Company: Actiontec Electronics Inc.

Test of: WCB5000, WEB5000

To: FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS Bands)

Report No.: ATEC07-U8 Rev A

CONDUCTED TEST REPORT

FROM

MiCOM Labs
opening wireless markets

Test of: Actiontec Electronics Inc. WCB5000, WEB5000
to

To: FCC CFR 47 Part 15 Subpart E 15.407 (non-DFS Bands)

Test Report Serial No.: ATEC07-U8 Rev A

This report supersedes: NONE

Applicant: Actiontec Electronics Inc.
760 N Mary Avenue
Sunnyvale, California 94085
USA

Product Function: 11ac Wireless Ethernet Bridge with MoCA 2.0

Issue Date: 18th August 2015

This Test Report is Issued Under the Authority of:

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


American Association for Laboratory Accreditation

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 8 January 2009*).

Presented this 28th day of February 2014.

President & CEO
For the Accreditation Council
Certificate Number 2381.01
Valid to November 30, 2015

For the tests or types of 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

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	9th August 2015	
Draft #2	13th August 2015	
Rev A	18th August 2015	Initial Release
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In the above table the latest report revision will replace all earlier versions.

3. TEST RESULT CERTIFICATE

Manufacturer:	Actiontec Electronics Inc. 760 N Mary Avenue Sunnyvale, California 94085 USA	**Tested By:**	MiCOM Labs, Inc. 575 Boulder Court Pleasanton California 94566 USA
Model:	WC5000, WEB5000	**Telephone:** **Fax:**	+1 925 462 0304 +1 925 462 0306
Type Of Equipment:	802.11a/b/g/n/ac		
S/N's:	SB325280000030(#30)		
Test Date(s):	30th July – 5th August 2015	**Website:**	www.micomlabs.com

STANDARD(S)	TEST RESULTS
FCC CFR 47 Part 15 Subpart E 15.407	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	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 v01	10th June 2015	Test guidance to demonstrate compliance for U-NII devices subject to DFS requirements.
III	KDB 926956 DO1 v01r02	17th October 2014	U-NII Device Transition Plan
IV	KDB 789033 D02 v01	6th June 2014	General UNII Test Procedures New Rules V01
V	A2LA	June 2015	R105 - Requirement's When Making Reference to A2LA Accreditation Status
VI	ANSI C63.10	2013	American National Standard for Testing Unlicensed Wireless Devices
VII	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
VIII	CISPR 22	2008	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement
IX	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
X	FCC 06-96	Jun 3 2006	Memorandum Opinion and Order
XI	FCC 47 CFR Part 15.407	2014	Radio Frequency Devices; Subpart E –Unlicensed National Information Infrastructure Devices
XII	ICES-003	Issue 5 2012	Spectrum Management and Telecommunications; Interference-Causing Equipment Standard. Information Technology Equipment (ITE) – Limits and methods of measurement.
XIII	M 3003	Edition 3 Nov. 2012	Expression of Uncertainty and Confidence in Measurements
XIV	RSS-247 Issue 1	May 2015	Digital Transmission Systems (DTSs), Frequency Hopping System (FHSs) and Licence-Exempt Local Area Network (LE-LEN) Devices
XV	RSS-Gen Issue 4	November 2014	General Requirements and Information for the Certification of Radiocommunication Equipment
XVI	KDB 644545 D03 v01	August 14th 2014	Guidance for IEEE 802.11ac New Rules
XVII	FCC 47 CFR Part 2.1033	2014	FCC requirements and rules regarding photographs and test setup diagrams.

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 Actiontec Electronics Inc. WCB5000, WEB5000 to FCC CFR 47 Part 15 Subpart E 15.407. Radio Frequency Devices; Subpart E –Unlicensed National Information Infrastructure Devices
Applicant:	Actiontec Electronics Inc. 760 N Mary Avenue Sunnyvale California 94085 USA
Manufacturer:	As Applicant
Laboratory performing the tests:	MiCOM Labs, Inc. 575 Boulder Court Pleasanton California 94566 USA
Test report reference number:	ATEC07-U8
Date EUT received:	30th July 2015
Standard(s) applied:	FCC CFR 47 Part 15 Subpart E 15.407
Dates of test (from - to):	30th July - 5th August 2015
No of Units Tested:	1
Type of Equipment:	Wireless Ethernet Bridge with MoCA 2.0
Product Family Name:	Wireless Ethernet Bridge
Model(s):	WCB5000, WEB5000
Location for use:	Indoor
Declared Frequency Range(s):	5150 – 5250, 5725 - 5850 MHz;
Primary function of equipment:	Wireless Ethernet Bridge
Secondary function of equipment:	MoCA Router
Type of Modulation:	OFDM
EUT Modes of Operation:	5150 – 5250, 5725 - 5850 MHz: 802.11a; 802.11ac-80; 802.11n HT-20; 802.11n HT-40;
Declared Nominal Output Power (Ave):	+25 dBm
Transmit/Receive Operation:	Transceiver - Half Duplex
Rated Input Voltage and Current:	AC/ DC adaptor (adaptor sold with unit) 12Vdc / 1.5A
Operating Temperature Range:	Declared Range 0°C to 40°C
ITU Emission Designator:	802.11a: 16M8D1D 802.11ac-80: 75M7D1D 802.11n HT-20: 17M9D1D 802.11n HT-40: 37M0D1D
Equipment Dimensions:	7.5” (H) x 1.75” (W) x 5.75” (D)
Weight:	0.95 lb.
Hardware Rev:	AM3
Software Rev:	2.2.1.2ac

5.2. Scope Of Test Program

The scope of the test program was to test the Actiontec Electronics Inc. WCB5000, 802.11a/b/g/n/ac configurations in the frequency ranges 5150 – 5250, 5725 - 5850 MHz; for compliance against the following specification:

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

Manufacturers Declaration of Similarity
Re: FCC ID: LNQWCB5000
Actiontec Models: WCB5000, WEB5000

To whom it may concern:
We, Actiontec Electronics, Inc., hereby declare the above mentioned 2 models have electrically identical wireless circuitry with the same electromagnetic emissions and electromagnetic compatibility characteristics.

The differences among these two models are as follows –
WCB5000 – fully loaded with MoCA, device tested for compliance – deemed worst test case
WEB5000 – fully loaded without MoCA

Actiontec Electronics Inc. WCB5000

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

Type	Description	Manufacturer	Model	Serial no.	Delivery Date
EUT	Wireless Ethernet Bridge with MoCA	Actiontec	WCB5000	SB325280000030 (#30)	30th July 2015
EUT	Power Adapter 100 - 120Vac 50/60Hz 0.6A 12 Vdc 1.5 A	Actiontec	KSASB0241200150HU	Unknown	30th July 2015
Support Equipment	Laptop Computer with EUT RF Software	ACER	MS2265	LXPAW0X203923 1969520000	30th July 2015

5.4. Antenna Details

Type	Manufacturer	Model	Family	Gain (dBi)	BF Gain	Dir BW	X-Pol	Frequency Band (MHz)
integral	Galtronics	Custom PCB	Dipole	4.1	-	360	-	5150 – 5250 5725 - 5850
integral	Galtronics	Custom PCB	Dipole	3.8	-	360	-	5150 – 5250 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
Ethernet	100m	2	N	RJ-45	Packet Data
MoCA	Unknown	1	Y	F-Type	Video

5.6. Test Configurations

Results for the following configurations are provided in this report:

Operational Mode(s) (802.11a/b/g/n/ac)	Data Rate with Highest Power MBit/s	Channel Frequency (MHz)		
		Low	Mid	High
5150 - 5250 MHz				
802.11a	6.00	5180.00	5200.00	5240.00
802.11ac-80	29.30	5210.00	--	--
802.11n HT-20	6.50	5180.00	5200.00	5240.00
802.11n HT-40	13.50	5190.00	--	5230.00
5725 - 5850 MHz				
802.11a	6.00	5745.00	5785.00	5825.00
802.11ac-80	29.30	5775.00	--	5775.00
802.11n HT-20	6.50	5745.00	5785.00	5825.00
802.11n HT-40	13.50	5755.00	--	5795.00

5.7. Equipment Modifications

The following modifications were required to bring the equipment into compliance:
1. NONE

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

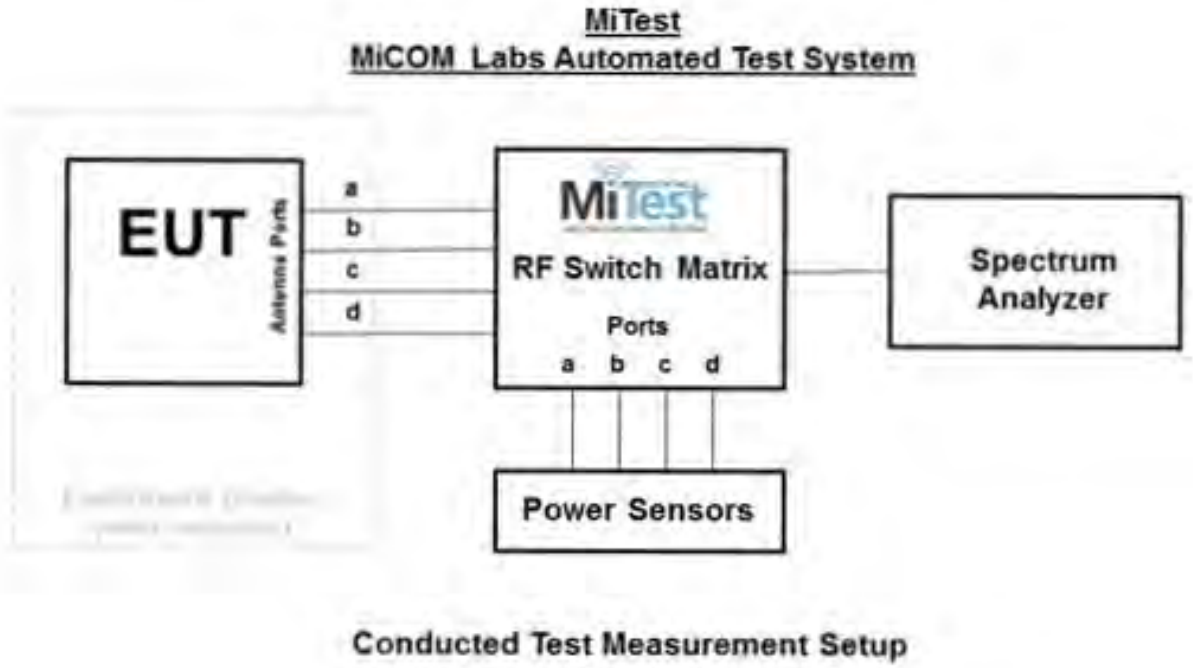
Test Header	Result	Data Link
Conducted Test Results		
Peak Transmit Power	Complies	View Data
26 dB & 99% Bandwidth	Complies	View Data
Power Spectral Density	Complies	View Data
Radiated Test Results		
Radiated Spurious Emissions	Complies	View Data
Restricted Band-Edge Emissions	Complies	View Data
Radiated Digital Emissions	Complies	View Data
ac Wireline Emissions		
ac Wireline Emissions	Complies	View Data

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.
1. Peak Transmit Power
2. 26 dB & 99% Bandwidth
3. Power Spectral Density



Conducted Test Measurement Setup

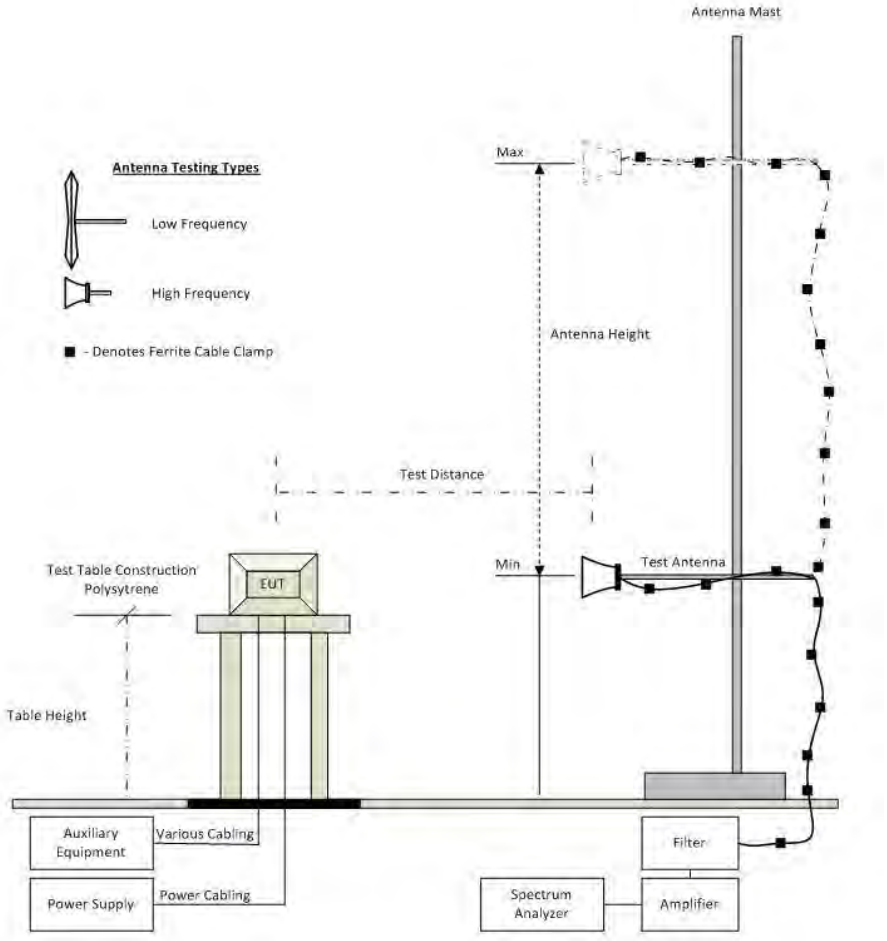
A full system calibration was performed on the test station and any resulting system losses (or gains) were taken into account in the production of all final measurement data.

Asset#	Description	Manufacturer	Model#	Serial#	Calibration Due Date
127	Power Supply	HP	6674A	US36370530	Cal when used
158	Barometer/Thermometer	Control Company	4196	E2846	04 Dec 2015
193	Receiver 20 Hz to 7 GHz	Rhode & Schwarz	ESI 7	838496/007	14 Jan 2016
248	Resistance Thermometer	Thermotronics	GR2105-02	9340 #1	30 Oct 2015
287	Rohde & Schwarz 40 GHz Receiver	Rhode & Schwarz	ESIB40	100201	31 Aug 2015
376	USB 10MHz - 18GHz Average Power Sensor	Agilent	U2000A	MY51440005	28 Oct 2015
381	4x4 RF Switch Box	MiCOM Labs	MiTest RF Switch Box	MIC002	20 Dec 2015
419	Laptop with Labview Software	Lenova	W520	TS02	Not Required
420	USB to GPIB Interface	National Instruments	GPIB-USB HS	1346738	Not Required
435	USB Wideband Power Sensor	Boonton	55006	8730	31 Aug 2015
440	USB Wideband Power Sensor	Boonton	55006	9178	25 Sep 2015
441	USB Wideband Power Sensor	Boonton	55006	9179	25 Sep 2015
442	USB Wideband Power Sensor	Boonton	55006	9181	25 Sep 2015
74	Environmental Chamber Chamber 3	Tenney	TTC	12808-1	30 Sep 2015
RF#2 GPIB#1	GPIB cable to Power Supply	HP	GPIB	None	Not Required
RF#2 SMA#1	EUT to Mitest box port 1	Flexco	SMA Cable port1	None	20 Dec 2015
RF#2 SMA#2	EUT to Mitest box port 2	Flexco	SMA Cable port2	None	20 Dec 2015
RF#2 SMA#3	EUT to Mitest box port 3	Flexco	SMA Cable port3	None	20 Dec 2015
RF#2 SMA#4	EUT to Mitest box port 3	Flexco	SMA Cable port4	None	20 Dec 2015
RF#2 SMA#SA	Mitest box to SA	Flexco	SMA Cable SA	None	20 Dec 2015
RF#2 USB#1	USB Cable to Mitest Box	Dynex	USB Cable	None	Not Required

7.2. Radiated Emissions - 3m Chamber

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

1. Section 9.4.1 Spurious Emissions
2. Section 9.4.2 Restricted Band-Edge Emissions
3. Section 9.5 Radiated Digital Emissions



Radiated Emission 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.

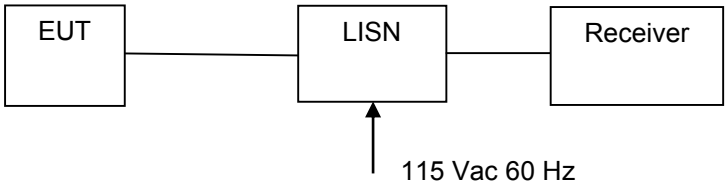
Asset#	Description	Manufacturer	Model#	Serial#	Calibration Due Date
158	Barometer/Thermometer	Control Company	4196	E2846	04 Dec 2015
170	Video System Controller for Semi Anechoic Chamber	Panasonic	WV-CY101	04R08507	Not Required
287	Rohde & Schwarz 40 GHz Receiver	Rhode & Schwarz	ESIB40	100201	31 Jul 2016
310	SMA Cable	Micro-Coax	UFA210A-0-0787-3G03G0	209089-001	30 Oct 2015
338	Sunol 30 to 3000 MHz Antenna	Sunol	JB3	A052907	14 Aug 2015
393	DC - 1050 MHz Low Pass Filter	Microcircuits	VLFX-1050	N/A	08 Oct 2015
397	Amp 10 - 2500MHz	MiCOM Labs	Amp 10 - 2500 MHz	NA	23 Oct 2015
399	ETS 1-18 GHz Horn Antenna	ETS	3117	00154575	10 Oct 2015
406	Amplifier for Radiated Emissions	MiCOM Labs	40dB 1 to 18GHz Amp	0406	28 May 2016
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
415	Turntable Controller	Sunol Sciences	Turntable Controller	None	Not Required
416	Gigabit ethernet filter	ETS-Lingren	Gigafoil 260366	None	Not Required
462	Schwarzbeck cable from Antenna to Amplifier.	Schwarzbeck	AK 9513	462	25 Aug 2015
463	Schwarzbeck cable from Amplifier to Bulkhead.	Schwarzbeck	AK 9513	463	25 Aug 2015
464	Schwarzbeck cable from Bulkhead to Receiver	Schwarzbeck	AK 9513	464	25 Aug 2015
465	Low Pass Filter DC-1000 MHz	Mini-Circuits	NLP-1200+	VUU01901402	25 Aug 2015
468	Low pass filter	Mini Circuits	SLP-550	None	30 Sep 2015
469	Low pass filter	Mini Circuit	SLP-1000	None	30 Sep 2015
470	High Pass filter	Mini Circuits	SHP-700	None	30 Sep 2015
CC05	Confidence Check	MiCOM	CC05	None	1 Aug 2015

7.3. ac Wireline Emission Test Set-up

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

1. Section 9.6 ac Wireline Conducted Emissions

Test Measurement Set up



Measurement set up for AC Wireline Conducted Emissions Test

Traceability of Test Equipment Utilized for ac Wireline Emission Testing

Asset#	Description	Manufacturer	Model#	Serial#	Calibration Due Date
158	Barometer/Thermometer	Control Company	4196	E2846	04 Dec 2015
184	Pulse Limiter	Rhode & Schwarz	ESH3Z2	357.8810.52	Cal when used
190	LISN (two-line V-network)	Rhode & Schwarz	ESH3Z5	836679/006	12 Sep 2015
287	Rohde & Schwarz 40 GHz Receiver	Rhode & Schwarz	ESIB40	100201	31 Jul 2016
316	Dell desktop computer workstation with Vasona	Dell	Desktop	WS04	Not Required

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. Peak Transmit Power

Conducted Test Conditions for Maximum Conducted Output Power			
Standard:	FCC CFR 47:15.407	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Maximum Conducted Output Power	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.407 (a)	**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.

Maximum Transmit (Conducted) Power Limits

Limit 5150 – 5250 MHz: +30 dBm (1W) (+36 dBm/EIRP, 6 dBi antenna)
Limit 5725 – 5850 MHz: +30 dBm (1W) (+36 dBm/EIRP, 6 dBi antenna)

EUT: Indoor operation - Wireless Ethernet Bridge
Antenna gain: 3.8 dBi
Beamforming Gain: Not Applicable

Modified Conducted Power Levels

During radiated emission testing (spurious and restricted band-edge) the power setting may have been reduced. Any reduction in output power (together with power settings) that was required to bring the EUT into compliance is reflected in the following tables.

Equipment Configuration for Peak Transmit Power

Variant:	802.11a	**Duty Cycle (%):**	85.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
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	dBm	
5180.0	20.76	21.09	--	--	24.64	--	30.00	-5.36	66\61
5200.0	20.94	21.54	--	--	24.97	--	30.00	-5.03	66\61
5240.0	21.62	22.01	--	--	25.54	--	30.00	-4.46	66\61

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

Equipment Configuration for Peak Transmit Power

Variant:	802.11ac-80	**Duty Cycle (%):**	74.0
Data Rate:	29.30 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
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	dBm	
5210.0	15.89	16.10	--	--	20.31	--	30.00	-9.69	50\46

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

DCCF - Duty Cycle Correction Factor

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-20	**Duty Cycle (%):**	86.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
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	dBm	
5180.0	20.86	21.23	--	--	24.71	--	30.00	-5.29	66\61
5200.0	19.83	21.49	--	--	24.40	--	30.00	-5.60	66\61
5240.0	21.37	21.67	--	--	25.19	--	30.00	-4.81	66\61

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

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-40	**Duty Cycle (%):**	82.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
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	dBm	
5190.0	19.03	19.74	--	--	23.27	--	30.00	-6.73	63\58
5230.0	20.96	21.15	--	--	25.06	--	30.00	-4.63	65\62

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

DCCF - Duty Cycle Correction Factor

Equipment Configuration for Peak Transmit Power

Variant:	802.11a	**Duty Cycle (%):**	85.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
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	dBm	
5745.0	21.80	22.86	--	--	26.08	--	30.00	-3.92	63\63
5785.0	22.27	22.85	--	--	26.29	--	30.00	-3.71	63\63
5825.0	22.91	22.76	--	--	26.55	--	30.00	-3.45	63\63

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

Equipment Configuration for Peak Transmit Power

Variant:	802.11ac-80	**Duty Cycle (%):**	74.0
Data Rate:	29.30 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
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	dBm	
5775.0	20.81	21.99	--	--	25.76	--	30.00	-4.24	63\63

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

DCCF - Duty Cycle Correction Factor

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-20	**Duty Cycle (%):**	86.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
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	dBm	
5745.0	21.90	22.85	--	--	26.07	--	30.00	-3.93	63\63
5785.0	22.14	22.70	--	--	26.09	--	30.00	-3.91	63\63
5825.0	22.55	22.51	--	--	26.20	--	30.00	-3.80	63\63

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

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-40	**Duty Cycle (%):**	82.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
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	dBm	
5755.0	21.57	22.67	--	--	26.03	--	30.00	-3.97	63\63
5795.0	21.81	22.20	--	--	25.88	--	30.00	-4.12	63\63

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

DCCF - Duty Cycle Correction Factor

9.2. 26 dB & 99% Bandwidth

Conducted Test Conditions for 26 dB and 99% Bandwidth			
Standard:	FCC CFR 47:15.407	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	26 dB and 99 % Bandwidth	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.407 (a)	**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 (%):**	85.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
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	20.500	24.830	--	--	24.830	20.500		
5200.0	20.500	25.500	--	--	25.500	20.500		
5240.0	20.580	25.500	--	--	25.500	20.580		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5180.0	16.581	16.729	--	--	16.729	16.581		
5200.0	16.588	16.766	--	--	16.766	16.588		
5240.0	16.608	16.818	--	--	16.818	16.608		

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:	802.11ac-80	**Duty Cycle (%):**	74.0
Data Rate:	29.30 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
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**		
5210.0	81.000	90.700	--	--	90.700	81.000		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5210.0	75.147	75.662	--	--	75.662	75.147		

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 (%):**	86.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
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	21.080	21.920	--	--	21.920	21.080		
5200.0	21.250	25.580	--	--	25.580	21.250		
5240.0	20.920	27.500	--	--	27.500	20.920		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5180.0	17.714	17.809	--	--	17.809	17.714		
5200.0	17.716	17.865	--	--	17.865	17.716		
5240.0	17.717	17.911	--	--	17.911	17.717		

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 (%):**	82.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
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	42.670	46.170	--	--	46.170	42.670		
5230.0	42.670	54.330	--	--	54.330	42.670		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5190.0	36.586	36.877	--	--	36.877	36.586		
5230.0	36.591	37.019	--	--	37.019	36.591		

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):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
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**		
5745.0	20.670	24.670	--	--	24.670	20.670		
5785.0	20.830	24.420	--	--	24.420	20.830		
5825.0	20.830	22.000	--	--	22.000	20.830		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5745.0	16.656	16.675	--	--	16.675	16.656		
5785.0	16.696	16.685	--	--	16.696	16.685		
5825.0	16.711	16.683	--	--	16.711	16.683		

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:	802.11ac-80	**Duty Cycle (%):**	74.0
Data Rate:	29.30 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
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**		
5775.0	90.000	86.000	--	--	90.000	86.000		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5775.0	75.543	75.546	--	--	75.546	75.543		

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 (%):**	86.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
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**		
5745.0	21.500	21.750	--	--	21.750	21.500		
5785.0	23.580	24.330	--	--	24.330	23.580		
5825.0	25.500	21.580	--	--	25.500	21.580		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5745.0	17.753	17.790	--	--	17.790	17.753		
5785.0	17.821	17.794	--	--	17.821	17.794		
5825.0	17.841	17.779	--	--	17.841	17.779		

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 (%):**	82.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
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**		
5755.0	44.330	44.830	--	--	44.830	44.330		
5795.0	49.670	44.670	--	--	49.670	44.670		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5755.0	36.714	36.763	--	--	36.763	36.714		
5795.0	36.806	36.752	--	--	36.806	36.752		

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).

9.3. Power Spectral Density

Conducted Test Conditions for Power Spectral Density			
Standard:	FCC CFR 47:15.407	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Power Spectral Density	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.407 (a)	**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.

Maximum Power Spectral Density Limits

Limit 5150 – 5250 MHz: +17 dBm/1 MHz
Limit 5725 – 5850 MHz: +30 dBm/500 kHz

EUT: Indoor operation - Wireless Ethernet Bridge
Antenna gain: 3.8 dBi
Beamforming Gain: Not Applicable

Equipment Configuration for Power Spectral Density			
Variant:	802.11a	**Duty Cycle (%):**	85.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/MHz)				Amplitude Summation + DCCF (+0.71 dB)	Limit	Margin
MHz	**a**	**b**	**c**	**d**	**dBm/MHz**	**dBm/MHz**	**dB**
5180.0	7.548	12.262	--	--	14.195	17.0	-2.8
5200.0	7.571	12.487	--	--	14.401	17.0	-2.6
5240.0	7.773	12.855	--	--	14.713	17.0	-2.3

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

Equipment Configuration for Power Spectral Density			
Variant:	802.11ac-80	**Duty Cycle (%):**	74.0
Data Rate:	29.30 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/MHz)				Amplitude Summation + DCCF (+1.31 dB)	Limit	Margin
MHz	**a**	**b**	**c**	**d**	**dBm/MHz**	**dBm/MHz**	**dB**
5210.0	1.490	6.772	--	--	9.116	17.0	-7.9

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-20	**Duty Cycle (%):**	86.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/MHz)				Amplitude Summation + DCCF (+0.66 dB)	Limit	Margin
MHz	**a**	**b**	**c**	**d**	**dBm/MHz**	**dBm/MHz**	**dB**
5180.0	6.726	11.652	--	--	13.518	17.0	-3.5
5200.0	6.961	11.825	--	--	13.668	17.0	-3.3
5240.0	7.483	12.657	--	--	14.422	17.0	-2.6

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

Equipment Configuration for Power Spectral Density			
Variant:	802.11n HT-40	**Duty Cycle (%):**	82.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/MHz)				Amplitude Summation + DCCF (+0.86 dB)	Limit	Margin
MHz	**a**	**b**	**c**	**d**	**dBm/MHz**	**dBm/MHz**	**dB**
5190.0	3.359	8.495	--	--	10.411	17.0	-6.6
5230.0	4.130	8.986	--	--	11.043	17.0	-6.0

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):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/500 kHz)				Amplitude Summation + DCCF (+0.71 dB)	Limit	Margin
MHz	a	b	c	d	dBm/500 kHz	dBm/500 kHz	dB
5745.0	8.146	9.431	--	--	12.437	30.0	-17.6
5785.0	8.589	9.189	--	--	12.592	30.0	-17.4
5825.0	9.491	9.225	--	--	12.952	30.0	-17.1

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

Equipment Configuration for Power Spectral Density			
Variant:	802.11ac-80	**Duty Cycle (%):**	74.0
Data Rate:	29.30 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/500 kHz)				Amplitude Summation + DCCF (+1.31 dB)	Limit	Margin
MHz	a	b	c	d	dBm/500 kHz	dBm/500 kHz	dB
5775.0	2.637	3.525	--	--	7.379	30.0	-22.6

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 (%):**	86.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/500 kHz)				Amplitude Summation + DCCF (+0.66 dB)	Limit	Margin
MHz	a	b	c	d	dBm/500 kHz	dBm/500 kHz	dB
5745.0	8.091	9.243	--	--	12.082	30.0	-17.9
5785.0	8.386	8.793	--	--	12.201	30.0	-17.8
5825.0	8.878	8.849	--	--	12.443	30.0	-17.6

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

Equipment Configuration for Power Spectral Density			
Variant:	802.11n HT-40	**Duty Cycle (%):**	82.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	3.80
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/500 kHz)				Amplitude Summation + DCCF (+0.86 dB)	Limit	Margin
MHz	a	b	c	d	dBm/500 kHz	dBm/500 kHz	dB
5755.0	4.497	5.871	--	--	8.983	30.0	-21.0
5795.0	5.218	5.363	--	--	9.020	30.0	-21.0

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).

9.4. Radiated Spurious Emissions

9.4.1. Radiated Spurious Emissions

FCC, Part 15 Subpart C §15.247(d) 15.205; 15.209

Test Procedure

Radiated emissions 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 and waveguide filter was used to remove the fundamental frequency. The highest emissions relative to the limit are listed for each frequency spanned.

All measurements on any frequency or frequencies over 1 MHz are based on the use of measurement instrumentation employing an average detector function. All measurements above 1 GHz were performed using a minimum resolution bandwidth of 1 MHz.

Operational Modes

Operational mode(s) tested for spurious emissions were the modes which delivered maximum spectral density

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 or Waveguide Loss

For example:
Given receiver input reading of 51.5 dBμV; Antenna Factor of 8.5 dB; Cable Loss of 1.3 dB; Falloff Factor of 0 dB, an Amplifier Gain of 26 dB and Notch Filter Loss of 1 dB. The Field Strength of the measured emission is:

FS = 51.5 + 8.5 + 1.3 - 26.0 +1 = 36.3 dBμV/m

Conversion between dBμV/m (or dBμV) and μV/m (or μV) are done as:

Level (dBμV/m) = 20 * Log (level (μV/m))

40 dBμV/m = 100 μV/m
48 dBμV/m = 250 μV/m

NOTE: KDB 662911 was implemented for Out-of-Band measurements. Where necessary Option (2) Measure and add 10 log (N) dB was implemented

Traceability

Test Methodology	Measurement Uncertainty
Measurements were made per work instruction WI-03 'Measurement of Radiated Emissions'	+5.6/ -4.5 dB

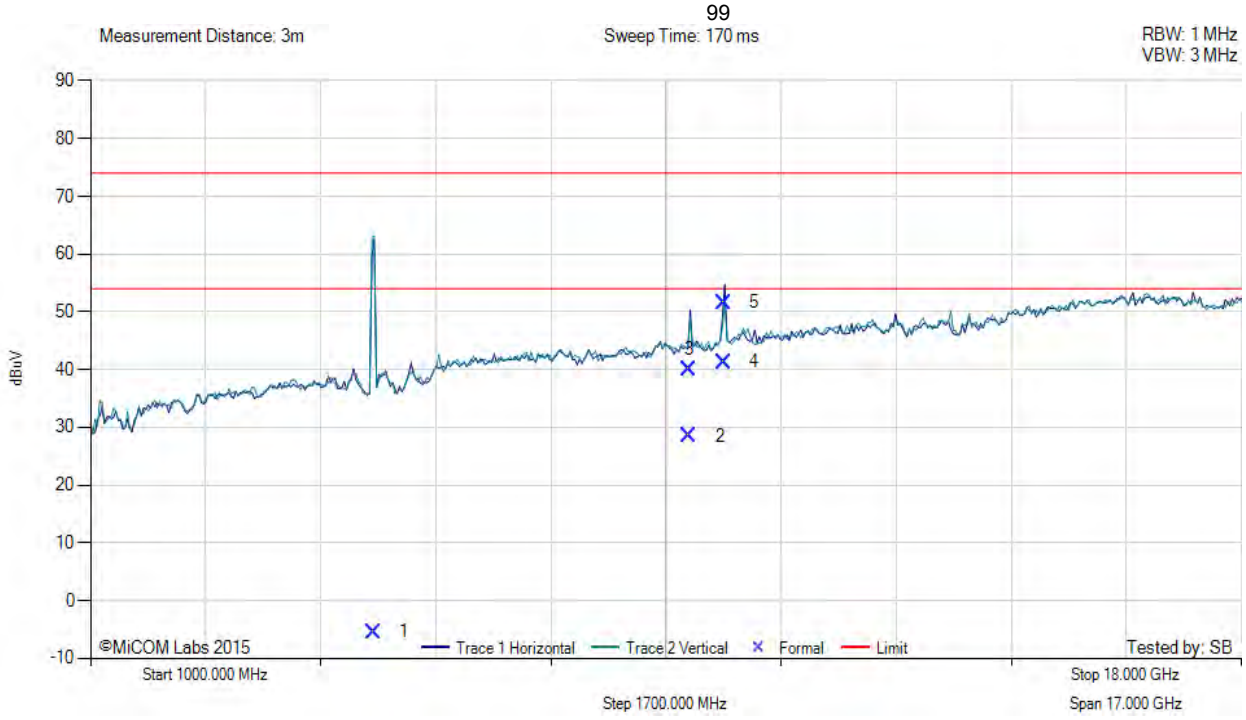
Equipment Configuration for Radiated Spurious - Restricted Band Emissions

Antenna:	Galtronics Custom PCB	**Variant:**	802.11a
Antenna Gain (dBi):	3.80	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5180.00	**Data Rate:**	6.00 MBit/s
Power Setting:	63/63	**Tested By:**	SB

Test Measurement Results

RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5180.00 MHz, Antenna: Galtronics Custom PCB, Power Setting: 63/63, Duty Cycle (%): 99



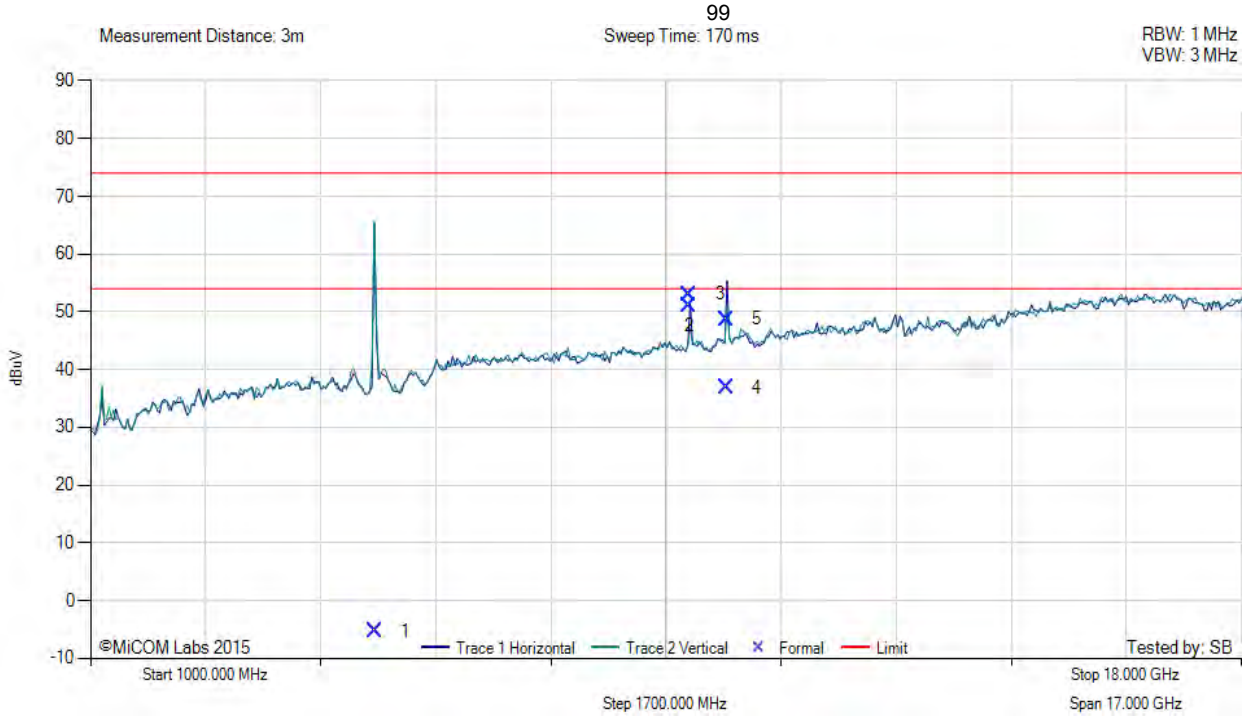
Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	5186.69	59.24	6.06	-11.49	-5.43	Fundamental						
2	9848.16	25.58	8.90	-5.94	28.54	Max Avg	Horizontal	163	156	54.0	-25.5	Pass
3	9848.16	37.00	8.90	-5.94	39.96	Max Peak	Horizontal	163	156	74.0	-34.0	Pass
4	10360.84	37.47	9.06	-5.26	41.27	Max Avg	Horizontal	123	70	54.0	-12.7	Pass
5	10360.84	47.84	9.06	-5.26	51.64	Max Peak	Horizontal	123	70	74.0	-22.4	Pass

Equipment Configuration for Radiated Spurious - Restricted Band Emissions			
Antenna:	Galtronics Custom PCB	**Variant:**	802.11a
Antenna Gain (dBi):	3.80	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5200.00	**Data Rate:**	6.00 MBit/s
Power Setting:	63/63	**Tested By:**	SB

Test Measurement Results

RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5200.00 MHz, Antenna: Galtronics Custom PCB, Power Setting: 63/63, Duty Cycle (%): 99



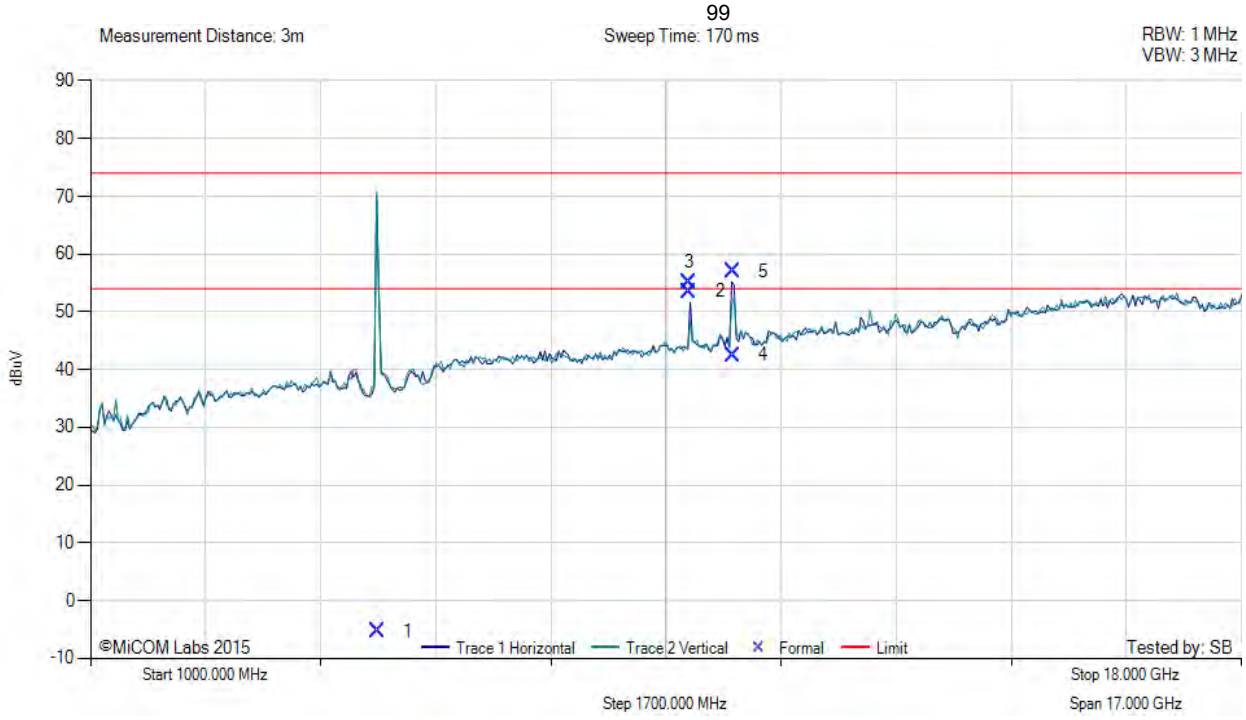
Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	5207.77	53.86	6.12	-11.44	-5.32	Fundamental						
2	9847.82	48.12	8.90	-5.94	51.08	Max Avg	Horizontal	122	139	54.0	-2.9	Pass
3	9847.82	50.05	8.90	-5.94	53.01	Max Peak	Horizontal	122	139	74.0	-21.0	Pass
4	10395.33	32.73	9.14	-5.06	36.81	Max Avg	Horizontal	100	42	54.0	-17.2	Pass
5	10395.33	44.62	9.14	-5.06	48.70	Max Peak	Horizontal	100	42	74.0	-25.3	Pass

Equipment Configuration for Radiated Spurious - Restricted Band Emissions			
Antenna:	Galtronics Custom PCB	**Variant:**	802.11a
Antenna Gain (dBi):	3.80	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5240.00	**Data Rate:**	6.00 MBit/s
Power Setting:	63/63	**Tested By:**	SB

Test Measurement Results

RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5240.00 MHz, Antenna: Galtronics Custom PCB, Power Setting: 63/63, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	5242.85	63.45	6.14	-11.36	-5.22	Fundamental	100	0	0	--	--	
2	9847.82	50.56	8.90	-5.94	53.52	Max Avg	Horizontal	122	147	54.0	-0.5	Pass
3	9847.82	52.14	8.90	-5.94	55.10	Max Peak	Horizontal	122	147	74.0	-18.9	Pass
4	10481.44	37.91	9.04	-4.45	42.50	Max Avg	Horizontal	120	72	54.0	-11.5	Pass
5	10481.44	52.35	9.04	-4.45	56.94	Max Peak	Horizontal	120	72	74.0	-17.1	Pass

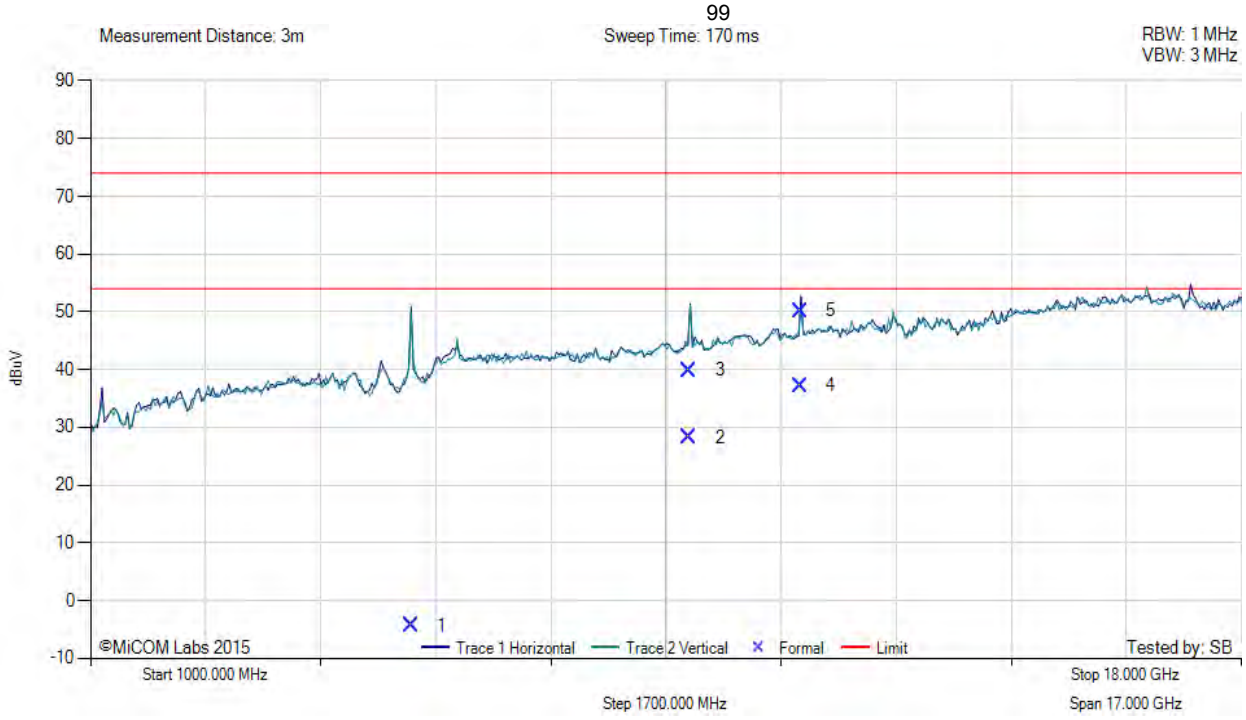
Equipment Configuration for Radiated Spurious - Restricted Band Emissions

Antenna:	Galtronics Custom PCB	**Variant:**	802.11a
Antenna Gain (dBi):	3.80	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5745.00	**Data Rate:**	6.00 MBit/s
Power Setting:	63/63	**Tested By:**	SB

Test Measurement Results

RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5745.00 MHz, Antenna: Galtronics Custom PCB, Power Setting: 63/63, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	5739.55	54.73	6.40	-10.67	-4.27	Fundamental	100	1	0	--	--	
2	9848.14	25.34	8.90	-5.94	28.30	Max Avg	Horizontal	122	145	54.0	-25.7	Pass
3	9848.14	36.88	8.90	-5.94	39.84	Max Peak	Horizontal	122	145	74.0	-34.2	Pass
4	11484.91	32.63	9.47	-4.86	37.24	Max Avg	Horizontal	135	50	54.0	-16.8	Pass
5	11484.91	45.58	9.47	-4.86	50.19	Max Peak	Horizontal	135	50	74.0	-23.8	Pass

