



## **MPE/RF EXPOSURE EVALUATION REPORT**

**FCC Part 15 RF Exposure Requirements**

**Report No.: MIKO92\_MPE FCC Rev A**

**Company:** Mikrotikls SIA

**Model:** RBLHGG-5acD Wireless Module

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**Model:** RBLHGG-5acD Wireless Module

**To:** FCC CFR 47 Part 1.1310

Test Report Serial No.: MIKO92\_MPE FCC Rev A

This report supersedes: NONE

Applicant: Mikrotikls SIA  
Brivibas gatve 214i  
Riga, LV-1039  
Latvia

Product Function: 802.11ac WLAN access point

Issue Date: 9<sup>th</sup> September 2019

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

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## 1. MAXIMUM PERMISSIBLE 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)

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

The calculations in the table below use the highest conducted power values together with the lowest antenna gain specified for the EUT. The RBLHGG-5acD Wireless Module can only transmit on a single frequency at any given time therefore the following calculations represent worst case 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	Power Density Limit (mW/cm <sup>2</sup> )	Min Calculated safe distance for Limit (cm)	Calculated Power Density (mW/cm <sup>2</sup> ) @ Safe Distance
5250.0 - 5350.0	9.00	7.94	18.95	78.50	0.12	1.00	8.00	1.00
5470.0 - 5725.0	9.00	7.94	16.87	48.68	0.08	1.00	6.00	1.00

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

The Limit is defined in Table 1 of FCC §1.1310.



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