



# 24 GE + 4 GE SFP L2 Web Smart Switch



GES-2450

H/W Version: 1

#### **Product Overview**

LevelOne GES-2450 is a powerful, high-performance Gigabit Ethernet switch with 24 10/100/1000Mbps ports and 4 SFP(mini GBIC) ports, providing you a cost-effective, space-saving solution for expanding your network. The gigabit ports can lead you to a real gigabit connection, making you be able to transfer high bandwidth-needed files larger and faster in an easy way. And the four mini gigabit ports allow you to add fiber-optic connectivity for connecting to other network switches to obtain long-distance communication.

This GES-2450 device provides the easy management function through the Ethernet Web. The network administrator can configure the status and the port function setting of the device through the Web-Based UI. When installing the auto-discovery management tool helps network managers to search and access those switches on LAN easily. Therefore, network managers can access switches that support auto-discovery on LAN without memorizing IP address.

#### **Smart Features**

GES-2450 device provides rich features including Link Aggregation, VLANs, IGMP Snooping, Port Trunking, Spanning Tree, Security (Port Security and 802.1x authentication) and other network management to meet the requirements evolving medium and small-sized enterprises. QoS secures the bandwidth for some bandwidth-demanded applications including VoIP or video conference. Additionally, IEEE 802.3az Energy Efficient Ethernet ability is supported to promise operation in Low Power Idle Mode and save power consumption.

#### **Easy installation and maintenance**

The GES-2450 switch is plug & play and hassle-free in installation. Auto-MDI/MDI-X crossover on all ports eliminates the need for crossover cables for connection to another switch or hub. Auto-Negotiation on each port senses the link speed of a network device and intelligently adjusts for compatibility and optimal performance. This switch also features diagnostic LEDs, which display the status and activities of the ports, allowing you to quickly detect and correct problems on the network.





- 1. Reset Button
- 2. LED Indicators
- 3. 10/100/1000Mpbs Ports
- 4. SFP Slot
- 5. Internal Power Socket

# **Key Features**

- Complies with IEEE 802.3, 802.3u, 802.3ab and 802.3az
- Support QoS for better communication quality
- 24 x 10/100/1000 Mbps RJ-45 ports
- 4 x SFP for optional fiber optical communication
- Supports 16K absolute MAC addresses entries
- Supports 448K Bytes RAM for data buffering
- Supports 9K bytes Jumbo frame
- Supports IEEE 802.3az Energy Efficient Ethernet
- 19-inch rack-mountable with included mounts

#### **Related Products**



GES-1650 16 GE + 4 GE SFP L2 Web Smart Switch



**GES-2452** 24 GE + 2 GE SFP L2 Web Smart Switch

#### **Technical Specifications**

#### Standard Compliance

### **IEEE Standards Compatibility**

IEEE 802.3/802.3u/802.3ab

IEEE 802.3x flow control

IEEE 802.3az Energy Efficient Ethernet

IEEE 802.1D spanning tree protocol

IEEE 802.1s spanning tree protocol (MSTP)

IEEE 802.1p class of service, priority protocols

IEEE 802.1Q VLAN tagging

IEEE 802.1x port authentication

IEEE 802.3ad VLAN stacking

IEEE 802.3ad LACP aggregation

# **Hardware Specification**

#### **Network Interface**

- 24 x 10/100/1000 Mbps RJ-45 Ports
- 4 x SFP Ports

#### **LED Indicators**

1x Power LED(Power: Green),

24 x 10/100/1000Mbps (Link/Act :Green)

#### **Performance Specifications**

- Mac Address Table Size: 16K
- Buffer memory: 448K Bytes
- Jumbo Frame: 9K Bytes

# **Electrical Specifications**

- Voltage: 100 ~ 240 VAC, 50-60 Hz

#### **Physical Specifications**

- Dimensions: (w x d x h) 441 x 130 x 44 mm
- Weight: 2.0kg

# **Environmental Specifications**

- Temperature Operating:  $0^{\circ}\text{C} \sim 40^{\circ}\text{C}$  ( $32^{\circ}\sim 104^{\circ}\text{F}$ );

Storage: -40°C ~ 70°C (-40°~158°F)

- Humidity Operating:  $10\% \sim 90\%$  RH, non-condensing;

Storage: 5%~90% RH, non-condensing

# **EMI and Safety**

- CE, FCC, VCCI Class A

#### Software Specification

#### **Traffic Management and QoS**

Rate limiting: policy-based/port-based bandwidth control, 16 kbps steps up to 1Gbps maximum

Port-based egress traffic shaping

Broadcast storm control

IEEE 802.1p with 8 priority queues per port for different traffic types

WRR (Weighted Round Robin)/SP/WFQ scheduling algorithm Congestion control on all ports

#### **Link Aggregation**

IEEE 802.3ad LACP link aggregation compliant

Up to 8 aggregation groups, 8 ports/per group randomly selected

#### **Resilient Network**

Supports up to 16 spanning tree instances for MSTP, RSTP, and STP

# **User Security and Authentication**

MAC filtering per port secures access to each port

IEEE 802.1Q tag-based and port-based VLAN

802.1x port-based authentication, compensated assignment over VLAN and bandwidth for valid access

Access Control List(ACL) Function

#### **Network Administration Security**

User name/password required for Web

# **Network Management**

Web-based management

RMON four RMON groups 1, 2, 3, 9 (history, statistics, alarms, and events) for enhanced traffic management, monitoring, and analysis

Port mirroring

SNMPv1/v2/v3

Automatic loop detection and isolation

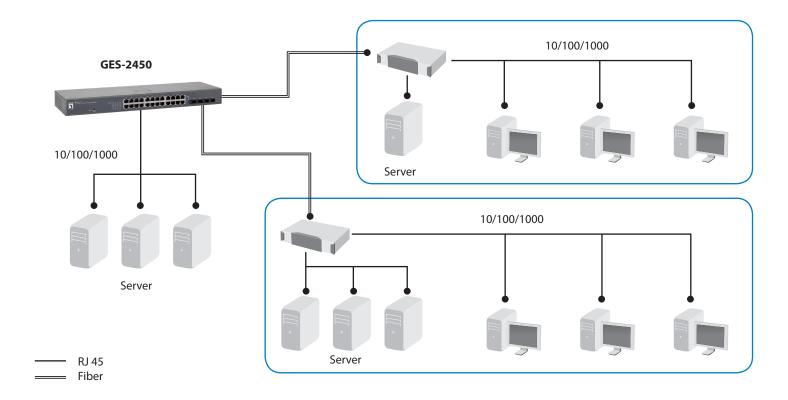
MIR count

IGMPv1/v2 snooping

#### **MTBF**

System MTBF: 77,506

# **Product Diagram**



# Order Information Package Contents

**GES-2450:** 24 GE + 4 GE SFP L2 Web Smart

Switch

GES-2450

CD Manual

**Power Cord** 

Quick Installation Guide

Rack Mount Kit

Rubber Feet x 4