Company: Radwin Ltd

Test of: AP0158770 RF Wireless Module

To: FCC CFR 47 Part 15 Subpart E 15.407 & Industry Canada RSS-247 Issue 1

Report No.: RDWN39-U9a Conducted Rev A

### **CONDUCTED TEST REPORT**



## CONDUCTED TEST REPORT



Test of: Radwin Ltd AP0158770 RF Wireless Module to

To: FCC CFR 47 Part 15 Subpart E 15.407 & Industry Canada RSS-247

Test Report Serial No.: RDWN39-U9a ConductedRev A

This report supersedes: NONE

Applicant: Radwin Ltd

27 Habarzel Street Tel Aviv 69710

Israel

Product Function: 5 GHz Wireless Module

Issue Date: 3<sup>rd</sup> December 2015

## This Test Report is Issued Under the Authority of:

### MiCOM Labs, Inc.

575 Boulder Court Pleasanton California 94566 USA

Phone: +1 (925) 462-0304 Fax: +1 (925) 462-0306 www.micomlabs.com



MiCOM Labs is an ISO 17025 Accredited Testing Laboratory



**Title:** Radwin Ltd AP0158770 RF Wireless Module

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# 1. ACCREDITATION, LISTINGS & RECOGNITION

### 1.1. TESTING ACCREDITATION

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





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## 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	
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	US0159
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



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### 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) <a href="https://www.a2la.org">www.a2la.org</a> test laboratory number 2381.02. MiCOM Labs test schedule is available at the following URL; <a href="http://www.a2la.org/scopepdf/2381-02.pdf">http://www.a2la.org/scopepdf/2381-02.pdf</a>



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



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# 2. DOCUMENT HISTORY

Document History					
Revision	Date	Comments			
Draft	2 <sup>nd</sup> December 2015	Added additional antenna AM0156430			
Rev A	3 <sup>rd</sup> December 2015	2 <sup>nd</sup> Release			
This report was originally is	ssued under RDWN34-PCA	A_3.2 U3a			
Rev A	5 <sup>th</sup> August 2015	Initial Release			
·					

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



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## 3. TEST RESULT CERTIFICATE

Manufacturer: Radwin Ltd

27 Habarzel Street Tel Aviv 69710

Israel

**Model:** AP0158770

Type Of Equipment: 5 GHz Wireless Module

S/N's: Prototype

**Test Date(s):** 10<sup>th</sup> – 14<sup>th</sup> July + 11<sup>th</sup> Nov 2015

Tested By: MiCOM Labs, Inc.

575 Boulder Court

Pleasanton

California 94566 USA

--- 14 005 400 0004

**Telephone:** +1 925 462 0304 **Fax:** +1 925 462 0306

Website: www.micomlabs.com

### STANDARD(S)

FCC CFR 47 Part 15 Subpart E 15.407 & Industry Canada RSS-247 Issue 1

#### **TEST RESULTS**

**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.



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# 4. REFERENCES AND MEASUREMENT UNCERTAINTY

## 4.1. Normative References

REF.	PUBLICATION	YEAR	TITLE	
ı	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 bar	
П	KDB 905462 D07 v01	10th June 2015	Test guidance to demonstrate compliance for U-NII devices subject to DFS requirements.	
III	KDB 926956 DO1 v01r02	17th October 2014	U-NII Device Transition Plan	
IV	KDB 789033 D02 v01	6th June 2014	General UNII Test Procedures New Rules V01	
V	A2LA	June 2015	R105 - Requirement's When Making Reference to A2LA Accreditation Status	
VI	ANSI C63.10	2013	American National Standard for Testing Unlicensed Wireless Devices	
VII	ANSI C63.4	2014	American National Standards for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	
VIII	CISPR 22	2008	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement	
IX	ETSI TR 100 028	2001-12	Parts 1 and 2 Electromagnetic compatibility and Radio Spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics	
Х	FCC 06-96	Jun 3 2006	Memorandum Opinion and Order	
XI	FCC 47 CFR Part 15.407	2014	Radio Frequency Devices; Subpart E –Unlicensed National Information Infrastructure Devices	
XII	ICES-003	Issue 5 2012	Spectrum Management and Telecommunications; Interference-Causing Equipment Standard. Information Technology Equipment (ITE) – Limits and methods of measurement.	
XIII	M 3003	Edition 3 Nov. 2012	Expression of Uncertainty and Confidence in Measurements	
XIV	RSS-247, Issue 1	May 2015	Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices	
XV	RSS-Gen, Issue 4	Nov 2014	General Requirements and Information for the Certification of Radiocommunication Equipment	
XVI	KDB 644545 D03 v01	August 14th 2014	Guidance for IEEE 802.11ac New Rules	
XVII	FCC 47 CFR Part 2.1033	2014	FCC requirements and rules regarding photographs and test setup diagrams.	



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## 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.



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# 5. PRODUCT DETAILS AND TEST CONFIGURATIONS

## 5.1. <u>Technical Details</u>

Details	Description
Purpose:	Test of the Radwin Ltd AP0158770 to FCC CFR 47 Part 15
	Subpart E 15.407 & RSS-247
	Radio Frequency Devices; Subpart E – Unlicensed National
	Information Infrastructure Devices
Applicant:	Radwin Ltd
	27 Habarzel Street
Manufacturar	Tel Aviv 69710 Israel
Manufacturer:  Laboratory performing the tests:	MiCOM Labs, Inc.
Laboratory performing the tests.	575 Boulder Court
	Pleasanton California 94566 USA
Test report reference number:	
Date EUT received:	
	FCC CFR 47 Part 15 Subpart E 15.407 & RSS-247 Issue 1
Dates of test (from - to):	10 <sup>th</sup> – 14 <sup>th</sup> July 2015
No of Units Tested:	•
	5 GHz Wireless Module 2x2 Spatial Multiplexing MIMO
Type of Equipment.	configuration
Product Family Name:	5.x DPLUS RF Module
	AP0158770
Location for use:	
Declared Frequency Range(s):	DFS Bands: 5250 – 5350, 5470 - 5725 MHz
Primary function of equipment:	RF module for transmitting and receiving data
Secondary function of equipment:	None Provided
Type of Modulation:	Per 802.11n/ac BPSK, QPSK, 16QAM, 64QAM, 256 QAM, OFDM
EUT Modes of Operation:	Bandwidths 5, 10, 20, 40, 80 MHz
Declared Nominal Output Power (Ave):	5250 - 5350 and 5470 - 5725 MHz
, , ,	+20 dBm
Transmit/Receive Operation:	Time Division Duplex
Rated Input Voltage and Current:	POE: 55Vdc 1A
Operating Temperature Range:	Declared Range -35°C to 60°C
ITU Emission Designator:	5 MHz 5M00W7W
	10 MHz 10M0W7W
	20 MHz 20M0W7W
	40 MHz 40M0W7W
Equipment Dimensions	80 MHz 80M0W7W
Equipment Dimensions:	
	0.042 lb. (19g)
Hardware Rev:	• • • • • • • • • • • • • • • • • • • •
Software Rev:	Prototype



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# 5.2. Scope Of Test Program

### Radwin AP0158770 5 GHz Wireless Module

The scope of the test program was to test the Radwin AP0158770 configurations in the frequency ranges 5250 - 5350 & 5470 - 5725 MHz for compliance against the following specification(s):

### FCC CFR 47 Part 15 Subpart E 15.407

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

### Industry Canada RSS-247 Issue 1

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



Radwin AP0158770 5 GHz Wireless Module



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

Equipment Type	Equipment Description (Including Brand Name)	Mfr	Model No.	Serial No.
EUT	5 GHz Wireless Module	RADWIN Ltd	AP0158770	RAD01 02
Support	Laptop PC	DELL	LATITUDE D530	None

## 5.4. Antenna Details

Туре	Manufacturer	Model	Family	Gain (dBi)	BF Gain	Dir BW	X-Pol	Frequency Band (MHz)
Integrated	RADWIN Ltd	MT0128930	Sector	11.0	-	120	Yes	5250 – 5350 5470 - 5725
external	RADWIN Ltd	RW-9061- 5004	Sector	11.0	-	120	Yes	5250 - 5350 5470 - 5725
Integrated	RADWIN Ltd	AM0135060	Sector	12.0	-	95	Yes	5250 – 5350 5470 - 5725
external	RADWIN Ltd	RW-9061- 5001	Sector	14.0	-	90	Yes	5250 – 5350 5470 - 5725
external	RADWIN Ltd	RW-9061- 5002	Sector	15.5	-	60	Yes	5250 – 5350 5470 - 5725
Integrated	RADWIN Ltd	MT0125250	Sector	13.0	-	90	Yes	5250 – 5350 5470 - 5725
Integrated	RADWIN Ltd	AM0119960	Panel	16.0	-	35	Yes	5250 – 5350 5470 - 5725
Integrated	RADWIN Ltd	AM0111760	Panel (Pt-Pt)	16.5	-	35	Yes	5250 – 5350 5470 - 5725
Integrated Smart Flat Panel	RADWIN Ltd	AM0156430	Panel	20.5	-	9.4	Yes	5250 - 5350 5470 - 5725
external	RADWIN Ltd	RW-9612- 5001	Panel	23.0	-	8	Yes	5250 – 5350 5470 - 5725
Integrated	RADWIN Ltd	MT0070760	Panel (Pt-Pt)	23.5	-	8	Yes	5250 – 5350 5470 - 5725
external	RADWIN Ltd	RW-9622- 5001	Panel (Pt-Pt)	29.0	-	5	Yes	5250 – 5350 5470 - 5725
external	RADWIN Ltd	RW-9721- 5158	Parabolic	28.0	-	5.5	Yes	5250 – 5350 5470 - 5725
external	RADWIN Ltd	RW-9732- 4958	Parabolic (Pt-Pt)	32.0	-	4	Yes	5250 – 5350 5470 - 5725
external	RADWIN Ltd	RW-9401- 5002	OMNI	12.5	-	50	Yes	5250 – 5350 5470 - 5725

BF Gain - Beamforming Gain Dir BW - Directional BeamWidth

X-Pol - Cross Polarization



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## 5.5. Cabling and I/O Ports

Port Type	Max Cable Length	# Of Ports	Screened	Conn Type	Data Type
Ethernet	100	1	Υ	RJ-45	Packet

## 5.6. Test Configurations

Results for the following configurations are provided in this report:

Operational	Data Rates with					
Mode(s)	Highest Power	Low	Mid	High		
	5250 - 5350 MHz					
5 MHz	15 MCS	5253.50	5,300.00	5346.50		
10 MHz	15 MCS	5,259.00	5,300.00	5,341.00		
20 MHz	15 MCS	5,264.00	5,300.00	5,336.00		
40 MHz	15 MCS	5,274.00	5,300.00	5,326.00		
80 MHz	15 MCS	5,290.00	5,300.00	5,310.00		
Operational	Data Rate with		<b>Channel Frequency</b>			
<u>-</u>			(MHz)			
Mode(s) (802.11a/b/g/n/ac)	Highest Power MBit/s	Low	(MHz) Mid	High		
Mode(s)	Highest Power	Low 5470 - 5725 MHz	,	High		
Mode(s)	Highest Power	-	,	<b>High</b> 5721.5		
Mode(s) (802.11a/b/g/n/ac)	Highest Power MBit/s	5470 - 5725 MHz	Mid	-		
Mode(s) (802.11a/b/g/n/ac) 5 MHz	Highest Power MBit/s	<b>5470 - 5725 MHz</b> 5478.5	Mid 5595	5721.5		
Mode(s) (802.11a/b/g/n/ac) 5 MHz 10 MHz	Highest Power MBit/s  15 MCS  15 MCS	<b>5470 - 5725 MHz</b> 5478.5 5484	<b>Mid</b> 5595 5596	5721.5 5711		

## 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



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# 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



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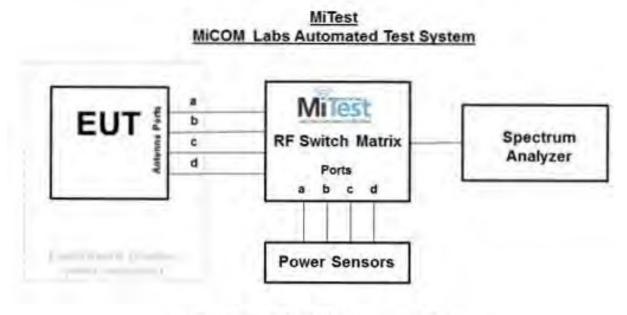
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## 7. TEST EQUIPMENT CONFIGURATION(S)

### 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. Section 10.1 26 dB and 99% Bandwidth
- 2. Section 10.2. Maximum Conducted Output Power
- 3. Section 10.3. Peak Power Spectral Density



# Conducted Test Measurement Setup

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



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Asset#	Description	Manufacturer	Model#	Serial#	Calibration Due Date
158	Barometer/Thermometer	Control Company	4196	E2846	01 Dec 2016
193	Receiver 20 Hz to 7 GHz	Rhode & Schwarz	ESI 7	838496/007	14 Jan 2016
249	Resistance Thermometer	Thermotronics	GR2105-02	9340 #2	23 Oct 2016
287	Rohde & Schwarz 40 GHz Receiver	Rhode & Schwarz	ESIB40	100201	27 Aug 2016
361	Desktop for RF#1, Labview Software installed	Dell	Vostro 220	WS RF#1	Not Required
378	Rohde & Schwarz 40 GHz Receiver with Generator	Rhode & Schwarz	ESIB40	100107/040	04 Aug 2016
380	4x4 RF Switch Box	MiCOM Labs	MiTest RF Switch Box	MIC001	20 Dec 2015
390	USB Power Head 50MHz - 24GHz -60 to +20dBm	Agilent	U2002A	MY50000103	17 Oct 2016
398	Test Software	MiCOM	MiTest ATS	Version 3.0.0.16	Not Required
405	DC Power Supply 0-60V	Agilent	6654A	MY4001826	Cal when used
408	USB to GPIB interface	National Instruments	GPIB-USB HS	14C0DE9	Not Required
436	USB Wideband Power Sensor	Boonton	55006	8731	31 Jul 2016
437	USB Wideband Power Sensor	Boonton	55006	8759	31 Jul 2016
445	PoE Injector	D-Link	DPE-101GL	QTAH1E2000625	Not Required
75	Environmental Chamber	Thermatron	SE-300-2-2	27946	24 Nov 2016
RF#1 GPIB#1	GPIB cable to Power Supply	HP	GPIB	None	Not Required
RF#1 SMA SA #452	Precision SMA Male RG-402 Spectrun Analyzer	Fairview Microwave	Precision SMA Male RG 402 coax	None	20 Dec 2015
RF#1 SMA#1	EUT to Mitest box port 1	Flexco	SMA Cable port1	None	20 Dec 2015
RF#1 SMA#2	EUT to Mitest box port 2	Flexco	SMA Cable port2	None	20 Dec 2015
RF#1 SMA#3	EUT to Mitest box port 3	Flexco	SMA Cable port3	None	20 Dec 2015
RF#1 SMA#4	EUT to Mitest box port 4	Flexco	SMA Cable port4	None	20 Dec 2015
RF#1 USB#1	USB Cable to Mitest Box	Dynex	USB Cable	None	Not Required



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## 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 <u>MiTest</u>. <u>MiTest</u> is an automated test system developed by MiCOM Labs. <u>MiTest</u> 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)



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## 9. TEST RESULTS

### 9.1. Peak Transmit Power

Conducted Test Conditions for Maximum Conducted Output Power						
	rd: 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) <b>Pressure (mBars):</b> 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 ( $\Sigma$ ) of each antenna port output power is provided which includes any offset due to Duty Cycle Correction Factor (DCCF). Testing was performed under ambient conditions at nominal voltage.

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

Calculated Power =  $A + G + Y + 10 \log (1/x) dBm$ 

A = Total Power  $[10*Log10 (10^{a/10} + 10^{b/10} + 10^{c/10} + 10^{d/10})]$ 

G = Antenna Gain

Y = Beamforming Gain

x = Duty Cycle (average power measurements only)

#### **Limits Maximum Conducted Output Power**

### Operating Frequency Band 5150-5250 MHz

15. 407 (a)(1)

- (i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).
- (ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
- (iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring



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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.



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### **Equipment Configuration for Peak Transmit Power**

Variant:	10 MHz	Duty Cycle (%):	89.0
Data Rate:	QAM 64	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measur	Test Measurement Results								
Test Frequency	Measured Conducted Output Power (dBm)  Port(s)			Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power	
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dBm	Setting
5259.0	13.12	11.78			16.02	12.024	16.80	-0.78	12.00
5300.0	13.62	11.28			16.12	12.425	16.94	-0.82	11.00
5341.0	12.31	12.79			16.07	12.475	16.96	-0.89	12.50

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



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### **Equipment Configuration for Peak Transmit Power**

Variant:	20 MHz	Duty Cycle (%):	86.0
Data Rate:	QAM 64	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measur	Test Measurement Results								
Test	Measured Conducted Output Power (dBm)				Calculated	Minimum			
Frequency		Por	t(s)		Total 26 dB Limit Margin Power Bandwidth			EUI Power	
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dBm	Setting
5264.0	15.62	13.95			18.53	22.445	19.00	-0.47	14.50
5300.0	15.83	13.39			18.44	22.545	19.00	-0.56	13.50
5336.0	14.27	14.97	-		18.30	22.345	19.00	-0.70	14.50

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



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### **Equipment Configuration for Peak Transmit Power**

Variant:	40 MHz	Duty Cycle (%):	80.5
Data Rate:	QAM 256	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measur	Test Measurement Results								
Test	Measure	Measured Conducted Output Power (dBm)				Minimum	1.114		
Frequency		Por	t(s)		Total Power	Randwidth			EUT Power Setting
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dBm	Setting
5274.0	15.63	13.74			18.74	41.884	19.00	-0.26	14.00
5300.0	15.53	13.02			18.41	41.884	19.00	-0.59	13.00
5326.0	16.10	13.28			18.87	41.283	19.00	-0.13	13.00

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



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### **Equipment Configuration for Peak Transmit Power**

Variant:	5 MHz	Duty Cycle (%):	90.2
Data Rate:	QAM 64	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measur	Test Measurement Results								
Test	Measure	d Conducted	Output Pow	er (dBm)	Calculated Total	Minimum 26 dB	Limit	Margin	
Frequency		Por	t(s)		Power	Randwidth			EUT Power Setting
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dBm	Setting
5253.5	10.81	9.78			13.78	7.540	14.77	-0.99	11.00
5300.0	11.80	9.12			14.12	6.889	14.38	-0.26	10.50
5346.5	10.07	11.23			14.15	6.864	14.37	-0.22	11.00

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



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### **Equipment Configuration for Peak Transmit Power**

Variant:	80 MHz	Duty Cycle (%):	71.8
Data Rate:	QAM 256	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measur	Test Measurement Results								
Test Frequency	Measured Conducted Output Power (dBm) Port(s)			Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power	
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dBm	Setting
5290.0	14.60	12.45			18.11	82.164	19.00	-0.89	13.00
5300.0	14.88	12.60			18.34	81.764	19.00	-0.66	13.00
5310.0	15.24	12.75			18.62	81.363	19.00	-0.38	13.00

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



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### **Equipment Configuration for Peak Transmit Power**

Variant:	10 MHz	Duty Cycle (%):	89.3
Data Rate:	QAM 64	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measur	Test Measurement Results								
Test	Measure	Measured Conducted Output Power (dBm)				Minimum	Limite		
Frequency		Por	t(s)		Power	otal 26 dB Limit Margin ower Bandwidth			EUT Power Setting
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dBm	Setting
5484.0	12.87	13.53			16.71	12.525	16.98	-0.27	11.00
5595.0	13.11	12.99			16.55	12.375	16.93	-0.38	10.00
5711.0	14.47	12.05			16.93	12.475	16.96	-0.03	10.00

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



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### **Equipment Configuration for Peak Transmit Power**

Variant:	20 MHz	Duty Cycle (%):	86.1
Data Rate:	QAM 64	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measur	Test Measurement Results								
Test	Measure	Measured Conducted Output Power (dBm)				Minimum 26 dB	1.114		
Frequency		Por	t(s)		Total Power	Bandwidth	dwidth EU		
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dBm	Setting
5489.0	14.09	14.69			18.06	22.445	19.00	-0.94	12.50
5590.0	15.26	15.28	-		18.93	22.345	19.00	-0.07	12.00
5706.0	15.42	13.10	-		18.07	22.545	19.00	-0.93	11.00

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



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### **Equipment Configuration for Peak Transmit Power**

Variant:	40 MHz	Duty Cycle (%):	80.6
Data Rate:	QAM 256	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measur	Test Measurement Results								
Test	Measure	Measured Conducted Output Power (dBm)				Minimum	Limela	Maurin	
Frequency		Por	t(s)		Total Power	Randwidth			EUT Power Setting
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dBm	Setting
5499.0	14.52	15.45			18.96	41.082	19.00	-0.04	14.00
5570.0	13.94	14.84			18.36	41.283	19.00	-0.64	13.00
5696.0	14.93	13.72			18.31	41.483	19.00	-0.69	13.50

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



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### **Equipment Configuration for Peak Transmit Power**

Variant:	5 MHz	Duty Cycle (%):	90.3
Data Rate:	QAM 64	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measur	Test Measurement Results									
Test	Measure	d Conducted	Output Pow	er (dBm)	Calculated Total	Minimum 26 dB	Limit	Manain	EUT Power Setting	
Frequency		Por	t(s)		Power	Bandwidth	LIIIII	Margin		
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dBm	Setting	
5478.5	9.95	10.82			13.86	7.315	14.64	-0.78	9.50	
5595.0	10.64	10.31			13.93	6.839	14.35	-0.42	8.50	
5721.5	11.74	9.44			14.20	6.889	14.38	-0.18	8.50	

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



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### **Equipment Configuration for Peak Transmit Power**

Variant:	80 MHz	Duty Cycle (%):	71.1
Data Rate:	QAM 256	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measur	Test Measurement Results									
Test	Measure	d Conducted	Output Pow	er (dBm)	Calculated Total	Minimum 26 dB	Limit	Margin	EUT Power	
Frequency		Por	t(s)		Power	Bandwidth	LIIIII			
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dBm	Setting	
5520.0	13.14	14.03			18.10	82.164	19.00	-0.90	14.00	
5560.0	13.49	14.34			18.43	81.764	19.00	-0.57	13.50	
5675.0	14.44	13.62			18.54	81.363	19.00	-0.46	13.00	

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



Title: Radwin Ltd AP0158770 RF Wireless Module

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## 9.2. 26 dB & 99% Bandwidth

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



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### Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	10 MHz	Duty Cycle (%):	89.0
Data Rate:	QAM 64	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results								
Test	Me	Measured 26 dB Bandwidth (MHz)			26 dB Band	width (MU=)		
Frequency		Por	t(s)		26 UB Ballu	width (MHZ)		
MHz	а	b	С	d	Highest	Lowest		
5259.0	12.024	<u>12.776</u>			12.776	12.024		
5300.0	12.425	<u>12.525</u>			12.525	12.425		
5341.0	<u>12.475</u>	<u>12.826</u>			12.826	12.475		

Test	M	easured 99% E	Bandwidth (MF	łz)	99% Bandv	vidth (MUz)	
Frequency		Por	t(s)		99 / Balluv	viatri (iviriz)	
MHz	а	b	С	d	Highest	Lowest	
5259.0	<u>9.218</u>	<u>9.269</u>			9.269	9.218	
5300.0	<u>9.218</u>	9.269			9.269	9.218	
5341.0	<u>9.218</u>	9.269			9.269	9.218	

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



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### Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	20 MHz	Duty Cycle (%):	86.0
Data Rate:	QAM 64	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results										
Test	Measured 26 dB Bandwidth (MHz)				OC dD Dandwidth (MILE)					
Frequency		Por	t(s)		26 dB Bandwidth (MHz)					
MHz	а	b	С	d	Highest	Lowest				
5264.0	<u>22.445</u>	<u>22.745</u>			22.745	22.445				
5300.0	22.545	<u>22.846</u>			22.846	22.545				
5336.0	<u>22.345</u>	<u>22.645</u>			22.645	22.345				

Test	M	easured 99% E	Bandwidth (MF	lz)	99% Randy	vidth (MUz)	
Frequency		Por	t(s)		99% Bandwidth (MHz)		
MHz	а	b	С	d	Highest	Lowest	
5264.0	<u>17.936</u>	<u>17.936</u>			17.936	17.936	
5300.0	<u>17.936</u>	<u>17.936</u>			17.936	17.936	
5336.0	<u>17.735</u>	<u>17.936</u>	-		17.936	17.735	

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



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### Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	40 MHz	Duty Cycle (%):	80.5
Data Rate:	QAM 256	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results										
Test	Measured 26 dB Bandwidth (MHz)				OC dD Dandwidth (MILE)					
Frequency		Port(s)		26 dB Bandwidth (MHz)						
MHz	а	b	С	d	Highest	Lowest				
5274.0	<u>41.884</u>	<u>41.884</u>			41.884	41.884				
5300.0	<u>41.884</u>	<u>41.884</u>			41.884	41.884				
5326.0	<u>42.084</u>	<u>41.283</u>			42.084	41.283				

Test	M	easured 99% E	Bandwidth (MF	łz)	99% Bandwidth (MHz)		
Frequency		Por	t(s)		0070 241141	, , , , , , , , , , , , , , , , , , ,	
MHz	а	b	С	d	Highest	Lowest	
5274.0	<u>36.273</u>	<u>36.273</u>			36.273	36.273	
5300.0	<u>36.273</u>	<u>36.273</u>			36.273	36.273	
5326.0	<u>36.273</u>	<u>36.273</u>			36.273	36.273	

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



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### Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	5 MHz	Duty Cycle (%):	90.2
Data Rate:	QAM 64	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results										
Test	Measured 26 dB Bandwidth (MHz)				OC dD Dan dwidth (MIII)					
Frequency		Port(s)			26 dB Bandwidth (MHz)					
MHz	а	b	С	d	Highest	Lowest				
5253.5	<u>7.540</u>	<u>8.016</u>			8.016	7.540				
5300.0	<u>7.415</u>	<u>6.889</u>			7.415	6.889				
5346.5	<u>6.864</u>	<u>8.542</u>			8.542	6.864				

Test	M	easured 99% E	Bandwidth (MF	łz)	99% Bandwidth (MHz)		
Frequency		Port(s)			3370 Barray	viatii (ivii iz)	
MHz	а	b	С	d	Highest	Lowest	
5253.5	<u>4.985</u>	<u>5.035</u>			5.035	4.985	
5300.0	<u>4.885</u>	<u>4.935</u>			4.935	4.885	
5346.5	<u>4.860</u>	<u>5.010</u>	-		5.010	4.860	

