PCA-6740 STPC Elite Half-Size CPU Card Startup Manual

Packing List

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

• 1 PCA-6740 Series Half-size CPU card

• 1 startup manual (2006674000)

• 1 utility disk/CD driver (2056740100)

• 1 hard disk drive (IDE) interface cable (40-pin) (part no. 1701400601)

• 1 keyboard / PS2 mouse cable (part no. 1700060202)

• 1 COM port/Parallel port cable (part no. 1701260303)

• 1 floppy disk drive interface cable 700 mm (28") (part no. 1701340700)

• 1 Warranty Certificate

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

Note 1: *For detailed contents of the PCA-6740 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.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
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-6740 series Rev.A1

Specifications

Standard SBC Functions

• **CPU**: STMicroelectronics STPC Elite 133

• **BIOS**: AWARD 256 KB Flash BIOS

• **System memory**: Onboard 32 MB SDRAM and optional one SDRAM SODIMM socket supports up to 64 MB

• **Enhanced IDE interface**: Supports up to two IDE devices. PIO mode 3,4 with bus mastering up to 14 MB/sec.

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

• **Serial ports**: One serial RS-232 port, one RS-232/422/485 port (PCA-6740F-00A1only)

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

• **Infrared port**: One 115 K 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**: 1 ~ 62 sec. System reset or IRQ11

Local-bus Flat Panel/VGA Interface

• **Chipset**: SMI LynxEM+ 712G

• **Display memory**: 2 MB

• **Display type:** Supports CRT and TFT LCDs. Able to display both CRT and flat panel simultaneously

• **Flat-panel display mode**: Panel resolution supports up to 1024 x 768 @ 16 bpp. Supports 24-bit TFT LCD panel

• **CRT display mode**: Non-interlaced CRT monitor resolutions up to 1280 x 1024 @ 256 colors or 1024 x 768 @ 16 bpp

Ethernet Interface (PCA-6740)

• **Chipset**: RTL 8139C

• **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 DiskOnChip®
- Supports CompactFlash™ Type I/II (optional)

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**: 1.62 A @ 5 V (133 MHz CPU and 32 MB RAM)
- **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 addition, the board has a number of jumpers that allow you to configure your system to suit your application.

The tables below lists the function of each of the board's jumpers and connectors:

Table 2-1: Jumpers

Label	Function
J1	CMOS Charge & Discharge
J2	LAN Power select
JP1	LCD High Drive Signal Buffer Power
JP2	RS-232/RS-422/RS-485 select
JP3	DOC® 2000 Address select
JP4	Watchdog timer

Table 2-2: Connectors

Label	Function
CN1	IDE connector
CN2	FDD connector
CN3	Printer port connector
CN4	LCD 24-bit connector
CN5	Reserved
CN6	Multiple Connector
CN7	ATX Power Standby connector
CN8	LCD inverter power
CN9	CRT Connector
CN10	PC/104 connector
CN11	LAN connector
CN12	Reserved
CN13	COM2 connector (RS-422/RS-485)
CN14	COM2 connector (RS-232)
CN15	COM1 connector
CN16	Internal Keyboard connector
CN17	AT (Big 4P) Power connector
CN18	PS2 Keyboard/Mouse connector
CN19	ISA Gold-Finger connector
CN20	CompactFlash™ connector

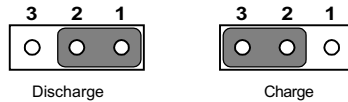CN6: Multiple Connector

Pin	Function
1,3,5,7	External PCBEEP connector (5-7 Internal PCBEEP*)
2-4	Keyboard lock connector
6-8-10	Power LED connector
9-11	Reset connector
12-14-16-18-20	IR connector
13-15	HDD LED connector
17-19	ATX power button connector

CN6 Multiple connector location
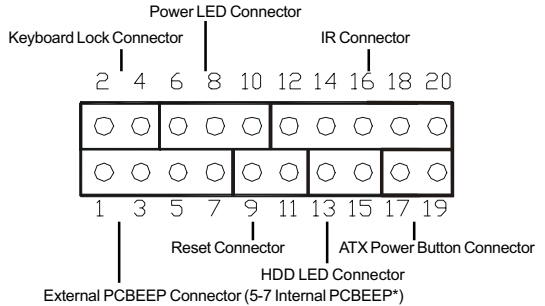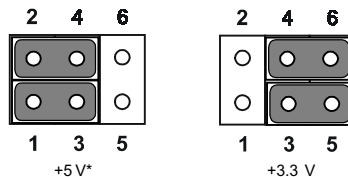

J1: CMOS Charge & Discharge

Pin	Function
1-2	Discharge
2-3	Charge

J2: LAN Power Select

Pin	Function
1-2	5 V Standby
2-3	VCC*

JP1: LCD High drive signal buffer power

Pin	Function
1-3, 2-4	+5 V*
3-5, 4-6	+3.3 V

JP2: RS-232/422/485 Select

Pin	Function
1-2 (CN10 connector)	COM2/RS-232*
3-4 (CN11 connector)	COM2/RS-422
5-6 (CN11 connector)	COM2/RS-485

RS-232* RS-422 RS-485
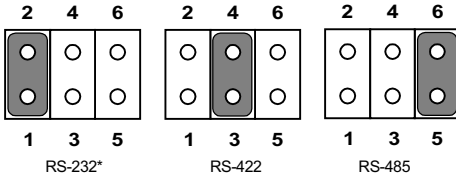
JP3: DOC address select

