RoamAbout® 802.11a/b/g PC Card for the RoamAbout R2 (RBTBH-R2W)

- Enables high-rate transmission in the RoamAbout R2 access point
- 802.11a/b/g compliance with up to 54 Mbps throughput for maximum performance
- Enhanced security with 128-bit WEP encryption, 802.11X user authentication with key distribution and per-session/per-user encryption
- Enhanced access control gives network managers complete control over who connects to the network

- **Designed for the RoamAbout R2 access point**
  - Enables high-rate data transmissions in the access point only
  - Supported in primary slot, Mezzanine slot or both
  - Supports up to 250 users
  - Provides remote power and network connectivity via a single Cat 5 UTP cable
  - Redundant power option available
  - SNMPv1, v2c and v3 management with RoamAbout AP Manager
- **IEEE 802.11a/b/g compliant**
  - Supports both 802.11b/g and 802.11a simultaneously with two cards
  - Up to 54 Mbps data rate for maximum throughput
  - Vendor interoperability, seamless integration and investment protection
  - Robust data integrity, with fall-back to lower data rates for maximum range
- **Enhanced security**
  - Encryption supporting 128-bit WEP
  - 802.1X user authentication with key distribution
  - Supports per-session/per-user encryption keys
  - Enhanced access control
- **Multi-channel roaming**
  - Increased performance with higher density of access points using up to 12 non-overlapping channels, depending upon country regulations

Multimode Compliance for Complete Interoperability

With its award-winning design and functionality, the RoamAbout family allows you to establish a secure, high-performance wireless data LAN network quickly, easily and economically.

A RoamAbout wireless LAN is made up of two primary components: The RoamAbout access point, a full function switch that easily connects to your wired LAN by UTP Ethernet connections, and a wireless PC card, which uses radio frequencies to transmit data signals to clients working on desktop PCs, industry-standard notebook PCs or handheld devices.

The RoamAbout R2 Access Platform is a full-function, high-performance switch, which easily and quickly connects wireless users to the wired LAN via Unshielded Twisted Pair connectivity. The wireless PC Card slots in the RoamAbout R2 support both 16- and 32-bit Cardbus cards provided by Enterasys.

Since RoamAbout PC card uses the ISM band (Industrial, Scientific and Medical) with 2.4 GHz, 5.15-5.35 GHz and 5.725-5.825 GHz Direct Sequence Spread Spectrum frequency bands, no U.S. FCC license is required. The requirements of ETSI and other international regulatory agencies appear in the "Technical Specifications" section of this data sheet.

Integrated Security Features

Ideally suited to medium and large enterprises in health care, K-12 and post-secondary education, government and manufacturing, the RoamAbout 802.11a/b/g PC card (RBTBH-R2W) supports 128-bit Wired Equivalent Privacy (WEP) encryption and per-session encryption, as well as 802.11X user authentication with key distribution. At the same time, Enhanced Access Control gives network managers complete control over who connects to the network.

Complete Management

RoamAbout Access Point Manager, delivered at no additional cost, allows you to easily manage and configure all RoamAbout R2 access points remotely via SNMPv3. This tool supports full remote management, a graphical user interface, and set-up, configuration and management of access points. It is supported on Windows 95/98, ME, NT, 2000 and XP systems.

RoamAbout can also be managed using the NetSight® management suite (including NetSight Console, NetSight Inventory Manager and NetSight Policy Manager).

Specifications

Technical Specifications

Frequency Band
2.40-2.483 GHz; 5.15 - 5.825 GHz (RBTBH-R2W)

Number of Selectable Sub Channels
(subject to local regulations)

United States: 802.11b/g: 11 (1 to 11) or 802.11a: 12 (5.15 – 5.35 GHz and 5.725 -5.825 GHz

Japan: 802.11b/g: 13 (1 to 13) or 802.11a: 4 typical (5.15 – 5.25 GHz)

APAC: 802.11b/g: 13 (1 to 13) or 802.11a: 4 typical (5.15 – 5.25 GHz)

Europe: 802.11b/g: 13 (1 to 13) or 802.11a: 4 typical (5.15 – 5.25 GHz)

South America: 802.11b/g: 11 (1 to 11) or 802.11a: 12 (5.15 – 5.35 GHz and 5.725 -5.825 GHz

Canada: 802.11b/g: 11 (1 to 11) or 802.11a: 12 (5.15 – 5.35 GHz and 5.725 -5.825 GHz

Bit Error Rate
Better than 10-5

Media Access Protocol
CSMA/CA (Collision Avoidance) with ACK

Wireless Medium
Orthogonal Frequency Division Multiplexing (OFDM)

Modulation
BPSK @ 6 & 9Mbps, QPSK @ 12 & 18Mbps, 16-QAM @ 24 & 36Mbps, 64-QAM @ 48 & 54Mbps

