



### 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 iso  
R = distance to the center of radiation of the antenna  
Valid for frequencies from 100 to 300.000 MHz

Maximum peak output power at antenna input terminal:	<u>34.20</u>	(dBm)
Maximum peak output power at antenna input terminal:	<u>2.630</u>	(W)
Antenna gain(typical):	<u>11.88</u>	(dBi)
Maximum antenna gain:	<u>15.417</u>	(numeric)
Prediction distance:	<u>60</u>	(cm)
Prediction frequency:	<u>1643.5</u>	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	<u>10.00</u>	(W/m <sup>2</sup> )
MPE limit for controlled exposure at prediction frequency:	<u>50.00</u>	(W/m <sup>2</sup> )

#### **Uncontrolled Exposure:**

Power density at prediction frequency:	<b>8.963707</b>	(W/m <sup>2</sup> )
Maximum allowable antenna gain:	<b>12.36</b>	(dBi)
Margin of Compliance:	<b>0.48</b>	(dB)

#### **Controlled Exposure:**



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