

# PCI-6880 PCI Intel® Pentium® M/Celeron® M Half-sized SBC with VGA/LCD/LAN/USB2.0/SSD/ SATA Startup Manual

## Packing List

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

1 PCI-6880 Series Half-sized SBC	
1 Startup manual	
1 Utility disk/CD driver	
1 Y cable for PS/2 Keyboard, PS/2 Mouse	p/n:1700060202
1 E-IDE(HDD) cable	p/n:1701400452
1 FDD cable(600mm)	p/n:1701340603
1 Parallel port cable	p/n:1700260250
1 Power cable	p/n:1700000265
Mini jumper	p/n:1653302122

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

Note1: For detail contents of the PCI-6880 Series, 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:  
<http://www.adobe.com/Prodindex/acrobat/read-step.html>/(Acrobat is a trademark of Adobe.)

## Specifications

### Standard SBC Functions

- **CPU:** Supports Intel Embedded Pentium M(Banias)/LV/ULV or Dothan Processor, up to 1.8GHz
- **BIOS:** Award 4Mbit Flash BIOS
- **System Chipset:** Intel 855GME + 6300ESB
- **SATA Chip:** 6300ESB
- **System memory:** 200 pin DDR SODIMM x 2, support ECC DDR up to 2GB
- **2nd Cache Memory:** 1 or 2MB on Pentium M process, 512K/1M on Celeron M
- **Enhanced IDE Interface:** Supports two enhanced IDE channels. Primary channel supports ATA-100 mode; Secondary channel only supports ATA-33 and PIO mode. CFC card occupies secondary master
- **SATA Connector:** Two COMAX C504C connectors, supports data transfer rates up to 150 Mbyte/s
- **Serial Ports:** Four serial ports: COM1, COM3, COM4: RS232, COM2: RS232/422/485
- **Parallel Ports:** one parallel port, support SPP/EPP/ECP
- **Keyboard/Mouse Connector:** Supports standard PC/AT Keyboard and a PS/2 Mouse
- **Power Management:** Supports Power Saving Mode including Normal/Standard/Suspend modes. APM 1.2 compliant.
- **FDD interface:** Support up to two FDD devices
- **USB:** 4 USB ports, USB 2.0 compliant
- **DIO Interface:** 8-bit general purpose input/output
- **SSD:** Support CompactFlash Card Type I/II
- **Watchdog timer:** 0 ~ 255sec. System reset.
- **Expansion Interface:** 32-bit PCI slot

### Display

- **Chipset:** Intel 855GME chip integrated.(Extreme Graphics 2)
- **Memory Size:** Optimized Shared Memory Architecture, supports up to 64 MB frame buffer using system memory
- **Resolution: CRT Modes:**  
2048 x 1536@75 Hz  
**LCD Modes:**  
up to 1280 x 1024 @ 48bpps
- **LCD Interface:** 2 Channel LVDS (Up to 48-bit)
- **LVDS Interface:** Hirose connector support dual channel LVDS panel, up to UXGA panel resolution with frequency range from 25-MHz to 112-MHz
- **Dual Display:** CRT + LVDS;CRT+DVI

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-6880 Series Rev.A1.

Part No.200K688002

2nd. Edition  
Mar, 2005.

## DVI

- **Chipset:** Chrontel CH7009
- drives a DVI display at a pixel rate of up to 165MHz, supporting UXGA resolution displays
- DVI hot plug detection

## Ethernet interface

- **Chipset:** Intel 82540EM(Gigabit) , Intel 82551ER/82551QM(optional)
- **Ethernet interface:** IEEE 802.3 z/ab(1000BASE-T) or IEEE 802.3u(100BASE-T)protocol compatible
- **Connection:** On-board RJ-45 connector

## Mechanical and Environmental

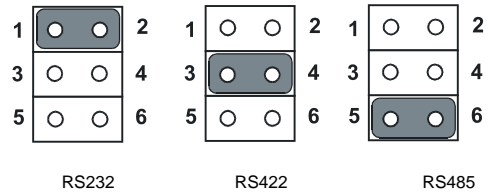
- **Size/Weight:** 185mm x 122mm(7.3" x 4.8")
- **Power Supply Voltage:** +5V, +5V STB and +12V
- **Power Requirements:**
  - Max(Run Kpower under Win2000)
    - 4.14@5V, 0.22A@12V (w/Celeron M 1.3G+256M);
    - 7.16@5V, 0.24A@12V (w/Pentium M 1.6G+256M);
    - 5.04@5V, 0.22A@12V (w/Pentium M 1.8G+256M)
  - Typical(Run Kpower under Win2000)
    - 1.81A @5V, 0.22A @12V (w/Celeron M 1.3G +256MB);
    - 2.56A @5V, 0.22A @12V (w/Pentium M 1.6G +256MB);
    - 2.45A @5V, 0.22A @12V (w/Pentium M 1.8G+256MB)
- **Environment:** 0 ~ 60°C (32 ~ 140°F),operation
- **Operating Humidity:** 0%~90% relative humidity, non-condensing

