

FCC ID: N6C-SXPCEAN2

To whom it may concern,

We, UL Japan, Inc, hereby declare that PCI Express Half mini card WLAN module, model: SX-PCEAN2 (FCC ID: N6C-SXPCEAN2) of silex technology, Inc. is exempt from RF exposure SAR evaluation because the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold P_{th} (mW) described in the following formula according to the Code of Federal Regulation title 47 section 1.1307(b)(3)(i)(B). This method is used at separation distances d (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive) for single RF sources. P_{th} is given by:

$$P_{th} (\text{mW}) = \begin{cases} ERP_{20 \text{ cm}} (d / 20 \text{ cm})^{x} & d \le 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \le 40 \text{ cm} \end{cases}$$

Where

$$x = -\log_{10}\left(\frac{60}{ERP_{20} \operatorname{cm}\sqrt{f}}\right) \text{ and } f \text{ is in GHz}$$

$$ERP_{20} \operatorname{cm} (\mathrm{mW}) = \begin{cases} 2040f & 0.3 \operatorname{GHz} \le f < 1.5 \operatorname{GHz} \\ 3060 & 1.5 \operatorname{GHz} \le f \le 6 \operatorname{GHz} \end{cases}$$

When the minimum separation distance is shorter than 0.5 cm, 0.5 cm is applied.

The SAR evaluation exemption threshold is calculated as below.

[WLAN 2.4 GHz band part]

Pth (mW)	3060
f (GHz)	2.462
$ERP_{20 \text{ cm}} \text{ (mW)}$	3060
<i>d</i> (cm)	20.0

Conducted Power	(dBm)	18.48
	(mW)	70.53
Antenna Gain (dBi)	1.44
EIRP (dBm)		19.92
ERP	(dBm)	17.78
	(mW)	59.98

The Maximum time-averaged power or ERP whichever greater is 70.6 mW. (Rounded up to two decimals place)

[WLAN 5 GHz band part]

Pth (mW)	3060
f (GHz)	5.825
$ERP_{20 \text{ cm}} (\text{mW})$	3060
<i>d</i> (cm)	20.0

Conducted Power	(dBm)	16.74
	(mW)	47.17
Antenna Gain (dBi)	3.90
EIRP (dBm)		20.64
ERP	(dBm)	18.50
	(mW)	70.79

The Maximum time-averaged power or ERP whichever greater is 70.8 mW. (Rounded up to two decimals place)

Thank you for your attention to this matter.

S. Matsuyama

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