Selection Guide

PCI bus data acquisition board

PCI-Bus AD/DA Board			PCI-1802		PCI-1800		PCI-1602		PCI-1202		PCI-1002		PIO-821		PISO-813
Optional			L	H	L	H	F		L	H	L	H	L	H	
Analog Input	Channel (*note1)	S.E.	32		16		32		32		32		16		32
		Diff.	16		8		16		16		16		8		-
	Resolution		12-bit		12-bit		16-bit		12-bit		12-bit		12-bit		12-bit
	Input Impedance		10,000MΩ												10MΩ
	Gain *Refer Table 1		Low Gain	High Gain	Low Gain	High Gain	Low Gain		Low Gain	High Gain	Low Gain	High Gain	Low Gain	High Gain	Low Gain
	Sampling Rate Max.(S/sec)		330K	44K	330K	44K	200K	100K	110K	44K	110K	44K	45K	45K	10K
	Input Range *Refer Table 1		Bipolar /Unipolar				Bipolar		Bipolar/ Unipolar		Bipolar		Bipolar		Bipolar/ Unipolar
	Trigger Mode	Internal	Software Trigger, Pacer Trigger												Software
		External	Post-trigger, Pre-trigger, Middle-trigger										-		
	Channel Scan Method		Magic Scan								Software				
	On-Board FIFOs		8K sample		1K sample (8K Option)		8K sample		1K sample (8K Option)		-				
	Bus Isolation		-												3000VDC
Analog Output	Channel		2								-		1		-
	Resolution		12-bit												-
	Output Range (Voltage)		-5 ~ +5V -10 ~ +10V								- -		0 ~ +10V 0 ~ +5V		- -
	Driving Current		±5 mA								-		±5 mA		-
Digital Input Channel			16												-
Digital Output Channel			16												-
Counter/Timer			16-bit								-		16-bit x 3		-
Dimensions(mm)			200 x 105				205 x 105		205 x 105		175 x 105		165 x 105		180 x 105
Page			2-3								2-7		2-9		2-10

Note :

1. S.E : Single-ended Input Mode Diff. : Differential Input Mode.(jumper selection)

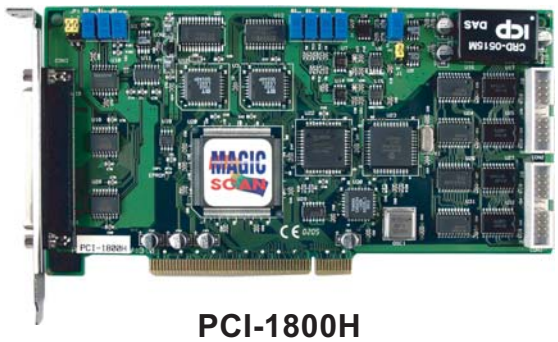
Table1 : Analog Input Range and Gain Table

			Analog Input Range and Gain Table							
High Gain	Gain Value		0.5	1	5	10	50	100	500	1000
	Input Range(V)	Bipolar	-10~10	-5~5	-1~1	-0.5~0.5	-0.1~0.1	-0.05~0.05	-0.01~0.01	-0.005~0.005
		Unipolar		0~10		0~1		0~0.1		0~0.01
Low Gain	Gain Value		0.5	1	2	4	8			
	Input Range(V)	Bipolar	-10~10	-5~5	-2.5~2.5	-1.25~1.25	-0.625~0.625			
		Unipolar	0~10	0~10	0~5	0~2.5	0~1.25			

PCI Multi-Function DAQ Board

PCI-180X/1602/1202

12/16-bit high performance multi-function DAQ boards



PCI-1800H

Features

- 32-bit +5V PCI Bus, Plug & Play
- 12/16-bit resolution
- Up to 330KS/s sampling rate
- Single-ended or differential analog input
- On-board FIFOs
- Software programmable gain
- Two 12-bit independent programmable DAC
- 16 digital input / 16 digital output channels

Functional Description

The PCI-180X series is a family of high performance data acquisition board for PC with PCI bus. It features a continuous, 330KHz, gap-free data acquisition under DOS and Windows. This family has the same architecture: one 12-bit 330KHz A/D converter, two 12-bit independent D/A converters, 16-channel digital input and 16-channel digital output. The PCI-1800H/L provides 16-channel single-ended or 8-channel differential analog input. The PCI-1802H/L provides 32 channel single-ended or 16-channel differential analog input. The -H means high gain mode and the -L means low gain mode. Two DACs of the multifunction card are independent bipolar voltage output with jumper selectable voltage output range.

