FCC ID: F5323PGP9934P



## Environmental evaluation and exposure limit according to FCC CFR 47part 1, §1.1307, §1.1310

The Wireless Motion Detector is classified as a mobile device. The Wireless Motion Detector includes transmitter operating according to FCC part 15 subpart C section 15.247 (FHSS)

The FCC limit for power density for general population/uncontrolled exposure is  $f/1500 \text{ mW/cm}^2$  for 300 - 1500 MHz frequency range:

P = 912.75/1500 = 0.61 mW/cm<sup>2</sup>

The power density  $P(mW/cm^2) = P_T / 4\pi r^2$ 

P<sub>T</sub> is the transmitted power, which is equal to the peak transmitter output power 14.29 dBm plus maximum antenna gain 3 dBi, the maximum equivalent isotropically radiated power EIRP is

P<sub>T</sub> = 14.29 dBm + 3 dBi = 17.29 dBm = 53.57 mW.

The power density at 20 cm (minimum safe distance, required for mobile devices), calculated as follows:

Compliance with FCC limit: 53.57 mW /  $4\pi$  (20 cm)<sup>2</sup> = 0.011 mW/cm<sup>2</sup> << 0.61 mW/cm<sup>2</sup>

General public cannot be exposed to dangerous RF level.