

PCM-3724

PC/104 48-bit Digital I/O Module

Packing List

Before installation, please make sure that you have:

• PCM-3724 Module	• Driver CD
• Startup Manual	

If anything is missing or damaged, contact your distributor or sales representative immediately.

User Manual

For more detailed information on this product, please refer to the PCM-3724 User Manual on the CD-ROM (PDF format).

Documents\Hardware Manuals\PCM\PCM-3724

Declaration of Conformity

FCC Class A

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause interference in which case the user is required to correct interference at his own expense.

CE

This product has passed the CE test for environmental specifications when shielded cables are used for external wiring. We recommend the use of shielded cables. This kind of cable is available from Advantech. Please contact your local supplier for ordering information.

Overview

The PCM-3724 is a PC/104-standard DI/O module which attaches to the piggyback connector on your CPU card or PC/104 CPU module. The PCM-3724's two Intel 8255 PPI compatible chips provide 48 bits of parallel digital input/output. Buffered inputs and outputs offer high driving capacity. The module's 48 bits are divided into six 8-bit I/O ports: A0, B0, C0, A1, B1 and C1. You can configure each port as either an input or output in software.

Notes

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

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

For technical support and service:

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

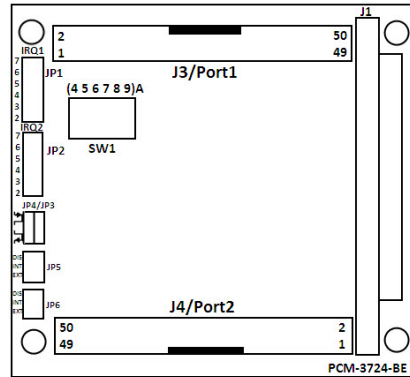
This startup manual is for PCM-3724.

Part No. 2003724111

2nd Edition

June 2011

Switch and Jumper Settings



Base Address Selection (SW1)

Switch SW1 sets the module's base (beginning) address. Valid base addresses range from Hex 000 to Hex 3F0. We set the PCM-3724 for a base address of Hex 300 at the factory. If you need to adjust it to some other address range, set switch SW1 as shown below:

Module I/O addresses (SW1)						
Range (hex)	Switch position					
	1	2	3	4	5	6
000 - 00F	•	•	•	•	•	•
010 - 01F	•	•	•	•	•	○
...						
200 - 20F	○	•	•	•	•	•
210 - 21F	○	•	•	•	•	○
...						
* 300 - 30F	○	○	•	•	•	•
...						
3F0 - 3FF	○	○	○	○	○	○

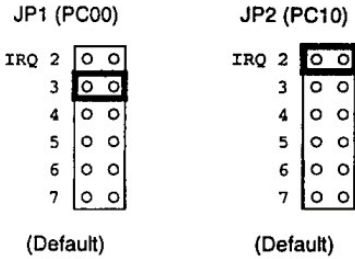
○ = Off • = On * = default

Switches 1-6 control the PC bus address lines as follows:

Switch	1	2	3	4	5	6
Line	A9	A8	A7	A6	A5	A4

Interrupt Settings (JP1, JP2)

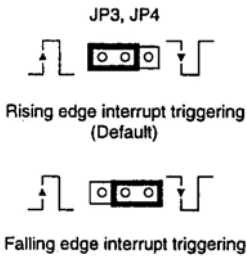
Jumpers JP1 and JP2 control the IRQ levels, as shown:



Note:
You must set each I/O line to a different interrupt level.

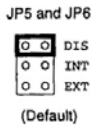
Interrupt Level (JP3, JP4)

Jumpers JP3 and JP4 select the trigger edge (rising or falling) for I/O lines PC00 and PC10, respectively. Jumper settings appear below:



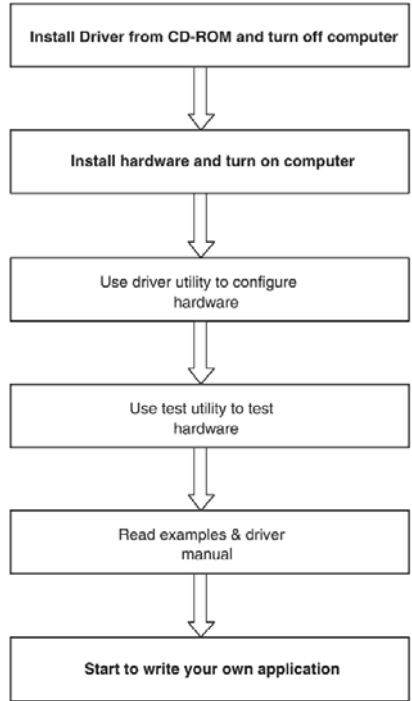
Interrupt Mode (JP5, JP6)

Jumpers JP5 controls interrupt line PC00, and jumper JP6 controls interrupt line PC10. The DIS setting for each jumper disables the corresponding line's interrupt capability. The INT setting enables the line's interrupt capability. The EXT setting allows you to enable and disable control by external interrupt.



Installation

Software Installation



Hardware Installation

After the device driver installation is completed, you can now go on to install the PCM-3724 module on your computer.

Please follow the steps below to install the module on your system:

1. Touch the metal part on the surface of your computer to neutralize the static electricity that might be in your body.
2. Plug your card into a PC/104 slot. Use of excessive force must be avoided; otherwise the card might get damaged.

PIN Assignments

J3 - Port 1

PC07	1	2	GND
PC06	3	4	GND
PC05	5	6	GND
PC04	7	8	GND
PC03	9	10	GND
PC02	11	12	GND
PC01	13	14	GND
PC00	15	16	GND
PB07	17	18	GND
PB06	19	20	GND
PB05	21	22	GND
PB04	23	24	GND
PB03	25	26	GND
PB02	27	28	GND
PB01	29	30	GND
PB00	31	32	GND
PA07	33	34	GND
PA06	35	36	GND
PA05	37	38	GND
PA04	39	40	GND
PA03	41	42	GND
PA02	43	44	GND
PA01	45	46	GND
PA00	47	48	GND
+5V	49	50	GND

J4 - Port 2

PC17	1	2	GND
PC16	3	4	GND
PC15	5	6	GND
PC14	7	8	GND
PC13	9	10	GND
PC12	11	12	GND
PC11	13	14	GND
PC10	15	16	GND
PB17	17	18	GND
PB16	19	20	GND
PB15	21	22	GND
PB14	23	24	GND
PB13	25	26	GND
PB12	27	28	GND
PB11	29	30	GND
PB10	31	32	GND
PA17	33	34	GND
PA16	35	36	GND
PA15	37	38	GND
PA14	39	40	GND
PA13	41	42	GND
PA12	43	44	GND
PA11	45	46	GND
PA10	47	48	GND
+5V	49	50	GND