PEX-DA4/PEX-DA8/PEX-DA16

PCI Express, 14-bit 4-/8-/16-ch Analog Output Board

Available soon

Features ▶▶▶▶

- PCI Express x1 interface
- Voltage output: +/- 10 V
- Double-buffered D/A latch
- D/I with pull-high and pull-low jumpers
- 4-, 8- or 16-ch 14-bit analog output
- Current output: 0 ~ 20 mA (sink)
- 16-ch 5 V TTL D/I, 16-ch 5 V TTL D/O
- Card ID function

Introduction

The PEX-DA4/DA8/DA16 series analog output board supports PCI Express interface. It is equipped with 14-bit 4/8/16 analog output channels, and each of the D/A channels features double-buffered latch.

For the PEX-DA series, its voltage output range is from -10 V to +10 V, and the current output range is from 0 to 20 mA. In addition, PEX-DA series also features the following advantages:

Accurate and easy-to-use calibration: ICP DAS provides the software calibration, so that no jumpers and trim-pots are required anymore. The calibration data is saved in EEPROM for long-term use.

Individual channel configuration: Each channel can be individually configured as voltage output or current output.

Card ID: The PEX-DA series adds a Card ID switch for users to recognize the board by the ID via software when using two or more PEX-DA cards in one computer.

The PEX-DA series is designed as easy replacement for the PIO-DA series, and users can replace the PIO-DA series by PEX-DA series directly without any software/driver modification.

Software

- DOS Lib and TC/BC/MSC sample program (with source codes)
- Supports 32-bit and 64-bit Windows XP/2003/Vista/7
- VB/VC/Delphi/BCB/VB.NET/C#.NET sample programs with source codes
- Supports LabVIEW and Linux

Hardware Specifications

Models	PEX-DA4	PEX-DA8	PEX-DA16
Analog Outputs			
Channels	4	8	16
Resolution	14-bit		
Accuracy	0.01% of FSR ± 2 LSB @ 25 °C, ± 10 V		
Output Range	+/- 10 V, 0 ~ 20 mA		
Output Driving	+/- 5 mA		
Slew Rate	0.71 V/μs		
Digital Inputs			
Channels	16-ch, 5 V/TTL		
Input Voltage	Logic 0: 0.8 V max., Logic 1: 2.0 V min.		
Response Speed	400 kHz (Typical)		
Digital Outputs			
Channels	16-ch, 5 V/TTL		
Output Voltage	Logic 0: 0.4 V max., Logic 1: 2.4 V min.		
Output Capability	Sink: 2.4 mA @ 0.8 V, Source: 0.8 mA @ 2.0 V		
Response Speed	400 kHz (Typical)		
General			
Bus Type	PCI Express x1		
Card ID	Yes (4-bit)		
Connectors	Female DB-37 x 1, 20-pin box header x 2		
Power Consumption	600 mA @ +5 V	800 mA @ +5 V	1400 mA @ +5 V
Operating Temperature	0 °C ~ +60 °C		
Humidity	5 ~ 85% RH, non-condensing		

Pin Assignments

Pin Assignment	Terminal No.		Pin Assignment
VO_0	01		
VO_1	02	20	IO_0
VO_2	03	21	IO_1
VO_3	04	22	IO_2
A.GND	05	23	IO_3
VO_4	06	24	A.GND
VO_5	07	25	IO_4
VO_6	08	26	IO_5
VO_7	09	27	IO_6
A.GND	10	28	IO_7
VO_8	11	29	A.GND
VO_9	12	30	IO_8
VO_10	13	31	IO_9
VO_11	14	32	IO_10
A.GND	15	33	IO_11
VO_12	16	34	IO_12
VO_13	17	35	IO_13
VO_14	18	36	IO_14
VO_15	19	37	IO_15

CON3

Pin Assignment	Terminal No.		Pin Assignment
DO 0	01	02	DO 1
DO 2	03	04	DO 3
DO 4	05	06	DO 5
DO 6	07	08	DO 7
DO 8	09	10	DO 9
DO 10	11	12	DO 11
DO 12	13	14	DO 13
DO 14	15	16	DO 15
GND	17	18	GND
+5V	19	20	+12V

CON1

Pin Assignment	Terminal No.		Pin Assignment
DI 0	01	02	DI 1
DI 2	03	04	DI 3
DI 4	05	06	DI 5
DI 6	07	08	DI 7
DI 8	09	10	DI 9
DI 10	10	12	DI 11
DI 12	12	14	DI 13
DI 14	14	16	DI 15
GND	16	18	GND
+5V	18	20	+12V

CON2

Ordering Information

PEX-DA4 CR	PCI Express, 4-ch Analog Output board (RoHS) Includes one CA-4002 D-Sub connector
PEX-DA8 CR	PCI Express, 8-ch Analog Output board (RoHS) Includes one CA-4002 D-Sub connector
PEX-DA16 CR	PCI Express, 16-ch Analog Output board (RoHS) Includes one CA-4002 D-Sub connector