

**TEST REPORT ADDENDUM - RADIATED**

FROM



Test of: Radwin Ltd. Outdoor Subscriber Radio Unit

To: FCC 15.407 & RSS 247 (DFS Bands), RSS GEN,  
FCC Part 15B & ICES-003

Test Report Serial No.: RDWN41-U9\_Radiated Rev A

Issue Date: 8<sup>th</sup> November 2016

Master Document Number	Addendum Reports
RDWN41-U9_Master	RDWN41 – U9_Conducted
	RDWN41 – U9_Radiated
	RDWN41-U9_DFS
	RDWN41-U5_(FCC Part 15B & ICES-003)



**Title:** Radwin Ltd. Outdoor Subscriber Radio Unit  
**To:** FCC 15.407 & RSS 247 (DFS Bands), RSS GEN, FCC Part 15B & ICES-003  
**Serial #:** RDWN41-U9\_Radiated Rev A  
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## 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 [MiTest](#). [MiTest](#) is an automated test system developed by MiCOM Labs. [MiTest](#) is the first cloud based modular test system enabling end-to-end automation of regulatory compliance testing for conducted RF testing.



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

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## 2. TEST RESULTS

### 2.1. Radiated

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

#### Test Procedure for Radiated Spurious and Band-Edge Emissions

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

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

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

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
- (6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.
- (7) The provisions of §15.205 apply to intentional radiators operating under this section.
- (8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

#### Limits for Restricted Bands (15.205, 15.209)

**Peak emission: 74 dBuV/m**

**Average emission: 54 dBuV/m**

#### Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Loss, and subtracting Amplifier Gain from the measured reading. All factors are included in the reported data.

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$$FS = R + AF + CORR - FO$$

where:

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

**Example:**

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

$$E = 1000000 \times \sqrt{\frac{30P}{3}} \mu\text{V/m}$$

where P is the EIRP in Watts

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

Conversion between dBmV/m (or dBmV) and mV/m (or mV) are as follows:

$$\text{Level (dBmV/m)} = 20 * \text{Log (level (mV/m))}$$

40 dBmV/m = 100 mV/m

48 dBmV/m = 250 mV/m

**Restricted Bands of Operation (15.205)**

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

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

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12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

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

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

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

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

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

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

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

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

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

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

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

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

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

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### 2.1.1. Restricted Band Emissions

#### Equipment Configuration for Radiated Spurious - Restricted Band Emissions

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	10 MHz
<b>Antenna Gain (dBi):</b>	16.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5255.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	5.75	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	2232.99	48.78	2.65	-12.27	39.16	Max Peak	Vertical	174	221	74.0	-34.8	Pass
#2	2232.99	32.86	2.65	-12.27	23.24	Max Avg	Vertical	174	221	54.0	-30.8	Pass
#3	3216.02	56.10	2.99	-11.27	47.82	Peak (NRB)	Horizontal	101	187	--	--	Pass
#4	3499.93	53.89	3.11	-11.20	45.80	Peak (NRB)	Vertical	101	187	--	--	Pass
#5	4511.87	51.23	3.53	-11.56	43.20	Max Peak	Vertical	155	319	74.0	-30.8	Pass
#6	4511.87	36.72	3.53	-11.56	28.69	Max Avg	Vertical	155	319	54.0	-25.3	Pass
#7	5254.93	60.21	3.64	-11.32	52.53	Fundamental	Vertical	101	0	--	--	

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup

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**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	10 MHz
<b>Antenna Gain (dBi):</b>	16.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5300.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	5.75	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	2276.39	49.18	2.66	-12.15	39.69	Max Peak	Vertical	167	238	74.0	-34.3	Pass
#2	2276.39	35.86	2.66	-12.15	26.37	Max Avg	Vertical	167	238	54.0	-27.6	Pass
#3	3216.02	56.60	2.99	-11.27	48.32	Peak (NRB)	Horizontal	101	193	--	--	Pass
#4	3533.29	54.79	3.12	-11.25	46.66	Peak (NRB)	Vertical	101	193	--	--	Pass
#5	4661.97	50.13	3.50	-11.26	42.37	Max Peak	Vertical	163	327	74.0	-31.6	Pass
#6	4661.97	37.52	3.50	-11.26	29.76	Max Avg	Vertical	163	327	54.0	-24.2	Pass
#7	5297.84	55.11	3.81	-11.10	47.82	Fundamental	Vertical	101	63	--	--	

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup

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**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	10 MHz
<b>Antenna Gain (dBi):</b>	16.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5340.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	5.75	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	2299.99	49.65	2.65	-12.27	39.16	Max Peak	Vertical	168	232	74.0	-34.8	Pass
#2	2299.99	33.77	2.65	-12.27	23.24	Max Avg	Vertical	168	232	54.0	-30.8	Pass
#3	3216.00	56.10	2.99	-11.27	47.82	Peak (NRB)	Horizontal	101	180	--	--	Pass
#4	3560.96	53.89	3.11	-11.20	45.80	Peak (NRB)	Vertical	101	180	--	--	Pass
#5	5339.94	61.44	3.64	-11.32	52.53	Fundamental	Vertical	101	0	--	--	

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup

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**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	10 MHz
<b>Antenna Gain (dBi):</b>	17.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5480.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	6.75	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	3216.07	56.22	2.99	-11.27	47.94	Peak (NRB)	Horizontal	101	219	--	--	Pass
#2	3653.90	60.26	3.16	-11.06	52.36	Max Peak	Vertical	101	22	74.0	-21.6	Pass
#3	3653.90	58.45	3.16	-11.06	50.55	Max Avg	Vertical	101	22	54.0	-3.5	Pass
#4	5477.72	62.21	3.75	-11.29	54.67	Fundamental	Vertical	101	172	--	--	
#5	6249.98	50.44	3.93	-8.57	45.80	Peak (NRB)	Vertical	101	187	--	--	Pass

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup

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**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	10 MHz
<b>Antenna Gain (dBi):</b>	17.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5595.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	6.75	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	3215.99	58.42	2.99	-11.27	50.14	Peak (NRB)	Horizontal	101	219	--	--	Pass
#2	3729.92	63.61	3.16	-10.88	55.89	Max Peak	Vertical	104	26	74.0	-18.1	Pass
#3	3729.92	61.57	3.16	-10.88	53.85	Max Avg	Vertical	104	26	54.0	-0.2	Pass
#4	5599.76	63.24	3.77	-11.16	55.85	Fundamental	Vertical	101	172	--	--	
#5	6249.98	51.00	3.93	-8.57	46.36	Peak (NRB)	Vertical	101	187	--	--	Pass

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup

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**Equipment Configuration for Radiated Spurious - Restricted Band Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	10 MHz
<b>Antenna Gain (dBi):</b>	17.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5715.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	6.75	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	3215.89	57.44	2.99	-11.27	49.16	Peak (NRB)	Horizontal	101	220	--	--	Pass
#2	3807.80	61.76	3.26	-10.86	54.16	Max Peak	Vertical	104	24	74.0	-19.8	Pass
#3	3807.80	59.55	3.26	-10.86	51.95	Max Avg	Vertical	104	24	54.0	-2.1	Pass
#4	5714.80	60.41	3.81	-10.76	53.46	Fundamental	Vertical	101	178	--	--	
#5	6249.99	51.04	3.93	-8.57	46.40	Peak (NRB)	Vertical	101	183	--	--	Pass

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup

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### 2.1.2. Restricted Band-Edge Emissions

#### RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

##### 5250 - 5350 MHz

RADWIN Ltd. NA		Band-Edge Freq	Limit 74.0dB $\mu$ V/m	Limit 54.0dB $\mu$ V/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dB $\mu$ V/m	dB $\mu$ V/m	
10 MHz	5340.00	5350.00	<a href="#">73.01</a>	<a href="#">45.72</a>	3
20 MHz	5340.00	5350.00	<a href="#">73.55</a>	<a href="#">52.76</a>	6
40 MHz	5330.00	5350.00	<a href="#">73.88</a>	<a href="#">53.78</a>	5
80 MHz	5310.00	5350.00	<a href="#">73.75</a>	<a href="#">53.87</a>	5

##### 5470 - 5725 MHz

RADWIN Ltd. NA		Band-Edge Freq	Limit 74.0dB $\mu$ V/m	Limit 54.0dB $\mu$ V/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dB $\mu$ V/m	dB $\mu$ V/m	
10 MHz	5480.00	5470.00	<a href="#">65.82</a>	<a href="#">45.87</a>	3.75
20 MHz	5485.00	5470.00	<a href="#">65.26</a>	<a href="#">47.18</a>	8.25
40 MHz	5495.00	5470.00	<a href="#">70.70</a>	<a href="#">49.92</a>	8.25
80 MHz	5520.00	5470.00	<a href="#">73.15</a>	<a href="#">47.76</a>	7.75

RADWIN Ltd. NA		Band Edge Freq	Limit 68.23	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dB $\mu$ V/m	
10 MHz	5480.00	5470.00	<a href="#">47.58</a>	3.75
20 MHz	5485.00	5470.00	<a href="#">53.00</a>	8.25
40 MHz	5495.00	5470.00	<a href="#">53.98</a>	8.25
80 MHz	5520.00	5470.00	<a href="#">48.49</a>	7.75

Click on the links to view the data.

