

PCM-3641P

4-port RS-232 High-Speed Module

Introduction

The PCM-3641P is a PC/104+-compatible 4-port RS-232 serial interface module. It works with PC/104+ CPU modules or CPU cards which accept PC/104+ expansion modules. It provides four independent serial interfaces, accessed through an IDC 40-pin connector. The module's industry-standard 16C550 asynchronous communication chip is fully programmable. The module requires no special commands or control codes if you use the standard COM1 ~ COM4 port addresses.

Initial Inspection

We carefully inspected the PCM-3641P both mechanically and electrically before we shipped it. It should be free of marks and scratches and in perfect electrical order on receipt.

Handle the board only by its edges. The static charge on your body may damage its integrated circuits. Keep the card in its anti-static package whenever it is not installed. You can use this package to return the card if it should need repair.

Features

- Four independent RS-232 serial ports
- Transmission speeds up to 460 Kbps
- Supports Windows 2000/XP
- LED indicators: TX, RX
- Compatible with standard PC ports: COM1, COM2, COM3, COM4
- Onboard interrupt status register for greater throughput
- Complete RS-232 Modem-control signals

Specifications

- Bus interface: PC/104+
- Number of ports: 4
- Data bits: 5, 6, 7, 8
- Stop bits: 1, 1.5, 2
- Parity: none, even, odd
- Speed (bps): 50 ~ 460.3K
- Connectors: One IDC 40-pin male
- Data signals: TxD, RxD, RTS, CTS, DTR, DSR, DCD, RI, GND
- Power requirement: +5V@200 mA (Typical)
+5V@ 250 mA (Max.)
- Clock input: 14.7456 MHz
- Operating Temperature: 0 ~ 65° C
(refer to IEC-68-1-1, 2)
- Storage Temperature: -25 ~ 80° C

Notes

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

<http://www.advantech.com>

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

For technical support and service:

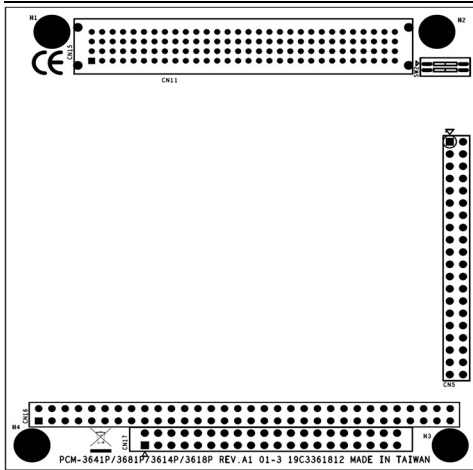
<http://www.advantech.com/support/>

This startup manual is for PCM-3641P.

1st Edition

June 2007

Board Layout



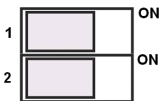
Card Configuration

The maximum configuration for the PCI bus of PC/104+ modules is FOUR plus the host board. If standard PC/104 modules are used in the stack, they must be the top module(s) because they will normally not include the PCI bus.

If you stack more than one PCI-104+ or PC/104+ module to a host board. You have to set the modules to different PCI numbers through SW2

SW2 Setting

1	2	PCI Number
OFF	OFF	0
ON	OFF	1
OFF	ON	2
ON	ON	3



Hardware Installation

Warning! Turn off your PC whenever you install, remove connect or disconnect cables to the PCM-3641P

Installing the module on a CPU card

1. Turn the PC's power off. Turn the power off to any peripheral devices such as printers and monitors.
2. Disconnect the power cord and any other cables from the back of the computer.
3. Remove the system unit cover
4. Remove the CPU card from the chassis (if necessary) to gain access to the card's PC/104+ connector.
5. Screw the brass spacer (included with the module) into the threaded hole on the CPU card. Do not tighten too much, or the threads may be damaged.
6. Carefully align the pins of the PCM-3641P with the PC/104+ connector. Slide the module into the connector, do not push too hard.
7. Secure the module to the CPU card to the threaded hole in the CPU card using the included screw.
8. Attach any accessories to the PCM-3641P.
9. Reinstall the CPU card and replace the system unit cover. Reconnect the cables you removed in step 2.

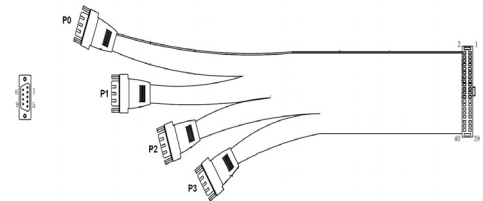
Turn the power on.

Connecting to another PC/104+ module.

1. Insert the pins of connector CN15 into the piggy-back connector on the other PC/104+ module.
2. Screw the PCM-3641P to the brass spacer. This completes the hardware installation.

Pin Assignments

The following table and figure show the pin assignment for the DB9 connector.



RS-232 DB9 Connector Pin Assignments

Pin	RS-232
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS