

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 centre of radiation of the antenna

Maximum peak output power at the antenna terminal: 62.2 (mW)

Antenna gain (maximum): 4.40 (dBi)

Antenna gain (maximum): 2.75 (numeric)

Prediction distance: 20.0 (cm)

Prediction frequency: 2405 (MHz)

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

Power density at prediction frequency: 0.034 (mW/cm²)

Maximum allowable antenna gain: 19.0 (dBi)

¹ JN5139_XXX_M04_FCC_MPE_Calculation_1v0.doc CF.