

# RoamAbout<sup>®</sup> Product Family

A portfolio of secure, high–performance Wireless LAN products for enterprise–class deployments



Wireless LAN (WLAN) networks are increasingly used to deliver business-critical information, advanced applications and system control data. They expand organizational flexibility, mobility and performance—and must do so without compromising security and data integrity.

Enterasys has developed the RoamAbout WLAN product portfolio to meet the needs of enterprise-class WiFi users and administrators who demand highperformance, Secure Networks<sup>™</sup>-class embedded security and advanced features. RoamAbout 802.11a/b/g WiFi solutions include Thin Mode and Thick Mode Access Points, Wireless LAN Switches, feature rich network management applications and a range of complementary products.

RoamAbout integrates seamlessly into existing wired infrastructures, and simplifies roll-outs with enhanced automation tools. RoamAbout solutions enhance security and system-wide control with support for advanced WLAN features—including leading-edge encryption, authentication, rogue Access Point detection and WLAN Intrusion Defense. The RoamAbout product family also provides long-term flexibility and investment protection by supporting both commonly used WLAN configurations:

- Thick Mode WLANs use independent, standalone Access Points that are deployed at strategic locations. Granular policy management may be applied directly to each Access Point using NetSight<sup>®</sup> management applications.
- Thin Mode WLANs use lightweight Access Points managed via WLAN Switches. These switches are centrally managed using RoamAbout Switch Manager. This configuration is often advantageous for large-scale deployments.

RoamAbout Wireless Switches, Access Points and RoamAbout Switch Manager represent a family of highly scalable Wireless LAN products, and are the building blocks for modern WiFi networks. Each product is designed to offer the right blend of features, functionality and capacity for a specific deployment, from small branch offices to large corporate campuses.





# **RoamAbout WLAN Switches**

Advanced WLAN Switches need to provide high performance for information-driven organizations, always-on network availability across the corporate campus, and sophisticated security to protect intellectual property. Enterasys' RoamAbout Wireless Switches and Thin Mode Access Points are designed to meet these challenges. Together they deliver performance, security and flexibility, and can scale to support future WLAN technology advances.

Security is of paramount importance when deploying WLAN infrastructure. For this reason all RoamAbout Wireless LAN Switches fully implement standards-based encryption, end-user authentication and advanced rogue detection/suppression. In addition, RoamAbout WLAN Switches support wireless Quality of Service (QoS) and offer sophisticated wireless Intrusion Prevention (IPS) capabilities.

All RoamAbout Wireless Switch solutions include RoamAbout Switch Manager (RASM), GUIbased management software that enforces Secure Networks edge-policy rules and manages access for authorized users.

RoamAbout Wireless Switches implement self-healing capabilities—e.g., in the event of an Access Point failure, adjacent Access Points can be automatically reconfigured to compensate for the failed device. RoamAbout Wireless Switches also allow users to roam seamlessly from subnet to subnet within the WLAN—a key feature for advanced voice applications.

RoamAbout Wireless Switches deliver a highly scalable solution, designed to meet the needs of small and large enterprise users. Four distinct platforms are available, and each ships with RoamAbout Switch Manager for advanced network management.

- RBT-8400 controls up to 120 Access Points
- **RBT-8210** controls up to 72 Access Points
- RBT-8110 controls up to 24 Access Points
- TPRZ-MXR2 controls up to 3 Access Points

# Standards-Based, Toll-Quality Voice Services

- VoIP protocol support
- 802.11e WMM compliant
- Network-wide voice priority preservation (802.11i, PMK cache, WMM)
- Bandwidth control for voice traffic (TSPEC)
- Maximizes handset battery life with Power Save (U-APSD)
- Neighbor report assisted roaming (802.11k) - SpectraLink Voice Protocol

# **Guest Pass Services**

- Allows fast and simple configurations for guest access
- 64-Web portals for customized user group profiles
- Isolate guest traffic across the production network

# Fully Aligned with Industry Standards

- IEEE 802.11a/b/g standards compliant with future support for 802.11n via software upgrade
- WiFi certified for WLAN
   interoperability
- Powerful GUI-based management using RoamAbout Switch Manager (RASM)

# Advanced WLAN Security

- Integrated wireless IPS
- Simple guest access provisioning
- Standards-based encryption
- Rogue detection & suppression

# **Resilient WLAN Infrastructure**

- Automated compensation for malfunctioning or over-subscribed Access Points
- Load balancing across available
   Access Points
- Infrastructure level redundancy using multiple WLAN Switches

# End-to-End Visibility

- Track user statistics
- Real-time user location services
- Automated WLAN mapping utility
- Advanced rogue detection/ suppression

