

**MPE Exposure Formula:**

$$S = ( P \times G ) / ( 4 \times \pi \times d^2 )$$

where:

**S** = power density

**P** = transmitter conducted power in (mW)

**G** = antenna numeric gain

**d** = distance to radiation center (m) or  $(.02^2) = .020$  m

| Enter Data in Linear Units |            |            |                          |
|----------------------------|------------|------------|--------------------------|
| Gain =                     | 8          | Numeric    | 9.2 dBi                  |
| Power =                    | 1995       | mW         | 33 dBm                   |
| Frequency =                | 216        | MHz        | 0.200 mW/cm <sup>2</sup> |
| Cable Loss =               | 0          | dB         |                          |
| EIRP =                     | 16595.87   | mW         | 16595.87 mW              |
| R (cm) =                   | 81.2606085 | S (20cm) = | 3.302                    |

**Microwave Data Systems will be using different antennas so only the highest gain  
Note: antenna to be used with transmitter is stated. For worse case scenario this does not  
include any cable loss.**