-28.3
22.934	9.9	21.7	31.6	60.0	-28.4
26.217	9.5	22.0	31.5	60.0	-28.5
24.076	9.7	21.8	31.5	60.0	-28.5
3.049	6.9	20.3	27.2	56.0	-28.8

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.997	24.3	21.7	46.0	50.0	-4.0
0.471	21.6	20.2	41.8	46.5	-4.7
3.015	17.3	20.3	37.6	46.0	-8.4
0.952	12.4	20.3	32.7	46.0	-13.3
1.001	9.9	20.3	30.2	46.0	-15.8
0.926	9.6	20.3	29.9	46.0	-16.1
25.702	11.7	21.9	33.6	50.0	-16.4
25.594	11.6	21.9	33.5	50.0	-16.5
0.322	12.5	20.2	32.7	49.7	-17.0
26.340	11.0	22.0	33.0	50.0	-17.0
24.143	10.7	21.8	32.5	50.0	-17.5
26.874	10.3	22.0	32.3	50.0	-17.7
24.176	10.5	21.8	32.3	50.0	-17.7
24.639	10.4	21.8	32.2	50.0	-17.8
25.165	10.3	21.8	32.1	50.0	-17.9
25.057	10.2	21.8	32.0	50.0	-18.0
24.105	10.2	21.8	32.0	50.0	-18.0
6.033	11.4	20.5	31.9	50.0	-18.1
25.348	9.9	21.9	31.8	50.0	-18.2
26.736	9.7	22.0	31.7	50.0	-18.3
27.168	9.6	22.1	31.7	50.0	-18.3
26.127	9.7	22.0	31.7	50.0	-18.3
22.934	9.9	21.7	31.6	50.0	-18.4
26.217	9.5	22.0	31.5	50.0	-18.5
24.076	9.7	21.8	31.5	50.0	-18.5
3.049	6.9	20.3	27.2	46.0	-18.8

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	ConnectCore i.MX6 WiFi/Bluetooth	Work Order:	ETHE0009
Serial Number:	00409D 7C03CA	Date:	10/20/2014
Customer:	Etherios Design Solutions	Temperature:	21.5°C
Attendees:	None	Relative Humidity:	38.7%
Customer Project:	None	Bar. Pressure:	1016.9 mb
Tested By:	Dustin Sparks	Job Site:	MN03
Power:	5VDC	Configuration:	ETHE0009-4

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	51	Line:	Positive Lead	Ext. Attenuation (dB):	20

COMMENTS

Customer added filtering to power supply. Modification authorized by Moshe Peri.

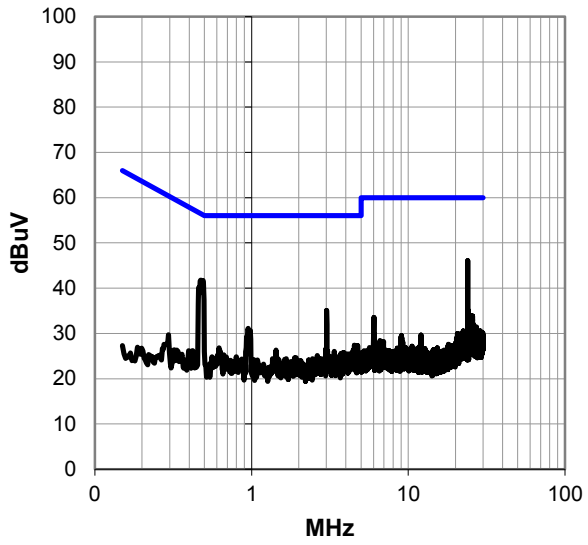
EUT OPERATING MODES

Transmitting 802.11 5580 MHz, 6 mbps

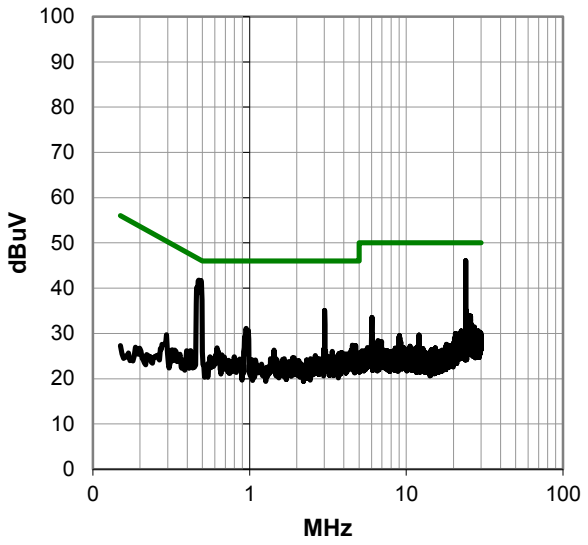
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #51

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.997	24.3	21.7	46.0	60.0	-14.0
0.475	21.6	20.2	41.8	56.4	-14.6
3.015	14.7	20.3	35.0	56.0	-21.0
0.952	10.8	20.3	31.1	56.0	-24.9
24.143	13.3	21.8	35.1	60.0	-24.9
0.982	10.3	20.3	30.6	56.0	-25.4
24.105	12.3	21.8	34.1	60.0	-25.9
25.590	12.0	21.9	33.9	60.0	-26.1
25.695	11.9	21.9	33.8	60.0	-26.2
6.033	13.0	20.5	33.5	60.0	-26.5
25.165	11.2	21.8	33.0	60.0	-27.0
25.620	11.0	21.9	32.9	60.0	-27.1
24.176	11.1	21.8	32.9	60.0	-27.1
25.060	10.9	21.8	32.7	60.0	-27.3
24.079	10.7	21.8	32.5	60.0	-27.5
24.635	10.4	21.8	32.2	60.0	-27.8
24.534	10.4	21.8	32.2	60.0	-27.8
26.127	10.0	22.0	32.0	60.0	-28.0
26.243	9.7	22.0	31.7	60.0	-28.3
4.541	7.0	20.4	27.4	56.0	-28.6
27.161	9.3	22.1	31.4	60.0	-28.6
4.758	6.9	20.4	27.3	56.0	-28.7
26.646	9.3	22.0	31.3	60.0	-28.7
26.336	9.1	22.0	31.1	60.0	-28.9
25.001	9.2	21.8	31.0	60.0	-29.0
24.956	9.2	21.8	31.0	60.0	-29.0

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.997	24.3	21.7	46.0	50.0	-4.0
0.475	21.6	20.2	41.8	46.4	-4.6
3.015	14.7	20.3	35.0	46.0	-11.0
0.952	10.8	20.3	31.1	46.0	-14.9
24.143	13.3	21.8	35.1	50.0	-14.9
0.982	10.3	20.3	30.6	46.0	-15.4
24.105	12.3	21.8	34.1	50.0	-15.9
25.590	12.0	21.9	33.9	50.0	-16.1
25.695	11.9	21.9	33.8	50.0	-16.2
6.033	13.0	20.5	33.5	50.0	-16.5
25.165	11.2	21.8	33.0	50.0	-17.0
25.620	11.0	21.9	32.9	50.0	-17.1
24.176	11.1	21.8	32.9	50.0	-17.1
25.060	10.9	21.8	32.7	50.0	-17.3
24.079	10.7	21.8	32.5	50.0	-17.5
24.635	10.4	21.8	32.2	50.0	-17.8
24.534	10.4	21.8	32.2	50.0	-17.8
26.127	10.0	22.0	32.0	50.0	-18.0
26.243	9.7	22.0	31.7	50.0	-18.3
4.541	7.0	20.4	27.4	46.0	-18.6
27.161	9.3	22.1	31.4	50.0	-18.6
4.758	6.9	20.4	27.3	46.0	-18.7
26.646	9.3	22.0	31.3	50.0	-18.7
26.336	9.1	22.0	31.1	50.0	-18.9
25.001	9.2	21.8	31.0	50.0	-19.0
24.956	9.2	21.8	31.0	50.0	-19.0

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	ConnectCore i.MX6 WiFi/Bluetooth	Work Order:	ETHE0009
Serial Number:	00409D 7C03CA	Date:	10/20/2014
Customer:	Etherios Design Solutions	Temperature:	21.5°C
Attendees:	None	Relative Humidity:	38.7%
Customer Project:	None	Bar. Pressure:	1016.9 mb
Tested By:	Dustin Sparks	Job Site:	MN03
Power:	5VDC	Configuration:	ETHE0009-4

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	52	Line:	Positive Lead	Ext. Attenuation (dB):	20

COMMENTS

Customer added filtering to power supply. Modification authorized by Moshe Peri.

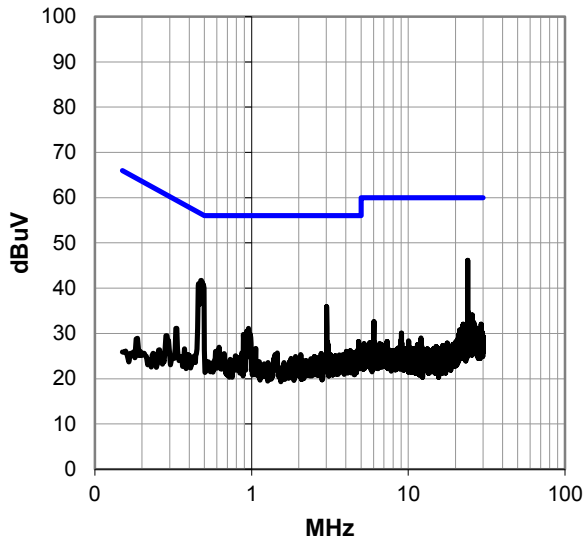
EUT OPERATING MODES

Transmitting 802.11 5700 MHz, 6 mbps

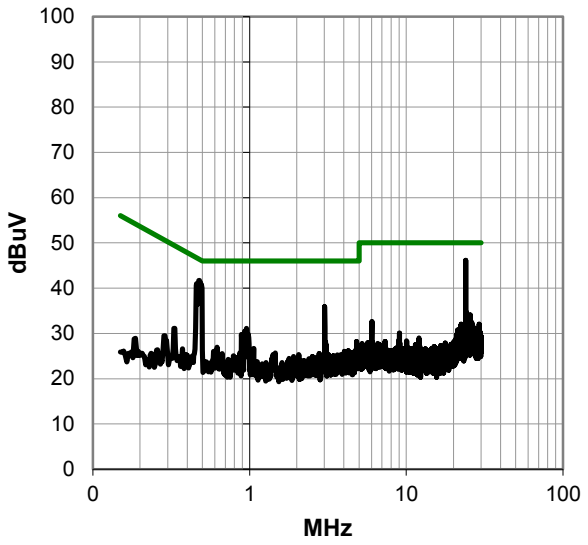
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #52

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.997	24.4	21.7	46.1	60.0	-13.9
0.475	21.5	20.2	41.7	56.4	-14.7
0.460	20.8	20.2	41.0	56.7	-15.7
3.015	15.6	20.3	35.9	56.0	-20.1
0.956	10.8	20.3	31.1	56.0	-24.9
24.146	12.9	21.8	34.7	60.0	-25.3
0.933	10.2	20.3	30.5	56.0	-25.5
25.594	12.2	21.9	34.1	60.0	-25.9
0.982	9.5	20.3	29.8	56.0	-26.2
0.889	9.5	20.3	29.8	56.0	-26.2
25.060	11.9	21.8	33.7	60.0	-26.3
25.169	11.7	21.8	33.5	60.0	-26.5
24.173	11.6	21.8	33.4	60.0	-26.6
24.109	11.4	21.8	33.2	60.0	-26.8
25.698	11.0	21.9	32.9	60.0	-27.1
24.079	11.1	21.8	32.9	60.0	-27.1
6.033	12.1	20.5	32.6	60.0	-27.4
26.232	10.4	22.0	32.4	60.0	-27.6
4.813	7.8	20.4	28.2	56.0	-27.8
3.049	7.8	20.3	28.1	56.0	-27.9
25.807	10.2	21.9	32.1	60.0	-27.9
22.397	10.4	21.6	32.0	60.0	-28.0
29.243	9.7	22.3	32.0	60.0	-28.0
22.307	10.1	21.6	31.7	60.0	-28.3
24.631	9.9	21.8	31.7	60.0	-28.3
25.489	9.8	21.9	31.7	60.0	-28.3

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
23.997	24.4	21.7	46.1	50.0	-3.9
0.475	21.5	20.2	41.7	46.4	-4.7
0.460	20.8	20.2	41.0	46.7	-5.7
3.015	15.6	20.3	35.9	46.0	-10.1
0.956	10.8	20.3	31.1	46.0	-14.9
24.146	12.9	21.8	34.7	50.0	-15.3
0.933	10.2	20.3	30.5	46.0	-15.5
25.594	12.2	21.9	34.1	50.0	-15.9
0.982	9.5	20.3	29.8	46.0	-16.2
0.889	9.5	20.3	29.8	46.0	-16.2
25.060	11.9	21.8	33.7	50.0	-16.3
25.169	11.7	21.8	33.5	50.0	-16.5
24.173	11.6	21.8	33.4	50.0	-16.6
24.109	11.4	21.8	33.2	50.0	-16.8
25.698	11.0	21.9	32.9	50.0	-17.1
24.079	11.1	21.8	32.9	50.0	-17.1
6.033	12.1	20.5	32.6	50.0	-17.4
26.232	10.4	22.0	32.4	50.0	-17.6
4.813	7.8	20.4	28.2	46.0	-17.8
3.049	7.8	20.3	28.1	46.0	-17.9
25.807	10.2	21.9	32.1	50.0	-17.9
22.397	10.4	21.6	32.0	50.0	-18.0
29.243	9.7	22.3	32.0	50.0	-18.0
22.307	10.1	21.6	31.7	50.0	-18.3
24.631	9.9	21.8	31.7	50.0	-18.3
25.489	9.8	21.9	31.7	50.0	-18.3

CONCLUSION

Pass

Tested By

POWERLINE CONDUCTED EMISSIONS

EUT:	ConnectCore i.MX6 WiFi/Bluetooth	Work Order:	ETHE0009
Serial Number:	00409D 7C03CA	Date:	10/20/2014
Customer:	Etherios Design Solutions	Temperature:	21.5°C
Attendees:	None	Relative Humidity:	38.7%
Customer Project:	None	Bar. Pressure:	1016.9 mb
Tested By:	Dustin Sparks	Job Site:	MN03
Power:	5VDC	Configuration:	ETHE0009-4

TEST SPECIFICATIONS

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

TEST PARAMETERS

Run #:	53	Line:	Negative Lead	Ext. Attenuation (dB):	20

COMMENTS

Customer added filtering to power supply. Modification authorized by Moshe Peri.

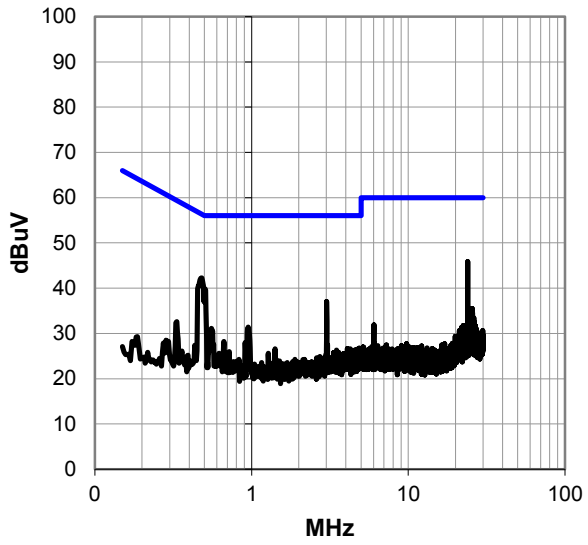
EUT OPERATING MODES

Transmitting 802.11 5700 MHz, 6 mbps

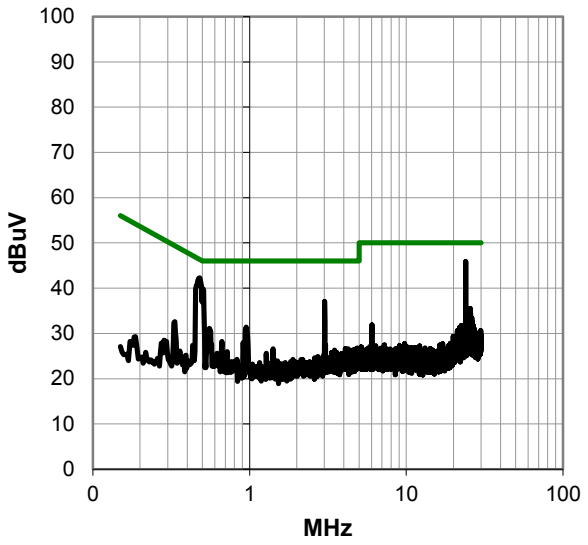
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



NORTHWEST EMC

WTD.2014.08.28, PSA-ESCI 2014.09.10, EmiR5 2014.07.09

POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #53

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.482	22.1	20.2	42.3	56.3	-14.0
23.997	24.1	21.7	45.8	60.0	-14.2
3.015	16.7	20.3	37.0	56.0	-19.0
25.590	13.6	21.9	35.5	60.0	-24.5
0.952	11.1	20.3	31.4	56.0	-24.6
0.553	10.9	20.2	31.1	56.0	-24.9
25.695	12.7	21.9	34.6	60.0	-25.4
24.105	12.2	21.8	34.0	60.0	-26.0
25.064	12.0	21.8	33.8	60.0	-26.2
25.169	11.8	21.8	33.6	60.0	-26.4
26.239	11.5	22.0	33.5	60.0	-26.5
25.277	11.6	21.9	33.5	60.0	-26.5
0.333	12.4	20.2	32.6	59.4	-26.8
26.131	11.1	22.0	33.1	60.0	-26.9
25.803	10.9	21.9	32.8	60.0	-27.2
24.531	10.9	21.8	32.7	60.0	-27.3
24.956	10.8	21.8	32.6	60.0	-27.4
25.489	10.7	21.9	32.6	60.0	-27.4
24.184	10.8	21.8	32.6	60.0	-27.4
24.139	10.8	21.8	32.6	60.0	-27.4
0.665	8.0	20.2	28.2	56.0	-27.8
25.113	10.2	21.8	32.0	60.0	-28.0
0.911	7.7	20.3	28.0	56.0	-28.0
6.033	11.4	20.5	31.9	60.0	-28.1
22.404	10.1	21.6	31.7	60.0	-28.3
26.019	9.8	21.9	31.7	60.0	-28.3

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.482	22.1	20.2	42.3	46.3	-4.0
23.997	24.1	21.7	45.8	50.0	-4.2
3.015	16.7	20.3	37.0	46.0	-9.0
25.590	13.6	21.9	35.5	50.0	-14.5
0.952	11.1	20.3	31.4	46.0	-14.6
0.553	10.9	20.2	31.1	46.0	-14.9
25.695	12.7	21.9	34.6	50.0	-15.4
24.105	12.2	21.8	34.0	50.0	-16.0
25.064	12.0	21.8	33.8	50.0	-16.2
25.169	11.8	21.8	33.6	50.0	-16.4
26.239	11.5	22.0	33.5	50.0	-16.5
25.277	11.6	21.9	33.5	50.0	-16.5
0.333	12.4	20.2	32.6	49.4	-16.8
26.131	11.1	22.0	33.1	50.0	-16.9
25.803	10.9	21.9	32.8	50.0	-17.2
24.531	10.9	21.8	32.7	50.0	-17.3
24.956	10.8	21.8	32.6	50.0	-17.4
25.489	10.7	21.9	32.6	50.0	-17.4
24.184	10.8	21.8	32.6	50.0	-17.4
24.139	10.8	21.8	32.6	50.0	-17.4
0.665	8.0	20.2	28.2	46.0	-17.8
25.113	10.2	21.8	32.0	50.0	-18.0
0.911	7.7	20.3	28.0	46.0	-18.0
6.033	11.4	20.5	31.9	50.0	-18.1
22.404	10.1	21.6	31.7	50.0	-18.3
26.019	9.8	21.9	31.7	50.0	-18.3

CONCLUSION

Pass

Tested By

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

Ch. 36, 5180MHz
Ch. 48, 5240MHz
Ch. 64, 5320MHz
Ch. 100, 5500MHz
Ch. 116, 5580MHz
Ch. 140, 5700MHz

MODES OF OPERATION

1 Mbps
6 Mbps
36 Mbps
54 Mbps
MCS0
MCS7

POWER SETTINGS INVESTIGATED

5VDC

CONFIGURATIONS INVESTIGATED

ETHE0009 - 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
EV Cable	ESM Cable Corp.	KMKM-72	EWB	6/25/2014	12 mo
Pre-Amplifier	Miteq	JSW45-26004000-40-5P	PAE	6/25/2014	12 mo
Antenna, Horn	ETS Lindgren	3160-10	AIW	NCR	0 mo
Pre-Amplifier	Miteq	AMF-6F-18002650-25-10P	AVU	9/10/2013	14 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	8/26/2014	12 mo
Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	PAG	8/26/2014	12 mo
Antenna, Horn	ETS	3115	AIZ	1/24/2014	24 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	AXE	8/29/2014	36 mo
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	12 mo

MEASUREMENT BANDWIDTHS

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

TEST DESCRIPTION

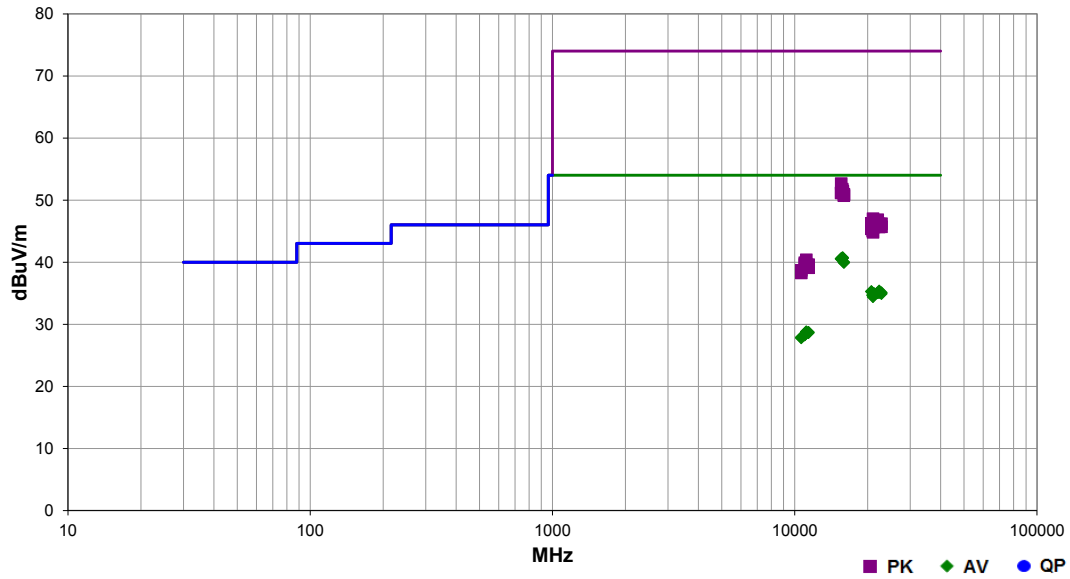
The highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for low, mid, and high band transmit frequencies. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify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

SPURIOUS RADIATED EMISSIONS

Work Order:	ETHE0009	**Date:**	09/24/14		
Project:	None	**Temperature:**	23 °C		
Job Site:	EV01	**Humidity:**	50% RH		
Serial Number:	00409D 7C03CE	**Barometric Pres.:**	1009 mbar	**Tested by:**	Brandon Hobbs
EUT:	ConnectCore i.MX6 WiFi/Bluetooth				
Configuration:	2				
Customer:	Etherios Design Solutions				
Attendees:	None				
EUT Power:	5VDC				
Operating Mode:	Continuous Tx using ANT-DB1-RAF-xxx Antenna				
Deviations:	None				
Comments:	Please reference the data comments for EUT orientation, power level, modulation and frequency.				

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

Run #	189	**Test Distance (m)**	3	**Antenna Height(s)**	1 to 4(m)	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
15788.290	28.2	12.5	3.1	81.0	3.0	0.0	Horz	AV	0.0	40.7	54.0	-13.3	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Horz
15714.960	28.2	12.5	1.7	315.0	3.0	0.0	Vert	AV	0.0	40.7	54.0	-13.3	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Vert
15784.880	28.1	12.5	1.0	101.0	3.0	0.0	Vert	AV	0.0	40.6	54.0	-13.4	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Vert
15722.620	28.1	12.5	2.9	342.0	3.0	0.0	Horz	AV	0.0	40.6	54.0	-13.4	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Horz
15537.000	28.5	12.0	1.0	220.0	3.0	0.0	Horz	AV	0.0	40.5	54.0	-13.5	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Horz
15530.120	28.5	12.0	1.0	330.0	3.0	0.0	Vert	AV	0.0	40.5	54.0	-13.5	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Vert
15948.460	27.6	12.4	1.0	1.0	3.0	0.0	Horz	AV	0.0	40.0	54.0	-14.0	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Horz
15960.000	27.5	12.4	1.0	112.0	3.0	0.0	Vert	AV	0.0	39.9	54.0	-14.1	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Vert
22320.860	35.0	0.4	1.2	101.0	3.0	0.0	Vert	AV	0.0	35.4	54.0	-18.6	Ch. 116, 5580MHz, 6Mbps, PL-=11, EUT Vert
20721.700	35.8	-0.5	1.2	244.0	3.0	0.0	Vert	AV	0.0	35.3	54.0	-18.7	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Vert
20720.890	35.8	-0.5	1.0	135.0	3.0	0.0	Horz	AV	0.0	35.3	54.0	-18.7	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Horz
22800.090	34.7	0.4	1.2	301.0	3.0	0.0	Vert	AV	0.0	35.1	54.0	-18.9	Ch. 140, 5700MHz, 6Mbps, PL=11, EUT Vert
22321.480	34.7	0.4	1.2	121.0	3.0	0.0	Horz	AV	0.0	35.1	54.0	-18.9	Ch. 116, 5580MHz, 6Mbps, PL-=11, EUT Horz
21999.870	34.8	0.2	1.2	324.0	3.0	0.0	Vert	AV	0.0	35.0	54.0	-19.0	Ch. 100, 5500MHz, 6Mbps, PL=11, EUT Vert
21998.330	34.8	0.2	1.2	289.0	3.0	0.0	Horz	AV	0.0	35.0	54.0	-19.0	Ch. 100, 5500MHz, 6Mbps, PL=11, EUT Horz
21281.940	35.2	-0.2	1.2	198.0	3.0	0.0	Vert	AV	0.0	35.0	54.0	-19.0	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Vert
22798.860	34.5	0.4	1.2	330.0	3.0	0.0	Horz	AV	0.0	34.9	54.0	-19.1	Ch. 140, 5700MHz, 6Mbps, PL=11, EUT Horz
21278.670	35.0	-0.2	1.2	44.0	3.0	0.0	Horz	AV	0.0	34.8	54.0	-19.2	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Horz
20961.780	35.0	-0.3	1.2	241.0	3.0	0.0	Vert	AV	0.0	34.7	54.0	-19.3	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Vert
20959.280	35.0	-0.3	1.2	192.0	3.0	0.0	Horz	AV	0.0	34.7	54.0	-19.3	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Horz
21039.480	34.9	-0.3	1.2	290.0	3.0	0.0	Vert	AV	0.0	34.6	54.0	-19.4	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Vert
21038.880	34.7	-0.3	1.2	305.0	3.0	0.0	Horz	AV	0.0	34.4	54.0	-19.6	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Horz
15542.710	40.6	12.1	1.0	330.0	3.0	0.0	Vert	PK	0.0	52.7	74.0	-21.3	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Vert
15708.960	39.3	12.5	1.7	315.0	3.0	0.0	Vert	PK	0.0	51.8	74.0	-22.2	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Vert
15777.250	38.9	12.5	3.1	81.0	3.0	0.0	Horz	PK	0.0	51.4	74.0	-22.6	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Horz
15789.540	38.7	12.5	1.0	101.0	3.0	0.0	Vert	PK	0.0	51.2	74.0	-22.8	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Vert
15718.420	38.7	12.5	2.9	342.0	3.0	0.0	Horz	PK	0.0	51.2	74.0	-22.8	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Horz
15538.250	39.1	12.0	1.0	220.0	3.0	0.0	Horz	PK	0.0	51.1	74.0	-22.9	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Horz
15971.670	38.5	12.4	1.0	1.0	3.0	0.0	Horz	PK	0.0	50.9	74.0	-23.1	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Horz
15952.750	38.3	12.4	1.0	112.0	3.0	0.0	Vert	PK	0.0	50.7	74.0	-23.3	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Vert
11160.380	36.2	-7.4	1.0	50.0	3.0	0.0	Horz	AV	0.0	28.8	54.0	-25.2	Ch. 116, 5580MHz, 6Mbps, PL-=11, EUT Horz
11158.570	36.2	-7.4	1.0	49.0	3.0	0.0	Vert	AV	0.0	28.8	54.0	-25.2	Ch. 116, 5580MHz, 6Mbps, PL-=11, EUT Vert

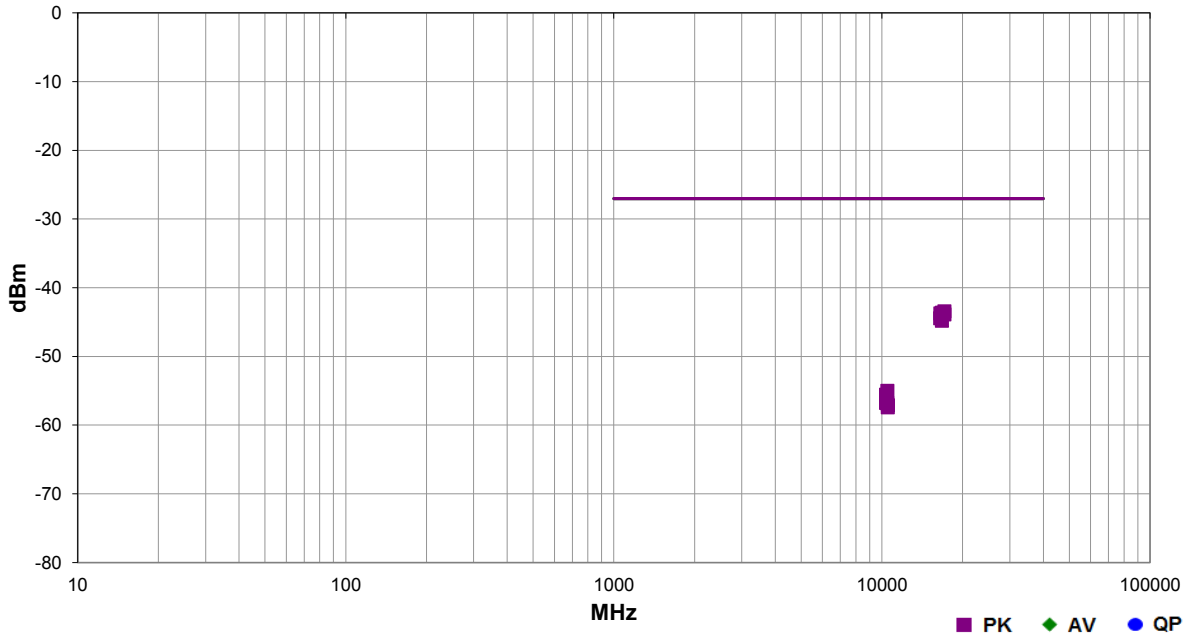
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
11399.090	33.8	-5.1	1.0	2.0	3.0	0.0	Horz	AV	0.0	28.7	54.0	-25.3	Ch. 140, 5700MHz, 6Mbps, PL=11, EUT Horz
11399.630	33.7	-5.1	1.0	328.0	3.0	0.0	Vert	AV	0.0	28.6	54.0	-25.4	Ch. 140, 5700MHz, 6Mbps, PL=11, EUT Vert
11002.480	36.8	-8.6	1.0	159.0	3.0	0.0	Vert	AV	0.0	28.2	54.0	-25.8	Ch. 100, 5500MHz, 6Mbps, PL=11, EUT Vert
11002.470	36.8	-8.6	1.0	72.0	3.0	0.0	Horz	AV	0.0	28.2	54.0	-25.8	Ch. 100, 5500MHz, 6Mbps, PL=11, EUT Horz
10638.600	37.7	-9.8	1.0	62.0	3.0	0.0	Horz	AV	0.0	27.9	54.0	-26.1	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Horz
10640.470	37.6	-9.8	1.0	3.0	3.0	0.0	Vert	AV	0.0	27.8	54.0	-26.2	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Vert
21039.120	47.3	-0.3	1.2	290.0	3.0	0.0	Vert	PK	0.0	47.0	74.0	-27.0	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Vert
22000.830	46.6	0.2	1.2	324.0	3.0	0.0	Vert	PK	0.0	46.8	74.0	-27.2	Ch. 100, 5500MHz, 6Mbps, PL=11, EUT Vert
20720.430	46.8	-0.5	1.2	244.0	3.0	0.0	Vert	PK	0.0	46.3	74.0	-27.7	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Vert
21998.730	46.0	0.2	1.2	289.0	3.0	0.0	Horz	PK	0.0	46.2	74.0	-27.8	Ch. 100, 5500MHz, 6Mbps, PL=11, EUT Horz
22800.980	45.8	0.4	1.2	301.0	3.0	0.0	Vert	PK	0.0	46.2	74.0	-27.8	Ch. 140, 5700MHz, 6Mbps, PL=11, EUT Vert
22319.820	45.8	0.4	1.2	101.0	3.0	0.0	Vert	PK	0.0	46.2	74.0	-27.8	Ch. 116, 5580MHz, 6Mbps, PL-=11, EUT Vert
21278.830	46.0	-0.2	1.2	198.0	3.0	0.0	Vert	PK	0.0	45.8	74.0	-28.2	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Vert
22798.380	45.3	0.4	1.2	330.0	3.0	0.0	Horz	PK	0.0	45.7	74.0	-28.3	Ch. 140, 5700MHz, 6Mbps, PL=11, EUT Horz
22319.690	45.3	0.4	1.2	121.0	3.0	0.0	Horz	PK	0.0	45.7	74.0	-28.3	Ch. 116, 5580MHz, 6Mbps, PL-=11, EUT Horz
21282.070	45.9	-0.2	1.2	44.0	3.0	0.0	Horz	PK	0.0	45.7	74.0	-28.3	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Horz
20960.070	45.8	-0.3	1.2	241.0	3.0	0.0	Vert	PK	0.0	45.5	74.0	-28.5	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Vert
20719.490	45.9	-0.5	1.0	135.0	3.0	0.0	Horz	PK	0.0	45.4	74.0	-28.6	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Horz
20957.550	45.4	-0.3	1.2	192.0	3.0	0.0	Horz	PK	0.0	45.1	74.0	-28.9	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Horz
21041.870	45.1	-0.3	1.2	305.0	3.0	0.0	Horz	PK	0.0	44.8	74.0	-29.2	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Horz
11160.270	47.8	-7.4	1.0	49.0	3.0	0.0	Vert	PK	0.0	40.4	74.0	-33.6	Ch. 116, 5580MHz, 6Mbps, PL-=11, EUT Vert
10998.360	48.5	-8.6	1.0	72.0	3.0	0.0	Horz	PK	0.0	39.9	74.0	-34.1	Ch. 100, 5500MHz, 6Mbps, PL=11, EUT Horz
11162.020	47.1	-7.4	1.0	50.0	3.0	0.0	Horz	PK	0.0	39.7	74.0	-34.3	Ch. 116, 5580MHz, 6Mbps, PL-=11, EUT Horz
10999.290	48.2	-8.6	1.0	159.0	3.0	0.0	Vert	PK	0.0	39.6	74.0	-34.4	Ch. 100, 5500MHz, 6Mbps, PL=11, EUT Vert
11398.610	44.7	-5.1	1.0	328.0	3.0	0.0	Vert	PK	0.0	39.6	74.0	-34.4	Ch. 140, 5700MHz, 6Mbps, PL=11, EUT Vert
11398.080	44.2	-5.1	1.0	2.0	3.0	0.0	Horz	PK	0.0	39.1	74.0	-34.9	Ch. 140, 5700MHz, 6Mbps, PL=11, EUT Horz
10638.820	48.5	-9.8	1.0	3.0	3.0	0.0	Vert	PK	0.0	38.7	74.0	-35.3	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Vert
10638.760	48.1	-9.8	1.0	62.0	3.0	0.0	Horz	PK	0.0	38.3	74.0	-35.7	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Horz

SPURIOUS RADIATED EMISSIONS

Work Order:	ETHE0009	**Date:**	09/24/14		
Project:	None	**Temperature:**	23 °C		
Job Site:	EV01	**Humidity:**	50% RH		
Serial Number:	00409D 7C03CE	**Barometric Pres.:**	1009 mbar	**Tested by:**	Brandon Hobbs
EUT:	ConnectCore i.MX6 WiFi/Bluetooth				
Configuration:	2				
Customer:	Etherios Design Solutions				
Attendees:	None				
EUT Power:	5VDC				
Operating Mode:	Continuous Tx using ANT-DB1-RAF-xxx Antenna				
Deviations:	None				
Comments:	Please reference the data comments for EUT orientation, power level, modulation and frequency.				

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

Run #	190	**Test Distance (m)**	3	**Antenna Height(s)**	1 to 4(m)	**Results**	Pass



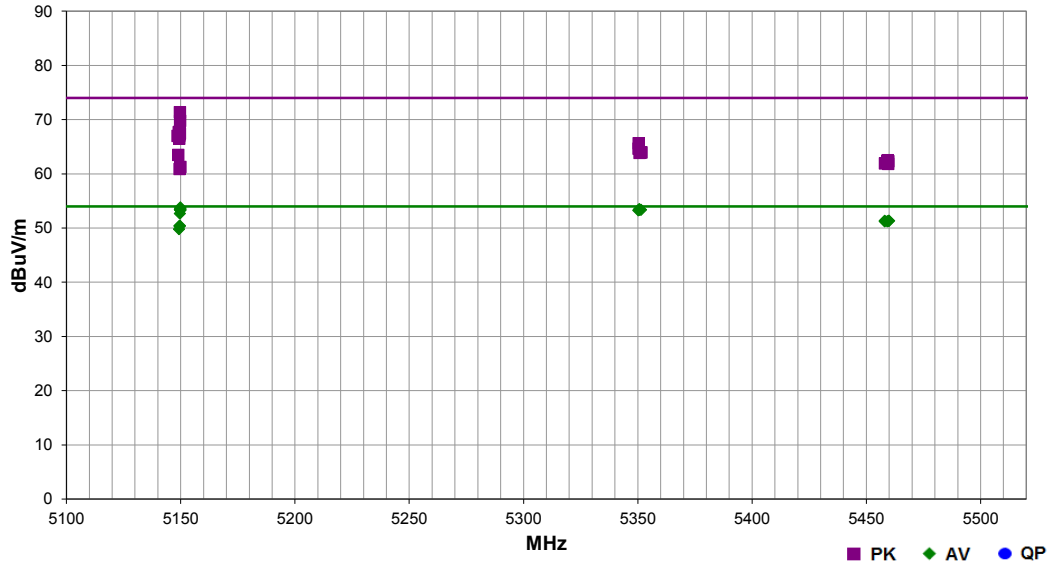
	Freq (MHz)	Antenna Height (meters)	Azimuth (degrees)	Polarity/ Transducer Type	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
	17109.290	2.2	20.0	Vert	PK	4.54E-08	-43.4	-27.0	-16.4	Ch. 140, 5700MHz, 6Mbps, PL=11, EUT Vert
	16744.960	2.8	329.0	Vert	PK	4.35E-08	-43.6	-27.0	-16.6	Ch. 116, 5580MHz, 6Mbps, PL-=11, EUT Vert
	16508.460	1.0	322.0	Horz	PK	4.24E-08	-43.7	-27.0	-16.7	Ch. 100, 5500MHz, 6Mbps, PL=11, EUT Horz
	17088.290	3.5	167.0	Horz	PK	4.09E-08	-43.9	-27.0	-16.9	Ch. 140, 5700MHz, 6Mbps, PL=11, EUT Horz
	16499.380	1.6	255.0	Vert	PK	3.61E-08	-44.4	-27.0	-17.4	Ch. 100, 5500MHz, 6Mbps, PL=11, EUT Vert
	16741.080	1.0	184.0	Horz	PK	3.30E-08	-44.8	-27.0	-17.8	Ch. 116, 5580MHz, 6Mbps, PL-=11, EUT Horz
	10480.940	1.4	118.0	Vert	PK	3.17E-09	-55.0	-27.0	-28.0	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Vert
	10358.320	1.3	132.0	Vert	PK	2.77E-09	-55.6	-27.0	-28.6	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Vert
	10360.060	1.0	85.0	Horz	PK	2.11E-09	-56.8	-27.0	-29.8	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Horz
	10477.920	1.0	123.0	Horz	PK	2.08E-09	-56.8	-27.0	-29.8	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Horz
	10522.160	1.0	56.0	Vert	PK	1.95E-09	-57.1	-27.0	-30.1	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Vert
	10519.020	1.0	128.0	Horz	PK	1.82E-09	-57.4	-27.0	-30.4	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Horz

SPURIOUS RADIATED EMISSIONS

Work Order:	ETHE0009	**Date:**	09/24/14		
Project:	None	**Temperature:**	23.1 °C		
Job Site:	EV01	**Humidity:**	50.6% RH		
Serial Number:	00409D 7C03CE	**Barometric Pres.:**	1009 mbar	**Tested by:**	Jared Ison
EUT:	ConnectCore i.MX6 WiFi/Bluetooth				
Configuration:	2				
Customer:	Etherios Design Solutions				
Attendees:	None				
EUT Power:	5VDC				
Operating Mode:	Continuous Tx ANT-DB1-RAF-xxx Antenna				
Deviations:	None				
Comments:	Please reference the data comments for EUT orientation, power level, modulation and frequency.				

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

Run #	140	**Test Distance (m)**	1	**Antenna Height(s)**	1 to 4(m)	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
5149.870	26.4	36.9	1.2	360.0	1.0	0.0	Horz	AV	-9.5	53.8	54.0	-0.2	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT On Side
5149.880	26.2	36.9	1.2	360.0	1.0	0.0	Horz	AV	-9.5	53.6	54.0	-0.4	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Horz
5149.863	26.1	36.9	1.2	360.0	1.0	0.0	Horz	AV	-9.5	53.5	54.0	-0.5	Ch. 36, 5180MHz, MCS0, PL=11, EUT On Side
5350.670	25.5	37.5	1.2	360.0	1.0	0.0	Horz	AV	-9.5	53.5	54.0	-0.5	Ch. 64, 5320MHz, 36Mbps, PL=11, EUT On Side
5350.683	25.5	37.5	1.2	360.0	1.0	0.0	Horz	AV	-9.5	53.5	54.0	-0.5	Ch. 64, 5320MHz, 54Mbps, PL=11, EUT On Side
5149.660	26.0	36.9	1.2	360.0	1.0	0.0	Horz	AV	-9.5	53.4	54.0	-0.6	Ch. 36, 5180MHz, 54Mbps, PL=11, EUT On Side
5149.807	26.0	36.9	1.2	360.0	1.0	0.0	Horz	AV	-9.5	53.4	54.0	-0.6	Ch. 36, 5180MHz, 36Mbps, PL=11, EUT On Side
5149.747	26.0	36.9	1.2	360.0	1.0	0.0	Horz	AV	-9.5	53.4	54.0	-0.6	Ch. 36, 5180MHz, MCS7, PL=11, EUT On Side
5350.847	25.4	37.5	1.2	360.0	1.0	0.0	Horz	AV	-9.5	53.4	54.0	-0.6	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT On Side
5351.410	25.4	37.5	1.2	360.0	1.0	0.0	Horz	AV	-9.5	53.4	54.0	-0.6	Ch. 64, 5320MHz, MCS0, PL=11, EUT On Side
5149.987	25.9	36.9	1.2	360.0	1.0	0.0	Vert	AV	-9.5	53.3	54.0	-0.7	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Vert
5350.267	25.3	37.5	1.2	360.0	1.0	0.0	Horz	AV	-9.5	53.3	54.0	-0.7	Ch. 64, 5320MHz, MCS7, PL=11, EUT On Side
5149.647	25.3	36.9	1.2	360.0	1.0	0.0	Horz	AV	-9.5	52.7	54.0	-1.3	Ch. 36, 5180MHz, 6Mbps, PL=10, EUT Horz
5149.670	44.0	36.9	1.2	360.0	1.0	0.0	Horz	PK	-9.5	71.4	74.0	-2.6	Ch. 36, 5180MHz, MCS7, PL=11, EUT On Side
5459.993	23.3	37.6	1.2	360.0	1.0	0.0	Horz	AV	-9.5	51.3	54.0	-2.7	Ch. 100, 5500MHz, 36Mbps, PL=11, EUT On Side
5459.657	23.3	37.6	1.2	360.0	1.0	0.0	Horz	AV	-9.5	51.3	54.0	-2.7	Ch. 100, 5500MHz, 6Mbps, PL=11, EUT On Side
5458.057	23.3	37.6	1.2	360.0	1.0	0.0	Horz	AV	-9.5	51.3	54.0	-2.7	Ch. 100, 5500MHz, 54Mbps, PL=11, EUT On Side
5459.187	23.2	37.6	1.2	360.0	1.0	0.0	Horz	AV	-9.5	51.2	54.0	-2.8	Ch. 100, 5500MHz, MCS7, PL=11, EUT On Side
5458.063	23.2	37.6	1.2	360.0	1.0	0.0	Horz	AV	-9.5	51.2	54.0	-2.8	Ch. 100, 5500MHz, MCS0, PL=11, EUT On Side
5149.433	23.0	36.9	1.2	360.0	1.0	0.0	Vert	AV	-9.5	50.4	54.0	-3.6	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT On Side
5149.737	23.0	36.9	1.2	360.0	1.0	0.0	Vert	AV	-9.5	50.4	54.0	-3.6	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Horz
5149.263	22.4	36.9	1.2	360.0	1.0	0.0	Horz	AV	-9.5	49.8	54.0	-4.2	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Vert
5149.740	42.4	36.9	1.2	360.0	1.0	0.0	Horz	PK	-9.5	69.8	74.0	-4.2	Ch. 36, 5180MHz, 6Mbps, PL=12, EUT Horz
5149.477	40.4	36.9	1.2	360.0	1.0	0.0	Horz	PK	-9.5	67.8	74.0	-6.2	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT On Side
5149.150	40.3	36.9	1.2	360.0	1.0	0.0	Horz	PK	-9.5	67.7	74.0	-6.3	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Horz
5149.687	40.1	36.9	1.2	360.0	1.0	0.0	Horz	PK	-9.5	67.5	74.0	-6.5	Ch. 36, 5180MHz, MCS0, PL=11, EUT On Side
5149.497	39.9	36.9	1.2	360.0	1.0	0.0	Horz	PK	-9.5	67.3	74.0	-6.7	Ch. 36, 5180MHz, 36Mbps, PL=11, EUT On Side
5148.590	39.6	36.9	1.2	360.0	1.0	0.0	Vert	PK	-9.5	67.0	74.0	-7.0	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Vert
5149.377	39.6	36.9	1.2	360.0	1.0	0.0	Horz	PK	-9.5	67.0	74.0	-7.0	Ch. 36, 5180MHz, 54Mbps, PL=11, EUT On Side
5149.383	39.1	36.9	1.2	360.0	1.0	0.0	Horz	PK	-9.5	66.5	74.0	-7.5	Ch. 36, 5180MHz, 6Mbps, PL=10, EUT Horz
5350.380	37.7	37.5	1.2	360.0	1.0	0.0	Horz	PK	-9.5	65.7	74.0	-8.3	Ch. 64, 5320MHz, 36Mbps, PL=11, EUT On Side
5350.327	36.7	37.5	1.2	360.0	1.0	0.0	Horz	PK	-9.5	64.7	74.0	-9.3	Ch. 64, 5320MHz, 54Mbps, PL=11, EUT On Side
5351.407	36.0	37.5	1.2	360.0	1.0	0.0	Horz	PK	-9.5	64.0	74.0	-10.0	Ch. 64, 5320MHz, MCS0, PL=11, EUT On Side
5351.603	36.0	37.5	1.2	360.0	1.0	0.0	Horz	PK	-9.5	64.0	74.0	-10.0	Ch. 64, 5320MHz, 6Mbps, PL=11, 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
5350.730	35.9	37.5	1.2	360.0	1.0	0.0	Horz	PK	-9.5	63.9	74.0	-10.1	Ch. 64, 5320MHz, MCS7, PL=11, EUT On Side
5148.943	36.1	36.9	1.2	360.0	1.0	0.0	Vert	PK	-9.5	63.5	74.0	-10.5	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Horz
5459.320	34.5	37.6	1.2	360.0	1.0	0.0	Horz	PK	-9.5	62.5	74.0	-11.5	Ch. 100, 5500MHz, 54Mbps, PL=11, EUT On Side
5459.650	34.3	37.6	1.2	360.0	1.0	0.0	Horz	PK	-9.5	62.3	74.0	-11.7	Ch. 100, 5500MHz, MCS0, PL=11, EUT On Side
5459.160	34.3	37.6	1.2	360.0	1.0	0.0	Horz	PK	-9.5	62.3	74.0	-11.7	Ch. 100, 5500MHz, 36Mbps, PL=11, EUT On Side
5458.170	33.9	37.6	1.2	360.0	1.0	0.0	Horz	PK	-9.5	61.9	74.0	-12.1	Ch. 100, 5500MHz, MCS7, PL=11, EUT On Side
5459.560	33.8	37.6	1.2	360.0	1.0	0.0	Horz	PK	-9.5	61.8	74.0	-12.2	Ch. 100, 5500MHz, 6Mbps, PL=11, EUT On Side
5149.860	33.9	36.9	1.2	360.0	1.0	0.0	Vert	PK	-9.5	61.3	74.0	-12.7	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT On Side
5149.497	33.5	36.9	1.2	360.0	1.0	0.0	Horz	PK	-9.5	60.9	74.0	-13.1	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Vert

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

Ch. 36, 5180MHz
Ch. 48, 5240MHz
Ch. 64, 5320MHz
Ch. 100, 5500MHz
Ch. 116, 5580MHz
Ch. 140, 5700MHz

MODES OF OPERATION

1 Mbps
6 Mbps
36 Mbps
54 Mbps
MCS0
MCS7

POWER SETTINGS INVESTIGATED

5VDC

CONFIGURATIONS INVESTIGATED

ETHE0009 - 6

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
EV Cable	ESM Cable Corp.	KMKM-72	EWB	6/25/2014	12 mo
Pre-Amplifier	Miteq	JSW45-26004000-40-5P	PAE	6/25/2014	12 mo
Antenna, Horn	ETS Lindgren	3160-10	AIW	NCR	0 mo
Pre-Amplifier	Miteq	AMF-6F-18002650-25-10P	AVU	9/10/2013	14 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	8/26/2014	12 mo
Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	PAG	8/26/2014	12 mo
Antenna, Horn	ETS	3115	AIZ	1/24/2014	24 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	AXE	8/29/2014	36 mo
Spectrum Analyzer	Agilent	E4446A	AAQ	1/21/2014	12 mo

MEASUREMENT BANDWIDTHS

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

TEST DESCRIPTION

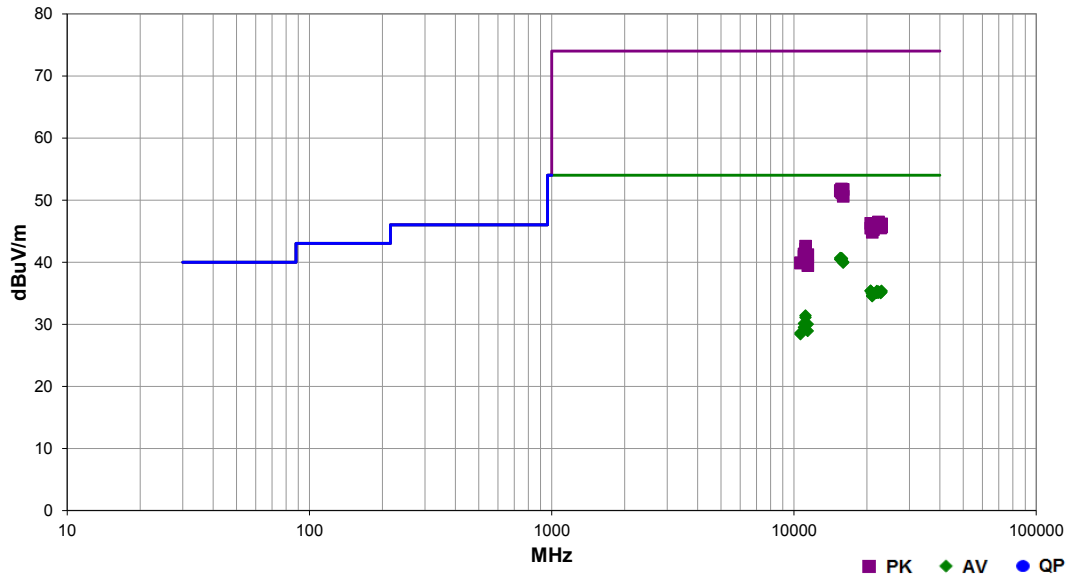
The highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for low, mid, and high band transmit frequencies. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify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

SPURIOUS RADIATED EMISSIONS

Work Order:	ETHE0009	**Date:**	09/26/14		
Project:	None	**Temperature:**	23.2 °C		
Job Site:	EV01	**Humidity:**	47.5% RH		
Serial Number:	00409D 7C03CE	**Barometric Pres.:**	1016.6 mbar	**Tested by:**	Jared Ison
EUT:	ConnectCore i.MX6 WiFi/Bluetooth				
Configuration:	6				
Customer:	Etherios Design Solutions				
Attendees:	None				
EUT Power:	5VDC				
Operating Mode:	Continuous Tx using Ethertronics Antenna				
Deviations:	None				
Comments:	Please reference the data comments for EUT orientation, power level, modulation and frequency.				

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

Run #	193	**Test Distance (m)**	3	**Antenna Height(s)**	1 to 4(m)	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
15538.490	28.6	12.0	1.1	213.0	3.0	0.0	Horz	AV	0.0	40.6	54.0	-13.4	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Horz
15720.620	28.1	12.5	1.0	269.0	3.0	0.0	Horz	AV	0.0	40.6	54.0	-13.4	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Horz
15718.790	28.1	12.5	1.0	213.0	3.0	0.0	Vert	AV	0.0	40.6	54.0	-13.4	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Vert
15778.970	28.0	12.5	3.1	185.0	3.0	0.0	Vert	AV	0.0	40.5	54.0	-13.5	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Vert
15779.710	28.0	12.5	1.0	330.0	3.0	0.0	Horz	AV	0.0	40.5	54.0	-13.5	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Horz
15538.690	28.4	12.0	1.0	248.0	3.0	0.0	Vert	AV	0.0	40.4	54.0	-13.6	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Vert
15961.410	27.6	12.4	1.0	105.0	3.0	0.0	Vert	AV	0.0	40.0	54.0	-14.0	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Vert
15961.140	27.5	12.4	1.7	215.0	3.0	0.0	Horz	AV	0.0	39.9	54.0	-14.1	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Horz
22980.110	35.0	0.4	1.2	325.0	3.0	0.0	Vert	AV	0.0	35.4	54.0	-18.6	Ch. 149, 5745MHz, 6Mbps, PL=11, EUT Vert
20721.110	35.9	-0.5	1.2	330.0	3.0	0.0	Horz	AV	0.0	35.4	54.0	-18.6	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Horz
20719.000	35.9	-0.5	1.2	130.0	3.0	0.0	Vert	AV	0.0	35.4	54.0	-18.6	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Vert
22000.680	35.1	0.2	1.2	248.0	3.0	0.0	Vert	AV	0.0	35.3	54.0	-18.7	Ch. 100, 5500MHz, 6Mbps, PL=11, EUT Vert
22318.910	34.9	0.4	1.2	106.0	3.0	0.0	Vert	AV	0.0	35.3	54.0	-18.7	Ch. 116, 5580MHz, 6Mbps, PL=11, EUT Vert
22799.250	34.8	0.4	1.2	230.0	3.0	0.0	Vert	AV	0.0	35.2	54.0	-18.8	Ch. 140, 5700MHz, 6Mbps, PL=11, EUT Vert
22978.480	34.8	0.4	1.2	104.0	3.0	0.0	Horz	AV	0.0	35.2	54.0	-18.8	Ch. 149, 5745MHz, 6Mbps, PL=11, EUT Horz
22322.190	34.7	0.4	1.2	257.0	3.0	0.0	Horz	AV	0.0	35.1	54.0	-18.9	Ch. 116, 5580MHz, 6Mbps, PL=11, EUT Horz
20962.040	35.4	-0.3	1.2	98.0	3.0	0.0	Horz	AV	0.0	35.1	54.0	-18.9	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Horz
22001.200	34.8	0.2	1.2	320.0	3.0	0.0	Horz	AV	0.0	35.0	54.0	-19.0	Ch. 100, 5500MHz, 6Mbps, PL=11, EUT Horz
22799.720	34.6	0.4	1.2	163.0	3.0	0.0	Horz	AV	0.0	35.0	54.0	-19.0	Ch. 140, 5700MHz, 6Mbps, PL=11, EUT Horz
20960.780	35.3	-0.3	1.2	20.0	3.0	0.0	Vert	AV	0.0	35.0	54.0	-19.0	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Vert
21282.270	35.1	-0.2	1.2	179.0	3.0	0.0	Vert	AV	0.0	34.9	54.0	-19.1	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Vert
21282.110	35.0	-0.2	1.2	307.0	3.0	0.0	Horz	AV	0.0	34.8	54.0	-19.2	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Horz
21041.100	34.9	-0.3	1.2	52.0	3.0	0.0	Vert	AV	0.0	34.6	54.0	-19.4	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Vert
21038.060	34.8	-0.3	1.2	110.0	3.0	0.0	Horz	AV	0.0	34.5	54.0	-19.5	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Vert
15719.280	39.3	12.5	1.0	269.0	3.0	0.0	Horz	PK	0.0	51.8	74.0	-22.2	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Horz
15960.260	39.3	12.4	1.0	105.0	3.0	0.0	Vert	PK	0.0	51.7	74.0	-22.3	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Vert
15539.060	39.5	12.0	1.1	213.0	3.0	0.0	Horz	PK	0.0	51.5	74.0	-22.5	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Horz
15780.640	39.0	12.5	3.1	185.0	3.0	0.0	Vert	PK	0.0	51.5	74.0	-22.5	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Vert
15539.710	39.4	12.0	1.0	248.0	3.0	0.0	Vert	PK	0.0	51.4	74.0	-22.6	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Vert
11160.010	38.8	-7.4	1.0	349.0	3.0	0.0	Vert	AV	0.0	31.4	54.0	-22.6	Ch. 116, 5580MHz, 6Mbps, PL=18, EUT Vert
15719.850	38.8	12.5	1.0	213.0	3.0	0.0	Vert	PK	0.0	51.3	74.0	-22.7	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Vert
15778.630	38.6	12.5	1.0	330.0	3.0	0.0	Horz	PK	0.0	51.1	74.0	-22.9	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Horz

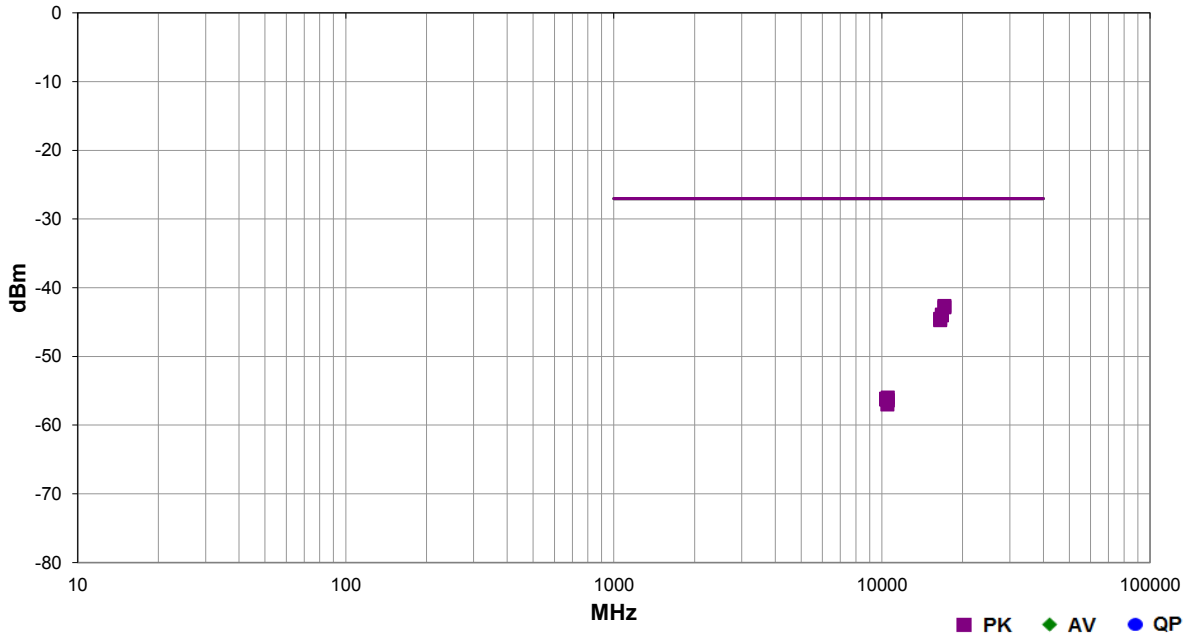
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
11160.010	38.5	-7.4	1.1	322.0	3.0	0.0	Horz	AV	0.0	31.1	54.0	-22.9	Ch. 116, 5580MHz, 6Mbps, PL=18, EUT Horz
15961.080	38.2	12.4	1.7	215.0	3.0	0.0	Horz	PK	0.0	50.6	74.0	-23.4	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Horz
10999.860	38.7	-8.6	1.0	7.0	3.0	0.0	Vert	AV	0.0	30.1	54.0	-23.9	Ch. 100, 5500MHz, 6Mbps, PL=18, EUT Vert
11398.580	35.1	-5.1	1.7	330.0	3.0	0.0	Vert	AV	0.0	30.0	54.0	-24.0	Ch. 140, 5700MHz, 6Mbps, PL=18, EUT Vert
10997.780	38.1	-8.6	1.0	247.0	3.0	0.0	Horz	AV	0.0	29.5	54.0	-24.5	Ch. 100, 5500MHz, 6Mbps, PL=18, EUT Horz
11398.610	34.0	-5.1	1.0	261.0	3.0	0.0	Horz	AV	0.0	28.9	54.0	-25.1	Ch. 140, 5700MHz, 6Mbps, PL=18, EUT Horz
10638.760	38.4	-9.8	1.0	47.0	3.0	0.0	Horz	AV	0.0	28.6	54.0	-25.4	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Horz
10640.100	38.2	-9.8	1.0	1.0	3.0	0.0	Vert	AV	0.0	28.4	54.0	-25.6	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Vert
22322.130	46.1	0.4	1.2	257.0	3.0	0.0	Horz	PK	0.0	46.5	74.0	-27.5	Ch. 116, 5580MHz, 6Mbps, PL=11, EUT Horz
22319.530	46.0	0.4	1.2	106.0	3.0	0.0	Vert	PK	0.0	46.4	74.0	-27.6	Ch. 116, 5580MHz, 6Mbps, PL=11, EUT Vert
20719.310	46.8	-0.5	1.2	130.0	3.0	0.0	Vert	PK	0.0	46.3	74.0	-27.7	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Vert
22002.170	46.0	0.2	1.2	248.0	3.0	0.0	Vert	PK	0.0	46.2	74.0	-27.8	Ch. 100, 5500MHz, 6Mbps, PL=11, EUT Vert
22982.220	45.8	0.4	1.2	325.0	3.0	0.0	Vert	PK	0.0	46.2	74.0	-27.8	Ch. 149, 5745MHz, 6Mbps, PL=11, EUT Vert
22001.900	45.9	0.2	1.2	320.0	3.0	0.0	Horz	PK	0.0	46.1	74.0	-27.9	Ch. 100, 5500MHz, 6Mbps, PL=11, EUT Horz
22801.060	45.6	0.4	1.2	230.0	3.0	0.0	Vert	PK	0.0	46.0	74.0	-28.0	Ch. 140, 5700MHz, 6Mbps, PL=11, EUT Vert
22982.490	45.3	0.4	1.2	104.0	3.0	0.0	Horz	PK	0.0	45.7	74.0	-28.3	Ch. 149, 5745MHz, 6Mbps, PL=11, EUT Horz
21041.780	45.9	-0.3	1.2	52.0	3.0	0.0	Vert	PK	0.0	45.6	74.0	-28.4	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Vert
20960.820	45.9	-0.3	1.2	20.0	3.0	0.0	Vert	PK	0.0	45.6	74.0	-28.4	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Vert
21281.270	45.8	-0.2	1.2	179.0	3.0	0.0	Vert	PK	0.0	45.6	74.0	-28.4	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Vert
22798.250	45.1	0.4	1.2	163.0	3.0	0.0	Horz	PK	0.0	45.5	74.0	-28.5	Ch. 140, 5700MHz, 6Mbps, PL=11, EUT Horz
20722.410	46.0	-0.5	1.2	330.0	3.0	0.0	Horz	PK	0.0	45.5	74.0	-28.5	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Horz
20962.190	45.8	-0.3	1.2	98.0	3.0	0.0	Horz	PK	0.0	45.5	74.0	-28.5	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Horz
21279.810	45.5	-0.2	1.2	307.0	3.0	0.0	Horz	PK	0.0	45.3	74.0	-28.7	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Horz
21041.830	45.1	-0.3	1.2	110.0	3.0	0.0	Horz	PK	0.0	44.8	74.0	-29.2	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Vert
11159.840	50.0	-7.4	1.0	349.0	3.0	0.0	Vert	PK	0.0	42.6	74.0	-31.4	Ch. 116, 5580MHz, 6Mbps, PL=18, EUT Vert
11160.830	49.5	-7.4	1.1	322.0	3.0	0.0	Horz	PK	0.0	42.1	74.0	-31.9	Ch. 116, 5580MHz, 6Mbps, PL=18, EUT Horz
11002.330	49.9	-8.6	1.0	247.0	3.0	0.0	Horz	PK	0.0	41.3	74.0	-32.7	Ch. 100, 5500MHz, 6Mbps, PL=18, EUT Horz
11399.590	46.3	-5.1	1.7	330.0	3.0	0.0	Vert	PK	0.0	41.2	74.0	-32.8	Ch. 140, 5700MHz, 6Mbps, PL=18, EUT Vert
11001.130	49.5	-8.6	1.0	7.0	3.0	0.0	Vert	PK	0.0	40.9	74.0	-33.1	Ch. 100, 5500MHz, 6Mbps, PL=18, EUT Vert
10639.580	49.7	-9.8	1.0	1.0	3.0	0.0	Vert	PK	0.0	39.9	74.0	-34.1	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Vert
10639.330	49.7	-9.8	1.0	47.0	3.0	0.0	Horz	PK	0.0	39.9	74.0	-34.1	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Horz
11400.360	44.5	-5.1	1.0	261.0	3.0	0.0	Horz	PK	0.0	39.4	74.0	-34.6	Ch. 140, 5700MHz, 6Mbps, PL=18, EUT Horz

SPURIOUS RADIATED EMISSIONS

Work Order:	ETHE0009	**Date:**	09/26/14		
Project:	None	**Temperature:**	23.2 °C		
Job Site:	EV01	**Humidity:**	47.5% RH		
Serial Number:	00409D 7C03CE	**Barometric Pres.:**	1016.6 mbar	**Tested by:**	Jared Ison
EUT:	ConnectCore i.MX6 WiFi/Bluetooth				
Configuration:	6				
Customer:	Etherios Design Solutions				
Attendees:	None				
EUT Power:	5VDC				
Operating Mode:	Continuous Tx using Ethertronics Antenna				
Deviations:	None				
Comments:	Please reference the data comments for EUT orientation, power level, modulation and frequency.				

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

Run #	194	**Test Distance (m)**	3	**Antenna Height(s)**	1 to 4(m)	**Results**	Pass



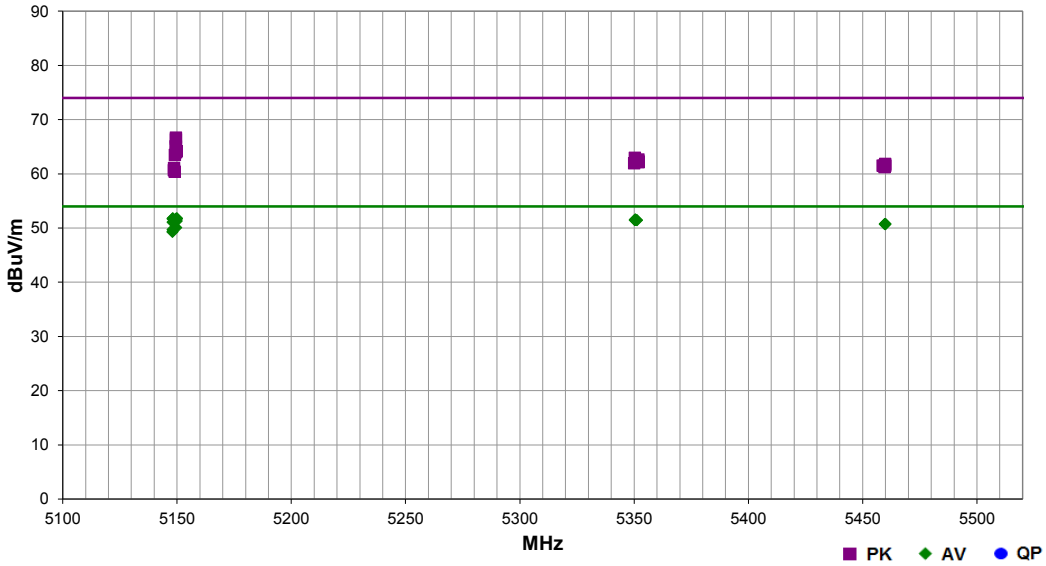
	Freq (MHz)	Antenna Height (meters)	Azimuth (degrees)	Polarity/ Transducer Type	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
	17100.240	1.0	206.0	Vert	PK	5.43E-08	-42.7	-27.0	-15.7	Ch. 140, 5700MHz, 6Mbps, PL=18, EUT Vert
	17100.790	1.0	242.0	Horz	PK	5.18E-08	-42.9	-27.0	-15.9	Ch. 140, 5700MHz, 6Mbps, PL=18, EUT Horz
	16738.590	3.6	264.0	Vert	PK	4.06E-08	-43.9	-27.0	-16.9	Ch. 116, 5580MHz, 6Mbps, PL=18, EUT Vert
	16740.880	1.0	117.0	Horz	PK	3.97E-08	-44.0	-27.0	-17.0	Ch. 116, 5580MHz, 6Mbps, PL=18, EUT Horz
	16500.670	1.0	112.0	Vert	PK	3.52E-08	-44.5	-27.0	-17.5	Ch. 100, 5500MHz, 6Mbps, PL=18, EUT Vert
	16499.180	1.0	83.0	Horz	PK	3.36E-08	-44.7	-27.0	-17.7	Ch. 100, 5500MHz, 6Mbps, PL=18, EUT Horz
	10521.180	1.0	39.0	Horz	PK	2.51E-09	-56.0	-27.0	-29.0	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Horz
	10360.720	1.0	286.0	Horz	PK	2.42E-09	-56.2	-27.0	-29.2	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Horz
	10360.300	1.0	181.0	Vert	PK	2.37E-09	-56.3	-27.0	-29.3	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Vert
	10479.130	1.0	330.0	Horz	PK	2.34E-09	-56.3	-27.0	-29.3	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Horz
	10520.810	1.0	323.0	Vert	PK	2.29E-09	-56.4	-27.0	-29.4	Ch. 52, 5260MHz, 6Mbps, PL=11, EUT Vert
	10481.140	1.0	78.0	Vert	PK	2.00E-09	-57.0	-27.0	-30.0	Ch. 48, 5240MHz, 6Mbps, PL=11, EUT Vert

SPURIOUS RADIATED EMISSIONS

Work Order:	ETHE0009	**Date:**	09/24/14		
Project:	None	**Temperature:**	23.1 °C		
Job Site:	EV01	**Humidity:**	50.6% RH		
Serial Number:	00409D 7C03CE	**Barometric Pres.:**	1009 mbar	**Tested by:**	Jared Ison
EUT:	ConnectCore i.MX6 WiFi/Bluetooth				
Configuration:	6				
Customer:	Etherios Design Solutions				
Attendees:	None				
EUT Power:	5VDC				
Operating Mode:	Continuous Tx Ethertronics Antenna				
Deviations:	None				
Comments:	Please reference the data comments for EUT orientation, power level, modulation and frequency.				

