Half-size PISA-bus All-in-One Pentium CPU Card
with CRT SVGA, Ethernet and DiskOnChip socket

CE

PISA
Half-size
PCI & ISA

Ethernet
100BASE-TX

PS/2

COM1

Keyboard

SIS-5598 chipset
with shared memory
VGA controller

PISA bus
Half-size
PCI & ISA

DiskOnChip® 2000
supports TrueFFS®
up to 72 MB
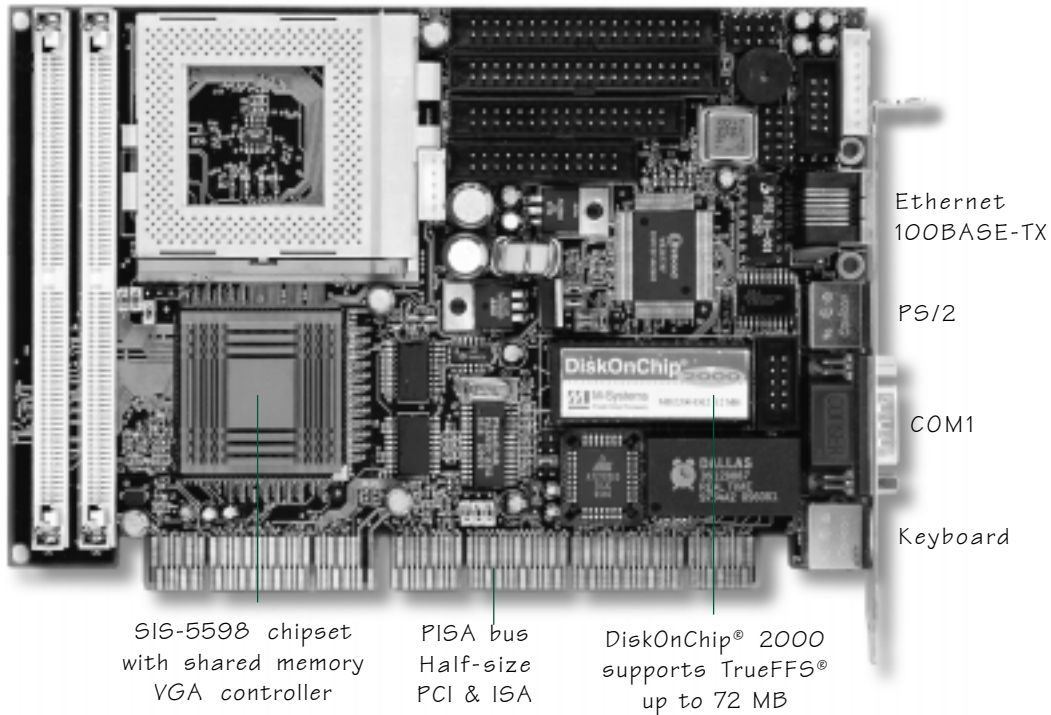
Special Features

- **PISA bus support Half-size card PCI/ISA**

- **AMD K5, K6, Cyrix M1, M2 and Intel MMX support**

- **SIS 5598 chipset with integrated SVGA CRT controller and Ultra DMA for HDD transfer rates of up to 33 MB/sec**

- **100BASE-TX Ethernet**

- **DiskOnChip® 2000 socket for Flash disk of up to 72 MB**

- **512 KB pipeline burst cache**

- **Watchdog Timer**

The PISA-659 is a half-size PCI/ISA Pentium single board computer. It includes SIS5598 integrated chipset that has built-in support for CRT SVGA displays, 100BASE-TX Ethernet and and a DiskOnChip® 2000 socket for Flash Disks of up to 72 MB. The PISA-659 includes special circuitry that stabilizes the CPU temperature and that sends an audible alarm when the CPU overheats.

ULTRA DMA HDD SUPPORT
Ultra DMA doubles the current burst data transfer rate to 33 megabytes (MB) per second. Ultra DMA "widens" the path to the hard drive by transferring twice as much data per clock cycle.

MULTI I/O
Included are two high speed RS-232 serial ports , a parallel port, two USB ports, and IR interface, a floppy-drive controller and a keyboard/PS/2 mouse interface.

CRT SVGA CONTROLLER
The PISA-659 main chipset includes an high performance CRT SVGA controller that can share system memory up to 4 MB (FPM/EDO/BEDO)

DISKONCHIP®2000
The PISA-659's SSD socket accommodates a DiskOnChip® 2000, a new generation of high performance single-chip Solid State Disks, that supports Flash Disks up to 72 MB.

