

**Half-size PCISA Intel® Pentium® M or Celeron® M  
processors with a 400MHz FSB and comes with LCD, CRT,  
dual LAN,dual-display support, USB2.0 and audio**

# **PCISA-6770E2-RS**

## **Quick Installation Guide**

### **Version 3.0**

Aug. 04, 2008

### **Package Contents**

PCISA-6770E2-RS package includes the following items:

- 1 x PCISA-6770E2-RS single board computer
- 1 x ATA66/100 HDD cable
- 1 x KB/MS Y cable
- 1 x RS232/LPT cable
- 1 x RS232/422/485 cable
- 1 x USB cable
- 1 x Audio cable
- 1 x mini jumper pack
- 1 x Utility CD
- 1 x QIG (Quick Installation Guide)



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## Specifications

- CPU: Intel® Pentium® M or Celeron® M processors with a 400MHz FSB
- System Chipset: Intel® 852GM+ICH4
- BIOS: AMI BIOS Label
- System memory: One 184-pin 1GB (max.) 200MHz or 266MHz DDR SDRAM DIMM supported
- Ethernet: Dual 10/100Mbps Intel® 82562ET/82551ER Ethernet chipset
- I/O

I/O Interface:

- 1 x RS-232
- 1 x RS-232/422/485
- 1 x LPT by pin-header
- 1 x IrDA by pin-header
- 5 x USB 2.0( 1 on rear,4 by pin header)
- 1 x ATA-100
- 1 x ATA-33 IDE channel
- 1 x PS/2 keyboard/mouse
- 1 x 5-pin header for keyboard
- 1 x FDD

Super I/O: W83627HG

Digital I/O:8-bit digital I/O, 4-bit output / 4-bit input

- Display: CRT integrate in Intel® 852GM  
18/24-bit dual-channel LVDS
- Audio: Realtek ALC655 AC'97 codec
- Power supply:5V/12V, AT/ATX power support
- Power Consumption:  
5V@3.5A, 12V @1.9A running a 1.7GHz 2MB L2 cache Intel® Pentium® M processor with 266 MHz 512MB DDR DIMM
- Temperature: 0 ~ 60°C( 32 ~ 140°F)
- Watchdog timer: Software programmable 1-255 sec. by super I/O

## **Ordering Information**

### **PCISA-6770E2-RS-R30**

PCISA Intel® Pentium® M/ Celeron® M CPU Card with VGA/LVDS, Dual LAN,USB2.0 and Audio

### **PCISA-6770E2-RS-600-R30**

PCISA Intel® Celeron® M 600MHz 512K Cache CPU Card with VGA/LVDS ,Dual LAN,USB2.0 and Audio

### **PCISA-6770E2-RS-1GZ-R30**

PCISA Intel® Celeron® M 1GHz Zero Cache CPU Card with VGA/LVDS ,Dual LAN,USB2.0 and Audio

