

# UT-6516U & UT-6524

# **10/100M Unmanaged Ethernet Switch**

# **User Manual**

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#### Statement

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Product specifications and information referred to in this Manual are for reference only and subject to updates without notice. Unless otherwise specifically stated, this Manual serves only for giving instructions and all statements and information in this Manual shall not constitute warranty of any kind.

#### Packing List:

The packing box contains the following:

One UT-6516/UT-6524 switch

One AC power cord

One User's Manual

One Warranty Card

Two L-shaped support to be fixed on the base and other accessories

#### Notes:

In case of missing or damage of accessories, please immediately contact the local distributor.

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## **Chapter 1: Introduction to Manual**

Thank you for buying our UT-6516U/UT-6524 self-adaptive Ethernet switch.

The UT-6516U/UT-6524 switch, which is a 10/100M unmanaged Ethernet switch product developed by Shenzhen UTEK Technology Co., Ltd., provides 16/24 self-adaptive RJ45 ports (10/100 M), all of which support wire-speed forwarding and automatic MDI/MDIX function. This series of switches adopts energy-efficient technology, making it available to automatically adjust signal strength through detecting the length of network cable and workload and to effectively reduce energy consumption. The product supports a 19-inch standard base installation. It is unmanaged and plug-and-play.

#### 1.1 Purpose

This Manual is to help users get familiar with and correctly use the UT-6516U/UT-6524 10/100M self-adaptive Ethernet switch.

# **1.2 General Description**

Chapter I: Introduction to Manual;

Chapter II: Product Introduction, provides a brief summary of structure and basic features of the switch;

Chapter III: Installation Guide, helps users during the switch hardware installation process;

Chapter IV: Product Design

Appendix: Detail Technical Data, listing detail technical data of the switch (including physical property, environmental factors, etc.)



# **Chapter2: Product Introduction**

#### 2.1 Product Overview

The UT-6516U/UT-6524 self-adaptive Ethernet switch provides 16/24 self-adaptive ports (10/100 M) for twisted pairs and each port supports automatic MDI/MDIX function. This overcomes the inconvenience in wiring and use, making its installation really "plug and play". Any port of UT-6516U/UT-6524 may be connected to any port on other network device by either straight-through cable or crossover cable.

The UT-6516U/UT-6524 switch adopts energy-efficient technology, making it available to automatically adjust signal strength through detecting the length of network cable and workload and to effectively reduce energy consumption. This series of switches features simple and flexible use, easy installation, excellent performance, and high performance cost ratio, making it the best choice for promoting server speed.

#### 2.2 Performance & Features

Follow the IEEE802.3 10BASE-T Ethernet and IEEE802.3u 100BASE-TX fast Ethernet standards

The 16/24 10/100BASE-T(X) ports supporting UTP/STP can work under FDX or HDX mode.

Support MDI/MDIX function.

Support self-adaptive store-and-forward function to ensure data completeness.

Automatic address learning function

Support IEEE802.3x FDX flow control and forced HDX flow control.

The adopted energy-efficient technique makes it available to automatically adjust signal strength through detecting the length of network cable and workload and to effectively reduce energy consumption.





# **Chapter 3: Installation Guide**

## 3.1 Installation

First, please make sure that the switch installation environment meets the following requirements:

1. The surface holding the switch must be secure enough to support weight of the switch and its mounting accessories;

2. The power socket for power supply shall be within 1.5 m from the power socket of the switch;

3. Make sure there is sufficient space in the ventilation outlet of the switch to ensure good ventilation and heat dissipation;

4. Please install the power socket at accessible positions near the switch to make it easy for operation.

NOTE:

You must use a triplex receptacle with safe grounding and make sure earth wire of the power socket for power supply is reliably grounded. Make sure there is sufficient space for heat dissipation and ventilation for the switch. Do not place anything on the switch.

