intel

Intel® PRO/1000 MF Server Adapter Intel® PRO/1000 MF Server Adapter (LX)

High-Performance 1000BASE-SX and 1000BASE-LX Gigabit Fiber Connections for Servers

The Intelligent Way to Connect

Alleviate bottlenecks and increase uptime with Gigabit performance for servers in single- and multi-mode fiber-optic networks. The Intel® PRO/1000 MF Server Adapter, with a self-configuring PCI/PCI-X interface, delivers high throughput while conserving CPU resources. Enhance server performance further by teaming multiple Intel® PRO Server Adapters with Intel's advanced server feature software for multi-Gigabit scalability and redundant failover capability. With a flexible design that fits almost any type of PCI bus, the standards-based management features and wide network operating system support help to ensure extensive compatibility with the latest server and networking environments.

| Features | Benefits | |
|--|---|--|
| WIDESPREAD COMPATIBILITY | | |
| Support for most NOSs | Enables widespread deployment | |
| Intel [®] SingleDriver™ technology | Common driver suite for Gigabit Ethernet reduces installatio complexity | |
| Backward Compatibility with previous generations of Intel PRO/1000 Network Adapters | | |
| Supports 64- or 32-bit PCI-X 1.0 or PCI 2.2 buses | This flexible, auto-sensing adapter works in a variety of bus types | |
| Remote Management Support (WfM, RIS, SNMP/DMI) | Reduces support costs with remote management based on industry-wide standards | |
| IEEE 802.3z Compatibility | Supports Gigabit Ethernet industry-wide networking standard | |
| NEW FEATURES IN THE INTEL PRO/1000 MF SERVER ADA | IPTER | |
| Intel [®] 82545 Gigabit Controller | Provides high performance, reliability, and low power use in a single integrated Gigabit Ethernet controller chip | |
| Full-height and low profile, screw-on brackets included with each adapter | Compatible with full-height and low-profile PCI slots—the standard, full-height bracket can be easily swapped out and replaced by the shorter, low-profile bracket, for installation in high-density 1U and 2U servers that feature low-profile PCI slo | |
| Interrupt Moderation | Delivers increased performance while significantly reducing CPU utilization | |
| Large Send Off-load/TCP Segmentation Off-load | Compatible with Large Send Off-load feature of Microsoft Windows* Server 2003, 2000 and XP which enables wire speed performance with low CPU utilization | |
| Expanded Advanced Server Features | Intel [®] ANS software increases uptime with redundant, teamed connections and scales bandwidth by balancing network traffia across multiple server connections. Now offers Switch Fault Tolerance and Test Switch Configuration to test compatibility and further increase uptime | |
| GIGABIT-OVER-FIBER ADVANTAGES | | |
| LC Connectors | This new, smaller connector design is compatible with the latest fiber-optic cabling standards | |
| 1000BASE-SX Multi-Mode Fiber | Available with the Intel PRO/1000 MF Server Adapter—ensures compatibility with fiber-optic cable lengths up to 275 meters | |
| 1000BASE-LX | Available with the Intel PRO/1000 MF Server Adapter (LX)— ensures compatibility with fiber-optic cable lengths up to 550 meters in multi-mode, and up to 5 kilometers in single-mode which will later support 10 Gigabit speeds | |
| | | |

- High 1000BASE-LX
 and 1000BASE-SX
 performance via 64-bit
 PCI-X bus running up
 to 133 MHz
- Multi-Gigabit scalability and increased uptime through advanced server features
- Optional low-profile bracket included for high density, rackmounted servers