**32200-000058-RS:** 2.0mm pitch FDD cable

**32100-133600-RS:** 2.0mm to 2.54mm pitch front panel cable

**32100-126600-RS:** 2.0mm to 2.54mm pitch USB cable

**CF-518-RS:** CPU cooler

**CF-479B-RS:** CPU cooler

# Jumpers setting and Connectors

| Table of Jumpers and Connectors |                                                     |
|---------------------------------|-----------------------------------------------------|
| LABEL                           | FUNCTION                                            |
| J_CMOS1                         | CMOS state setting                                  |
| JP1                             | COM2 Port Mode setting                              |
| JCF1                            | Configure CF Card type                              |
| J_VLVDS1                        | LVDS Voltage Selection                              |
| JP2                             | LVDS Panel Resolution Selection                     |
| KB_MS1                          | PS/2 Mouse & Keyboard Connector                     |
| KB1                             | 5-pin Header Keyboard Connector                     |
| LAN1/LAN2                       | RJ45 LAN Connector                                  |
| VGA1                            | VGA 15-pin Female Connector                         |
| CPU_FAN1                        | CPU Fan Connectors                                  |
| ATXCTL1                         | Backplane to Main Board ATX Power Control Connector |
| F_PANEL1                        | PWR & RST Buttons and Indicators                    |
| USB_C4                          | USB Port Connectors                                 |
| IDE1                            | IDE Connector 1                                     |
| IDE2                            | IDE Connector 2                                     |
| FDD1                            | FDD Connector                                       |
| LPT1                            | Parallel Port Connector                             |
| COM1                            | Internal Serial Port 10-pin Connector               |
| COM2                            | Internal Serial Port 14-pin Connector               |
| DIO1                            | Digital I/O Connector                               |
| INVERTER1                       | Panel Backlight +12V Power Source                   |
| LVDS1                           | Dual Link LVDS                                      |
| USB01<br>USB23                  | Internal 4 Port USB Connector                       |
| J_AUDIO1                        | AC'97 Connector                                     |
| CD_IN1                          | CD-IN Input Connector                               |
| PWR1                            | Power Source Connector                              |
| IR1                             | IrDA Infrared Interface Connector                   |
| DVI1(optional)                  | Digital Visual Interface Connector                  |

| <b>J_CMOS1 : Clear CMOS Setup</b> |                           |
|-----------------------------------|---------------------------|
| J_CMOS1                           | DESCRIPTION               |
| Short 1-2                         | Keep CMOS Setup (Default) |
| Short 2-3                         | Clear CMOS Setup          |

| <b>JCF1: configure CF Card type</b> |                 |
|-------------------------------------|-----------------|
| JCF1                                | DESCRIPTION     |
| Open                                | Slave (Default) |
| Short 1-2                           | Master          |

| <b>J_VLVDS1:LVDS Voltage election</b> |                      |
|---------------------------------------|----------------------|
| J_VLVDS1                              | DESCRIPTION          |
| 1-2                                   | +3.3V LVDS (Default) |
| 2-3                                   | +5V LVDS             |

| <b>JP1:Configure COM2 Mode</b> |                  |
|--------------------------------|------------------|
| JP1                            | DESCRIPTION      |
| 1-2                            | RS-232 (Default) |
| 3-4                            | RS-422           |
| 5-6                            | RS-485           |

| <b>ATXCTL1 : Backplane to Mainboard Connector</b> |             |
|---------------------------------------------------|-------------|
| PIN                                               | DESCRIPTION |
| 1                                                 | GND         |
| 2                                                 | PS_ON#      |
| 3                                                 | 5VSB        |

| <b>CPU_FAN1:CPU Fan Connector</b> |             |
|-----------------------------------|-------------|
| PIN                               | DESCRIPTION |
| 1                                 | SYSFANIN    |
| 2                                 | +12V        |
| 3                                 | GND         |

| <b>CD_IN1: Audio CD-IN Connector</b> |             |
|--------------------------------------|-------------|
| PIN                                  | DESCRIPTION |
| 1                                    | CD-IN L     |
| 2                                    | GND_AUDIO   |
| 3                                    | GND_AUDIO   |
| 4                                    | CD-IN R     |

| <b>IR1: IrDA connector</b> |             |
|----------------------------|-------------|
| PIN                        | DESCRIPTION |
| 1                          | VCC         |
| 2                          | NC          |
| 3                          | IR-RX       |
| 4                          | GND         |
| 5                          | IR-TX       |
| 6                          | CIRRX       |