# **Technical Specifications**

	TRPZ-MXR-2	RBT-8110	RBT-8210	RBT-8400	
Physical Information					
Access Points Supported	up to 3	up to 24	up to 72	up to 120	
Dimensions	19 cm (7.5") W x 14.6 cm (5.75") D x 3.2 cm (1.25") H	42.9 cm (16.9") W x 45.7 cm 18.0") D x 4.3 cm (1.7") H		44.2 cm (17.4") W x 46.2 cm (18.2") D x 8.8 cm (3.5") H	
Weight	0.7 kg (1.5 lbs)	15.0 kg (33.0 lbs)		9.79 kg (21.8 lbs) with 1 power supply, 11.3 kg (25 lbs) with 2 power supplies	
Interfaces	2 10/100 RJ45 ports (1 PoE Enabled)	1 Gigabit Ethernet port (1000Base-T)	2 Gigabit Ethernet ports (1000Base-T)	4 Gigabit Ethernet ports, each with GBIC or 1000Base-T, no restrictions on usage	
Environmental Specification	ns				
Operating Temperature	-10° C to 50° C (14° F to 122° F)	10° C to 35° C (50° F to 95° F)		0° C to 50° C (32° F to 122° F)	
Storage Temperature	-20° C to 70° C (-4° F to 158° F)	-40° C to 70° C (-40° F to 158°	F)	-20° C to 70° C (-4° F to 158° F)	
Humidity	10% to 90%, non-condensing	10% to 95%, non-condensing		10% to 90%, non-condensing	
Input Power VAC Range, Hz Range	110-115 VAC, 47-63 Hz auto-sensing	110-230 VAC, 50-60 Hz to 250 watts		90-250 VAC, 47-63 Hz to 350 watts, hot-swappable power supply	
Amperage Draw Maximum	.8 Amps @ 115 Vrms	3.5 Amps @ 115Vrms / 1.7 Am	ps @ 230 Vrms	8 Amps @ 120 Vrms / 3.5 Amps @ 230 Vrms	
BTU/hr Rating	18	1,143	1,706	330	
MTBF	267,463 hours (30 yrs)	36,307 hours (4 yrs)	36,301 hours (4 yrs)	75,815 hours (8.5 yrs)	
Power-over-Ethernet Voltage Output	48VDC 0.75A	N/A	N/A	N/A	
Power-over-Ethernet/Port	15.4 W	N/A	N/A	N/A	
Total Power Budget	250 W	N/A	N/A	N/A	
Agency and Standards Spec	cifications				
Safety	Canada: UL/CSA 60950-1:2003 (UL Recognition Mark)				
	Europe: EN 60 950; CE Mark-EU Directive 73/23/EEC				
	International: IEC 60 950				
	Nordics: EMKO-TSE (74-SEC) 207/94				
	Russia: GOST-R 50377-92 (GOST-R Mark)				
	United States: UL/CSA 60950-1:2003 (UL Recognition Mark)				
Electromagnetic Compatibi	lity				
EMI/EMC	Australia/New Zealand: Verified to /	AS/NZS 3548, Class A (C-tick Mar	k)		
	Canada: Verified to ICES-003, Class A				
	Europe: Verified to EN55022, Class A, EN55024 (Immunity), and CE Mark (EU Directive 89/336/EEC)				
	International/Japan: Verified to CISPR-22/VCCI, Class A				
	Korea: RRL Class A Certification to MIC Notices 1997-41 & 1997-42				
	Russia: Verified to GOST-R 29216-91, GOST-R 50628-95 (GOST-R Mark)				
	Taiwan: Verified to BSMI CNS13438, Class A (DOC)				
	United States: Verified to FCC, Class A				
Warranty	1-year Hardware, 90-day Software				

# Technical Specifications, continued

# Supported Standards

IEEE Standards				
802.11a	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
802.11b	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
802.11g	√	$\checkmark$	$\checkmark$	$\checkmark$
802.11d	√	$\checkmark$	$\checkmark$	$\checkmark$
802.11e WMM	√	$\checkmark$	$\checkmark$	$\checkmark$
802.11h	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
802.11i	√	$\checkmark$	$\checkmark$	$\checkmark$
802.1x Port-Based Network Access Control	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
802.3i 10 BASE	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
802.3u 100 BASE	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
802.3z 1000 BASE	N/A	N/A	N/A	$\checkmark$
802.3ab 1000 BASE-T	N/A	$\checkmark$	$\checkmark$	$\checkmark$
802.3af Power over Ethernet	√	N/A	N/A	$\checkmark$
802.3ad (static config)	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
802.1Q VLAN Tagging	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
802.1p Priority Queuing	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Security and AAA				
RFC 2246 Transport Layer Security	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 2284 EAP	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 2315 PKCS #7 Cryptographic Message	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 2458 Microsoft RADIUS VSAs	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 2716 PPP EAPTLS Authentication Protocol	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 2759 Microsoft PPP CHAP Extensions v2	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 2865 RADIUS Authentication	√	$\checkmark$	$\checkmark$	$\checkmark$
RFC 2866 RADIUS Accounting	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 2869 RADIUS Extensions	√	$\checkmark$	$\checkmark$	$\checkmark$
RFC 2986 PKCS #10 Certification Request Syntax v1.7	√	$\checkmark$	$\checkmark$	$\checkmark$
RFC 3580 IEEE 802.1x RADIUS Guidelines	√	$\checkmark$	$\checkmark$	$\checkmark$
Management				
RFC 854 Telnet (Server and Client)	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
SSH v2 Secure Shell v2	√	$\checkmark$	$\checkmark$	$\checkmark$
SNMP v1, v2c, and v3	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 1213 MIB II	√	$\checkmark$	$\checkmark$	$\checkmark$
RFC 1866 HTML	√	$\checkmark$	$\checkmark$	$\checkmark$
RFC 2068 HTTP	√	$\checkmark$	$\checkmark$	$\checkmark$
RFC 3164 Syslog	√	$\checkmark$	$\checkmark$	$\checkmark$
Enterasys Private MIB		$\checkmark$	$\checkmark$	$\checkmark$
IETF CAPWAP	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

