

# LINKSYS®

A Division of Cisco Systems, Inc.

## Gigabit Ethernet Switch with 24-port 10/100/1000 with 4 shared SFP slots and stacking

SGE2000 is optimized for maximizing the system availability with fully redundant stacking, redundant power options, and dual images for resilient firmware upgrades. The SGE2000 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 SGE2000 Switch includes an intuitive, secure management interface enabling you to better utilize the comprehensive feature-set of the SGE2000, 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 other 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 10/100/1000 Gigabit Switch

### BUSINESS SERIES



<http://www.mercedonlines.com>  
Model: SGE2000



## Features

- 24 10/100/1000 Ethernet ports
- 4 SFP slots (shared with 4 copper ports) for Fiber Gigabit Ethernet expansion
- Dual images for resilient firmware upgrades
- Up to 48 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 guests connections or autonomous networks

## PRODUCT DATA

## BUSINESS SERIES

# 24-Port 10/100/1000 Gigabit Switch

## Specifications

Model	SGE2000 - 24-Port 10/100/1000 Gigabit Switch
Ports	24 RJ-45 Connectors for 10BASE-T/100BASE-TX/1000BASE-T with 4 Shared Gigabit SFP Slots Console Port Auto MDI/MDI-X Autonegotiate/Manual Setting RPS Port for Connecting to Redundant Power Supply Unit Reset Button
Buttons	
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 48 Gbps, Non-Blocking
Forwarding Rate (Based on 64-Byte Packets)	Up to 35.7Mpps

## 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  
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

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

Power Redundancy

IGMP (v1/v2) Snooping Limits Bandwidth-Intensive Video Traffic to only the Requestors. Supports 256 Multicast Groups  
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  
Ingress Policer  
Egress Rate Control

Rate Limiting

## 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, 802.3ad LACP, 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 14.70" x 1.73" (440 x 375 x 44 mm)
Unit Weight	14.09 lb (6.39 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	2
Acoustic Noise	55dB Max.
Power	100-240VAC, 50-60Hz, Internal, Universal; Also Equipped with Redundant Power Supply Connector for External Power Supply 48VDC
Power Consumption	12V@7.5A (90W)

## Package Contents

- SGE2000 - 24-Port 10/100/1000 Gigabit Switch
- Console Cable
- AC Power Cord
- Rack-Mount Kit
- Quick Installation Guide

## Minimum Requirements

- Web Browser - Mozilla Firefox 1.5 or Later, IE 5.5 or Later, Netscape 7.01 or Later
- Cat5 Ethernet Network Cable
- TCP/IP Protocol Installed on Each Computer Within the Network
- Network Adapter Installed in Each Computer
- Network Operating System
- Provider Support for CPE Software Version 1.2 or Higher

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Model: **SGE2000**