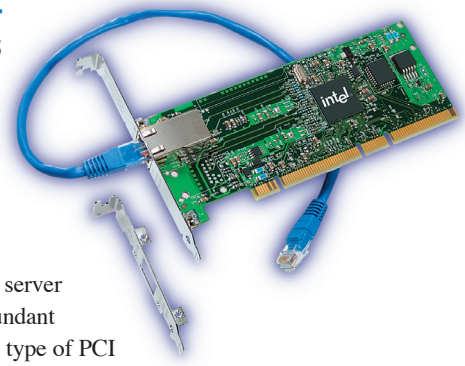
Intel® PRO/1000 MT Server Adapter

High-Performance Gigabit Copper Connection for Servers

The Intelligent Way to Connect



Eliminate server bottlenecks and migrate existing Category-5 networks to Gigabit Ethernet easily and cost-effectively with the Intel® PRO/1000 MT Server Adapter. Featuring flexible, auto-negotiating 10/100/1000 Mbps performance, the Intel PRO/1000 MT Server Adapter is designed to automatically scale with growing networks.

Enhance server performance further by teaming multiple Intel® PRO Server Adapters using Intel's expanded advanced server feature software to achieve 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.

- *Easy, cost-effective 10/100/1000 migration over CAT-5 cabling*
- *Multi-Gigabit scalability and increased uptime through advanced server features*
- *Optional low-profile bracket included for high-density, rack-mounted servers*

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 and 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 802.3ab Compatibility	Supports industry-wide Gigabit Ethernet networking standard
NEW FEATURES IN THE INTEL PRO/1000 MT 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
Advanced Cable Diagnostics	Dynamically tests and reports network problems (error rate, cable length) and automatically compensates for cable issues (cross over cable, wrong pin-out/polarity)
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

Intel® PRO Network Connections

GIGABIT-OVER-COPPER ADVANTAGES

Gigabit speeds on Category-5 cable networks	Able to achieve Gigabit speeds on commonly deployed CAT-5 cabling without costly cable replacement
Compatible with Fast Ethernet	Reduces training costs and ramp rollout quickly
Auto-sensing, self-configuring 10/100/1000 Mbps performance	Enables migration to faster networks easily and inexpensively—adapter will automatically sense when the network is able to support a faster speed, and self-configure to save IT staff time, money and server downtime

SPECIFICATIONS

Intel® PRO/1000 MT Server Adapter

GENERAL	
Product Codes	PWLA8490MT
Connectors	RJ-45
IEEE Standard/Network Topology	10BASE-T, 100BASE-TX, 1000BASE-T
Wiring	Cat-5, 4-pair
ADAPTER PRODUCT FEATURES	
Intel® SingleDriver™ technology	■
Plug and Play Specification Support	Standard
Easy Installation, Intel® PROSet Utility and Intel® PRO Intelligent Install	■
Auto-negotiation, Full-duplex Capable	■
Includes a Low-profile and a Full-height Bracket	■
Cable Distance	100m
NETWORK MANAGEMENT	
Wired for Management (WfM) Baseline v2.0 Enabled for Servers	■
DMI 2.0 Support, WMI & SNMP-manageable	■
Offline Diagnostics	■
Dynamic Cable 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*	■
INTEL BACKING	
Limited Lifetime Warranty	■
90-day Money-back Guarantee (U.S. and Canada)	■

ADVANCED SOFTWARE FEATURES	
Adapter Fault Tolerance	■
Switch Fault Tolerance	■
Adaptive Load Balancing	■
Fast EtherChannel*[1]	■
Gigabit EtherChannel*[1]	■
IEEE 802.3ad (Link Aggregation Control Protocol)*[1]	■
Test Switch Configuration	■
PCI Hot Plug* and Active PCI*	■
802.1Q VLANs	■
802.3x Flow Control	■
TCP Checksum Offload	■
IEEE 802.1p	■
TCP Segmentation/Large Send Off-load	■
Interrupt Moderation	■
Save and Restore	■
TECHNICAL FEATURES	
Data Rate(s) Supported per Port	10, 100 & 1,000 Mbps
Bus Type	PCI/PCI-X
Bus Width	32- or 64-bit
Bus Speed (MHz)	33/66/100/133
Onboard Memory	64 KB
Interrupt Levels	INTA
IEEE Support	802.3ab
Hardware Certifications	FCC A, CE
Data Transfer Mode	Bus-master DMA
Controller—Processor	Intel® 82545
Typical Power Consumption	1A at +5VDC
Operating Temperature	0–55°C
Operating Humidity	85% at +55°C
PHYSICAL DIMENSIONS	
Length	16.5cm (6.6 in)
Width	6.4cm (2.5 in)
Height of Full-Height End Bracket	12.1cm (4.75 in)
Height of Low-Profile End Bracket	8.1cm (3.2 in)

ORDER CODES

PWLA8490MT *(Single Packs)*
PWLA8490MTBLK5 *(Five Packs)*

COMPANION PRODUCTS

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

- Intel® PRO/1000 MT Desktop Adapters
- Intel® PRO/1000 MF Server Adapters
- Intel® PRO/1000 MF Server Adapters (LX)
- Intel® PRO/1000 MF Dual Port Server Adapters
- Intel® PRO/1000 MT Dual Port Server Adapters
- Intel® PRO/1000 MT Quad Port Server Adapters
- 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

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

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

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*Other names and brands may be claimed as the property of others.

[1]Available only when used with a capable switch.

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