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**Title:** Radwin Ltd. Outdoor Subscriber Radio Unit  
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**Equipment Configuration for Restricted Lower Band-Edge Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	10 MHz
<b>Antenna Gain (dBi):</b>	16.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5160.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	16	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	5150.00	15.95	3.67	34.11	53.73	Max Avg	Vertical	144	180	54.0	-0.3	Pass
#2	5150.00	33.07	3.67	34.11	70.85	Max Peak	Vertical	144	180	74.0	-3.2	Pass
#3	5150.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power Reduction to meet Band Edge Limit

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**Title:** Radwin Ltd. Outdoor Subscriber Radio Unit  
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**Equipment Configuration for Restricted Lower Band-Edge Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	20 MHz
<b>Antenna Gain (dBi):</b>	16.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5165.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	13.5	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	5150.00	15.95	3.67	34.11	53.73	Max Avg	Vertical	144	180	54.0	-0.3	Pass
#2	5150.00	31.13	3.67	34.11	68.91	Max Peak	Vertical	144	180	74.0	-5.1	Pass
#3	5150.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power Reduction to meet Band Edge Limit

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**Equipment Configuration for Restricted Lower Band-Edge Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	40 MHz
<b>Antenna Gain (dBi):</b>	16.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5170.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	5.25	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	5150.00	13.39	3.67	34.11	51.17	Max Avg	Vertical	144	180	54.0	-2.8	Pass
#2	5150.00	36.08	3.67	34.11	73.86	Max Peak	Vertical	144	180	74.0	-0.1	Pass
#3	5150.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power Reduction to meet Band Edge Limit

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**Equipment Configuration for Restricted Lower Band-Edge Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	80 MHz
<b>Antenna Gain (dBi):</b>	16.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5190.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	0.0	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	5150.00	15.95	3.67	34.11	53.73	Max Avg	Vertical	144	180	54.0	-0.3	Pass
#2	5150.00	30.95	3.67	34.11	68.73	Max Peak	Vertical	144	180	74.0	-5.3	Pass
#3	5150.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power Reduction to meet Band Edge Limit

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**Equipment Configuration for Restricted Lower Band-Edge Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	10 MHz
<b>Antenna Gain (dBi):</b>	17.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5480.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	3.75	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	5453.99	27.73	3.79	34.30	65.82	Max Peak	Horizontal	154	180	74.0	-8.2	Pass
#2	5460.00	7.77	3.79	34.31	45.87	Max Avg	Horizontal	154	180	54.0	-8.1	Pass
#4	5470.00	9.50	3.76	34.32	47.58	Max Avg	Horizontal	154	180	68.2	-20.6	Pass
#3	5460.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
#5	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup.

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#### Equipment Configuration for Restricted Lower Band-Edge Emissions

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	20 MHz
<b>Antenna Gain (dBi):</b>	17.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5485.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	8.25	<b>Tested By:</b>	JMH

#### Test Measurement Results

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	5452.79	27.17	3.79	34.30	65.26	Max Peak	Horizontal	154	180	74.0	-8.7	Pass
#2	5460.00	9.08	3.79	34.31	47.18	Max Avg	Horizontal	154	180	54.0	-6.8	Pass
#4	5470.00	14.92	3.76	34.32	53.00	Max Avg	Horizontal	154	180	68.2	-15.2	Pass
#3	5460.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
#5	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup.

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**Equipment Configuration for Restricted Lower Band-Edge Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	40 MHz
<b>Antenna Gain (dBi):</b>	17.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5495.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	8.25	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	5459.10	32.60	3.79	34.31	70.70	Max Peak	Horizontal	154	180	74.0	-3.3	Pass
#2	5460.00	11.82	3.79	34.31	49.92	Max Avg	Horizontal	154	180	54.0	-5.1	Pass
#4	5470.00	15.90	3.76	34.32	53.98	Max Avg	Horizontal	154	180	68.2	-14.2	Pass
#3	5460.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
#5	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup.

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**Equipment Configuration for Restricted Lower Band-Edge Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	80 MHz
<b>Antenna Gain (dBi):</b>	17.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5520.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	7.75	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	5456.93	35.05	3.80	34.30	73.15	Max Peak	Horizontal	154	180	74.0	-0.9	Pass
#2	5460.00	9.66	3.79	34.31	47.76	Max Avg	Horizontal	154	180	54.0	-6.2	Pass
#4	5470.00	10.41	3.76	34.32	48.49	Max Avg	Horizontal	154	180	68.2	-19.7	Pass
#3	5460.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
#5	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power reduction to meet Restricted Band Limit

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**Equipment Configuration for Restricted Upper Band-Edge Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	10 MHz
<b>Antenna Gain (dBi):</b>	16.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5340.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	3	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	5350.00	7.51	3.70	34.51	45.72	Max Avg	Horizontal	149	180	68.2	-22.5	Pass
#3	5355.33	34.80	3.71	34.50	73.01	Max Peak	Horizontal	149	180	74.0	-1.0	Pass
#2	5350.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power Reduction to meet Band Edge Limit

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**Equipment Configuration for Restricted Upper Band-Edge Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	20 MHz
<b>Antenna Gain (dBi):</b>	16.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5340.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	6	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	5350.00	14.55	3.70	34.51	52.76	Max Avg	Horizontal	149	180	54.0	-1.2	Pass
#2	5350.00	35.34	3.70	34.51	73.55	Max Peak	Horizontal	149	180	74.0	-0.5	Pass
#3	5350.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power Reduction to meet Band Edge Limit

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**Equipment Configuration for Restricted Upper Band-Edge Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	40 MHz
<b>Antenna Gain (dBi):</b>	16.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5330.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	5	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	5350.00	15.57	3.70	34.51	53.78	Max Avg	Horizontal	149	180	54.0	-0.2	Pass
#2	5350.00	35.67	3.70	34.51	73.88	Max Peak	Horizontal	149	180	74.0	-0.1	Pass
#3	5350.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power Reduction to meet Band Edge Limit

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**Equipment Configuration for Restricted Upper Band-Edge Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	80 MHz
<b>Antenna Gain (dBi):</b>	16.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5310.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	5	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	5350.00	15.66	3.70	34.51	53.87	Max Avg	Horizontal	149	180	54.0	-0.1	Pass
#2	5350.00	35.54	3.70	34.51	73.75	Max Peak	Horizontal	149	180	74.0	-0.3	Pass
#3	5350.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power Reduction to meet Band Edge Limit

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**Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	10 MHz
<b>Antenna Gain (dBi):</b>	16.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5730.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	5.5	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	5715.00	15.50	3.81	34.34	53.65	Max Avg	Horizontal	193	180	68.2	-14.6	Pass
#2	5725.00	40.01	3.79	34.35	78.15	Max Avg	Horizontal	193	180	78.2	-0.1	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power reduction to meet Restricted Band Limit

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**Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	20 MHz
<b>Antenna Gain (dBi):</b>	16.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5735.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	16.5	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	5715.00	22.55	3.81	34.34	60.70	Max Avg	Horizontal	193	180	68.2	-7.5	Pass
#2	5725.00	39.85	3.79	34.35	77.99	Max Avg	Horizontal	193	180	78.2	-0.2	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power reduction to meet Restricted Band Limit

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**Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	40 MHz
<b>Antenna Gain (dBi):</b>	16.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5745.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	18.75	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	5712.82	27.53	3.82	34.34	65.69	Max Avg	Horizontal	193	180	68.2	-2.5	Pass
#2	5725.00	38.41	3.79	34.35	76.55	Max Avg	Horizontal	193	180	78.2	-1.7	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power reduction to meet Restricted Band Limit

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**Title:** Radwin Ltd. Outdoor Subscriber Radio Unit  
**To:** FCC 15.407 & RSS 247 (DFS Bands), RSS GEN, FCC Part 15B & ICES-003  
**Serial #:** RDWN41-U9\_Radiated Rev A  
**Issue Date:** 8<sup>th</sup> November 2016  
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**Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	80 MHz
<b>Antenna Gain (dBi):</b>	16.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5765.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	13.50	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	5715.00	20.36	3.81	34.34	58.51	Max Avg	Horizontal	193	180	68.2	-9.7	Pass
#2	5725.00	39.71	3.79	34.35	77.85	Max Avg	Horizontal	193	180	78.2	-0.4	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power reduction to meet Restricted Band Limit

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**Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	10 MHz
<b>Antenna Gain (dBi):</b>	16.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5845.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	0.0	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	5850.00	39.57	3.81	34.63	78.01	Max Avg	Horizontal	172	181	78.2	-0.2	Pass
#3	5860.00	14.95	3.86	34.65	53.46	Max Avg	Horizontal	172	181	68.2	-14.8	Pass
#2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power reduction to meet Restricted Band Limit

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**Serial #:** RDWN41-U9\_Radiated Rev A  
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**Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	20 MHz
<b>Antenna Gain (dBi):</b>	16.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5840.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	14.5	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	5850.00	39.67	3.81	34.63	78.11	Max Avg	Horizontal	172	181	78.2	-0.1	Pass
#3	5860.00	22.56	3.86	34.65	61.07	Max Avg	Horizontal	172	181	68.2	-7.2	Pass
#2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power reduction to meet Restricted Band Limit

