

Company: Actiontec Electronics Inc

Test of: WEB5500

To: FCC CFR 47 Part 15 Subpart E 15.407

Report No.: ATEC11-U8a Conducted Rev B

CONDUCTED TEST REPORT



CONDUCTED TEST REPORT

FROM



Test of: Actiontec Electronics Inc WEB5500
to

To: FCC CFR 47 Part 15 Subpart E 15.407

Test Report Serial No.: ATEC11-8a Conducted Rev B

This report supersedes: ATEC11-8a Conducted Rev A

Note: this report is one of a set of four reports that together address the requirements for certification purposes

Report Number	Test Report Type
ATEC011-U2	FCC Part 15B Test Report
ATEC11-U5a, b	2.4 GHz Conducted & Radiated Test Reports
ATEC11-U8a, b	5 GHz (non-DFS) Conducted, Radiated Test Reports
ATEC11-U11a, b, c	5 GHz (DFS) Conducted, Radiated, DFS Test Reports

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

Product Function: 802.11ac Wireless Network
Extender

Issue Date: 27th April 2017

This Test Report is Issued Under the Authority of:

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



MiCOM Labs is an ISO 17025 Accredited Testing Laboratory



Table of Contents

_1. ACCREDITATION, LISTINGS & RECOGNITION	4
1.1. Testing Accreditation	4
1.2. Recognition	5
1.3. Product Certification	6
2. DOCUMENT HISTORY	7
3. TEST RESULT CERTIFICATE	8
4. REFERENCES AND MEASUREMENT UNCERTAINTY	9
4.1. Normative References	9
4.2. Test and Uncertainty Procedure	10
5. PRODUCT DETAILS AND TEST CONFIGURATIONS	11
5.1. Technical Details	11
5.2. Scope Of Test Program	12
5.3. Equipment Model(s) and Serial Number(s)	12
5.4. Antenna Details	12
5.5. Cabling and I/O Ports	13
5.6. Test Configurations	13
5.7. Equipment Modifications	13
5.8. Deviations from the Test Standard	13
6. TEST SUMMARY	14
7. TEST EQUIPMENT CONFIGURATION(S)	15
7.1. Conducted	15
8. MEASUREMENT AND PRESENTATION OF TEST DATA	17
9. WORST CASE MEASUREMENT RESULTS	18
10. TEST RESULTS	18
10.1. Peak Transmit Power	18
10.2. 26 dB & 99% Bandwidth	25
10.3. Power Spectral Density	34
A. APPENDIX - GRAPHICAL IMAGES	44
A.1. 26 dB & 99% Bandwidth	45
A.2. Power Spectral Density	119

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

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>



Accredited Laboratory

A2LA has accredited

MICOM LABS

Pleasanton, CA

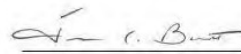
for technical competence in the field of

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 4th day of February 2016.



Senior Director of Quality & Communications
For the Accreditation Council
Certificate Number 2381.01
Valid to November 30, 2017

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



This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 5 of 227

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

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

1.3. Product Certification

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



Accredited Product Certification Body

A2LA has accredited

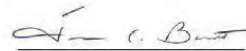
MICOM LABS

Pleasanton, CA

This product certification body is accredited in accordance with the recognized International Standard ISO/IEC 17065:2012 *Requirements for bodies certifying products, processes and services*. This accreditation demonstrates technical competence for a defined scope and the operation of a management system.



Presented this 4th day of February 2016.



Senior Director of Quality & Communications
For the Accreditation Council
Certificate Number 2381.02
Valid to November 30, 2017

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

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

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 7 of 227

2. DOCUMENT HISTORY

Document History		
Revision	Date	Comments
Draft	22 nd November 2015	
Rev A	10 th January 2016	Initial Release
Rev B	27 th April 2017	Removed Product Photographs

In the above table the latest report revision will replace all earlier versions.

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 8 of 227

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: WEB5500	Telephone: +1 925 462 0304 Fax: +1 925 462 0306
Type Of Equipment: 802.11ac Wireless Network Extender	
S/N's: F5	
Test Date(s): 3 rd – 17 th November 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.

Approved & Released for MiCOM Labs, Inc. by:



Graeme Grieve
Quality Manager MiCOM Labs, Inc.

Gordon Hurst
President & CEO MiCOM Labs, Inc.

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

4. REFERENCES AND MEASUREMENT UNCERTAINTY

4.1. Normative References

REF.	PUBLICATION	YEAR	TITLE
I	FCC 47 CFR Part 15.407	2015	Radio Frequency Devices; Subpart E – Unlicensed National Information Infrastructure Devices
	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	2009	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	KDB 644545 D03 v01	August 14th 2014	Guidance for IEEE 802.11ac New Rules
XII	FCC 47 CFR Part 2.1033	2014	FCC requirements and rules regarding photographs and test setup diagrams.
XIII	M 3003	Edition 3 Nov. 2012	Expression of Uncertainty and Confidence in Measurements

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 10 of 227

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.

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 11 of 227

5. PRODUCT DETAILS AND TEST CONFIGURATIONS

5.1. Technical Details

Details	Description
Purpose:	Test of the Actiontec Electronics Inc. WEB5500 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:	ATEC11 - WEB5500 FCC
Date EUT received:	3 rd November 2015
Standard(s) applied:	FCC CFR 47 Part 15 Subpart E 15.407
Dates of test (from - to):	3 rd – 17 th November 2015
No of Units Tested:	1
Type of Equipment:	802.11 a/b/g/n/ac Wireless Access Point 4x4 Spacial Multiplexing MIMO Configuration
Model(s):	WEB5500
Location for use:	Indoor
Declared Frequency Range(s):	5150 - 5250 MHz; 5725 - 5850 MHz;
Primary function of equipment:	802.11ac Wireless Network Extender
Secondary function of equipment:	None Provided
Type of Modulation:	OFDM
EUT Modes of Operation:	802.11a; 802.11ac-80; 802.11n HT-20; 802.11n HT-40;
Declared Nominal Output Power (Ave):	5150-5250 MHz: +28 dBm 5725-5850 MHz: +28 dBm
Transmit/Receive Operation:	Transceiver - Half Duplex
Rated Input Voltage and Current:	AC/ DC adaptor (adaptor sold with unit) Input: 115 Vac 0.6A Output: 12Vdc, 1.5 A
Operating Temperature Range:	Declared Range 0°C to 45°C
ITU Emission Designator:	802.11a: 16M9D1D 802.11ac-80: 76M2D1D 802.11n HT-20: 18M2D1D 802.11n HT-40: 36M7D1D
Equipment Dimensions:	4.75" (W) x 7.00" (H) x 2.25" (D)
Weight:	0.75 lb
Hardware Rev:	AM2
Software Rev:	V.3.1.9.3c

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 12 of 227

5.2. Scope Of Test Program

Actiontec Electronics Inc. WEB5500

The scope of the test program was to test the Actiontec Electronics Inc WEB5500, 802.11a/b/g/n/ac configurations in the frequency ranges 5150 - 5250 MHz; 5725 - 5850 MHz; for compliance against the following specification for non-DFS bands:

FCC CFR 47 Part 15 Subpart E 15.407

Radio Frequency Devices; Subpart E – Unlicensed National Information Infrastructure Devices

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

Type (EUT/Support)	Equipment Description (Including Brand Name)	Mfr	Model No.	Serial No.
EUT	802.111ac Wireless Network Extender	Actiontec	WEB5500	F5
EUT	Power Adapter 100 - 240Vac 50/60Hz 0.6A 12 Vdc 1.5 A	Actiontec	NBS24J120150VU	Unknown
Support	Laptop PC	IBM	Thinkpad	None

5.4. Antenna Details

Type	Manufacturer	Model	Family	Gain (dBi)	BF Gain	Dir BW	X-Pol	Frequency Band (MHz)
integral	Galtronics	Custom PCB	Dipole	3.5	2.3	--	V-Pol	5150 - 5250
integral	Galtronics	Custom PCB	Dipole	3.5	0.9	--	H-Pol	5150 - 5250
integral	Galtronics	Custom PCB	Dipole	4.3	2.4	--	V-Pol	5725 - 5850
integral	Galtronics	Custom PCB	Dipole	3.9	0.2	--	H-Pol	5725 - 5850

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

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 13 of 227

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

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	5,200.00	5,240.00
802.11ac-80	29.30	5210.00	--	--
802.11n HT-20	6.50	5180.00	5,200.00	5,240.00
802.11n HT-40	13.50	5190.00	--	5,230.00
5725 - 5850 MHz				
802.11a	6.00	5745.00	5,785.00	5,825.00
802.11ac-80	29.30	5775.00	--	5,775.00
802.11n HT-20	6.50	5745.00	5,785.00	5,825.00
802.11n HT-40	13.50	5755.00	--	5,795.00

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

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 14 of 227

6. TEST SUMMARY

List of Measurements

Test Header	Result	Data Link
(a) Peak Transmit Power	Complies	View Data
(a) 26 dB & 99% Bandwidth	Complies	View Data
(a)(5) Power Spectral Density	Complies	View Data

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

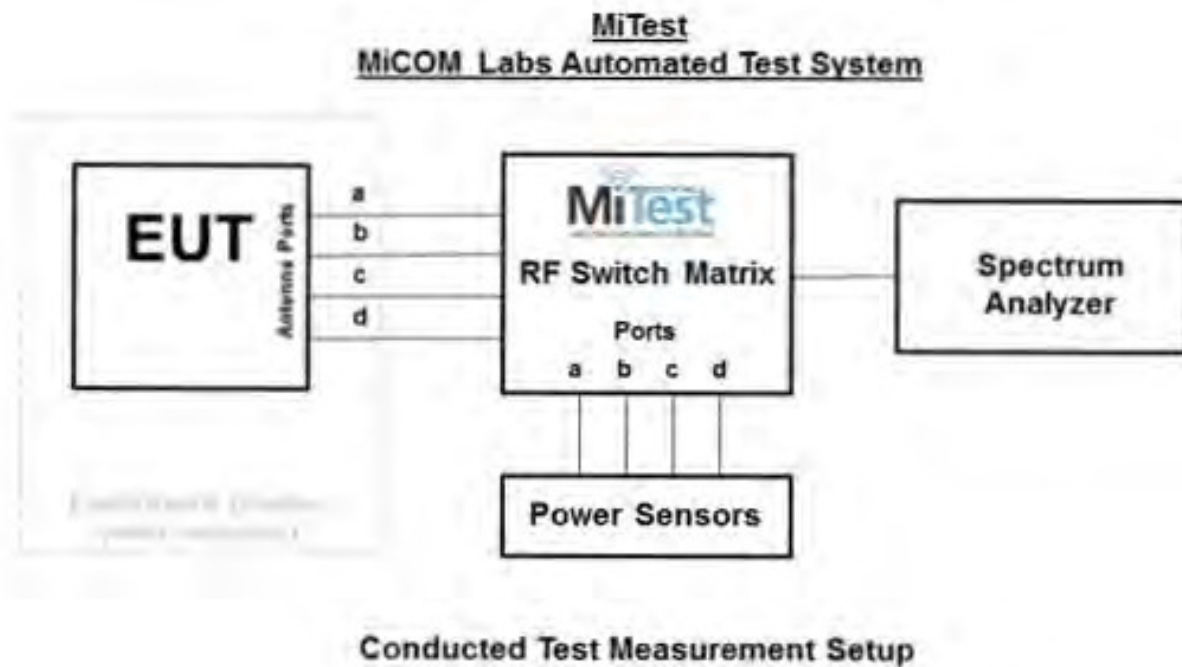
7. TEST EQUIPMENT CONFIGURATION(S)

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



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.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 16 of 227

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	21 Oct 2016
287	Rohde & Schwarz 40 GHz Receiver	Rhode & Schwarz	ESIB40	100201	27 Aug 2016
376	USB 10MHz - 18GHz Average Power Sensor	Agilent	U2000A	MY51440005	23 Oct 2016
378	Rohde & Schwarz 40 GHz Receiver with Generator	Rhode & Schwarz	ESIB40	100107/040	04 Aug 2016
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 Jul 2016
440	USB Wideband Power Sensor	Boonton	55006	9178	25 Sep 2016
441	USB Wideband Power Sensor	Boonton	55006	9179	25 Sep 2016
442	USB Wideband Power Sensor	Boonton	55006	9181	25 Sep 2016
445	PoE Injector	D-Link	DPE-101GL	QTAH1E2000625	Not Required
460	Dell Computer	Dell	Optiplex330	BC944G1	Not Required
74	Environmental Chamber3	Tenney	TTC	12808-1	30 Sep 2016
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 4	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

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

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)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



9. WORST CASE MEASUREMENT RESULTS

10. TEST RESULTS

10.1. Peak Transmit Power

Conducted Test Conditions for Maximum Conducted Output Power			
Standard:	FCC CFR 47:15.407	Ambient Temp. (°C):	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 [$10 \cdot \text{Log}_{10} (10^{a/10} + 10^{b/10} + 10^{c/10} + 10^{d/10})$]

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

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 19 of 227

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.

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 20 of 227

Maximum Conducted Power Limit(s)

Operating Frequency Band 5150 – 5250 MHz
15.407 (a)(1)

Maximum Conducted Power
EUT: Indoor wireless router

Antenna gain: 3.5 dBi
Beamforming Gain: 2.30 dB

Total Gain: Antenna Gain + Beamforming Gain = 3.50 + 2.30 = 5.80 dBi

Maximum Conducted Power Limit = 36.0 – 5.8 = 30.0 dBm

Operating Frequency Band 5725 - 5850 MHz
15.407 (a)(3)

Maximum Conducted Power
EUT: Indoor wireless router

Antenna gain: 4.30 dBi
Beamforming Gain: 2.40 dB

Total Gain: Antenna Gain + Beamforming Gain = 4.30 + 2.40 = 6.70 dBi

Maximum Conducted Power Limit = 36.0 – 6.70 = 29.3 dBm

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 21 of 227

Equipment Configuration for Peak Transmit Power

Variant:	802.11a	Duty Cycle (%):	84.0
Data Rate:	6.00 MBit/s	Antenna Gain (dBi):	3.5
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.3
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power + DCCF (+0.76 dB) (dBm)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
	Port(s)								
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5180.0	18.86	19.11	19.36	19.93	25.35	--	30.00	-4.65 ¹	20.00
5200.0	21.96	22.35	22.01	22.86	28.33	--	30.00	-1.67	23.00
5240.0	21.93	21.82	21.89	22.74	28.13	--	30.00	-1.87	23.00

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 (%):	89.0
Data Rate:	29.30 MBit/s	Antenna Gain (dBi):	3.5
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.3
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power + DCCF (+0.51 dB) (dBm)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
	Port(s)								
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5210.0	17.86	17.86	17.69	18.98	24.15	--	30.00	-5.85 ¹	19.00

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

DCCF - Duty Cycle Correction Factor

¹ – Band-edge power reduction required due to radiated band-edge compliance

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 22 of 227

Equipment Configuration for Peak Transmit Power

Variant:	802.11n HT-20	Duty Cycle (%):	98.0
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	3.5
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.3
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power + DCCF (+0.09 dB) (dBm)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
	Port(s)								
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5180.0	14.63	15.19	14.31	15.33	20.90	--	30.00	-9.10 ¹	16.00
5200.0	21.27	21.86	21.34	22.12	27.68	--	30.00	-2.32	23.00
5240.0	21.67	21.90	20.75	22.28	27.70	--	30.00	-2.30	23.00

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 (%):	96.0
Data Rate:	13.50 MBit/s	Antenna Gain (dBi):	3.5
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.3
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power + DCCF (+0.18 dB) (dBm)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
	Port(s)								
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5190.0	14.71	15.16	14.98	15.6	21.14	--	30.00	-8.86 ¹	16.00
5230.0	21.69	21.97	21.34	22.69	27.97	--	30.00	-2.03	23.00

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

DCCF - Duty Cycle Correction Factor

¹ – Band-edge power reduction required due to radiated band-edge compliance

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 23 of 227

Equipment Configuration for Peak Transmit Power

Variant:	802.11a	Duty Cycle (%):	84.0
Data Rate:	6.00 MBit/s	Antenna Gain (dBi):	4.3
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.4
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power + DCCF (+0.76 dB) (dBm)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
	Port(s)								
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5745.0	22.99	22.32	22.31	22.79	28.63	--	29.30	-0.67	23.00
5785.0	23.01	22.15	21.97	22.40	28.42	--	29.30	-0.88	23.00
5825.0	22.97	22.17	21.99	22.58	28.46	--	29.30	-0.84	23.00

Traceability to Industry Recognized Test Methodologies

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

Equipment Configuration for Peak Transmit Power

Variant:	802.11ac-80	Duty Cycle (%):	89.0
Data Rate:	29.30 MBit/s	Antenna Gain (dBi):	4.3
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.4
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power + DCCF (+0.51 dB) (dBm)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
	Port(s)								
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5775.0	22.57	21.94	21.61	22.65	28.23	--	29.30	-1.07	23.00

Traceability to Industry Recognized Test Methodologies

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

DCCF - Duty Cycle Correction Factor

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 24 of 227

Equipment Configuration for Peak Transmit Power

Variant:	802.11n HT-20	Duty Cycle (%):	98.0
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	4.3
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.4
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power + DCCF (+0.09 dB) (dBm)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
	Port(s)								
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5745.0	22.33	22.14	21.62	22.72	28.24	--	29.30	-1.06	23.00
5785.0	22.36	21.74	21.45	22.04	27.93	--	29.30	-1.37	23.00
5825.0	22.15	21.74	21.38	21.94	27.83	--	29.30	-1.47	23.00

Traceability to Industry Recognized Test Methodologies

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

Equipment Configuration for Peak Transmit Power

Variant:	802.11n HT-40	Duty Cycle (%):	96.0
Data Rate:	13.50 MBit/s	Antenna Gain (dBi):	4.3
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.4
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power + DCCF (+0.18 dB) (dBm)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
	Port(s)								
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5755.0	22.72	21.98	21.95	22.65	28.36	--	29.30	-0.94	23.00
5795.0	22.51	21.75	21.57	22.40	28.09	--	29.30	-1.21	23.00

Traceability to Industry Recognized Test Methodologies

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

DCCF - Duty Cycle Correction Factor

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 25 of 227

10.2. 26 dB & 99% Bandwidth

Conducted Test Conditions for 26 dB and 99% Bandwidth			
Standard:	FCC CFR 47:15.407	Ambient Temp. (°C):	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.			

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 26 of 227

Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	802.11a	Duty Cycle (%):	84.0
Data Rate:	6.00 MBit/s	Antenna Gain (dBi):	3.5
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.3
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz)				26 dB Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5180.0	22.345	22.946	22.445	23.046	23.046	22.345		
5200.0	22.244	23.046	22.645	22.946	23.046	22.244		
5240.0	22.345	22.946	22.545	22.846	22.946	22.345		

Test Frequency	Measured 99% Bandwidth (MHz)				99% Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5180.0	16.733	16.834	16.733	16.834	16.834	16.733		
5200.0	16.834	16.834	16.733	16.733	16.834	16.733		
5240.0	16.733	16.834	16.733	16.834	16.834	16.733		

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).

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 27 of 227

Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	802.11ac-80	Duty Cycle (%):	89.0
Data Rate:	29.30 MBit/s	Antenna Gain (dBi):	3.5
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.3
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz)				26 dB Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5210.0	106.212	96.192	96.192	111.423	111.423	96.192		

Test Frequency	Measured 99% Bandwidth (MHz)				99% Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5210.0	76.152	76.152	75.752	76.152	76.152	75.752		

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).

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 28 of 227

Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	802.11n HT-20	Duty Cycle (%):	98.0
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	3.5
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.3
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz)				26 dB Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5180.0	23.848	24.148	23.547	23.747	24.148	23.547		
5200.0	24.148	23.948	23.447	23.547	24.148	23.447		
5240.0	24.048	23.747	23.547	23.747	24.048	23.547		

Test Frequency	Measured 99% Bandwidth (MHz)				99% Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5180.0	18.136	18.036	18.136	18.036	18.136	18.036		
5200.0	18.136	18.136	18.136	18.136	18.136	18.136		
5240.0	18.136	18.036	18.136	18.136	18.136	18.036		

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).

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 29 of 227

Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	802.11n HT-40	Duty Cycle (%):	96.0
Data Rate:	13.50 MBit/s	Antenna Gain (dBi):	3.5
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.3
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz)				26 dB Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5190.0	43.086	42.886	42.886	43.086	43.086	42.886		
5230.0	42.886	42.886	43.287	42.886	43.287	42.886		

Test Frequency	Measured 99% Bandwidth (MHz)				99% Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5190.0	36.874	36.673	36.673	36.874	36.874	36.673		
5230.0	36.874	36.673	36.874	36.874	36.874	36.673		

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).

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 30 of 227

Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	802.11a	Duty Cycle (%):	84.0
Data Rate:	6.00 MBit/s	Antenna Gain (dBi):	4.3
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.4
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz)				26 dB Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5745.0	22.545	23.046	22.545	23.547	23.547	22.545		
5785.0	22.445	22.946	22.946	23.447	23.447	22.445		
5825.0	22.445	23.046	22.946	23.347	23.347	22.445		

Test Frequency	Measured 99% Bandwidth (MHz)				99% Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5745.0	16.733	16.934	16.834	16.834	16.934	16.733		
5785.0	16.733	16.934	16.834	16.834	16.934	16.733		
5825.0	16.733	16.834	16.834	16.834	16.834	16.733		

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).

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 31 of 227

Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	802.11ac-80	Duty Cycle (%):	89.0
Data Rate:	29.30 MBit/s	Antenna Gain (dBi):	4.3
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.4
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz)				26 dB Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5775.0	96.994	85.772	96.593	96.192	96.994	85.772		

Test Frequency	Measured 99% Bandwidth (MHz)				99% Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5775.0	75.752	76.152	76.152	76.152	76.152	75.752		

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).

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 32 of 227

Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	802.11n HT-20	Duty Cycle (%):	98.0
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	4.3
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.4
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz)				26 dB Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5745.0	24.148	24.148	23.948	24.449	24.449	23.948		
5785.0	24.148	24.048	24.048	24.248	24.248	24.048		
5825.0	24.148	24.148	23.948	24.048	24.148	23.948		

Test Frequency	Measured 99% Bandwidth (MHz)				99% Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5745.0	18.136	18.136	18.136	18.236	18.236	18.136		
5785.0	18.136	18.136	18.136	18.236	18.236	18.136		
5825.0	18.136	18.236	18.136	18.136	18.236	18.136		

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).

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 33 of 227

Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	802.11n HT-40	Duty Cycle (%):	96.0
Data Rate:	13.50 MBit/s	Antenna Gain (dBi):	4.3
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.4
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz)				26 dB Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5755.0	43.086	43.086	42.685	43.086	43.086	42.685		
5795.0	43.287	43.086	42.886	43.086	43.287	42.886		

Test Frequency	Measured 99% Bandwidth (MHz)				99% Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5755.0	36.673	36.673	36.673	36.673	36.673	36.673		
5795.0	36.673	36.673	36.673	36.673	36.673	36.673		

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).

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



10.3. Power Spectral Density

Conducted Test Conditions for Power Spectral Density			
Standard:	FCC CFR 47:15.407	Ambient Temp. (°C):	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 (\hat{a}) 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

$A = \text{Total Power Spectral Density } [10^{\hat{a}} \text{Log}_{10} (10^{a/10} + 10^{b/10} + 10^{c/10} + 10^{d/10})]$

$x = \text{Duty Cycle}$

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.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 35 of 227

(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 $11 \text{ dBm} + 10 \log B$, 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.

Horizontal and Vertical Antenna Polarization

The WEB5500 antennas are dual polarized i.e. 2 antennas operate horizontal the other 2 vertical polarization. For this reason the Power Spectral Density test does not compare all 4 antenna's to the limit but it measures the 2 horizontal and 2 vertical antennas separately.

As a result two separate sets of tests were performed;

- 1).. Horizontal 2 antenna chains
- 2).. Vertical 2 antenna chains

NOTE: Antenna chain power cannot be set on an individual basis

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 36 of 227

Equipment Configuration for Power Spectral Density

Variant:	802.11a	Duty Cycle (%):	84.0
Data Rate:	6.00 MBit/s	Antenna Gain (dBi):	3.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.30
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:		Vertical Polarization	

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.76 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5180.0	9.675	9.655	--	--	12.560	17.0	-4.5
5200.0	8.501	10.024	--	--	12.492	17.0	-4.5
5240.0	8.506	8.482	--	--	11.335	17.0	-5.7

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:	802.11a	Duty Cycle (%):	84.0
Data Rate:	6.00 MBit/s	Antenna Gain (dBi):	3.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	0.90
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:		Horizontal Polarization	

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.76 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5180.0	--	--	8.319	9.743	11.795	17.0	-5.2
5200.0	--	--	10.181	9.961	12.760	17.0	-4.3
5240.0	--	--	9.211	9.347	12.093	17.0	-4.9

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).

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 37 of 227

Equipment Configuration for Power Spectral Density

Variant:	802.11ac-80	Duty Cycle (%):	89.0
Data Rate:	29.30 MBit/s	Antenna Gain (dBi):	3.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.30
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Vertical Polarization		

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.51 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5210.0	4.237	4.928	--	--	7.547	17.0	-9.5

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 (%):	89.0
Data Rate:	29.30 MBit/s	Antenna Gain (dBi):	3.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	0.90
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Horizontal Polarization		

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.51 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5210.0	--	--	3.165	3.901	6.555	17.0	-10.5

Traceability to Industry Recognized Test Methodologies

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

DCCF - Duty Cycle Correction Factor
 Note: click the links in the above matrix to view the graphical image (plot).

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 38 of 227

Equipment Configuration for Power Spectral Density

Variant:	802.11n HT-20	Duty Cycle (%):	98.0
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	3.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.30
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Vertical Polarization		

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.09 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5180.0	9.939	10.730	--	--	13.410	17.0	-3.6
5200.0	9.802	10.705	--	--	13.328	17.0	-3.7
5240.0	9.920	10.650	--	--	13.205	17.0	-3.8

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-20	Duty Cycle (%):	98.0
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	3.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	0.90
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Horizontal Polarization		

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.09 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5180.0	--	--	10.132	10.193	13.168	17.0	-3.9
5200.0	--	--	10.113	10.163	13.159	17.0	-3.9
5240.0	--	--	9.561	9.715	12.550	17.0	-4.5

Traceability to Industry Recognized Test Methodologies

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

DCCF - Duty Cycle Correction Factor
 Note: click the links in the above matrix to view the graphical image (plot).

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 39 of 227

Equipment Configuration for Power Spectral Density

Variant:	802.11n HT-40	Duty Cycle (%):	96.0
Data Rate:	13.50 MBit/s	Antenna Gain (dBi):	3.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.30
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Vertical Polarization		

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.18 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5190.0	6.997	8.111	--	--	10.728	17.0	-6.3
5230.0	6.589	8.233	--	--	10.591	17.0	-6.4

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 (%):	96.0
Data Rate:	13.50 MBit/s	Antenna Gain (dBi):	3.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	0.90
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Horizontal Polarization		

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.18 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5190.0	--	--	6.541	7.165	9.992	17.0	-7.0
5230.0	--	--	6.656	7.393	10.124	17.0	-6.9

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).

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 40 of 227

Equipment Configuration for Power Spectral Density

Variant:	802.11a	Duty Cycle (%):	84.0
Data Rate:	6.00 MBit/s	Antenna Gain (dBi):	4.30
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.40
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:		Vertical Polarization	

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.76 dB)	Limit	Margin
	Port(s) (dBm/500 KHz)						
MHz	a	b	c	d	dBm/500 KHz	dBm/500 KHz	dB
5745.0	7.594	7.115	--	--	9.530	29.3	-19.8
5785.0	7.010	7.010	--	--	9.629	29.3	-19.7
5825.0	6.478	6.741	--	--	9.688	29.3	-19.6

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:	802.11a	Duty Cycle (%):	84.0
Data Rate:	6.00 MBit/s	Antenna Gain (dBi):	3.90
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	0.20
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:		Horizontal Polarization	

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.76 dB)	Limit	Margin
	Port(s) (dBm/500 KHz)						
MHz	a	b	c	d	dBm/500 KHz	dBm/500 KHz	dB
5745.0	--	--	6.353	6.878	9.752	29.3	-19.6
5785.0	--	--	6.274	6.654	8.913	29.3	-20.4
5825.0	--	--	6.505	6.798	9.338	29.3	-20.0

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).

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 41 of 227

Equipment Configuration for Power Spectral Density

Variant:	802.11ac-80	Duty Cycle (%):	89.0
Data Rate:	29.30 MBit/s	Antenna Gain (dBi):	4.30
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.40
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Vertical Polarization		

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.51 dB)	Limit	Margin
	Port(s) (dBm/500 KHz)						
MHz	a	b	c	d	dBm/500 KHz	dBm/500 KHz	dB
5775.0	1.891	1.188	--	--	4.860	29.3	-24.5

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 (%):	89.0
Data Rate:	29.30 MBit/s	Antenna Gain (dBi):	3.90
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	0.20
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Horizontal Polarization		

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.51 dB)	Limit	Margin
	Port(s) (dBm/500 KHz)						
MHz	a	b	c	d	dBm/500 KHz	dBm/500 KHz	dB
5775.0	--	--	1.096	0.706	4.117	29.3	-25.2

Traceability to Industry Recognized Test Methodologies

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

DCCF - Duty Cycle Correction Factor
 Note: click the links in the above matrix to view the graphical image (plot).

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 42 of 227

Equipment Configuration for Power Spectral Density

Variant:	802.11n HT-20	Duty Cycle (%):	98.0
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	4.30
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.40
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Vertical Polarization		

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.09 dB)	Limit	Margin
	Port(s) (dBm/500 KHz)						
MHz	a	b	c	d	dBm/500 KHz	dBm/500 KHz	dB
5745.0	8.328	7.832	--	--	11.152	29.3	-18.2
5785.0	8.094	7.667	--	--	10.817	29.3	-18.5
5825.0	8.137	7.733	--	--	10.763	29.3	-18.5

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-20	Duty Cycle (%):	98.0
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	3.90
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	0.20
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Horizontal Polarization		

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.09 dB)	Limit	Margin
	Port(s) (dBm/500 KHz)						
MHz	a	b	c	d	dBm/500 KHz	dBm/500 KHz	dB
5745.0	--	--	7.817	7.458	10.684	29.3	-18.6
5785.0	--	--	7.513	7.300	10.506	29.3	-18.8
5825.0	--	--	7.711	7.624	10.566	29.3	-18.8

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).

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 43 of 227

Equipment Configuration for Power Spectral Density

Variant:	802.11n HT-40	Duty Cycle (%):	96.0
Data Rate:	13.50 MBit/s	Antenna Gain (dBi):	4.30
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	2.40
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:		Vertical Polarization	

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.18 dB)	Limit	Margin
	Port(s) (dBm/500 KHz)						
MHz	a	b	c	d	dBm/500 KHz	dBm/500 KHz	dB
5755.0	4.965	4.753	--	--	7.789	29.3	-21.5
5795.0	4.699	4.941	--	--	7.784	29.3	-21.5

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 (%):	96.0
Data Rate:	13.50 MBit/s	Antenna Gain (dBi):	3.90
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	0.20
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:		Horizontal Polarization	

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.18 dB)	Limit	Margin
	Port(s) (dBm/500 KHz)						
MHz	a	b	c	d	dBm/500 KHz	dBm/500 KHz	dB
5755.0	--	--	4.633	4.632	7.498	29.3	-21.8
5795.0	--	--	4.195	4.437	7.180	29.3	-22.1

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).

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

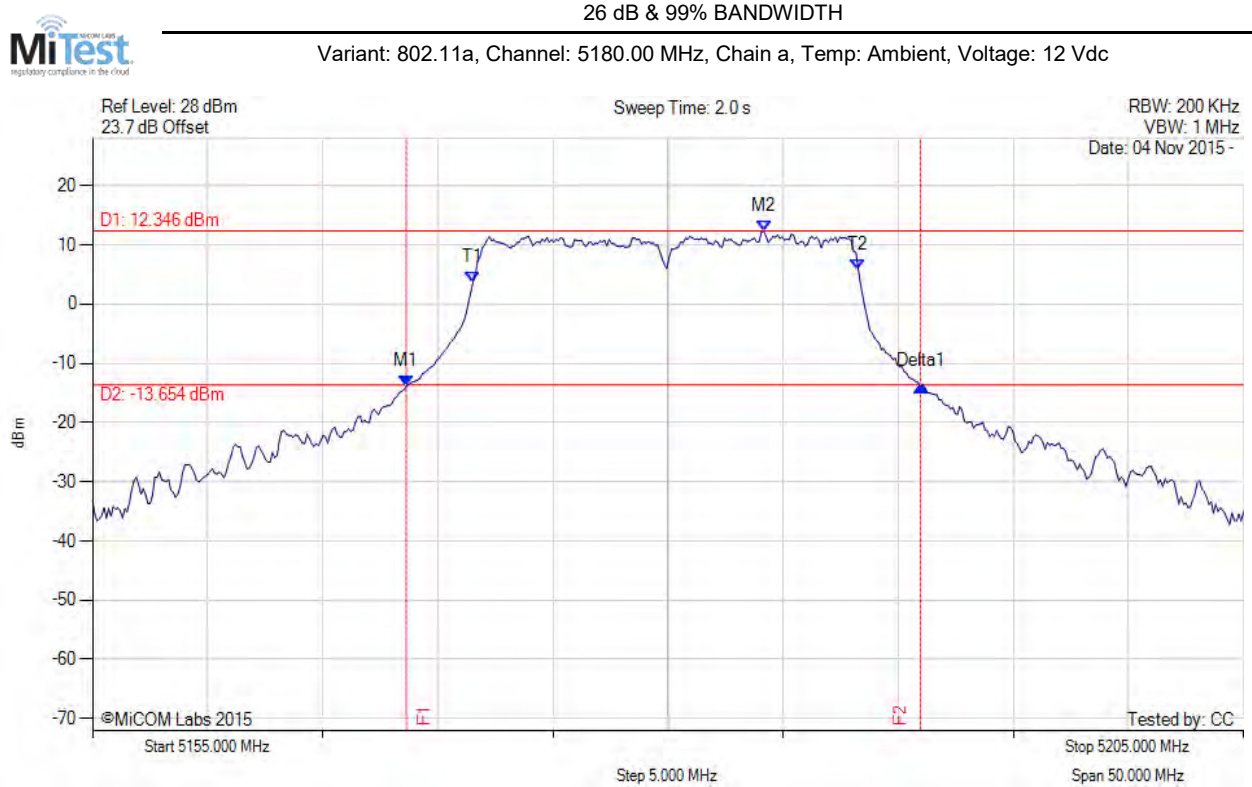


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 44 of 227

A. APPENDIX - GRAPHICAL IMAGES

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

A.1. 26 dB & 99% Bandwidth



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5168.627 MHz : -13.938 dBm M2 : 5184.158 MHz : 12.346 dBm Delta1 : 22.345 MHz : 0.108 dB T1 : 5171.533 MHz : 3.699 dBm T2 : 5188.267 MHz : 5.867 dBm OBW : 16.733 MHz	Measured 26 dB Bandwidth: 22.345 MHz Measured 99% Bandwidth: 16.733 MHz

[back to matrix](#)

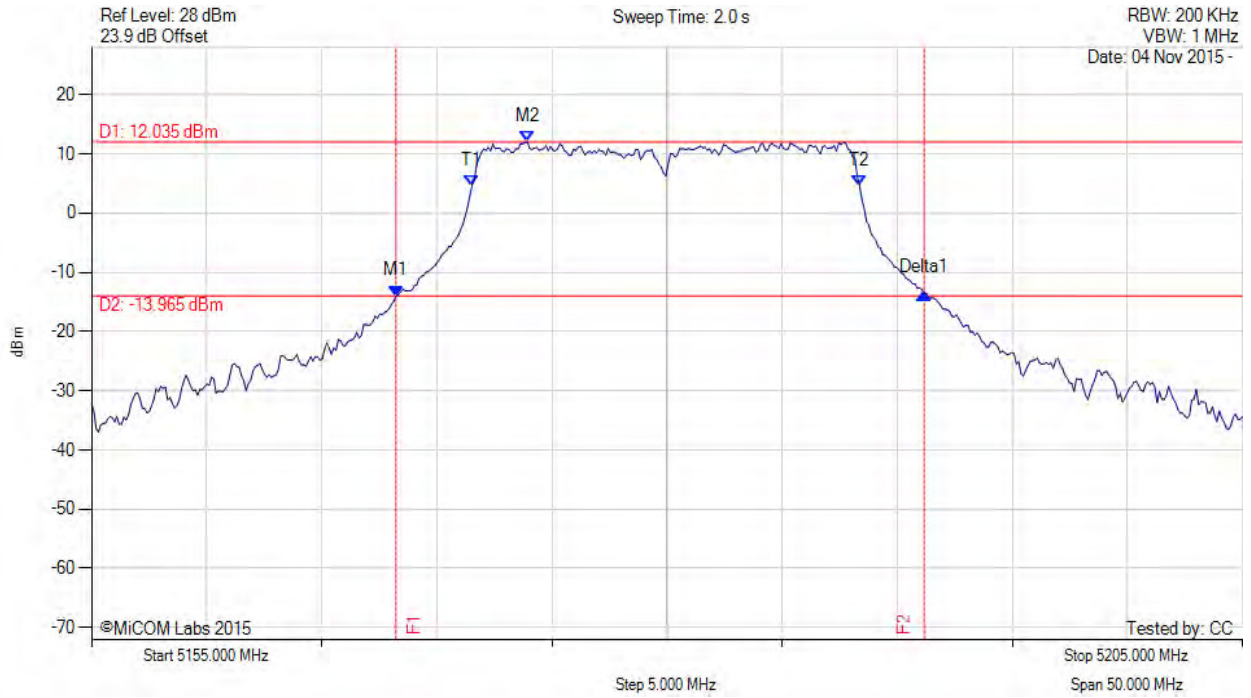
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5168.226 MHz : -13.985 dBm M2 : 5173.938 MHz : 12.035 dBm Delta1 : 22.946 MHz : 0.466 dB T1 : 5171.533 MHz : 4.651 dBm T2 : 5188.367 MHz : 4.618 dBm OBW : 16.834 MHz	Measured 26 dB Bandwidth: 22.946 MHz Measured 99% Bandwidth: 16.834 MHz

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

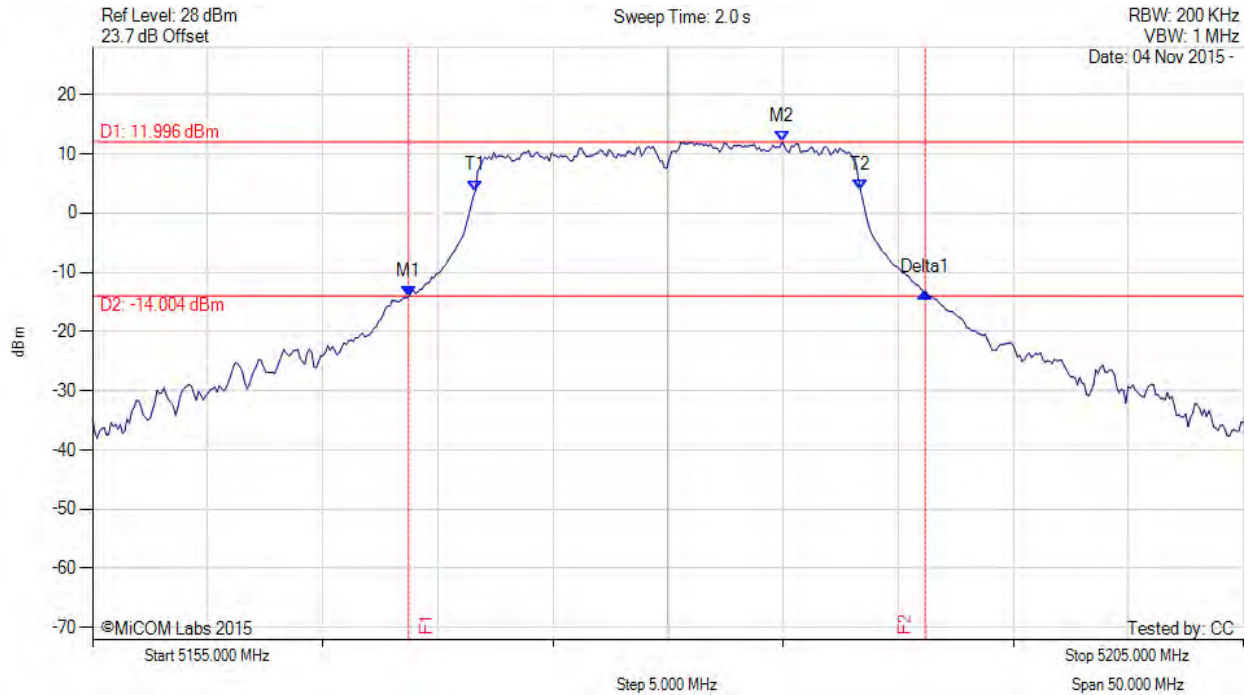


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 47 of 227

26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5168.727 MHz : -14.111 dBm M2 : 5184.960 MHz : 11.996 dBm Delta1 : 22.445 MHz : 0.681 dB T1 : 5171.633 MHz : 3.774 dBm T2 : 5188.367 MHz : 3.890 dBm OBW : 16.733 MHz	Measured 26 dB Bandwidth: 22.445 MHz Measured 99% Bandwidth: 16.733 MHz

[back to matrix](#)

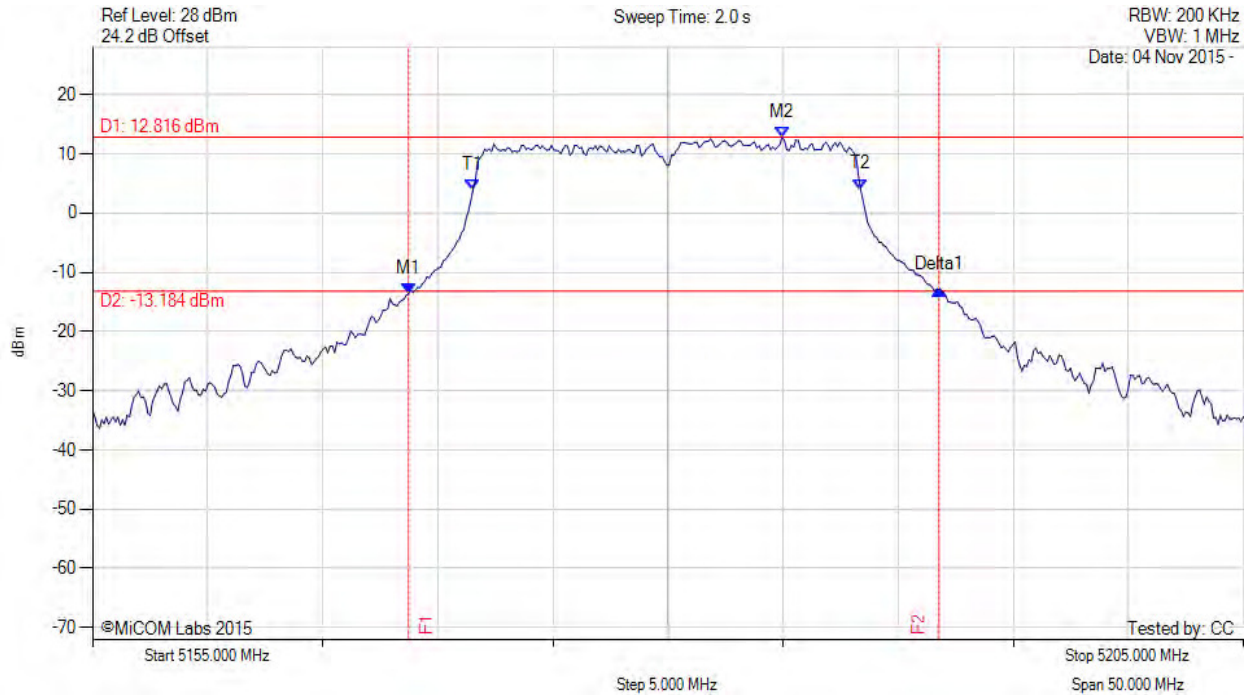
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5168.727 MHz : -13.588 dBm M2 : 5184.960 MHz : 12.816 dBm Delta1 : 23.046 MHz : 0.738 dB T1 : 5171.533 MHz : 3.981 dBm T2 : 5188.367 MHz : 4.014 dBm OBW : 16.834 MHz	Measured 26 dB Bandwidth: 23.046 MHz Measured 99% Bandwidth: 16.834 MHz

[back to matrix](#)

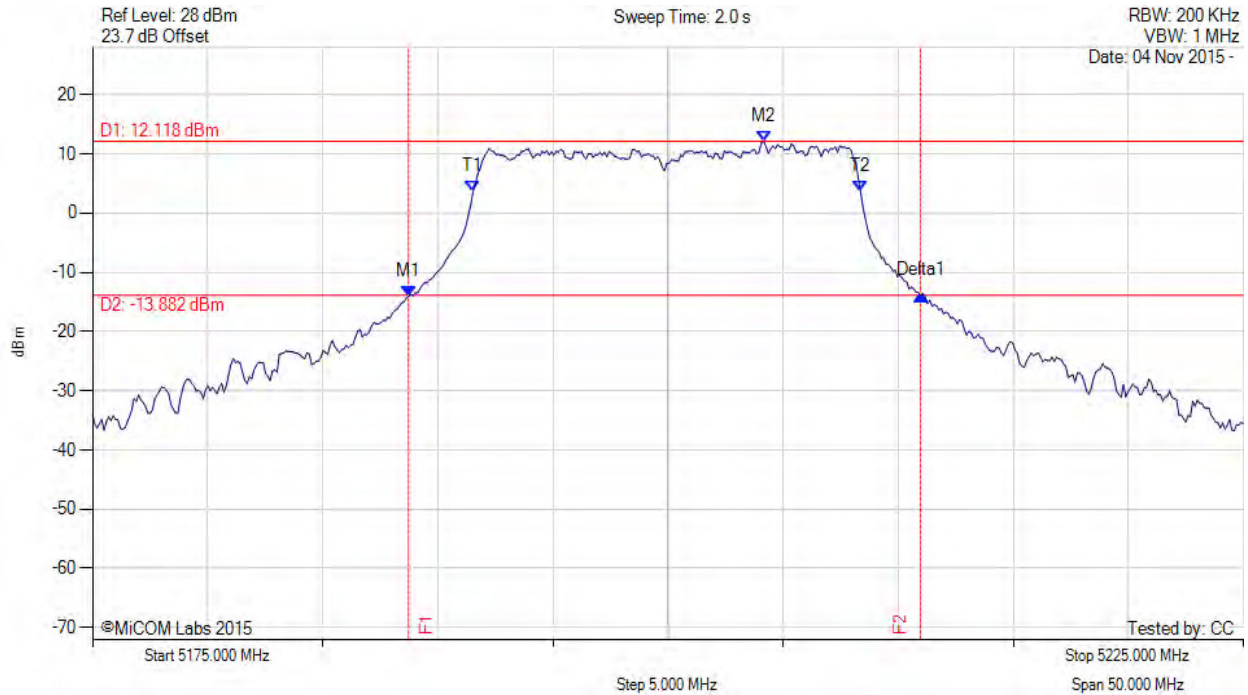
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5188.727 MHz : -14.033 dBm M2 : 5204.158 MHz : 12.118 dBm Delta1 : 22.244 MHz : 0.085 dB T1 : 5191.533 MHz : 3.573 dBm T2 : 5208.367 MHz : 3.587 dBm OBW : 16.834 MHz	Measured 26 dB Bandwidth: 22.244 MHz Measured 99% Bandwidth: 16.834 MHz

[back to matrix](#)

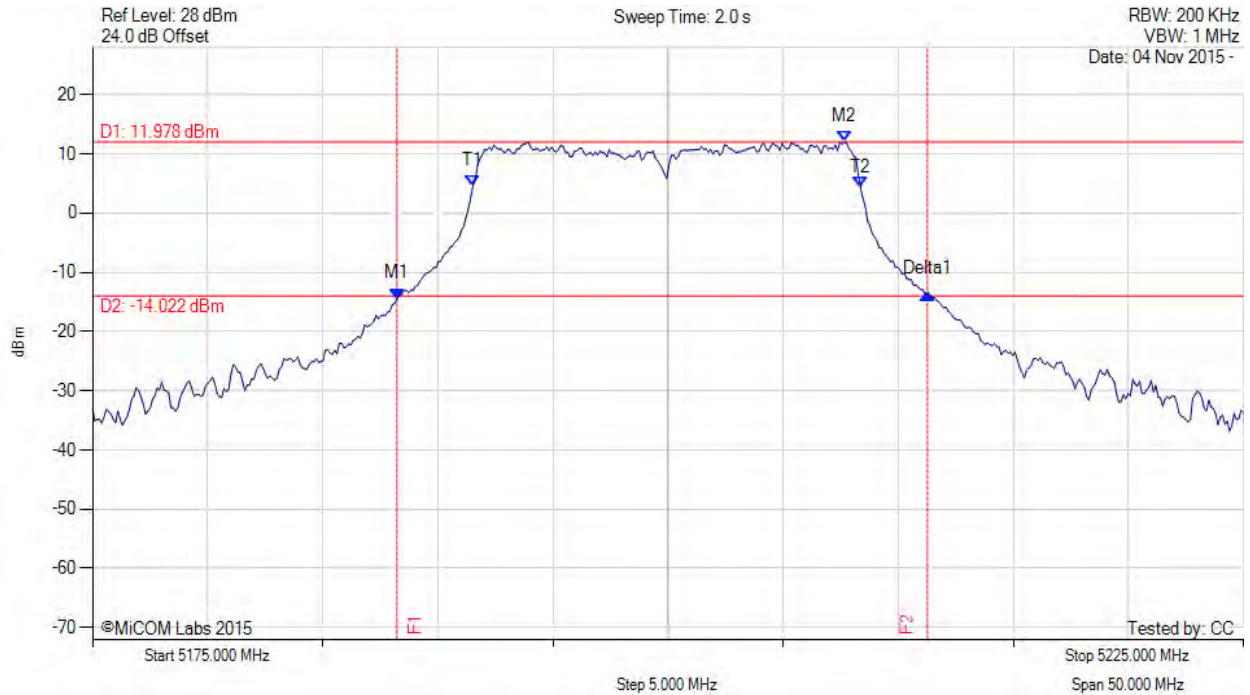
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5188.226 MHz : -14.454 dBm M2 : 5207.665 MHz : 11.978 dBm Delta1 : 23.046 MHz : 0.740 dB T1 : 5191.533 MHz : 4.655 dBm T2 : 5208.367 MHz : 4.372 dBm OBW : 16.834 MHz	Measured 26 dB Bandwidth: 23.046 MHz Measured 99% Bandwidth: 16.834 MHz

[back to matrix](#)

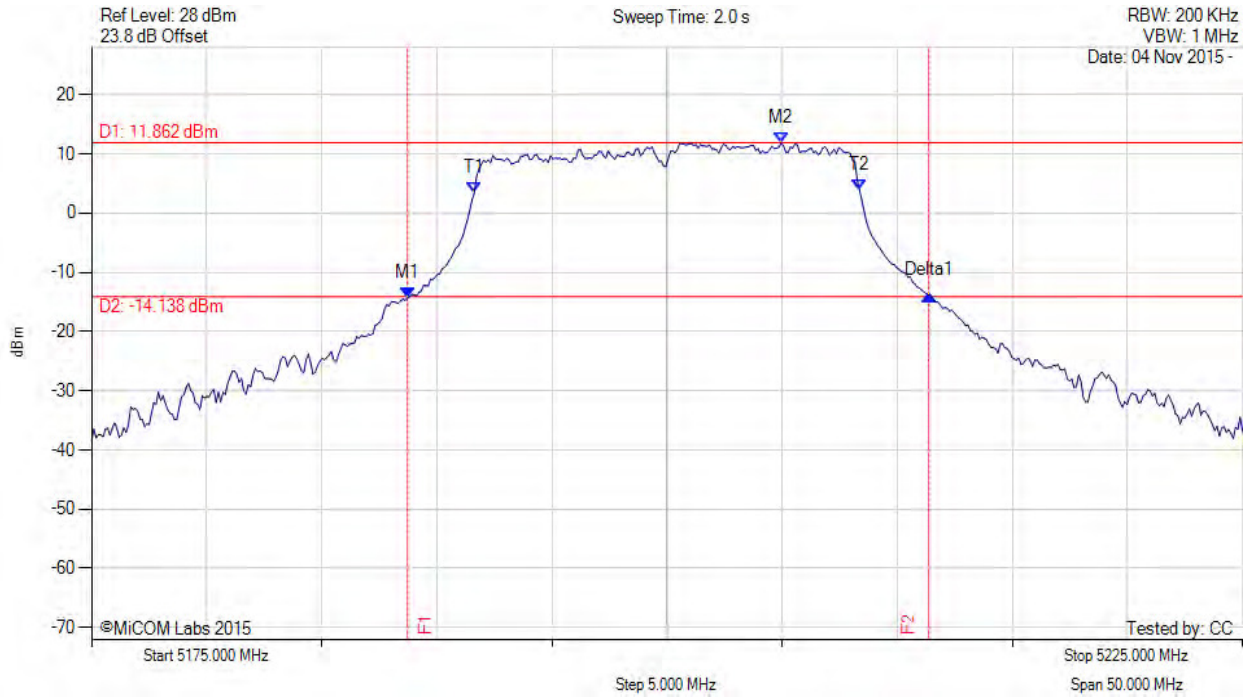
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5188.727 MHz : -14.318 dBm M2 : 5204.960 MHz : 11.862 dBm Delta1 : 22.645 MHz : 0.462 dB T1 : 5191.633 MHz : 3.524 dBm T2 : 5208.367 MHz : 3.837 dBm OBW : 16.733 MHz	Measured 26 dB Bandwidth: 22.645 MHz Measured 99% Bandwidth: 16.733 MHz

[back to matrix](#)

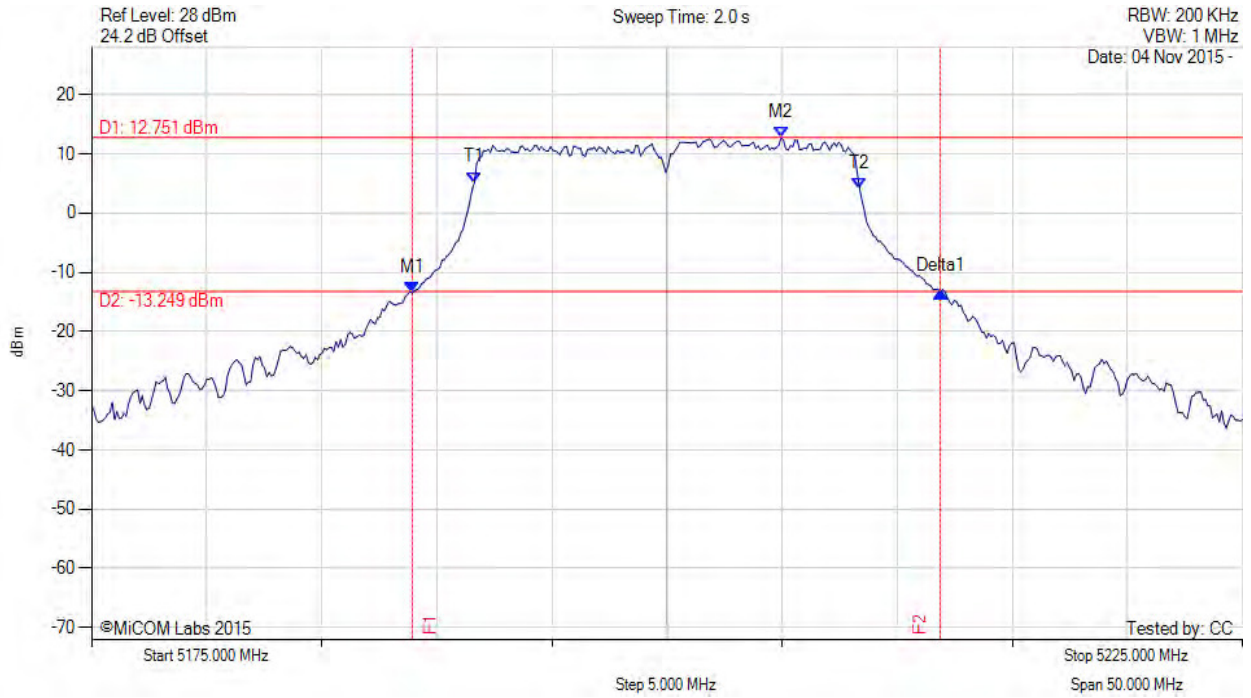
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5188.928 MHz : -13.472 dBm M2 : 5204.960 MHz : 12.751 dBm Delta1 : 22.946 MHz : 0.187 dB T1 : 5191.633 MHz : 5.171 dBm T2 : 5208.367 MHz : 4.053 dBm OBW : 16.733 MHz	Measured 26 dB Bandwidth: 22.946 MHz Measured 99% Bandwidth: 16.733 MHz

[back to matrix](#)

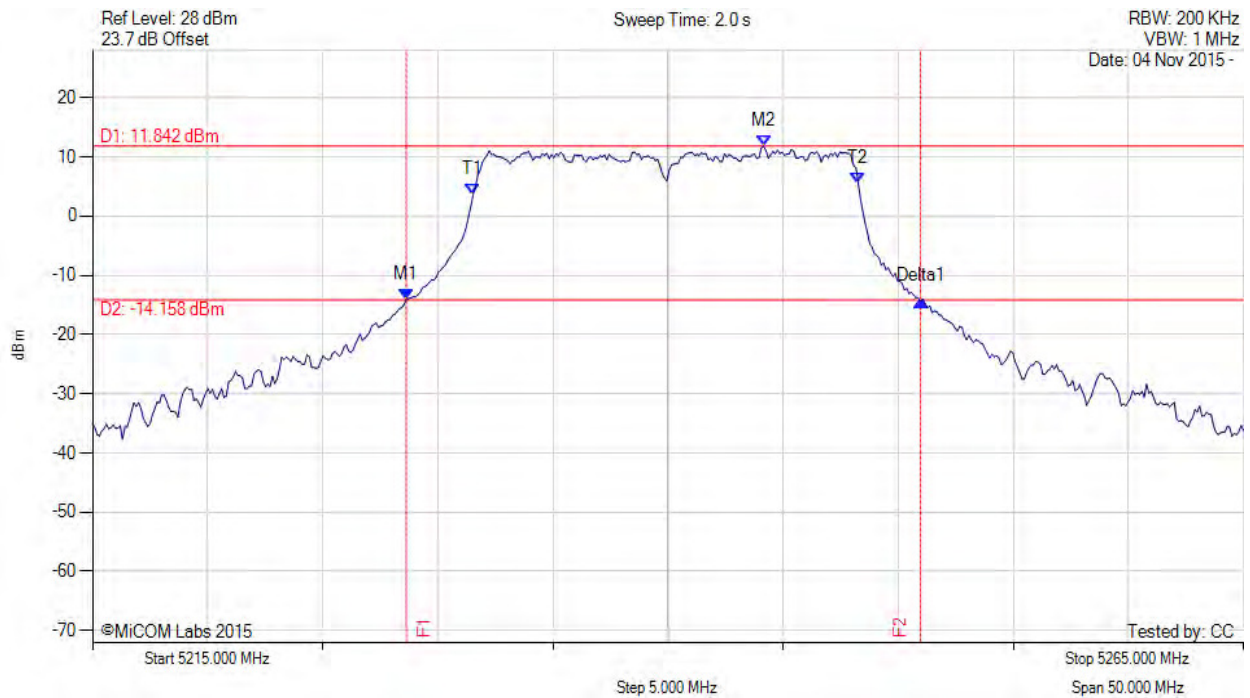
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5228.627 MHz : -14.182 dBm M2 : 5244.158 MHz : 11.842 dBm Delta1 : 22.345 MHz : -0.126 dB T1 : 5231.533 MHz : 3.585 dBm T2 : 5248.267 MHz : 5.515 dBm OBW : 16.733 MHz	Measured 26 dB Bandwidth: 22.345 MHz Measured 99% Bandwidth: 16.733 MHz

[back to matrix](#)

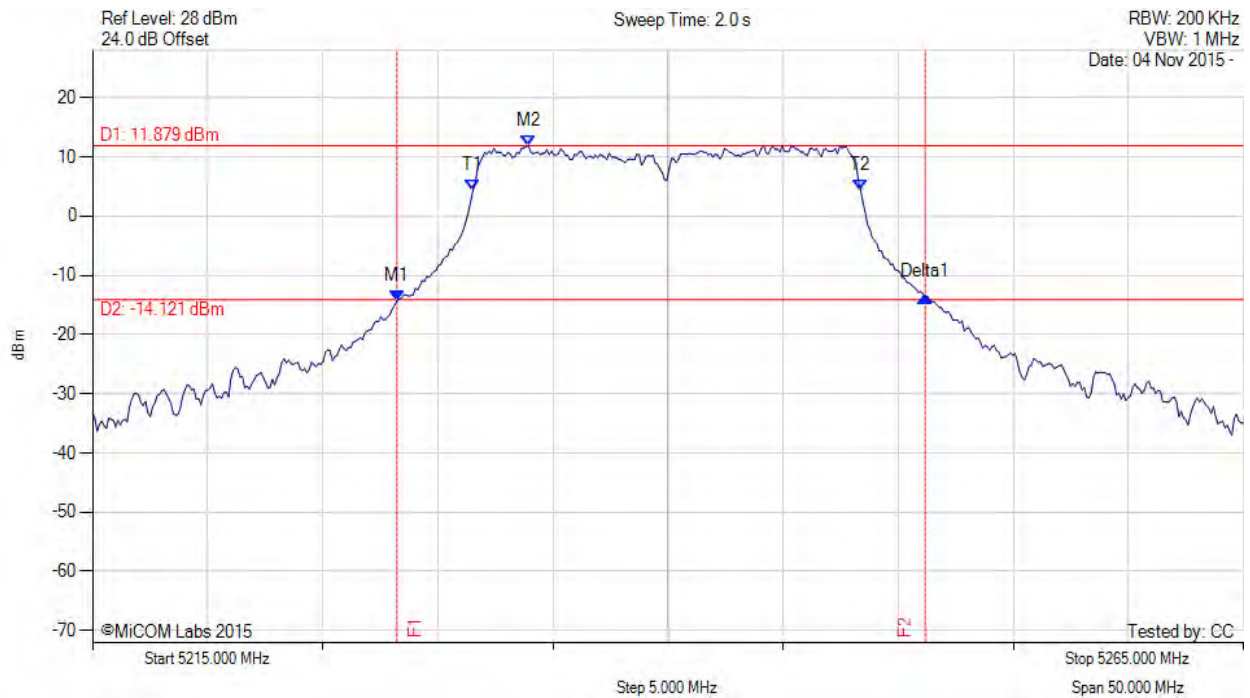
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5228.226 MHz : -14.255 dBm M2 : 5233.938 MHz : 11.879 dBm Delta1 : 22.946 MHz : 0.632 dB T1 : 5231.533 MHz : 4.463 dBm T2 : 5248.367 MHz : 4.465 dBm OBW : 16.834 MHz	Measured 26 dB Bandwidth: 22.946 MHz Measured 99% Bandwidth: 16.834 MHz

[back to matrix](#)

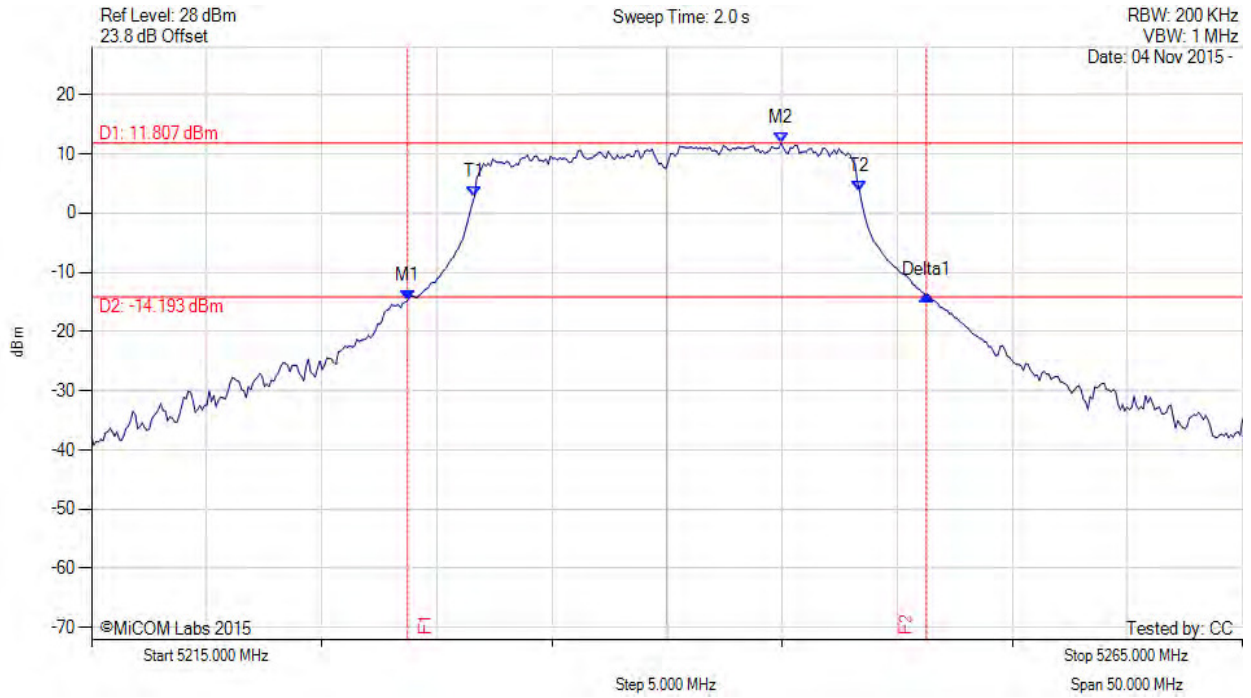
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5228.727 MHz : -14.816 dBm M2 : 5244.960 MHz : 11.807 dBm Delta1 : 22.545 MHz : 0.997 dB T1 : 5231.633 MHz : 2.743 dBm T2 : 5248.367 MHz : 3.719 dBm OBW : 16.733 MHz	Measured 26 dB Bandwidth: 22.545 MHz Measured 99% Bandwidth: 16.733 MHz

[back to matrix](#)

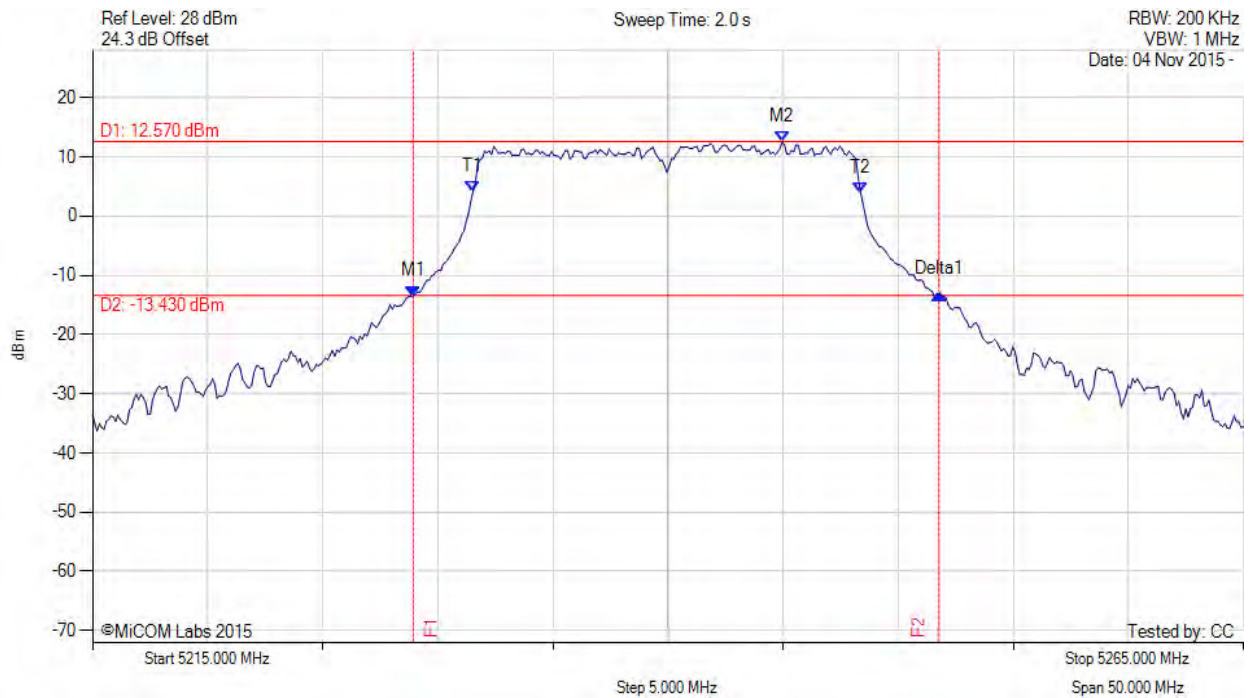
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5228.928 MHz : -13.503 dBm M2 : 5244.960 MHz : 12.570 dBm Delta1 : 22.846 MHz : 0.370 dB T1 : 5231.533 MHz : 4.150 dBm T2 : 5248.367 MHz : 3.973 dBm OBW : 16.834 MHz	Measured 26 dB Bandwidth: 22.846 MHz Measured 99% Bandwidth: 16.834 MHz

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

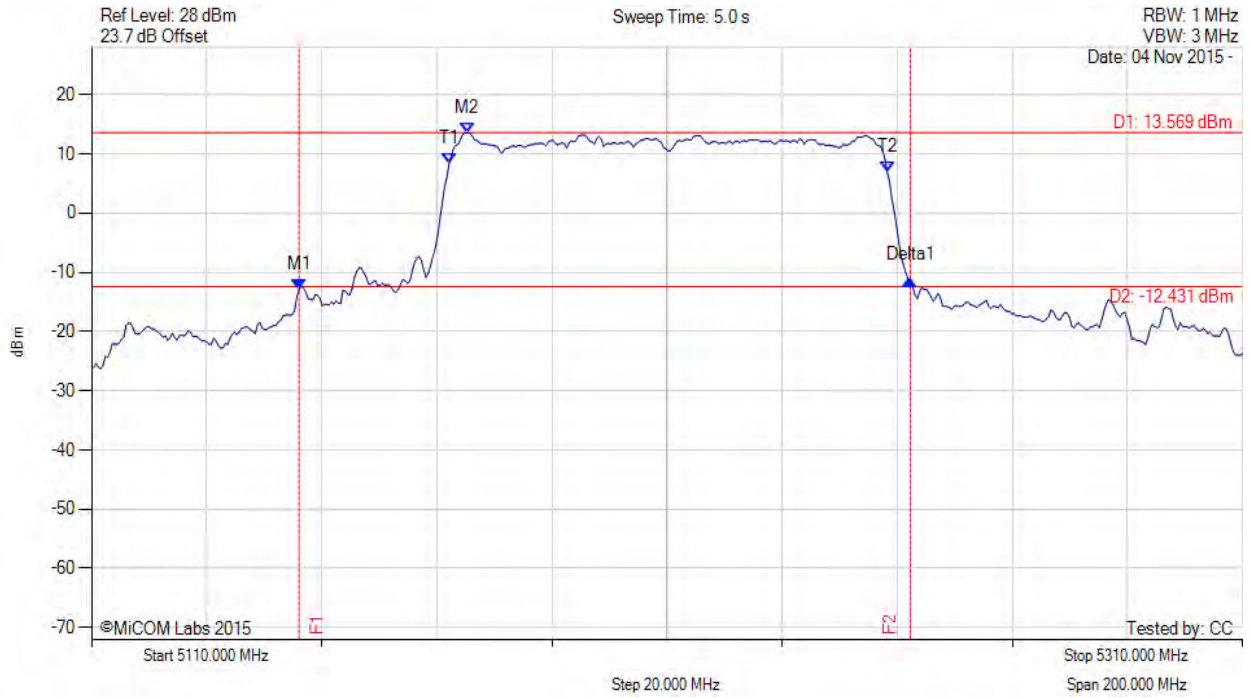


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 57 of 227

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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5146.072 MHz : -12.970 dBm M2 : 5175.331 MHz : 13.569 dBm Delta1 : 106.212 MHz : 1.729 dB T1 : 5172.124 MHz : 8.277 dBm T2 : 5248.277 MHz : 7.036 dBm OBW : 76.152 MHz	Measured 26 dB Bandwidth: 106.212 MHz Measured 99% Bandwidth: 76.152 MHz