# Technical Specifications, continued

# Supported Standards

Quality of Service and VoIP				
802.1p Priority Queuing	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
802.11e WiFi Multi Media WMM	$\checkmark$	√	$\checkmark$	$\checkmark$
Spectra Link Voice Priority (SVP)	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 2472 Diff Serv Precedence	$\checkmark$	√	$\checkmark$	$\checkmark$
RFC 2597 Diff Serv Assured Forwarding	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 2598 Diff Serv Expedited Forwarding	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
SpectraLink Voice Protocol	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
IP Multicast				
RFC 1112 IGMP v1	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 2236 IGMPv2	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Supported RFCs				
RFC 1122 Host Requirements	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 1393 Traceroute	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 1519 CIDR	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 1591 DNS	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 2030 SNTP	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 768 UDP	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 783 TFTP	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 791 IP	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 792 ICMP	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 793 TCP	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
RFC 826 ARP	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$



# **RoamAbout Access Points**

Enterasys offers an extensive range of RoamAbout (APs) to meet the wireless connectivity and security needs of different sized organizations, and to support both Thin Mode and Thick Mode WiFi deployments. RoamAbout Access Points enable secure wireless mobility and seamlessly integrate with RoamAbout WLAN Switches and/or your existing L2/L3 networking equipment.

Security features include full support for encryption, end-user authentication, advanced rogue detection/suppression, sophisticated wireless QoS and integrated wireless IPS capability.

RoamAbout Access Points maximize system availability and simplify installation with support for dual and/or redundant power, dual LAN connections, and automatic transmit power and channel adjustments. Four models are available, providing a flexible solution that meets the requirements of demanding mobile communications users.

- RBT-4102 Convertible WiFi Access Point, designed for use in either Thin Mode or Thick Mode WLANs
- RBT-1002 Cost-effective WiFi Access Point for use in Thin Mode WLANs
- RBT-1602 Full-featured Access Point for use in Thin Mode WLANs. Includes support for redundant Power-over-Ethernet (PoE) connections and redundant LAN interfaces
- TPRZ-MP620 Weatherized access point for use in outdoor deployments

### **Direct Path Forwarding**

- Allows current switch controllers to scale to 802.11n performance
- Ideal for low-latency WiFi applications

## Mesh and Backhaul Services

- QoS and policy enforced at the AP Allows APs to be deployed without
- data connection
- Supports remote APs, lowers costs

## Advanced WLAN Security

- Support for AirDefense<sup>®</sup> IPS
- Rogue AP detection isolation
- Support for non-disruptive, inter-subnet roaming

### Fully Aligned with Industry Standards

- 802.11a/b/g: dual-band
- WiFi certified for interoperability
- Standard-based encryption and authentication

### Multiple Deployment Modes

- Thin Mode or Thick Mode
- Thick Mode APs may be migrated to a Wireless Switch-based configuration
- Point-to-Point and Point-to-Multipoint support

### **Total End-User Mobility**

• Ultra-low latency for phones, scanners, handheld devices

### **Resilient Systems**

- Dual Power over Ethernet
- Dual LAN connections
- Power redundancy with simultaneous PoE and external power input
- Automatic transmit power adjustment for lost APs
- Automatic transmit channel
   adjustment to reduce interference
- Automatic load-balancing to push end-users to APs with lower traffic

### **User-Friendly WLAN Management**

- Easy GUI-based management using NetSight<sup>®</sup> or RASM
- Thick Mode APs use the same policy management applications as the wired infrastructure
- Support for both Web-based and CLI management

