



## EdgeSwitch<sup>®</sup> 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





## Advanced Switching Technology for the Masses

Build and expand your network with Ubiquiti Networks<sup>®</sup> EdgeSwitch<sup>®</sup> Lite, part of the EdgeMAX<sup>®</sup> 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.

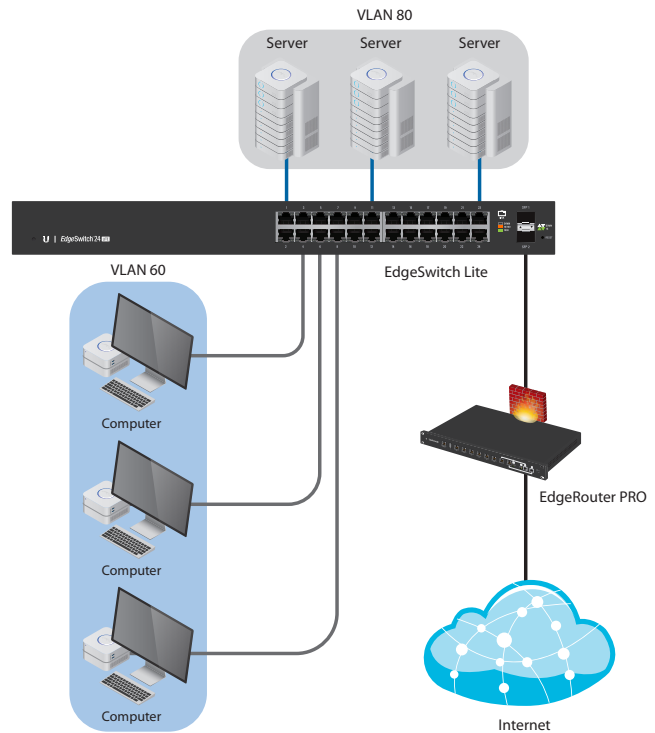
For its total, non-blocking throughput, the 24-port models support up to 26 Gbps, while the 48-port models support up to 70 Gbps.

## 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.

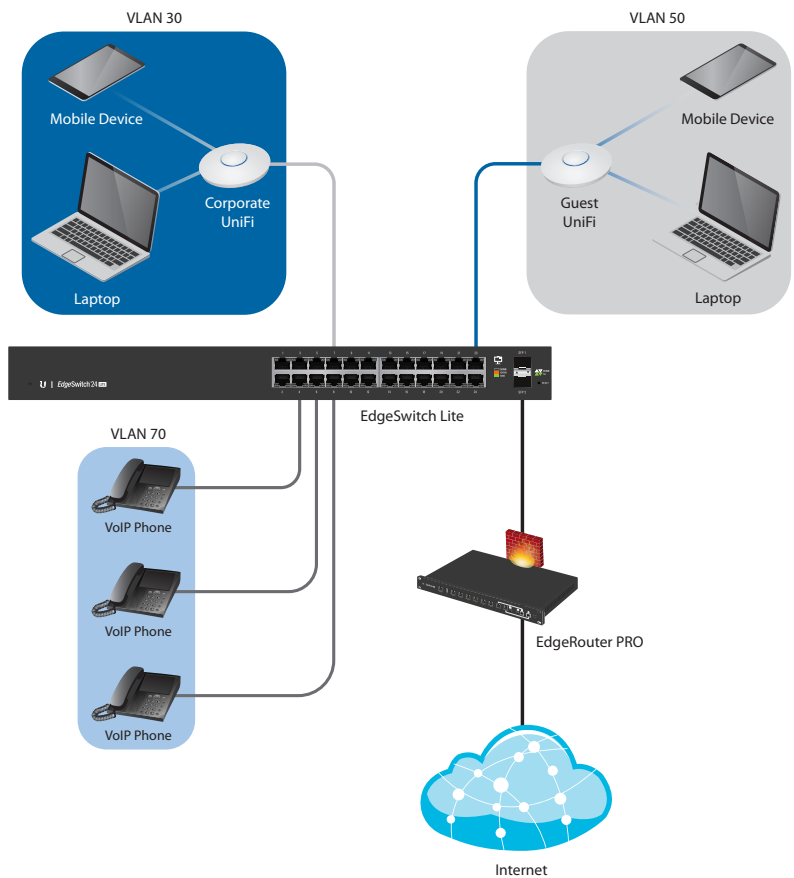
For high-capacity uplinks, the 48-port models include two SFP and two SFP+ ports, providing up to 10 Gbps uplinks.

