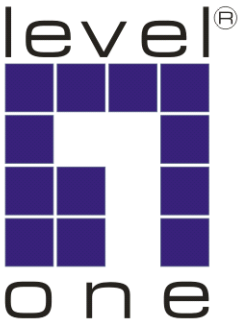


LevelOne

FSW-0822

4+4PoE Ethernet Switch

User Manual

Version 1.0-0606

FCC Certifications

This Equipment 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 when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received; including interference that may cause undesired operation.

CE Mark Warning

This equipment complies with the requirements relating to electromagnetic compatibility, EN 55022 class A for ITE, the essential protection requirement of Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

Company has an on-going policy of upgrading its products and it may be possible that information in this document is not up-to-date. Please check with your local distributors for the latest information. No part of this document can be copied or reproduced in any form without written consent from the company.

Trademarks:
All trade names and trademarks are the properties of their respective companies.

Unpacking Information

Thank you for purchasing **FSW-0822 Ethernet Switch**. Before installation, please verify that your package contains the following items.

1. **One FSW-0822 Ethernet Switch**
2. **One AC power cord**
3. **Rack-mount brackets**
4. **Stackable kit**
5. **Manual CD**

Introduction

General Description

The device is a powerful, high-performance Fast Ethernet Switch, with all 8 ports capable of 10 or 100Mbps auto-negotiation operation (NWay), which means the switch could automatically negotiate with the connected partners on the network speed and duplex mode. It is ideal for micro-segmenting large networks into smaller, connected subnets for improved performance, enabling the bandwidth demanding multimedia and imaging applications. Moreover, the 10/100Mbps auto-sensing ability provides an easy way to migrate 10Mbps to 100Mbps network with no pain.

This switch supports PoE, which supplies power for connected devices via CAT 5 and above twisted cables. By integrating the data transmitting cable and power cord, it eliminates the effort constructing your network. You could easily connect a Wireless AP or a VoIP phone to this switch without looking outlets for them. Over current protection and circuit shorting protection are also supported to ensure the safety.

The switch is plug-n-play without any software to configure and also fully compliant with all kinds of network protocols. Moreover, the rich diagnostic LEDs on the front-panel provide the operating status of individual port and whole system.

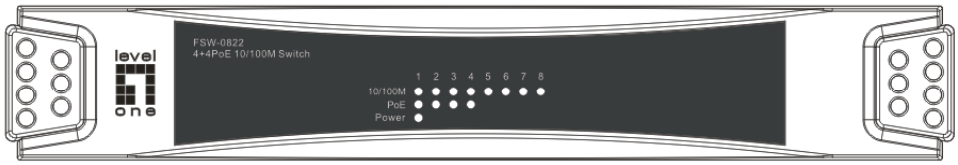
Key Features

- Complies with 10BASE-T specifications of the IEEE802.3 standard
- Complies with 100BASE-TX specifications of the IEEE802.3u standard
- Complies with IEEE 802.3af PoE standard (DTE power via MDI-X)
- Provides 4 PoE ports with classification identify
- Supports 15.4W maximum per PoE port
- Supports over current protection and circuit shorting protection
- 8 * RJ-45 ports for 100BASE-TX and 10BASE-T connectivity
- Supports NWay protocol for speed (10/100Mbps) and duplex mode (Half/Full) auto-detection
- Supports MDI/MDI-X auto crossover
- Wire-speed packet filtering and forwarding rate

- Store-and-forward architecture filters fragment & CRC error packets
- Supports 1K MAC entries
- 768K Bits buffer memory
- Supports extensive LED indicators for network diagnostics
- Internal universal switching power supply
- FCC Class A, CE

The Front Panel

The front panel consists of LED indicators Please refer to the following paragraph for detailed LED definition.



LEDs Definition

The switch contain 1* power LED for the device, 1*10/100M LED for each port and 1*PoE LED for port 1 ~ port 4.

System LED

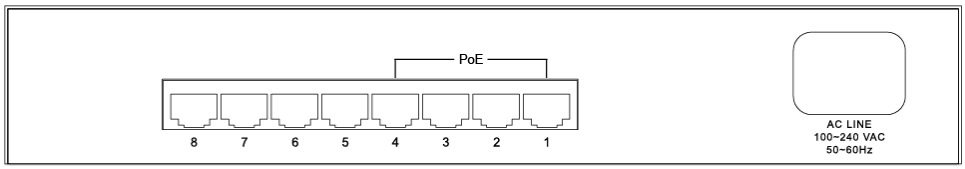
LED	Status	Operation
Power	Steady Green	The switch is powered on
	Off	The switch is powered off

Port LEDs

LED	Status	Operation
10/100M	Steady Green	The port is connected
	Blinking Green	Data transmitting /receiving
	Off	No valid link on this port
PoE	Green	One PoE compliant device is connecting with this port
	Off	There is no PoE compliant device connecting with this port

The Rear Panel

The rear panel consists of one power receptacle and 8 RJ-45 ports. Port 1 to Port 4 also support connecting to PoE devices.