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

Run #	141	**Test Distance (m)**	1	**Antenna Height(s)**	1 to 4(m)	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
5148.157	24.4	36.9	1.2	360.0	1.0	0.0	Horz	AV	-9.5	51.8	54.0	-2.2	Ch. 36, 5180MHz, 54Mbps, PL=11, EUT Vert
5149.923	24.4	36.9	1.2	360.0	1.0	0.0	Horz	AV	-9.5	51.8	54.0	-2.2	Ch. 36, 5180MHz, MCS0, PL=11, EUT Vert
5148.100	24.3	36.9	1.2	360.0	1.0	0.0	Horz	AV	-9.5	51.7	54.0	-2.3	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Vert
5149.507	24.3	36.9	1.2	360.0	1.0	0.0	Horz	AV	-9.5	51.7	54.0	-2.3	Ch. 36, 5180MHz, 36Mbps, PL=11, EUT Vert
5149.940	24.3	36.9	1.2	360.0	1.0	0.0	Horz	AV	-9.5	51.7	54.0	-2.3	Ch. 36, 5180MHz, MCS7, PL=11, EUT Vert
5350.613	23.6	37.5	1.2	360.0	1.0	0.0	Horz	AV	-9.5	51.6	54.0	-2.4	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Vert
5350.303	23.5	37.5	1.2	360.0	1.0	0.0	Horz	AV	-9.5	51.5	54.0	-2.5	Ch. 64, 5320MHz, 54Mbps, PL=11, EUT Vert
5350.420	23.5	37.5	1.2	360.0	1.0	0.0	Horz	AV	-9.5	51.5	54.0	-2.5	Ch. 64, 5320MHz, MCS7, PL=11, EUT Vert
5350.610	23.5	37.5	1.2	360.0	1.0	0.0	Horz	AV	-9.5	51.5	54.0	-2.5	Ch. 64, 5320MHz, MCS0, PL=11, EUT Vert
5351.260	23.5	37.5	1.2	360.0	1.0	0.0	Horz	AV	-9.5	51.5	54.0	-2.5	Ch. 64, 5320MHz, 36Mbps, PL=11, EUT Vert
5149.893	23.9	36.9	1.2	360.0	1.0	0.0	Horz	AV	-9.5	51.3	54.0	-2.7	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Horz
5148.077	23.7	36.9	1.2	360.0	1.0	0.0	Vert	AV	-9.5	51.1	54.0	-2.9	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT On Side
5459.943	22.7	37.6	1.2	360.0	1.0	0.0	Horz	AV	-9.5	50.7	54.0	-3.3	Ch. 100, 5500MHz, 36Mbps, PL=11, EUT Vert
5459.947	22.7	37.6	1.2	360.0	1.0	0.0	Horz	AV	-9.5	50.7	54.0	-3.3	Ch. 100, 5500MHz, MCS7, PL=11, EUT Vert
5459.883	22.7	37.6	1.2	360.0	1.0	0.0	Horz	AV	-9.5	50.7	54.0	-3.3	Ch. 100, 5500MHz, MCS0, PL=11, EUT Vert
5459.870	22.7	37.6	1.2	360.0	1.0	0.0	Horz	AV	-9.5	50.7	54.0	-3.3	Ch. 100, 5500MHz, 6Mbps, PL=11, EUT Vert
5459.700	22.7	37.6	1.2	360.0	1.0	0.0	Horz	AV	-9.5	50.7	54.0	-3.3	Ch. 100, 5500MHz, 54Mbps, PL=11, EUT Vert
5149.623	22.7	36.9	1.2	360.0	1.0	0.0	Vert	AV	-9.5	50.1	54.0	-3.9	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Horz
5148.127	22.3	36.9	1.2	360.0	1.0	0.0	Horz	AV	-9.5	49.7	54.0	-4.3	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT On Side
5148.020	21.9	36.9	1.2	360.0	1.0	0.0	Vert	AV	-9.5	49.3	54.0	-4.7	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Vert
5149.533	39.3	36.9	1.2	360.0	1.0	0.0	Horz	PK	-9.5	66.7	74.0	-7.3	Ch. 36, 5180MHz, MCS0, PL=11, EUT Vert
5149.500	39.0	36.9	1.2	360.0	1.0	0.0	Horz	PK	-9.5	66.4	74.0	-7.6	Ch. 36, 5180MHz, 36Mbps, PL=11, EUT Vert
5149.413	37.7	36.9	1.2	360.0	1.0	0.0	Vert	PK	-9.5	65.1	74.0	-8.9	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT On Side
5149.490	37.7	36.9	1.2	360.0	1.0	0.0	Horz	PK	-9.5	65.1	74.0	-8.9	Ch. 36, 5180MHz, 54Mbps, PL=11, EUT Vert
5149.820	36.8	36.9	1.2	360.0	1.0	0.0	Horz	PK	-9.5	64.2	74.0	-9.8	Ch. 36, 5180MHz, MCS7, PL=11, EUT Vert
5149.563	36.6	36.9	1.2	360.0	1.0	0.0	Horz	PK	-9.5	64.0	74.0	-10.0	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Vert
5149.063	36.1	36.9	1.2	360.0	1.0	0.0	Horz	PK	-9.5	63.5	74.0	-10.5	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Horz
5350.333	35.0	37.5	1.2	360.0	1.0	0.0	Horz	PK	-9.5	63.0	74.0	-11.0	Ch. 64, 5320MHz, 36Mbps, PL=11, EUT Vert
5351.840	34.7	37.5	1.2	360.0	1.0	0.0	Horz	PK	-9.5	62.7	74.0	-11.3	Ch. 64, 5320MHz, 6Mbps, PL=11, EUT Vert
5351.837	34.4	37.5	1.2	360.0	1.0	0.0	Horz	PK	-9.5	62.4	74.0	-11.6	Ch. 64, 5320MHz, MCS7, PL=11, EUT Vert
5351.947	34.2	37.5	1.2	360.0	1.0	0.0	Horz	PK	-9.5	62.2	74.0	-11.8	Ch. 64, 5320MHz, 54Mbps, PL=11, EUT Vert
5350.023	34.0	37.5	1.2	360.0	1.0	0.0	Horz	PK	-9.5	62.0	74.0	-12.0	Ch. 64, 5320MHz, MCS0, PL=11, EUT Vert
5459.827	33.8	37.6	1.2	360.0	1.0	0.0	Horz	PK	-9.5	61.8	74.0	-12.2	Ch. 100, 5500MHz, 6Mbps, PL=11, EUT Vert
5459.930	33.5	37.6	1.2	360.0	1.0	0.0	Horz	PK	-9.5	61.5	74.0	-12.5	Ch. 100, 5500MHz, 54Mbps, PL=11, EUT Vert

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
5459.463	33.5	37.6	1.2	360.0	1.0	0.0	Horz	PK	-9.5	61.5	74.0	-12.5	Ch. 100, 5500MHz, MCS7, PL=11, EUT Vert
5458.753	33.5	37.6	1.2	360.0	1.0	0.0	Horz	PK	-9.5	61.5	74.0	-12.5	Ch. 100, 5500MHz, MCS0, PL=11, EUT Vert
5459.573	33.2	37.6	1.2	360.0	1.0	0.0	Horz	PK	-9.5	61.2	74.0	-12.8	Ch. 100, 5500MHz, 36Mbps, PL=11, EUT Vert
5148.673	33.7	36.9	1.2	360.0	1.0	0.0	Horz	PK	-9.5	61.1	74.0	-12.9	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT On Side
5148.620	33.3	36.9	1.2	360.0	1.0	0.0	Vert	PK	-9.5	60.7	74.0	-13.3	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Horz
5148.973	33.0	36.9	1.2	360.0	1.0	0.0	Vert	PK	-9.5	60.4	74.0	-13.6	Ch. 36, 5180MHz, 6Mbps, PL=11, EUT Vert

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
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	14
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	4/28/2014	12

TEST DESCRIPTION

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

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

BAND EDGE COMPLIANCE

EUT:	ConnectCore i.MX6 WiFi/Bluetooth			Work Order:	ETHE0009
Serial Number:	00409D 7C03B4			Date:	09/26/14
Customer:	Etherios Design Solutions			Temperature:	23
Attendees:	None			Humidity:	48%
Project:	None			Barometric Pres.:	1024.7
Tested by:	Trevor Buls	Power:	5VDC	Job Site:	MN08

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

COMMENTS

None

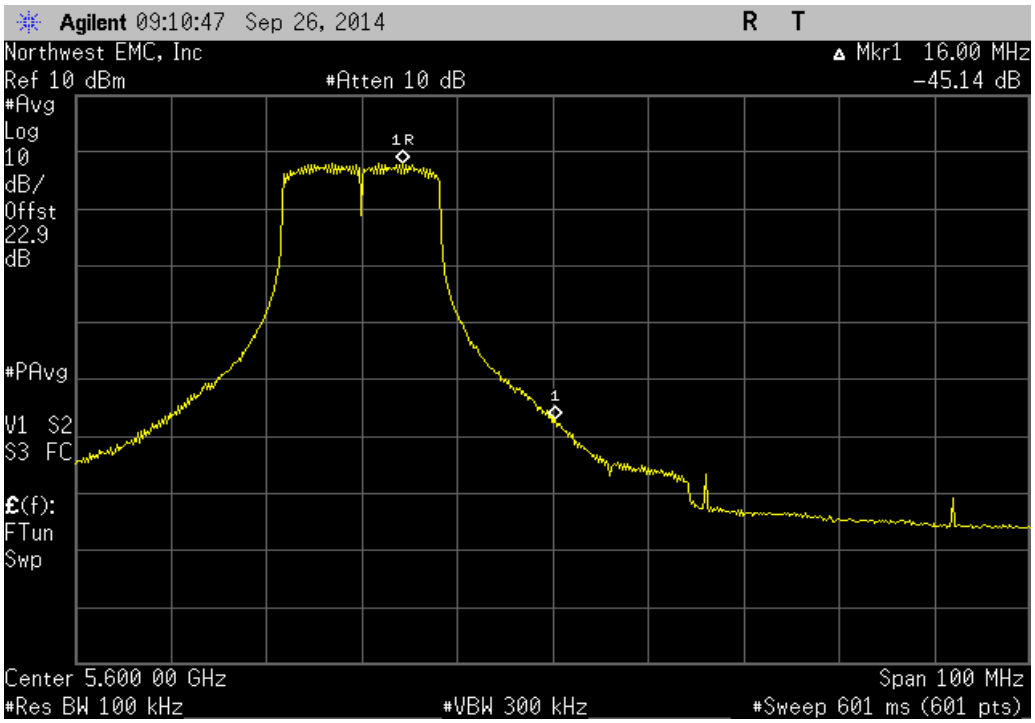
DEVIATIONS FROM TEST STANDARD

None

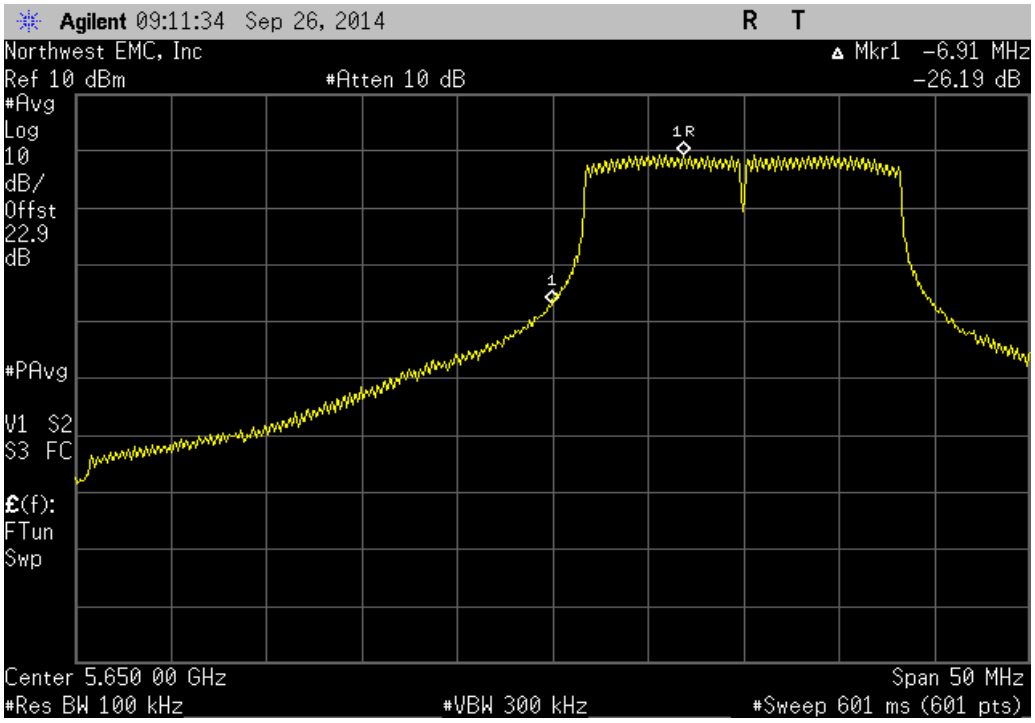
Configuration #	1	Signature Trevor Buls

		Value (dBc)	Limit < (dBc)	Result
802.11(a) 6 Mbps				
	5600 MHz Band Edge			
	Channel 116, 5580 MHz	-45.14	-20	Pass
	5650 MHz Band Edge			
	Channel 132, 5660 MHz	-26.19	dBc	Pass
802.11(a) 36 Mbps				
	5600 MHz Band Edge			
	Channel 116, 5580 MHz	-43.66	-20	Pass
	5650 MHz Band Edge			
	Channel 132, 5660 MHz	-26.48	dBc	Pass
802.11(a) 54 Mbps				
	5600 MHz Band Edge			
	Channel 116, 5580 MHz	-52.07	-20	Pass
	5650 MHz Band Edge			
	Channel 132, 5660 MHz	-26.75	dBc	Pass
802.11(n) MCS0				
	5600 MHz Band Edge			
	Channel 116, 5580 MHz	-43.15	-20	Pass
	5650 MHz Band Edge			
	Channel 132, 5660 MHz	-24.19	dBc	Pass
802.11(n) MCS7				
	5600 MHz Band Edge			
	Channel 116, 5580 MHz	-51.02	-20	Pass
	5650 MHz Band Edge			
	Channel 132, 5660 MHz	-25.69	dBc	Pass

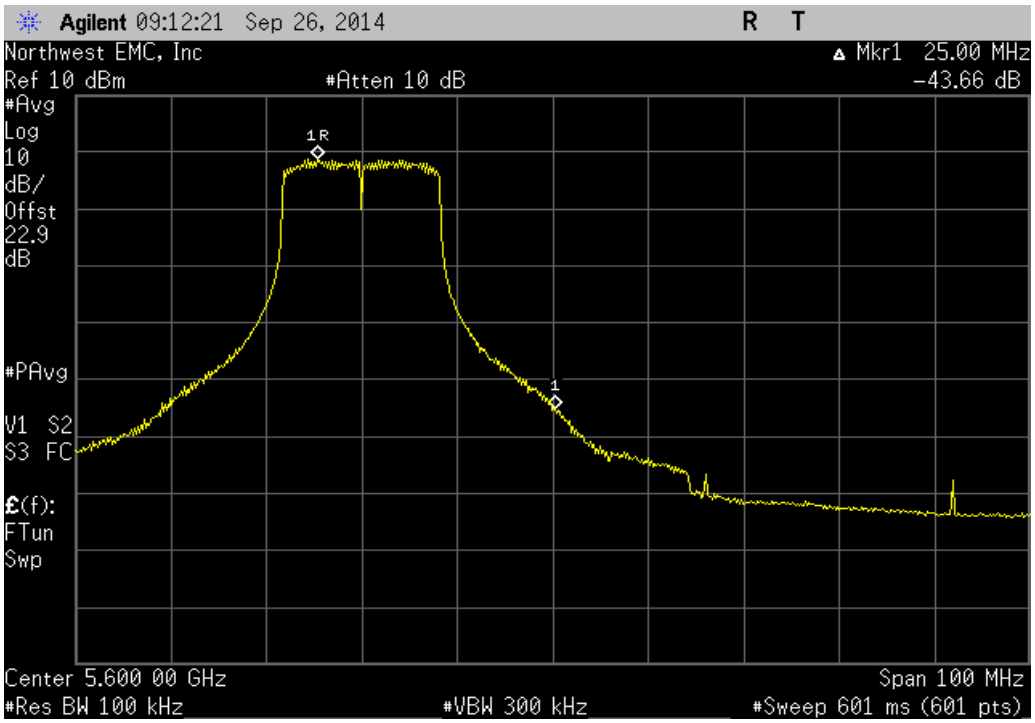
802.11(a) 6 Mbps, 5600 MHz Band Edge, Channel 116, 5580 MHz						
				Value (dBc)	Limit < (dBc)	Result
				-45.14	-20	Pass



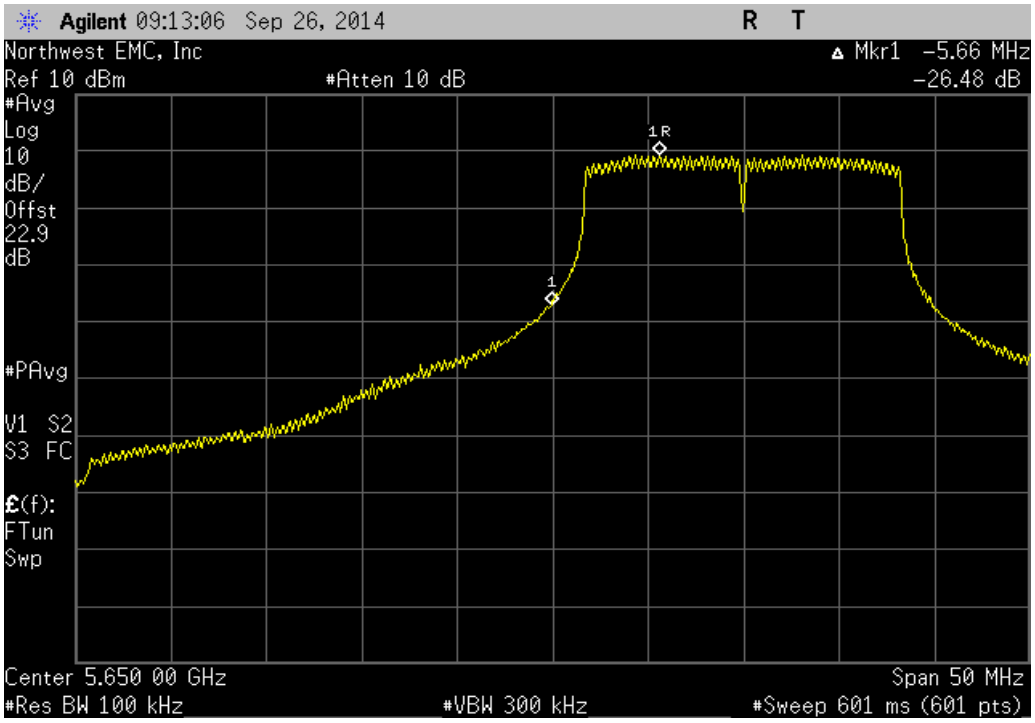
802.11(a) 6 Mbps, 5650 MHz Band Edge, Channel 132, 5660 MHz						
				Value (dBc)	Limit < (dBc)	Result
				-26.19	dBc	Pass



802.11(a) 36 Mbps, 5600 MHz Band Edge, Channel 116, 5580 MHz						
				Value (dBc)	Limit < (dBc)	Result
				-43.66	-20	Pass

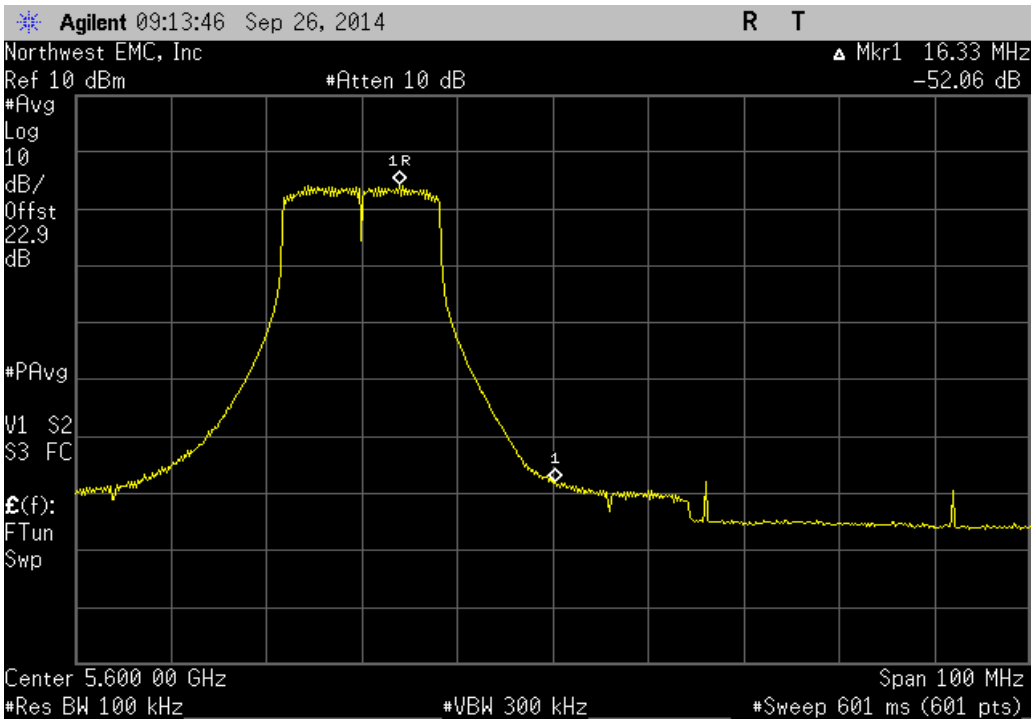


802.11(a) 36 Mbps, 5650 MHz Band Edge, Channel 132, 5660 MHz						
				Value (dBc)	Limit < (dBc)	Result
				-26.48	dBc	Pass

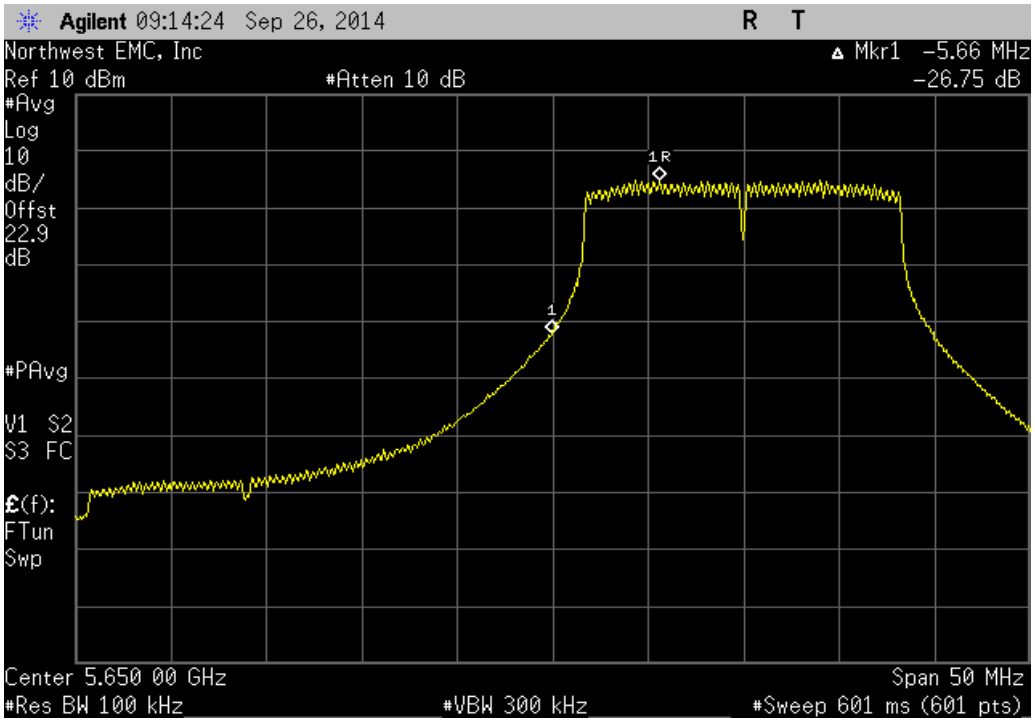


BAND EDGE COMPLIANCE

802.11(a) 54 Mbps, 5600 MHz Band Edge, Channel 116, 5580 MHz						
				Value (dBc)	Limit < (dBc)	Result
				-52.07	-20	Pass

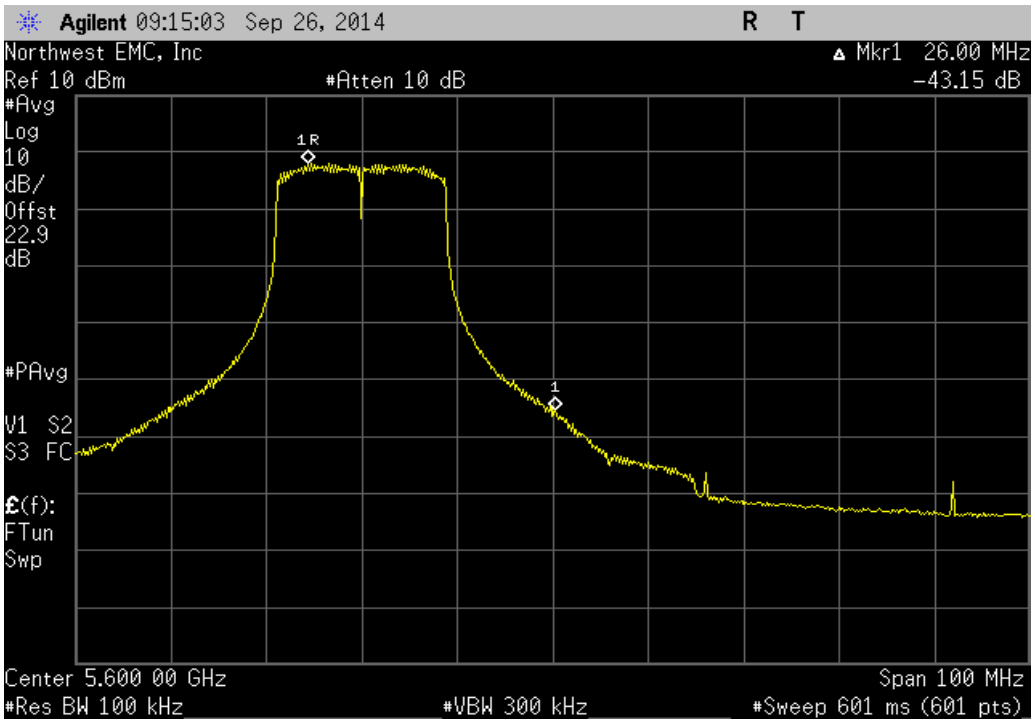


802.11(a) 54 Mbps, 5650 MHz Band Edge, Channel 132, 5660 MHz						
				Value (dBc)	Limit < (dBc)	Result
				-26.75	dBc	Pass

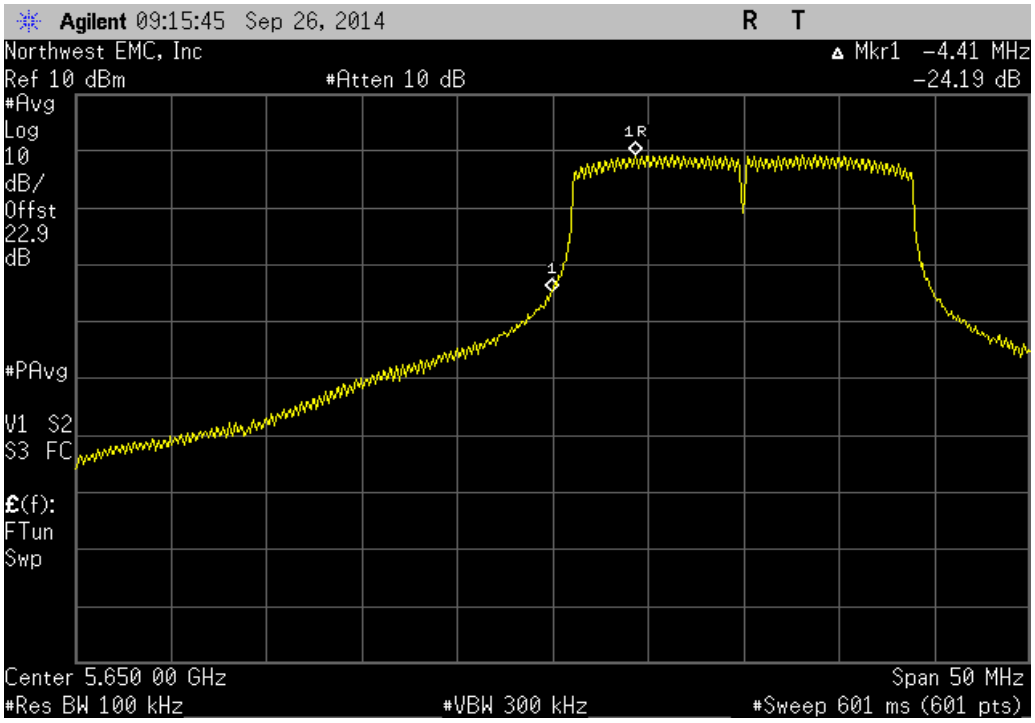


BAND EDGE COMPLIANCE

802.11(n) MCS0, 5600 MHz Band Edge, Channel 116, 5580 MHz						
				Value (dBc)	Limit < (dBc)	Result
				-43.15	-20	Pass

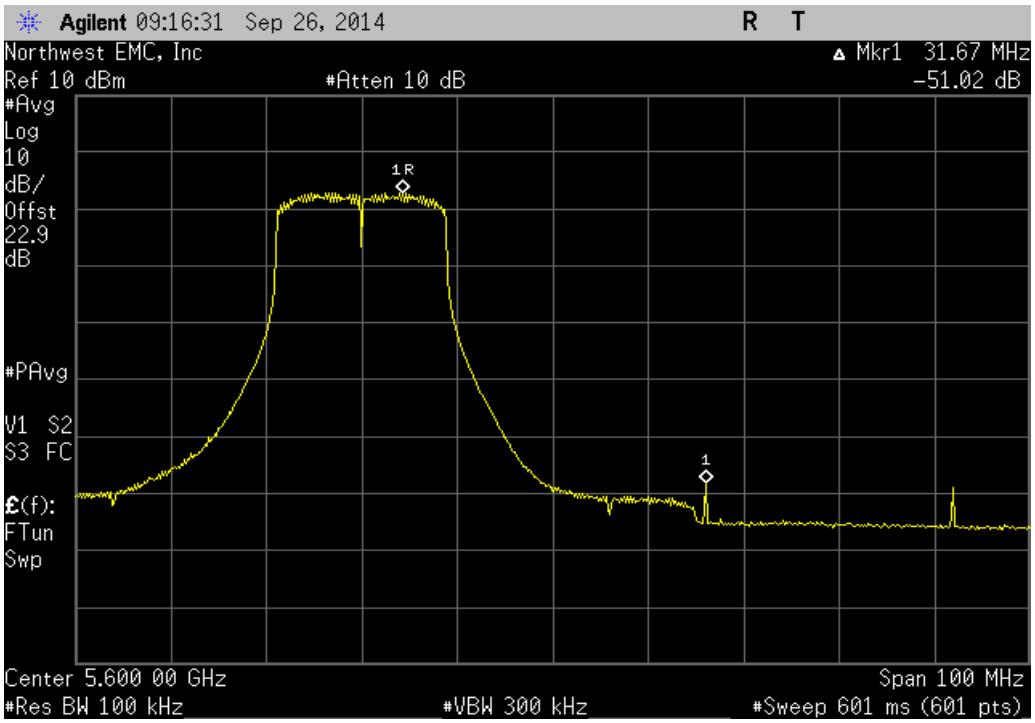


802.11(n) MCS0, 5650 MHz Band Edge, Channel 132, 5660 MHz						
				Value (dBc)	Limit < (dBc)	Result
				-24.19	dBc	Pass

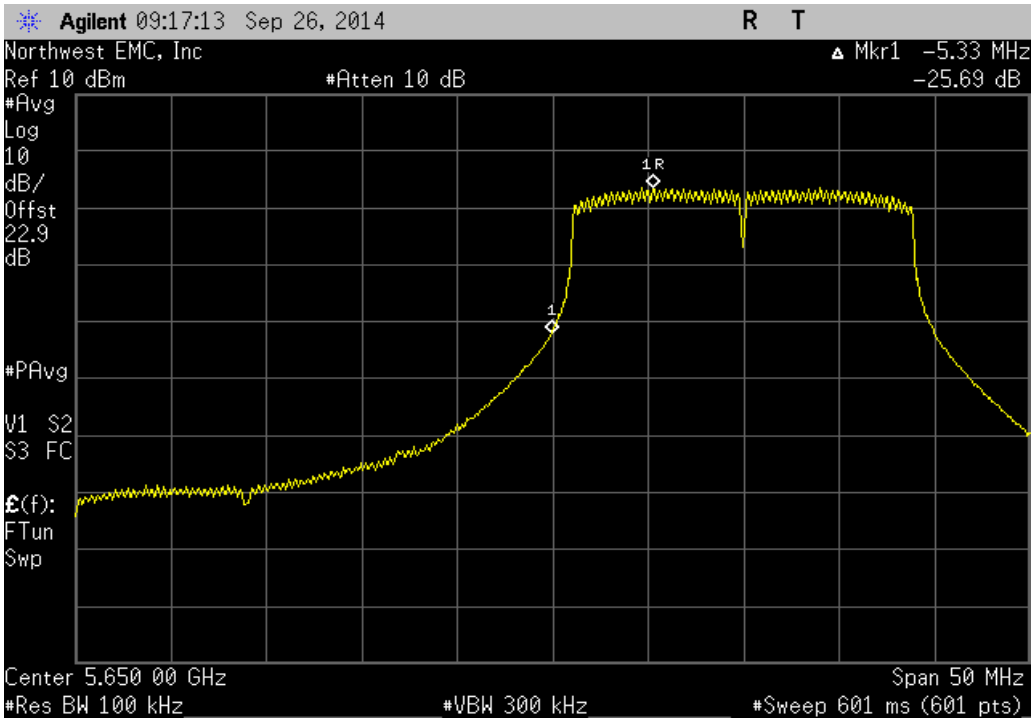


BAND EDGE COMPLIANCE

802.11(n) MCS7, 5600 MHz Band Edge, Channel 116, 5580 MHz						
				Value (dBc)	Limit < (dBc)	Result
				-51.02	-20	Pass



802.11(n) MCS7, 5650 MHz Band Edge, Channel 132, 5660 MHz						
				Value (dBc)	Limit < (dBc)	Result
				-25.69	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
Single Output DC Power Supply, 30V/5A, 150W	Agilent	U8002A	TPZ	NCR	0
Multimeter	Fluke	114	MMU	6/30/2014	36
Humidity Temperature Meter	Omega Engineering, Inc.	HH31	DUB	10/25/2011	36
Humidity Temperature Chamber	Cincinnati Sub Zero (CSZ)	ZPH-32-3.5-SCT/AC	TBF	NCR	0
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	12
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	4/28/2014	12

TEST DESCRIPTION

A direct connect measurement was made between the EUT's antenna cable and a spectrum analyzer. The spectrum analyzer is equipped with a precision frequency reference that exceeds the stability requirement of the EUT. Measurements were made at the edges of the main transmit bands as called out on the data sheets.

The primary supply voltage was varied from 85 % to 115% of the nominal voltage Using a temperature chamber, the transmit frequency was recorded at the extremes of the specified temperature range (-30 ° to +50° C) and at 10°C intervals.

Per the requirements of FCC 15.407:

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

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

FREQUENCY STABILITY

EUT:	ConnectCore i.MX6 WiFi/Bluetooth			Work Order:	ETHE0009
Serial Number:	00409D 7C03B4			Date:	09/23/14
Customer:	Etherios Design Solutions			Temperature:	22.1
Attendees:	None			Humidity:	49%
Project:	None			Barometric Pres.:	1025.4
Tested by:	Trevor Buls	Power:	5VDC	Job Site:	MN08

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

COMMENTS

Varied voltage from 4.25-5.75Vdc.

DEVIATIONS FROM TEST STANDARD

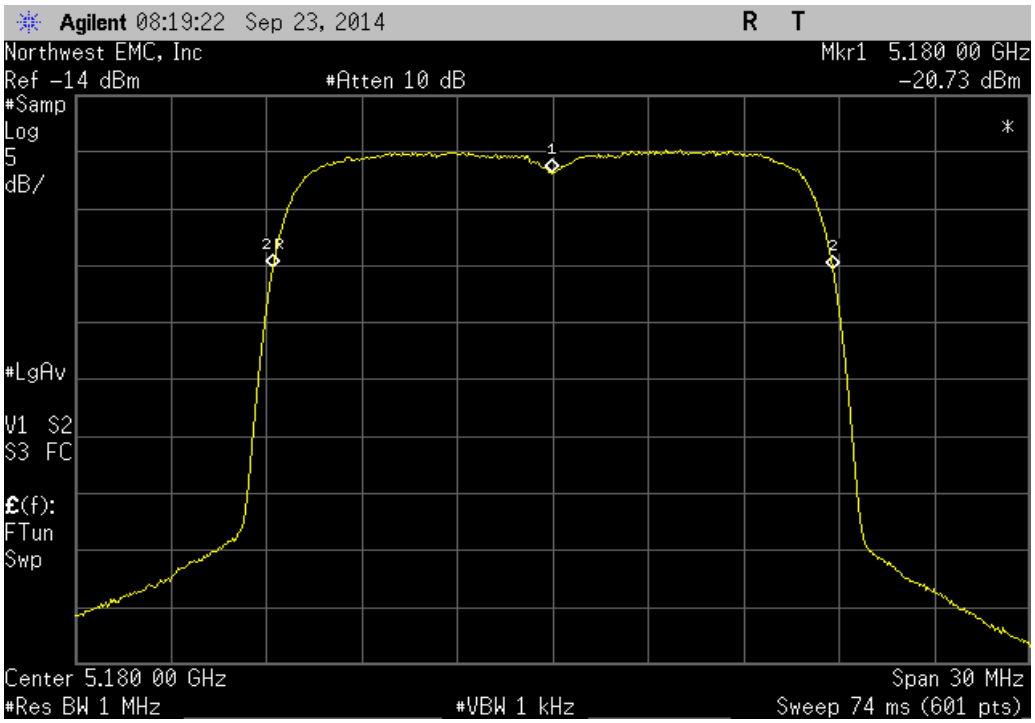
None

Configuration #	1	Signature	Trevor Buls

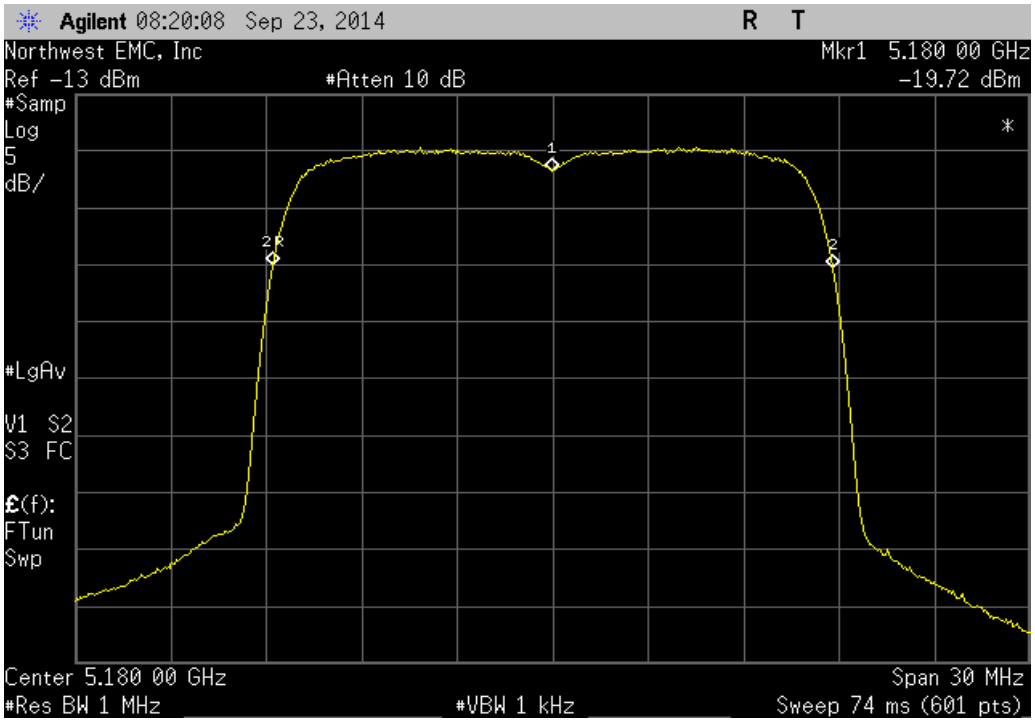
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
5150 MHz - 5250 MHz - Low Channel, 5180 MHz					
Voltage: 115%	5180	5180	0	100	Pass
Voltage: 100%	5180	5180	0	100	Pass
Voltage: 85%	5180	5180	0	100	Pass
Temperature: +50°	5180	5180	0	100	Pass
Temperature: +40°	5180	5180	0	100	Pass
Temperature: +30°	5180	5180	0	100	Pass
Temperature: +20°	5180	5180	0	100	Pass
Temperature: +10°	5180.02	5180	3.9	100	Pass
Temperature: 0°	5180.02	5180	3.9	100	Pass
Temperature: -10°	5180.02	5180	3.9	100	Pass
Temperature: -20°	5180.05	5180	9.7	100	Pass
Temperature: -30°	5180.02	5180	3.9	100	Pass
5250 MHz - 5350 MHz - High Channel, 5320 MHz					
Voltage: 115%	5320	5320	0	100	Pass
Voltage: 100%	5320	5320	0	100	Pass
Voltage: 85%	5319.98	5320	3.8	100	Pass
Temperature: +50°	5320	5320	0	100	Pass
Temperature: +40°	5320	5320	0	100	Pass
Temperature: +30°	5320	5320	0	100	Pass
Temperature: +20°	5320	5320	0	100	Pass
Temperature: +10°	5320	5320	0	100	Pass
Temperature: 0°	5320.02	5320	3.8	100	Pass
Temperature: -10°	5320.02	5320	3.8	100	Pass
Temperature: -20°	5320.02	5320	3.8	100	Pass
Temperature: -30°	5320.02	5320	3.8	100	Pass
5470 MHz - 5725 MHz - Low Channel, 5500 MHz					
Voltage: 115%	5499.98	5500	3.6	100	Pass
Voltage: 100%	5499.98	5500	3.6	100	Pass
Voltage: 85%	5499.98	5500	3.6	100	Pass
Temperature: +50°	5500	5500	0	100	Pass
Temperature: +40°	5499.98	5500	3.6	100	Pass
Temperature: +30°	5499.98	5500	3.6	100	Pass
Temperature: +20°	5500	5500	0	100	Pass
Temperature: +10°	5500	5500	0	100	Pass
Temperature: 0°	5500.02	5500	3.6	100	Pass
Temperature: -10°	5500.02	5500	3.6	100	Pass
Temperature: -20°	5500.02	5500	3.6	100	Pass
Temperature: -30°	5500.02	5500	3.6	100	Pass
5470 MHz - 5725 MHz - High Channel, 5700 MHz					
Voltage: 115%	5699.98	5700	3.5	100	Pass
Voltage: 100%	5699.98	5700	3.5	100	Pass
Voltage: 85%	5699.98	5700	3.5	100	Pass
Temperature: +50°	5699.98	5700	3.5	100	Pass
Temperature: +40°	5699.98	5700	3.5	100	Pass
Temperature: +30°	5699.98	5700	3.5	100	Pass
Temperature: +20°	5699.98	5700	3.5	100	Pass
Temperature: +10°	5700	5700	0	100	Pass
Temperature: 0°	5700	5700	0	100	Pass
Temperature: -10°	5700	5700	0	100	Pass
Temperature: -20°	5700.02	5700	3.5	100	Pass
Temperature: -30°	5700	5700	0	100	Pass

FREQUENCY STABILITY

5150 MHz - 5250 MHz - Low Channel, 5180 MHz, Voltage: 115%						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5180	5180	0	100	Pass

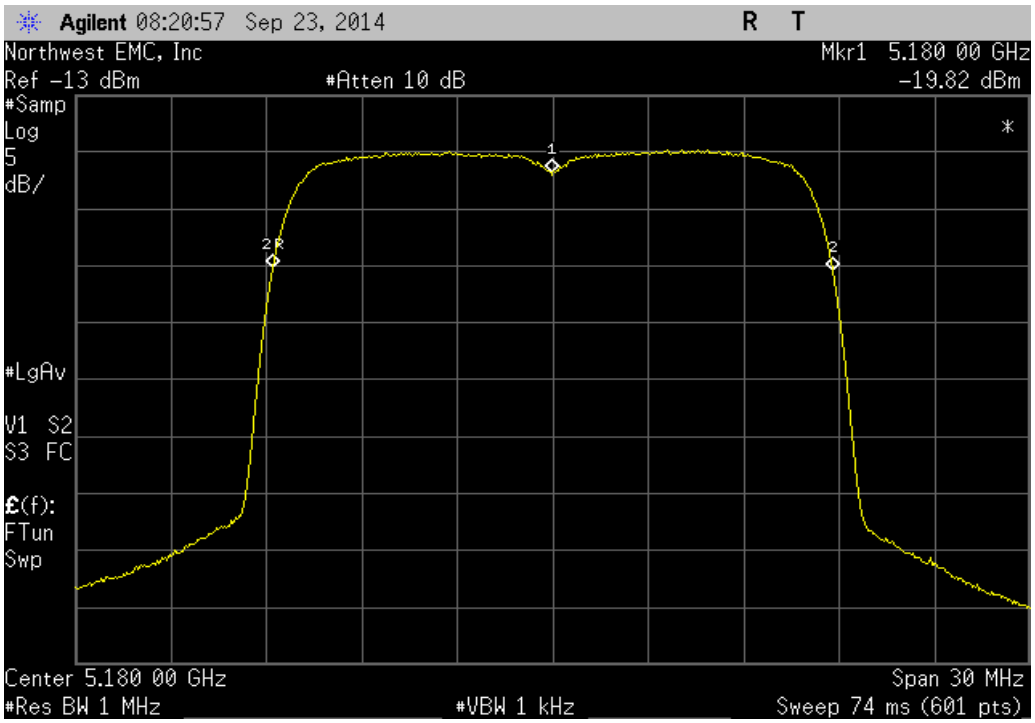


5150 MHz - 5250 MHz - Low Channel, 5180 MHz, Voltage: 100%						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5180	5180	0	100	Pass

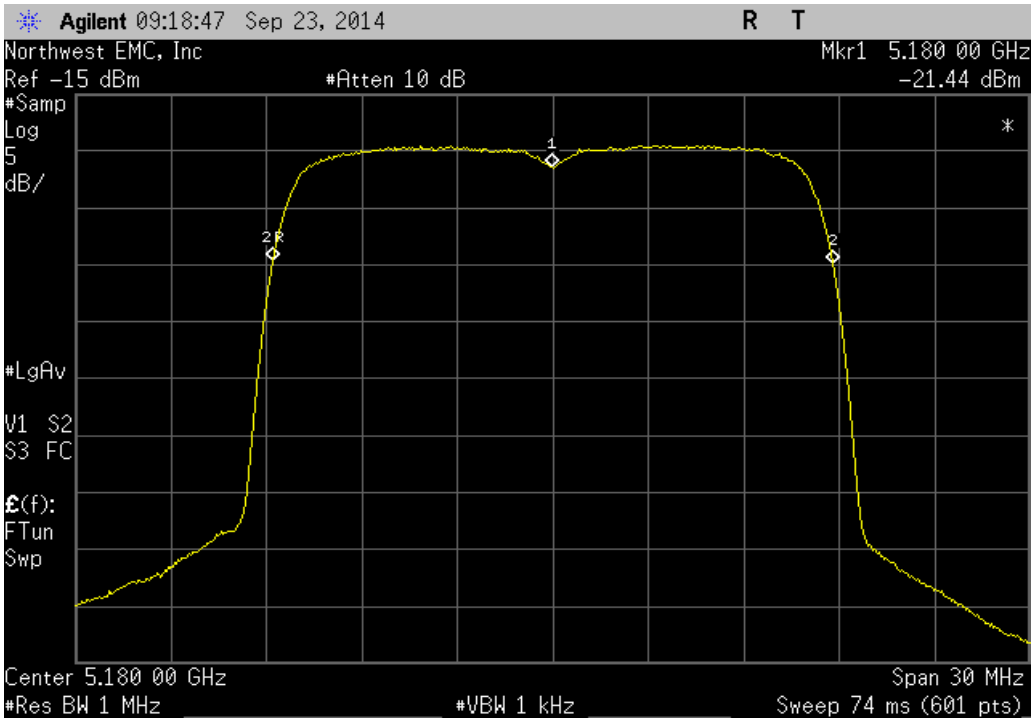


FREQUENCY STABILITY

5150 MHz - 5250 MHz - Low Channel, 5180 MHz, Voltage: 85%						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5180	5180	0	100	Pass

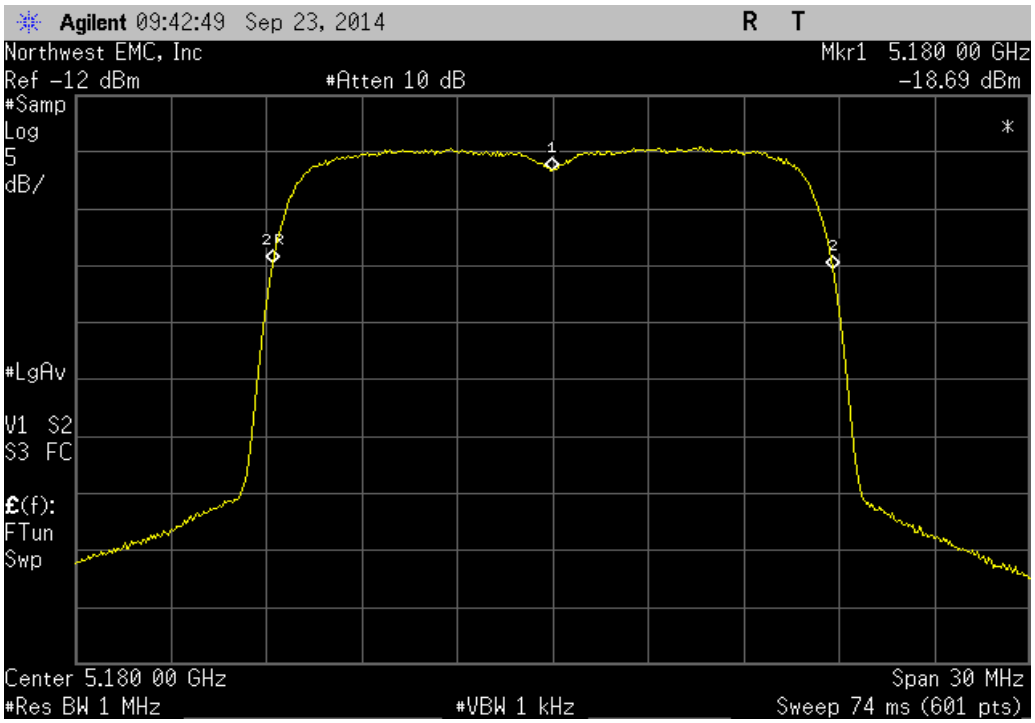


5150 MHz - 5250 MHz - Low Channel, 5180 MHz, Temperature: +50°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5180	5180	0	100	Pass

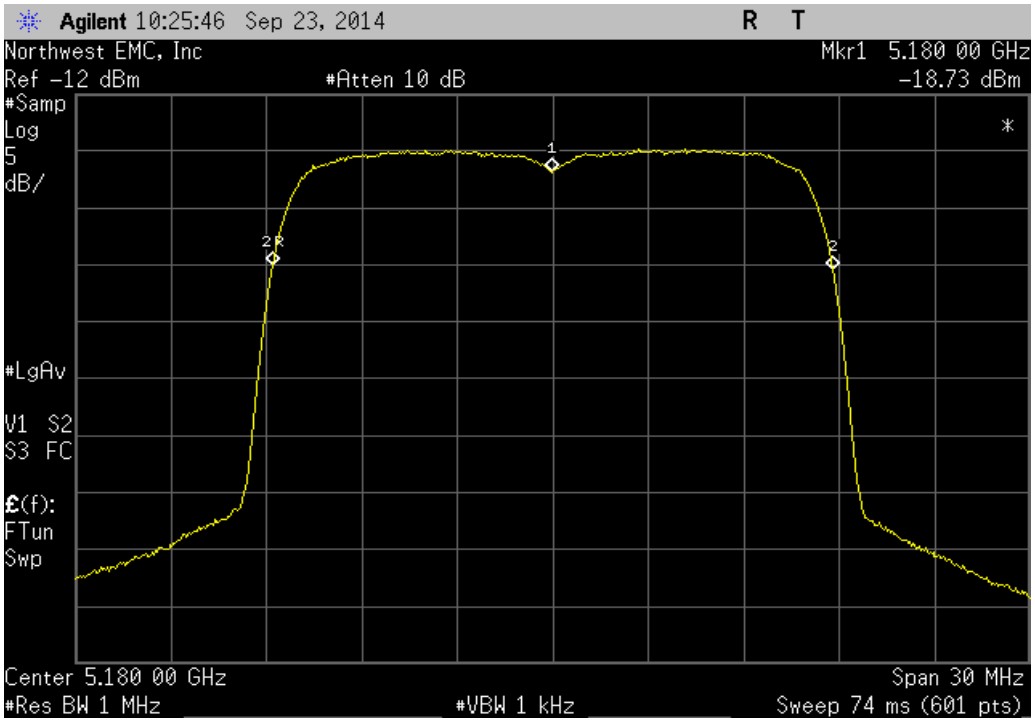


FREQUENCY STABILITY

5150 MHz - 5250 MHz - Low Channel, 5180 MHz, Temperature: +40°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5180	5180	0	100	Pass

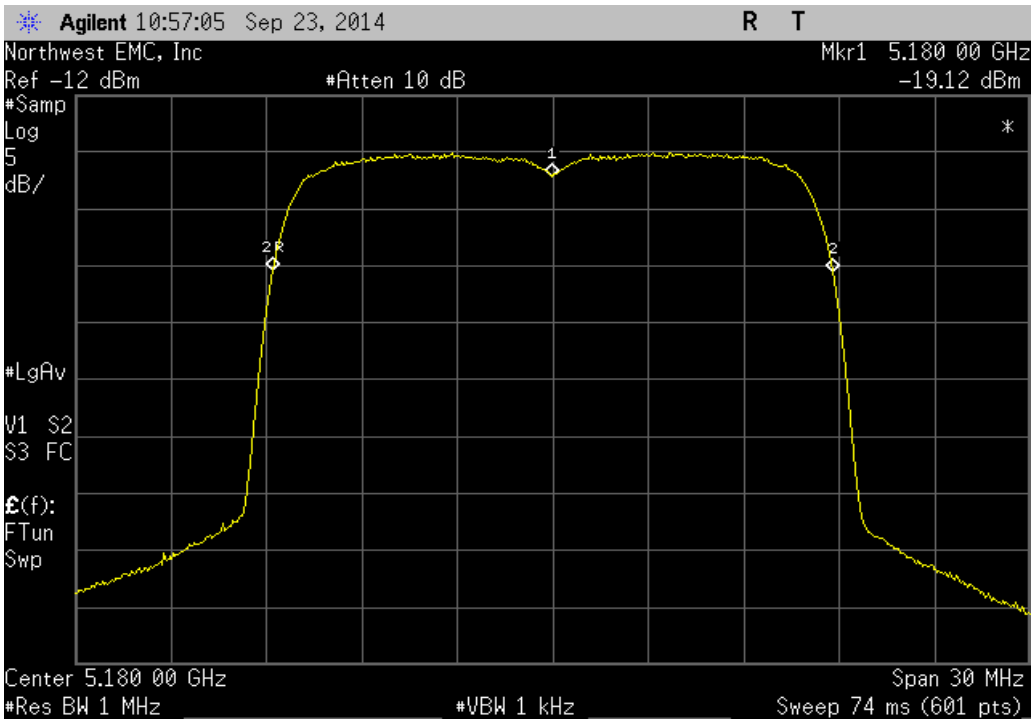


5150 MHz - 5250 MHz - Low Channel, 5180 MHz, Temperature: +30°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5180	5180	0	100	Pass

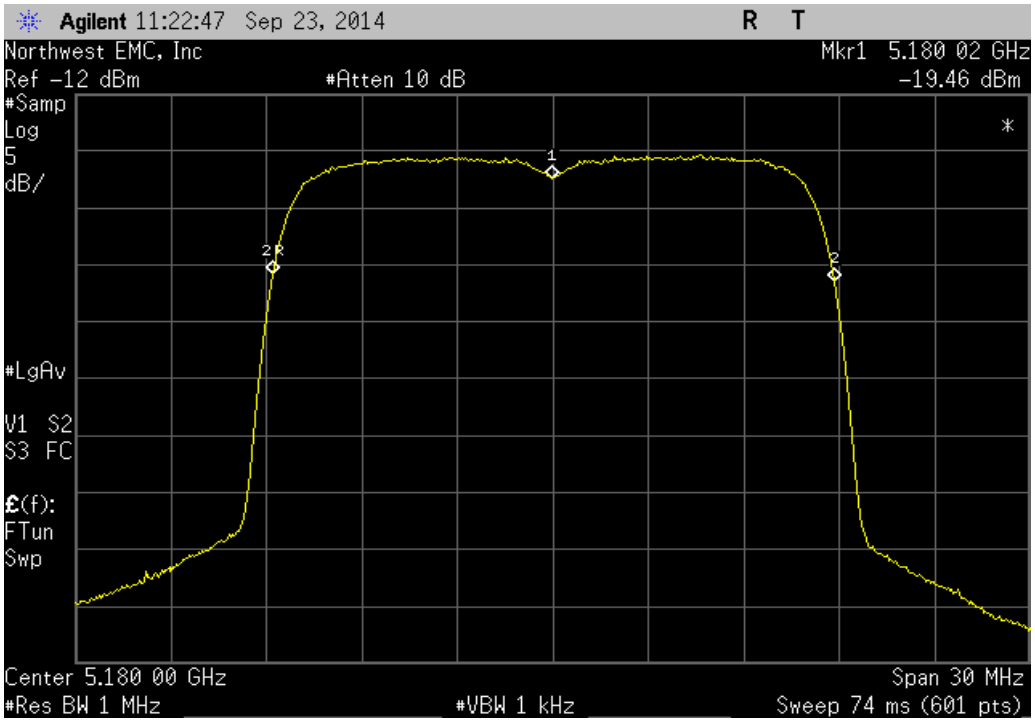


FREQUENCY STABILITY

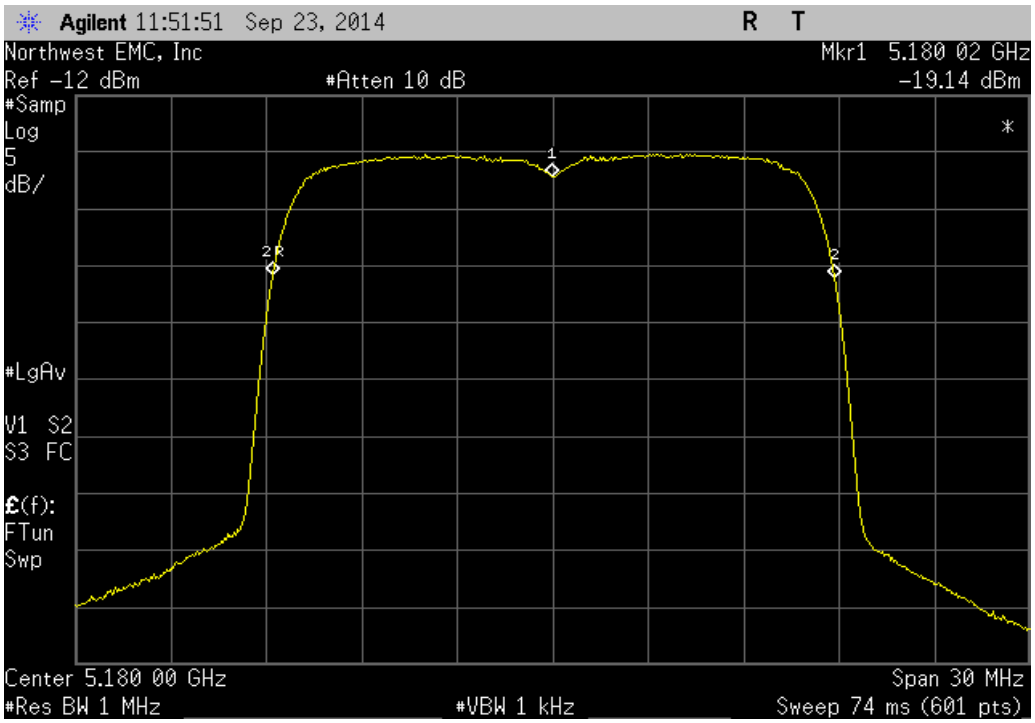
5150 MHz - 5250 MHz - Low Channel, 5180 MHz, Temperature: +20°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5180	5180	0	100	Pass



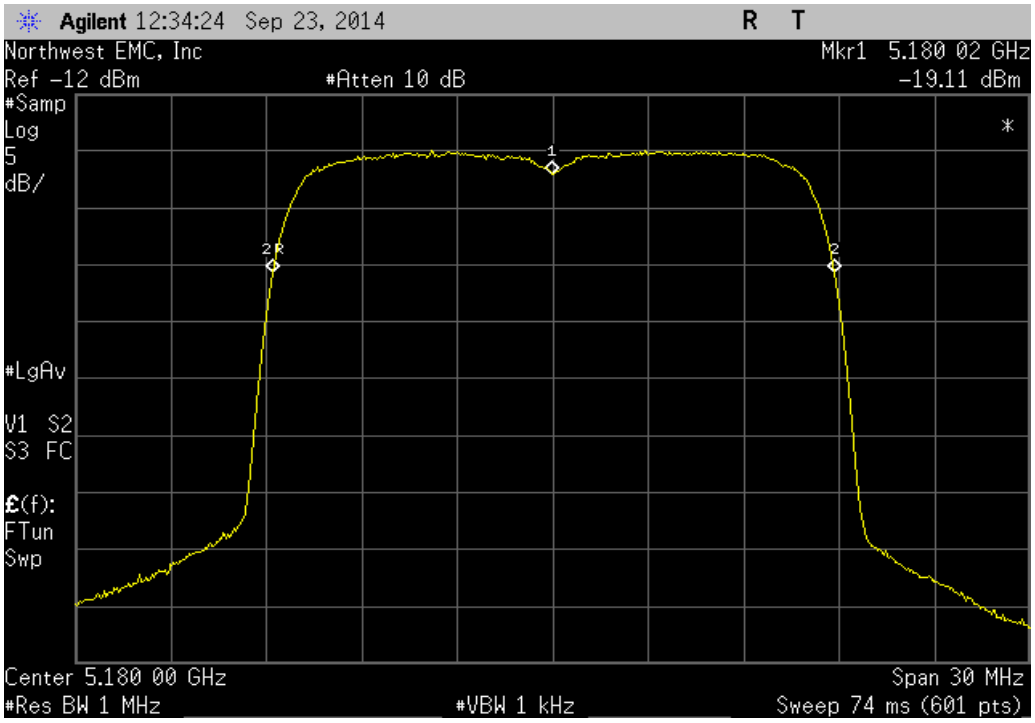
5150 MHz - 5250 MHz - Low Channel, 5180 MHz, Temperature: +10°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5180.02	5180	3.9	100	Pass



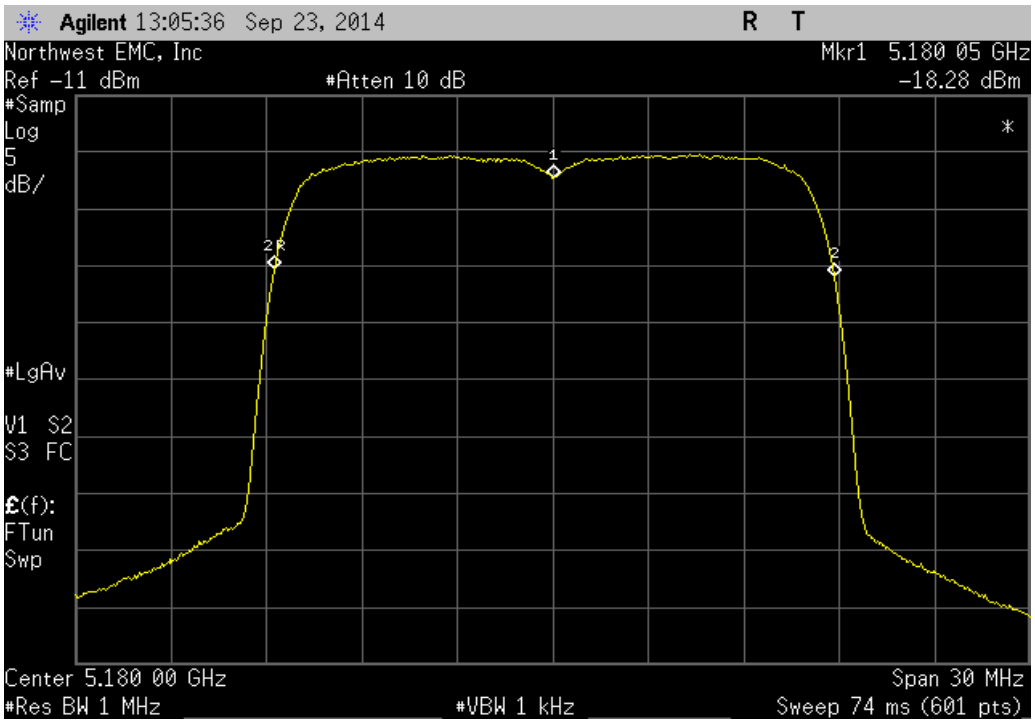
5150 MHz - 5250 MHz - Low Channel, 5180 MHz, Temperature: 0°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5180.02	5180	3.9	100	Pass



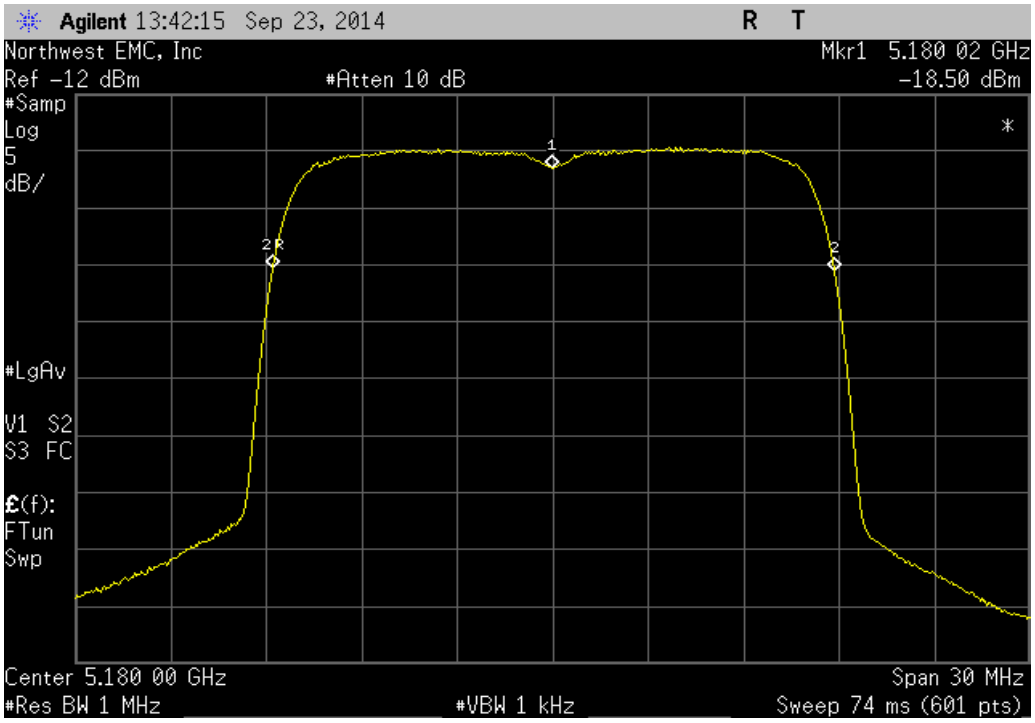
5150 MHz - 5250 MHz - Low Channel, 5180 MHz, Temperature: -10°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5180.02	5180	3.9	100	Pass



5150 MHz - 5250 MHz - Low Channel, 5180 MHz, Temperature: -20°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5180.05	5180	9.7	100	Pass

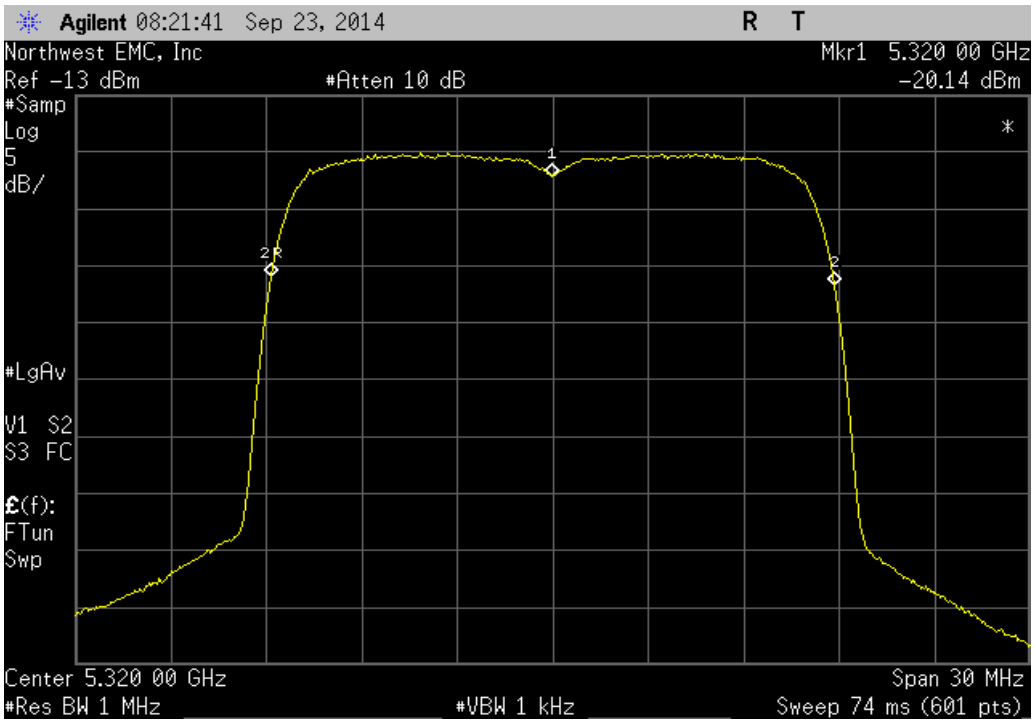


5150 MHz - 5250 MHz - Low Channel, 5180 MHz, Temperature: -30°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5180.02	5180	3.9	100	Pass

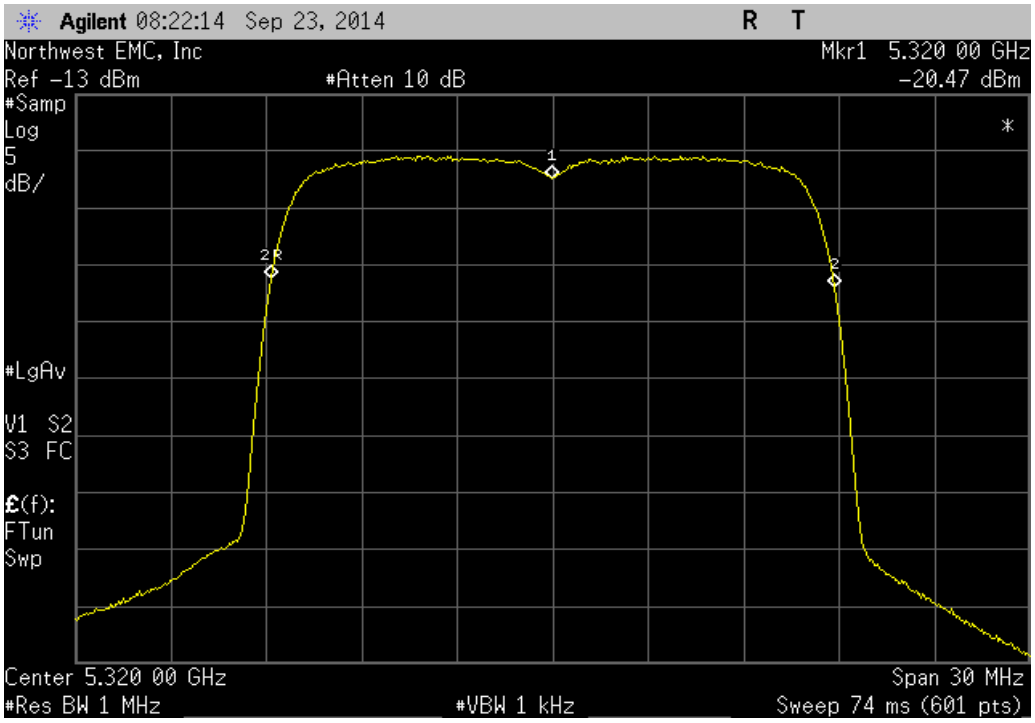


FREQUENCY STABILITY

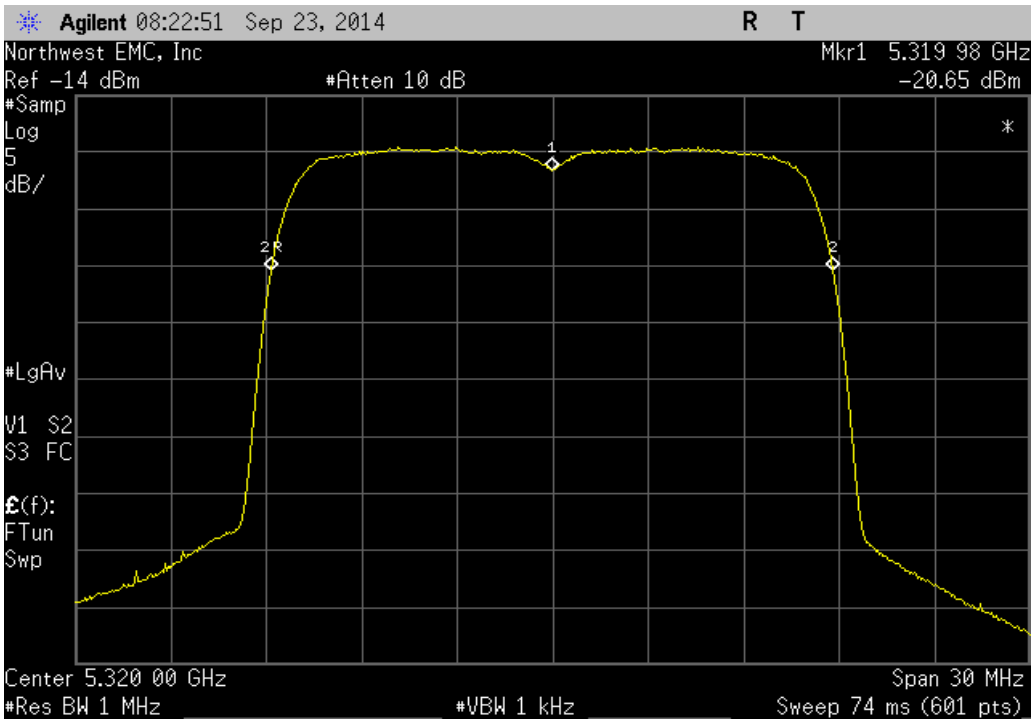
5250 MHz - 5350 MHz - High Channel, 5320 MHz, Voltage: 115%						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5320	5320	0	100	Pass



