

Company: Radwin Ltd.

Evaluation of: Outdoor Subscriber Radio Unit  
To: FCC CFR 47 Part 1.1310

Report No.: RDWN\_MPE Rev A Report

**MPE REPORT**



# MPE TEST REPORT

FROM



Evaluation of: Radwin Ltd. Outdoor Subscriber Radio Unit  
to

To: FCC CFR 47 Part 1.1310

Test Report Serial No.: RDWN44-MPE Rev A Report

This report supersedes: NONE

Applicant: Radwin Ltd.  
27 Habarzel Street  
Tel Aviv, 69710  
Israel

Product Function: Outdoor Subscriber Radio Unit

Issue Date: 19<sup>th</sup> December 2016

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

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



**MiCOM Labs is an ISO 17025 Accredited Testing Laboratory**

# 1. MAXIMUM PERMISSABLE EXPOSURE

## Calculations for Maximum Permissible Exposure Levels

$$\text{Power Density} = P_d \text{ (mW/cm}^2\text{)} = \text{EIRP}/(4*\pi*d^2)$$

$$\text{EIRP} = P * G$$

P = Peak output power (mW)

G = Antenna numeric gain (numeric)

d = Separation distance (cm)

$$\text{Numeric Gain} = 10 ^ (G \text{ (dBi)}/10)$$

Because the EUT belongs to the General Population/Uncontrolled Exposure the limit of power density is 1.0 mW/cm<sup>2</sup>

The calculations in the table below use the highest conducted power values together with the lowest antenna gain specified for the EUT. These calculations represent worst case in terms of the exposure levels.

Freq. Band (MHz)	Ant Gain (dBi)	Numeric Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Calculated Power Density (mW/cm <sup>2</sup> ) @ 20cm	Min Calculated Safe Distance for 1mW/cm <sup>2</sup> (cm)
5725.0 – 5850.0	16.00	39.81	28.76	751.62	5.95	50.00
5150.0 - 5250.0	16.00	39.81	28.54	715.30	5.67	47.60
5250.0 - 5350.0	16.00	39.81	13.98	25.00	0.20	20.00
5470.0 - 5725.0	17.00	50.12	12.98	19.86	0.20	20.00
4945.0 – 4985.0	14.00	25.12	20.65	116.14	0.58	15.24
2400.0 - 2483.5	3.00	2.00	25.74	374.97	0.15	20.00

Assessment for simultaneous operation:

Freq. Band (MHz)	Ant Gain (dBi)	Numeric Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Calculated Power Density (mW/cm <sup>2</sup> ) @ 20cm	Minimum Separation Distance (cm)
5725.0 - 5850.0	16.00	39.81	28.76	751.62	5.95	50.00
2400.0 - 2483.5	3.00	2.00	25.74	374.97	0.15	20.00
<b>EIRP TOTAL (mW/EIRP) : 30671.93</b>					<b>6.1</b>	<b>50.00</b>

**Note:** for mobile or fixed location transmitters the minimum separation distance is **50cm**, even if calculations indicate the MPE distance to be less.

## Specification

### Maximum Permissible Exposure Limits

FCC §1.1310 Limit = 1.00mW / cm<sup>2</sup> from 1.310 Table 1



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