Timco Engineering

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:	17.80	(dBm)
Maximum peak output power at antenna input terminal:	60.25595861	(mW)
Antenna gain(typical):	4.5	(dBi)
Maximum antenna gain:	2.818382931	(numeric)
Time Averaging:	100	(%)
Prediction distance:	20	(cm)
Prediction frequency:	2450	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	1	(mW/cm^2)
Power density at prediction frequency:	0.033785	(mW/cm^2)
Margin of compliance:	-14.7	(dB)

This equates to   0.33785484 W/m^2