PCA-6184 Socket 478 Pentium 4 SBC with VGA, Dual Ethernet and HISA

Startup Manual

Packing List

Before you begin installing your card, please make sure that the following materials have been shipped:

- 1 PCA-6184 socket 478 Pentium 4 processor-based single board computer

- 1 FDD cable   p/n: 1701340703

- 2 Ultra ATA 66/100 HDD cables   p/n: 1701400452

- 1 printer (parallel port) and
  COM port cable kit   p/n: 1701260305

- 1 ivory cable for PS/2
  keyboard and PS/2 (optional)   p/n: 1700060202

- 1 USB cable (optional)   p/n: 1700100170

- 1 single-slot bracket (optional)   p/n: 1962159010

- 1 PCA-6184 startup manual

- CD disc and manual (in PDF format)

- Warranty certificate

If any of these items are missing or damaged, contact your distributor or sales representative immediately.

Note 1: For detailed contents of the PCM-6184, please refer to the enclosed CD-ROM or disk (in PDF format).

Note 2: Acrobat Reader is required to view any PDF file. Acrobat Reader can be downloaded at: www.adobe.com/Prodindex/acrobat/read-step.html (Acrobat is a trademark of Adobe.)

For more information on this and other Advantech products, please visit our website at:

http://www.advantech.com

http://www.advantech.com/nc

For technical support and service, please visit our support website at:

http://support.advantech.com

This manual is for the PCA-6184 series Rev. A1.

Specifications

Standard SBC Functions
- **CPU:** Socket 478 for Intel® Pentium® 4, FSB 400MHz

- **BIOS:** Award 4 Mb Flash memory BIOS

- **Chipset:** Intel 845

- **System Memory:** Two 184-pin DIMM sockets accepts up to 2 GB DDR

- **Enhanced IDE interface:** Supports up to four EIDE devices. BIOS auto-detect, PIO Mode 4, Ultra ATA 100/66/33 transfer

- **FDD interface:** Supports up to two FDDs

- **Serial ports**: Two serial RS-232 ports

- **Parallel port:** One parallel port, supports SPP/EPP/ECP mode

- **Keyboard/mouse connector:** Supports one standard PS/2 keyboard and a PS/2 mouse

- **Watchdog timer:** 255 level timer intervals

- **USB:** Four Universal Serial Bus ports

VGA/LCD Interface
- **Chipset:** ATI 3D Rage 128 Pro 4XL, 32 MB SDRAM

- **Interface:** AGP 4x

Ethernet Interface
- **Chipset:** Intel 82559

- **Ethernet interface:** Dual PCI 10/100 Mbps Ethernet, IEEE 802.3U protocol compatible

- **Connection**: On-board RJ-45 connector x 2

Mechanical and Environmental
- **Dimensions (L x W):** 338 x 122 mm

- **Power supply voltage:** +5 V ± 12 V

- **Power requirements:** Typical, +5V: 7.40A, +12V:320mA (Intel Pentium(R) 4 1.8GHz 256 MB DDR266)

- **Operating temperature:** 0 ~ 60°C (depending on CPU)

- **Weight:** 0.5 kg (weight of board)

Jumpers and Connectors

The board has a number of jumpers that allow you to configure your system to suit your application.

The table below lists the function of each of the jumpers and connectors.

Label	Function
J1	CMOS clear
J2	Watchdog timer output selection

Label	Function
CN1	Primary IDE connector
CN2	Secondary IDE connector
CN3	Floppy drive connector
CN4	Parallel port
CN6	USB port
CN7	VGA connector
CN8	10/100Base-T Ethernet connector 1
CN9	Serial port: COM1
CN10	Serial port: COM2
CN11	PS/2 keyboard and mouse connector
CN12	External keyboard connector
CN13	Infrared (IR) connector
CN14	CPU FAN connector
CN16	Power LED
CN17	External speaker
CN18	Reset connector
CN19	HDD LED connector
CN20	ATX feature connector
CN21	ATX soft power switch
CN22	HW Monitor Alarm Close: Enable OBS Alarm Open: Disable OBS Alarm
CN27	Extension I/O board connector
CN28	Extension I/O board connector
CN29	SM BUS Connector
CN46	Auxiliary 4-pin power connector

