



PCI-1002LU

Universal PCI, 110 kS/s, 32-ch, 12-bit Analog Input
Multifunction Board

PCI-1002HU

Universal PCI, 44 kS/s, 32-ch, 12-bit Analog Input
Multifunction Board

Introduction

The PCI-1002LU/HU card is designed as an easy replacement for the PCI-1002L/H without requiring any modification to the software or the driver.

The PCI-1002LU/PCI-1002HU is an AD board that supports both the 3.3 V and the 5 V PCI bus and features low gain Analog Input at 110 kS/s or high gain at 44 kS/s. The PCI-1002LU/PCI-1002HU provides 32 single-ended or 16 differential 12-bit Analog Input channels, 16 Digital Input channels, and 16 Digital Output channels. The pull-high/low resistors allow the DI status to be predefined instead of remaining floating if the DI channels are disconnected or interrupted.

Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment	Pin Assignment	Terminal No.	Pin Assignment
AI_0	01	AI_16	DO 0	01	DO 1
AI_1	02	AI_17	DO 2	03	DO 3
AI_2	03	AI_18	DO 4	05	DO 5
AI_3	04	AI_19	DO 6	07	DO 7
AI_4	05	AI_20	DO 8	09	DO 9
AI_5	06	AI_21	DO 10	10	DO 11
AI_6	07	AI_22	DO 12	12	DO 13
AI_7	08	AI_23	DO 14	14	DO 15
AI_8	09	AI_24	GND	16	GND
AI_9	10	AI_25	+5 V	18	+12 V
AI_10	11	AI_26			
AI_11	12	AI_27			
AI_12	13	AI_28			
AI_13	14	AI_29			
AI_14	15	AI_30			
AI_15	16	AI_31			
A.GND	17	N.C.			
N.C.	18	D.GND			
Ext_Trig	19				

Ordering Information

PCI-1002LU CR	Universal PCI, 110 kS/s, 32-ch, 12-bit Analog Input Multifunction Board (RoHS) Includes one CA-4002 D-Sub connector
PCI-1002HU CR	Universal PCI, 44 kS/s, 32-ch, 12-bit Analog Input Multifunction Board (RoHS) Includes one CA-4002 D-Sub connector

Features

- Universal PCI (3.3 V/5 V) Interface
- 32 Single-ended/16 Differential Analog Input Channels
 - 12-bit, 110 kS/s or 44 kS/s AD Converter
 - Internal Pacer-trigger
- 16-channel 5 V/TTL Digital Output
- 16-channel 5 V/TTL Digital Input
 - Pull-high and Pull-low Resistors for DI Channels
- Supports Card ID (SMD Switch)



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-1002LU	PCI-1002HU
Analog Input		
Channels	32 Single-ended/16 Differential	
A/D Converter	12-bit, 8 μs Conversion Time	
Accuracy	0.01% of FSR ±2 LSB @ 25 °C, ±10 V	
Sampling Rate	110 kS/s	44 kS/s
Digital Inputs		
Channels	16	
Compatibility	5 V/TTL	
Input Voltage	Logic 0: 0.8 V Max., Logic 1: 2.0 V Min.	
Response Speed	1.0 MHz (Typical)	
Digital Outputs		
Channels	16	
Compatibility	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	1.0 MHz (Typical)	
Timer/Counter		
Channels	3	
Resolution	16-bit	
Input Frequency	10 MHz Max.	
Reference Clock	Internal: 4 MHz	
General		
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	800 mA @ +5 V	
Operating Temperature	0°C to +60°C	
Humidity	5 to 85% RH, Non-condensing	

PCI-1002LU/S CR	Universal PCI, 110 kS/s, 32-ch, 12-bit Analog Input Multifunction Board (RoHS) Includes one CA-3710 D-Sub cable
PCI-1002HU/S CR	Universal PCI, 44 kS/s, 32-ch, 12-bit Analog Input Multifunction Board (RoHS) Includes one CA-3710 D-Sub cable

Accessories

	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/DN-37-381 CR	I/O Connector Block with DIN-Rail Mounting and 37-Pin D-Sub Connector (RoHS)
	2AB125R CR	Resistor DIP 125R 0.1% 1/4W MF 50PPM (1PCS) (RoHS)

