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 the antenna terminal:	16.80	(dBm)
Maximum peak output power at the antenna terminal:	47.86300923	(mW)
Antenna gain(typical):	3.4	(dBi)
Maximum antenna gain:	2.187761624	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	5150	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	1	(mW/cm^2)
Power density at prediction frequency:	0.020832	(mW/cm^2)
Maximum allowable antenna gain:	20.21269855	(dBi)

Worst case antenna gain used at 5GHz channel
Worst case power used from FCC ID: RTP-10016-6