Extension I/O board	
Daughter board 1	
CN31	USB port 0, 1
CN32	USB port 2, 3
CN33	PS/2 mouse connector
CN34	10/100Base-T Ethernet connector 2

J1: CMOS clear function

Closed pins	Result
1-2 (open)	Keep CMOS data*
1-2 (close)	Clear CMOS

J2: Watchdog timer output option

| Pins	Result
1-2	RQ11
2-3	System reset *
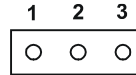
*default setting

Note: (Only applies to PCA-6184E2-00A1) If your system has only one unused expansion slot to accommodate the CPU card, you can replace the standard dual-slot bracket with the single-slot bracket included in the package.
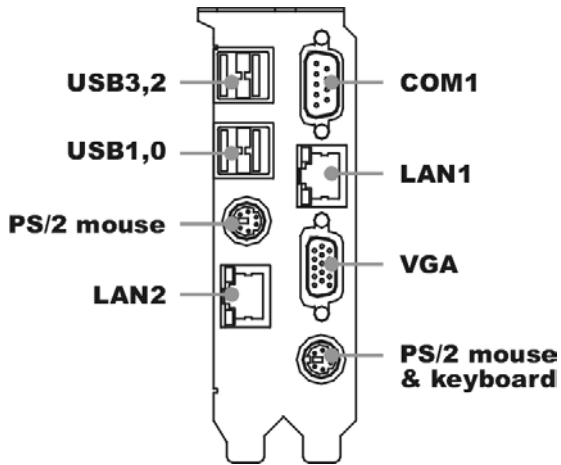
Software Installation

The CD disc contains a driver installer program that will lead you through the installation of various device drivers needed to take full advantage of your CPU card.

Caution

The computer is provided with a battery-powered Real-time Clock circuit. There is a danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacturer. Discard used batteries according to manufacturer's instructions
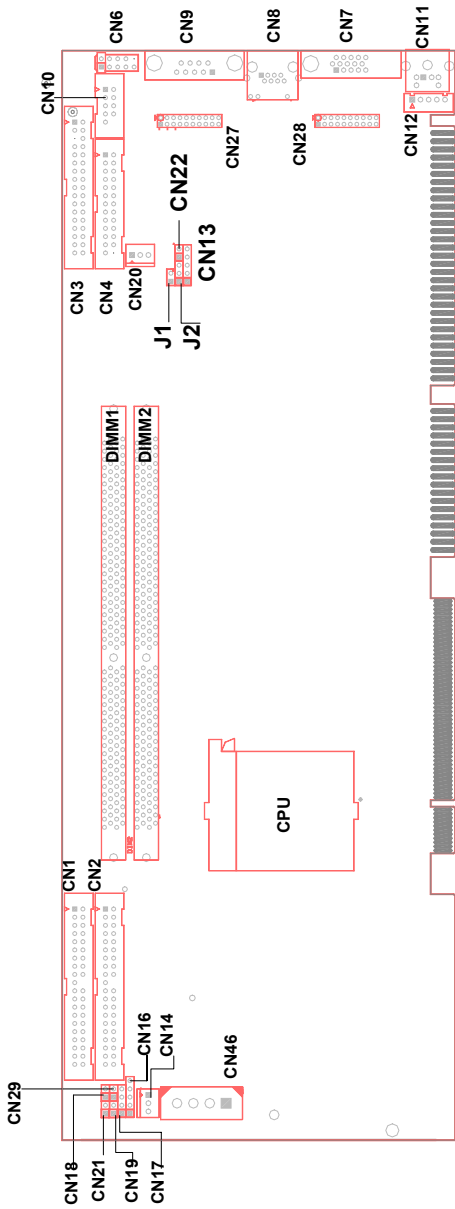
Location of PCA-6184's jumpers and connectors

Extension I/O daughter board