## Deployment Examples



VLANs for Servers and Computers

The EdgeSwitch Lite connects to the Ubiquiti EdgeRouter<sup>™</sup> PRO via an SFP uplink.



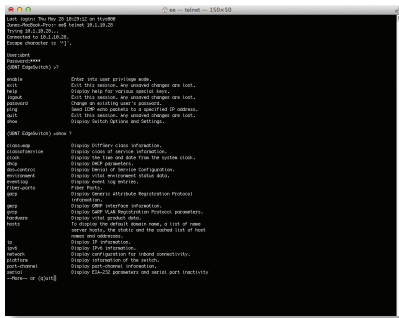
VLANs for Corporate Wireless, Guest Wireless, and VoIP

For wireless access, two Ubiquiti UniFi<sup>®</sup> 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.

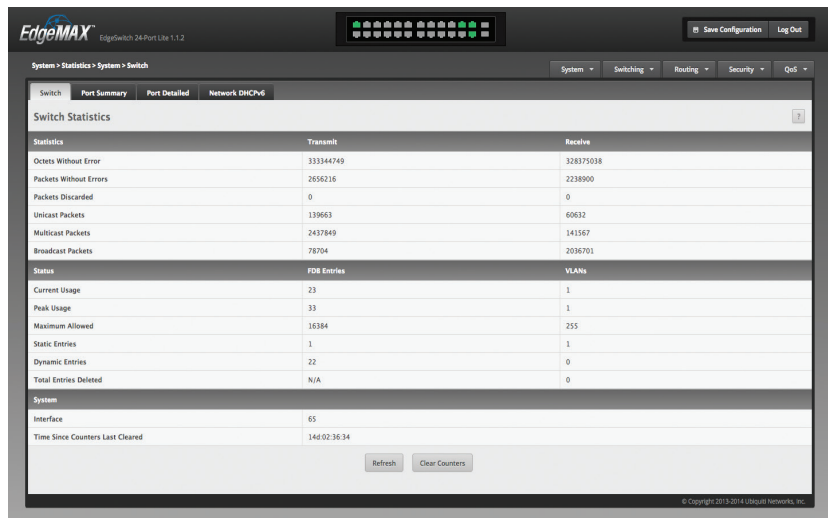
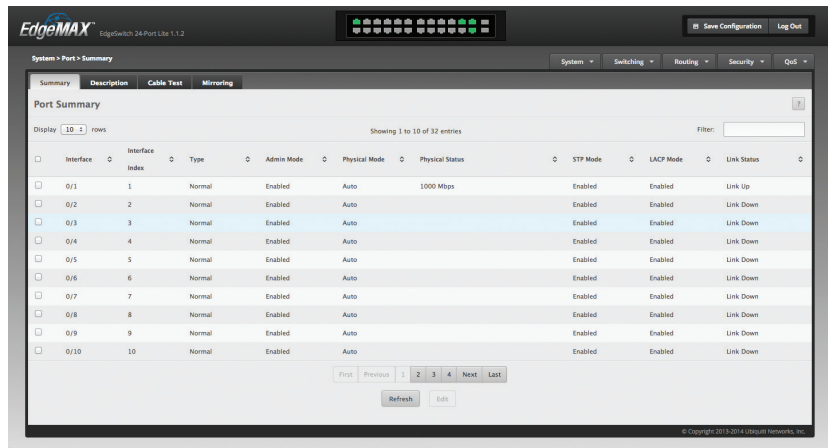
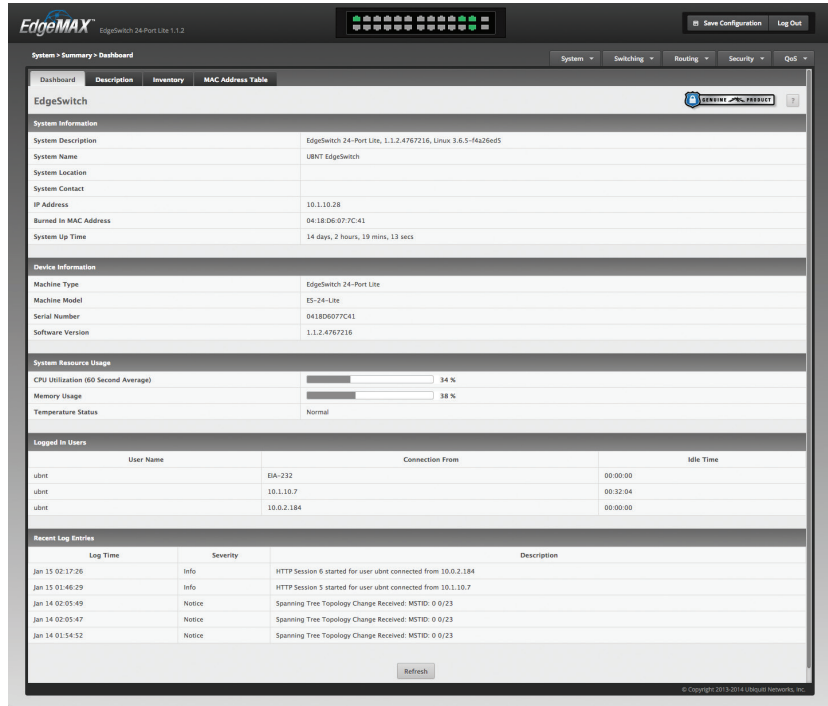
For advanced users, an industry-standard command-line interface (CLI) is available through the serial console port, telnet, and SSH.



