

# **User Manual 5-Port Switch**

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## **Product Introduction**

This 5-Port Network Switch provides you with an economical, high-performance network switching solution for the home or small office. It is designed to make network installations quick and easy. With features such as auto-negotiation, the 5-Port Network Switch offers smooth network migration and easy upgrades to network capacity. The auto-uplink feature offers the users to expand their network with ease.

## **Key Product Features**

- . Five auto-sensing 10/100 Mbps Ethernet ports, using Category 5 (Cat5) unshielded twisted pair (UTP) cable.
- . IEEE 802.3x standard compliant
- . Automatic address learning function to build the packet forwarding information table.
- . Auto-sensing full-duplex or half-duplex mode of operation, Plug and Play installation with no software configuration required.
- . Wire-speed filtering and forwarding to direct traffic to the appropriate port or network segment without speed reduction.
- . Front Panel LED's provide network traffic status and data transmission speed indicators.
- . Five RJ-45 ports on the rear panel, reducing desktop cable clutter
- . Auto-Uplink function simplifies network extension and allows the switch to connect to another switch or hub using a straight-through cable
- . Palm sized case to save space.
- . Iron housing with choice of wall mounting slots or rubber feet.
- . Compliance with the Class B EMI standard to prevent interference with home and business equipment.
- . 3-year warranty.

## **Package contents**

5-Port Network Switch

AC/DC Power Adapter

4 Rubber Feet

Wall Screws

Technical support card and Warranty Card

## Visual Definition

### Front panel

LED	STATUS	CONDITION
Power	On	Switch is receiving power
	Off	Power has been disconnected
100M	On	The connection speed is 100 Mbps
	Off	The connection speed is 10 Mbps
Link	On	Port has established a valid link
	Off	There is no network connection
	Flashing	Data packets being received and sent

### LED

### Rear panel

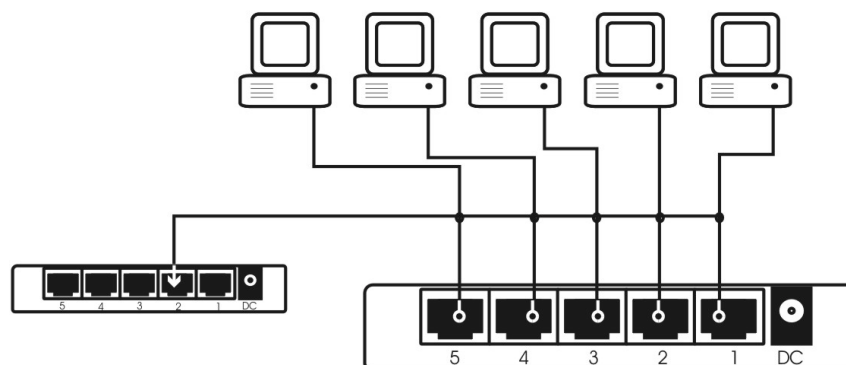
The rear panel of the 5-Port Network Switch has five auto-sensing 10/100 Mbps. Ethernet ports and a power jack for connection of the supplied AC/DC Adapter. The 5-port Network Switch only supports unshielded RJ-45 twisted pair (UTP) cable.

### Pre-installation

Before you install your switch, prepare for the installation. Make sure you will be operating the unit within the specified voltage and temperature limits. To install your switch on a flat surface, simply install the included rubber feet within the outlines on the bottom surface of the unit. Ensure the switch is positioned with at least 50mm of space on all sides for adequate ventilation. To install the switch on a wall, measure the distance between the mounting holes on the back of the switch and mark the wall to match that measured distance. At the marked location, screw into the wall two suitably sized screws. Choose a location that is near the devices to be connected, is close to a suitable electrical outlet, and provides at least 50mm of space all around the switch for ventilation.

## Installation

1. Install a 10/100Mbps (10/100Base-TX) network adapter card into every computer you want to attach to the network. Make sure you install the Network adaptor drivers in accordance with the manufacturers' directions.
2. Prepare the twisted-pair cables with RJ-45 plugs on each end. Use Category 5/5e cable for all connections. Make sure the cable length is less than or equal to no more than 100 meters (328 feet).
3. Attach one end of the cable to the RJ-45 port of the computer's network adapter card and the other end to any available port of the 5-port Network Switch.
4. Locate a suitably switched 120volt AC power outlet to plug in the supplied power pack.
5. Insert the power pack into the power outlet.
6. Connect the cable attached to the power pack adapter to the power inlet on the rear panel of the switch.
7. Typical Network Sample Diagram:



## Checking your installation

When power has been applied to the switch, it will display:

1. The green power LED on the front panel is on.
2. The green Link LED on each connected port is on.

\* When the switch is connected and operating, refer to the table in "LED's" for information about the LED's and their activity.

