DATASHEET

EdgeSwitch LITE

Managed Gigabit Switches with SFP

Models: ES-24-Lite, ES-48-Lite

Non-Blocking Throughput Switching Performance

Gigabit Ethernet RJ45 Ports

SFP+/SFP Fiber Connectivity Options

UBIQUITI NETWORKS

EdgeMAX®

Advanced Switching Technology for the Masses

Build and expand your network with Ubiquiti Networks® EdgeSwitch® Lite, part of the EdgeMAX® line of products. The EdgeSwitch Lite is a fully managed, Gigabit switch, delivering robust performance and intelligent switching for growing networks.

The EdgeSwitch Lite offers an extensive suite of advanced Layer 2 switching features and protocols, and also provides Layer 3 routing capability.

Switching Performance

The EdgeSwitch Lite offers the forwarding capacity to simultaneously process traffic on all ports at line rate without any packet loss.

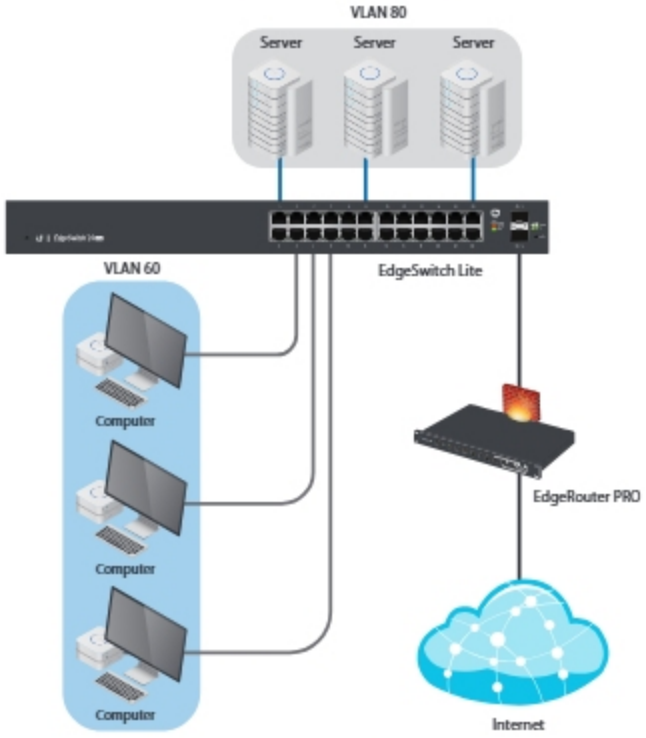
For its total, non-blocking throughput, the 24-port models support up to 26 Gbps, while the 48-port models support up to 70 Gbps.

Fiber Connectivity

The EdgeSwitch Lite provides fiber connectivity options for your growing networks. The 24-port models include two SFP ports, providing up to 1 Gbps uplinks.

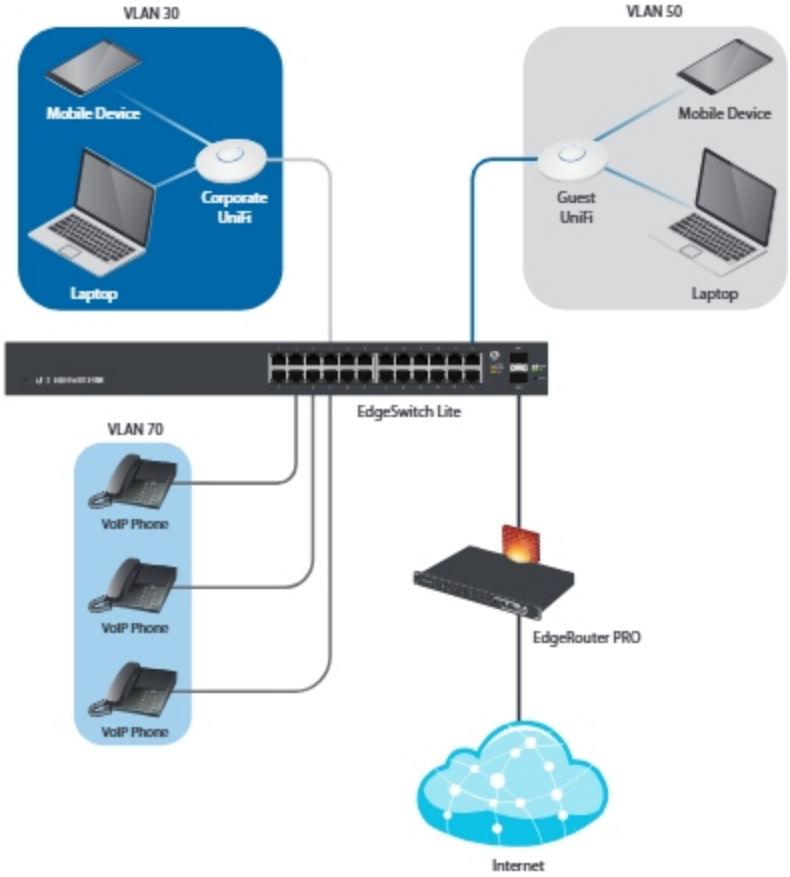
For high-capacity uplinks, the 48-port models include two SFP and two SFP+ ports, providing up to 10 Gbps uplinks.

