PCA-6008G2 Full-sized PCA/ISA-bus Socket 479 Pentium® M/Celeron® M Processor Card with VGA/Dual Gigabit LAN/HISA/DVI (533/400 MHz FSB)

Packing List

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

- 1 PCA-6008 Pentium® M/Celeron® M processor-based single board computer
- 1 PCA-6008 Startup Manual
- 1 CD with driver utility and manual (in PDF format)
- 1 FDD cable p/n: 1700340640
- 1 Ultra ATA 66/100 HDD cables p/n: 1701400452
- 2 Serial ATA HDD data cables p/n: 1700003194
- 2 Serial ATA HDD power cables p/n: 1703150102
- 1 ATX 12V power converter cable p/n: 170304015K
- 1 Printer (parallel) port & COM port cable kit p/n: 1701260305
- 1 Dual COM port cable kit (G2 version only) p/n: 1701092300
- 1 Y cable for PS/2 keyboard and PS/2 mouse p/n: 1700060202
- 1 USB cable with 4 ports p/n: 1700008461
- 1 USB wire p/n: 1700007371
- Warranty Card

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

Note: 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/eplatform

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

http://www.advantech.com/support

This manual is for the PCA-6008G2 series Rev. A1E

Part No. 2002600810 1st Edition
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Specifications

Standard SBC Functions

- **CPU:** Intel Socket 479 Celeron M up to 1.7 GHz, Pentium M up to 2.26 GHz, FSB 533/400 MHz.
- **BIOS:** Award 4 Mb Flash memory BIOS
- **Chipset:** Intel 915GME with ICH6M
- **System Memory:** Up to 2 GB; two 240-pin DIMM sockets. Supports dual channel DDRII 400/533 SDRAM. Note: Due to the inherent limitations of PC architecture, the system canNOT fully detect 2 GB RAM capacity when 2 GB RAM is installed.
- **SATA/IDE Interface:** Two on-board serial ATA connectors with data transmission rate up to 150 MB/Sec and supporting Advanced Host controller interface (AHCI) technology. One IDE hard disk drives or two enhanced IDE devices. Supports PIO mode 4 (16.67MB/s data transfer rate) and ATA 33/66/100 (33/66/100MB/s data transfer rate.) BIOS enabled/disabled.
- **FDD interface:** Supports one FDD
- **Serial ports**: Six serial RS-232 ports
- **Parallel port:** One parallel port, supports SPP/EPP/ECP mode
- **Keyboard/mouse connector:** Supports one standard PS/2 keyboard and mouse
- **Watchdog timer:** 255 level timer intervals
- **USB (2.0):** Supports up to eight USB 2.0 ports

VGA/LCD Interface

- **Chipset:** Chipset integrated VGA controller
- **Display memory:** Dynamically shared system memory up to 128 MB.
- **Resolution:** Up to 2048x1536@ 85 MHz refresh

Ethernet Interface

- **Controller:** Realtek 8111B
- Dual 10/100/1000Base-T: Realtek 8111B X 2

Note: PCA-6008 uses on-board LAN2 controller

Mechanical and Environmental

- **Dimensions (L x W):** 338 x 122 mm
- **Power supply voltage:** +5 V ± 12 V
- **Power requirements:** Maximum: +5V:4.26A, +12V:3.09A (Intel Pentium M 2.26GHz with 533MHz FSB, 2x1G DDRII 533 SDRAM)
- **Operating temperature:** 0 ~ 60° C (depending on CPU)
- **Weight:** 0.5 kg (weight of board)

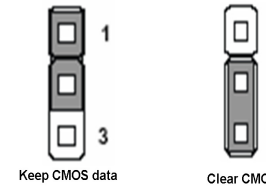
Jumpers and Connectors

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.

Jumpers	
CMOS1	CMOS Clear
JWDT1	Watchdog timer output selection
JSETCOM2	COM2 RS-232/422/485 mode selector

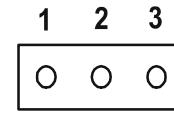
Label	Function
IDE1	Primary IDE connector
FDD1	Floppy Drive connector
LPT1	Parallel port
VGA1	VGA1 VGA connector
DVI1	DVI connector
COM1~6	Serial port: COM1~6 (9-pin connector)
KBMS1	PS/2 keyboard and mouse connector
KBMS2	External keyboard/mouse connector
ATX1	ATX 12V Auxiliary power connector (for CPU)
CPUFAN1	CPU1 fan connector
ATXF1	ATX feature connector
JFP1	Power and Reset Button connector
JFP2	HDD LED/SNMP SMbus/Speaker connector
JFP3	Power LED and keyboad lock connector
JIR	Infrared connector
JOBS1	HW Monitor Alarm Close: Enable OBS Alarm Open: Enable OBS Alarm
LAN1~2	Giga LAN RJ45 connectors
SATA1~2	Serial ATA1~2
LANLED1	LAN1 and LAN2 LED connector
USB1~8	USB port pin headers
GPIO1	GPIO pin header (SMD pitch-2.0 mm)
JCASE1	Case open
VP1	LCD inverter power connector
LVDS1	LVDS connector
JLVDS1	LVDS jumper

CMOS1: CMOS clear function	
Pins	Result
1-2 (closed)	Keep CMOS data*
2-3 (short)	Clear CMOS



*default setting

JWDT1: Watchdog timer output option	
Closed pins	Result
1-2	IRQ11
2-3	System reset *



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 CPU card.

Caution

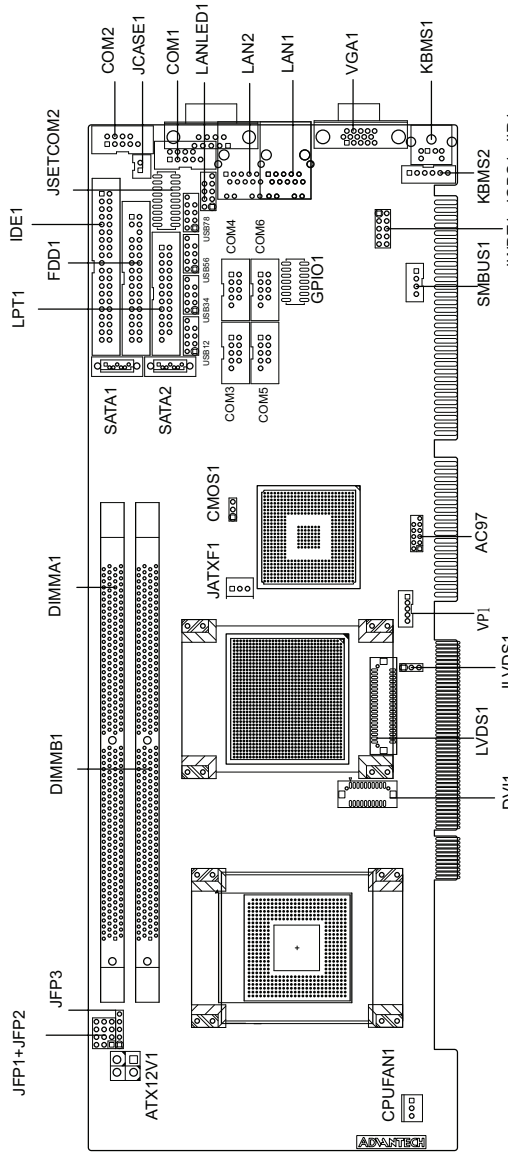
The computer is supplied with a battery-powered Real-time Clock circuit. There is a danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacturer. Discard used batteries according to manufacturer's instructions.

Safety Information

This device complies with the requirements in Part 15 of the FCC rules. 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