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**To:** FCC 15.407 & RSS 247 (DFS Bands), RSS GEN, FCC Part 15B & ICES-003  
**Serial #:** RDWN41-U9\_Radiated Rev A  
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**Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	40 MHz
<b>Antenna Gain (dBi):</b>	16.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5825.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	18.5	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	5850.00	30.84	3.81	34.63	69.28	Max Avg	Horizontal	172	181	78.2	-9.0	Pass
#3	5860.00	28.21	3.86	34.65	66.72	Max Avg	Horizontal	172	181	68.2	-1.5	Pass
#2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power reduction to meet Restricted Band Limit

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**Title:** Radwin Ltd. Outdoor Subscriber Radio Unit  
**To:** FCC 15.407 & RSS 247 (DFS Bands), RSS GEN, FCC Part 15B & ICES-003  
**Serial #:** RDWN41-U9\_Radiated Rev A  
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**Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions**

<b>Antenna:</b>	RADWIN Ltd. NA	<b>Variant:</b>	80 MHz
<b>Antenna Gain (dBi):</b>	16.00	<b>Modulation:</b>	OFDM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	99
<b>Channel Frequency (MHz):</b>	5810.00	<b>Data Rate:</b>	15.00 MBit/s
<b>Power Setting:</b>	11.5	<b>Tested By:</b>	JMH

**Test Measurement Results**

Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss	AF dB	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail
#1	5850.00	39.64	3.81	34.63	78.08	Max Avg	Horizontal	172	181	78.2	-0.2	Pass
#3	5860.00	17.87	3.86	34.65	56.38	Max Avg	Horizontal	172	181	68.2	-11.9	Pass
#2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power reduction to meet Restricted Band Limit

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**To:** FCC 15.407 & RSS 247 (DFS Bands), RSS  
GEN, FCC Part 15B & & ICES-003  
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## **A. APPENDIX - GRAPHICAL IMAGES**

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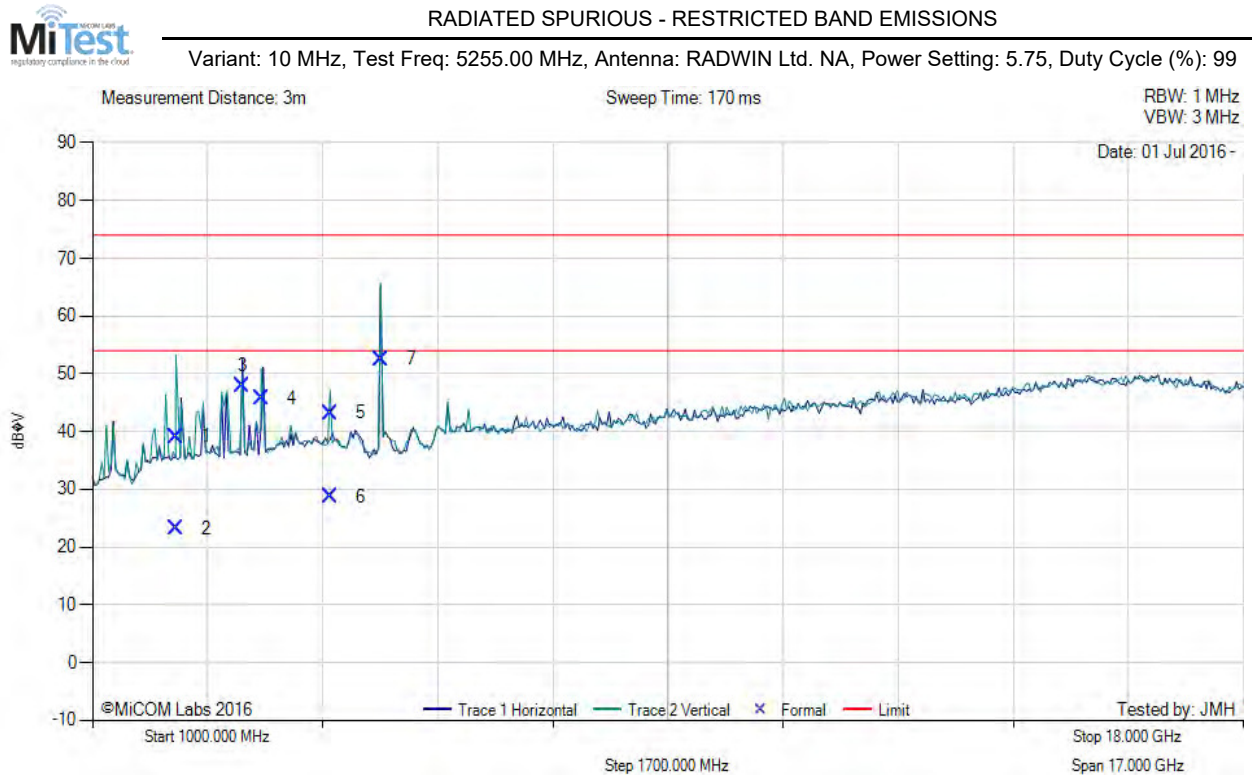
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**To:** FCC 15.407 & RSS 247 (DFS Bands), RSS GEN, FCC Part 15B & ICES-003  
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## A.1. Radiated

### A.1.1. Restricted Band Emissions



Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2232.99	48.78	2.65	-12.27	39.16	Max Peak	Vertical	174	221	74.0	-34.8	Pass
2	2232.99	32.86	2.65	-12.27	23.24	Max Avg	Vertical	174	221	54.0	-30.8	Pass
3	3216.02	56.10	2.99	-11.27	47.82	Peak (NRB)	Horizontal	101	187	--	--	Pass
4	3499.93	53.89	3.11	-11.20	45.80	Peak (NRB)	Vertical	101	187	--	--	Pass
5	4511.87	51.23	3.53	-11.56	43.20	Max Peak	Vertical	155	319	74.0	-30.8	Pass
6	4511.87	36.72	3.53	-11.56	28.69	Max Avg	Vertical	155	319	54.0	-25.3	Pass
7	5254.93	60.21	3.64	-11.32	52.53	Fundamental	Vertical	101	0	--	--	

**Test Notes:** EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup

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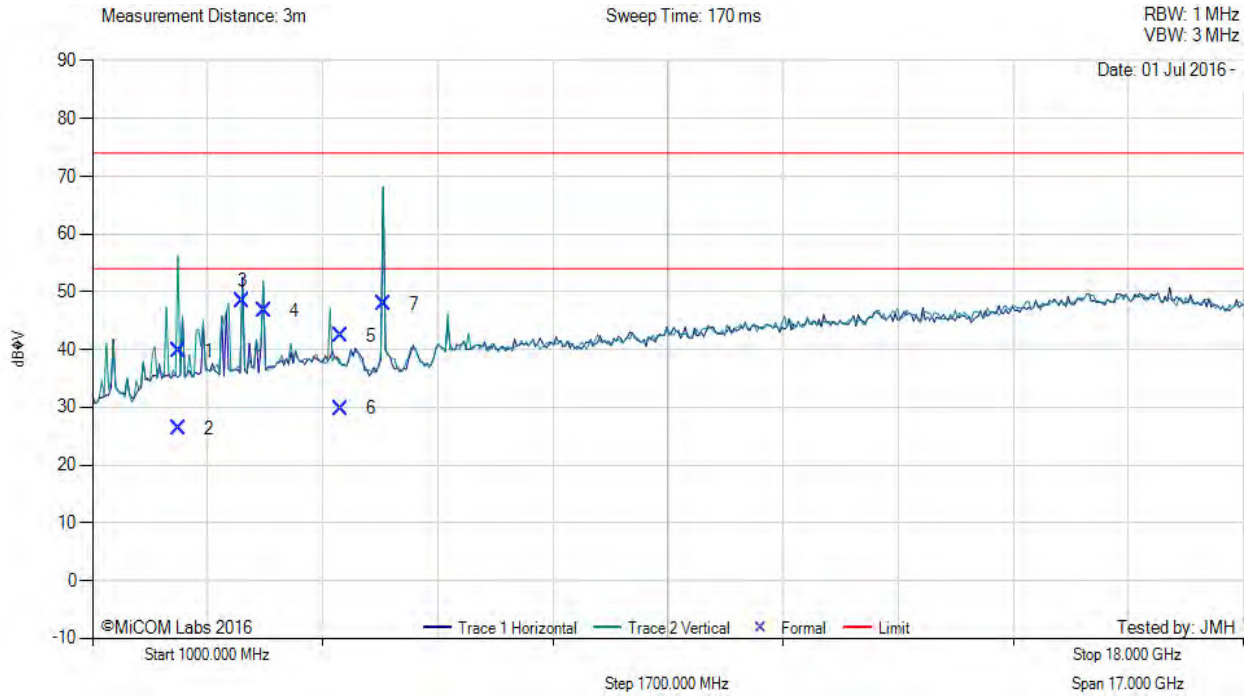