The scan function of PCI-180X is so amazing. We call it "MAGIC SCAN". It scans with two modes: "Fix channel scan" and "Variable channel scan". The "Magic scan" mechanism not only scan the different input channels at vastly different rates, but also at different gain. Even in multi-channel scan, both modes can be up to 330K samples per second.

The PCI-180X series also has other outstanding features. For example:

1. The data transfer rate of digital I/O is up to 2.1 M words/second (non-burst mode).
2. The throughput of D/A is up to 2.1MHz throughput max.
3. Provides three flexible external trigger modes, such as post-trigger, pre-trigger, middle trigger.
4. Provides M-function and Continue Capture function.

The PCI-1202H/L is very similar to PCI-1802H/L. The different items between the PCI-1802 and PCI-1202 are given as follows:

- A/D sampling rate is 110K samples/second for PCI-1202.
- FIFOs size is 1K samples for PCI-1202.

The PCI-1602 is very similar to PCI-1802L. The different items between the PCI-1802 and PCI-1602 are given as follows:

- 16-bit A/D converter
- A/D sampling rate is 200K sample/second for PCI-1602F.
- A/D sampling rate is 100K sample/second for PCI-1602.

Applications

- High speed data acquisition system
- Process monitor and control
- Vibration analysis
- Digital pattern generator from digital I/O port
- Continue data capture

"MAGIC SCAN " Function

The "MAGIC SCAN "controller is a innovative design. It has the following features:

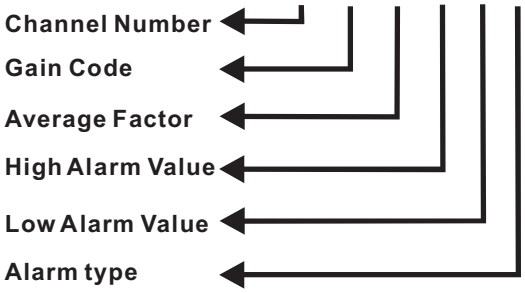
1. Different gain for each scan channel
2. Non-sequential order for channel scan
3. Different sampling rate for each scan channel
4. Programmable different digital filter for each scan channel
5. Programmable high/ low alarm function, provide four different alarm monitor mode for each scan channel
6. The scan sampling rate can maintain at max. sampling rates without sacrifice the speed
7. Provide three external trigger: Pre-trigger, Post-rigger, Middle-trigger
8. Easy programming

The PCI-1800 can measure the high frequency signal and low frequency signal with different sampling rate. In other words, the user doesn't have to waste valuable data memory for low speed channel. It can measure small signal and large signal at the same time. The digital filter can filter out some noisy signal. The programmable high/ low alarm function will be very helpful for some monitor application system.

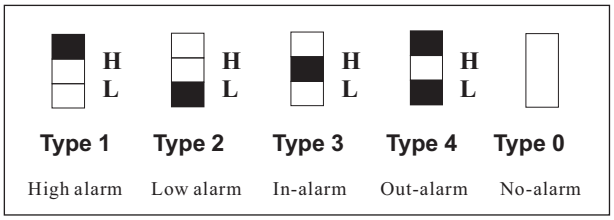
PCI-180X/1602/1202

12/16-bit high performance multi-function DAQ boards

The Format of Function Call P180X_Add To Scan (N, G, AF, H, L, A)



Alarm type



M_Function

M_Function is used to support simultaneous gap-free A/D, D/A at full-rated throughput. The user can use the D/A channel to send out the pre-defined signal pattern to the external device and measure the output signal simultaneously. The M_Function can be executed under DOS, Windows and Linux. Some programming language (VC/C++, BC++, VB, Delphi), Java and package (LabVIEW) can call the M_Function.

Continue Capture Function

The PCI-180X/1602/1202 provide different continuously capture functions.

1. Continuous Capture at Low speed. The acquired data can be display at the monitor simultaneously. No storage is required. Therefore the user can monitor the data continually.
2. Continuous Capture at high speed. The acquired data should be saved into the DRAM of PC. The capture period should be limited to the Memory size.
3. Continuous Capture at high speed. The acquired data should be saved into the SRAM card of PC. The capture period should be limited to the Memory size. The user should have to calculate the memory size according to the sampling rate and the capture period.