[back to matrix](#)

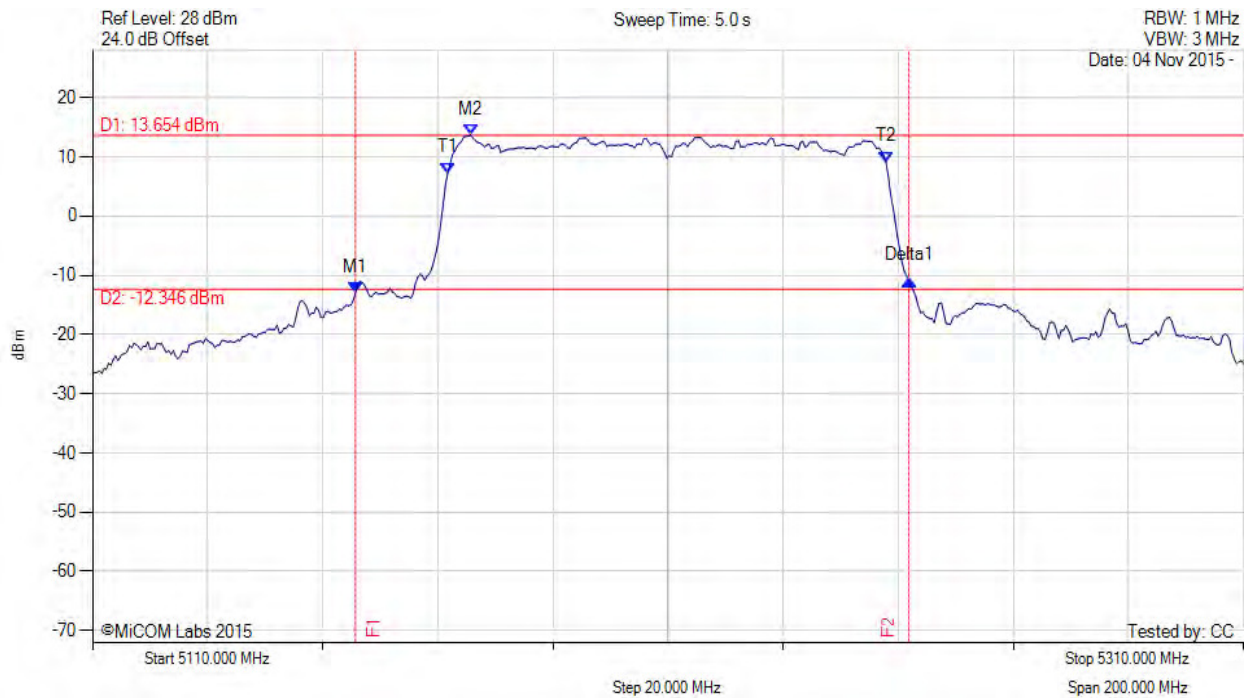
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5155.691 MHz : -12.937 dBm M2 : 5175.731 MHz : 13.654 dBm Delta1 : 96.192 MHz : 2.089 dB T1 : 5171.723 MHz : 7.286 dBm T2 : 5247.876 MHz : 9.145 dBm OBW : 76.152 MHz	Measured 26 dB Bandwidth: 96.192 MHz Measured 99% Bandwidth: 76.152 MHz

[back to matrix](#)

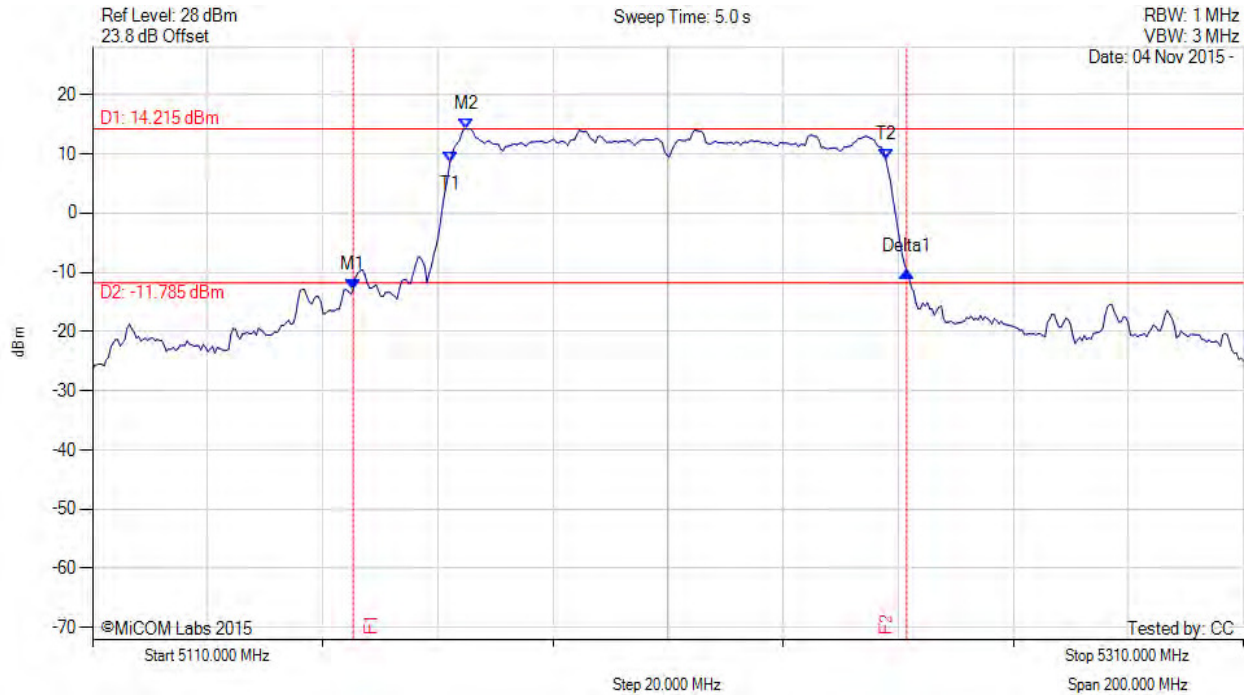
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5155.291 MHz : -13.013 dBm M2 : 5174.930 MHz : 14.215 dBm Delta1 : 96.192 MHz : 3.160 dB T1 : 5172.124 MHz : 8.602 dBm T2 : 5247.876 MHz : 8.991 dBm OBW : 75.752 MHz	Measured 26 dB Bandwidth: 96.192 MHz Measured 99% Bandwidth: 75.752 MHz

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

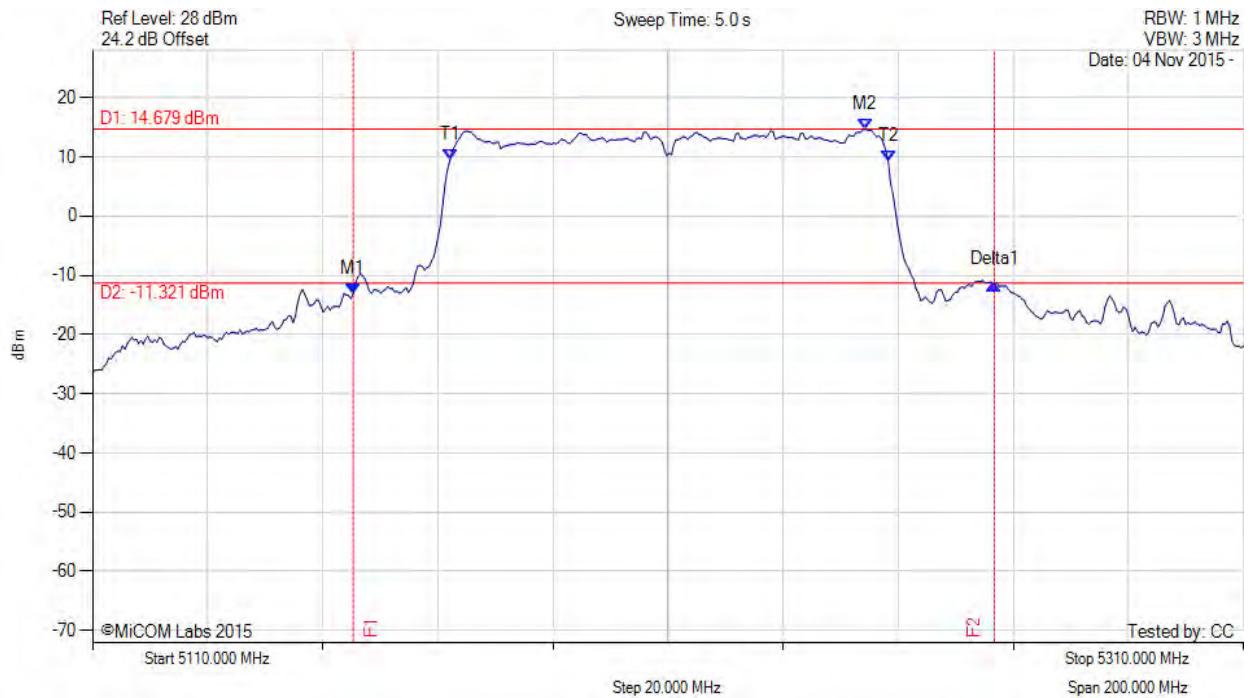


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 60 of 227

26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5155.291 MHz : -13.061 dBm M2 : 5244.269 MHz : 14.679 dBm Delta1 : 111.423 MHz : 1.521 dB T1 : 5172.124 MHz : 9.450 dBm T2 : 5248.277 MHz : 9.212 dBm OBW : 76.152 MHz	Measured 26 dB Bandwidth: 111.423 MHz Measured 99% Bandwidth: 76.152 MHz

[back to matrix](#)

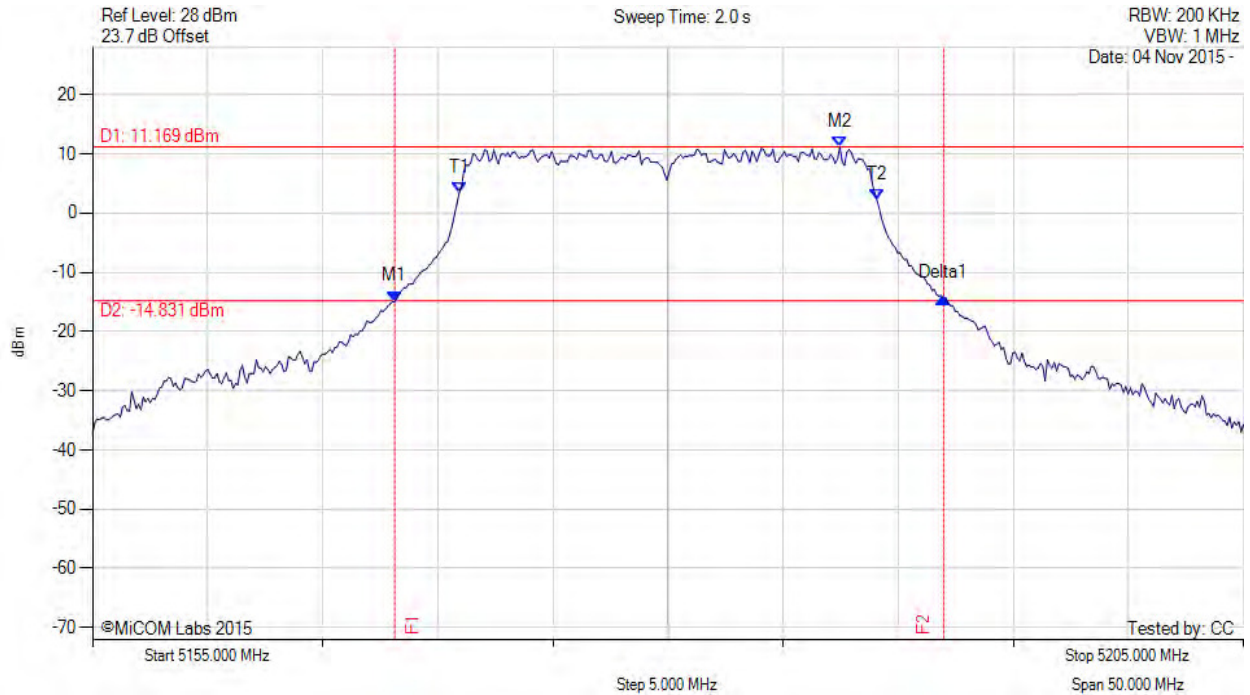
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5168.126 MHz : -14.918 dBm M2 : 5187.465 MHz : 11.169 dBm Delta1 : 23.848 MHz : 0.523 dB T1 : 5170.932 MHz : 3.459 dBm T2 : 5189.068 MHz : 2.346 dBm OBW : 18.136 MHz	Measured 26 dB Bandwidth: 23.848 MHz Measured 99% Bandwidth: 18.136 MHz

[back to matrix](#)

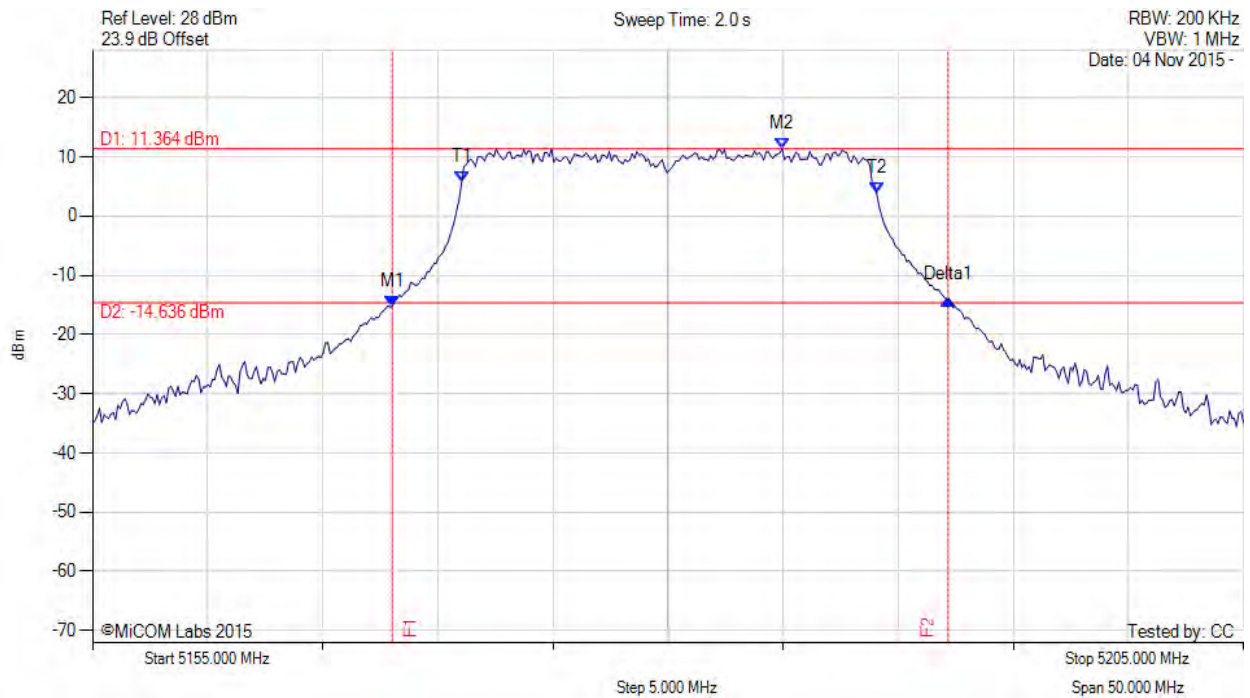
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5168.026 MHz : -15.233 dBm M2 : 5184.960 MHz : 11.364 dBm Delta1 : 24.148 MHz : 1.230 dB T1 : 5171.032 MHz : 5.698 dBm T2 : 5189.068 MHz : 3.837 dBm OBW : 18.036 MHz	Measured 26 dB Bandwidth: 24.148 MHz Measured 99% Bandwidth: 18.036 MHz

[back to matrix](#)

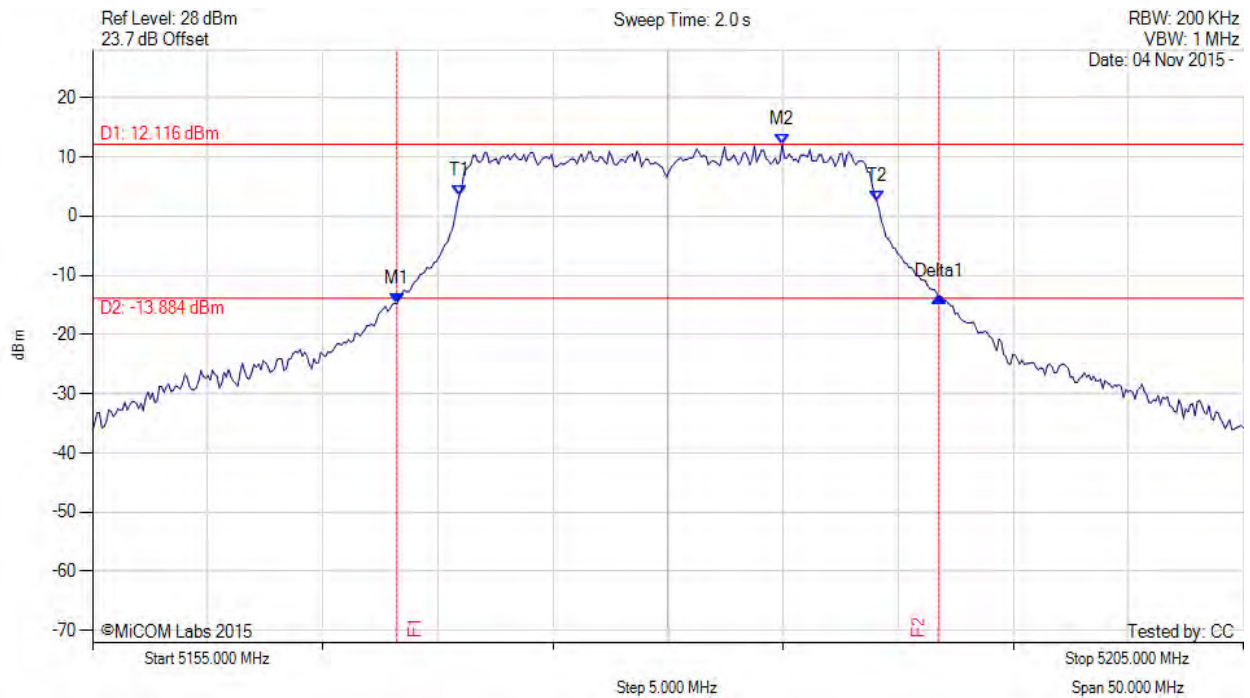
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5168.226 MHz : -14.806 dBm M2 : 5184.960 MHz : 12.116 dBm Delta1 : 23.547 MHz : 1.129 dB T1 : 5170.932 MHz : 3.501 dBm T2 : 5189.068 MHz : 2.550 dBm OBW : 18.136 MHz	Measured 26 dB Bandwidth: 23.547 MHz Measured 99% Bandwidth: 18.136 MHz

[back to matrix](#)

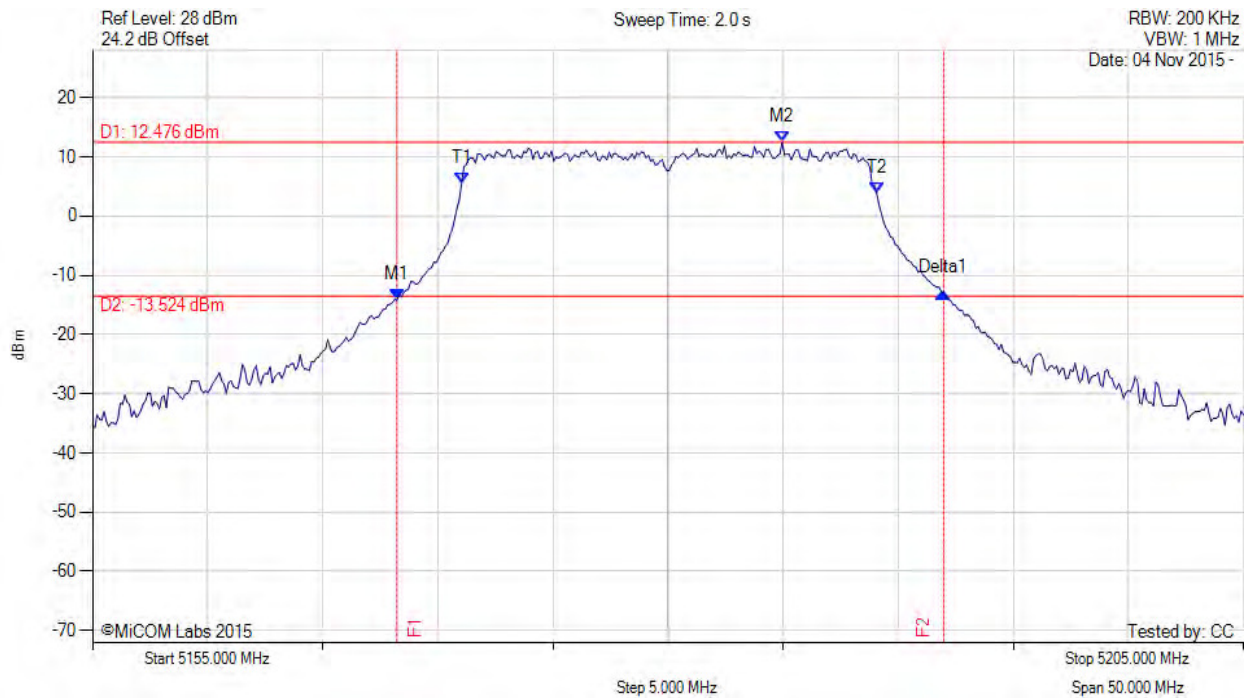
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5168.226 MHz : -14.176 dBm M2 : 5184.960 MHz : 12.476 dBm Delta1 : 23.747 MHz : 1.249 dB T1 : 5171.032 MHz : 5.584 dBm T2 : 5189.068 MHz : 3.866 dBm OBW : 18.036 MHz	Measured 26 dB Bandwidth: 23.747 MHz Measured 99% Bandwidth: 18.036 MHz

[back to matrix](#)

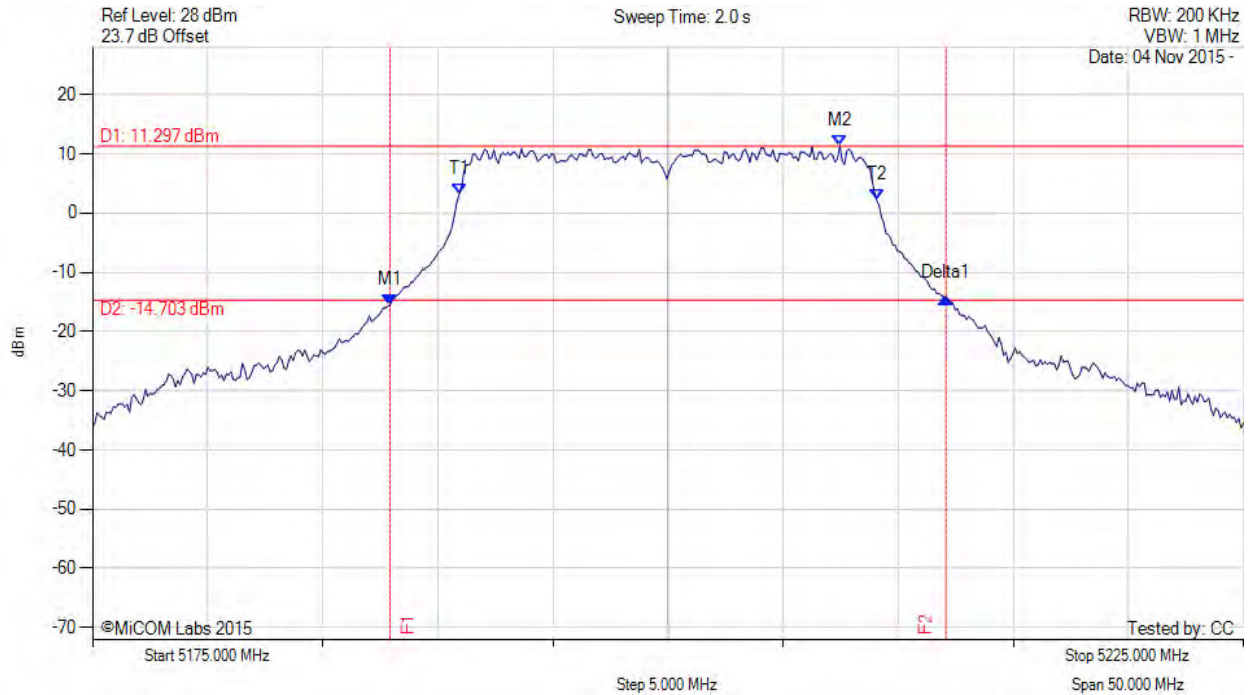
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5187.926 MHz : -15.516 dBm M2 : 5207.465 MHz : 11.297 dBm Delta1 : 24.148 MHz : 1.145 dB T1 : 5190.932 MHz : 3.247 dBm T2 : 5209.068 MHz : 2.176 dBm OBW : 18.136 MHz	Measured 26 dB Bandwidth: 24.148 MHz Measured 99% Bandwidth: 18.136 MHz

[back to matrix](#)

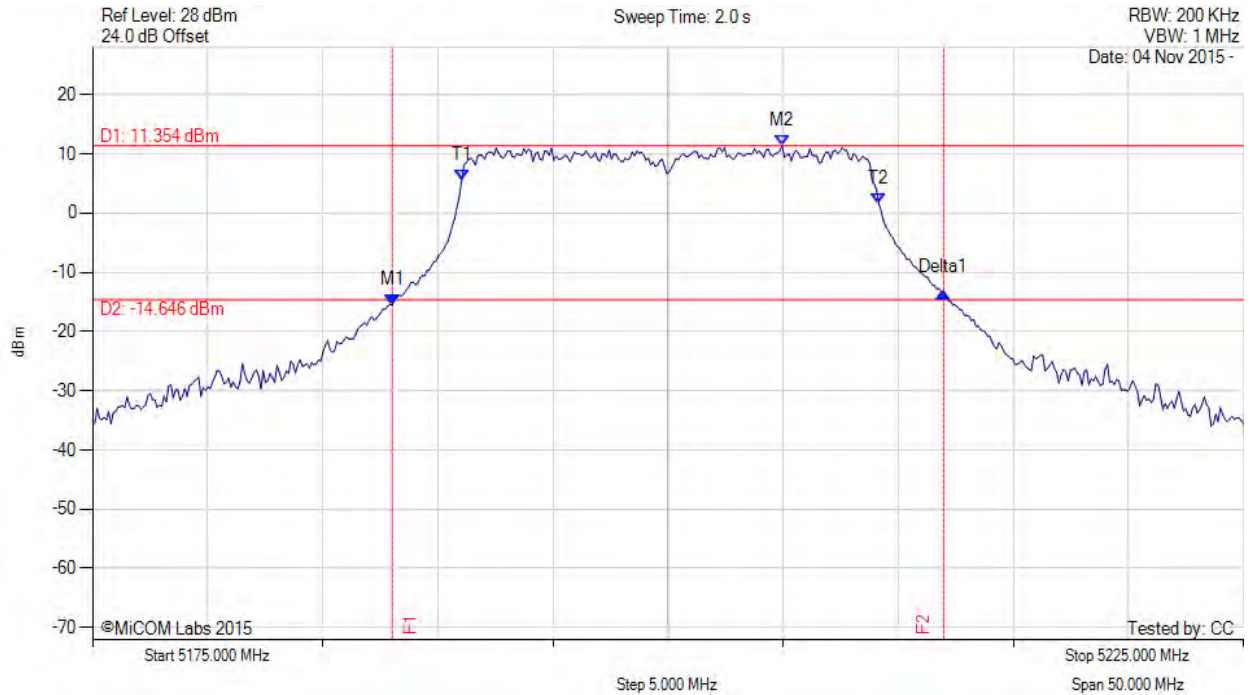
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5188.026 MHz : -15.457 dBm M2 : 5204.960 MHz : 11.354 dBm Delta1 : 23.948 MHz : 2.158 dB T1 : 5191.032 MHz : 5.478 dBm T2 : 5209.168 MHz : 1.500 dBm OBW : 18.136 MHz	Measured 26 dB Bandwidth: 23.948 MHz Measured 99% Bandwidth: 18.136 MHz

[back to matrix](#)

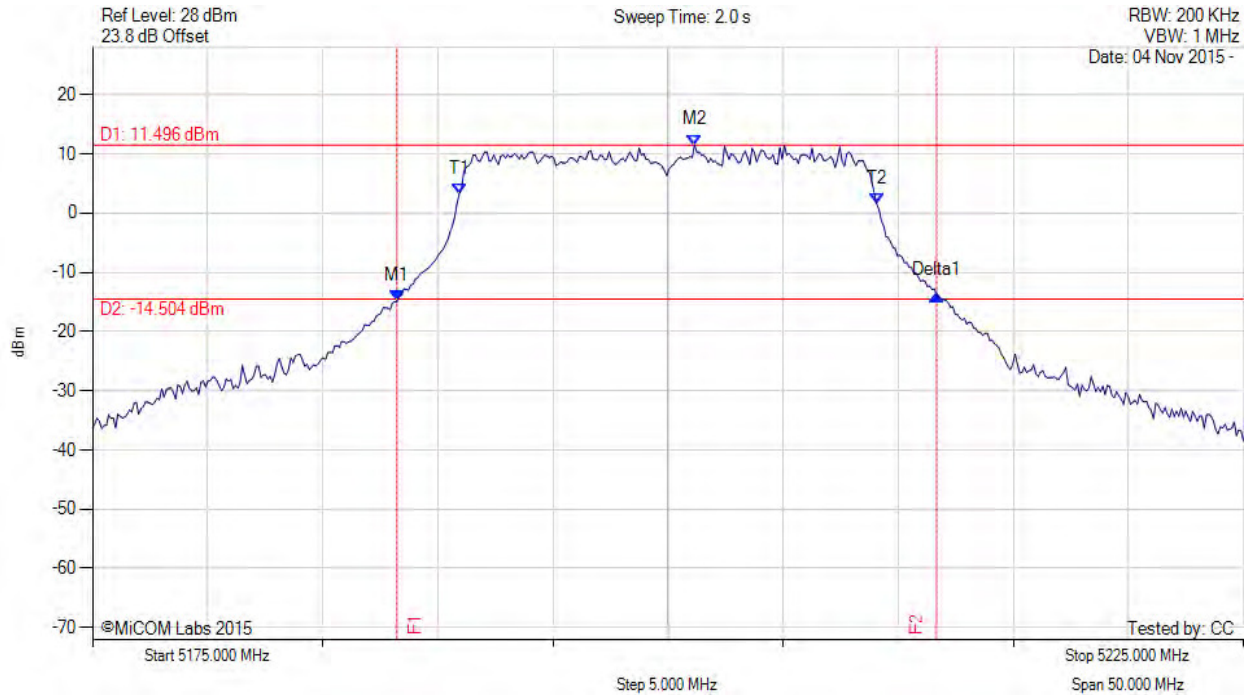
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5188.226 MHz : -14.865 dBm M2 : 5201.152 MHz : 11.496 dBm Delta1 : 23.447 MHz : 1.043 dB T1 : 5190.932 MHz : 3.255 dBm T2 : 5209.068 MHz : 1.557 dBm OBW : 18.136 MHz	Measured 26 dB Bandwidth: 23.447 MHz Measured 99% Bandwidth: 18.136 MHz

[back to matrix](#)

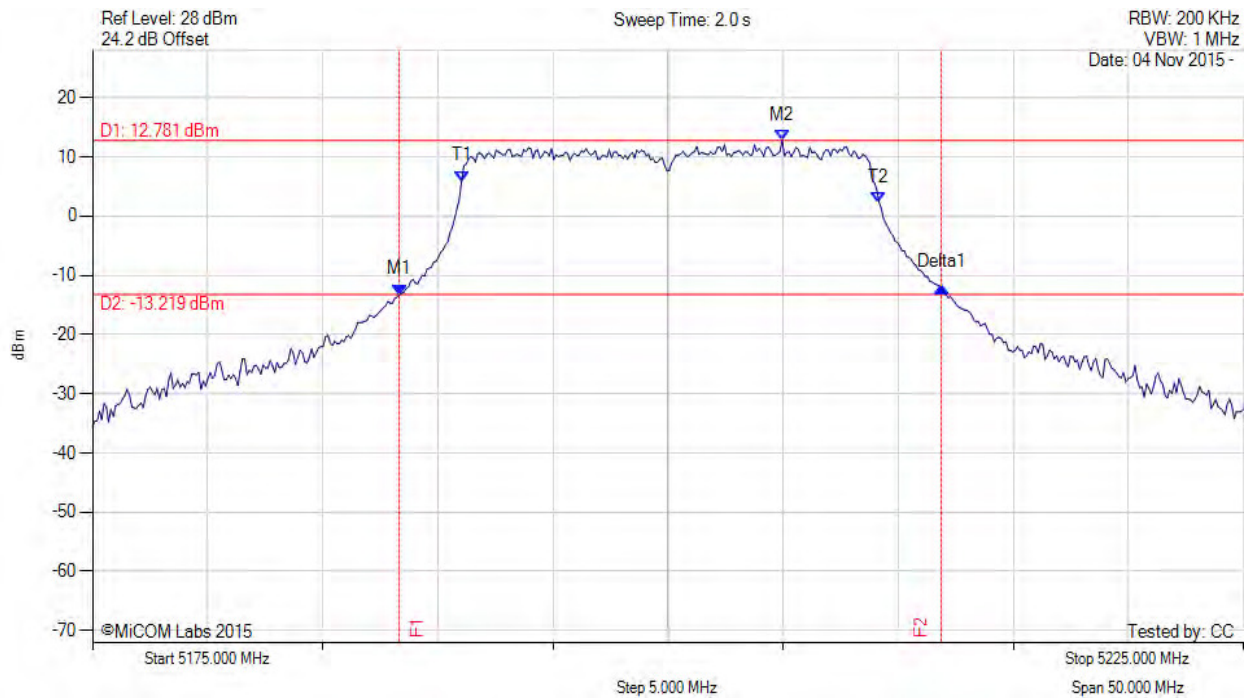
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5188.327 MHz : -13.287 dBm M2 : 5204.960 MHz : 12.781 dBm Delta1 : 23.547 MHz : 1.308 dB T1 : 5191.032 MHz : 5.883 dBm T2 : 5209.168 MHz : 2.338 dBm OBW : 18.136 MHz	Measured 26 dB Bandwidth: 23.547 MHz Measured 99% Bandwidth: 18.136 MHz

[back to matrix](#)

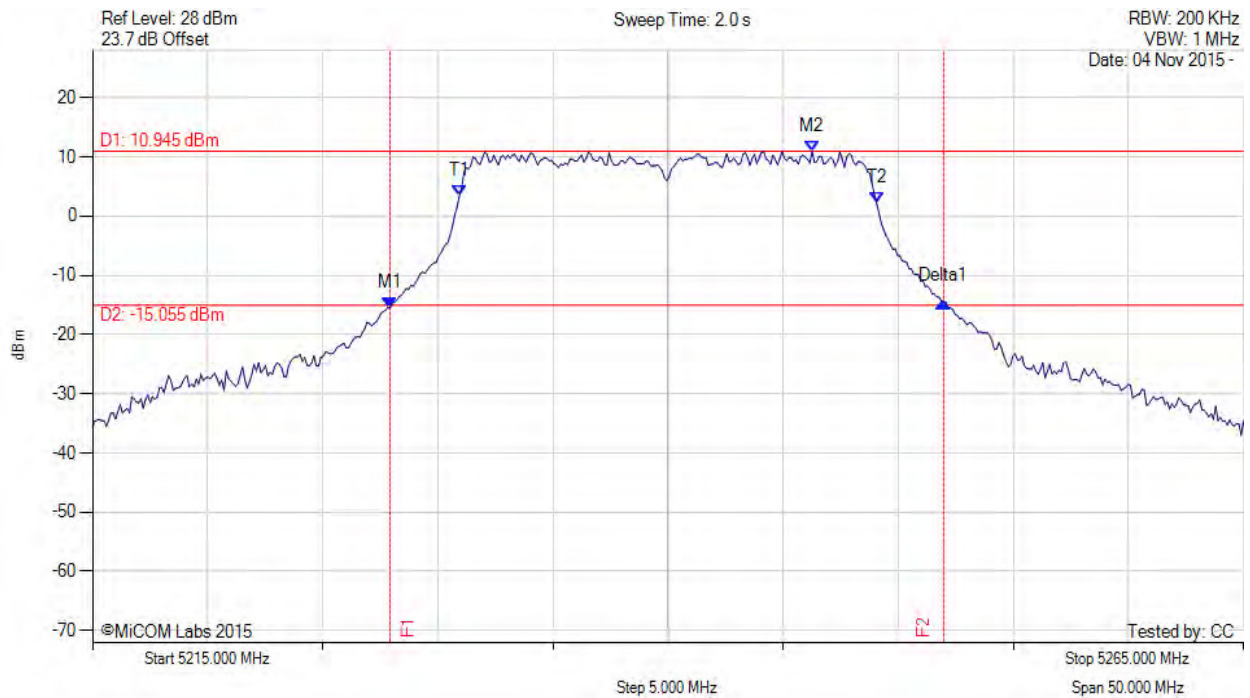
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5227.926 MHz : -15.528 dBm M2 : 5246.263 MHz : 10.945 dBm Delta1 : 24.048 MHz : 1.084 dB T1 : 5230.932 MHz : 3.339 dBm T2 : 5249.068 MHz : 2.169 dBm OBW : 18.136 MHz	Measured 26 dB Bandwidth: 24.048 MHz Measured 99% Bandwidth: 18.136 MHz

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

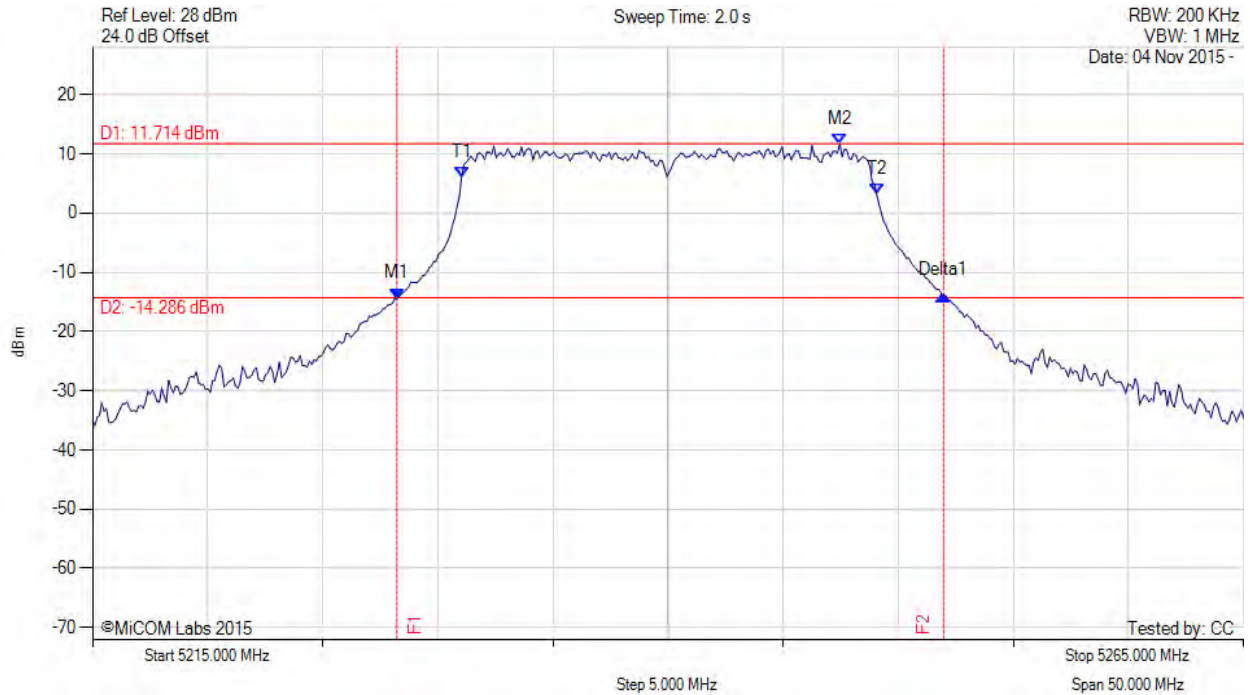


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 70 of 227

26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5228.226 MHz : -14.446 dBm M2 : 5247.465 MHz : 11.714 dBm Delta1 : 23.747 MHz : 0.496 dB T1 : 5231.032 MHz : 6.042 dBm T2 : 5249.068 MHz : 3.115 dBm OBW : 18.036 MHz	Measured 26 dB Bandwidth: 23.747 MHz Measured 99% Bandwidth: 18.036 MHz

[back to matrix](#)

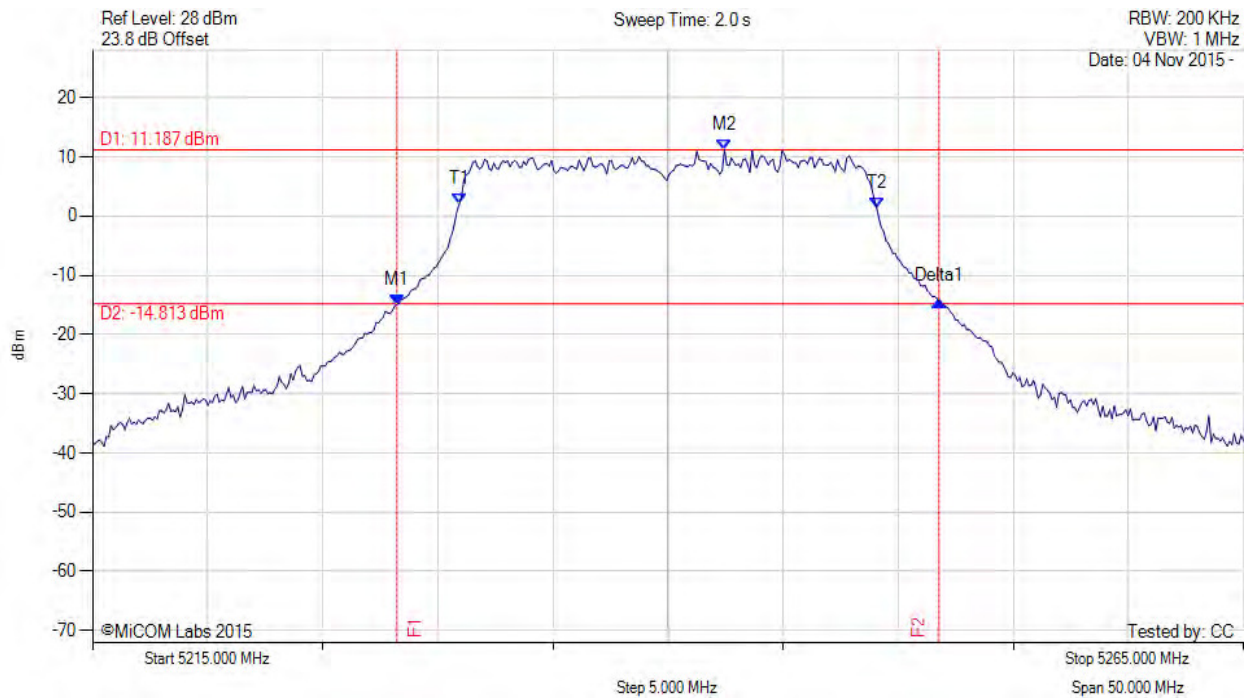
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5228.226 MHz : -14.951 dBm M2 : 5242.455 MHz : 11.187 dBm Delta1 : 23.547 MHz : 0.600 dB T1 : 5230.932 MHz : 1.958 dBm T2 : 5249.068 MHz : 1.317 dBm OBW : 18.136 MHz	Measured 26 dB Bandwidth: 23.547 MHz Measured 99% Bandwidth: 18.136 MHz

[back to matrix](#)

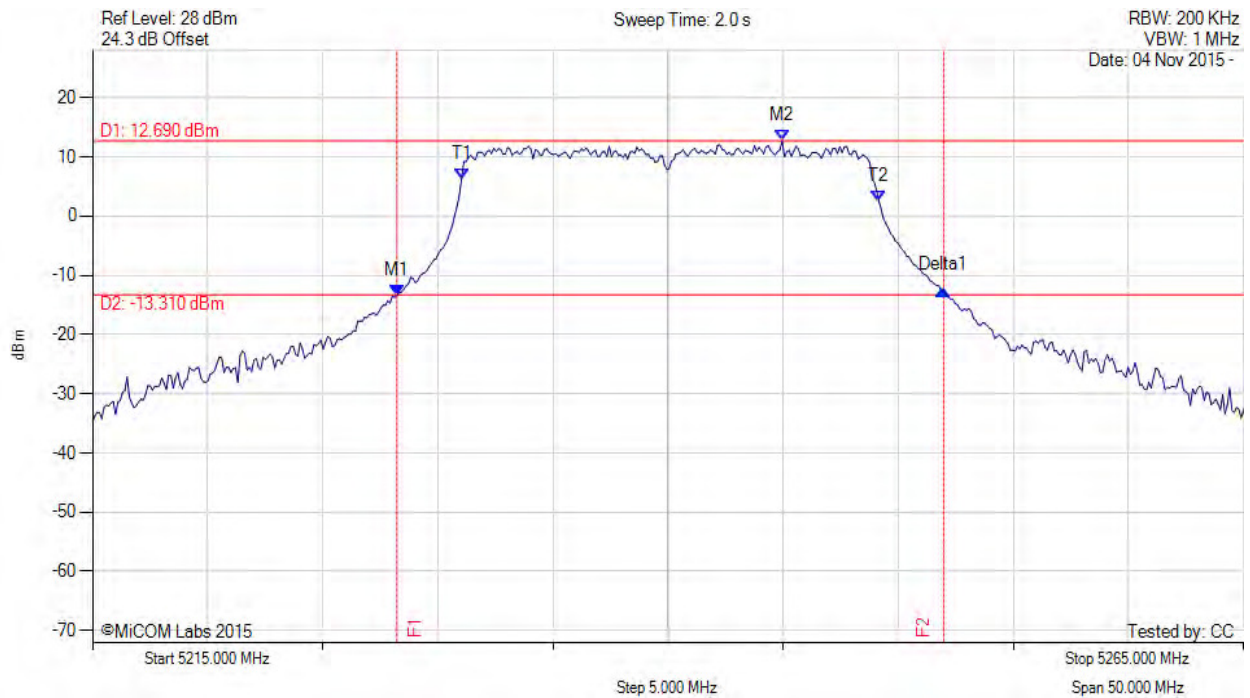
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5228.226 MHz : -13.324 dBm M2 : 5244.960 MHz : 12.690 dBm Delta1 : 23.747 MHz : 0.777 dB T1 : 5231.032 MHz : 6.320 dBm T2 : 5249.168 MHz : 2.430 dBm OBW : 18.136 MHz	Measured 26 dB Bandwidth: 23.747 MHz Measured 99% Bandwidth: 18.136 MHz

[back to matrix](#)

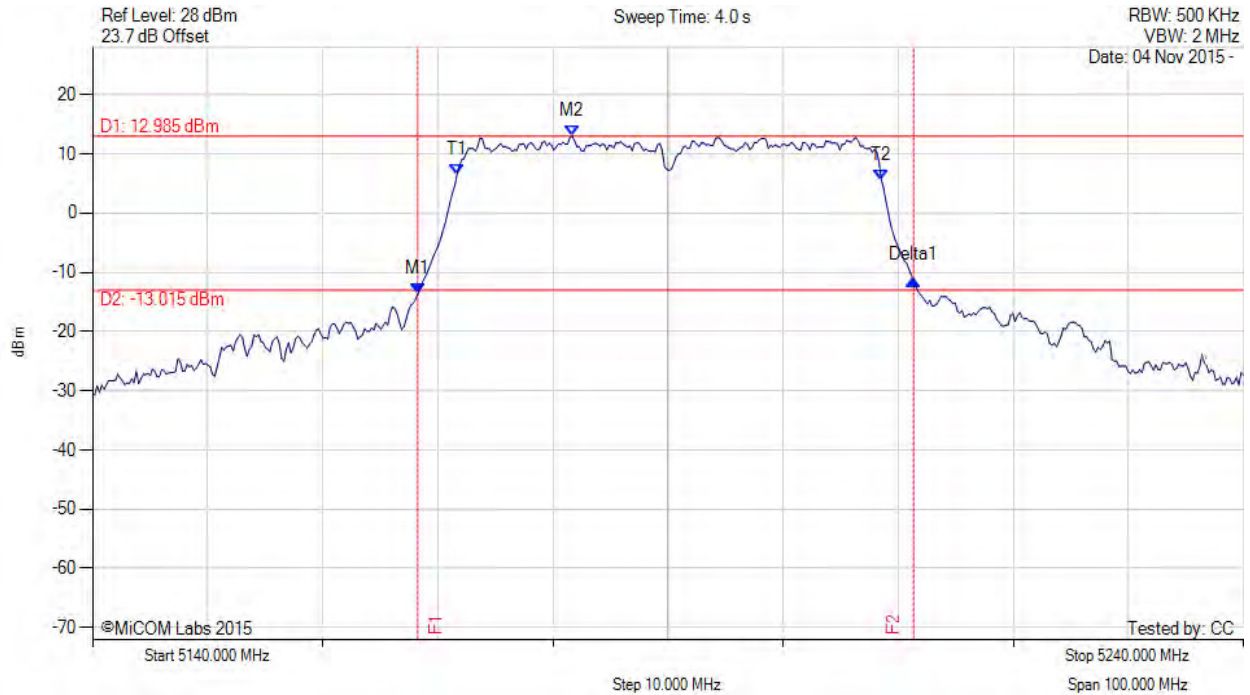
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5168.257 MHz : -13.720 dBm M2 : 5181.683 MHz : 12.985 dBm Delta1 : 43.086 MHz : 2.384 dB T1 : 5171.663 MHz : 6.479 dBm T2 : 5208.537 MHz : 5.619 dBm OBW : 36.874 MHz	Measured 26 dB Bandwidth: 43.086 MHz Measured 99% Bandwidth: 36.874 MHz

[back to matrix](#)

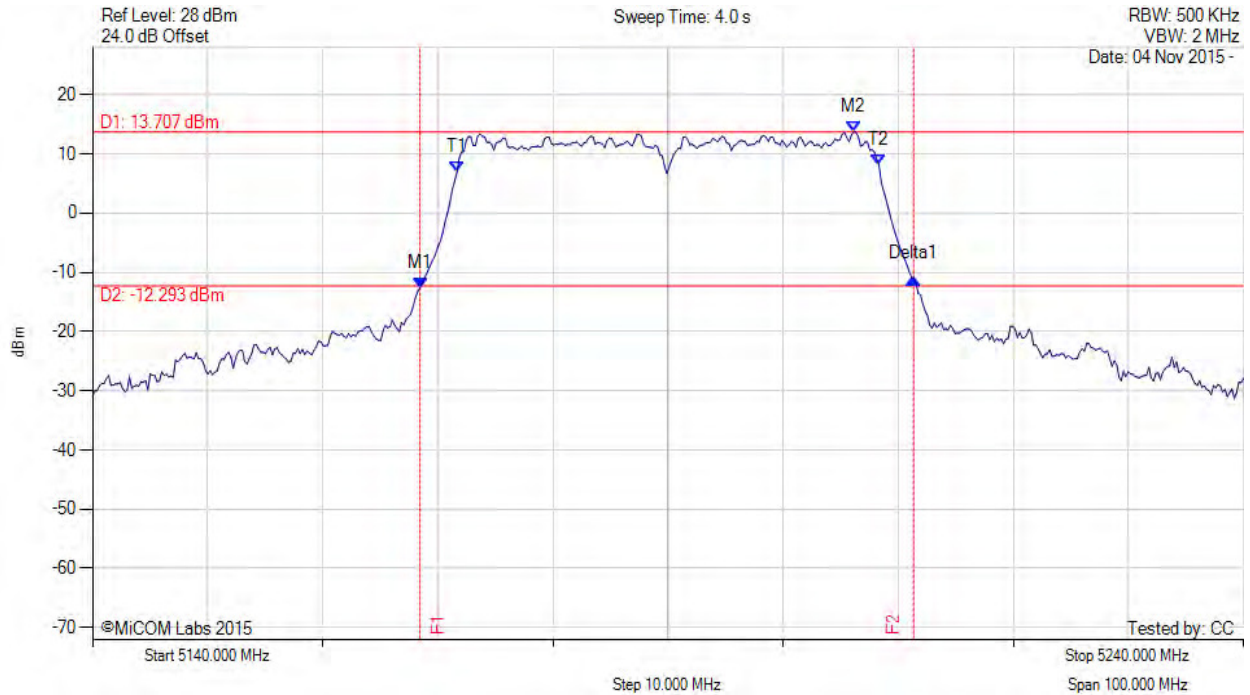
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5168.457 MHz : -12.594 dBm M2 : 5206.132 MHz : 13.707 dBm Delta1 : 42.886 MHz : 1.501 dB T1 : 5171.663 MHz : 6.845 dBm T2 : 5208.337 MHz : 8.055 dBm OBW : 36.673 MHz	Measured 26 dB Bandwidth: 42.886 MHz Measured 99% Bandwidth: 36.673 MHz

[back to matrix](#)

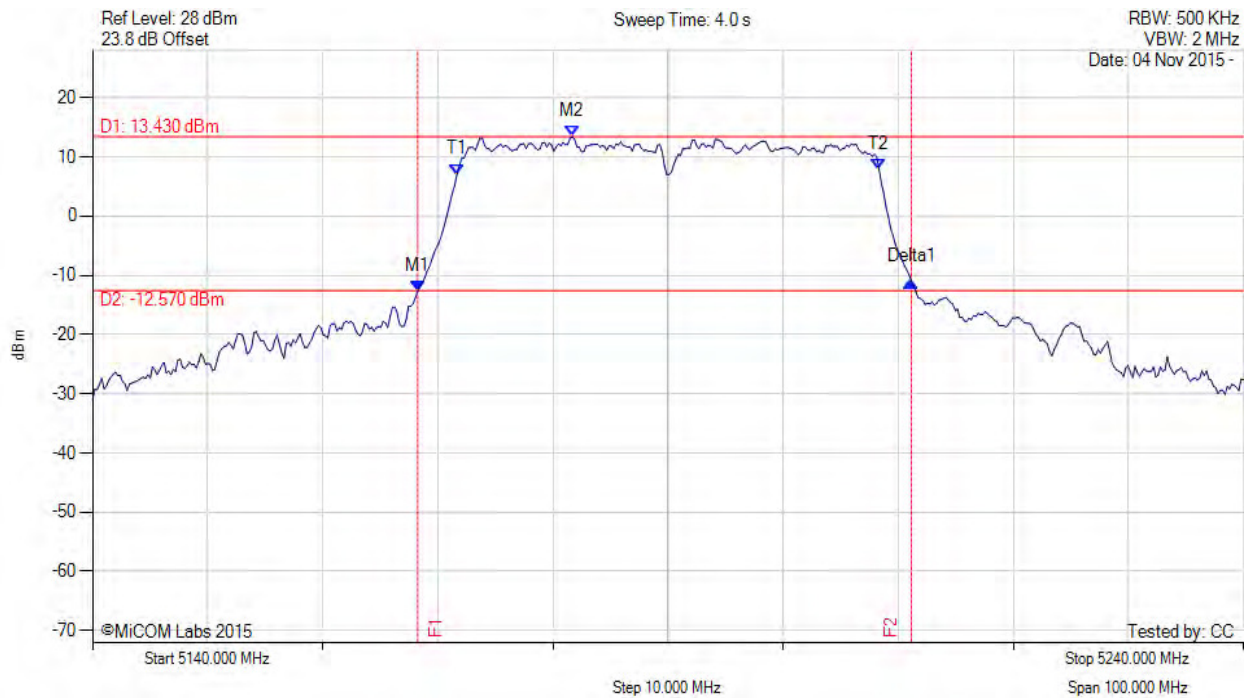
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5168.257 MHz : -12.614 dBm M2 : 5181.683 MHz : 13.430 dBm Delta1 : 42.886 MHz : 1.619 dB T1 : 5171.663 MHz : 7.050 dBm T2 : 5208.337 MHz : 7.900 dBm OBW : 36.673 MHz	Measured 26 dB Bandwidth: 42.886 MHz Measured 99% Bandwidth: 36.673 MHz

[back to matrix](#)

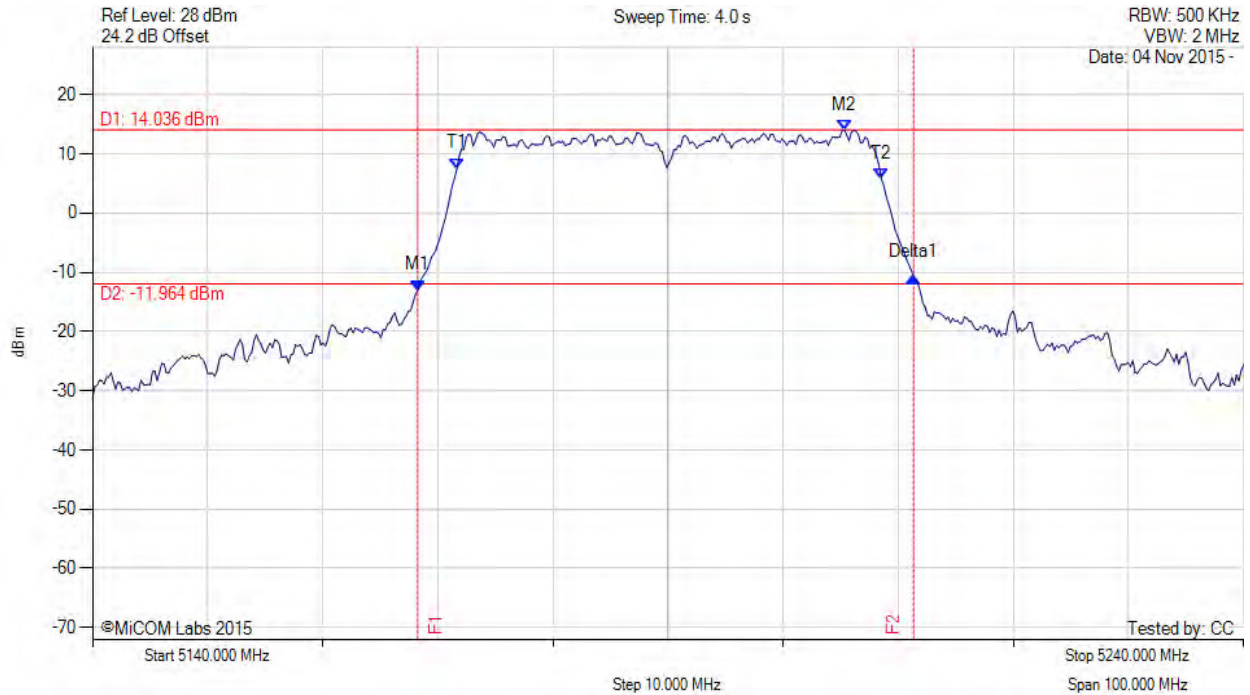
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5168.257 MHz : -13.043 dBm M2 : 5205.331 MHz : 14.036 dBm Delta1 : 43.086 MHz : 2.290 dB T1 : 5171.663 MHz : 7.530 dBm T2 : 5208.537 MHz : 5.737 dBm OBW : 36.874 MHz	Measured 26 dB Bandwidth: 43.086 MHz Measured 99% Bandwidth: 36.874 MHz

[back to matrix](#)

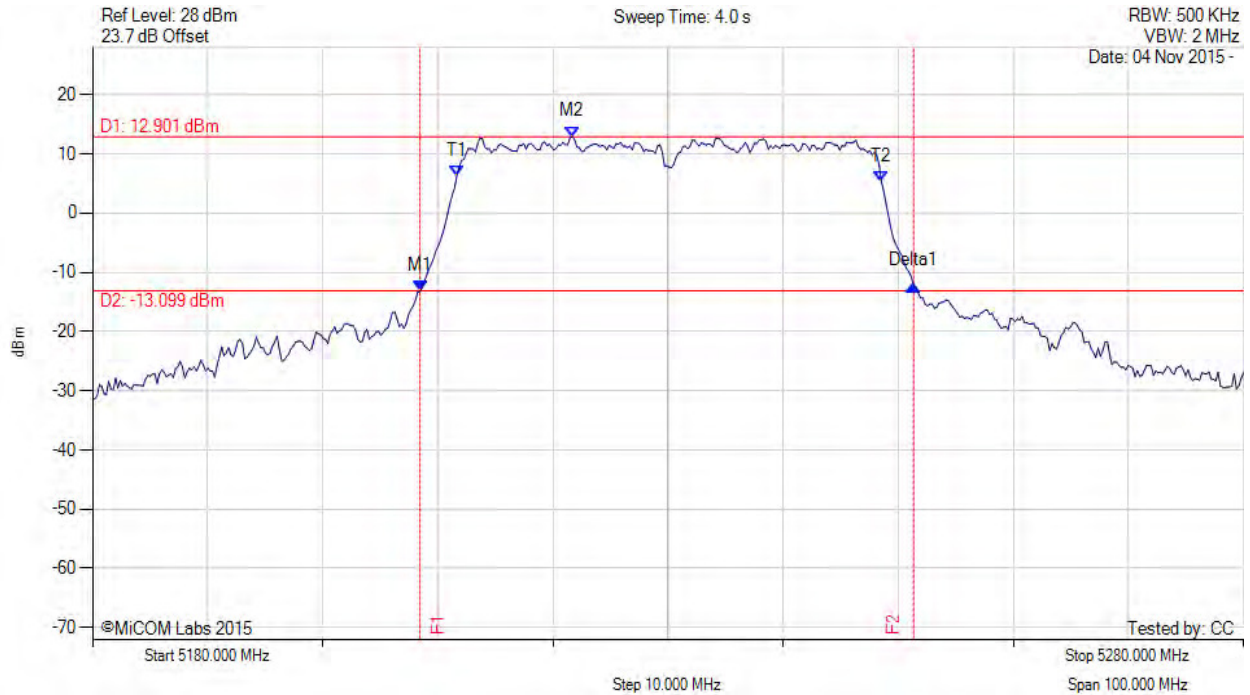
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5208.457 MHz : -13.244 dBm M2 : 5221.683 MHz : 12.901 dBm Delta1 : 42.886 MHz : 0.976 dB T1 : 5211.663 MHz : 6.324 dBm T2 : 5248.537 MHz : 5.348 dBm OBW : 36.874 MHz	Measured 26 dB Bandwidth: 42.886 MHz Measured 99% Bandwidth: 36.874 MHz

[back to matrix](#)

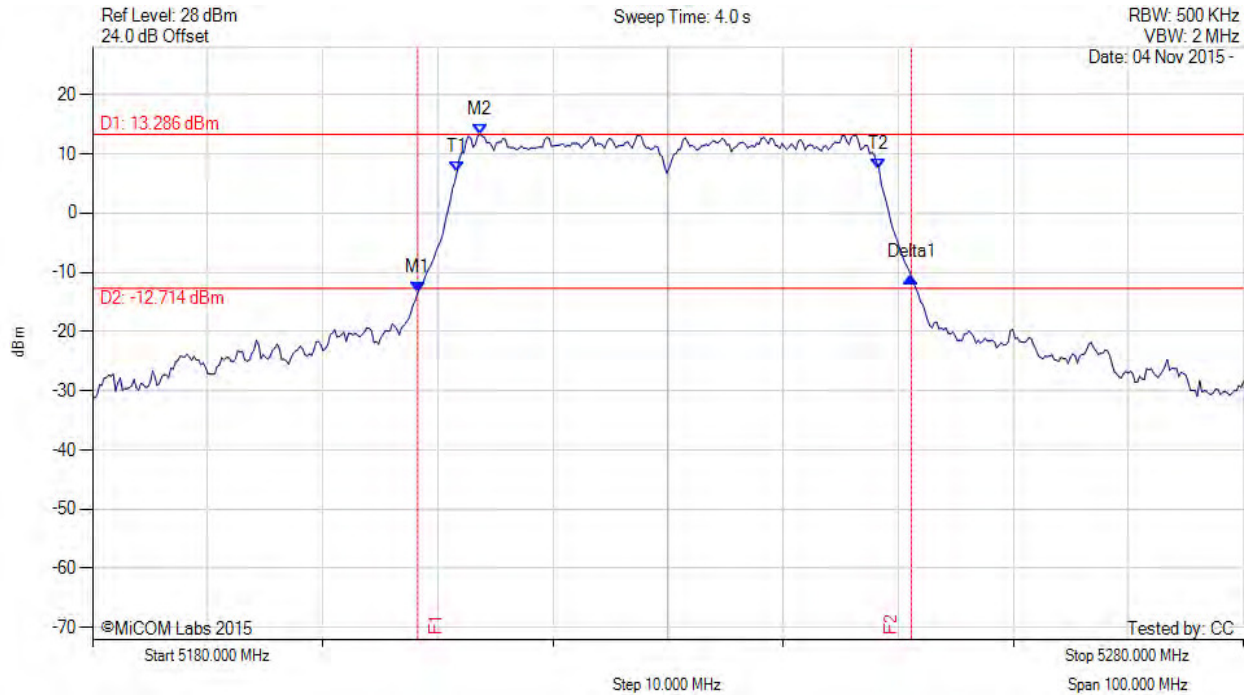
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5208.257 MHz : -13.372 dBm M2 : 5213.667 MHz : 13.286 dBm Delta1 : 42.886 MHz : 2.552 dB T1 : 5211.663 MHz : 6.884 dBm T2 : 5248.337 MHz : 7.504 dBm OBW : 36.673 MHz	Measured 26 dB Bandwidth: 42.886 MHz Measured 99% Bandwidth: 36.673 MHz

[back to matrix](#)

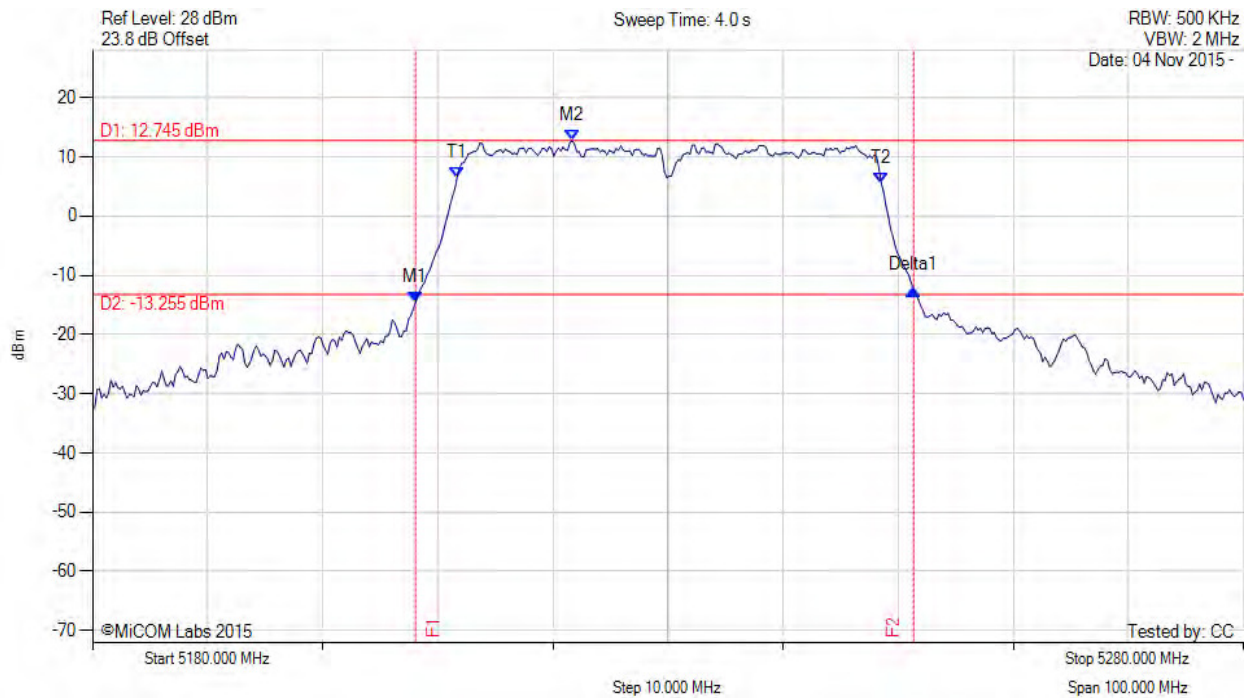
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5208.056 MHz : -14.654 dBm M2 : 5221.683 MHz : 12.745 dBm Delta1 : 43.287 MHz : 2.182 dB T1 : 5211.663 MHz : 6.412 dBm T2 : 5248.537 MHz : 5.452 dBm OBW : 36.874 MHz	Measured 26 dB Bandwidth: 43.287 MHz Measured 99% Bandwidth: 36.874 MHz

[back to matrix](#)

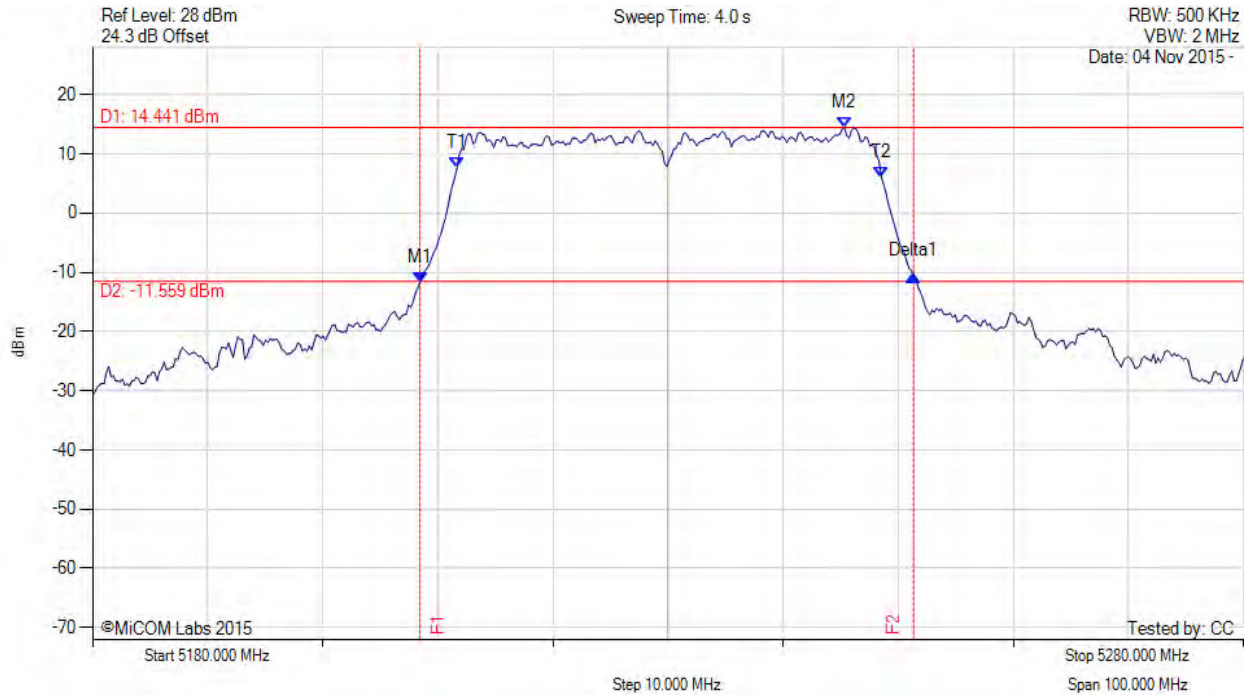
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5208.457 MHz : -11.672 dBm M2 : 5245.331 MHz : 14.441 dBm Delta1 : 42.886 MHz : 1.176 dB T1 : 5211.663 MHz : 7.541 dBm T2 : 5248.537 MHz : 6.090 dBm OBW : 36.874 MHz	Measured 26 dB Bandwidth: 42.886 MHz Measured 99% Bandwidth: 36.874 MHz

