

PCI-6881 PCI Pentium M Half-sized SBC with VGA/LCD/LVDS/Giga Ethernet/USB2.0 and SSD

Startup Manual

Packing List

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

1 PCI-6881 Series Half-sized SBC	
1 Startup manual	
1 Utility disk/CD driver	
1 Y cable for PS/2 Keyboard,	p/n:1700060202
PS/2 Mouse	
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-6881 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/readstep.html>(Acrobat is a trademark of Adobe.)

For more information on this and our other products, please visit our website at:

<http://www.emacinc.com>

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

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

This manual is for the PCI-6881 Series Rev.A1.

Part No.200K688100

1st. Edition
Sep, 2004.

Specifications

Standard SBC Functions

- **CPU:** Supports Intel Embedded Pentium M(Banias)/LV/ULV or Dothan Processor, up to 1.6GHz
- **BIOS:** Award 4Mbit Flash BIOS
- **System Chipset:** Intel 855GME + ICH4
- **System memory:** 200 pin SODIMM x 2, support ECC double data rate (DDR) 128MB to 2GB, accepts 128/256/512/1000MB DDR 200/266/333 DRAM
- **2nd Cache Memory:** 1MB on the Pentium M(Banias)
- **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.
- **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 or IRQ11
- **Expansion Interface:** 32-bit PCI slot

Display

- **Chipset:** Intel 855GME
- **Memory Size:** Shared up to 64MB, support DVMT
- **Resolution:**
 - CRT Modes:**
1600 x 1200@24bpp (85 Hz)
 - LCD/Simultaneous Modes:**
up to UVGA panel resolution with frequency range from 25-MHz to 112-MHz
- **LVDS Interface:** support 2 channel (48-bit) LVDS LCD panel

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"), 0.27 Kg(0.59 lb)
- **Power Supply Voltage:** +5V, +12V ±5%
Power requirements:
Max
 6A@5V, 0.5A@12V
Typical
 5.2A @5V(w/Pentium M 1.6G +512MB)
 0.25A @12V(w/Pentium M 1.6G +512MB)
- **Environment:** 0 ~ 60°C (32 ~ 140°F),operation
- **Operating Humidity:** 0%~90% relative humidity, non-condensing

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

Connectors

Label	Function
CN1	Primary IDE
CN2	Floppy
CN3	LPT
CN4	Secondary IDE(Slave)
CN5	ATX Power Connector
CN6	COM3/COM4
CN7	USB1,2
CN8	USB3,4
CN9	HDD LED/Reset/Power Button
CN10	D-SUB VGA
CN11	LAN RJ45
CN12	COM1
CN13	COM2
CN14	LVDS CON
CN15	Audio I/F
CN16	DIO CON
CN17	MINI KB
CN18	EXT_KB
CN19	LCD INV PWR
CN20	CF CON

