cPCI-8273

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

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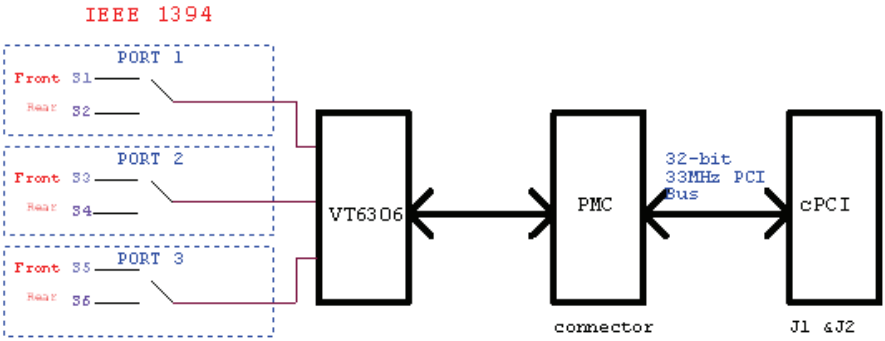
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1 Introduction

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



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

Figure 1-1: cPCI-8273 Layout

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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 Checklist

Check the shipping carton for any damages. 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 the following items are included in the package, if there is any missing items, contact your dealer:

- The 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 board 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.

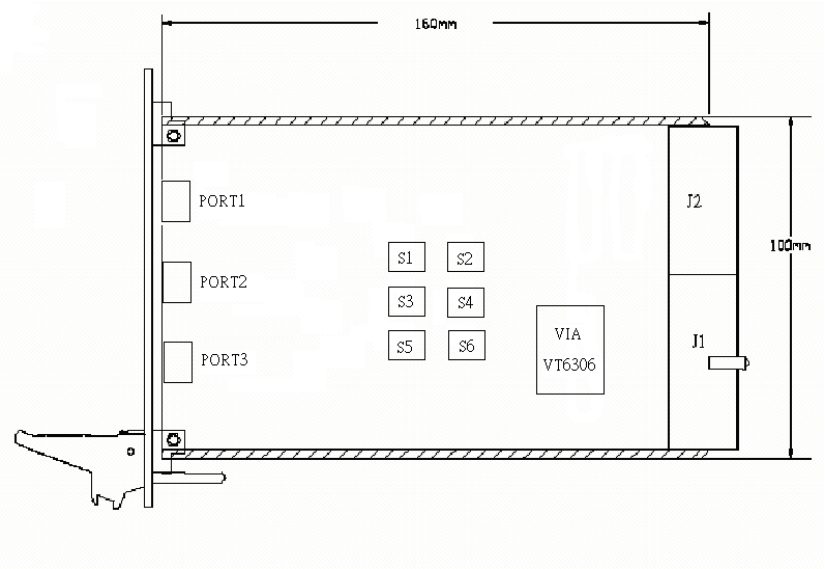
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2 Switches and Connectors

This chapter illustrates the board layout, connector pin assignment, and switches. User shall be familiar with the products before getting start.

2.1 Switches



Switch:

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 of cPCI-8273

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 of cPCI-8273

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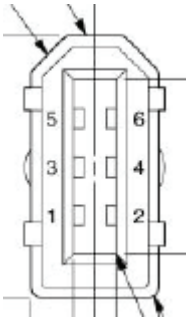
J2 Pin Assignments of cPCI-8273 (64-bit)

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 of cPCI-8273

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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 following driver CD directory:

1. Boot Windows 2000/XP/Windows 2000
2. The driver is included in the driver CD. Run the Q253152_W2K_SP1_X86.EXE under the following directory: X:\ cPCI\cPCI-8273\Driver\Win2k_xp
3. Read the license agreement. Click 'I accept the terms in the license agreement' if you agree to continue.
4. Location to Save Files, click Next to save files in folder.
5. Intel® PRO Network Connections, Click Install Software to install drivers and Intel PROSet.

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2. All ADLINK products come with a limited two-year warranty, one year for products bought in China:
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   - 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 any 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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   - 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 ADLINK technicians.
   - Products with altered and/or damaged serial numbers are not entitled to our service.
   - This warranty is not transferable or extendible.
   - 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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