



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

| | <u>Transmitter</u> <u>Chain 1 and 2</u> | <u>Transmitter</u> <u>Chain 3 and 4</u> | <u>Transmitter 5</u> |
|--|--|--|---------------------------------------|
| Maximum peak output power at device output terminal: | 36.6 | 35.8 | 20.68 dBm |
| Cable and Jumper loss: | 0 | 0 | 0 dB |
| Maximum peak output power at antenna input terminal: | 36.6 | 35.8 | 20.68 dBm |
| | 4570.881896 | 3801.893963 | 116.9499391 mW |
| Single Antenna gain (typical): | 9.5 | 9.5 | 0 dBi |
| Number of Antennae: | 1 | 1 | 1 |
| Total Antenna gain (typical): | 9.5 | 9.5 | 0 dBi |
| | 8.912509381 | 8.912509381 | 1 (numeric) |
| Prediction distance: | 80 | 80 | 80 cm |
| Prediction frequency: | 2593 | 2685 | 2462 MHz |
| limit for uncontrolled exposure at prediction frequency: | 1 | 1 | 1 mW/cm ² |
| Power density at prediction frequency: | 0.50653582 | 0.421318144 | 0.001454153 mW/cm ² |
| | 5.065358198 | 4.213181437 | 0.014541532 W/m ² |
| Tx On time: | 1 | 1 | 1 ms |
| Tx period time: | 1 | 1 | 1 ms |
| Average Factor: | 100 | 100 | 100 % |
| Average Power density at prediction frequency: | 5.065358198 | 4.213181437 | 0.014541532 W/m ² |

| <u>Result</u> | <u>Limit</u> |
|---------------|--------------|
| 0.929 | <1.0 |