## Connectors

Label	Function
CN16	DVI Connector
CN17	Audio I/F
CN18	EXT_KB
CN19	Mini PS/2 and Keyboard
CN20	LCD INV PWR
CN21	CF Connector
SA1	SATA Connector
SA2	SATA Connector
FAN1	CPU FAN Connector

## JP1: COM2 232/422/485 SEL

Pin	Function
1-2	RS232
3-4	RS422
5-6	RS485



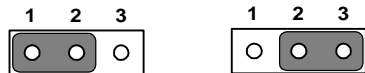
## JP2: Clear CMOS

Pin	Function
1-2	Clear CMOS



## JP3: Panel Power Select

Pin	Function
1-2	+5V
2-3	+3.3V



## JP4: PCI Card Power Select

Pin	Function
1-2	+5V
2-3	+3.3V



## 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.

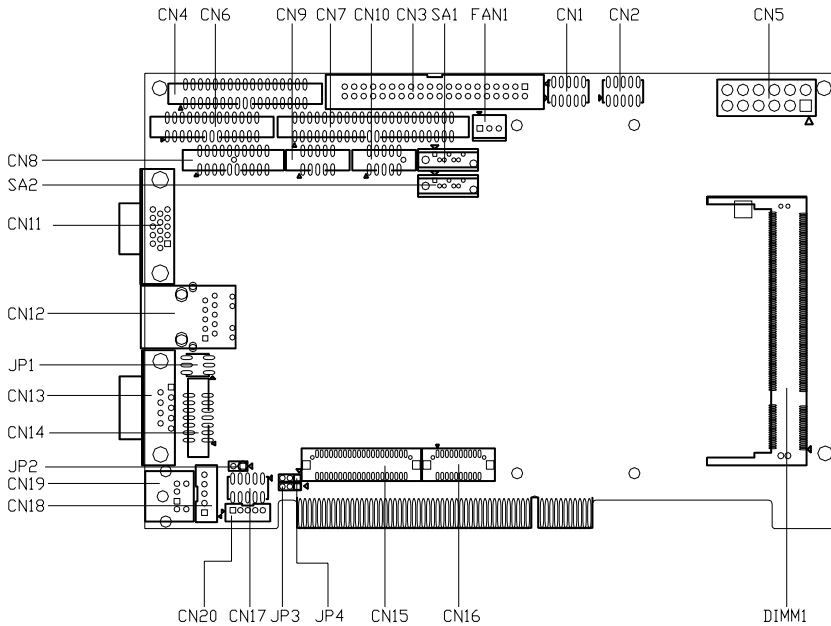
The table below lists the function of each of the jumpers and connectors.

### Jumpers

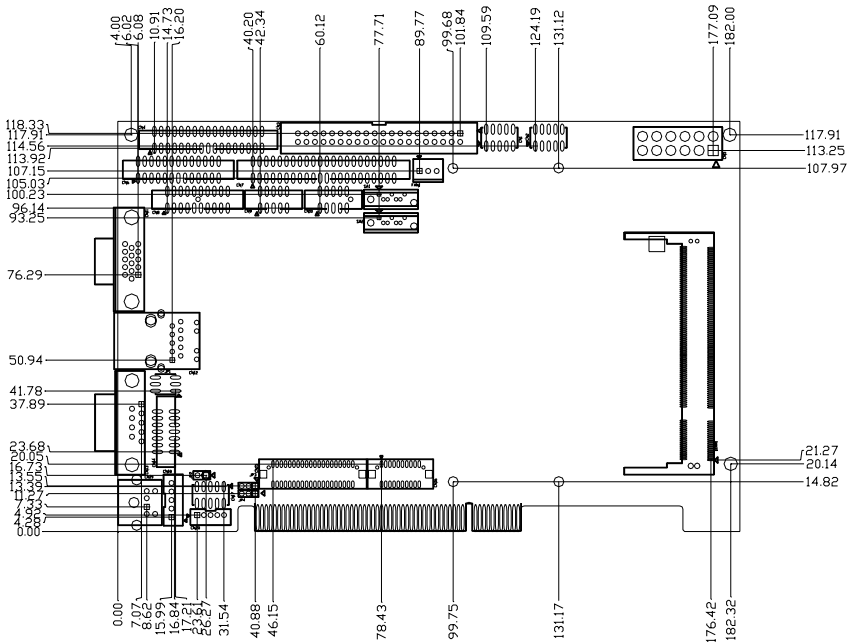
Label	Function
JP1	COM2 232/422/485 SEL
JP2	Clear CMOS
JP3	Panel Power Select
JP4	PCI Card Power Select