Power Receptacle

To be compatible with the electric service standards around the world, the switch is designed to afford the power supply in the range from100 to 240VAC, 50/60Hz. Please make sure that your outlet standard to be within this range.

To power on the switch, please plug the female end of the power cord firmly into the receptacle of the switch and the other end into an electric service outlet. After the power cord installation, please check if the power LED is lit for a normal power status.

Installation

This switch can be placed on your desktop directly, or mounted in a rack. The installation is a snap. Users can use all the features of the switch with simply attaching the cables and turning the power on.

Before installing the switch, we strongly recommend:

1. The switch is placed with appropriate ventilation environment. A minimum 25mm space around the unit is recommended.
2. The switch and the relevant components are away from sources of electrical noise such as radios, transmitters and broadband amplifiers
3. The switch is away from environments beyond recommend moisture

Desktop Installation

1. Attach the provided robber feet to the bottom of the switch to keep the switch from slipping. The recommend position has been square-marked.
2. Install the switch on a level surface that can support the weight of the unit and the relevant components.
3. Plug the switch with the female end of the provided power cord and plug the male end to the power outlet.

Rack-mount Installation

Rack mounting facilitate to an orderly installation when series of networking devices being installed. The switch is supplied with rack mounting brackets and screws for rack mounting the unit.

Procedures to Rack-Mount the Switch in the rack:

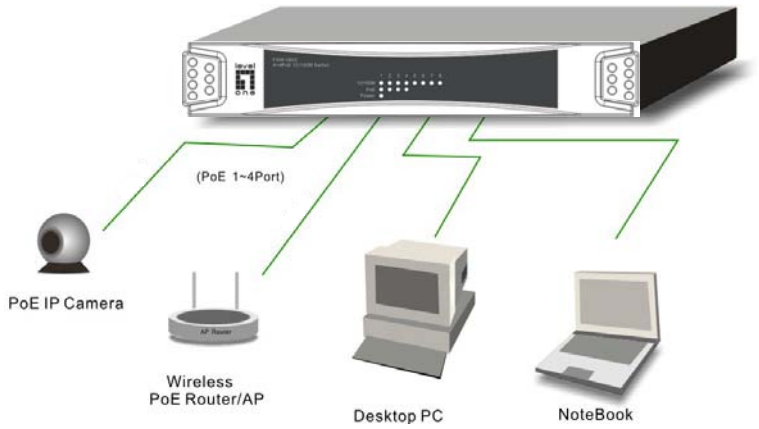
1. Disconnect all the cables from the switch before continuing.
2. Place the unit the right way up on a hard, flat surface with the front facing you.
3. Locate a mounting bracket over the mounting holes on one side of the unit.
4. Insert the screws and fully tighten with a suitable screwdriver.
5. Repeat the two previous steps for the other side of the unit.
6. Insert the unit into the rack and secure with suitable screws (optional).
7. Reconnect all the cables.

Network Cables Installation

1. **Crossover or straight-through cable**: All the ports on the switch support Auto-MDI/MDI-X functionality. Both straight-through or crossover cables can be used to connect the switch.

2. **Category 3,4,5 or 5e UTP/STP cable**: To make a valid connection and obtain the optimal performance. Appropriate cables corresponding to different transmitting/receiving speed is required. To choose a suitable cable, please refer to the following table.

Media	Speed	Wiring
10/100 Mbps ports	10 Mbps	Category 3,4,5 UTP/STP
	100 Mbps	Category 5 UTP/STP
Ports that support PoE (Port 1~Port4)	10/100 Mbps	Category5,5e UTP/STP or above.



Product Specifications

Standard	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3af Power over Ethernet IEEE802.3x flow control
Interface	8 * 10/100 Mbps auto MDI/MDI-X RJ-45 ports (Port1~4 support PoE power feeding)
Network Data Rate	10/100 Mbps Auto-negotiation
Transmission Mode	10/100Mbps Full-duplex, Half-duplex
LED indications	System: Power Ports: 10/100M, PoE
Memory	1K MAC entries 768K Bits buffer Memory
Emission	FCC Class A, CE
Power Consumption	4.848 Watts (max. with no PoE Device connected) 64.32 Watts (max. with 4 x 15.4 w PoE Device connected)
Operating Temperature	0^0 ~ 40^0C (32^0 ~ 104^0F)
Operating Humidity	10% - 90%(non-condensing)
Power Supply	48V 1.35A 100-240V/47-63 Hz universal input