



AT-2973T/4

PCI-Express Quad Port Copper Gigabit Interface Card

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PCIe x 4 (channels) quad port copper Gigabit interface card

Optimized for Virtualization

Using multi-port cards in virtualized environments critical to the application in order to provide redundancy and data connectivity for the workloads in the virtual machines. Due to specific slot limitations and the need for redundancy/data connectivity, it is usually recommended virtualized servers use at least six Gigabit ports to satisfy the I/O demands.

Virtual Machine Device queues (VMware Direct Path)

VMware Direct Path (SR-IOV) reduces I/O overhead on the hypervisor in a virtualized server by performing data sorting and uniting it in the network silicon (this feature requires an O/S that supports VMware Direct Path (SR-IOV)). This technology makes use of multiple queues in the network controller. As data packets enter the card, they are sorted, and packets traveling to the same destination/virtual machine get grouped together in a single queue. The packets are sent to the hypervisor, which directs them to their respective virtual machines. Taking the strain of packet filtering and sorting from the hypervisor improves overall CPU usage and throughput.

The AT-2973T/4 Gigabit interface card provides improved performance with the next-generation (VMware Direct Path, SR-IOV) technology, which includes features such as loop back (inter-VM communication), priority-weighted bandwidth management, and doubling the number of data queues per port from 4 to 8. It also supports multicast and broadcast data on a virtualized server.

Superior Functionality

The AT-2973T/4 includes dedicated hardware and processors to process frames at the highest levels in the operating system for both transmit and receive paths - advantageous for virtualization applications.

The AT-2973T/4 enables convergence of all the networked communications possible in a server, such as data (LAN), storage networks (iSCSI), clustering.

More Bandwidth with PCI-Express Interface

The PCI-Express (PCIe) design gives you the maximum possible bandwidth and bus efficiency. Other benefits are capability and low power consumption.

High Reliability

The AT-2973T/4 Gigabit interface card comes with a comprehensive Microsoft Windows utility that performs detailed tests, diagnostics and analysis.

Advanced Manageability

The priority queuing offered by AT-2973T/4 can help you set-up your network based on your own needs. The comprehensive diagnostics and configuration software suite provides system administrators and engineers with a profound tool to analyze the interface card to check specific data.

Quad Port Copper Interfaces

Four copper port interfaces give you the maximum protection against failure. If one link goes down, the other keeps sending data to prevent network down time. The four ports can also be trunked to increase bandwidth in server type applications.

Key Features

Management Software

- Virtual cable tester
- VLAN support
- Link aggregation LACP
- Link aggregation smart switch
- Failover

Advance Properties

- Jumbo frames (9K)
- Checksum offloading
- PCI-Express (PCIe) v1.1
- PCI-Express (PCIe) v2.0 ready
- IEEE 802.1x flow control
- Processes receive and transmit frames at the highest level
- IEEE 802.1p-based traffic prioritization
- PXE remote boot support
- Wake-on-LAN (WoL)
- Standard height brackets included
- Microsoft certified drivers
- RoHS compliant
- Load balancing
- Message Signal Interrupt (MSI and MSI-X)
- Receive Side Scaling
- On-board 78KB memory
- CPU task offload
- TCP segmentation
- TCP Offload Engine (TOE)
- SNMP
- IPv6
- iSCSI offloading



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Specifications

Management Features

WMI
ACPI 1.1
PXE 2.1 Boot ROM
SNMP

Bus Type

PCIe x4

Ethernet Standards

IEEE 802.1p	Quality of Service
IEEE 802.1Q	VLANs
IEEE 802.2	LLC
IEEE 802.3ac	MAC
IEEE 802.3	10 Ethernet
IEEE 802.3u	Fast Ethernet
IEEE 802.3ab	Gigabit standard
IEEE 802.3x	Flow control auto-negotiation
IEEE 802.3ad	Link aggregation
IEEE 802.3ab	1000T

Drivers

Supported

Windows 2003, 32 and 64-bit
Windows 2008, 32 and 64-bit
Windows 7, 32 and 64-bit
Windows Hyper-V
Citrix XenServer
VMware
NDIS2
Linux 2.6

Available

Solaris x86
NetWare 6.x

Compliance

RoHS
UL
FCC/EN55022 Class B
TUV
EN55024
CE
C-TICK
VCCI
Chipset

Connectors

RJ-45

Environmental Specifications

Operating temperature	0°C to 50°C
Storage temperature	-25°C to 70°C
Relative humidity	5% to 90% non-condensing

Power

Power consumption	5.8 Watts (avg)
Signaling voltage	3.3V

Status Indicators

LED	2 port
LINK	ON 1000Mbps link up OFF 1000Mbps link down
ACT	ON Data OFF No data

L/A (link/activity)
Blinking - activity

Physical Characteristics

Dimensions (W x H)	14.47cm x 5.61cm (5.7" x 2.2")
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Weight	0.05kg
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Ships with standard bracket attached to interface card.

Network Type

10/100/1000T

Network Speed

10/100/1000T
Auto-negotiation
100 full-duplex
100 half-duplex
10 full-duplex
10 half-duplex

Network Controller

Broadcom BCM5709C

Ordering Information

AT-2973T/4-xxx

PCIe quad port copper Gigabit interface card

Where xxx = 001 for single pack
901 for single pack, Federal and
Government

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