Deployment Examples



VLANs for Servers and Computers

The EdgeSwitch Lite connects to the Ubiquiti EdgeRouter™ PRO via an SFP uplink.



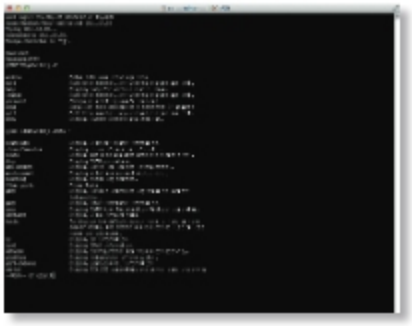
VLANs for Corporate Wireless, Guest Wireless, and VoIP

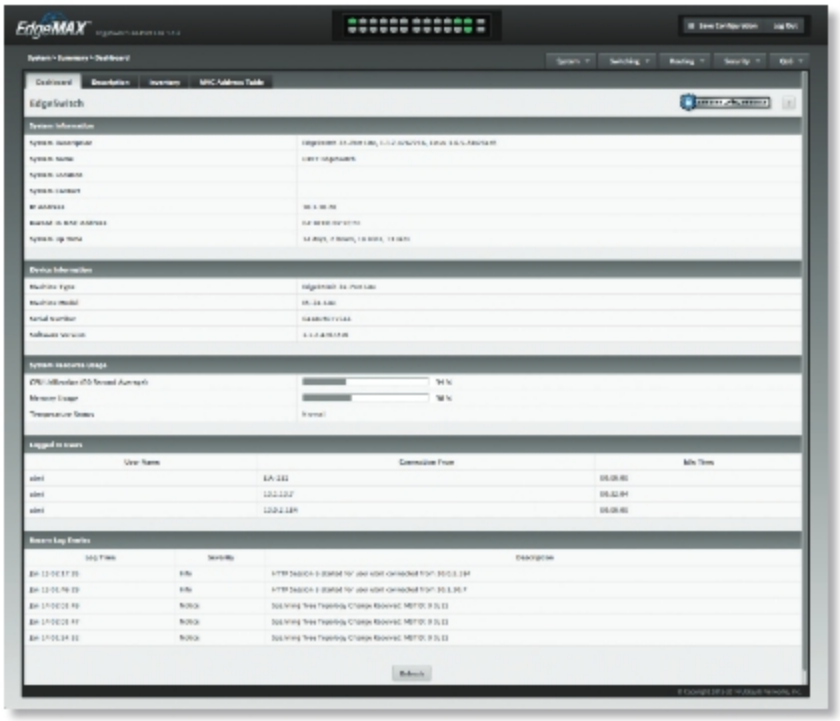
For wireless access, two Ubiquiti UniFi®Access Points connect to the EdgeSwitch Lite.

Comprehensive User Interface

Designed for convenient management, the EdgeSwitch Lite Configuration Interface allows administrators to configure and monitor switch features in a graphical user interface.

For advanced users, an industry-standard command-line interface (CLI) is available through the serial console port, telnet, and SSH.

