Test of: Nanit N151 Smart Baby Monitor

To: FCC CFR 47 Pt 15.407 & ISED RSS 247

Report No.: UDIS01-U8 Rev A

COMPLETE TEST REPORT

TEST REPORT

FROM

MiCOM Labs
opening wireless markets

Test of: Nanit N151 Smart Baby Monitor

To: FCC CFR 47 Pt 15.407 & ISED RSS 247

Test Report Serial No.: UDIS01-U8 Rev A

This report supersedes: NONE

Applicant: UdiSense Inc. (DBA: Nanit)
244 Fifth Avenue
Suite # 2702,
New York, NY 10001
USA

Product Function: Wireless Video Baby Monitor

Issue Date: 13th August 2018

This Test Report is Issued Under the Authority of:

MiCOM Labs, Inc.
575 Boulder Court
Pleasanton California 94566
USA
Phone: +1 (925) 462-0304
Fax: +1 (925) 462-0306
www.micomlabs.com

A2LA ACCREDITED
TESTING CERT #2381.01

MiCOM Labs is an ISO 17025 Accredited Testing Laboratory

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1. ACCREDITATION, LISTINGS & RECOGNITION

1.1. TESTING ACCREDITATION

MiCOM Labs, Inc. is an accredited Electrical testing laboratory per the international standard ISO/IEC 17025:2005. The company is accredited by the American Association for Laboratory Accreditation (A2LA) www.a2la.org test laboratory number 2381.01. MiCOM Labs test schedule is available at the following URL; http://www.a2la.org/scopepdf/2381-01.pdf

ilac-MRA A2LA

Accredited Laboratory

A2LA has accredited

MiCOM LABS

Pleasanton, CA

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated April 2017*).

American Association for Laboratory Accreditation Corporate Seal 1978 District of Columbia A2LA

Presented this 14th day of May 2018.

President and CEO
For the Accreditation Council
Certificate Number 2381.01
Valid to November 30, 2019

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

1.2. RECOGNITION

MiCOM Labs, Inc has widely recognized wireless testing capabilities. Our international recognition includes Conformity Assessment Body designation by APEC MRA countries. MiCOM Labs test reports are accepted globally.

Country	Recognition Body	Status	Phase	Identification No.
USA	Federal Communications Commission (FCC)	TCB	-	US0159 Listing #: 102167
Canada	Industry Canada (IC)	FCB	APEC MRA 2	US0159 Listing #: 4143A-2 4143A-3
Japan	MIC (Ministry of Internal Affairs and Communication)	CAB	APEC MRA 2	RCB 210
	VCCI	--	--	A-0012
Europe	European Commission	NB	EU MRA	NB 2280
Australia	Australian Communications and Media Authority (ACMA)	CAB	APEC MRA 1	US0159
Hong Kong	Office of the Telecommunication Authority (OFTA)	CAB	APEC MRA 1	
Korea	Ministry of Information and Communication Radio Research Laboratory (RRL)	CAB	APEC MRA 1	
Singapore	Infocomm Development Authority (IDA)	CAB	APEC MRA 1	
Taiwan	National Communications Commission (NCC) Bureau of Standards, Metrology and Inspection (BSMI)	CAB	APEC MRA 1	
Vietnam	Ministry of Communication (MIC)	CAB	APEC MRA 1	

EU MRA – European Union Mutual Recognition Agreement.
NB – Notified Body
APEC MRA – Asia Pacific Economic Community Mutual Recognition Agreement. Recognition agreement under which test lab is accredited to regulatory standards of the APEC member countries.

Phase I - recognition for product testing
Phase II – recognition for both product testing and certification

1.3. PRODUCT CERTIFICATION

MiCOM Labs, Inc. is an accredited Product Certification Body per the international standard ISO/IEC 17065:2012. The company is accredited by the American Association for Laboratory Accreditation (A2LA) www.a2la.org test laboratory number 2381.02. MiCOM Labs test schedule is available at the following URL; http://www.a2la.org/scopepdf/2381-02.pdf

Accredited Product Certification Body

A2LA has accredited

MiCOM LABS

Pleasanton, CA

This product certification body is accredited in accordance with the recognized International Standard ISO/IEC 17065:2012 *Requirements for bodies certifying products, processes and services*. This product certification body also meets the *A2LA R322 – Specific Requirements – Notified Body Accreditation Requirements* and *A2LA R308 - Specific Requirements - ISO-IEC 17065 - Telecommunication Certification Body Accreditation Program*. This accreditation demonstrates technical competence for a defined scope and the operation of a management system.

Presented this 14th day of May 2018

President and CEO
For the Accreditation Council
Certificate Number 2381.02
Valid to November 30, 2019

For the product certification schemes to which this accreditation applies, please refer to the organization's Product Certification Scope of Accreditation.

United States of America – Telecommunication Certification Body (TCB)
Industry Canada – Certification Body, CAB Identifier – US0159
Europe – Notified Body (NB), NB Identifier - 2280
Japan – Recognized Certification Body (RCB), RCB Identifier - 210

2. DOCUMENT HISTORY

Document History		
Revision	Date	Comments
Draft	8th August 2018	Draft report for client review.
Rev A	13th August 2018	Initial release.
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In the above table the latest report revision will replace all earlier versions.

3. TEST RESULT CERTIFICATE

Manufacturer:	UdiSense Inc. (DBA: Nanit) 244 Fifth Avenue Suite # 2702, New York, NY 10001 USA	**Tested By:**	MiCOM Labs, Inc. 575 Boulder Court Pleasanton California 94566 USA
Model:	N151	**Telephone:**	+1 925 462 0304
Type Of Equipment:	Nanit Smart Baby Monitor	**Fax:**	+1 925 462 0306
S/N's:	N101AWZ0000002 N101AWZ0000004		
Test Date(s):	23rd July – 1st August 2018	**Website:**	www.micomlabs.com

STANDARD(S)	TEST RESULTS
FCC CFR 47 Part 15 Subpart E 15.407& ISED RSS-247	**EQUIPMENT COMPLIES**

MiCOM Labs, Inc. tested the equipment mentioned in accordance with the requirements set forth in the above standards. Test results indicate that the equipment tested is capable of demonstrating compliance with the requirements as documented within this report.

Notes:

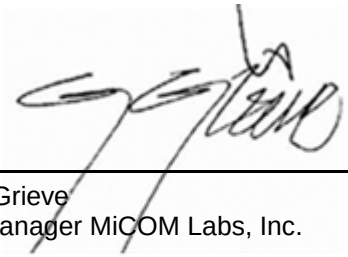
1. This document reports conditions under which testing was conducted and the results of testing performed.

2. Details of test methods used have been recorded and kept on file by the laboratory.

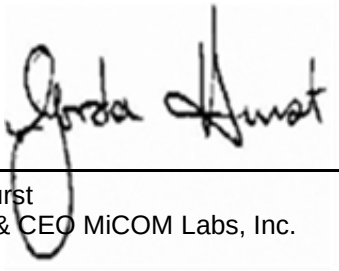
3. Test results apply only to the item(s) tested.

A2LA ACCREDITED
TESTING CERT #2381.01

Approved & Released for MiCOM Labs, Inc. by:



Graeme Grieve
Quality Manager MiCOM Labs, Inc.



Gordon Hurst
President & CEO MiCOM Labs, Inc.

4. REFERENCES AND MEASUREMENT UNCERTAINTY

4.1. Normative References

REF.	PUBLICATION	YEAR	TITLE
I	KDB 662911 D01 & D02	Oct 31 2013	Guidance for measurement of output emission of devices that employ single transmitter with multiple outputs or systems with multiple transmitters operating simultaneously in the same frequency band
II	KDB 905462 D07 v02	22nd August 2016	Test guidance to demonstrate compliance for U-NII devices subject to DFS requirements.
III	KDB 926956 D01 v02	22nd August 2016	U-NII Device Transition Plan
IV	A2LA	August 2017	R105 - Requirement's When Making Reference to A2LA Accreditation Status
V	ANSI C63.10	2013	American National Standard for Testing Unlicensed Wireless Devices
VI	ANSI C63.4	2014	American National Standards for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
VII	CISPR 32	2015	Electromagnetic compatibility of multimedia equipment - Emission requirements
VIII	ETSI TR 100 028	2001-12	Parts 1 and 2 Electromagnetic compatibility and Radio Spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics
IX	FCC 06-96	Jun 30 2006	Memorandum Opinion and Order
X	FCC 47 CFR Part 15.407	2016	Radio Frequency Devices; Subpart E –Unlicensed National Information Infrastructure Devices
XI	ICES-003	Issue 6 Jan 2016; Updated April 2017	Information Technology Equipment (Including Digital Apparatus) – Limits and methods of measurement.
XII	M 3003	Edition 3 Nov.2012	Expression of Uncertainty and Confidence in Measurements
XIII	RSS-247 Issue 2	Feb 2017	Digital Transmission Systems (DTSs), Frequency Hopping System (FHSs) and License-Exempt Local Area Network (LE-LEN) Devices
XIV	RSS-Gen Issue 5	April 2018	General Requirements for Compliance of Radio Apparatus
XV	FCC 47 CFR Part 2.1033	2016	FCC requirements and rules regarding photographs and test setup diagrams.
XVI	KDB 905462 D02 v02	April 8 2016	Compliance Measurement Procedures for Unlicensed National Information Infrastructure devices operating in the 5250 to 5350 MHz and 5470 to 5725 MHz bands incorporating Dynamic Frequency Selection.
XVII	KDB 789033 D02 V02r01	14th December, 2017	Guidelines For Compliance Testing Of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E

4.2. Test and Uncertainty Procedure

Conducted and radiated emission measurements were conducted in accordance with American National Standards Institute ANSI C63.4, listed in the Normative References section of this report.

Measurement uncertainty figures are calculated in accordance with ETSI TR 100 028 Parts 1 and 2.

Measurement uncertainties stated are based on a standard uncertainty multiplied by a coverage factor k = 2, providing a level of confidence of approximately 95 % in accordance with UKAS document M 3003 listed in the Normative References section of this report.

5. PRODUCT DETAILS AND TEST CONFIGURATIONS

5.1. Technical Details

Details	Description
Purpose:	Test of the Nanit Smart Baby Monitor to FCC CFR 47 Part 15 Subpart E 15.407 & ISED RSS-247. Compliance Measurement Procedures for Unlicensed National Information Infrastructure devices operating in the 5150 to 5250 MHz, 5250 to 5350 MHz and 5470 to 5725 MHz bands incorporating Dynamic Frequency Selection.
Applicant:	UdiSense Inc. (DBA: Nanit) 244 Fifth Avenue Suite # 2702, New York, NY 10001 USA
Manufacturer:	Same as applicant.
Laboratory performing the tests:	MiCOM Labs, Inc. 575 Boulder Court Pleasanton California 94566 USA
Test report reference number:	UDIS01-U8 Rev A
Date EUT received:	23rd July 2018
Standard(s) applied:	FCC CFR 47 Part 15 Subpart E 15.407 & ISED RSS-247
Dates of test (from - to):	23rd July - 1st August 2018
No of Units Tested:	2
Product Family Name:	Nanit Smart Baby Monitor
Model(s):	N151
Location for use:	Indoors
Declared Frequency Range(s):	5150 - 5250 MHz; 5250 - 5350 MHz; 5470 - 5725 MHz; 5725 - 5850 MHz;
Type of Modulation:	CCK, OFDM
EUT Modes of Operation:	a; HT-20; HT-40;
Declared Nominal Output Power:	17 dBm
Transmit/Receive Operation:	Duplex
Rated Input Voltage and Current:	$5V_{DC}$, 2A
Operating Temperature Range:	10 to 40 °C
ITU Emission Designator:	802.11a: 20M4D1D 802.11n HT-20: 20M7D1D 802.11n HT-40: 47M4D1D
Equipment Dimensions:	3 1/8 x 3 1/8 x 1 1/2 inch
Weight:	4 oz.
Hardware Rev:	DV2
Software Rev:	1.1.4.4.2

5.2. Scope Of Test Program

Nanit N151

The scope of the test program was to test the Nanit N151 Smart Baby Monitor 802.11 configurations in the frequency ranges 5150 - 5250 MHz; 5250 - 5350 MHz; 5470 - 5725 MHz; 5725 - 5850 MHz; for compliance against the following specifications:

FCC CFR 47 Part 15 Subpart E 15.407
Subpart E – Unlicensed National Information Infrastructure Devices

ISED RSS 247
RSS-247 — Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices

The following Product description was provided by the manufacturer:

Nanit smart video baby monitor is a wireless camera that is mounted above a crib and uses machine learning and computer vision algorithms to analyze the baby's sleep, providing parents actionable insights to help them extend and improve the baby's sleep.

Nanit N151

5.3. Equipment Model(s) and Serial Number(s)

Type	Description	Manufacturer	Model	Serial no.	Delivery Date
EUT	Wireless Video Baby Monitor	Nanit	N151	N101AWZ0000002	23rd July 2018
EUT	Wireless Video Baby Monitor	Nanit	N151	N101AWZ0000004	23rd July 2018

1. The EUT samples provided for testing are physically identified as serial numbers;-

   N101AWZ0000004
   N101AWZ0000002

   The manufacturer advised that these serial numbers do not match the Nanit S/N 151AWZYYWWXXX format showing the N151 product code for this product that will be used in manufacturing.

5.4. Antenna Details

Type	Manufacturer	Model	Family	Gain (dBi)	BF Gain	Dir BW	X-Pol	Frequency Band (MHz)
integral	Pulse	SZ0845W	Dipole	4.69	-	360	-	5150 - 5250
integral	Pulse	SZ0845W	Dipole	4.69	-	360	-	5250 - 5350
integral	Pulse	SZ0845W	Dipole	4.69	-	360	-	5470 - 5725
integral	Pulse	SZ0845W	Dipole	4.69	-	360	-	5725 - 5850

BF Gain - Beamforming Gain
Dir BW - Directional BeamWidth
X-Pol - Cross Polarization

5.5. Cabling and I/O Ports

Port Type	Max Cable Length	# of Ports	Screened	Conn Type	Data Type	Environment
USB	10-30m	1	Shielded	USB-C	Digital	End-User |Indoors|

5.6. Test Configurations

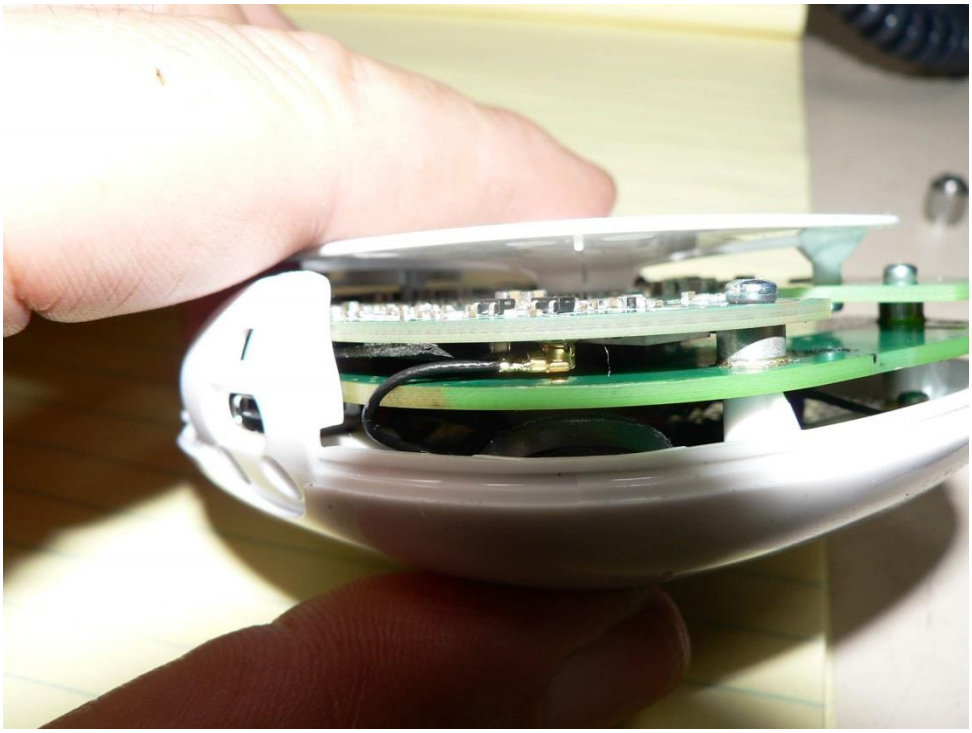
Results for the following configurations are provided in this report:

Operational Mode(s) (802.11a/b/g/n)	Data Rate with Highest Power MBit/s	Channel Frequency (MHz)		
		Low	Mid	High
5150 - 5250 MHz				
11a	6	5,180.00	5,200.00	5,240.00
11n HT-20	6.5	5,180.00	5,200.00	5,240.00
11n HT-40	13.5	5,190.00	--	5,230.00
5250 - 5350 MHz				
11a	6	5,260.00	5,300.00	5,320.00
11n HT-20	6.5	5,260.00	5,300.00	5,320.00
11n HT-40	13.5	5,270.00	--	5,310.00
5470 - 5725 MHz				
11a	6	5,500.00	5,580.00	5,700.00
11n HT-20	6.5	5,500.00	5,580.00	5,700.00
11n HT-40	13.5	5,510.00	5,550.00	5,700.00
5725 - 5850 MHz				
11a	6	5,745.00	5,785.00	5,825.00
11n HT-20	6.5	5,745.00	5,785.00	5,825.00
11n HT-40	13.5	5,755.00	--	5,795.00

5.7. Equipment Modifications

The following modifications were required to bring the equipment into compliance:

1. Antenna cable reroute required to meet Radiated Transmitter Spurious Emissions. See picture below:



Cable must be positioned under PCB ground layer away from RF chip and antenna.

5.8. Deviations from the Test Standard

The following deviations from the test standard were required in order to complete the test program:
1. NONE

6. TEST SUMMARY

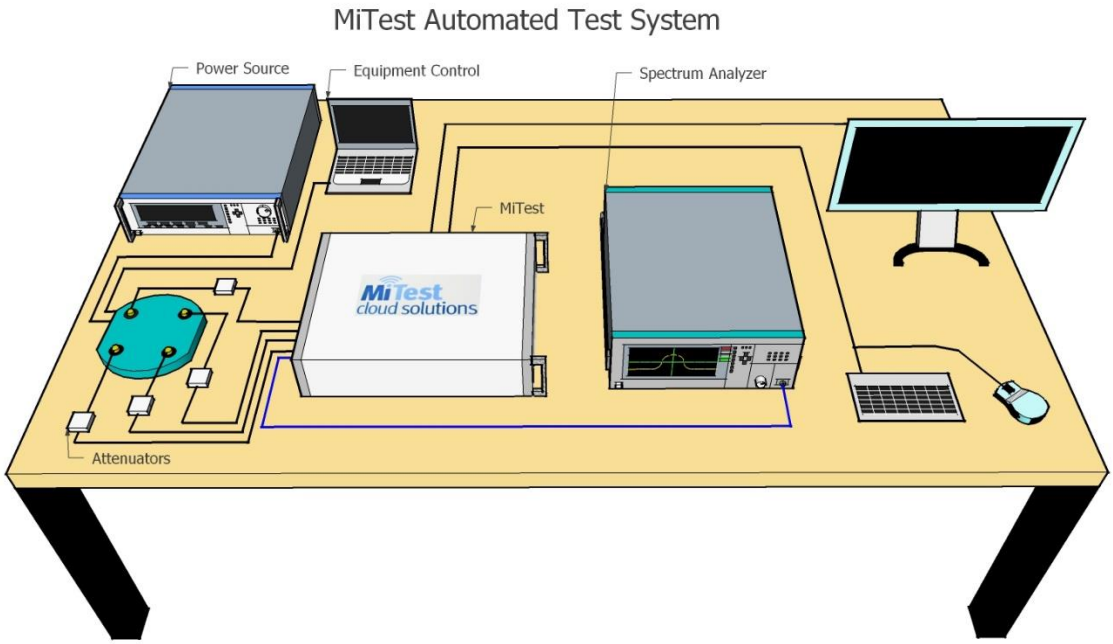
List of Measurements

Test Header	Result	Data Link
Peak Transmit Power	Complies	View Data
26 dB & 99% Bandwidth	Complies	View Data
6 dB & 99% Bandwidth	Complies	View Data
Power Spectral Density	Complies	View Data
Dynamic Frequency Selection (DFS)	Complies	-
Channel Availability Check	Not Required	-
Channel Close / Transmission Time	Complies	View Data
Non-Occupancy Period	Complies	View Data
Probability of Detection	Not Required	-
Detection Bandwidth	Not Required	-
Radiated	Complies	-
TX Spurious & Restricted Band Emissions	Complies	View Data
Restricted Edge & Band-Edge Emissions	Complies	View Data
Digital Emissions	Not Tested	See test report UDIS01-U2
AC Wireline	Not Tested	See test report UDIS01-U2

7. TEST EQUIPMENT CONFIGURATION(S)

7.1. Conducted

Conducted RF Emission Test Set-up(s) The following tests were performed using the conducted test set-up shown in the diagram below.



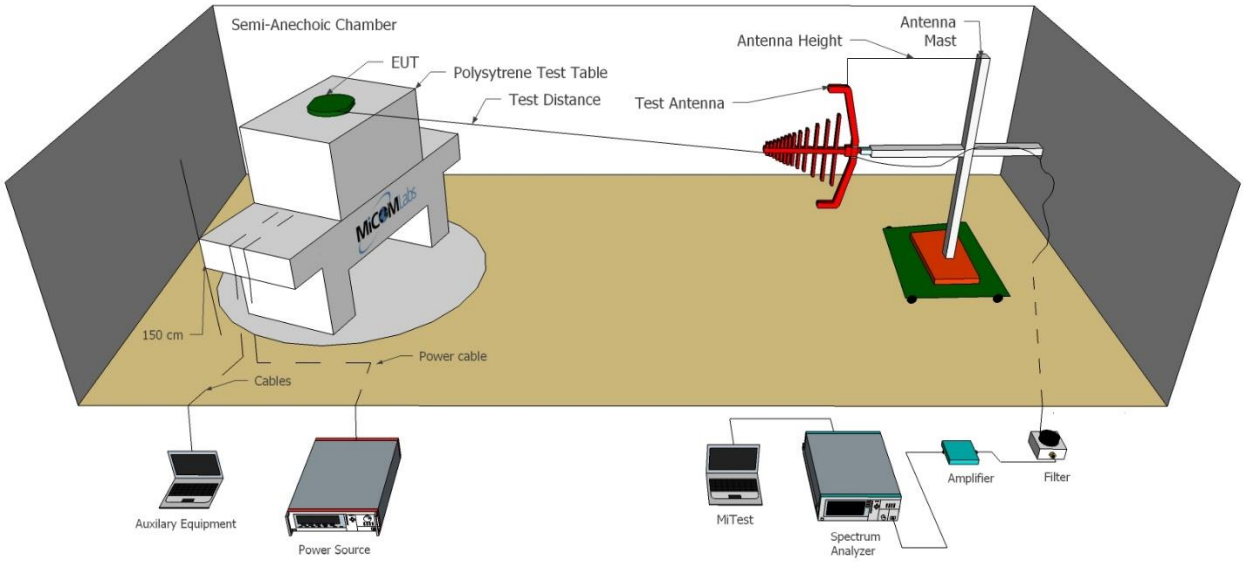
A full system calibration was performed on the test station and any resulting system losses (or gains) were taken into account in the production of all final measurement data.

Asset#	Description	Manufacturer	Model#	Serial#	Calibration Due Date
#3 SA	MiTest Box to SA	Fairview Microwave	SCA1814-0101-72	#3 SA	28 Sep 2018
#3P1	EUT to MiTest box port 1	Fairview Microwave	SCA1814-0101-72	#3P1	28 Sep 2018
#3P2	EUT to MiTest box port 2	Fairview Microwave	SCA1814-0101-72	#3P2	28 Sep 2018
#3P3	EUT to MiTest box port 3	Fairview Microwave	SCA1814-0101-72	#3P3	28 Sep 2018
#3P4	EUT to MiTest box port 4	Fairview Microwave	SCA1812-0101-72	#3P4	28 Sep 2018
249	Resistance Thermometer	Thermotronics	GR2105-02	9340 #2	30 Oct 2018
361	Desktop for RF#1, Labview Software installed	Dell	Vostro 220	WS RF#1	Not Required
378	Rohde & Schwarz 40 GHz Receiver with Generator	Rhode & Schwarz	ESIB40	100107/040	12 Oct 2018
398	MiTest RF Conducted Test Software	MiCOM	MiTest ATS	Version 4.1	Not Required
405	DC Power Supply 0-60V	Agilent	6654A	MY4001826	Cal when used
408	USB to GPIB interface	National Instruments	GPIB-USB HS	14C0DE9	Not Required
436	USB Wideband Power Sensor	Boonton	55006	8731	14 Sep 2018
441	USB Wideband Power Sensor	Boonton	55006	9179	20 Sep 2018
445	PoE Injector	D-Link	DPE-101GL	QTAH1E2000625	Not Required
461	Spectrum Analyzer	Agilent	E4440A	MY46185537	20 Sep 2018
510	Barometer/Thermometer	Control Company	68000-49	170871375	11 Dec 2018
515	MiTest Cloud Solutions RF Test Box	MiCOM	2nd Gen with DFS	515	28 Sep 2018
75	Environmental Chamber	Thermatron	SE-300-2-2	27946	24 Dec 2018

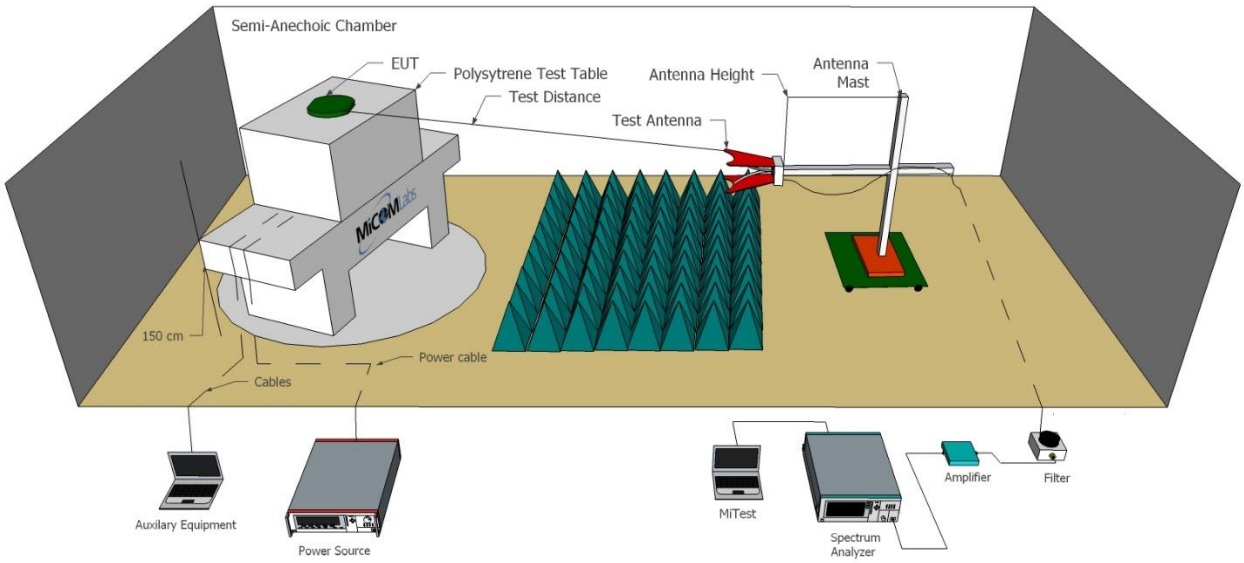
7.2. Radiated Emissions - 3m Chamber

The following tests were performed using the radiated test set-up shown in the diagram below.

Radiated Emissions Below 1GHz Test Setup



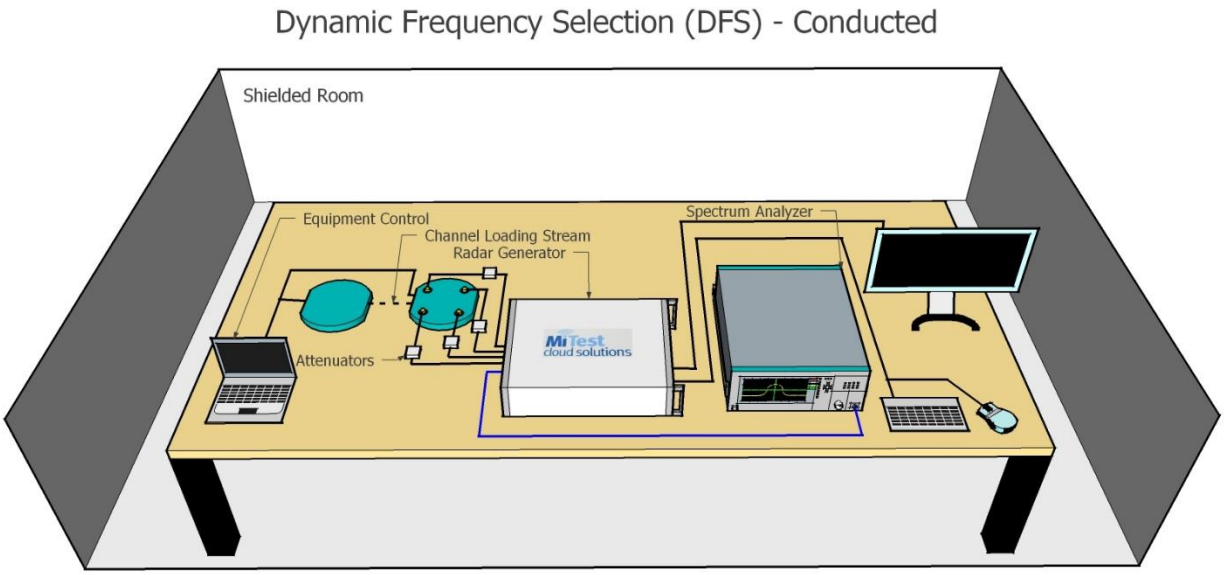
Radiated Emissions Above 1GHz Test Setup



A full system calibration was performed on the test station and any resulting system losses (or gains) were taken into account in the production of all final measurement data.

Asset#	Description	Manufacturer	Model#	Serial#	Calibration Due Date
170	Video System Controller for Semi Anechoic Chamber	Panasonic	WV-CU101	04R08507	Not Required
298	3M Radiated Emissions Chamber Maintenance Check	MiCOM	3M Chamber	298	27 Sep 2018
377	Band Rejection Filter 5150 to 5880MHz	Microtronics	BRM50716	034	6 Oct 2018
378	Rohde & Schwarz 40 GHz Receiver with Generator	Rhode & Schwarz	ESIB40	100107/040	12 Oct 2018
396	2.4 GHz Notch Filter	Microtronics	BRM50701	001	6 Oct 2018
399	ETS 1-18 GHz Horn Antenna	ETS	3117	00154575	12 Oct 2018
406	Amplifier for Radiated Emissions	MiCOM Labs	40dB 1 to 18GHz Amp	0406	12 Oct 2018
410	Desktop Computer	Dell	Inspiron 620	WS38	Not Required
411	Mast/Turntable Controller	Sunol Sciences	SC98V	060199-1D	Not Required
412	USB to GPIB Interface	National Instruments	GPIB-USB HS	11B8DC2	Not Required
413	Mast Controller	Sunol Science	TWR95-4	030801-3	Not Required
414	DC Power Supply 0-60V	HP	6274	1029A01285	Cal when used
415	Turntable Controller	Sunol Sciences	Turntable Controller	None	Not Required
416	Gigabit ethernet filter	ETS-Lingren	Gigafoil 260366	None	Not Required
447	MiTest Rad Emissions Test Software	MiCOM	Rad Emissions Test Software Version 1.0	447	Not Required
480	Cable - Bulkhead to Amp	SRC Haverhill	157-3050360	480	6 Oct 2018
481	Cable - Bulkhead to Receiver	SRC Haverhill	151-3050787	481	6 Oct 2018
482	Cable - Amp to Antenna	SRC Haverhill	157-3051574	482	6 Oct 2018
510	Barometer/Thermometer	Control Company	68000-49	170871375	11 Dec 2018
87	Uninterruptible Power Supply	Falcon Electric	ED2000-1/2LC	F3471 02/01	Cal when used

7.3. DFS - Conducted



A full system calibration was performed on the test station and any resulting system losses (or gains) were taken into account in the production of all final measurement data.

Asset#	Description	Manufacturer	Model#	Serial#	Calibration Due Date
0507	Power Meter EPM Series	Agilent	E4418B	MY40511221	20 Oct 2018
193	Receiver 20 Hz to 7 GHz	Rhode & Schwarz	ESI 7	838496/007	10 Oct 2018
296	DFS Test Room	MiCOM	DFS Test Room	296	28 Nov 2018
299	Test Software DFS Test System	Aeroflex	DFS test Software	V2.7.0	Not Required
359	DFS System	Aeroflex	PXI-1042	300001/004	6 Dec 2018
417	Laptop for DFS with DFS software	Lenova	W520	DFS	Not Required
418	PCI-e interface card	National Instruments	Express 8360	174AAC5	Not Required
422	Splitter/Combiner	Pasternack	PE 2031	001	Cal when used
495	RF Power Divider	Micon Precise Corp	91002	495	Cal when used
510	Barometer/Thermometer	Control Company	68000-49	170871375	11 Dec 2018
71	Spectrum Analyser 9KHz-50GHz	HP	8565E	3425A00181	6 Aug 2018

DFS PCIe#1	PCIe cable for Aeroflex	National Instruments	PCIe cable	None	Not Required
DFS SMA#1	SMA Cable for DFS	Megaphase	SMA Cable	None	Cal when used
DFS SMA#2	SMA Cable for DFS	Megaphase	SMA Cable	None	Cal when used
DFS SMA#3	SMA Cable for DFS	Megaphase	SMA Cable	None	Cal when used
DFS SMA#4	SMA Cable for DFS	Megaphase	SMA Cable	None	Cal when used

8. MEASUREMENT AND PRESENTATION OF TEST DATA

The measurement and graphical data presented in this test report was generated automatically using state-of-the-art technology creating an easy to read report structure. Numerical measurement data is separated from supporting graphical data (plots) through hyperlinks. Numerical measurement data can be reviewed without scrolling through numerous graphical pages to arrive at the next data matrix.

Plots have been relegated into the Appendix 'Graphical Data'.

Test and report automation was performed by MiTest. MiTest is an automated test system developed by MiCOM Labs. MiTest is the first cloud based modular test system enabling end-to-end automation of regulatory compliance testing for conducted RF testing.

The MiCOM Labs "MiTest" Automated Test System" (Patent Pending)

9. TEST RESULTS

9.1. FCC 15.407 Peak Transmit Power

Conducted Test Conditions for Maximum Conducted Output Power			
Standard:	FCC CFR 47:15.407 (a)	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Maximum Conducted Output Power	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	ANSI C63.10: 11.9.1.3	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Maximum Conducted Output Power Measurement
Method PM (Measurement using an RF average power meter). KDB 789033 defines a methodology using an average wideband power meter. Measurements were made while the EUT was operating in a continuous transmission mode (100% duty cycle) at the appropriate center frequency. All operational modes and frequency bands were measured independently and the resultant calculated. Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured and reported separately. A summation (Σ) of each antenna port output power is provided which includes any offset due to Duty Cycle Correction Factor (DCCF). Testing was performed under ambient conditions at nominal voltage.

Test configuration and setup used for the measurement was per the Conducted Test Set-up section specified in this document.
Supporting Information
Calculated Power = A + G + Y+ 10 log (1/x) dBm

A = Total Power [10*Log10 ($10^{a/10}$ + $10^{b/10}$ + $10^{c/10}$ + $10^{d/10}$)]
G = Antenna Gain
Y = Beamforming Gain
x = Duty Cycle (average power measurements only)

Limits Maximum Conducted Output Power

Operating Frequency Band 5150-5250 MHz

15. 407 (a)(1)
(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band

of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Operating Frequency Band 5250-5350 and 5470 – 5725 MHz

15. 407 (a)(2)
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Operating Frequency Band 5725 – 5850 MHz

15. 407 (a)(3)
For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11a	**Duty Cycle (%):**	94.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5180.0	14.95				14.95		24.00	-9.05	18.50
5200.0	17.19				17.19		24.00	-6.81	19.00
5240.0	16.63				16.63		24.00	-7.37	16.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-20	**Duty Cycle (%):**	94.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5180.0	13.91				13.91		24.00	-10.09	17.50
5200.0	17.09				17.09		24.00	-6.91	19.00
5240.0	16.51				16.51		24.00	-7.49	16.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-40	**Duty Cycle (%):**	86.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5190.0	16.48				16.48		24.00	-7.52	18.00
5230.0	16.65				16.65		24.00	-7.35	16.50

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11a	**Duty Cycle (%):**	94.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5260.0	16.39				16.39	36.553	24.00	-7.61	20.0
5300.0	16.42				16.42	24.930	24.00	-7.58	18.0
5320.0	12.32				12.32	30.541	24.00	-17.68	15.0

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-20	**Duty Cycle (%):**	94.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5260.0	16.39				16.39	36.55	24.00	-7.61	20.0
5300.0	17.06				17.06	24.93	24.00	-6.94	19.0
5320.0	13.70				13.7	30.54	24.00	-10.30	15.5

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-40	**Duty Cycle (%):**	85.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5270.0	17.22				17.22	78.07	24.00	-6.78	19.0
5310.0	16.38				16.38	73.10	24.00	-7.62	18.0

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11a	**Duty Cycle (%):**	85.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5500.0	14.85				14.85	34.54	24.00	-9.15	17.5
5580.0	16.37				16.37	28.13	24.00	-7.63	18.0
5700.0	17.07				17.07	27.25	24.00	-6.93	18.0

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-20	**Duty Cycle (%):**	85.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5500.0	15.30				15.30	34.87	24.00	-8.70	18.0
5580.0	17.08				17.08	32.78	24.00	-6.92	18.0
5700.0	16.72				16.72	31.90	24.00	-7.28	18.0

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-40	**Duty Cycle (%):**	84.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5510.0	16.72				16.72	79.52	24.00	-7.28	20.0
5550.0	17.37				17.37	79.69	24.00	-6.63	19.0
5670.0	17.00				17.00	75.35	24.00	-7.00	19.0

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11a	**Duty Cycle (%):**	95.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5745.0	17.37				17.37		30.00	-12.63	20.00
5785.0	17.31				17.31		30.00	-12.69	20.00
5825.0	17.12				17.12		30.00	-12.88	20.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-20	**Duty Cycle (%):**	95.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5745.0	17.66				17.66		30.00	-12.34	20.00
5785.0	17.22				17.22		30.00	-12.78	20.00
5825.0	17.04				17.04		30.00	-12.96	20.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power

Variant:	802.11n HT-40	**Duty Cycle (%):**	84.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5755.0	16.84				16.84		30.00	-13.16	20.00
5795.0	17.14				17.14		30.00	-12.86	20.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

9.2. ISED RSS 247 Peak Transmit Power

Conducted Test Conditions for Maximum Conducted Output Power			
Standard:	Industry Canada RSS-247: 6.2.1 (1)	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Maximum Conducted Output Power	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	ANSI C63.10: 11.9.1.3	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Maximum Conducted Output Power Measurement
Method PM (Measurement using an RF average power meter). KDB 789033 defines a methodology using an average wideband power meter. Measurements were made while the EUT was operating in a continuous transmission mode (100% duty cycle) at the appropriate center frequency. All operational modes and frequency bands were measured independently and the resultant calculated. Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured and reported separately. A summation (Σ) of each antenna port output power is provided which includes any offset due to Duty Cycle Correction Factor (DCCF). Testing was performed under ambient conditions at nominal voltage.

Test configuration and setup used for the measurement was per the Conducted Test Set-up section specified in this document.
Supporting Information
Calculated Power = A + G + Y+ 10 log (1/x) dBm

A = Total Power [10*Log10 ($10^{a/10}$ + $10^{b/10}$ + $10^{c/10}$ + $10^{d/10}$)]
G = Antenna Gain
Y = Beamforming Gain
x = Duty Cycle (average power measurements only)

Limits Maximum Conducted Output Power
6.2.1 Operating Frequency Band 5150-5250 MHz
(1) Power Limits

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10B, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band

6.2.2 Operating Frequency Band 5250-5350 MHz
(1) Power Limits

The maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.
The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

6.2.3 Operating Frequency Band 5470 – 5600 and 5650 – 5725 MHz
Until further notice, devices subject to this section shall not be capable of transmitting in the band
5600-5650 MHz. This restriction is for the protection of Environment Canada's weather radars operating in this band
(1) Power Limits

The maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band. The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

6.2.4 Operating Frequency Band 5725-5850 MHz
(1) Power Limits

For equipment operating in the band 5725-5850 MHz, the minimum 6 dB bandwidth shall be at least 500 kHz.

The maximum conducted output power shall not exceed 1 W. The power spectral density shall not exceed 30 dBm in any 500 kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11a	**Duty Cycle (%):**	94.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	99% Bandwidth	EIRP Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5180.0	14.95				14.95	20.44	23.00	-3.36	18.50
5200.0	17.19				17.19	20.20	23.00	-1.12	19.00
5240.0	16.63				16.63	19.23	22.83	-1.51	16.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-20	**Duty Cycle (%):**	94.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	99% Bandwidth	EIRP Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5180.0	13.91				13.91	20.68	23.00	-4.40	17.50
5200.0	17.09				17.09	17.96	22.54	-0.76	19.00
5240.0	16.51				16.51	17.55	22.44	-1.24	16.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-40	**Duty Cycle (%):**	86.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	99% Bandwidth	EIRP Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5190.0	16.48				16.48	37.51	23.00	-1.83	18.00
5230.0	16.65				16.65	36.55	23.00	-1.66	16.50

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11a	**Duty Cycle (%):**	94.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	99% Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5260.0	16.39				16.39	20.36	24.00	-7.61	20.0
5300.0	16.42				16.42	16.83	23.26	-6.84	18.0
5320.0	12.32				12.32	17.23	23.36	-11.04	15.0

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-20	**Duty Cycle (%):**	94.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	99% Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5260.0	16.39				16.39	19.80	23.97	-7.58	20.0
5300.0	17.06				17.06	17.96	23.54	-6.48	19.0
5320.0	13.70				13.70	17.96	23.54	-9.84	15.5

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power

Variant:	802.11n HT-40	**Duty Cycle (%):**	85.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	99% Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5270.0	17.22				17.22	40.24	24.00	-6.78	19.0
5310.0	16.38				16.38	37.03	24.00	-7.62	18.0

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11a	**Duty Cycle (%):**	85.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	99% Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5500.0	14.85				14.85	18.597	23.69	-8.84	17.5
5580.0	16.37				16.37	16.914	23.28	-6.91	18.0
5700.0	17.07				17.07	16.754	23.24	-6.17	18.0

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-20	**Duty Cycle (%):**	85.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	99% Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5500.0	15.30				15.30	18.84	23.75	-8.45	18.0
5580.0	17.08				17.08	18.12	23.58	-6.50	18.0
5700.0	16.72				16.72	17.88	23.52	-6.80	18.0

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-40	**Duty Cycle (%):**	84.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	99% Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5510.0	16.72				16.72	47.46	24.00	-7.28	20.0
5550.0	17.37				17.37	43.45	24.00	-6.63	19.0
5670.0	17.00				17.00	38.32	24.00	-7.00	19.0

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11a	**Duty Cycle (%):**	95.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power		Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm		dBm	dB	
5745.0	17.37				17.37		30.00	-7.94	20.00
5785.0	17.31				17.31		30.00	-8.00	20.00
5825.0	17.12				17.12		30.00	-8.19	20.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-20	**Duty Cycle (%):**	95.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power		Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm		dBm	dB	
5745.0	17.66				17.66		30.00	-7.65	20.00
5785.0	17.22				17.22		30.00	-8.09	20.00
5825.0	17.04				17.04		30.00	-8.27	20.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-40	**Duty Cycle (%):**	84.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power		Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm		dBm	dB	
5755.0	16.84				16.84		30.00	-8.47	20.00
5795.0	17.14				17.14		30.00	-8.17	20.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

9.3. 26 dB & 99% Bandwidth

Conducted Test Conditions for 26 dB and 99% Bandwidth			
Standard:	FCC CFR 47:15.407(a)(2) Industry Canada RSS-247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	26 dB and 99 % Bandwidth	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	ANSI C63.10:2013	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for 26 dB and 99% Bandwidth Measurement
The bandwidth at 26 dB and 99 % is measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate center frequency. The Resolution Bandwidth was set to approximately 1% of the emission bandwidth.
Testing was performed under ambient conditions at nominal voltage. Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured and reported.

Test configuration and setup used for the measurement was per the Conducted Test Set-up section specified in this document.

Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	802.11a	**Duty Cycle (%):**	94.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz) Port(s)				26 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5180.0	35.752				35.752	35.752		
5200.0	36.794				36.794	36.794		
5240.0	34.629				34.629	34.629		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5180.0	20.441				20.441	20.441		
5200.0	20.200				20.200	20.200		
5240.0	19.238				19.238	19.238		

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for 26 dB & 99% Occupied Bandwidth			
Variant:	802.11n HT-20	**Duty Cycle (%):**	94.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	4.07
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz) Port(s)				26 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5180.0	38.878				38.878	38.878		
5200.0	30.301				30.301	30.301		
5240.0	21.723				21.723	21.723		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5180.0	20.681				20.681	20.681		
5200.0	17.956				17.956	17.956		
5240.0	17.555				17.555	17.555		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for 26 dB & 99% Occupied Bandwidth			
Variant:	802.11n HT-40	**Duty Cycle (%):**	86.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz) Port(s)				26 dB Bandwidth (MHz)			
MHz	a	b	c	d	Highest	Lowest		
5190.0	73.427				73.427	73.427		
5230.0	53.547				53.547	53.547		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	a	b	c	d	Highest	Lowest		
5190.0	37.515				37.515	37.515		
5230.0	36.553				36.553	36.553		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	802.11a	**Duty Cycle (%):**	94.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz) Port(s)				26 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5260.0	36.553				36.553	36.553		
5300.0	24.930				24.930	24.930		
5320.0	30.541				30.541	30.541		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5260.0	20.361				20.361	20.361		
5300.0	16.834				16.834	16.834		
5320.0	17.234				17.234	17.234		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for 26 dB & 99% Occupied Bandwidth			
Variant:	802.11n HT-20	**Duty Cycle (%):**	94.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz) Port(s)				26 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5260.0	35.671				35.671	35.671		
5300.0	31.583				31.583	31.583		
5320.0	32.465				32.465	32.465		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5260.0	19.800				19.800	19.800		
5300.0	17.956				17.956	17.956		
5320.0	17.956				17.956	17.956		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	802.11n HT-40	**Duty Cycle (%):**	85.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz) Port(s)				26 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5270.0	78.076				78.076	78.076		
5310.0	73.106				73.106	73.106		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5270.0	40.240				40.240	40.240		
5310.0	37.034				37.034	37.034		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for 26 dB & 99% Occupied Bandwidth			
Variant:	802.11a	**Duty Cycle (%):**	85.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz) Port(s)				26 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5500.0	34.549				34.549	34.549		
5580.0	28.136				28.136	28.136		
5700.0	27.255				27.255	27.255		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5500.0	18.597				18.597	18.597		
5580.0	16.914				16.914	16.914		
5700.0	16.754				16.754	16.754		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	802.11n HT-20	**Duty Cycle (%):**	85.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz) Port(s)				26 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5500.0	34.870				34.870	34.870		
5580.0	32.786				32.786	32.786		
5700.0	31.904				31.904	31.904		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5500.0	18.838				18.838	18.838		
5580.0	18.116				18.116	18.116		
5700.0	17.876				17.876	17.876		

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for 26 dB & 99% Occupied Bandwidth			
Variant:	802.11n HT-40	**Duty Cycle (%):**	84.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz) Port(s)				26 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5510.0	79.519				79.519	79.519		
5550.0	79.679				79.679	79.679		
5670.0	75.351				75.351	75.351		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5510.0	47.455				47.455	47.455		
5550.0	43.447				43.447	43.447		
5670.0	38.317				38.317	38.317		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

9.4. 6 dB & 99% Bandwidth

Conducted Test Conditions for 6 dB and 99% Bandwidth			
Standard:	FCC CFR 47:15.407(a)(2) Industry Canada RSS-247:5.2	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	6 dB and 99 % Bandwidth	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	ANSI C63.10:2013	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for 6 dB and 99% Bandwidth Measurement
The bandwidth at 6 dB and 99 % is measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate center frequency. The Resolution Bandwidth was set to 100 kHz.
Testing was performed under ambient conditions at nominal voltage. Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured and reported.

Test configuration and setup used for the measurement was per the Conducted Test Set-up section specified in this document.

Equipment Configuration for 6 dB & 99% Bandwidth			
Variant:	802.11a	**Duty Cycle (%):**	95.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz) Port(s)				6 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5745.0	15.150				15.150	15.150		
5785.0	15.150				15.150	15.150		
5825.0	15.150				15.150	15.150		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5745.0	17.876				17.876	17.876		
5785.0	18.437				18.437	18.437		
5825.0	19.960				19.960	19.960		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for 6 dB & 99% Bandwidth			
Variant:	802.11n HT-20	**Duty Cycle (%):**	95.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz) Port(s)				6 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5745.0	15.150				15.150	15.150		
5785.0	15.150				15.150	15.150		
5825.0	15.150				15.150	15.150		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5745.0	17.956				17.956	17.956		
5785.0	18.597				18.597	18.597		
5825.0	19.479				19.479	19.479		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for 6 dB & 99% Bandwidth			
Variant:	802.11n HT-40	**Duty Cycle (%):**	84.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz) Port(s)				6 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5755.0	35.110				35.110	35.110		
5795.0	35.110				35.110	35.110		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5755.0	41.363				41.363	41.363		
5795.0	39.760				39.760	39.760		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

9.5. FCC 15.407 Power Spectral Density

Conducted Test Conditions for Power Spectral Density			
Standard:	FCC CFR 47:15.407(a)	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Power Spectral Density	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	ANSI C63.10: 11.10.2	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Power Spectral Density
The in-band power spectral density was measured using the test technique specified in KDB 789033. A 1 MHz measurement bandwidth was implemented for the analyzer sweep. Once the sweep is complete the analyzer trace data is downloaded and used for post processing purposes.
Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured separately. The Peak Power Spectral Density is the highest level found across the emission bandwidth. With multiple antenna port measurements the numerical analyzer data from each port is summed (å) and a link to this additional graphic is provided.

Test configuration and setup used for the measurement was per the Conducted Test Set-up section specified in this document.

Measure and sum the spectra across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The individual spectra are then summed mathematically in linear power units. Unlike in-band power measurements, in which the sum involves a single measured value (output power) from each output, measurements for compliance with PSD limits involve summing entire spectra across corresponding frequency bins on the various outputs. Consistency is maintained for any device with multiple transmitter outputs to be certain the individual outputs are all aligned with the same span and same number of points. In this instance, the linear power spectrum value within the first spectral bin of output 0 is summed with that in the first spectral bin of output 1, and the first spectral bin of output 2, and so on up to the Nth output to obtain the true value for the first frequency bin of the summed spectrum. The summed spectrum value for each frequency bin is computed in this fashion. These summed spectral values were post processed and the resulting numerical and graphical data presented.

NOTE: It may be observed that spectrum in some plots break the limit line however this in itself does NOT constitute a failure. In all cases a spectrum summation plot is provided in order to prove compliance. A failure occurs only after the summation of all spectrum plots have been summed and are found to be greater than the limit line.

Supporting Information
Calculated Power = A + 10 log (1/x) dBm
A = Total Power Spectral Density [10*Log10 ($10^{a/10} + 10^{b/10} + 10^{c/10} + 10^{d/10}$)]
x = Duty Cycle

Limits Power Spectral Density

Operating Frequency Band 5150-5250 MHz

15. 407 (a)(1)
(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the

frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Operating Frequency Band 5250-5350 and 5470 – 5725 MHz

15. 407 (a)(2)
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Operating Frequency Band 5725 – 5850 MHz

15. 407 (a)(3)
For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Equipment Configuration for Power Spectral Density			
Variant:	802.11a	**Duty Cycle (%):**	94.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/MHz)				Summation Peak Marker + DCCF (+0.27 dB)	Limit	Margin
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5180.0	4.383				4.652	11.0	-6.35
5200.0	3.823				4.092	11.0	-6.91
5240.0	3.643				3.912	11.0	-7.09

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density			
Variant:	802.11n HT-20	**Duty Cycle (%):**	94.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/MHz)				Summation Peak Marker + DCCF (+0.27 dB)	Limit	Margin
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5180.0	4.301				4.570	11.0	-6.43
5200.0	3.183				3.452	11.0	-7.55
5240.0	-0.207				0.062	11.0	-10.94

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density			
Variant:	802.11n HT-40	**Duty Cycle (%):**	86.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/MHz)				Summation Peak Marker + DCCF (+0.66 dB)	Limit	Margin
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5190.0	-3.294				-2.639	11.0	-13.64
5230.0	-2.543				-1.888	11.0	-12.89

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density			
Variant:	802.11a	**Duty Cycle (%):**	94.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/MHz)				Summation Peak Marker + DCCF (+0.27 dB)	Limit	Margin
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5260.0	5.649				5.918	11.0	-5.1
5300.0	3.531				3.800	11.0	-7.2
5320.0	4.258				4.527	11.0	-6.5

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density			
Variant:	802.11n HT-20	**Duty Cycle (%):**	94.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/MHz)				Summation Peak Marker + DCCF (+0.27 dB)	Limit	Margin
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5260.0	4.218				4.487	11.0	-6.5
5300.0	2.886				3.155	11.0	-7.8
5320.0	3.308				3.577	11.0	-7.4

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density			
Variant:	802.11n HT-40	**Duty Cycle (%):**	85.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/MHz)				Summation Peak Marker + DCCF (+0.71 dB)	Limit	Margin
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5270.0	-1.068				-0.362	11.0	-11.4
5310.0	-2.875				-2.169	11.0	-13.2

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density			
Variant:	802.11a	**Duty Cycle (%):**	85.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/MHz)				Summation Peak Marker + DCCF (+0.71 dB)	Limit	Margin
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5500.0	7.693				8.399	11.0	-2.60
5580.0	6.077				6.783	11.0	-4.22
5700.0	4.348				5.054	11.0	-5.95

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density			
Variant:	802.11n HT-20	**Duty Cycle (%):**	85.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/MHz)				Summation Peak Marker + DCCF (+0.71 dB)	Limit	Margin
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5500.0	6.597				7.303	11.0	-3.70
5580.0	5.613				6.319	11.0	-4.68
5700.0	4.723				5.429	11.0	-5.57

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density			
Variant:	802.11n HT-40	**Duty Cycle (%):**	84.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/MHz)				Summation Peak Marker + DCCF (+0.76 dB)	Limit	Margin
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5510.0	2.513				3.270	11.0	-7.73
5550.0	1.660				2.417	11.0	-8.58
5670.0	0.692				1.449	11.0	-9.55

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density			
Variant:	802.11a	**Duty Cycle (%):**	95.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/500 KHz)				Summation Peak Marker + DCCF (+0.22 dB)	Limit	Margin
MHz	**a**	**b**	**c**	**d**	**dBm/500 KHz**	**dBm/500 KHz**	**dB**
5745.0	-0.094				0.129	30.0	-29.87
5785.0	0.309				0.532	30.0	-29.47
5825.0	-0.477				-0.254	30.0	-30.25

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density			
Variant:	802.11n HT-20	**Duty Cycle (%):**	95.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/500 KHz)				Summation Peak Marker + DCCF (+0.22 dB)	Limit	Margin
MHz	**a**	**b**	**c**	**d**	**dBm/500 KHz**	**dBm/500 KHz**	**dB**
5745.0	-0.759				-0.536	30.0	-30.54
5785.0	-1.044				-0.821	30.0	-30.82
5825.0	-1.834				-1.611	30.0	-31.61

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density			
Variant:	802.11n HT-40	**Duty Cycle (%):**	84.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/500 KHz)				Summation Peak Marker + DCCF (+0.76 dB)	Limit	Margin
MHz	**a**	**b**	**c**	**d**	**dBm/500 KHz**	**dBm/500 KHz**	**dB**
5755.0	-5.196				-4.439	30.0	-34.44
5795.0	-6.087				-5.330	30.0	-35.33

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).

9.6. IC RSS247 Power Spectral Density

Conducted Test Conditions for Power Spectral Density			
Standard:	Industry Canada RSS-247: 6.2.x (1)	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Power Spectral Density	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	ANSI C63.10: 11.10.2	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Maximum Conducted Output Power Measurement
Method PM (Measurement using an RF average power meter). KDB 789033 defines a methodology using an average wideband power meter. Measurements were made while the EUT was operating in a continuous transmission mode (100% duty cycle) at the appropriate center frequency. All operational modes and frequency bands were measured independently and the resultant calculated. Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured and reported separately. A summation (Σ) of each antenna port output power is provided which includes any offset due to Duty Cycle Correction Factor (DCCF). Testing was performed under ambient conditions at nominal voltage.

Test configuration and setup used for the measurement was per the Conducted Test Set-up section specified in this document.
Supporting Information
Calculated Power = A + G + Y+ 10 log (1/x) dBm

A = Total Power [10*Log10 ($10^{a/10}$ + $10^{b/10}$ + $10^{c/10}$ + $10^{d/10}$)]
G = Antenna Gain
Y = Beamforming Gain
x = Duty Cycle (average power measurements only)

Limits Maximum Conducted Output Power
6.2.1 Operating Frequency Band 5150-5250 MHz
(1) Power Limits

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10B, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band

6.2.2 Operating Frequency Band 5250-5350 MHz
(1) Power Limits

The maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.
The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

6.2.3 Operating Frequency Band 5470 – 5600 and 5650 – 5725 MHz
Until further notice, devices subject to this section shall not be capable of transmitting in the band
5600-5650 MHz. This restriction is for the protection of Environment Canada's weather radars operating in this band
(1) Power Limits

The maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band. The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

6.2.4 Operating Frequency Band 5725-5850 MHz

(1) Power Limits

For equipment operating in the band 5725-5850 MHz, the minimum 6 dB bandwidth shall be at least 500 kHz.

The maximum conducted output power shall not exceed 1 W. The power spectral density shall not exceed 30 dBm in any 500 kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

Equipment Configuration for Power Spectral Density			
Variant:	802.11a	**Duty Cycle (%):**	94.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/MHz)				Summation Peak Marker + DCCF (+0.27 dB)	Limit	Margin
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5180.0	4.383				4.652	10.0	-5.35
5200.0	3.823				4.092	10.0	-5.91
5240.0	3.643				3.912	10.0	-6.09

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density			
Variant:	802.11n HT-20	**Duty Cycle (%):**	94.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/MHz)				Summation Peak Marker + DCCF (+0.27 dB)	Limit	Margin
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5180.0	4.301				4.570	10.0	-5.4
5200.0	3.183				3.452	10.0	-6.5
5240.0	-0.207				0.062	10.0	-9.9

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density			
Variant:	802.11n HT-40	**Duty Cycle (%):**	86.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	4.69
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/MHz)				Summation Peak Marker + DCCF (+0.66 dB)	Limit	Margin
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5190.0	-3.294				-2.639	10.0	-12.6
5230.0	-2.543				-1.888	10.0	-11.9

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).

9.7. Dynamic Frequency Selection (DFS)

9.7.1. Overview

A U-NII network will employ a DFS function to detect signals from radar systems and to avoid co-channel operation with these systems. This applies to the 5250-5350 MHz and/or 5470-5725 MHz bands. Within the context of the operation of the DFS function, a U-NII device will operate in either Master Mode or Client Mode. U-NII devices operating in Client Mode can only operate in a network controlled by a U-NII device operating in Master Mode. The following tables summarize the requirements.

