

# PCM-3644 RS-232/422/485 COM Port PC/104-plus Module Startup Manual



## Packing List

Before you begin installing your card, please make sure that the following materials have been shipped:

- 1 x PCM-3644
- 1 x Start-up manual
- 1 x Utility CD
- 4 x 1 COM Port cable (for PCM-3644-04A1E/PCM-3644H-04A1E/PCM-3644I-04A1E)
- 2 x 4 COM Port cable (for PCM-3644-08A1E)

If any of these items are missing or damaged, contact your distributor or sales representative immediately.

Note 1: For detailed contents of the PCM-3644, please refer to the enclosed CD Disc or disk (in PDF format).

Note 2: Acrobat Reader is required to view any PDF file. Acrobat Reader can be downloaded at: [www.adobe.com/products/acrobat/readstep2.html](http://www.adobe.com/products/acrobat/readstep2.html)(Acrobat is a trademark of Adobe.)

## Mechanical and Environmental

- **Dimensions (L x W):** 96 x 90 mm (3.8" x 3.5")
- **Weight:** 0.08kg
- **Operating Temperature:** 0 ~ 60°C(32~140°F)
- **Storage temperature:** -40 ~ 85°C(-40~185°F)
- **Operating Humidity:** 0%~90% relative humidity, non-condensing
- **Power Supply Voltage:** 5V and 12V

## Specifications

- **Chipset:** EXAR XR 17D154CV (17D158 for 8 x RS-232 with Multiple Serial Ports Controller)
- **Bus interface:** PC104+ (ISA by pass)
- **I/O address:** 0x000~0x3FB
- **IRQ:** 3, 4, 5, 6, 7, 9, 11, 12, 15
- **Data bits:** 5, 6, 7, 8
- **Stop bits:** 1, 1.5, 2
- **Parity:** None, even, odd
- **Speed (bps):** 50~921.6K
- **Signal support:** TxD+, TxD-, RxD-, CTS+, CTS-, RTS+ and RTS-
- **Surge protection:** 1000 VDC

## Features

Four Independent RS-232/422/485 serial port and eight RS-232 serial ports

Transmission speeds up to 921.6 kbps

Shared IRQ settings for each port

Windows configuration utility for Windows XP/2000

Compatible with PC/104-plus and standard PCI card PCI2.1

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

<http://www.advantech.com>

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

For technical support and service, please visit our support website at:

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

This manual is for the PCM-3644 series Rev. A1.

Part No. 2006364400

1st Edition  
Jun. 2006

## Jumpers & Connectors

Connectors on the board link it to external devices, such as hard disk drives, a keyboard or expansion bus connectors. In addition, the board has a number of jumpers that allow you to configure your system to suit your application.

The table below lists the function of each of the jumpers and connectors.

### Connectors

Label	Function
P9	COM 1~4
P13	COM 5~8
S2	IDSEL/INT/CLK SW

### P9 COM232 1~4 / COM-422/485 1~2 Connector

Pin	Pin name
1	DCD1*/TXD1+ 2 DSR1*/TXD1-
3	RX1/RXD1+ 4 RTS1*/RXD1-
5	TX1/RTS1+ 6 CTS1*/RTS1-
7	DTR1*/CTS1+ 8 RI1/CTS1-
9	GND
11	DCD2* 12 DSR2*
13	RX2 14 RTS2*
15	TX2 16 CTS2*
17	DTR2* 18 RI2
19	GND
21	DCD3*/TXD2+ 22 DSR3*/TXD2-
23	RX3/RXD2+ 24 RTS3*/RXD2-
25	TX3/RTS2+ 26 CTS3*/RTS2-
27	DTR3*/CTS2+ 28 RI3/CTS2-
29	GND
31	DCD4* 32 DSR4*
33	RX4 34 RTS4*
35	TX4 36 CTS4*
37	DTR4* 38 RI4
39	GND

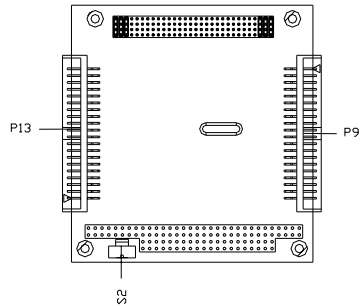
### P13 COM232 5~8 / COM-422/485 3~4 Connector

Pin	Pin name
1	DCD5*/TXD3+ 2 DSR5*/TXD3-
3	RX5/RXD3+ 4 RTS5*/RXD3-
5	TX5/RTS3+ 6 CTS5*/RTS3-
7	DTR5*/CTS3+ 8 RI5/CTS3-
9	GND
11	DCD6* 12 DSR6*
13	RX6 14 RTS6*
15	TX6 16 CTS6*
17	DTR6* 18 RI2
19	GND
21	DCD7*/TXD4+ 22 DSR7*/TXD4-
23	RX7/RXD4+ 24 RTS7*/RXD4-
25	TX7/RTS4+ 26 CTS7*/RTS4-
27	DTR7*/CTS4+ 28 RI7/CTS4-
29	GND
31	DCD8* 32 DSR8*
33	RX8 34 RTS8*
35	TX8 36 CTS8*
37	DTR8* 38 RI8
39	GND

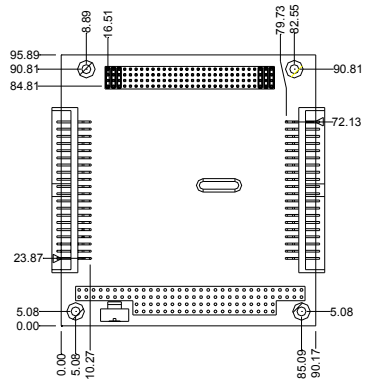
S2	IDSEL/INT/CLK SW
Position	Function
0~3	0
4~7	1
8~B	2
C~F	3

Position	IDSEL	CLK	INT	
0x00	IDSEL0	CLK0	INT0	0
0x04	IDSEL1	CLK1	INT1	1
0x08	IDSEL2	CLK2	INT2	2
0x0C	IDSEL3	CLK3	INT3	3

## Board Layout



### Locating connector



### Mechanical Drawing



*This device complies with the requirements in part 15 of the FCC rules: Operation is subject to the following two conditions:*

- 1. This device may not cause harmful interference, and*
- 2. This device must accept any interference received, including interference that may cause undesired operation*

*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 device in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense. The user is advised that any equipment changes or modifications not expressly approved by the party responsible for compliance would void the compliance to FCC regulations and therefore, the user's authority to operate the equipment.*

**Caution!**

*There is a danger of a new battery exploding if it is incorrectly installed. Do not attempt to recharge, force open, or heat the battery. Replace the battery only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.*



**Achtung!**