# 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, Policy-Based Routing

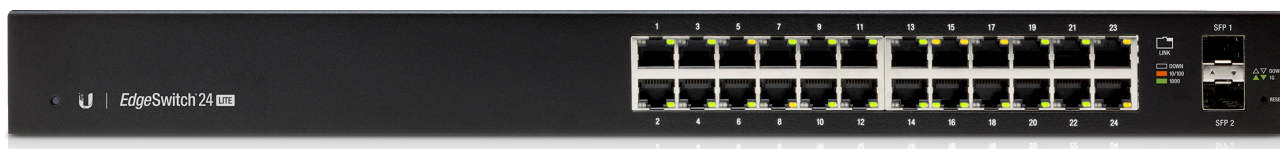


# Models

## 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	2.6 kg (5.7 lb)
Rack-Mount Brackets Excluded	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	100-240VAC/50-60 Hz, Universal Input
DC	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	N/A
RJ45 Data Ports	Speed/Link/Activity
SFP Data Ports	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	3.65 kg (8.05 lb)
Rack-Mount Brackets Excluded	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	100-240VAC/50-60 Hz, Universal Input
DC	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	N/A
RJ45 Data Ports	Speed/Link/Activity
SFP+/SFP Data Ports	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

# Software Specifications

Software Information	
Core Switching Features	<ul style="list-style-type: none"> <li>• ANSI/TIA-1057: LLDP-Media Endpoint Discovery (MED)</li> <li>• IEEE 802.1AB: Link Layer Discovery Protocol (LLDP)</li> <li>• IEEE 802.1D: Spanning Tree Compatibility</li> <li>• IEEE 802.1S: Multiple Spanning Tree Compatibility</li> <li>• IEEE 802.1W: Rapid Spanning Tree Compatibility</li> <li>• IEEE 802.1Q: Virtual LANs with Port-Based VLANs</li> <li>• IEEE 802.1p: Ethernet Priority with User Provisioning and Mapping</li> <li>• IEEE 802.1X: Port-Based Authentication with Guest VLAN Support</li> <li>• IEEE 802.3: 10BASE-T</li> <li>• IEEE 802.3u: 100BASE-T</li> <li>• IEEE 802.3ab: 1000BASE-T</li> <li>• IEEE 802.1ak: Virtual Bridged Local Area Networks - Amendment 07: Multiple Registration Protocol</li> <li>• IEEE 802.3ac: VLAN Tagging</li> <li>• IEEE 802.3ad: Link Aggregation</li> <li>• IEEE 802.3x: Flow Control</li> <li>• IEEE 802.1D-2004: Generic Attribute Registration Protocol: Clause 12 (GARP)</li> <li>• IEEE 802.1D-2004: Dynamic L2 multicast registration: Clause 10 (GMRP)</li> <li>• IEEE 802.1Q-2003: Dynamic VLAN registration: Clause 11.2 (GVRP)</li> <li>• RFC 4541: Considerations for Internet Group Management Protocol (IGMP) Snooping Switches</li> <li>• RFC 5171: Unidirectional Link Detection (UDLD) Protocol</li> </ul>
Advanced Layer 2 Features	<ul style="list-style-type: none"> <li>• Broadcast Storm Recovery</li> <li>• Broadcast/Multicast/Unknown Unicast Storm Recovery</li> <li>• DHCP Snooping</li> <li>• IGMP Snooping Querier</li> <li>• Independent VLAN Learning (IVL) Support</li> <li>• Jumbo Ethernet Frame Support</li> <li>• Port MAC Locking</li> <li>• Port Mirroring</li> <li>• Protected Ports</li> <li>• Static MAC Filtering</li> <li>• TACACS+</li> <li>• Voice VLANs</li> <li>• Unauthenticated VLAN</li> <li>• Internal 802.1X Authentication Server</li> </ul>

