level one ®

GSW-5150

User's Guide

48-Port Fast Ethernet TP + 3-Port Gigabit Ethernet TP/SFP

Ver.1.0.0-0803

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FCC STATEMENT

The 48-Port Fast Ethernet TP+ 3-Port Gigabit Ethernet TP/SFP Switch has been tested and found to comply with the limits for a class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

➢ Reorient or relocate the receiving antenna.
➢ Increase the separation between the equipment and receiver.
➢ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
➢ Consult the dealer or an experienced radio/TV technician for help.

EC DECLARATION OF CONFORMITY (EUROPE)

In compliance with the EMC Directive 89/336/EEC, Low Voltage Directive 73/23/EEC, this product meets the requirements of the following standards:

- ➢ EN55022
- ➢ EN55024
- ➢ EN60950

SAFETY NOTICES

⚠ Caution:

Do not use this product near water, for example, in a wet basement or near a swimming pool.

Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.

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Package Contents:

The following contents should be found in your box:

➢ One Switch

➢ One power cord

➢ This User's Guide

➢ Rubber footpads for Desk-mount

➢ Rack-mount kit for installing the switch in a 19-inch rack

⚠ **Note:**

If any of the above contents is damaged or missing, please contact the retailer from whom you purchased the GSW-5150 Gigabit Ethernet Switch for assistance.

Chapter 1: Introduction of the Product

This chapter describes the features of the GSW-5150 Gigabit Ethernet Switch.

1.1 Overview of the product

The GSW-5150 Gigabit Ethernet Switch provides you with a high-performance, low-cost, easy-to-use, seamless and standard upgrade to boost your old network to 1000Mbps. Increase the speed of your network server and backbone connections, make Gigabit connection to a server or uplink a network necessarily.

The GSW-5150 features a non-blocking switching architecture that forwards and filters packets at full wire-speed for maximum throughput. MAC address auto-learning and auto-aging, IEEE802.3x flow control for Full Duplex mode and backpressure for Half Duplex mode. It is compatible with all 10,100, and 1000Mbps Ethernet devices because it is standard-based.

The GSW-5150 is plug-and-play and no configuration is required. Auto MDI/MDIX cable detection on all ports eliminate the need for crossover cable or Uplink port. Each port can be used as general ports or Uplink ports, and any port can be simply plugged into a server, a hub, a router or a switch, using the straight cable or crossover cable. Diagnostic LEDs which display link status and activity, allowing you to quickly detect and correct problems on the network.

1.2　Features

➢　Complies with IEEE802.3, IEEE802.3u, IEEE802.3ab, IEEE802.3z standards
➢　48 10/100Mbps Auto-Sense RJ45 ports supporting Auto-MDI/MDIX
➢　2 10/100/1000Mbps Auto-Sense RJ45 ports supporting Auto-MDI/MDIX

- ➢ 1 SFP(Small Form Pluggable) module interface
- ➢ Supports Auto MDI / MDIX cable detection on all ports eliminate the need for crossover cable or Uplink port.
- ➢ Non-blocking switching architecture that forwards and filters packets at fullwire -speed for maximum throughput.
- ➢ Supports MAC address auto-learning and auto-aging
- ➢ Supports IEEE802.3x flow control for full-duplex model and backpressure for half-duplex transfer model
- ➢ LED indicators for monitoring power, link, activity, speed
- ➢ Internal power supply

Chapter 2: Installation

2.1   Mounting the Switch on a Desk

Before place the Switch on a desk, attach four rubber footpads to the flutes on the Switch bottom, then lay the Switch on the desktop, where can be have as much as 5kg placed on top.

⚠ Note:

Make sure there is a grounded AC outlet within 1.5 meters, and working well.

Make sure there is free space for radiating heat and air.

Make sure not to place anything to heavy on top of the switch.

2.2   Mounting the Switch in a Rack

The dimension of GSW-5150 is designed according to the standard 19" rack-mountable steel case of Electronic Industries Association.

Turn off all the equipment connected to the Switch before mounting it in the rack, then rivet the two ' L' brackets onto each side of the Switch, fasten it with screws in the rack.
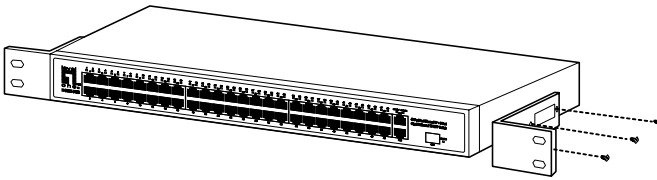

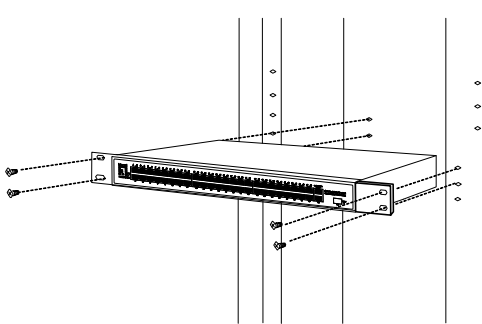
Figure 2-1   Rivet the 'L'brackets onto the Switch

Figure 2-2   Fasten the Switch in the rack

2.3   Mounting the SFP module

The front panel of the GSW-5150 consists of a SFP module, which support The Hot Plug- And- Draw. Should fixed the SFP into SFP pluggable when use the SFP module.The switch could identify and Config the SFP module automatically.

