# PCA-6153 Pentium ${ }^{\circledR}$ MMX CPU Card with VGA/LCD <br> <br> Startup Manual 

 <br> <br> Startup Manual}

## Packing List

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

- 1 PCA-6153 CPU card
- 1 6-pin mini-DIN keyboard and PS/2 mouse adaptor
- 1 hard disk drive (IDE) interface cables
- 1 parallel / 1 serial port cable adaptor
- 1 CPU cooling fan for PGA socket Pentium ${ }^{\oplus}$ MMX use
- 1 floppy disk drive interface cable (34-pin)
- 2 VGA driver utility disks
- 1 system utility disk

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

Note 1: For detailed contents of the PCA-6153, 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/ readstep.html
(Acrobat is a trademark of Adobe.)

## Specifications

## Standard SBC Functions

- CPU: Intel ${ }^{\circledR}$ Pentium ${ }^{\oplus}$ 75/90/100/120/133/150/166 200 MHz and P55C, AMD K5, Cyrix 6x86 K6-200
- BIOS: Award 128 KB Flash memory; supports Plug and Play
- Chipset: SiS 5571

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

## http://www.advantech.com <br> http://www.advantech.com/epc

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

## http://support.advantech.com

This manual is for the PCA-6153 series Rev.A1
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- Green function: Features power management via the BIOS, activated by mouse or keyboard activity. Supports doze, sleep, standby and suspend modes. APM 1.1 compliant
- 2nd level cache: 512 KB pipeline burst SRAM
- RAM: Two 72-pin SIMM sockets. Supports 32-bit Normal or EDODRAM with memory capacity from 2 MB to 64 MB
- Enhanced IDE interface: Handles up to two IDE large HDDs orother IDE devices. Supports PIO mode 4 and DMA bus-mastermode
- Floppy disk drive interface: Supports up to two floppy disk drives: $31 / 2^{\prime \prime}$ ( 720 KB or 1.44 MB ) and/or $5^{1 / 4 "}$ " 360 KB or 1.2 MB)
- Parallel port: One parallel port configured to LPT1, LPT2, LPT3or disabled. Supports multimode parallel (SPP/EPP/ECP) port
- Serial ports: One RS-232, one RS-232/422/485 interface
- Watchdog timer: Can generate a system reset or IRQ 15. Software enabled/disabled. Time interval is from 1 to 63 seconds, jumperless with run-time setup
- Keyboard and PS/2 mouse connector: A 6-pin miniDIN 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.
- PC/104 expansion: 104-pin, 16 -bit PC/104 module connector
- I/O bus expansion: ISA bus edge (golden finger) connector


## PCI SVGA Interface

- Controller: C\&T 65545/48/50 VGA (default=65550)
- Display memory: 2 MB on-board DRAM
- Display resolution:
- supports panel resolutions up to $1024 \times 768$
- supports non-interlaced CRT monitors, $1280 \times 1024$ with 16 colors


## Mechanical and Environmental

- Board size: $185 \mathrm{~mm} \times 122 \mathrm{~mm}$
- Max. power requirements: $+5 \mathrm{~V}(4.75$ to 5.25 V$)$ @ 5.5 A
- Operating temperature: $0 \sim 60^{\circ} \mathrm{C}\left(32 \sim 140^{\circ} \mathrm{F}\right)$
- Board weight: $0.5 \mathrm{~kg}(1.2 \mathrm{lbs}$.

Connectors on the board link it to external devices such as hard diskdrives, a keyboard, or floppy drives. In addition, the board hasjumpers which you use to configure it for your application.

The table below lists the function of each of the board jumpers andconnectors. Later sections in this chapter give instructions on setting jumpers and detailed information on each jumper setting. Chapter 2 gives instructions for connecting external devices to your card.

| PCA-6153 | Jumpers |
| :--- | :--- |
| Number | Function |
| $J 1$ | Chipset optimal timing settings |
| $J 2$ | CPU working voltage setting |
| $J 3$ | CPU clock ratio setting (pins 3-4, 5-6) |
|  | Enable P55CT (pins 1-2), P55CT f ratio $=$ <br> 1 (pins 7-8) |
| J4 | Cache mode setting |
| $J 5$ | CPU/PCI clock setting |
| J6 | CMOS setup |
| $J 7$ | Watchdog timer control |
| J8 | RS-232/RS-422/RS-485 pin out select |
| $J 9$ | RS-232/RS-422/RS-485 select |
| $J 10$ | LCD voltage selector |
|  |  |
| PCA-6153 | Connectors |
| Number | Function |
| CN1 | Keyboad lock/ Power LED |
| CN2 | PC/104 connector |
| CN3 | PC/104 connector |
| CN4 | Enhanced IDE connector |
| CN5 | Flat panel connector |
| CN6 | Fan power |
| CN7 | Parallel port connector (printer) |
| CN8 | Peripheral power input connector |
| CN9 | Floppy disk drive connector |
| CN10 | COM2 connector |
| CN11 | Auxiliary keyboard connector |
| CN12 | Hard drive activity LED connector |
| CN13 | Reset connector |
| CN14 | Speaker out connector |
| CN15 | Main power connector |
| CN16 | VGA connector |
| CN17 | COM1 connector |
| CN18 | Keyboard and PS/2 mouse connector |
|  |  |



Board Layout: Connector Locations


* denotes default setting

Watchdog Timer
1-2: Watchdog generates system reset signal*
2-3: Watchdog generates IRQ15