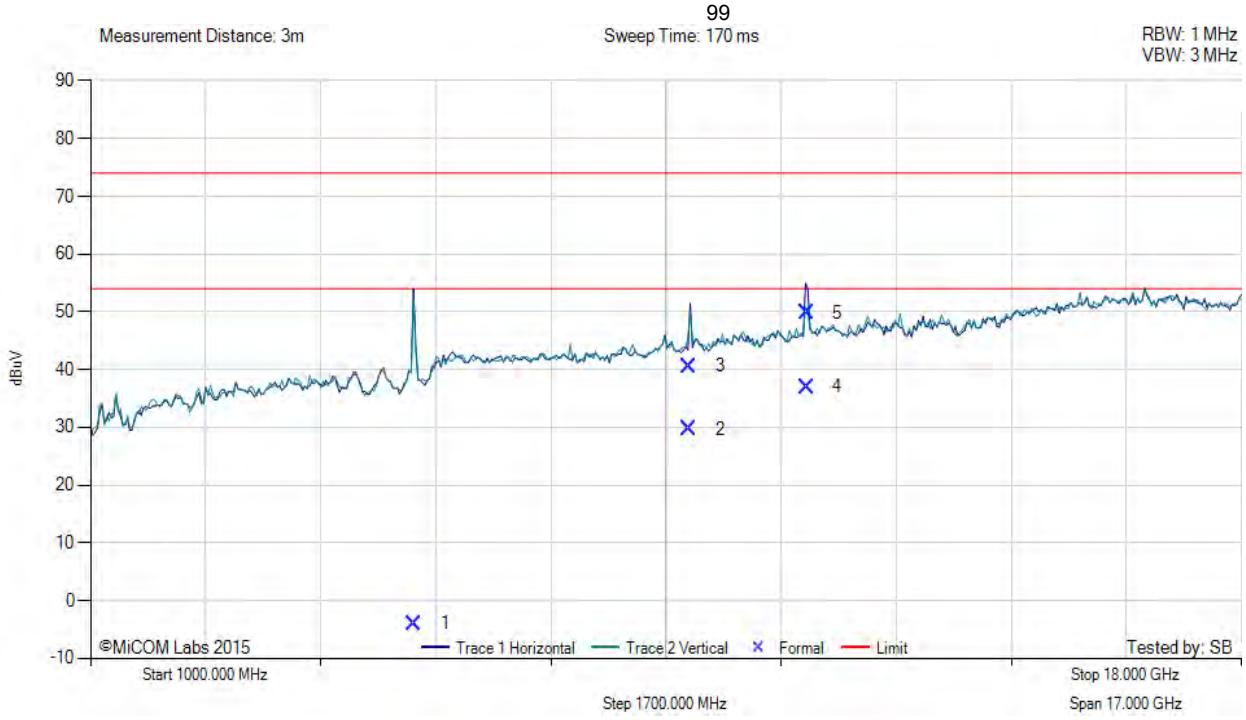
Equipment Configuration for Radiated Spurious - Restricted Band Emissions

Antenna:	Galtronics Custom PCB	**Variant:**	802.11a
Antenna Gain (dBi):	3.80	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5785.00	**Data Rate:**	6.00 MBit/s
Power Setting:	63/63	**Tested By:**	SB

Test Measurement Results

RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5785.00 MHz, Antenna: Galtronics Custom PCB, Power Setting: 63/63, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	5788.07	52.76	6.49	-10.43	-3.94	Fundamental	100	1	0	--	--	
2	9848.00	26.78	8.90	-5.94	29.74	Max Avg	Horizontal	134	140	54.0	-24.3	Pass
3	9848.00	37.59	8.90	-5.94	40.55	Max Peak	Horizontal	134	140	74.0	-33.5	Pass
4	11579.77	31.96	9.59	-4.60	36.95	Max Avg	Horizontal	110	43	54.0	-17.1	Pass
5	11579.77	44.78	9.59	-4.60	49.77	Max Peak	Horizontal	110	43	74.0	-24.2	Pass

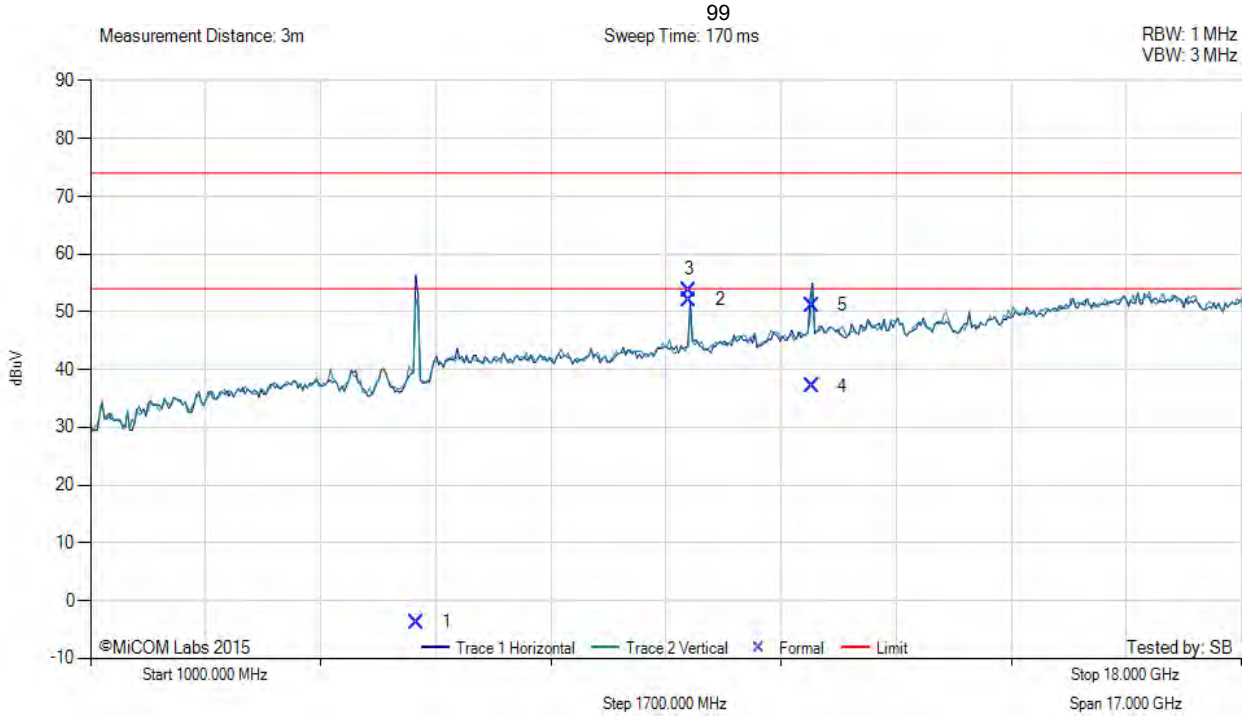
Equipment Configuration for Radiated Spurious - Restricted Band Emissions

Antenna:	Galtronics Custom PCB	**Variant:**	802.11a
Antenna Gain (dBi):	3.80	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5825.00	**Data Rate:**	6.00 MBit/s
Power Setting:	63/63	**Tested By:**	SB

Test Measurement Results

RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5825.00 MHz, Antenna: Galtronics Custom PCB, Power Setting: 63/63, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	5819.33	54.88	6.54	-10.28	-3.74	Fundamental	100	0	0	--	--	
2	9847.85	49.12	8.90	-5.94	52.08	Max Avg	Horizontal	135	151	54.0	-1.9	Pass
3	9847.85	50.80	8.90	-5.94	53.76	Max Peak	Horizontal	135	151	74.0	-20.2	Pass
4	11657.91	31.98	9.65	-4.45	37.18	Max Avg	Horizontal	100	42	54.0	-16.8	Pass
5	11657.91	45.88	9.65	-4.45	51.08	Max Peak	Horizontal	100	42	74.0	-22.9	Pass

9.4.2. Restricted Band-Edge Emissions

RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

Galtronics Custom PCB		Band-Edge Freq	Peak (Limit 74.0dBµV/m)	Average (Limit 54.0dBµV/m)	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
802.11a	5180.00	5150.00	63.37	47.44	63/63
802.11ac-80	5210.00	5150.00	72.39	53.72	47/47
802.11n HT-20	5180.00	5150.00	63.80	47.66	63/63
802.11n HT-40	5190.00	5150.00	73.91	51.98	57/57

Galtronics Custom PCB		Band-Edge Freq	Peak (Limit)	Average (Limit)	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
802.11a	5745.00	5725.00	-25.39	-43.98	61/61
802.11a	5825.00	5725.00	-33.57	-47.10	63/63
802.11ac-80	5775.00	5725.00	-24.74	-42.64	57/57
802.11ac-80	5775.00	5725.00	-27.66	-43.58	63/63
802.11n HT-20	5745.00	5725.00	-24.43	-42.04	60/60
802.11n HT-20	5825.00	5725.00	-33.57	-46.08	63/63
802.11n HT-40	5755.00	5725.00	-27.18	-43.98	58/58
802.11n HT-40	5795.00	5725.00	-26.89	-41.64	63/63

Click on the links to view the data.

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Galtronics Custom PCB	**Variant:**	802.11a
Antenna Gain (dBi):	3.80	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5180.00	**Data Rate:**	6.00 MBit/s
Power Setting:	63/63	**Tested By:**	SB

Test Measurement Results

RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11a, Test Freq: 5180.00 MHz, Antenna: Galtronics Custom PCB, Power Setting: 63/63, Duty Cycle (%): 99

Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	5150.00	52.95	6.08	-11.59	47.44	Max Avg	Vertical	114	93	54.0	-6.6	Pass
2	5150.00	68.88	6.08	-11.59	63.37	Max Peak	Vertical	114	93	74.0	-10.6	Pass

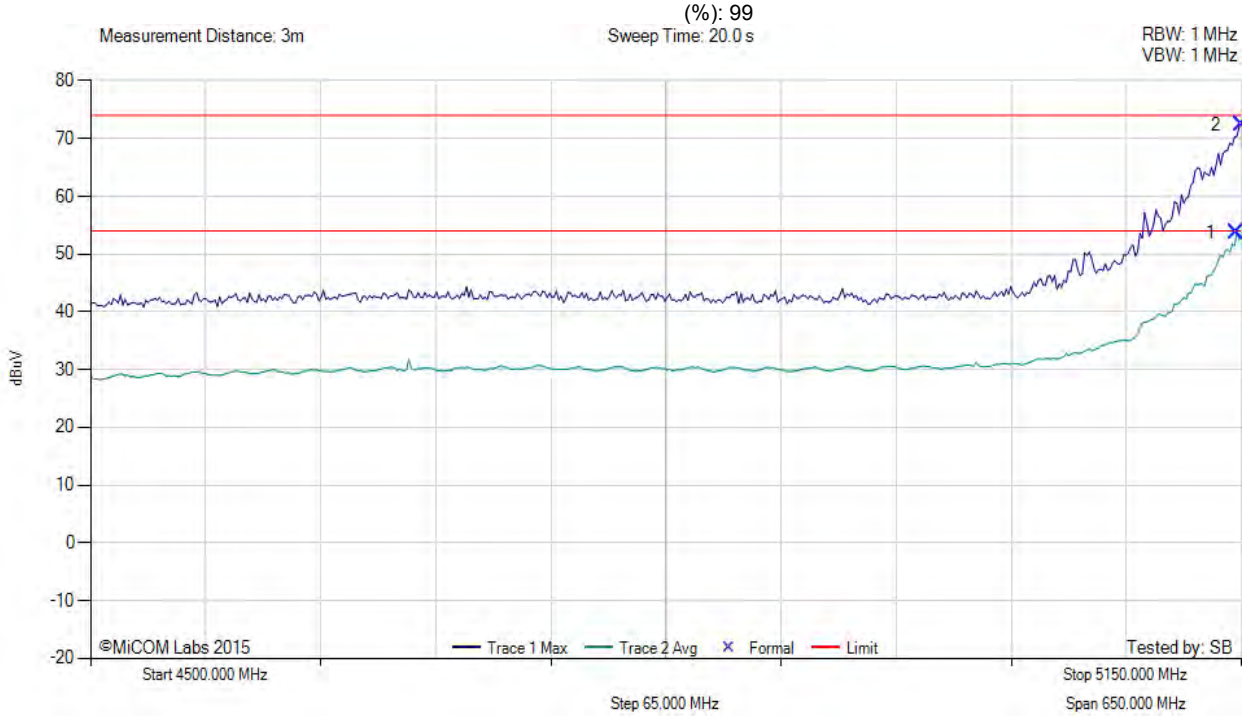
Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Galtronics Custom PCB	**Variant:**	802.11ac-80
Antenna Gain (dBi):	3.80	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5210.00	**Data Rate:**	29.30 MBit/s
Power Setting:	47/47	**Tested By:**	SB

Test Measurement Results

RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11ac-80, Test Freq: 5210.00 MHz, Antenna: Galtronics Custom PCB, Power Setting: 47/47, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	5147.39	59.23	6.08	-11.59	53.72	Max Avg	Vertical	114	93	54.0	-0.3	Pass
2	5150.00	77.90	6.08	-11.59	72.39	Max Peak	Vertical	114	93	74.0	-1.6	Pass

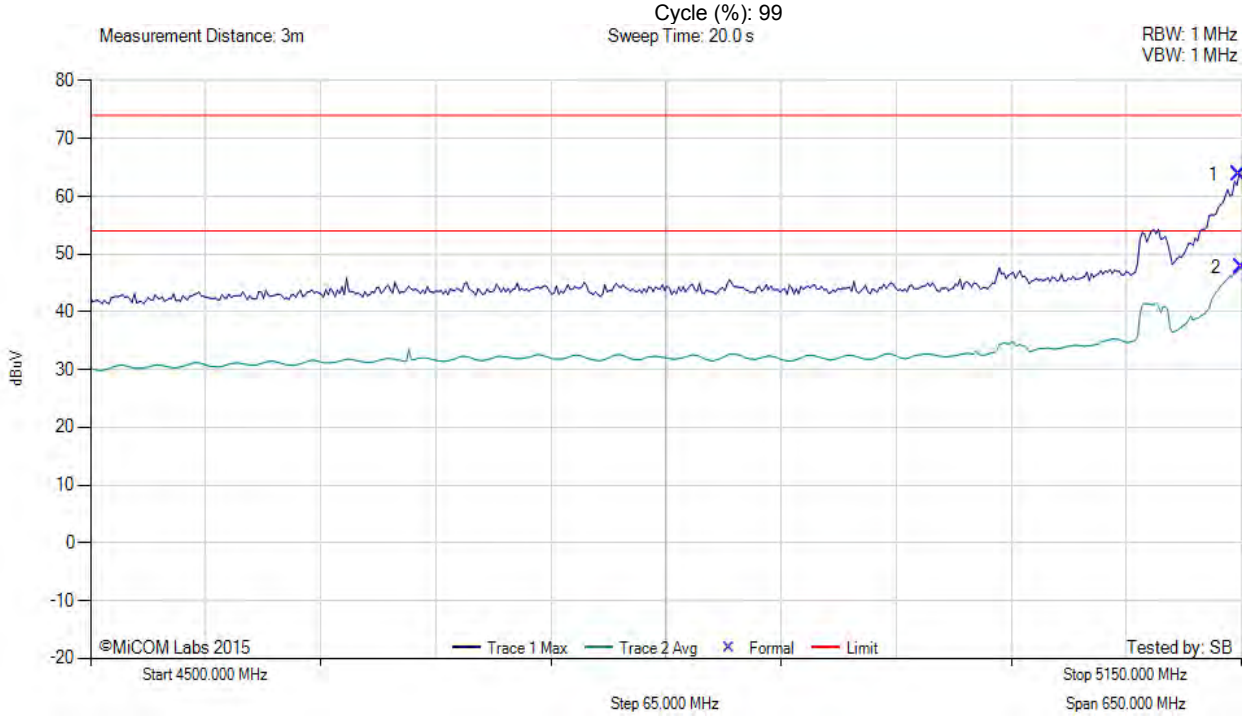
Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Galtronics Custom PCB	**Variant:**	802.11n HT-20
Antenna Gain (dBi):	3.80	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5180.00	**Data Rate:**	6.50 MBit/s
Power Setting:	63/63	**Tested By:**	SB

Test Measurement Results

RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 5180.00 MHz, Antenna: Galtronics Custom PCB, Power Setting: 63/63, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	5148.70	69.31	6.08	-11.59	63.80	Max Peak	Vertical	114	93	74.0	-10.2	Pass
2	5150.00	53.17	6.08	-11.59	47.66	Max Avg	Vertical	114	93	54.0	-6.3	Pass

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Galtronics Custom PCB	**Variant:**	802.11n HT-40
Antenna Gain (dBi):	3.80	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5190.00	**Data Rate:**	13.50 MBit/s
Power Setting:	57/57	**Tested By:**	SB

Test Measurement Results

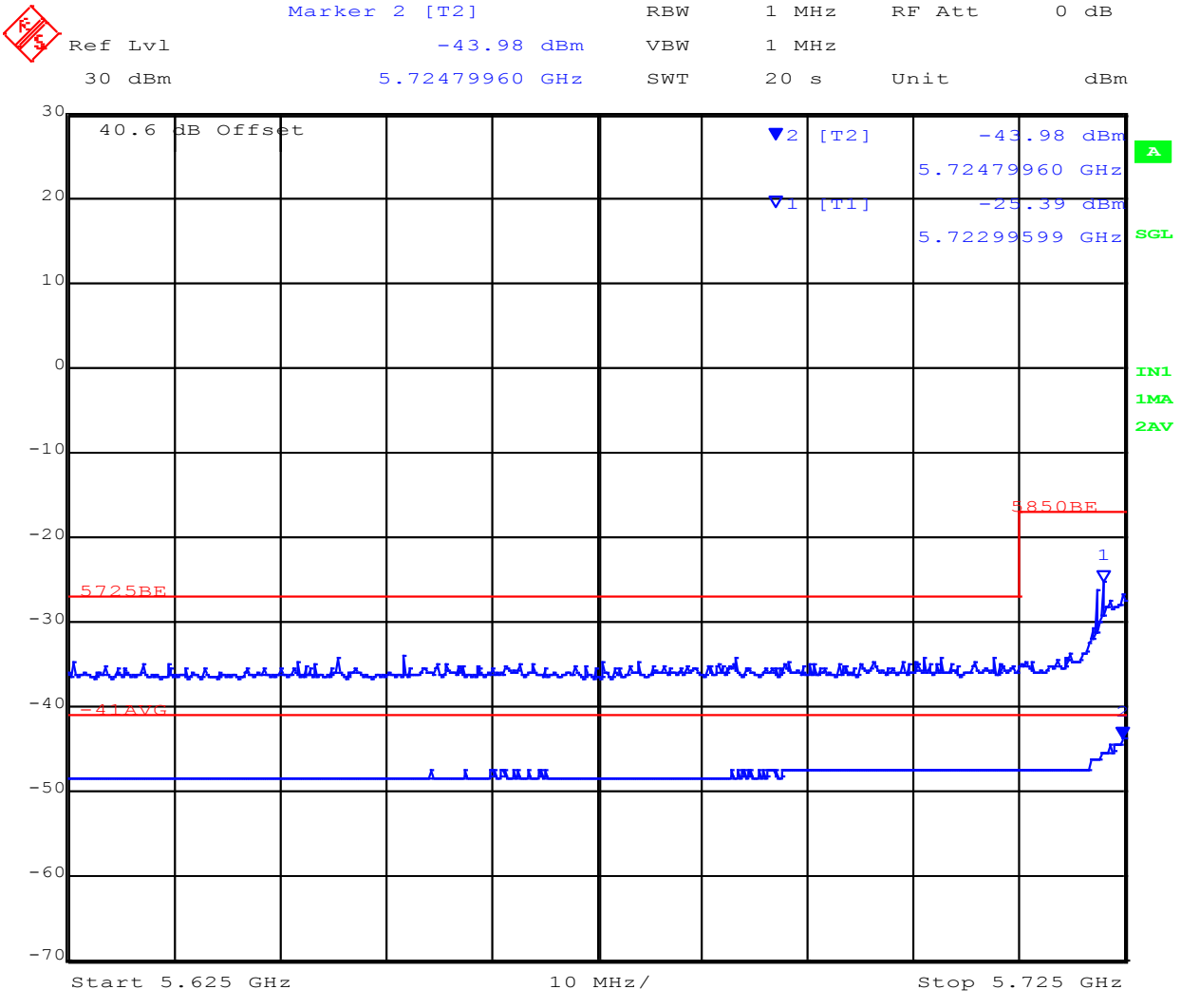
RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11n HT-40, Test Freq: 5190.00 MHz, Antenna: Galtronics Custom PCB, Power Setting: 57/57, Duty Cycle (%): 99

Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	5146.09	79.43	6.08	-11.60	73.91	Max Peak	Vertical	114	93	74.0	-0.1	Pass
2	5150.00	57.49	6.08	-11.59	51.98	Max Avg	Vertical	114	93	54.0	-2.0	Pass

Equipment Configuration for Restricted Lower Band-Edge Emissions			
Antenna:	Galtronics Custom PCB	**Variant:**	802.11a
Antenna Gain (dBi):	3.80	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	57450.00	**Data Rate:**	6.00 MBit/s
Power Setting:	63/63	**Tested By:**	SB

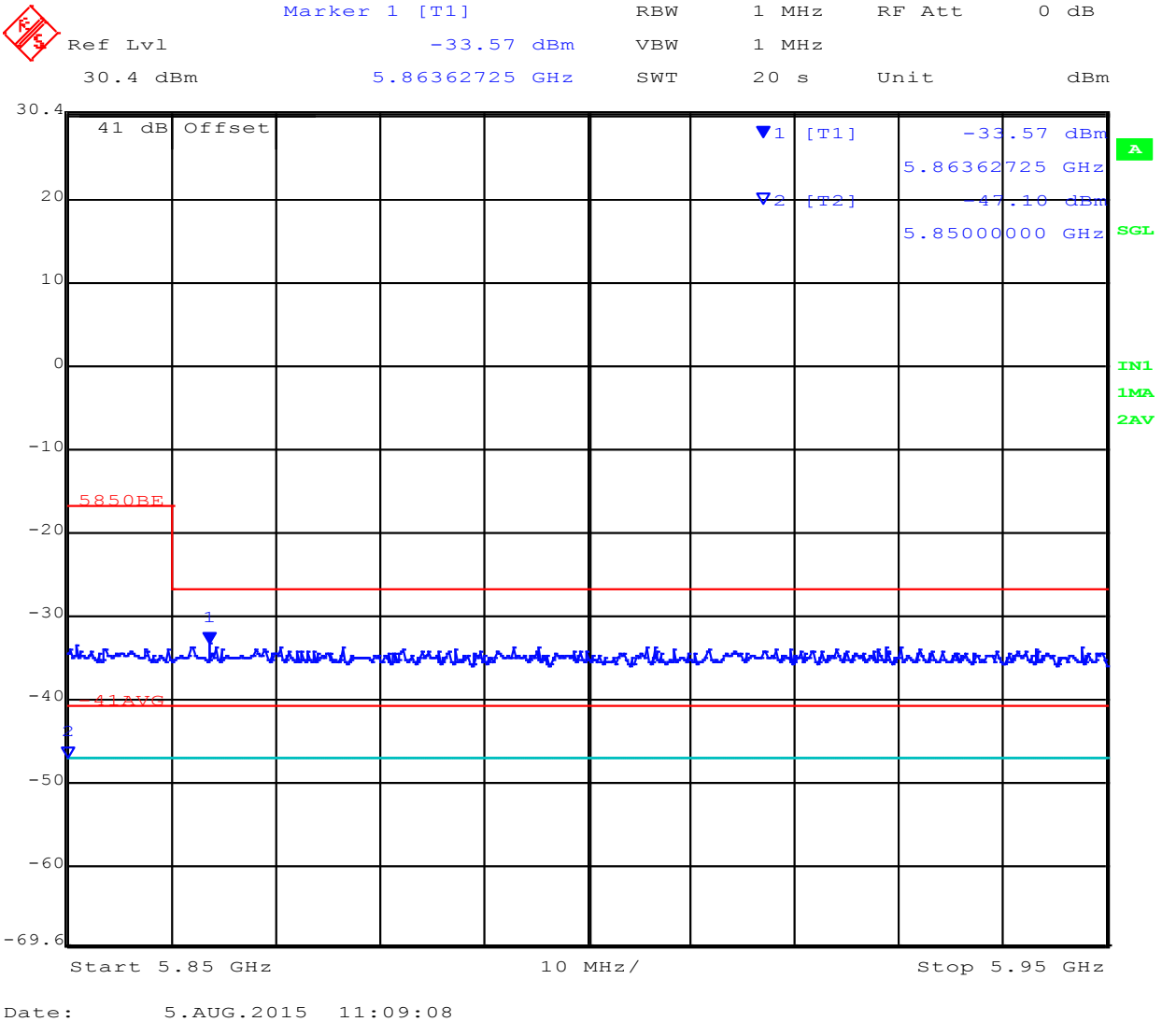
Test Measurement Results



Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	Galtronics Custom PCB	**Variant:**	802.11a
Antenna Gain (dBi):	3.80	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5825.00	**Data Rate:**	6.00 MBit/s
Power Setting:	63/63	**Tested By:**	SB

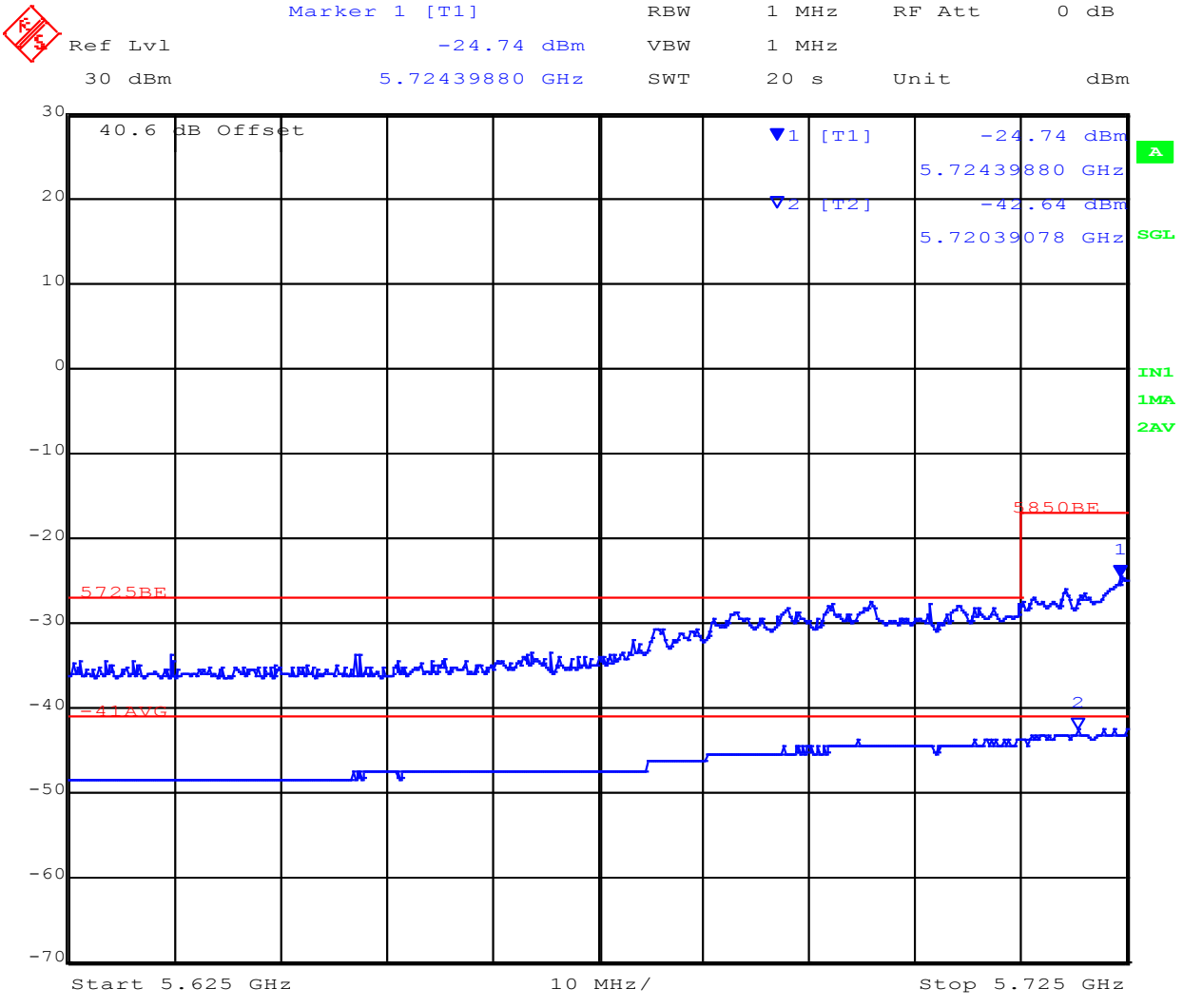
Test Measurement Results



Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Galtronics Custom PCB	**Variant:**	802.11ac-80
Antenna Gain (dBi):	3.80	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5775.00	**Data Rate:**	29.30 MBit/s
Power Setting:	47/47	**Tested By:**	SB

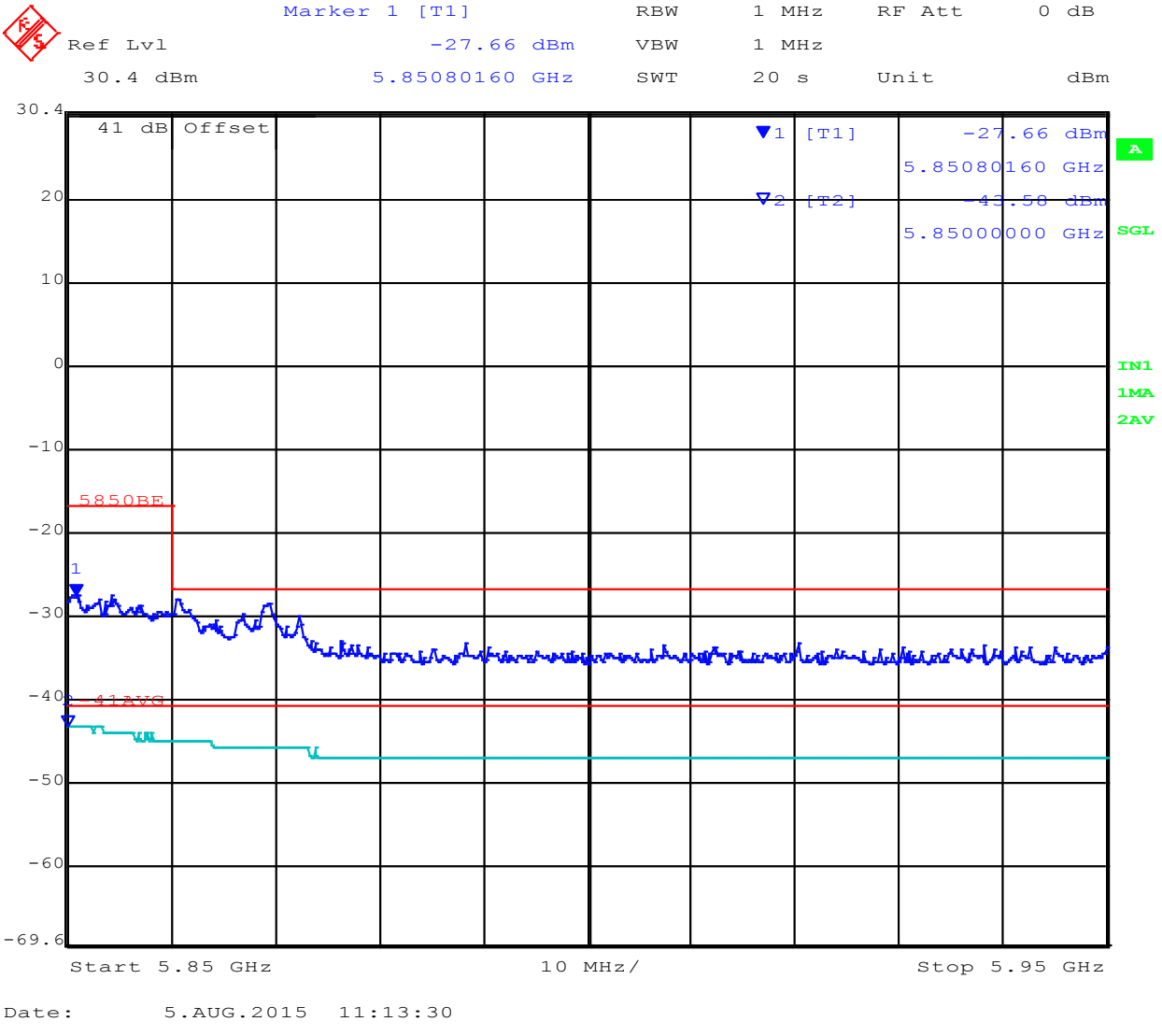
Test Measurement Results



Equipment Configuration for Restricted Upper Band-Edge Emissions

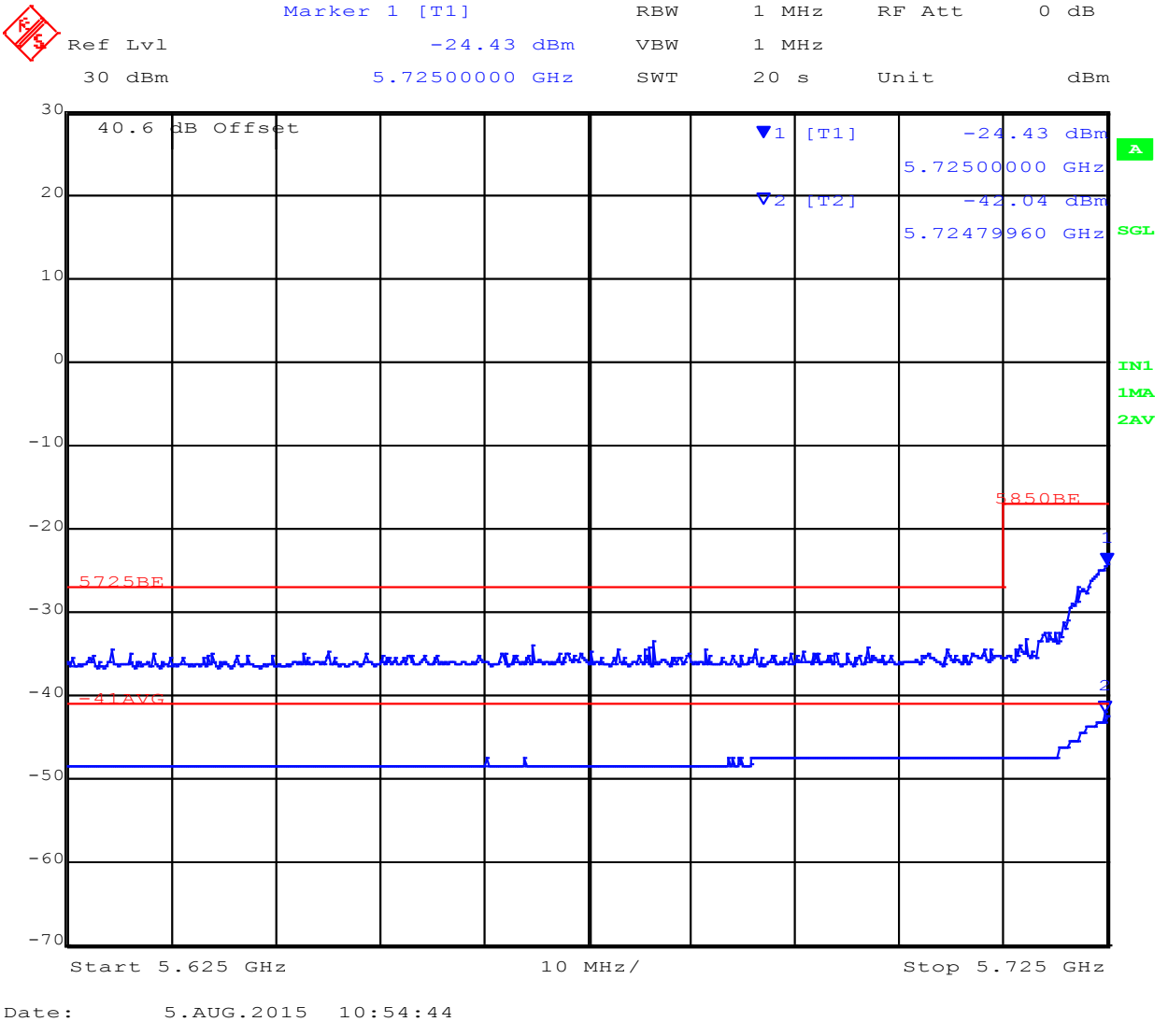
Antenna:	Galtronics Custom PCB	**Variant:**	802.11ac-80
Antenna Gain (dBi):	3.80	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5775.00	**Data Rate:**	29.30 MBit/s
Power Setting:	47/47	**Tested By:**	SB

Test Measurement Results



Equipment Configuration for Restricted Lower Band-Edge Emissions			
Antenna:	Galtronics Custom PCB	**Variant:**	802.11n HT-20
Antenna Gain (dBi):	3.80	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5745.00	**Data Rate:**	6.50 MBit/s
Power Setting:	63/63	**Tested By:**	SB

Test Measurement Results

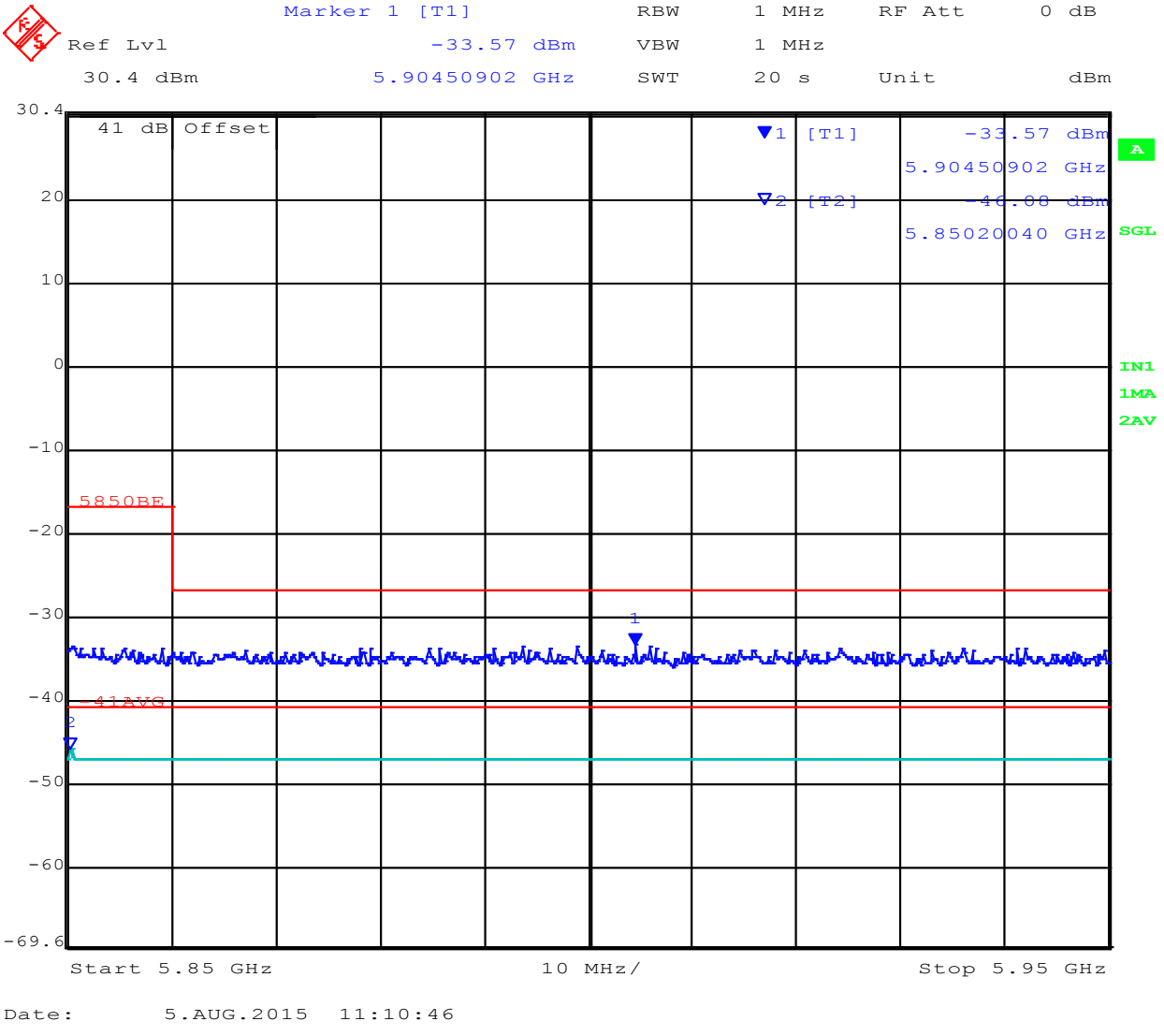


Date: 5.AUG.2015 10:54:44

Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	Galtronics Custom PCB	**Variant:**	802.11n HT-20
Antenna Gain (dBi):	3.80	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5825.00	**Data Rate:**	6.50 MBit/s
Power Setting:	63/63	**Tested By:**	SB

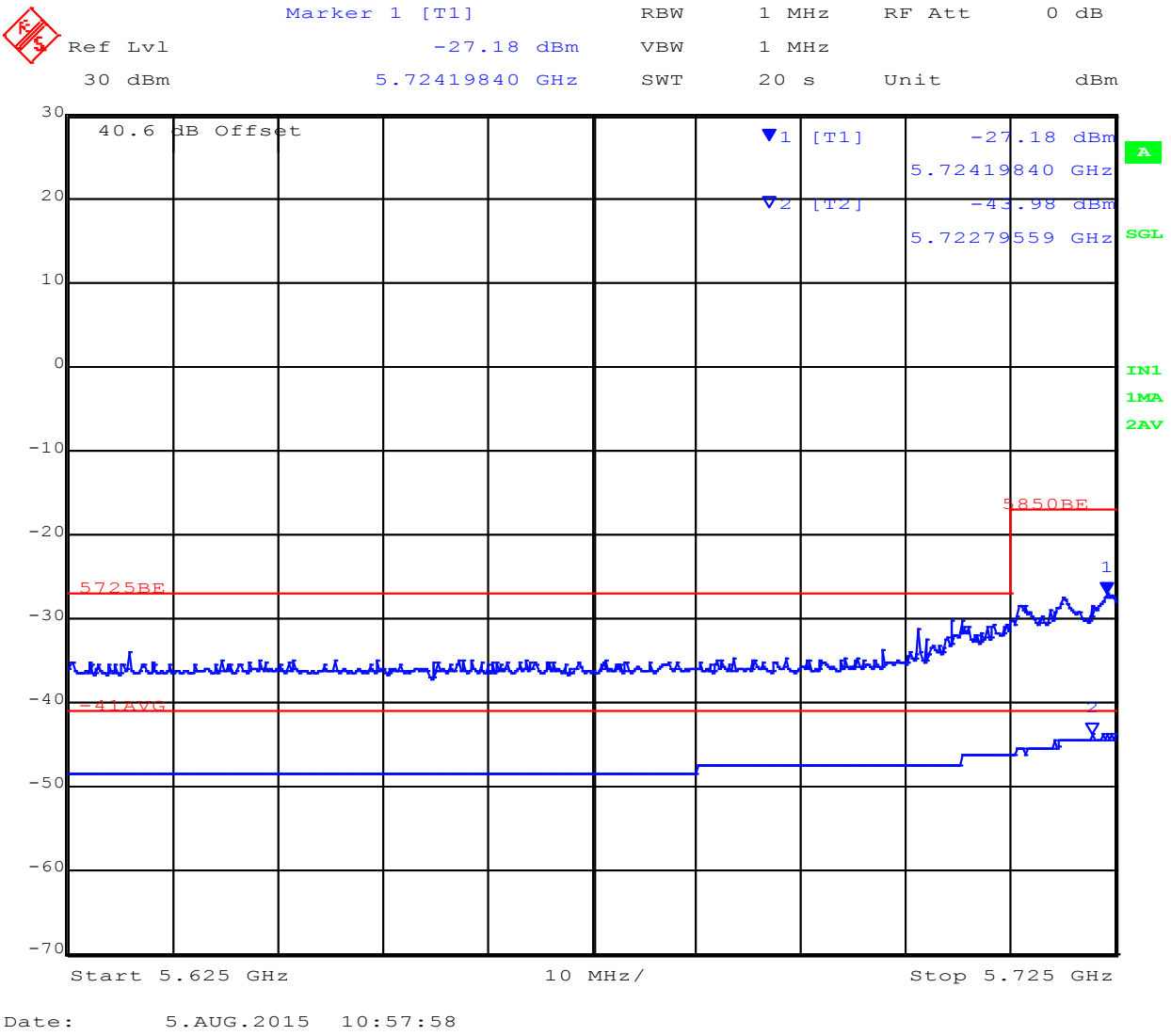
Test Measurement Results



Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Galtronics Custom PCB	**Variant:**	802.11n HT-40
Antenna Gain (dBi):	3.80	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5755.00	**Data Rate:**	13.50 MBit/s
Power Setting:	57/57	**Tested By:**	SB

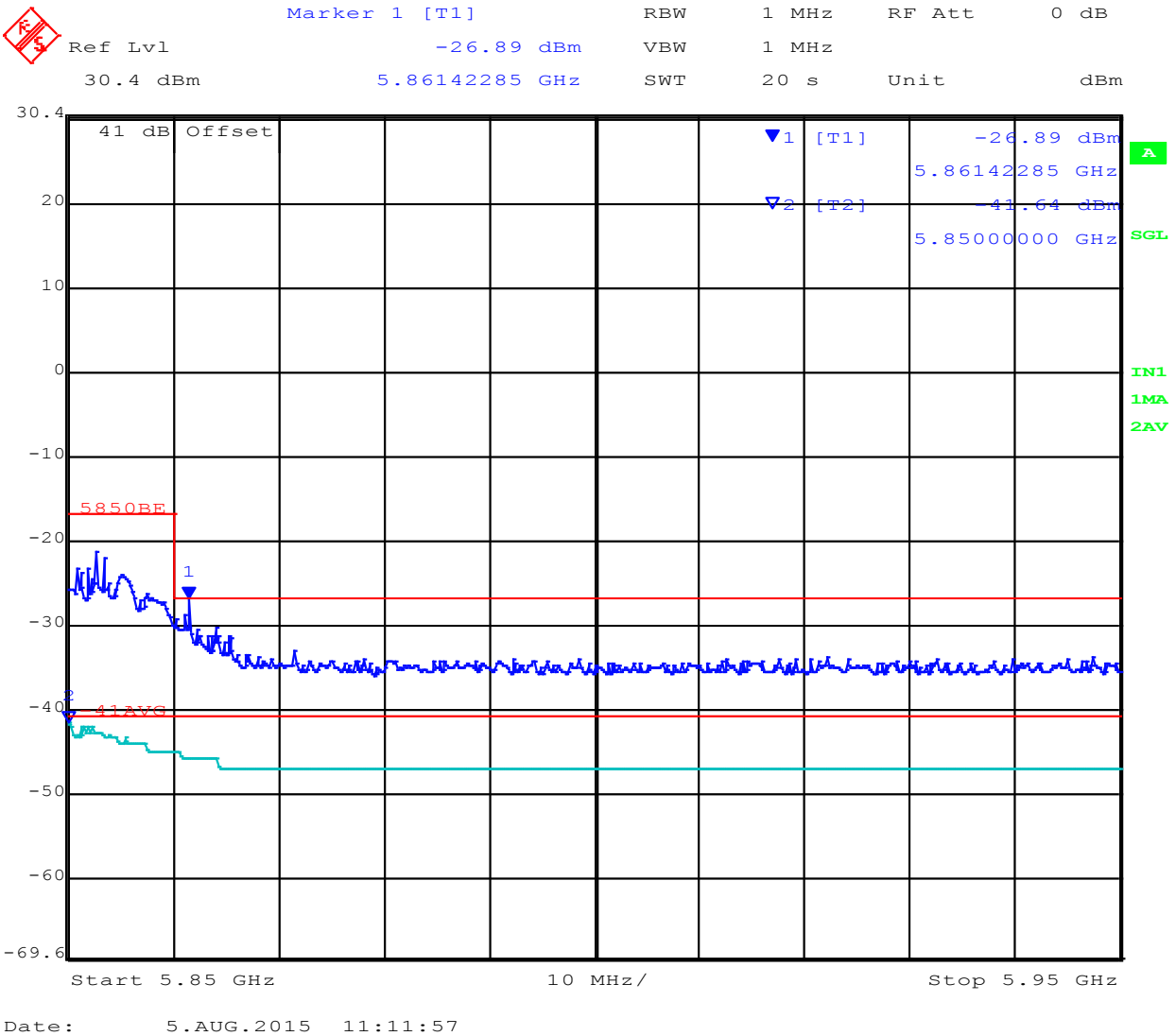
Test Measurement Results



Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	Galtronics Custom PCB	**Variant:**	802.11n HT-40
Antenna Gain (dBi):	3.80	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5795.00	**Data Rate:**	13.50 MBit/s
Power Setting:	57/57	**Tested By:**	SB

Test Measurement Results



9.5. Digital Emissions (0.03 – 1 GHz)

FCC, Part 15 Subpart C §15.205/ §15.209

Test Procedure
Testing 30M-1 GHz was performed in a 3-meter anechoic chamber using a CISPR compliant receiver. Preliminary radiated emissions were measured on every azimuth and with the receiving antenna in both horizontal and vertical polarizations. To further maximize emissions the receive antenna was varied between 1 and 4 meters. The emissions are recorded with receiver in peak hold mode. Emissions closest to the limits are measured in the quasi-peak mode with the tuned receiver using a bandwidth of 120 kHz. Only the highest emissions relative to the limit are listed. The anechoic chamber test set-up is identified in Section 6 Test Set-Up Photographs.

