

Prediction of Distance for a specific MPE Limit

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{PG}{4\pi R^2}$$

$$R = \sqrt{\frac{PG}{4\pi S}}$$

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the centre of radiation of the antenna

Max input to antenna terminal

23	dBm	199.53
2.2	dB _i	1.67
2.405	GHz	2.405E+09
1	mW/cm ²	

Max Antenna gain

Prediction Freq

MPE limit for uncontrolled exposure at prediction frequency

Permitted distance at MPE limit (1 mW/cm²) in cm

5.15*

Application is for a mobile device manufacturer is recommending 20cm min distance.