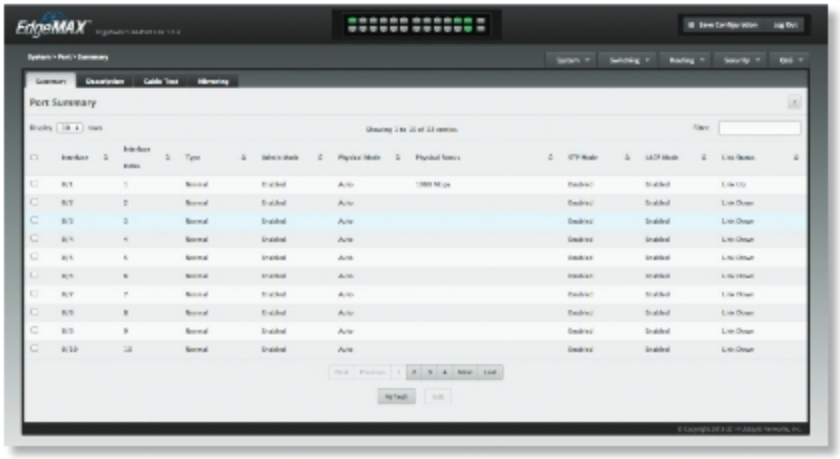


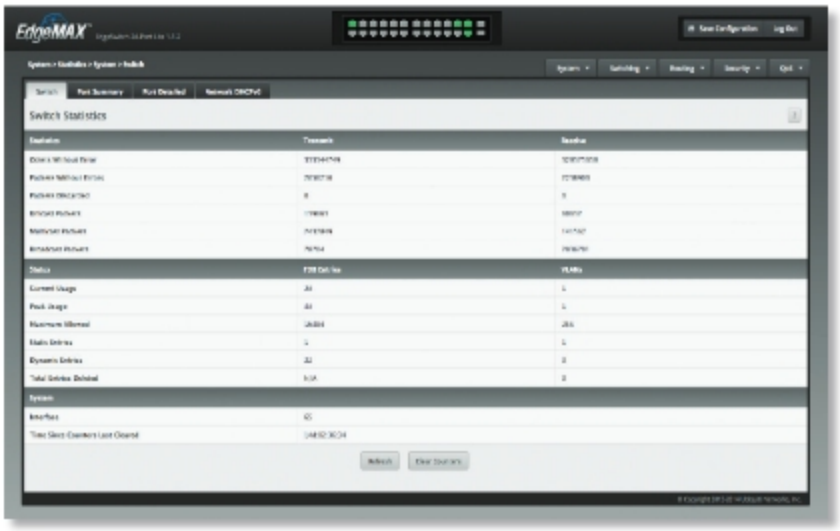


Powerful Functionality

The EdgeSwitch Lite uses a sophisticated operating system that provides basic switching features, and a variety of advanced features including:

- MSTP/RSTP/STP
- VLAN, Private VLAN, Voice VLAN
- Link Aggregation
- DHCP Snooping, IGMP Snooping
- TACACS+, RADIUS, 802.1X, MAC Filtering, ACL
- DiffServ, CoS
- Static Routing





Models

EdgeSwitch 24 Lite

Model: ES-24-Lite

- (24) Gigabit RJ45 Ports
- (2) SFP Ports
- (1) Serial Console Port
- Non-Blocking Throughput: 26 Gbps
- Switching Capacity: 52 Gbps
- Forwarding Rate: 38.69 Mpps
- Maximum Power Consumption: 25W
- Rack- or Wall-Mountable
- DC Input Option (Redundant or Stand-Alone)

Front Panel

Back Panel

EdgeSwitch 48 Lite

Model: ES-48-Lite

- (48) Gigabit RJ45 Ports
- (2) SFP+ Ports
- (2) SFP Ports
- (1) Serial Console Port
- Non-Blocking Throughput: 70 Gbps
- Switching Capacity: 140 Gbps
- Forwarding Rate: 104.16 Mpps
- Maximum Power Consumption: 56W
- Rack- or Wall-Mountable
- DC Input Option (Redundant or Stand-Alone)

