RF Exposure (MPE) Calculations

Applicant: Breezecom Ltd.
FCC ID: LKT-SUR-24
2.4 GHz Frequency Hopping Spread Spectrum

RF Hazard Distance Calculation

mW/cm2 from Table1: 1.00

Max RF Power P, dBm	TX Antenna G, dBi	MPE Safe Distance, cm
27.4	**7.0**	**14.8**

Basis of Calculations:

E^2/3770 = S, mW/cm2
E, V/m = (Pwatts*Ggain*30)^.5/d, meters
d = ((Pwatts*G*30)/3770*S))^0.5 Pwatts*Ggain = 10^(PdBm-30+GdBi)/10)

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

*Worst case antenna : Huber-Shuner SPA 2400/75/9/0/V (Breezecom model UNI-8.5 dBi).

As stated previously, this antenna has a permanently attached cable with 1.5 dB loss at 2400 MHz. The effective antenna gain is therefore 8.5 dBi - 1.5 dB = 7.0 dBi.