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: 15.50 (dBm) 35.48133892 (mW) Maximum peak output power at antenna input terminal: Antenna gain(typical): 2.1 (dBi) 1.621810097 (numeric) Maximum antenna gain: Time Averaging: 100 (%) Prediction distance: 20 (cm) 2450 (MHz) Prediction frequency: MPE limit for uncontrolled exposure at prediction frequency: 1

Power density at prediction frequency: 0.011448 (mW/cm^2)

Margin of compliance: -19.4 (dB)

This equates to  $0.114480138 \text{ W/m}^2 \text{ pass}$ 

For information This equates to 6.569551892 V/m

RSS-102 Issue 5 limit 2.712860097 W/m^2 Pass

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