The Continue Capture function can be executed under DOS, Windows and Linux. Continuous Capture function can support multiple boards.

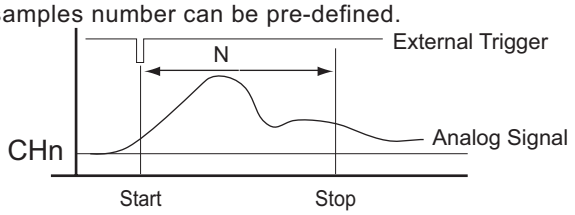
FIFO Size

How many FIFOs is large enough for your application? It depends on your application. You can calculate the time buffer using the following formula. For example, the FIFO size of PCI-1800 is 1K samples. The maximum. Sampling rate of the board is 330KS/s . The time buffer you can get is 1K Samples (FIFO Size) / 330K Samples/s = 3.03ms. It is enough for regular application under the DOS. For some complicated multi-tasking applications, the user have to know the FIFO size he needs; otherwise the data might be lost. The PCI-1800 series provide the possibility to upgrade the FIFO size.

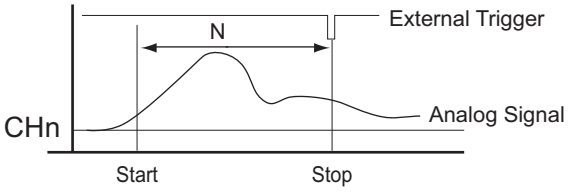
Diverse Trigger Mode

PCI-180X series provide diverse internal and external trigger modes. The internal trigger includes software trigger and pacer timer trigger. The external trigger includes the following trigger modes.

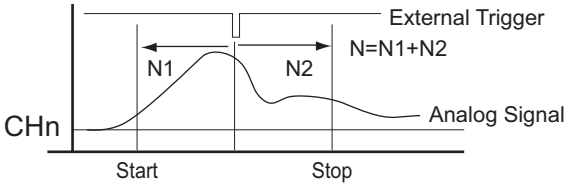
- **Post-trigger mode:** Acquisition begins after an external trigger and continues until the specified number of samples are collected.
- **Pre-trigger mode:** Acquisition occurs before an external trigger occurs.
- **Middle-trigger mode:** Acquisition occurs before and after an external trigger occurs. The samples number can be pre-defined.



