

# LINKSYS®

A Division of Cisco Systems, Inc.

## Ethernet Switch with 24-port 10/100 and 4 10/100/1000 ports with stacking

The SFE2000 is optimized to maximize the system availability with fully redundant stacking, redundant power options, and dual images for resilient firmware upgrades. The SFE2000 is able to secure the network through IEEE 802.1Q VLANs, IEEE 802.1X port authentication, Access Control Lists (ACL), DOS Prevention, and MAC-based filtering. The enhanced QoS and traffic management features ensure clear and reliable voice and video communications.

The SFE2000 Ethernet Switch provides an intuitive, secure management interface enabling you to better utilize the comprehensive feature-set of the SFE2000, resulting in a better optimized, more secure network.

Linksys Business Series SFE and SGE Stackable Switch products are Linksys One Ready. That means they include the necessary firmware to be seamlessly integrated into a Linksys One data or data/voice network. Once connected, a Linksys One Service Router will discover the SFE/SGE device, automatically configure it and make it available to other users on the network. Linksys One technology is automatic and self-configuring. When Linksys One peripherals are connected to a Linksys One Ready Ethernet Switch's ports, small businesses are ready to communicate in a matter of minutes.



Fully resilient stacking provides optimized growth with simplified management

Granular QoS options makes solution ideal for improved application experience

Maximum security and control of traffic with policing, shaping, ACLs, and QoS

Linksys One Ready - simple, automated installation with Linksys One Services Routers present

### PRODUCT DATA

## 24-Port 10/100 Ethernet Switch

### BUSINESS SERIES



Model: SFE2000



## Features

- 24 10/100 Ethernet ports  
+ 4 10/100/100 Copper ports
- 2 SFP slots (shared with 2 copper ports) for Fiber Gigabit Ethernet expansion
- Dual images for resilient firmware upgrades
- Up to 12.8 Gbps, non-blocking, Store-and-Forward switching capacity
- Simplified QoS management using 802.1p, Diffserv or ToS traffic prioritization specifications
- Power redundancy when used with Linksys Business Series Redundant Power Supply Unit (RPS1000)
- Fully resilient stacking provides optimized growth with simplified management
- Access Control Lists (ACL) for granular security and QoS implementation
- Management enables configuration and monitoring from a standard web browser
- Secure remote management of the switch via SSH and SSL encryption
- 802.1Q based VLANs enable segmentation of networks for improved performance and security
- Private VLAN Edge for simplified network isolation for guest connections or autonomous networks

## PRODUCT DATA

## BUSINESS SERIES

# 24-Port 10/100 Ethernet Switch

## Specifications

Model	SFE2000 24-port 10/ 100 Ethernet Switch
Ports	24 RJ-45 Connectors for 10BASE-T/100BASE-TX + 4 10BASE-T/100BASE-TX/1000Base-T with 2 Gigabit Combo Ports Shared Between MiniGBIC Ports Console Port Auto MDI/MDI-X Autonegotiate/Manual Setting RPS Port for Connecting to Redundant Power Supply Unit
Buttons	Reset Button
Cabling Type	UTP CAT 5 or Better for 10BASE-T/100BASE-TX, UTP CAT 5e or Better for 1000BASE-T
LEDs	PWR, Fan, Link/Act, Speed, RPS, Master, Stack ID 1 - 8

## Performance

Switching Capacity	Up to 12.8 Gbps, Non-Blocking
Forwarding Rate (Based on 64-Byte Packets)	Up to 9.5Mpps

## Stacking

Stack Operation	Up to 8 Units in a Stack (192 Ports) 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
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## Layer 2

MAC table size	8K
Number of VLANs	256 Active VLANs (4096 range)
VLAN	Port-Based and 802.1Q Tag-Based VLANs Protocol-Based VLAN Management VLAN Private VLAN Edge (PVE) GVRP
HOL Blocking	Head of Line Blocking Prevention

## Layer 3

Layer 3 options	Static Routing CIDR (Classless Interdomain Routing) 128 Static Routes IPv4 Forwarding in Silicon - Wirespeed Forwarding of Layer 3 Traffic
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## Management

