Intel® PRO/10GbE SR Server Adapter

Industry-leading 10 Gigabit Multi-mode Fiber Server Connection

- Cost-effective 10 Gigabit performance for distances up to 300 m
- Highly integrated PCI-X second-generation silicon for high performance
- Smaller form factor with XPAK Optical Transceiver fits in a standard server PCI or PCI-X slot

The Intelligent Way to Connect

The Intel® PRO/10GbE SR Server Adapter—the industry’s second-generation 10 Gigabit Ethernet adapter—enables the fastest Ethernet connectivity available. The Intel PRO/10GbE SR Server Adapter delivers industry-leading performance to bandwidth-intensive applications using a highly integrated PCI-X Intel® 82597EX 133 MHz/64-bit 10GbE controller. High-speed server connectivity—once reserved for costly proprietary technologies such as high-performance computing clusters and grid-based computing—can now be achieved with the industry-standard Intel PRO/10GbE SR Server Adapter.

Using the Intel PRO/10GbE SR Server Adapter, enterprises can cost-effectively deploy 10GbE to a broad range of servers using lower-cost multi-mode fiber optic cabling and switching infrastructure. The 10GbE SR standard enables 10GbE transmissions at distances up to 300 meters using standard multi-mode cabling.

The Intel PRO/10GbE SR Server Adapter helps improve network productivity and eliminate costly proprietary networking technologies, while enabling deployment of standards-compliant Ethernet connectivity based on IEEE 802.3ae* 10 Gigabit Ethernet standard.

### Features

<table>
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<tr>
<th>Feature</th>
<th>Benefits</th>
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<tr>
<td>Intel® 82597EX 10GbE PCI-X 133 MHz/64-bit MAC controller</td>
<td>High performance on widely adopted 2nd-generation PCI host-bus interface</td>
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<tr>
<td>Multi-mode fiber support through 850 nm optical module</td>
<td>Cable lengths up to 300 meters; noise resistant for signal integrity</td>
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<tr>
<td>IEEE 802.3ae* 10GBase-SR compliant</td>
<td>Supports industry-wide 10 Gigabit Ethernet standard</td>
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<td>Jumbo Frames supported up to 16 KB</td>
<td>Increase performance through reduced overhead</td>
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<td>TCP/IP segmentation and TCP checksum offload in RX and TX</td>
<td>Provides efficiency for host processing</td>
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<tr>
<td>256 KB RX and 32 KB TX data FIFO</td>
<td>Enhanced TX and RX logic with minimum buffer requirements</td>
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<td>Parity protection for RX FIFO buffer</td>
<td>Data integrity</td>
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<tr>
<td>Mechanisms for delaying/reducing TX and RX frame interrupts</td>
<td>Reduces CPU utilization</td>
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<tr>
<td>PCl-X 1.0a and PCl 2.3</td>
<td>Compatible</td>
</tr>
<tr>
<td>LC-Duplex connector for multi-mode optical fiber</td>
<td>Ease of use with currently available 10GbE equipment</td>
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<tr>
<td>Flow Control 802.3x*</td>
<td>Supports industry-wide networking standard</td>
</tr>
<tr>
<td>PCI 2.2 Message Signaled Interrupts</td>
<td>Improves system interrupt handling</td>
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Specifications: Intel® PRO/10GbE SR Server Adapter

General

Product Code: PXLA8591SR
Connectors: LC duplex
Wiring: Multi-mode fiber

Adapter Product Features

Intel® SingleDriver™ Technology
Plug and Play Specification Support
Easy Installation, Intel® PROSet Utility and Intel® PRO Intelligent Install
Full-duplex
Fiber Medium Distance: 300 meters with 50 µm multi-mode fiber, 33 meters with 62.5 µm multi-mode fiber

Network Management

WBEM-CIM Support
WMI & SNMP-manageable
Hardware Diagnostics
Intel® Boot Agent
ACPI Power Management
PXE 2.0
Jumbo Frames Support (16 KB)

NOS Software Support

Microsoft Windows® 2000
Microsoft Windows Server 2003
Linux® 2.2.5 or Later
Free BSD 1.0.6

Warranty

Limited Lifetime Warranty
90-day Money-back Guarantee (U.S. and Canada)

Advanced Software Features

Adapter Fault Tolerance
802.1q VLANs
802.3x Flow Control
TCP Checksum Offload
IEEE 802.1p
TCP Segmentation/Large Send Offload
Save and Restore

Technical Features

Data Rate(s) Supported per Port: 10 Gbps
Bus Type: PCI or PCI-X
Bus Width: 64-bit
Bus Speed (MHz): 133
Onboard Memory: 256 KB
Interrupt Levels: INTA
IEEE Support: 802.3ae*
Hardware Certifications: FCC Class A, CE, and Microsoft
Data Transfer Mode: Bus-master DMA
Controller—Processor: Intel® 82597EX
Typical Power Consumption: <3 watts
Operating Temperature: 0–55°C
Operating Humidity: 85% at +55°C
Laser Product: Class 1M laser product

Physical Dimensions

Length: 16.8 cm (6.6 in)
Width: 9.1 cm (3.575 in)

Order Code

PXLA8591SR (Single Pack)

Companion Products

Consider these Intel® products in your server and network planning:

Intel® PRO/1000 MT Desktop Adapter
Intel® PRO/1000 MT Server Adapter
Intel® PRO/1000 MT Dual Port Server Adapter
Intel® PRO/1000 MT Quad Port Server Adapter
Intel® PRO/1000 MF Server Adapter
Intel® PRO/1000 MF Server Adapters (LX)
Intel® PRO/10GbE LR Server Adapter
Other Intel® PRO Desktop, Mobile, Wireless and Server Adapters
Intel® Itanium® processors
Intel® Xeon™ processors
Intel® Server Boards

Network-Ready PCs

Top PC and server manufacturers offer Intel® adapters in their new products. Specify or ask for Intel® PRO Network Connections with your next PC, server, or mobile PC purchase. For a list of preferred suppliers, visit us at www.intel.com/network/connectivity/how_to_buy/index.htm.

Customer Support

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