

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

Fundamental transmit (prediction) frequency: 2402 MHz

Maximum measured conducted peak output power: 3.91 dBm

Cable and/or jumper loss: 0.0 dB

Maximum peak power at antenna input terminal: 3.91 dBm

Tx On time: 1.000 ms

Tx period time: 1.000 ms

Average factor: 100 %

Maximum calculated average power at antenna input terminal: 2.460 mW

Single Antenna gain (typical): 2 dBi

Number of antennae: 1

Total system gain (typical): 2.0 dBi

MPE limit for uncontrolled exposure at prediction frequency: 1 mW/cm²

10 W/m²

Minimum calculated prediction distance for compliance: 1 cm

Typical (declared) distance: 20 cm

Average power density at prediction frequency: 0.000776 mW/cm²
0.00776 W/m²

Margin of Compliance: 31.10270 dB

Maximum allowable antenna gain: 33.10270 dBi