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



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### Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	80 MHz	Duty Cycle (%):	71.8
Data Rate:	QAM 256	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results								
Test	Me	asured 26 dB	Bandwidth (M	Hz)	26 dB Bondwidth (MU=)			
Frequency		Por	t(s)		26 dB Bandwidth (MHz)			
MHz	а	b	С	d	Highest	Lowest		
5290.0	<u>82.164</u>	<u>82.565</u>			82.565	82.164		
5300.0	<u>81.764</u>	<u>82.565</u>			82.565	81.764		
5310.0	<u>81.363</u>	<u>82.565</u>			82.565	81.363		

Test	Me	easured 99% E	Bandwidth (MF	lz)	99% Bandwidth (MHz)		
Frequency	Port(s)			33% Danawiath (Miliz)			
MHz	а	b	С	d	Highest	Lowest	
5290.0	<u>76.152</u>	<u>75.752</u>			76.152	75.752	
5300.0	<u>76.152</u>	<u>76.152</u>			76.152	76.152	
5310.0	<u>76.152</u>	<u>75.752</u>	-		76.152	75.752	

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



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### Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	10 MHz	Duty Cycle (%):	89.3
Data Rate:	QAM 64	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measure	Test Measurement Results								
Test	Me	asured 26 dB	Bandwidth (M	Hz)					
Frequency		Port(s)			26 dB Bandwidth (MHz)				
MHz	а	b	С	d	Highest	Lowest			
5484.0	12.525	<u>12.876</u>			12.876	12.525			
5595.0	<u>12.375</u>	<u>12.826</u>			12.826	12.375			
5711.0	<u>12.475</u>	<u>12.675</u>			12.675	12.475			

Test	M	easured 99% E	Bandwidth (MF	łz)	99% Bandv	vidth (MHz)		
Frequency		Por	t(s)		33 / Banawiath (MHZ)			
MHz	а	b	С	d	Highest	Lowest		
5484.0	<u>9.218</u>	<u>9.269</u>			9.269	9.218		
5595.0	<u>9.218</u>	<u>9.319</u>			9.319	9.218		
5711.0	9.269	<u>9.319</u>	-		9.319	9.269		

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



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### Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	20 MHz	Duty Cycle (%):	86.1
Data Rate:	QAM 64	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results								
Test	Measured 26 dB Bandwidth (MHz)					width (MU=)		
Frequency		Port(s)				26 dB Bandwidth (MHz)		
MHz	а	b	С	d	Highest	Lowest		
5489.0	<u>22.445</u>	<u>22.745</u>			22.745	22.445		
5590.0	22.345	<u>22.946</u>			22.946	22.345		
5706.0	<u>22.545</u>	<u>22.645</u>			22.645	22.545		

Test	M	easured 99% E	Bandwidth (MF	lz)	99% Bandv	vidth (MHz)		
Frequency		Port(s)				55 /6 Barrawiatir (IIII12)		
MHz	а	b	С	d	Highest	Lowest		
5489.0	<u>17.836</u>	<u>17.936</u>			17.936	17.836		
5590.0	<u>17.836</u>	<u>17.836</u>			17.836	17.836		
5706.0	<u>17.836</u>	<u>17.936</u>			17.936	17.836		

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



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### Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	40 MHz	Duty Cycle (%):	80.6
Data Rate:	QAM 256	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results								
Test	Me	asured 26 dB	Bandwidth (M	Hz)	OC dD Downdridth (MILE)			
Frequency		Por	t(s)		26 dB Bandwidth (MHz)			
MHz	а	b	С	d	Highest	Lowest		
5499.0	<u>41.683</u>	<u>41.082</u>			41.683	41.082		
5570.0	<u>41.683</u>	<u>41.283</u>			41.683	41.283		
5696.0	<u>41.884</u>	<u>41.483</u>			41.884	41.483		

Test	M	easured 99% E	Bandwidth (MF	łz)	99% Bandv	vidth (MHz)	
Frequency		Por	t(s)		0070 241141	, , , , , , , , , , , , , , , , , , ,	
MHz	а	b	С	d	Highest	Lowest	
5499.0	<u>36.273</u>	<u>36.273</u>			36.273	36.273	
5570.0	<u>36.273</u>	<u>36.273</u>			36.273	36.273	
5696.0	<u>36.273</u>	<u>36.273</u>			36.273	36.273	

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



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### Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	5 MHz	Duty Cycle (%):	90.3
Data Rate:	QAM 64	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results								
Test	Measured 26 dB Bandwidth (MHz)				26 dB Bandwidth (MU=)			
Frequency		Port(s)			26 dB Bandwidth (MHz)			
MHz	а	b	С	d	Highest	Lowest		
5478.5	<u>8.066</u>	<u>7.315</u>			8.066	7.315		
5595.0	<u>6.839</u>	<u>7.565</u>			7.565	6.839		
5721.5	<u>7.791</u>	6.889	-		7.791	6.889		

Test	Measured 99% Bandwidth (MHz)				99% Bandv	vidth (MHz)	
Frequency	Port(s)			JJ / Danawidin (IVIIIZ)			
MHz	а	b	С	d	Highest	Lowest	
5478.5	<u>4.960</u>	<u>4.960</u>			4.960	4.960	
5595.0	<u>4.910</u>	<u>4.985</u>			4.985	4.910	
5721.5	<u>4.985</u>	<u>4.935</u>	-		4.985	4.935	

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



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### Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	80 MHz	Duty Cycle (%):	71.1
Data Rate:	QAM 256	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results								
Test	Measured 26 dB Bandwidth (MHz)			26 dB Bandwidth (MHz)				
Frequency		Por	t(s)		26 GB Band	wiatri (WHZ)		
MHz	а	b	С	d	Highest	Lowest		
5520.0	<u>84.168</u>	<u>82.164</u>			84.168	82.164		
5560.0	<u>82.164</u>	<u>81.764</u>			82.164	81.764		
5675.0	<u>81.363</u>	<u>81.363</u>			81.363	81.363		

Test	Measured 99% Bandwidth (MHz)			99% Bandwidth (MHz)			
Frequency	Port(s)						
MHz	а	b	С	d	Highest	Lowest	
5520.0	<u>75.752</u>	<u>75.752</u>			75.752	75.752	
5560.0	<u>76.152</u>	<u>75.752</u>			76.152	75.752	
5675.0	<u>75.752</u>	<u>76.152</u>	-		76.152	75.752	

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



Title: Radwin Ltd AP0158770 RF Wireless Module

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# 9.3. 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)	15.407 (a) <b>Pressure (mBars):</b> 999 - 1001				
Reference Document(s):	See Normative References					

#### **Test Procedure for Power Spectral Density**

The in-band power spectral density was measured using the test technique specified in KDB 789033. A 1 MHz measurement bandwidth was implemented for the analyzer sweep. Once the sweep is complete the analyzer trace data is downloaded and used for post processing purposes.

Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured separately. The Peak Power Spectral Density is the highest level found across the emission bandwidth. With multiple antenna port measurements the numerical analyzer data from each port is summed (å) and a link to this additional graphic is provided.

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

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

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

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

### **Limits Power Spectral Density**

### Operating Frequency Band 5150-5250 MHz

15. 407 (a)(1)

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

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



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

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

#### Operating Frequency Band 5250-5350 and 5470 - 5725 MHz

#### 15. 407 (a)(2)

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

### Operating Frequency Band 5725 - 5850 MHz

#### 15. 407 (a)(3)

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



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### Equipment Configuration for Power Spectral Density

Variant:	10 MHz	Duty Cycle (%):	89.0
Data Rate:	QAM 64	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results							
Test	Measured Power Spectral Density						
Frequency	Port(s) (dBm/MHz)				Summation + DCCF (+0.51 dB)	Limit	Margin
MHz	а	b	С	d	dBm/MHz	dBm/MHz	dB
5259.0	<u>0.854</u>	<u>0.191</u>			<u>3.010</u>	6	-2.99
5300.0	<u>1.724</u>	<u>1.396</u>			4.292	6	-1.708
5341.0	<u>1.285</u>	<u>1.946</u>			<u>4.085</u>	6	-1.915

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

DCCF - Duty Cycle Correction Factor



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### **Equipment Configuration for Power Spectral Density**

Variant:	20 MHz	Duty Cycle (%):	86.0
Data Rate:	QAM 64	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results							
Test	Measured Power Spectral Density			Amplitude Summation +	Limit	Margin	
Frequency		Port(s) (dBm/MHz)			DCCF (+0.66 dB)		J
MHz	а	b	С	d	dBm/MHz	dBm/MHz	dB
5264.0	<u>-0.478</u>	<u>-0.273</u>			2.299	6	-3.70
5300.0	<u>-0.580</u>	<u>-1.897</u>			2.002	6	-4.00
5336.0	<u>-1.365</u>	<u>1.086</u>			<u>3.336</u>	6	-2.66

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

DCCF - Duty Cycle Correction Factor



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### **Equipment Configuration for Power Spectral Density**

Variant:	40 MHz	Duty Cycle (%):	80.5
Data Rate:	QAM 256	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results							
Tool	Measured Power Spectral Density						
Test Frequency	Port(s) (dBm/MHz)			Summation + DCCF (+0.92 dB)	Limit	Margin	
MHz	а	b	С	d	dBm/MHz	dBm/MHz	dB
5274.0	<u>-4.112</u>	<u>-5.646</u>			<u>-2.351</u>	6	-8.35
5300.0	<u>-5.173</u>	<u>-6.474</u>			<u>-2.230</u>	6	-8.23
5326.0	<u>-3.260</u>	<u>-7.428</u>			<u>-1.382</u>	6	-7.38

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

DCCF - Duty Cycle Correction Factor



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### **Equipment Configuration for Power Spectral Density**

Variant:	5 MHz	Duty Cycle (%):	90.2
Data Rate:	QAM 64	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurem	Test Measurement Results						
Test	Test Measured Power Spectral Density					1.514	Manada
Frequency		Port(s) (dBm/MHz)			DCCF (+0.46 dB)	Limit	Margin
MHz	а	b	С	d	dBm/MHz	dBm/MHz	dB
5253.5	<u>1.529</u>	<u>1.240</u>			<u>4.416</u>	6	-1.58
5300.0	4.072	<u>-0.020</u>			<u>5.524</u>	6	-0.48
5346.5	<u>1.104</u>	<u>2.279</u>			4.832	6	-1.17

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

DCCF - Duty Cycle Correction Factor



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### **Equipment Configuration for Power Spectral Density**

Variant:	80 MHz	Duty Cycle (%):	71.8
Data Rate:	QAM 256	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results							
Tool	Measured Power Spectral Density						
Test Frequency	Port(s) (dBm/MHz)			Summation + DCCF (+1.43 dB)	Limit	Margin	
MHz	а	b	С	d	dBm/MHz	dBm/MHz	dB
5290.0	<u>-12.002</u>	<u>-11.672</u>			<u>-8.717</u>	6	-14.72
5300.0	<u>-13.052</u>	<u>-13.790</u>			<u>-10.268</u>	6	-16.27
5310.0	<u>-9.608</u>	<u>-13.661</u>			<u>-7.542</u>	6	-13.54

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

DCCF - Duty Cycle Correction Factor



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### Equipment Configuration for Power Spectral Density

Variant:	10 MHz	Duty Cycle (%):	89.3
Data Rate:	QAM64	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results							
Test	N	leasured Power	Spectral Densit	Amplitude Summation +			
Frequency		Port(s) (dBm/MHz)			DCCF (+0.51 dB)	Limit	Margin
MHz	а	b	С	d	dBm/MHz	dBm/MHz	dB
5484.0	<u>0.674</u>	<u>3.287</u>			<u>5.462</u>	6.0	-0.5
5595.0	<u>1.382</u>	<u>1.144</u>			4.422	6.0	-1.6
5711.0	<u>3.830</u>	<u>2.369</u>			<u>5.570</u>	6.0	-0.4

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

DCCF - Duty Cycle Correction Factor



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### Equipment Configuration for Power Spectral Density

Variant:	20 MHz	Duty Cycle (%):	86.1
Data Rate:	QAM 64	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results								
Test	Measured Power Spectral Density							
Frequency		Port(s) (dBm/MHz)			Summation + DCCF (+0.66 dB)	Limit	Margin	
MHz	а	b	С	d	dBm/MHz	dBm/MHz	dB	
5489.0	<u>-1.504</u>	<u>-1.149</u>			<u>1.456</u>	6.0	-4.6	
5590.0	<u>-0.690</u>	0.042			2.706	6.0	-3.3	
5706.0	<u>-0.004</u>	<u>-2.730</u>			<u>1.952</u>	6.0	-4.1	

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

DCCF - Duty Cycle Correction Factor



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### **Equipment Configuration for Power Spectral Density**

Variant:	40 MHz	Duty Cycle (%):	80.6
Data Rate:	QAM 256	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results							
Test	Measured Power Spectral Density				Amplitude Summation +	Limit	Margin
Frequency		Port(s) (dBm/MHz)			DCCF (+0.92 dB)		u.g
MHz	а	b	С	d	dBm/MHz	dBm/MHz	dB
5499.0	<u>-5.493</u>	<u>-4.263</u>			<u>-2.379</u>	6.0	-8.4
5570.0	<u>-7.063</u>	<u>-3.658</u>			<u>-1.705</u>	6.0	-7.7
5696.0	<u>-4.300</u>	<u>-6.893</u>			<u>-2.422</u>	6.0	-8.4

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

DCCF - Duty Cycle Correction Factor



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### **Equipment Configuration for Power Spectral Density**

Variant:	5 MHz	Duty Cycle (%):	90.3
Data Rate:	QAM 64	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurem	Test Measurement Results						
Test	Measured Power Spectral Density					1 : 14	Manain
Frequency		Port(s) (dBm/MHz)			DCCF (+0.46 dB)	Limit	Margin
MHz	а	b	С	d	dBm/MHz	dBm/MHz	dB
5478.5	<u>-0.010</u>	<u>1.975</u>			<u>4.546</u>	6.0	-1.5
5595.0	<u>2.233</u>	<u>2.569</u>			<u>5.481</u>	6.0	-0.5
5721.5	<u>3.512</u>	0.683			4.930	6.0	-1.1

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

DCCF - Duty Cycle Correction Factor



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### Equipment Configuration for Power Spectral Density

Variant:	80 MHz	Duty Cycle (%):	71.1
Data Rate:	QAM 256	Antenna Gain (dBi):	11.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results							
Measured Power Spectral Density			Amplitude				
Test Frequency			Summation + DCCF (+1.49 dB)	Limit	Margin		
MHz	а	b	С	d	dBm/MHz	dBm/MHz	dB
5520.0	<u>-11.747</u>	<u>-12.669</u>			<u>-8.729</u>	6.0	-14.7
5560.0	<u>-12.380</u>	<u>-8.739</u>			<u>-6.240</u>	6.0	-12.2
5675.0	<u>-12.354</u>	<u>-11.682</u>			<u>-7.891</u>	6.0	-13.9

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

DCCF - Duty Cycle Correction Factor



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# A. APPENDIX - GRAPHICAL IMAGES



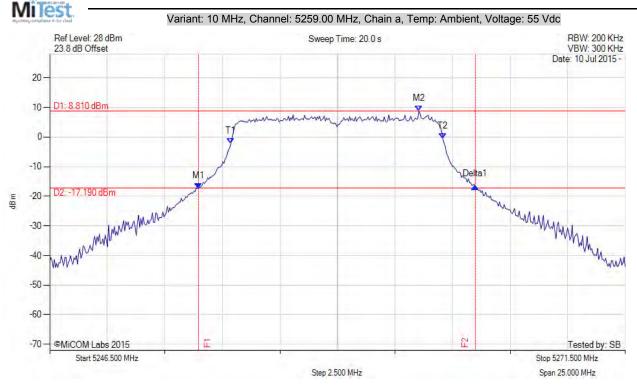
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# A.1. 26 dB & 99% Bandwidth

# 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
		Measured 26 dB Bandwidth: 12.024 MHz Measured 99% Bandwidth: 9.218 MHz

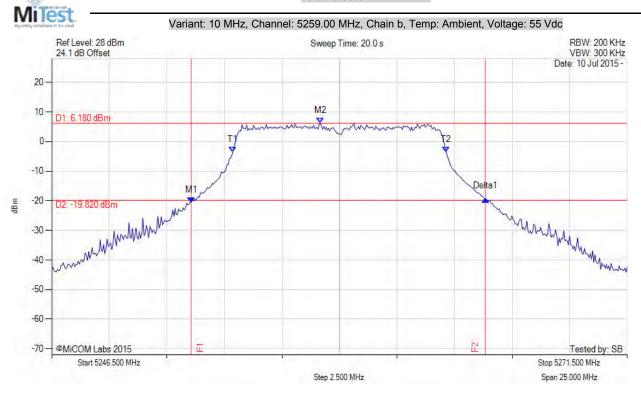


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### 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 12.776 MHz Measured 99% Bandwidth: 9.269 MHz

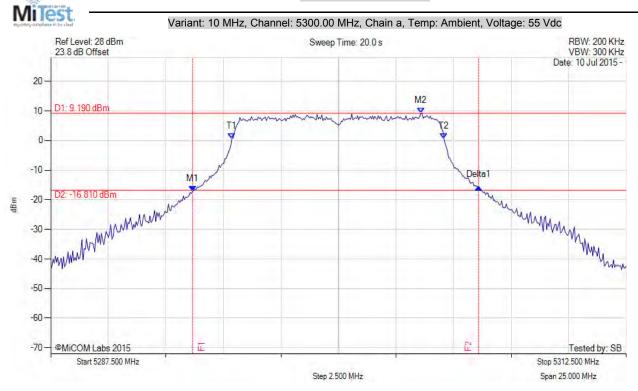


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### 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 12.425 MHz Measured 99% Bandwidth: 9.218 MHz



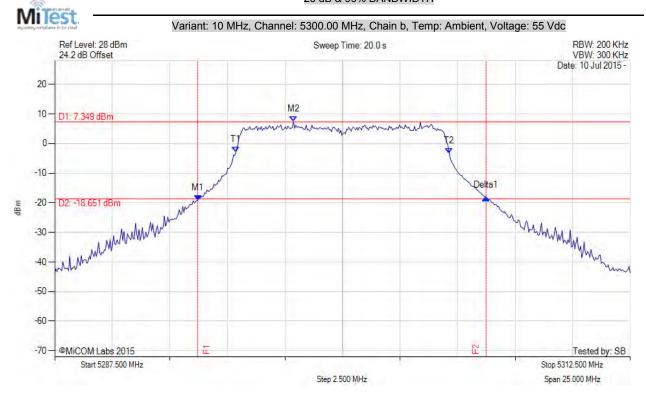
Title: Radwin Ltd AP0158770 RF Wireless Module

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# 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		Measured 26 dB Bandwidth: 12.525 MHz Measured 99% Bandwidth: 9.269 MHz

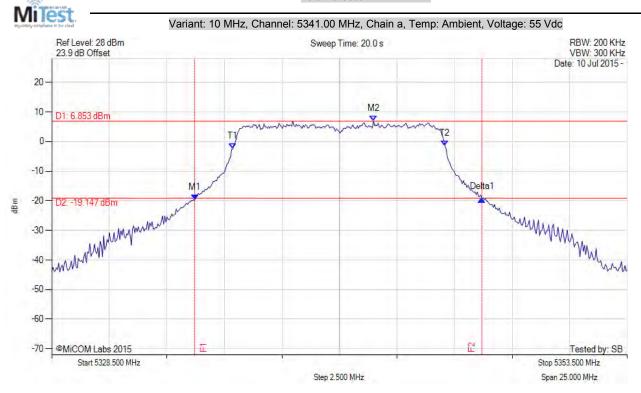


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# 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 12.475 MHz Measured 99% Bandwidth: 9.218 MHz

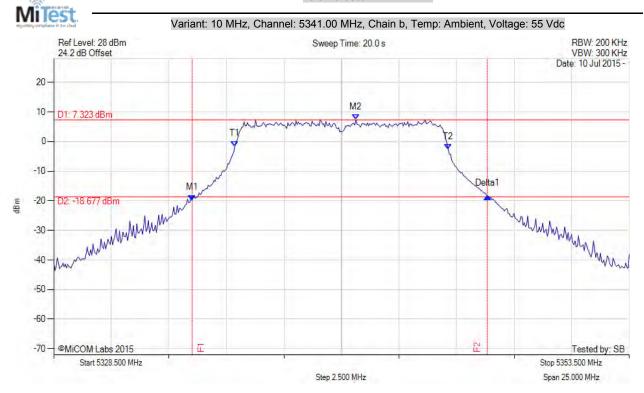


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# 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 12.826 MHz Measured 99% Bandwidth: 9.269 MHz

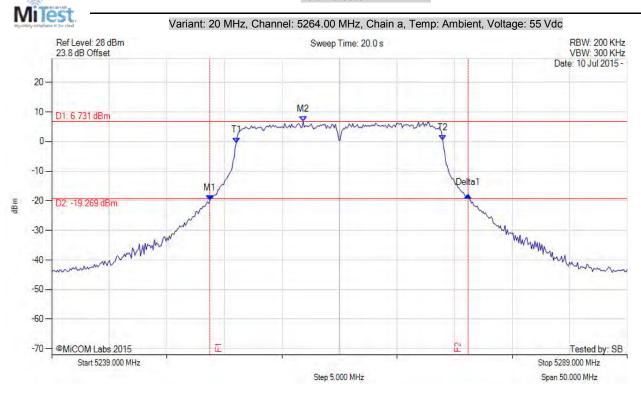


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### 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 22.445 MHz Measured 99% Bandwidth: 17.936 MHz

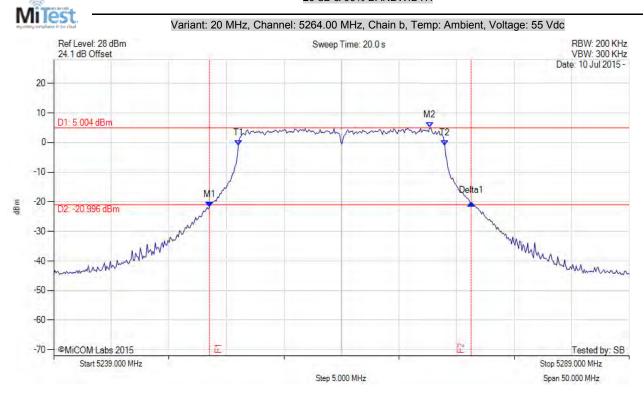


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 22.745 MHz Measured 99% Bandwidth: 17.936 MHz

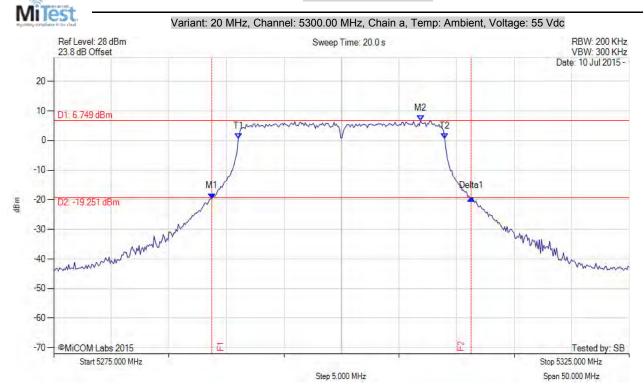


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### 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
		Measured 26 dB Bandwidth: 22.545 MHz Measured 99% Bandwidth: 17.936 MHz

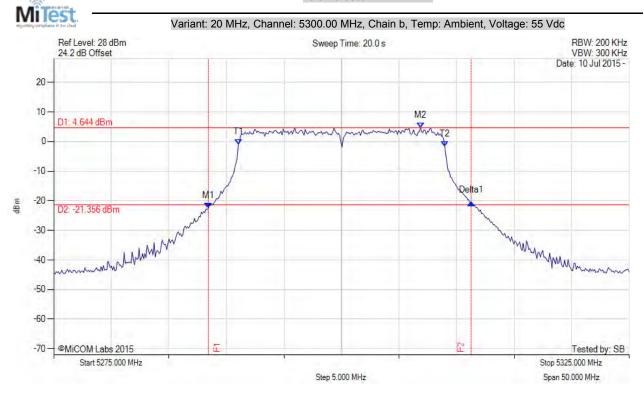


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### 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0		Measured 26 dB Bandwidth: 22.846 MHz Measured 99% Bandwidth: 17.936 MHz

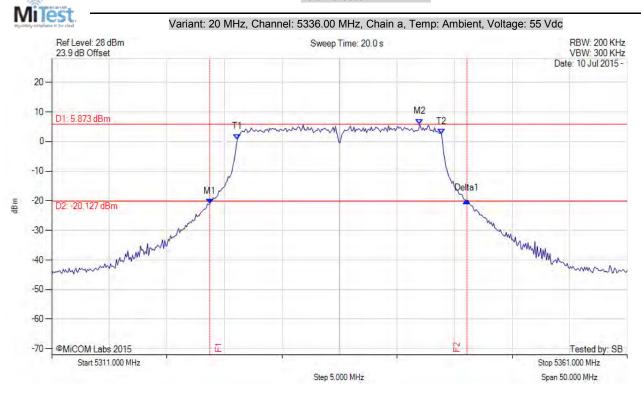


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### 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 22.345 MHz Measured 99% Bandwidth: 17.735 MHz

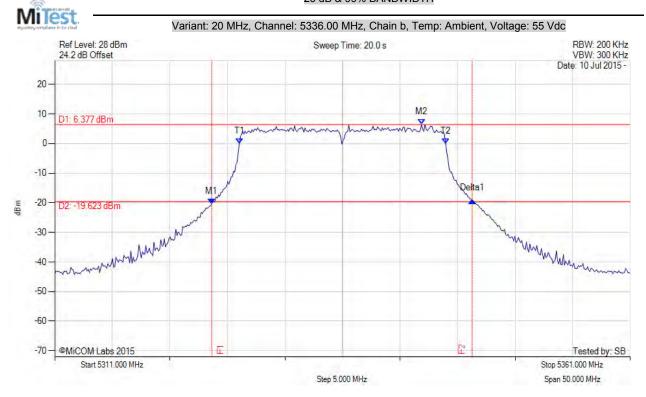


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### 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 22.645 MHz Measured 99% Bandwidth: 17.936 MHz



Title: Radwin Ltd AP0158770 RF Wireless Module

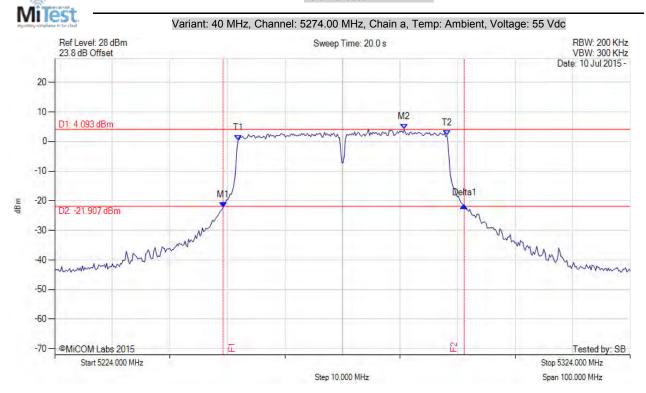
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### 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
		Measured 26 dB Bandwidth: 41.884 MHz Measured 99% Bandwidth: 36.273 MHz