Post-trigger Mode



Pre-trigger Mode

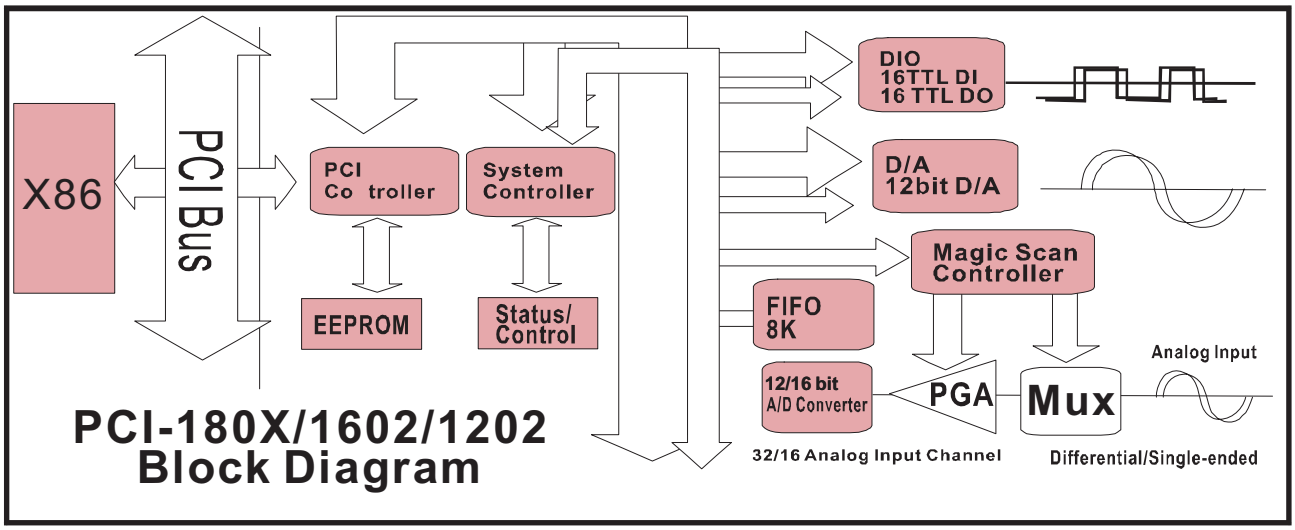


Middle-trigger Mode

PCI Multi-Function DAQ Board

PCI-180X/1602/1202

12/16-bit high performance multi-function DAQ boards



Specifications

Analog Input

- Number of channels:
  PCI-1802/1602/1202: 32 single-ended or 16 differential
  PCI-1800: 16 single-ended or 8 differential
- Resolution: PCI-1802/1800/1202: 12-bit
  PCI-1602: 16-bit
- ADC conversion rate: PCI-1802/1800: 330 KS/s
  PCI-1602F: 200 KS/s
  PCI-1602: 100 KS/s
  PCI-1202: 110 KS/s
- Input impedance: 10,000 MΩ//6pF
- Over voltage protection: ±35V
- Accuracy: 0.01 % of reading , ±1 bit
- Linearity: ±1 bit
- On chip sample & hold
- FIFO size: PCI-1202/1800: 1K samples (option 8K)
  PCI-1802/1602: 8K samples

PCI-1602 Input Range

Gain	Bipolar	PCI-1602F Sampling Rate(Max.)	PCI-1602 Sampling Rate(Max.)
1	±10V	200KS/s	100KS/s
2	±5V	200KS/s	100KS/s
4	±2.5V	200KS/s	100KS/s
8	±1.25V	200KS/s	100KS/s

PCI-1800H/1802H/1202H Input Range

Gain	Bipolar	Unipolar	Sampling Rate(Max.)
0.5	±10	X	44KS/s
1	±5	0~10	44KS/s
5	±1	X	36KS/s
10	±0.5	0~1	36KS/s
50	±0.1	X	7KS/s
100	±0.05	0~0.1	7KS/s
500	±0.01	X	0.8KS/s
1000	±0.005	0~0.01	0.8KS/s

PCI-1800L/1802L/1202L Input Range

Gain	Bipolar	Unipolar	Sampling Rate(Max.)	
			180X	1202
0.5	±10	X	330KS/s	110KS/s
1	±5	0~10	330KS/s	110KS/s
2	±2.5	0~5	330KS/s	110KS/s
4	±1.25	0~2.5	330KS/s	110KS/s
8	±0.625	0~1.25	330KS/s	110KS/s

Analog Output

- Number of channels: 2 independent
- Type: 12-bit double buffered
- Linearity: 0.006% FS
- Settling time: 0.4 μ S
- Output range: -5V~5V or -10V~10V
- Output Driving: +/- 5 mA

Timer

- Three 16-bit independent timer, 8MHz input clock
- Timer 0: Internal pacer trigger timer
- Timer 1: External pacer trigger
- Timer 2: Machine independent timer for settling time delay

Digital I/O

- 16 TTL-level input
- Input low V_{IL} = 0.8V max; I_{IL} =-0.4mA max
- Input high V_{IH} = 2.0V min; I_{IH} = 20 μ A max
- 16 TTL-level output
- Output low V_{OL} = 0.5V max; @I_{OL} =8 mA max
- Output high V_{OH} = 2.7V min; @I_{OH} =0.4 mA max

General Specifications

- I/O connector: one 37-pin D-Sub female
  two 20-pin ribbon male
- Power requirements:

Device	PCI-180X	PCI-1602	PCI-1202
+5V	1600 mA	1200 mA	1400 mA

- Operating temperature: 0 ~ 60°C
- Operating humidity: 0 ~ 90% non-condensing
- Storage temperature: -20 ~ 70°C
- Dimensions: 200 mm x 105 mm (PCI-180X)
  205 mm x 105 mm (PCI-1202 / 1602)

PCI-180X/1602/1202

12/16-bit high performance multi-function DAQ boards

PCI-1602

PCI-1202H

DN-37	DIN-rail mounting terminal board
DB-37	Directly connection terminal board
DN-20:	DIN-rail mounting terminal board
DB-16P:	16-channel isolated digital input board
DB-16R:	16-channel SPDT relay board
ADP-20/PCI:	20-pin extender

Pin Assignment

CON1

DO 0	1	○	○	2	DO 1
DO 2	3	○	○	4	DO 3
DO 4	5	○	○	6	DO 5
DO 6	7	○	○	8	DO 7
DO 8	9	○	○	10	DO 9
DO 10	11	○	○	12	DO 11
DO 12	13	○	○	14	DO 13
DO 14	15	○	○	16	DO 15
D.GND	17	○	○	18	D.GND
+5V	19	○	○	20	+12V

