

PCM-5862E/5862EL Pentium®-based SBC with Audio, VGA/LCD, and Ethernet Startup Manual

Packing List

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

- 1 PCM-5862E/5862EL all-in-one single board computer
- 1 startup manual
- 1 CD-ROM or disk for utility drivers, and manual (in PDF format)

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

Note: For detailed contents of the PCM-5862E/5862EL, please refer to the enclosed CD-ROM or disk (in PDF format).

Specifications

Standard SBC Functions

- **CPU:**
Intel® Pentium® MMX up to 233 MHz
AMD K6, K6-2 up to 300 MHz
Cyrix 6 x 86 MX-PR166, PR200, PR233
IDT Winchip C6 up to 200 MHz
- **BIOS:** AWARD 256 KB Flash BIOS, supports Plug&Play, APM
- **Chipset:** SiS 5571
- **Green function:** APM 1.1 compliant
- **2nd level cache:** On-board 512 KB Pipeline Burst SRAM
- **RAM:** Two 72-pin SIMM sockets accept 8 ~ 128 MB EDO/FPM DRAM
- **Enhanced IDE interface:** Supports two EIDE devices
- **FDD interface:** Supports up to two FDDs (360 K / 1.2 M / 720 K / 1.44 MB / 2.88 MB)
- **Parallel port:** One parallel port, supports SPP/EPP/ECP parallel mode
- **Serial ports:** Four serial RS-232 ports; three RS-232 (COM1, 3, 4) and one RS-232/422/485 (COM2). All ports with 16C550 compatible UARTs
- **Watchdog timer:** 63-level interval from 1 ~ 63 seconds. Generates system reset or IRQ15. Jumperless selection and software enabled/disabled
- **Keyboard/mouse connector:** 8-pin header connector for keyboard and PS/2 mouse
- **USB interface:** Two USB connectors with fuse protection. Compliant with USB Spec. Rev. 1.0
- **PC/104 expansion:** 104-pin 16-bit PC/104 module connector
- **I/O bus expansion:** One 32-bit PCI bus expansion slot
- **Switch voltage regulator:** Supports a full range of processor voltage requirements. A good solution for processor overheating

PCI SVGA/Flat Panel Interface

- **Chipset:** C&T 65550
- **Display memory:** 1 MB on-board memory, supports up to 2 MB
- **Display type:** Simultaneously supports CRT and flat panel (EL, LCD, and gas plasma) displays

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

<http://www.advantech.com>
<http://www.advantech.com/epc>

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

<http://support.advantech.com>

This manual is for the PCM-5862E/5862EL.

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- **CRT display mode:** Supports non-interlaced CRT and LCD monitors up to 1024 x 768 @ 256 colors with 1 MB VGA memory or 1024 x 768 @ 64 K colors with 2 MB (PCM-5862E)

Audio Function (PCM-5862E only)

- **Chipset:** ESS 1868 or 1869
- **Audio controller:** 16-bit codec, Sound Blaster Pro compatible
- **Stereo sound:** 8-bit full-duplex, 16-bit half-duplex integrated 3D audio
- **Audio interface:** Microphone in, Line in, CD audio in, Line out, Speaker L, Speaker R
- **Power:** Accepts +12 V source for improved audio quality

Ethernet Interface

- **Chipset:** REALTEK RTL8139A Ethernet controller
- **Ethernet interface:** IEEE 802.3U compatible 100/10Base-T interface. Includes software drivers and boot ROM

Mechanical and Environmental

- **Max. power requirements:**
7 A @ 5 V (4.75 V ~ 5.25 V)
- **Operating temperature:** 0 ~ 60° C (32 ~ 140° F)
- **Size (L x W):** 203 mm x 146 mm (8" x 5.75")
- **Weight:** 0.32 kg (0.7 lbs) (w/o package)

Connectors

Label	Function
CN1	CRT display connector
CN2	Flat panel display connector
CN3	PC/104 ISA-bus expansion
CN4	USB channel 1 connector
CN5	USB channel 2 connector
CN6	Fan power connector
CN7	Front panel connector
CN8	CD audio input connector
CN9	PC/104 ISA-bus expansion
CN10	Peripheral power connector
CN11	Ethernet 100/10Base-T connector
CN12	IR connector
CN13	Audio connector
CN14	Main power connector
CN15	Keyboard and PS/2 mouse connector
CN16	COM-port connector
CN17	IDE hard drive connector
CN18	Floppy drive connector
CN19	Parallel port connector
CON1	ATX feature connector
CON2	ATX soft power connector switch

