

CALCULATION OF RF HAZARD LIMITS (MPE)

FOXCOM WIRELESS LTD

FCC ID: OJFLITENNA0LF0SP1

RF Hazard Distance

Calculation

Maximum antenna gain, per user manual: 10 dBi

mW/cm2 from Table1: 0.60 = $f/1500$ (f = 869 MHz)

Max RF Power P, dBm	TX Antenna G, dBi	MPE Safe Distance, cm
24.0	10.0	18.3

Basis of Calculations:

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

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

$$d = ((P_{\text{watts}} * G * 30) / (3770 * S))^{0.5}$$

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

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