Requirement	Master Device or Client with Radar Detection	Client without Radar Detection
	Operational Mode	
DFS Detection Threshold	Yes	Not Required
Channel Closing Transmission Time	Yes	Yes
Channel Move Time	Yes	Yes
U-NII Detection Bandwidth	Yes	Not Required

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required

NOTE: Frequencies selected for statistical performance check should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.

The operational behavior and individual DFS requirements associated with these modes are as follows:

9.7.1.1. Client Devices

a) A Client Device will not transmit before having received appropriate control signals from a Master Device.

b) A Client Device will stop all its transmissions whenever instructed by a Master Device to which it is associated and will meet the Channel Move Time and Channel Closing Transmission Time requirements. The Client Device will not resume any transmissions until it has again received control signals from a Master Device.

c) If a Client Device is performing In-Service Monitoring and detects a Radar Waveform above the DFS Detection Threshold, it will inform the Master Device. This is equivalent to the Master Device detecting the Radar Waveform and d) through f) of section 5.1.1 apply.

d) Irrespective of Client Device or Master Device detection the Channel Move Time and Channel Closing Transmission Time requirements remain the same.

e) The client test frequency must be monitored to ensure no transmission of any type has occurred for 30 minutes. Note: If the client moves with the master, the device is considered compliant if nothing appears in the client non-occupancy period test. For devices that shutdown (rather than moving channels), no beacons should appear.

9.7.1.2. DFS Detection Thresholds

The table below provides the DFS Detection Thresholds for Master Devices as well as Client Devices incorporating In-Service Monitoring.

DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

Maximum Transmit Power	Value (see Notes 1, 2 and 3)
EIRP ≥ 200 milliwatts	-64 dBm
EIRP; 200 milliwatts and power density <10 dBm/MHz	-62 dBm
EIRP; 200 milliwatts that do not meet the power spectral density requirement	-64 dBm

NOTE 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna

NOTE 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.

NOTE 3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.

9.7.1.3. Response Requirements

The following table provides the response requirements for Master and Client Devices incorporating DFS.

DFS Response Requirement Values

Parameter	Value
Non-Occupancy Period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds, see NOTE 1
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period, see NOTES 1 and 2
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth, see NOTE 3

NOTE 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

NOTE 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

NOTE 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

9.7.1.4. Radar Test Waveforms

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

Short Radar Pulses

Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (µS)	PRI (µS)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a	$\text{Roundup}\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot 10^6}{\text{PRI}_{\mu\text{sec}}}\right)\right\}$	60%	30
		Test B: 15 unique PRI values randomly selected in the range 518-3066 µS, with a minimum increment of 1 µS, excluding PRI values selected in Test A			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120

Note 1: Short Radar Pulse Type 0 should be used for the Detection Bandwidth test, Channel Move Time and Channel Closing Time tests

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B.

Long Radar Pulse Test

Long Pulse Radar Test Waveforms

Radar Type	Pulse Width (µsec)	Chirp Width (MHz)	PRI (µsec)	Number of Pulses per Burst	Number of Bursts	Minimum Percentage of Successful Detection	Minimum Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

The parameters for this waveform are randomly chosen. Thirty unique waveforms are required for the Long Pulse radar test signal. If more than 30 waveforms are used for the Long Pulse radar test signal, then each additional waveform must also be unique and not repeated from the previous waveforms.

Each waveform is defined as follows:

1. The transmission period for the Long Pulse Radar test signal is 12 seconds.

2. There are a total of 8 to 20 Bursts in the 12 second period, with the number of Bursts being randomly chosen. This number is Burst Count.

3. Each Burst consists of 1 to 3 pulses, with the number of pulses being randomly chosen. Each Burst within the 12 second sequence may have a different number of pulses.

4. The pulse width is between 50 and 100 microseconds, with the pulse width being randomly chosen. Each pulse within a Burst will have the same pulse width. Pulses in different Bursts may have different pulse widths.

5. Each pulse has a linear FM chirp between 5 and 20 MHz, with the chirp width being randomly chosen. Each pulse within a Burst will have the same chirp width. Pulses in different Bursts may have different chirp widths. The chirp is centered on the pulse. For example, with a radar frequency of 5300 MHz and a 20 MHz chirped signal, the chirp starts at 5290 MHz and ends at 5310 MHz.

6. If more than one pulse is present in a Burst, the time between the pulses will be between 1000 and 2000 microseconds, with the time being randomly chosen. If three pulses are present in a Burst, the time between the first and second pulses is chosen independently of the time between the second and third pulses.

7. The 12 second transmission period is divided into even intervals. The number of intervals is equal to Burst_Count. Each interval is of length (12,000,000 / Burst_Count) microseconds. Each interval contains one Burst. The start time for the Burst, relative to the beginning of the interval, is between 1 and [(12,000,000 / Burst_Count) – (Total Burst Length) + (One Random PRI Interval)] microseconds, with the start time being randomly chosen. The step interval for the start time is 1 microsecond. The start time for each Burst is chosen independently.

A representative example of a Long Pulse radar test waveform:

1. The total test signal length is 12 seconds.

2. 8 Bursts are randomly generated for the Burst_Count

3. Burst 1 has 2 randomly generated pulses.

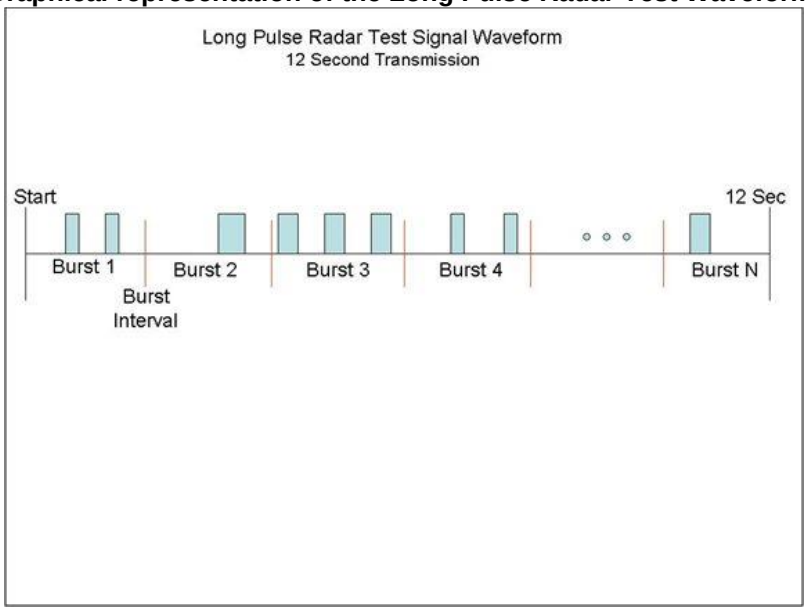
4. The pulse width (for both pulses) is randomly selected to be 75 microseconds.

5. The PRI is randomly selected to be at 1213 microseconds.

6. Bursts 2 through 8 are generated using steps 3 – 5.

7. Each Burst is contained in even intervals of 1,500,000 microseconds. The starting location for Pulse 1, Burst 1 is randomly generated (1 to 1,500,000 minus the total Burst 1 length + 1 random PRI interval) at the 325,001 microsecond step. Bursts 2 through 8 randomly fall in successive 1,500,000 microsecond intervals (i.e. Burst 2 falls in the 1,500,001 – 3,000,000 microsecond range).

Graphical representation of the Long Pulse Radar Test Waveform.



Frequency Hopping Radar Test Waveform

Radar Type	Pulse Width (µsec)	PRI (µsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)	Minimum Percentage of Successful Detection	Minimum Trials
6	1	333	9	.333	300	70%	30

For the Frequency Hopping Radar Type, the same Burst parameters are used for each waveform. The hopping sequence is different for each waveform and a 100-length segment is selected from the hopping sequence defined by the following algorithm:

The first frequency in a hopping sequence is selected randomly from the group of 475 integer frequencies from 5250 – 5724 MHz. Next, the frequency that was just chosen is removed from the group and a frequency is randomly selected from the remaining 474 frequencies in the group. This process continues until all 475 frequencies are chosen for the set. For selection of a random frequency, the frequencies remaining within the group are always treated as equally likely.

9.7.1.5. Radar Waveform Calibration

The following equipment setup was used to calibrate the Radar Waveform. A spectrum analyzer was used to establish the test signal level for each radar type. During this process there were no transmissions by either the Master or Client Device. The spectrum analyzer was switched to the zero span (Time Domain) mode at the frequency of the Radar Waveform generator. Peak detection was utilized. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3 MHz.

The signal generator amplitude was set so that the power level measured at the spectrum analyzer was equal to the DFS detection threshold +1dB (Ref Section 9.2).

9.7.2. Test Program Details

EUT Type: Client without Radar detection

Frequency band(s): 5,250 - 5,350 MHz and 5,470 – 5,725 MHz

Uniform Loading: For the above frequency band(s) the manufacturer declared that the device provides an aggregate uniform loading of the spectrum across all devices by selecting an operating channel among the available channels using a random algorithm.

Test Environment: Conducted
Antenna Gain used for Testing: 4.69 dBi

802.11a
Transmit Power: 17 dBm Data Rate: 6 Mbit/s Duty Cycle:17.0 %

802.11n HT-40:
Transmit Power: 17 dBm Data Rate: 18 Mbit/s Duty Cycle: 17.0 %

Number of Antenna Chains: 1
Test Communication Throughput Methodology
The EUT streams video from its own camera.

Test Environmental Conditions - Ambient:
Temperature: 17 to 23 °C
Relative humidity: 31 to 57%
Pressure: 999 to 1012 mbar

9.7.3. Non-Occupancy Period

The EUT is monitored for more than 30 minutes following the channel close/move time to verify no transmissions resume on this Channel.

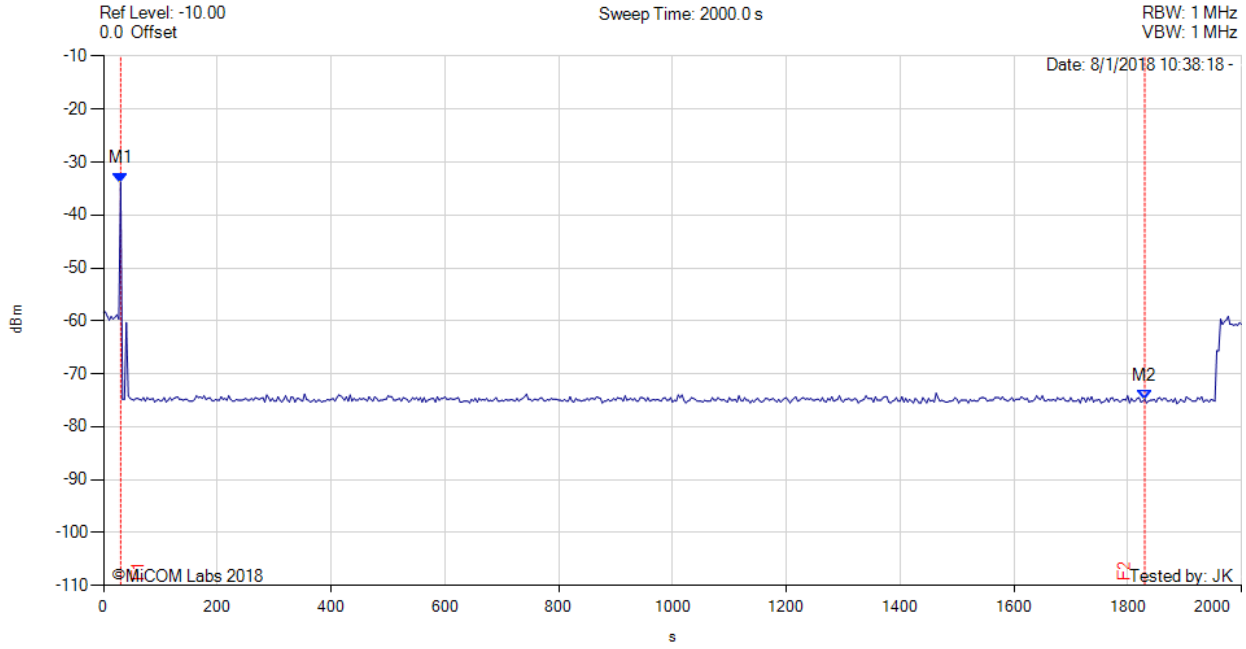
The device when triggered by the radar signature vacates the channel for a minimum period of 30 minutes per the standard. During this period the device can (assuming compliance to full DFS regulations) move to another frequency channel. It could also remain on the same channel and if this is the case the transmitter must remain muted for a period of 30 minutes.

If the transmitter has moved to another channel it cannot return and transmit on the original channel for an elapsed period of 30 minutes.

In the measured plots the period between the vertical frequency lines F1 and F2 = 30 minutes and therefore no EUT transmissions should occur between these two markers.

NON-OCCUPANCY PERIOD

Variant: 802.11ac-80, Channel: 5290.00 MHz, Data Rate: MCS0, Duty Cycle: 34.00%, Antenna Gain: 4.00 dBi



Analyzer Setup	Marker: Time: Amplitude	Test Results
Detector = POS Sweep Count = View RF Atten (dB) = 0 Trace Mode = 0	M1: 30.000 s: -33.830 dBm M2: 1830.000 s: -74.830 dBm	Measured Frequency: 5500.00 MHz F2 – F1 = 1830.000 – 33.000 = 1800.00 s

9.7.4. Channel Shutdown

The steps below define the procedure to determine the above-mentioned parameters when a radar burst with a level of up to 10 dB above the DFS Detection threshold is injected on the Operating Channel of the EUT.

Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the EUT during the observation time (Channel Move Time). Compare the Channel Move Time and Channel Closing Transmission Time results to the limits defined in the DFS Response requirement values table.

Channel Closing Transmission Time - Measurement
The reference radar signature was introduced to the EUT, from which a EUT transmission record was captured, as well as 1000ms of pre-trigger data. The Reference radar type was triggered to play at the exact time allowing the end of the pulse to occur at time t=0.

The system was setup to capture data for all transmission events above a given threshold level as determined and adjusted by the test engineer. The system time stamps all captured events with respect to T0 (zero time indicating the start of the measurement sequence) starting at the end of the radar pulse indicated by the purple vertical marker line in the Plot (on the next page).

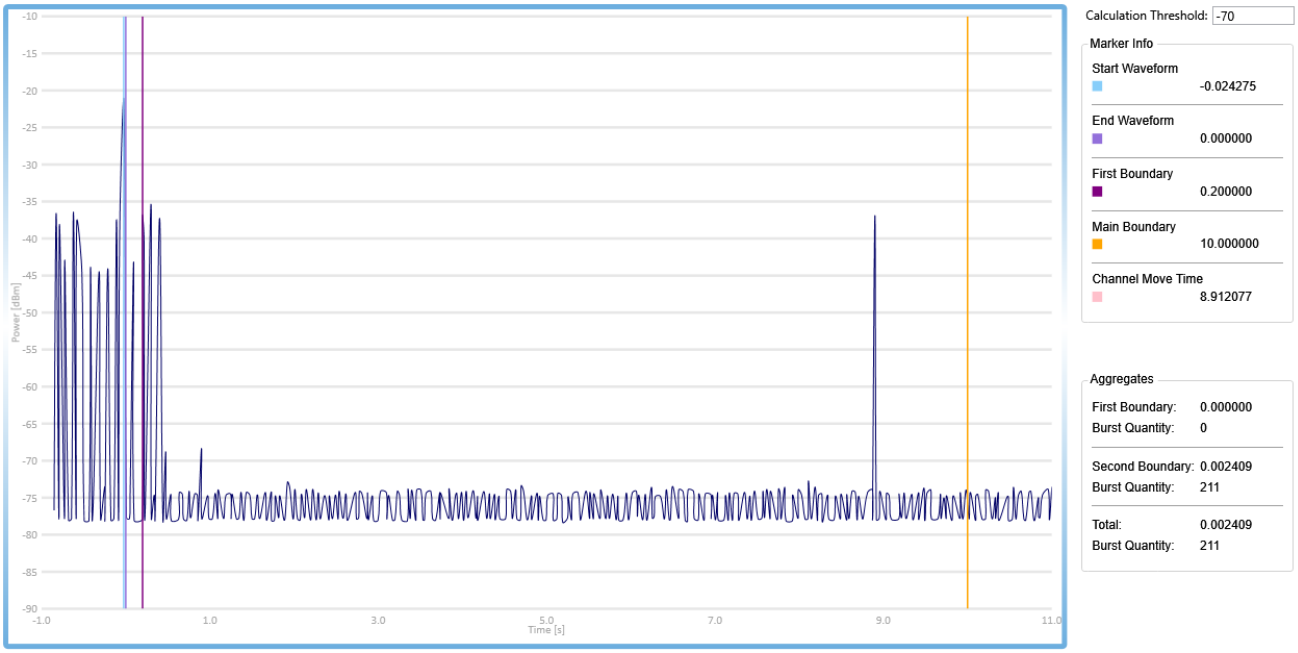
The system captured data over a 12 second period at 10 points per microsecond. The data is analyzed by counting all “bursts” that occur above the threshold limit and aggregating the time each burst is on. The data is then compressed for presentation in one 12 second segment showing all of the activity recorded over the period.

802.11n HT-40 Channel 5510 MHz; Observed Frequency 5500 MHz

The system measures and aggregates the pulses occurring after the end of the radar pulse to determine the following parameters: -

Test Heading	Time (Secs)	Limit (Secs)	Status
Channel Closing Transmission Time	0.002409	0.260	Complies
Channel Move Time	8.912077	10.0	Complies

Channel Move Time, Channel Closing Transmission Time
0-12 Second Capture



9.8. Radiated

Radiated Test Conditions for Radiated Spurious and Band-Edge Emissions			
Standard:	FCC CFR 47:15.407	**Ambient Temp. (ºC):**	20.0 - 24.5
Test Heading:	Radiated Spurious and Band-Edge Emissions	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.407 (b), 15.205, 15.209	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Radiated Spurious and Band-Edge Emissions
Radiated emissions for restricted bands above 1 GHz are measured in the anechoic chamber at a 3-meter distance on every azimuth in both horizontal and vertical polarities. The emissions are recorded and maximized as a function of azimuth by rotation through 360° with a spectrum analyzer in peak hold mode. Depending on the frequency band spanned a notch filter was used to remove the fundamental frequency. The highest emissions relative to the limit are listed for each frequency spanned.
Measurements on any restricted band frequency or frequencies above 1 GHz are based on the use of measurement instrumentation employing peak and average detectors. All measurements were performed using a resolution bandwidth of 1 MHz.

Test configuration and setup for Undesirable Measurement were per the Radiated Test Set-up specified in this document.

15.407 (b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of −17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of −27 dBm/MHz.

(5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

(6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.

(7) The provisions of §15.205 apply to intentional radiators operating under this section.

(8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

Limits for Restricted Bands (15.205, 15.209)
Peak emission: 74 dBuV/m
Average emission: 54 dBuV/m

Field Strength Calculation
The field strength is calculated by adding the Antenna Factor and Cable Loss, and subtracting Amplifier Gain from the measured reading. All factors are included in the reported data.
FS = R + AF + CORR - FO

where:
FS = Field Strength
R = Measured Spectrum analyzer Input Amplitude
AF = Antenna Factor
CORR = Correction Factor = CL – AG + NFL
CL = Cable Loss
AG = Amplifier Gain
FO = Distance Falloff Factor
NFL = Notch Filter Loss

Example:
The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength (dBµV/m);

$$E = \frac{1000000 \times \sqrt{30P}}{3}$$ µV/m

where P is the EIRP in Watts

Therefore: -27 dBm/MHz equates to 68.23 dBuV/m

Conversion between dBmV/m (or dBmV) and mV/m (or mV) are as follows:
Level (dBmV/m) = 20 * Log (level (mV/m))

40 dBmV/m = 100 mV/m
48 dBmV/m = 250 mV/m

Restricted Bands of Operation (15.205)
(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

Frequency Band			
MHz	**MHz**	**MHz**	**GHz**
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5

12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

(b) Except as provided in paragraphs (d) and (e) of this section, the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in §15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in §15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in §15.35 apply to these measurements.

(c) Except as provided in paragraphs (d) and (e) of this section, regardless of the field strength limits specified elsewhere in this subpart, the provisions of this section apply to emissions from any intentional radiator.

(d) The following devices are exempt from the requirements of this section:

(1) Swept frequency field disturbance sensors operating between 1.705 and 37 MHz provided their emissions only sweep through the bands listed in paragraph (a) of this section, the sweep is never stopped with the fundamental emission within the bands listed in paragraph (a) of this section, and the fundamental emission is outside of the bands listed in paragraph (a) of this section more than 99% of the time the device is actively transmitting, without compensation for duty cycle.

(2) Transmitters used to detect buried electronic markers at 101.4 kHz which are employed by telephone companies.

(3) Cable locating equipment operated pursuant to §15.213.

(4) Any equipment operated under the provisions of §15.253, 15.255, and 15.256 in the frequency band 75-85 GHz, or §15.257 of this part.

(5) Biomedical telemetry devices operating under the provisions of §15.242 of this part are not subject to the restricted band 608-614 MHz but are subject to compliance within the other restricted bands.

(6) Transmitters operating under the provisions of subparts D or F of this part.

(7) Devices operated pursuant to §15.225 are exempt from complying with this section for the 13.36-13.41 MHz band only.

(8) Devices operated in the 24.075-24.175 GHz band under §15.245 are exempt from complying with the requirements of this section for the 48.15-48.35 GHz and 72.225-72.525 GHz bands only, and shall not exceed the limits specified in §15.245(b).

(9) Devices operated in the 24.0-24.25 GHz band under §15.249 are exempt from complying with the requirements of this section for the 48.0-48.5 GHz and 72.0-72.75 GHz bands only, and shall not exceed the limits specified in §15.249(a).

(e) Harmonic emissions appearing in the restricted bands above 17.7 GHz from field disturbance sensors operating under the provisions of §15.245 shall not exceed the limits specified in §15.245(b).

9.8.1. TX Spurious & Restricted Band Emissions

Equipment Configuration for TX Spurious & Restricted Band Emissions			
Antenna:	Pulse SZ0845W	**Variant:**	802.11a
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	94
Channel Frequency (MHz):	5180.00	**Data Rate:**	6.00 MBit/s
Power Setting:	20	**Tested By:**	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5180.30	68.69	3.12	-11.99	59.82	Fundamental	Vertical	100	0	--	--	
#2	15537.89	55.05	5.41	-2.13	58.33	Max Peak	Vertical	195	285	68.2	-9.9	Pass
#3	15537.89	41.79	5.41	-2.13	45.07	Max Avg	Vertical	195	285	54.0	-8.9	Pass
Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.												

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11a
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	94
Channel Frequency (MHz):	5200.00	**Data Rate:**	6.00 MBit/s
Power Setting:	20	**Tested By:**	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5204.43	72.29	3.09	-11.96	63.42	Fundamental	Vertical	100	0	--	--	
#2	10399.84	48.58	4.41	-5.79	47.20	Peak (NRB)	Horizontal	150	178	--	--	Pass
#3	15601.66	52.06	5.58	-1.62	56.02	Max Peak	Vertical	117	336	68.2	-12.2	Pass
#4	15601.66	38.74	5.58	-1.62	42.70	Max Avg	Vertical	117	336	54.0	-11.3	Pass

Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11a
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	94
Channel Frequency (MHz):	5240.00	**Data Rate:**	6.00 MBit/s
Power Setting:	20	**Tested By:**	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5238.72	76.20	3.12	-12.25	67.07	Fundamental	Vertical	100	0	--	--	
#2	10482.35	47.12	4.37	-6.20	45.29	Peak (NRB)	Horizontal	100	293	--	--	Pass
#3	15718.04	52.04	5.49	-1.95	55.58	Max Peak	Vertical	123	357	68.2	-12.7	Pass
#4	15718.04	38.88	5.49	-1.95	42.42	Max Avg	Vertical	123	357	54.0	-11.6	Pass

Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11a
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	94
Channel Frequency (MHz):	5260.00	**Data Rate:**	6.00 MBit/s
Power Setting:	20	**Tested By:**	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5265.63	78.55	3.09	-12.04	69.60	Fundamental	Vertical	100	0	--	--	
#2	10518.51	50.38	4.48	-6.14	48.72	Peak (NRB)	Horizontal	100	276	--	--	Pass
Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.												

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11a
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	94
Channel Frequency (MHz):	5300.00	**Data Rate:**	6.00 MBit/s
Power Setting:	20	**Tested By:**	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5302.59	78.55	3.19	-11.84	69.90	Fundamental	Vertical	100	0	--	--	
#2	10601.31	54.61	4.77	-5.40	53.98	Max Peak	Horizontal	186	178	68.2	-14.3	Pass
#3	10601.31	40.27	4.77	-5.40	39.64	Max Avg	Horizontal	186	178	54.0	-14.4	Pass
Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.												

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11a
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	94
Channel Frequency (MHz):	5320.00	**Data Rate:**	6.00 MBit/s
Power Setting:	20	**Tested By:**	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5319.76	76.88	3.10	-12.18	67.80	Fundamental	Vertical	100	0	--	--	
#2	10638.68	54.01	4.58	-5.04	53.55	Max Peak	Horizontal	175	176	68.2	-14.7	Pass
#3	10638.68	40.09	4.58	-5.04	39.63	Max Avg	Horizontal	175	176	54.0	-14.4	Pass
Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.												

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11a
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	85
Channel Frequency (MHz):	5500.00	**Data Rate:**	6.00 MBit/s
Power Setting:	20	**Tested By:**	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	3666.62	58.26	2.66	-11.67	49.25	Max Peak	Vertical	98	215	68.2	-19.0	Pass
#2	3666.62	52.93	2.66	-11.67	43.92	Max Avg	Vertical	98	215	54.0	-10.1	Pass
#3	5502.01	67.00	3.28	-11.61	58.67	Fundamental	Vertical	100	210	--	--	
Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.												

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11a
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	85
Channel Frequency (MHz):	5580.00	**Data Rate:**	6.00 MBit/s
Power Setting:	20	**Tested By:**	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	3720.06	60.25	2.73	-11.72	51.26	Max Peak	Vertical	154	224	68.2	-17.0	Pass
#2	3720.06	55.11	2.73	-11.72	46.12	Max Avg	Vertical	154	224	54.0	-7.9	Pass
#3	5580.51	72.87	3.17	-11.43	64.61	Fundamental	Vertical	151	44	--	--	
Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.												

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11a
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	85
Channel Frequency (MHz):	5700.00	**Data Rate:**	6.00 MBit/s
Power Setting:	20	**Tested By:**	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	3800.15	63.33	2.73	-11.60	54.46	Max Peak	Vertical	142	224	68.2	-13.8	Pass
#2	3800.15	58.25	2.73	-11.60	49.38	Max Avg	Vertical	142	224	54.0	-4.6	Pass
#3	5701.40	61.41	3.20	-11.00	53.61	Fundamental	Vertical	100	0	--	--	
Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.												

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11a
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	95
Channel Frequency (MHz):	5745.00	**Data Rate:**	6.00 MBit/s
Power Setting:	20	**Tested By:**	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	3830.01	65.72	2.71	-11.77	56.66	Max Peak	Vertical	167	230	68.2	-11.6	Pass
#2	3830.01	61.12	2.71	-11.77	52.06	Max Avg	Vertical	167	230	54.0	-1.9	Pass
#3	5744.56	55.02	3.18	-11.06	47.14	Fundamental	Vertical	151	202	--	--	
Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.												

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11a
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	95
Channel Frequency (MHz):	5785.00	**Data Rate:**	6.00 MBit/s
Power Setting:	20	**Tested By:**	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	3856.64	66.61	2.74	-11.61	57.74	Max Peak	Vertical	102	221	68.2	-10.5	Pass
#2	3856.64	61.64	2.74	-11.61	52.77	Max Avg	Vertical	102	221	54.0	-1.2	Pass
#3	5785.03	59.37	3.21	-10.78	51.80	Fundamental	Vertical	100	201	--	--	
Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.												

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11a
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	95
Channel Frequency (MHz):	5825.00	**Data Rate:**	6.00 MBit/s
Power Setting:	20	**Tested By:**	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	3883.38	66.30	2.75	-11.75	57.30	Max Peak	Vertical	117	357	68.2	-10.9	Pass
#2	3883.38	61.57	2.75	-11.75	52.57	Max Avg	Vertical	117	357	54.0	-1.4	Pass
#3	5826.59	61.41	3.23	-10.80	53.84	Fundamental	Vertical	151	0	--	--	

Test Notes: Eut powered by and controlled by laptop. Nanit4 with RF cable rerouted on other side of PCB, pushed back to groundplane area of middle board

9.8.2. Restricted Edge & Band-Edge Emissions

5150 - 5250 MHz

Pulse SZ0845W		Restricted Band-Edge Freq	Limit 68.2dBµV/m	Limit 54.0dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
802.11a	5180.00	5150.00	67.59	51.76	18.5
802.11n HT-20	5180.00	5150.00	67.35	49.97	17.5
802.11n HT-40	5190.00	5150.00	62.89	46.72	18

5250 - 5350 MHz

Pulse SZ0845W		Restricted Band Edge Freq	Limit 68.2dBµV/m	Limit 54.0dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
802.11a	5320.00	5350.00	67.93	46.85	15
802.11n HT-20	5320.00	5350.00	67.52	47.46	15.5
802.11n HT-40	5310.00	5350.00	67.68	50.58	18

5470 - 5725 MHz

Pulse SZ0845W		Restricted-Edge Freq	Limit 68.2dBµV/m	Limit 54.0dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
802.11a	5500.00	5460.00	66.72	47.95	17.5
802.11n HT-20	5500.00	5460.00	67.89	49.92	18
802.11n HT-40	5510.00	5460.00	67.04	45.63	20

5725 MHz Radiated Lower Band-Edge Emissions

Integral		Band-Edge Freq	dBµV/m	dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz			
802.11a	5725.00	5725.00	79.21	54.76	20
802.11n HT-20	5725.00	5725.00	78.95	54.43	20
802.11n HT-40	5725.00	5725.00	81.09	62.38	20

5850 MHz Radiated Higher Band-Edge Emissions

Integral		Band-Edge Freq	dBµV/m	dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz			
802.11a	5850.00	5850.00	69.58	55.96	20
802.11n HT-20	5850.00	5850.00	68.58	57.45	20
802.11n HT-40	5850.00	5850.00	64.57	53.13	20

Click on the links to view the data.

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11a
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	94
Channel Frequency (MHz):	5180.00	**Data Rate:**	6.00 MBit/s
Power Setting:	18.5	**Tested By:**	JMH

Test Measurement Results

4500.00 - 5250.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5144.79	14.50	3.06	34.20	51.76	Max Avg	Vertical	141	303	54.0	-2.2	Pass
#2	5144.79	30.33	3.06	34.20	67.59	Max Peak	Vertical	141	303	68.2	-0.6	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
Test Notes: EUT powered by and controlled by laptop. Power reduced to meet band edge limit.												

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11n HT-20
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	94
Channel Frequency (MHz):	5180.00	**Data Rate:**	6.50 MBit/s
Power Setting:	17.5	**Tested By:**	JMH

Test Measurement Results

4500.00 - 5250.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5146.29	12.70	3.06	34.21	49.97	Max Avg	Vertical	141	303	54.0	-4.0	Pass
#2	5148.50	30.08	3.06	34.21	67.35	Max Peak	Vertical	141	303	68.2	-0.9	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
Test Notes: EUT powered by and controlled by laptop. Power reduced to meet band edge limit.												

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11n HT-40
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	86
Channel Frequency (MHz):	5190.00	**Data Rate:**	13.50 MBit/s
Power Setting:	18	**Tested By:**	JMH

Test Measurement Results

4500.00 - 5250.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5145.49	9.46	3.06	34.20	46.72	Max Avg	Horizontal	141	303	54.0	-7.3	Pass
#2	5148.50	25.62	3.06	34.21	62.89	Max Peak	Horizontal	141	303	68.2	-5.3	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
Test Notes: EUT powered by and controlled by laptop.												

Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11a
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	94
Channel Frequency (MHz):	5320.00	**Data Rate:**	6.00 MBit/s
Power Setting:	15	**Tested By:**	JMH

Test Measurement Results

5300.00 - 5460.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5350.00	9.21	3.18	34.46	46.85	Max Avg	Vertical	159	329	54.0	-7.2	Pass
#3	5350.32	30.29	3.18	34.46	67.93	Max Peak	Vertical	159	329	68.2	-0.3	Pass
#2	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
Test Notes: EUT powered by and controlled by laptop. Power reduced to meet Band Edge Limit												

Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11n HT-20
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	94
Channel Frequency (MHz):	5320.00	**Data Rate:**	6.50 MBit/s
Power Setting:	15.5	**Tested By:**	JMH

Test Measurement Results

5300.00 - 5460.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5350.00	9.82	3.18	34.46	47.46	Max Avg	Vertical	159	330	54.0	-6.5	Pass
#3	5355.77	29.89	3.16	34.47	67.52	Max Peak	Vertical	159	330	68.2	-0.7	Pass
#2	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
Test Notes: EUT powered by and controlled by laptop. Power reduced to meet Band Edge Limit												

Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11n HT-40
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	85
Channel Frequency (MHz):	5310.00	**Data Rate:**	13.50 MBit/s
Power Setting:	18	**Tested By:**	JMH

Test Measurement Results

5300.00 - 5460.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5350.00	12.66	3.18	34.46	50.30	Max Avg	Horizontal	159	330	54.0	-3.7	Pass
#3	5350.64	30.04	3.18	34.46	67.68	Max Peak	Horizontal	159	330	68.2	-0.6	Pass
#2	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
Test Notes: EUT powered by and controlled by laptop.												

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11a
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	85
Channel Frequency (MHz):	5500.00	**Data Rate:**	6.00 MBit/s
Power Setting:	17.5	**Tested By:**	JMH

Test Measurement Results

5350.00 - 5500.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5457.60	29.04	3.16	34.52	66.72	Max Peak	Vertical	164	323	68.2	-1.5	Pass
#2	5458.20	10.27	3.16	34.52	47.95	Max Avg	Vertical	164	323	54.0	-6.1	Pass
#3	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
#4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
Test Notes: EUT powered by and controlled by laptop. Power reduced to meet Band Edge Limit												

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11n HT-20
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	85
Channel Frequency (MHz):	5500.00	**Data Rate:**	6.50 MBit/s
Power Setting:	18	**Tested By:**	JMH

Test Measurement Results

5350.00 - 5500.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5452.48	30.18	3.21	34.50	67.89	Max Peak	Vertical	164	323	68.2	-0.3	Pass
#2	5455.19	12.23	3.18	34.51	49.92	Max Avg	Vertical	164	323	54.0	-4.1	Pass
#3	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
#4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
Test Notes: EUT powered by and controlled by laptop. Power reduced to meet Band Edge Limit												

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11n HT-40
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	84
Channel Frequency (MHz):	5510.00	**Data Rate:**	13.50 MBit/s
Power Setting:	20	**Tested By:**	JMH

Test Measurement Results

5350.00 - 5530.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5460.00	7.95	3.15	34.53	45.63	Max Avg	Horizontal	164	323	68.2	-22.6	Pass
#3	5470.00	29.33	3.16	34.55	67.04	Max Peak	Horizontal	164	323	68.2	-1.2	Pass
#2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
#4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
Test Notes: EUT powered by and controlled by laptop.												

Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11a
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	95
Channel Frequency (MHz):	5745.00	**Data Rate:**	6.00 MBit/s
Power Setting:	20	**Tested By:**	JMH

Test Measurement Results

5600.00 - 5780.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5656.20	16.91	3.21	34.64	54.76	Max Peak	Vertical	167	347	72.6	-17.9	Pass
#2	5725.00	41.32	3.17	34.72	79.21	Max Peak	Vertical	167	347	122.2	-43.0	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
Test Notes: EUT powered by and controlled by laptop.												

Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11n HT-20
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	95
Channel Frequency (MHz):	5745.00	**Data Rate:**	6.50 MBit/s
Power Setting:	20	**Tested By:**	JMH

Test Measurement Results

5600.00 - 5780.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5655.84	16.58	3.21	34.64	54.43	Max Peak	Vertical	167	347	72.6	-18.2	Pass
#2	5724.28	41.06	3.17	34.72	78.95	Max Peak	Vertical	167	347	119.9	-41.0	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
Test Notes: EUT powered by and controlled by laptop.												

Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11n HT-40
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	84
Channel Frequency (MHz):	5755.00	**Data Rate:**	13.50 MBit/s
Power Setting:	20	**Tested By:**	JMH

Test Measurement Results

5600.00 - 5780.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5656.56	24.53	3.21	34.64	62.38	Max Peak	Vertical	167	347	73.4	-11.0	Pass
#2	5722.47	43.20	3.17	34.72	81.09	Max Peak	Vertical	167	347	115.4	-34.3	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
Test Notes: EUT powered by and controlled by laptop.												

Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11a
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	95
Channel Frequency (MHz):	5825.00	**Data Rate:**	6.00 MBit/s
Power Setting:	20	**Tested By:**	JMH

Test Measurement Results

5770.00 - 6000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5850.00	31.42	3.20	34.96	69.58	Max Peak	Vertical	167	347	122.2	-52.6	Pass
#3	5907.47	17.64	3.22	35.10	55.96	Max Peak	Vertical	167	347	81.5	-25.6	Pass
#2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
Test Notes: EUT powered by and controlled by laptop.												

Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11n HT-20
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	95
Channel Frequency (MHz):	5825.00	**Data Rate:**	6.50 MBit/s
Power Setting:	20	**Tested By:**	JMH

Test Measurement Results

5770.00 - 6000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5850.00	30.42	3.20	34.96	68.58	Max Peak	Vertical	167	347	122.2	-53.6	Pass
#3	5911.16	19.14	3.21	35.10	57.45	Max Peak	Vertical	167	347	78.6	-21.1	Pass
#2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
Test Notes: EUT powered by and controlled by laptop.												

Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

Antenna:	Pulse SZ0845W	**Variant:**	802.11n HT-40
Antenna Gain (dBi):	4.69	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	84
Channel Frequency (MHz):	5795.00	**Data Rate:**	13.50 MBit/s
Power Setting:	20	**Tested By:**	JMH

Test Measurement Results

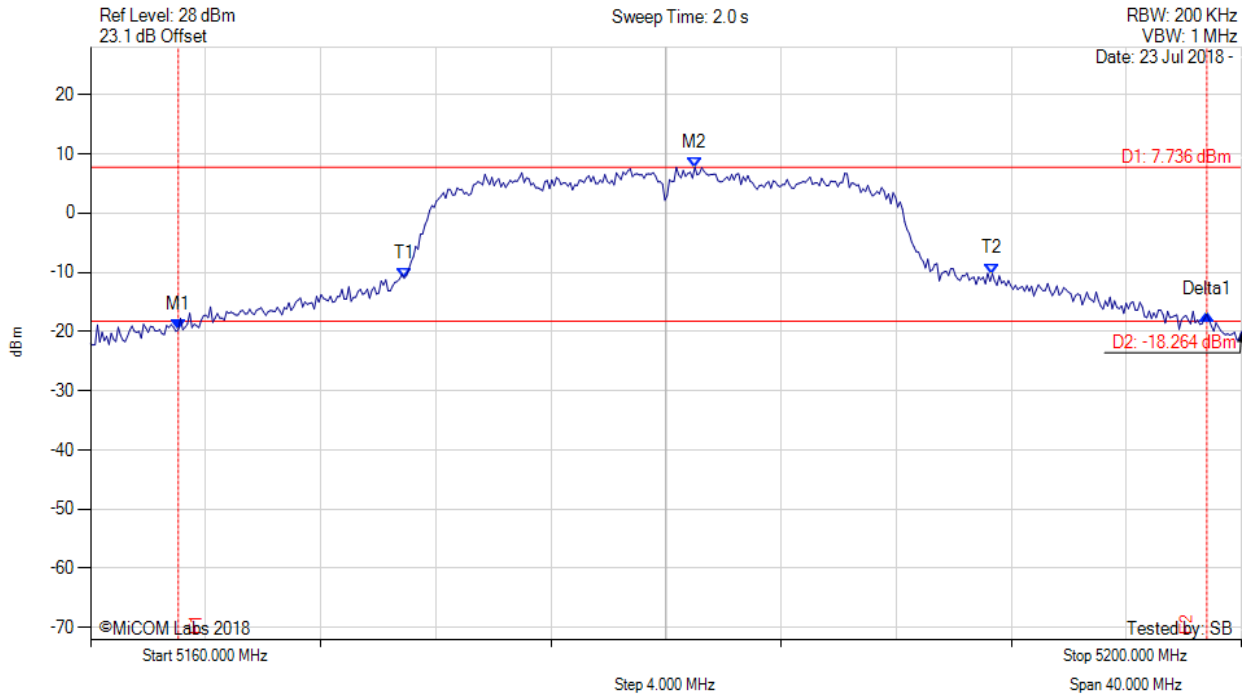
5770.00 - 6000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#2	5850.92	26.41	3.20	34.96	64.57	Max Peak	Vertical	167	347	120.5	-55.9	Pass
#3	5956.33	14.75	3.25	35.13	53.13	Max Peak	Vertical	167	347	68.2	-15.1	Pass
#1	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
Test Notes: EUT powered by and controlled by laptop.												

A. APPENDIX - GRAPHICAL IMAGES

A.1. 26 dB & 99% Bandwidth

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5180.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

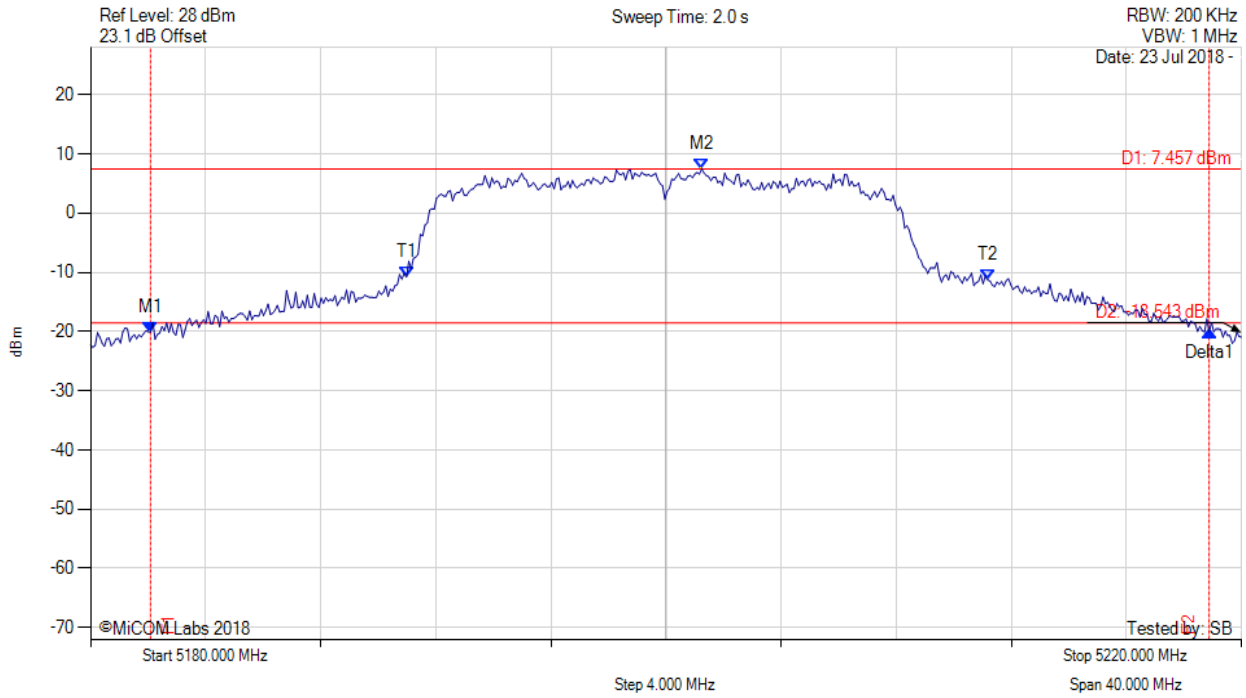


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5163.046 MHz : -19.740 dBm M2 : 5181.002 MHz : 7.736 dBm Delta1 : 35.752 MHz : 2.660 dB T1 : 5170.902 MHz : -10.973 dBm T2 : 5191.343 MHz : -10.226 dBm OBW : 20.441 MHz	Measured 26 dB Bandwidth: 35.752 MHz Measured 99% Bandwidth: 20.441 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5200.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

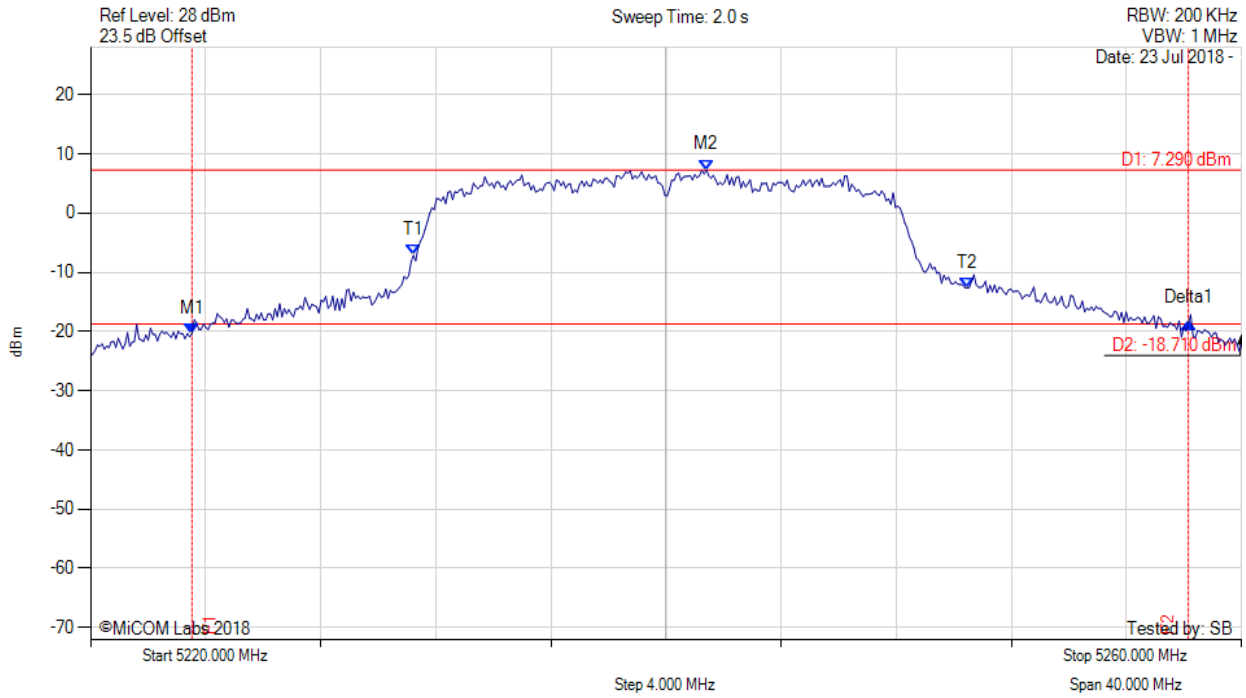


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5182.084 MHz : -20.106 dBm M2 : 5201.242 MHz : 7.457 dBm Delta1 : 36.794 MHz : 0.075 dB T1 : 5190.982 MHz : -10.777 dBm T2 : 5211.182 MHz : -11.286 dBm OBW : 20.200 MHz	Measured 26 dB Bandwidth: 36.794 MHz Measured 99% Bandwidth: 20.200 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5240.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

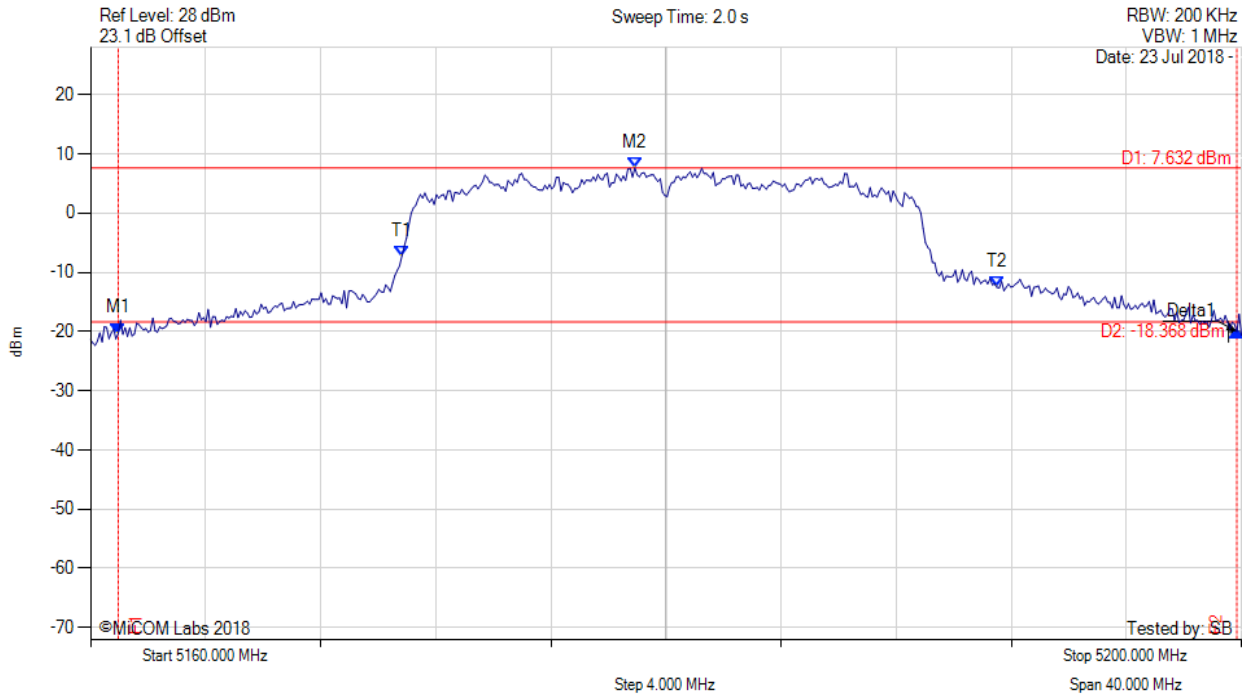


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5223.527 MHz : -20.328 dBm M2 : 5241.403 MHz : 7.290 dBm Delta1 : 34.629 MHz : 1.792 dB T1 : 5231.222 MHz : -7.151 dBm T2 : 5250.461 MHz : -12.636 dBm OBW : 19.238 MHz	Measured 26 dB Bandwidth: 34.629 MHz Measured 99% Bandwidth: 19.238 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5180.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

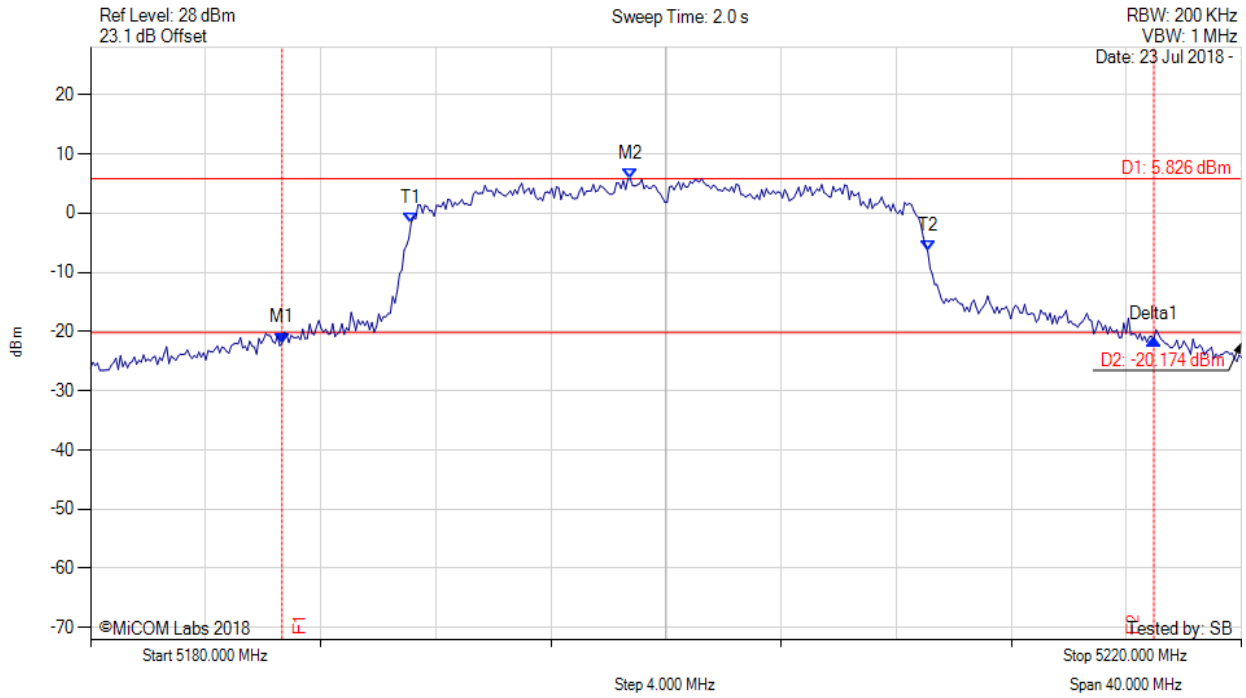


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5160.962 MHz : -20.297 dBm M2 : 5178.918 MHz : 7.632 dBm Delta1 : 38.878 MHz : 0.295 dB T1 : 5170.822 MHz : -7.216 dBm T2 : 5191.503 MHz : -12.533 dBm OBW : 20.681 MHz	Measured 26 dB Bandwidth: 38.878 MHz Measured 99% Bandwidth: 20.681 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5200.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

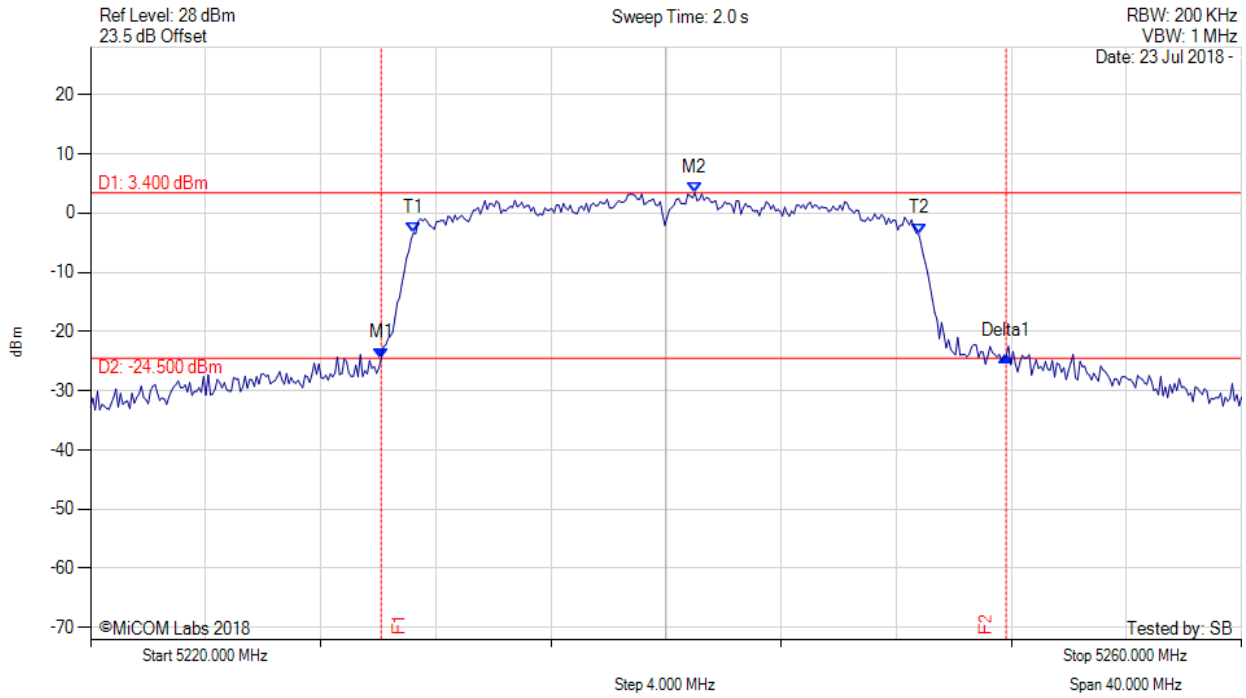


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5186.653 MHz : -21.937 dBm M2 : 5198.758 MHz : 5.826 dBm Delta1 : 30.301 MHz : 0.641 dB T1 : 5191.142 MHz : -1.628 dBm T2 : 5209.098 MHz : -6.464 dBm OBW : 17.956 MHz	Measured 26 dB Bandwidth: 30.301 MHz Measured 99% Bandwidth: 17.956 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5240.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

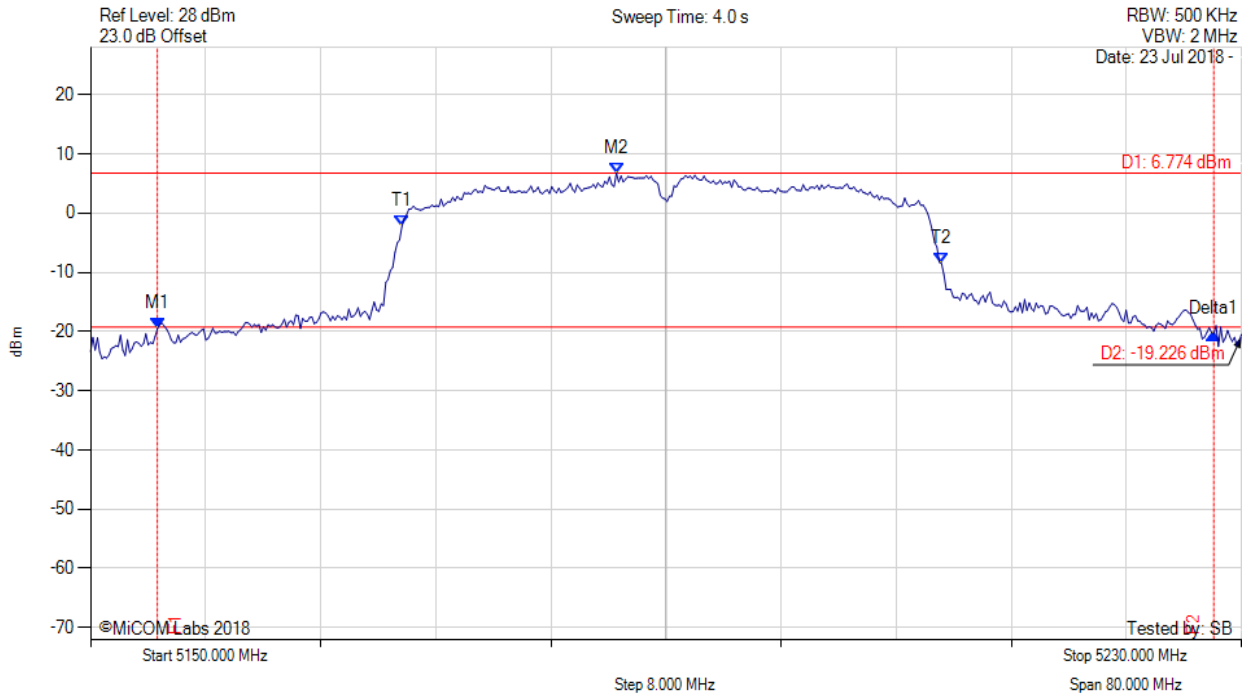


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5230.100 MHz : -24.509 dBm M2 : 5241.002 MHz : 3.408 dBm Delta1 : 21.723 MHz : 0.413 dB T1 : 5231.222 MHz : -3.352 dBm T2 : 5248.778 MHz : -3.460 dBm OBW : 17.555 MHz	Measured 26 dB Bandwidth: 21.723 MHz Measured 99% Bandwidth: 17.555 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5190.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