Front Panel

Back Panel

EdgeSwitch 24 LITE

Hardware Specifications

ES-24-Lite	
Dimensions	443 x 43 x 221 mm (17.44 x 1.69 x 8.70")
Weight Rack-Mount Brackets Included Rack-Mount Brackets Excluded	 2.6 kg (5.7 lb) 2.51 kg (5.53 lb)
Total Non-Blocking Throughput	26 Gbps
Switching Capacity	52 Gbps
Forwarding Rate	38.69 Mpps
Max. AC Power Consumption	25W
Power Method AC DC	 100-240VAC/50-60 Hz, Universal Input DC 25W, 25 to 16V, with 2.5 mm DC Power Inline Connector
Power Supply	AC/DC, Internal, 25W DC
LEDs Per Port Serial Console Port RJ45 Data Ports SFP Data Ports	 N/A Speed/Link/Activity Speed/Link/Activity
Networking Interfaces	(24) 10/100/1000 Mbps RJ45 Ethernet Ports (2) 1 Gbps SFP Ethernet Ports
Management Interface	(1) RJ45 Serial Port, Ethernet In/Out Band
Certifications	CE, FCC, IC
Rackmount	Yes, 1U High
ESD/EMP Protection	Air: ±24 kV, Contact: ±24 kV
Operating Temperature	-5 to 40° C (23 to 104° F)
Operating Humidity	5 to 95% Noncondensing
Shock and Vibration	ETSI300-019-1.4 Standard

EdgeSwitch 48 LITE

Hardware Specifications

ES-48-Lite	
Dimensions	443 x 43 x 286 mm (17.44 x 1.69 x 11.26")
Weight Rack-Mount Brackets Included Rack-Mount Brackets Excluded	 3.65 kg (8.05 lb) 3.56 kg (7.85 lb)
Total Non-Blocking Throughput	70 Gbps
Switching Capacity	140 Gbps
Forwarding Rate	104.16 Mpps
Max. AC Power Consumption	56W
Power Method AC DC	 100-240VAC/50-60 Hz, Universal Input DC 56W, 25 to 16V, with 2.5 mm DC Power Inline Connector
Power Supply	AC/DC, Internal, 56W DC
LEDs Per Port Serial Console Port RJ45 Data Ports SFP+/SFP Data Ports	 N/A Speed/Link/Activity Speed/Link/Activity
Networking Interfaces	(48) 10/100/1000 Mbps RJ45 Ethernet Ports (2) 1/10 Gbps SFP+ Ethernet Ports (2) 1 Gbps SFP Ethernet Ports
Management Interface	(1) RJ45 Serial Port, Ethernet In/Out Band
Certifications	CE, FCC, IC
Rackmount	Yes, 1U High
ESD/EMP Protection	Air: ±24 kV, Contact: ±24 kV
Operating Temperature	-5 to 40° C (23 to 104° F)
Operating Humidity	5 to 95% Noncondensing
Shock and Vibration	ETSI300-019-1.4 Standard

EdgeMAX®

Software Specifications

Software Information	
Core Switching Features	• ANSI/TIA-1057: LLDP-Media Endpoint Discovery (MED) • IEEE 802.1AB: Link Layer Discovery Protocol (LLDP) • IEEE 802.1D: Spanning Tree Compatibility • IEEE 802.1S: Multiple Spanning Tree Compatibility • IEEE 802.1W: Rapid Spanning Tree Compatibility • IEEE 802.1Q: Virtual LANs with Port-Based VLANs • IEEE 802.1p: Ethernet Priority with User Provisioning and Mapping • IEEE 802.1X: Port-Based Authentication with Guest VLAN Support • IEEE 802.3: 10BASE-T • IEEE 802.3u: 100BASE-T • IEEE 802.3ab: 1000BASE-T • IEEE 802.1ak: Virtual Bridged Local Area Networks - Amendment 07: Multiple Registration Protocol • IEEE 802.3ac: VLAN Tagging • IEEE 802.3ad: Link Aggregation • IEEE 802.3x: Flow Control • IEEE 802.1D-2004: Generic Attribute Registration Protocol: Clause 12 (GARP) • IEEE 802.1D-2004: Dynamic L2 multicast registration: Clause 10 (GMRP) • IEEE 802.1Q-2003: Dynamic VLAN registration: Clause 11.2 (GVRP) • RFC 4541: Considerations for Internet Group Management Protocol (IGMP) Snooping Switches • RFC 5171: Unidirectional Link Detection (UDLD) Protocol
Advanced Layer 2 Features	• Broadcast Storm Recovery • Broadcast/Multicast/Unknown Unicast Storm Recovery • DHCP Snooping • IGMP Snooping Querier • Independent VLAN Learning (IVL) Support • Jumbo Ethernet Frame Support • Port MAC Locking • Port Mirroring • Protected Ports • Static MAC Filtering • TACACS+ • Voice VLANs • Unauthenticated VLAN • Internal 802.1X Authentication Server

