

Prediction of MPE limit at a given distance

Spotcell 141/142

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: 7.00 (dBm)

Maximum peak output power at antenna input terminal: 5.011872336 (mW)

Antenna gain(typical): 3 (dBi)

Maximum antenna gain: 1.995262315 (numeric)

Prediction distance: 20 (cm)

Prediction frequency: 869-894 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 0.6 (mW/cm²)

Power density at prediction frequency: 0.001989 (mW/cm²)

Maximum allowable antenna gain: 27.79421106 (dBi)

Margin of Compliance: 24.79421106

