

MPE Calculations for Litenna Dual-band In-building repeater

Applicant: Foxcom Wireless Inc.

FCC ID: OJFLITENNA9B430P4

MPE Calculation, 869 MHz:

1.1310 Radiofrequency radiation exposure evaluation

RF Hazard Distance Calculation

mW/cm2 from Table1: 0.60

Max RF Power P, dBm	TX Antenna G, dBi	MPE Safe Distance, cm
20.3	10.0	11.9

MPE Calculation, 1900 MHz:

RF Hazard Distance Calculation

mW/cm2 from Table1: 1.00

Max RF Power P, dBm	TX Antenna G, dBi	MPE Safe Distance, cm
17.3	10.0	6.5

Basis of Calculations:

4

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

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

$$d = ((P_{\text{watts}} * G * 30) / (3770 * S))^{.5}$$

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

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