MiLAN TECHNOLOGY

MIL-S800 User's Guide

8 port 10/100BASE-TX Switch

Regulatory Approval

- FCC Class A
- UL 1950
- CSA C22.2 No. 950
- EN 60950
- CE
  - EN 55022 Class B
  - EN 55024

Canadian EMI Notice

This Class A digital apparatus meets all the requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numerique de la classe A respecte toutes les exigences du Reglement sur le materiel brouilleur du Canada.

European Notice

Products with the CE Marking comply with both the EMC Directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community Compliance with these directives imply conformity to the following European Norms:

- EN 55022 (CISPR 22) - Radio Frequency Interference
- EN 61000-X - Electromagnetic Immunity
- EN 60950 (IEC 950) - Product Safety

Five-Year Limited Warranty

MiLAN Technology warrants to the original consumer or purchaser that each of its products, and all components thereof, will be free from defects in material and/or workmanship for a period of five years from the original factory shipment date. Any warranty hereunder is extended to the original consumer or purchaser and is not assignable.
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Trademarks

To Contact MiLAN Technology

For prompt response when calling for service information, have the following information ready:

- Product serial number and revision
- Date of purchase
- Vendor or place of purchase

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Chapter 1 Introduction

1-1 General Description

The MIL-S800 switch provides eight switched autosensing 10/100Mbps RJ45 Ethernet ports. This high performance, low cost, wire speed desktop switch is ideal for any network where 8 ports are needed, for a solution to an enterprise need or for a home network. The MIL-S800 can be mounted on the wall with keyholes in the chassis or magnetically attached to any metal surface.

1-2 Key Features

- Compliant with IEEE 802.3, 802.3u & 802.3x standards
- 8 Auto-sensing RJ-45 ports for 10BASE-T or 100 BASE-TX connections
- Embedded 8K entry MAC address table
- 256Kbyte DRAM memory buffer sharing
- Store-and-Forward operation support
- Full Duplex and half duplex flow control
- Plug-and-Play configuration auto addresses learning
- LED indicators for power, link speed 100Mbps, link and activity, full duplex and collision
- Space-saving compact size
- Wall or desktop mountable
- Magnets provide installation on any metal surface

1-3 Package Contents

Your package contents should include the following parts:

- One 8-port Auto-sensing switching Hub
- One DC power adapter
- This User's Guide
- Four rubber feet with adhesive pads
- Two magnets
- Warranty card

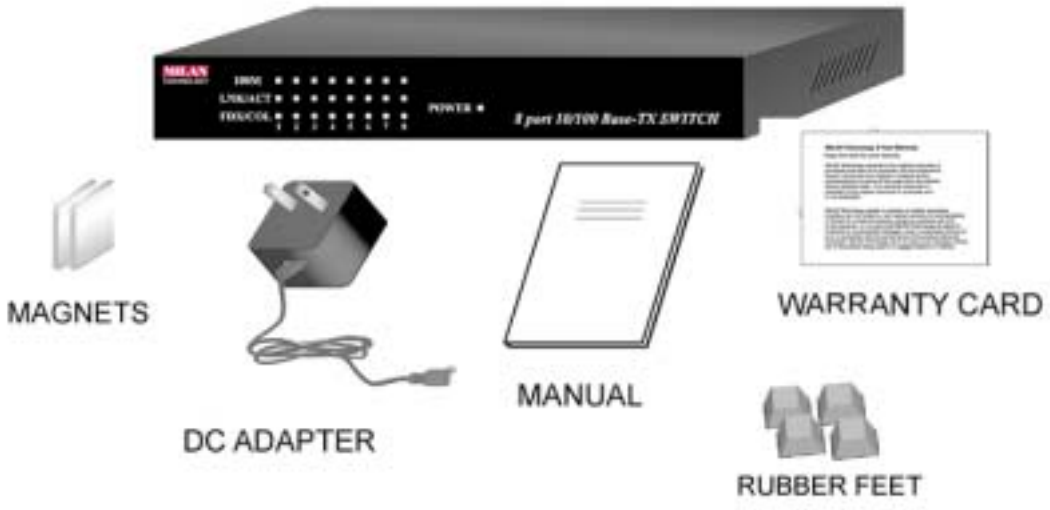

Figure 1. Package contents

1-4 Hardware Description

The Front Panel

The front panel contains power and LED Indicators.

Figure 2. Front panel view of the MIL-S800

Front panel LED Indicators

Per Device	Power
Per Port	100Mbps (Link on 100Mbps)
	LNK/ACT (Link/Activity)
	FDX/COL (Full duplex/Collision)

For LED details, please refer to Chapter 2, LED Descriptions.

The Rear Panel

The rear panel of the MIL-S800 consists of a DC power connector, 8 auto-sensing ports and 1 additional uplink port.

