



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

### **FCC Part 15 RF Exposure Requirements**

Report No.: PULO01-U2\_FCC\_MPE Rev A

**Company:** Puloli Inc.

**Model Name:** RU700A 1.0

## MPE/RF EXPOSURE EVALUATION REPORT

Test of: Puloli Inc.

To: FCC CFR 47 Part 15 RF Exposure Requirements

Test Report Serial No.: PULO01-U2\_FCC\_MPE Rev A

This report supersedes: NONE

Applicant: Sonos Inc  
649 Mission Street Ste 416  
San Francisco, California 94105  
USA

Issue Date: 23<sup>rd</sup> May 2019

### **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)



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## 1.1. MAXIMUM PERMISSIBLE EXPOSURE

### Calculations for Maximum Permissible Exposure Levels

Power Density = Pd (mW/cm<sup>2</sup>) = EIRP/(4\*π\*d<sup>2</sup>)

EIRP = P \* G

P = Peak output power (mW)

G = Antenna numeric gain (numeric)

d = Separation distance (cm)

Numeric Gain = 10 ^ (G (dBi)/10)

Because the EUT belongs to the General Population/Uncontrolled Exposure the limit of power density is f/1500 mW/cm<sup>2</sup>

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

Freq. Band (MHz)	Frequency of Calculation (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)
787 - 788	787.411875	5.0	3.16	20.99	125.6	0.08	0.525	5.86

**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 = f/1500 mW/cm<sup>2</sup> from 1.310 Table 1 for devices operating in the <900 MHz band

**Specification - Maximum Permissible Exposure Limits**

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposure</b>				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f <sup>2</sup>	6
30-300	61.4	0.163	1.0	6
300-1,500	--	--	f/300	6
1,500-100,000	--	--	5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f <sup>2</sup>	30
30-300	27.5	0.073	0.2	30
300-1,500	--	--	f/1500	30
1,500-100,000	--	--	1.0	30

f = frequency in MHz \* = Plane-wave equivalent power density



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