PCI-6870 Socket370 815E PCI half-sized CPU cards,VGA/LAN/CFCII Startup Manual

Packing List

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

• 1 PCI-6870 Series Half-sized CPU card

• 1 startup manual

• 1 utility disk/CD driver

• 1 hard disk drive (IDE) interface cable (40-pin) (part no.1701400452)

• 1 keyboard/PS/2 mouse cable (part no.1700060202)

• 1 COM port cable (part no.1700100250)

• 1 parallel port cable (part no.1700260250)

• 1 floppy disk drive interface cable 700 mm (28") (part no .1703340400)

• 1 Power cable (part no.1703080101)

• Mini Jumper (part no. 1653300100)

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

Note 1:   For detailed contents of the PCI-6870 Series 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.adboe.com/Prodindex/acrobat/read-step.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/epc

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

http://support.advantech.com

This manual is for the PCI-6870 series, Rev. A1.

Part No. 200K687011	3rd. Edition
Printed in Taiwan	April, 2005

Specifications

Standard SBC Functions

• **CPU:** Support FC-PGA/FC-PGA2 Socket 370 Celeron/ Pentium III up to 1.2/1.26 GHz (Does not support PPGA CPU)

• **BIOS:** Award 512KB Flash BIOS

• **System memory:** one SDRAM 168-pin SO-DIMM up to 512MB

• **Enhanced IDE interface:** Supports up to 4 IDE devices. Primary IDE support: Ultra DMA 66/100. Secondary IDE support: Ultra DMA 33.

• **FDD interface:** Support up to two FDD devices

• **Serial ports:** One RS-232 port, one RS-232/422/485 port

• **Parallel port:** One parallel port, supports EPP/ECP mode

• **Infrared port:** One 115K fast infrared (SIR) port, IrDA 1.1 compliant

• **Keyboard/mouse connector:** Mini-Din connector supports standard PC/AT keyboard and PS/2 mouse

• **Power management:** APM

• **Watchdog timer:** 15 sec - 127 min, Step 30 sec, System reset or IRQ11

VGA Interface

• **Chipset:** Intel 815E embedded

• **Display memory:** Shares system memory up to 64MB

• **Display type:** Supports CRT

• **CRT display mode:** up to 800 x 600 @ 24 bpp, 1024 x 768 @ 24 bpp

Ethernet Interface

• **Chipset:** Intel 82801BA + 82562ET

• **Ethernet interface:** PCI 10/100 Mbps Ethernet. IEEE 802.3 U protocol compatible

• **Connection:** On-board RJ-45 connector

• **I/O address switchless setting**

• **Built-in boot ROM**

• **Supports Wake-on-Lan**

Solid State Disk

• **Supports CompactFlash Type II**

Mechanical and Environmental

- **Dimensions (L x W):** 185 mm x 122 mm

- **Power supply voltage:** +5 V (4.75 V - 5.25 V)

- **Power requirements:**
  Max: 8 A @ 5 V
  Typical: 6.68 A @ 5 V (w/PIII 850 MHz, 256 MB SDRAM)
  280mA @ 12V(w/PIII850MHz,256MBSDRAM)

- **Operating temperature:** 0 ~ 60°C   (32 ~ 140°F)

- **Weight:** 0.27 kg (0.59 lbs.)

Jumpers and Connectors

Connectors on the board link it to external devices such as hard disk drives, a keyboard or expansion bus connectors. In addtion, the board has a number of jumpers that allow you to configure your system to suit your application.

The tables below list the function of each of the board's jumpers and connectors.

Table 1: Jumpers

Label	Function
J2	Reserve (FWH)
J3	RS-232/422/485 select
J4	Clear CMOS
J5	Watchdog timer enable
J6	Reset
J7	HDD LED
J8	Power LED
J9	Ps-On

Table 2: Connectors

| Label	Function
SK1	CompactFlash Socket
CN1	IrDA Connector
CN2	Desub VGA Connector
CN3	COM port 1
CN4	MINI PS/2_KB/Mouse Connector
CN5	LAN RJ45 Connector
CN6	ATX feature Connector
CN7	Printer port Connector
CN8	COM port 2
CN9	USB port 1,2
CN11	EBX power Connector
CN12	CPU FAN Connector
CN13	ATX PS-ON SW (Optional)
CN14	CDROM-IN Connector
CN15	Primary IDE Connector)
CN16	Serial IRQ Connector
CN17	Audio Connector
CN18	Seconary IDE Connector
CN19	Video Expansion Connector (Optional)
CN20	Floppy Connector

J3: RS-232/422/485 Select

Jumper positions					RS-xxx
(5-6)*	(7-9)*	(8-10)*	(13-15)*	(14-16)*	RS-232
(3-4)	(9-11)	(10-12)	(15-17)	(16-18)	RS-422
(1-2)	(9-11)	(10-12)	(15-17)	(16-18)	RS-485

