# **TEST REPORT ADDENDUM - CONDUCTED**

**FROM** 



Test of: Radwin Ltd. Outdoor Subscriber Radio Unit

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

Test Report Serial No.: RDWN41-U5\_Conducted Rev A

Issue Date: 13th July 2016

Master Document Number	Addendum Reports
	RDWN41-U5_Conducted
RDWN41-U5_Master	RDWN41-U5_Radiated
	RDWN41-U5(FCC Part15B & ICES-003)



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

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13<sup>th</sup> July 2016 Page: 2 of 155

# **Table of Contents**

1. MEASUREMENT AND PRESENTATION OF TEST DATA	
2. TEST SUMMARY	4
3. TEST RESULTS	5
3.1. Peak Transmit Power	5
3.2. 26 dB & 99% Bandwidth	
3.3. Power Spectral Density	
A. APPENDIX - GRAPHICAL IMAGES	
A.1. 26 dB & 99% Bandwidth	35
A 2 Power Spectral Density	83



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

Serial #: RDWN41-U5 Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 3 of 155

# 1. 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)



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016

Page: 4 of 155

# 2. TEST SUMMARY

List of Measurements

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



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

Serial #: RDWN41-U5 Conducted Rev A

Issue Date: 13th July 2016

Page: 5 of 155

# 3. TEST RESULTS

## 3.1. Peak Transmit Power

Conducted Test Conditions for Maximum Conducted Output Power							
Standard:         FCC CFR 47:15.407         Ambient Temp. (°C):         24.0 - 27.5							
Test Heading:	Maximum Conducted Output Power	Rel. Humidity (%):	32 - 45				
Standard Section(s):	15.407 (a)	5.407 (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 that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.



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

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13th July 2016

Page: 6 of 155

(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.



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

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13<sup>th</sup> July 2016

**Page:** 7 of 155

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

Variant:	10 MHz	Duty Cycle (%):	98.3
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results									
Test Frequency	Measured Conducted Output Power + DCCF (+0.09 dB) (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dB	Setting
5160.0	17.78	16.47			20.19		30.00	-9.81	16.00
5200.0	23.27	22.17			25.77		30.00	-4.23	22.75
5245.0	23.33	22.44			25.92		30.00	-4.08	21.75

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



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

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13<sup>th</sup> July 2016

Page: 8 of 155

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

Variant:	20 MHz	Duty Cycle (%):	98.3
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
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 + DCCF (+0.09 dB) (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting	
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dB	Jetting	
5165.0	15.13	13.93			17.59		30.00	-12.41	13.50	
5200.0	25.04	24.12			27.62		30.00	-2.38	25.00	
5240.0	25.57	25.07			28.34		30.00	-1.66	25.00	

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



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

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13<sup>th</sup> July 2016

**Page:** 9 of 155

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

Variant:	40 MHz	Duty Cycle (%):	96.0
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results									
Test Frequency	Measured Conducted Output Power + DCCF (+0.18 dB) (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dB	Setting
5170.0	6.41	5.27			8.88		30.00	-21.12	5.25
5200.0	24.99	24.14			27.59		30.00	-2.41	25.00
5230.0	25.35	24.76			28.07		30.00	-1.93	25.00

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



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 10 of 155

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

Variant:	80 MHz	Duty Cycle (%):	82.0
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
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 + DCCF (+0.86 dB) (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting	
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dB	Jetting	
5190.0	0.96	-0.26			3.40		30.00	-26.60	0.00	
5200.0	26.09	24.81			28.51		30.00	-1.49	25.00	
5210.0	26.13	24.84			28.54		30.00	-1.46	25.00	

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



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 11 of 155

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

Variant:	10 MHz	Duty Cycle (%):	98.3
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results									
Test Frequency	Measured Conducted Output Power + DCCF (+0.09 dB) (dBm) Port(s)			Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting	
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dB	Jetting
5730.0	7.97	6.31			10.23		30.00	-19.77	5.50
5785.0	26.15	25.10			28.67		30.00	-1.33	27.00
5845.0	1.88	0.43			4.23		30.00	-25.77	0.00

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



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 12 of 155

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

Variant:	20 MHz	Duty Cycle (%):	98.3
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results									
Test Frequency	Measured Conducted Output Power + DCCF (+0.09 dB) (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dB	Setting
5735.0	18.93	17.30			21.21		30.00	-8.79	16.50
5785.0	25.26	25.28			28.28		30.00	-1.72	27.00
5840.0	16.72	15.29			19.08		30.00	-10.92	14.50

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



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 13 of 155

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

Variant:	40 MHz	Duty Cycle (%):	96.0
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results									
Test Frequency	Measured Conducted Output Power + DCCF (+0.18 dB) (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dB	Jetting
5745.0	21.52	19.36			23.58		30.00	-6.42	18.75
5785.0	24.85	24.86			27.87		30.00	-2.13	27.00
5825.0	20.90	19.55			23.28		30.00	-6.72	18.50

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



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 14 of 155

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

Variant:	80 MHz	Duty Cycle (%):	82.0
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
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 + DCCF (+0.86 dB) (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting		
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dB	Setting		
5765.0	16.55	14.20			18.54		30.00	-11.46	13.50		
5785.0	26.30	25.78			29.06		30.00	-0.94	27.00		
5810.0	13.67	12.43			16.11		30.00	-13.89	11.50		

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



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

Serial #: RDWN41-U5 Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 15 of 155

## 3.2. 26 dB & 99% Bandwidth

Conducted Test Conditions for 26 dB and 99% Bandwidth							
Standard:         FCC CFR 47:15.407         Ambient Temp. (°C):         24.0 - 27.5							
Test Heading:	26 dB and 99 % Bandwidth	Rel. Humidity (%):	32 - 45				
Standard Section(s):	15.407 (a)	Pressure (mBars):	999 - 1001				
Reference Document(s):	See Normative References						

#### Test Procedure for 26 dB and 99% Bandwidth Measurement

The bandwidth at 26 dB and 99 % is measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate center frequency. The Resolution Bandwidth was set to approximately 1% of the emission bandwidth.

Testing was performed under ambient conditions at nominal voltage. Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured and reported.

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



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 16 of 155

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

Variant:	10 MHz	Duty Cycle (%):	98.3
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
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)		20 GB Ballu	wiatii (MHZ)			
MHz	а	b	С	d	Highest	Lowest			
5160.0	<u>19.790</u>	<u>17.184</u>			19.790	17.184			
5200.0	<u>19.489</u>	16.383			19.489	16.383			
5245.0	<u>15.631</u>	<u>16.232</u>			16.232	15.631			
		•		•	•	•			

Test	Measured 99% Bandwidth (MHz)				99% Bandwidth (MHz)		
Frequency		Por	t(s)			` ′	
MHz	а	b	С	d	Highest	Lowest	
5160.0	10.922	<u>8.717</u>			10.922	8.717	
5200.0	<u>9.419</u>	<u>8.617</u>			9.419	8.617	
5245.0	<u>8.517</u>	<u>8.467</u>	-		8.517	8.467	

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



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 17 of 155

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

Variant:	20 MHz	Duty Cycle (%):	98.3
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	16.00
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 JD Daw deside (MILE)			
Frequency		Por	t(s)		26 dB Bandwidth (MHz)			
MHz	а	b	С	d	Highest	Lowest		
5165.0	44.088	<u>42.385</u>			44.088	42.385		
5200.0	43.888	43.287			43.888	43.287		
5240.0	43.287	44.289			44.289	43.287		
		•	•	•	•		•	•

Test	Measured 99% Bandwidth (MHz)				99% Bandwidth (MHz)		
Frequency		Port(s)			oo /o Zanawatii (iii iz)		
MHz	а	b	С	d	Highest	Lowest	
5165.0	28.758	<u>27.355</u>			28.758	27.355	
5200.0	<u>29.459</u>	<u>28.958</u>			29.459	28.958	
5240.0	<u>27.956</u>	<u>30.261</u>	-		30.261	27.956	

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



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 18 of 155

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

Variant:	40 MHz	Duty Cycle (%):	96.0
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results											
Test	Ме	asured 26 dB	Bandwidth (M	Hz)	26 dB Bandwidth (MHz)						
Frequency		Por	t(s)		26 GB Band	wiath (MHZ)					
MHz	а	b	С	d	Highest	Lowest					
5170.0	<u>87.575</u>	<u>86.172</u>			87.575	86.172					
5200.0	90.180	86.573			90.180	86.573					
5230.0	<u>88.176</u>	<u>87.575</u>			88.176	87.575					
		•		•				•			

Test	Me	easured 99% E	Bandwidth (MF	łz)	99% Bandwidth (MHz)		
Frequency	Port(s)			99 /6 Bandwidth (MHZ)			
MHz	а	b	С	d	Highest	Lowest	
5170.0	<u>57.916</u>	60.721			60.721	57.916	
5200.0	60.321	<u>59.719</u>			60.321	59.719	
5230.0	<u>57.315</u>	<u>61.523</u>	-		61.523	57.315	

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



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 19 of 155

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

Variant:	80 MHz	Duty Cycle (%):	82.0
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
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)	- 26 dB Bandwidth (MHz)							
Frequency		Por	t(s)									
MHz	а	b	С	d	Highest	Lowest						
5190.0	<u>192.786</u>	<u>173.547</u>			192.786	173.547						
5200.0	<u>189.178</u>	179.559			189.178	179.559						
5210.0	190.381	<u>182.365</u>			190.381	182.365						
		•	•	•	•		•	•				

Test	Measured 99% Bandwidth (MHz) 99% Bandwidth (M						
Frequency	Port(s)			99 /6 Bandwidth (MHZ)			
MHz	а	b	С	d	Highest	Lowest	
5190.0	135.872	121.443			135.872	121.443	
5200.0	<u>139.479</u>	<u>125.852</u>			139.479	125.852	
5210.0	<u>138.677</u>	<u>129.459</u>	-		138.677	129.459	

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



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 20 of 155

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

Variant:	10 MHz	Duty Cycle (%):	98.3
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measure	Fest Measurement Results											
Test	Test Measured 26 dB Bandwidth (MHz)					OC JD Daw day dub (MUL)						
Frequency		Por	t(s)		26 dB Bandwidth (MHz)							
MHz	а	b	С	d	Highest	Lowest						
5730.0	<u>24.148</u>	<u>22.395</u>			24.148	22.395						
5785.0	<u>23.196</u>	<u>22.846</u>			23.196	22.846						
5845.0	24.599	22.445	-		24.599	22.445						

Test	Measured 99% Bandwidth (MHz)					99% Bandwidth (MHz)		
Frequency		Port(s)				vidii (iiii iz)		
MHz	а	b	С	d	Highest	Lowest		
5730.0	<u>17.435</u>	14.429			17.435	14.429		
5785.0	<u>16.383</u>	<u>15.782</u>			16.383	15.782		
5845.0	<u>17.735</u>	<u>15.030</u>			17.735	15.030		

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



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 21 of 155

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

Variant:	20 MHz	Duty Cycle (%):	98.3
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
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)	OC JD Day desidate (MILE)							
Frequency		Por	ort(s) 26 dB Bandwidth (N			wiath (MHZ)						
MHz	а	b	С	d	Highest	Lowest						
5735.0	<u>48.397</u>	<u>42.685</u>			48.397	42.685						
5785.0	<u>47.796</u>	44.790			47.796	44.790						
5840.0	24.499	43.988			43.988	24.499						
		•	•	•	•		•	•				

Test	Me	easured 99% E	Bandwidth (MF	lz)	99% Bandwidth (MHz)		
Frequency	Port(s)				33 / Bariawiatii (Miliz)		
MHz	а	b	С	d	Highest	Lowest	
5735.0	34.269	<u>27.555</u>			34.269	27.555	
5785.0	<u>31.663</u>	31.062			31.663	31.062	
5840.0	<u>35.772</u>	<u>29.459</u>			35.772	29.459	

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



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 22 of 155

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

Variant:	40 MHz	Duty Cycle (%):	96.0
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measure	Test Measurement Results											
Test	Measured 26 dB Bandwidth (MHz)					OC dD Dondwidth (MIII-)						
Frequency		Port(s)				26 dB Bandwidth (MHz)						
MHz	а	b	С	d	Highest	Lowest						
5745.0	<u>91.383</u>	<u>83.367</u>			91.383	83.367						
5785.0	89.780	<u>87.976</u>			89.780	87.976						
5825.0	93.387	<u>87.174</u>			93.387	87.174						
								1				

Test	Me	easured 99% E	Bandwidth (MF	lz)	99% Bandwidth (MHz)		
Frequency	Port(s)				39 % Danawiath (Miliz)		
MHz	а	b	С	d	Highest	Lowest	
5745.0	64.930	<u>52.305</u>			64.930	52.305	
5785.0	<u>61.323</u>	60.521			61.323	60.521	
5825.0	<u>64.128</u>	<u>62.124</u>			64.128	62.124	

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



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 23 of 155

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

Variant:	80 MHz	Duty Cycle (%):	82.0
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
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	OC JD Day deside (MILE)								
Frequency		Port(s)			26 dB Bandwidth (MHz)							
MHz	а	b	С	d	Highest	Lowest						
5765.0	<u>199.599</u>	<u>193.587</u>			199.599	193.587						
5785.0	197.996	195.992			197.996	195.992						
5810.0	197.996	<u>197.996</u>			197.996	197.996						
		•		•	•		•					

Test	Me	easured 99% E	Bandwidth (MF	łz)	99% Bandwidth (MHz)		
Frequency	Port(s)				00 /0 = aa ( ( i.)		
MHz	а	b	С	d	Highest	Lowest	
5765.0	<u>157.114</u>	140.281			157.114	140.281	
5785.0	<u>150.301</u>	<u>146.693</u>			150.301	146.693	
5810.0	<u>153.908</u>	<u>150.701</u>			153.908	150.701	

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



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

Serial #: RDWN41-U5 Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 24 of 155

## 3.3. Power Spectral Density

Conducted Test Conditions for Power Spectral Density							
Standard:	FCC CFR 47:15.407	CC CFR 47:15.407 <b>Ambient Temp. (°C):</b> 24.0 - 27.5					
Test Heading:	Power Spectral Density Rel. Humidity (%): 32 - 45						
Standard Section(s):	5.407 (a)(5) <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.



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

Serial #: RDWN41-U5 Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 25 of 155

(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.



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 26 of 155

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

Variant:	10 MHz	Duty Cycle (%):	98.3
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
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				Summation Peak Marker +		
Frequency	Port(s) (dBm/MHz)			DCCF (+0.09 dB)	Limit	Margin	
MHz	а	b	С	d	dBm/MHz	dBm/MHz	dB
5160.0	9.067	<u>8.095</u>			<u>11.343</u>	17.0	-5.66
5200.0	<u>14.126</u>	<u>12.891</u>			<u>16.290</u>	17.0	-0.71
5245.0	<u>14.201</u>	<u>13.214</u>			<u>16.523</u>	17.0	-0.48

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

DCCF - Duty Cycle Correction Factor



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 27 of 155

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

Variant:	20 MHz	Duty Cycle (%):	98.3
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
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				Summation Peak Marker +		
Frequency	Port(s) (dBm/MHz)			DCCF (+0.09 dB)	Limit	Margin	
MHz	a b c d			dBm/MHz	dBm/MHz	dB	
5165.0	3.074	<u>2.227</u>			<u>5.021</u>	17.0	-11.98
5200.0	<u>12.021</u>	<u>11.432</u>			<u>14.065</u>	17.0	-2.94
5240.0	12.584	<u>12.130</u>			<u>15.365</u>	17.0	-1.64

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

DCCF - Duty Cycle Correction Factor



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 28 of 155

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

Variant:	40 MHz	Duty Cycle (%):	96.0
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results								
Test Frequency				Summation Peak Marker + DCCF (+0.18 dB)	Limit	Margin		
MHz	a b c d			dBm/MHz	dBm/MHz	dB		
5170.0	<u>-9.853</u>	<u>-10.418</u>			<u>-7.325</u>	17.0	-24.33	
5200.0	<u>7.494</u>	<u>6.250</u>			<u>9.576</u>	17.0	-7.42	
5230.0	6.896	<u>6.165</u>			<u>8.855</u>	17.0	-8.15	

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

DCCF - Duty Cycle Correction Factor



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 29 of 155

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

Variant:	80 MHz	Duty Cycle (%):	82.0
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurem	ent Results						
Test Frequency	Measured Power Spectral Density  Port(s) (dBm/MHz)		Summation Peak Marker + DCCF (+0.86	Limit	Margin		
MHz	а	b				dBm/MHz	dB
5190.0	<u>-21.984</u>	<u>-22.345</u>			<u>-18.915</u>	17.0	-35.92
5200.0	<u>-0.699</u>	<u>-0.477</u>			<u>2.761</u>	17.0	-14.24
5210.0	<u>-0.582</u>	<u>1.134</u>			3.923	17.0	-13.08

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

DCCF - Duty Cycle Correction Factor



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 30 of 155

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

Variant:	10 MHz	Duty Cycle (%):	98.3
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results							
Test Frequency	Measured Power Spectral Density  Port(s) (dBm/500 KHz)			Summation Peak Marker + DCCF (+0.09	Limit	Margin	
MHz	а	, , ,			dB) dBm/500 KHz	dBm/500 KHz	dB
5730.0	<u>-3.763</u>	<u>-5.029</u>			<u>-1.363</u>	30.0	-31.4
5785.0	13.326	13.244			<u>16.152</u>	30.0	-13.9
5845.0	<u>-9.336</u>	<u>-11.412</u>			<u>-7.416</u>	30.0	-37.4

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

DCCF - Duty Cycle Correction Factor



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 31 of 155

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

Variant:	20 MHz	Duty Cycle (%):	98.3
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results							
Test Frequency	Measured Power Spectral Density Port(s) (dBm/500 KHz)			Summation Peak Marker + DCCF (+0.09 dB)	Limit	Margin	
MHz	а	b	С	d	dBm/500 KHz	dBm/500 KHz	dB
5735.0	3.597	<u>3.155</u>			<u>5.871</u>	30.0	-24.1
5785.0	<u>8.653</u>	<u>9.241</u>			<u>11.823</u>	30.0	-18.2
5840.0	<u>2.125</u>	<u>1.101</u>			<u>4.064</u>	30.0	-25.9