**Title:** Radwin Ltd. Outdoor Subscriber Radio Unit  
**To:** FCC 15.407 & RSS 247 (DFS Bands), RSS GEN, FCC Part 15B & ICES-003  
**Serial #:** RDWN41-U9\_Radiated Rev A  
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RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 10 MHz, Test Freq: 5300.00 MHz, Antenna: RADWIN Ltd. NA, Power Setting: 5.75, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	PoI	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2276.39	49.18	2.66	-12.15	39.69	Max Peak	Vertical	167	238	74.0	-34.3	Pass
2	2276.39	35.86	2.66	-12.15	26.37	Max Avg	Vertical	167	238	54.0	-27.6	Pass
3	3216.02	56.60	2.99	-11.27	48.32	Peak (NRB)	Horizontal	101	193	--	--	Pass
4	3533.29	54.79	3.12	-11.25	46.66	Peak (NRB)	Vertical	101	193	--	--	Pass
5	4661.97	50.13	3.50	-11.26	42.37	Max Peak	Vertical	163	327	74.0	-31.6	Pass
6	4661.97	37.52	3.50	-11.26	29.76	Max Avg	Vertical	163	327	54.0	-24.2	Pass
7	5297.84	55.11	3.81	-11.10	47.82	Fundamental	Vertical	101	63	--	--	

**Test Notes:** EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup

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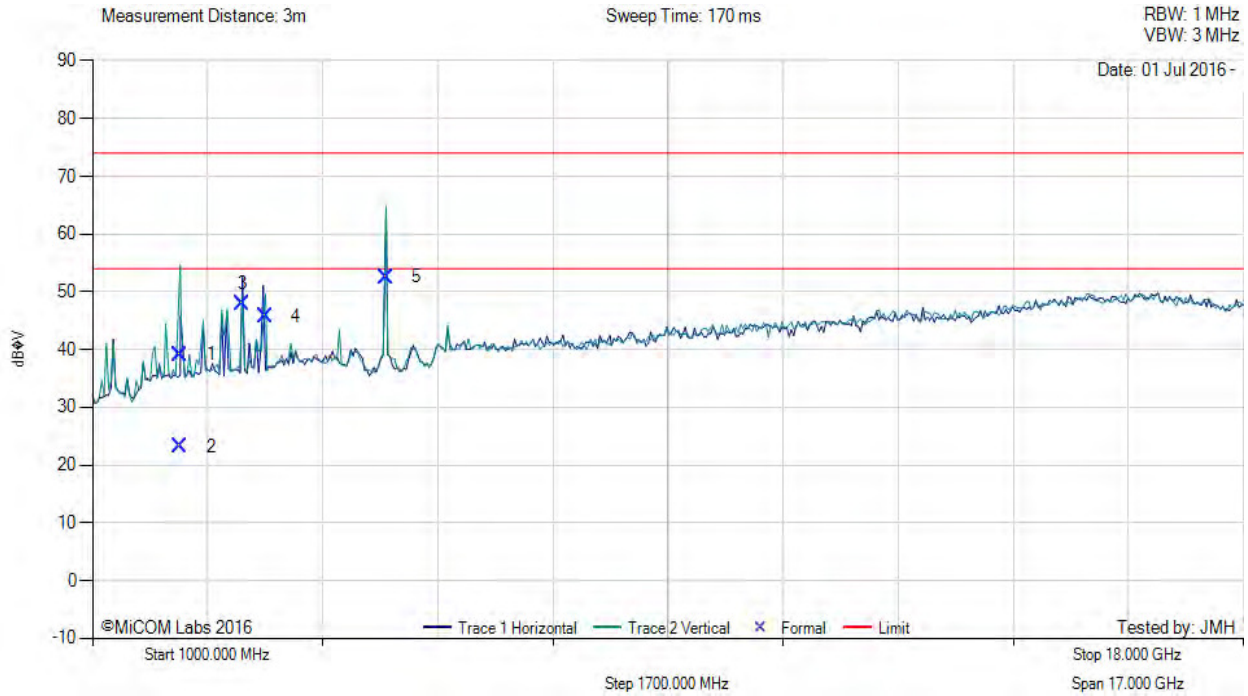


**Title:** Radwin Ltd. Outdoor Subscriber Radio Unit  
**To:** FCC 15.407 & RSS 247 (DFS Bands), RSS GEN, FCC Part 15B & ICES-003  
**Serial #:** RDWN41-U9\_Radiated Rev A  
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RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 10 MHz, Test Freq: 5340.00 MHz, Antenna: RADWIN Ltd. NA, Power Setting: 5.75, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2299.99	49.65	2.65	-12.27	39.16	Max Peak	Vertical	168	232	74.0	-34.8	Pass
2	2299.99	33.77	2.65	-12.27	23.24	Max Avg	Vertical	168	232	54.0	-30.8	Pass
3	3216.00	56.10	2.99	-11.27	47.82	Peak (NRB)	Horizontal	101	180	--	--	Pass
4	3560.96	53.89	3.11	-11.20	45.80	Peak (NRB)	Vertical	101	180	--	--	Pass
5	5339.94	61.44	3.64	-11.32	52.53	Fundamental	Vertical	101	0	--	--	

**Test Notes:** EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup

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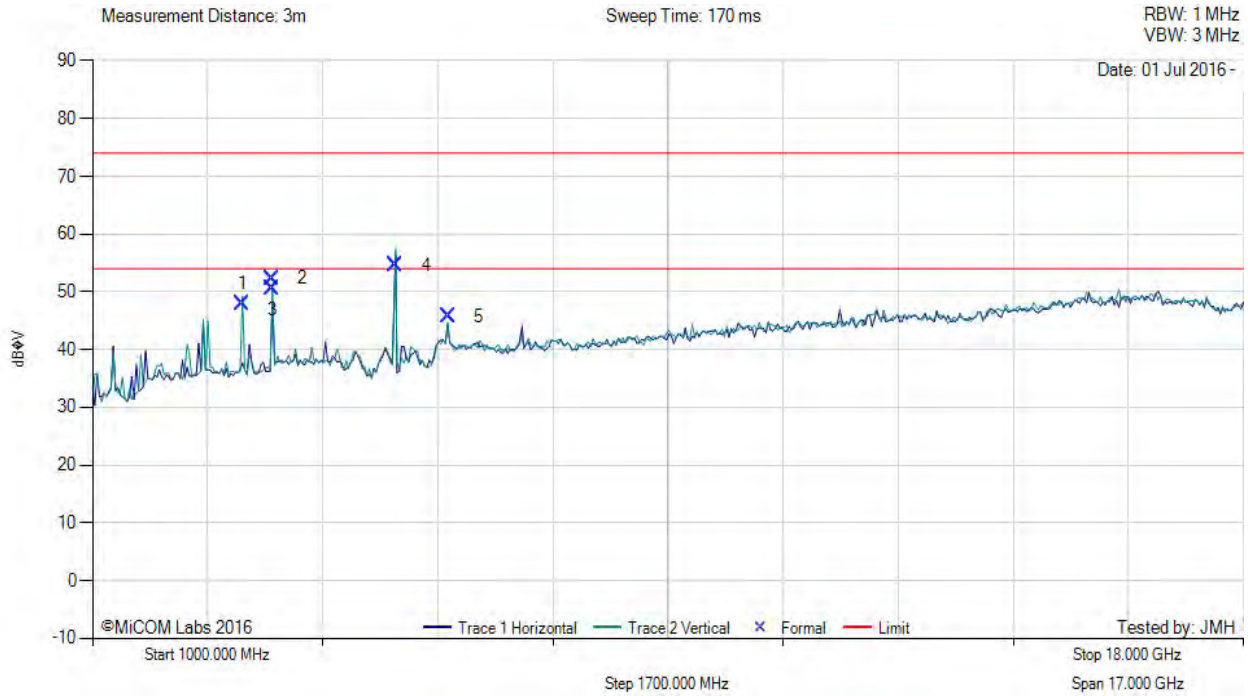


**Title:** Radwin Ltd. Outdoor Subscriber Radio Unit  
**To:** FCC 15.407 & RSS 247 (DFS Bands), RSS GEN, FCC Part 15B & ICES-003  
**Serial #:** RDWN41-U9\_Radiated Rev A  
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**RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS**

Variant: 10 MHz, Test Freq: 5480.00 MHz, Antenna: RADWIN Ltd. NA, Power Setting: 6.75, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	3216.07	56.22	2.99	-11.27	47.94	Peak (NRB)	Horizontal	101	219	--	--	Pass
2	3653.90	60.26	3.16	-11.06	52.36	Max Peak	Vertical	101	22	74.0	-21.6	Pass
3	3653.90	58.45	3.16	-11.06	50.55	Max Avg	Vertical	101	22	54.0	-3.5	Pass
4	5477.72	62.21	3.75	-11.29	54.67	Fundamental	Vertical	101	172	--	--	
5	6249.98	50.44	3.93	-8.57	45.80	Peak (NRB)	Vertical	101	187	--	--	Pass

