LENOVO® PRO/1000 PT DUAL PORT ETHERNET ADAPTER BY INTEL®

TWO GIGABIT COPPER SERVER CONNECTIONS IN A SINGLE PCI EXPRESS SLOT

- Two high-performance PCI Express 10/100/1000 Mbps connections for slot-constrained servers
- Increased uptime through advanced server features
- Built on Intel® lead-free technology

CONNECTIVITY YOU CAN COUNT ON

The Lenovo PRO/1000 PT Dual Port Ethernet Adapter by Intel® provides an additional two ports of Gigabit Ethernet connectivity – allowing you to more appropriately use valuable PCI Express (PCIe) ports in your server. The dedicated input/output (I/O) bandwidth of PCIe ensures priority performance on each port - without bus sharing - for Gigabit Ethernet connectivity in Category 5 networks. Additionaly, this product is designed to provide high performance in multi-processor systems by efficiently balancing network loads across multiple Control Processing Units (CPUs) when used with Receive Side Scaling from Microsoft® or Scalable I/O on Linux®.

FEATURES	BENEFITS
Intel® 82571GB 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 PCI Express Gigabit Ethernet controller chip
Load balancing on multiple CPUs	Increases performance on multi-processor systems by efficiently balancing network loads across CPU cores when used with Receive-Side Scaling from Microsoft® or Scalable I/O on Linux®
Interrupt moderation	Delivers increased performance while significantly reducing CPU utilization
Compatible with x4, x8 and x16 full-height PCI Express slots	Allows dual-port operation in almost any PCI Express server slot, except x1 slots and allows each port to operate without interfering with the other
Support for most network operating systems (NOS)	Enables widespread deployment
Remote management support	Reduces support costs with remote management based on industry-wide standards
Category-5 unshielded twisted pair (UTP), 4-pair cabling	Uses existing 4-pair cabling and saves re-wiring costs
RoHS compliant3, lead-free technology	Compliant with the new European Union directive (effective July 2006) to reduce the use of hazardous materials
Intel® PROSet Utility for Microsoft® Device Manager	Provides point-and-click power over individual adapters, advanced adapter features, connection teaming and virtual local area network (VLAN) configuration
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)

SPECIFICATIONS

General	
Product code	67Y1393
Connectors	Two RJ-45
IEEE standards/network topology	10BASE-T, 100BASE-TX, 1000BASE-T
Wiring	Category-5, unshielded twisted pair (UTP), 4-pair
Adapter Product Features	
Intel® PROSet Utility and Intel® PRO Intelligent Install for easy installation	✓
Intel® lead-free technology	✓
Plug and play specification support	Standard
Auto-negotiation, full-duplex capable	✓
Integrated media access control (MAC) and physical layer (PHY)	✓
Includes a full-height bracket	✓
Cable distance	100 m in Category-5 for 100/1000 Mbps; and Category-3 for 10 Mbps
Network Management	
Wired for Management (WfM) baseline v2.0 enabled for servers	✓
DMI 2.0 support, Windows Management Instrumentation (WMI) and SNMP-manageable SMBus support	✓
Remote Installation Services (RIS)	✓
Diagnostics (loopback, testability, PHY register access)	✓
Advanced configuration and power interface (ACPI) 1.0 power management	✓
Wake on LAN support over PCI Express	✓
PXE 2.0 enabled through boot read-only memory (ROM)	✓
Supported Operating Systems	
Genuine Windows Server® 2008 Foundations R2	✓
Genuine Windows Server® 2008 Standard Edition R2	✓
Genuine Windows Server® 2008 Enterprise Edition R2	✓
Genuine Windows Server® Small Business Server 2008 Standard (SP2)	✓

Advanced Software Features	
Adapter fault tolerance (AFT)	✓
Switch fault tolerance (SFT)	✓
Adaptive load balancing (ALB)	✓
Fast EtherChannel[1] (FEC)	✓
Gigabit EtherChannel[1] (GEC)	✓
Teaming support	Scales up to 8 connections
Multiple teams	Supports 4 separate teams, maximum
IEEE 802.3ad (link aggregation control protocol)[1]	✓
Test switch configuration	Tested with major switch original equipment manufacturers (OEMs)
PCIe Hot Plug/Active peripheral component interconnect (PCI)	✓
IEEE 802.1Q VLANs	✓
IEEE 802.3 (z, ab, u, x) flow control support	✓
TCP checksum offload — transmission control protocol (TCP), user datagram protocol (UDP), Internet protocol (IP)	✓
IEEE 802.1p	✓
TCP segmentation/large send offload	✓
Interrupt moderation	✓
Technical Features	
Data rate(s) supported per port	10, 100 and 1000 Mbps
Bus type	PCI Express 1.0a
Bus width	x4 lane PCI Express, operable in x4, x8, x16 slots
Bus speed (x4, encoded rate)	10 Gbps uni-directional; 20 Gbps bi-directional
EEPROM-SPI and single EEPROM support	✓
Interrupt levels	INTA, INTB
IEEE support	802.3ab
Hardware certifications	FCC B, UL, CE, VCCI, BSMI, CTICK, MIC
Controller-processor	Intel® 82571GB
Typical power consumption	4.95 W (3.3 V @ 1.5 A)
Operating temperature	0–55° C
LEDs	4 (1/port, link and speed) solid and blinking
Physical Dimensions	
Length	12.95 cm (5.1 in)
Width	2.16 cm (0.85 in)
Height of end bracket	12.0 cm (4.725 in)

1 Available only when used with a capable switch

www.lenovo.com/thinkserver

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