Field Strength Calculation
The field strength is calculated by adding the Antenna Factor and Cable Loss, and subtracting Amplifier Gain from the measured reading. In this test facility, the Antenna Factor, Cable Loss, and Amplifier Gains are loaded into the Rohde & Schwarz Receiver and the corrected field strength can be read directly on the receiver.

$$FS = R + AF + CORR$$

where:

FS = Field Strength
R = Measured Receiver Input Amplitude
AF = Antenna Factor
CORR = Correction Factor = CL – AG + NFL
CL = Cable Loss
AG = Amplifier Gain

For example:
Given a Receiver input reading of 51.5dBμV; Antenna Factor of 8.5dB; Cable Loss of 1.3dB; Falloff Factor of 0dB, an Amplifier Gain of 26dB and Notch Filter Loss of 1dB. The Field Strength of the measured emission is:

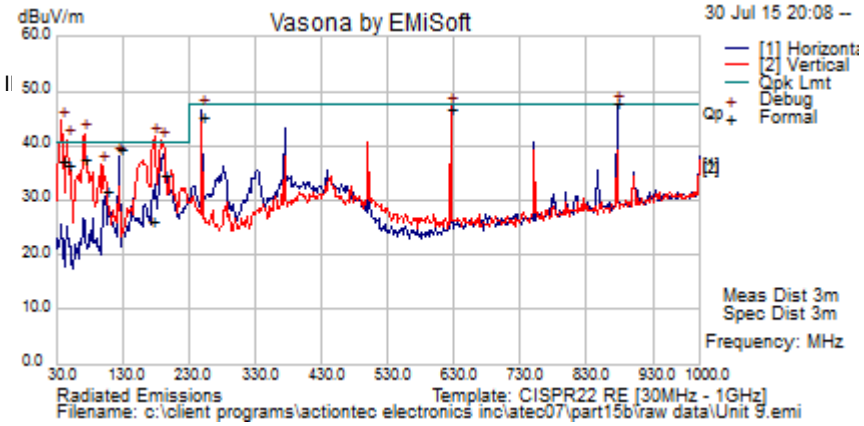
$$FS = 51.5 + 8.5 + 1.3 - 26.0 + 1 = 36.3 dB\mu V/m$$

Conversion between dBμV/m (or dBμV) and μV/m (or μV) are done as:

$$Level\ (dB\mu V/m) = 20 * Log\ (level\ (\mu V/m))$$

40 dBμV/m = 100μV/m
48 dBμV/m = 250μV/m

Test Freq.	Not Applicable	**Engineer**	GMH
Variant	Digital Emissions	**Temp (ºC)**	25
Freq. Range	30 MHz - 1000 MHz	**Rel. Hum.(%)**	28
Power Setting	Not Applicable	**Press. (mBars)**	1004
Antenna	Integral		
Test Notes 1	S/N: SB325220600009 EUT on table ping through F-cable to second laptop connected to E-Net 0, stream video		
Test Notes 2	M/N: KSASB0241200150HU Both laptops outside chamber, streaming movie Ktec ac Adaptor		



Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
37.812	49.1	3.5	-15.6	37.0	Quasi Max	V	132	206	40.5	-3.5	Pass	
72.730	56.7	3.7	-22.8	37.6	Quasi Max	V	193	165	40.5	-2.9	Pass	
176.278	41.6	4.2	-19.6	26.3	Quasi Max	V	191	142	40.5	-14.3	Pass	
48.071	54.9	3.6	-22.0	36.4	Quasi Max	V	99	291	40.5	-4.1	Pass	
192.102	49.4	4.3	-19.0	34.7	Quasi Max	V	118	144	40.5	-5.9	Pass	
874.978	48.7	6.3	-7.5	47.4	Quasi Max	H	100	53	47.2	-0.2	Pass	
624.986	51.7	5.7	-10.6	46.7	Quasi Max	V	105	222	47.5	-0.8	Pass	
249.952	59.4	4.5	-18.8	45.1	Quasi Max	H	105	104	47.5	-2.5	Pass	
124.972	52.3	4.0	-17.0	39.4	Quasi Max	H	246	172	40.5	-1.1	Pass	
104.266	47.5	3.9	-19.7	31.7	Quasi Max	V	99	313	40.5	-8.8	Pass	

Legend:	DIG = Digital Device Emission; TX = Transmitter Emission; FUND = Fundamental Frequency
	NRB = Non-Restricted Band, Limit is 20 dB below Fundamental; RB = Restricted Band

Traceability

Test Methodology	Laboratory Measurement Uncertainty
Measurements were made per work instruction WI-03 'Measurement of Radiated Emissions'	+5.6/ -4.5 dB

9.6. ac Wireline Emissions

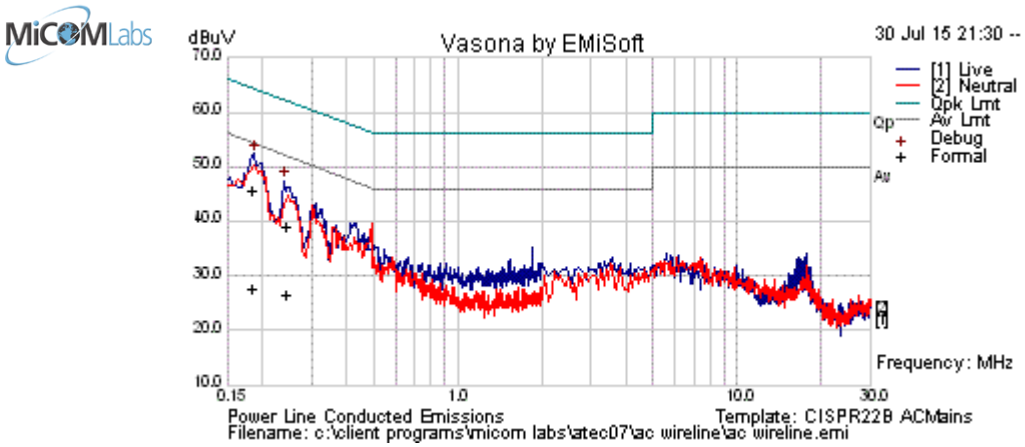
FCC, Part 15 Subpart C §15.207

Test Procedure

The EUT is configured in accordance with ANSI C63.4. The conducted emissions are measured in a shielded room with a spectrum analyzer in peak hold in the first instance. Emissions closest to the limit are measured in the quasi-peak mode (QP) with the tuned receiver using a bandwidth of 9 kHz. The emissions are maximized further by cable manipulation. The highest emissions relative to the limit are listed.

Measurement Results for ac Wireline Conducted Emissions (150 kHz – 30 MHz)

Test Freq.	N/A	**Engineer**	GMH
Variant	AC Line Emissions	**Temp (ºC)**	25
Freq. Range	0.150 MHz - 30 MHz	**Rel. Hum.(%)**	28
Power Setting	Not Applicable	**Press. (mBars)**	1004
Antenna	Integral		
Test Notes 1	EUT on table ping via F-cable to 2nd laptop conn to E-Net, laptops outside chamber, stream movie		
Test Notes 2	Ktec ac Adaptor M/N: KSASB0241200150HU S/N: SB325220600009		



Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	Factors dB	Level dBuV	Measurement Type	Line	Limit dBuV	Margin dB	Pass /Fail	Comments
0.182	35.7	9.9	0.1	45.7	Max Qpeak	Live	64.39	-18.7	Pass	
0.182	17.7	9.9	0.1	27.7	Max Qpeak	Live	54.39	-26.7	Pass	
0.243	29.1	9.9	0.1	39.1	Max Ave	Live	61.99	-22.9	Pass	
0.243	16.6	9.9	0.1	26.5	Max Ave	Live	51.99	-25.5	Pass	

Legend:	DIG = Digital Device Emission; TX = Transmitter Emission; FUND = Fundamental Frequency
	NRB = Non-Restricted Band, Limit is 20 dB below Fundamental; RB = Restricted Band

Specification

Limits

§15.207 (a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μΩ line impedance stabilization network (LISN), see §15.207 (a) matrix below. Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal.

§15.207 (a) Limit Matrix
The lower limit applies at the boundary between frequency ranges

Frequency of Emission (MHz)	Conducted Limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency

Traceability

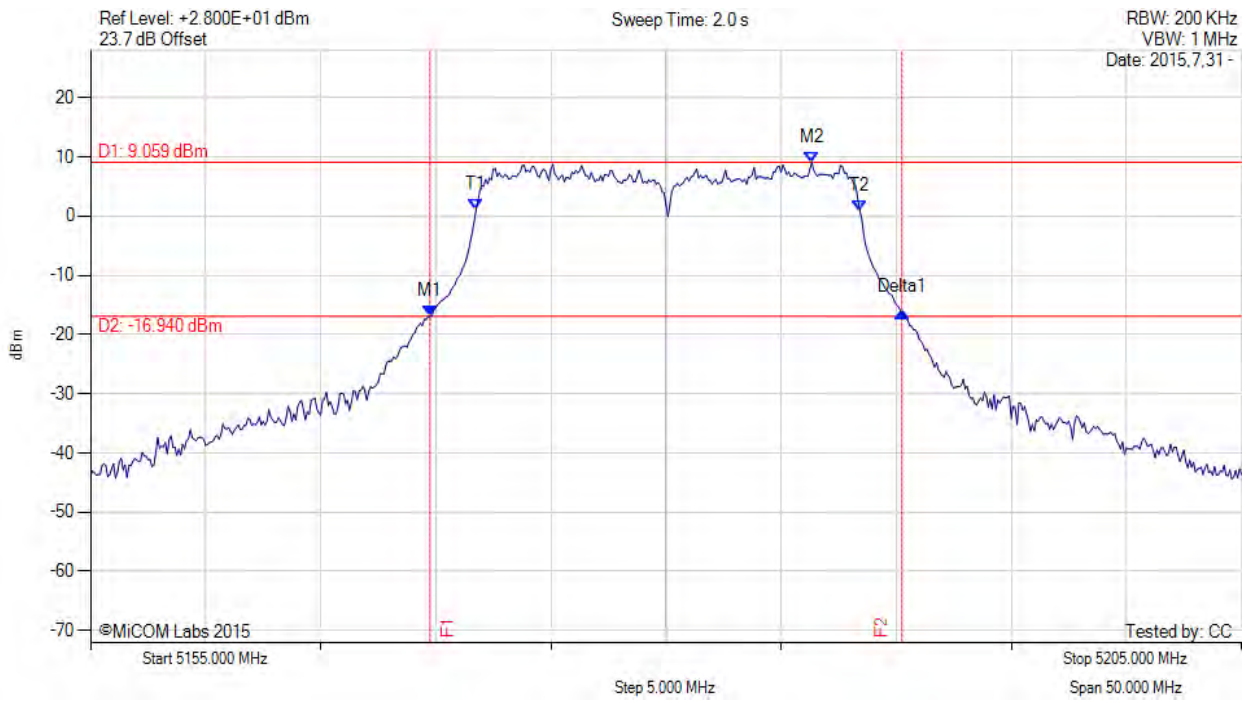
Test Methodology	Laboratory Measurement Uncertainty
Measurements were made per work instruction WI-EMC-01 'Measurement of Conducted Emissions'	±2.64 dB

A. APPENDIX - GRAPHICAL IMAGES

A.1. 26 dB & 99% Bandwidth

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5180.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

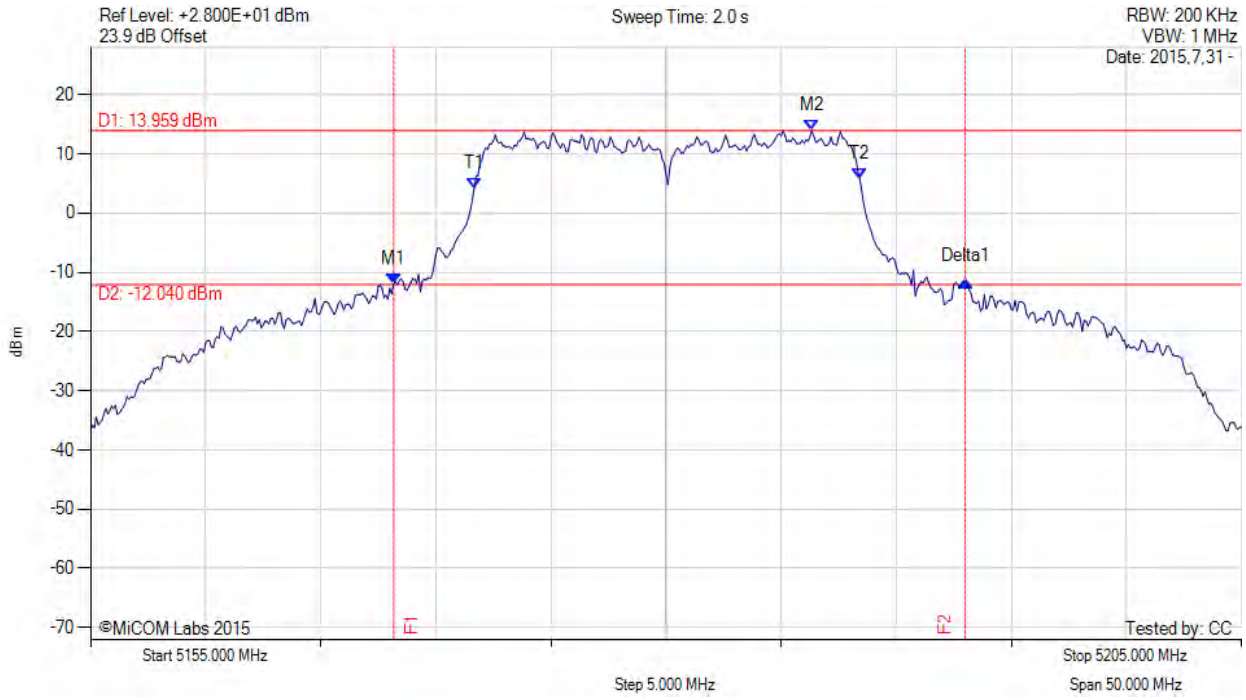


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5169.750 MHz : -16.906 dBm M2 : 5186.330 MHz : 9.059 dBm Delta1 : 20.500 MHz : 0.694 dB T1 : 5171.750 MHz : 1.100 dBm T2 : 5188.417 MHz : 0.954 dBm OBW : 16.581 MHz	Measured 26 dB Bandwidth: 20.500 MHz Measured 99% Bandwidth: 16.581 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5180.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

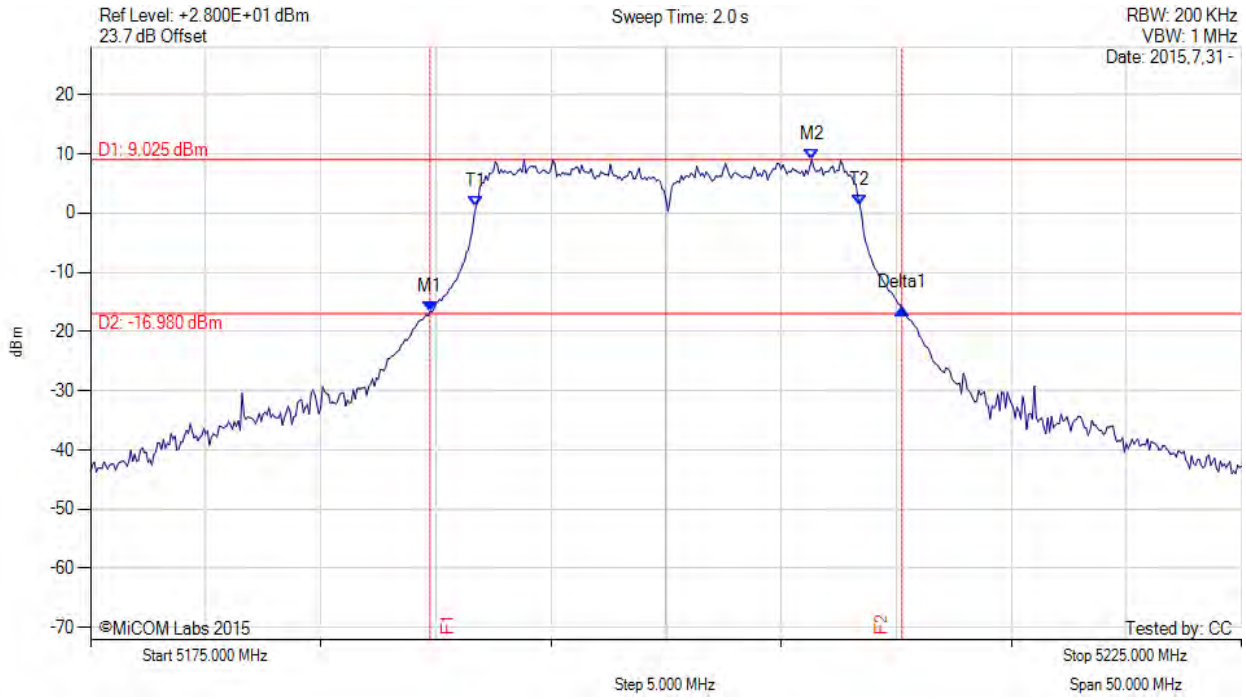


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5168.170 MHz : -11.979 dBm M2 : 5186.330 MHz : 13.959 dBm Delta1 : 24.830 MHz : 0.432 dB T1 : 5171.667 MHz : 4.175 dBm T2 : 5188.417 MHz : 5.801 dBm OBW : 16.729 MHz	Measured 26 dB Bandwidth: 24.830 MHz Measured 99% Bandwidth: 16.729 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5200.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

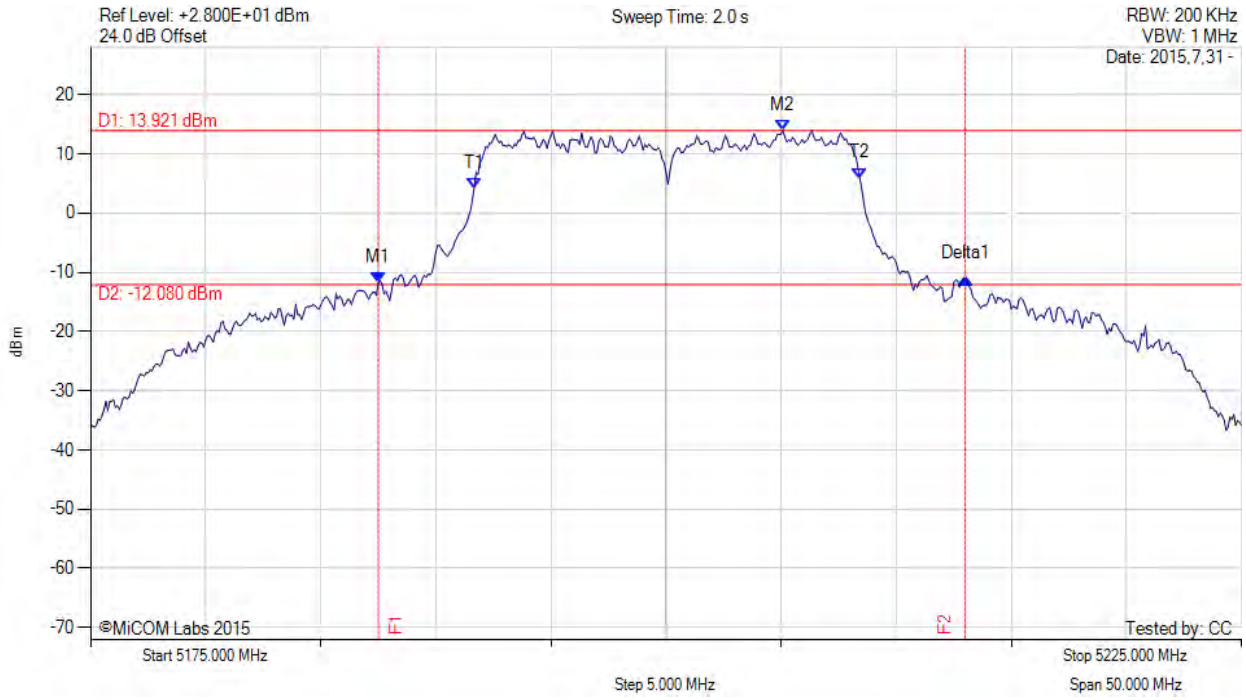


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5189.750 MHz : -16.631 dBm M2 : 5206.330 MHz : 9.025 dBm Delta1 : 20.500 MHz : 0.545 dB T1 : 5191.750 MHz : 1.115 dBm T2 : 5208.417 MHz : 1.325 dBm OBW : 16.588 MHz	Measured 26 dB Bandwidth: 20.500 MHz Measured 99% Bandwidth: 16.588 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5200.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

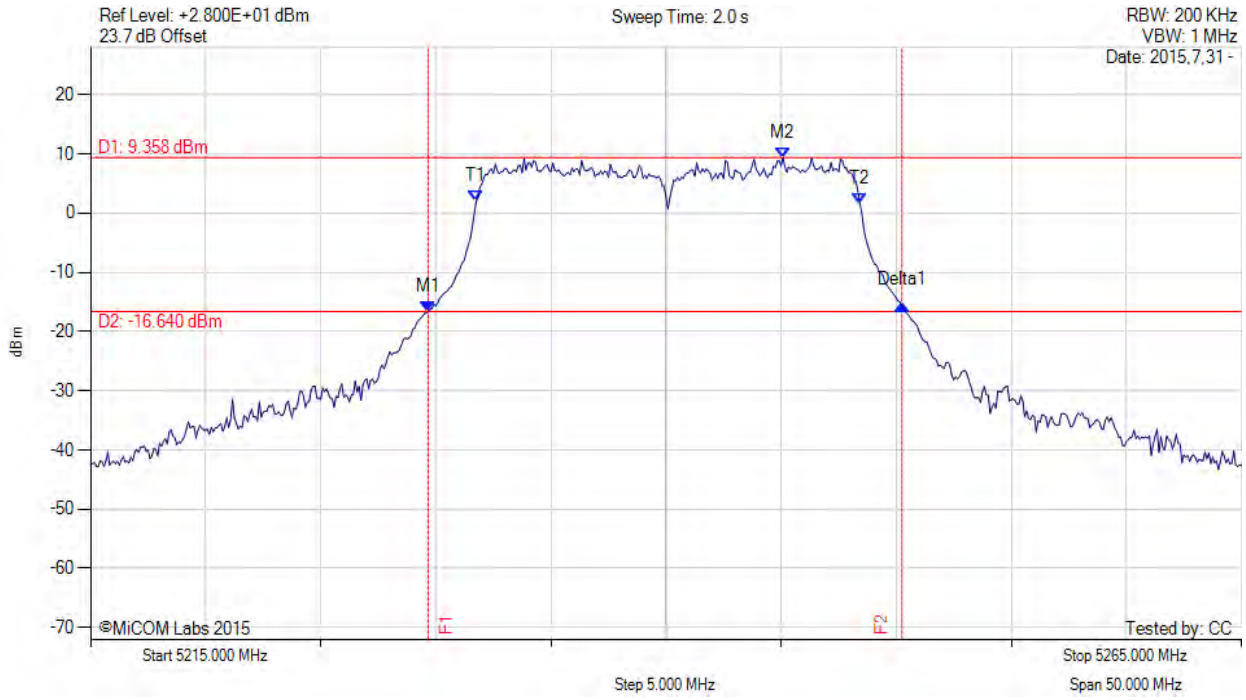


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5187.500 MHz : -11.832 dBm M2 : 5205.080 MHz : 13.921 dBm Delta1 : 25.500 MHz : 0.739 dB T1 : 5191.667 MHz : 4.214 dBm T2 : 5208.417 MHz : 5.891 dBm OBW : 16.766 MHz	Measured 26 dB Bandwidth: 25.500 MHz Measured 99% Bandwidth: 16.766 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5240.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

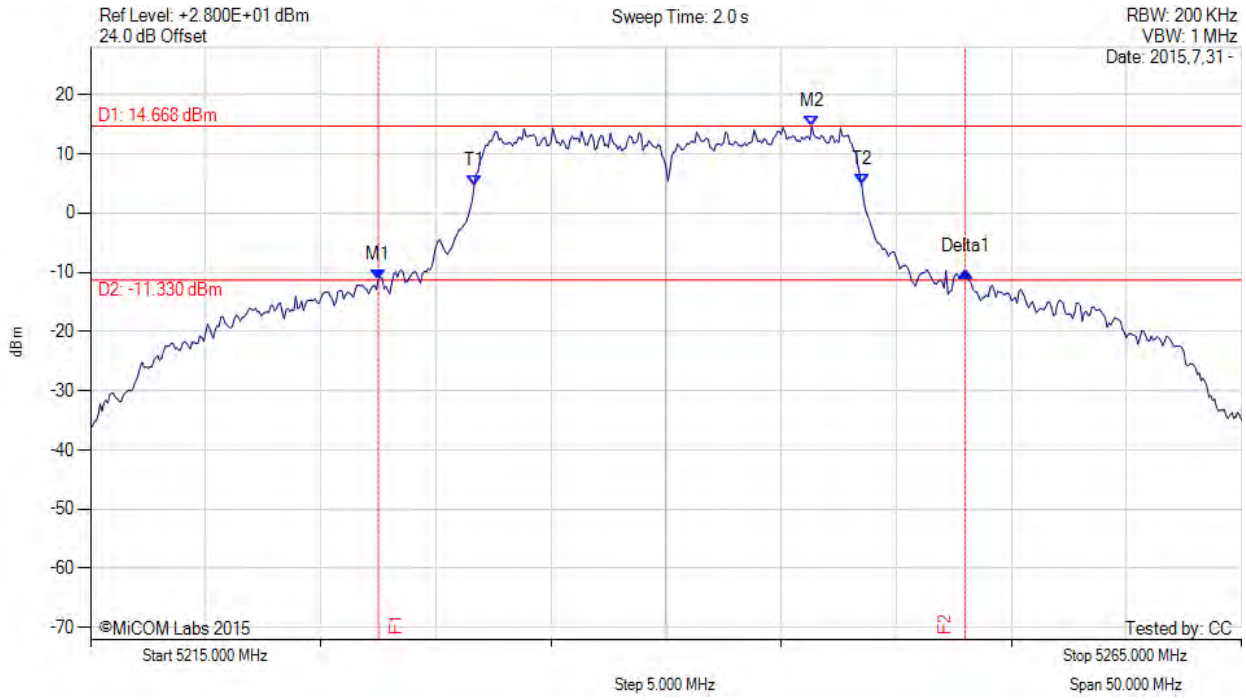


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5229.670 MHz : -16.632 dBm M2 : 5245.080 MHz : 9.358 dBm Delta1 : 20.580 MHz : 1.086 dB T1 : 5231.750 MHz : 1.943 dBm T2 : 5248.417 MHz : 1.596 dBm OBW : 16.608 MHz	Measured 26 dB Bandwidth: 20.580 MHz Measured 99% Bandwidth: 16.608 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5240.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

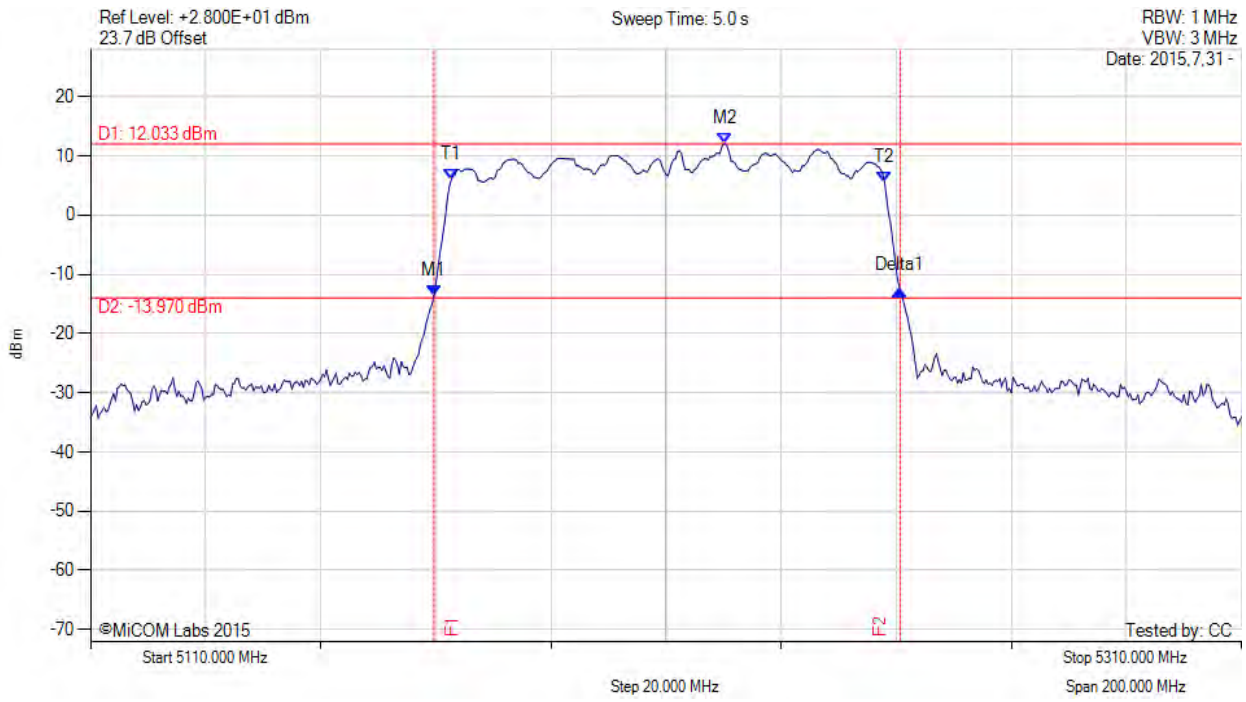


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5227.500 MHz : -11.248 dBm M2 : 5246.330 MHz : 14.668 dBm Delta1 : 25.500 MHz : 1.317 dB T1 : 5231.667 MHz : 4.597 dBm T2 : 5248.500 MHz : 4.780 dBm OBW : 16.818 MHz	Measured 26 dB Bandwidth: 25.500 MHz Measured 99% Bandwidth: 16.818 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11ac-80, Channel: 5210.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

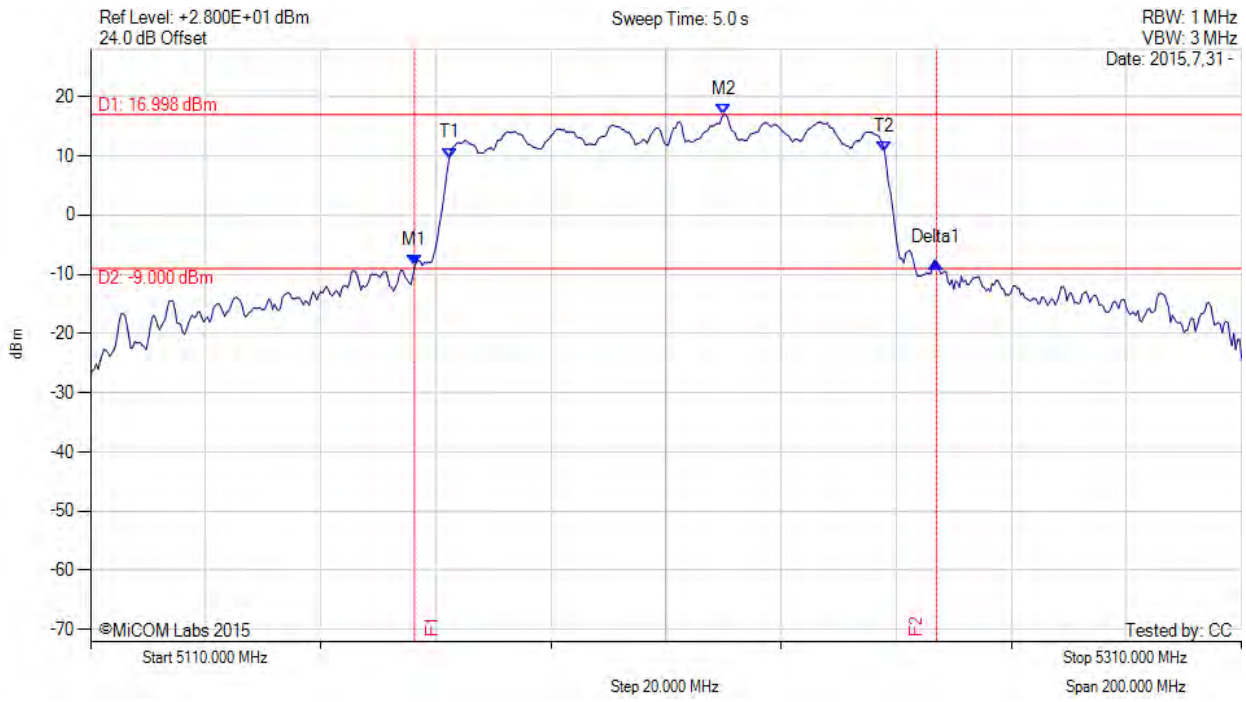


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5169.700 MHz : -13.685 dBm M2 : 5220.300 MHz : 12.033 dBm Delta1 : 81.000 MHz : 0.933 dB T1 : 5172.667 MHz : 5.921 dBm T2 : 5248.000 MHz : 5.445 dBm OBW : 75.147 MHz	Measured 26 dB Bandwidth: 81.000 MHz Measured 99% Bandwidth: 75.147 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11ac-80, Channel: 5210.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

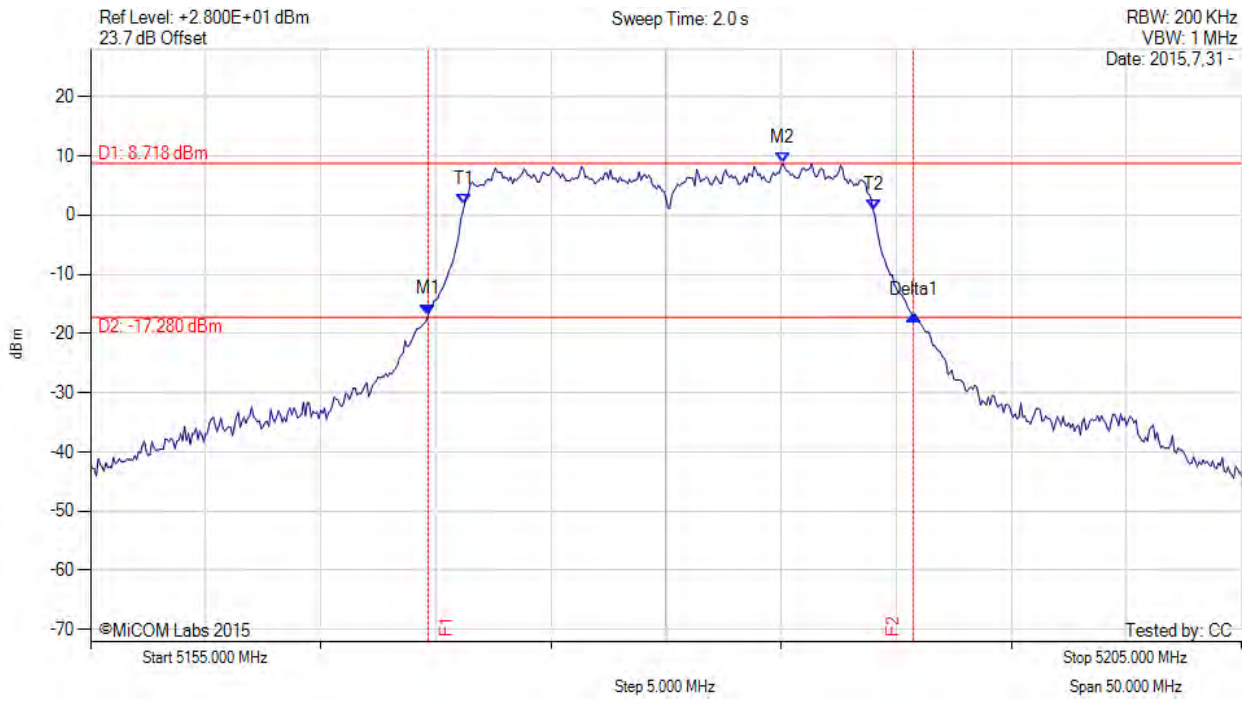


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5166.300 MHz : -8.521 dBm M2 : 5220.000 MHz : 16.998 dBm Delta1 : 90.700 MHz : 0.510 dB T1 : 5172.333 MHz : 9.624 dBm T2 : 5248.000 MHz : 10.601 dBm OBW : 75.662 MHz	Measured 26 dB Bandwidth: 90.700 MHz Measured 99% Bandwidth: 75.662 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5180.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

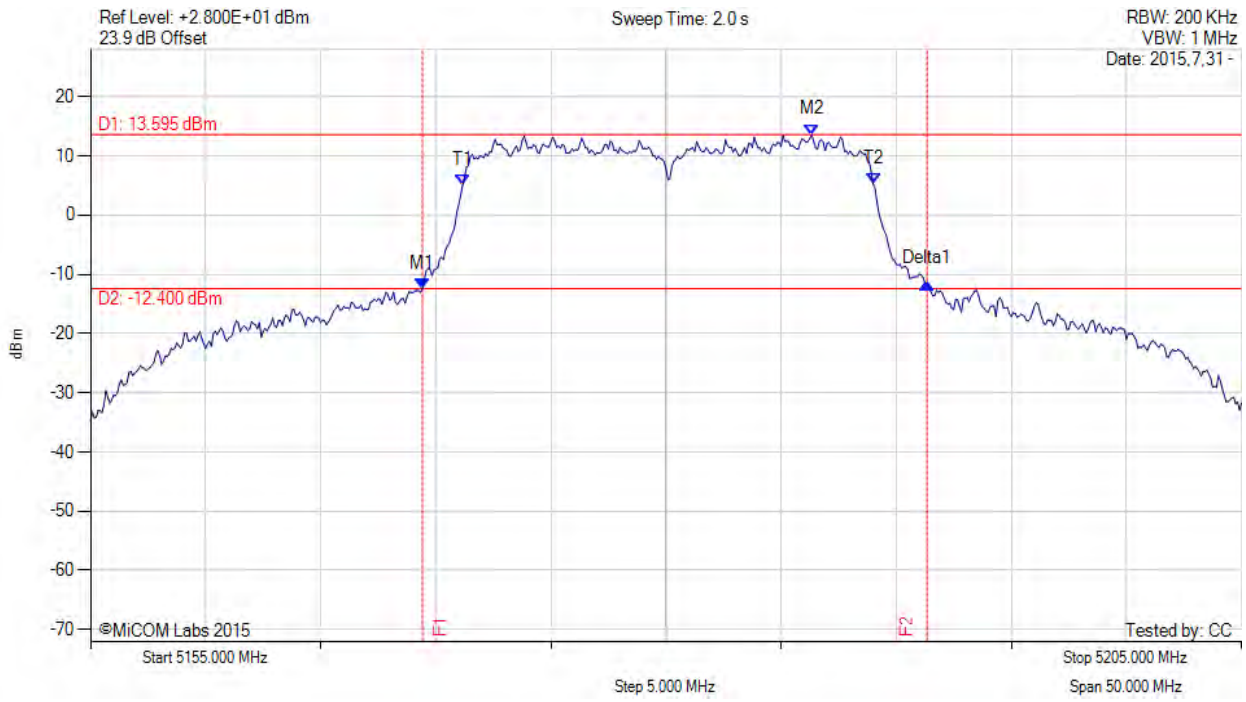


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5169.670 MHz : -16.796 dBm M2 : 5185.080 MHz : 8.718 dBm Delta1 : 21.080 MHz : -0.161 dB T1 : 5171.250 MHz : 1.867 dBm T2 : 5189.000 MHz : 0.875 dBm OBW : 17.714 MHz	Measured 26 dB Bandwidth: 21.080 MHz Measured 99% Bandwidth: 17.714 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5180.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

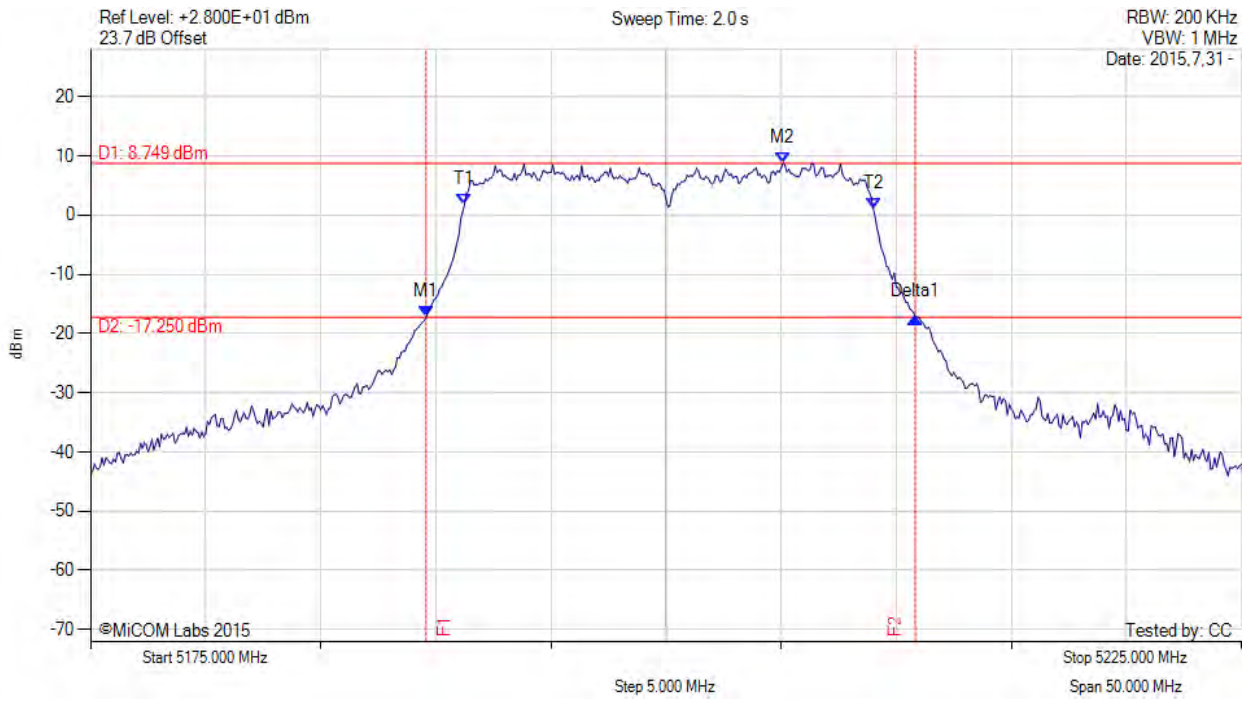


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5169.420 MHz : -12.394 dBm M2 : 5186.330 MHz : 13.595 dBm Delta1 : 21.920 MHz : 0.881 dB T1 : 5171.167 MHz : 5.057 dBm T2 : 5189.000 MHz : 5.202 dBm OBW : 17.809 MHz	Measured 26 dB Bandwidth: 21.920 MHz Measured 99% Bandwidth: 17.809 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5200.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

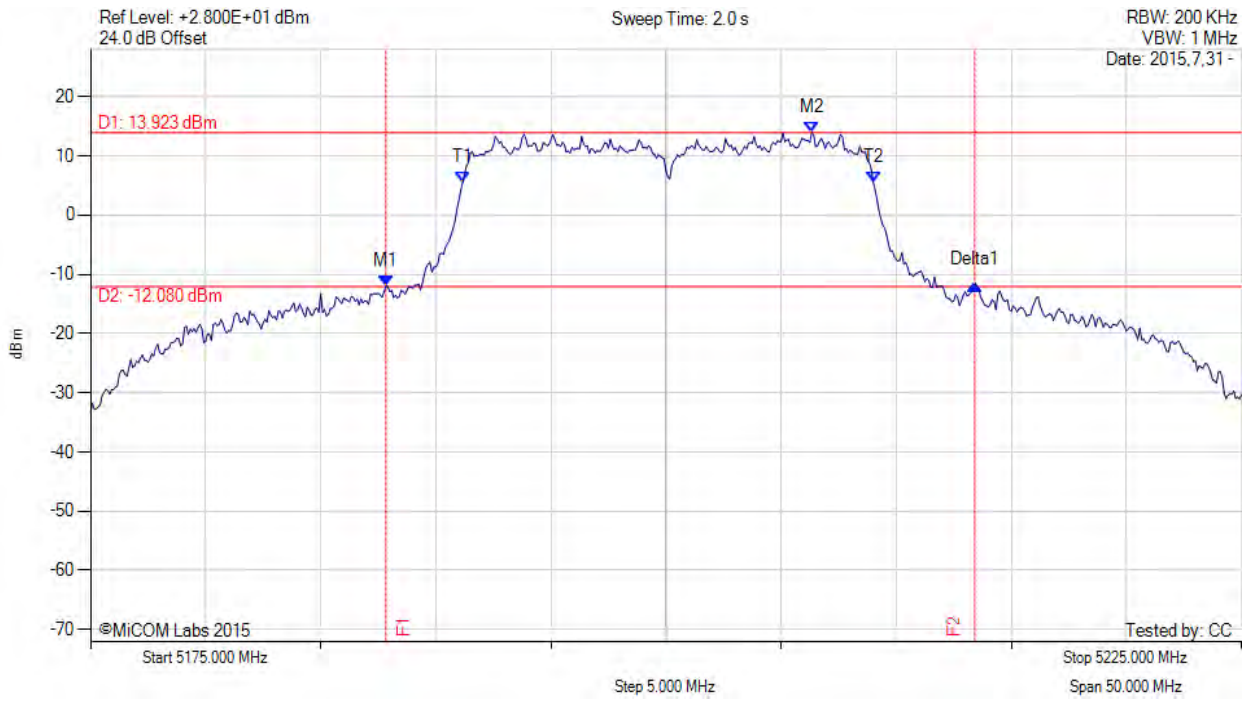


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5189.580 MHz : -17.214 dBm M2 : 5205.080 MHz : 8.749 dBm Delta1 : 21.250 MHz : -0.028 dB T1 : 5191.250 MHz : 1.851 dBm T2 : 5209.000 MHz : 1.174 dBm OBW : 17.716 MHz	Measured 26 dB Bandwidth: 21.250 MHz Measured 99% Bandwidth: 17.716 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5200.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

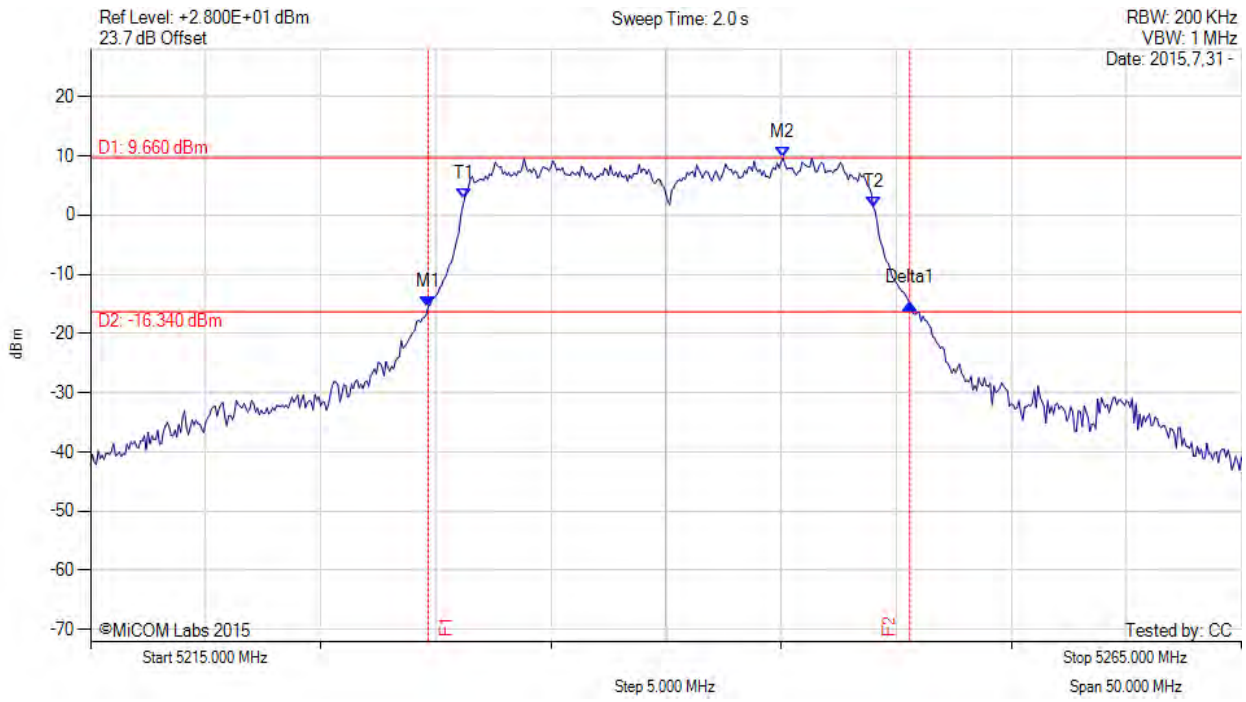


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5187.830 MHz : -11.968 dBm M2 : 5206.330 MHz : 13.923 dBm Delta1 : 25.580 MHz : 0.306 dB T1 : 5191.167 MHz : 5.451 dBm T2 : 5209.000 MHz : 5.566 dBm OBW : 17.865 MHz	Measured 26 dB Bandwidth: 25.580 MHz Measured 99% Bandwidth: 17.865 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5240.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

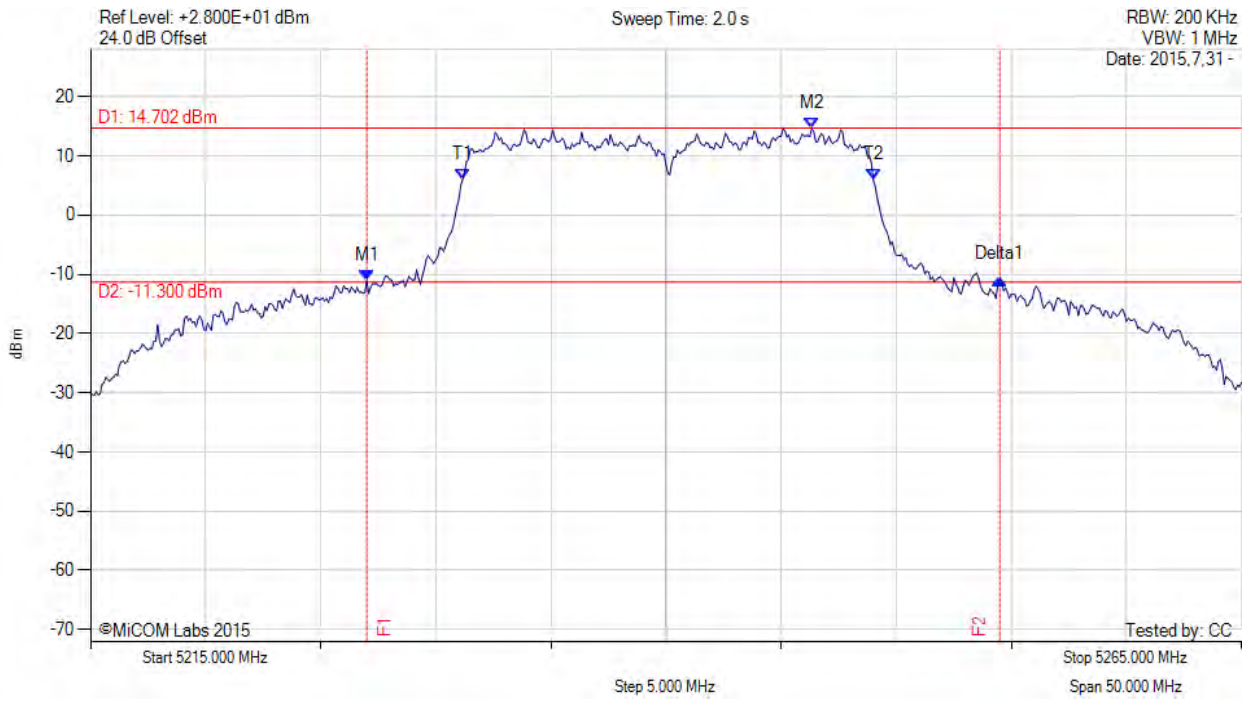


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5229.670 MHz : -15.492 dBm M2 : 5245.080 MHz : 9.660 dBm Delta1 : 20.920 MHz : 0.577 dB T1 : 5231.250 MHz : 2.744 dBm T2 : 5249.000 MHz : 1.422 dBm OBW : 17.717 MHz	Measured 26 dB Bandwidth: 20.920 MHz Measured 99% Bandwidth: 17.717 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5240.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

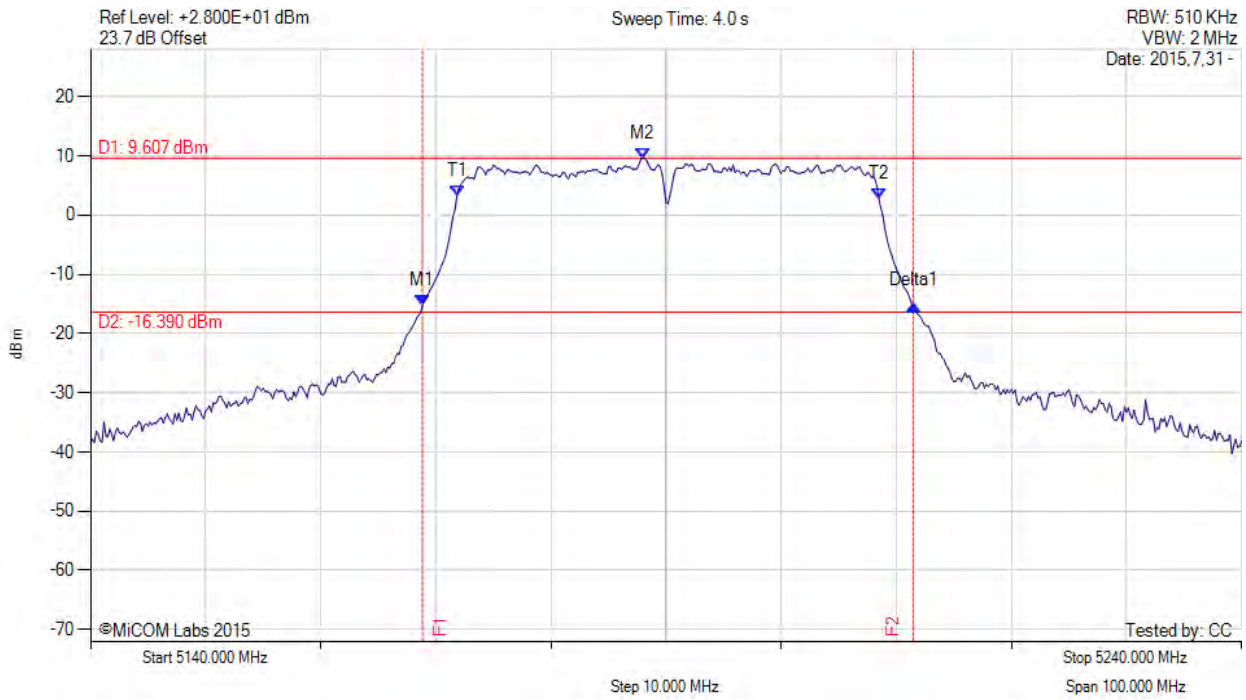


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5227.000 MHz : -11.103 dBm M2 : 5246.330 MHz : 14.702 dBm Delta1 : 27.500 MHz : 0.271 dB T1 : 5231.167 MHz : 6.026 dBm T2 : 5249.000 MHz : 5.964 dBm OBW : 17.911 MHz	Measured 26 dB Bandwidth: 27.500 MHz Measured 99% Bandwidth: 17.911 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5190.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

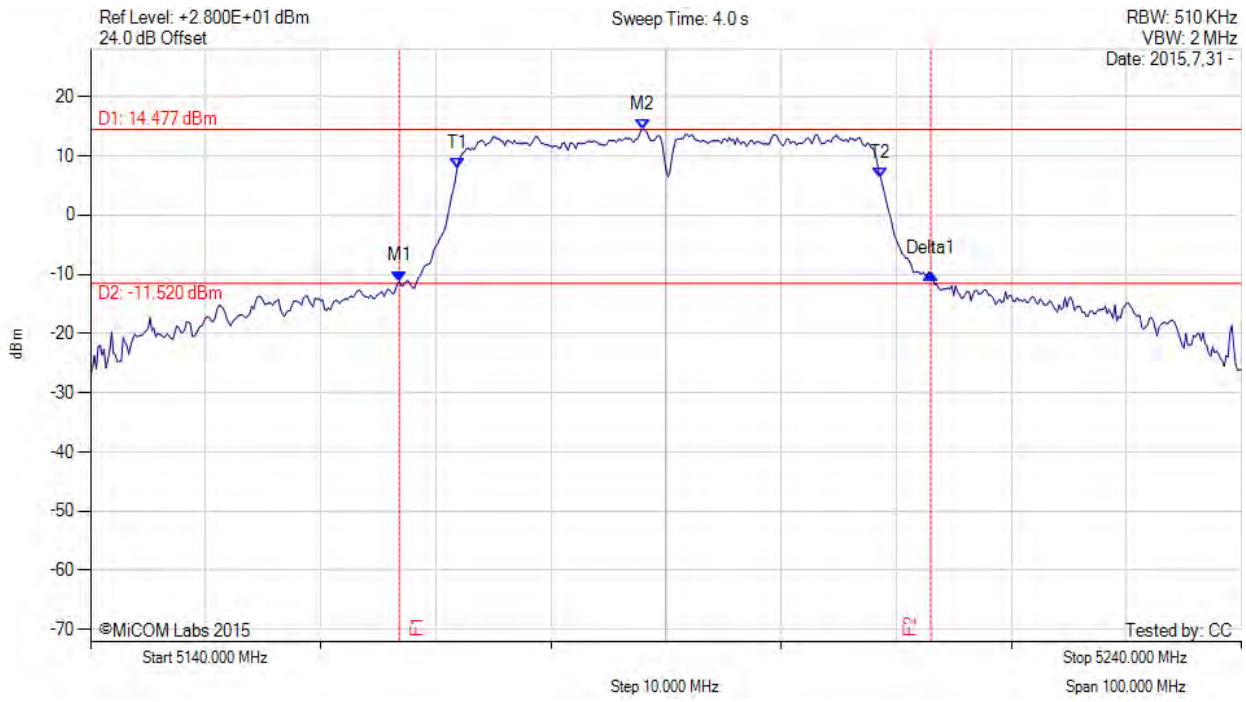


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5168.830 MHz : -15.323 dBm M2 : 5188.000 MHz : 9.607 dBm Delta1 : 42.670 MHz : -0.005 dB T1 : 5171.833 MHz : 3.277 dBm T2 : 5208.500 MHz : 2.785 dBm OBW : 36.586 MHz	Measured 26 dB Bandwidth: 42.670 MHz Measured 99% Bandwidth: 36.586 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5190.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

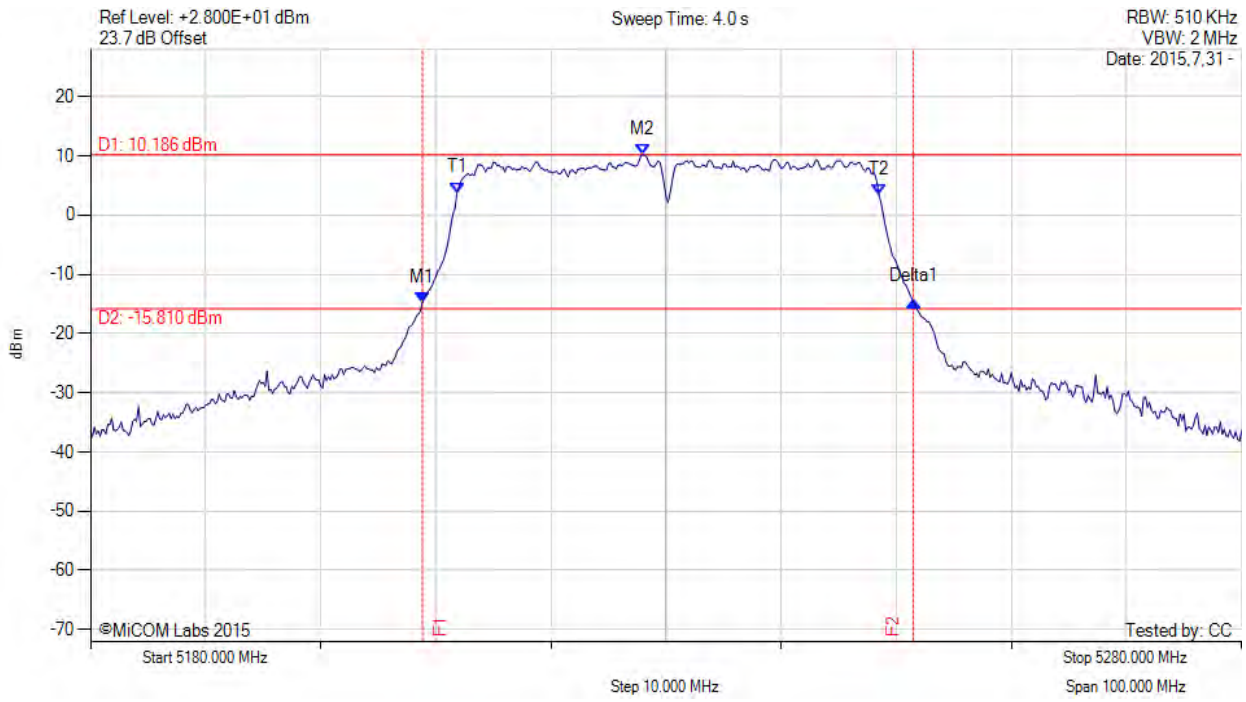


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5166.830 MHz : -11.182 dBm M2 : 5188.000 MHz : 14.477 dBm Delta1 : 46.170 MHz : 1.360 dB T1 : 5171.833 MHz : 7.806 dBm T2 : 5208.667 MHz : 6.242 dBm OBW : 36.877 MHz	Measured 26 dB Bandwidth: 46.170 MHz Measured 99% Bandwidth: 36.877 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5230.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

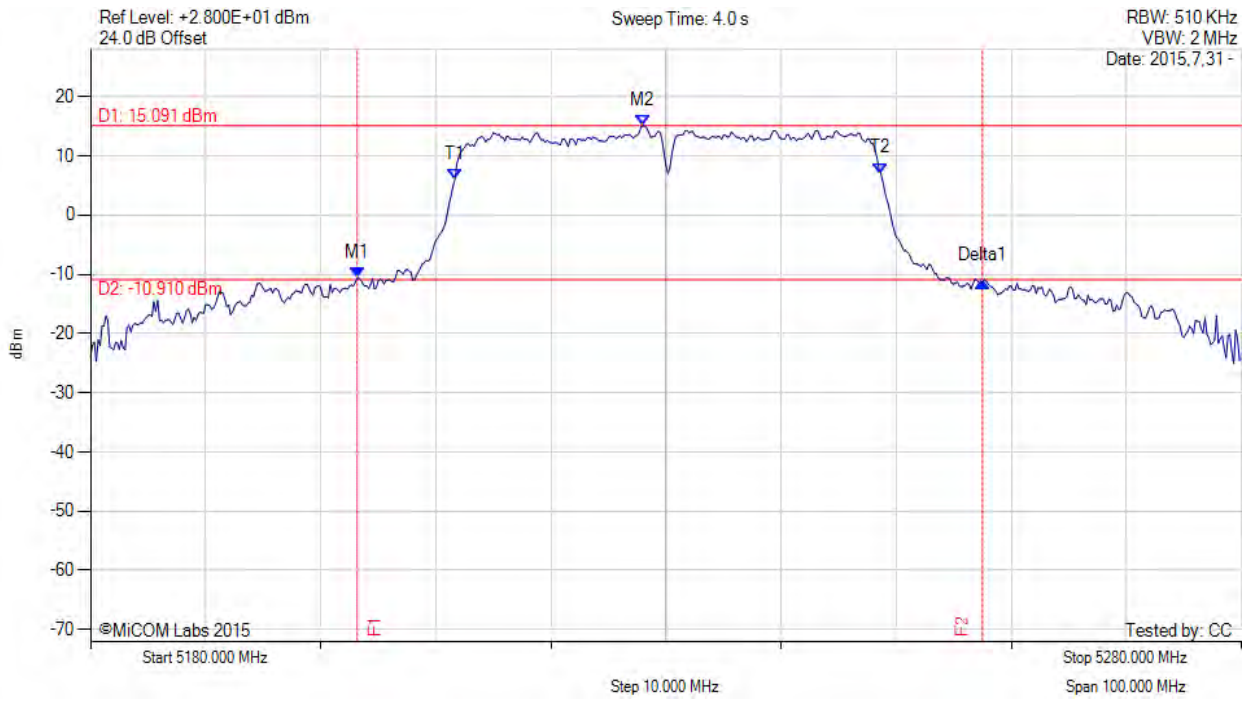


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5208.830 MHz : -14.734 dBm M2 : 5228.000 MHz : 10.186 dBm Delta1 : 42.670 MHz : 0.190 dB T1 : 5211.833 MHz : 3.769 dBm T2 : 5248.500 MHz : 3.394 dBm OBW : 36.591 MHz	Measured 26 dB Bandwidth: 42.670 MHz Measured 99% Bandwidth: 36.591 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5230.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

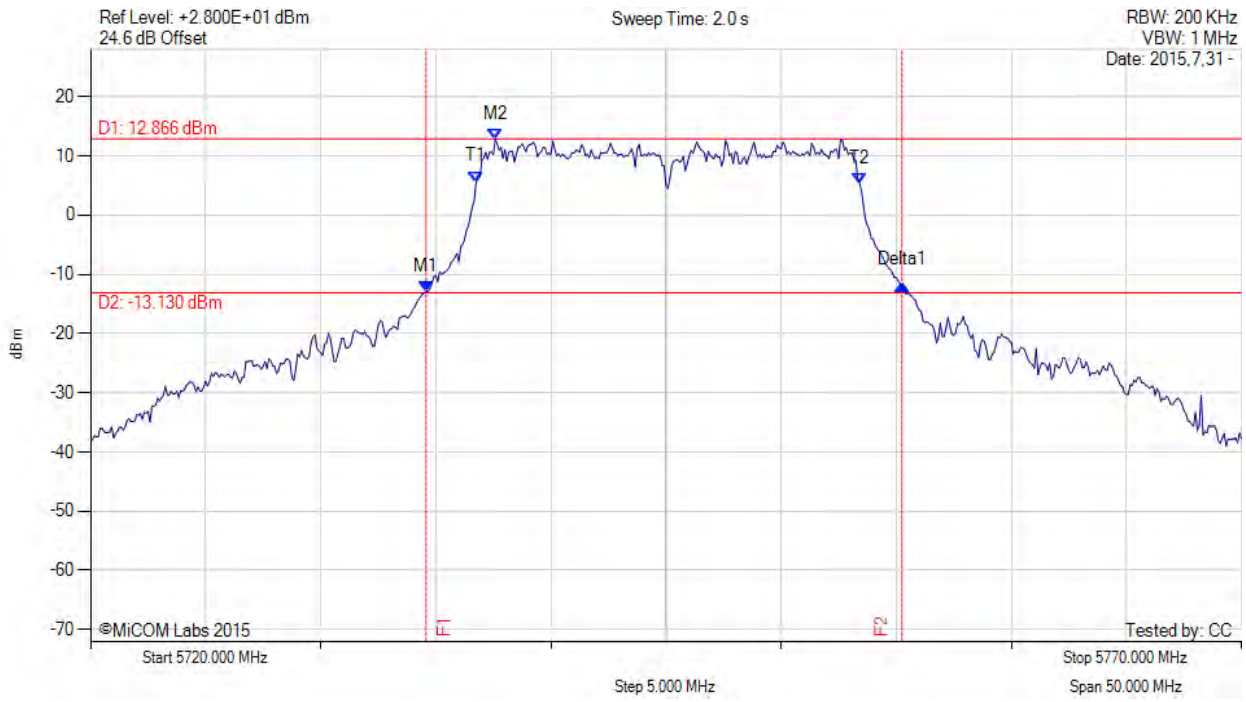


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5203.170 MHz : -10.677 dBm M2 : 5228.000 MHz : 15.091 dBm Delta1 : 54.330 MHz : -0.497 dB T1 : 5211.667 MHz : 6.105 dBm T2 : 5248.667 MHz : 7.059 dBm OBW : 37.019 MHz	Measured 26 dB Bandwidth: 54.330 MHz Measured 99% Bandwidth: 37.019 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5745.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

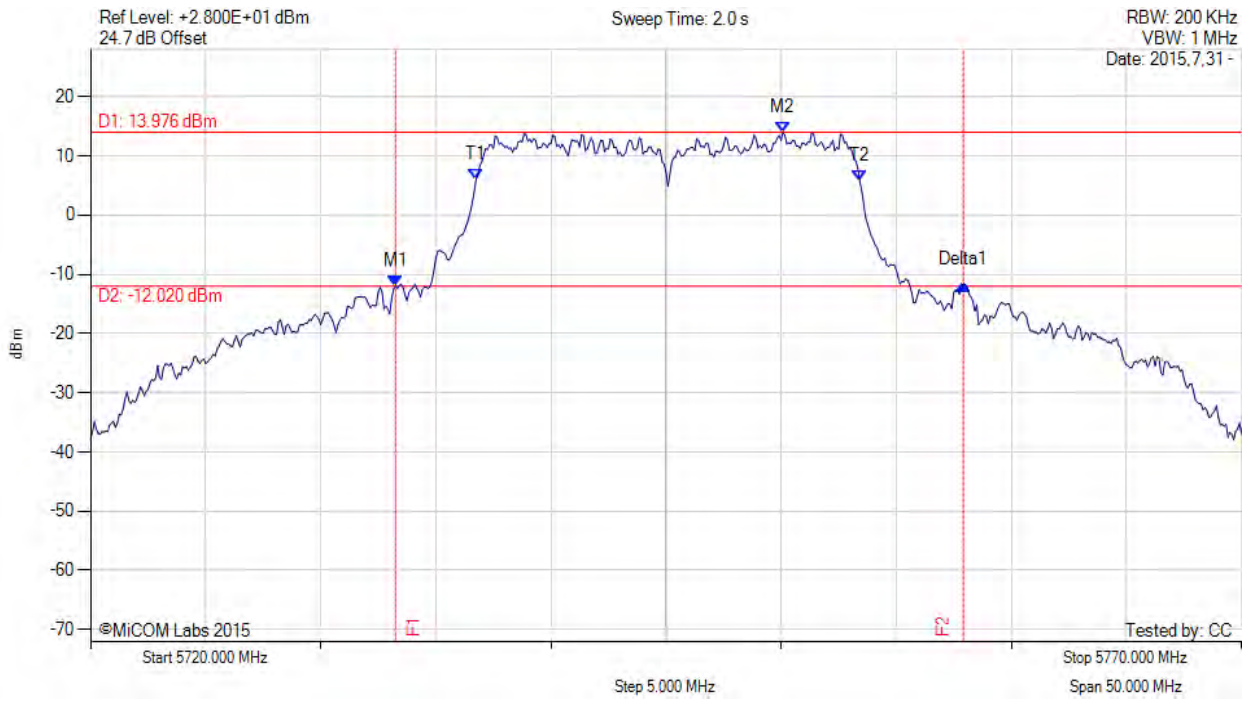


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5734.580 MHz : -12.892 dBm M2 : 5737.580 MHz : 12.866 dBm Delta1 : 20.670 MHz : 1.144 dB T1 : 5736.750 MHz : 5.646 dBm T2 : 5753.417 MHz : 5.295 dBm OBW : 16.656 MHz	Measured 26 dB Bandwidth: 20.670 MHz Measured 99% Bandwidth: 16.656 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5745.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

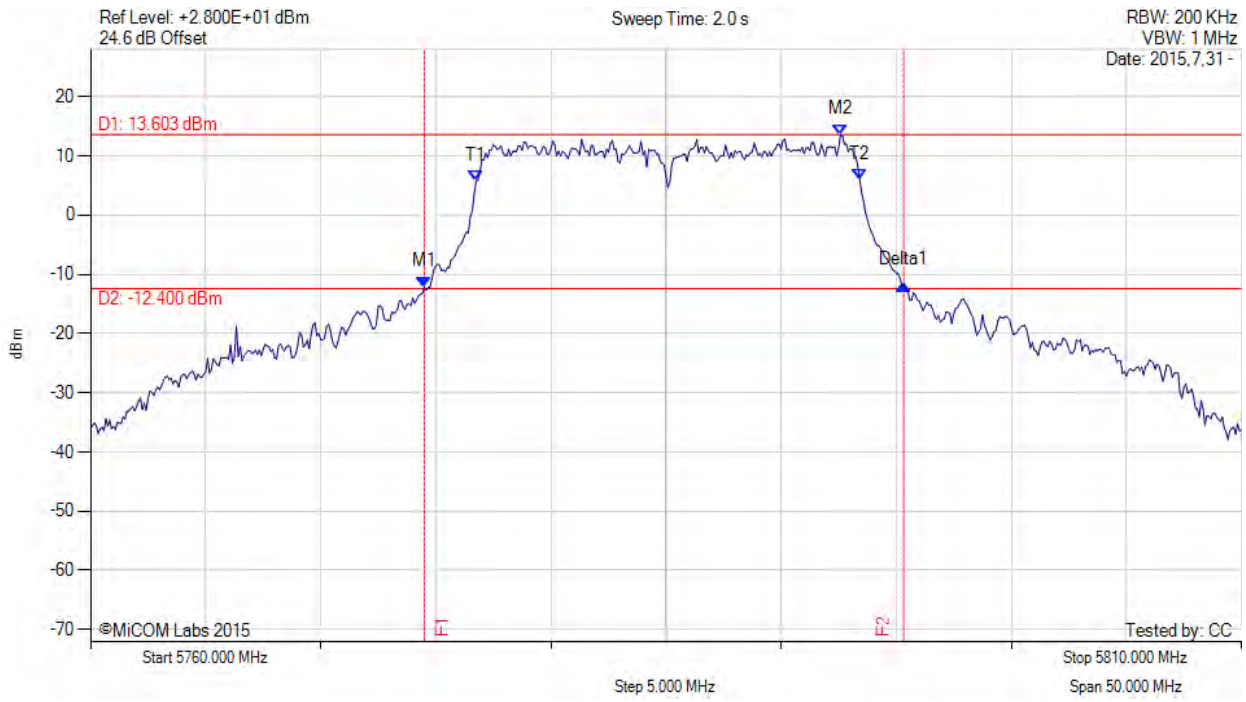


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5733.250 MHz : -11.977 dBm M2 : 5750.080 MHz : 13.976 dBm Delta1 : 24.670 MHz : 0.285 dB T1 : 5736.750 MHz : 6.032 dBm T2 : 5753.417 MHz : 5.689 dBm OBW : 16.675 MHz	Measured 26 dB Bandwidth: 24.670 MHz Measured 99% Bandwidth: 16.675 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5785.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

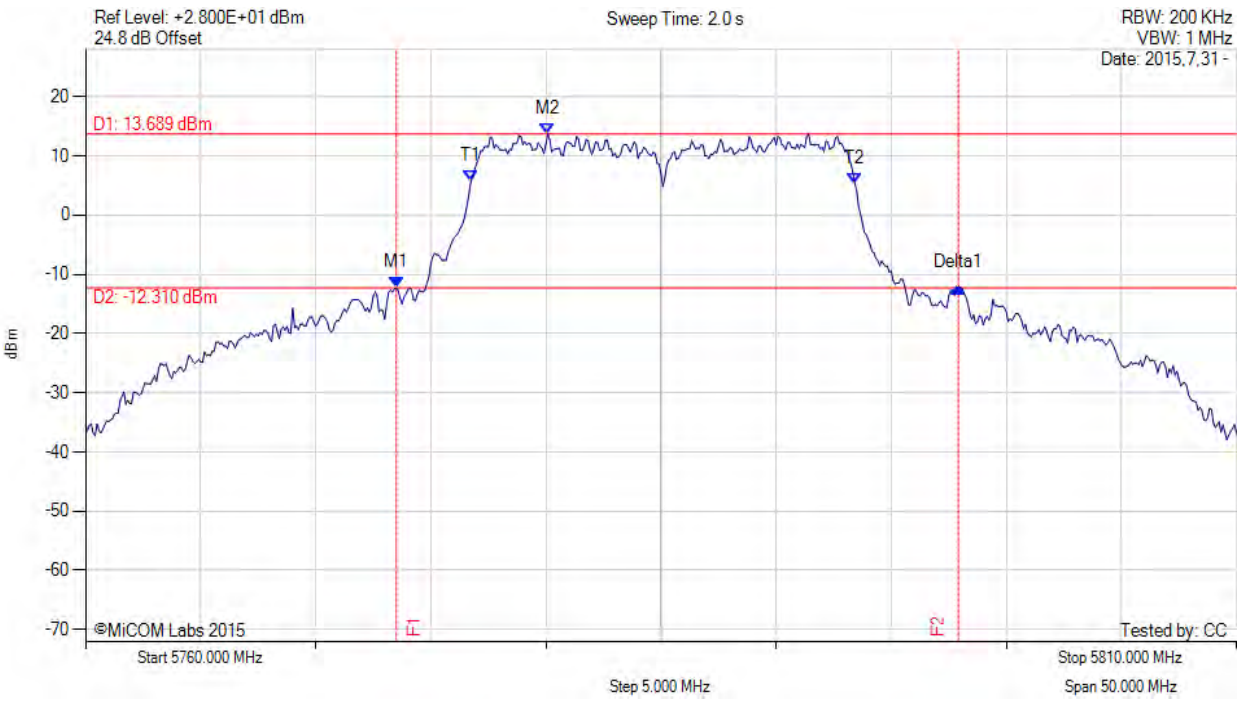


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5774.500 MHz : -12.101 dBm M2 : 5792.580 MHz : 13.603 dBm Delta1 : 20.830 MHz : 0.440 dB T1 : 5776.750 MHz : 5.776 dBm T2 : 5793.417 MHz : 5.921 dBm OBW : 16.696 MHz	Measured 26 dB Bandwidth: 20.830 MHz Measured 99% Bandwidth: 16.696 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5785.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

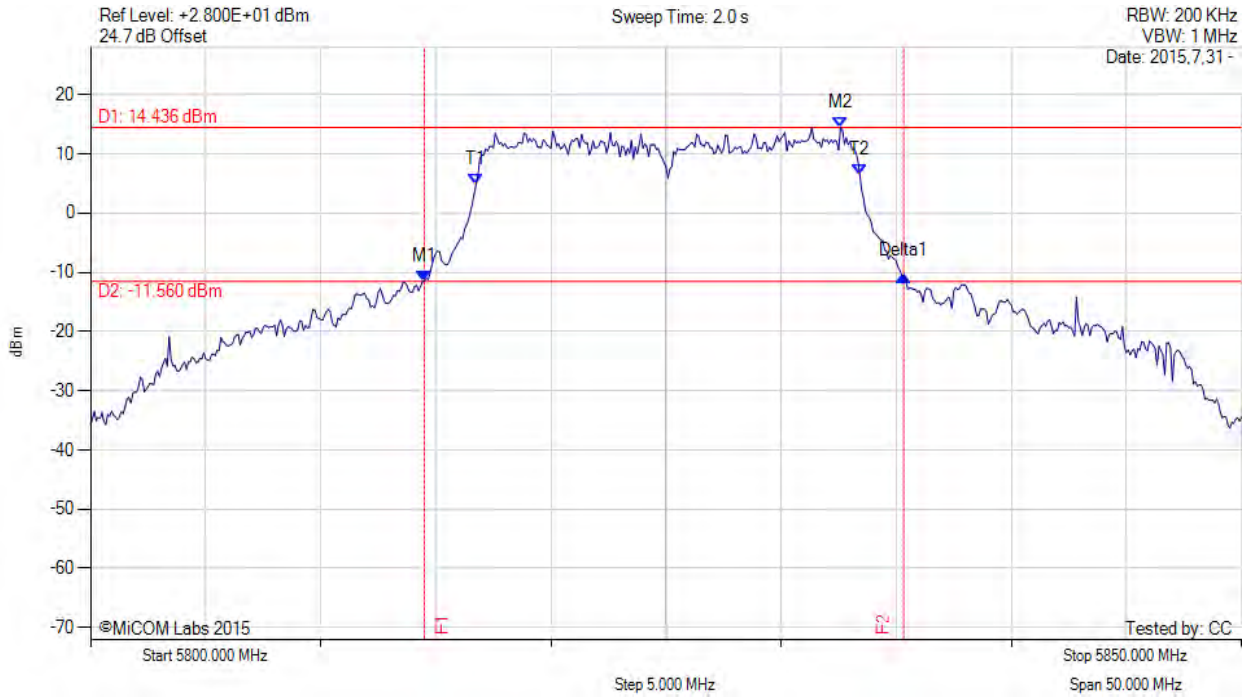


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5773.500 MHz : -12.303 dBm M2 : 5780.080 MHz : 13.689 dBm Delta1 : 24.420 MHz : 0.050 dB T1 : 5776.750 MHz : 5.867 dBm T2 : 5793.417 MHz : 5.391 dBm OBW : 16.685 MHz	Measured 26 dB Bandwidth: 24.420 MHz Measured 99% Bandwidth: 16.685 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5825.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

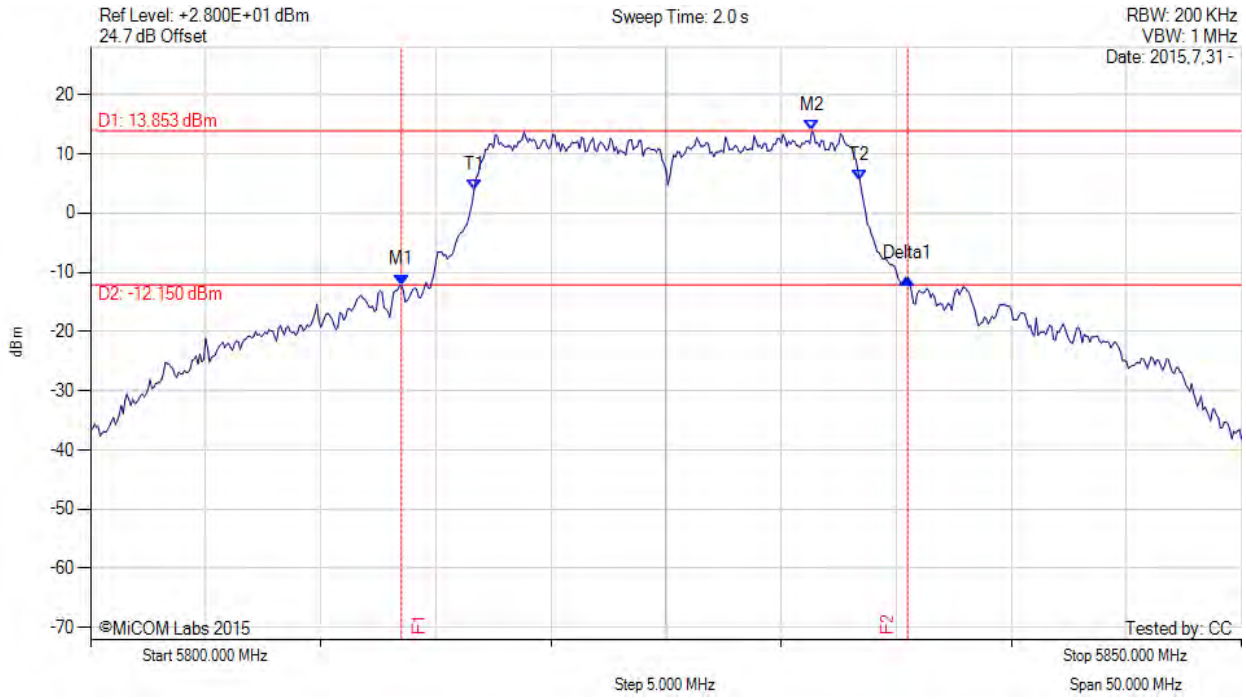


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5814.500 MHz : -11.448 dBm M2 : 5832.580 MHz : 14.436 dBm Delta1 : 20.830 MHz : 0.850 dB T1 : 5816.750 MHz : 4.934 dBm T2 : 5833.417 MHz : 6.538 dBm OBW : 16.711 MHz	Measured 26 dB Bandwidth: 20.830 MHz Measured 99% Bandwidth: 16.711 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5825.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

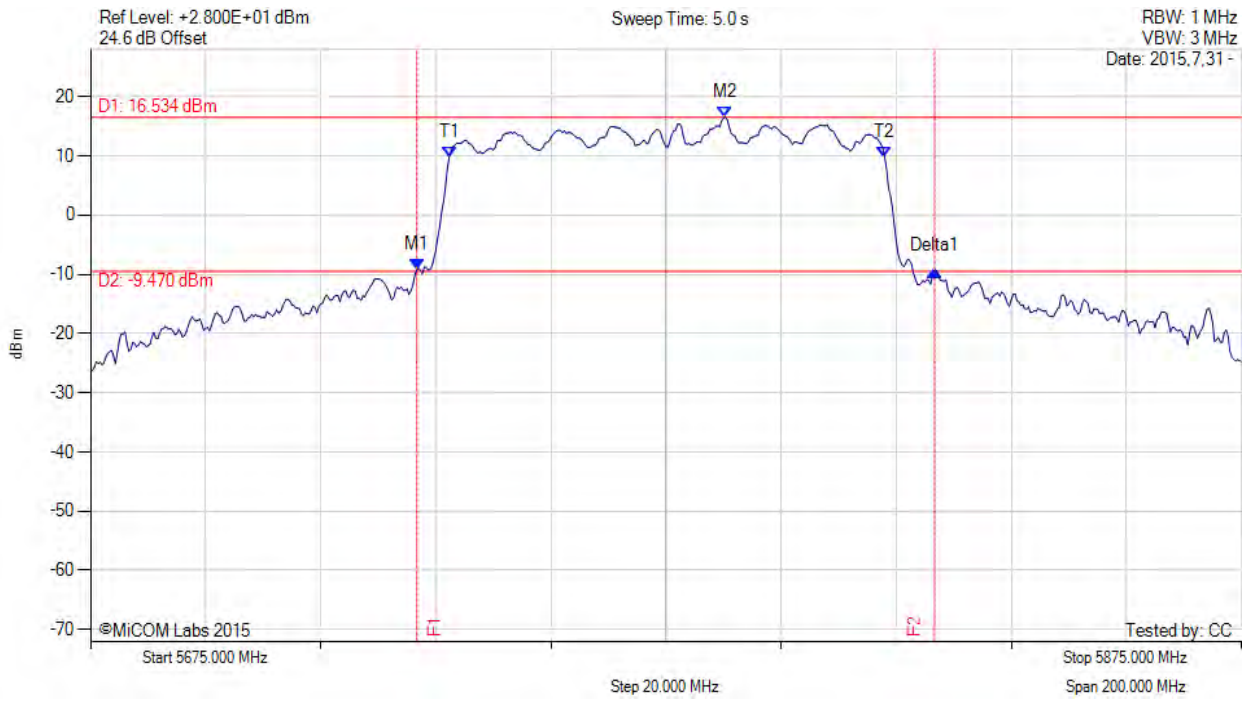


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5813.500 MHz : -12.112 dBm M2 : 5831.330 MHz : 13.853 dBm Delta1 : 22.000 MHz : 1.152 dB T1 : 5816.667 MHz : 3.982 dBm T2 : 5833.417 MHz : 5.620 dBm OBW : 16.683 MHz	Measured 26 dB Bandwidth: 22.000 MHz Measured 99% Bandwidth: 16.683 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11ac-80, Channel: 5775.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

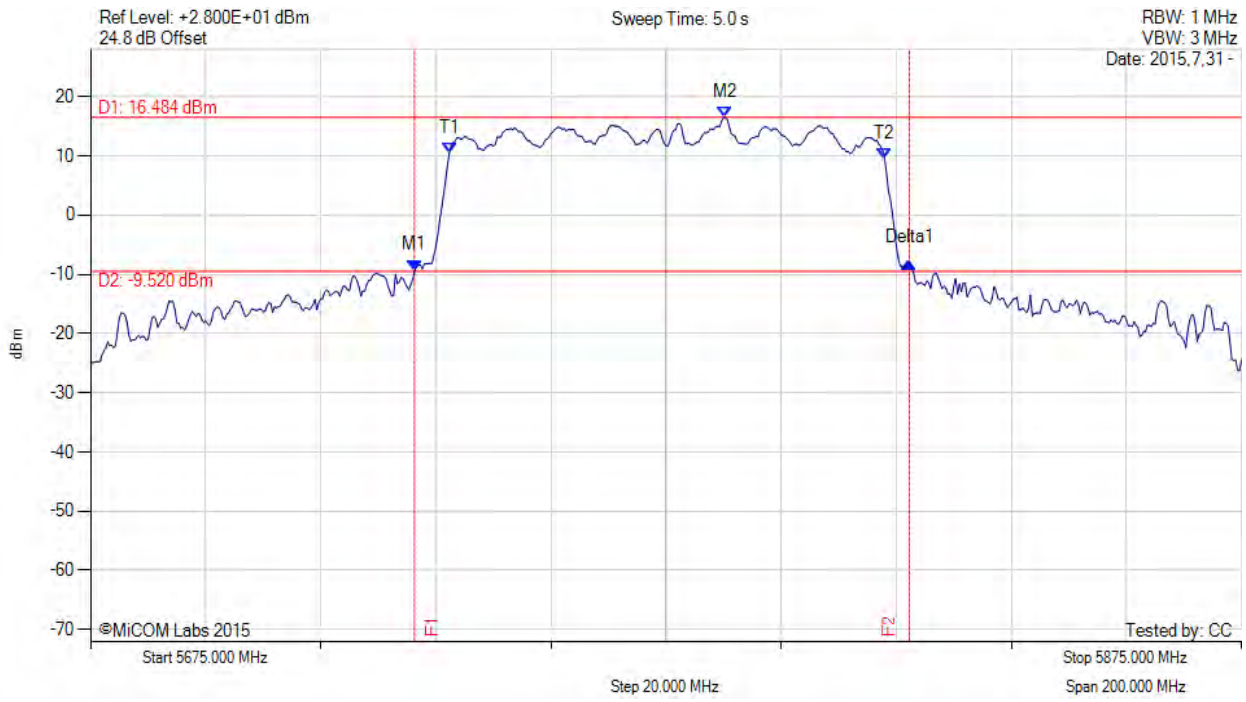


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5731.700 MHz : -9.269 dBm M2 : 5785.300 MHz : 16.534 dBm Delta1 : 90.000 MHz : -0.241 dB T1 : 5737.333 MHz : 9.843 dBm T2 : 5813.000 MHz : 9.789 dBm OBW : 75.543 MHz	Measured 26 dB Bandwidth: 90.000 MHz Measured 99% Bandwidth: 75.543 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11ac-80, Channel: 5775.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