## **Cascading The Switch**

The 5-port Switch has the ability to detect whether this node is a client or another switch. Using any type of cable the switch can communicate with the other end. Technically speaking Switch has the technology that enables it self to cascade an unlimited amount of times. So Plug and Play comes in and will grant you the access to connect as many switch as you want. Just plug in the cable from one end to the other.

## **Troubleshooting**

LED not lighting up even thou cat5 cable plugged in.

1. Check your power LED. If not lit check power supply.
2. Check your cat5 cables make sure its not broken or mis-paired.
3. Make sure that the computer is turned on and the lights on the back of network card are on.
4. Make sure that the cat5 cable is completely plugged.

If the above methods still have not solved the problem then please contact RMA department to get a replacement.

LED lights up but 1 computer can't see the second computer.

1. Make sure that your network cards are working and properly configured.
2. Unplug the power supply and plugged it back in after 30seconds
3. Are you giving the switch enough space to breath? Make sure there is at least 50mm of space around the switch.

If the above methods still have not solved the problem then please contact RMA department to get a replacement.

## Switch Specifications Sheet

Standard	IEEE802.3 & IEEE 802.3u
Number of ports	5x 10/100Mbps Auto-sensing RJ-45 ports
Data Transfer Rate	Ethernet: 10Mbps (half duplex) 20Mbps (full duplex) Fast Ethernet: 100Mbps (half duplex) 200Mbps (full duplex)
Network Cables	Unshielded twisted-pair cable (UTP cable)
Topology	Star
LED Indicators	
Per Device	Power
Per Port	100Mbps, LINK/ACT
Transmission Method	Store and forward
MAC address table	1K-entry MAC address table
Maximum Forwarding Rate (64byte packets)	14,880 pps/10BASE-T 148,800 pps/100BASE-T
Maximum Filtering Rate (64byte packets)	14,880 pps/10BASE-T 148,800 pps/100BASE-T
Flow control	Pause frame (Full-duplex) Back-pressure (Half-duplex)
Duplex mode	Supports both half-duplex and full-duplex mode
Power Supply	External power adapter, DC 9V, 1000mA
Dimensions	110mm x 70mm x 19mm (L x W x H)
Temperature	
Operating temperature:	0°C to 45°C (32F to 113F)
Storage temperature:	-40°C to 70°C (-22F to 140F)
Humidity	5% to 90% (non-conditioning)
EMI	FCC Class B, CE Mark
Housing	Iron
Buffer Memory	1 Megabyte
MAC address table	Up to 1K

## Cable Specification Sheet

Since the 5-Port Network Switch has the auto uplink function, it does not really matter whether or not the user uses a crossover cable or a straight through cable. As long as the category 5 UTP cable is being used, the 5-Port Network Switch will have no problem with it.

		Standard Straight-Through Cable			
Hub/ Switch side				Adapter side	
Pin #	Pair#			Pin #	Pair#
1. RX+	White-Orange	----->		1. RX+	White-Orange
2. RX-	Orange	----->		2. RX-	Orange
3. TX+	White-Green	----->		3. TX+	White-Green
4. Not Used	Blue	----->		4. Not Used	Blue
5. Not Used	White-Blue	----->		5. Not Used	White-Blue
6. TX-	Green	----->		6. TX-	Green
7. Not Used	White-Brown	----->		7. Not Used	White-Brown
8. Not Used	Brown	----->		8. Not Used	Brown
		Hub-to-Hub Crossover Cable			
Hub/ Switch side				Hub/ Switch side	
Pin #	Pair#			Pin #	Pair#
1. RX+	White-Orange	----->		1. TX+	White-Green
2. RX-	Orange	----->		2. TX-	Green
3. TX+	White-Green	----->		3. RX+	White-Orange
4. Not Used	Blue	----->		4. Not Used	Blue
5. Not Used	White-Blue	----->		5. Not Used	White-Blue
6. TX-	Green	----->		6. RX-	Orange
7. Not Used	White-Brown	----->		7. Not Used	White-Brown
8. Not Used	Brown	----->		8. Not Used	Brown



## Disclaimer

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