

## MPE CALCULATIONS

The following MPE calculations are based on a measured ERP of 106.8 dBμV/m at 3m and conducted RF power of +11.3 dBm as presented to the antenna. The calculated gain of this antenna, based on the ERP measurements (over a conducting ground plane) is 0.27 dBi.

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:	9.94 (dBm)
Maximum peak output power at antenna input terminal:	9.863 (mW)
Antenna gain(typical):	-1.4 (dBi)
Maximum antenna gain:	0.724 (numeric)
Prediction distance:	20 (cm)
Prediction frequency:	903 (MHz)
MPE limit for uncontrolled exposure at prediction frequency:	1 (mW/cm <sup>2</sup> )
Power density at prediction frequency:	0.001421 (mW/cm <sup>2</sup> )
Maximum allowable antenna gain:	27.1 (dBi)
Margin of Compliance at 20 cm =	28.5 dB