

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: -4.00 (dBm)

Maximum peak output power at antenna input terminal: 0.398107171 (mW)

Antenna gain(typical): 2 (dBi)

Maximum antenna gain: 1.584893192 (numeric)

Time Averaging: 100 (%)

Prediction distance: 1 (cm)

Prediction frequency: 2450 (MHz)

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

Power density at prediction frequency: 0.050210 (mW/cm²)

Margin of compliance: -13.0 (dB)

This equates to 0.502099901 W/m² Complies

For information This equates to 13.75833067 V/m

Note: This device does not exceed the 60 / f (GHz) in mW limit as per FCC KDB 447498 2(a)(i), so it is allowable to be used in portable exposure conditions with no restrictions on host platforms

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