cPCI-8273

3 Port IEEE 1394a
3U CompactPCI Card
User's Manual

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1 Introduction

The cPCI-8273 is a three port IEEE-1394a 3U CompactPCI card supporting 32-bit data transfers on a 33MHz cPCI bus. cPCI-8273 implements the VIA VT6306 PCI1394a integrated host controller. VIA's VT6306 is the industry's first IEEE 1394a/OHCI 1.0/1.1 single chip that combines a 400/200/100Mbps physical-layer (PHY) with a 32-bit PCI Bus/Card Bus 1394a Open Host Controller Interface (OHCI1.1/1.0). The cPCI-8273 provides high performance serial connectivity for system integration in mission critical applications.

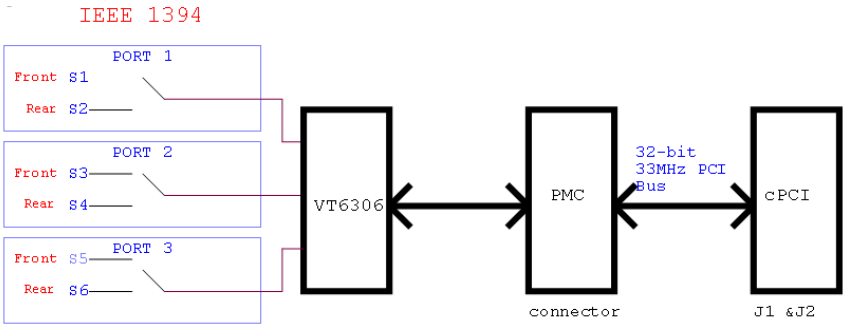


Figure 1-1: IEEE-1394 Connectivity

Port 1 output selection

- Front: S1 on, S2 off
- Rear: S1 off, S2 on

Port 2 output selection

- Front: S3 on, S4 off
- Rear: S3 off, S4 on

Port 3 output selection

- Front: S5 on, S6 off
- Rear: S5 off, S6 on

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1.1 Overview

cPCI-8273 Features Summary

- Standard 3U form factor
- 3-port IEEE-1394a
- PICMG 2.0R3.0 CompactPCI
- IEEE 1394a standard Compliant
- Supports 32-bit transfer
- Supports 33MHz cPCI bus

1.2 Specifications

- Chip
  - VIA VT6306 IEEE 1394a integrated controller
- Form Factor
  - Single size: 100.0 mm x 160.0 mm
  - +5V or +3.3V 32-bit PCI signaling environment
- PCB Layers
  - 4 Layers
- I/O
  - 3 IEEE1394a ports on the front panel
- OS Support
  - Windows 98, ME, 2000, XP

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1.3 Unpacking Check List

Before opening the product box, please check the shipping carton for any damage. If the shipping carton and contents are damaged, notify the dealer for a replacement. Retain the shipping carton and packing material for inspection by the dealer. Obtain authorization before returning any product to ADLINK.

Check for the following items included in the package. If there are any missing items, contact your dealer:

- cPCI-8273
- This User's Manual
- ADLINK CD

Note: The packaging of the cPCI-8273 OEM version with non-standard configuration, functionality, or package may vary according to different configuration requests.

CAUTION: The cPCI-8273 must be protected from static discharge and physical shock. Never remove any of the socketed parts except at a static-free workstation. Use the anti-static bag shipped with the product to handle the board. Wear a wrist strap grounded through one of the system's ESD Ground jacks when servicing system components

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2 Switches and Connectors

This chapter illustrates board layout, connector pin assignments, and switches. Users should familiarize themselves with the product before getting start.

