

### 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 an isotropic radiator  
R = distance to the center of radiation of the antenna

Maximum peak output power at the antenna terminal: 22.70 (dBm)

Maximum peak output power at the antenna terminal: 186.2087137 (mW)

Antenna gain(typical): 5.6 (dBi)

Maximum antenna gain: 3.630780548 (numeric)

Prediction distance: 20 (cm)

Prediction frequency: 2414 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 1 (mW/cm<sup>2</sup>)

**Power density** at prediction frequency: **0.134502** (mW/cm<sup>2</sup>)

Maximum allowable antenna gain: **14.31269855** (dBi)

Worst case antenna gain used at 2.4GHz channel Worst case power used from FCC ID: RTP55010016-5
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