



Cisco SFE2010 48-Port 10/100 Ethernet Switch Cisco Small Business Managed Switches

Secure, Reliable Switching for Growing Small Businesses

Highlights

- Connects up to 48 network devices - PCs, printers, and servers - to share and transfer files and videos across your network
- Resilient Clustering provides the ability to add more switches as needed, with the ability to manage a stack as a single switch to support growing businesses
- Intelligent QoS helps ensure a consistent network experience and supports networked applications including voice, video, and data storage
- Strong security protects network traffic to keep unauthorized users off the network
- Simplified, web-based management for easy installation and configuration

Figure 1. Cisco SFE2010 48-Port 10/100 Ethernet Switch



Product Overview

The Cisco® SFE2010 48-Port 10/100 Ethernet Switch (Figure 1) allows you to expand your network securely. Web-based configuration of the switch is secured using SSL.

The Cisco SFE2010 is optimized for maximum system availability, with fully redundant stacking, redundant power options, and dual images for resilient firmware upgrades. The switch helps secure the network through IEEE 802.1Q VLANs, IEEE 802.1X port authentication, access control lists (ACLs), denial-of-service (DoS) prevention, and MAC-based filtering. The enhanced quality of service (QoS) and traffic-management features help ensure clear and reliable voice and video communications.

The Cisco SFE2010 provides resilient stacking for up to four units, or 192 ports. A stack of units is managed as a single switch with one web management interface. The SFE2010 switch can coexist in a stack with the Cisco SFE2000 and SFE2000P 24-Port 10/100 Ethernet Switches and the Cisco SFE2010P 48-Port 10/100 Ethernet Switch, for a maximum of 192 ports in a stack. The stacking capability includes master/backup unit behavior, ring and chain architecture, and hot insertion and removal of units.

An intuitive, highly secure management interface provides access to the comprehensive feature set of the Cisco SFE2010, for a better-optimized, more secure network.

Features

- Forty-eight 10/100 Ethernet ports
- Two 10/100/1000 Ethernet ports (used as stacking ports if operated in stacking mode)
- Two mini Gigabit Interface Converter (mini-GBIC) slots for fiber Gigabit Ethernet expansion
- Dual images for resilient firmware upgrades
- 17.6-Gbps, nonblocking, store-and-forward switching capacity
- Simplified QoS management enabled by queuing techniques using 802.1p, differentiated services (DiffServ), or type of service (ToS) traffic prioritization
- Power redundancy when used with the Cisco RPS1000 380W Redundant Power Supply Unit
- Fully resilient stacking for optimized growth with simplified management
- ACLs for granular security and QoS implementation
- Configuration and monitoring from a standard web browser
- Secure remote management of the switch via Secure Shell (SSH) and SSL encryption
- 802.1Q-based VLANs enable segmentation of networks for improved performance and security
- Private VLAN Edge (PVE) simplifies network isolation of guest connections or autonomous networks

Specifications

Table 1 contains the specifications, package contents, and minimum requirements for the Cisco SFE2010 48-Port 10/100 Ethernet Switch.

Table 1. Specifications for the Cisco SFE2010 48-Port 10/100 Ethernet Switch

Specifications	
Ports	48 RJ-45 connectors for 10BASE-T/100BASE-TX; two 10BASE-T/100BASE-TX/1000BASE-T ports; 2 mini-GBIC ports; console port; auto medium dependent interface (MDI) and MDI crossover (MDI-X); auto negotiate/manual setting; RPS port for connecting to redundant power supply unit
Buttons	Reset button
Cabling type	Unshielded twisted pair (UTP) Category 5 or better for 10BASE-T/100BASE-TX; UTP Category 5 Ethernet or better for 1000BASE-T
LEDs	PWR, Fan, Link/Act, Speed, RPS, Master, Stack ID 1 through 8
Performance	
Switching capacity	17.6 Gbps nonblocking
Forwarding capacity	13 mpps (64-byte packets)
Stacking	
Stack operation	<ul style="list-style-type: none"> • Up to 192 ports in a stack • Hot insertion and removal • Ring and chain stacking options • Master and backup master for resilient stack control • Auto-numbering or manual configuration of units in stack
Layer 2	
MAC table size	8000
Number of VLANs	256 active VLANs (4096 range)
VLAN	Port-based and 802.1Q tag-based VLANs; protocol-based VLAN; management VLAN; multicast TV VLAN; PVE; Generic VLAN Registration Protocol (GVRP)

