

PCM-36411/36421

4/8-port RS-232 Modules

Introduction

The PCM-36411/36421 is a PCI-104-compatible 4/8-port RS-232 serial interface module. It works with PCI-104 CPU modules or CPU cards which accept PCI-104 expansion modules. It provides four and eight independent serial interfaces, accessed through the IDC 40-pin connector(s). 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 (PCM-36411) or COM1~COM8(PCM-36421) port addresses.

Initial Inspection

We carefully inspected the PCM-36411/36421 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.

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-36411/36421.

1st Edition

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Features

- 4/8 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~COM4 (PCM-36411)
 - COM1~COM8 (PCM-36421)
- Shared IRQ settings for each port
- Complete RS-232 Modem-control signals

Specifications

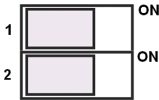
- Bus interface: PCI-104
- Number of ports: 4/ 8
- Data bits: 5, 6, 7, 8
- Stop bits: 1, 1.5, 2
- Parity: none, even, odd
- Speed (bps): 50 ~ 460.3K
- Connectors: One IDC 40-pin male
- Data signals: TxD, RxD, RTS, CTS, DTR, DSR, DCD, RI, GND
- Power requirement: +5V@200 mA (Typical)
+5V@ 250 mA (Max.)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

Card Configuration

The max configuration for the PCI bus of PCI-104 modules is FOUR plus the host board. If you stack more than one PCI-104 module to a host board be sure 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-3641I/3642I

Installing the module on a CPU card

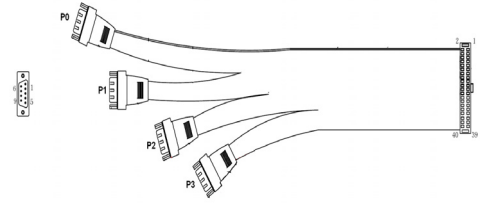
1. Turn the PC's power off. Turn the power off to any peripheral devices such as printers and monitors.
2. Disconnect the power cord and any other cables from the back of the computer.
3. Remove the system unit cover
4. Remove the CPU card from the chassis (if necessary) to gain access to the card's PCI-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-3641I/3642I with the PCI-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-3641I/3642I.
9. Reinstall the CPU card and replace the system unit cover. Reconnect the cables you removed in step 2.
10. Turn the power on.

Connecting to another PCI-104 module.

1. Insert the pins of connector CN15 into the piggy-back connector on the other PCI-104 module.
2. Screw the PCM-3641I/3642I 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 |
| 9 | RI |

The diagram shows a DB9 connector with pins labeled 1, 2, 3, 4, 5, 6, 7, 8, and 9. The connector is shown in a perspective view, with the pins labeled 1, 2, 3, 4, 5, 6, 7, 8, and 9.