

MPE CALCULATION for PM - 9900

Formular used in the MPE Calculations:

$$E^2/3770 = S, \text{ mW/cm}^2$$

$$P_{\text{watts}} \cdot G_{\text{gain}} = 10^{(P_{\text{dBm}} - 30 + G_{\text{dBi}})/10}$$

$$E, \text{ V/m} = (P_{\text{watts}} \cdot G_{\text{gain}} \cdot 30)^{0.5} / d, \text{ meters}$$

$$d = ((P_{\text{watts}} \cdot G \cdot 30) / 3770 \cdot S)^{0.5} \quad \text{----- (A)}$$

Since

$$S \text{ (mW/cm}^2\text{)} = 0.30 \quad \text{from 1.1310 Table 1}$$

$$P \text{ (dBm)} = -14.7 \quad \text{EUT output power}$$

$$G \text{ (dBi)} = 0.0 \quad \text{EUT antenna gain}$$

Substitute these parameters into the A above, we have

$$\text{MPE safe distance } d \text{ (cm)} = 0.1$$

NOTE: For mobile or fixed location transmitters, minimum separation distance is 20 cm, even if calculations indicate MPE distance is less