# **Technical Specifications**

	RBT-4102/1002	RBT-1602	TRPZ-MP-620
Physical Information			
Dimensions	21.83 cm (8.6") H x 13.73 cm (5.4") W x 3.27 cm (1.3") D	16.76 cm (6.6") Diameter x 4.65 cm (1.9") D	19.80 cm (7.8") H x 19.80 cm (7.8") W x 7 cm (2.76") D
Weight	798 g (28.2 oz)	354 g (12.5 oz)	1.6 kg (3.53 lbs)
Interfaces	(1) Wired 10/100 Mbps, (1) Console port RS232, (2) reverse male SMA connectors (4102 only)	(2) Wired 10/100 Mbps, (2) reverse male SMA connectors	(1) Wired 10/100 Mbps, (1) Console port RS232, (2) reverse male SMA connectors (4102 only)
Environmental Specifications			
Operating Temperature	0° C to 55° C (32° F to 131° F)	0° C to 50° C (32° F to 122° F)	-30° C to 55° C (-22° F to 131° F)
Storage Temperature	-20° C to 80° C (-4° F to 176° F)	-20° C to 70° C (-4° F to 158° F)	-30° C to 55° C (-22° F to 131° F)
Humidity	5% to 95%, non-condensing	10% to 95%, non-condensing	15% to 95%, non-condensing
BTU/hr Rating	37	28	100 (max)
MTBF	255,711 Hrs (30 yrs)	No Active Components	No Active Components
AC Power Supply	Input: 120-240 VAC, 13.2 watts Output: 48VDC, .27A	N/A	N/A

# Transceiver Characteristics for 802.11a

### Frequency Band:

5.15 - 5.25 GHz (low band) U.S. (FCC), Canada, Japan and parts of Europe 5.25 - 5.35 GHz (mid band) U.S. (FCC), Canada, Japan and parts of Europe 5.50 - 5.70 GHz Europe band 5.725 - 5.825 GHz (high band) U.S. (FCC) and Canada

Modulation Technique: BPSK, QPSK, 16-QAM and 64-QAM (OFDM)

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

# Data Rate:

54 Mbps with fall back rates of 48, 36, 24, 18, 12, 9 and 6 Mbps per channel

# **Output Power:**

RBT-4102:

20 dBm at 5.15 – 5.35 GHz (except at 48 and 54 Mbps output is 18 dBm) 20 dBm at 5.50 – 5.70 GHz (except at 36 and 54 Mbps output is 17 dBm) 19 dBm at 5.725 – 5.825 GHz (except at 48 and 54 Mbps output is 18 and 16 dBm)

### RBT-1002:

17 dBm at 5.15 – 5.25GHz (except at 54 Mbps output is 12 dBm) 17 dBm at 5.25 – 5.35GHz 17 dBm at 5.50 – 5.70GHz 17 dBm at 5.725 – 5.825GHz (except at 54 Mbps output is 16 dBm)

## RBT-1602:

18 dBm across all frequencies

### **Receiver Sensitivity:**

## RBT-4102:

70 dBm at 54 Mbps	-83 dBm at 18 Mbps
73 dBm at 48 Mbps	-86 dBm at 12 Mbps
76 dBm at 36 Mbps	-87 dBm at 9 Mbps
80 dBm at 24 Mbps	-88 dBm at 6 Mbps

### RBT-1002:

 -69 dBm at 54 Mbps
 -84 dBm at 18 Mbps

 -73 dBm at 48 Mbps
 -86 dBm at 12 Mbps

 -77 dBm at 36 Mbps
 -87 dBm at 9 Mbps

 -81 dBm at 24 Mbps
 -88 dBm at 6 Mbps

# RBT-1602:

-70 dBm at 54 Mbps-84 dBm at 18 Mbps-73 dBm at 48 Mbps-86 dBm at 12 Mbps-76 dBm at 36 Mbps-90 dBm at 9 Mbps-82 dBm at 24 Mbps-91 dBm at 6 Mbps

# Transceiver Characteristics for 802.11b/g

## **Frequency Band:**

2.4 - 2.83 GHz U.S. (FCC), Canada, Europe (ETSI) 2.4 - 2.497 GHz Japan

## **Modulation Technique:**

802.11b:	CCK, DBPSK, DQPSK (DSSS)
802.11g:	BPSK, QPSK, 16-QAM and 64-QAM (OFDM)

### Media Access Protocol:

CSMA/CA (Collision Avoidance) with ACK

### Data Rate:

802.11b:	11 Mbps with fall-back rates of 5.5, 2 and 1 Mbps
	per channel
802.11g:	54 Mbps with fall-back rates of 48, 36, 24, 18, 12, 9
	and 6 Mbps per channel

### **Output Power:**

**RBT-4102**:

802.11b/g:	20 dBm across all frequencies (except 19dB at 54 Mbps)
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## **RBT-1002:**

802.11b: 15 dBm at 2.412-2.472GHz 802.11g: 20 dBm at 2.412GHz (except at 48 and 54 Mbps output is 17 and 15dBm) 20 dBm at 2.417-2.467GHz (except at 48 and 54 Mbps output is 16 and 14dBm) 18 dBm at 2.472GHz (except at 48 and 54 Mbps output is 15 and 13dBm)

