

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 $0.6 \text{ mW} < 60/f(\text{GHz}) \text{ mW}$ or 24.19 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 _{20cm} (mW/cm ²)
802.15.4	3.0	-2.2	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).

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

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