

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 V
- 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

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

1
Software Solutions

2
PXI/ CompactPCI Platforms

3
PXI-Based Instruments

4
PXI/ CompactPCI Modules

5
PCI DAQ Cards

6
PCI DIO Cards

7
PC/104-Plus Products

8
ISA DAS/ DIO Cards

9
Wiring Termination Boards

10
Motion Control Cards

11
Machine Vision Products

12
Remote I/O Modules