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

DCCF - Duty Cycle Correction Factor



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 32 of 155

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

Variant:	40 MHz	Duty Cycle (%):	96.0
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results							
Test Frequency	Measured Power Spectral Density Port(s) (dBm/500 KHz)			Summation Peak Marker + DCCF (+0.18 dB)	Limit	Margin	
MHz	а	b	С	d	dBm/500 KHz	dBm/500 KHz	dB
5745.0	0.873	<u>-0.659</u>			<u>3.186</u>	30.0	-26.8
5785.0	<u>5.179</u>	<u>4.103</u>			<u>7.242</u>	30.0	-22.8
5825.0	<u>1.097</u>	<u>0.451</u>			<u>2.196</u>	30.0	-27.8

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

DCCF - Duty Cycle Correction Factor



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 33 of 155

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

Variant:	80 MHz	Duty Cycle (%):	82.0
Data Rate:	15.00 MBit/s	Antenna Gain (dBi):	16.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results									
Test Frequency	N	leasured Power	Spectral Densit m/500 KHz)	Summation Peak Marker + DCCF (+0.86	Limit	Margin			
		Port(s) (ub	111/300 K112)	dB)					
MHz	а	b	С	d	dBm/500 KHz	dBm/500 KHz	dB		
5765.0	<u>-13.048</u>	<u>-11.892</u>			<u>-9.654</u>	30.0	-39.7		
5785.0	<u>-2.387</u>	<u>-1.550</u>			<u>1.221</u>	30.0	-28.8		
5810.0	<u>-12.958</u>	<u>-13.727</u>			<u>-10.367</u>	30.0	-40.4		

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

DCCF - Duty Cycle Correction Factor



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 34 of 155

# A. APPENDIX - GRAPHICAL IMAGES



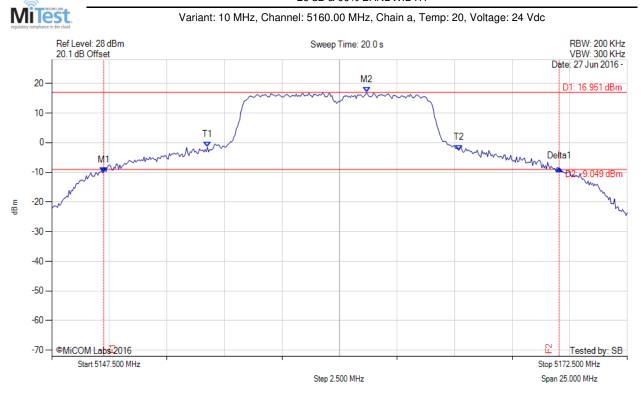
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 35 of 155

## A.1. 26 dB & 99% Bandwidth

#### 26 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20	M1:5149.755 MHz:-10.051 dBm M2:5161.177 MHz:16.951 dBm Delta1:19.790 MHz:1.354 dB T1:5154.264 MHz:-1.526 dBm T2:5165.185 MHz:-2.531 dBm OBW:10.922 MHz	Measured 26 dB Bandwidth: 19.790 MHz Measured 99% Bandwidth: 10.922 MHz

back to matrix



MiTest

Title: Radwin Ltd. Outdoor Subscriber Radio Unit

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

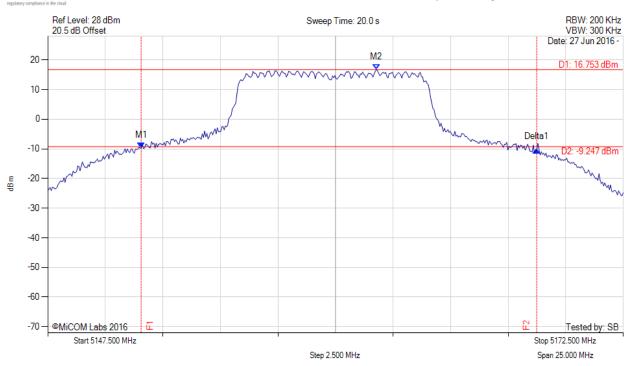
Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13<sup>th</sup> July 2016

Page: 36 of 155

## 26 dB & 99% BANDWIDTH

Variant: 10 MHz, Channel: 5160.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20	M1:5151.558 MHz:-9.744 dBm M2:5161.779 MHz:16.753 dBm Delta1:17.184 MHz:-0.498 dB T1:0 Hz:500.000 dBm T2:0 Hz:500.000 dBm OBW:8.717 MHz	Measured 26 dB Bandwidth: 17.184 MHz Measured 99% Bandwidth: 8.717 MHz

back to matrix



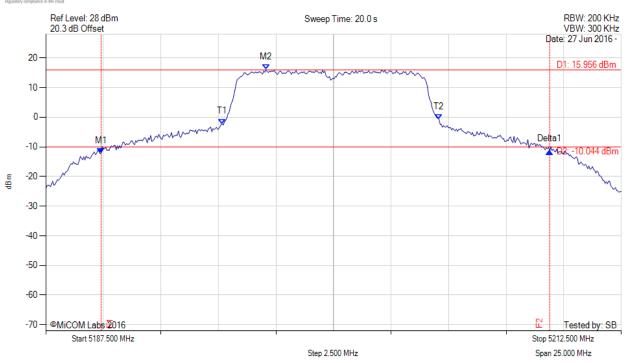
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 37 of 155

## 26 dB & 99% BANDWIDTH

Variant: 10 MHz, Channel: 5200.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 19.489 MHz Measured 99% Bandwidth: 9.419 MHz



MiTest

Title: Radwin Ltd. Outdoor Subscriber Radio Unit

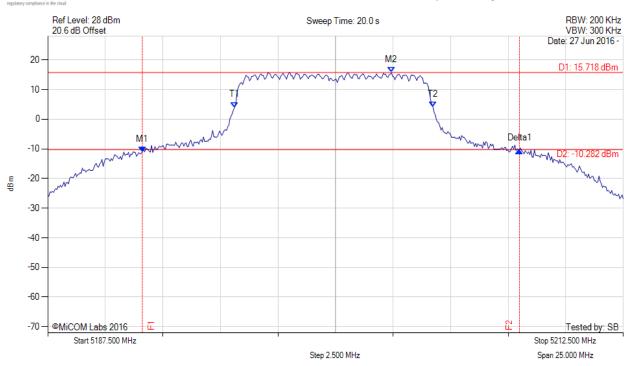
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 38 of 155

## 26 dB & 99% BANDWIDTH

Variant: 10 MHz, Channel: 5200.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1:5191.608 MHz:-11.103 dBm M2:5202.430 MHz:15.718 dBm Delta1:16.383 MHz:0.578 dB T1:5195.616 MHz:4.014 dBm T2:5204.233 MHz:4.138 dBm OBW:8.617 MHz	Measured 26 dB Bandwidth: 16.383 MHz Measured 99% Bandwidth: 8.617 MHz



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

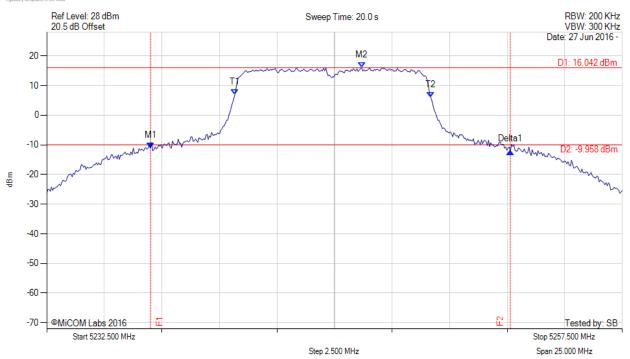
Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 39 of 155

## 26 dB & 99% BANDWIDTH



Variant: 10 MHz, Channel: 5245.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 15.631 MHz Measured 99% Bandwidth: 8.517 MHz



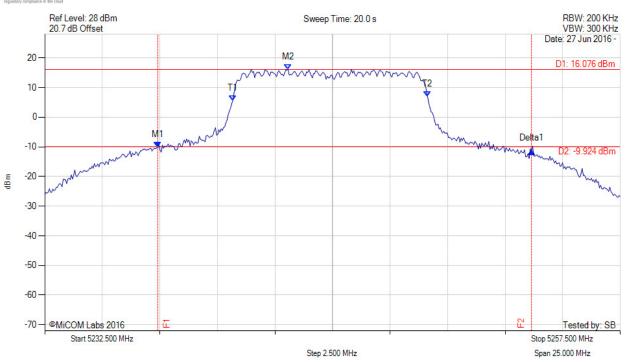
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 40 of 155

## 26 dB & 99% BANDWIDTH

Variant: 10 MHz, Channel: 5245.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 16.232 MHz Measured 99% Bandwidth: 8.467 MHz

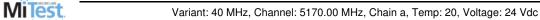


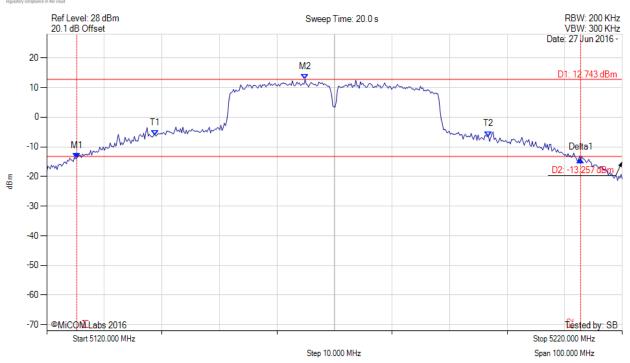
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 41 of 155

## 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 87.575 MHz Measured 99% Bandwidth: 57.916 MHz



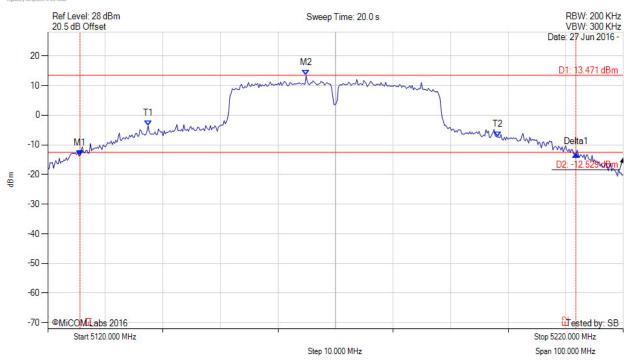
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 42 of 155

## 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 86.172 MHz Measured 99% Bandwidth: 60.721 MHz



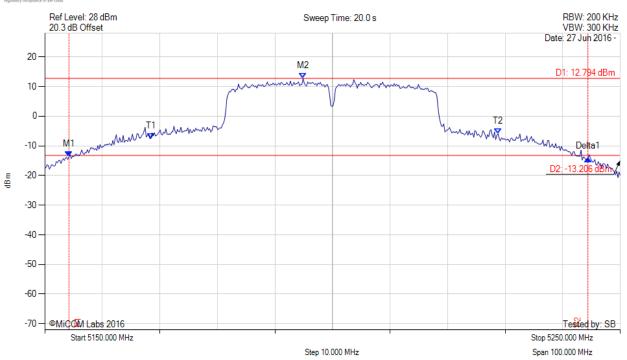
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 43 of 155

## 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5154.208 MHz : -13.659 dBm M2 : 5194.890 MHz : 12.794 dBm Delta1 : 90.180 MHz : -0.586 dB T1 : 5168.437 MHz : -7.540 dBm T2 : 5228.758 MHz : -5.896 dBm OBW : 60.321 MHz	Measured 26 dB Bandwidth: 90.180 MHz Measured 99% Bandwidth: 60.321 MHz

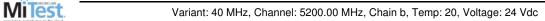


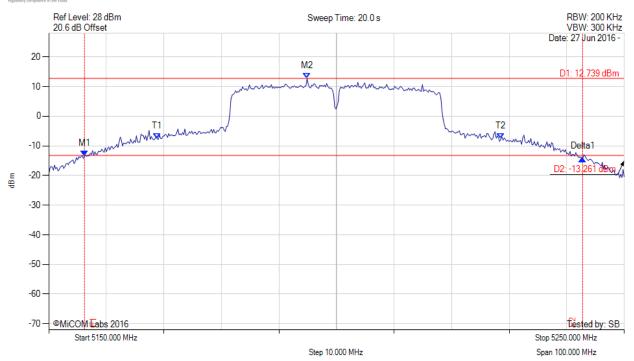
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 44 of 155

## 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 86.573 MHz Measured 99% Bandwidth: 59.719 MHz

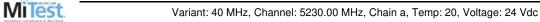


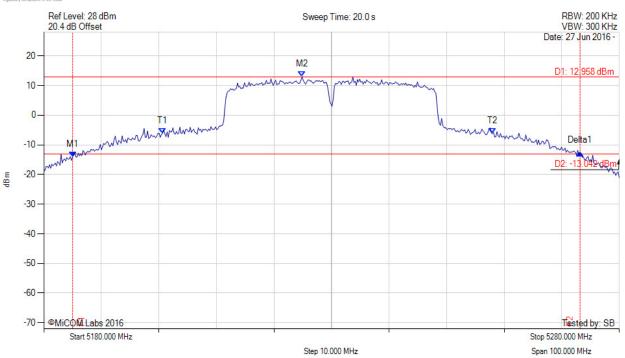
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 45 of 155

## 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 88.176 MHz Measured 99% Bandwidth: 57.315 MHz



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

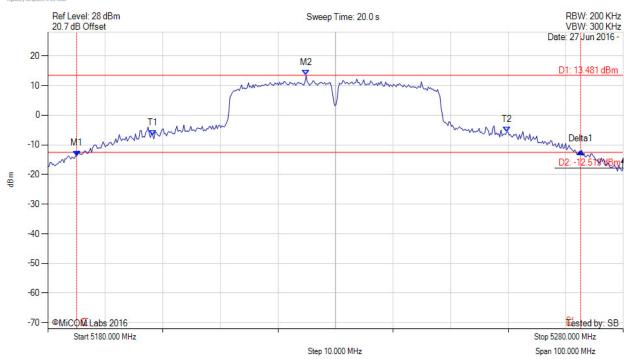
Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 46 of 155

## 26 dB & 99% BANDWIDTH



Variant: 40 MHz, Channel: 5230.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1:5185.010 MHz:-13.734 dBm M2:5224.890 MHz:13.481 dBm Delta1:87.575 MHz:1.503 dB T1:5198.236 MHz:-6.840 dBm T2:5259.760 MHz:-5.726 dBm OBW:61.523 MHz	Measured 26 dB Bandwidth: 87.575 MHz Measured 99% Bandwidth: 61.523 MHz



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

Tested by: SB

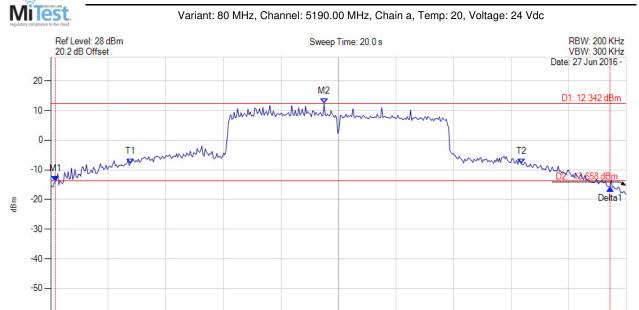
Stop 5290.000 MHz

Span 200.000 MHz

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 47 of 155

## 26 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 192.786 MHz Measured 99% Bandwidth: 135.872 MHz

Step 20.000 MHz

back to matrix

-60 -

-70 - MiCOM Labs 2016

Start 5090.000 MHz



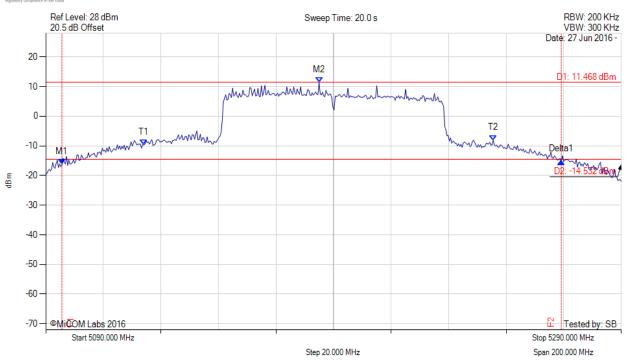
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 48 of 155

## 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 173.547 MHz Measured 99% Bandwidth: 121.443 MHz



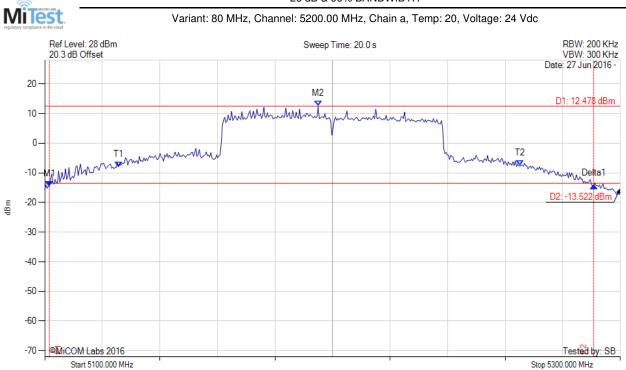
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Span 200.000 MHz