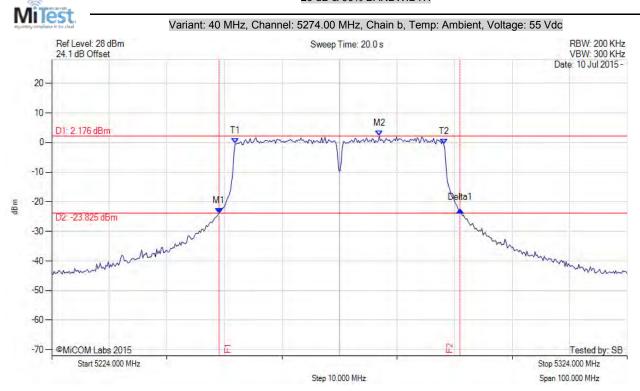


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 41.884 MHz Measured 99% Bandwidth: 36.273 MHz

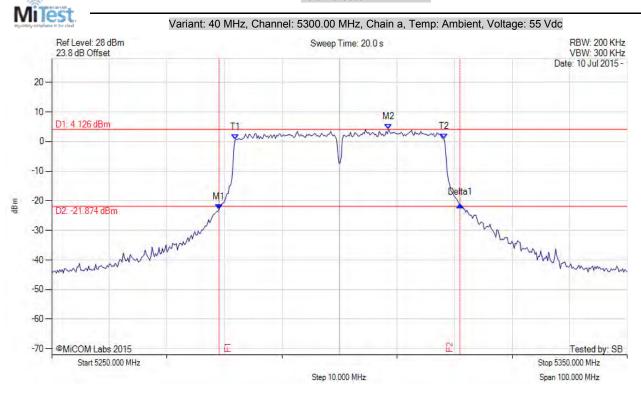


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### 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
		Measured 26 dB Bandwidth: 41.884 MHz Measured 99% Bandwidth: 36.273 MHz



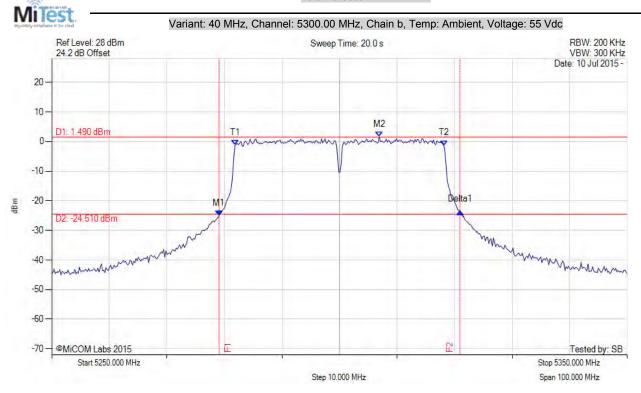
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### 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 41.884 MHz Measured 99% Bandwidth: 36.273 MHz

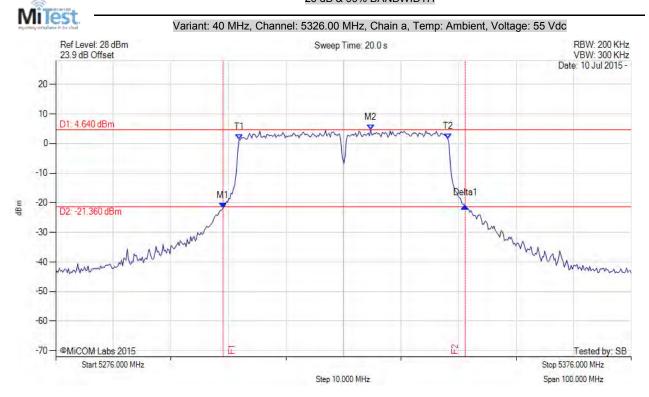


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### 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
	M1: 5305.058 MHz: -21.808 dBm M2: 5330.709 MHz: 4.640 dBm Delta1: 42.084 MHz: 0.807 dB T1: 5307.864 MHz: 1.305 dBm T2: 5344.136 MHz: 1.576 dBm OBW: 36.273 MHz	Measured 26 dB Bandwidth: 42.084 MHz Measured 99% Bandwidth: 36.273 MHz

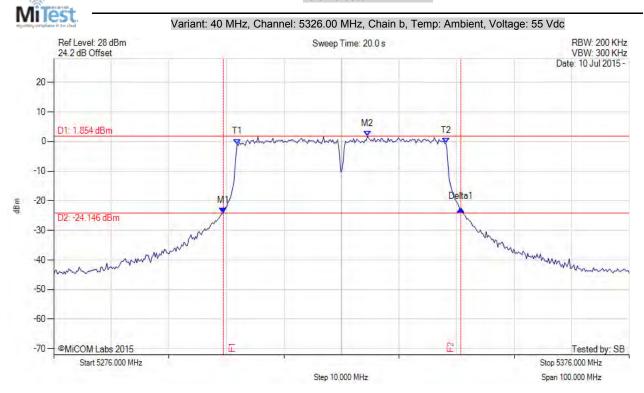


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### 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 41.283 MHz Measured 99% Bandwidth: 36.273 MHz

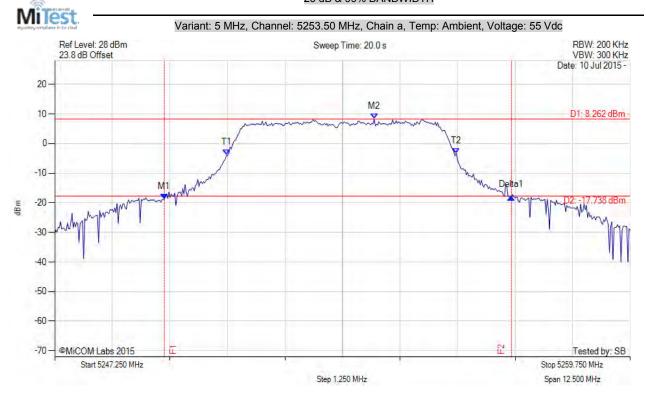


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# 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 7.540 MHz Measured 99% Bandwidth: 4.985 MHz

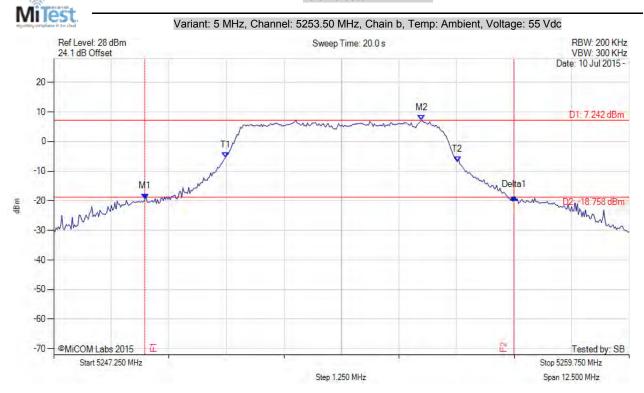


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 8.016 MHz Measured 99% Bandwidth: 5.035 MHz

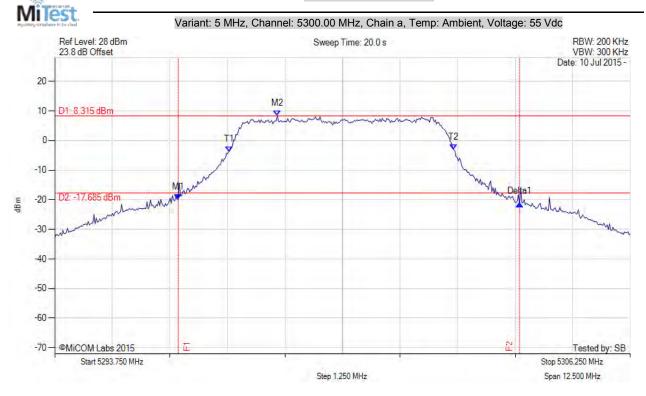


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 7.415 MHz Measured 99% Bandwidth: 4.885 MHz

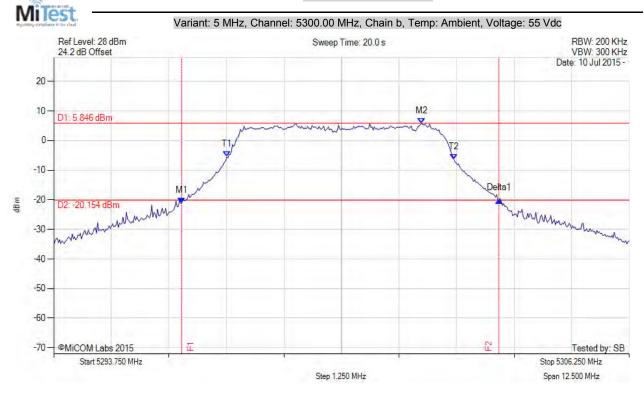


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 6.889 MHz Measured 99% Bandwidth: 4.935 MHz

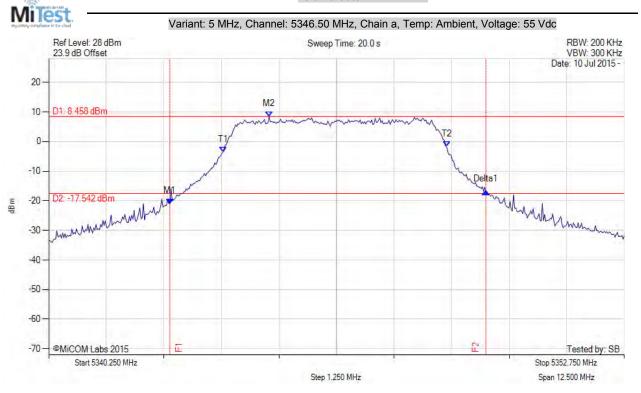


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 6.864 MHz Measured 99% Bandwidth: 4.860 MHz



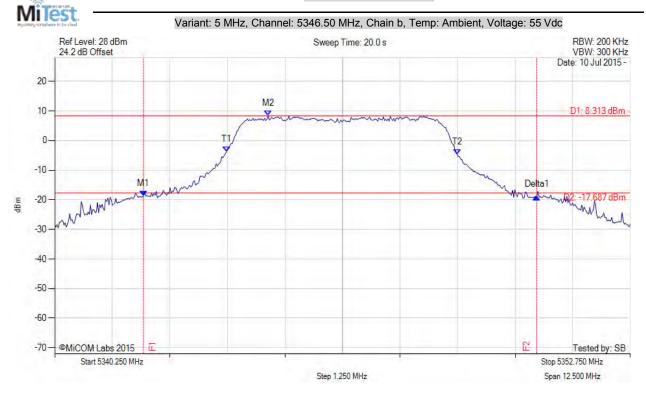
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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1: 5342.179 MHz: -18.796 dBm M2: 5344.884 MHz: 8.313 dBm Delta1: 8.542 MHz: -0.142 dB T1: 5343.982 MHz: -3.794 dBm T2: 5348.992 MHz: -4.770 dBm OBW: 5.010 MHz	Measured 26 dB Bandwidth: 8.542 MHz Measured 99% Bandwidth: 5.010 MHz

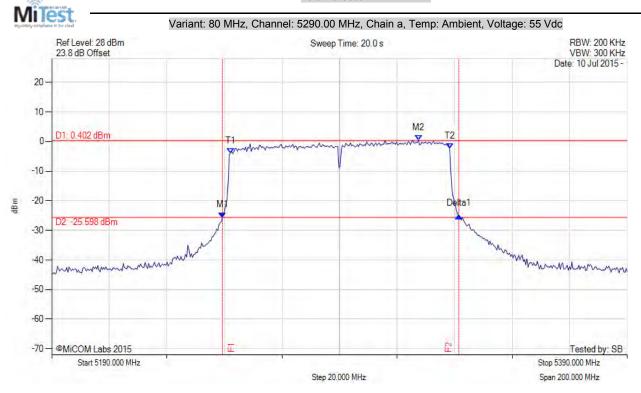


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 82.164 MHz Measured 99% Bandwidth: 76.152 MHz

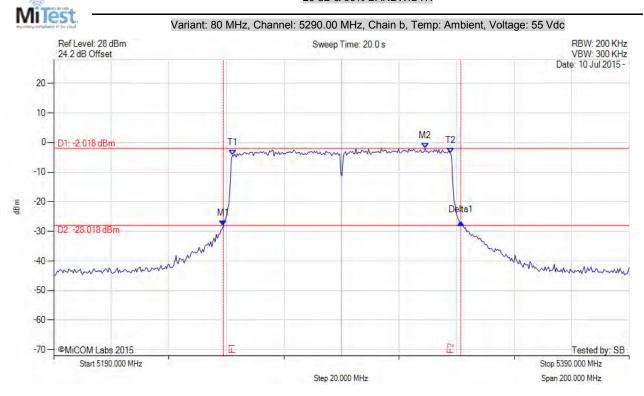


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 82.565 MHz Measured 99% Bandwidth: 75.752 MHz

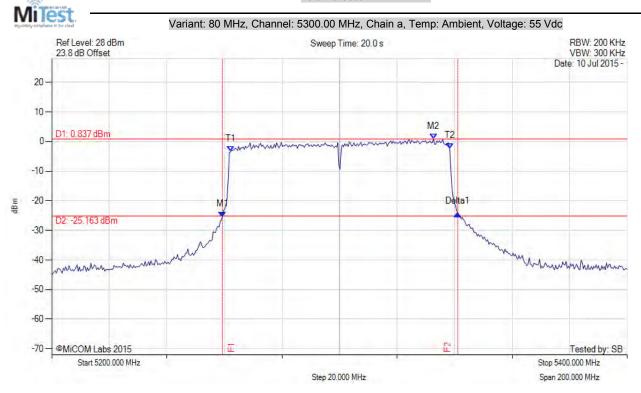


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 81.764 MHz Measured 99% Bandwidth: 76.152 MHz



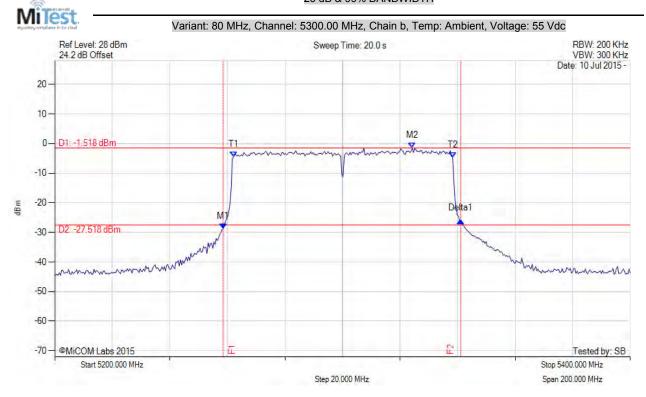
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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
		Measured 26 dB Bandwidth: 82.565 MHz Measured 99% Bandwidth: 76.152 MHz

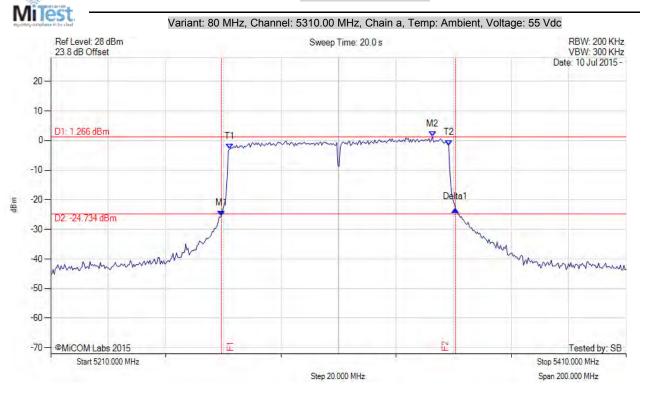


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 81.363 MHz Measured 99% Bandwidth: 76.152 MHz

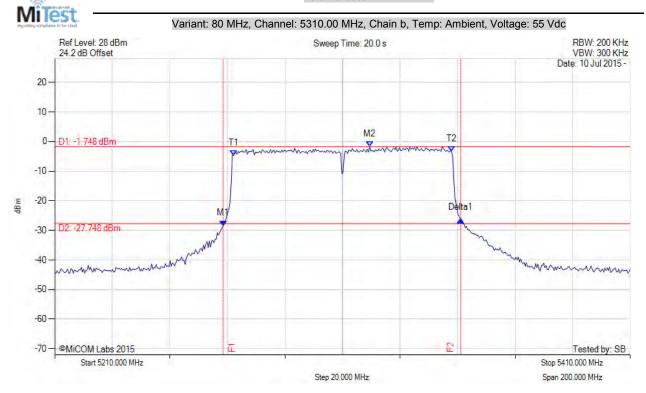


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 82.565 MHz Measured 99% Bandwidth: 75.752 MHz

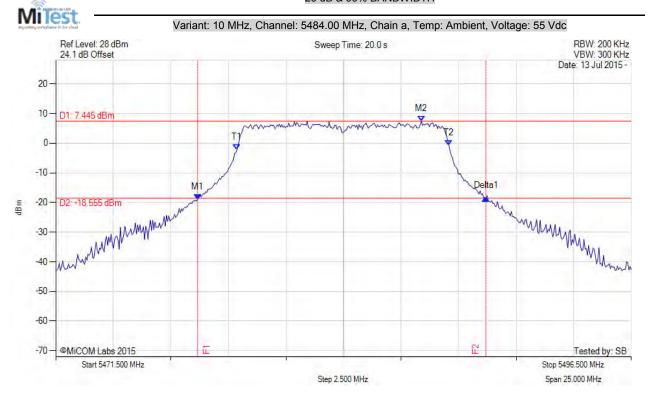


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# 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1: 5477.662 MHz: -18.937 dBm M2: 5487.382 MHz: 7.445 dBm Delta1: 12.525 MHz: 0.299 dB T1: 5479.366 MHz: -2.248 dBm T2: 5488.584 MHz: -0.836 dBm OBW: 9.218 MHz	Measured 26 dB Bandwidth: 12.525 MHz Measured 99% Bandwidth: 9.218 MHz

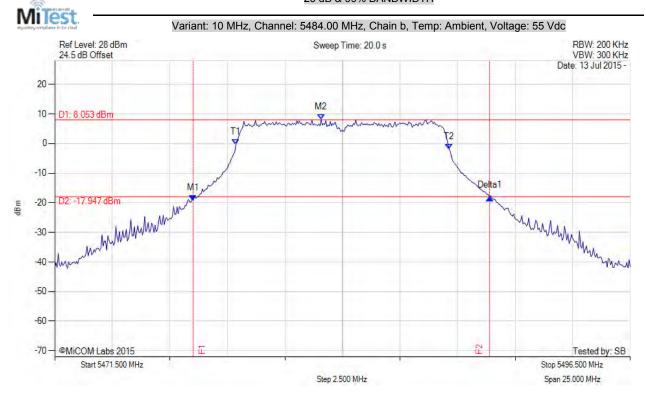


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 12.876 MHz Measured 99% Bandwidth: 9.269 MHz

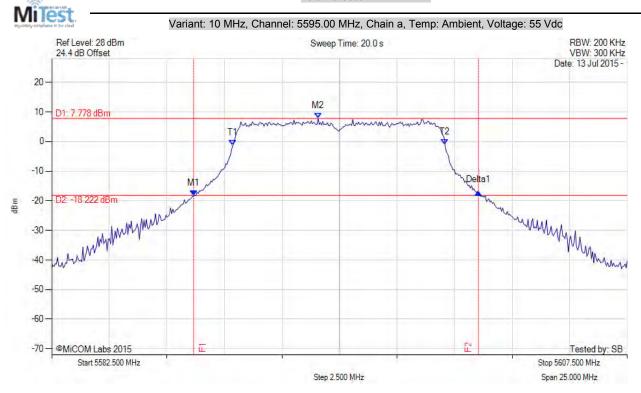


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 12.375 MHz Measured 99% Bandwidth: 9.218 MHz

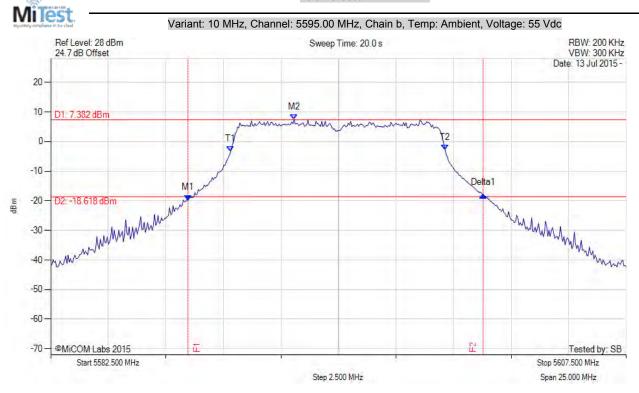


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 12.826 MHz Measured 99% Bandwidth: 9.319 MHz

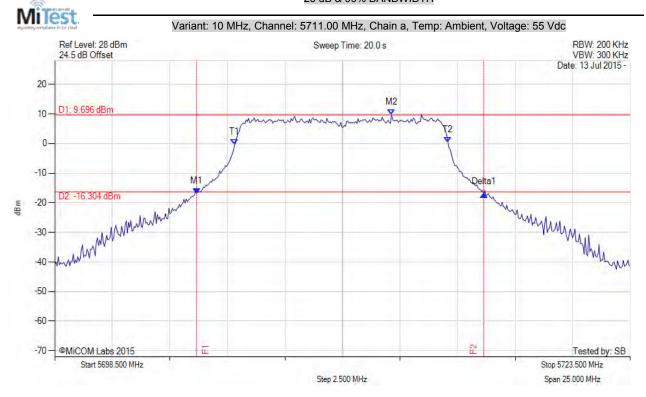


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# 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 12.475 MHz Measured 99% Bandwidth: 9.269 MHz

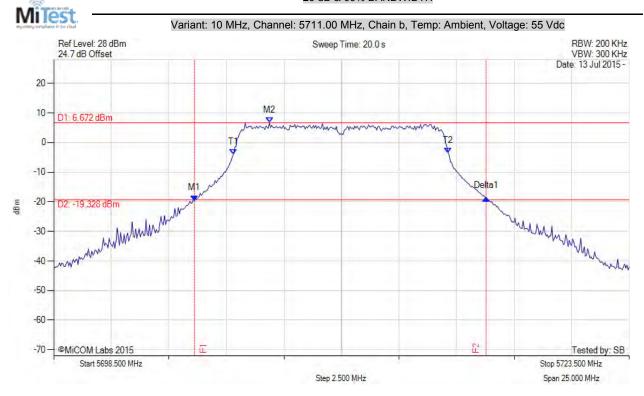


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# 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 12.675 MHz Measured 99% Bandwidth: 9.319 MHz

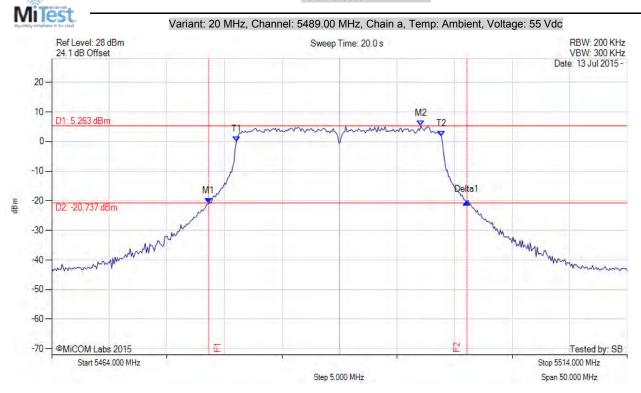


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 22.445 MHz Measured 99% Bandwidth: 17.836 MHz

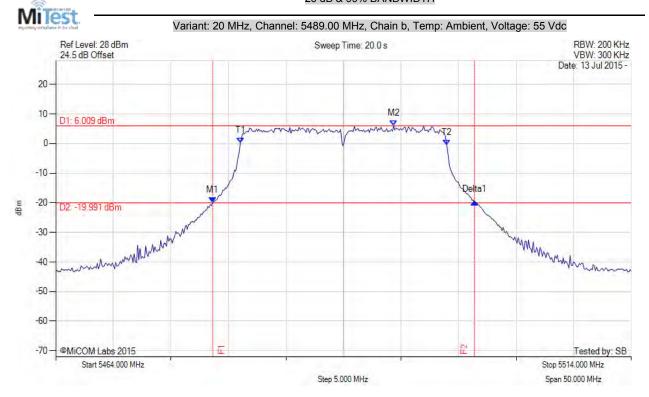


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
		Measured 26 dB Bandwidth: 22.745 MHz Measured 99% Bandwidth: 17.936 MHz

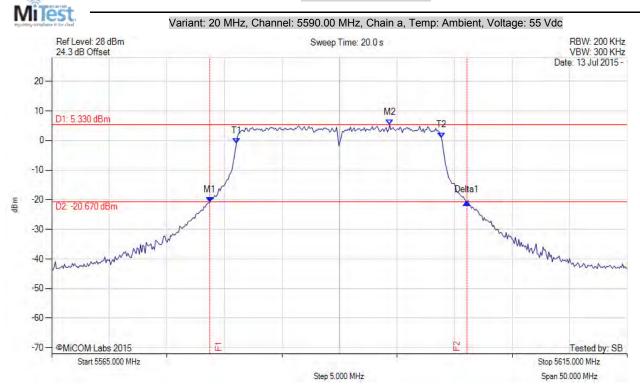


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
		Measured 26 dB Bandwidth: 22.345 MHz Measured 99% Bandwidth: 17.836 MHz

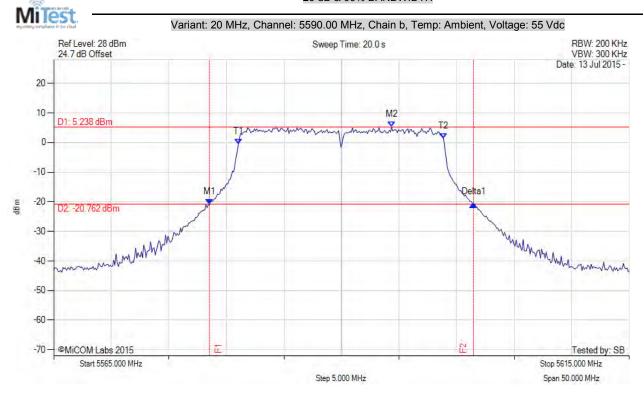


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 22.946 MHz Measured 99% Bandwidth: 17.836 MHz