Jumper Settings

JP1: CPU voltage setting

V _{CC(CORE)}	1-2	3-4	5-6	7-8
NONE	open	open	open	open
2.10 V	closed	open	open	open
2.20 V	open	closed	open	open
2.30 V	closed	closed	open	open
2.40 V	open	open	closed	open
2.50 V	closed	open	closed	open
2.60 V	open	closed	closed	open
2.70 V	closed	closed	closed	open
2.80 V	open	open	open	closed
2.90 V	closed	open	open	closed
3.00 V	open	closed	open	closed
3.10 V	closed	closed	open	closed
3.20 V	open	open	closed	closed
3.30 V	closed	open	closed	closed
3.40 V	open	closed	closed	closed
3.50 V	closed	closed	closed	closed

JP2: Pentium® MMX (P55C) enable/disable

P55C enabled ***P55C disabled**



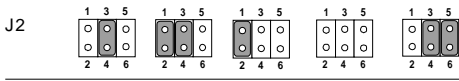
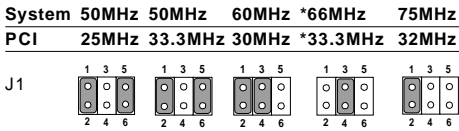
Jumpers and Connectors

The PCM-5862E/5862EL 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 board's jumpers.

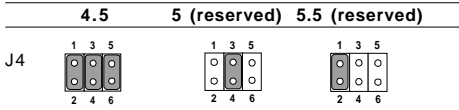
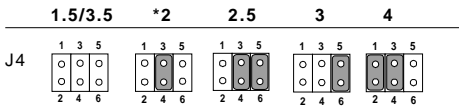
Jumpers

Label	Function
JP1	CPU voltage setting
JP2	Pentium® MMX enable/disable
J1	System/PCI clock setting
J2	System/PCI clock setting
J4	CPU frequency ratio setting
J5	M1 cache linear mode setting
J6	CMOS clear
J7	Buzzer enable/disable
J10	LCD power setting
J11	COM4 RI pin setting
J12	COM3 RI pin setting
J13	Watchdog timer action
J14	COM2 RS-232/422/485 setting
J15	COM2 RS-232/422/485 setting
J16	Audio power source setting
J17	ATX power enable/disable

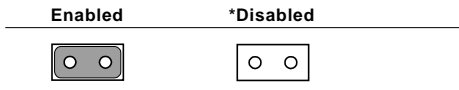
J1 & J2: System/PCI clock setting



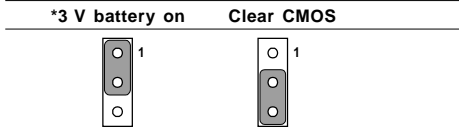
J4: CPU frequency ratio



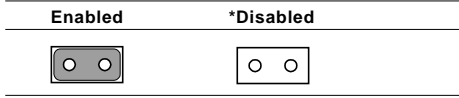
J5: M1 cache linear mode enable/disable



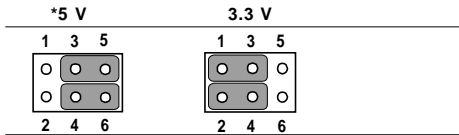
J6: CMOS clear



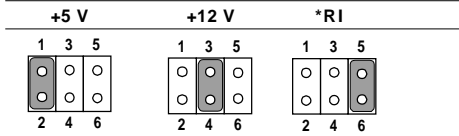
J7: Buzzer enable/disable



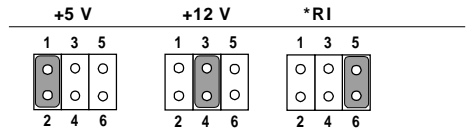
J10: LCD power setting



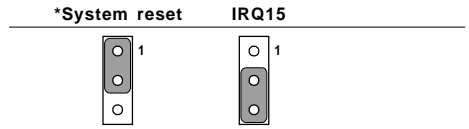
J11: COM4 RI pin setting



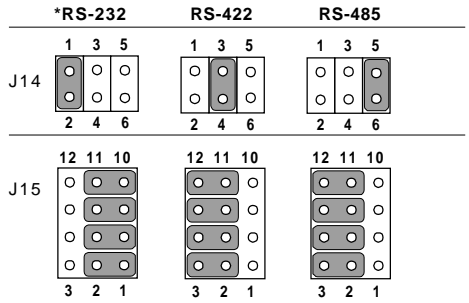
J12: COM3 RI pin setting



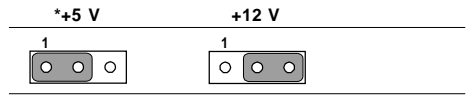
J13: Watchdog timer action



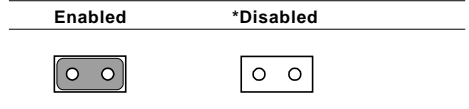
J14 & J15: COM2 RS-232/422/485 setting



J16: Audio power source setting



J17: ATX power enable/disable



* default

