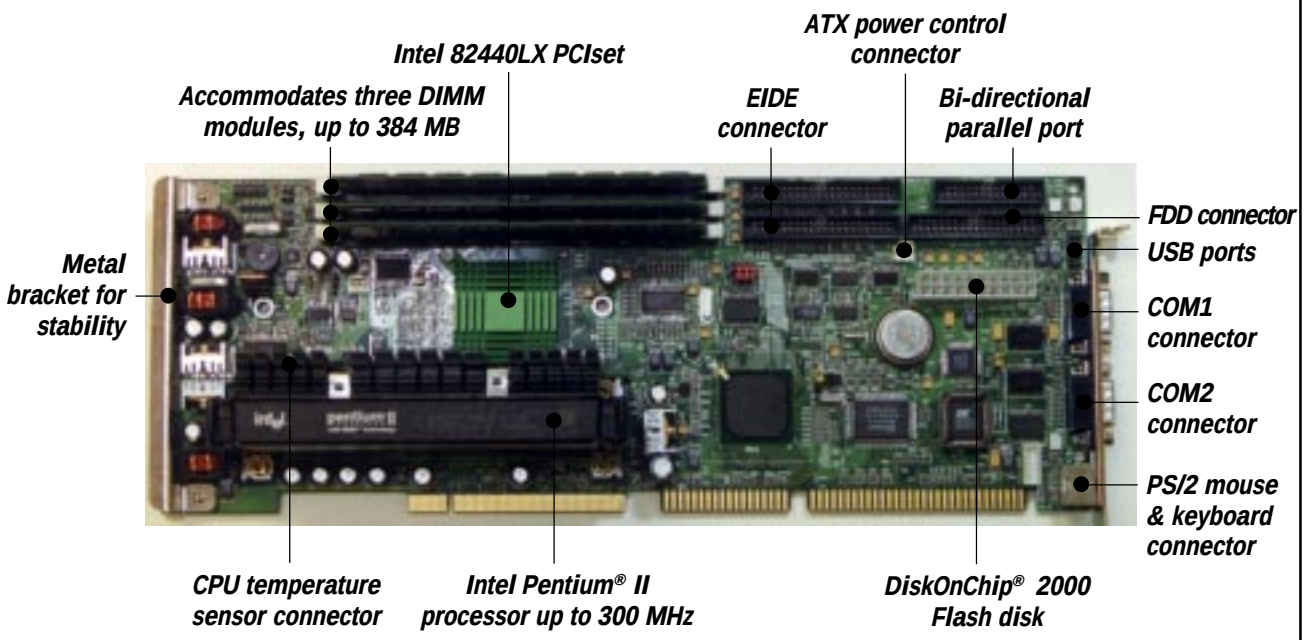
# PCA-6175

## Pentium II® Processor-based PCI/ISA-bus CPU Card




## Introduction

The PCA-6175 industrial grade CPU card uses Intel's highly acclaimed Pentium® II CPU and Intel 82440LX PCI chipset. The card works with standard ISA or ISA/PCI-bus passive backplanes.

The CPU provides 512 KB on-chip L2 cache, eliminating the need for external SRAM chips. It has two PCI EIDE interfaces (for up to four devices), and an FDD interface (for up to two devices). Other features include two RS-232 serial ports (16C550 UARTs with 16-byte FIFO or compatible), one enhanced parallel port (supports SPP/EPP/ECP), and support for two USB (Universal Serial Bus) ports. The PCI BUS Master IDE controller supports Ultra DMA/33 operation. This provides data transfer rates up to 33 MB/sec, and allows drive capacities up to 8.4 GB. System BIOS supports boot up from IDE CD-ROM.

A backup of CMOS data is stored in the Flash memory, which protects data even after a battery failure. Also included is a 63-level watchdog timer, which resets the CPU or generates an interrupt if a program cannot be executed normally. This enables reliable operation in unattended environments.

## Features

- Intel Slot 1 architecture
- Pentium II processor up to 300 MHz
- Intel 82440LX PCIset
- Three DIMM sockets for SDRAM up to 384 MB, supports ECC
- Winbond 837810 to support on-board security, for monitoring CPU fan, voltage and temperature
- Award Flash BIOS
- On-board ATX power control connector to meet ACPI requirement
- Two enhanced IDE ports, supporting Ultra DMA/33, PIO Mode 4, and DMA Mode 2
- Two USB ports
- Two RS-232 serial ports
- One bi-directional parallel port, supports SPP/ECP/EPP
- One floppy port
- PCI V2.1 compliant
- PICMG 2.0 compliant
- Additional metal bracket to provide board stability with Pentium II processor
- CMOS backup battery life is 7 years
- Supports DiskOnChip® 2000 Flash disk

## Specifications

- **CPU:** Intel Pentium® II up to 300 MHz
- **BIOS:** Award Flash BIOS
- **Green function:** Supports power management operation via BIOS. Activated by keyboard or mouse activity
- **Bus interface:** PCI/ISA bus, PICMG compliant
- **Data bus:** 64-bit
- **Bus speed:** ISA: 8 MHz
  PCI: 33 MHz
- **DMA channels:** 7
- **Interrupt levels:** 15
- **RAM:** Up to 384 MB in three available 168-pin DIMM sockets. Supports EDO RAM or SDRAM
- **Error correction (parity DRAM only):** Modules can detect multi-bit memory errors. Correction of 1-bit memory errors
- **PCI enhanced IDE hard disk drive interface:** Supports up to four IDE (AT bus) large (up to 8.4 GB) hard disk drives or other enhanced IDE devices. Supports PIO Mode 4 (16.67 MB/s data transfer rate) and Ultra DMA/33 (33 MB/s data transfer rate). BIOS enabled/disabled
- **Floppy disk drive interface:** Supports up to two floppy disk drives, 5¼ " (360 KB and 1.2 MB) and/or 3½ " (720 KB, 1.44 MB, and 2.88 MB). BIOS enabled/disabled. Also supports Japanese "Floppy 3" mode
- **Enhanced parallel port:** Configurable to LPT1, LPT2, LPT3 or disabled. Standard DB-25 female connector provided. Supports SPP/EPP/ECP
- **Serial ports:** Two RS-232 ports with 16C550 UARTs (or compatible) with 16-byte FIFO buffer. Supports speeds up to 115.2 Kbps. Ports can be individually configured to COM1, COM2 or disabled
- **Watchdog timer:** Can generate a system reset or IRQ11. The watchdog timer is programmable, with each unit equal to one second (63 levels). The program uses I/O ports hex 043h and 443h to control the watchdog timer
- **Keyboard and PS/2 mouse connector:** A 6-pin mini DIN connector is located on the mounting bracket for easy connection to a keyboard or PS/2 mouse. An on-board keyboard pin header connector is also available

### *Mechanical and environmental specifications*

- **Operating temperature:** 0 ~ 60° C (32 ~ 140° F)
- **Power supply voltage:** +5 V, ±12 V
- **Board size:** 338 x 122 mm (13.3" x 4.8")
- **Board weight:** 0.5 kg (1.2 lb)

## Ordering Information

❑ **PCA-6175-00A1**
Pentium II processor-based PCI full-size CPU card