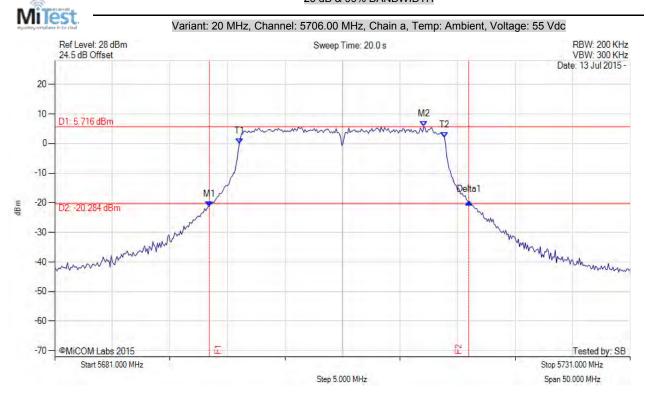


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 22.545 MHz Measured 99% Bandwidth: 17.836 MHz



Title: Radwin Ltd AP0158770 RF Wireless Module

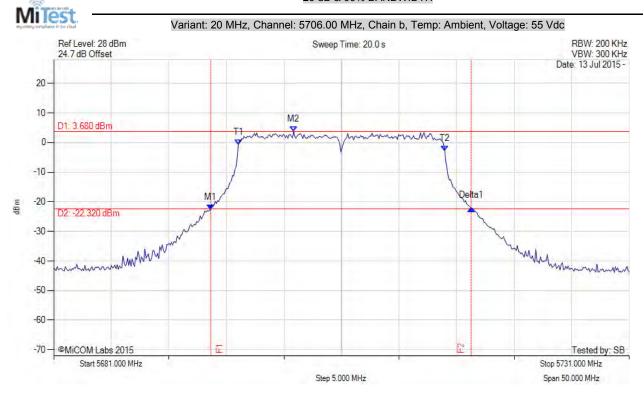
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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 22.645 MHz Measured 99% Bandwidth: 17.936 MHz

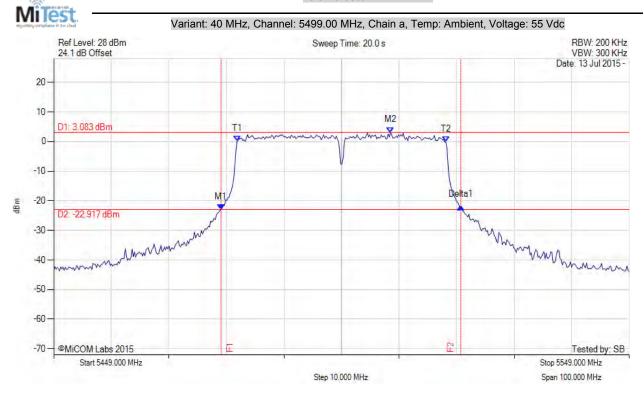


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 41.683 MHz Measured 99% Bandwidth: 36.273 MHz

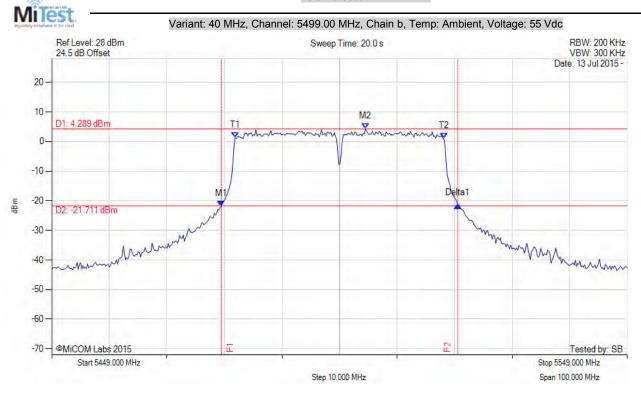


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 41.082 MHz Measured 99% Bandwidth: 36.273 MHz



Title: Radwin Ltd AP0158770 RF Wireless Module

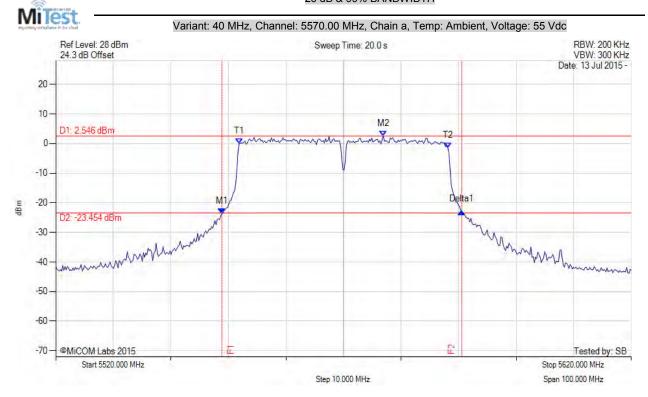
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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
		Measured 26 dB Bandwidth: 41.683 MHz Measured 99% Bandwidth: 36.273 MHz

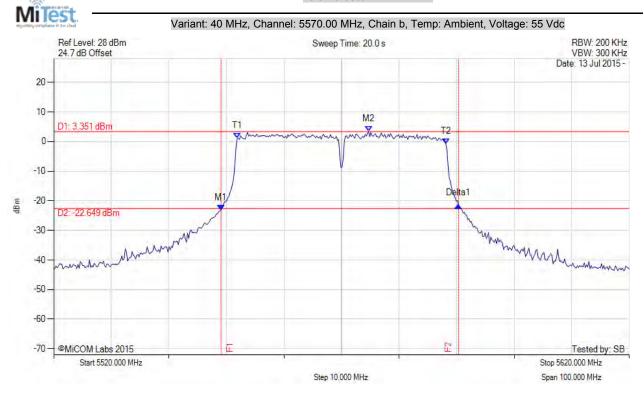


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 41.283 MHz Measured 99% Bandwidth: 36.273 MHz

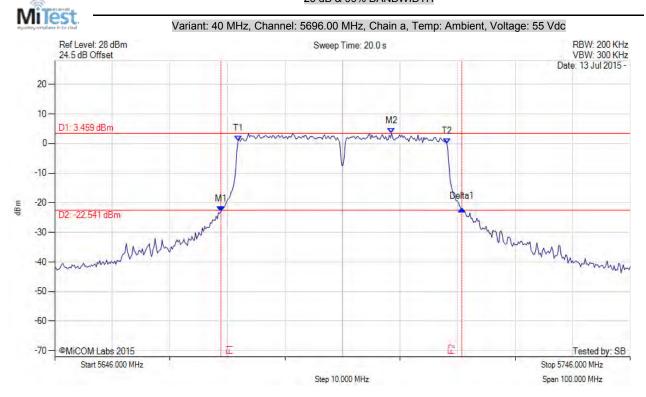


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
		Measured 26 dB Bandwidth: 41.884 MHz Measured 99% Bandwidth: 36.273 MHz

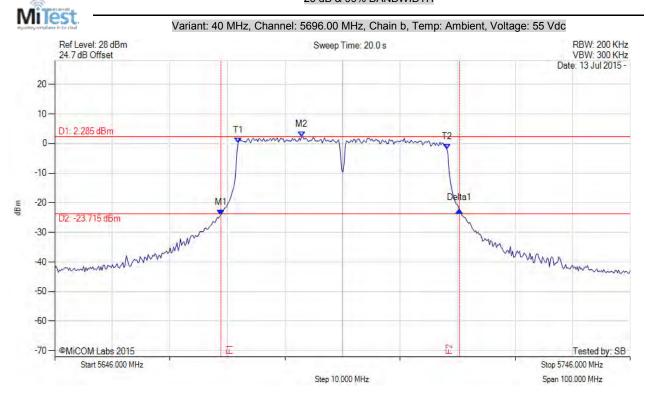


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 41.483 MHz Measured 99% Bandwidth: 36.273 MHz

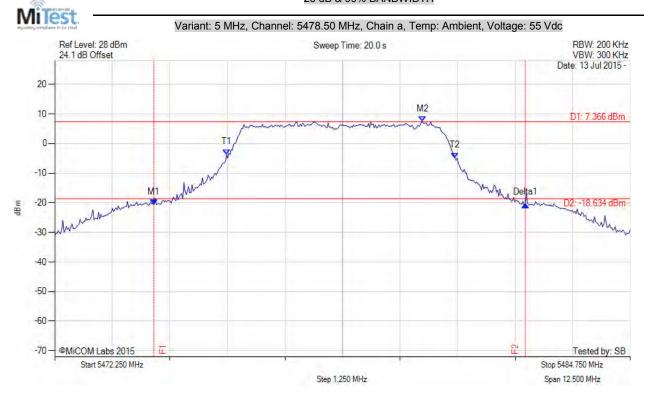


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 8.066 MHz Measured 99% Bandwidth: 4.960 MHz

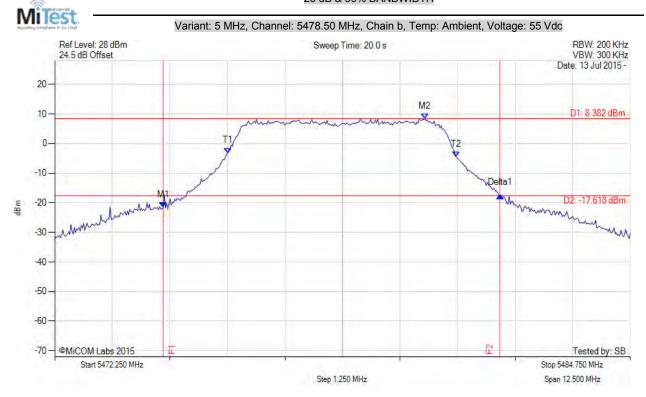


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 7.315 MHz Measured 99% Bandwidth: 4.960 MHz

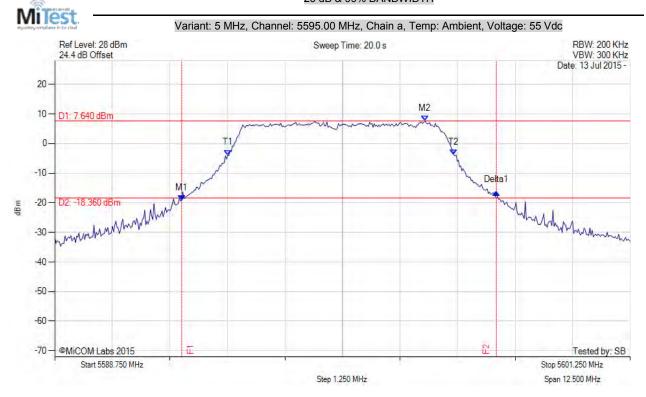


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# 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 6.839 MHz Measured 99% Bandwidth: 4.910 MHz

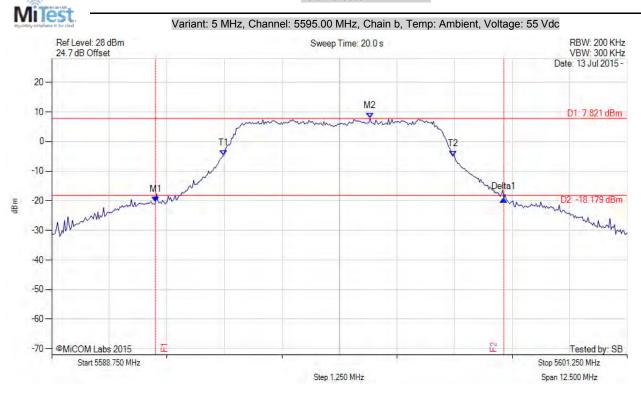


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 7.565 MHz Measured 99% Bandwidth: 4.985 MHz

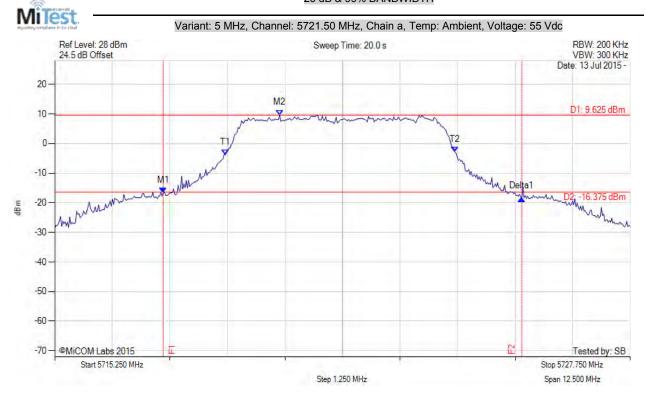


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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 7.791 MHz Measured 99% Bandwidth: 4.985 MHz



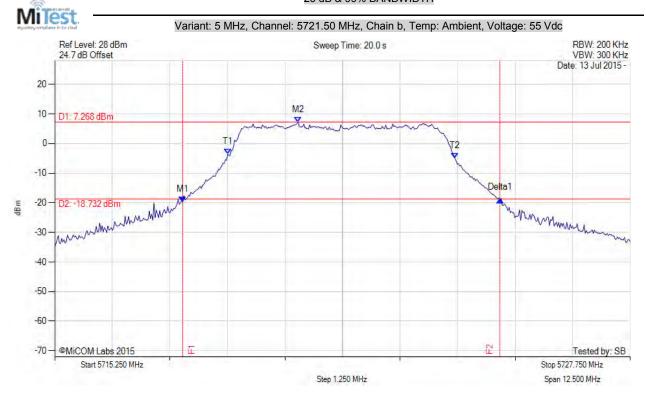
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## 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 6.889 MHz Measured 99% Bandwidth: 4.935 MHz

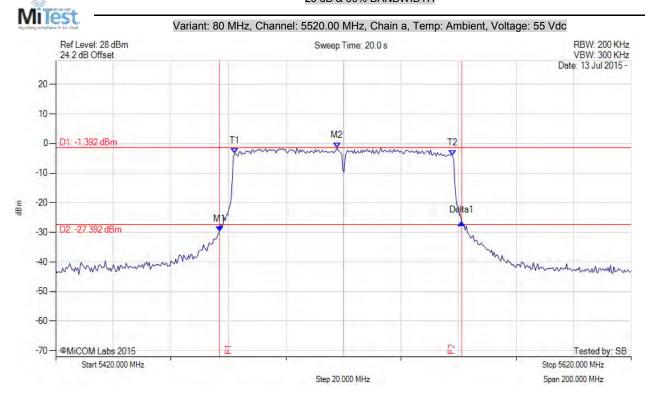


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#### 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 84.168 MHz Measured 99% Bandwidth: 75.752 MHz

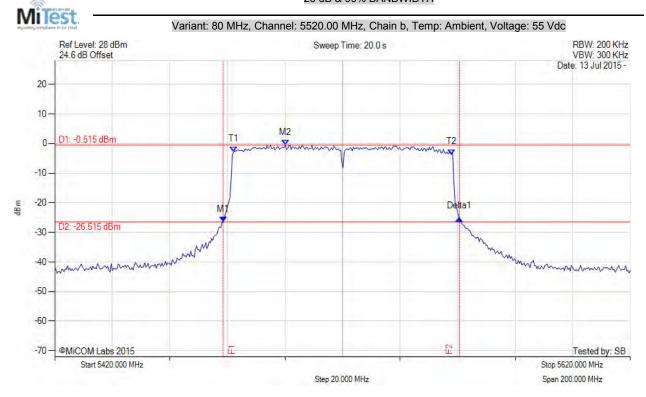


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#### 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 82.164 MHz Measured 99% Bandwidth: 75.752 MHz

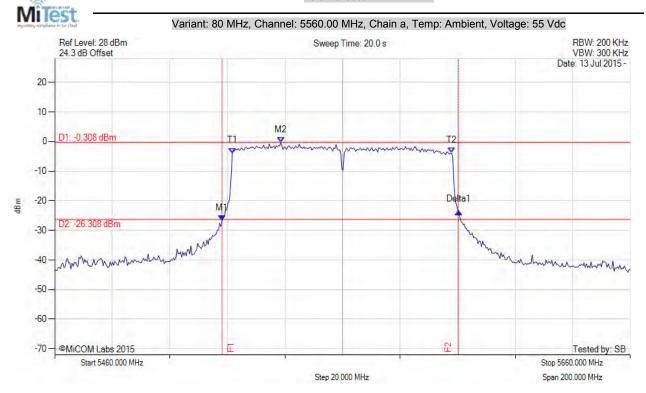


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#### 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 82.164 MHz Measured 99% Bandwidth: 76.152 MHz

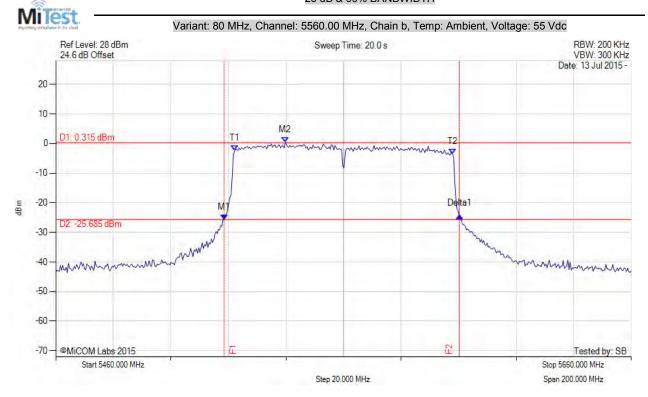


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#### 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 81.764 MHz Measured 99% Bandwidth: 75.752 MHz

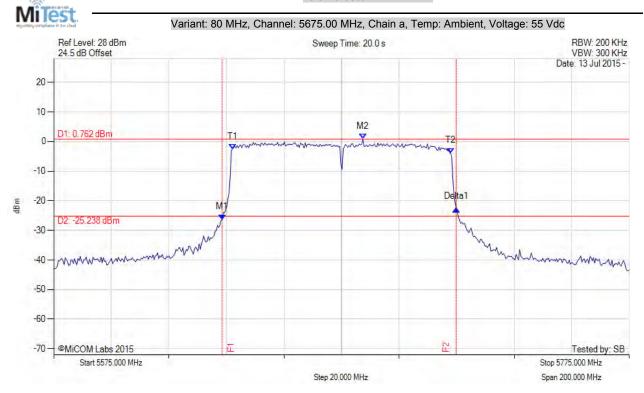


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#### 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 81.363 MHz Measured 99% Bandwidth: 75.752 MHz

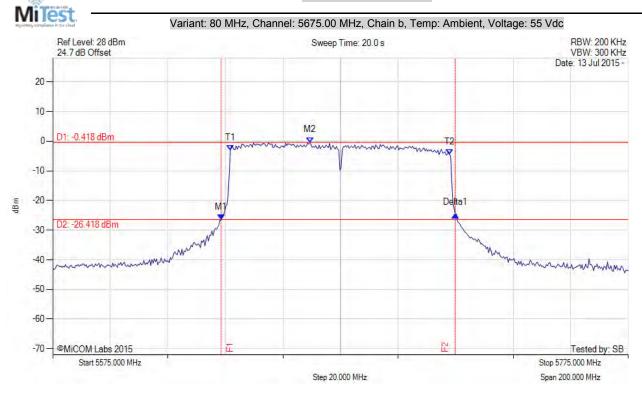


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# 26 dB & 99% BANDWIDTH



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1: 5633.517 MHz: -26.535 dBm M2: 5664.379 MHz: -0.418 dBm Delta1: 81.363 MHz: 1.633 dB T1: 5636.723 MHz: -3.082 dBm T2: 5712.876 MHz: -4.497 dBm OBW: 76.152 MHz	Measured 26 dB Bandwidth: 81.363 MHz Measured 99% Bandwidth: 76.152 MHz



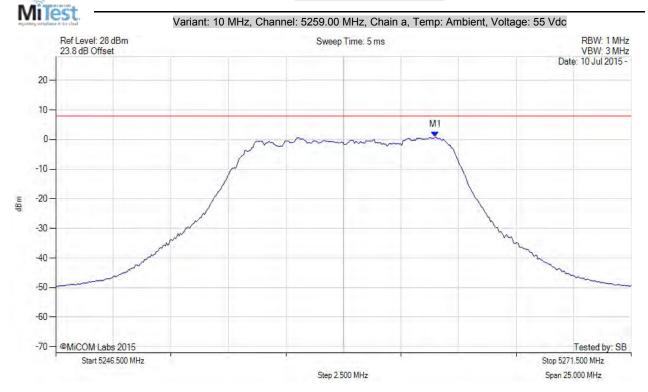
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# A.2. Power Spectral Density

#### POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5262.983 MHz : 0.854 dBm	Limit: ≤ 7.990 dBm

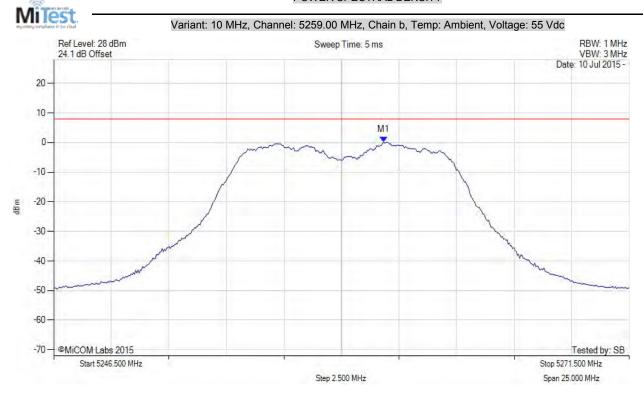


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5260.829 MHz : 0.191 dBm	Limit: ≤ 7.990 dBm



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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5261.800 MHz: 2.504 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5261.800 MHz : 3.010 dBm	Margin: -8.0 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.51 dB	
Trace Mode = VIEW		

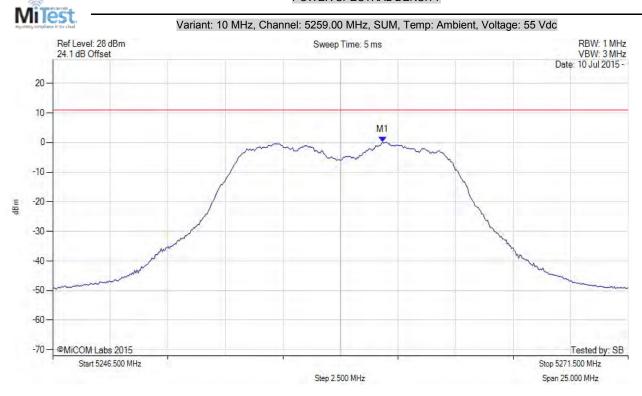


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5260.800 MHz: 0.191 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5260.800 MHz : 0.697 dBm	Margin: -10.3 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.51 dB	
Trace Mode = VIEW		

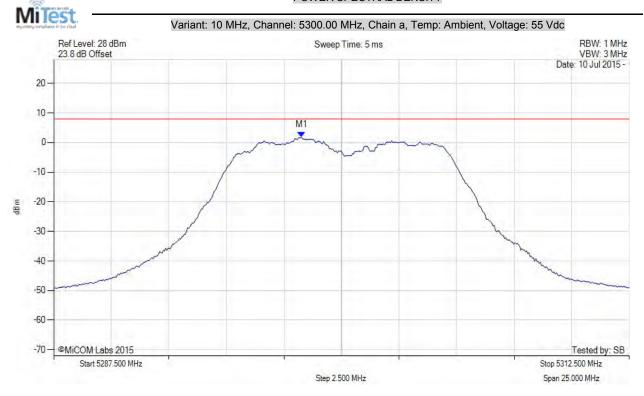


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5298.272 MHz : 1.724 dBm	Limit: ≤ 7.990 dBm

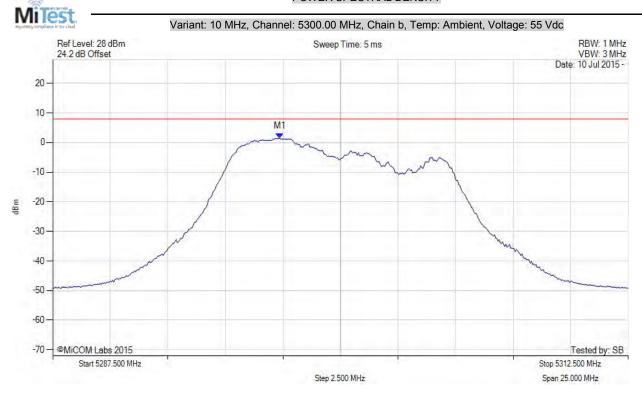


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5297.370 MHz : 1.396 dBm	Channel Frequency: 5300.00 MHz



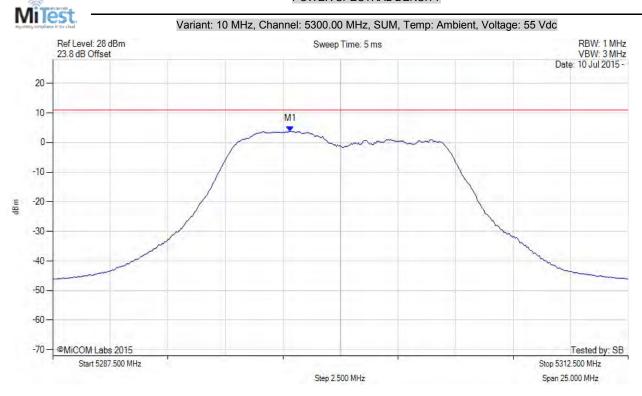
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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5297.800 MHz: 3.786 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5297.800 MHz : 4.292 dBm	Margin: -6.7 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.51 dB	
Trace Mode = VIEW		

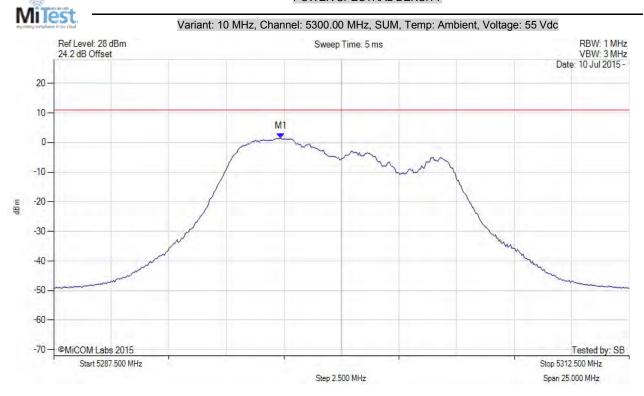


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5297.400 MHz: 1.396 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5297.400 MHz : 1.902 dBm	Margin: -9.1 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.51 dB	
Trace Mode = VIEW		

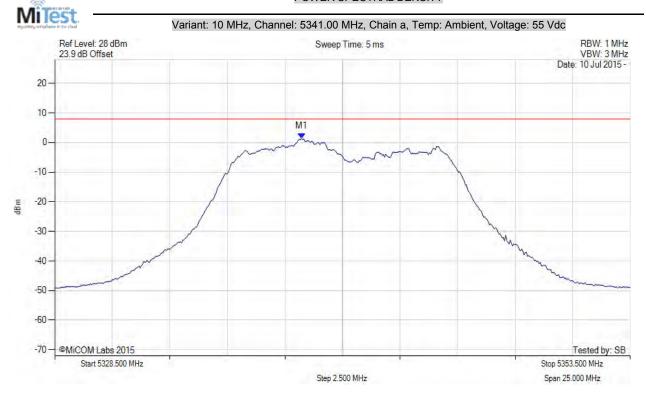


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5339.221 MHz : 1.285 dBm	Limit: ≤ 7.990 dBm



