

MPE CALCULATIONS

The following MPE calculations are based on a measured ERP of 108.2.1 dB μ V/m at 3m and conducted RF power of +11.2 dBm as presented to the antenna. The calculated gain of this antenna, based on the ERP measurements (over a conducting ground plane) is 1.77 dBi.

<u>Prediction of MPE limit at a given distance</u>	
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:	11.20 (dBm)
Maximum peak output power at antenna input terminal:	13.183 (mW)
Antenna gain(typical):	1.77 (dBi)
Maximum antenna gain:	1.503 (numeric)
Prediction distance:	20 (cm)
Prediction frequency:	915 (MHz)
MPE limit for uncontrolled exposure at prediction frequency:	0.6 (mW/cm ²)
Power density at prediction frequency:	0.003942 (mW/cm ²)
Margin of Compliance at 20 cm =	21.8 dB