

# Cisco SFE1000P 8-Port 10/100 Ethernet Switch: PoE/Fanless Cisco Small Business Managed Switches

Secure, Reliable, Managed Ethernet Switching with PoE

## Highlights

- Power over Ethernet easily and cost-effectively powers wireless access points, video cameras, and other network-connected endpoints
- Strong security protects network traffic to keep unauthorized users off the network
- Intelligent QoS helps ensure a consistent network experience and supports networked applications including voice, video, and data storage
- Compact size and fanless design are ideal for areas with limited space
- Limited lifetime warranty

**Figure 1.** Cisco SFE1000P 8-Port 10/100 Ethernet Switch: PoE/Fanless



## Product Overview

The Cisco® SFE1000P 8-Port 10/100 Ethernet Switch (Figure 1) is an 8-port fully managed 10/100 Ethernet switch with two Gigabit copper or optical interfaces for connecting to a core switch.

For wireless or voice over IP (VoIP) deployments, the Cisco SFE1000P supports the IEEE 802.3af standard for Power over Ethernet (PoE). With automatic load sensing, the power control circuitry automatically detects PoE on end devices before providing power. (PoE is limited to the fixed 10BASE-T/100BASE-TX ports.) The unit can provide maximum output power of up to 15.4W per PoE port on four ports, or up to 7.5W per PoE port on eight ports simultaneously. It provides independent overload and short-circuit protection for each port. LED indicators indicate the power status for each PoE port.

With the enhanced quality of service (QoS) and traffic-management features provided by the Cisco SFE1000P, voice and video data can be prioritized, ensuring clear and reliable voice communications. An intuitive, secure management interface enables you to easily set up the QoS parameters, along with the other advanced security and performance features, resulting in an optimized, more secure network.

## Features

- Eight 10/100 switched RJ-45 ports deliver up to 200 Mbps of throughput per port
- Two 10/100/1000 switched RJ-45/ mini Gigabit Interface Converter (mini-GBIC) combo ports
- PoE on the 10/100 ports supplies up to the IEEE 802.3af maximum: 15.4W per port for up to four ports, or 7.5W per port on eight ports
- 5.6-Gbps nonblocking, store-and-forward switching mechanism
- Simplified QoS management enabled by queuing techniques using 802.1p, Differentiated Services (DiffServ), or type of service (ToS) traffic prioritization specifications
- WebView management allows configuration and monitoring of the switch using a standard web browser
- Secure remote management of the switch via Secure Shell (SSH) and Secure Sockets Layer (SSL) channel network protocols
- 802.1q-based VLANs enable segmentation of networks for improved performance and security
- Private VLAN Edge (PVE) simplifies network isolation for guest connections or autonomous networks
- Automatic configuration of VLANs across multiple switches through Generic VLAN Registration Protocol (GVRP)/ Generic Attribute Registration Protocol (GARP)
- Automatic medium dependent interface (MDI) and MDI crossover (MDI-X) detection
- User/network port-level security via 802.1X authentication and MAC-based filtering
- Increased bandwidth (up to 8x) and link redundancy with Link Aggregation Control Protocol (LACP)
- Enhanced rate-limiting capabilities, including back pressure to control the rate of data flow into and out of a port
- Provides multicast, broadcast, and flood control
- Port mirroring for noninvasive monitoring of switch traffic
- Jumbo frame support up to 1632 bytes
- Supports Simple Network Management Protocol (SNMP) v1, v2c, and v3
- Fully rack-mountable using included rack-mounting hardware

## Specifications

Table 1 contains the specifications, package contents, and minimum requirements for the Cisco SFE1000P 8-Port 10/100 Ethernet Switch.

