

MPE/RF EXPOSURE EVALUATION REPORT



Evaluation of: Silver Spring Networks Milli Arduino Shield Board
to

To: FCC CFR 47 Part 15 RF Exposure requirements

Test Report Serial No.: SSNT138 MPE Rev A

This report supersedes: NONE

Applicant: Silver Spring Networks
230 W Tasman Dr
San Jose, California 95134
USA

Product Function: 900 MHz Radio Device

Issue Date: 28th April 2017

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



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1. MAXIMUM PERMISSABLE EXPOSURE

Calculations for Maximum Permissible Exposure Levels

Power Density = P_d (mW/cm²) = $EIRP / (4 * \pi * d^2)$

$EIRP = P * G$

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 0.6 mW/cm²

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 Safe Distance @ 0.6 mW/cm ²	Calculated Power Density @ 20cm	Minimum Separation Distance (cm)
902.0 – 928.0	1.00	1.26	23.77	238.23	6.31	0.06	20.0

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 = $f/1500$ from 1.310 Table 1 for devices operating in the 900 MHz band, where f = frequency in MHz



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Fax: +1 (925) 462 0306
www.micomlabs.com