

PCA-6145B/6145L Half-size 486 All-in-one CPU Card with Panel/CRT/Ethernet and SSD

Startup Manual

Packing List

Packing list

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

- 1 PCA-6145B/6145L CPU card
- 1 6-pin mini-DIN keyboard & PS/2 mouse adapter (P/N: 1700060201)
- 1 hard disk drive (IDE) interface cable (40-pin) (P/N: 1701400601)
- 1 floppy disk drive interface cable (34-pin) (P/N: 1701340700)
- 1 parallel port adapter (26-pin) and COM2 adapter (9-pin) kit (P/N: 17011260303)
- 1 startup manual
- 1 CD-ROM or disks for utility, drivers, and manual (in PDF format)
- 1 warranty certificate

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

Note1: For detailed information of the PCA-6145B/6145L, please refer to the enclosed CD-ROM or disk (in PDF format).

Note2: 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>
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For technical support and service, please visit our support website at:

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This manual is for the PCA-6145B/6145L series Rev.C1

Part No. 2006614520
Printed in Taiwan

1st Edition
Oct. 1999

Specifications

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System

- **CPU:** Intel®80486DX/DX2/DX4 series
AMD 80486DX2/DX4 series, 5x86-133
Cyrix 80486DX2/DX4 series, 5x86-100/120
- **BIOS:** AWARD Flash BIOS, supports plug & play
- **Chipset:** VIA VT82C496G
- **Secondary level cache:** 128 KB
- **Green function:** Supports power management option via BIOS, activated by keyboard or mouse activity. Supports doze, sleep, and suspended mode. APM 1.1 compliant
- **RAM:** 1 MB to 32 MB, one 72-pin SIMM socket, accepts 1, 2, 4, 8, 16, and 32 MB SIMMs and EDO RAM
- **EIDE interface:** Supports up to two IDE devices. BIOS supports up to 8.4 GB HDD. 32-bit host data transfer, PIO Mode 3 transfer capabilities (>10 MB/sec)
- **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)
- **Parallel port:** One enhanced parallel port, supports EPP/ECP parallel mode
- **Serial ports:** Two 16C550 UARTs, one RS-232, one RS-232/422/485 interface
- **Watchdog timer:** 63-level timer interval, with jumperless setup, generates system reset or IRQ15
- **Keyboard/mouse connector:** Mini DIN connector for keyboard and PS/2 mouse, 5-pin male keyboard connector is also available
- **I/O bus expansion:** PC/104 connector with face-up installation
- **SSD:** Supports M-systems DiskOnChip® 2000 flash disk
- **Flash Backup:** CMOS Data

Ethernet Controller Functions (PCA-6145B only)

- **Controller:** UMC UM9008, built-in 8 KB x 16 SRAM
- I/O address switchless setting
- Software compatible with NE-2000
- Loopback capability for diagnostics
- **Connector:** RJ-45
- **Boot ROM:** Built-in system BIOS (optional)

Local Bus VGA Functions

- **Controller:** VL-bus C&T 65545 VGA controller with Windows accelerator
- **Display memory:** 1 MB on-board DRAM
- **Display resolution:**
Supports resolutions up to 1280 x 1024
- Non-interlaced CRT display up to 1024 x 768 with 256 colors
- Flat panel display up to 640 x 480 resolution
- Support True-color and Hi-color display capability
- **Display output:** DB-15 VGA connector, 22 x 2-pin header general purpose flat panel display connector
- **Display BIOS:** Default CRT/Toshiba TFT panel BIOS, Flash BIOS can be easily updated

Mechanical and Environmental

- **Board size:** 185 mm x 122 mm
- **Max. power requirements:** +5 V, 3.5 A
- **Power supply voltage:** +5 V (4.75 V to 5.25 V)
- **Operating temperature:** 32 ~ 140 °F (0 ~ 60 °C)
- **Storage temperature:** -40 ~ +176°F (-40 ~ +80 °C)
- **Humidity:** 5 to 95%, non-condensing
- **Board size:** 7.3" (L) x 4.8" (W) (185 mm x 122 mm)
- **Board weight:** 0.5 kg(1.2 lb.)

