

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

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

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 and maximum EIRP of 19.45 dBm.

+19.45 dBm

Antilog (19.45 dBm/10) = 88.1 mW

MPE Calculations

MPE Calculations

The limits for this unit (uncontrolled exposure) are 1.0 mW/cm². Taking the RF Density Field Equation:

$S = (EIRP \text{ in mW}) / (4\pi R^2)$ 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/cm²

All manual instructions will specify 20 cm for all installations.