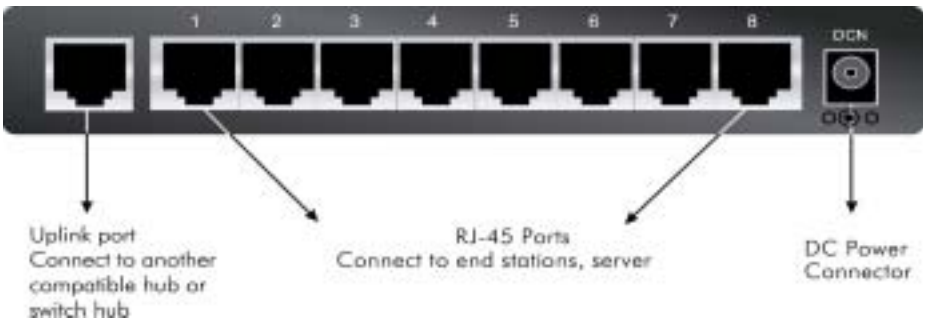

Figure 3. Rear panel view of the MIL-S800

· Eight Auto-sensing RJ-45 ports for 10BASE-T or 100 BASE-TX connections.

· One uplink port for connection to another switch or hub.

· DC Power Connector.

Chapter 2 Hardware Installation

2-1 Quick Installation

- The MIL-S800 should be placed in a well-ventilated room with proper temperature and humidity.
- Do not place the unit near water.
- The maximum distance between the port to the standard network interface is 100 meters.
- For desktop installation, ensure the surface is clean, smooth, level and sturdy. Apply self-adhesive rubber feet to the bottom of the switch near the corners.
- For wall installation, place two screws securely into the wall. Slide the cross recesses on the bottom of the MIL-S800 onto the screws.
- For mounting the MIL-S800 on a metal surface, install magnets as shown in instructions and apply to surface.
- Visually check that the power cord is not damaged. Plug the female end of the cord into the rear of the MIL-S800 and the male end (power converter) into a power outlet.

- Do not plug a phone jack connector into any RJ-45 port. This may cause damage. Use only twisted-pair cables with RJ-45 connectors that conform to FCC standards.

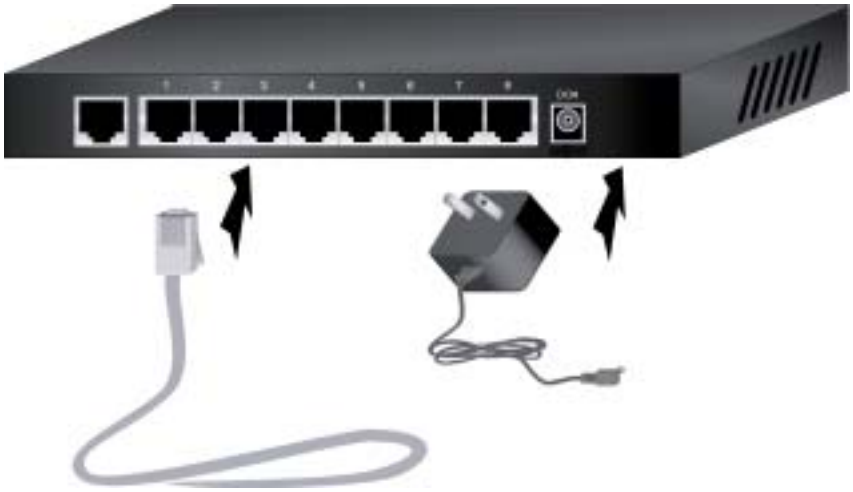

Figure 4. Installation of switch

2-2 LED Descriptions

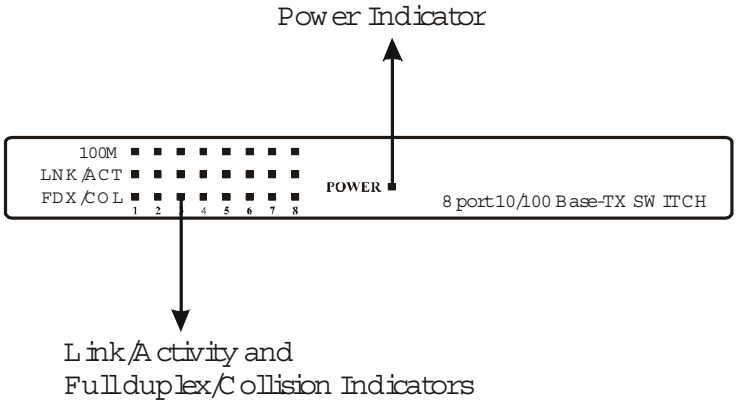

Figure 5. Front panel view of LED indicators

The following table lists the LEDs and their function.

LED	Status	Color	Indication
Power	On	Green	The switch is powered.
100Mbps	On	Green	The port is operating at 100Mbps.
	Off		The port is operating at 10Mbps.
LNK/ACT	On	Green	The port is successfully connected to a device.
	Blinking	Green	The port is receiving or transmitting data.
	Off		No operating device is connected.
FDX/COL	On	Yellow	The port is in full duplex mode.
	Blinking	Yellow	A packet collision has occurred on this port.
	Off		The port is operating in half duplex mode.