| <b>JP2 : LVDS Panel Resolution Selection</b> |                             |
|----------------------------------------------|-----------------------------|
| <b>JP2</b>                                   | <b>DESCRIPTION</b>          |
| OFF                                          | 640 X 480 (18bit) (Default) |
| 1-2                                          | 800 X 600 (18bit)           |
| 3-4                                          | 1024 X 768 (24bit)          |
| 1-2 & 3-4                                    | 1280 X 1024 (36bit)         |
| 5-6                                          | 1400 X 1050 (36bit)         |
| 1-2 & 5-6                                    | 1024 X 768 (18bit)          |
| 3-4 & 5-6                                    | 1600 X 1200 (48bit)         |
| 1-2 & 3-4 & 5-6                              | 1280 X 1024 (48bit)         |
| 7-8                                          | 800 X 600 (24bit)           |
| 1-2 & 7-8                                    | 1366 X 768 (24bit)          |
| 3-4 & 7-8                                    | 1024 X 768 (36bit)          |
| 1-2 & 3-4 & 7-8                              | 1400 X 1050 (48bit)         |
| 5-6 & 7-8                                    | 1600 X 1200 (36bit)         |
| 1-2 & 5-6 & 7-8                              | 800 X 480 (18bit)           |
| 3-4 & 5-6 & 7-8                              | 800 X 480 (24bit)           |
| 1-2 & 3-4 & 5-6 & 7-8                        | 1366 X 768 (48bit)          |

| <b>F_PANEL1:Front Panel Jumper</b> |            |                    |            |                    |        |
|------------------------------------|------------|--------------------|------------|--------------------|--------|
|                                    | <b>PIN</b> | <b>DESCRIPTION</b> | <b>PIN</b> | <b>DESCRIPTION</b> |        |
| PWRBTN                             | 1          | PWR_BTN+           | 2          | PWR_LED+           | PWRLED |
|                                    | 3          | PWR_BTN-           | 4          | PWR_LED-           |        |
| HDDLED                             | 5          | HD_LED+            | 6          | RESET+             | RESET  |
|                                    | 7          | HD_LED-            | 8          | RESET-             |        |

| <b>KB1:5-pin Header Keyboard Connector</b> |                    |
|--------------------------------------------|--------------------|
| <b>Pin</b>                                 | <b>DESCRIPTION</b> |
| 1                                          | KEYBOARD CLOCK     |
| 2                                          | KEYBOARD DATA      |
| 3                                          | N/C                |
| 4                                          | GND                |
| 5                                          | VCC                |

| <b>USB01 &amp; USB23 : Internal USB Connector</b> |                    |            |                    |
|---------------------------------------------------|--------------------|------------|--------------------|
| <b>PIN</b>                                        | <b>DESCRIPTION</b> | <b>PIN</b> | <b>DESCRIPTION</b> |
| 1                                                 | VCC                | 2          | GND                |
| 3                                                 | DATA-              | 4          | DATA+              |
| 5                                                 | DATA+              | 6          | DATA-              |
| 7                                                 | GND                | 8          | VCC                |

| <b>COM1 : 10PIN Serial Port Connector</b> |                    |            |                    |
|-------------------------------------------|--------------------|------------|--------------------|
| <b>PIN</b>                                | <b>DESCRIPTION</b> | <b>PIN</b> | <b>DESCRIPTION</b> |
| 1                                         | DCD#               | 2          | DSR#               |
| 3                                         | RXD                | 4          | RTS#               |
| 5                                         | TXD                | 6          | CTS#               |
| 7                                         | DTR#               | 8          | RI#                |
| 9                                         | GND                | 10         | NC                 |

| <b>COM2 : 14-Pin Serial Port Connector</b> |                    |            |                    |
|--------------------------------------------|--------------------|------------|--------------------|
| <b>PIN</b>                                 | <b>DESCRIPTION</b> | <b>PIN</b> | <b>DESCRIPTION</b> |
| 1                                          | DCD#               | 2          | DSR#               |
| 3                                          | RXD                | 4          | RTS#               |
| 5                                          | TXD                | 6          | CTS#               |
| 7                                          | DTR#               | 8          | RI#                |
| 9                                          | GND                | 10         | NC                 |
| 11                                         | TX+                | 12         | TX-                |
| 13                                         | RX+                | 14         | RX-                |

