

# LINKSYS®

A Division of Cisco Systems, Inc.

## Cost-effective, secure switching with simplified management for your growing business

The new Linksys Business Series Smart Gigabit Ethernet Switches are cost-effective switching solutions ideal for small businesses, the network edge, or workgroups within larger organizations. These easy-to-install, high-speed switches offer many of the same Quality of Service and Security features found in more expensive full Layer 2 managed switches but without their complexity. The SLM2048 offers forty-eight (48) 10/100/1000 Gigabit Copper ports with two (2) shared copper or optical (SFP) uplink interfaces for connecting the switch to the core network. The SLM2048's simplified user interface is an intuitive management tool enabling you to quickly utilize the comprehensive feature-set of the switch, resulting in a better optimized network.

**Quality of Service**—The SLM2048 includes numerous QoS features to ensure that traffic is prioritized properly to deliver the best possible user experience for real time applications like voice and video or bandwidth intensive graphic/video file uploads or downloads. With its IGMP Snooping feature, the SLM2048 limits IP multicast traffic (real time presentations, videoconferences, on-line gaming) to only the ports that have requested it enabling the rest of the network to operate at peak efficiency. Additional QoS capabilities like IEEE 802.1p Priority Tagging, DSCP (Differentiated Services Code Point), and 4 hardware queues also maintain quality for real-time applications like voice and video. Network traffic can be optimized with the switch's 802.1Q VLAN (Virtual LAN) support which enables you to quickly segregate network traffic by department or workgroup. VLANs also provide an additional layer of security by keeping sensitive data separated from other workgroups on the network.

**Network Security** is an absolute requirement for any business and preventing unauthorized access to the company network is business-critical. The SLM2048 secures the network through 802.1X port authentication which prompts end-users to provide their username and password before they are permitted to pass data. User access can also be controlled through the SLM2048's MAC-Based Filtering capability which allows network access only to those devices or workstations that have been authorized as identified by their MAC (Media Access Control) address. The Many-to-One or One-to-One Port Mirroring feature of the SLM2048 enables you to monitor the type of traffic being transmitted on the network.

**Quick, foolproof network expansion**—The SLM2048 includes features for quickly expanding and growing your network. To substantially increase network throughput speeds, especially useful for companies whose employees are routinely backing up their hard drives to a company server or storage platform, the SLM2048 supports Link Aggregation which allows multiple high-bandwidth trunks between switches to be set up. Link Aggregation also provides a level of availability and redundancy as traffic will continue to flow even if one of the network links break. The SLM2048's Spanning Tree Protocol support (STP) and Storm Control features help to control planned or inadvertent cable loops when switches are connected to one another. These loops can cause broadcast or multicast storms in the network and severely limit its performance. With these features, you can confidently build a mesh of switches and quickly expand your network to support your growing workforce.



SLM2048

Easy-to-use Web browser interface makes installation quick and effortless

Grow your network with options like Link Aggregation, Spanning Tree and Portfast

802.1x port authentication and MAC-based filtering brings network security down to the switch port level

Basic QoS enables the network to be used for networked applications including voice, video and data storage

## 48-Port 10/100/1000 Gigabit Smart Switch with 2 Combo SFPs

Model: SLM2048

PRODUCT DATA

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## Features

- 48 - 10/100/1000 switched RJ-45 ports deliver up to 2000 Mbps of throughput per port
- 2 miniGBIC slots for Fiber and Copper Gigabit Ethernet expansion
- 96 Gbps non-blocking, store-and-forward switching mechanism
- Simplified QoS management enabled by advanced queuing techniques using 802.1p, IPv4/v6 DiffServ/ DSCP traffic prioritization specifications
- Configuration and monitoring from a standard web browser with a simplified management interface
- 802.1Q-based VLANs enable segmentation of networks for improved performance and security
- Port-level security via 802.1X authentication and MAC-based filtering
- Increased bandwidth (up to 8x) and added link redundancy with Link Aggregation Control Protocol (LACP)
- Multicast and Broadcast Storm Control
- Port Mirroring for non-invasive monitoring of switch traffic
- Jumbo frame support (9 KB)
- Fully rack-mountable using the included rack-mounting hardware

## PRODUCT DATA

## BUSINESS SERIES

# 48-Port 10/100/1000 Gigabit Smart Switch with 2 Combo SFPs

## Specifications

Model	SLM2048
Ports	48 RJ-45 Connectors for 10BASE-T/100BASE-TX/1000BASE-T, including 2 Combo Ports with miniGBIC/SFP Slots
	Auto MDI/MDI-X
	Auto-Negotiate/Manual Setting
Buttons	Reset
Cabling Type	UTP CAT 5e or better for 1000BASE-T
LEDs	System, Gigabit Link/Act and Speed

## Performance

Switching Capacity	96 Gbps Non-Blocking
Forwarding Rate	71.42 Mpps Wire-Speed Performance

## Layer 2

MAC Table Size	8K
Number of VLANs	128 Active VLANs (4096 range)
VLAN	Port-Based and 802.1Q Tag-Based VLANs
	Management VLAN
HOL Blocking	Head of Line Blocking Prevention

## Management

Web User Interface	Built-in Web UI for easy browser-based configuration (HTTP)
Firmware Upgrade	Web Browser Upgrade (HTTP) and TFTP
Port Mirroring	Traffic on a port can be mirrored to another port for analysis with a network analyzer
Other Management	Port Mirroring
	DHCP/BootP Client
	System Log
	Configuration Upload and Backup via HTTP or TFTP

## Security

802.1X - RADIUS Authentication. MD5 Encryption  
Port Security - MAC-Based Filtering  
Management Access Control

## Availability

Link Aggregation	Link Aggregation using IEEE 802.3ad LACP Up to 4 Groups with up to 8 Ports per Group
Storm Control	Broadcast and Multicast
Spanning Tree	IEEE 802.1D Spanning Tree and Port Fast
IGMP Snooping	IGMP (v1/v2) Snooping provides for fast client joins and leaves of multicast streams and limits bandwidth-intensive video traffic to only the requestors. Supports 32 multicast groups.

## 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 DSCP-Based

## 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,  
802.1X Port Access Authentication

## Environmental

Dimensions	17.32" x 1.70" x 13.58" (440 x 43.2 x 345 mm)
Weight	10.14 lb (4.6 kg)
Power	Internal Power, 100-240V
Certification	FCC Part15 Class A, CE Class A, UL, cUL, CE mark, CB
Operating Temp.	32 to 122°F (0 to 50°C)
Storage Temp.	32 to 158°F (0 to 70°C)
Operating Humidity	10 to 90%, Noncondensing
Storage Humidity	10 to 90%, Noncondensing

## Package Contents

- SLM2048 48-Port 10/100/1000 Gigabit Smart Switch with 2 Combo SFPs
- AC Power Cord
- Rack Mounting Kits with Bracket and Hardware
- One CD with User Guide in PDF Format
- One Online Registration Card

## Minimum Requirements

- Web-Based Utility: Microsoft Internet Explorer (version 5.5 or above) Web Browser
- Cat5 Ethernet Network Cable

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Linksys products are available in more than 50 countries, supported by 12 Linksys Regional Offices throughout the world. For a complete list of local Linksys Sales and Technical Support contacts, visit our worldwide website at [www.linksys.com](http://www.linksys.com)

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Model: **SLM2048**