### RBT-1602:

802.11b/g: 18 dBm across all frequencies

# **Receiver Sensitivity 802.11b:**

### RBT-4102:

-85 dBm at 11 Mbps -87 dBm at 5.5 Mbps -89 dBm at 2 Mbps -90 dBm at 1 Mbps

### **RBT-1002:**

-87 dBm at 11 Mbps -90 dBm at 5.5 Mbps -90 dBm at 2 Mbps -93 dBm at 1 Mbps

# **RBT-1602:**

-85 dBm at 11 Mbps -90 dBm at 2 Mbps -87 dBm at 5.5 Mbps -94 dBm at 1 Mbps

## **Receiver Sensitivity 802.11g: RBT-4102**:

-70 dBm at 54 Mbps	-84 dBm at 18 Mbps
-73 dBm at 48 Mbps	-85 dBm at 12 Mbps
-76 dBm at 36 Mbps	-86 dBm at 9 Mbps
-80 dBm at 24 Mbps	-88 dBm at 6 Mbps

## **RBT-1002:**

-70 dBm at 54 Mbps	-85 dBm at 18 Mbps
-72 dBm at 48 Mbps	-86 dBm at 12 Mbps
-77 dBm at 36 Mbps	-87 dBm at 9 Mbps
-81 dBm at 24 Mbps	-88 dBm at 6 Mbps

## **RBT-1602**:

71 dBm at 54 Mbps	-85 dBm at 18 Mbps
73 dBm at 48 Mbps	-87 dBm at 12 Mbps
78 dBm at 36 Mbps	-89 dBm at 9 Mbps
81 dBm at 24 Mbps	-90 dBm at 6 Mbps

# Antennas:

# **RBT-4102:**

Internal dual-band diversity antennas with connectors for optional external antennas

External antenna connections: 1 reverse polarity SMA connector for 802.11a; 1 reverse polarity SMA connector for 802.11b/g

### **RBT-1002**:

Internal dual-band diversity antennas, no connections for external antennas

### **RBT-1602:**

Internal dual-band diversity antennas with connectors for optional external antennas

External antenna connections: 1 reverse polarity SMA connector for 802.11a; 1 reverse polarity SMA connector for 802.11b/g

## Power:

Power over Ethernet (DC): 48VDC, 0.27A, 12.96 watts

# Transceiver Characteristics for 802.11b/g, continued

# **EMI and Safety Specifications**

Safety and Electromagnetic Compatibility:

# RBT-4102:

UL 60950, CSA 60950, EN 60950, EN 60825, IEC 60950, 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

# RBT-1002:

UL 60950, CSA 60950, EN 60950, EN 60825, IEC 60950, 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

# RBT-1602:

ETS 300.328 (2.4 GHz) and 301.893 (5 GHz), FCC Part 15 Class B, ICES-003 Class B, RSS139-1 and RSS-210, R&TTE Directive 1999/5/ EC, EN60601-1-2 (2001), UL-2043 Plenum Rated for Commercial Installation

# TRPZ-MP-620:

UL 60950, CSA 22.2 No. 60950, EN60950 (TUV/GS), ETS 300.328 (2.4Ghz) and 301.893 (5Ghz), FCC Part 15 Class A 15.407, ICES Part 15-003 Class A, RSS-210, R&TTE Directive 1999/5/EC, EN 61000-3, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000 4-11 VCCI Class A, 72/23/EEC and 89/336/EEC

# **Ordering Information**

# **Wireless Switches**

RBT-8110	Wireless Switch with support for 24 Access Points
RBT-8210	Wireless Switch with support for 24 Access Points; upgradeable to 48 and 72
RBT-8200-24	License Upgrade for RBT-8200 and RBT-8210. Adds support for 24 Access Points
RBT-8200-48	License Upgrade for RBT-8200 and RBT-8210. Adds support for 48 Access Points
RBT-8400	Wireless Switch with support for 40 Access Points; upgradeable to 80 and 120
RBT-8400-40	License Upgrade for RBT-8400. Adds support for 40 Access Points
RBT-8400-80	License Upgrade for RBT-8400. Adds support for 80 Access Points
RBT-8400-PSU	Spare Power Supply for the RBT-8400 Wireless Switch
TRPZ-MXR-2	Wireless Switch for small remote sites and SOHO deployments. Supplies standards-based PoE and management support
	for as many as (3) AP-1602 Access Points. Supports both "direct-connect" and "logical-connect" deployments