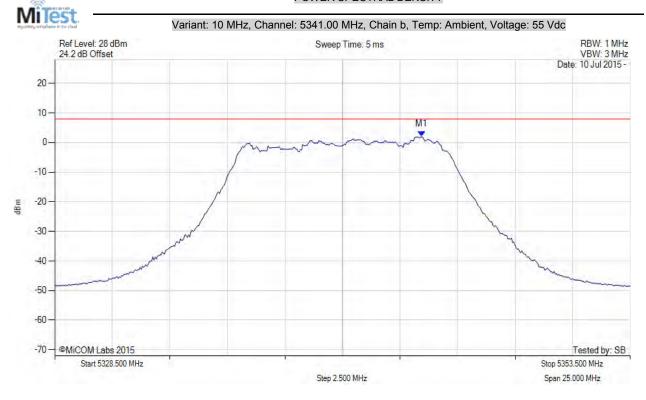
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# POWER SPECTRAL DENSITY



Analyser Setup Marker:	requency: Amplitude Te	est Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	432 MHz : 1.946 dBm Lir	imit: ≤ 7.990 dBm

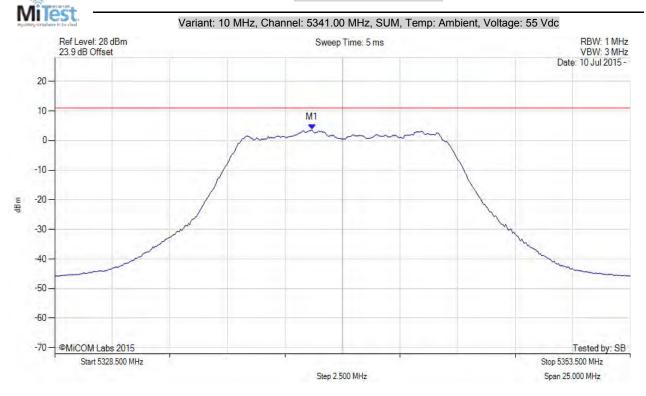


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5339.700 MHz: 3.579 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF: 5339.700 MHz: 4.085 dBm	Margin: -6.9 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.51 dB	
Trace Mode = VIEW		



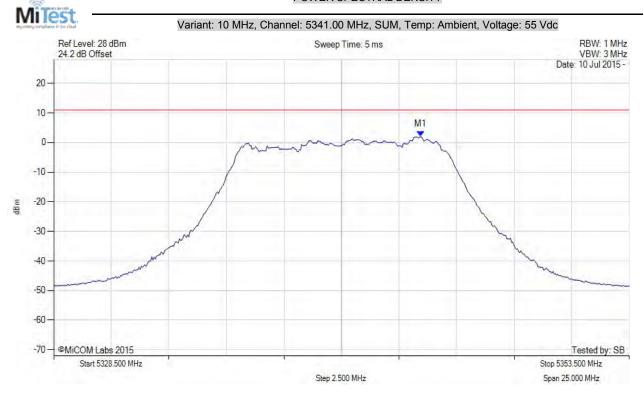
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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5344.400 MHz: 1.946 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5344.400 MHz : 2.452 dBm	Margin: -8.6 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.51 dB	
Trace Mode = VIEW		



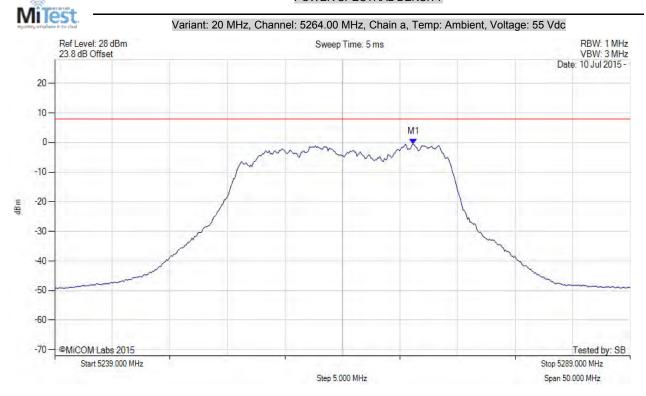
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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5270.162 MHz : -0.478 dBm	Limit: ≤ 7.990 dBm

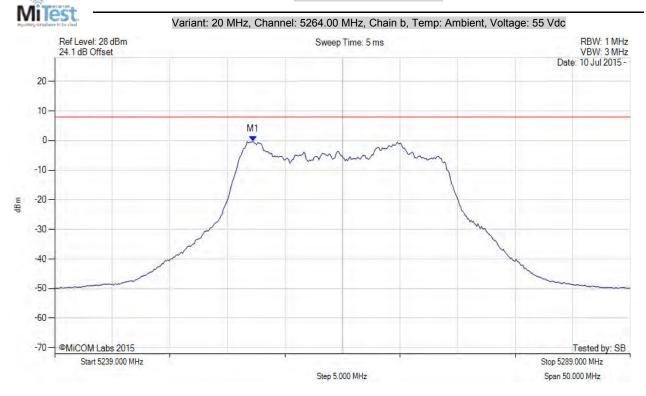


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5256.234 MHz : -0.273 dBm	Limit: ≤ 7.990 dBm

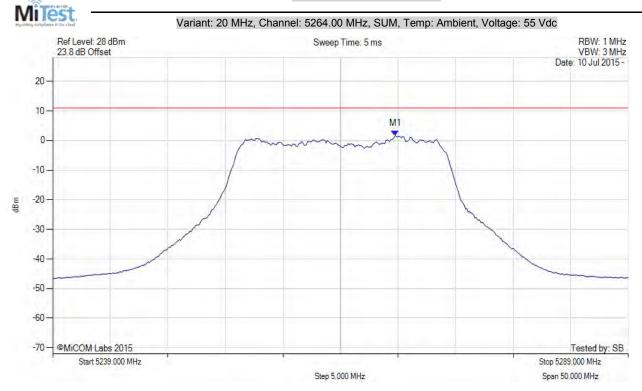


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS		Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5268.800 MHz : 2.299 dBm	Margin: -8.7 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.66 dB	
Trace Mode = VIEW		

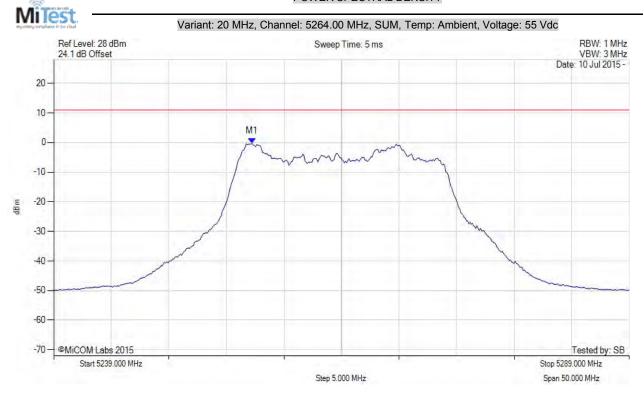


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5256.200 MHz: -0.273 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5256.200 MHz : 0.382 dBm	Margin: -10.6 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.66 dB	
Trace Mode = VIEW		

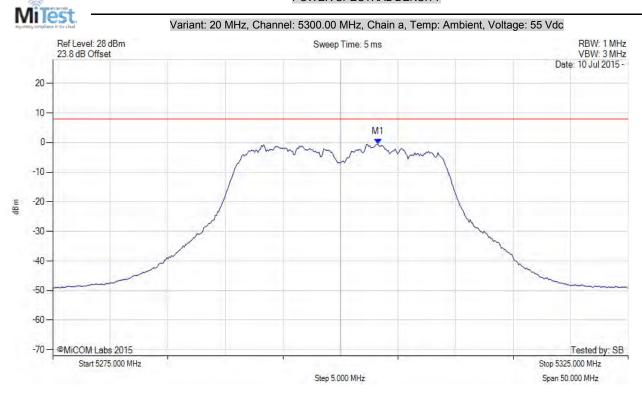


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5303.257 MHz : -0.580 dBm	Limit: ≤ 7.990 dBm

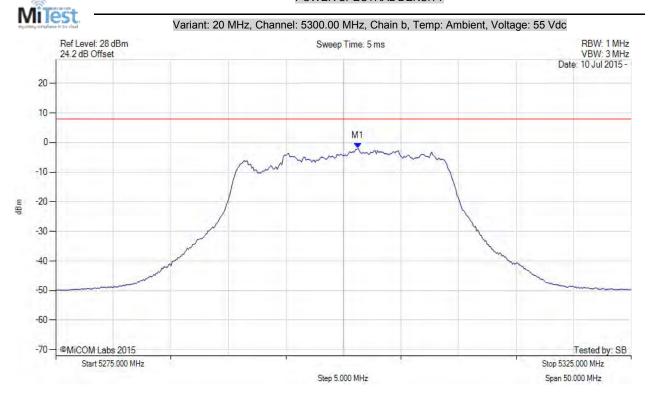


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5301.253 MHz : -1.897 dBm	Channel Frequency: 5300.00 MHz



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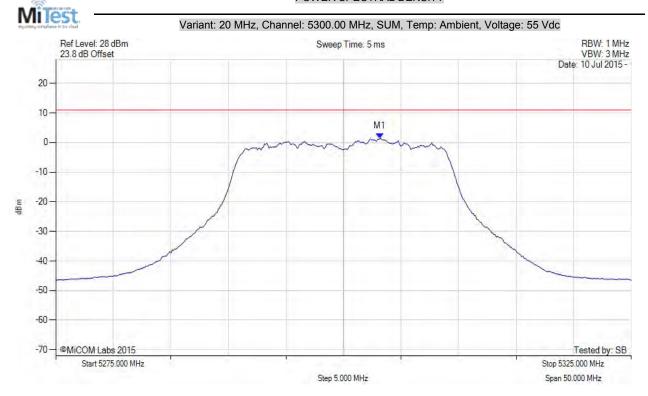
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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5303.200 MHz: 1.347 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5303.200 MHz : 2.002 dBm	Margin: -9.0 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.66 dB	
Trace Mode = VIEW		

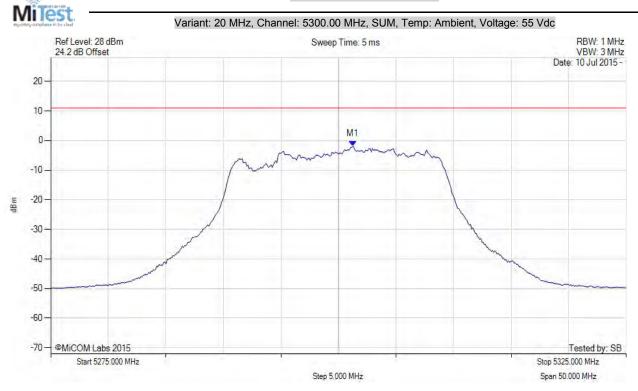


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5301.300 MHz: -1.897 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5301.300 MHz : -1.242 dBm	Margin: -12.3 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.66 dB	
Trace Mode = VIEW		

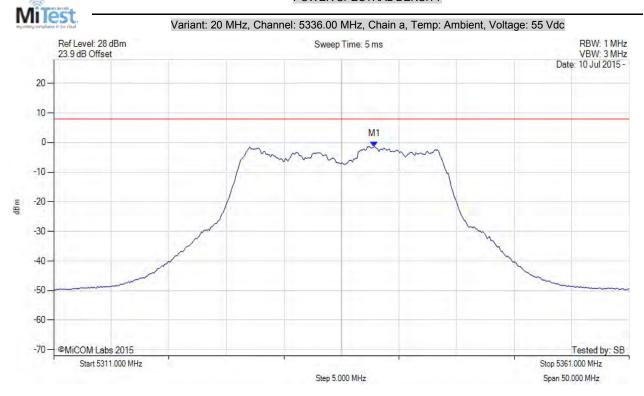


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5338.856 MHz : -1.365 dBm	Limit: ≤ 7.990 dBm

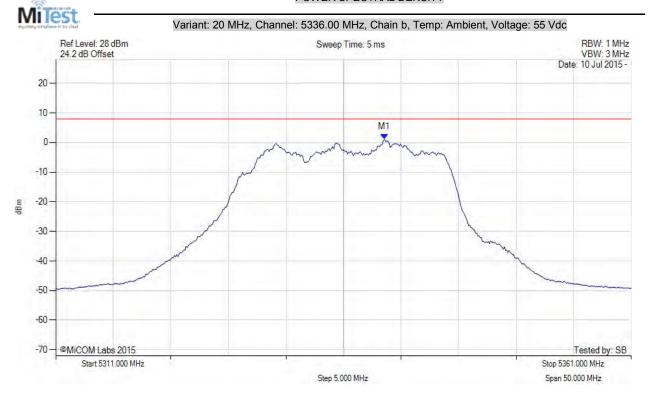


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5339.557 MHz : 1.086 dBm	Limit: ≤ 7.990 dBm

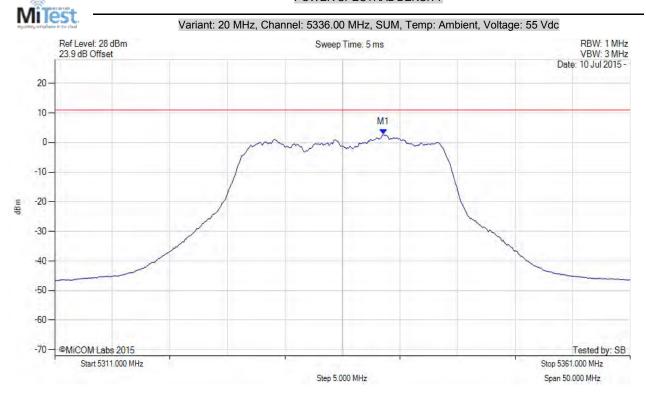


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5339.600 MHz: 2.681 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5339.600 MHz : 3.336 dBm	Margin: -7.7 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.66 dB	
Trace Mode = VIEW		

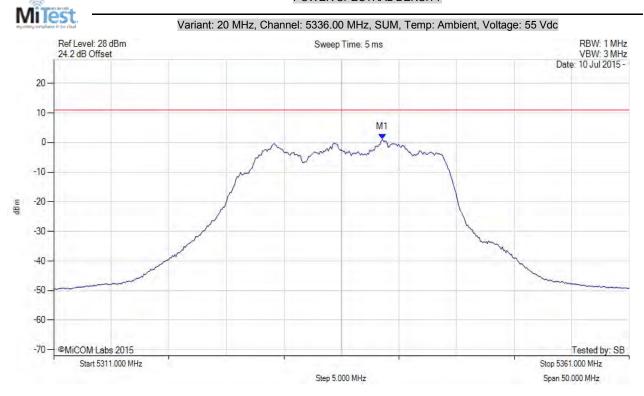


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5339.600 MHz: 1.086 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5339.600 MHz : 1.741 dBm	Margin: -9.3 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.66 dB	
Trace Mode = VIEW		

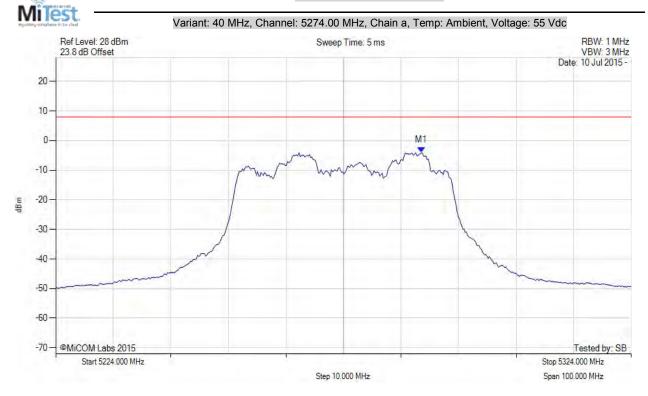


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5287.527 MHz : -4.112 dBm	Limit: ≤ 7.990 dBm



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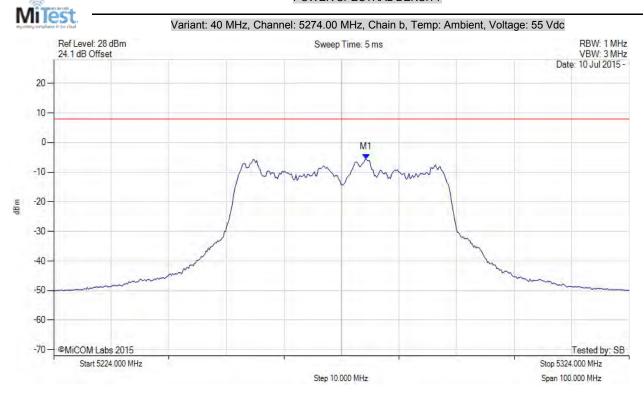
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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5278.309 MHz : -5.646 dBm	Limit: ≤ 7.990 dBm

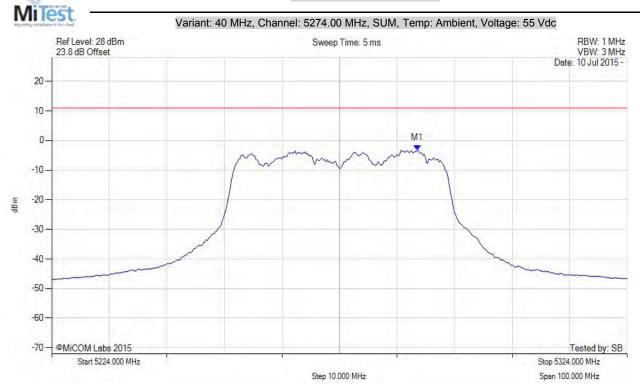


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
	M1 : 5287.500 MHz : -3.293 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100 RF Atten (dB) = 20	M1 + DCCF: 5287.500 MHz: -2.351 dBm Duty Cycle Correction Factor: +0.92 dB	Margin: -13.4 dB
Trace Mode = VIEW	Duty Cycle Correction 1 actor : +0.92 db	

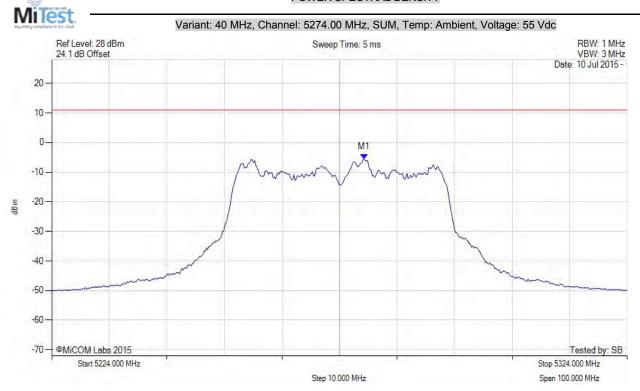


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5278.300 MHz: -5.646 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5278.300 MHz : -4.704 dBm	Margin: -15.7 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.92 dB	
Trace Mode = VIEW		

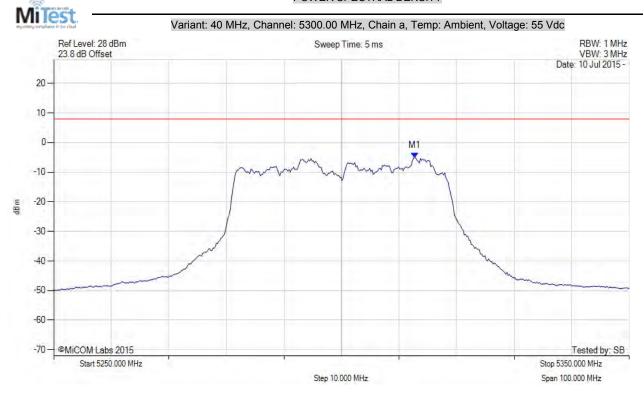


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5312.725 MHz : -5.173 dBm	Limit: ≤ 7.990 dBm

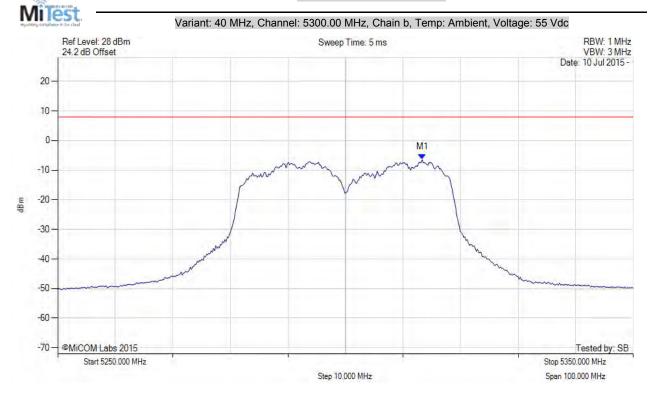


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5313.327 MHz : -6.474 dBm	Channel Frequency: 5300.00 MHz

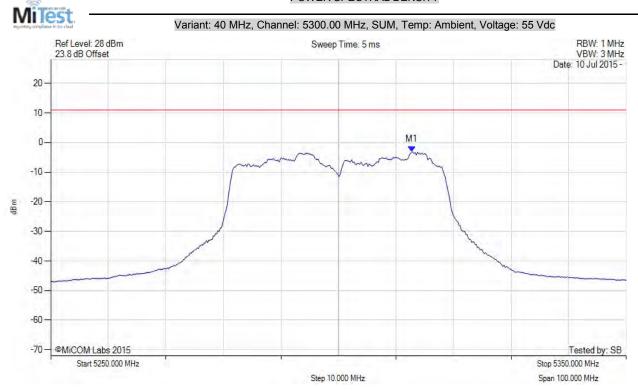


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
	M1 : 5312.700 MHz : -3.172 dBm M1 + DCCF : 5312.700 MHz : -2.230 dBm Duty Cycle Correction Factor : +0.92 dB	Limit: ≤ 11.0 dBm Margin: -13.2 dB

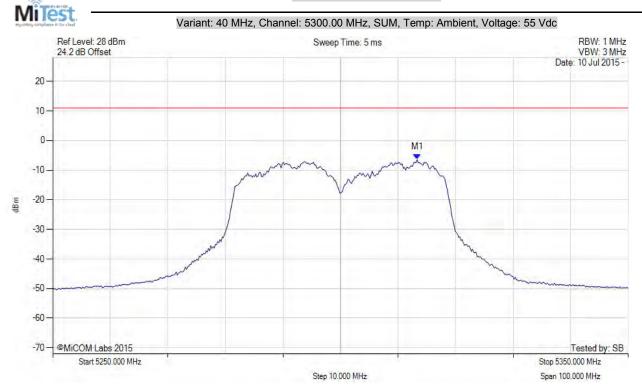


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
	M1 : 5313.300 MHz : -6.474 dBm M1 + DCCF : 5313.300 MHz : -5.532 dBm	Limit: ≤ 11.0 dBm Margin: -16.5 dB
•	Duty Cycle Correction Factor: +0.92 dB	

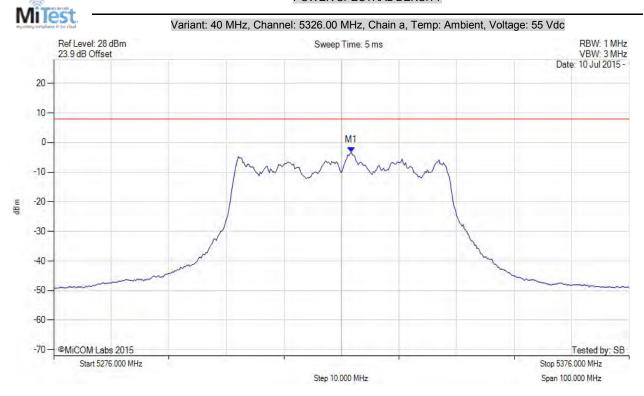


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5327.703 MHz : -3.260 dBm	Limit: ≤ 7.990 dBm

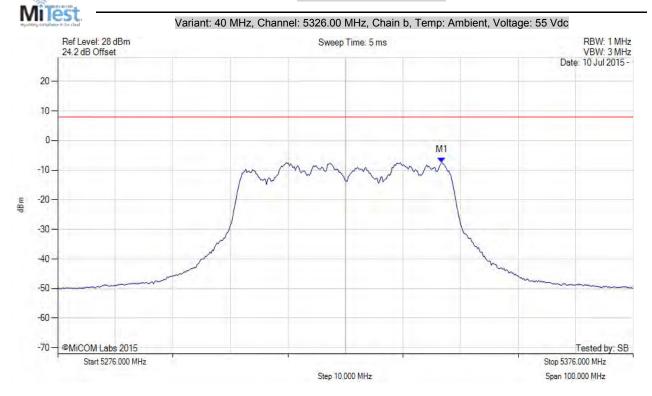


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5342.733 MHz : -7.428 dBm	Limit: ≤ 7.990 dBm



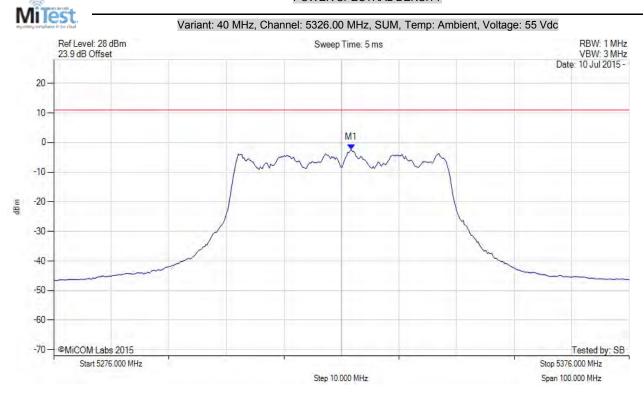
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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5327.700 MHz: -2.324 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5327.700 MHz : -1.382 dBm	Margin: -12.4 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.92 dB	
Trace Mode = VIEW		

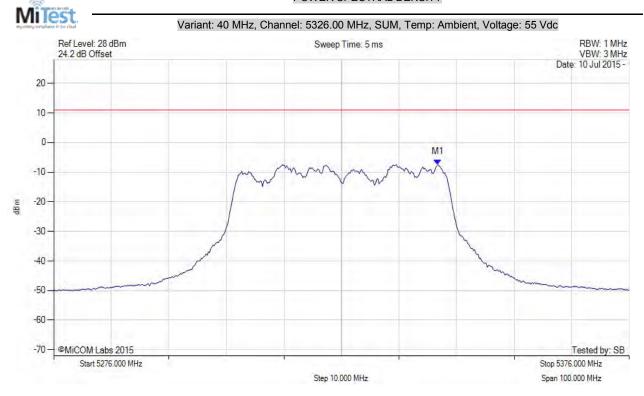


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5342.700 MHz: -7.428 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5342.700 MHz : -6.486 dBm	Margin: -17.5 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.92 dB	
Trace Mode = VIEW		

