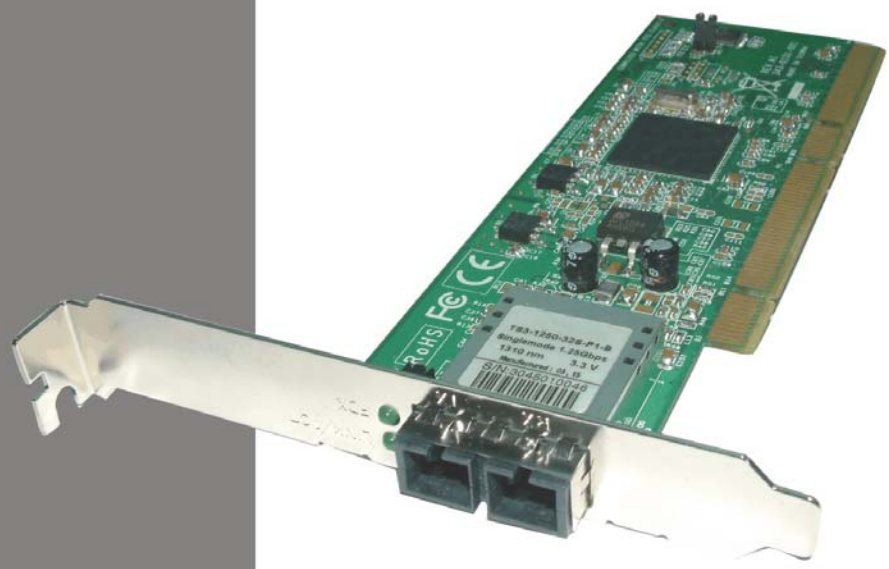
User's Manual

Gigabit Ethernet PCI-64
1000SX / LX Fiber Adapter



Gigabit Ethernet PCI-64
1000SX/LX Fiber Adapter
User's Manual

Release 1.2

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Revision History

Release	Date	Revision
1.00	06/09/2007	A1
1.1	02/14/2008	A2
1.2	06/05/2008	A2
1.2	07/31/2008	A3

Caution

Circuit devices are sensitive to static electricity, which can damage their delicate electronics. Dry weather conditions or walking across a carpeted floor may cause you to acquire a static electrical charge.

To protect your device, always:

- Touch the metal chassis of your computer to ground the static electrical charge before you pick up the circuit device.
- Pick up the device by holding it on the left and right edges only.

Electronic Emission Notices

Federal Communications Commission (FCC) Statement

This equipment has been tested and found to comply with the limits for a class A computing device pursuant to Subpart J of part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

European Community (CE) Electromagnetic Compatibility Directive

This equipment has been tested and found to comply with the protection requirements of European Emission Standard **EN55022/EN61000-3** and the Generic European Immunity Standard EN55024.

EMC:

EN55022(2003)/CISPR-2(2002)	class A
IEC61000-4-2 (2001)	4K V CD, 8KV, AD
IEC61000-4-3(2002)	3V/m
IEC61000-4-4(2001)	1KV – (power line), 0.5KV – (signal line)

1. Instruction

1-1. Overview

Gigabit Ethernet PCI-64 1000SX/LX Fiber Adapter is a Gigabit Ethernet Board that fully complies with all IEEE 802.3z and 1000Base-SX/LX standards. Two LED indicators (LINK/ACT and FDX) on the bracket will help to oversee the board link, activities and full-duplex status.

Gigabit Ethernet PCI-64 1000SX/LX Fiber adapters support Preboot Execution Environment (PXE), Remote Program Load (RPL), and Bootstrap Protocol (BOOTP). Multi-Boot Agent (MBA) is a software module that allows your networked system to boot with the images provided by remote systems across the network.

1-2. Checklist

Before you start installing the Gigabit Ethernet PCI-64 1000SX/LX Fiber Adapter, verify that the package contains the following items:

- Gigabit Ethernet PCI-64 1000SX/LX Fiber Adapter
- LAN Driver and User's Guide CD-ROM

Please notify your sales representative immediately if any of the aforementioned items is missing or damaged.

2. Installation

2-1.Installing a Network Adapter Card

The following instructions apply to installing the Gigabit Ethernet adapter in most systems. Refer to the manuals that were supplied with your system for details about performing these tasks on your particular system.

To install the network adapter card, perform the following procedure:

Warning
Before installing the adapter, ensure the system power is OFF and unplugged from the power outlet, and that proper electrical grounding procedures have been followed.

1. High voltage inside the system presents a safety hazard. Make sure the power is off before removing the cover.

2. Remove the system cover and select any empty PCI-64 slot. See Figure2.

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If you do not know how to identify a PCI-64 slot, refer to your system documentation.

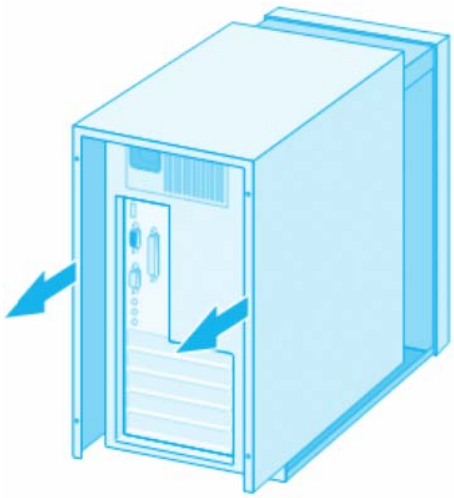


Figure2. Removing the PC Cover

3. Select an empty, non-shared PCI-64 slot and remove the faceplate. Keep the faceplate in a safe place. You may need it for future use. See Figure3.

