MPE CALCULATIONS

The following MPE calculations are based on a measured conducted RF power of 13.9dBm at 5280MHz. The gain of this antenna, based on the data sheet is +4.5dBi.

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:	13.90	(dBm)
Maximum peak output power at antenna input terminal:	24.547	(mW)
Antenna gain(typical):	4.5	(dBi)
Maximum antenna gain:	2.818	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	5280	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	1	(mW/cm^2)
Power density at prediction frequency:	0.013764	(mW/cm^2)
Maximum allowable antenna gain:	23.1	(dBi)
Margin of Compliance at 20 cm =	18.6	dB