PC/104 Plus Module

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.

uick Installation Guide

A Message to the Customer

AAEON Customer Services

Each and every AAEON product is built to the most exacting specifications to ensure reliable performance in the harsh and demanding conditions typical of industrial environments. Whether your new AAEON equipment is destined for the laboratory or the factory floor, you can be assured that your product will provide the reliability and ease of operation for which the name AAEON has come to be known.

Your satisfaction is our primary concern. Here is a guide to AAEON's customer services. To ensure you get the full benefit of our services, please follow the instructions below carefully.

Technical Support

We want you to get the maximum performance from your products. So if you run into technical difficulties, we are here to help. For the most frequently asked questions, you can easily find answers in your product documentation. These answers are normally a lot more detailed than the ones we can give over the phone.

So please consult this manual first. If you still cannot find the answer, gather all the information or questions that apply to your problem, and with the product close at hand, call your dealer. Our dealers are well trained and ready to give you the support you need to get the most from your AAEON products. In fact, most problems reported are minor and are able to be easily solved over the phone.

In addition, free technical support is available from AAEON engineers every business day. We are always ready to give advice on application requirements or specific information on the installation and operation of any of our products.

Product Warranty

AAEON warrants to you, the original purchaser, that each of its products will be free from defects in materials and workmanship for two years from the date of shipment.

This warranty does not apply to any products which have been repaired or altered by persons other than repair personnel authorized by AAEON, or which have been subject to misuse, abuse, accident or improper installation. AAEON assumes no liability under the terms of this warranty as a consequence of such events.

Because of AAEON's high quality-control standards and rigorous testing, most of our customers never need to use our repair service. If an AAEON product is defective, it will be repaired or replaced at no charge during the warranty period. For out-of-warranty repairs, you will be billed according to the cost of replacement materials, service time, and freight. Please consult your dealer for more details.

If you think you have a defective product, follow these steps:

- 1. Collect all the information about the problem encountered. (For example, CPU type and speed, AAEON products used, other hardware and software used, etc.) Note anything abnormal and list any on-screen messages you get when the problem occurs.
- 2. Call your dealer and describe the problem. Please have your manual, product, and any helpful information readily available.
- 3. If your product is diagnosed as defective, obtain an RMA (return material authorization) number from your dealer. This allows us to process your return more quickly.
- 4. Carefully pack the defective product, a fully-completed Repair and Replacement Order Card and a photocopy proof of purchase date (such as your sales receipt) in a shippable container. A product returned without proof of the purchase date is not eligible for warranty service.
- 5. Write the RMA number visibly on the outside of the package and ship it prepaid to your dealer.

Notice

Dear Customer,

Thank you for purchasing the PCM-3730 board. This Quick Installation Guide is designed to help you to get the most out of the PCM-3730, please read it thoroughly before you install and use the board. The product that you have purchased comes with an two-year limited warranty, but AAEON will not be responsible for misuse of the product. Therefore, we strongly urge you to first read the quick installation guide before using the product. To receive the latest version of the user manual, please visit our Web site at:

Http://WWW.AAEON.COM

Specification

- Supports 3 sets of 100Base-T Fast Ethernet
- 3 Intel 82559 GD
- Supports PC/104 and PC/104+
- Operating Temperature: 32 to 140 F (0 to 60 C)
- Board Size: 90mm(L) X 96mm(W)

Installing PC/104 + modules

The mainboard's PC/104 + connectors give you the flexibility to attach PC/104 + expansion modules. These modules perform the functions of traditional plug-in expansion cards, but save space and valuable slots.

Installing these modules on the mainboard is quick and simple. The following steps show how to mount the PC/104 + modules:

- 1. Remove the mainbaord from your system paying particular attention to the safety instructions already mentioned.
- 2. Make any jumper or link changes required to the mainboard now. Once the PC/104 + module is mounted you may have difficulty in accessing these.
- 3. Normal PC/104 + modules have male connectors and mount directly onto the main card. However, to ensure better bus matching, the connectors on the mainboard and the PC/104+ module are both female. For this reason, you may need to use the "male-male" adapter included with the mainboard in order to properly connect your PC/104 + module. (Refer to the diagram on the following page.)
- 4. Mount the PC/104 + module onto the mainboard by pressing the module firmly but carefully onto the mounting connectors.
- 5. Secure the PC/104 + module onto the mainboard using the four mounting spacers and screws.

