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

EIRP = Pmax + Gant = 12.5 + 3 = 15.5dBm = 31.7mW

The limit for General Population/Uncontrolled Exposure is

S [mW/cm^2] = f [MHz] / 1500

S = 900 / 1500 = 0.6 mW/cm^2

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

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

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.