Chapter 3 Network Application

3-1 Stand Alone

The application of a simple standalone switch is illustrated below. The maximum distance between the switch and the workstation is 100 meters.

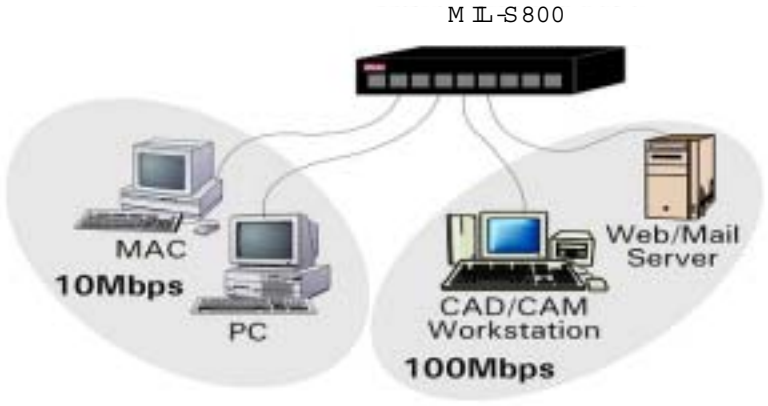

Figure 6. The switch as a backbone for a small 10/100BASE-TX network

3-2 Uplink

You can use the uplink port to cascade the MIL-S800 to another hub or a switch without using a crossover cable. The uplink port is shared with port 1. Only one of these ports can be used at any one time.

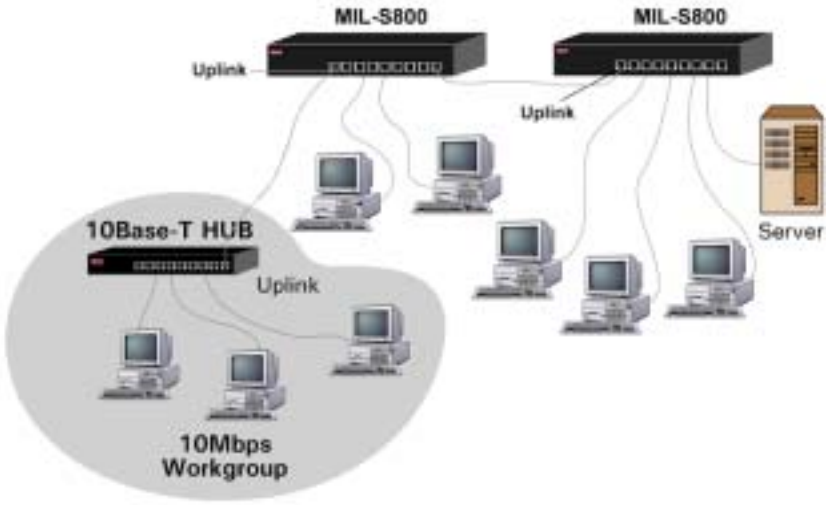

Figure 7. Small Network

Note: Either "port 1" or "uplink port" can be used. They do not work concurrently.

Chapter 4 Troubleshooting

- Power

  If the power indicator is not on after the power cord is plugged in, check the power outlet or power cord. If you lose power after the switch has been operating for some time, check for loose power connections, power losses or surges at the power outlet. Disconnect and reconnect the power. If the problem persists, contact MiLAN Technical Support.

- Cabling

  Verify that the cabling type is correct. Be sure all cable connectors are securely seated in the required ports. Use standard unshielded twisted-pair (UTP), Category 3, 4, or 5 cables. Use only Category 5 when there is a Fast Ethernet connection. Make sure the distance between the MIL-S800 and the workstation, is less than 100 meters.

Chapter 5 Product Specification

5-1 General Specification

Standard Compliance	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet
Number of Ports	8 10/100M bps Auto-sensing RJ-45 ports 1 uplink port (used instead of port 1)
Data Transfer Rate	Ethernet: 10M bps (half duplex) 20M bps (full duplex) Fast Ethernet: 100M bps (half duplex) 200M bps (full duplex)
Network Cables	Unshielded twisted-pair cable
LED Indicators	
Per Device Per Port	Power 100M bps, LNK/ACT, FDX/COL

5-2 Performance Specification

Transmission Method	Store and forward
MAC address table	8 K entry MAC address table
Maximum Forwarding Rate (64byte packets)	14,880 pps /10 BASE-T 148,800 pps /100BASE-TX
Maximum Filtering Rate (64byte packets)	14,880 pps /10BASE-T 148,800 pps/100BASE-TX
Duplex mode	Supports both half and full duplex mode

5-3 Physical & Environmental Specification

Power Supply	External power adapter, DC 9V, 800mA
Dimensions	165mm x 100mm x 25mm (L x W x H)
Temperature	Operating temperature: 0C to 65C (32F to 140F) Storage temperature: -30C to 60C (-22F to 140F)
Humidity	10% to 90% (non-condensing)
EMI	FCC Class B, CE mark


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