



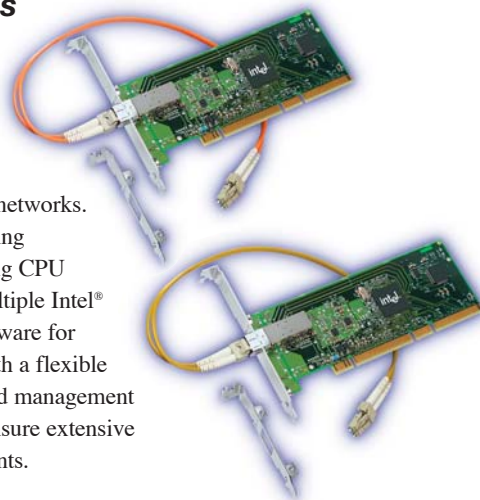
Intel® PRO/1000 MF Server Adapter

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 installation complexity
Backward Compatibility with previous generations of Intel PRO/1000 Network Adapters	Reduces support costs and simplifies installation and maintenance
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 ADAPTER	
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 slots
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 traffic 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, rack-mounted servers*

Intel® PRO
Network Connections

SPECIFICATIONS

	Intel® PRO/1000 MF Server Adapter	Intel® PRO/1000 MF Server Adapter (LX)		Intel® PRO/1000 MF Server Adapter	Intel® PRO/1000 MF Server Adapter (LX)
GENERAL			ADVANCED SOFTWARE FEATURES		
Product Codes	PWLA8490MF	PWLA8490LX	Adapter Fault Tolerance	■	■
Connectors	LC	LC	Switch Fault Tolerance	■	■
IEEE Standard/Network Topology	1000BASE-SX	1000BASE-LX	Adaptive Load Balancing	■	■
Wiring	Multi-mode fiber (62.5 um or 50 um)	Single-mode fiber (9 um) or Multi-mode fiber (62.5 um or 50 um)	Receive Load Balancing	■	■
			Gigabit EtherChannel*1	■	■
			IEEE 802.3ad (Link Aggregation Control Protocol)*1	■	■
ADAPTER PRODUCT FEATURES			Test Switch Configuration	■	■
Intel® SingleDriver™ technology	■	■	PCI Hot Plug* and Active PCI*	■	■
Plug and Play Specification Support	Standard	Standard	802.1Q VLANs	■	■
Easy Installation, Intel® PROSet II Utility and Intel® Intelligent Install	■	■	802.3x Flow Control	■	■
Auto-negotiation, Full-duplex Capable	■	■	TCP Checksum Offload	■	■
Includes a Low-profile and a Full-height Bracket	■	■	IEEE 802.1p	■	■
Cable Distance	275m at 62.5 um 550m at 50 um	550m at 62.5 um or 50 um 5km at 9 um	TCP Segmentation/Large Send Offload	■	■
			Interrupt Moderation	■	■
			Save and Restore	■	■
NETWORK MANAGEMENT			TECHNICAL FEATURES		
Wired for Management (WiM) Baseline v2.0 Enabled for Servers	■	■	Data Rate(s) Supported per Port	1,000 Mbps	1,000 Mbps
DMI 2.0 Support, WMI & SNMP-manageable	■	■	Bus Type	PCI/PCI-X	PCI/PCI-X
Offline Diagnostics	■	■	Bus Width	32- or 64-bit	32- or 64-bit
Intel® Boot Agent	■	■	Bus Speed (MHz)	33/66/100/133	33/66/100/133
ACPI Power Management PXE 2.0	■	■	Onboard Memory	64 KB	64 KB
			Interrupt Levels	INTA	INTA
			IEEE Support	802.3z	802.3z
			Hardware Certifications	FCC A, CE	FCC A, CE
			Data Transfer Mode	Bus-master DMA	Bus-master DMA
			Controller—Processor	Intel® 82545	Intel® 82545
			Typical Power Consumption	1A at +5VDC	1A at +5VDC
			Operating Temperature	0–55°C	0–55°C
			Operating Humidity	85% at +55°C	85% at +55°C
NOS SOFTWARE SUPPORT			PHYSICAL DIMENSIONS		
Microsoft Windows® Server 2003 and 2000	■	■	Length	16.5cm (6.6 in)	16.5cm (6.6 in)
Microsoft Windows® XP 32- and 64-bit Editions	■	■	Width	6.4cm (2.5 in)	6.4cm (2.5 in)
Microsoft Windows NT® 4.0	■	■	Height of Full-Height End Bracket	12.1cm (4.75 in)	12.1cm (4.75 in)
Linux® 2.4.x or later (32- and 64-bit)	■	■	Height of Low-Profile End Bracket	8.1cm (3.2 in)	8.1cm (3.2 in)
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*	■	■			
			INTEL BACKING		
			Limited Lifetime Warranty	■	■
			90-day Money-back Guarantee (U.S. and Canada)	■	■

ORDER CODES

PWLA8490MF (Single Packs SX)
PWLA8490MFBK5 (Five Packs SX)
PWLA8490LX (Single Packs LX)
PWLA8490LXBK5 (Five Packs LX)

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 Dual Port Server Adapter
- Other Intel® PRO Desktop, Mobile, Wireless and Server Adapters
- 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 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

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