

Prediction of MPE limit at a given distance



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

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

Down Link MPE

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: 34.00 (dBm) *This is 35 dBm*

Maximum peak output power at antenna input terminal: 2511.886432 (mW)

Antenna gain(typical): 5 (dBi)

Maximum antenna gain: 3.16227766 (numeric)

Prediction distance: 35 (cm)

Prediction frequency: 851 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 0.567 (mW/cm²)

Power density at prediction frequency: 0.516005 (mW/cm²)

Maximum allowable antenna gain: 5.411842538 (dBi)

Margin of Compliance: 0.411842538