[back to matrix](#)

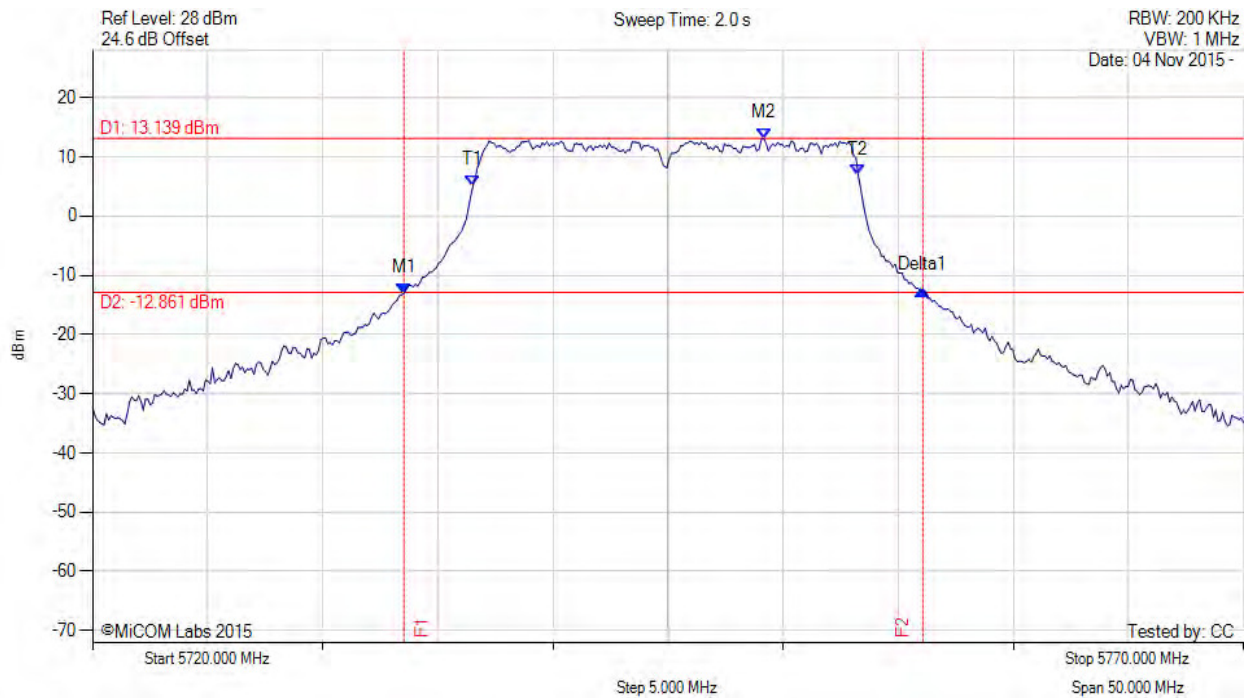
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5733.527 MHz : -13.041 dBm M2 : 5749.158 MHz : 13.139 dBm Delta1 : 22.545 MHz : 0.598 dB T1 : 5736.533 MHz : 5.181 dBm T2 : 5753.267 MHz : 6.949 dBm OBW : 16.733 MHz	Measured 26 dB Bandwidth: 22.545 MHz Measured 99% Bandwidth: 16.733 MHz

[back to matrix](#)

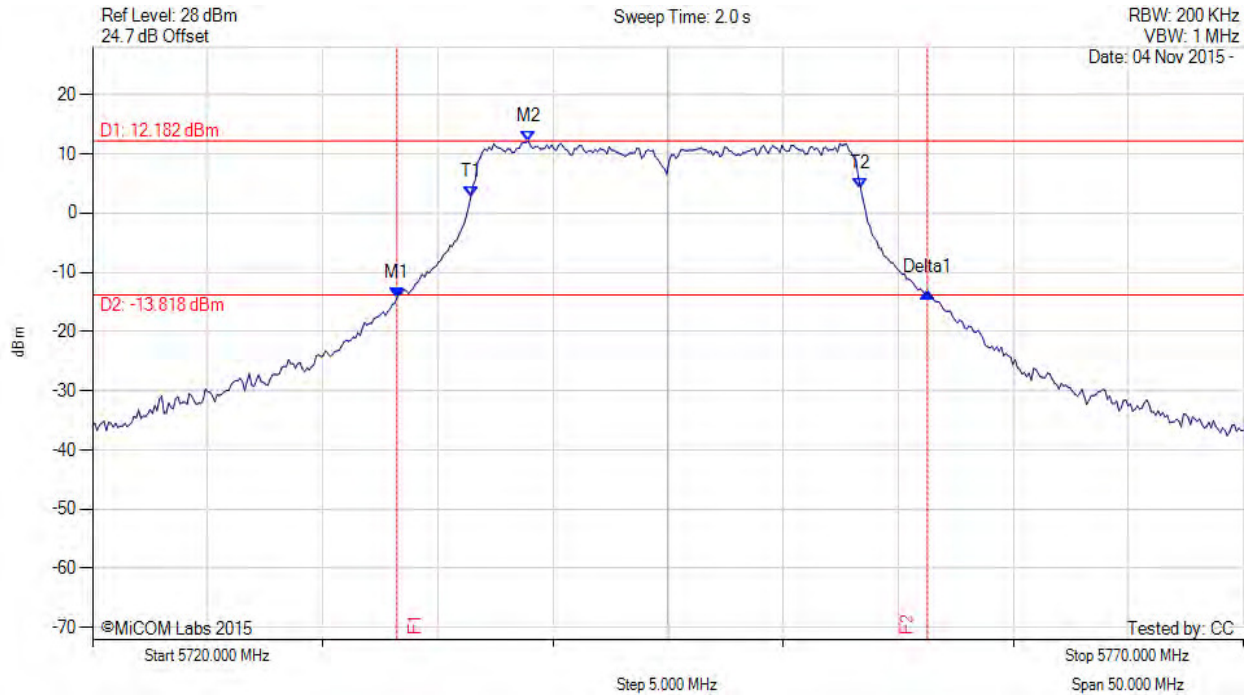
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5733.226 MHz : -14.269 dBm M2 : 5738.938 MHz : 12.182 dBm Delta1 : 23.046 MHz : 0.879 dB T1 : 5736.433 MHz : 2.800 dBm T2 : 5753.367 MHz : 4.211 dBm OBW : 16.934 MHz	Measured 26 dB Bandwidth: 23.046 MHz Measured 99% Bandwidth: 16.934 MHz

[back to matrix](#)

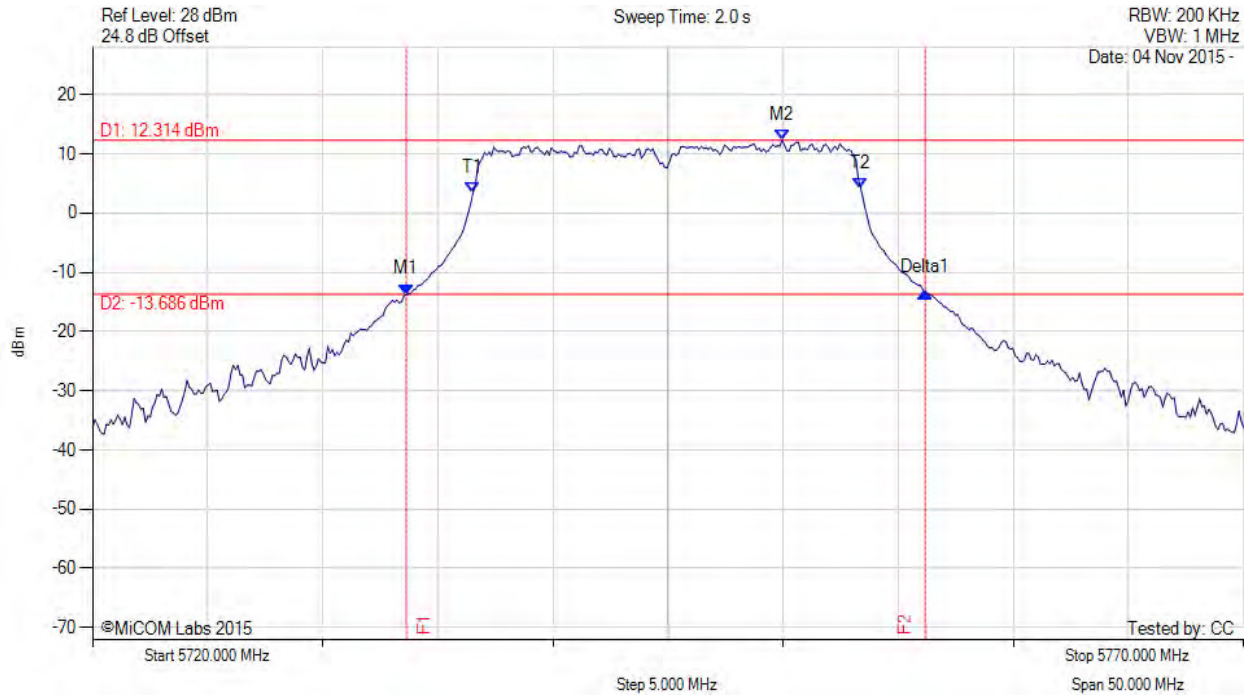
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5733.627 MHz : -13.741 dBm M2 : 5749.960 MHz : 12.314 dBm Delta1 : 22.545 MHz : 0.395 dB T1 : 5736.533 MHz : 3.471 dBm T2 : 5753.367 MHz : 4.221 dBm OBW : 16.834 MHz	Measured 26 dB Bandwidth: 22.545 MHz Measured 99% Bandwidth: 16.834 MHz

[back to matrix](#)

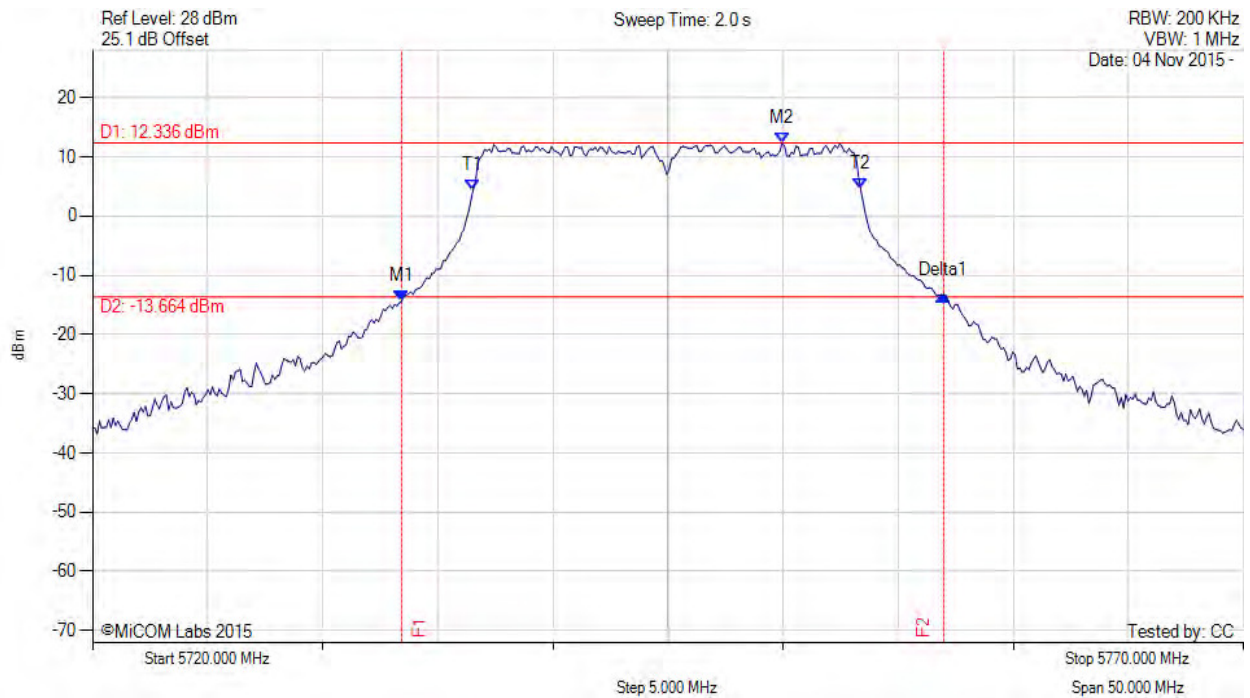
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5733.427 MHz : -14.416 dBm M2 : 5749.960 MHz : 12.336 dBm Delta1 : 23.547 MHz : 1.121 dB T1 : 5736.533 MHz : 4.376 dBm T2 : 5753.367 MHz : 4.539 dBm OBW : 16.834 MHz	Measured 26 dB Bandwidth: 23.547 MHz Measured 99% Bandwidth: 16.834 MHz

[back to matrix](#)

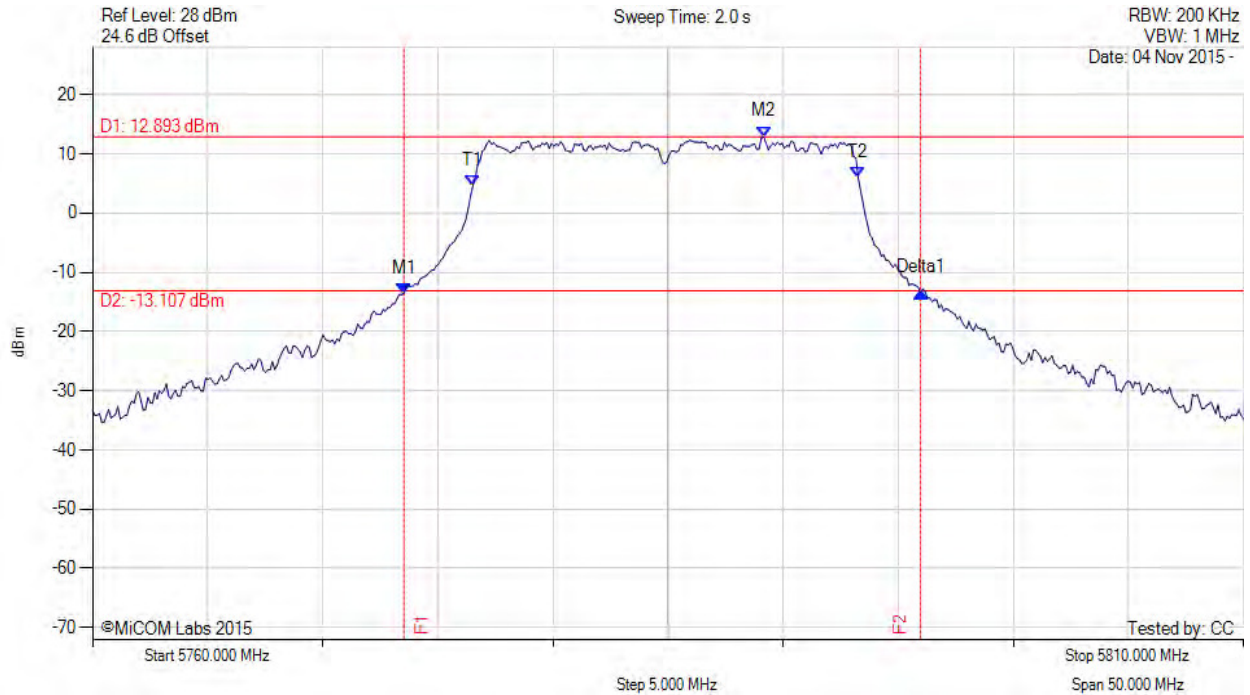
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5773.527 MHz : -13.553 dBm M2 : 5789.158 MHz : 12.893 dBm Delta1 : 22.445 MHz : 0.216 dB T1 : 5776.533 MHz : 4.677 dBm T2 : 5793.267 MHz : 5.914 dBm OBW : 16.733 MHz	Measured 26 dB Bandwidth: 22.445 MHz Measured 99% Bandwidth: 16.733 MHz

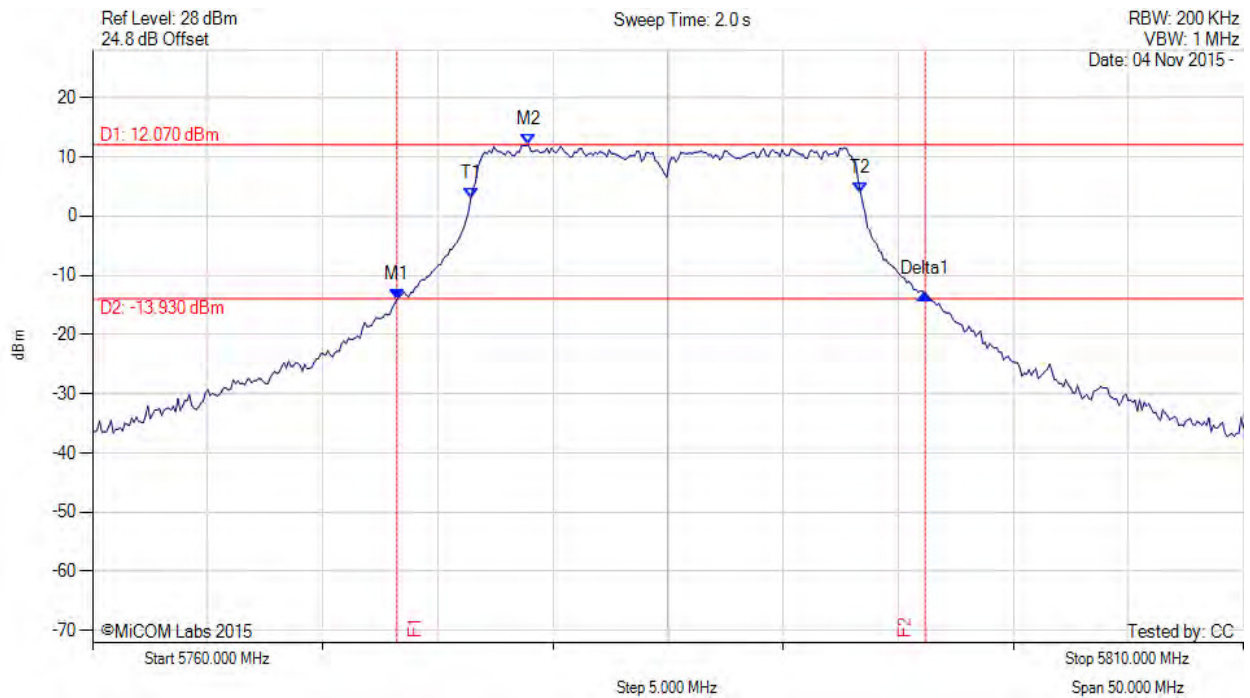
[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5773.226 MHz : -14.080 dBm M2 : 5778.938 MHz : 12.070 dBm Delta1 : 22.946 MHz : 0.891 dB T1 : 5776.433 MHz : 2.967 dBm T2 : 5793.367 MHz : 3.967 dBm OBW : 16.934 MHz	Measured 26 dB Bandwidth: 22.946 MHz Measured 99% Bandwidth: 16.934 MHz

[back to matrix](#)

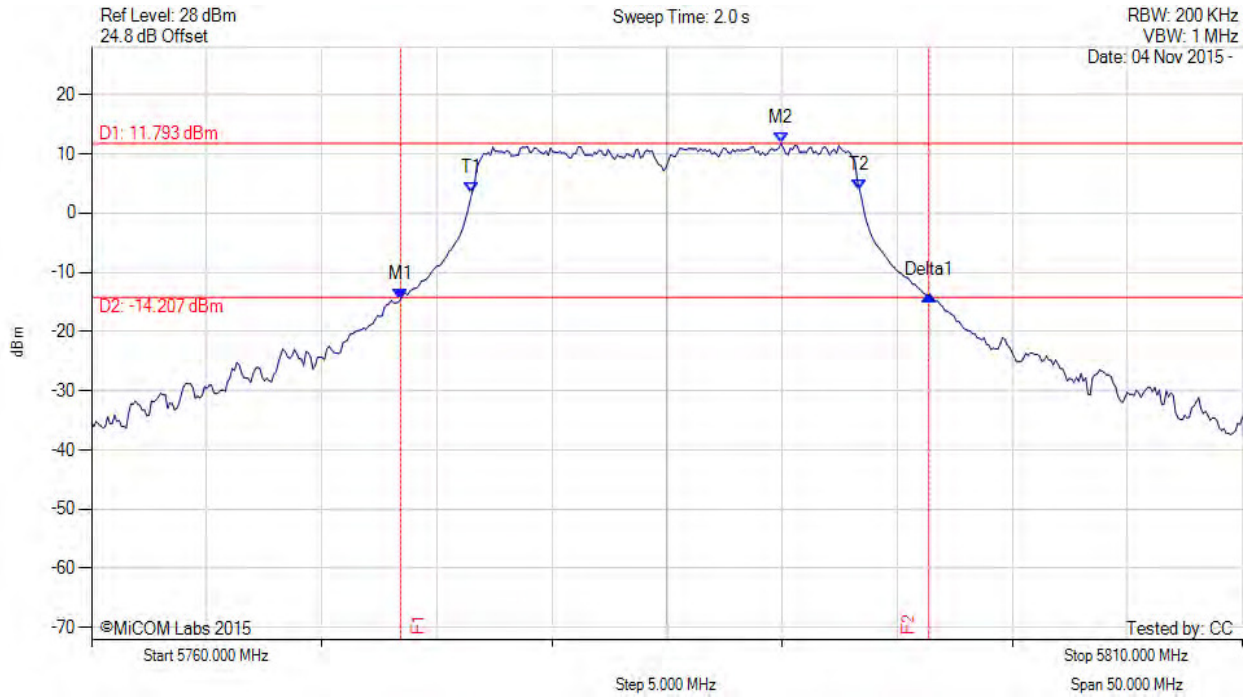
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5773.427 MHz : -14.587 dBm M2 : 5789.960 MHz : 11.793 dBm Delta1 : 22.946 MHz : 0.714 dB T1 : 5776.533 MHz : 3.477 dBm T2 : 5793.367 MHz : 3.967 dBm OBW : 16.834 MHz	Measured 26 dB Bandwidth: 22.946 MHz Measured 99% Bandwidth: 16.834 MHz

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

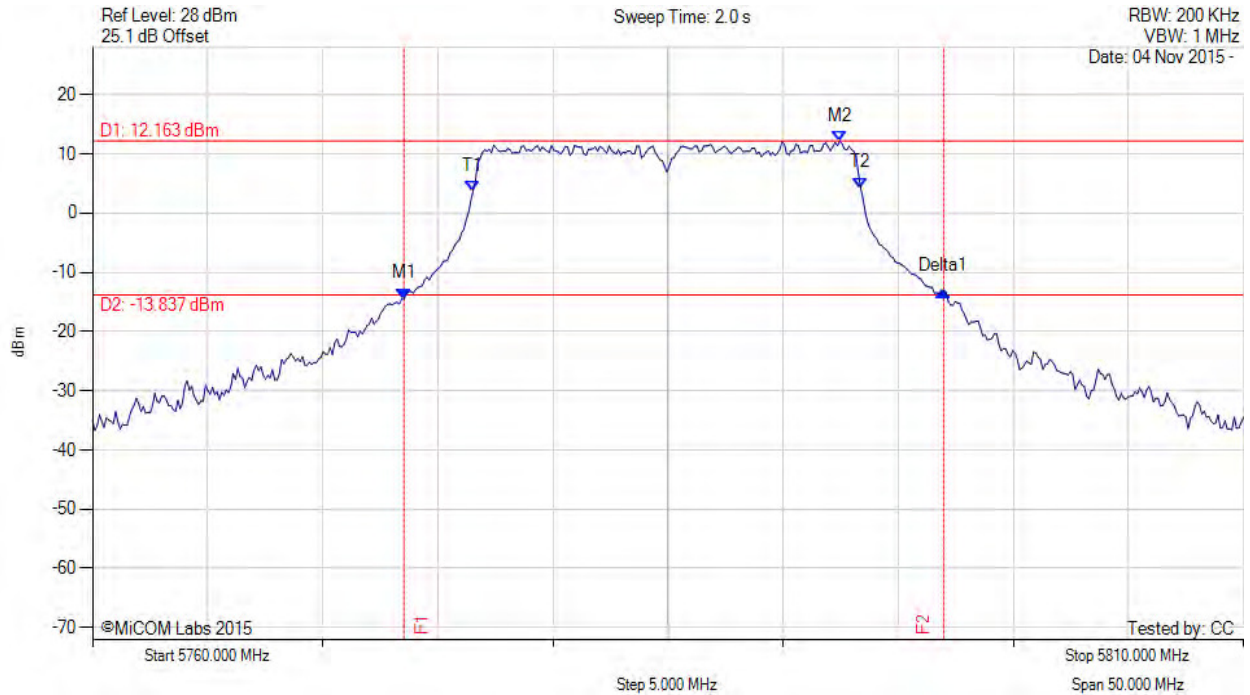


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 88 of 227

26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5773.527 MHz : -14.461 dBm M2 : 5792.465 MHz : 12.163 dBm Delta1 : 23.447 MHz : 1.296 dB T1 : 5776.533 MHz : 3.717 dBm T2 : 5793.367 MHz : 4.260 dBm OBW : 16.834 MHz	Measured 26 dB Bandwidth: 23.447 MHz Measured 99% Bandwidth: 16.834 MHz

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

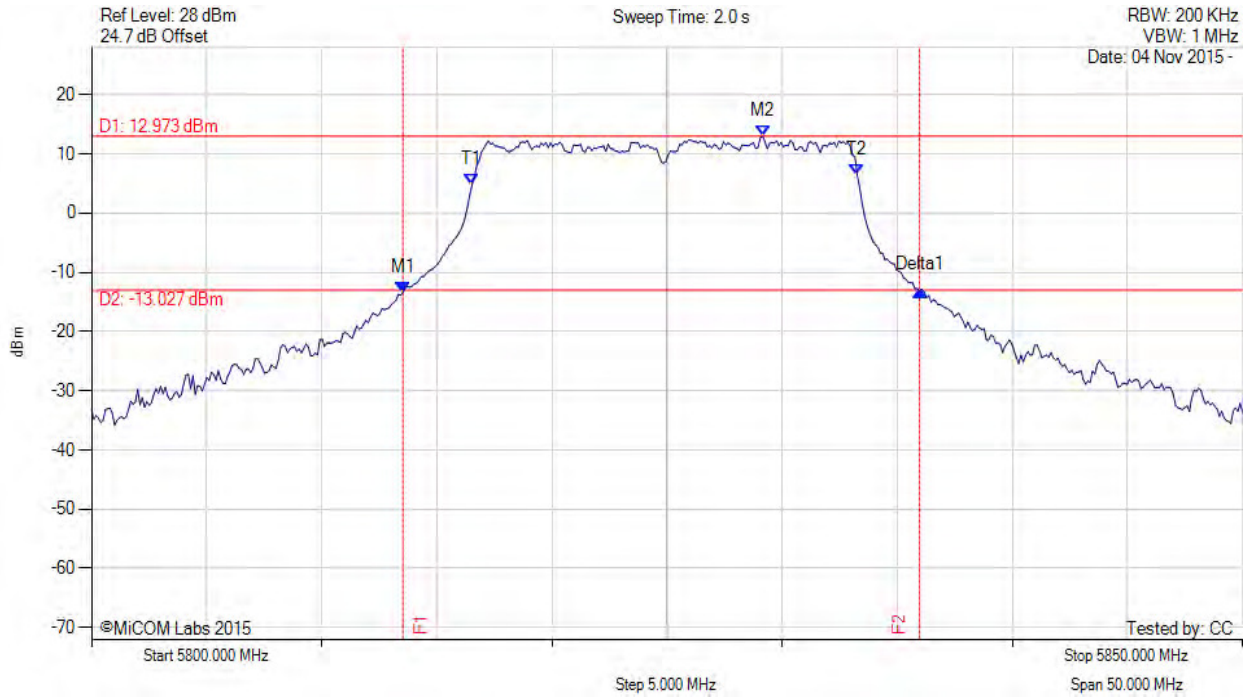


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 89 of 227

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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5813.527 MHz : -13.372 dBm M2 : 5829.158 MHz : 12.973 dBm Delta1 : 22.445 MHz : 0.331 dB T1 : 5816.533 MHz : 4.803 dBm T2 : 5833.267 MHz : 6.440 dBm OBW : 16.733 MHz	Measured 26 dB Bandwidth: 22.445 MHz Measured 99% Bandwidth: 16.733 MHz

[back to matrix](#)

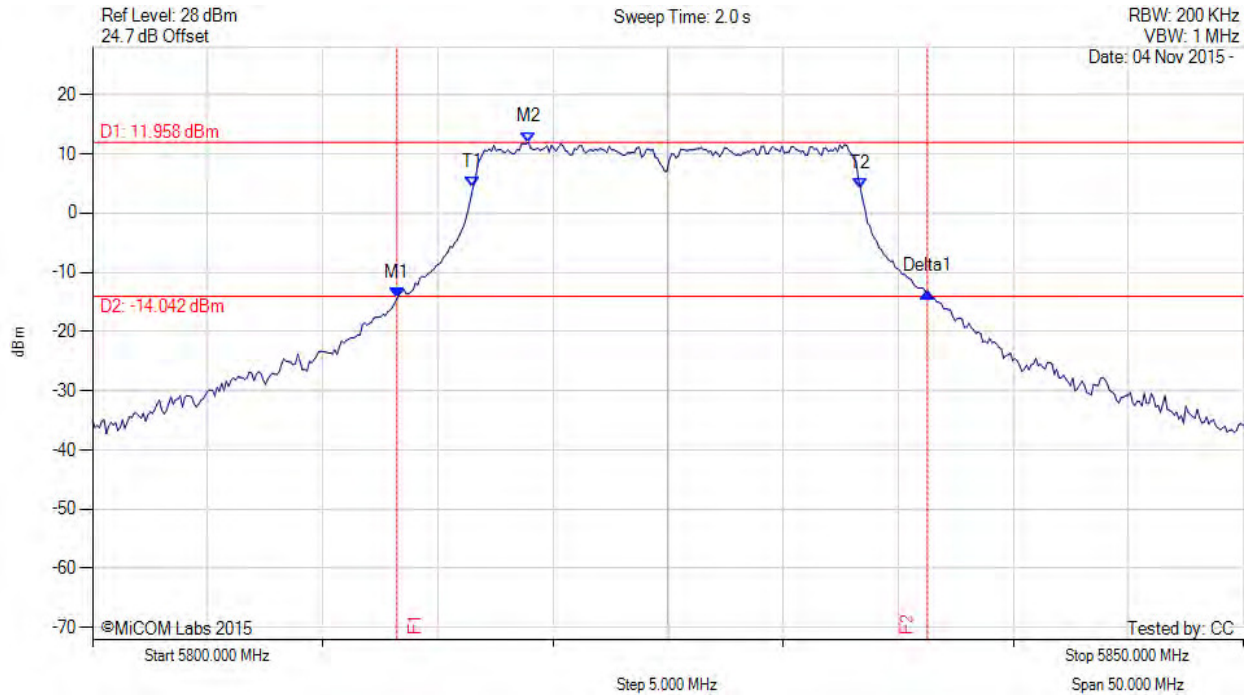
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5813.226 MHz : -14.420 dBm M2 : 5818.938 MHz : 11.958 dBm Delta1 : 23.046 MHz : 1.135 dB T1 : 5816.533 MHz : 4.441 dBm T2 : 5833.367 MHz : 4.059 dBm OBW : 16.834 MHz	Measured 26 dB Bandwidth: 23.046 MHz Measured 99% Bandwidth: 16.834 MHz

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

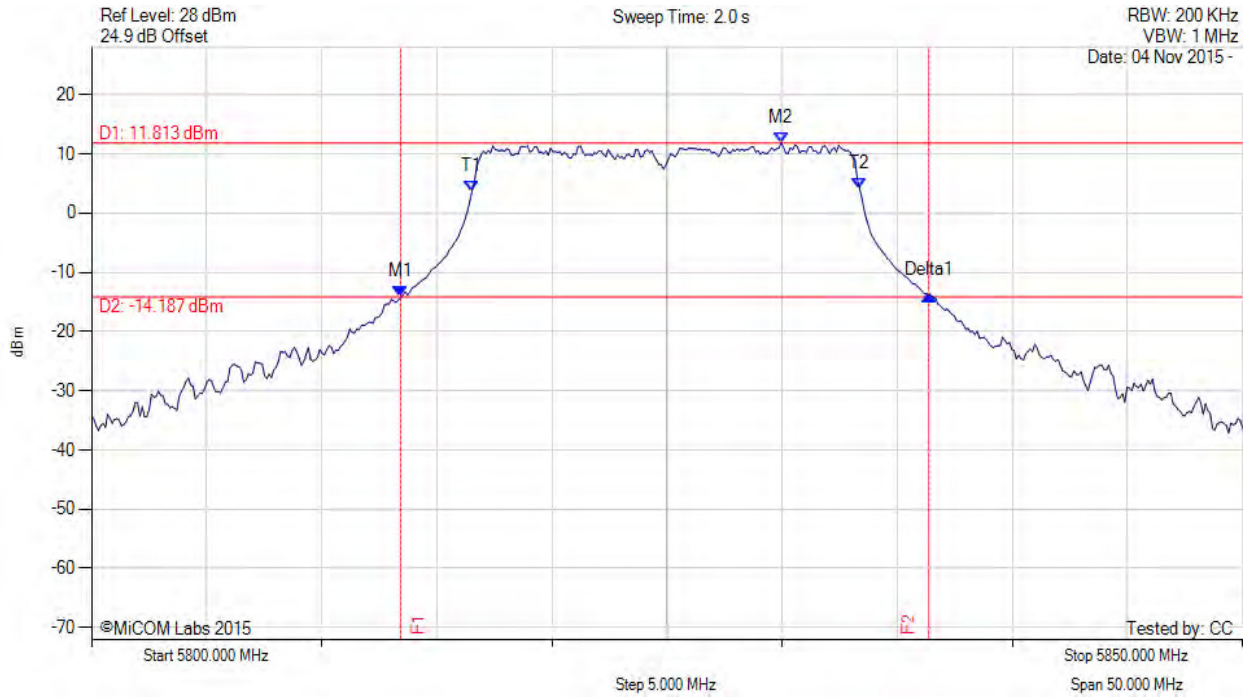


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 91 of 227

26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5813.427 MHz : -14.194 dBm M2 : 5829.960 MHz : 11.813 dBm Delta1 : 22.946 MHz : 0.393 dB T1 : 5816.533 MHz : 3.727 dBm T2 : 5833.367 MHz : 4.203 dBm OBW : 16.834 MHz	Measured 26 dB Bandwidth: 22.946 MHz Measured 99% Bandwidth: 16.834 MHz

[back to matrix](#)

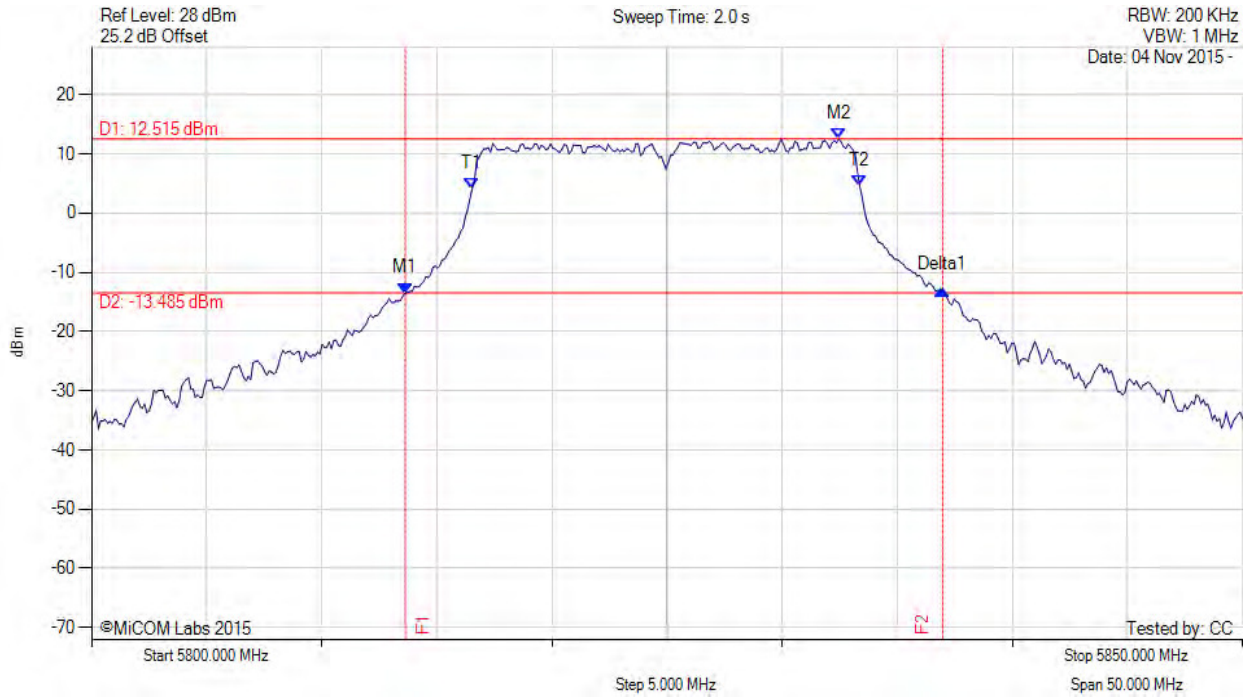
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5813.627 MHz : -13.507 dBm M2 : 5832.465 MHz : 12.515 dBm Delta1 : 23.347 MHz : 0.527 dB T1 : 5816.533 MHz : 4.055 dBm T2 : 5833.367 MHz : 4.598 dBm OBW : 16.834 MHz	Measured 26 dB Bandwidth: 23.347 MHz Measured 99% Bandwidth: 16.834 MHz

[back to matrix](#)

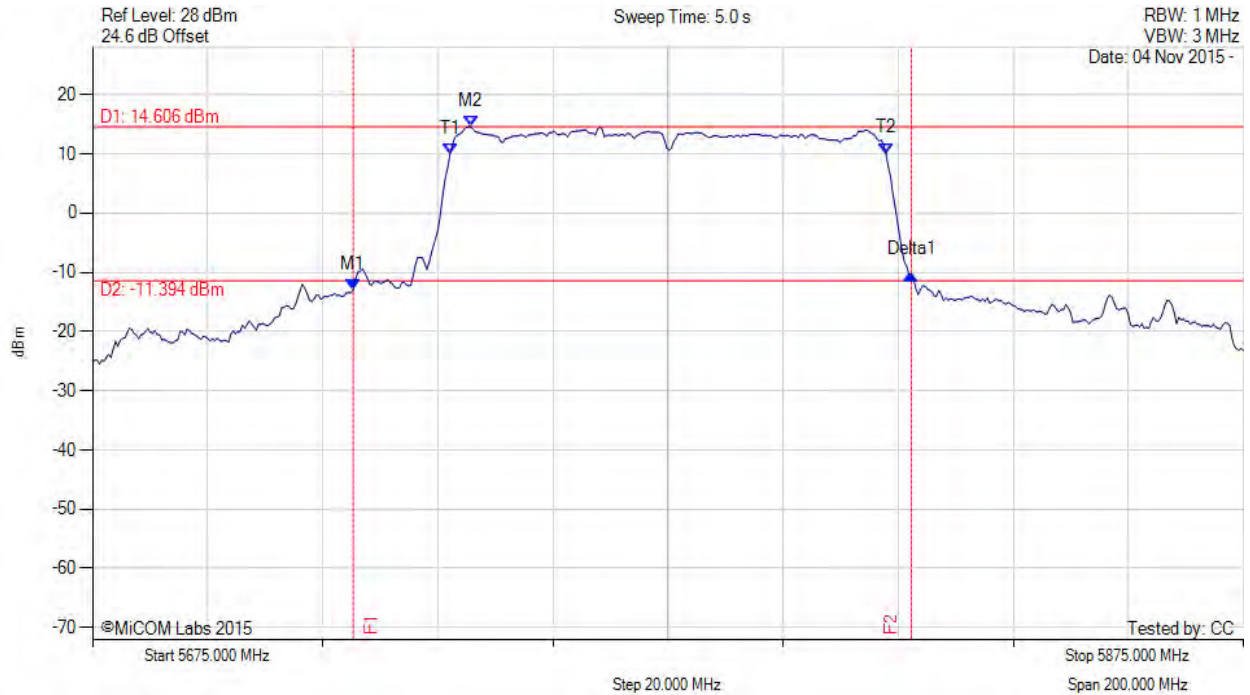
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5720.291 MHz : -12.994 dBm M2 : 5740.731 MHz : 14.606 dBm Delta1 : 96.994 MHz : 2.705 dB T1 : 5737.124 MHz : 9.995 dBm T2 : 5812.876 MHz : 10.099 dBm OBW : 75.752 MHz	Measured 26 dB Bandwidth: 96.994 MHz Measured 99% Bandwidth: 75.752 MHz

[back to matrix](#)

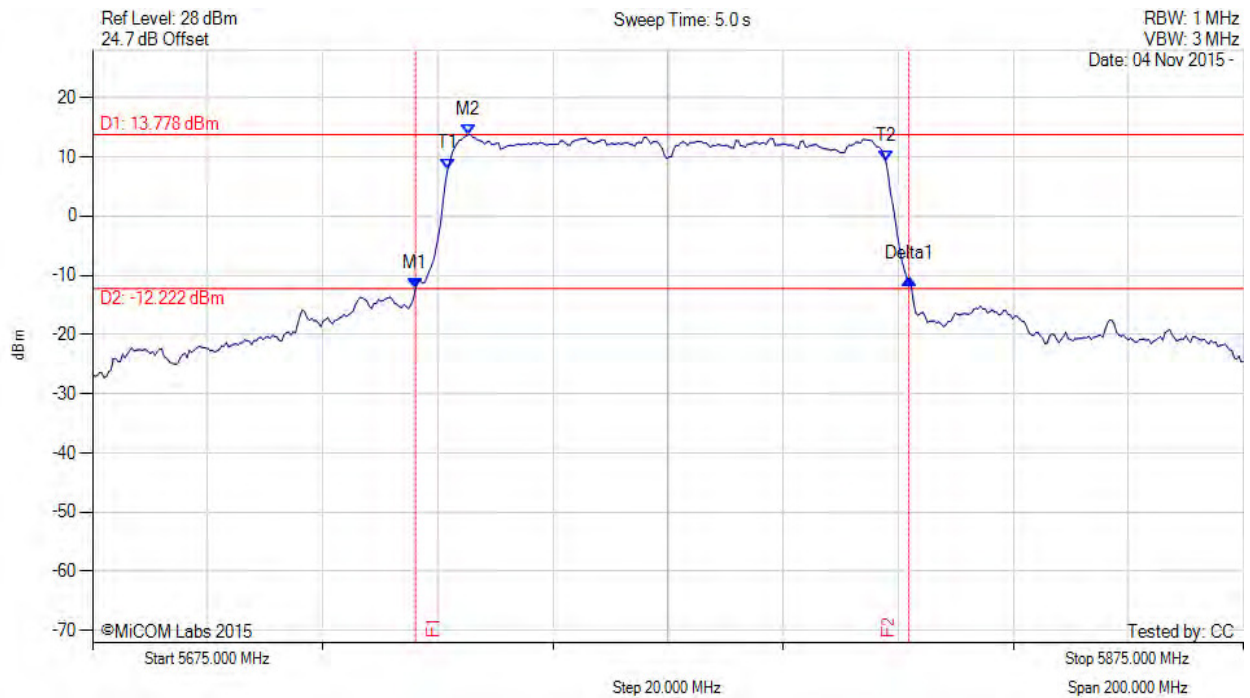
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5731.112 MHz : -12.225 dBm M2 : 5740.331 MHz : 13.778 dBm Delta1 : 85.772 MHz : 1.635 dB T1 : 5736.723 MHz : 7.982 dBm T2 : 5812.876 MHz : 9.184 dBm OBW : 76.152 MHz	Measured 26 dB Bandwidth: 85.772 MHz Measured 99% Bandwidth: 76.152 MHz

[back to matrix](#)

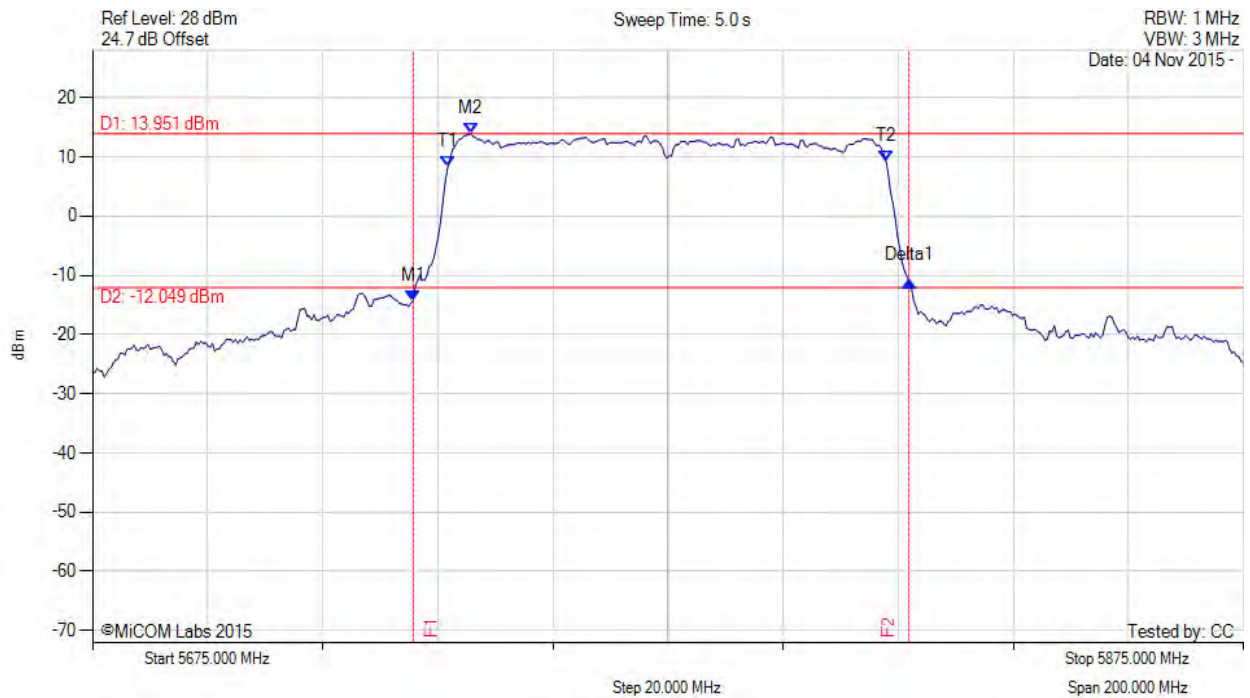
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5730.711 MHz : -14.247 dBm M2 : 5740.731 MHz : 13.951 dBm Delta1 : 86.172 MHz : 3.299 dB T1 : 5736.723 MHz : 8.265 dBm T2 : 5812.876 MHz : 9.320 dBm OBW : 76.152 MHz	Channel Frequency: 5775.00 MHz

[back to matrix](#)

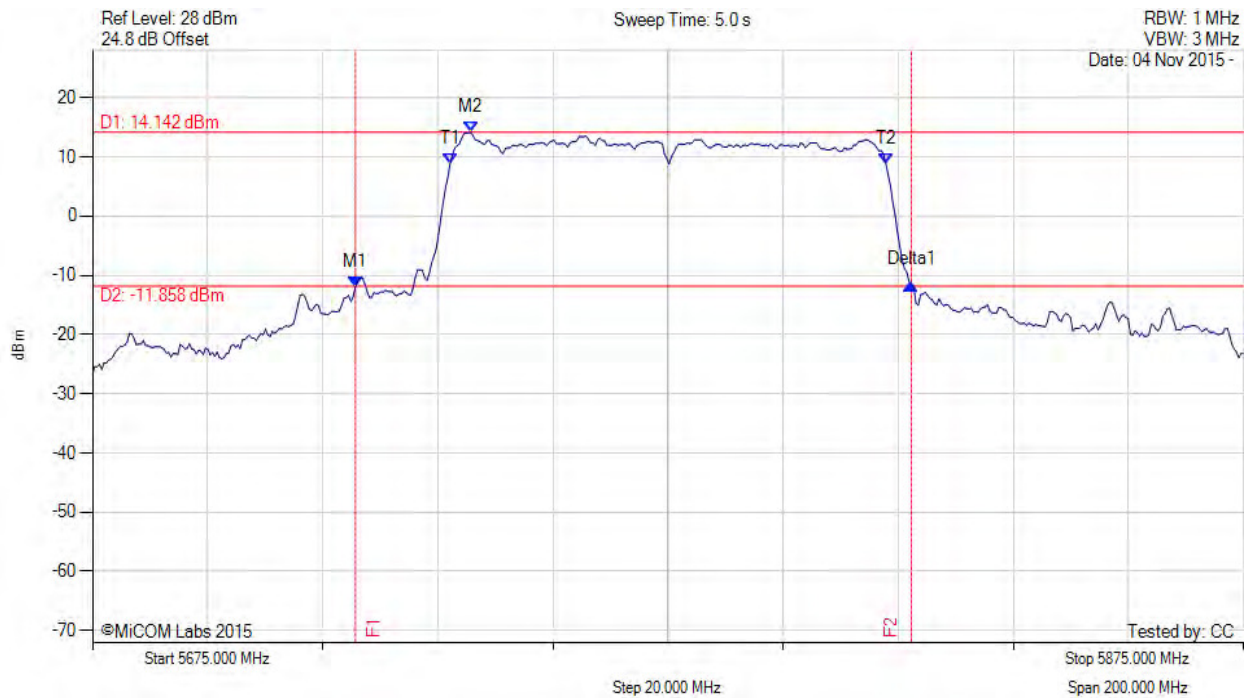
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5720.691 MHz : -11.943 dBm M2 : 5740.731 MHz : 14.142 dBm Delta1 : 96.593 MHz : 0.490 dB T1 : 5737.124 MHz : 8.826 dBm T2 : 5812.876 MHz : 8.822 dBm OBW : 75.752 MHz	Channel Frequency: 5775.00 MHz

[back to matrix](#)

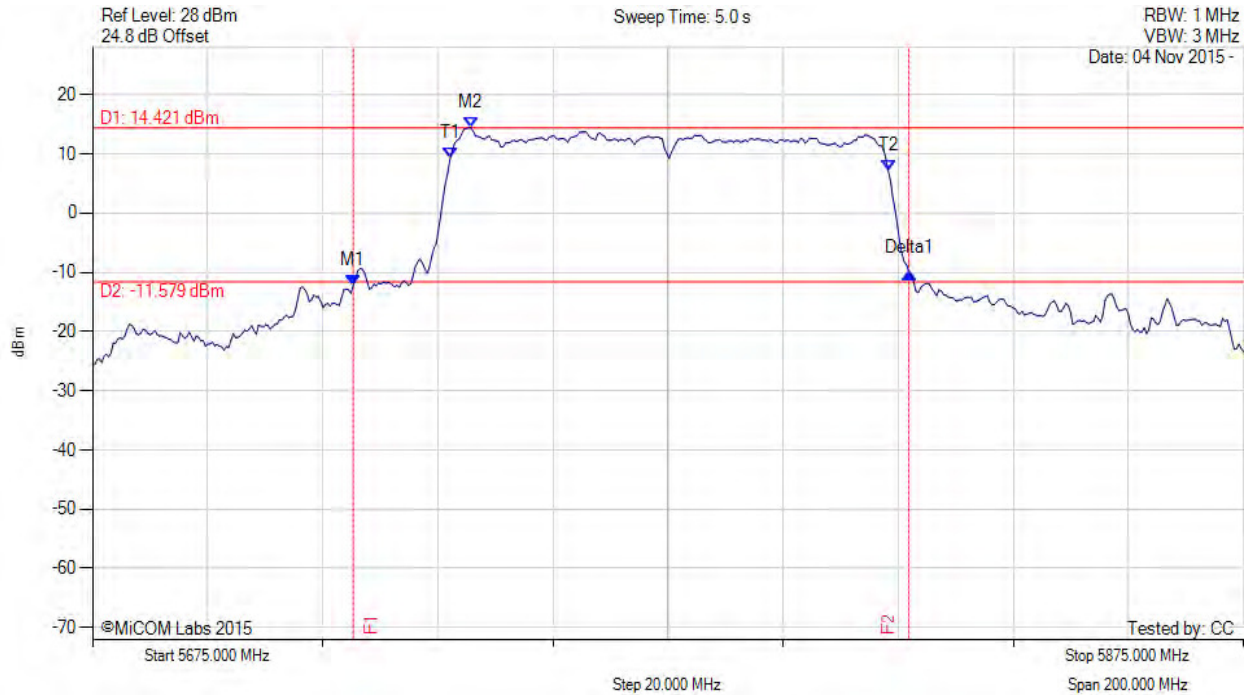
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5720.291 MHz : -12.309 dBm M2 : 5740.731 MHz : 14.421 dBm Delta1 : 96.593 MHz : 2.286 dB T1 : 5737.124 MHz : 9.190 dBm T2 : 5813.277 MHz : 7.156 dBm OBW : 76.152 MHz	Measured 26 dB Bandwidth: 96.593 MHz Measured 99% Bandwidth: 76.152 MHz

[back to matrix](#)

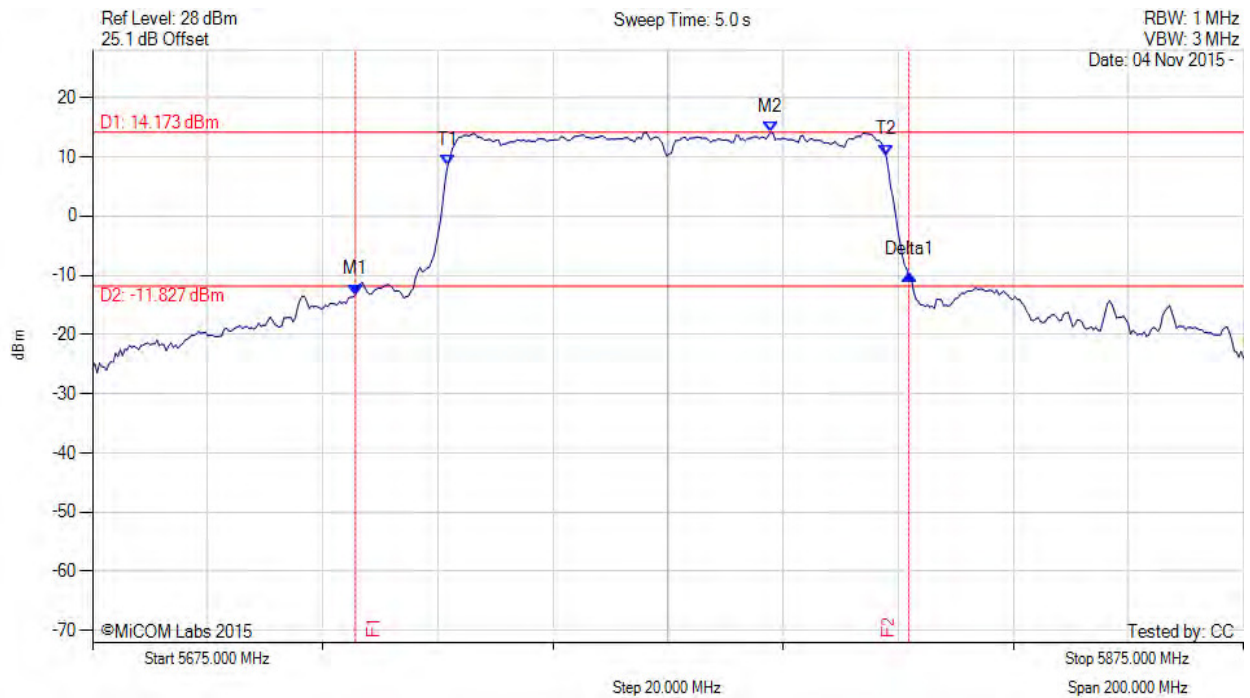
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5720.691 MHz : -13.271 dBm M2 : 5792.836 MHz : 14.173 dBm Delta1 : 96.192 MHz : 3.327 dB T1 : 5736.723 MHz : 8.563 dBm T2 : 5812.876 MHz : 10.319 dBm OBW : 76.152 MHz	Measured 26 dB Bandwidth: 96.192 MHz Measured 99% Bandwidth: 76.152 MHz

[back to matrix](#)

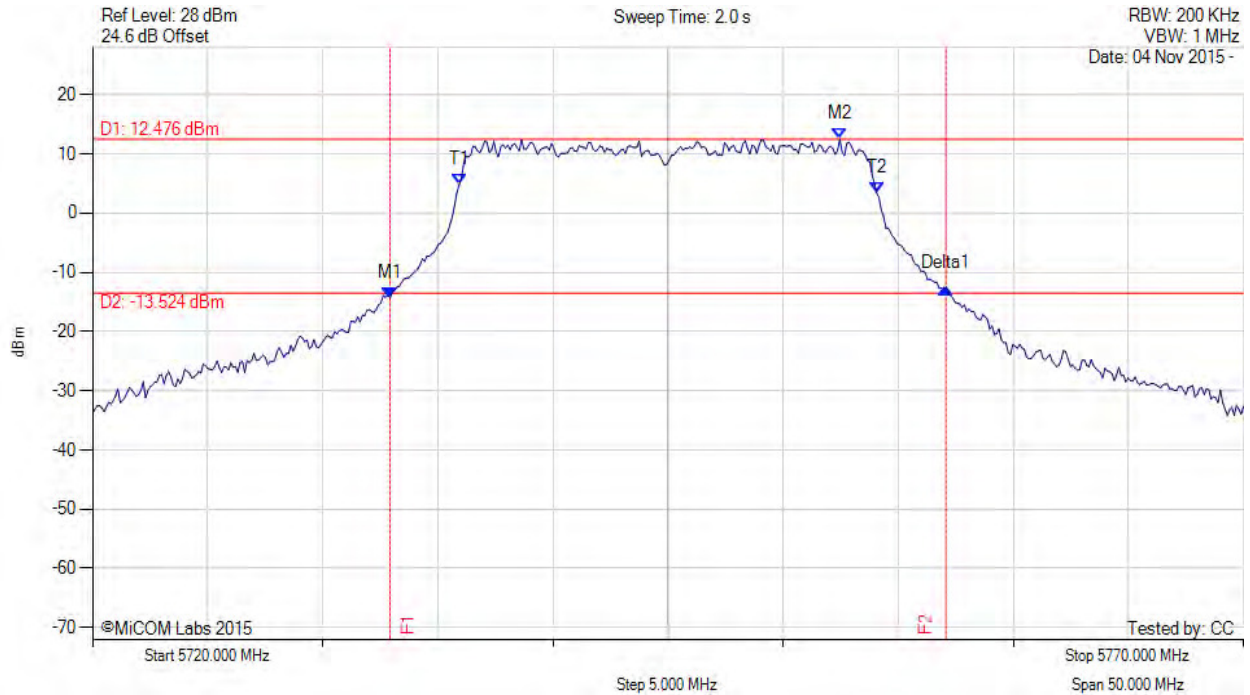
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5732.926 MHz : -14.288 dBm M2 : 5752.465 MHz : 12.476 dBm Delta1 : 24.148 MHz : 1.637 dB T1 : 5735.932 MHz : 4.828 dBm T2 : 5754.068 MHz : 3.402 dBm OBW : 18.136 MHz	Measured 26 dB Bandwidth: 24.148 MHz Measured 99% Bandwidth: 18.136 MHz

[back to matrix](#)

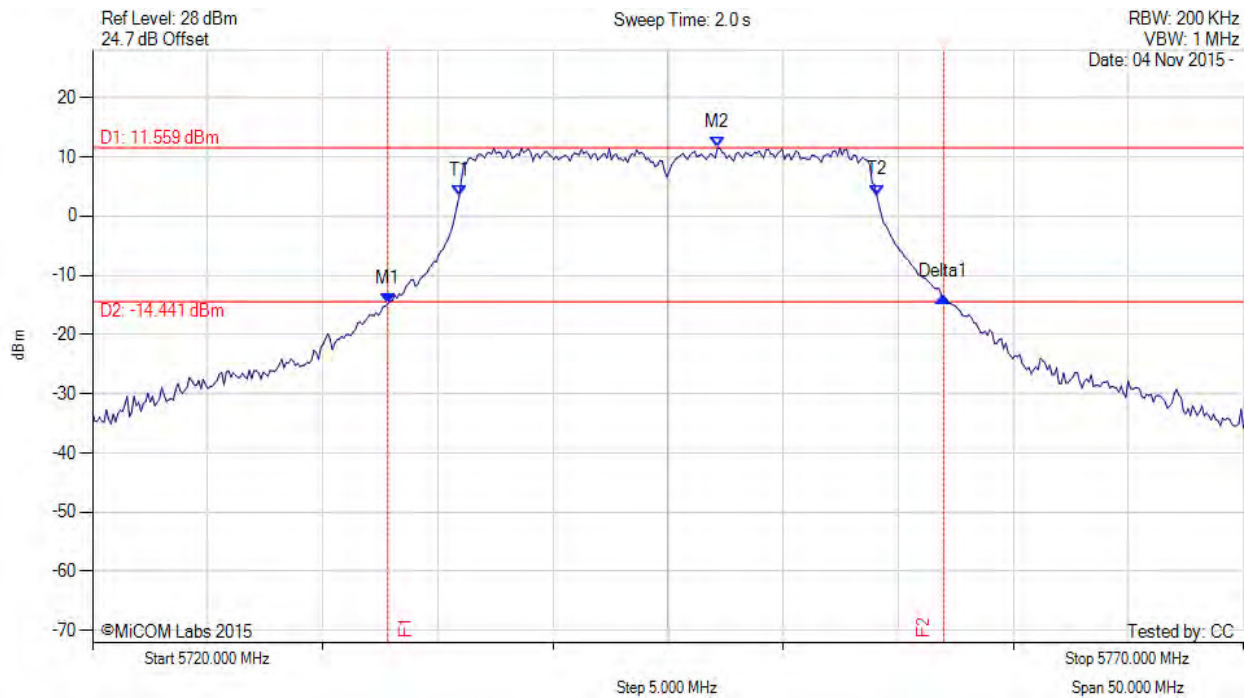
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5732.826 MHz : -14.839 dBm M2 : 5747.154 MHz : 11.559 dBm Delta1 : 24.148 MHz : 1.237 dB T1 : 5735.932 MHz : 3.373 dBm T2 : 5754.068 MHz : 3.544 dBm OBW : 18.136 MHz	Measured 26 dB Bandwidth: 24.148 MHz Measured 99% Bandwidth: 18.136 MHz

[back to matrix](#)

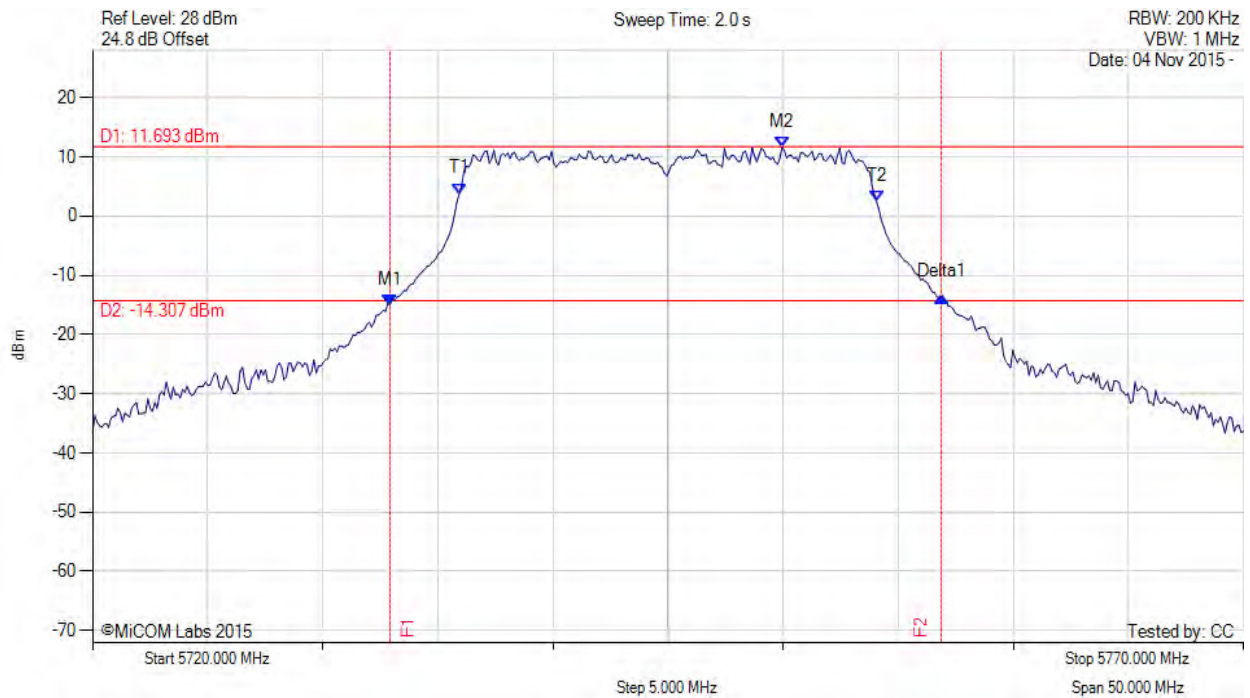
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5732.926 MHz : -14.949 dBm M2 : 5749.960 MHz : 11.693 dBm Delta1 : 23.948 MHz : 1.306 dB T1 : 5735.932 MHz : 3.774 dBm T2 : 5754.068 MHz : 2.403 dBm OBW : 18.136 MHz	Measured 26 dB Bandwidth: 23.948 MHz Measured 99% Bandwidth: 18.136 MHz

[back to matrix](#)

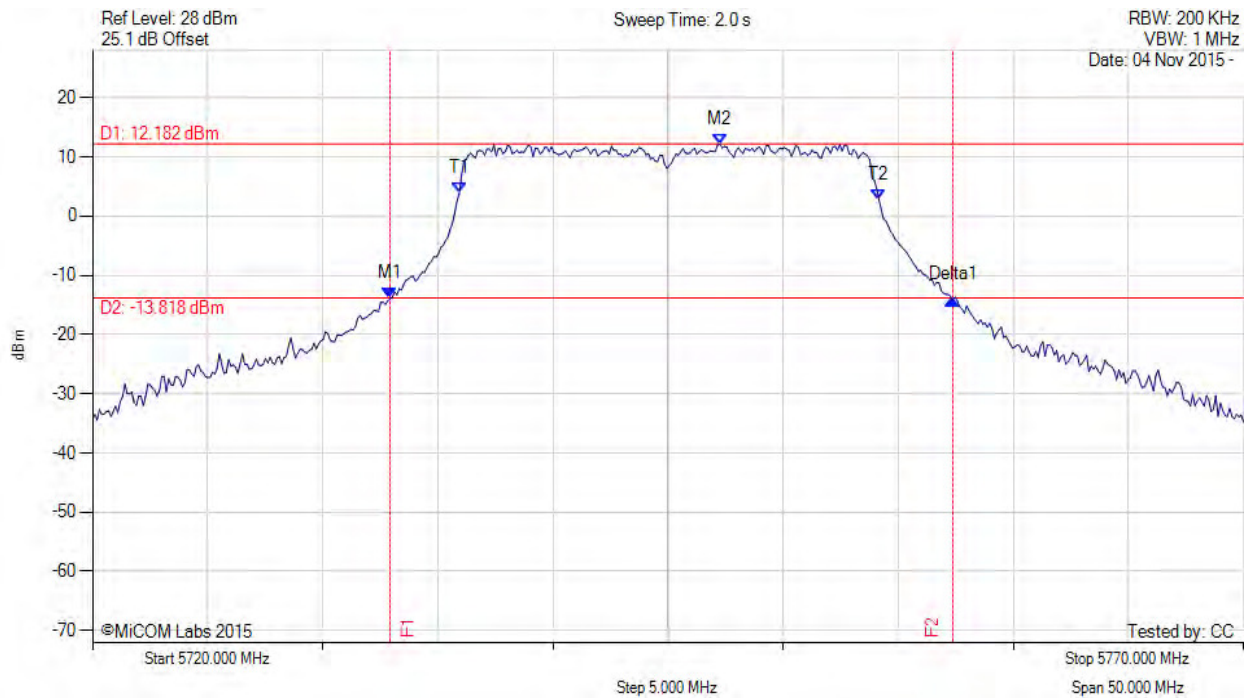
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5732.926 MHz : -13.934 dBm M2 : 5747.255 MHz : 12.182 dBm Delta1 : 24.449 MHz : -0.159 dB T1 : 5735.932 MHz : 3.813 dBm T2 : 5754.168 MHz : 2.714 dBm OBW : 18.236 MHz	Measured 26 dB Bandwidth: 24.449 MHz Measured 99% Bandwidth: 18.236 MHz

[back to matrix](#)

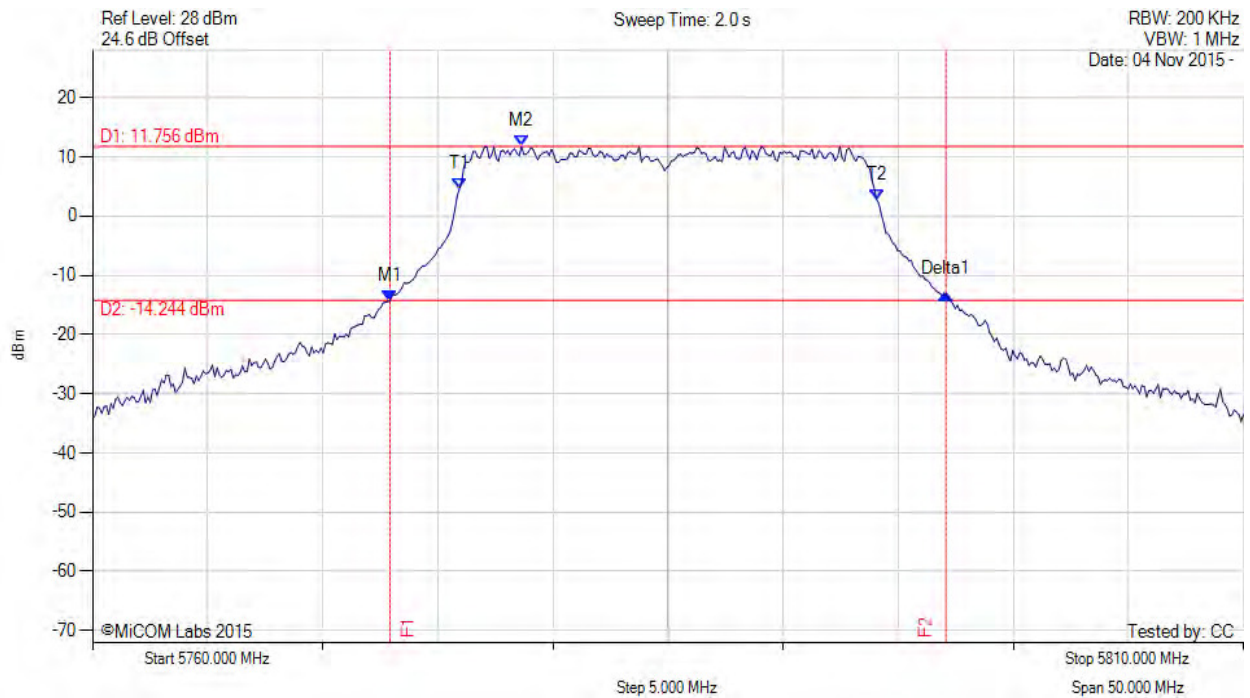
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5772.926 MHz : -14.320 dBm M2 : 5778.637 MHz : 11.756 dBm Delta1 : 24.148 MHz : 1.104 dB T1 : 5775.932 MHz : 4.575 dBm T2 : 5794.068 MHz : 2.818 dBm OBW : 18.136 MHz	Measured 26 dB Bandwidth: 24.148 MHz Measured 99% Bandwidth: 18.136 MHz

