



# ETHERNET SWITCH

## 5CH/8CH/16CH/24CH



## Quick Operation Guide

### V2.0

\*Product specifications and appearance are for reference only and are subject to change without notice.

### Safety Information:

- ▶ Operating Environment: Do not install the equipment in direct sunlight, near heat sources, or in damp, dusty, or smoky locations.
- ▶ Installation & Ventilation: Install the equipment on a stable, level surface to prevent accidental falling. Ensure the location is well-ventilated and do not block the ventilation vents.
- ▶ Liquids & Objects: Prevent liquids from spilling into the equipment. Do not place containers filled with liquids on it.
- ▶ Operating Conditions: Operate and store the equipment within the specified temperature, humidity, and electrical input/output ranges.
- ▶ Power Source: Use only the provided power cable. The power source must match the specifications on the product label.
- ▶ Disassembly: Do not disassemble the equipment.

## 1. Package Contents

| Item | Description     | Number of Pieces |
|------|-----------------|------------------|
| 1    | Ethernet Switch | 1pc              |
| 2    | Power Adapter   | 1pc              |
| 3    | User Manual     | 1pc              |

\*The included accessories may vary by model. Please refer to the actual products you receive.

This series of 10/100M adaptive Ethernet switches comes in 5, 8, 16, 24 port configurations. Every twisted-pair port supports auto-negotiation for speed and duplex mode, as well as automatic MDI/MDIX crossover. This eliminates the need for uplink ports and special cables, making installation truly "plug-and-play."

Incorporating energy-saving technology, these switches automatically adjust power consumption based on detected cable length and traffic load, effectively reducing energy costs. With their ease of use, simple installation, robust performance, and high cost-effectiveness, these switches are an ideal solution for enhancing network speed and server connectivity.

| Model Name   | Ethernet Ports   | Power Supply |
|--------------|------------------|--------------|
| CF-SWD-1505  | 5 x 10/100 Mbps  | 5V 1A        |
| CF-SWD-1508  | 8 x 10/100 Mbps  | 5V 1A        |
| CF-SWD-15016 | 16 x 10/100 Mbps | 12V 1A       |
| CF-SWD-15024 | 24 x 10/100 Mbps | 12V 1A       |

## 3. Panel Overview

- Ports (1 - [X]): These Fast Ethernet ports support auto-negotiation for speed and duplex mode.
- Speed Indicator: The LED lights up when a connected device is operating at 100Mbps.
- Link/Activity (L/A) Indicator: The LED blinks to indicate data transmission activity.
- Power (PWR) Indicator: A steady red light indicates that the switch is powered on and operating normally.

| LED Indicator          | Color | State         | Description                                                                                       |
|------------------------|-------|---------------|---------------------------------------------------------------------------------------------------|
| PWR (Power)            | Red   | Steady On     | The switch is powered on and operating normally.                                                  |
|                        |       | Off           | The switch is powered off.                                                                        |
| Speed<br>(100Mbps)     | Green | Steady On     | The connected device is operating at 100Mbps.                                                     |
|                        |       | Off           | The connected device is operating at 10Mbps,<br>or no link is established.                        |
|                        | Green | Slow Blinking | Port is connected but no data is being transmitted.                                               |
|                        |       | Fast Blinking | Data is being transmitted.                                                                        |
| L/A<br>(Link/Activity) | Green | Steady On     | A valid link is established with a network device,<br>but no data is currently being transmitted. |
|                        |       | Off           | No link is established.                                                                           |
|                        |       | Blinking      | Data is being sent or received over the link.                                                     |

## 5. Key Features

- Complies with IEEE 802.3 (10BASE-T), IEEE 802.3u (100BASE-TX) and IEEE 802.3ab (1000BASE-T) Ethernet standards.
- Provides 5, 8, 16, or 24 UTP/STP ports, each supporting 10/100BASE-T(X) operation in full-duplex or half-duplex mode.
- Features automatic MDI/MDIX crossover on all ports, eliminating the need for a dedicated Uplink port.
- Employs store-and-forward switching technology to ensure data integrity.
- Supports automatic address learning and aging.
- Supports IEEE 802.3x flow control in full-duplex mode and back-pressure flow control in half-duplex mode.
- Incorporates energy-efficient technology that dynamically adjusts power consumption based on cable length and link status, effectively reducing energy usage.

| Category                  | Specification                                                                                   |
|---------------------------|-------------------------------------------------------------------------------------------------|
| Standards Compliance      | IEEE 802.3 (10BASE-T Ethernet)<br>IEEE 802.3u (100BASE-TX Fast Ethernet)                        |
| Protocol                  | CSMA/CD                                                                                         |
| Data Transfer Rates       | Ethernet: 10 Mbps (Half-Duplex), 20 Mbps (Full-Duplex)<br>Fast Ethernet: 100 Mbps (Half-Duplex) |
| Network Topology          | Star                                                                                            |
| Physical Media            | 10BASE-T: Cat 3/4/5 UTP/STP (100m max.)<br>100BASE-TX: Cat 5 or above UTP/STP (100m max.)       |
| Port Configuration        | 5, 8, 16, or 24 ports                                                                           |
| Port Features             | Auto-negotiation for speed and duplex<br>Auto MDI/MDIX (all ports can be used as uplink)        |
| LED Indicators            | Power, Link/Activity, 10/100Mbps Speed                                                          |
| Switching Method          | Store-and-Forward                                                                               |
| MAC Address Table         | Auto-learning and auto-aging                                                                    |
| Filtering/Forwarding Rate | 10BASE-T: 14,880 pps/port<br>100BASE-TX: 148,800 pps/port                                       |
| Power Supply              | 100-240V~, 50/60 Hz                                                                             |
| Operating Temperature     | 0°C to 40°C                                                                                     |
| Storage Temperature       | -40°C to 70°C                                                                                   |
| Operating Humidity        | 10% to 90% RH, non-condensing                                                                   |
| Storage Humidity          | 5% to 90% RH, non-condensing                                                                    |

### 7.1 Installation

Before installation, ensure the operating environment meets the following requirements:

- The mounting surface must be sturdy enough to support the switch's weight and any additional mounting accessories.
- A standard AC power outlet must be located within 1.5 meters of the switch.
- Ensure adequate space around the switch's ventilation openings to maintain proper airflow and prevent overheating.
- The power socket must be easily accessible.
- You must use a certified three-pin AC power socket with a protective earth connection and ensure the grounding wire is reliably connected.
- Do not place any heavy objects on the switch.

### 7.2 Power On and Initialization

The switch uses a 5V 1A or 12V 1A power adapter.

- 1). Connect the power cord to the switch's power inlet and the AC power socket.
- 2). Turn on the power. The switch will initialize automatically. The LED indicators will display the following sequence during startup:
  - a. Upon power-up, all indicators will light up for approximately one second and then turn off, indicating a successful system reset.
  - b. The PWR or Power LED will remain steady on once the system is operational.
- 3). Attention: If the initialization sequence does not occur as described above, please verify that the power cord is securely connected and that the power outlet is functioning correctly.