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

Fundamental transmit (prediction) frequency:	29130	MHz
Maximum peak output power at device output terminal:	21.70	dBm
Cable and Jumper loss:	0.0	dB
Maximum peak output power at antenna input terminal:	21.70	dBm
	147.911	mW
Single Antenna gain (typical):	19	dBi
Number of Antennae:	1	
Total Antenna gain (typical):	19.000	dBi
	79.43282347	(numeric)
Tx On time:	100.000	ms
Tx period time:	100.000	ms
Average Factor:	100	%
Prediction distance:	40	cm
MPE limit for uncontrolled exposure at prediction frequency:	1	mW/cm^2
	10	W/m^2

Average power density at prediction frequency: **0.584346** mW/cm^2

5.84346 W/m^2

Margin of Compliance: **2.33330 dB**

Maximum allowable antenna gain: *21.33330 dBi*