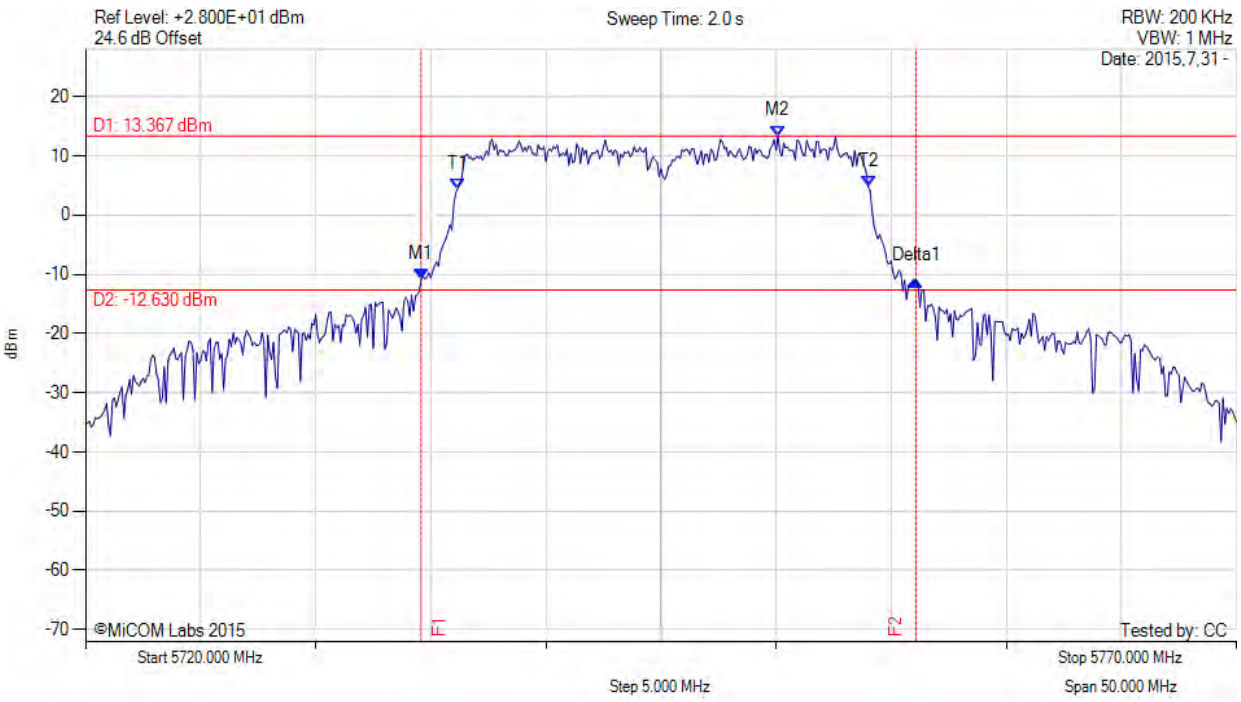


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5731.300 MHz : -9.298 dBm M2 : 5785.300 MHz : 16.484 dBm Delta1 : 86.000 MHz : 1.357 dB T1 : 5737.333 MHz : 10.453 dBm T2 : 5813.000 MHz : 9.535 dBm OBW : 75.546 MHz	Measured 26 dB Bandwidth: 86.000 MHz Measured 99% Bandwidth: 75.546 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

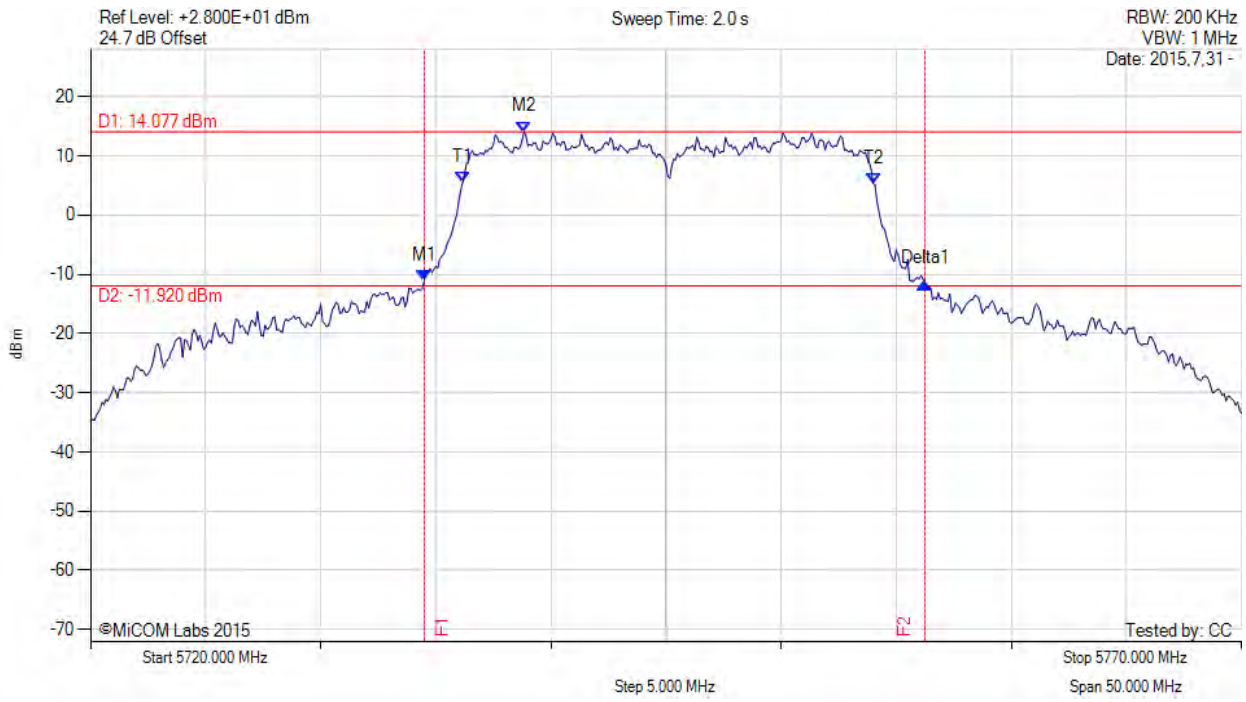


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5734.580 MHz : -10.843 dBm M2 : 5750.080 MHz : 13.367 dBm Delta1 : 21.500 MHz : -0.142 dB T1 : 5736.167 MHz : 4.436 dBm T2 : 5754.000 MHz : 4.788 dBm OBW : 17.753 MHz	Measured 26 dB Bandwidth: 21.500 MHz Measured 99% Bandwidth: 17.753 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

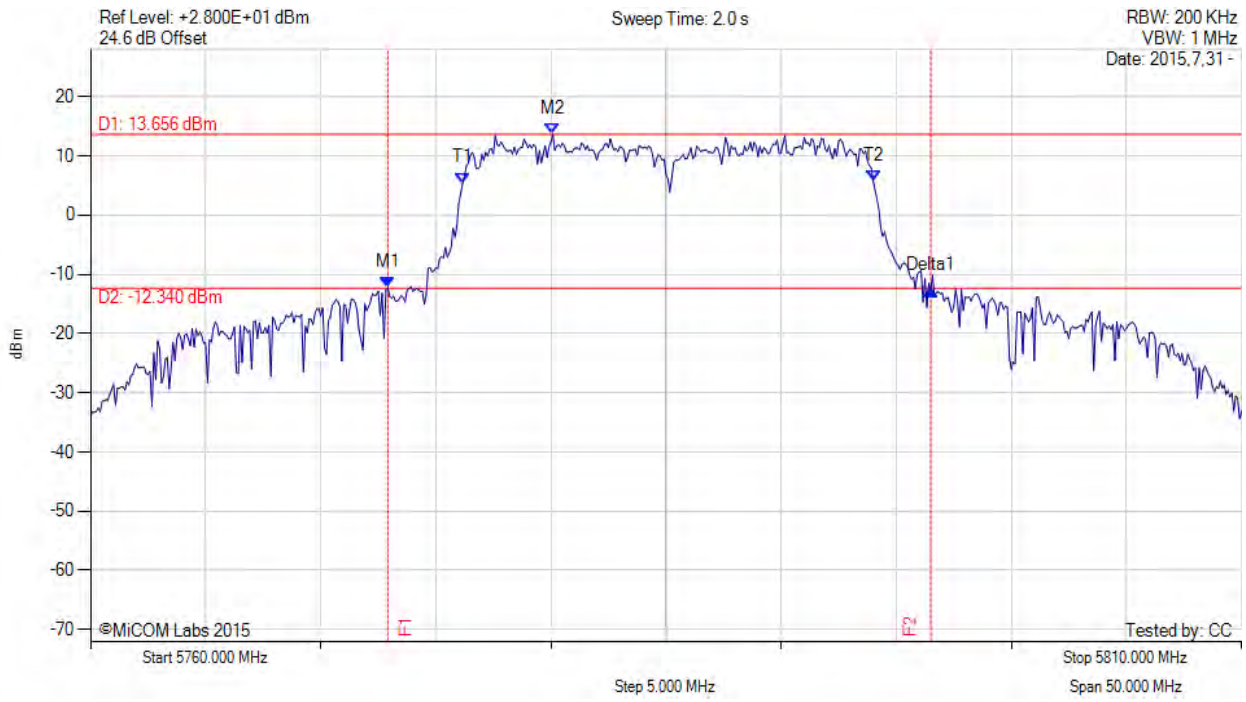


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5734.500 MHz : -11.065 dBm M2 : 5738.830 MHz : 14.077 dBm Delta1 : 21.750 MHz : -0.433 dB T1 : 5736.167 MHz : 5.455 dBm T2 : 5754.000 MHz : 5.347 dBm OBW : 17.790 MHz	Measured 26 dB Bandwidth: 21.750 MHz Measured 99% Bandwidth: 17.790 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

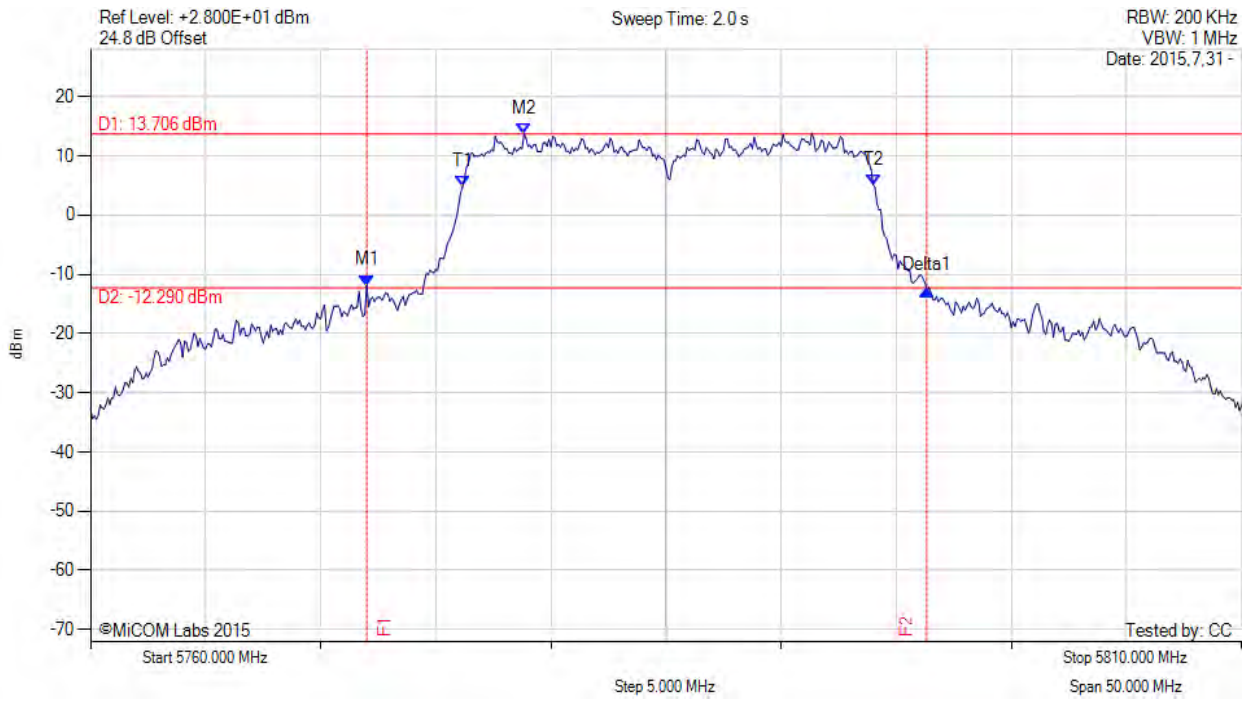


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5772.920 MHz : -12.260 dBm M2 : 5780.080 MHz : 13.656 dBm Delta1 : 23.580 MHz : -0.389 dB T1 : 5776.167 MHz : 5.406 dBm T2 : 5794.000 MHz : 5.752 dBm OBW : 17.821 MHz	Measured 26 dB Bandwidth: 23.580 MHz Measured 99% Bandwidth: 17.821 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

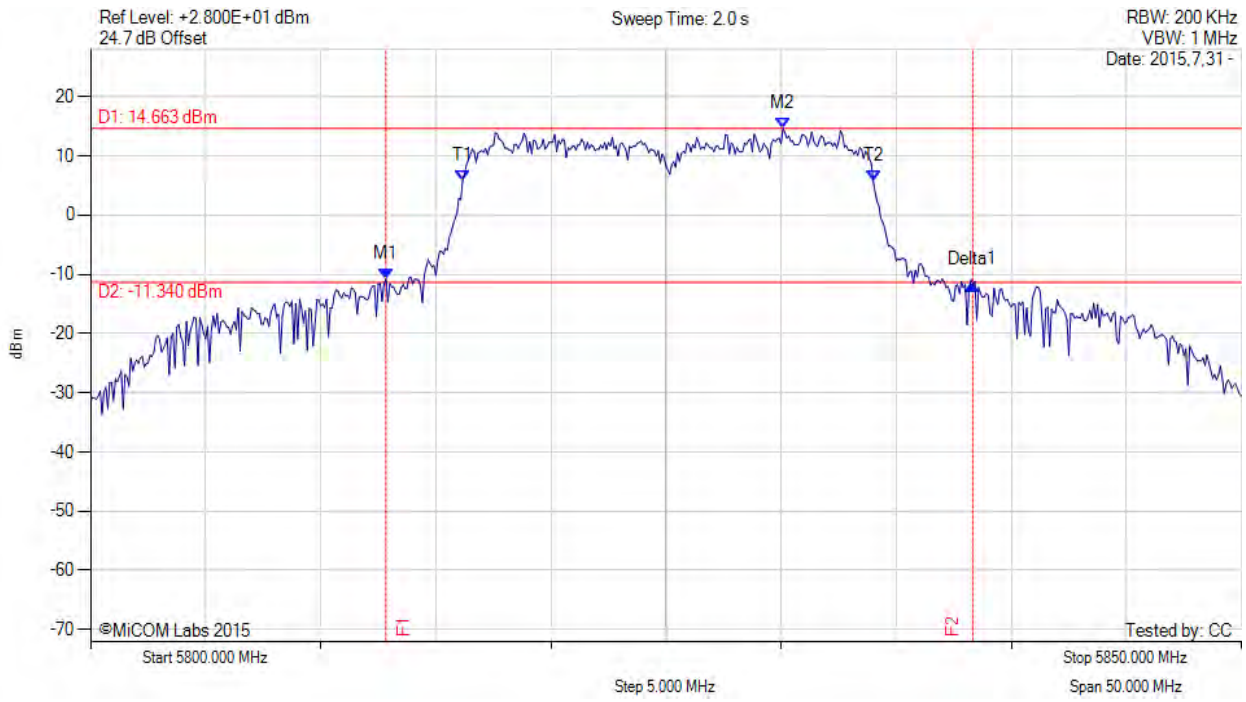


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5772.000 MHz : -11.866 dBm M2 : 5778.830 MHz : 13.706 dBm Delta1 : 24.330 MHz : -0.770 dB T1 : 5776.167 MHz : 4.834 dBm T2 : 5794.000 MHz : 5.138 dBm OBW : 17.794 MHz	Measured 26 dB Bandwidth: 24.330 MHz Measured 99% Bandwidth: 17.794 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

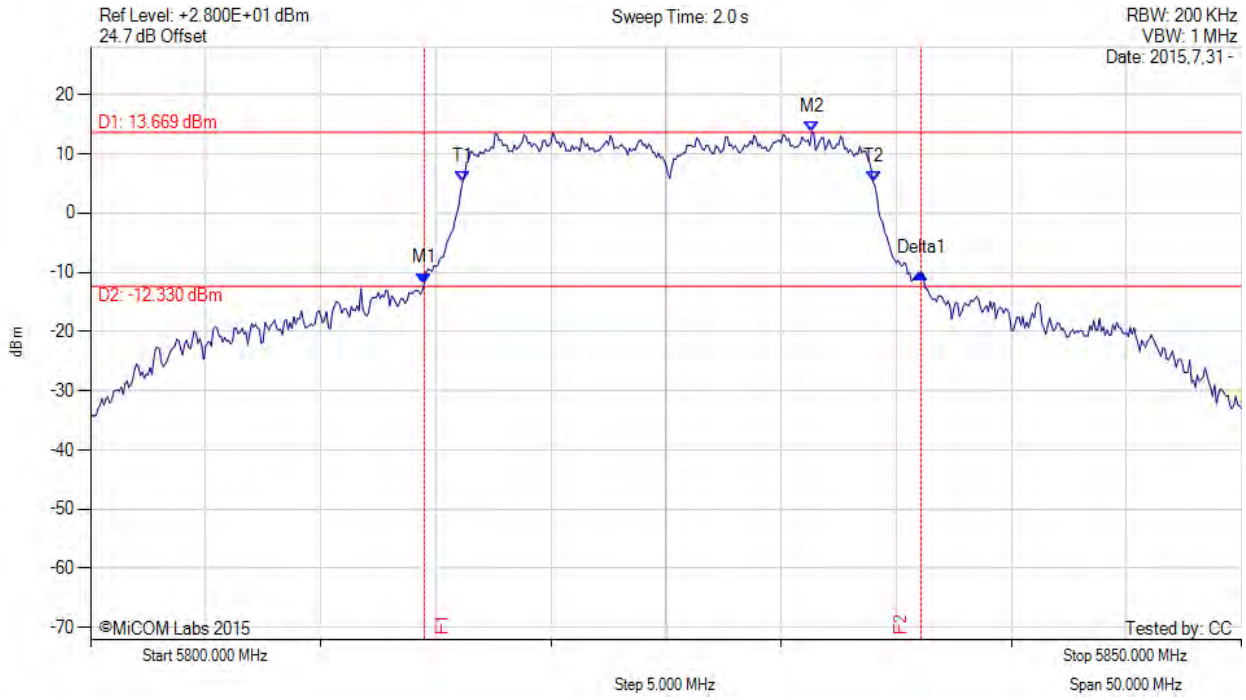


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5812.830 MHz : -10.844 dBm M2 : 5830.080 MHz : 14.663 dBm Delta1 : 25.500 MHz : -0.870 dB T1 : 5816.167 MHz : 5.797 dBm T2 : 5834.000 MHz : 5.809 dBm OBW : 17.841 MHz	Measured 26 dB Bandwidth: 25.500 MHz Measured 99% Bandwidth: 17.841 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

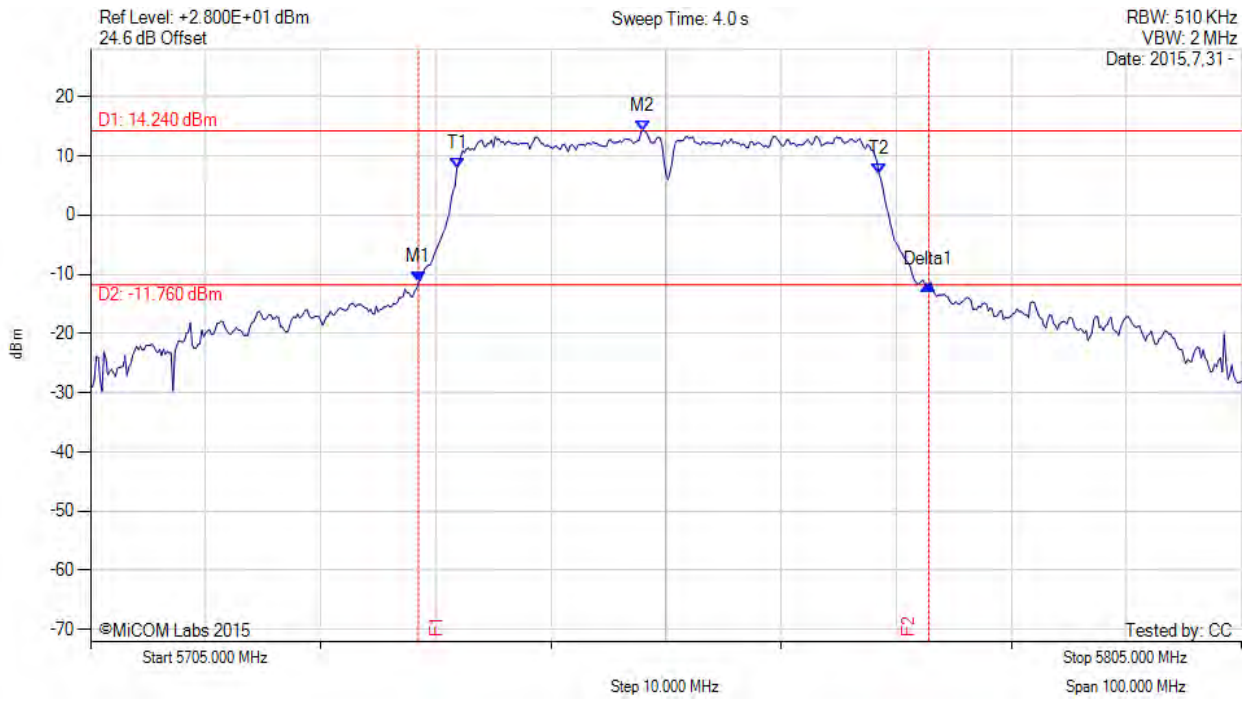


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5814.500 MHz : -11.887 dBm M2 : 5831.330 MHz : 13.669 dBm Delta1 : 21.580 MHz : 1.785 dB T1 : 5816.167 MHz : 5.276 dBm T2 : 5834.000 MHz : 5.211 dBm OBW : 17.779 MHz	Measured 26 dB Bandwidth: 21.580 MHz Measured 99% Bandwidth: 17.779 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

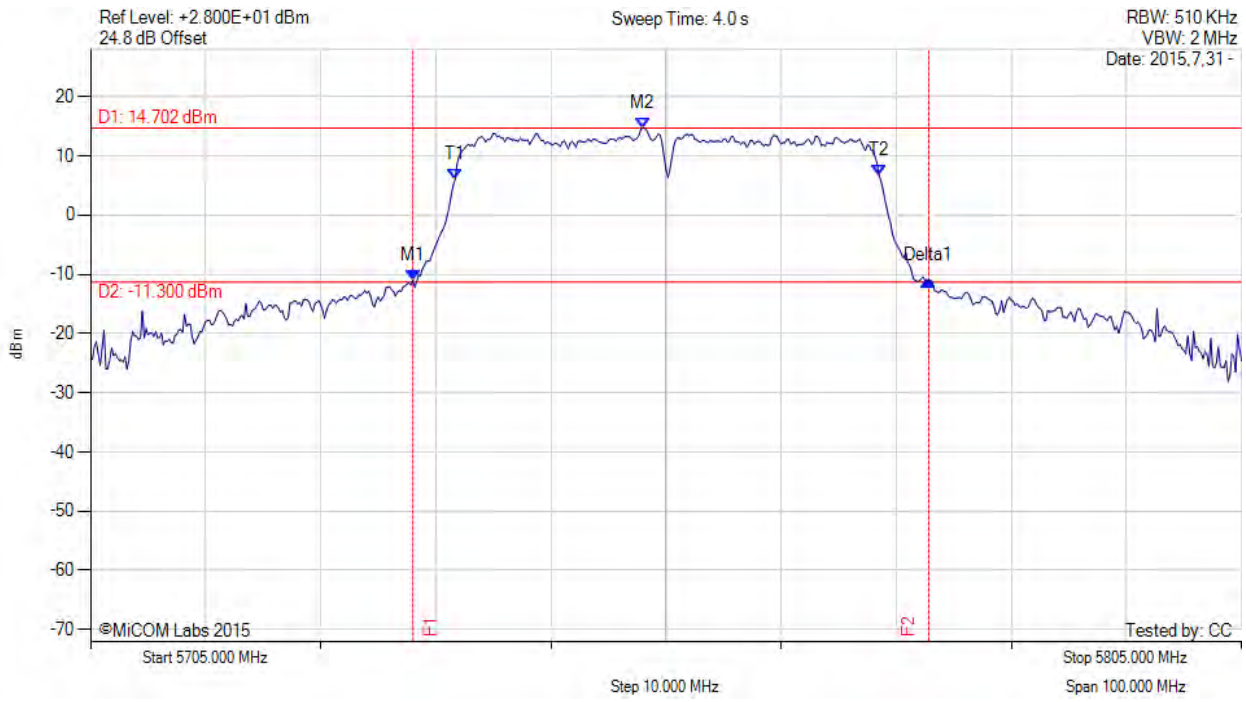


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5733.500 MHz : -11.312 dBm M2 : 5753.000 MHz : 14.240 dBm Delta1 : 44.330 MHz : -0.354 dB T1 : 5736.833 MHz : 7.877 dBm T2 : 5773.500 MHz : 6.948 dBm OBW : 36.714 MHz	Measured 26 dB Bandwidth: 44.330 MHz Measured 99% Bandwidth: 36.714 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

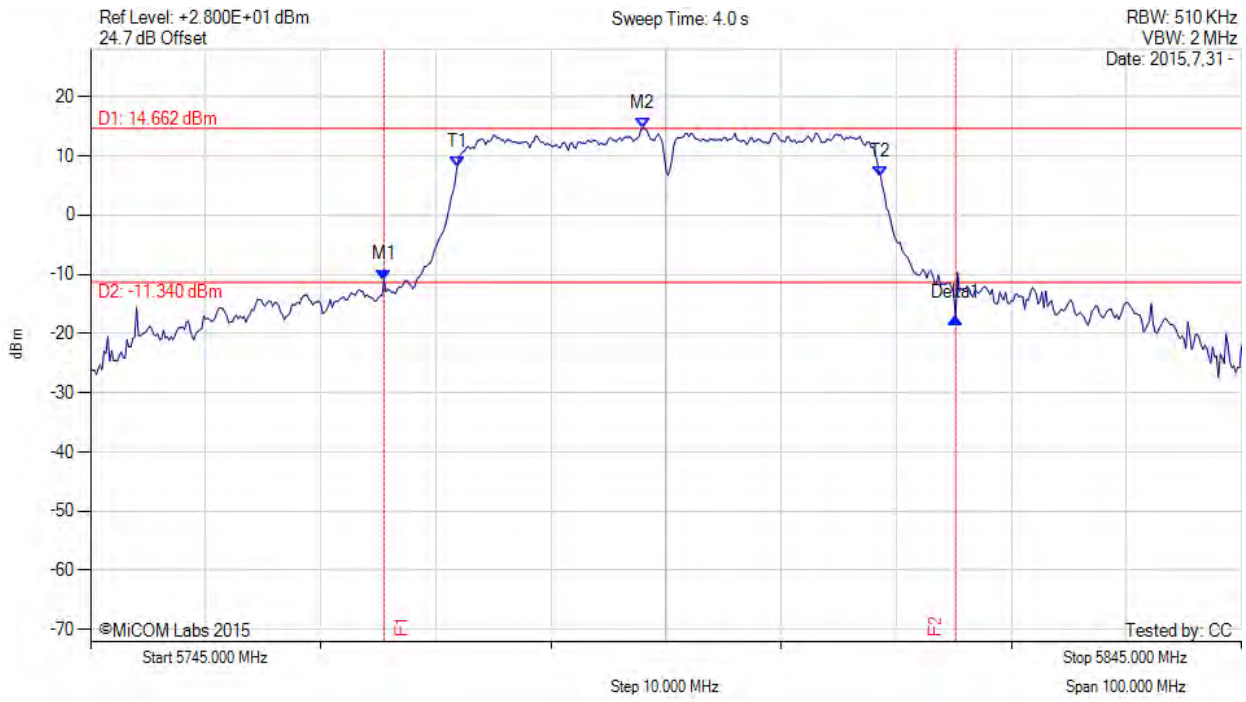


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5733.000 MHz : -11.030 dBm M2 : 5753.000 MHz : 14.702 dBm Delta1 : 44.830 MHz : 0.041 dB T1 : 5736.667 MHz : 5.979 dBm T2 : 5773.500 MHz : 6.695 dBm OBW : 36.763 MHz	Measured 26 dB Bandwidth: 44.830 MHz Measured 99% Bandwidth: 36.763 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

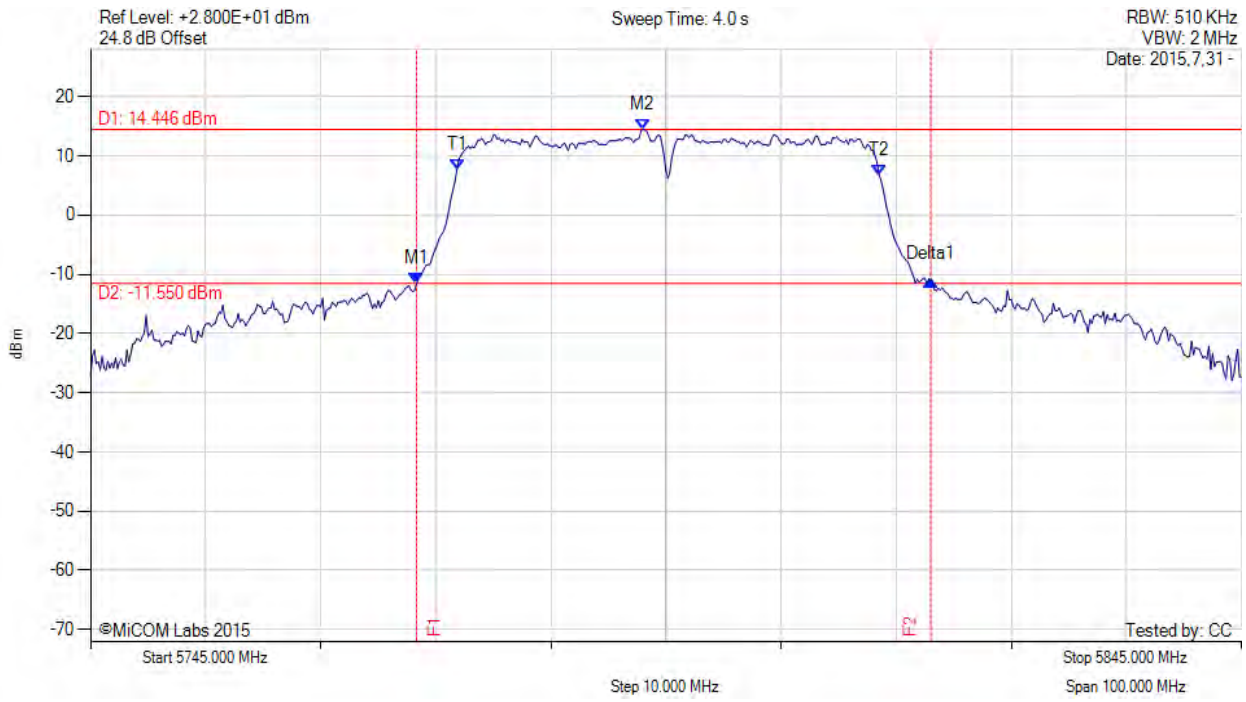


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5770.500 MHz : -10.930 dBm M2 : 5793.000 MHz : 14.662 dBm Delta1 : 49.670 MHz : -6.439 dB T1 : 5776.833 MHz : 8.043 dBm T2 : 5813.667 MHz : 6.469 dBm OBW : 36.806 MHz	Measured 26 dB Bandwidth: 49.670 MHz Measured 99% Bandwidth: 36.806 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



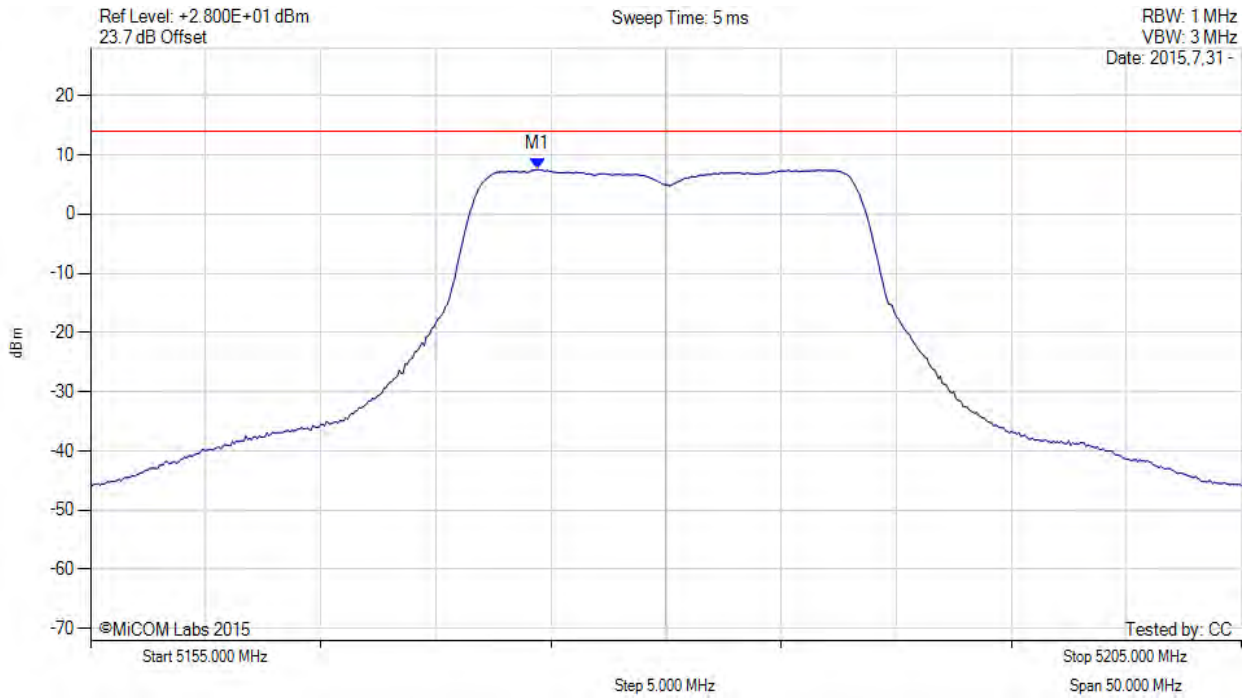
Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5773.330 MHz : -11.546 dBm M2 : 5793.000 MHz : 14.446 dBm Delta1 : 44.670 MHz : 0.599 dB T1 : 5776.833 MHz : 7.727 dBm T2 : 5813.500 MHz : 6.768 dBm OBW : 36.752 MHz	Measured 26 dB Bandwidth: 44.670 MHz Measured 99% Bandwidth: 36.752 MHz

back to matrix

A.2. Power Spectral Density

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5180.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

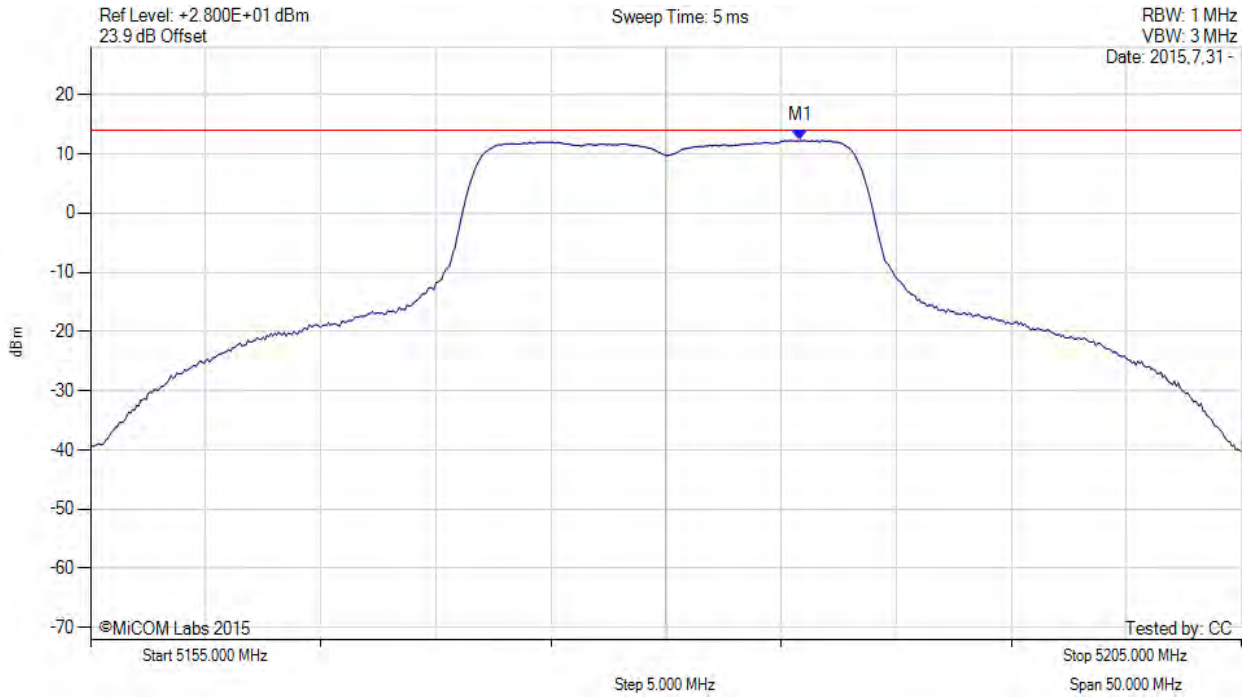


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5174.420 MHz : 7.548 dBm	Limit: ≤ 13.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5180.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

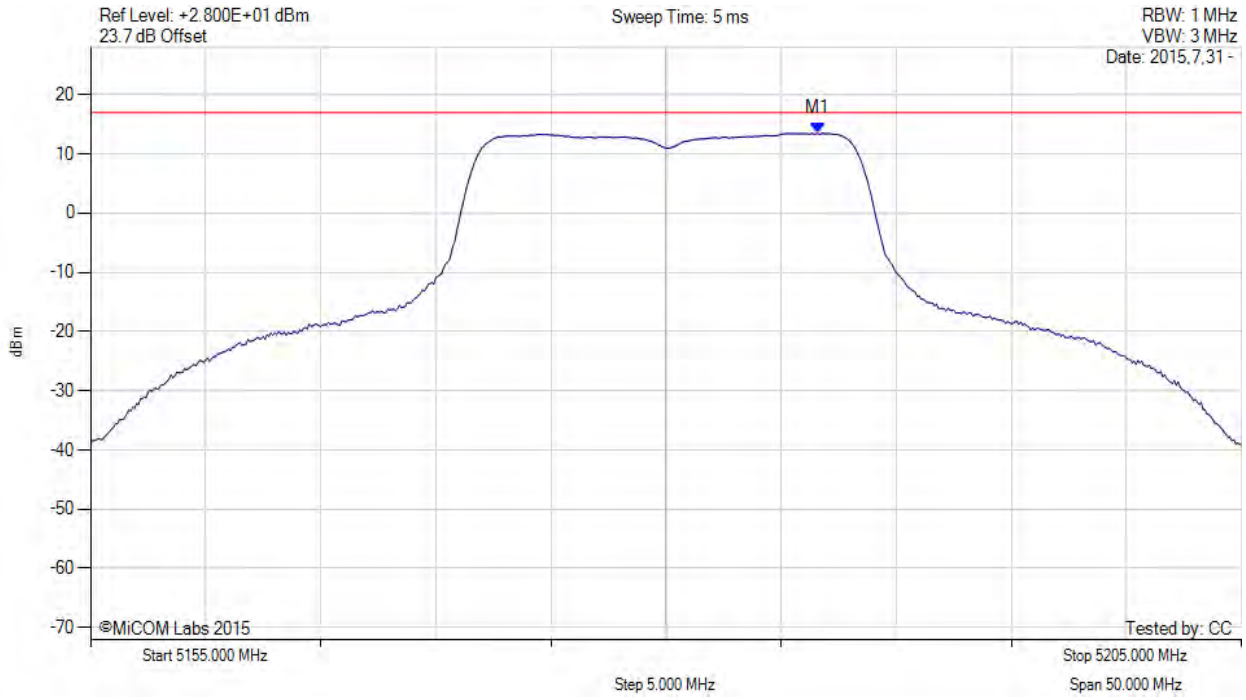


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5185.830 MHz : 12.262 dBm	Limit: ≤ 13.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5180.00 MHz, SUM, Temp: Ambient, Voltage: 12 Vdc

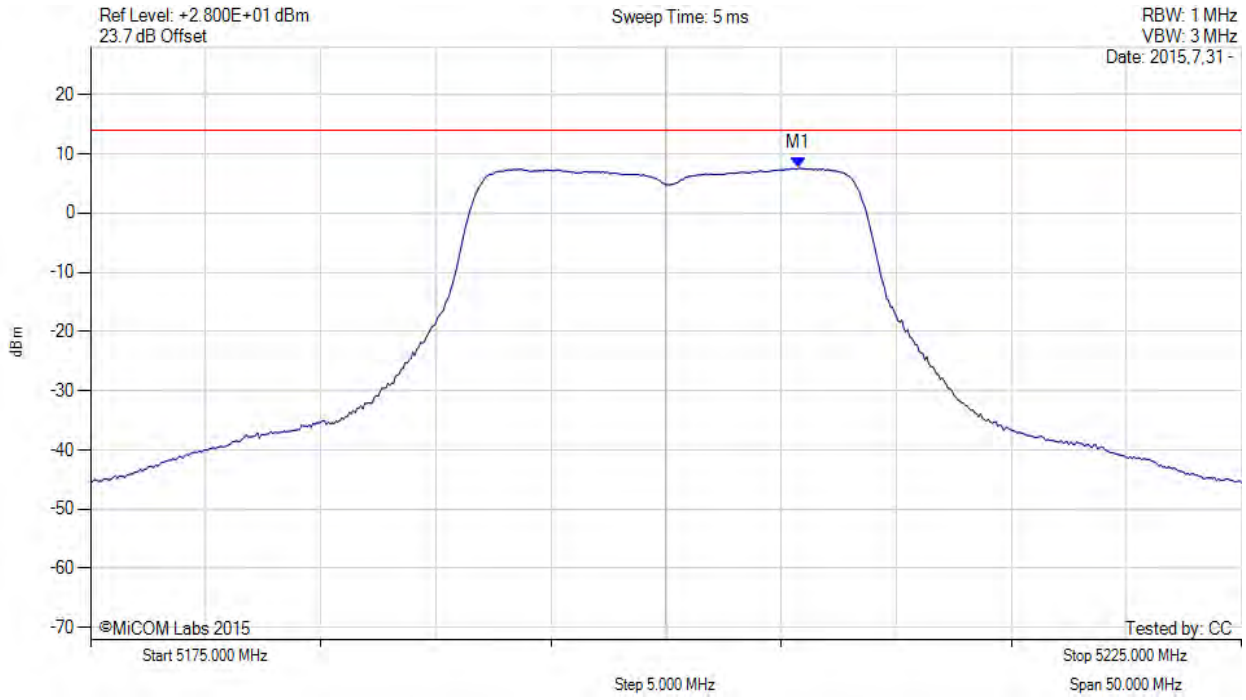


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5186.600 MHz : 13.489 dBm M1 + DCCF : 5186.600 MHz : 14.195 dBm Duty Cycle Correction Factor : +0.71 dB	Limit: ≤ 17.0 dBm Margin: -2.8 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5200.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

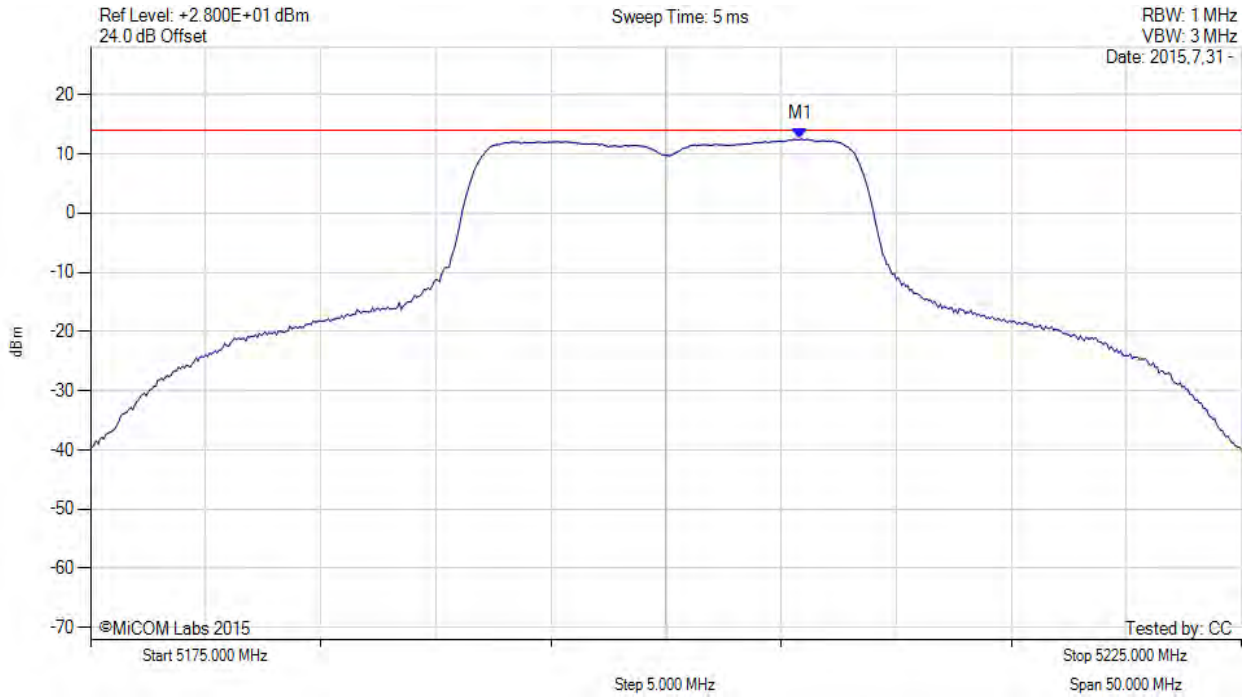


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5205.750 MHz : 7.571 dBm	Limit: ≤ 13.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5200.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

