

U.S. Technologies, Inc  
Rev: 040103  
Issue Date: August 13, 2007  
Model: WIT2410NF

FCC Part 15C  
Report Number: 07-0183  
Cirronet Corporation

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# RF EXPOSURE

### 5.1 RF Safety Requirements to 2.1091 for Mobile Transmitters

The unit under evaluation has one integral antenna. Cirronet Corporation calculated the MPE emission values for a WIT2410NF. They used the formula shown in OET Bulletin 65 and calculated the minimum distance between antenna and unsuspecting user as 20 cm.

### 5.1 RF Safety Requirements to 2.1091 for Mobile Transmitters – Cont.

#### Power Output

The EUT's maximum expected output power as shown in Section 2.6 was

Frequency of Fundamental (MHz)	Measurement (dBm)*	Measurement (mW)*	FCC Limit (Watt)
2401.83	17.23	52.84	1.0
2435.55	17.45	55.6	1.0
2470.00	17.19	52.36	1.0

\* Measurement includes 0.1 dB for cable loss

**The maximum EIRP expected is with a +2 dBi gain dipole antenna. This would yield a maximum EIRP of 19.45 dBm.**

+19.45 dBm

$\text{Antilog}(19.45 \text{ dBm}/10) = 88.1 \text{ mW}$

MPE Calculations

#### MPE Calculations

The limits for this unit (uncontrolled exposure) are  $1.0 \text{ mW}/\text{cm}^2$ . Taking the RF Density Field Equation:

$S = (\text{EIRP in mW})/(4\pi R^2)$  and solving for Density S at 20 cm.

$S = 88.1/4\pi 20^2$

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S = 88.1/5026.55

S = 0.018 mW/cm<sup>2</sup>

All manual instructions will specify 20 cm for all installations.