

**PICMG 1.3 Socket M Intel® Core™ 2 Duo CPU Card  
with VGA, Dual PCIe GbE, SATA and USB2.0**

# **PCI-E-9452**

## **Quick Installation Guide**

**Version 1.2**

Dec. 31, 2007

### **Package List**

PCI-E-9452 package includes the following items:

- 1 x PCI-E-9452 single board computer
- 1 x Mini Jumper Pack
- 1 x ATA 66/100 flat cable
- 4 x SATA cable
- 2 x SATA Power cable
- 1 x Dual RS-232 cable
- 1 x USB cable
- 1 x Utility CD
- 1 x QIG (Quick Installation Guide)



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## Specifications

- CPU: Socket M Intel® Core™2 Duo, Core™ Duo, Core™ Solo, Celeron® M Mobile Processor with 533/667MHz FSB
- System Chipset: Intel® 945GME + ICH7R
- BIOS: AMI Flash BIOS
- System memory:
  - Two 240-pin 667/533/400 MHz dual-channel DDR2 SDRAM DIMM supported (system max. 4GB).
- Ethernet:
  - Dual PCIe GbE Broadcom BCM5787M chipsets
- I/O Interface
  - 2 x RS-232
  - 8 x USB 2.0
    - (2 by Pin header (CPU Board) + 2 by bracket + 4 by Pin header(backplane) )
  - 4 x SATA with Intel RAID 0,1,5 and 10
  - 1 x IDE
  - 1 x FDD
  - 1 x KB (by pin header)
  - 1 x MS (by pin header)
- Digital I/O: 8-bit digital I /O, 4-bit input/ 4-bit output
- IrDA: 1 x IrDA by pin header
- Super I/O: ITE IT8712F
- Display Interface:
  - VGA / 18-bit dual channel LVDS integrated in Intel 945GME
  - Support HDTV resolution up to 1080i by component interface
- Audio:
  - 5.1 channel AC'97 Audio Kit with Realtek ALC655 codec
  - 7.1 channel HD Audio Kit with Realtek ALC883 support dual audio streams
- SSD: CF type II
- WDT: Software programmable supports 1-255 sec. System reset
- Power supply: ATX Power
- Power Consumption
  - 5V@4.14A, 12V@2.9A, 3.3V@ 0.72A
  - (Intel Core 2 Duo T7200 2.06GHz/667 MHz CPU with 1GB

DDRII 667MHz)

- Temperature: Operation: 0~60°C (32~140°F)
- Humidity: Operation: 5%~95% non-condensing
- Dimension: 338 mm x 126 mm
- Weight: GW: 1100 g / NW: 380 g

## Ordering Information

- PCIE-9452-R12:  
PICMG 1.3 Socket M Intel® Core™ 2 Duo CPU Card With VGA, Dual PCIe GbE, SATA and USB 2.0
- AC-KIT883HD-R10:  
7.1 Channel HD Audio Kit with Realtek ALC883 support dual audio streams
- AC-KIT08R-R10: 5.1 Channel AC'97 Audio Kit with Realtek ALC655
- CF-479B-RS: CPU cooler
- SDVO-100VGA-R10:  
PCIe x16 VGA Output SDVO Card supports dual display (IEI CPU board only)
- SDVO-100DVI-R10:  
PCIe x16 DVI Output SDVO Card supports dual display (IEI CPU board only)
- 32000-000066-RS:  
KB/MS cable with bracket
- 19800-000049-RS: LPT cable
- 32200-000017-RS: FDD cable

