

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

Tx1: 2AJI5-CMHM10

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| Maximum peak output power at device output terminal: | <u>5.00</u> dBm |
| Cable and Jumper loss: | <u>0.0</u> dB |
| Maximum peak output power at antenna input terminal: | <u>5.00</u> dBm <u>3.16227766</u> mW |
| Single Antenna gain (typical): | <u>0</u> dBi |
| Number of Antennae: | <u>1</u> |
| Total Antenna gain (typical): | <u>0</u> dBi <u>1</u> (numeric) |
| Prediction distance: | <u>20</u> cm |
| Prediction frequency: | <u>2440</u> MHz |
| MPE limit for uncontrolled exposure at prediction frequency: | <u>1</u> mW/cm ² |
| Power density at prediction frequency: | <u>0.000629</u> mW/cm ² <u>0.006291</u> W/m ² |
| Tx On time: | <u>25.000000</u> ms |
| Tx period time: | <u>100.000000</u> ms |
| Average Factor: | <u>25.000000</u> % |
| Average Power density at prediction frequency: | <u>0.001573</u> W/m ² |
| Percentage to limit: | <u>0.015727879</u> % |

Tx2: L2V-STX3

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| Maximum peak output power at device output terminal: | 21.43 dBm |
| Cable and Jumper loss: | 0.0 dB |
| Maximum peak output power at antenna input terminal: | 21.43 dBm |
| | 138.9952631 mW |
| Single Antenna gain (typical): | 5.1 dBi |
| Number of Antennae: | 1 |
| Total Antenna gain (typical): | 5.1 dBi |
| | 3.235936569 (numeric) |
| Prediction distance: | 20 cm |
| Prediction frequency: | 1611.88 MHz |
| MPE limit for uncontrolled exposure at prediction frequency: | 1 mW/cm ² |
| Power density at prediction frequency: | 0.089481 mW/cm ² |
| | 0.894809 W/m ² |
| Tx On time: | 10.000000 ms |
| Tx period time: | 100.000000 ms |
| Average Factor: | 10.000000 % |
| Average Power density at prediction frequency: | 0.089481 W/m ² |
| Percentage to limit: | 0.89480859 % |

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| Total Percentage to limit: | 0.910536469 % |
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| (PSD1/Limit 1) + (PSD 2/limit 2): | 0.009105365 <1 |
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