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RF Exposure Evaluation Declaration

Product Name: Xen 802.11bgn Access Point

Model Numbers: XAP-1030, XAP-1031, XAP-1032

FCC ID: W59XAP103X

Applicant: Luxul Wireless

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

Date of Declaration: 18 Aug 2011

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.

$$Pd = (Pout * G) / (4 * \pi * r^2)$$

Where

Pd = power density in mW/cm²

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 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	5.0	3.2	916.22	20	0.5764
2437	Omni	11gn	5.0	3.2	959.40	20	0.6036
2437	Omni	11n	5.0	3.2	116.14	20	0.0731
2437	Patch	11b	4.0	2.5	916.22	20	0.4579
2437	Patch	11gn	4.0	2.5	959.40	20	0.4794
2437	Patch	11n	4.0	2.5	116.14	20	0.0580
2437	Dual Patch	11b	4.0	2.5	345.77	20	0.1728
2437	Dual Patch	11gn	4.0	2.5	461.16	20	0.2305
2437	Dual Patch	11n	4.0	2.5	43.05	20	0.0215

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.