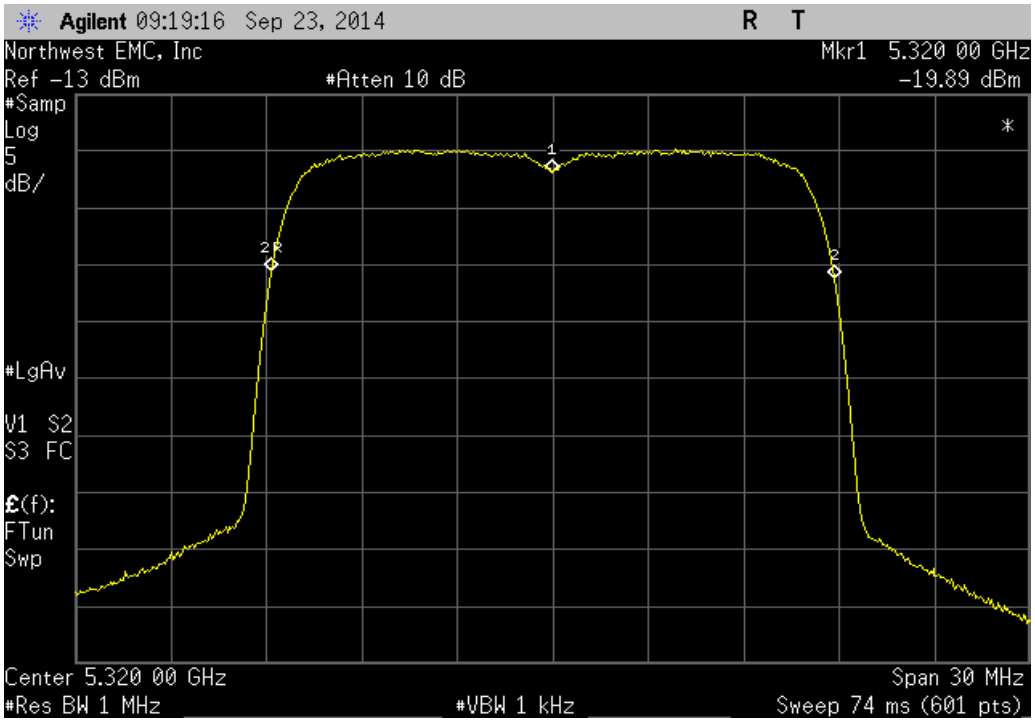
5250 MHz - 5350 MHz - High Channel, 5320 MHz, Voltage: 100%						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5320	5320	0	100	Pass



5250 MHz - 5350 MHz - High Channel, 5320 MHz, Voltage: 85%						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5319.98	5320	3.8	100	Pass

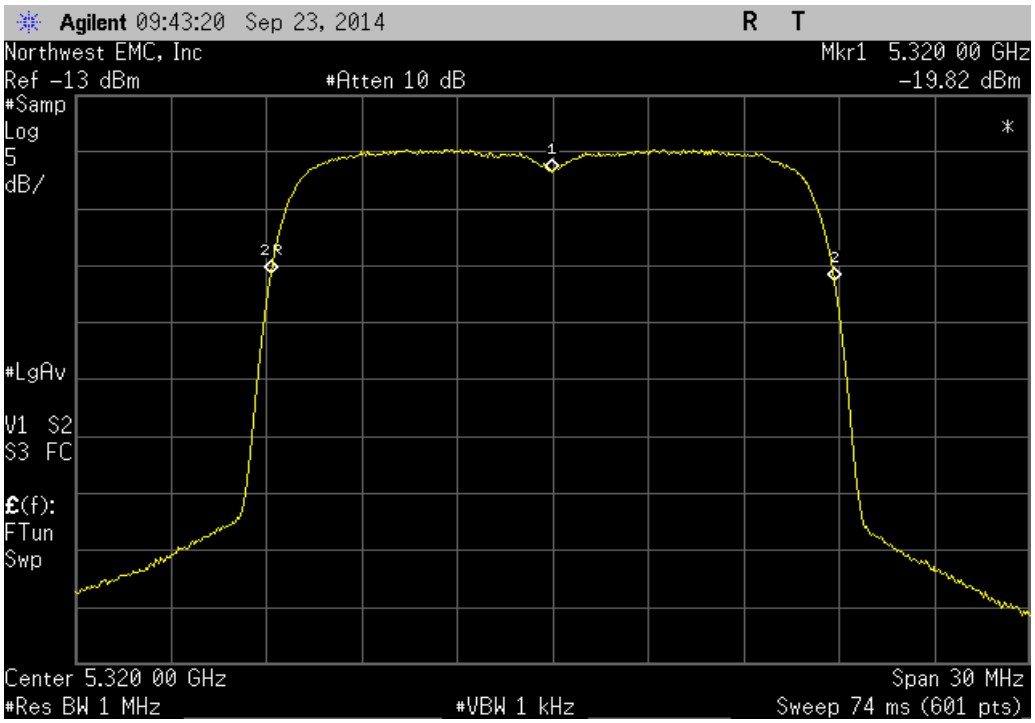


5250 MHz - 5350 MHz - High Channel, 5320 MHz, Temperature: +50°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5320	5320	0	100	Pass

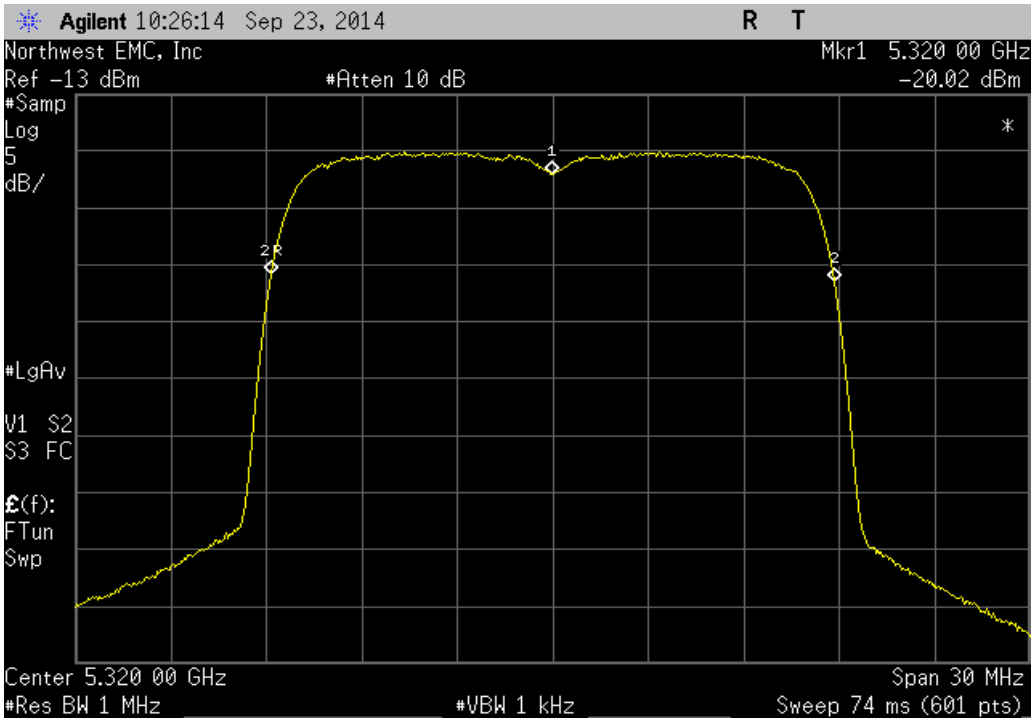


FREQUENCY STABILITY

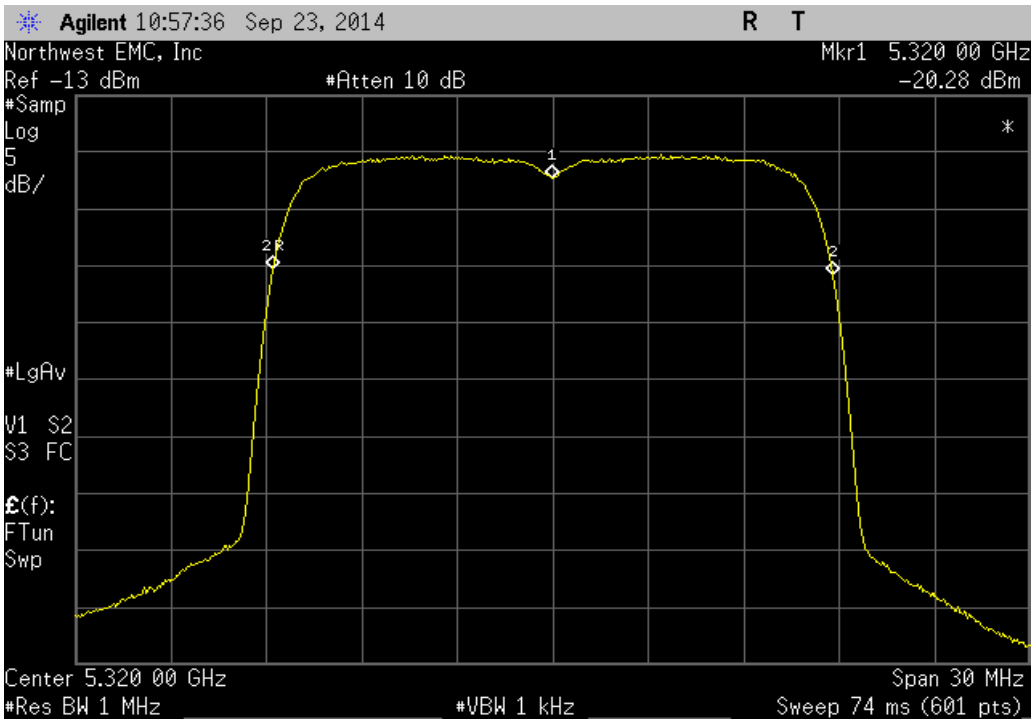
5250 MHz - 5350 MHz - High Channel, 5320 MHz, Temperature: +40°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5320	5320	0	100	Pass



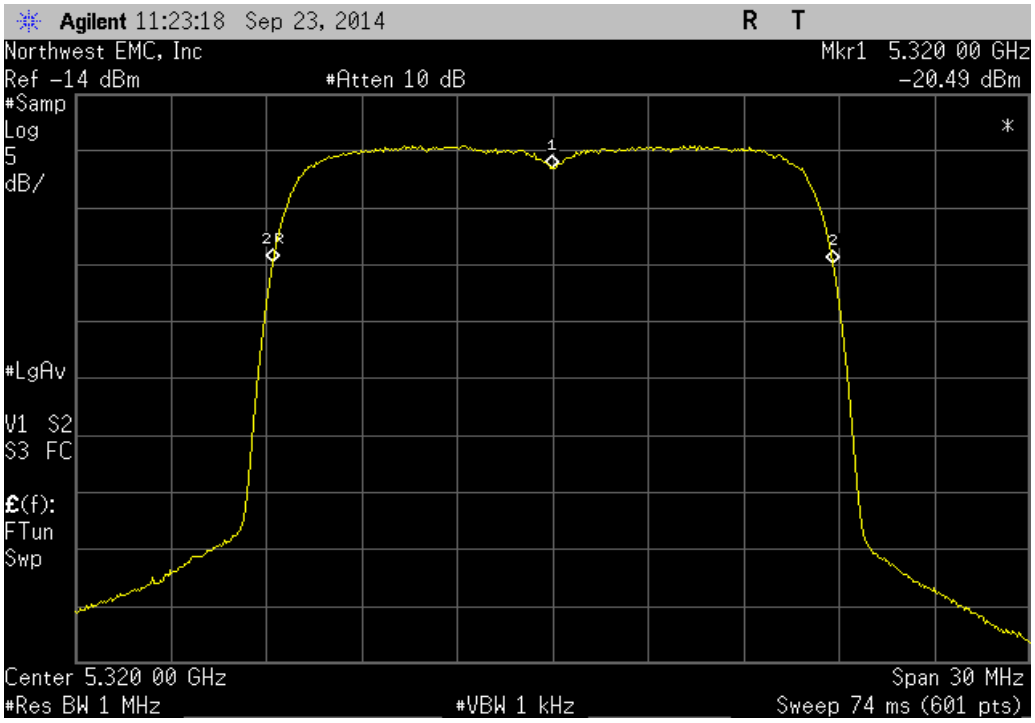
5250 MHz - 5350 MHz - High Channel, 5320 MHz, Temperature: +30°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5320	5320	0	100	Pass



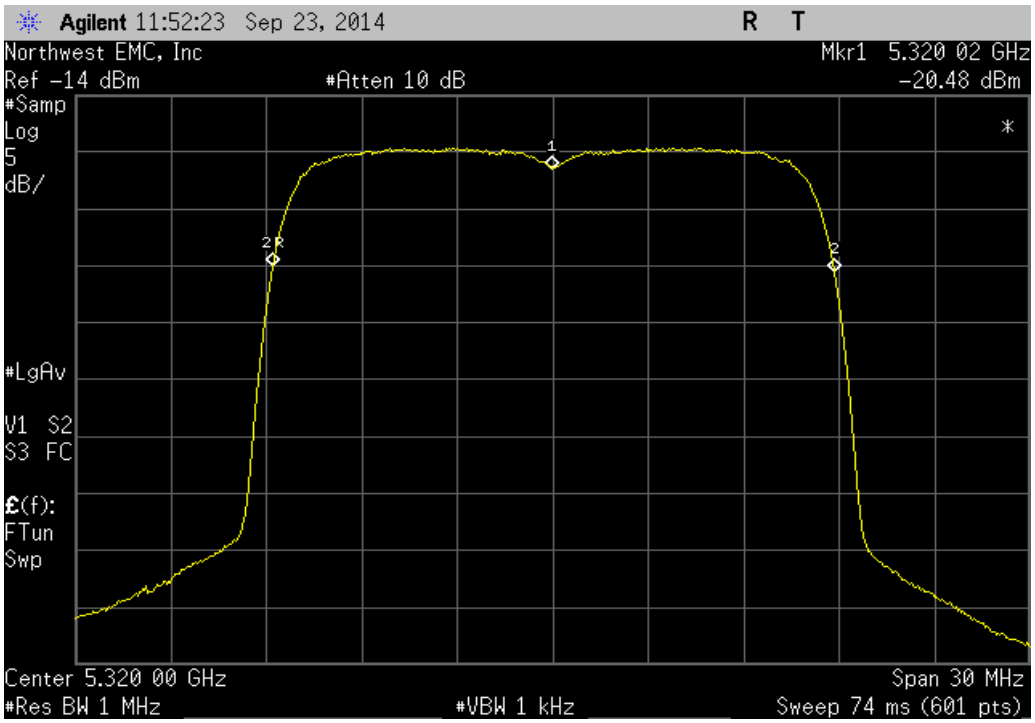
5250 MHz - 5350 MHz - High Channel, 5320 MHz, Temperature: +20°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5320	5320	0	100	Pass



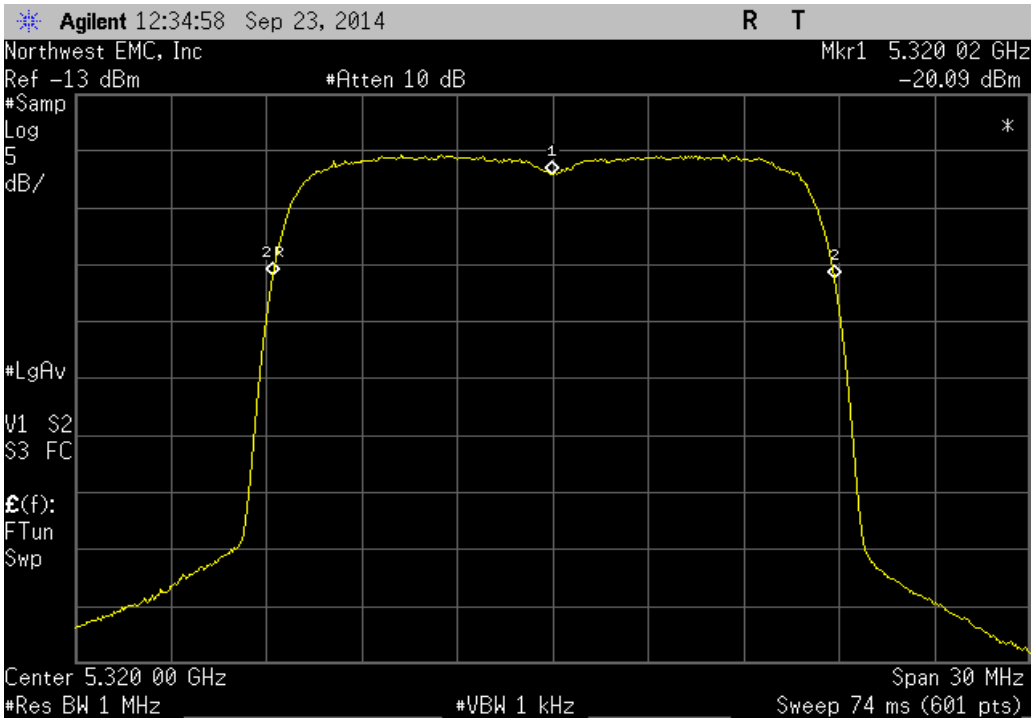
5250 MHz - 5350 MHz - High Channel, 5320 MHz, Temperature: +10°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5320	5320	0	100	Pass



5250 MHz - 5350 MHz - High Channel, 5320 MHz, Temperature: 0°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5320.02	5320	3.8	100	Pass

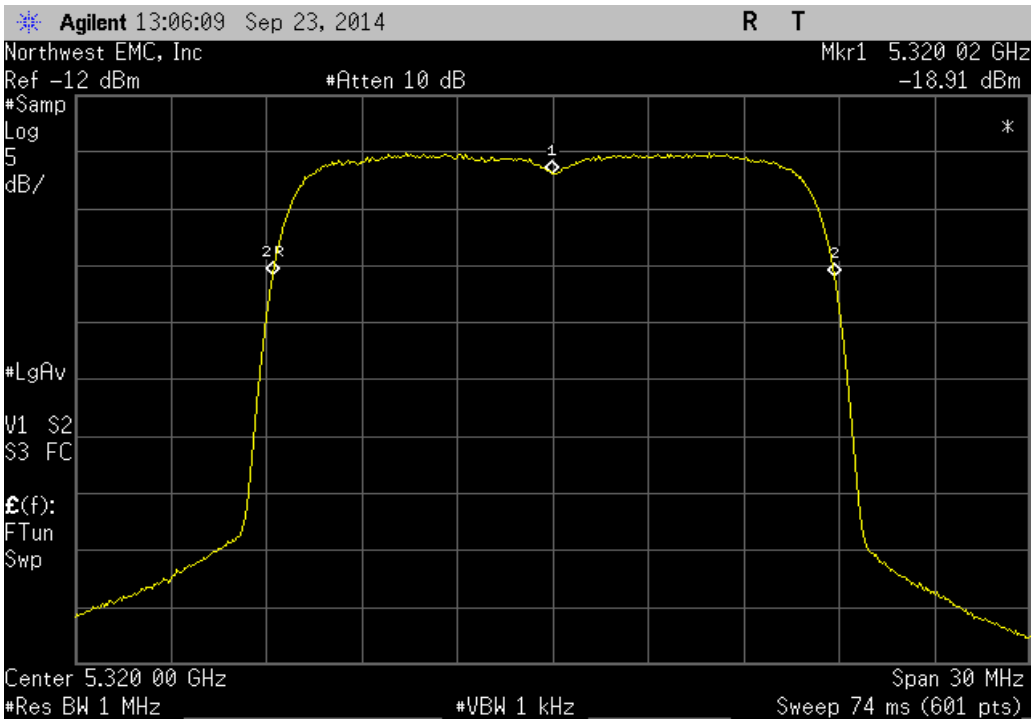


5250 MHz - 5350 MHz - High Channel, 5320 MHz, Temperature: -10°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5320.02	5320	3.8	100	Pass

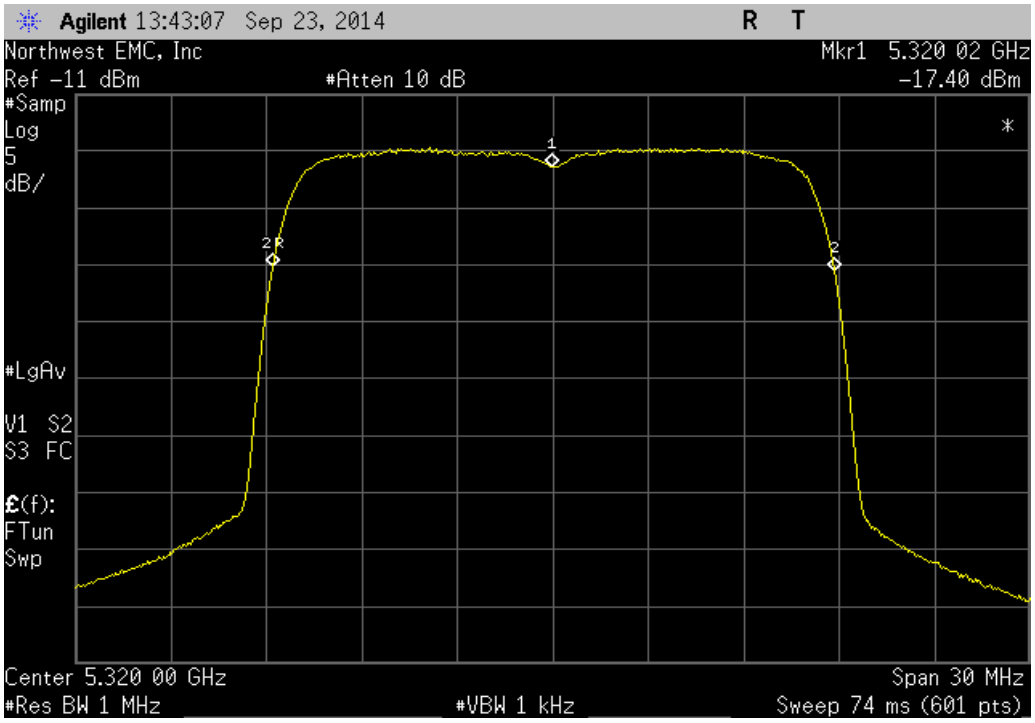


FREQUENCY STABILITY

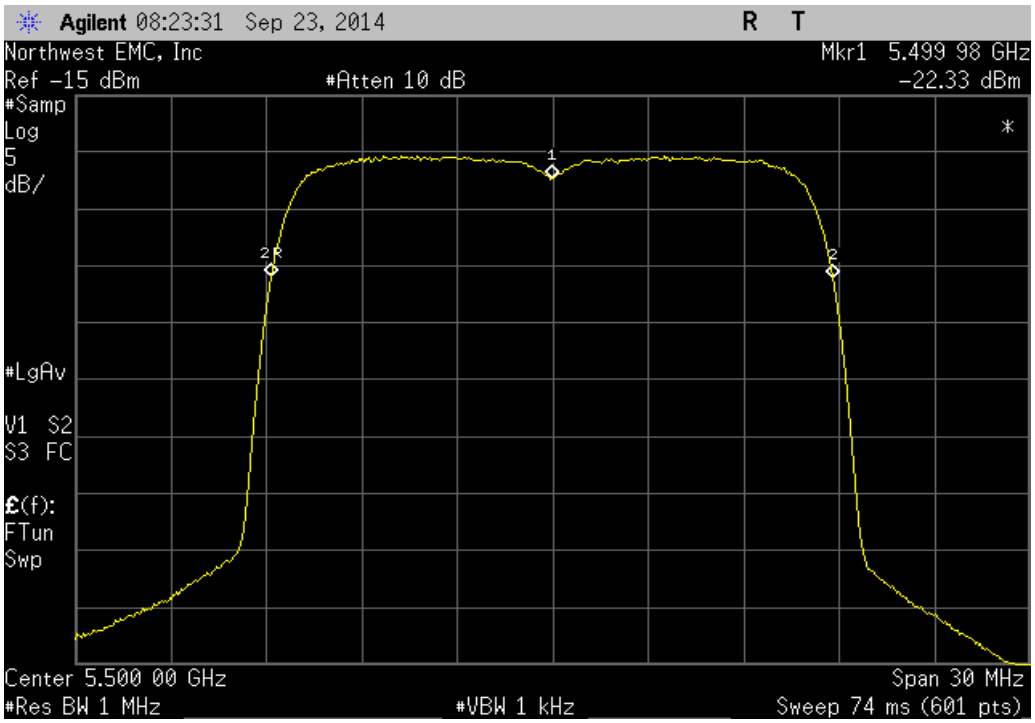
5250 MHz - 5350 MHz - High Channel, 5320 MHz, Temperature: -20°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5320.02	5320	3.8	100	Pass



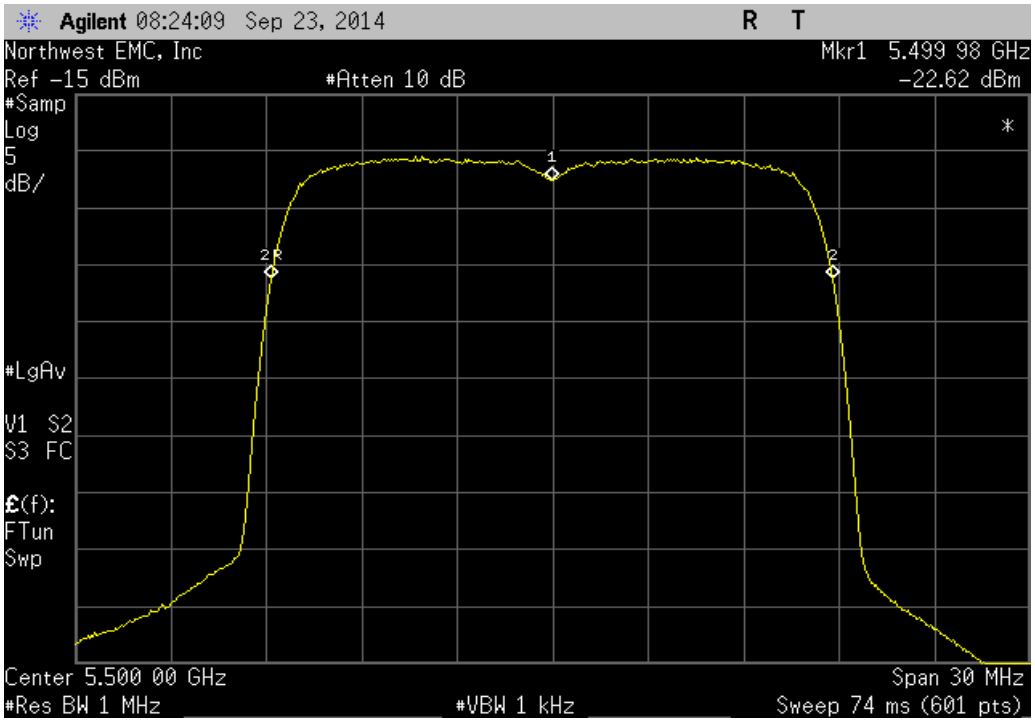
5250 MHz - 5350 MHz - High Channel, 5320 MHz, Temperature: -30°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5320.02	5320	3.8	100	Pass



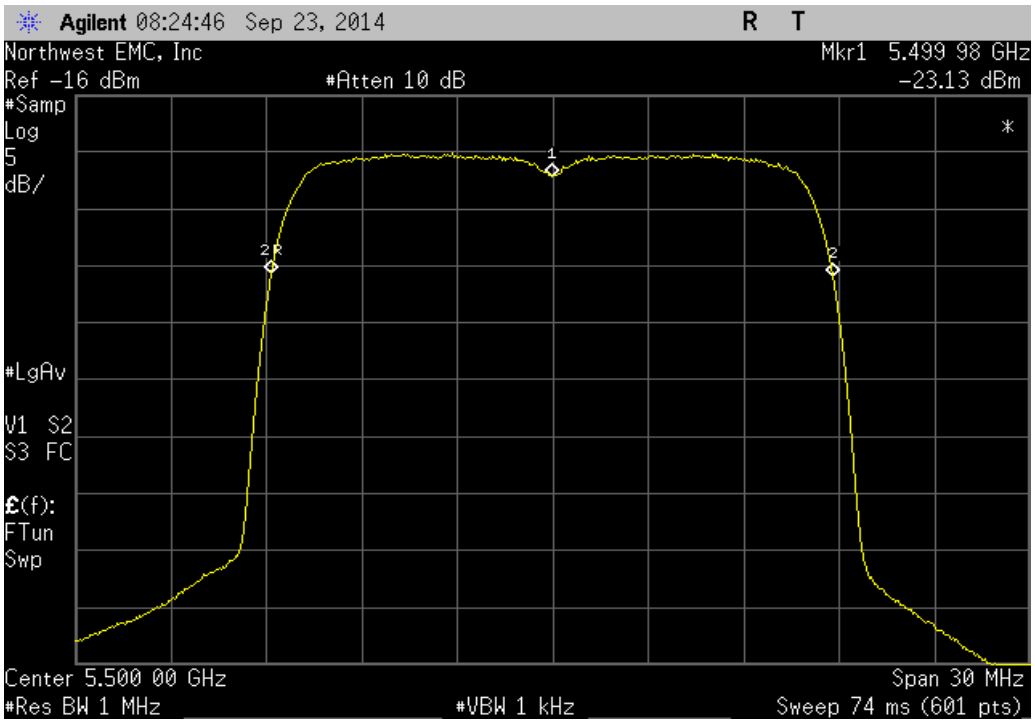
5470 MHz - 5725 MHz - Low Channel, 5500 MHz, Voltage: 115%						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5499.98	5500	3.6	100	Pass



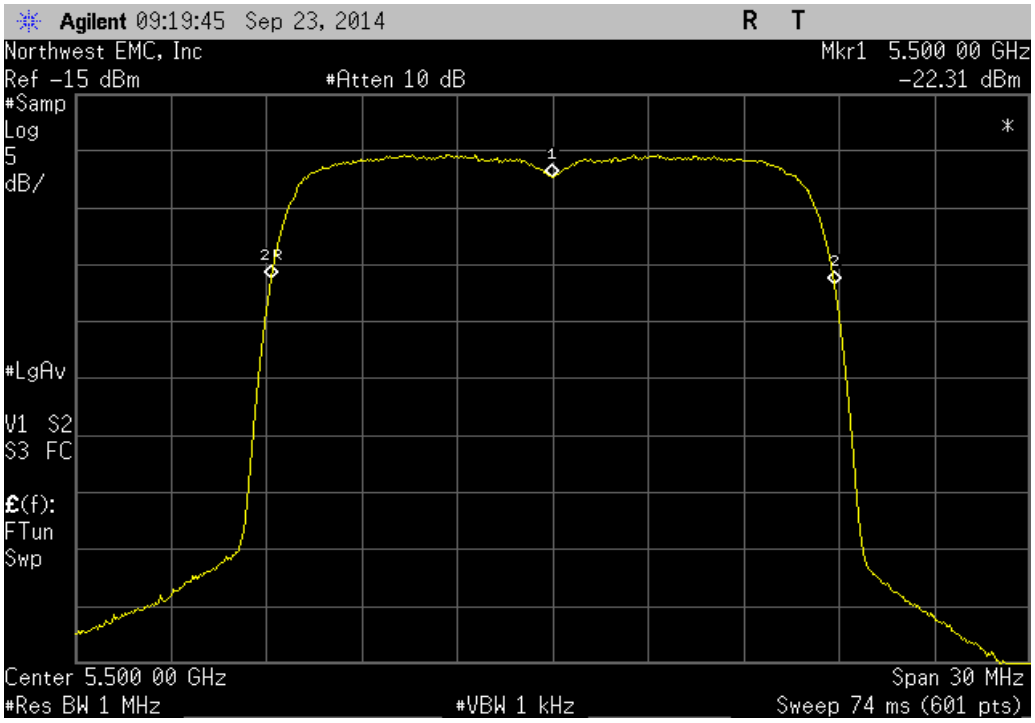
5470 MHz - 5725 MHz - Low Channel, 5500 MHz, Voltage: 100%						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5499.98	5500	3.6	100	Pass



5470 MHz - 5725 MHz - Low Channel, 5500 MHz, Voltage: 85%						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5499.98	5500	3.6	100	Pass

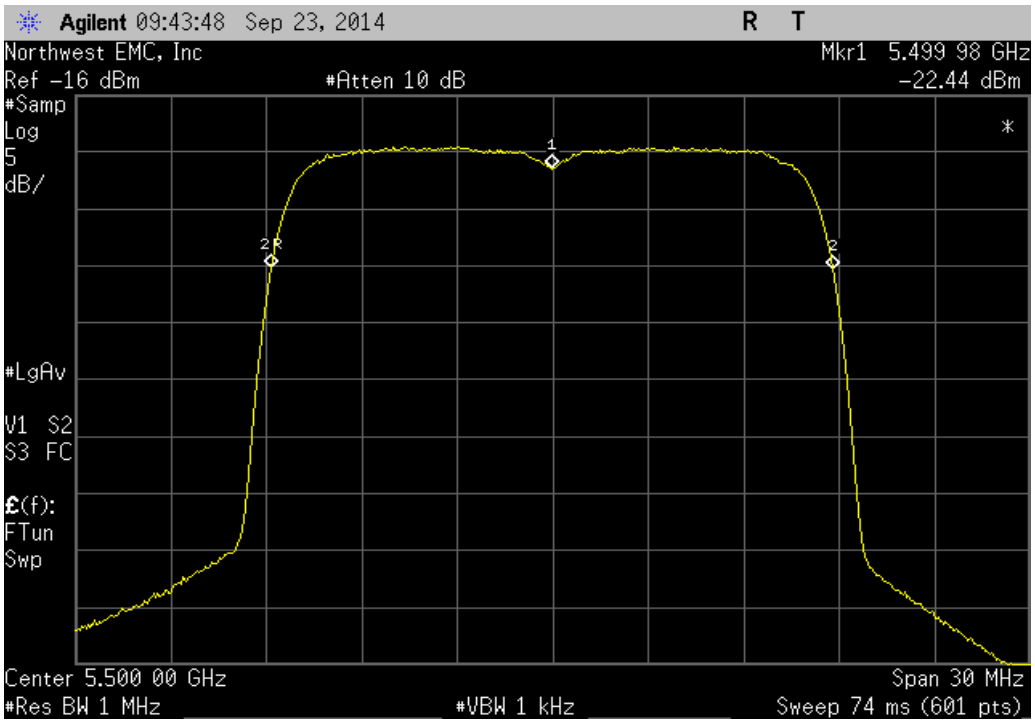


5470 MHz - 5725 MHz - Low Channel, 5500 MHz, Temperature: +50°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5500	5500	0	100	Pass

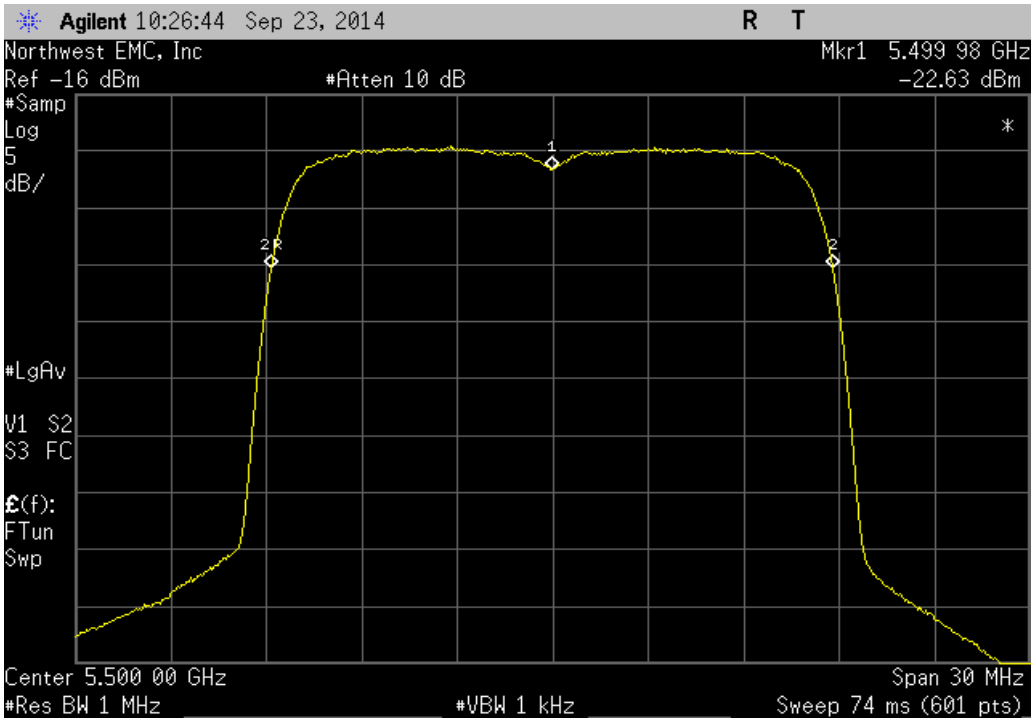


FREQUENCY STABILITY

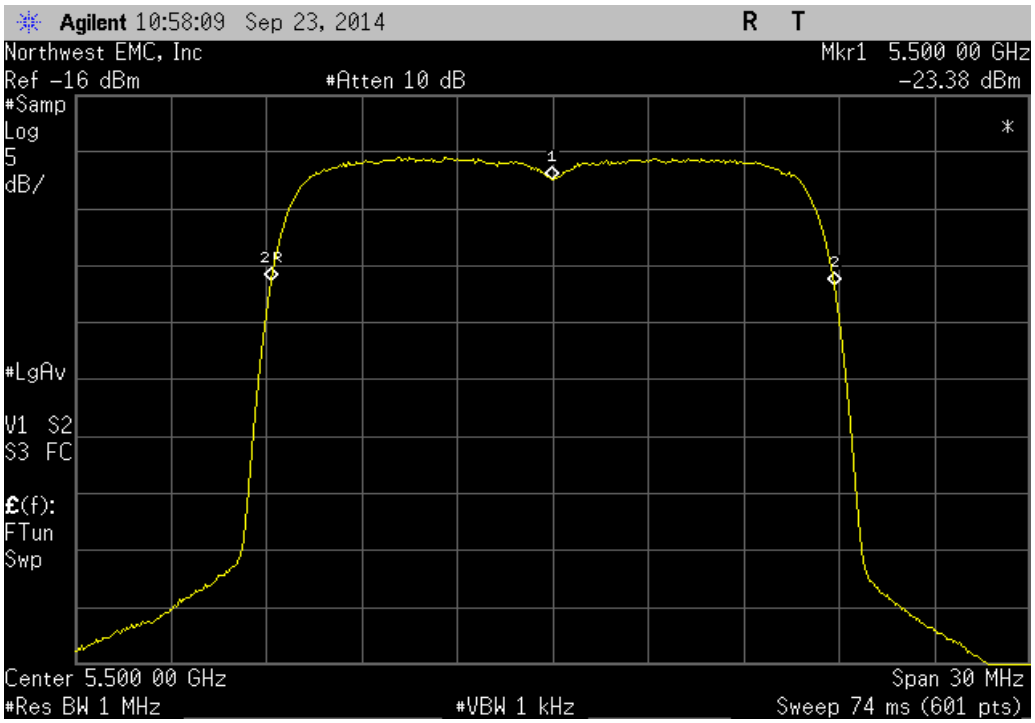
5470 MHz - 5725 MHz - Low Channel, 5500 MHz, Temperature: +40°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5499.98	5500	3.6	100	Pass



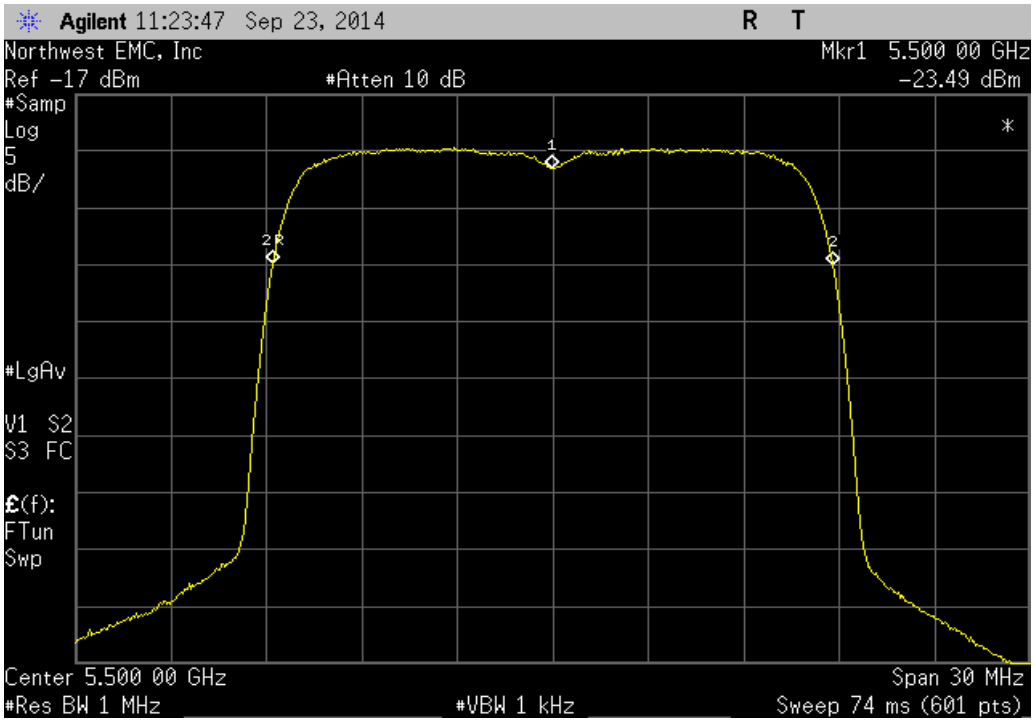
5470 MHz - 5725 MHz - Low Channel, 5500 MHz, Temperature: +30°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5499.98	5500	3.6	100	Pass



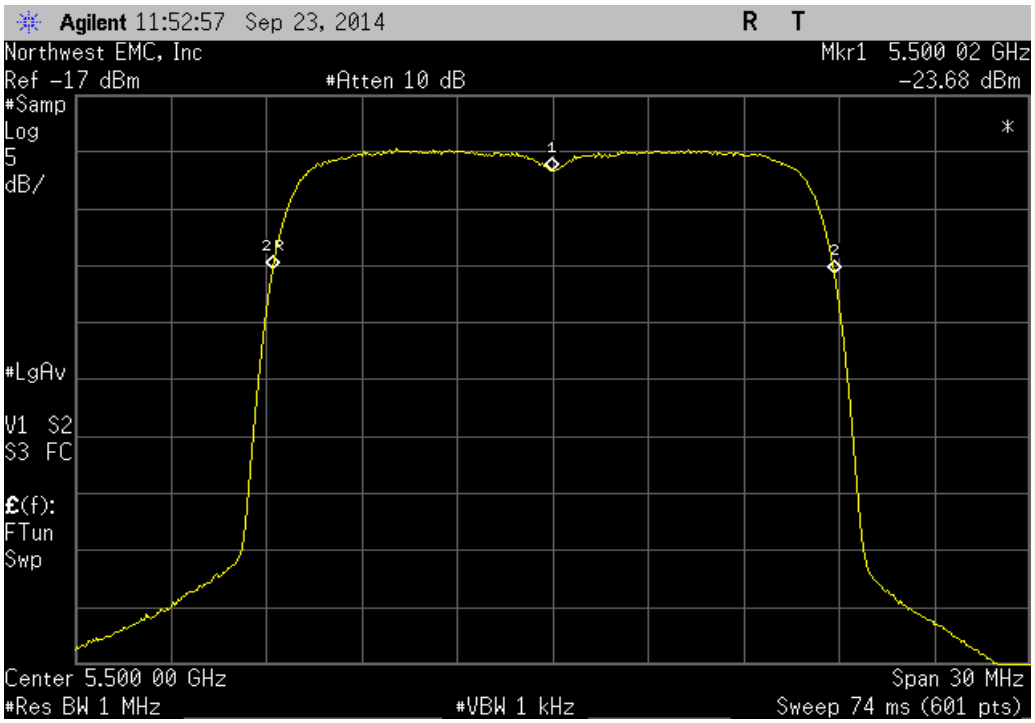
5470 MHz - 5725 MHz - Low Channel, 5500 MHz, Temperature: +20°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5500	5500	0	100	Pass



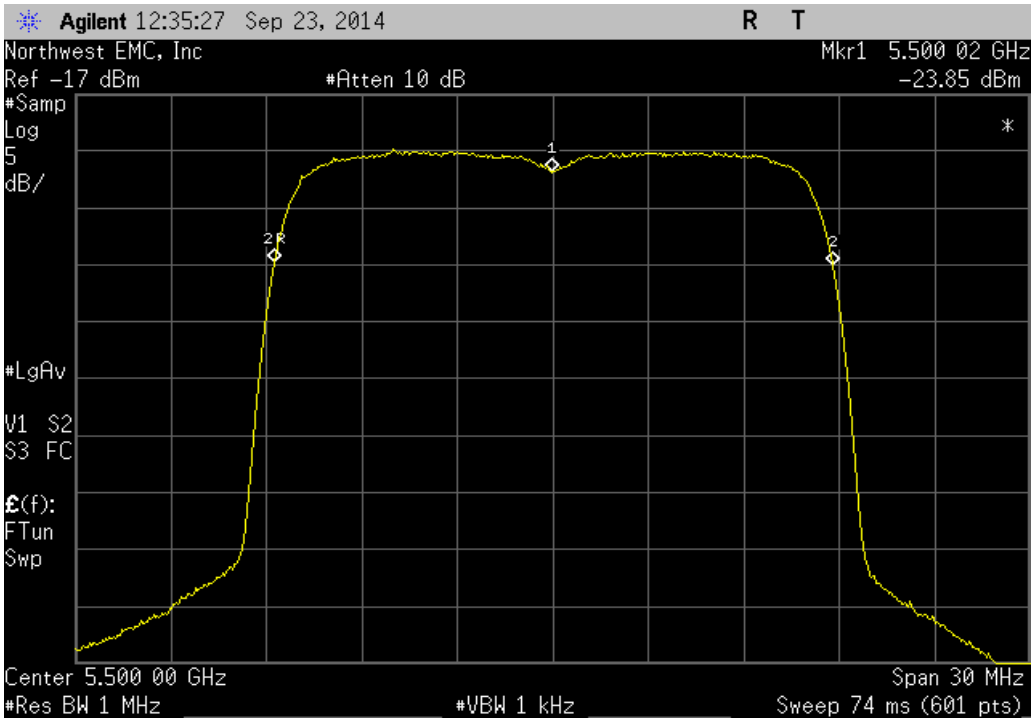
5470 MHz - 5725 MHz - Low Channel, 5500 MHz, Temperature: +10°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5500	5500	0	100	Pass



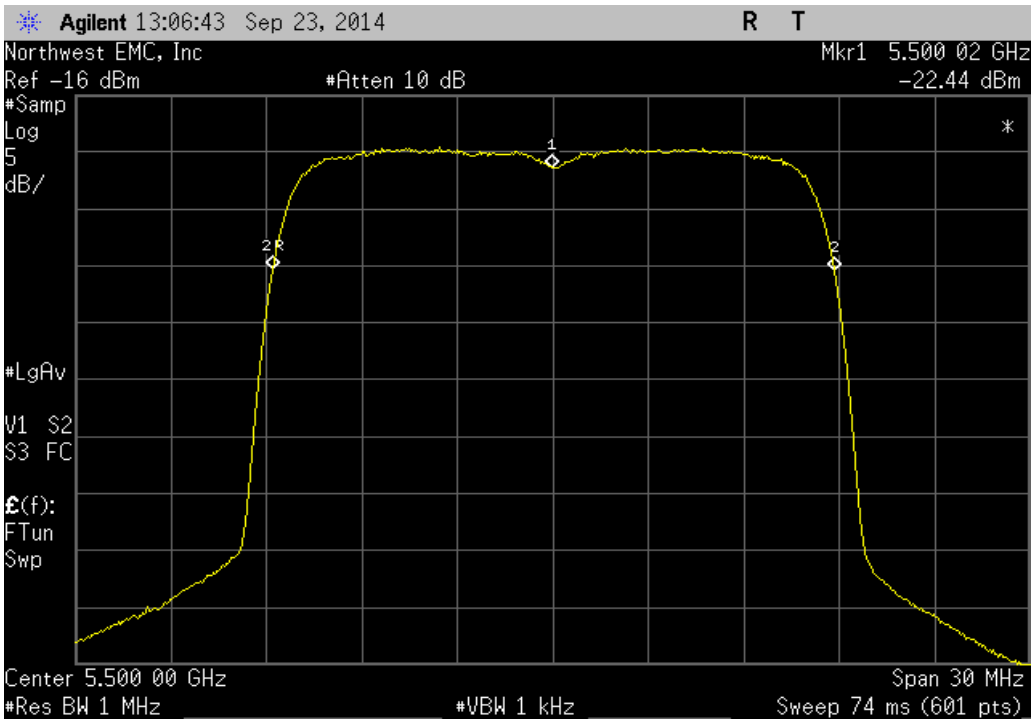
5470 MHz - 5725 MHz - Low Channel, 5500 MHz, Temperature: 0°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5500.02	5500	3.6	100	Pass



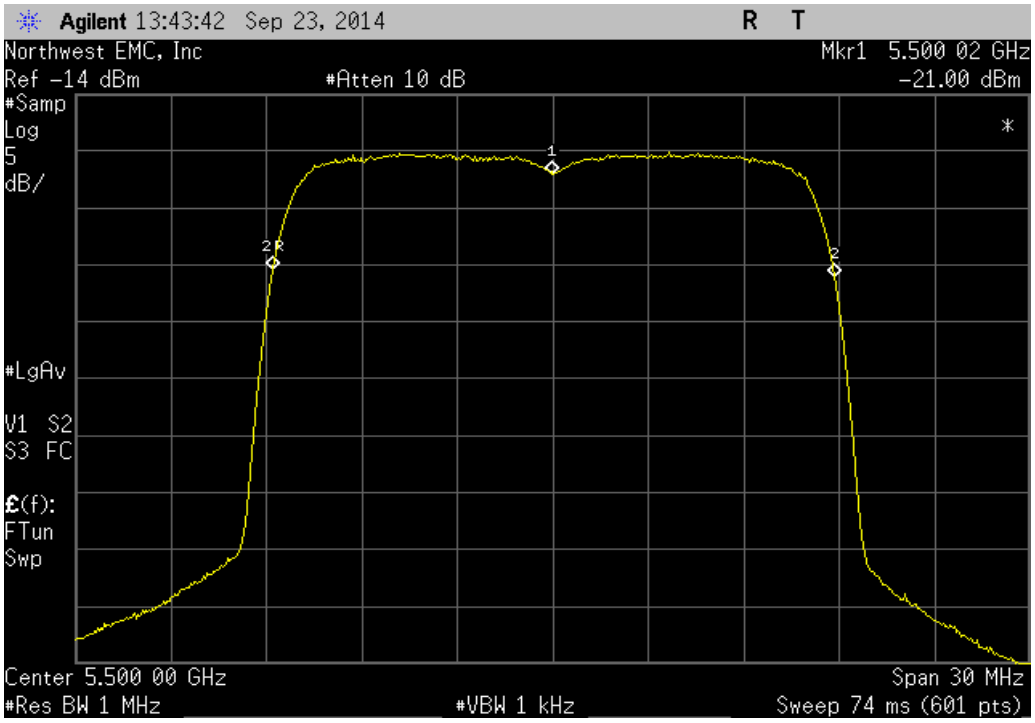
5470 MHz - 5725 MHz - Low Channel, 5500 MHz, Temperature: -10°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5500.02	5500	3.6	100	Pass



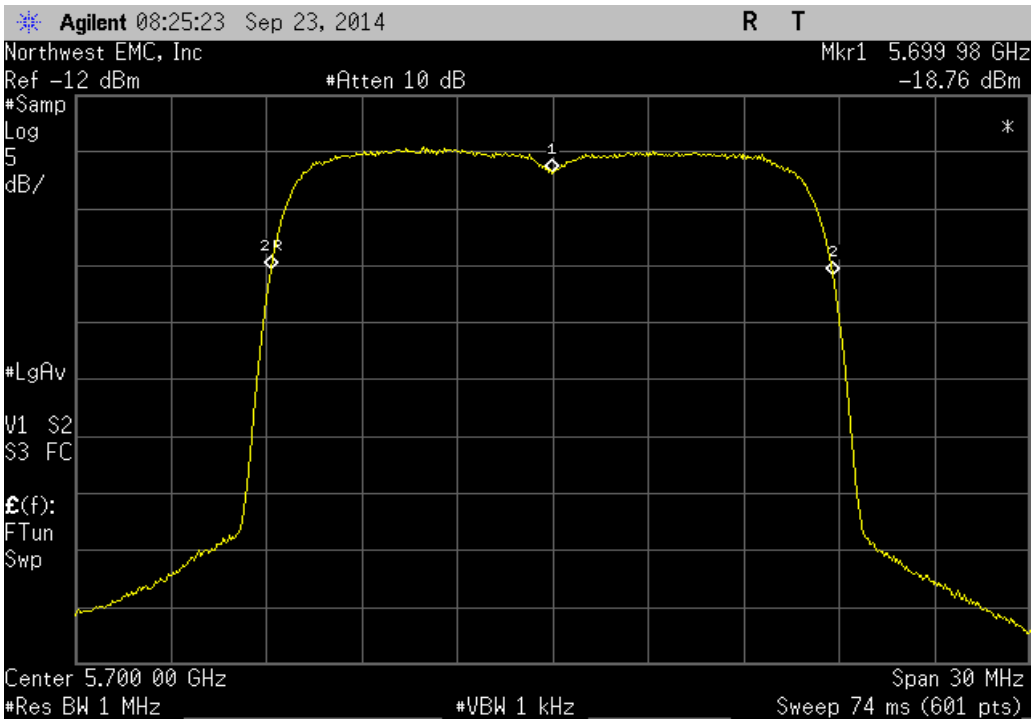
5470 MHz - 5725 MHz - Low Channel, 5500 MHz, Temperature: -20°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5500.02	5500	3.6	100	Pass



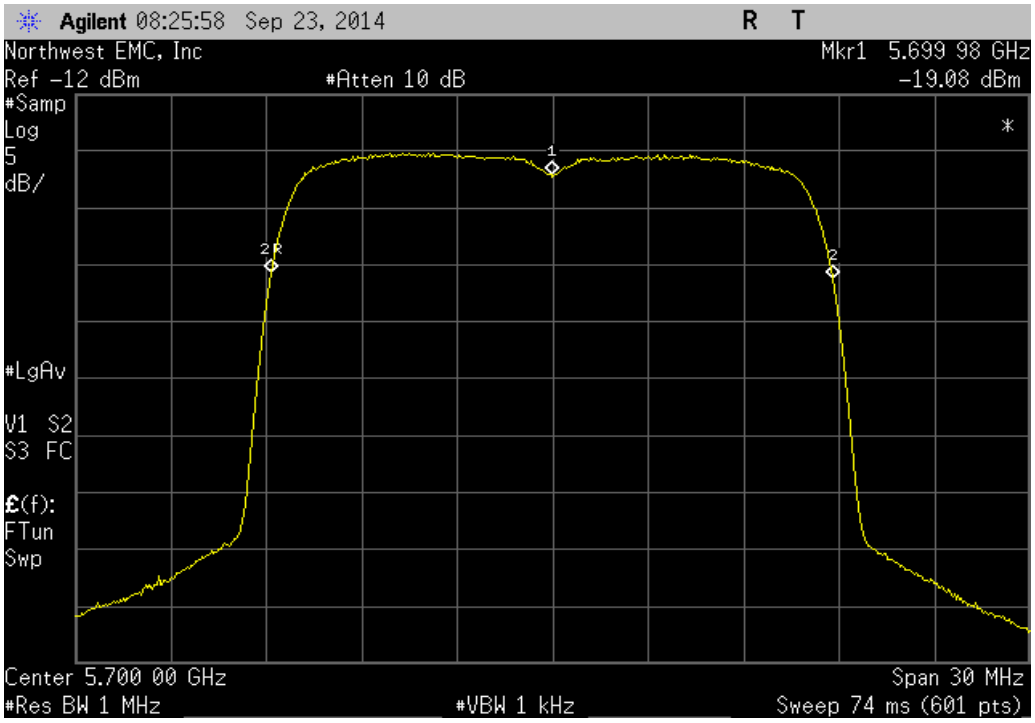
5470 MHz - 5725 MHz - Low Channel, 5500 MHz, Temperature: -30°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5500.02	5500	3.6	100	Pass



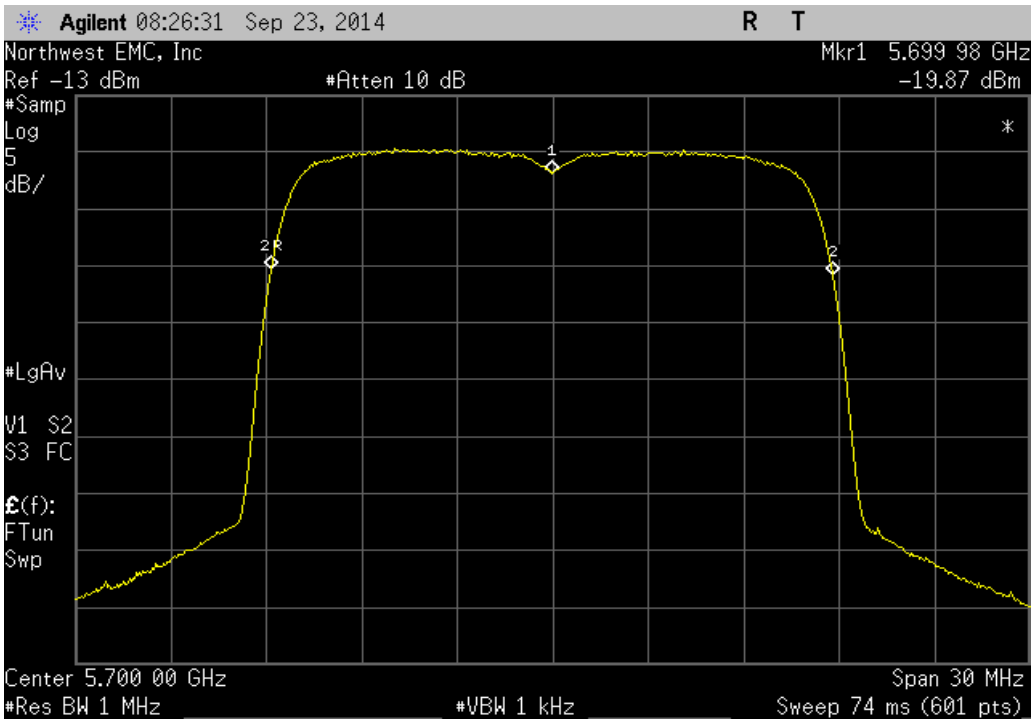
5470 MHz - 5725 MHz - High Channel, 5700 MHz, Voltage: 115%						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5699.98	5700	3.5	100	Pass



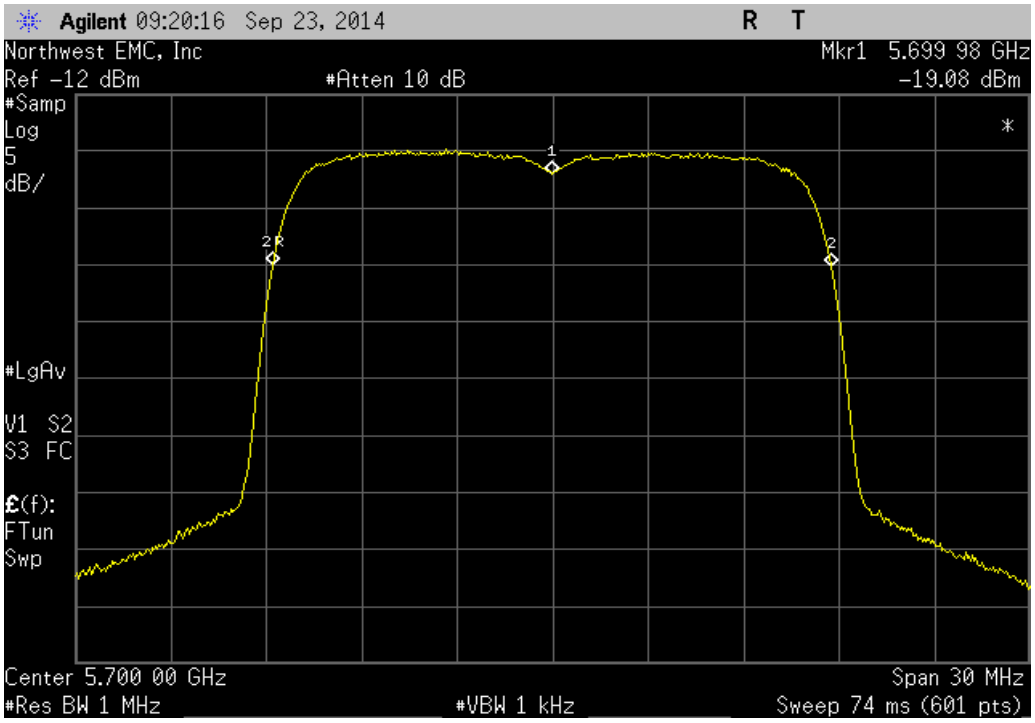
5470 MHz - 5725 MHz - High Channel, 5700 MHz, Voltage: 100%						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5699.98	5700	3.5	100	Pass



5470 MHz - 5725 MHz - High Channel, 5700 MHz, Voltage: 85%						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5699.98	5700	3.5	100	Pass

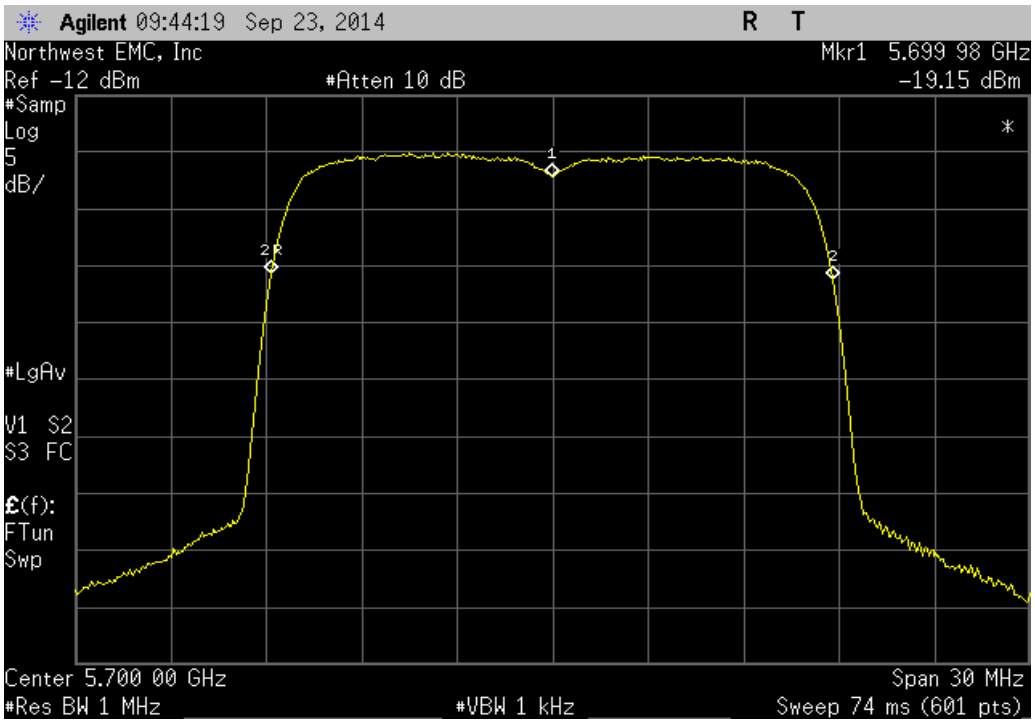


5470 MHz - 5725 MHz - High Channel, 5700 MHz, Temperature: +50°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5699.98	5700	3.5	100	Pass

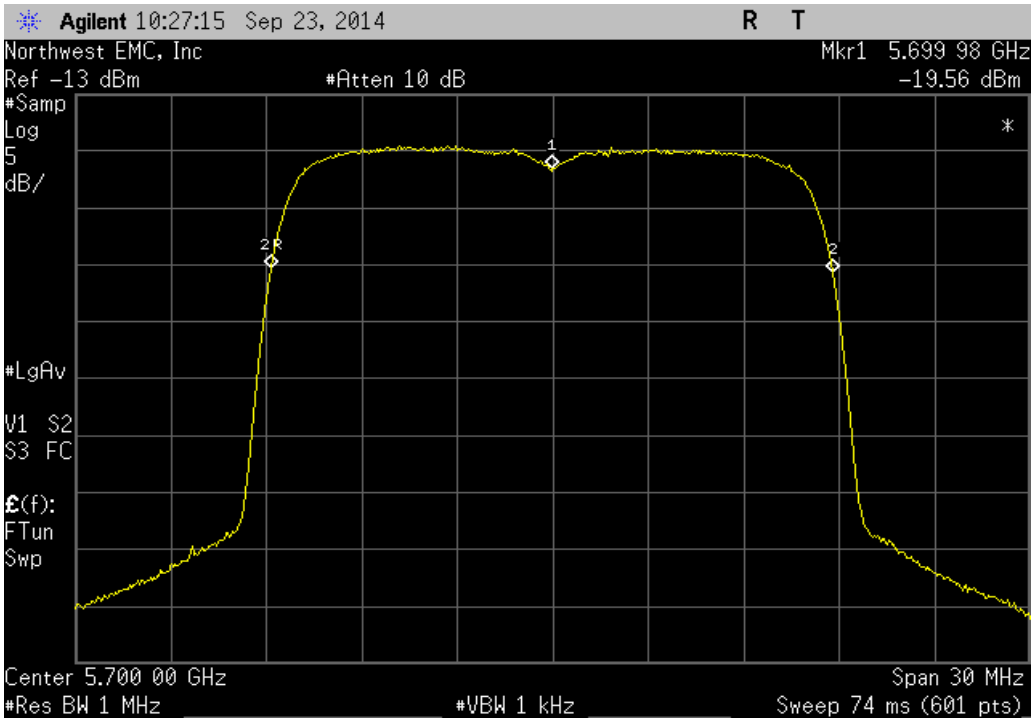


FREQUENCY STABILITY

5470 MHz - 5725 MHz - High Channel, 5700 MHz, Temperature: +40°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5699.98	5700	3.5	100	Pass

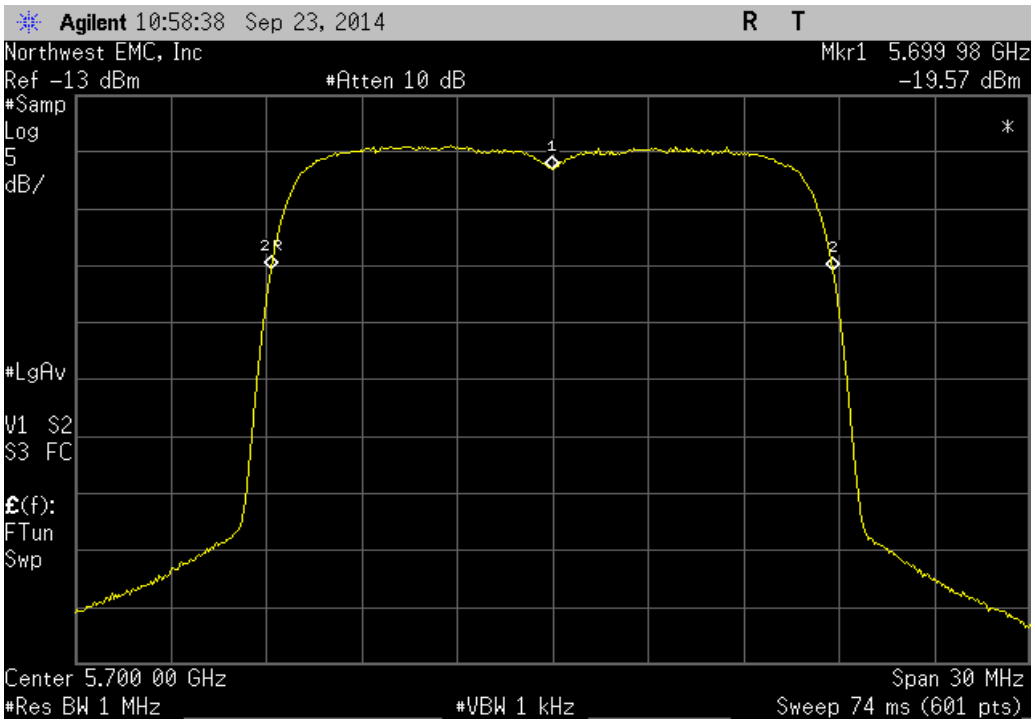


5470 MHz - 5725 MHz - High Channel, 5700 MHz, Temperature: +30°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5699.98	5700	3.5	100	Pass

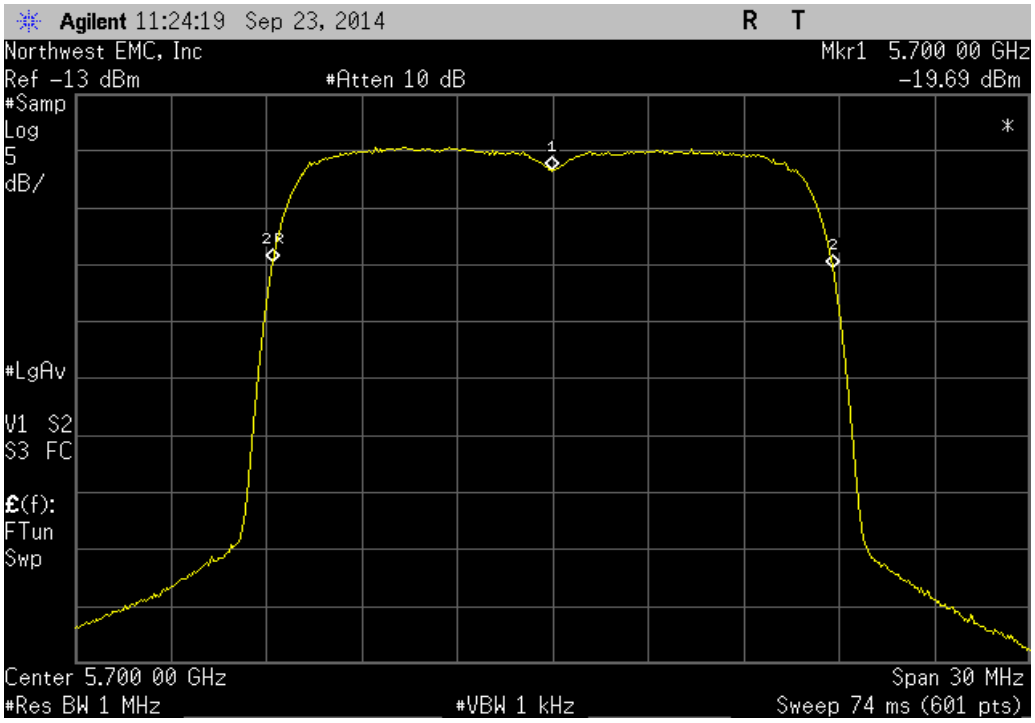


FREQUENCY STABILITY

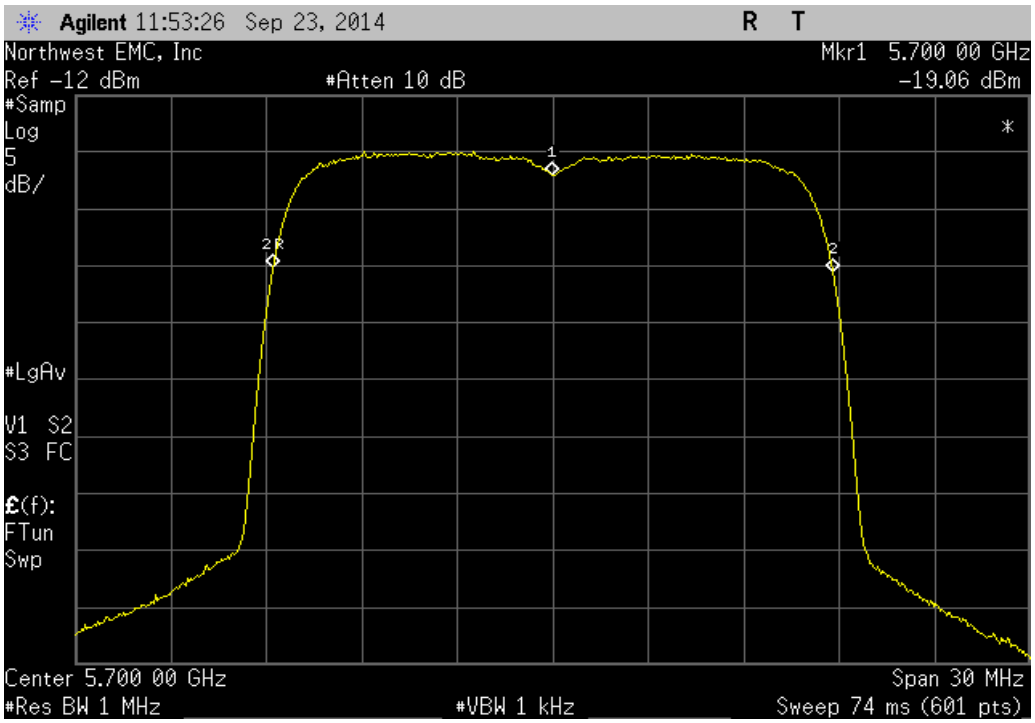
5470 MHz - 5725 MHz - High Channel, 5700 MHz, Temperature: +20°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5699.98	5700	3.5	100	Pass



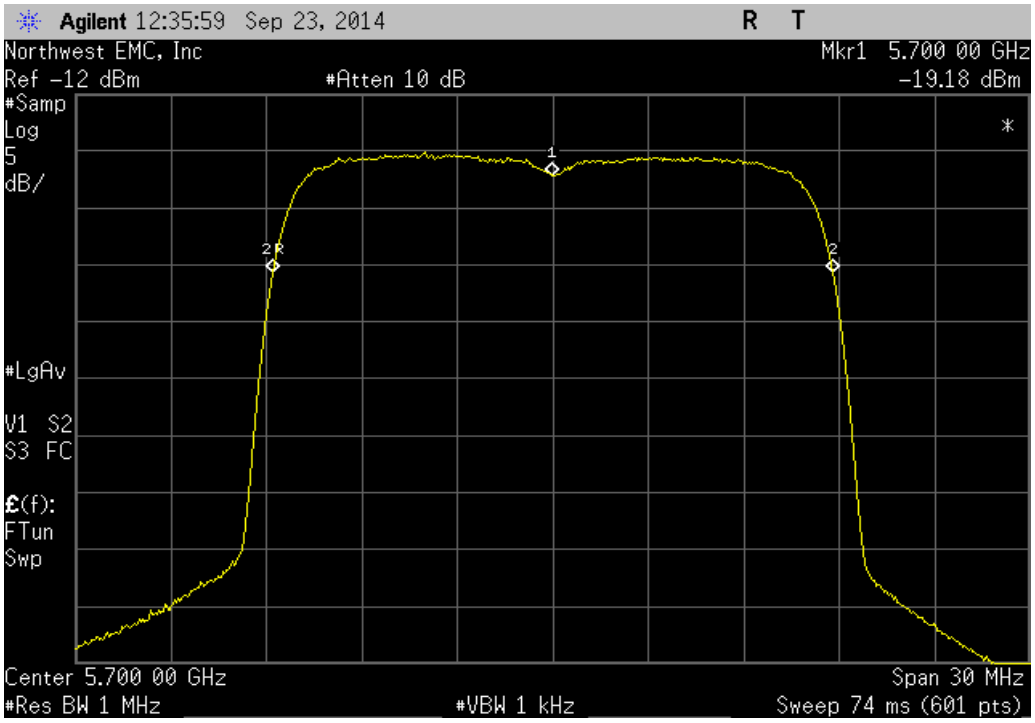
5470 MHz - 5725 MHz - High Channel, 5700 MHz, Temperature: +10°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5700	5700	0	100	Pass



5470 MHz - 5725 MHz - High Channel, 5700 MHz, Temperature: 0°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5700	5700	0	100	Pass

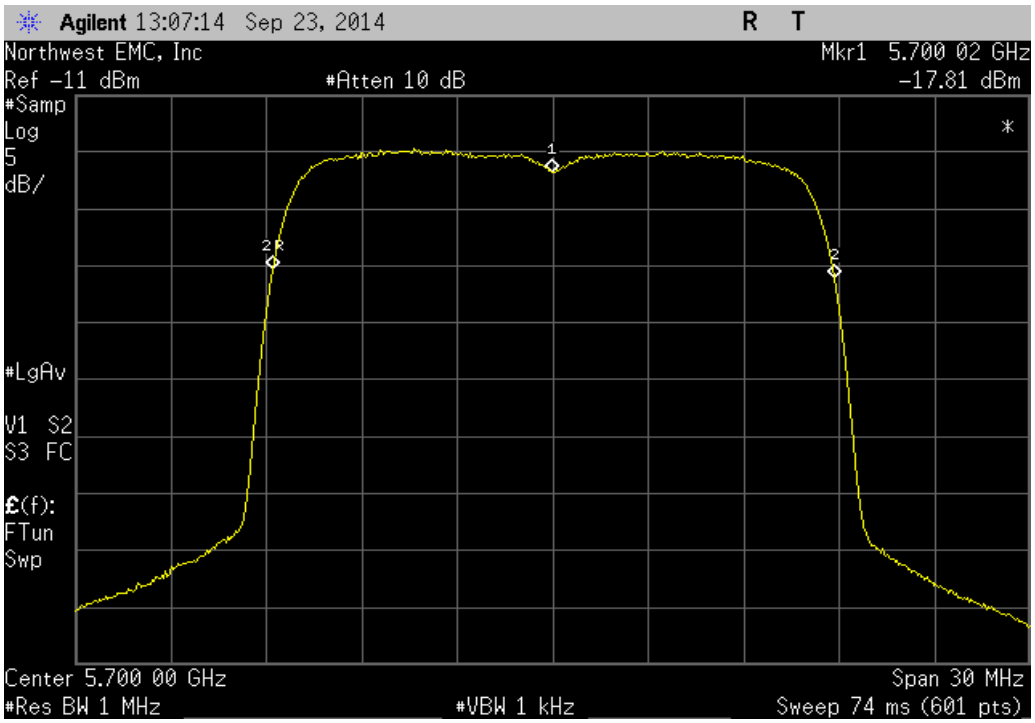


5470 MHz - 5725 MHz - High Channel, 5700 MHz, Temperature: -10°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5700	5700	0	100	Pass

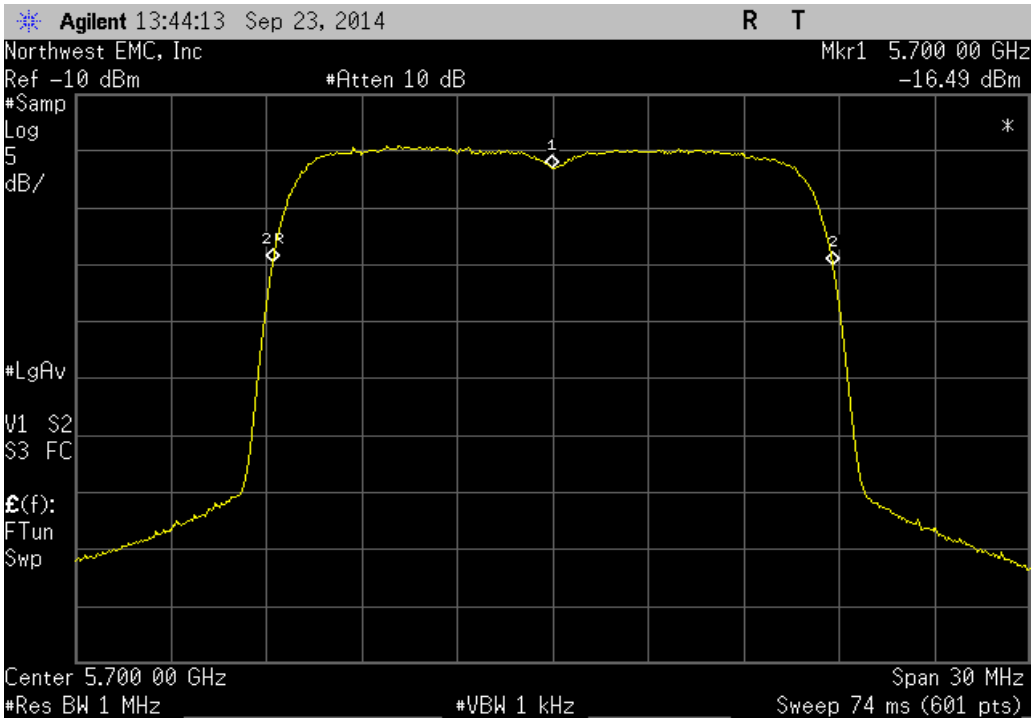


FREQUENCY STABILITY

5470 MHz - 5725 MHz - High Channel, 5700 MHz, Temperature: -20°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5700.02	5700	3.5	100	Pass



5470 MHz - 5725 MHz - High Channel, 5700 MHz, Temperature: -30°						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		5700	5700	0	100	Pass



EMISSION BANDWIDTH

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	14
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
Spectrum Analyzer	Agilent	E4440A	AAX	4/28/2014	12

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.