10/100 MBPS NETWORKING
A PCI 100BASE-TX / 10BASE-T LAN interface with remote boot option is included for high speed networking.

WATCHDOG TIMER
The Watchdog Timer can invoke an interrupt or reset the CPU when your application loses control over the system.

Specifications

- **CPU** : AMD K5 and K6, Cyrix 6x86 and M2 Intel 75~200 MHz and Intel MMX

- **Chipset** : SIS 5598 (SIS 5582 for PISA-659D, without VGA)

- **BIOS** : AMI Hiflex system BIOS

- **Green Function** : power saving options supported in BIOS. DOZE / STANDBY / SUSPEND modes

- **Secondary Cache** : 512 KB pipeline burst

- **DRAM Memory** : 128 MB of BEDO, EDO or FP DRAM two 72-pin SIMM sockets

- **Bus Interface** : PCI and ISA, complies with PISA standard

- **Data Bus** : 64-bit

- **Bus Speeds** : PCI - 33 MHz, ISA - 8 MHz

- **DMA Controllers** : 8237 x 2

- **DMA Channels** : 7

- **Interrupt Controllers** : 8259 x 2

- **Interrupt Levels** : 15

- **PCI Enhanced IDE with Ultra DMA** : supports two ports and up to four hard drives or Enhanced IDE devices. Supports PIO mode 3/4 and Bus-Master. BIOS enabled/ disabled. Ultra DMA supports transfer rates of 33 MB/sec

- **Battery backup** : lithium battery backup, 3V @ 600mA for many years of data retention.

- **Watchdog Timer** : generates a system reset or interrupt when your application loses control over the system. Time interval of 1 second and range of 1 sec to 128 minutes.

- **Keyboard and Mouse Connectors**: 6-pin mini DIN connector for PC/AT keyboard 6-pin mini DIN connector for PS/2 mouse or keyboard Onboard 5-pin header connector for PC/AT keyboard

HIGH SPEED MULTI I/O

- **Chipset** :Winbond W83877

- **Floppy Disk Drive Interface** : supports up to two floppy drives, 5¼" (360 KB or 1.2 MB) and 3½" (720 KB, 1.44 MB or 2.88 MB). BIOS enabled/disabled

- **USB** : two onboard USB ports (reserved for future use)

- **IR interface** : IrDA TX/RX header

- **Serial Ports** : two serial RS-232 ports with 16550 UARTs and 16-byte FIFO.

- **Bi-directional Parallel Port** : IRQ 5/7/9 or disabled supports SPP, EPP and ECP mode. BIOS enabled/disabled

100BASE-TX / 10BASE-T PCI ETHERNET.

- **Chipset**: Realtek RTL8139

- **Bus** : 64-bit

- **Type** : 100BASE-TX / 10BASE-T

- **Connector** : 10-pin header for RJ-45

SHARED MEMORY PCI CRT SVGA

- **Chipset** : included in SIS 5598

- **Shared Memory :** up to 4 MB assigned in BIOS setup

- **Bus** : 32-bit PCI local bus

- **Resolution** : up to 1280x1024 x 64K color , 2048x2048 virtual display

- **Display Type** : CRT

- **Connectors** : 10-pin internal header

FLASH DISK DISKONCHIP®2000

- **Package** : Single Chip Flash Disk in 32-pin DIP JEDEC

- **Capacity** : 1-72 MByte capacity (future capacities: 144 MByte and up)

- **Data Reliability** : ECC/EDC error correction

- **Memory Window** : 8 KByte

ENVIRONMENTAL AND POWER

- **Power Requirements**: +5 V (4.75 ~5.25 V) @ 6 A max, ±12 V @ 20 mA max

- **CPU Temperature Management**: temperature detection with voltage adjustment to maintain constant CPU temperature

- **CPU Temperature Alarm**: audible alarm when CPU temperature exceeds 60°C (±5°C)

- **Board Dimensions** : 185 (L) x 122 (W) mm.

- **Board Weight** : 0.25 Kg

- **Operating Temperature**: 0 to 55°C

Ordering

- ❑ **PISA-659DV :** Half-size PISA-bus Pentium CPU Card with CRT SVGA, DiskOnChip Flash Disk socket and 100BASE-TX / 10BASE-T Ethernet