

PCI-1002LU/PCI-1002HU

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











Features >>>

- Universal PCI (3.3 V/5 V) interface
- 12-bit, 110 or 44 kS/s A/D converter
- 32 S.E./16 Diff. analog inputs
- Internal/External trigger

- 16-ch 5 V TTL D/I
- 16-ch 5 V TTL D/O
- D/I with pull-high and pull-low function
- Drop-in replacement for the PCI-1002L/1002H

Introduction -

The PCI-1002LU/PCI-1002HU cards are the new generation product that ICP DAS provides to meet RoHS compliance requirement and is designed as completely compatible with the PCI-1002L/H. Users can replace the PCI-1002L/PCI-1002H by the PCI-1002LU/PCI-1002HU directly without software/driver modification.

The PCI-1002LU/PCI-1002HU supports 3.3 V/5 V PCI bus. These cards are a family of A/D board and features low-gain 110 kS/s or high-gain 44 kS/s analog input. It provides 12-bit 32 single-ended or 16 differential analog inputs, 16 digital input, 16 digital output channels and the pull-high/pull-low resisters allow the DI status to be specified when the DI channels are unconnected; the DI status will remain in high or low status other than floating.

Software -

- DOS Lib and BC sample program (with source codes)
- VB/VC/Delphi/BCB/VB.NET/C#.NET/VC.NET/MATLAB sample programs with source codes
- DLL and OCX SDK for 32-bit/64-bit Windows XP/2003/Vista/2008/7/8
- Support LabVIEW and Linux

Hardware Specifications —

Models	PCI-1002LU	PCI-1002HU		
Analog Input				
Channels	12-bit, 32 S.E/16 Diff.			
Accuracy	0.01% of FSR ± 1 LSB @ 25 °C, ± 10 V			
FIFO Size	-			
Sampling Rate	110 kS/s	44 kS/s		
Digital I/O				
Channels	D/I: 16-ch, 5 V/TTL D/O: 16-ch, 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			
Response Speed	1.0 MHz (Typical)			
Timer/Counter				
Channels	16-bit, 3-ch			
Input Frequency	10 MHz max.			
Reference Clock	Internal: 4 MHz			
General				
Bus Type	3.3 V/ 5 V Universal PCI, 32-bit, 33 MHz			
Connectors	Female DB-37 x1, 20-pin box header x 2			
Power Consumption	960 mA @ +5 V			
Operating Temperature	0 °C ~ +60 °C			
Storage Temperature	-20 °C ∼ +70 °C			
Humidity	5 ~ 85% RH, non-condensing			

Pin Assignments -

01 02		20	AI 16
-	PRIM I	2.0	
		21	AI 17
03		22	AI 18
04		11270	AI 19
05	•	5450 m	AI 20
06	•		AI 21
07		3855	AI 22
08	•	1999	AI 23
09		35757	AI 24
10		10000000	AI 25
11		1000	AI 26
12		7779011	AI 27
13		177	AI 28
14		2300	AI 29
15	• •	1777	AI 30
16		700	AI 31
17	•	7500000	N.C.
18	•	1000	D.GND
19	••	3/	D.GND
	05 06 07 08 09 10 11 12 13 14 15 16 17	05 06 07 08 09 10 11 12 13 14 15 16 17 18	05 23 06 24 25 07 26 08 27 09 28 10 29 11 30 12 31 13 32 14 33 15 34 16 35 17 36 18 37

Pin Assign- ment	Terminal No.			Pin Assign- ment	
DI 0	01	0	0	02	DI 1
DI 2	03	0	0	04	DI 3
DI 4	05	0	0	06	DI 5
DI 6	07	Lo	0	08	DI 7
DI 8	09	0	0	10	DI 9
DI 10	11	0	0	12	DI 11
DI 12	13	ro	0	14	DI 13
DI 14	15	0	0	16	DI 15
GND	17	0	0	18	GND
+5V	19	0	0	20	+12V
		C	ON2		

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

Ordering Information .

PCI-1002LU CR	Universal PCI, 32-ch, 12-bit, 110 kS/s Low Gain Multi-function DAQ Board (RoHs) Includes one CA-4002 D-Sub connector.
PCI-1002HU CR	Universal PCI, 32-ch, 12-bit, 44 kS/s High Gain Multi-function DAQ Board (RoHs) Includes one CA-4002 D-Sub connector.