

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

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|--|--------------------|-----------------------|
| Maximum peak output power at device output terminal: | <u>20.99</u> | (dBm) |
| Cable and Jumper loss | <u>0.0</u> | (dB) |
| Maximum peak output power at antenna input terminal: | <u>20.99</u> | (dBm) |
| Maximum peak output power at antenna input terminal: | <u>125.6029964</u> | (mW) |
| Single Antenna gain(typical): | <u>15</u> | (dBi) |
| Number of Antennae | <u>1</u> | |
| Total Antenna gain(typical): | <u>15</u> | (dBi) |
| Maximum antenna gain: | <u>31.6227766</u> | (numeric) |
| Prediction distance: | <u>20</u> | (cm) |
| Prediction frequency: | <u>5785</u> | (MHz) |
| MPE limit for uncontrolled exposure at prediction frequency: | <u>1</u> | (mW/cm ²) |
| Power density at prediction frequency: | <u>0.790187</u> | (mW/cm ²) |
| | <u>7.901875</u> | (W/m ²) |
| Tx On time: | <u>100.000000</u> | |
| Tx period time: | <u>100.000000</u> | |
| Average Factor: | <u>100.000000</u> | |
| Average Power density at prediction frequency: | <u>7.901875</u> | (W/m ²) |
| Maximum allowable antenna gain: | <u>16.02269855</u> | (dBi) |
| Margin of Compliance: | <u>1.022698554</u> | dB |