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 49 of 155

## 26 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 189.178 MHz Measured 99% Bandwidth: 139.479 MHz

Step 20.000 MHz



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

Tested by: SB

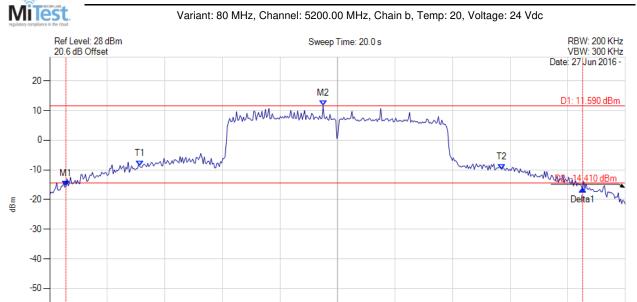
Stop 5300.000 MHz

Span 200.000 MHz

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 50 of 155

## 26 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 179.559 MHz Measured 99% Bandwidth: 125.852 MHz

Step 20.000 MHz

back to matrix

-60 -

-70 - @MiCOM Labs 2016

Start 5100.000 MHz



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

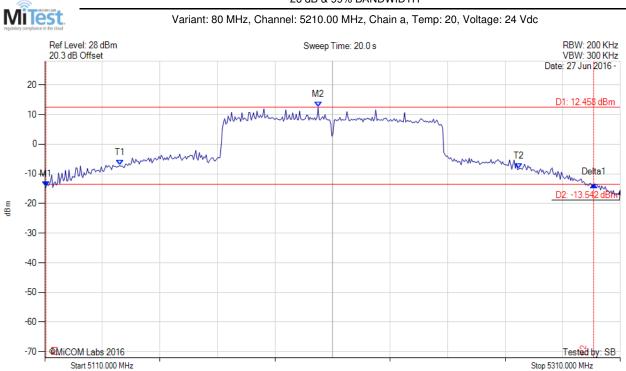
Span 200.000 MHz

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13<sup>th</sup> July 2016

Page: 51 of 155

## 26 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5110.401 MHz : -14.251 dBm M2 : 5204.990 MHz : 12.458 dBm Delta1 : 190.381 MHz : 0.563 dB T1 : 5136.052 MHz : -7.155 dBm T2 : 5274.729 MHz : -8.323 dBm OBW : 138.677 MHz	Measured 26 dB Bandwidth: 190.381 MHz Measured 99% Bandwidth: 138.677 MHz

Step 20.000 MHz

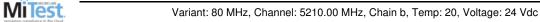


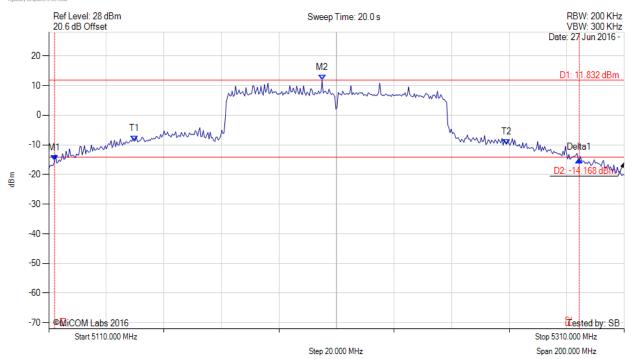
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 52 of 155

## 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1: 5112.004 MHz: -15.327 dBm M2: 5204.990 MHz: 11.832 dBm Delta1: 182.365 MHz: 0.293 dB T1: 5139.659 MHz: -8.768 dBm T2: 5269.118 MHz: -9.801 dBm OBW: 129.459 MHz	Measured 26 dB Bandwidth: 182.365 MHz Measured 99% Bandwidth: 129.459 MHz



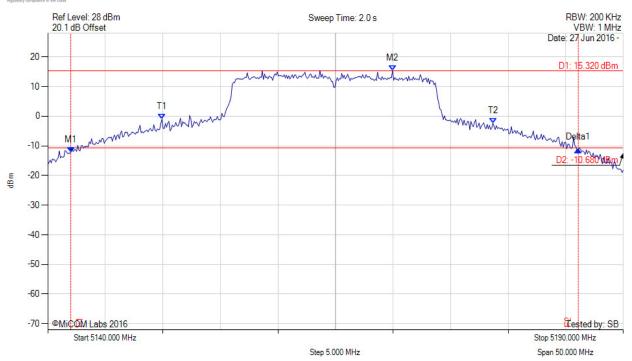
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 53 of 155

## 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5142.004 MHz : -12.246 dBm M2 : 5169.960 MHz : 15.320 dBm Delta1 : 44.088 MHz : 0.907 dB T1 : 5149.920 MHz : -1.024 dBm T2 : 5178.677 MHz : -2.333 dBm OBW : 28.758 MHz	Measured 26 dB Bandwidth: 44.088 MHz Measured 99% Bandwidth: 28.758 MHz

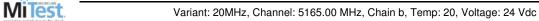


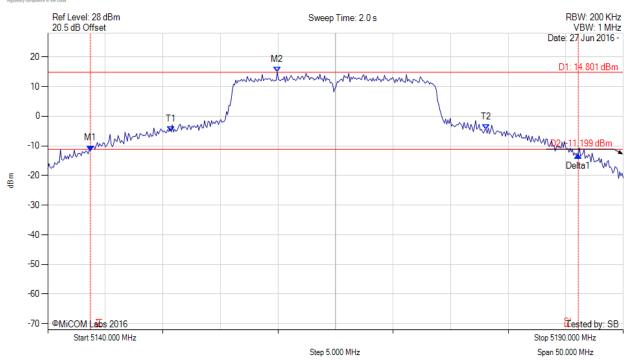
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 54 of 155

## 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 42.385 MHz Measured 99% Bandwidth: 27.355 MHz

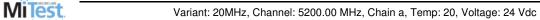


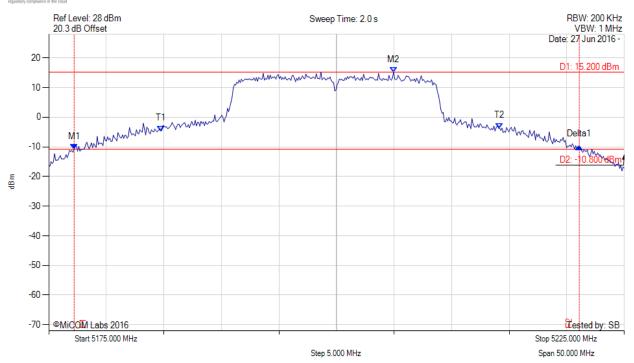
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 55 of 155

## 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 43.888 MHz Measured 99% Bandwidth: 29.459 MHz



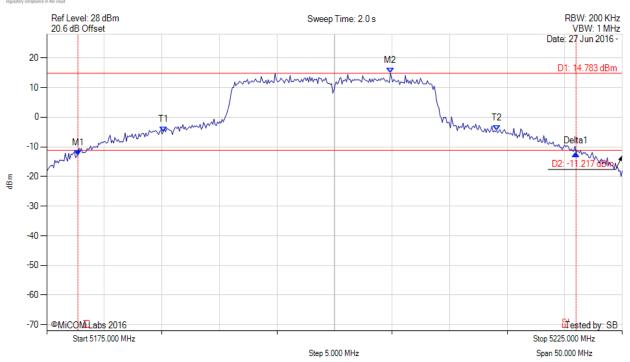
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 56 of 155

## 26 dB & 99% BANDWIDTH

Variant: 20MHz, Channel: 5200.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 43.287 MHz Measured 99% Bandwidth: 28.958 MHz



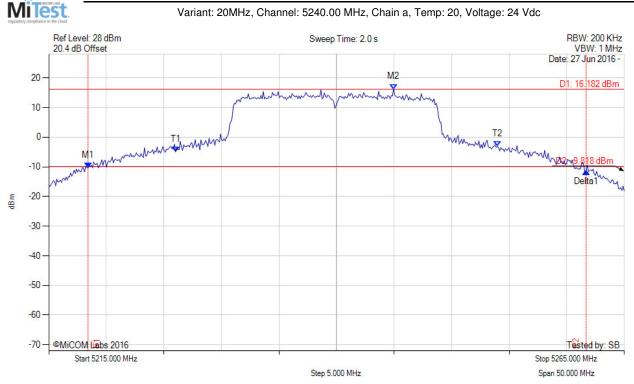
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13th July 2016 Page: 57 of 155

## 26 dB & 99% BANDWIDTH

Variant: 20MHz, Channel: 5240.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
		Measured 26 dB Bandwidth: 43.287 MHz Measured 99% Bandwidth: 27.956 MHz



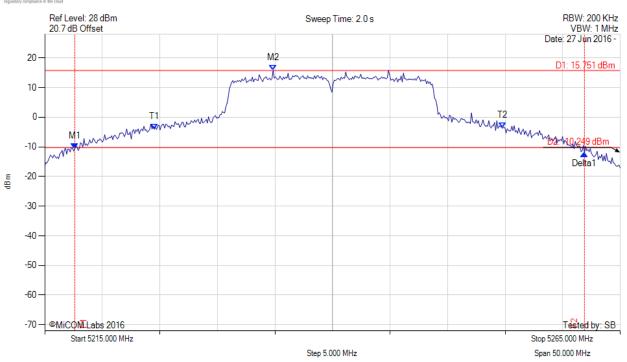
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 58 of 155

## 26 dB & 99% BANDWIDTH

Variant: 20MHz, Channel: 5240.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 44.289 MHz Measured 99% Bandwidth: 30.261 MHz



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

Serial #: RDWN41-U5\_Conducted Rev A

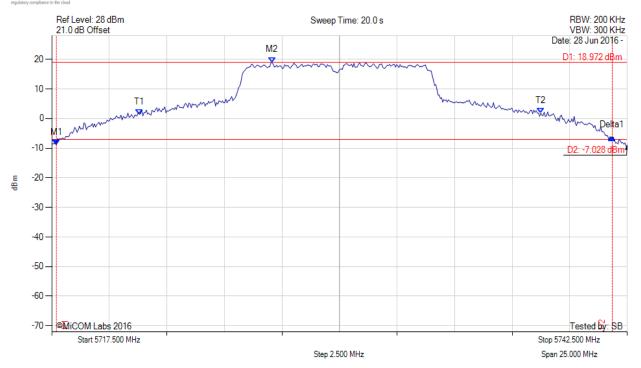
Issue Date: 13<sup>th</sup> July 2016

Page: 59 of 155

# Mitest.

### 26 dB & 99% BANDWIDTH

Variant: 10 MHz, Channel: 5730.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5717.700 MHz : -8.864 dBm M2 : 5727.069 MHz : 18.972 dBm Delta1 : 24.148 MHz : 2.461 dB T1 : 5721.308 MHz : 1.427 dBm T2 : 5738.742 MHz : 1.838 dBm OBW : 17.435 MHz	Measured 26 dB Bandwidth: 24.148 MHz Measured 99% Bandwidth: 17.435 MHz



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

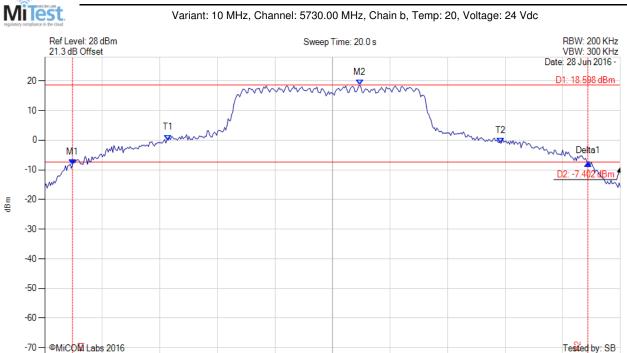
Stop 5742.500 MHz

Span 25.000 MHz

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 60 of 155

## 26 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 22.395 MHz Measured 99% Bandwidth: 14.429 MHz

Step 2.500 MHz

back to matrix

Start 5717.500 MHz



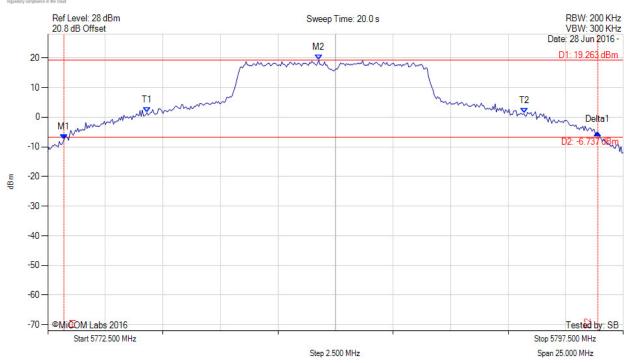
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 61 of 155

## 26 dB & 99% BANDWIDTH

Variant: 10 MHz, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 23.196 MHz Measured 99% Bandwidth: 16.383 MHz



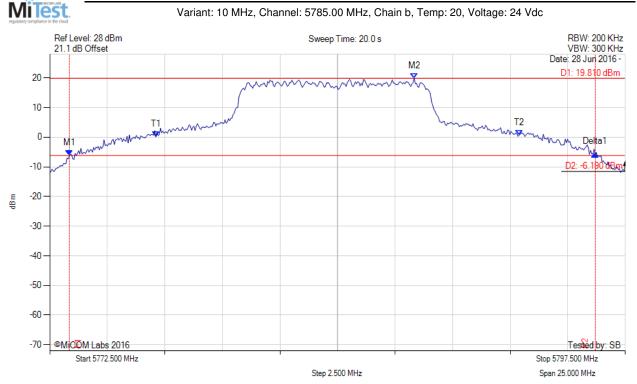
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13th July 2016 Page: 62 of 155

## 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 22.846 MHz Measured 99% Bandwidth: 15.782 MHz



MiTest

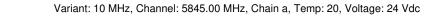
Title: Radwin Ltd. Outdoor Subscriber Radio Unit

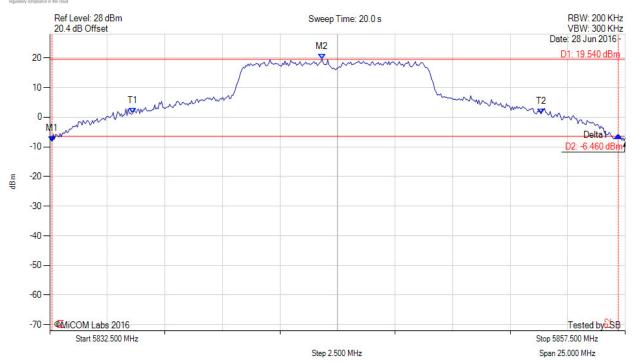
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 63 of 155

## 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 24.599 MHz Measured 99% Bandwidth: 17.735 MHz

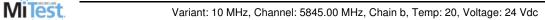


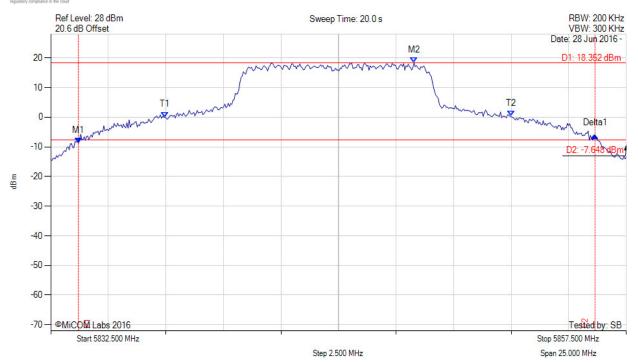
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 64 of 155

## 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 22.445 MHz Measured 99% Bandwidth: 15.030 MHz



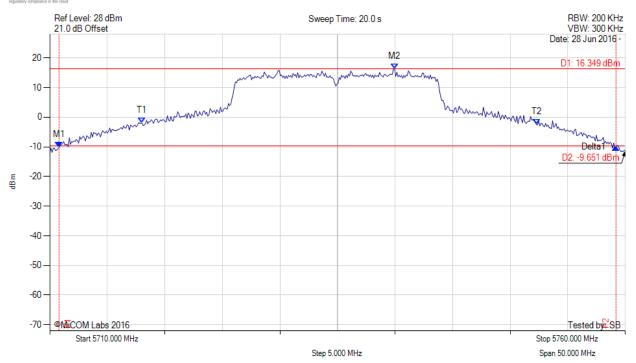
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 65 of 155

## 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5710.802 MHz : -10.169 dBm M2 : 5739.960 MHz : 16.349 dBm Delta1 : 48.397 MHz : 0.138 dB T1 : 5718.016 MHz : -2.018 dBm T2 : 5752.285 MHz : -2.470 dBm OBW : 34.269 MHz	Measured 26 dB Bandwidth: 48.397 MHz Measured 99% Bandwidth: 34.269 MHz



MiTest

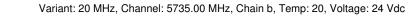
Title: Radwin Ltd. Outdoor Subscriber Radio Unit

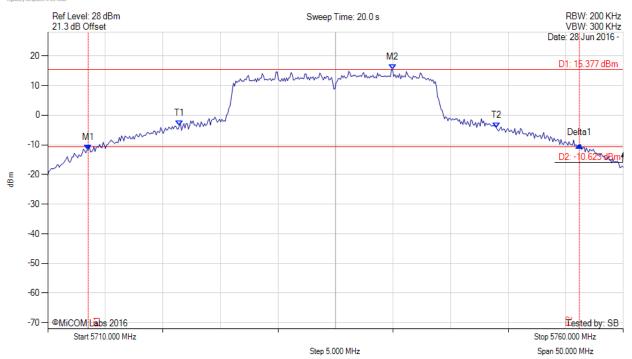
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 66 of 155

## 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 42.685 MHz Measured 99% Bandwidth: 27.555 MHz



MiTest

Title: Radwin Ltd. Outdoor Subscriber Radio Unit

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

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13<sup>th</sup> July 2016

Page: 67 of 155

## 26 dB & 99% BANDWIDTH

Variant: 20 MHz, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
	M1:5760.902 MHz:-11.937 dBm M2:5789.960 MHz:16.208 dBm Delta1:47.796 MHz:2.914 dB T1:5769.519 MHz:-2.189 dBm T2:5801.182 MHz:-2.392 dBm OBW:31.663 MHz	Measured 26 dB Bandwidth: 47.796 MHz Measured 99% Bandwidth: 31.663 MHz



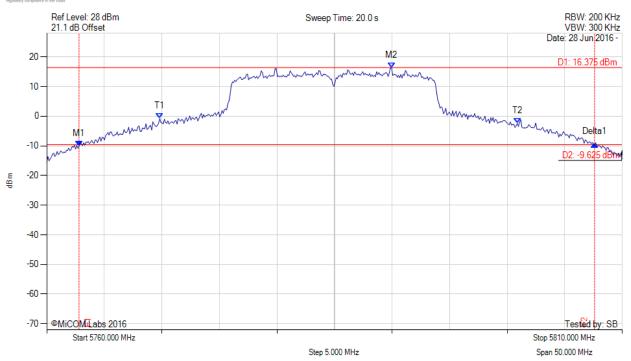
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 68 of 155