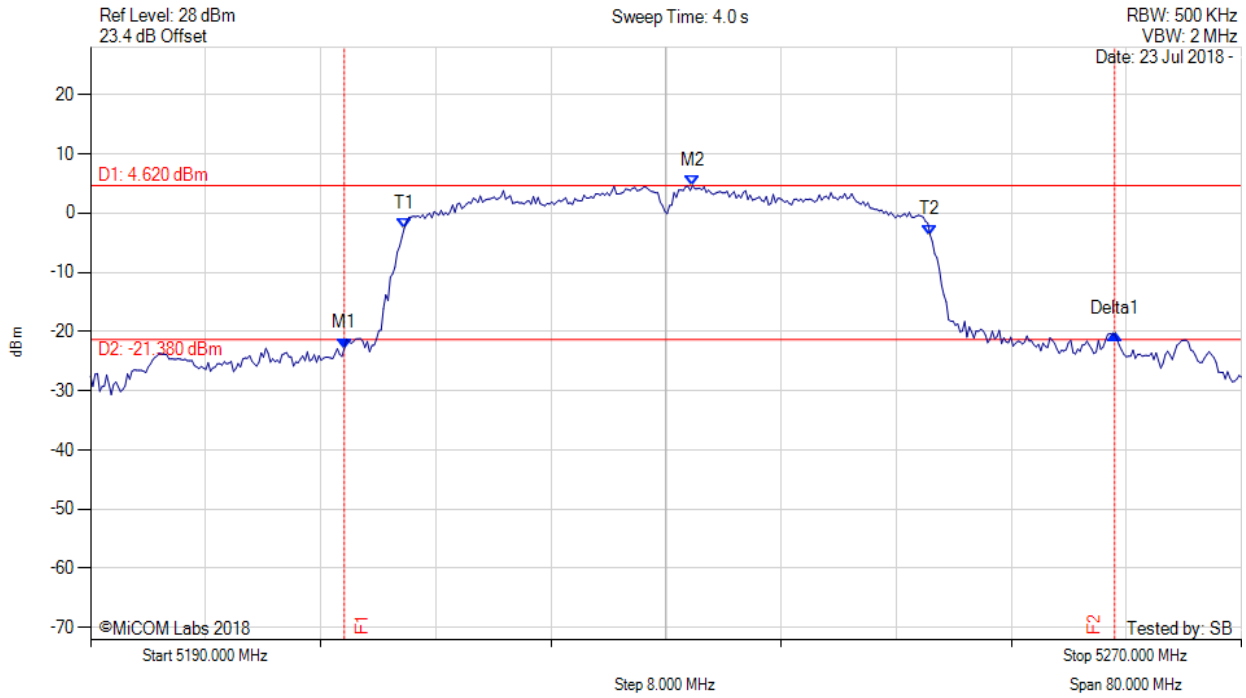


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5154.649 MHz : -19.553 dBm M2 : 5186.553 MHz : 6.774 dBm Delta1 : 73.427 MHz : -0.866 dB T1 : 5171.643 MHz : -2.234 dBm T2 : 5209.158 MHz : -8.522 dBm OBW : 37.515 MHz	Measured 26 dB Bandwidth: 73.427 MHz Measured 99% Bandwidth: 37.515 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5230.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

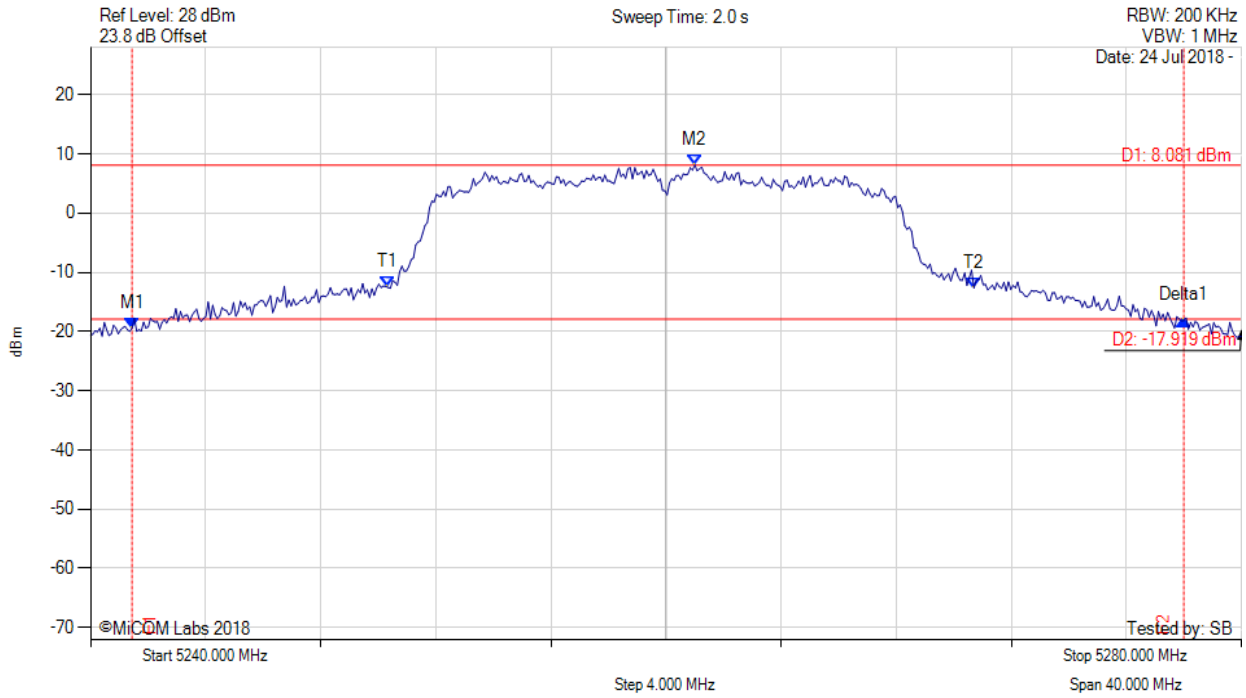


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5207.635 MHz : -22.872 dBm M2 : 5231.844 MHz : 4.620 dBm Delta1 : 53.547 MHz : 2.463 dB T1 : 5211.804 MHz : -2.606 dBm T2 : 5248.357 MHz : -3.686 dBm OBW : 36.553 MHz	Measured 26 dB Bandwidth: 53.547 MHz Measured 99% Bandwidth: 36.553 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5260.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

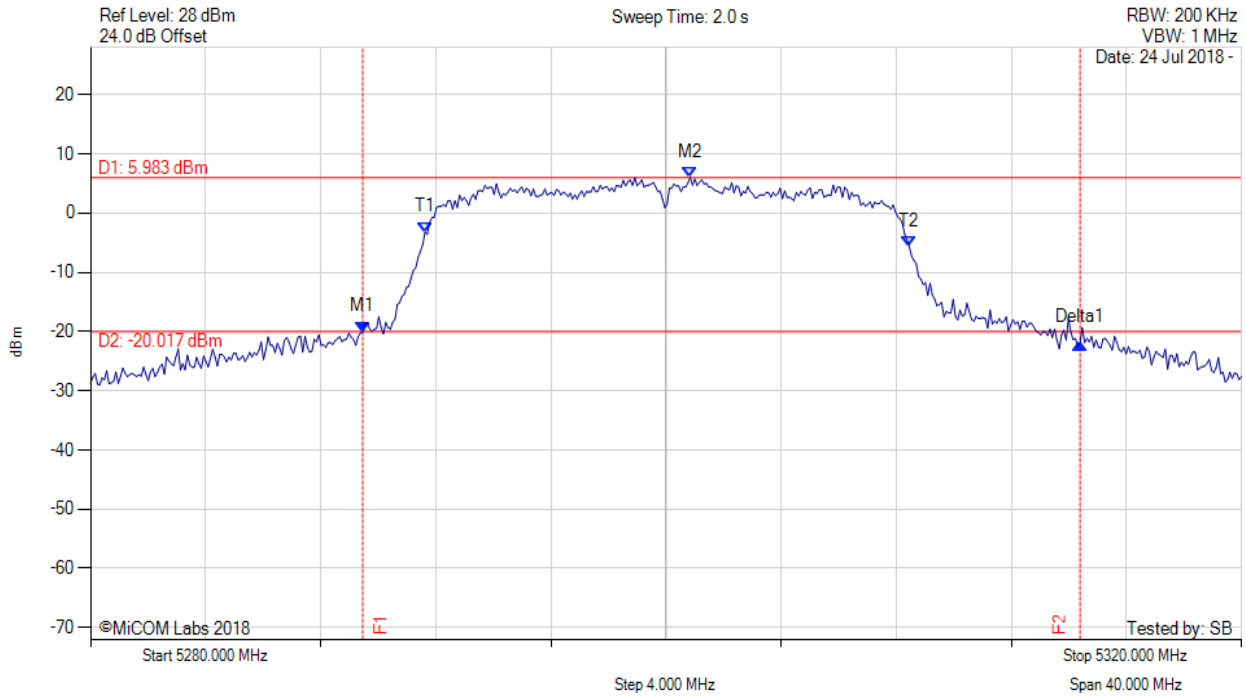


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5241.443 MHz : -19.437 dBm M2 : 5261.002 MHz : 8.081 dBm Delta1 : 36.553 MHz : 1.283 dB T1 : 5250.341 MHz : -12.535 dBm T2 : 5270.701 MHz : -12.622 dBm OBW : 20.361 MHz	Measured 26 dB Bandwidth: 36.553 MHz Measured 99% Bandwidth: 20.361 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

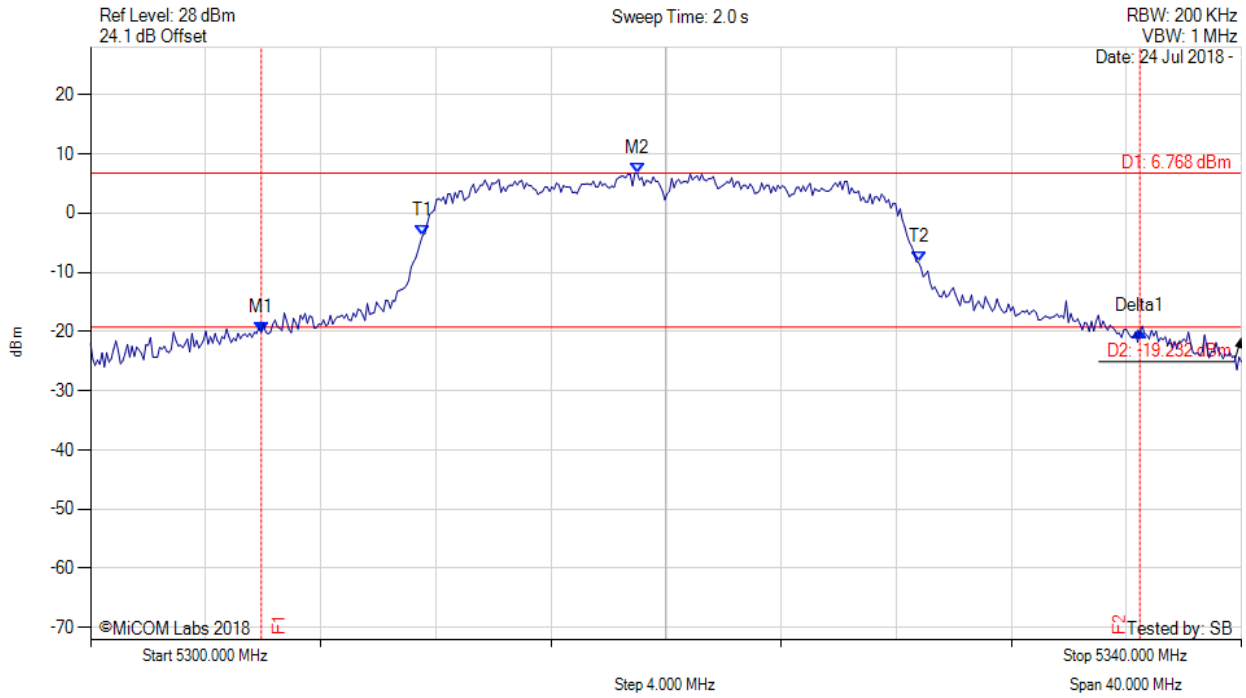


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5289.459 MHz : -20.049 dBm M2 : 5300.842 MHz : 5.983 dBm Delta1 : 24.930 MHz : -1.869 dB T1 : 5291.623 MHz : -3.236 dBm T2 : 5308.457 MHz : -5.730 dBm OBW : 16.834 MHz	Measured 26 dB Bandwidth: 24.930 MHz Measured 99% Bandwidth: 16.834 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5320.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

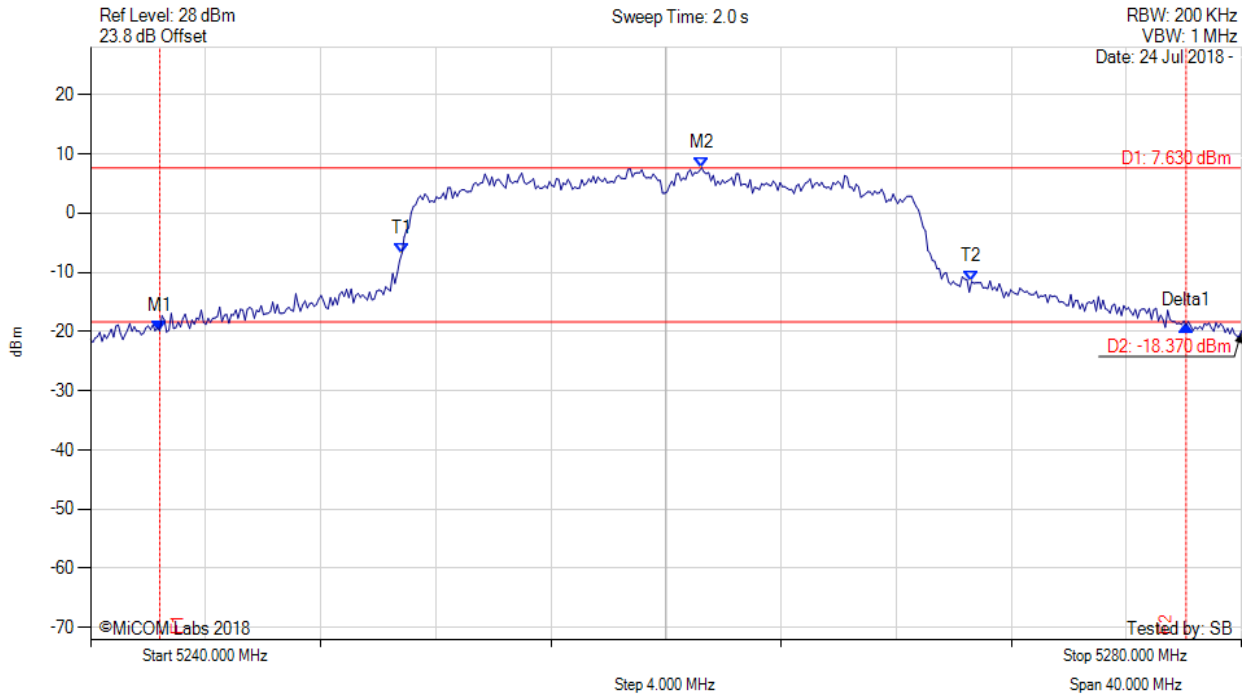


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5305.932 MHz : -20.118 dBm M2 : 5318.998 MHz : 6.768 dBm Delta1 : 30.541 MHz : 0.087 dB T1 : 5311.543 MHz : -3.743 dBm T2 : 5328.778 MHz : -8.313 dBm OBW : 17.234 MHz	Measured 26 dB Bandwidth: 30.541 MHz Measured 99% Bandwidth: 17.234 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5260.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

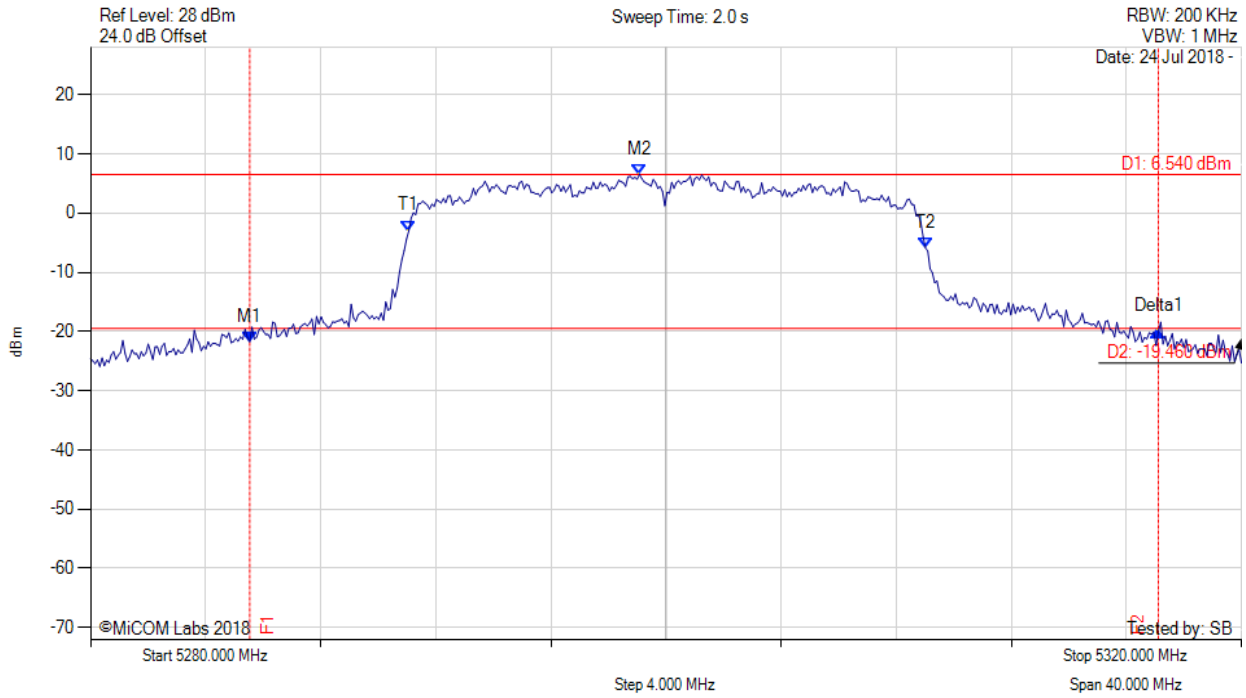


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5242.405 MHz : -19.889 dBm M2 : 5261.242 MHz : 7.630 dBm Delta1 : 35.671 MHz : 0.978 dB T1 : 5250.822 MHz : -6.799 dBm T2 : 5270.621 MHz : -11.560 dBm OBW : 19.800 MHz	Measured 26 dB Bandwidth: 35.671 MHz Measured 99% Bandwidth: 19.800 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

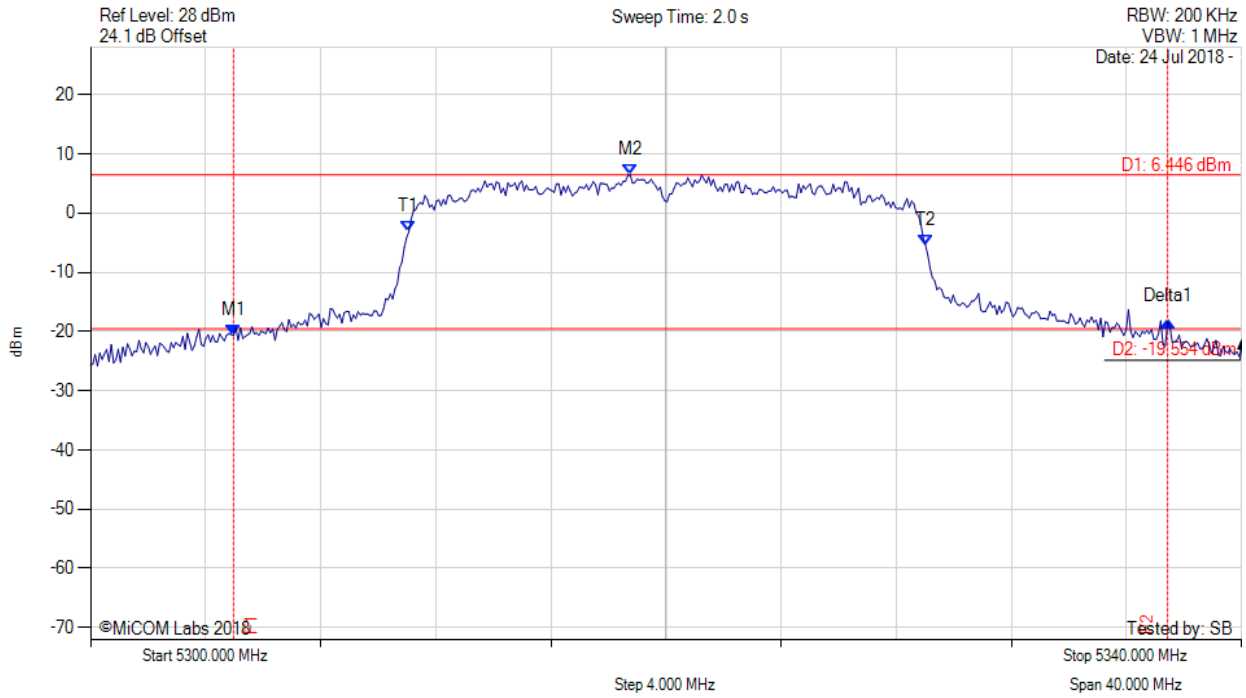


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5285.531 MHz : -21.729 dBm M2 : 5299.078 MHz : 6.540 dBm Delta1 : 31.583 MHz : 1.694 dB T1 : 5291.062 MHz : -3.000 dBm T2 : 5309.018 MHz : -5.862 dBm OBW : 17.956 MHz	Measured 26 dB Bandwidth: 31.583 MHz Measured 99% Bandwidth: 17.956 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5320.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

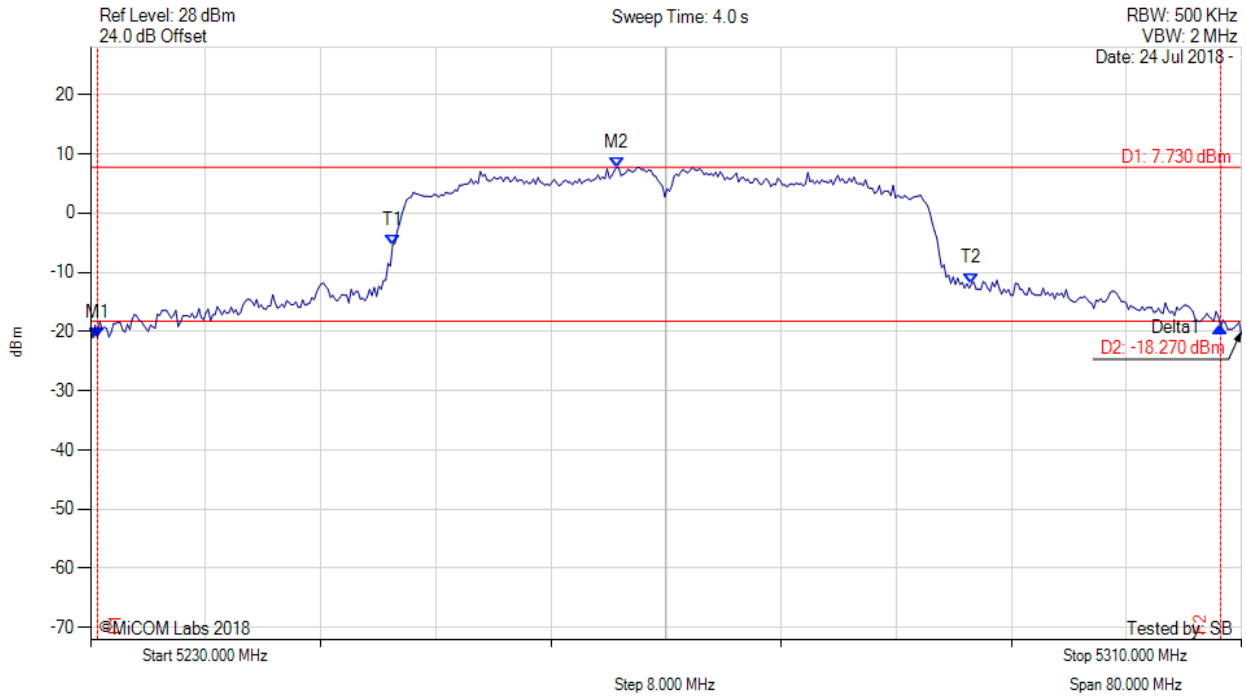


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5304.970 MHz : -20.686 dBm M2 : 5318.758 MHz : 6.446 dBm Delta1 : 32.465 MHz : 2.379 dB T1 : 5311.062 MHz : -3.192 dBm T2 : 5329.018 MHz : -5.384 dBm OBW : 17.956 MHz	Measured 26 dB Bandwidth: 32.465 MHz Measured 99% Bandwidth: 17.956 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5270.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

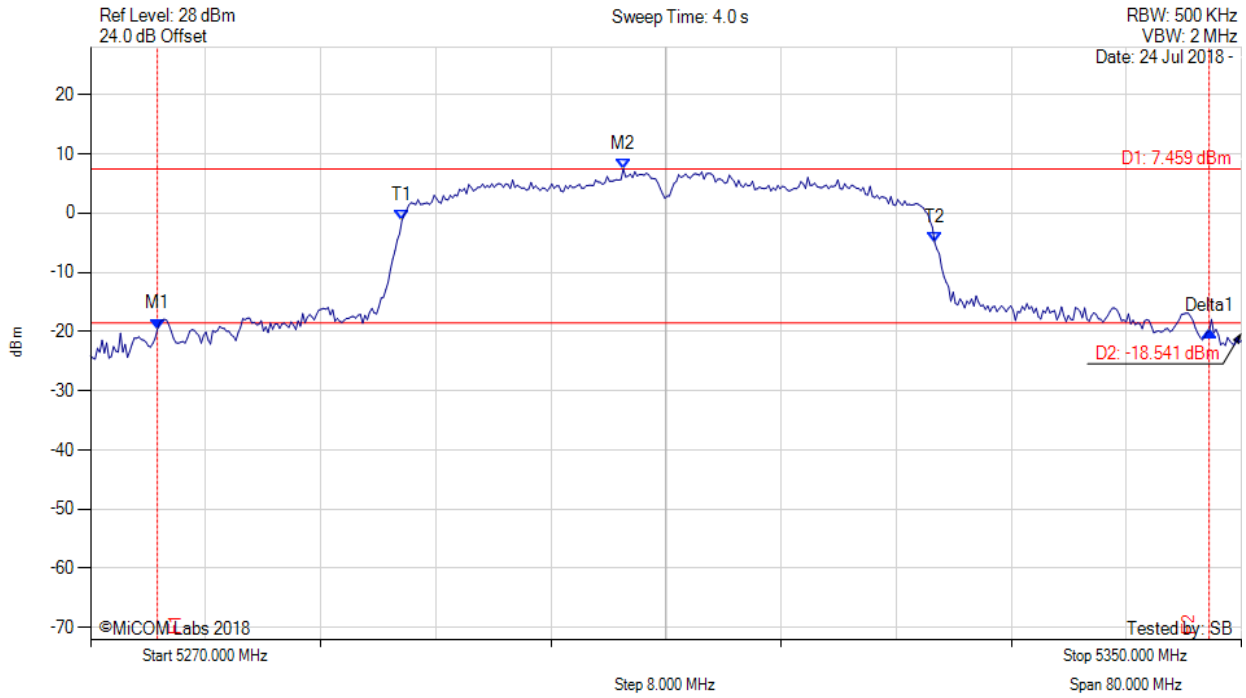


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5230.481 MHz : -21.015 dBm M2 : 5266.553 MHz : 7.730 dBm Delta1 : 78.076 MHz : 1.733 dB T1 : 5251.002 MHz : -5.351 dBm T2 : 5291.242 MHz : -11.876 dBm OBW : 40.240 MHz	Measured 26 dB Bandwidth: 78.076 MHz Measured 99% Bandwidth: 40.240 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5310.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

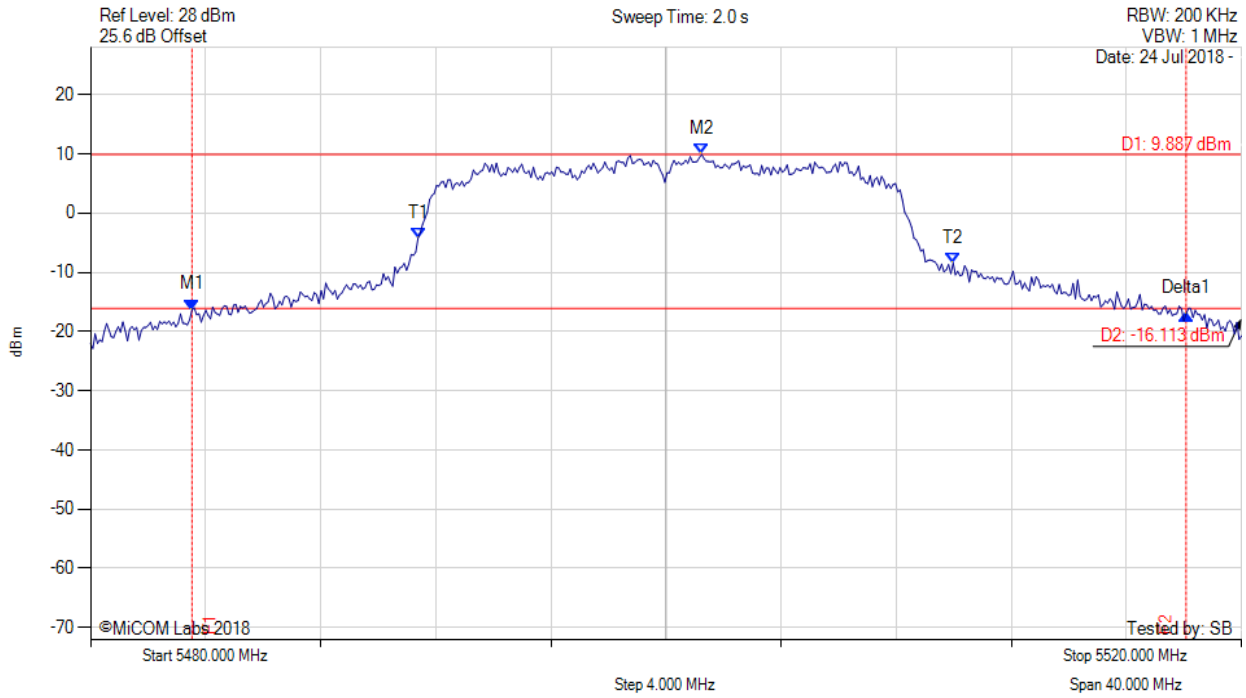


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5274.649 MHz : -19.594 dBm M2 : 5307.034 MHz : 7.459 dBm Delta1 : 73.106 MHz : -0.393 dB T1 : 5291.643 MHz : -1.229 dBm T2 : 5328.677 MHz : -4.993 dBm OBW : 37.034 MHz	Measured 26 dB Bandwidth: 73.106 MHz Measured 99% Bandwidth: 37.034 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5500.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

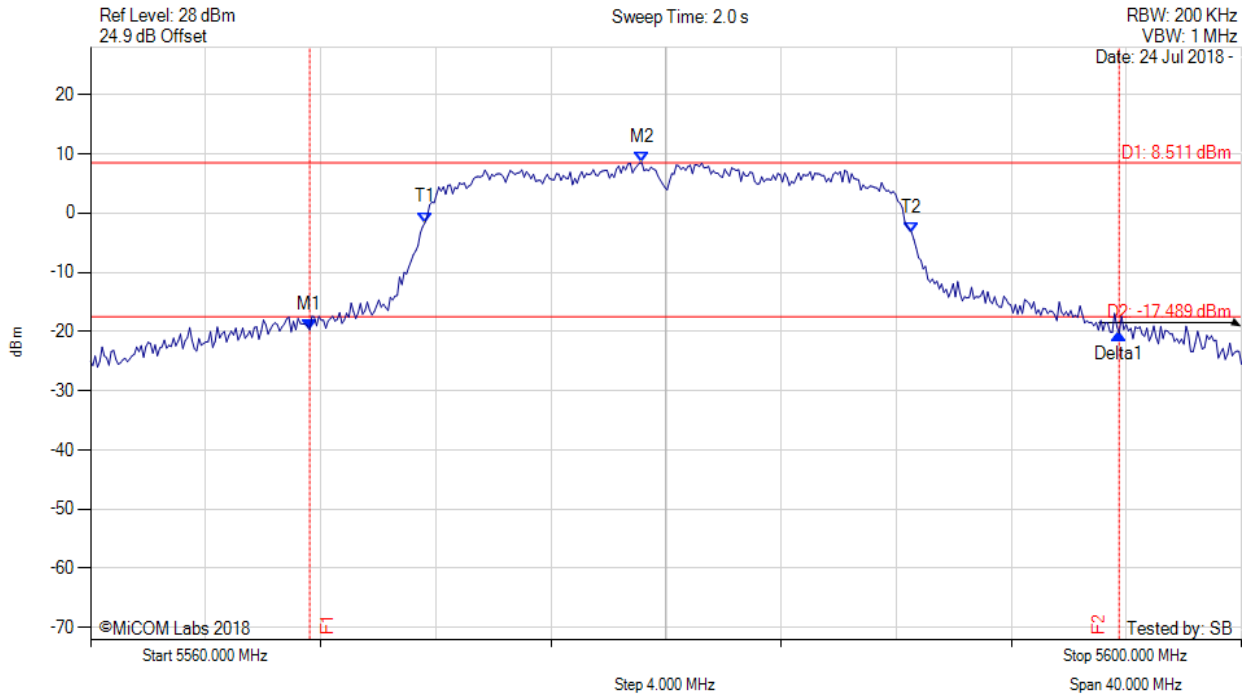


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5483.527 MHz : -16.325 dBm M2 : 5501.242 MHz : 9.887 dBm Delta1 : 34.549 MHz : -0.689 dB T1 : 5491.383 MHz : -4.235 dBm T2 : 5509.980 MHz : -8.433 dBm OBW : 18.597 MHz	Measured 26 dB Bandwidth: 34.549 MHz Measured 99% Bandwidth: 18.597 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5580.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

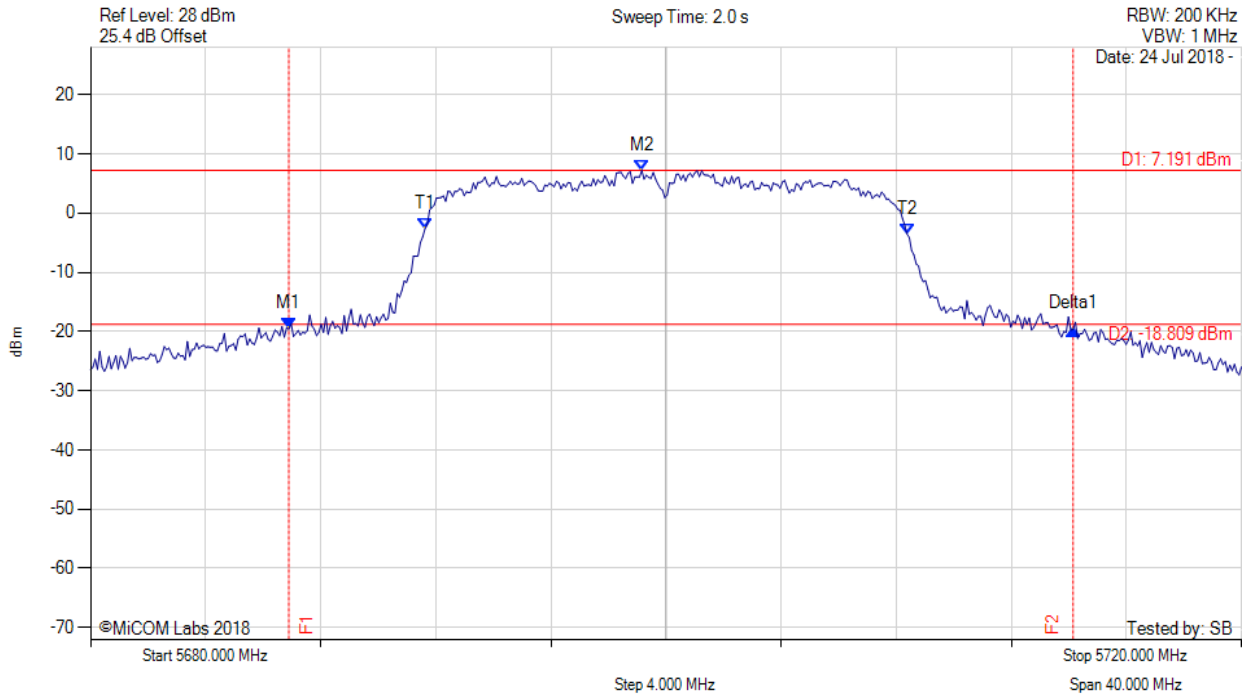


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5567.615 MHz : -19.738 dBm M2 : 5579.158 MHz : 8.511 dBm Delta1 : 28.136 MHz : -0.539 dB T1 : 5571.623 MHz : -1.593 dBm T2 : 5588.537 MHz : -3.267 dBm OBW : 16.914 MHz	Measured 26 dB Bandwidth: 28.136 MHz Measured 99% Bandwidth: 16.914 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5700.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

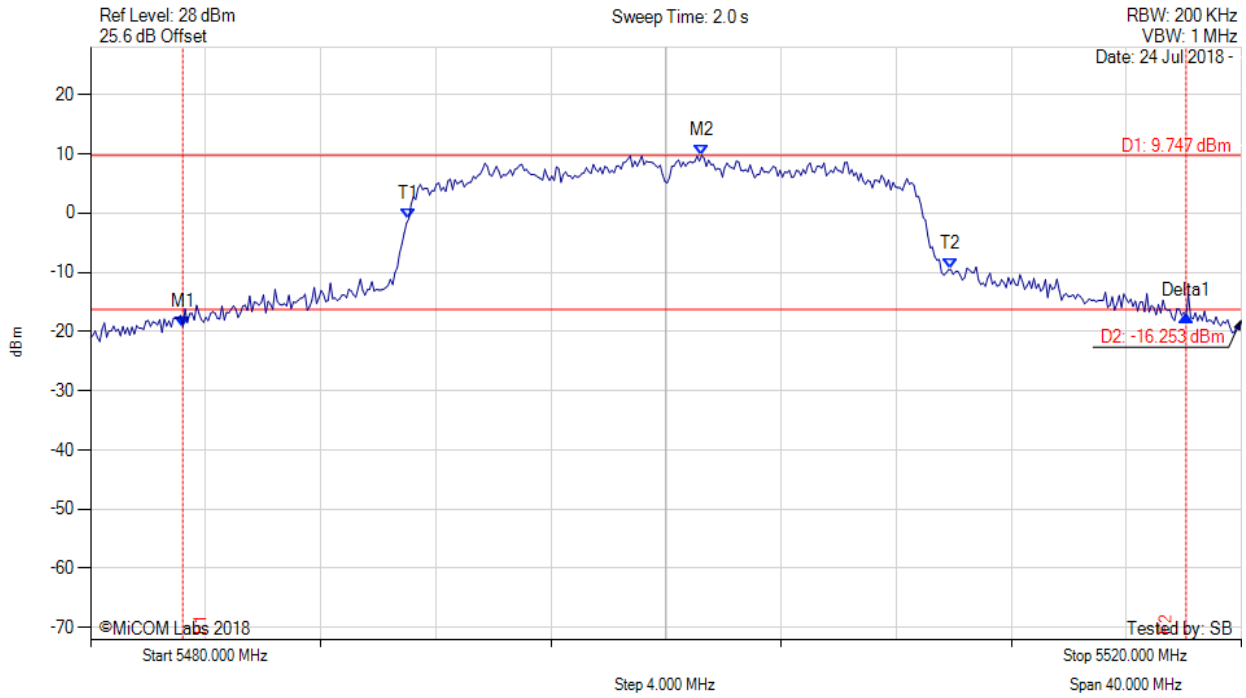


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5686.894 MHz : -19.567 dBm M2 : 5699.158 MHz : 7.191 dBm Delta1 : 27.255 MHz : -0.035 dB T1 : 5691.623 MHz : -2.669 dBm T2 : 5708.377 MHz : -3.519 dBm OBW : 16.754 MHz	Measured 26 dB Bandwidth: 27.255 MHz Measured 99% Bandwidth: 16.754 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5500.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

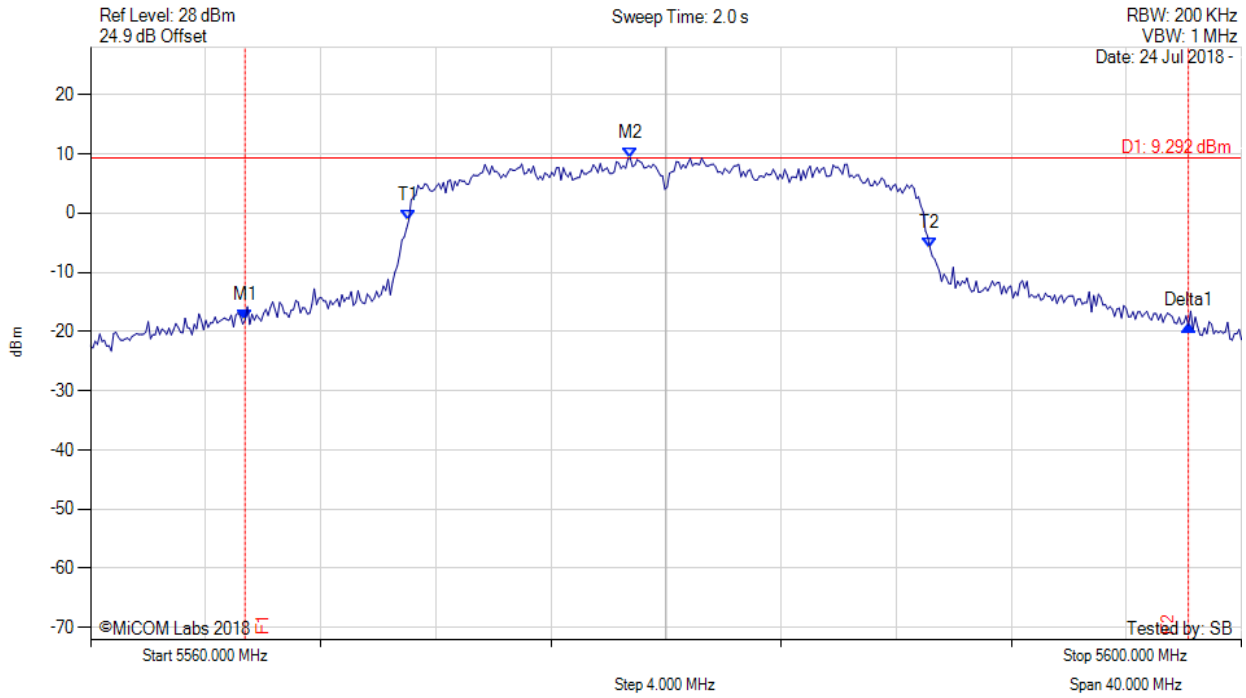


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5483.206 MHz : -19.183 dBm M2 : 5501.242 MHz : 9.747 dBm Delta1 : 34.870 MHz : 1.895 dB T1 : 5491.062 MHz : -0.973 dBm T2 : 5509.900 MHz : -9.525 dBm OBW : 18.838 MHz	Measured 26 dB Bandwidth: 34.870 MHz Measured 99% Bandwidth: 18.838 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5580.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

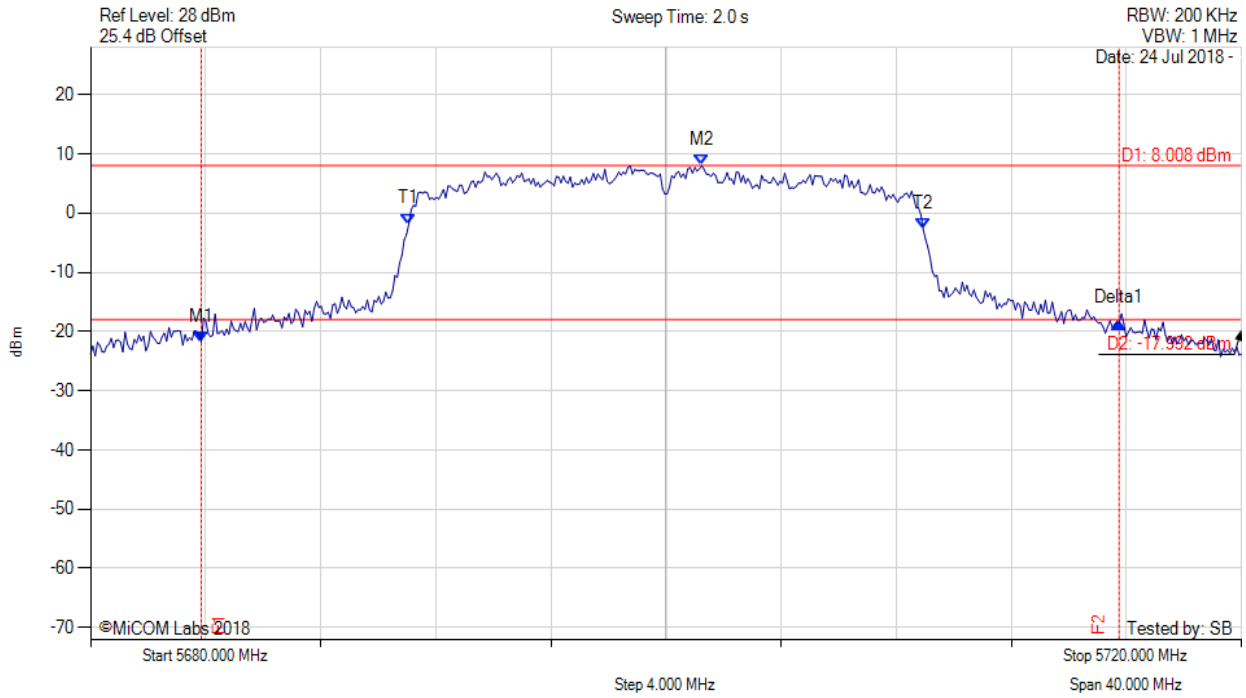


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5565.371 MHz : -18.064 dBm M2 : 5578.758 MHz : 9.292 dBm Delta1 : 32.786 MHz : -0.940 dB T1 : 5571.062 MHz : -1.198 dBm T2 : 5589.178 MHz : -5.986 dBm OBW : 18.116 MHz	Measured 26 dB Bandwidth: 32.786 MHz Measured 99% Bandwidth: 18.116 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5700.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

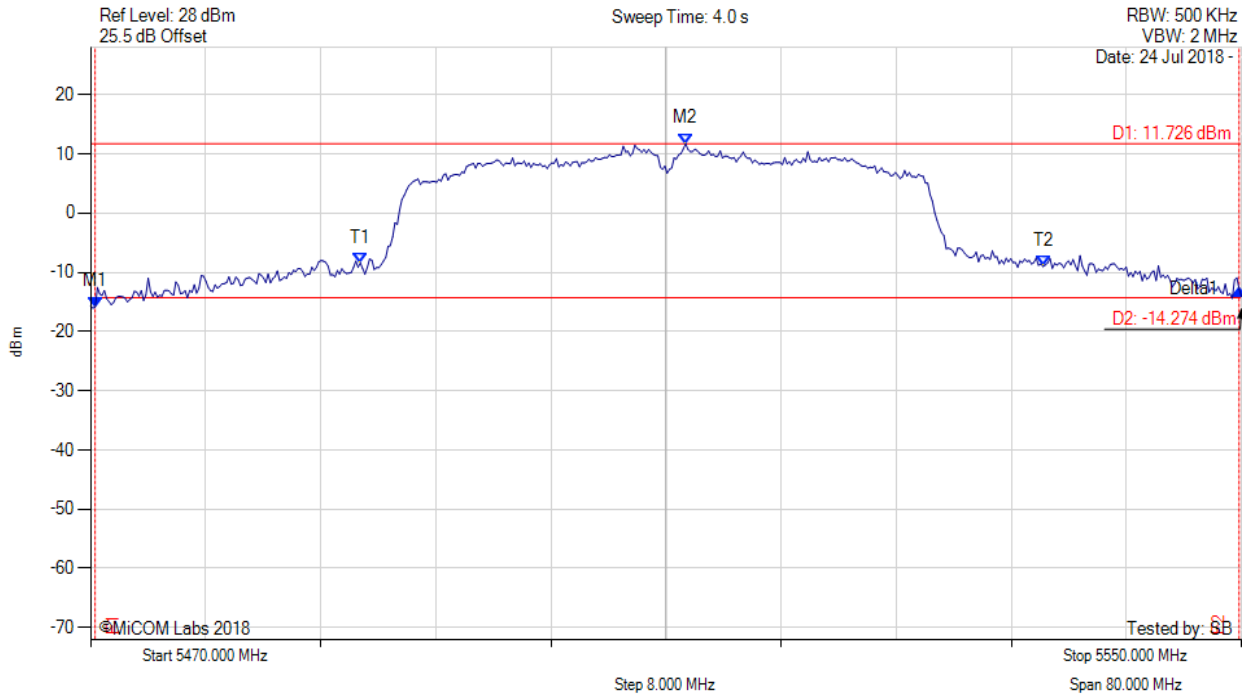


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5683.848 MHz : -21.762 dBm M2 : 5701.242 MHz : 8.008 dBm Delta1 : 31.904 MHz : 3.280 dB T1 : 5691.062 MHz : -1.835 dBm T2 : 5708.938 MHz : -2.708 dBm OBW : 17.876 MHz	Measured 26 dB Bandwidth: 31.904 MHz Measured 99% Bandwidth: 17.876 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5510.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

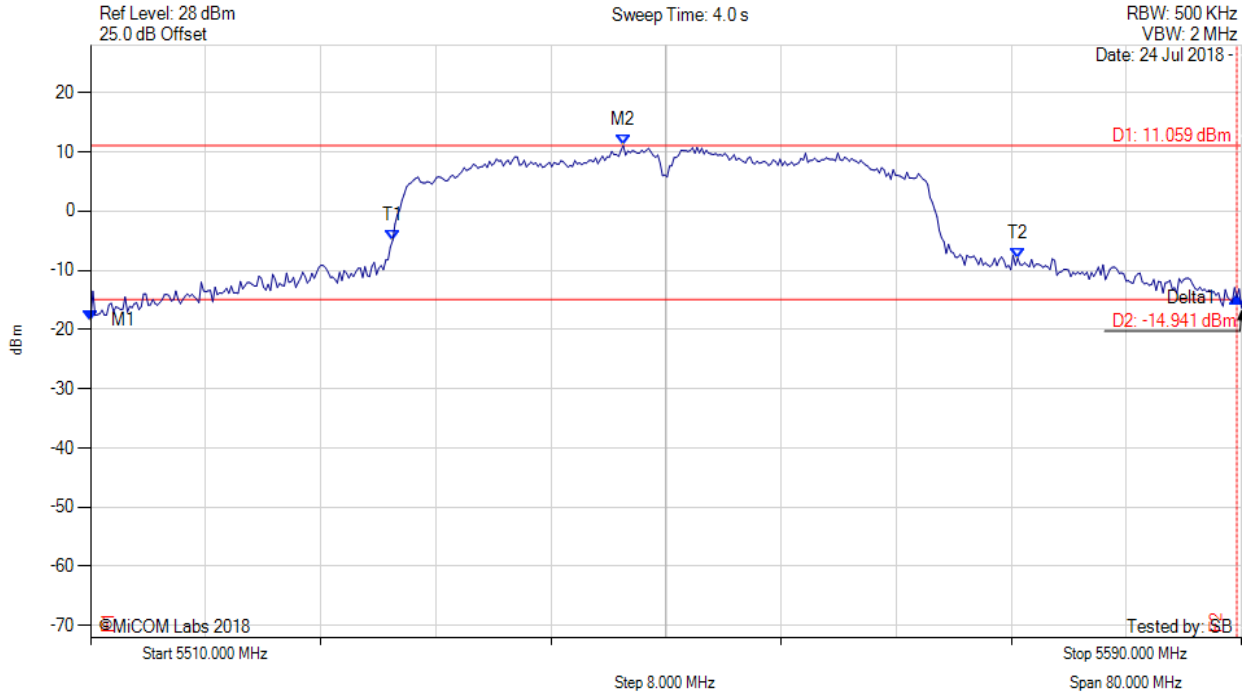


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5470.321 MHz : -15.858 dBm M2 : 5511.363 MHz : 11.726 dBm Delta1 : 79.519 MHz : 3.024 dB T1 : 5488.758 MHz : -8.424 dBm T2 : 5536.212 MHz : -9.020 dBm OBW : 47.455 MHz	Measured 26 dB Bandwidth: 79.519 MHz Measured 99% Bandwidth: 47.455 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5550.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

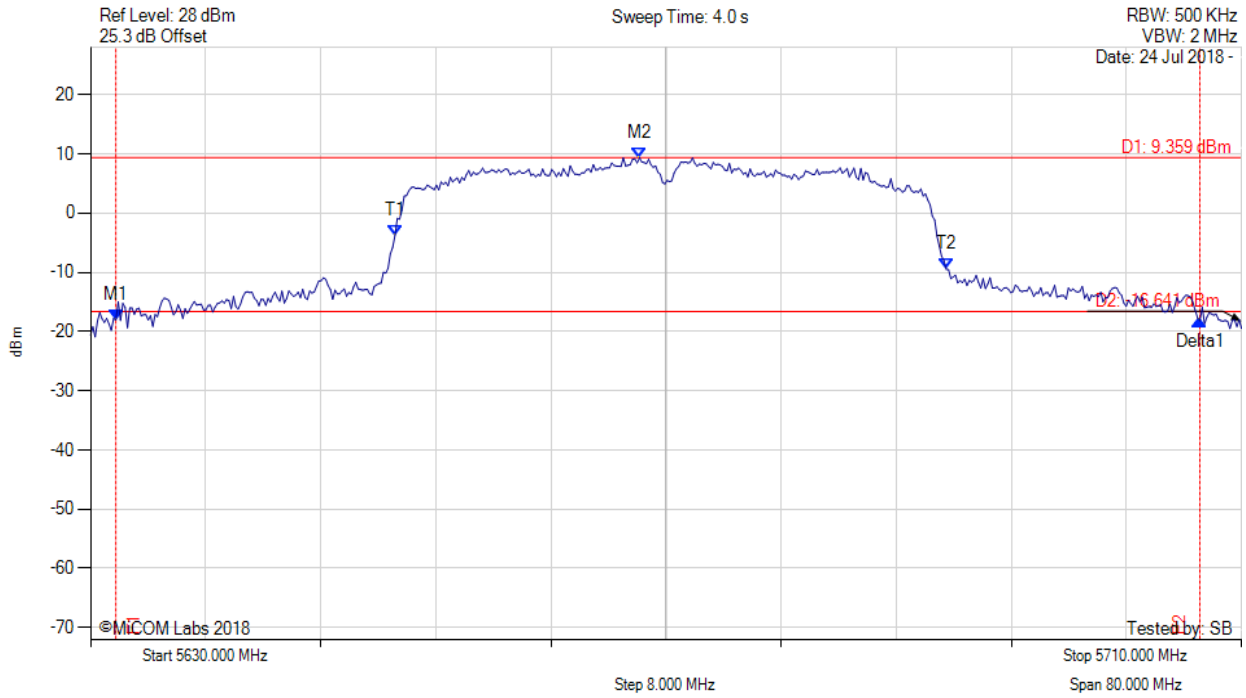


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5510.000 MHz : -18.408 dBm M2 : 5547.034 MHz : 11.059 dBm Delta1 : 79.679 MHz : 3.801 dB T1 : 5531.002 MHz : -4.963 dBm T2 : 5574.449 MHz : -7.953 dBm OBW : 43.447 MHz	Measured 26 dB Bandwidth: 79.679 MHz Measured 99% Bandwidth: 43.447 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5670.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5631.764 MHz : -18.026 dBm M2 : 5668.156 MHz : 9.359 dBm Delta1 : 75.351 MHz : -0.118 dB T1 : 5651.162 MHz : -3.789 dBm T2 : 5689.479 MHz : -9.458 dBm OBW : 38.317 MHz	Measured 26 dB Bandwidth: 75.351 MHz Measured 99% Bandwidth: 38.317 MHz

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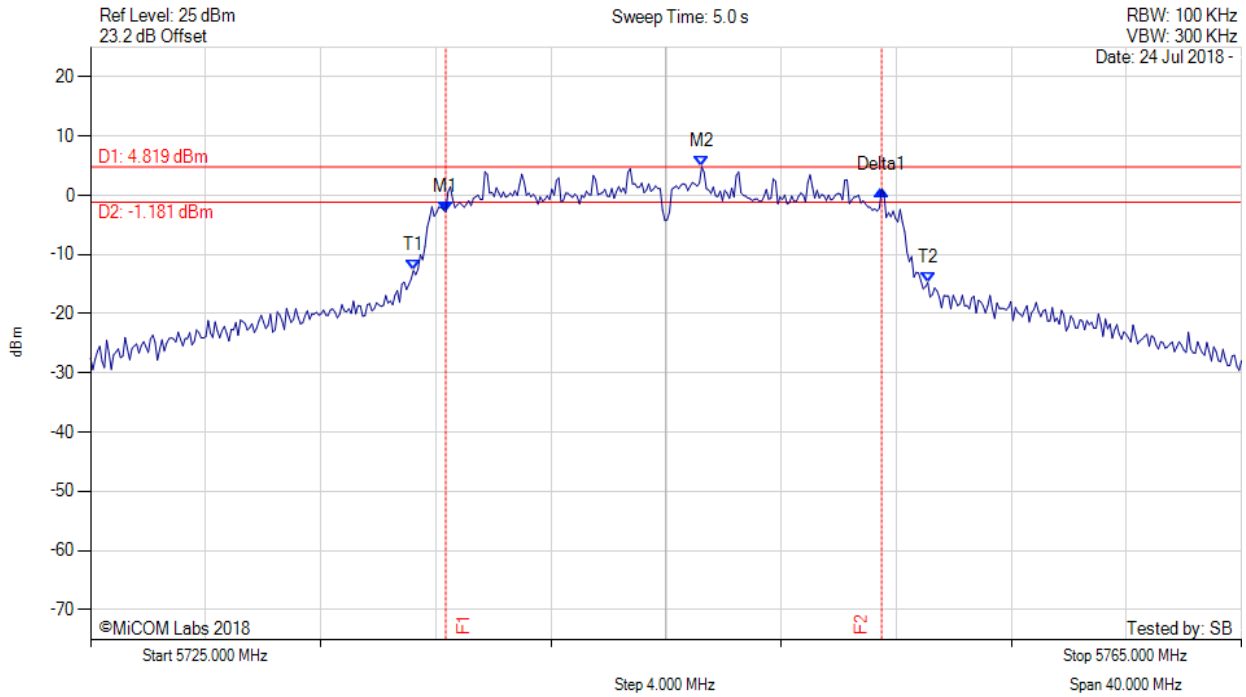
A.2. 6 dB & 99% Bandwidth

6 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5745.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