Installing PC 104 + Module



PC/104 & PC/104 Plus Module Mounting Diagram



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Dimensions



Locating Jumpers and Connectors



Jumpers and Connectors

Name	Function
JP1	LAN Enable/Disable
JP2	First LAN INT A, B, C, D
JP3	Second LAN INT A, B, C, D
JP4	Third LAN INT A, B, C, D
CN2	WOL Connector
CN4/5/6	100 Base-Tx Ethernet Connector
CN7	LANLED
CN8/9/10	100 Base-Tx Ethernet Connector (Optional)

JP1 LAN Enabled/Disable

1-2	Short: First LAN Disable
1-2	Open: First LAN Enable (Default)
3-4	Short: Second LAN Disable
3-4	Open: Second LAN Enable (Default)
5-6	Short: Third LAN Disable
5-6	Open: Third LAN Enable (Default)

JP2 First LAN INT A,B,C,D

1-2	INTA	(Default)
3-4	INTB	
5-6	INTC	
7-8	INTD	

JP3 Second LAN INT A,B,C,D

1-2	INTA		
3-4	INTB	(Default)	
5-6	INTC		
7-8	INTD		

JP4 Third LAN INT A,B,C,D

1-2	INTA		
3-4	INTB		
5-6	INTC	(Default)	
7-8	INTD		

CN2 WOL Connector

Pin	Signal
Pin 1	5VSB
Pin 2	GND
Pin 3	WOL
Pin 4	SMBDATA
Pin 5	SMBCLK

CN4/5/6 100 Base-Tx Ethernet Connector

Pin	Signal	Pin	Signal
Pin 1	TX+	Pin 9	NC
Pin 2	TX-	Pin 10	NC
Pin 3	RX+	Pin 11	GND
Pin 4	NC	Pin 12	GND
Pin 5	NC	Pin 13	Active LED
Pin 6	RX-	Pin 14	Link LED
Pin 7	NC	Pin 15	+3.3V
Pin 8	NC	Pin 16	Speed LED

CN7 LAN LED

Pin	Signal
Pin 1	Active LED 1
Pin 2	Link LED 1
Pin 3	Speed LED 1
Pin 4	VCC3
Pin 5	Active LED 2
Pin 6	Link LED 2
Pin 7	Speed LED 2
Pin 8	VCC3
Pin 9	Active LED 3
Pin 10	Link LED 3
Pin 11	Speed LED 3
Pin 12	VCC3

CN8/9/10 100 Base-Tx Ethernet Connector (Optional)

Pin	Signal	Pin	Signal	
1	RX-	2	RX+	
3	NC	4	NC	
5	GND	6	GND	
7	NC	8	NC	
9	TX+	10	TX-	

Adjusting Auto Boot Settings

Starting setup

The Auto Boot is immediately activated when you first turn on the computer. The Auto Boot reads system configuration information in flash ROM and begins the process of checking out the system and configuring it through the power-on self test (POST).

You can customize the behavior of the Boot Agent software through a pre-boot configuration program. You can access this pre-boot configuration setup program each time the client computer cycles throught the boot process. The boot process is triggered whenever you perform any of the following boot events:

- Power on
- Hard Reset (if reset button is available)
- Soft Reset (Ctrl + Alt + Del)
- · Operating system or application system restart

When the boot process begins, the screen clears and the computer begins its Power On Self Test sequence. Shortly after completion of the POST, the Boot Agent software in the Flash ROM executes. The Boot Agent then displays an initialization message, similar to the one below, indicating that the Boot is Active.

> Initializing Intel (R) Boot Agent Version 4.X.XX PXE m.m Build nnn (WfM w.w), RPL Vm.mm

Once you see this message, press Ctrl + S, this will allow you to enter the Auto Boot Menu.

If the message disappears before you respond and you still wish to enter Setup, restart the system to try again by turning it OFF then ON or pressing the RESET button on the system case. You may also restart by simultaneously pressing Ctr-Alt-Del.

