

# PCA-6751 Series Pentium® MMX CPU card with VGA/LCD and Fast Ethernet

## Startup Manual

### Packing List

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

- 1 PCA-6751 all-in-one single board computer
- 1 startup manual
- 1 hard disk drive (IDE) interface cable (40-pin)
- 1 floppy disk drive interface cable (34-pin)
- 1 parallel port adapter (26-pin) and COM2 adapter kit (9-pin)
- 1 mini-DIN keyboard & PS/2 mouse adapter (6-pin)
- 1 ATX/AT power cable and converter
- 1 warranty certificate
- 1 IrDA adapter (part no. 968900042)(optional)
- 1 USB cable (part no. 1700100170)(optional)
- CD-ROM or disks for utility, drivers, and manual (in PDF format)

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

*Note 1: For detailed information on the PCA-6751, 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](http://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 websites at:

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

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

<http://www.advantech.com/support>

This manual is for the PCA-6751, PCA-6751V, PCA-6751L Rev. A1 and above

Part No. 2006675122  
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3rd Edition  
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### Specifications

#### Standard SBC Functions

- **CPU:** Intel® Pentium® MMX CPU 166/266 MHz
- **BIOS:** AWARD 2 MB Flash BIOS, supports Plug & Play, APM 1.2, Ethernet boot ROM, boot from CD-ROM, LS-120, and ZIP drive
- **Chipset:** Intel® 430 TX
- **L2 cache:** 512 KB PB SRAM
- **System memory:** Two 144-pin SODIMM RAM sockets support SDRAM memory modules 8 ~ 256 MB
- **PCI IDE interface:** One enhanced IDE interface supports two IDE devices. Supports PIO mode 3, 4 with bus mastering up to 14 MB/sec, and Ultra DMA mode up to 33 MB/sec
- **Floppy disk drive interface:** Supports up to two floppy disk drives: 3.5" (720 KB or 1.44 MB) and/or 5.25" (360 KB or 1.2 MB)
- **Parallel port:** One parallel port, supports SPP/EPP/ECP mode
- **Infrared port:** Transmission rates up to 115 Kbps
- **Serial ports:** One RS-232 port, and one RS-232/422/485 port
- **Watchdog timer:** Can generate a system reset or IRQ11. Software enabled/disabled. Time interval 1 ~ 62 seconds. Jumperless with run-time setup

#### VGA Function

- **Controller:** C&T69000 or C&T69030, supports CRT and 36-bit monitors
- **Display memory:** 2 MB SDRAM built-in (optional 4 MB with C&T69030)
- **Display resolution:** Up to 1280 x 1024 @ 256 colors (16 million colors @ 4 MB)

#### Ethernet Controller Functions (PCA-6751 only)

- **Controller:** Intel® SB82558/82559/RTL8139. 10 Mbps / 100 Mbps
- **I/O address switchless setting**
- **Connector type:** RJ-45
- **Boot ROM:** Built-in system (optional)

#### Solid State Disk

- Supports CompactFlash™ cards

## Mechanical and Environmental

- **Dimension (L x W):** 185 mm x 122 mm
- **Power supply voltage:** +5 V
- **Power requirements:** + 5 V @ 5 A (typical)
- **Operating temperature:** 0 ~ 70° C (32° ~ 166° F)
- **Weight:** 0.3 kg (0.7 lb)

## 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 board jumpers and connectors:

### Jumpers

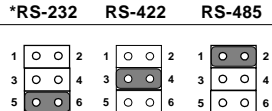
Label	Function
JP1	COM2 setting for RS-232/422/485
JP2	LCD panel select
JP3	CMOS backup select
JP4	Watchdog timer configuration

### Connectors

Number	Function
CN1	FDD connector
CN2	Parallel port connector
CN3	Keyboard lock, LED connector
CN4	USB connector
CN5	24-bit LCD display connector
CN6	36-bit LCD display connector
CN7	LCD inverter connector
CN8	IR connector
CN9	External speaker connector
CN10	Reserved
CN11	VGA connector
CN12	PC/104 connector
CN13	Ethernet connector
CN14	COM2 RS-422/485 connector
CN15	COM2 RS-232 connector
CN16	COM1 RS-232 connector
CN17	External keyboard connector
CN18	ATX power connector
CN19	Reserved
CN20	AT power connector
CN21	Keyboard and PS/2 mouse connector
CN22	ISA gold finger connector
CN23	ISA gold finger connector
CN24	CompactFlash™ card connector
CN25	HDD LED connector
CN26	System reset switch connector
CN27	ATX power button
CN28	Enhanced IDE connector

