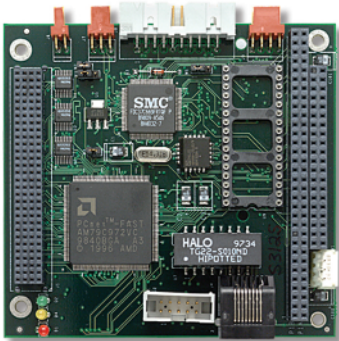


MiniModule™ ESB

High-speed 10/100BaseT Ethernet, Serial, Byte-wide Socket module



FEATURES

- PCI Fast Ethernet controller (AMD AM79C972):
 - Onboard RJ45 twisted-pair interface
 - 10 or 100Mbps, autodetected
 - Full-duplex operation
- Dual serial ports:
 - 16550 FIFO-buffered, with full handshaking
 - One port configurable for RS232/RS485
 - Other port configurable for RS232/TTL
 - Supports optional interrupt sharing
- Socket for bootable DiskOnChip 2000 SSD
- PC/104-Plus compliant form-factor

The MiniModule™ ESB multifunction module provides a "Fast" (100Mbps) Ethernet interface, two serial ports, and an SSD expansion socket in a single highly integrated PC/104-Plus compliant module.

PCI "Fast" Ethernet

The Ethernet subsystem is based on a PCI interfaced AM79C972 controller, and supports both 10 and 100 megabits per second full-duplex data transfer. 10/100BaseT twisted pair media connection is via an onboard industry standard RJ45 connector. The Ethernet interface is well supported by a wide range of operating systems including DOS, Windows® 98, Windows NT, Windows CE, QNX™, VxWorks™, and other leading RTOSs.

Serial

Two PC-compatible serial ports are implemented with 16C550-type UARTs that have 16-byte FIFO buffers for fast throughput. One serial port can be configured for either RS232 or RS485 operation; the other is configurable for RS232C or TTL-level signaling.

Byte-wide Socket

A socket is provided for an M-Systems DiskOnChip2000® solid state disk. This device provides up to 144MB of highly rugged, non-rotating flash disk storage, and is compatible with most commercial and real-time operating systems.

SPECIFICATIONS

I/O

- **Ethernet** –
 - Controller
 - AM79C972 PCI Ethernet controller
 - Topology –
 - Ethernet bus, using CSMA/CD
 - 10/100BaseT (twisted pair) via onboard RJ-45 connector
 - Operation –
 - 10 or 100Mbps, autodetected
 - Large receive-and-transmit FIFOs
 - Supports full duplex operation
 - Port may be disabled with a hardware jumper
- **Serial** –
 - UART –
 - Two serial ports implemented using 16550 equivalent UARTs with 16 byte data FIFOs
 - Supports full handshaking
 - Interface Options –
 - Serial port one is software-configurable for RS232 or RS485
 - Serial port two is software-configurable for RS232 or TTL
 - Flexible software selection of interrupts
 - Configuration supports optional interrupt sharing
 - Both ports may be disabled through software
- **Byte-wide Socket** –
 - Supports M-Systems DiskOnChip2000® bootable SSD
 - Occupies 64k address space at 0D0000H or 0E0000H when enabled
 - Socket may be disabled through software

Bus Interface

- PC/104-Plus bus (PCI), PC/104 bus (ISA)

Mechanical

- **Size** – 90x96xmm (3.6x3.8") PC/104-Plus
- **Power** – (typical)
 - Full up: 0.43A @ +5V
 - Ethernet only: 0.27A @+5V
- **Environmental** – Operating temperature: 0° to 70°C standard; -40° to +85°C extended

Warranty

- 3-year warranty

ORDERING INFORMATION

MODEL	DESCRIPTION
MM3-ESB-K-00	QuickStart Kit (cables, documentation, software, no board)
MM3-ESB-Q-81	MiniModule ESB, Full up
MM3-ESB-Q-82	MiniModule ESB, Ethernet only