**Table 1.** Specifications for the Cisco SFE1000P 8-Port 10/100 Ethernet Switch: PoE/Fanless

Specifications	
<b>Ports</b>	<ul style="list-style-type: none"> <li>• 8 RJ-45 connectors for 10BASE-T and 100BASE-TX</li> <li>• 2 RJ-45 connectors for 10BASE-T/100BASE-TX/1000BASE-T with 2 SFP slots</li> <li>• Console port</li> <li>• Auto MDI/MDI-X</li> <li>• Auto-negotiate/manual setting</li> </ul>
<b>Buttons</b>	None
<b>Cabling type</b>	<ul style="list-style-type: none"> <li>• Unshielded twisted pair (UTP) Category 5 or better for 10BASE-T/100BASE-TX</li> <li>• UTP Category 5 Ethernet or better for 1000BASE-T</li> </ul>
<b>LEDs</b>	10/100 Link/Act, PoE, 2 Giga Link/Act, Speed, System
<b>Power over Ethernet</b>	
<b>802.3af compliant</b>	Supplies up to IEEE standard maximum of 15.4W on four 10/100 ports or up to 7.5W on eight 10/100 ports
<b>Performance</b>	

<b>Switching capacity</b>	5.6 Gb nonblocking
<b>Forwarding rate</b>	4.17 mpps wire-speed performance
<b>Layer 2</b>	
<b>MAC table size</b>	8000
<b>Number of VLANs</b>	256 active VLANs (4096 range)
<b>VLAN</b>	Port-based and 802.1q tag-based VLANs; management VLAN
<b>Head-of-line (HOL) blocking</b>	HOL blocking prevention
<b>Management</b>	
<b>Web user interface</b>	Built-in web user interface for easy browser-based configuration (HTTP/HTTPS)
<b>SNMP</b>	SNMP version 1, 2c, and 3 with support for traps
<b>SNMP MIBs</b>	RFC1213 MIB-2, RFC2863 interface MIB, RFC2665 Ether-like MIB, RFC1493 bridge MIB, RFC2674 extended bridge MIB (P-bridge, Q-bridge), RFC2819 RMON MIB (groups 1,2,3,9 only), RFC2737 entity MIB, RFC 2618 RADIUS client MIB, RFC 1215 traps, and private PoE MIB
<b>Remote Monitoring (RMON)</b>	Embedded RMON software agent supports 4 RMON groups (history, statistics, alarms, and events) for enhanced traffic management, monitoring, and analysis
<b>Firmware upgrade</b>	Web browser upgrade (HTTP) and Trivial File Transfer Protocol (TFTP)
<b>Port mirroring</b>	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe
<b>Other management</b>	<ul style="list-style-type: none"> <li>• Traceroute</li> <li>• SSL</li> <li>• SSH</li> <li>• RADIUS</li> <li>• SSL security for web user interface</li> <li>• Dynamic Host Configuration Protocol (DHCP) client</li> <li>• BOOTP</li> <li>• Simple Network Time Protocol (SNTP)</li> <li>• Xmodem upgrade</li> <li>• Cable diagnostics</li> <li>• Ping</li> <li>• Telnet client (SSH secure support)</li> </ul>
<b>Security</b>	
<b>IEEE 802.1x</b>	802.1x - RADIUS authentication, MD5 encryption
<b>Access control lists (ACLs)</b>	Drop or rate limit based on source and destination MAC or IP address, protocol, ToS/DSCP, port, VLAN, and Ether type
<b>Advanced Security</b>	<ul style="list-style-type: none"> <li>• IP Source Guard</li> <li>• STP Root Guard</li> <li>• Dynamic ARP Inspection</li> <li>• DHCP Snooping</li> </ul>
<b>Availability</b>	
<b>Link aggregation</b>	Using IEEE 802.3ad LACP, up to 8 ports in up to 8 groups
<b>Storm control</b>	Broadcast, multicast, and unknown unicast
<b>Spanning Tree</b>	IEEE 802.1D Spanning Tree, IEEE 802.1w Rapid Spanning Tree, and IEEE 802.1s Multiple Spanning Tree
<b>IGMP (v1/v2) snooping</b>	<ul style="list-style-type: none"> <li>• Provides for fast client joins and leaves of multicast streams and limits bandwidth-intensive video traffic to only the requestors</li> <li>• Supports 256 multicast groups</li> </ul>
<b>Quality of Service</b>	
<b>Priority levels</b>	4 hardware queues
<b>Scheduling</b>	Priority queuing and weighted round-robin (WRR)
<b>Class of service</b>	<ul style="list-style-type: none"> <li>• Port based</li> <li>• 802.1p VLAN priority based</li> <li>• IPv4/v6 IP precedence/ToS/DSCP-based</li> <li>• TCP/ User Datagram Protocol (UDP) port-based</li> <li>• DiffServ</li> <li>• Classification and re-marking ACLs</li> </ul>