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

EMISSION BANDWIDTH

EUT:	ConnectCore i.MX6 WiFi/Bluetooth			Work Order:	ETHE0009
Serial Number:	00409D 7C03B4			Date:	09/29/14
Customer:	Etherios Design Solutions			Temperature:	22.7°C
Attendees:	None			Humidity:	47%
Project:	None			Barometric Pres.:	1023.7
Tested by:	Trevor Buls	Power:	5VDC	Job Site:	MN08

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

COMMENTS

None

DEVIATIONS FROM TEST STANDARD

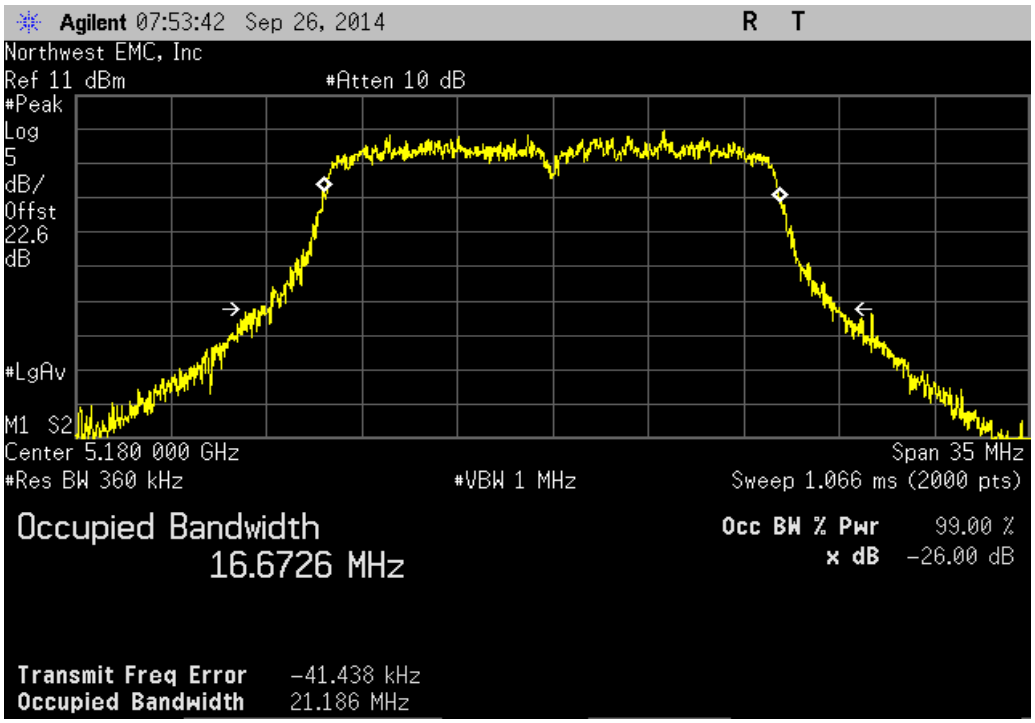
None

Configuration #	1	Signature	Trevor Buls

		Value	Limit (>)	Result
802.11(a) 6 Mbps				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	21.186 MHz	500 kHz	Pass
	Channel 48, High Channel	21.621 MHz	500 kHz	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	21.661 MHz	500 kHz	Pass
	Channel 64, High Channel	21.539 MHz	500 kHz	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	21.571 MHz	500 kHz	Pass
	Channel 116, Mid Channel	21.859 MHz	500 kHz	Pass
	Channel 140, High Channel	21.355 MHz	500 kHz	Pass
802.11(a) 36 Mbps				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	21.173 MHz	500 kHz	Pass
	Channel 48, High Channel	21.251 MHz	500 kHz	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	21.14 MHz	500 kHz	Pass
	Channel 64, High Channel	21.113 MHz	500 kHz	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	21.256 MHz	500 kHz	Pass
	Channel 116, Mid Channel	21.245 MHz	500 kHz	Pass
	Channel 140, High Channel	21.25 MHz	500 kHz	Pass
802.11(a) 54 Mbps				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	21.107 MHz	500 kHz	Pass
	Channel 48, High Channel	20.979 MHz	500 kHz	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	21.353 MHz	500 kHz	Pass
	Channel 64, High Channel	21.131 MHz	500 kHz	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	21.281 MHz	500 kHz	Pass
	Channel 116, Mid Channel	20.84 MHz	500 kHz	Pass
	Channel 140, High Channel	21.085 MHz	500 kHz	Pass
802.11(n) MCS0				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	22.681 MHz	500 kHz	Pass
	Channel 48, High Channel	22.343 MHz	500 kHz	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	22.526 MHz	500 kHz	Pass
	Channel 64, High Channel	22.134 MHz	500 kHz	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	22.668 MHz	500 kHz	Pass
	Channel 116, Mid Channel	22.225 MHz	500 kHz	Pass
	Channel 140, High Channel	22.516 MHz	500 kHz	Pass
802.11(n) MCS7				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	21.343 MHz	500 kHz	Pass
	Channel 48, High Channel	21.92 MHz	500 kHz	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	21.983 MHz	500 kHz	Pass
	Channel 64, High Channel	21.503 MHz	500 kHz	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	21.683 MHz	500 kHz	Pass
	Channel 116, Mid Channel	21.65 MHz	500 kHz	Pass
	Channel 140, High Channel	22.007 MHz	500 kHz	Pass

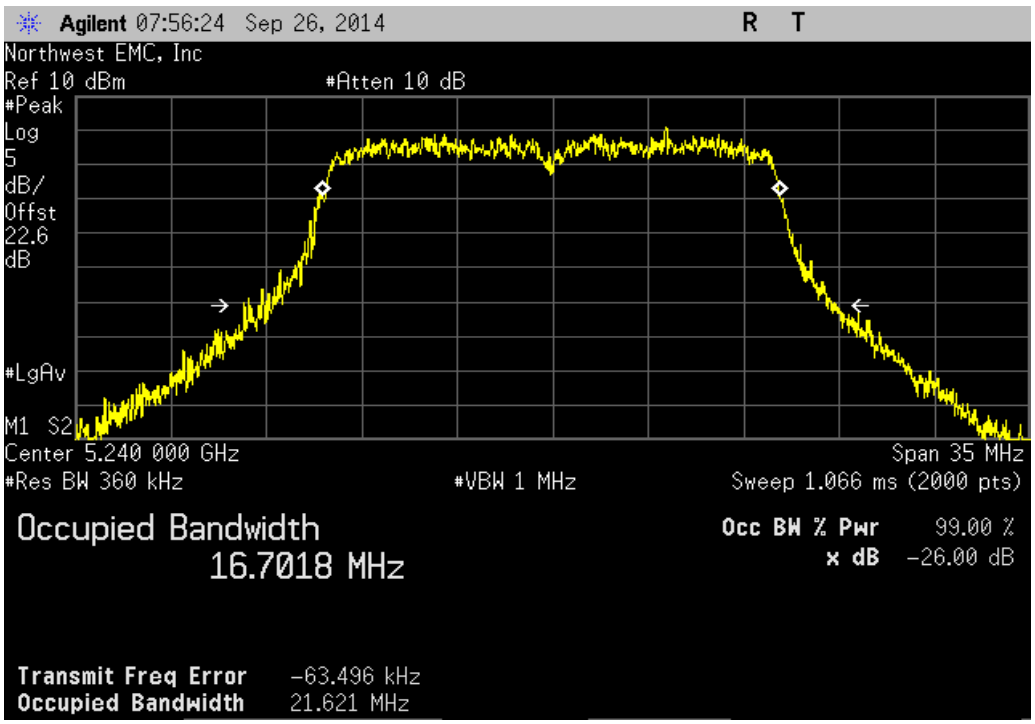
802.11(a) 6 Mbps, 5150 - 5250 MHz Band, Channel 36, Low Channel

				Value	Limit (>)	Result
				21.186 MHz	500 kHz	Pass



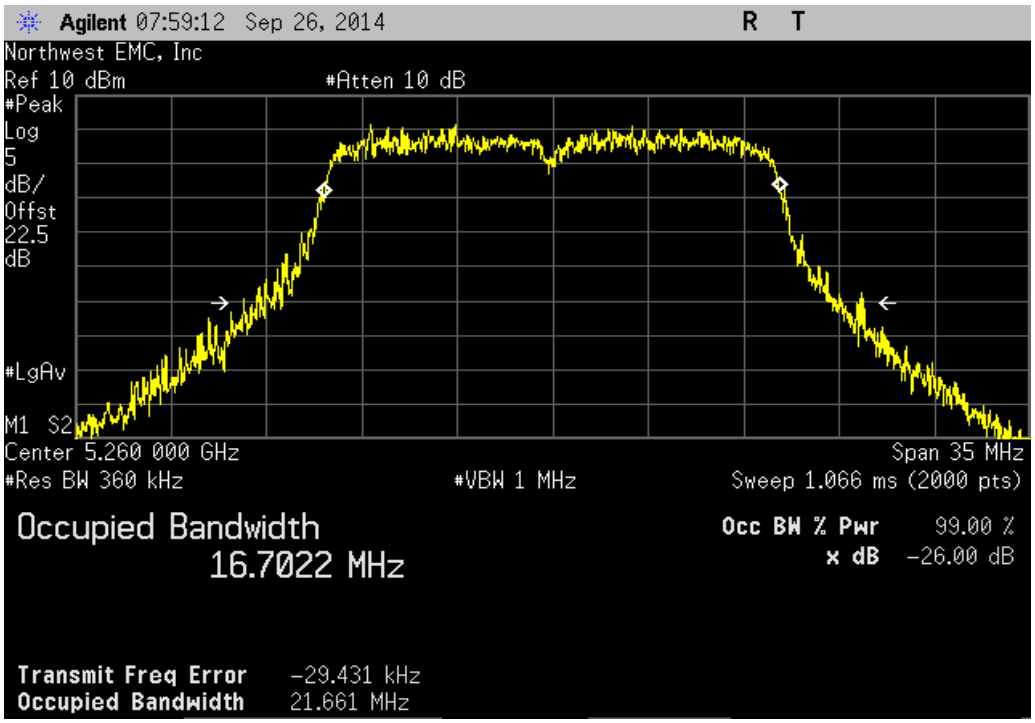
802.11(a) 6 Mbps, 5150 - 5250 MHz Band, Channel 48, High Channel

				Value	Limit (>)	Result
				21.621 MHz	500 kHz	Pass



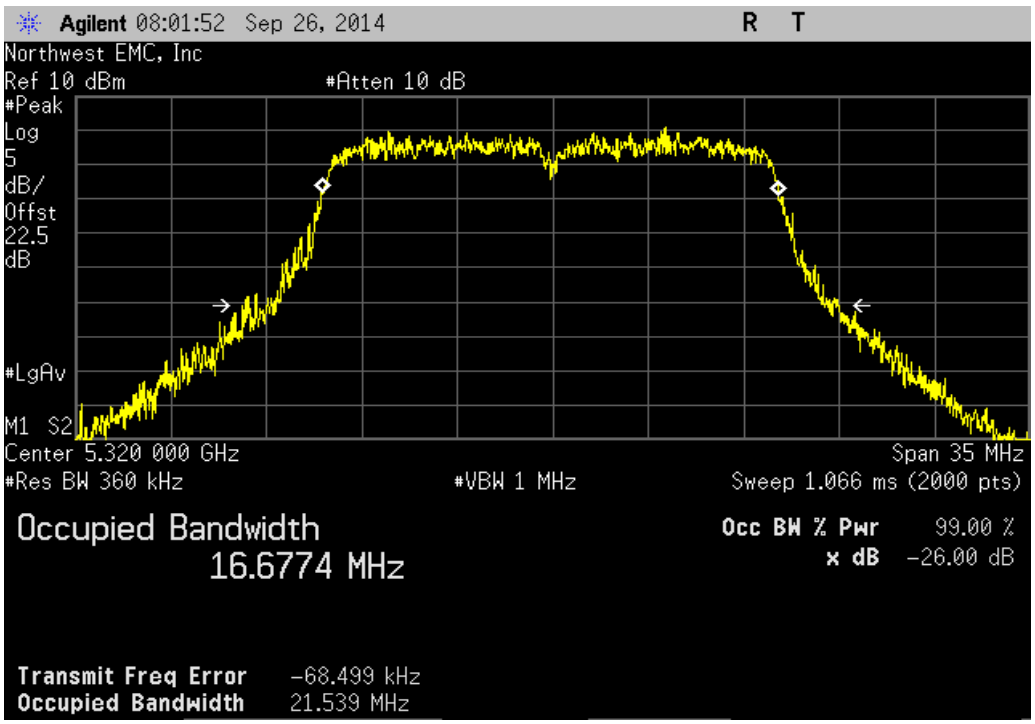
802.11(a) 6 Mbps, 5250 - 5350 MHz Band, Channel 52, Low Channel

				Value	Limit (>)	Result
				21.661 MHz	500 kHz	Pass

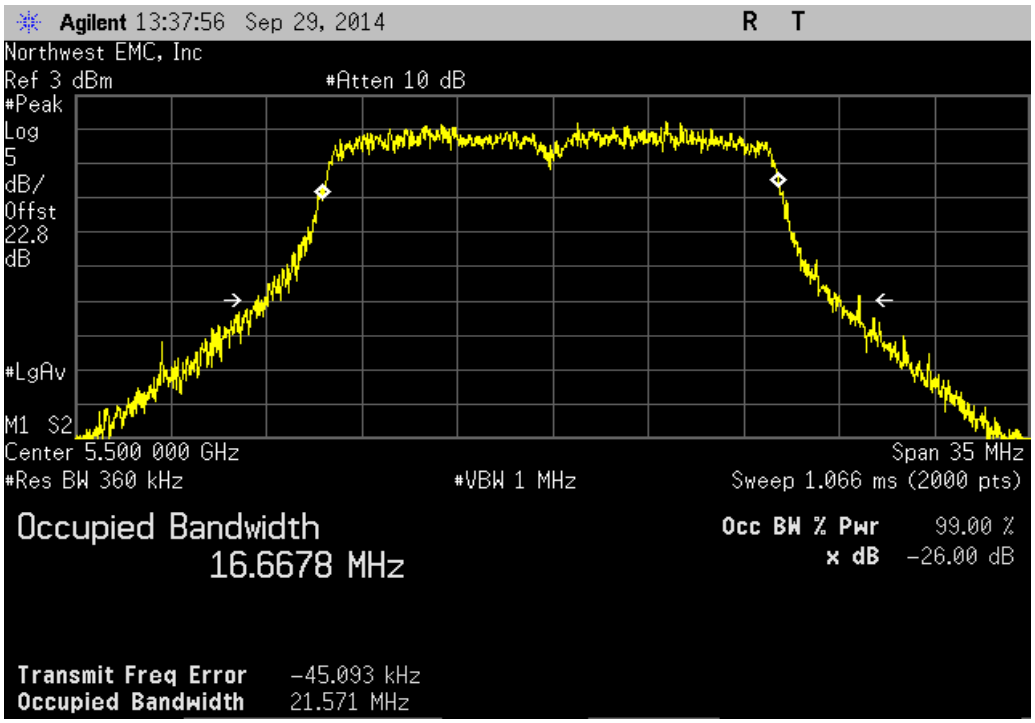


802.11(a) 6 Mbps, 5250 - 5350 MHz Band, Channel 64, High Channel

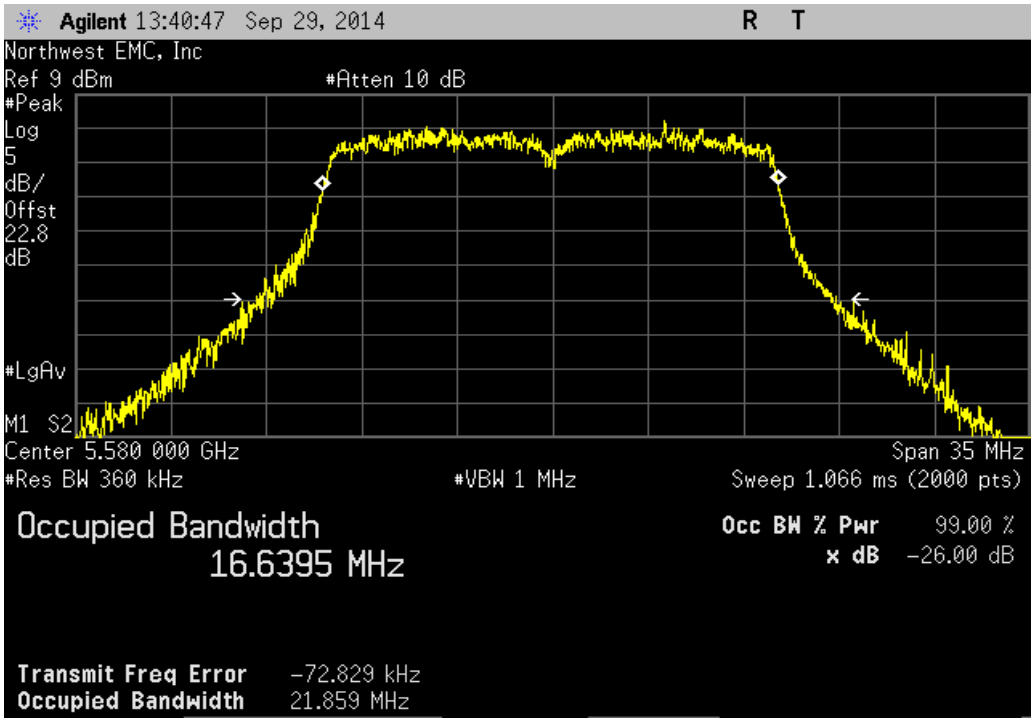
				Value	Limit (>)	Result
				21.539 MHz	500 kHz	Pass



802.11(a) 6 Mbps, 5470 - 5725 MHz Band, Channel 100, Low Channel						
				Value	Limit (>)	Result
				21.571 MHz	500 kHz	Pass

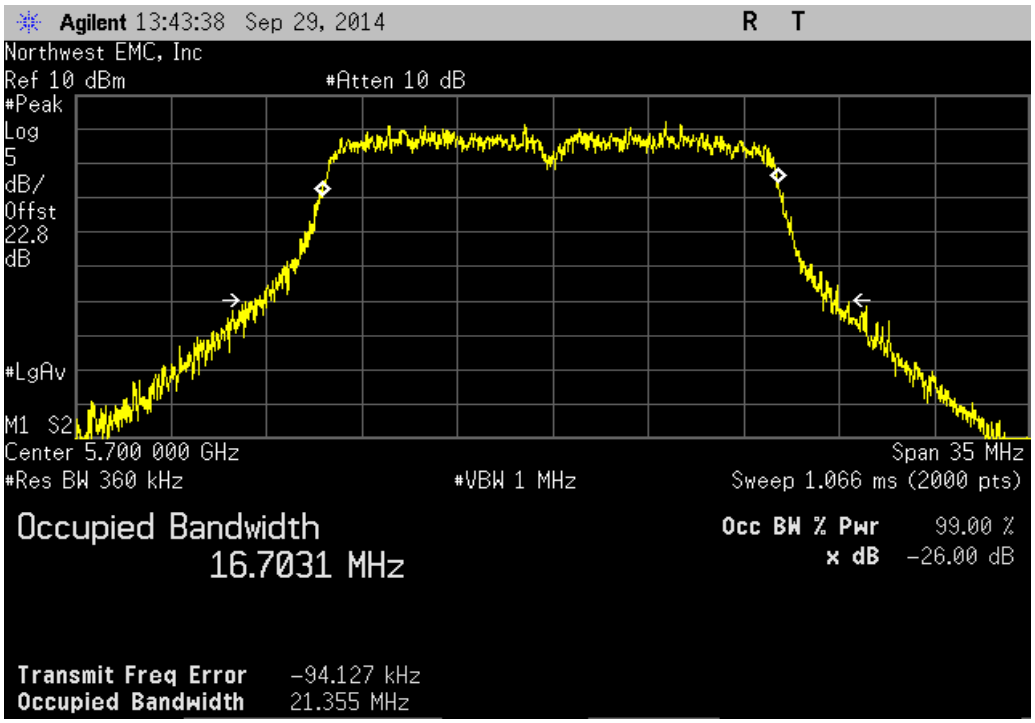


802.11(a) 6 Mbps, 5470 - 5725 MHz Band, Channel 116, Mid Channel						
				Value	Limit (>)	Result
				21.859 MHz	500 kHz	Pass



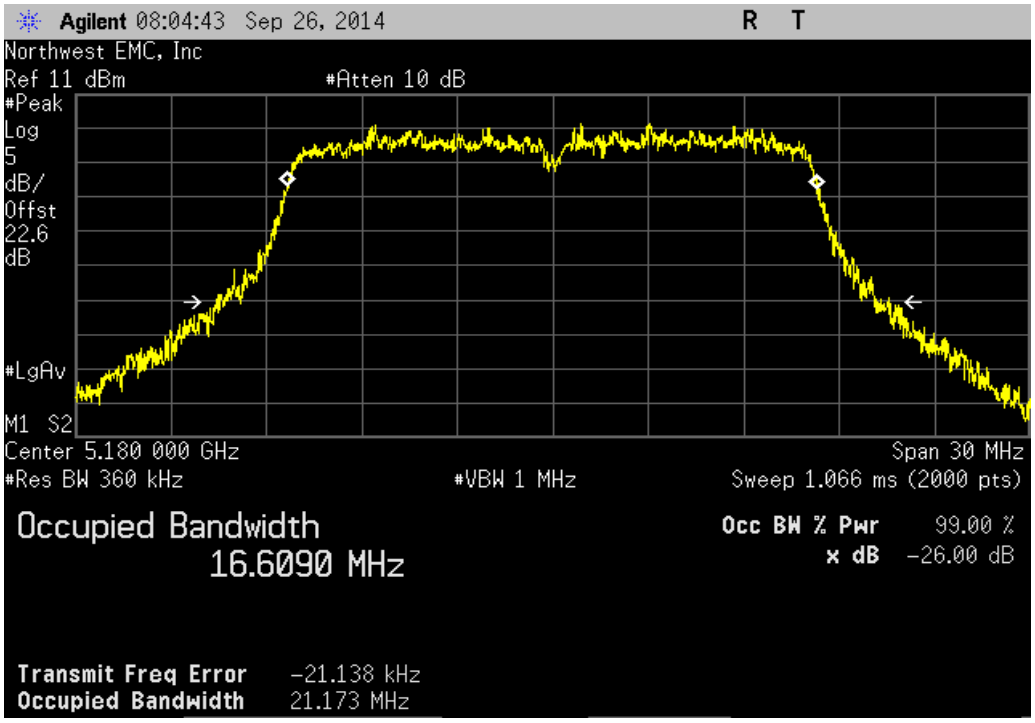
802.11(a) 6 Mbps, 5470 - 5725 MHz Band, Channel 140, High Channel

				Value	Limit (>)	Result
				21.355 MHz	500 kHz	Pass



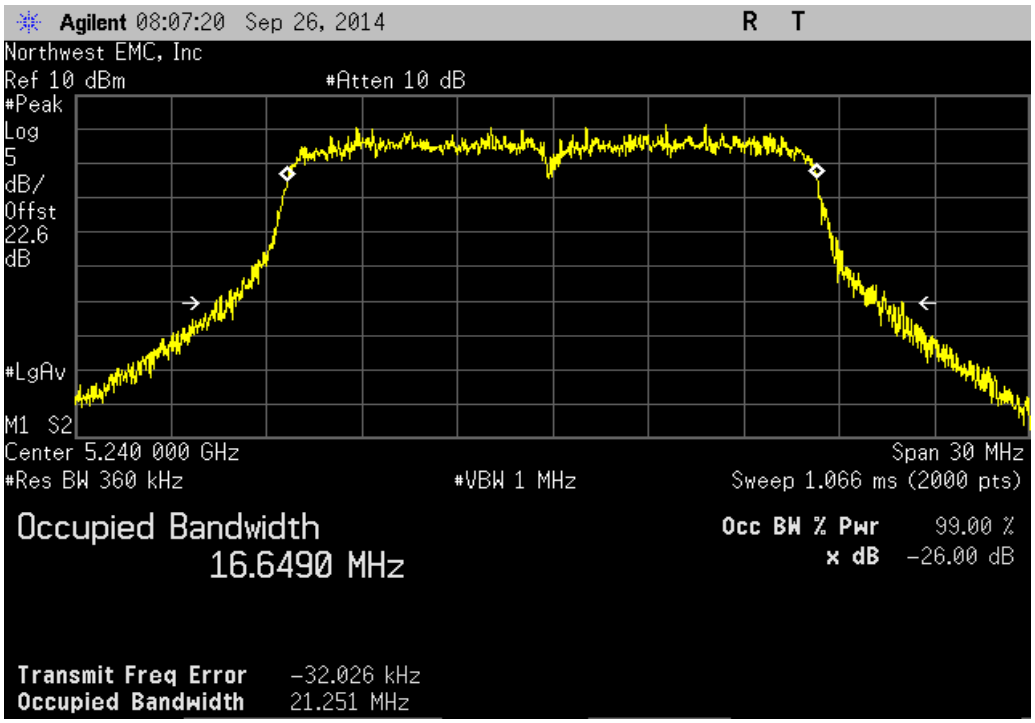
802.11(a) 36 Mbps, 5150 - 5250 MHz Band, Channel 36, Low Channel

				Value	Limit (>)	Result
				21.173 MHz	500 kHz	Pass



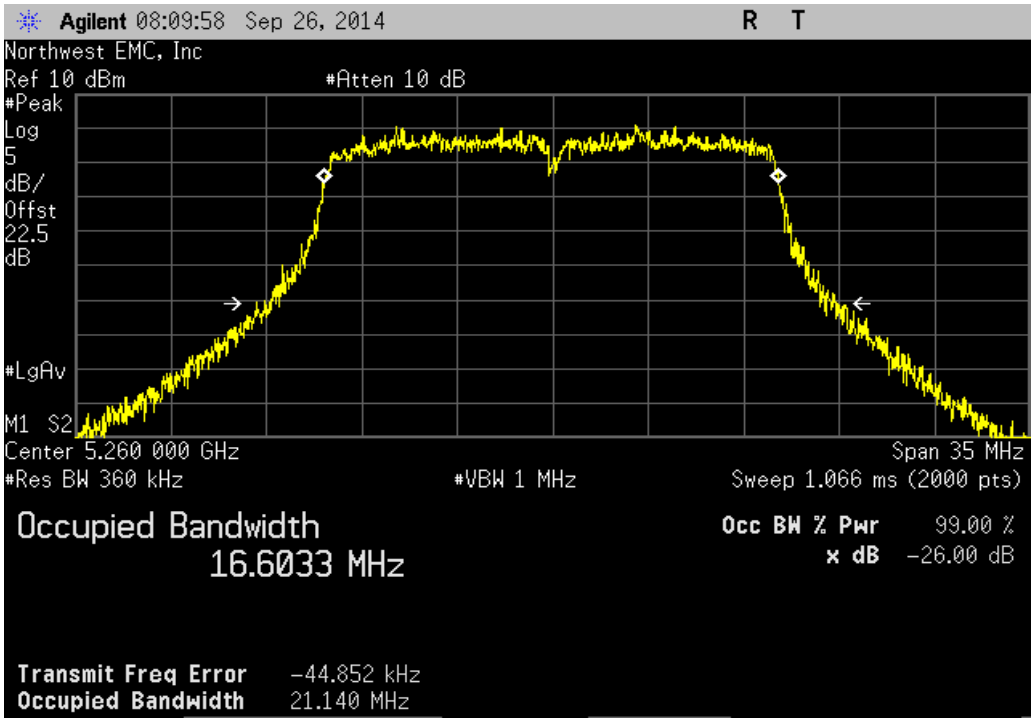
802.11(a) 36 Mbps, 5150 - 5250 MHz Band, Channel 48, High Channel

				Value	Limit (>)	Result
				21.251 MHz	500 kHz	Pass



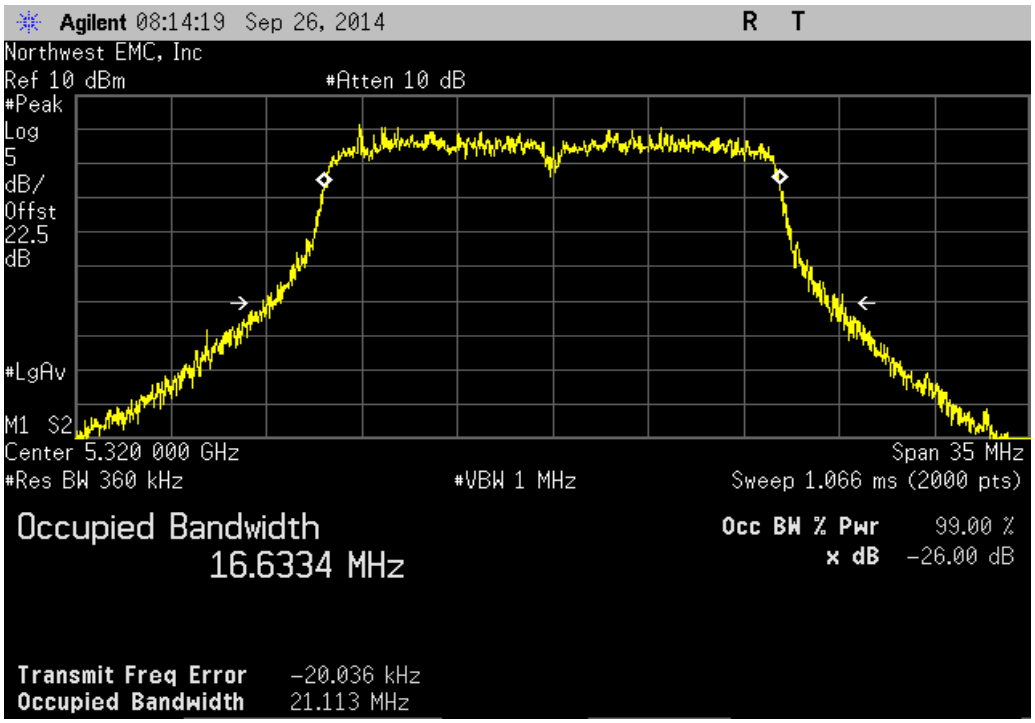
802.11(a) 36 Mbps, 5250 - 5350 MHz Band, Channel 52, Low Channel

				Value	Limit (>)	Result
				21.14 MHz	500 kHz	Pass



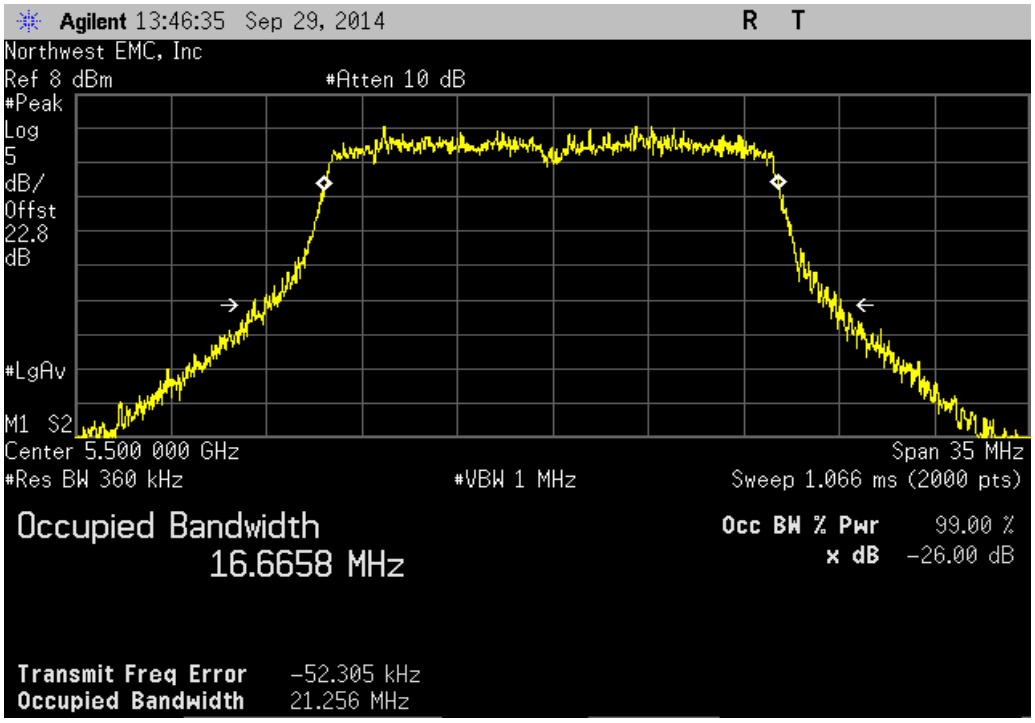
802.11(a) 36 Mbps, 5250 - 5350 MHz Band, Channel 64, High Channel

				Value	Limit (>)	Result
				21.113 MHz	500 kHz	Pass



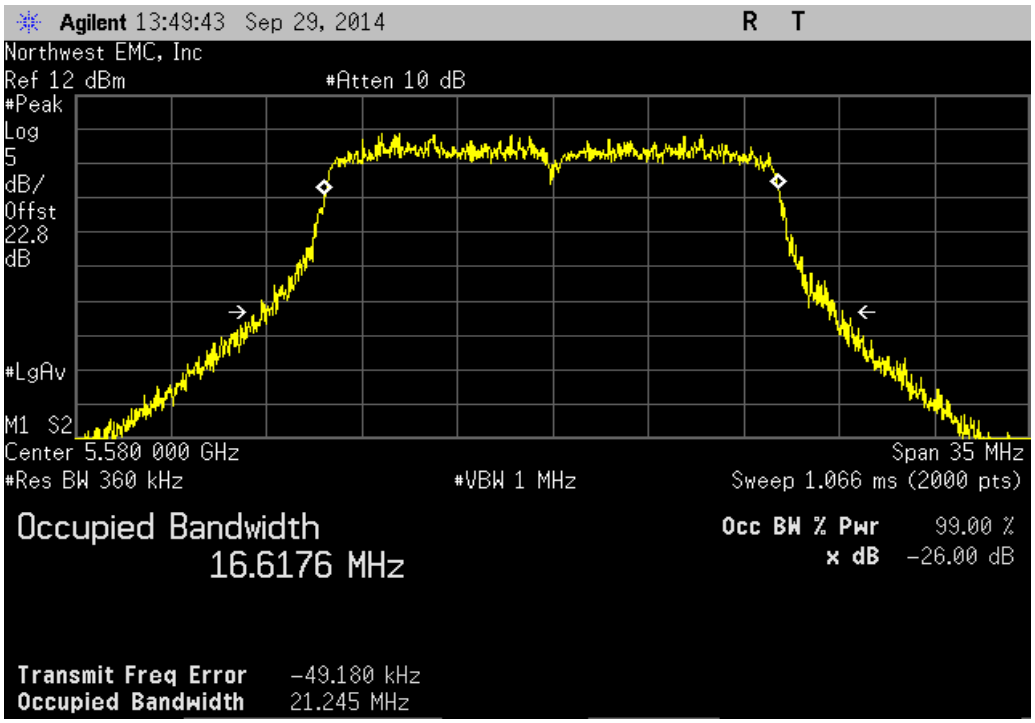
802.11(a) 36 Mbps, 5470 - 5725 MHz Band, Channel 100, Low Channel

				Value	Limit (>)	Result
				21.256 MHz	500 kHz	Pass



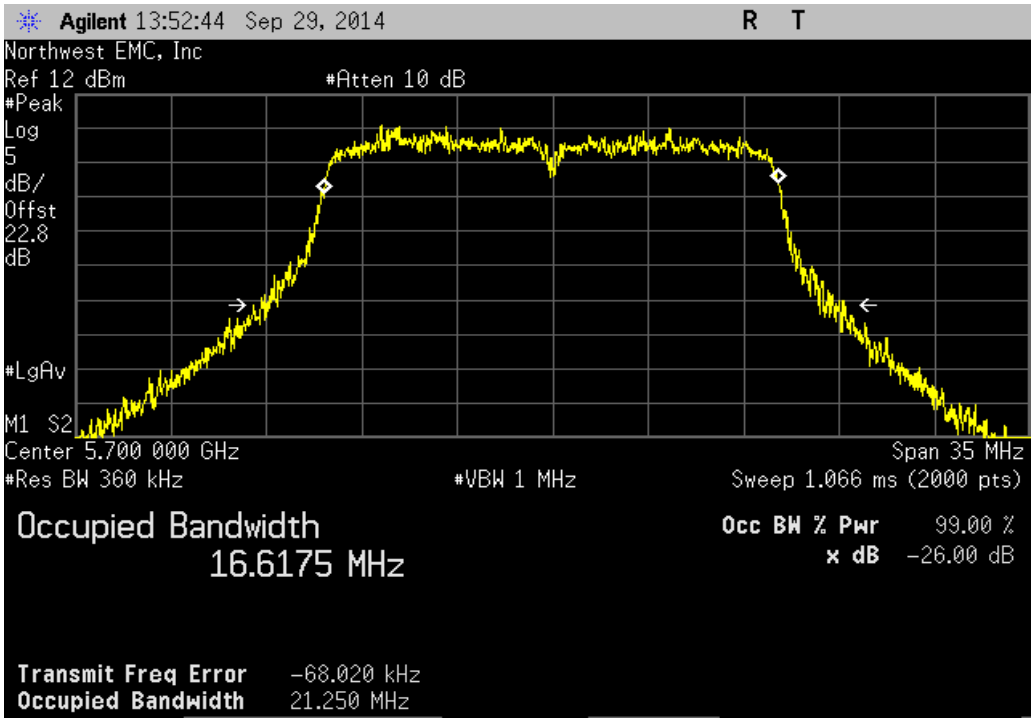
802.11(a) 36 Mbps, 5470 - 5725 MHz Band, Channel 116, Mid Channel

				Value	Limit (>)	Result
				21.245 MHz	500 kHz	Pass



802.11(a) 36 Mbps, 5470 - 5725 MHz Band, Channel 140, High Channel

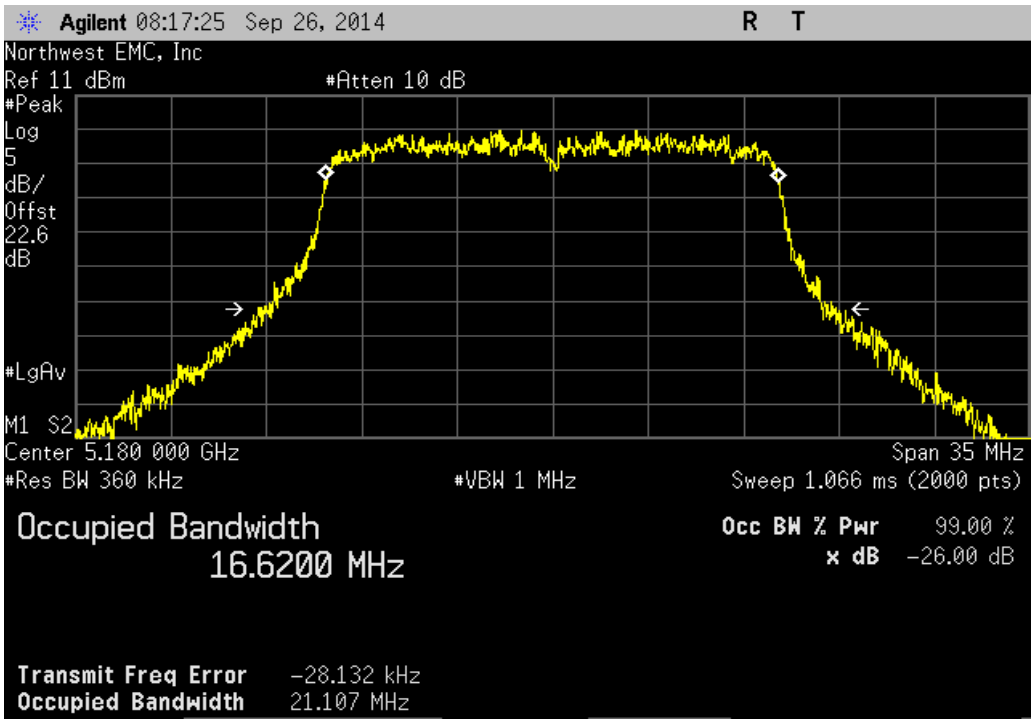
				Value	Limit (>)	Result
				21.25 MHz	500 kHz	Pass



EMISSION BANDWIDTH

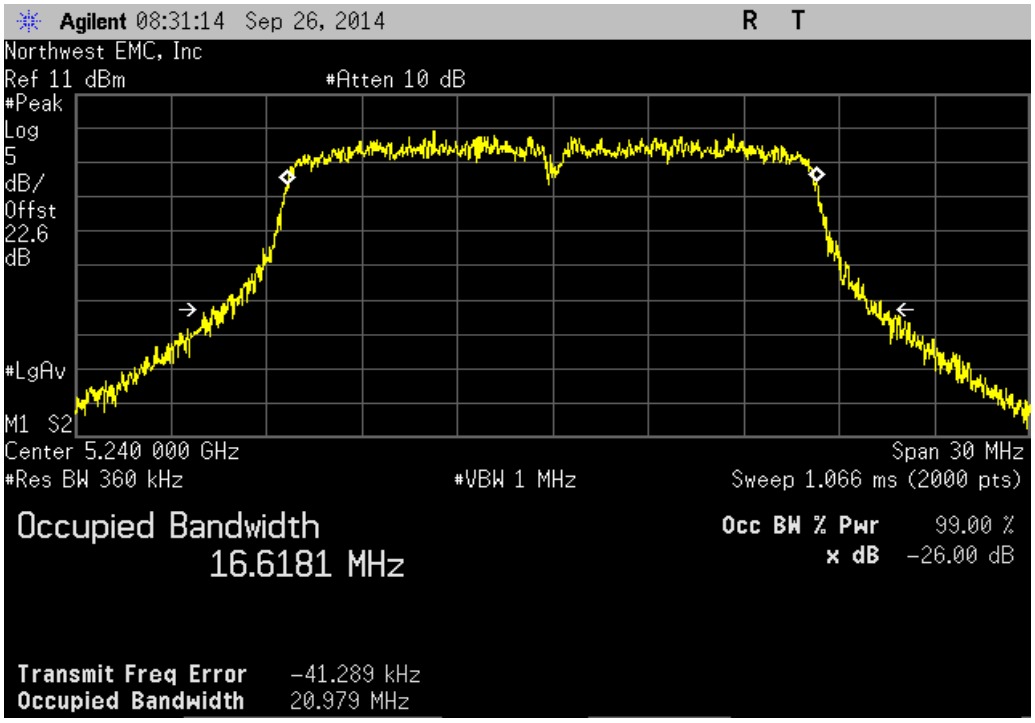
802.11(a) 54 Mbps, 5150 - 5250 MHz Band, Channel 36, Low Channel

				Value	Limit (>)	Result
				21.107 MHz	500 kHz	Pass



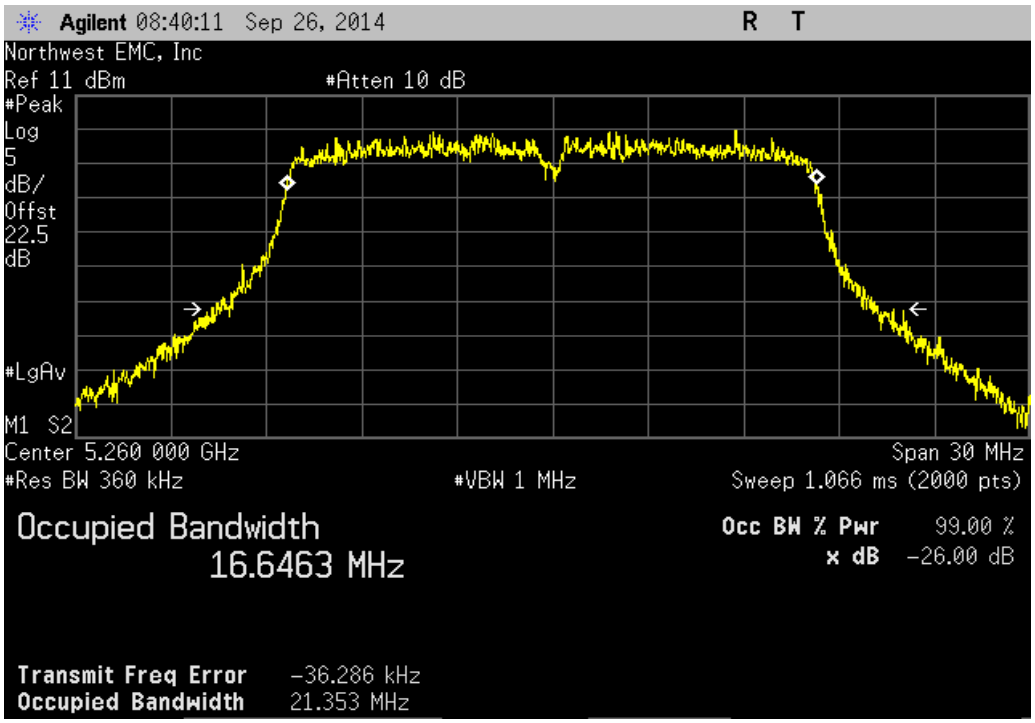
802.11(a) 54 Mbps, 5150 - 5250 MHz Band, Channel 48, High Channel

				Value	Limit (>)	Result
				20.979 MHz	500 kHz	Pass



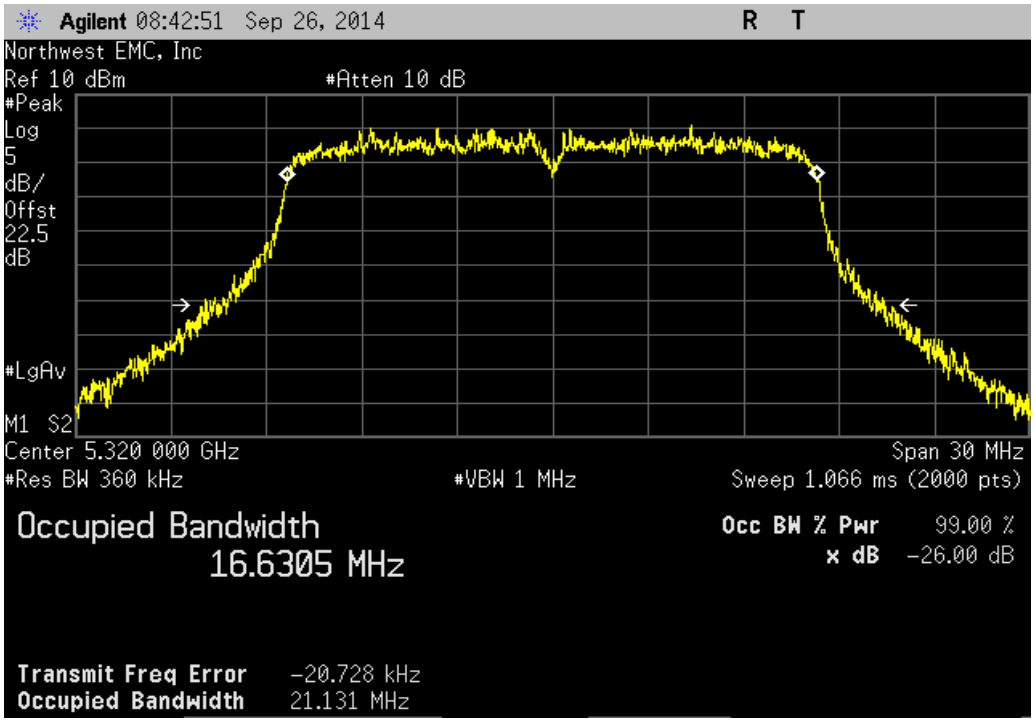
802.11(a) 54 Mbps, 5250 - 5350 MHz Band, Channel 52, Low Channel

				Value	Limit (>)	Result
				21.353 MHz	500 kHz	Pass



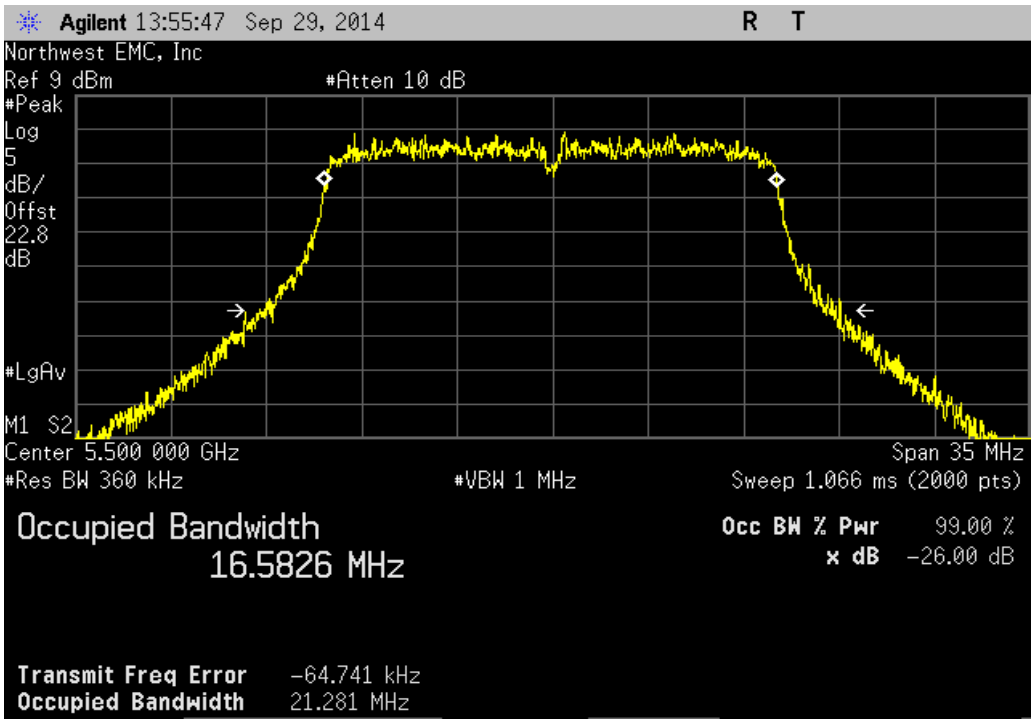
802.11(a) 54 Mbps, 5250 - 5350 MHz Band, Channel 64, High Channel

				Value	Limit (>)	Result
				21.131 MHz	500 kHz	Pass



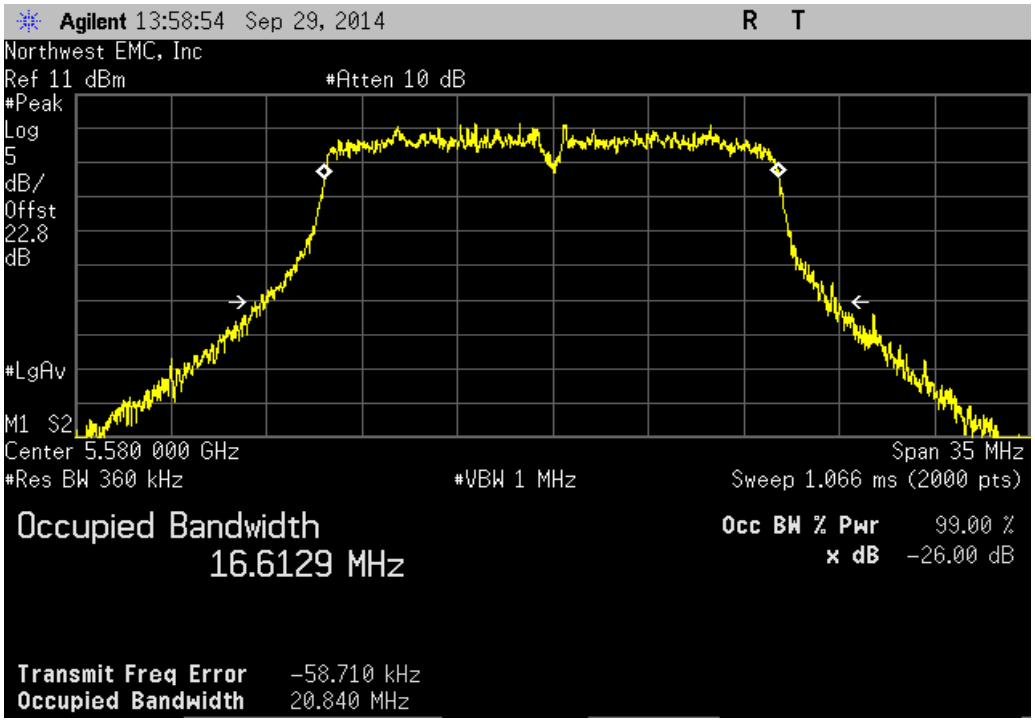
802.11(a) 54 Mbps, 5470 - 5725 MHz Band, Channel 100, Low Channel

				Value	Limit (>)	Result
				21.281 MHz	500 kHz	Pass



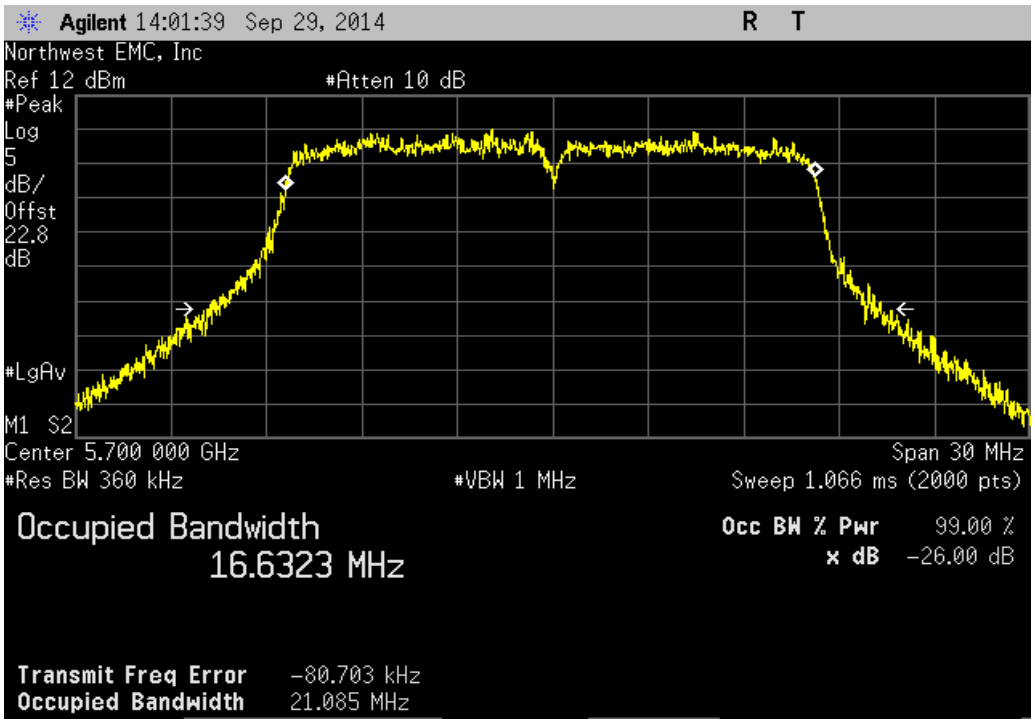
802.11(a) 54 Mbps, 5470 - 5725 MHz Band, Channel 116, Mid Channel

				Value	Limit (>)	Result
				20.84 MHz	500 kHz	Pass



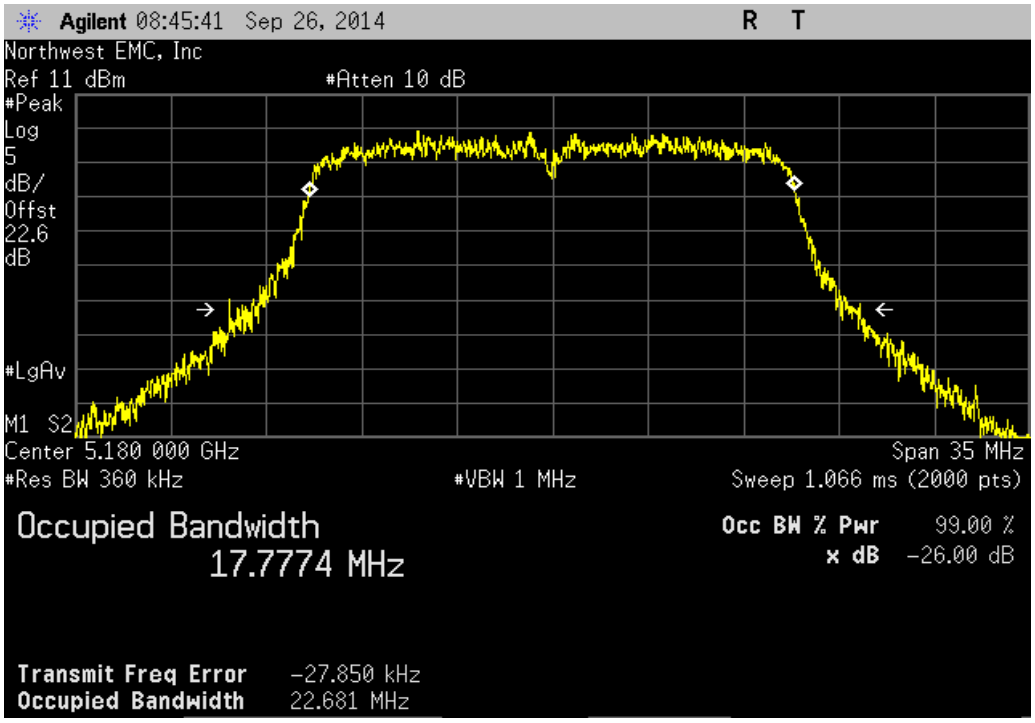
802.11(a) 54 Mbps, 5470 - 5725 MHz Band, Channel 140, High Channel

				Value	Limit (>)	Result
				21.085 MHz	500 kHz	Pass



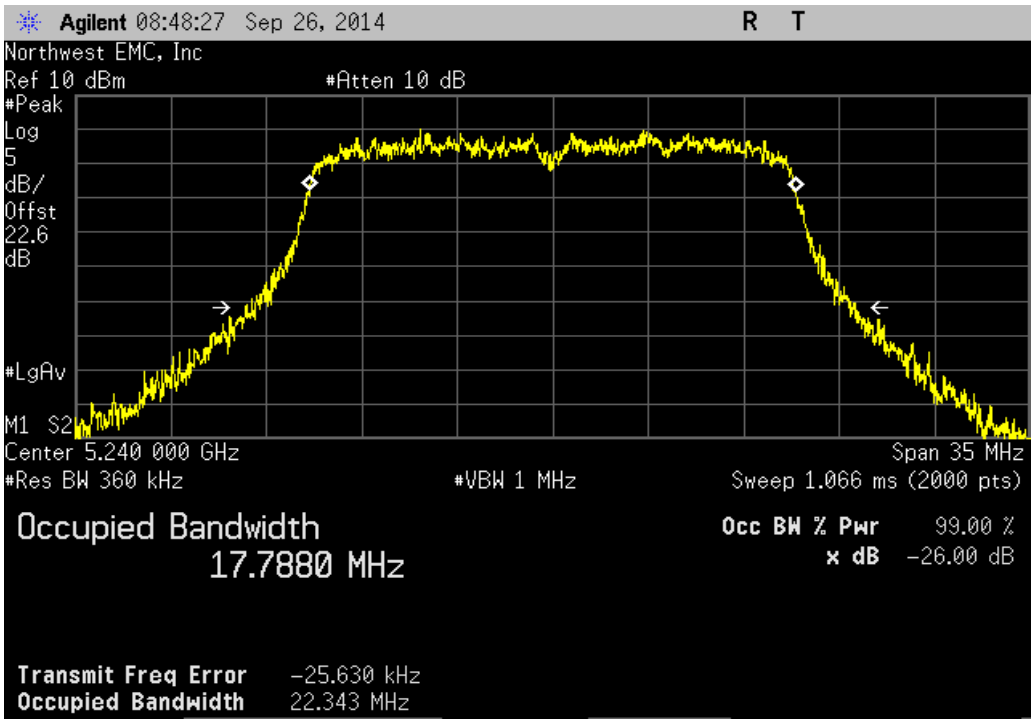
802.11(n) MCS0, 5150 - 5250 MHz Band, Channel 36, Low Channel

				Value	Limit (>)	Result
				22.681 MHz	500 kHz	Pass



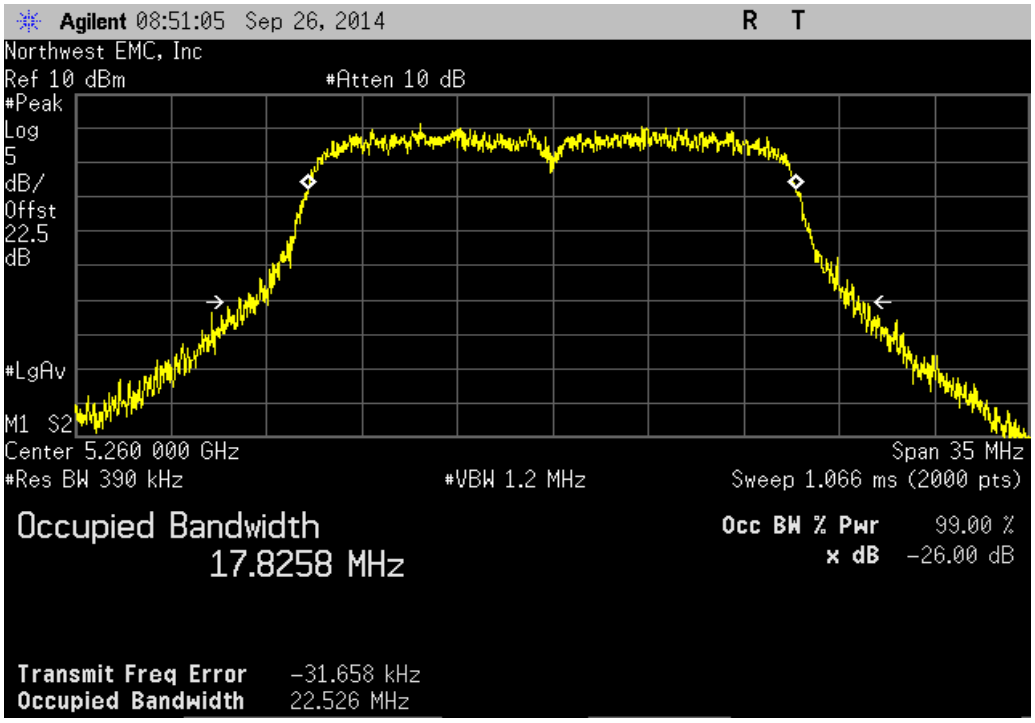
802.11(n) MCS0, 5150 - 5250 MHz Band, Channel 48, High Channel

				Value	Limit (>)	Result
				22.343 MHz	500 kHz	Pass

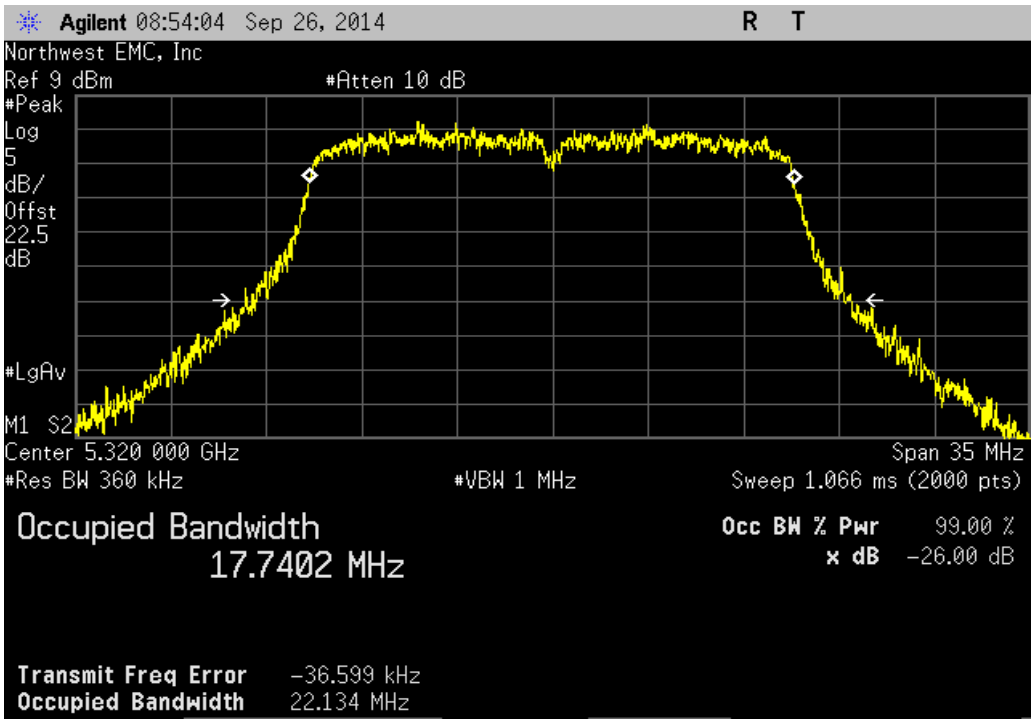


802.11(n) MCS0, 5250 - 5350 MHz Band, Channel 52, Low Channel

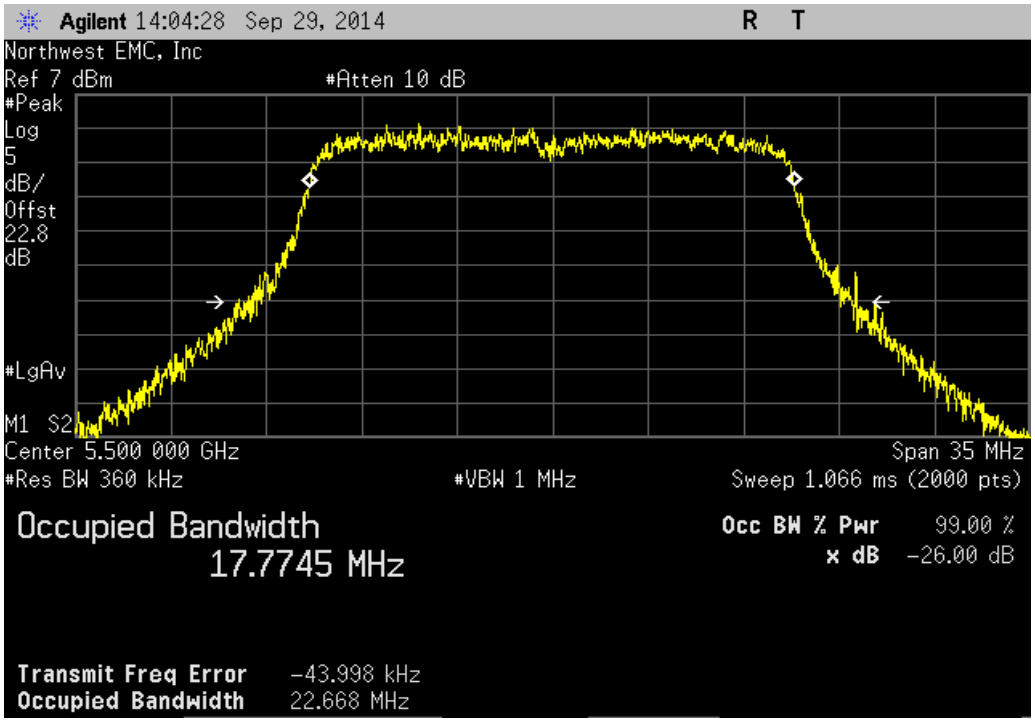
				Value	Limit (>)	Result
				22.526 MHz	500 kHz	Pass



