

PCA-6181 Socket 370 Pentium®III /Celeron SBC with VGA, Dual Ethernet, and SCSI Startup Manual

Packing List

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

- 1 PCA-6181 socket 370 Pentium® III processor-based single board computer
- 2 SCSI driver disks (optional)
- 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 mouse (optional) p/n: 1700060202
- 1 USB cable (optional) p/n: 1700100170
- 1 single-slot bracket (optional) p/n: 1962159010
- 1 PCA-6181 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: For detailed contents of the PCA-6181, please refer to the enclosed CD Disc 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/readstep.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>

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

<http://support.advantech.com>

This manual is for the PCA-6181 series Rev. A1.

Part No. 2002618111

2nd. Edition

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Specifications

Standard SBC Functions

- **CPU:** Socket 370 for Intel® Pentium® III or Celeron processor, FSB 66/100/133
- **BIOS:** Award 2 Mb Flash memory BIOS
- **System memory:** Three 168-pin DIMM sockets accepts up to 1.5 GB SDRAM
- **Chipset:** VIA Apollo Pro 133T
- **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 a standard PS/2 keyboard and a PS/2 mouse
- **Power management:** Supports power saving modes including Normal/Standby/Suspend modes. APM 1.2 compliant
- **Watchdog timer:** 63 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:** Realtek 8139C
- **Ethernet interface:** Dual PCI 10/100 Mbps Ethernet, IEEE 802.3U protocol compatible
- **Connection:** Onboard RJ-45 connector x 2

SCSI Interface

- **Chipset:** AIC-7899
- **Interface:** Ultra 160 SCSI supports data transfer up to 160 MB/sec. (dual channel)

Mechanical and Environmental

- **Dimensions (L x W):** 338 x 122 mm
- **Power supply voltage:** +5 V ± 12 V
- **Power requirements:** 6.5A @ +5V (typical, Pentium III 1 GHz)
- **Operating temperature:** 0 ~ 60× C (depends 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.

Jumpers

Label	Function
J1	CMOS clear
J2	Watchdog timer output selection

Connectors

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 and keyboard lock
CN17	External speaker
CN18	Reset connector
CN19	HDD LED connector
CN20	ATX feature connector
CN21	ATX soft power switch
CN27	Extension I/O board connector
CN28	Extension I/O board connector
CN29	SM BUS Connector
CN30	SCSI Daughter board
ATX1	ATX Power Connector

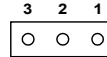
Extension I/O board

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

Daughter Board 2	
CN41	USB Port 2,3
CN43	10/100Base-T LAN Connector2

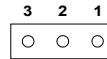
J1: CMOS clear function

Closed pins Result	
1-2	Keep CMOS data*
2-3	Clear CMOS



J2: Watchdog timer output option

Closed pins Result	
1-2	IRQ11
2-3	System reset *



*default setting

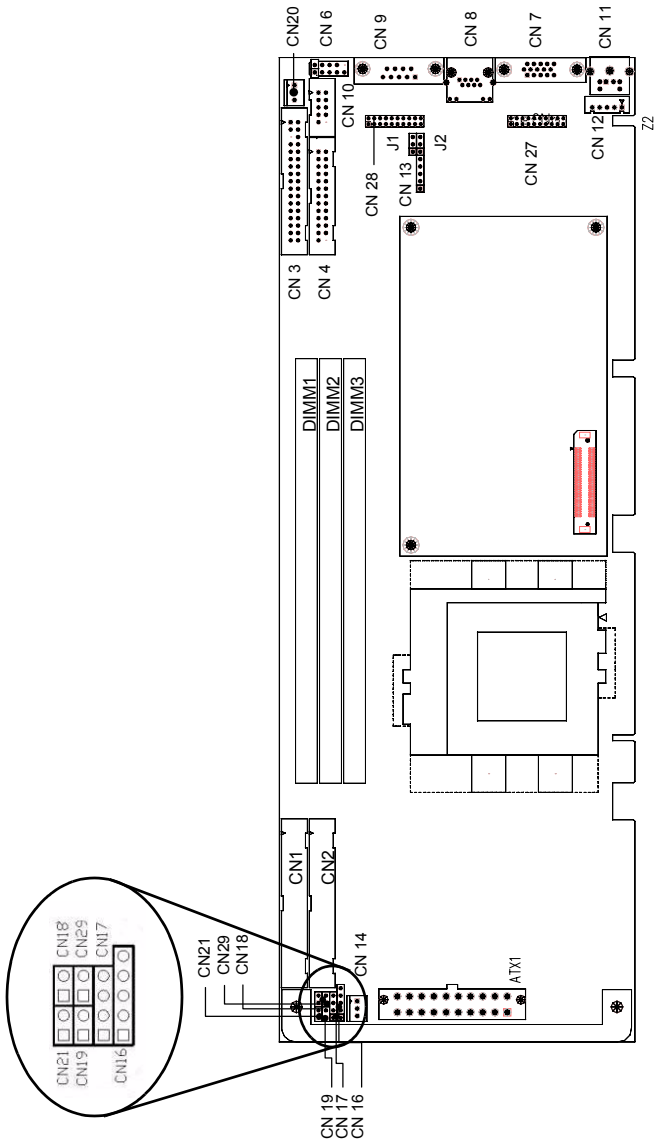
Note: If your system has only one unused expansion slot to accommodate the CPU card, you can replace the standard dual-slot bracket with the single-slot bracket included in the package.

Software Installation

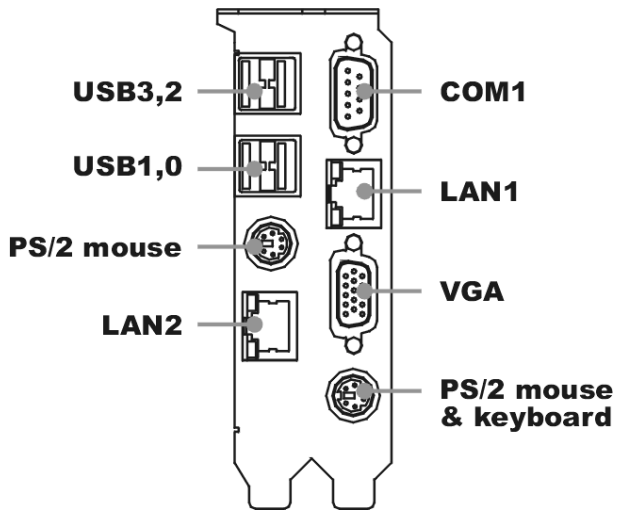
The CD disc contains a driver installer program that will lead you through the installation of various device drivers needed to take full advantage of your CPU card.

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-6181's jumpers and connectors



Extension I/O daughter board