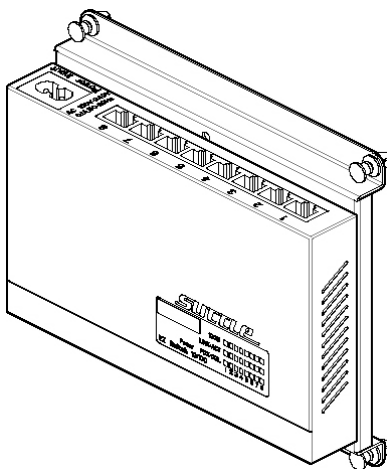


SUTTLE

SAM-SW8U

8-port 10/100 Ethernet Switch

User Guide



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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.

The 8-Port switches are compact and attractively designed for desktop use. They are an ideal solution for the home or small office network user. The switches provide a Fast Ethernet switching function that allows a high-performance, low-cost connection.

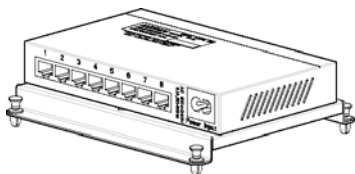
The switches will automatically detect the speed of the device that you plug into it to allow you to use both 10 and 100Mbps devices. They feature store-and-forward switching and can auto-learn and store source addresses on a 2K-entry MAC address table with 768Kbits memory buffer sharing.

Features

- Conforms to IEEE 802.3, 802.3u and 802.3x standard
- 8-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
- 2K-entry MAC address table for 8-Port Switch
- 768Kbits memory buffer sharing for 8-Port Switch
- LED indicators for Power, LK/ACT, FDX/COL, 100M
- Internal Power AC100~240V 50/60Hz
- 164mm(W) x 100mm(D) x 26mm (H) Palm size

Package Contents

- 8-Port Switch
- 8 CAT5e RJ45 Patch Cords
- User's Guide
- Power cord



8TP Auto MDI/MDI-X Switch



8 – CAT.5e Patch Cords, 12in.



Power Cord



User's Guide

Figure 1-2. Package Contents

Compare the contents of your 8-Port switch 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 8-Port switch.

The physical dimensions of the 8-Port switch are:
164mm(W) x 100m(D) x 26mm(H)

Top View

The LED indicators are located on the top-view of the switch. They provide a real-time indication of systematic operation status. The top-view of the 8-Port switch is displayed in the following figure.

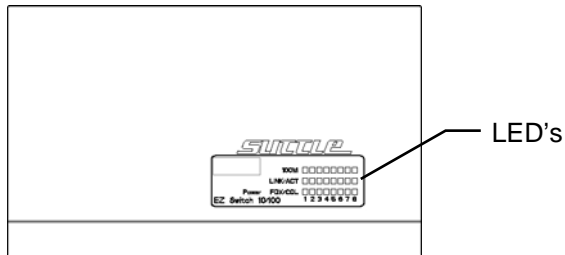


Figure 2-2. Top View of the 8-Port Switch

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	Green	The port is receiving or transmitting data.
	Off		No device attached.
FD/ COL	On	Yellow	Full Duplex Mode
	Blinks		Collision Mode
100M	On	Green	Link on 100Mbps

Rear View

The rear panel of the 8-Port switch consists of 8 – 10/100N-Way UTP switch ports, and one DC power connector.

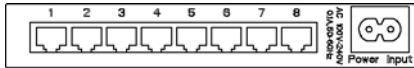


Figure 2-4. Rear panel of the 8-Port Switch

- **RJ-45 Ports:** 8 – 10/100 N-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 changing the connector, the maximum distance between the switch and another device is 100 meters.

3. Network Application

This section provides you a few examples of network topology in which the 8-Port switch can be used. The switch is designed to be used as a desktop or segment switch.

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

Stand Alone

The 8-Port switch is designed to be a compact switch, which is an ideal solution for a home or small workgroup. The switch can be used as a standalone switch to which personal computers, servers, and printer servers are directly connected to form small workgroups.

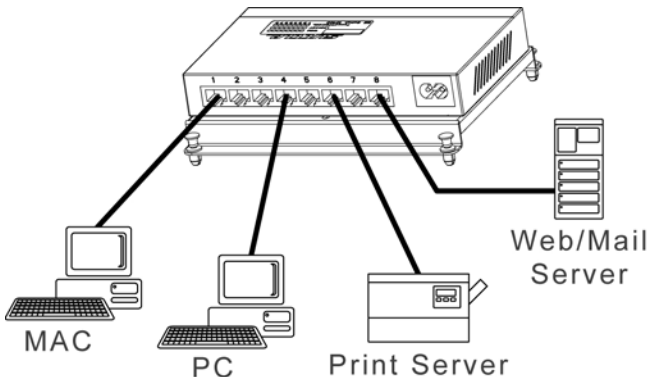


Figure 3-1. Stand Alone Application

Enlarge Your Network

You can use the Uplink port of the 8-Port switch to connect with another hub or switch to interconnect each of your small-switched workgroups to form a large switched network.