Table 3: JP3 Pinouts

Pin	Function	Pin	Function
1	N_SINB	2	RXD485
3	N_SINB	4	RXD422
5	N_SINB	6	RXD232
7	DCDB	8	SOUTB
9	CM2_1	10	CM2_3
11	485_TXD-	12	485_RXD+
13	SINB	14	DTRB
15	CM2_2	16	CM2_4
17	485_TXD+	18	485_RDX-

JP4: clear CMOS

Pin	Function
1-2	normal
2-3	clear CMOS
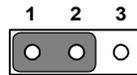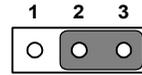
normal   clear CMOS

JP5: Watchdog timer

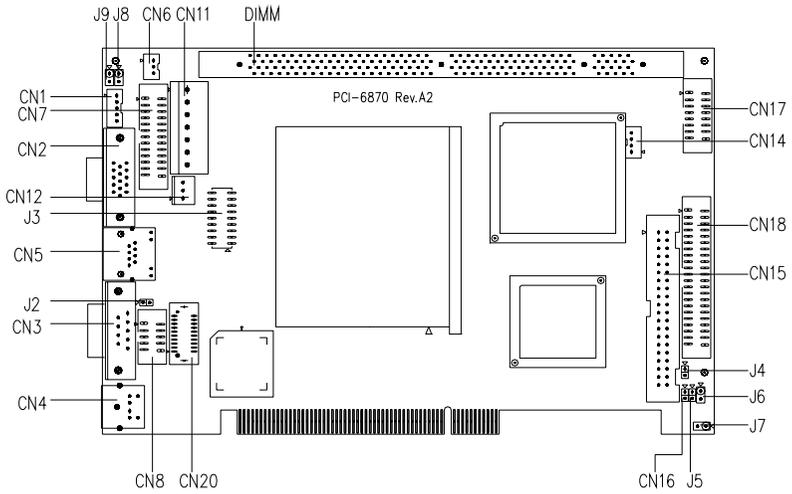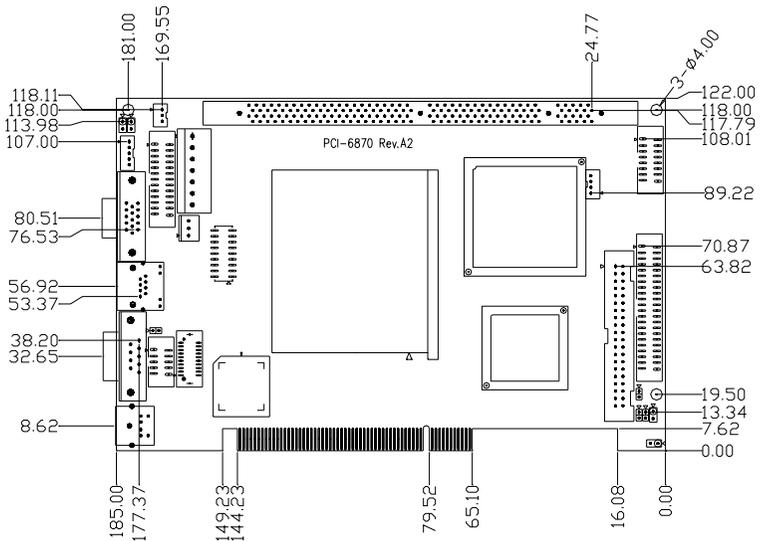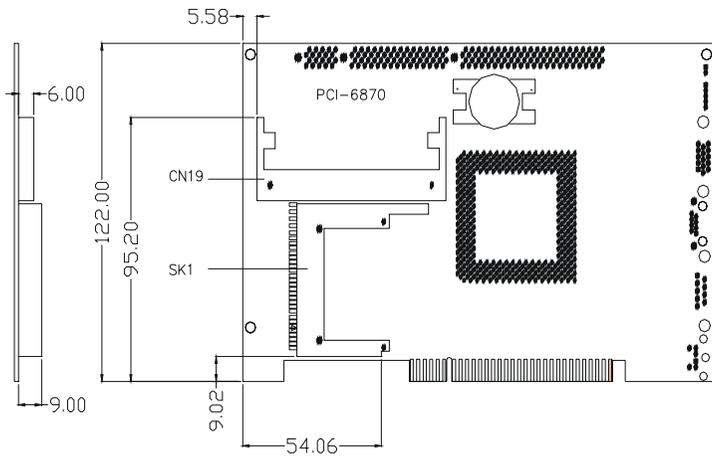| Pin 1-2	Function
closed	enable*
open	disable

enable*   disable

*Default Settings

Locating Connectors and Jumpers(Component Side)

Dimensions (Component side)

Dimensions (Solder Side)