

RF Exposure Evaluation (node)

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

$$\text{EIRP} = 12.5 \text{dBm} = 17.78 \text{mW}$$

The limit for general population/uncontrolled exposure is:

$$S \left[\frac{\text{mW}}{\text{cm}^2} \right] = 0.601$$

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

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

$$R = \sqrt{\frac{17.78}{4\pi \cdot 0.601}}$$

$$R = 1.5 \text{cm}$$