XtendLan

XL-ENW-9707M

Optical Gigabit Ethernet Adapter

User's Guide

Rev. 01　（September 2009）

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Introduction

XL-ENW-9707M PCI-E Optical Ethernet adapter is designed to operate at 1000Mbps and to provides a network throughput of 2000Mbps in full-duplex mode. Complies with the IEEE 802.3z 1000Base-SX / 1000Base-LX Ethernet standard. It supports SFP and 1x9 Opticmodule connector. It offers a range of options, such as fiber / connector type and operating wavelength / distance, to meet the requirement of various applications.

Product Features

- Supports SFP and 1x9 Opticmodule connector.
- Plug and Play installation.
- Complies with the IEEE 802.3z 1000Base-SX / 1000Base-LX Ethernet standard.
- Operate at 1000Mbps and to provides a network throughput of 2000Mbps in full-duplex mode.
- PCI-E 1.1 standard.
- Compliant to ACPI 2.0 specification.
- Wake on link.
- Two LED indicators: Link/Act, Power.
- Drivers for all leading Network Operating Systems, Support for:

  o Windows 95 OSR2, 98, 98, SE, 2000, XP, ME
  o Novell Netware Server 4.-, 5.- , 6
  o Novell Netware Client32 for DOS
  o Linux (kernel 2.4.-)

Standard protocol

- IEEE 802.3z 1000Base-SX / 1000Base-LX Ethernet standard.

- IEEE 802.3x Flow Control.

- IEEE 802.1q/ VLAN Tagging supported.

- GVRP VLAN.

- IEEE 802.1p.

Specifications

- **Network Type:** Optical Ethernet 1000Base-SX/1000Base-LX
  - Single single-mode fiber, single wavelength 1310nm, single SC/PC connector, operating distance 10-20km.

  - Single single-mode fiber, dual wavelength 1310nm / 1550nm, single SC/PC connector, operating distance 20/40/60km.

  - Dual single-mode fiber, single wavelength 1310nm or 1550nm, dual SC/PC connectors, operating distance 20/40/60km.

  - Dual multimode fiber, single wavelength: 1310nm, dual SC/PC connectors, operating distance 2km.

- **Host interface:** PCI- E
- **Physical Dimensions:** 107 mm - 70 mm
- **Environment:**

Storage: -25° ~ 55°C

Humidity: 5% to 95% non-condensing

Installation

Installation of the XL-ENW-9707M Optical Ethernet Adapter requires installing the hardware first. Once the interface card has been installed into the host computer, the software can be installed.

Unpacking and Inspecting

Operating: -5° ~ 50°C

CAUTION:

Humidity: 5% to 95% non-condensing

Under ordinary circumstances, XL-ENW-9707M interface card will not be affected by static electricity. However, it is good practice to eliminate static charges by touching a sizable metal object before handling the adapter card.

Open the shipping carton and carefully remove all items. In addition to this User's Guide, ascertain that you have:

> One XL-ENW-9707M Optical Gigabit Ethernet Adapter Card.
> XL-ENW-9707M Software CD-ROM or diskette.
> XL-ENW-9707M User's Guide.

Installing the Adapter

Shut down the computer, unplug its power cord, and remove the chassis

cover. Insert the contact edge of the XL-ENW-9707M card into the connector
of any available PCI-E expansion slot. Press the card firmly into the connector such that the card's contacts are fully seated in the PCI-E connector.. Install the bracket screw that secures the card to the computer chassis. Replace the computer's chassis cover. Reconnect the computer's power cord, and switch computer power on. If the BIOS section of your computer's boot program is Plug-and-Play compliant, then at power-up the BIOS will automatically configure any newly installed XL-ENW-9707M adapter.

NOTE:

> *Due to a fault in some Plug-n-Play BIOS programs, it happens occasionally that a newly installed adapter is assigned an Interrupt Number which is already assigned to another device. In such a case, a conflict in the Interrupt Number will cause faults i the behavior of both devices. Then it is necessary to run the CMOS Setup utility, and manually assign a non-conflicting Interrupt Number to the PCI-E bus slot that the XL-ENW-9707M is install in.*

Connecting the Optical Fiber

There are two optical fiber types: single mode fiber and multimode fiber. The adapter card uses one or two SC/PC sockets to terminate the fiber optic cable . For dual fiber application, please pay attention to the transmitting port (TX) and receiving port (RX).

Software Installation

On account of the great variety of network environments in which the XL-ENW-9707M may be used, the instructions for software installation are given as README files on the XL-ENW-9707M Software CD-ROM.

