



PEX-1202L

PCI Express, 110 kS/s, 32-ch, 12-bit Multi-function Board
(1 K word FIFO)

PEX-1202H

PCI Express, 44 kS/s, 32-ch, 12-bit Multi-function Board
(1 K word FIFO)

Introduction

The PEX-1202L/H series utilizes the PCI Express bus and is designed as an easy replacement for the PCI-1202 series without requiring any modification to either the software or the driver.

The PEX-1202L/H provides 32 single-ended or 16 differential Analog Input channels at 12-bit resolution, together with 16 TTL Digital Input and 16 TTL Digital Output channels. Data acquisition under DOS is gap-free and continuous, at 110 kHz for low gain and 44 kHz for high gain. The PEX-1202L/H also features "Magic Scan" and Continuous Capture functions.

The PEX-1202L/H includes a Card ID switch that enables the board to be easily recognized via software if two or more cards are installed in the same computer. The pull-high/low jumpers allow the DI status to be predefined instead of remaining floating if the DI channels are disconnected or line broken.

Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment	Terminal No.	Pin Assignment	Terminal No.
AI_0	01	AI_16	20	DO 0	01
AI_1	02	AI_17	21	DO 2	03
AI_2	03	AI_18	22	DO 4	05
AI_3	04	AI_19	23	DO 6	07
AI_4	05	AI_20	24	DO 8	09
AI_5	06	AI_21	25	DO 10	10
AI_6	07	AI_22	26	DO 12	12
AI_7	08	AI_23	27	DO 14	14
AI_8	09	AI_24	28	GND	16
AI_9	10	AI_25	29	+5 V	18
AI_10	11	AI_26	30		
AI_11	12	AI_27	31	Pin Assignment	Terminal No.
AI_12	13	AI_28	32	DO 0	01
AI_13	14	AI_29	33	DO 2	03
AI_14	15	AI_30	34	DO 4	05
AI_15	16	AI_31	35	DO 6	07
A.GND	17	Da2 out	36	DO 8	09
Da1 out	18	D.GND	37	DO 10	10
Ext_Trg	19			DO 12	12
				DO 14	14
				DO 16	16
				GND	17
				+5 V	19

Ordering Information

PEX-1202L CR	PCI Express, 110 kS/s, 32-ch, 12-bit Multi-function Board (1 K word FIFO)(RoHS) Includes one CA-4002 D-Sub connector
PEX-1202H CR	PCI Express, 44 kS/s, 32-ch, 12-bit Multi-function Board (1 K word FIFO) (RoHS) Includes one CA-4002 D-Sub connector

Features

- PCI Express x1 Interface
- 16-channel 5 V/TTL Digital Input
- 16-channel 5 V/TTL Digital Output
- Pull-high/Pull-low Jumpers for DI Channels
- 12-bit, 32 Single-ended/16 Differential Analog Input channels
- Three External Triggers: Pre-trigger, Middle-trigger, Post-trigger
- 110 or 44 kS/s AD Sampling Rate
- Supports Card ID (SMD Switch)



Software

Drivers

- ☒ 32/64-bit Windows XP/2003/2008/7/8/10 ☒ Linux

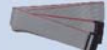
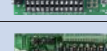
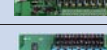
Sample Programs

- ☒ DOS Lib and TC/BC/MSC Demo ☒ LabVIEW Toolkit
- ☒ VB/VC/Delphi/BCB/VB.NET/C#.NET/VC.NET/MATLAB Demo

Hardware Specifications

Model	PEX-1202L	PEX-1202H
Analog Input		
Channels	32 Single-ended/16 Differential	
Resolution	12-bit, 8.5 μs Conversion Time	
FIFO Size	1024 Samples	
Accuracy	0.1% of FSR ±1 LSB @ 25°C, ±10 V	
Sampling Rate	110 kS/s	44 kS/s
Analog Output		
Channels	2	
Resolution	12-bit	
Accuracy	0.06% of FSR ±1 LSB @ 25°C, ±10 V	
Output Range	±5 V, ±10 V	
Digital Input		
Channels	16	
Compatibility	5 V/TTL	
Input Voltage	Logic 0: 0.8 V Max., Logic 1: 2.0 V Min.	
Response Speed	500 kHz (Typical)	
Digital Output		
Channels	16	
Compatibility	5 V/CMOS	
Output Voltage	Logic 0: 0.1 V Max., Logic 1: 4.4 V Min.	
Output Capability	Sink: 6 mA @ 0.33 V, Source: 6 mA @ 4.77 V	
Response Speed	500 kHz (Typical)	
Timer/Counter		
Channels	3	
Resolution	16-bit	
Reference Clock	Internal: 8 MHz	
General		
Bus Type	PCI Express x1	
Card ID	Yes (4-bit)	
Connectors	Female DB37 x 1, 20-pin Box Header x 2	
Power Consumption	1300 mA @ +3.3 V; 0 mA @ +12 V	
Operating Temperature	0°C to +60°C	
Humidity	5 to 85% RH, Non-condensing	

Accessories

	ADP-20/PCI CR	Extender, Extended dual 20-pin flat-cable connector to PC slot window (RoHS)
	CA-2002 CR	20-pin flat cable, 20 cm x 2 (RoHS)
	CA-2010 CR	20-pin flat cable, 1 M (RoHS)
	CA-2020 CR	20-pin flat cable, 2 M (RoHS)
	CA-3710 CR	DB-37 Male-Male D-sub cable 1 M (Cable for Daughter Board (45°)) (RoHS)
	CA-3710D CR	DB-37 Male-Male D-sub cable 1 M (Cable for Daughter Board (180°)) (RoHS)
	CA-3715DM-H CR	DB-37 Male-Male Cable, 1.5 M, 180°. (RoHS)
	CA-3730DM-H CR	DB-37 Male-Male Cable, 3.0 M, 180°. (RoHS)
	CA-4002 CR	37-pin Male D-sub connector with plastic cover. (RoHS)
	DB-1825 CR	Analog Input Screw terminal Board (RoHS)
	DB-16P CR	Isolated Digital Input Daughter Board (RoHS)
	DB-16R CR	Relay Output Daughter Board (RoHS)
	DN-20/DN-20-381 CR	20-pin DIN-RAIL mounting I/O connector board (RoHS)
	DN-37 CR	DIN Rail Mounting 37-pin Connector (RoHS)
	2AB125R CR	Resistor DIP 125R 0.1% 1/4W MF 50PPM (1PCS) (RoHS)