CON2

DI 0	1	○	○	2	DI 1
DI 2	3	○	○	4	DI 3
DI 4	5	○	○	6	DI 5
DI 6	7	○	○	8	DI 7
DI 8	9	○	○	10	DI 9
DI 10	11	○	○	12	DI 11
DI 12	13	○	○	14	DI 13
DI 14	15	○	○	16	DI 15
D.GND	17	○	○	18	D.GND
+5V	19	○	○	20	+12V

PCI-1802/1602/1202 CON3

D.GND	37	○	○	19	Ext Trg
DA2 OUT	36	○	○	18	DA1 OUT
AI 31	35	○	○	17	A.GND
AI 30	34	○	○	16	AI 15
AI 29	33	○	○	15	AI 14
AI 28	32	○	○	14	AI 13
AI 27	31	○	○	13	AI 12
AI 26	30	○	○	12	AI 11
AI 25	29	○	○	11	AI 10
AI 24	28	○	○	10	AI 9
AI 23	27	○	○	9	AI 8
AI 22	26	○	○	8	AI 7
AI 21	25	○	○	7	AI 6
AI 20	24	○	○	6	AI 5
AI 19	23	○	○	5	AI 4
AI 18	22	○	○	4	AI 3
AI 17	21	○	○	3	AI 2
AI 16	20	○	○	2	AI 1
		○	○	1	AI 0

PCI-1800 CON3

N.C.	37	○	○	19	+5V OUT
N.C.	36	○	○	18	N.C.
N.C.	35	○	○	17	Ext Trig
N.C.	34	○	○	16	N.C.
N.C.	33	○	○	15	D.GND
D/A OUT1	32	○	○	14	A.GND
N.C.	31	○	○	13	+12V OUT
D/A OUT0	30	○	○	12	N.C.
A.GND	29	○	○	11	N.C.
A.GND	28	○	○	10	A.GND
AI15	27	○	○	9	A.GND
AI14	26	○	○	8	AI 7
AI13	25	○	○	7	AI 6
AI12	24	○	○	6	AI 5
AI11	23	○	○	5	AI 4
AI10	22	○	○	4	AI 3
AI 9	21	○	○	3	AI 2
AI 8	20	○	○	2	AI 1
		○	○	1	AI 0

Ordering Information

Standard

PCI-1800H: 16-channel 12-bit 44KS/s high gain multi-function board

PCI-1800H/S: PCI-1800H with DB-8225

PCI-1800H/NDA: PCI-1800H without DB-8225

PCI-1800L: 16-channel 12-bit 330KS/s low gain multi-function board

PCI-1800L/S: PCI-1800L with DB-8225

PCI-1800L/NDA: PCI-1800L without DB-8225

PCI-1802H: 32-channel 12-bit 44KS/s high gain multi-function board

PCI-1802H/S: PCI-1802H with DB-1825

PCI-1802L: 32-channel 12-bit 330KS/s low gain multi-function board

PCI-1802L/S: PCI-1802L with DB-1825

PCI-1602F: 32-channel 16-bit 200 KS/s multi-function board

PCI-1602F/S : PCI-1602F with DB-1825

PCI-1602: 32-channel 16-bit 100 KS/s multi-function board

PCI-1602/S: PCI-1602 with DB-1825

PCI-1202H: 32-channel 12-bit 44 KS/s high gain multi-function board

PCI-1202H/S: PCI-1202H with DB-1825

PCI-1202L: 32-channel 12-bit 110 KS/s low gain multi-function board

PCI-1202L/S: PCI-1202L with DB-1825

Optional

DB-1825: Screw terminal board with break area for filter circuitry added for PCI-1802/1602/1202

DB-8225: Screw terminal board with CJC for PCI-1800

DB-889D: 16-channel multiplexer and signal conditioning board for PCI-1800

PCI Multi-Function Board

PCI-1002

32-channel 12-bit 110KS/s Low cost multi-function board

Features

- 32-bit +5V PCI bus, Plug & Play
- 12-bit resolution
- 32 single-ended or 16 differential analog inputs
- The sampling rate of single channel or multiple channels is 110 K samples/s
- Programmable gain: 1, 2, 4, 8 (PCI-1002L)
  1, 10, 100, 1000 (PCI-1002H)
- Internal / external trigger
- Three different external trigger: post-trigger, pre-trigger, middle-trigger
- 16 digital input / 16 digital output channels

Functional Description

The PCI-1002 series is a family of A/D board for PC with PCI bus. It features a 110KHz data acquisition under DOS and Windows. The PCI-1002H/L provides 32-channel single-ended or 16-channel differential analog input, 16-channel digital input and 16-channel digital output. The -H means high gain mode and the -L means low gain mode. The PCI-1002 series provides three flexible external trigger mode: post-trigger, pre-trigger, middle-trigger.

