

# RF Exposure Statement

## Requirement:

According to CFR 15 §1.1307 (b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

## SAR Testing:

This is a controlled device mounted underneath of a motorized bed, greater than 20 cm from the occupant. Worst case peak radiated power of the 802.15.4 radio is 95.2 dBuV/m @ 3m, or equivalently an EIRP of 1 mW. Worst case peak EIRP of the onboard WLAN module is 16.87 dBm, or 48.64 mW. Worst case coherent power addition would result in a EIRP of 49.64 mW.

## Health Hazard:

The following table summarizes the power density at a distance of 20 cm from the device as calculated from FCC OET Bulletin 65.

**Table 6.3 Potential Health Hazard Radiation Level – Coherent Power Addition**

WLAN	EIRP (mW)	S (mW/cm <sup>2</sup> )
PCB	49.64	0.00988

The following equations were used in calculating the power density (S).

$$EIRP(mW) = Po(mW) \cdot 10^{\frac{Gain(dB)}{10}} \quad \text{and} \quad S(mW / cm^2) = \frac{EIRP(mW)}{4 \cdot \Pi \cdot R(cm)^2}, R = 20 \text{ cm}$$