SIGNAMAX
CONNECTIVITY SYSTEMS

Signamax Connectivity Systems
Gigabit Fiber Ethernet Adapter
Model 098-2000SX

U s e r ' s
G u i d e

Signamax Connectivity Systems

**Gigabit Fiber Ethernet Adapter
Model 098-2000SX**

User's Guide

Preface

This manual describes how to install and use the Signamax 098-2000SX Gigabit Fiber Ethernet Adapter, a high-performance network interface card for 32 and 64 bit PCI buses. Delivering a fully scalable solution, this adapter fully complies with IEEE802.3z 1000BaseSX/LX standards, and auto-negotiates duplex modes. There are more enhanced features added to this adapter, and it certainly satisfies the demands of today's high-end servers and workstations.

To get the most out of this manual, you should have an understanding of Ethernet networking concepts.

In this manual, you will find:

- Introduction on the Signamax 098-2000SX Gigabit Fiber Adapter
- Product features
- LEDs functions
- Installation instructions
- Specifications

Table of Contents

Product Overview

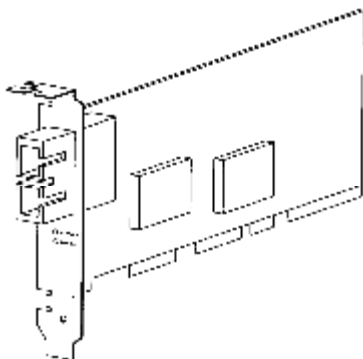## Gigabit Fiber Ethernet Adapter

Figure 1: Gigabit Fiber Adapter with SC connector, featuring two LEDs

Package Contents

When you unpack the product package, you shall find the items listed below. Please inspect the contents, and report any apparent damage or missing items immediately to your authorized reseller.

> **P** *This Adapter*
> **P** *User's Manual*
> **P** *Software Diskette*

Product Features

- Provides one SC port.
- Provides status LEDs.
- Supports half-duplex or full-duplex operation for up to a 2 Gbps data transfer rate.
- Supports PCI bus clock speeds up to 66MHz.
- Jumbo Frame support boosts throughout for bulk data transfers.
- Low CPU utilization:
  Intelligent interrupt management and TCP/IP checksum off-loading reduces CPU utilization for better efficiency.
- Independent receive and transmit buffers stream data to and from memory.
- Supports both 32-bit and 64-bit Bus Master operation.
- Compliant with PCI plug-and-play.
- Compliant with IEEE 802.3z 1000BaseSX, IEEE802.3x Flow Control, IEEE802.1p Quality of Service, IEEE802.1Q Tagged VLAN.
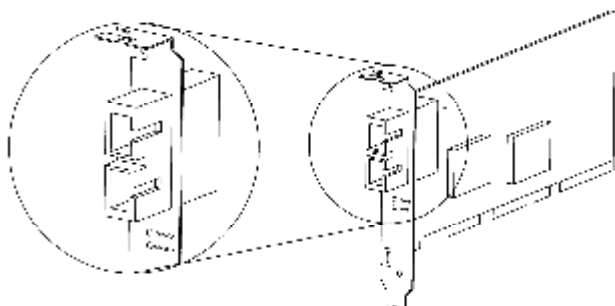- Compliant with Revision 2.2, PCI Specifications.

Enhanced Features

- Supports IEEE 802.1Q Tagged VLAN.
- Supports IEEE 802.1p Quality of Service (QoS) priority queuing.

Driver Support

- NDIS drivers for Microsoft Windows 95/98, Windows NT4.0, 2000, ME.
- Novell Netware Server 4.2 and 5.1.
- Linux driver. (KERNEL 2.2.x and 2.4.x)
- Year 2000 compliant.

LED Status Indicators

- **FDX/COL** Full-duplex/Collision

, **LNK/ACT** Link/Activity

LEDs	Status	Indication
FDX/COL	Steady	Full-duplex mode.
	Off	Half-duplex mode.
	Flashing	Collision.
LNK/ACT	Steady	A valid network connection established. LNK stands for LINK.
	Flashing	Transmitting or receiving data. ACT stands for ACTIVITY.
	Off	Disconnection.

Installation

Installing Adapter into PCI slot

Step 1: Turn off the power to the PC.

Step 2: Remove any metal decorations from your hands and wrists.

Step 3: Remove the cover from your PC.

Step 4: Locate an empty, non-shared bus mastering 32-bit and 64-bit PCI slot and remove the corresponding backplate. Save the screw for use in Step 6.

i

i.   Do not install the adapter in a shared PCI slot. Avoid any PCI slot next to an ISA slot because this is often a shared slot and does not support bus mastering.

ii.   If you have problems in identifying a suitable slot, check your PC documentation or ask your system administrator for help.

Step 5: Carefully insert the adapter into the chosen slot and press firmly with proper alignment to ensure it is fully seated in the slot.

Step 6: Secure the adapter with the screw you saved in step 4.

Step 7: Replace the PC cover.

Step 8: Proceed to the "Connecting to Your Network" section.

