

RF Exposure Evaluation

A calculation based on the **FCC's Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields (Edition 97-01)** appears below.

Antenna Connector Power Output = 12.5dBm
Antenna Gain = 3dBi

$$\text{EIRP} = P_{\text{max}} + G_{\text{ant}} = 12.5 + 3 = 15.5\text{dBm} = 31.7\text{mW}$$

The limit for General Population/Uncontrolled Exposure is

$$S [\text{mW}/\text{cm}^2] = f [\text{MHz}] / 1500$$

$$S = 900 / 1500 = 0.6 \text{ mW}/\text{cm}^2$$

The distance from the antenna at which this radiation level will be reached is

$$R = \sqrt{\frac{\text{EIRP}}{4\pi S}}$$

$$R = \sqrt{\frac{3.17}{(4\pi \times 0.6)}} = 2.1\text{cm}$$

This distance is well below the 20cm allowed for a portable device.

A statement indicating the need for a 20cm separation distance appears in the installation manual.