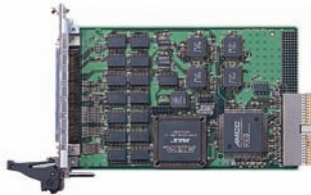


PCI/cPCI-7200

12 MB/s High-Speed 32-CH DI & 32-CH DO Cards




PCI-7200



cPCI-7200

Introduction

ADLINK's PCI/cPCI-7200 are high-speed digital I/O cards consisting of 32 digital input channels, and 32 digital output channels. High-performance designs and the state-of-the-art technology make these cards suitable for high-speed data transfer and pattern generation applications.

The PCI/cPCI-7200 performs high-speed data transfers using bus-mastering DMA via 32-bit PCI bus architecture. The maximum data transfer rates can be up to 12 MB per second. Several digital I/O transfer modes are supported, such as direct programmed I/O control, timer pacer control, external clock mode and handshaking mode. They are very suitable for interfacing high-speed peripherals with your computer system.

Features

- Support a 32-bit 5 V PCI bus (PCI-7200)
- 3U EuroCard form factor, CompactPCI compliant (PICMG 2.0 R2.1) (cPCI-7200)
- 32-CH TTL digital inputs and 32-CH TTL digital outputs
- Up to 12 MB/s transfer rate
- Bus-mastering DMA for both digital inputs and outputs
- Onboard programmable timer pacer clock
- Timed digital input sampling controlled by an onboard timer
- Timed digital output update controlled by an onboard timer
- Supports handshaking digital I/O transfer mode
- Multiple programmable interrupt sources
- 5 V power available on connectors
- Compact, half-size PCB (PCI-7200)

Operating Systems

- Windows Vista/XP/2000/2003
- Linux

Recommended Software

- AD-Logger
- VB.NET/VC.NET/VB/VC++/BCB/Delphi
- DAQBench

Driver Support

- DAQPilot for Windows
- DAQPilot for LabVIEW™
- DAQ-MTLB for MATLAB®
- PCIS-DASK for Windows
- PCIS-DASK/X for Linux

Specifications

Digital I/O

- Number of channels:
 - 32-CH digital inputs
 - 32-CH digital outputs
- Compatibility: 5 V/TTL
- Data transfer rate
 - 12 MB/s with external 3 MHz clock, handshaking or external strobe
 - 8 MB/s with internal 2 MHz timer pacer
- Digital logic levels
 - Input high voltage: 2-5.25 V
 - Input low voltage: 0-0.8 V
 - Output high voltage: 2.7 V minimum
 - Output low voltage: 0.5 V maximum
- Output driving capacity
 - Source current: 3.0 mA
 - Sink current: 24 mA
- Data transfers:
 - programmed I/O, interrupt, bus-mastering DMA

Programmable Counter

- Base clock: 4 MHz
- Timer 0: DI clock source
- Timer 1: DO clock source
- Timer 2: Base clock source of timer 0 & 1

Interrupt

- Sources:
 - EO_ACK, EI_REQ, Timer 0, Timer 1 or Timer 2

General Specifications

- I/O connector
 - PCI-7200
 - 37-pin D-sub female
 - 40-pin Header
 - cPCI-7200
 - 100-pin SCSI-II female
- Operating temperature: 0°C to 60°C
- Storage temperature: -20°C to 80°C
- Relative humidity: 5% to 95%, non-condensing
- Power requirements

Device	+5 V
PCI-7200	720 mA typical
cPCI-7200	800 mA typical

- Dimensions (not including connectors)
 - 148 mm x 102 mm (PCI-7200)
 - 160 mm x 100 mm (cPCI-7200)

Terminal Boards

PCI-7200:

■ DIN-37D-01

Terminal Board with One 37-pin D-sub Connector and DIN-Rail Mounting (Cables are not included. For information on mating cables, refer to Section 12, Accessories.)

■ ACLD-9137-01

General-Purpose Terminal Board with One 37-pin D-sub Male Connector

■ ACLD-9137F-01

General-Purpose Terminal Board with One 37-pin D-sub Female Connector

cPCI-7200:

■ DIN-100S-01

Terminal Board with One 100-pin SCSI-II Connector and DIN-Rail Mounting (Cables are not included. For information on mating cables, refer to Section 12, Accessories.)

Ordering Information

■ PCI-7200

12 MB/s High-Speed 32-CH DI & 32-CH DO Card

■ cPCI-7200

12 MB/s High-Speed 32-CH DI & 32 CH DO Module Card for Low-Profile PCI

Pin Assignment

PCI-7200				cPCI-7200			
CN1				CN1			
DI16	1	2	DO3	DO0	1	51	DO1
DI17	3	4	DO2	DO2	2	52	DO3
DI18	5	6	DO1	DO4	3	53	DO5
DI19	7	8	DO0	DO6	4	54	DO7
DI20	9	10	DOGND	DO8	5	55	DO9
DI21	11	12	-15Vout	DO10	6	56	DO11
DI22	13	14	AGND	DO12	7	57	DO13
DI23	15	16	A7	DO14	8	58	DO15
DI24	17	18	V7	GND	9	59	GND
DI25	19	20	AGND	DO16	10	60	DO17
DI26	21	22	A5	DO18	11	61	DO19
DI27	23	24	V5	DO20	12	62	DO21
DI28	25	26	A.GND	DO22	13	63	DO23
DI29	27	28	A3	DO24	14	64	DO25
DI30	29	30	V3	DO26	15	65	DO27
DI31	31	32	AGND	DO28	16	66	DO29
+5Vout	33	34	A1	DO30	17	67	DO31
O-ACK	35	36	V1	GND	18	68	GND
O-REQ	37	38		+5Vout	19	69	GND
N/C	39	40		+5Vout	20	70	GND
				AUXIN0	21	71	AUXOUT0
				AUXIN1	22	72	AUXOUT1
				I_TRG	23	73	GND
				I_REQ	24	74	GND
				L_ACK	25	75	GND
				O_TRG	26	76	GND
				O_REQ	27	77	GND
				O_ACK	28	78	GND
				AUXIN2	29	79	AUXOUT2
				AUXIN3	30	80	AUXOUT3
				+5Vout	31	81	GND
				+5Vout	32	82	GND
				GND	33	83	GND
				DIN0	34	84	DIN1
				DIN2	35	85	DIN3
				DIN4	36	86	DIN5
				DIN6	37	87	DIN7
				DIN8	38	88	DIN9
				DIN10	39	89	DIN11
				DIN12	40	90	DIN13
				DIN14	41	91	DIN15
				GND	42	92	GND
				DIN16	43	93	DIN17
				DIN18	44	94	DIN19
				DIN20	45	95	DIN21
				DIN22	46	96	DIN23
				DIN24	47	97	DIN25
				DIN26	48	98	DIN27
				DIN28	49	99	DIN29
				DIN30	50	100	DIN31