Appendix for PC/104-*plus* modules

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1 Introduction

1.1 Introduction of PC/104-*plus*

PC/104-*plus* is a special bus architecture designed for embedded systems. A third connector opposite the PC/104 connectors supports the PCI bus. Basically the electrical specifications of the PC/104-*plus* bus are compliant with the PCI signals, except 64-bit extensions, JTAG, PRSNT or CLKRUN signals. The mechanical specifications are changed to “module stack”, please refer to the figure 1 shown below. According to the specifications of PC/104-*plus*, PC/104-*plus* modules are installed and configured by switching CLK, IDSEL, INT, REQ and GNT signals through multiplexers to the appropriate connections.

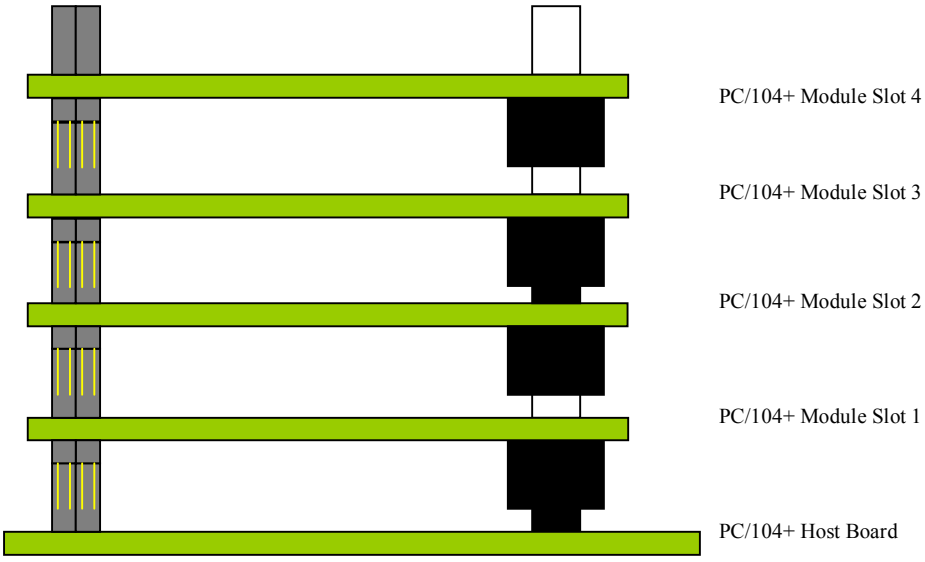


Figure 1 PC/104-*plus* module stack

Rotary switch on PCM-7250+ is used for these signals switching, please refer to section 2.4 for details in this appendix

1.2 Specifications for PCM-7250+

The specifications of the PCM-7250+ are exactly the same as the PCI-7250. Please refer to section 1.3 of the PCI-7250 manual for detailed information.

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2 Installation procedures for PC/104-*plus* DAQ modules:

2.1 What you have

In addition to this appendix, the package includes the following items:

- PCM-7250+ DAQ modules
- Manual & Software Utility CD-ROM

If any of these items is missing or damaged, contact the dealer from whom you purchased the product. Save the shipping materials and carton in case you want to ship or store the product in the future

2.2 Unpacking

Your PCM-7250+ card contains sensitive electronic components that can be easily damaged by static electricity

The card should be done on a grounded anti-static mat. The operator should be wearing an anti-static wristband, grounded at the same point as the anti-static mat.

2.3 Layout of modules

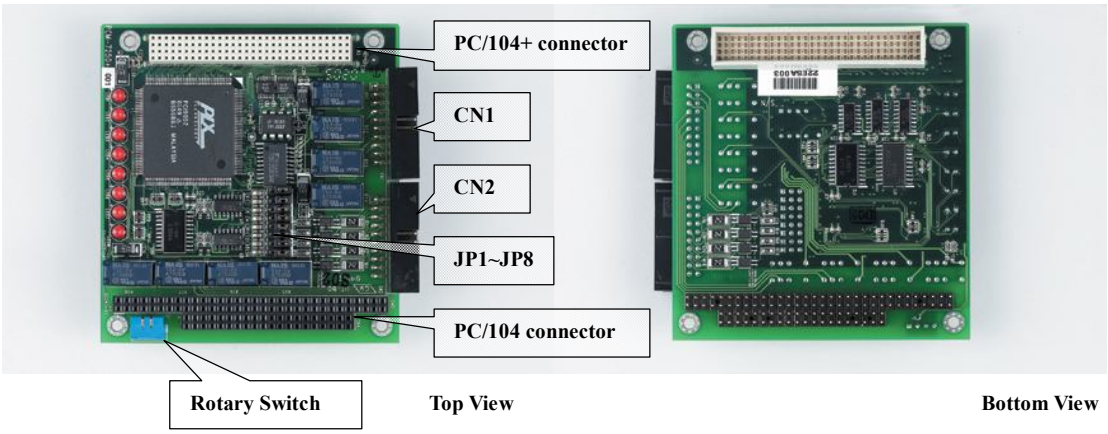


Figure 2 PCM-7250+ module layout

2.4 PC/104-*plus* configuration

A rotary switch on PCM-7250+ is used to switch the appropriate CLK, IDSEL, INT, REQ and GNT signals from PCI bus. For signals correct connection, please switch the rotary switch to the appropriate position with respect to the module slot. The module stack order is shown in Figure 1 and the switch order is list in Table 1 shown below. For example, when PCM-7250+ card is plugged as the closest position (slot 1) into PC/104-*plus* motherboard, the switch must be set to 0 or 4. In addition, according to the PC/104-*plus* specification, module slots 3 and 4 share REQ2/GNT2, they cannot both be bus master devices. In other words, module 3 and 4 can only be occupied by one master card.