[back to matrix](#)

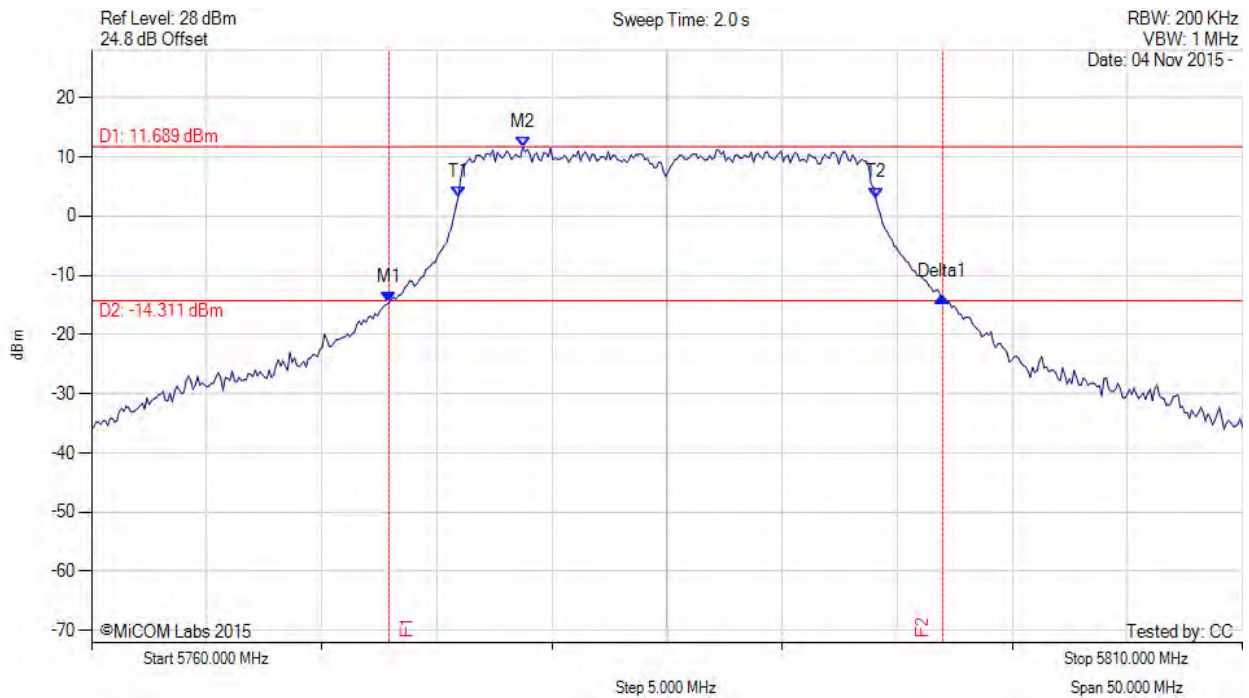
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5772.926 MHz : -14.595 dBm M2 : 5778.737 MHz : 11.689 dBm Delta1 : 24.048 MHz : 0.927 dB T1 : 5775.932 MHz : 3.251 dBm T2 : 5794.068 MHz : 3.083 dBm OBW : 18.136 MHz	Measured 26 dB Bandwidth: 24.048 MHz Measured 99% Bandwidth: 18.136 MHz

[back to matrix](#)

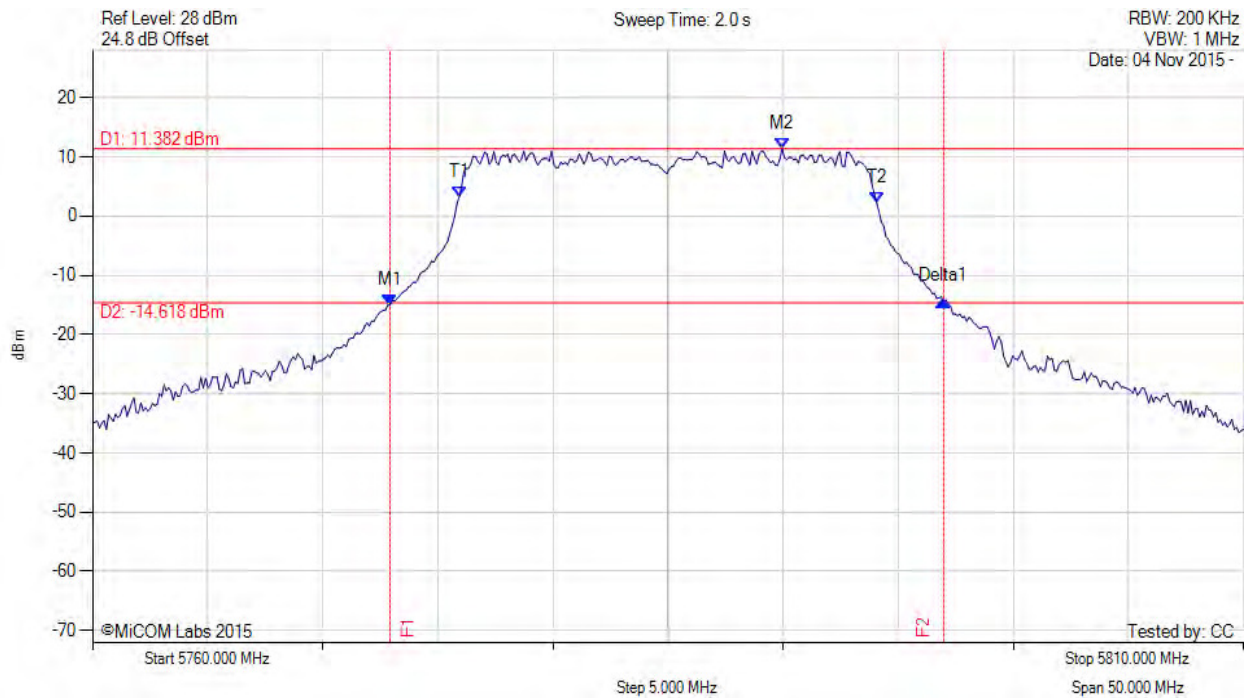
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5772.926 MHz : -15.006 dBm M2 : 5789.960 MHz : 11.382 dBm Delta1 : 24.048 MHz : 0.630 dB T1 : 5775.932 MHz : 3.223 dBm T2 : 5794.068 MHz : 2.263 dBm OBW : 18.136 MHz	Measured 26 dB Bandwidth: 24.048 MHz Measured 99% Bandwidth: 18.136 MHz

[back to matrix](#)

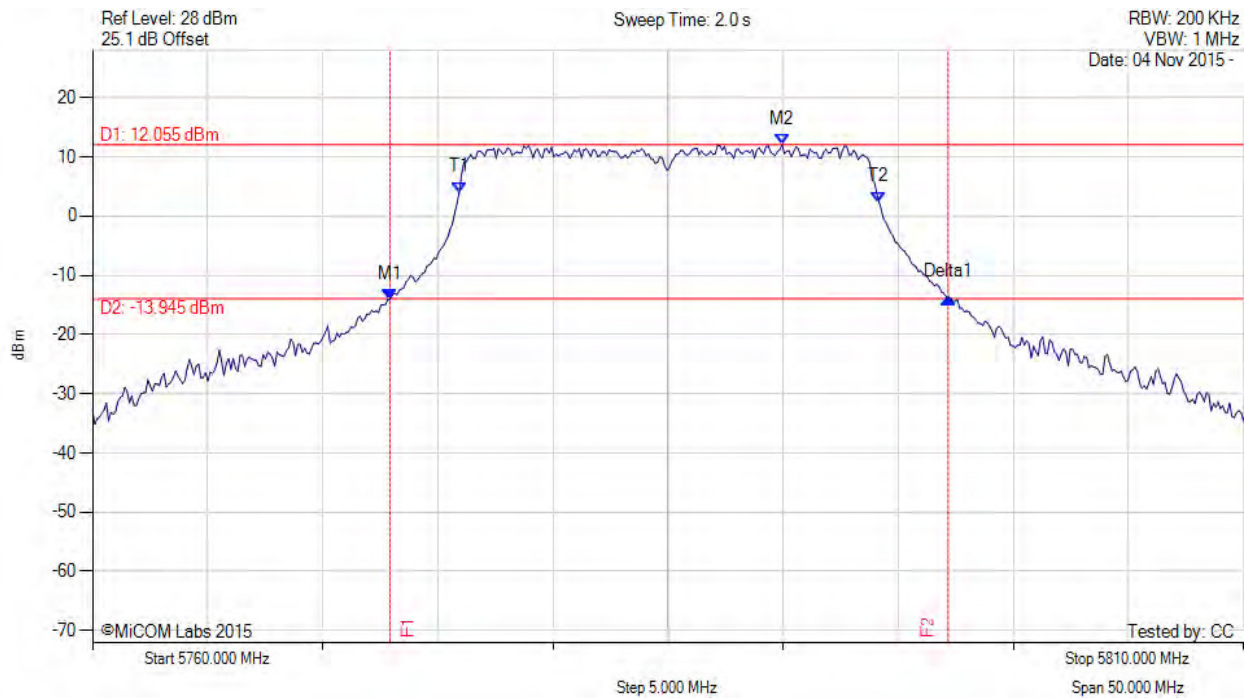
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5772.926 MHz : -14.078 dBm M2 : 5789.960 MHz : 12.055 dBm Delta1 : 24.248 MHz : 0.331 dB T1 : 5775.932 MHz : 4.010 dBm T2 : 5794.168 MHz : 2.391 dBm OBW : 18.236 MHz	Measured 26 dB Bandwidth: 24.248 MHz Measured 99% Bandwidth: 18.236 MHz

[back to matrix](#)

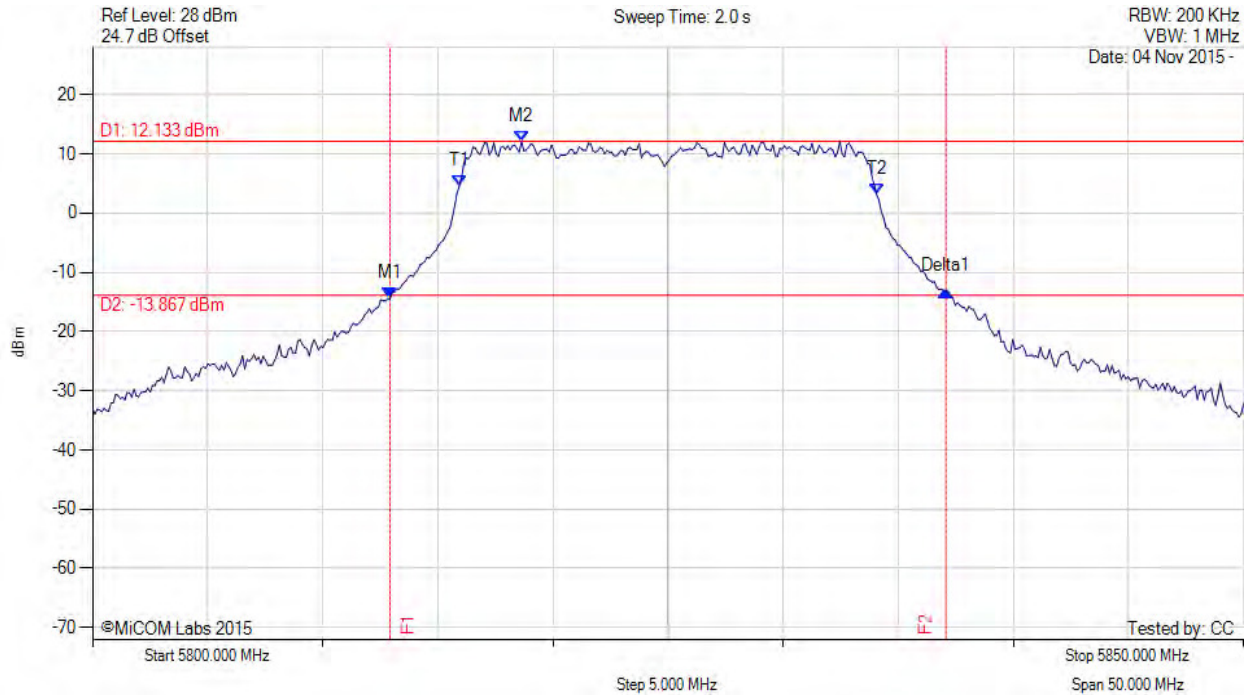
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5812.926 MHz : -14.408 dBm M2 : 5818.637 MHz : 12.133 dBm Delta1 : 24.148 MHz : 1.239 dB T1 : 5815.932 MHz : 4.622 dBm T2 : 5834.068 MHz : 3.105 dBm OBW : 18.136 MHz	Measured 26 dB Bandwidth: 24.148 MHz Measured 99% Bandwidth: 18.136 MHz

[back to matrix](#)

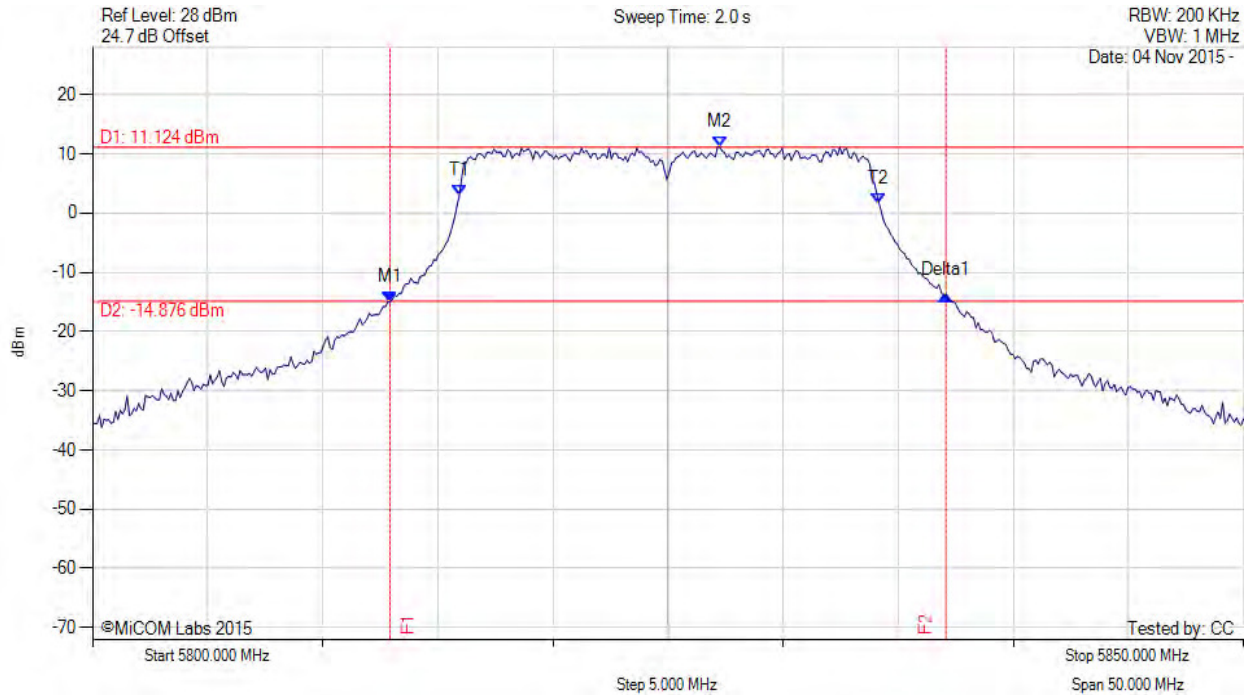
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5812.926 MHz : -15.036 dBm M2 : 5827.255 MHz : 11.124 dBm Delta1 : 24.148 MHz : 1.157 dB T1 : 5815.932 MHz : 2.904 dBm T2 : 5834.168 MHz : 1.653 dBm OBW : 18.236 MHz	Measured 26 dB Bandwidth: 24.148 MHz Measured 99% Bandwidth: 18.236 MHz

[back to matrix](#)

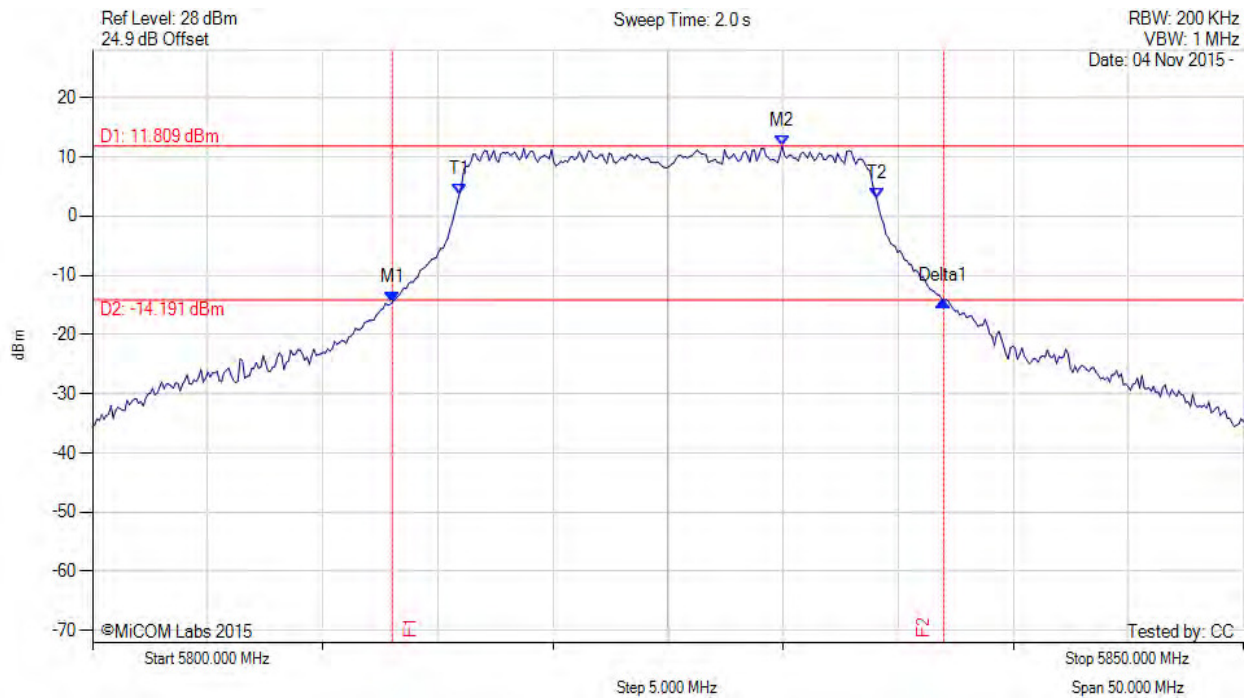
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5813.026 MHz : -14.562 dBm M2 : 5829.960 MHz : 11.809 dBm Delta1 : 23.948 MHz : 0.232 dB T1 : 5815.932 MHz : 3.741 dBm T2 : 5834.068 MHz : 2.918 dBm OBW : 18.136 MHz	Measured 26 dB Bandwidth: 23.948 MHz Measured 99% Bandwidth: 18.136 MHz

[back to matrix](#)

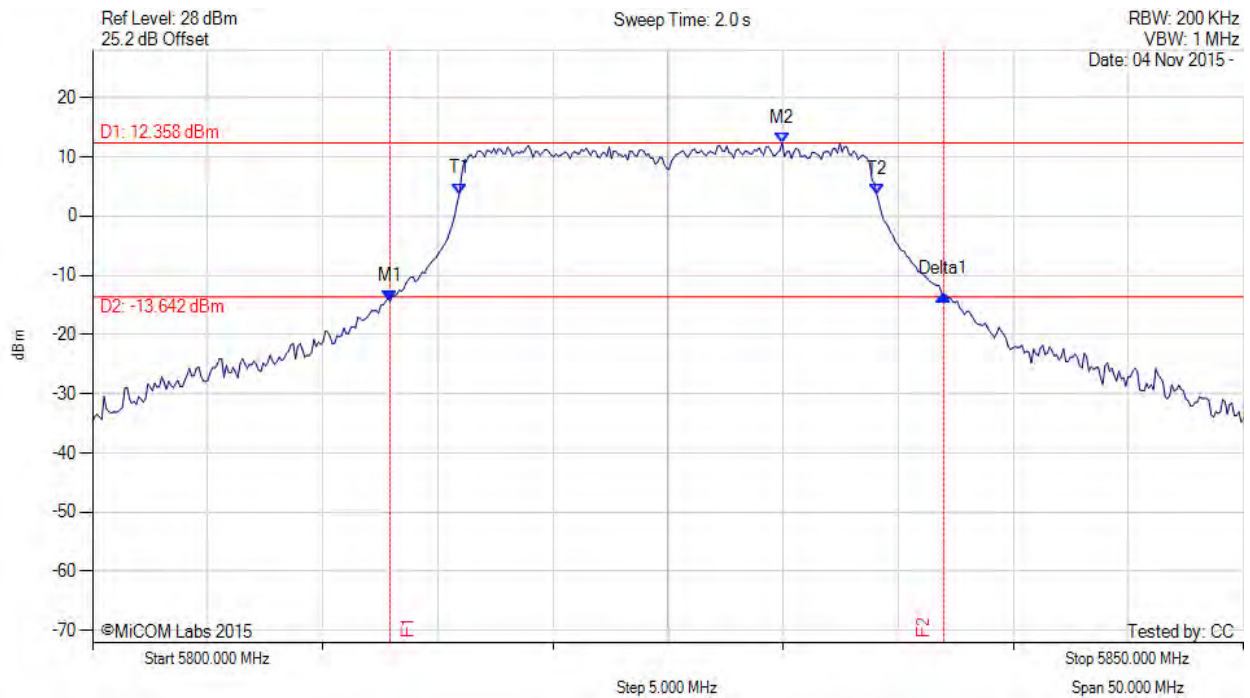
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5812.926 MHz : -14.385 dBm M2 : 5829.960 MHz : 12.358 dBm Delta1 : 24.048 MHz : 1.106 dB T1 : 5815.932 MHz : 3.780 dBm T2 : 5834.068 MHz : 3.746 dBm OBW : 18.136 MHz	Measured 26 dB Bandwidth: 24.048 MHz Measured 99% Bandwidth: 18.136 MHz

[back to matrix](#)

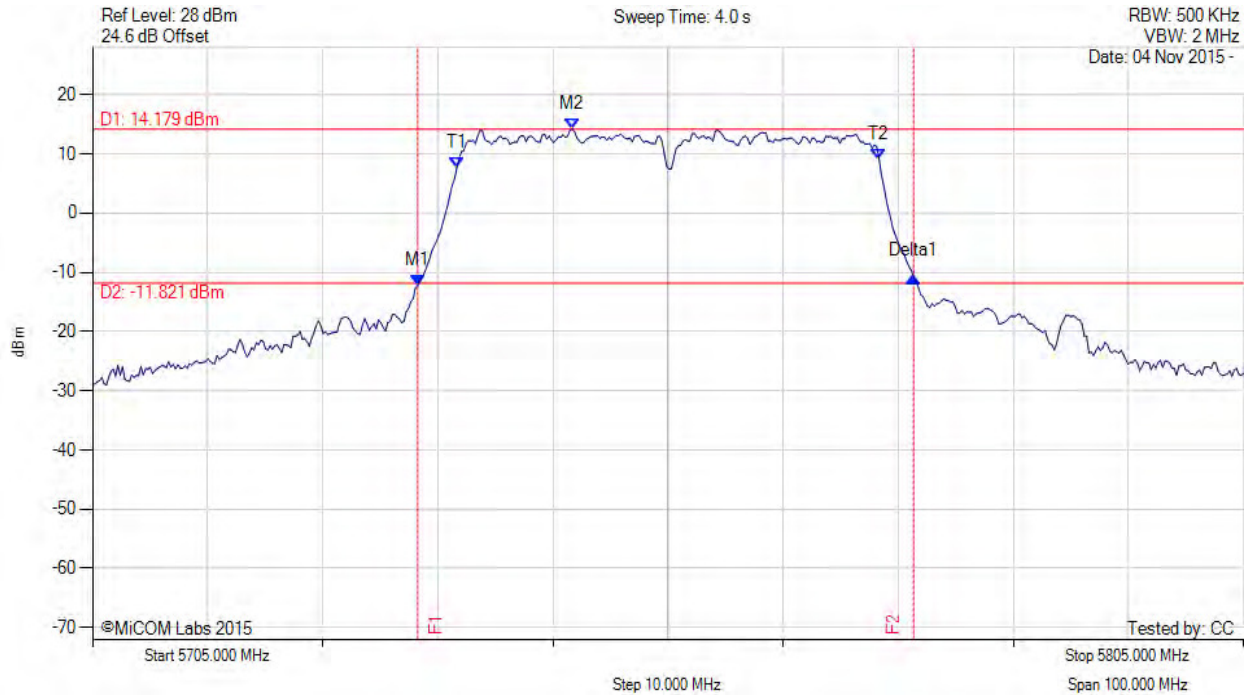
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5733.257 MHz : -12.195 dBm M2 : 5746.683 MHz : 14.179 dBm Delta1 : 43.086 MHz : 1.474 dB T1 : 5736.663 MHz : 7.740 dBm T2 : 5773.337 MHz : 9.137 dBm OBW : 36.673 MHz	Measured 26 dB Bandwidth: 43.086 MHz Measured 99% Bandwidth: 36.673 MHz

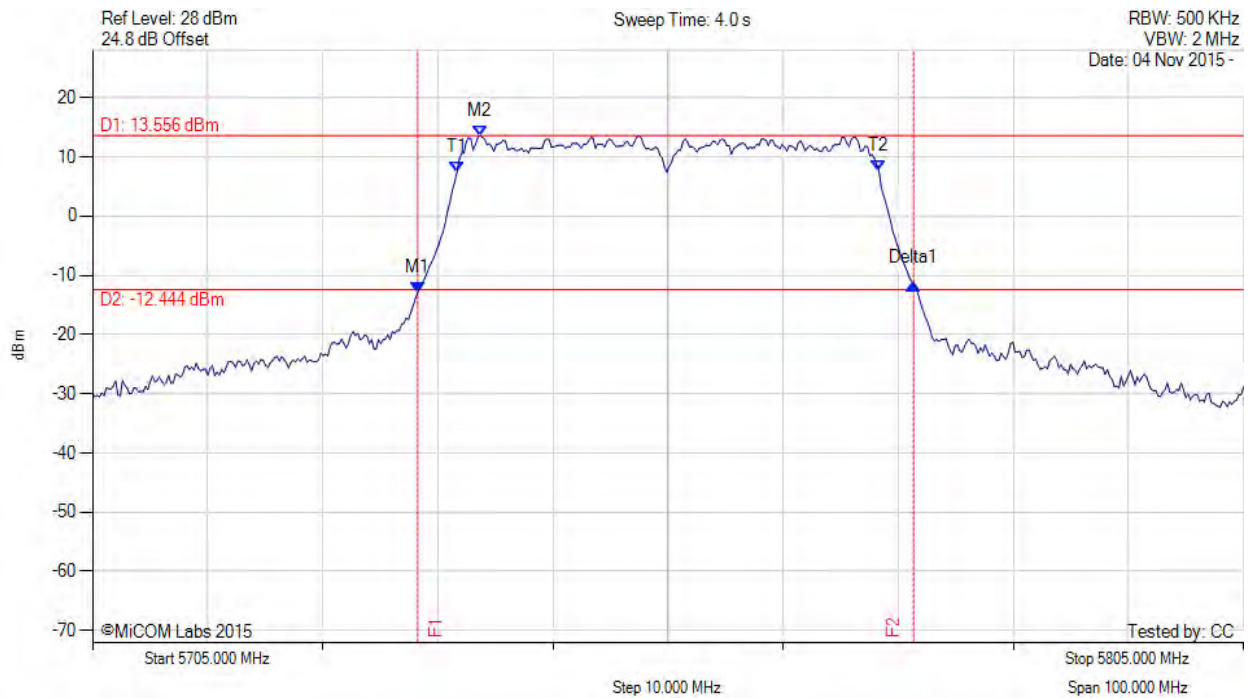
[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

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 = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5733.257 MHz : -12.893 dBm M2 : 5738.667 MHz : 13.556 dBm Delta1 : 43.086 MHz : 1.481 dB T1 : 5736.663 MHz : 7.429 dBm T2 : 5773.337 MHz : 7.565 dBm OBW : 36.673 MHz	Measured 26 dB Bandwidth: 43.086 MHz Measured 99% Bandwidth: 36.673 MHz

[back to matrix](#)

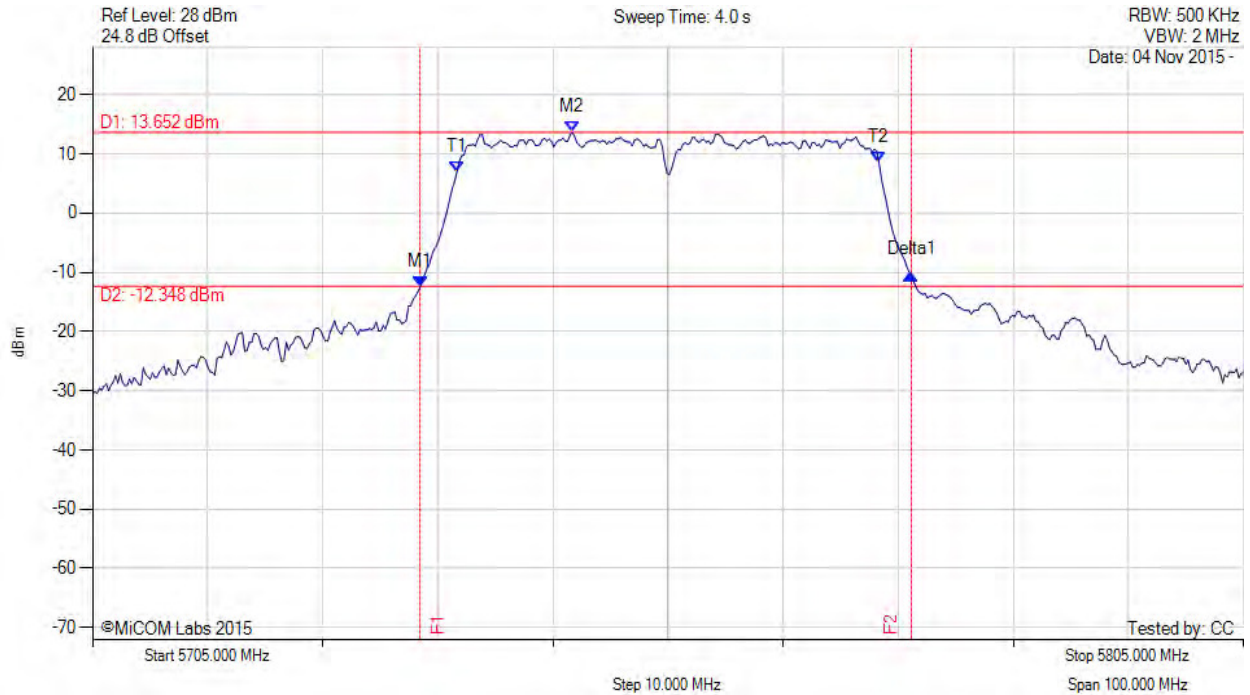
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5733.457 MHz : -12.488 dBm M2 : 5746.683 MHz : 13.652 dBm Delta1 : 42.685 MHz : 2.205 dB T1 : 5736.663 MHz : 6.908 dBm T2 : 5773.337 MHz : 8.478 dBm OBW : 36.673 MHz	Measured 26 dB Bandwidth: 42.685 MHz Measured 99% Bandwidth: 36.673 MHz

[back to matrix](#)

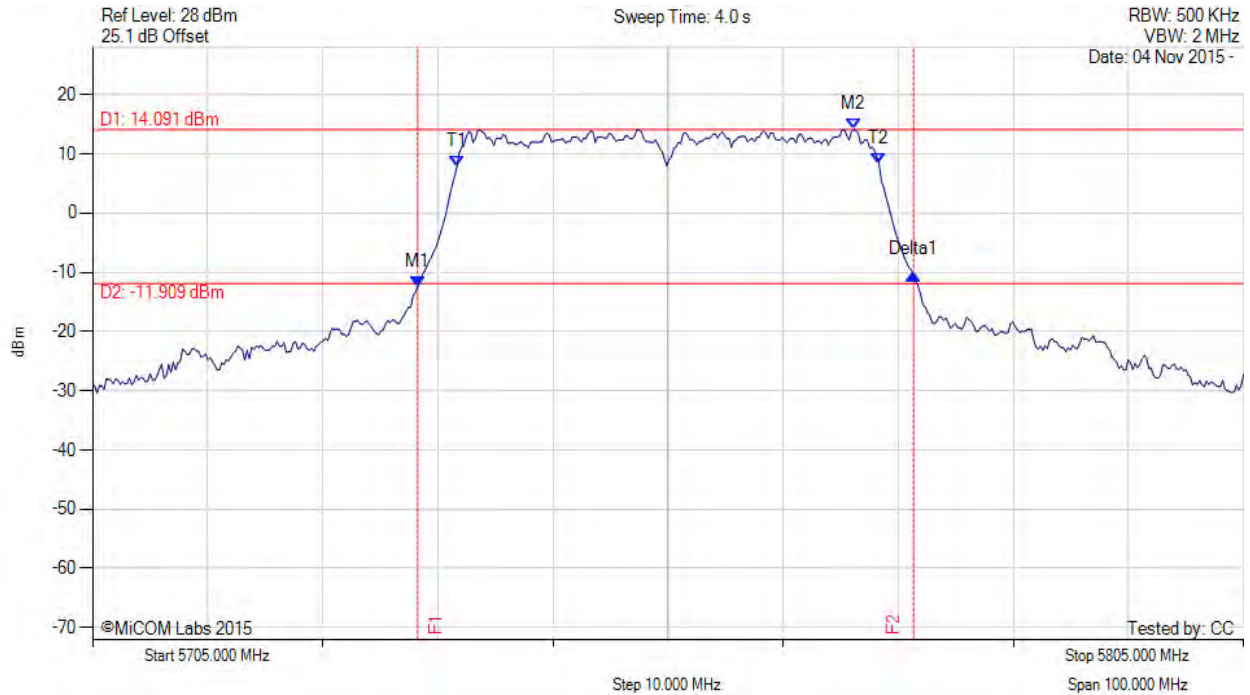
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5733.257 MHz : -12.388 dBm M2 : 5771.132 MHz : 14.091 dBm Delta1 : 43.086 MHz : 2.001 dB T1 : 5736.663 MHz : 7.835 dBm T2 : 5773.337 MHz : 8.356 dBm OBW : 36.673 MHz	Measured 26 dB Bandwidth: 43.086 MHz Measured 99% Bandwidth: 36.673 MHz

[back to matrix](#)

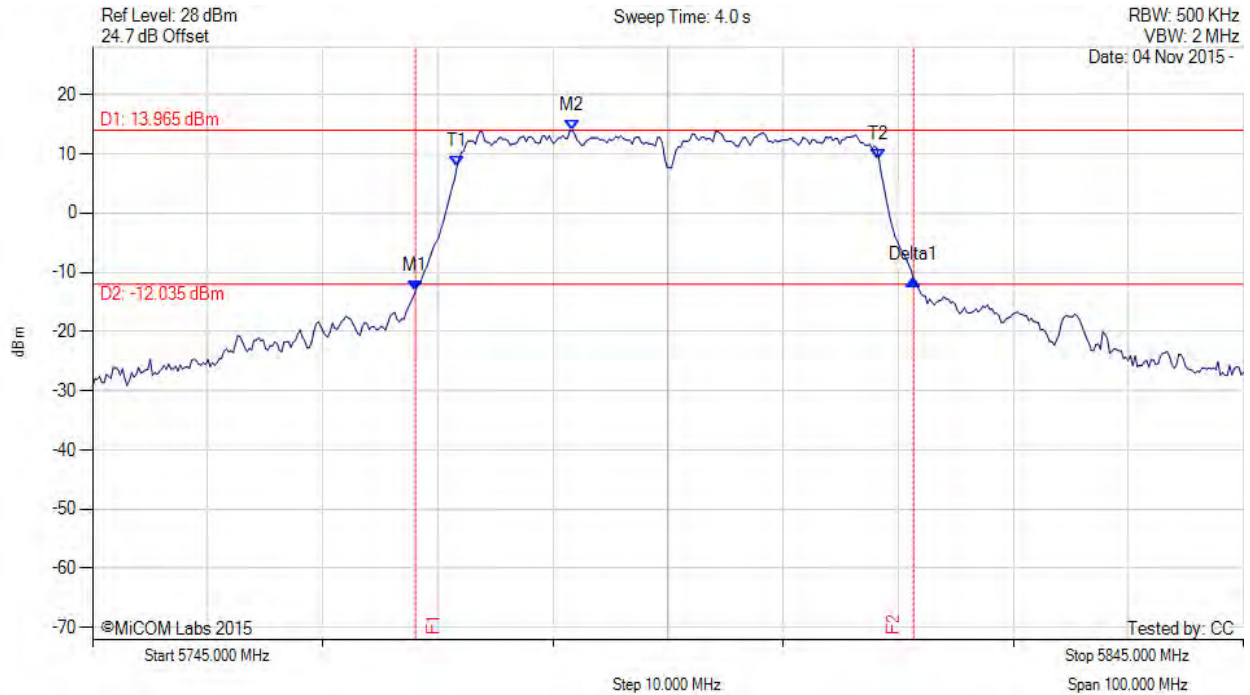
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5773.056 MHz : -13.141 dBm M2 : 5786.683 MHz : 13.965 dBm Delta1 : 43.287 MHz : 1.777 dB T1 : 5776.663 MHz : 7.900 dBm T2 : 5813.337 MHz : 9.041 dBm OBW : 36.673 MHz	Measured 26 dB Bandwidth: 43.287 MHz Measured 99% Bandwidth: 36.673 MHz

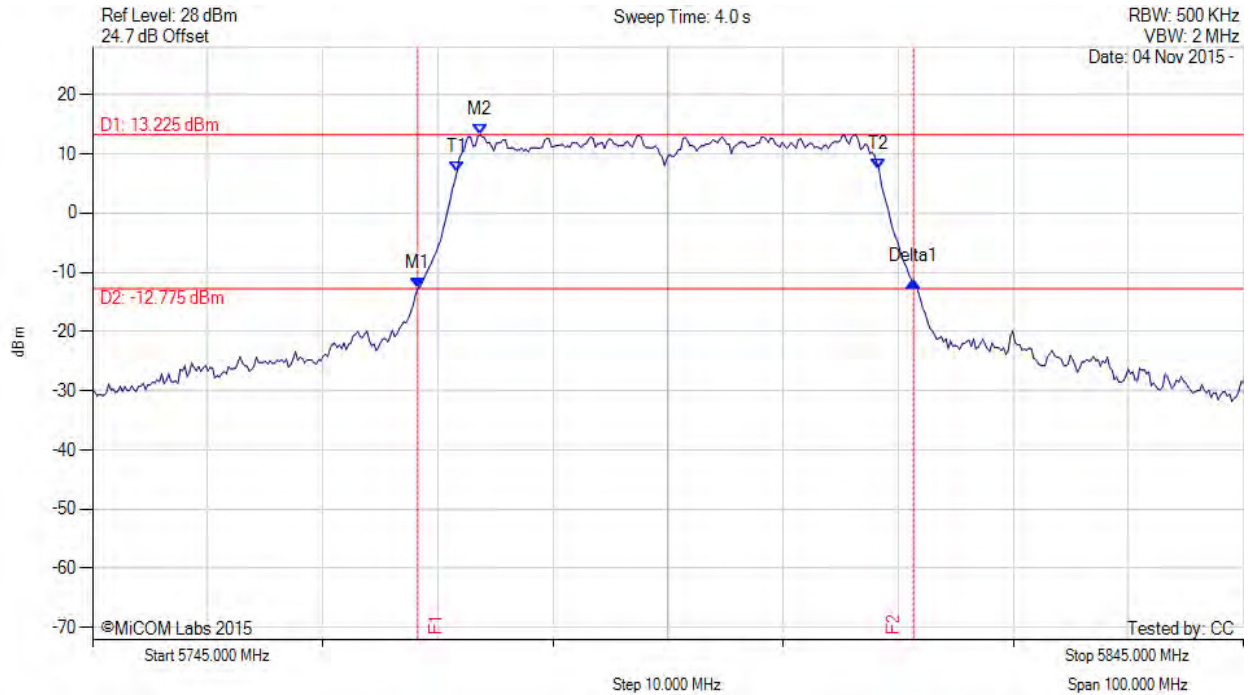
[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5773.257 MHz : -12.787 dBm M2 : 5778.667 MHz : 13.225 dBm Delta1 : 43.086 MHz : 1.190 dB T1 : 5776.663 MHz : 6.900 dBm T2 : 5813.337 MHz : 7.349 dBm OBW : 36.673 MHz	Measured 26 dB Bandwidth: 43.086 MHz Measured 99% Bandwidth: 36.673 MHz

[back to matrix](#)

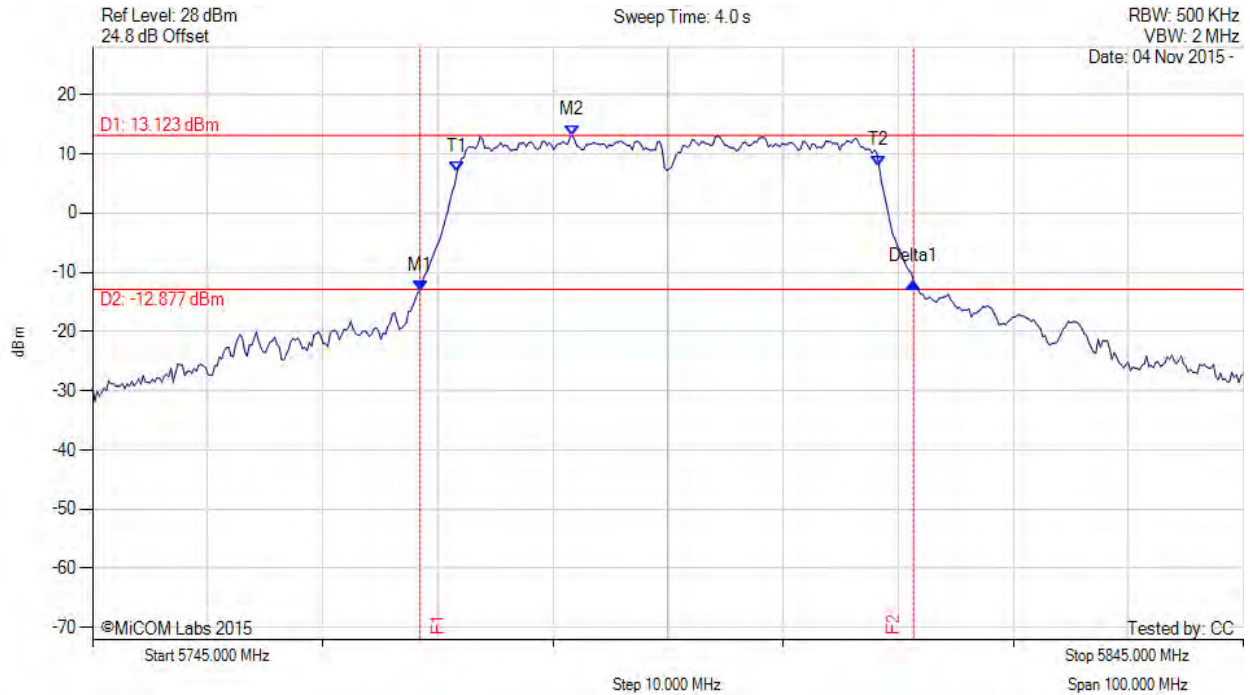
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5773.457 MHz : -13.135 dBm M2 : 5786.683 MHz : 13.123 dBm Delta1 : 42.886 MHz : 1.487 dB T1 : 5776.663 MHz : 6.912 dBm T2 : 5813.337 MHz : 7.980 dBm OBW : 36.673 MHz	Measured 26 dB Bandwidth: 42.886 MHz Measured 99% Bandwidth: 36.673 MHz

[back to matrix](#)

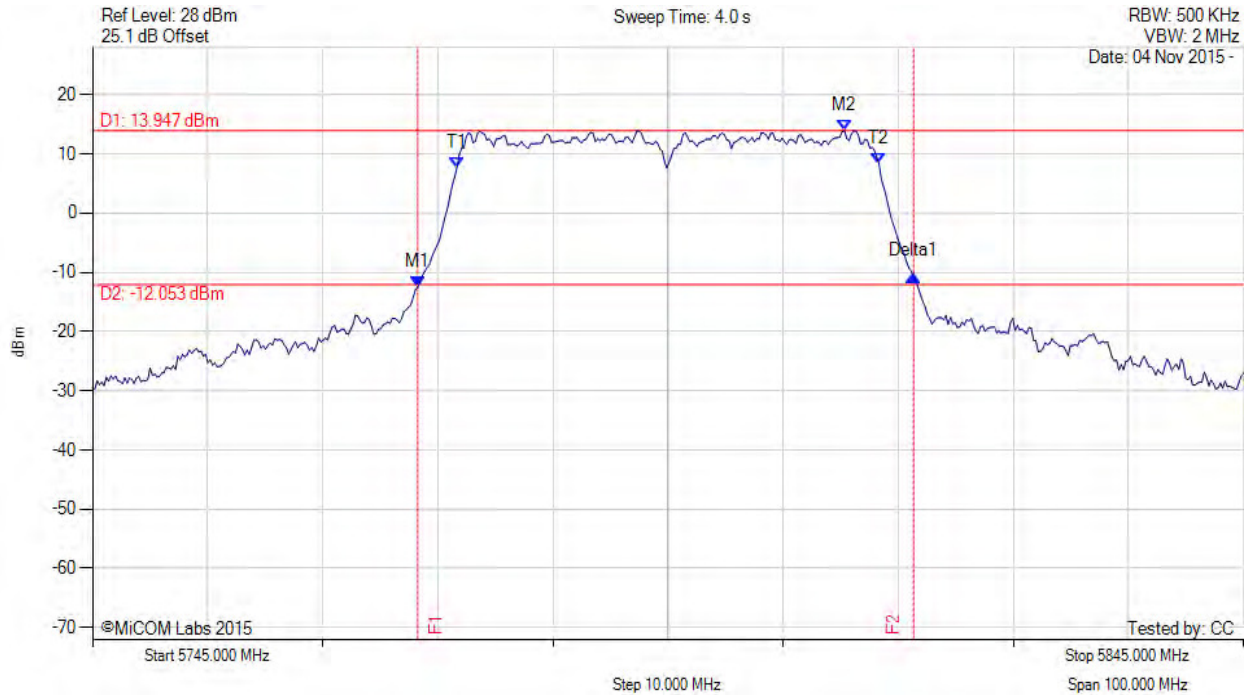
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



26 dB & 99% BANDWIDTH



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

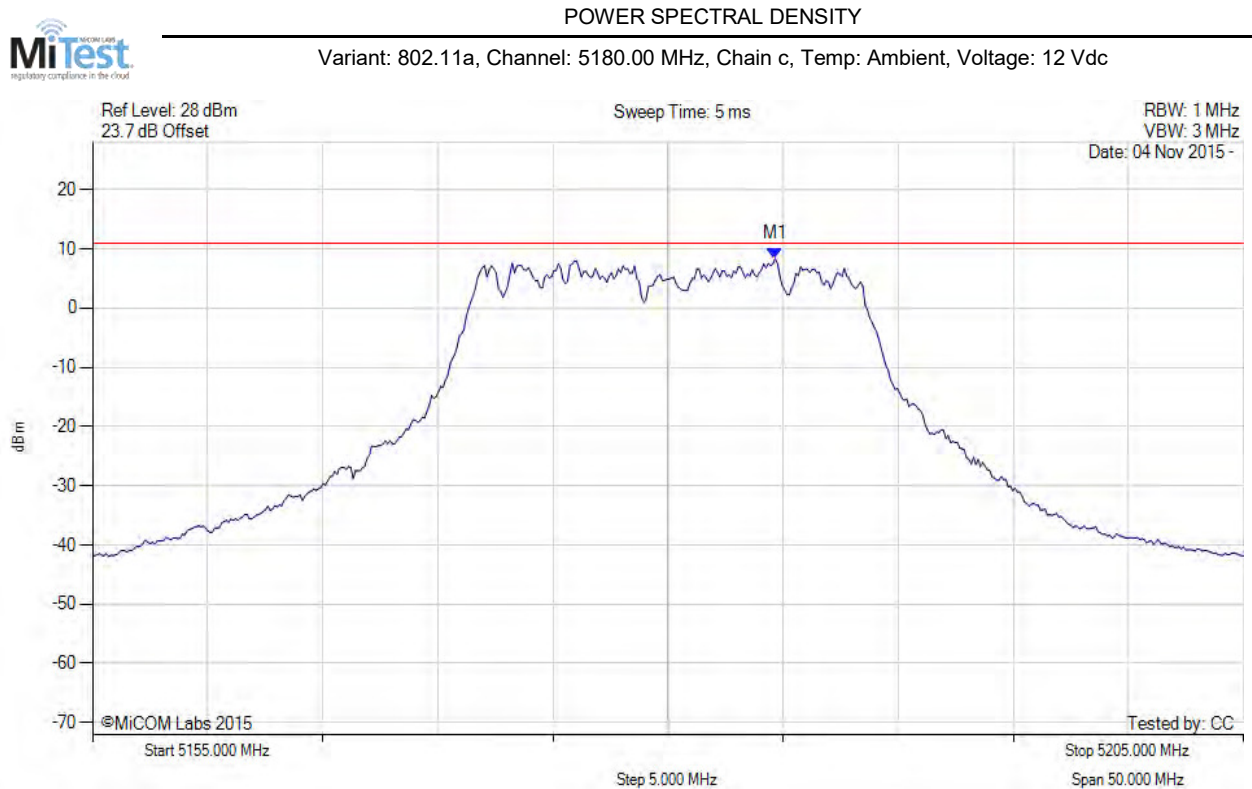


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5773.257 MHz : -12.433 dBm M2 : 5810.331 MHz : 13.947 dBm Delta1 : 43.086 MHz : 1.780 dB T1 : 5776.663 MHz : 7.667 dBm T2 : 5813.337 MHz : 8.336 dBm OBW : 36.673 MHz	Measured 26 dB Bandwidth: 43.086 MHz Measured 99% Bandwidth: 36.673 MHz

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

A.2. Power Spectral Density



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5184.659 MHz : 8.319 dBm	Limit: ≤ 10.980 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

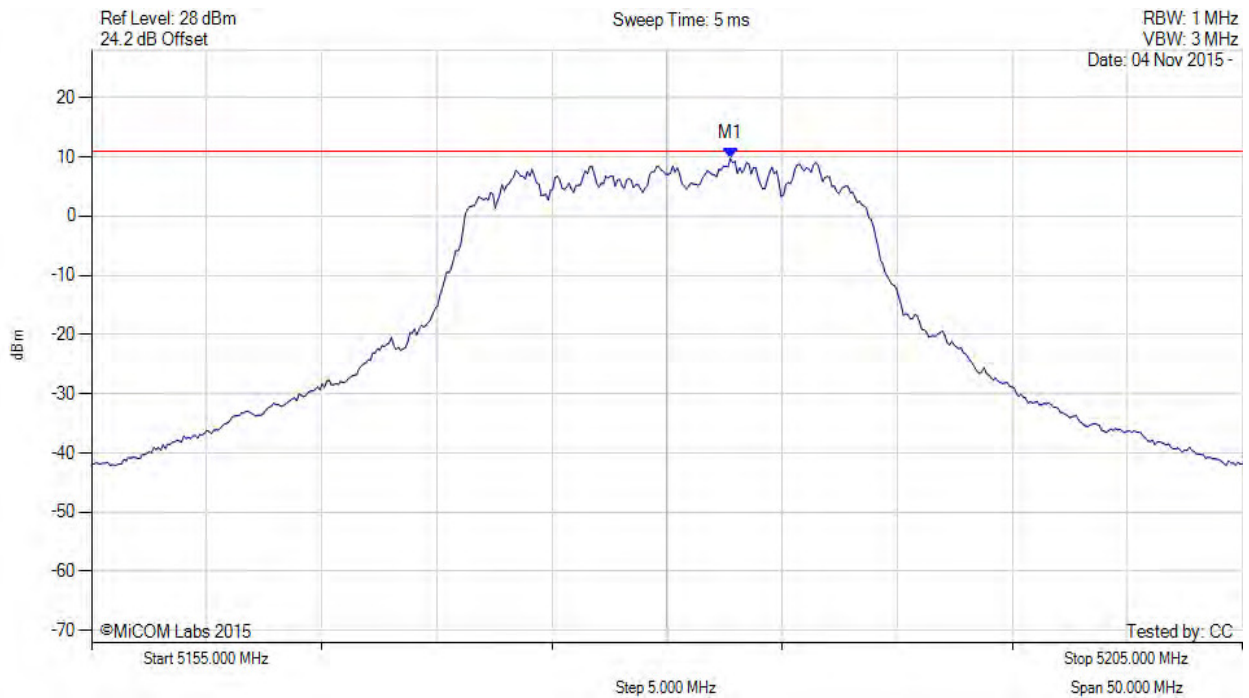


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 120 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5182.756 MHz : 9.743 dBm	Limit: ≤ 10.980 dBm

[back to matrix](#)

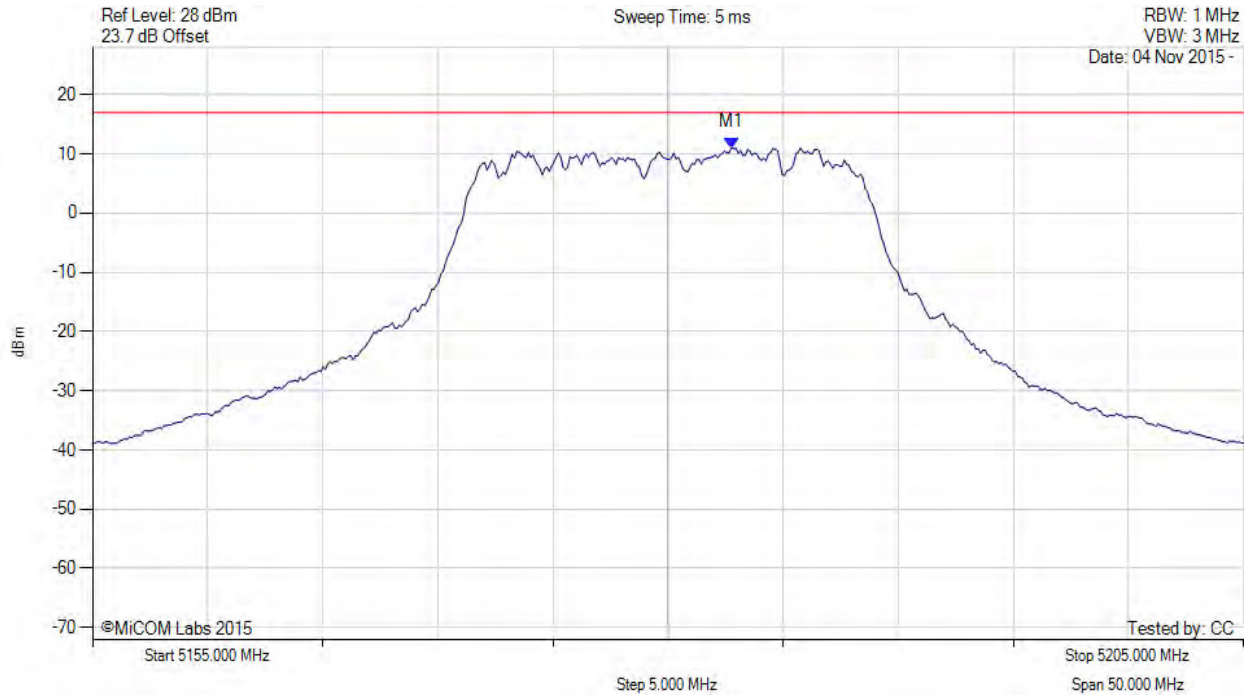
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5182.800 MHz : 11.038 dBm M1 + DCCF : 5182.800 MHz : 11.795 dBm Duty Cycle Correction Factor : +0.76 dB	Limit: ≤ 17.0 dBm Margin: -5.2 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

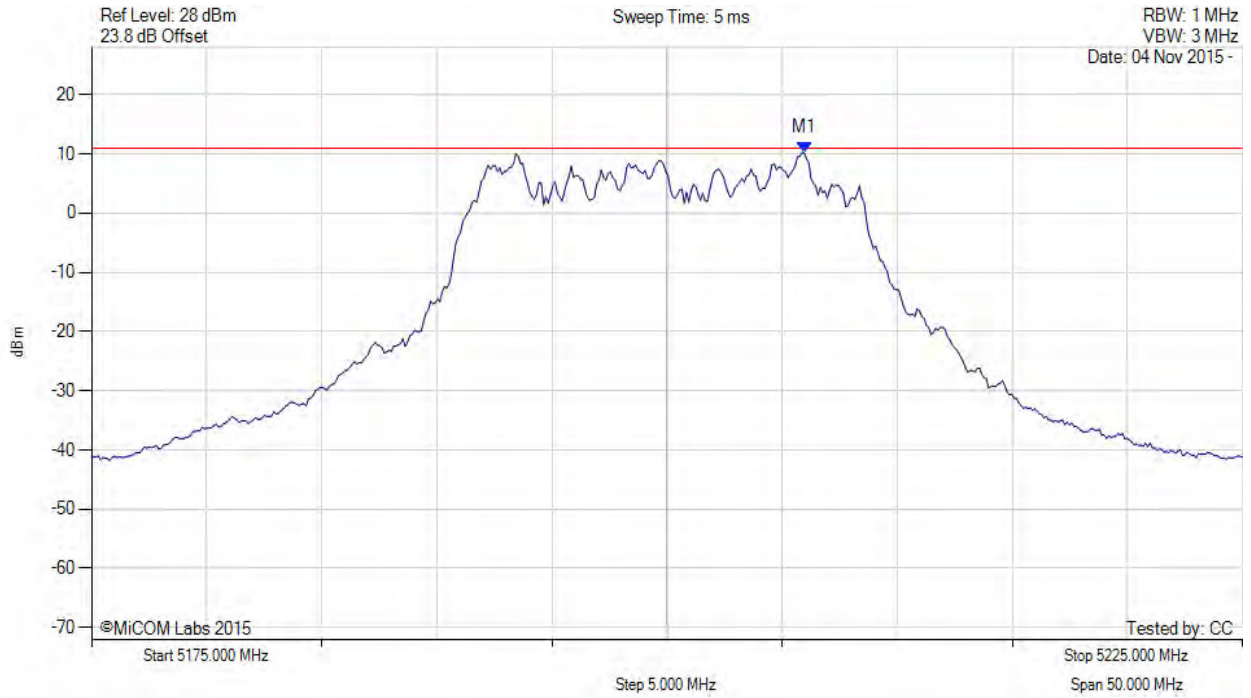


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 122 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5205.962 MHz : 10.181 dBm	Limit: ≤ 10.980 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

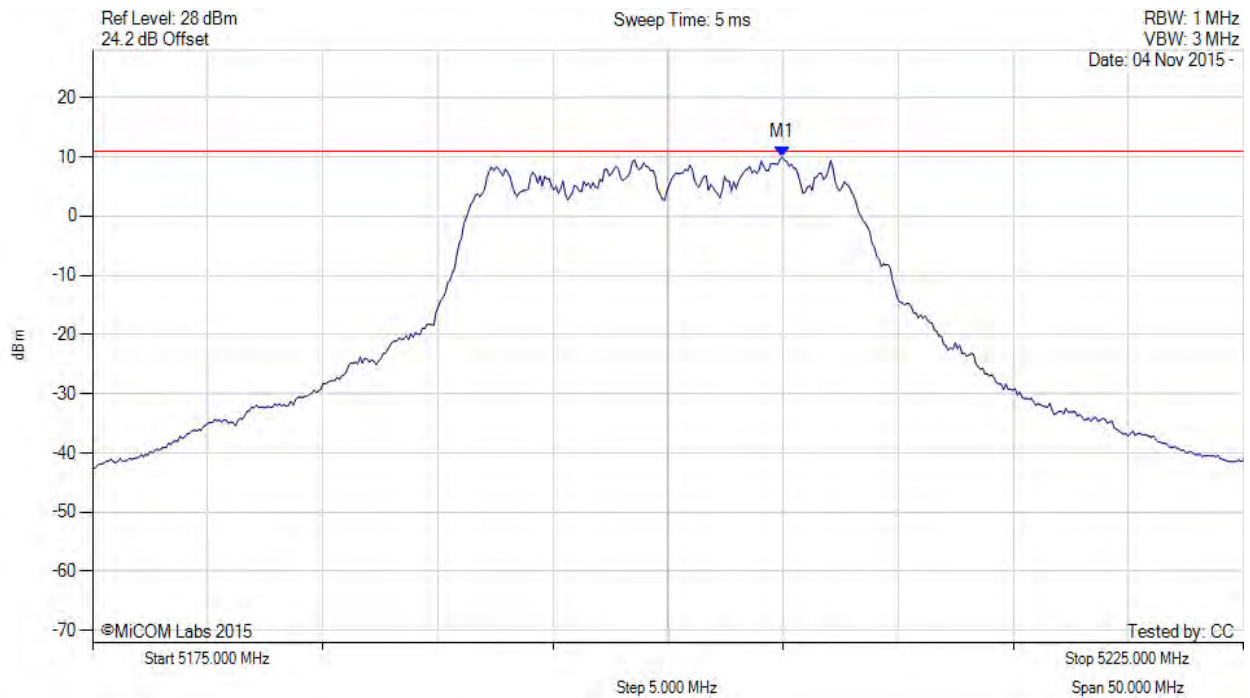


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 123 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5204.960 MHz : 9.961 dBm	Limit: ≤ 10.980 dBm

[back to matrix](#)

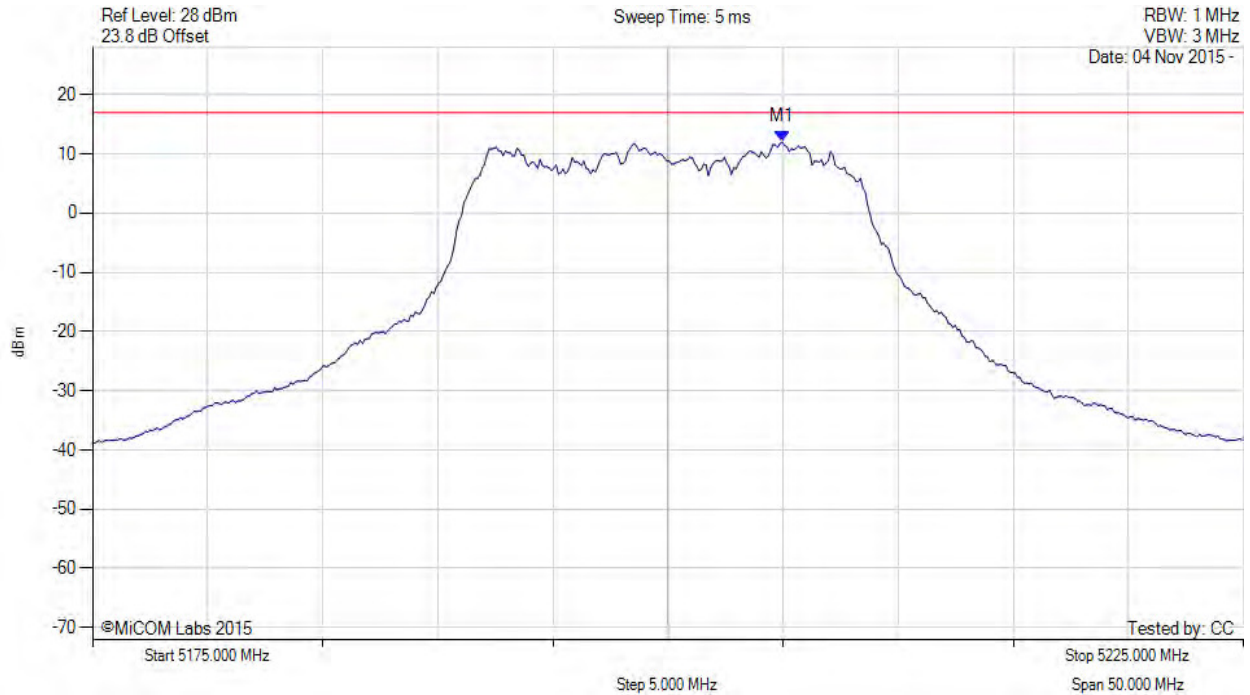
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5205.000 MHz : 12.003 dBm M1 + DCCF : 5205.000 MHz : 12.760 dBm Duty Cycle Correction Factor : +0.76 dB	Limit: ≤ 17.0 dBm Margin: -4.3 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

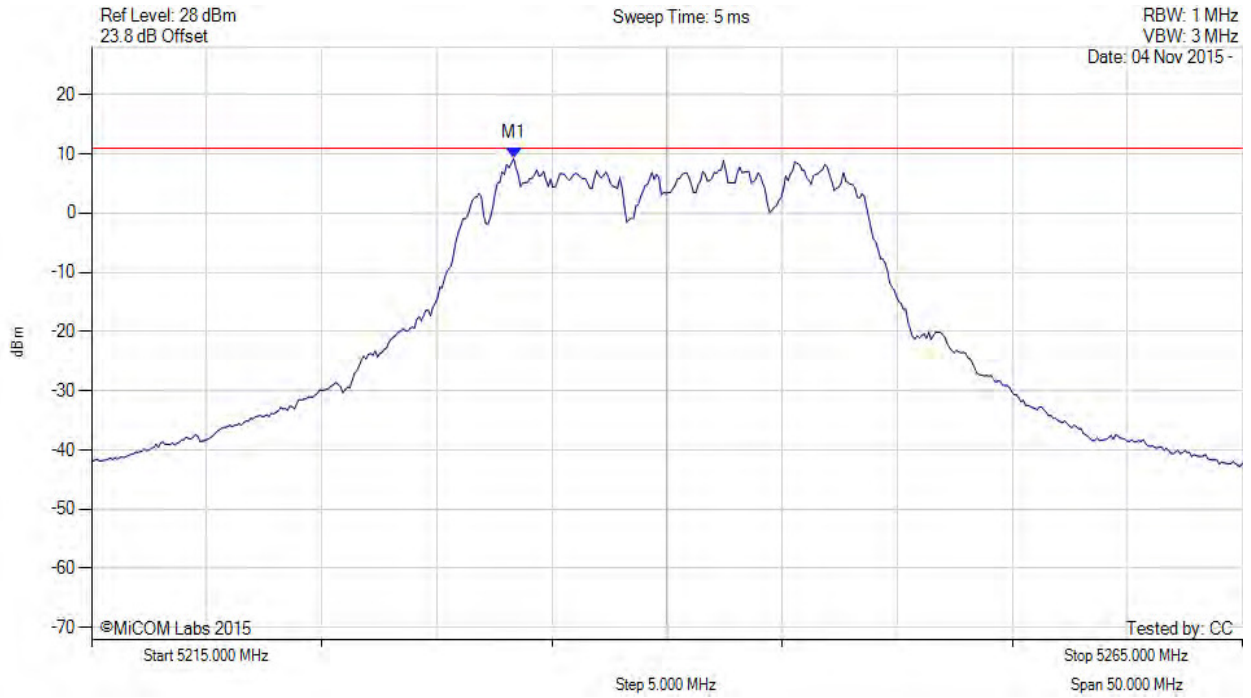


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 125 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5233.337 MHz : 9.211 dBm	Limit: ≤ 10.980 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

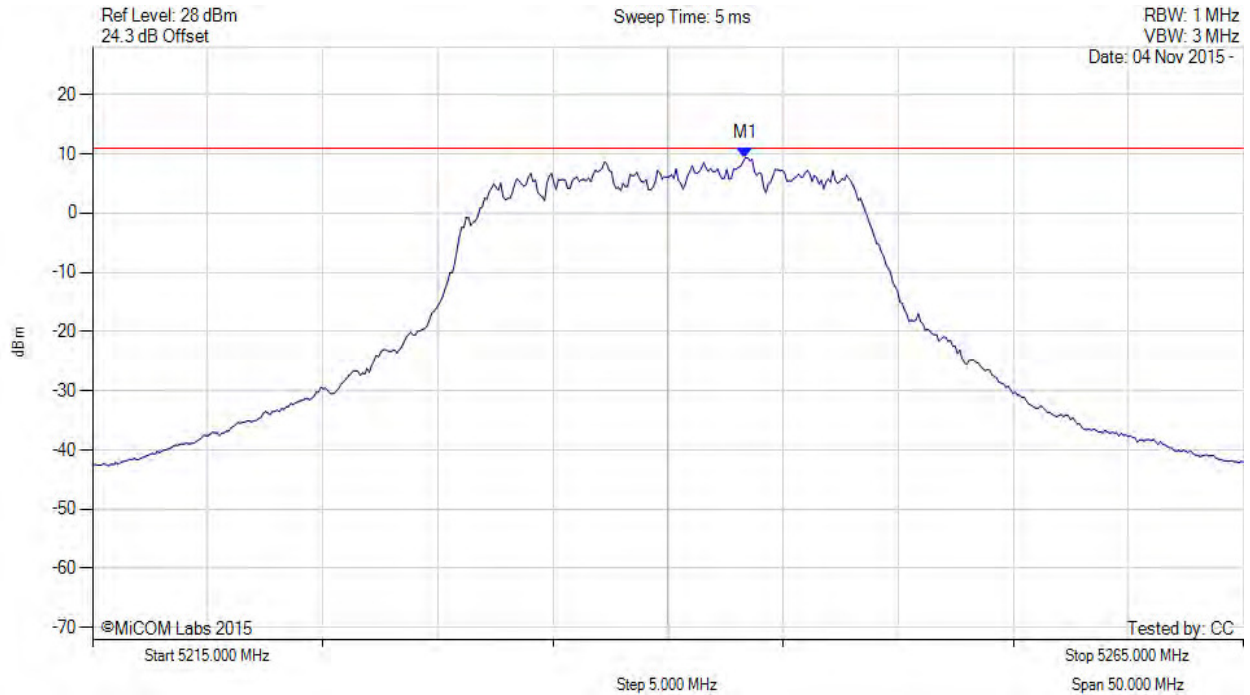


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 126 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5243.357 MHz : 9.347 dBm	Limit: ≤ 10.980 dBm

