

## **Attachment 1**

### **RF EXPOSURE INFORMATION**

## RADIO FREQUENCY EXPOSURE (HAZARD) INFORMATION

Testing was performed in accordance with the requirements of FCC Part 15.247(i)

Spread spectrum transmitters operating in the 2400 - 2483.5 MHz and 5725 – 5850 MHz bands are required to be operated in a manner that ensures that the public is not exposed to RF energy levels in accordance with CFR 47, Section 1.1307(b)(1).

The MPE calculation shown below is for the WLAN device with a separation distance of greater than 20cm.

In accordance with Section 1.1310, the Maximum Permissible Exposure (MPE) limit for the General Population/Uncontrolled Exposure of 1.0 has been applied, i.e 1mW/cm<sup>2</sup>.

Friis transmission formula:  $P_d = (P * G) / (4 * \pi * r^2)$

where:  $P_d$  = power density (mW/cm<sup>2</sup>)  
 $P$  = power input to the antenna (mW)  
 $G$  = antenna gain (numeric)  
 $r$  = distance to the center of radiation of the antenna (cm)

### The result was extracted from section 5.0 of this report:

Prediction frequency = 2412 MHz  
Maximum peak output power = 22.5 dBm = 177.8 mW  
Antenna gain (typical) = 12 dBi = 15.85 numeric  
Prediction distance = 20 cm  
The power density calculated = 0.561 mW/cm<sup>2</sup>

Prediction frequency = 5825 MHz  
Maximum peak output power = 12.4 dBm = 17.4 mW  
Antenna gain (typical) = 22 dBi = 158.5 numeric  
Prediction distance = 20 cm  
The power density calculated = 0.548 mW/cm<sup>2</sup>

MPE limit for uncontrolled exposure at prediction frequency = 1 mW/cm<sup>2</sup>

**Results:** Calculations show that the Radio devices with described antennas complied with Maximum Permissible Exposure (MPE) limit for the General Population/Uncontrolled Exposure