**Test Notes:** EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup

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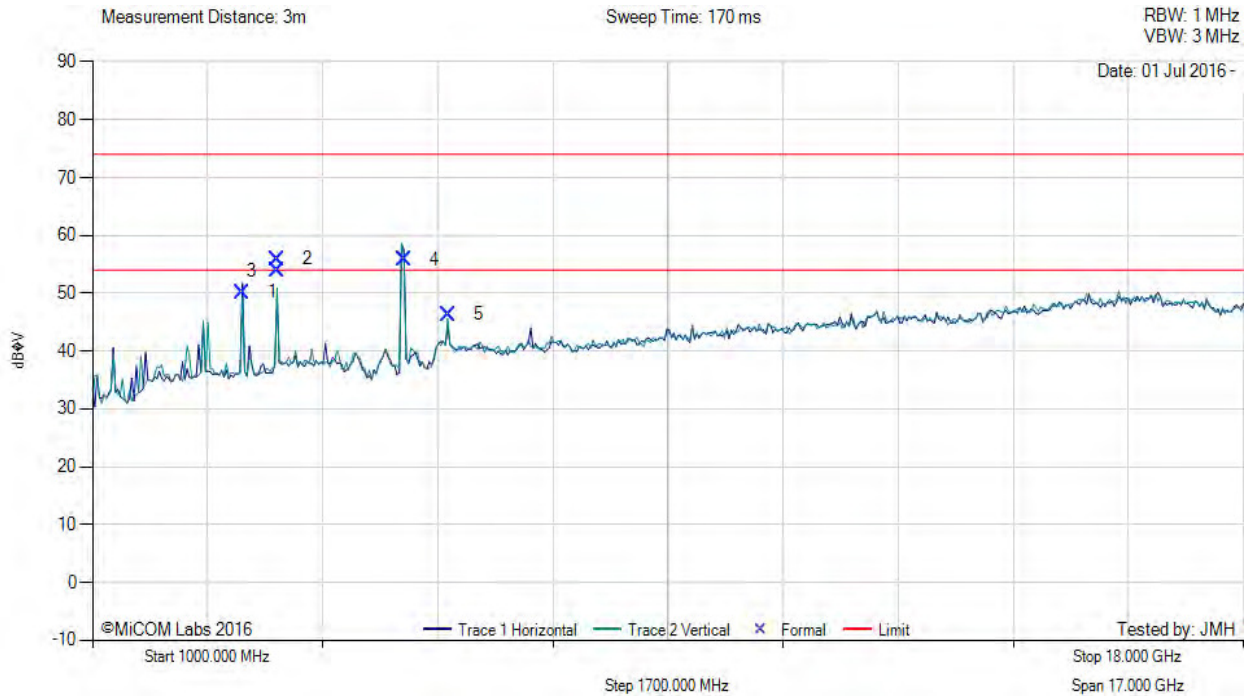


**Title:** Radwin Ltd. Outdoor Subscriber Radio Unit  
**To:** FCC 15.407 & RSS 247 (DFS Bands), RSS GEN, FCC Part 15B & ICES-003  
**Serial #:** RDWN41-U9\_Radiated Rev A  
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RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 10 MHz, Test Freq: 5595.00 MHz, Antenna: RADWIN Ltd. NA, Power Setting: 6.75, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	3215.99	58.42	2.99	-11.27	50.14	Peak (NRB)	Horizontal	101	219	--	--	Pass
2	3729.92	63.61	3.16	-10.88	55.89	Max Peak	Vertical	104	26	74.0	-18.1	Pass
3	3729.92	61.57	3.16	-10.88	53.85	Max Avg	Vertical	104	26	54.0	-0.2	Pass
4	5599.76	63.24	3.77	-11.16	55.85	Fundamental	Vertical	101	172	--	--	
5	6249.98	51.00	3.93	-8.57	46.36	Peak (NRB)	Vertical	101	187	--	--	Pass

**Test Notes:** EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup

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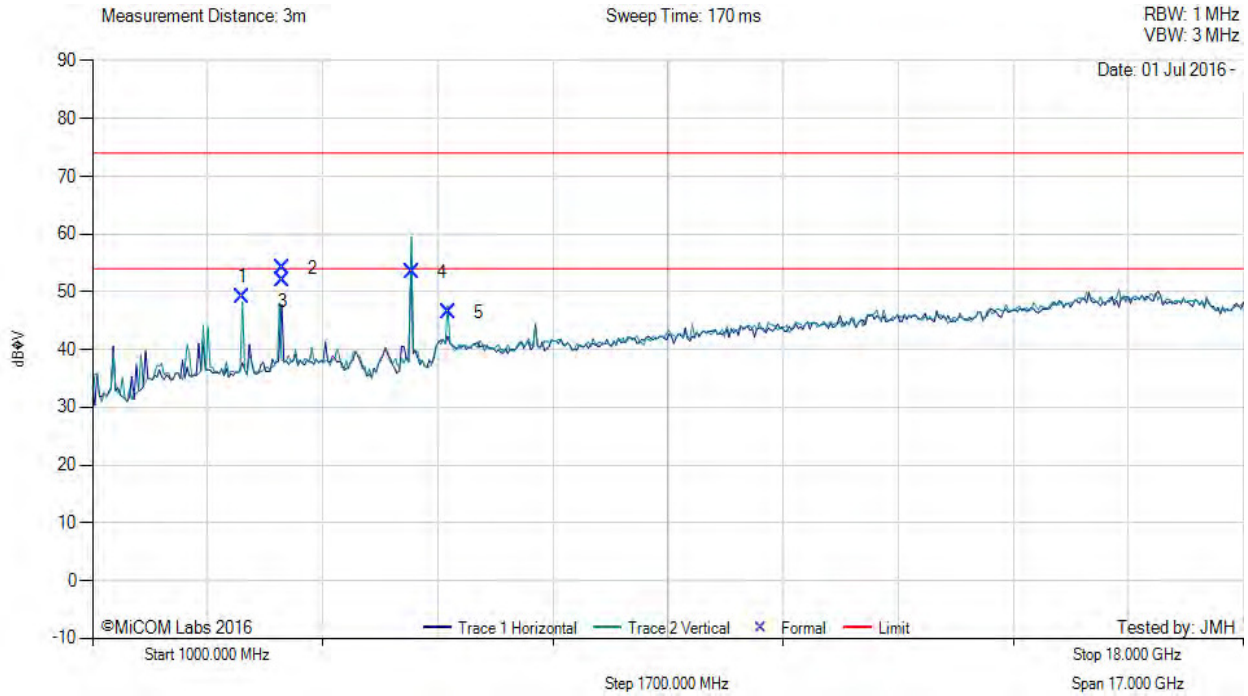


**Title:** Radwin Ltd. Outdoor Subscriber Radio Unit  
**To:** FCC 15.407 & RSS 247 (DFS Bands), RSS GEN, FCC Part 15B & ICES-003  
**Serial #:** RDWN41-U9\_Radiated Rev A  
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RADIATED SPURIOUS - RESTRICTED BAND EMISSIONS

Variant: 10 MHz, Test Freq: 5715.00 MHz, Antenna: RADWIN Ltd. NA, Power Setting: 6.75, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	3215.89	57.44	2.99	-11.27	49.16	Peak (NRB)	Horizontal	101	220	--	--	Pass
2	3807.80	61.76	3.26	-10.86	54.16	Max Peak	Vertical	104	24	74.0	-19.8	Pass
3	3807.80	59.55	3.26	-10.86	51.95	Max Avg	Vertical	104	24	54.0	-2.1	Pass
4	5714.80	60.41	3.81	-10.76	53.46	Fundamental	Vertical	101	178	--	--	
5	6249.99	51.04	3.93	-8.57	46.40	Peak (NRB)	Vertical	101	183	--	--	Pass

**Test Notes:** EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup

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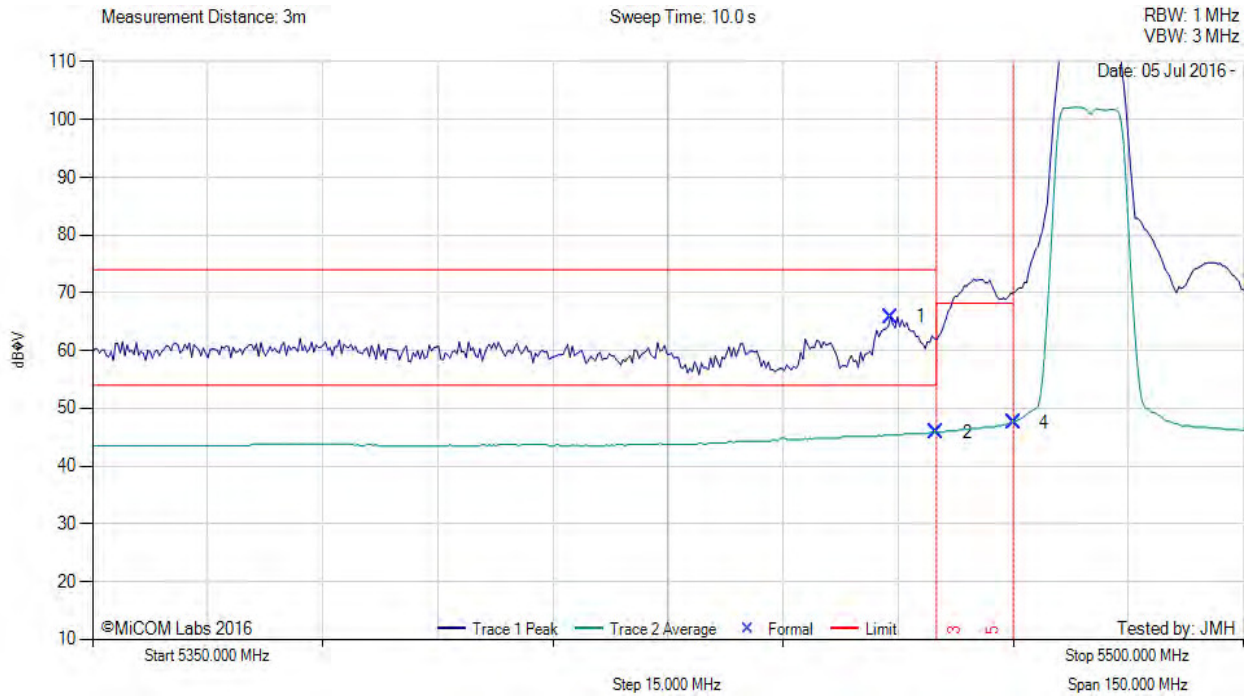
**Title:** Radwin Ltd. Outdoor Subscriber Radio Unit  
**To:** FCC 15.407 & RSS 247 (DFS Bands), RSS GEN, FCC Part 15B & ICES-003  
**Serial #:** RDWN41-U9\_Radiated Rev A  
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### A.1.2. Restricted Band-Edge Emissions



#### RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 10 MHz, Test Freq: 5480.00 MHz, Antenna: RADWIN Ltd. NA, Power Setting: 3.75, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5453.99	27.73	3.79	34.30	65.82	Max Peak	Horizontal	154	180	74.0	-8.2	Pass
2	5460.00	7.77	3.79	34.31	45.87	Max Avg	Horizontal	154	180	54.0	-8.1	Pass
4	5470.00	9.50	3.76	34.32	47.58	Max Avg	Horizontal	154	180	68.2	-20.6	Pass
3	5460.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
5	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup.

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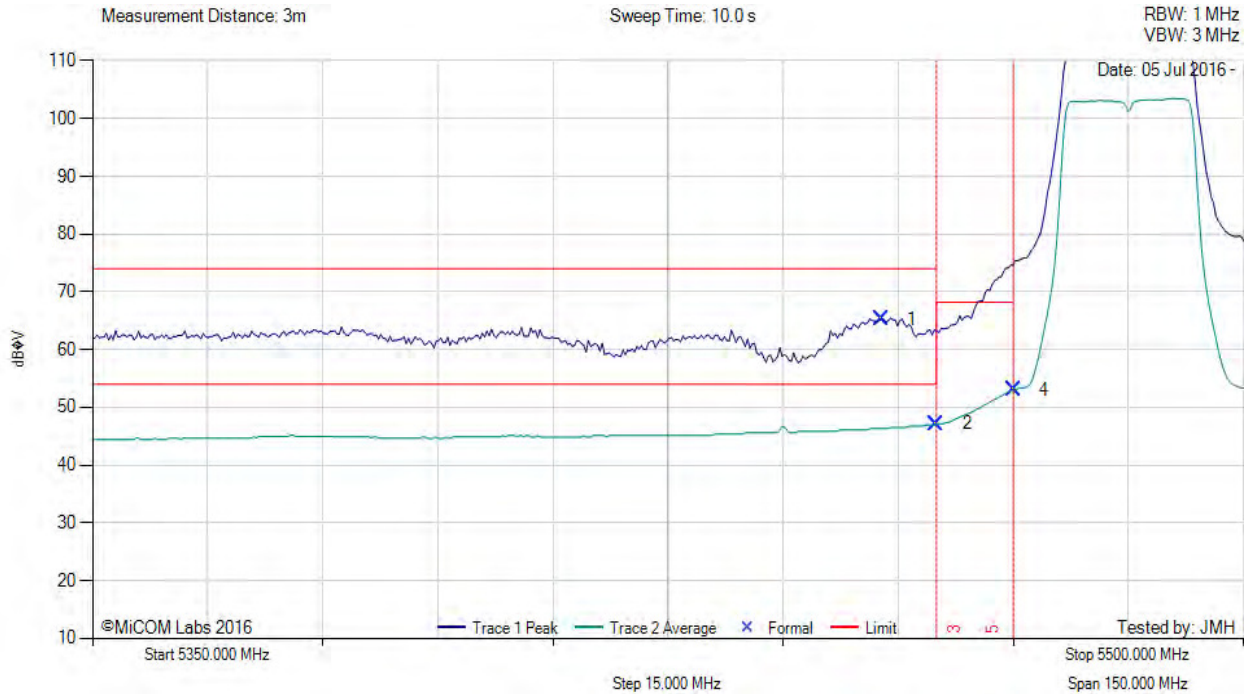


**Title:** Radwin Ltd. Outdoor Subscriber Radio Unit  
**To:** FCC 15.407 & RSS 247 (DFS Bands), RSS GEN, FCC Part 15B & ICES-003  
**Serial #:** RDWN41-U9\_Radiated Rev A  
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RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 20 MHz, Test Freq: 5485.00 MHz, Antenna: RADWIN Ltd. NA, Power Setting: 8.25, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5452.79	27.17	3.79	34.30	65.26	Max Peak	Horizontal	154	180	74.0	-8.7	Pass
2	5460.00	9.08	3.79	34.31	47.18	Max Avg	Horizontal	154	180	54.0	-6.8	Pass
4	5470.00	14.92	3.76	34.32	53.00	Max Avg	Horizontal	154	180	68.2	-15.2	Pass
3	5460.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
5	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup.

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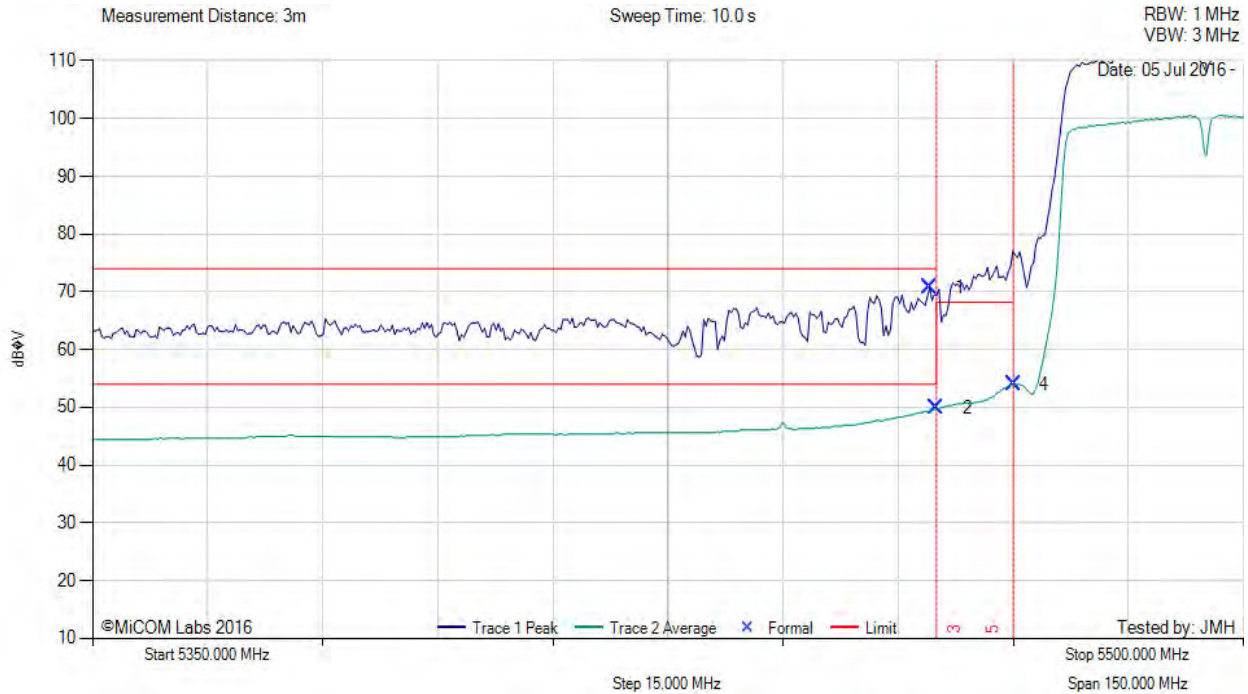


**Title:** Radwin Ltd. Outdoor Subscriber Radio Unit  
**To:** FCC 15.407 & RSS 247 (DFS Bands), RSS GEN, FCC Part 15B & ICES-003  
**Serial #:** RDWN41-U9\_Radiated Rev A  
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RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 40 MHz, Test Freq: 5495.00 MHz, Antenna: RADWIN Ltd. NA, Power Setting: 8.25, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5459.10	32.60	3.79	34.31	70.70	Max Peak	Horizontal	154	180	74.0	-3.3	Pass
2	5460.00	11.82	3.79	34.31	49.92	Max Avg	Horizontal	154	180	54.0	-5.1	Pass
4	5470.00	15.90	3.76	34.32	53.98	Max Avg	Horizontal	154	180	68.2	-14.2	Pass
3	5460.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
5	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup.

