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:	16.90	(dBm)
Maximum peak output power at antenna input terminal:	48.97788194	(mW)
Antenna gain(typical):	19	(dBi)
Maximum antenna gain:	79.43282347	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	5790	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	1	(mW/cm^2)
Power density at prediction frequency:	0.773981	(mW/cm^2)
	7.739807	(W/m^2)
Maximum allowable antenna gain:	20.11269855	(dBi)
Margin of Compliance:	1.112698554	