



**MPE/RF EXPOSURE EVALUATION REPORT**

**FCC CFR 47 Part 1.1310**

**Report No.: DIGI107-U7 Rev A**

**Company:** Digi International

**Model Name:** SIGMA PUMPS GEN V

## MPE/RF EXPOSURE EVALUATION REPORT

**Company:** Digi International

**Model Name:** SIGMA PUMPS GEN V

**To:** FCC CFR 47 Part 1.1310

**Test Report Serial No.:** DIGI107-U7 Rev A

This report supersedes: NONE

**Applicant:** Digi International  
9350 Excelsior Blvd  
Hopkins, Minnesota 55343  
USA

**Issue Date:** 1st November 2023

**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 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. These calculations represent worst case in terms of the exposure levels.

Frequency 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)
2400.0 - 2483.5	2.00	1.58	17.75	59.57	0.19	1.00	2.741
5150.0 - 5250.0	2.00	1.58	12.81	19.10	0.06	1.00	1.552
5250.0 - 5350.0	2.00	1.58	12.65	18.41	0.06	1.00	1.524
5470.0 - 5725.0	2.00	1.58	11.62	14.52	0.05	1.00	1.353
5725.0 - 5850.0	2.00	1.58	12.61	18.24	0.06	1.00	1.517

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.



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