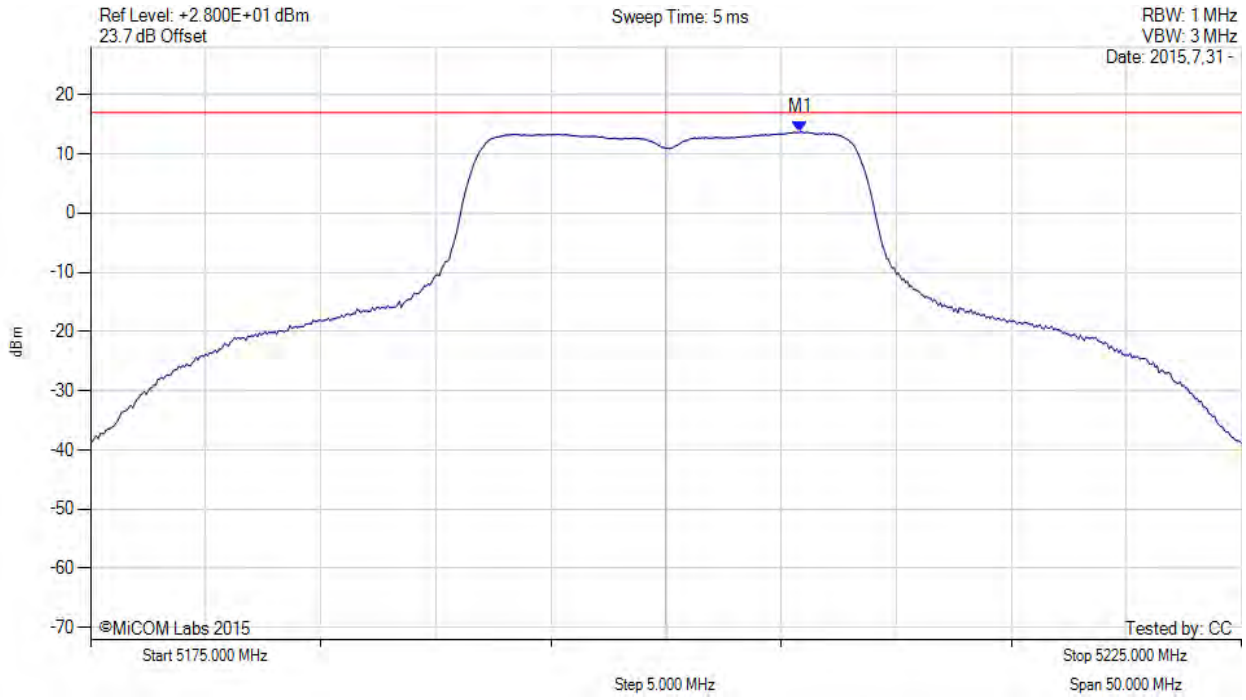


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5205.830 MHz : 12.487 dBm	Channel Frequency: 5200.00 MHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5200.00 MHz, SUM, Temp: Ambient, Voltage: 12 Vdc

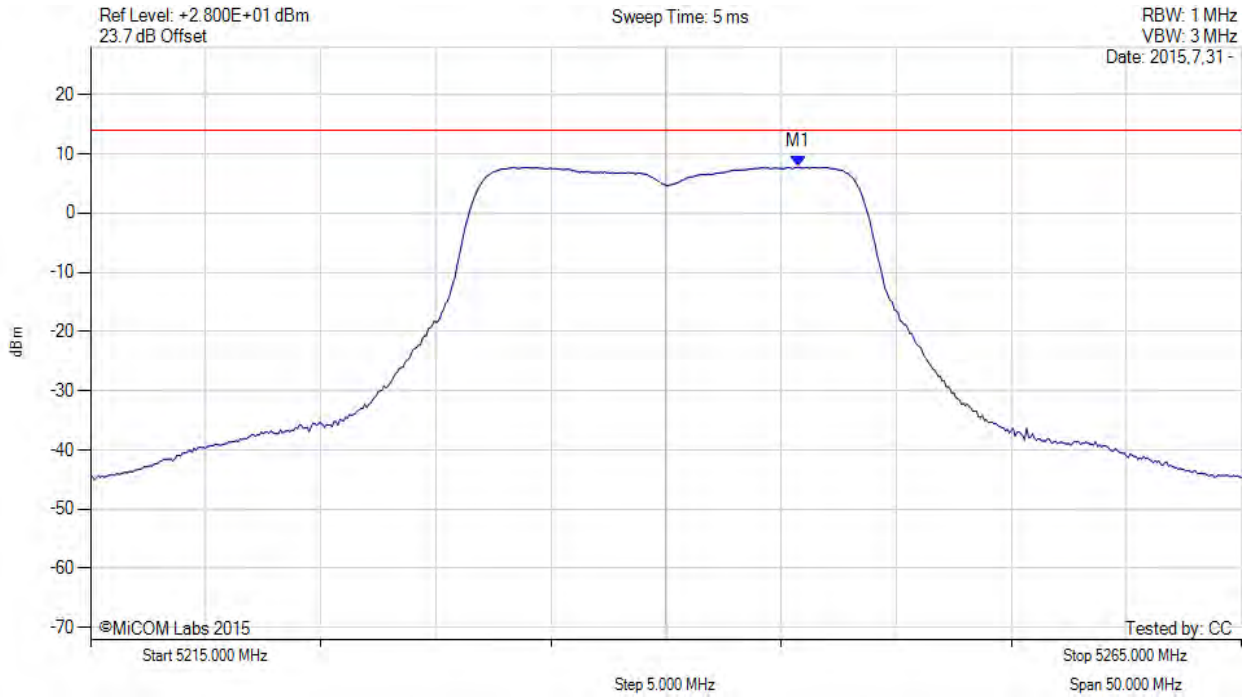


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5205.800 MHz : 13.695 dBm M1 + DCCF : 5205.800 MHz : 14.401 dBm Duty Cycle Correction Factor : +0.71 dB	Limit: ≤ 17.0 dBm Margin: -2.6 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5240.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

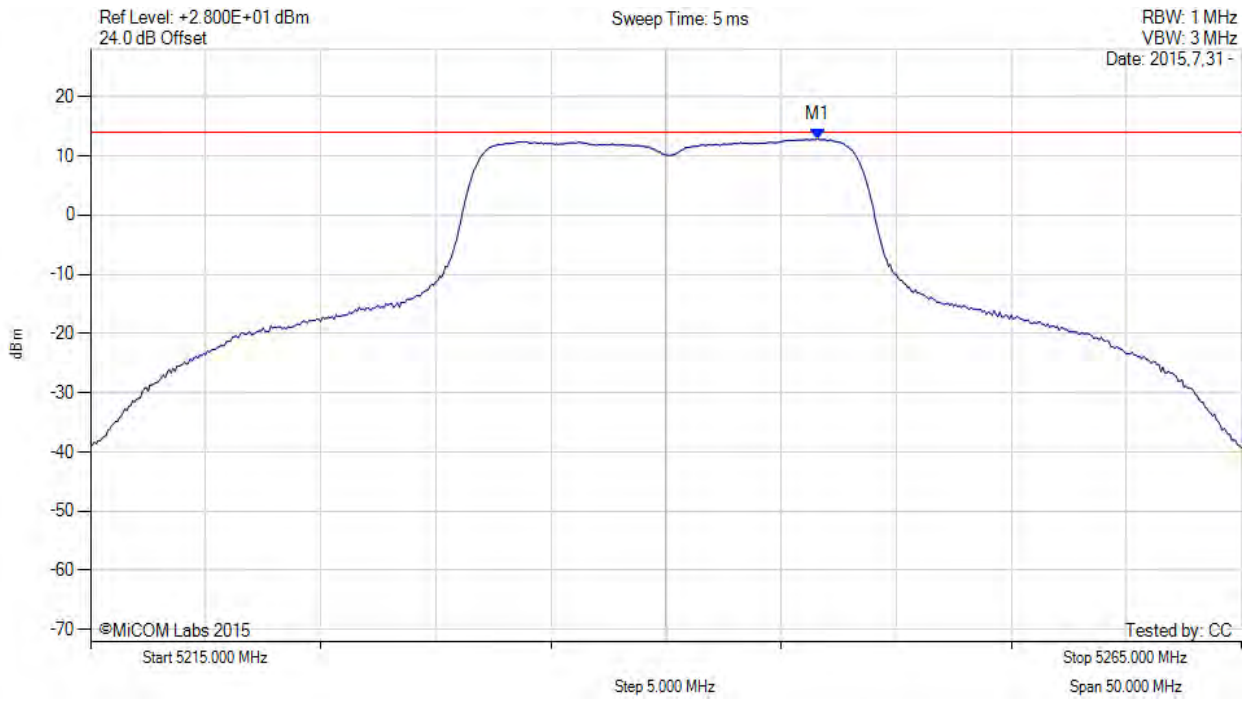


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5245.750 MHz : 7.773 dBm	Limit: ≤ 13.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5240.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

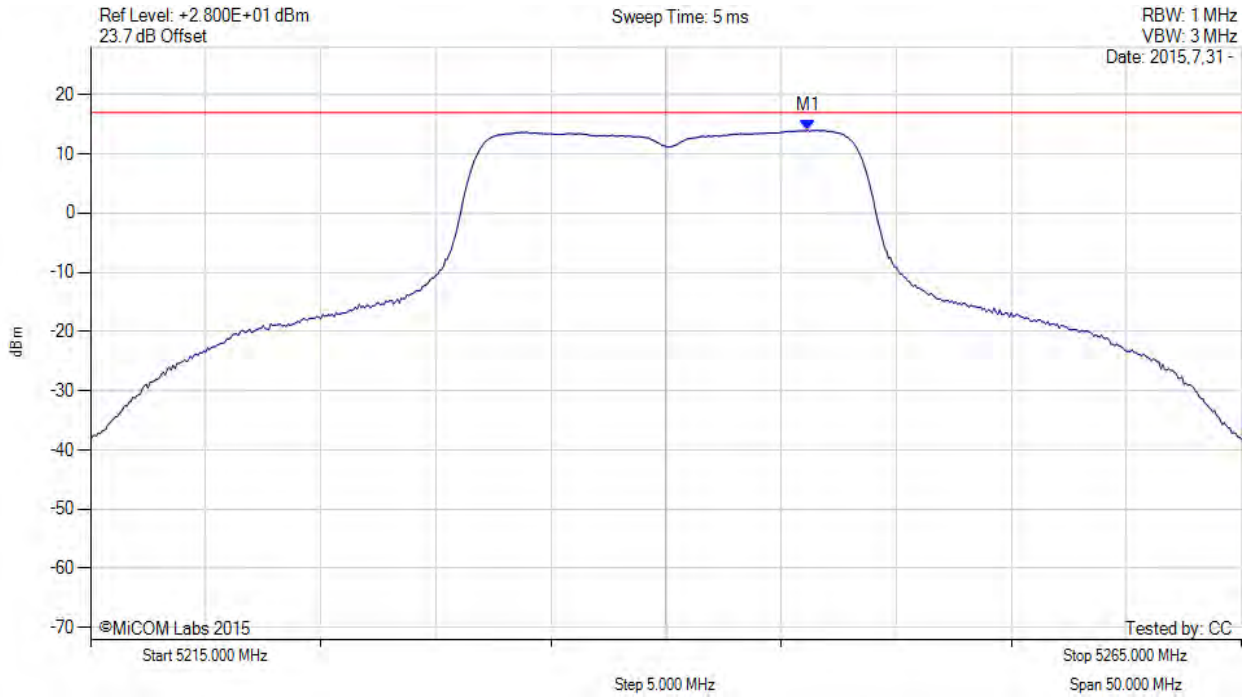


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5246.580 MHz : 12.855 dBm	Limit: ≤ 13.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5240.00 MHz, SUM, Temp: Ambient, Voltage: 12 Vdc

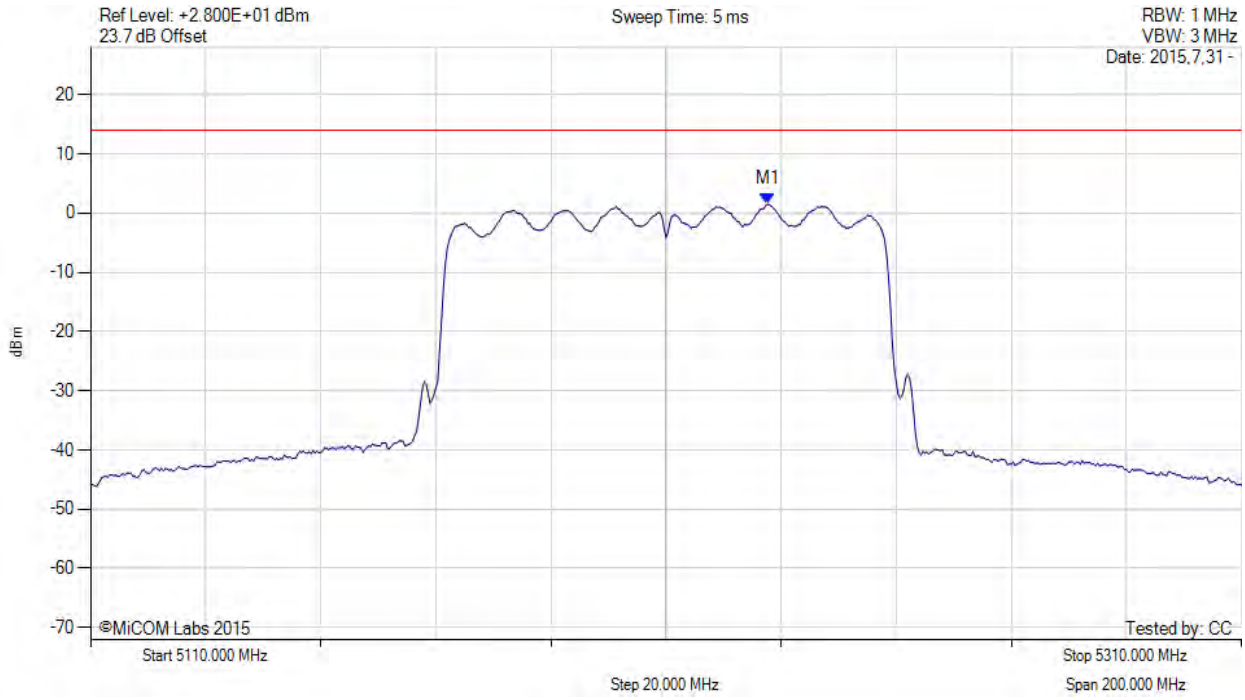


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5246.200 MHz : 14.007 dBm M1 + DCCF : 5246.200 MHz : 14.713 dBm Duty Cycle Correction Factor : +0.71 dB	Limit: ≤ 17.0 dBm Margin: -2.3 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5210.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

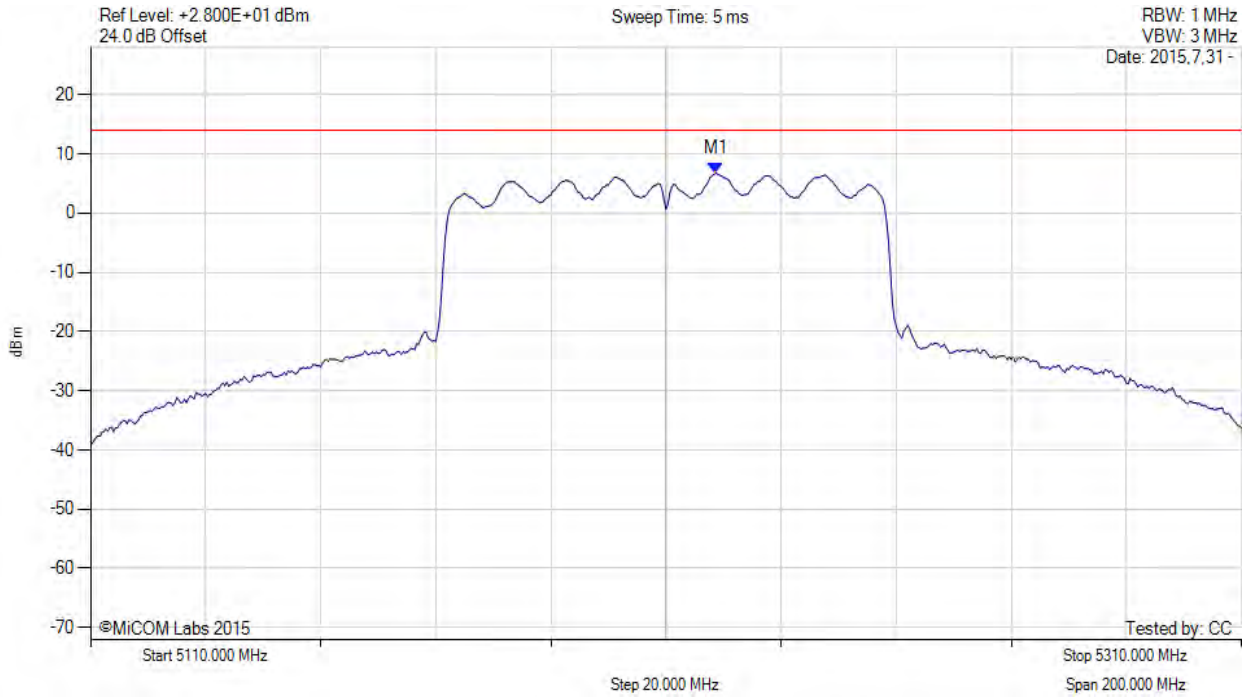


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5227.700 MHz : 1.490 dBm	Limit: ≤ 13.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5210.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

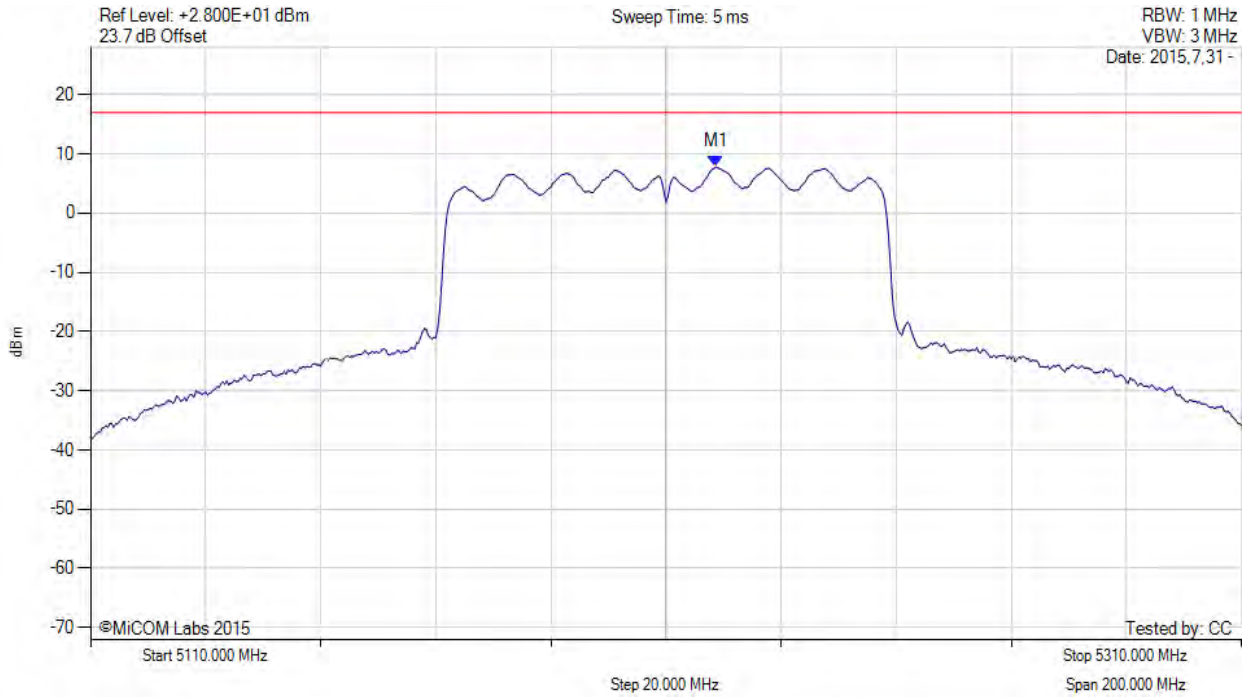


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5218.700 MHz : 6.772 dBm	Limit: ≤ 13.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5210.00 MHz, SUM, Temp: Ambient, Voltage: 12 Vdc

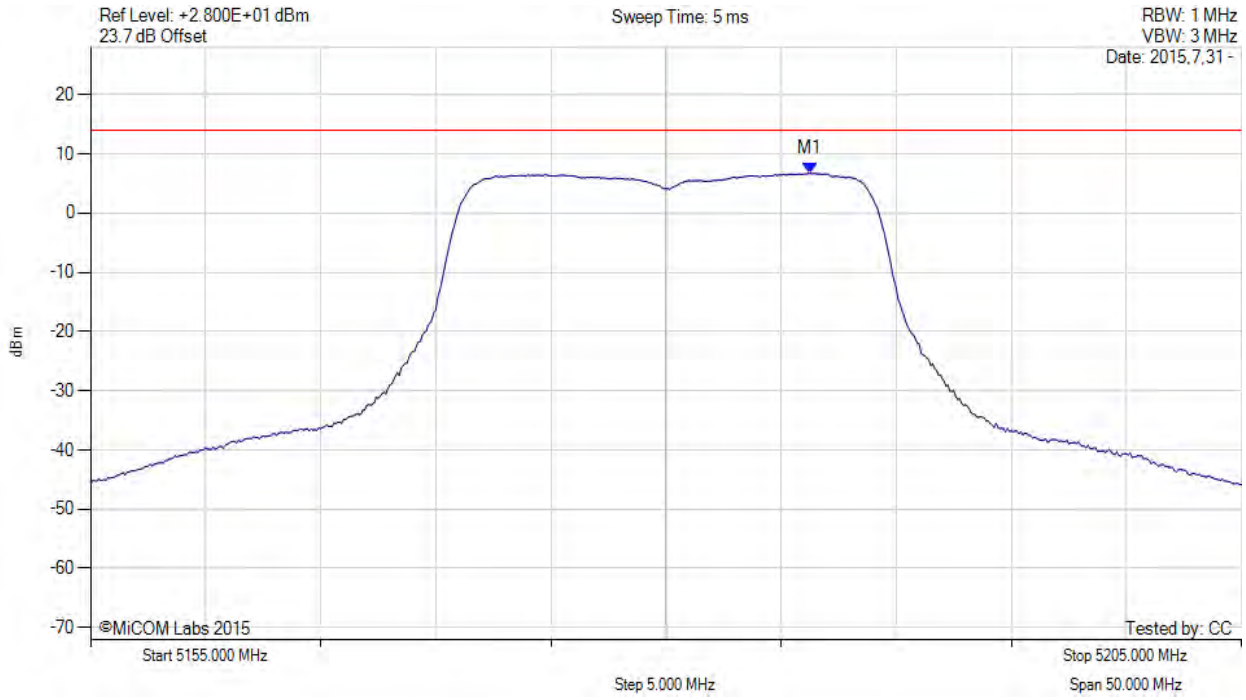


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5218.700 MHz : 7.808 dBm M1 + DCCF : 5218.700 MHz : 9.116 dBm Duty Cycle Correction Factor : +1.31 dB	Limit: ≤ 17.0 dBm Margin: -7.9 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5180.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

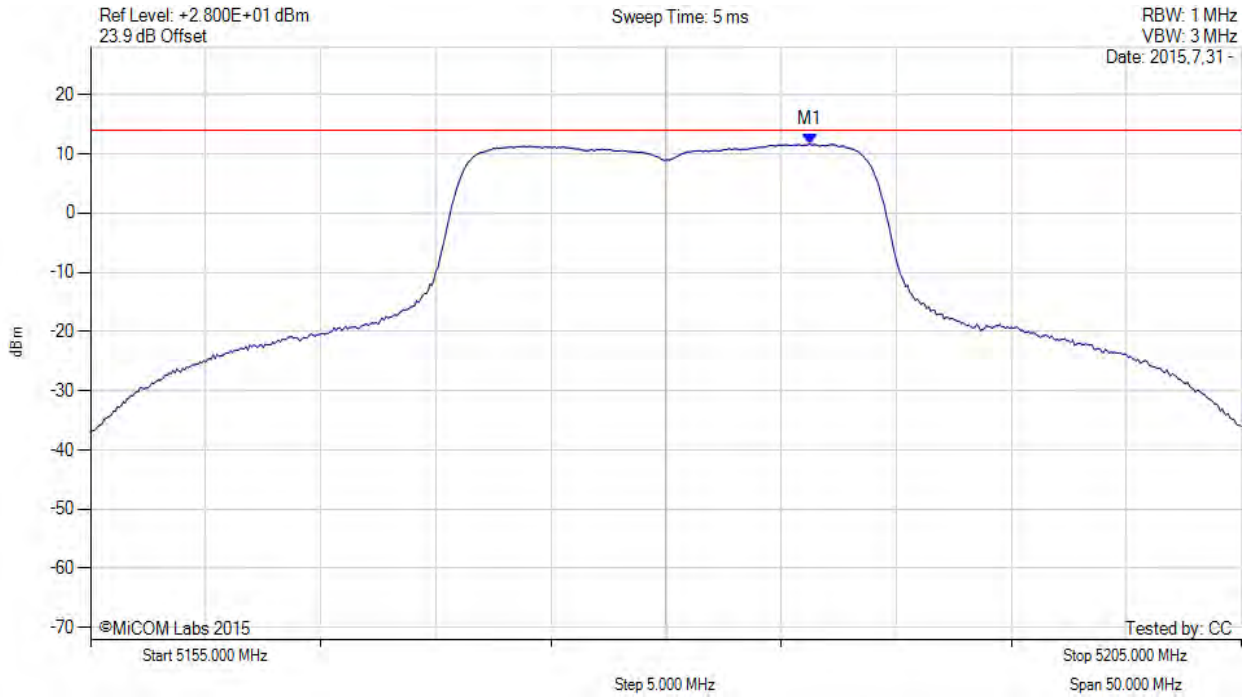


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5186.250 MHz : 6.726 dBm	Limit: ≤ 13.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5180.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

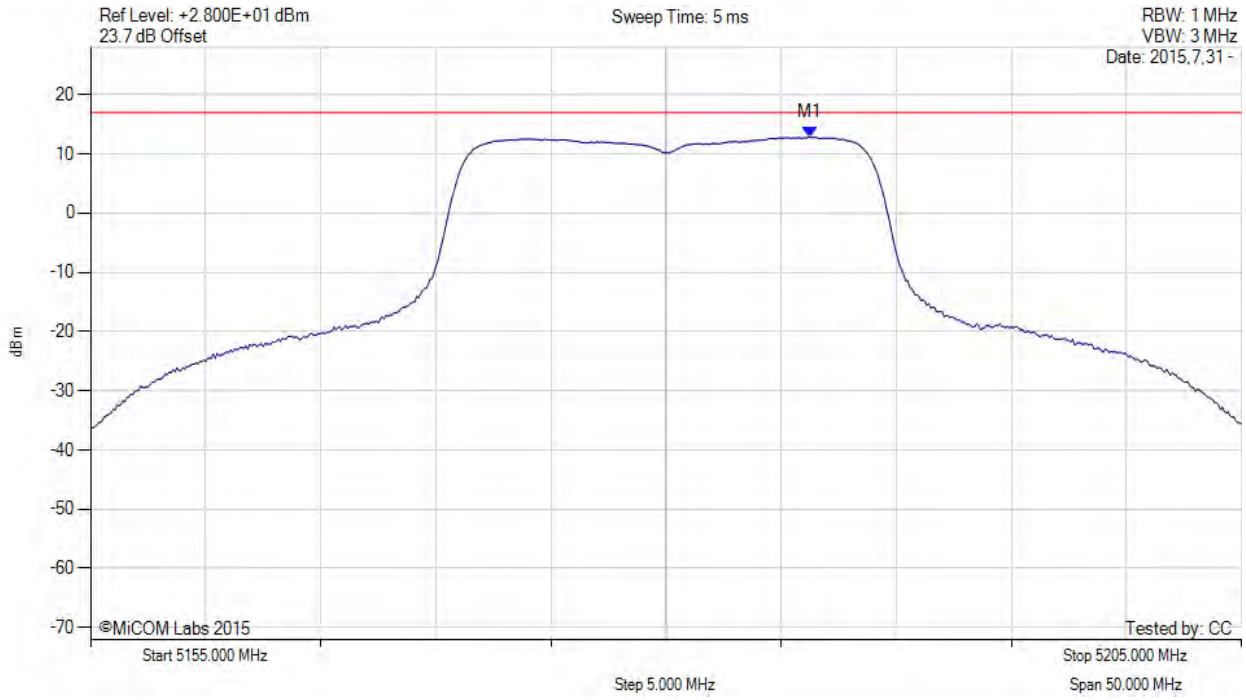


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5186.250 MHz : 11.652 dBm	Limit: ≤ 13.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5180.00 MHz, SUM, Temp: Ambient, Voltage: 12 Vdc

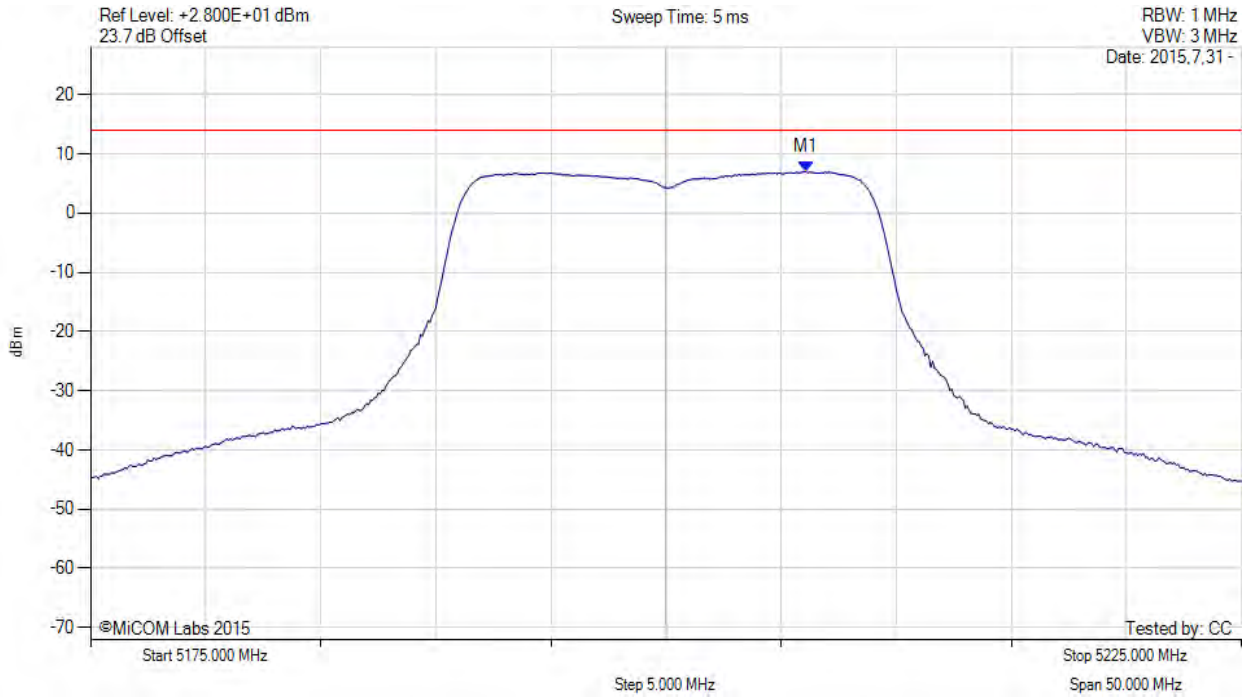


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5186.300 MHz : 12.863 dBm M1 + DCCF : 5186.300 MHz : 13.518 dBm Duty Cycle Correction Factor : +0.66 dB	Limit: ≤ 17.0 dBm Margin: -3.5 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5200.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

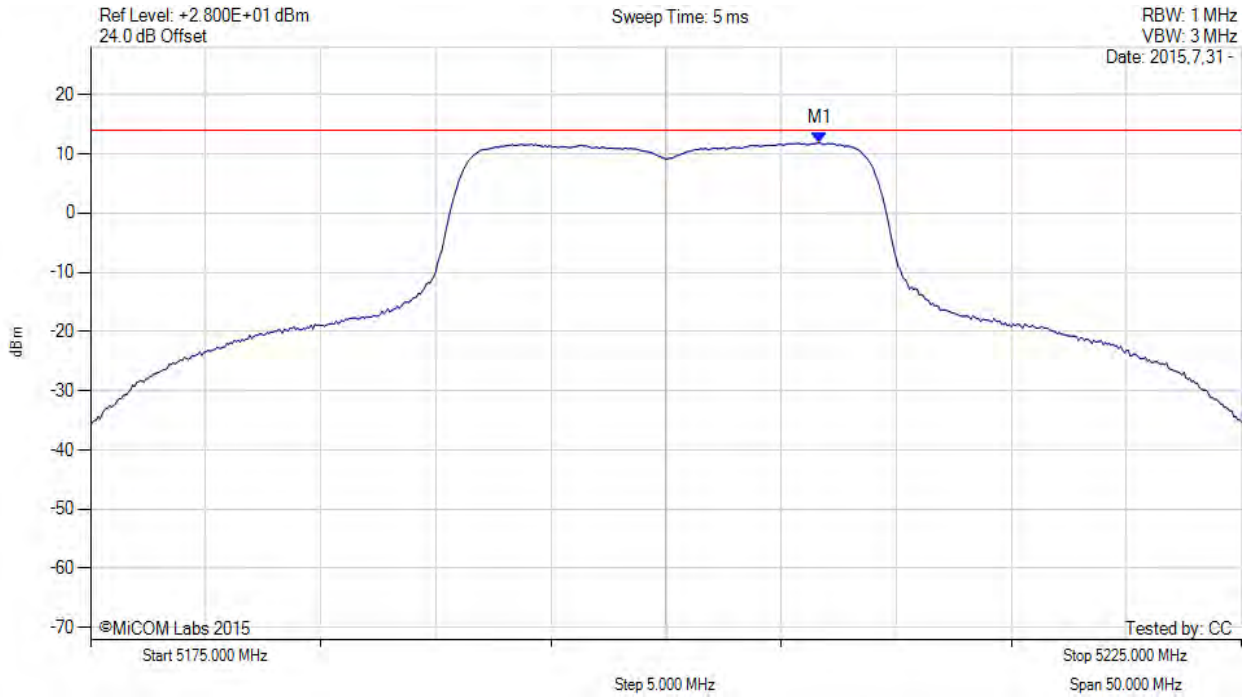


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5206.080 MHz : 6.961 dBm	Limit: ≤ 13.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5200.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

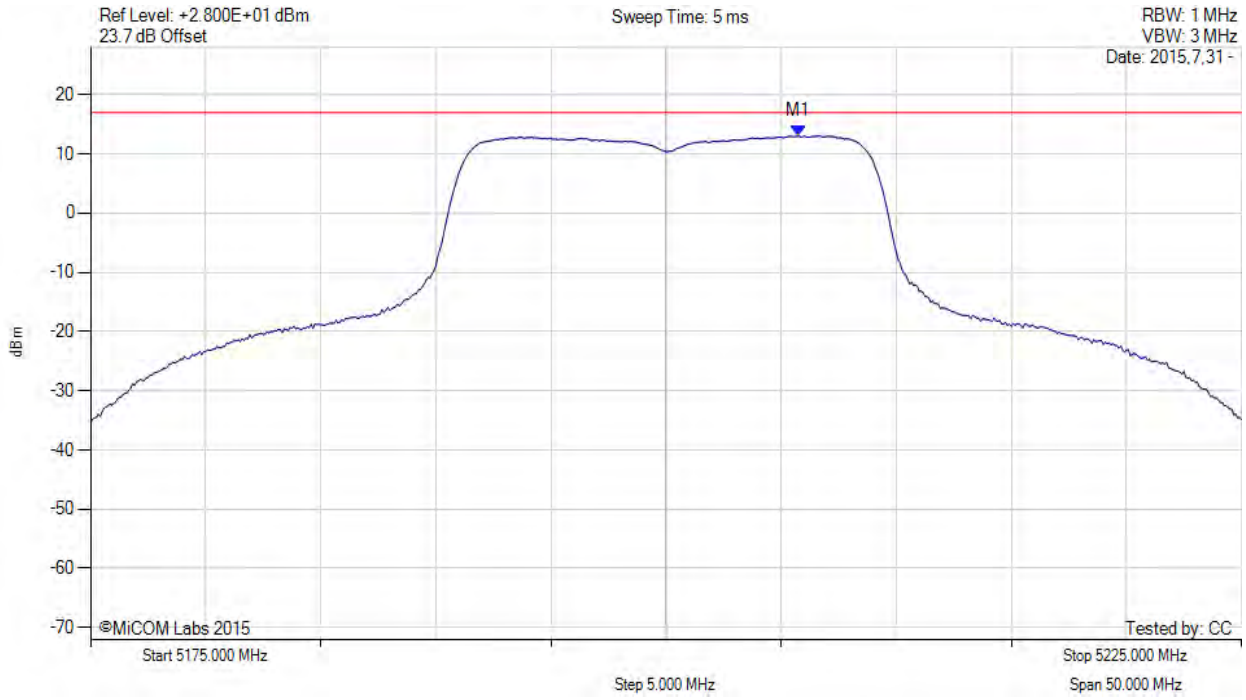


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5206.670 MHz : 11.825 dBm	Channel Frequency: 5200.00 MHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5200.00 MHz, SUM, Temp: Ambient, Voltage: 12 Vdc

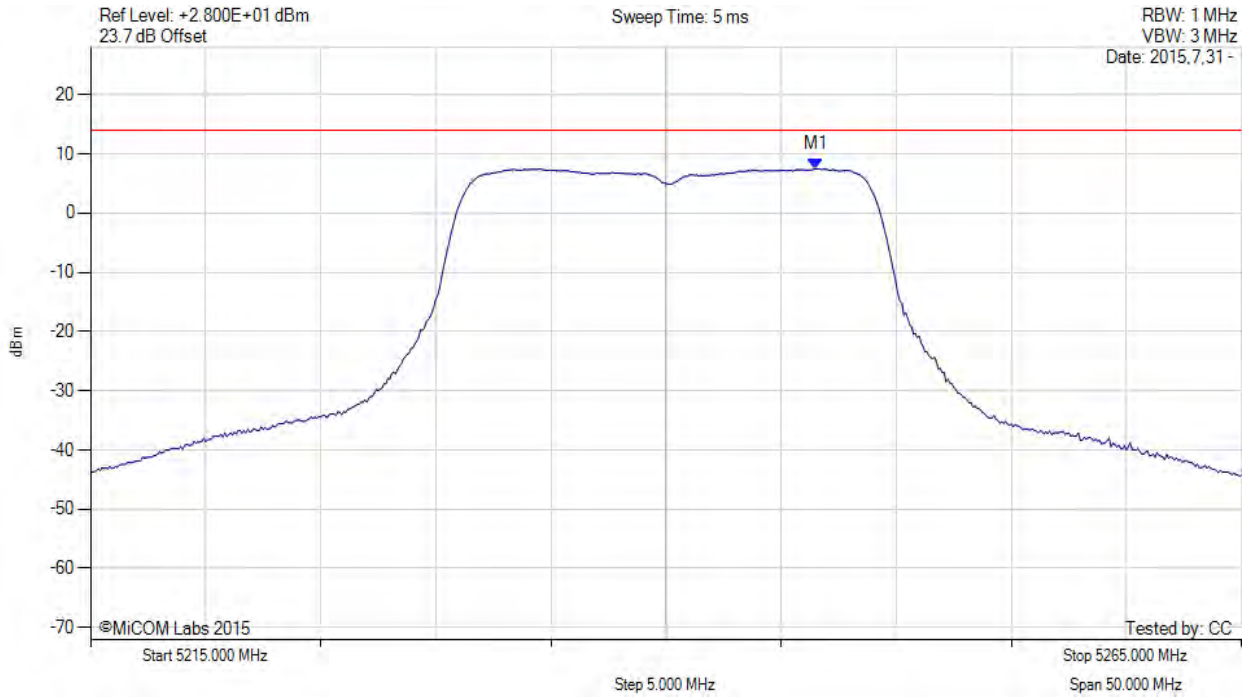


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5205.800 MHz : 13.013 dBm M1 + DCCF : 5205.800 MHz : 13.668 dBm Duty Cycle Correction Factor : +0.66 dB	Limit: ≤ 17.0 dBm Margin: -3.3 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5240.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

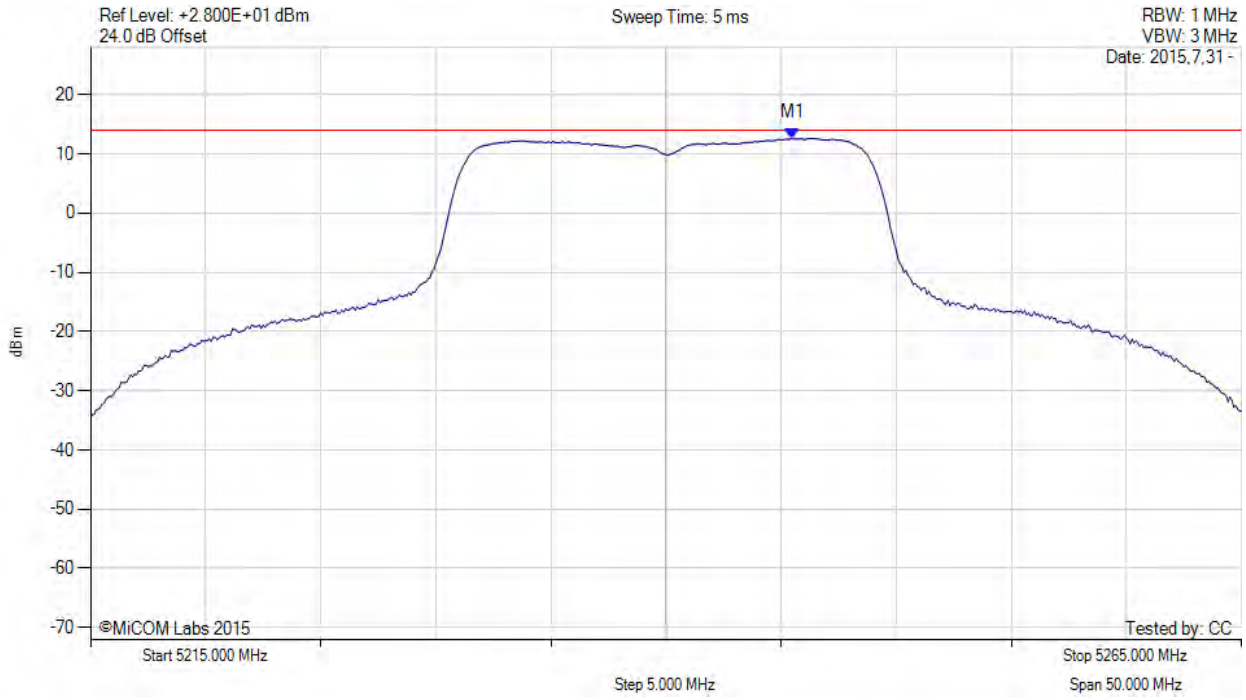


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5246.500 MHz : 7.483 dBm	Limit: ≤ 13.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5240.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

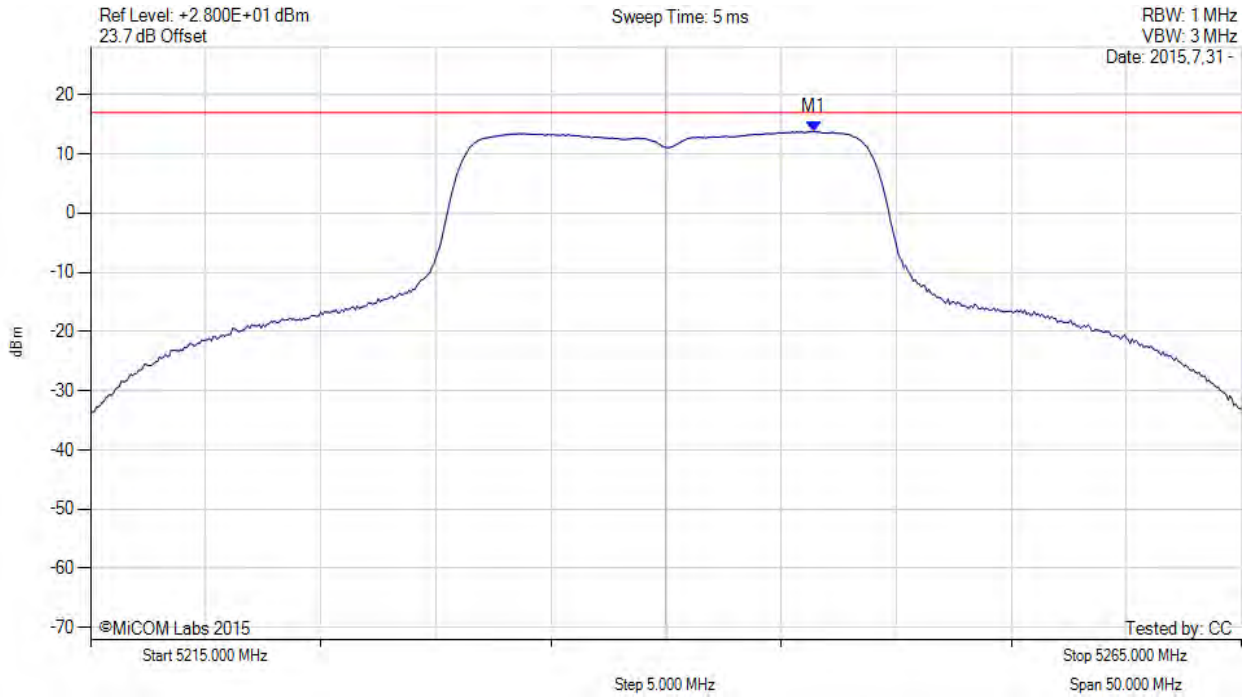


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5245.500 MHz : 12.657 dBm	Limit: ≤ 13.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5240.00 MHz, SUM, Temp: Ambient, Voltage: 12 Vdc

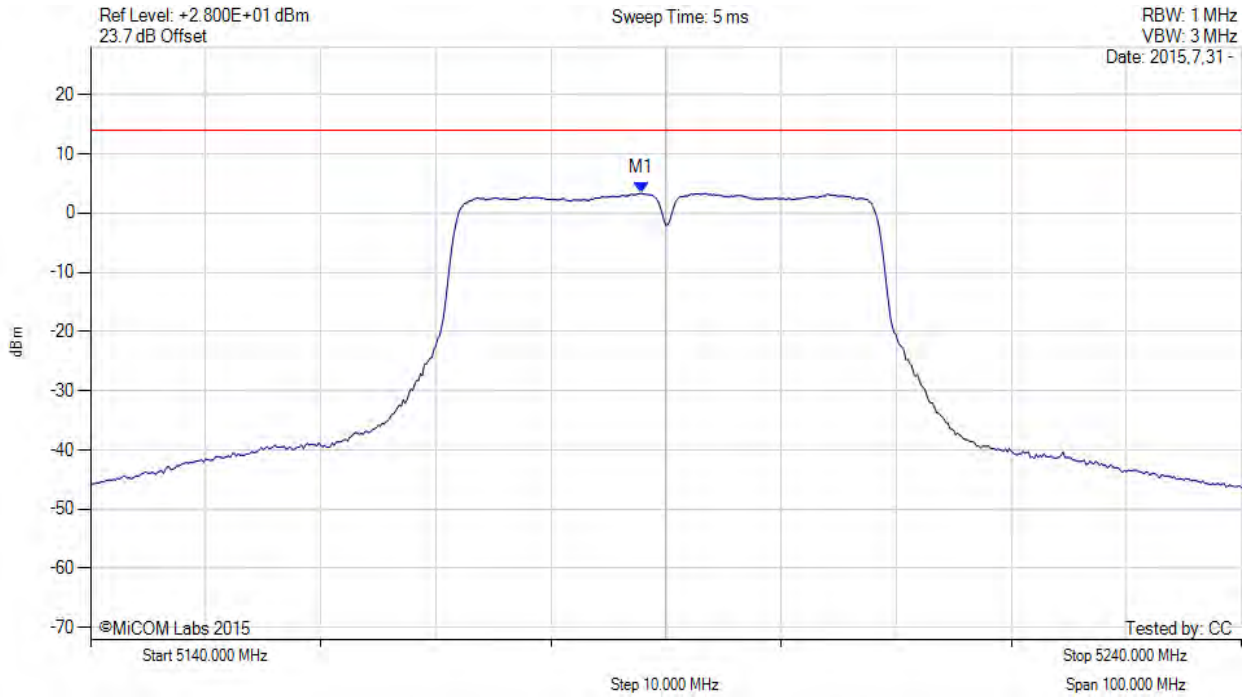


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5246.400 MHz : 13.767 dBm M1 + DCCF : 5246.400 MHz : 14.422 dBm Duty Cycle Correction Factor : +0.66 dB	Limit: ≤ 17.0 dBm Margin: -2.6 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5190.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

