PCA-6289 Dual Socket 604 Intel® Xeon™/LV Xeon™ Processor-based CPU Card with PCI/DDR/Dual GbE/ 400/533 MHz FSB

Packing List

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

- 1 PCA-6289 Dual Xeon™/LV Xeon™ Processor-based single board computer
- 1 Dual CPU cooler set
- 1 PCA-6289 Startup Manual
- 1 CD with driver utility and manual (in PDF format)
- 1 FDD cable
- 2 Ultra ATA 33/66/100 HDD cables
- 1 Y cable for PS/2 mouse/keyboard
- 1 Printer/COM port cable kit
- 1 COM port cable kit
- 2 180 mm +12 power extension cables

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

Note 1: For detailed contents of the PCA-6289, please refer to the enclosed CD-ROM (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/network

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

http://www.advantech.com.tw/support

This manual is for the PCA-6289 series Rev. A1.

Part No. 2002628910 1st Edition
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Specifications

Standard SBC Functions

- **CPU:** Dual Intel® Socket 604 Xeon™/LV Xeon processors, 3.06GHz and up, FSB 400/533 MHz
- **L2 cache:** 512 KB full-speed L2 cache built into CPU
- **BIOS:** Award 8 Mb Flash memory BIOS
- **Chipset:** Intel E7501 + ICH3-S + P64H2
- **System memory:** Dual Channel; Two 184-pin DIMM sockets accept up to 8 GB DDR 200/266 SDRAM, ECC-supported Registered/ECC DIMMs only
- **IDE interface:** Supports two IDE hard disk drives or four enhanced IDE devices. BIOS enabled/disabled
- **FDD interface:** Supports one FDD
- **Serial ports**: Two serial RS-232 ports
- **Parallel port:** One parallel port
- **Keyboard/mouse connector:** One standard keyboard/mouse connector
- **Watchdog timer:** Programmable 1, 2, 4, 8,..., 256 seconds
- **USB 1.0:** 4 Universal Serial Bus ports (two on board and two on the I/O bracket)

VGA Interface

Chipset: ATI Rage™ XL

Display Memory: 8 MB frame buffer memory

Ethernet Interface

- **Chipset:** Dual Intel 82545EM (GbE)
- **Connector:** RJ-45 connector x 2

Mechanical and Environmental

- **Dimensions (L x W):** 338.58 mm (L) x 122 mm (W) (13.3" x 4.8")
- **Power supply voltage:** +5V, +12V, -12V
- **Power consumption:** Typical: (Intel Xeon 3.06G CPU) +5V @ 10A, +12V @ 13.5 A or (Intel LV Xeon 2.4G CPU) +5V @ 8.5A, +12V @ 7.5A.
- **Operating temperature:** 0 ~ 60°C (depending on CPU)
- **Weight:** 0.7 kg (weight of board)

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Jumpers and Connectors

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.

Table 1: Main Board

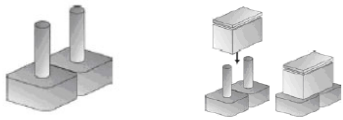
Label	Function
J1, J2	Power Connector
J4, J5	Single Ramp System FAN Connector
J7	External Keyboard Function Connector
J8	Keyboard and Mouse Mini-DIN
J9, J10	LAN RJ45 Connector

Table 2: Daughter Board

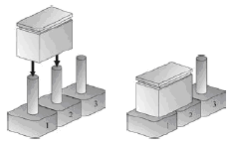
Label	Function
J1	2x13 2.0 mm Box Header for PIO Connector
J2	Floppy Disk Connector
J3	SIO2
J4	SIO1
J5	ATX Power Connector
J6	AC '97 Connector
J7	1x2 2.54 mm Pin Header for IDE LED
J8, J9	USB Single Upright Right-angle Connector
J12	Dual USB pin header for front USB interface
J13	1x3 2.54 mm Pin Header for AT/ATX Selection
JP1	1x4 2.54 mm Pin Header for Speaker Function
JP3	2x4 2.0 mm Pin Header for Digital I/O
JP4	1x3 2.0 mm Pin Header for Onboard RTC
JP5	1x2 2.0 mm Pin Header for SMBUS External Connector
JP6	1x2 2.54 mm Pin Header for Reset Button
JP7	1x2 2.54 mm Pin Header for Power Button
JP9	1x5 2.54 mm Pin Header for Lock Function
CON1	Primary IDE Connector
CON2	Secondary IDE Connector

Table 3: How to Set Jumpers

The illustrations on the right show a 2-pin jumper. When the jumper cap is placed on both pins, the jumper is SHORT. If you remove the jumper cap, or place the jumper cap on just one pin, the jumper is OPEN.



Open (off) Short (on)



These illustrations show a 3-pin jumper. Pins 1 and 2 are SHORT.

Software Installation

The CD disc contains a driver installer program that will lead you through the installation of various device drivers needed to take full advantage of your motherboard.

Caution

The computer is provided with a battery-powered Real-time Clock circuit. There is a danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacturer. Discard used batteries according to manufacturer's instructions.

Caution

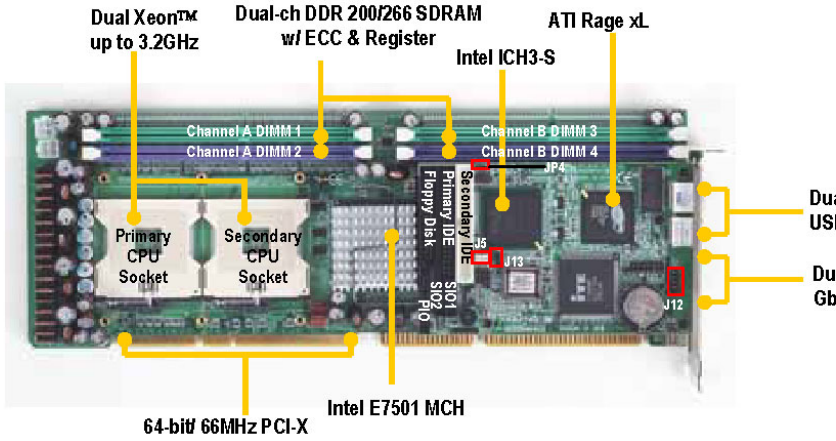
Danger of explosion if battery is incorrectly replaced. The battery doesnít need to be charged. Replace only with Advantech-specified batteries.

FCC

This device complies with the requirements in part 15 of the FCC rule. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and

2. This device must accept any interference received, including interference that may cause undesired operation.



Board Layout: Jumper and Connector Locations