### Connectors

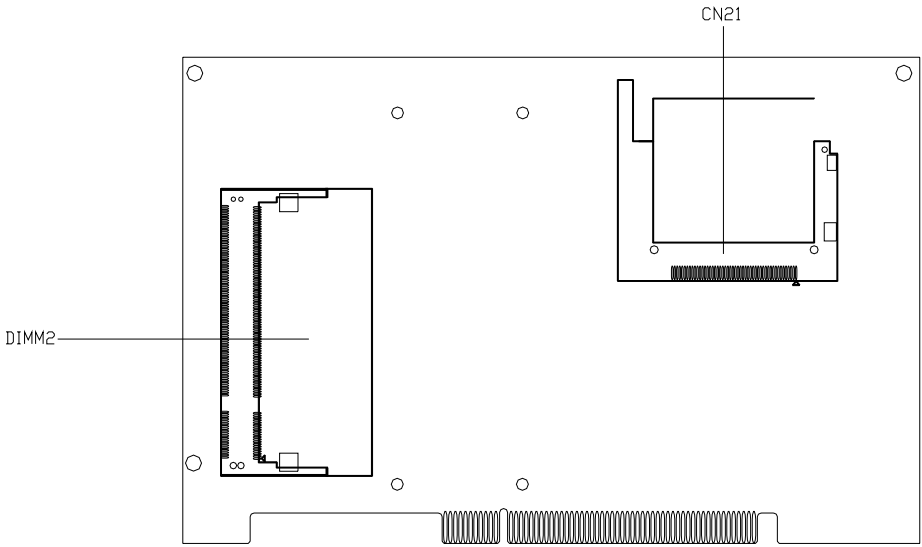
Label	Function
CN1	HDD LED/Reset/Power Button
CN2	DIO Connector
CN3	Primary IDE
CN4	Floppy
CN5	ATX Power Connector
CN6	LPT
CN7	Secondary IDE(slave)
CN8	COM3/COM4
CN9	USB 3, 4
CN10	USB 1, 2
CN11	D-SUB VGA
CN12	LAN RJ45
CN13	COM1
CN14	COM2
CN15	LVDS Connector



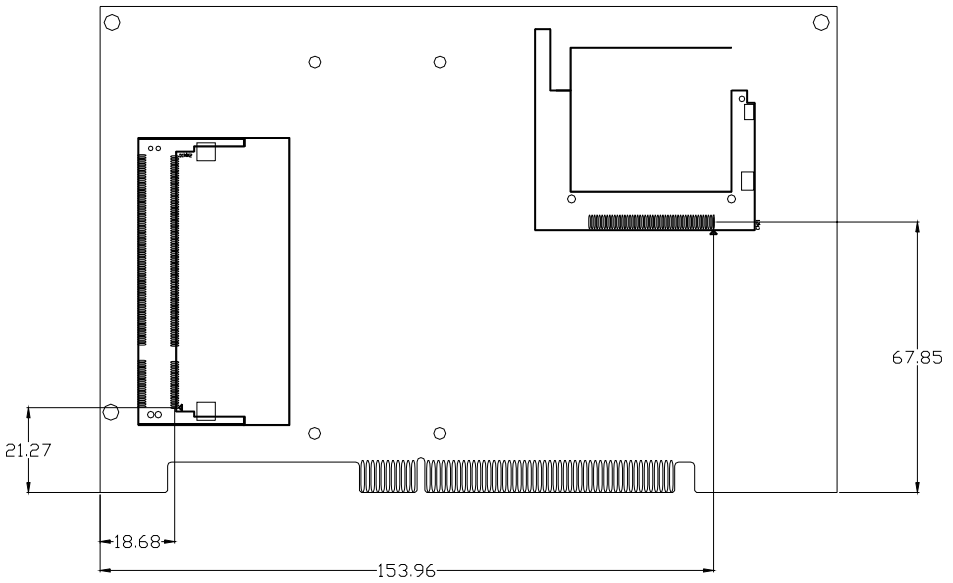
**PCI-6880 Location Connectors and Jumpers (Component side)**



**PCI-6880 Dimensions (Component side)**



***PCI-6880 Location Connectors (solder side)***



***PCI-6880 Dimensions (Solder side)***