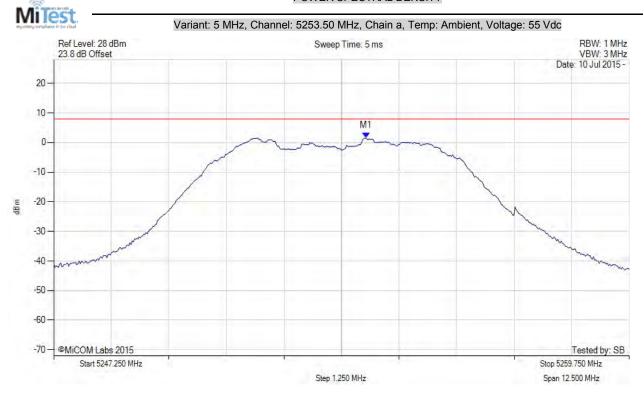


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 100	M1 : 5254.039 MHz : 1.529 dBm	Limit: ≤ 7.990 dBm
RF Atten (dB) = 20 Trace Mode = VIEW		

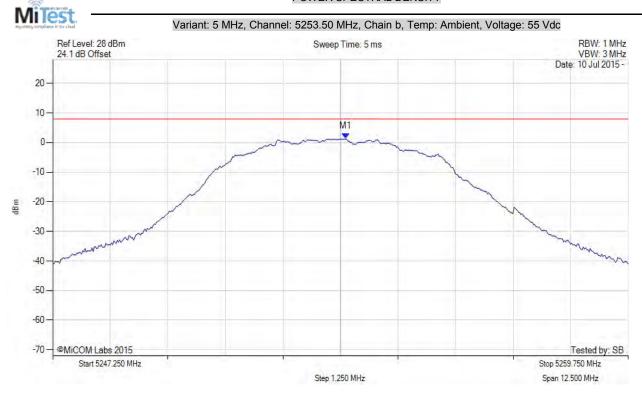


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5253.613 MHz : 1.240 dBm	Limit: ≤ 7.990 dBm



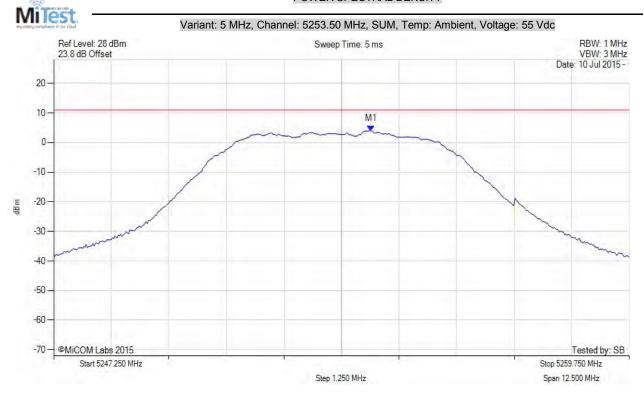
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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5254.100 MHz: 3.968 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5254.100 MHz : 4.416 dBm	Margin: -6.6 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.46 dB	
Trace Mode = VIEW		



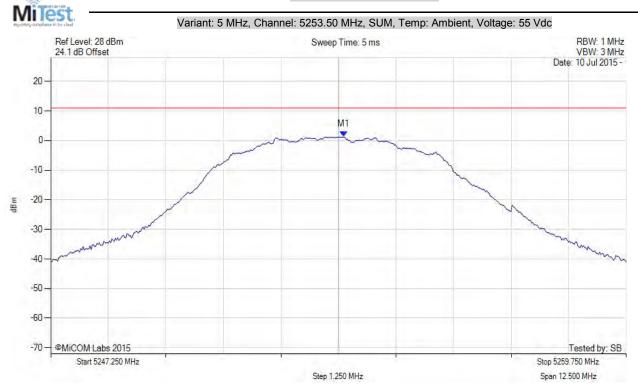
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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5253.600 MHz: 1.240 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5253.600 MHz : 1.688 dBm	Margin: -9.3 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.46 dB	
Trace Mode = VIEW		

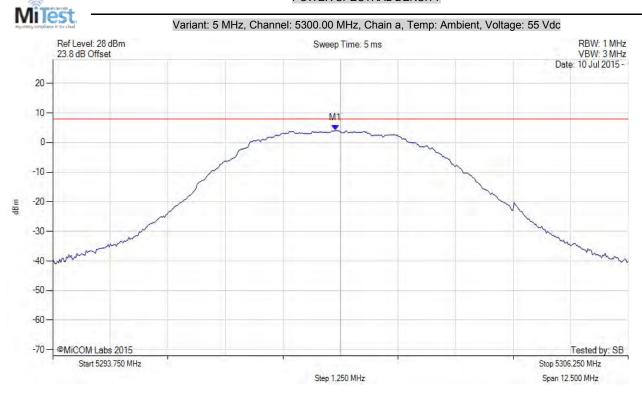


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5299.887 MHz : 4.072 dBm	Limit: ≤ 7.990 dBm

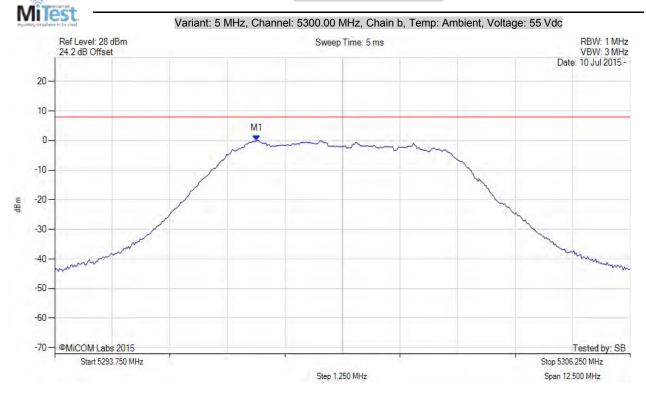


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5298.134 MHz : -0.020 dBm	Channel Frequency: 5300.00 MHz

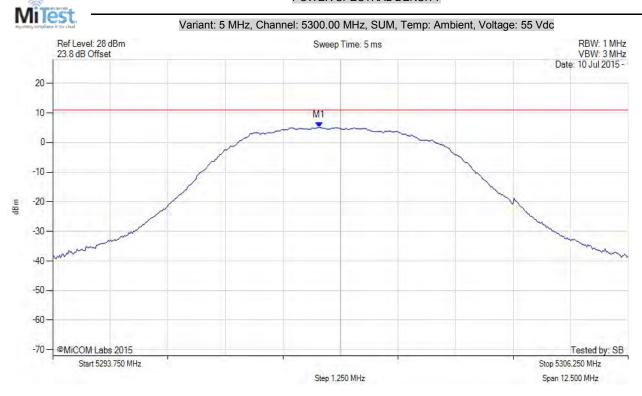


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5299.500 MHz: 5.076 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5299.500 MHz : 5.524 dBm	Margin: -5.5 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.46 dB	
Trace Mode = VIEW		



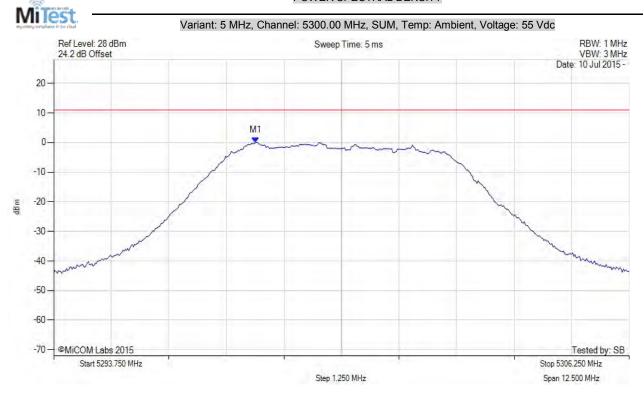
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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5298.100 MHz: -0.020 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF: 5298.100 MHz: 0.428 dBm	Margin: -10.6 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.46 dB	
Trace Mode = VIEW		

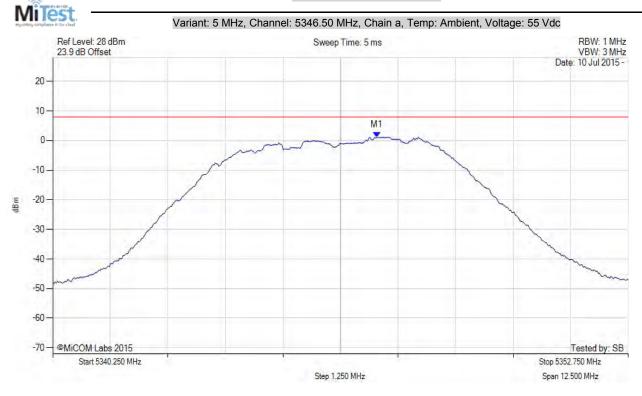


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5347.289 MHz : 1.104 dBm	Limit: ≤ 7.990 dBm

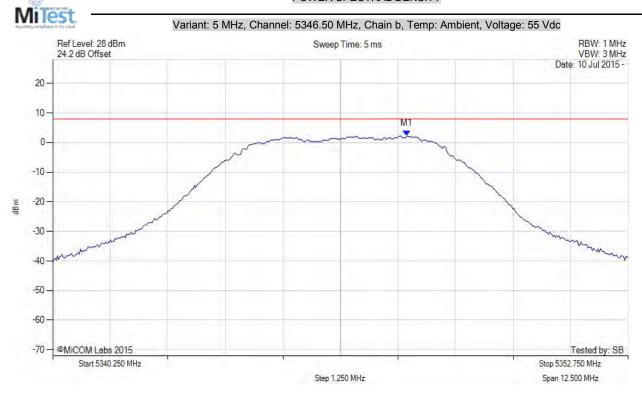


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1: 5347.940 MHz: 2.279 dBm	Limit: ≤ 7.990 dBm



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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5347.500 MHz: 4.384 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5347.500 MHz : 4.832 dBm	Margin: -6.2 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.46 dB	
Trace Mode = VIEW		

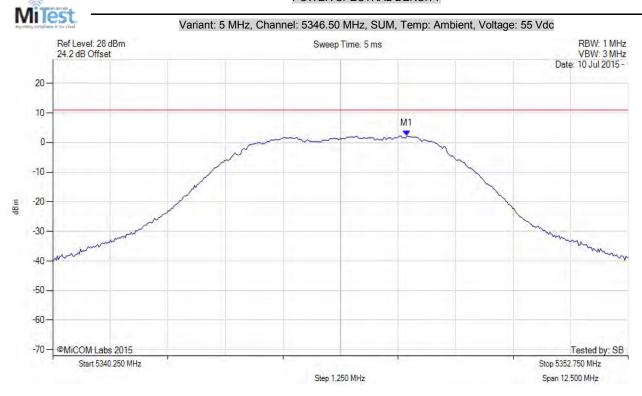


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5347.900 MHz: 2.279 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5347.900 MHz : 2.727 dBm	Margin: -8.3 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.46 dB	
Trace Mode = VIEW		

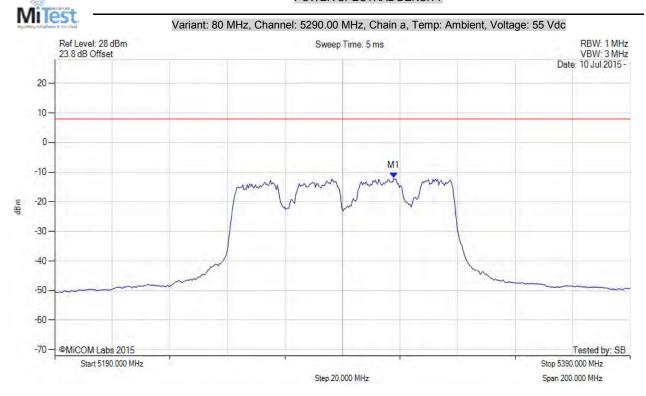


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5307.836 MHz : -12.002 dBm	Limit: ≤ 7.990 dBm

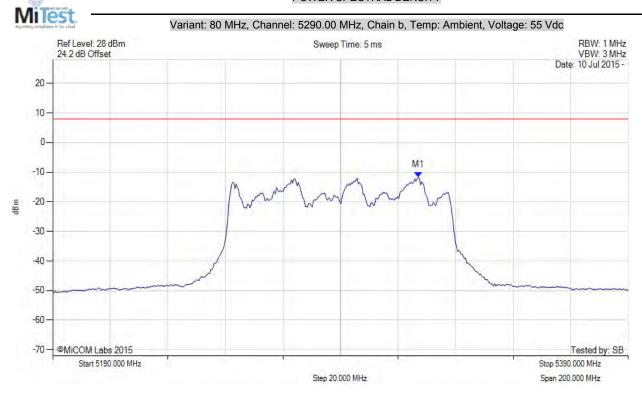


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5317.054 MHz : -11.672 dBm	Limit: ≤ 7.990 dBm

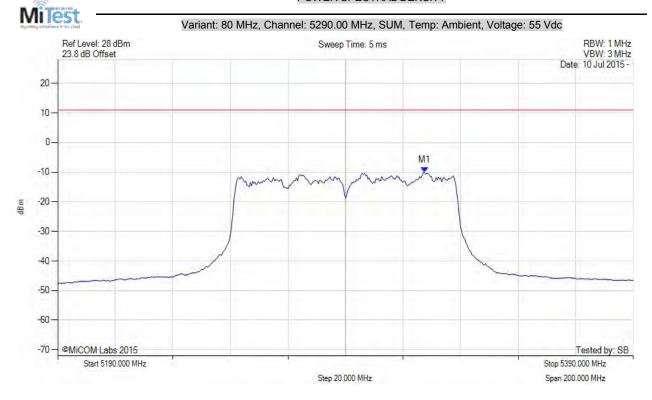


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5317.500 MHz: -10.156 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5317.500 MHz : -8.717 dBm	Margin: -19.7 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +1.43 dB	
Trace Mode = VIEW		



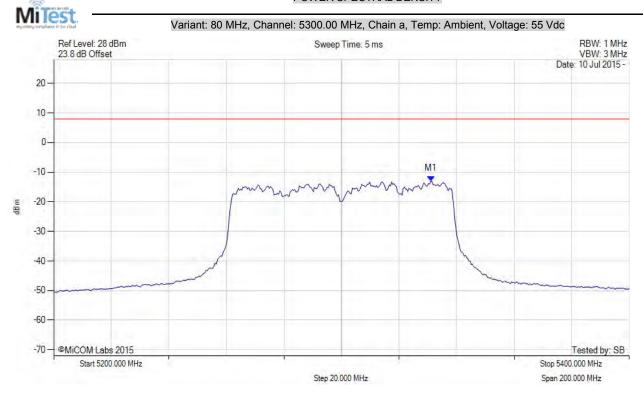
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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5331.062 MHz : -13.052 dBm	Limit: ≤ 7.990 dBm

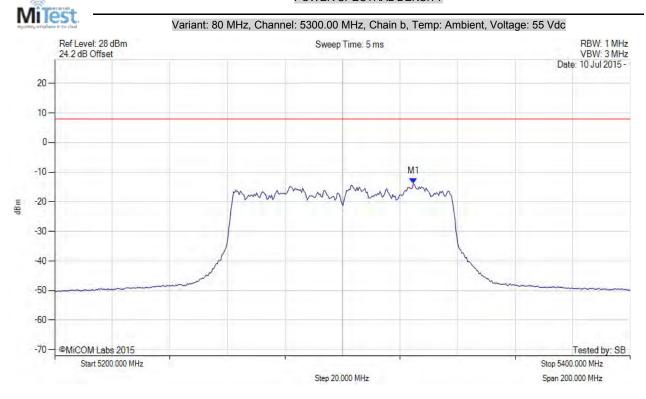


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5324.649 MHz : -13.790 dBm	Channel Frequency: 5300.00 MHz



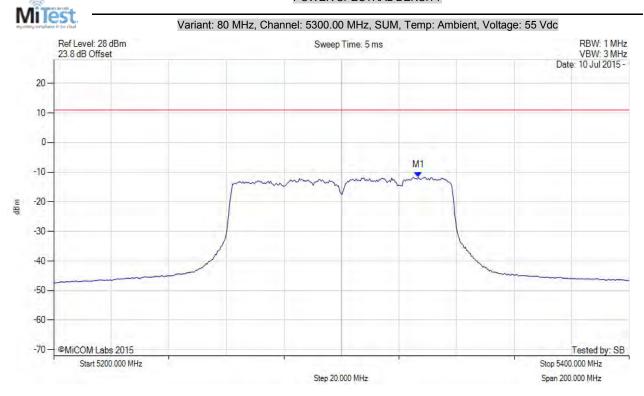
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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5326.700 MHz: -11.707 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5326.700 MHz : -10.268 dBm	Margin: -21.3 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +1.43 dB	
Trace Mode = VIEW		

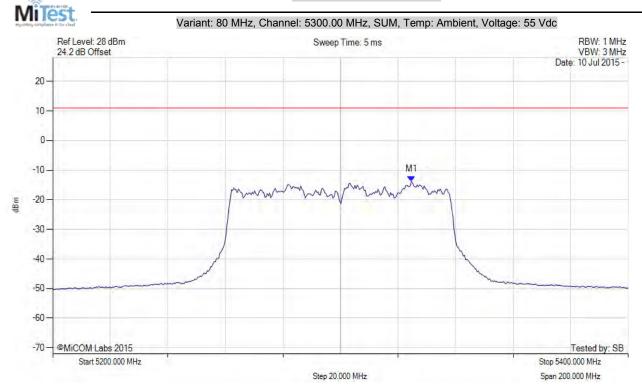


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
	M1 : 5324.600 MHz : -13.790 dBm	Limit: ≤ 11.0 dBm
	M1 + DCCF: 5324.600 MHz: -12.351 dBm Duty Cycle Correction Factor: +1.43 dB	Margin: -23.4 dB
Trace Mode = VIEW	Duty Cycle Correction Factor: +1.43 db	

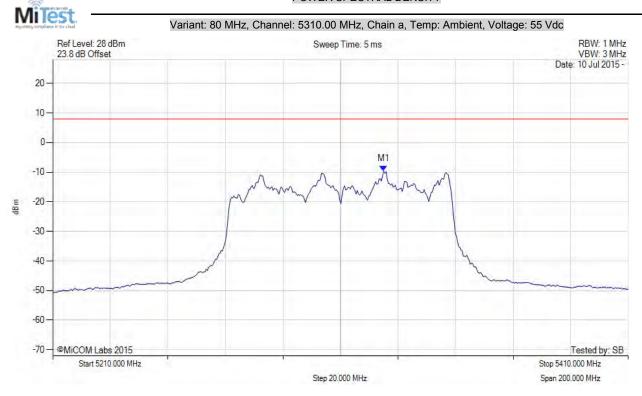


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5325.030 MHz : -9.608 dBm	Limit: ≤ 7.990 dBm

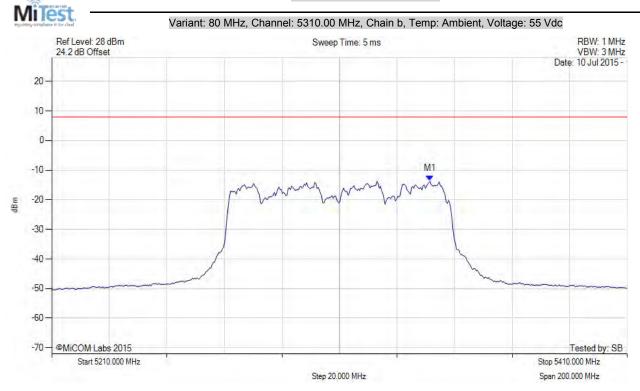


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5341.463 MHz : -13.661 dBm	Limit: ≤ 7.990 dBm

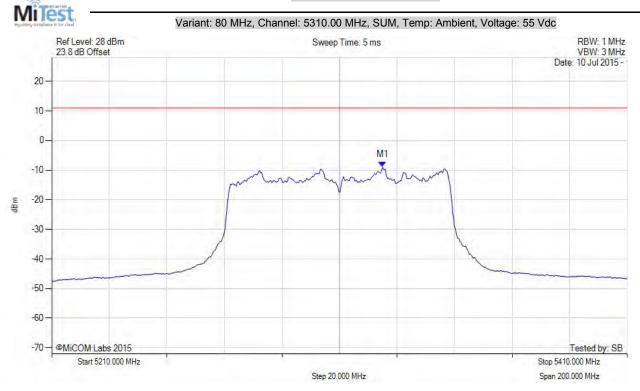


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5325.000 MHz: -8.981 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5325.000 MHz : -7.542 dBm	Margin: -18.6 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +1.43 dB	
Trace Mode = VIEW		

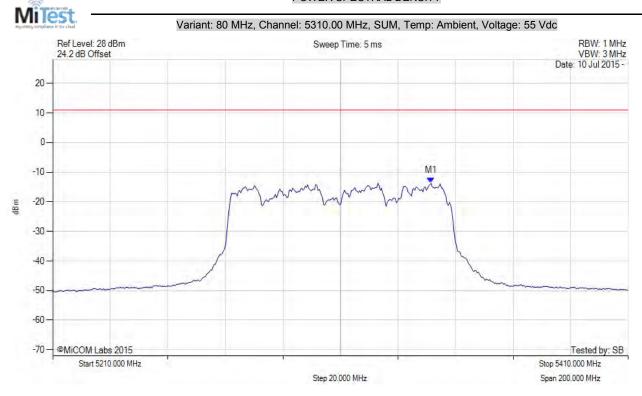


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5341.500 MHz: -13.661 dBm	Limit: ≤ 11.0 dBm
Sweep Count = 100	M1 + DCCF : 5341.500 MHz : -12.222 dBm	Margin: -23.2 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +1.43 dB	
Trace Mode = VIEW		

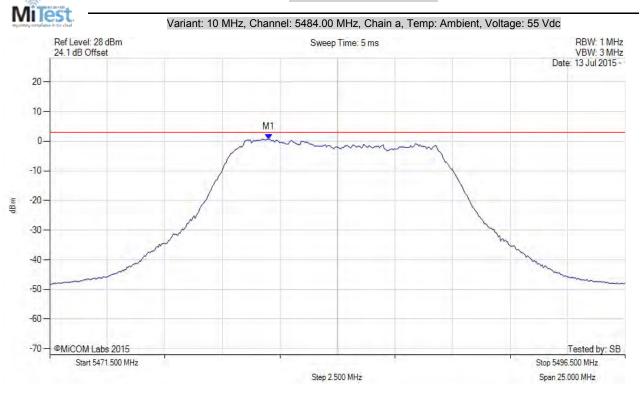


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5481.019 MHz: 0.674 dBm	Limit: ≤ 2.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		

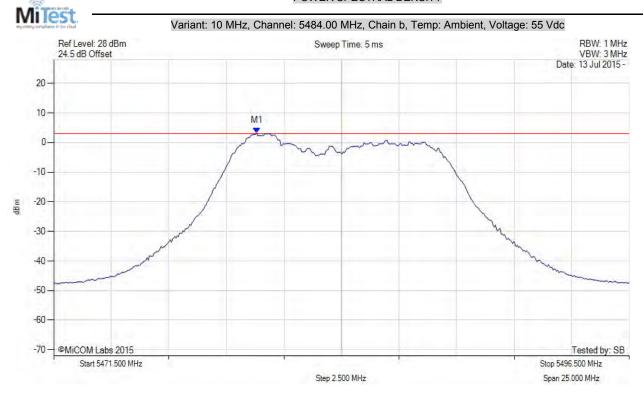


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5480.318 MHz : 3.287 dBm	Limit: ≤ 2.990 dBm

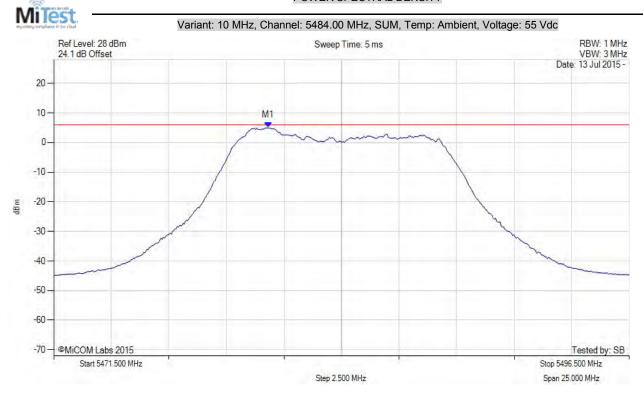


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5480.800 MHz: 4.971 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF : 5480.800 MHz : 5.462 dBm	Margin: -0.5 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.51 dB	
Trace Mode = VIEW		

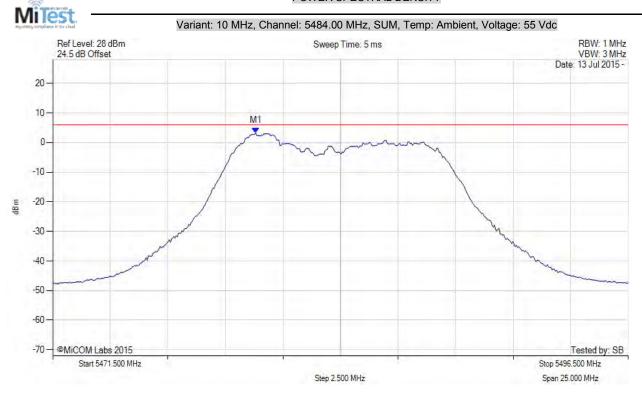


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5480.300 MHz: 3.287 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF : 5480.300 MHz : 3.778 dBm	Margin: -2.2 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.51 dB	
Trace Mode = VIEW		

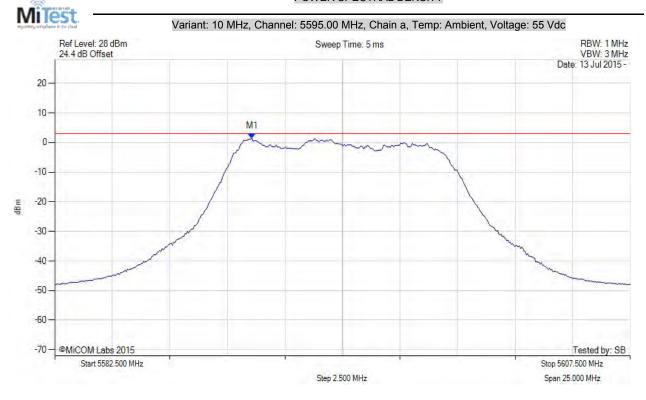


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5591.067 MHz : 1.382 dBm	Limit: ≤ 2.990 dBm