You can connect any one switch port to a hub or switch without a crossover cable by the use of the Auto MDI/MDI-X function.

In the below illustration, two switches are used to interconnect two small workgroups. All the devices in this network can communicate with each other. Connecting a server to the switch allows other users to access the server's data.

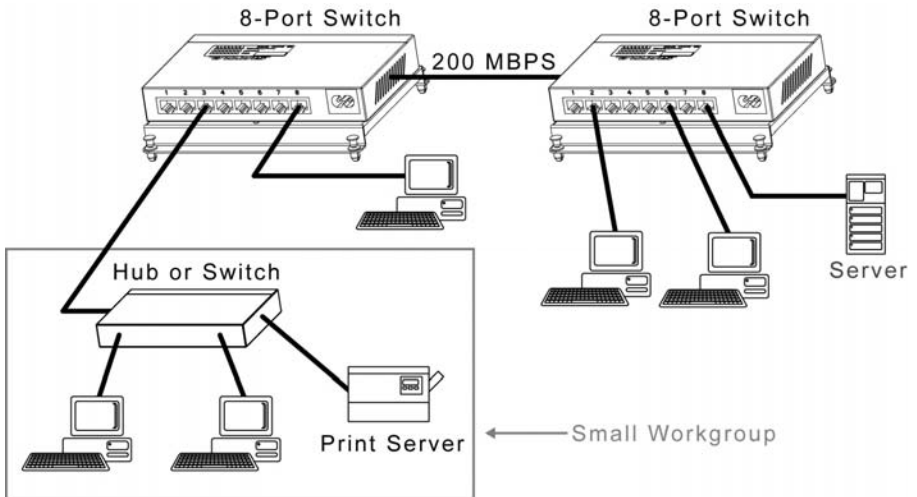
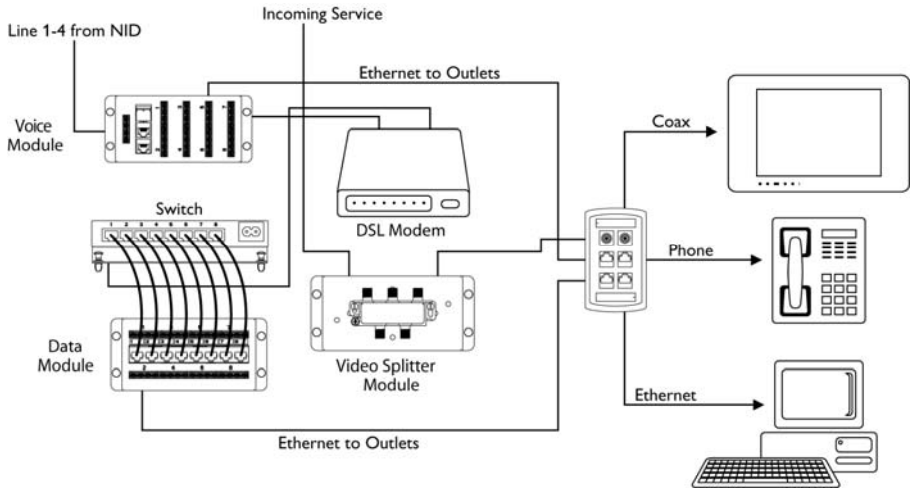


Figure 3-2. Example of enlarging your network

Typical Module Wiring Configuration



4. Trouble Shooting

The switch 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 the link indicator does not light up after making a connection check to see if the network interface (e.g., a network adapter card on the attached device), network cable, or switch port is defective. Be sure the cable is plugged into both the switch and corresponding device. Verify that 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 the power outlet or power cord.

However, if the switch powers off after it has been running, check for a loose power connection or power losses or surges at the 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 shielded twisted-pair (STP) cable for RJ-45 connections: 100Ω Category 3,4,5,5e or 6 Cable for 10Mbps connections or 100Ω Category 5, 5e or 6 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 8-Port Switch:

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, 100M Per Unit: Power
Network Cables	10Base-T: 2-pair UTP Cat. 3, 4, 5, 5e, 6 cable (100m), EIA/TIA-568 100-ohm STP (100m) 100Base-TX: 2-pair UTP Cat. 5, 5e, 6 cable (100m), EIA/TIA-568 100-ohm STP (100m)
Dimensions	164mm x 100mm x 26mm (W x D x H)
Operating Temperature	0°C to 45°C (32°F to 113°F)
Operating Humidity	10% to 90% (Non-condensing)
Power Supply	AC 100~240V 50/60Hz
Power Consumption	4 Watt for 8-Port Switch
EMI	FCC Class B, CE Mark
Safety	UL

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

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