

Potential Health Hazard EM Radiation Level

The minimum separation distance calculated following FCC OET Bulletin 65 is calculated as follows, where S is power density,

$$\text{EIRP(dBm)} = E_3(\text{dB}\mu\text{V/m}) - 95.2 \text{ dB(mW}/(\mu\text{V/m}) \text{)}$$

$$\text{EIRP} = 120.8 (\text{dB}\mu\text{V/m}) - 95.2 \text{ dB(mW}/(\mu\text{V/m}) \text{)} = 25.6 \text{ dBm}$$

$$\begin{aligned}\text{ERP} &= \text{EIRP} - 2.15 = 25.6 - 2.15 = 23.45 \text{ dBm} \\ &= 221.3 \text{ mW} = 0.22 \text{ W}\end{aligned}$$

Thus, the power density at 20 cm becomes $S(\text{mW}/\text{cm}^2) = \text{EIRP}(\text{mW})/(4\pi R(\text{cm})^2) = 0.072 \text{ mW}/\text{cm}^2$

NOTE:

- (1) Under no circumstances is the ERP of this device greater than 3W, as required by 2.1091 and the FCC mm-wave accepted test procedures.