SBC-400 HALF-SIZE 486 CPU BOARD

OVERVIEW

The SBC-400 is an all-in-one CPU card that supports L2 cache sizes from 128KB to 512KB (32KB x 8, 64KB x 8, or 128KB x 8). This CPU card uses the M1489/M1487 chipsets, which accept Intel, AMD, Cyrix, or other compatible 486-based CPU's. The SBC-400 is fully PC/AT compatible, so your software will run without modifications.

On-board features include 2 high-speed serial ports (RS232 and RS232/422/485) with 16C550 UARTs, one bi-directional parallel port, and floppy drive controller. The 15-stage watchdog timer will automatically reset the CPU or generate an interrupt for any system halt situation. The SBC-400 is built with a high speed local bus IDE controller. The controller supports up to two (through ATA PIO mode 3 and mode 4 hard disks), enabling data transfer in excess of 11MB/second. Up to two IDE controllers including large hard disks, CD-ROM drives, tape backup drives, etc. The built-in enhanced IDE controller provides 42-layer 32-bit posted write-buffer and a 4-layer 32-bit read-prefetch-buffer to boost IDE performance.

The SBC-400 supports 5V EDO DRAM. It also provides two 72-pin SIMM (Single Inline Memory Module) sockets for on-board DRAM. This gives you the flexibility to configure your system memory from 1 to 128MB using the most economical combination of SIMMs. The SBC-400 also features power management to minimize power consumption. It uses CMOS components and complies with the 'Green Function' standard. For additional functions, add any industry standard PC-104 expansion module. Tempustech provides numerous PC-104 modules to meet your system requirements.

FEATURES

- Accepts Intel, AMD, Cyrix, or other compatible processor
- Half-size ISA bus CPU card, fully 486SX/DX/DX2/DX4 compatible
- Built-in 128KB secondary cache, up to 512KB
- Designed DIP package sockets for L2 cache
- Built-in IDE (AT bus) hard disk interface, floppy drive controller
- One RS232 and one RS232/422/485 selectable serial port; uses 16C550 UARTs with 16-byte FIFO
- One bi-directional parallel port
- 32 to 140oF (0 to 60oC) operating temperature
- Watchdog timer, software programmable from 2 to 30 seconds (15 steps, 2 sec./step)
- On-board keyboard connector and/or PS/2 mouse
- IDE HDD auto-detection
- Connectors for PC-104 module expansion
- Single +5V power supply
- 'Green' function, supports power management

TECHNICAL SPECIFICATIONS

- **PROCESSOR**
  Intel- 486SX/DX/DX2/DX4, 486SX/DX/DX2/DX4-S
  AMD- Am486DX/DX2/DX4, DX2+/DX4+
  Cyrix- Cx486DX/DX2/M7; UMC U5
- **BUS INTERFACE**
  ISA (PC/AT) bus
- **DATA BUS**
  -32 bit

- PROCESSING ABILITY
  -32 bit
- **CHIPSET**
  -ALI 1489/1487
- **RAM MEMORY**
  -1MB to 128MB, two 72 pin sockets
- **SHADOW RAM MEMORY**
  -System and video BIOS of up to 256KB in 32KB blocks
- **L2 CACHE MEMORY**
  -On-board 128KB, up to 512KB (DIP package)
- **ENHANCED IDE HDD INTERFACE**
  -Up to two enhanced IDE (ATA-2 bus) large hard disk drives or other enhanced IDE drives. Supports mode 3 and mode 4 hard disks (minimum transfer rate of 11.1 MB/sec.)
- **FLOPPY DISK DRIVE INTERFACE**
  -Up to two floppy disk drives, 5.25" (360KB and 1.2MB) and/or 3.5" (720KB, 1.44 and 2.88MB)
- **BI-DIRECTIONAL PARALLEL PORT**
  -SPP/EPP/ECP standards
- **SERIAL PORTS**
  One RS-232 port and one RS-232/422/485 port, jumper selectable
  Both with 16C550 UARTs with 16-byte FIFO buffer
  IRQ Selection for COM Ports:
  - COM A - IRQ4 or IRQ15
  - Supports COM 1/2/3/4 & address is selectable
  -COM B - IRQ3 or IRQ11
  - Supports COM 1/2/3/4 & address is selectable
- **BIOS**
  -AMI or Award
- **WATCHDOG TIMER**
  -Time interval is software selectable from 2 to 30 seconds (15 steps, 2 sec. per step)
  -Can generate a system reset
- **PC/104**
  -104-pin connector for a 16-bit bus
- **DMA CHANNELS**
  -7
- **INTERRUPT LEVELS**
  -15
- **KEYBOARD CONNECTOR**
  -A 6-pin mini DIN keyboard connector is located on the mounting bracket for easy access. An on-board keyboard 5-pin header connector is also available
- **PS/2 MOUSE CONNECTOR**
  -Shared with keyboard connector
- **BUS SPEED**
  -8MHz for ISA bus; 20/25/33 MHz for PCI bus, depending on CPU clock speed
- **SYSTEM PERFORMANCE**
  325 MHz in 880486DX4-100 (Landmark V2.0)
- **MAX POWER REQUIREMENTS**
  -Plus 5V @ 2.5A
- **POWER SUPPLY VOLTAGE**
  -Single +5V (4.75 V to 5.25V)
- **OPERATING TEMPERATURE**
  -32 to 140oF (0 to 60oC); must use a cooling fan when using a DX4-100CPU
- **BOARD SIZE**
  -7.3"(L) x 4.8"(W) (185mm x 122mm)
- **BOARD WEIGHT**
  -1.2 lbs (0.5Kg)
- **GREEN FUNCTION**
  -Yes

- **EMI**
  -Pending
- **MTBF**
  -Pending

ORDERING INFORMATION

When ordering, please specify the following information:

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Part number is: SBC-400* Description is: Half size 486 CPU board
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Specify DRAM 1MB to 128MB

Tempustech, Inc. accepts Visa, Mastercard and Net 30 for applicants that qualify for credit terms.

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