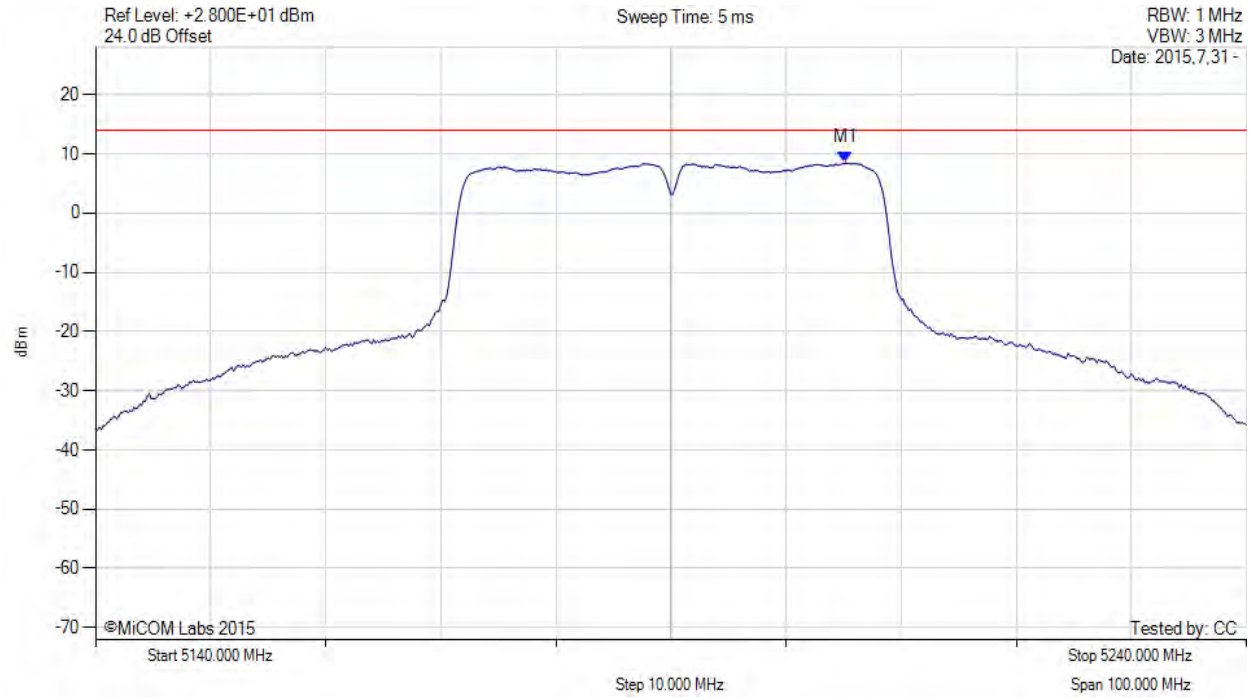


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5187.830 MHz : 3.359 dBm	Limit: ≤ 13.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5190.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

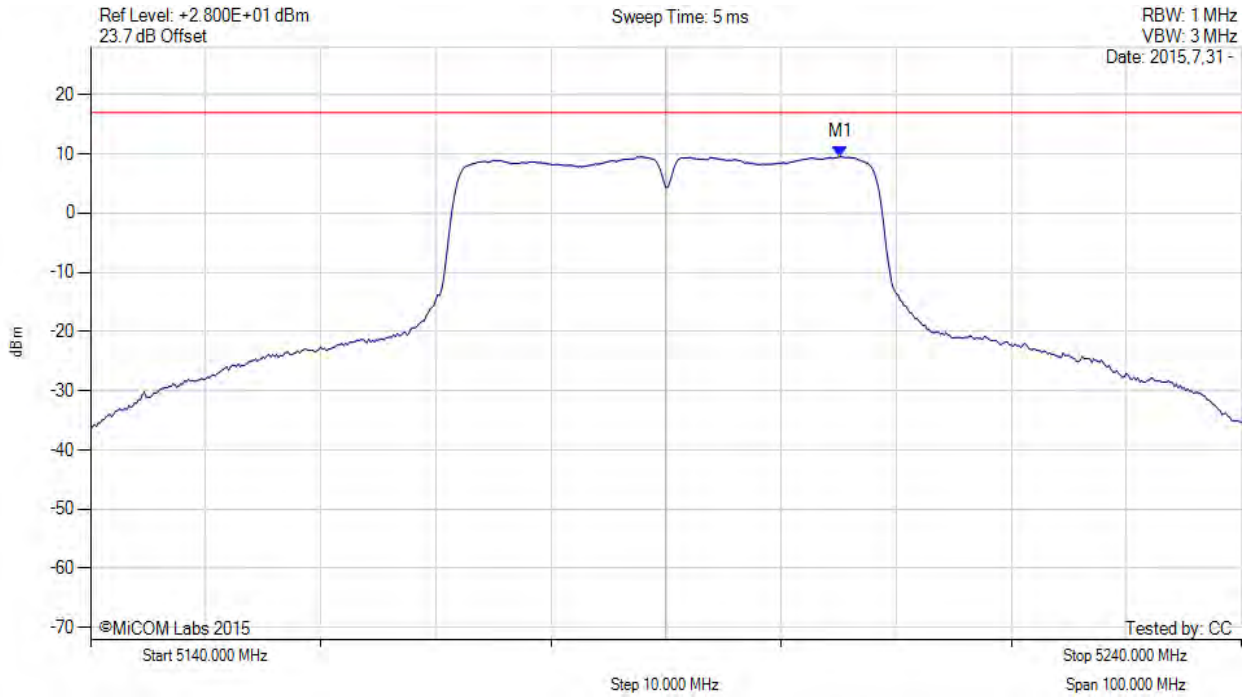


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5205.170 MHz : 8.495 dBm	Limit: ≤ 13.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5190.00 MHz, SUM, Temp: Ambient, Voltage: 12 Vdc

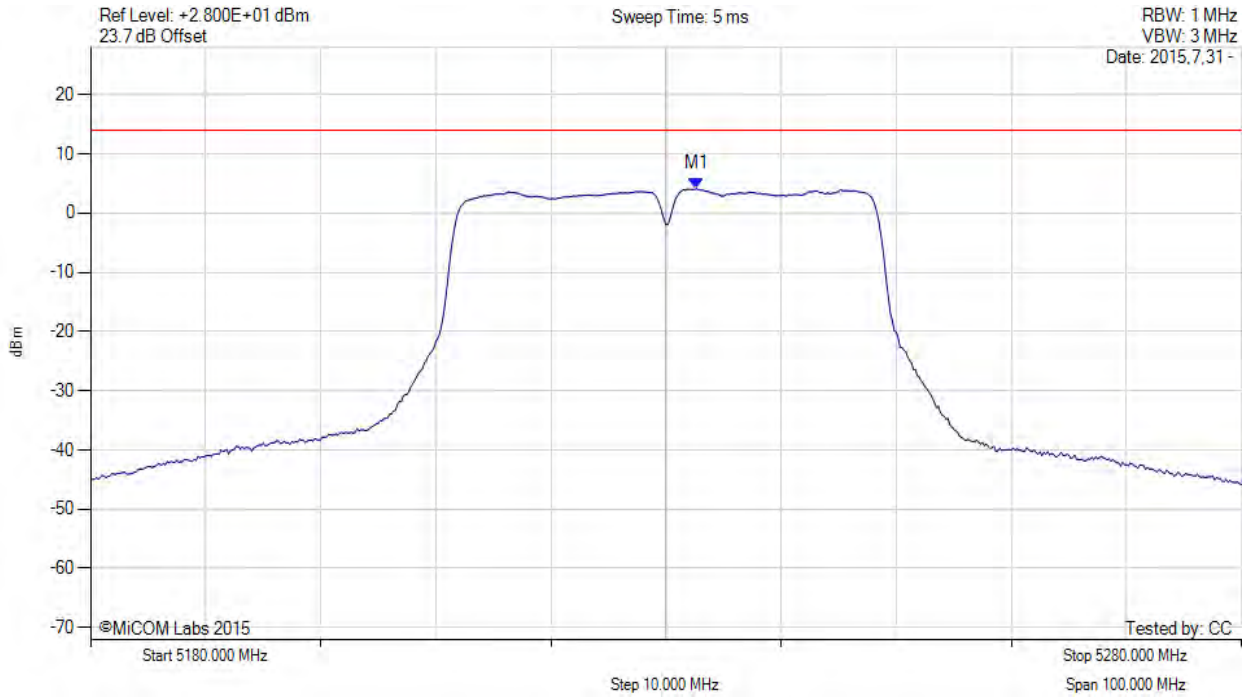


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5205.200 MHz : 9.549 dBm M1 + DCCF : 5205.200 MHz : 10.411 dBm Duty Cycle Correction Factor : +0.86 dB	Limit: ≤ 17.0 dBm Margin: -6.6 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5230.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

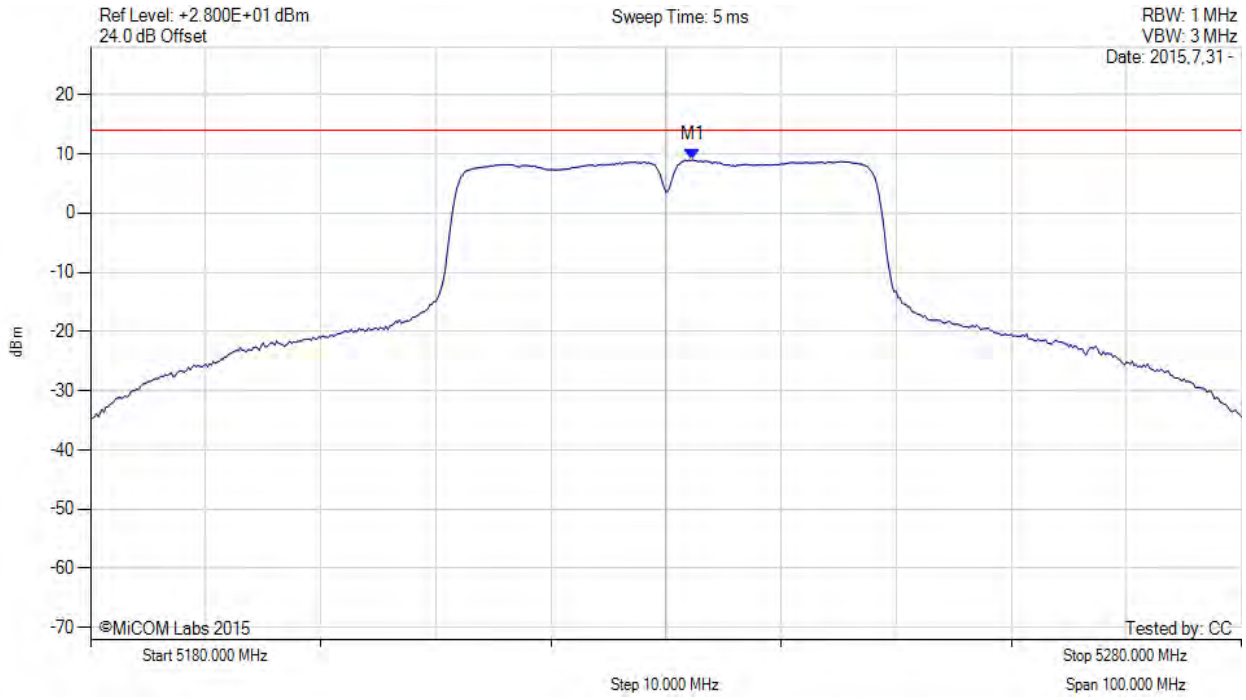


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5232.670 MHz : 4.130 dBm	Limit: ≤ 13.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5230.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

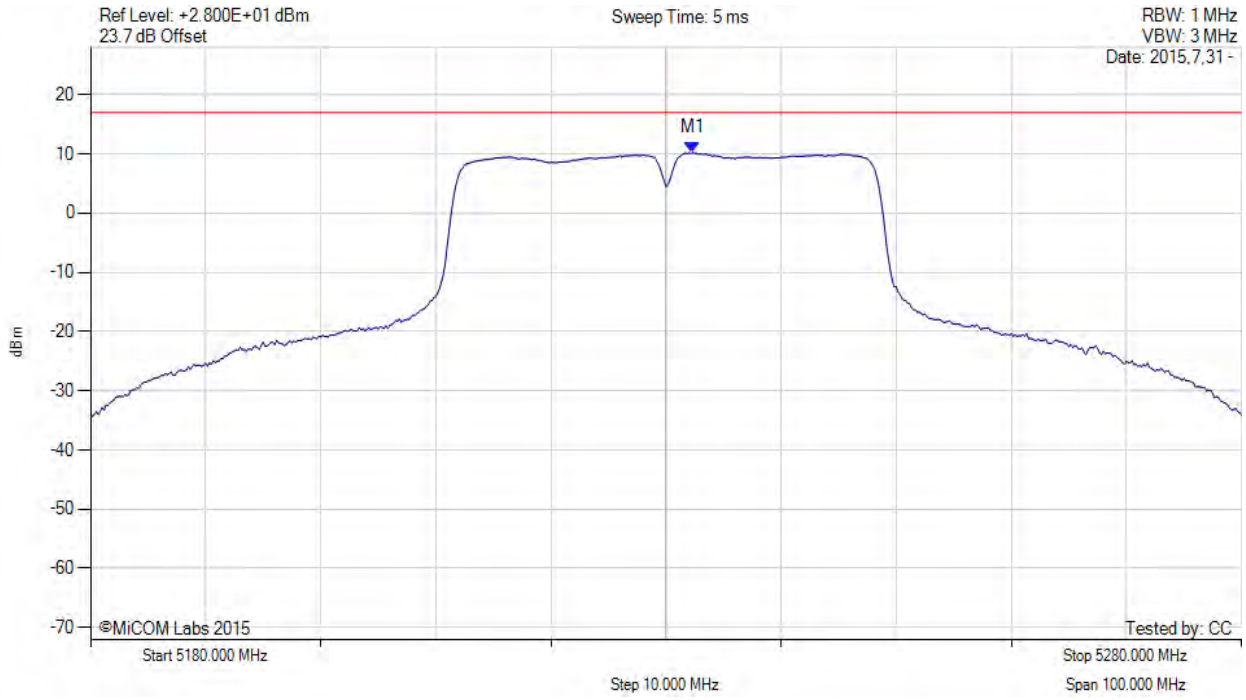


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5232.330 MHz : 8.986 dBm	Limit: ≤ 13.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5230.00 MHz, SUM, Temp: Ambient, Voltage: 12 Vdc

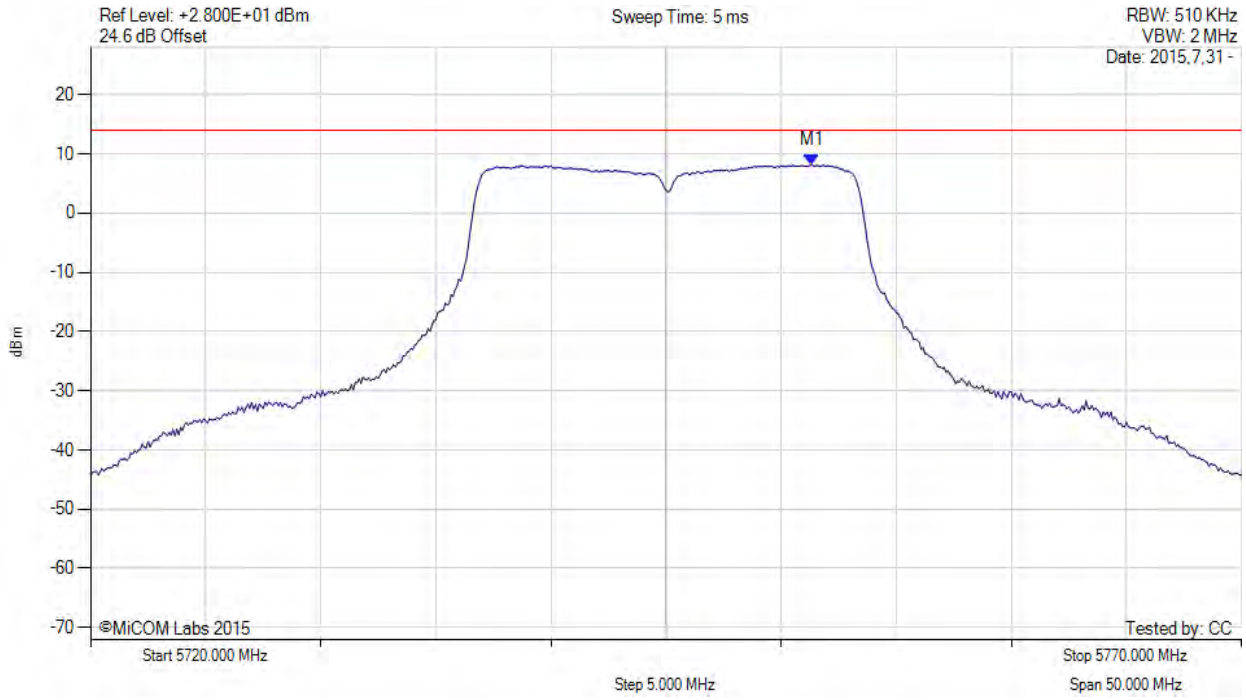


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5232.300 MHz : 10.181 dBm M1 + DCCF : 5232.300 MHz : 11.043 dBm Duty Cycle Correction Factor : +0.86 dB	Limit: ≤ 17.0 dBm Margin: -6.0 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5745.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

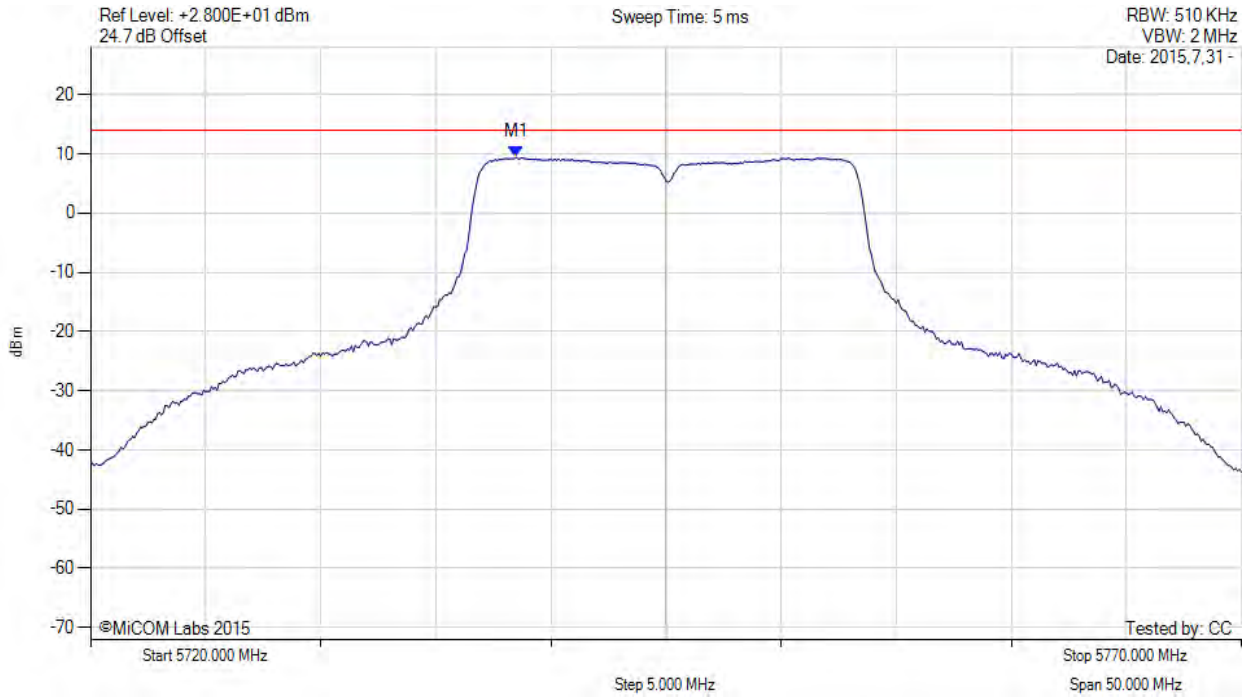


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5751.330 MHz : 8.146 dBm	Limit: ≤ 13.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5745.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

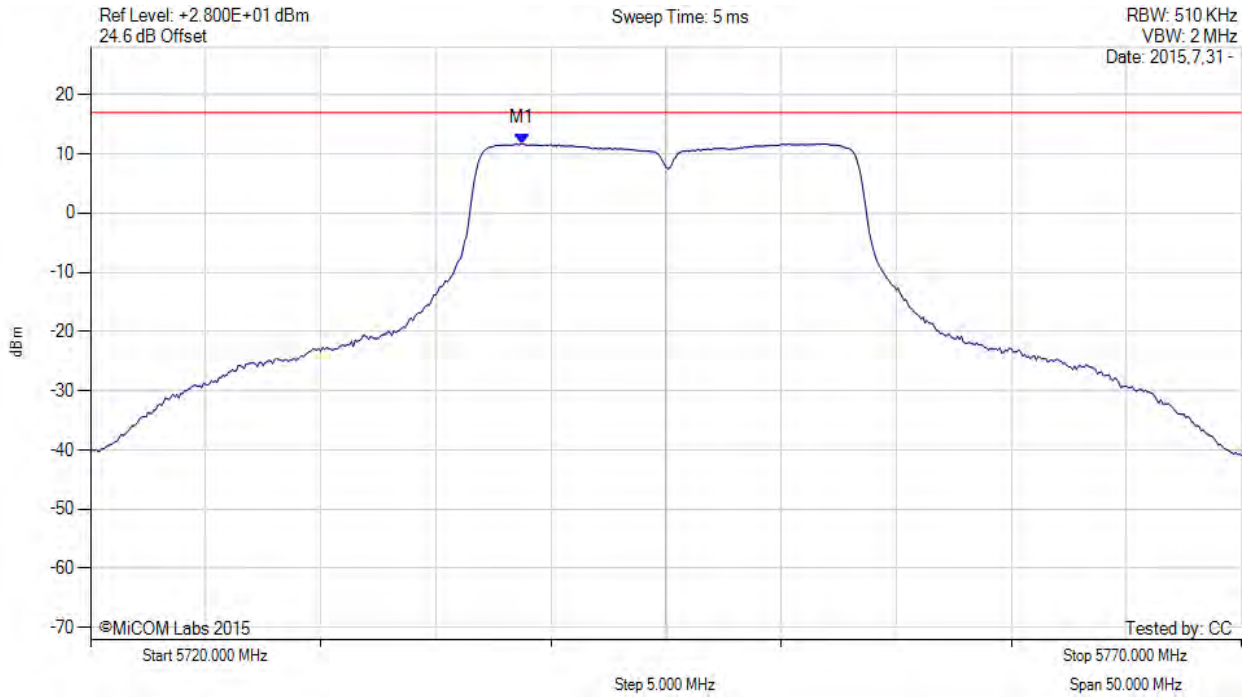


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5738.500 MHz : 9.431 dBm	Limit: ≤ +30 dBm/500 kHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5745.00 MHz, SUM, Temp: Ambient, Voltage: 12 Vdc

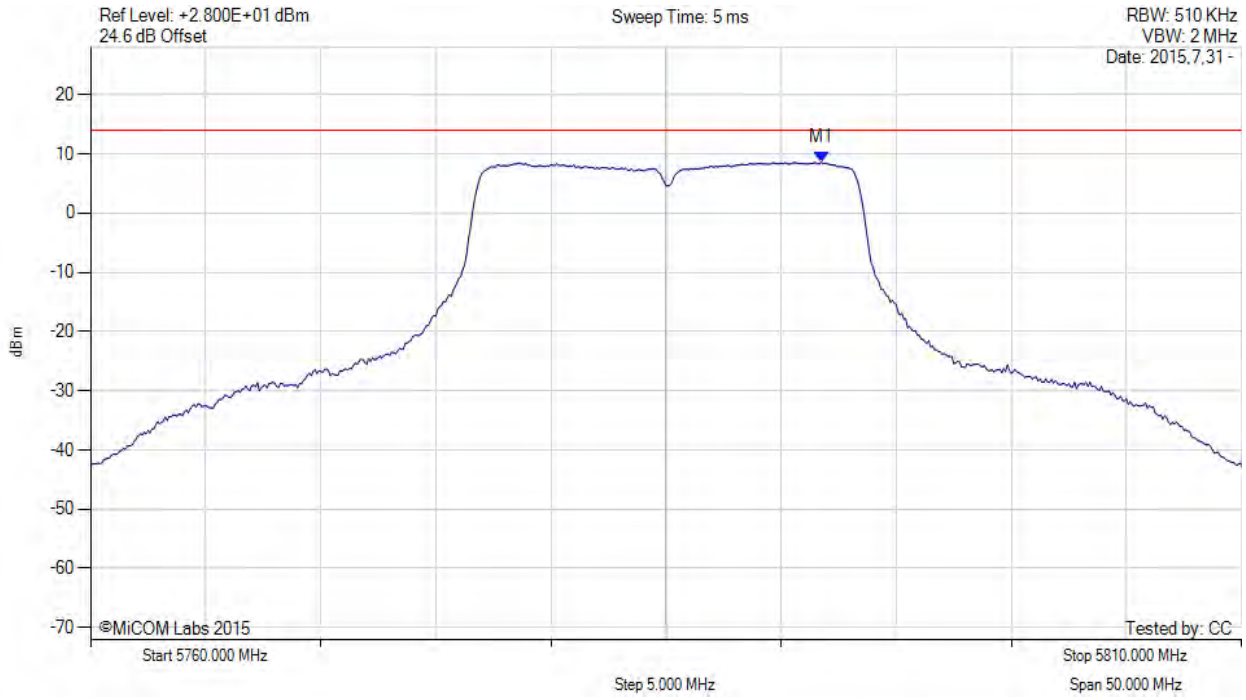


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5738.800 MHz : 11.731 dBm M1 + DCCF : 5738.800 MHz : 12.437 dBm Duty Cycle Correction Factor : +0.71 dB	Limit: ≤ +30 dBm/500 kHz Margin: -4.6 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5785.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

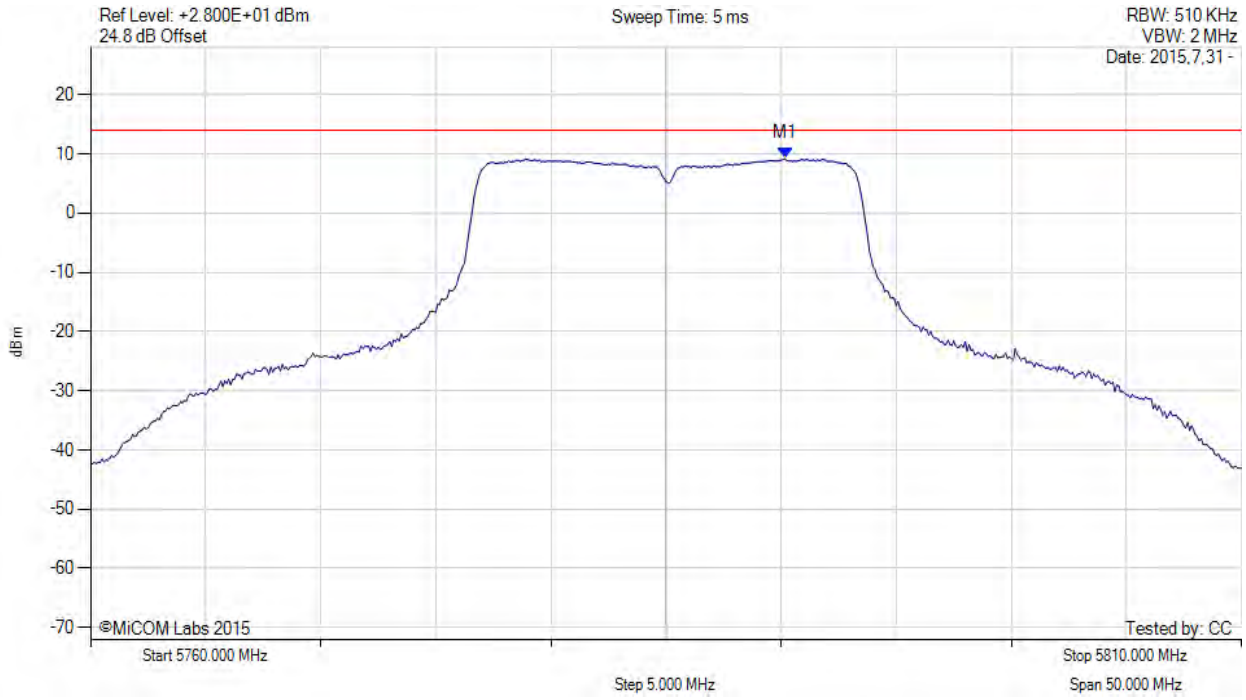


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5791.750 MHz : 8.589 dBm	Limit: ≤ +30 dBm/500 kHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5785.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

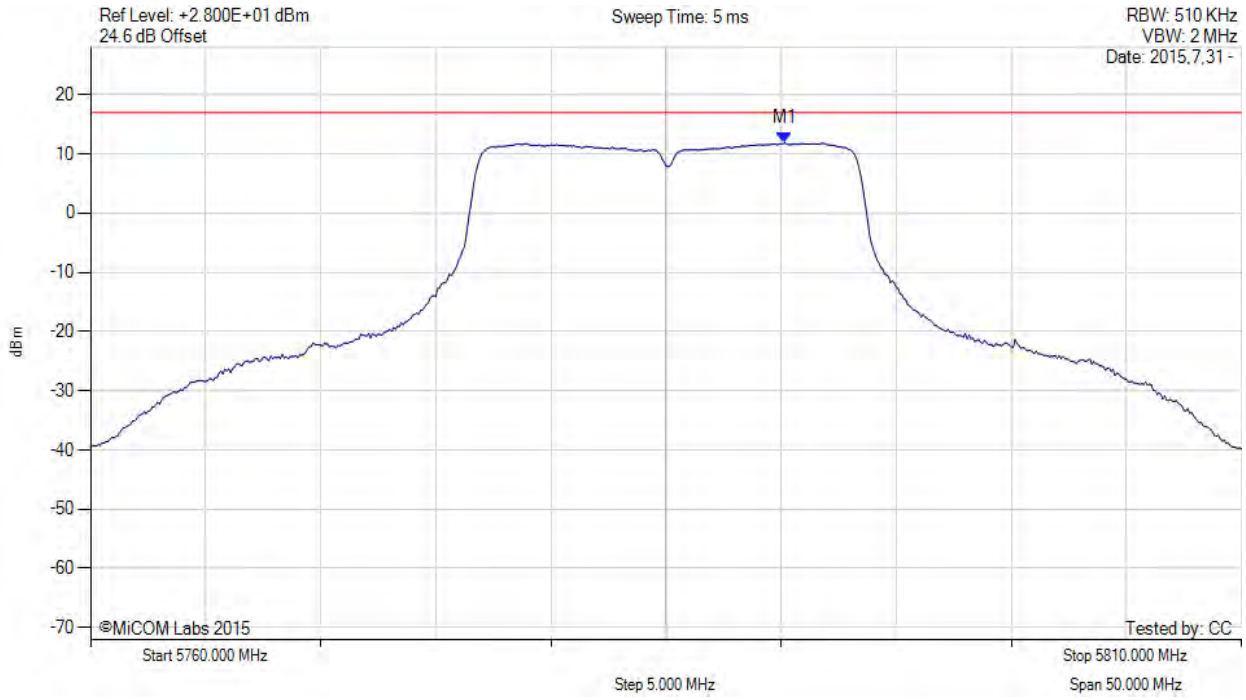


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5790.170 MHz : 9.189 dBm	Channel Frequency: 5785.00 MHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5785.00 MHz, SUM, Temp: Ambient, Voltage: 12 Vdc

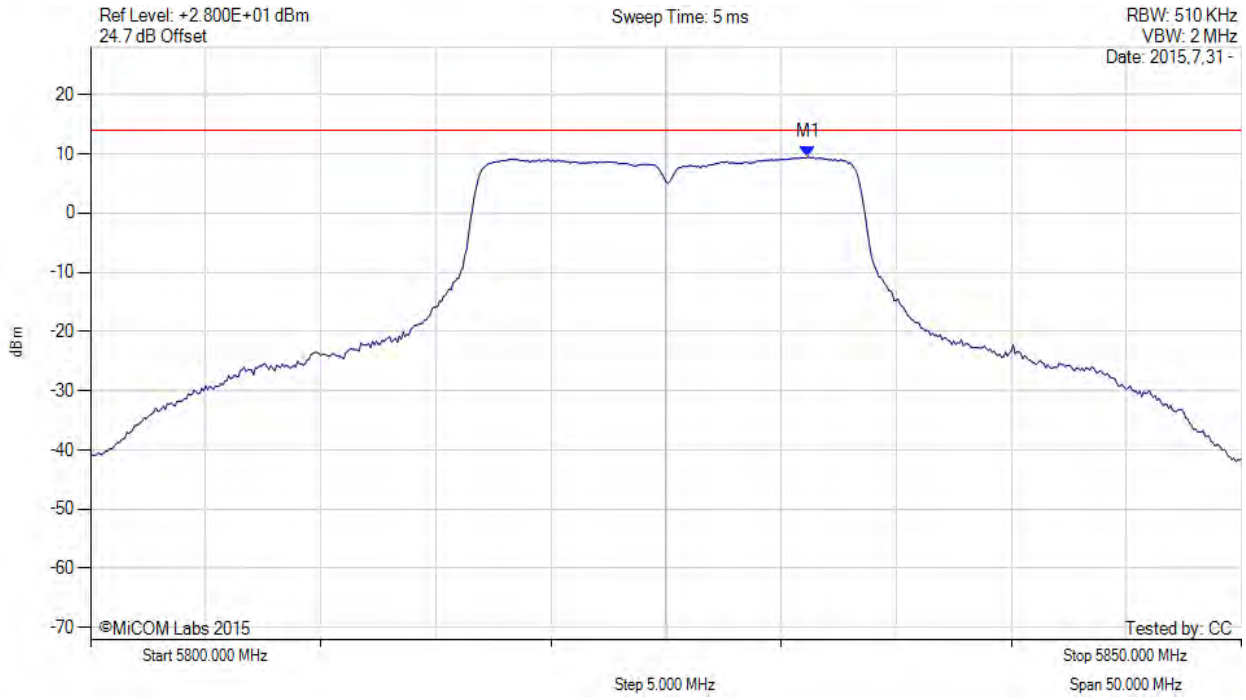


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5790.200 MHz : 11.886 dBm M1 + DCCF : 5790.200 MHz : 12.592 dBm Duty Cycle Correction Factor : +0.71 dB	Limit: ≤ +30 dBm/500 kHz Margin: -4.4 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5825.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

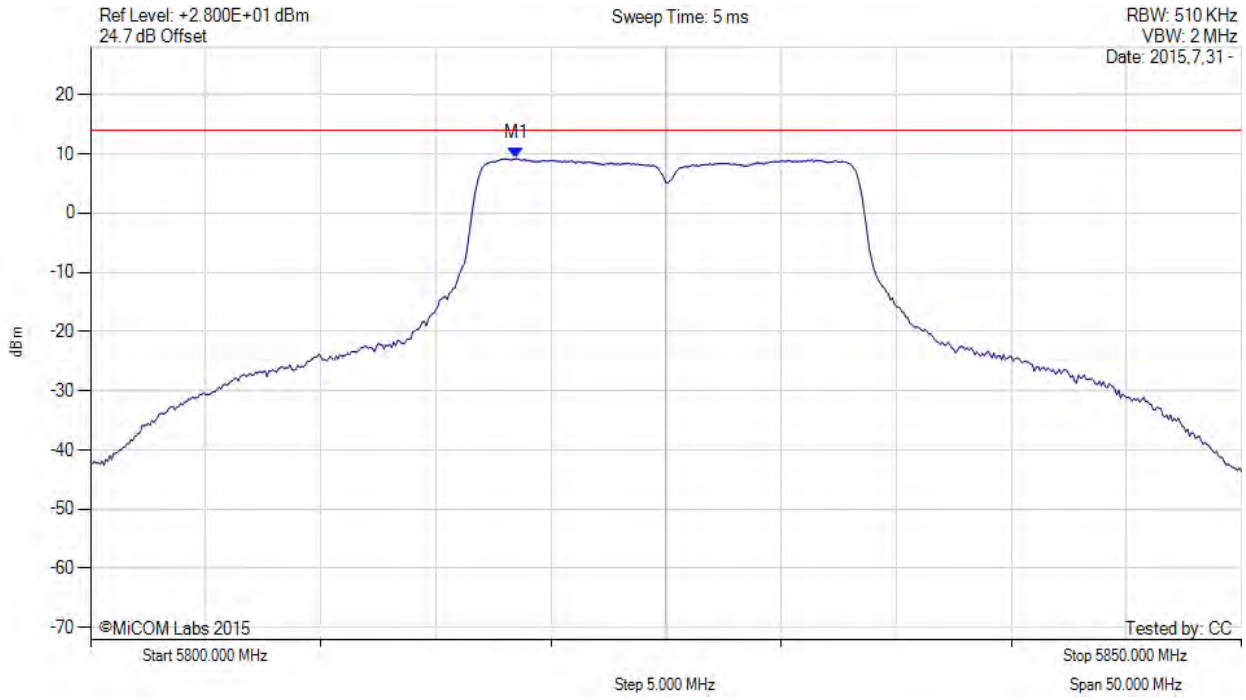


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5831.170 MHz : 9.491 dBm	Limit: ≤ +30 dBm/500 kHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5825.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

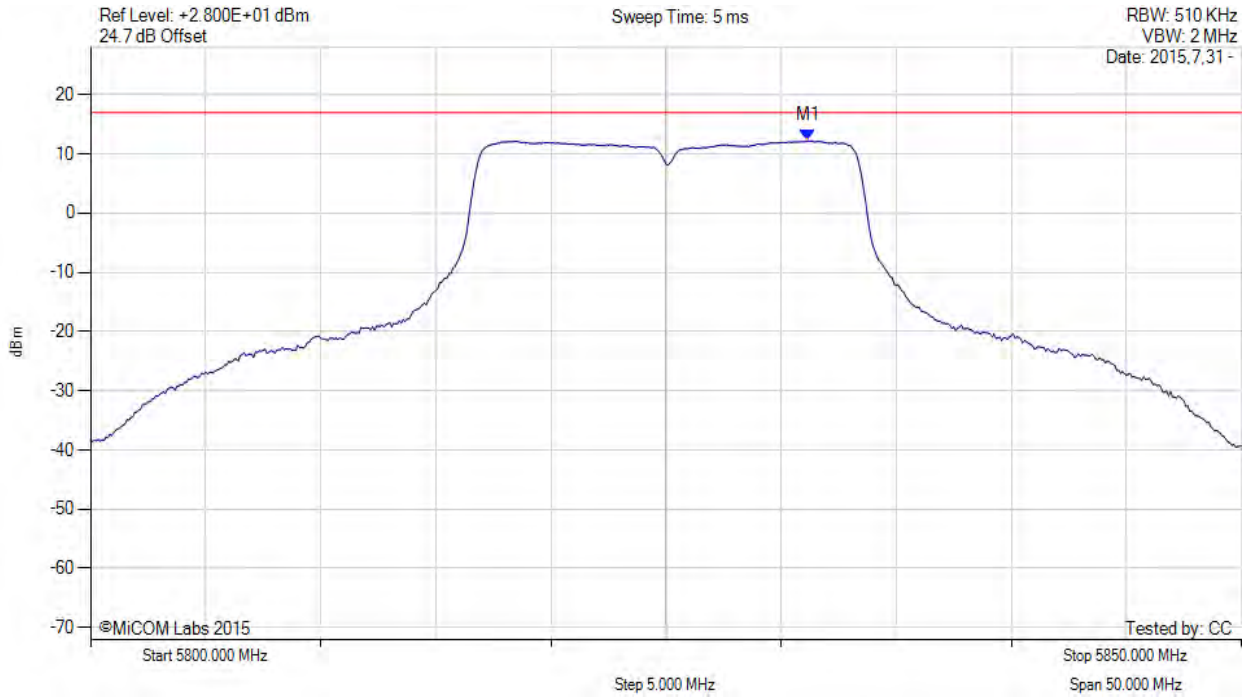


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5818.500 MHz : 9.225 dBm	Limit: ≤ +30 dBm/500 kHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5825.00 MHz, SUM, Temp: Ambient, Voltage: 12 Vdc

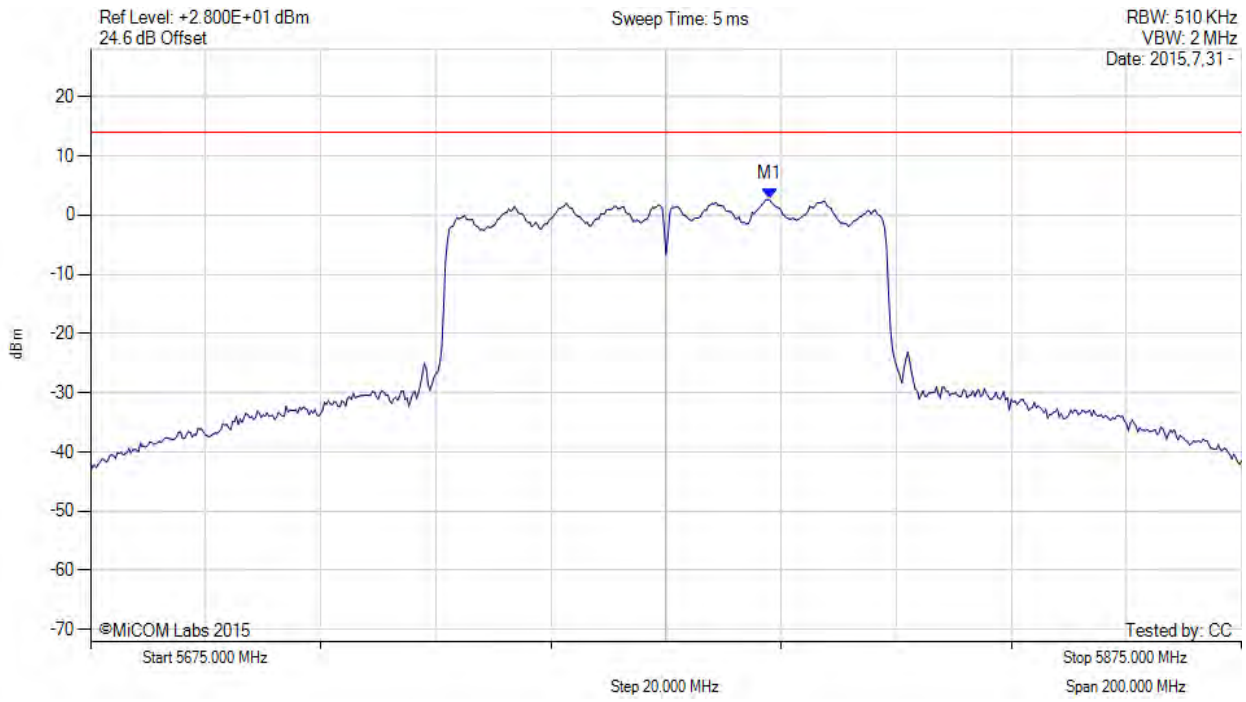


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5831.200 MHz : 12.246 dBm M1 + DCCF : 5831.200 MHz : 12.952 dBm Duty Cycle Correction Factor : +0.71 dB	Limit: ≤ +30 dBm/500 kHz Margin: -4.1 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5775.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

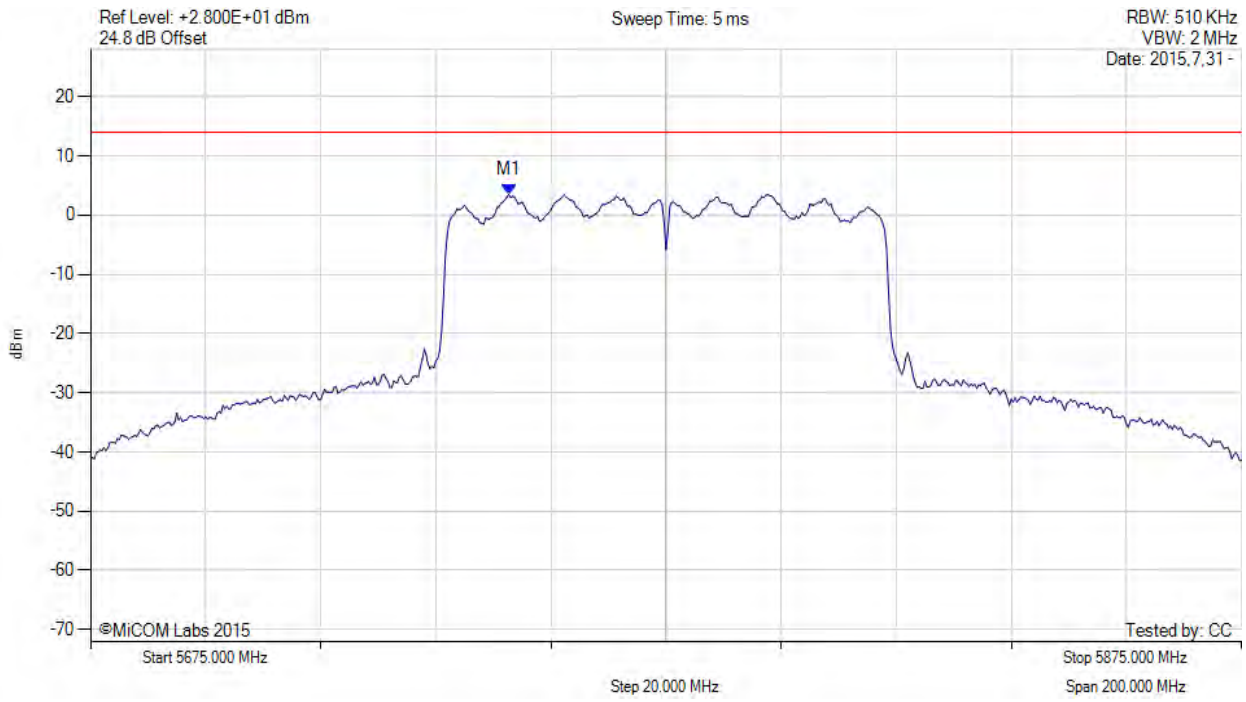


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5793.000 MHz : 2.637 dBm	Limit: ≤ +30 dBm/500 kHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5775.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

