

# cPCI-7200

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

### Features

- 3U Eurocard form factor, CompactPCI compliant (PICMG 2.0 R2.1)
- 32-CH TTL digital inputs and 32-CH TTL digital outputs
- Up to 12 MB/s transfer rate
- 4 auxiliary DI and 4 auxiliary DO
- Onboard 2 k-sample FIFO
- 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 the connector

### Operating Systems

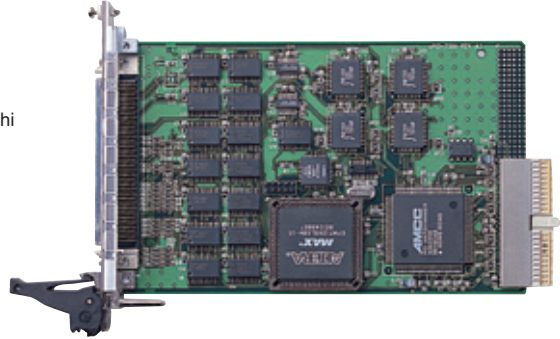
- Windows Vista/XP/2000/2003
- Linux

### Recommended Software

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

### Driver Support

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



### Introduction

ADLINK cPCI-7200 is a high-speed digital I/O module for PXI/CompactPCI form factor. The device provides of 32 digital input channels, and 32 digital output channels. High-performance designs and the state-of-the-art technology make this module suitable for high-speed data transfer and pattern generation applications.

The 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. It is very suitable for interfacing high-speed peripherals and your computer system. The cPCI-7200 is ideal 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 by external 3 MHz clock, handshaking or external strobe
  - 8 MB/s by 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

#### Auxiliary Digital I/O

- Number of channels
  - 4-CH digital inputs
  - 4-CH digital outputs
- Compatibility: 5 V/TTL
- Data transfers: programmed I/O

#### 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: 100-pin SCSI-II female
- Operating temperature: 0 to 60°C
- Storage temperature: -20 to 80°C
- Relative humidity: 5 to 95%, non-condensing
- Power requirements

Device	+5 V
cPCI-7200	800 mA typical

- Dimensions (not including connectors)  
160 mm x 100 mm

#### Termination Boards

##### DIN-100S-01

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

### Ordering Information

- **cPCI-7200**  
12 MB/s High-Speed 32-CH DI & 32-CH DO Module

### Pin Assignment

DO0	1	51	DO1
DO2	2	52	DO3
DO4	3	53	DO5
DO6	4	54	DO7
DO8	5	55	DO9
DO10	6	56	DO11
DO12	7	57	DO13
DO14	8	58	DO15
GND	9	59	GND
DO16	10	60	DO17
DO18	11	61	DO19
DO20	12	62	DO21
DO22	13	63	DO23
DO24	14	64	DO25
DO26	15	65	DO27
DO28	16	66	DO29
DO30	17	67	DO31
GND	18	68	GND
+5Vout	19	69	GND
+5Vout	20	70	GND
AUXIN0	21	71	AUXOUT0
AUXIN1	22	72	AUXOUT1
I_TRG	23	73	GND
I_REQ	24	74	GND
I_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

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