

palm Switch 500

5 Port 10/100 Base-TX Switch
with Auto MDI/MDI-X



User Guide

Lantech Communications Inc.

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1. Introduction

Welcome to the World of Mini-Networking.

In the modern business society, communication and sharing information is crucial. Computer networks have proven to be one of the fastest modes of communication.

Lantech palm Switch 500 is compacts and attractively designed for desktop use. It is an ideal solution for small office or SOHO network user. The Switch provides wire-speed, Fast Ethernet switching function that allows high-performance, low-cost connection.

Palm Switch 500 will automatically detect the speed of the device that you plug into it to allow you to use both 10 and 100Mbps device. It features a store-and-forward switching and it can auto-learn and store source address.

• Features

- Conforms to IEEE 802.3, 802.3u and 802.3x standard
- 5-Port 10/100M Fast Ethernet Switch
- Auto MDI/MDI-X for cascading
- N-way auto-negotiation supported
- Half-duplex for backpressure, full-duplex for flow control
- Store-and-forward switching architecture
- MAC address table : 1K
- Memory buffer sharing : 128K bytes
- LED indicators : Power, LK/ACT, FDX/COL,100
- External power supply

• Size:

- 128mm(W) x 65mm(D) x 23mm (H) Palm size

•Package Contents

- palm Switch 500 (5 Port Switch)
- Rubber Feet
- One DC power adapter
- User's Guide



- 5TP Auto MDI/MDI-X Switch



- Rubber Feet



- DC power Adapter

- User's Guide

Figure 1-2. Package Contents

Compare the contents of your Palm Switch 500 with the standard checklist above. If any item is missing or damaged, please contact your local dealer for service.

2. Hardware Description

This section mainly describes the hardware of the Lantech palm Switch 500

The physical dimensions of the 5-Port Switch is:
128mm(W) X 65mm(D) x 23mm(H)

• Front Panel

The LED indicators are located on the front panel of the Switch. They provide a real-time indication of systematic operation status. The Front Panels 8-Port Switch is displayed in the following figures.

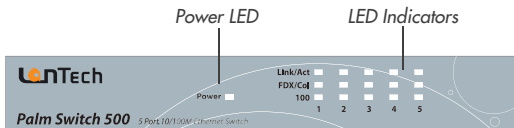


Figure 2-1. The Front Panel of Palm Switch 500

• LED Indicators

The following table provides descriptions of the LED statuses and their meaning.

LED	Status	Color	Description
Power	On	Green	The power of the Switch is On
LNK/ACT	On	Green	The port is successfully connecting with the device.
	Blinks		The port is receiving or transmitting data.
	Off		No device attached.
FDX/COL	On	Green	The port is operating in Full-duplex mode.
	Blinks		Collision of Packets occurs in the port.
	Off		Half-duplex mode.
100	On	Green	In 100Mbps mode
	Off		In 10Mbps mode

•Rear Panel

The Rear Panel of the palm Switch 500 consists of 5x 10/100 N-Way UTP switch ports, and one DC power connector.

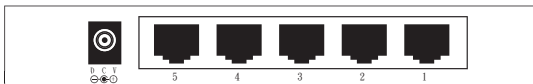


Figure 2-2. The Rear Panel of the 5-Port Switch

- RJ-45 Ports:
5x 10/100N-Way auto-sensing for 10Base-T or 100Base-TX connection.
- Auto MDI/MDI-X:
It can detect the cable straight connect NIC or cascade to a hub or switch without change the connector, the maximum distance between the Switch to another device is 100 meters.
- DC Power Connector:
Plug DC Power Adapter's female end into this device, and the male end of the DC Power Adapter into a power outlet. The Adapter supply the Switch with Voltage 7.5V, Current 1000mA.

3. Network Application

This section provides you a few examples of network topology in which the palm Switch 500 is used, the Switch is design to be used as a desktop or segment switch.

The switch automatically learns node address, which are subsequently used to filter and forward all traffic based on the destination address.

•Stand Alone

The Palm Switch 500 is designed to be a compact desktop size switch, which is an ideal solution for small workgroup. The Switch can be used as a standalone switch to which personal computers, server, printer server are directly connected to form small workgroup.

