



### **Prediction of MPE limit at a given distance**

Cellular Band UpLink

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: 20.00 (dBm)

Maximum peak output power at antenna input terminal: 100 (mW)

Antenna gain(typical): 10 (dBi)

Maximum antenna gain: 10 (numeric)

Prediction distance: 20 (cm)

Prediction frequency: 824 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 0.549333333 (mW/cm<sup>2</sup>)

Power density at prediction frequency: **0.198944** (mW/cm<sup>2</sup>)

Maximum allowable antenna gain: **14.41105808** (dBi)

Margin of Compliance: 4.41105808