

MPE TEST REPORT



Evaluation of: Radwin Ltd. Outdoor Subscriber Radio Unit
to

To: FCC CFR 47 Part 1.1310

Test Report Serial No.: RDWN45-MPE Rev A Report

This report supersedes: NONE

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

Product Function: Outdoor Subscriber Radio Unit

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This Test Report is Issued Under the Authority of:

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1. MAXIMUM PERMISSABLE EXPOSURE

Calculations for Maximum Permissible Exposure Levels

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

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

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^2

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^2) @ 20cm	Min Calculated Safe Distance for 1mW/cm^2 (cm)
5725.0 – 5850.0	23.0	199.53	28.76	751.62	29.84	109.24
5150.0 - 5250.0	23.0	199.53	28.54	714.50	28.36	106.51
5250.0 - 5350.0	23.0	199.53	7.0	5.01	0.20	20.0
5470.0 - 5725.0	23.0	199.53	7.0	5.01	0.20	20.0
4945.0 – 4985.0	23.0	199.53	20.65	116.14	4.61	42.94
2400.0 - 2483.5	3.0	2.00	26.12	409.26	0.16	20.0

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^2) @ 20cm	Minimum Separation Distance (cm)
5725.0 - 5850.0	23.0	199.53	28.76	751.62	29.84	110.0
2400.0 - 2483.5	3.0	2.00	26.12	409.26	0.16	110.0
EIRP TOTAL (mW/EIRP) : 150785.1					30.0	110.00

Note: for mobile or fixed location transmitters the minimum separation distance is **110cm**, even if calculations indicate the MPE distance to be less.

Specification

Maximum Permissible Exposure Limits

FCC §1.1310 Limit = $1.00\text{mW} / \text{cm}^2$ from 1.310 Table 1



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