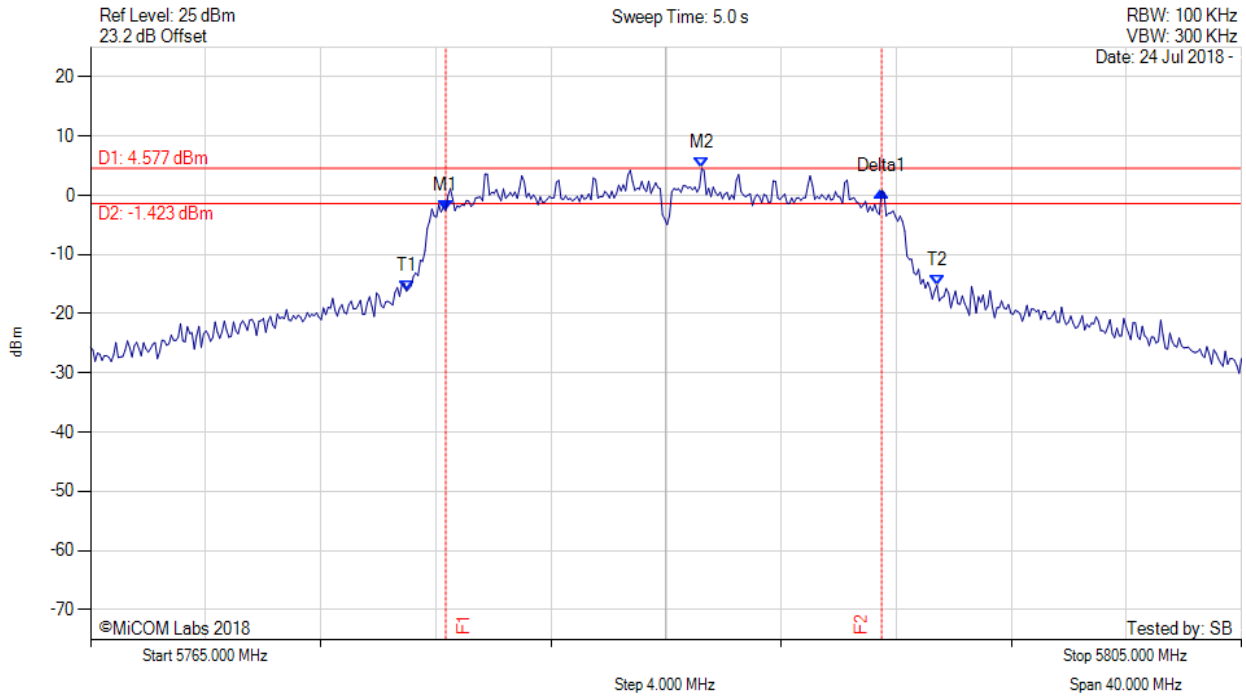


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5737.345 MHz : -2.785 dBm M2 : 5746.242 MHz : 4.819 dBm Delta1 : 15.150 MHz : 3.710 dB T1 : 5736.222 MHz : -12.702 dBm T2 : 5754.098 MHz : -14.731 dBm OBW : 17.876 MHz	Measured 6 dB Bandwidth: 15.150 MHz Measured 99% Bandwidth: 17.876 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

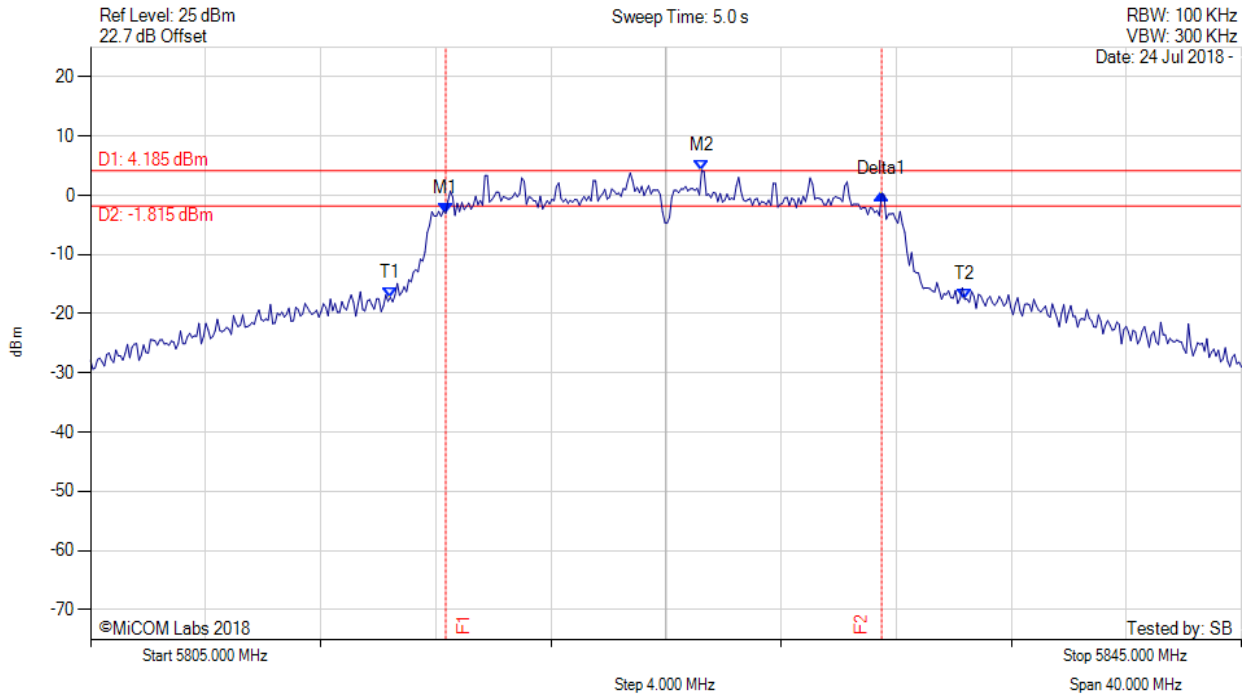


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5777.345 MHz : -2.571 dBm M2 : 5786.242 MHz : 4.577 dBm Delta1 : 15.150 MHz : 3.305 dB T1 : 5775.982 MHz : -16.179 dBm T2 : 5794.419 MHz : -15.187 dBm OBW : 18.437 MHz	Measured 6 dB Bandwidth: 15.150 MHz Measured 99% Bandwidth: 18.437 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5825.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

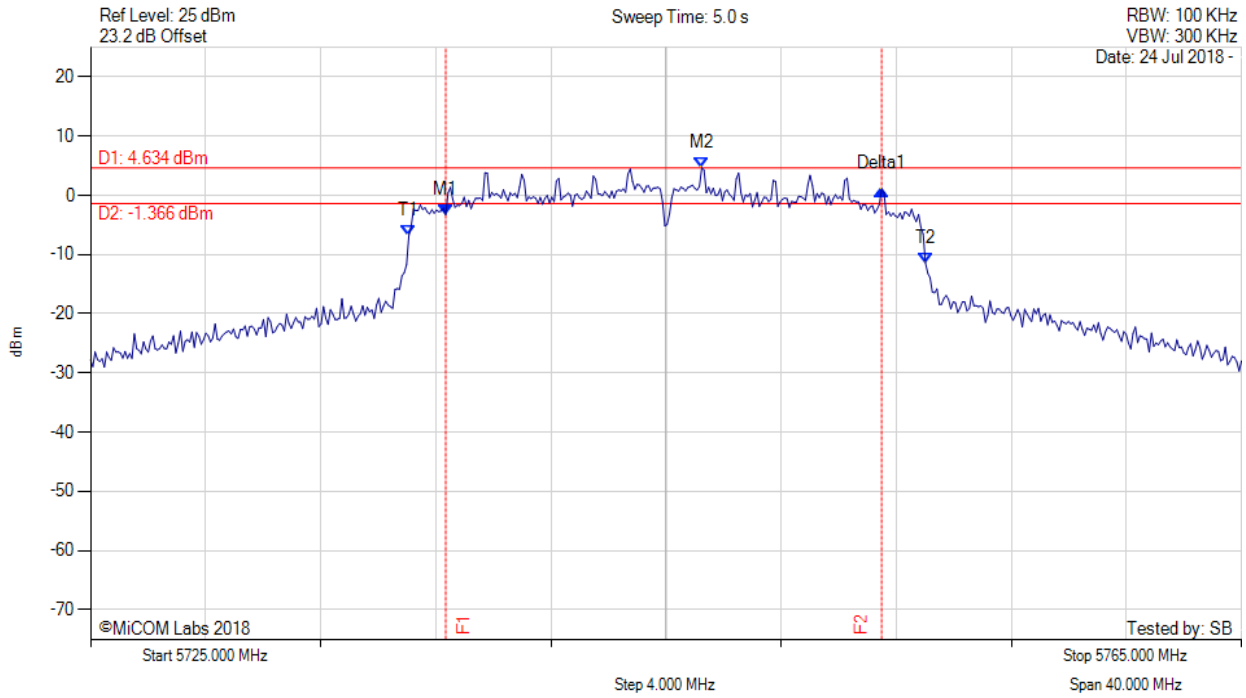


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5817.345 MHz : -3.043 dBm M2 : 5826.242 MHz : 4.185 dBm Delta1 : 15.150 MHz : 3.258 dB T1 : 5815.421 MHz : -17.251 dBm T2 : 5835.381 MHz : -17.562 dBm OBW : 19.960 MHz	Measured 6 dB Bandwidth: 15.150 MHz Measured 99% Bandwidth: 19.960 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

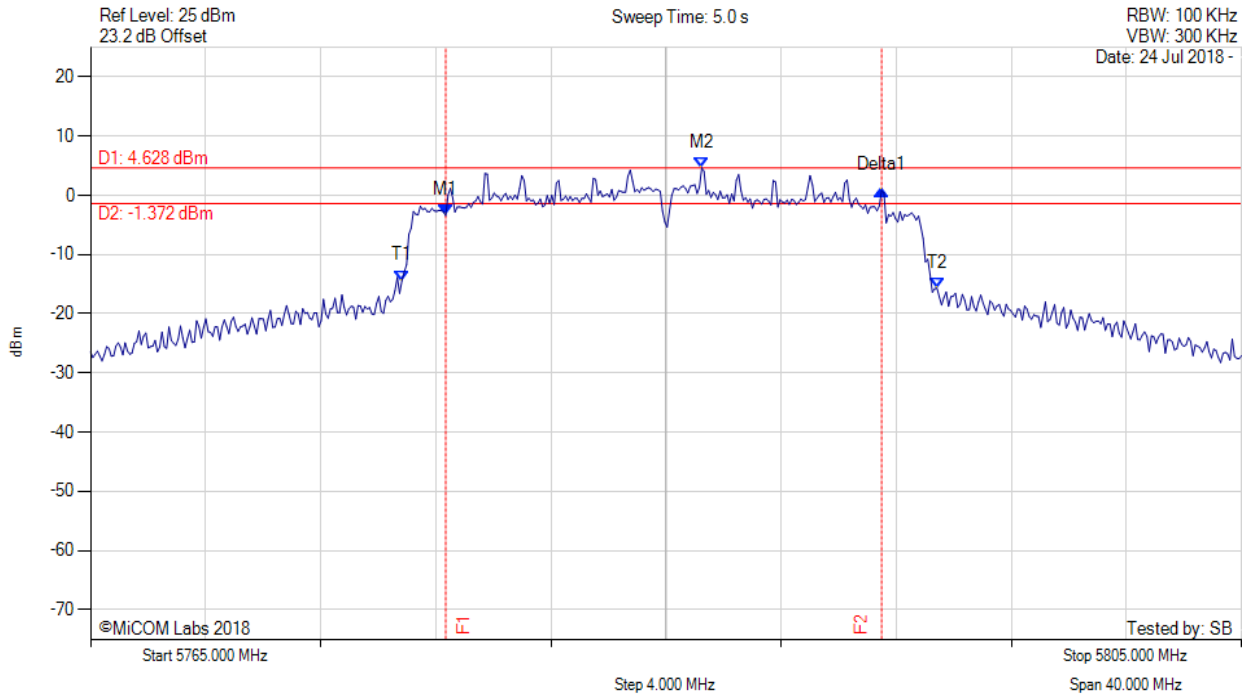


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5737.345 MHz : -3.281 dBm M2 : 5746.242 MHz : 4.634 dBm Delta1 : 15.150 MHz : 4.299 dB T1 : 5736.062 MHz : -6.867 dBm T2 : 5754.018 MHz : -11.453 dBm OBW : 17.956 MHz	Measured 6 dB Bandwidth: 15.150 MHz Measured 99% Bandwidth: 17.956 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

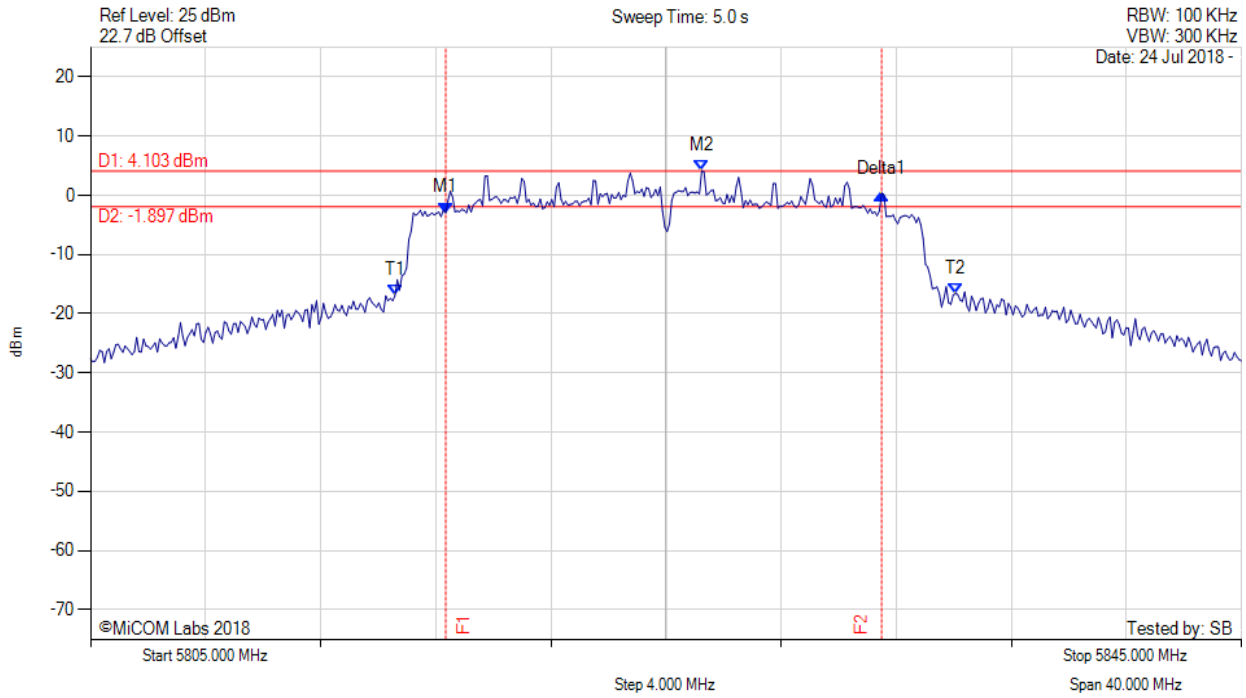


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5777.345 MHz : -3.395 dBm M2 : 5786.242 MHz : 4.628 dBm Delta1 : 15.150 MHz : 4.210 dB T1 : 5775.822 MHz : -14.418 dBm T2 : 5794.419 MHz : -15.667 dBm OBW : 18.597 MHz	Measured 6 dB Bandwidth: 15.150 MHz Measured 99% Bandwidth: 18.597 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

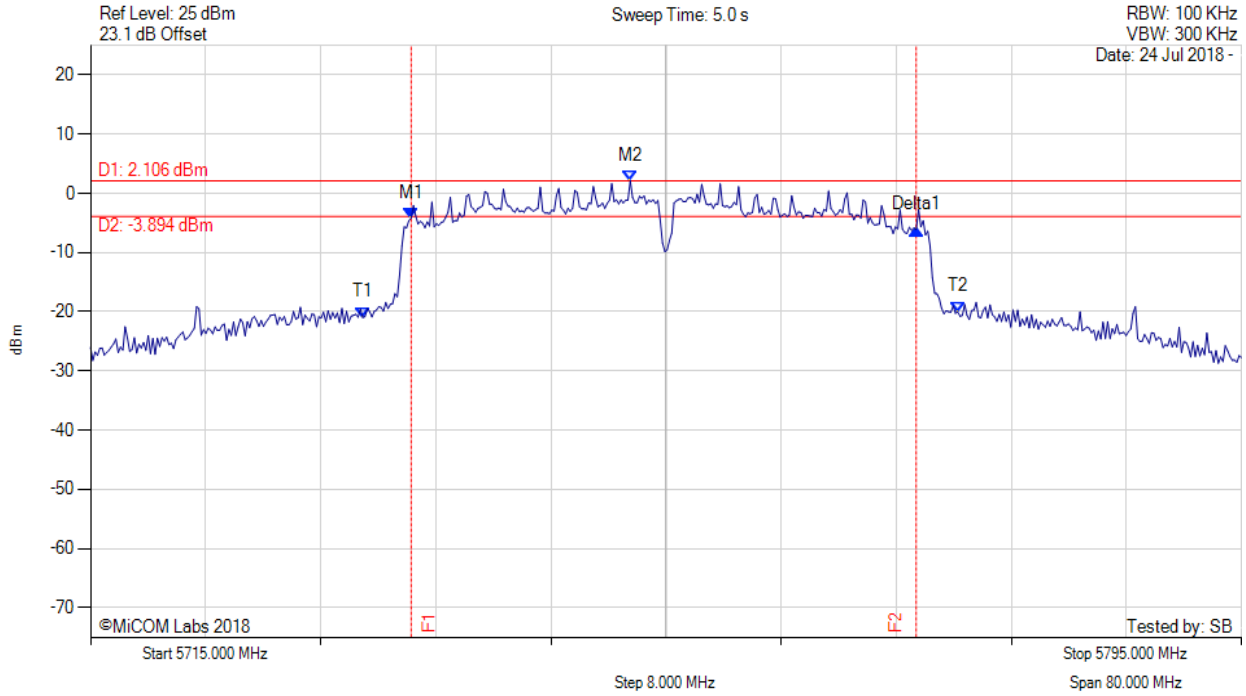


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5817.345 MHz : -2.954 dBm M2 : 5826.242 MHz : 4.103 dBm Delta1 : 15.150 MHz : 3.211 dB T1 : 5815.581 MHz : -16.926 dBm T2 : 5835.060 MHz : -16.590 dBm OBW : 19.479 MHz	Measured 6 dB Bandwidth: 15.150 MHz Measured 99% Bandwidth: 19.479 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5737.285 MHz : -4.156 dBm M2 : 5752.515 MHz : 2.106 dBm Delta1 : 35.110 MHz : -1.952 dB T1 : 5733.918 MHz : -20.952 dBm T2 : 5775.281 MHz : -20.023 dBm OBW : 41.363 MHz	Measured 6 dB Bandwidth: 35.110 MHz Measured 99% Bandwidth: 41.363 MHz

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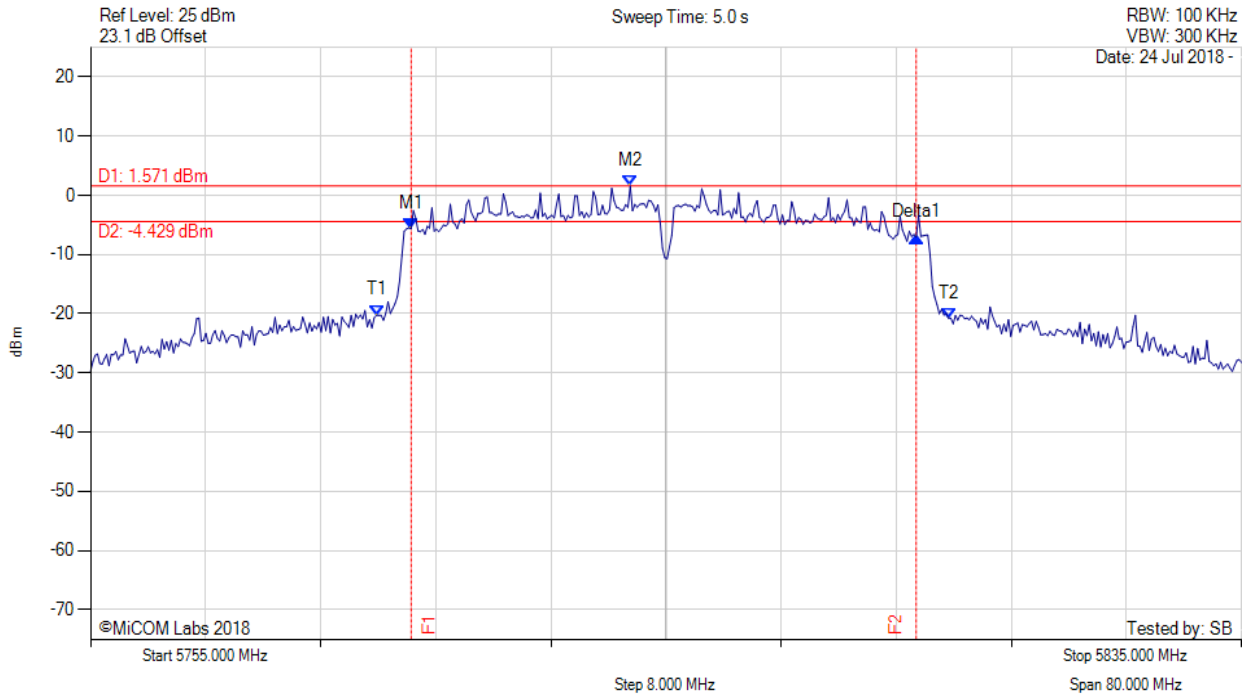
6 dB & 99% BANDWIDTH

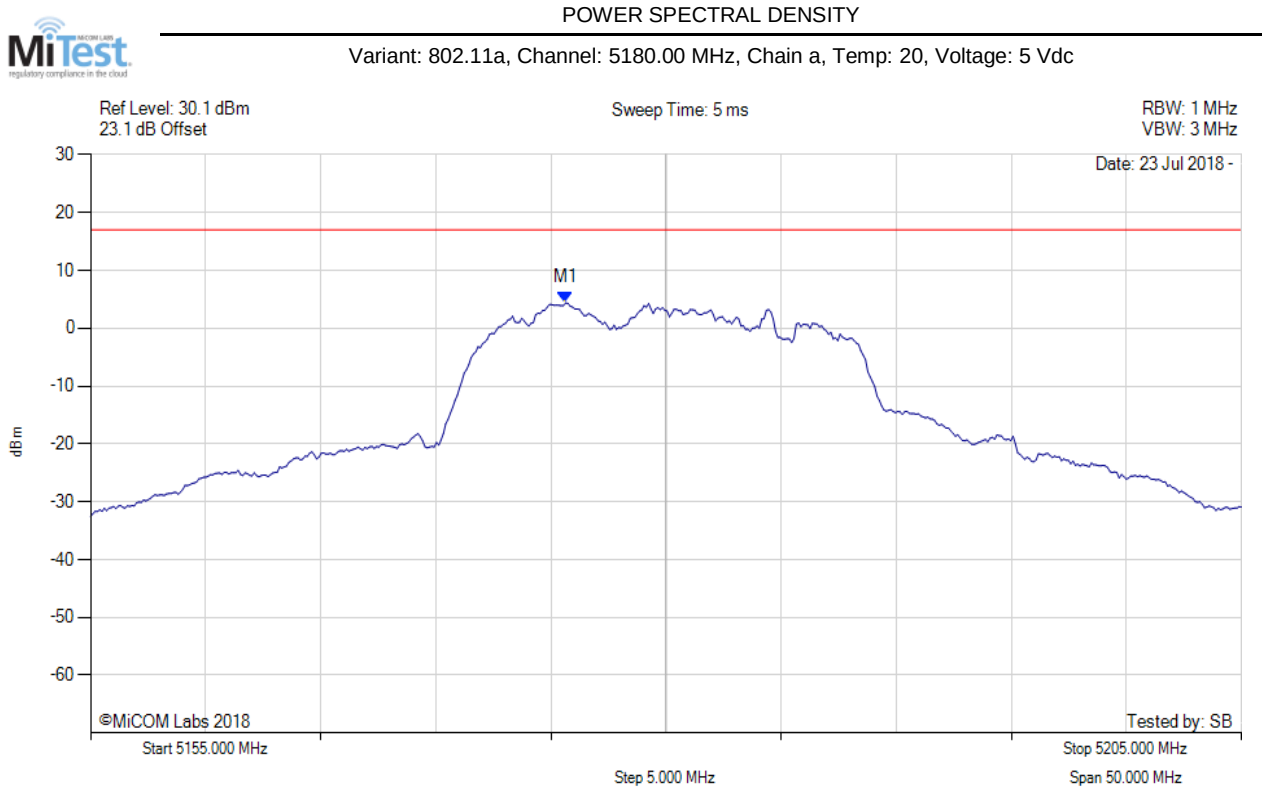
Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5777.285 MHz : -5.630 dBm M2 : 5792.515 MHz : 1.571 dBm Delta1 : 35.110 MHz : -1.409 dB T1 : 5774.880 MHz : -20.261 dBm T2 : 5814.639 MHz : -20.735 dBm OBW : 39.760 MHz	Measured 6 dB Bandwidth: 35.110 MHz Measured 99% Bandwidth: 39.760 MHz

back to matrix

A.3. Power Spectral Density

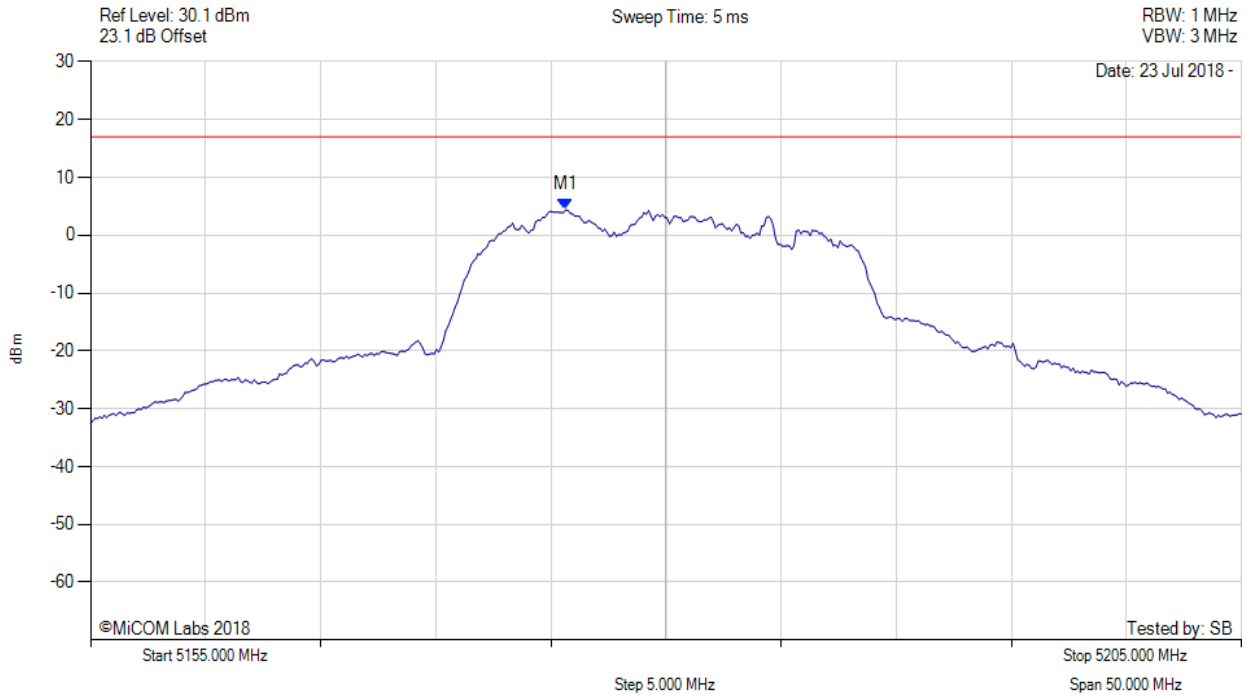


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5175.641 MHz : 4.383 dBm	Limit: ≤ 17.000 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5180.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

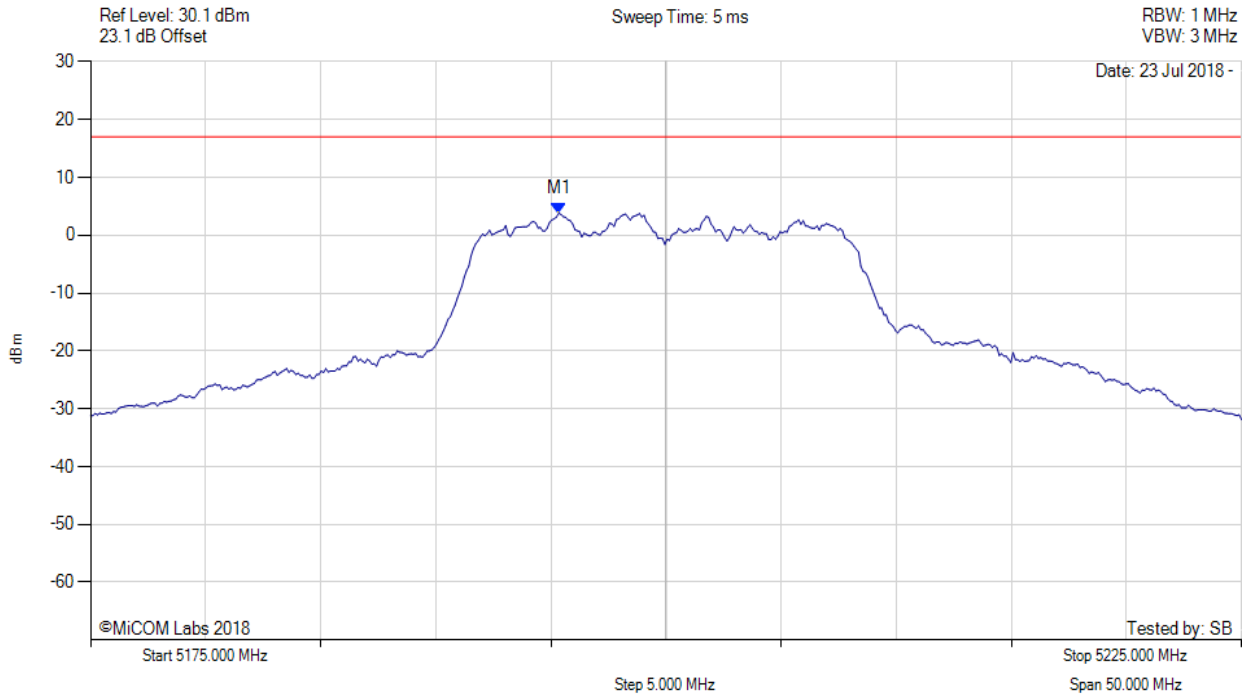


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5175.600 MHz : 4.383 dBm M1 + DCCF : 5175.600 MHz : 4.652 dBm Duty Cycle Correction Factor : +0.27 dB	Limit: ≤ 17.0 dBm Margin: -12.3 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5200.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

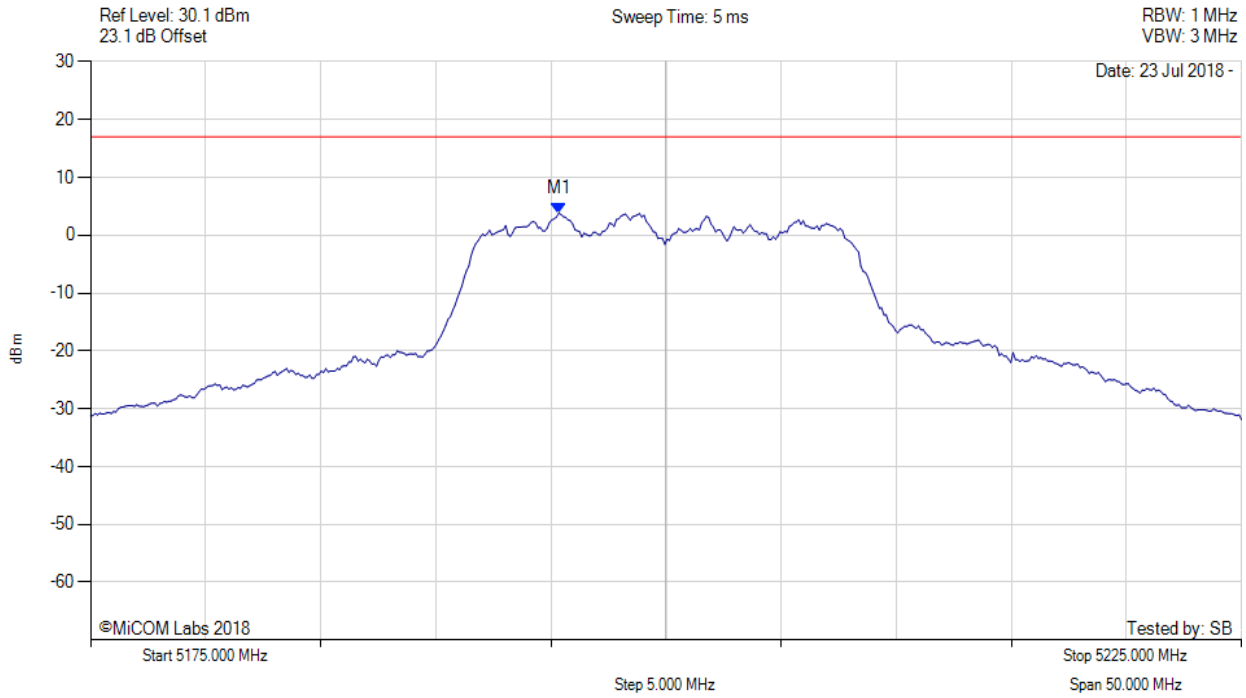


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5195.341 MHz : 3.823 dBm	Limit: ≤ 17.000 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5200.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

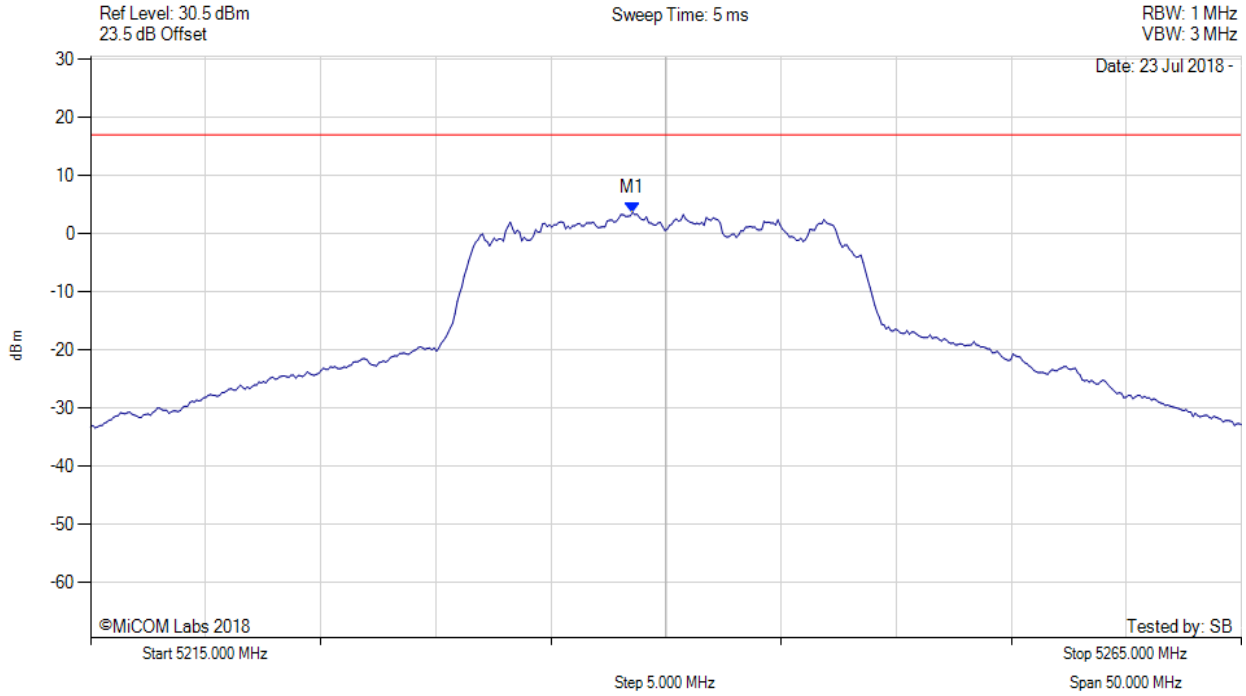


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5195.300 MHz : 3.823 dBm M1 + DCCF : 5195.300 MHz : 4.092 dBm Duty Cycle Correction Factor : +0.27 dB	Limit: ≤ 17.0 dBm Margin: -12.9 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5240.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

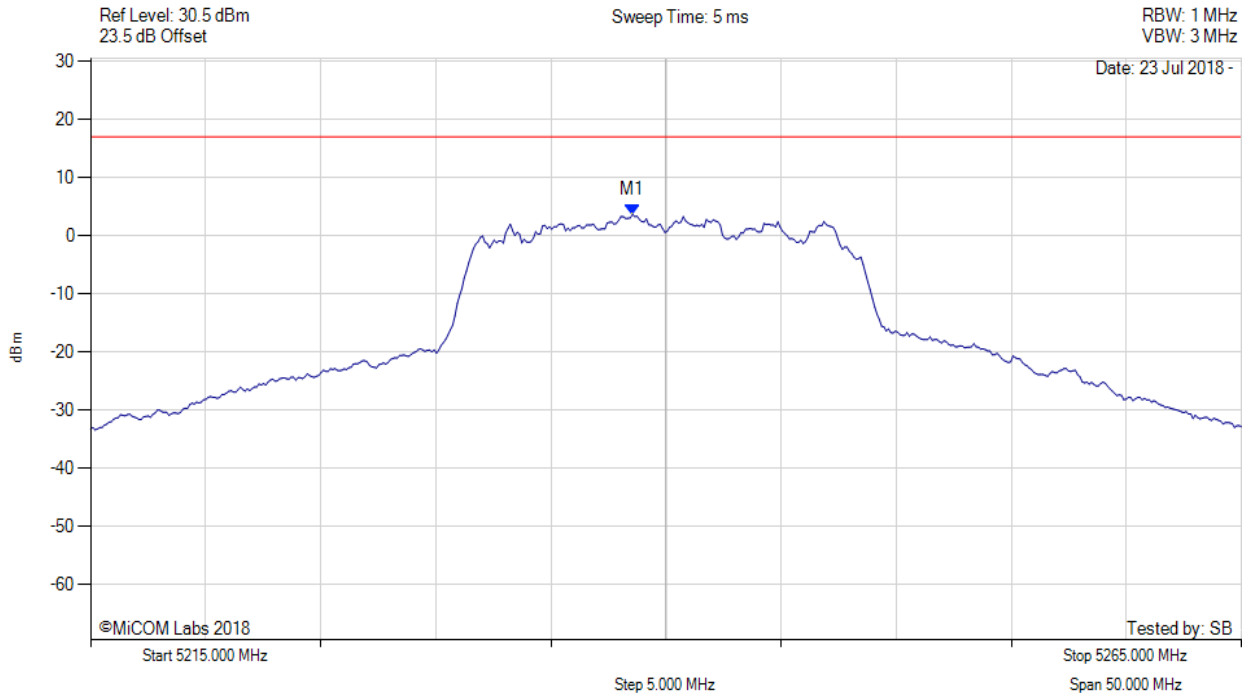


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5238.547 MHz : 3.643 dBm	Limit: ≤ 17.000 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5240.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

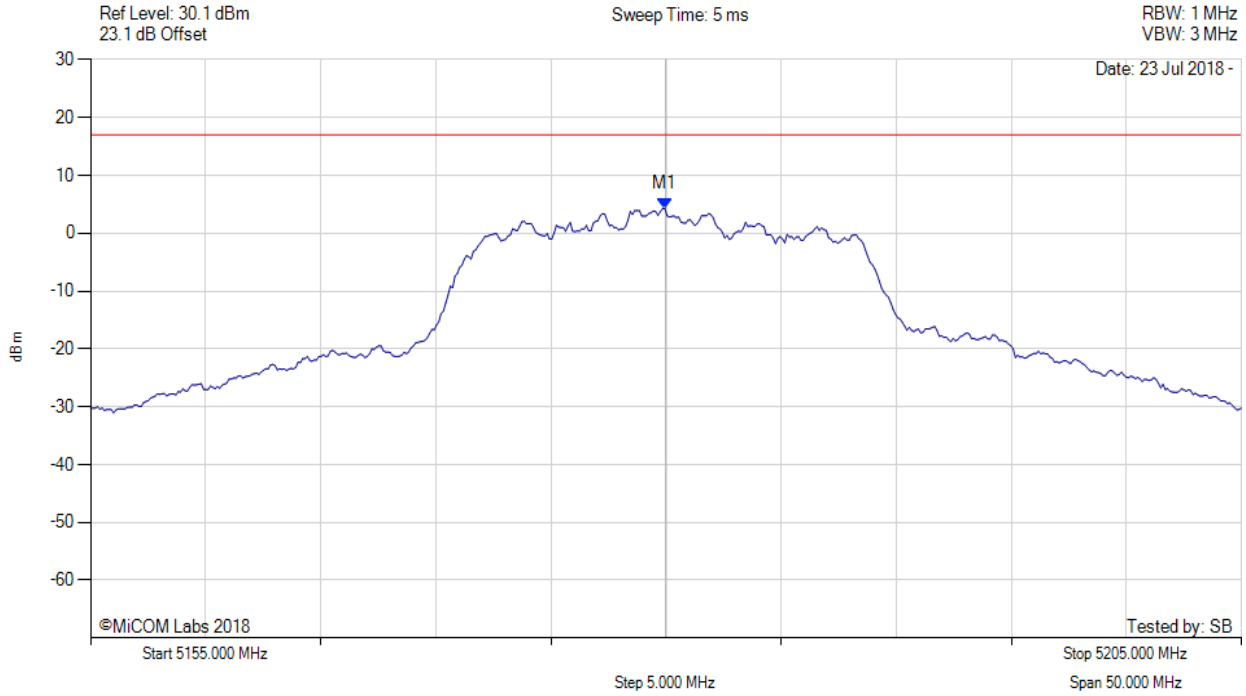


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5238.500 MHz : 3.643 dBm M1 + DCCF : 5238.500 MHz : 3.912 dBm Duty Cycle Correction Factor : +0.27 dB	Limit: ≤ 17.0 dBm Margin: -13.1 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5180.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

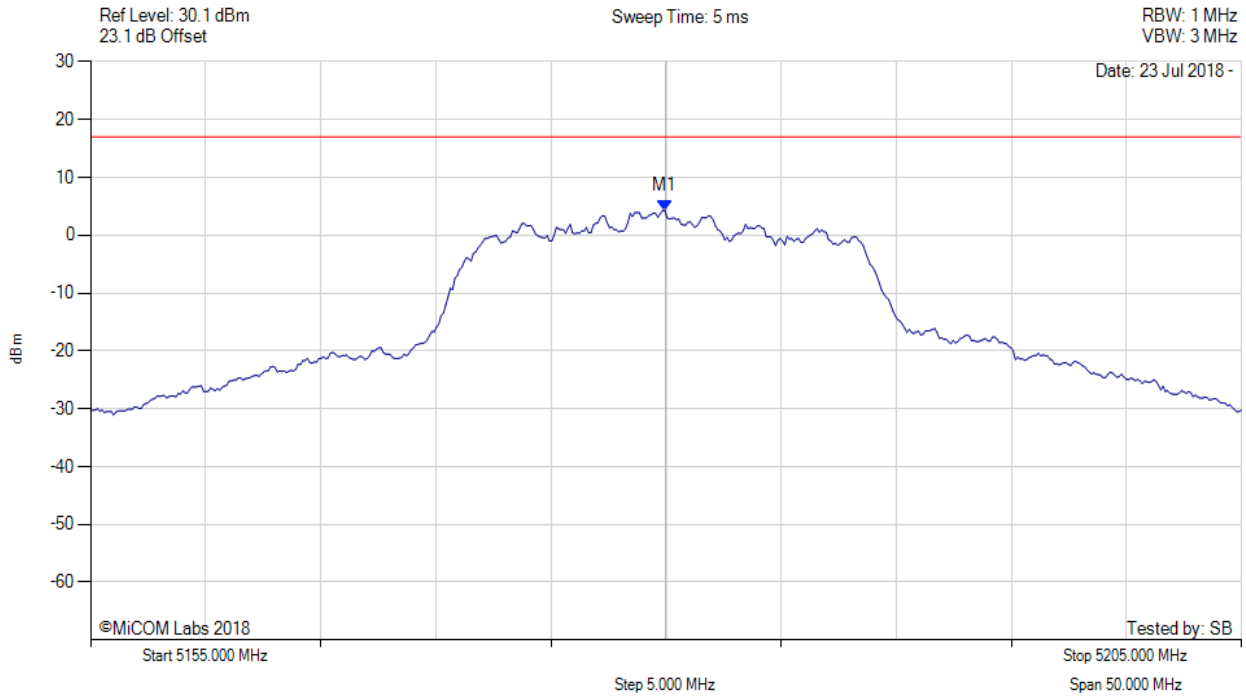


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5179.950 MHz : 4.301 dBm	Limit: ≤ 17.000 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5180.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

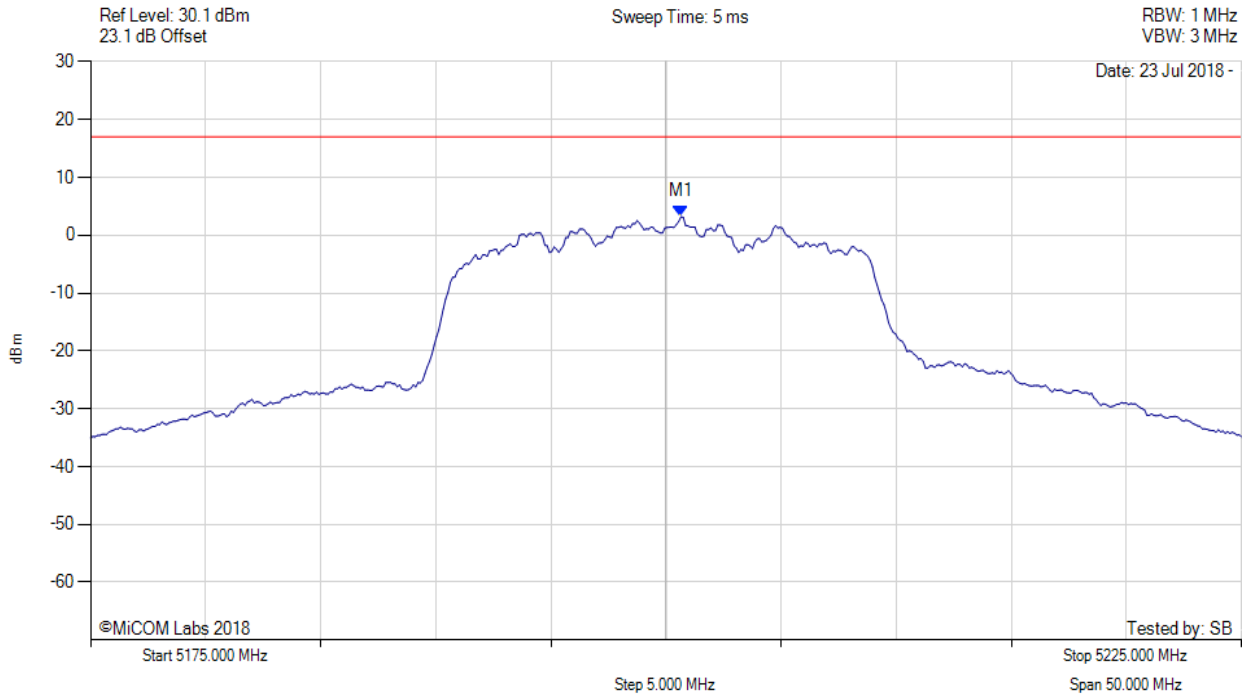


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5179.900 MHz : 4.301 dBm M1 + DCCF : 5179.900 MHz : 4.570 dBm Duty Cycle Correction Factor : +0.27 dB	Limit: ≤ 17.0 dBm Margin: -12.4 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5200.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

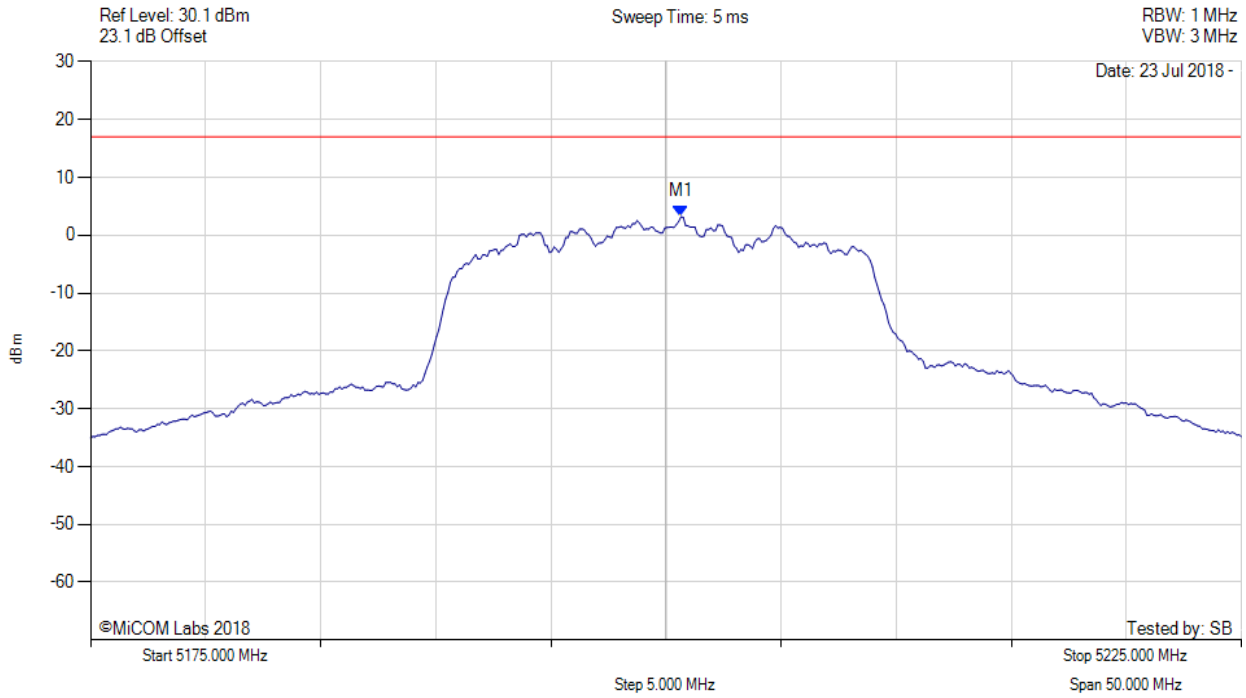


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5200.651 MHz : 3.183 dBm	Limit: ≤ 17.000 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5200.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

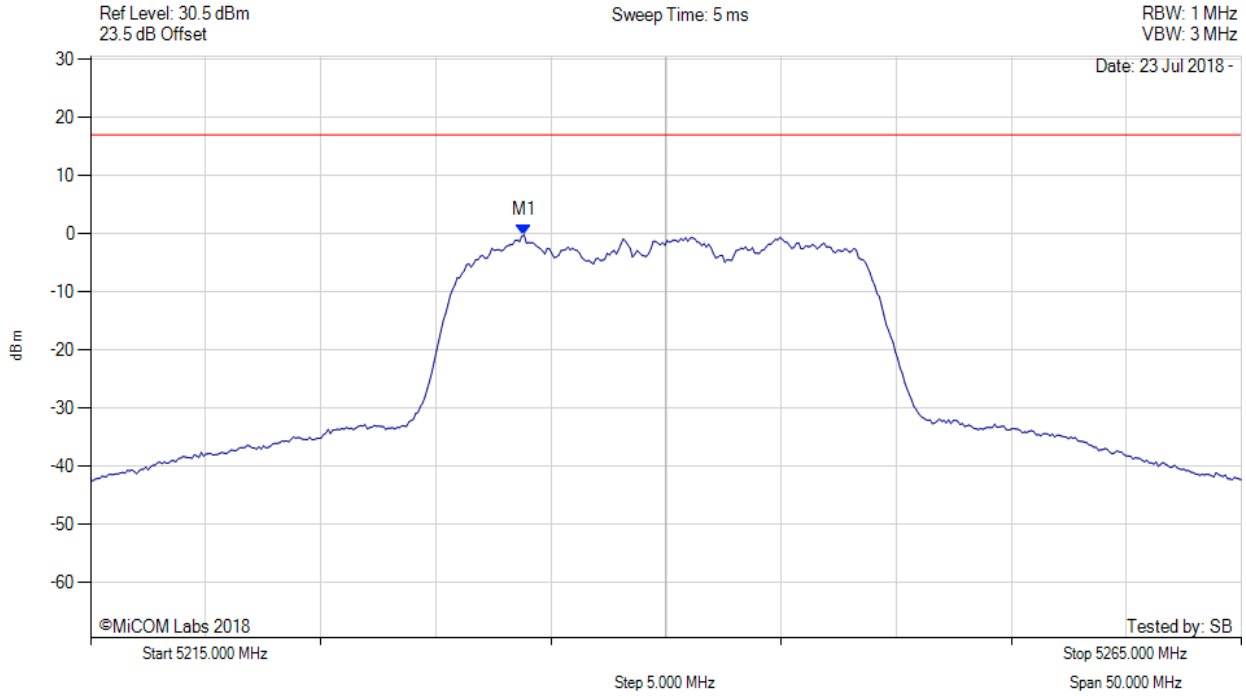


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5200.700 MHz : 3.183 dBm M1 + DCCF : 5200.700 MHz : 3.452 dBm Duty Cycle Correction Factor : +0.27 dB	Limit: ≤ 17.0 dBm Margin: -13.5 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5240.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

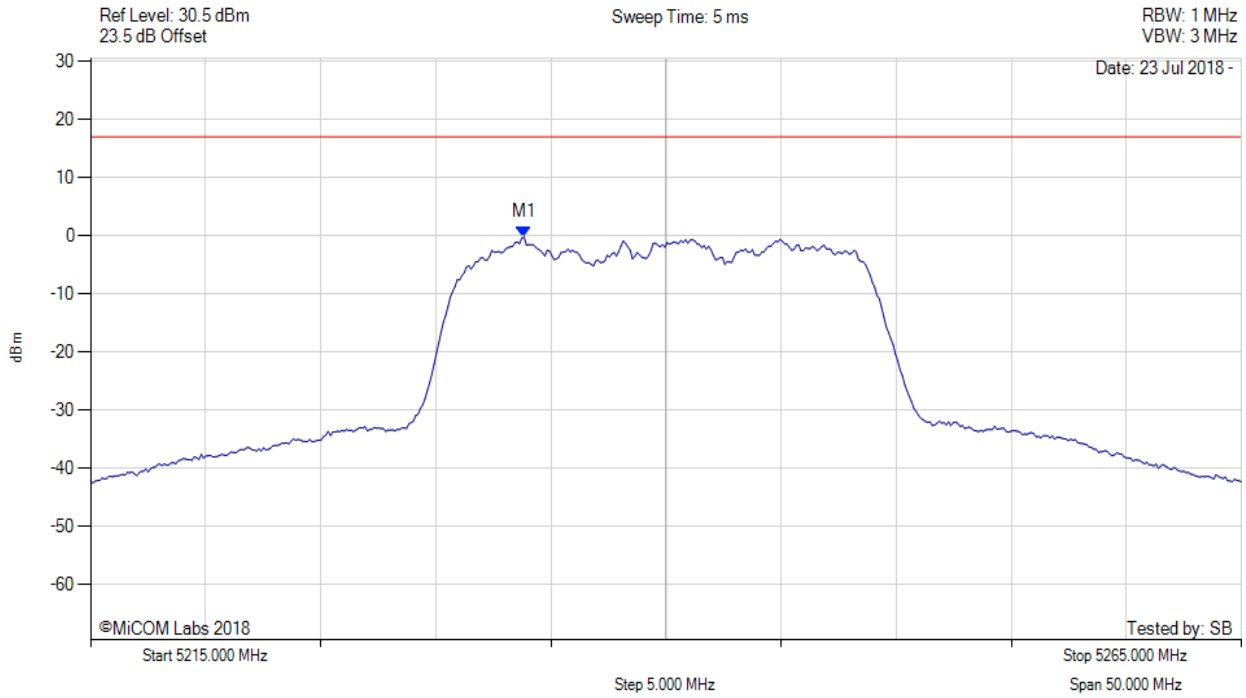


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5233.838 MHz : -0.207 dBm	Limit: ≤ 17.000 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5240.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

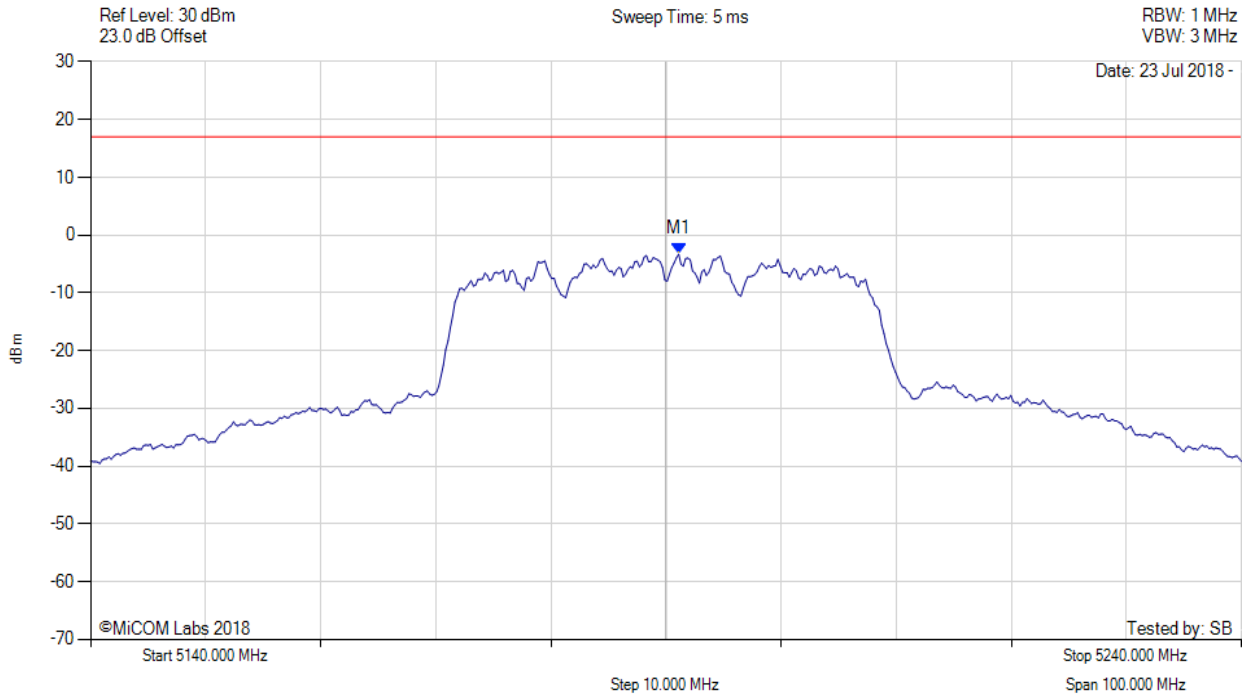


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5233.800 MHz : -0.207 dBm M1 + DCCF : 5233.800 MHz : 0.062 dBm Duty Cycle Correction Factor : +0.27 dB	Limit: ≤ 17.0 dBm Margin: -16.9 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5190.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

