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

50 cm. minimum separation distance with 12 dBi antenna

Maximum peak eirp:	42.00	(dBm)	(30 dBm+12 dBi)
Maximum peak eirp:	15848.93192	(mW)	
Time Averaging:	100	(%)	
Prediction distance:	50	(cm)	
Prediction frequency:	851	(MHz)	
MPE limit for uncontrolled exposure at prediction frequency:	0.567333333	(mW/cm^2)	
Power density at prediction frequency:	0.504487	(mW/cm^2)	
Margin of compliance:	-0.5	(dB)	