



## PCI-1202LU

Universal PCI, 110 kS/s, 32-ch, 12-bit Analog Input  
Multifunction Board (1 K word FIFO)

## PCI-1202HU

Universal PCI, 44 kS/s, 32-ch, 12-bit Analog Input  
Multifunction Board (1 K word FIFO)

### Introduction

The PCI-1202 series is a family of high performance data acquisition boards that feature continuous gap-free data acquisition in DOS at 110 kHz for low gain or 44 kHz for high gain. The PCI-1202 family has the same hardware architecture as the PCI-1802, and provides 32-channel single-ended or 16-channel differential Analog Inputs. As with the PCI-1802 family, the PCI-1202 series features both the Magic Scan and Continuous Capture functions.

The PCI-1202LU/HU Universal PCI card supports both the 3.3 V and the 5 V PCI bus. The PCI-1202LU/HU cards are fully compatible with PCI-1202L/H cards and are designed as direct replacements without requiring any modification to the software or the driver, with the main difference being the addition of DI pull-high/low resistors and a Card ID switch on the PCI-1202LU/HU.

The PCI-1202LU/8K and PCI-1202HU/8K cards are equipped with an 8K-sample hardware FIFO that reduces data overflow issues in multi-tasking environments such as Windows and Linux.

### Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment	Pin Assignment	Terminal No.	Pin Assignment
AI_0	01	20 AI_16	DO 0	01	DO 1
AI_1	02	21 AI_17	DO 2	03	DO 3
AI_2	03	22 AI_18	DO 4	05	DO 5
AI_3	04	23 AI_19	DO 6	07	DO 7
AI_4	05	24 AI_20	DO 8	09	DO 9
AI_5	06	25 AI_21	DO 10	10	DO 11
AI_6	07	26 AI_22	DO 12	12	DO 13
AI_7	08	27 AI_23	DO 14	14	DO 15
AI_8	09	28 AI_24	GND	16	GND
AI_9	10	29 AI_25	+5 V	18	+12 V
AI_10	11	30 AI_26			CON1
AI_11	12	31 AI_27	DI 0	01	DI 1
AI_12	13	32 AI_28	DI 2	03	DI 3
AI_13	14	33 AI_29	DI 4	05	DI 5
AI_14	15	34 AI_30	DI 6	07	DI 7
AI_15	16	35 AI_31	DI 8	09	DI 9
A.GND	17	36 Da2 out	DI 10	11	DI 11
Da1 out	18	37 D.GND	DI 12	13	DI 13
Ext_Trg	19		DI 14	15	DI 15
			GND	17	GND
			+5 V	19	+12 V
					CON2

### Features

- Universal PCI (3.3 V/5 V) Interface
- Supports Card ID (SMD Switch)
- 2-channel, 16-bit Analog Output
- 16-channel 5 V/TTL Digital Output
- 16-channel 5 V/TTL Digital Input
  - Pull-high and Pull-low Resistors for DI Channels
- 32 Single-ended/16 Differential Analog Input Channels
  - 12-bit, 110 kS/s or 44 kS/s AD Converter
  - Built-in MagicScan Controller
  - Internal Trigger: Software-trigger, Pacer-trigger
  - External Trigger: Post-trigger, Pre-trigger, Middle-trigger
- High-speed data transfer rate up to 2.1 M words/sec.



### Software

#### Drivers

- 32/64-bit Windows 10/11
- Linux  DASYLab

#### Sample Programs

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











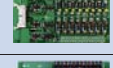


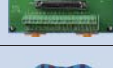

### Hardware Specifications

Model	PCI-1202LU	PCI-1202HU
<b>Analog Input</b>		
Channels	32 Single-ended/16 Differential	
AD Conversion	12-bit, 8.5 $\mu$ s Conversion Time	
Accuracy	0.1% of FSR $\pm$ 1 LSB @ 25 $^{\circ}$ C, $\pm$ 10 V	
FIFO Size	1024 Samples	
Sampling Rate	110 kS/s	44 kS/s
<b>Analog Output</b>		
Channels	2	
Resolution	12-bit	
Accuracy	0.06% of FSR $\pm$ 1 LSB @ 25 $^{\circ}$ C, $\pm$ 10 V	
Output Driving	$\pm$ 5 mA	
Output Range	$\pm$ 5 V, $\pm$ 10 V	
<b>Digital I/O</b>		
Channels	DI	16, 5 V/TTL
	DO	16, 5 V/TTL
Input Voltage	Logic 0: 0.8 V Max.; Logic 1: 2.0 V Min.	
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	
<b>Timer/Counter</b>		
Channels	3	
Resolution	16-bit	
Input Frequency	10 MHz Max.	
Reference Clock	Internal: 8 MHz	
<b>General</b>		
Bus Type	3.3 V/5 V Universal PCI, 32-bit, 33 MHz	
Card ID	Yes (4-bit)	
Connectors	Female DB37 x 1, 20-pin Box Header x 2	
Power Consumption	300 mA @ +5 V	
Operating Temperature	0 $^{\circ}$ C to +60 $^{\circ}$ C	
Humidity	5 to 85% RH, Non-condensing	

## Ordering Information

<b>PCI-1202LU CR</b>	Universal PCI, 110 kS/s, 32-ch, 12-bit Analog Input Multifunction Board (1 K word FIFO) (RoHS) Includes one CA-4002 D-Sub connector
<b>PCI-1202HU CR</b>	Universal PCI, 44 kS/s, 32-ch, 12-bit Analog Input Multifunction Board (1 K word FIFO) (RoHS) Includes one CA-4002 D-Sub connector
<b>PCI-1202LU/8K CR</b>	Universal PCI, 110 kS/s, 32-ch, 12-bit Analog Input Multifunction Board (8 K word FIFO) (RoHS) Includes one CA-4002 D-Sub connector
<b>PCI-1202HU/8K CR</b>	Universal PCI, 44 kS/s, 32-ch, 12-bit Analog Input Multifunction Board (8 K word FIFO) (RoHS) Includes one CA-4002 D-Sub connector
<b>PCI-1202LU/S CR</b>	Universal PCI, 110 kS/s, 32-ch, 12-bit Analog Input Multifunction Board (8 K word FIFO) (RoHS) Includes one DB-1825 Daughter Board
<b>PCI-1202HU/S CR</b>	Universal PCI, 44 kS/s, 32-ch, 12-bit Analog Input Multifunction Board (8 K word FIFO) (RoHS) Includes one DB-1825 Daughter Board

## 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)

### PEX-1202L/PEX-1202H PCI-1202LU/PCI-1202HU