802.11(n) MCS0, 5250 - 5350 MHz Band, Channel 64, High Channel						
				Value	Limit (>)	Result
				22.134 MHz	500 kHz	Pass

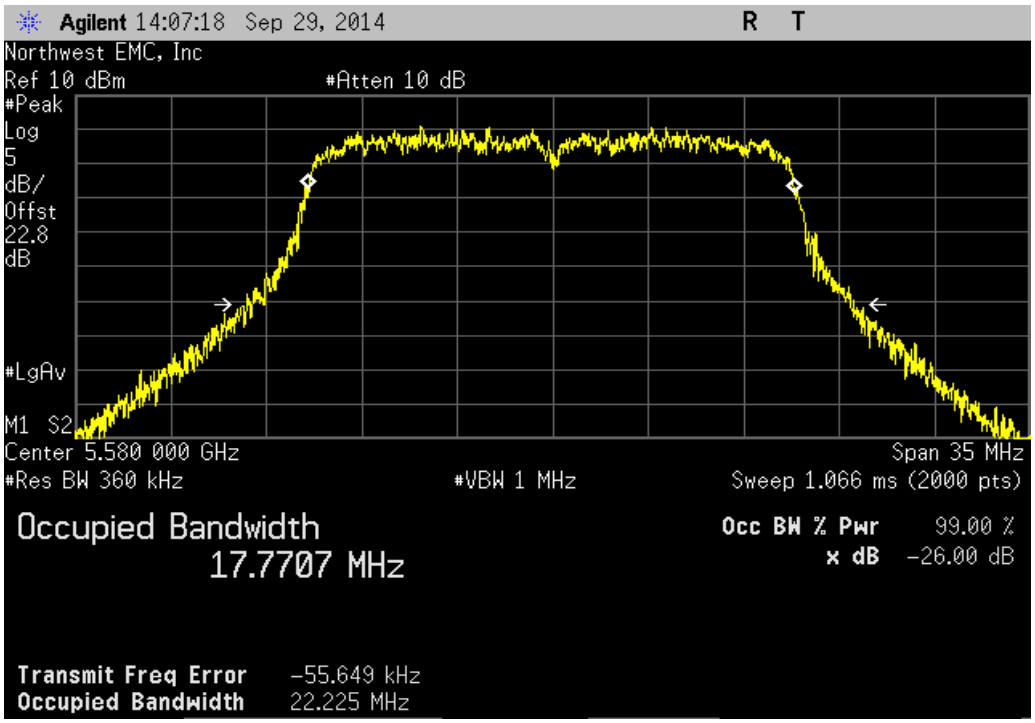


802.11(n) MCS0, 5470 - 5725 MHz Band, Channel 100, Low Channel						
				Value	Limit (>)	Result
				22.668 MHz	500 kHz	Pass



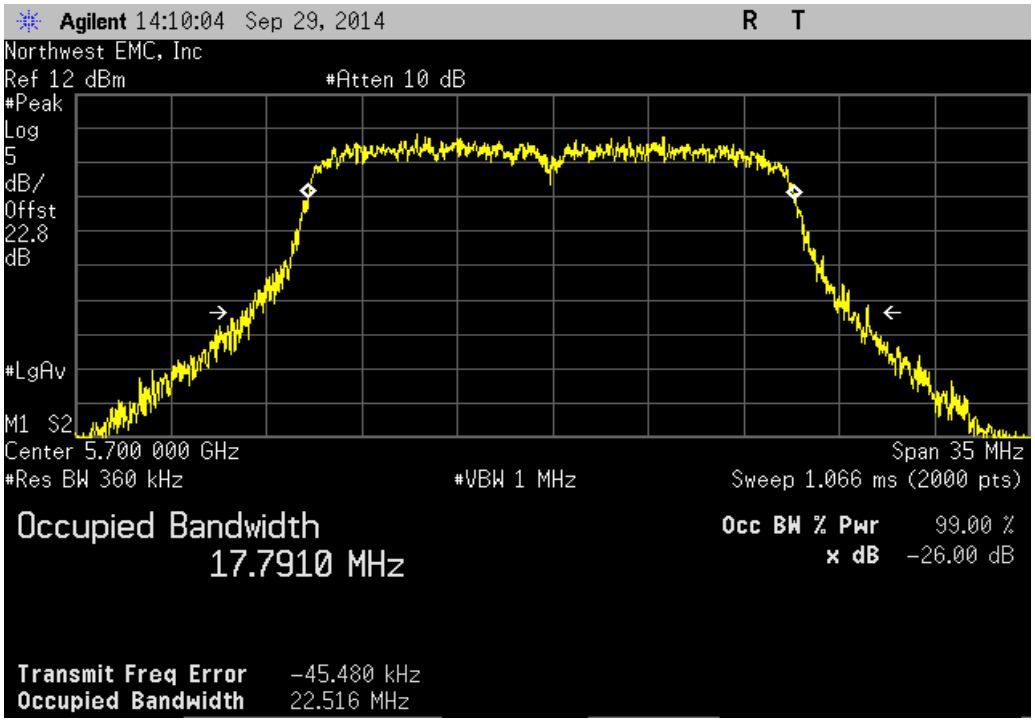
802.11(n) MCS0, 5470 - 5725 MHz Band, Channel 116, Mid Channel

				Value	Limit (>)	Result
				22.225 MHz	500 kHz	Pass



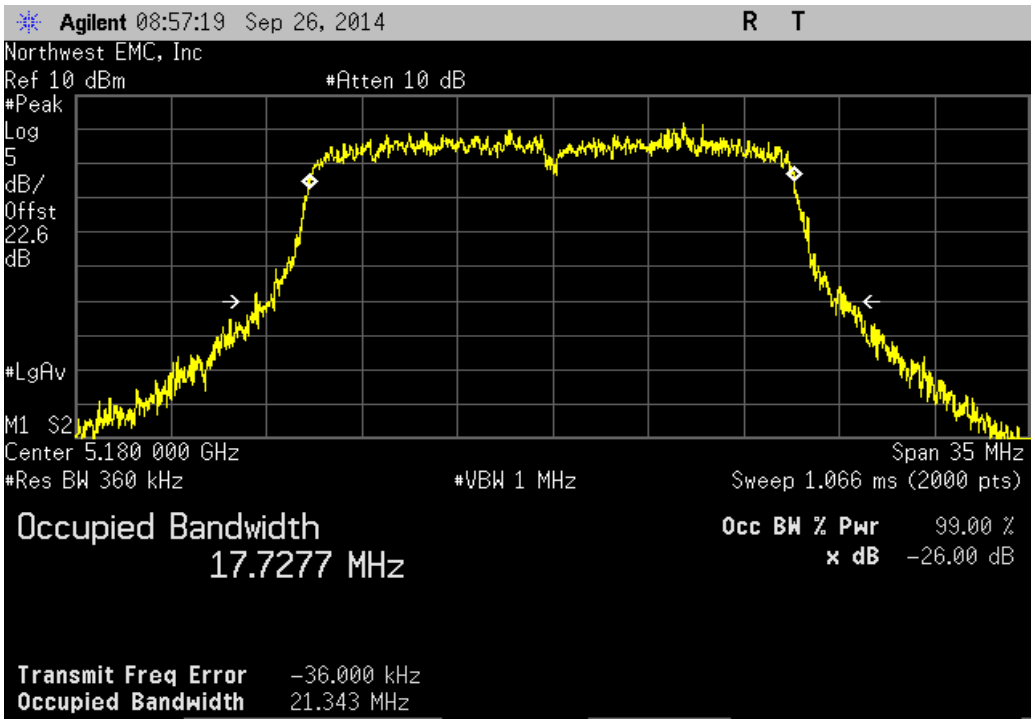
802.11(n) MCS0, 5470 - 5725 MHz Band, Channel 140, High Channel

				Value	Limit (>)	Result
				22.516 MHz	500 kHz	Pass



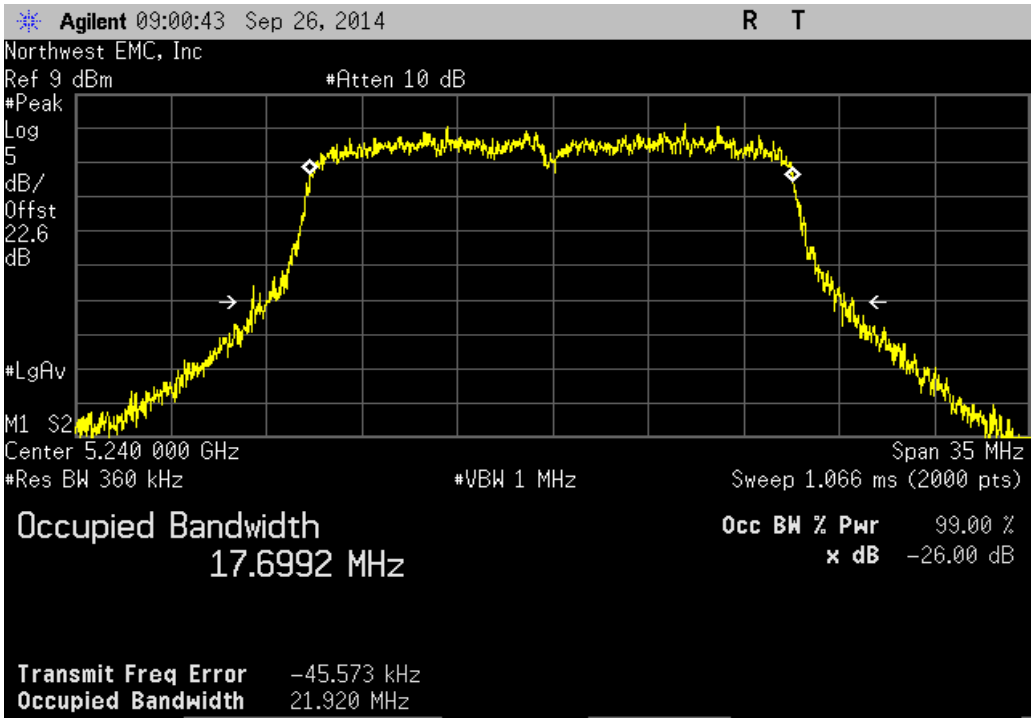
802.11(n) MCS7, 5150 - 5250 MHz Band, Channel 36, Low Channel

				Value	Limit (>)	Result
				21.343 MHz	500 kHz	Pass



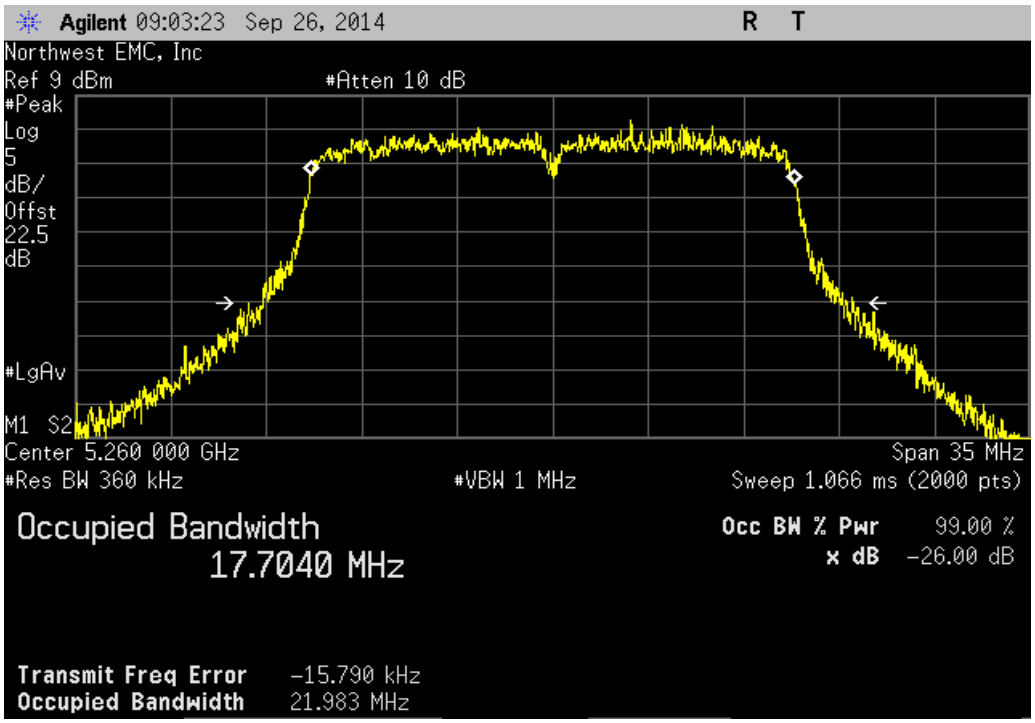
802.11(n) MCS7, 5150 - 5250 MHz Band, Channel 48, High Channel

				Value	Limit (>)	Result
				21.92 MHz	500 kHz	Pass



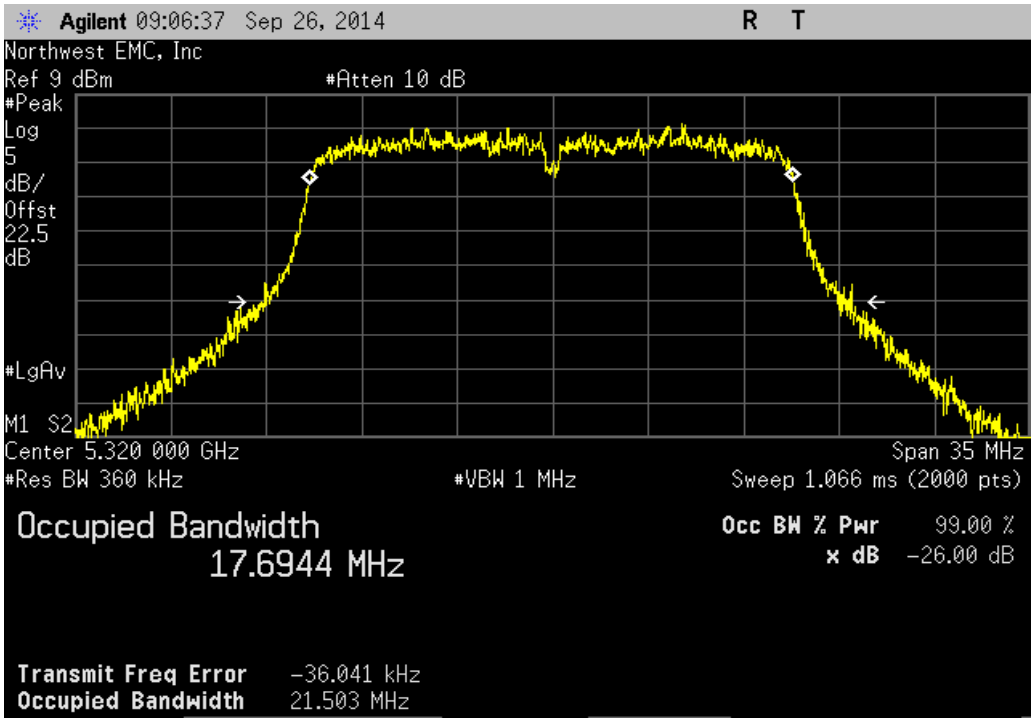
802.11(n) MCS7, 5250 - 5350 MHz Band, Channel 52, Low Channel

				Value	Limit (>)	Result
				21.983 MHz	500 kHz	Pass



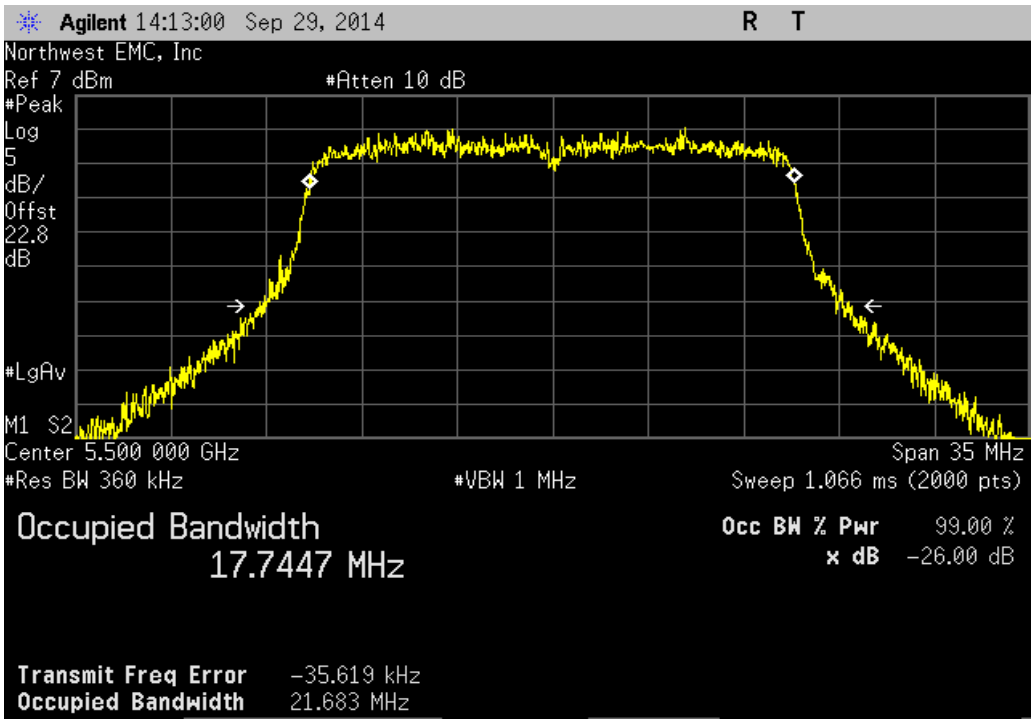
802.11(n) MCS7, 5250 - 5350 MHz Band, Channel 64, High Channel

				Value	Limit (>)	Result
				21.503 MHz	500 kHz	Pass



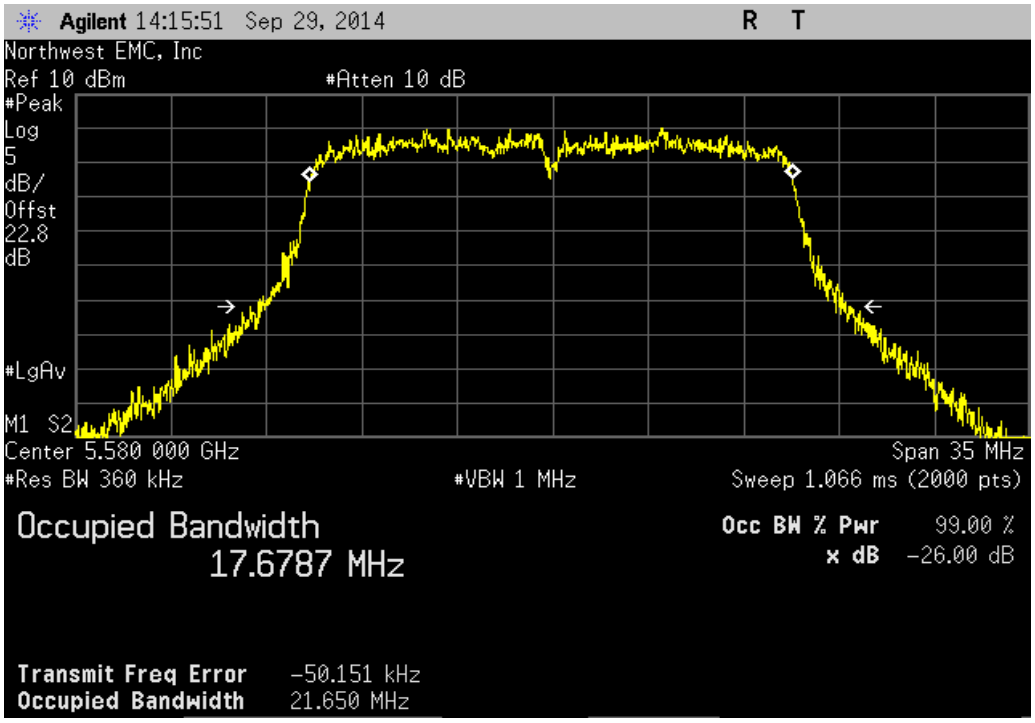
802.11(n) MCS7, 5470 - 5725 MHz Band, Channel 100, Low Channel

				Value	Limit (>)	Result
				21.683 MHz	500 kHz	Pass



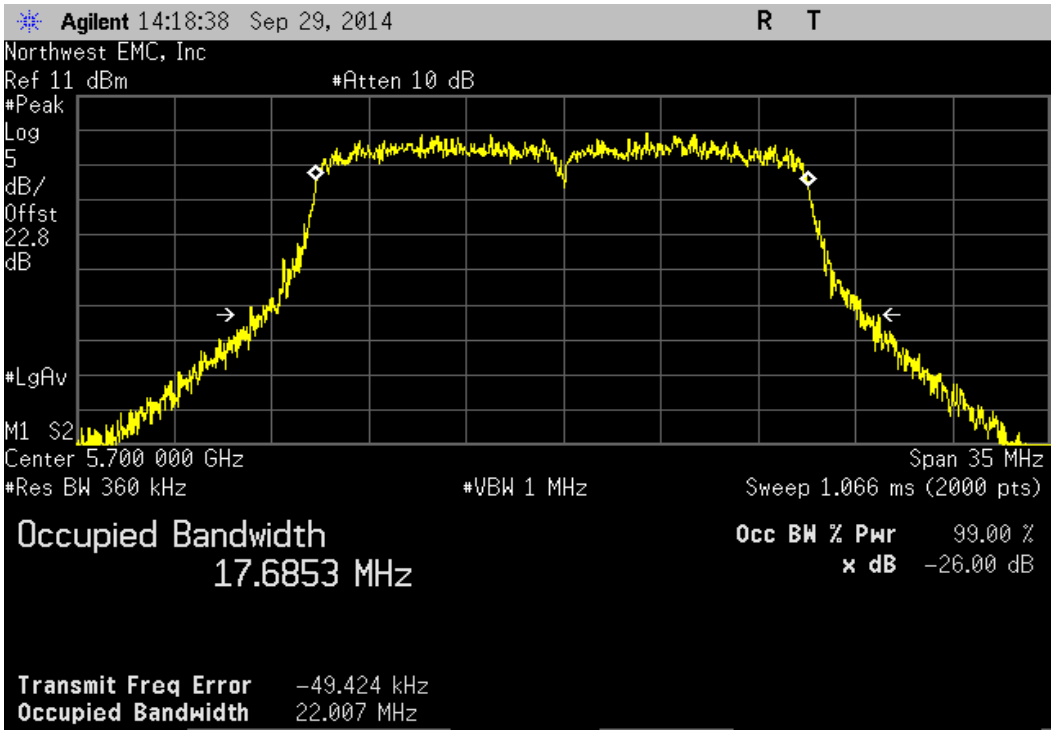
802.11(n) MCS7, 5470 - 5725 MHz Band, Channel 116, Mid Channel

				Value	Limit (>)	Result
				21.65 MHz	500 kHz	Pass



802.11(n) MCS7, 5470 - 5725 MHz Band, Channel 140, High Channel

				Value	Limit (>)	Result
				22.007 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
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	14
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
Spectrum Analyzer	Agilent	E4440A	AAX	4/28/2014	12

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:	ConnectCore i.MX6 WiFi/Bluetooth			Work Order:	ETHE0009
Serial Number:	00409D 7C03B4			Date:	09/29/14
Customer:	Etherios Design Solutions			Temperature:	22.7°C
Attendees:	None			Humidity:	47%
Project:	None			Barometric Pres.:	1023.7
Tested by:	Trevor Buls	Power:	5VDC	Job Site:	MN08

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

COMMENTS

None

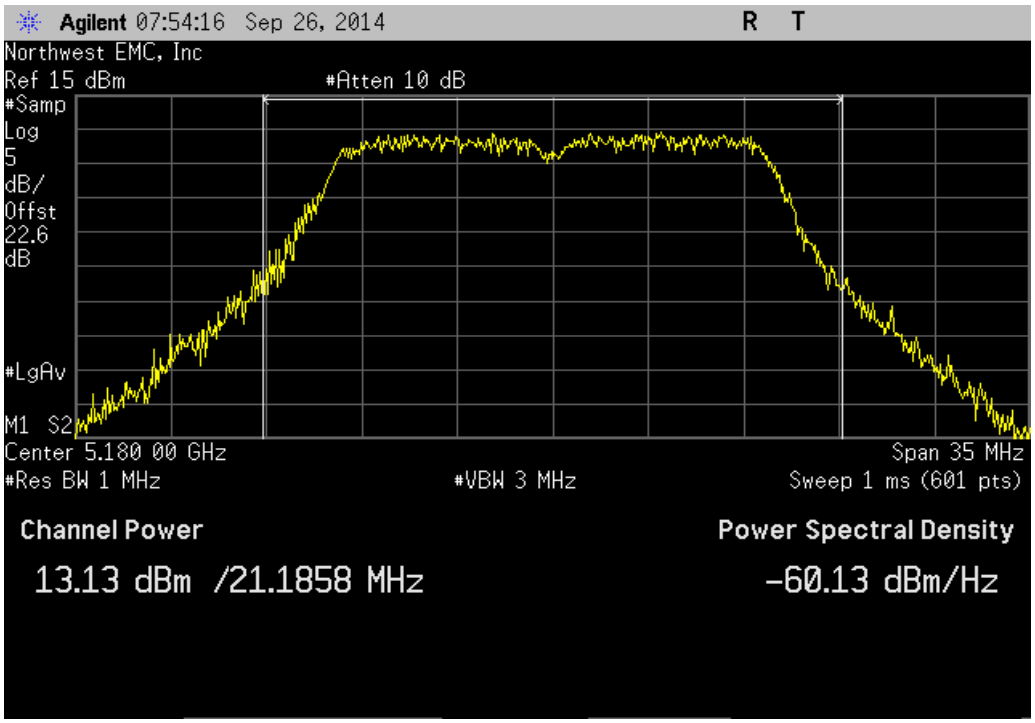
DEVIATIONS FROM TEST STANDARD

None

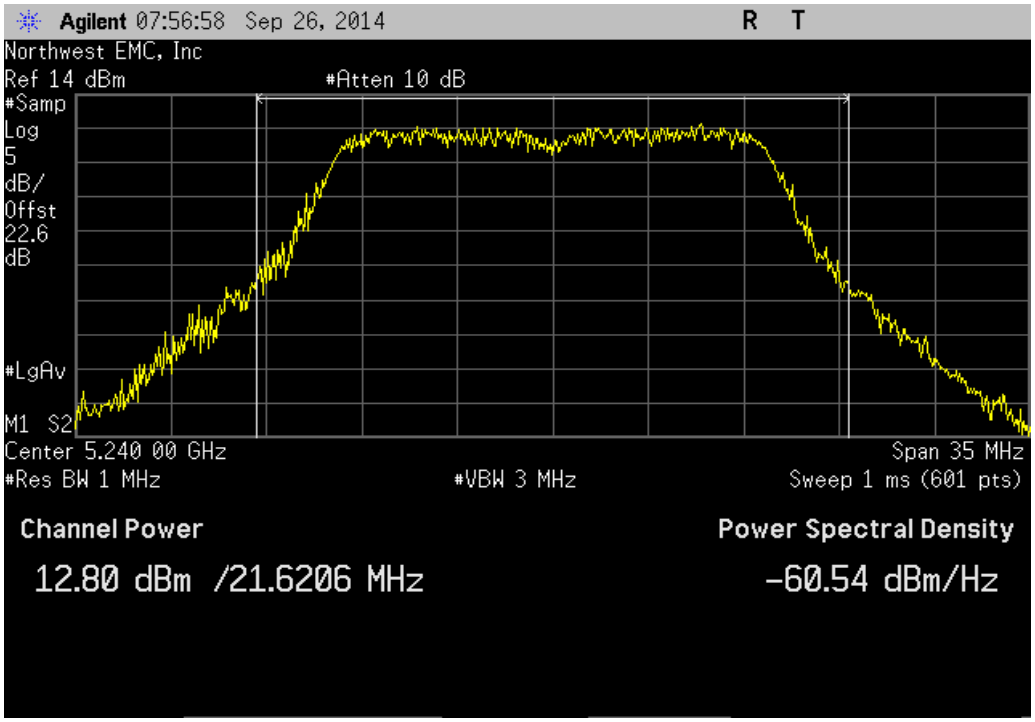
Configuration #	1	Signature	Trevor Buls

		Value	Limit (<)	Result
802.11(a) 6 Mbps				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	13.129 dBm	17 dBm	Pass
	Channel 48, High Channel	12.805 dBm	17 dBm	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	13.425 dBm	24 dBm	Pass
	Channel 64, High Channel	12.987 dBm	24 dBm	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	8.935 dBm	24 dBm	Pass
	Channel 116, Mid Channel	12.882 dBm	24 dBm	Pass
	Channel 140, High Channel	13.791 dBm	24 dBm	Pass
802.11(a) 36 Mbps				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	13.881 dBm	17 dBm	Pass
	Channel 48, High Channel	12.669 dBm	17 dBm	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	12.798 dBm	24 dBm	Pass
	Channel 64, High Channel	12.746 dBm	24 dBm	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	10.484 dBm	24 dBm	Pass
	Channel 116, Mid Channel	13.668 dBm	24 dBm	Pass
	Channel 140, High Channel	14.556 dBm	24 dBm	Pass
802.11(a) 54 Mbps				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	13.357 dBm	17 dBm	Pass
	Channel 48, High Channel	12.758 dBm	17 dBm	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	12.98 dBm	24 dBm	Pass
	Channel 64, High Channel	12.518 dBm	24 dBm	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	10.41 dBm	24 dBm	Pass
	Channel 116, Mid Channel	13.882 dBm	24 dBm	Pass
	Channel 140, High Channel	14.355 dBm	24 dBm	Pass
802.11(n) MCS0				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	13.769 dBm	17 dBm	Pass
	Channel 48, High Channel	13.131 dBm	17 dBm	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	13.369 dBm	24 dBm	Pass
	Channel 64, High Channel	12.94 dBm	24 dBm	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	10.704 dBm	24 dBm	Pass
	Channel 116, Mid Channel	13.658 dBm	24 dBm	Pass
	Channel 140, High Channel	14.308 dBm	24 dBm	Pass
802.11(n) MCS7				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	12.661 dBm	17 dBm	Pass
	Channel 48, High Channel	11.686 dBm	17 dBm	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	11.944 dBm	24 dBm	Pass
	Channel 64, High Channel	11.404 dBm	24 dBm	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	9.629 dBm	24 dBm	Pass
	Channel 116, Mid Channel	12.584 dBm	24 dBm	Pass
	Channel 140, High Channel	13.243 dBm	24 dBm	Pass

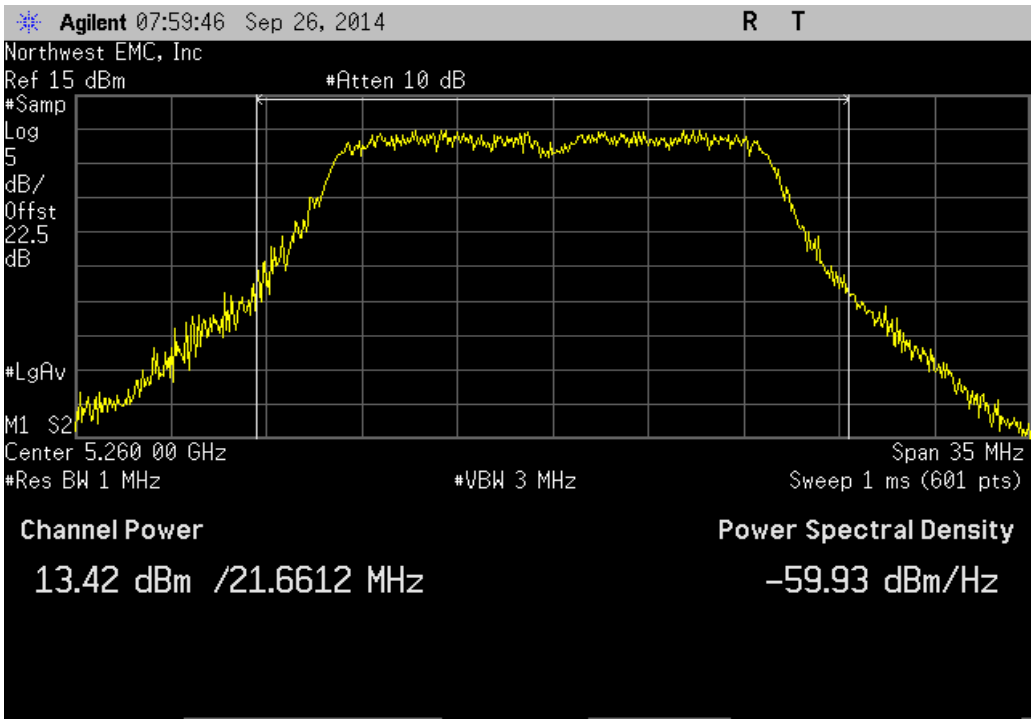
802.11(a) 6 Mbps, 5150 - 5250 MHz Band, Channel 36, Low Channel						
				Value	Limit (<)	Result
				13.129 dBm	17 dBm	Pass



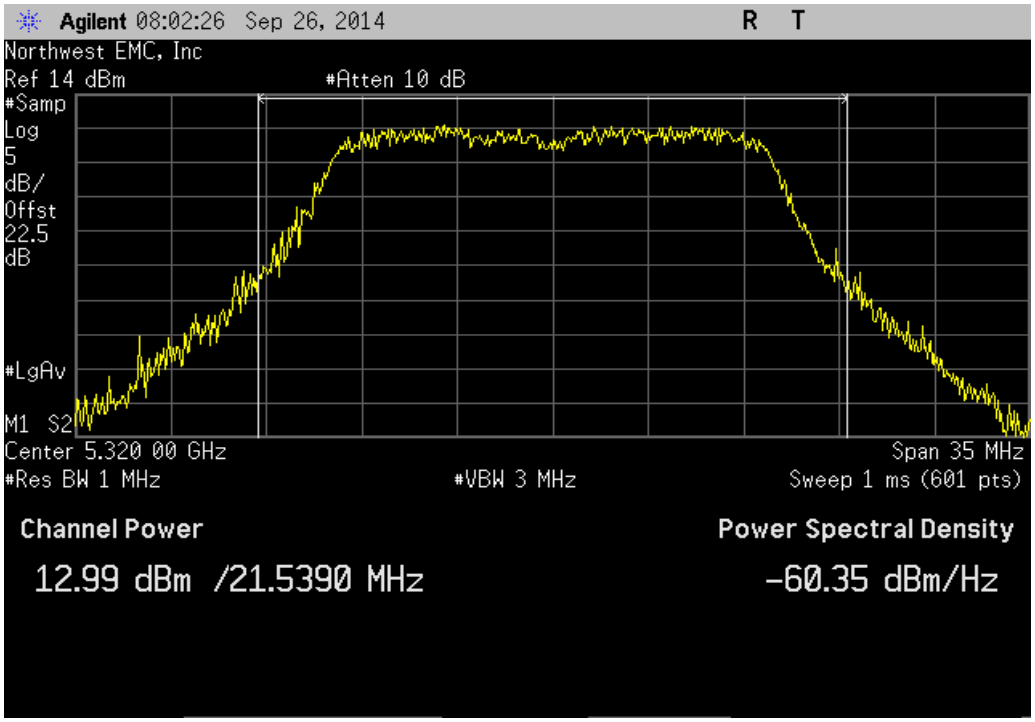
802.11(a) 6 Mbps, 5150 - 5250 MHz Band, Channel 48, High Channel						
				Value	Limit (<)	Result
				12.805 dBm	17 dBm	Pass



802.11(a) 6 Mbps, 5250 - 5350 MHz Band, Channel 52, Low Channel						
				Value	Limit (<)	Result
				13.425 dBm	24 dBm	Pass



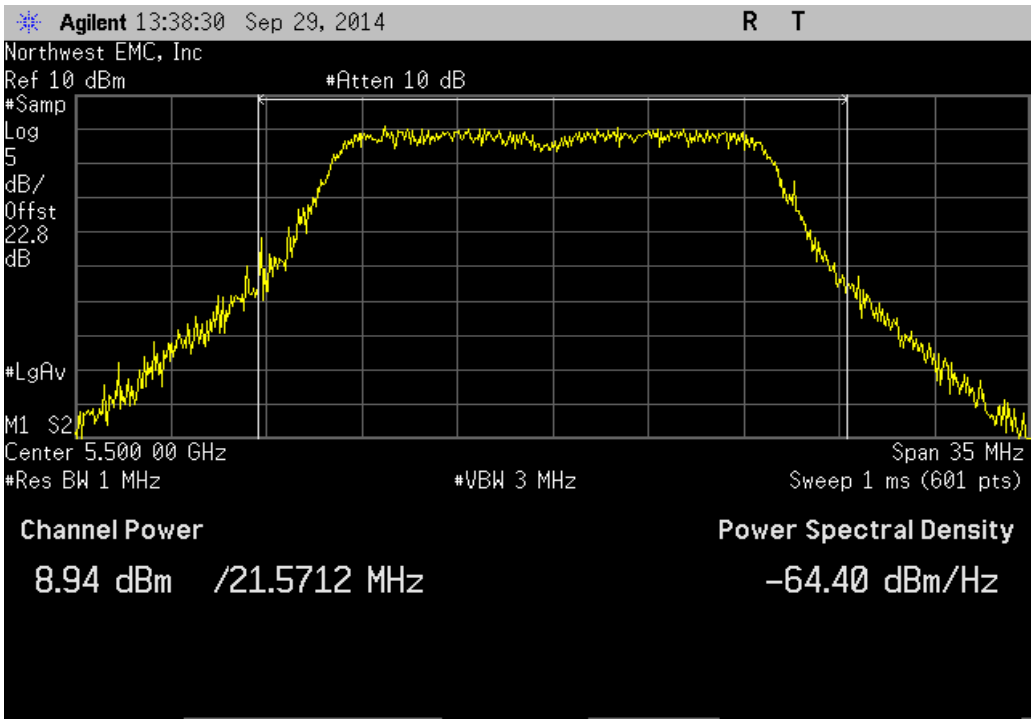
802.11(a) 6 Mbps, 5250 - 5350 MHz Band, Channel 64, High Channel						
				Value	Limit (<)	Result
				12.987 dBm	24 dBm	Pass



PEAK TRANSMIT POWER

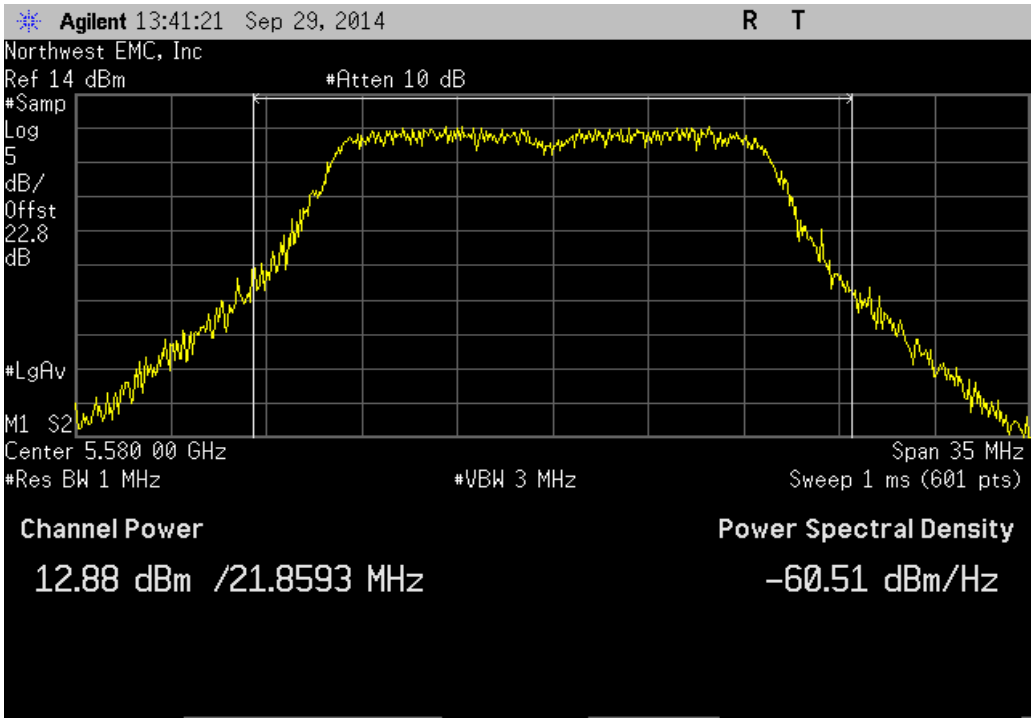
802.11(a) 6 Mbps, 5470 - 5725 MHz Band, Channel 100, Low Channel

				Value	Limit (<)	Result
				8.935 dBm	24 dBm	Pass

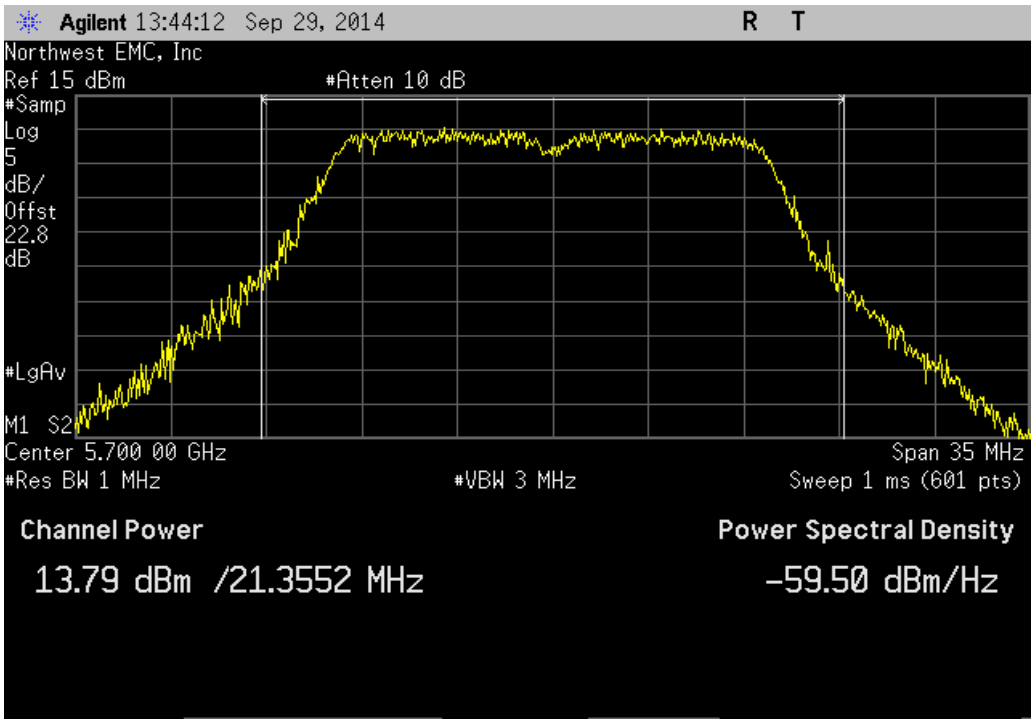


802.11(a) 6 Mbps, 5470 - 5725 MHz Band, Channel 116, Mid Channel

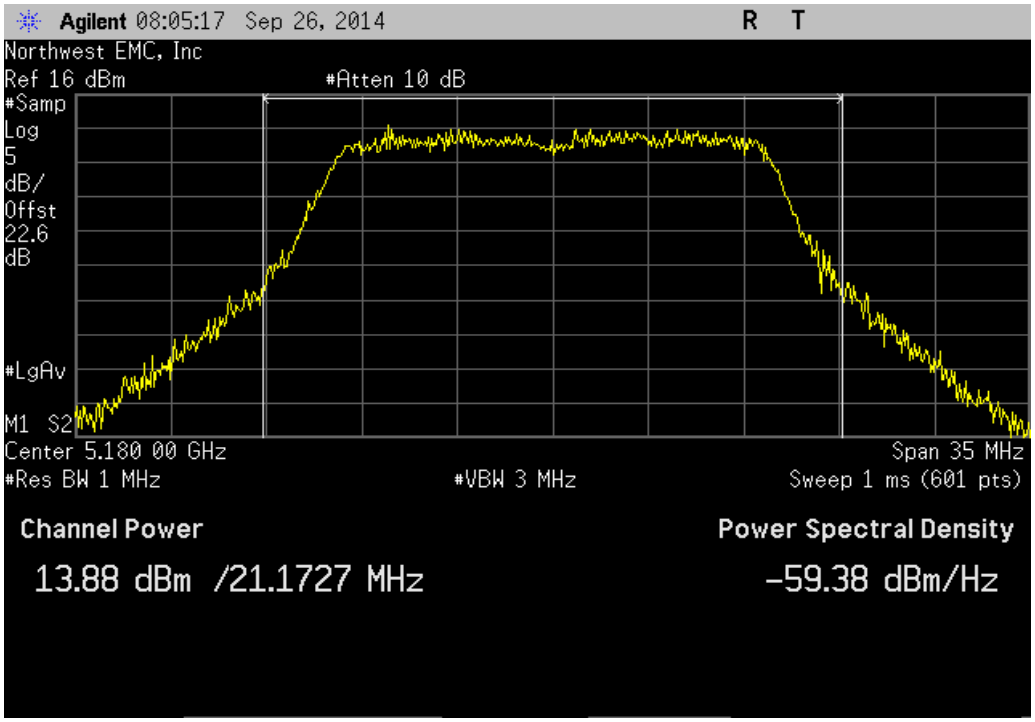
				Value	Limit (<)	Result
				12.882 dBm	24 dBm	Pass



802.11(a) 6 Mbps, 5470 - 5725 MHz Band, Channel 140, High Channel						
				Value	Limit (<)	Result
				13.791 dBm	24 dBm	Pass

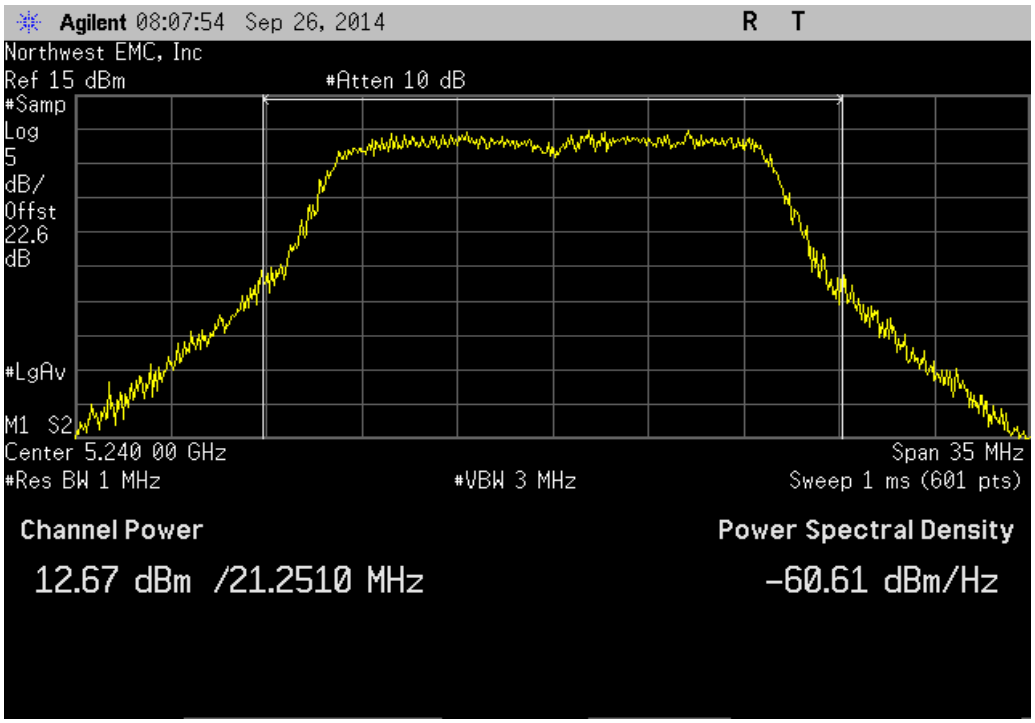


802.11(a) 36 Mbps, 5150 - 5250 MHz Band, Channel 36, Low Channel						
				Value	Limit (<)	Result
				13.881 dBm	17 dBm	Pass

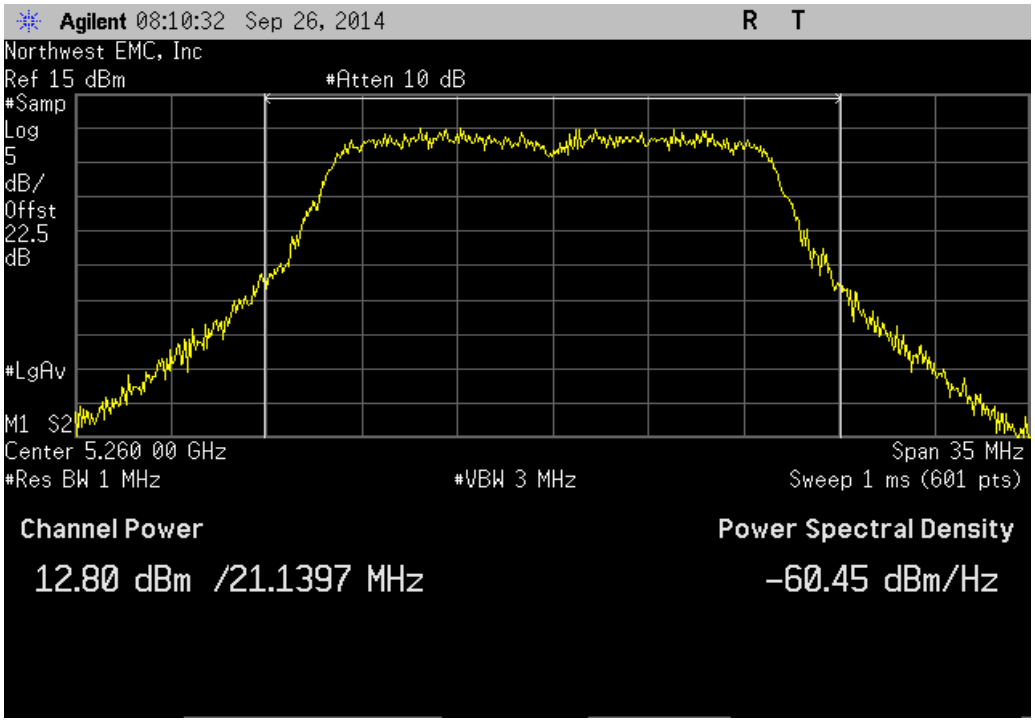


PEAK TRANSMIT POWER

802.11(a) 36 Mbps, 5150 - 5250 MHz Band, Channel 48, High Channel						
				Value	Limit (<)	Result
				12.669 dBm	17 dBm	Pass

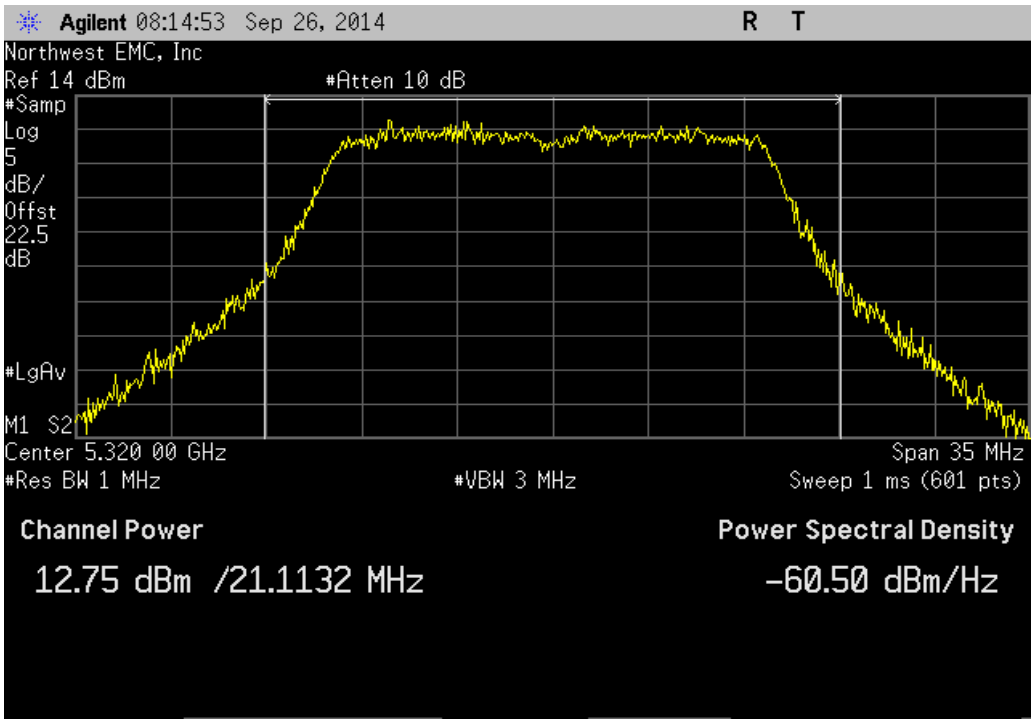


802.11(a) 36 Mbps, 5250 - 5350 MHz Band, Channel 52, Low Channel						
				Value	Limit (<)	Result
				12.798 dBm	24 dBm	Pass



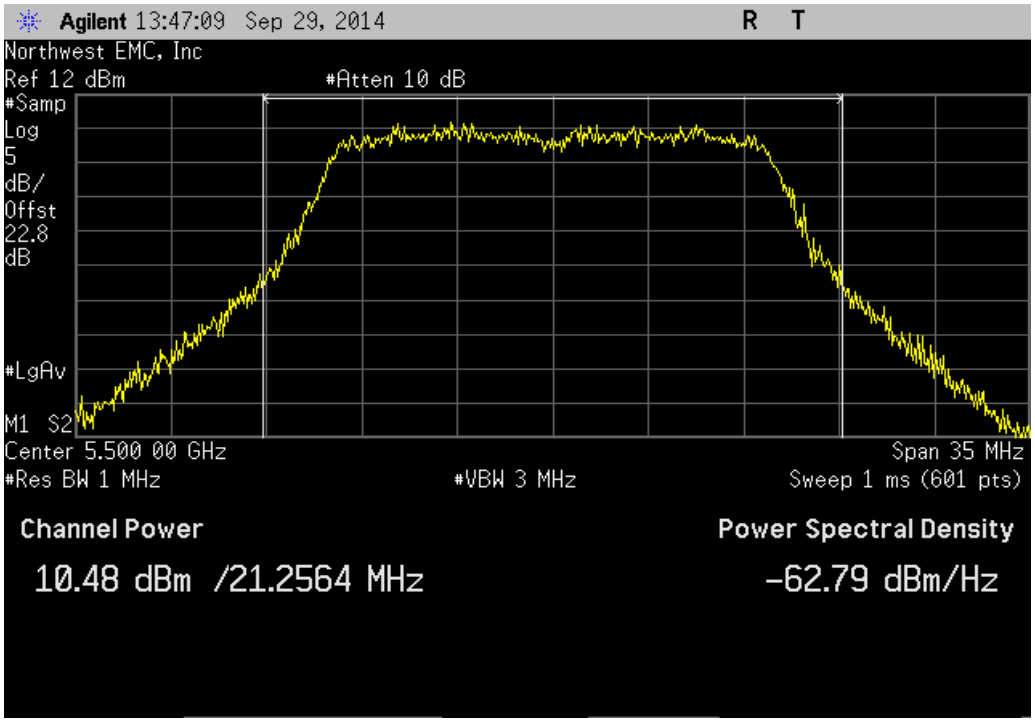
802.11(a) 36 Mbps, 5250 - 5350 MHz Band, Channel 64, High Channel

				Value	Limit (<)	Result
				12.746 dBm	24 dBm	Pass

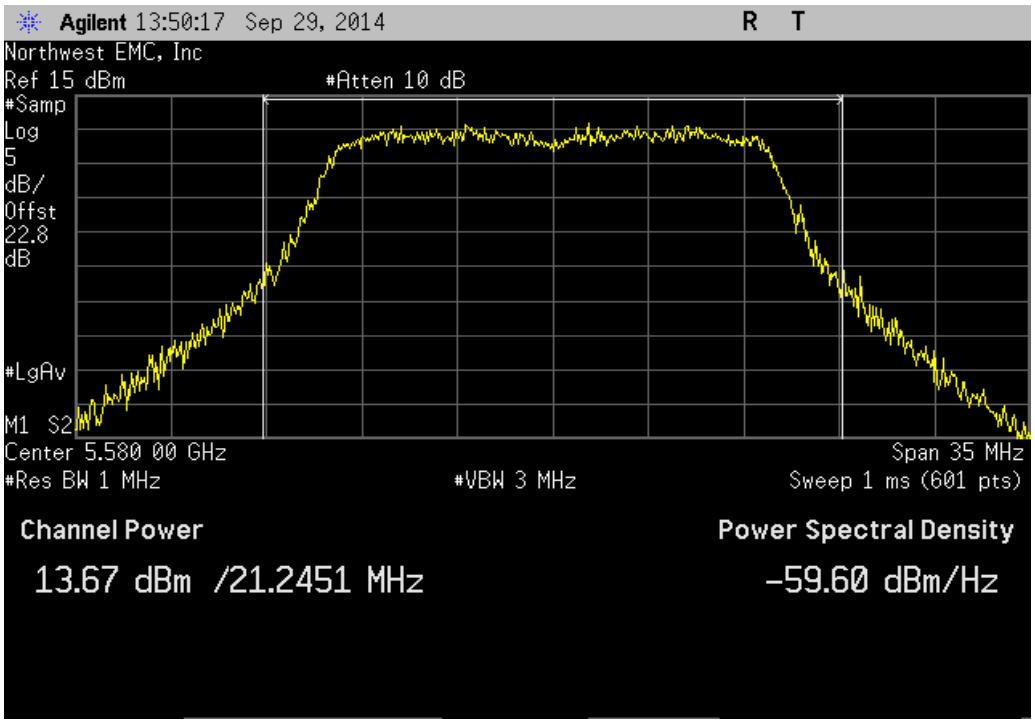


802.11(a) 36 Mbps, 5470 - 5725 MHz Band, Channel 100, Low Channel

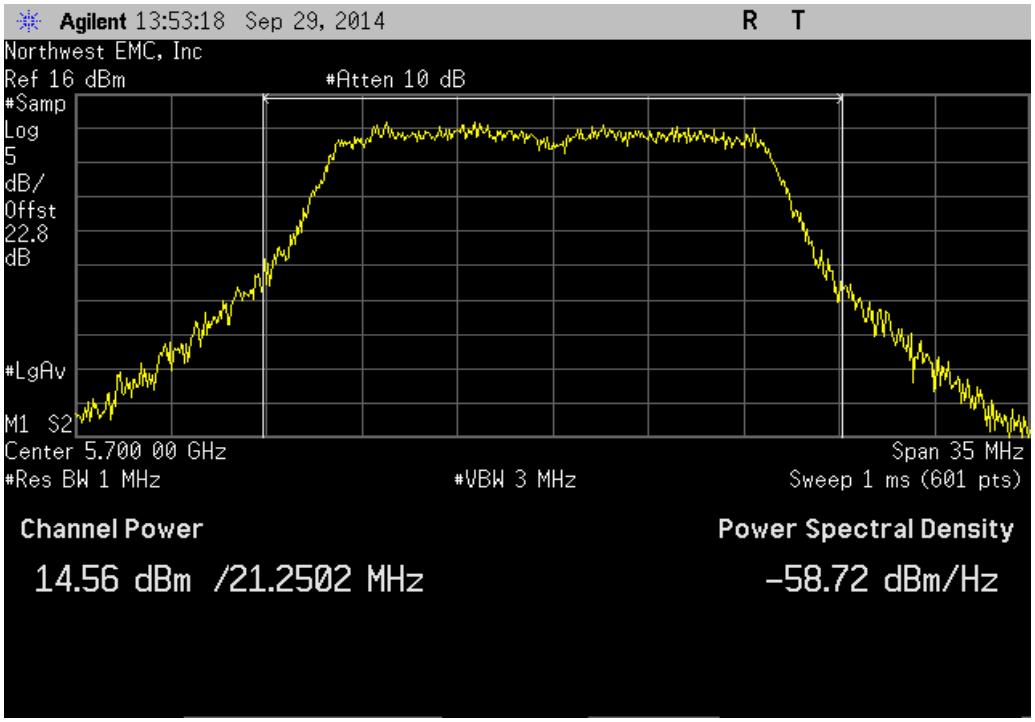
				Value	Limit (<)	Result
				10.484 dBm	24 dBm	Pass



802.11(a) 36 Mbps, 5470 - 5725 MHz Band, Channel 116, Mid Channel						
				Value	Limit (<)	Result
				13.668 dBm	24 dBm	Pass

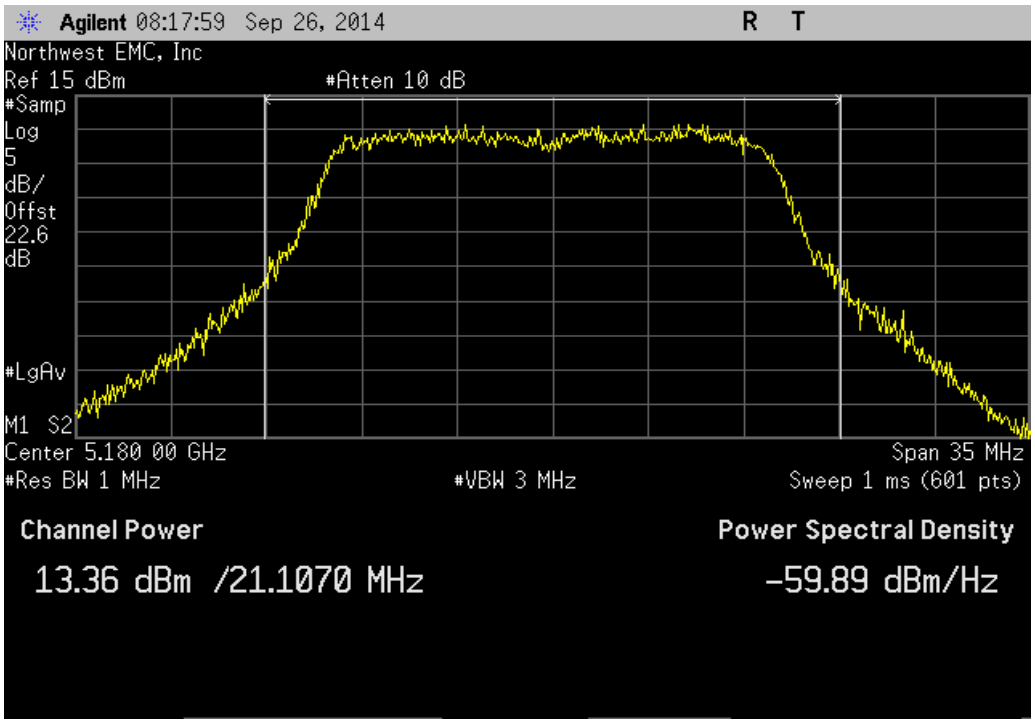


802.11(a) 36 Mbps, 5470 - 5725 MHz Band, Channel 140, High Channel						
				Value	Limit (<)	Result
				14.556 dBm	24 dBm	Pass

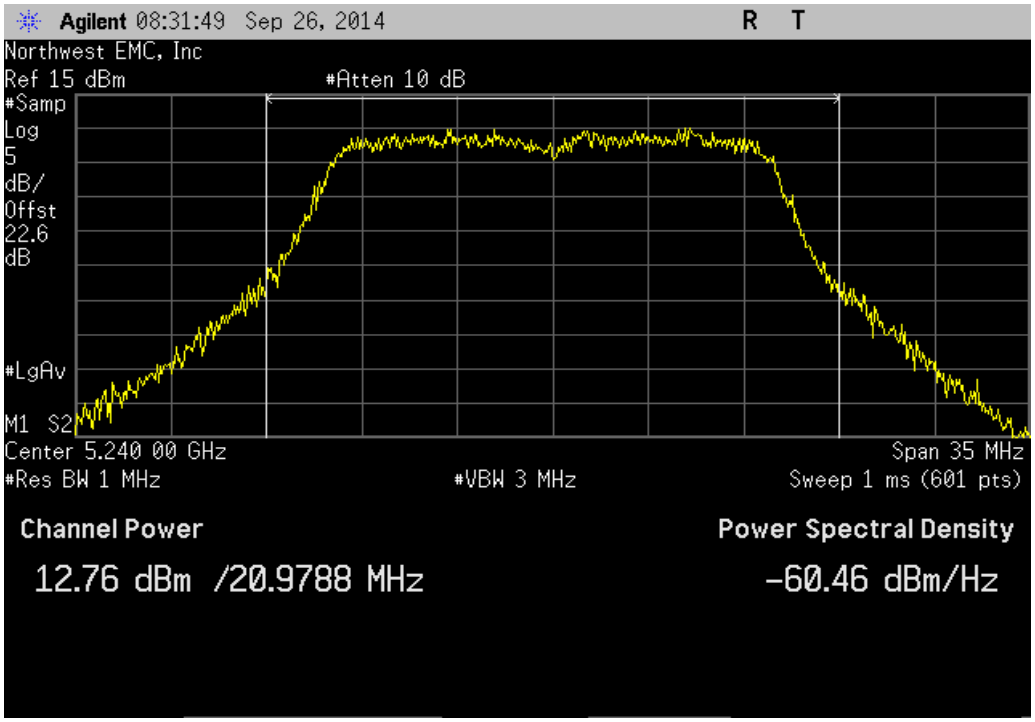


PEAK TRANSMIT POWER

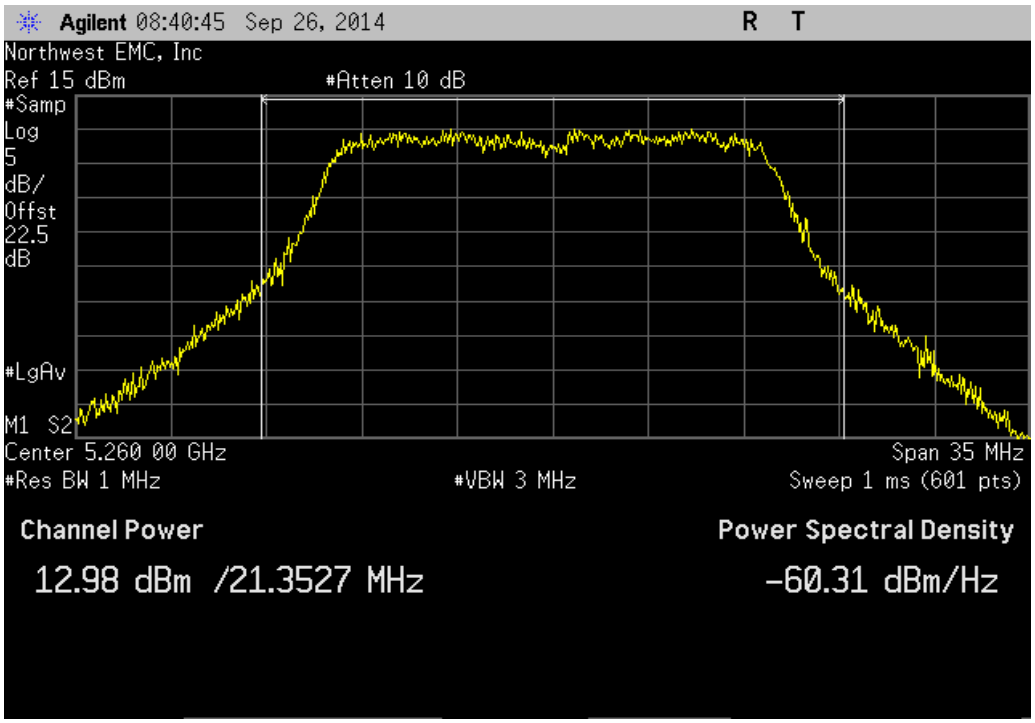
802.11(a) 54 Mbps, 5150 - 5250 MHz Band, Channel 36, Low Channel						
				Value	Limit (<)	Result
				13.357 dBm	17 dBm	Pass



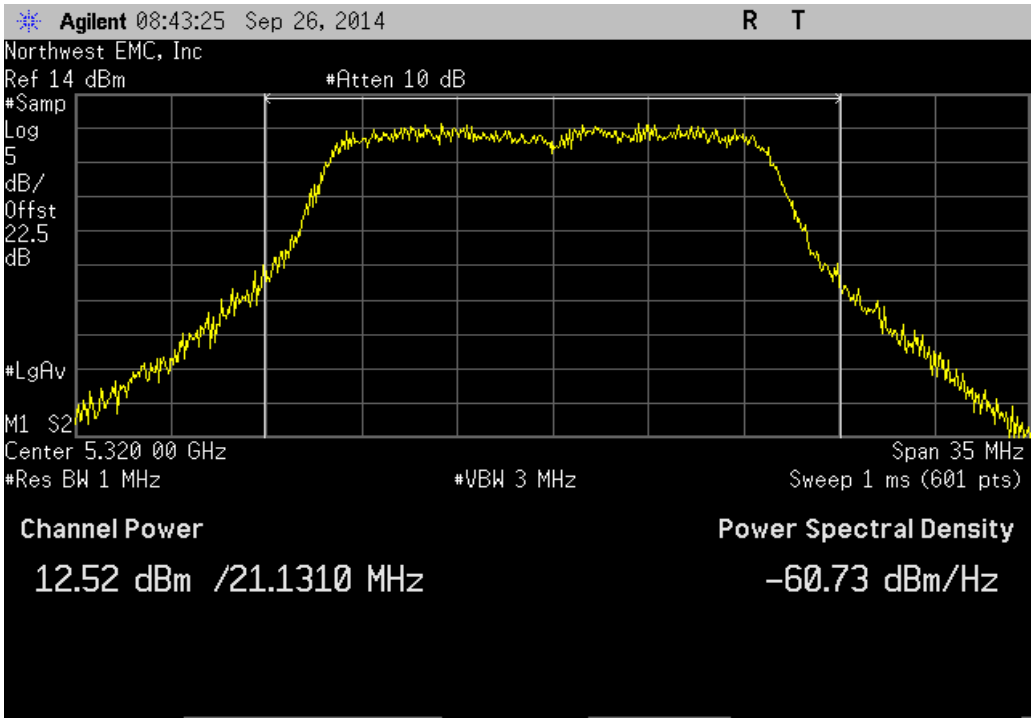
802.11(a) 54 Mbps, 5150 - 5250 MHz Band, Channel 48, High Channel						
				Value	Limit (<)	Result
				12.758 dBm	17 dBm	Pass



802.11(a) 54 Mbps, 5250 - 5350 MHz Band, Channel 52, Low Channel						
				Value	Limit (<)	Result
				12.98 dBm	24 dBm	Pass