## 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1:5762.806 MHz:-10.055 dBm M2:5789.960 MHz:16.375 dBm Delta1:44.790 MHz:0.543 dB T1:5769.820 MHz:-0.788 dBm T2:5800.882 MHz:-2.429 dBm OBW:31.062 MHz	Measured 26 dB Bandwidth: 44.790 MHz Measured 99% Bandwidth: 31.062 MHz



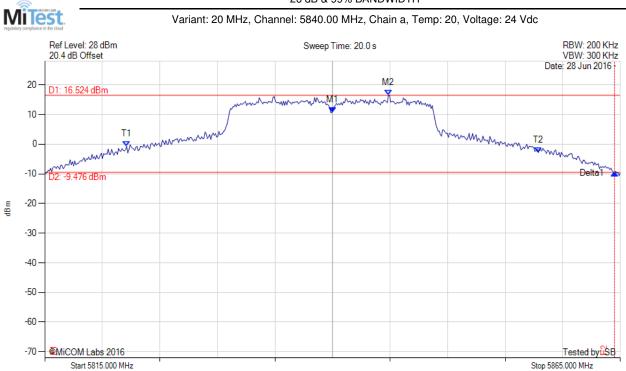
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Span 50.000 MHz

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 69 of 155

## 26 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
	M1:5840.000 MHz:10.648 dBm M2:5844.860 MHz:16.524 dBm Delta1:24.499 MHz:-20.407 dB T1:5822.114 MHz:-0.727 dBm T2:5857.886 MHz:-2.795 dBm OBW:35.772 MHz	Measured 26 dB Bandwidth: 24.499 MHz Measured 99% Bandwidth: 35.772 MHz

Step 5.000 MHz



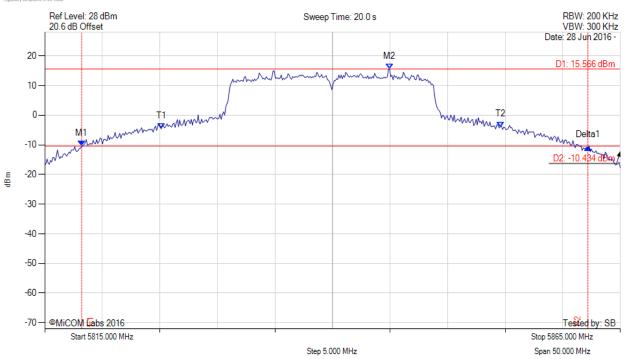
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 70 of 155

## 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
		Measured 26 dB Bandwidth: 43.988 MHz Measured 99% Bandwidth: 29.459 MHz



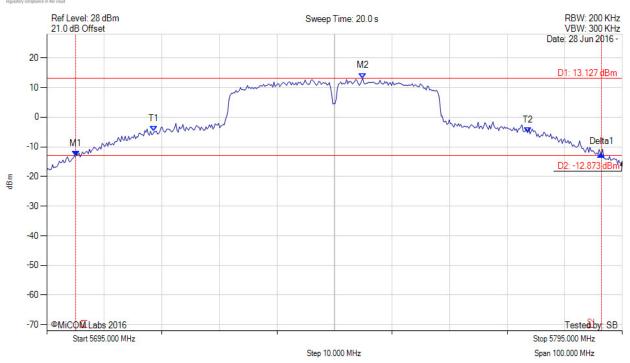
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 71 of 155

## 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 91.383 MHz Measured 99% Bandwidth: 64.930 MHz



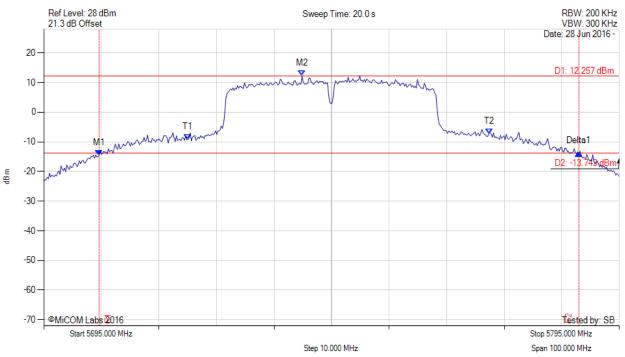
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 72 of 155

## 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1:5704.619 MHz:-14.646 dBm M2:5739.890 MHz:12.257 dBm Delta1:83.367 MHz:0.885 dB T1:5720.050 MHz:-9.144 dBm T2:5772.355 MHz:-7.233 dBm OBW:52.305 MHz	Measured 26 dB Bandwidth: 83.367 MHz Measured 99% Bandwidth: 52.305 MHz



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

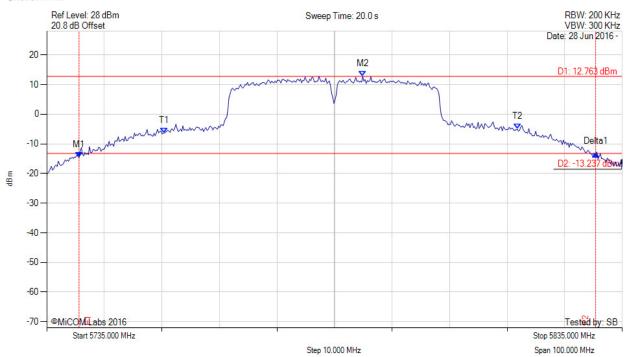
Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 73 of 155

### 26 dB & 99% BANDWIDTH



Variant: 40 MHz, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5740.611 MHz : -14.625 dBm M2 : 5789.910 MHz : 12.763 dBm Delta1 : 89.780 MHz : 1.312 dB T1 : 5755.441 MHz : -6.352 dBm T2 : 5816.764 MHz : -5.000 dBm OBW : 61.323 MHz	Measured 26 dB Bandwidth: 89.780 MHz Measured 99% Bandwidth: 61.323 MHz



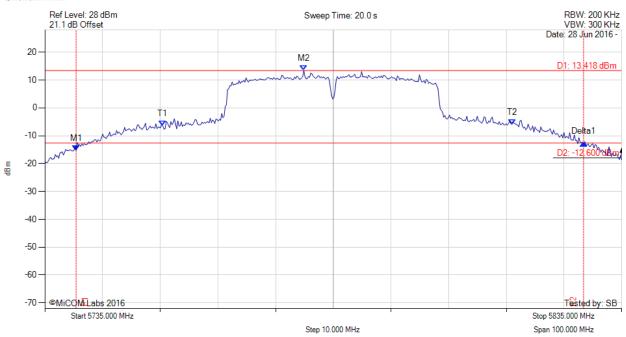
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 74 of 155

### 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
		Measured 26 dB Bandwidth: 87.976 MHz Measured 99% Bandwidth: 60.521 MHz



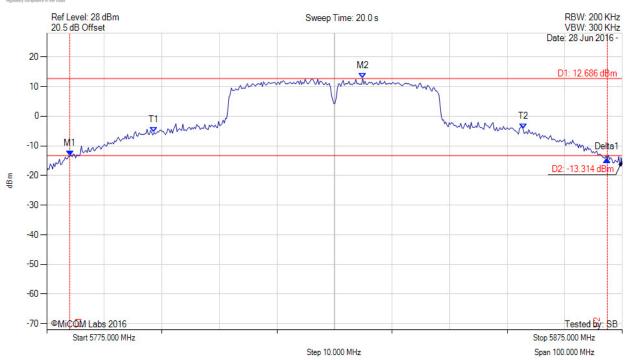
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 75 of 155

### 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5779.008 MHz : -13.452 dBm M2 : 5829.910 MHz : 12.686 dBm Delta1 : 93.387 MHz : -1.129 dB T1 : 5793.637 MHz : -5.447 dBm T2 : 5857.766 MHz : -4.263 dBm OBW : 64.128 MHz	Measured 26 dB Bandwidth: 93.387 MHz Measured 99% Bandwidth: 64.128 MHz

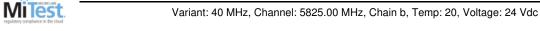


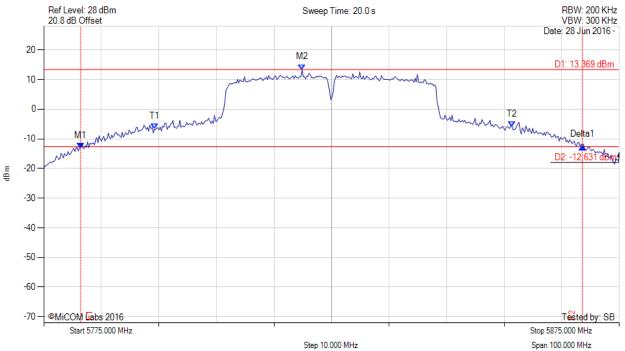
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 76 of 155

### 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
		Measured 26 dB Bandwidth: 87.174 MHz Measured 99% Bandwidth: 62.124 MHz



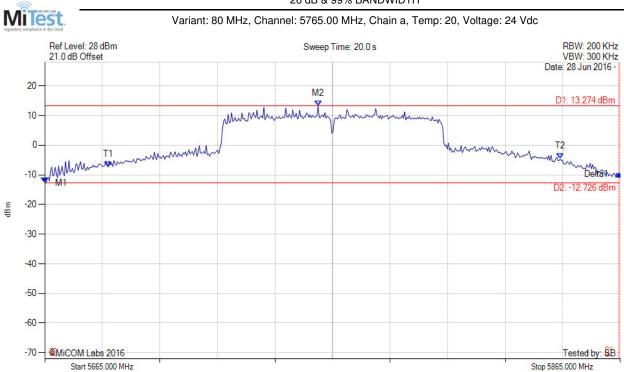
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Span 200.000 MHz

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 77 of 155

### 26 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
		Measured 26 dB Bandwidth: 199.599 MHz Measured 99% Bandwidth: 157.114 MHz

Step 20.000 MHz



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

Stop 5865.000 MHz

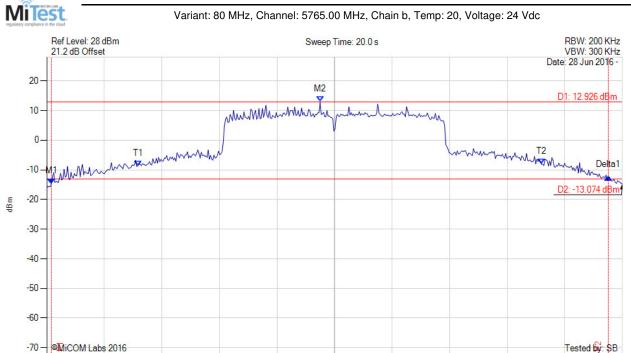
Span 200.000 MHz

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13<sup>th</sup> July 2016

Page: 78 of 155

### 26 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5666.603 MHz : -14.680 dBm M2 : 5759.990 MHz : 12.926 dBm Delta1 : 193.587 MHz : 2.123 dB T1 : 5696.663 MHz : -8.634 dBm T2 : 5836.944 MHz : -8.103 dBm OBW : 140.281 MHz	Measured 26 dB Bandwidth: 193.587 MHz Measured 99% Bandwidth: 140.281 MHz

Step 20.000 MHz

back to matrix

Start 5665.000 MHz

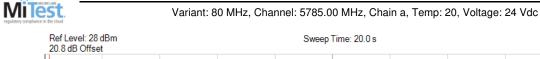


To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13th July 2016 **Page:** 79 of 155

### 26 dB & 99% BANDWIDTH





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD		Measured 26 dB Bandwidth: 197.996 MHz Measured 99% Bandwidth: 150.301 MHz



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

Tested by SB

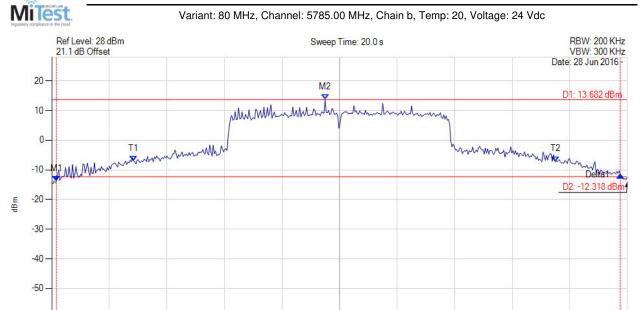
Stop 5885.000 MHz

Span 200.000 MHz

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13<sup>th</sup> July 2016 Page: 80 of 155

### 26 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
	M1:5686.603 MHz:-13.769 dBm M2:5779.990 MHz:13.682 dBm Delta1:195.992 MHz:2.133 dB T1:5713.457 MHz:-7.025 dBm T2:5860.150 MHz:-7.194 dBm OBW:146.693 MHz	Measured 26 dB Bandwidth: 195.992 MHz Measured 99% Bandwidth: 146.693 MHz

Step 20.000 MHz

back to matrix

-60 -

-70 - MiCOM Labs 2016

Start 5685.000 MHz



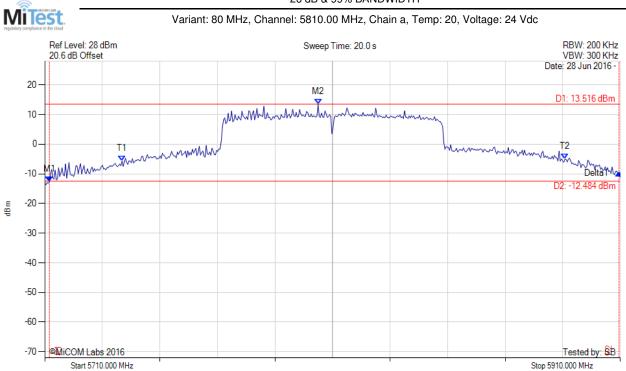
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Span 200.000 MHz

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 81 of 155

### 26 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
		Measured 26 dB Bandwidth: 197.996 MHz Measured 99% Bandwidth: 153.908 MHz

Step 20.000 MHz



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

Tested by: 8B

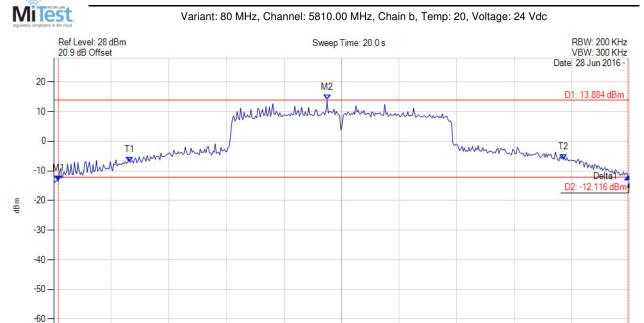
Stop 5910.000 MHz

Span 200.000 MHz

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 82 of 155

### 26 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20		Measured 26 dB Bandwidth: 197.996 MHz Measured 99% Bandwidth: 150.701 MHz

Step 20.000 MHz

back to matrix

-70 - MiCOM Labs 2016

Start 5710.000 MHz



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

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 83 of 155

# A.2. Power Spectral Density

## POWER SPECTRAL DENSITY MiTest Variant: 10 MHz, Channel: 5160.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc Ref Level: 28 dBm 20.1 dB Offset RBW: 1 MHz VBW: 3 MHz Sweep Time: 5 ms Date: 06 Jul 2016 -20 -M1 10 0--10 --20 --30 --40 --50 --60 -70 — @MiCOM Labs 2016 Tested by: SB Start 5147.500 MHz Stop 5172.500 MHz

Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5157.019 MHz:9.067 dBm	Limit: ≤ 13.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		

Step 2.500 MHz

Span 25.000 MHz



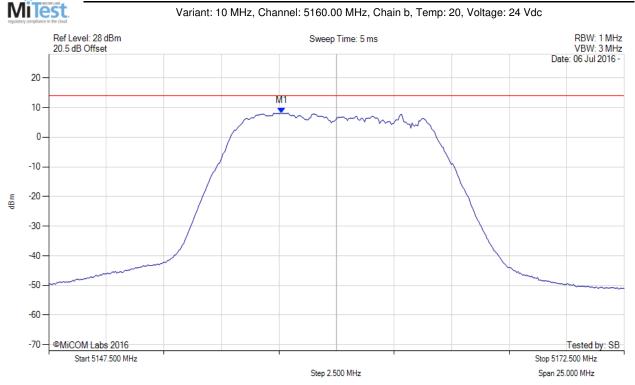
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13th July 2016 Page: 84 of 155

### POWER SPECTRAL DENSITY

Variant: 10 MHz, Channel: 5160.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5157.620 MHz:8.095 dBm	Limit: ≤ 13.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



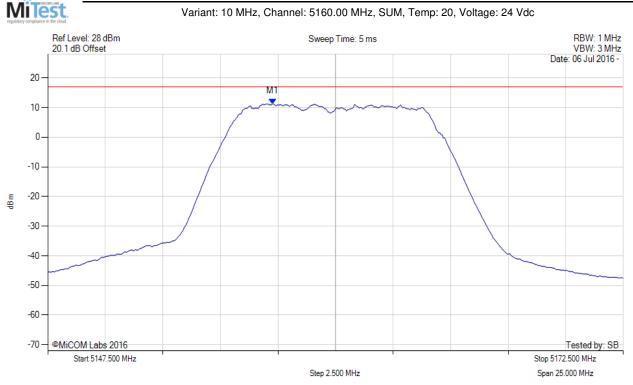
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13th July 2016 Page: 85 of 155

### POWER SPECTRAL DENSITY

Variant: 10 MHz, Channel: 5160.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5157.300 MHz:11.269 dBm	Limit: ≤ 17.0 dBm
Sweep Count = 100	M1 + DCCF : 5157.300 MHz : 11.343 dBm	Margin: -5.7 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.09 dB	
Trace Mode = VIEW		