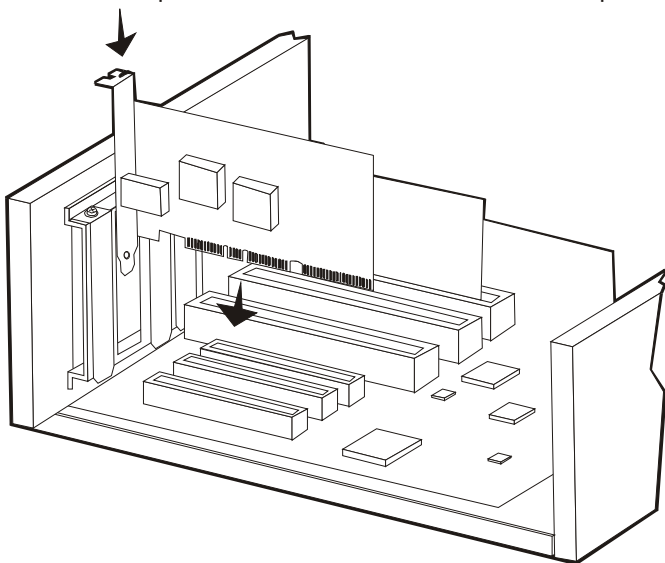Insert the adapter into PCI slot and screw it onto backplate

Figure 2: Installing the adapter into a suitable PCI slot

i   Always ensure the power is turned off before any installation to avoid electric shock and possible damage to the equipment.

Connecting to Your Network

This section describes how to connect the adapter to a fiber wire-based Gigabit Fiber Ethernet network, which contributes to its optimal performance.

i   You must connect the adapter to the network before installing the network driver.

Step 1: Remove the protective covers from the adapter's connector.

Step 2: Prepare a Fiber network cable with corresponding SC connectors for the two end devices, one end to the adapter and the other to a SC port on the Gigabit switch.

Step 3: Connect the fiber cable to the connector on the adapter.

Step 4: Connect the other end of the network cable to a Gigabit switch.

Step 5: When the cable is properly connected to the two end devices, turn on the power to the PC.

Step 6: Check the LNK/ACT (Link/Activity) LED. The LED will come on when the adapter is receiving a good link signal from the connected device.

Step 7: Proceed to the next section for instructions on installing the network driver.

Loading Network Drivers

The adapter supports a wide range of drivers for commonly used network operating systems. The following drivers are provided in the diskette enclosed in the product package.

- NDIS drivers for Microsoft Windows 95/98, Windows NT4.0, 2000, ME.
- Novell Netware Server 4.2 and 5.1
- Linux driver. (KERNEL 2.2.x and 2.4.x)

Step 1: Find the suitable network driver for the platform that you are using.

Step 2: Follow the step-by-step instruction in the text file to load the driver. For Windows 95, 98 or NT, it takes only a few mouse clicks to complete the driver installation for the adapter.

Specifications

Applicable Standards	IEEE 802.3z 1000BaseSX/LX
	IEEE 802.3x Flow Control
	IEEE 802.1p Quality of Service
	IEEE 802.1Q Tagged VLAN
	PCI Specifications Revision 2.2
Speed	
1000BaseSX/LX:	2000 Mbps full-duplex; 1000 Mbps half-duplex
Performance	1,488,000 pps for 1000 Mbps
Cable Requirements	
1000BaseSX	62.5/125um Multi-Mode fiber-optic cable, up to 220m
1000BaseSX:	50/125um Multi-Mode fiber-optic cable, up to 550m
1000BaseLX :	10/125um Single-Mode fiber-optic cable, up to 20km

LED Indicators	FDX (Full-duplex) / COL (Collision)
	LNK (Link) / ACT (Activity)
Dimensions	165 mm × 80 mm
Net Weight	70g approx.
Power Consumption	5VDC, 900mA, 5W max.
Operating Temperature	0°C to 40° C (32°F to 104°F)
Storage Temperature	-25°C to 70°C (-13°F to 158°F)
Humidity	10%-90% non-condensing
Emissions	FCC part 15 Class B,
	CE Mark Class B, VCCI Class B

Contact Informations

SIGNAMAX CONNECTIVITY SYSTEMS
An AESP Company
1810 N.E. 144th Street.
North Miami, Florida 33181, U.S.A.
Phone: 305-944-7710 Fax: 305-652-8489
Sales: 800-446-2377 Tech. Support: 800-446-2377, ext. 201
Http:\\www.signamax.com
E-mail: info@signamax.com

EUROPE

AESP Ukraine. (UKRAINE)
2 Timiryazevskaya St. 47
252014 Kiev, Ukraine
Phone: +380 44 296.53.57
Fax: +380 44 294.88.60
Http:\\www.aesp.com.ua
E-mail: aesp@aesp.com.ua

AESP Russia. (RUSSIA)
Kronshtadtsky Blv.
125499 Moscow, Russia
Phone:+7 095-456-0704
Phone:+7 095-456-0344
Fax:+7 095-454-3040
Http:\\www.aesp.ru
E-mail: aesp@aesp.ru

AESP Sweden. (SWEDEN)
Grevegatan 19-21 SE-815
40 TIERP. SWEDEN
Phone:+46-(0)-293-228 88
Fax:+46-(0)-293-228 89
Phone:+49-81-35-9303-0
Http:\\www.aesp.se
E-mail: info@aesp.se

**AESP Germany GmbH
(GERMANY)**
Weisserfelderstr.2 D-85551
Kircheim b. München,
Germany
Phone:+49-89-901-097-0
Fax:+49-89-901-097-22
E-mail: aesp.info@t-online.de

JOTEC AESP AS. (NORWAY)
Telefon 23 14 17 00 Ordrefax
23 14 17 10 Karihaugveien 102
Postboks 50 Ellingsrudasen
1006 Oslo, Norway
Phone:+47-23-14-1700
Fax:+47-23-14-1710
Http:\\www.jotec.no
E-mail: jotec@jotec.no