Applications

- Laboratory Automation
- Production Test
- Sensor Interface

Specifications

Analog Input Specifications

- Number of channels: 32 single-ended or 16 differential
- Resolution: 12-bit
- ADC conversion rate: 110 KS/s max
- Input impedance: 10,000 MΩ//6pF
- Over voltage protection: ±35V
- Accuracy: 0.01 % of reading , ±1 bit
- Linearity: ±1 bit
- On chip sample & hold

PCI-1002L Input Range

Gain	Bipolar	Sampling Rate(Max.)
1	±10V	110KS/s
2	±5V	110KS/s
4	±2.5V	110KS/s
8	±1.25V	110KS/s

PCI-1002H Input Range

Gain	Bipolar	Sampling Rate(Max.)
1	±10V	44KS/s
10	±1V	36KS/s
100	±0.10V	7KS/s
1000	±0.01V	0.8KS/s

Timer

- Three of 16-bit independent timer, 8MHz input clock
- Timer 0: Internal pacer trigger timer
- Timer 1: External pacer trigger
- Timer 2: Machine independent timer for settling time delay

Digital I/O

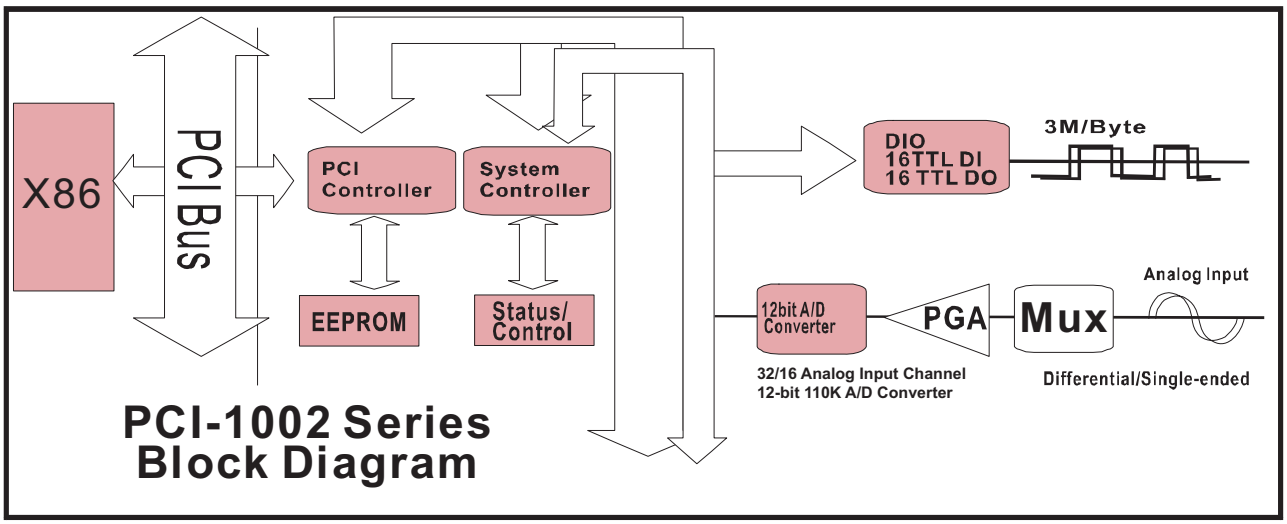
- 16 TTL-level input
- Input low V_{IL} = 0.8V max; I_{IL} =-0.4 mA max
- Input high V_{IH} = 2.0V min; I_{IH} = 20 μ A max
- 16 TTL-level output
- Output low V_{OL} = 0.5V max; @I_{OL} =8 mA max
- Output high V_{OH} = 2.7V min; @I_{OH} =0.4 mA max