Software Information	
Platform Specifications	<ul style="list-style-type: none"> <li>• DHCP Server                             <ul style="list-style-type: none"> <li>• Maximum Number of Pools: 8</li> <li>• Maximum Number of Leases (Total): 128</li> </ul> </li> <li>• Routing                             <ul style="list-style-type: none"> <li>• Number of Routes: 16</li> <li>• Number of Routing Interfaces: 15</li> </ul> </li> <li>• VLANs: 255</li> <li>• MAC Addresses: 8k</li> <li>• MSTP Instances: 4</li> <li>• LAGs: 6</li> <li>• ACLs: 100 with 10 Rules per Port</li> <li>• Traffic Classes (Queues): 8</li> </ul>
System Facilities	<ul style="list-style-type: none"> <li>• Event and Error Logging Facility</li> <li>• Run-Time and Configuration Download Capability</li> <li>• PING Utility</li> <li>• FTP/TFTP Transfers via IPv4/IPv6</li> <li>• Malicious Code Detection</li> <li>• BootP and DHCP</li> <li>• RFC 2021: Remote Network Monitoring Management Information Base Version 2</li> <li>• RFC 2030: Simple Network Time Protocol (SNTP)</li> <li>• RFC 2819: Remote Network Monitoring Management Information Base</li> <li>• RFC 2865: RADIUS Client</li> <li>• RFC 2866: RADIUS Accounting</li> <li>• RFC 2868: RADIUS Attributes for Tunnel Protocol Support</li> <li>• RFC 2869: RADIUS Extensions</li> <li>• RFC 3579: RADIUS Support for EAP</li> <li>• RFC 3580: IEEE 802.1X RADIUS Usage Guidelines</li> <li>• RFC 3164: BSD Syslog Protocol</li> </ul>
Management	<ul style="list-style-type: none"> <li>• Web UI</li> <li>• Industry-Standard CLI</li> <li>• IPv6 Management</li> <li>• Password Management</li> <li>• Autoinstall Support for Firmware Images and Configuration Files</li> <li>• SNMP v1, v2, and v3</li> <li>• SSH 1.5 and 2.0</li> <li>• SSL 3.0 and TLS 1.0</li> <li>• Secure Copy (SCP)</li> <li>• Telnet (Multi-Session Support)</li> </ul>
Layer 3 Routing	<ul style="list-style-type: none"> <li>• Static Routing</li> <li>• Policy Based Routing</li> </ul>



## 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



Specifications are subject to change. Ubiquiti products are sold with a limited warranty described at: [www.ubnt.com/support/warranty](http://www.ubnt.com/support/warranty)  
 ©2015-2018 Ubiquiti Networks, Inc. All rights reserved. Ubiquiti, Ubiquiti Networks, the Ubiquiti U logo, the Ubiquiti beam logo, EdgeMAX, EdgeRouter, EdgeSwitch, and UniFi are trademarks or registered trademarks of Ubiquiti Networks, Inc. in the United States and in other countries. All other trademarks are the property of their respective owners.

