DATASHEET

EdgeRouter™ X

Advanced Gigabit Ethernet Routers

Models: ER-X, ER-X-SFP

Sophisticated Routing Features

Advanced Security, Monitoring, and Management

High-Performance Gigabit Ports

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Overview

Ubiquiti Networks introduces the EdgeRouter™ X, part of the EdgeMAX® platform. The EdgeRouter X combines carrier-class reliability with excellent price-to-performance value in an ultra-compact form factor.

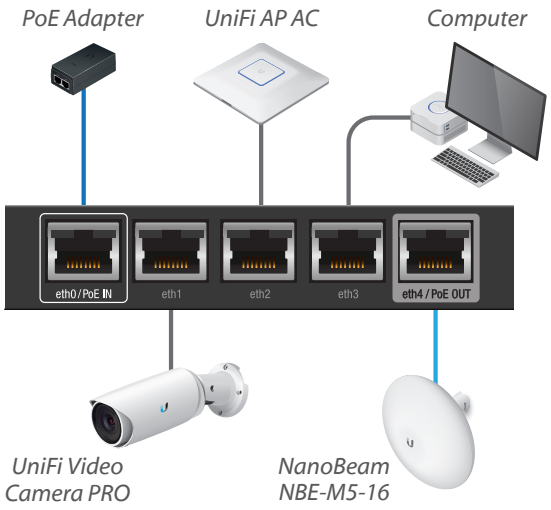
PoE Versatility

Two models of the EdgeRouter X are available. The standard model, the ER-X, can be powered by an external power adapter or 24V passive PoE input. A passive PoE passthrough option[1] is available to support a single airMAX® device[2].

The SFP model, the ER-X-SFP, is powered by an external power adapter. The five Gigabit RJ45 ports support 24V passive PoE output for airMAX or UniFi® devices, while its SFP port provides fiber connectivity to support backhaul applications.

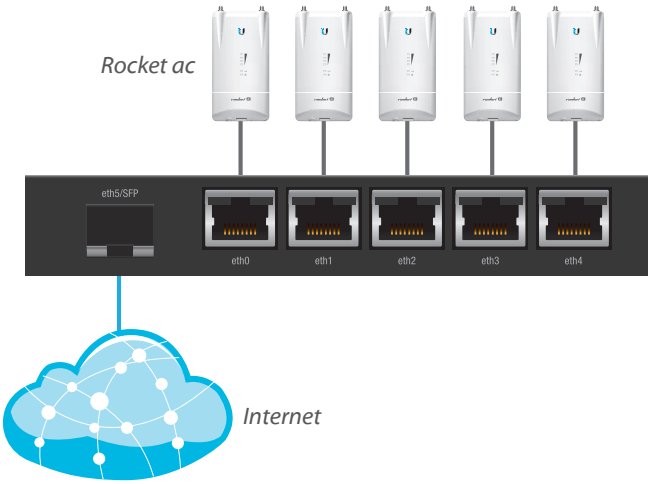
Configuration Methods

Powered by a proprietary and intuitive graphical interface, EdgeOS™, every EdgeRouter X can easily be configured for the routing, security, and management features required to efficiently run your network. For advanced network professionals, an integrated CLI is available for quick and direct access using familiar commands.