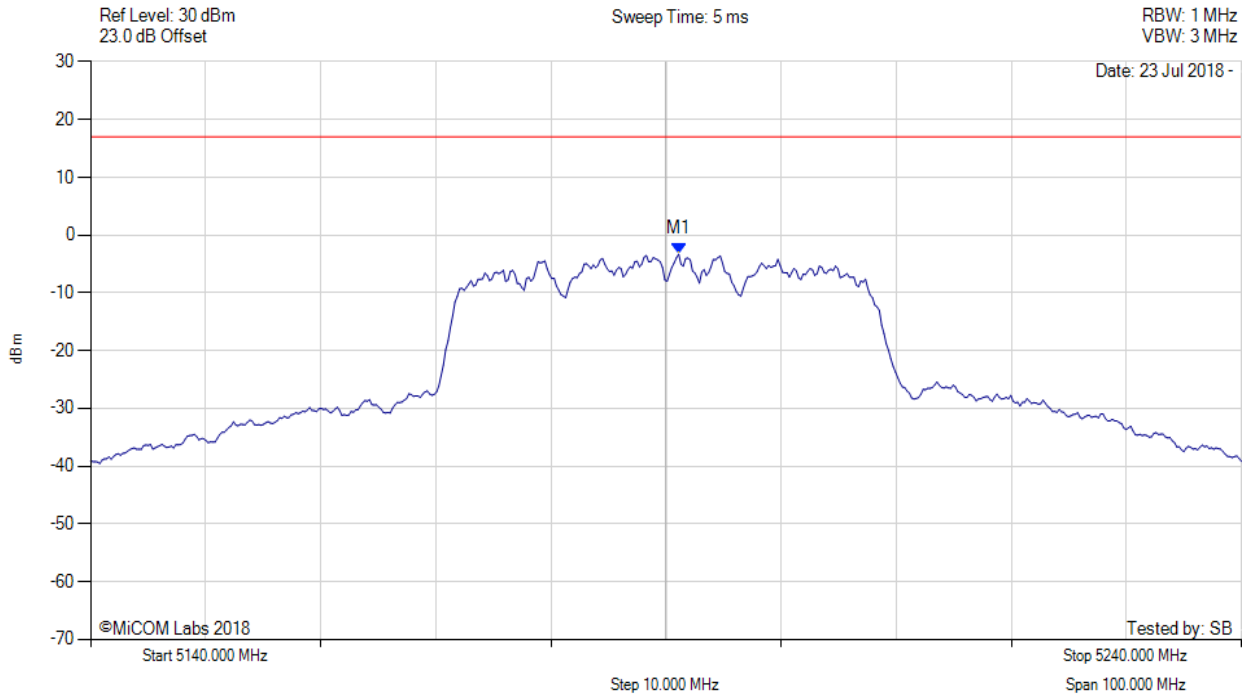


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5191.102 MHz : -3.294 dBm	Limit: ≤ 17.000 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5190.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

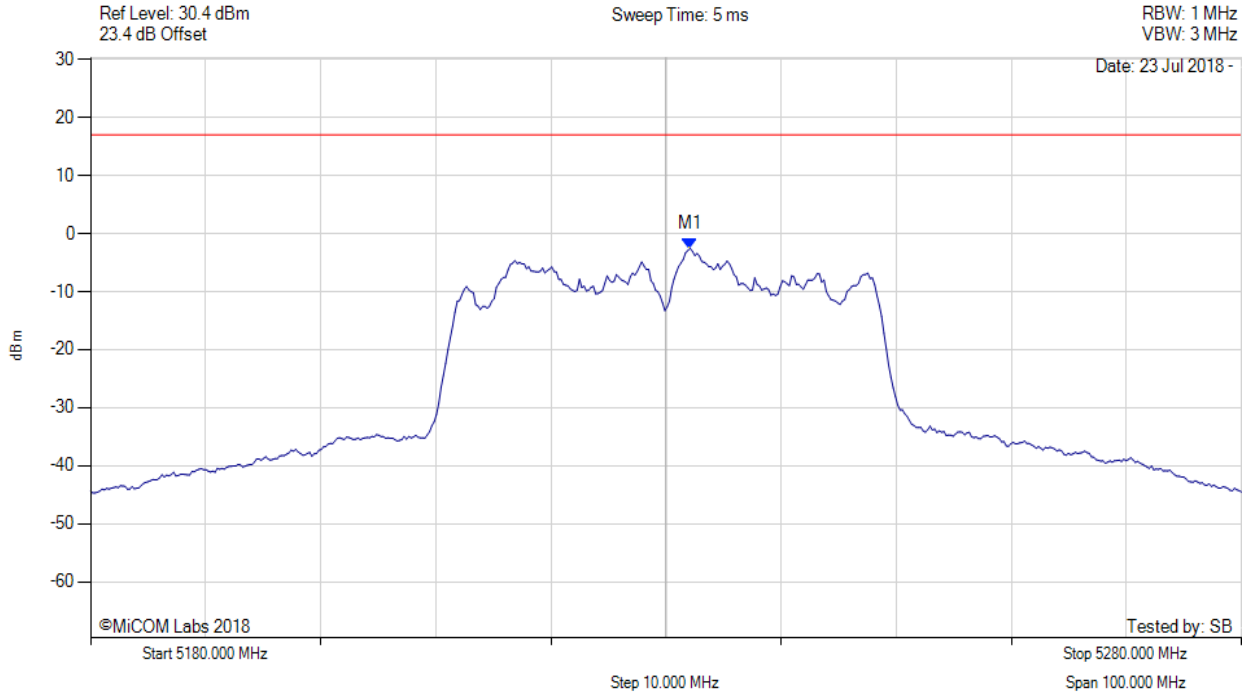


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5191.100 MHz : -3.294 dBm M1 + DCCF : 5191.100 MHz : -2.639 dBm Duty Cycle Correction Factor : +0.66 dB	Limit: ≤ 17.0 dBm Margin: -19.6 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5230.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

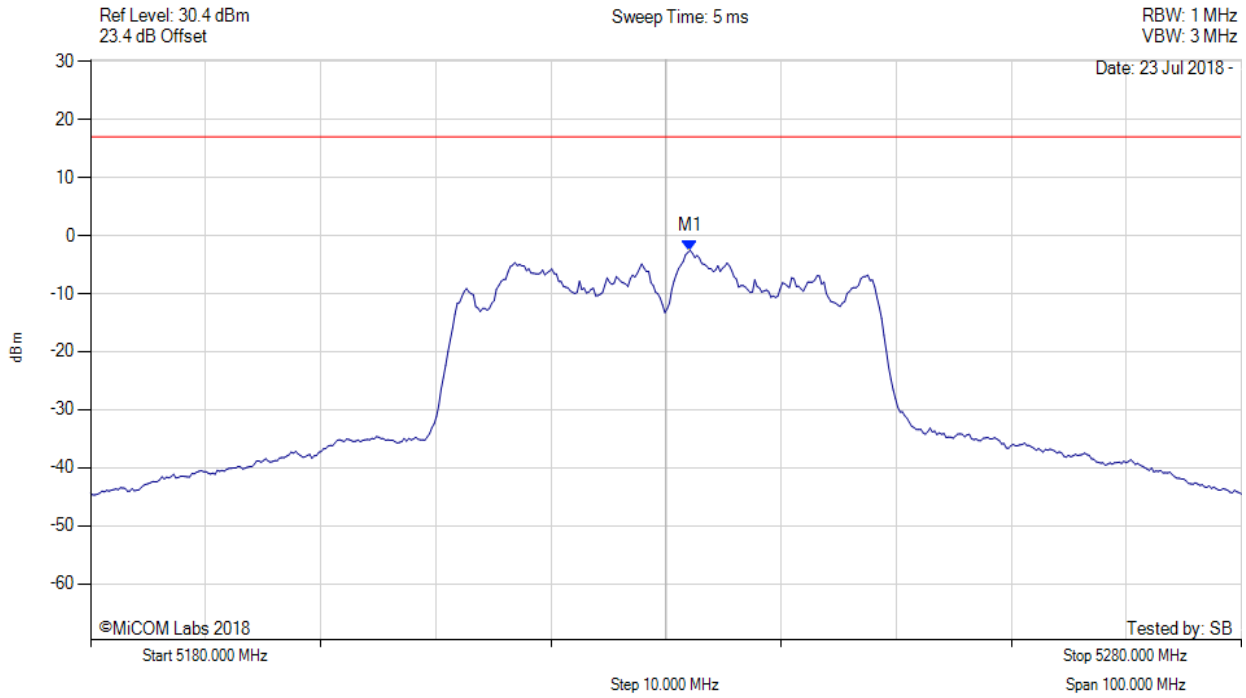


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5232.104 MHz : -2.543 dBm	Limit: ≤ 17.000 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5230.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

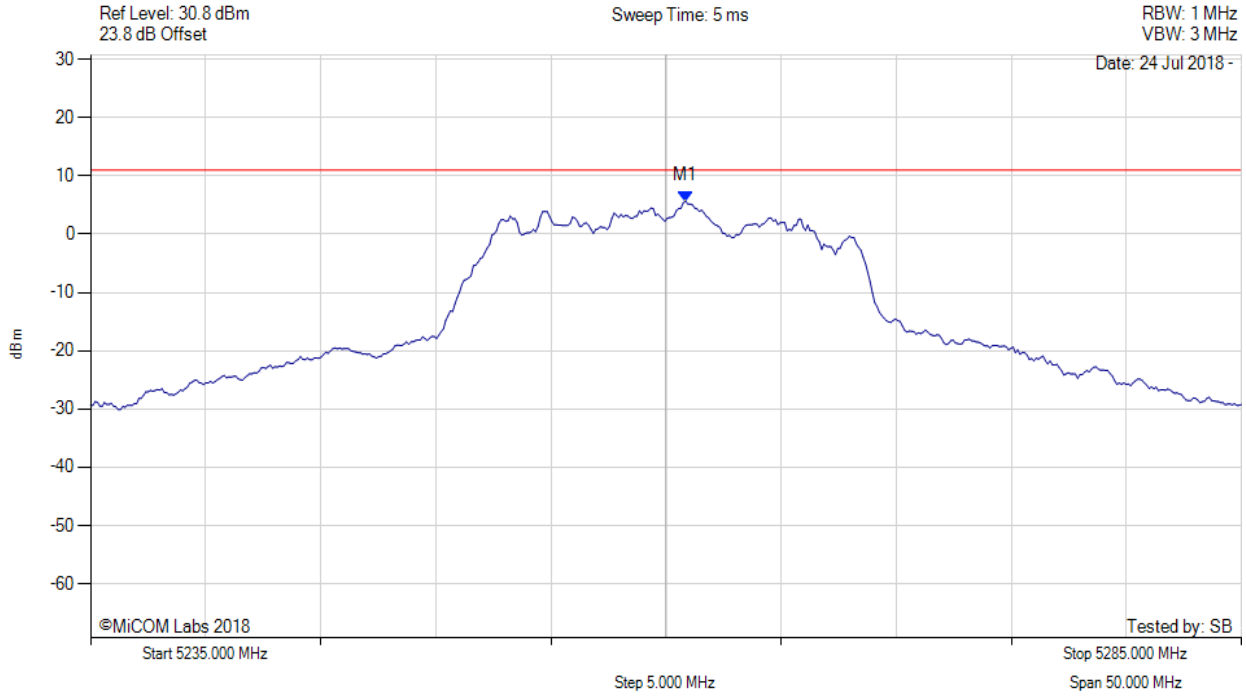


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5232.100 MHz : -2.543 dBm M1 + DCCF : 5232.100 MHz : -1.888 dBm Duty Cycle Correction Factor : +0.66 dB	Limit: ≤ 17.0 dBm Margin: -18.9 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5260.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

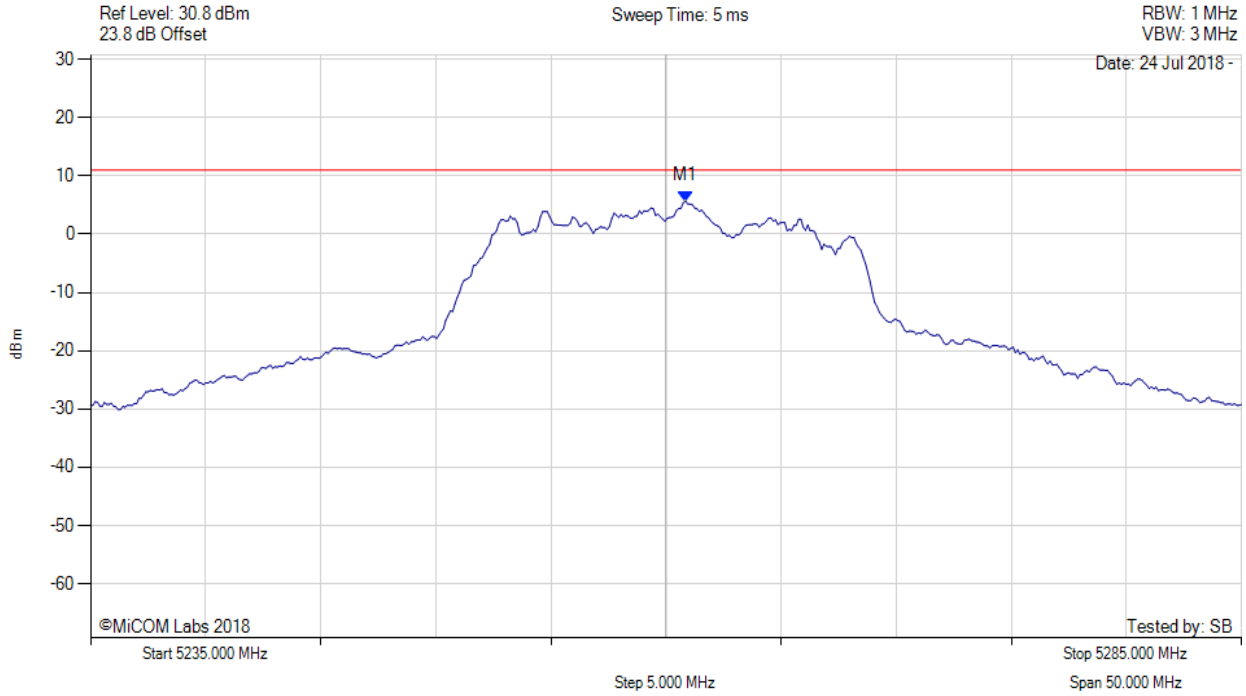


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5260.852 MHz : 5.649 dBm	Limit: ≤ 11.000 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5260.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

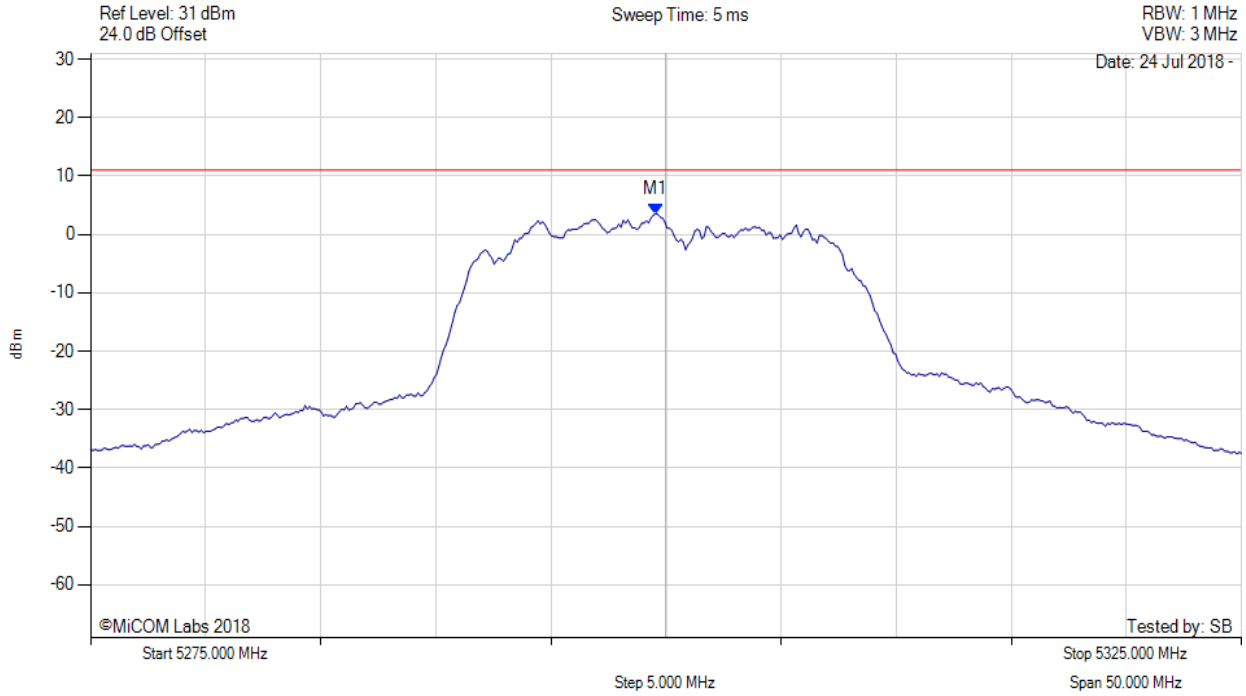


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5260.900 MHz : 5.649 dBm M1 + DCCF : 5260.900 MHz : 5.918 dBm Duty Cycle Correction Factor : +0.27 dB	Limit: ≤ 11.0 dBm Margin: -5.1 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

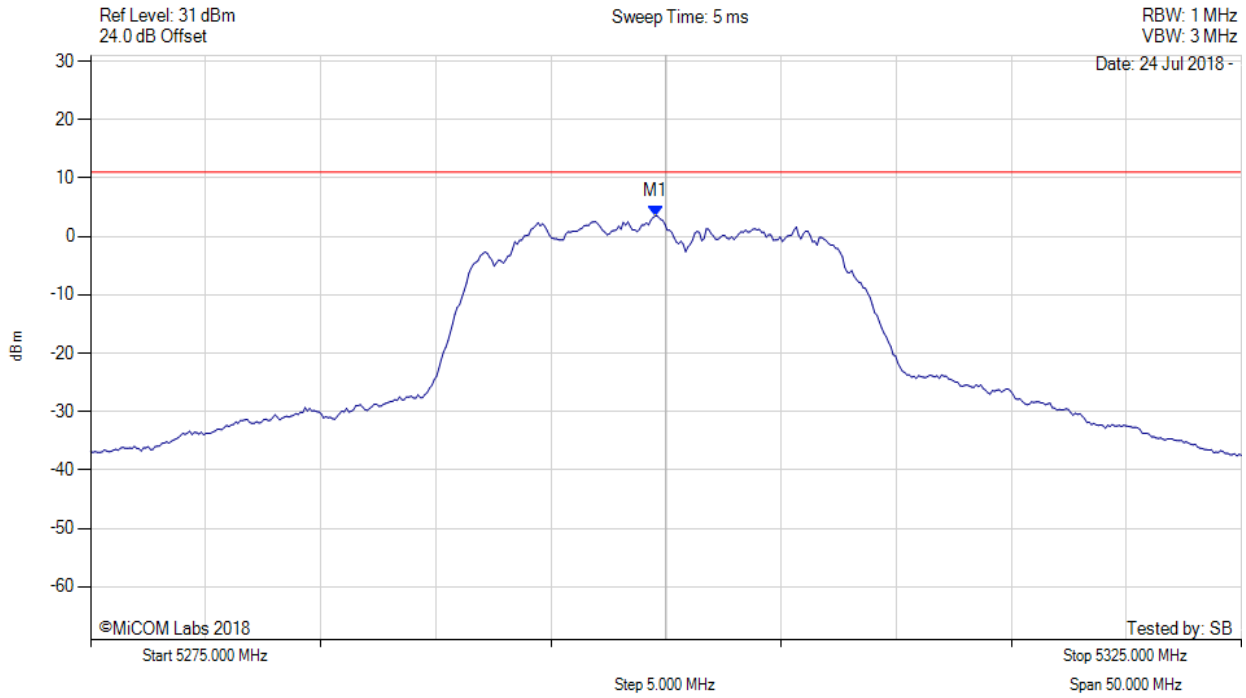


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5299.549 MHz : 3.531 dBm	Limit: ≤ 11.000 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5300.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

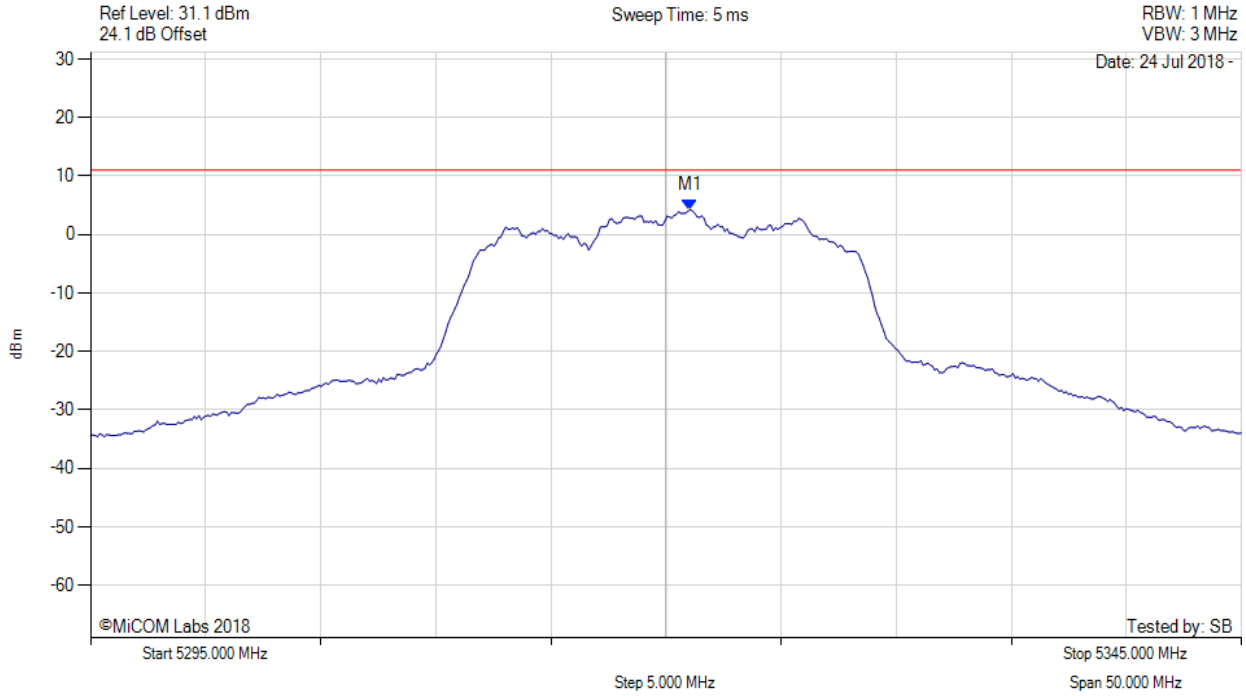


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5299.500 MHz : 3.531 dBm M1 + DCCF : 5299.500 MHz : 3.800 dBm Duty Cycle Correction Factor : +0.27 dB	Limit: ≤ 11.0 dBm Margin: -7.2 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5320.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

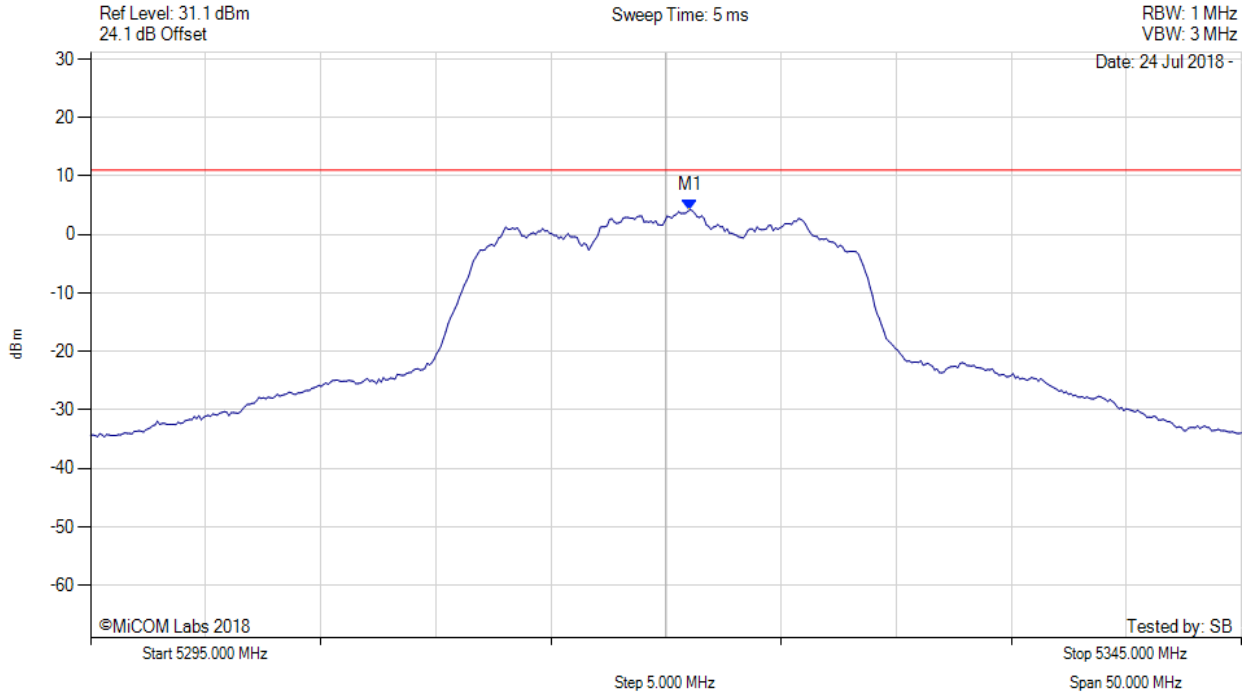


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5321.052 MHz : 4.258 dBm	Limit: ≤ 11.000 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5320.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

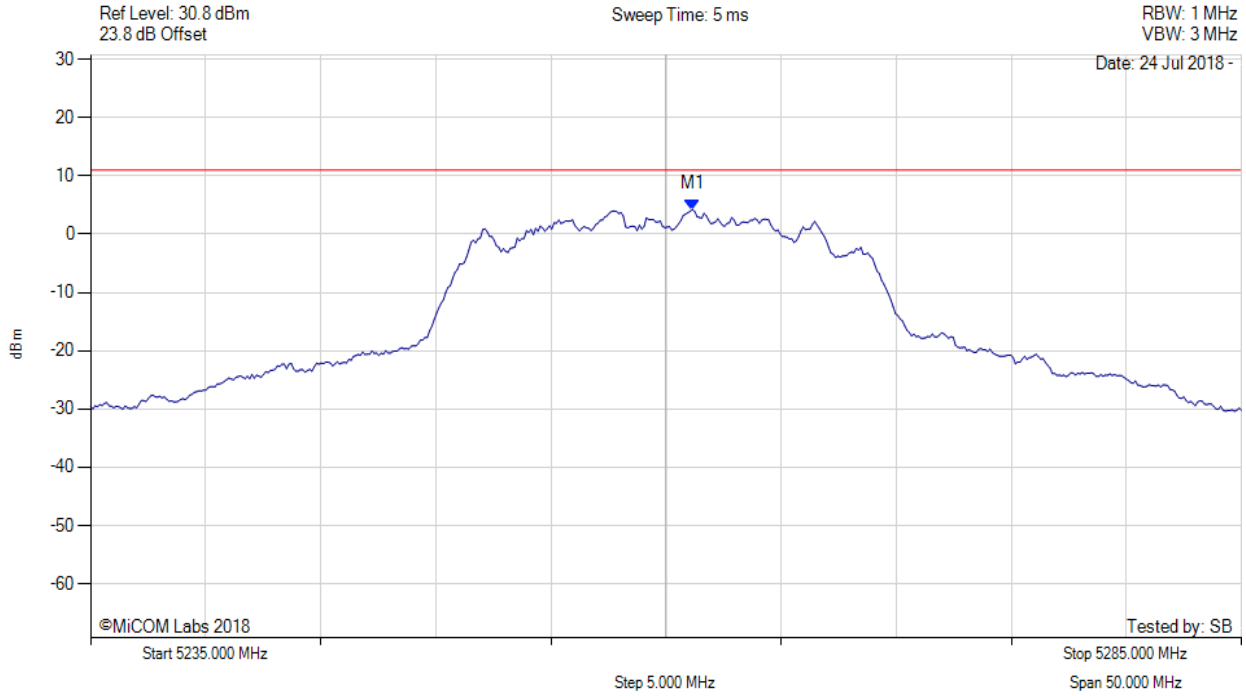


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5321.100 MHz : 4.258 dBm M1 + DCCF : 5321.100 MHz : 4.527 dBm Duty Cycle Correction Factor : +0.27 dB	Limit: ≤ 11.0 dBm Margin: -6.5 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5260.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

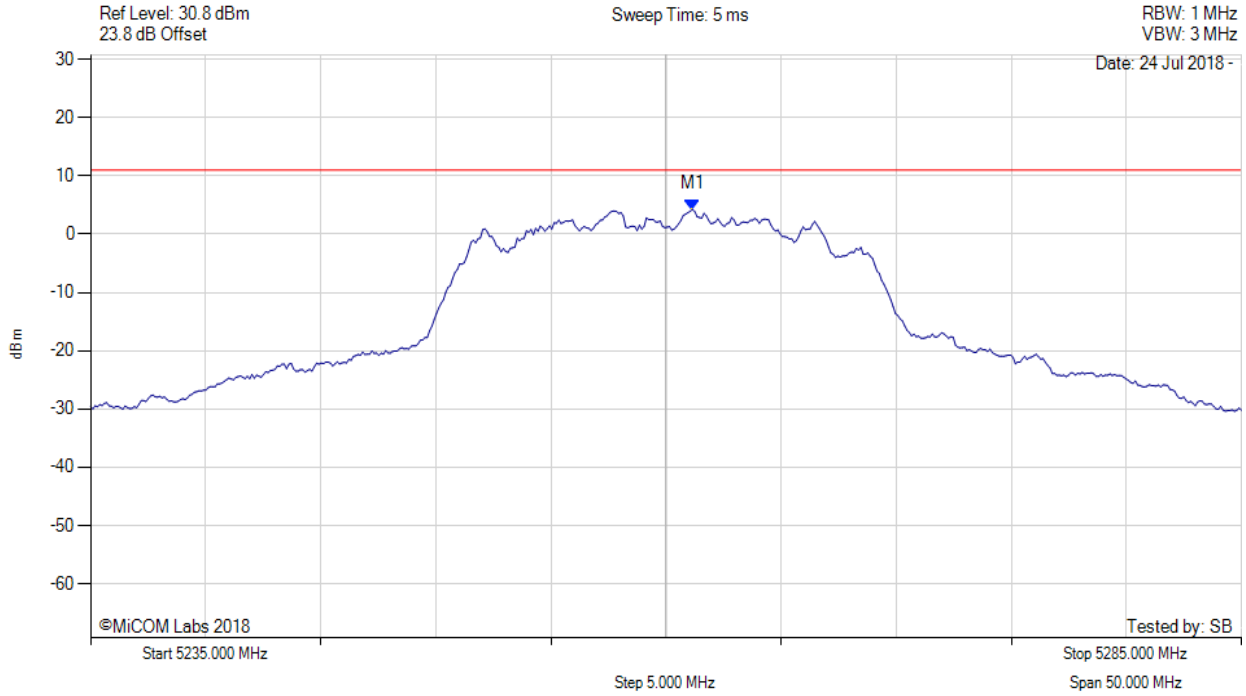


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5261.152 MHz : 4.218 dBm	Limit: ≤ 11.000 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5260.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

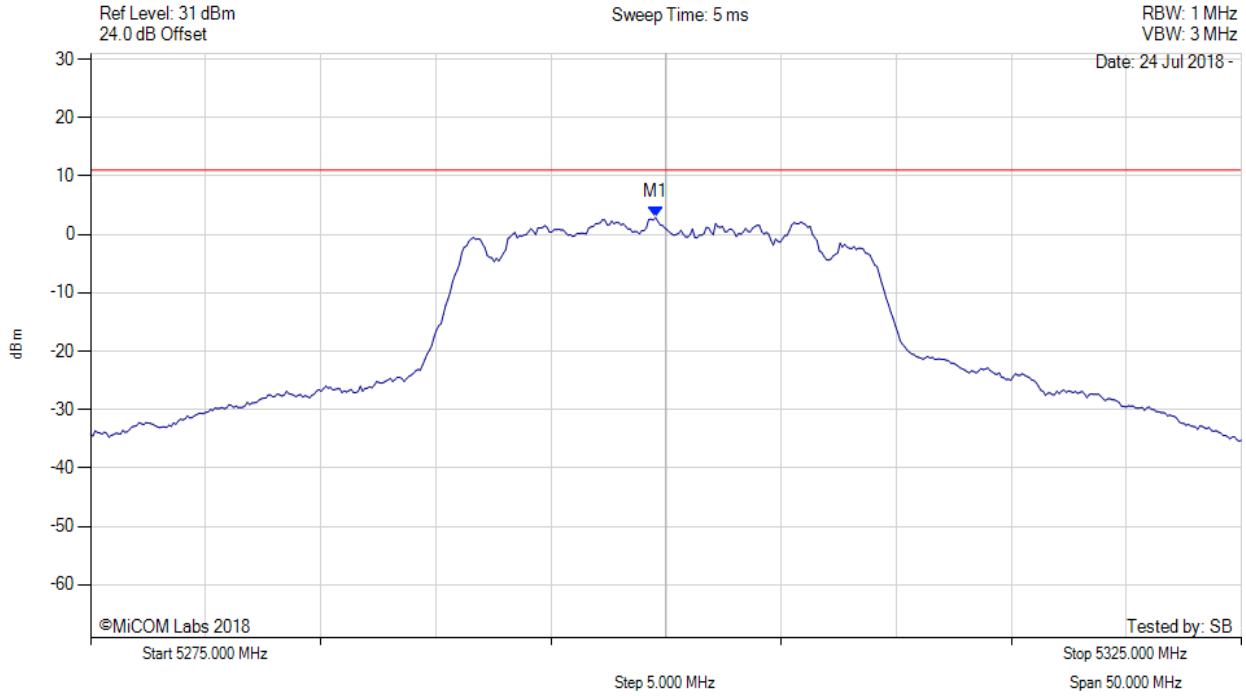


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5261.200 MHz : 4.218 dBm M1 + DCCF : 5261.200 MHz : 4.487 dBm Duty Cycle Correction Factor : +0.27 dB	Limit: ≤ 11.0 dBm Margin: -6.5 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

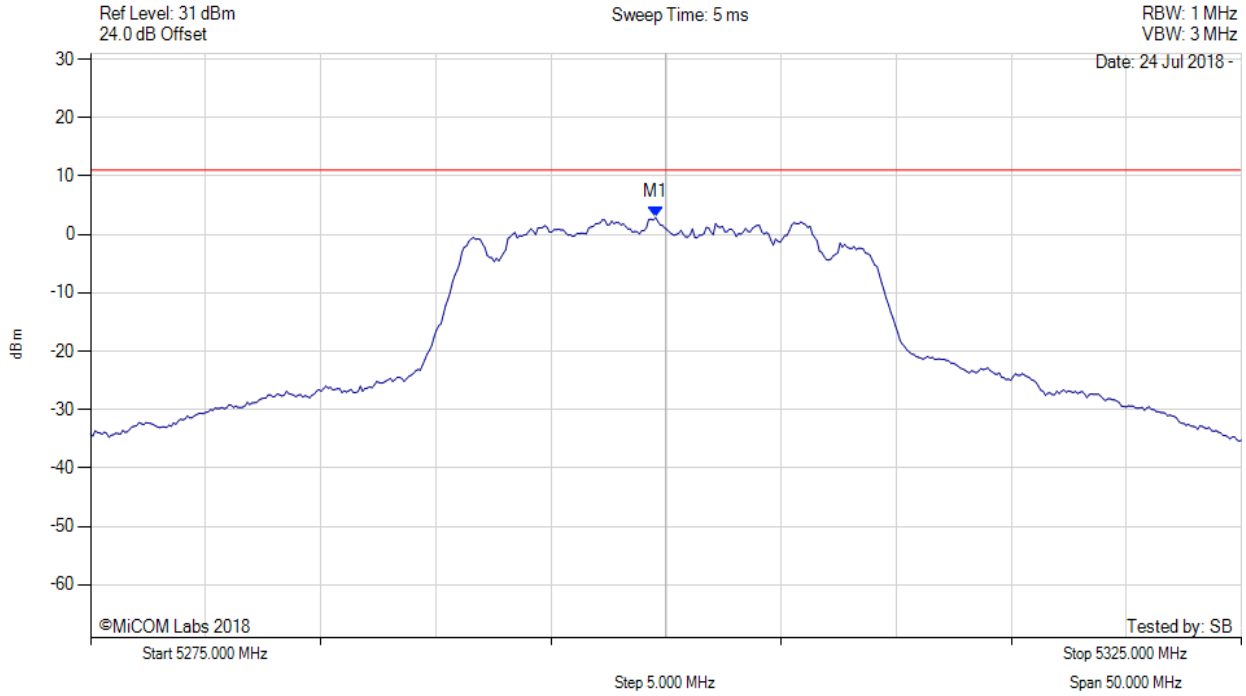


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5299.549 MHz : 2.886 dBm	Limit: ≤ 11.000 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5300.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

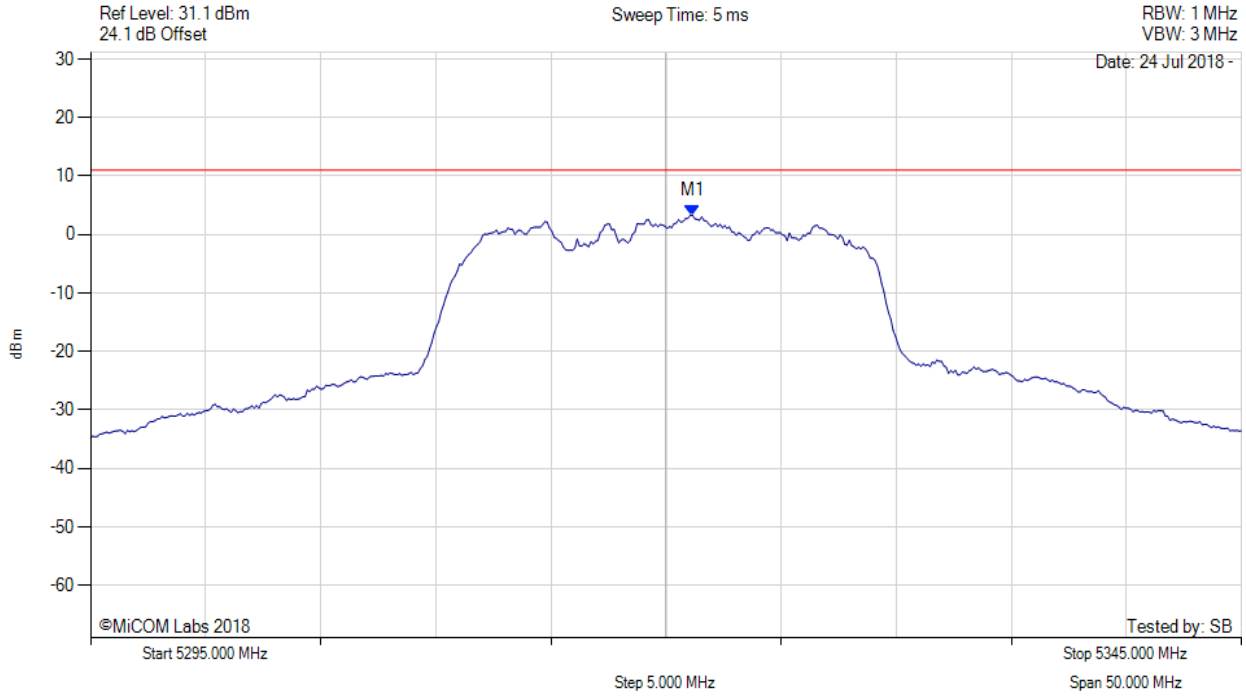


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5299.500 MHz : 2.886 dBm M1 + DCCF : 5299.500 MHz : 3.155 dBm Duty Cycle Correction Factor : +0.27 dB	Limit: ≤ 11.0 dBm Margin: -7.8 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5320.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

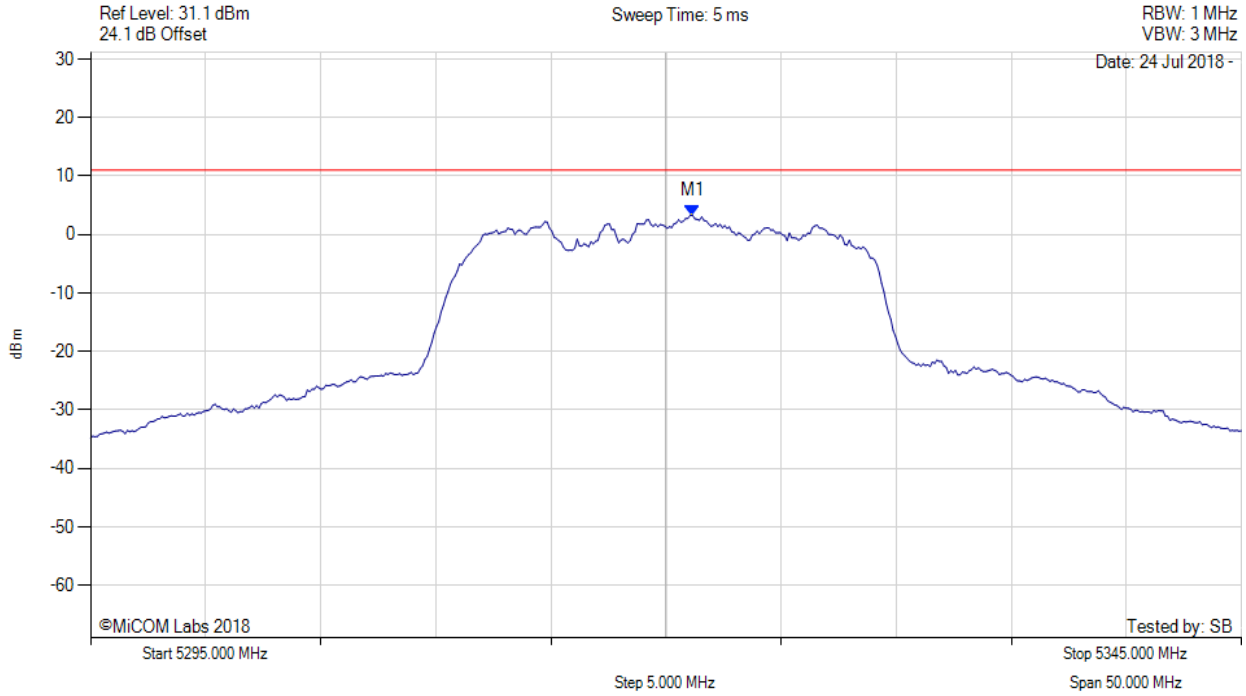


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5321.152 MHz : 3.308 dBm	Limit: ≤ 11.000 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5320.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

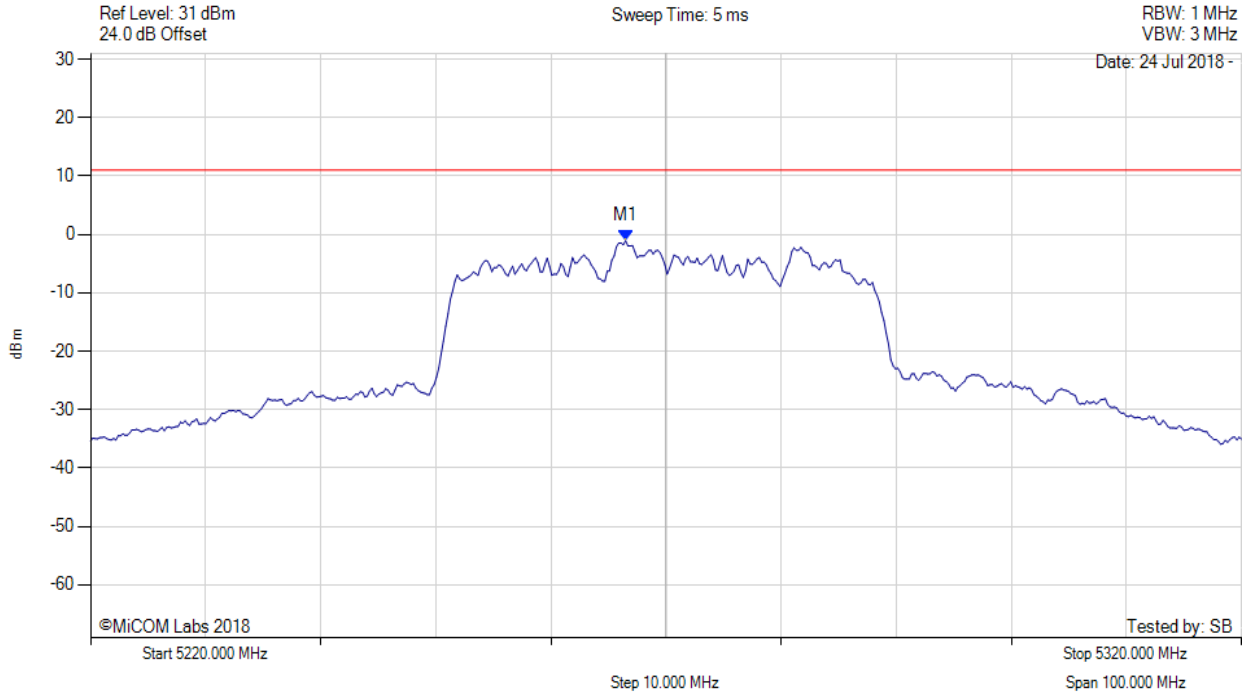


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5321.200 MHz : 3.308 dBm M1 + DCCF : 5321.200 MHz : 3.577 dBm Duty Cycle Correction Factor : +0.27 dB	Limit: ≤ 11.0 dBm Margin: -7.4 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5270.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

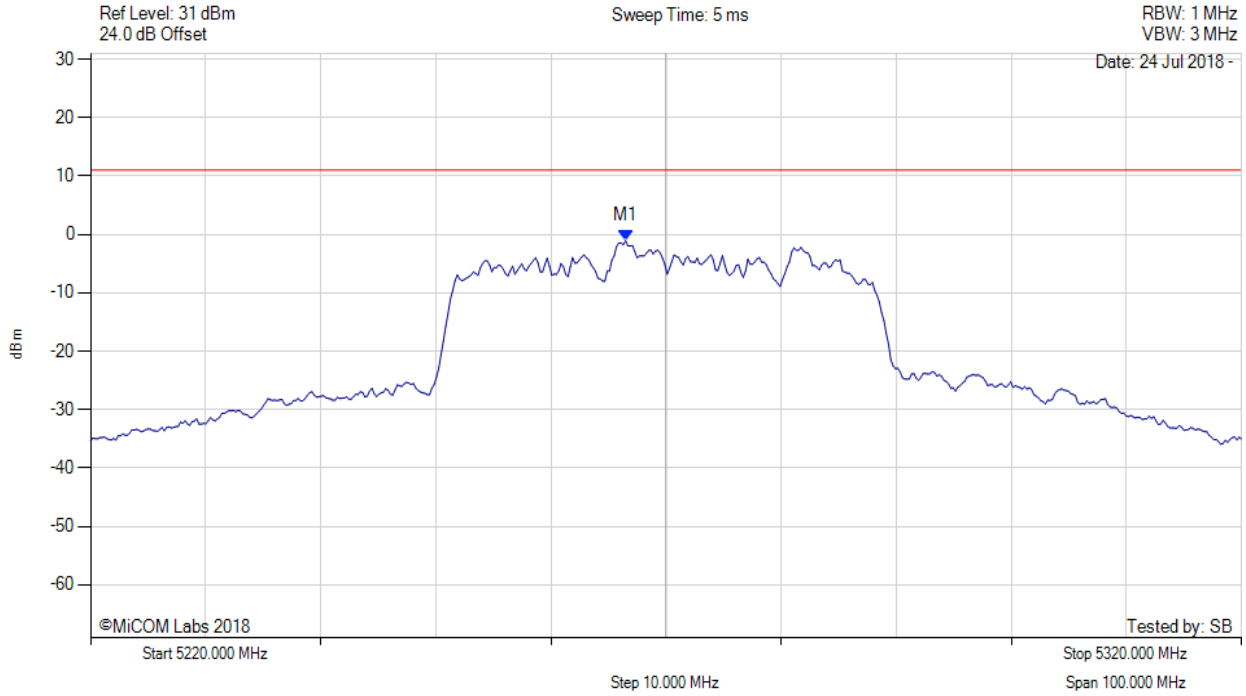


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5266.493 MHz : -1.068 dBm	Limit: ≤ 11.000 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5270.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

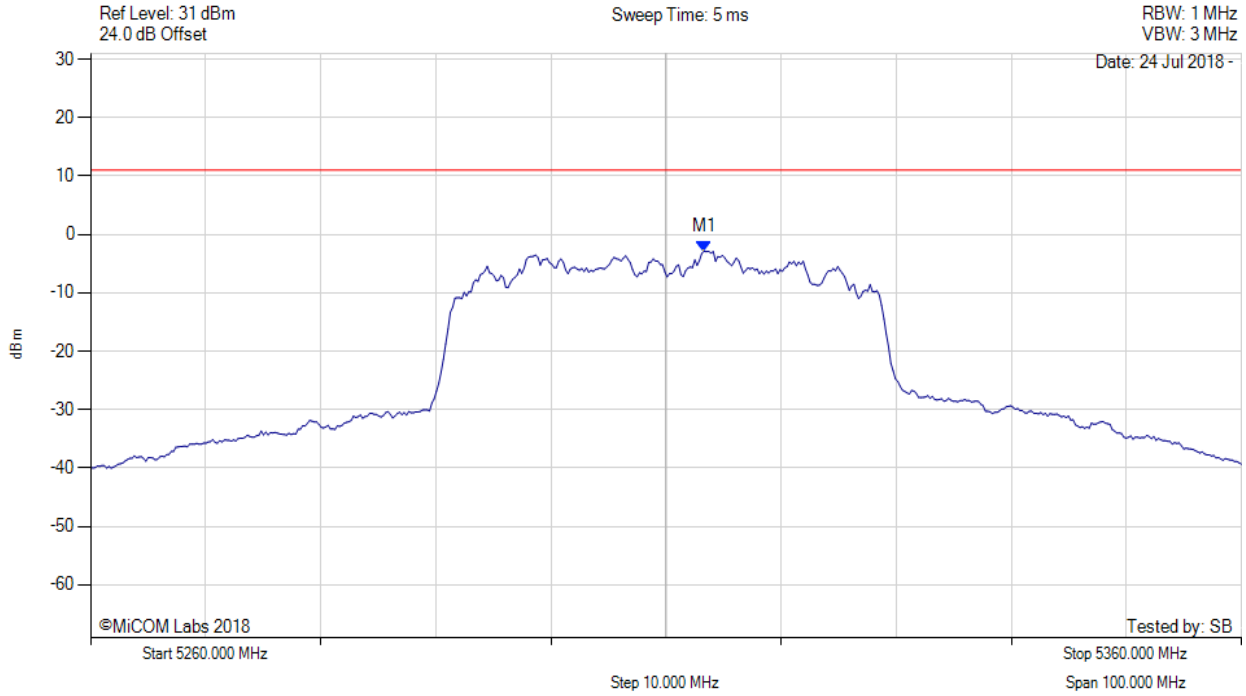


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5266.500 MHz : -1.068 dBm M1 + DCCF : 5266.500 MHz : -0.362 dBm Duty Cycle Correction Factor : +0.71 dB	Limit: ≤ 11.0 dBm Margin: -11.4 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5310.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

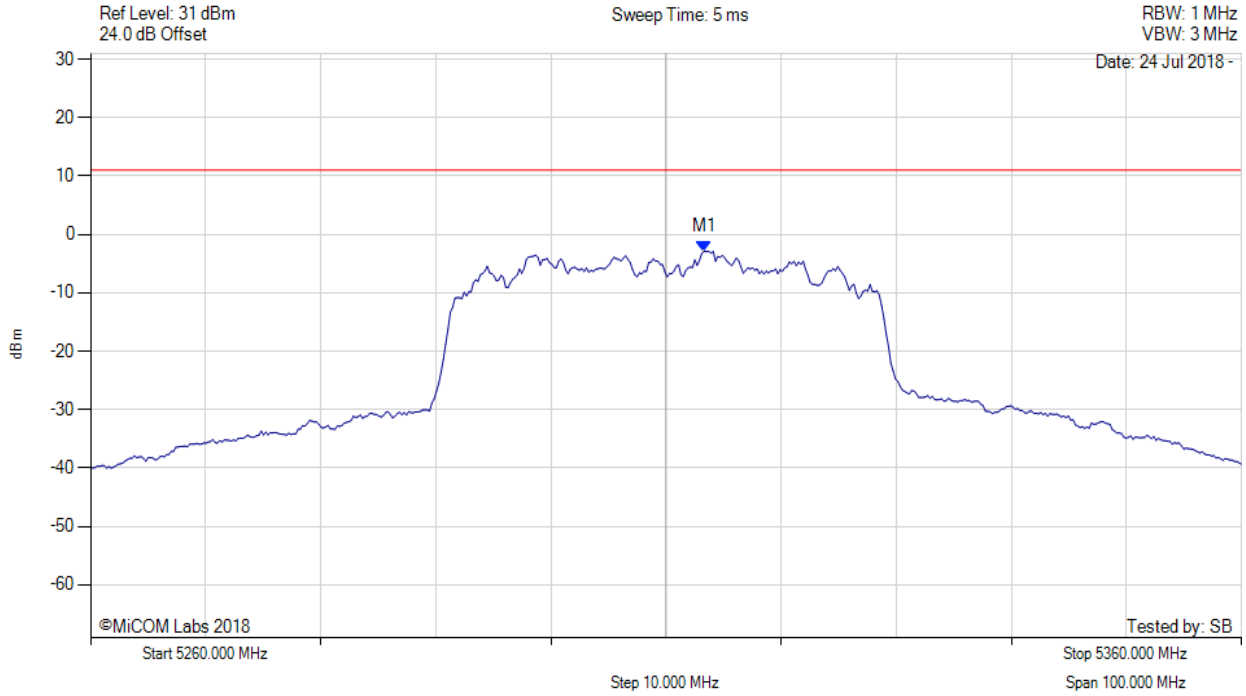


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5313.307 MHz : -2.875 dBm	Limit: ≤ 11.000 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5310.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

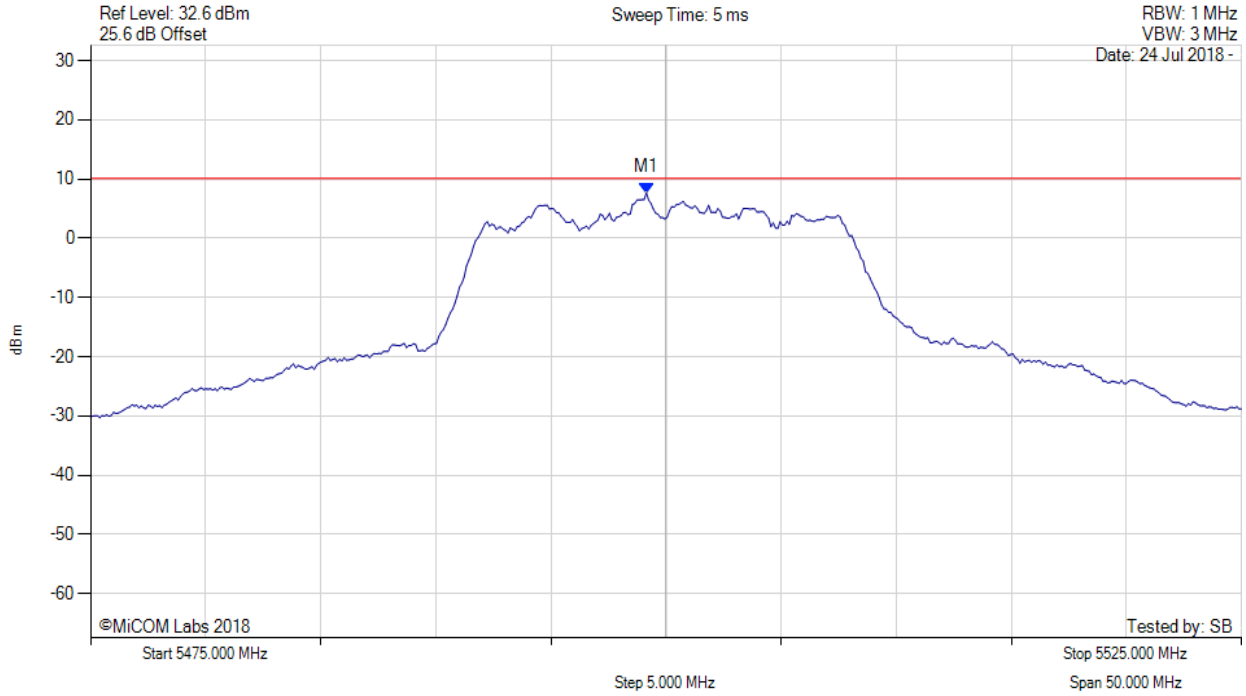


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5313.300 MHz : -2.875 dBm M1 + DCCF : 5313.300 MHz : -2.169 dBm Duty Cycle Correction Factor : +0.71 dB	Limit: ≤ 11.0 dBm Margin: -13.2 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5500.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

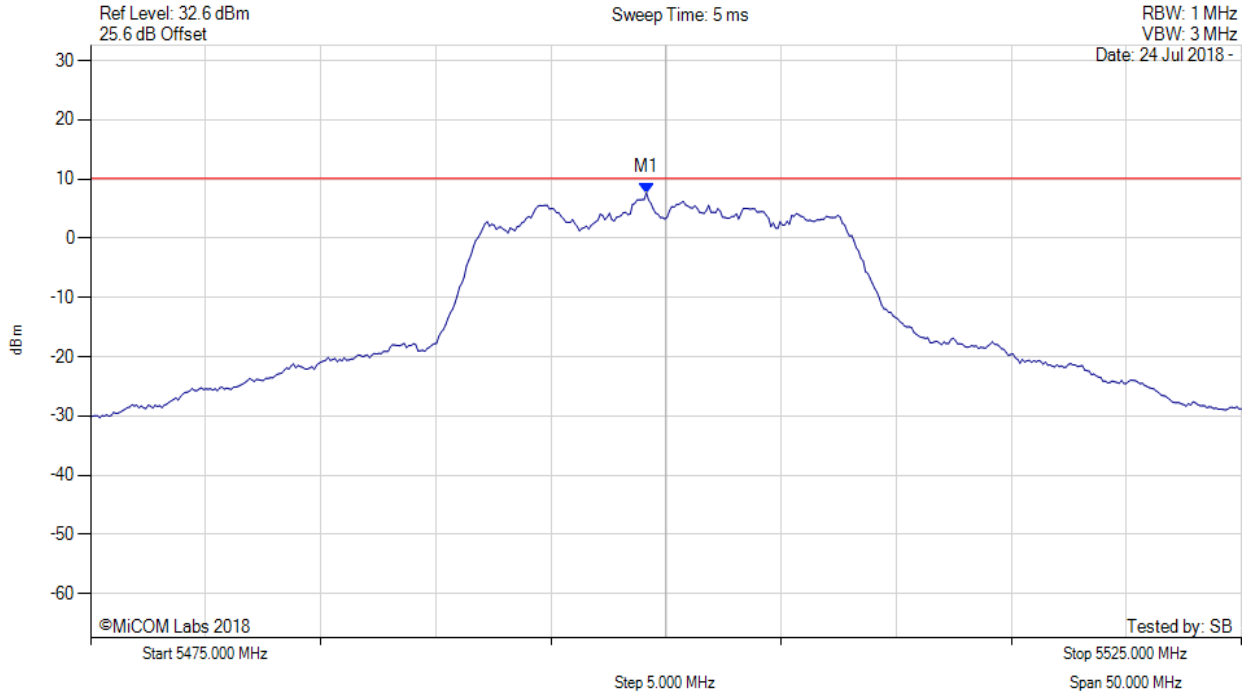


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5499.148 MHz : 7.693 dBm	Limit: ≤ 10.100 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5500.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

