

RF Hazard Distance Calculation

mW/cm2 from Table1:

1.00

Max RF Power P, dBm	TX Antenna G, dBi	MPE Safe Distance, cm	
20.0	16.0	17.8	90deg sector
20.0	17.0	20.0	integral ant
20.0	24.0	44.7	panel

Basis of Calculations:

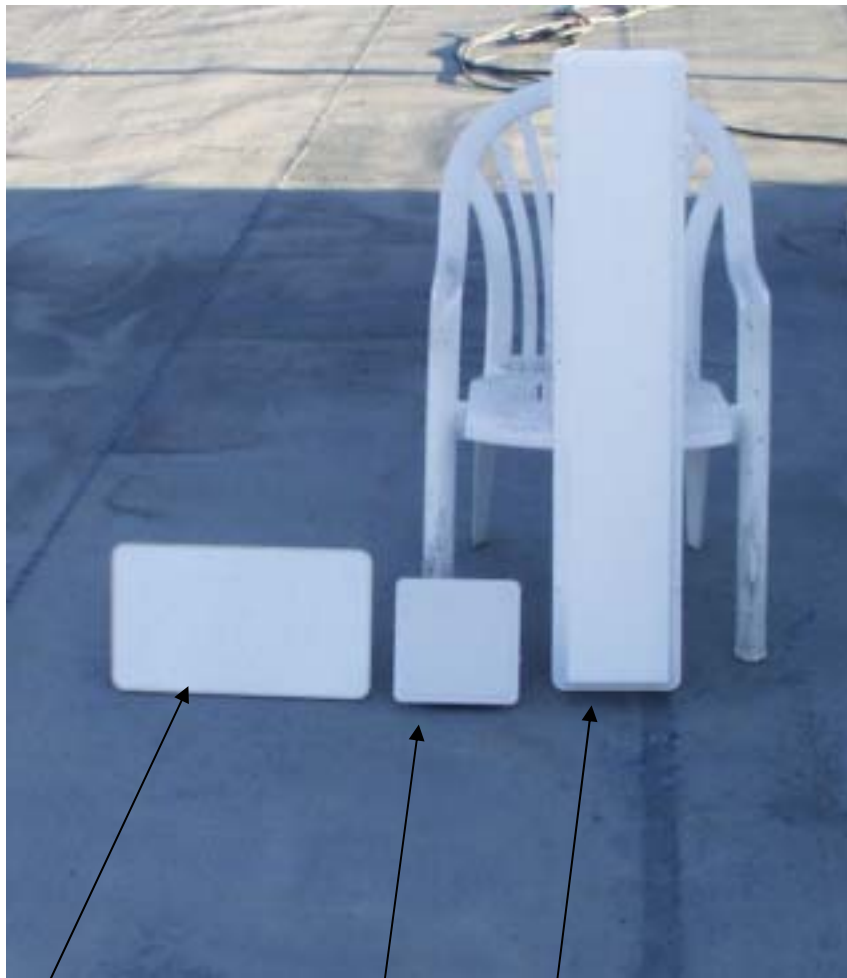
$$E^2/3770 = S, \text{ mW/cm}^2$$

$$E, \text{ V/m} = (P_{\text{watts}} * G_{\text{gain}} * 30)^{.5} / d, \text{ meters}$$

$$d = ((P_{\text{watts}} * G_{\text{gain}}) / 3770 * S)^{.5}$$

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

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



panel

integral

sector