Jumpers and Connectors

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

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

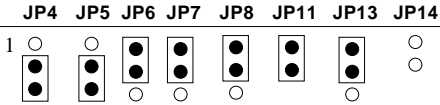
PCA-6145B/PCA-6145L Jumpers

Number	Function
JP1	Turbo LED
JP2	Turbo Switch
JP3	HDD LED
JP4	Clock select
JP5	Clock select
JP6	Clock select
JP7	CPU type select
JP8	CPU type select
JP9	Battery backup
JP11	CPU type select
JP13	CPU type select
JP14	Voltage selection
JP15	PS/2 mouse set
JP20, JP21	CPU type select
JP22-JP24	S.S.D. Function set
JP28	LCD Control
JP29	Watchdog timer
JP30	Rest switch
JP35-JP39	COM2 select

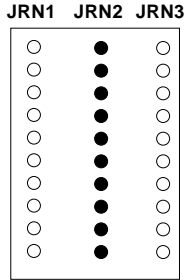
PCA-6145B/PCA-6145L Connectors

Number	Function
CN1	Enhanced IDE connector
CN2	LCD connector
CN3	FDD connector
CN4	Parallel port connector
COM1	Serial port 1 connector
COM2	Serial port 2 connector
J1	SBC power connector
J2	VGA connector
J3	Ethernet connector
J4	External Keyboard connector
J5	Keyboard connector
J6	Keyboard lock
J7	Speaker

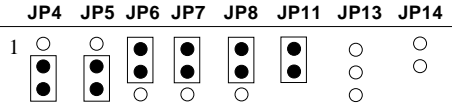
CPU type select



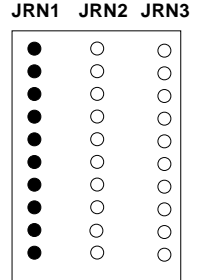
CPU Type
TI DX2-66
(3.3V)



CPU type select

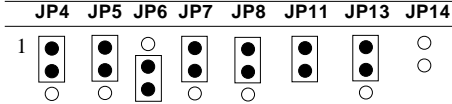


CPU Type
AMD
DX4-100
(NV8T)
(3.3 V)

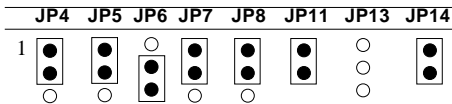
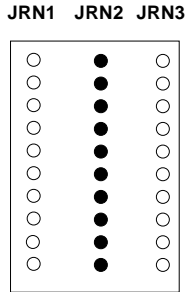


- Note:**
1. AMD 5X86-133 JP20 **ON** other **OFF**
 2. AMD DX2-80 JP21 **ON** other **OFF**

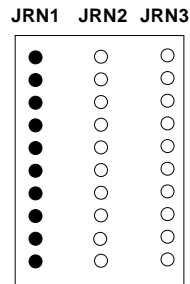
Default setting: Intel DX4-100



CPU Type
Cyrix
DX2-80
TI DX2-80
(3.3V)





CPU Type
AMD
DX-40
DX2-80(5V)


















Watchdog timer (JP29)

Watchdog timer system reset/IRQ15 select (JP29)



	Reset (default)	IRQ15
JP29		

COM2 settings for RS-232/422/485 (JP35-39)



COM2 settings for RS-232/422/485 (COM2)

	RS-232 (default)	RS-422	RS-485
JP35			
JP36			
JP37			
JP38			
JP39			

Battery backup select

	Battery Backup (default)	Clean CMOS
JP9		

PS/2 mouse setting

	PS2 Mouse (default)	PS2 Mouse (disabled)
JP15		

LCD type control

	LCD (default)	EL
JP28	