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

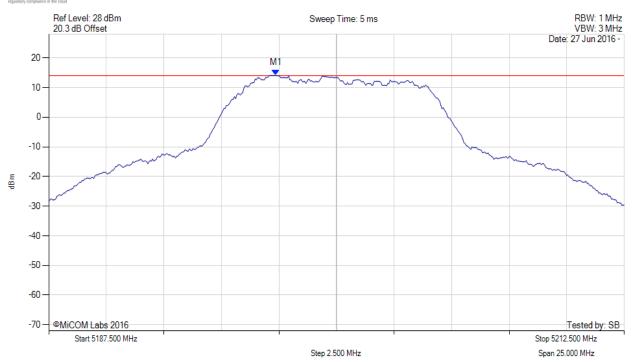
Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 86 of 155

### POWER SPECTRAL DENSITY

MiTest

Variant: 10 MHz, Channel: 5200.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5197.370 MHz:14.126 dBm	Limit: ≤ 13.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



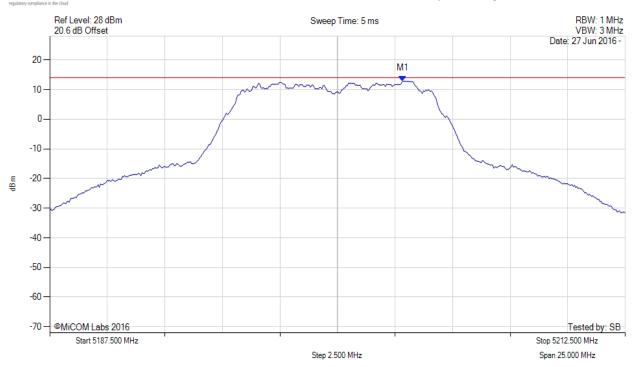
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 87 of 155

### POWER SPECTRAL DENSITY

Variant: 10 MHz, Channel: 5200.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1 : 5202.831 MHz : 12.891 dBm	Channel Frequency: 5200.00 MHz
Sweep Count = 100 RF Atten (dB) = 20		
Trace Mode = VIEW		



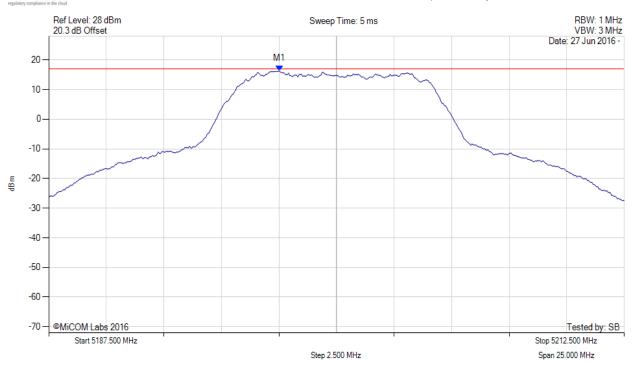
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 88 of 155

### POWER SPECTRAL DENSITY

Variant: 10 MHz, Channel: 5200.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5197.500 MHz:16.216 dBm	Limit: ≤ 17.0 dBm
Sweep Count = 100	M1 + DCCF : 5197.500 MHz : 16.290 dBm	Margin: -0.7 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.09 dB	
Trace Mode = VIEW		



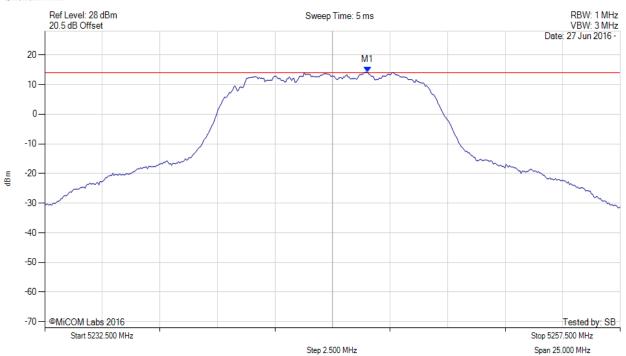
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 89 of 155

### POWER SPECTRAL DENSITY

Variant: 10 MHz, Channel: 5245.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5246.528 MHz:14.201 dBm	Limit: ≤ 13.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



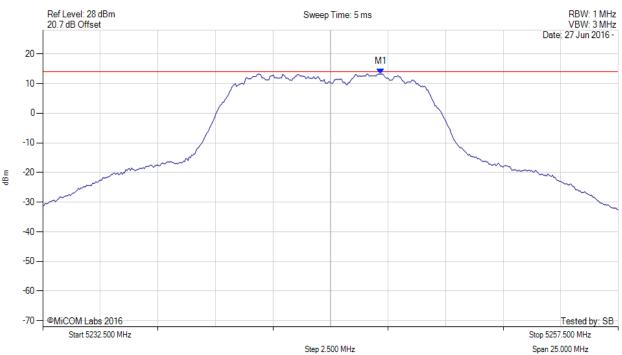
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 90 of 155

### POWER SPECTRAL DENSITY

Variant: 10 MHz, Channel: 5245.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5247.179 MHz:13.214 dBm	Limit: ≤ 13.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



MiTest

Title: Radwin Ltd. Outdoor Subscriber Radio Unit

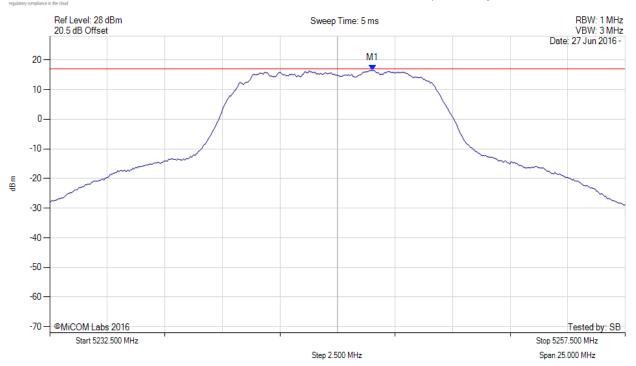
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13<sup>th</sup> July 2016 Page: 91 of 155

### POWER SPECTRAL DENSITY

Variant: 10 MHz, Channel: 5245.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5246.500 MHz: 16.449 dBm	Limit: ≤ 17.0 dBm
Sweep Count = 100	M1 + DCCF : 5246.500 MHz : 16.523 dBm	Margin: -0.5 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.09 dB	
Trace Mode = VIEW		



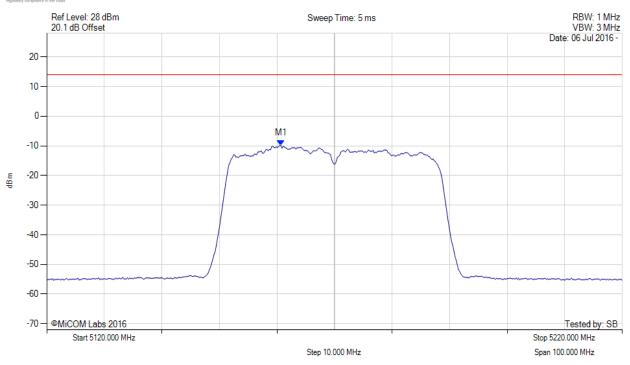
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 92 of 155

### POWER SPECTRAL DENSITY





Analyzer Setup	Marker:Frequency:Amplitude	Test Results	
Detector = RMS	M1:5160.681 MHz:-9.853 dBm	Limit: ≤ 13.990 dBm	
Sweep Count = 100			
RF Atten (dB) = 20			
Trace Mode = VIEW			



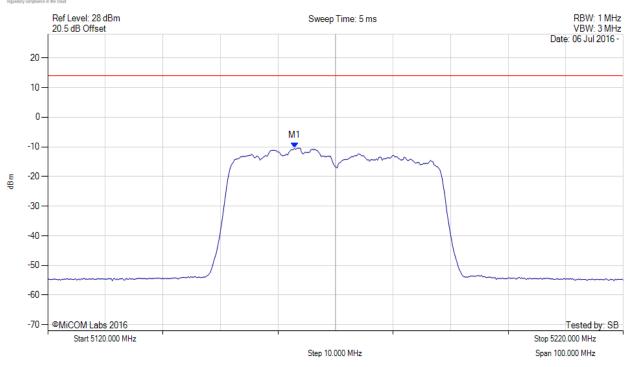
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 93 of 155

### POWER SPECTRAL DENSITY

Variant: 40 MHz, Channel: 5170.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5162.886 MHz:-10.418 dBm	Limit: ≤ 13.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		

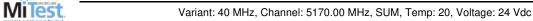


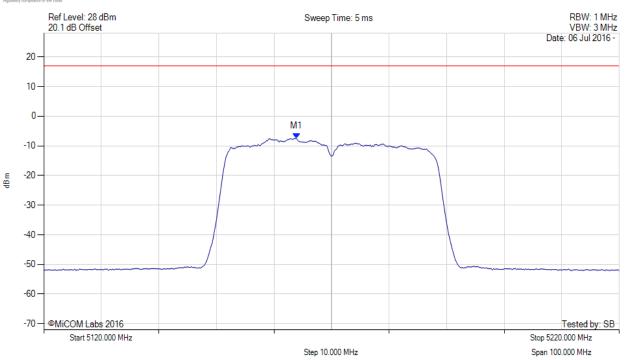
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 94 of 155

### POWER SPECTRAL DENSITY





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5163.900 MHz:-7.502 dBm	Limit: ≤ 17.0 dBm
Sweep Count = 100	M1 + DCCF : 5163.900 MHz : -7.325 dBm	Margin: -24.3 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.18 dB	
Trace Mode = VIEW		



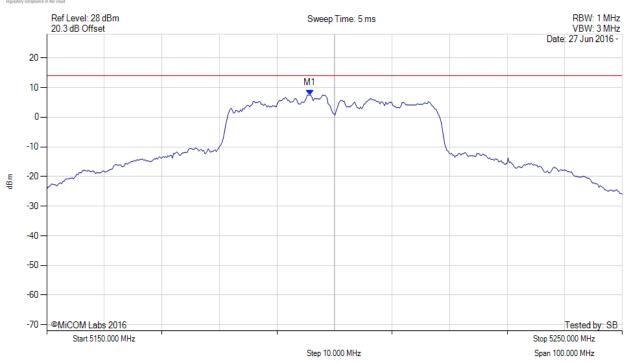
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 95 of 155

### POWER SPECTRAL DENSITY

Variant: 40 MHz, Channel: 5200.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5195.691 MHz:7.494 dBm	Limit: ≤ 13.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



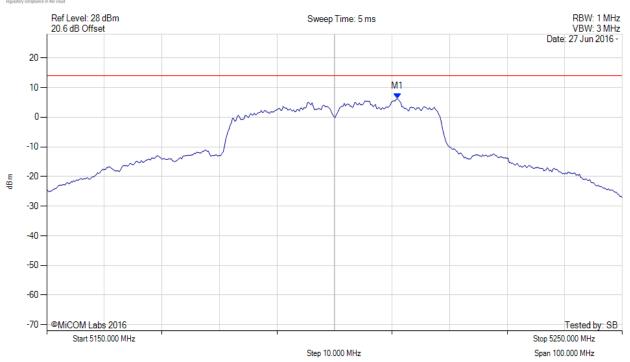
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 96 of 155

### POWER SPECTRAL DENSITY

Variant: 40 MHz, Channel: 5200.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1 : 5210.922 MHz : 6.250 dBm	Channel Frequency: 5200.00 MHz
Sweep Count = 100 RF Atten (dB) = 20		
Trace Mode = VIEW		



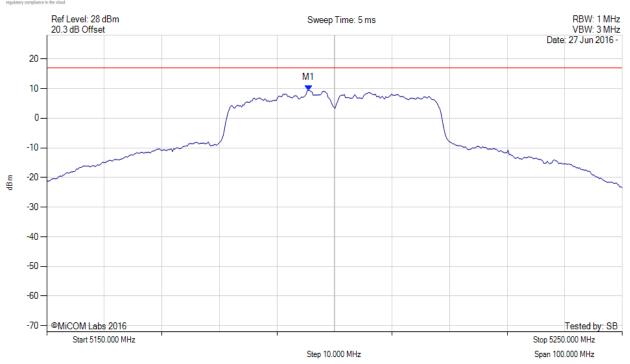
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 97 of 155

### POWER SPECTRAL DENSITY

Variant: 40 MHz, Channel: 5200.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5195.500 MHz: 9.399 dBm	Limit: ≤ 17.0 dBm
Sweep Count = 100	M1 + DCCF : 5195.500 MHz : 9.576 dBm	Margin: -7.4 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.18 dB	
Trace Mode = VIEW		



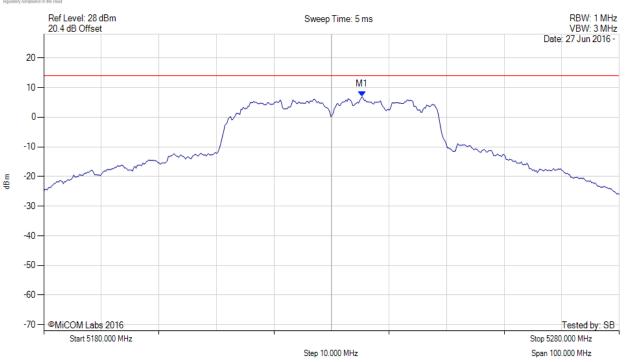
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 98 of 155

### POWER SPECTRAL DENSITY

Variant: 40 MHz, Channel: 5230.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5235.311 MHz:6.896 dBm	Limit: ≤ 13.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



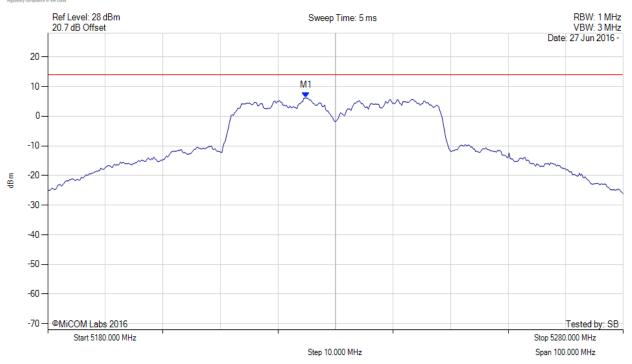
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 99 of 155

### POWER SPECTRAL DENSITY

Variant: 40 MHz, Channel: 5230.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5224.890 MHz: 6.165 dBm	Limit: ≤ 13.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



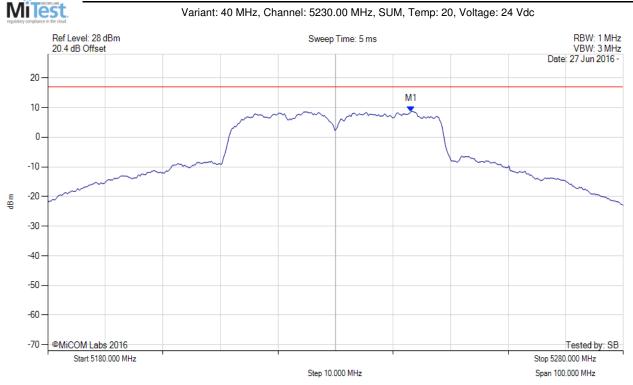
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13<sup>th</sup> July 2016 100 of 155 Page:

### POWER SPECTRAL DENSITY

Variant: 40 MHz, Channel: 5230.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5243.100 MHz:8.678 dBm	Limit: ≤ 17.0 dBm
Sweep Count = 100	M1 + DCCF : 5243.100 MHz : 8.855 dBm	Margin: -8.2 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.18 dB	
Trace Mode = VIEW		



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

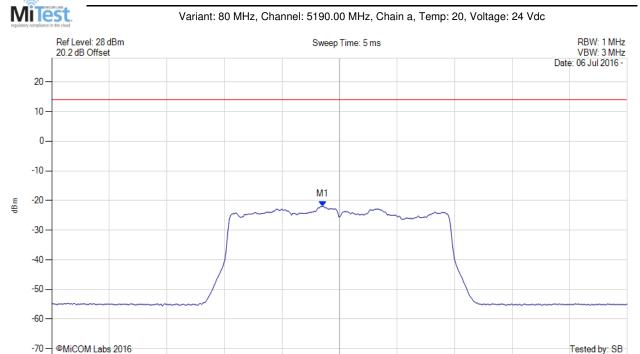
Stop 5290.000 MHz

Span 200.000 MHz

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 101 of 155

### POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5184.188 MHz:-21.984 dBm	Limit: ≤ 13.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		

Step 20.000 MHz

back to matrix

Start 5090.000 MHz



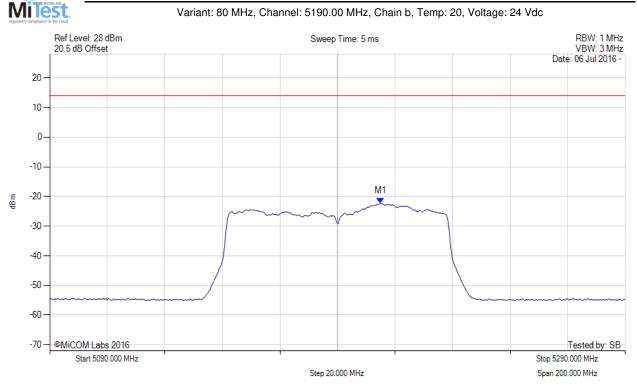
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13<sup>th</sup> July 2016 102 of 155 Page:

### POWER SPECTRAL DENSITY

Variant: 80 MHz, Channel: 5190.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results	
Detector = RMS	M1:5205.030 MHz:-22.345 dBm	Limit: ≤ 13.990 dBm	
Sweep Count = 100			
RF Atten (dB) = 20			
Trace Mode = VIEW			