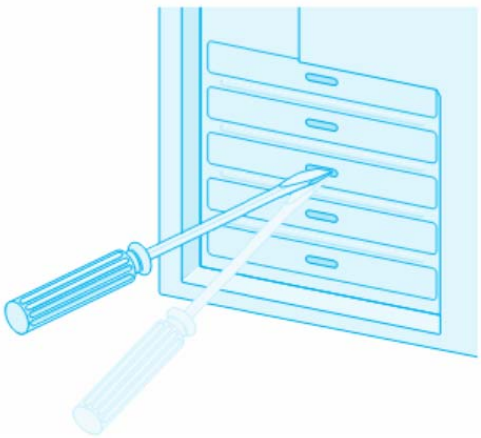


Figure3. Removing the Faceplate From PCI Slot

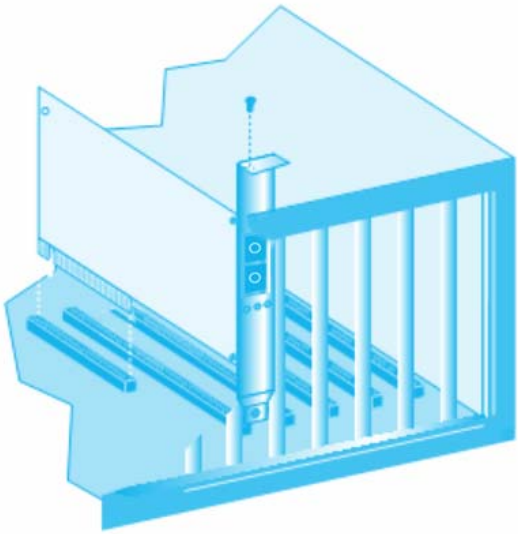
Note
If you cannot locate or know how to find an PCI-64 slot, refer to the documentation that came with your system.

4.Remove the network adapter card from the shipping package and store the packaging material in a safe location.

Caution
Wear a grounding device and observe electrostatic discharge precautions when installing the network adapter card in a system. Failure to observe this caution could result in damage to the card.

5. Applying even pressure at both corners of the card, push the adapter card until it is firmly seated in the PCI-64 slot.

Make sure the card is securely seated. See Figure4.



6. Replace the system's cover and secure it with the screws removed in Step 2.
7. Disconnect any personal antistatic devices.
8. Power the system on.

3. Model Description

PCI-64 1000SX/LX Board Models		
Fiber Transceiver	Wavelength	
SC multi-mode	850nm	**Default**
* SC single-mode	1310/1550nm	option
* LC multi-mode	850nm	option
* LC single-mode	1310/1550nm	option

*: Option is available upon request

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4. Network Remote Boot Configuration

4.1 Select Remote Boot Type

For entering “MBA Configuration Menu” to select Remote Boot Type (PXE, RPL, BOOTP), please press Ctrl-S within 4 seconds after power on your PC, otherwise, the system would go to Windows O.S.

4.2 Set Network Remote Boot

For setting network remote boot, please enter PC BIOS first, then select “Boot” tab, after that, choose “MBA” as the priority first boot device.

4.3 Cancel Network Remote Boot

To cancel network remote boot, please change the “Boot” setting in PC BIOS from “MBA” to “Hard Drive” or other devices.

5. LED Description

LED	Color	Function
LINK/ACT	Green	Lit when cable connection is good and speed is at 1000Mbps. Blinks when any traffic is present.
FDX	Green	Lit when full-duplex mode is active.

6. Network Parameter

	Multi-mode Fiber Cable and Modal Bandwidth			
IEEE 802.3z Gigabit Ethernet 1000SX 850nm	**Multi-mode 62.5/125μm**		**Multi-mode 50/125μm**	
	Modal Bandwidth	**Distance**	Modal Bandwidth	**Distance**
	160MHz-Km	220m	400MHz-Km	500m
	200MHz-Km	275m	500MHz-Km	550m
1000LX	Single-mode Fiber 9/125μm			
	Single-mode transceiver 1310nm 10Km			
	Single-mode transceiver 1550nm 30, 50Km			

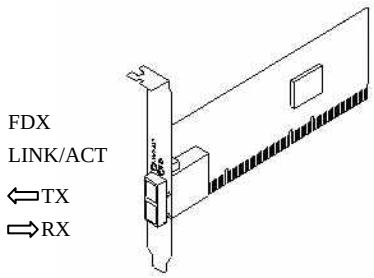

Fig. 1 Diagnostic LEDs and Bracket

7. Technical Specifications

Standards **:** IEEE 802.3z
Gigabit Ethernet 1000Base-SX/LX
IEEE 802.3x Full-Duplex Flow Control
IEEE 802.3ad Link Aggregation
IEEE 802.1Q VLANs
IEEE 802.1p Quality of Service

Connector **:** 850nm SC multi-mode (Default)
∗850nm LC multi-mode
∗1310nm SC, LC single-mode
∗1550nm SC, LC single-mode

∗: Option is available upon request

Fiber Optic Cable:

— 62.5/125, 50/125μm multi-mode
— 9/125μm single-mode

Data Transfer Mode/Speed:

— Full duplex with NWay flow control
— 1000Mbps speed

Diagnostics LED on Bracket:

— LINK/ACT
— FDX

Bus Slot **:** 64/32bit PCI 2.2 Compliant
Power Requirement **:** Max. 10W, +5VDC@2A
Ambient Temperature **:** 0° to 50°C
Humidity **:** 5% to 90%
Emission **:** Complies with EMI Standard
FCC Class A
CE Mark

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