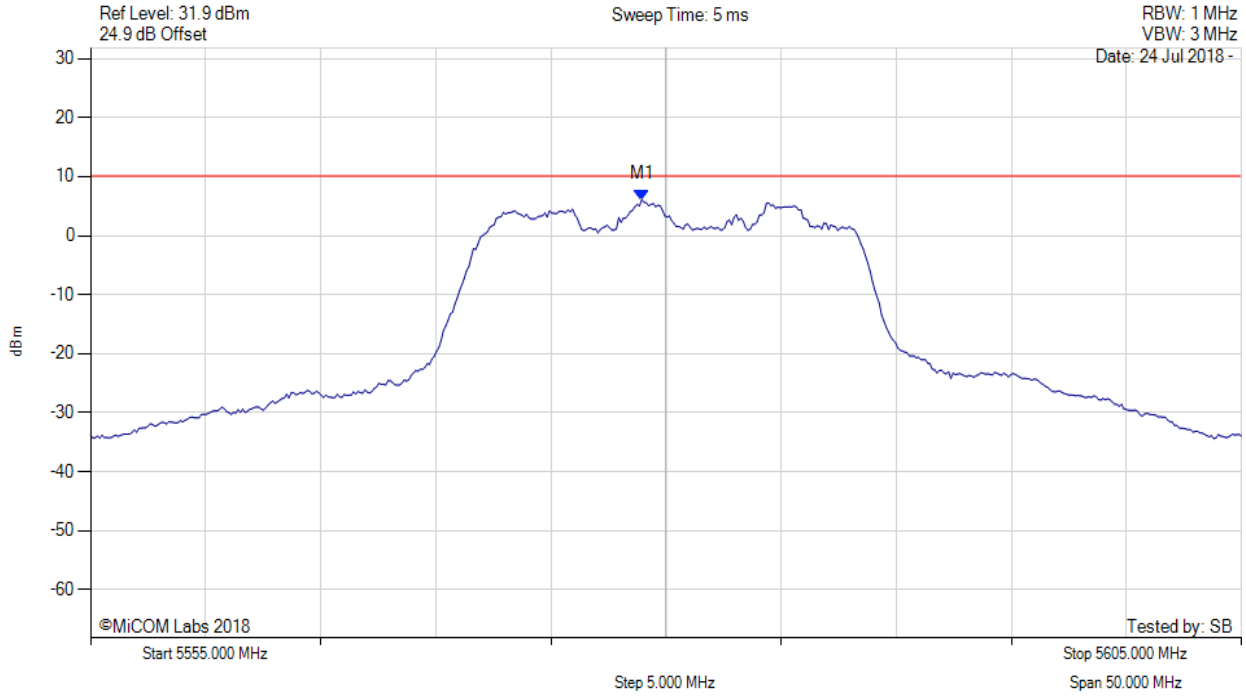


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5499.100 MHz : 7.693 dBm M1 + DCCF : 5499.100 MHz : 8.399 dBm Duty Cycle Correction Factor : +0.71 dB	Limit: ≤ 10.1 dBm Margin: -1.7 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5580.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

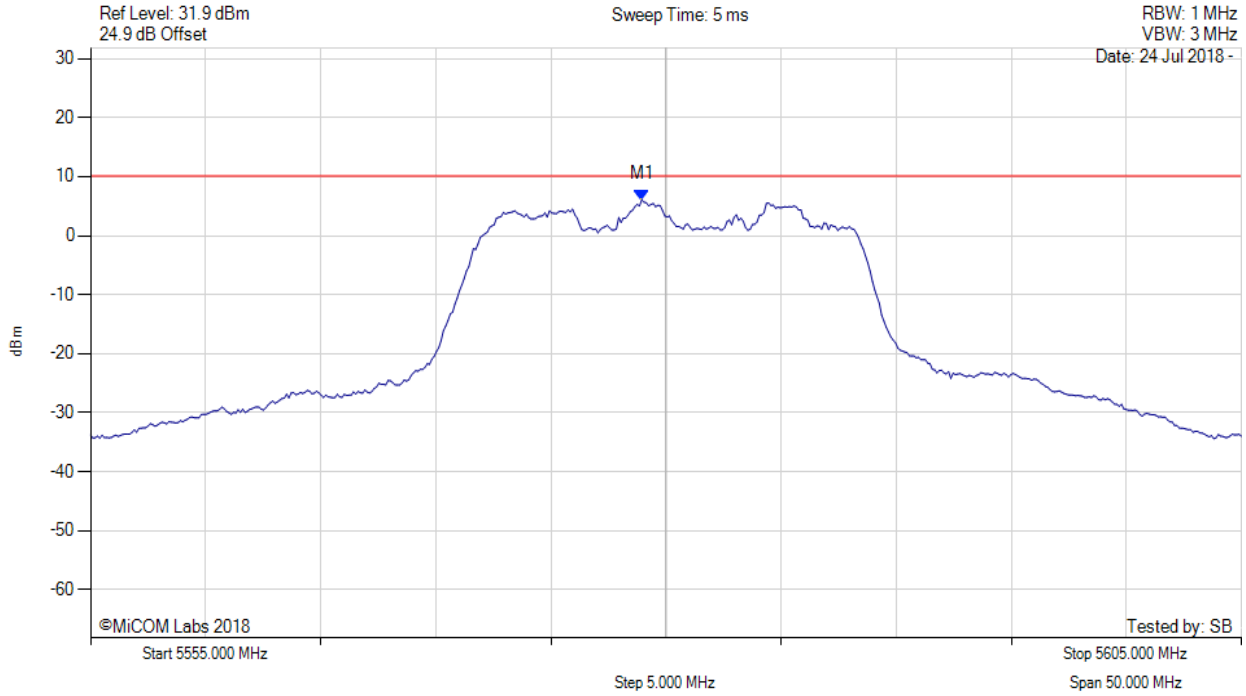


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5578.948 MHz : 6.077 dBm	Limit: ≤ 10.100 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5580.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

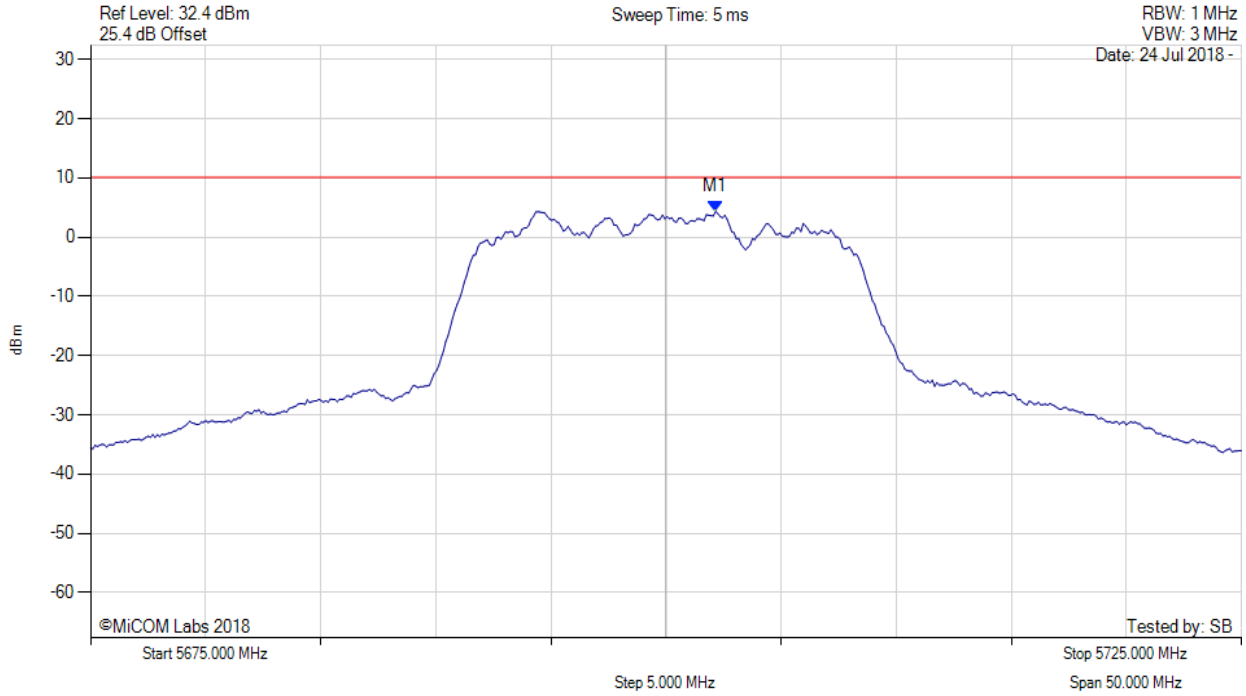


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5578.900 MHz : 6.077 dBm M1 + DCCF : 5578.900 MHz : 6.783 dBm Duty Cycle Correction Factor : +0.71 dB	Limit: ≤ 10.1 dBm Margin: -3.3 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5700.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

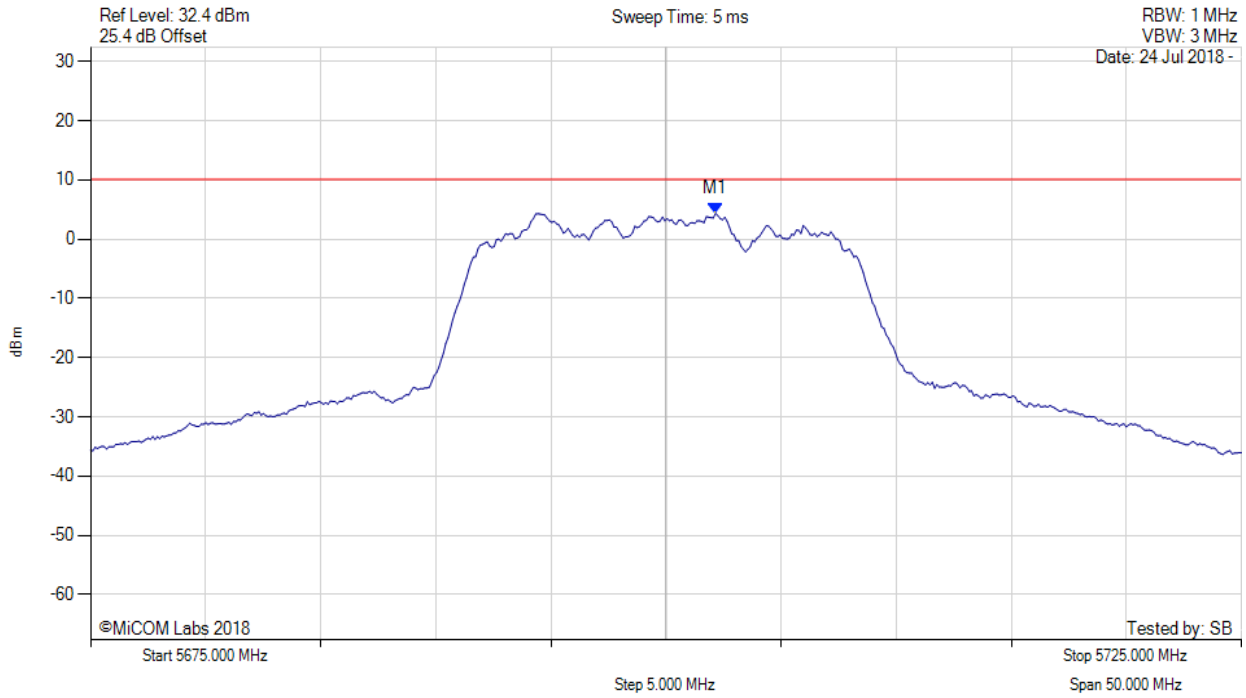


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5702.154 MHz : 4.348 dBm	Limit: ≤ 10.100 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5700.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

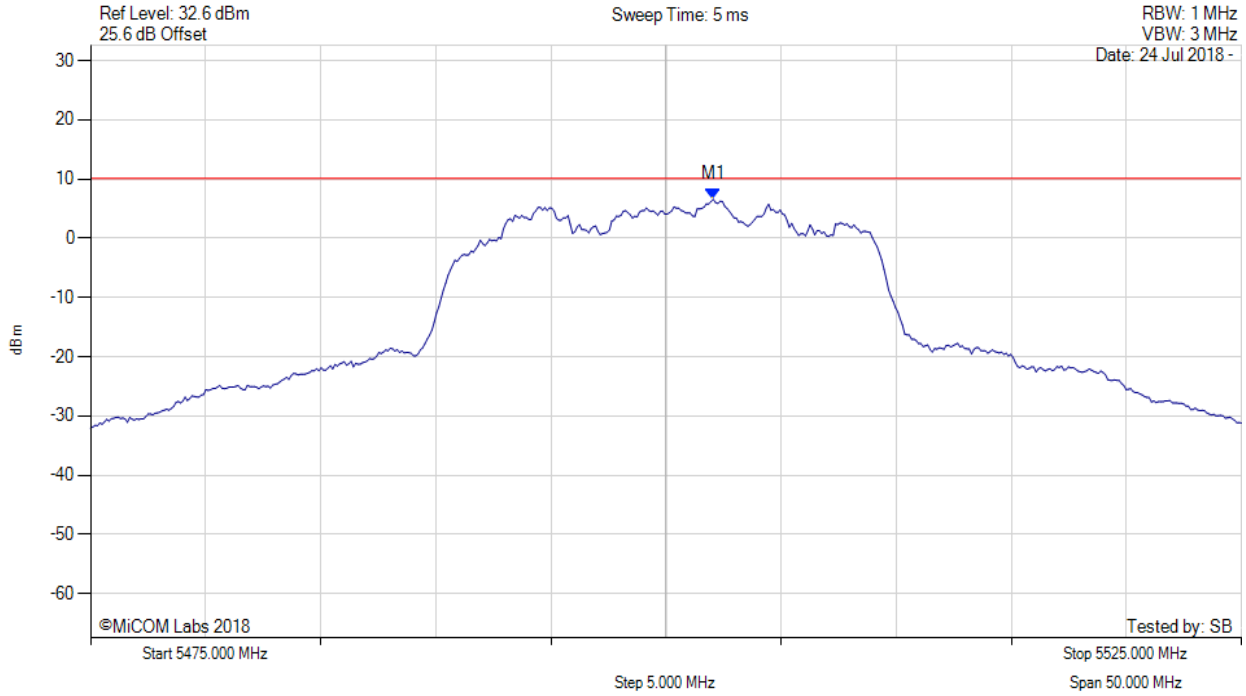


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5702.200 MHz : 4.348 dBm M1 + DCCF : 5702.200 MHz : 5.054 dBm Duty Cycle Correction Factor : +0.71 dB	Limit: ≤ 10.1 dBm Margin: -5.0 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5500.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

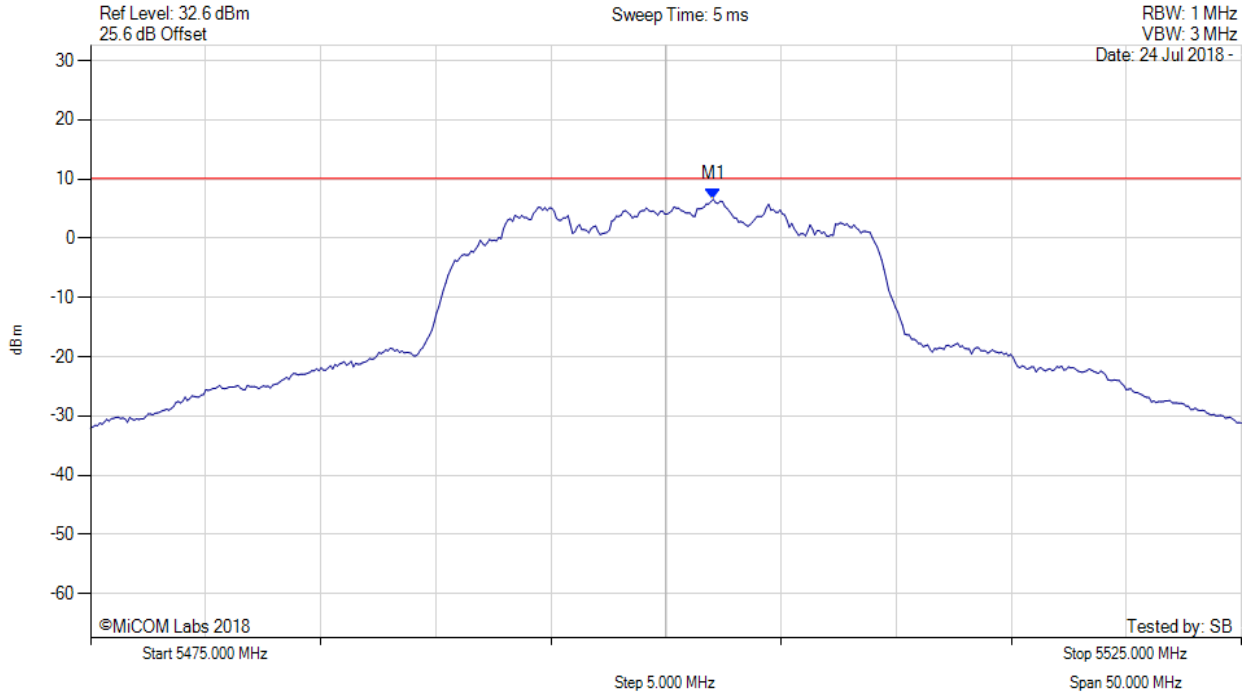


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5502.054 MHz : 6.597 dBm	Limit: ≤ 10.100 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5500.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

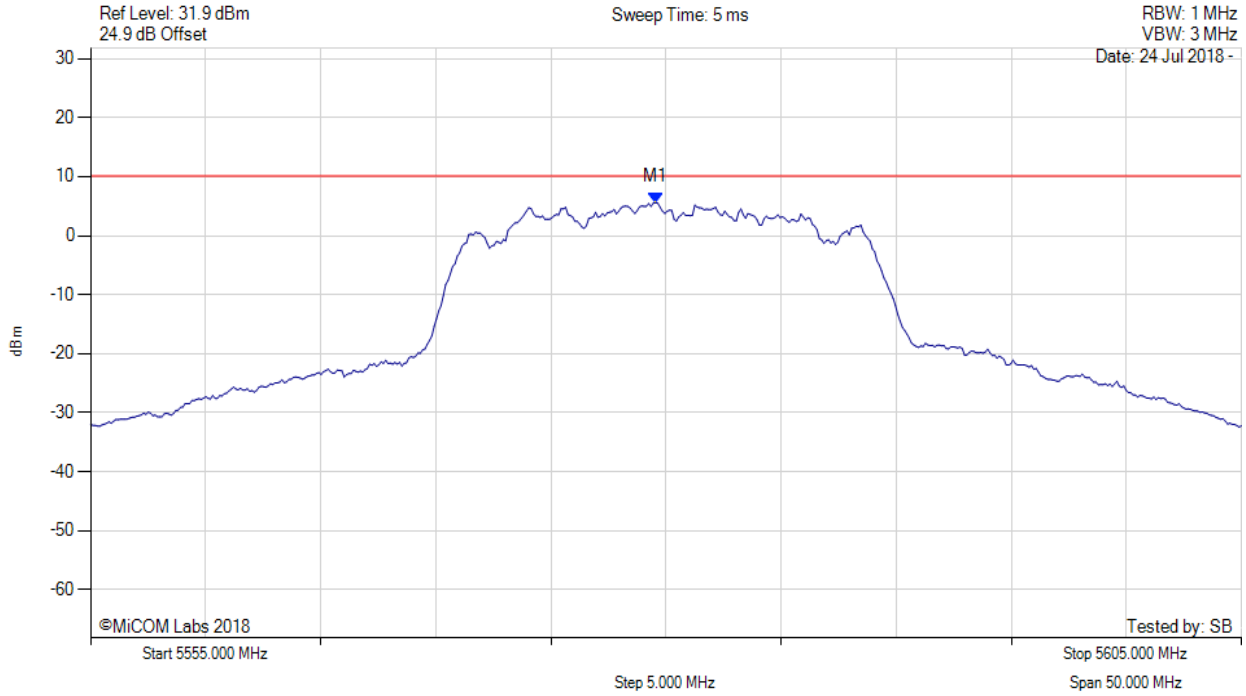


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5502.100 MHz : 6.597 dBm M1 + DCCF : 5502.100 MHz : 7.303 dBm Duty Cycle Correction Factor : +0.71 dB	Limit: ≤ 10.1 dBm Margin: -2.8 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5580.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

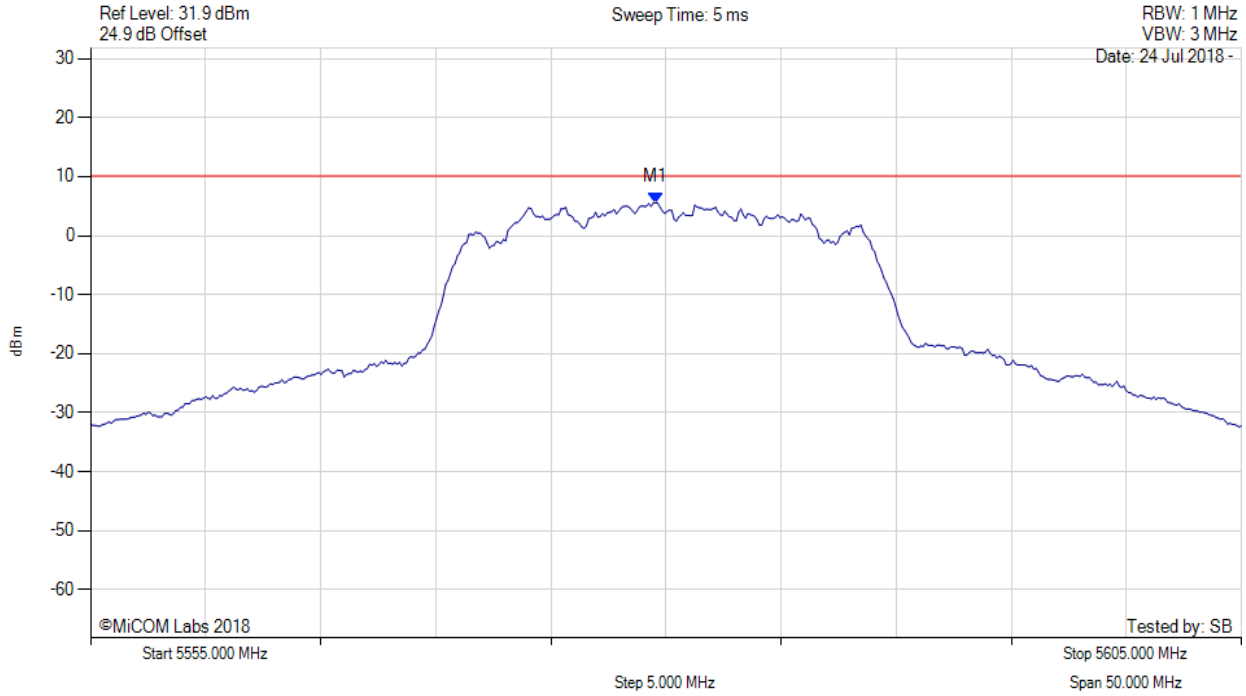


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5579.549 MHz : 5.613 dBm	Limit: ≤ 10.100 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5580.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

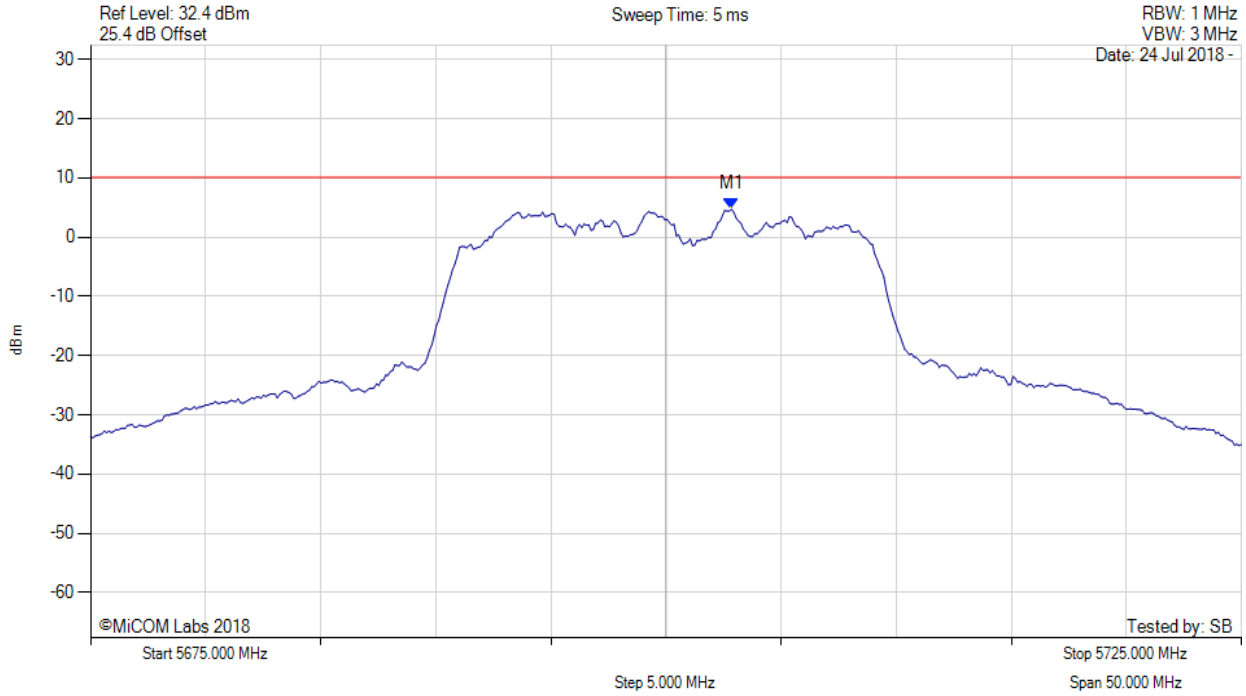


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5579.500 MHz : 5.613 dBm M1 + DCCF : 5579.500 MHz : 6.319 dBm Duty Cycle Correction Factor : +0.71 dB	Limit: ≤ 10.1 dBm Margin: -3.8 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5700.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

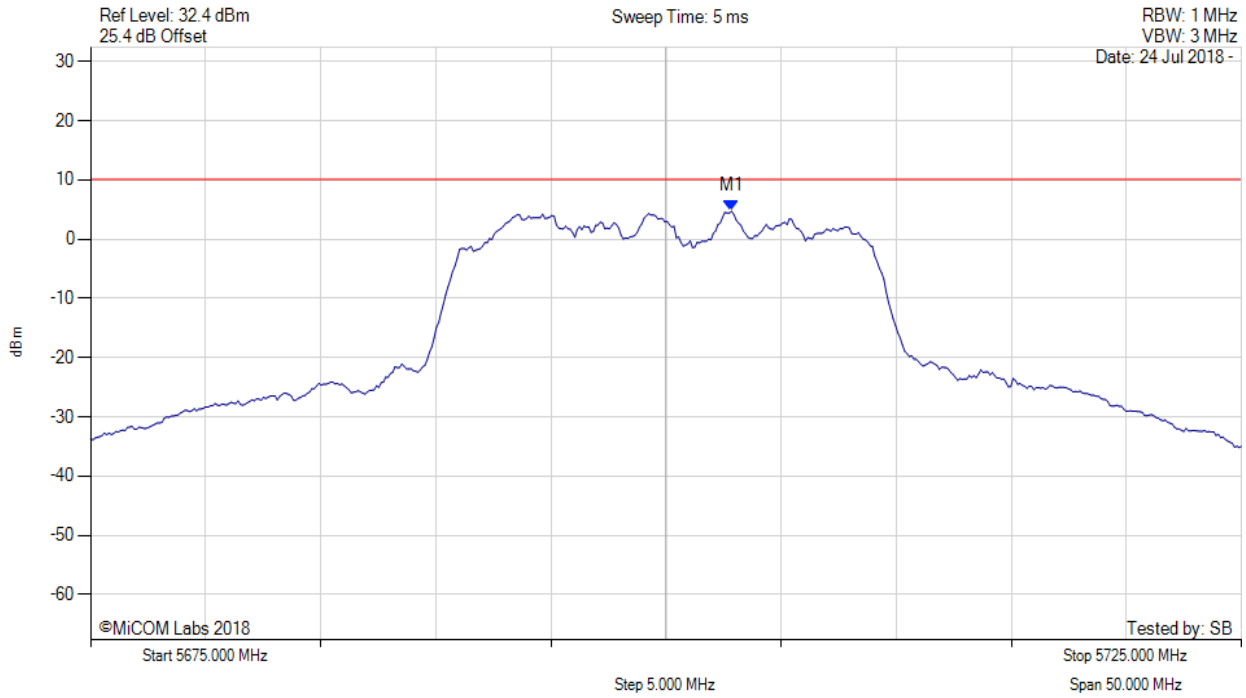


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5702.856 MHz : 4.723 dBm	Limit: ≤ 10.100 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5700.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

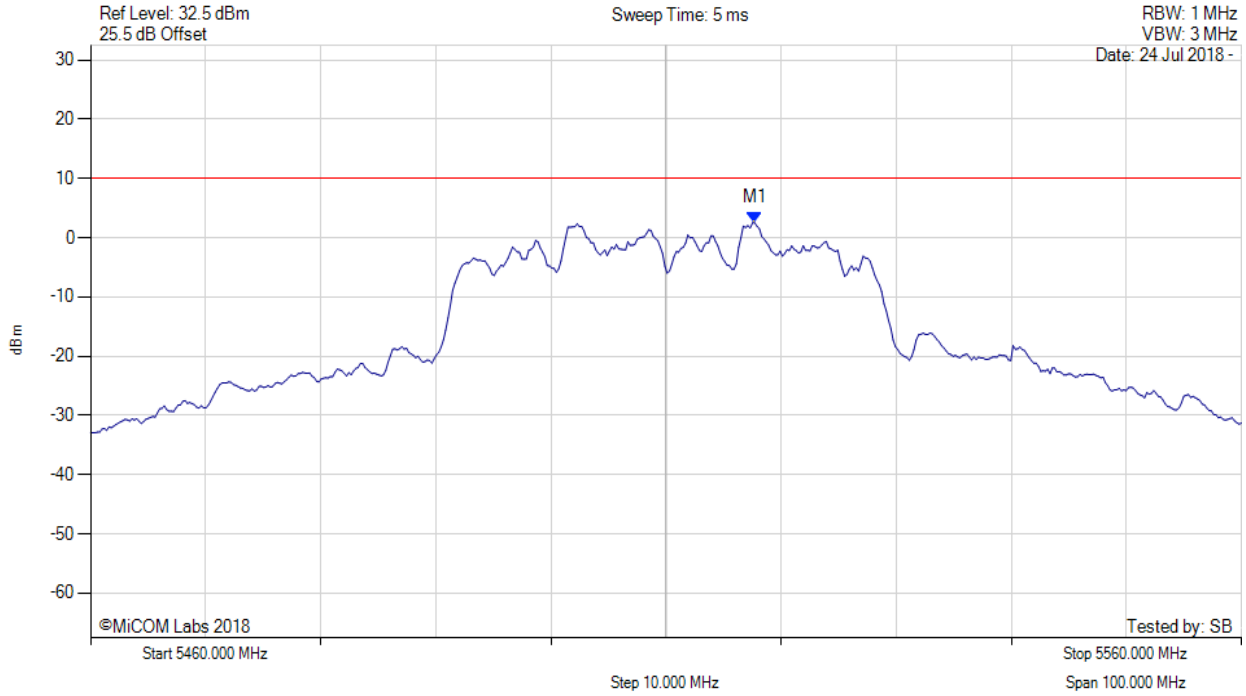


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5702.900 MHz : 4.723 dBm M1 + DCCF : 5702.900 MHz : 5.429 dBm Duty Cycle Correction Factor : +0.71 dB	Limit: ≤ 10.1 dBm Margin: -4.7 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5510.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

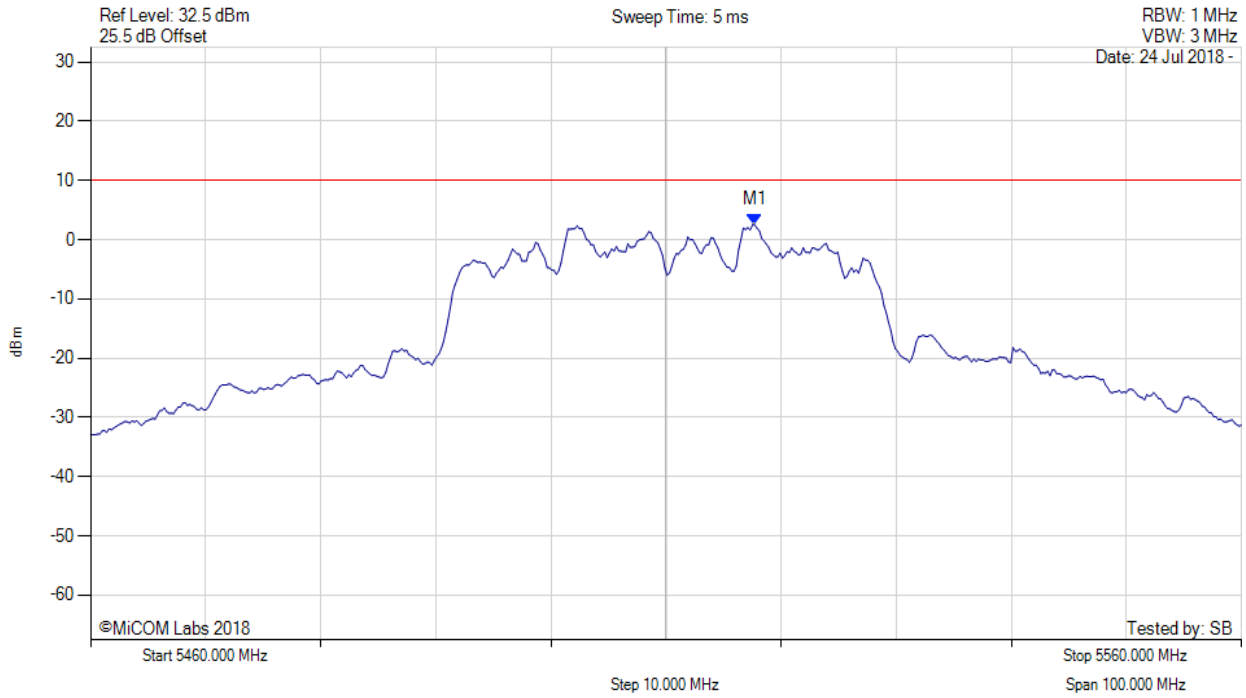


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5517.715 MHz : 2.513 dBm	Limit: ≤ 10.100 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5510.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

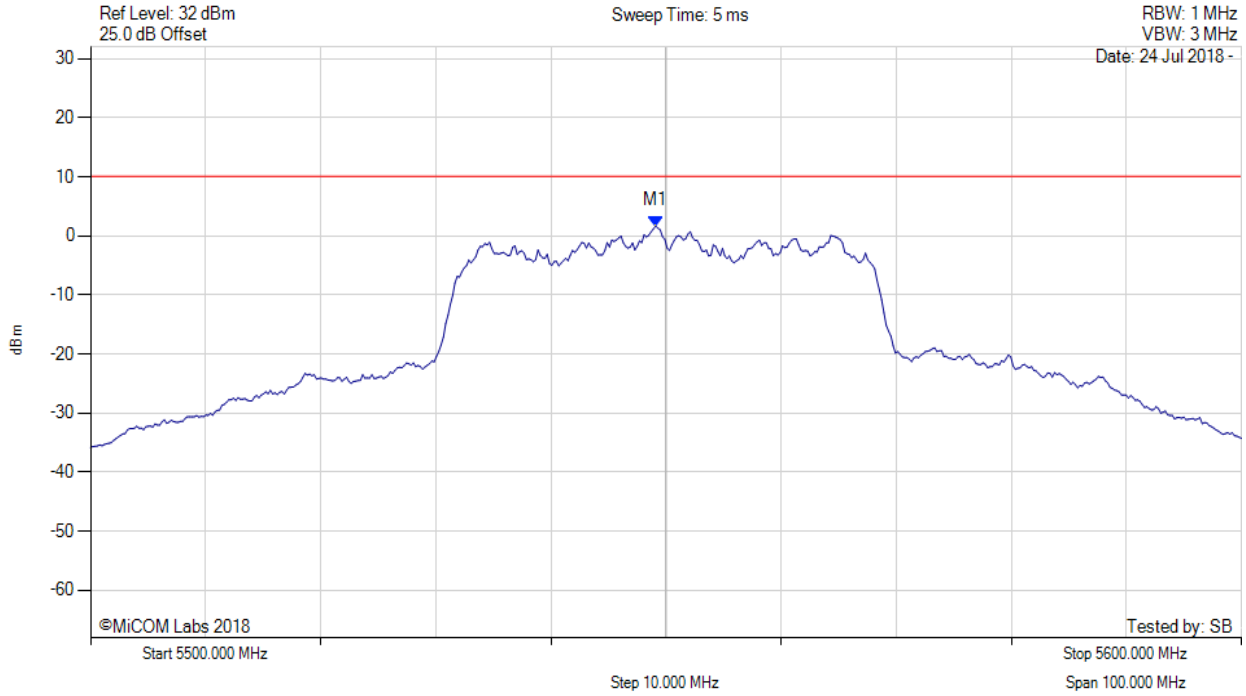


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5517.700 MHz : 2.513 dBm M1 + DCCF : 5517.700 MHz : 3.270 dBm Duty Cycle Correction Factor : +0.76 dB	Limit: ≤ 10.1 dBm Margin: -6.8 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5550.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

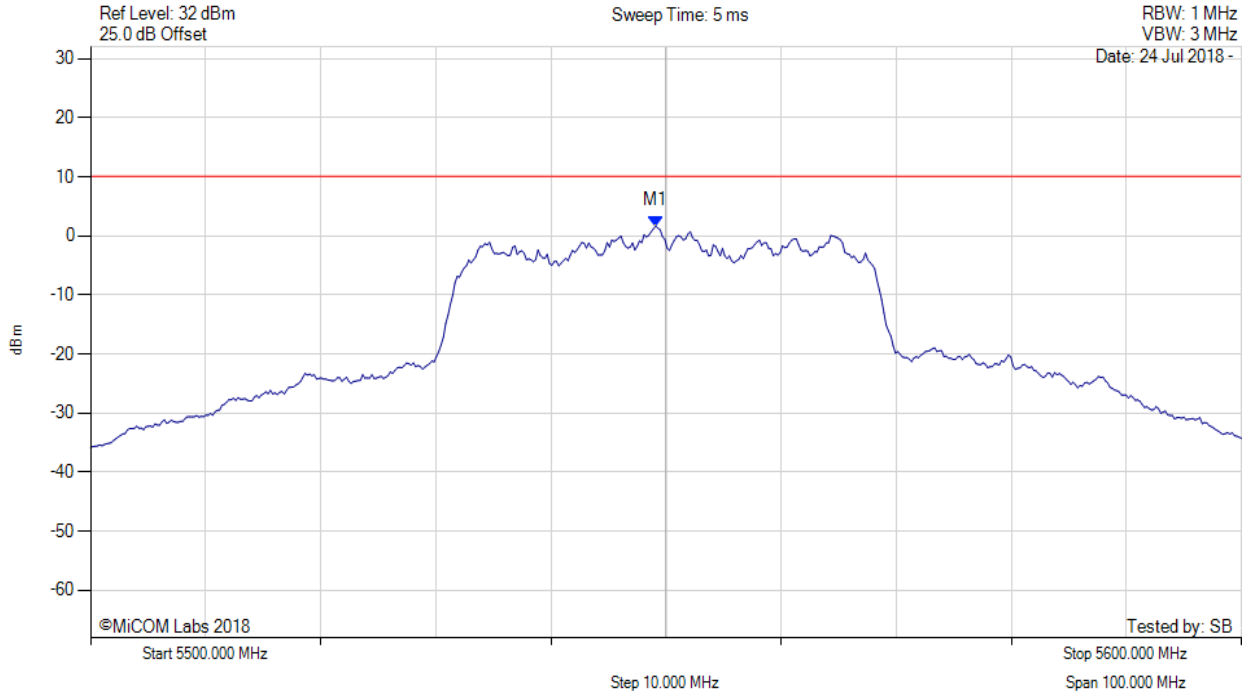


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5549.098 MHz : 1.660 dBm	Limit: ≤ 10.100 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5550.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

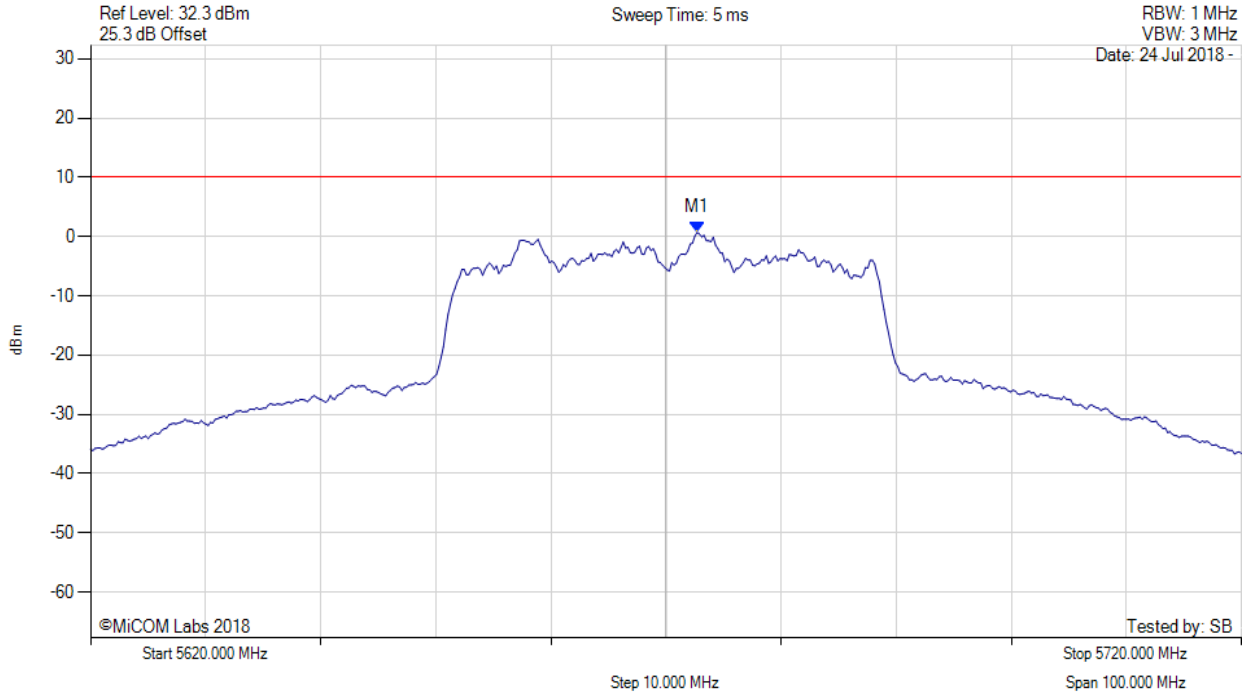


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5549.100 MHz : 1.660 dBm M1 + DCCF : 5549.100 MHz : 2.417 dBm Duty Cycle Correction Factor : +0.76 dB	Limit: ≤ 10.1 dBm Margin: -7.7 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5670.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

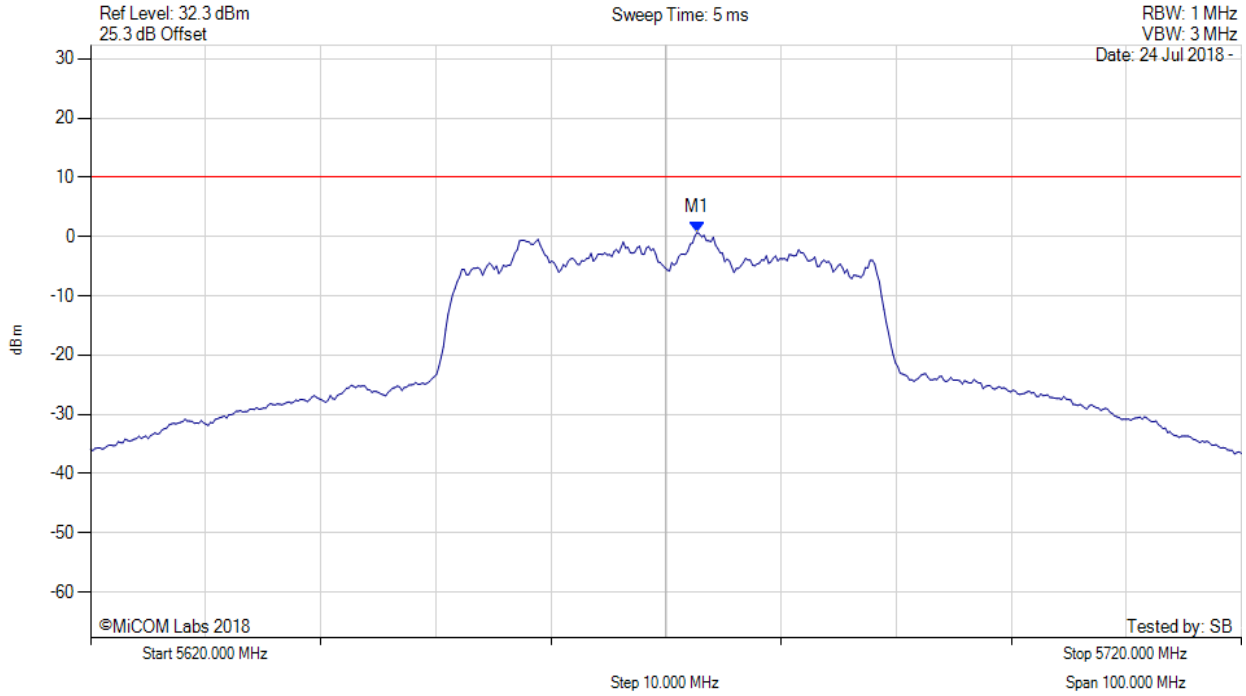


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5672.705 MHz : 0.692 dBm	Limit: ≤ 10.100 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5670.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

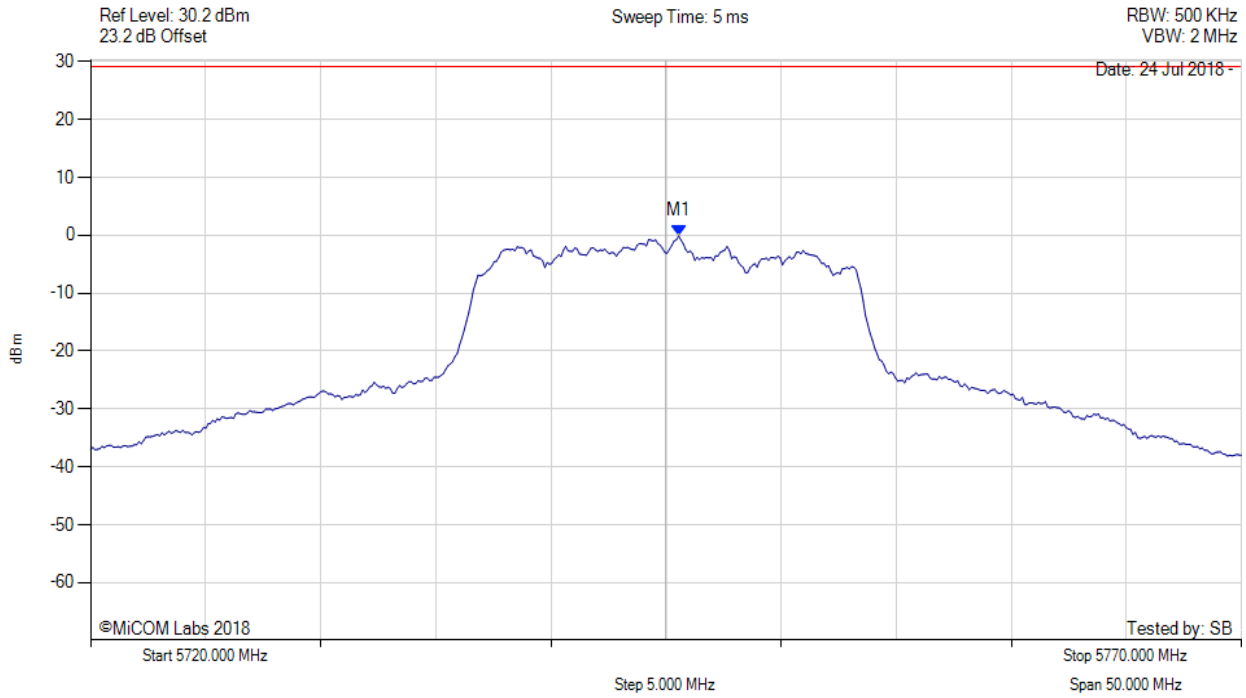


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5672.700 MHz : 0.692 dBm M1 + DCCF : 5672.700 MHz : 1.449 dBm Duty Cycle Correction Factor : +0.76 dB	Limit: ≤ 10.1 dBm Margin: -8.7 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5745.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

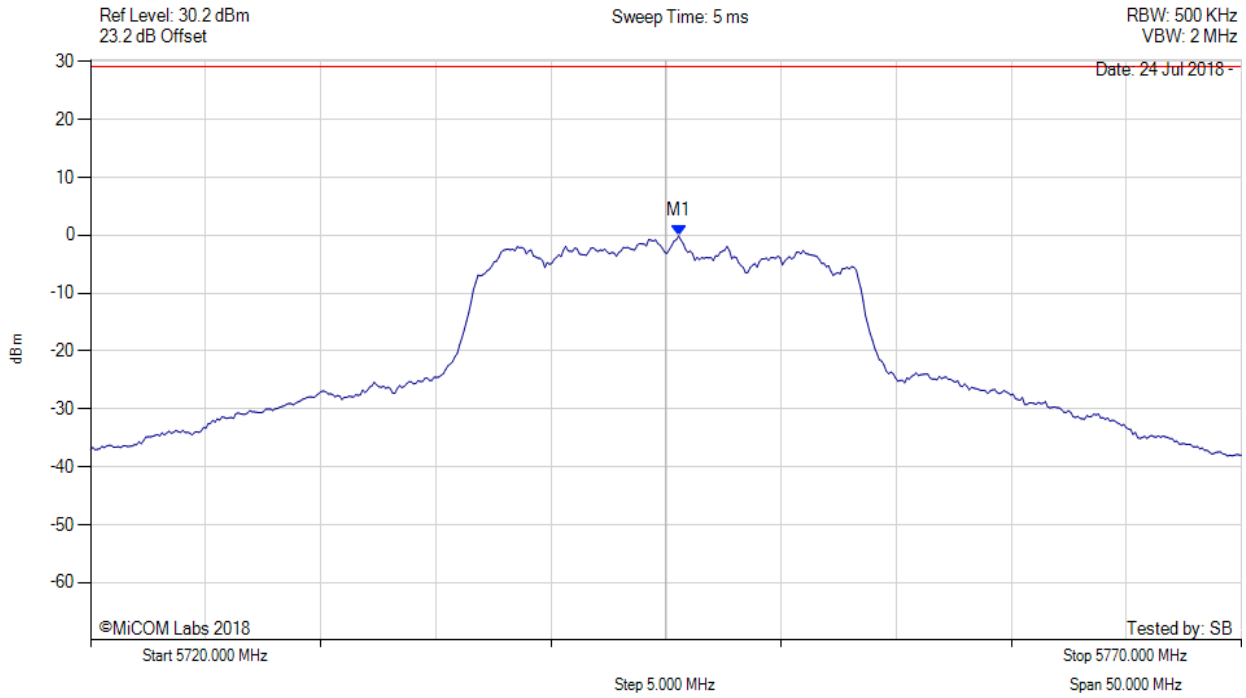


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5745.551 MHz : -0.094 dBm	Limit: ≤ 29.170 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5745.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

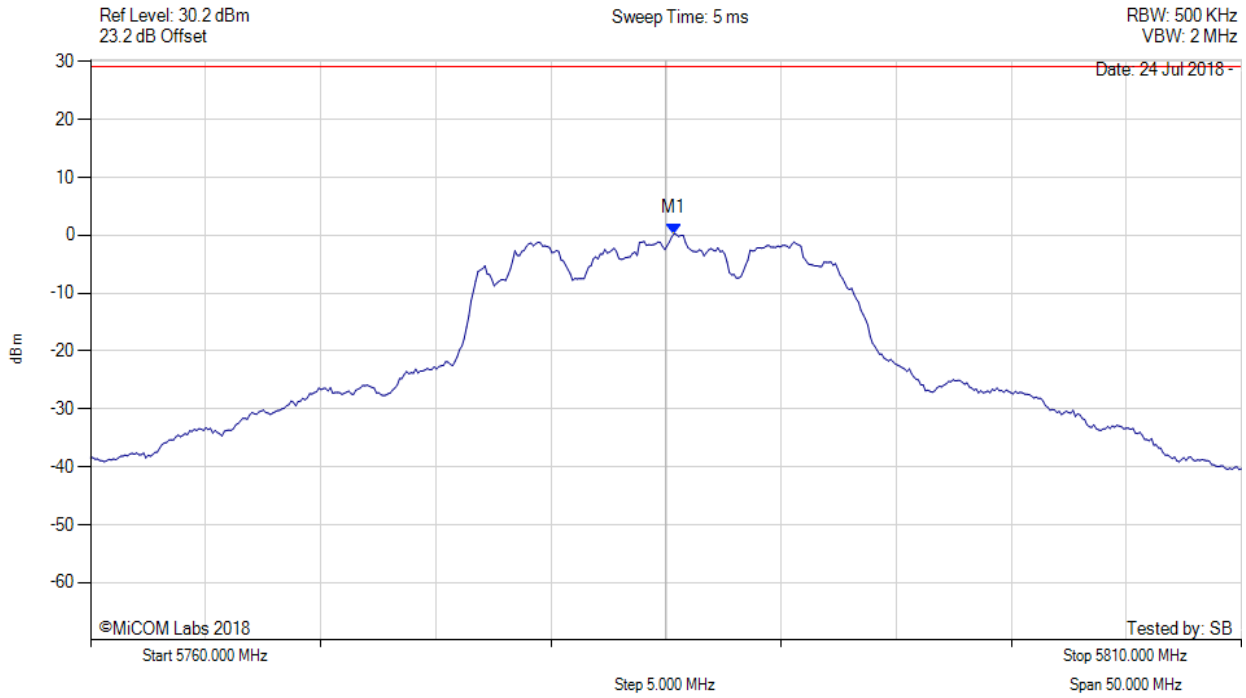


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5745.600 MHz : -0.094 dBm M1 + DCCF : 5745.600 MHz : 0.129 dBm Duty Cycle Correction Factor : +0.22 dB	Limit: ≤ 29.2 dBm Margin: -29.1 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

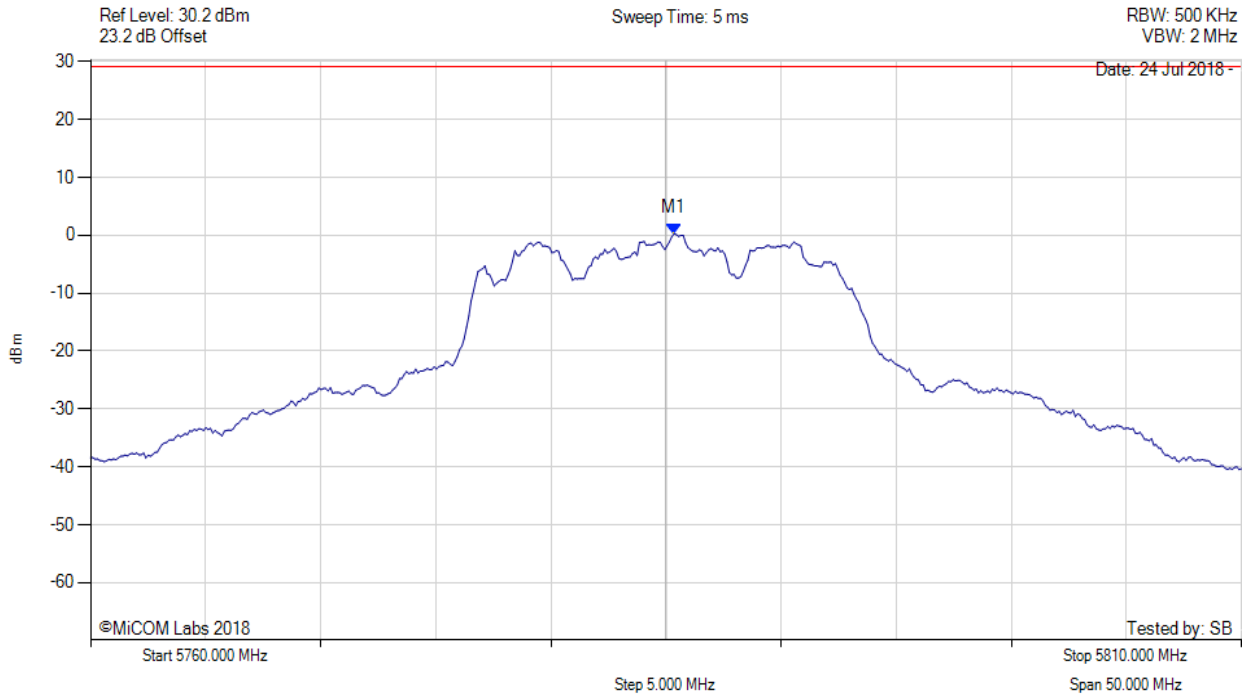


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5785.351 MHz : 0.309 dBm	Limit: ≤ 29.170 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5785.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