## Jumpers setting and Connectors

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

| <b>J_CF1: CF Card Setup</b> |             |
|-----------------------------|-------------|
| J_CF1                       | DESCRIPTION |
| 1-2<br>(Default)            | Slave       |
| 2-3                         | Master      |

| <b>J_VLVDS1: Set The Panel Voltage</b> |                                                   |
|----------------------------------------|---------------------------------------------------|
| J_LVDS1                                | DESCRIPTION                                       |
| 1-2<br>(Default)                       | Set The Voltage Level Of<br>Panel To VCC3 (+3.3V) |
| 2-3                                    | Set The Voltage Level Of<br>Panel To VCC (+5V)    |

| <b>KB1:<br/>5-pin Wafer Keyboard Connector</b> |                |
|------------------------------------------------|----------------|
| PIN                                            | DESCRIPTION    |
| 1                                              | Keyboard Clock |
| 2                                              | Keyboard Data  |
| 3                                              | NC             |
| 4                                              | GND            |
| 5                                              | VCC            |

| <b>MS1:<br/>5-pin Wafer Mouse Connector</b> |             |
|---------------------------------------------|-------------|
| PIN                                         | DESCRIPTION |
| 1                                           | Mouse Clock |
| 2                                           | Mouse Data  |
| 3                                           | NC          |
| 4                                           | GND         |
| 5                                           | VCC         |

| <b>USB_01: Internal USB Connectors</b> |             |     |             |
|----------------------------------------|-------------|-----|-------------|
| PIN                                    | DESCRIPTION | PIN | DESCRIPTION |
| 1                                      | VCC         | 2   | GND         |
| 3                                      | DATA -      | 4   | DATA +      |
| 5                                      | DATA +      | 6   | DATA -      |
| 7                                      | GND         | 8   | VCC         |

| <b>COM1, COM2: External Serial Port Connector</b> |             |     |             |
|---------------------------------------------------|-------------|-----|-------------|
| PIN                                               | DESCRIPTION | PIN | DESCRIPTION |
| 1                                                 | DCD#        | 6   | DSR#        |
| 2                                                 | RXD         | 7   | RTS#        |
| 3                                                 | TXD         | 8   | CTS#        |
| 4                                                 | DTR#        | 9   | RI#         |
| 5                                                 | GND         | 10  | NC          |

| <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 | 26  | NC                 |

| <b>J_AUDIO1: Audio Source Connector</b> |             |     |             |
|-----------------------------------------|-------------|-----|-------------|
| PIN                                     | DESCRIPTION | PIN | DESCRIPTION |
| 1                                       | AC97_SYNC   | 2   | AC97_BITCLK |
| 3                                       | AC97_SDOUT  | 4   | AC97_PCBEAP |
| 5                                       | AC97_SDIN   | 6   | AC97_RST#   |
| 7                                       | AC97_VCC    | 8   | AC97_GND    |
| 9                                       | AC97_12V    | 10  | AC97_GND    |

| <b>TV1: S-Video Connector</b>            |             |
|------------------------------------------|-------------|
| PIN                                      | DESCRIPTION |
| 1                                        | GND         |
| 2                                        | AGREEN_Y    |
| 3                                        | GND         |
| 4                                        | ARED_C      |
| <b>RCA Connector (only video signal)</b> |             |
| 5                                        | GND         |
| 6                                        | ABLUE_CVBS  |

| <b>INVERTER1:<br/>Panel Power Supply</b> |             |
|------------------------------------------|-------------|
| PIN                                      | DESCRIPTION |
| 1                                        | BRIGHTNESS  |
| 2                                        | GND         |
| 3                                        | 12V         |
| 4                                        | GND         |
| 5                                        | BL_EN       |

| <b>DIO1: Digital Input / Output Connector</b> |             |     |             |
|-----------------------------------------------|-------------|-----|-------------|
| PIN                                           | DESCRIPTION | PIN | DESCRIPTION |
| 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>IR1:IrDA connector</b> |             |
|---------------------------|-------------|
| PIN                       | DESCRIPTION |
| 1                         | VCC         |
| 2                         | NC          |
| 3                         | IR-RX       |
| 4                         | GND         |
| 5                         | IR-TX       |

| <b>ATXCTL1:<br/>Backplane Power Connector</b> |             |
|-----------------------------------------------|-------------|
| PIN                                           | DESCRIPTION |
| 1                                             | Ground      |
| 2                                             | PS_ON       |
| 3                                             | 5VSB        |

