AMD❤

PCnet-*FASTPLUS*-KT

Am79C972-Based Evaluation Kit for PCI Systems

DISTINCTIVE CHARACTERISTICS

- **Based on the 10/100 Mbps PCnet-*FAST+* (Am79C972) highly integrated Ethernet Controller**
- **Implements a fully functional 10/100 Mbps Ethernet node using a Peripheral Component Interconnect (PCI)-based system**
- **Supports OnNow power management and Magic Packet™ remote wake-up and power-on**

- **Software compatible with all PCnet Family members**
- **Software drivers support all popular Network Operating Systems**
- **Includes Evaluation Board, software driver diskettes, and supporting documentation**

GENERAL DESCRIPTION

The PCnet-*FAST+* evaluation kit is a design evaluation vehicle for the Am79C972 PCnet-*FAST+* Ethernet controller. The kit includes an evaluation board with the Am79C972 Ethernet controller and is designed for 10BASE-T or 100BASE-TX media.

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

In addition to the evaluation board, the kit comes with the AMD Networking CD-ROM, a hardware user's manual, the *PCnet Family Network Driver Installation Guide*, the Am79C972 data sheet, board schematics and Bill of Materials, and instructions for testing the Magic Packet remote wake-up technology.

The software includes driver object codes for Novell NetWare ODI DOS and OS/2, NetWare Server, Microsoft Windows NT, Windows 95, Window for Workgroups, LAN Manager, Banyan VINES Client, IBM LAN Server, SCO UNIX, Artisoft LANtastic/AI, DEC Pathworks, and Packet Driver. Also included are utility programs for configuration of the network adapter card and software drivers installation, EEPROM configuration, diagnostics, and Magic Packet wake-up.

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-*FAST+*-based 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-*FAST+* 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, *AMINSTAL*, provides an easy user interface to view the configuration of the PCnet-*FAST+* evaluation board. The utility program will automatically scan the system bus(es), which may include IDA, VL, and PCI to SA+, PCnet-ISA II, PCnet-32, PCnet-PCI, PCnet-PCI II, and PCnet-*FAST*, and PCnet-*FAST+* 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-*FAST+* device by the system BIOS. After configuration, the user may use the installation portion of the utility to install a selected driver and create or modify the CONFIG.SYS, AUTOEXEC.BAT, and PROTOCOL.INI OR NET.CFG files on the user's system.

The PCnet-*FAST+* evaluation board stores the unique IEEE physical address in the serial EEPROM. Once powered up, the Am79C972 device reads the node's IEEE physical address from the EEPROM through the Microwire interface protocol. For more details about the PCnet-*FAST+* Ethernet Controller also refer to the *Am79C972 PCnet-FAST+* data sheet (PID #21485B) and the *PCnet Family Technical Manual* (PID #18216).

Trademarks