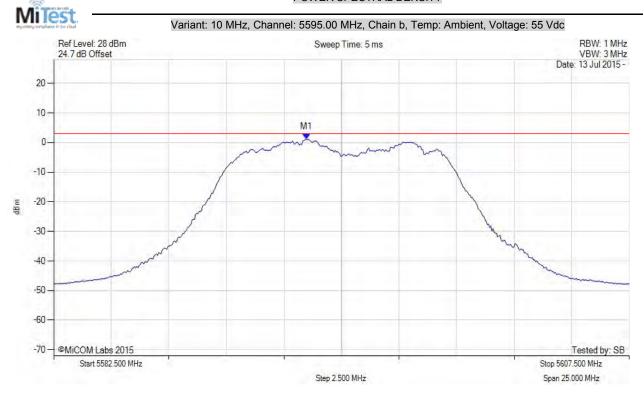


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5593.472 MHz : 1.144 dBm	Channel Frequency: 5595.00 MHz

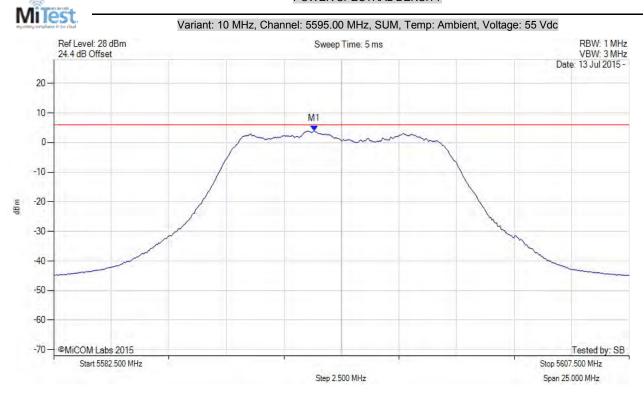


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5593.800 MHz: 3.931 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF: 5593.800 MHz: 4.422 dBm	Margin: -1.6 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.51 dB	
Trace Mode = VIEW		



Title: Radwin Ltd AP0158770 RF Wireless Module

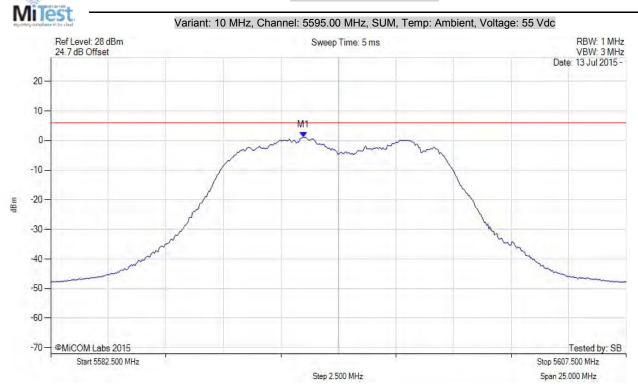
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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5593.500 MHz: 1.144 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF : 5593.500 MHz : 1.635 dBm	Margin: -4.4 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.51 dB	
Trace Mode = VIEW		

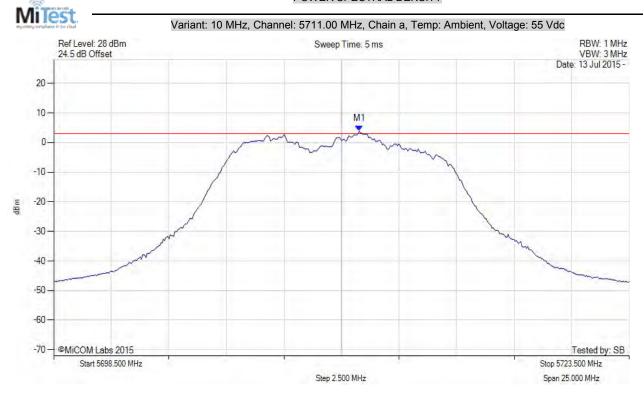


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5711.777 MHz : 3.830 dBm	Limit: ≤ 2.990 dBm

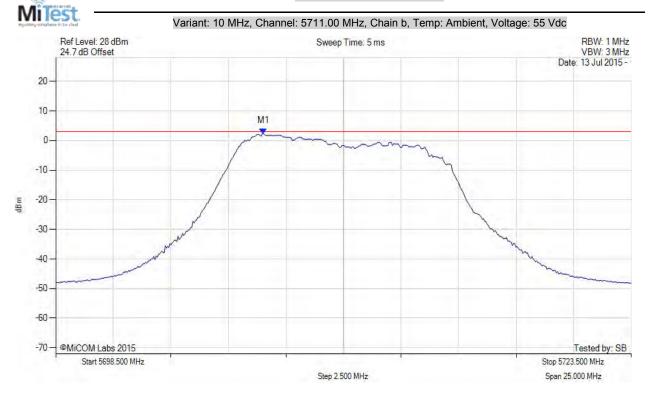


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5707.518 MHz : 2.369 dBm	Limit: ≤ 2.990 dBm



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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 100	M1 : 5707.800 MHz : 5.079 dBm M1 + DCCF : 5707.800 MHz : 5.570 dBm Duty Cycle Correction Factor : +0.51 dB	Limit: ≤ 6.0 dBm Margin: -0.4 dB

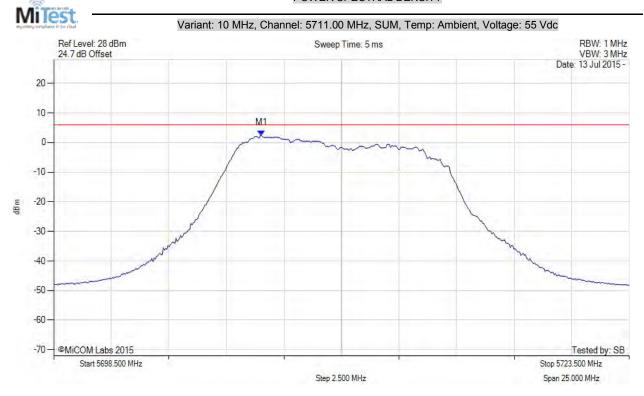


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5707.500 MHz: 2.369 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF: 5707.500 MHz: 2.860 dBm	Margin: -3.1 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.51 dB	
Trace Mode = VIEW		

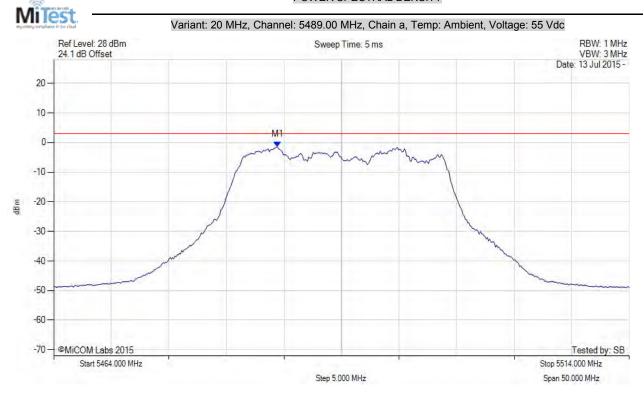


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5483.439 MHz : -1.504 dBm	Limit: ≤ 2.990 dBm

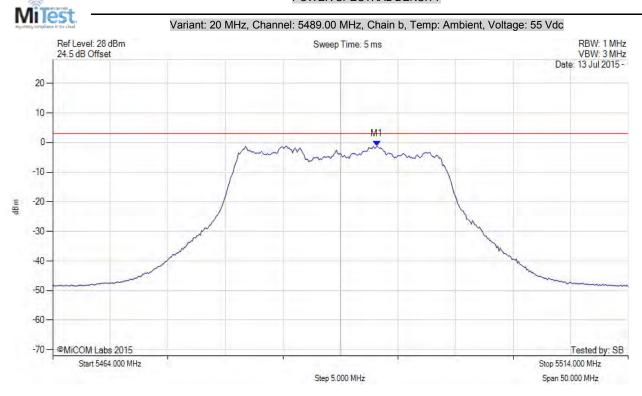


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5492.156 MHz : -1.149 dBm	Limit: ≤ 2.990 dBm

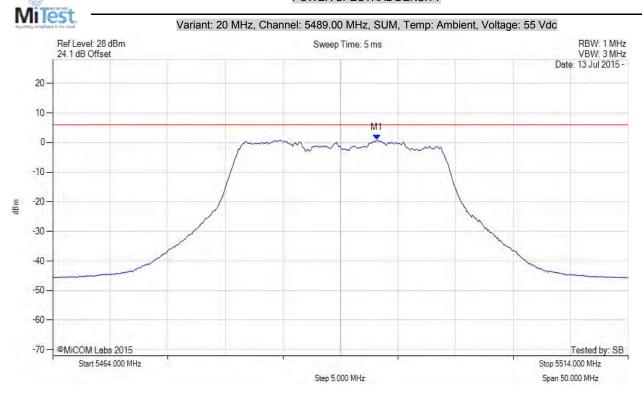


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS		Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF : 5492.200 MHz : 1.456 dBm	Margin: -4.6 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.66 dB	
Trace Mode = VIEW		



Title: Radwin Ltd AP0158770 RF Wireless Module

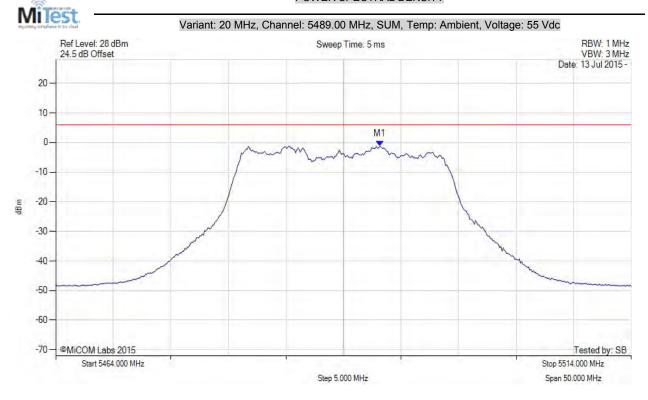
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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5492.200 MHz: -1.149 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF : 5492.200 MHz : -0.499 dBm	Margin: -6.5 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.66 dB	
Trace Mode = VIEW		

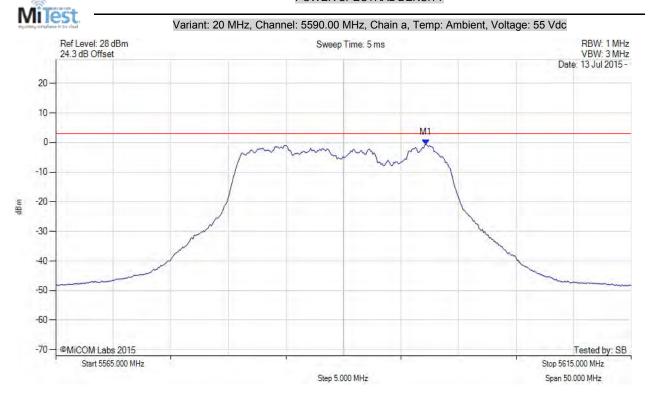


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5597.164 MHz : -0.690 dBm	Limit: ≤ 2.990 dBm

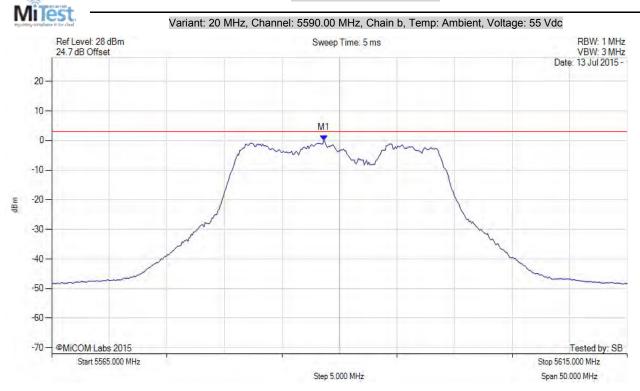


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5588.647 MHz : 0.042 dBm	Channel Frequency: 5590.00 MHz

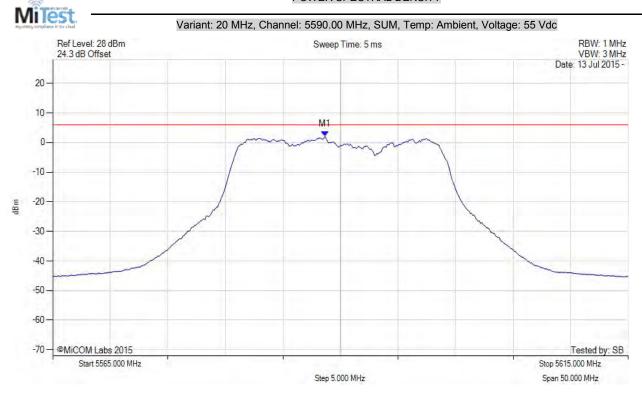


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5588.600 MHz: 2.056 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF : 5588.600 MHz : 2.706 dBm	Margin: -3.3 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.66 dB	
Trace Mode = VIEW		

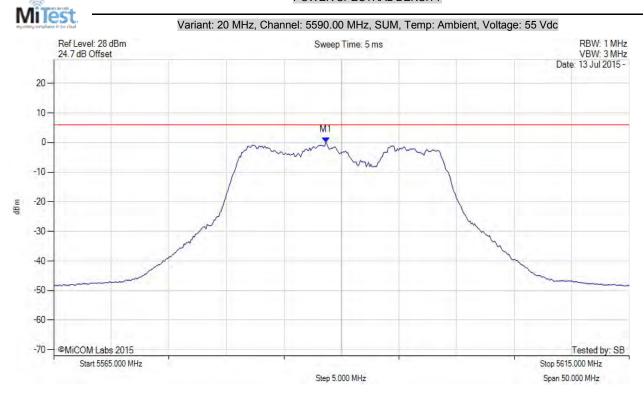


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5588.600 MHz: 0.042 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF: 5588.600 MHz: 0.692 dBm	Margin: -5.3 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.66 dB	
Trace Mode = VIEW		

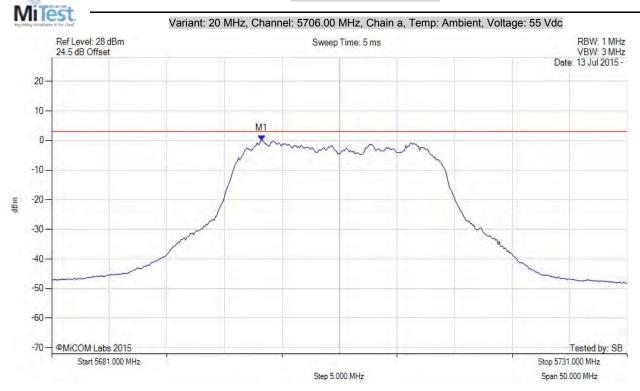


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5699.236 MHz : -0.004 dBm	Limit: ≤ 2.990 dBm

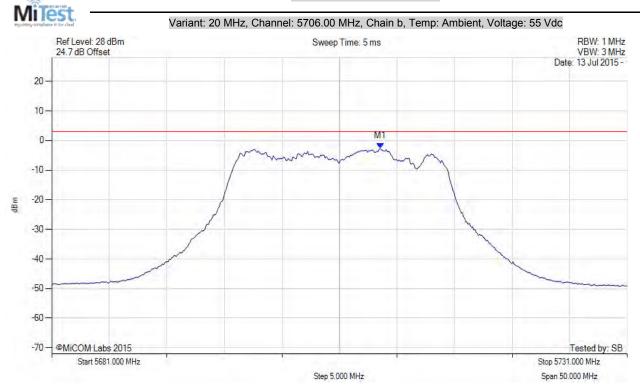


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5709.557 MHz : -2.730 dBm	Limit: ≤ 2.990 dBm

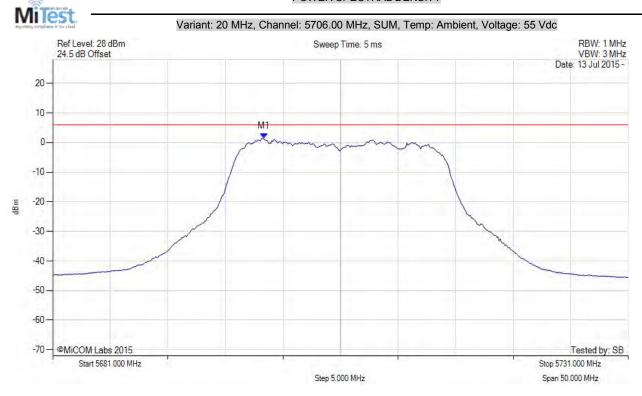


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5699.300 MHz: 1.302 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF : 5699.300 MHz : 1.952 dBm	Margin: -4.1 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.66 dB	
Trace Mode = VIEW		

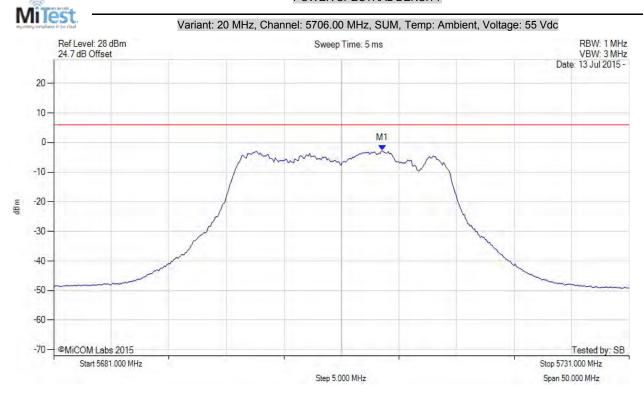


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
	M1 : 5709.600 MHz : -2.730 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100 RF Atten (dB) = 20	M1 + DCCF: 5709.600 MHz: -2.080 dBm Duty Cycle Correction Factor: +0.66 dB	Margin: -8.1 dB
Trace Mode = VIEW		

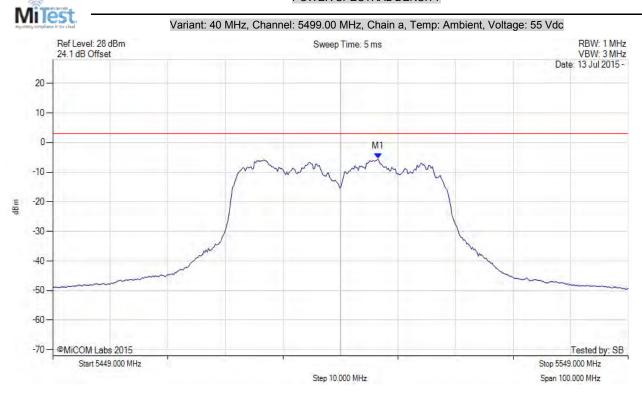


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5505.513 MHz : -5.493 dBm	Limit: ≤ 2.990 dBm

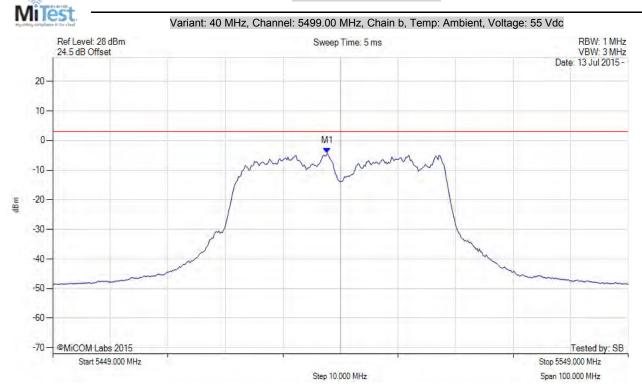


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5496.695 MHz : -4.263 dBm	Limit: ≤ 2.990 dBm

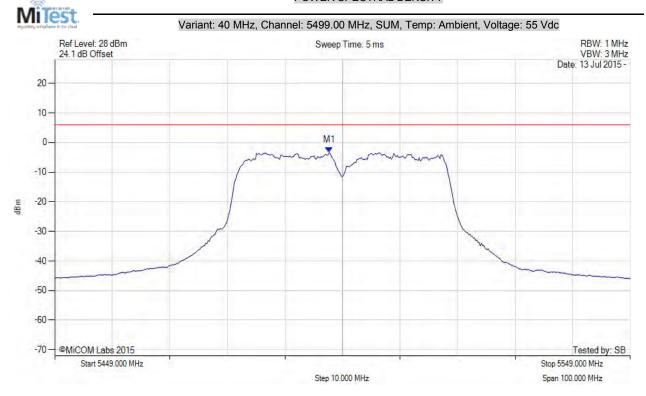


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 100	M1 : 5496.700 MHz : -3.316 dBm M1 + DCCF : 5496.700 MHz : -2.379 dBm Duty Cycle Correction Factor : +0.92 dB	Limit: ≤ 6.0 dBm Margin: -8.4 dB

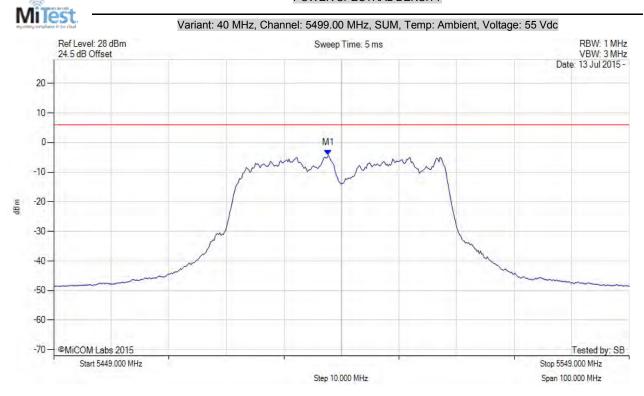


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
	M1 : 5496.700 MHz : -4.263 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100 RF Atten (dB) = 20	M1 + DCCF: 5496.700 MHz: -3.326 dBm Duty Cycle Correction Factor: +0.92 dB	Margin: -9.3 dB
Trace Mode = VIEW	Duty Cycle Correction 1 actor : 10.92 db	

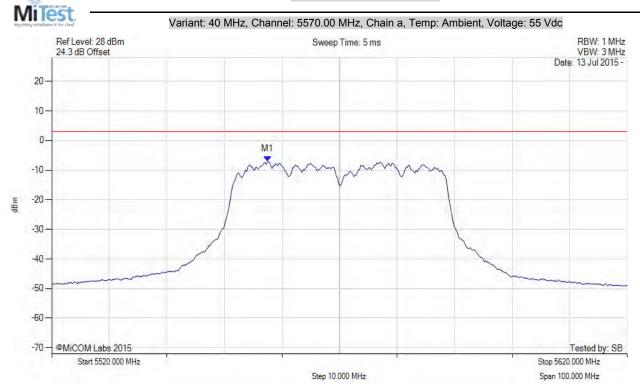


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5557.475 MHz : -7.063 dBm	Limit: ≤ 2.990 dBm

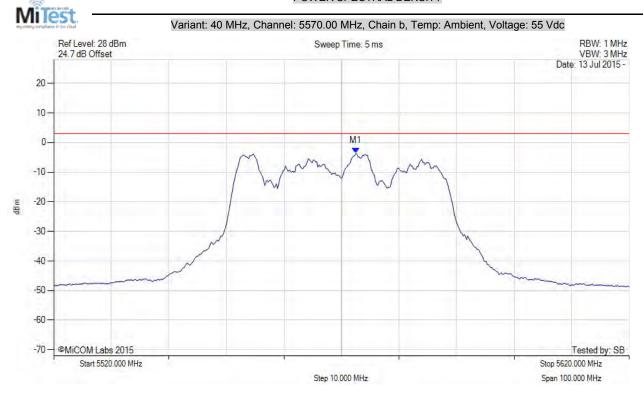


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5572.505 MHz : -3.658 dBm	Channel Frequency: 5570.00 MHz

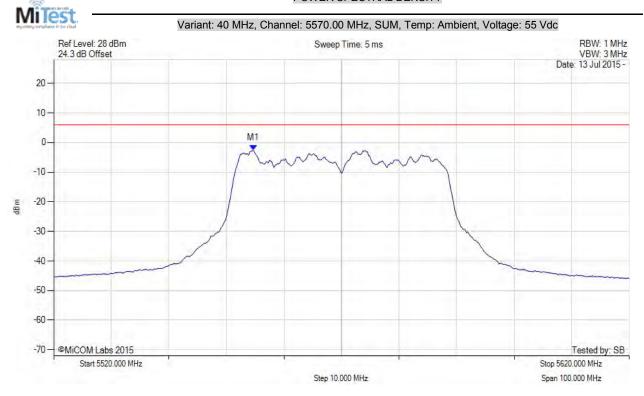


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5554.700 MHz: -2.642 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF: 5554.700 MHz: -1.705 dBm	Margin: -7.7 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.92 dB	
Trace Mode = VIEW		

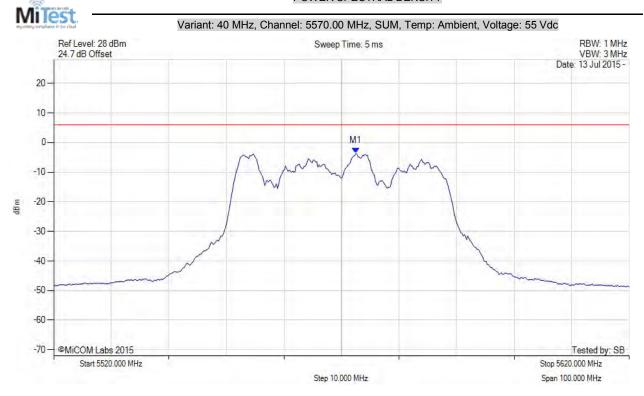


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
	M1 : 5572.500 MHz : -3.658 dBm M1 + DCCF : 5572.500 MHz : -2.721 dBm Duty Cycle Correction Factor : +0.92 dB	Limit: ≤ 6.0 dBm Margin: -8.7 dB

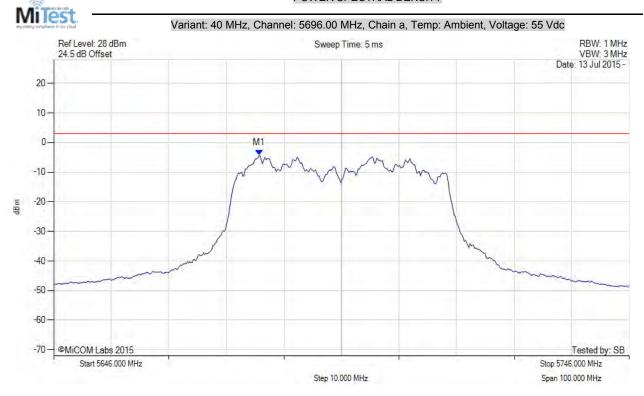


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5681.671 MHz : -4.300 dBm	Limit: ≤ 2.990 dBm

