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:	30.80	(dBm)
Maximum peak output power at antenna input terminal:	1202.264435	(mW)
Antenna gain(typical):	5.5	(dBi)
Maximum antenna gain:	3.548133892	(numeric)
Time Averaging:	100	(%)
Prediction distance:	20	(cm)
Prediction frequency:	4970	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	1	(mW/cm^2)
Power density at prediction frequency:	0.848653	(mW/cm^2)
Margin of compliance:	-0.7	(dB)

The MPE was done at 50% which is the operational duty cycle of this unit.