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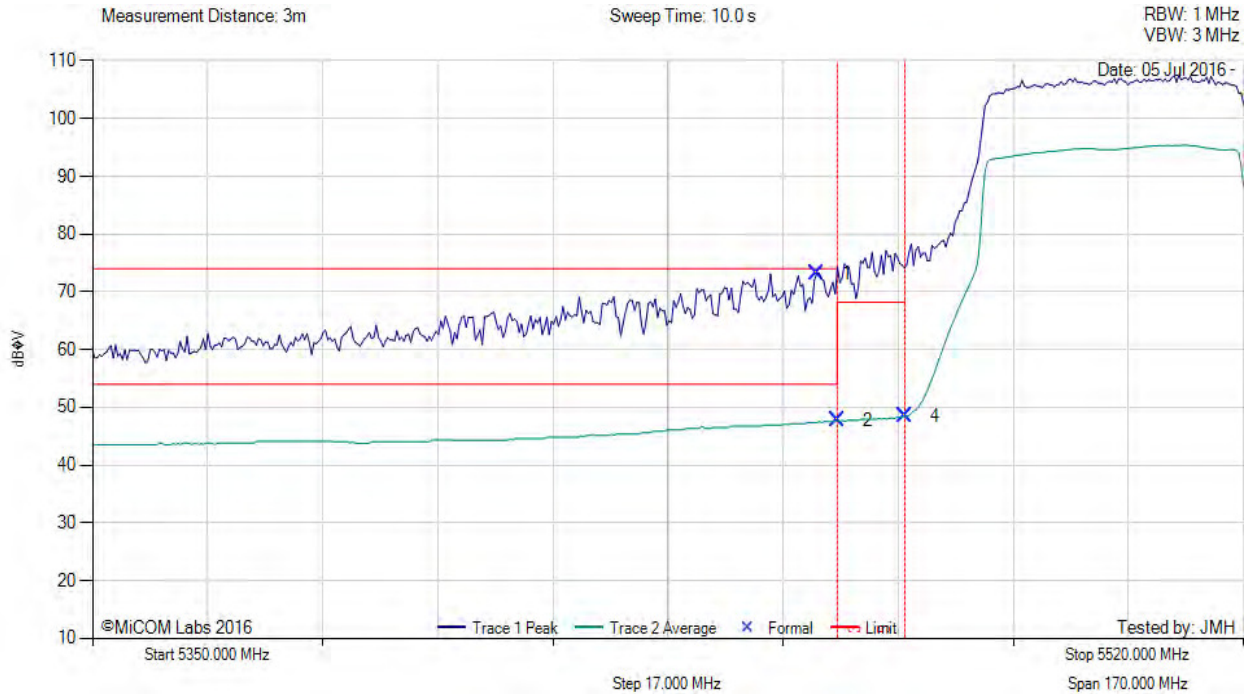


**Title:** Radwin Ltd. Outdoor Subscriber Radio Unit  
**To:** FCC 15.407 & RSS 247 (DFS Bands), RSS GEN, FCC Part 15B & ICES-003  
**Serial #:** RDWN41-U9\_Radiated Rev A  
**Issue Date:** 8<sup>th</sup> November 2016  
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RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 80 MHz, Test Freq: 5520.00 MHz, Antenna: RADWIN Ltd. NA, Power Setting: 7.75, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5456.93	35.05	3.80	34.30	73.15	Max Peak	Horizontal	154	180	74.0	-0.9	Pass
2	5460.00	9.66	3.79	34.31	47.76	Max Avg	Horizontal	154	180	54.0	-6.2	Pass
4	5470.00	10.41	3.76	34.32	48.49	Max Avg	Horizontal	154	180	68.2	-19.7	Pass
3	5460.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
5	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power reduction to meet Restricted Band Limit

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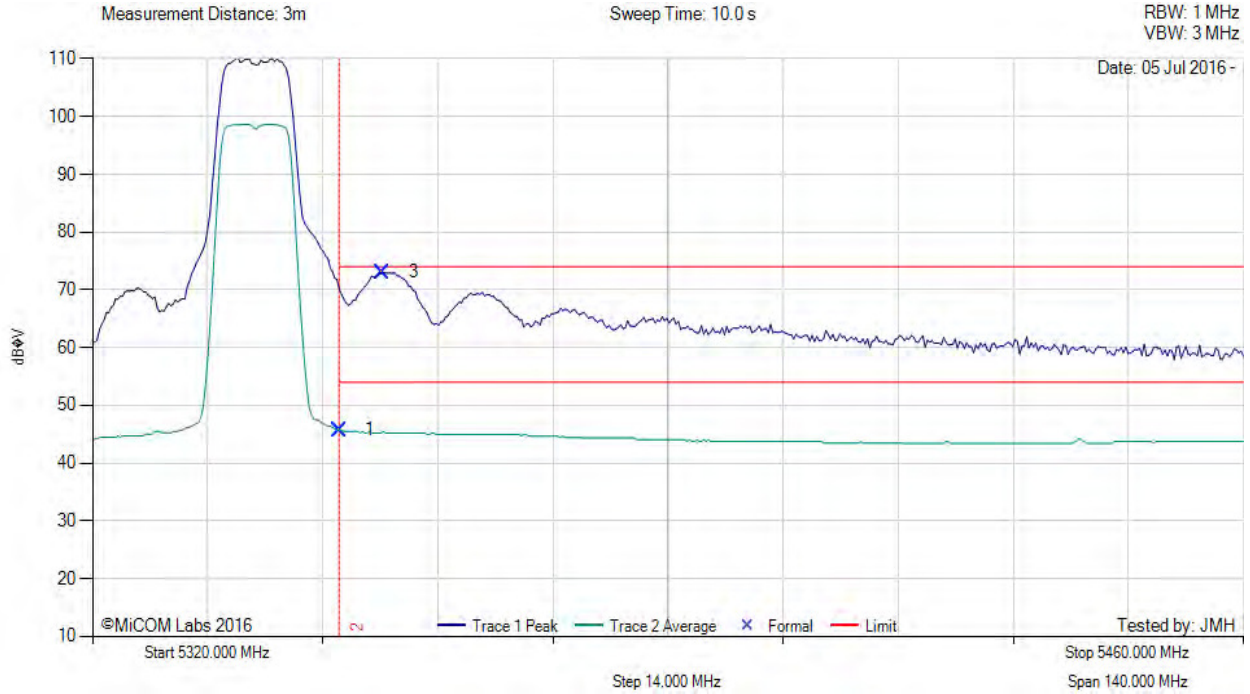


**Title:** Radwin Ltd. Outdoor Subscriber Radio Unit  
**To:** FCC 15.407 & RSS 247 (DFS Bands), RSS GEN, FCC Part 15B & ICES-003  
**Serial #:** RDWN41-U9\_Radiated Rev A  
**Issue Date:** 8<sup>th</sup> November 2016  
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RESTRICTED UPPER BAND-EDGE EMISSIONS

Variant: 10 MHz, Test Freq: 5340.00 MHz, Antenna: RADWIN Ltd. NA, Power Setting: 3, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5350.00	7.51	3.70	34.51	45.72	Max Avg	Horizontal	149	180	68.2	-22.5	Pass
3	5355.33	34.80	3.71	34.50	73.01	Max Peak	Horizontal	149	180	74.0	-1.0	Pass
2	5350.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power Reduction to meet Band Edge Limit

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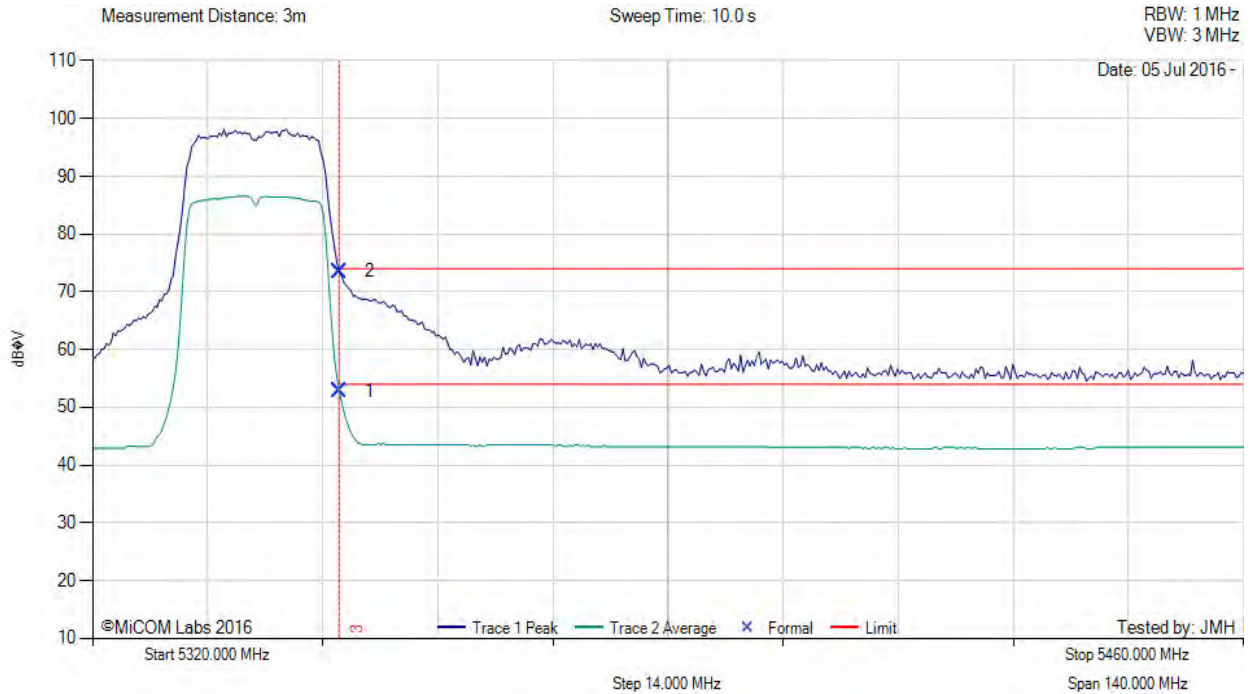


