

LC interface corresponding to the network card interface



Overview

Fiber network cards are no longer niche, they're central to modern servers, storage, and AI infrastructure.

Key Takeaways

A Network Card with an LC interface is a fiber-optic NIC that connects to a computer via PCIe and uses LC connectors for high-speed data transmission over fiber networks.

Overview

A Network Interface Card (NIC) with an LC interface is a hardware component that allows a computer to connect to a network using fiber-optic cables rather than traditional copper Ethernet.

The L

C (Lucent Connector) is a small form-factor fiber connector commonly used in multimode or single-mode fiber networks for high-density installations and reliable connections.

These NI

Cs are often used in environments requiring high bandwidth, low latency, and electromagnetic interference resistance, such as data centers, industrial applications, and secure government networks.

Key Features

Data Rate: Typically supports Gigabit Ethernet (1000 Mbps), with some models capable of higher speeds depending on the chipset and fiber type. **Fiber Type:** Most LC NICs support multimode fiber (MMF) at 850 nm) with ranges up to 550 meters, while single-mode fiber (SMF) versions can reach several kilometers. **Interface:** Connects via PCIe x1 or x4 slots, compatible with modern motherboards.

Advanced Networking Features: Many cards support VLAN tagging (802.1Q/P), jumbo frames, TCP/UDP checksum offload, IPv6, and energy-efficient Ethernet (802.3az).

Resilience and Redundancy: Some NICs support Link Aggregation (LACP), failover, and trunking, enhancing network reliability. **Use Cases**
High-Density Racks: LC connectors are compact, making them ideal for dense server racks. **Industrial and Noisy Environments:** Fiber NICs are resistant to electromagnetic interference, suitable for industrial applications.

Secure Networks: Often deployed in government or enterprise networks requiring secure, high-speed connections. **Data Centers:** Used to connect servers to fiber switches for high-throughput applications.

Considerations

Compatibility: Ensure the NIC is compatible with your operating system and motherboard PCIe slot. **Fiber Type Matching:** Match the NIC's fiber type (multimode or single-mode) with your existing network infrastructure. **Form Factor:** Low-profile NICs are available for compact systems or blade servers.

In summary, an LC interface network card is a fiber-optic NIC designed for high-speed, reliable network connections, particularly in environments where performance, density, and interference resistance are critical. These cards are widely used in enterprise, industrial, and data center networks.

Article Content

Cisco Catalyst 9400 Series Line Card Installation Note

This document describes the features of all available line cards and provides information about how to correctly remove and replace a line card in the

Cisco Converged Broadband Routers Hardware

Configure the DOCSIS MAC/PHY Interface and PIC card before installing it in Cisco cBR-8 router. For example, if you use CBR-CCAP-LC-G2-R

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Network interface card (NIC)

OSA card fiber optic connections can be accomplished using one of two interface types: the SC or LC. In addition, each of these interface types can be attached to one of several cable types.

Gigabit ETH Network Interface Card PCI-E, MM, 1000BASE-SX, LC

This one-port PCI-E network adapter is built to scale with your network and remains compatible even if you upgrade your operating systems. The LC connectors make it ideal for use in densely populated

How a Network Interface Card (NIC) Works: Detailed Overview

A Network Interface Card (NIC) is a hardware component that enables a computer to connect to a network. It manages both the physical and data link layers in the OSI model.

2931SX/LC | Allied Telesis

The 2931SX/LC, 32/64 bit, Gigabit Ethernet NIC provides a 1000Mbps fiber port to deliver desktop connectivity in fiber rich LAN environments. An ideal fit for the security needed in

A Complete Guide to Network Interface Cards

An expert guide on network interface cards, explaining what they are, what they are used for, how they work, their advantages and the different types.

Network Interface Cards: What They Are and Where to Buy Them

Network interface cards provide network connections for your devices. Installing this critical hardware in your computers or servers keeps you connected to the networks you need. Find

SFP LC Connector: Everything You Need to Know

What is an SFP LC Connector? Understanding the SFP Fiber Transceiver The SFP (small form-factor pluggable) fiber transceiver is a small,

What does network interface do? and what's difference between a network ...

I'm a little confused about the network interface. Based on my understanding, a network interface does the translation between link-layer and internet layer, and does the ARP. Is that right?

Network Interface Cards | Black Box

Gigabit Ethernet (1000-Mbps) Network Interface Card - Multimode, PCI-E, LC Ethernet network interface with packet processing brings fiber to the desktop for improved performance and higher bandwidth at

The difference between fiber network card and HBA card

Such a network card is called It HBA card. In addition to performing the unpacking function, of course, it can also provide a fiber interface (if it is an iSCSI HBA card is to provide a

What is a network interface card (NIC)?

A network interface card (NIC) is a hardware component, typically a circuit board or chip, installed on a computer so it can connect to a network. Modern NICs provide functionality to

LC Interface Questions

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Full Introduction to Network Interface Card

The network interface card is used to connect a computer to a computer network. If you want to know more things about it, read this post carefully.

The Complete Guide to Network Interface Cards: Types, Functions,

A Network Interface Cards (NICs) connects computers to networks, facilitating data communication and resource sharing with varied functionalities and types.

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