[back to matrix](#)

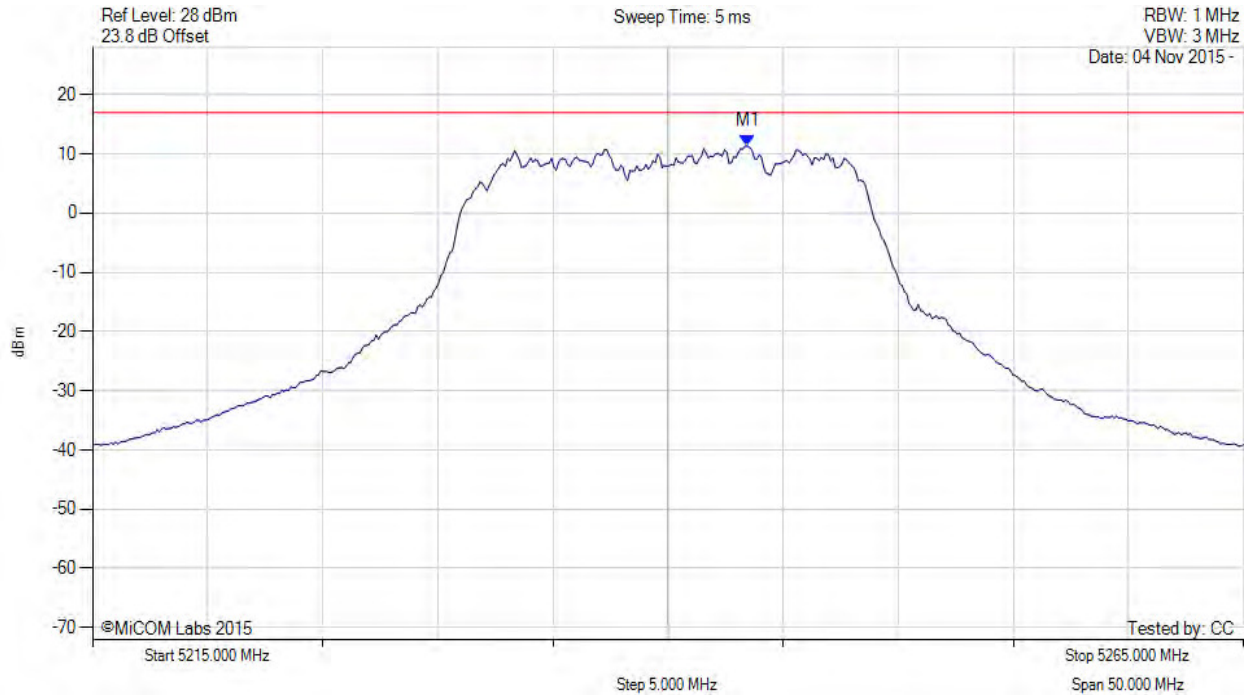
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5243.500 MHz : 11.336 dBm M1 + DCCF : 5243.500 MHz : 12.093 dBm Duty Cycle Correction Factor : +0.76 dB	Limit: ≤ 17.0 dBm Margin: -4.9 dB

[back to matrix](#)

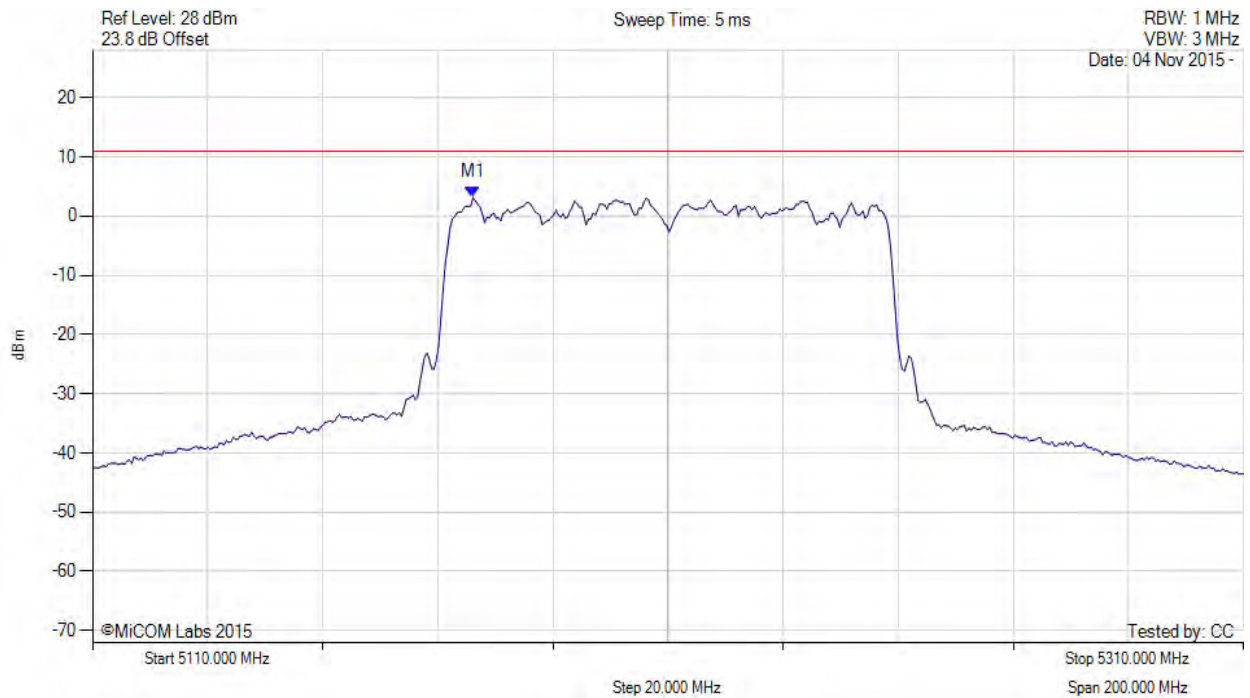
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5176.132 MHz : 3.165 dBm	Limit: ≤ 10.980 dBm

[back to matrix](#)

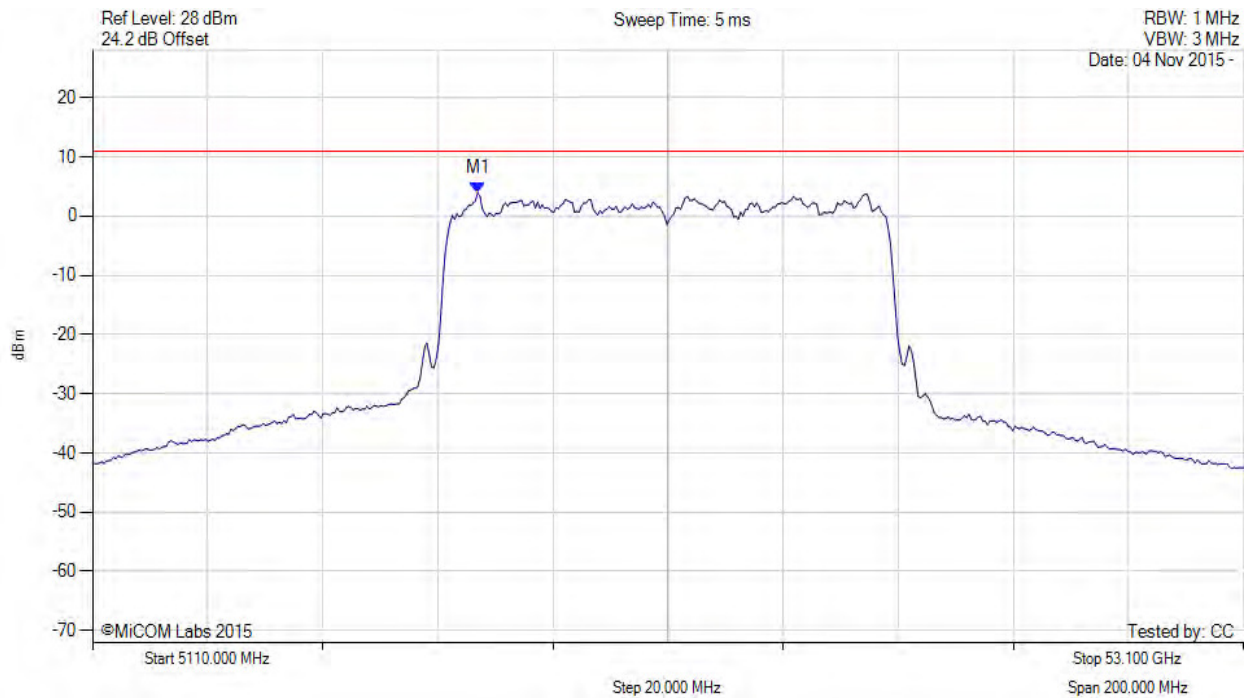
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5176.934 MHz : 3.901 dBm	Limit: ≤ 10.980 dBm

[back to matrix](#)

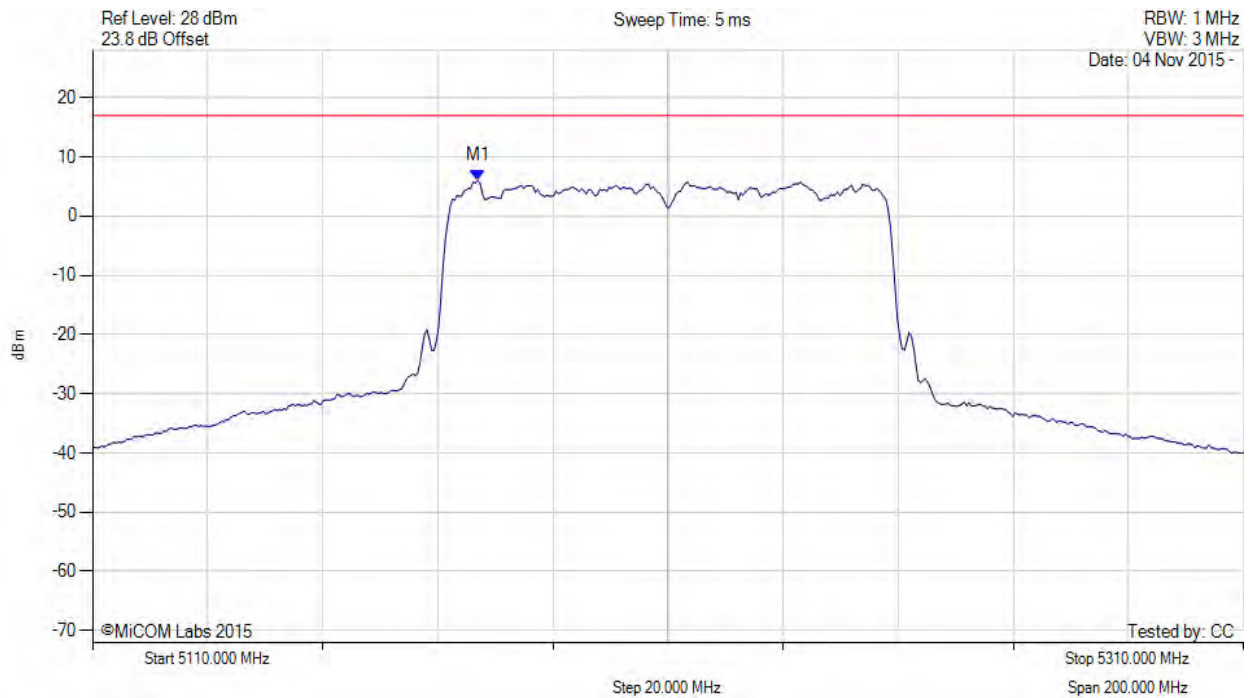
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5176.900 MHz : 6.049 dBm M1 + DCCF : 5176.900 MHz : 6.555 dBm Duty Cycle Correction Factor : +0.51 dB	Limit: ≤ 17.0 dBm Margin: -10.5 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

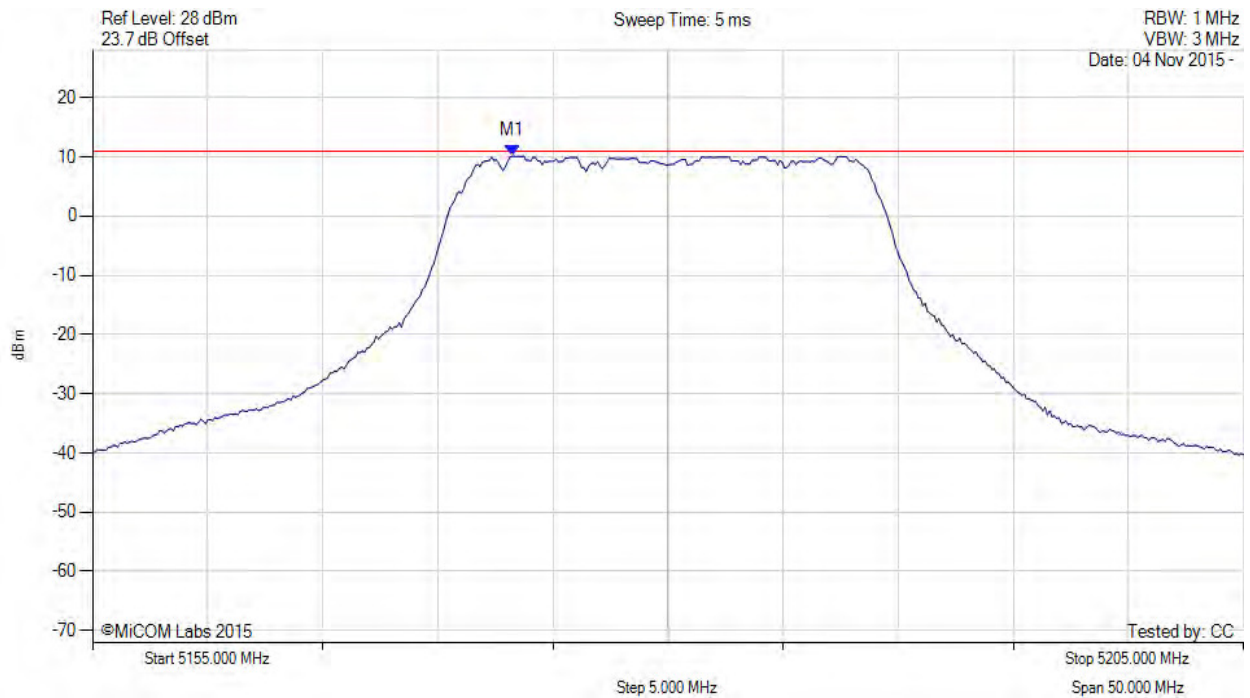


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 131 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5173.236 MHz : 10.132 dBm	Limit: ≤ 10.980 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

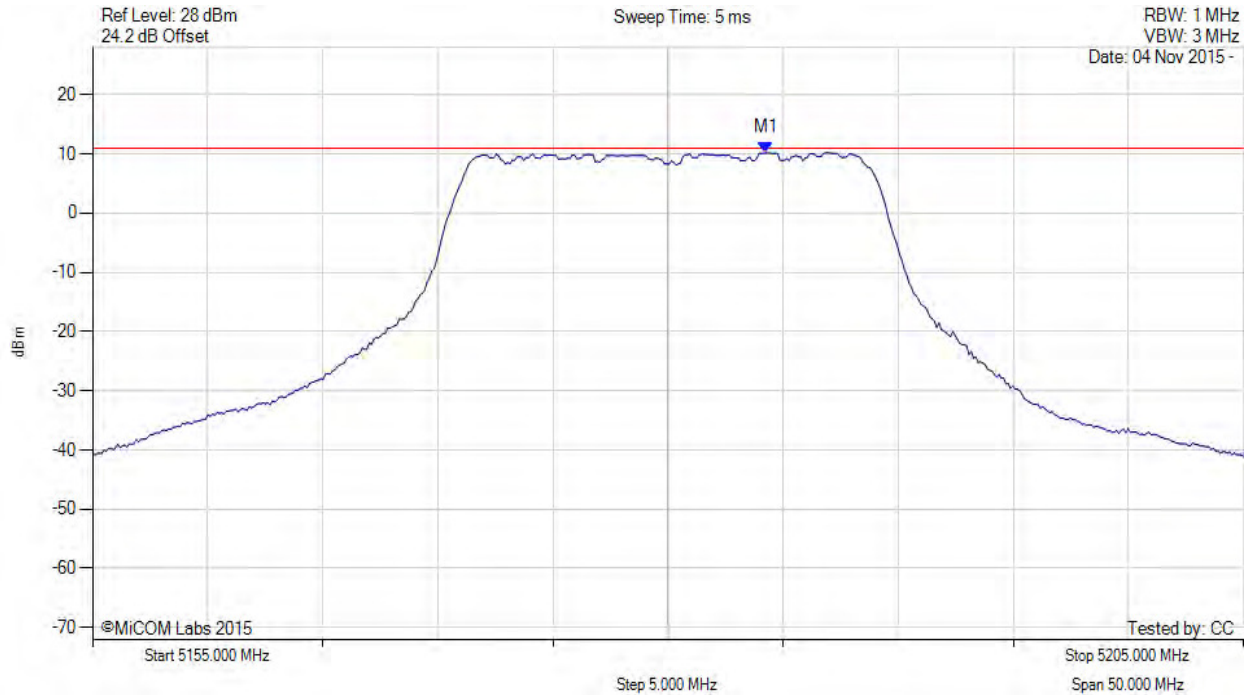


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 132 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5184.259 MHz : 10.193 dBm	Limit: ≤ 10.980 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

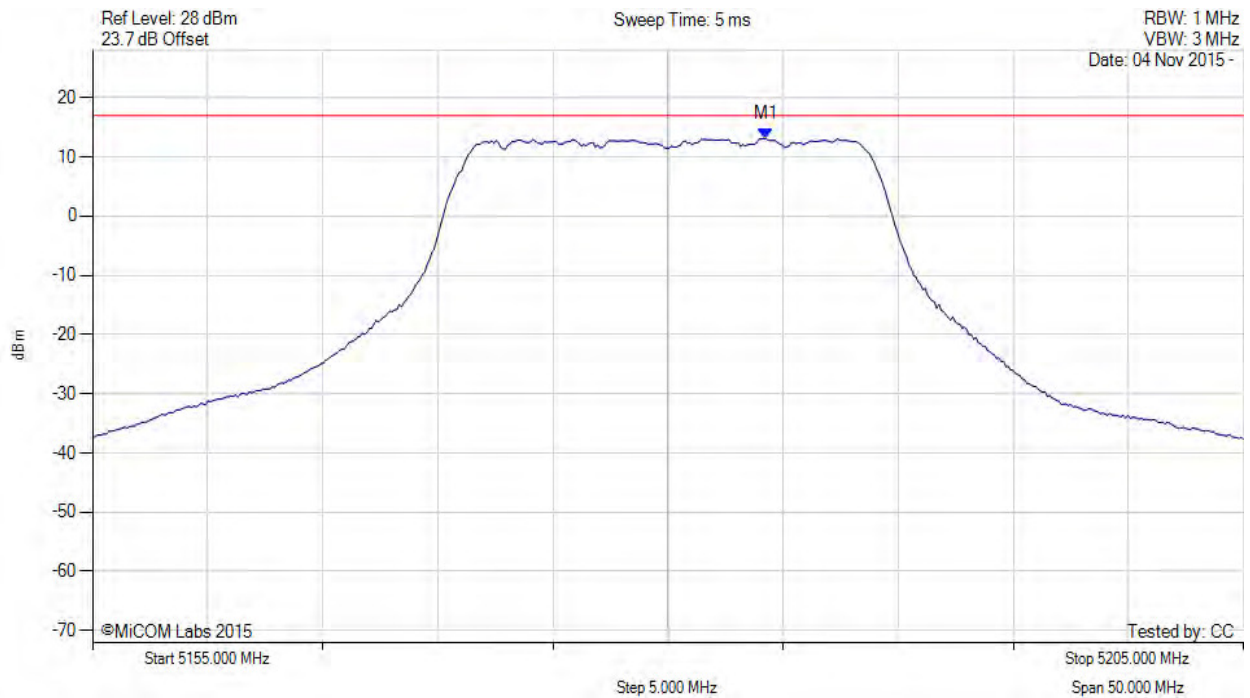


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 133 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5184.300 MHz : 13.080 dBm M1 + DCCF : 5184.300 MHz : 13.168 dBm Duty Cycle Correction Factor : +0.09 dB	Limit: ≤ 17.0 dBm Margin: -3.9 dB

[back to matrix](#)

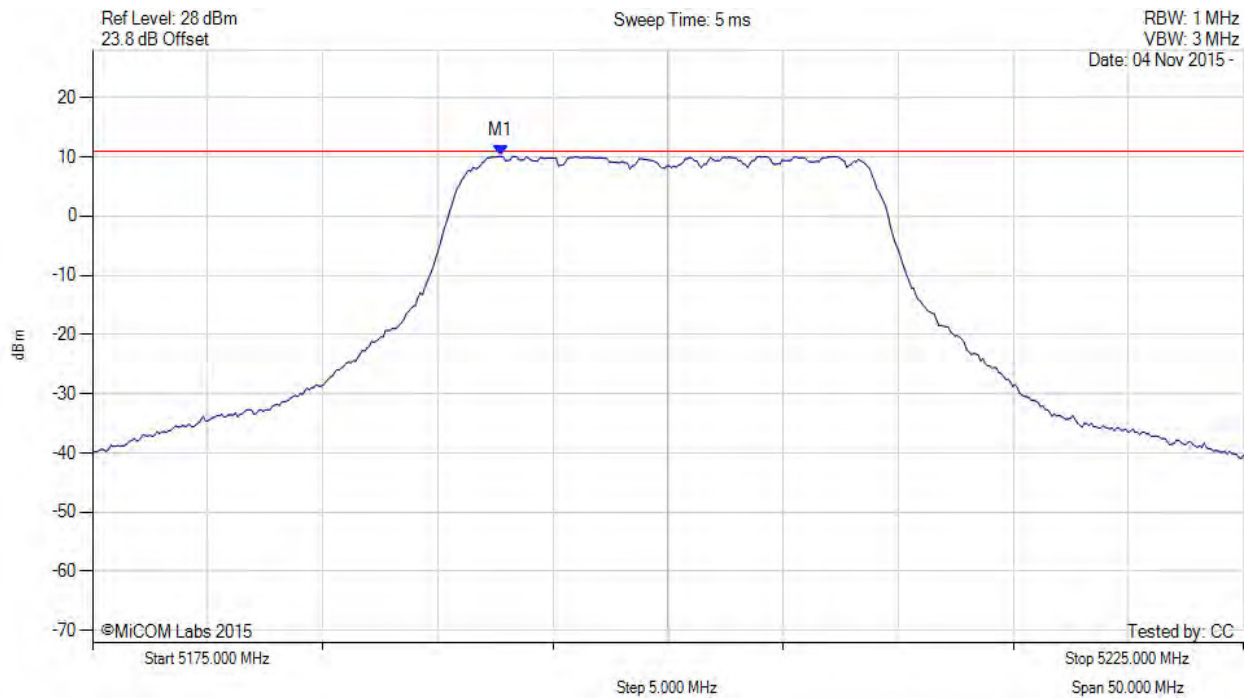
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5192.735 MHz : 10.113 dBm	Limit: ≤ 10.980 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

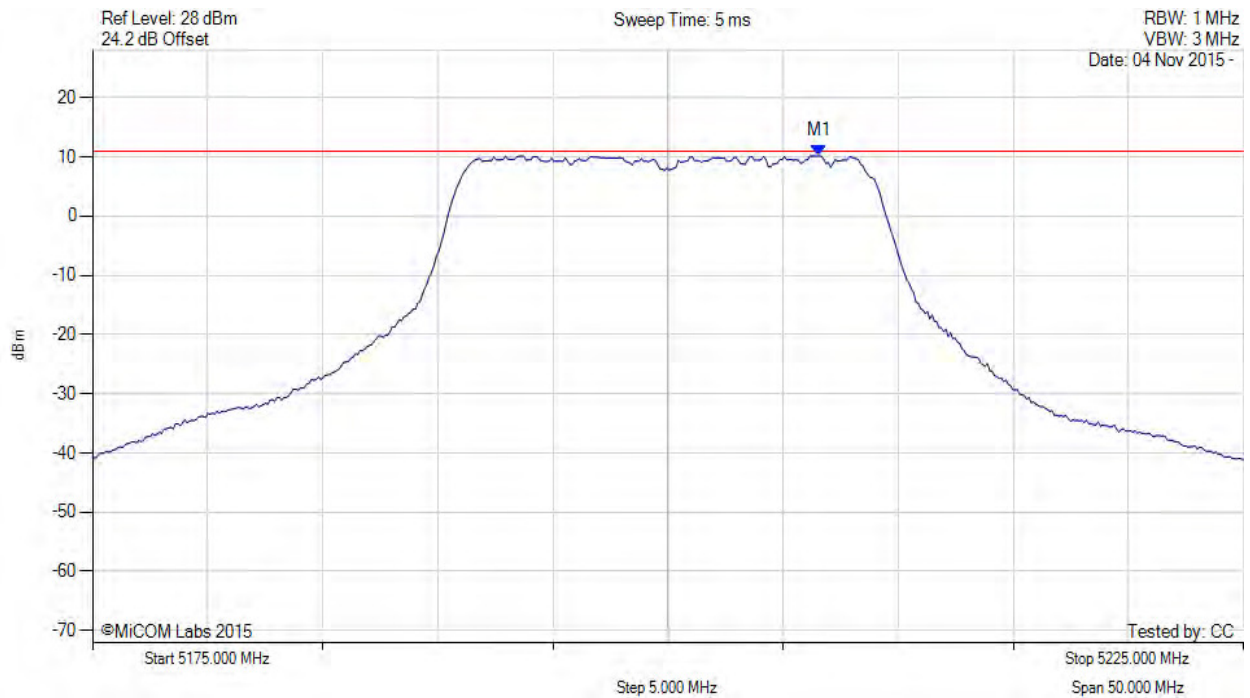


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 135 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5206.563 MHz : 10.163 dBm	Limit: ≤ 10.980 dBm

[back to matrix](#)

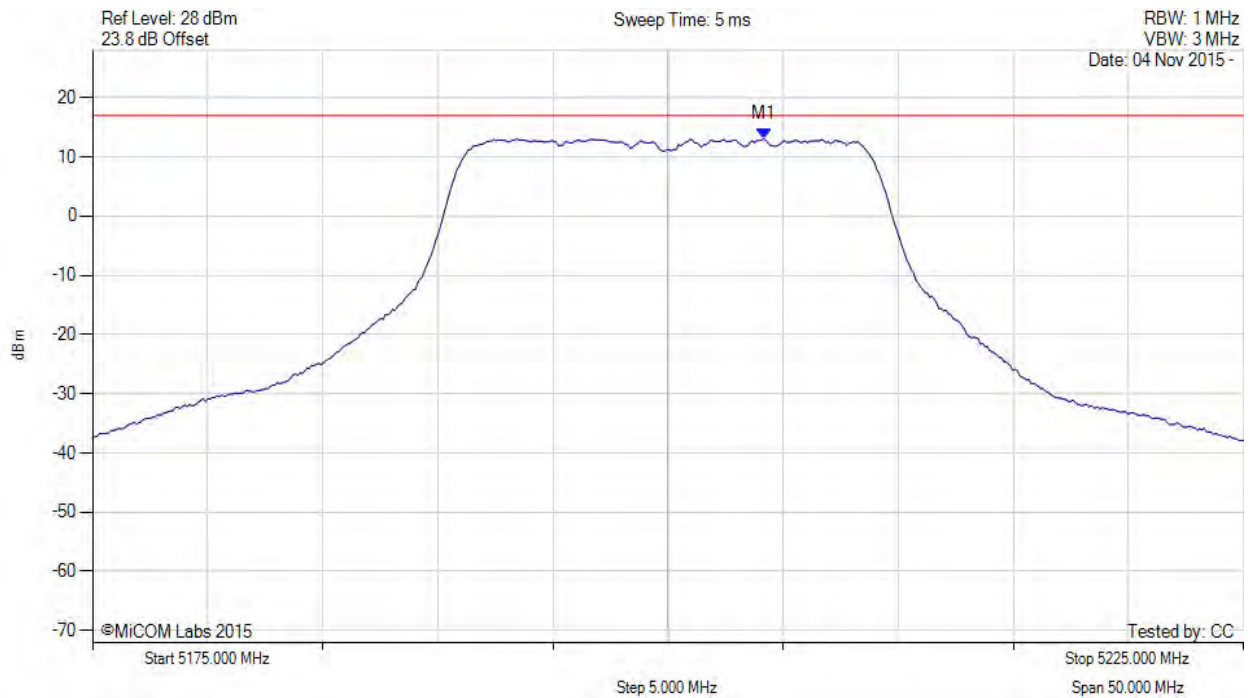
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5204.200 MHz : 13.071 dBm M1 + DCCF : 5204.200 MHz : 13.159 dBm Duty Cycle Correction Factor : +0.09 dB	Limit: ≤ 17.0 dBm Margin: -3.9 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

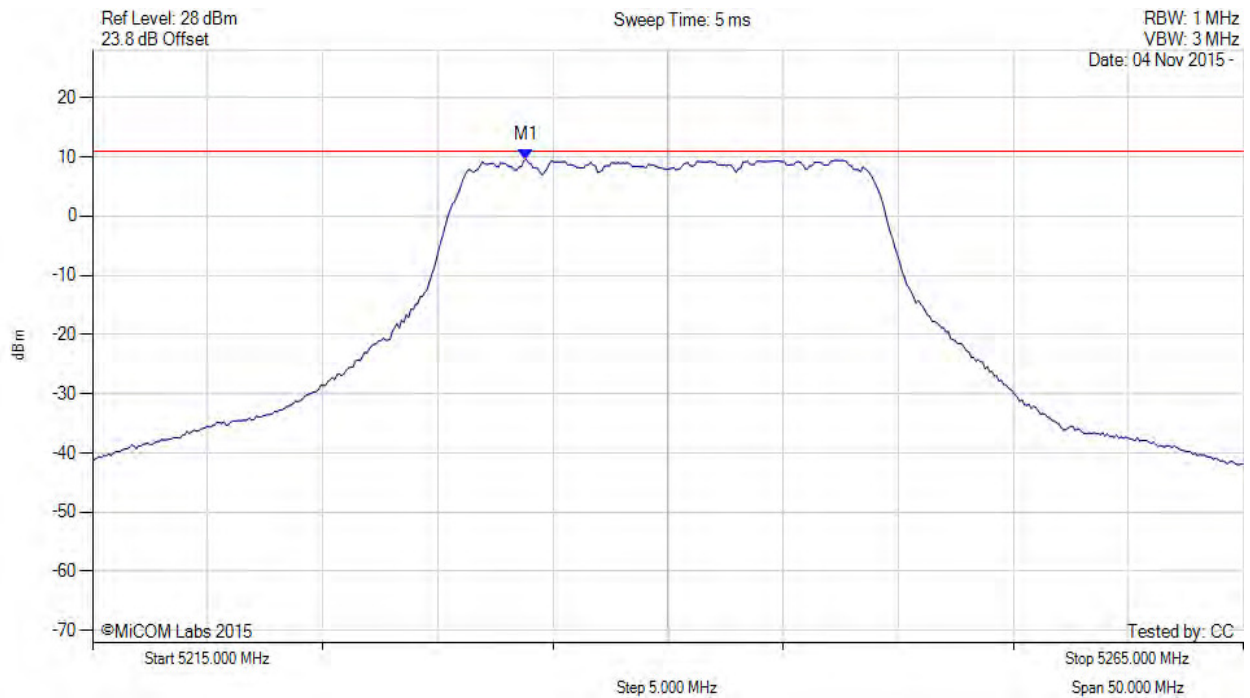


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 137 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5233.838 MHz : 9.561 dBm	Limit: ≤ 10.980 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

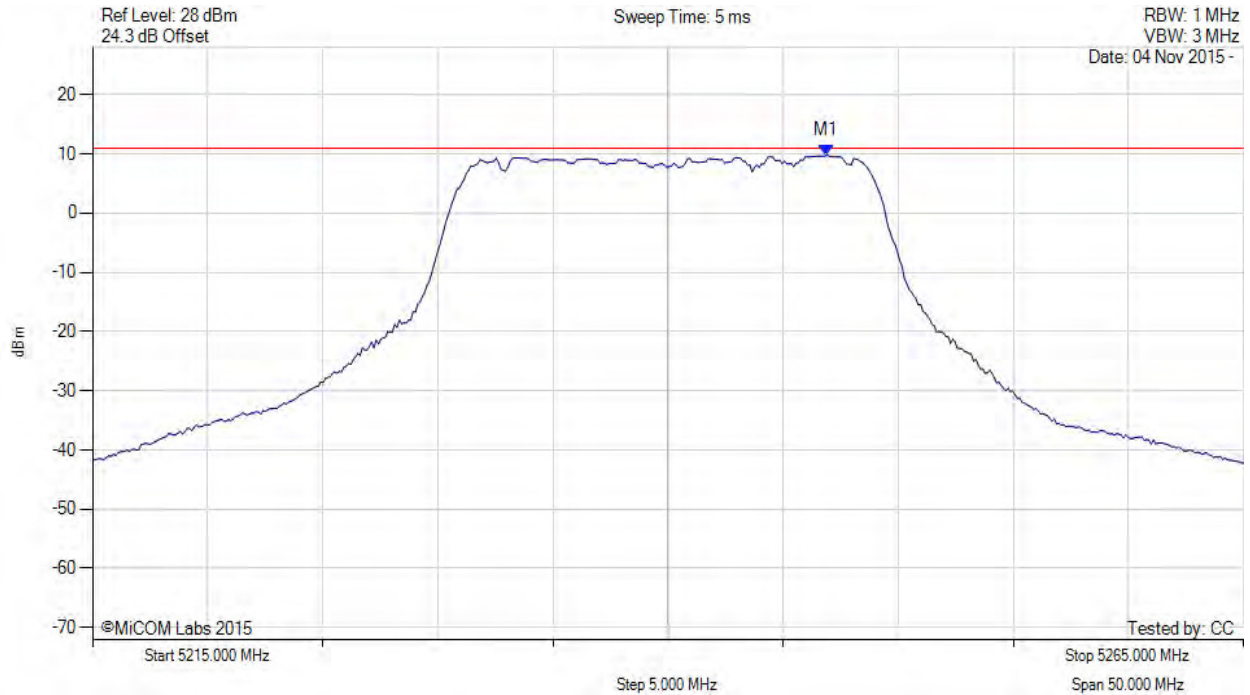


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 138 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5246.864 MHz : 9.715 dBm	Limit: ≤ 10.980 dBm

[back to matrix](#)

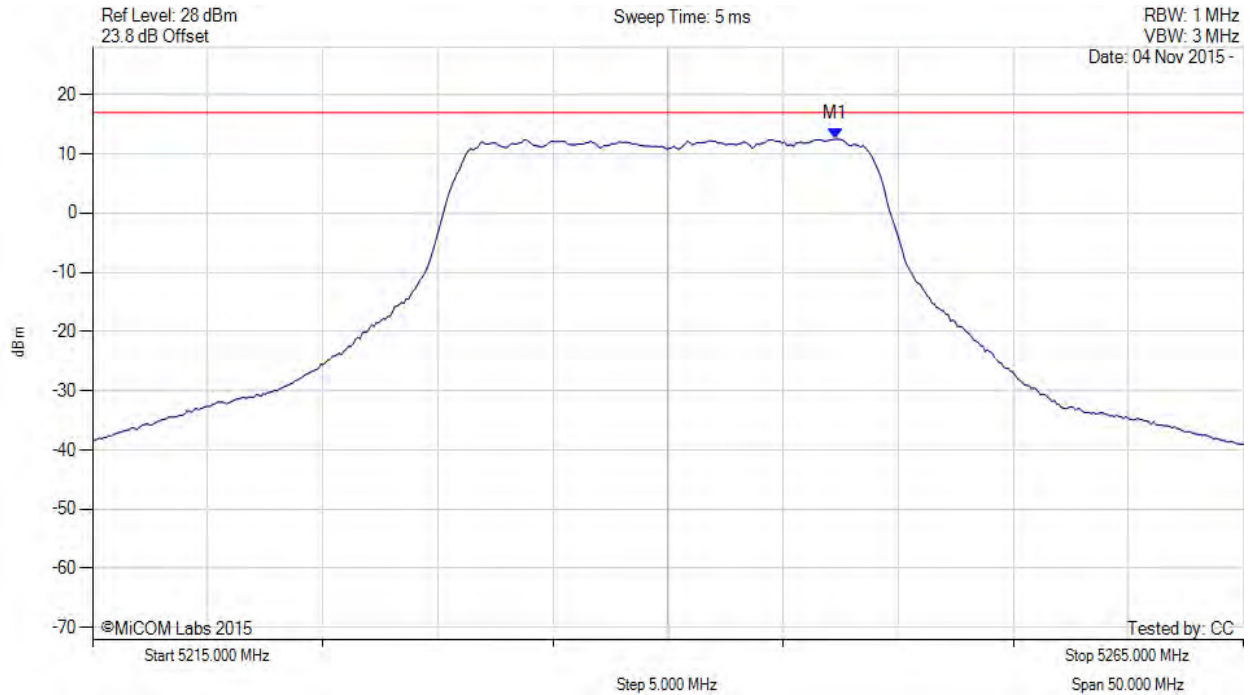
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5247.300 MHz : 12.462 dBm M1 + DCCF : 5247.300 MHz : 12.550 dBm Duty Cycle Correction Factor : +0.09 dB	Limit: ≤ 17.0 dBm Margin: -4.5 dB

[back to matrix](#)

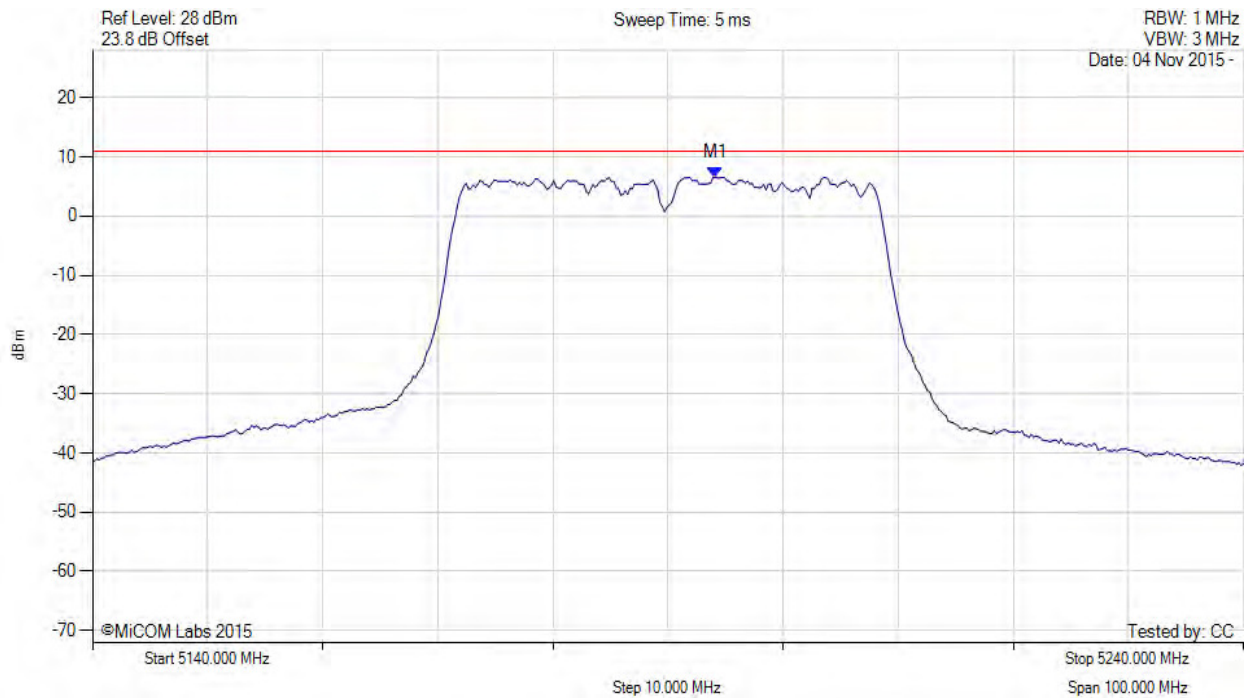
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5194.108 MHz : 6.541 dBm	Limit: ≤ 10.980 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

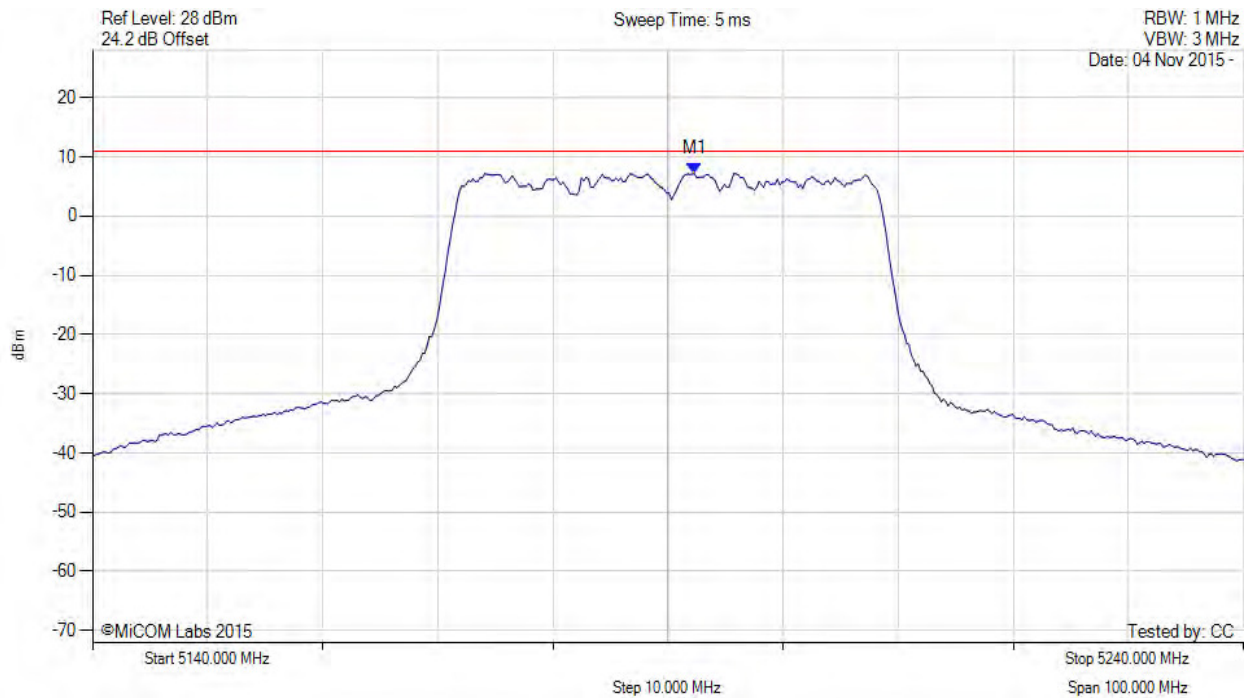


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 141 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5192.305 MHz : 7.165 dBm	Limit: ≤ 10.980 dBm

[back to matrix](#)

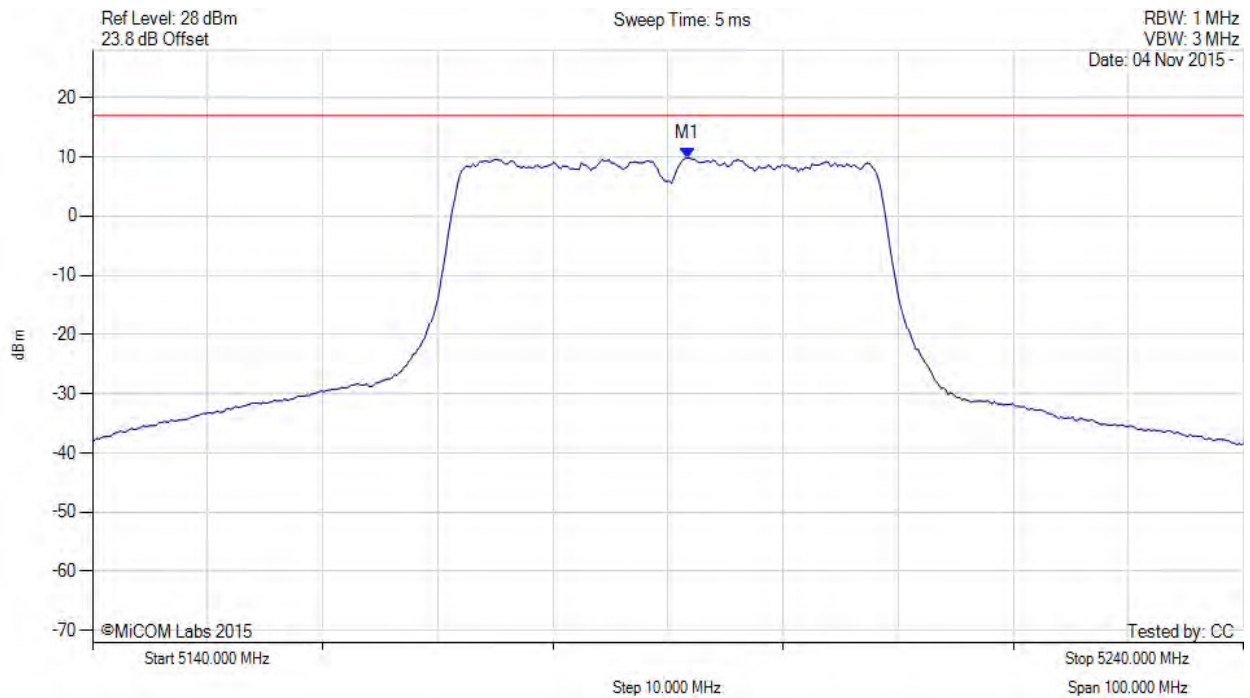
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5191.700 MHz : 9.815 dBm M1 + DCCF : 5191.700 MHz : 9.992 dBm Duty Cycle Correction Factor : +0.18 dB	Limit: ≤ 17.0 dBm Margin: -7.0 dB

[back to matrix](#)

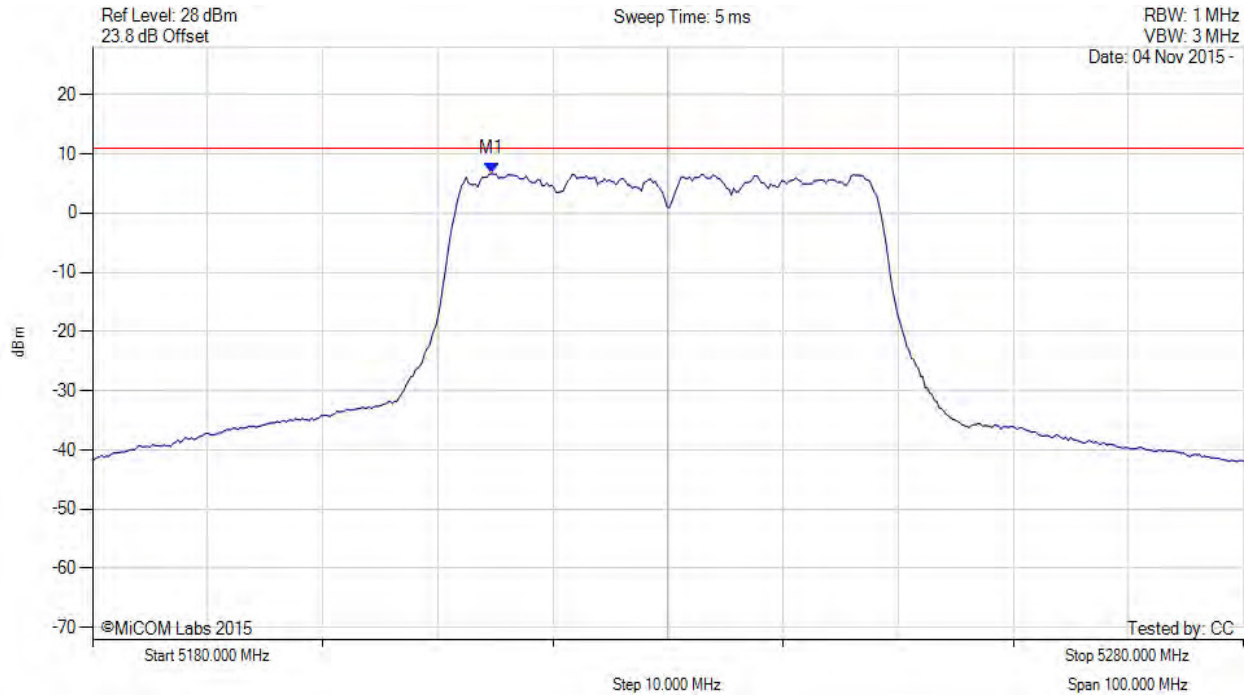
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5214.669 MHz : 6.656 dBm	Limit: ≤ 10.980 dBm

[back to matrix](#)

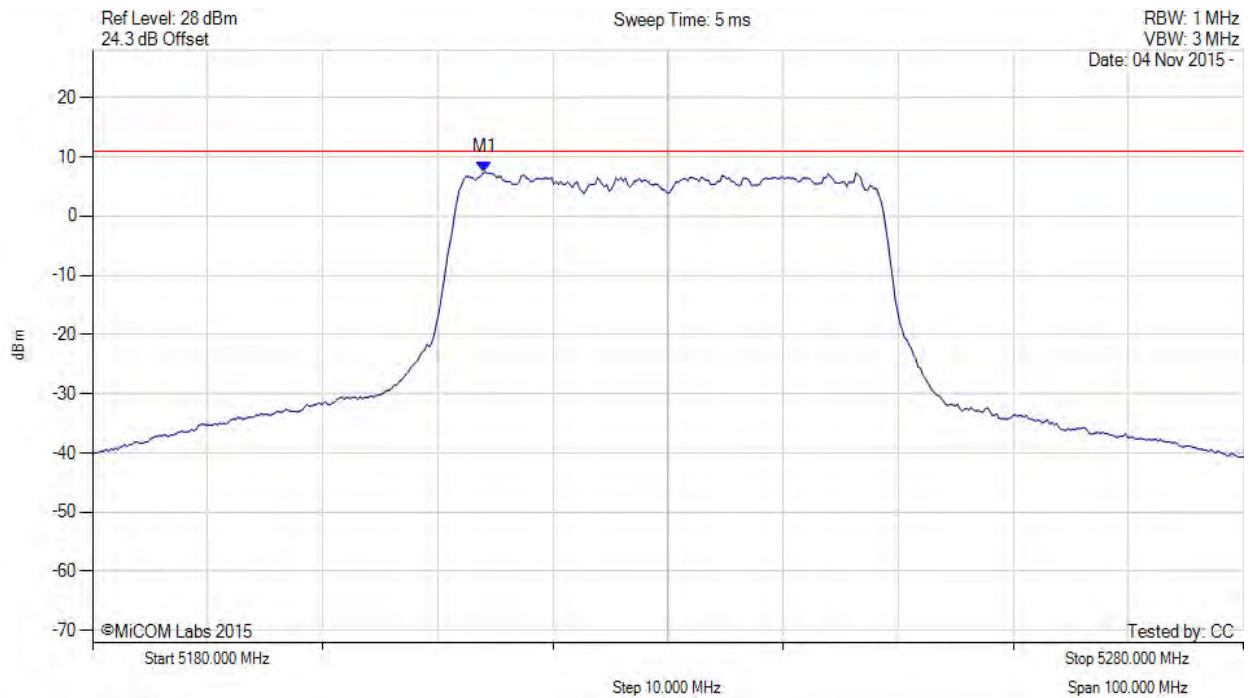
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5214.068 MHz : 7.393 dBm	Limit: ≤ 10.980 dBm

[back to matrix](#)

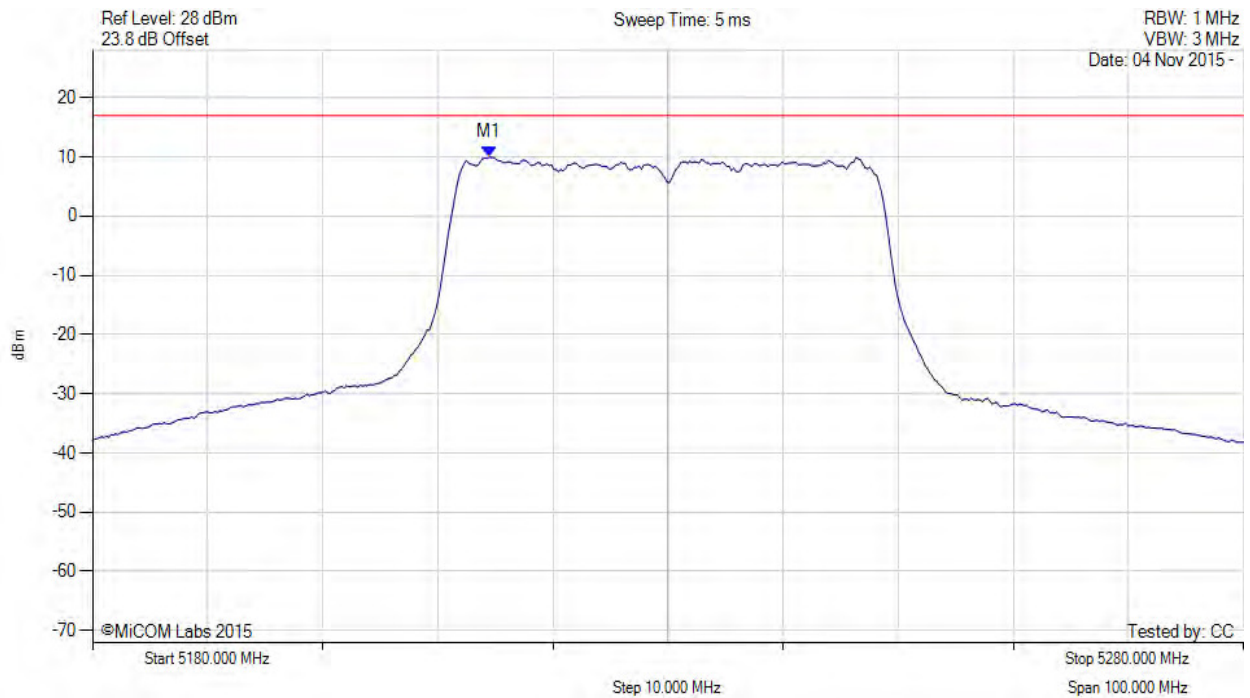
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5214.500 MHz : 9.947 dBm M1 + DCCF : 5214.500 MHz : 10.124 dBm Duty Cycle Correction Factor : +0.18 dB	Limit: ≤ 17.0 dBm Margin: -6.9 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

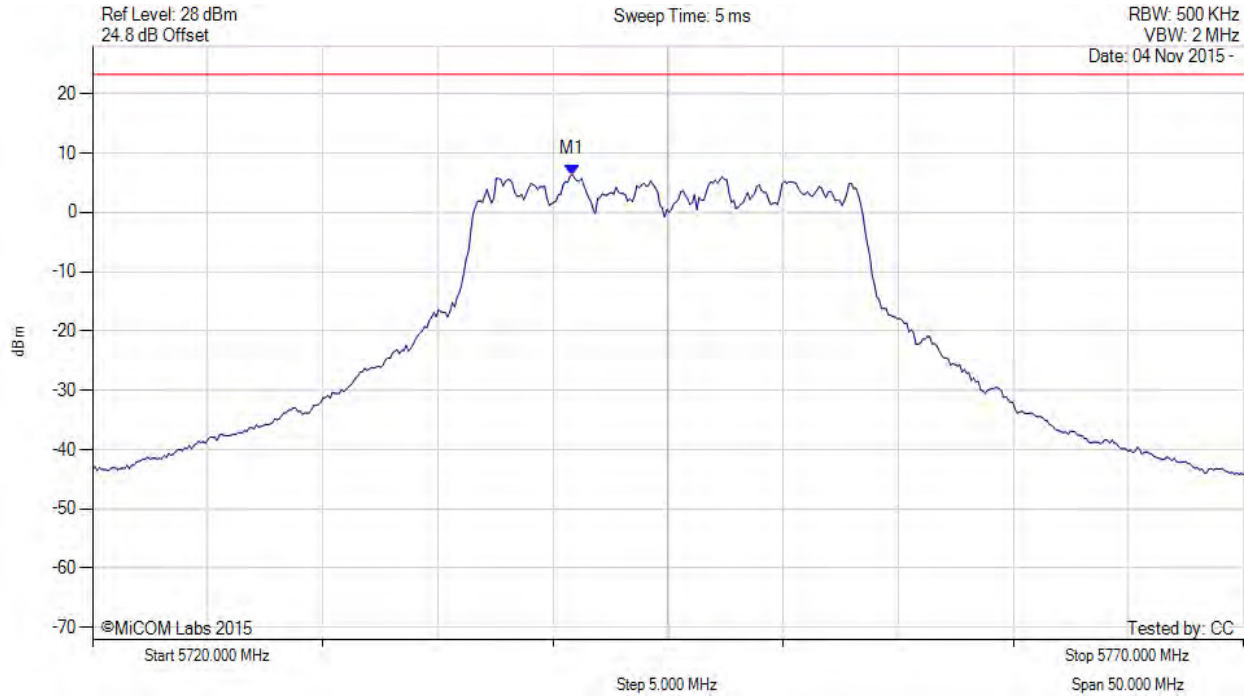


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 146 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5740.842 MHz : 6.353 dBm	Limit: ≤ 23.280 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

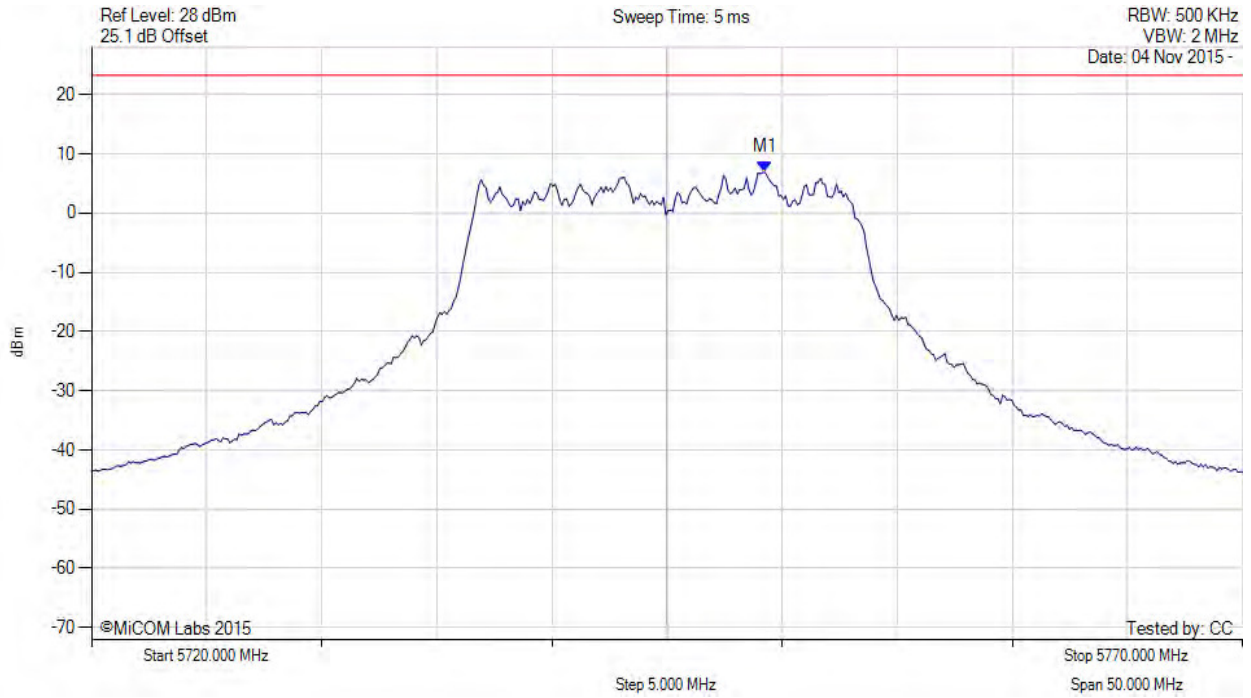


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 147 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5749.259 MHz : 6.878 dBm	Limit: ≤ 23.280 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

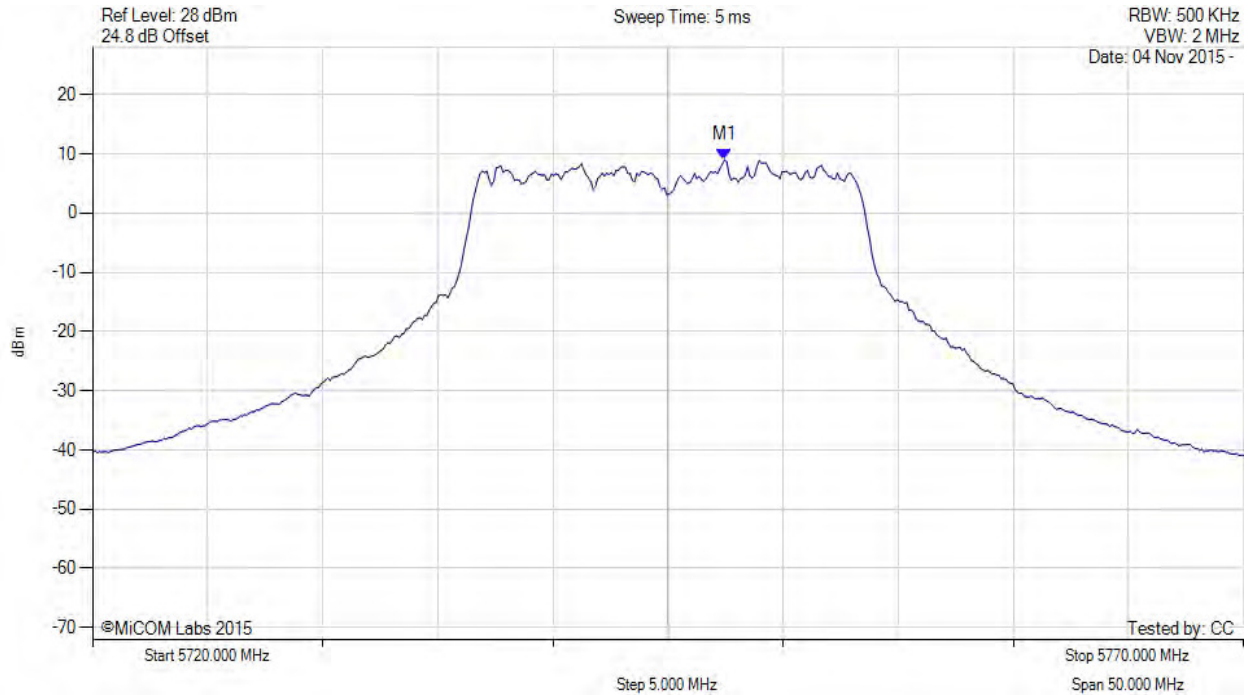


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 148 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5747.500 MHz : 8.995 dBm M1 + DCCF : 5747.500 MHz : 9.752 dBm Duty Cycle Correction Factor : +0.76 dB	Limit: ≤ 29.3 dBm Margin: -19.6 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

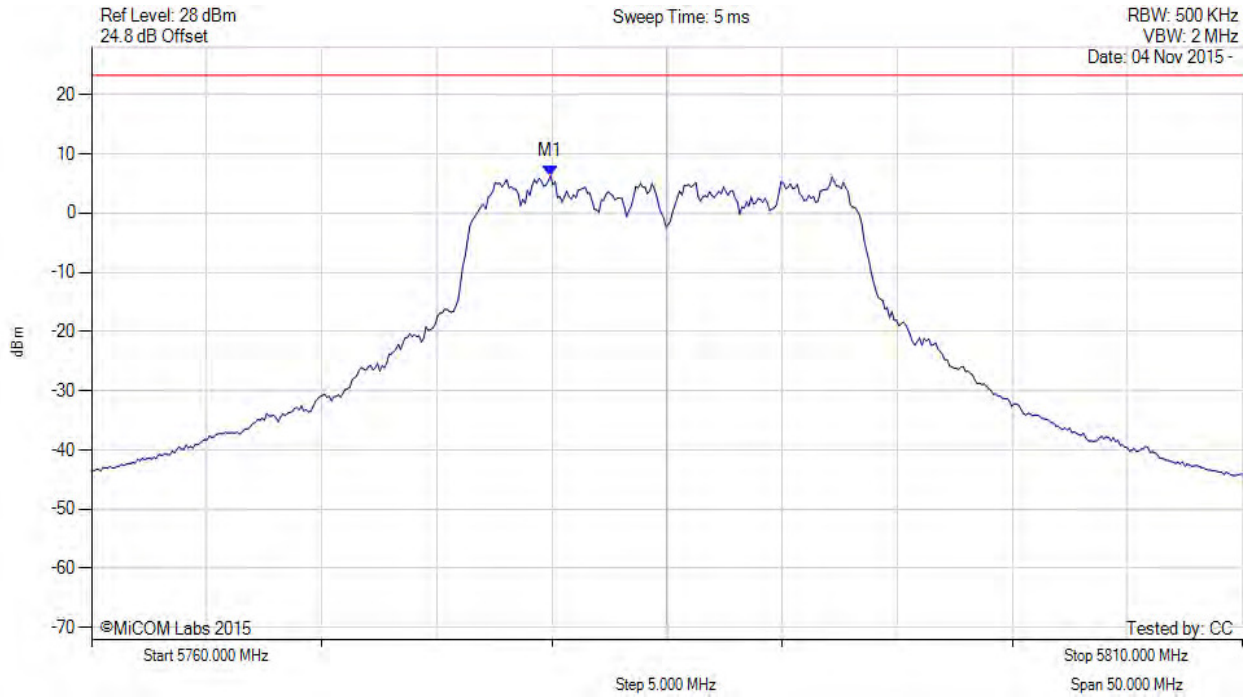


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 149 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5779.940 MHz : 6.274 dBm	Limit: ≤ 23.280 dBm

[back to matrix](#)

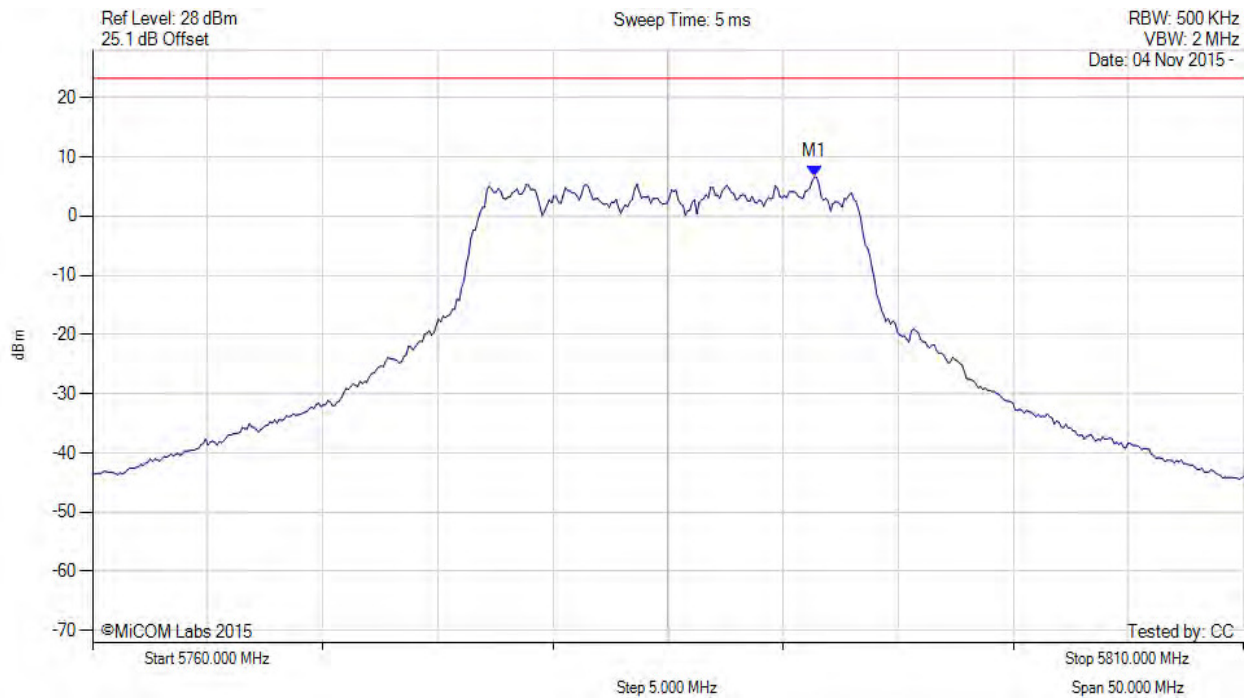
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5791.363 MHz : 6.654 dBm	Limit: ≤ 23.280 dBm

[back to matrix](#)

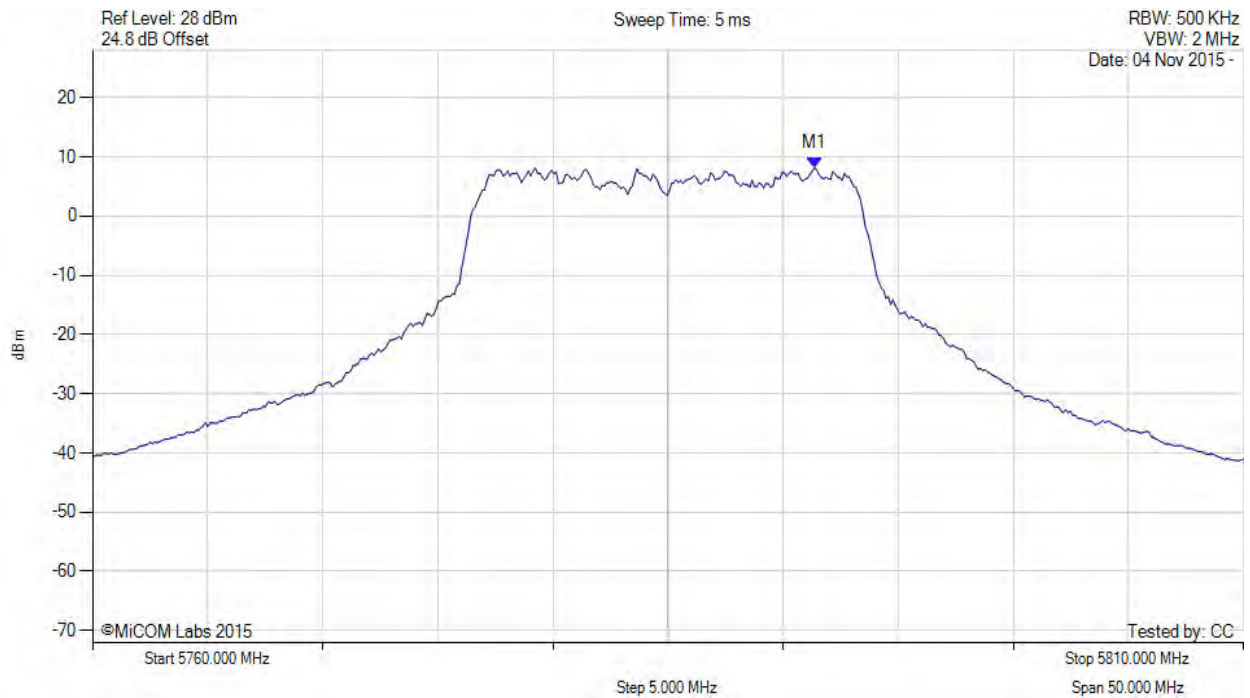
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5791.400 MHz : 8.156 dBm M1 + DCCF : 5791.400 MHz : 8.913 dBm Duty Cycle Correction Factor : +0.76 dB	Limit: ≤ 29.3 dBm Margin: -20.4 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

