Nemko

ONE WORLD ○ OUR APPROVAL

# 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: | 29.68 | dBm |
| Cable and Jumper loss: | 0.0 | dB |
| Maximum peak output power at antenna input terminal: | 29.68 | dBm |
| | 928.9663868 | mW |
| Single Antenna gain (typical): | 38 | dBi |
| Number of Antennae: | 1 | |
| Total Antenna gain (typical): | 38 | dBi |
| | 6309.573445 | (numeric) |
| Prediction distance: | 1200 | cm |
| Prediction frequency: | 5741 | MHz |
| MPE limit for uncontrolled exposure at prediction frequency: | 1 | $mW/cm^2$ |

| | | |
|---|---|---|
| **Power density at prediction frequency:** | **0.323912** | **$mW/cm^2$** |
| | 3.239125 | $W/m^2$ |
| Tx On time: | 1.000000 | ms |
| Tx period time: | 1.000000 | ms |
| Average Factor: | 100.000000 | % |
| Average Power density at prediction frequency: | 3.239125 | $W/m^2$ |