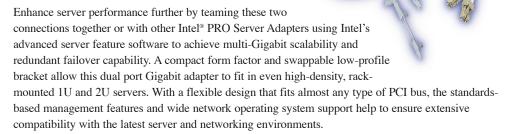# Intel® PRO/1000 MF Dual Port Server Adapter

Two Gigabit Fiber Server Connections in a Single PCI Slot

The Intelligent Way to Connect

Conserve valuable PCI slot space in servers, alleviate bottle-necks, and increase uptime with Gigabit performance for servers in multi-mode fiber-optic networks. The Intel® PRO/1000 MF Dual Port Server Adapter, with a self-configuring PCI/PCI-X interface, delivers high throughput while conserving CPU resources.

Enhance server performance further by teaming these two connections together or with other Intel® PRO Server Adapters using Intel's advanced server feature software to achieve multi-Gigabit scalability and redundant failover capability. A compact form factor and swappable low-profile bracket allow this dual port Gigabit adapter to fit in even high-density, rack-mounted 1U and 2U servers. 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.

- *High-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*

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 DUAL PORT SERVER ADAPTER	
Intel® 82546 Gigabit Controller	Enables two Gigabit connections in a single adapter, delivering increased bandwidth for slot-constrained servers and providing high performance, reliability, and low power use in a single, integrated, dual port 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
LC Connectors	This new, smaller connector design is compatible with the latest fiber-optic cabling standards

SPECIFICATIONS — Intel® PRO/1000 MF Dual Port Server Adapter

GENERAL

Product Codes	PWLA8492MF
Connectors	Two LC
IEEE Standard/Network Topology	1000BASE-SX
Wiring	Mulitmode fiber (62.5 um or 50 um)

ADAPTER PRODUCT FEATURES

Intel® SingleDriver™ technology	■
Plug and Play Specification Support	Standard
Easy Installation, Intel® PROSet II Utility and Intel® PRO Intelligent Install	■
Auto-negotiation, Full-duplex Capable	■
Includes a Low-profile and a Full-height Bracket	■
Cable Distance	275m at 62.5 um
	550m at 50 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	■
Wake on LAN*	■
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*	■

ADVANCED SOFTWARE FEATURES

Adapter Fault Tolerance	■
Switch Fault Tolerance	■

Adaptive Load Balancing	■
Receive Load Balancing	■
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 Off-load	■
IEEE 802.1p	■
TCP Segmentation/Large Send Off-load	■
Interrupt Moderation	■
Save and Restore	■

TECHNICAL FEATURES

Data Rate(s) Supported per Port	1,000 Mbps
Bus Type	PCI/PCI-X
Bus Width	32- or 64-bit
Bus Speed (MHz)	33/66/100/133
Onboard Memory	128 KB (64 KB per port)
Interrupt Levels	INTA
IEEE Support	802.3z
Hardware Certifications	FCC A, CE
Data Transfer Mode	Bus-master DMA
Controller—Processor	Intel® 82546
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)

INTEL BACKING

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

ORDER CODES

PWLA8492MF *(Single Packs)*
PWLA8492MFBLK5 *(Five Packs)*

COMPANION PRODUCTS

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

- Intel® PRO/1000 MT Desktop Adapters
- Intel® PRO/1000 MT Server Adapters
- Intel® PRO/1000 MF Server Adapters
- Intel® PRO/1000 MF Server Adapters (LX)
- 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.

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