

### 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 isotropic

R = distance to the center of radiation of the antenna

Maximum peak output power at antenna input terminal: 31.70 (dBm)

Maximum peak output power at antenna input terminal: 1479.1 (mW)

Antenna gain(typical): 2.15 (dBi)

Maximum antenna gain: 1.641 (numeric)

Prediction distance: 20 (cm)

Source Based Time Average Duty Cycle: 100 (%)

Prediction frequency: 848.8 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 0.566 (mW/cm<sup>2</sup>)

Power density at prediction frequency: 0.48276 (mW/cm<sup>2</sup>)

Power density at prediction frequency: 4.8276 (W/m<sup>2</sup>)

Margin of Compliance: 0.69 (dB)

Simultaneously transmission with BT:  $0.48276 + 0.00099 = 0.48375$  mW/cm<sup>2</sup>  $< 0.566$  mw/cm<sup>2</sup>