

# Product Brief

Intel® PRO/1000 GT Quad Port Server Adapter



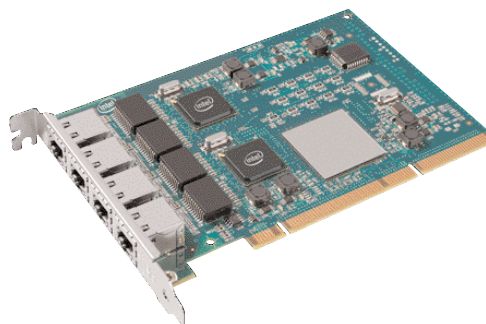
# Intel® PRO/1000 GT Quad Port Server Adapter

Four Gigabit Copper Server Connections in a Single PCI/PCI-X\* Slot

## The Intelligent Way to Connect

Access multiple network segments, conserve valuable Peripheral Component Interconnect (PCI) slots in servers, and migrate existing Category-5 (CAT-5) networks to Gigabit Ethernet easily and cost-effectively with the Intel® PRO/1000 GT Quad Port Server Adapter. Standards-based management features help ensure compatibility with the latest server and networking environments.

Enhance server performance further by teaming connections on this adapter with each other, with connections on other Intel® PRO Server Adapters or with LAN-on-motherboard components using the Intel® advanced server features to achieve multi-Gigabit scalability and redundant failover capability.



## Features

### Widespread Compatibility

Features	Benefits
Support for most NOSS	Enables high-density networking in server appliances and embedded applications
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 3.3 volt 64-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 802.3ab* compatibility	Supports Gigabit Ethernet industry-wide networking standard

### New Features in the Intel® PRO/1000 GT Quad Port Server Adapter

Two Intel® NH82546GB Gigabit Controllers	Enables four 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
Lead-free	Lead has not been intentionally added, but lead may still exist as an impurity below 1000 ppm or an approved RoHS exemption applies
Interrupt moderation	Delivers increased performance while significantly reducing CPU utilization
Advanced cable diagnostics	Dynamically tests and reports network problems (interrupts, error rate, cable length) and automatically compensates for cable issues (cross-over cable, wrong pin-out/polarity)
Expanded advanced server features	Intel® Advanced Networking Services (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-Copper Advantages

Gigabit speeds on Category-5 cable networks	Achieves Gigabit speeds on commonly deployed CAT-5 cabling without costly cable replacement
Compatible with Fast Ethernet	Reduces training costs and quickly ramps rollout
Auto-sensing, self-configuring 10/100/1,000-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

### General

Product codes	PwLA8494GT
Connectors	Four RJ-45
IEEE standard/network topology	10BASE-T, 100BASE-TX, 1000BASE-T
Wiring	CAT-5, 4-pair for 1,000 Mbps; CAT-3, 2-pair for 100 Mbps

### Adapter Product Features

Intel® SingleDriver™ technology	▪
Plug and Play specification support	Standard
Auto-negotiation, full-duplex capable	▪
Cable distance	100 m
Integrated MAC and PHY	▪
SMBus support	▪
PCI Hot Plug* and Active PCI*	▪

### 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 1.0	▪
Wake on LAN*	▪
PXE 2.0	▪

### NOS Software Support

Windows* 2000	▪
Windows* Server 2003 32- and 64-bit editions	▪
Windows* XP 32- and 64-bit editions	▪
RedHat Linux* 2.4.x or later (32- and 64-bit)	▪
FreeBSD* 4.x or later	▪
UnixWare* 7.x, OpenUNIX* 8.0 (ddi8)	▪
SunSoft Solaris* 7, 8	▪
NetWare* 5.1, 6.0, 6.5	▪
SCO* 5	▪

### Intel Backing

Limited lifetime warranty	▪
90-day money-back guarantee (U.S. and Canada)	▪

### Advanced Software Features

Intel® PROSet for Windows* Device Manager	▪
Intel® PRO Intelligent Install	▪
Adapter Fault Tolerance	▪
Switch Fault Tolerance	▪
Adaptive Load Balancing	▪
Fast EtherChannel* <sup>1</sup>	▪
Gigabit EtherChannel* <sup>1</sup>	▪
IEEE 802.3ad* (link aggregation control protocol) <sup>1</sup>	▪
Test switch configuration	▪
802.1Q VLANs	▪
802.3x flow control	▪
TCP checksum offload (TCP, UDP, IP)	▪
IEEE 802.1p*	▪
TCP segmentation/large send offload	▪
Interrupt moderation	▪
Save and Restore	▪

### Technical Features

Data rate(s) supported per port	10, 100 and 1,000 Mbps
Bus type	PCI/PCI-X*
Bus width	32/64-bit
Bus speed	66/100/133 MHz
Onboard memory	256 KB
Interrupt levels	INTA, INTB, INTC, INTD
IEEE support	802.3ab
Hardware certifications	FCC class B, CE, GOST, AS/NZ 3548, BSMI, ICES-003, VCCI
Data transfer mode	Bus-master DMA
Controller-processor	Intel® NH82546GB
Typical power consumption	16.8 W at +3.3 VDC
Operating temperature	0–55° C
Operating humidity	85% at +55° C

### Physical Dimensions

Length	16.5 cm (6.6 in)
Width	10.7 cm (4.2 in)

<sup>1</sup> Available only when used with a capable switch.

## Order Codes

- PwLA8494GT (single packs)
- PwLA8494GTBLK5 (order must be in increments of 5)

## Companion Products

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

- Intel® PRO/1000 MT Server Adapters
- Intel® PRO/1000 MF Server Adapters
- Other Intel® PRO Desktop, Mobile, Wireless and Server Adapters
- Intel® Xeon® processors
- Intel® Server Boards
- Intel® PRO/1000 PT Server Adapters
- Intel® PRO/1000 PT Desktop Adapters
- Intel® PRO/1000 PT Dual Port Server Adapters
- Intel® PRO/1000 PT Quad Port Server Adapters
- Intel® PRO/1000 PF Server Adapters
- Intel® PRO/1000 PF Dual Port Server Adapters

## Network-Ready PCs

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