

LevelOne

FSW-2205TX

FSW-2208TX

5/8Port 10/100Mbps

Internal Power SOHO Switch

**User's Manual**

**(Version 1.0)**

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## Overview

Thanks for choosing LevelOne FSW-2205/2208TX 5/8Port 10/100Mbps Internal Power SOHO Switch. It is the smallest switch with internal power supply around the world. The switches are designed to be suitable for integrating both 10BASE-T and 100BASE-TX networking circumstance with cabling UTP (Unshielded Twisted-Pair) connection in Small/Medium Business (SMB) and Small Office/Home Office (SOHO) environment. Simple plug in the networking cable and the switches will automatically detect the maximum speed of networking connection to offer smooth network migrations and easy upgrades to network capacity. In addition, built-in power supply eliminates the hassle of power adapter allocation and increase users' convenience. For easy recognition of network status and trouble-shooting, it provides a set of diagnostic LEDs, including 10Mbps, 100Mbps, Link/Activity and FDX/Col.

## Features

- Single chip with highest level of silicon integration for the 5/8-port 10/100 Fast Ethernet switch device, embedded on-chip memory used for packet buffer and MAC address
- Support auto-crossover (auto MDI/MDI-X) on every 10/100M RJ-45 port
- Designed with internal power supply. Palm-sized, plastic case together with internal power design, convenient for the

placement and power cord arrangement

- Each port with non-blocking wire speed forwarding performance.
- Each port support flow control and back-pressure.
- Small size and Plug-and-Play solution for SOHO application
- FCC Part15 Class B, CE EN55022 Class B, VCCI Class B

## HARDWARE DESCRIPTION

### A. The Top View

- LevelOne FSW-2205 5Port 10/100Mbps  
Internal Power SOHO Switch



- LevelOne FSW-2208TX 8Port 10/100Mbps  
Internal Power SOHO Switch

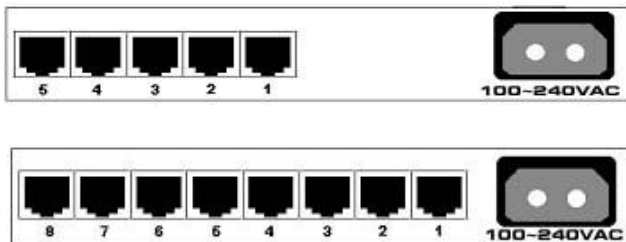


The LED indicators will help you monitor the status of each port and connected segment. The functions of the LEDs indicators are described as follows.

LED Indicators	Color	Description
Power	Green	ON: Power On OFF: Power Off
10/100M Speed	Green	ON: Link at 100Mbps OFF: Link at 10Mbps or no link
Link/Activity	Green	ON: Good link on the port Blinking: The port is receiving/transmitting data OFF: No Link is occurring on the port
Full-Duplex/Collision	Amber	ON: Full-duplex mode OFF: Half-duplex mode Blinking: Data collision

## B. The Rear View

The rear panel contains 5/8-port 10/100Mbps RJ-45 and a power core socket.



# **HARDWARE INSTALLATION**

## **A. Basic Installation**

1. Place LevelOne 5/8Port 10/100Mbps Internal Power SOHO Switch on a smooth surface.
2. Connect the power cord to the LevelOne 5/8Port 10/100Mbps Internal Power SOHO Switch.
3. Connect server, workstation or PC to your 5port/8-port Switch using standard RJ-45 Ethernet cable.
4. Connect another workstation or PC to your LevelOne 5/8Port 10/100Mbps Internal Power SOHO Switch by following the same process as described in Step 3.
5. If necessary, another hub/switch also can be connected to any port of LevelOne 5/8Port 10/100Mbps Internal Power SOHO Switch using standard RJ-45 Ethernet cable for more flexible application.
6. Ensure that each device is connected properly. Plug power cord into the power outlet.

## **B. NWAY Process**

“Auto-Negotiation” (NWAY) mode automatically sets the best possible bandwidth when connection is established with another network device.

The Auto-Negotiation priorities:

- A. 100Base-TX Full Duplex (200Mbps)
- B. 100Base-Tx Half Duplex (100Mbps)

- C. 10Base-T Full Duplex (20Mbps)
- D. 10base-T Half Duplex (10Mbps)

Each port with NWAY capability, support Half/Full Duplex function.

**? Attention:**

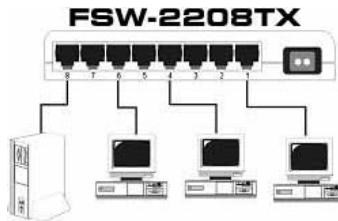
1. The cable distance between the LevelOne FSW-2205/2208TX 5/8Port 10/100Mbps Internal Power SOHO Switch and hub/server should not exceed 100 meters.
2. Make sure the wiring is correct. In 10Mbps operation, Category 3/4/5 cable can be used for connection. To reliably operate your network at 100Mbps, you must use Category 5 cable, or better Data Grade cabling.



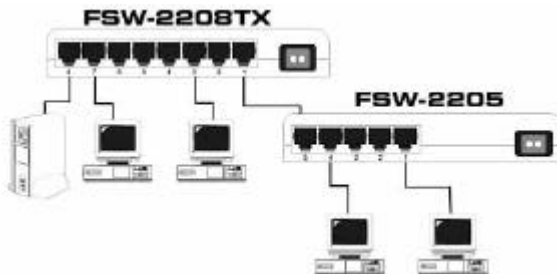
## Sample Application

The optimal application for the LevelOne 5/8Port 10/100Mbps Internal Power SOHO Switch is as a “bridge” joining 100Mbps and 10Mbps network segments. The following figure illustrates the application.

### Scenario I:



### Scenario II:



### Note:

LevelOne FSW-2205/2208TX 5/8Port 10/100Mbps Internal Power SOHO Switch supports auto-crossover (auto MDI/MDI-X) function. Every port can be connected directly to another hub/switch for more flexible application. The user doesn't need to use special crossover cable for uplink.

## Technical Specifications

Standard		IEEE802.3(Ethernt) IEEE 802.3u (Fast Ethernet) IEEE 802.3x (flow control)
Max. Bandwidth	Full Duplex	200Mbps (for 100BASE-TX), 20Mbps (for 10Base-T)
	Half Duplex	100Mbps (for 100BaseTX), 10Mbps (for 10BaseT)
Media Interface		Five/Eight 10/100Mbps RJ45 ports
Cabling		10BASE-T 2-pair UTP/STP Cat. 3 or higher, Up to 100m (328 ft) 100BASE-TX 2-pair UTP/STP Cat. 5 or higher. Up to 100m (328 ft)
Packet Forwarding Rate		10Mbps:14880pps 100Mbps:148810pps
MAC Address		FSW-2205TX 2K entries FSW-2208TX 4K entries
Packet Buffer memory		FSW-2205TX Built-in 128 Kbytes FSW-2208TX Built-in 256 Kbytes
Modes		Half and Full Duplex, auto-negotiation
Forwarding Mode		Store and Forward
Non-blocking		Yes
Flow Control (IEEE802.3x)		Half: backpressure Full: pause frame
Auto Crossover		Yes for each port
Diagnostic LEDs		Speed, Link/Active, FDX/Col
Operating Temperature		0? to 45? (32? to 113? )
Operating Humidity		10% to 90% (Non-Condensing)
Input Power Requirement		100-240VAC,Auto-Sensing
Certification		FCC Class B, CE EN55022 Class B, VCCI Class B