| <b>PWR1 : ATX POWER IN</b> |                    |
|----------------------------|--------------------|
| <b>PIN NO.</b>             | <b>DESCRIPTION</b> |
| 1                          | VCC                |
| 2                          | GND                |
| 3                          | GND                |
| 4                          | +12V               |

| <b>INVERTER1 : 5-pin Header Inverter Connector</b> |                    |
|----------------------------------------------------|--------------------|
| <b>PIN</b>                                         | <b>DESCRIPTION</b> |
| 1                                                  | LCD_BKLTCTL        |
| 2                                                  | GROUND             |
| 3                                                  | +12V               |
| 4                                                  | GROUND             |
| 5                                                  | BACKLIGHT ENABLE   |

| <b>LVDS1 : LVDS LCD Connector</b> |                    |            |                    |
|-----------------------------------|--------------------|------------|--------------------|
| <b>PIN</b>                        | <b>DESCRIPTION</b> | <b>PIN</b> | <b>DESCRIPTION</b> |
| 1                                 | GND                | 2          | GND                |
| 3                                 | LVDSA_Y0+          | 4          | LVDSA_Y0-          |
| 5                                 | LVDSA_Y1+          | 6          | LVDSA_Y1-          |
| 7                                 | LVDSA_Y2+          | 8          | LVDSA_Y2-          |
| 9                                 | LVDSA_CLK+         | 10         | LVDSA_CLK-         |
| 11                                | LVDSA_Y3+          | 12         | LVDSA_Y3-          |
| 13                                | GND                | 14         | GND                |
| 15                                | LVDSB_Y0+          | 16         | LVDSB_Y0-          |
| 17                                | LVDSB_Y1+          | 18         | LVDSB_Y1-          |
| 19                                | LVDSB_Y2+          | 20         | LVDSB_Y2-          |
| 21                                | LVDSB_CLK+         | 22         | LVDSB_CLK-         |
| 23                                | LVDSB_Y3+          | 24         | LVDSB_Y3-          |
| 25                                | GND                | 26         | GND                |
| 27                                | LVDS_VCC           | 28         | LVDS_VCC           |
| 29                                | LVDS_VCC           | 30         | LVDS_VCC           |

