

## PEX-1002L/PEX-1002H

PCI Express, 32-ch, 12-bit, 110 or 44 kS/s Multi-function Board



Available soon



### Features ▶▶▶▶

- PCI Express x1, Plug & Play
- 110 or 44 kS/s A/D sampling rate
- 16-ch 5V TTL D/I
- Supports Card ID (SMD Switch)
- 12-bit, 32 S.E/16 Diff. analog inputs
- Internal pacer trigger
- 16-ch 5V TTL D/O
- D/I with pull-high and pull-low jumpers

### Introduction

The PEX-1002L/H is the new generation product that ICP DAS provides to meet RoHS compliance requirement, and is designed as easy replacement for the PCI-1002 series. Users can replace the PCI-1002 series by the PEX-1002L/H directly without any software/driver modification.

The PEX-1002L/H supports PCI Express bus and provides 12-bit 32 single-ended or 16 differential analog inputs, 16 TTL digital input and 16 TTL digital output channels.

The PEX-1002L/H adds a Card ID switch for users to recognize the board by the ID via software when using two or more PEX-1002L/H cards in one computer. The pull-high/low jumpers allow user to predefine the DI status instead of floating when the DI channels are unconnected or broken.

### Software

- DOS Lib and TC/BC/MSC sample program (with source codes)
- DLL and OCX SDK for 32-bit and 64-bit Windows XP/2003/Vista/2008/7
- VB/VC/Delphi/BCB/VB.NET/C#.NET sample programs with source codes
- Supports LabVIEW and Linux

### Hardware Specifications

Models	PEX-1002L	PEX-1002H
<b>Analog Input</b>		
Channels	32 S.E/16 Diff.	
Resolution	12-bit	
Accuracy	0.01% of FSR ± 2 LSB @ 25 °C, ± 10 V	
Sampling Rate	110 kS/s	44 kS/s
<b>Digital Inputs</b>		
Channels	16-ch, 5 V/TTL	
Input Voltage	Logic 0: 0.8 V max., Logic 1: 2.0 V min.	
Response Speed	500 kHz (Typical)	
<b>Digital Outputs</b>		
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	500 kHz (Typical)	
<b>General</b>		
Bus Type	PCI Express x1	
Card ID	Yes (4-bit)	
Connectors	Female DB-37 x 1, 20-pin box header x 2	
Power Consumption	800 mA @ +5 V	
Operating Temperature	0 °C ~ +60 °C	
Humidity	5 ~ 85% RH, non-condensing	

### Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment
AI_0	01	20 AI_16
AI_1	02	21 AI_17
AI_2	03	22 AI_18
AI_3	04	23 AI_19
AI_4	05	24 AI_20
AI_5	06	25 AI_21
AI_6	07	26 AI_22
AI_7	08	27 AI_23
AI_8	09	28 AI_24
AI_9	10	29 AI_25
AI_10	11	30 AI_26
AI_11	12	31 AI_27
AI_12	13	32 AI_28
AI_13	14	33 AI_29
AI_14	15	34 AI_30
AI_15	16	35 AI_31
A.GND	17	36 N.C.
N.C.	18	37 D.GND
Ext_Trg	19	

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	11	12 DI 11
DI 12	13	14 DI 13
DI 14	15	16 DI 15
GND	17	18 GND
+5V	19	20 +12V

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	10	12 DO 11
DO 12	12	14 DO 13
DO 14	14	16 DO 15
GND	16	18 GND
+5V	18	20 +12V

### Ordering Information

PEX-1002L CR	PCI Express, 32-ch, 12-bit, 110 kS/s. Low Gain Multi-function DAQ Board (RoHS) Includes one CA-4002 D-Sub cable.
PEX-1002H CR	PCI Express, 32-ch, 12-bit, 44 kS/s. High Gain Multi-function DAQ Board (RoHS) Includes one CA-4002 D-Sub cable.