Review the root directory and locate the subdirectory containing the appropriate software for use with your network operating system. Access the README file for overview information. For full installation details, see the README file and the referenced instruction files in the sub-directory.
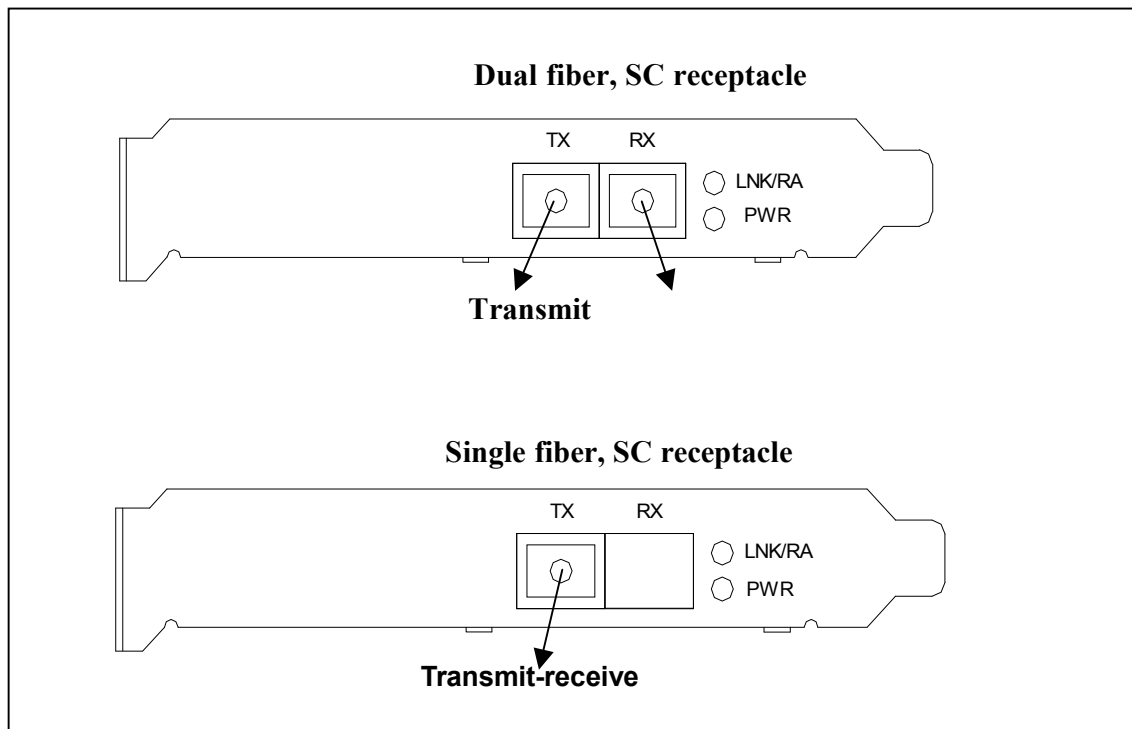
Troubleshooting

If you experience any problems with the adapter, first verify that the appropriate driver is loaded, that the proper optical fiber and connector are employed for the network connection, and that the supporting hub is functioning properly.

1. Ascertain that the adapter card is fully and firmly seated in the slot connector.

2. Check the RX and TX ports are correctly connected.

3. Ascertain that the adapter PCI-E slot is not deactivated at the BIOS level. The CMOS setup utility in PCI-E computers ordinarily provides the option to activate or deactivate PCI-E slots.

4. Replace the adapter in question with a verified adapter.

5. Install the questioned adapter in another PCI-E computer and try again.

6. Remove all other PCI-E adapters from the computer and try again. If the problem disappears, then there is probably an interrupt number conflict which will have to be resolved manually by a CMOS Setup utility run after you have reinstalled all of the expansion cards.

The XL-ENW-9707M Adapter features two LED indicators to assist in network diagnostics:

LINK/RxACT Indicator: A steady *green* LED indicates that the card is receiving power and there is a good link between the XL-ENW-9707M and the device it is connected to. The LED will flash when the adapter is receiving data.

PWR Indicator: A steady *red* LED indicates that the card is powered.

Order Information

XL-ENW-9707M - ☐ – ☐ – ☐ ———————— ☐

Transmitting Wavelength：
3: 1310nm
5: 1550nm

Operating Distance：
1: 550m for Multi Mode 〉
2: 10km
3: 20km
4: 30km
5:50km
6:80km

Type of Fiber Receptacle
1：SC/PC

Type of Transceiver：
1:Single Single-Mode Fiber /Dual Wavelength
2:Dule Single-Mode Fiber /Single Wavelength
3:Dual MultiMode Fiber /Single Wavelength