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

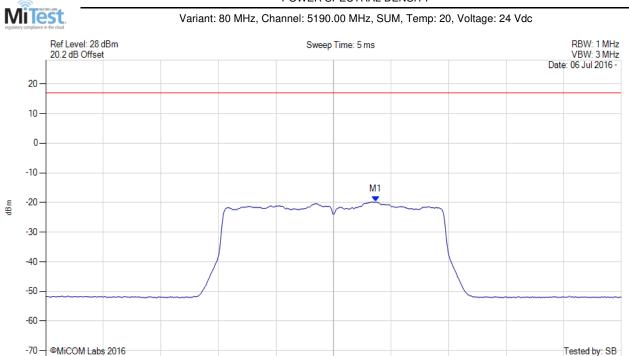
Stop 5290.000 MHz

Span 200.000 MHz

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 103 of 155

### POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5204.600 MHz:-19.777 dBm	Limit: ≤ 17.0 dBm
Sweep Count = 100	M1 + DCCF : 5204.600 MHz : -18.915 dBm	Margin: -35.9 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.86 dB	
Trace Mode = VIEW		

Step 20.000 MHz

back to matrix

Start 5090.000 MHz



MiTest

Title: Radwin Ltd. Outdoor Subscriber Radio Unit

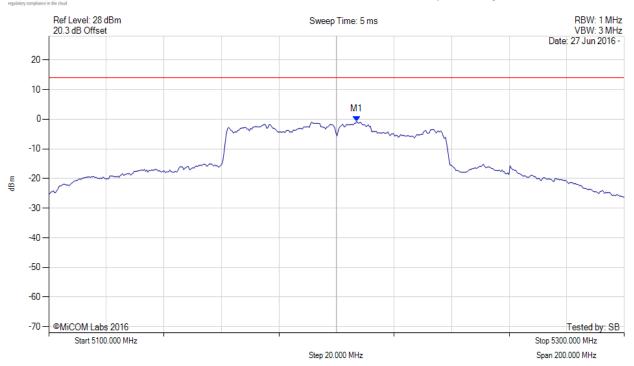
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 104 of 155

### POWER SPECTRAL DENSITY

Variant: 80 MHz, Channel: 5200.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5207.014 MHz:-0.699 dBm	Limit: ≤ 13.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



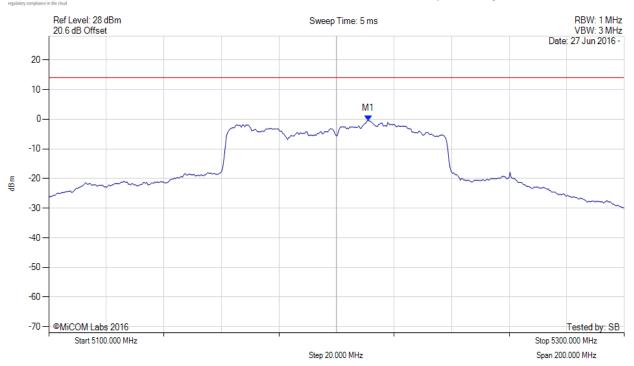
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 105 of 155

### POWER SPECTRAL DENSITY

Variant: 80 MHz, Channel: 5200.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1 : 5211.022 MHz : -0.477 dBm	Channel Frequency: 5200.00 MHz
Sweep Count = 100 RF Atten (dB) = 20		
Trace Mode = VIEW		



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

Tested by: SB

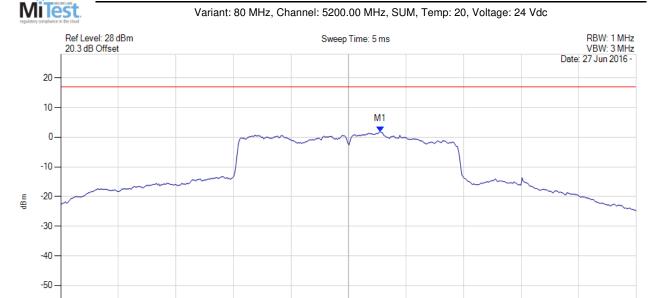
Stop 5300.000 MHz

Span 200.000 MHz

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 106 of 155

### POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
	M1 : 5211.000 MHz : 1.899 dBm M1 + DCCF : 5211.000 MHz : 2.761 dBm	Limit: ≤ 17.0 dBm Margin: -14.2 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.86 dB	Margin14.2 db
Trace Mode = VIEW		

Step 20.000 MHz

back to matrix

-60 -

-70 — @MiCOM Labs 2016

Start 5100.000 MHz



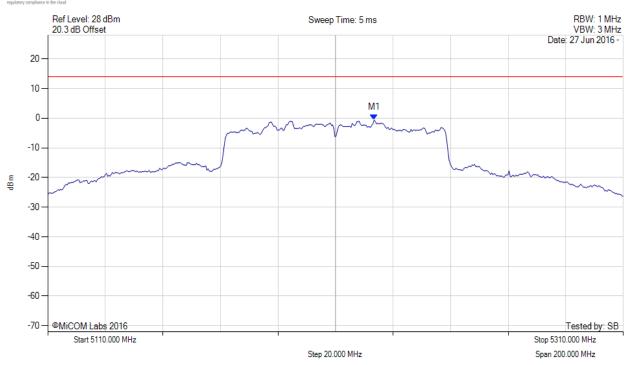
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 107 of 155

### POWER SPECTRAL DENSITY

Variant: 80 MHz, Channel: 5210.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5223.427 MHz:-0.582 dBm	Limit: ≤ 13.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



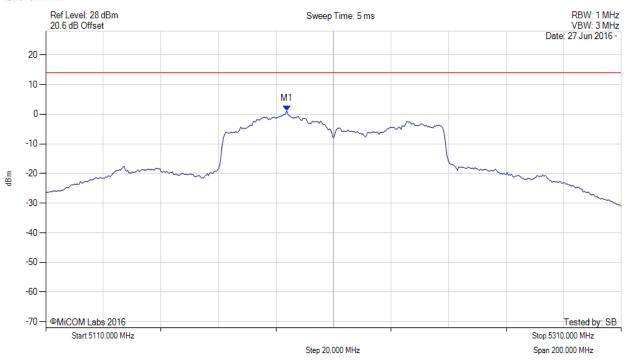
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 108 of 155

### POWER SPECTRAL DENSITY

Variant: 80 MHz, Channel: 5210.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results	
Detector = RMS	M1:5193.768 MHz:1.134 dBm	Limit: ≤ 13.990 dBm	
Sweep Count = 100			
RF Atten (dB) = 20			
Trace Mode = VIEW			



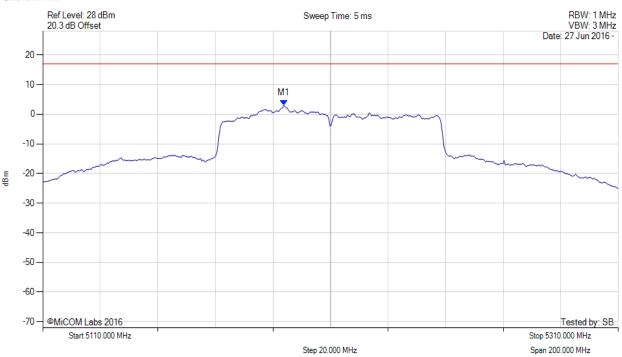
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 109 of 155

## POWER SPECTRAL DENSITY

Variant: 80 MHz, Channel: 5210.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5193.800 MHz:3.061 dBm	Limit: ≤ 17.0 dBm
Sweep Count = 100	M1 + DCCF : 5193.800 MHz : 3.923 dBm	Margin: -13.1 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.86 dB	
Trace Mode = VIEW		



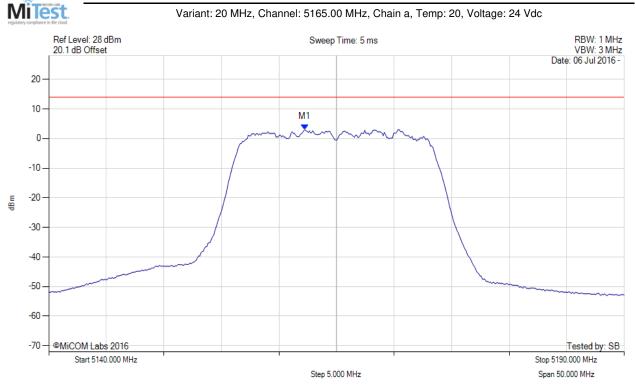
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13th July 2016 Page: 110 of 155

#### POWER SPECTRAL DENSITY

Variant: 20 MHz, Channel: 5165.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20	M1 : 5162.244 MHz : 3.074 dBm	Limit: ≤ 13.990 dBm
Trace Mode = VIEW		



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

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13th July 2016 111 of 155 Page:

## POWER SPECTRAL DENSITY

Variant: 20 MHz, Channel: 5165.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5166.954 MHz:2.227 dBm	Limit: ≤ 13.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



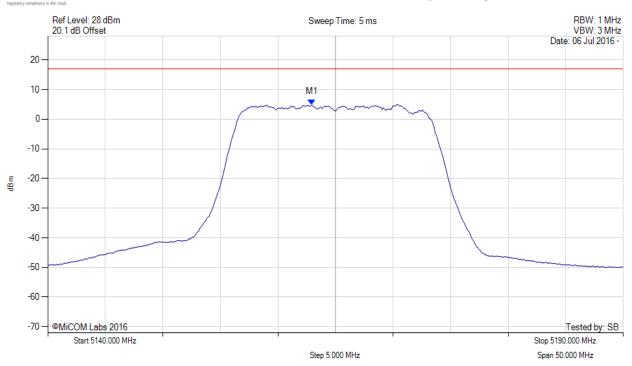
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 112 of 155

## POWER SPECTRAL DENSITY

Variant: 20 MHz, Channel: 5165.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5162.900 MHz:4.947 dBm	Limit: ≤ 17.0 dBm
Sweep Count = 100	M1 + DCCF : 5162.900 MHz : 5.021 dBm	Margin: -12.0 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.09 dB	
Trace Mode = VIEW		



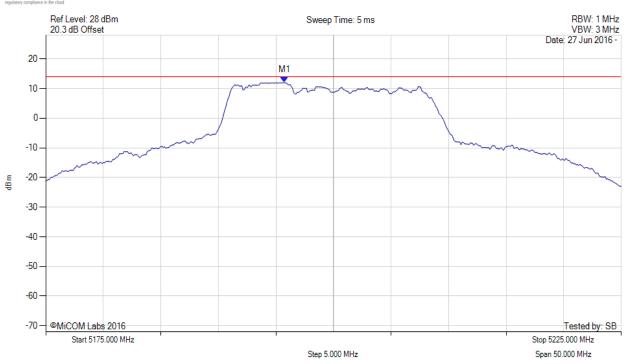
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 113 of 155

## POWER SPECTRAL DENSITY

Variant: 20 MHz, Channel: 5200.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results	
Detector = RMS	M1:5195.741 MHz:12.021 dBm	Limit: ≤ 13.990 dBm	
Sweep Count = 100			
RF Atten (dB) = 20			
Trace Mode = VIEW			



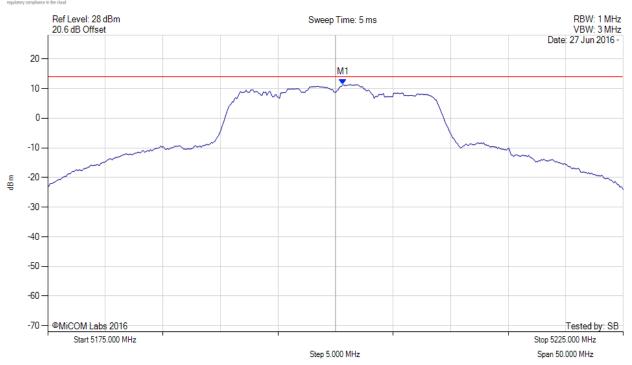
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 114 of 155

## POWER SPECTRAL DENSITY

Variant: 20 MHz, Channel: 5200.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100	M1 : 5200.651 MHz : 11.432 dBm	Channel Frequency: 5200.00 MHz
RF Atten (dB) = 20		
Trace Mode = VIEW		



MiTest

Title: Radwin Ltd. Outdoor Subscriber Radio Unit

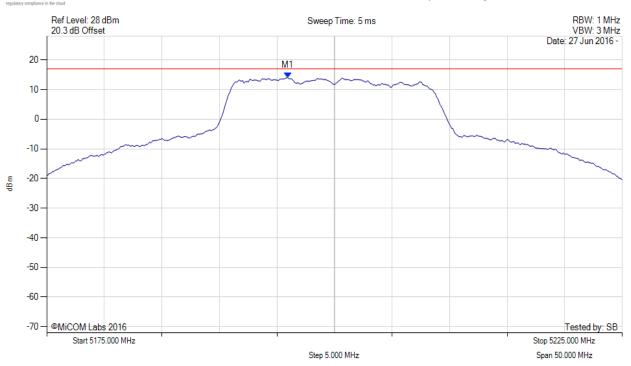
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 115 of 155

## POWER SPECTRAL DENSITY

Variant: 20 MHz, Channel: 5200.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5195.900 MHz: 13.991 dBm	Limit: ≤ 17.0 dBm
Sweep Count = 100	M1 + DCCF : 5195.900 MHz : 14.065 dBm	Margin: -2.9 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.09 dB	
Trace Mode = VIEW		



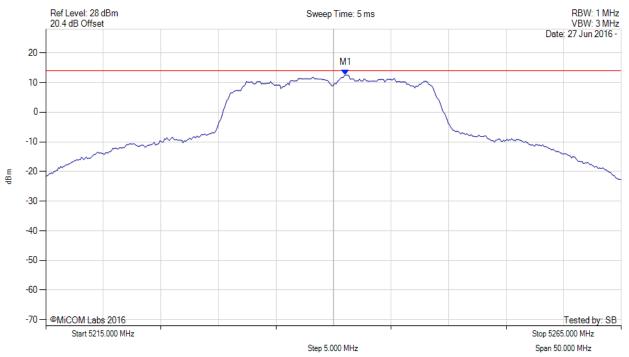
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 116 of 155

## POWER SPECTRAL DENSITY

Variant: 20 MHz, Channel: 5240.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5241.052 MHz: 12.584 dBm	Limit: ≤ 13.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



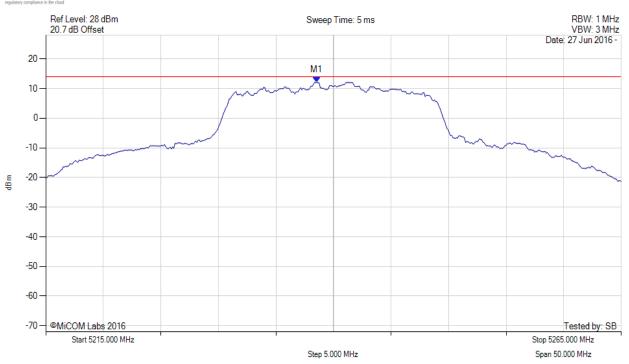
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 117 of 155

## POWER SPECTRAL DENSITY

Variant: 20 MHz, Channel: 5240.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results	
Detector = RMS	M1:5238.547 MHz:12.130 dBm	Limit: ≤ 13.990 dBm	
Sweep Count = 100			
RF Atten (dB) = 20			
Trace Mode = VIEW			

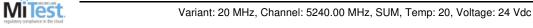


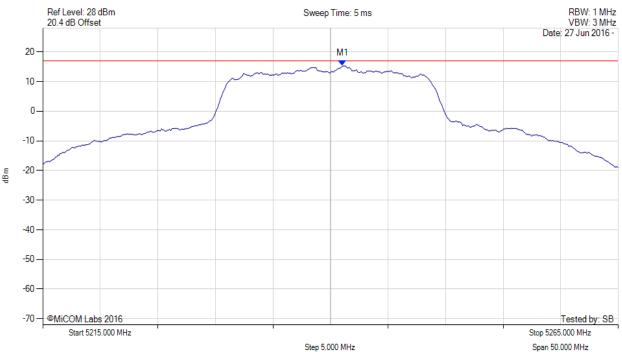
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 118 of 155

## POWER SPECTRAL DENSITY





Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5241.100 MHz:15.291 dBm	Limit: ≤ 17.0 dBm
Sweep Count = 100	M1 + DCCF : 5241.100 MHz : 15.365 dBm	Margin: -1.6 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.09 dB	_
Trace Mode = VIEW		



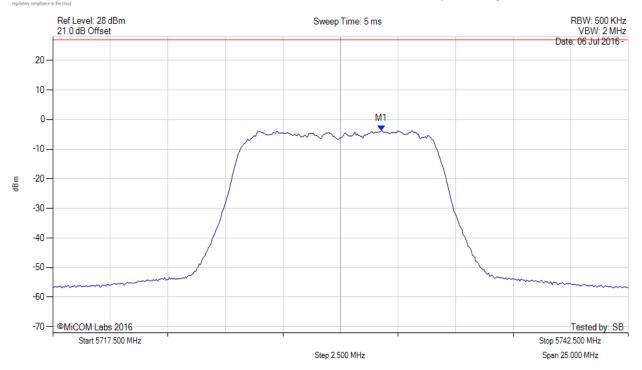
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13th July 2016 Page: 119 of 155

# POWER SPECTRAL DENSITY MiTest

Variant: 10 MHz, Channel: 5730.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5731.779 MHz:-3.763 dBm	Limit: ≤ 26.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



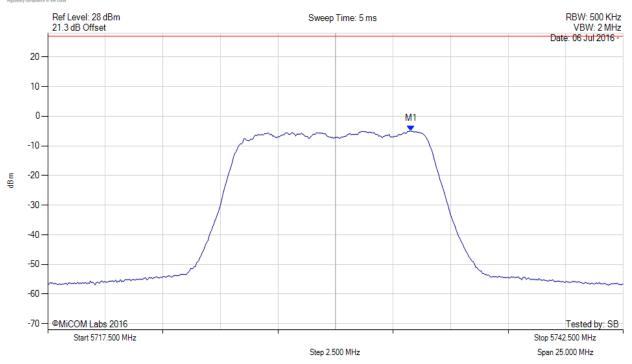
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 120 of 155

## POWER SPECTRAL DENSITY

Variant: 10 MHz, Channel: 5730.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5733.282 MHz: -5.029 dBm	Limit: ≤ 26.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



