PRELIMINARY

AMD

PCnet-*FAST*-MP-KT

Am79C971 Based Evaluation Kit for PCI Systems

DISTINCTIVE CHARACTERISTICS

- **Based on the 10/100 Mbps PCnet-*FAST* (Am79C971) single-chip Ethernet Controller**
- **Implements a fully functional 10/100 Mbps Ethernet node using a Peripheral Component Interconnect (PCI)-based system**
- **Ethernet adapter card utilizing a high performance, low-cost, bus master architecture**
- **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 Am79C971 PCnet-*FAST* single-chip Ethernet controller. The kit includes an evaluation board with the Am79C971 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 software diskettes, a hardware user's manual, the *PCnet Family Network Driver Installation Guide*, device data sheet, and the *PCnet Family Technical Manual*.

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 drivers 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-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, Aminstall, 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* 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 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-FAST evaluation board stores the unique IEEE physical address in the serial EEPROM. Once powered up, the Am79C971 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 Am79C971 PCnet-FAST data sheet (PID #20550C) and the PCnet Family Technical Manual (PID #18216).

Trademarks

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