

PCA-6774 ISA Socket 370 Slot PC with VGA/LCD/LVDS/LAN/CFC & Optional Second LAN Startup Manual

Packing List

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

- 1 PCA-6774 all-in-one single board computer
- 1 Startup manual
- CD-ROM or disks for utility, drivers, and manual (in PDF format)
- 1 Power cable p/n: 1703080101
- 1 COM port cable p/n: 1700100250
- 1 Printer cable p/n: 1700260250
- 1 FDD cable p/n: 1703340400
- 1 EIDE cable p/n: 1701400452
- 1 PS/2 KB/M cable p/n: 1700060202
- Mini Jumper p/n: 1653300100

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

Note 1: For detailed contents of the PCA-6774, 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: <http://www.adobe.com/products/acrobat/readstep2.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/eplatform>

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

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

This manual is for the PCA-6774 series Rev. A1.

Part No. 200K677401

2nd Edition
September 2005.

Specifications

Standard SBC Functions

- **CPU:** Supports Socket 370 for VIA C3 and Intel® processors up to Pentium III 1.26 GHz with 512K cache (Tualatin)
- **System chipset:** VIA VT8606 "Twister T"+VT82C686B
- **BIOS:** Award 2 Mb Flash memory BIOS
- **System memory:** One DIMM socket accepts 64 MB up to 512 MB SDRAM
- **2nd cache memory:** 128/256/512KB on Celeron/PentiumIII processor, or 64 KB on the VIA C3 processor
- **Enhanced IDE interface:** Supports two Enhanced IDE channels. Supports ATA-100, ATA-33 and PIO modes. Compact Flash card occupies secondary master mode.
- **FDD interface:** Supports up to two FDDs
- **Serial ports:** Two serial ports:
 - COM1: RS-232
 - COM2: RS-232/422/485
 - RS-485 supports AutoFlow
- **Parallel port:** One parallel port, supports SPP/EPP/ECP mode
- **Keyboard/mouse connector:** Supports standard PC/AT keyboard and a PS/2 mouse
- **Power management:** Supports power saving modes including Normal/Standby/Suspend modes. APM 1.2 compliant
- **Watchdog timer:** 62 level timer intervals
- **USB:** Two universal serial bus ports, USB 1.1 (optional four USB ports with daughter board)

Solid State Disk

- Supports one 50-pin socket for CFC type I/II

Display

- **Chipset:** VIA Twister chip with integrated Savage4 2D/3D/Video Accelerator
- **Frame buffer:** Supports 8/16/32 MB frame buffer with system memory
- **Interface:** 4X AGP VGA/LCD interface, support for up to 36 bit TFT
- **Display modes:**
 - CRT Modes:**
 - 1280 x 1024 @ 16bpp (60 Hz),
 - 1024 x 768 @ 16bpp (85 Hz)
 - LCD/Simultaneous Modes:**
 - 1280 x 1024 @ 16bpp (60 Hz),
 - 1024 x 768 @ 16bpp (60 Hz),
 - 1280 x 1024 @ 32bpp

Ethernet interface

- **Chipset:** Intel 82551QM(82551ER optional)/82540
- **Ethernet interface:** IEEE 802.3u 10/100BASE-T Fast Ethernet compatible, Supports selectable LAN (1 x 10/100Base-T LAN or 2 x 10/100Base-T LAN or 1 x Gigabit LAN)
- I/O address switchless setting

Mechanical and Environmental

- **Dimensions (L x W):** 185 x 122 mm (7.3" x 4.80")
- **Power supply voltage:** +5 V, +12 V \pm 5%
- **Power requirements:**
 - Max:**
6.18 A @ +5 V, 0.22 A @ +12 V
 - Typical:**
5.5 A @ 5 V, with PIII 1 GHz CPU and PC133 128 MB SDRAM
0.17 A @ 12 V, with PIII 1 GHz CPU and PC133 128 MB SDRAM)
- **Operating temperature:** 0 ~ 60°C (32 ~ 140°F)
- **Weight:** 0.27 kg (weight of total package)

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
J3	Serial port COM2 function
CN29	RS485/422 Connector

