# PIA-666

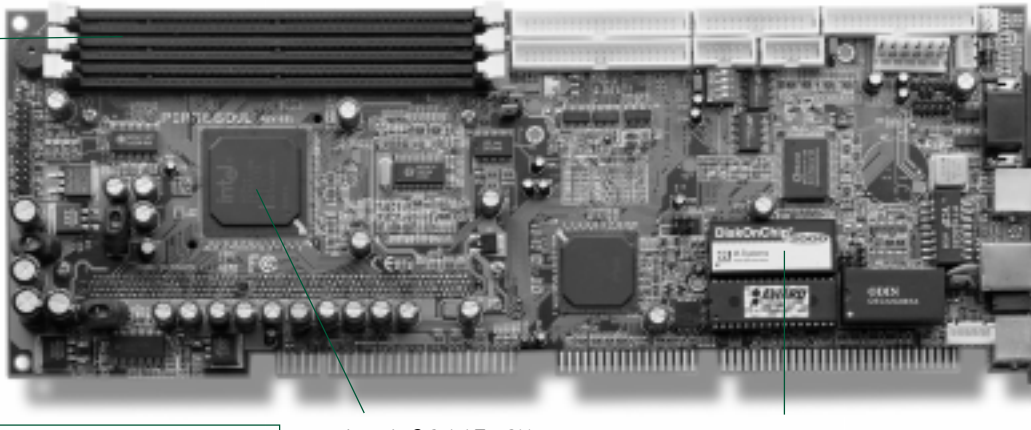## All-in-One PCI/ISA Pentium®-II/III CPU Card
### with AGP SVGA Controller, Ethernet Interface and DiskOnChip



3 DIMM sockets up to 768 MB
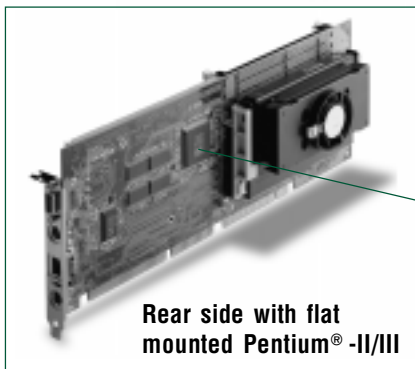
CRT AGP SVGA

PS/2

10BASE-T 100BASE-TX

Keyboard

Intel 82443 BX, 82371 EB (PIIX4E) 100 MHz

DiskOnChip®2000 supports TrueFFS® up to 72 MB

**Rear side with flat mounted Pentium® -II/III**

SiS6326 AGP SVGA interface with 8 MB SDRAM on rear side

### Special Features

- **Intel Pentium®-II/III, slot 1**

- **AGP SVGA interface with 8 MB SDRAM onboard**

- **Intel 82443 BX, 82371 EB (PIIX4E) supports up to 66 and 100 MHz FSB**

- **100BASE-TX/10BASE-T Ethernet**

- **Ultra DMA with single-bit ECC, mutiple-bit errror detection HDD transfer up to 33 MB/sec**

- **DiskOnChip® 2000 socket for Flash disk of up to 144 MB**

- **Extensive monitoring and alarm functions build-in**

- **Watchdog Timer**

The PIA-666 is a Pentium®- II / III single board computer based on Intel's 443BX chipset. Together with a high speed Ethernet interface and an AGP/PCI 3D Accelerator this board is very well suited for cost effective high end workstations for application such as CAD/CAM, Image processing etc.

The Pentium®- II / III processor is mounted flat on the back side of the board occupying a minimum of space.

### 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.

### 10/100 MBPS NETWORKING

A PCI 10BASE-T/100BASE-TX Ethernet interface is included for high speed networking.

### AGP/PCI 3D ACCELERATOR

SiS6326 is a member of the new SiS63x6 family, which consists of high integration, super performance, and feature-rich 3D/2D graphics & video accelerators.

