

### 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 device output terminal:	<u>29.97</u>	(dBm)
Cable and Jumper loss	<u>1.2</u>	(dB)
Maximum peak output power at antenna input terminal:	<u>28.82</u>	(dBm)
Maximum peak output power at antenna input terminal:	<u>762.07901</u>	(mW)
Single Antenna gain(typical):	<u>7.15</u>	(dBi)
Number of Antennae	<u>2</u>	
Total Antenna gain(typical):	<u>4.139700043</u>	(dBi)
Maximum antenna gain:	<u>2.594000195</u>	(numeric)
Prediction distance:	<u>20</u>	(cm)
Prediction frequency:	<u>907</u>	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	<u>0.604666667</u>	(mW/cm <sup>2</sup> )
Power density at prediction frequency:	<u>0.393278</u>	(mW/cm <sup>2</sup> )
	<u>3.932784</u>	(W/m <sup>2</sup> )
Tx On time:	<u>100.000000</u>	(ms)
Tx period time:	<u>100.000000</u>	(ms)
Average Factor:	<u>100.000000</u>	
Average Power density at prediction frequency:	<u>3.932784</u>	(W/m <sup>2</sup> )
	<u>0.393278</u>	(mW/cm <sup>2</sup> )
Maximum allowable antenna gain:	<u>6.007858834</u>	(dBi)
Margin of Compliance:	<u>1.86815879</u>	dB