



In 1996, the FCC adopted new guidelines and procedures for evaluating environmental effects of RF emissions. Telnet provides services to ensure compliance with the FCC guideline for Human Exposure to Radiofrequency Electromagnetic Fields

- Occupational/Controlled
- General Population/Uncontrolled

## Telnet Services

We have a complete solution for all aspects of EME design.

- **Online Project Management & Tracking**
  - Quality Control
  - Meeting Deadlines
  - Reports
  - Return on Investment
- **Model Based Calculation**
  - Near Field
  - Far Field
- **Field Measurement**
  - Extensive Rooftop Measurement
  - Identify Hot Spots
- **Reports**
  - Certificate of Compliance
  - Digital Pictures
  - RF Environment Mapping
  - PE Approval
- **Assessment**
  - Identify Contributors Percentages
  - Provide Solution
- **RF Safety Training**
  - Employee Training
  - Client Training
- **Signs**
  - Warning
  - Caution
  - Notice

## Model Based Calculations

$$S = E^2 / 3770 = 37.7 H^2$$

where:  $S$  = power density ( $\text{mW/cm}^2$ )

$E$  = electric field strength ( $\text{V/m}$ )

$H$  = magnetic field strength ( $\text{A/m}$ )

$$\sum S_{exp} t_{exp} = S_{limit} t_{avg}$$

where:  $S_{exp}$  = power density level of exposure ( $\text{mW/cm}^2$ )

$S_{limit}$  = appropriate power density MPE limit ( $\text{mW/cm}^2$ )

$t_{exp}$  = allowable time of exposure for  $S_{exp}$

$t_{avg}$  = appropriate MPE averaging time



Figure 1. FCC Limits for Maximum Permissible Exposure (MPE)

Plane-wave Equivalent Power Density