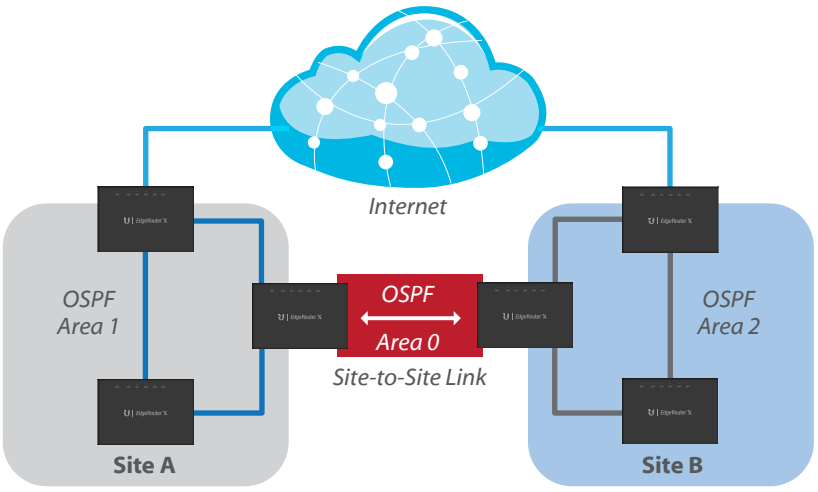
Example of a CPE Deployment for the ER-X

Powered by 24V passive PoE, the ER-X provides data with 24V passive PoE to the NanoBeam® and data to the UniFi Video Camera PRO, UniFi AP AC, and computer.



Example of a Backhaul Deployment for the ER-X-SFP

Powered by the included 24V power adapter, the ER-X-SFP has a fiber connection to the Internet and provides data with 24V passive PoE to the five Rocket™ ac radios.



Example of a Service Provider Deployment for the ER-X

Multiple ER-X devices connect the Internet and three OSPF areas of the service provider's network.

[1] Requires 24V passive PoE or a 12W minimum power adapter (not included).

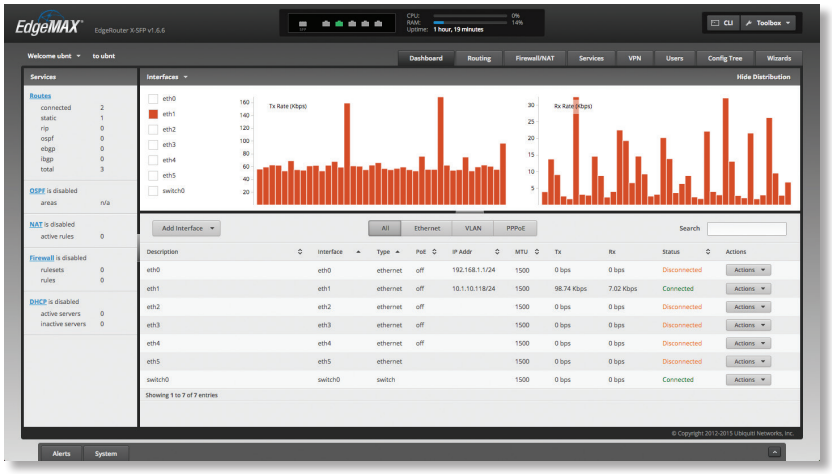
[2] Check your airMAX device's specifications for voltage and wattage requirements.

Intuitive User Interface

The EdgeRouter X provides a graphical user interface designed for convenient setup and control.

Accessed via a network port and web browser, the user-friendly interface provides intuitive management with a virtual view of the ports, displaying physical connectivity, speed, and status.

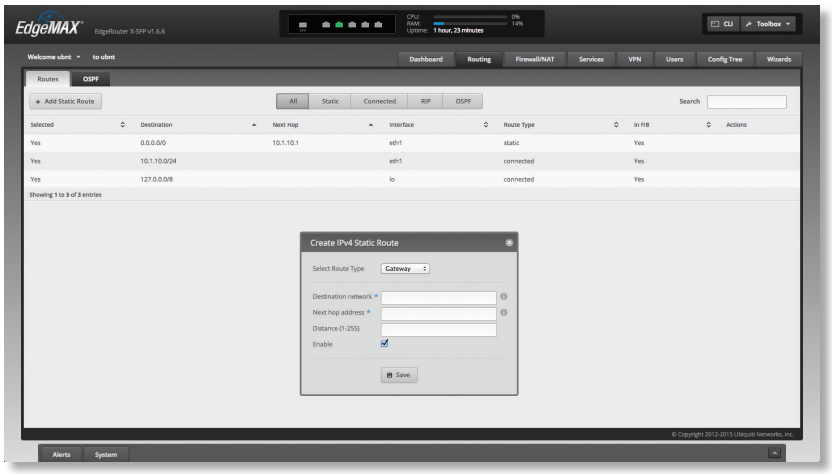
The Dashboard displays detailed statistics: IP information, MTU, transmit and receive speeds, and status for each physical and virtual interface.



