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 device output terminal: 13.53 (dBm)

Cable and Jumper loss 0.0 (dB)

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

Maximum peak output power at antenna input terminal: 22.54239212 (mW)

Single Antenna gain(typical): 3 (dBi)

Number of Antennae

Total Antenna gain(typical): 3 (dBi)

Maximum antenna gain: 1.995262315 (numeric)

Prediction distance: 20 (cm)

Prediction frequency: 902.4 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 0.6016 (mW/cm^2)

> Power density at prediction frequency: 0.008948 (mW/cm^2)

> > 0.089481 (W/m^2)

Tx On time: 100.000000 Tx period time: 100.000000

Average Factor: 100.000000

0.089481 (W/m^2) Average Power density at prediction frequency: Maximum allowable antenna gain: 21.27577683 (dBi)

> Margin of Compliance: 18.27577683 dB