J1: CMOS clear function

Closed pins Result

1-2	normal*
2-3	Clear CMOS



J2: Watchdog timer output option

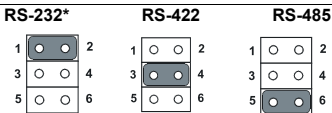
Closed pins Result

1-2	IRQ11
2-3	System reset *



J3: RS-232/422/485 select

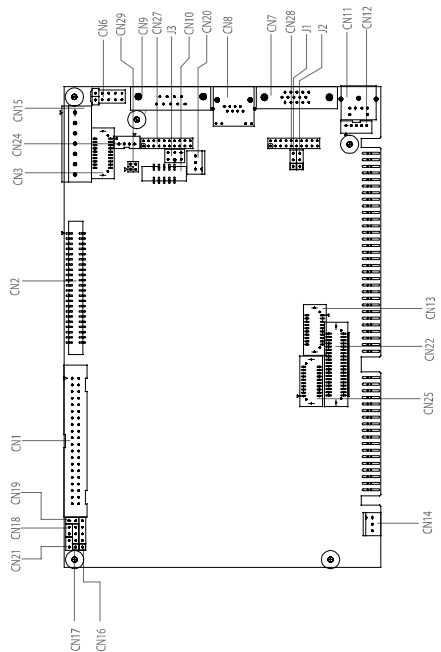
1-2	RS-232 *
3-4	RS-422
5-6	RS-485



CN29: RS-485/422 Connector

pin signal

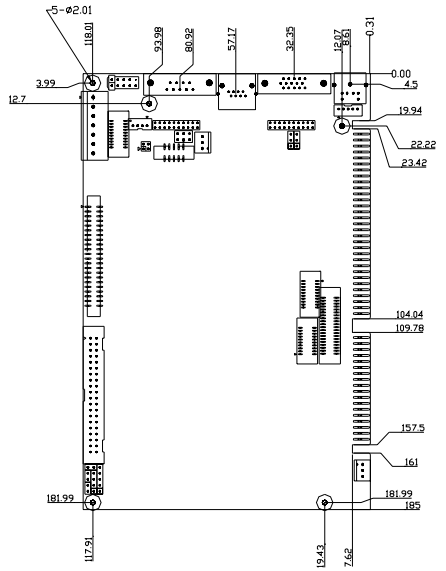
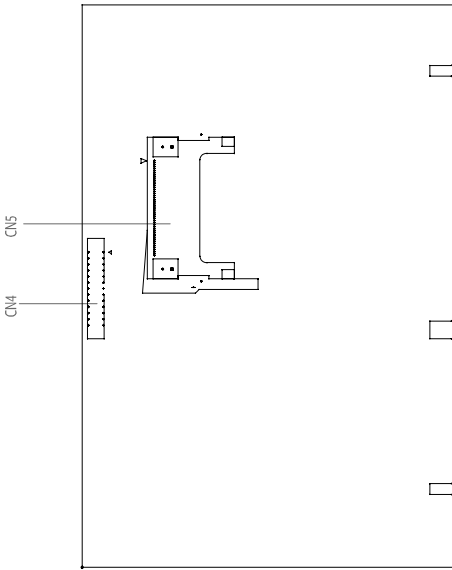
1	TXD-
2	TXD+
3	RXD-
4	RXD+



PCA-6774 Jumper & Connectors

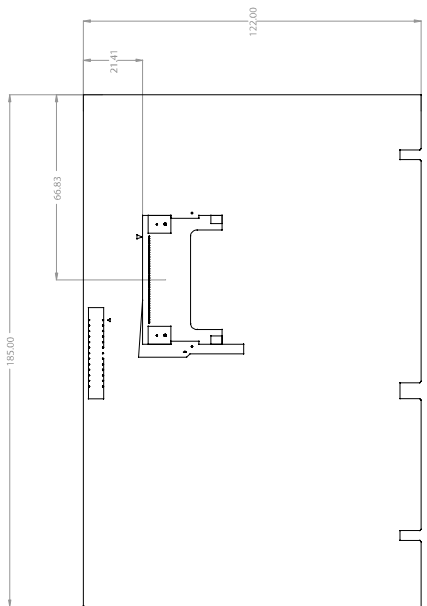
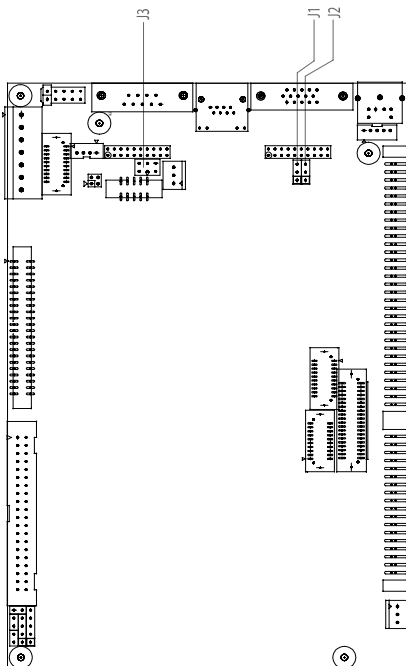
Connectors

Label	Function
CN1	Primary IDE Connector
CN2	Secondary IDE Connector
CN3	Floppy Connector
CN4	Printer Port Connector
CN5	CompactFlash Socket
CN6	USB Port 1, 2
CN7	D-SUB VGA Connector
CN8	LAN RJ45 Connector
CN9	COM Port1
CN10	COM Port2
CN11	PS/2 Keyboard & Mouse Connector
CN12	External Keyboard Connector
CN14	CPU FAN Connector
CN15	EBX Power Connector
CN16	Power LED & Keyboard Lock
CN17	External Speaker
CN18	Reset Connector
CN19	HDD LED Connector
CN20	ATX Feature Connector
CN21	ATX Soft-on Power Button Connector
CN22	LCD 40-Pin Connector
CN23	LCD 20-Pin Connector
CN24	LCD Backlight Connector
CN25	LVDS Connector
CN27	I/O Daughter Board Connector 1
CN28	I/O Daughter Board Connector 2
CN29	RS485/422 Connector



PCA-6774 Connectors (solder side)

PCA-6774 Dimensions



PCA-6774 Jumper Locations

PCA-6774 Dimensions (solder side)