<b>Rate limiting</b>	<ul style="list-style-type: none"> <li>• Ingress policer</li> <li>• Egress rate control</li> </ul>
<b>Standards</b>	
<ul style="list-style-type: none"> <li>• 802.3 10BASE-T Ethernet</li> <li>• 802.3u 100BASE-TX Fast Ethernet</li> <li>• 802.3ab 1000BASE-T Gigabit Ethernet</li> <li>• 802.3z Gigabit Ethernet</li> <li>• 802.3x flow control</li> <li>• 802.3ad LACP</li> <li>• 802.3af PoE, 802.1D Spanning Tree Protocol (STP)</li> <li>• 802.1Q/p VLAN</li> <li>• 802.1w Rapid STP</li> <li>• 802.1s Multiple STP</li> <li>• 802.1x port access authentication</li> </ul>	
<b>Environmental</b>	
<b>Dimensions W x H x D</b>	12.01 x 1.73 x 6.69 in. (305 x 44 x 170 mm)
<b>Weight</b>	3.02 lb (1.37 kg)
<b>Power</b>	External AC power adapter
<b>Certification</b>	FCC Part 15 Class A, CE Class A, UL, cUL, CE mark, CB
<b>Operating temperature</b>	32° to 104°F (0° to 40°C)
<b>Storage temperature</b>	-4° to 158°F (-20° to 70°C)
<b>Operating humidity</b>	10% to 90%, noncondensing
<b>Storage humidity</b>	10% to 95%, noncondensing
<b>Package Contents</b>	
<ul style="list-style-type: none"> <li>• Cisco SFE1000P 8-port 10/100 Ethernet Switch</li> <li>• AC power adapter with power cord</li> <li>• Two rack-mounting kits with 8 screws</li> <li>• CD-ROM with user guide (PDF)</li> <li>• Registration card</li> <li>• Console cable</li> </ul>	
<b>Minimum Requirements</b>	
<ul style="list-style-type: none"> <li>• Web-based configuration: Java-enabled web browser</li> <li>• Category 5 Ethernet network cable</li> <li>• TCP/IP, network adapter, and network operating system (such as Microsoft Windows or Linux) installed on each computer in the network</li> </ul>	
<b>Product Warranty</b>	
Limited lifetime warranty with return to factory replacement, one year telephone support and software fixes for the warranty term.	

## Service & Support

Cisco Small Business switches are backed by the Cisco Small Business Support Service, which provides affordable peace-of-mind coverage. This subscription-based service helps you protect your investment and derive maximum value from Cisco Small Business products. Delivered by Cisco and backed by your trusted partner, this comprehensive service includes software updates, access to the Cisco Small Business Support Center, and expedited hardware replacement.

Cisco Small Business products are supported by professionals in Cisco Small Business Support Center locations worldwide who are specifically trained to understand your needs. The Cisco Small Business Support Community, an online forum, enables you to collaborate with your peers and reach Cisco technical experts for support information.

## Cisco Limited Lifetime Hardware Warranty

This Cisco Small Business product offers a limited lifetime hardware warranty with return to factory replacement and a 1-year limited warranty for fans and power supplies. In addition, Cisco offers telephone technical support at no charge for the first 12 months following the date of purchase and software bug fixes for the warranty term. To download software updates, go to: <http://www.cisco.com/cisco/web/download/index.html>.

Product warranty terms and other information applicable to Cisco products are available at <http://www.cisco.com/go/warranty>.

## For More Information

For more information on Cisco Small Business products and solutions, visit: <http://www.cisco.com/smallbusiness>.



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