Rotary Switch Position	Module Slot	CLK	IDSEL	INT	REQ	GNT
0 or 4	1	CLK0	IDSEL0	INTA	REQ0*	GNT0*
1 or 5	2	CLK1	IDSEL1	INTB	REQ1*	GNT1*
2 or 6	3	CLK2	IDSEL2	INTC	REQ2*	GNT2*
3 or 7	4	CLK3	IDSEL3	INTD	REQ2*	GNT2*

Table 1 Rotary switch setting * only for Bus Masters card

2.5 Input Signal Setting

Jumper Setting	Signal Connection	Non-AC-filter	AC-Filter
JP1	*DI0*	*1-2*	*2-3*
JP2	*DI1*	*1-2*	*2-3*
JP3	*DI2*	*1-2*	*2-3*
JP4	*DI3*	*1-2*	*2-3*
JP5	*DI4*	*1-2*	*2-3*
JP6	*DI5*	*1-2*	*2-3*
JP7	*DI6*	*1-2*	*2-3*
JP8	*DI7*	*1-2*	*2-3*

Table 2 Input signal jumper setting

Jumper setting in this appendix is different from that in PCI-7250 manual. Compare Table 2 shown above with Table 2.2 in PCI-7250 manual for details.

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2.6 Connector Pin Assignment

Connector pin assignment comparison between PCI-7250 and PCM-7250+

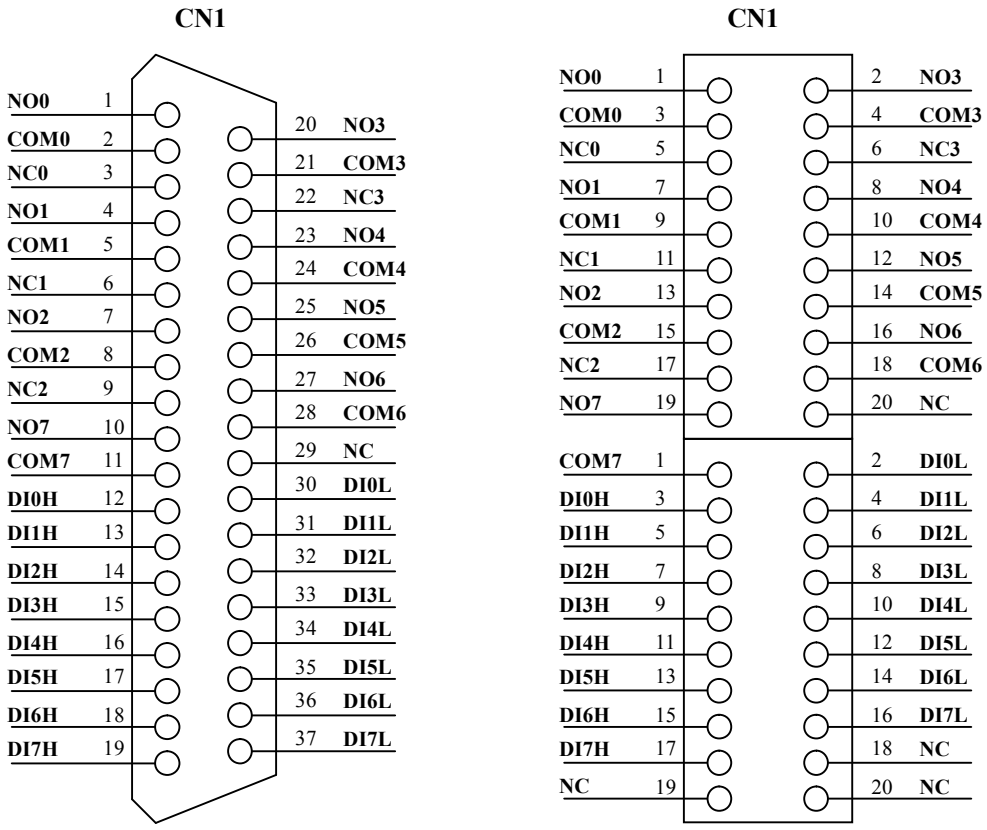


Figure 3 PCM-7250+ connector

Note: Register format, operation theorem and C/C++ Libraries of PCM-7250+ are the same as those of the PCI-7250, please refer to chapter 3~5 of the PCI-7250 manual for detailed information.

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