Interface
PC Card Type II Extended

Data Rate
(Automatic Rate Selection [ARS])
802.11a/g: 54 Mbps (with fall-back rates of 48, 36, 24, 18, 12, 9 and 6 Mbps)

802.11b: 11 Mbps (with fall-back rates of 5.5, 2 and 1 Mbps)

Semi Open Office Range (100 bytes user data)
802.11a: up to 25 M at 54 Mbps, up to 45 M at 24 Mbps and up to 70 M at 6 Mbps

802.11g: up to 20 M at 54 Mbps, up to 43 M at 24 Mbps and up to 80 M at 6 Mbps

802.11b: up to 65 M at 11 Mbps, up to 85 M at 5.5 Mbps and up to 90 M at 1 Mbps

Available Output Power Settings
(including onboard antenna)

802.11a at 54 Mbps

Up to 14 dBm/25mw (100%)

Up to 11 dBm/12.5mw (50%)

Up to 8 dBm/6.3mw (25%)

Up to 5 dBm/3.1mw (12%)

Up to 2 dBm/1.6mw (min)

802.11a at 6 Mbps

Up to 17 dBm/50mw (100%)

802.11g at 54 Mbps

Up to 15 dBm/32mw (100%)

Up to 12 dBm/16mw (50%)

Up to 9 dBm/8mw (25%)

Up to 6 dBm/4mw (12%)

Up to 3 dBm/2mw (min)

802.11g at 6Mbps

Up to 18 dBm/64mw (100%)

Receiver Sensitivity dBm
802.11a/g

-68dB at 54 Mbps

-79dB at 24 Mbps

-85dB at 6 Mbps

Range Extender Antenna (RBTBH-IA)
2.4 GHz: 2dB gain

5.25 – 5.825 GHz: 4dB gain

NOTE: Due to FCC and ETSI regulations, this antenna can NOT be used with the 5.15 – 5.25GHz band.

Specifications

Physical Specifications

Dimensions
11.8 cm (4.64") x 5.4 cm (2.12") x 0.94 cm (.37")

Environmental Specifications

Operating Temperature
0° C to 50° C (32° F to 122° F)

Operating Humidity
95% maximum humidity, non-condensing

Power Supply
3.3V power supply

Standards
IEEE 802.11a/b/g

Agency and Standards Specifications

Safety
UL 60950, CSA 60950, EN 60950, EN 60825 and IEC 60950

Electromagnetic Compatibility
47 CFR Parts 2 and 15, CSA C108.8, EN 555022, EN 55024, EN 61000-3-2, EN 61000-3-3, AS/NZS CISPR 22, and VCCI V-3

Warranty
1 year

Ordering Information

802.11a/b/g PC Cards

RBTBH-R2W
RoamAbout 802.11a/b/g PC Radio Card

RBTBH-IA
RoamAbout a/b/g Range Extender Antenna

RoamAbout R2 Access Point

RBTR2-AB
RoamAbout R2 access point with 120-240V power supply

RBTR2-AZ
RoamAbout R2 access point with Mezzanine

RBTRC-MZ
RoamAbout R2 Mezzanine Adapter for second slot

802.11a/b/g Card for the Client

RBTBG-AW
RoamAbout multimode card for the client

RBTBX-PC
RoamAbout PCI Carrier Card (requires RBTBG-AW)

Ordering Information

Optional Products

RBTBH-IA

RoamAbout multiband 2.4 GHz and 5.15-5.85 GHz indoor antenna (for better antenna placement when used with the RBTR2/RBTBH-R2W)

RBTBX-PC

RoamAbout PCI Carrier (requires RBTBG-AW)

RBTR2-PS3

Redundant/spare power supply for RBTR2/CSIWS

CSIWS-RM

Remote power adapter rack mount option (holds 3 injectors)

CSIWS-RMPER

Spare/replacement power injector

Network Management Software

RoamAbout Access Point Manager included at no cost

Warranty

As a customer-centric company, Enterasys is committed to providing the best possible workmanship and design in our product set. Enterasys offers a three-year warranty on access points and a one-year warranty on PC cards. All hardware is warranted to the original user. In the event of failure, the product will be repaired or replaced at Enterasys' discretion subject to our standard terms and conditions of warranty repair. Please refer to the Enterasys website for full warranty details.

Service and Support

Enterasys understands that superior service and support is a critical component of *Networks that Know*.™ The Enterasys **SupportNet Portfolio**—a suite of innovative and flexible service and support offerings—completes the Enterasys solution. SupportNet offers all the post-implementation support services you need—online, onsite or over the phone—to maintain your network availability and performance.

Additional Information

For additional information on the RoamAbout wireless family, please visit **www.enterasys.com/products/wireless**

Contact Information

Contact Enterasys Sales at **877-801-7082** or **enterasys.com/corporate/contact/contactsales.html**

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