

RF Exposure / MPE Calculation

No. : 11166416H
Applicant : silex technology, Inc.
Type of Equipment : Wireless LAN SDIO module
Model No. : SX-SDMAN2 *WLAN (2.4GHz band)
FCC ID : N6C-SDMAN2

silex technology, Inc. declares that Model: SX-SDMAN2 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-SDMAN2" 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

$P =$ 32.93 mW (Maximum average output power)
 Frame power was used for the above value in consideration of 6-minutes time-averaging
 Burst power was used for the above value in consideration of worst condition.
 $G =$ 1.778 Numerical Antenna gain; equal to 2.5dBi
 $r =$ 20 cm (Separation distance)

Power Density Result $S = 0.01165 \text{ mW/cm}^2$

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

UL Japan, Inc.

Ise EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124