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### 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 <sup>2</sup>      |
| Power density at predicted frequency (calculated)          | 0.030111mw/cm <sup>2</sup> |
| Margin of Compliance                                       | 12.994dB                   |
| Max Antenna Gain   | 15.546dBi                  |

Regards,

Hassan Karbassi

Date: June 5, 2014

President