

Overview

Models

Currently Available Model	PCI to 155 Mbps ATM MMF NIC with duplex SC	3X-DAPBA-FA
Retired / End-of-Life	PCI to 155 Mbps ATM UTP NIC with RJ45	3X-DAPBA-UA
Models with limited quantity availability (March, 2004)	PCI to 622 Mbps ATM MMF NIC with duplex SC	3X-DAPCA-FA

Introduction

The 3X-DAPBA-FA/UA and the 3X-DAPCA-FA PCI to ATM adapters provide ATM connectivity for HP Alpha systems. Based on the industry's most advanced ATM ASIC, NetPro, the PCI-to-ATM adapters provide the highest performance ATM capability available in the industry. They provide hardware support for available bit rate (ABR), variable bit rate (VBR), constant bit rate (CBR), and unspecified bit rate (UBR). Using this ASIC chip, voice, video, and data can be carried simultaneously via high-performance networks and systems. Together, the 64-bit PCI adapter and 64-bit Alpha CPU create the most efficient, high-performance ATM application solution platforms available in the industry. In addition, the universal 32/64-bit, 33/66 MHz PCI bus interface makes the adapter usable on any 32-bit PCI compliant host system.

The advanced technology integrates dual intelligent DMA channels, a 32-/64-bit, 33-/66-MHz PCI bus interface, and either a 155 Mbps capable OC3 or 622 Mbps capable OC12 ATM PHY. It is these powerful hardware based protocol accelerator features that enable the PCI-to-ATM adapters to deliver the highest lines rates and consume the least host CPU overhead.

Performance

Full-duplex support allows the HE high-performance ATM adapters to transmit and receive data simultaneously at rates up to 266 Mbps for OC3 and up to 1064 Mbps for OC12. System level performance is further enhanced with up to 2 MB of buffer memory, which allows for reduced CPU overhead and higher sustainable line rates.

ATM Segmentation and Reassembly

The high-performance ATM adapters can do concurrent segmentation and reassembly on up to 4K ATM virtual connections.

Programmable Threshold Interrupt Mechanisms

The host can set a threshold interrupt level to minimize the number of interrupts received by the host processor, protecting the system from being overrun by excessive transmit and receive interrupts.

Local Memory

The ASIC provides a 32-bit wide (HE155) or a 64-bit wide (HE622) high-speed memory bus to connect to the 2 MB on-board Local Cell Memory (SDRAM). Access into the SDRAM can be to any address. Any combination of byte, half-word, or word writes are allowed by the hardware.

Buffer Alignment

Not all DMA transfers are aligned to 32-/64-bit boundaries. The ASIC supports automatic handling of misaligned buffer transfers, reducing CPU utilization and improving data flow efficiency.

Scatter/Gather DMA Engines

The ASIC is capable of moving data into or from multiple fragments in memory. The DMA operation can scatter or gather the data, respectively, during the DMA process. This offloads copy operations from the host processor, increasing the host's efficiency and overall system performance.

Protocol Offload

The PCI-to-ATM adapters provide built-in hardware to calculate TCP checksum. These mechanisms are available to host system device drivers and protocol stacks to off-load these CPU-intensive tasks.

Ease of Use

Troubleshooting

LEDs indicate link and network activity for "at-a-glance" troubleshooting.

Warranty

Maximum - The remaining warranty of the HP AlphaServer in which it is installed.

Minimum - 1-year Return-to-Factory with Advance Exchange

NOTE: Certain restrictions and exclusions apply. Contact 1-800-OK-COMPAQ for details.

Host Platform Support and Configuration Rules

Refer to the Supported Options List (SOL) for specific AlphaServers or AlphaStations at: <http://h18002.www1.hp.com/alphaserver/> to determine support status (hardware configuration rules, minimum supported revisions for operating systems, console firmware, and other related layered products).

Driver Support and Where To Find It

Driver Support is provided as part of the host AlphaServer or AlphaStation Operating System Distribution - Tru64 UNIX and OpenVMS. As stated above, refer to the respective host Alpha system Supported Options List to determine support and any required patch kits.

Ordering Information

NOTE: Refer to the respective **Supported Options List (SOL)** <http://h18002.www1.hp.com/alphaserver/> for specific AlphaServers or AlphaStations to determine current option support status, minimum console and operating system revisions, and system configuration rules.

ATM 155 & 622 Mbps NICs

Part Number	Description
3X-DAPBA-FA	PCI to 155 Mbps ATM NIC MMF with duplex-SC Connector
3X-DAPBA-UA	PCI to 155 Mbps ATM NIC UTP with RJ45 connector (EOL Limited Availability, check with you account representative before ordering)
3X-DAPCA-FA	PCI to 622 Mbps ATM NIC MMF with duplex-SC Connector (EOL Limited Availability, check with you account representative before ordering)

Technical Specifications

General Specifications	PCI V2.1/V2.2 bus-master		
	32-/64-bit data, 32-bit addressing, 33/66 MHz		
	Universal, 3.3 V and 5.0 V bus signaling		
	Single-slot PCI short form factor		
Power and Environmental Specifications	Operating	Temperature	41° to 104°F (5° to 40°C)
		Humidity	up to 80% (non-condensing)
	Non-operating	Temperature	40° to 158°F (-40° to 70°C)
		Power Requirements	Maximum: 1.5W @ 5.0 V
	Emissions Standard	FCC Class A on Alpha Platforms	
		UL1950/CSA 950, EN60950, EN60825, IEC 825.1 IEC825.2 FCC Part 15, EN55022 Class A, VCCI Class 1 EN50082-1, EN50022	
Safety Compliance	CE Mark		
Kit Contents	High-Performance PCI ATM NIC		
	User's Guide		

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