

# 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:

The average output power under normal worst-case operation of EUT is  $1.0 \text{ mW} < 60/f(\text{GHz}) \text{ mW}$  or  $24.19 \text{ mW}$  for  $d < 2.5 \text{ cm}$  (general population category). The user is instructed in the product manual to maintain no less than a 20 cm separation distance from this device. Per the calculations below, SAR measurements are not necessary.

## Health Hazard:

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

**Potential Health Hazard Radiation Level**

Worst Case	Ant.Gain (dBi)*	Po (dBm)	EIRP*** (dBm)	EIRP*** (mW)	S <sub>20cm</sub> (mW/cm <sup>2</sup> )
802.15.4	0.9	-0.1	0.8	1.2	0.0002

\*Gain value computed in associated test report.

\*\* Conducted power output measured with radio transmitting at maximum duty and data rate possible

\*\*\*Note: EIRP employed in calculation is the greater of the average conducted output power and the EIRP.

The following equations were used in calculating duty cycle and power density (S).

$$EIRP(mW) = Po(mW) \cdot 10^{\frac{Gain(dB)}{10}}$$

$$S(mW / cm^2) = \frac{EIRP(mW)}{4 \cdot \Pi \cdot R(cm)^2}, R = 20 \text{ cm}$$