

## 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:	28122	MHz
Maximum peak output power at device output terminal:	28.64	dBm
Cable and Jumper loss:	0.0	dB
Maximum peak output power at antenna input terminal:	28.64	dBm
	731.139	mW
Single Antenna gain (typical):	43.2	dBi
Number of Antennae:	1	
Total Antenna gain (typical):	43.200	dBi
	20892.96131	(numeric)
Tx On time:	100.000	ms
Tx period time:	100.000	ms
Average Factor:	100	%
Prediction distance:	1200	cm
MPE limit for uncontrolled exposure at prediction frequency:	1	mW/cm <sup>2</sup>
	10	W/m <sup>2</sup>
<b>Average power density at prediction frequency:</b>	<b>0.844166</b>	<b>mW/cm<sup>2</sup></b>
	8.44166	W/m <sup>2</sup>
<b>Margin of Compliance:</b>	<b>0.73572</b>	<b>dB</b>
<i>Maximum allowable antenna gain:</i>	<i>43.93572</i>	<i>dBi</i>