PCM-6308V+
PC/104-Plus 8-CH 12-Bit Isolated Analog Output Module

Features

- PC/104-Plus specifications Rev. 1.2 compliant
- 12-bit D/A resolution
- Bipolar or unipolar output ranges
- Isolated 8-CH 12-bit voltage outputs
- External reference input for user-defined ranges
- 4-CH isolated digital outputs and 4-CH isolated digital inputs
- 2500 V$_{RMS}$ optical isolation voltage

- **Operating Systems**
  - Windows 2000/NT/XP/9x
  - DOS
  - Red Hat Linux
  - Windows CE (call for availability)

- **Recommended Software**
  - VB/VC++/BCB/Delphi
  - DAQBench

- **Driver Support**
  - PCIS-DASK for Windows 2000/NT/XP/9x
  - PCIS-DASK/X for Red Hat Linux
  - PCIS-OCX ActiveX controls
  - PCIS-LVIEW/PnP for LabVIEW *NEW!*

Introduction

The ADLINK PCM-6308V+ is a high-performance, 12-bit analog output module with PC/104-Plus 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 PCM-6308V+ provides good monotonicity, low distortion, and low differential linearity error over long periods of time. The output ranges of the PCM-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.

Incorporating the PCI bus within the industry proven PC/104 form-factor brings many advantages including fast data transfer over a PCI bus and high reliability due to PC/104's inherent ruggedness. ADLINK PCMI-6308V+ device provides 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
- Resolution: 12 bits
- Output ranges (jumper selectable)

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

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

Isolated Digital Input
- Number of channels: 4
- Maximum input range: 24 V, non-polarity
- Digital logic levels
  - 0-24 V, non-polarity
    - 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 V$_{RMS}$
- Data transfers: programmed I/O

Isolated Digital Output
- Number of channels: 4
- Output type: Photo-coupler transistors
- Supply voltage: 35 V$_{DC}$
- Sink current: 50 mA maximum
- Isolation voltage: 2500 V$_{RMS}$
- Data transfers: programmed I/O

General Specifications
- I/O Connector: 20-pin ribbon male x 2
- Operating temperature: 0 to 55 ˚C
- Storage temperature: -20 to 80 ˚C
- Relative humidity: 5 to 95%, noncondensing
- Power requirements

+5 V	+12 V
220 mA typical	175 mA typical

- Dimensions (not including connectors)
  95.9 mm x 90.2 mm

Termination Boards

- **DIN-20P**
  Termination Board with a 20-pin Ribbon Connector and DIN-Rail Mounting (Including One 1-meter ACL-10120 Cable)

Pin Assignment

CN1

DI3	1	2	DO3
DI2	3	4	DO2
DI1	5	6	DO1
DI0	7	8	DO0
DGND	9	10	DGND
ExtVref	11	12	-15Vout
+15Vout	13	14	AGND
AGND	15	16	N/C
N/C	17	18	V7
V6	19	20	AGND

CN2

AGND	1	2	N/C
N/C	3	4	V5
V4	5	6	AGND
AGND	7	8	N/C
N/C	9	10	V3
V2	11	12	AGND
AGND	13	14	N/C
N/C	15	16	V1
V0	17	18	AGND
AGND	19	20	AGND

Ordering Information

- **PCI-6308V+**
  PC/104-*Plus* 8-CH 12-Bit Isolated Analog Output Module

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