

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 guidelines.

SAR Testing:

The average output power under normal worst-case operation of EUT is 36 dBm (2 Watts). These systems are professionally installed for fixed point-to-point use only, and the installer is instructed in the product manual to ensure no less than a 23 cm separation distance from this device at all times. Because this system is fixed and professionally installed, SAR testing is not required.

Health Hazard:

The following table summarizes the power density at a distance of 23 cm as calculated from FCC OET Bulletin 65 with is chosen as the minimum separation based on the lowest permissible MPE in the operating band.

Potential Health Hazard Radiation Level

Worst Case	Ant.Gain (dBi)*	Po** (dBm)	EIRP (dBm)	EIRP (mW)	S _{23cm} (mW/cm ²)	MPE _{lim} (mW/cm ²)
Config A	9.2	26.7	35.9	3890	0.585	0.601
Config B	9.2	26.0	35.2	3311	0.498	0.601
Config C	12.2	23.7	35.9	3890	0.585	0.601

*Gain value declared by antenna manufacturer.

** Conducted output power at antenna port measured with radio transmitting CW. In use, hopping duty applies.

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

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

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

$$R_{MPE}(cm) = \sqrt{\frac{EIRP(mW)}{4 \cdot \Pi \cdot MPE_{lim}(mW / cm^2)}}$$