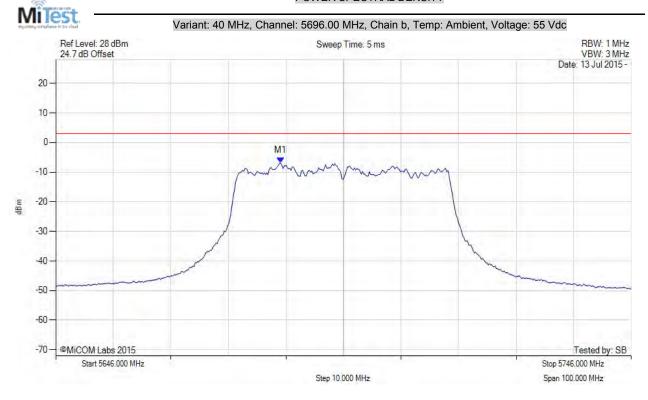


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5685.078 MHz : -6.893 dBm	Limit: ≤ 2.990 dBm

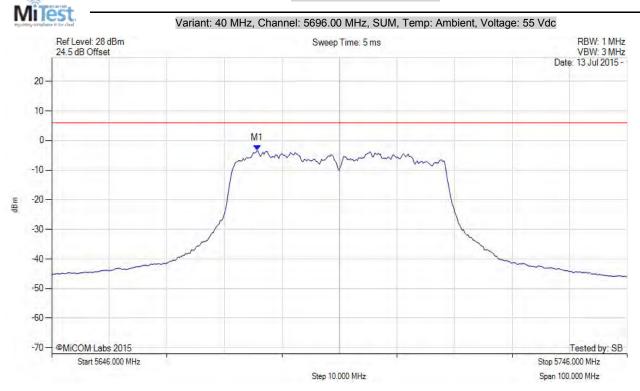


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5681.700 MHz: -3.359 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF : 5681.700 MHz : -2.422 dBm	Margin: -8.4 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.92 dB	
Trace Mode = VIEW		

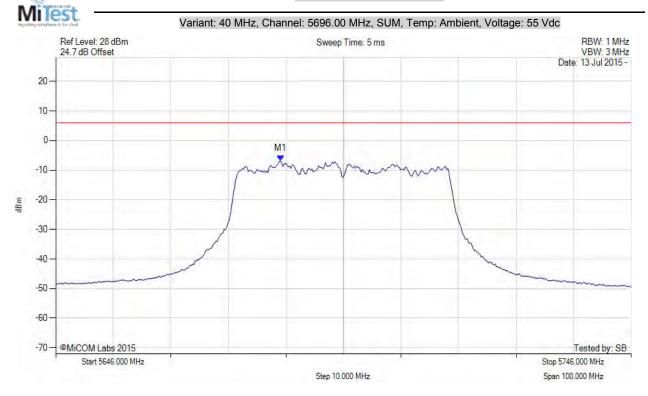


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5685.100 MHz: -6.893 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF : 5685.100 MHz : -5.956 dBm	Margin: -12.0 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.92 dB	
Trace Mode = VIEW		



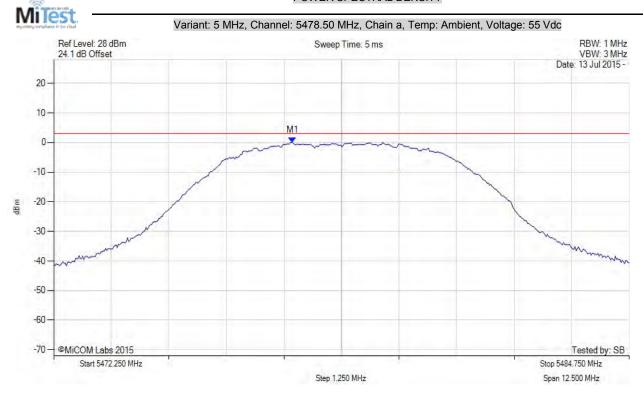
Title: Radwin Ltd AP0158770 RF Wireless Module

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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5477.435 MHz : -0.010 dBm	Limit: ≤ 2.990 dBm

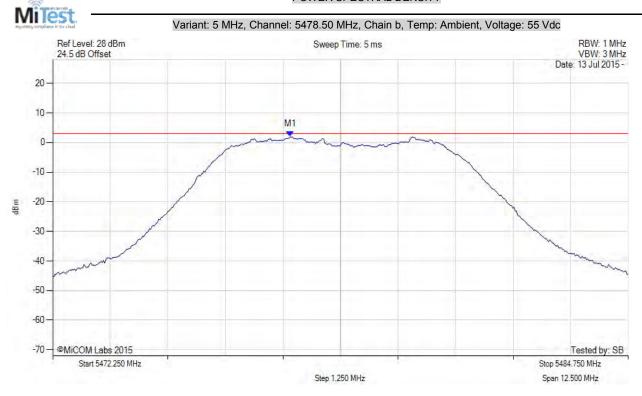


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5477.410 MHz : 1.975 dBm	Limit: ≤ 2.990 dBm



Title: Radwin Ltd AP0158770 RF Wireless Module

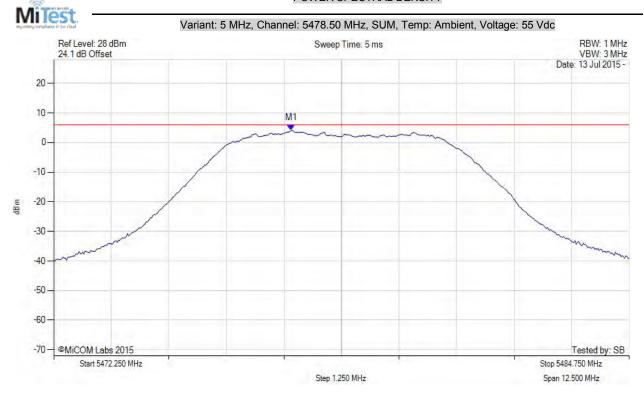
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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
	M1: 5477.400 MHz: 4.103 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF : 5477.400 MHz : 4.546 dBm	Margin: -1.5 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.46 dB	
Trace Mode = VIEW		



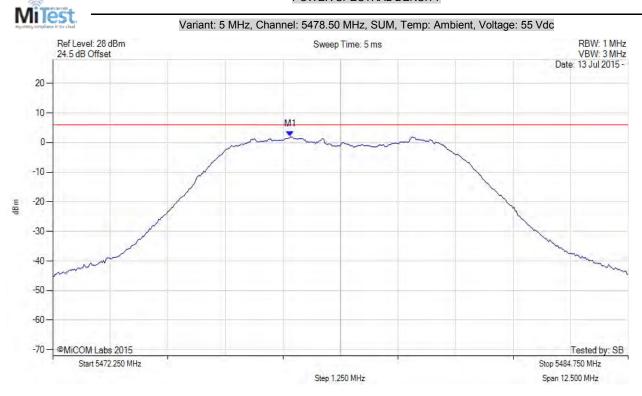
Title: Radwin Ltd AP0158770 RF Wireless Module

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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS		Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF : 5477.400 MHz : 2.418 dBm	Margin: -3.6 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.46 dB	
Trace Mode = VIEW		

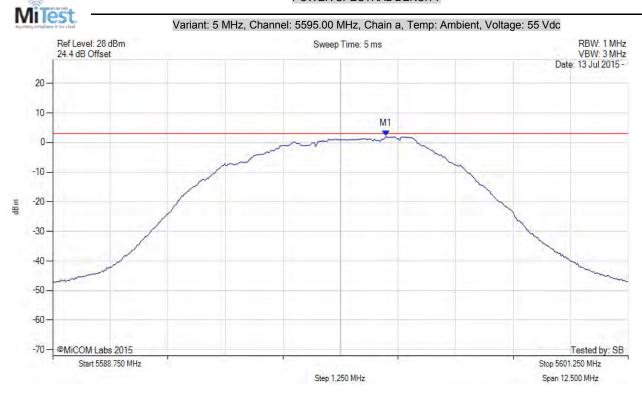


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5595.989 MHz : 2.233 dBm	Limit: ≤ 2.990 dBm

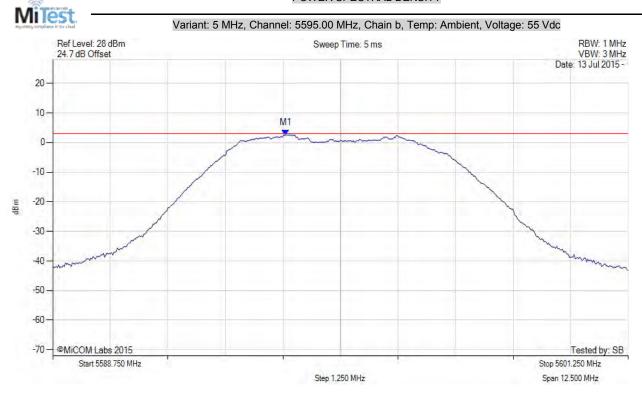


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5593.810 MHz : 2.569 dBm	Channel Frequency: 5595.00 MHz



Title: Radwin Ltd AP0158770 RF Wireless Module

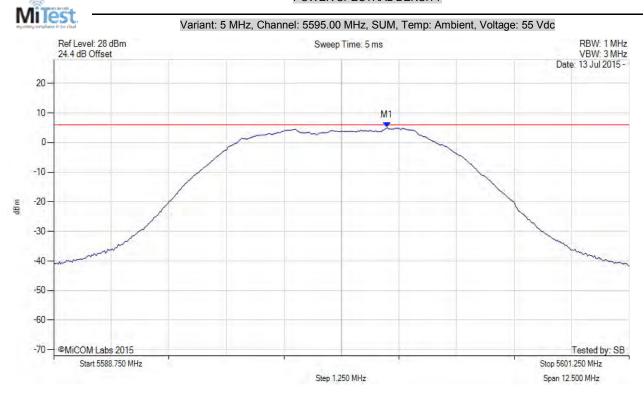
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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5596.000 MHz: 5.038 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF : 5596.000 MHz : 5.481 dBm	Margin: -0.5 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.46 dB	
Trace Mode = VIEW		

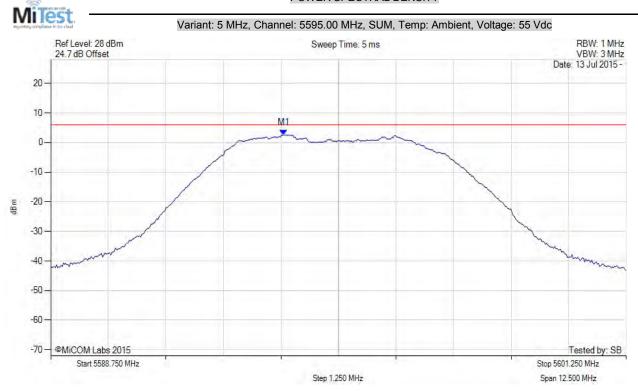


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 100	M1 : 5593.800 MHz : 2.569 dBm M1 + DCCF : 5593.800 MHz : 3.012 dBm Duty Cycle Correction Factor : +0.46 dB	Limit: ≤ 6.0 dBm Margin: -3.0 dB

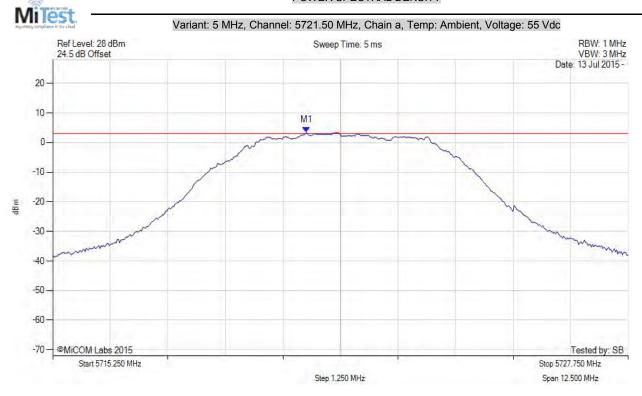


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5720.761 MHz : 3.512 dBm	Limit: ≤ 2.990 dBm

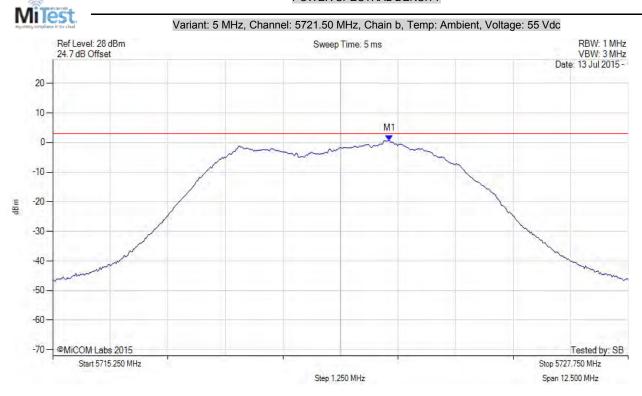


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5722.565 MHz : 0.683 dBm	Limit: ≤ 2.990 dBm



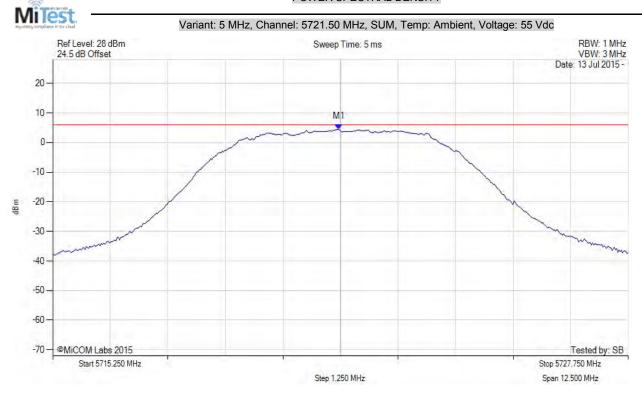
Title: Radwin Ltd AP0158770 RF Wireless Module

To: FCC 15.407 & Industry Canada RSS-247 Issue 1
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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5721.500 MHz: 4.482 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF : 5721.500 MHz : 4.930 dBm	Margin: -1.1 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.46 dB	
Trace Mode = VIEW		

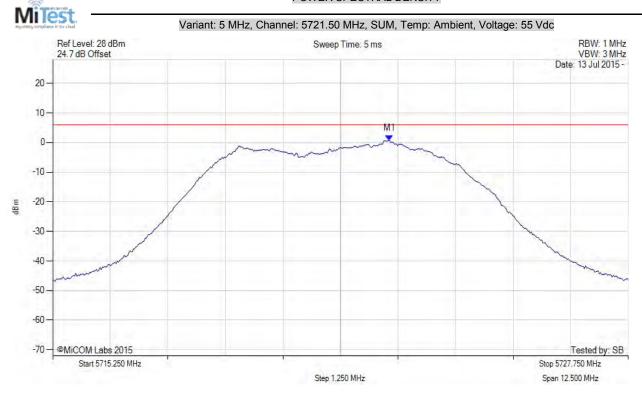


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 100	M1 : 5722.600 MHz : 0.683 dBm M1 + DCCF : 5722.600 MHz : 1.131 dBm Duty Cycle Correction Factor : +0.46 dB	Limit: ≤ 6.0 dBm Margin: -4.9 dB

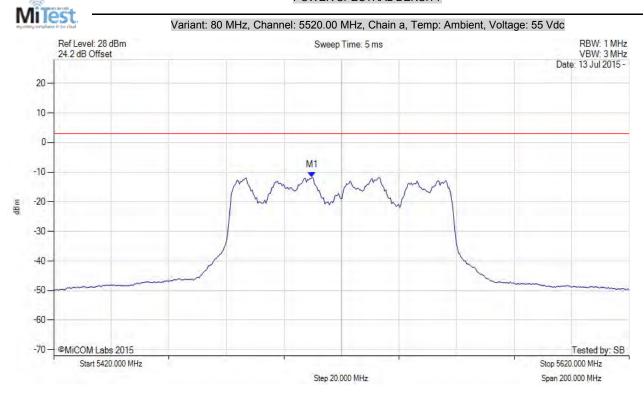


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5509.780 MHz : -11.747 dBm	Limit: ≤ 2.990 dBm

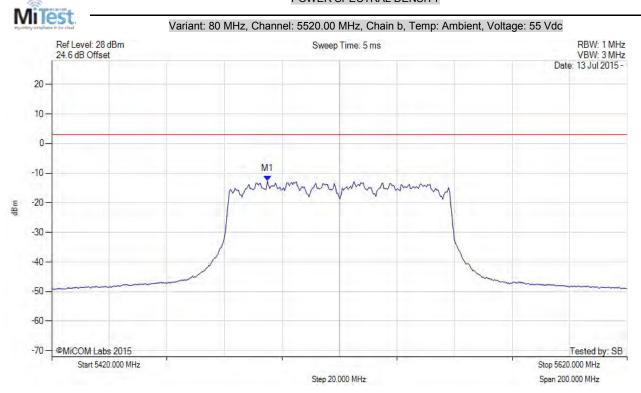


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5494.950 MHz : -12.669 dBm	Limit: ≤ 2.990 dBm



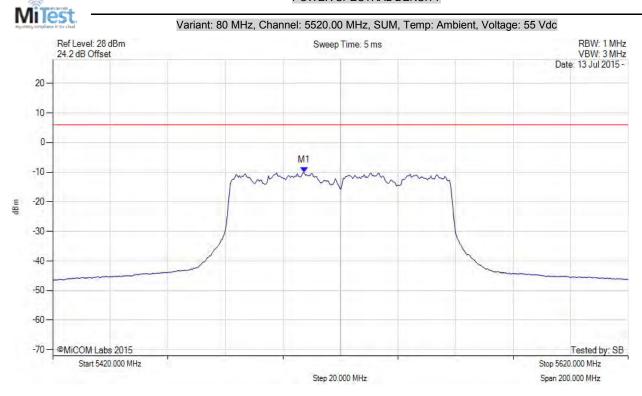
Title: Radwin Ltd AP0158770 RF Wireless Module

To: FCC 15.407 & Industry Canada RSS-247 Issue 1
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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5507.400 MHz: -10.210 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF : 5507.400 MHz : -8.729 dBm	Margin: -14.7 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +1.49 dB	
Trace Mode = VIEW		

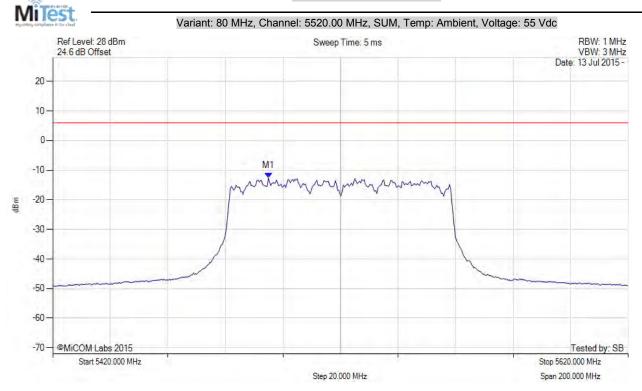


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5494.900 MHz: -12.669 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF : 5494.900 MHz : -11.188 dBm	Margin: -17.2 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +1.49 dB	
Trace Mode = VIEW		

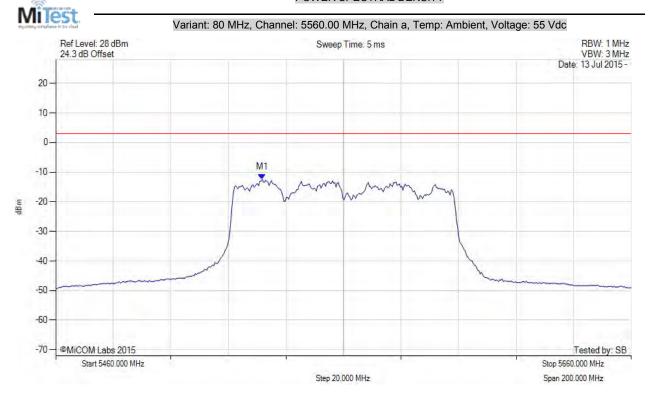


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5531.743 MHz : -12.380 dBm	Limit: ≤ 2.990 dBm

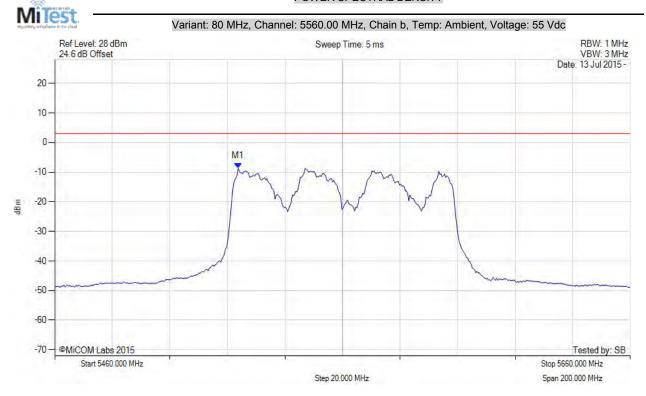


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5523.727 MHz : -8.739 dBm	Channel Frequency: 5560.00 MHz

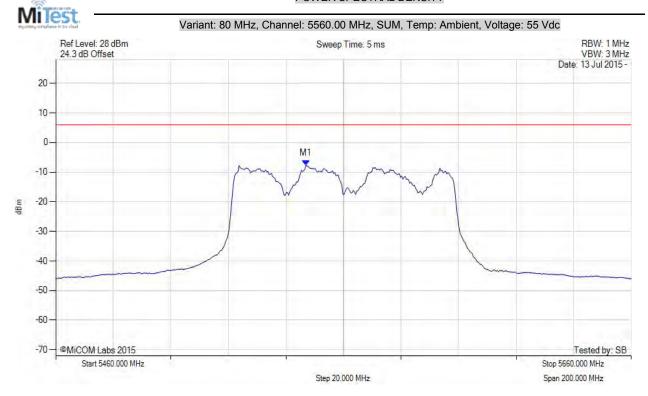


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 100	M1 : 5547.000 MHz : -7.721 dBm M1 + DCCF : 5547.000 MHz : -6.240 dBm Duty Cycle Correction Factor : +1.49 dB	Limit: ≤ 6.0 dBm Margin: -12.2 dB

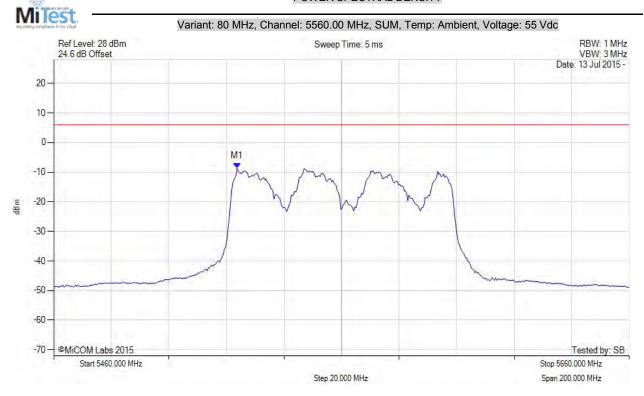


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5523.700 MHz: -8.739 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF: 5523.700 MHz: -7.258 dBm	Margin: -13.3 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +1.49 dB	
Trace Mode = VIEW		

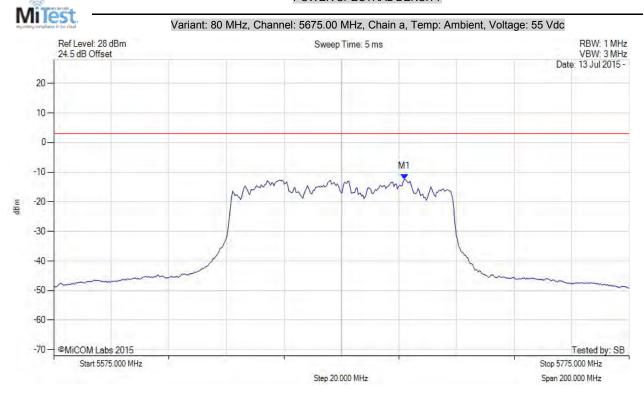


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5696.844 MHz : -12.354 dBm	Limit: ≤ 2.990 dBm

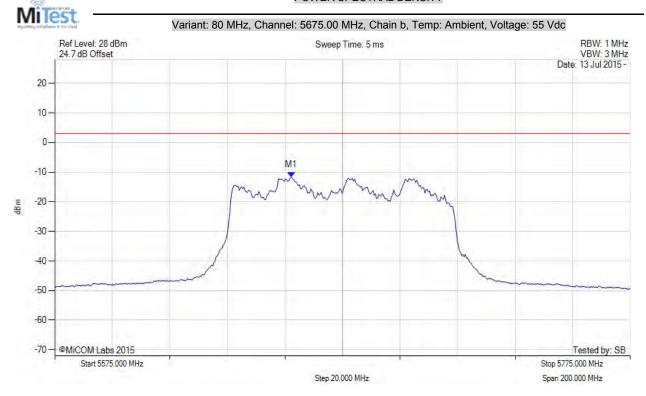


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5657.164 MHz : -11.682 dBm	Limit: ≤ 2.990 dBm

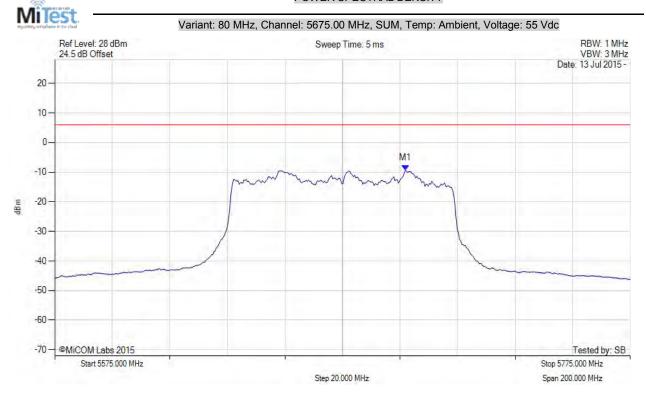


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 100	M1 : 5696.800 MHz : -9.372 dBm M1 + DCCF : 5696.800 MHz : -7.891 dBm Duty Cycle Correction Factor : +1.49 dB	Limit: ≤ 6.0 dBm Margin: -13.9 dB

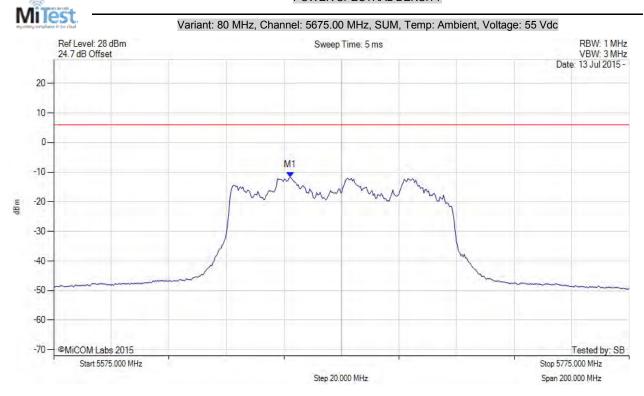


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# POWER SPECTRAL DENSITY



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5657.200 MHz: -11.682 dBm	Limit: ≤ 6.0 dBm
Sweep Count = 100	M1 + DCCF : 5657.200 MHz : -10.201 dBm	Margin: -16.2 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +1.49 dB	
Trace Mode = VIEW		



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