

# LPCI-7200S

## 12 MB/s High Speed 32-CH DIO Low-Profile PCI Card

### Features

- Support a 32-bit 3.3 V or 5 V PCI bus
  - 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
  - On-board programmable timer pacer clock
  - Timed digital input sampling controlled by an on-board timer
  - Timed digital output update controlled by an on-board timer
  - Supports handshaking digital I/O transfer mode
  - Multiple programmable interrupt sources
  - 5 V power available on connectors
  - Compact, low-profile PCI size PCB
- **Operating Systems**
    - Windows 2000/NT/XP/9x
    - DOS
    - Linux
    - Windows CE
  - **Recommended Software**
    - VB/VC++/BCB/Delphi
    - DAQBench
  - **Driver Support**
    - PCIS-DASK for Windows 2000/NT/XP/9x
    - PCIS-DASK/X for RedHat Linux
    - PCIS-OCX ActiveX controls
    - DAQ-LVIEW PnP for LabVIEW



### Introduction

ADLINK LPCI-7200S is a high-speed low profile 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 LPCI-7200S 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. It is very suitable for interfacing high-speed peripherals with your computer system. LPCI-7200S supports 3.3 V and 5 V PCI bus with low-profile PCI size. It occupies less space and thus is ideal for book-size computers.

### 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
  - 68-pin VHDCI female x 2
- Operating temperature: 0 to 60 °C
- Storage temperature: -20 to 80 °C
- Relative humidity: 5 to 95%, noncondensing
- Power requirements

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

- Dimensions (not including connectors)
  - 168 mm x 64 mm

#### Certificate

- EMC/EMI: CE, FCC Class A

#### Termination Boards

- **DIN-68S/1M**
  - Termination Board with a 68-pin SCSI-II Connector and Din-Rail Mounting (Including One 1-meter ACL-10568 Cable)

### Ordering Information

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

### Pin Assignment

#### 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