Global EMC Scott Dry

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 radia

R = distance to the center of radiation of the antenna

 Maximum peak output power at antenna input terminal:
 3.70 (dBm)

 Maximum peak output power at antenna input terminal:
 2.344228815 (mW)

 Antenna gain(typical):
 0 (dBi)

 Maximum antenna gain:
 1 (numeric)

 Time Averaging:
 100 (%)

 Prediction distance:
 1 (cm)

 Prediction frequency:
 2480 (MHz)

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

Power density at prediction frequency: 0.186548 (mW/cm^2)

Margin of compliance: -7.3 (dB)

This equates to 1.865478018 W/m^2 PASS

For information This equates to 26.51952513 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