# **Access Points**

TPRZ-MP-620	Dual-band, weatherproof outdoor Access Point for use in Thin-Mode deployments. Requires external antenna. Powered over
	Ethernet with a provided power-injector. Supports ACL-based edge policy
RBT-1002	Dual-band, indoor Access Point for use in Thin-Mode deployments. Powered via standards-based 802.3af Power over Ethernet
	and/or provided Wall-Adapter. Supports ACL-based edge policy
RBT-1002-EU	Variant for use in countries outside North America
RBT-1602	Dual-band, indoor Access Point for use in Thin-Mode deployments. Powered via standards-based 802.3af Power over Ethernet
	Includes dual RJ45 ports for redundant LAN and PoE connections. Supports ACL-based edge policy
RBT-4102	Dual-band, indoor/outdoor (with optional weatherproof enclosure) Access Point for use in Thin-Mode or Thick-Mode
	deployments. Field-convertible between Thin and Thick Modes. Supports Enterasys edge policy in Thick Mode with NetSight
	Policy Manager or ACL-based edge policy with RoamAbout Switch Manager in Thin Mode
RBT-4102-BG	Variant supporting 802.11b/g radio ONLY
RBT-4102-EU	Variant for use in countries outside North America

# Antennas

RBT-AG-IA	Indoor range extender antenna with reverse SMA connector
RBT4K-AG-IA	Indoor range extender antenna for the RBT-4102
RBTES-AW-S1590M	Sector Antenna for 4.9 GHz to 5.8 GHz, 15dBi gain at 90-degree and 16dBi gain at 60-degree, reverse-N male connector
	(RBT-4102-EU variant only)
RBTES-AH-M10M	Omni Directional Antenna for 5.7 to 5.8 GHz, 10dBi, reverse-N male connector (RBT-4102 variant only)
RBTES-AH-P23M	Directional Panel Antenna for 5.8 GHz, 23dBi, reverse-N male connector (RBT-4102 variant only)
RBTES-AM-M10M	Omni Directional Antenna 5.3 GHz, 10dBi with reverse-N male connector (RBT-4102-EU variant only)
RBTES-AW-S10180	Sector Antenna for 5.15 to 5.8GHz, 10dBi, 180-degree (RBT-1602, TPRZ-MP372)
RBTES-AW-S12120	Sector Antenna for 5.15 to 5.8GHz, 12dBi, 120-degree (RBT-1602, TPRZ-MP372)
RBTES-AW-S1460	Sector Antenna for 5.15 to 5.8GHz, 14dBi, 60-degree (RBT-1602, TPRZ-MP372)
RBTES-BG-M08M	Omni Directional Antenna for 2.4 GHz, 8dBi, reverse-N male connector (RBT-4102-EU and RBT-4102-BG variants)
RBTES-BG-P18M	Directional Panel Antenna for 2.4GHz, 18dBi, reverse-N male connector
RBTES-BG-PAR24M	Parabolic Antenna for 2.4GHz, 24dBi, reverse-N Male connector
RBTES-BG-S06180	Sector Antenna for 2.4GHz, 6dBi, 180-degree (RBT-1602, TPRZ-MP372)
RBTES-BG-S07120	Sector Antenna for 2.4GHz, 7dBi, 120-degree (RBT-1602, TPRZ-MP372)
RBTES-BG-S1060	Sector Antenna for 2.4GHz, 10dBi, 60-degree (RBT-1602, TPRZ-MP372)
RBTES-BG-S1490M	Sector Antenna for 2.4GHz, 14dBi, 90-degree, reverse-N male connector (RBT-4102-EU and RBT-4102-BG variants)
TRPZ-ANT-1120	Sector Antenna for 2.4GHz, 10dBi, 120-degree (TPRZ-MP620 only)
TRPZ-ANT-1360	Omni Directional Antenna for 2.4GHz, 8dBi, (TPRZ-MP620 only)

TRPZ-ANT-5120	Sector Antenna for 5GHz, 13dBi, 120-degree Sector Antenna (TPRZ-MP620 only)
TRPZ-ANT-5360	Omni Directional Antenna for 5GHz, 8dBi, (TPRZ-MP620 only)
TRPZ-ANT-620	Wall Mount Kit for the TPRZ-MP620

# **Cables & Connectors**

RBT4K-AG-PT20F	20" pigtail for the RoamAbout RBT-4102 with reverse SMA female-to-reverse-N female
RBT4K-AG-PT20M	20" pigtail for the RoamAbout RBT-4102 with reverse SMA female-to-reverse-N male
RBTES-AG-LPM	Dual-band lightening protector with reverse-N male connectors
RBTES-L200-C20F	20' LMR 200 cable with reverse-N female connectors
RBTES-L400-C50F	50' LMR 400 cable with reverse-N female connectors
RBTES-L400-C75F	75' LMR 400 cable with reverse-N female connectors
RBTES-L600-C25F	25' LMR 600 low-loss cable with reverse-N female connectors
RBTES-L600-C50F	50' LMR 600 low-loss cable with reverse-N female connectors
TRPZ-ANT-CBL3MM	3m cable for the MP-620 ONLY
TRPZ-ANT-LGTNG	2.4GHz and 5GHz LP for the MP-620 ONLY