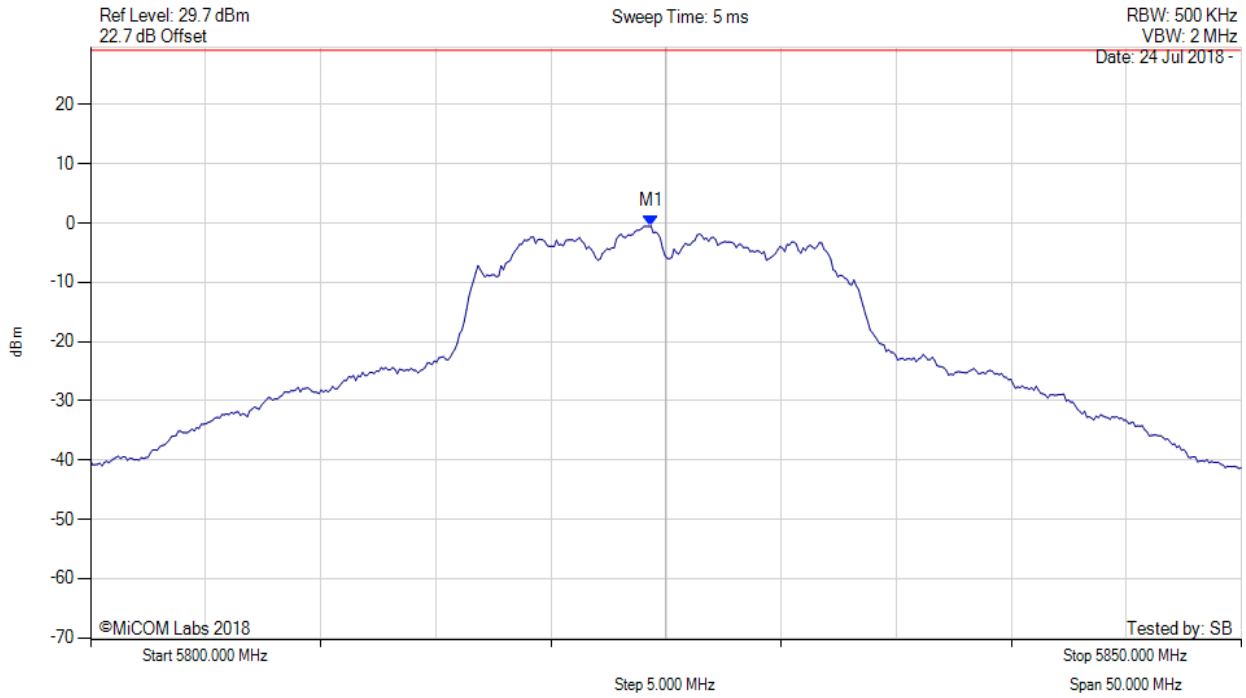


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5785.400 MHz : 0.309 dBm M1 + DCCF : 5785.400 MHz : 0.532 dBm Duty Cycle Correction Factor : +0.22 dB	Limit: ≤ 29.2 dBm Margin: -28.7 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5825.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

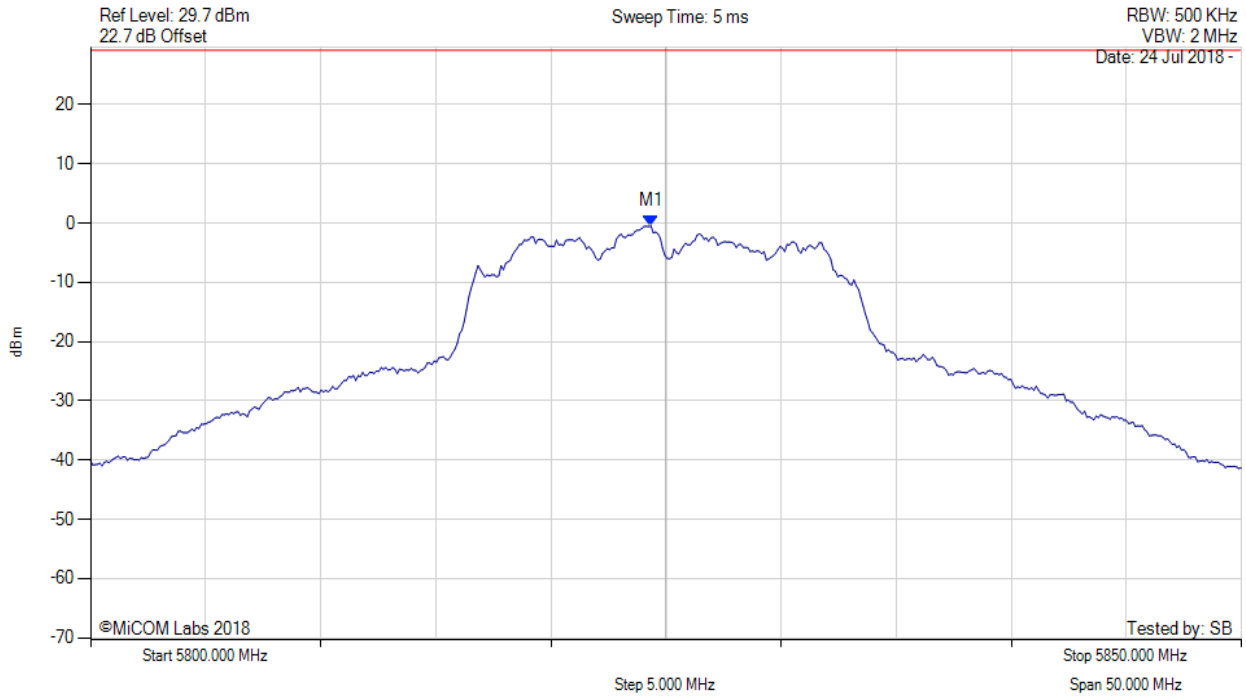


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5824.349 MHz : -0.477 dBm	Limit: ≤ 29.170 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5825.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

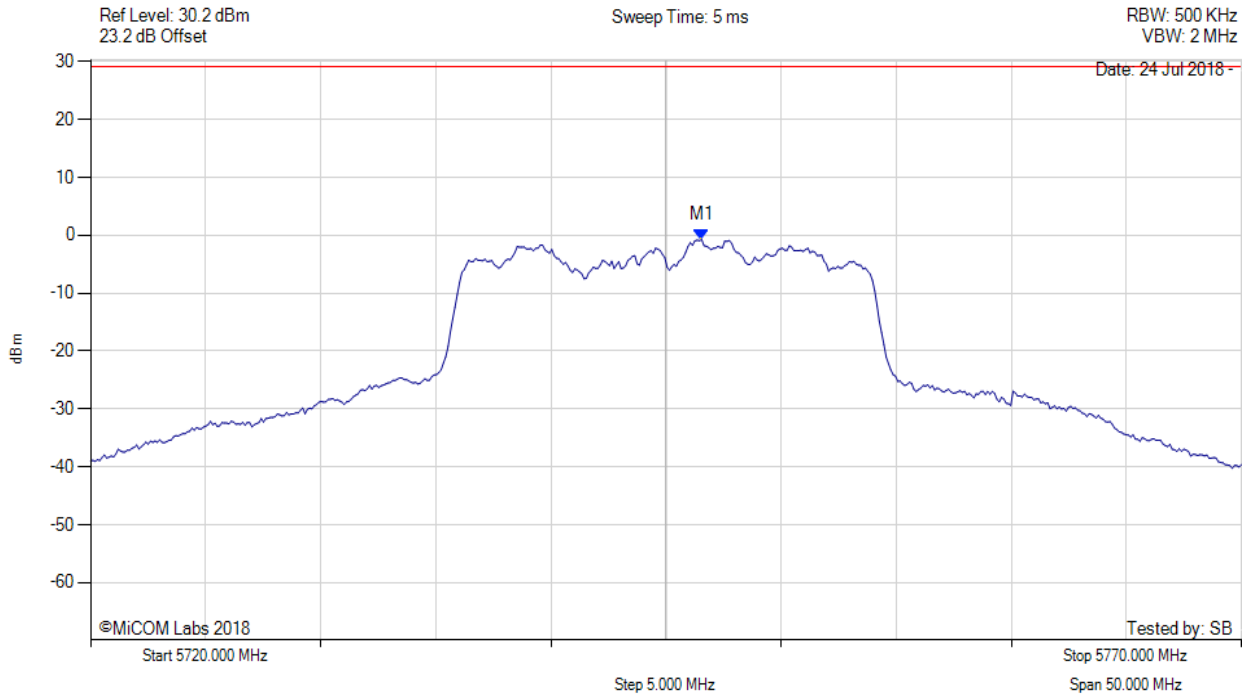


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5824.300 MHz : -0.477 dBm M1 + DCCF : 5824.300 MHz : -0.254 dBm Duty Cycle Correction Factor : +0.22 dB	Limit: ≤ 29.2 dBm Margin: -29.5 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

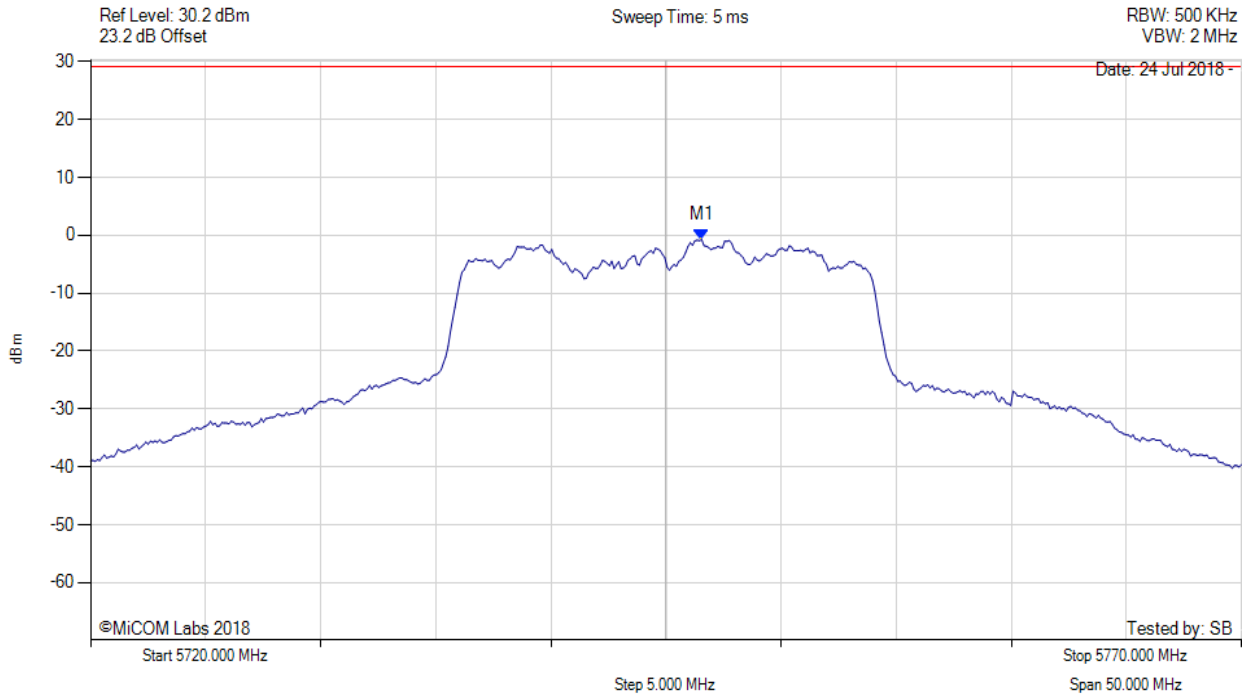


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5746.553 MHz : -0.759 dBm	Limit: ≤ 29.170 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5745.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

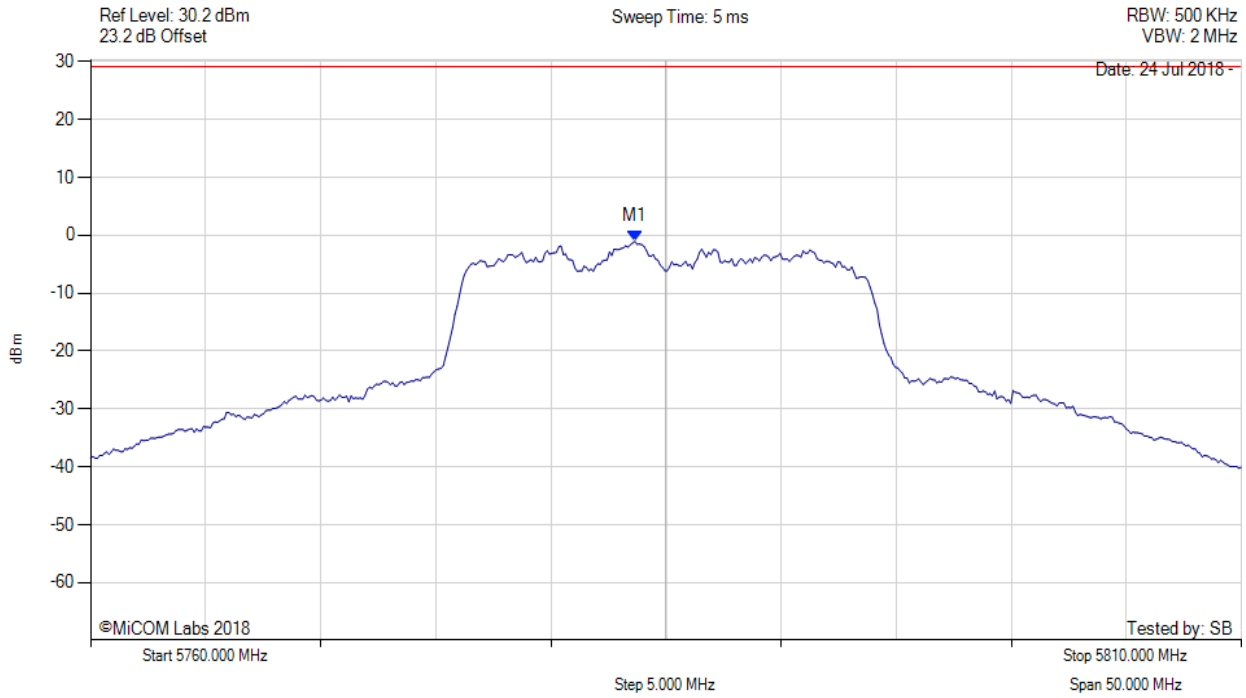


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5746.600 MHz : -0.759 dBm M1 + DCCF : 5746.600 MHz : -0.536 dBm Duty Cycle Correction Factor : +0.22 dB	Limit: ≤ 29.2 dBm Margin: -29.7 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

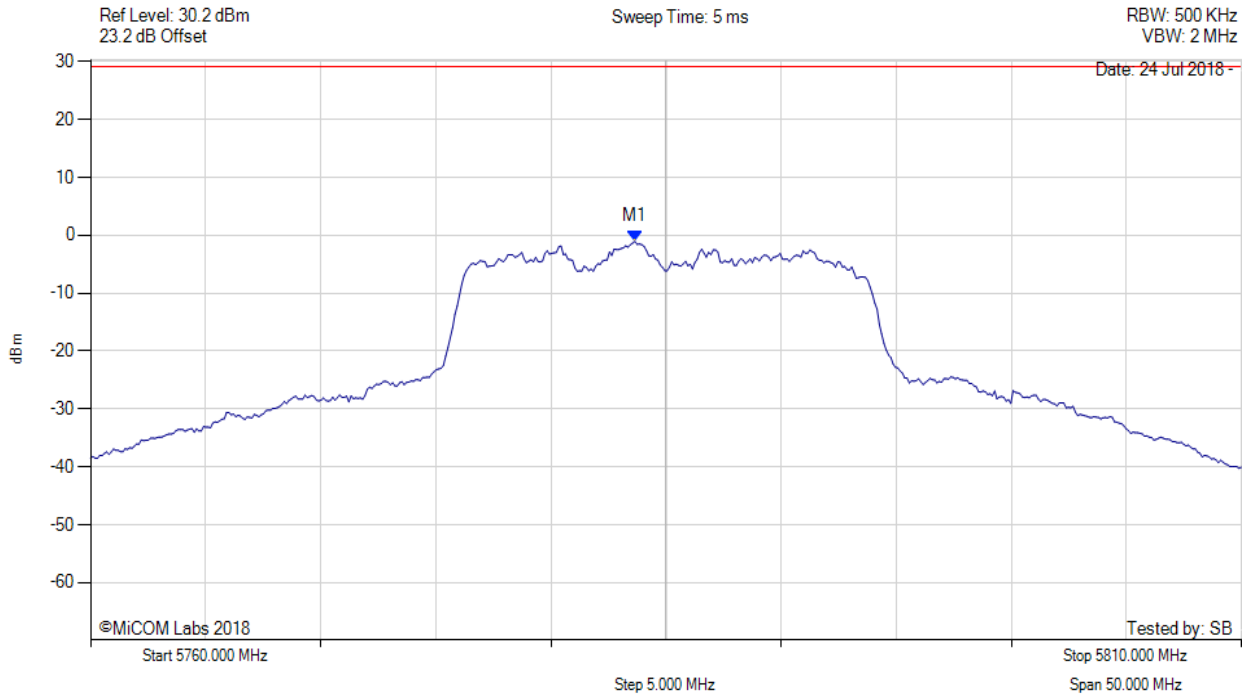


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5783.647 MHz : -1.044 dBm	Limit: ≤ 29.170 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5785.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

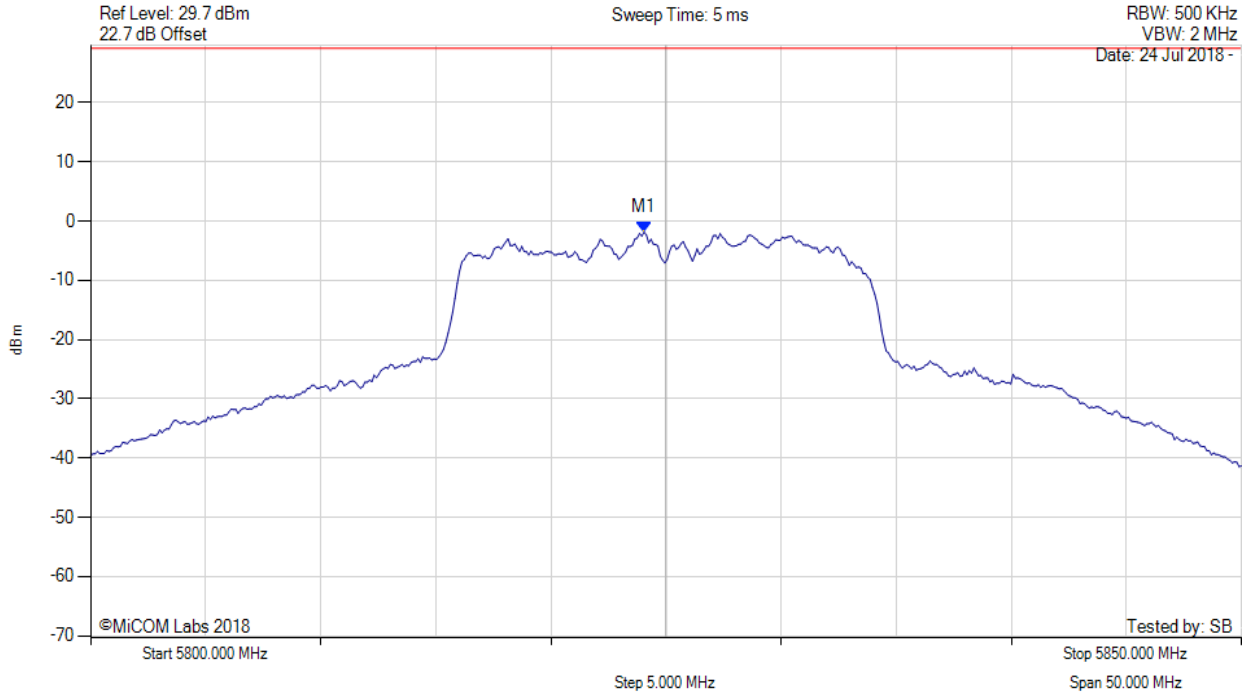


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5783.600 MHz : -1.044 dBm M1 + DCCF : 5783.600 MHz : -0.821 dBm Duty Cycle Correction Factor : +0.22 dB	Limit: ≤ 29.2 dBm Margin: -30.0 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

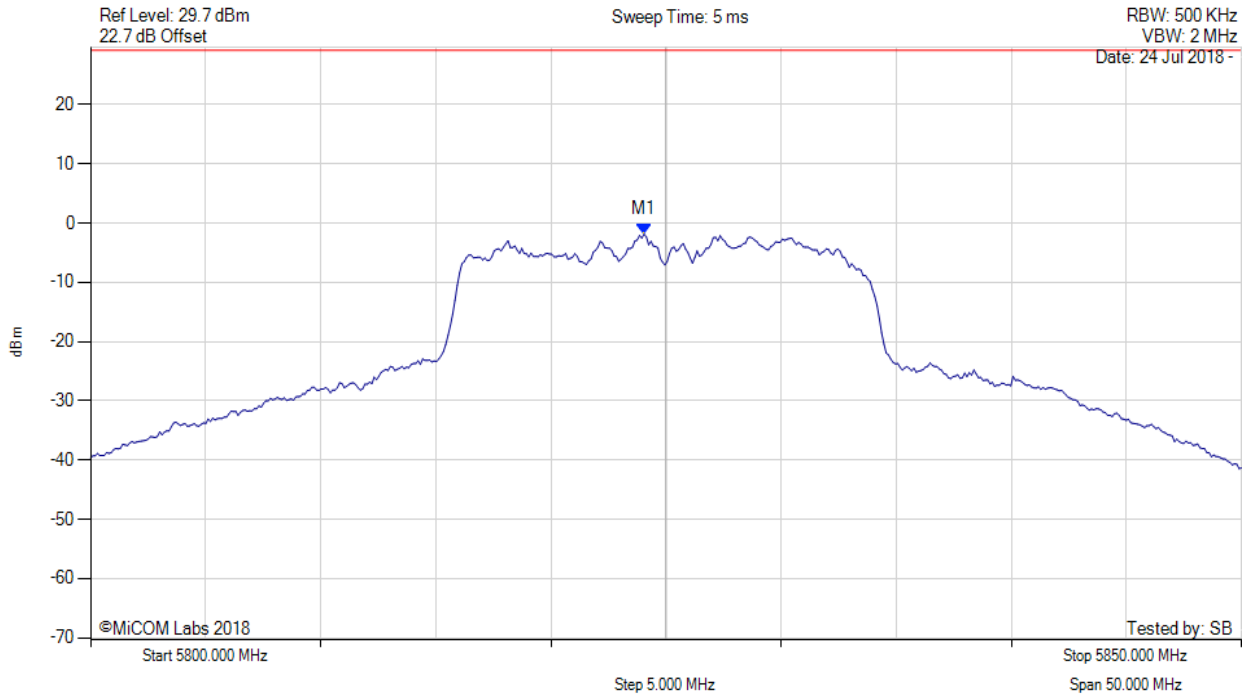


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5824.048 MHz : -1.834 dBm	Limit: ≤ 29.170 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5825.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

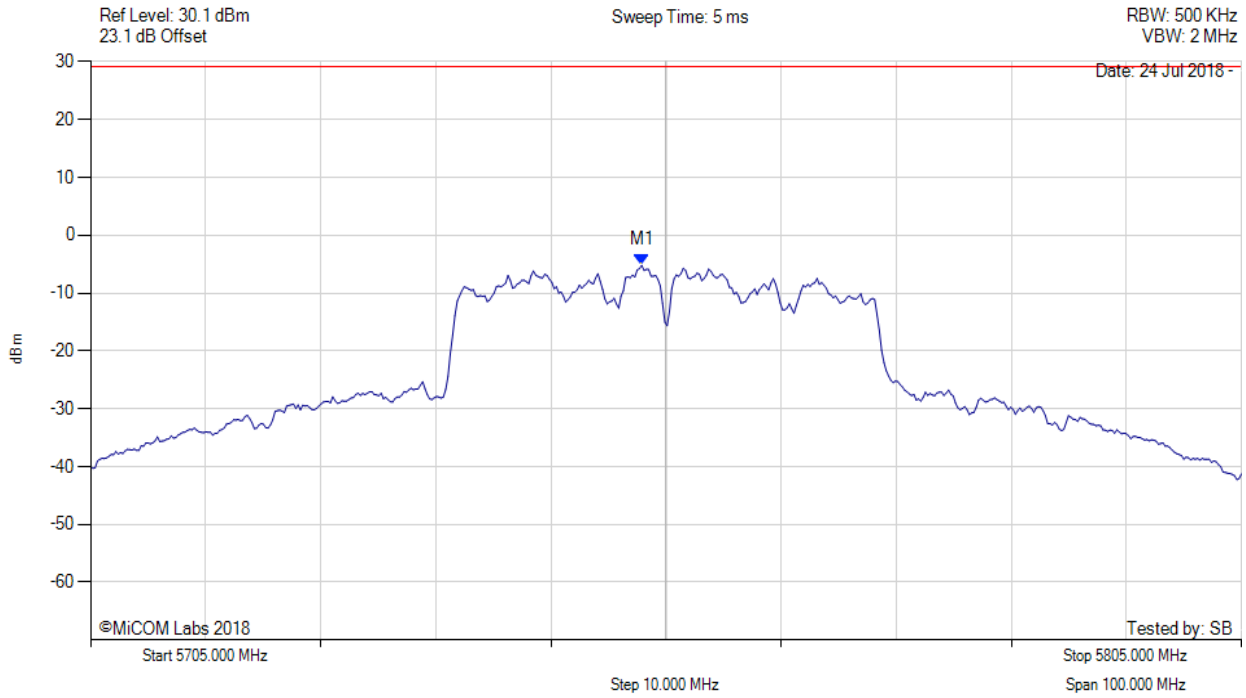


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5824.000 MHz : -1.834 dBm M1 + DCCF : 5824.000 MHz : -1.611 dBm Duty Cycle Correction Factor : +0.22 dB	Limit: ≤ 29.2 dBm Margin: -30.8 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

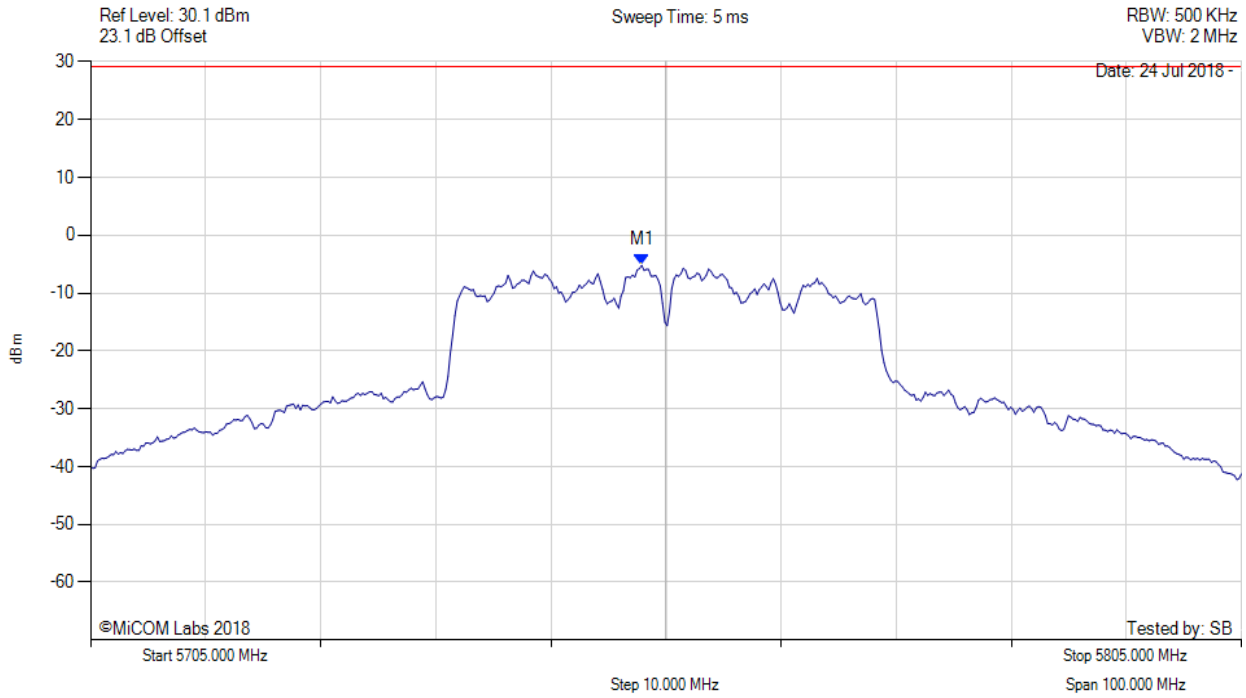


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5752.896 MHz : -5.196 dBm	Limit: ≤ 29.170 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5755.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

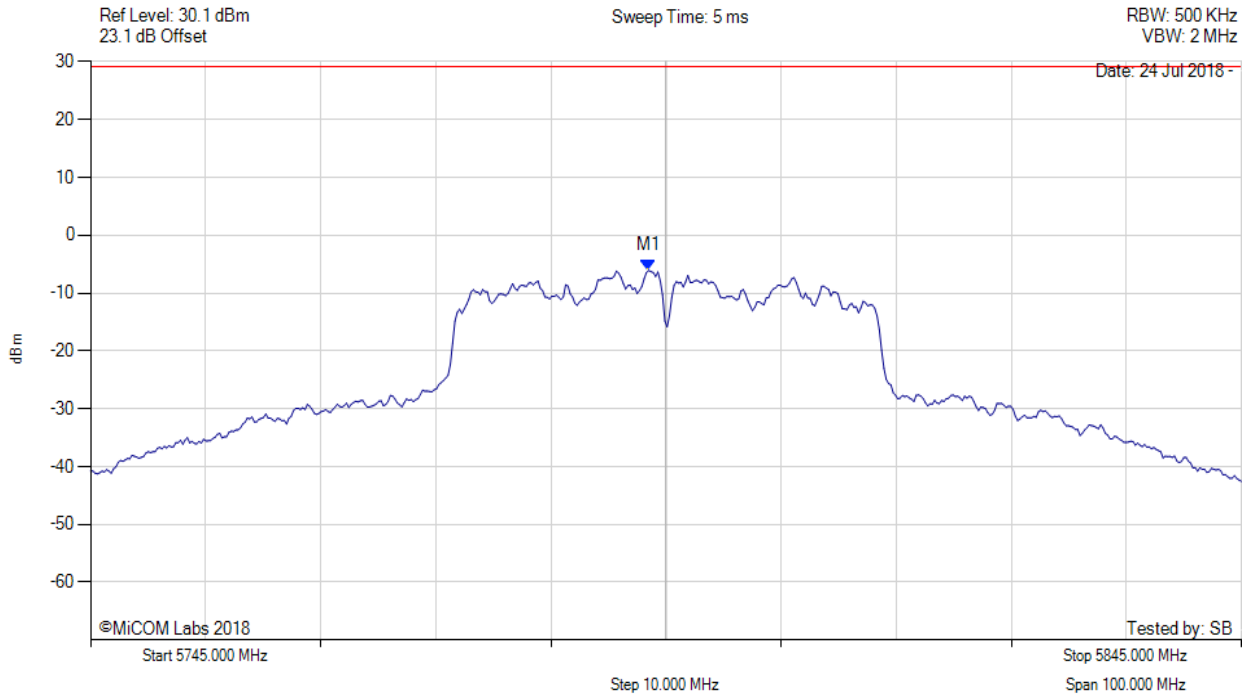


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5752.900 MHz : -5.196 dBm M1 + DCCF : 5752.900 MHz : -4.439 dBm Duty Cycle Correction Factor : +0.76 dB	Limit: ≤ 29.2 dBm Margin: -33.6 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain a, Temp: 20, Voltage: 5 Vdc

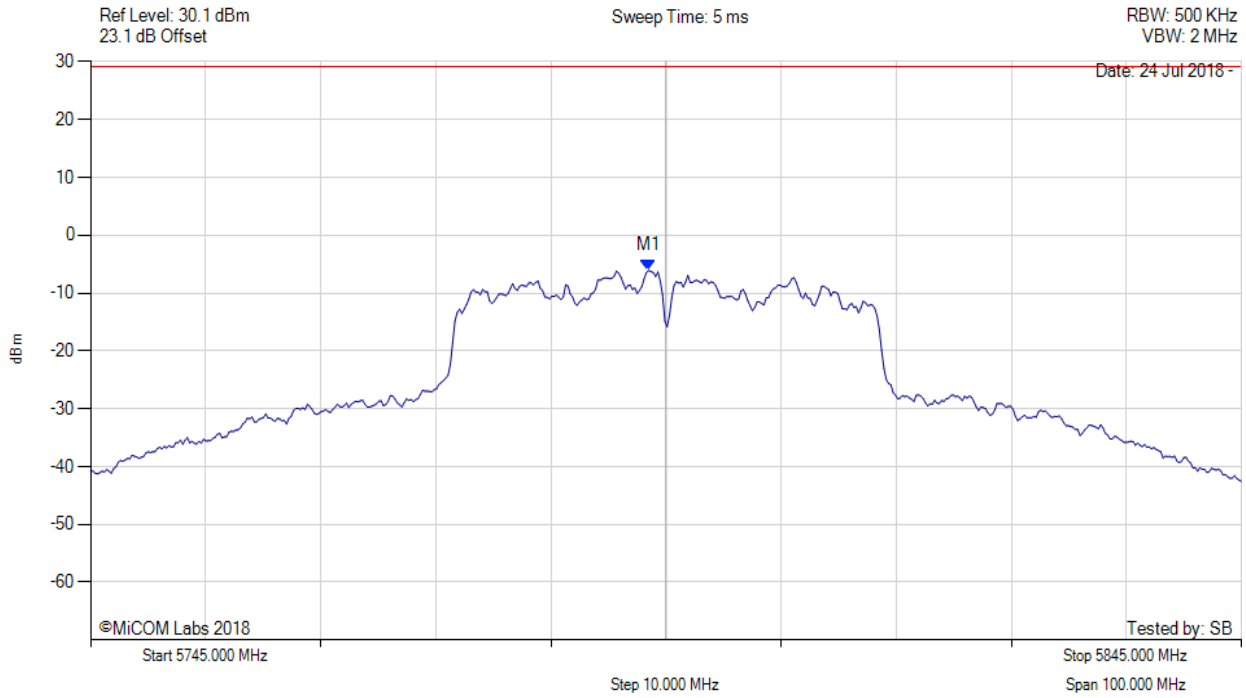


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5793.497 MHz : -6.087 dBm	Limit: ≤ 29.170 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5795.00 MHz, SUM, Temp: 20, Voltage: 5 Vdc

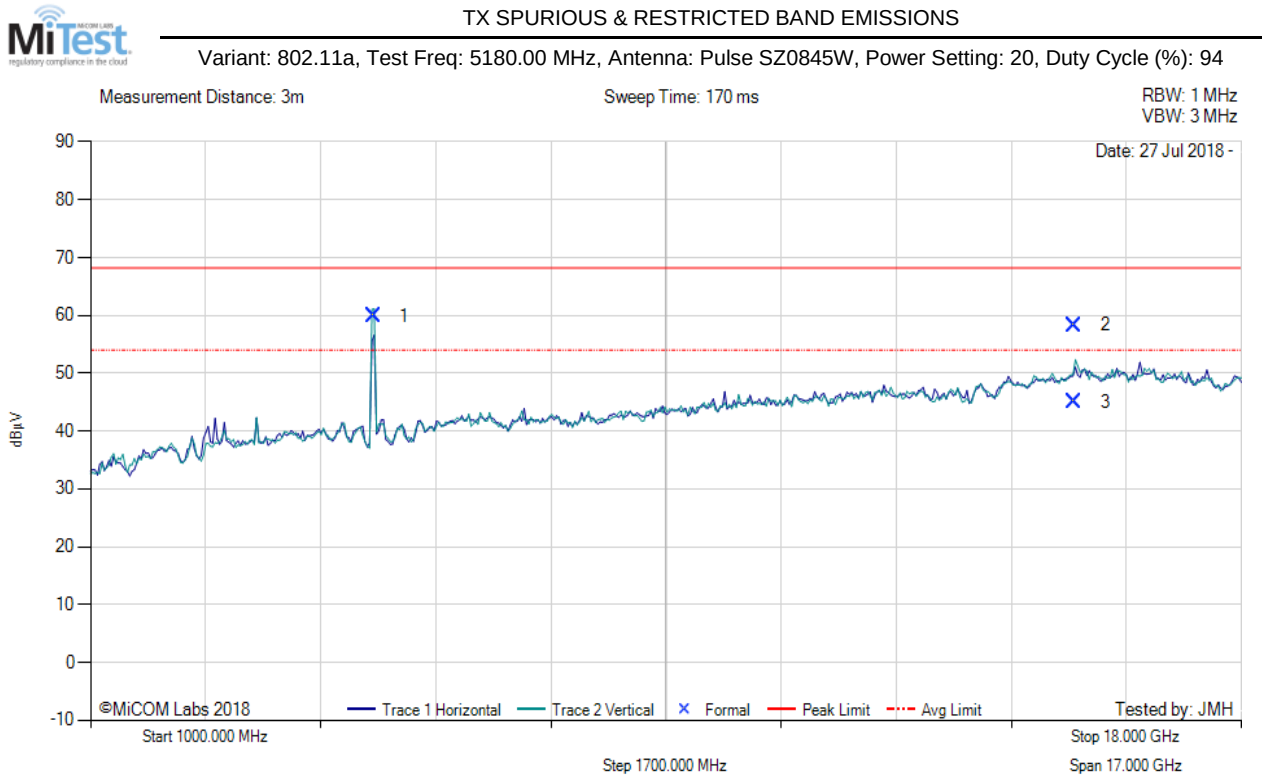


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5793.500 MHz : -6.087 dBm M1 + DCCF : 5793.500 MHz : -5.330 dBm Duty Cycle Correction Factor : +0.76 dB	Limit: ≤ 29.2 dBm Margin: -34.5 dB

back to matrix

A.4. Radiated

A.4.1. TX Spurious & Restricted Band Emissions



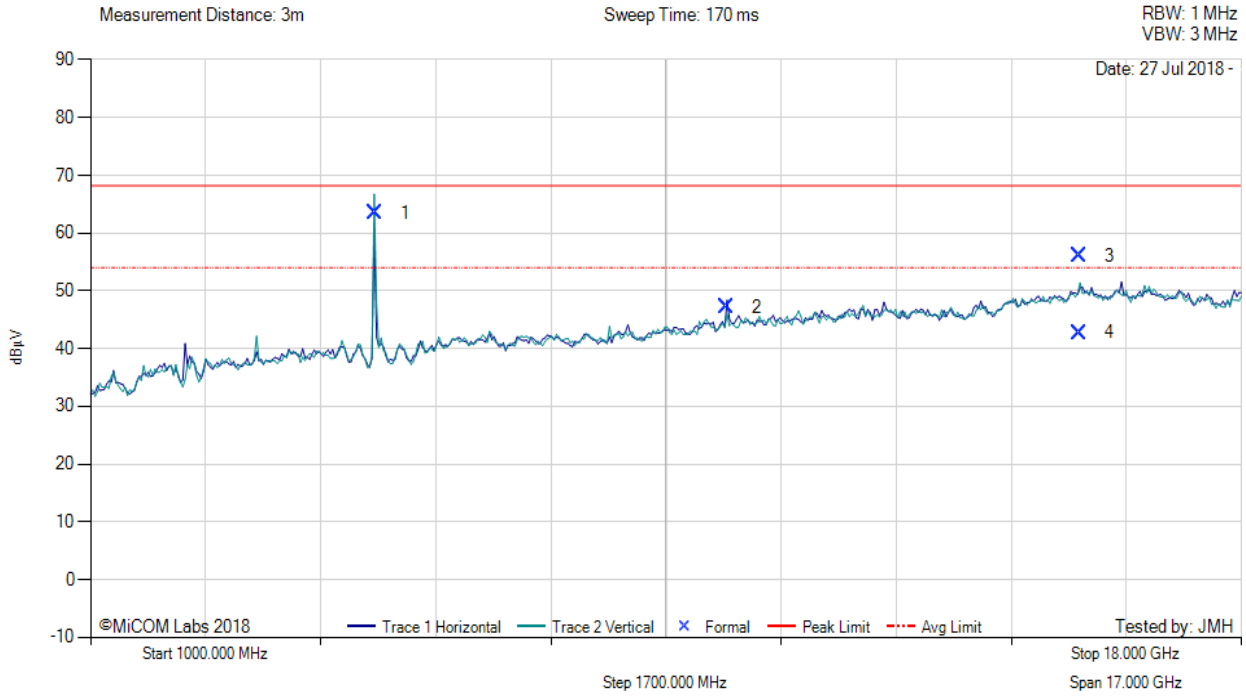
1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5180.30	68.69	3.12	-11.99	59.82	Fundamental	Vertical	100	0	--	--	
2	15537.89	55.05	5.41	-2.13	58.33	Max Peak	Vertical	195	285	68.2	-9.9	Pass
3	15537.89	41.79	5.41	-2.13	45.07	Max Avg	Vertical	195	285	54.0	-8.9	Pass

Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.

back to matrix

TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5200.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 20, Duty Cycle (%): 94



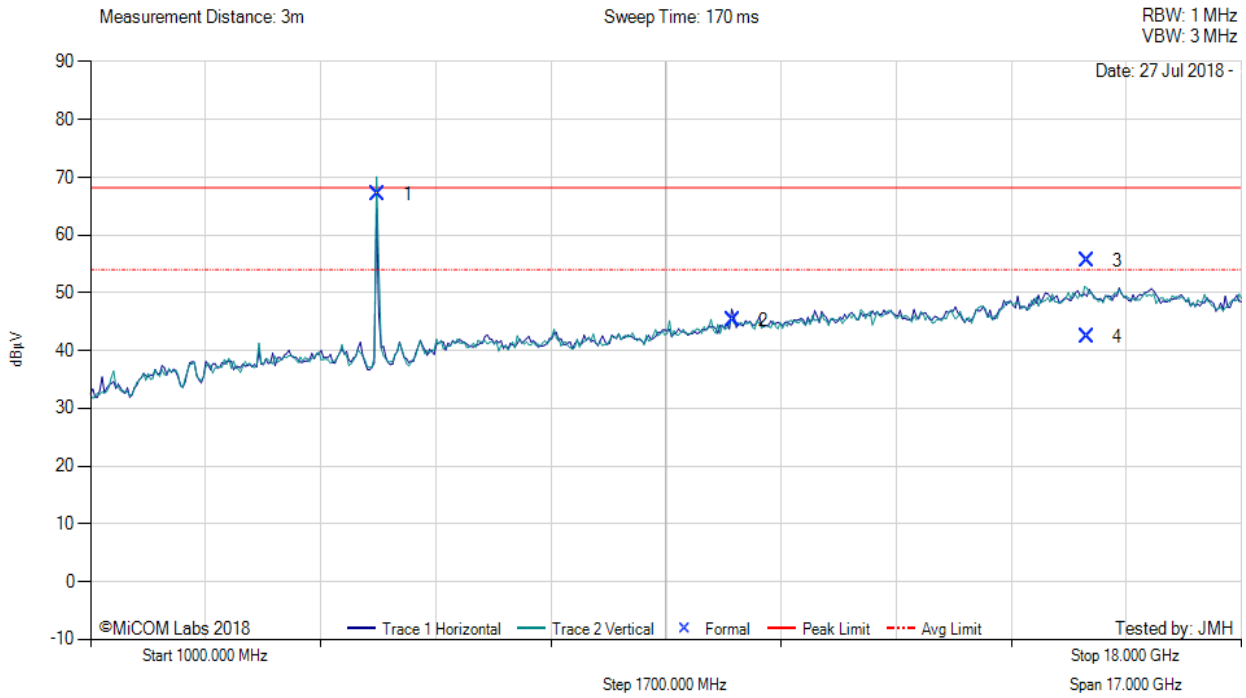
1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5204.43	72.29	3.09	-11.96	63.42	Fundamental	Vertical	100	0	--	--	
2	10399.84	48.58	4.41	-5.79	47.20	Peak (NRB)	Horizontal	150	178	--	--	Pass
3	15601.66	52.06	5.58	-1.62	56.02	Max Peak	Vertical	117	336	68.2	-12.2	Pass
4	15601.66	38.74	5.58	-1.62	42.70	Max Avg	Vertical	117	336	54.0	-11.3	Pass

Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.

back to matrix

TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5240.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 20, Duty Cycle (%): 94



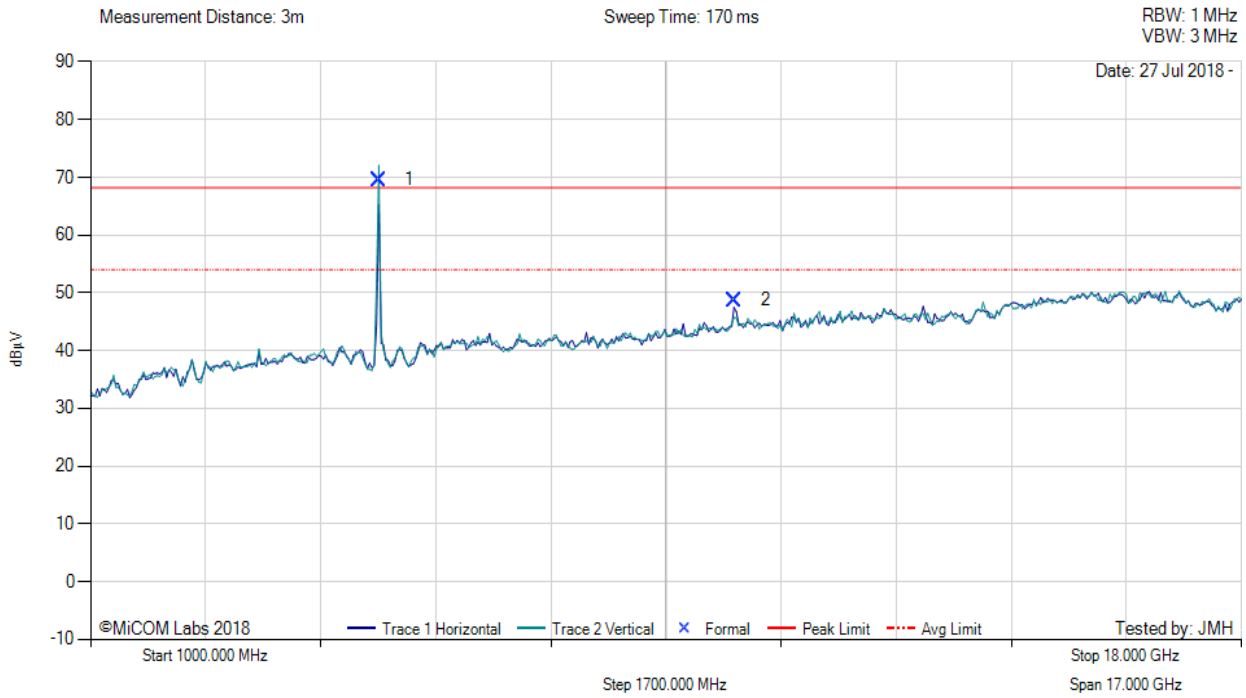
1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5238.72	76.20	3.12	-12.25	67.07	Fundamental	Vertical	100	0	--	--	
2	10482.35	47.12	4.37	-6.20	45.29	Peak (NRB)	Horizontal	100	293	--	--	Pass
3	15718.04	52.04	5.49	-1.95	55.58	Max Peak	Vertical	123	357	68.2	-12.7	Pass
4	15718.04	38.88	5.49	-1.95	42.42	Max Avg	Vertical	123	357	54.0	-11.6	Pass

Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.

back to matrix

TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5260.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 20, Duty Cycle (%): 94



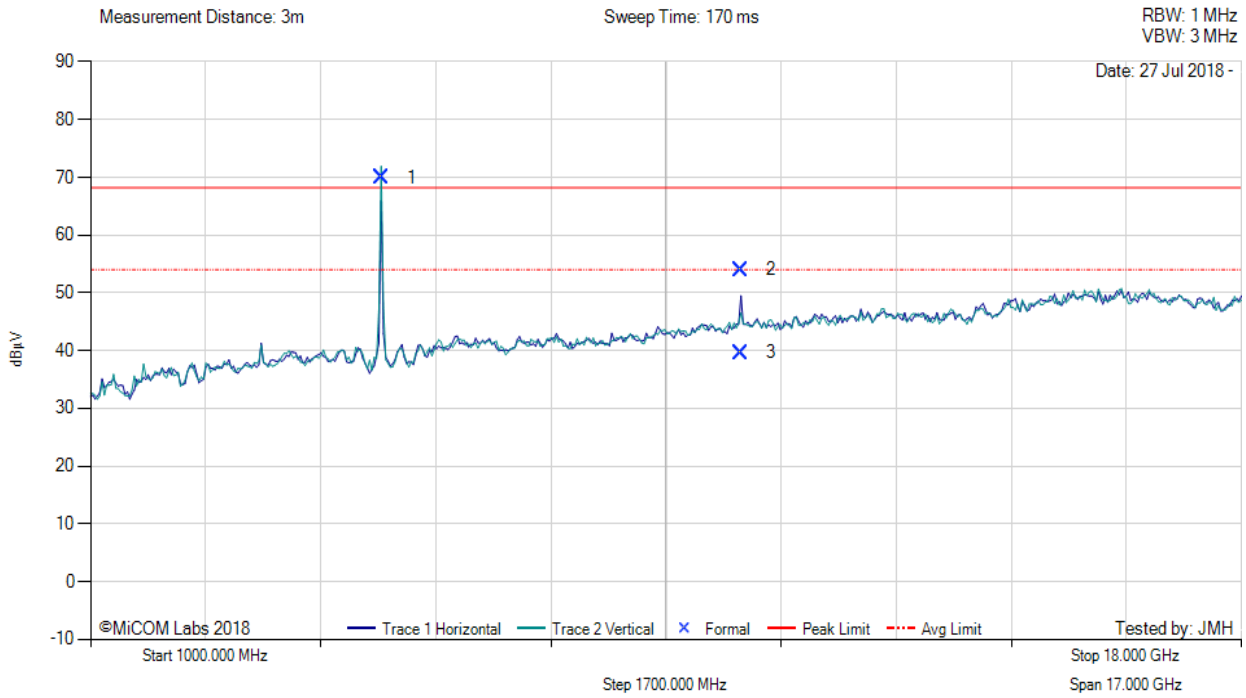
1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5265.63	78.55	3.09	-12.04	69.60	Fundamental	Vertical	100	0	--	--	
2	10518.51	50.38	4.48	-6.14	48.72	Peak (NRB)	Horizontal	100	276	--	--	Pass

Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.

back to matrix

TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5300.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 20, Duty Cycle (%): 94



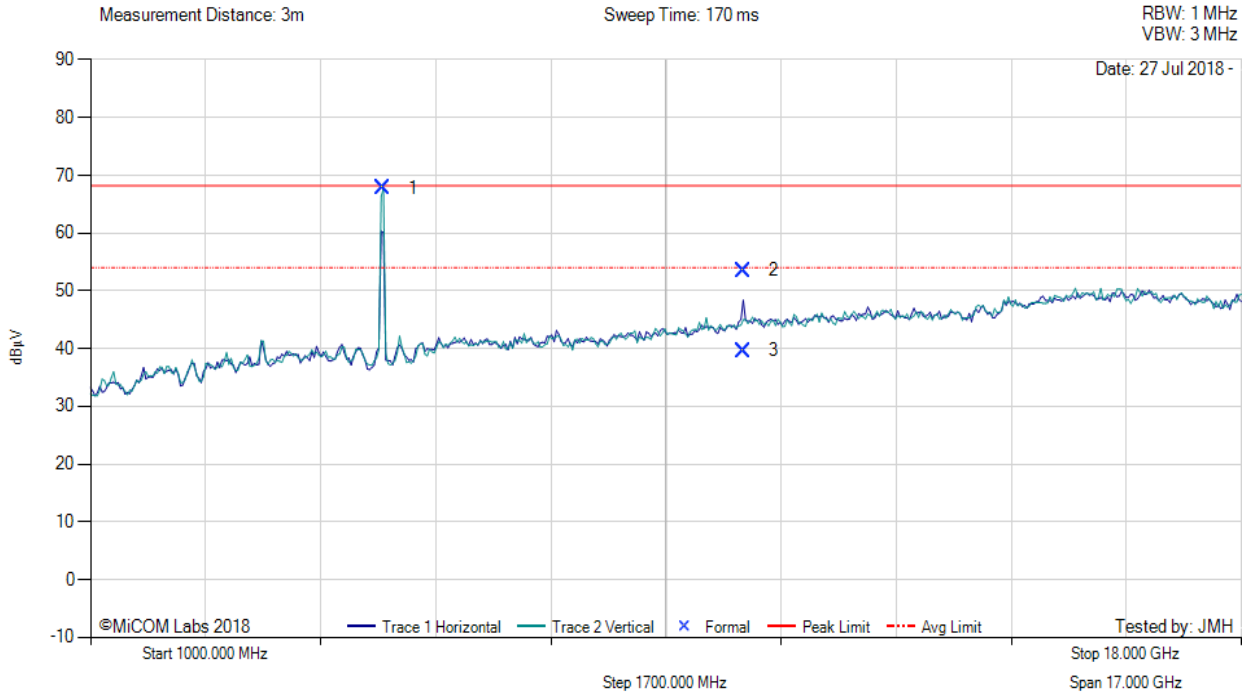
1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5302.59	78.55	3.19	-11.84	69.90	Fundamental	Vertical	100	0	--	--	
2	10601.31	54.61	4.77	-5.40	53.98	Max Peak	Horizontal	186	178	68.2	-14.3	Pass
3	10601.31	40.27	4.77	-5.40	39.64	Max Avg	Horizontal	186	178	54.0	-14.4	Pass

Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.

back to matrix

TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5320.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 20, Duty Cycle (%): 94



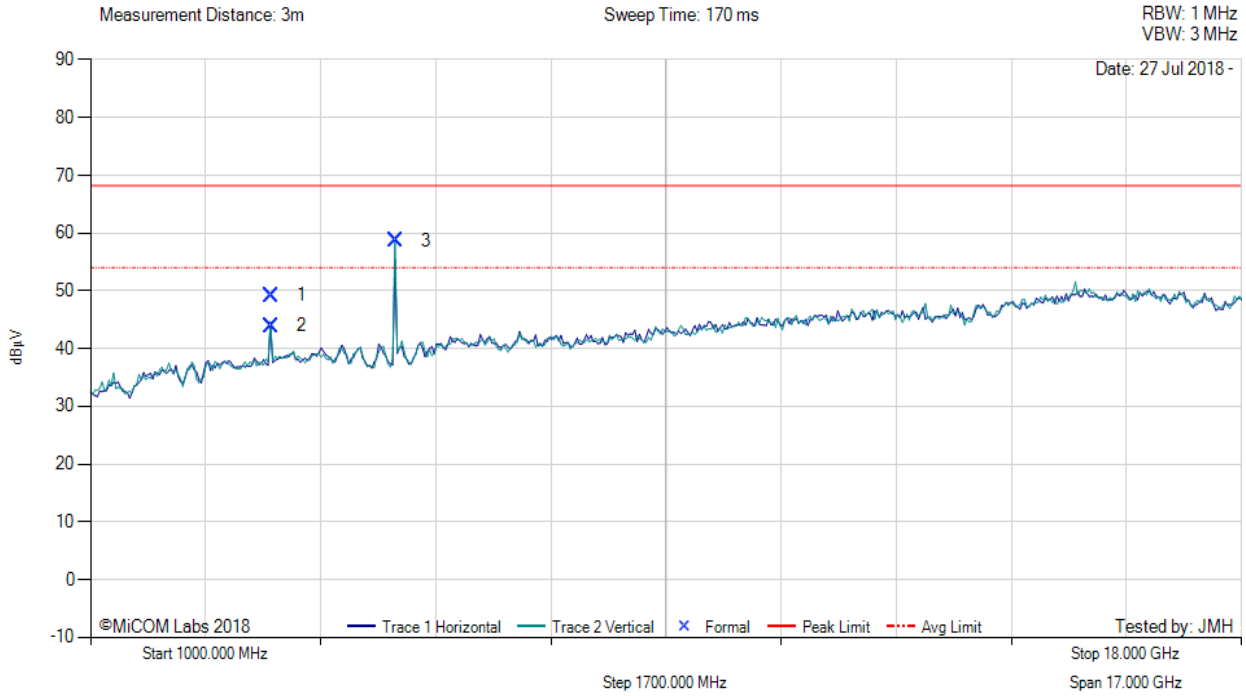
1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5319.76	76.88	3.10	-12.18	67.80	Fundamental	Vertical	100	0	--	--	
2	10638.68	54.01	4.58	-5.04	53.55	Max Peak	Horizontal	175	176	68.2	-14.7	Pass
3	10638.68	40.09	4.58	-5.04	39.63	Max Avg	Horizontal	175	176	54.0	-14.4	Pass

Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.

back to matrix

TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5500.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 20, Duty Cycle (%): 85



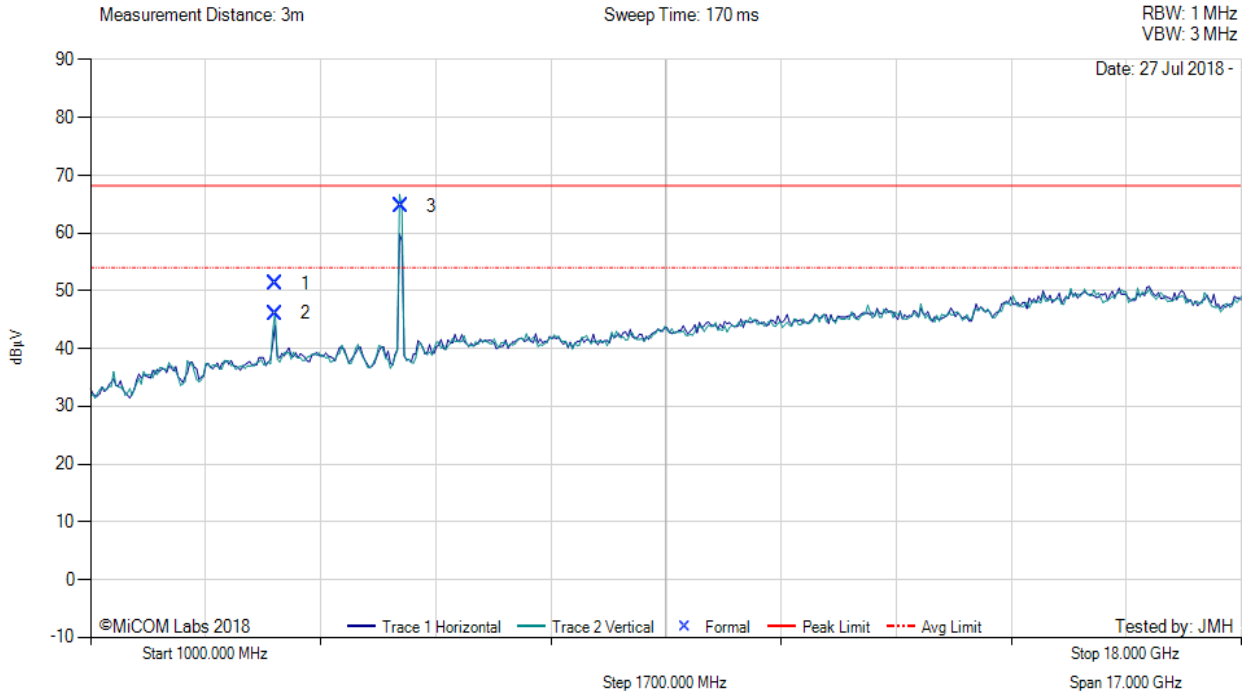
1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	3666.62	58.26	2.66	-11.67	49.25	Max Peak	Vertical	98	215	68.2	-19.0	Pass
2	3666.62	52.93	2.66	-11.67	43.92	Max Avg	Vertical	98	215	54.0	-10.1	Pass
3	5502.01	67.00	3.28	-11.61	58.67	Fundamental	Vertical	100	210	--	--	

Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.

back to matrix

TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5580.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 20, Duty Cycle (%): 85