Head-of-line (HOL) blocking	HOL blocking prevention
Layer 3	
Layer 3 options	Static routing; classless interdomain routing (CIDR); 60 static routes; IPv4 and IPv6; forwarding in silicon -- wire-speed forwarding of Layer 3 traffic
IPv6	
IPv6 options	IPv6 over Ethernet, dual stack, IPv6 over IPv4 network with Intra-Site Automatic Tunnel Addressing Protocol (ISATAP) tunnel, IPv6 neighbor discovery, IPv6 stateless address configuration, maximum transmission unit (MTU) discovery, WEB, SSL, Telnet, Ping, Traceroute, Simple Network Time Protocol (SNTP), Trivial File Transfer Protocol (TFTP), Simple Network Management Protocol (SNMP), RADIUS, ACL, QoS, protocol-based VLANs
Management	
Web user interface	Built-in web user interface for easy browser-based configuration (HTTP/HTTPS)
SNMP	SNMP versions 1, 2c, and 3 with support for traps
SNMP MIBs	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, and 9 only), RFC2737 entity MIB, RFC 2618 RADIUS client MIB, RFC 1215 traps
Remote Monitoring (RMON)	Embedded RMON software agent supports 4 RMON groups (history, statistics, alarms, and events) for enhanced traffic management, monitoring, and analysis
Firmware upgrade	Web browser upgrade (HTTP/HTTPS) and TFTP dual images for resilient firmware upgrades
Port mirroring	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe
Other management	Traceroute; single IP management; SSL security for web user interface; SSH; RADIUS; port mirroring; TFTP upgrade; Dynamic Host Configuration Protocol (DHCP client); BOOTP; SNTP; Xmodem upgrade; cable diagnostics; Ping; syslog; Telnet client (SSH secure support)
Security	
IEEE 802.1X	802.1X-RADIUS authentication, MD5 hash; guest VLAN; single/multiple host mode
ACLs	Drop or rate limit based on source and destination MAC or IP address, protocol, port, VLAN, differentiated services code point (DSCP)/IP precedence, TCP/ User Datagram Protocol (UDP) source and destination ports, 802.1p priority, Ethernet type, Internet Control Message Protocol (ICMP) packets, Internet Group Management Protocol (IGMP) packets, DHCP snooping, Address Resolution Protocol (ARP) inspection, and IP source address guard, up to 1018 rules
Availability	
Link aggregation	Using IEEE 802.3ad Link Aggregation Control Protocol (LACP), up to 8 ports in up to 8 groups
Storm control	Broadcast, multicast, and unknown unicast
DoS prevention	DoS attack prevention
Spanning Tree	IEEE 802.1D Spanning Tree, IEEE 802.1w Rapid Spanning Tree, IEEE 802.1s Multiple Spanning Tree, and Fast Linkover
IGMP (versions 1 and 2) snooping	Limits bandwidth-intensive multicast traffic to only the requestors and supports 256 multicast groups
Power redundancy	Connection to RPS unit for power redundancy
QoS	
Priority levels	4 hardware queues
Scheduling	Priority queuing and weighted round-robin (WRR)
Class of service	Port based; 802.1p VLAN priority based; IPv4/v6 IP precedence/ToS/DSCP based; DiffServ; classification and re-marking ACLs
Rate limiting	Ingress policer; egress rate control; per VLAN
Statistics	16 meters
Standards	
<ul style="list-style-type: none"> • 802.3 10BASE-T Ethernet, 802.3u 100BASE-TX Fast Ethernet • 802.3ab 1000BASE-T Gigabit Ethernet, 802.3z Gigabit Ethernet • 802.3x flow control, 802.3ad; 802.1D Spanning Tree Protocol (STP), 802.1Q/p VLAN • 802.1w Rapid STP, 802.1s Multiple STP, 802.1x port access authentication 	

Environmental	
Dimensions W x H x D	17.32 x 14.70 x 1.73 in. (440 x 375 x 44 mm)
Weight	10.89 lb (4.94 kg)
Power	100-240V 47-63 Hz, internal, universal; also equipped with external redundant power supply connector for external power supply, -48V DC
Certification	UL (UL 60950), CSA (CSA 22.2), CE mark, FCC Part 15 (CFR 47)
Operating temperature	32° to 104°F (0° to 40°C)
Storage temperature	-4° to 158°F (-20° to 70°C)
Operating humidity	10% to 90%, relative, noncondensing
Storage humidity	10% to 95%, relative, noncondensing
Package Contents	
<ul style="list-style-type: none"> • Cisco SFE2010 48-Port 10/100 Ethernet Switch • AC power adapter with power cord • Two 2 rack-mounting kits with eight screws • CD-ROM with user documentation (PDF) • Registration card • Console cable 	
Minimum Requirements	
<ul style="list-style-type: none"> • Web browser: Mozilla Firefox version 1.5 or later; Microsoft Internet Explorer version 5.5 or later • Category 5 Ethernet network cable • TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in the network 	
Product Warranty	
5-year limited hardware warranty with return to factory replacement and 90-day limited software warranty.	

Cisco Limited Warranty for Cisco Small Business Series Products

This Cisco Small Business product comes with a 5-year limited hardware warranty with return to factory replacement and a 90-day limited software warranty. In addition, Cisco offers software application updates for bug fixes and telephone technical support at no charge for the first 12 months following the date of purchase. To download software updates, go to:

<http://www.cisco.com/go/smallbiz>.

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>.



Americas Headquarters
Cisco Systems, Inc.
San Jose, CA

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
Singapore

Europe Headquarters
Cisco Systems International BV
Amsterdam, The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

CCDE, CCENT, CCSI, Cisco Eos, Cisco HealthPresence, Cisco IronPort, the Cisco logo, Cisco Lumin, Cisco Nexus, Cisco Nurse Connect, Cisco StackPower, Cisco StadiumVision, Cisco TelePresence, Cisco Unified Computing System, Cisco WebEx, DCE, Flip Channels, Flip for Good, Flip Mino, Flip Video, Flip Video (Design), Flipshare (Design), Flip Ultra, and Welcome to the Human Network are trademarks; Changing the Way We Work, Live, Play, and Learn, Cisco Store, and Flip Gift Card are service marks; and Access Registrar, Aironet, AsyncOS, Bringing the Meeting To You, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, CCVP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Collaboration Without Limitation, EtherFast, EtherSwitch, Event Center, Fast Step, Follow Me Browsing, FormShare, GigaDrive, HomeLink, Internet Quotient, IOS, iPhone, iQuick Study, IronPort, the IronPort logo, LightStream, Linksys, MediaTone, MeetingPlace, MeetingPlace Chime Sound, MGX, Networkers, Networking Academy, Network Registrar, PCNow, PIX, PowerPanels, ProConnect, ScriptShare, SenderBase, SMARTnet, Spectrum Expert, StackWise, The Fastest Way to Increase Your Internet Quotient, TransPath, WebEx, and the WebEx logo are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0907R)

Printed in USA

C78-501233-01 08/09