

PCIe Gigabit Ethernet Fiber Network Interface Card, PCI Express x1 Intel 82576 Chipset 1000Base-SX MM Fiber NIC, Single SC Port.

PCIe x1 1000Base Single Port Fiber Ethernet Adapter (Intel 82576 Based)

(SC, SFP LC Connector Available)

The NIC-9260PF is a high-performance 1000Base-SX/LX Ethernet adapter based on the Intel 82576 Ethernet Controller. Known for its high data security, reliability, stability, and compatibility, it is widely used in industries requiring secure networking, including defense sectors such as prosecution, courts, police, and military enterprises. This adapter has garnered universal recognition for its performance.



General Features

- Intel 82576 Gigabit Ethernet Controller.
- Low-profile design.
- iSCSI remote boot support.
- Load balancing across multiple CPUs.
- Compatible with x4, x8, and x16 PCI Express slots in both standard and low-profile configurations.
- Single-port design.
- Broad support for most network operating systems (NOS).
- Intel PROSet Utility for Windows Device Manager.
- RoHS-compliant.



Designed for Multi-Core Processors

The single-port NIC-9260PF is engineered for high-performance Gigabit connectivity in multi-core platforms and virtualized environments. The adapter leverages advanced technologies such as:

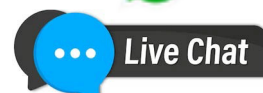
- **Multiple queues.**
- **Receive-Side Scaling (RSS).**
- **MSI-X.**
- **Low-Latency Interrupts.**

These features enhance data acceleration, improve application response times, and optimize system performance by balancing the workload across cores. The adapter ensures efficient handling of latency-sensitive data by bypassing time intervals for specific TCP ports or flagged packets.

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Optimized for Virtualization

The NIC-9260PF supports Intel's Virtualization Technology for Connectivity (Intel VT for Connectivity), which reduces I/O overhead in virtualized environments, improving CPU utilization, system latency, and throughput. Key virtualization features include:

- **Virtual Machine Device Queues (VMDq):**
 - Reduces I/O overhead by sorting and coalescing data in the network silicon.
 - Improves CPU usage and throughput by relieving the hypervisor of packet filtering tasks.
 - Includes advanced features such as loopback for inter-VM communication, priority-weighted bandwidth management, and multicast/broadcast data support.
- **Intel I/O Acceleration Technology (Intel I/OAT):**
 - Enhances data acceleration across networking devices, chipsets, and processors.
 - Features like Direct Cache Access (DCA) reduce cache misses, improving application response times.
 - MSI-X enables load balancing of I/O interrupts across processor cores.
 - RSS directs interrupts to specific processor cores for efficient processing.
 - Low-Latency Interrupts provide a direct, unmodulated data path for certain streams.

Additional Details

The **NIC-9260PF** PCIe Gigabit Adapter delivers robust performance, making it an excellent solution for secure and high-performance networking applications in both physical and virtualized environments.

