## SW-UNM-16FE

16 Fast Ethernet Switch


User Manual

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## Chapter 1 Product Introduction

Congratulations on your purchasing of the 16 port Fast Ethernet Switch.
Before you install and use this product, please read this manual carefully for full exploiting the functions of this product.

### 1.1 Product Overview

The 10/100Mbps switch is the perfect way of integrating 10Mbps Ethernet and 100Mbps Fast Ethernet devices. All sixteen ports are auto speed negotiating, and have automatic MDI/MDI-X crossover detection, so you don't have to worry about the cable type. Each port independently negotiates for best speed and half- or full-duplex mode. To increase the functionality of your network, you can also add other Ethernet-enabled devices such as a print server, Network-Attached Storage (NAS), and Internet camera.

### 1.2 Features

> Sixteen 10/100BASE-T Ethernet Ports
> Support Auto-Negotiation for Fast Ethernet and duplex mode
> Support Auto-MDI/MDIX for each port
> Support Full/Half duplex transfer mode for Fast Ethernet
> Support Store-and-Forward switching method
> Complies with IEEE 802.3, IEEE 802.3u
> Support Wire-speed and non-blocking performance
> 3.2 Gbps Switching Capacity
> Support Broadcast and multicast storm control
> Supports MAC address auto-learning and auto-aging
> 4K MAC address table

### 1.3 Package Contents

> One 16 port Fast Ethernet Unmanaged Ethernet Switch
> A set of installation components
> One AC power cord
> One User Manual

## Chapter 2 External Component Description

### 2.1 Front Panel

The front panel of the Switch consists of $16 \times 10 / 100 \mathrm{Mbps}$ RJ-45 ports and a series of LED indicators as shown as below.


Figure 1 - Front Panel
Fast Ethernet RJ-45 ports (1~16):
Designed to connect to the device with a bandwidth of 10 Mbps or 100 Mbps . Each has a corresponding Fast Ethernet LED.

## LED indicators:

The LED Indicators will allow you to monitor,diagnose and troubleshoot any potential problem with the Switch,connection or attached devices.


Figure 2 - LED Indicators
The following chart shows the LED indicators of the Switch along with explanation of each indicator.

| LED | COLOR | STATUS | STATUS DESCRIPTION |
| :---: | :---: | :---: | :---: |
| Power | green | On | Power On |


|  |  | Off | Power Off |
| :---: | :---: | :---: | :---: |
| LINK/ACT <br> (1~16) | green | Off | A device is disconnected to the port |
|  |  | Flashing | Sending or receiving data |

### 2.2 Rear Panel

The rear panel of the Switch contains AC power connector and one marker shown as below.


Figure 3 - Rear Panel

## AC Power Connector:

Power is supplied through an external AC power adapter.It supports AC 100~240V, $50 \sim 60 \mathrm{~Hz}, 0.3 \mathrm{~A}$.

## Chapter 3 Installing and Connecting the Switch

This part describes how to install your Unmanaged Ethernet Switch and make connections to it. Please read the following topics and perform the procedures in the order being presented.

### 3.1 Installation

Please follow the following instructions in avoid of incorrect installation causing device damage and security threat.
> Put the Switch on stable place or desktop in case of falling damage.
> Make sure the Switch works in the proper AC input range and matches the voltage labeled on the Switch.
> To keep the Switch free from lightning, do not open the Switch's shell even in power failure.
$>$ Make sure that there is proper heat dissipation from and adequate ventilation around the Switch.
$>$ Make sure the cabinet to enough back up the weight of the Switch and its accessories.

### 3.1.1 Desktop Installation

Sometimes users are not equipped with the 19-inch standard cabinet. So when installing the Switch on a desktop, please attach these cushioning rubber feet provided on the bottom at each corner of the Switch in case of the external vibration. Allow adequate space for ventilation between the device and the objects around it.


Figure 4 - Desktop Installation

### 3.1.2 Rack-mountable Installation in 19-inch Cabinet

The Switch can be mounted in an EIA standard-sized, 19-inch rack, which can be placed in a wiring closet with other equipment. To install the Switch, please follow these steps:
a. attach the mounting brackets on the Switch's side panels (one on each side) and secure them with the screws provided.


Figure 5 - Bracket Installation
b. use the screws provided with the equipment rack to mount the Switch on the rack and tighten it.


Figure 6 - Rack Installation

### 3.1.3 Power on the Switch

The Switch is powered on by the AC $100-240 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ internal high-performance power supply. Please follow the next tips to connect:

## AC Electrical Outlet:

It is recommended to use single-phase three-wire receptacle with neutral outlet or multifunctional computer professional receptacle. Please make sure to connect the metal
ground connector to the grounding source on the outlet.

## AC Power Cord Connection:

Connect the AC power connector in the back panel of the Switch to external receptacle with the included power cord, and check the power indicator is ON or not. When it is ON, it indicates the power connection is OK.

### 3.2 Connect Computer (NIC) to the Switch

Please insert the NIC into the computer, after installing network card driver, please connect one end of the twisted pair to RJ-45 jack of your computer, the other end will be connected to any RJ-45 port of the Switch, the distance between Switch and computer is around 100 meters. Once the connection is OK and the devices are power on normally, the LINK/ACT status indicator lights corresponding ports of the Switch.

## Appendix: Technical Specifications

| Hardware Features |  |
| :--- | :--- |
| Standards | IEEE802.3,10Base-T,IEEE802.3u,100Base-TX |
| Network Media (Cable) | 10Base-T: UTP category 3, 4, 5 cable (maximum 100m) <br> 100Base-Tx: UTP category 5, 5e cable (maximum 100m) |
| Number of Ports | 16 Fast Ethernet Auto-Negotiation ports |
| LED <br> indicators | Power |
|  | Link/Act |
| Transfer Method | Power:green |
| Backup Bandwidth |  |
| MAC address table | Store-and-Forward |


| Frame Filtering and <br> Forward Rate | 10Mbps: 14880pps <br> 100Mbps: 148800pps |
| :--- | :--- |
| Environment | Operating Temperature: $0 \square \sim 40 \square$ <br> Storage Temperature: $-40 \square \sim 70 \square$ <br> Operating Humidity: $10 \% \sim 90 \%$ non-condensing <br> Storage humidity: $5 \% \sim 90 \%$ non-condensing |
| Power Supply/Consume | Input: $100-240 \mathrm{~V} \sim 50-60 \mathrm{~Hz}$ 0.3A <br> Consume: 7 W (MAX) |

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