

**Pointred
Technologies
MPE Calculations**

FCC ID: QDU-MCRD-5R7

RF Hazard Distance Calculation

mW/cm2 from Table1: 1.00

Max RF PowerTX Antenna MPE		
P, dBm	G, dBi	Safe Distance, cm
23.0	28.0	100.1
23.0	23.0	56.3
23.0	21.0	44.7
23.0	19.0	35.5
23.0	16.0	25.1

**Basis of
Calculations:**

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

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

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

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