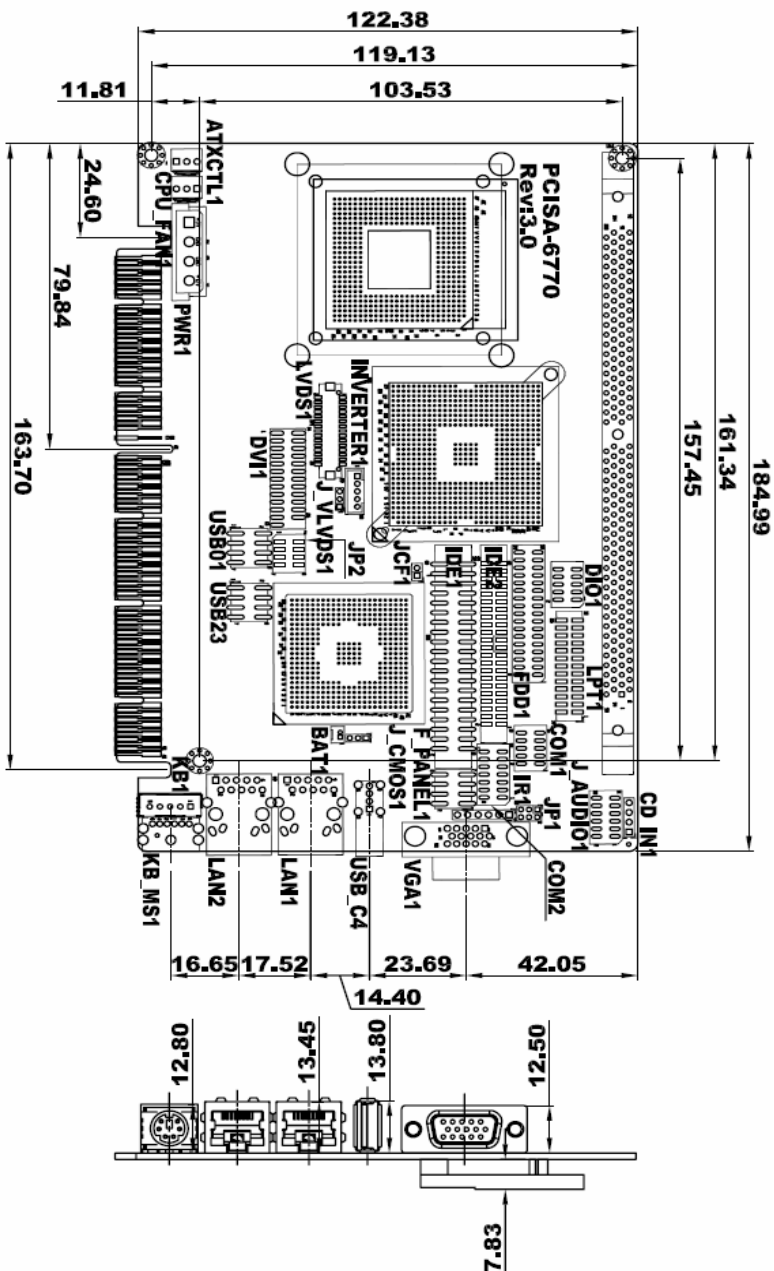
| <b>J_AUDIO1: AC'97 Connector</b> |                    |            |                    |
|----------------------------------|--------------------|------------|--------------------|
| <b>PIN</b>                       | <b>DESCRIPTION</b> | <b>PIN</b> | <b>DESCRIPTION</b> |
| 1                                | SPK L              | 2          | SPK R              |
| 3                                | GND_AUDIO          | 4          | GND_AUDIO          |
| 5                                | LINE_OUTL          | 6          | LINE_OUTR          |
| 7                                | LINEIN L           | 8          | LINEIN R           |
| 9                                | GND_AUDIO          | 10         | GND_AUDIO          |
| 11                               | MICIN              | 12         | GND_AUDIO          |

