

RF Exposure / MPE Calculation

No. : 10604551H

Applicant : silex technology, Inc.
Type of Equipment : PCI Express Half mini card WLAN module
Model No. : SX-PCEAN2 (5180-5240MHz, 5190-5230MHz, 5270-5310MHz, 5260-5320MHz, 5500-5700MHz, and 5510-5670MHz)
FCC ID : N6C-SXPCEAN2

silex technology, Inc. declares that Model : SX-PCEAN2 (5180-5240MHz, 5190-5230MHz, 5270-5310MHz, 5260-5320MHz, 5500-5700MHz, and 5510-5670MHz) complies with FCC radiation exposure requirement specified in the FCC Rules 2.1091 (for mobile).

RF Exposure Calculations:

The following information provides the minimum separation distance for the highest gain antenna provided with the "SX-PCEAN2 (5180-5240MHz, 5190-5230MHz, 5270-5310MHz, 5260-5320MHz, 5500-5700MHz, and 5510-5670MHz)" 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 1.0mW/cm² uncontrolled exposure limit. The Friis formula used was:

$$S = (P * G) / (4 * \pi * r^2)$$

Where

P = 50.58 mW (Maximum Average output power)
G = 2.45 Numerical Antenna gain; equal to 3.90 dBi
r = 20.0 cm

For: SX-PCEAN2 (5180-5240MHz, 5190-5230MHz, 5270-5310MHz, 5260-5320MHz, 5500-5700MHz, and 5510-5670MHz)

$$S = 0.02470 \text{ mW/cm}^2$$

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

UL Japan, Inc.

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