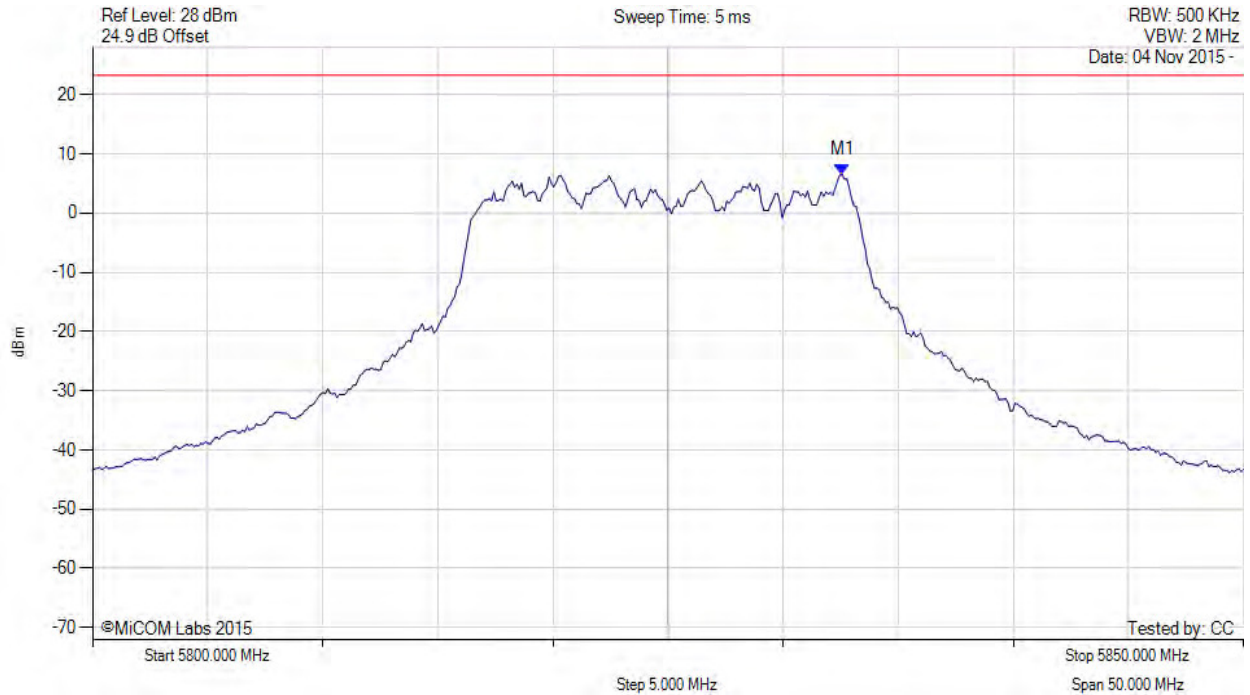


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 152 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5832.565 MHz : 6.505 dBm	Limit: ≤ 23.280 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

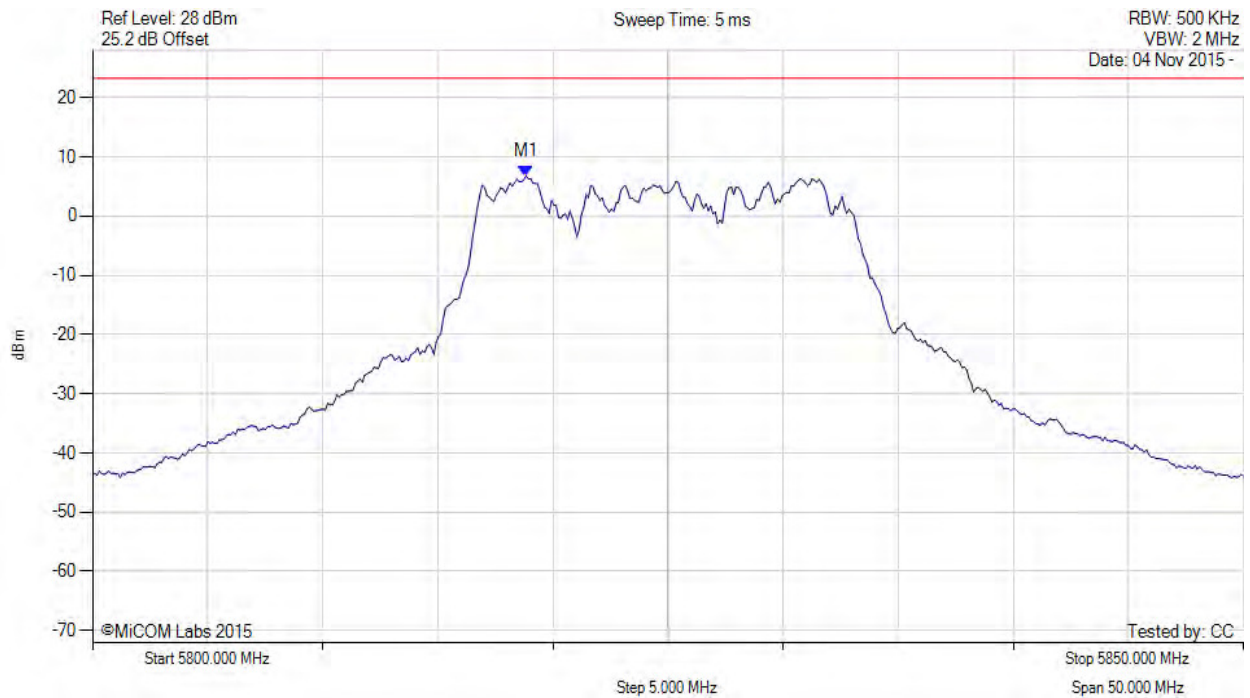


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 153 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5818.838 MHz : 6.798 dBm	Limit: ≤ 23.280 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

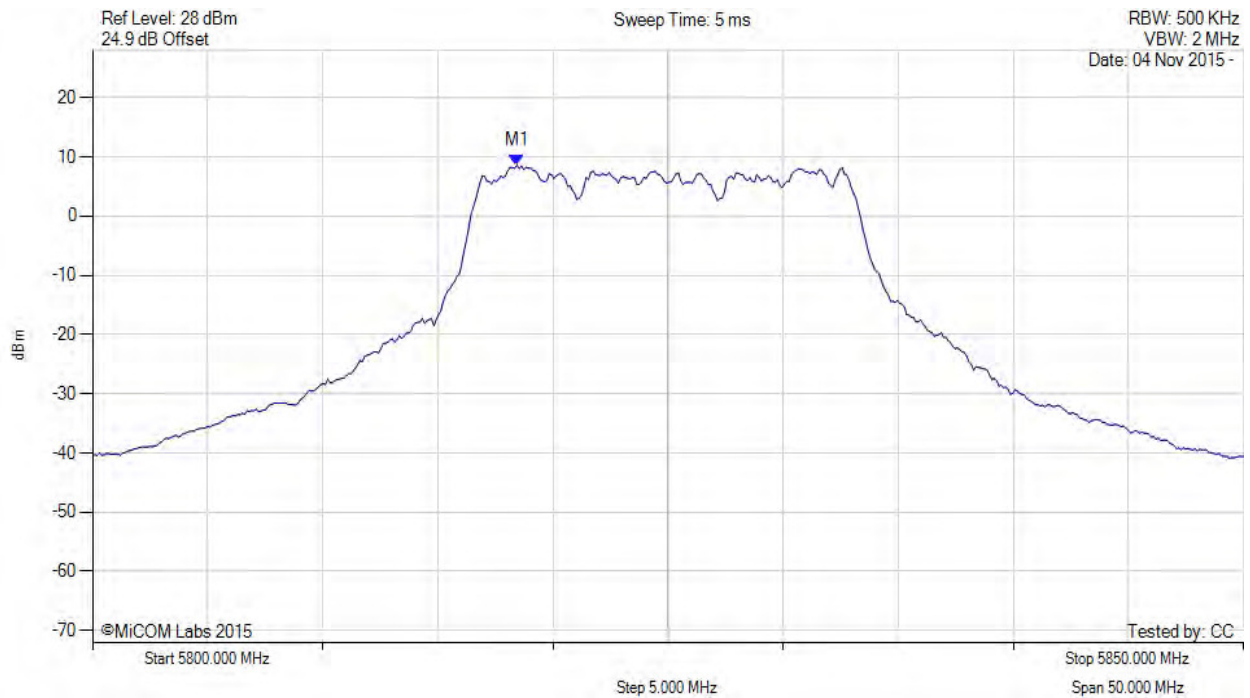


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 154 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5818.400 MHz : 8.581 dBm M1 + DCCF : 5818.400 MHz : 9.338 dBm Duty Cycle Correction Factor : +0.76 dB	Limit: ≤ 29.3 dBm Margin: -20.0 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

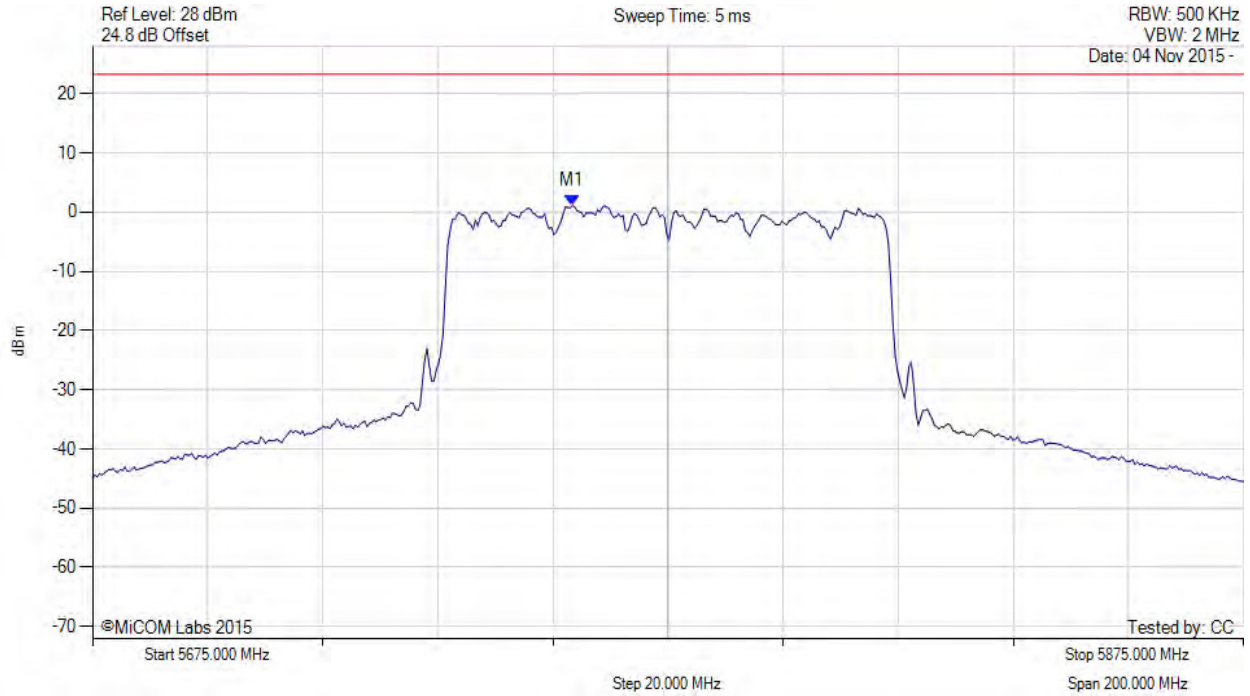


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 155 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5758.367 MHz : 1.096 dBm	Limit: ≤ 23.280 dBm

[back to matrix](#)

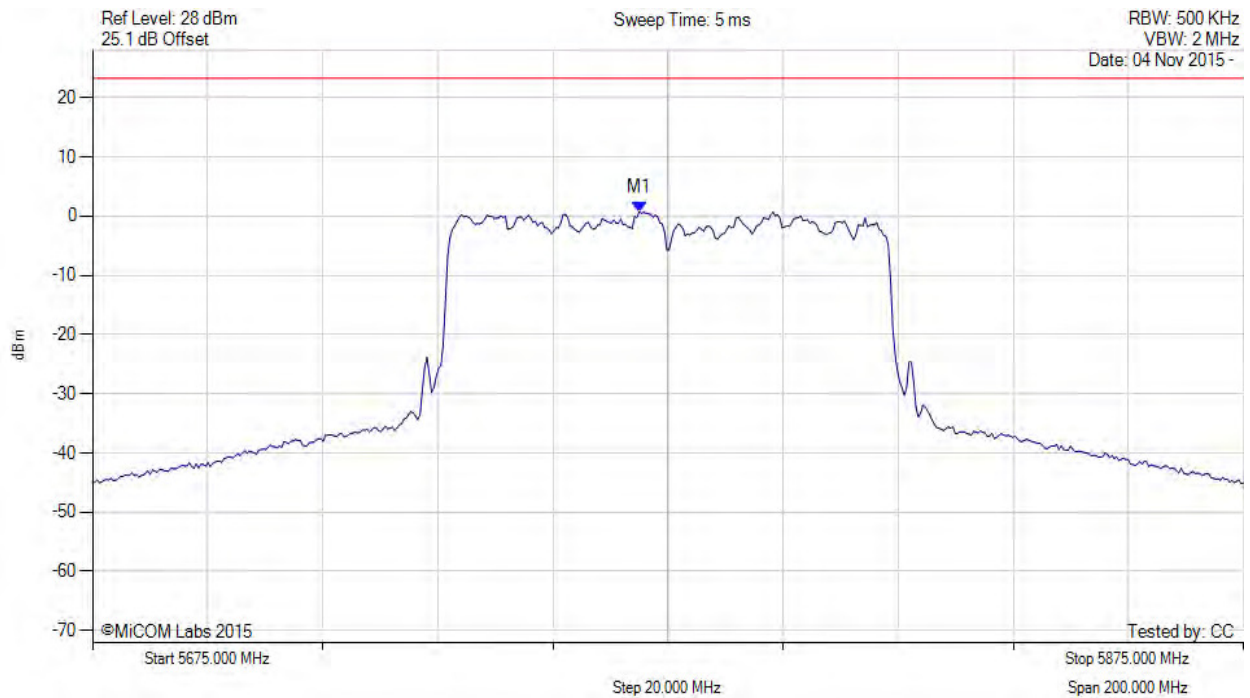
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5769.990 MHz : 0.706 dBm	Limit: ≤ 23.280 dBm

[back to matrix](#)

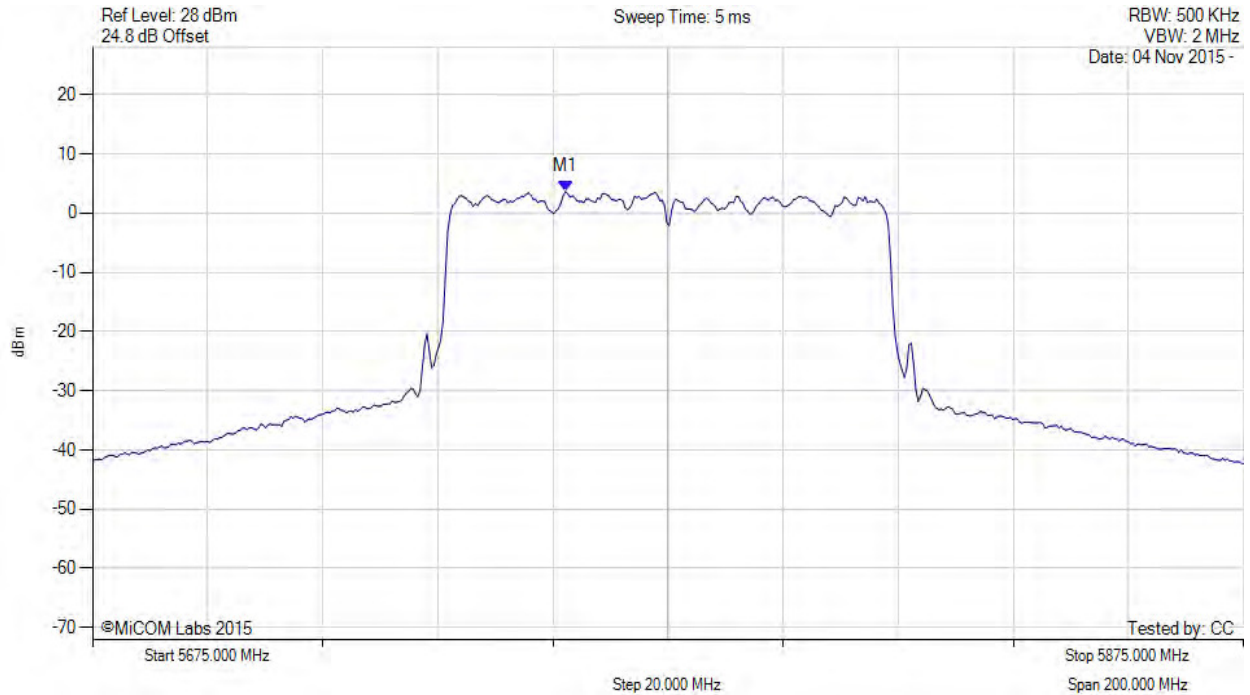
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5757.200 MHz : 3.611 dBm M1 + DCCF : 5757.200 MHz : 4.117 dBm Duty Cycle Correction Factor : +0.51 dB	Limit: ≤ 29.3 dBm Margin: -25.2 dB

[back to matrix](#)

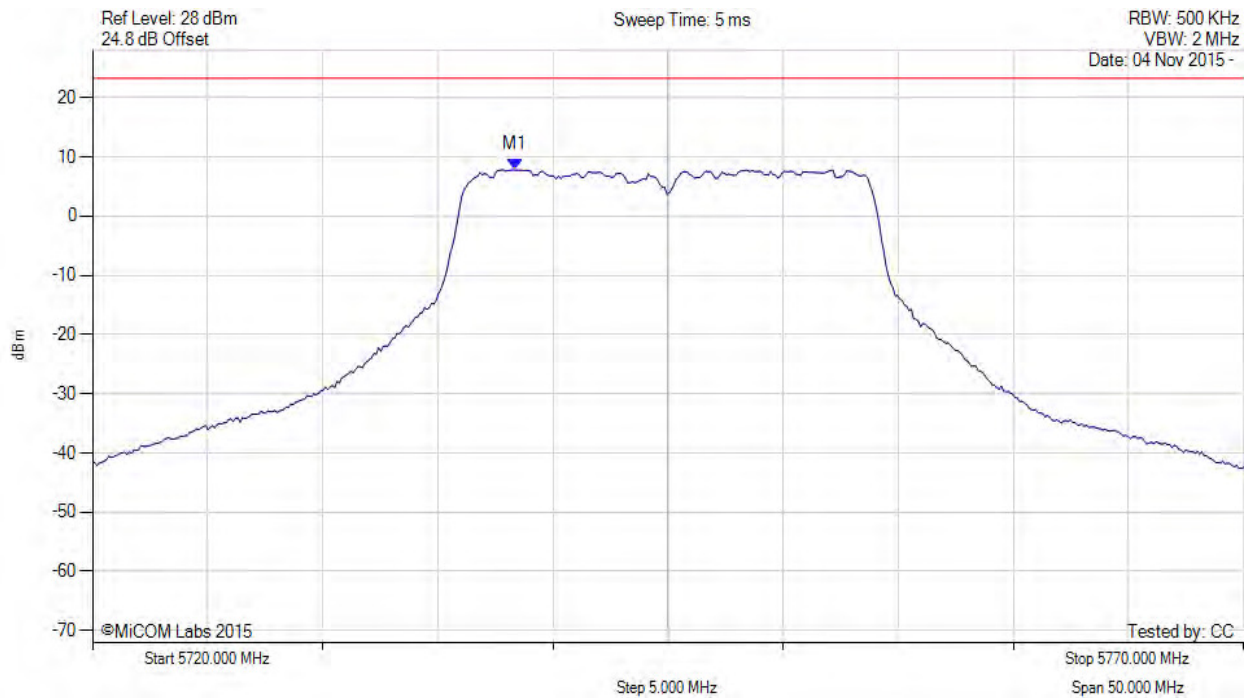
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5738.337 MHz : 7.817 dBm	Limit: ≤ 23.280 dBm

[back to matrix](#)

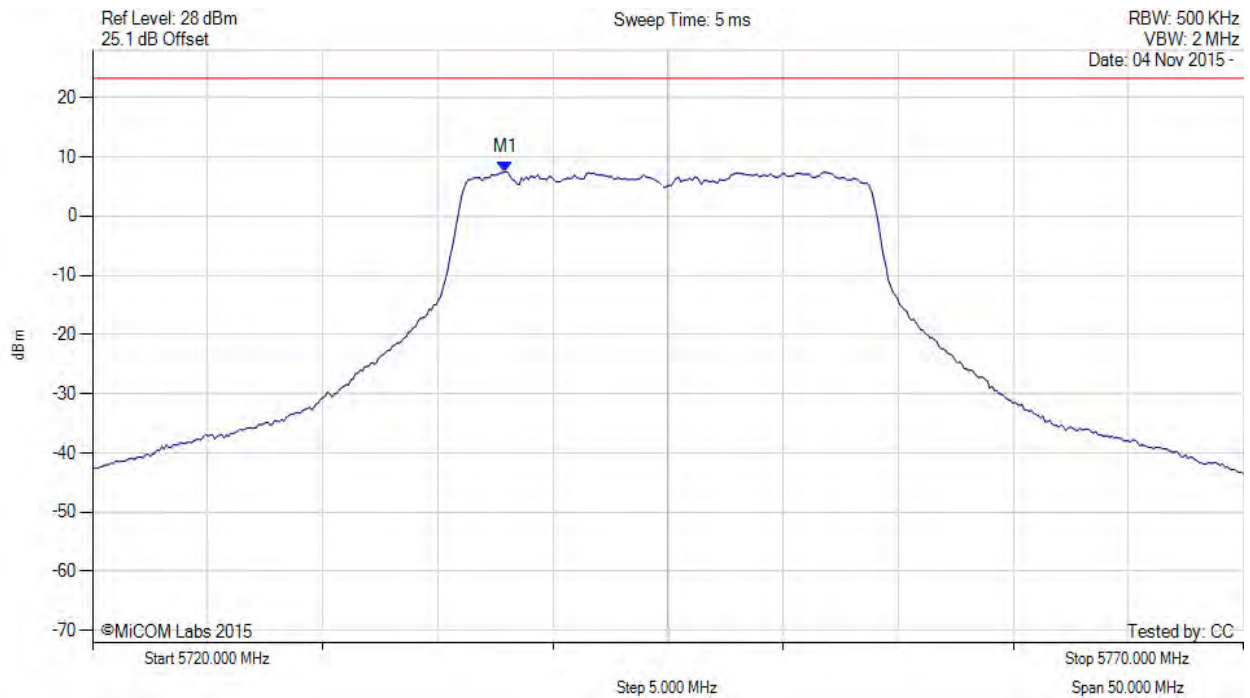
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5737.936 MHz : 7.458 dBm	Limit: ≤ 23.280 dBm

[back to matrix](#)

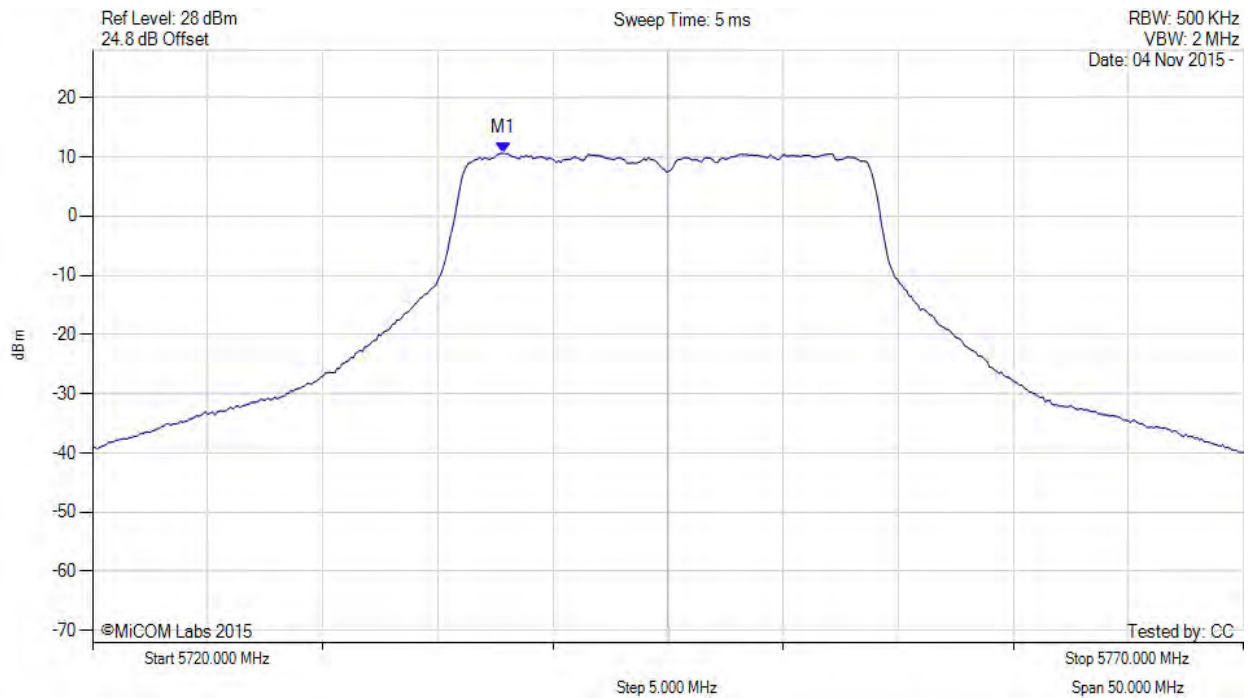
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5737.800 MHz : 10.596 dBm M1 + DCCF : 5737.800 MHz : 10.684 dBm Duty Cycle Correction Factor : +0.09 dB	Limit: ≤ 29.3 dBm Margin: -18.6 dB

[back to matrix](#)

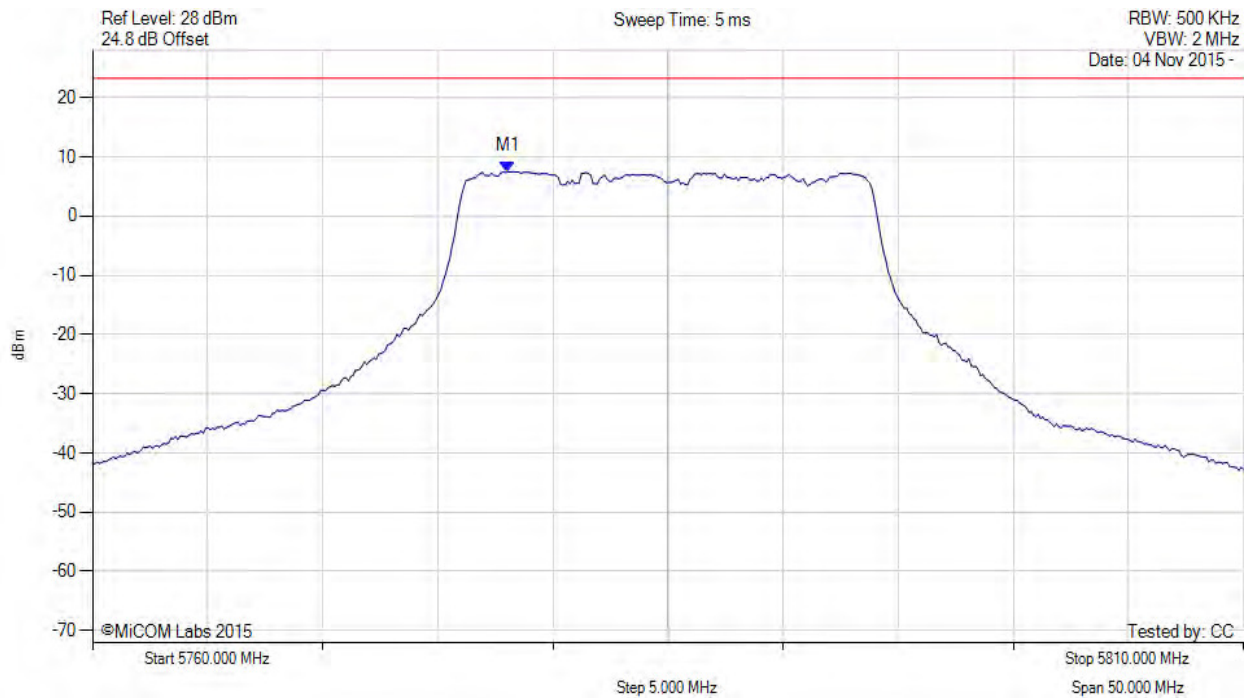
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5778.036 MHz : 7.513 dBm	Limit: ≤ 23.280 dBm

[back to matrix](#)

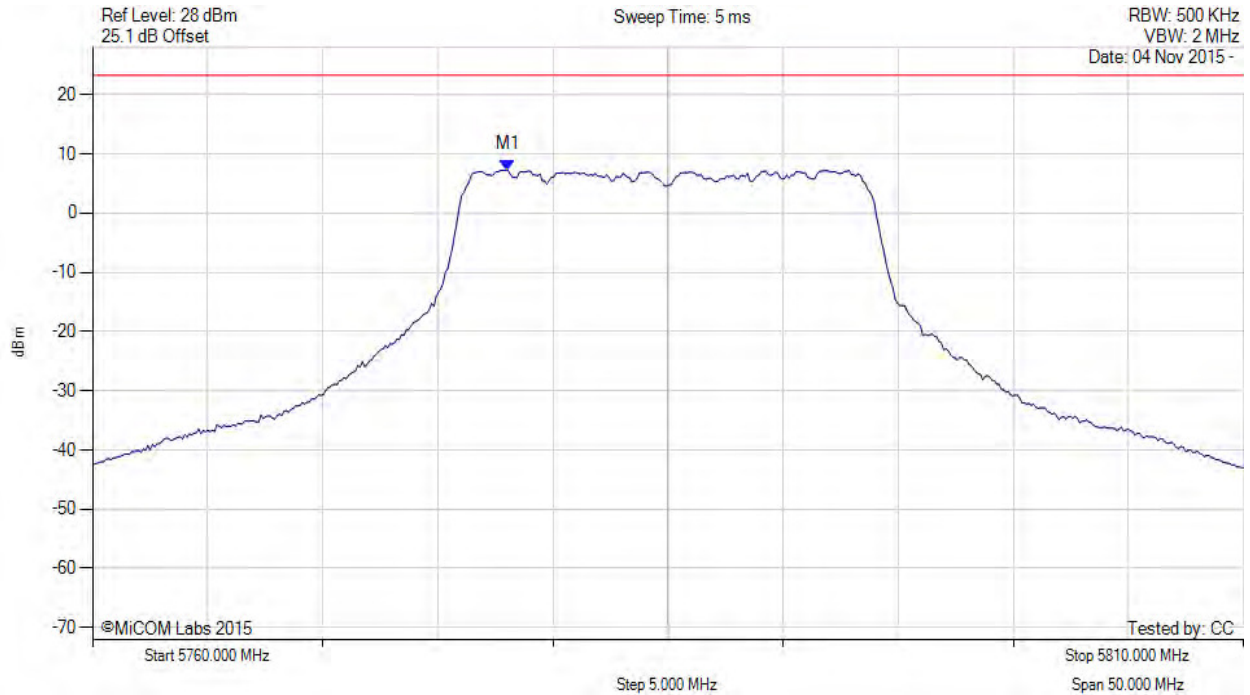
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5778.036 MHz : 7.300 dBm	Limit: ≤ 23.280 dBm

[back to matrix](#)

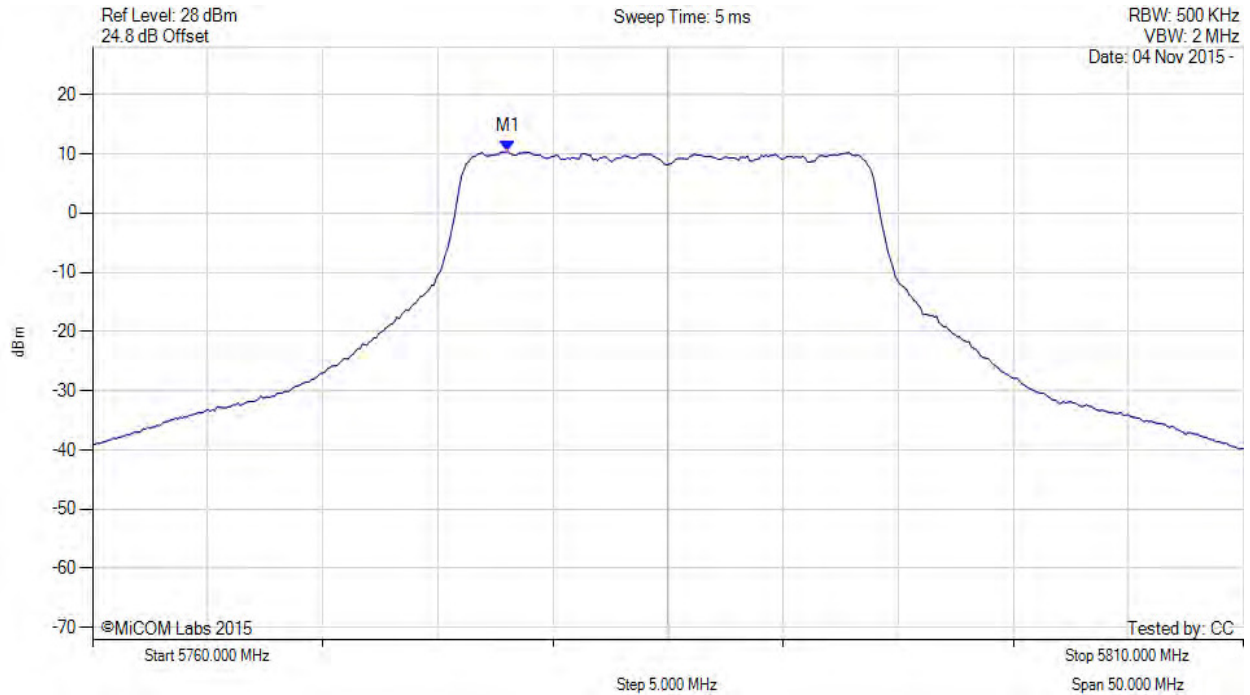
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5778.000 MHz : 10.418 dBm M1 + DCCF : 5778.000 MHz : 10.506 dBm Duty Cycle Correction Factor : +0.09 dB	Limit: ≤ 29.3 dBm Margin: -18.8 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

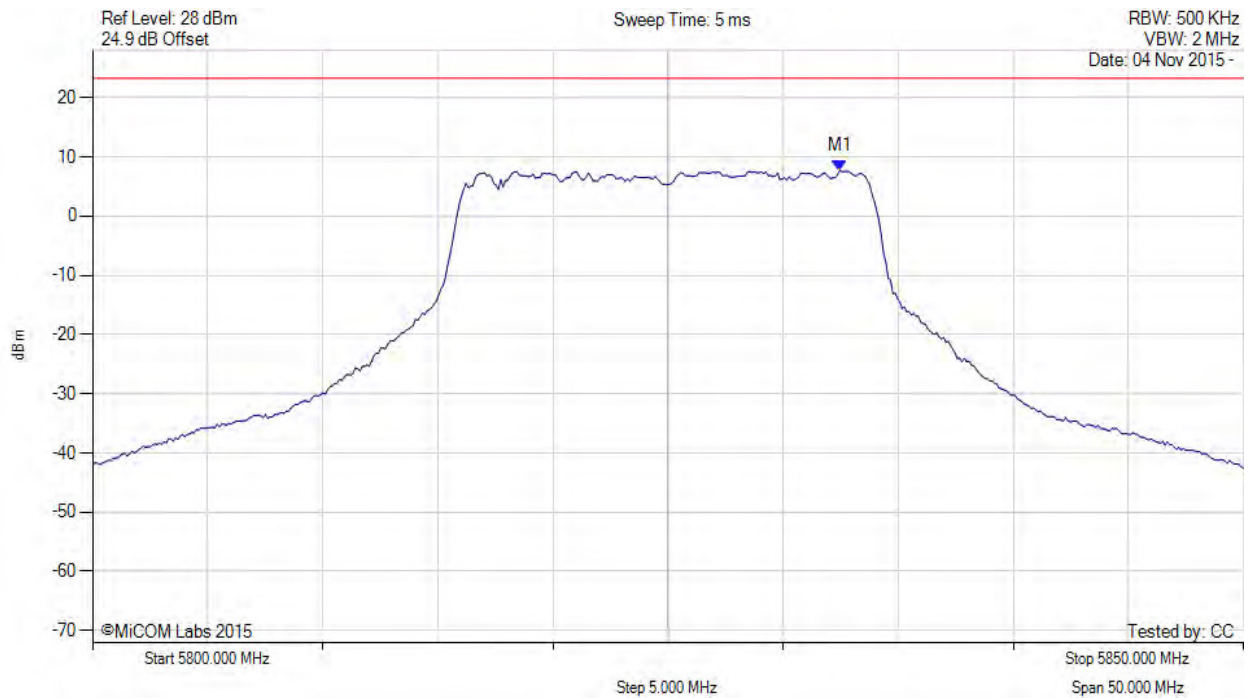


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 164 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5832.465 MHz : 7.711 dBm	Limit: ≤ 23.280 dBm

[back to matrix](#)

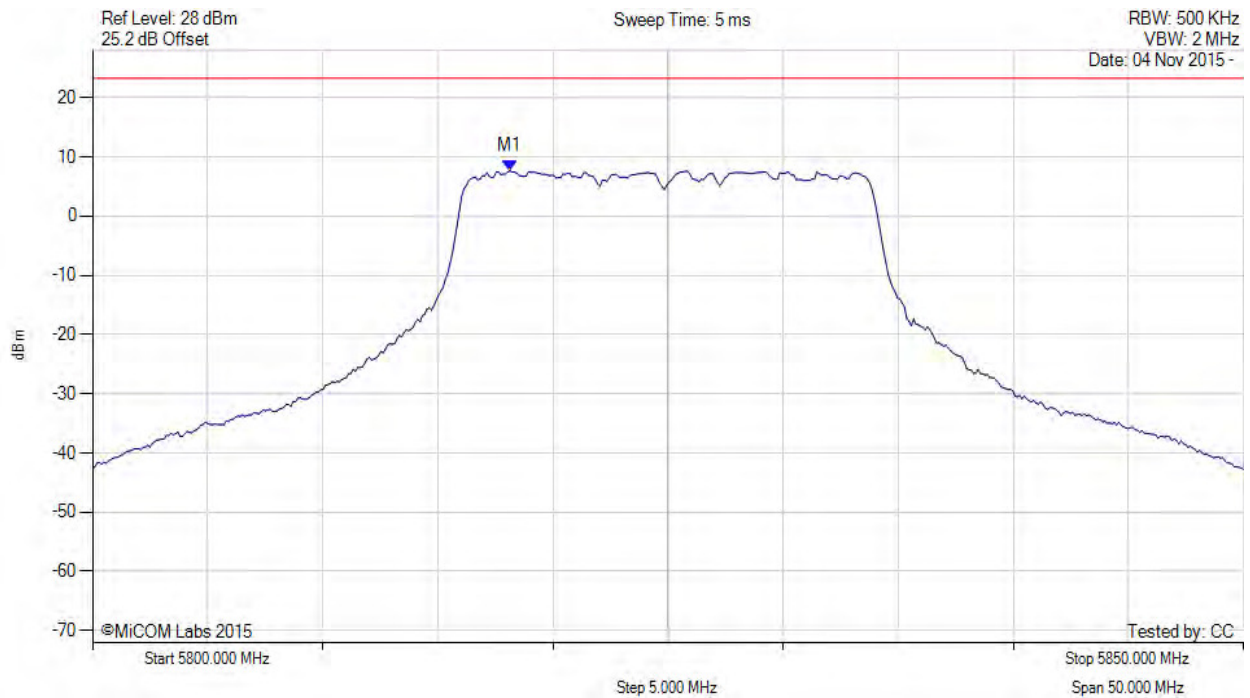
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker: Frequency: Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5818.136 MHz : 7.624 dBm	Limit: ≤ 23.280 dBm

[back to matrix](#)

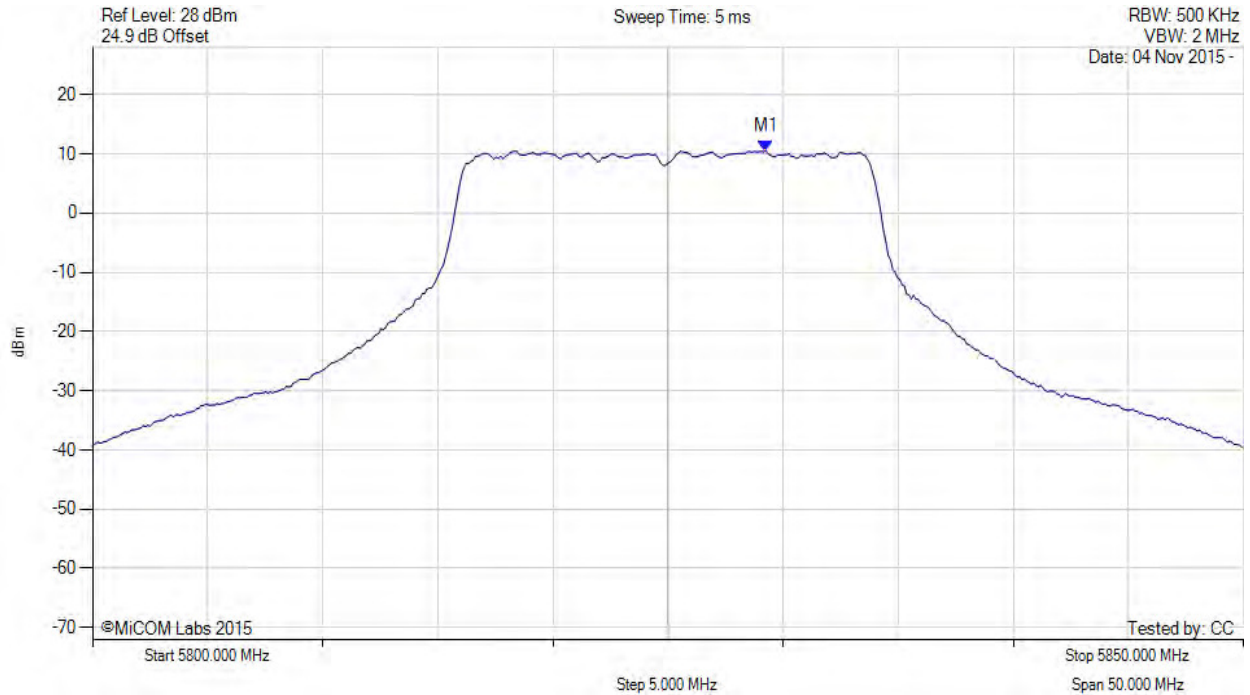
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5829.300 MHz : 10.478 dBm M1 + DCCF : 5829.300 MHz : 10.566 dBm Duty Cycle Correction Factor : +0.09 dB	Limit: ≤ 29.3 dBm Margin: -18.8 dB

[back to matrix](#)

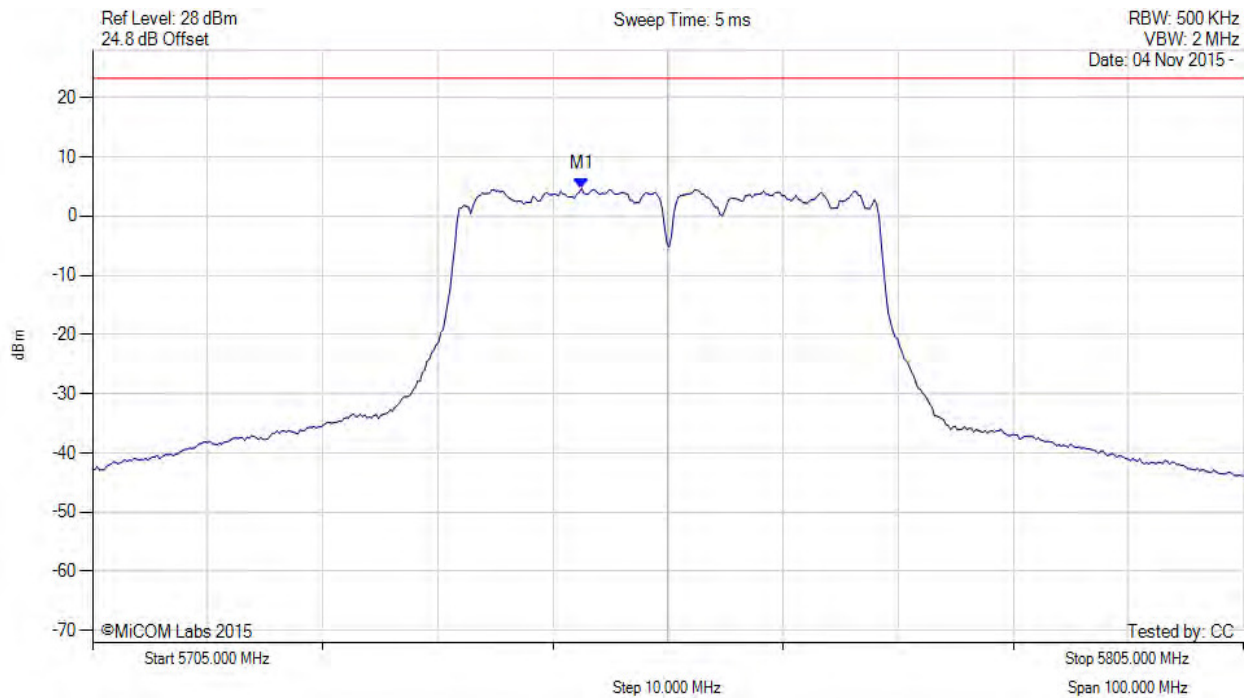
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5747.485 MHz : 4.633 dBm	Limit: ≤ 23.280 dBm

[back to matrix](#)

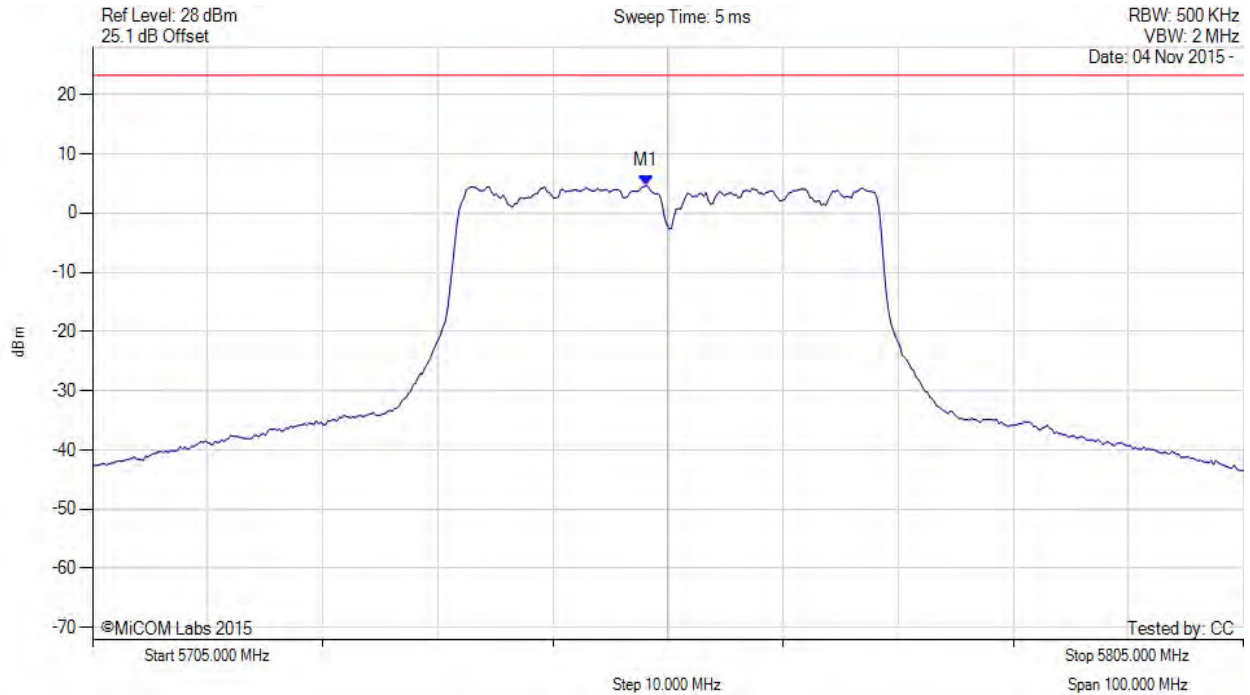
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5753.096 MHz : 4.632 dBm	Limit: ≤ 23.280 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

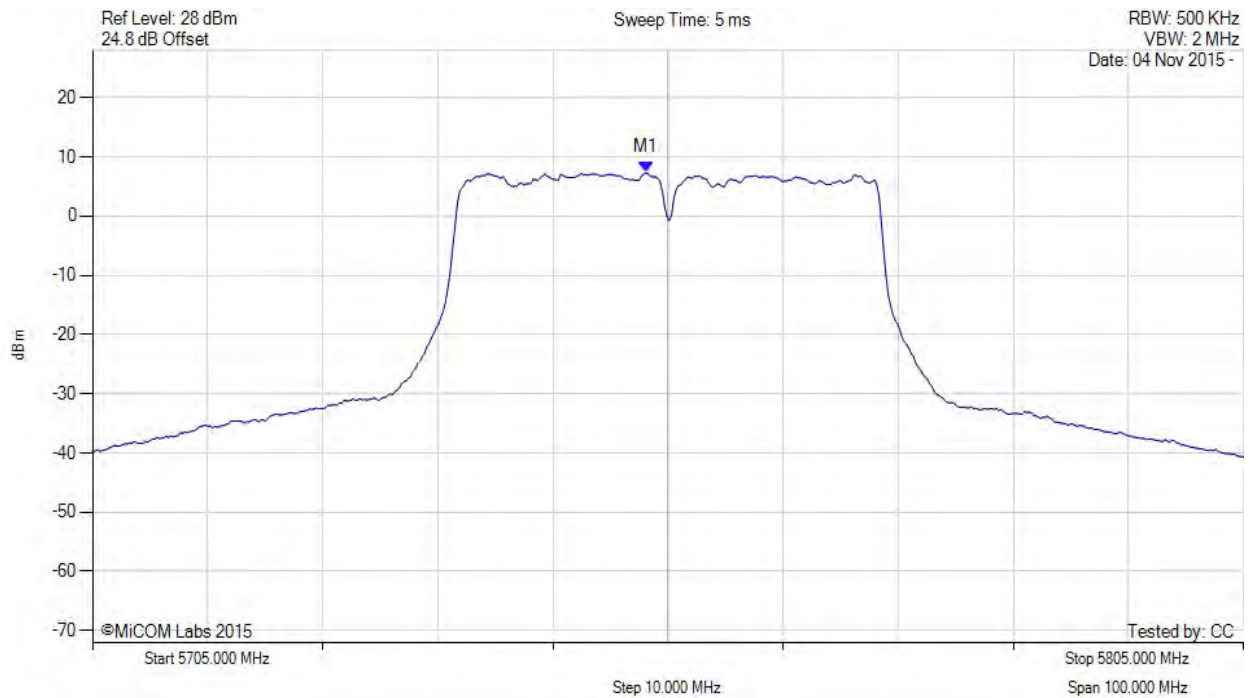


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 169 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5753.100 MHz : 7.321 dBm M1 + DCCF : 5753.100 MHz : 7.498 dBm Duty Cycle Correction Factor : +0.18 dB	Limit: ≤ 29.3 dBm Margin: -21.8 dB

[back to matrix](#)

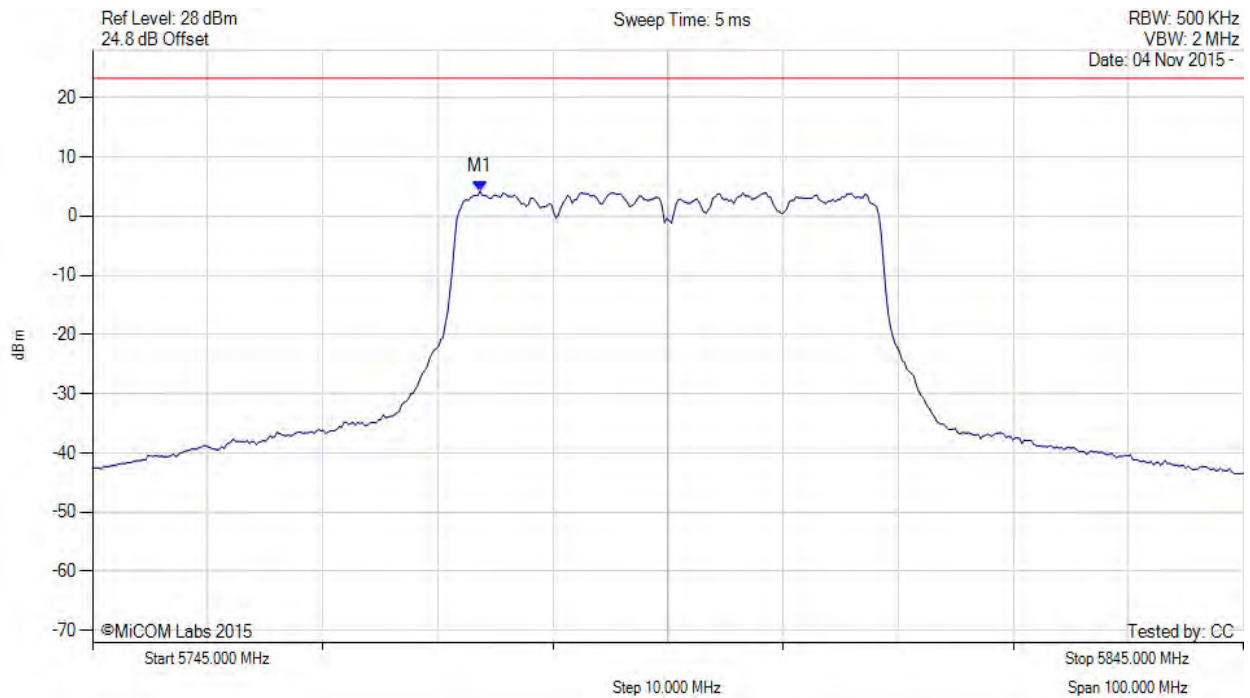
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker: Frequency: Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5778.667 MHz : 4.195 dBm	Limit: ≤ 23.280 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

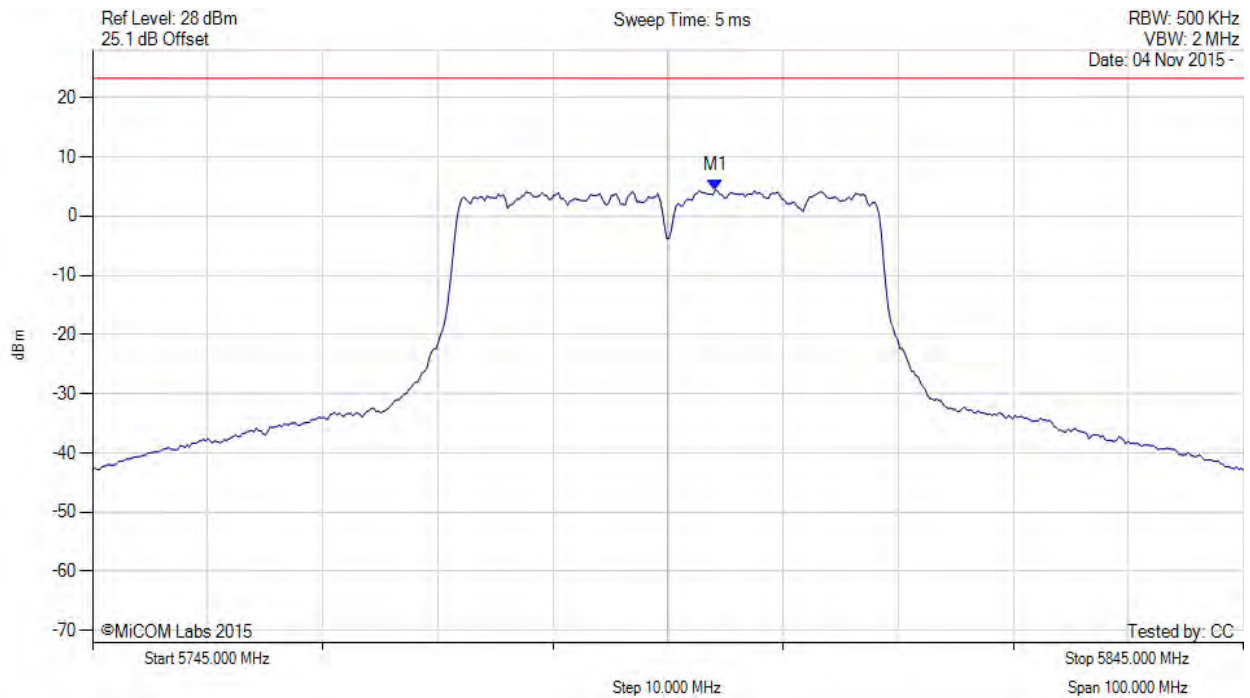


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 171 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5799.108 MHz : 4.437 dBm	Limit: ≤ 23.280 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

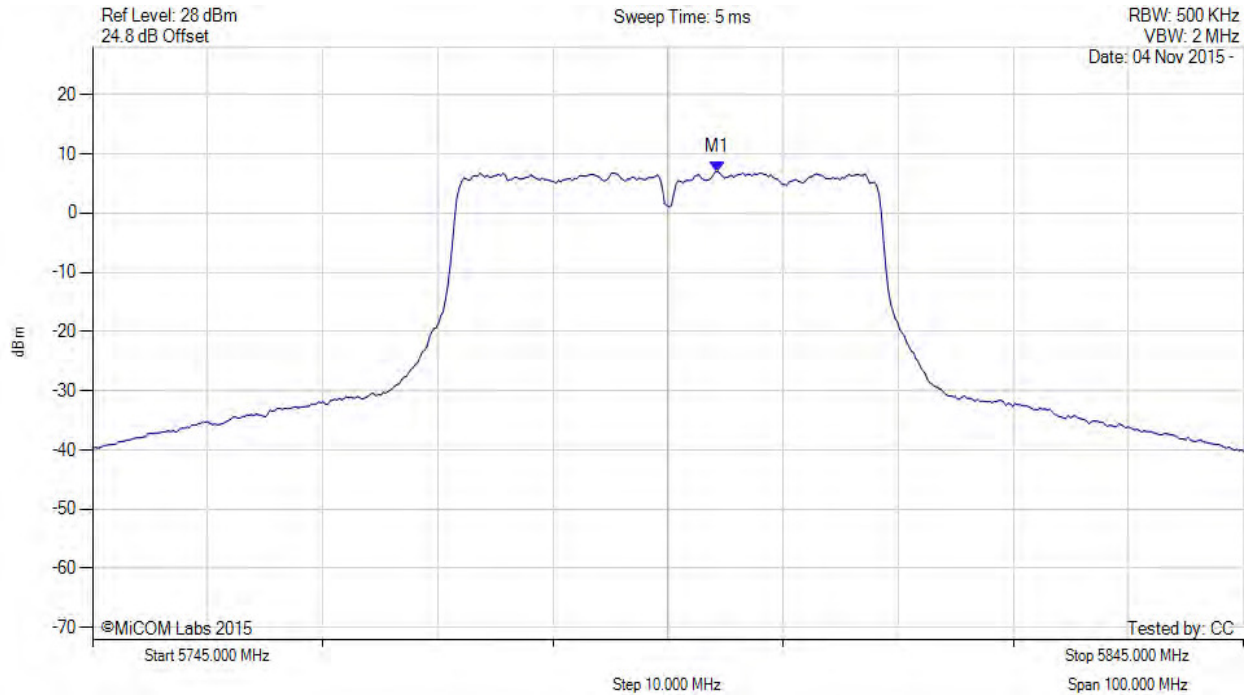


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 172 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5799.300 MHz : 7.003 dBm M1 + DCCF : 5799.300 MHz : 7.180 dBm Duty Cycle Correction Factor : +0.18 dB	Limit: ≤ 29.3 dBm Margin: -22.1 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

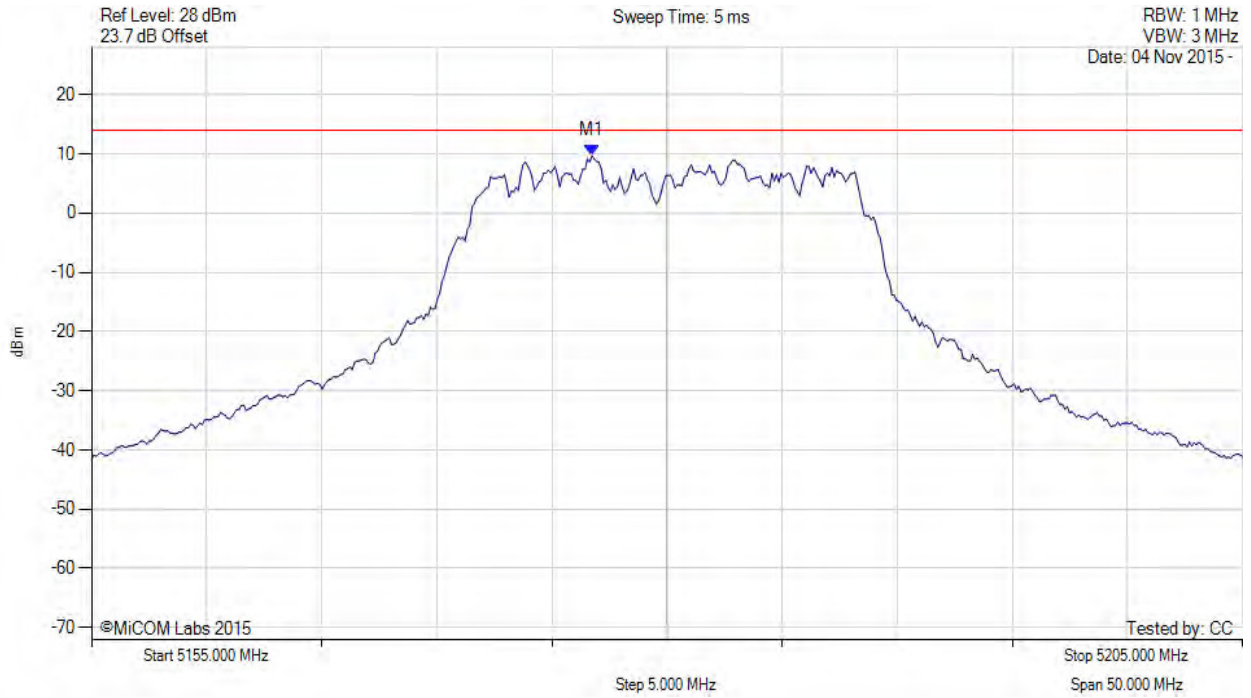


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 173 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5176.743 MHz : 9.675 dBm	Limit: ≤ 13.990 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

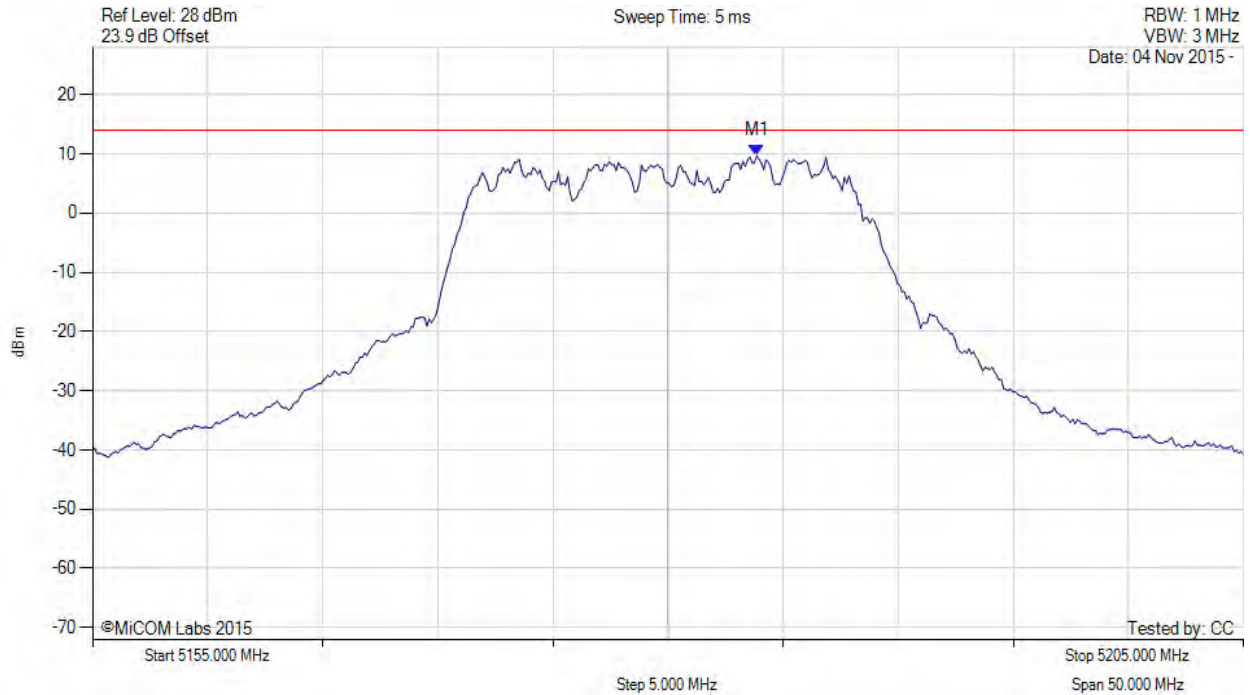


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 174 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5183.858 MHz : 9.655 dBm	Limit: ≤ 13.990 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

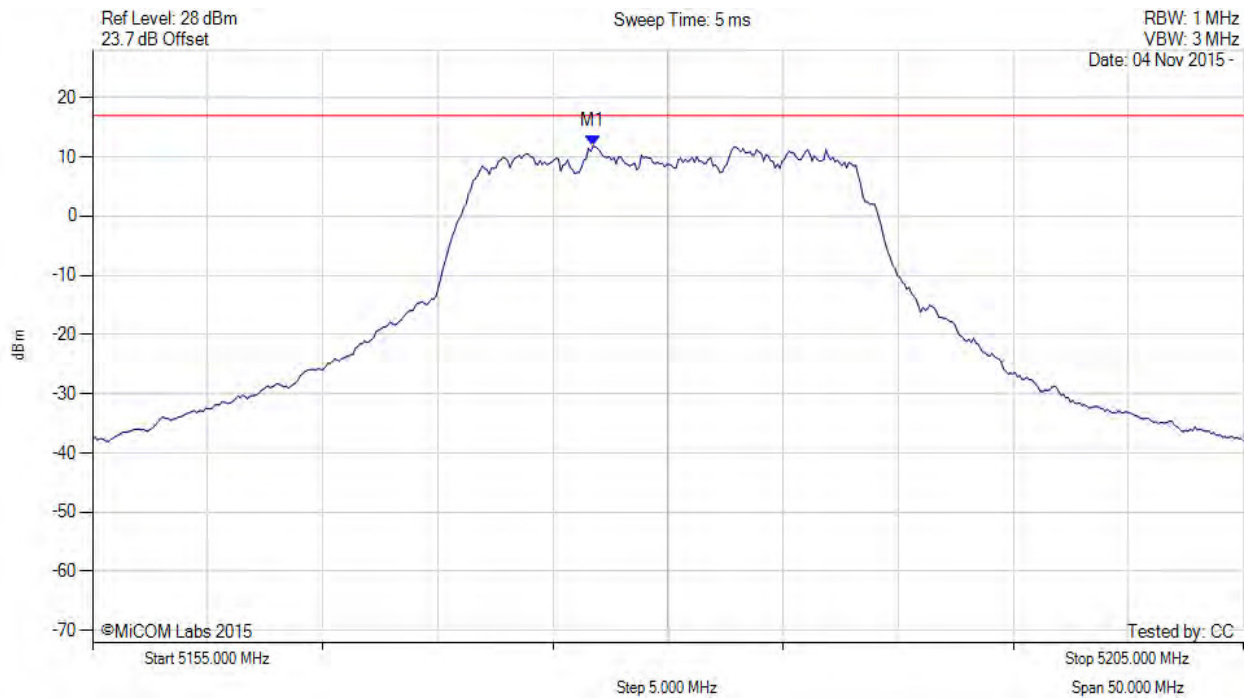


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 175 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5176.700 MHz : 11.803 dBm M1 + DCCF : 5176.700 MHz : 12.560 dBm Duty Cycle Correction Factor : +0.76 dB	Limit: ≤ 17.0 dBm Margin: -4.5 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

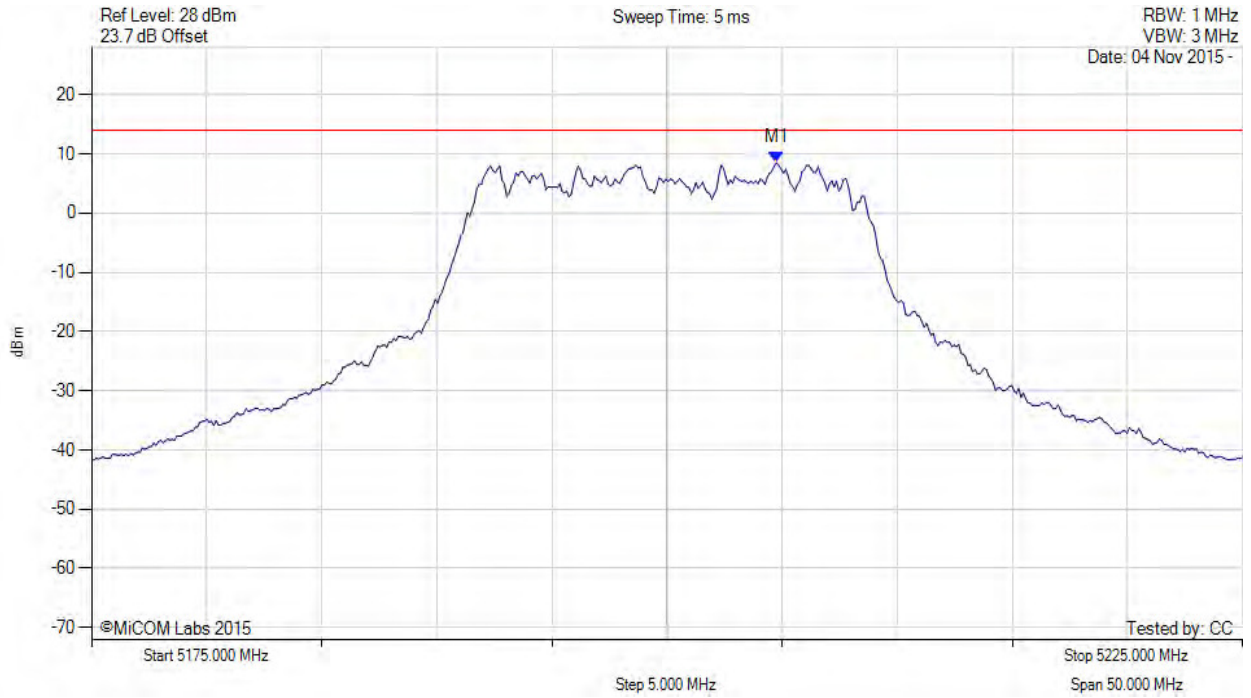


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 176 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5204.760 MHz : 8.501 dBm	Limit: ≤ 13.990 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