2.4   Power on

GSW-5150 Switch is powered by AC power supply. Powering on the Switch, it will automatically initialize and its LED indicators should respond as follows:

1) All of the LED indicators will flash momentarily for one second, which represent a resetting of the system.
2) The power LED indicator will remain ON.

Chapter 3: Identifying External Components

This Chapter describes the front panel, rear panel and LED indicators of the Switch.

3.1   Front Panel

The front panel of the GSW-5150 consists of switch LED indicators, 48 10/100Mbps RJ-45 ports ,2 10/100/1000Mbps RJ-45 ports and 1 SFP module.

Figure 3-1   GSW-5150 Switch Front Panel sketch

> **LED indicators**

The LED indicators include Power, Link/Act, 1000Mbps and 100Mbps LED indicators, which are used for monitoring and pre-troubleshooting of the Switch. The following section shows the LED indicators for the Switch along with an explanation of each indicator.

> **Power LED:** This indicator will light solid red when the Switch powers up. If the LED is not lit, please check the power supply and connection.
> **1000M LED:** The corresponding gigabit port LED indicator will light solid green when the gigabit port connected to a 10/100/1000Mbps device. It flashes green when data is being transmitted or received on the working connection.
> **100M LED:** The corresponding 100M port LED indicator will light solid green when the 10/100M port connected to a 100Mbps device. It flashes green when data is being transmitted or received on the working connection.
> **SFP LED:** The SFP LED indicates SFP module Link/Active status. The LED indicator will light solid green when the SFP port connected correctly It flashes green when data is being transmitted or received on the working connection.

3.2 Rear Panel

The rear panel of the GSW-5150 only features a power receptacle, which is an AC power receptacle. Connect the female of the power cord head here, and the male head to the AC power outlet.

Figure 3-2   GSW-5150 Switch Rear Panel sketch

Appendix A: Specifications

General

Standards	IEEE802.3 10Base-T		IEEE802.3u 100Base-TX
	IEEE802.3ab 1000Base-T		IEEE802.3z 1000Base-X
	ANSI/IEEE Std 802.3 Nway		IEEE802.3x
Protocol	CSMA/CD		
Data Transfer Rate	Ethernet: 10Mbps (Half Duplex), 20Mbps (FullDuplex)		
	Fast Ethernet: 100Mbps (Half Duplex), 200Mbps (Full Duplex)		
	igabit Ethernet: 2000Mbps (Full Duplex)		
Topology	Star		
Network Media (Cable)	100Base-T:	UTP category 3, 4, 5 cable (maximum 100m)	
		EIA/TIA-568 100Ω STP (maximum 100m)	
	100Base-TX:	UTP category 5, 5e cable (maximum 100m)	
		EIA/TIA-568 100Ω STP (maximum 100m)	
	1000Base-T:	UTP category 5, 5e cable (maximum 100m)	
	1000Base-SX:	62.5 u m multi mode fiber	
		50 u m multi mode fiber	
	1000Base-LX:	62.5 u m multi mode fiber	
		50 u m multi mode fiber	
		9 u m/10 u m single mode fiber	
Number of Ports	48 10/100Mbps Auto-Negotiation RJ-45 ports		
	2 10/100/1000Mbps Auto-Negotiation RJ-45 ports		
	1 SFP module Interface		
UpLink Ports	Auto MDI/MDI-X cable detection, Each port can be used Uplink ports		
Transfer Method	Store-and-Forward		
MAC AddresTable	8k, Automatically learning, automatically Update		
Frame Filter Rate	10Base-T: 14880pps/Port		100Base-Tx: 148800pps/Port
	1000Base-T: 1488000pps/Port		1000Base-X: 1488000pps/Port
Frame Forward Rate	10Base-T: 14880pps/Port		100Base-TX: 148800pps/Port
	1000Base-T: 1488000pps/Port		1000Base-X: 1488000pps/Port
Safety&Emissions	FCC, CE		

Environmental and Physical

Power	maximum 35W
Operating Temperature	0°C ~40°C
Storage Temperature	-40°C ~70°C
Operating Humidity	10%~90% non-condensing
Storage Humidity	5%~95% non-condensing
Dimensions	17.3×10.2×1.73 in.(440 mm×260 mm×44mm)