

Global EMC

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 antenna input terminal: 2.20 (dBm)

Maximum peak output power at antenna input terminal: 1.659586907 (mW)

Antenna gain(typical): 1.5 (dBi)

Maximum antenna gain: 1.412537545 (numeric)

Time Averaging: 100 (%)

Prediction distance: 2.5 (cm)

Prediction frequency: 2450 (MHz)

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

Power density at prediction frequency: 0.029848 (mW/cm²)

Margin of compliance: -15.3 (dB)

This equates to

0.298476483 W/m² Complies