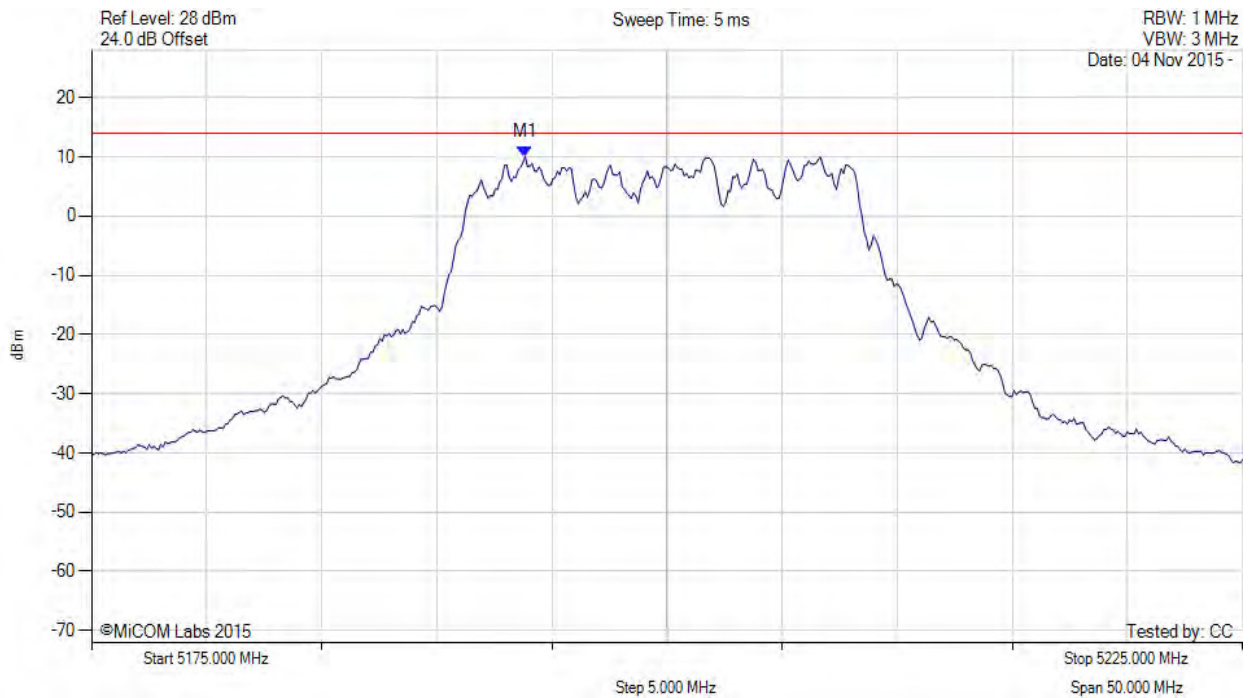


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 177 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5193.838 MHz : 10.024 dBm	Channel Frequency: 5200.00 MHz

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

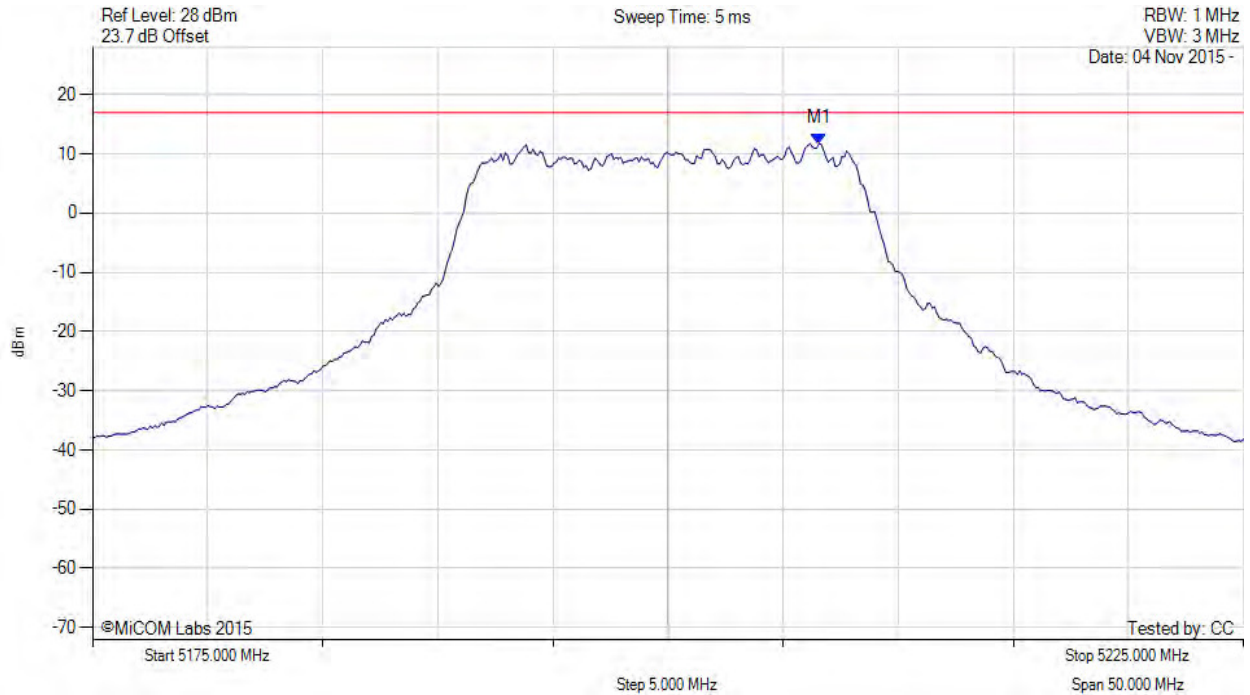


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 178 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5206.600 MHz : 11.735 dBm M1 + DCCF : 5206.600 MHz : 12.492 dBm Duty Cycle Correction Factor : +0.76 dB	Limit: ≤ 17.0 dBm Margin: -4.5 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

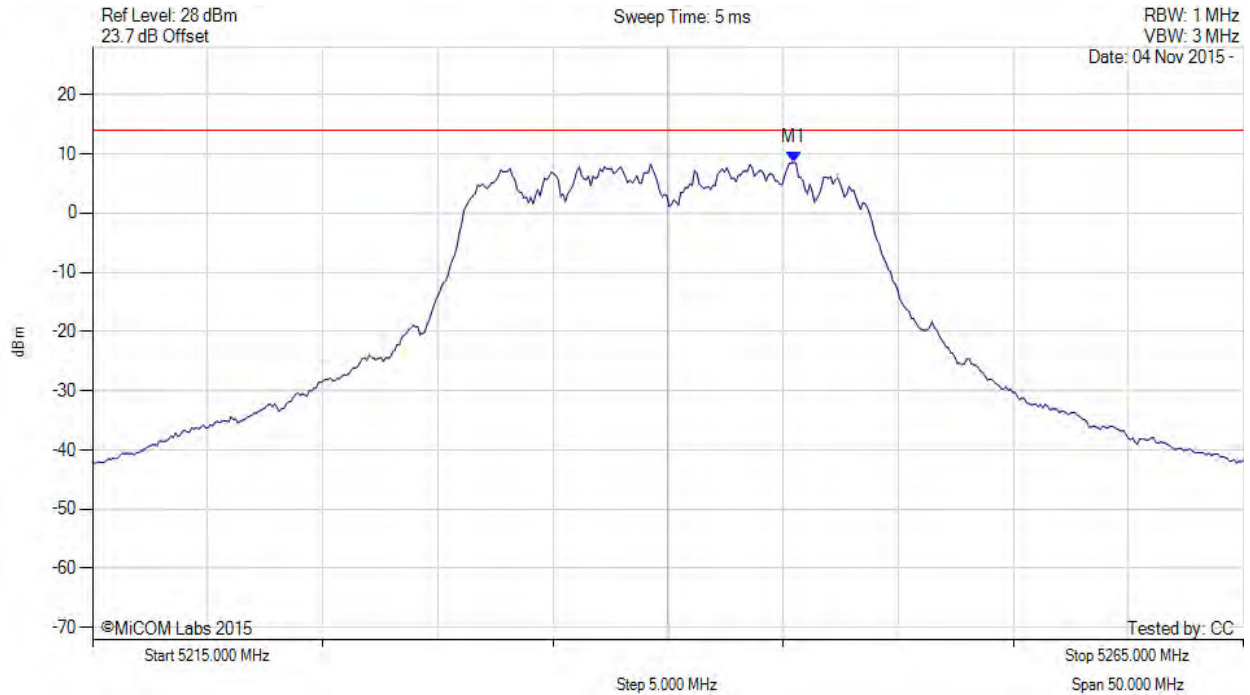


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 179 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5245.461 MHz : 8.506 dBm	Limit: ≤ 13.990 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

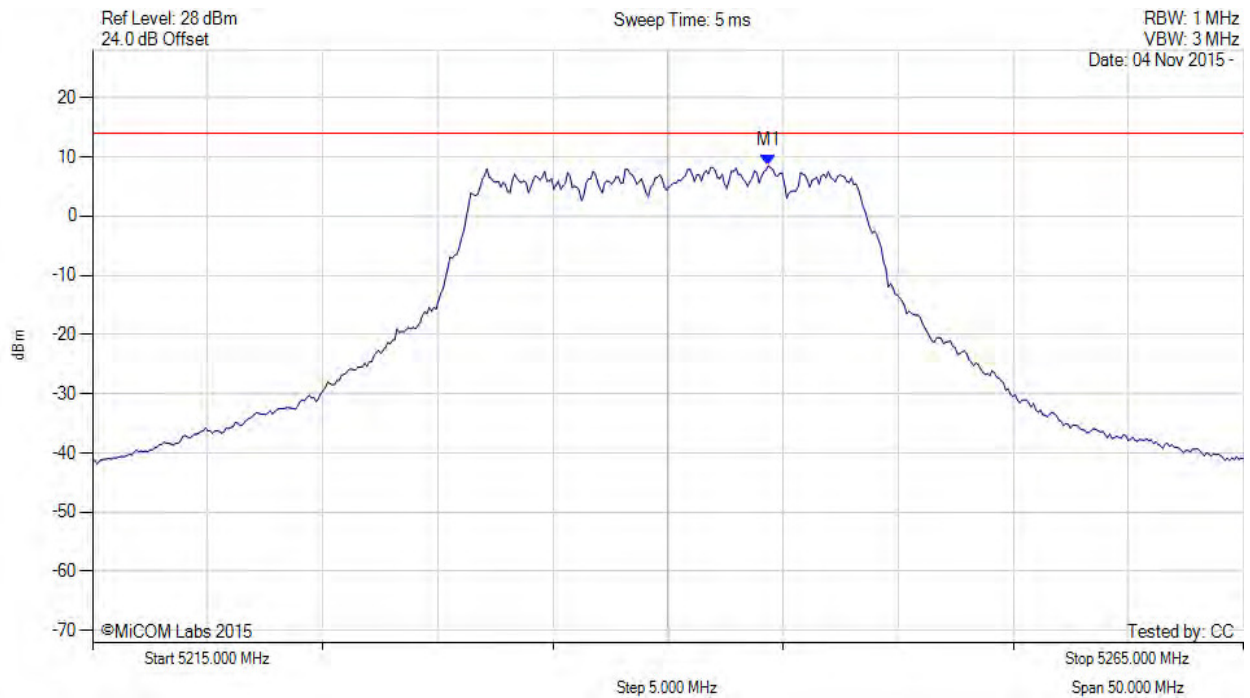


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 180 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5244.359 MHz : 8.482 dBm	Limit: ≤ 13.990 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

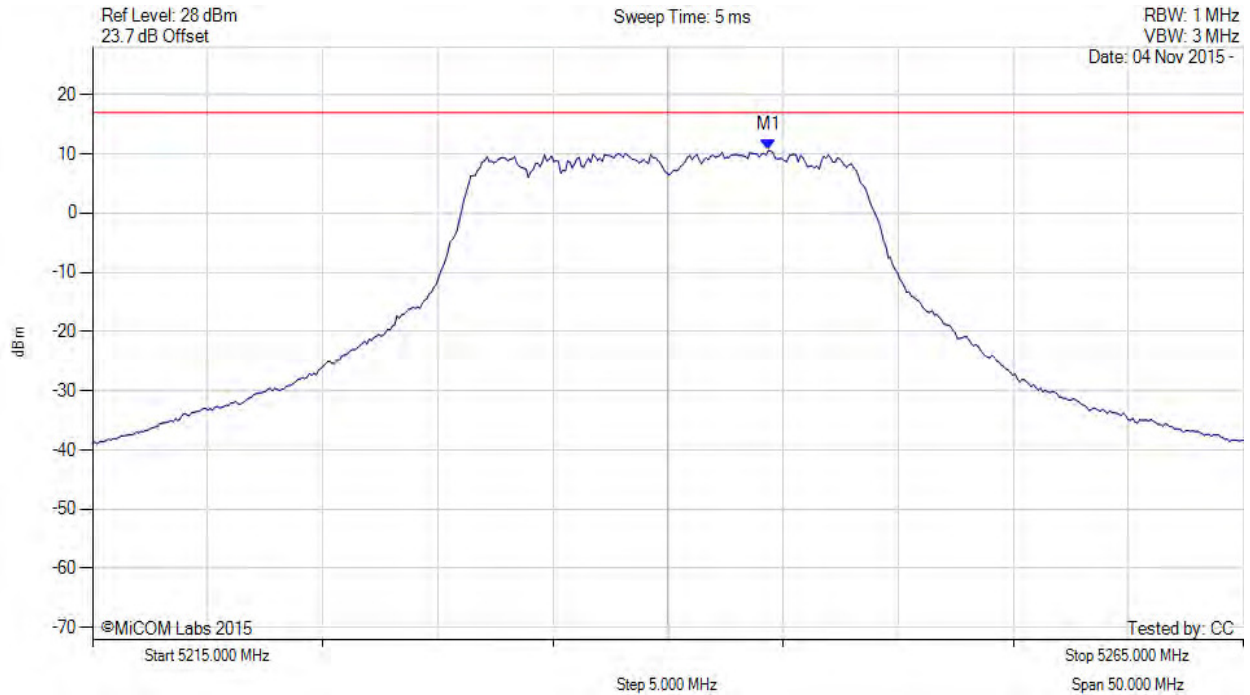


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 181 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5244.400 MHz : 10.578 dBm M1 + DCCF : 5244.400 MHz : 11.335 dBm Duty Cycle Correction Factor : +0.76 dB	Limit: ≤ 17.0 dBm Margin: -5.7 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

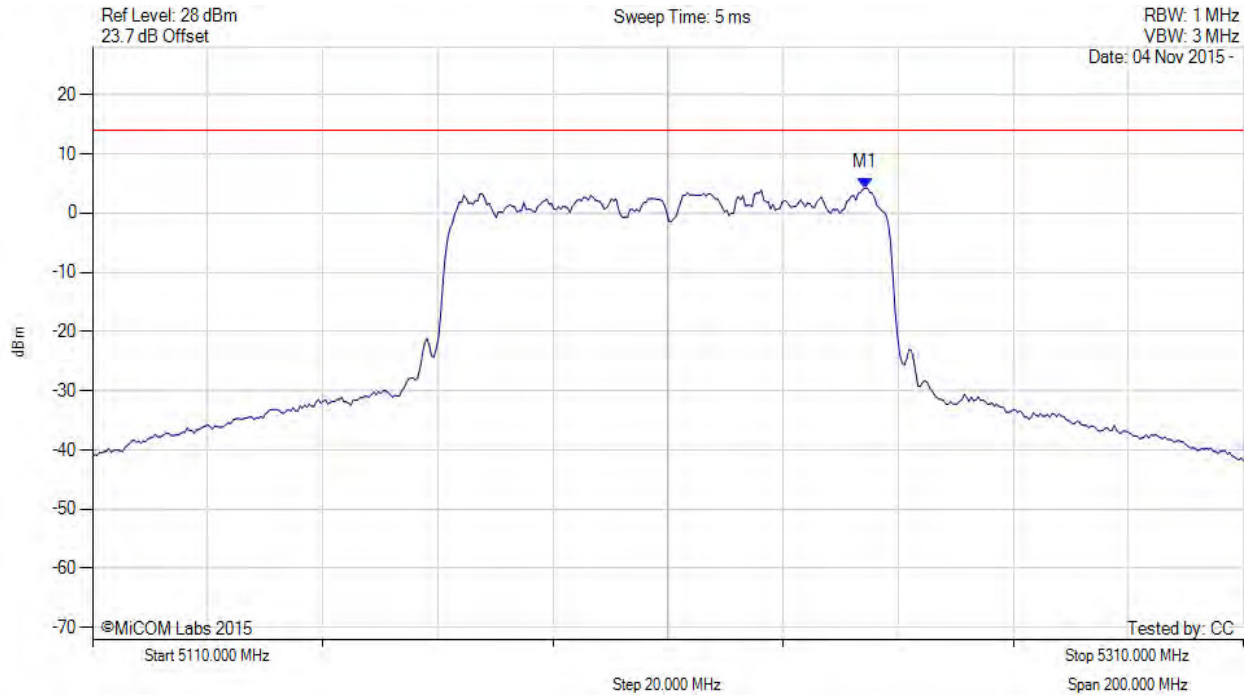


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 182 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5244.269 MHz : 4.237 dBm	Limit: ≤ 13.990 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

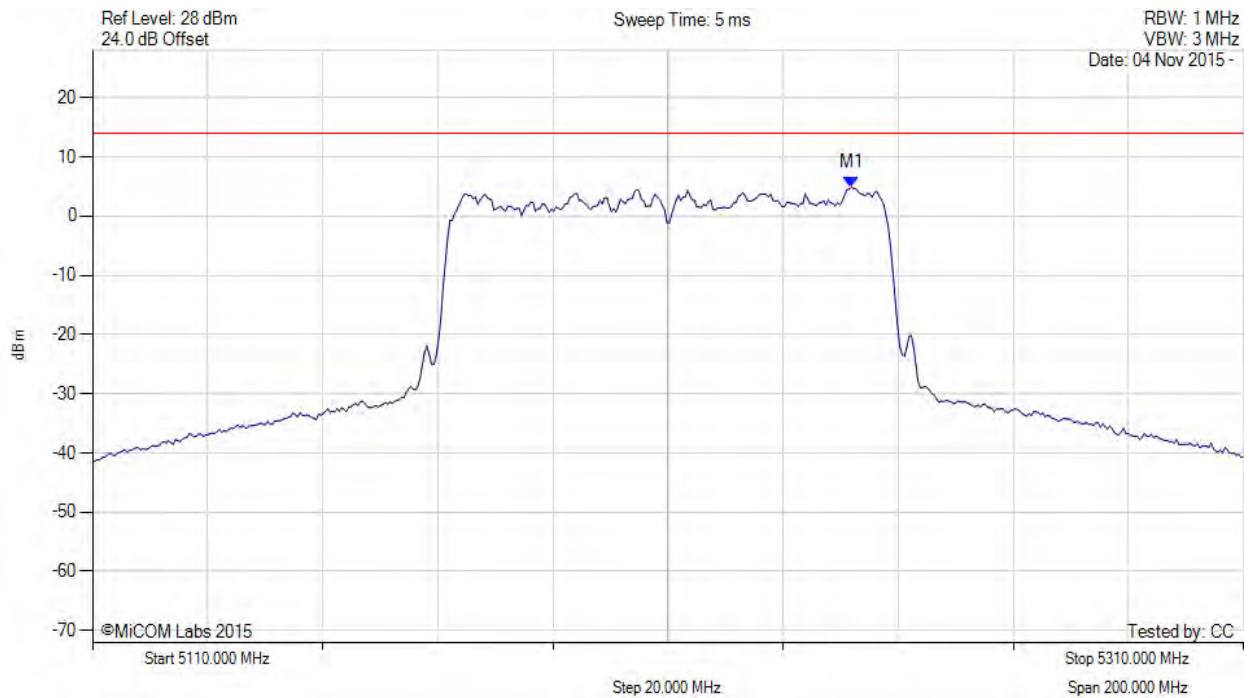


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 183 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5241.864 MHz : 4.928 dBm	Limit: ≤ 13.990 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

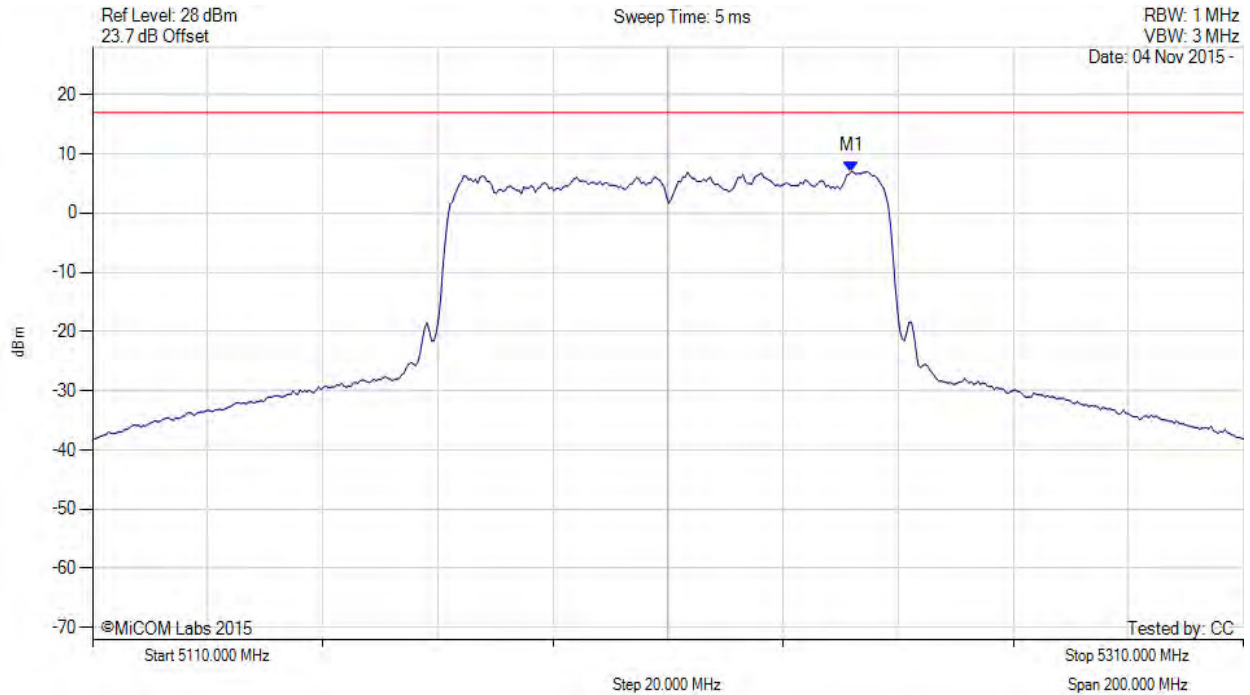


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 184 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5241.900 MHz : 7.041 dBm M1 + DCCF : 5241.900 MHz : 7.547 dBm Duty Cycle Correction Factor : +0.51 dB	Limit: ≤ 17.0 dBm Margin: -9.5 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

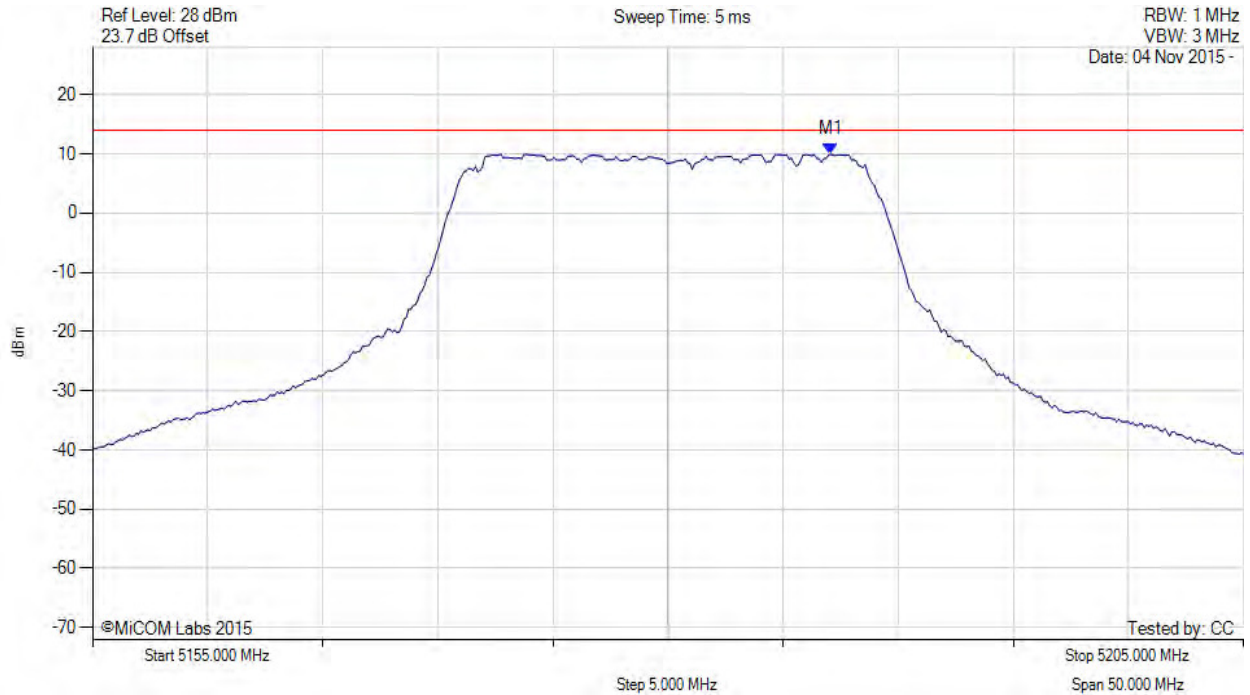


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 185 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5187.064 MHz : 9.939 dBm	Limit: ≤ 13.990 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

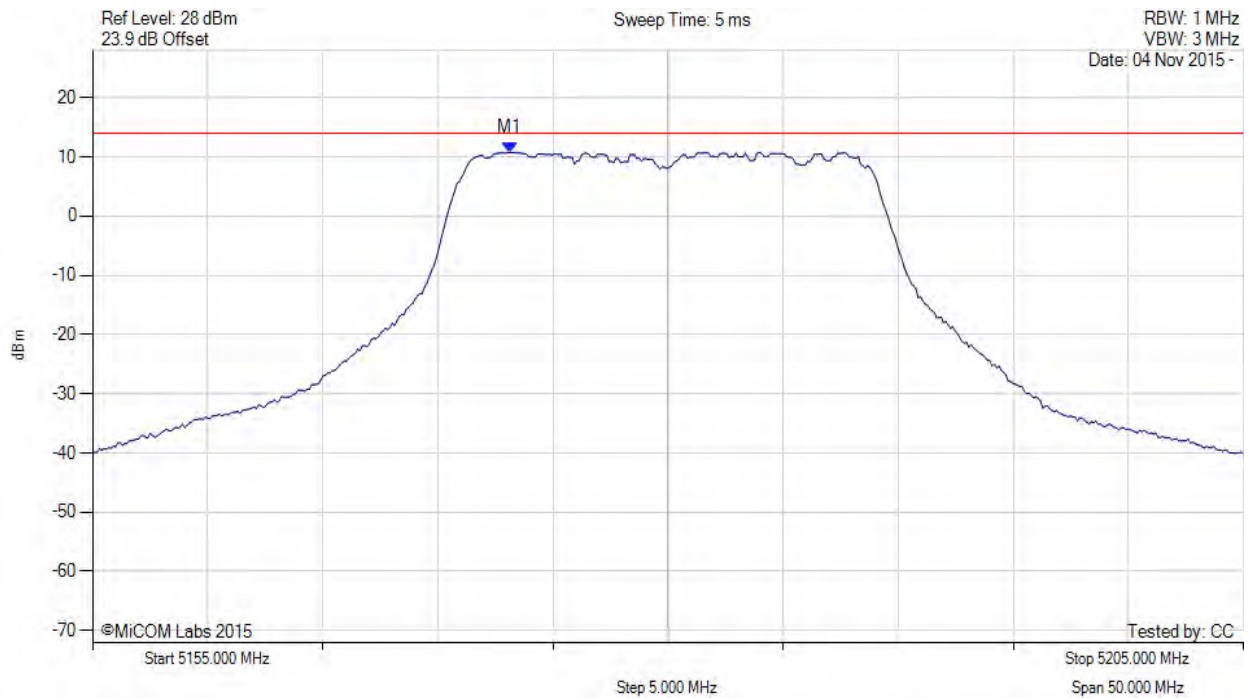


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 186 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5173.136 MHz : 10.730 dBm	Limit: ≤ 13.990 dBm

[back to matrix](#)

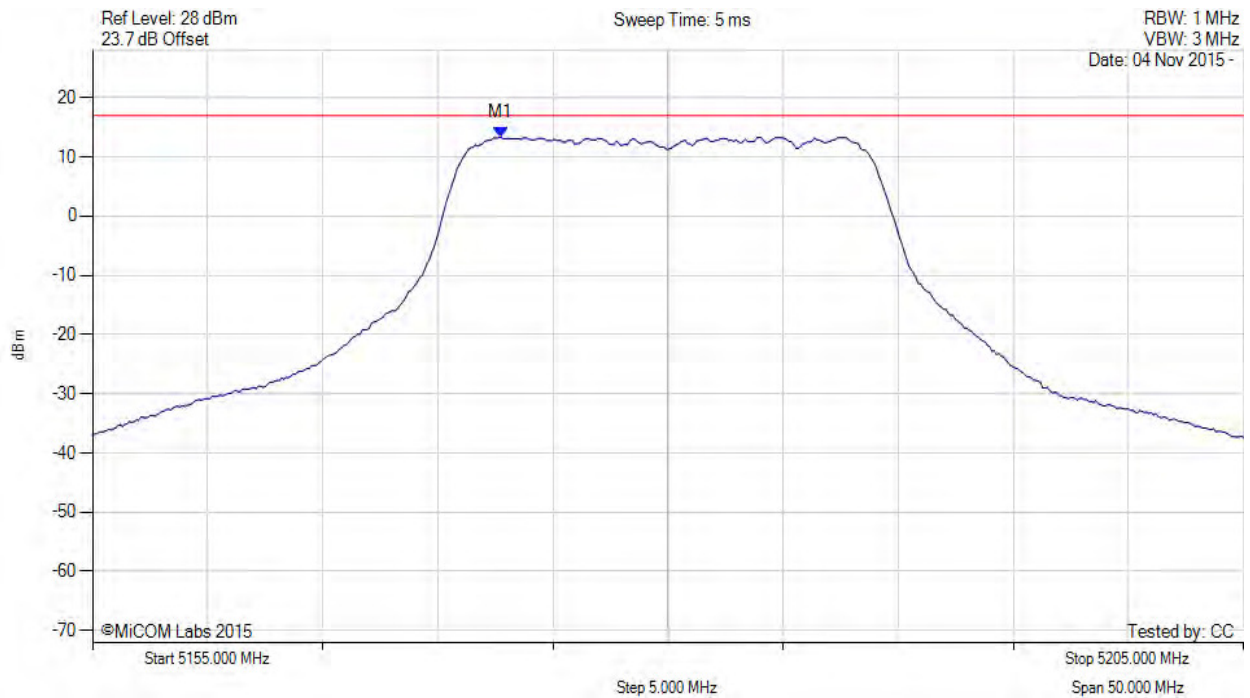
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5172.700 MHz : 13.322 dBm M1 + DCCF : 5172.700 MHz : 13.410 dBm Duty Cycle Correction Factor : +0.09 dB	Limit: ≤ 17.0 dBm Margin: -3.6 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

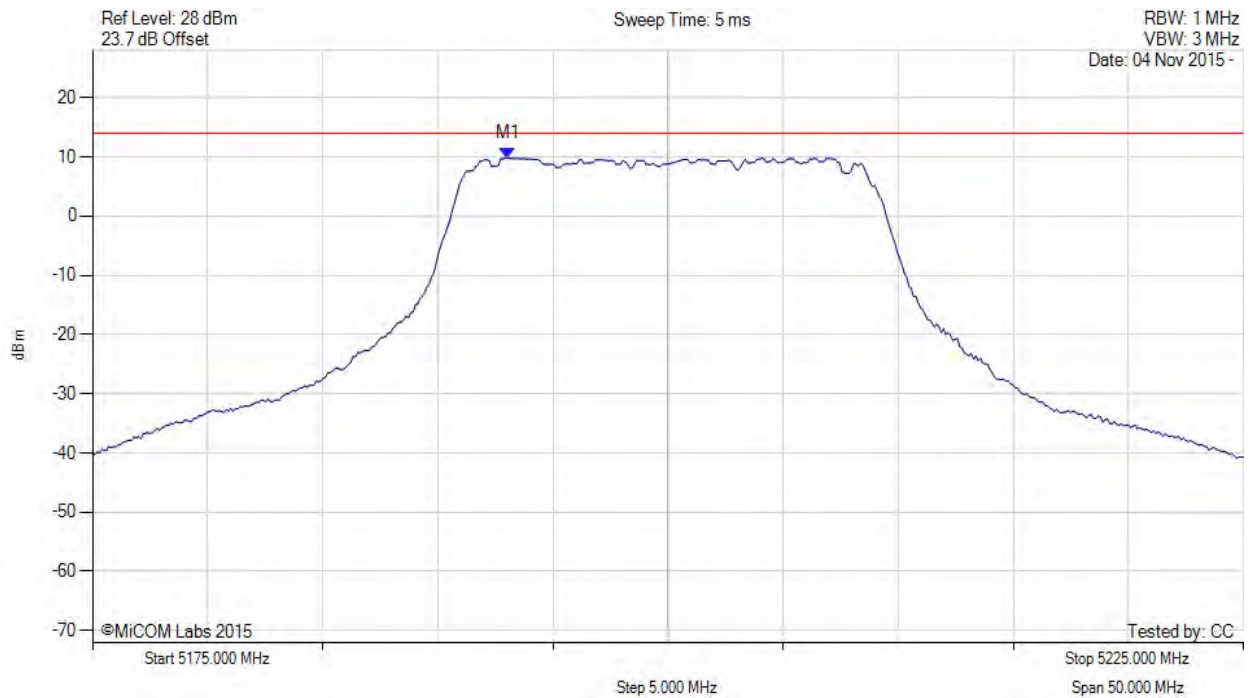


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 188 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5193.036 MHz : 9.802 dBm	Limit: ≤ 13.990 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

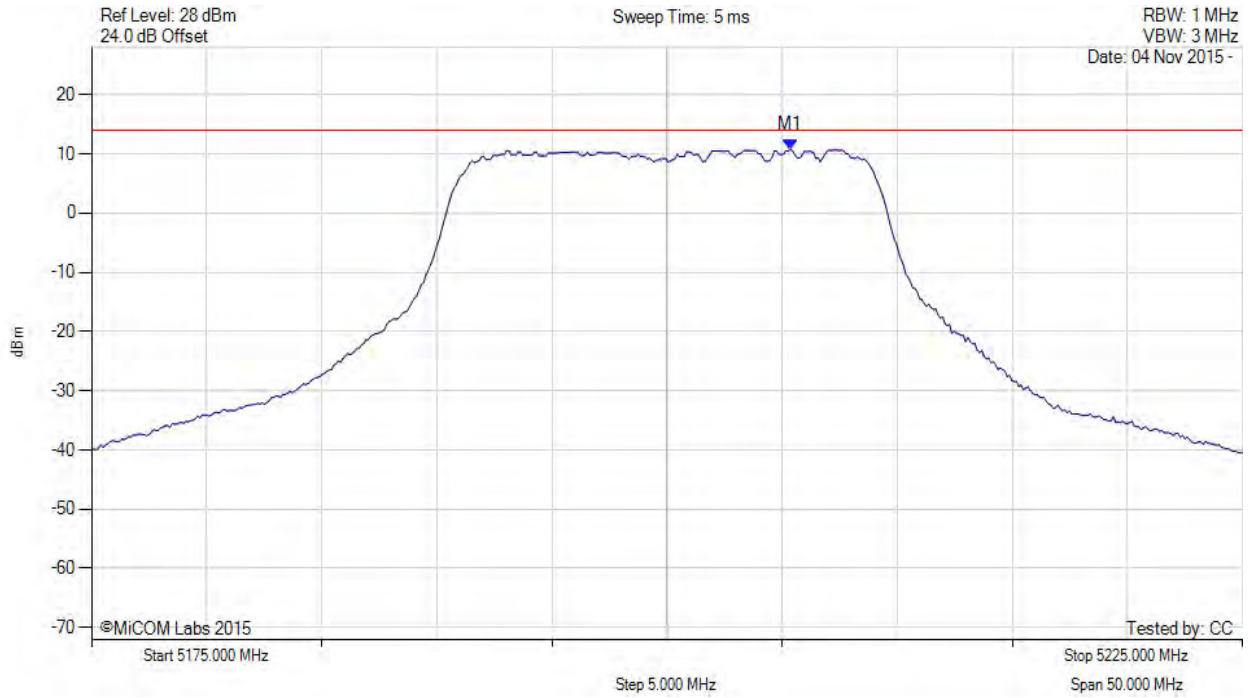


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 189 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5205.361 MHz : 10.705 dBm	Channel Frequency: 5200.00 MHz

[back to matrix](#)

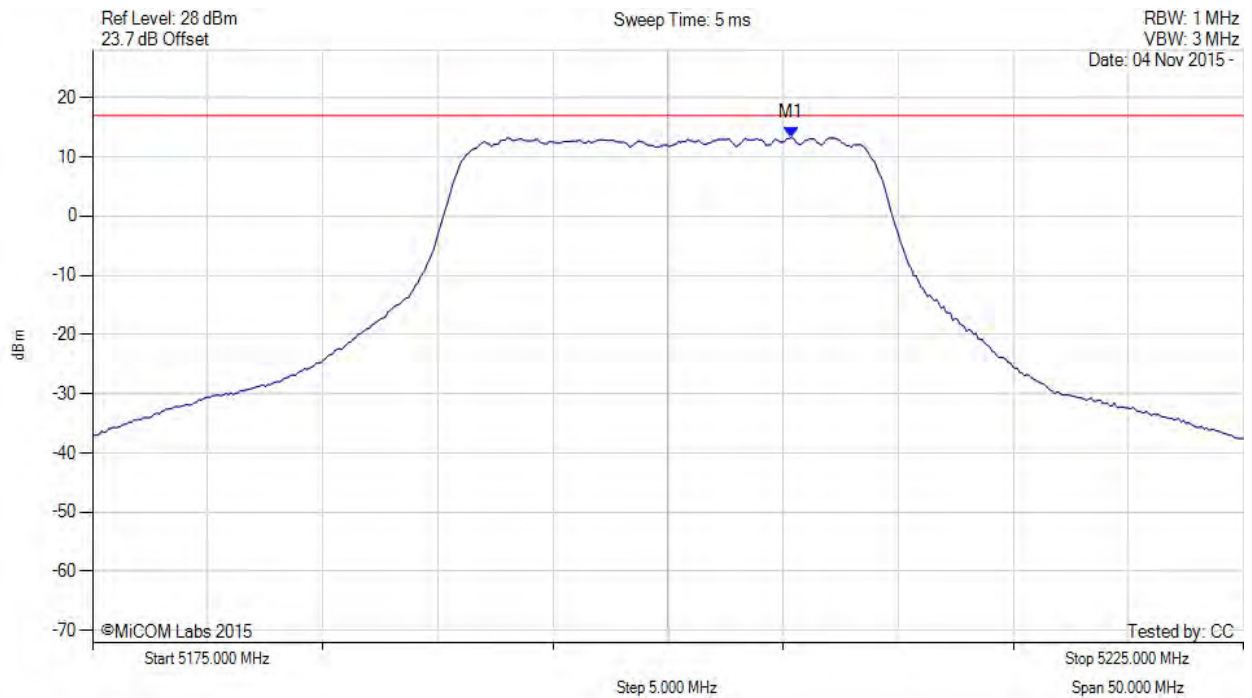
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5205.400 MHz : 13.240 dBm M1 + DCCF : 5205.400 MHz : 13.328 dBm Duty Cycle Correction Factor : +0.09 dB	Limit: ≤ 17.0 dBm Margin: -3.7 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

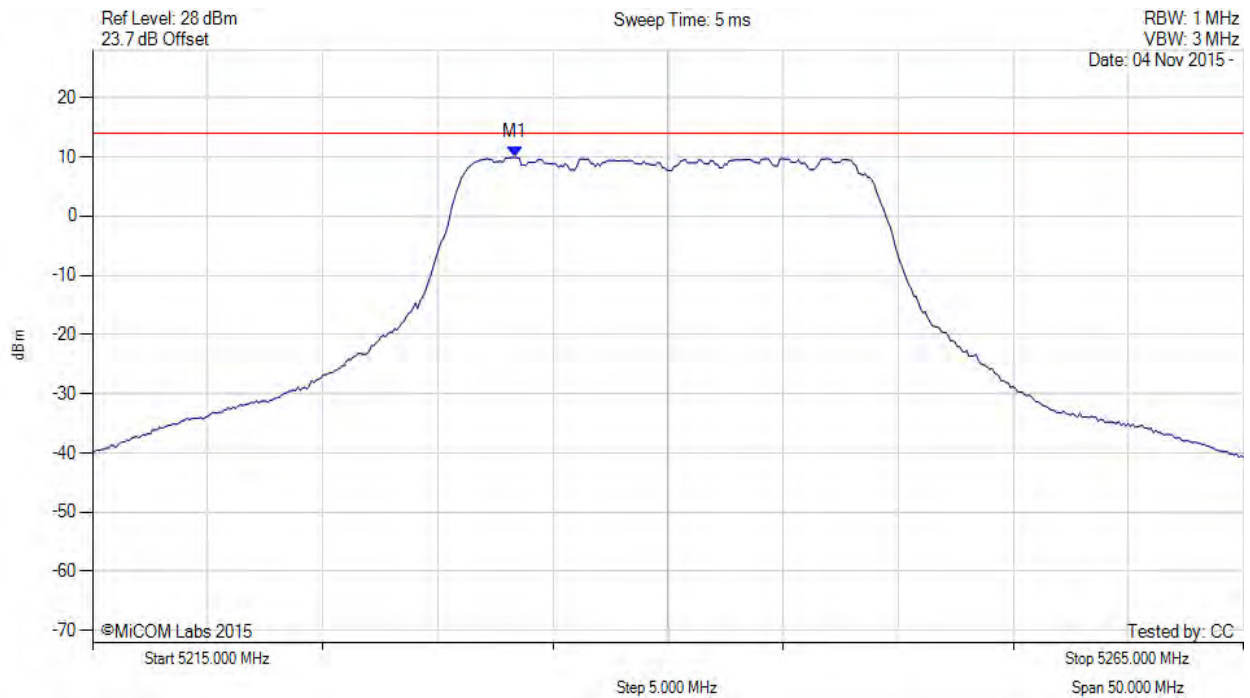


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 191 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5233.337 MHz : 9.920 dBm	Limit: ≤ 13.990 dBm

[back to matrix](#)

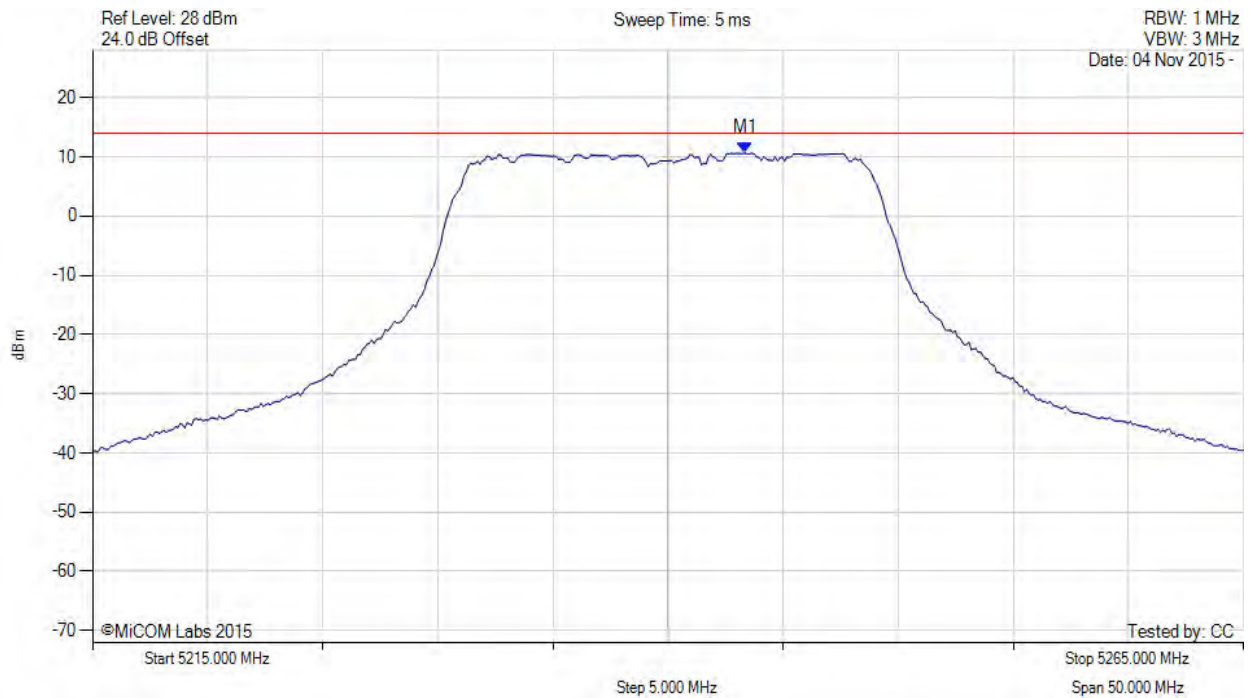
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5243.357 MHz : 10.650 dBm	Limit: ≤ 13.990 dBm

[back to matrix](#)

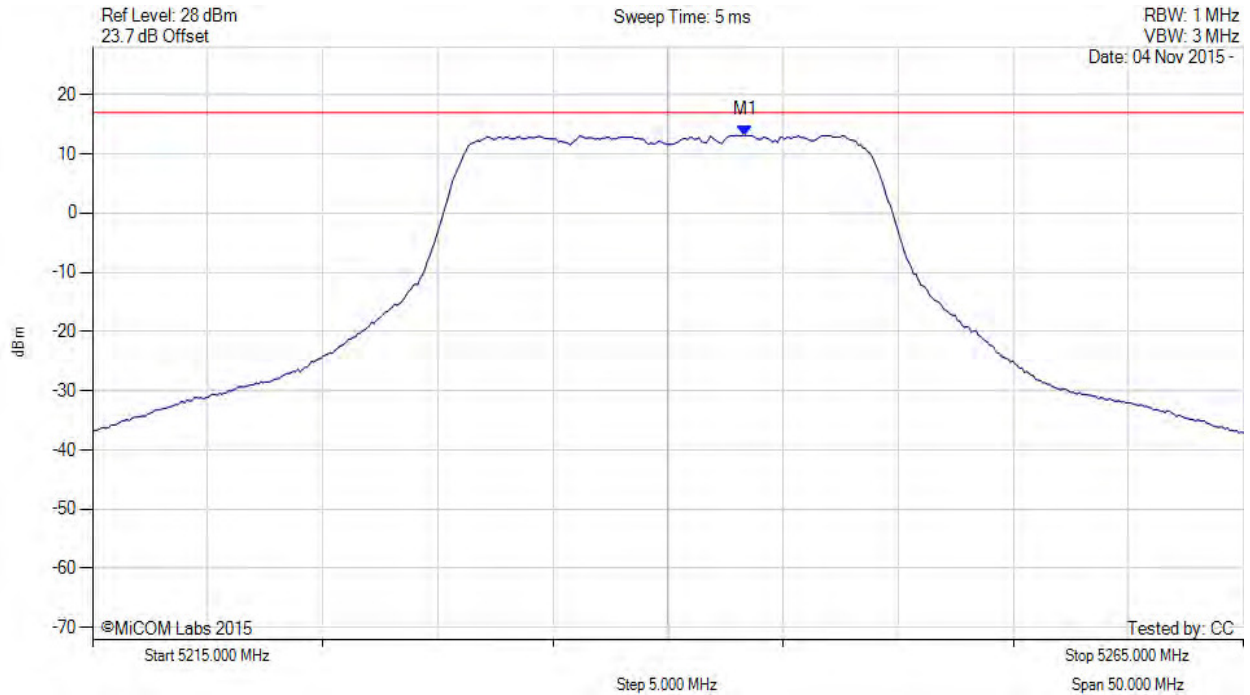
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5243.400 MHz : 13.117 dBm M1 + DCCF : 5243.400 MHz : 13.205 dBm Duty Cycle Correction Factor : +0.09 dB	Limit: ≤ 17.0 dBm Margin: -3.8 dB

[back to matrix](#)

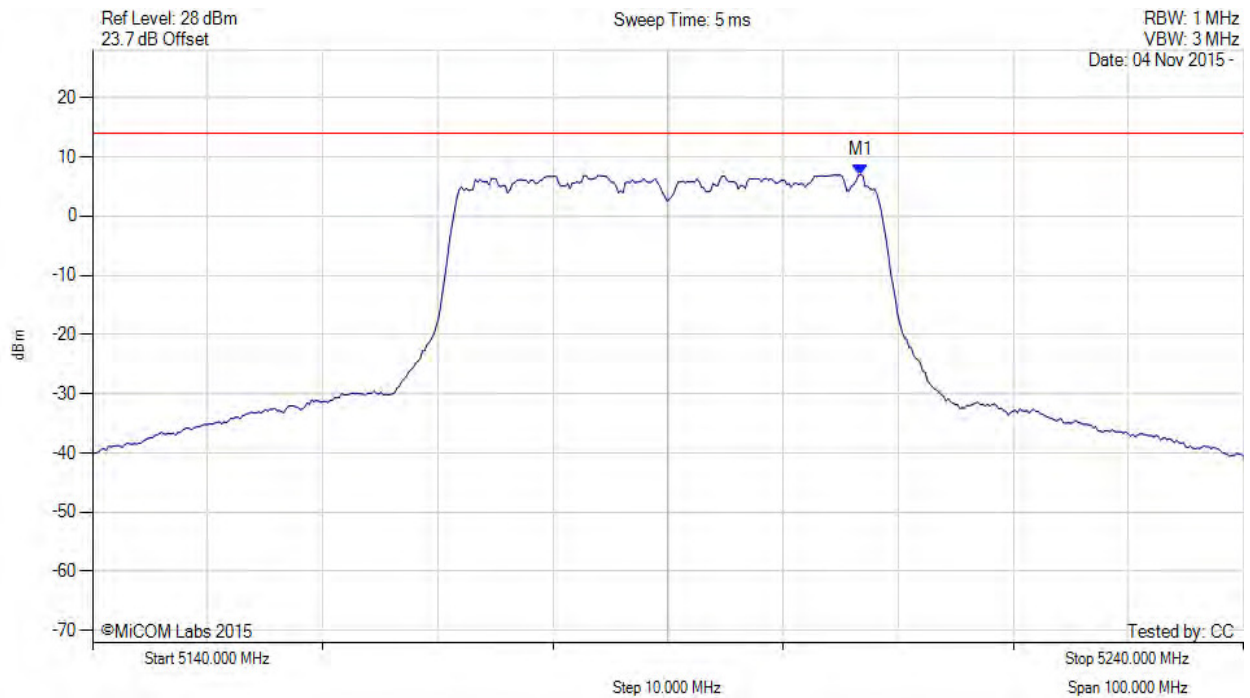
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5206.733 MHz : 6.997 dBm	Limit: ≤ 13.990 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

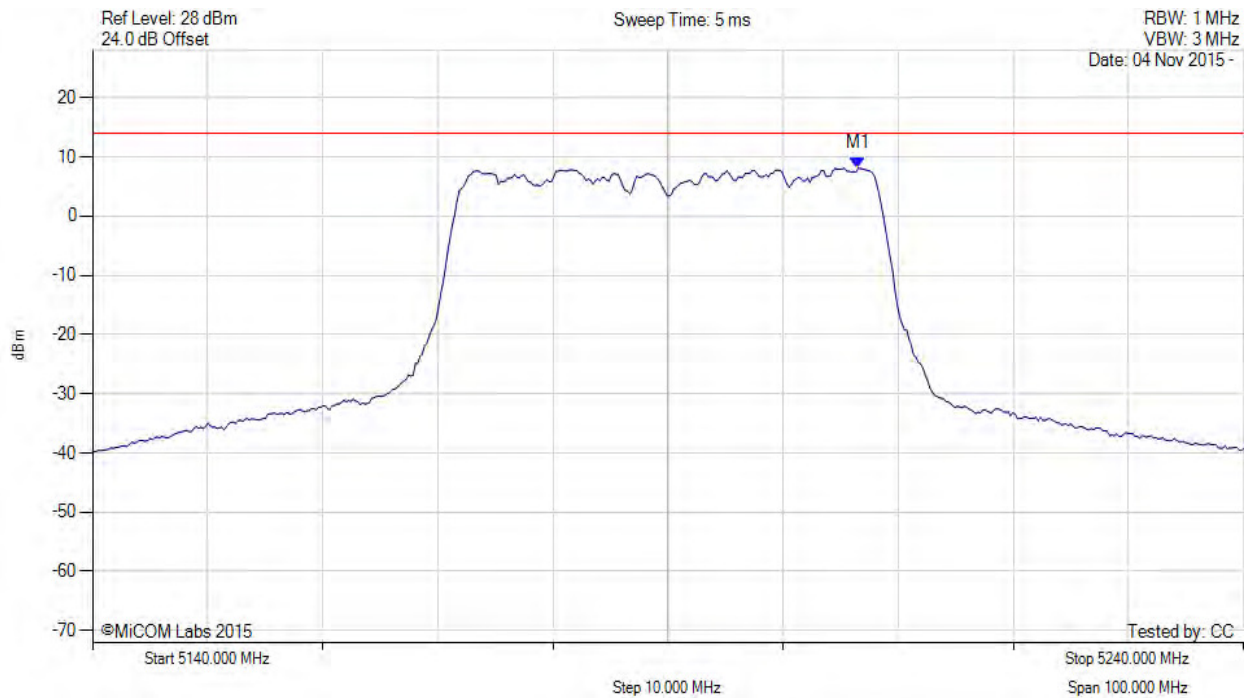


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 195 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5206.533 MHz : 8.111 dBm	Limit: ≤ 13.990 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

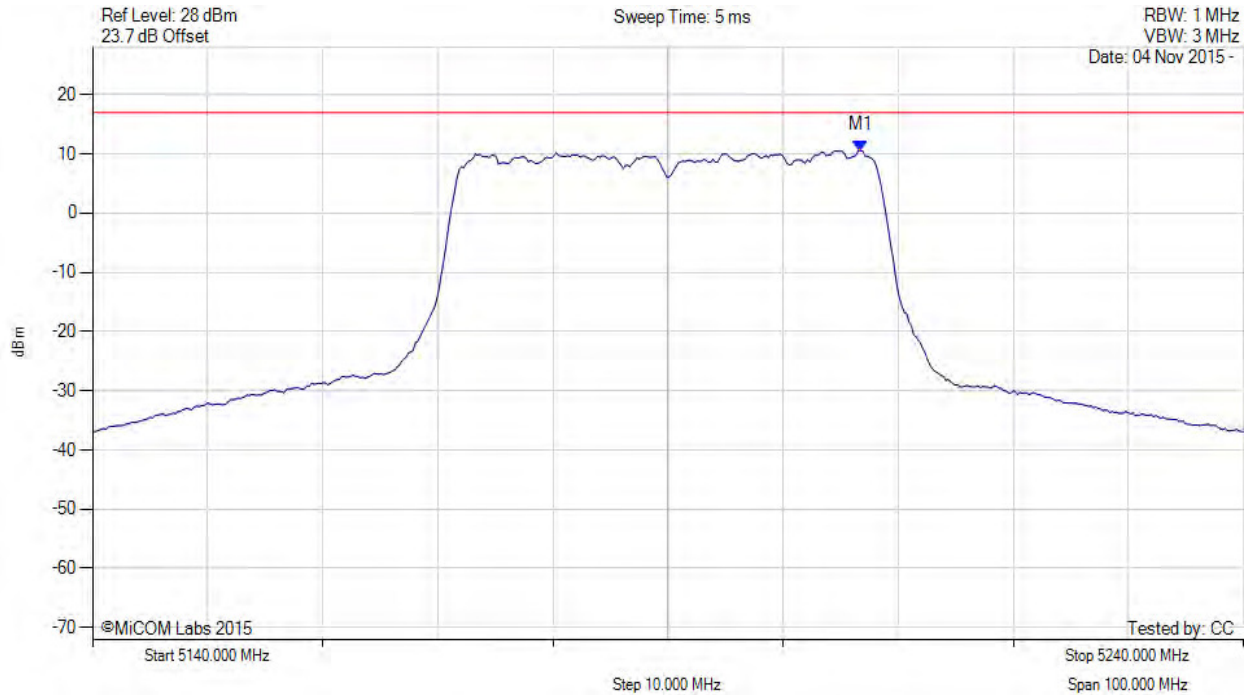


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 196 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5206.700 MHz : 10.551 dBm M1 + DCCF : 5206.700 MHz : 10.728 dBm Duty Cycle Correction Factor : +0.18 dB	Limit: ≤ 17.0 dBm Margin: -6.3 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

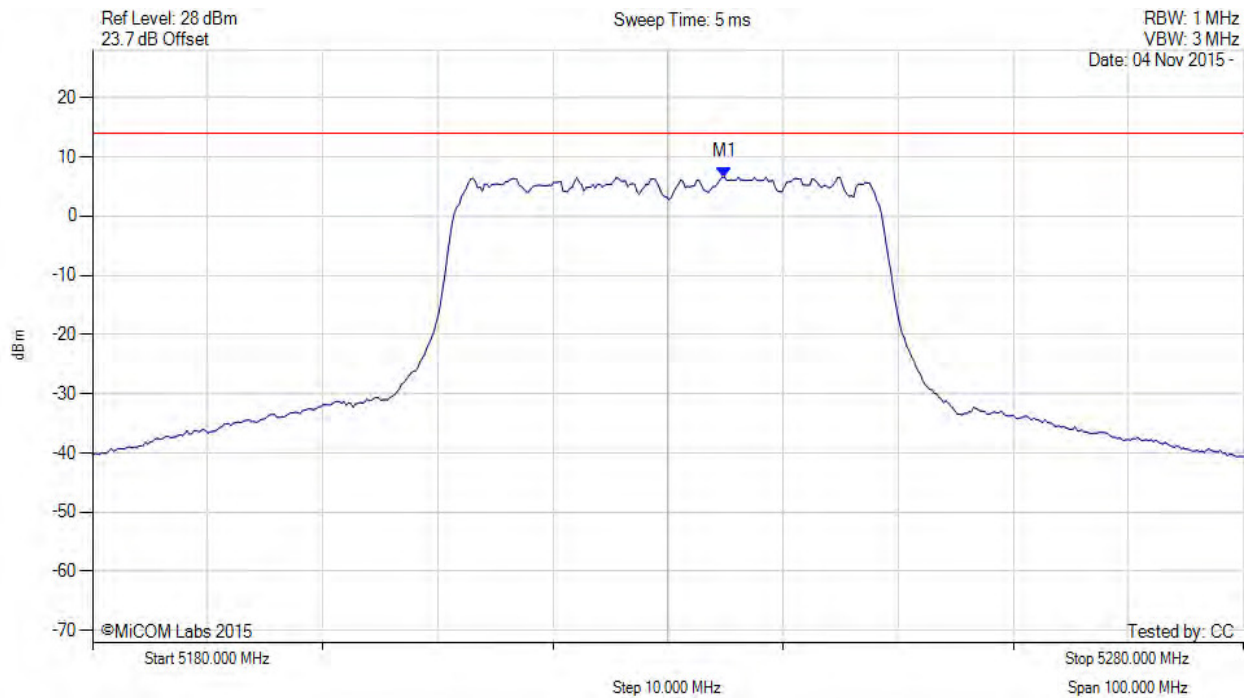


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 197 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5234.910 MHz : 6.589 dBm	Limit: ≤ 13.990 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

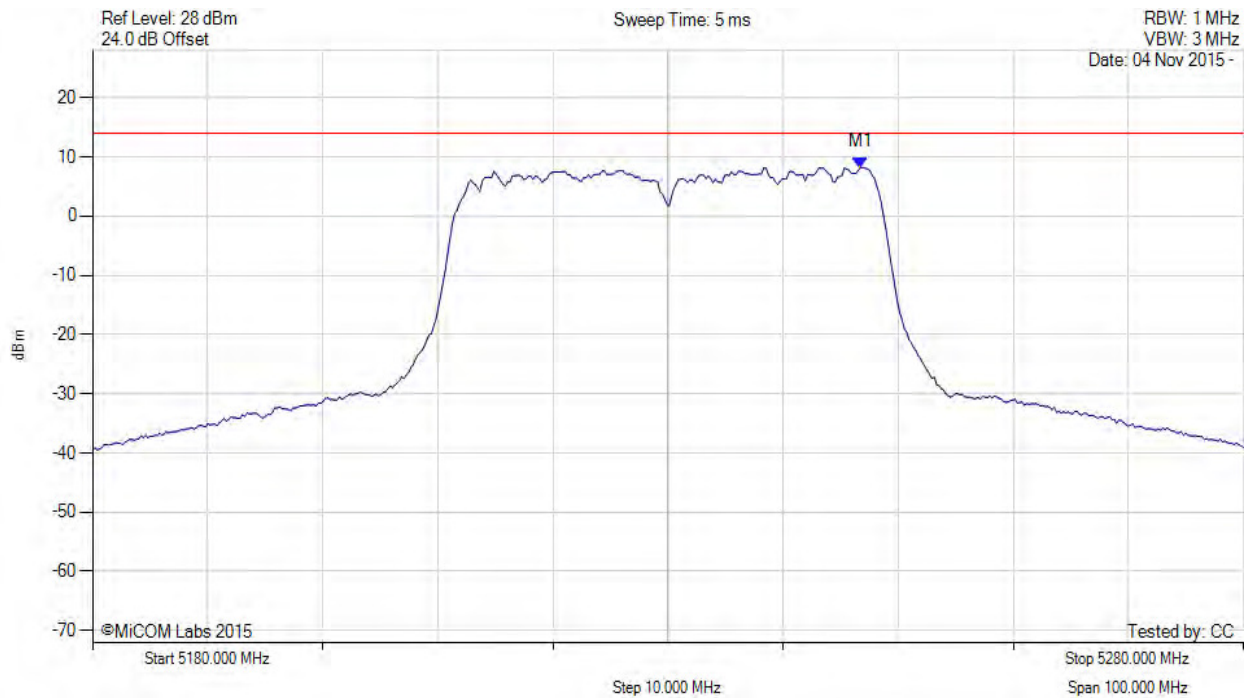


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 198 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5246.733 MHz : 8.233 dBm	Limit: ≤ 13.990 dBm

[back to matrix](#)

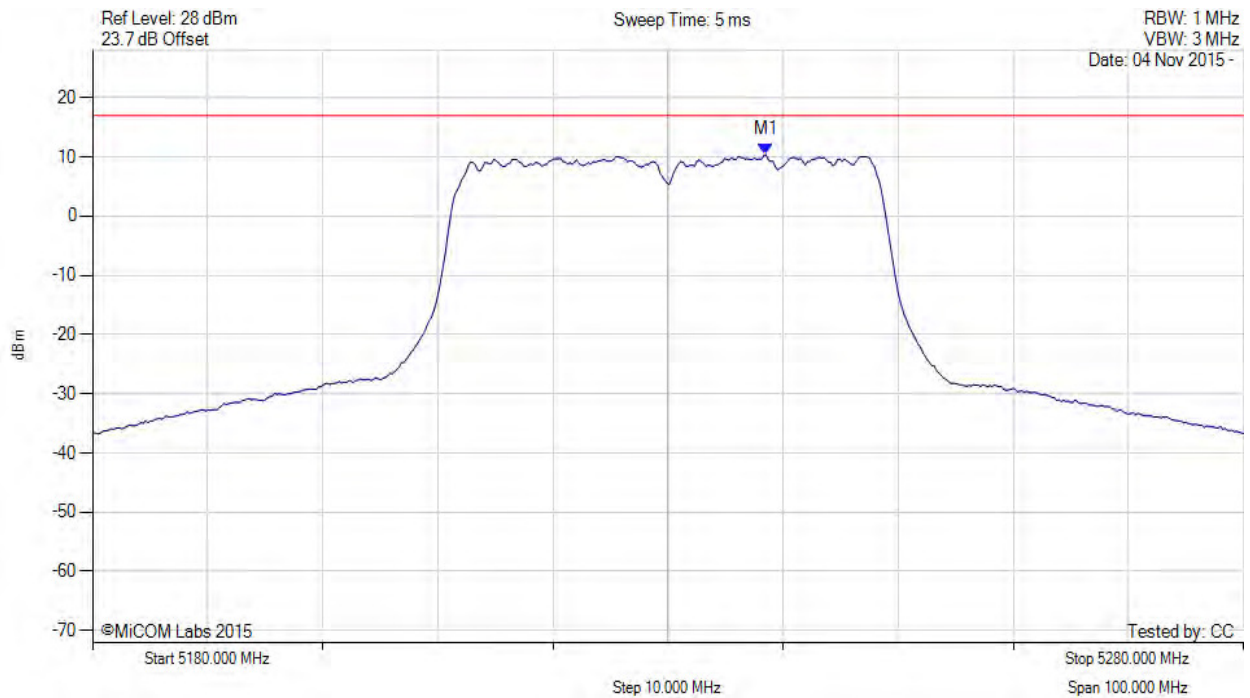
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5238.500 MHz : 10.414 dBm M1 + DCCF : 5238.500 MHz : 10.591 dBm Duty Cycle Correction Factor : +0.18 dB	Limit: ≤ 17.0 dBm Margin: -6.4 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

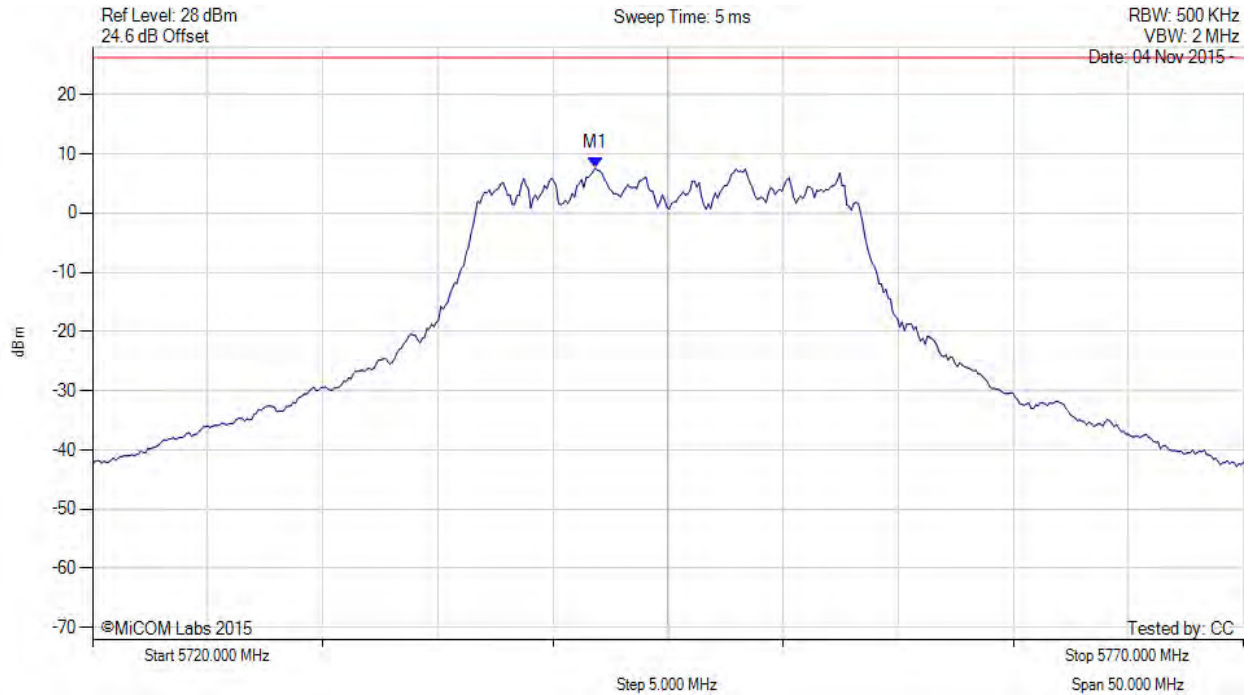


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 200 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5741.844 MHz : 7.594 dBm	Limit: ≤ 26.290 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

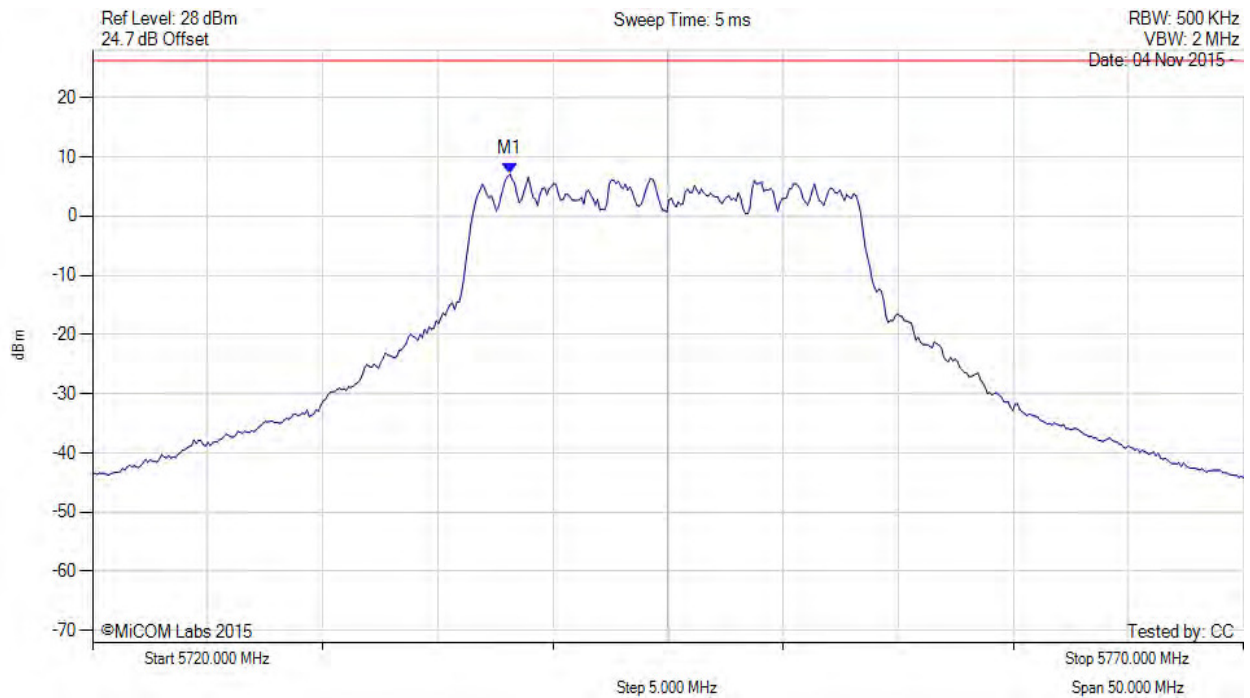


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 201 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5738.136 MHz : 7.115 dBm	Limit: ≤ 26.290 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

