# 8 Ports Fast Ethernet Switch with 4 ports 802.3at/af PoE 

User's Manual

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

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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.

## Unpacking I nformation

Thank you for purchasing this switch. Before installation, please check that your package contains the following items.

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1. One 4+4 10/ 100 PoE Switch <br> 2. One power cord <br> 3. User's Manual <br> 4. Rack-mount kit <br> 5. Rubber foot
}

## I ntroduction

## General Description

The device is a powerful, high-performance Fast Ethernet Switch, with all 8 ports capable of 10 or 100 Mbps 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 $10 / 100 \mathrm{Mbps}$ auto-sensing ability provides an easy way to migrate 10 Mbps to 100 Mbps 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 VolP 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
- Compliant with IEEE 802.3af/at PoE standard (DTE power via MDI-X)
- Provides 4 PoE ports with classification identify
- Supports 15.4W / 30W maximum per PoE port, total PoE Power Budget 65W
- 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 extensive LED indicators for network diagnostics
- Internal universal switching power supply


## The Front Panel

The front panel consists of 8 RJ-45 ports. Port 1 to Port 4 also support connecting to PoE devices


## LEDs Definition

The switch contain 1* power LED for the device, $1^{*} 10 / 100 \mathrm{M}$ LED for each port and 1*PoE LED for port $1 \sim$ 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 |  |
| :---: | :--- | :--- |
| $\mathbf{1 0 / ~ 1 0 0 M}$ | Green | Operation |
|  | Olinking Green | The port is connected |
|  | Yata transmitting /receiving. |  |
|  | Off | No valid link on this port |
|  | Off | One PoE compliant device is <br> connecting with this port. |

## The Rear Panel

The rear panel consist of one power receptacle.


## 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 from 100 to $240 \mathrm{VAC}, 50 / 60 \mathrm{~Hz}$. 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.

## I nstallation

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 25 mm 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 I nstallation

1. Install the switch on a level surface that can support the weight of the unit and the relevant components.
2. 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 circumstance needed. The switch is supplied with rack mounting brackets and screws for rack mounting the unit.

Procedures to Rack-Mounting 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.
7. Reconnect all the cables.

## Installation of Network Cables

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 $\mathbf{3 , 4 , 5}$ 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. Please refer to the following table for information:

| Media | Speed | Wiring |
| :--- | :--- | :--- |
| $10 / 100 \mathrm{Mbps}$ ports | 10 Mbps | Category3,4,5 UTP/STP |
|  | 100 Mbps | Category 5 UTP/STP |
| Ports that support PoE <br> (Port 1~Port4) | $10 / 100 \mathrm{Mbps}$ | Category5,5e UTP/STP or <br> above. |



## Product Specifications

| Standard | IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3af / at Power over Ethernet IEEE802.3x flow control |
| :---: | :---: |
| I nterface | 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 |
| Emission | FCC Class A, CE |
| PoE Power Budget | 65W |
| Operating Temperature | $0^{0} \sim 40^{\circ} \mathrm{C}\left(32^{0} \sim 104^{\circ} \mathrm{F}\right)$ |
| Operating Humidity | 5\% - 90\% (non-condensing) |
| Power Supply | $\begin{aligned} & 48 \mathrm{~V} 1.35 \mathrm{~A} \\ & 100-240 \mathrm{~V} / 47-63 \mathrm{~Hz} \text { universal input } \end{aligned}$ |