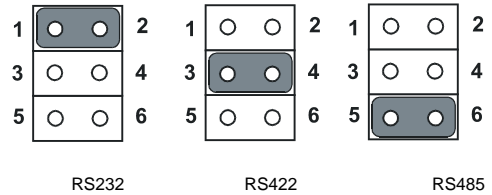
JP1: Clear CMOS

Pin	Function
1-2	Clear CMOS



JP2: COM2 232/422/485 SEL

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



JP3: PCI Card Power Select

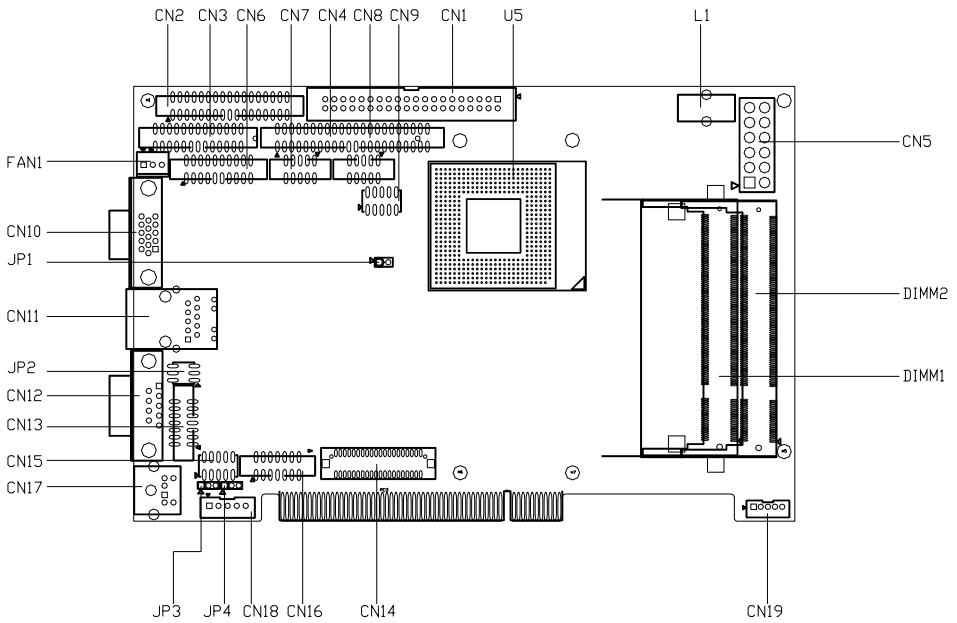
Pin	Function
1-2	+5V
2-3	+3.3V



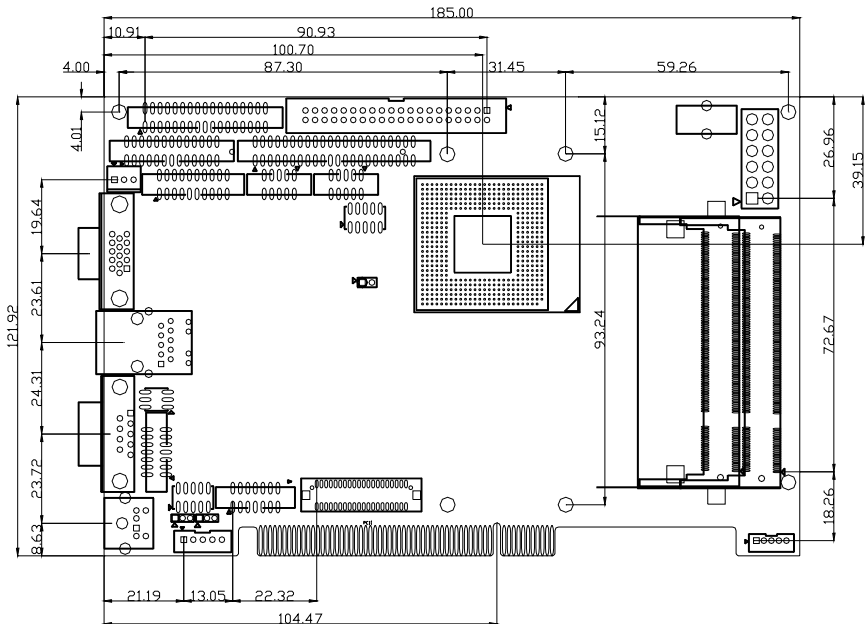
JP4: LVDS Panel Power Select

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

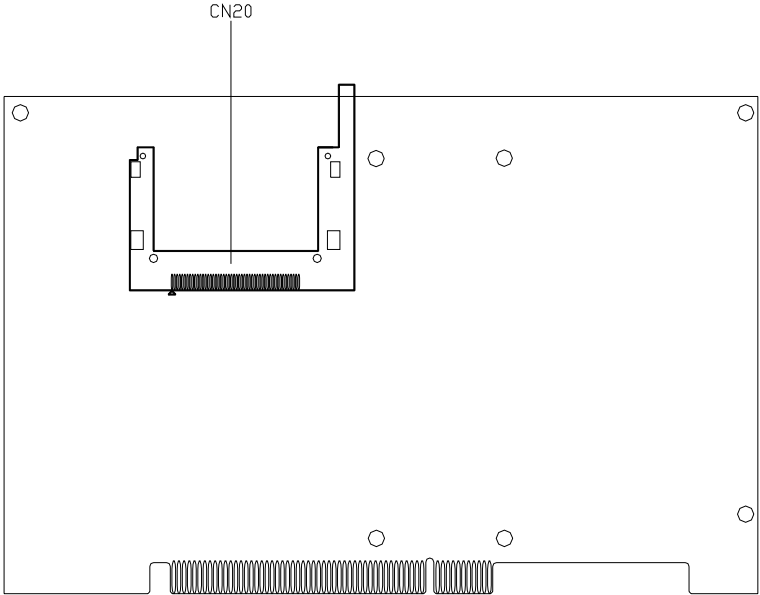




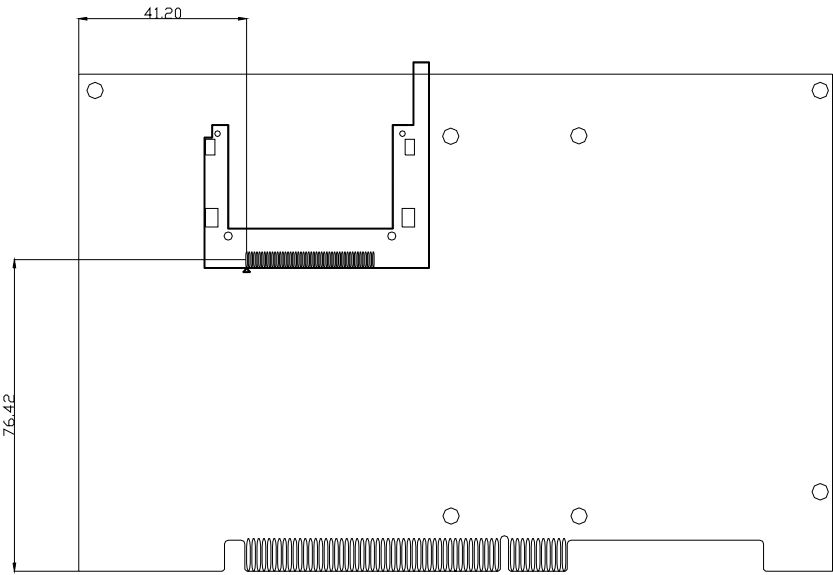
PCI-6881 Location Connectors and Jumpers (Component side)



PCI-6881 Dimensions (Component side)



PCI-6881 Location Connectors (solder side)



PCI-6881 Dimensions (Solder side)