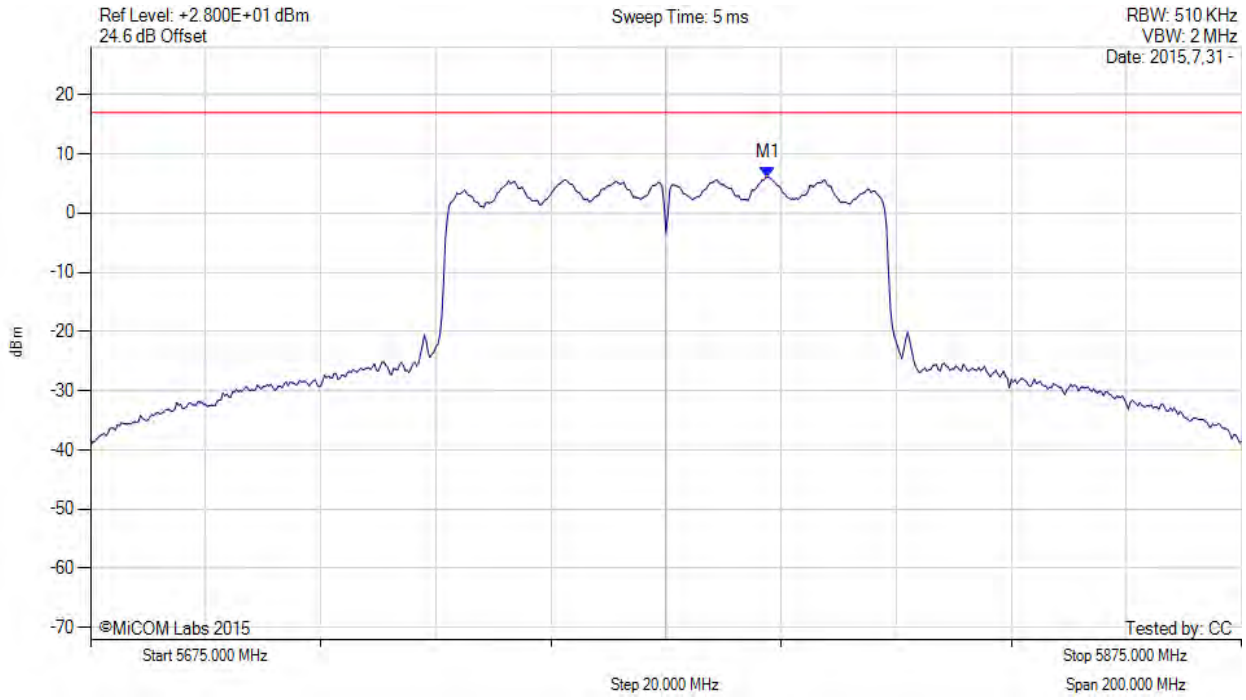


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5747.700 MHz : 3.525 dBm	Limit: ≤ +30 dBm/500 kHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5775.00 MHz, SUM, Temp: Ambient, Voltage: 12 Vdc

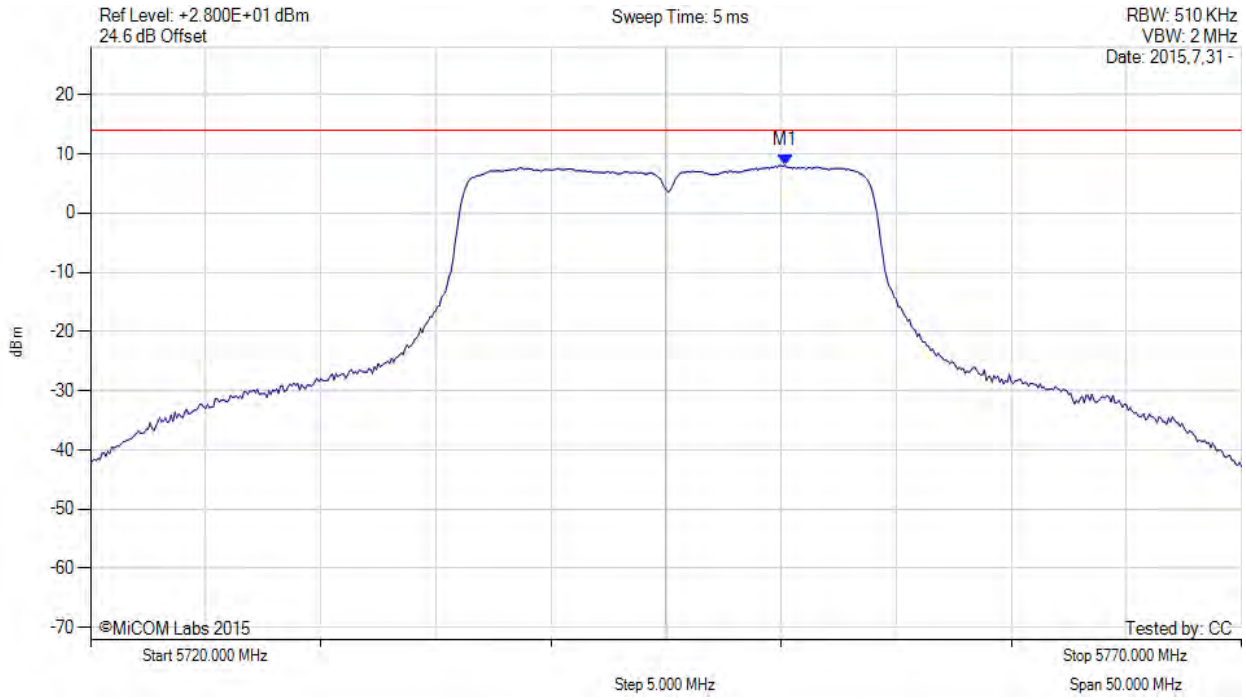


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5792.700 MHz : 6.071 dBm M1 + DCCF : 5792.700 MHz : 7.379 dBm Duty Cycle Correction Factor : +1.31 dB	Limit: ≤ +30 dBm/500 kHz Margin: -9.6 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

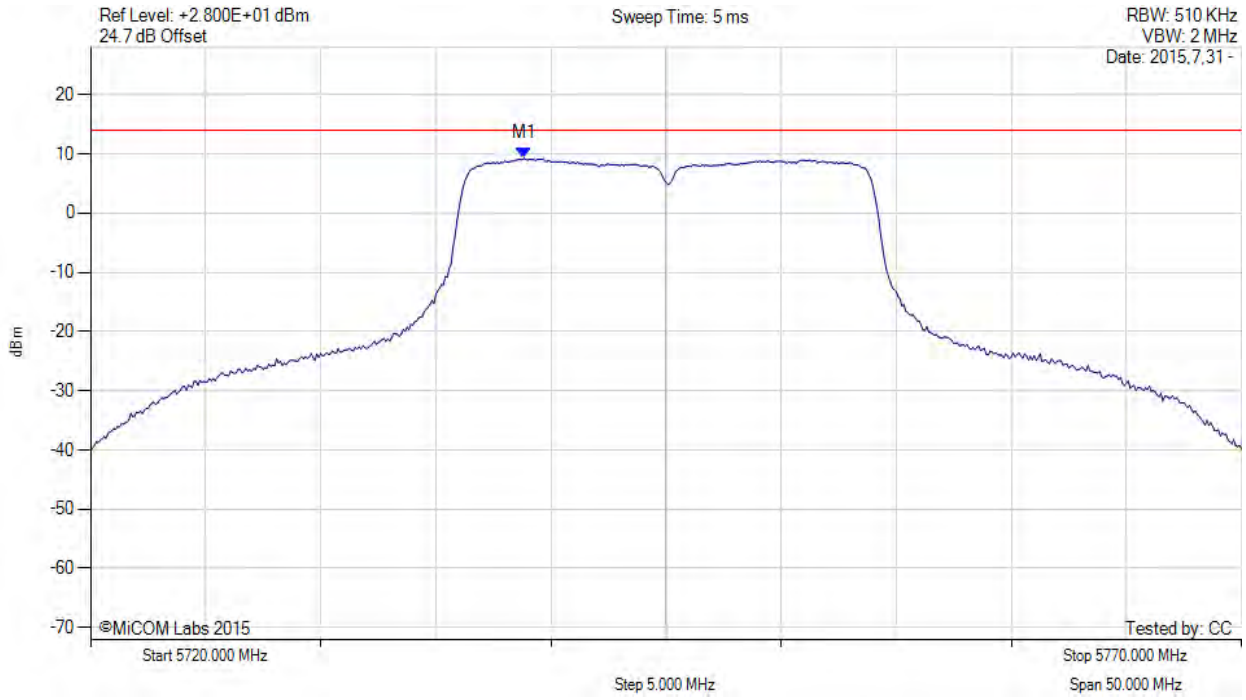


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5750.170 MHz : 8.091 dBm	Limit: ≤ +30 dBm/500 kHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

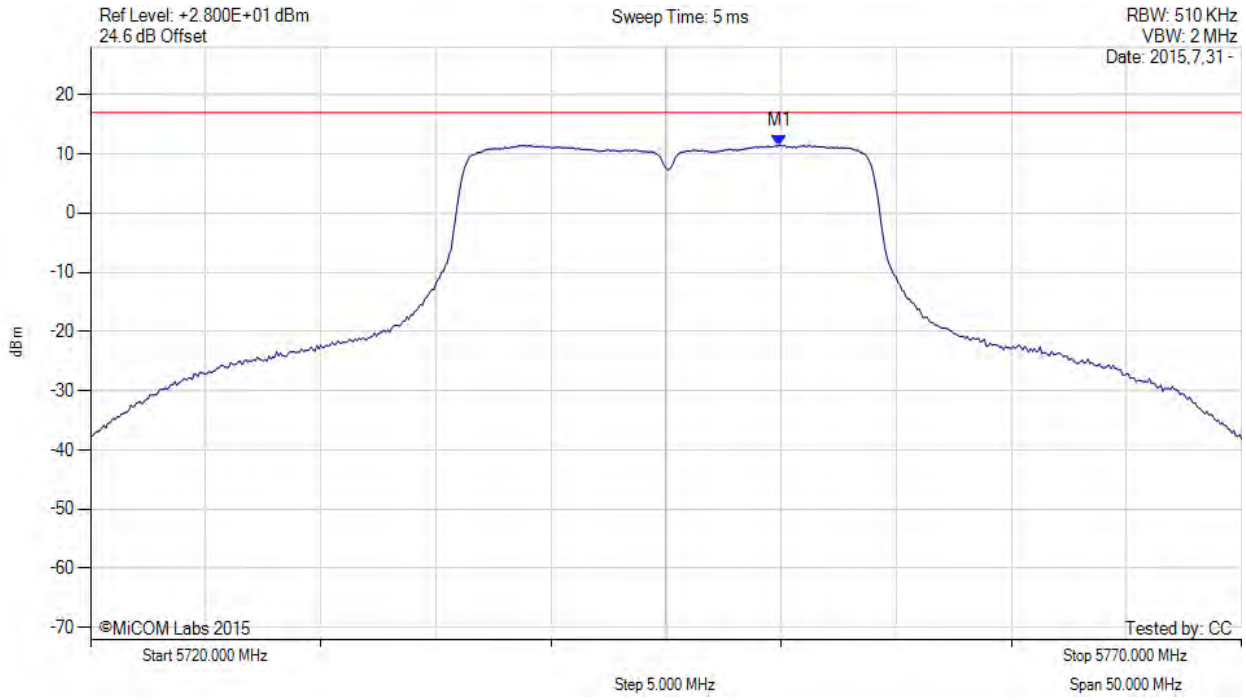


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5738.830 MHz : 9.243 dBm	Limit: ≤ +30 dBm/500 kHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5745.00 MHz, SUM, Temp: Ambient, Voltage: 12 Vdc

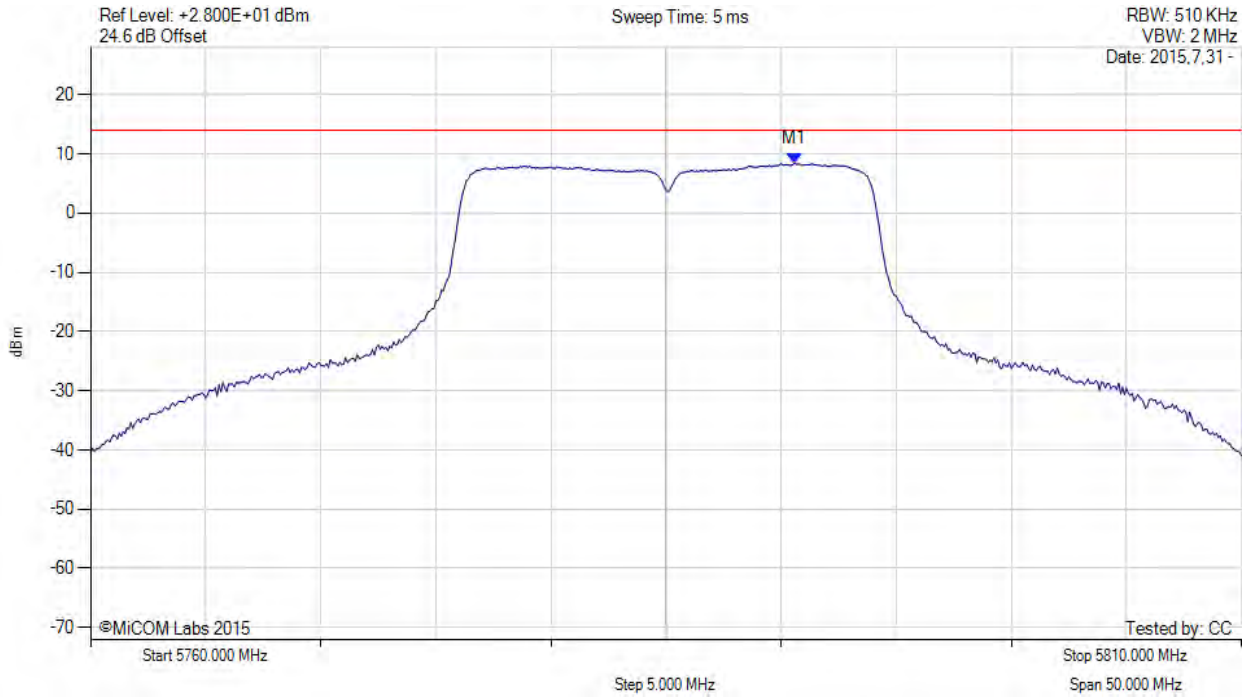


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5749.900 MHz : 11.427 dBm M1 + DCCF : 5749.900 MHz : 12.082 dBm Duty Cycle Correction Factor : +0.66 dB	Limit: ≤ +30 dBm/500 kHz Margin: -4.9 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

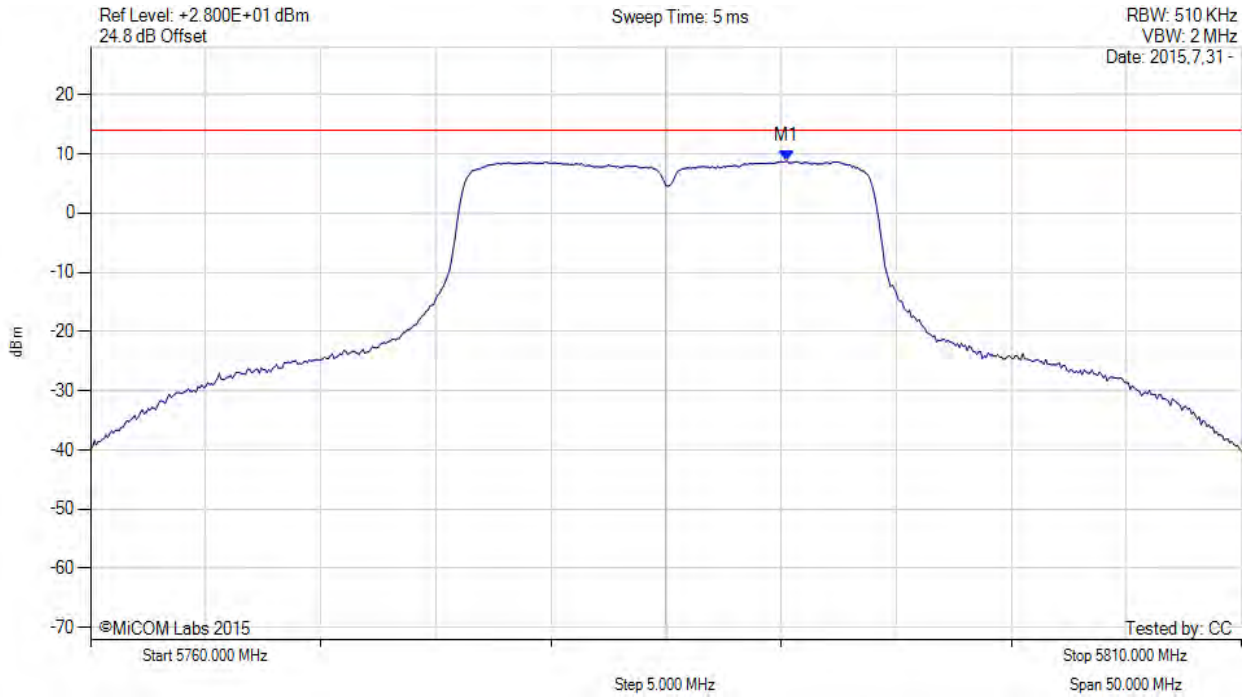


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5790.580 MHz : 8.386 dBm	Limit: ≤ +30 dBm/500 kHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

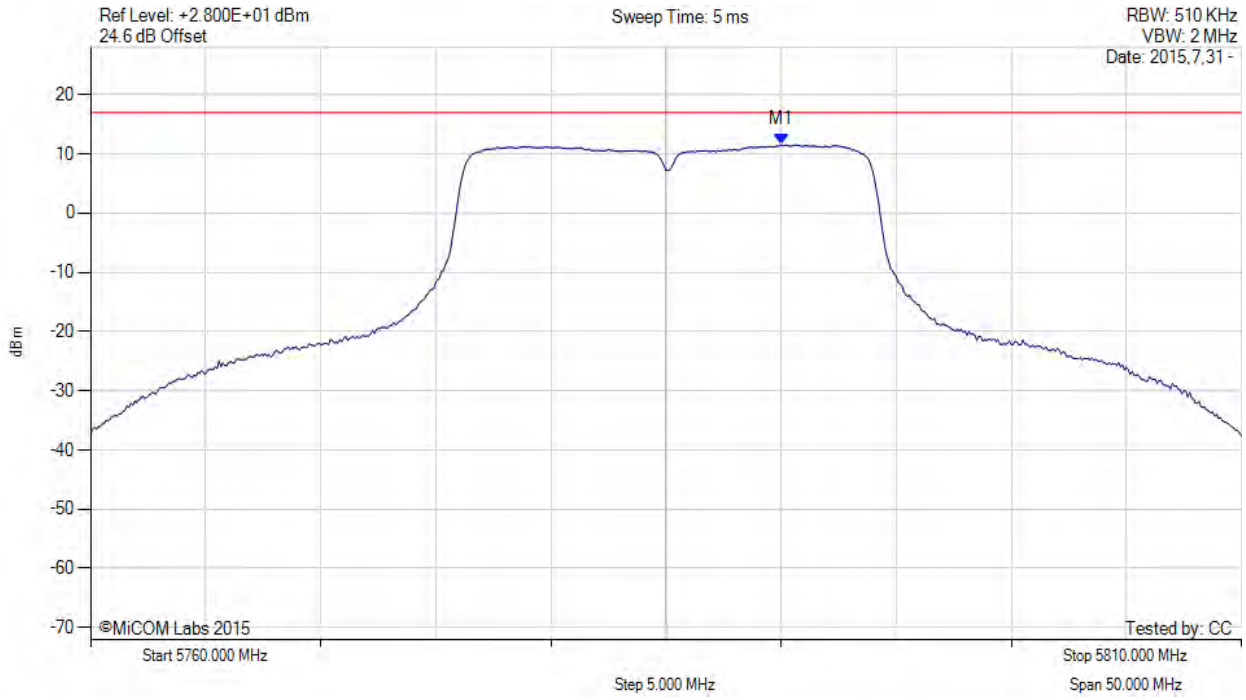


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5790.250 MHz : 8.793 dBm	Channel Frequency: 5785.00 MHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5785.00 MHz, SUM, Temp: Ambient, Voltage: 12 Vdc

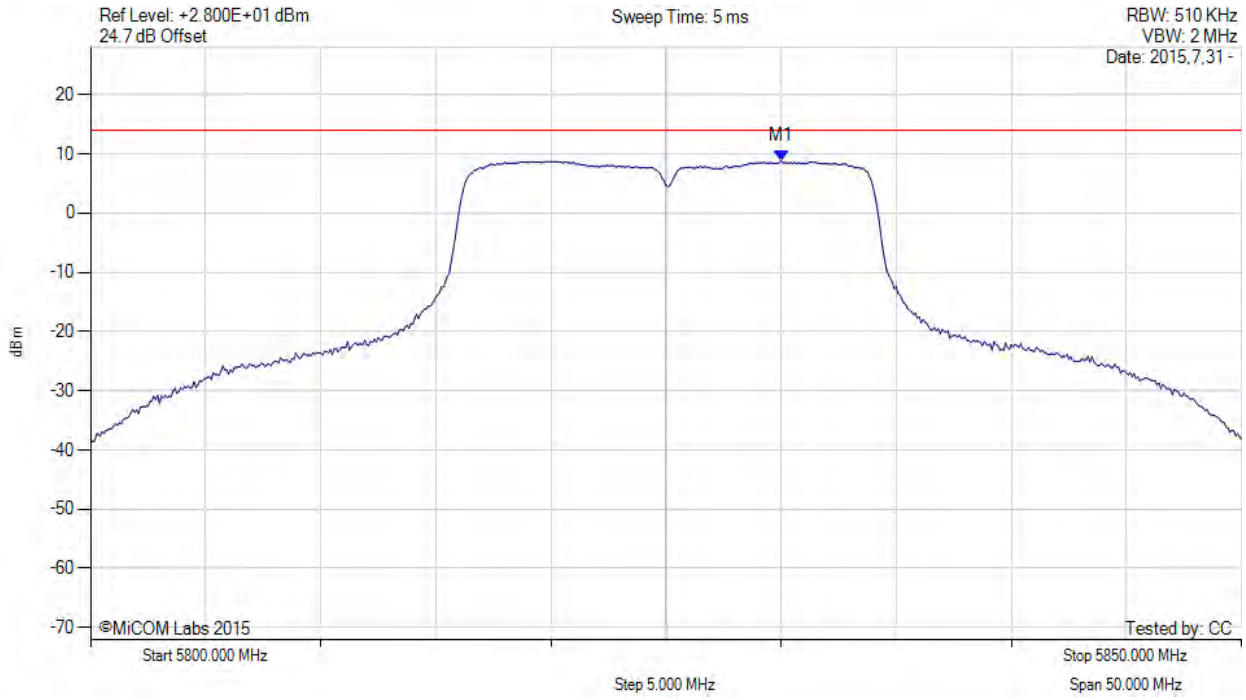


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5790.000 MHz : 11.546 dBm M1 + DCCF : 5790.000 MHz : 12.201 dBm Duty Cycle Correction Factor : +0.66 dB	Limit: ≤ 17.0 dBm Margin: -4.8 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

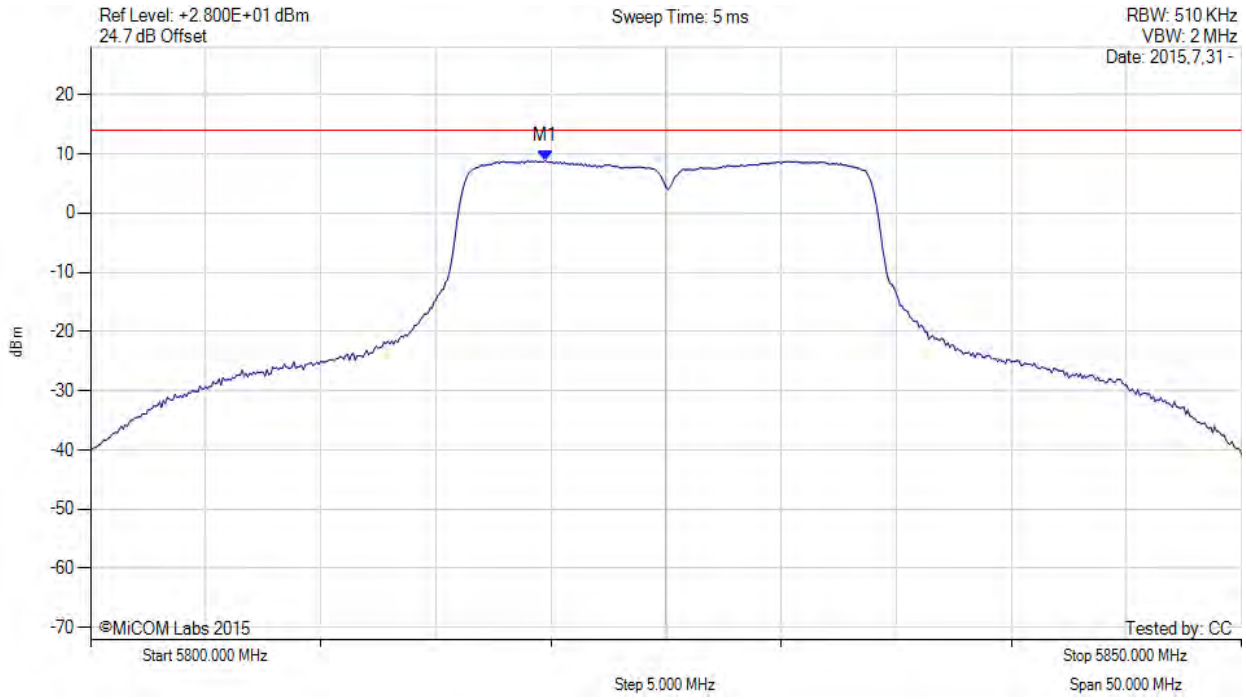


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5830.000 MHz : 8.878 dBm	Limit: ≤ +30 dBm/500 kHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

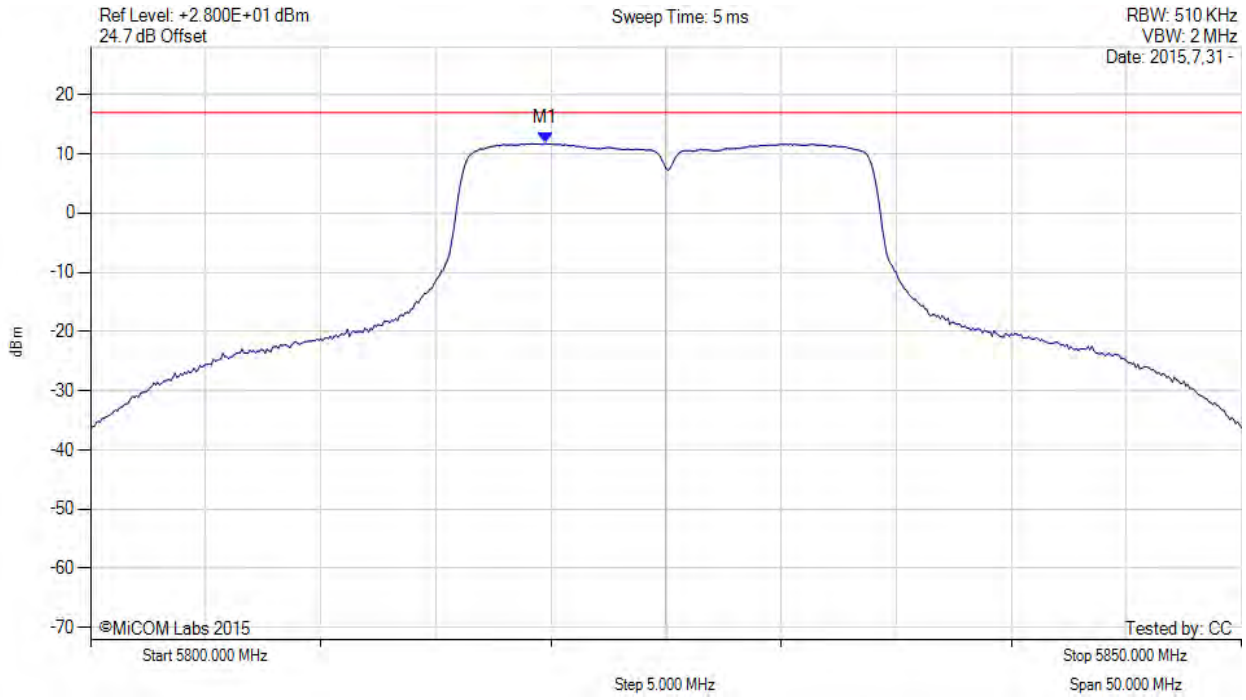


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5819.750 MHz : 8.849 dBm	Limit: ≤ +30 dBm/500 kHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5825.00 MHz, SUM, Temp: Ambient, Voltage: 12 Vdc

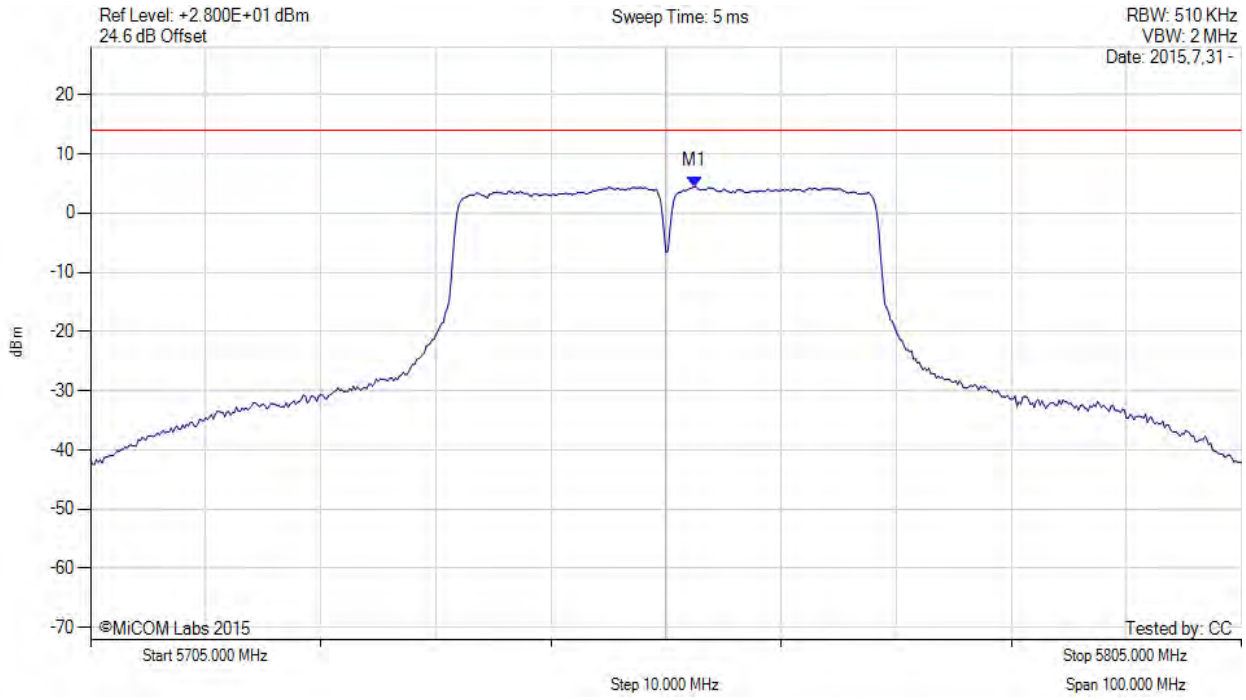


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5819.800 MHz : 11.788 dBm M1 + DCCF : 5819.800 MHz : 12.443 dBm Duty Cycle Correction Factor : +0.66 dB	Limit: ≤ 17.0 dBm Margin: -4.6 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

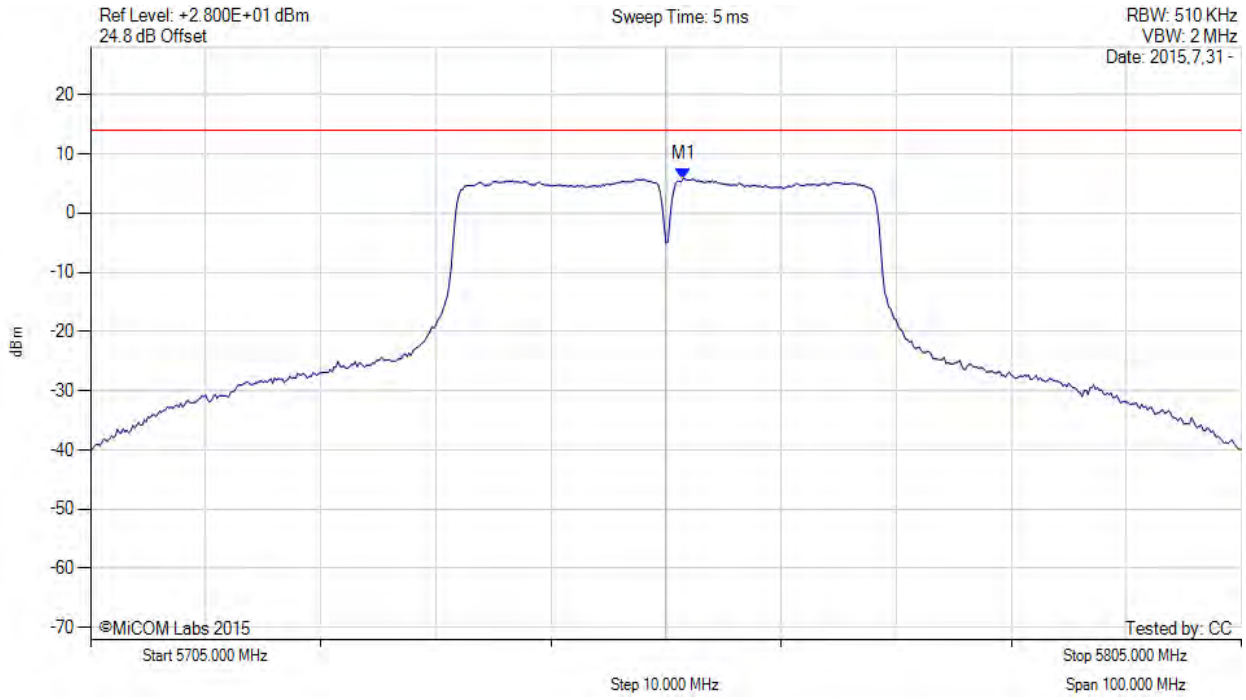


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5757.500 MHz : 4.497 dBm	Limit: ≤ +30 dBm/500 kHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

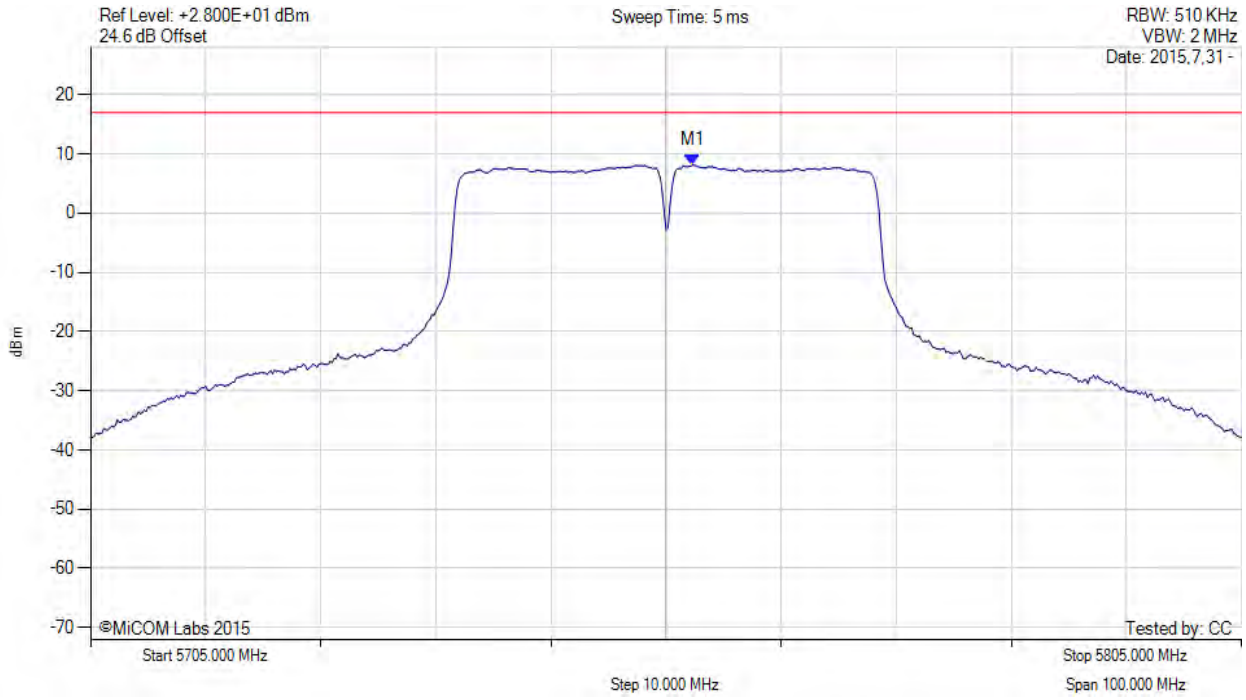


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5756.500 MHz : 5.871 dBm	Limit: ≤ +30 dBm/500 kHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5755.00 MHz, SUM, Temp: Ambient, Voltage: 12 Vdc

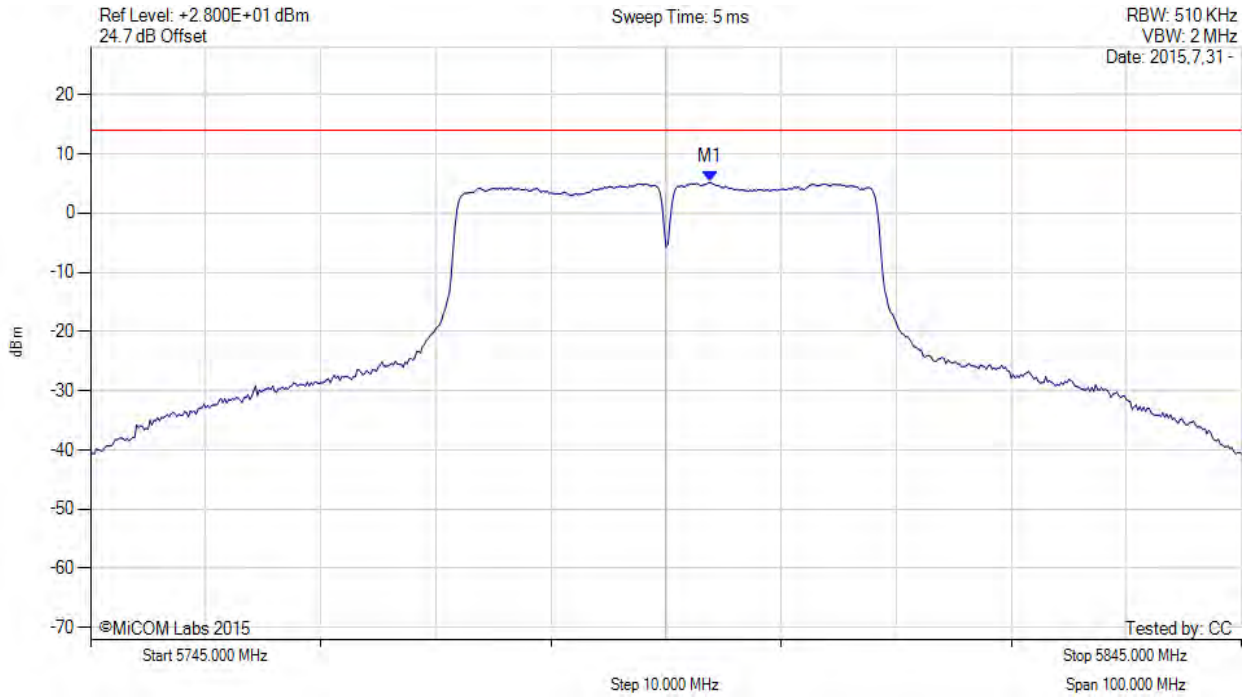


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5757.300 MHz : 8.121 dBm M1 + DCCF : 5757.300 MHz : 8.983 dBm Duty Cycle Correction Factor : +0.86 dB	Limit: ≤ 17.0 dBm Margin: -8.0 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

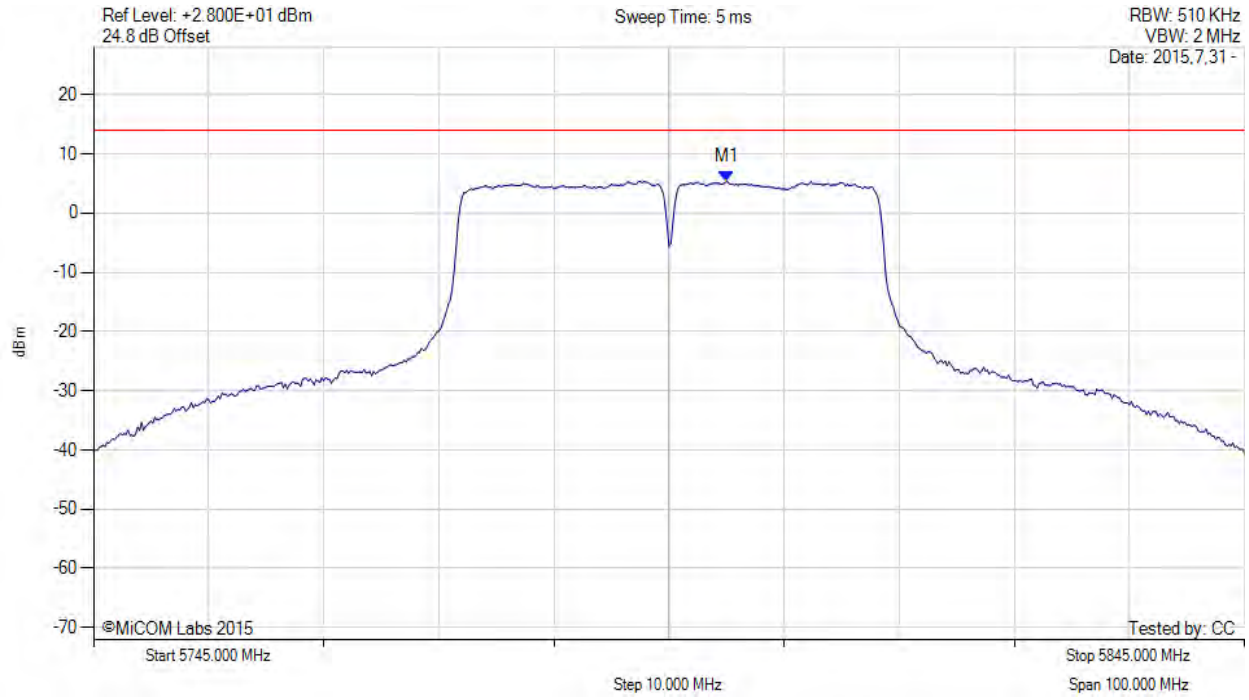


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5798.830 MHz : 5.218 dBm	Limit: ≤ +30 dBm/500 kHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

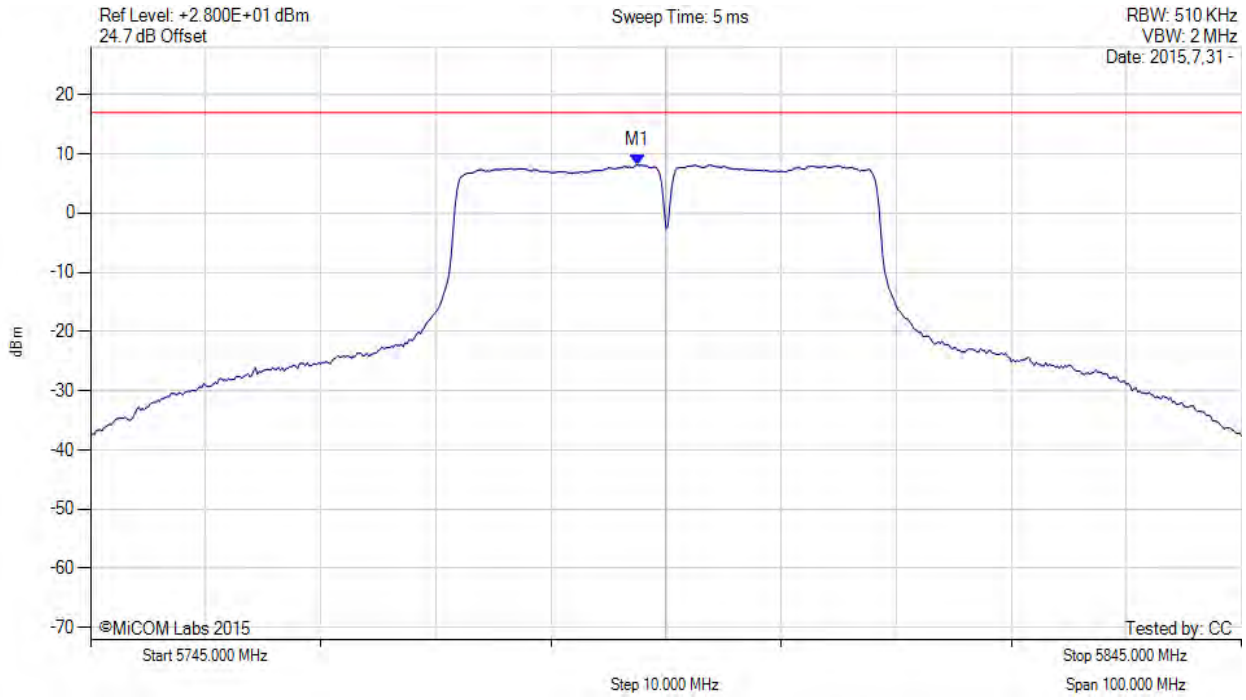


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5800.000 MHz : 5.363 dBm	Limit: ≤ +30 dBm/500 kHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5795.00 MHz, SUM, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5792.500 MHz : 8.158 dBm M1 + DCCF : 5792.500 MHz : 9.020 dBm Duty Cycle Correction Factor : +0.86 dB	Limit: ≤ 17.0 dBm Margin: -8.0 dB

back to matrix

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