### MONITORING AND ALARM

The PIA-666 includes a multitude of monitoring and alarm functions to protect your board from high temperatures or over voltage exposure.

### DISKONCHIP®2000

The PIA-666's SSD socket accommodates a DiskOnChip® 2000, a new generation of high performance single-chip Flash Disks up to 144 MB.

### WATCHDOG TIMER

A 6-level Watchdog Timer can invoke an NMI or RESET the CPU when your application loses control over the system.

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## Specifications

- **CPU** : slot-1 on backside for flat installation of Pentium®-II or Pentium®-III CPU

- **Chipset** : Intel 82443 BX, 82371 EB (PIIX4E)

- **BIOS** : Y2K compliant AWARD Flash supports NCR SCSI, Green&Soft Off function, LS120 and Multiple boot-up,

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

- **Secondary Cache** : on Pentium®-II/III

- **DRAM Memory** : up to 768 MB of SDRAM in three 168-pin DIM sockets

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

- **Data Bus** : 32-bit

- **Bus Speeds** : PCI - 33.3 MHz, ISA - 8.3 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. Ultra DMA transfer rates of 33 MB/sec, Multiword DMA Mode 2 transfer

- **Watchdog Timer** : generates a system reset or interrupt when your application loses control over the system. The timer interval is: 1, 2, 10, 20, 110 and 220 seconds .

- **Real-time Clock** : ODIN 12B887A (or compatible) with lithium battery backup for 10 years of data retention. CMOS data backup of BIOS setup and BIOS default.

- **Keyboard and Mouse Connectors** : 6-pin mini DIN for PS/2 mouse, 6-pin mini DIN for Keyboard 5-pin internal header for AT Keyboard

### HIGH SPEED MULTI I/O

- **Chipset** : Winbond W83977TF-AW

- **Serial Ports** : one internal/external high speed RS-232 port COM1 (for DVL version only internal connector), one internal high speed RS-232/485 port COM2 (jumper selectable). Both with 16C550 UART and 16 byte FIFO.

- **USB** : two onboard USB ports (12 Mb/s and 1.5 Mb/s)

- **SIR Interface** : 5-pin IrDA TX/RX header

- **Floppy Disk Drive Interface** : 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

- **Bi-directional Parallel Port** : supports SPP, EPP and ECP mode.

### AGP/PCI 3D GRAPHICS ACCELERATOR

- **Chipset** : SIS 6326AGP, 2x AGP supports up to 133 MHz

- **BIOS** : combined with system BIOS

- **Memory :** 8 MB SDRAM onboard

- **Display Type** : CRT

- **Connectors** : 15-pin D-type female

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

- **Chipset**: Realtek RTL8139A

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

- **Connector** : external RJ-45

- **Monitoring LEDs**: 10BASE-T/100BASE-TX indicator, Network activity indicator

### FLASH DISK DISKONCHIP®2000

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

- **Capacity** : 1-144 MByte

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

- **Memory Window** : 8 KByte

### ENVIRONMENTAL AND POWER

- **Power Requirements** : +5 V (4.75 ~5.25 V) @ 12 A ( 300 MHz CPU), ±12 V @ 20 mA

- **CPU Power** : onboard PWM switching power supply for autodetects CPU core voltage

- **System Monitoring and Alarm**: CPU and System temperature, system voltage and cooling fan RPM.

- **Board Dimensions** : 338 mm x 122 mm

- **Board Weight** : 0.45 Kg.

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

## Ordering

- ❑ **PIA-666DVL :** All-in-One PCI/ISA Pentium®-II/III CPU Card with AGP SVGA Interface incl 8 MB SDRAM, Ethernet and DiskOnChip socket

- ❑ **PIA-666DV :** All-in-One PCI/ISA Pentium®-II/III CPU Card with AGP SVGA Interface incl. 8 MB SDRAM and DiskOnChip socket

- ❑ **PIA-666D :** All-in-One PCI/ISA Pentium®-II/III CPU Card with DiskOnChip socket

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