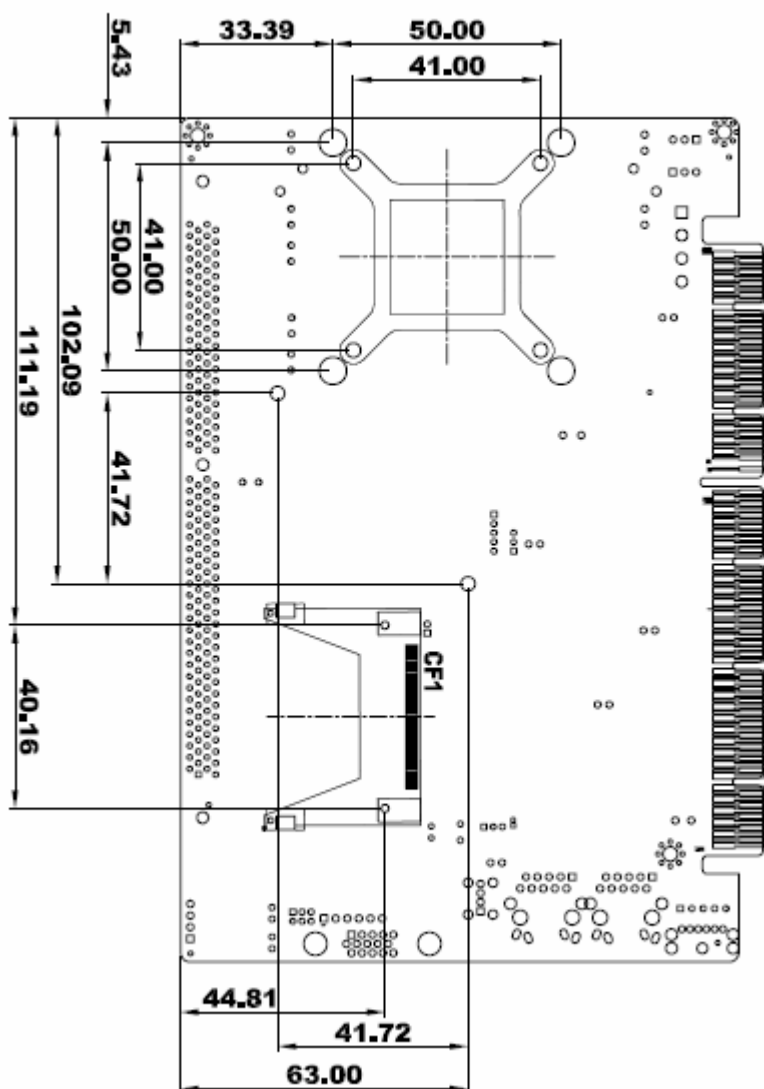
| <b>DIO1 : Digital Input / Output Connector</b> |                    |            |                    |
|------------------------------------------------|--------------------|------------|--------------------|
| <b>PIN</b>                                     | <b>DESCRIPTION</b> | <b>PIN</b> | <b>DESCRIPTION</b> |
| 1                                              | Ground             | 2          | VCC                |
| 3                                              | Output 3           | 4          | Output 2           |
| 5                                              | Output 1           | 6          | Output 0           |
| 7                                              | Input 3            | 8          | Input 2            |
| 9                                              | Input 1            | 10         | Input 0            |

| <b>DVI1 : DVI Connector (Optional)</b> |             |     |                  |
|----------------------------------------|-------------|-----|------------------|
| <b>DVI Connector</b>                   |             |     |                  |
| PIN                                    | DESCRIPTION | PIN | DESCRIPTION      |
| 1                                      | Data 2-     | 14  | +5V Power        |
| 2                                      | Data 2+     | 15  | GND              |
| 3                                      | GND         | 16  | Hot Plug Detect. |
| 4                                      | N/C         | 17  | Data 0-          |
| 5                                      | N/C         | 18  | Data 0+          |
| 6                                      | DDC Clock   | 19  | GND              |
| 7                                      | DDC Data    | 20  | N/C              |
| 8                                      | N/C         | 21  | N/C              |
| 9                                      | Data 1-     | 22  | GND              |
| 10                                     | Data 1+     | 23  | Clock +          |
| 11                                     | GND         | 24  | Clock -          |
| 12                                     | N/C         | 25  | GND              |

| <b>LPT1 : Parallel Port Connector</b> |                |     |                    |
|---------------------------------------|----------------|-----|--------------------|
| PIN                                   | DESCRIPTION    | PIN | DESCRIPTION        |
| 1                                     | STROBE#        | 14  | AUTO FORM FEED #   |
| 2                                     | DATA0          | 15  | ERROR#             |
| 3                                     | DATA1          | 16  | INITIALIZE#        |
| 4                                     | DATA2          | 17  | PRINTER SELECT LN# |
| 5                                     | DATA3          | 18  | GND                |
| 6                                     | DATA4          | 19  | GND                |
| 7                                     | DATA5          | 20  | GND                |
| 8                                     | DATA6          | 21  | GND                |
| 9                                     | DATA7          | 22  | GND                |
| 10                                    | ACKNOWLEDGE#   | 23  | GND                |
| 11                                    | BUSY           | 24  | GND                |
| 12                                    | PAPER EMPTY    | 25  | GND                |
| 13                                    | PRINTER SELECT |     |                    |

Board Layout: Jumper and Connector Locations







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