2.1 Switches

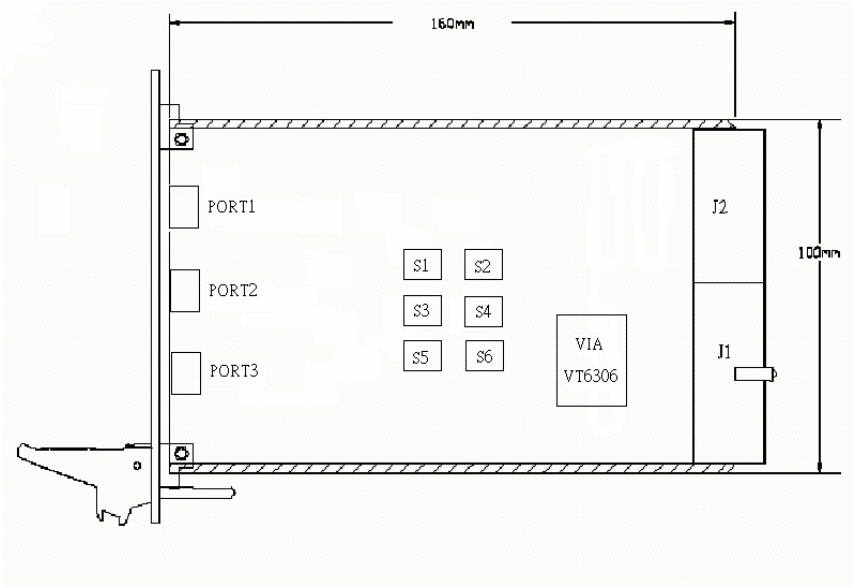


Figure 2-1: Switch Positioning

Port 1 output selection

- Front: S1 on, S2 off
- Rear: S1 off, S2 on

Port 2 output selection

- Front: S3 on, S4 off
- Rear: S3 off, S4 on

Port 3 output selection

- Front: S5 on, S6 off
- Rear: S5 off, S6 on

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2.2 CompactPCI Connectors

J1 Pin Assignments

Pin	A	B	C	D	E	F
J1-25	+5V	REQ64#	NC	+3.3V	+5V	GND
J1-24	AD[1]	+5V	VIO	AD[0]	ACK64#	GND
J1-23	+3.3V	AD[4]	AD[3]	+5V	AD[2]	GND
J1-22	AD[7]	GND	+3.3V	AD[6]	AD[5]	GND
J1-21	+3.3V	AD[9]	AD[8]	GND	C/BE[0]#	GND
J1-20	AD[12]	GND	VIO	AD[11]	AD[10]	GND
J1-19	+3.3V	AD[15]	AD[14]	GND	AD[13]	GND
J1-18	SERR#	GND	+3.3V	PAR	C/BE[1]#	GND
J1-17	+3.3V	PMC-RSVD3	PMC-RSVD4	GND	PERR#	GND
J1-16	DEVSEL#	GND	VIO	STOP#	LOCK#	GND
J1-15	+3.3V	FRAME#	IRDY#	GND	TRDY#	GND
J1-12-14	Keying Area					
J1-11	AD[18]	AD[17]	AD[16]	GND	C/BE[2]#	GND
J1-10	AD[21]	GND	+3.3V	AD[20]	AD[19]	GND
J1-9	C/BE[3]#	IDSEL	AD[23]	GND	AD[22]	GND
J1-8	AD[26]	GND	VIO	AD[25]	AD[24]	GND
J1-7	AD[30]	AD[29]	AD[28]	GND	AD[27]	GND
J1-6	REQ#	GND	+3.3V	CLK	AD[31]	GND
J1-5	NC	NC	RST#	GND	GNT#	GND
J1-4	PMC-RSVD1	NC	VIO	NC	PMC-RSVD2	GND
J1-3	INTA#	INTB#	INTC#	+5V	INTD#	GND
J1-2	TCK	+5V	TMS	TDO	TDI	GND
J1-1	+5V	-12V	TRST#	+12V	+5V	GND

Table 2-1: J1 Pin Assignments

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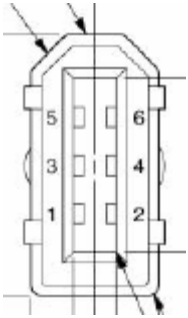
J2 Pin Assignments (64-bit)