SPECIFICATIONS

| | Intel [®] PRO/1000 MF Server Adapter | Intel [®] PRO/1000 MF Server Adapter (LX) |
|--|---|---|
| GENERAL Product Codes Connectors IEEE Standard/Network Topology Wiring | PWLA8490MF LC 1000BASE-SX Multi-mode fiber (62.5 um or 50 um) | PWLA8490LX LC 1000BASE-LX Single-mode fiber (9 um) or Multi-mode fiber (62.5 um or 50 um) |
| ADAPTER PRODUCT FEATURES Intel® SingleDriver™ technology Plug and Play Specification Support Easy Installation, Intel® PROSet II Utility and Intel® Intelligent Install Auto-negotiation, Full-duplex Capable Includes a Low-profile and a Full-height Bracket Cable Distance | Standard | Standard Standard S50m at 62.5 um or 50 um Skm at 9 um |
| NETWORK MANAGEMENT Wired for Management (WfM) Baseline v2.0 Enabled for Servers DMI 2.0 Support, WMI & SNMP-manageable Offline Diagnostics Intel® Boot Agent ACPI Power Management PXE 2.0 | | |
| NOS SOFTWARE SUPPORT Microsoft Windows* Server 2003 and 2000 Microsoft Windows* XP 32- and 64-bit Editions Microsoft Windows NT* 4.0 Linux* 2.4.x or later (32- and 64-bit) FreeBSD 4.x or later Novell Netware* 4.11, 4.2, 5.0, 5.1, 6.0 SunSoft Solaris* 7, 8 UnixWare* 7.x, OpenUNIX 8 (ddi8) SCO5* | | • |

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PWLA8490MF (Single Packs SX) PWLA8490MFBLK5 (Five Packs SX) PWLA8490LX (Single Packs LX) PWLA8490LXBLK5 (Five Packs LX)

COMPANION PRODUCTS

Consider these $\ensuremath{\mathsf{Intel}}\xspace^\circ$ 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 Dual Port Server Adapter
- Other Intel[®] PRO Desktop, Mobile, Wireless and Server Adapters
- Intel[®] Xeon[™] processors
- Intel[®] Server Boards



| | | PCS |
|--|--|-----|
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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 on the World Wide Web: www.intel.com/ network/connectivity/how_to_buy/index.htm.

CUSTOMER SUPPORT

Intel[®] customer Support Services offers a broad selection of programs including phone support and warranty service. For more information, contact us at support.intel.com/support/network. Service and availability may vary by country.

FOR PRODUCT INFORMATION

To speak to a customer service representative regarding Intel® products, please call 1-800-538-3373 (U.S. and Canada) or visit www.intel.com/support/9089.htm for the telephone number in your area. For additional product information on the Intel® Networking and Communication products, visit www.intel.com/network/connectivity.

ONLINE DOCUMENTS

Intel[®] PRO/1000 MF

Server Adapter

1,000 Mbps

32- or 64-bit

33/66/100/133

PCI/PCI-X

64 KB

INTA

802.3z

FCC A, CE

Intel® 82545

1A at +5VDC

85% at +55°C

16.5cm (6.6 in)

6.4cm (2.5 in)

8.1cm (3.2 in)

12.1cm (4.75 in)

0-55°C

Bus-master DMA

ADVANCED SOFTWARE

Adapter Fault Tolerance

Switch Fault Tolerance Adaptive Load Balancing

Receive Load Balancing

IEEE 802.3ad (Link Aggregation

PCI Hot Plug* and Active PCI*

TCP Segmentation/Large Send

Data Rate(s) Supported per Port

Gigabit EtherChannel*1

Control Protocol)*1 Test Switch Configuration

802.1Q VLANs

IEEE 802.1p

Offload

Bus Type

Bus Width

802.3x Flow Control TCP Checksum Offload

Interrupt Moderation

TECHNICAL FEATURES

Save and Restore

Bus Speed (MHz)

Onboard Memory

Data Transfer Mode

Controller—Processor Typical Power Consumption

Operating Temperature

Operating Humidity

PHYSICAL DIMENSIONS

Height of Full-Height End Bracket

Height of Low-Profile End Bracket

Length

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

Width

Interrupt Levels

IEEE Support Hardware Certifications

FEATURES

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33/66/100/133

PCI/PCI-X

64 KB

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Bus-master DMA

For the latest product information, visit us on the World Wide Web at www.intel.com/network/connectivity

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