RoamAbout™

ENJOY THE FREEDOM OF WIRELESS NETWORKING

802.11a PC Card Installation and Specifications

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Part Number: 903xxxx DRAFT FEB 28-03

Regulatory Information

> ⚠ **CAUTION**: Changes or modifications made to this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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 device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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 then 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 and Regulatory 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
	1-800-872-8440 (toll-free in the U.S. and Canada)
	For the Enterasys Networks Support toll-free number in your country:
	www.enterasys.com/support/gtac-all.html
Internet mail:	**support@enterasys.com**

To send comments or suggestions concerning this document to the Technical Writing Department: **TechWriting@enterasys.com**

Make sure to include the document Part Number in the email message.

Before contacting Enterasys Networks for technical support, have the following information ready:

- Your Enterasys Networks service contract number

- A description of the failure

- 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 (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, etc.)

- Any previous Return Material Authorization (RMA) numbers

RoamAbout 802.11a PC Card

This document provides the system requirements, installation procedure, and technical specifications for the RoamAbout 802.11a 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.**

System Requirements

When you install the RoamAbout PC Card, you must also install its driver. You can also download the RoamAbout driver and documentation from the RoamAbout wireless web site: www.enterasys.com/wireless
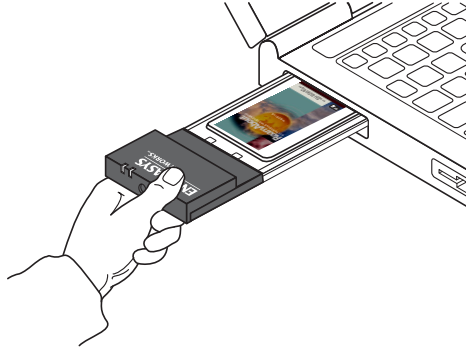
Check the RoamAbout wireless web site frequently for driver updates. If you download a driver from the web, refer to that driver's release notes and readme file for the instructions to extract and install the driver. The RoamAbout PC Card Driver CD contains the driver and installation information for the following operating systems.

- Windows NT V4.0 or later. If you are using Windows NT V4.0, you also need Service Pack 4 or later.

- Windows 98

- Windows Me

- Windows 2000

- Windows XP

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, install the optional PCI Carrier Card. The installation instructions are in the PCI Carrier Card kit.

3. Refer to the driver readme file for your operating system to install the driver. The readme file is on the PC Card Driver CD, or, if you downloaded the driver, the directory where you downloaded the files.

Technical Specifications

This section provides the specifications for the RoamAbout IEEE 802.11a PC Card. The PC Card is WiFi Certified.

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 802.11a PC Card.

Table 1:   802.11a Radio Characteristics

Characteristic	Value
R-F frequency band	5 GHz (5.15 - 5.35 GHz)
Number of selectable channels for North America and countries supporting FCC	8 (-AX variant) 4 (-AL, -AM, and -AJ variants)
Modulation technique	OFDM Modulation (BPSK, QPSK, 16 QAM, 64 QAM)
Bit error rate	Better than 10^{-5}
Receiver sensitivity at 54 Mbit/s	-69dBm
Receiver sensitivity at 48 Mbit/s	-70dBm
Receiver sensitivity at 36 Mbit/s	-75dBm
Receiver sensitivity at 24 Mbit/s	-80dBm
Receiver sensitivity at 18 Mbit/s	-83dBm
Receiver sensitivity at 12 Mbit/s	-86dBm
Receiver sensitivity at 9 Mbit/s	-88dBm
Receiver sensitivity at 6 Mbit/s	-88dBm
Integrated antenna	up to 4.5 dBi
Output power	14 dBm
Receive Mode	430 mA
Transmit Mode	540 mA
Power Supply	3.3 V

Physical Specifications

Table 2: RoamAbout 802.11a PC Card Physical Specifications

Specification	Value
Dimensions (LxWxH)	114 x 54 x 9.65 mm (4.51 x 2.26 x 0.38 in)
Weight	62.4 grams (2.2 oz)
Temperature (Operation)	-20° to 50° C (-4° to 122° F)
Temperature (Storage)	-30° to 66° C (-22° to 150.8^o F)
Humidity	Maximum 95%, no condensation allowed

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. **Table 3** shows the channel IDs and frequencies for the 802.11a PC Card. The factory-set default is printed in bold.

Table 3: IEEE 802.11a RoamAbout Channel Sets

Channel ID	FCC
36	**5180**
40	5200
44	5220
48	5240
52	5260
56	5280
60	5300
64	5320

The -AX variant of the PC card uses all 8 channels.

The -AL variant of the PC card only uses channels 36, 40, 44, and 48.

The -AM variant of the PC card only uses channels 52, 56, 60, and 64.

The variant for Japan (-AJ) uses 4 different channels, as shown in **Table 4**.

Table 4:   IEEE 802.11a RoamAbout Channel Set for Japan

Channel ID	FCC
34	5170
38	5190
42	5210
46	5230

Product Safety

USA: UL 1950, UL Listed

Canada: CUL 1950

Europe: EN60950

Japan: IEC 950