

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: 2409.6 MHz
 Maximum measured conducted peak output power: 29.10 dBm
 Cable and/or jumper loss: 0.0 dB
 Maximum peak power at antenna input terminal: 29.10 dBm
 Tx On time: 5.000 ms
 Tx period time: 50.000 ms
 Average factor: 10 %
 Maximum calculated average power at antenna input terminal: 81.283 mW
 Single Antenna gain (typical): 6 dBi
 Number of antennae: 1
 Total system gain (typical): 6.000 dBi

MPE limit for uncontrolled exposure at prediction frequency: 1 mW/cm²
10 W/m²

Minimum calculated prediction distance for compliance: 5 cm

Typical (declared) distance: 20 cm

Average power density at prediction frequency: 0.064377 mW/cm²
0.64377 W/m²

Margin of Compliance: 11.91270 dB
 Maximum allowable antenna gain: 17.91270 dBi