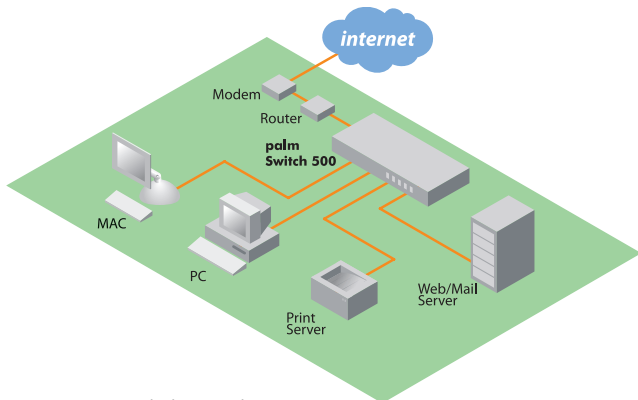


Figure 3-1. Stand Alone Application

•Enlarge Your Network

You can use Uplink port of the Palm Switch 500 to connect with another hub or switch to interconnect each of your small switched workgroup to form a large switched network.

You can connect anyone switch port to hub or switch without crossover cable by the Auto MDI/MDI-X function.

In the below illustration, two Switches are used to interconnect two small workgroup. All the devices in this network can communicate with each other. Connecting servers to the Switch allow other users to access the server's data.

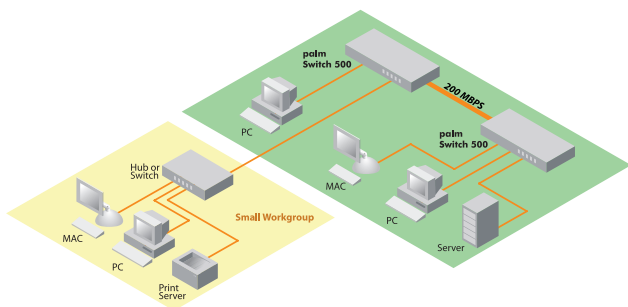


Figure 3-2. Example of enlarging your network

4. Trouble Shooting

The Palm Switch 500 can be easily monitored through panel indicators to assist in identifying problems. This section describes common problems you may encounter and where you can find possible solutions.

•Diagnosing LED Indicators

If Link indicator does not light up after making a connection, you may check whether network interface (e.g., a network adapter card on the attached device), network cable, or switch port is defective or not. Be sure the cable is plugged into both the Switch and corresponding device. Verified the proper cable type is used and its length does not exceed specified limits.

•Power

If the power indicator does not turn on when the power cord is plugged in, you may have a problem with power outlet, or power cord. However, if the switch powers off after running for a while, check for loose power connection, power losses or surges at power outlet. If you still cannot resolve the problem, contact your local dealer for assistance.

•Cabling

RJ-45 Ports: Use unshielded twisted-pair (UTP) or shield twisted-pair (STP) cable for RJ-45 connections: 100 Ω Category 3,4 or 5 Cable for 10Mbps connections or 100 Ω Category 5 Cable for 100Mbps connections. Also be sure that the length of any twisted-pair connection does not exceed 100 meters (328 feet).

5. Technical Specification

This section provides the specifications of the palm Switch 500 :

• Specification

Standards Compliance	IEEE 802.3 10BASE-T Ethernet, IEEE 802.3u 100BASE-TX Fast Ethernet ANSI/IEEE standard 802.3 N-Way auto-negotiation
Protocol	CSMA/CD
Max Forwarding Rate and Max Filtering Rate	14,880 pps Ethernet port, 148,800 pps per Fast Ethernet port
LED Indicators	Per Port: Link/Activity, Full/Collision Per Unit: Power
Network Cables	10Base-T: 2-pair UTP Cat. 3, 4, 5 cable (100m), EIA/TIA-568 100-ohm STP (100m) 100Base-TX: 2-pair UTP Cat. 5 cable (100m), EIA/TIA-568 100-ohm STP (100m)
Dimensions	128mm x 65mm x 23mm (W x D x H)
Operating Temperature	0°C to 45°C (32°F to 113°F)
Operating Humidity	10% to 90% (Non-condensing)
External Power Supply	DC 7.5V, 1000mA
Power Consumption	4.2 Watt
EMI	FCC Class B, CE Mark

• **Federal Communications commission (FCC) Statement**

This Equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

• **Warning:**

[A shielded-type power cord is required in order to meet FCC emission limits and also prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used.]

[Use only shielded cables to connect I/O device to this equipment.]

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.



LanTech
COMMUNICATIONS

Lantech Communications Inc.

3F, No.8, Lane 345, Yang-Kuang St.,
Nei-Hu Dis., 114, Taipei, Taiwan, R.O.C.

tel: +886-2-2659-1800

fax: +886-2-2659-1801

e-mail: service@mail.lantech.com.tw

<http://www.lantech.com.tw>