



### Prediction of MPE limit at a given distance

Formula 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

Source Based Time Averaged Duty Cycle is 100% in calculation below

Maximum peak output power at antenna input terminal:	<u>19.60</u>	(dBm)
Maximum peak output power at antenna input terminal:	<u>0.091</u>	(W)
Maximum antenna gain:	<u>-2.80</u>	(dBi)
Maximum antenna gain:	<u>0.525</u>	(numeric)
Prediction distance:	<u>20</u>	(cm)
Prediction frequency:	<u>1925</u>	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	<u>10.00</u>	(W/m <sup>2</sup> )
Power density at prediction frequency:	<u>0.0095</u>	(mW/cm <sup>2</sup> )
Power density at prediction frequency:	<u>0.095</u>	(W/m <sup>2</sup> )
Maximum allowable antenna gain:	<u>17.41</u>	(dBi)
Margin of Compliance:	<u>20.21</u>	(dB)



### Prediction of MPE limit at a given distance

Formula 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

Source Based Time Averaged Duty Cycle is 100% in calculation below

Maximum peak output power at antenna input terminal:	<u>19.60</u>	(dBm)
Maximum peak output power at antenna input terminal:	<u>0.091</u>	(W)
Maximum antenna gain:	<u>0.50</u>	(dBi)
Maximum antenna gain:	<u>1.122</u>	(numeric)
Prediction distance:	<u>20</u>	(cm)
Prediction frequency:	<u>1925</u>	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	<u>10.00</u>	(W/m <sup>2</sup> )
Power density at prediction frequency:	<u>0.0204</u>	(mW/cm <sup>2</sup> )
Power density at prediction frequency:	<u>0.204</u>	(W/m <sup>2</sup> )
Maximum allowable antenna gain:	<u>17.41</u>	(dBi)
Margin of Compliance:	<u>16.91</u>	(dB)