# Wireless Client Card & Adapters

Dual-Band Wireless Network Interface Card for clients. Supports 802.11a/b/g
RoamAbout PCI Carrier, 16 & 32 bit bus (requires a PC Radio Card, RBTBJ-AW)
Wireless Ethernet Adapter. Provides 802.11a/b/g wireless connectivity for Ethernet LAN client devices without wireless
capability. One 10/100 Ethernet port. Powered by provided Wall Adapter. (FCC Channels)
Wireless Ethernet Adapter. Provides 802.11a/b/g wireless connectivity for Ethernet LAN client devices without wireless
capability. One 10/100 Ethernet port. Powered by provided Wall Adapter. (ETSI/International Channels)

# Management Software for Thick Mode

NSA-LE-LIC	NetSight Console License - Large Enterprise. Includes 1 server license and 10 standalone licenses. Allows 10 client
	connections. Supports 600 devices. Available through web download only
NSA-ME-LIC	NetSight Console License - Medium Enterprise. Includes 1 server license, 5 standalone licenses. Allows 5 client connections
	Supports 250 devices. Available through web download only
NSA-ML-UG	NetSight Console Upgrade - from Medium to Large
NSA-SE-LIC	NetSight Console License - Small Enterprise. Includes 1 server license, 1 standalone license. Allows 3 client connections
	Supports 25 devices. Available through web download only
NSA-SM-UG	NetSight Console Upgrade - from Small to Medium
NSA-U-LIC	NetSight Console License - Unlimited Enterprise. Includes 1 server license 15 standalone licenses. Allows 25 client
	connections. Available through web download only
PM-LE-LIC	NetSight Policy Manager License - Large Enterprise. Includes 1 server license, 10 standalone licenses. Allows 10 client
	connections. Supports 600 devices. Available through web download only
PM-ME-LIC	NetSight Policy Manager License - Medium Enterprise. Includes 1 server license, 5 standalone licenses. Allows 5 client
	connections. Supports 250 devices. Available through web download only
PM-ML-UG	NetSight Policy Manager Upgrade - from Medium to Large Enterprise
PM-SE-LIC	NetSight Policy Manager License - Small Enterprise. Includes 1 server license, 1 standalone license. Allows 3 client
	connections. Supports 25 devices. Available through web download only
PM-SM-UG	NetSight Policy Manager Upgrade - from Small to Medium Enterprise
PM-U-LIC	NetSight Policy Manager License - Unlimited. Includes 1 server license, 15 standalone licenses. Allows 25 client
	connections. Available through web download only

# Management Software for Thin Mode

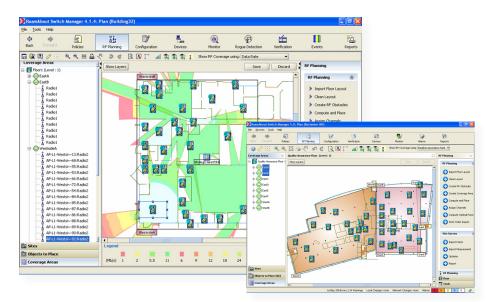
RBT-NMS-50	RoamAbout Switch Manager software with support for up to 50 Thin-Mode Access Points.
RBT-NMS-200	RoamAbout Switch Manager software with support for up to 200 Thin-Mode Access Points.
RBT-NMS-UNL	RoamAbout Switch Manager software with support for an unlimited quantity of Thin-Mode Access Points.
RBT-NMS-50-200	License Upgrade for RoamAbout Switch Manager. Upgrades support from 50 to 200 Thin-Mode Access Points.
RBT-NMS-50-UNL	License Upgrade for RoamAbout Switch Manager. Upgrades support from 50 to "Unlimited" Thin-Mode Access Points
RBT-NMS-200-UNL	License Upgrade for RoamAbout Switch Manager. Upgrades support from 200 to "Unlimited" Thin-Mode Access Points
RBT-RFPLAN	License Upgrade for RoamAbout Switch Manager. Unlocks the Radio-Frequency Planning Tool

# Warranty

As a customer-centric company, Enterasys is committed to providing the best possible workmanship and design in our product set. In the event that one of our products fails due to a defect in one of these factors, we have developed a comprehensive warranty that protects you and provides a simple way to get your products repaired as soon as possible.

# Service and Support

Enterasys understands that superior service and support is a critical component of Secure Networks<sup>™</sup>. Enterasys provides a suite of innovative and flexible service and support offerings to complete the Enterasys solution. We offer all the post-implementation support services you need—online, onsite or over the phone—to maintain your network reliability and performance.