Web User Interface	Built-in Web UI for Easy Browser-Based Configuration (HTTP/HTTPS)
SNMP	SNMP Version 1, 2c, 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 1,2,3,9 only), RFC2737 Entity MIB, RFC3621 Power Ethernet MIB, RFC 2618 RADIUS Client MIB RFC 1215 Traps
RMON	Embedded Remote Monitoring (RMON) Software Agent Supports Four RMON Groups (History, Statistics, Alarms, and Events) for Enhanced Traffic Management, Monitoring, and Analysis
Firmware Upgrade	Web Browser Upgrade (HTTP) 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

- Automatic configuration of VLANs across multiple switches through GVRP/GARP
- User/Network port level security via 802.1x authentication and MAC-based filtering
- Increased bandwidth and added link redundancy with Link Aggregation
- Enhanced rate limiting capabilities, including back pressure, multicast, and broadcast flood control
- Port Mirroring for non-invasive monitoring of switch traffic
- Mini Jumbo frame support (1600 bytes)
- SNMP v1, v2c, v3 and RMON support
- Fully rack-mountable using the included rack-mounting hardware
- Linksys One Ready - Simple, one-step automated installation and initial configuration

#### Other Management

Traceroute  
 Single IP Management  
 Secure Socket Layer (SSL) security for Web UI  
 Secure Shell (SSH)  
 RADIUS  
 Port Mirroring  
 TFTP Upgrade  
 DHCP Client  
 BootP  
 SNMP  
 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

Access Control

ACLs - Drop or Rate Limit based on:  
 Source and Destination MAC-Based  
 Source and Destination IP Address  
 Protocol  
 Port  
 VLAN  
 DSCP/IP Precedence  
 TCP/UDP Source and Destination Ports  
 802.1p Priority  
 Ethernet Type  
 ICMP Packets  
 IGMP Packets  
 Up to 1018 Rules

#### Availability

Link Aggregation

Link Aggregation using IEEE 802.3ad LACP  
 Up to 8 Ports in up to 8 Groups

Storm Control  
 DOS prevention  
 Spanning Tree

Broadcast and Multicast Storm Protection  
 DOS Attack Prevention

IGMP Snooping

IEEE 802.1D Spanning Tree, IEEE 802.1w Rapid Spanning Tree, IEEE 802.1s Multiple Spanning Tree, Fast Linkover  
 IGMP (v1/v2) Snooping Limits Bandwidth-Intensive Video Traffic to only the Requestors. Supports 256 Multicast Groups

Power Redundancy

Connection to RPSU for Power Redundancy

#### QoS

Priority levels  
 Scheduling  
 Class of Service

4 Hardware Queues  
 Priority Queuing and Weighted Round Robin (WRR)  
 Port-Based  
 802.1p VLAN Priority Based  
 IPv4 IP Precedence/TOS/DSCP based  
 Diffserv  
 Classification and Remarking ACLs

Rate Limiting

Ingress Policer  
 Egress Rate Control

#### Standards

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, 802.3 ad LACP, 802.3af POE, 802.1d STP, 802.1Q/p VLAN, 802.1w Rapid STP, 802.1s Multiple STP, 802.1x Port Access Authentication

## PRODUCT DATA

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## Environmental

Dimensions W x H x D	17.32" x 14.7" x 1.73" (440 x 375 x 44 mm)
Unit Weight	9.68 lb (4.39 kg)
Certification	UL (UL 60950), CSA (CSA 22.2), CE Mark, FCC Part 15 (CFR 47) Class A
Operating Temp.	32 to 104°F (0 to 40°C)
Storage Temp.	-4 to 158°F (-20 to 70°C)
Operating Humidity	10 to 90% Relative Humidity, Noncondensing
Storage Humidity	10 to 95% Relative Humidity, Noncondensing
Number of Fans	1
Acoustic Noise	50dB Max.
Power	100-240VAC, 50-60Hz, Internal, Universal; Also Equipped with Redundant Power Supply Connector for External Power Supply, 48VDC
Power Consumption	12V@4.5A (54W)

## Package Contents

- SFE2000 Ethernet Switch
- Console Cable
- AC Power Cord
- Rack-Mount Kit
- Quick Installation Guide

## Minimum Requirements

- Web-Based Utility: Web Browser (Mozilla Firefox 1.5 or Later, IE 5.5 or Later, Netscape 7.01 or Later)
- Cat5 Ethernet Network Cables
- Operating System: Windows 2000, XP or Above
- Provider support for CPE (Software Version 1.2 or Above)

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Model: **SFE2000**