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:	30.0	(dBm)	*
Maximum peak output power at antenna input terminal:	1000.0	(mW)	
Antenna gain(maximum):	21	(dBi)	*
Maximum antenna gain:	125.89	(numeric)	
Time Averaging:	100	(%)	*
Prediction distance:	1000	(cm)	*
Prediction frequency:	869	(MHz)	*
MPE limit for uncontrolled exposure at prediction frequency:	0.579	(mW/cm^2)	

Power density at prediction frequency: 0.010 (mW/cm^2)

This equates to: 0.10 W/m^2

The antenna is specified at the time of licensing for this device. A gain of 21 dBi is used for the MPE prediction as a typical gain. RF exposure is dealt with at the time of licensing.