Powerful Features

EdgeOS is a sophisticated operating system with robust features, including:

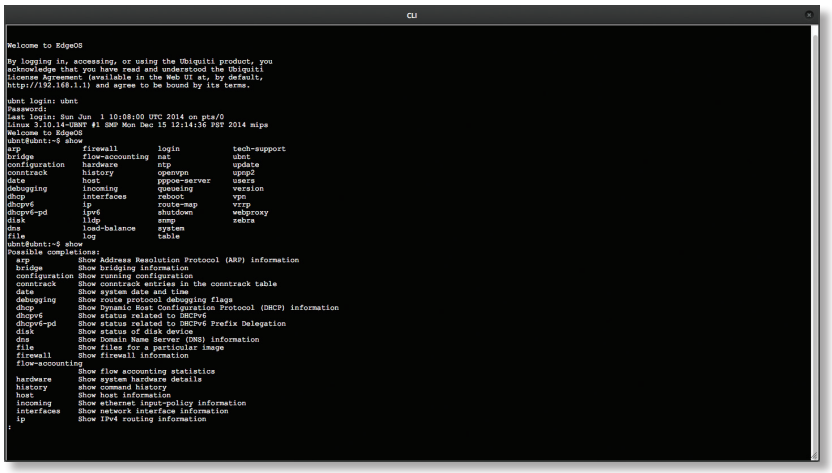
- VLAN interfaces for network segmentation
- Static routes and support of routing protocols: OSPF, RIP, and BGP
- Firewall policies and NAT rules
- DHCP services
- Quality of Service (QoS)
- Network administration and monitoring tools
- Administrator and operator accounts
- Comprehensive IPv6 support



Configuration by CLI

The CLI provides quick and flexible configuration by command line and features the following:

- For power users, configuration and monitoring of all advanced features
- Direct access to standard Linux tools and shell commands
- CLI access through the serial console port, SSH, Telnet, and the graphical user interface



Models

EdgeRouter X

Model: ER-X

- (5) Gigabit RJ45 ports
- Passive PoE passthrough option*
- Power via 24V passive PoE or power adapter
- Ports configurable for line-rate, Layer-2 switching
- 130 kpps for 64-byte packets
- 1 Gbps for 1518-byte packets

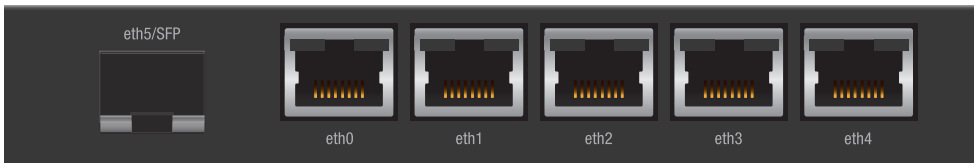
Front Panel

Back Panel

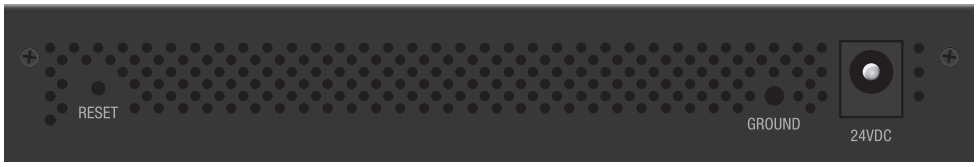
EdgeRouter X SFP

Model: ER-X-SFP

- (5) Gigabit RJ45 ports with passive PoE support
- (1) Gigabit SFP port for backhaul applications
- Ports configurable for line-rate, Layer-2 switching
- 130 kpps for 64-byte packets
- 1 Gbps for 1518-byte packets



Front Panel



Back Panel

* Requires 24V passive PoE or a 12W minimum power adapter (not included).