**Title:** Radwin Ltd. Outdoor Subscriber Radio Unit  
**To:** FCC 15.407 & RSS 247 (DFS Bands), RSS GEN, FCC Part 15B & ICES-003  
**Serial #:** RDWN41-U9\_Radiated Rev A  
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RESTRICTED UPPER BAND-EDGE EMISSIONS

Variant: 20 MHz, Test Freq: 5340.00 MHz, Antenna: RADWIN Ltd. NA, Power Setting: 6, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBµV	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	5350.00	14.55	3.70	34.51	52.76	Max Avg	Horizontal	149	180	54.0	-1.2	Pass
2	5350.00	35.34	3.70	34.51	73.55	Max Peak	Horizontal	149	180	74.0	-0.5	Pass
3	5350.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power Reduction to meet Band Edge Limit

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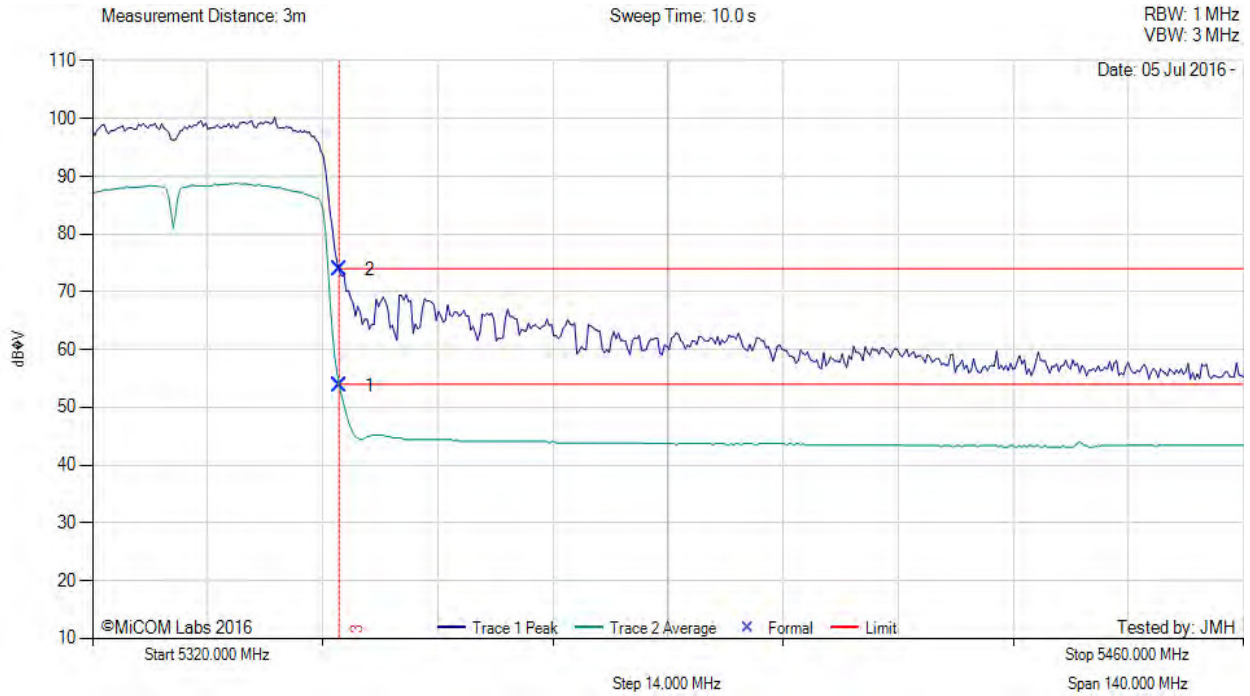


**Title:** Radwin Ltd. Outdoor Subscriber Radio Unit  
**To:** FCC 15.407 & RSS 247 (DFS Bands), RSS GEN, FCC Part 15B & ICES-003  
**Serial #:** RDWN41-U9\_Radiated Rev A  
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RESTRICTED UPPER BAND-EDGE EMISSIONS

Variant: 40 MHz, Test Freq: 5330.00 MHz, Antenna: RADWIN Ltd. NA, Power Setting: 5, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5350.00	15.57	3.70	34.51	53.78	Max Avg	Horizontal	149	180	54.0	-0.2	Pass
2	5350.00	35.67	3.70	34.51	73.88	Max Peak	Horizontal	149	180	74.0	-0.1	Pass
3	5350.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power Reduction to meet Band Edge Limit

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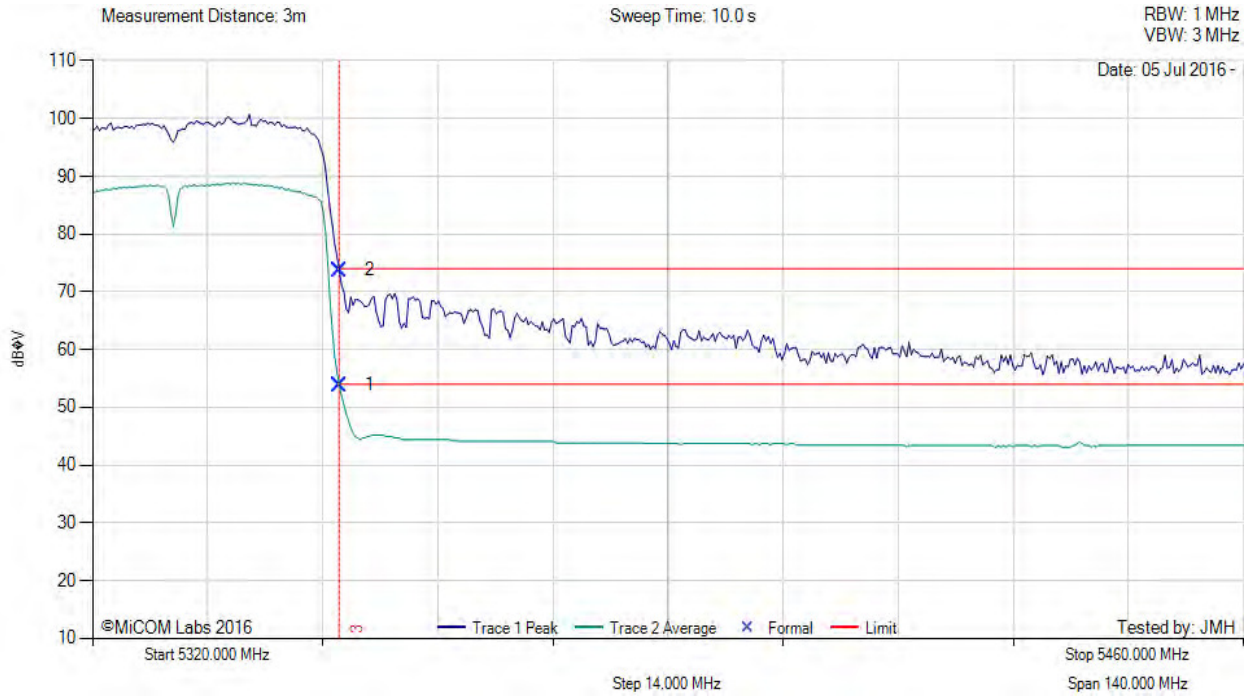


**Title:** Radwin Ltd. Outdoor Subscriber Radio Unit  
**To:** FCC 15.407 & RSS 247 (DFS Bands), RSS GEN, FCC Part 15B & ICES-003  
**Serial #:** RDWN41-U9\_Radiated Rev A  
**Issue Date:** 8<sup>th</sup> November 2016  
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RESTRICTED UPPER BAND-EDGE EMISSIONS

Variant: 80 MHz, Test Freq: 5310.00 MHz, Antenna: RADWIN Ltd. NA, Power Setting: 5, Duty Cycle (%): 99



Num	Frequency MHz	Raw dBμV	Cable Loss	AF dB	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5350.00	15.66	3.70	34.51	53.87	Max Avg	Horizontal	149	180	54.0	-0.1	Pass
2	5350.00	35.54	3.70	34.51	73.75	Max Peak	Horizontal	149	180	74.0	-0.3	Pass
3	5350.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

**Test Notes:** EUT on 150 cm table powered by 24V POE. Heat Sink grounded to turntable simulating physical setup. Power Reduction to meet Band Edge Limit

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