PCM-3612I

4-port RS-232/422/485 PCI-104 Module

Introduction

The PCM-3612I is a PCI-104-compatible 4-port RS-232/422/485 serial interface module. It works with PCI-104 CPU modules or CPU cards which accept PCI-104 expansion modules. It provides four independent serial interfaces,accessed through the IDE 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-3612I) port address

Initial Inspection

We carefully inspected the PCM-3612I 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

• 4 independent RS-232/422/485 serial ports
• Transmission speeds up to 921.6 Kbps
• Supports Windows 7/8/10, and Linux
• LED indicators: TX, RX
• Compatible with standard PC ports:
  COM1~COM4
• Automatic RS-485 data flow control

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-3612I

Part No: 2003M61210   1st Edition

October 2015

Specifications

• Bus interface: PCI-104
• Number of ports: 4
• Data bits: 5, 6, 7, 8
• Stop bits: 1, 1.5, 2
• Parity: none, even, odd
• Speed (bps): 50 ~ 921.6K
• Connectors: One IDE 40-pin male
• Signals:
    RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, RI and GND
    RS-422:TxD+,TxD-, RxD+, RxD-,GND, CTS+, CTS-, RTS+ and RTS-
    RS-485:Data+,Data- and GND
• Power requirements:
    +3.3V@260 mA (Typical) +3.3V@530 mA (Max.)
• Operating Temperature: -40~85°C(-40~185°F)
• Storage Temperature: -40~85°C(-40~185°F)

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 SW1.

SW1 Settings
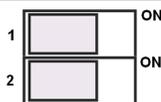
1	2	Expansion Board
OFF	OFF	3 (default)
OFF	ON	2
ON	OFF	1
ON	ON	0

SW2 Settings

Switch Position	Mode
ON	RS-422_Master
OFF	RS-422_Slave/RS-485

CN2-CN5 Impedance Selection

CH1	CH2	CH3	CH4
CN2	CN3	CN4	CN5

CN7-CN10 RS-232/422/485 Model Select
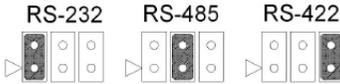
CH1	CH2	CH3	CH4
CN7	CN8	CN9	CN10

Hardware Installation

Warning!   Turn off PC whenever you install, remove connect or disconnect cables to PCM-3612I

Installing the Module on a CPU Card:

1. Turn the PC 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-3612I 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-3612I.
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 CN6 into the piggy-back connector on the other PCI-104 module.
2. Screw the PCM-3612I to the brass spacer. This completes the hardware installation

Pin Assignments

The following table and figure shows pin assignments for the DB9 connector.
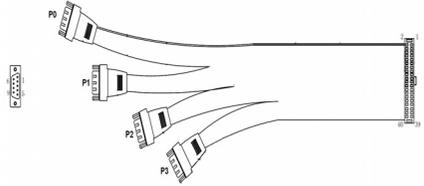
Pin Assignment of Male DB9 on cable

Pin	RS-232	RS-422	RS-485
1	DCD	Tx-	Data-
2	RxD	Tx+	Data+
3	TxD	Rx+	-
4	DTR	Rx-	-
5	GND	GND	GND
6	DSR	RTS-	-
7	RTS	RTS+	-
8	CTS	CTS+	-
9	RI	CTS-	+