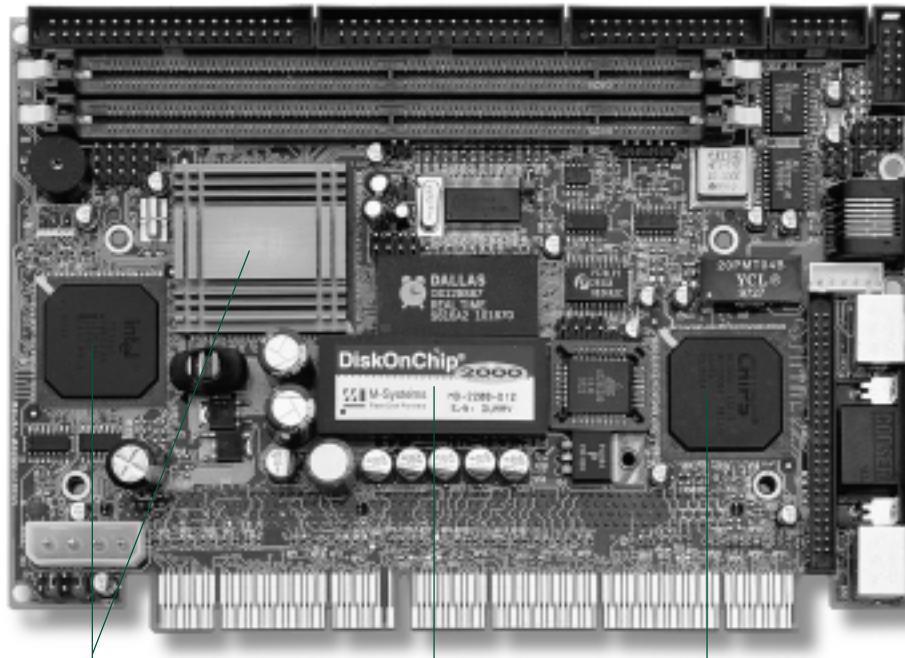


# PISA-663

## PISA-bus, Half-size Pentium®-II CPU Card

with Flat Panel / CRT SVGA, Fast Ethernet Interface and DiskOnChip

2 DIMM sockets up to 1 GB SDRAM



Intel 443BX Chipset at 100 MHz

DiskOnChip®2000 supports TrueFFS® up to 72 MB

CHIPS® 69000 Flat Panel / CRT with 2 MB Memory

Year 2000 Compliant



10BASE-T  
100BASE-TX  
Ethernet

PS/2

CRT  
SVGA

Keyboard

**PISA**  
Half-size  
PCI & ISA

### Special Features

- Intel Pentium®-II 233-450 MHz
- CHIPS® 69000 Flat Panel Controller with 2 MB SDRAM
- Intel 82443 BX, 82371 EB (PIIX4E) supports up to 66 and 100 MHz FSB
- Intel 82558A Chipset for 100BASE-TX/10BASE-T Ethernet
- Ultra DMA with single-bit ECC, multiple-bit error detection HDD transfer up to 33 MB/sec
- DiskOnChip® 2000 socket for Flash disk of up to 144 MB
- Watchdog Timer

The PIA-663 is a compact Pentium®-II based single board computer based on Intel's 443BX chipset, allowing processor speeds of up to 500 MHz. Mounted flat on the rear side of the board, the Pentium-II processor occupies only a minimum of space. The high speed Ethernet interface and Chips 69000 Flat Panel display controller make the board is very well suited for high end embedded applications requiring high speed display handling and data transfer.

### 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-based Intel 10BASE-T/100BASE-TX Ethernet controller is optionally included for high speed networking.

### FLAT PANEL SVGA INTERFACE

The C&T 69000 Flat Panel / CRT display controller integrates 2 MB high speed SDRAM frame buffer memory, resulting in uncompromised performance and much less power consumption than a standard external memory solution.

### DISKONCHIP®2000

The PIA-663'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.

## Specifications

- **CPU** : Intel Pentium-II, 233-450 MHz, slot-1 on backside for flat installation of Pentium-II. 66~100 MHz FSB
- **Chipset** : Intel 82443 BX, 82371 EB (PIIX4E)
- **BIOS** : Y2K compliant AWARD Flash supports NCR SCSI, Green&Soft Off function
- **Green Function** : power saving options supported in BIOS. DOZE / STANDBY / SUSPEND modes, ACPI & APM
- **Secondary Cache** : on Pentium II
- **DRAM Memory** : up to 512 MB of SDRAM in two 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** : Dallas 12B887 (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 PS/2 keyboard  
5-pin internal header for AT Keyboard

## HIGH SPEED MULTI I/O

- **Chipset** : Winbond W83977TF-AW
- **Serial Ports** : one external high speed RS-232 port, one internal high speed RS-232/485 port (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** : 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
- **Bi-directional Parallel Port** : supports SPP, EPP and ECP

## FLAT PANEL/ CRT PCI SVGA INTERFACE

- **Chipset** : C&T 69000 with 2 MB integrated SDRAM
- **BIOS** : combined with system BIOS
- **Bus** : 32-bit PCI local bus
- **Display** : CRT and Flat Panel TFT/DSTN/EL (simult.)
- **Connectors** : 15-pin external connector for CRT monitor and 50-pin internal box header for Flat Panel

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

- **Chipset** : Intel 82558A
- **Protocol** : IEEE 802.3, IEEE 802.3U
- **Transfer Rate** : high-speed data transfer on the PCI BUS using four DMA channels. Full Duplex 10 BASE-T and 100BASE-TX , NWay, Auto-Negotiation capability
- **Compatibility** : backward compatible with the former 82557 Ethernet controller based net modules
- **Connector** : RJ-45 on bracket

## 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 (266 MHz CPU), +12 V @ 20 mA
- **CPU Power** : onboard PWM switching power supply for autodetects CPU core voltage
- **Board Dimensions** : 185 mm x 127 mm
- **Board Weight** : 0.25 Kg.
- **Operating Temperature**: 0 to 55°C

## Ordering

- **PIA-663DVL** : All-in-One PCI/ISA Pentium-II CPU Card with Flat Panel /CRT SVGA incl 2 MB SDRAM, Fast Ethernet and DiskOnChip socket