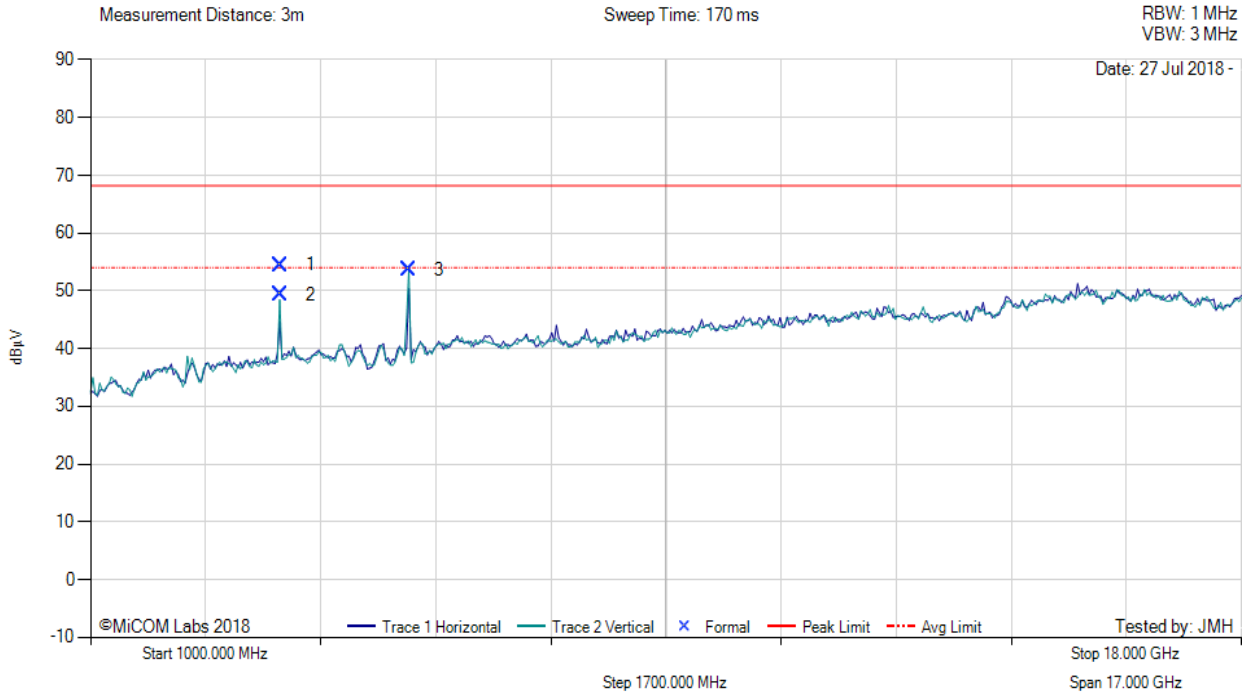
1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	3720.06	60.25	2.73	-11.72	51.26	Max Peak	Vertical	154	224	68.2	-17.0	Pass
2	3720.06	55.11	2.73	-11.72	46.12	Max Avg	Vertical	154	224	54.0	-7.9	Pass
3	5580.51	72.87	3.17	-11.43	64.61	Fundamental	Vertical	151	44	--	--	

Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.

back to matrix

TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5700.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 20, Duty Cycle (%): 85



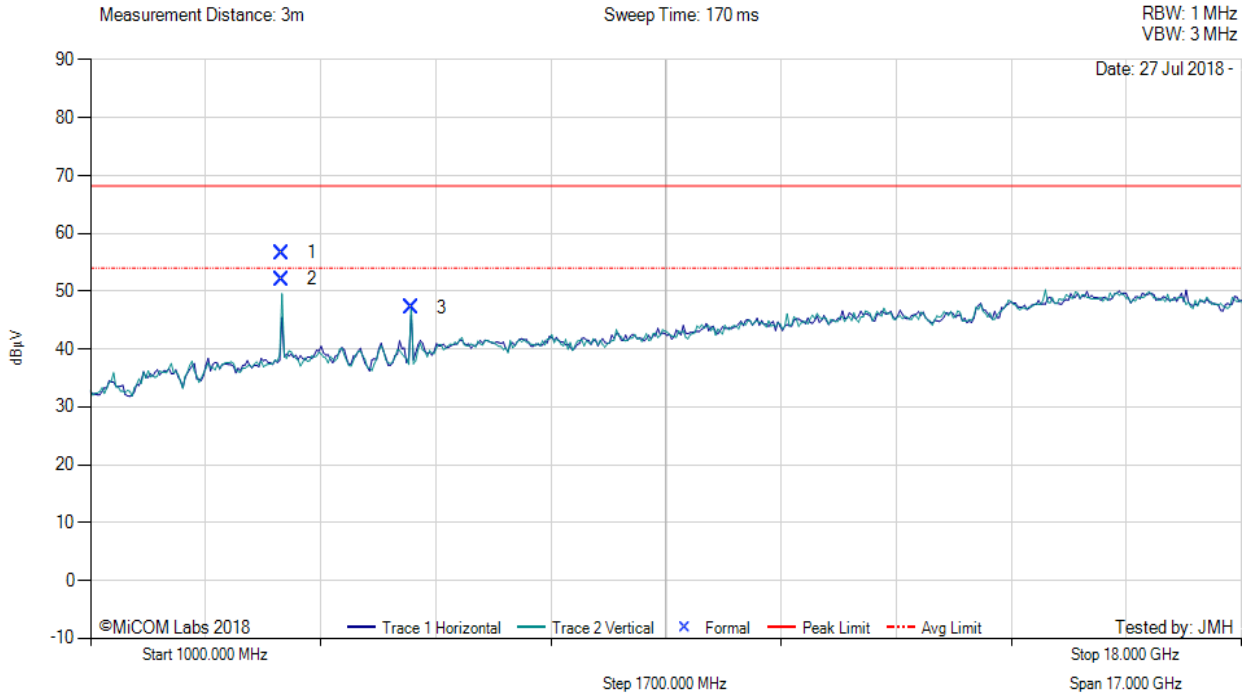
1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	3800.15	63.33	2.73	-11.60	54.46	Max Peak	Vertical	142	224	68.2	-13.8	Pass
2	3800.15	58.25	2.73	-11.60	49.38	Max Avg	Vertical	142	224	54.0	-4.6	Pass
3	5701.40	61.41	3.20	-11.00	53.61	Fundamental	Vertical	100	0	--	--	

Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.

back to matrix

TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5745.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 20, Duty Cycle (%): 95



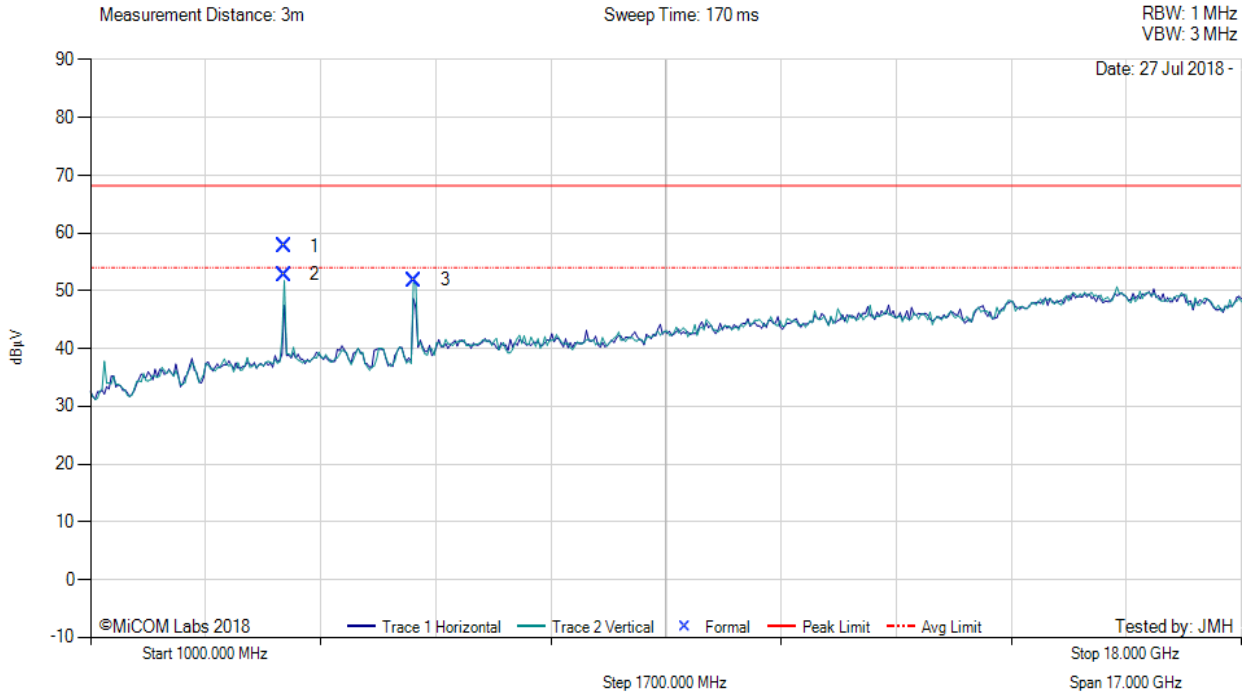
1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	3830.01	65.72	2.71	-11.77	56.66	Max Peak	Vertical	167	230	68.2	-11.6	Pass
2	3830.01	61.12	2.71	-11.77	52.06	Max Avg	Vertical	167	230	54.0	-1.9	Pass
3	5744.56	55.02	3.18	-11.06	47.14	Fundamental	Vertical	151	202	--	--	

Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.

back to matrix

TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5785.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 20, Duty Cycle (%): 95



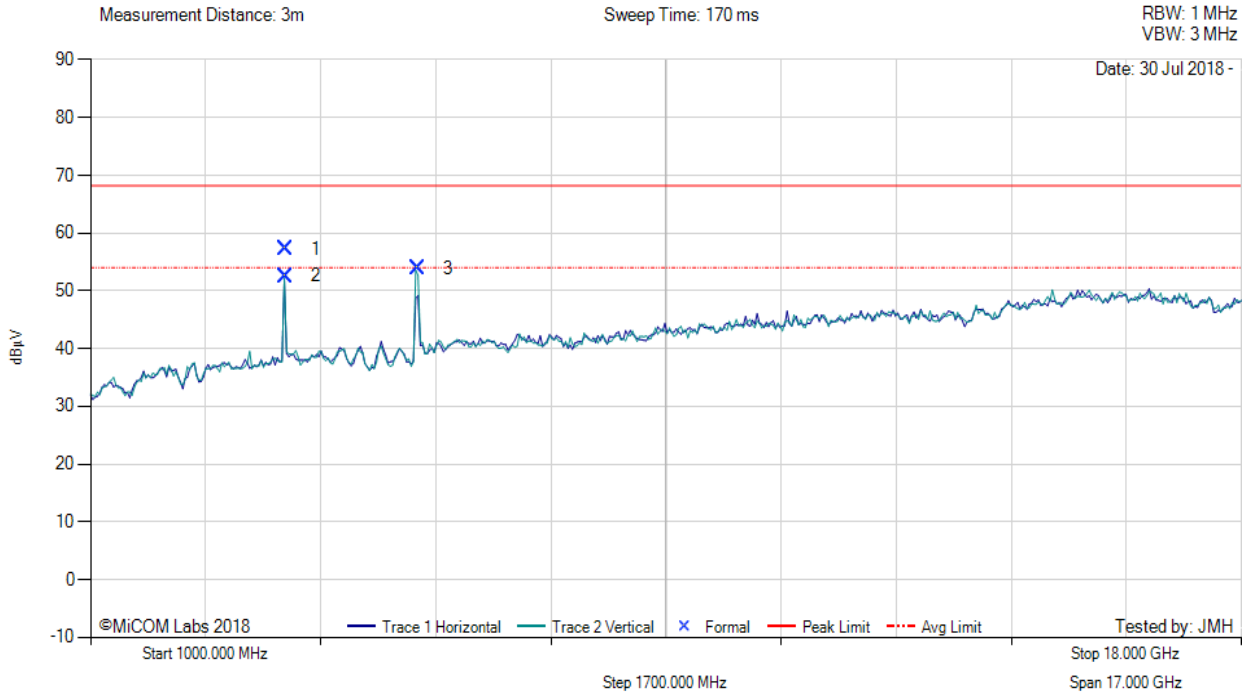
1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	3856.64	66.61	2.74	-11.61	57.74	Max Peak	Vertical	102	221	68.2	-10.5	Pass
2	3856.64	61.64	2.74	-11.61	52.77	Max Avg	Vertical	102	221	54.0	-1.2	Pass
3	5785.03	59.37	3.21	-10.78	51.80	Fundamental	Vertical	100	201	--	--	

Test Notes: EUT powered by and controlled by laptop. 5G Notch in front of amp to prevent overload. BLE pinging, not able to turn off. Using 2.4G notch to attenuate.

back to matrix

TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5825.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 20, Duty Cycle (%): 95

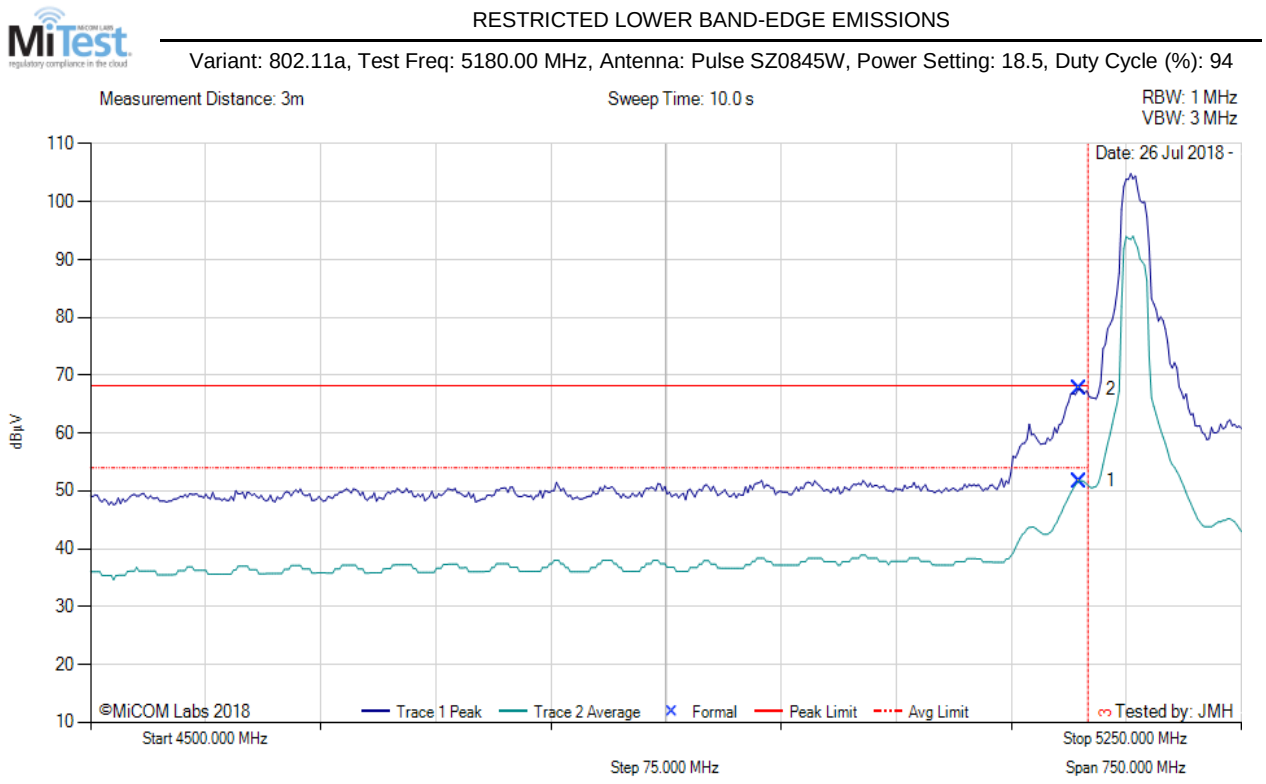


1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	3883.38	66.30	2.75	-11.75	57.30	Max Peak	Vertical	117	357	68.2	-10.9	Pass
2	3883.38	61.57	2.75	-11.75	52.57	Max Avg	Vertical	117	357	54.0	-1.4	Pass
3	5826.59	61.41	3.23	-10.80	53.84	Fundamental	Vertical	151	0	--	--	

Test Notes: Eut powered by and controlled by laptop. Nanit4 with RF cable rerouted on other side of PCB, pushed back to groundplane area of middle board

back to matrix

A.4.2. Restricted Edge & Band-Edge Emissions



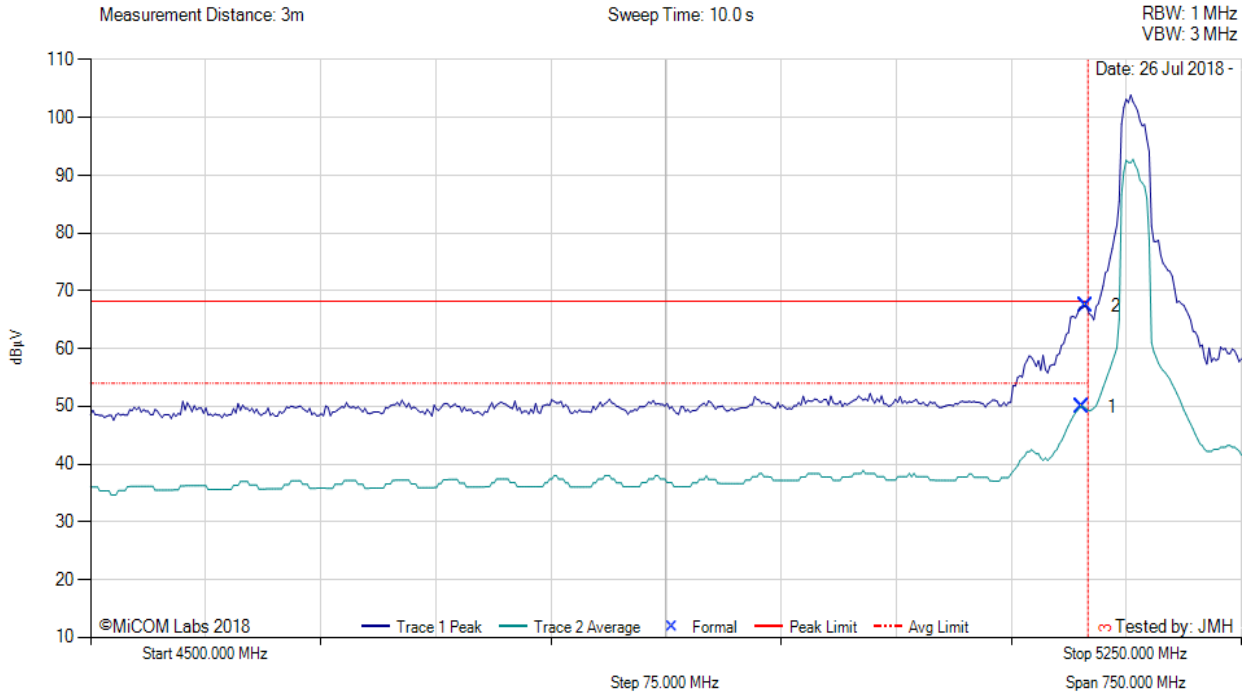
4500.00 - 5250.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5144.79	14.50	3.06	34.20	51.76	Max Avg	Vertical	141	303	54.0	-2.2	Pass
2	5144.79	30.33	3.06	34.20	67.59	Max Peak	Vertical	141	303	68.2	-0.6	Pass
3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by and controlled by laptop. Power reduced to meet band edge limit.

back to matrix

RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 5180.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 17.5, Duty Cycle (%): 94



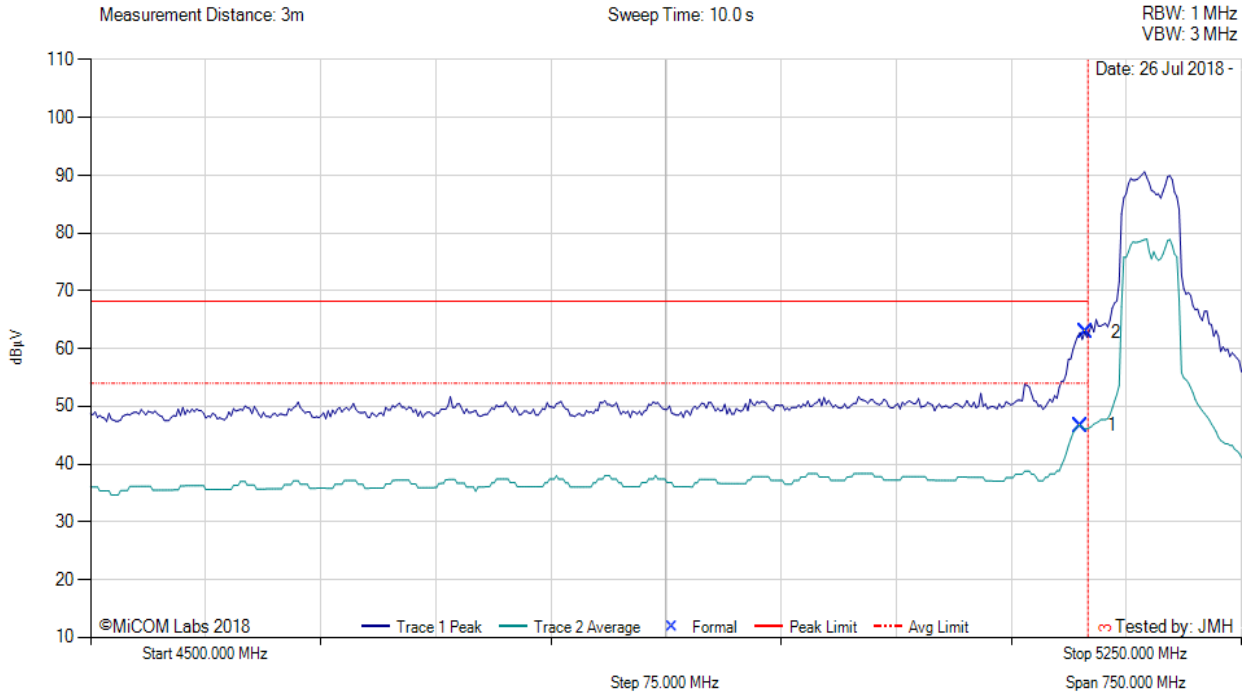
4500.00 - 5250.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5146.29	12.70	3.06	34.21	49.97	Max Avg	Vertical	141	303	54.0	-4.0	Pass
2	5148.50	30.08	3.06	34.21	67.35	Max Peak	Vertical	141	303	68.2	-0.9	Pass
3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by and controlled by laptop. Power reduced to meet band edge limit.

back to matrix

RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11n HT-40, Test Freq: 5190.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 18, Duty Cycle (%): 86



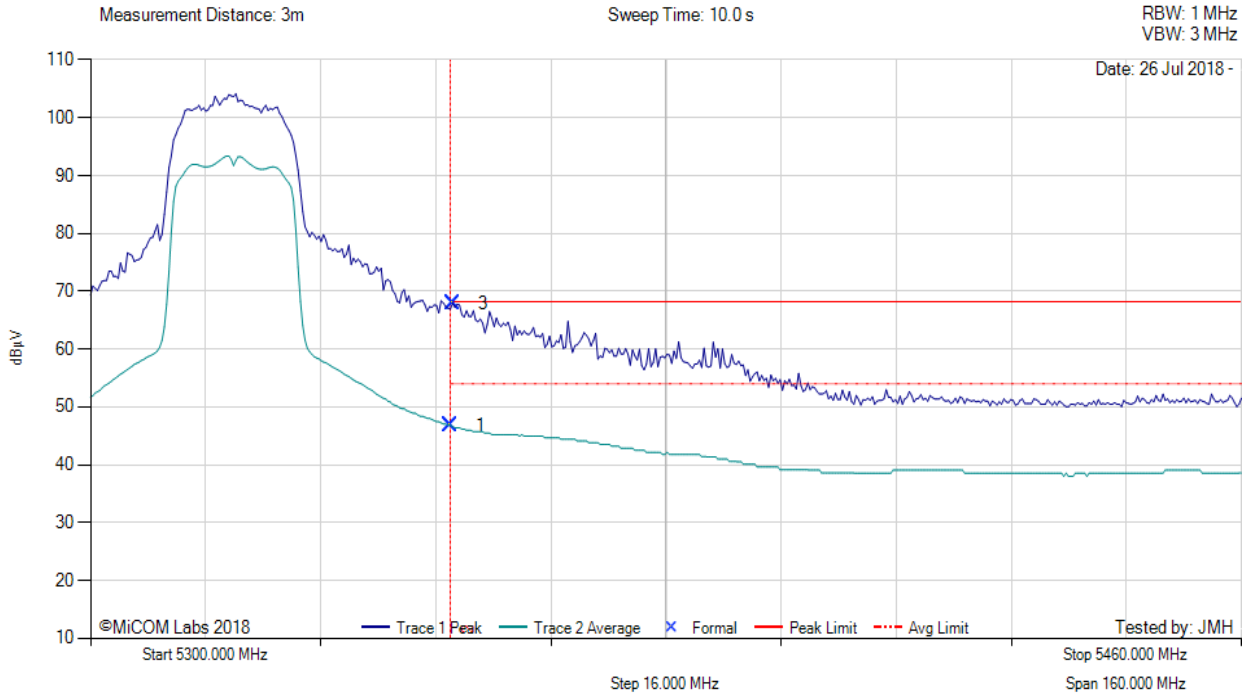
4500.00 - 5250.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5145.49	9.46	3.06	34.20	46.72	Max Avg	Horizontal	141	303	54.0	-7.3	Pass
2	5148.50	25.62	3.06	34.21	62.89	Max Peak	Horizontal	141	303	68.2	-5.3	Pass
3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by and controlled by laptop.

back to matrix

RESTRICTED UPPER BAND-EDGE EMISSIONS

Variant: 802.11a, Test Freq: 5320.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 15, Duty Cycle (%): 94



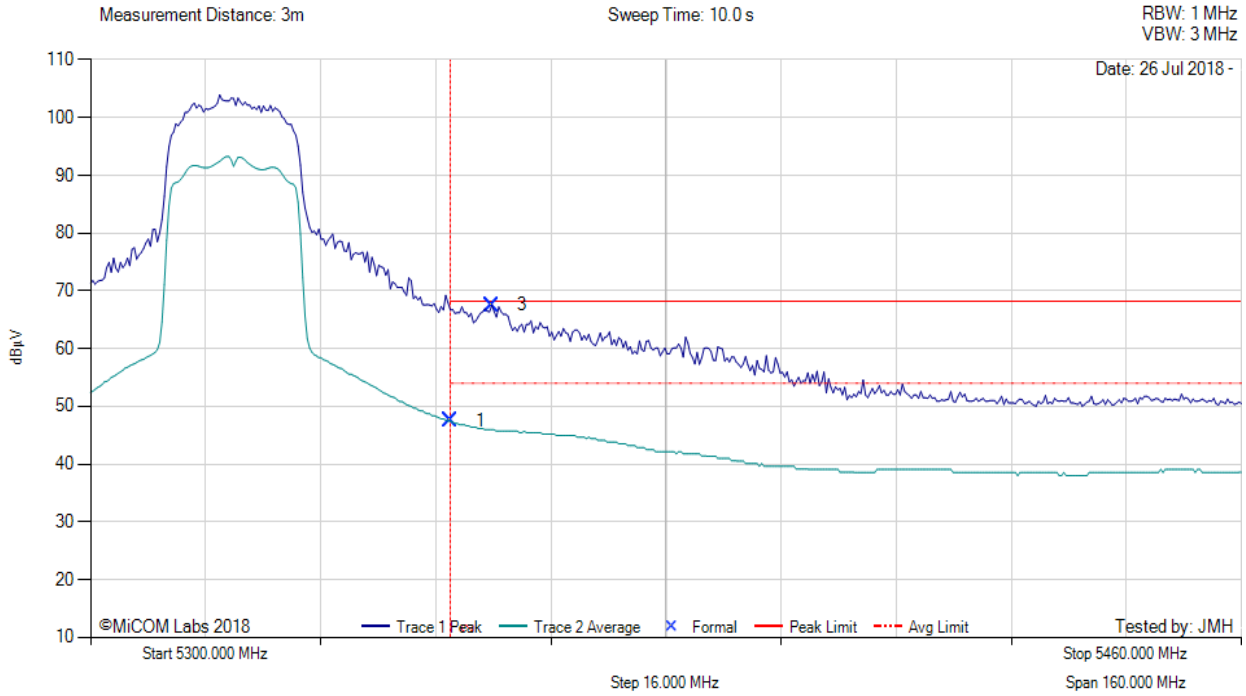
5300.00 - 5460.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5350.00	9.21	3.18	34.46	46.85	Max Avg	Vertical	159	329	54.0	-7.2	Pass
3	5350.32	30.29	3.18	34.46	67.93	Max Peak	Vertical	159	329	68.2	-0.3	Pass
2	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by and controlled by laptop. Power reduced to meet Band Edge Limit

back to matrix

RESTRICTED UPPER BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 5320.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 15.5, Duty Cycle (%): 94



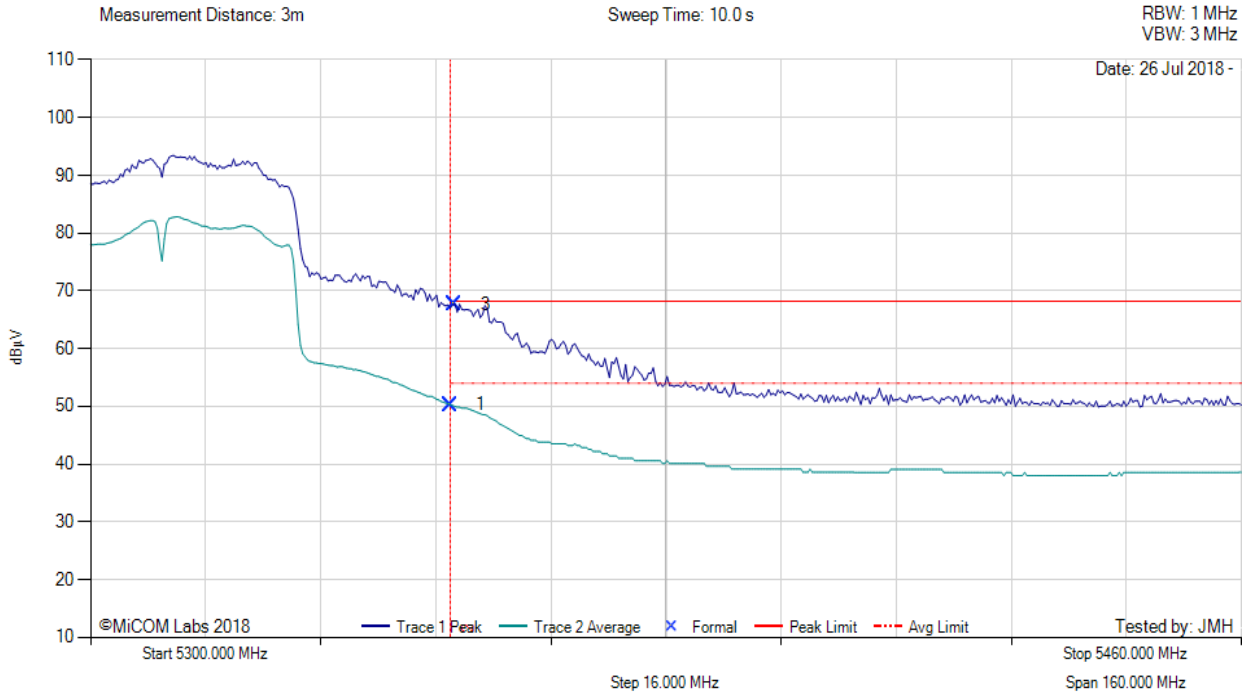
5300.00 - 5460.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5350.00	9.82	3.18	34.46	47.46	Max Avg	Vertical	159	330	54.0	-6.5	Pass
3	5355.77	29.89	3.16	34.47	67.52	Max Peak	Vertical	159	330	68.2	-0.7	Pass
2	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by and controlled by laptop. Power reduced to meet Band Edge Limit

back to matrix

RESTRICTED UPPER BAND-EDGE EMISSIONS

Variant: 802.11n HT-40, Test Freq: 5310.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 18, Duty Cycle (%): 85



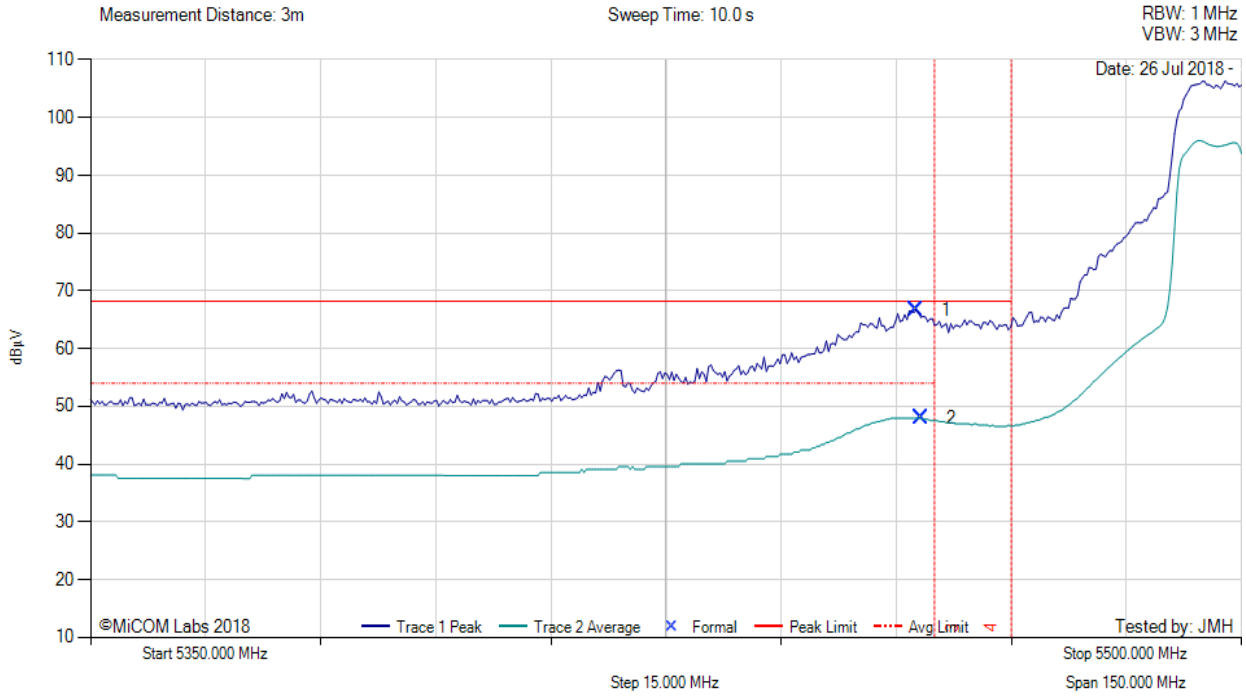
5300.00 - 5460.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5350.00	12.66	3.18	34.46	50.30	Max Avg	Horizontal	159	330	54.0	-3.7	Pass
3	5350.64	30.04	3.18	34.46	67.68	Max Peak	Horizontal	159	330	68.2	-0.6	Pass
2	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by and controlled by laptop.

back to matrix

RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11a, Test Freq: 5500.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 17.5, Duty Cycle (%): 85



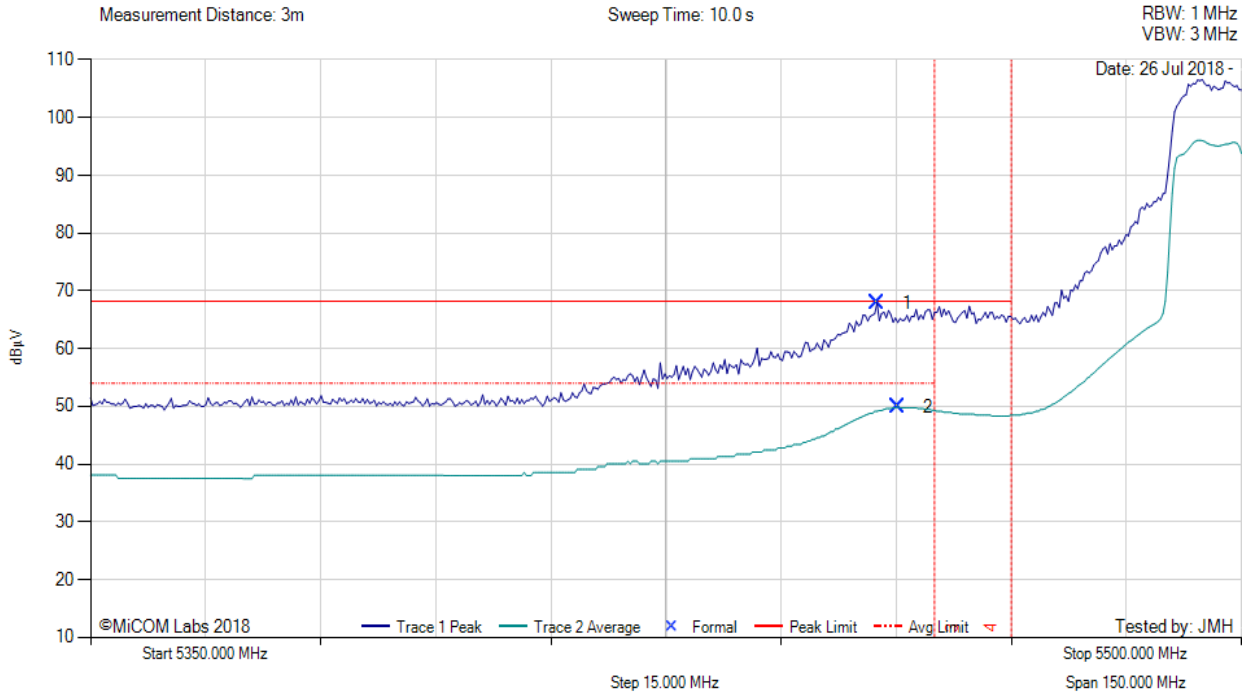
5350.00 - 5500.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5457.60	29.04	3.16	34.52	66.72	Max Peak	Vertical	164	323	68.2	-1.5	Pass
2	5458.20	10.27	3.16	34.52	47.95	Max Avg	Vertical	164	323	54.0	-6.1	Pass
3	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by and controlled by laptop. Power reduced to meet Band Edge Limit

back to matrix

RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 5500.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 18, Duty Cycle (%): 85



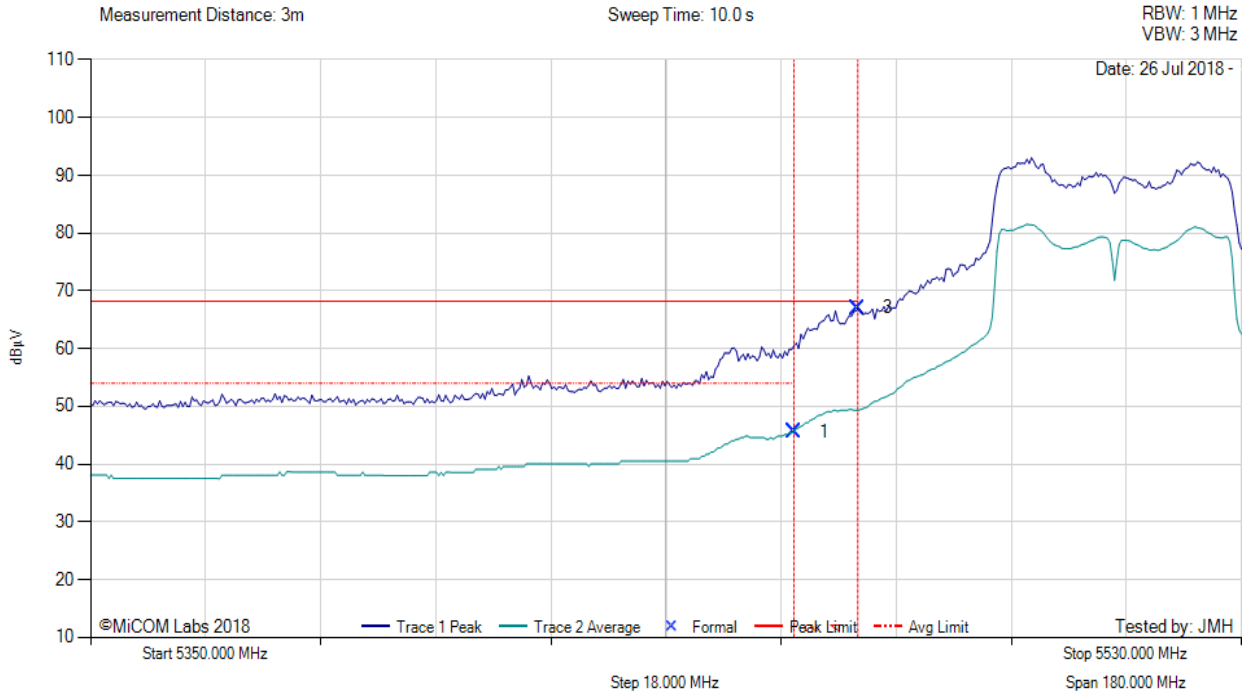
5350.00 - 5500.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5452.48	30.18	3.21	34.50	67.89	Max Peak	Vertical	164	323	68.2	-0.3	Pass
2	5455.19	12.23	3.18	34.51	49.92	Max Avg	Vertical	164	323	54.0	-4.1	Pass
3	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by and controlled by laptop. Power reduced to meet Band Edge Limit

back to matrix

RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11n HT-40, Test Freq: 5510.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 20, Duty Cycle (%): 84



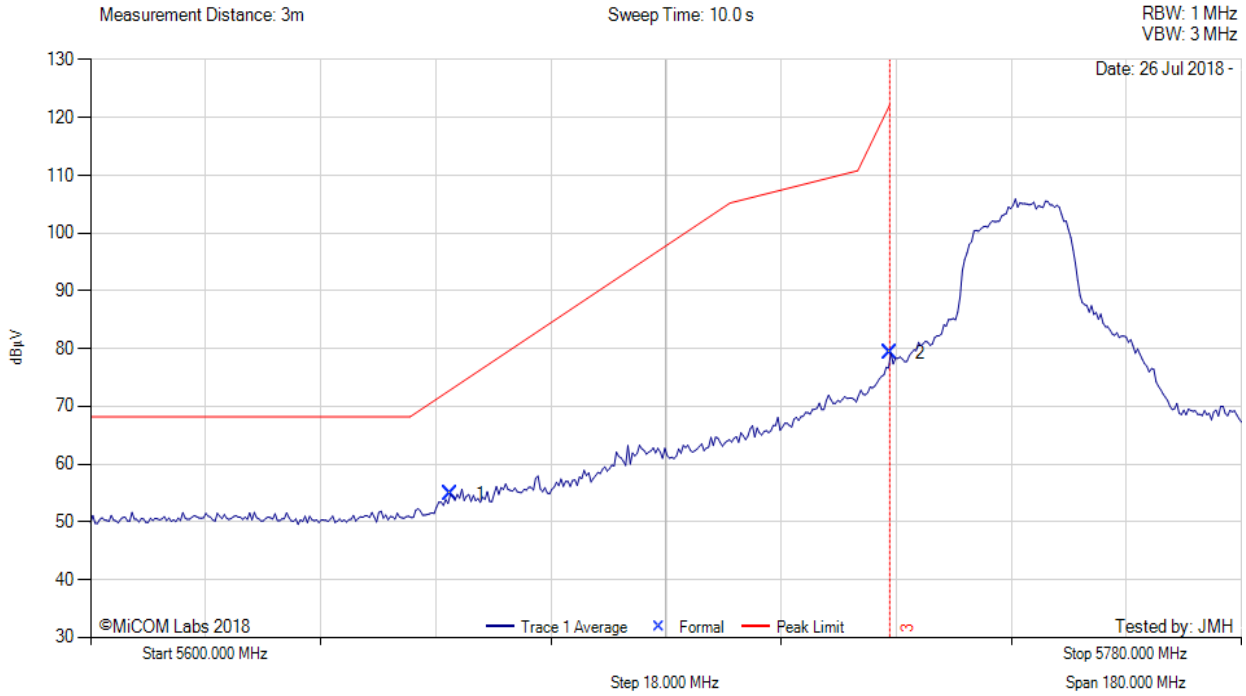
5350.00 - 5530.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5460.00	7.95	3.15	34.53	45.63	Max Avg	Horizontal	164	323	68.2	-22.6	Pass
3	5470.00	29.33	3.16	34.55	67.04	Max Peak	Horizontal	164	323	68.2	-1.2	Pass
2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by and controlled by laptop.

back to matrix

5725 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11a, Test Freq: 5745.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 20, Duty Cycle (%): 95



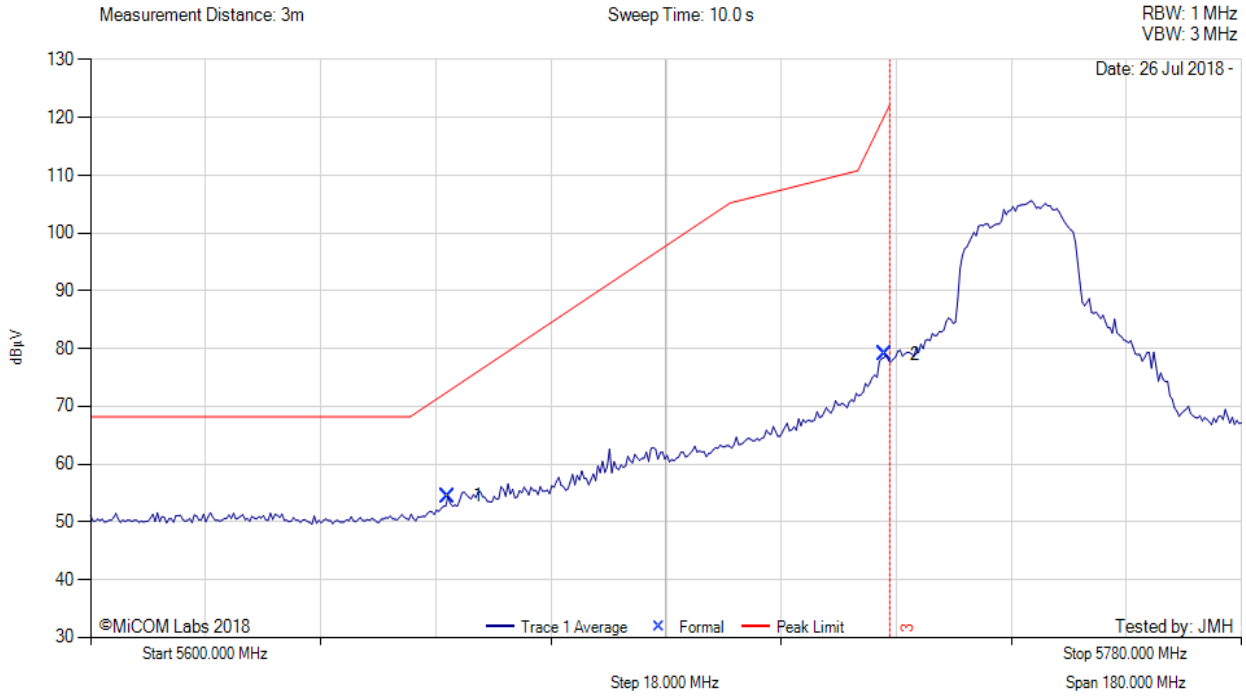
5600.00 - 5780.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5656.20	16.91	3.21	34.64	54.76	Max Peak	Vertical	167	347	72.6	-17.9	Pass
2	5725.00	41.32	3.17	34.72	79.21	Max Peak	Vertical	167	347	122.2	-43.0	Pass
3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by and controlled by laptop.

back to matrix

5725 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 5745.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 20, Duty Cycle (%): 95



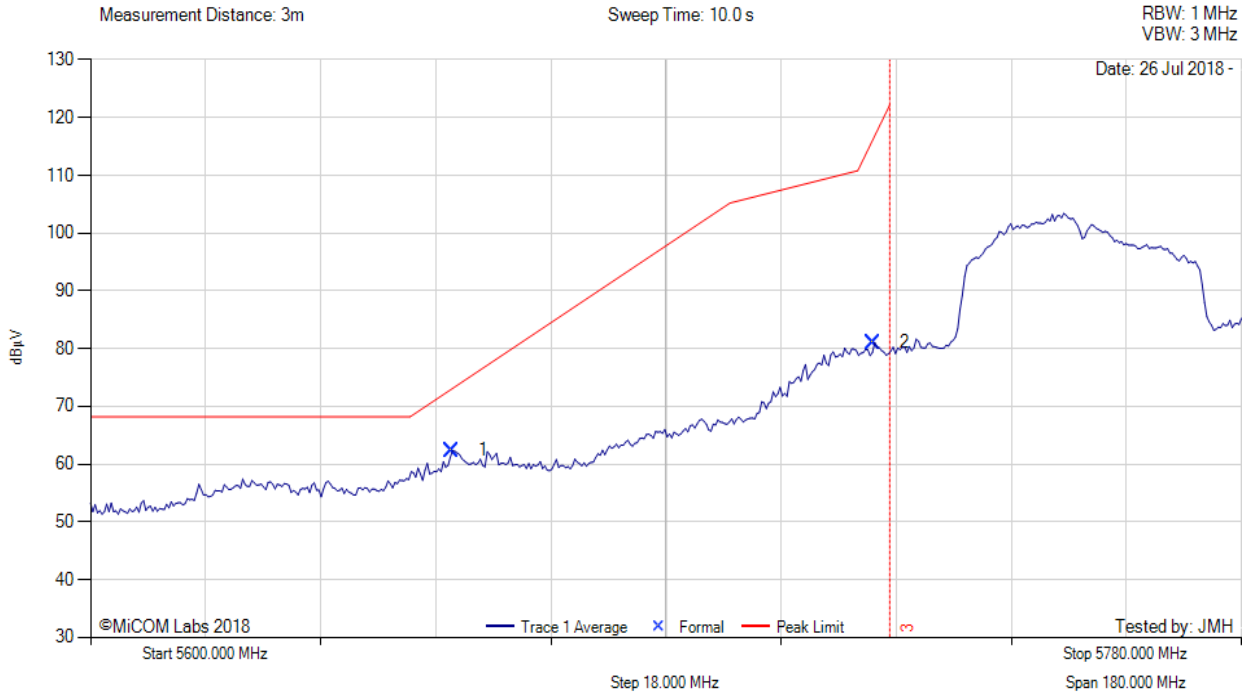
5600.00 - 5780.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5655.84	16.58	3.21	34.64	54.43	Max Peak	Vertical	167	347	72.6	-18.2	Pass
2	5724.28	41.06	3.17	34.72	78.95	Max Peak	Vertical	167	347	119.9	-41.0	Pass
3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by and controlled by laptop.

back to matrix

5725 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11n HT-40, Test Freq: 5755.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 20, Duty Cycle (%): 84



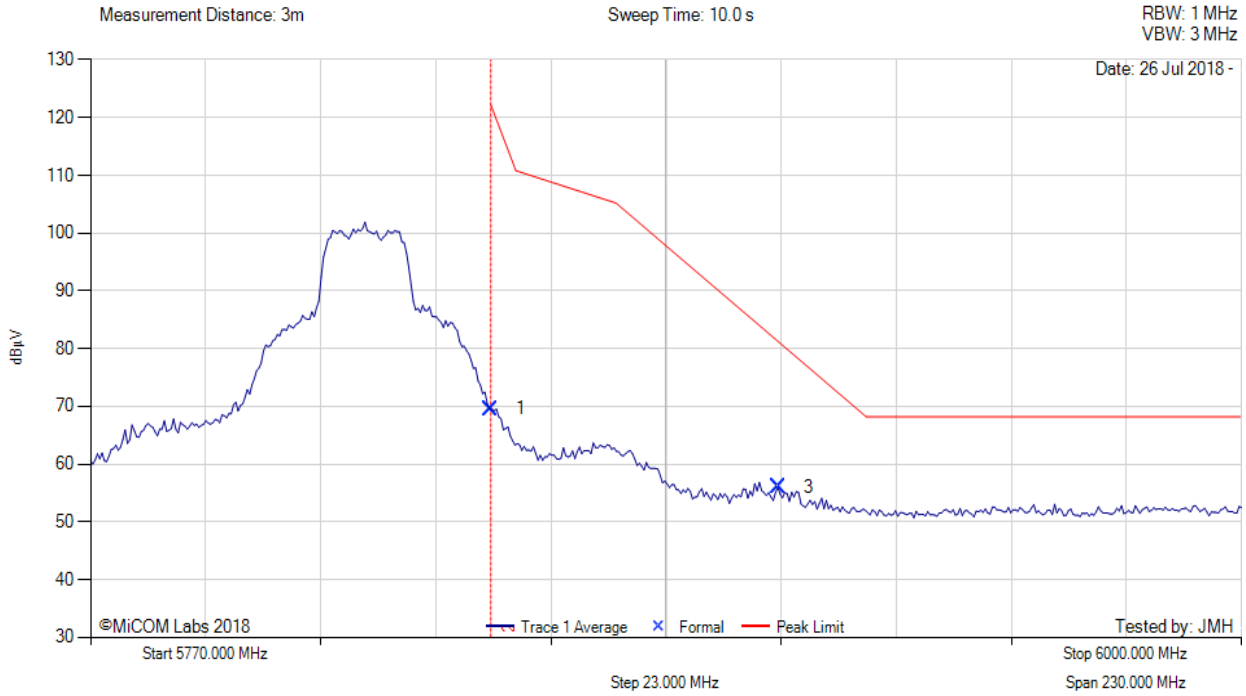
5600.00 - 5780.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5656.56	24.53	3.21	34.64	62.38	Max Peak	Vertical	167	347	73.4	-11.0	Pass
2	5722.47	43.20	3.17	34.72	81.09	Max Peak	Vertical	167	347	115.4	-34.3	Pass
3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by and controlled by laptop.

back to matrix

5850 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11a, Test Freq: 5825.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 20, Duty Cycle (%): 95



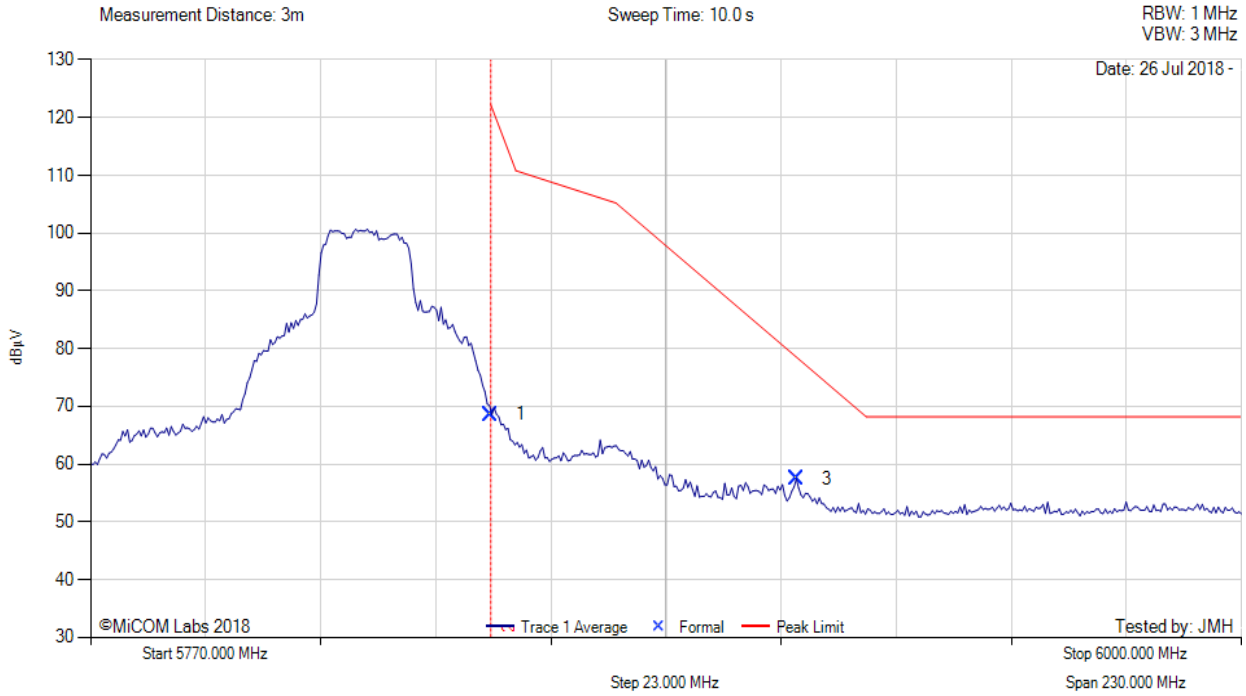
5770.00 - 6000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5850.00	31.42	3.20	34.96	69.58	Max Peak	Vertical	167	347	122.2	-52.6	Pass
3	5907.47	17.64	3.22	35.10	55.96	Max Peak	Vertical	167	347	81.5	-25.6	Pass
2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by and controlled by laptop.

back to matrix

5850 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 5825.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 20, Duty Cycle (%): 95



5770.00 - 6000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5850.00	30.42	3.20	34.96	68.58	Max Peak	Vertical	167	347	122.2	-53.6	Pass
3	5911.16	19.14	3.21	35.10	57.45	Max Peak	Vertical	167	347	78.6	-21.1	Pass
2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by and controlled by laptop.

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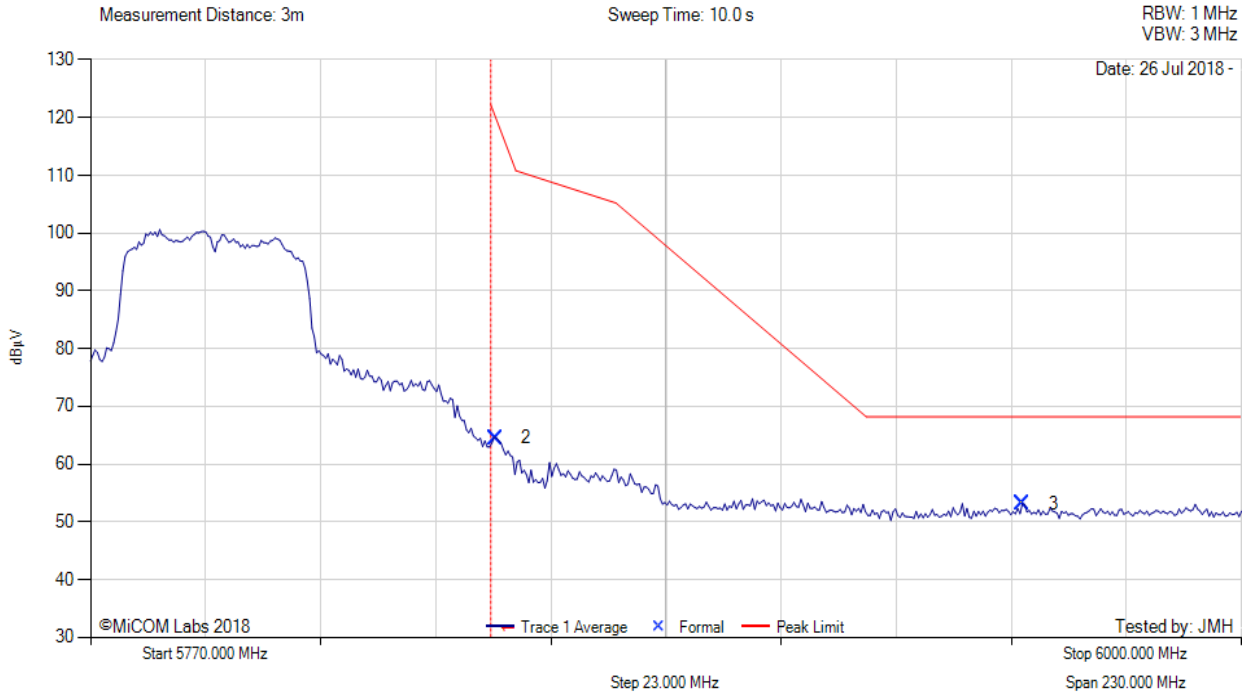
5850 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11n HT-40, Test Freq: 5795.00 MHz, Antenna: Pulse SZ0845W, Power Setting: 20, Duty Cycle (%): 84



5770.00 - 6000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
2	5850.92	26.41	3.20	34.96	64.57	Max Peak	Vertical	167	347	120.5	-55.9	Pass
3	5956.33	14.75	3.25	35.13	53.13	Max Peak	Vertical	167	347	68.2	-15.1	Pass
1	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by and controlled by laptop.

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