The UT-6516U/UT-6524 switch may be installed on a 19-inch standard cabinet in compliance with EIA (Electronic Industries Association). Prior to installation, turn off all connected devices. Mount the L-shaped supports onto both sides (one for each side) of front panel of the switch and fix it with screws. Then fix the switch on the switch support with screws.



Fig.3-1: Mount L-shaped support onto the switch





Fig.3-2: Fix the switch onto the cabinet

# 3.2 Initialization

The AC power supply 100~240V/50~60Hz is used for UT-6516U/UT-6524 switch. Connect it to the power cord, insert the plug and turn on the power. After startup, the switch will automatically initialize and the LED lamps will appear as below:

Once the power is on, all indicator lamps will light up for one second and then go out, indicating the reset of the system. The LED power indicator lamp will light up constantly.

NOTE:

If the initialization process is not consistent as described above, please check whether the power supply is connected correctly.



# **Chapter 4: Product Design**

This chapter describes the front panel, rear panel and LED lamps of the switch in detail.

#### 4.1 Front Panel

The front panel of UT-6516U/UT-6524 switch consists of switch model, LED lamps and 16/24 ports (10/100 M).



Fig.4-1 Front Panel of UT-6516U Switch



Fig.4-2 Front Panel of UT-6524 Switch

#### 4.2 Rear Panel

The rear panel of switch has a power socket, AC100~240V/50~60Hz.



Fig.4-3 Rear Panel of UT-6516U/UT-6524

#### 4.3 LED Lamps

The LED lamps include PWR, 100 Mbps and Link/Act. These LED lamps enable easy monitoring and observing the working status of the switch. Description of LED lamps is provided as follows:



	0-0	0.0	000	070	0.0	010	013	015	100Mbps Link ACT
PWR	0 20	040	0.0	0.80	000	010	040	0.10	100Mbps Link ACT

#### Fig.4-4 LED Lamps of UT-6516U Switch

	○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ 100Mbps	
PWR	O O O O O O O O O O O O O O O O O O O	$\sum$
		)

Fig.4-5 LED Lamps of UT-6524 Switch

PWR lamp (power indicator): After the switch power is on, this lamp will light up in a constant red. If this lamp fails to light up, check whether the power has been properly connected.

100 Mpbs lamp (speed indicator): When one port is connected to a 100 Mbps device, the corresponding LED lamp will light up in a constant green. The LED lamp will not light up if one port is connected to a 10 Mbps device.

Link/Act lamp (linkage indicator): When a port is connected to a network device, the corresponding LED lamp will light up in a constant green. After a port is connected, the corresponding LED lamp will flash in green while data is transmitted and received.



#### Appendix: Detailed Technical Data

General Data					
Executive Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3 Frame type: Transparent	Physical Medium	EIA/TIA-568 100Ω STP (100m) 10Base-TX: UTP (max. length=100M), category #5 or above EIA/TIA-568 100Ω STP (100m)		
Protocol	CSMA/CD Ethernet		(10011)		
	Ethernet, Fast Ethernet	Number of Ports	16/24 ports		
Data Transmission Rate	10Mbps (HDX)	Uplink Port	Any one of the ports is available independently as an uplink port.		
	100Mbps (HDX)	LED display	Power indicator, 100Mbps rate indicator, speed indicator, Link/Act indicator		
	20Mbps (FDX)	Transmission Mode	Store-and-forward		
	200Mbps (FDX)	MAC Address Learning	Auto update		
Topological Structure	Star	Packet Filtering Rate	10Base-T: 14880pps/port 100Base-TX:148810pps/port		
Physical Medium	10Base-T: Two UTP (100M), category #3, #4, #5	Forwarding Rate	10Base-T: 14880pps/port 100Base-TX:148810pps/port		

Physical Environment				
AC Input	AC100 ~ 240V/50 ~ 60Hz 0.6A			
Operating Temperature	-10℃ ~ 60℃(14~1400F)			
Storage Temperature	-55℃~150℃(-67~3020F)			
Operating Humidity	5% ~ 90%RH No condensation			
Storage Humidity	0%~90%RH No condensation			