

**Prediction of MPE limit at a given distance**

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{PG}{4\pi R^2}$$

S = power density  
P = output power  
G = antenna gain  
R = distance

		<b>22H</b>		<b>24E</b>	
	Output Power	<b>24.74</b>	(dBm)	<b>24.37</b>	(dBm)
	Output Power	<b>298</b>	(mW)	<b>274</b>	(mW)
	Antenna Gain	<b>5.12</b>	(dBi)	<b>6.12</b>	(dBi)
	Antenna Gain	<b>3.25</b>	(numeric)	<b>4.09</b>	(numeric)
	Distance	<b>20</b>	(cm)	<b>20</b>	(cm)
	Duty Cycle:	<b>100</b>	(%)	<b>100</b>	(%)
	Frequency	<b>825</b>	(MHz)	<b>1900</b>	(MHz)
MPE Limit General Public		<b>0.550</b>	(mW/cm <sup>2</sup> )	<b>1.000</b>	(mW/cm <sup>2</sup> )
	Power Density	<b>0.193</b>	(mW/cm <sup>2</sup> )	<b>0.223</b>	(mW/cm <sup>2</sup> )
	<b>Margin</b>	<b>4.56</b>	(dB)	<b>6.52</b>	(dB)
2.1091	EIRP	<b>29.86</b>	(dBm)	<b>30.49</b>	(dBm)
	ERP	<b>27.72</b>	(dBm)	<b>28.35</b>	(dBm)
	ERP	<b>0.59</b>	(W)	<b>0.68</b>	(W)
	ERP Limit	<b>1.5</b>	(W)	<b>3</b>	(W)
	<b>Margin</b>	<b>4.04</b>	(dB)	<b>6.42</b>	(dB)
22.913	ERP Limit	<b>7</b>	(W)		
	ERP	<b>0.59</b>	(W)		
24.232	EIRP Limit			<b>2</b>	(W)
	EIRP			<b>1.12</b>	(W)
	<b>Margin</b>	<b>10.73</b>	(dB)	<b>2.520</b>	(dB)