## Jumper settings

### JP1: COM2 settings



\* default setting

### JP2: LCD panel select

LCD type	JP2
1024 x 600 TFT 48 K	
800 x 600 TFT	
800 x 600 DSTN2 48 K	
800 x 600 DSTN	
1280 x 1024 DSTN 48 K	
*640 x 480 TFT 18-bit	
800 x 600 TFT2 48 K	
1280 x 1024 TFT	
1024 x 600 DSTN	
1024 x 768 TFT	
800 x 600 DSTN 48 K	
640 x 480 DSTN	

1024 x 768 DSTN  
48 K



640 x 480 Sharp  
TFT



800 x 600 TFT1  
48 K



1024 x 768 DSTN



\* default setting

JP3: RTC power and clear CMOS

\*Normal

Clear CMOS data



\* default setting

JP4: Watchdog timer system reset select

\*System reset

IRQ11 interrupt



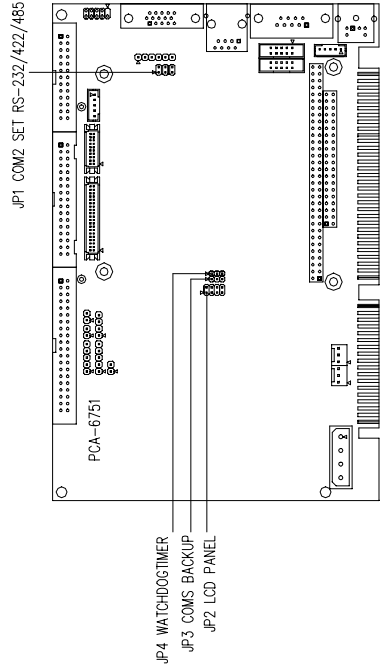
\* default setting

## PCA-6751 Series' models comparison

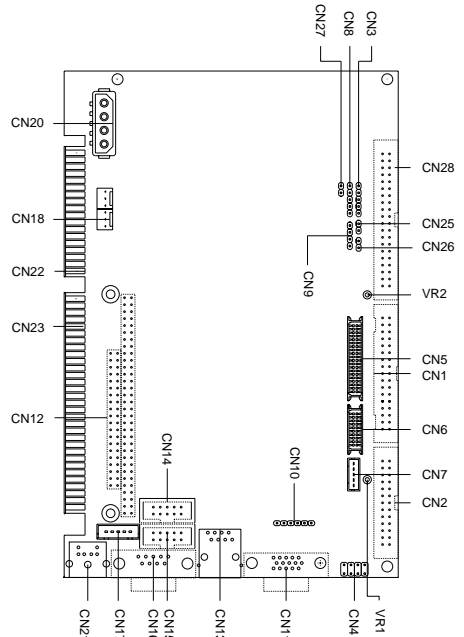
Model Name	Brief description	A1 version	B1 version
PCA-6751	All-in-one With CPU, LAN, VGA, LCD and SSD	PCA-6751-F0A1 (with Intel® 82558 LAN, 266 MHz CPU) PCA-6751-A0A1 (with Intel® 82558 LAN, 166 MHz CPU)	PCA-6751-F1B1 (with Intel® 82559 LAN, 266 MHz CPU) PCA-6751-F0B1 (with RTL8139 LAN, 266 MHz CPU)
PCA-6751V	Without LAN	PCA-6751-F0A1 (OEM only)	-
PCA-6751L	Lite Without VGA, LCD, LAN		PCA-6751L-F0B1 (with 266 MHz CPU)

## Mechanical Drawings

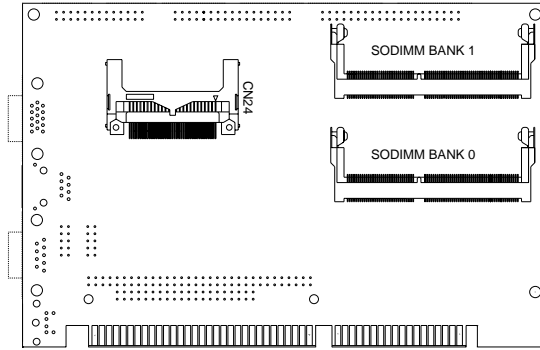
### Locating Jumpers



### Locating Connectors (Component Side)



**Locating Connectors (Solder Side)**



**Board Dimensions**

