



RoamAbout™

ENJOY THE FREEDOM OF WIRELESS NETWORKING

802.11b PC Card Installation and Specifications

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Regulatory Information

Exposure to Radio Frequency Radiation.

The radiated output power of the IEEE 802.11 RoamAbout PC Card is far below the FCC radio frequency exposure limits. Nevertheless, the RoamAbout PC Card shall be used in such a manner that the potential for human contact during normal operation is minimized. When using this device in combination with RoamAbout Outdoor Antenna products, a certain separation distance between antenna and nearby persons has to be kept to ensure RF exposure compliance. Refer to the Regulatory Statements as identified in the documentation that comes with those products for additional information.

Interference Statement.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or TV technician for help.

Enterasys Networks is not responsible for any radio or television interference caused by unauthorized modification of the devices included in this kit, or the substitution or attachment of connecting cables and equipment other than specified by Enterasys Networks. The correction of interference caused by such unauthorized modification, substitution or attachment will be the responsibility of the user.

For country-specific approvals, please consult the *Radio Certification Information* document included in this kit. Visit the RoamAbout Wireless web site for updated country approvals.

Canada - Industry Canada (IC).

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

cet appareil de la class B respecte toutes les exigences du Reglement sur le matereil brouiller du Canada

Getting Help

For additional support related to this device or document, contact Enterasys Networks using one of the following methods:

World Wide Web: www.enterasys.com/support

Phone: (603) 332-9400

Internet mail: support@enterasys.com

To send comments or suggestions concerning this document, contact the Enterasys Networks Technical Writing Department via the following e-mail address: **TechWriting@enterasys.com**

Make sure you include the document Part Number in the e-mail message.

Before calling Enterasys Networks, please have the following information ready:

- Your Enterasys Networks service contract number
- A description of the problem
- A description of any action(s) already taken to resolve the problem
- The serial and revision numbers of all involved Enterasys Networks products in the network
- A description of your network environment (for example, layout, cable type)
- Network load and frame size at the time of trouble (if known)
- The device history (for example, have you returned the device before, is this a recurring problem)
- Any previous Return Material Authorization (RMA) numbers

RoamAbout 802.11b PC Card

This document provides the system requirements, installation procedure, and technical specifications for the RoamAbout 802.11b PC Card.

Before installing the PC Card, please review the Regulatory information included in the *RoamAbout Radio Certification and Regulatory Information* document included with the PC Card.



NOTE: The RoamAbout World Card (CSICD) does not support outdoor antennas (Yagi or omni). For outdoor solutions, use the appropriate PC Card for your country (CSIBD or CSILD). Contact your Enterasys Representative.

System Requirements

When you install the RoamAbout PC Card, you must also install its driver. You can also download the RoamAbout drivers and documentation from the RoamAbout wireless web site: www.enterasys.com/wireless

Check the RoamAbout wireless web site frequently for driver updates. If you download a driver from the web, refer to that driver's release notes and readme file for the instructions to extract and install the driver. The RoamAbout PC Card Drivers CD-ROM contains the driver and installation information for the following operating systems.

- The RoamAbout NDIS3 Miniport driver supports Windows 95.
- The RoamAbout NSID4 Miniport driver supports Windows NT V4.0 or later. If you are using Windows NT V4.0, you also need Service Pack 4 or later.
- The RoamAbout NDIS5 driver supports Windows 98, 2000, Millennium, and XP.



The Windows 2000 driver included with the operating system does not support encryption. You must update the driver with the RoamAbout Windows 2000 driver included on the RoamAbout CD-ROM.

Refer to the RoamAbout wireless web site for additional drivers to support operating systems such as Linux, Apple, Windows CE, and DOS.

PC Card Installation

To install the PC card, perform the following steps:

1. Insert the PC Card in the PC Card slot, if available.



2. If the system does not have a PC Card slot but has an available ISA bus slot, install the optional ISA adapter card. If the system does not have an ISA slot, install the optional PCI adapter. The installation instructions are in the ISA adapter kit and the PCI adapter kit.

