Gigabit Ethernet Switch

User Manual

2026

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1. Introduction of the Product

This chapter describes the features of the Gigabit Ethernet Switch.

1.1. Overview of the Product

The 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 a reality. Power users in the home, office, workgroup, or creative production environment can now move large, bandwidth-intensive files faster.

The Switch 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 Switch is plug-and-play and no configuration is required. Auto MDI/MDI-X cable detection on all ports eliminate the need for crossover cable or Uplink port. Diagnostic LEDs display link status and activity, allowing you to quickly detect and correct problems on the network.

Features

- Complies with IEEE802.3, IEEE802.3u, IEEE802.3ab standards
- 10/100/1000Mbps Auto-Sense RJ45 ports supporting Auto-MDI/MDIX
- All ports Support Full/Half Duplex transfer mode for 10/100Mbps and Full Duplex transfer mode for 1000Mbps
- Supports IEEE802.3x flow control for full-duplex mode and backpressure for half-duplex transfer mode
- Non-blocking switching architecture that forwards and filters packets at full wire-speed for maximum throughput
- Supports MAC address auto-learning and auto-aging
- LED indicators for monitoring power, link, speed and activity
- Rack-mountable steel case
- Internal power supply

2. Installation

2.1. Mounting the Switch on a Desk

Place the Switch on the desktop, where can be have as much as 5kg placed on top.

Note:

- The electrical outlet shall be installed near the device and shall be easily accessible.
- Make sure there is free space for radiating heat and air.
- Make sure not to place anything too heavy on top of the switch.

2.2. Mounting the Switch in a Rack

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.

2.3. Power ON

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

- All of the Link/Act and 1000Mbps LED indicators will flash momentarily for one second, which represent a resetting of the system.
- The Power indicator will light up.

If the LED indicators don't respond as described above, please check the power supply and connection.

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 consists of switch LED indicators, 10/100/1000Mbps RJ-45 ports.

3.2. Rear Panel

The rear panel 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.

3.3. LED Indicators

The LED indicators include Power, Link/Act and 1000Mbps 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.
- Link/Act LED: This indicator will light solid green when the corresponding port is connected to another device and will flash green when data is being transmitted or received on the working connection.
- 1000Mbps LED: This indicator will light solid green when the corresponding port is connected to a 1000Mbps device.

4. Specifications

4.1. General:

General		
Network Protocols		IEEE 802.3i 10BASE-T; IEEE 802.3u 100BASE-TX; IEEE 802.3ab 1000BASE-TX; IEEE 802.3z 1000BASE-TX; IEEE 802.3x Flow Control; IEEE 802.1af DTE Power via MDI; IEEE 802.3af/at
Optical transmission distance, km	Multi Mode Fiber: 850nm, 1310nm	0.55, 2
	Single Mode Fiber: 1310nm, 1550nm	20, 40, 60, 80, 100, 120
PoE port modes	Extend ON	ports №7-8 extend link distance up to 250m 10M
	Extend OFF	Normal mode, all port can communicate with each other
PoE PoE port Power	Each port	15.4W/30W
	Total	96.2W
PoE standards		IEEE 802.3af/at
Power Pin Assignment		Mode A, 1/2(+), 3/6(-), Mode B, 4/5(+), 7/8(-)

4.2. Troubleshooting

1. The Power LED is not lit

- Make sure the AC power cord connected the Switch with power source properly.
- Make sure the power source is ON.

2. The Link/Act LED is not lit when a device is connected to the corresponding port

- Make sure that the cable connectors are firmly plugged into the Switch and the device.
- Make sure the connected device is turned on and working well.
- The cable must be less than 100 meters long (328 feet).