Software Information	

Platform Specifications	• DHCP Server
	  • Maximum Number of Pools: 128
	  • Maximum Number of Leases (Total): 2048
	• Routing
	  • Number of Routes: 16
	  • Number of Routing Interfaces: 15
	• VLANs: 4093
	• MAC Addresses: 16,384
	• MSTP Instances: 4
	• LAGs: 6
	• ACLs: 100 with 10 Rules per Port
	• Traffic Classes (Queues): 8

System Facilities	• Event and Error Logging Facility • Run-Time and Configuration Download Capability • PING Utility • FTP/TFTP Transfers via IPv4/IPv6 • Malicious Code Detection • BootP and DHCP • RFC 2021: Remote Network Monitoring Management Information Base Version 2 • RFC 2030: Simple Network Time Protocol (SNTP) • RFC 2819: Remote Network Monitoring Management Information Base • RFC 2865: RADIUS Client • RFC 2866: RADIUS Accounting • RFC 2868: RADIUS Attributes for Tunnel Protocol Support • RFC 2869: RADIUS Extensions • RFC 3579: RADIUS Support for EAP • RFC 3580: IEEE 802.1X RADIUS Usage Guidelines • RFC 3164: BSD Syslog Protocol
Management	• Web UI • Industry-Standard CLI • IPv6 Management • Password Management • Autoinstall Support for Firmware Images and Configuration Files • SNMP v1, v2, and v3 • SSH 1.5 and 2.0 • SSL 3.0 and TLS 1.0 • Secure Copy (SCP) • Telnet (Multi-Session Support)
Layer 3 Routing	• Static Routing

Software Information	

QoS	• Access Control Lists (ACLs), Permit/Deny Actions for Inbound IP and Layer 2 Traffic Classification Based on:
	  • Time-Based ACL
	  • Source/Destination IP Address
	  • TCP/UDP Source/Destination Port
	  • IP Protocol Type
	  • Type of Service (ToS) or Differentiated Services (DSCP) Field
	  • Source/Destination MAC Address
	  • EtherType
	  • IEEE 802.1p User Priority
	  • VLAN ID
	  • RFC 1858: Security Considerations for IP Fragment Filtering
	• Optional ACL Rule Attributes
	  • Assign Flow to a Specific Class of Service (CoS) Queue
	  • Redirect Matching Traffic Flows
	• Differentiated Services (DiffServ)
	  • Classify Traffic Based on Same Criteria as ACLs
	  • Mark the IP DSCP or Precedence Header Fields, Optional
	  • Police the Flow to a Specific Rate with Two-Color Aware Support
	  • RFC 2474: Definition of the Differentiated Services Field (DS field) in the IPv4 and IPv6 Headers
	  • RFC 2475: An Architecture for Differentiated Services
	  • RFC 2597: Assured Forwarding Per-Hop Behavior (PHB) Group
	  • RFC 3246: An Expedited Forwarding PHB
	  • RFC 3260: New Terminology and Clarifications for DiffServ
	• Class of Service (CoS) Queue Mapping Configuration
	  • AutoVoIP: Automatic CoS Settings for VoIP
	  • IP DSCP-to-Queue Mapping
	  • Configurable Interface Trust Mode (IEEE 802.1p, DSCP, or Untrusted)
	  • Interface Egress Shaping Rate
	  • Strict Priority versus Weighted Scheduling per Queue

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