

Product Specification

NIC-1G-2PT

A-GEAR PRO Gigabit PT Dual Port Server Adapter



Apply two Gigabit copper server connections in a single PCI Express * slot.

1. Features

- Build on PCI Express Technology and Intel original gigabit controller technology.
- Two high-performance PCI Express 10/100/1000 Mbps connections for slot-constrained servers.
- Multi-Gigabit scalability and increased uptime through advanced server features.
- Build on lead-free technology.

2. Product Description

2.1. Reliable connectivity you can count on

A-GEAR PRO Gigabit Ethernet PT Dual Port Adapter design, is base on Intel original controller chip, PCI Express bus, RJ-45 slots and utp-5 cable connectivity, to achieve professional gigabit Ethernet network connectivity. They can added dual-port gigabit copper connectivity in a single PCI-E bus within one server adapter, to enhance network performance and also saving valuable PCI Express (PCIe *) server slots.

Conserve valuable PCI Express (PCIe*) server slots while adding multi-port Gigabit Ethernet capability with the A-GEAR PRO/1000 PT Dual Port Server Adapter. The dedicated I/O bandwidth of PCIe ensures priority performance on each port, without bus sharing, for Gigabit Ethernet connectivity in Category-5 networks. Additionally, the A-GEAR PRO/1000 PT Dual Port Server Adapter is designed to provide high performance in multi-processor systems by efficiently balancing network loads across multiple Central Processing Units (CPUs) when used with Receive-Side Scaling from Microsoft or Scalable I/O on Linux*.

The A-GEAR PRO/1000 PT Dual Port Server Adapter features 10/100/ 1000 Mbps self-configuration for compatibility with mixed-speed network devices, and is supported by PRO Intelligent Install and the new PROSet Utility for Microsoft* Device Manager. PROSet simplifies adapter installation and gives you point-and-click power to configure and manage all your A-GEAR PRO Network Connections for connectivity you can count on.

3. Product Specifications

3.1. General and Technical Features

Manufacturer Product Name	A-GEAR PRO/1000 PT Dual Port Server Adapter
Product Code	NIC-1G-2PT
Form Factor	Internal-connected with servers , Workstations and Others
Controller-Processor	Intel 82571EB *1
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
Network Interface Type	Dual-Port ,RJ-45 Slots *2
Data Rate(s) Supported	10, 100 and 1000 Mbps per port
Connection Parts	RJ-45*2 (10BASE-T, 100BASE-T, 1000BASE-T), UTP-5 cables
IEEE Network Standards	IEEE 802.3 (10BASE-T, 100BASE-T, 1000BASE-T)
Typical Power Consumption	4.95 W (3.3 V & 1.5 A)
Hardware Certifications	FCC B, UL, CE, VCI, BSMI, CTICK, MIC
LEDs	4 (2/port) solid and blinking
Brackets *2	Includes a full-height bracket and a low profile bracket

3.2. Environment Standard

Operating Temperature	0°C ~ 55°C
Operating Humidity	85%
Stoke Temperature	-20°C ~ 65°C
Stoke Humidity	85%

3.3. NOS Software Support

Microsoft Windows* Server 2003, Enterprise, Datacenter (32- and 64-bit)

Microsoft Windows 2000

Red Hat Linux* 2.4x or later (32- and 64-bit)

A-GEAR World Wide Manufacturing

FreeBSD 4.x or later

Novell Netware* 5.x, 6.x

Sun Solaris* x86, OS 8 and later

SCO Open Server 5, Open Unix 8*

3.4. Network Management

Wired for Management (WfM) baseline v2.0 enabled for servers

DMI 2.0 support,

Windows Management Instrumentation (WMI) SNMP manageable SM Bus 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)

3.5. Physical Dimensions

Length	13.2 cm (5.20 in)
Width	6.8 cm (2.68 in)
Height of Brackets	12.0 cm/8 cm (4.72 in/3.15 in)
Packing Standard Size (Unit)	20 x 15 x 4.5 (cm) (7.87 x 5.91 x 1.77 (in))

4. Features and Benefits

Features	Benefits
Two Gigabit Ethernet Ports	Applicate two Gigabit copper connections in a single PCI Express * slot
Apply Intel 82571EB 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*

Features	Benefits
Interrupt moderation	Delivers increased performance while significantly reducing CPU utilization
Compatible with x4, x8, and x16 full-height 2 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 (NQS)	Enables widespread deployment
Remote management support	Reduces support costs with remote management based on industry-wide standards
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
Category-5 UTP connection	Using existing 4 pair cabling and saves re-wiring costs.
RoHS compliant ³ , Lead-free ¹ technology	Compliant with the new European Union directive (effective July 2006) to reduce the use of hazardous materials
Product backing	Backed by A-GEAR limited lifetime warranty, 3-months replacement guarantee, and 3-years global services warranty, and worldwide support.

5 Product Features and Advanced Software Features

- Auto-negotiation, full-duplex capable
- Lead-free¹ technology
- Integrated media access control (MAC) and physical layer (PHY)
- PRO Set Utility and PRO Intelligent Install for easy installation
- Support standard plug and play specification
- Support SFP transceivers exchange
- Adapter fault tolerance (AFT)
- Switch fault tolerance (SFT)
- Fast Ethernet Channel*5 (FEC)
- Adaptive load balancing (ALB)
- Gigabit Ethernet Channel*5 (GEC)
- IEEE 802.1p*
- IEEE 802.1Q* VLANs
- IEEE 802.3* (z, ab, u, x) flow control support
- IEEE 802.3ad* (link aggregation control protocol) 5
- Interrupt moderation INTA, INTB Interrupt levels
- Support scales up to 8 connections teaming
- EEPROM-SPI and single EEPROM support
- Supports 4 separate teams, maximum, Multiple teams

- PCIe Hot Plug*/Active peripheral component interconnect (PCI)
- TCP checksum offload
- TCP segmentation/large send offload (TCP—transmission control protocol)
- Switch configuration Test, with major switch original equipment manufacturers (OEMs)

6. Companion Products

A-GEAR Ethernet server adapter has been tested for compatibility, available from 10/100 Mbps to 1000Mbps and 10 Gbps, optical fiber or copper, gigabit SFP transceivers SM or MM, 10 gigabit Ethernet SFP+ transceivers, can be adaptive plug replacement, extensive using PCI Express * and single to dual to quad ports configurations.



7. Customer Support

A-GEAR Customer Support Services offers a broad selection of programs including phone support, online service and warranty service. We offer you good service including 3-months replacement guarantee, and 3 years global warranty services and worldwide support.