

## MPE CALCULATIONS

The following MPE calculations are based on a measured conducted RF power of +18.6 dBm as presented to the antenna. The gain of this antenna, based on the data sheet is 8.5dBi.

### 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 antenna input terminal:	18.60 (dBm)
Maximum peak output power at antenna input terminal:	72.444 (mW)
Antenna gain(typical):	8.5 (dBi)
Maximum antenna gain:	7.079 (numeric)
Prediction distance:	20 (cm)
Prediction frequency:	906 (MHz)
MPE limit for uncontrolled exposure at prediction frequency:	0.6 (mW/cm <sup>2</sup> )
Power density at prediction frequency:	0.102031 (mW/cm <sup>2</sup> )
Maximum allowable antenna gain:	16.2 (dBi)
Margin of Compliance at 20 cm =	7.7 dB