

FCC ID: PZ3-FM72

MAXIMUM PERMISSIBLE EXPOSURE CALCULATIONS

The effective radiated power for this device is based on the worst case conducted power output, and the specified gain of the quarter wave whip mounted on the outside of the case. The measured power output of the equipment is measured at 27.5 dBm, and the antenna gain, referenced to isotropic, is 0.5 dBi. The effective radiated power at the antenna aperture is;

$$P_t = 27.5 \text{ dBm} + 0.5 \text{ dB} = 28.0 \text{ dBm} \text{ or in watts; } 10^{(28.0/10)} = 0.631 \text{ watts}$$

The expected power density at a 20 centimeter distance is:

$$\begin{aligned} W(r) &= P.O. / 4 (\pi) R^{**} \\ 0.631 / 12.56 \times 0.2^{**} \\ 0.631 / 0.5024 &= 1.256 \text{ w/m}^{**} \end{aligned}$$

Re-normalizing this power density to square centimeter:

$$W(r) = 1.256 \text{ w/m}^{**} / 10,000 = 0.1256 \text{ mW/cm}^{**}$$

The limit for M.P.E. given in Table 1 (b) of 1.1310, for the frequency range 30-300 MHz is:

$$0.2 \text{ mW/cm}^{**}$$

And:

$0.1256 \text{ mW/cm}^{**} < 0.2 \text{ mW/cm}^{**}$
requirement.

So the device meets the MPE