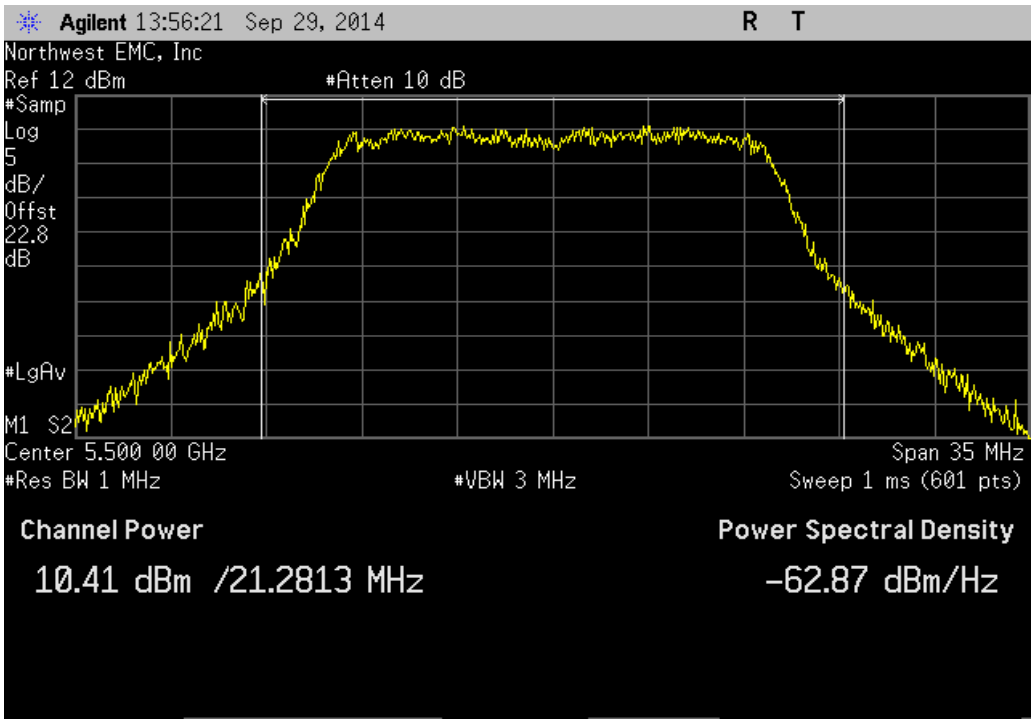


802.11(a) 54 Mbps, 5250 - 5350 MHz Band, Channel 64, High Channel						
				Value	Limit (<)	Result
				12.518 dBm	24 dBm	Pass

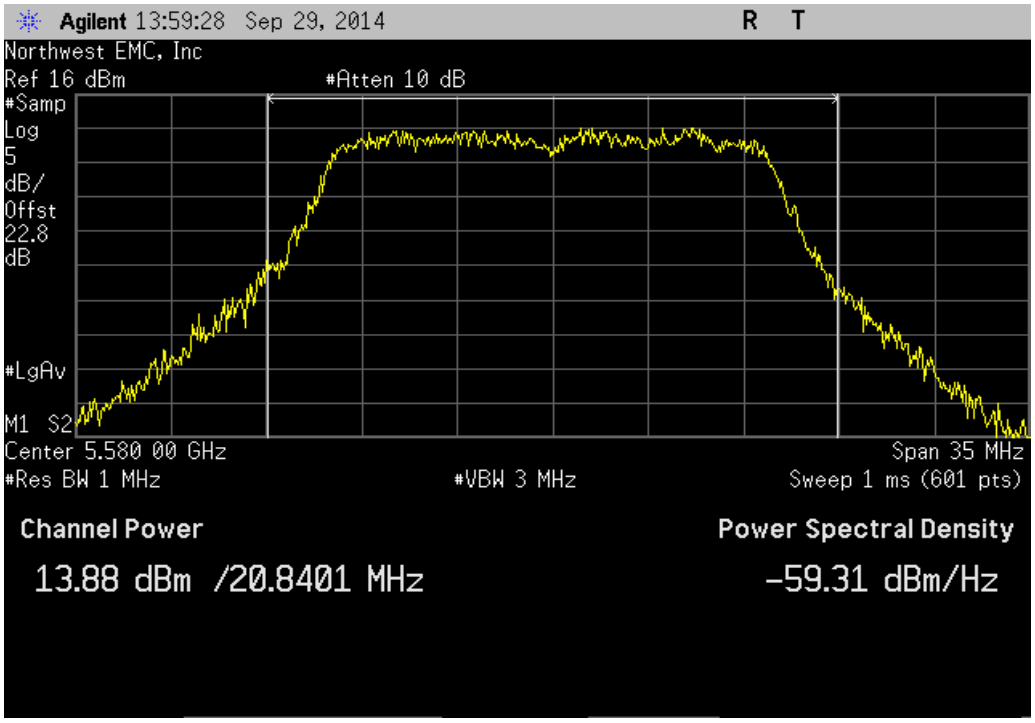


PEAK TRANSMIT POWER

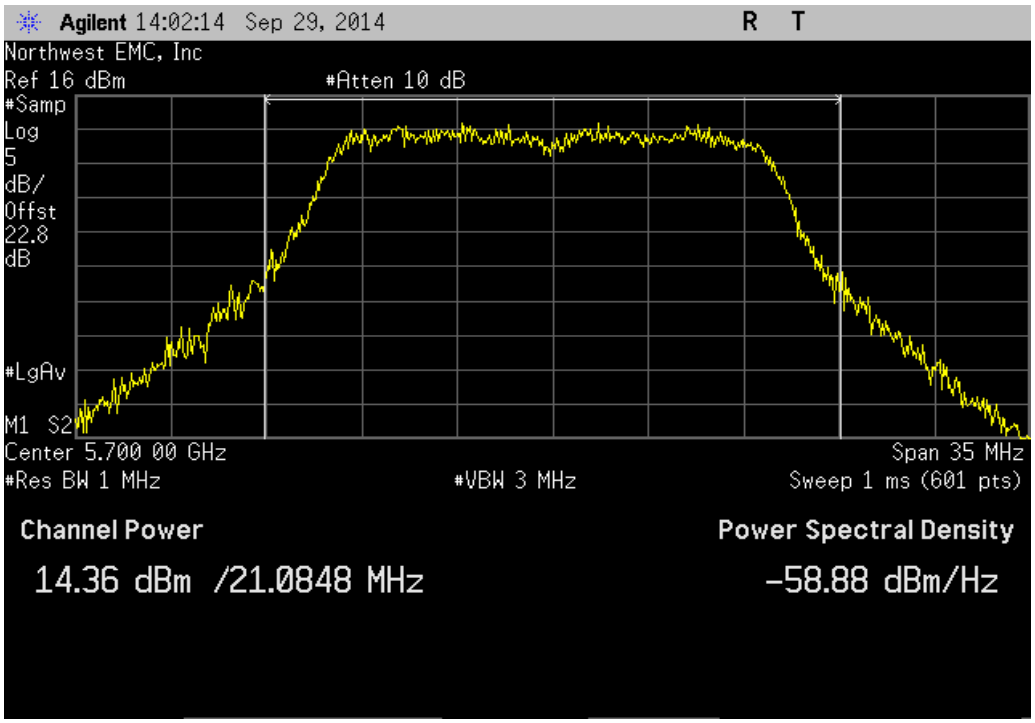
802.11(a) 54 Mbps, 5470 - 5725 MHz Band, Channel 100, Low Channel						
				Value	Limit (<)	Result
				10.41 dBm	24 dBm	Pass



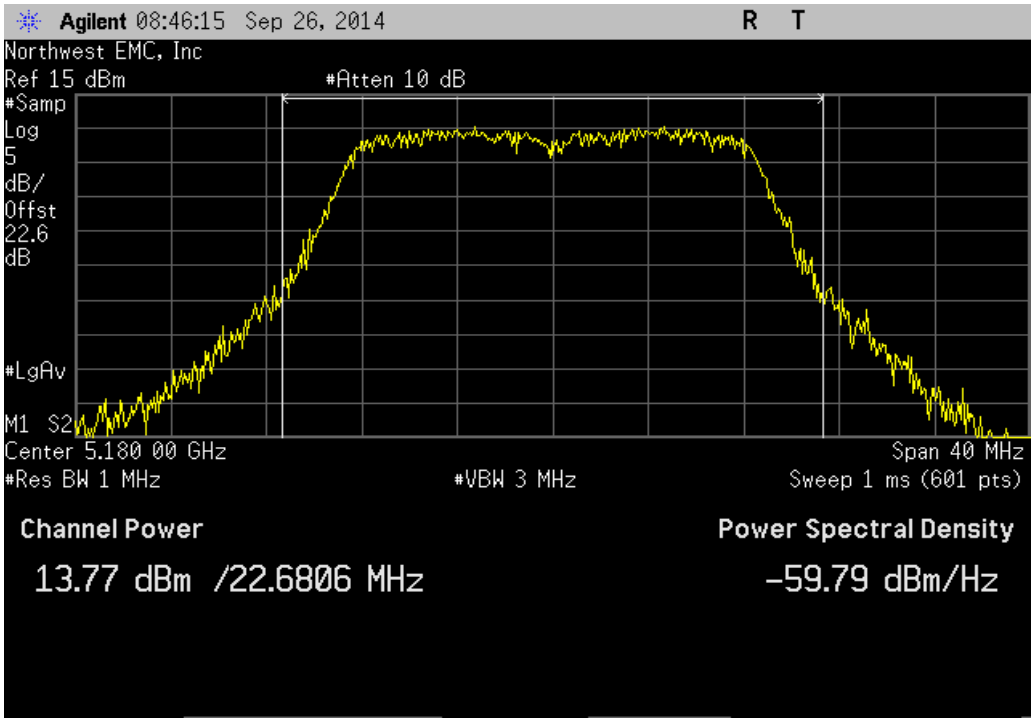
802.11(a) 54 Mbps, 5470 - 5725 MHz Band, Channel 116, Mid Channel						
				Value	Limit (<)	Result
				13.882 dBm	24 dBm	Pass



802.11(a) 54 Mbps, 5470 - 5725 MHz Band, Channel 140, High Channel						
				Value	Limit (<)	Result
				14.355 dBm	24 dBm	Pass

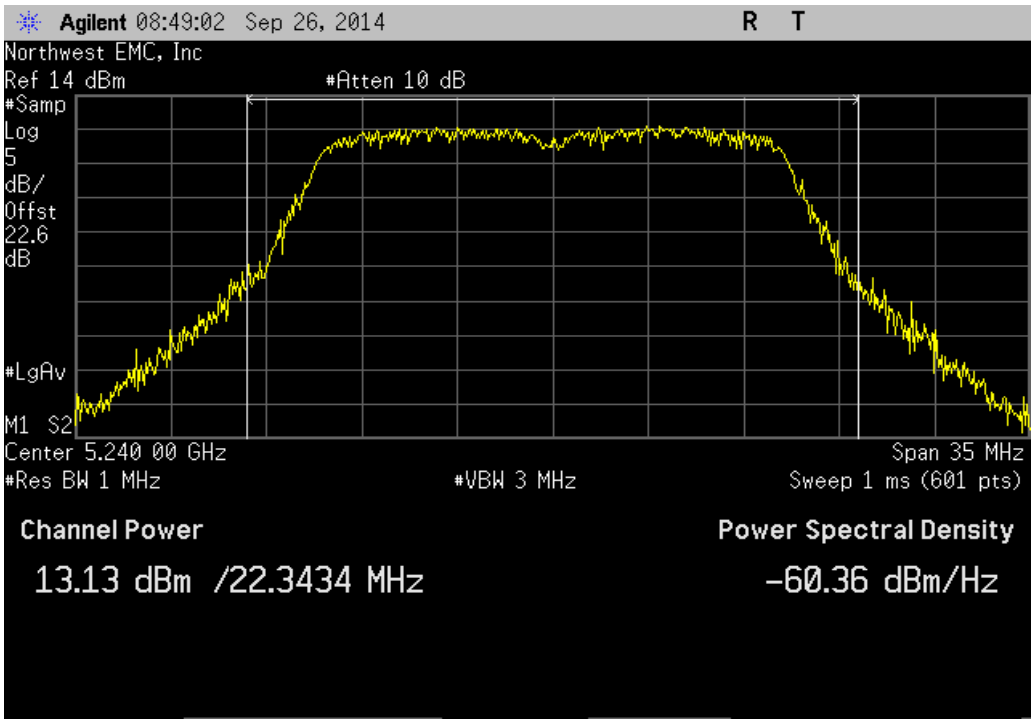


802.11(n) MCS0, 5150 - 5250 MHz Band, Channel 36, Low Channel						
				Value	Limit (<)	Result
				13.769 dBm	17 dBm	Pass



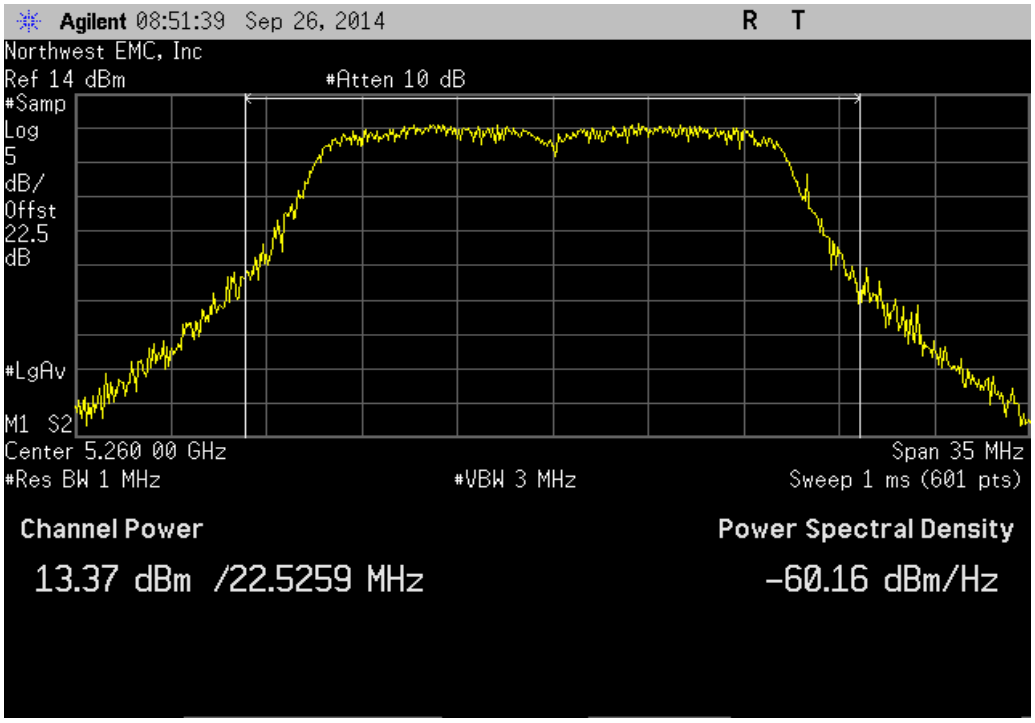
802.11(n) MCS0, 5150 - 5250 MHz Band, Channel 48, High Channel

				Value	Limit (<)	Result
				13.131 dBm	17 dBm	Pass

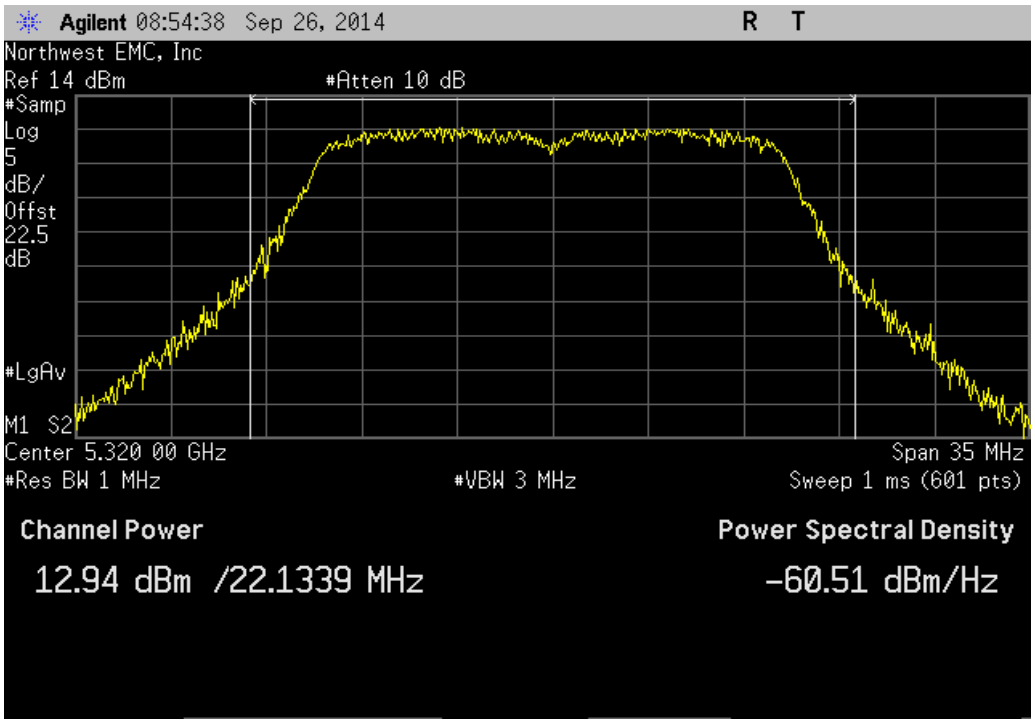


802.11(n) MCS0, 5250 - 5350 MHz Band, Channel 52, Low Channel

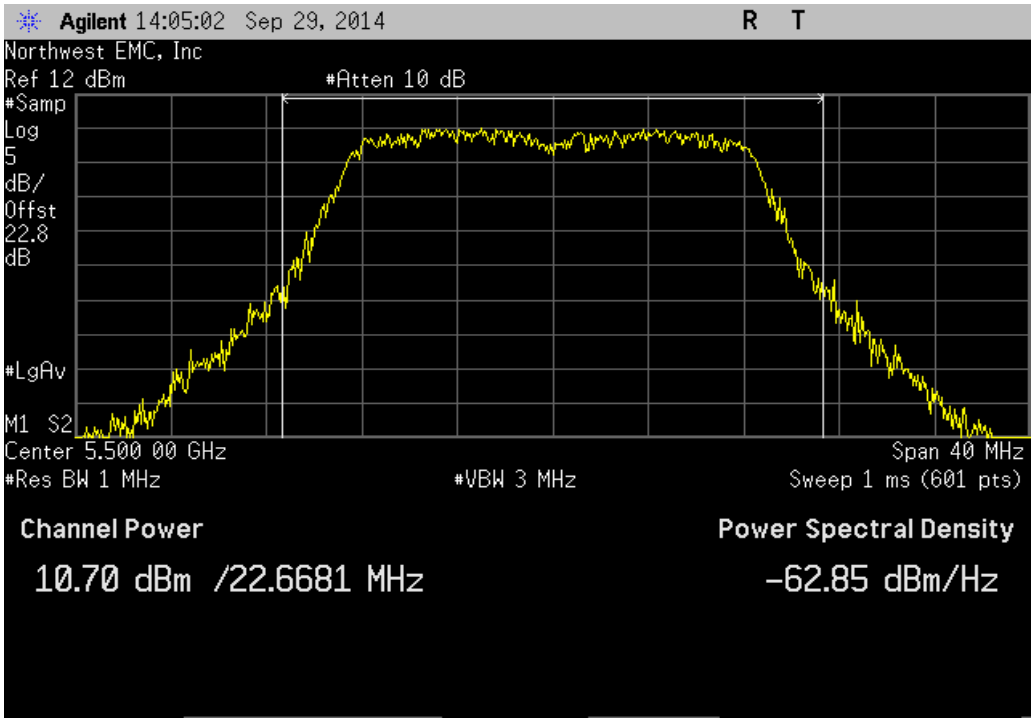
				Value	Limit (<)	Result
				13.369 dBm	24 dBm	Pass



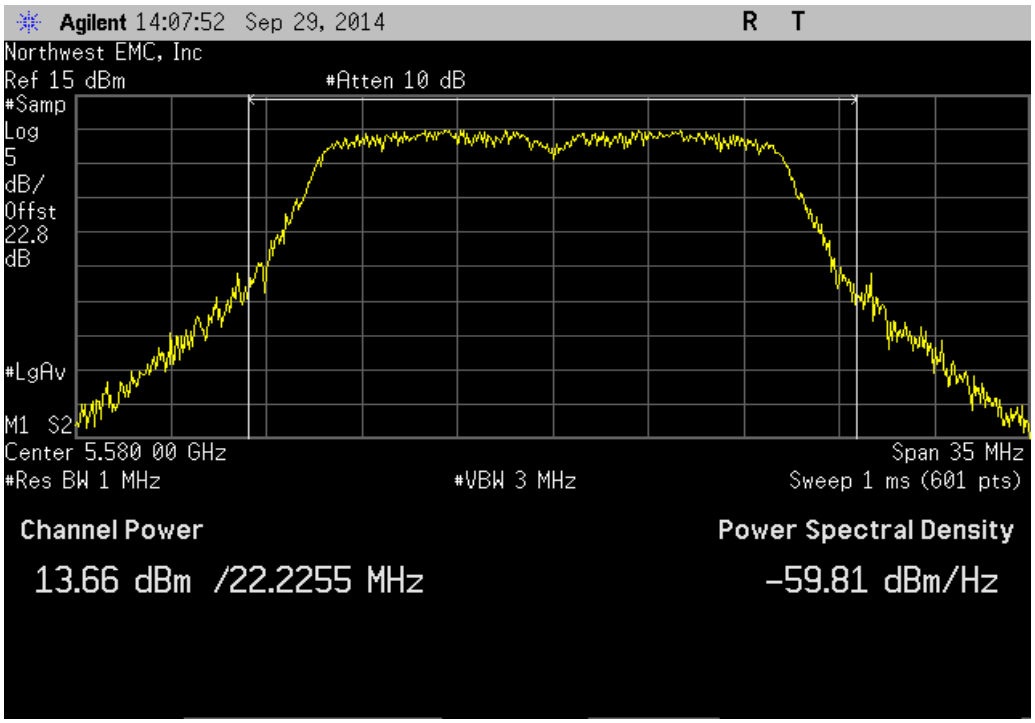
802.11(n) MCS0, 5250 - 5350 MHz Band, Channel 64, High Channel						
				Value	Limit (<)	Result
				12.94 dBm	24 dBm	Pass



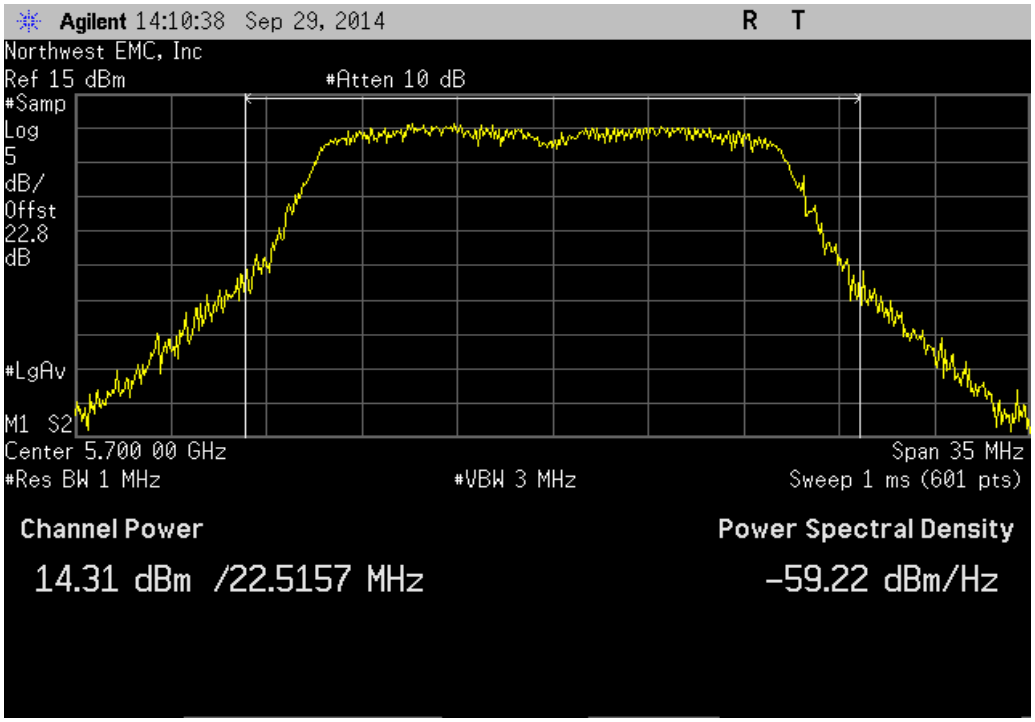
802.11(n) MCS0, 5470 - 5725 MHz Band, Channel 100, Low Channel						
				Value	Limit (<)	Result
				10.704 dBm	24 dBm	Pass



802.11(n) MCS0, 5470 - 5725 MHz Band, Channel 116, Mid Channel						
				Value	Limit (<)	Result
				13.658 dBm	24 dBm	Pass

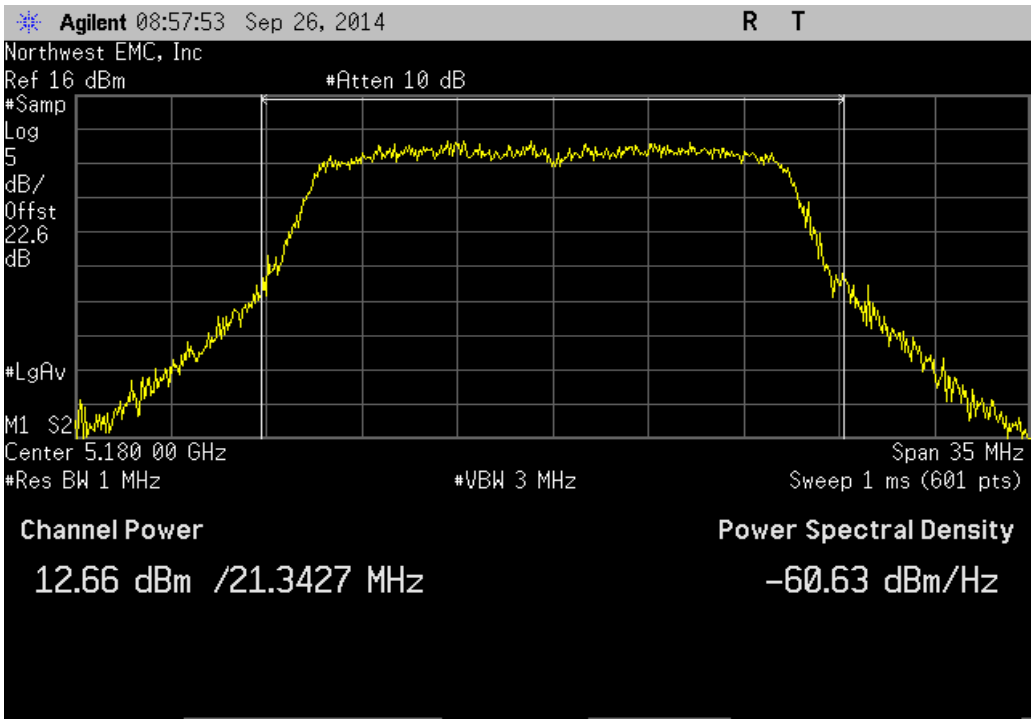


802.11(n) MCS0, 5470 - 5725 MHz Band, Channel 140, High Channel						
				Value	Limit (<)	Result
				14.308 dBm	24 dBm	Pass

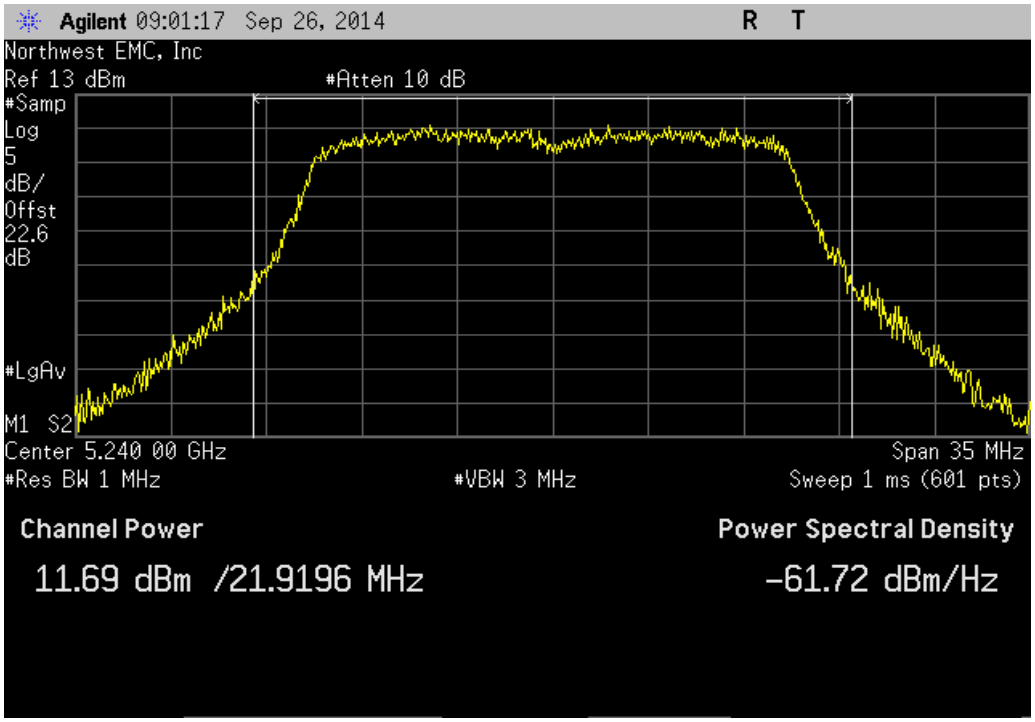


PEAK TRANSMIT POWER

802.11(n) MCS7, 5150 - 5250 MHz Band, Channel 36, Low Channel						
				Value	Limit (<)	Result
				12.661 dBm	17 dBm	Pass

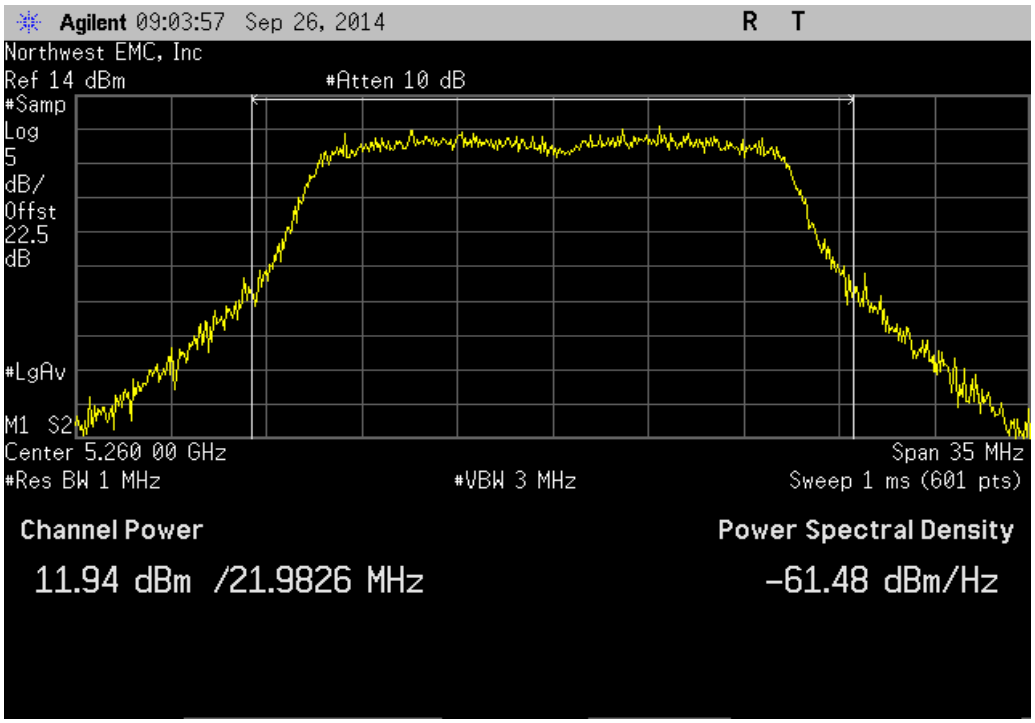


802.11(n) MCS7, 5150 - 5250 MHz Band, Channel 48, High Channel						
				Value	Limit (<)	Result
				11.686 dBm	17 dBm	Pass



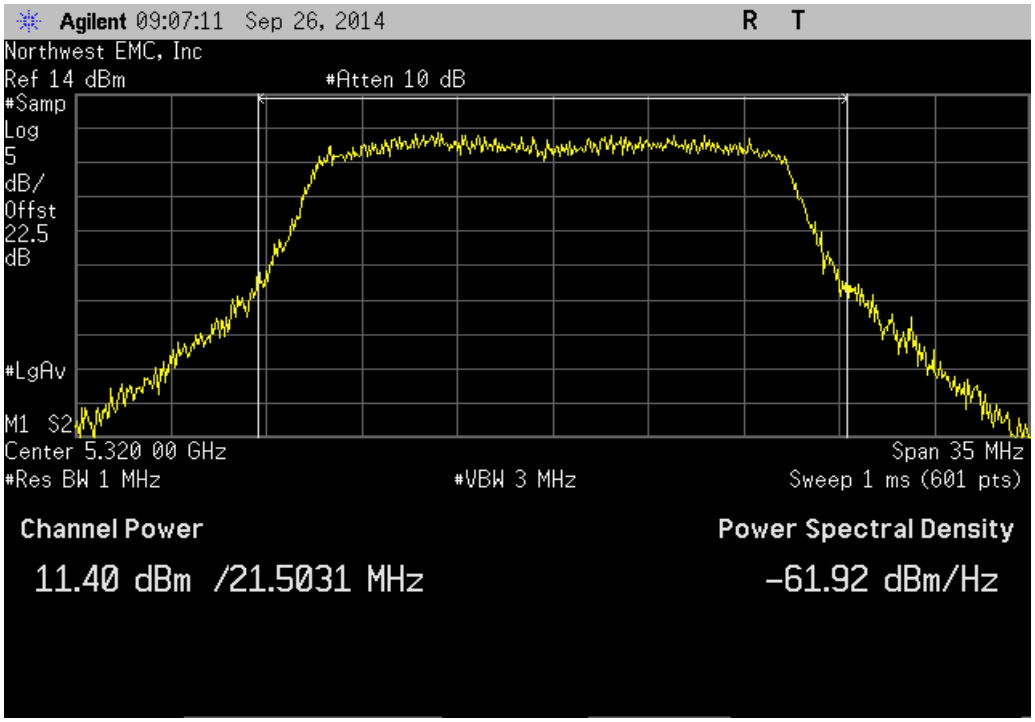
802.11(n) MCS7, 5250 - 5350 MHz Band, Channel 52, Low Channel

				Value	Limit (<)	Result
				11.944 dBm	24 dBm	Pass



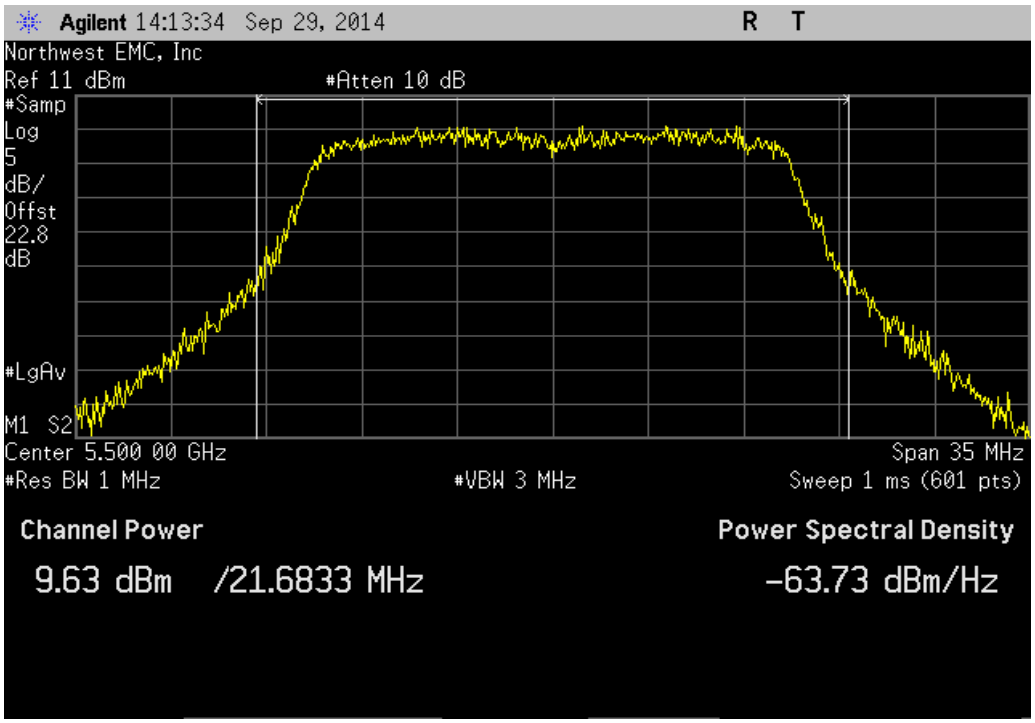
802.11(n) MCS7, 5250 - 5350 MHz Band, Channel 64, High Channel

				Value	Limit (<)	Result
				11.404 dBm	24 dBm	Pass

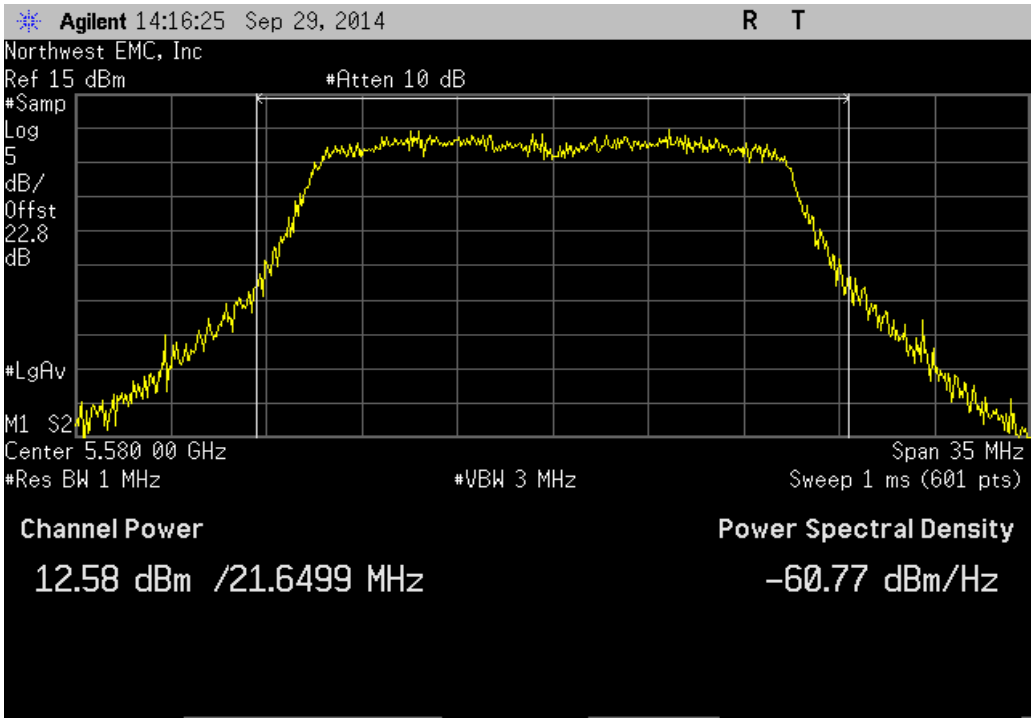


PEAK TRANSMIT POWER

802.11(n) MCS7, 5470 - 5725 MHz Band, Channel 100, Low Channel						
				Value	Limit (<)	Result
				9.629 dBm	24 dBm	Pass

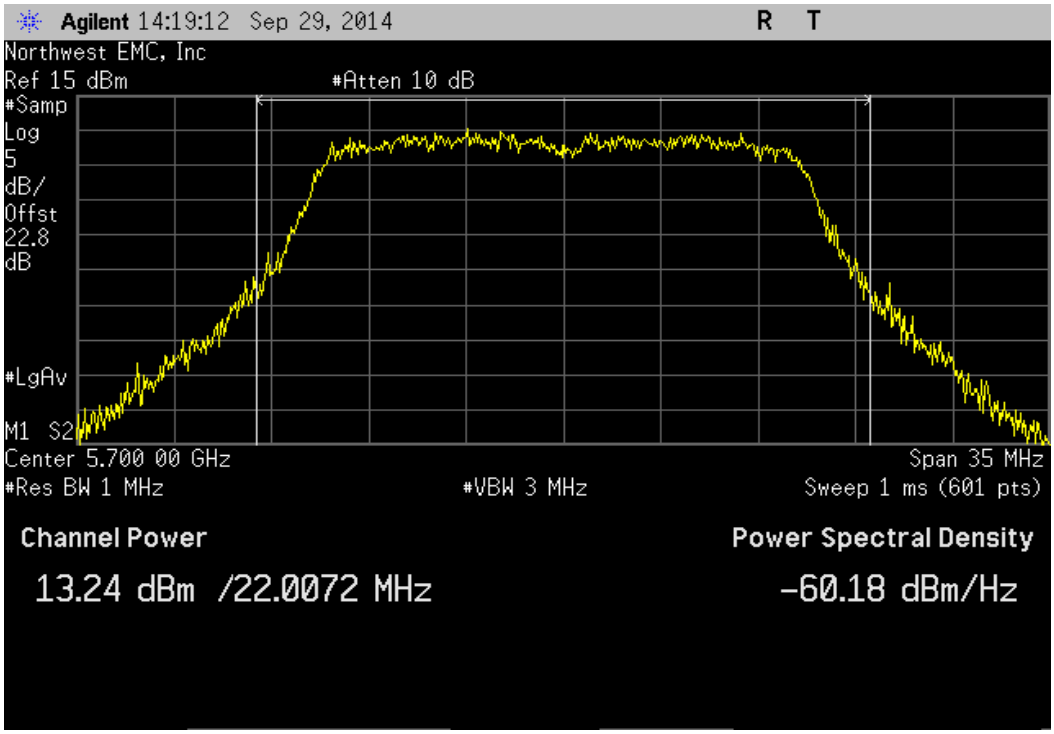


802.11(n) MCS7, 5470 - 5725 MHz Band, Channel 116, Mid Channel						
				Value	Limit (<)	Result
				12.584 dBm	24 dBm	Pass



PEAK TRANSMIT POWER

802.11(n) MCS7, 5470 - 5725 MHz Band, Channel 140, High Channel						
				Value	Limit (<)	Result
				13.243 dBm	24 dBm	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
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	14
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
Spectrum Analyzer	Agilent	E4440A	AAX	4/28/2014	12

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:	ConnectCore i.MX6 WiFi/Bluetooth			Work Order:	ETHE0009
Serial Number:	00409D 7C03B4			Date:	09/29/14
Customer:	Etherios Design Solutions			Temperature:	22.7°C
Attendees:	None			Humidity:	47%
Project:	None			Barometric Pres.:	1023.7
Tested by:	Trevor Buls	Power:	5VDC	Job Site:	MN08

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

COMMENTS

None

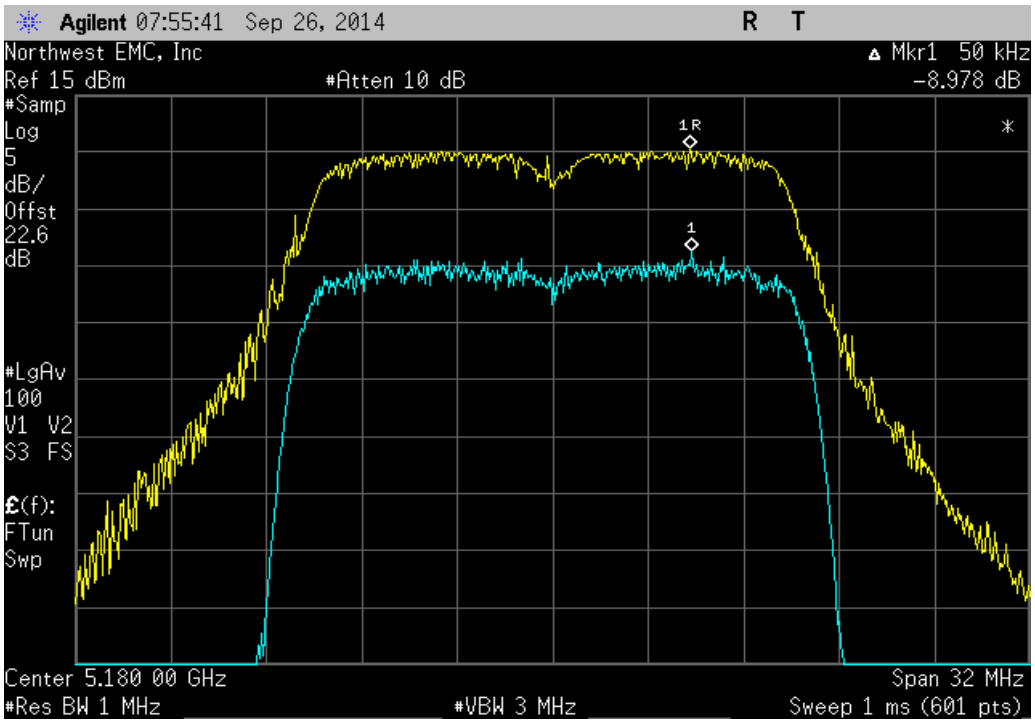
DEVIATIONS FROM TEST STANDARD

None

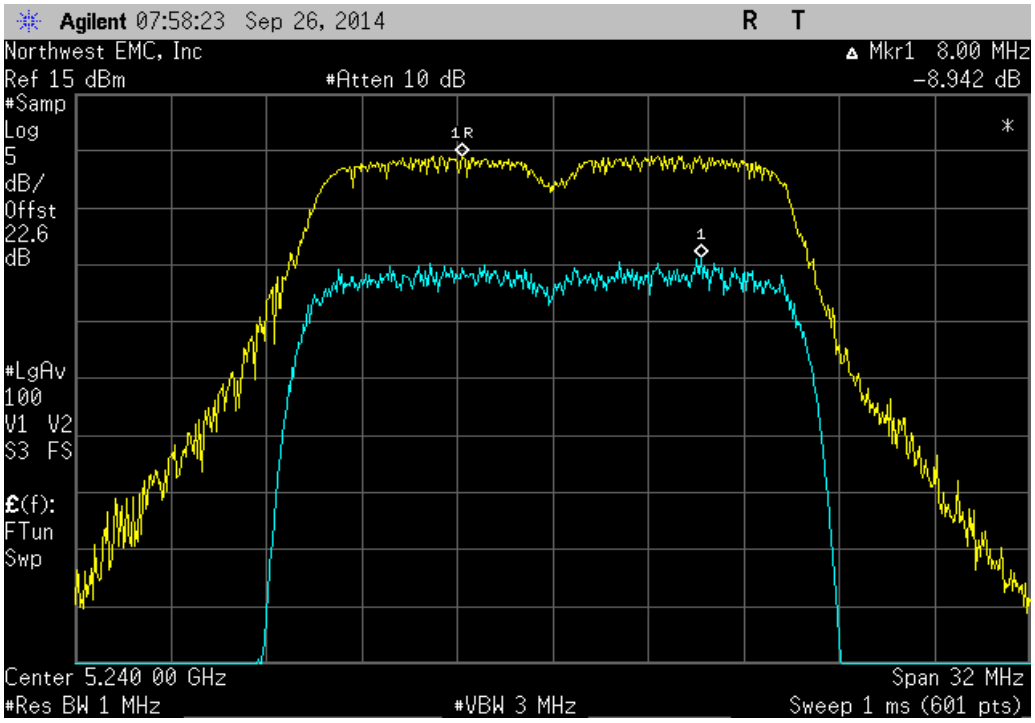
Configuration #	1	Signature	Trevor Buls

		Value (dB)	Limit ≤ (dB)	Results
802.11(a) 6 Mbps				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	8.978	13	Pass
	Channel 48, High Channel	8.942	13	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	9.665	13	Pass
	Channel 64, High Channel	8.871	13	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	9.19	13	Pass
	Channel 116, Mid Channel	9.194	13	Pass
	Channel 140, High Channel	9.281	13	Pass
802.11(a) 36 Mbps				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	10.884	13	Pass
	Channel 48, High Channel	10.165	13	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	10.586	13	Pass
	Channel 64, High Channel	9.988	13	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	10.164	13	Pass
	Channel 116, Mid Channel	10.046	13	Pass
	Channel 140, High Channel	10.345	13	Pass
802.11(a) 54 Mbps				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	10.348	13	Pass
	Channel 48, High Channel	11.563	13	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	10.059	13	Pass
	Channel 64, High Channel	11.107	13	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	11.213	13	Pass
	Channel 116, Mid Channel	10.887	13	Pass
	Channel 140, High Channel	11.165	13	Pass
802.11(n) MCS0				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	9.33	13	Pass
	Channel 48, High Channel	9.523	13	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	9.287	13	Pass
	Channel 64, High Channel	9.495	13	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	9.277	13	Pass
	Channel 116, Mid Channel	9.463	13	Pass
	Channel 140, High Channel	9.443	13	Pass
802.11(n) MCS7				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	10.866	13	Pass
	Channel 48, High Channel	9.855	13	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	10.357	13	Pass
	Channel 64, High Channel	9.925	13	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	10.626	13	Pass
	Channel 116, Mid Channel	10.325	13	Pass
	Channel 140, High Channel	9.968	13	Pass

802.11(a) 6 Mbps, 5150 - 5250 MHz Band, Channel 36, Low Channel						
				Value (dB)	Limit ≤ (dB)	Results
				8.978	13	Pass

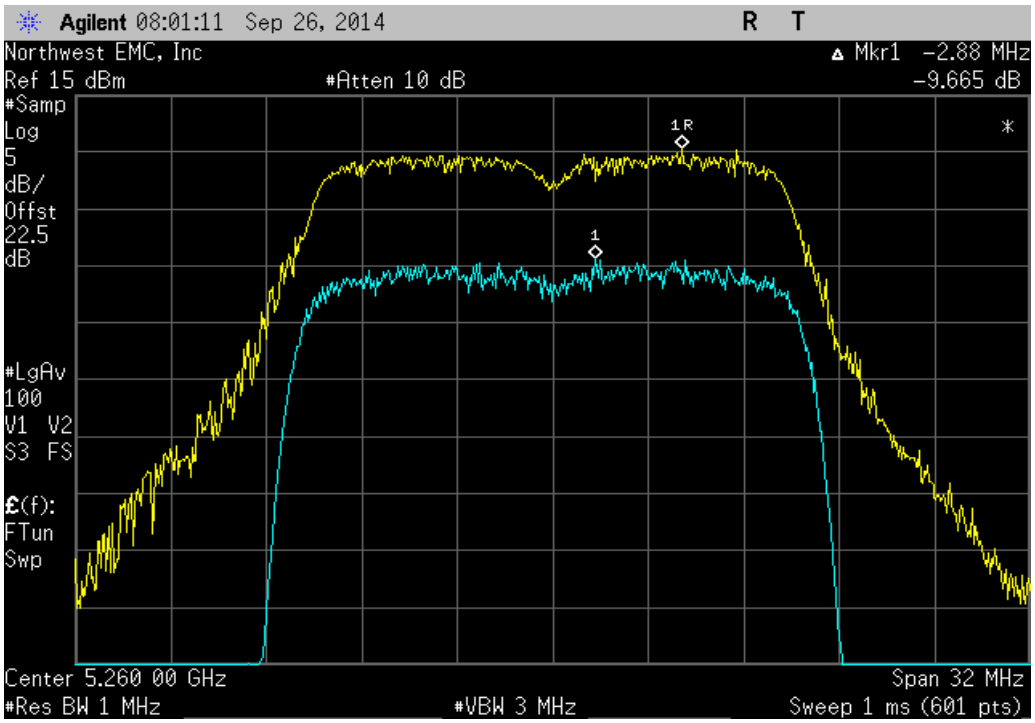


802.11(a) 6 Mbps, 5150 - 5250 MHz Band, Channel 48, High Channel						
				Value (dB)	Limit ≤ (dB)	Results
				8.942	13	Pass

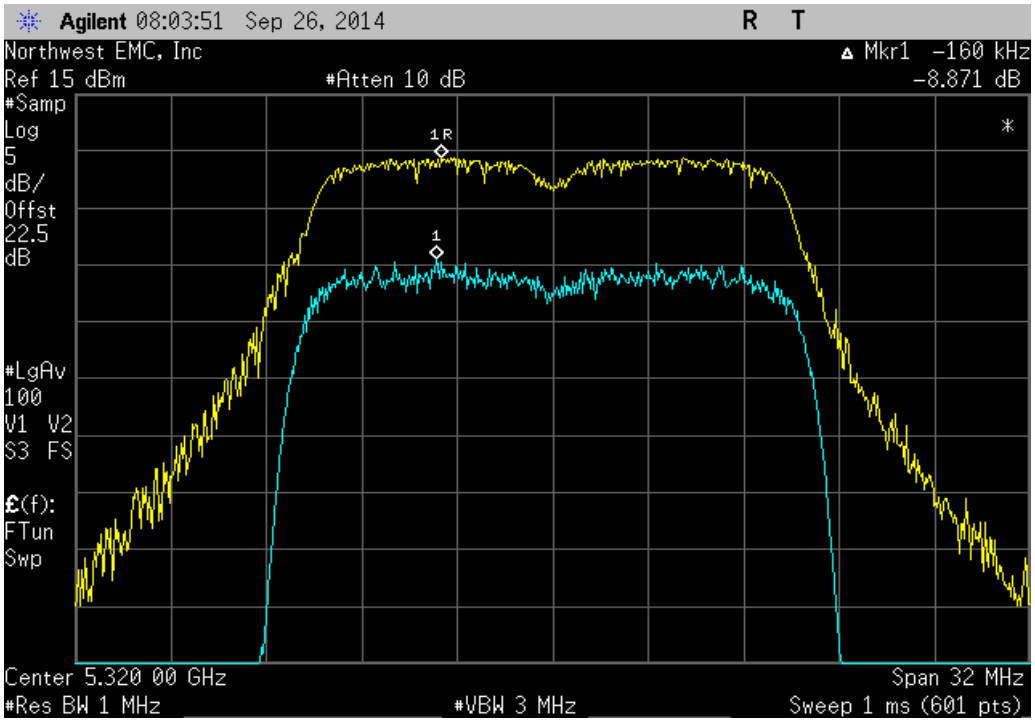


PEAK EXCURSION OF THE MODULATION ENVELOPE

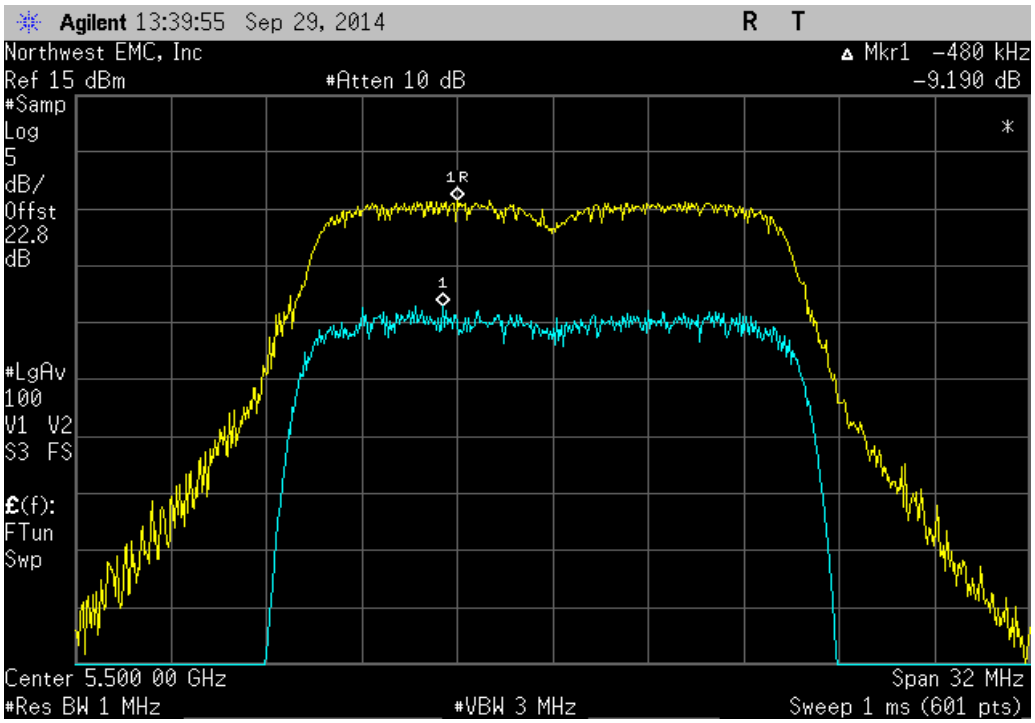
802.11(a) 6 Mbps, 5250 - 5350 MHz Band, Channel 52, Low Channel						
				Value (dB)	Limit ≤ (dB)	Results
				9.665	13	Pass



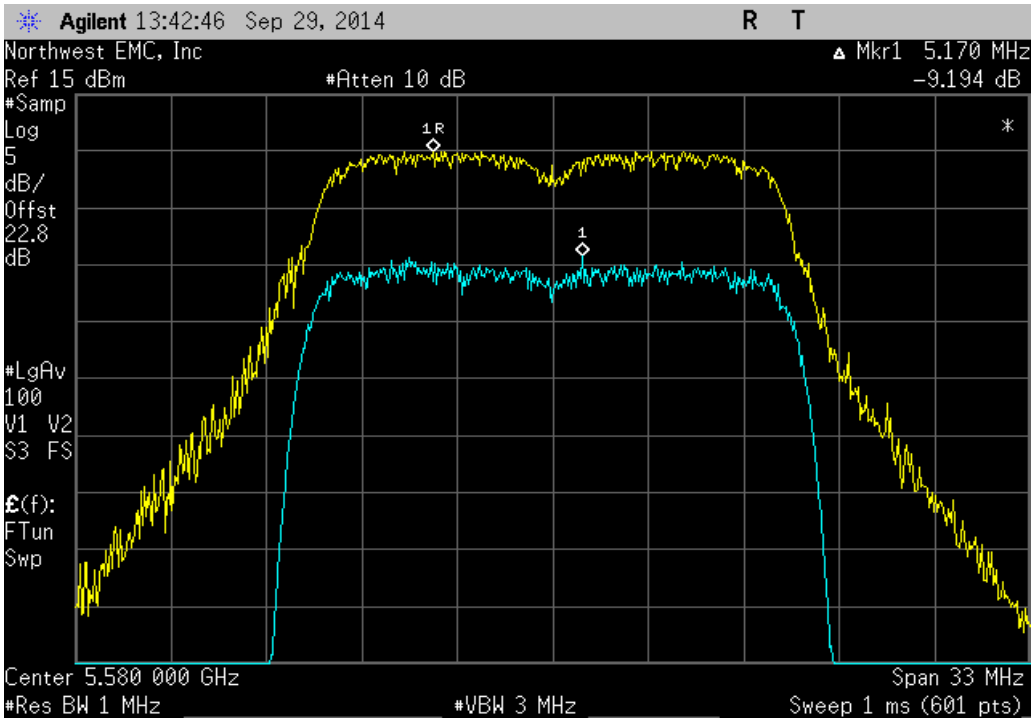
802.11(a) 6 Mbps, 5250 - 5350 MHz Band, Channel 64, High Channel						
				Value (dB)	Limit ≤ (dB)	Results
				8.871	13	Pass



802.11(a) 6 Mbps, 5470 - 5725 MHz Band, Channel 100, Low Channel						
				Value (dB)	Limit ≤ (dB)	Results
				9.19	13	Pass

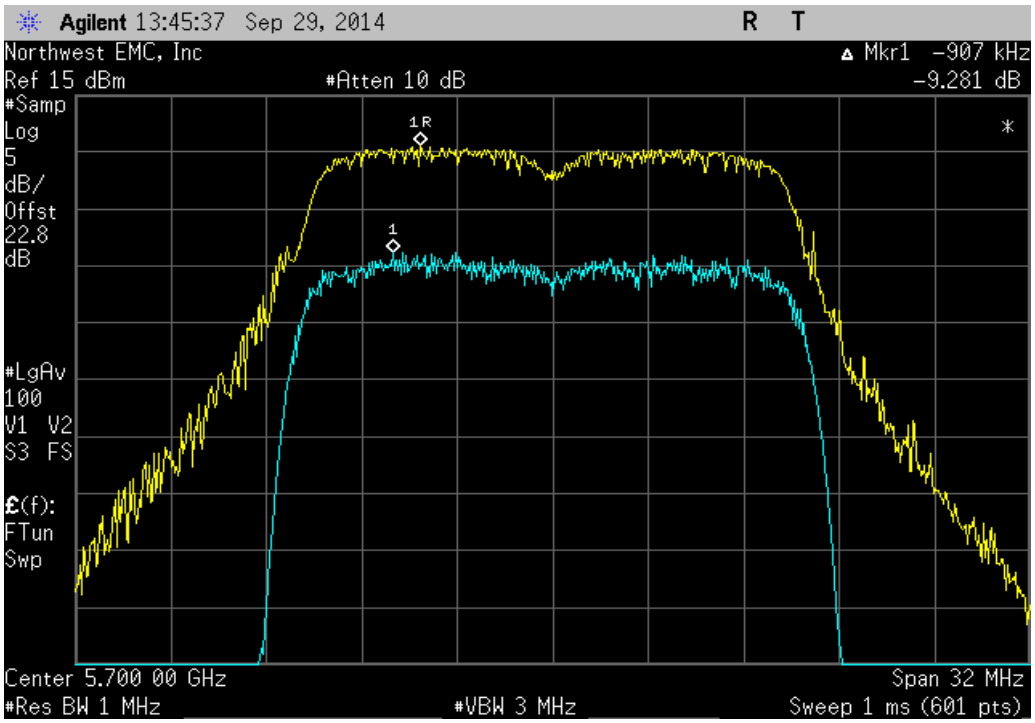


802.11(a) 6 Mbps, 5470 - 5725 MHz Band, Channel 116, Mid Channel						
				Value (dB)	Limit ≤ (dB)	Results
				9.194	13	Pass



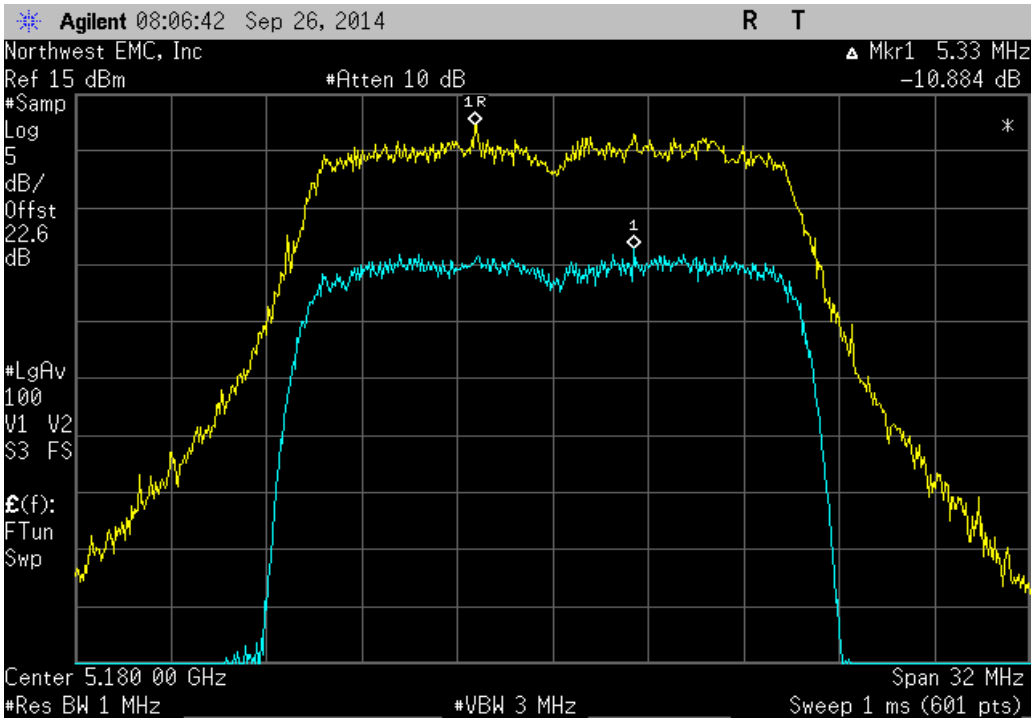
802.11(a) 6 Mbps, 5470 - 5725 MHz Band, Channel 140, High Channel

				Value (dB)	Limit ≤ (dB)	Results
				9.281	13	Pass

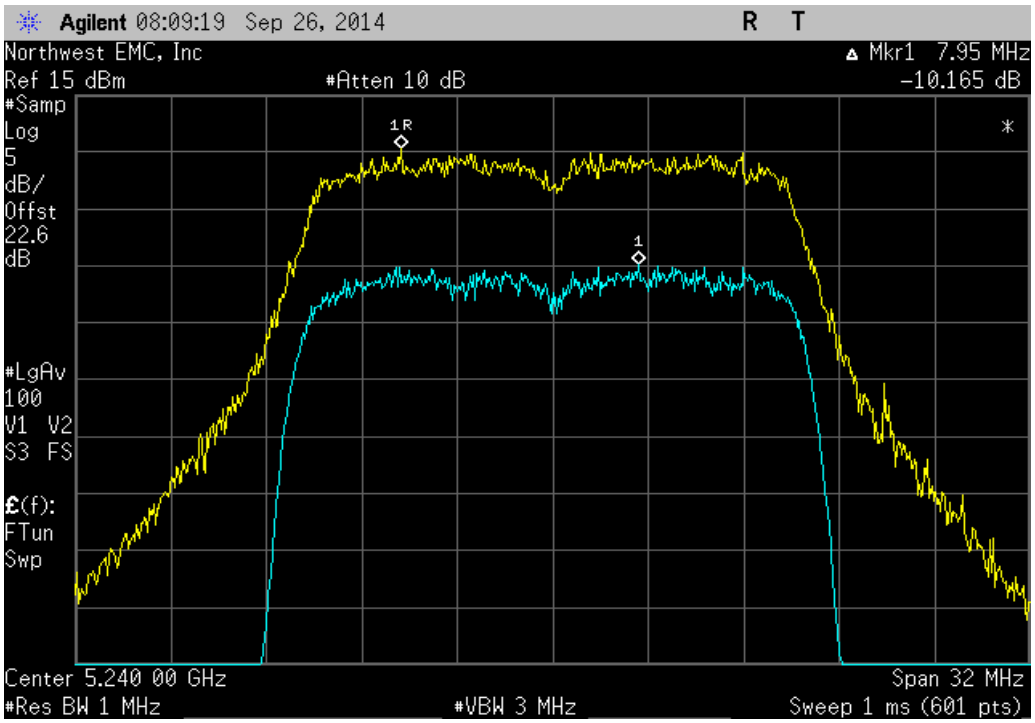


802.11(a) 36 Mbps, 5150 - 5250 MHz Band, Channel 36, Low Channel

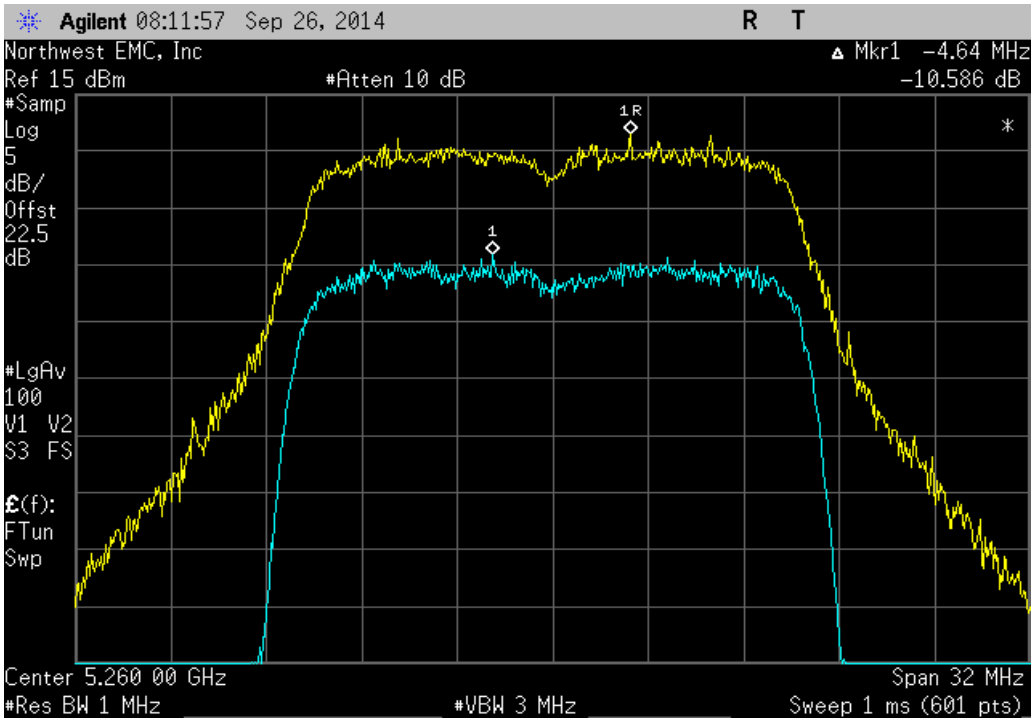
				Value (dB)	Limit ≤ (dB)	Results
				10.884	13	Pass



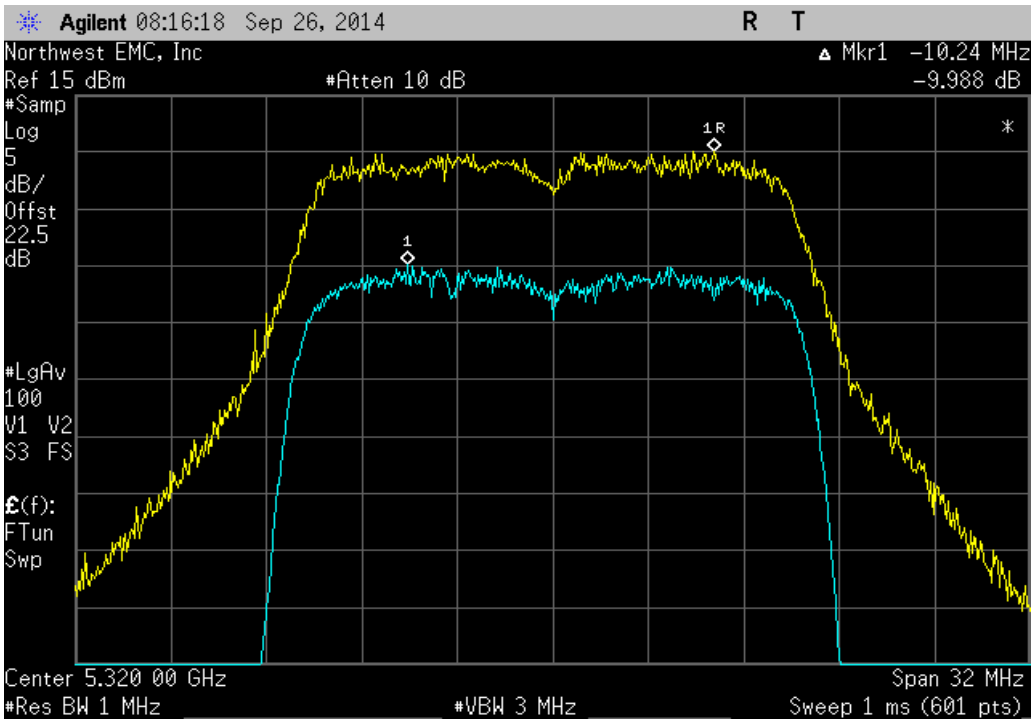
802.11(a) 36 Mbps, 5150 - 5250 MHz Band, Channel 48, High Channel						
				Value (dB)	Limit ≤ (dB)	Results
				10.165	13	Pass



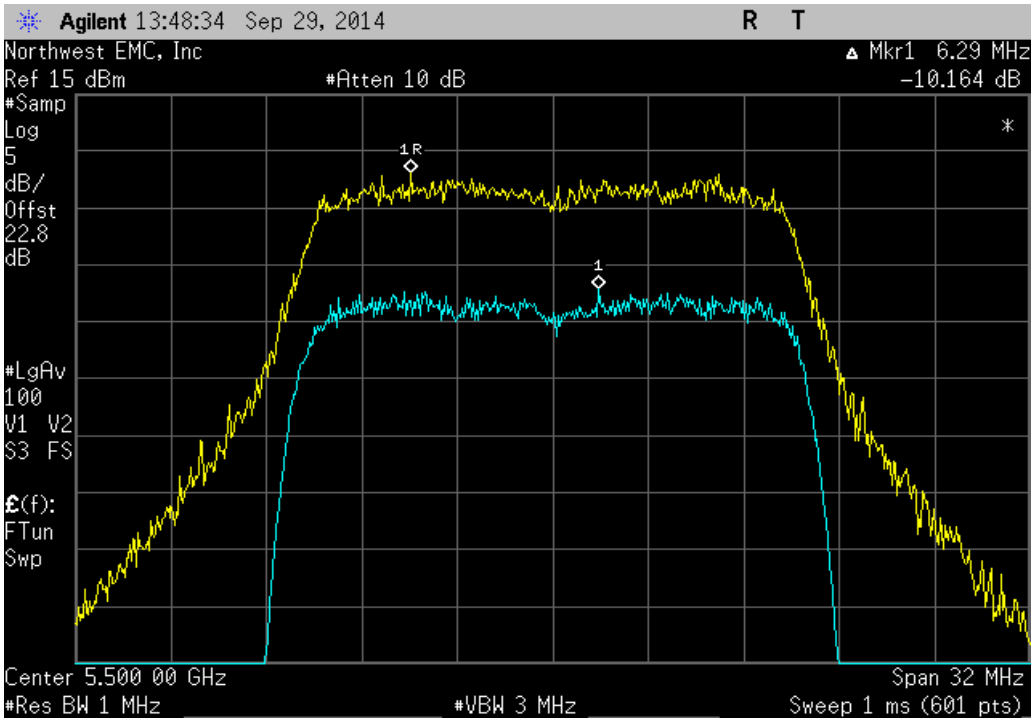
802.11(a) 36 Mbps, 5250 - 5350 MHz Band, Channel 52, Low Channel						
				Value (dB)	Limit ≤ (dB)	Results
				10.586	13	Pass