Pin	Address at
1-2	D4000h
3-4	DC000h
1-2, 3-4	CC000h
1-2, 5-6	D0000h
3-4, 5-6	D8000h

D4000h DC000h CC000h

D0000h D8000h
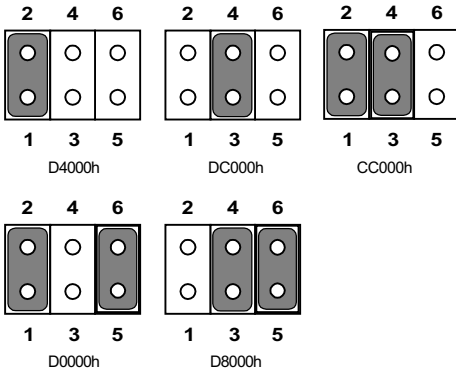
JP4: Watchdog timer

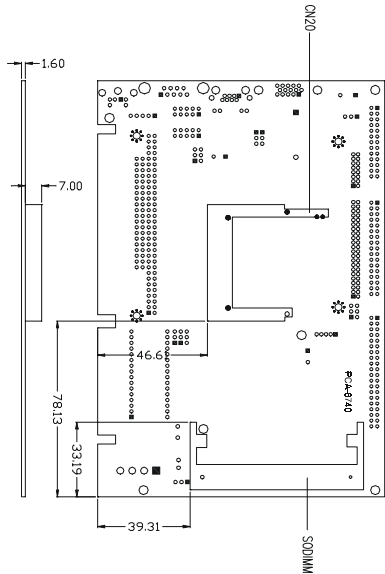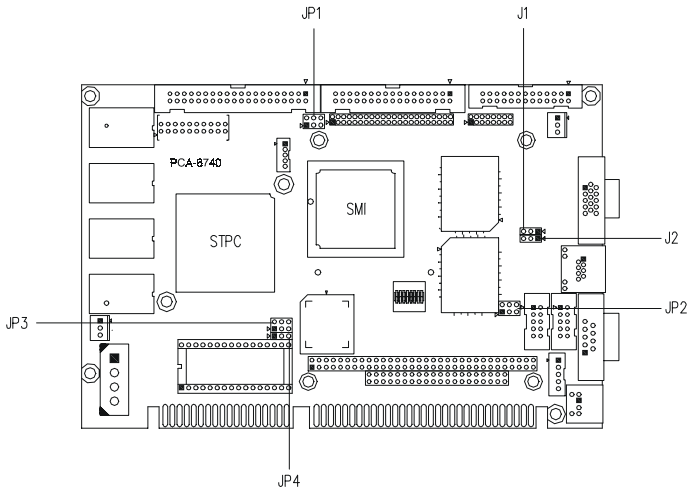| Pin	Function
1-2	Reset*
2-3	IRQ11

Reset* IRQ11
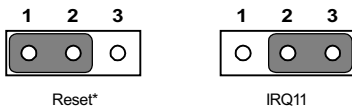
*Default Settings
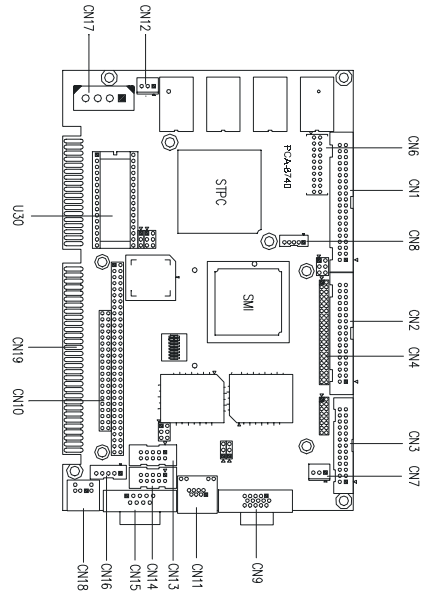
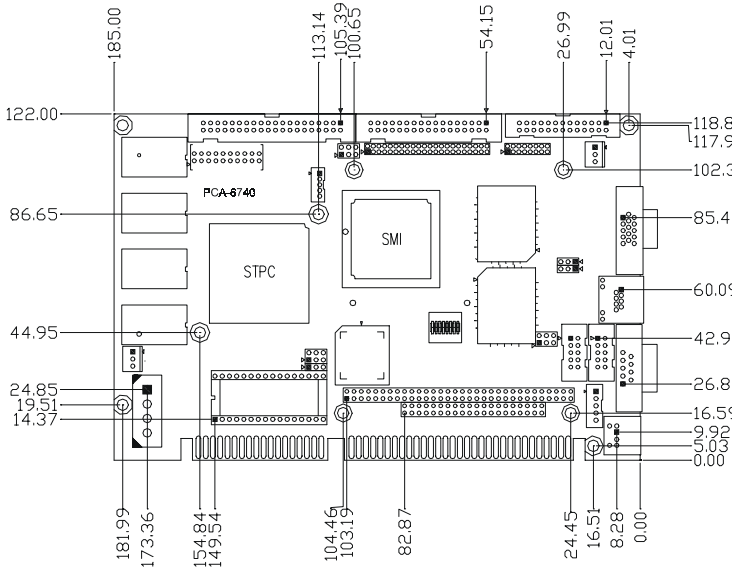

Locating connectors (component side)

Locating connectors (solder side)

Locating Jumpers (component side)

Mechanical Drawings

Board Dimensions (component side)