Refer to the driver operating system directory readme on the CD-ROM to install the appropriate driver. Or, if you downloaded the driver, refer to the directory where you downloaded the files.

Technical Specifications

Radio Characteristics

Consult your authorized RoamAbout reseller sales office for information about the radio regulations that apply in your country. **Table 1** shows the radio characteristics for the 802.11b PC Card.

Table 1: 802.11b Radio Characteristics

Characteristic	Value
R-F frequency band	2.4 GHz (2400-2483.5 MHz)
Standards	IEEE 802.11b, WiFi Certified
Number of selectable channels for the World Card	11
Number of selectable channels for North America and countries supporting FCC (Standard Card)	11
Number of selectable channels for Europe and other countries supporting ETSI	13
Number of selectable channels for Singapore (FR)	4
Number of selectable channels for Japan (JP)	14
Modulation technique	Direct sequence spread spectrum (DQPSK, CCK, DBPSK)
Spreading	11-chip barker sequence
Bit error rate	Better than 10^{-5}
Receiver sensitivity at 11 Mbit/s	-82dBm
Receiver sensitivity at 5.5 Mbit/s	-87dBm
Receiver sensitivity at 2 Mbit/s	-91dBm
Receiver sensitivity at 1 Mbit/s	-94dBm
Nominal output power	15 dBm (CSICD, CSIBD) 8 dBm (CSILD)
Doze Mode	9 mA
Receive Mode	185 mA
Transmit Mode	285 mA
Power Supply	5 V

Physical Specifications

Table 2: RoamAbout 802.11b PC Card Physical Specifications

Specification	Value
Dimensions (LxWxH)	118 x 54 x 8 mm (4.72 x 2.26 x 0.32 in)
Weight	45 grams (1.58 oz)
Temperature (Operation)	0° to 55° C (32° to 131° F)
Temperature (Transit)	-20° to 70° C (-4° to 158° F)
Temperature (Storage)	-10° to 60° C (14° to 140° F)
Humidity	Maximum 95%, no condensation allowed

Radio Ranges

Signal strength can be affected by closeness to metal surfaces and solid high-density materials. The ranges listed in **Table 3** provide a general guideline and may vary according to the actual physical environment where the product is used.

- In open environments, there are no physical obstructions between antennas.
- In semi-open environments, work space is divided by shoulder-height, hollow wall elements; antennas are at desktop level.

Table 3: 802.11b Radio Ranges

Range	11 Mbit/s	5.5 Mbit/s	2 Mbit/s	1 Mbit/s
Open environment	160 m (525 feet)	270 m (885 feet)	400 m (1300 feet)	550 m (1750 feet)
Semi-open environment	50 m (165 feet)	70 m (230 feet)	90 m (300 feet)	115 m (375 feet)

Supported Frequency Sub-Bands

The RoamAbout PC Card supports a number of factory-programmed channels. The number of available frequencies is subject to local radio regulations as defined by local authorities.

In RoamAbout infrastructure environments, the RoamAbout PC Card automatically starts operation at the frequency channel that is used by the RoamAbout AP. This frequency is controlled by the LAN administrator who sets the RoamAbout AP configuration. The frequency range for the RoamAbout 802.11b PC Card is 2400 - 2500 MHz. **Table 4** shows the factory-set default values for the 802.11b PC Card, which are printed in bold.

Table 4: IEEE 802.11b RoamAbout Channel Sets

Channel ID	FCC	ETSI	Singapore	Japan
1	2412	2412	-	2412
2	2417	2417	-	2417
3	¹ 2422	¹ 2422	-	2422
4	2427	2427	-	2427
5	2432	2432	-	2432
6	² 2437	² 2437	-	2437
7	2442	2442	-	2442
8	2447	2447	-	2447
9	2452	2452	-	2452
10	2457	2457	2457	2457
11	2462	2462	2462	2462
12	-	2467	2467	2467
13	-	2472	2472	2472
14	-	-	-	2484

¹ The Access Point 2000 uses this channel as the default.

² The RoamAbout R2 uses this channel as the default.

Product Safety

USA: UL 1950, UL Listed

Canada: CUL 1950

Europe: EN60950

Japan: IEC 950

