

MPE CALCULATIONS

The following MPE calculations are based on a maximum measured conducted RF power of +5.62 dBm as presented to the antenna. The peak gain of this antenna, based on the data sheet is 2.2 dBi.

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:	5.62 (dBm)
Maximum peak output power at antenna input terminal:	3.648 (mW)
Antenna gain(typical):	2.2 (dBi)
Maximum antenna gain:	1.660 (numeric)
Prediction distance:	20 (cm)
Prediction frequency:	2440 (MHz)
MPE limit for uncontrolled exposure at prediction frequency:	1 (mW/cm ²)
Power density at prediction frequency:	0.001204 (mW/cm ²)
Maximum allowable antenna gain:	31.4 (dBi)
Margin of Compliance at 20 cm =	29.2 dB