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® 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](image1)

![Back Panel](image2)

**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](image3)

![Back Panel](image4)
## EdgeSwitch 24 LITE

### Hardware Specifications

<table>
<thead>
<tr>
<th>ES-24-Lite</th>
<th>443 x 43 x 221 mm (17.44 x 1.69 x 8.70&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimensions</strong></td>
<td>2.6 kg (5.7 lb) 2.51 kg (5.53 lb)</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>26 Gbps</td>
</tr>
<tr>
<td><strong>Total Non-Blocking Throughput</strong></td>
<td>52 Gbps</td>
</tr>
<tr>
<td><strong>Switching Capacity</strong></td>
<td>38.69 Mpps</td>
</tr>
<tr>
<td><strong>Forwarding Rate</strong></td>
<td>25W</td>
</tr>
<tr>
<td><strong>Max. AC Power Consumption</strong></td>
<td>100-240VAC/50-60 Hz, Universal Input DC 25W, 25 to 16V, with 2.5 mm DC Power Inline Connector</td>
</tr>
<tr>
<td><strong>Power Method</strong></td>
<td>AC/DC, Internal, 25W DC</td>
</tr>
<tr>
<td><strong>Power Supply</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>LEDs Per Port</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Serial Console Port</strong></td>
<td>Speed/Link/Activity</td>
</tr>
<tr>
<td><strong>RJ45 Data Ports</strong></td>
<td>Speed/Link/Activity</td>
</tr>
<tr>
<td><strong>SFP Data Ports</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Networking Interfaces</strong></td>
<td>(24) 10/100/1000 Mbps RJ45 Ethernet Ports (2) 1 Gbps SFP Ethernet Ports</td>
</tr>
<tr>
<td><strong>Management Interface</strong></td>
<td>(1) RJ45 Serial Port, Ethernet In/Out Band</td>
</tr>
<tr>
<td><strong>Certifications</strong></td>
<td>CE, FCC, IC</td>
</tr>
<tr>
<td><strong>Rackmount</strong></td>
<td>Yes, 1U High</td>
</tr>
<tr>
<td><strong>ESD/EMP Protection</strong></td>
<td>Air: ±24 kV, Contact: ±24 kV</td>
</tr>
<tr>
<td><strong>Operating Temperature</strong></td>
<td>-5 to 40° C (23 to 104° F)</td>
</tr>
<tr>
<td><strong>Operating Humidity</strong></td>
<td>5 to 95% Noncondensing</td>
</tr>
<tr>
<td><strong>Shock and Vibration</strong></td>
<td>ETSI300-019-1.4 Standard</td>
</tr>
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</table>
# EdgeSwitch 48 LITE

## Hardware Specifications

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<th>Specification</th>
<th>ES-48-Lite</th>
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<tr>
<td><strong>Dimensions</strong></td>
<td>443 x 43 x 286 mm (17.44 x 1.69 x 11.26&quot;)</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td></td>
</tr>
<tr>
<td>- Rack-Mount Brackets Included</td>
<td>3.65 kg (8.05 lb)</td>
</tr>
<tr>
<td>- Rack-Mount Brackets Excluded</td>
<td>3.56 kg (7.85 lb)</td>
</tr>
<tr>
<td><strong>Total Non-Blocking Throughput</strong></td>
<td>70 Gbps</td>
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<tr>
<td><strong>Switching Capacity</strong></td>
<td>140 Gbps</td>
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<td><strong>Power Supply</strong></td>
<td>AC/DC, Internal, 56W DC</td>
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<td><strong>LEDs Per Port</strong></td>
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<td><strong>Networking Interfaces</strong></td>
<td>(48) 10/100/1000 Mbps RJ45 Ethernet Ports</td>
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<td></td>
<td>(2) 1/10 Gbps SFP+ Ethernet Ports</td>
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<td>ETSI300-019-1.4 Standard</td>
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# Software Specifications

## 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