

PCM-6890

All-in-One Socket 370 Celeron Single Board Computer
with LCD, Ethernet, Audio, & 4 COMs

PCM-6890

Notice:

This guide is designed for experienced users to setup the system within the shortest time. For detailed information, please always refer to the electronic user's manual.

Safety Precautions

Warning! *Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges. Only experienced electronics personnel should open the PC chassis.*

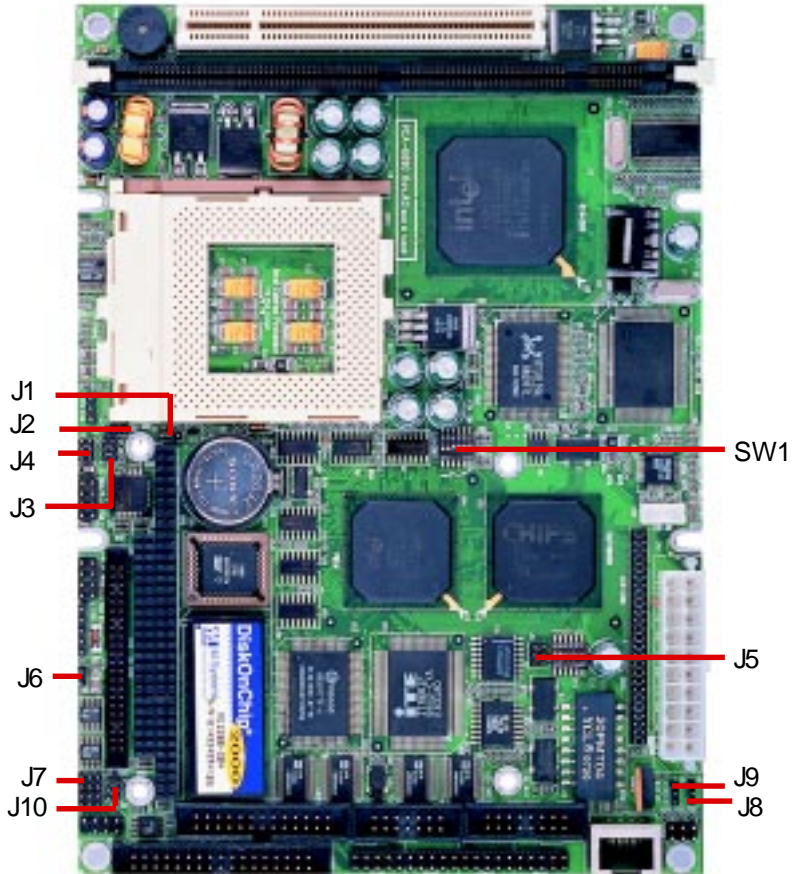


Caution! *Always ground yourself to remove any static charge before touching the CPU card. Modern electronic devices are very sensitive to static electric charges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components in a static-dissipative surface or static-shielded bag when they are not in the chassis.*



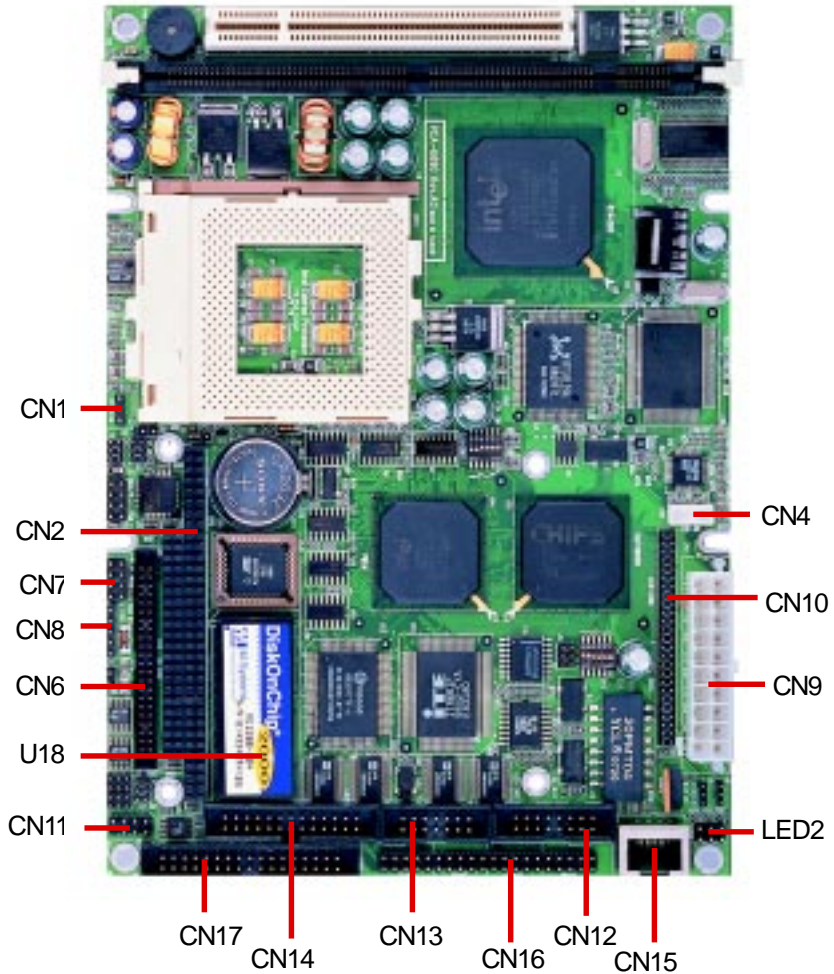
Quick Installation Guide

Locating jumpers



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Locating connectors



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Jumpers and connectors

Connectors on the board link it to external devices such as hard disk drives, a keyboard, or floppy drives. In addition, the board has a number of jumpers that allow you to configure your system to suit your application.

