

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: 29.11 (dBm)

Maximum peak output power at antenna input terminal: 814.7 (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: 836.6 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 0.558 (mW/cm^2)

Power density at prediction frequency: 0.26591 (mW/cm^2)

Power density at prediction frequency: 2.6591 (W/m^2)

Margin of Compliance: 3.22 (dB)

Simultaneously transmission with WiFi: $0.26591 + 0.02665 = 0.29256 < 0.558$