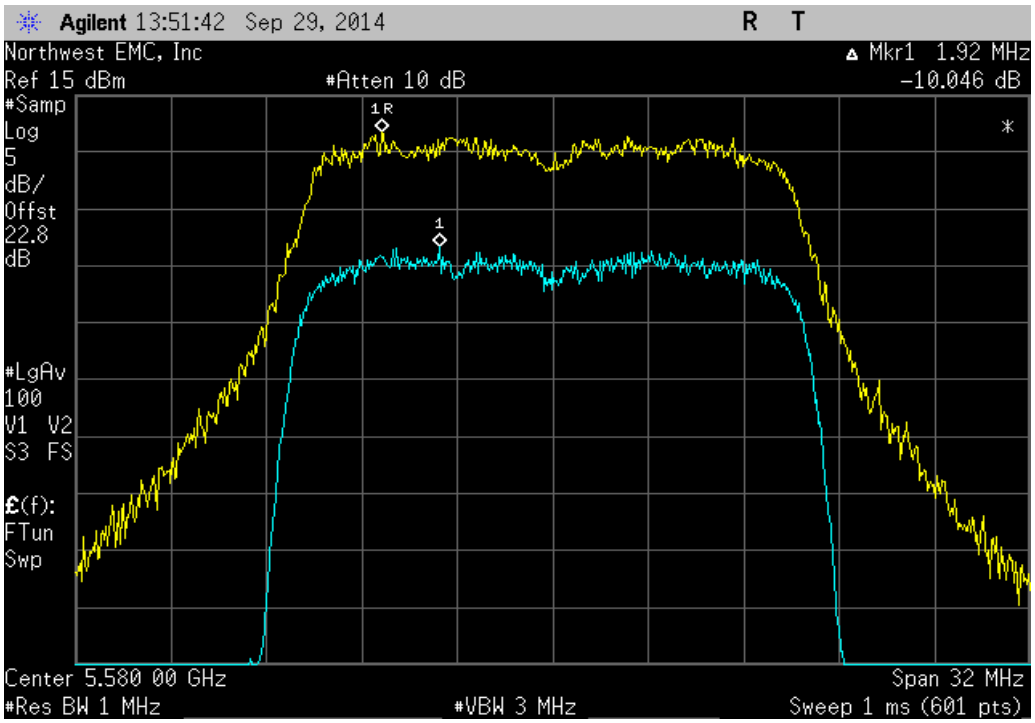
802.11(a) 36 Mbps, 5250 - 5350 MHz Band, Channel 64, High Channel						
				Value (dB)	Limit ≤ (dB)	Results
				9.988	13	Pass



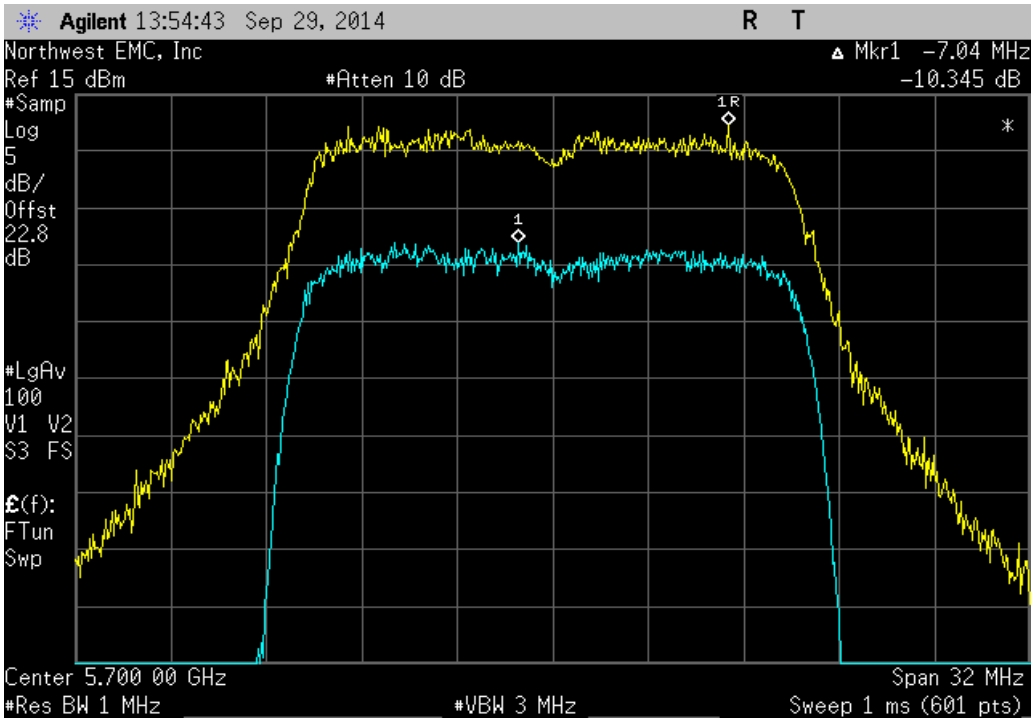
802.11(a) 36 Mbps, 5470 - 5725 MHz Band, Channel 100, Low Channel						
				Value (dB)	Limit ≤ (dB)	Results
				10.164	13	Pass



802.11(a) 36 Mbps, 5470 - 5725 MHz Band, Channel 116, Mid Channel						
				Value (dB)	Limit ≤ (dB)	Results
				10.046	13	Pass

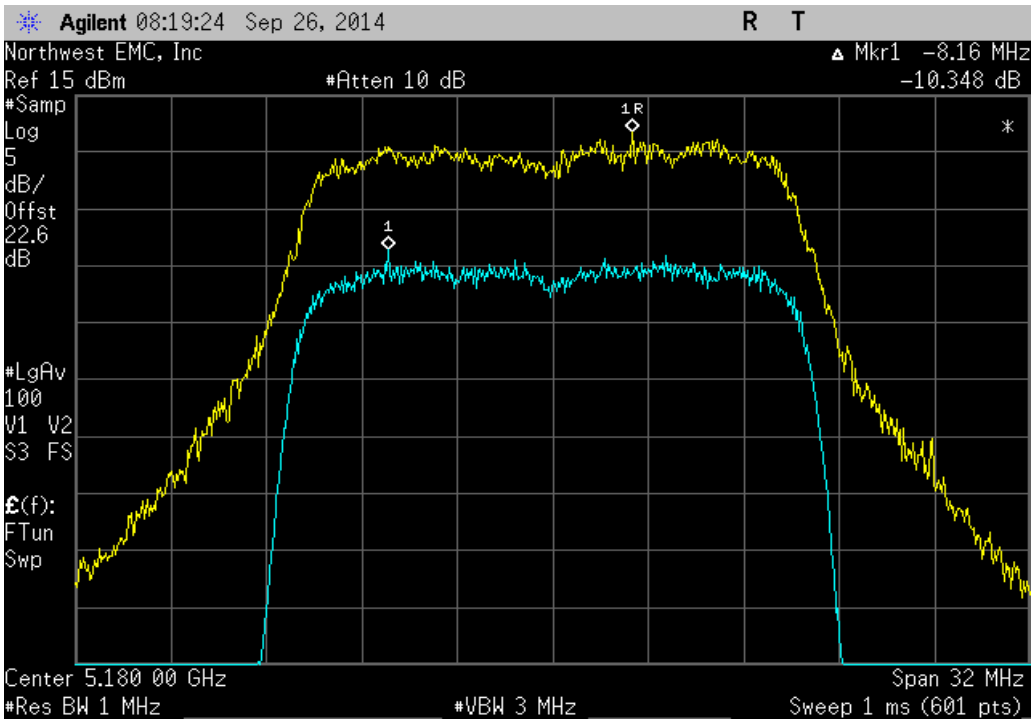


802.11(a) 36 Mbps, 5470 - 5725 MHz Band, Channel 140, High Channel						
				Value (dB)	Limit ≤ (dB)	Results
				10.345	13	Pass

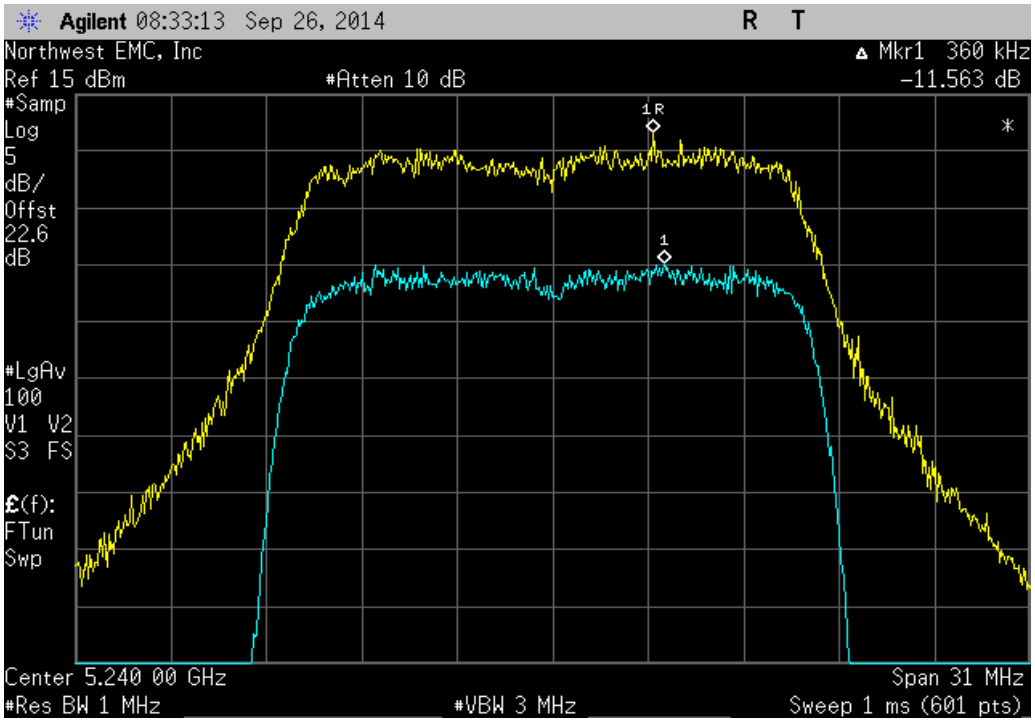


PEAK EXCURSION OF THE MODULATION ENVELOPE

802.11(a) 54 Mbps, 5150 - 5250 MHz Band, Channel 36, Low Channel						
				Value (dB)	Limit ≤ (dB)	Results
				10.348	13	Pass



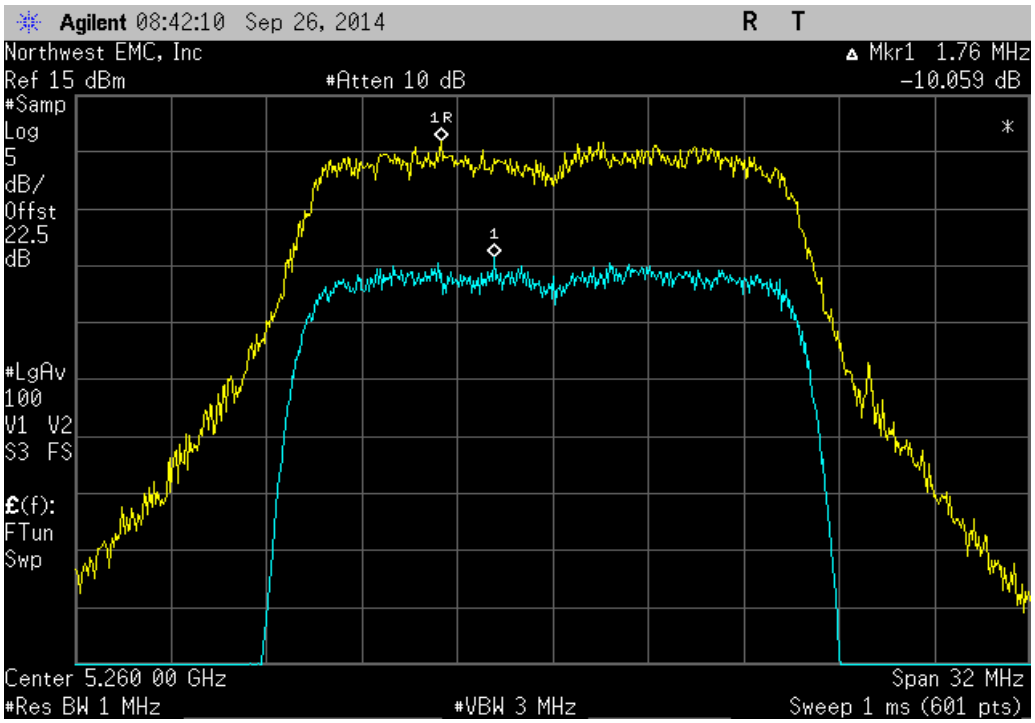
802.11(a) 54 Mbps, 5150 - 5250 MHz Band, Channel 48, High Channel						
				Value (dB)	Limit ≤ (dB)	Results
				11.563	13	Pass



PEAK EXCURSION OF THE MODULATION ENVELOPE

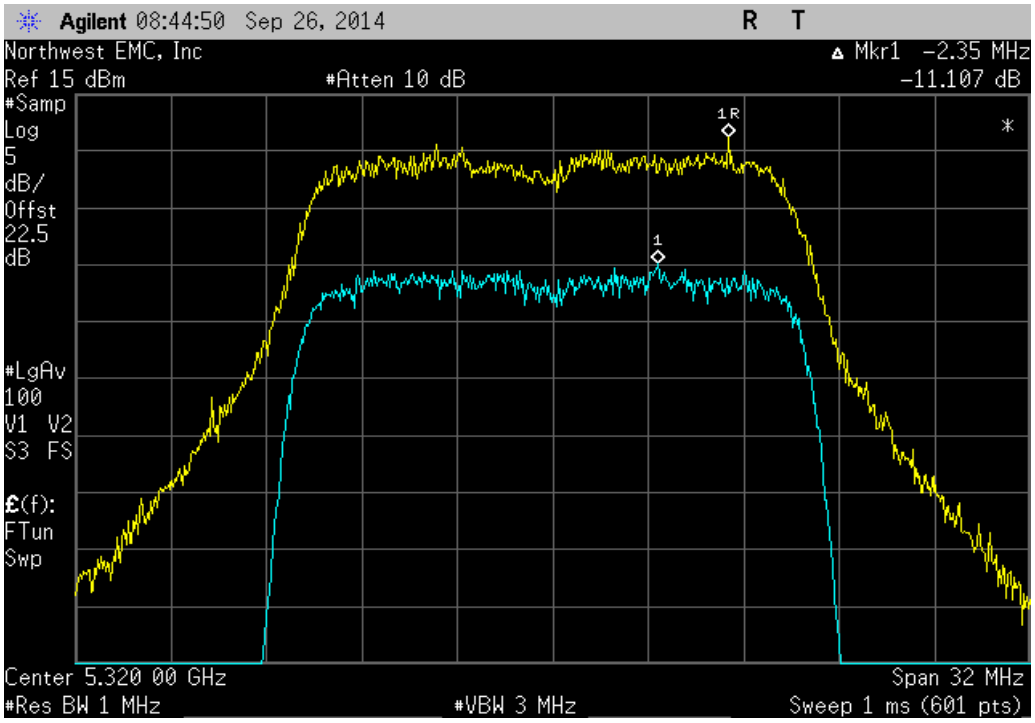
802.11(a) 54 Mbps, 5250 - 5350 MHz Band, Channel 52, Low Channel

				Value (dB)	Limit ≤ (dB)	Results
				10.059	13	Pass

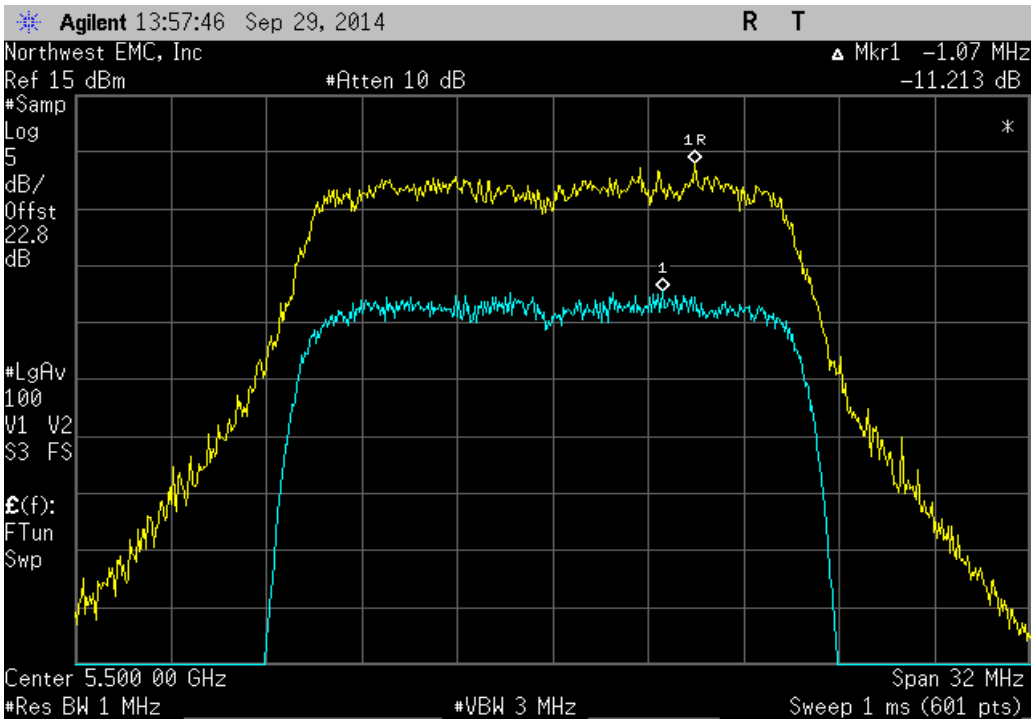


802.11(a) 54 Mbps, 5250 - 5350 MHz Band, Channel 64, High Channel

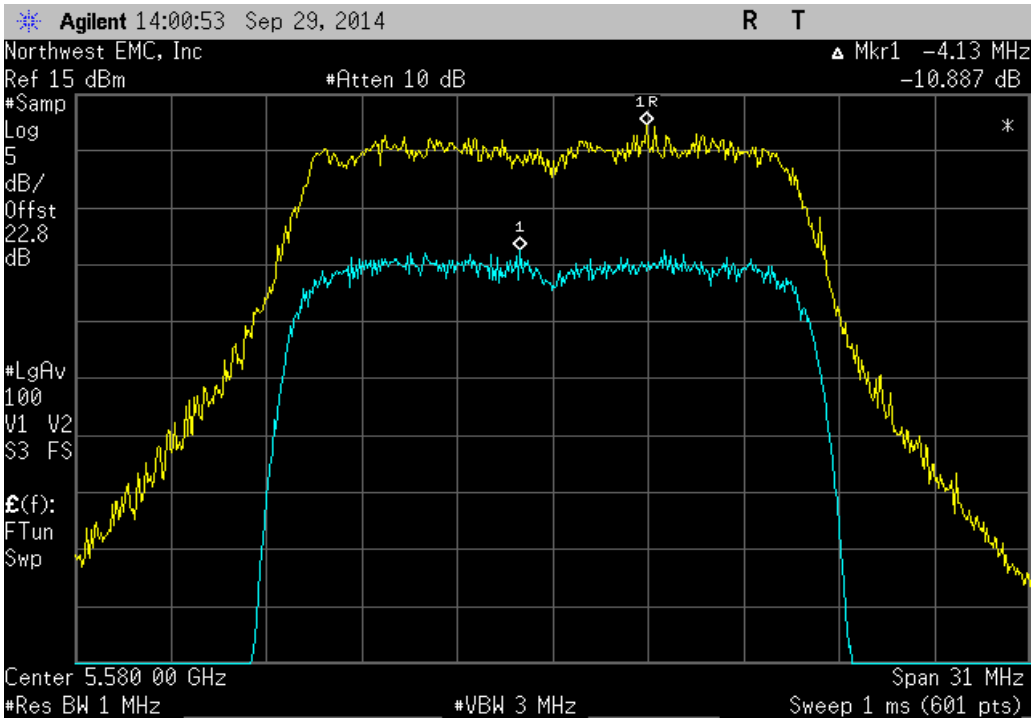
				Value (dB)	Limit ≤ (dB)	Results
				11.107	13	Pass



802.11(a) 54 Mbps, 5470 - 5725 MHz Band, Channel 100, Low Channel						
				Value (dB)	Limit ≤ (dB)	Results
				11.213	13	Pass

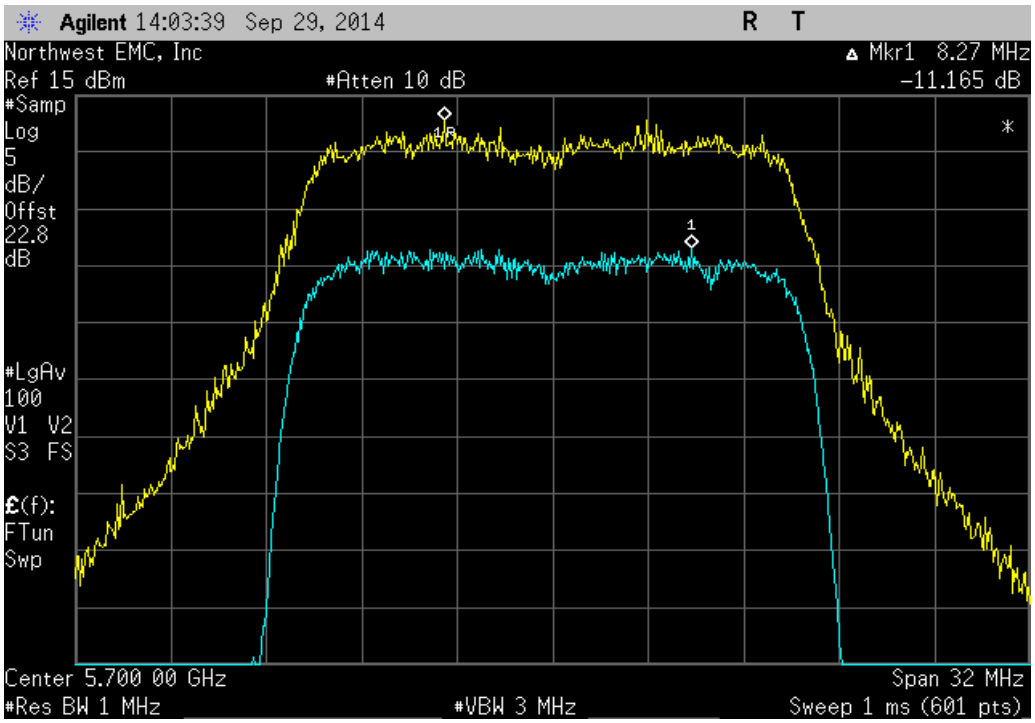


802.11(a) 54 Mbps, 5470 - 5725 MHz Band, Channel 116, Mid Channel						
				Value (dB)	Limit ≤ (dB)	Results
				10.887	13	Pass

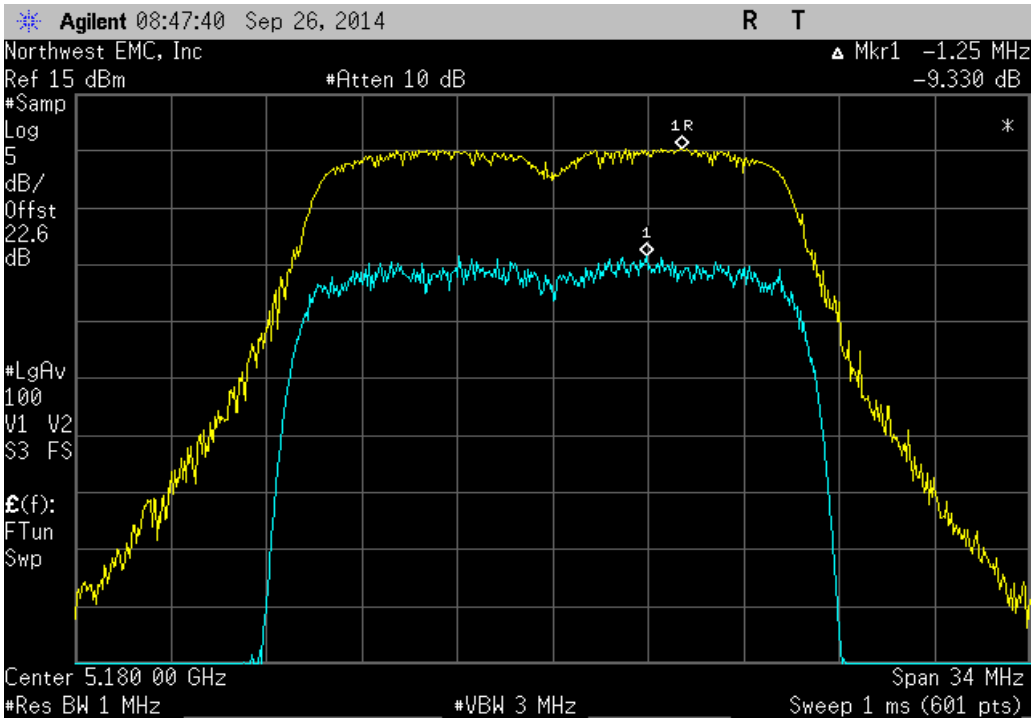


PEAK EXCURSION OF THE MODULATION ENVELOPE

802.11(a) 54 Mbps, 5470 - 5725 MHz Band, Channel 140, High Channel						
				Value (dB)	Limit ≤ (dB)	Results
				11.165	13	Pass

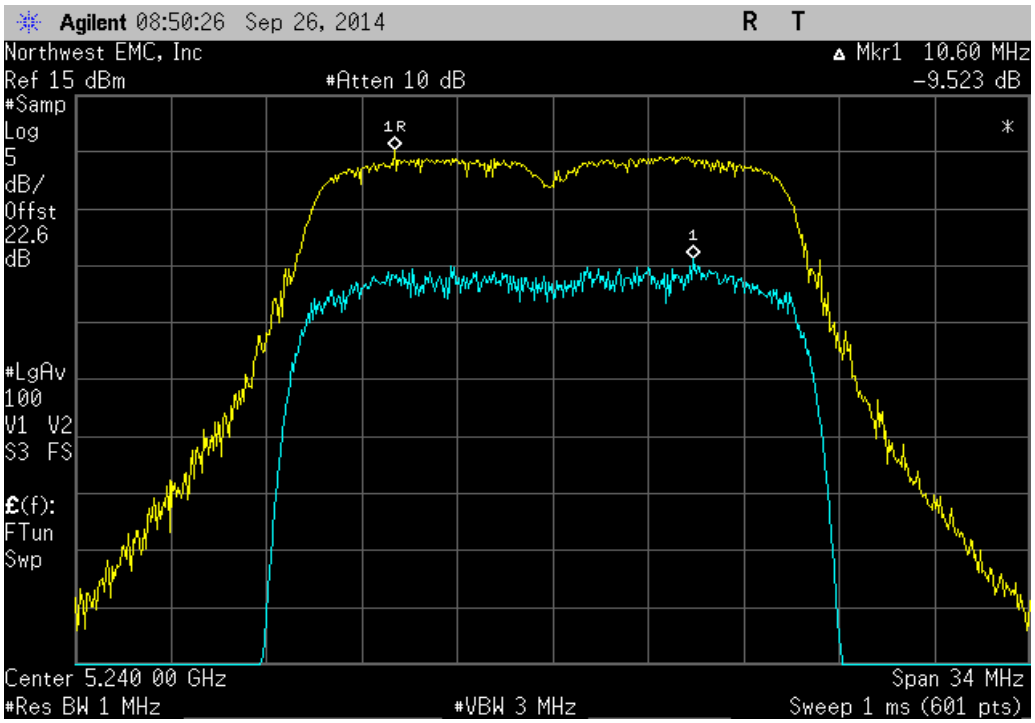


802.11(n) MCS0, 5150 - 5250 MHz Band, Channel 36, Low Channel						
				Value (dB)	Limit ≤ (dB)	Results
				9.33	13	Pass

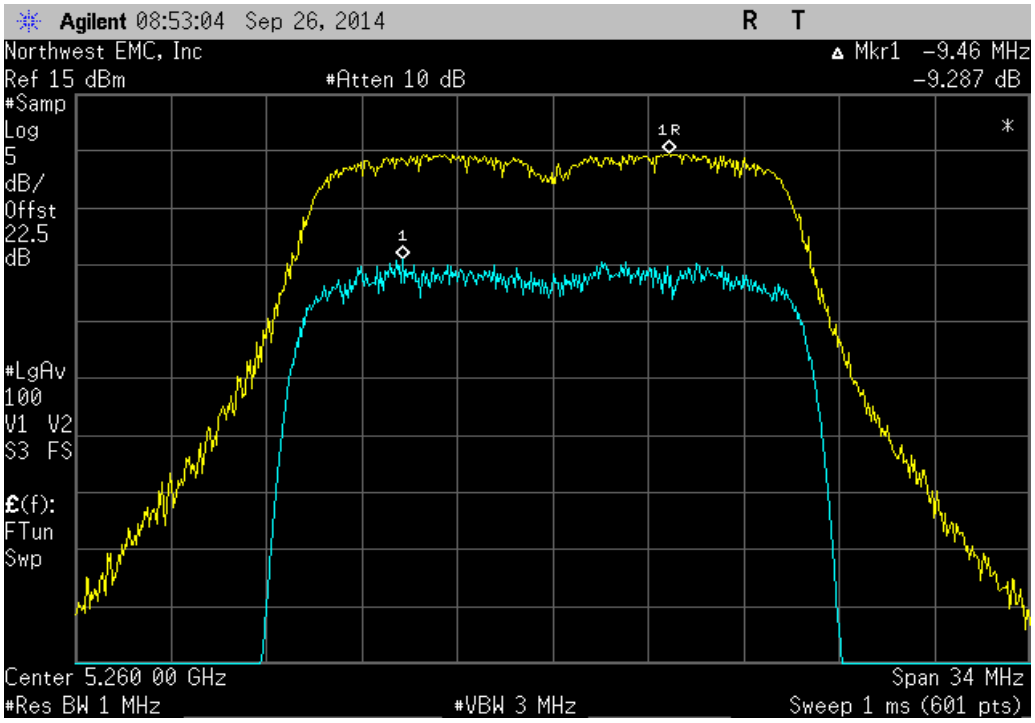


PEAK EXCURSION OF THE MODULATION ENVELOPE

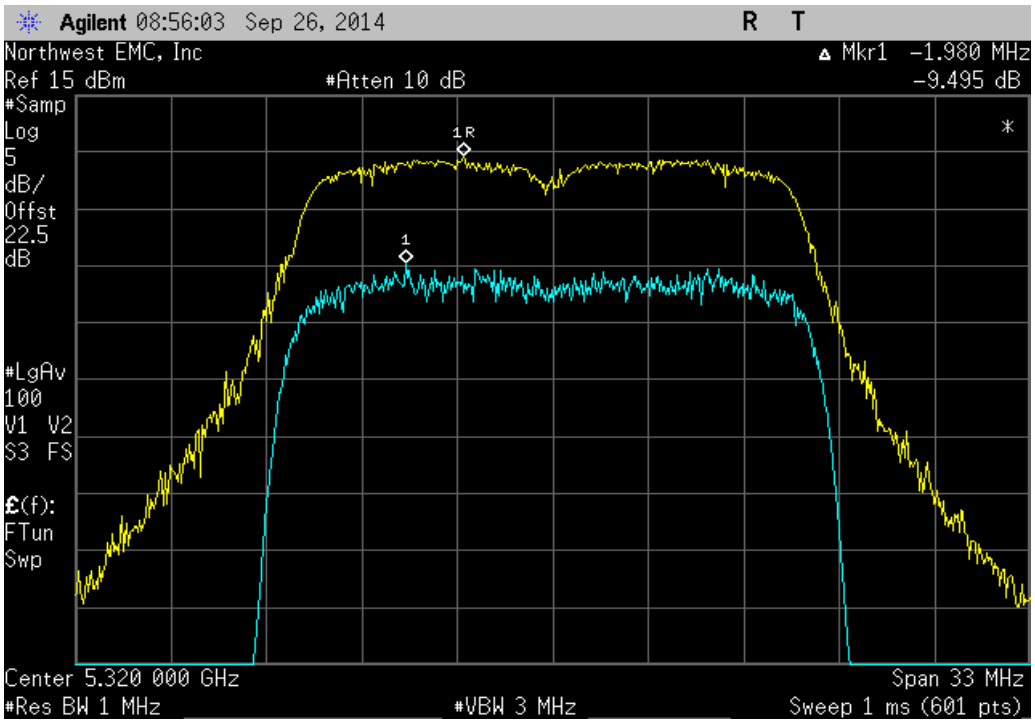
802.11(n) MCS0, 5150 - 5250 MHz Band, Channel 48, High Channel						
				Value (dB)	Limit ≤ (dB)	Results
				9.523	13	Pass



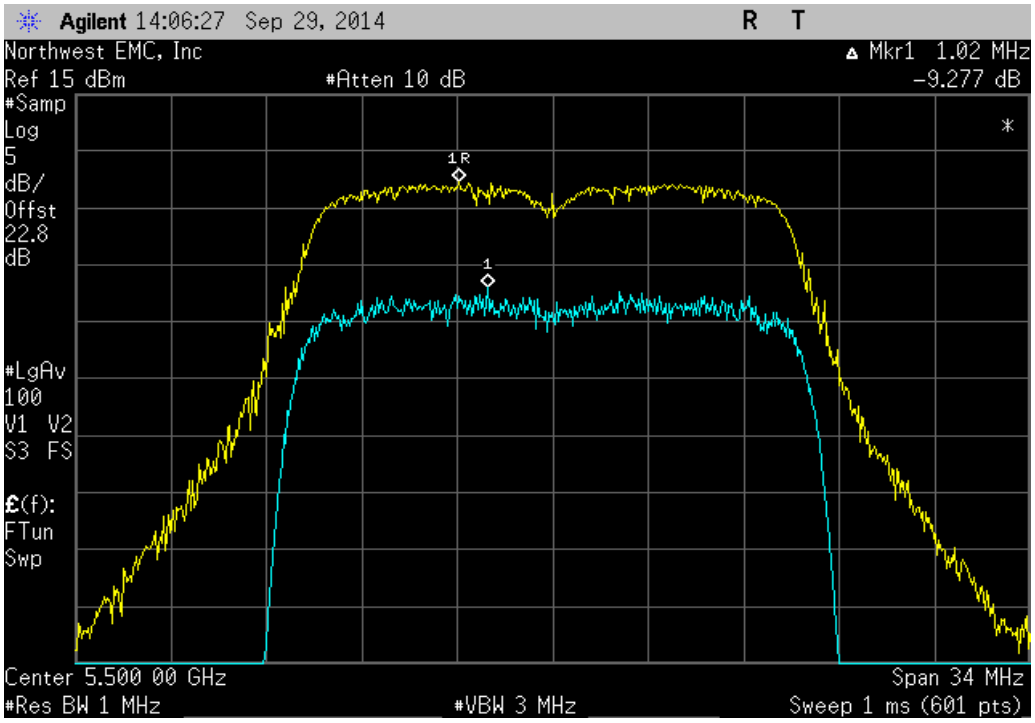
802.11(n) MCS0, 5250 - 5350 MHz Band, Channel 52, Low Channel						
				Value (dB)	Limit ≤ (dB)	Results
				9.287	13	Pass



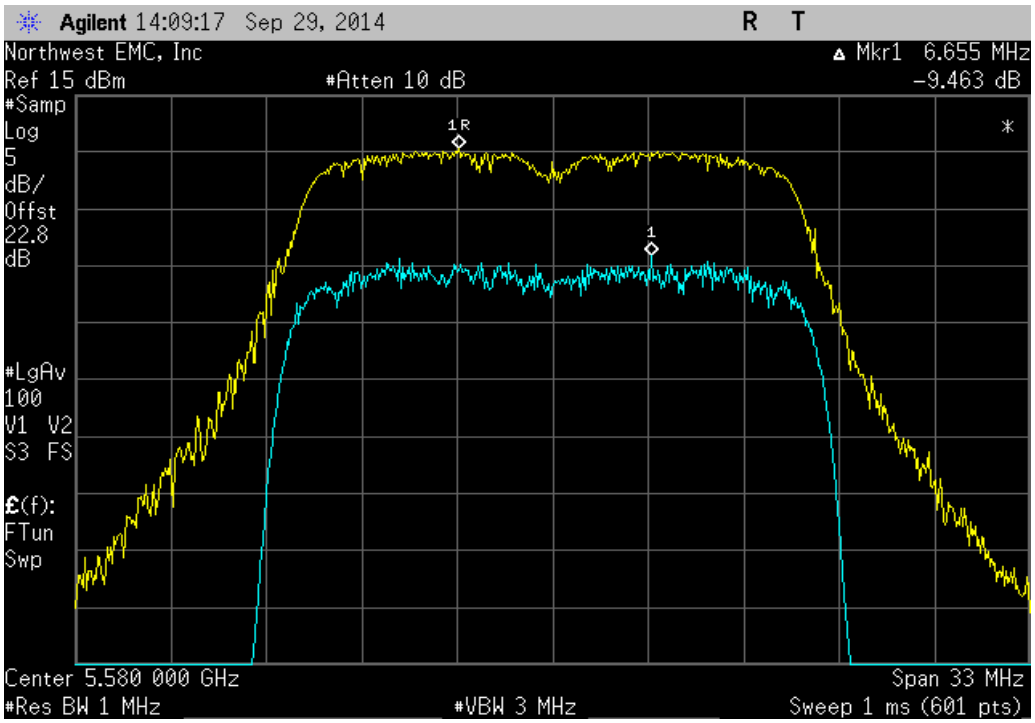
802.11(n) MCS0, 5250 - 5350 MHz Band, Channel 64, High Channel						
				Value (dB)	Limit ≤ (dB)	Results
				9.495	13	Pass



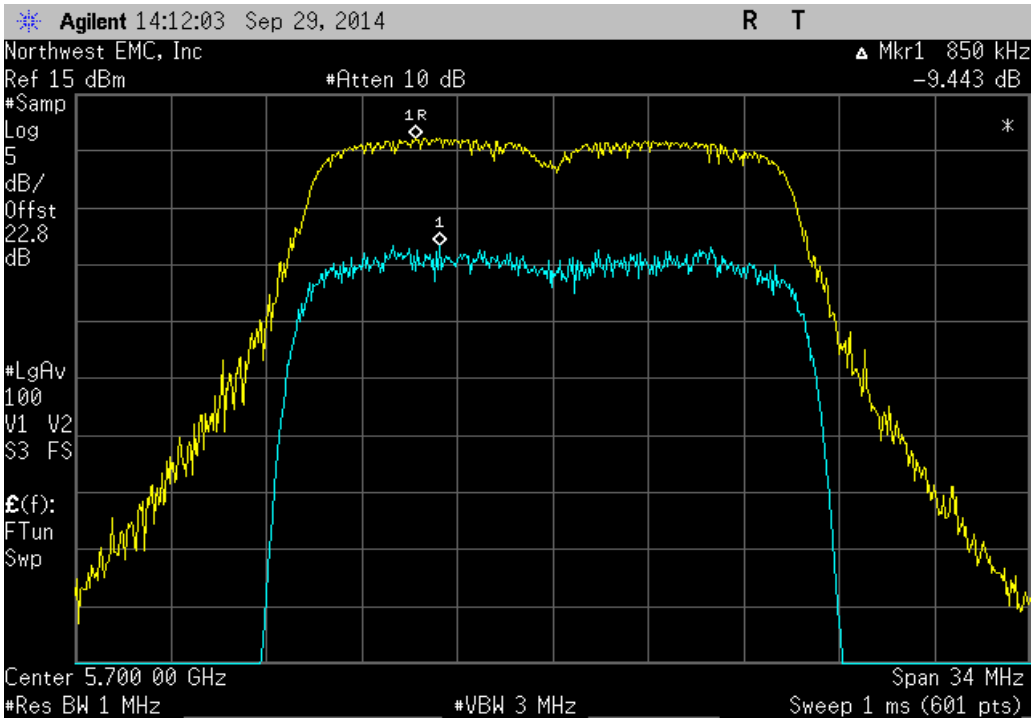
802.11(n) MCS0, 5470 - 5725 MHz Band, Channel 100, Low Channel						
				Value (dB)	Limit ≤ (dB)	Results
				9.277	13	Pass



802.11(n) MCS0, 5470 - 5725 MHz Band, Channel 116, Mid Channel						
				Value (dB)	Limit ≤ (dB)	Results
				9.463	13	Pass

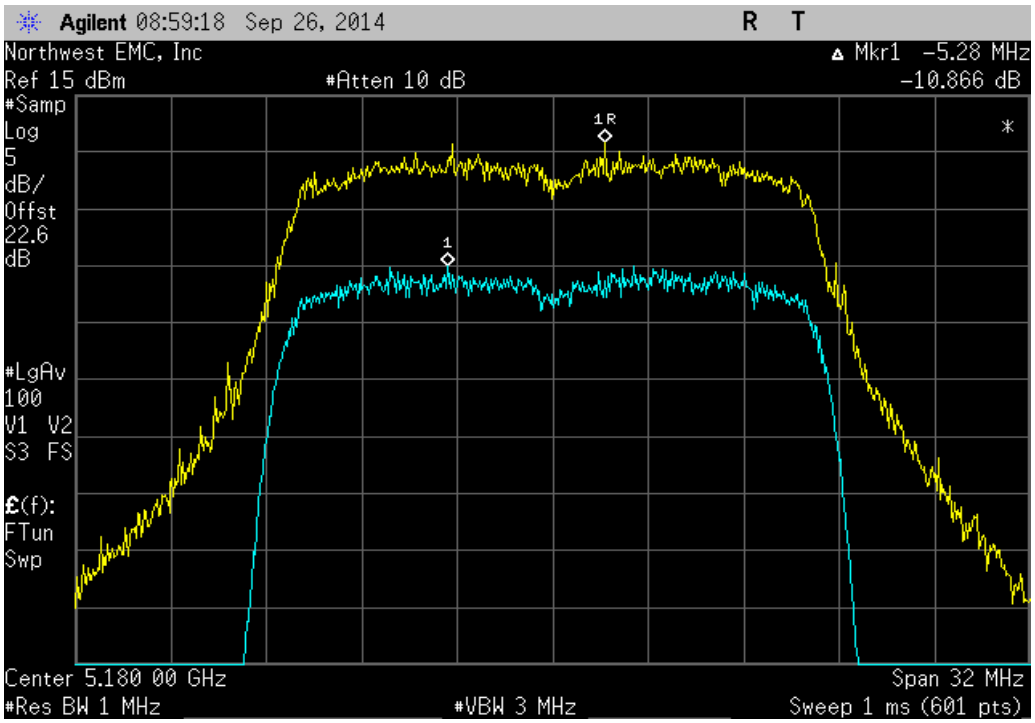


802.11(n) MCS0, 5470 - 5725 MHz Band, Channel 140, High Channel						
				Value (dB)	Limit ≤ (dB)	Results
				9.443	13	Pass

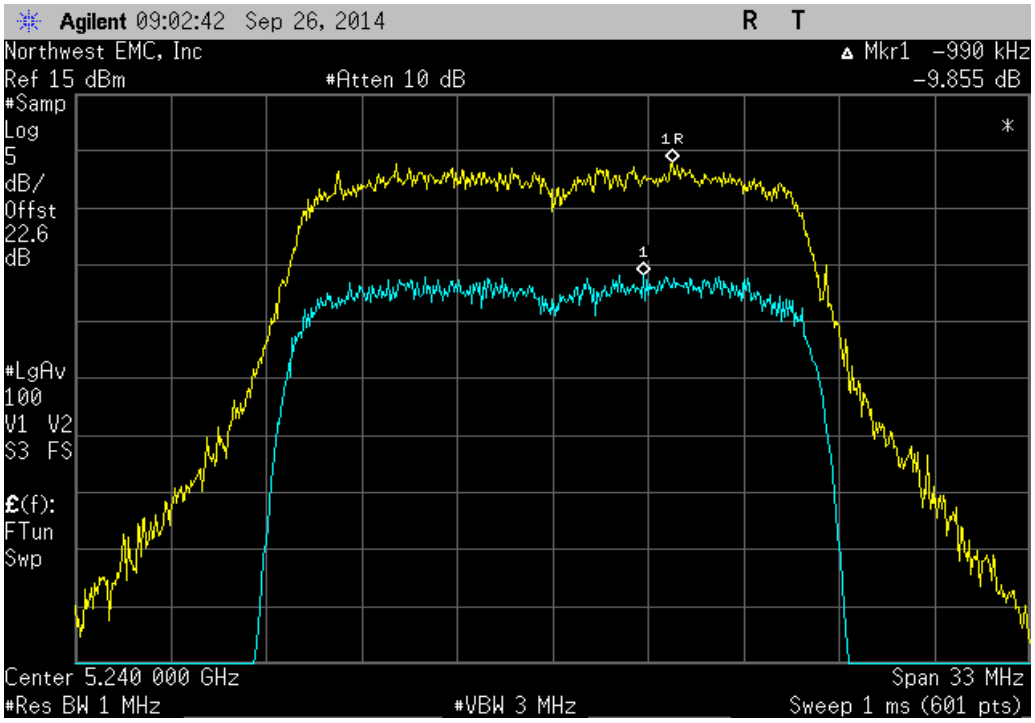


PEAK EXCURSION OF THE MODULATION ENVELOPE

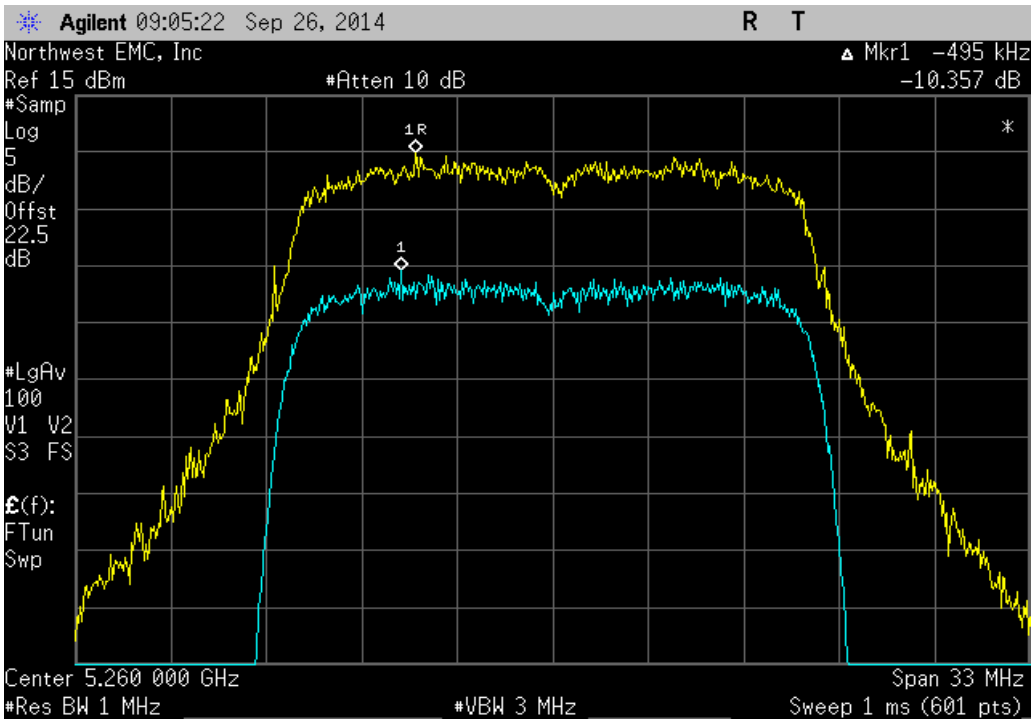
802.11(n) MCS7, 5150 - 5250 MHz Band, Channel 36, Low Channel						
				Value (dB)	Limit ≤ (dB)	Results
				10.866	13	Pass



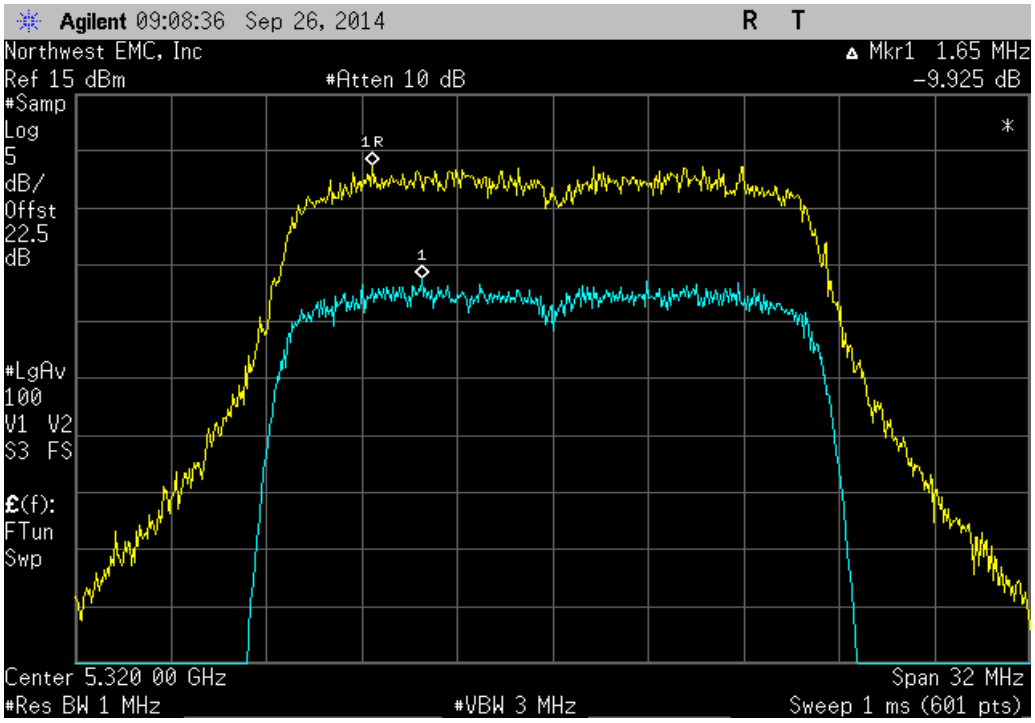
802.11(n) MCS7, 5150 - 5250 MHz Band, Channel 48, High Channel						
				Value (dB)	Limit ≤ (dB)	Results
				9.855	13	Pass



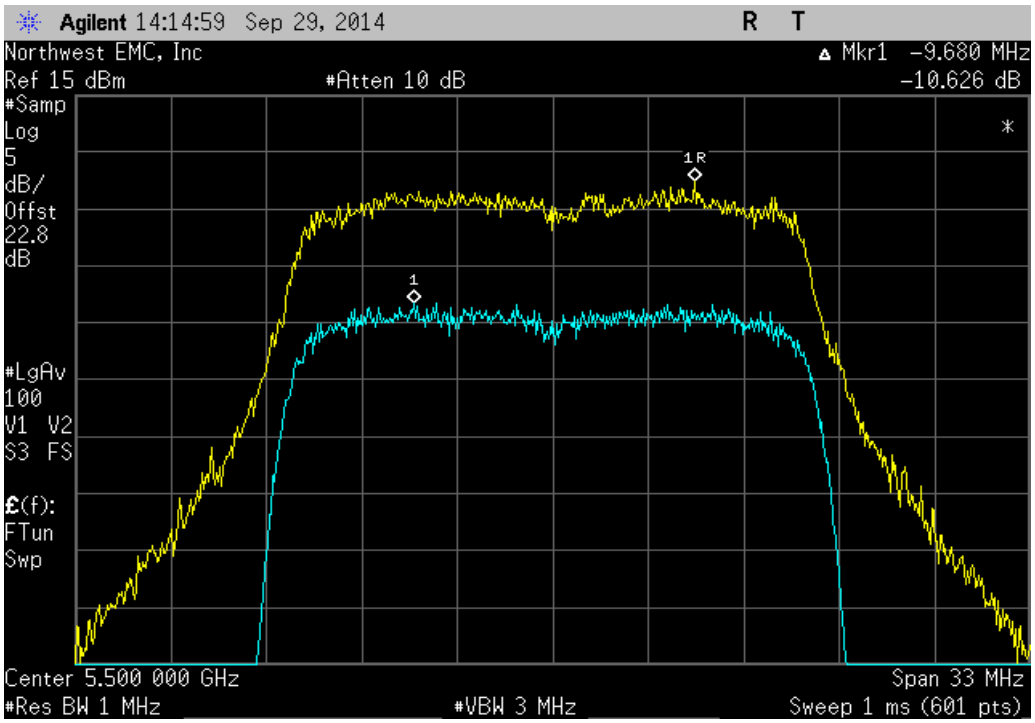
802.11(n) MCS7, 5250 - 5350 MHz Band, Channel 52, Low Channel						
				Value (dB)	Limit ≤ (dB)	Results
				10.357	13	Pass



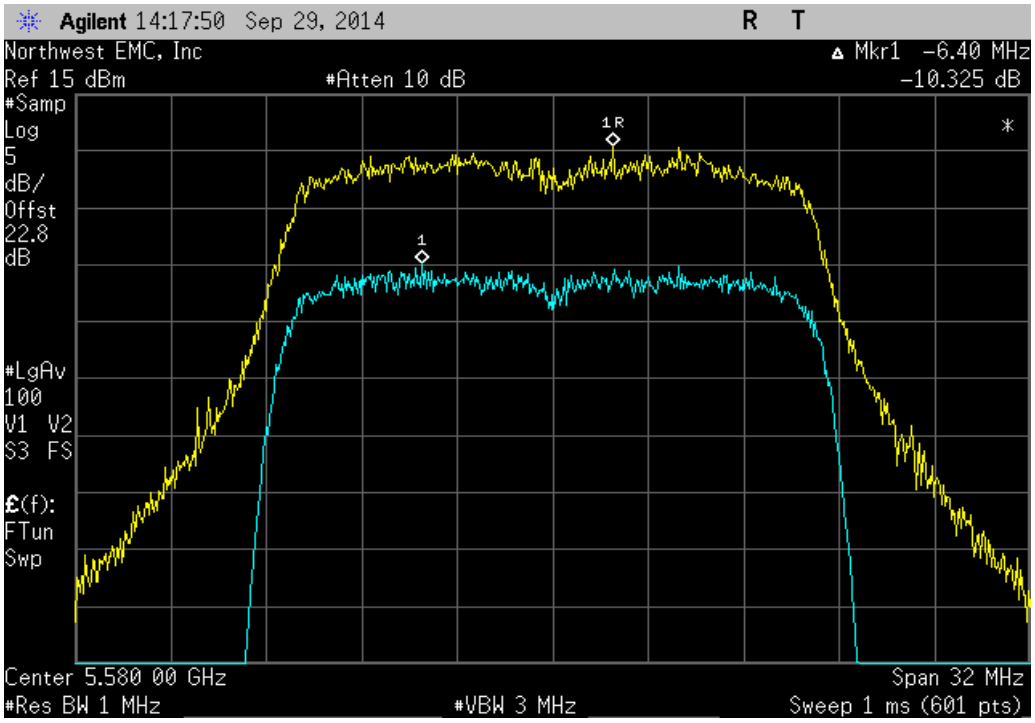
802.11(n) MCS7, 5250 - 5350 MHz Band, Channel 64, High Channel						
				Value (dB)	Limit ≤ (dB)	Results
				9.925	13	Pass



802.11(n) MCS7, 5470 - 5725 MHz Band, Channel 100, Low Channel						
				Value (dB)	Limit ≤ (dB)	Results
				10.626	13	Pass

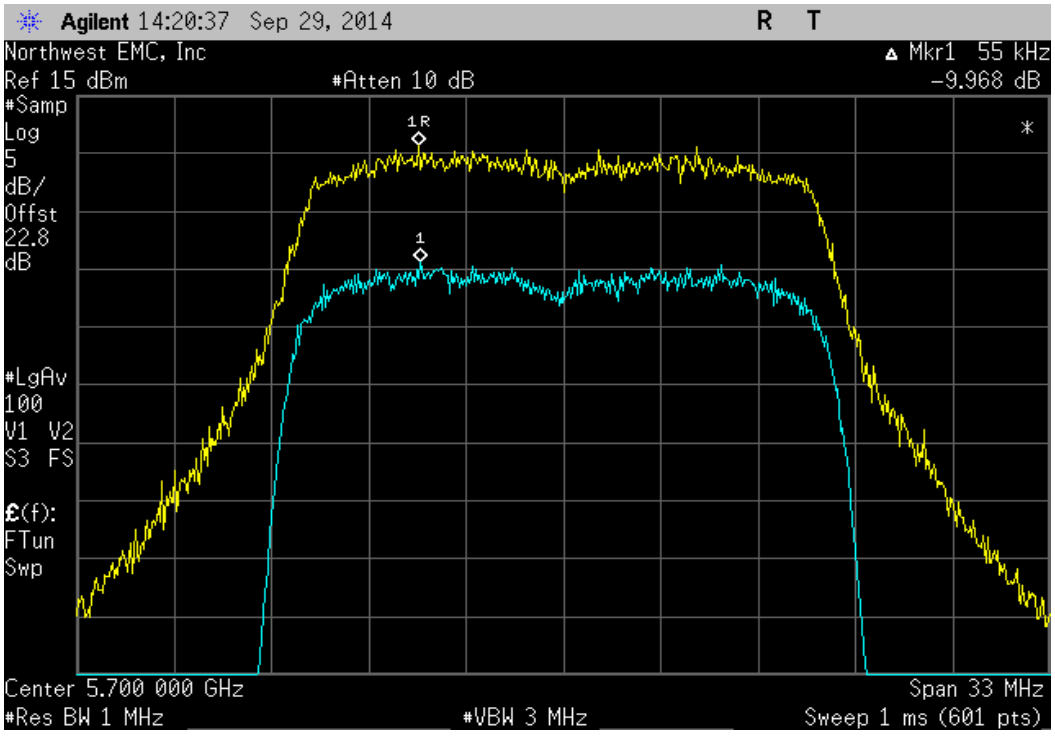


802.11(n) MCS7, 5470 - 5725 MHz Band, Channel 116, Mid Channel						
				Value (dB)	Limit ≤ (dB)	Results
				10.325	13	Pass



PEAK EXCURSION OF THE MODULATION ENVELOPE

802.11(n) MCS7, 5470 - 5725 MHz Band, Channel 140, High Channel						
				Value (dB)	Limit ≤ (dB)	Results
				9.968	13	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
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	14
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
Spectrum Analyzer	Agilent	E4440A	AAX	4/28/2014	12

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:	ConnectCore i.MX6 WiFi/Bluetooth			Work Order:	ETHE0009
Serial Number:	00409D 7C03B4			Date:	09/29/14
Customer:	Etherios Design Solutions			Temperature:	22.7°C
Attendees:	None			Humidity:	47%
Project:	None			Barometric Pres.:	1023.7
Tested by:	Trevor Buls	Power:	5VDC	Job Site:	MN08

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

COMMENTS

None

DEVIATIONS FROM TEST STANDARD

None

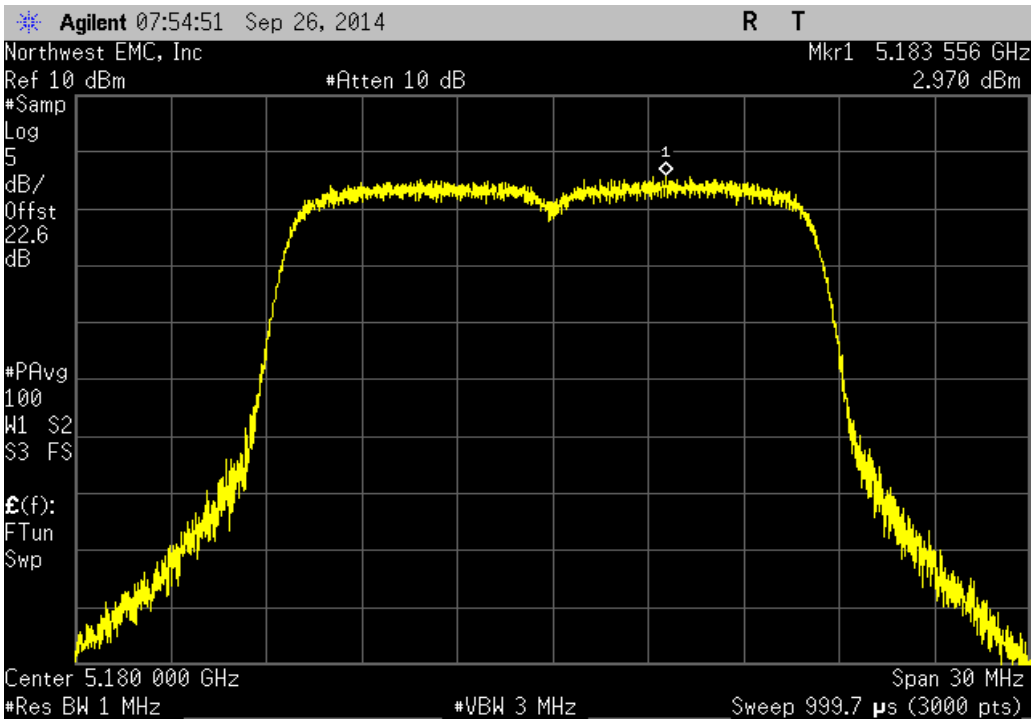
Configuration #	1	Signature	Trevor Buls

		Value (dBm / MHz)	Limit (dBm / MHz)	Results
802.11(a) 6 Mbps				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	2.97	4	Pass
	Channel 48, High Channel	2.837	4	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	2.897	11	Pass
	Channel 64, High Channel	2.35	11	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	-1.552	11	Pass
	Channel 116, Mid Channel	2.07	11	Pass
	Channel 140, High Channel	3.48	11	Pass
802.11(a) 36 Mbps				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	3.4	4	Pass
	Channel 48, High Channel	2.311	4	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	2.379	11	Pass
	Channel 64, High Channel	2.321	11	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	0.062	11	Pass
	Channel 116, Mid Channel	3.21	11	Pass
	Channel 140, High Channel	4.177	11	Pass
802.11(a) 54 Mbps				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	2.969	4	Pass
	Channel 48, High Channel	2.402	4	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	2.478	11	Pass
	Channel 64, High Channel	1.92	11	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	0.03	11	Pass
	Channel 116, Mid Channel	3.429	11	Pass
	Channel 140, High Channel	3.907	11	Pass
802.11(n) MCS0				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	3.091	4	Pass
	Channel 48, High Channel	2.323	4	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	2.666	11	Pass
	Channel 64, High Channel	2.431	11	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	0.202	11	Pass
	Channel 116, Mid Channel	2.983	11	Pass
	Channel 140, High Channel	4.05	11	Pass
802.11(n) MCS7				
	5150 - 5250 MHz Band			
	Channel 36, Low Channel	2.017	4	Pass
	Channel 48, High Channel	1.064	4	Pass
	5250 - 5350 MHz Band			
	Channel 52, Low Channel	1.277	11	Pass
	Channel 64, High Channel	0.683	11	Pass
	5470 - 5725 MHz Band			
	Channel 100, Low Channel	-1.092	11	Pass
	Channel 116, Mid Channel	1.896	11	Pass
	Channel 140, High Channel	2.584	11	Pass

PEAK POWER SPECTRAL DENSITY

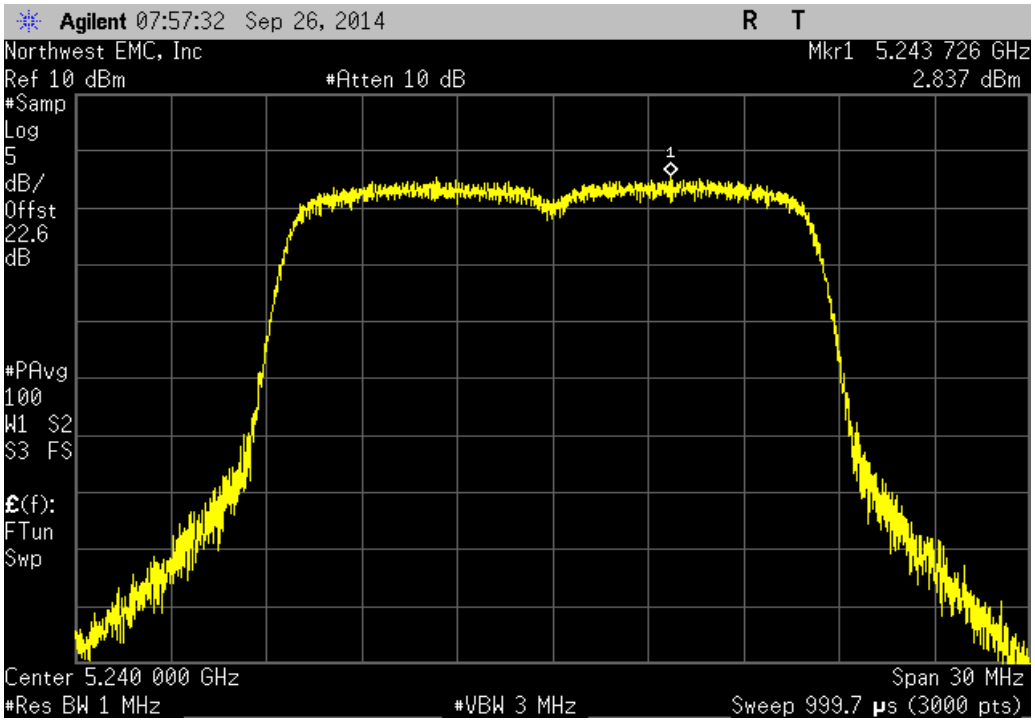
802.11(a) 6 Mbps, 5150 - 5250 MHz Band, Channel 36, Low Channel

				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				2.97	4	Pass



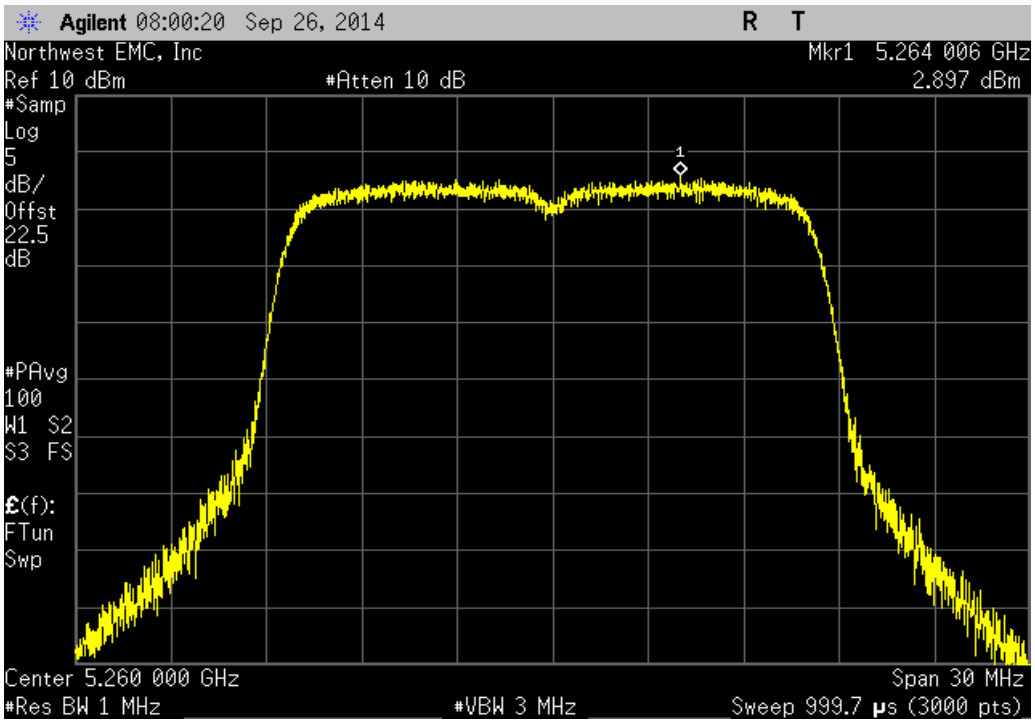
802.11(a) 6 Mbps, 5150 - 5250 MHz Band, Channel 48, High Channel

				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				2.837	4	Pass

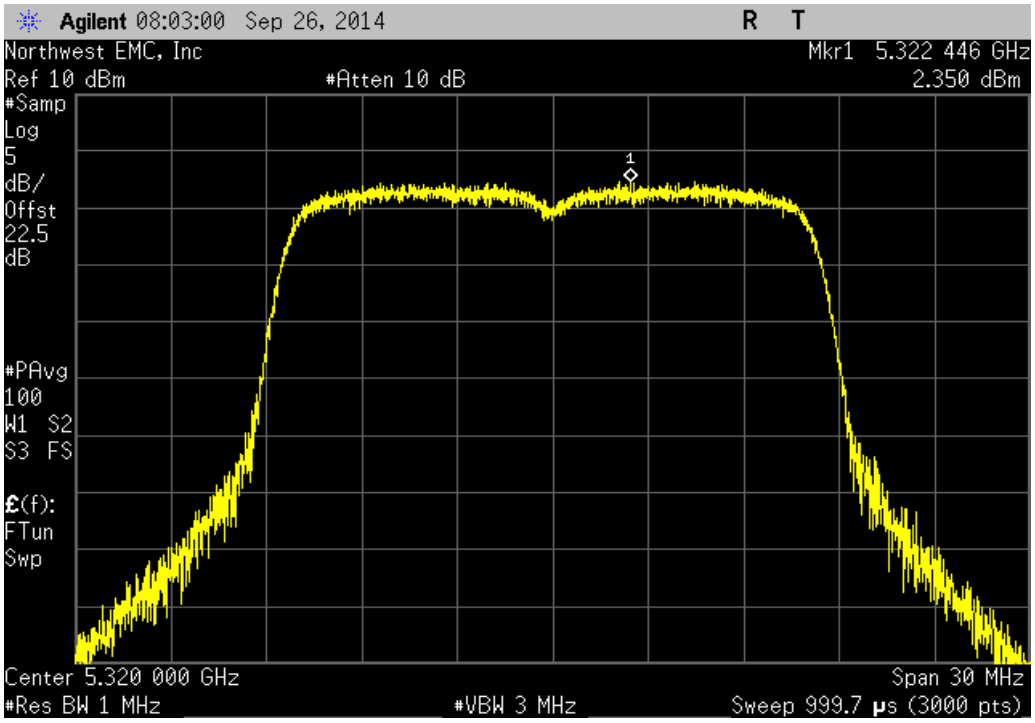


PEAK POWER SPECTRAL DENSITY

802.11(a) 6 Mbps, 5250 - 5350 MHz Band, Channel 52, Low Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				2.897	11	Pass

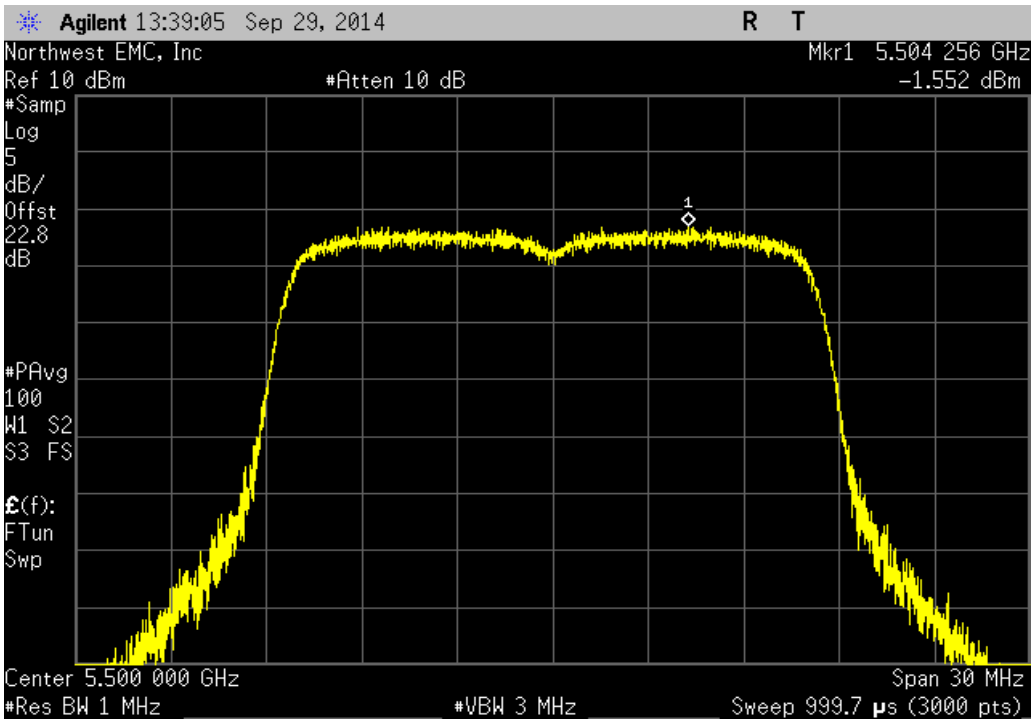


802.11(a) 6 Mbps, 5250 - 5350 MHz Band, Channel 64, High Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				2.35	11	Pass

