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: ______18.59 (dBm)

Cable and Jumper loss _____ (dB)

Maximum peak output power at antenna input terminal: 18.59 (dBm)

Maximum peak output power at antenna input terminal: 72.27698036 (mW)

Single Antenna gain(typical): 2 (dBi)

Number of Antennae

Total Antenna gain(typical): 2 (dBi)

Maximum antenna gain: 1.584893192 (numeric)

Prediction distance: 20 (cm)

Prediction frequency: 915 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 0.61 (mW/cm^2)

Power density at prediction frequency: 0.022789 (mW/cm^2)

0.227893 (W/m^2)

Tx On time: 100.000000
Tx period time: 100.000000

Average Factor: 100.000000

Average Power density at prediction frequency: 0.227893 (W/m^2)

Maximum allowable antenna gain: 16.2759969 (dBi)

Margin of Compliance: 14.2759969 dB