MiTest

Title: Radwin Ltd. Outdoor Subscriber Radio Unit

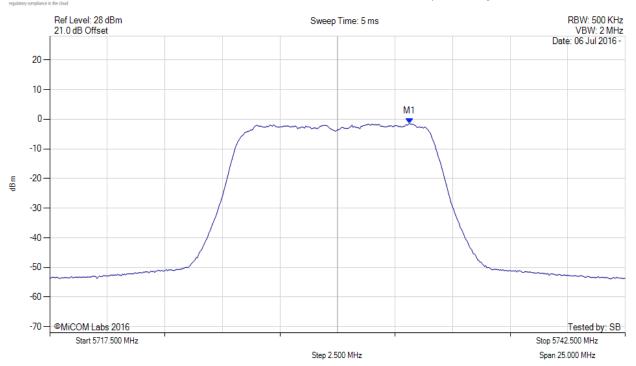
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 121 of 155

## POWER SPECTRAL DENSITY

Variant: 10 MHz, Channel: 5730.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5733.100 MHz:-1.437 dBm	Limit: ≤ 30.0 dBm
Sweep Count = 100	M1 + DCCF: 5733.100 MHz: -1.363 dBm	Margin: -31.4 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.09 dB	
Trace Mode = VIEW		



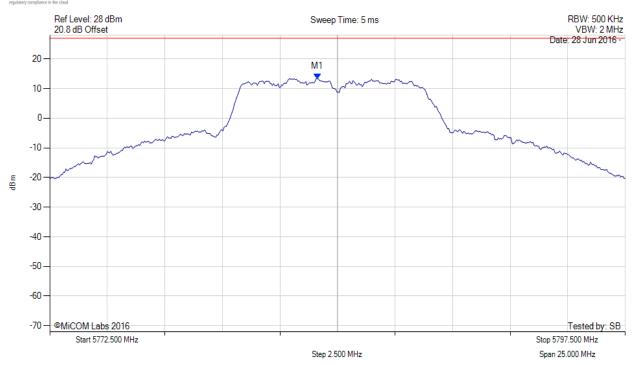
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 122 of 155

## POWER SPECTRAL DENSITY

Variant: 10 MHz, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5784.123 MHz: 13.326 dBm	Limit: ≤ 26.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



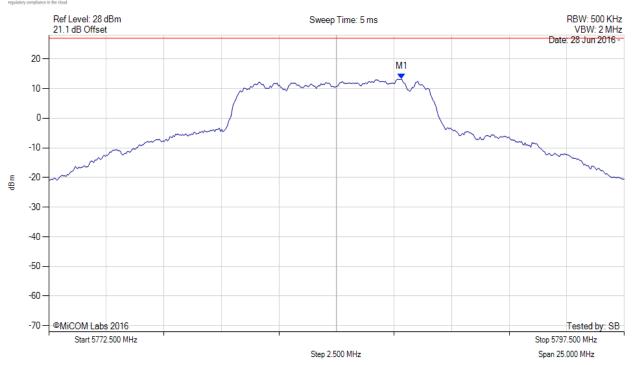
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 123 of 155

# POWER SPECTRAL DENSITY

Variant: 10 MHz, Channel: 5785.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5787.831 MHz:13.244 dBm	Channel Frequency: 5785.00 MHz
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



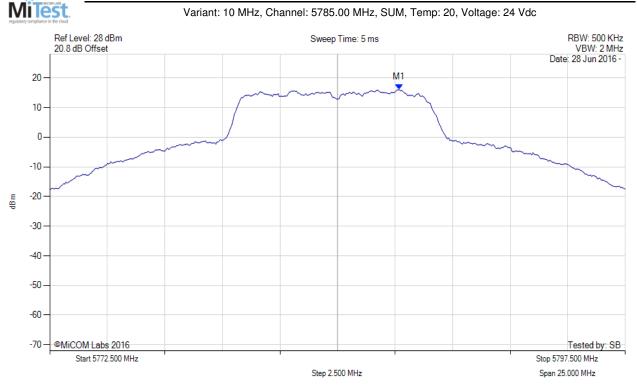
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13th July 2016 Page: 124 of 155

## POWER SPECTRAL DENSITY

Variant: 10 MHz, Channel: 5785.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5787.700 MHz:16.078 dBm	Limit: ≤ 30.0 dBm
Sweep Count = 100	M1 + DCCF : 5787.700 MHz : 16.152 dBm	Margin: -13.9 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.09 dB	
Trace Mode = VIEW		



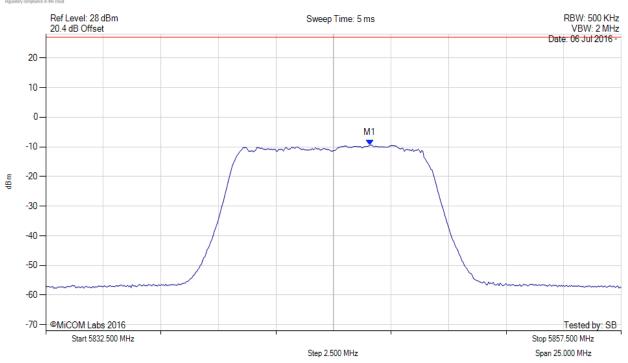
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 125 of 155

## POWER SPECTRAL DENSITY

Variant: 10 MHz, Channel: 5845.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5846.578 MHz:-9.336 dBm	Limit: ≤ 26.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



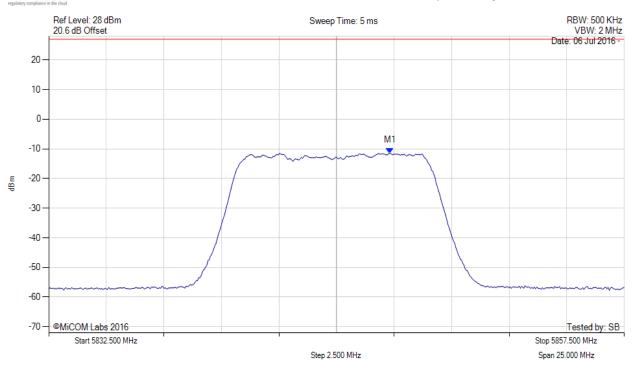
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 126 of 155

## POWER SPECTRAL DENSITY

Variant: 10 MHz, Channel: 5845.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5847.330 MHz:-11.412 dBm	Limit: ≤ 26.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



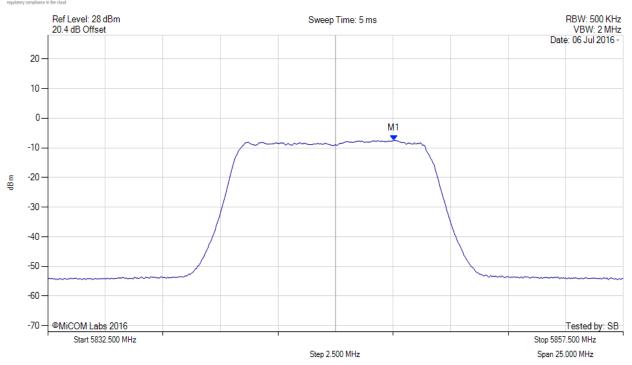
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 127 of 155

## POWER SPECTRAL DENSITY

Variant: 10 MHz, Channel: 5845.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5847.500 MHz:-7.490 dBm	Limit: ≤ 30.0 dBm
Sweep Count = 100	M1 + DCCF : 5847.500 MHz : -7.416 dBm	Margin: -37.4 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.09 dB	
Trace Mode = VIEW		



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

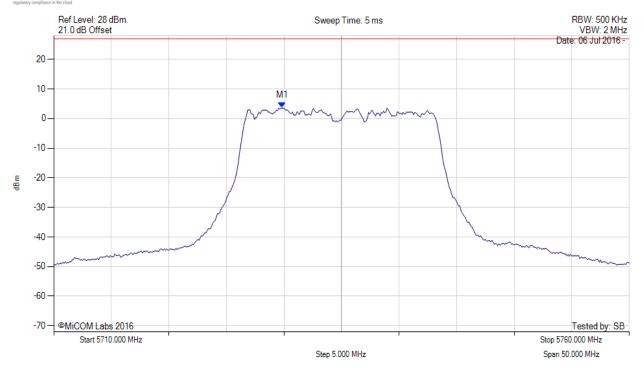
Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 128 of 155

# MiTest.

#### POWER SPECTRAL DENSITY

Variant: 20 MHz, Channel: 5735.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5729.840 MHz: 3.597 dBm	Limit: ≤ 26.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



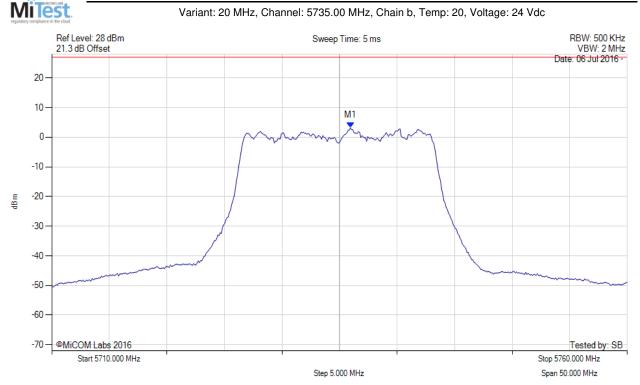
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13<sup>th</sup> July 2016 129 of 155 Page:

## POWER SPECTRAL DENSITY

Variant: 20 MHz, Channel: 5735.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5735.952 MHz: 3.155 dBm	Limit: ≤ 26.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



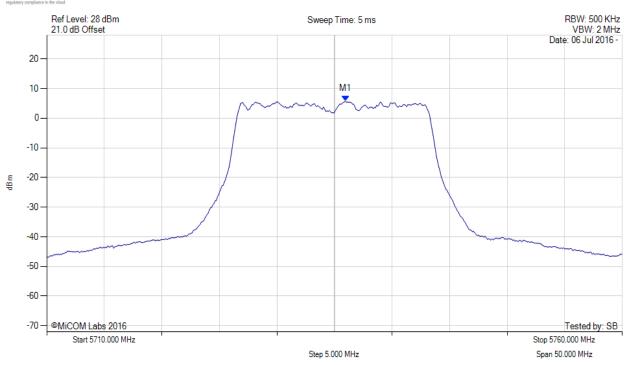
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 130 of 155

## POWER SPECTRAL DENSITY

Variant: 20 MHz, Channel: 5735.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5736.000 MHz:5.797 dBm	Limit: ≤ 30.0 dBm
Sweep Count = 100	M1 + DCCF : 5736.000 MHz : 5.871 dBm	Margin: -24.1 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.09 dB	
Trace Mode = VIEW		



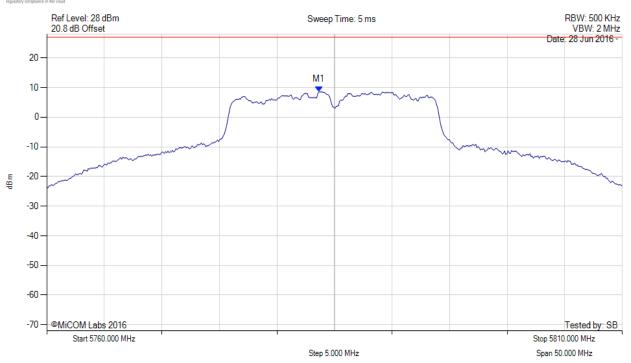
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 131 of 155

## POWER SPECTRAL DENSITY

Variant: 20 MHz, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5783.647 MHz:8.653 dBm	Limit: ≤ 26.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



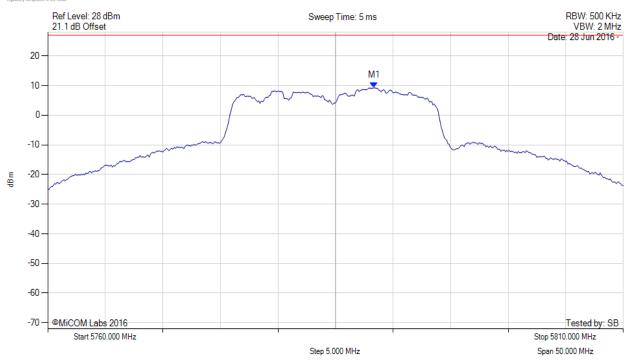
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 132 of 155

## POWER SPECTRAL DENSITY

Variant: 20 MHz, Channel: 5785.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5788.357 MHz:9.241 dBm	Channel Frequency: 5785.00 MHz
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



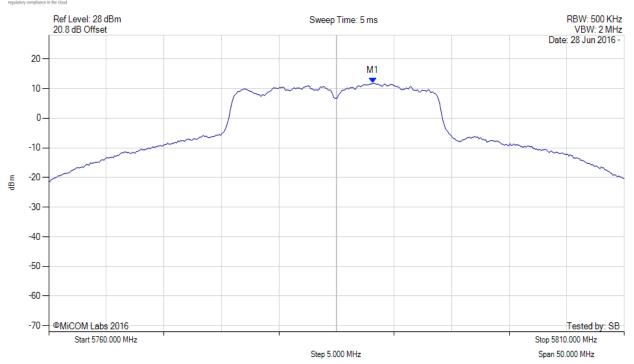
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 133 of 155

## POWER SPECTRAL DENSITY

Variant: 20 MHz, Channel: 5785.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5788.200 MHz:11.749 dBm	Limit: ≤ 30.0 dBm
Sweep Count = 100	M1 + DCCF : 5788.200 MHz : 11.823 dBm	Margin: -18.2 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.09 dB	
Trace Mode = VIEW		



MiTest

Title: Radwin Ltd. Outdoor Subscriber Radio Unit

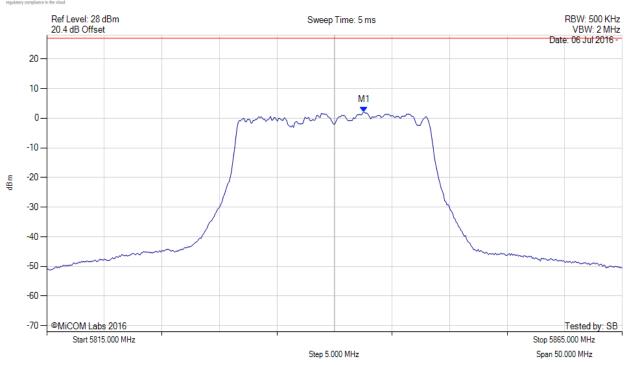
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 134 of 155

## POWER SPECTRAL DENSITY

Variant: 20 MHz, Channel: 5840.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5842.555 MHz:2.125 dBm	Limit: ≤ 26.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



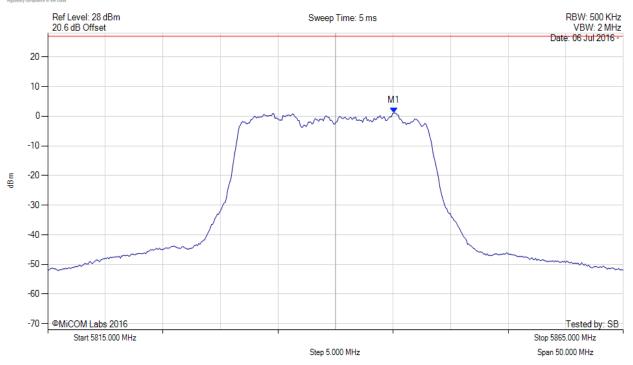
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 135 of 155

## POWER SPECTRAL DENSITY

Variant: 20 MHz, Channel: 5840.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results	
Detector = RMS	M1:5845.060 MHz:1.101 dBm	Limit: ≤ 26.990 dBm	
Sweep Count = 100			
RF Atten (dB) = 20			
Trace Mode = VIEW			



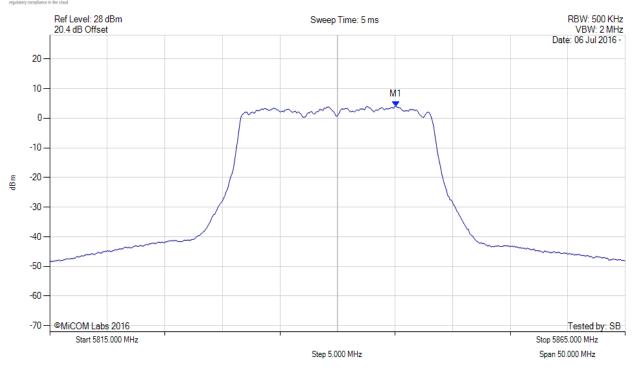
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 136 of 155

## POWER SPECTRAL DENSITY

Variant: 20 MHz, Channel: 5840.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5845.100 MHz:3.990 dBm	Limit: ≤ 30.0 dBm
Sweep Count = 100	M1 + DCCF : 5845.100 MHz : 4.064 dBm	Margin: -25.9 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.09 dB	
Trace Mode = VIEW		



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

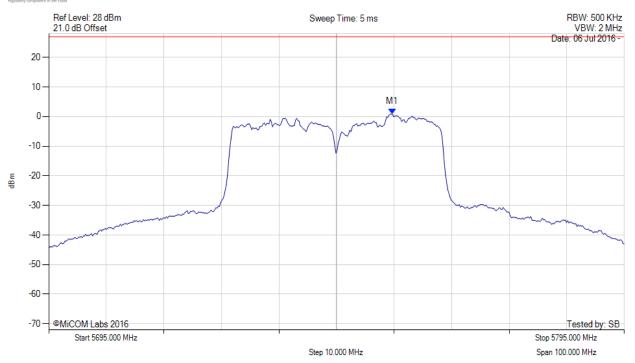
Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 137 of 155

#### POWER SPECTRAL DENSITY

MiTest.

