

Prediction of MPE limit at a given distance

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

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

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

Antenna gain

Prediction distance

Prediction Freq

MPE limit for uncontrolled exposure at prediction frequency

Value	Units	numeric
17.6	dBm	57.54
15	dBi	31.62
20	cm	20.00
2.405	GHz	2.405E+09
1	mW/cm ²	

Power density at prediction frequency:

0.362 (mW/cm²)

Maximum allowable antenna gain

19.4 dBi