

Prediction of MPE limit at a given distance



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

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

where: 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 center of radiation of the antenna

Maximum peak output power at antenna input terminal: 30.19 (dBm)

Maximum peak output power at antenna input terminal: 1044.720219 (mW)

Antenna gain(typical): 2 (dBi)

Maximum antenna gain: 1.584893192 (numeric)

Prediction distance: 20 (cm)

Prediction frequency: 2310 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 1 (mW/cm²)

Power density at prediction frequency: 0.329405 (mW/cm²)

3.294049679 (W/m²)

Maximum allowable antenna gain: 6.822698554 (dBi)

Antenna Gain Margin of Compliance: 4.822698554 (dB)

Maximum Distance: 11.47876244 (cm)

Note : The Maximum peak output power at antenna input terminal 30.19 dBm was summed value of both chains.