Boot Agent Menu

Intel(R) Boot Agent Version 4.0.0 Setup Menu				
Network Boot P	rotocol	PXE		
Boot Order		Trynetwork fin	Trynetwork first, then local drives	
Show Setup Prompt		Enable		
Setup Menu Wait Time		2 seconds		
Legacy OS Wakeup Support		Disable		
Select remote boot protocol.				
<esc> Quit</esc>	<space> Change Value</space>	<enter> NextOption</enter>	<f4> Save Configuration</f4>	

ESC	The <esc> button will quit and shut down the boot agent menu.</esc>
Space Bar	The <space bar=""> will change the value of the configuration setting.</space>
Enter	After having selected the desired setting use the <enter> button to move on to the next setting.</enter>
F4	To save and exit the Auto Boot setup menu use the <f4> key.</f4>

Boot Agent Menu Settings

Network Boot Protocol

Select PXE for use with Wfm-compatable network management programs, such as Intel® Management Suite, Windows 2000 RIS, and Linux.

Select RPL for legacy-style remote booting.

If your boot agent does not support RPL, this setting will be unchangeable.

Boot Order

Allows you to select the order in which boot devices are queried when the system boots. If your client computer's BIOS supports the BIOS Boot Specification (BBS) or allows PnP-compliant selection of the boot order in the BIOS setup program, then this setting will always be "Use BIOS Setup Boot Order" and cannot be changed. In this case, refer to the BIOS setup manual specific to your client computer to set up boot options.

If your client computer does not support BBS or PnP compliant BIOS, you can select any one of the values listed in the Possible Values column of this table for this setting except for "Use BIOS Setup Boot Order".

Show Setup Prompt

If you select Enable, the Ctrl + S prompt appears during your computer POST sequence.

If you select Disable, the Ctrl + S prompt does not appear. However, you can still press Ctrl + S to enter the setup program during your computer's POST sequence.

Setup Menu Wait Time

The number of seconds the Boot Agent waits for you to press Ctrl + S during the system boot process.

The Choices: 0/2/3/5 seconds.

Legacy OS Wakeup Support

This setting applies only to Intel PRO/100 + WfM-compatible, 82559-based (or later) adapters.

Select Disable for this setting when using an ACPI Windows operating system such as Windows 2000 or Windows 98SE.

Select Enabled to allow non-Windows operating systems (such as DOS or NetWare) to make use of the Intel WfM-compatible adapter's remote makeup capability.

Consult your operating system instructions to determine if your operating system supports remote makeup, as well as how to use this capability.

Installing Intel 82559 for Windows 95 or 98 Ver. 1.0®

The LAN Driver must be installed three seperate times, because PCM-3730 supports three different RJ-45 Connectors.

==>Place the Driver CDROM into your CDROM drive.

- ==>Click on Start button
- ==>Click on **Settings** button
- ==>Click on Control Panel button
- ==>Click on System button
- ==>Click on Devise Manager button
- ==>Click on PCI Ethernet Controller
- ==>Click on Remove
- ==>Click on OK
- ==>Click on Refresh
- ==>Click on Next
- ==>Select the Optional: Other Location.....
- ==>Click on Browse
- ==>Select CDROM file
- ==>Select Next
- ==>Click on OK
- ==>Click on Finish
- ==>Then you will be asked to confirm the location of the select file....

==>Now the shut down computer for restart Window should be visible, follow the command and the chipset driver has be installed.

Installing Intel 82559 for Windows NT®

The LAN Driver must be installed three seperate times, because PCM-3730 supports three different RJ-45 Connectors.

==>Place the Driver CDROM into your CDROM drive.

==>Click on Start button

==>Click on **Settings** button

==>Click on Control Panel button

==>Click on Network

==>Click on yes

==>Click on next

==>Click on Select from list......

==>Click on have disk

==>Type in file location: (CD Disk drive) E:\CDROM

==>Click on **OK**

==>Intel Pro Adapter will appear

==>Click on **OK**

==>Click on Next

==>Click on Next

==>Click on Next

==>Click on Next

==>Now the shut down computer for restart Window should be visible, follow the command and the chipset driver has be installed.

