



Monday, September 04, 2006

Strix Systems Inc - Access One Network OWS 2400-20

Maximum Permissible Exposure Calculation

FCC, Part 15 Subpart C §15.407(f)

Calculations for Maximum Permissible Exposure Levels

$$\text{Power Density} = P_d \text{ (mW/cm}^2\text{)} = \text{EIRP}/(4\pi d^2)$$

$$\text{EIRP} = P * G$$

P = Peak output power (mW)

G = Antenna numeric gain (numeric)

d = Separation distance (cm)

$$\text{Numeric Gain} = 10^{(G \text{ (dBi)}/10)}$$

Worst case = **23.0 dBi antenna 18.3 dBm**

12.0 dBi antenna +22.0 dBm

Because the EUT belongs to the General Population/Uncontrolled Exposure the limit of power density is 1.0 mW/cm^2

Antenna Gain (dBi)	Numeric Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Calculated safe distance @ max limit 1mW/cm^2 (d=cm)
12.0	15.9	+22.0	158.5	14.2
23.0	199.5	+18.3	67.6	32.8