

PCnet-PCI II-KT/2

Am79C970A Based Evaluation Kit for PCI Systems

DISTINCTIVE CHARACTERISTICS

- PCI-based Ethernet adapter card with on-board 10BASE-T and 10BASE2 connections
- Based on the PCnet-PCI II (Am79C970A) single-chip Ethernet controller for PCI bus
- Implements a fully functional Ethernet node using a Peripheral Component Interconnect (PCI)-based system
- Ethernet adapter card utilizing a high performance, low-cost, bus master architecture (NE2100)
- Supports full-duplex Ethernet operation
- Software configurable
- Software compatible with all PCnet family members
- Software drivers support all popular Network Operating Systems (NOS)
- Includes evaluation board, software driver diskettes, and supporting documentation

GENERAL DESCRIPTION

The PCnet-PCI II evaluation kit is a design evaluation vehicle for the Am79C970A PCnet-PCI II single-chip Ethernet controller with an integrated PCI bus interface. The kit includes an evaluation board with the Am79C970A Ethernet controller and is designed for 10BASE-T (Twisted Pair) or 10BASE2 (Cheapernet) media.

The evaluation board, when installed in an PCI-based host system, provides a platform for demonstrating the high performance of the PCnet-PCI II device, the low manufacturing cost of a PCnet-PCI II based solution, and the overall ease of design. The platform further allows the user to evaluate network hardware and to develop software for an Ethernet node based on the PCnet-PCI II device.

In addition to the evaluation board, the kit comes with software diskettes, a hardware user's manual, the *PCnet Family Network Driver Installation Guide*, and the Networking Products CD-ROM (PID# 21244).

The software includes driver object codes for Novell NetWare ODI DOS and OS/2, Microsoft Windows NT, Window for Workgroups, LAN Manager, Banyan VINES Client, IBM LAN Server, SCO UNIX, Artisoft LANtastic/AI, DEC Pathworks, and Packet Driver. Also included are two utility programs, one for configuration of the network adapter card and software driver installation, and one for EEPROM configuration.

No hardware jumpers are required for configuration. The PCI system BIOS automatically configures on power up,

the I/O Base Address, interrupt channel, and DMA channel for the PCnet-PCI II Ethernet adapter card.

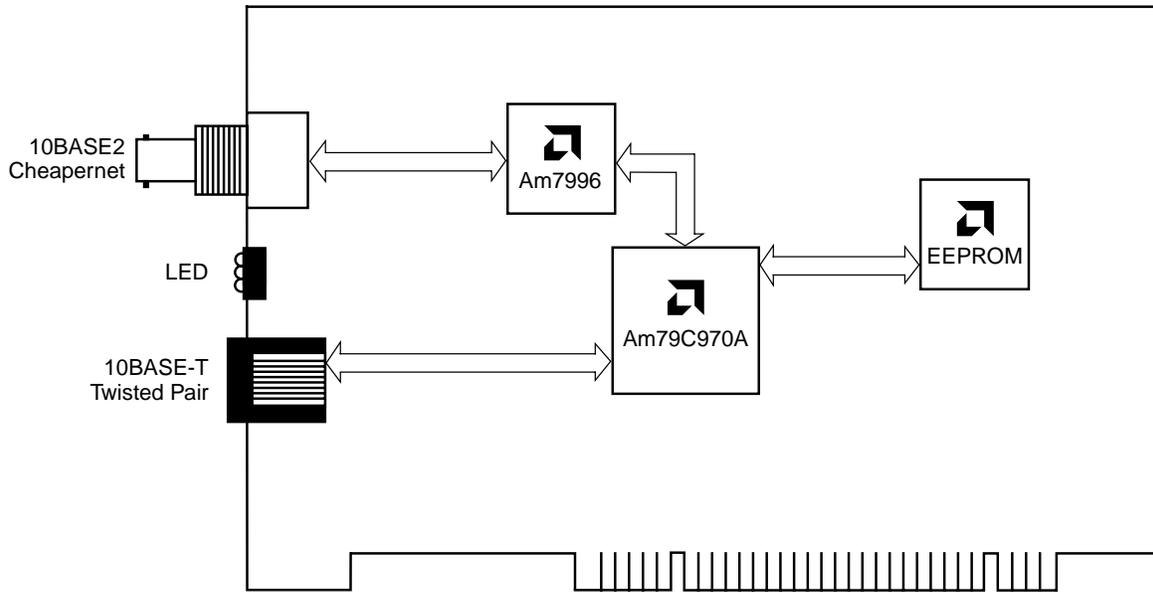
In addition, AMD provides a low-level evaluation program to establish connections, and send and receive messages. The evaluation program allows the user to view and change the contents of the PCnet-PCI II registers, the memory resident Initialization Block, and the data buffer Descriptor Rings. The program also allows the designer to establish loops for hardware probing.

The PCnet Family Configuration and Installation utility program, Aminstall, provides an easy user interface to view the configuration of the PCnet-PCI II evaluation board. The utility program will automatically scan the system bus(es), which may include ISA, VL, and PCI to find the installed PCnet-ISA, PCnet-ISA+, PCnet-ISA II, PCnet-32, PCnet-PCI, PCnet-PCI II, and PCnet-PCI II devices. With the configuration portion of the program, the utility will find and report to the user, the I/O address, IRQ channel and DMA channel, assigned to the PCnet-PCI II device by the system BIOS. After configuration, the user may use the installation portion of the utility to install a selected driver by copying the appropriate driver from the AMD diskette, and create or modify the CONFIG.SYS, AUTOEXEC.BAT, and PROTOCOL.INI OR NET.CFG files on the user's system.

The PCnet-PCI II evaluation board stores the unique IEEE physical address in the serial EEPROM. Once powered up, the Am79C970A device reads the node's IEEE physical address from the EEPROM through the Microwire interface protocol. For more details about the

PCnet-PCI II Ethernet Controller also refer to the Am79C970A PCnet-PCI II data sheet (PID #19436),

which is found in the Networking Products CD-ROM (PID# 21244) or on the AMD Web site (www.amd.com).



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Figure 1. PCnet-PCI II-KT/2

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