# **RoamAbout Switch Manager**

Network Administrators need powerful management tools to control configuration, permission and security options for WLAN Switch/Thin Mode Access Point deployments. RoamAbout Switch Manager (RASM) eliminates the complexity of managing an enterprise-scale WLAN. Using RASM, the network administration can quickly and easily plan, configure, optimize and monitor the complete WLAN switch infrastructure. RASM network management software is included with every RoamAbout WLAN Switch from Enterasys.

No longer is it necessary to configure and manage each WLAN Switch or Access Point individually—RASM can manage multiple switches as a single group, to dramatically improve the scalability of WLAN management using existing IT resources. In addition the network administration can create "template configurations" (to define user policies, access control lists and so on) that are applied to groups of Switches and Access Points simultaneously.

From a Secure Networks<sup>™</sup> perspective, RASM provides actionable information that can be used immediately to mitigate threats. For example, if a potential security vulnerability such as a rogue Access Point is detected, RASM can eliminate the guesswork associated with finding this device by automatically triangulating the rogue's location and creating a "heat map" to guide the network administrator to the target.

RASM also provides a powerful solution for managing guest user access using the optional GuestPass plug-in. GuestPass may be used to grant temporary (both time limited and location specific) WLAN access for guest users. This tool is particularly useful for corporate briefing centers, and frees IT personnel from direct involvement each time a guest requires WiFi access.

RASM includes a topology Mapping Tool that can combine architectural floor plans with location information for each Access Point to create dynamic color-coded physical maps of the WLAN infrastructure. These maps graphically display wireless coverage patterns, including channel selections, signal quality and communication speeds. The Mapping Tool can even make adjustments for doors, walls, windows and other obstructions that might affect wireless coverage.

# Feature-Rich Management Tools for Precise WLAN Control

- The Mapping Tool provides real-time, color-coded, physical maps of the WLAN to enhance administration and reduce diagnostic time
- The RASM system provides locator services to help pinpoint the position of rogue Access Points and users
- The optional GuestPass utility simplifies guest-access provisioning in conference rooms, lobbies and public spaces
- The optional Planning Tool calculates optimal Access Point placement, channel settings and transmit power levels

# Powerful System-Wide Control for Network Administrators

- Template-based configurations allow simultaneous administration of multiple WLAN Switches and Access Points
- Powerful error-checking function will not apply configurations with known errors

# User-Friendly Management Interface

- Client-server architecture enhances flexibility
- Object-oriented user interface minimizes learning curve
- No special software required to run RASM client—interface uses standard web browser

# **Technical Specifications**

# Windows and Linux Systems

Windows Platform: Microsoft Windows 2000 (SP4) or Microsoft Windows XP (SP1)

Linux Platform: Red Hat 8.0

# Processor:

Minimum: Intel Pentium III, 1 GHz or equivalent Recommended: Intel Pentium 4, 2.4 GHz or equivalent

# RAM:

Minimum: 512 MB Recommended: 1 GB

Hard Drive Space: Minimum: 100 MB Recommended: 200 MB

# Monitor Resolution:

Minimum: 1024 x 768 pixels, 24-bit color Recommended: 1600 x 1200 pixels, 24-bit color

# **UNIX Systems**

**UNIX Platform:** Sun Solaris 8 or Sun Solaris 9

Processor: Minimum: Sun UltraSPARC 10 Recommended: Sun Blade 150

# RAM:

Minimum: 512 MB Recommended: 1 GB

Hard Drive Space:

Minimum: 100 MB Recommended: 200 MB

Monitor Resolution: Minimum: 1024 x 768 pixels, 24-bit color Recommended: 1600 x 1200 pixels, 24-bit color

# Technical Specifications, continued

# Windows and Linux Systems

Windows Platform: Microsoft Windows Server 2003, Microsoft Windows XP (SP1 or greater) or Microsoft Windows 2000 (SP4)

Linux Platform: Red Hat WS 3, SUSE Linux 9.1

Processor:

Minimum: Intel Pentium 4, 2.4 GHz or equivalent Recommended: Intel Pentium 4, 3.6 GHz or equivalent

RAM: Minimum: 1 GB Recommended: 2 GB

Hard Drive Space: Minimum: 1 GB Recommended: 2 GB

Monitor Resolution: Minimum: 1024 x 768 pixels, 24-bit color Recommended: 1600 x 1200 pixels, 32-bit color

# Solaris Platform

Solaris Platform: Sun Solaris 8 or Sun Solaris 9

Processor:

Minimum: Sun UltraSPARC 10 or equivalent Recommended: Sun UltraSPARC III or equivalent

RAM: Minimum: 1 GB Recommended: 2 GB

Hard Drive Space: Minimum: 100 MB Recommended: 200 MB

Monitor Resolution: Minimum: 1024 x 768 pixels, 24-bit color Recommended: 1600 x 1200 pixels, 24-bit color

# Contact Us

For more information, call Enterasys Networks toll free at 1-877-801-7082, or +1-978-684-1000 and visit us on the Web at enterasys.com



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