

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

| | | | |
|--|-------------|-----------|----------------|
| Maximum peak output power at device output terminal: | 28.18 | (dBm) | |
| Cable and Jumper loss | 0.0 | (dB) | |
| Maximum peak output power at antenna input terminal: | 28.18 | (dBm) | |
| Maximum peak output power at antenna input terminal: | 657.6578374 | (mW) | |
| Single Antenna gain(typical): | 7.2 | (dBi) | See note below |
| Number of Antennae | 1 | | |
| Total Antenna gain(typical): | 7.2 | (dBi) | |
| Maximum antenna gain: | 5.248074602 | (numeric) | |
| Prediction distance: | 20 | (cm) | |
| Prediction frequency: | 5805 | (MHz) | |
| MPE limit for uncontrolled exposure at prediction frequency: | 1 | (mW/cm^2) | |
| Power density at prediction frequency: | 0.686642 | (mW/cm^2) | |
| | 6.866417 | (W/m^2) | |
| Tx On time: | 1.000000 | | |
| Tx period time: | 1.000000 | | |
| Average Factor: | 100.000000 | | |
| Average Power density at prediction frequency: | 6.866417 | (W/m^2) | |
| Maximum allowable antenna gain: | 8.832698554 | (dBi) | |
| Margin of Compliance: | 1.632698554 | dB | |

Note: (Directional gain for MIMO cross-polarized 2 x 2 is 7.2 dBi. No summation of gain is needed for cross-polarized antennas as per manufacturer's definition of the cross-polarized MIMO type.)

