

MPE Calculations

The following MPE calculations are based on the Linx ANT-916-CW-QW quarter wave antenna with a max gain of 1.8dBi. The MOD164's maximum output power is 21dBm.

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 = Antenna Gain

R = Distance To The Center Of The Antenna

| | |
|--|----------------------------|
| Maximum Radio Output To Antenna (P) | 20dBm |
| Maximum Radio Output To Antenna (P) | 100.0mW |
| Maximum Antenna Gain (G) | 1.8dBi |
| Maximum Antenna Gain (G) | 1.5135 (numeric) |
| Distance To Antenna (R) | 20cm |
| Predicted Frequency | 900MHz |
| MPE limit for uncontrolled exposure at predicted frequency | 0.6mw/cm ² |
| Power density at predicted frequency (calculated) | 0.030111mw/cm ² |
| Margin of Compliance | 12.994dB |
| Max Antenna Gain | 15.546dBi |

Regards,



Hassan Karbassi

Date: June 5, 2014

President