



MPE/RF EXPOSURE REPORT

FCC CFR 47 Part 1.1310

MIKO101-U3 MPE FCC Rev A

Company: Mikrotiks SIA (MikroTik)

Model: RB921UAGS-5SHPaT-NM-US

MPE/RF EXPOSURE REPORT

FROM



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Model: RB921UAGS-5SHPacT-NM-US

To: FCC CFR 47 Part 1.1310

Report Serial No.: MIKO101-U3 MPE FCC Rev A

This report supersedes: NONE

Applicant: Mikrotiks SIA (MikroTik)
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1. MAXIMUM PERMISSABLE EXPOSURE

Calculations for Maximum Permissible Exposure Levels

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

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

P = Peak output power (mW)

G = Antenna numeric gain (numeric)

d = Separation distance (cm)

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

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	Power Density Limit (mW/cm ²)	Min Calculated safe distance for Limit (cm)
5250.0 - 5350.0	7.00	5.01	17.56	57.02	0.06	1.00	4.8
5470.0 - 5725.0	7.00	5.01	18.53	71.29	0.07	1.00	5.4
5250.0 - 5350.0	19.00	79.43	5.72	3.73	0.06	1.00	4.9
5470.0 - 5725.0	19.00	79.43	6.29	4.26	0.07	1.00	5.2

Note: for mobile or fixed location transmitters the minimum separation distance is 20cm, even if calculations indicate the MPE distance to be less.

Specification

Maximum Permissible Exposure Limits

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



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