EdgeRouter™ X

Hardware Specifications

ER-X	
Dimensions	110 x 75 x 22 mm (4.33 x 2.95 x 0.87")
Weight	175 g (6.17 oz)
Max. Power Consumption	5W
Power Input	12VDC, 0.5A Power Adapter (Included) or 24V Passive PoE
Power Supply	External AC/DC Adapter
Supported Voltage Range	9 to 26VDC
Button	Reset
LED	Power, Ethernet 0-4
Processor	Dual-Core 880 MHz, MIPS1004Kc
System Memory	256 MB DDR3 RAM
Code Storage	256 MB NAND
Certifications	CE, FCC, IC
Wall-Mount	Yes
ESD/EMP Protection	Air: ± 24 kV, Contact: ± 24 kV
Operating Temperature	-10 to 45° C (14 to 113° F)
Operating Humidity	10 to 90% Noncondensing

Networking Interfaces	
Data/PoE Input Port	(1) 10/100/1000 RJ45 Port
Data Ports	(3) 10/100/1000 RJ45 Ports
Data/PoE Passthrough Port	(1) 10/100/1000 RJ45 Port

EdgeRouter™ X SFP

Hardware Specifications

ER-X-SFP	
Dimensions	142 x 75 x 23 mm (5.59 x 2.95 x 0.91")
Weight	215 g (7.58 oz)
Max. Power Consumption	5W
Max. Total PoE Output	50W @ 24V
PoE Output	Passive 24V (Pins 4, 5+; 7, 8-)
Power Input	24VDC, 2.5A Power Adapter (Included)
Power Supply	External AC/DC Adapter
Supported Voltage Range	9 to 26VDC
Button	Reset
LED	Power, Link/Activity (6), PoE (5)
Processor	Dual-Core 880 MHz, MIPS1004Kc
System Memory	256 MB DDR3 RAM
Code Storage	256 MB NAND
Certifications	CE, FCC, IC
Wall-Mount	Yes
ESD/EMP Protection	Air: ± 24 kV, Contact: ± 24 kV
Operating Temperature	-10 to 45° C (14 to 113° F)
Operating Humidity	10 to 90% Noncondensing

Networking Interfaces	
Data/PoE Output Port	(5) 10/100/1000 RJ45 Ports
Data Port	(1) 100/1000 SFP Port

PoE with 24VDC Power Adapter	
PoE Out Voltage Range	22-24VDC
Max. PoE Wattage Per Data/PoE Output Port	12W (24V)
Max. PoE Wattage Combined (All 5 Data Ports)	50W
PoE Method	Passive

EdgeOS™

Software Specifications

EdgeOS	
Interface/Encapsulation	Ethernet 802.1q VLAN PPPoE GRE IP in IP Bridging Bonding (802.3ad)
Addressing	Static IPv4/IPv6 Addressing DHCP/DHCPv6
Routing	Static Routes OSPF/OSPFv3 RIP/RIPng BGP (with IPv6 Support) IGMP Proxy
Security	ACL-Based Firewall Zone-Based Firewall NAT
VPN	IPSec Site-to-Site and Remote Access OpenVPN Site-to-Site and Remote Access PPTP Remote Access L2TP Remote Access PPTP Client
Services	DHCP/DHCPv6 Server DHCP/DHCPv6 Relay Dynamic DNS DNS Forwarding VRRP RADIUS Client Web Caching PPPoE Server
QoS	FIFO Stochastic Fairness Queueing Random Early Detection Token Bucket Filter Deficit Round Robin Hierarchical Token Bucket Ingress Policing
Management	Web UI CLI (Console, SSH, Telnet) SNMP NetFlow LLDP NTP UBNT Discovery Protocol Logging