The following tables list the function of each of the board's jumpers and connectors.

Jumpers

Label	Function
J1	Clear CMOS
J2	System temperature thermal sensor
J3	COM4 RI pin voltage select
J4	COM3 RI pin voltage select
J5	Audio output select
J6	ATX soft-power switch connector
J7	COM2 RS-232/422/485 select
J8	LCD clock select
J9	LCD driving voltage select
J10	COM2 RS-232/422/485 select
SW1 (4~6)	CPU frequency ratio
SW1 (2~3)	DOC address select

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

Connectors

Label	Function
CN1	CPU fan power connector
CN2	PC/104 connector
CN3	USB ports connector
CN4	CD-ROM signal input connector
CN6	IDE drive connector
CN7	Front panel connector
CN8	IrDA connector
CN9	ATX power connector
CN10	LCD display connector
CN11	Keyboard and PS/2 mouse connector
CN12	VGA display connector
CN13	Audio connector
CN14	Printer port connector
CN15	100Base-Tx Ethernet connector
CN16	Serial ports connector
CN17	Floppy drive connector
U18	DiskOnChip socket
LED2	Ethernet Tx/Rx/Link LED connector

Clear CMOS (J1)

You can use J1 to clear the CMOS data if necessary. To reset the CMOS data, set J4 to 2-3 closed for just a few seconds, and then move the jumper back to 1-2 closed.

Clear CMOS (J1)







	Protect*	Clear CMOS
J1	1  2  3 ○	1 ○ 2  3 ○

*default







COM3/COM4 RI pin voltage select (J3, J4)

The 9th pin of COM3 and COM4 (9-pin D-sub connector) can be selected as RI, +5V, or +12V by setting J3 & J4.

COM3 RI pin setting (J4)

	RI*	+5V	+12V
J4	1 3 5 ○ ○  ○ ○  2 4 6	1 3 5 ○  ○ ○  ○ 2 4 6	1 3 5  ○ ○  ○ ○ 2 4 6

COM4 RI pin setting (J3)

	RI *	+5V	+12V
J3	1 3 5 ○ ○  ○ ○  2 4 6	1 3 5 ○  ○ ○  ○ 2 4 6	1 3 5  ○ ○  ○ ○ 2 4 6

*default

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Audio output select (J5)

You can select the output mode of onboard audio connector (CN14) by setting J5.

"Speaker out" is the output signal amplified by onboard amplifier

Audio output select (J5)

	Line out *		Speaker out
J5	2  1		2 ○ ○ 1
	4  3		4  3
	6 ○ ○ 5		6  5

*default

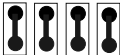
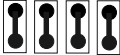
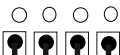



ATX Soft-Power Switch connector (J6)

The ATX Soft-Power switch connector is a 2-pin header. Locate the power switch cable from your system. It is a 2-pin female connector. Plug this connector to the Soft-Power switch connector marketed J6.

COM2 RS-232/422/485 select (J10, J7)

The PCM-6890 COM2 serial port can be selected as RS-232, RS-422, or RS-485 by setting J10 & J7.

COM2 Select (J10, J7)

	RS-232*	RS-422	RS-485
J10	<p>1 4 7 10</p>  <p>○ ○ ○ ○</p> <p>3 6 9 12</p>	<p>1 4 7 10</p> <p>○ ○ ○ ○</p>  <p>3 6 9 12</p>	<p>1 4 7 10</p> <p>○ ○ ○ ○</p>  <p>3 6 9 12</p>
J7	<p>1 3 5</p>  <p>○ ○</p> <p>○ ○</p> <p>2 4 6</p>	<p>1 3 5</p> <p>○ ○ ○</p>  <p>○ ○</p> <p>2 4 6</p>	<p>1 3 5</p> <p>○ ○ ○</p>  <p>○ ○</p> <p>2 4 6</p>



*default

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LCD clock signal select (J8)

You can select the LCD control signal by setting J8. The following charts show the available option.

LCD clock signal select (J8)

	SHF CLK *	ASHF CLK
J8		

*default

LCD driving voltage select (J9)

You can select the LCD connector CN10 (pin 5 and pin 6) driving voltage by setting J9. The configurations are as follows:

LCD driving voltage select (J9)

	5V	3.3V *
J9		

*default

SW1 (4 ~ 6) CPU frequency ratio

CPU core frequency = CPU frequency ratio (2~5.5) * External bus clock (66 or 100 MHz)

CPU FREQUENCY RATIO	SW1 (4)	SW1 (5)	SW1 (6)
2X	ON	OFF	OFF
2.5X	ON	OFF	ON
3X	ON	ON	OFF
3.5X	ON	ON	ON
4X	OFF	OFF	OFF
4.5X	OFF	OFF	ON
5X	OFF	ON	OFF
* 5.5X	OFF	ON	ON

* default

Note:

Most Celeron CPUs' frequency ratio are pre-locked within the CPUs. These CPUs run at fixed speed (frequency) regardless of the configurations listed above.

If the CPU you are using requires higher ratio than 5.5X, it is most likely pre-locked.

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SW1 (2 ~ 3) DOC address select

The DiskOnChip 2000 occupies an 8 Kbyte window in the upper memory address range of D400 to E000. You should ensure this does not conflict with any other device's memory address. J7 controls the memory address of the Flash disk.

DOC ADDRESS	SW1 (2)	SW1 (3)
D400	OFF	OFF
* D800	ON	OFF
DC00	OFF	ON
DISABLE	ON	ON

* default

These addresses might conflict with the ROM BIOS of other peripheral boards. Please select the appropriate memory address to avoid memory conflicts.

