

PCI-7200/LPCI-7200S

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

Features

- Support a 32-bit 5 V PCI bus (PCI-7200)
- Support a 32-bit 3.3 V or 5 V PCI bus (LPCI-7200S)
- 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)
- Compact, low-profile PCI size PCB (LPCI-7200)

Operating Systems

- Windows 98/NT/2000/XP/2003
- Linux
- DOS

Recommended Software

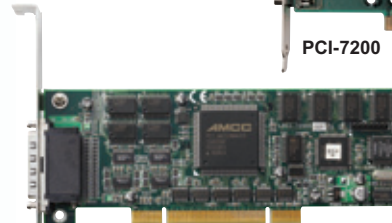
- VB/VC++/BCB/Delphi
- DAQBench
- DAQCreator

Driver Support

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



PCI-7200



LPCI-7200S

Introduction

ADLINK PCI-7200/LPCI-7200 is a high-speed digital I/O card. It consists of 32 digital input channels, and 32 digital output channels. High-performance designs and the state-of-the-art technology make this card suitable for high-speed data transfer and pattern generation applications.

The PCI-7200/LPCI-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 12MB 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. It is very suitable for interfacing high-speed peripherals with your computer system.

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 ribbon male
 - LPCI-7200S
 - 68-pin VHDCI female x2 (stack)
- Operating temperature: 0 to 60°C
- Storage temperature: -20 to 80°C
- Relative humidity: 5 to 95%, non-condensing

Power requirements

Device	+3.3 V	+5 V
PCI-7200	--	720 mA typical
LPCI-7200S	120 mA typical	500 mA typical

Dimensions (not including connectors)

- 148 mm x 102 mm (PCI-7200)
- 168 mm x 64 mm (LPCI-7200S)

Termination Boards

PCI-7200:

■ DIN-37D

Termination Board with a 37-pin D-sub Connector and Din-Rail Mounting (Cables are not included. For information on mating cables, refer to Section 9.)

■ ACLD-9137

General-Purpose Termination Board with a 37-pin D-sub Male Connector

■ ACLD-9137F

General-Purpose Termination Board with a 37-pin D-sub Female Connector

LPCI-7200S:

■ DIN-68S

Termination Board with 68-pin SCSI-II Connector and Din-Rail Mounting (Cables are not included. For information on mating cables, refer to Section 9.)

Ordering Information

- **PCI-7200**
12 MB/s High-Speed 32-CH DI & 32-CH DO Card
- **LPCI-7200S**
12 MB/s High-Speed 32-CH DI & 32 CH DO Card for Low-Profile PCI

Pin Assignment

PCI-7200

CN1			
DI16	1 2	DO16	
DI17	3 4	DO17	
DI18	5 6	DO18	
DI19	7 8	DO19	
DI20	9 10	DO20	
DI21	11 12	DO21	
DI22	13 14	DO22	
DI23	15 16	DO23	
DI24	17 18	DO24	
DI25	19 20	DO25	
DI26	21 22	DO26	
DI27	23 24	DO27	
DI28	25 26	DO28	
DI29	27 28	DO29	
DI30	29 30	DO30	
DI31	31 32	DO31	
+5Vout	33 34	O-TRG	
O-ACK	35 36	N/C	
O-REQ	37 38	N/C	
N/C	39 40	N/C	

LPCI-7200S

		CN1A			
DIN0	A1	A35	GND		
DIN1	A2	A36	GND		
DIN2	A3	A37	GND		
DIN3	A4	A38	GND		
DIN4	A5	A39	GND		
DIN5	A6	A40	GND		
DIN6	A7	A41	GND		
DIN7	A8	A42	GND		
DIN8	A9	A43	GND		
DIN9	A10	A44	GND		
DIN10	A11	A45	GND		
DIN11	A12	A46	GND		
DIN12	A13	A47	GND		
DIN13	A14	A48	GND		
DIN14	A15	A49	GND		
DIN15	A16	A50	GND		
DIN16	A17	A51	GND		
DIN17	A18	A52	GND		
DIN18	A19	A53	GND		
DIN19	A20	A54	GND		
DIN20	A21	A55	GND		
DIN21	A22	A56	GND		
DIN22	A23	A57	GND		
DIN23	A24	A58	GND		
DIN24	A25	A59	GND		
DIN25	A26	A60	GND		
DIN26	A27	A61	GND		
DIN27	A28	A62	GND		
DIN28	A29	A63	GND		
DIN29	A30	A64	GND		
DIN30	A31	A65	GND		
DIN31	A32	A66	GND		
I_REQ	A33	A67	I-ACK		
I_TRG	A34	A68	+5Vout		

		CN1B			
DOUT0	B1	B35	GND		
DOUT1	B2	B36	GND		
DOUT2	B3	B37	GND		
DOUT3	B4	B38	GND		
DOUT4	B5	B39	GND		
DOUT5	B6	B40	GND		
DOUT6	B7	B41	GND		
DOUT7	B8	B42	GND		
DOUT8	B9	B43	GND		
DOUT9	B10	B44	GND		
DOUT10	B11	B45	GND		
DOUT11	B12	B46	GND		
DOUT12	B13	B47	GND		
DOUT13	B14	B48	GND		
DOUT14	B15	B49	GND		
DOUT15	B16	B50	GND		
DOUT16	B17	B51	GND		
DOUT17	B18	B52	GND		
DOUT18	B19	B53	GND		
DOUT19	B20	B54	GND		
DOUT20	B21	B55	GND		
DOUT21	B22	B56	GND		
DOUT22	B23	B57	GND		
DOUT23	B24	B58	GND		
DOUT24	B25	B59	GND		
DOUT25	B26	B60	GND		
DOUT26	B27	B61	GND		
DOUT27	B28	B62	GND		
DOUT28	B29	B63	GND		
DOUT29	B30	B64	GND		
DOUT30	B31	B65	GND		
DOUT31	B32	B66	GND		
O_REQ	B33	B67	O-ACK		
O_TRG	B34	B68	+5Vout		