

RF Exposure / MPE Calculation

No. : 11925908H
Applicant : silex technology, Inc.
Type of Equipment : SDIO Wireless Module
Model No. : SX-SDMAN
FCC ID : N6C-SDMAN
* WLAN(5 GHz) part

silex technology, Inc. declares that Model: SX-SDMAN complies with FCC radiation exposure requirement specified in the FCC Rule 2.1091 (for mobile).

RF Exposure Calculations:

The following information provides the minimum separation distance for the highest gain antenna provided with the "SX-SDMAN" as calculated from (B) Limits for General Population / Uncontrolled Exposure of TABLE 1- LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE) of §1.1310 Radiofrequency radiation exposure limits.

This calculation is based on the highest EIRP possible from the system, considering maximum power and antenna gain, and considering a 1mW/cm² uncontrolled exposure limit. The Friis formula used was:

$$S = \frac{P \times G}{4 \times \pi \times r^2}$$

Where

$P =$ 24.66 mW (Maximum peak output power)

☐ Time average was used for the above value in consideration of 6-minutes time-averaging

☒ Burst power average was used for the above value in consideration of worst condition.

$G =$ 1.469 Numerical Antenna gain; equal to 1.67 dBi

$r =$ 20 cm (Separation distance)

$$\text{Power Density Result } S = 0.00721 \text{ mW/cm}^2$$

Even taking into account the tolerance, this device can be satisfied with the limits.

*The antenna gain listed in this declaration is for the antenna added in this application.

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