| <b>CPU_FAN1: CPU Fan Connector</b> |                 |
|------------------------------------|-----------------|
| PIN                                | DESCRIPTION     |
| 1                                  | Ground          |
| 2                                  | +12V            |
| 3                                  | Rotation Signal |
| 4                                  | Control         |

| <b>F_PANEL1: External Switches and Indicators panel</b> |     |             |     |             |         |
|---------------------------------------------------------|-----|-------------|-----|-------------|---------|
|                                                         | PIN | DESCRIPTION | PIN | DESCRIPTION |         |
| Power LED                                               | 1   | VCC         | 2   | VCC         | Speaker |
|                                                         | 3   | N/C         | 4   | N/C         |         |
|                                                         | 5   | GROUND      | 6   | N/C         |         |
| PWRBTN                                                  | 7   | PWRBTN+     | 8   | Speaker     | RESET   |
|                                                         | 9   | PWRBTN-     | 10  | N/C         |         |
| HDDLED                                                  | 11  | VCC         | 12  | Reset-      |         |
|                                                         | 13  | HDLED-      | 14  | GND         |         |

| <b>LVDS1: LVDS Connector</b> |             |     |              |
|------------------------------|-------------|-----|--------------|
| PIN                          | DESCRIPTION | PIN | DESCRIPTION  |
| 1                            | GND         | 2   | GND          |
| 3                            | LVDSA_DATA0 | 4   | LVDSA_DATA#0 |
| 5                            | LVDSA_DATA1 | 6   | LVDSA_DATA#1 |
| 7                            | LVDSA_DATA2 | 8   | LVDSA_DATA#2 |
| 9                            | LVDSA_CLK   | 10  | LVDSA_CLK#   |
| 11                           | LVDSA_DATA0 | 12  | LVDSA_DATA#3 |
| 13                           | GND         | 14  | GND          |
| 15                           | LVDSB_DATA0 | 16  | LVDSB_DATA#0 |
| 17                           | LVDSB_DATA1 | 18  | LVDSB_DATA#1 |
| 19                           | LVDSB_DATA2 | 20  | LVDSB_DATA#2 |
| 21                           | LVDSB_CLK   | 22  | LVDSB_CLK#   |
| 23                           | LVDSB_DATA3 | 24  | LVDSB_DATA#3 |
| 25                           | GND         | 26  | GND          |
| 27                           | VCC/VCC3    | 28  | VCC/VCC3     |
| 29                           | VCC/VCC3    | 30  | VCC/VCC3     |

| <b>IDE1: IDE Interface Connector</b> |             |     |                |
|--------------------------------------|-------------|-----|----------------|
| PIN                                  | DESCRIPTION | PIN | DESCRIPTION    |
| 1                                    | RESET#      | 2   | GND            |
| 3                                    | DATA 7      | 4   | DATA 8         |
| 5                                    | DATA 6      | 6   | DATA 9         |
| 7                                    | DATA 5      | 8   | DATA 10        |
| 9                                    | DATA 4      | 10  | DATA 11        |
| 11                                   | DATA 3      | 12  | DATA 12        |
| 13                                   | DATA 2      | 14  | DATA 13        |
| 15                                   | DATA 1      | 16  | DATA 14        |
| 17                                   | DATA 0      | 18  | DATA 15        |
| 19                                   | GND         | 20  | N/C            |
| 21                                   | IDE DRQ     | 22  | GND            |
| 23                                   | IOW#        | 24  | GND            |
| 25                                   | IOR#        | 26  | GND            |
| 27                                   | IDE CHRDY   | 28  | BALE – DEFAULT |
| 29                                   | IDE DACK    | 30  | GND            |
| 31                                   | INTERRUPT   | 32  | N/C            |
| 33                                   | SA1         | 34  | PDIAG#         |
| 35                                   | SA0         | 36  | SA2            |
| 37                                   | HDC CS0#    | 38  | HDC CS1#       |
| 39                                   | HDD ACTIVE# | 40  | GND            |

Board Layout: Jumper and Connector Locations

