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

800MHz

Maximum peak output power at antenna input terminal:	34.00	(dBm)
Maximum peak output power at antenna input terminal:	2511.886	(mW)
Antenna gain(typical):	5	(dBi)
Maximum antenna gain:	3.162278	(numeric)
Prediction distance:	35	(cm)
Prediction frequency:	850	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	0.533333	(mW/cm^2)

Power density at prediction frequency: 0.516005 (mW/cm^2)