



10/100M Fast Ethernet Switch 5/8 port  
RC-405X/RC-406X  
User Manual



## INTRODUCTION

### Fast Ethernet Technology

The growing importance of LANs and the increasing complexity of desktop computing application are fueling the need for high performance networks. A number of high-speed LAN technologies have been proposed to provide greater bandwidth and improve client/server response times. Among them, Fast Ethernet, or 100Base-T provides a non-disruptive, smooth evolution from the current 10Base-T technology. The non-disruptive and smooth evolution nature, and the dominating potential market base, virtually guarantee cost effective and high performance Fast Ethernet solutions in the years to come.

100Mbps Fast Ethernet is a new standard specified by the IEEE802.3 LAN committee. It is an extension of the 10Mbps Ethernet standard with the ability to transmit and receive data at 100Mbps, while maintaining the CSMA/CD Ethernet protocol. Since the 100Mbps Fast Ethernet is compatible with all other 10Mbps Ethernet environments, it provides a straightforward upgrade and takes advantage of the company's existing investment in hardware, software, and personnel training.

### Switching Technology

Another approach to pushing beyond the limits of Ethernet technology is the development of switching technology. A switch bridges Ethernet packets at the MAC address level of the Ethernet protocol transmitting among connected Ethernet or Fast Ethernet LAN segments.

Switching is a cost-effective way of increasing the total network capacity available to users on a local area network. A switch increases capacity and decreases network loading by making it possible for a local area network to be divided into different segments which don't compete with each other for network transmission capacity, giving a decreased load on each.

The switch acts as a high-speed selective bridge between the individual segments. The switch automatically forwards traffic that needs to go from one segment to another, without interfering with any other segments. This allows the total network capacity to be multiplied, while still maintaining the same network cabling and adapter cards.

For Fast Ethernet networks, a switch is an effective way of eliminating problems of chaining hubs beyond the "two-repeater" limit. A switch can be used to split parts of the network into different collision domains, making it possible to expand your Fast Ethernet network beyond the 205 meters network diameter limit for 100BASE-TX networks. Switches supporting both traditional 10Mbps Ethernet and 100Mbps Fast Ethernet are also ideal for bridging between existing 10Mbps networks and new 100Mbps networks.

Switching LAN technology is a marked improvement over the previous generation of network bridges, which were characterized by higher latencies.

### Features

- Simple plug & play installation and use
- Easy to use with built-in error detection and correction
- Suitable for desktop use and ideal for Small Office, Home Office
- 5/8-port N-way(auto-negotiation) 10/100Mbps fast Ethernet switching hub

- Store-and-forward switching improves overall network performance
- Supports full-duplex switching bandwidth modes, allowing data rates of 10, 20 and 100Mbps
- Full-duplex transfer mode / half-duplex adaptive
- Provides packet switching functions between all sixteen 10/100Mbps Ethernet ports
- 10/100Mbps auto-sensing and negotiation allows flexibility between network devices
- Wire-speed forwarding: 148,800pps/100Mbps and 14,880pps/10Mbps
- High-performance memory bandwidth and expansion bus
- Supports the spanning tree protocol, eliminating network loops
- Supports broadcast storm control function
- Supports port trucking and load sharing for high-performance servers and inter-switch links. Provides a convenient uplink port for cascading hubs
- Auto-partitioning and data collision control
- Auto-polarity detection

## Specification

- Network standards: IEEE 802.3, IEEE 802.3u, IEEE 802.3x
- Interface Media 10Base-T: 3 or 3 more than UTP, 100Base-TX: 5 types of UTP
- Instructions for each panel port: Link / Act (to connect / work), 10/100Mbps (speed), other: Power (Power)
- Environmental standard operating temperature: 0 °C -40 °C, Storage temperature: -40 °C -70 °C, Operating Humidity: 10% -90% RH non-condensing,
- Storage humidity: 5% -90% RH non-condensing
- Dimensions (mm): 5-port: 91.5(L)\*82(W)\*27(H) mm  
8-port: 163(L)\*95(W)\*28(H) mm
- Power Supply: 9V 0.5A

## Figures of Product

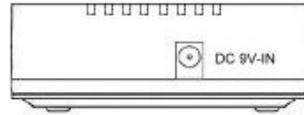
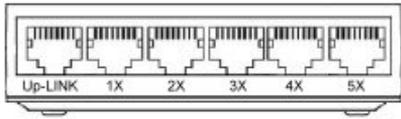
### Front Panel

The unit front panel provides a simple interface monitoring the Switch. It includes a power led and 5/8 led indicator for each port.

• Rear Panel

• Side Panel

**5-port**



### 5-port Switch's Uplink Port

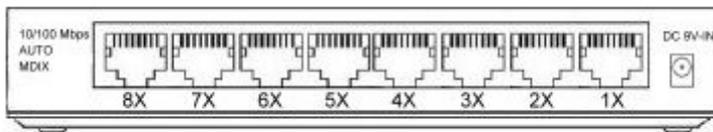
An uplink port is simply an Ethernet port where the Receive (Rx) and the Transmit (Tx) signals are swapped by crossing the Transmit and Receive twisted-pair wires.

This will let the Transmit signal (and twisted-pair) on RC-405X correctly connect to the Receive connection on the other device and vice-versa, allowing for stacking similar devices, or simply expanding the number of ports.

**NOTE TO USERS OF 10/100 5-PORT SWITCH:** If you connect a router or additional switch to the Uplink port, then you cannot use the numbered port next to the Uplink port (port 1X on the 5-Port Switch will be inactive). The two ports are wired together, so they cannot be used simultaneously.

#### • Rear Panel

### 8-port



5/8-Port Switch indicates a DC (9V) inlet, which accepts 100-240V 50-60Hz power adapter.

### Mounting 8 Port Switch On A Wall

The 8-port 10/100Mbps Switch can also be mounted on a wall. Four mounting slots are provided on the bottom of the switch for this purpose. Please make sure that the front panel is exposed in order to view the LEDs. Please refer to the illustration below:

#### 1. Mounting on a cement wall

1. Mount the Nylon screw anchors into a cement wall.
2. Drive the T3x15L screws into the Nylon screw anchors
3. Hook the mounting holes of the switch back on the screws; you have completed the wall-mount

#### 2. Mounting on a wood wall

1. Drive the T3x15L screws into the wood wall.
2. Hook the mounting holes of the switch back on the screws; you have completed the wall-mount

#### 3. Note: For the minimum length of the screws

1. 3/4 inch minimum for wood wall.
2. 3 inch minimum for cement wall.

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