

## Potential Health Hazard EM Radiation Level

The following table summarizes the minimum separation distance as calculated following FCC OET Bulletin 65.

To obtain the minimum separation distance, the antenna gain (dBi) listed in Table 3.2 must be added to the radio peak output power (dBm) listed in Table 6.2 (below), resulting in the total EIRP for a given system. This EIRP is then used to compute the power density at a distance of 20 cm.

$$S(\text{mW}/\text{cm}^2) = (20 \text{ mW} * 1.26) / (4 \pi 20^2) = \mathbf{0.005 \text{ mW}/\text{cm}^2}$$

The following equations were used in calculating the operating distance (R).

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

and

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