Variant: 40 MHz, Channel: 5745.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5754.719 MHz:0.873 dBm	Limit: ≤ 26.990 dBm
Sweep Count = 100 RF Atten (dB) = 20		
Trace Mode = VIEW		



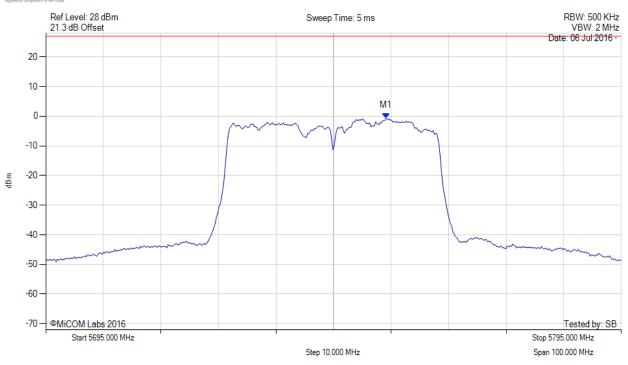
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 138 of 155

## POWER SPECTRAL DENSITY

Variant: 40 MHz, Channel: 5745.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5754.118 MHz: -0.659 dBm	Limit: ≤ 26.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



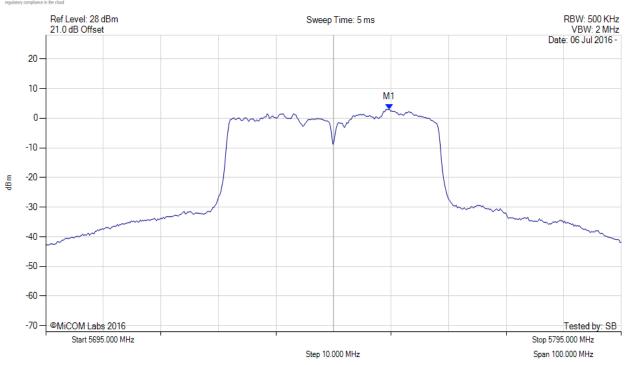
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 139 of 155

## POWER SPECTRAL DENSITY

Variant: 40 MHz, Channel: 5745.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5754.700 MHz:3.009 dBm	Limit: ≤ 30.0 dBm
Sweep Count = 100	M1 + DCCF : 5754.700 MHz : 3.186 dBm	Margin: -26.8 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.18 dB	
Trace Mode = VIEW	, ,	



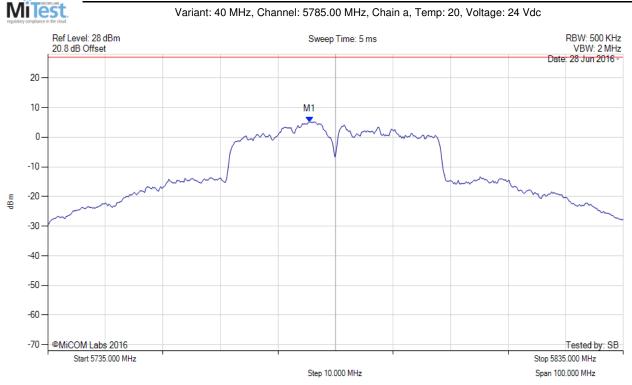
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13<sup>th</sup> July 2016 140 of 155 Page:

## POWER SPECTRAL DENSITY

Variant: 40 MHz, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1: 5780.491 MHz: 5.179 dBm	Limit: ≤ 26.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



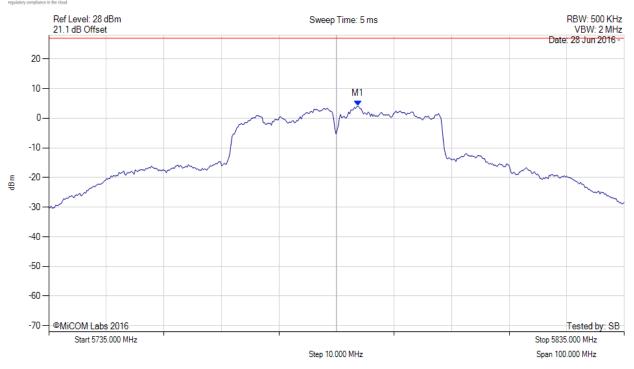
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13th July 2016 Page: 141 of 155

# POWER SPECTRAL DENSITY MiTest

Variant: 40 MHz, Channel: 5785.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5788.707 MHz:4.103 dBm	Channel Frequency: 5785.00 MHz
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



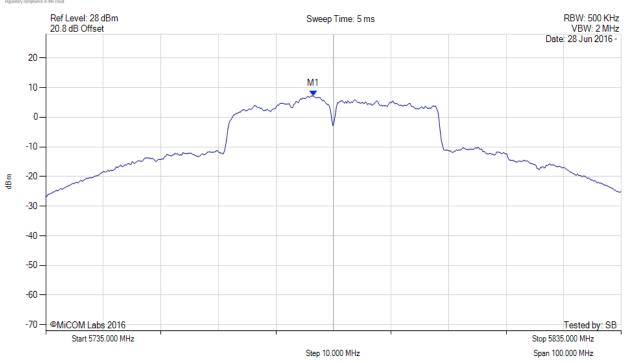
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 142 of 155

## POWER SPECTRAL DENSITY

Variant: 40 MHz, Channel: 5785.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5781.500 MHz:7.168 dBm	Limit: ≤ 30.0 dBm
Sweep Count = 100	M1 + DCCF : 5781.500 MHz : 7.242 dBm	Margin: -22.8 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.18 dB	
Trace Mode = VIEW		



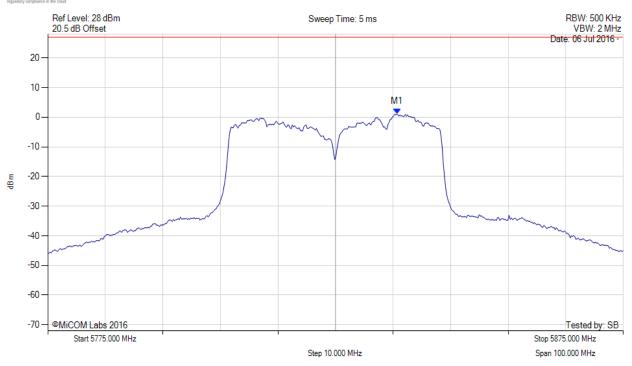
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 143 of 155

## POWER SPECTRAL DENSITY

Variant: 40 MHz, Channel: 5825.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5835.721 MHz:1.097 dBm	Limit: ≤ 26.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



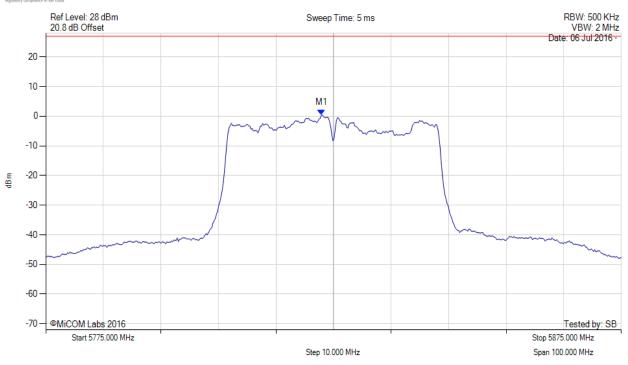
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 144 of 155

## POWER SPECTRAL DENSITY

Variant: 40 MHz, Channel: 5825.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results	
Detector = RMS	M1:5822.896 MHz:0.451 dBm	Limit: ≤ 26.990 dBm	
Sweep Count = 100			
RF Atten (dB) = 20			
Trace Mode = VIEW			



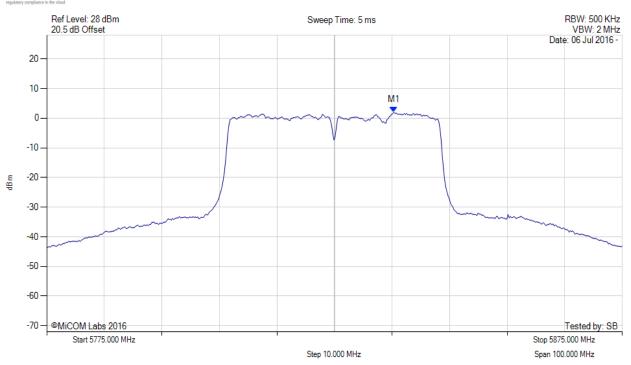
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 145 of 155

## POWER SPECTRAL DENSITY

Variant: 40 MHz, Channel: 5825.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5835.300 MHz:2.019 dBm	Limit: ≤ 30.0 dBm
Sweep Count = 100	M1 + DCCF : 5835.300 MHz : 2.196 dBm	Margin: -27.8 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.18 dB	
Trace Mode = VIEW	, ,	



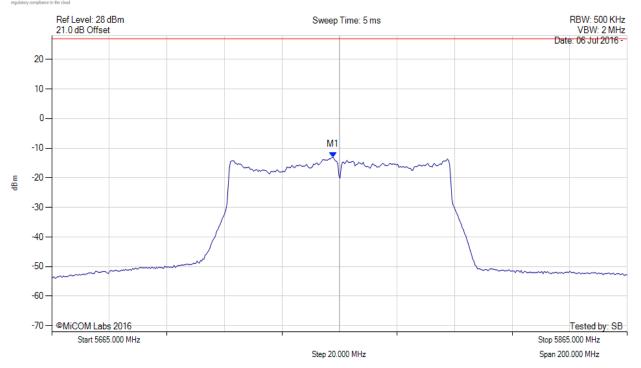
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13<sup>th</sup> July 2016
Page: 146 of 155

#### POWER SPECTRAL DENSITY

Variant: 80 MHz, Channel: 5765.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 100	M1 : 5762.796 MHz : -13.048 dBm	Limit: ≤ 26.990 dBm
RF Atten (dB) = 20 Trace Mode = VIEW		



MiTest

Title: Radwin Ltd. Outdoor Subscriber Radio Unit

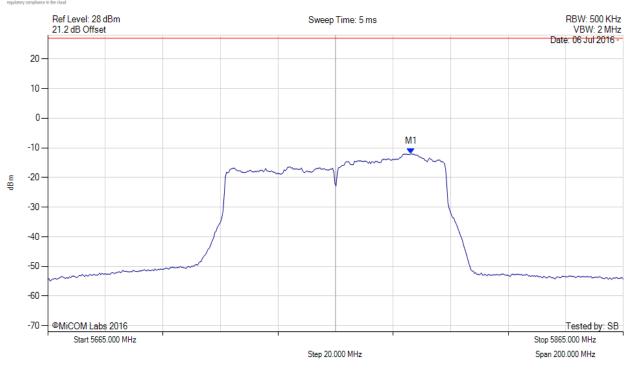
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 147 of 155

## POWER SPECTRAL DENSITY

Variant: 80 MHz, Channel: 5765.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5791.253 MHz:-11.892 dBm	Limit: ≤ 26.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



MiTest

Title: Radwin Ltd. Outdoor Subscriber Radio Unit

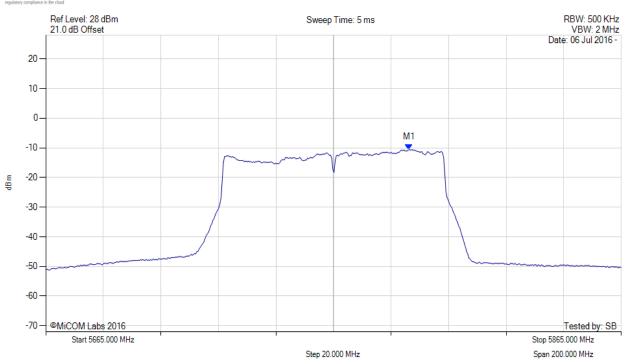
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 148 of 155

## POWER SPECTRAL DENSITY

Variant: 80 MHz, Channel: 5765.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5791.300 MHz:-10.516 dBm	Limit: ≤ 30.0 dBm
Sweep Count = 100	M1 + DCCF : 5791.300 MHz : -9.654 dBm	Margin: -39.7 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.86 dB	
Trace Mode = VIEW	, ,	



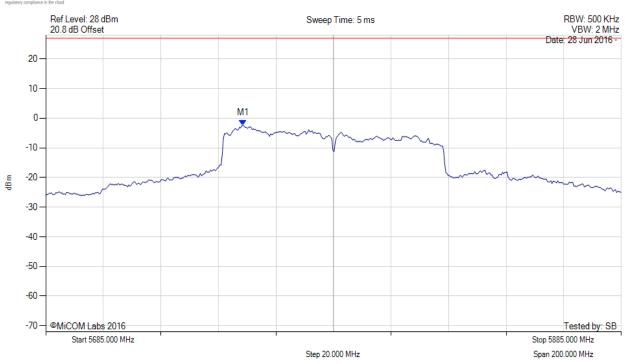
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 149 of 155

## POWER SPECTRAL DENSITY

Variant: 80 MHz, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5753.537 MHz:-2.387 dBm	Limit: ≤ 26.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



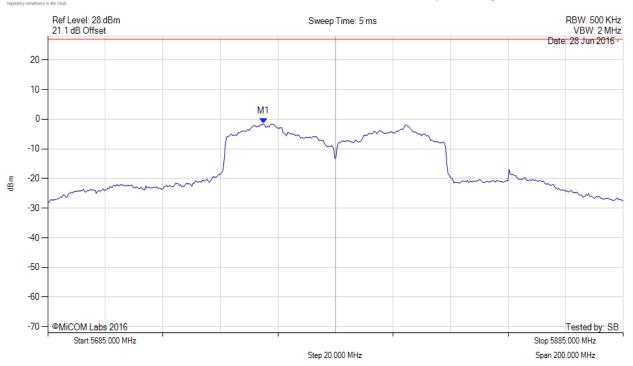
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 150 of 155

## POWER SPECTRAL DENSITY

Variant: 80 MHz, Channel: 5785.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1 : 5759.950 MHz : -1.550 dBm	Channel Frequency: 5785.00 MHz
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



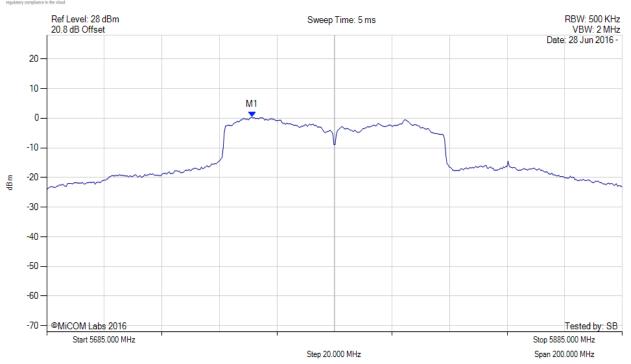
To: FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 151 of 155

## POWER SPECTRAL DENSITY

Variant: 80 MHz, Channel: 5785.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5756.300 MHz:0.359 dBm	Limit: ≤ 30.0 dBm
Sweep Count = 100	M1 + DCCF : 5756.300 MHz : 1.221 dBm	Margin: -28.8 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.86 dB	
Trace Mode = VIEW		



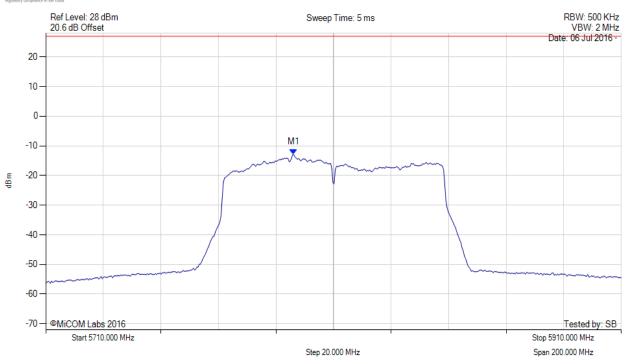
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 152 of 155

## POWER SPECTRAL DENSITY

Variant: 80 MHz, Channel: 5810.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5796.172 MHz:-12.958 dBm	Limit: ≤ 26.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



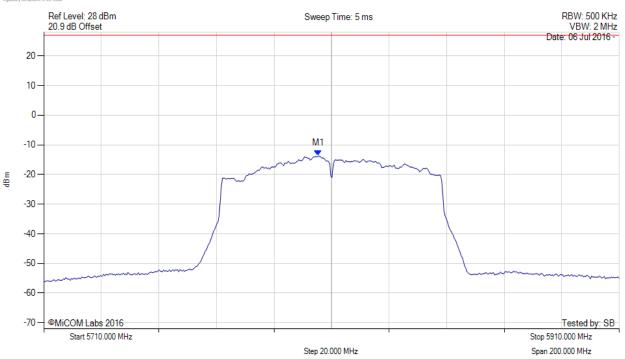
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

**Issue Date:** 13<sup>th</sup> July 2016 **Page:** 153 of 155

## POWER SPECTRAL DENSITY

Variant: 80 MHz, Channel: 5810.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
	M1:5805.391 MHz:-13.727 dBm	Limit: ≤ 26.990 dBm
Sweep Count = 100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



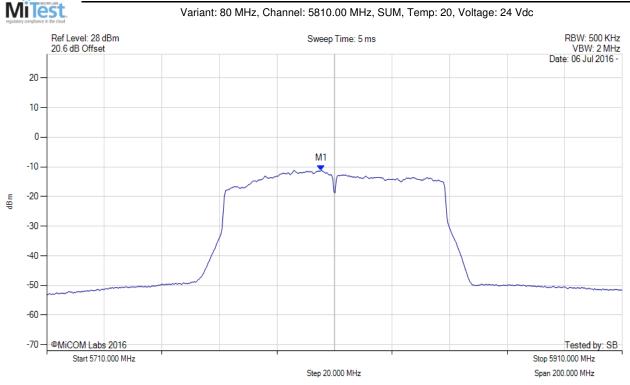
**To:** FCC CFR 47 Part 15 Subpart E 15.407(non-DFS Bands)

Serial #: RDWN41-U5\_Conducted Rev A

Issue Date: 13th July 2016 154 of 155 Page:

## POWER SPECTRAL DENSITY

Variant: 80 MHz, Channel: 5810.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS	M1:5805.400 MHz:-11.229 dBm	Limit: ≤ 30.0 dBm
Sweep Count = 100	M1 + DCCF : 5805.400 MHz : -10.367 dBm	Margin: -40.4 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0.86 dB	
Trace Mode = VIEW		



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