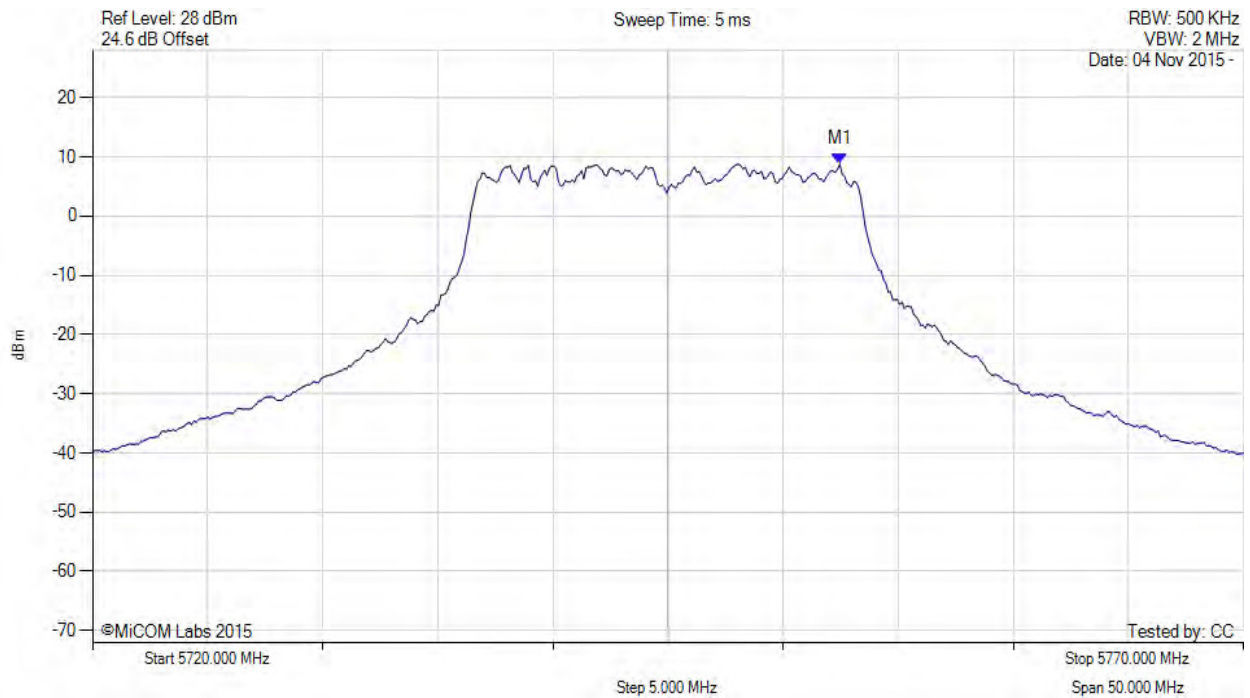


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 202 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5752.500 MHz : 8.773 dBm M1 + DCCF : 5752.500 MHz : 9.530 dBm Duty Cycle Correction Factor : +0.76 dB	Limit: ≤ 29.3 dBm Margin: -19.8 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

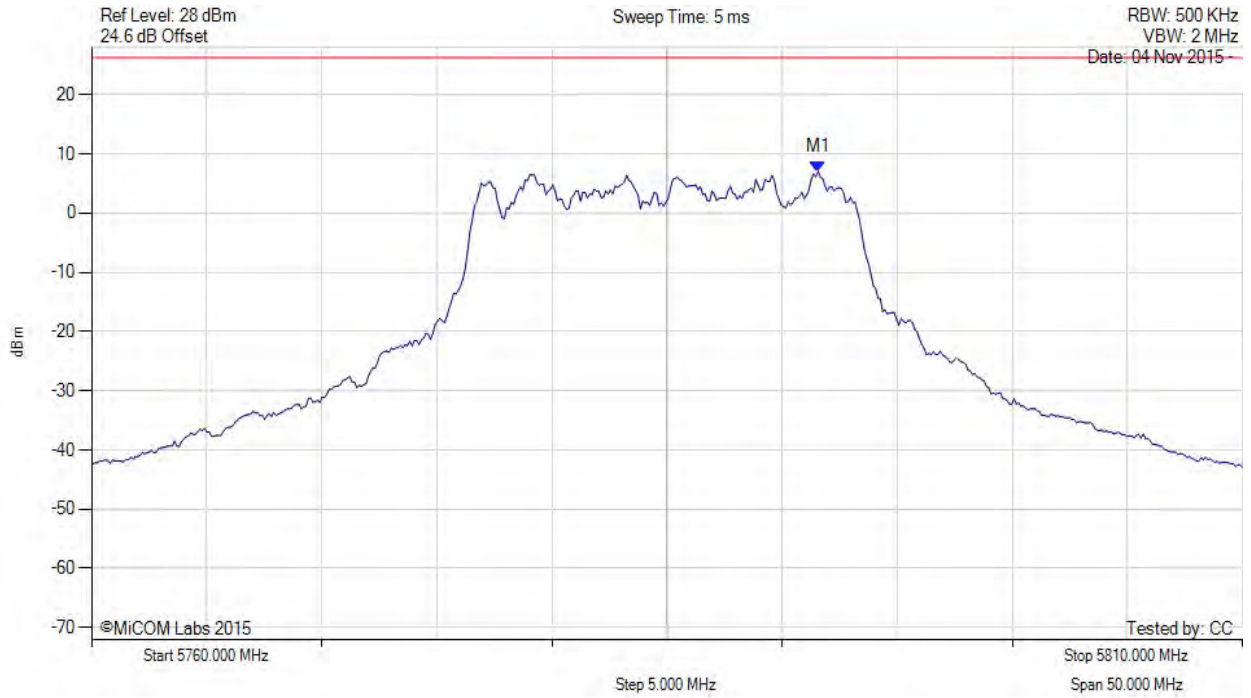


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 203 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5791.563 MHz : 7.010 dBm	Limit: ≤ 26.290 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

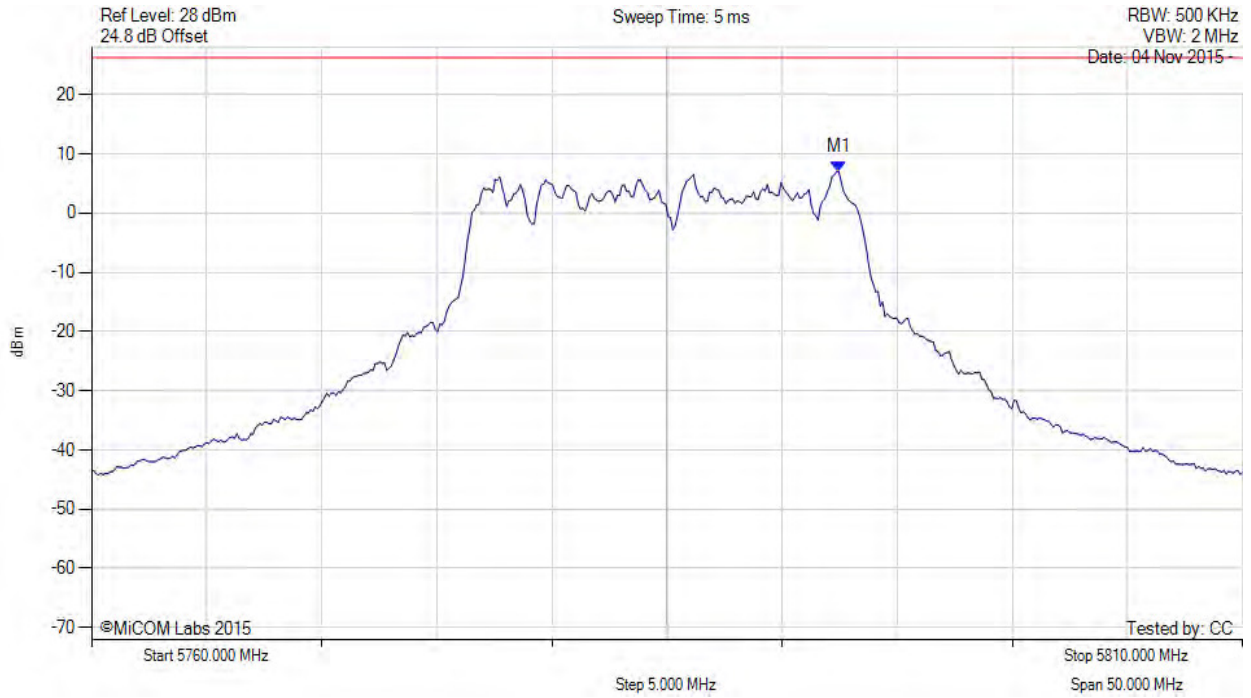


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 204 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5792.465 MHz : 7.010 dBm	Channel Frequency: 5785.00 MHz

[back to matrix](#)

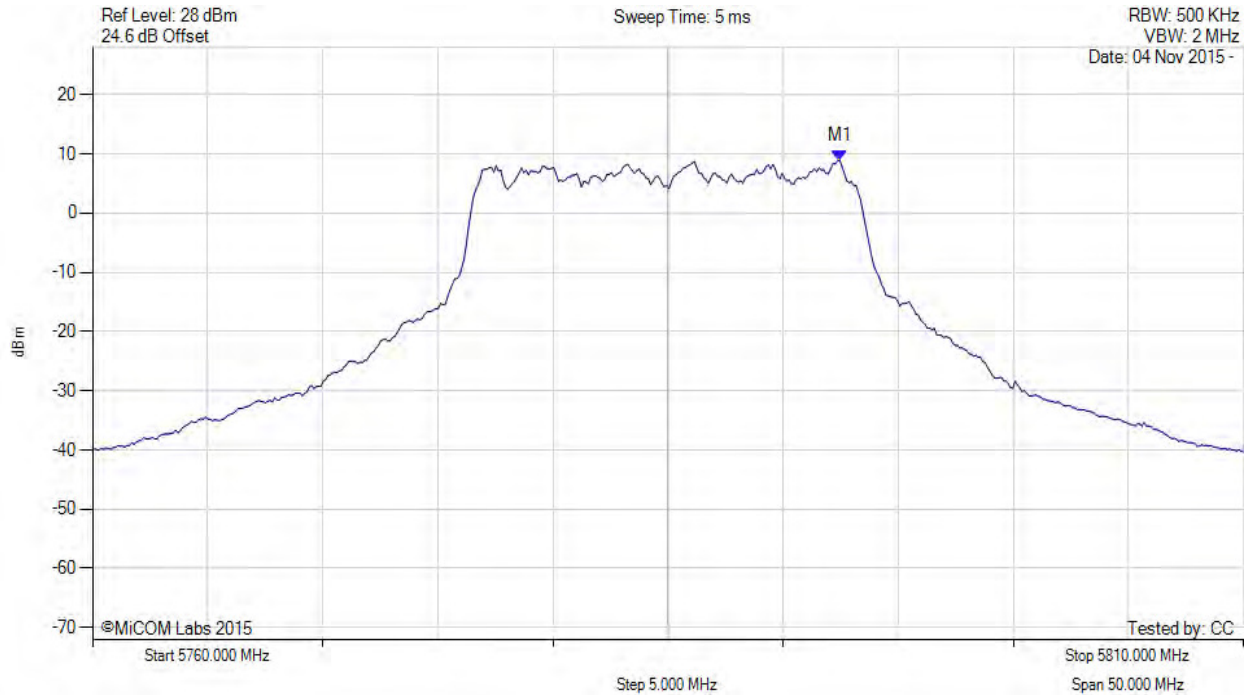
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5792.500 MHz : 8.872 dBm M1 + DCCF : 5792.500 MHz : 9.629 dBm Duty Cycle Correction Factor : +0.76 dB	Limit: ≤ 29.3 dBm Margin: -19.7 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

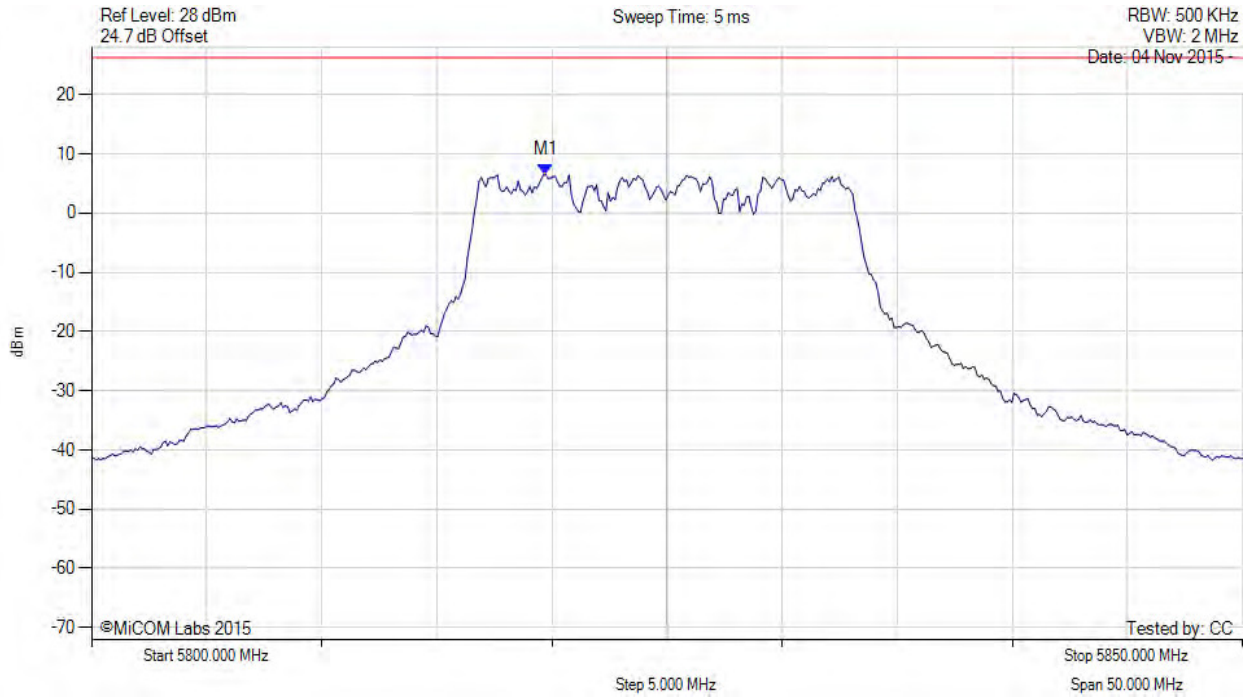


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 206 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5819.739 MHz : 6.478 dBm	Limit: ≤ 26.290 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

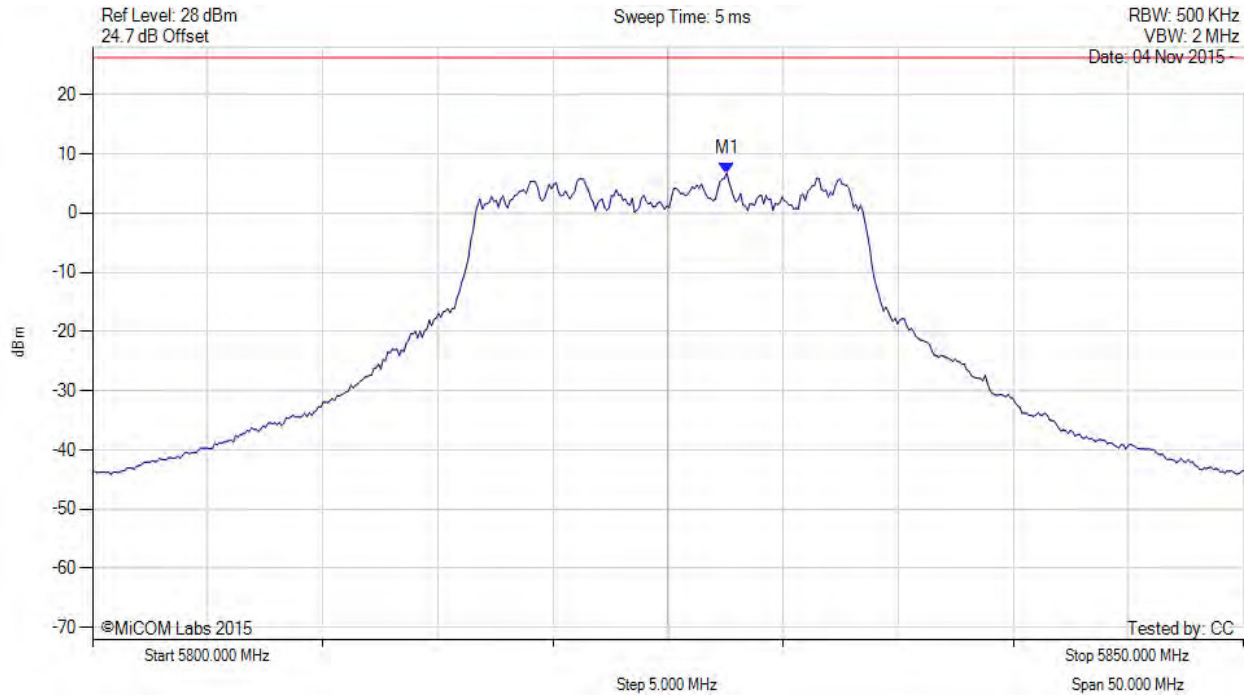


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 207 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5827.555 MHz : 6.741 dBm	Limit: ≤ 26.290 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

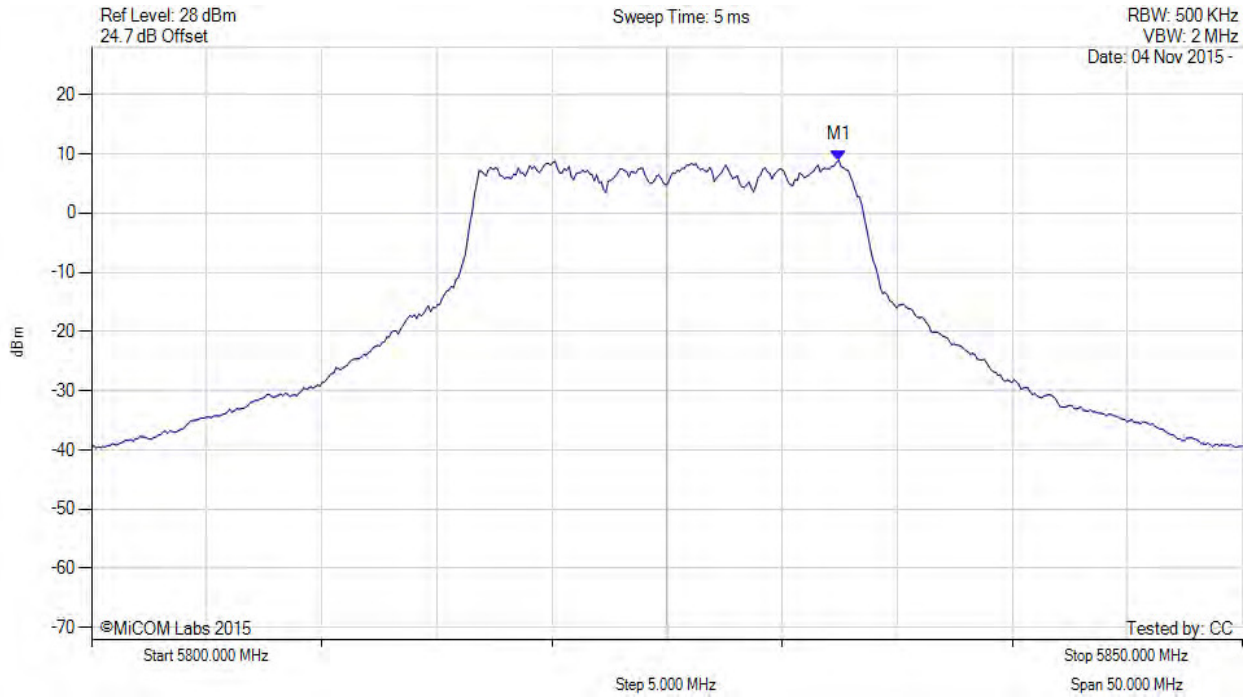


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 208 of 227

POWER SPECTRAL DENSITY



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



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5832.500 MHz : 8.931 dBm M1 + DCCF : 5832.500 MHz : 9.688 dBm Duty Cycle Correction Factor : +0.76 dB	Limit: ≤ 29.3 dBm Margin: -19.6 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

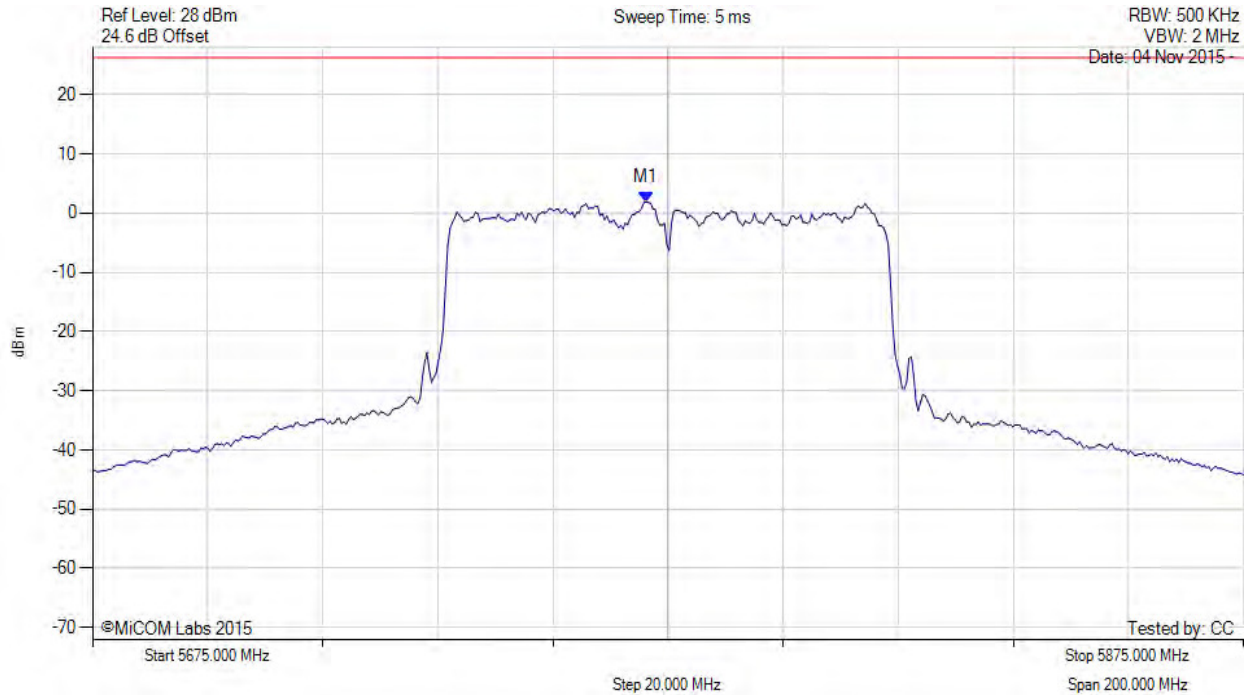


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 209 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5771.192 MHz : 1.891 dBm	Limit: ≤ 26.290 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

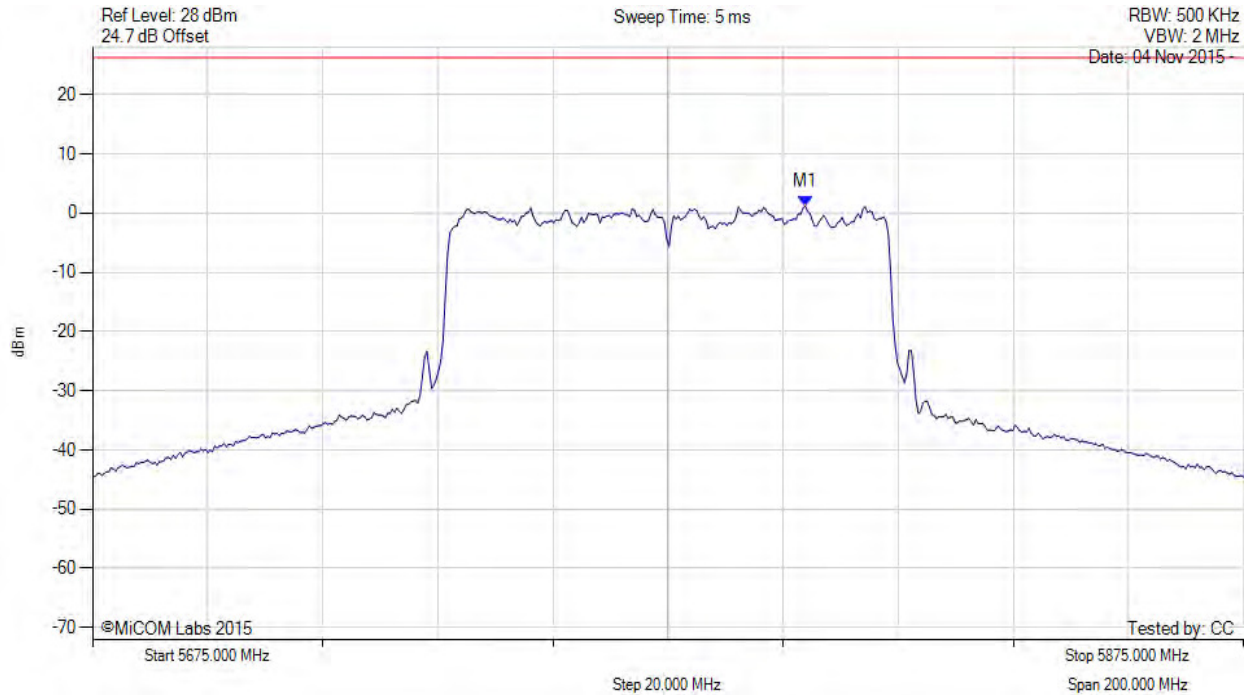


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 210 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5798.848 MHz : 1.188 dBm	Limit: ≤ 26.290 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

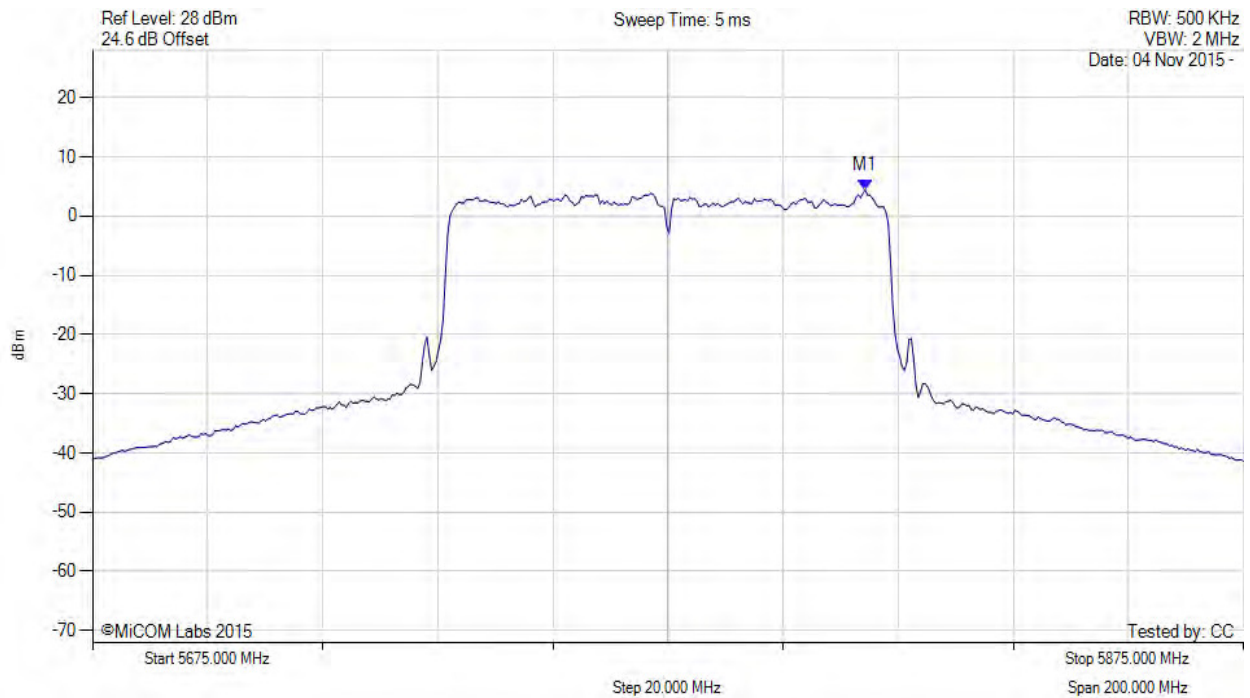


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 211 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5809.300 MHz : 4.354 dBm M1 + DCCF : 5809.300 MHz : 4.860 dBm Duty Cycle Correction Factor : +0.51 dB	Limit: ≤ 29.3 dBm Margin: -24.5 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

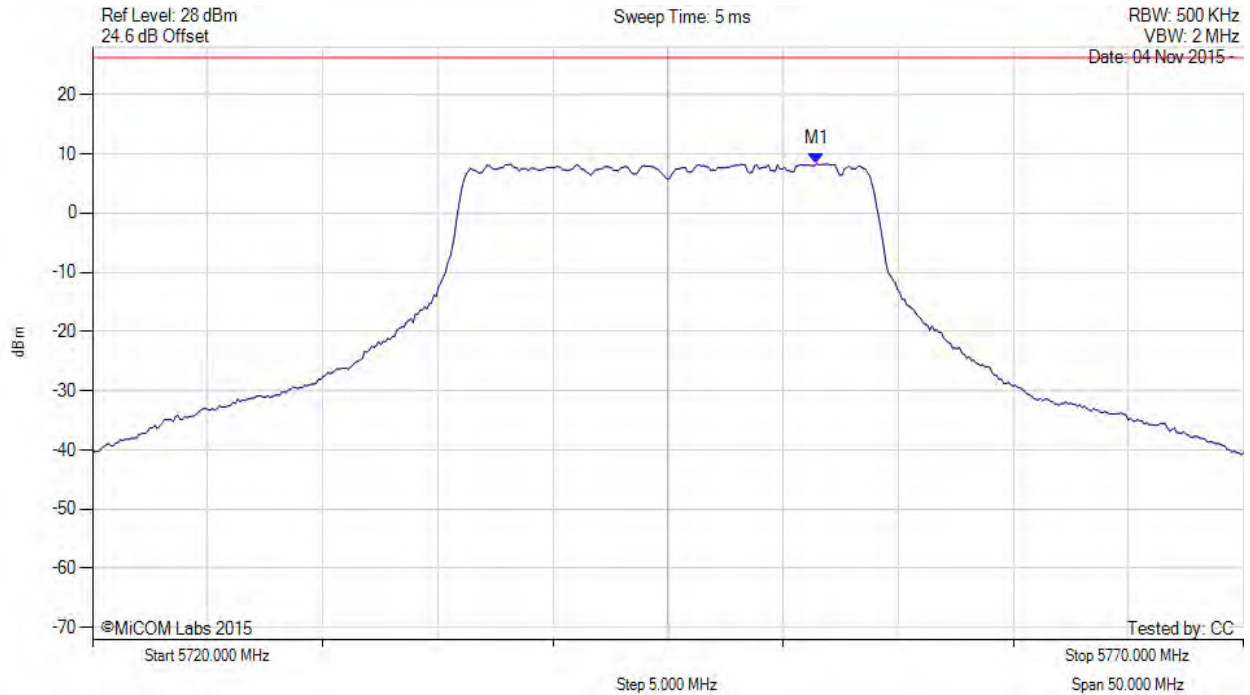


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 212 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5751.463 MHz : 8.328 dBm	Limit: ≤ 26.290 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

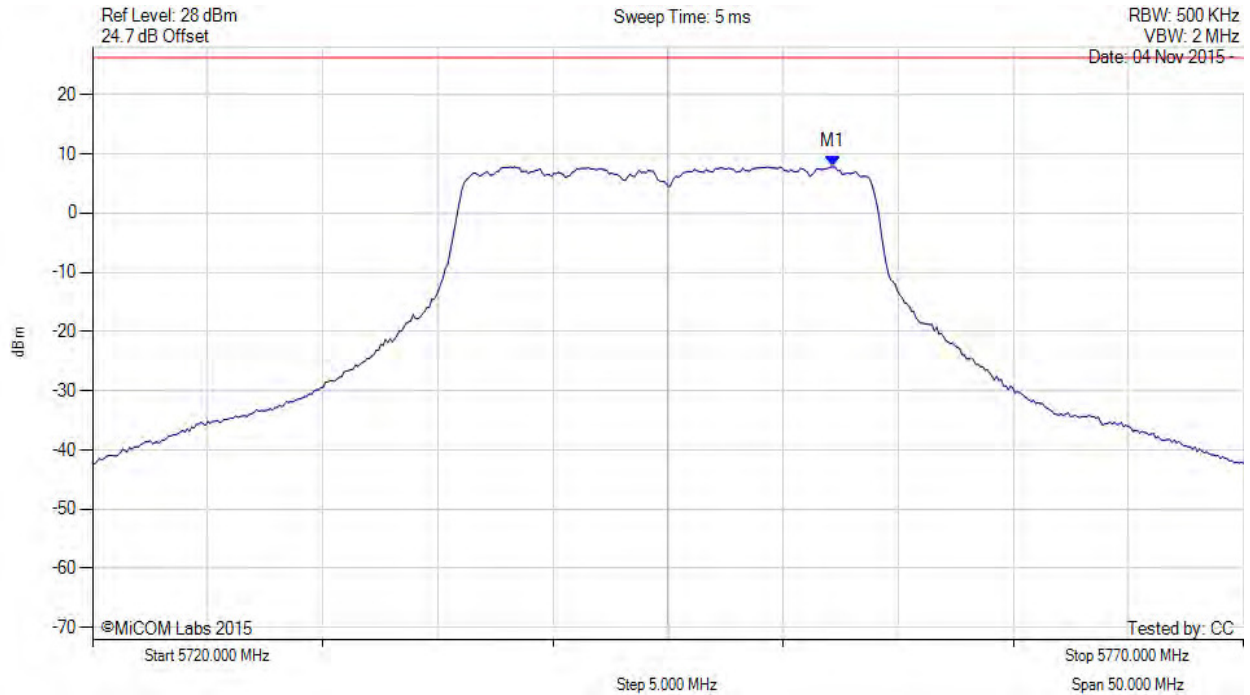


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 213 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5752.164 MHz : 7.832 dBm	Limit: ≤ 26.290 dBm

[back to matrix](#)

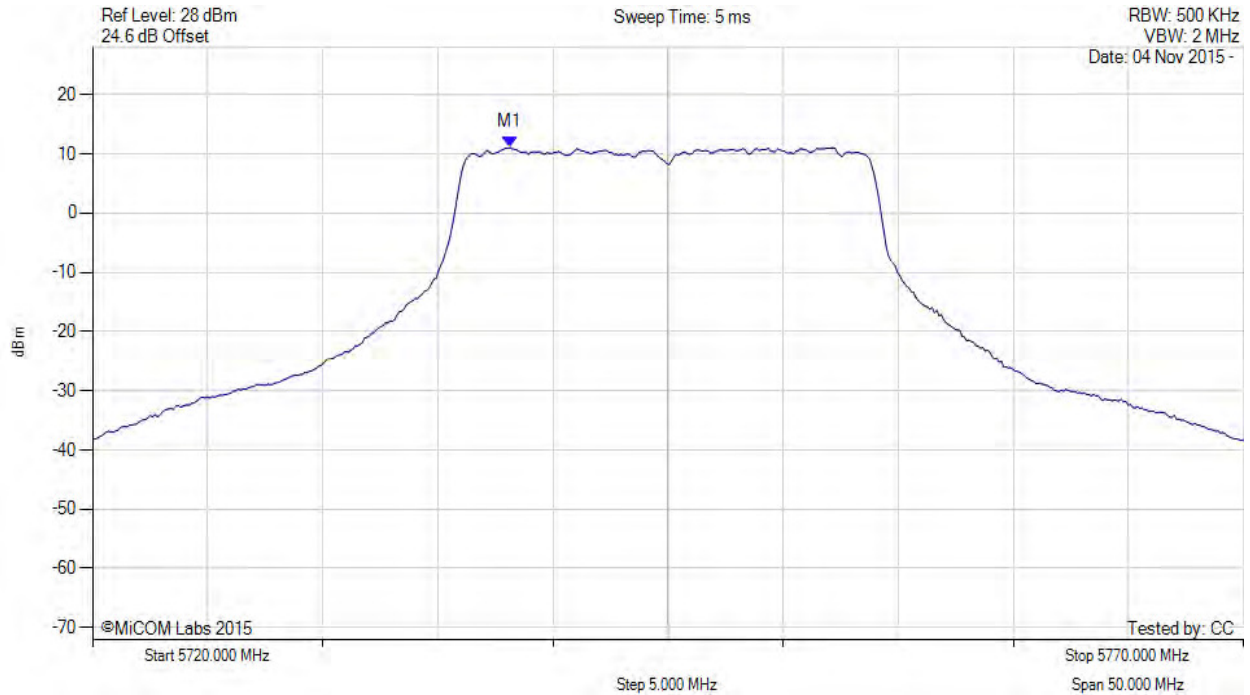
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5738.100 MHz : 11.064 dBm M1 + DCCF : 5738.100 MHz : 11.152 dBm Duty Cycle Correction Factor : +0.09 dB	Limit: ≤ 29.3 dBm Margin: -18.2 dB

[back to matrix](#)

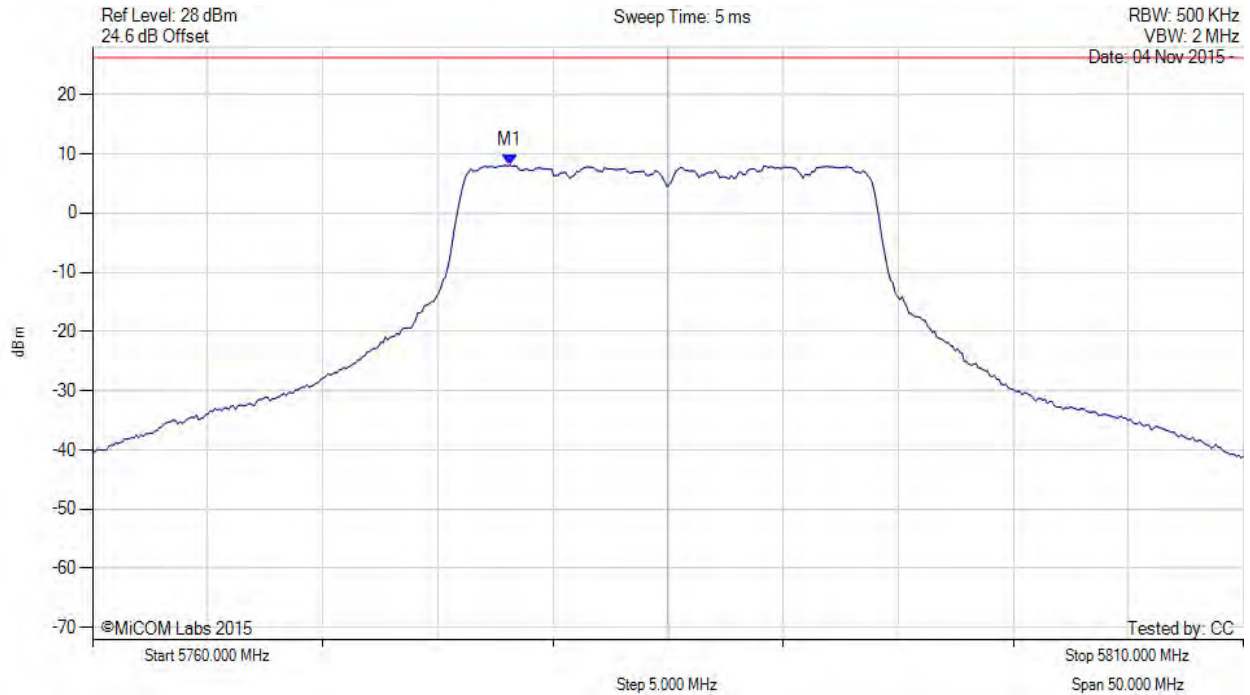
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5778.136 MHz : 8.094 dBm	Limit: ≤ 26.290 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

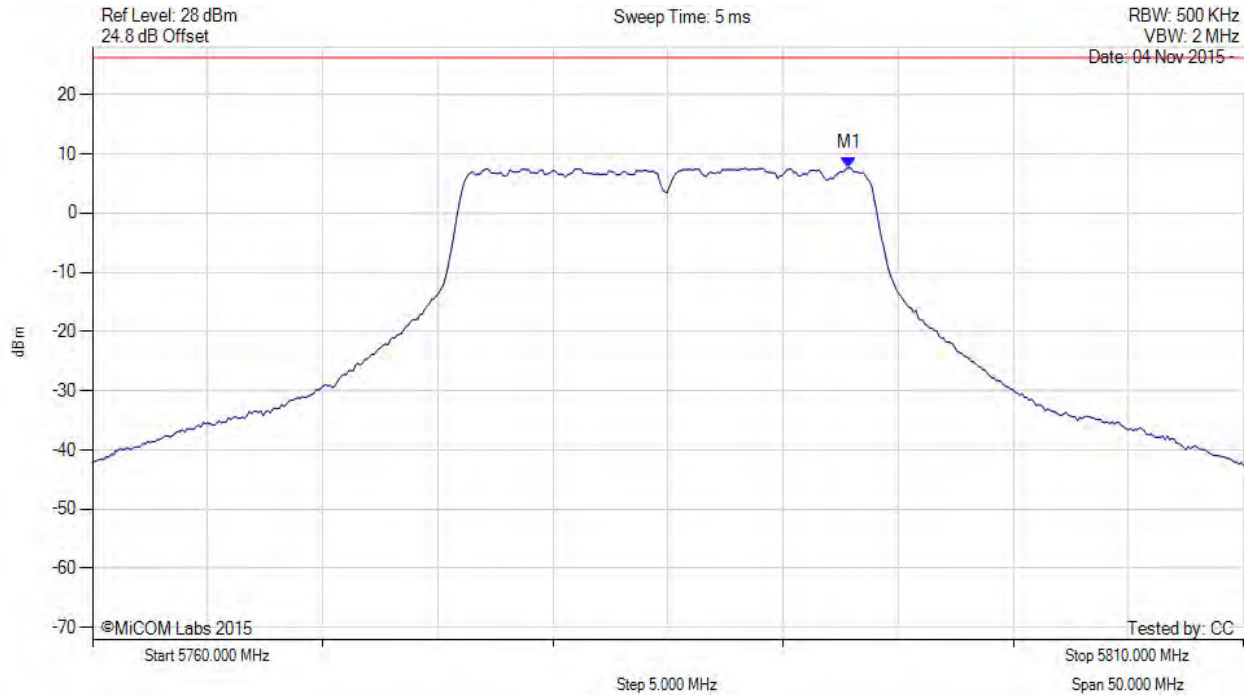


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 216 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5792.866 MHz : 7.667 dBm	Channel Frequency: 5785.00 MHz

[back to matrix](#)

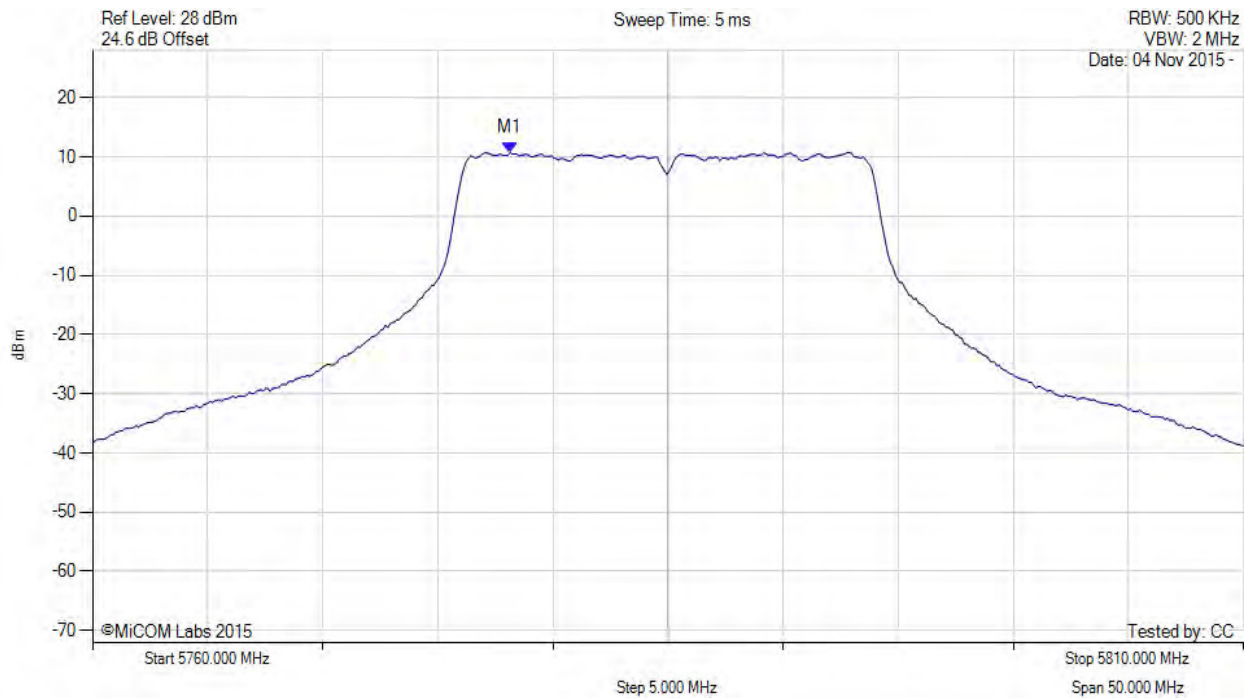
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5778.100 MHz : 10.729 dBm M1 + DCCF : 5778.100 MHz : 10.817 dBm Duty Cycle Correction Factor : +0.09 dB	Limit: ≤ 29.3 dBm Margin: -18.5 dB

[back to matrix](#)

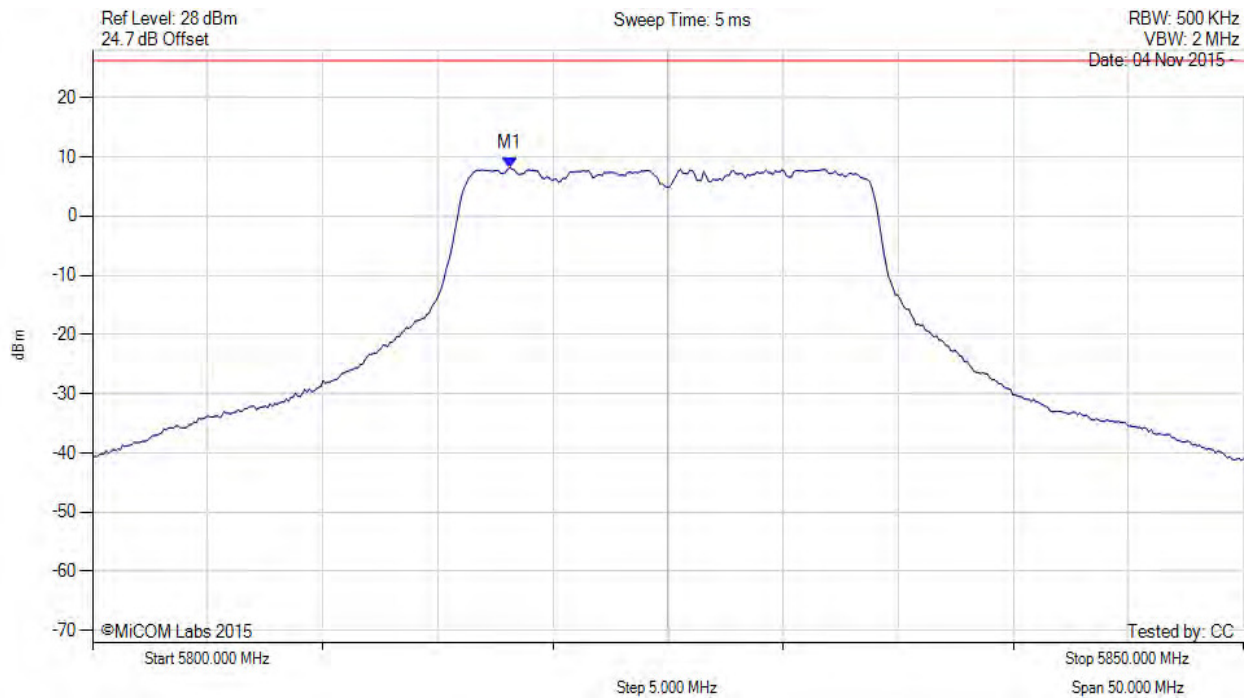
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5818.136 MHz : 8.137 dBm	Limit: ≤ 26.290 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

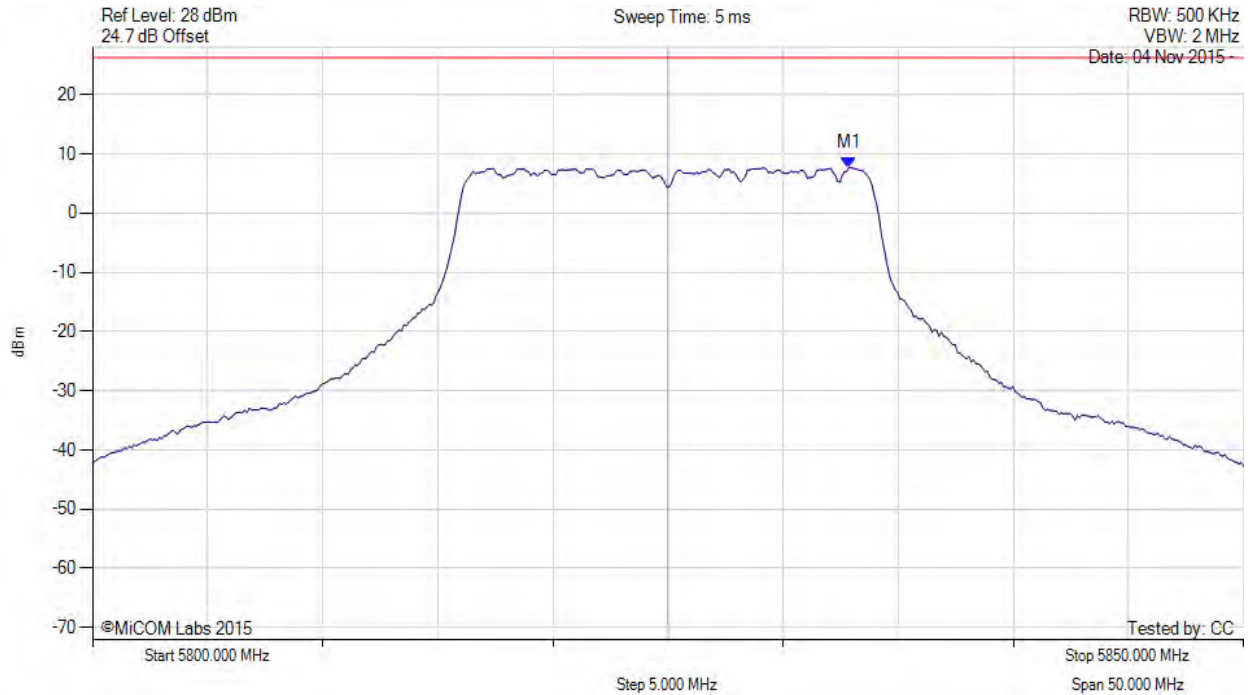


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 219 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5832.866 MHz : 7.733 dBm	Limit: ≤ 26.290 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

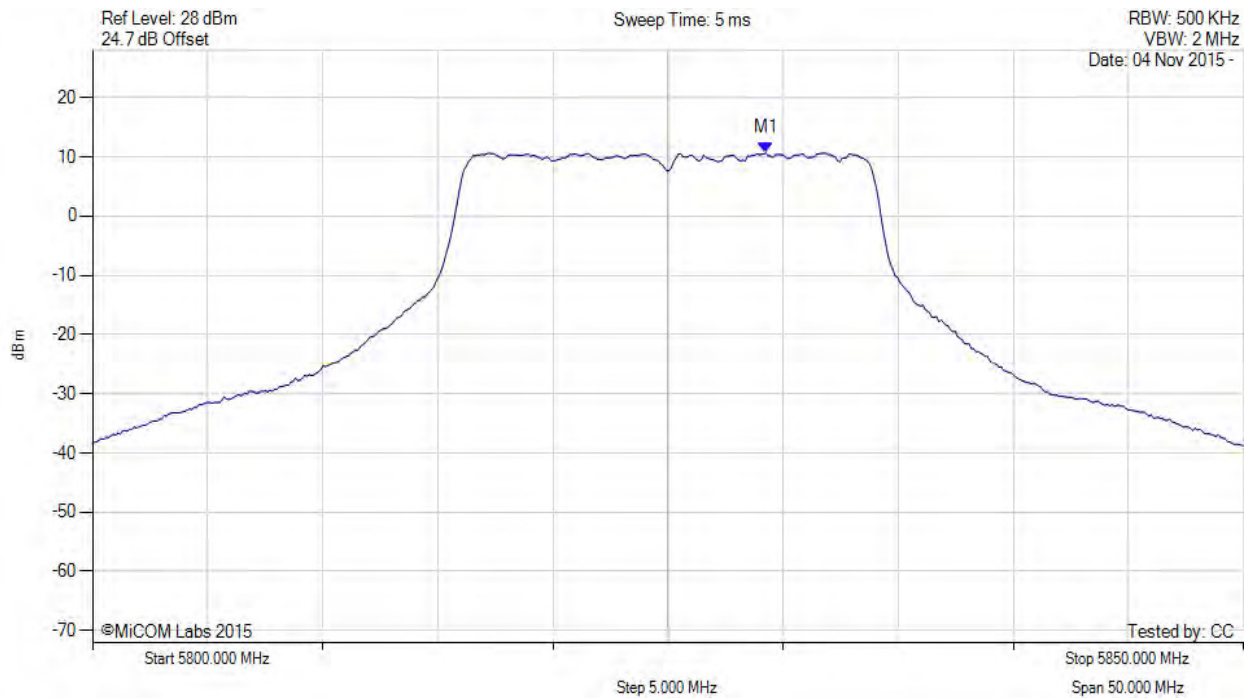


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 220 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5829.300 MHz : 10.675 dBm M1 + DCCF : 5829.300 MHz : 10.763 dBm Duty Cycle Correction Factor : +0.09 dB	Limit: ≤ 29.3 dBm Margin: -18.5 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

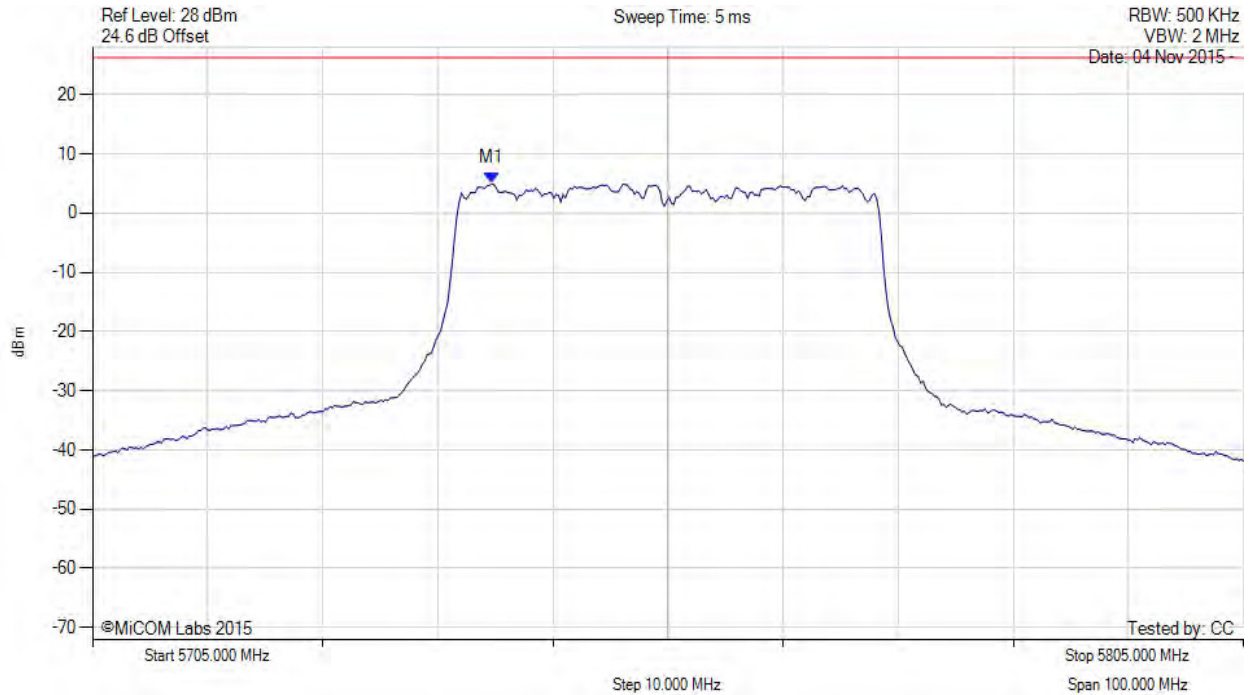


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 221 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5739.669 MHz : 4.965 dBm	Limit: ≤ 26.290 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

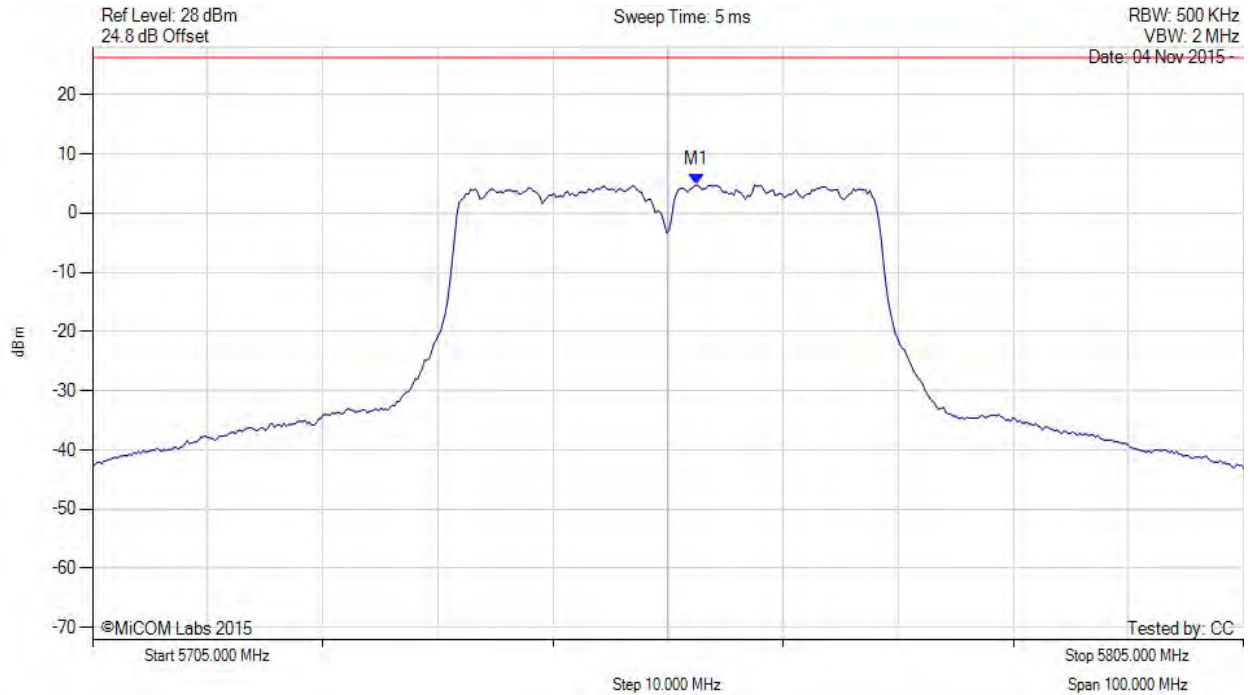


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 222 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5757.505 MHz : 4.753 dBm	Limit: ≤ 26.290 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

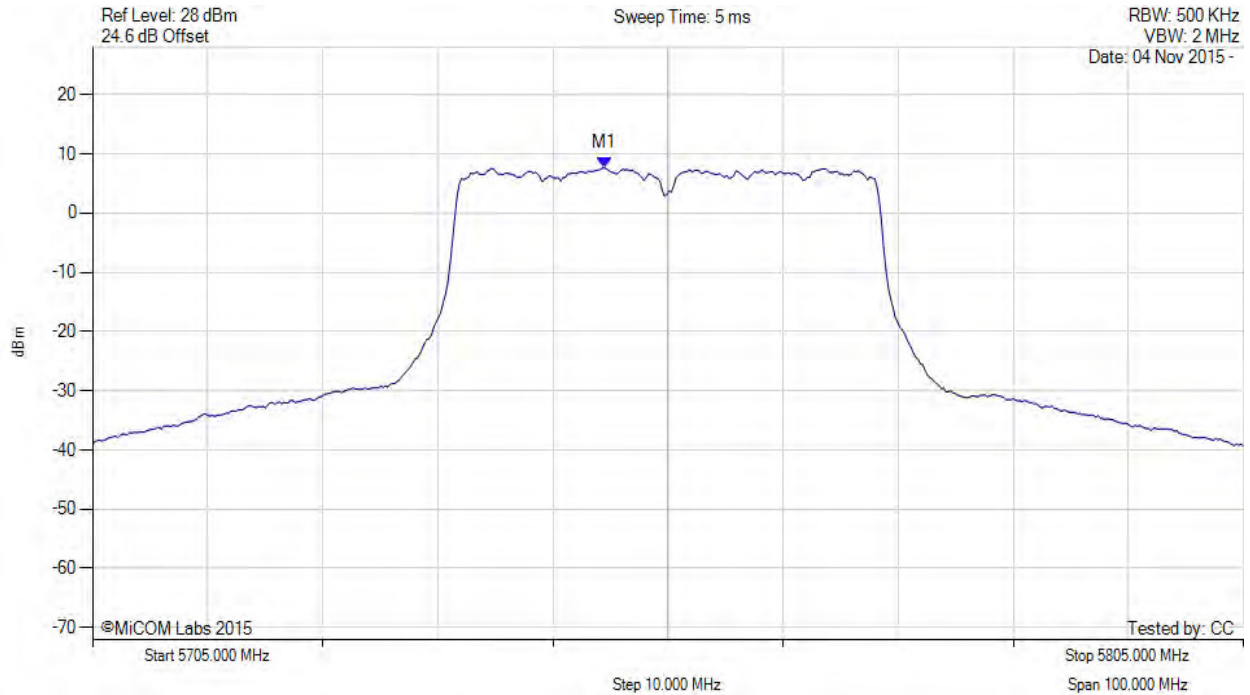


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 223 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5749.500 MHz : 7.612 dBm M1 + DCCF : 5749.500 MHz : 7.789 dBm Duty Cycle Correction Factor : +0.18 dB	Limit: ≤ 29.3 dBm Margin: -21.5 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

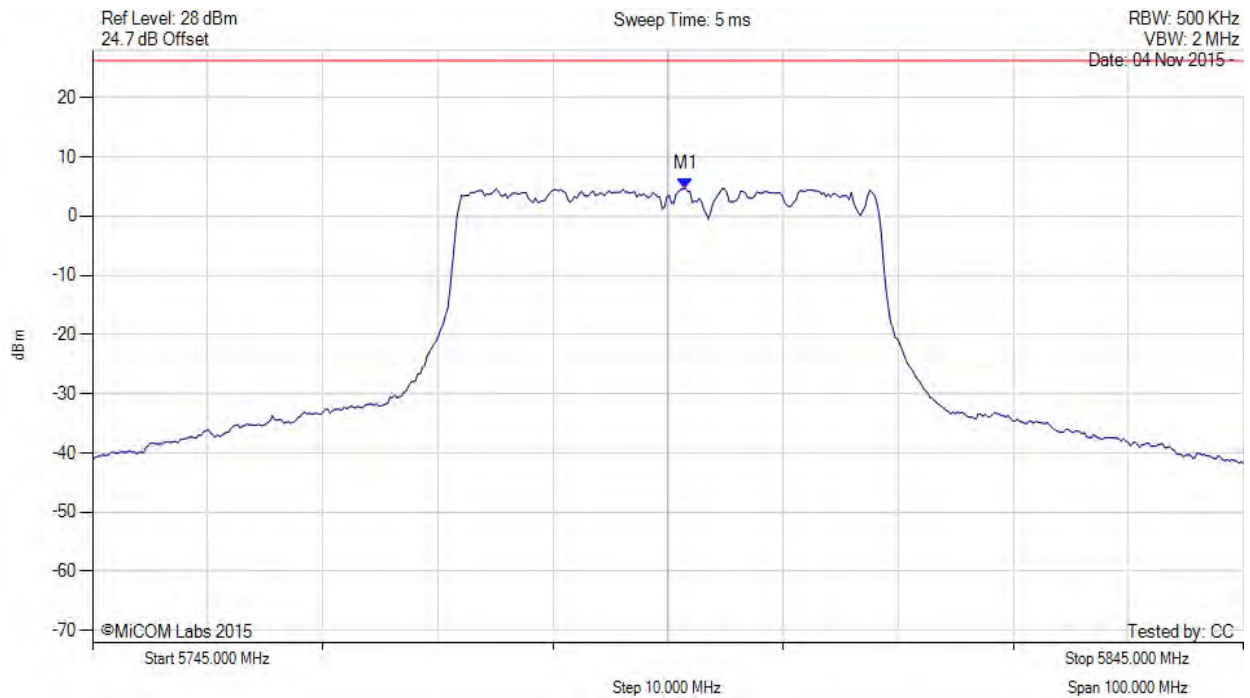


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 224 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5796.503 MHz : 4.699 dBm	Limit: ≤ 26.290 dBm

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

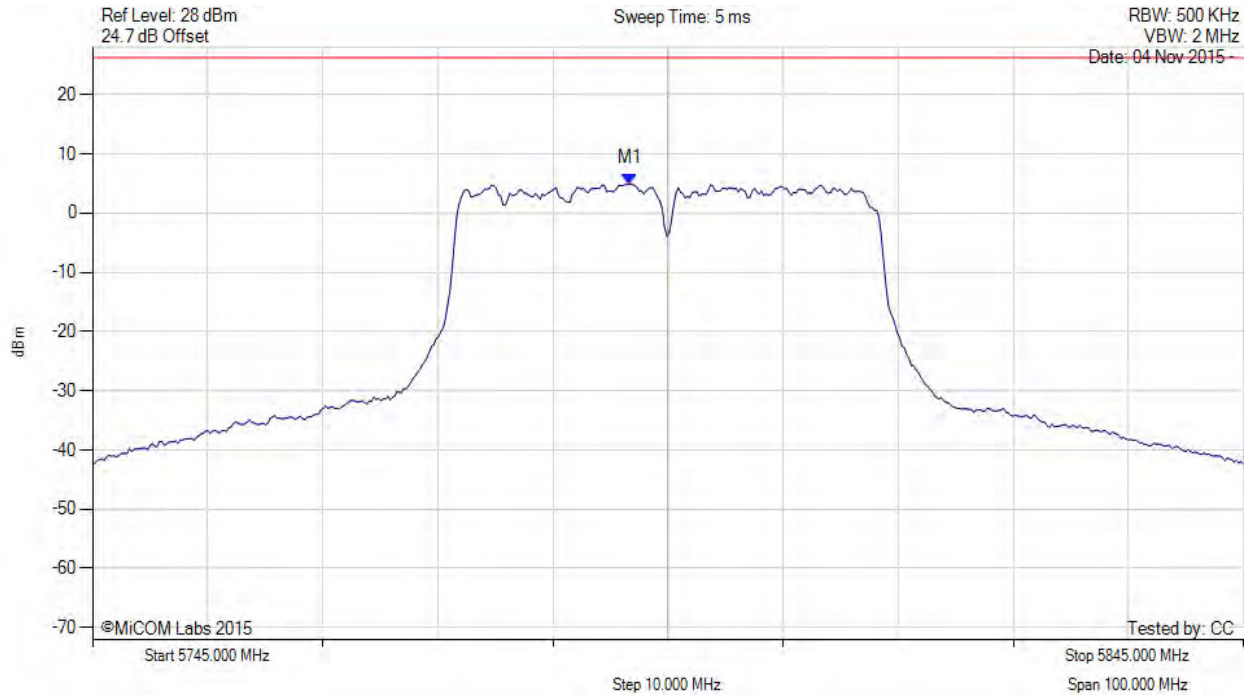


Title: Actiontec Electronics Inc. WEB5500
To: FCC CFR 47 Part 15 Subpart E 15.407
Serial #: ATEC11-U8a Conducted Rev B
Issue Date: 27th April 2017
Page: 225 of 227

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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5791.693 MHz : 4.941 dBm	Limit: ≤ 26.290 dBm

[back to matrix](#)

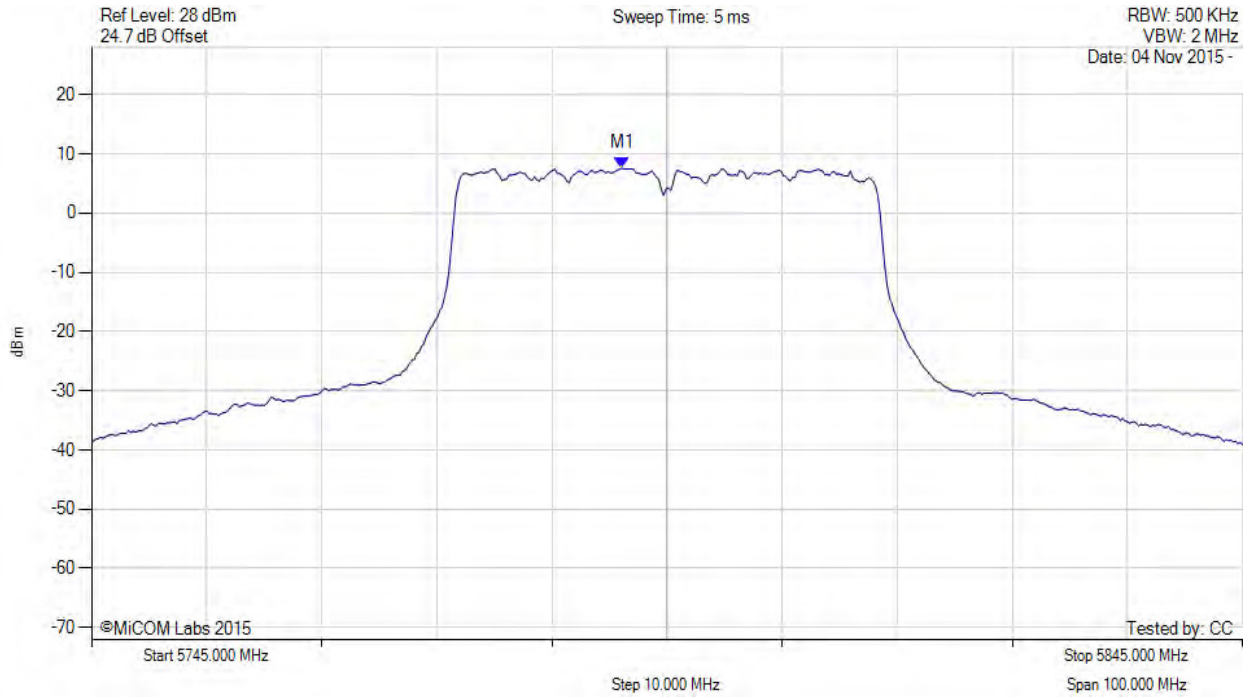
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



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 = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5791.100 MHz : 7.607 dBm M1 + DCCF : 5791.100 MHz : 7.784 dBm Duty Cycle Correction Factor : +0.18 dB	Limit: ≤ 29.3 dBm Margin: -21.5 dB

[back to matrix](#)

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



575 Boulder Court
Pleasanton, California 94566, USA
Tel: +1 (925) 462 0304
Fax: +1 (925) 462 0306
www.micomlabs.com