

## PCIe Gigabit Ethernet Fiber Network Interface Card, PCI Express x1 Intel 82575EB Chipset 1000Base-LX SM Fiber NIC, Single SC Port.

The **NIC-6220PF-LX** is a high-performance PCI Express multifunction network adapter designed for use in both standard and low-profile slots within fiber-optic network environments. Based on the Intel 82575EB controller, this adapter supports 1000Base-LX PCI Express x1 operation and is ideal for desktop applications.



### Key Features

#### Industry-Leading Performance

- Engineered for high-end appliances, with optimized performance ensuring system I/O is not a bottleneck in demanding networking applications.
- Integrated hardware acceleration for TCP/UDP/IP checksum offload and TCP segmentation, freeing CPU resources for application tasks.

#### Reliability, Availability, and Serviceability

- **Fault-tolerant teaming:** Routes traffic from a failed port to up to seven other team members, ensuring uninterrupted network operation.
- Designed with high stability, performance, and compatibility, making it ideal for high-performance FTTD applications.

#### Versatile Singlemode Network Support

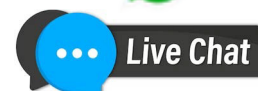
- Equipped with a single SC connector, supporting singlemode fiber operations with an optional multimode fiber configuration based on customer needs.
- Fully compatible with all major computer brands and fiber switches on the market.



**Contact Us:**

Email: [sales@compufox.com](mailto:sales@compufox.com)

 (305) 865-8517  +1 (305) 710-6768



## Advantages

- Intel 82575EB chipset enables advanced features and reliability.
- Fully compatible with all major operating systems.
- High-quality 4-layer PCB (1.5oz, 4mil) for enhanced stability, longer lifespan, and reduced resistance.
- Triple-line power design (3.3V/2.5V/1.0V) ensures stable performance, minimizing the impact of external power fluctuations.
- Manufactured with premium materials, including TI and LT power controllers for optimal stability.
- Supports PXE and Wake-on-LAN (WOL) for advanced network management.

## Standard Features

- **Host Interface:** PCI Express 2.0a standard.
- **Intel 82575EB Controller:** Integrated MAC + PHY/SERDES chip for high performance, reliability, and low power consumption.
- **Fiber Gigabit Ethernet Channels:** Independently support 1000Base-LX for singlemode fiber operation.
- **Hardware Acceleration:** Offloads TCP/UDP/IP checksum calculations and TCP segmentation to reduce CPU usage.
- **Server-Class Features:**
  - **Link Aggregation and Load Balancing:**
    - 802.3ad (LACP), Generic Trunking (GEC/FEC), and failover support.
  - **VLAN Support:** 802.1Q VLAN tagging.
  - **Priority Queuing:** 802.1P Layer 2 priority encoding.
  - **Jumbo Frames:** Up to 16KB.
  - **Flow Control:** 802.3x.
  - Extensive SNMP MIB II, Ethernet-like MIB, and Ethernet MIB (802.3z, Clause 30) support.
- **LED Indicators:** Provide status for link, activity, and speed.
- Compatible with both full-height and low-profile brackets.

## Specifications

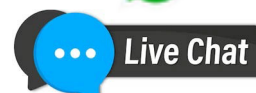
### General

- **IEEE Standards:** 1000Base-LX (singlemode fiber).
- **Cables and Operating Distance:** Singlemode fiber.
- **Optical Output Power:** Minimum: -9.0dBm.
- **Optical Receive Sensitivity:** Maximum: -20dBm.
- **Connectors:** Small Form Factor (SC).

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## Technical

- **Interface Standard:** PCI Express 2.0 (x1, compatible with x4, x8, x16).
- **Power Consumption:** +12V  $\pm 8\%$ , +3.3V  $\pm 8\%$ .
- **Operating Temperature:** -5°C to 40°C.
- **Storage Temperature:** -40°C to 85°C.
- **LED Indicators:**
  - Link (green): Lights up when a connection is established.
  - Activity (green): Blinks during network activity.

## Operating System Support

- **Windows:** 2000, XP, Vista, 7, 8 (32-bit and 64-bit), Server 2003, Server 2008, Server 2008 R2, Server 2012 R2. **Novell Netware:** 5.x, 6.x.
- **Linux:** Kernel version 2.6.30 or higher.
- **FreeBSD:** Version 7.x or higher.
- **Sun Solaris x86.**
- **VMware ESX.**
- **OS Independent.**
- **DOS.**

The **NIC-6220PF-LX** Singlemode Fiber Network Adapter provides a reliable, high-performance solution for singlemode fiber networking, offering exceptional compatibility, durability, and efficiency for diverse network environments.

