PCI-6308V/6308A 8-CH 12-Bit Isolated Analog Output Cards

Features

- Supports a 32-bit 5 V PCI bus ■ 12-bit D/A resolution (PCI-6308V &
- PCI-6308A)
- Isolated 8-CH 12-bit voltage output (PCI-6308V & PCI-6308A)
- Isolated 8-CH 12-bit current output (PCI-6308A)
- Bipolar or unipolar output ranges External reference input for user-defined
- ranges ■ 4-CH isolated digital outputs and
- 4-CH isolated digital inputs
- 2500 VRMs optical isolation
- Compact, half-size PCB

Operating Systems

- Windows Vista/XP/2000/2003 Linux
- · Windows CE (call for availability)
- 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

The PCI-6308V is a high-performance 12-bit analog output board with PCI interface. It provides 8 identical voltage output channels, with each channel capable of bipolar voltage outputs, unipolar voltage output and unipolar 0 to user defined voltage output. The PCI-6308V provides good monotonicity, low distortion, and low differential linearity error over long periods of time. The output ranges of the PCI-6308V are bipolar -10 to +10 V, unipolar 0 to 10 V and as well as user-defined ranges with external reference input, which are jumper selectable. The PCI-6308A device is the combination of the PCI-6308V with an 8-CH current output extended board, EXP-8A. The EXP-8A board includes 8 precision voltage-to-current converters.

ADLINK PCI-6308 series devices provide flexible and isolated analog output functionalities and are suitable for ATE, signal generation, industrial process control, servo control and other industrial control applications.

Specifications

- **Isolated Analog Output**
- Number of channels: 8 voltage outputs (PCI-6308V & PCI-6308A)
- Resolution: 12 bits
- Output ranges (jumper selectable)

Output Range		
Bipolar	±10 V	
Unipolar	0 to 10 V, 0 to EXTREF	

- Settling time: 16 µs (20 V step)
- Maximum update interval:
- 90 us for four channels simultaneously Gain error: ±0.2 % max.
- DNL: ±1 LSB
- Output driving capacity: ±5 mA
- Isolation voltage: 2500 VRMs Output initial status
- 0 V (after RESET or POWER-ON) Data transfers: programmed I/O

Current Output (PCI-6308A)

- Number of channels: 8
- Resolution: 12 bits
- Output ranges (software programmable): 0-20 mA, 4-20 mA, and 5-25 mA
- Gain error: 0.3 %
- Settling time: 17 µs (0-20 mA)
- Slew rate: 1.3 mA/µs
- DNL: ±1 LSB maximum
- Output resistance: 10 GΩ typical
- Current load resistance: 0 500 Ω Output initial status:
- 4 mA (after RESET or POWER-ON) Data transfer: programmed I/O
- **Isolated Digital Input**

Number of channels: 4

- Maximum input range: 24 V, non-polarity
- Digital logic levels
- Input high voltage: 5 24 V
- Input low voltage: 0 1.5 V

- Input resistance: 2.4 kΩ @ 0.5 W
- Isolation voltage: 2,500 VRMs
- Data transfers: programmed I/O

Isolated Digital Output

- Number of channels: 4 (PCI-6308V & PCI-6308A)
- Output type: photo-coupler transistors
- Supply voltage: 5 to 35 V
- Isolation voltage: 2,500 VRMS
- Data transfers: programmed I/O

General Specifications

- I/O connector: 37-pin D-sub female
- Operating temperature: 0 to 55°C
- Storage temperature: -20 to 80°C
- Relative humidity: 5 to 95 %, non-condensing Power requirements

Device	+5 V	+12 V
PCI-6308V	220 mA typical	175 mA typical
PCI-6308A	220 mA typical	250 mA typical 530 mA maximum

Dimensions (not including connectors) 175 mm x 107 mm

Termination Boards

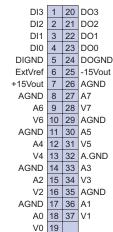
DIN-37D-01

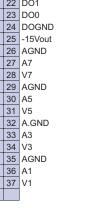
Termination Board with one 37-pin D-sub Connector and DIN-Rail Mounting (Cables are not included. For information on mating cables, refer to Section 12.)

ACLD-9137-01

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

Pin Assignment PCI-6308V and PCI-6308A





Ordering Information

- PCI-6308V 8-CH 12-Bit Isolated Voltage Output Card PCI-6308A
- 8-CH 12-Bit Isolated Voltage & Current Output Card