Pin	A	B	C	D	E	F
J2-22	NC	NC	NC	NC	NC	GND
J2-21	NC	NC	NC	NC	NC	GND
J2-20	NC	NC	NC	GND	NC	GND
J2-19	NC	NC	NC	NC	NC	GND
J2-18	NC	NC	NC	GND	NC	GND
J2-17	NC	GND	NC	NC	NC	GND
J2-16	NC	NC	NC	GND	NC	GND
J2-15	NC	GND	NC	NC	NC	GND
J2-14	AD[35]	AD[34]	AD[33]	GND	AD[32]	GND
J2-13	AD[38]	GND	VIO	AD[37]	AD[36]	GND
J2-12	AD[42]	AD[41]	AD[40]	GND	AD[39]	GND
J2-11	AD[45]	GND	VIO	AD[44]	AD[43]	GND
J2-10	AD[49]	AD[48]	AD[47]	GND	AD[46]	GND
J2-9	AD[52]	GND	VIO	AD[51]	AD[50]	GND
J2-8	AD[56]	AD[55]	AD[54]	GND	AD[53]	GND
J2-7	AD[59]	GND	VIO	AD[58]	AD[57]	GND
J2-6	AD[63]	AD[62]	AD[61]	GND	AD[60]	GND
J2-5	C/BE[5]#	GND	VIO	C/BE[4]#	PAR64	GND
J2-4	VIO	NC	C/BE[7]#	GND	C/BE[6]#	GND
J2-3	NC	GND	NC	NC	NC	GND
J2-2	NC	NC	NC	NC	NC	GND
J2-1	NC	GND	NC	NC	NC	GND

Table 2-2: J2 Pin Assignments

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IEEE 1394a Connectors



Contact Number	Signal Name	Description
1	VP	Cable Power
2	VG	Cable Ground
3	TPB*	Twisted pair B-differential data transmitted on TPB and differential strobe received on TPB
4	TPB	
5	TPA*	Twisted pair A-differential strobe transmitted on TPA and differential data received on TPA
6	TPA	

Table 2-3: IEEE 1394a Connectors

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3 Driver Installation

This section describes the IEEE1394a driver installation for the VIA® VT6306 onboard IEEE 1394a host controller. Drivers are located in the CD.

1. Boot Windows 2000/XP
2. Run (where X is the CD drive)

   ```
   X:\cPCI\cPCI-8273\Driver\Win2k_xp\Q253152_W2K_SP1_X86.EXE
   ```

3. Read the license agreement screen. Click 'I accept the terms in the license agreement' if you agree to continue.
4. A Location to Save Files screen will appear, click Next to save files in folder.
5. At Intel® PRO Network Connections, click Install Software to install drivers and the Intel PROSet.

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1. Before using ADLINK's products please read the user manual and follow the instructions exactly. When sending in damaged products for repair, please attach an RMA application form which can be downloaded from: http://rma.adlinktech.com/policy/.
2. All ADLINK products come with a two-year guarantee:
   - The warranty period starts from the product's shipment date from ADLINK's factory.
   - Peripherals and third-party products not manufactured by ADLINK will be covered by the original manufacturers' warranty.
   - For products containing storage devices (hard drives, flash cards, etc.), please back up your data before sending them for repair. ADLINK is not responsible for loss of data.
   - Please ensure the use of properly licensed software with our systems. ADLINK does not condone the use of pirated software and will not service systems using such software. ADLINK will not be held legally responsible for products shipped with unlicensed software installed by the user.
   - For general repairs, please do not include peripheral accessories. If peripherals need to be included, be certain to specify which items you sent on the RMA Request & Confirmation Form. ADLINK is not responsible for items not listed on the RMA Request & Confirmation Form.

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3. Our repair service is not covered by ADLINK's two-year guarantee in the following situations:
   - Damage caused by not following instructions in the user's manual.
   - Damage caused by carelessness on the user's part during product transportation.
   - Damage caused by fire, earthquakes, floods, lightening, pollution, other acts of God, and/or incorrect usage of voltage transformers.
   - Damage caused by unsuitable storage environments (i.e. high temperatures, high humidity, or volatile chemicals).
   - Damage caused by leakage of battery fluid during or after change of batteries by customer/user.
   - Damage from improper repair by unauthorized technicians.
   - Products with altered and/or damaged serial numbers are not entitled to our service.
   - Other categories not protected under our warranty.
4. Customers are responsible for shipping costs to transport damaged products to our company or sales office.
5. To ensure the speed and quality of product repair, please download an RMA application form from our company website: http://rma.adlinktech.com/policy. Damaged products with attached RMA forms receive priority.

If you have any further questions, please email our FAE staff: service@adlinktech.com.

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