

RF Exposure Evaluation Declaration

Product Name: Shock-Wav™ Indoor Wi-Fi Signal Booster

Model Number: SWM-1000-I

FCC ID: W59SWM1000I

Applicant: Luxul Wireless

Address: 357 S 670 W
Suite 160
Lindon UT 84042 USA

Date of Declaration: 3 Sep 2009

The declaration results relate only to the samples calculated.

RF Exposure Evaluation

Limits

Per FCC 1.1310 Table 1B, the maximum permissible RF exposure for an uncontrolled environment is 1 mW/cm² for the frequencies used in this device. The worst-case power for the antenna at the center frequency of the band of operation is used for the calculation below. The power density at a 20 cm distance is shown for each of the antenna options. As shown, the calculated power density is below the FCC's limit for Class B exposure of 1mW/cm².

The actual power density for the EUT calculated as shown below.

$$Pd = (P_{out} * G) / (4 * \pi * r^2)$$

Where

Pd = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and the center of the radiator in cm

Frequency	Antenna	Modulation	Antenna	Numeric	Power	Separation	Power Density
MHz	Type	Type	Max Linear Gain (dBi)	Gain	(mW)	Distance (cm)	(mw/cm ²)
2437	Omni	11b	3	2.0	263.03	20	0.1047
2438	Omni	11g	3	2.0	954.99	20	0.3800
2437	Omni	11b	5	3.2	263.03	20	0.1655
2438	Omni	11g	5	3.2	954.99	20	0.6080
2437	Patch	11b	4	2.5	263.03	20	0.1308
2438	Patch	11g	4	2.5	954.99	20	0.4750

NOTICE:

Radiation Exposure Statement

This equipment shall only be installed and operated with the antenna types shown above and installed with a minimum of 20 cm of separation distance between the antenna and all persons during normal operation.