PCI-6208V/6216V/6208A
8/16-CH 16-Bit Analog Output Cards

Features
- Supports a 32-bit 5 V PCI bus
- 16-bit D/A resolution (PCI-6208V and PCI-6216V)
- Effective 15-bit resolution current transducers (PCI-6208A)
- 8-CH voltage outputs (PCI-6208V)
- 16-CH voltage outputs (PCI-6216V)
- 8-CH current outputs (PCI-6208A)
- Bipolar analog output range
- 4-CH TTL digital inputs and 4-CH TTL digital outputs
- Compact, half-size PCB

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

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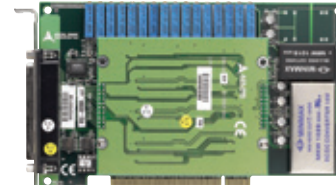 VC++/BCB/Delphi
- DAQBench

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

PCI-6208V

PCI-6216V

PCI-6208A

Introduction
ADLINK PCI-6208 series are 8 or 16-CH, 16-bit, analog output cards. The PCI-6208V offers 8 voltage outputs with ±10 V range, featuring 15-bit monotonicity and 10 V/µs slew rate. The onboard analog switches minimize the power-on glitches. Combining one PCI-6208V and one EXP-8V, the PCI-6216V expands the voltage output channels to a total of 16 for higher analog output density requirements. In addition to the voltage output functions, the PCI-6208A features 8 current outputs with ranges of 0-20 mA, 4-20 mA, and 5-25 mA. The daughter board EXP-8A provides high-quality voltage to current transducers. The PCI-6208A device is capable of delivering 14-bit monotonicity with 1.3 mA/µs slew rate.

ADLINK PCI-6208 series devices provide high-resolution, high-density analog output functionalities and are suitable for ATE, signal generation, industrial process control, servo control and other industrial control applications.

Specifications

Voltage Output
- Number of channels
  - 8 voltage outputs (PCI-6208V & PCI-6208A)
  - 16 voltage outputs (PCI-6216V)
- Resolution: 16 bits
- Monotonicity: 15 bits typical
- Output ranges: ±10 V
- Slew rate:10 V/µs typical
- Settling time: 4 µs typical (20 V step)
- Gain Error: ±0.2% maximum
- DNL: ±0.65 LSB typical
- Output driving capacity: ±5 mA maximum
- Output initial status: 0 V
- Data transfer: programmed I/O

Current Output
- Number of channels: 8 current outputs (PCI-6208A)
- Resolution: 15 bits typical
- Monotonicity: 14 bits typical
- Output ranges: (Software programmable)
  0-20 mA, 4-20 mA, 5-25 mA
- Slew rate: 1.3 mA/µs typical
- Settling time: 17 µs typical (20 mA step)
- Span Error: ±0.3% typical
- Output Initial Status: 4 mA
  (after RESET or POWER-ON)
- Data transfer: programmed I/O

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

General Specifications
- I/O connector: 37-pin D-sub female
- Operating temperature: 0 to 50°C
- Storage temperature: -20 to 80°C
- Relative humidity: 5 to 95%, non-condensing
- Power requirements

Device	+5 V	+12 V
PCI-6208V	580 mA typical	90 mA typical
PCI-6216V	1200 mA typical	300 mA typical
PCI-6208A	670 mA typical	380 mA typical

- 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

Ordering Information

- **PCI-6208V**
  8-CH 16-Bit Voltage Output Card

- **PCI-6216V**
  16-CH 16-Bit Voltage Output Card

- **PCI-6208A**
  8-CH 16-Bit Voltage and Current Output Card

Pin Assignment
PCI-6208V and PCI-6216V

DI3	1	20	DO3
DI2	2	21	DO2
DI1	3	22	DO1
DI0	4	23	DO0
GND	5	24	GND
+5Vout	6	25	-15Vout
+15Vout	7	26	AGND
AGND	8	27	NC/V15
NC/V14	9	28	V7
V6	10	29	AGND
AGND	11	30	NC/V13
NC/V12	12	31	V5
V4	13	32	AGND
AGND	14	33	NC/V11
NC/V10	15	34	V3
V2	16	35	AGND
AGND	17	36	NC/V9
NC/V8	18	37	V1
V0	19		

Pin Assignment
PCI-6208A

DI3	1	20	DO3
DI2	2	21	DO2
DI1	3	22	DO1
DI0	4	23	DO0
GND	5	24	GND
+5Vout	6	25	-15Vout
+15Vout	7	26	AGND
AGND	8	27	A7
A6	9	28	V7
V6	10	29	AGND
AGND	11	30	A5
A4	12	31	V5
V4	13	32	AGND
AGND	14	33	A3
A2	15	34	V3
V2	16	35	AGND
AGND	17	36	A1
A0	18	37	V1
V0	19		