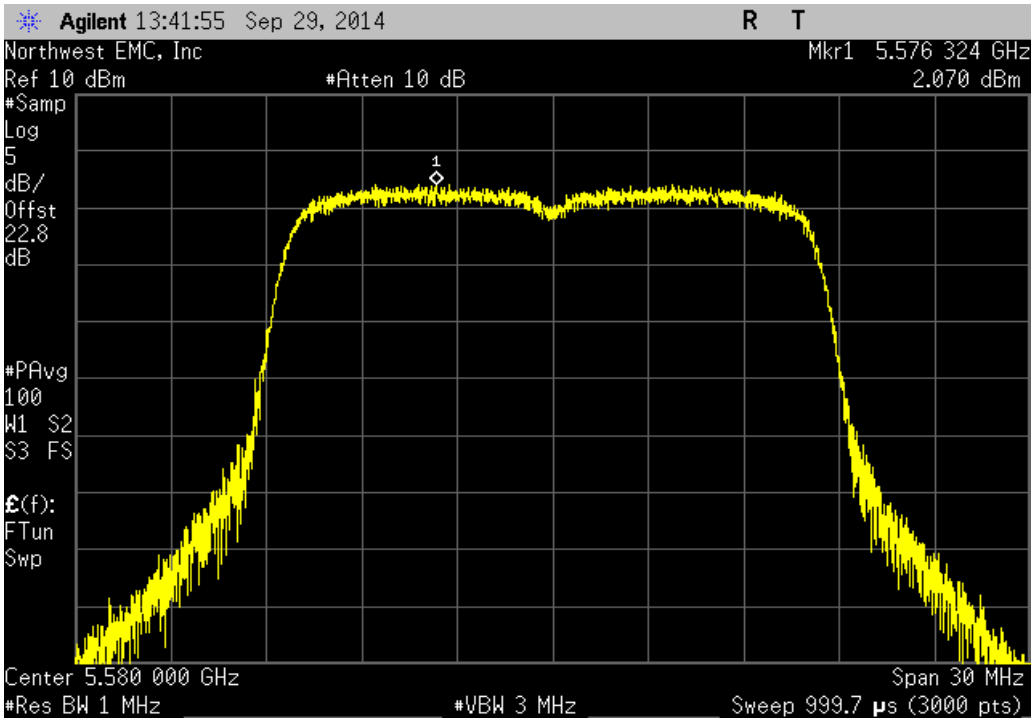


PEAK POWER SPECTRAL DENSITY

802.11(a) 6 Mbps, 5470 - 5725 MHz Band, Channel 100, Low Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				-1.552	11	Pass



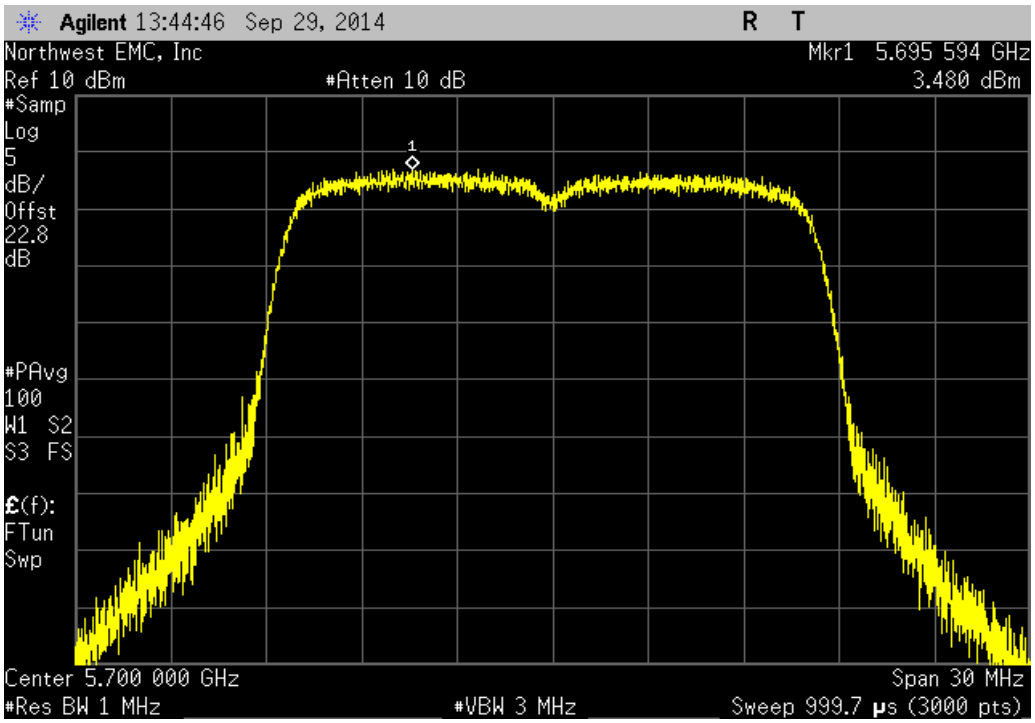
802.11(a) 6 Mbps, 5470 - 5725 MHz Band, Channel 116, Mid Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				2.07	11	Pass



PEAK POWER SPECTRAL DENSITY

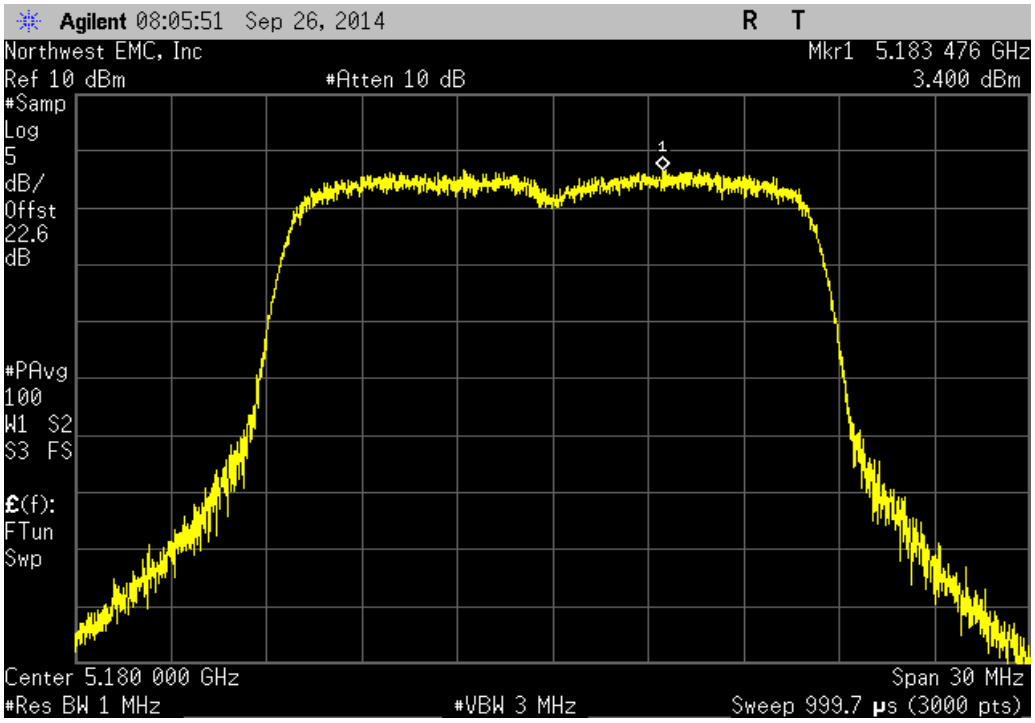
802.11(a) 6 Mbps, 5470 - 5725 MHz Band, Channel 140, High Channel

				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				3.48	11	Pass



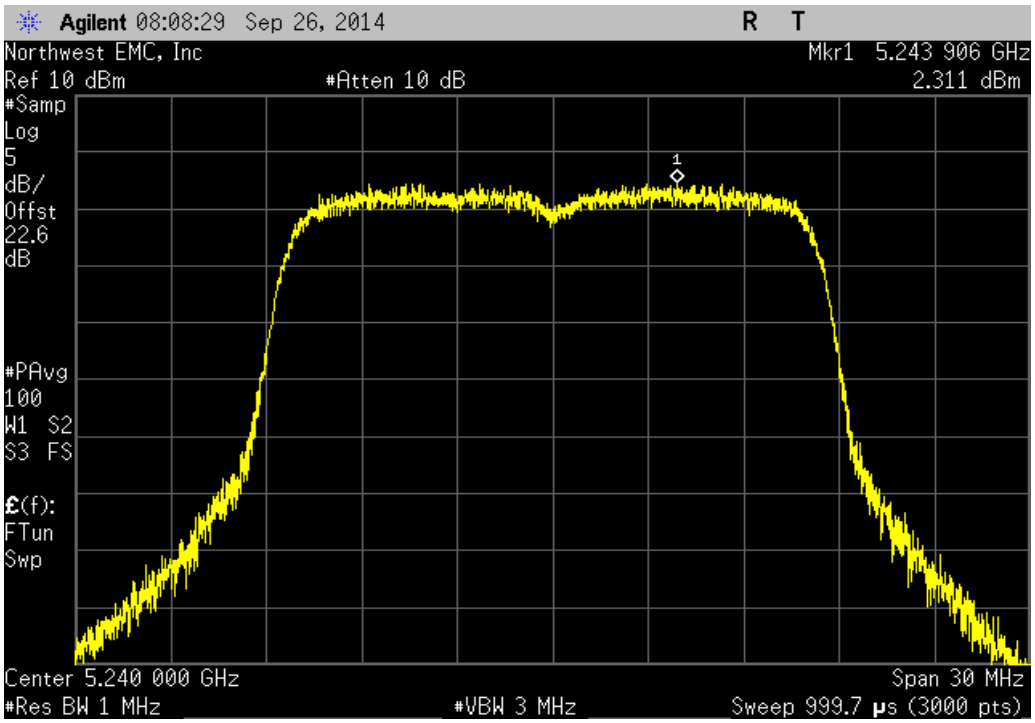
802.11(a) 36 Mbps, 5150 - 5250 MHz Band, Channel 36, Low Channel

				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				3.4	4	Pass

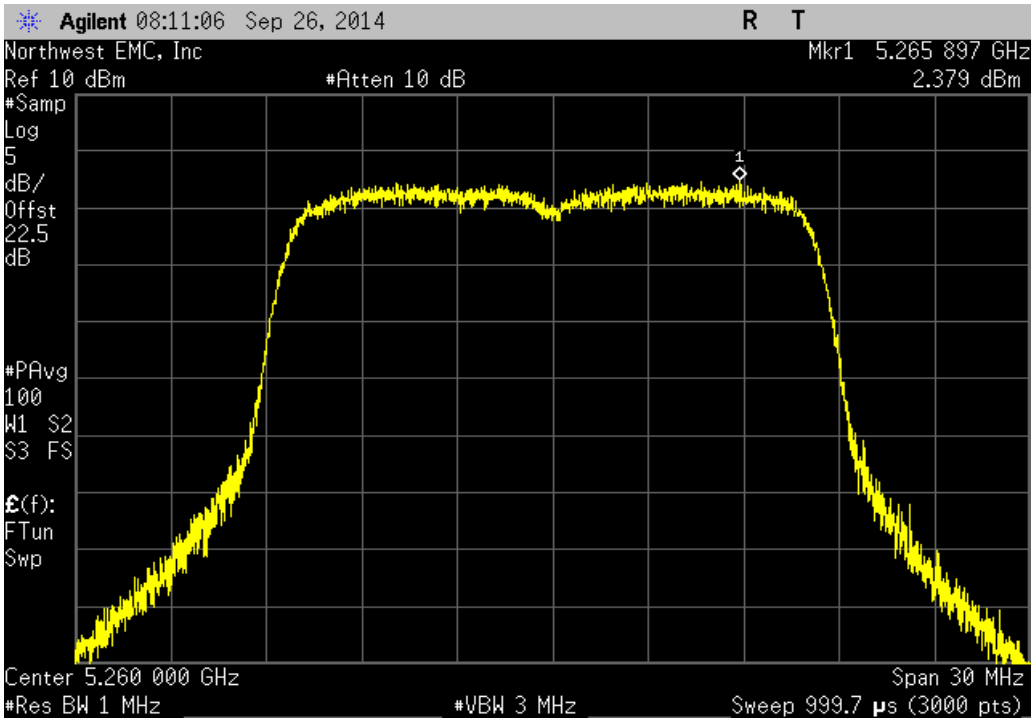


PEAK POWER SPECTRAL DENSITY

802.11(a) 36 Mbps, 5150 - 5250 MHz Band, Channel 48, High Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				2.311	4	Pass



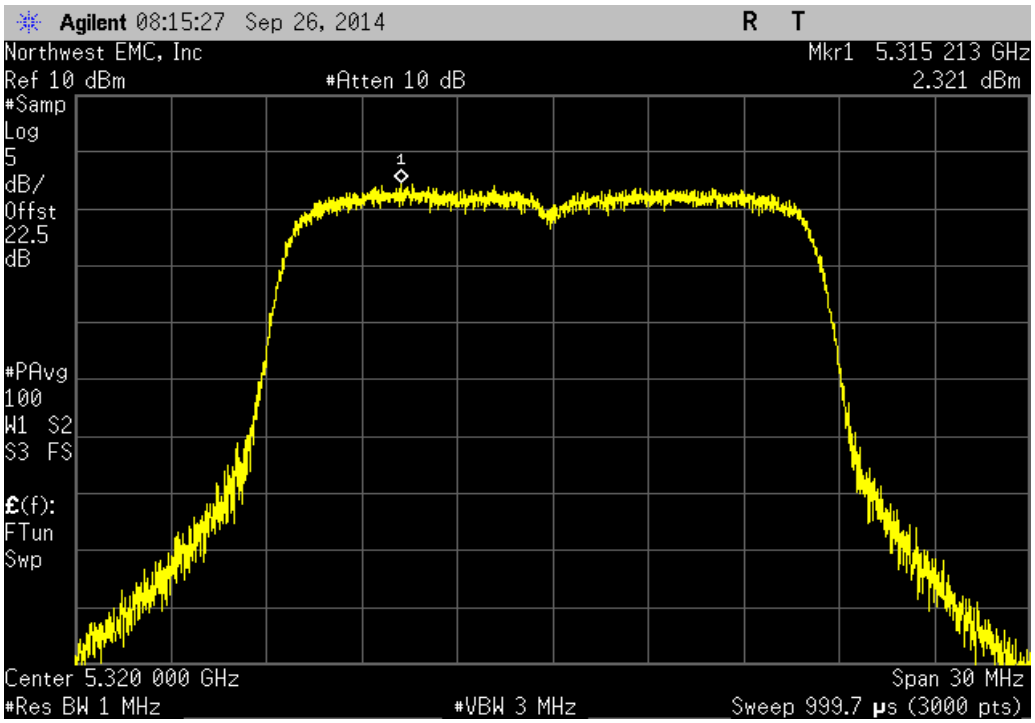
802.11(a) 36 Mbps, 5250 - 5350 MHz Band, Channel 52, Low Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				2.379	11	Pass



PEAK POWER SPECTRAL DENSITY

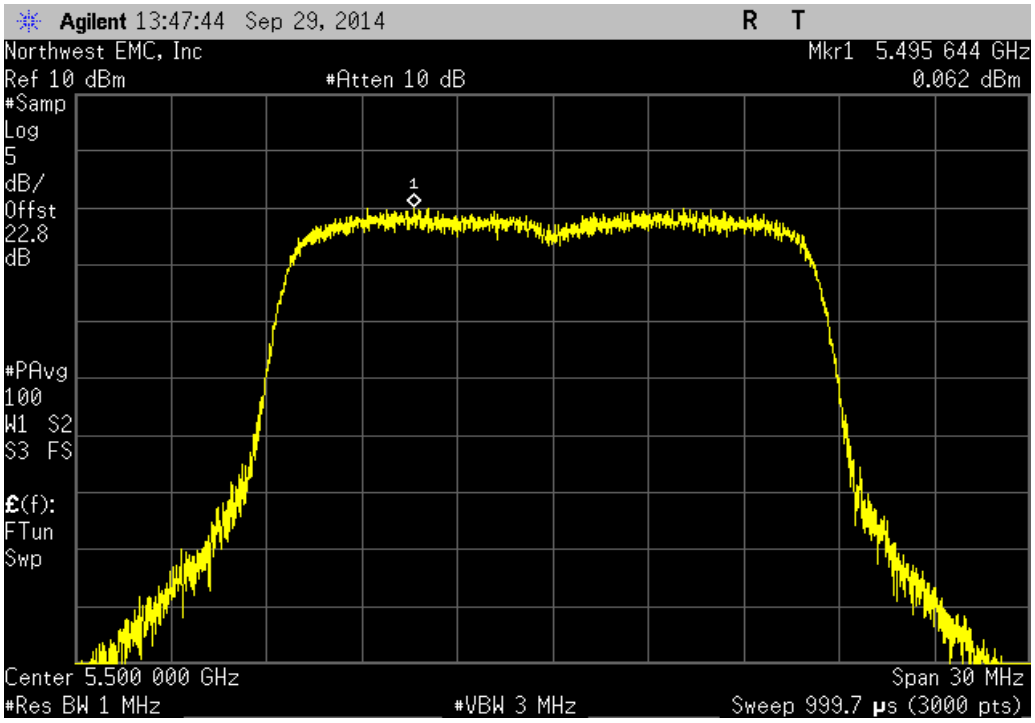
802.11(a) 36 Mbps, 5250 - 5350 MHz Band, Channel 64, High Channel

				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				2.321	11	Pass



802.11(a) 36 Mbps, 5470 - 5725 MHz Band, Channel 100, Low Channel

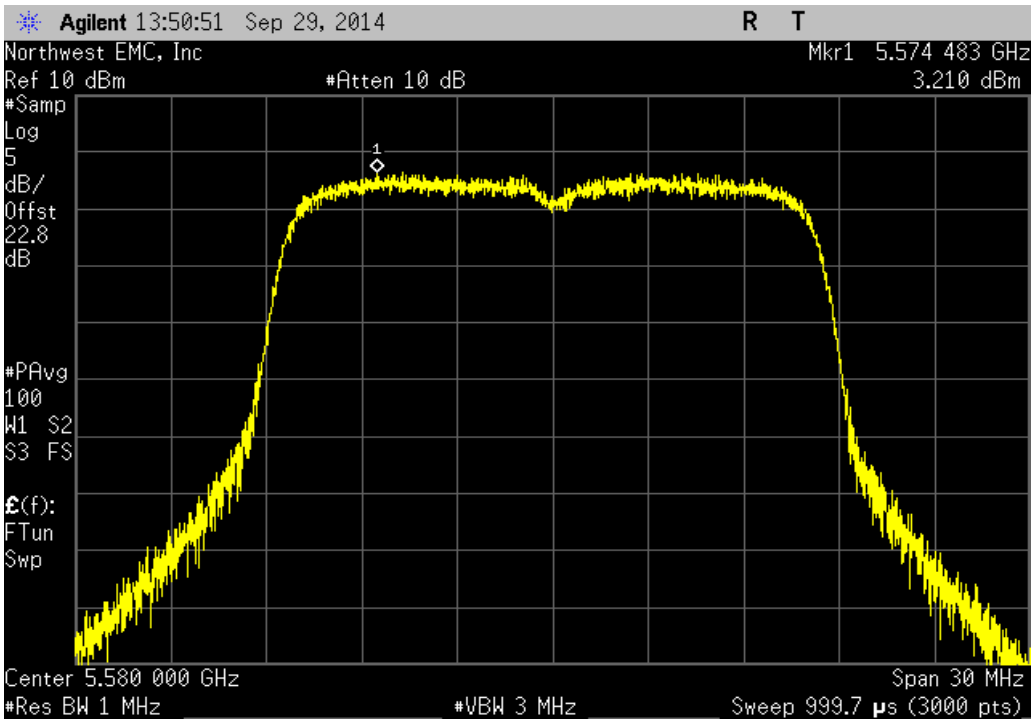
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				0.062	11	Pass



PEAK POWER SPECTRAL DENSITY

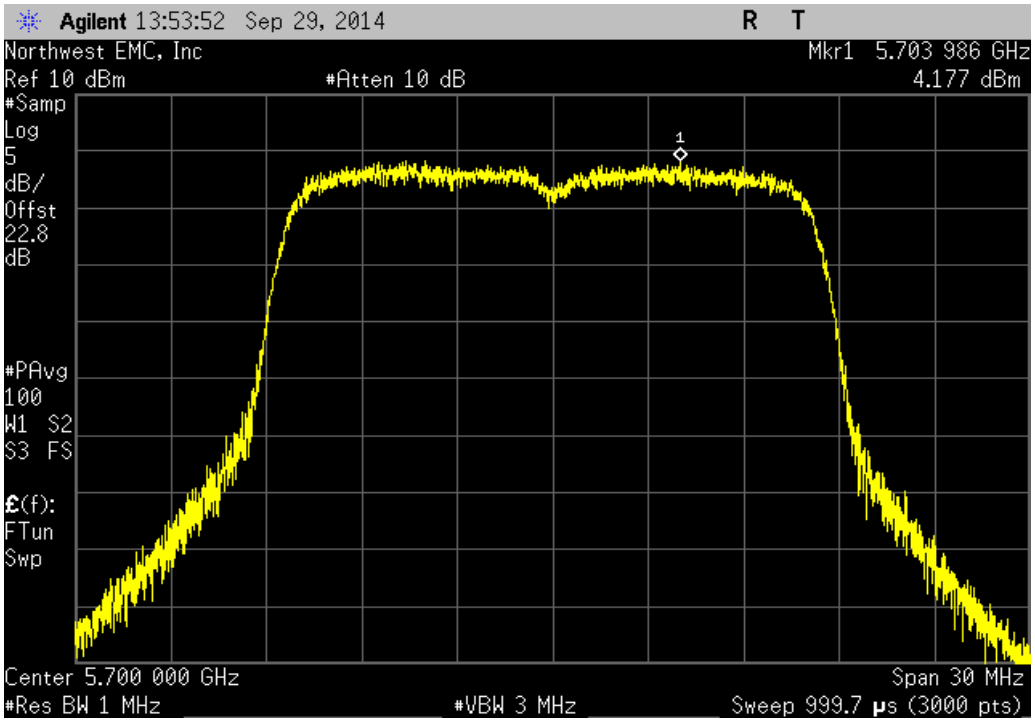
802.11(a) 36 Mbps, 5470 - 5725 MHz Band, Channel 116, Mid Channel

				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				3.21	11	Pass



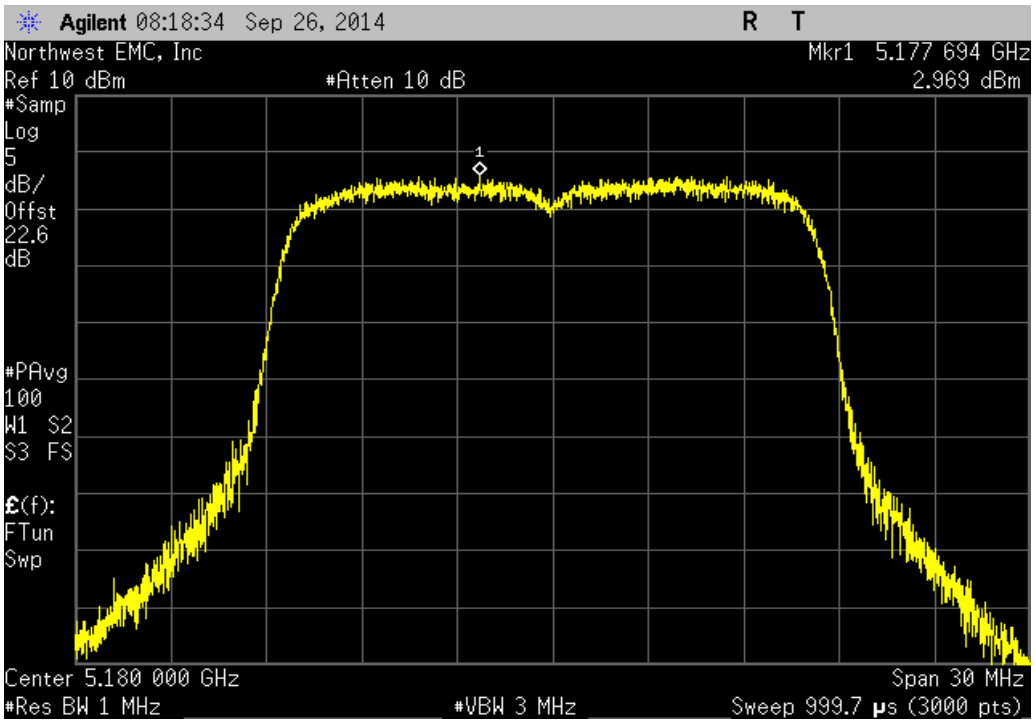
802.11(a) 36 Mbps, 5470 - 5725 MHz Band, Channel 140, High Channel

				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				4.177	11	Pass

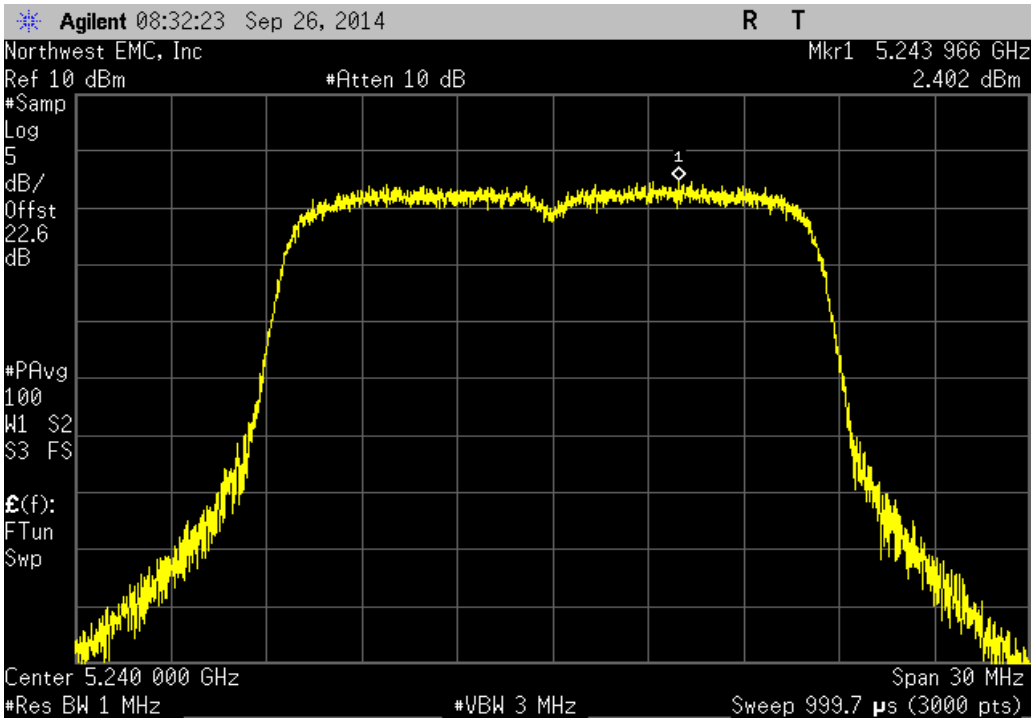


PEAK POWER SPECTRAL DENSITY

802.11(a) 54 Mbps, 5150 - 5250 MHz Band, Channel 36, Low Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				2.969	4	Pass

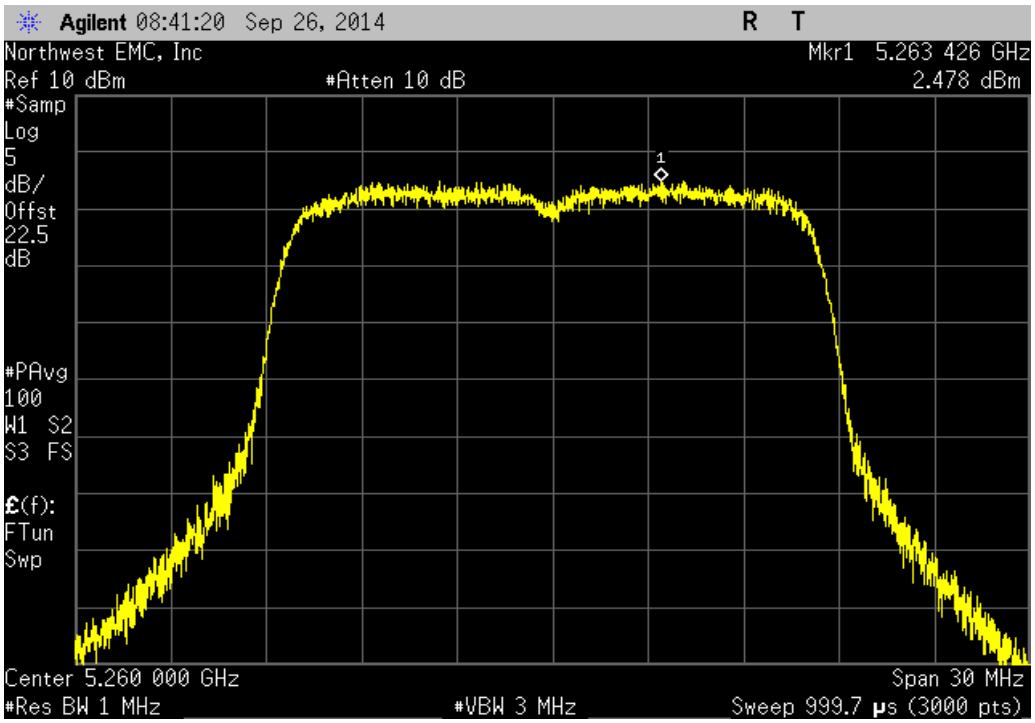


802.11(a) 54 Mbps, 5150 - 5250 MHz Band, Channel 48, High Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				2.402	4	Pass

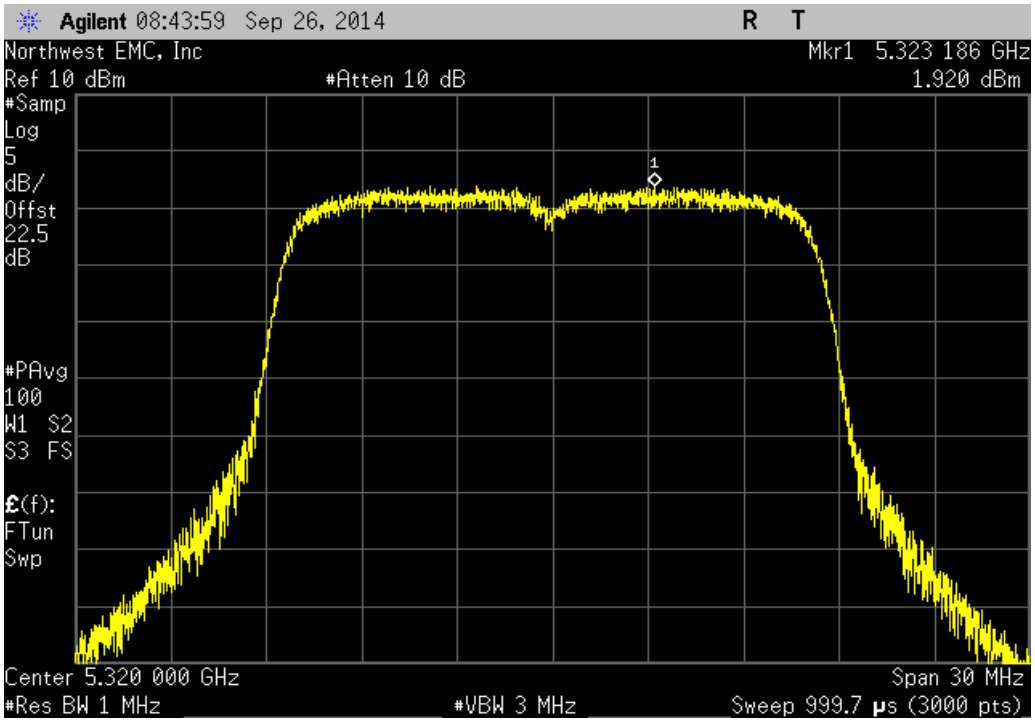


PEAK POWER SPECTRAL DENSITY

802.11(a) 54 Mbps, 5250 - 5350 MHz Band, Channel 52, Low Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				2.478	11	Pass

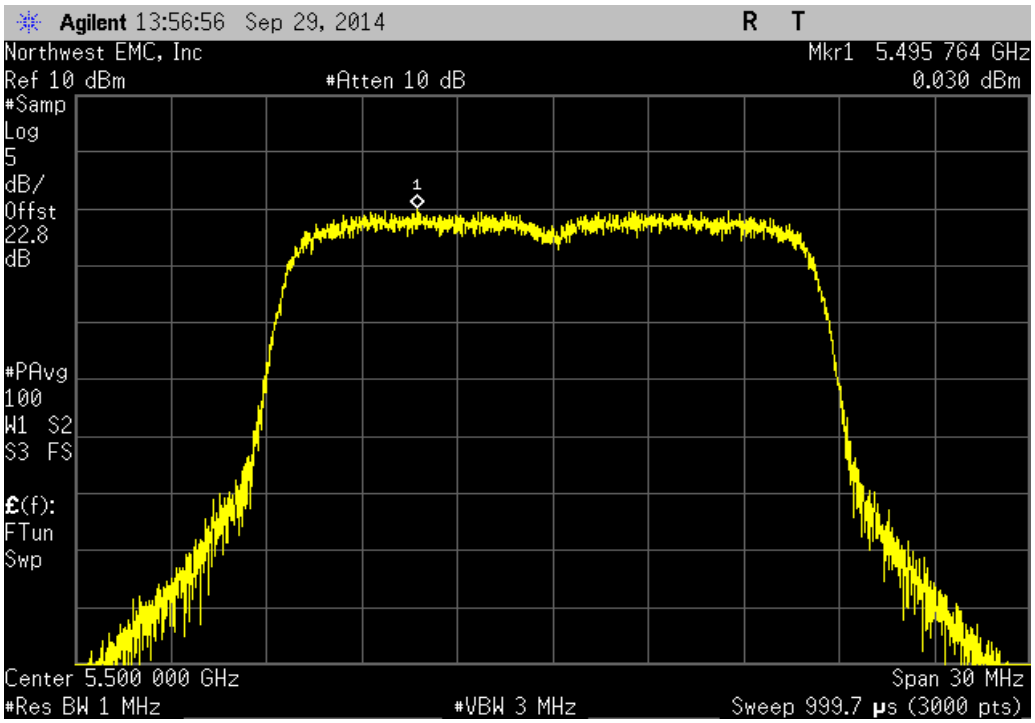


802.11(a) 54 Mbps, 5250 - 5350 MHz Band, Channel 64, High Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				1.92	11	Pass

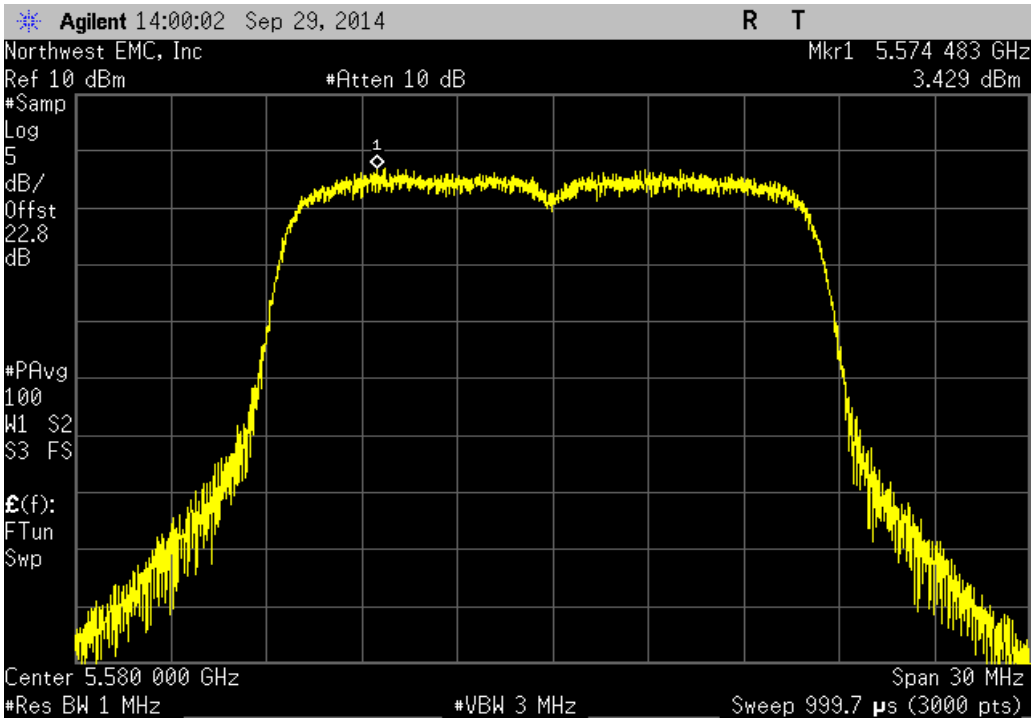


PEAK POWER SPECTRAL DENSITY

802.11(a) 54 Mbps, 5470 - 5725 MHz Band, Channel 100, Low Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				0.03	11	Pass



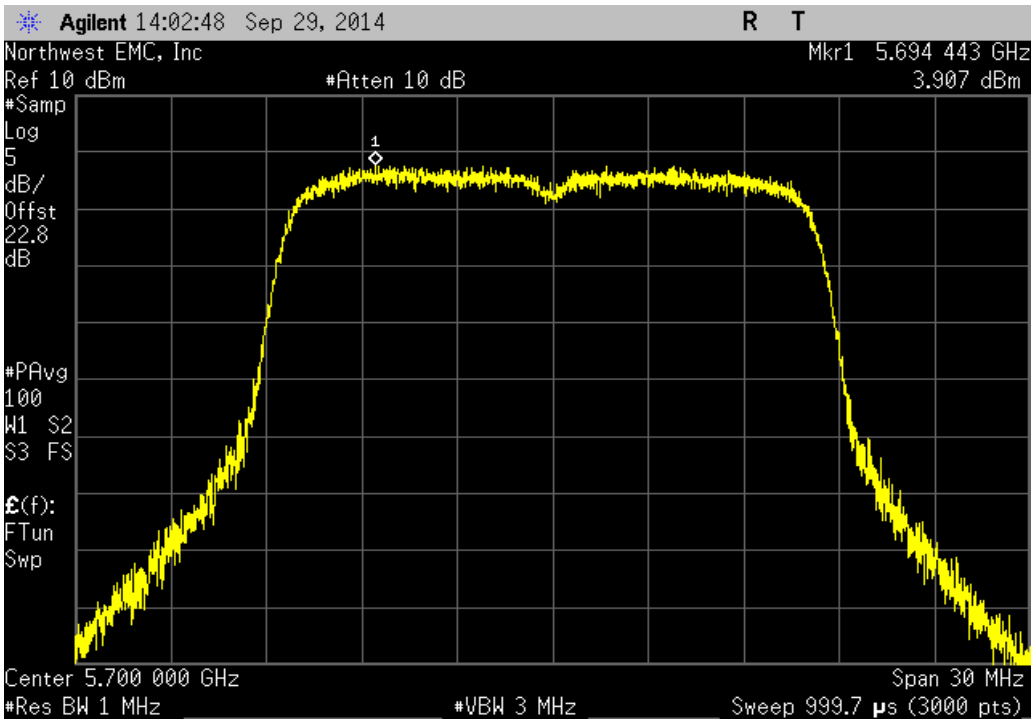
802.11(a) 54 Mbps, 5470 - 5725 MHz Band, Channel 116, Mid Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				3.429	11	Pass



PEAK POWER SPECTRAL DENSITY

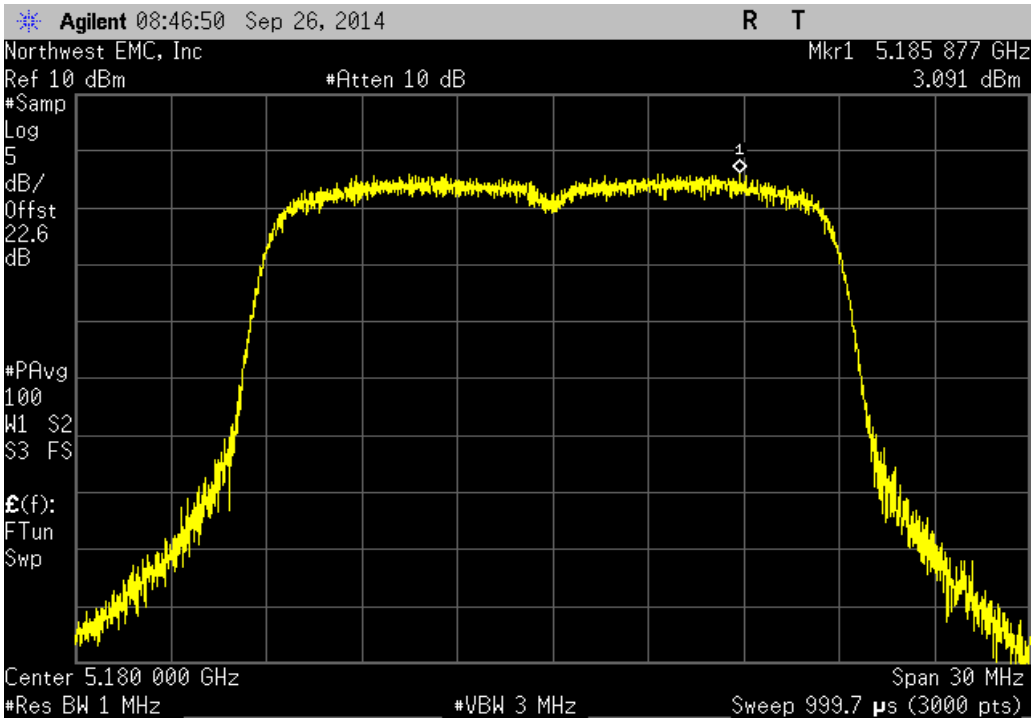
802.11(a) 54 Mbps, 5470 - 5725 MHz Band, Channel 140, High Channel

				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				3.907	11	Pass



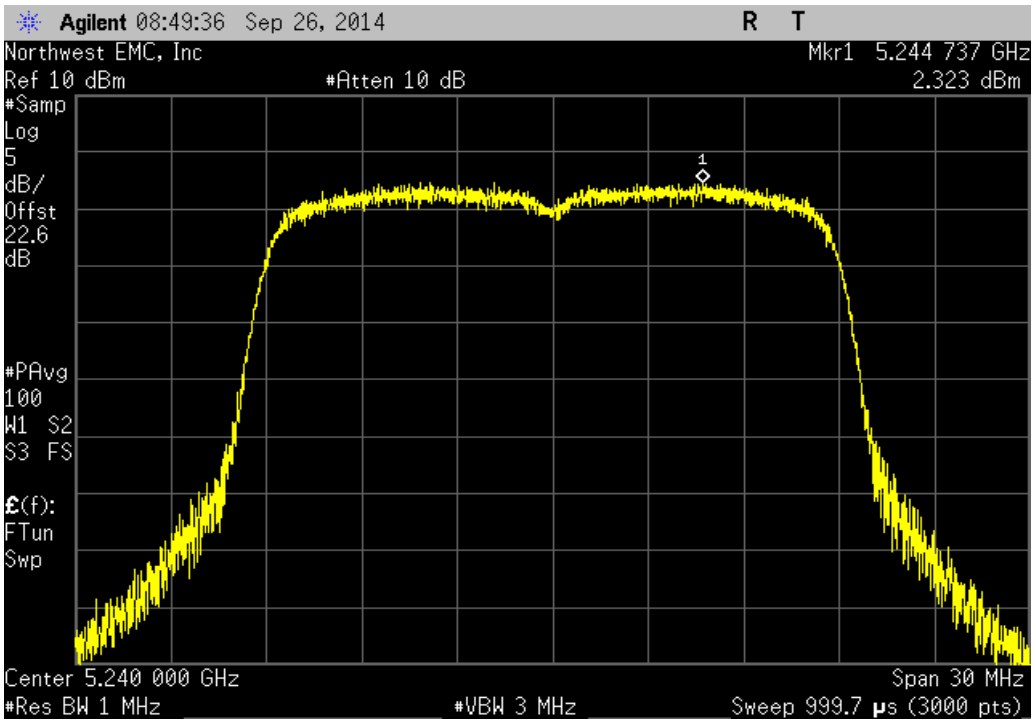
802.11(n) MCS0, 5150 - 5250 MHz Band, Channel 36, Low Channel

				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				3.091	4	Pass

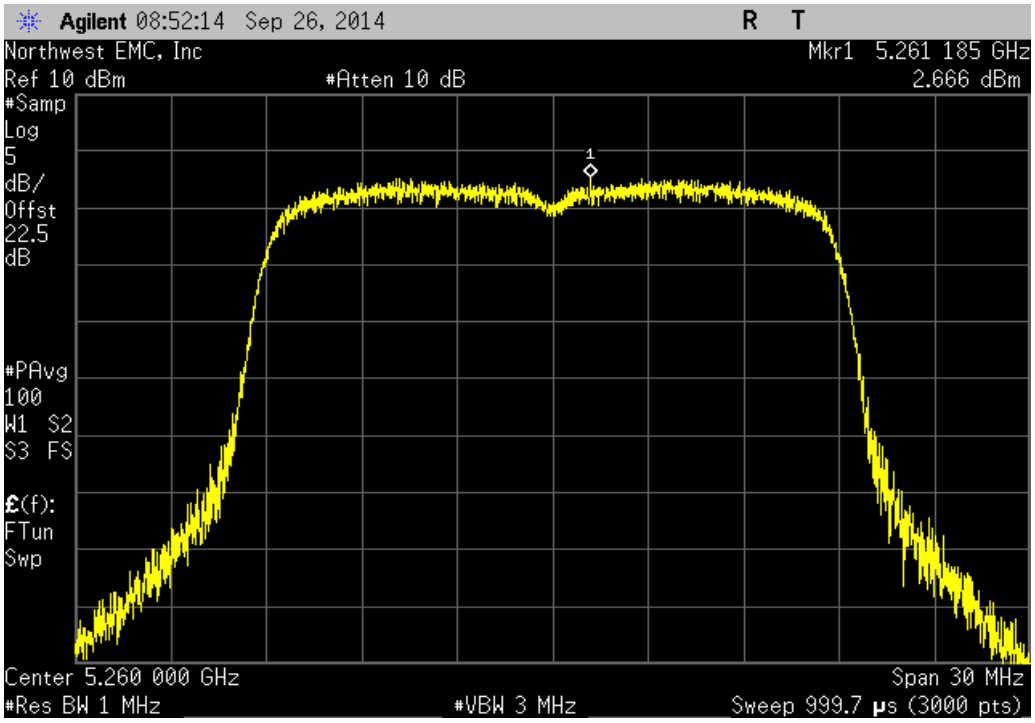


PEAK POWER SPECTRAL DENSITY

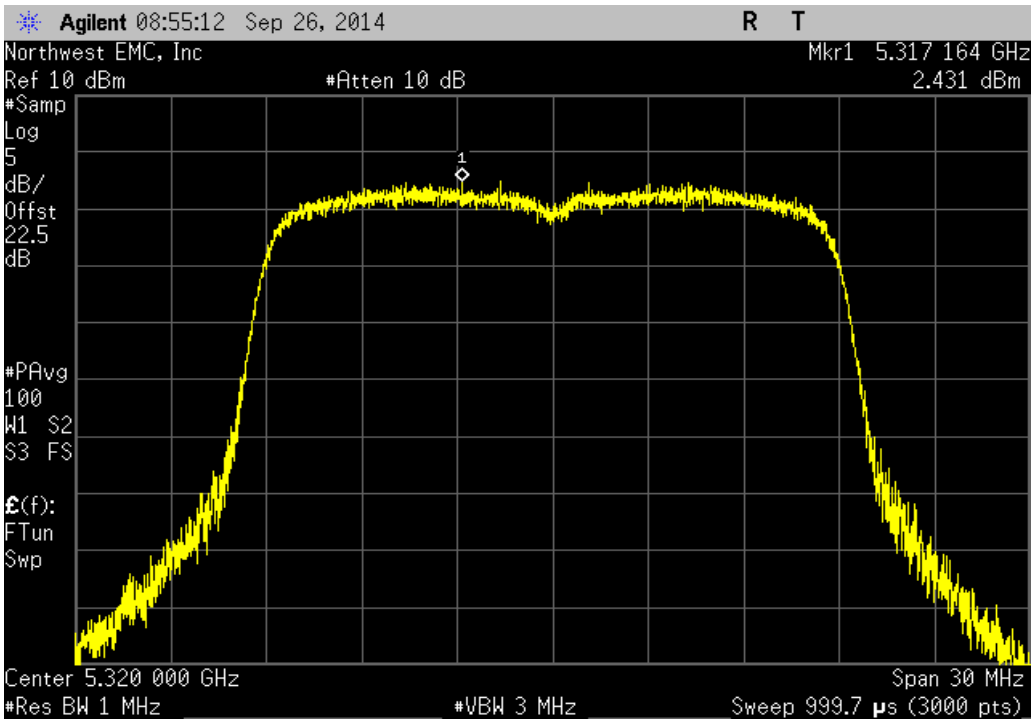
802.11(n) MCS0, 5150 - 5250 MHz Band, Channel 48, High Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				2.323	4	Pass



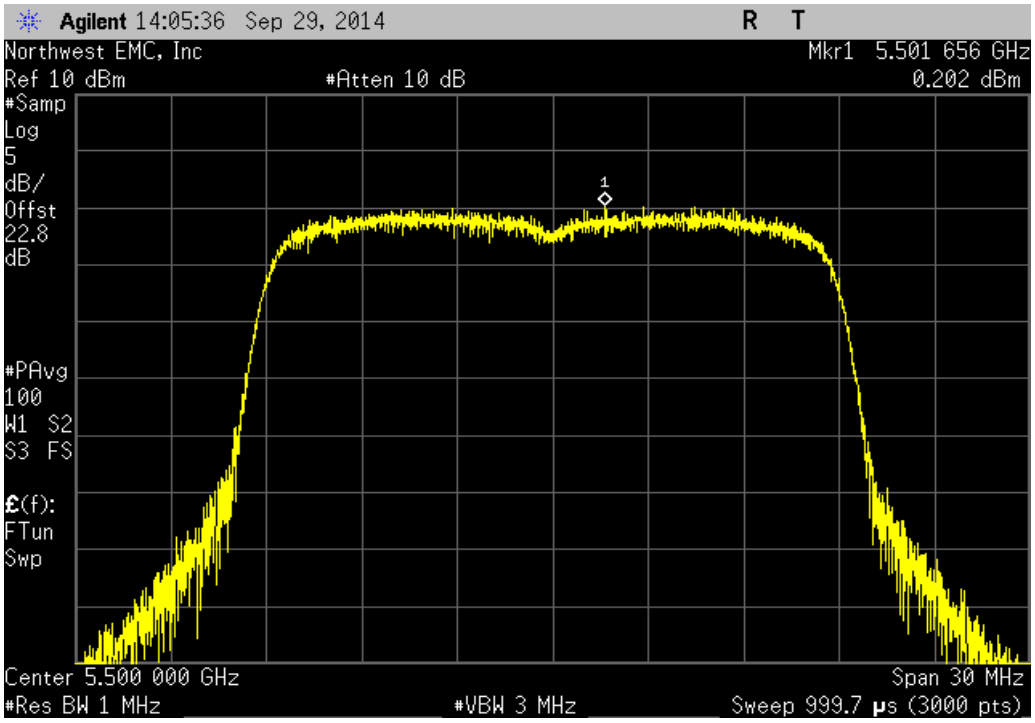
802.11(n) MCS0, 5250 - 5350 MHz Band, Channel 52, Low Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				2.666	11	Pass



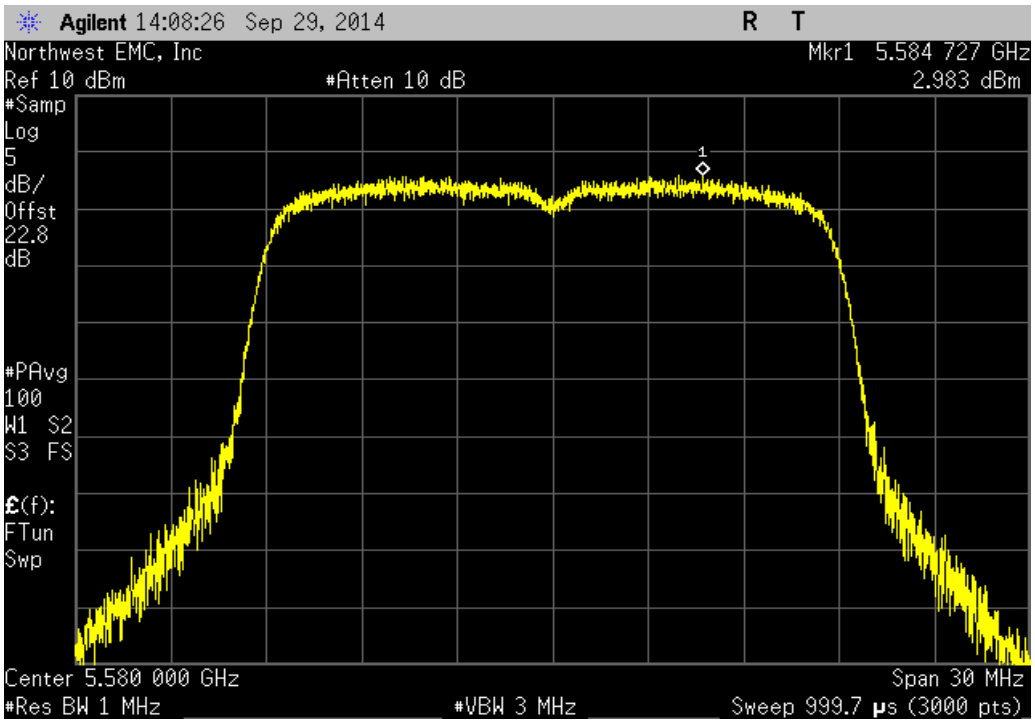
802.11(n) MCS0, 5250 - 5350 MHz Band, Channel 64, High Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				2.431	11	Pass



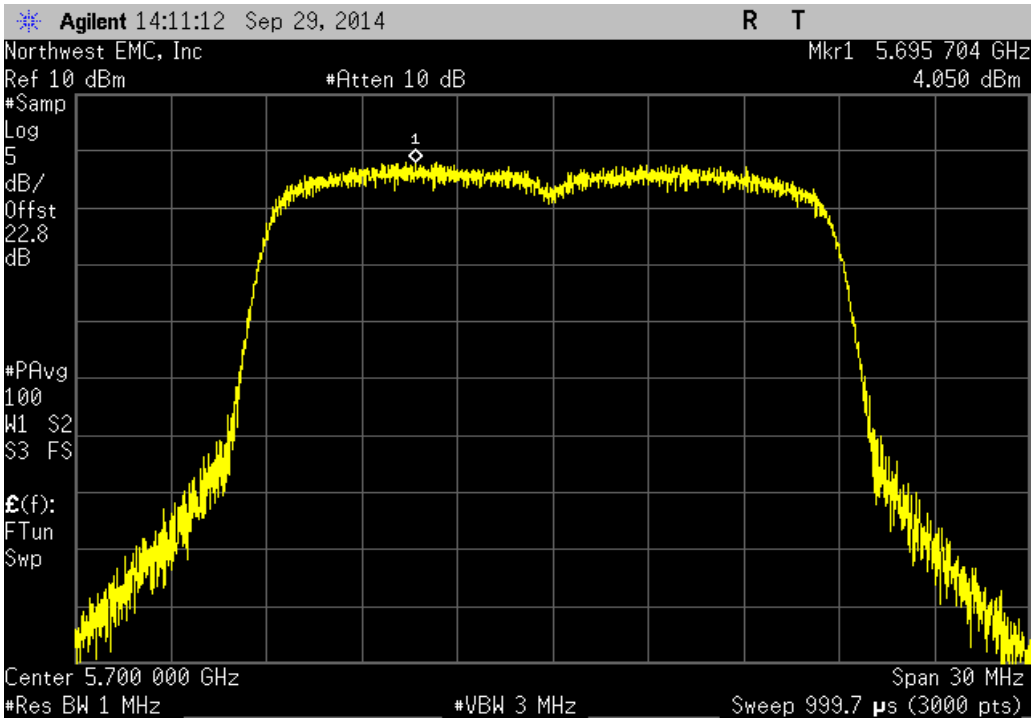
802.11(n) MCS0, 5470 - 5725 MHz Band, Channel 100, Low Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				0.202	11	Pass



802.11(n) MCS0, 5470 - 5725 MHz Band, Channel 116, Mid Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				2.983	11	Pass

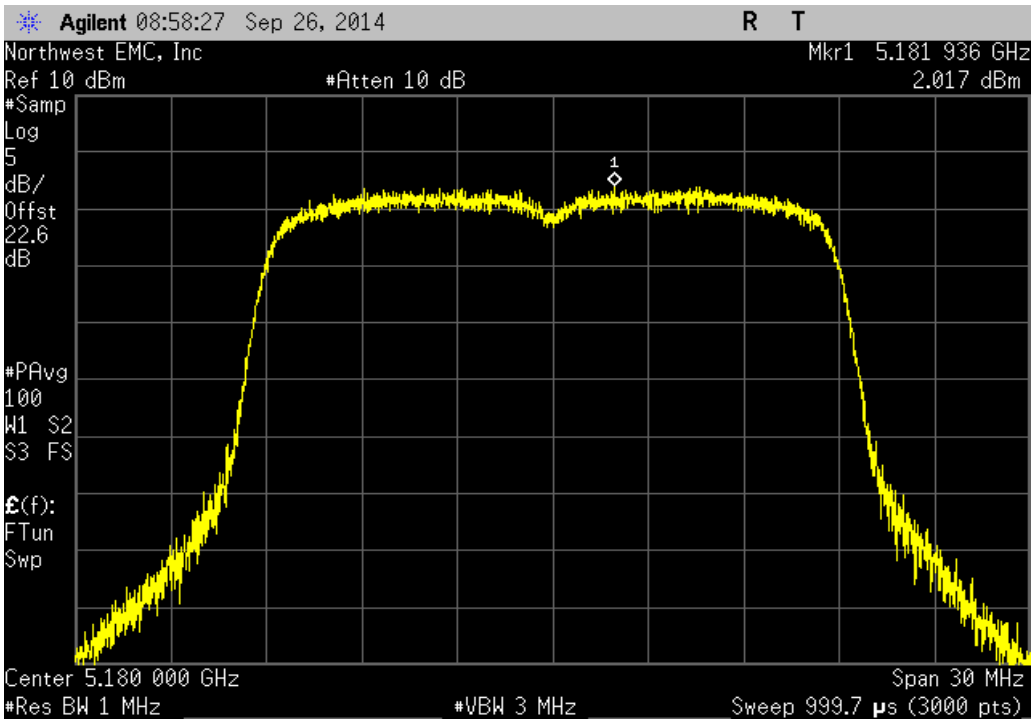


802.11(n) MCS0, 5470 - 5725 MHz Band, Channel 140, High Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				4.05	11	Pass

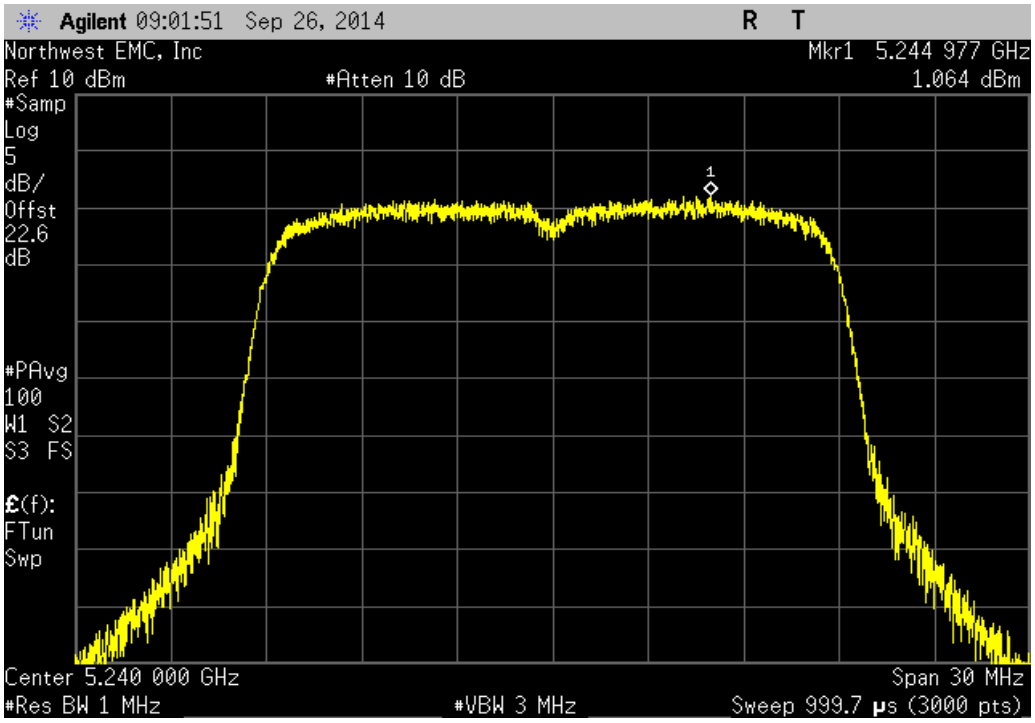


PEAK POWER SPECTRAL DENSITY

802.11(n) MCS7, 5150 - 5250 MHz Band, Channel 36, Low Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				2.017	4	Pass

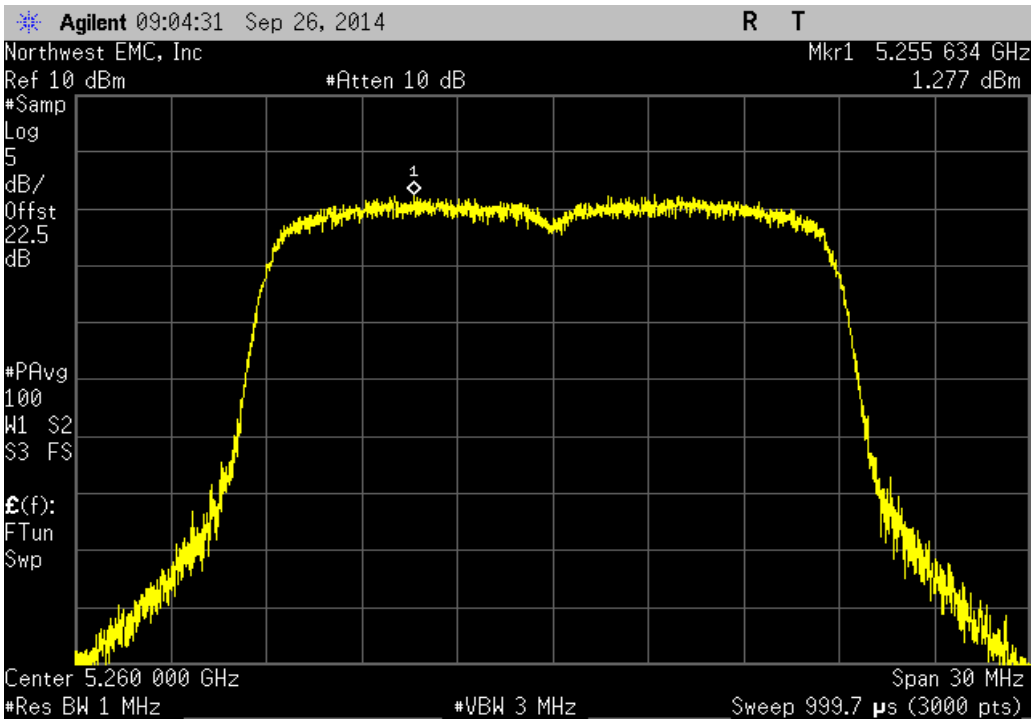


802.11(n) MCS7, 5150 - 5250 MHz Band, Channel 48, High Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				1.064	4	Pass

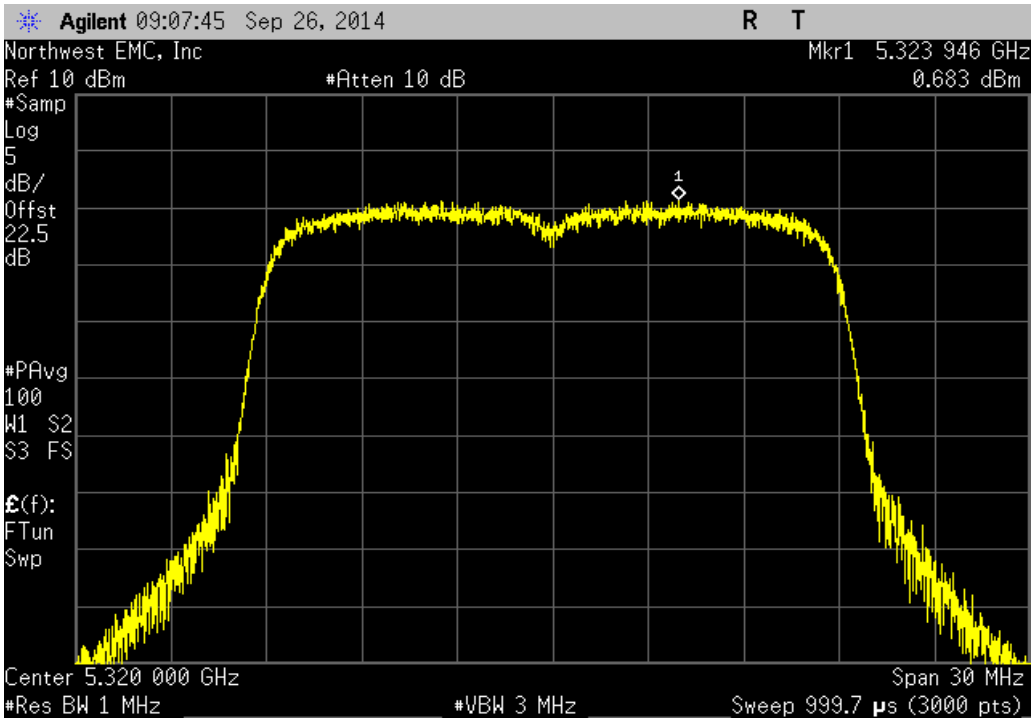


PEAK POWER SPECTRAL DENSITY

802.11(n) MCS7, 5250 - 5350 MHz Band, Channel 52, Low Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				1.277	11	Pass

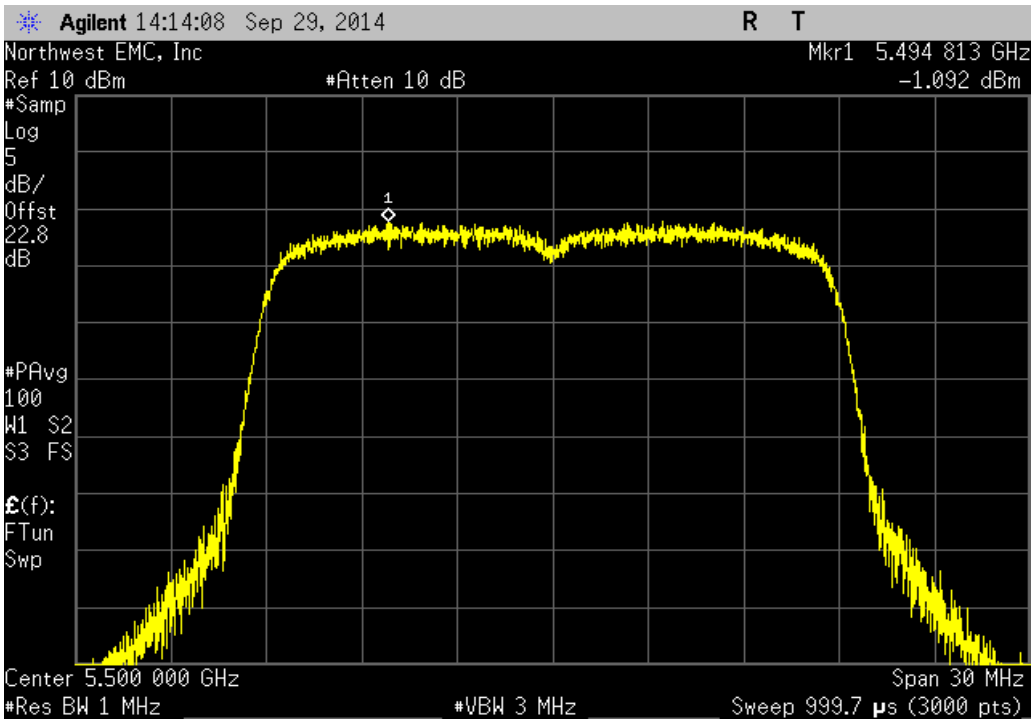


802.11(n) MCS7, 5250 - 5350 MHz Band, Channel 64, High Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				0.683	11	Pass

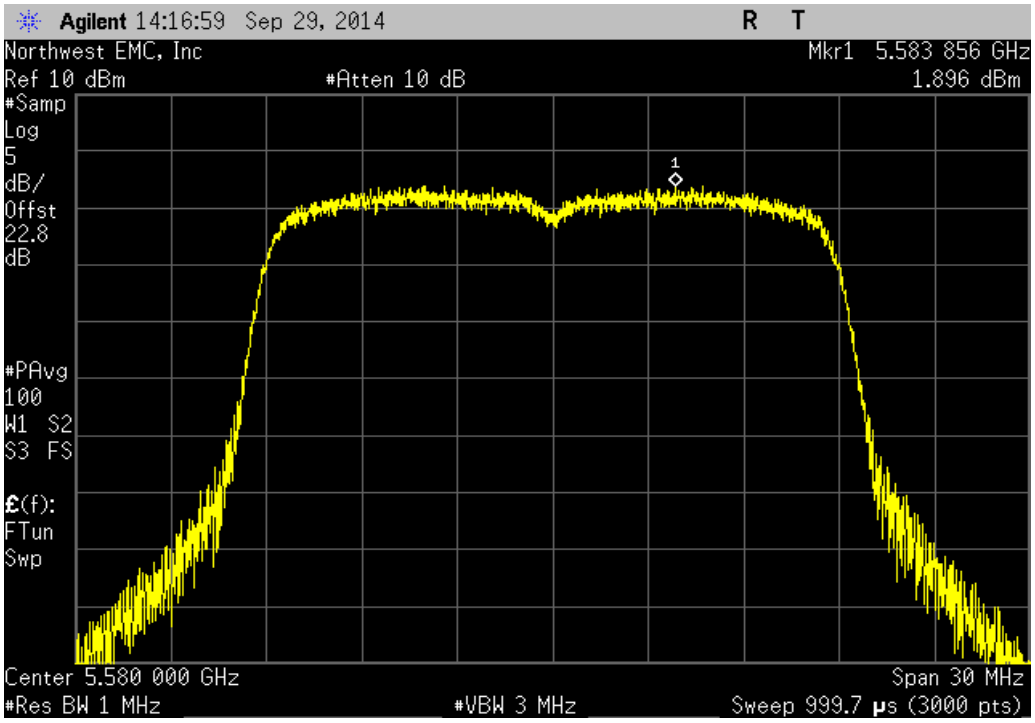


PEAK POWER SPECTRAL DENSITY

802.11(n) MCS7, 5470 - 5725 MHz Band, Channel 100, Low Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				-1.092	11	Pass

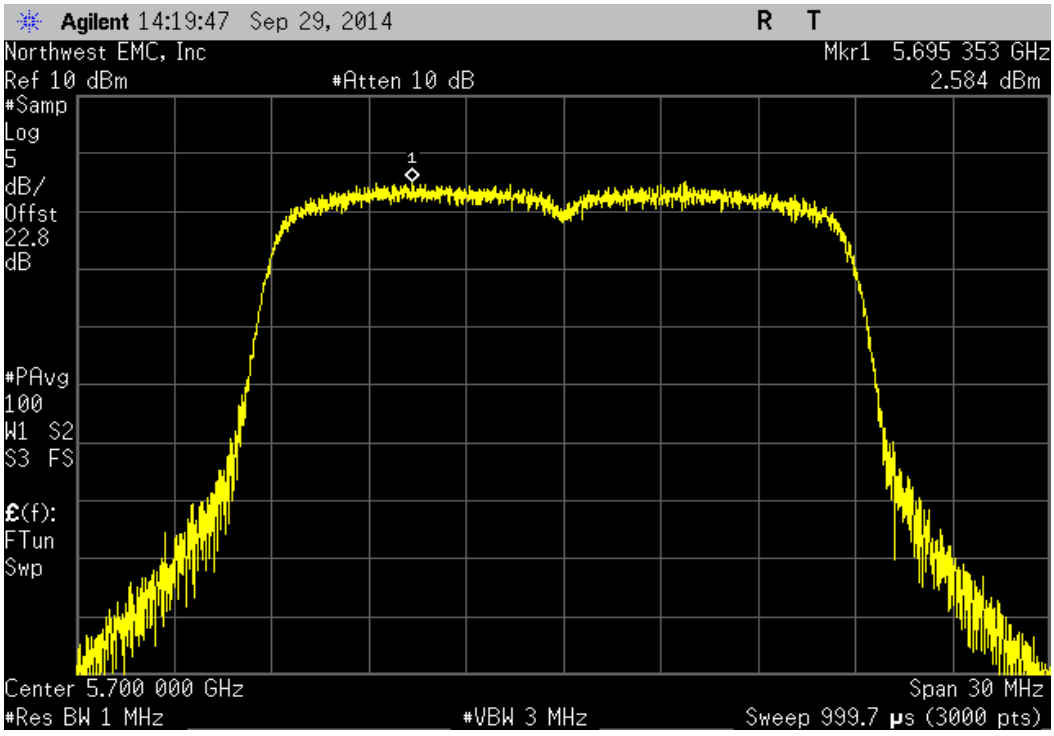


802.11(n) MCS7, 5470 - 5725 MHz Band, Channel 116, Mid Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				1.896	11	Pass



PEAK POWER SPECTRAL DENSITY

802.11(n) MCS7, 5470 - 5725 MHz Band, Channel 140, High Channel						
				Value (dBm / MHz)	Limit (dBm / MHz)	Results
				2.584	11	Pass



DUTY CYCLE

TEST DESCRIPTION

The Duty Cycle (x) were measured for each of the EUT operating modes. 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.

The EUT operates at 100% Duty Cycle.