General Specifications

- I/O connector: one 37-pin D-sub female
  two 20-pin ribbon male
- Power requirements : +5V @ 350 mA Max
- Operating temperature: 0 ~ 60°C
- Operating humidity: 0 ~ 90% non-condensing
- Storage temperature: -20 ~ 70°C
- Dimensions: 175 mm x 105 mm

PCI-1002

110KS/s 12-bit low cost multi-function board



PCI-1002 Series Block Diagram

Pin Assignment

CON1

DO 0	1	2	DO 1
DO 2	3	4	DO 3
DO 4	5	6	DO 5
DO 6	7	8	DO 7
DO 8	9	10	DO 9
DO 10	11	12	DO 11
DO 12	13	14	DO 13
DO 14	15	16	DO 15
D.GND	17	18	D.GND
+5V	19	20	+12V

CON2

DI 0	1	2	DI 1
DI 2	3	4	DI 3
DI 4	5	6	DI 5
DI 6	7	8	DI 7
DI 8	9	10	DI 9
DI 10	11	12	DI 11
DI 12	13	14	DI 13
DI 14	15	16	DI 15
D.GND	17	18	D.GND
+5V	19	20	+12V

CON3

D.GND	37	19	Ext Trg
N.C.	36	18	N.C.
AI 31	35	17	A.GND
AI 30	34	16	AI 15
AI 29	33	15	AI 14
AI 28	32	14	AI 13
AI 27	31	13	AI 12
AI 26	30	12	AI 11
AI 25	29	11	AI 10
AI 24	28	10	AI 9
AI 23	27	9	AI 8
AI 22	26	8	AI 7
AI 21	25	7	AI 6
AI 20	24	6	AI 5
AI 19	23	5	AI 4
AI 18	22	4	AI 3
AI 17	21	3	AI 2
AI 16	20	2	AI 1
		1	AI 0

Ordering Information

Standard

PCI-1002H: 32-channel 12-bit 44KS/s high gain multi-function board

PCI-1002H/S: PCI-1002H with DB-1825

PCI-1002L: 32-channel 12-bit 110KS/s low gain multi-function board

PCI-1002L/S: PCI-1002L with DB-1825

Optional

DB-1825 Screw terminal board with break area for filter circuitry added

DN-37: DIN-rail mounting terminal board

DB-37: Directly connection terminal board

DN-20: DIN-rail mounting terminal board

DB-16P: 16-channel isolated digital input board

DB-16R: 16-channel SPDT relay board

ADP-20/PCI: 20-pin extender

PCI Multi-Function Board

PIO-821

16-channel 12-bit 45KS/s low cost multi-function board

Features

- 32-bit +5V PCI Bus, Plug & Play
- 12-bit resolution
- The maximum sample rate is 45K samples/second
- 16 single-ended or 8 differential analog inputs
- A/D trigger mode: software trigger, pacer trigger
- Programmable high gain: 1,10,100,1000 (PIO-821PGH)
- Programmable low gain: 1,2,4,8 (PIO-821PGL)
- 1-channel 12-bit D/A voltage output
- 16 digital input / 16 digital output channels
- Software calibrated

Functional Description

The PIO-821 is a low cost multi-function card for PC with PCI bus. The PIO-821 contains 16-channel single-ended or 8-channel differential analog input, 1-channel 12-bit DAC voltage output, 16-channel digital input and 16-channel digital output. The maximum sampling rate of A/D converter is about 45K sample/second.

Applications

- Process monitor and control
- Vibration Analysis
- Digital pattern generator from digital I/O port

Specifications

Analog Input

- Number of channels: 16 signal-ended or 8 differential
- Resolution: 12-bit
- Conversion time: 8 microseconds
- Input current: 250 nA max (125 nA typical) at 25°C
- On chip sample & hold
- Overvoltage protection: ±35V
- Input impedance: 10^{10} Ω
- Accuracy: 0.01% of reading ±1 bit
- Linearity: ±1 bit

Gain	Bipolar	Sampling Rate(Max.)
1	±5V	45KS/s
2	±2.5V	45KS/s
4	±1.25V	45KS/s
8	±0.625V	45KS/s

Gain	Bipolar	Sampling Rate(Max.)
1	±5V	45KS/s
10	±0.5V	45KS/s
100	±0.05V	10KS/s
1000	±0.005V	1KS/s

Analog Output

- Number of channels: 1 independent
- Type: 12-bit double-buffered
- Linearity: 0.006% FS
- Output range: 0~5V,0~10V or 0~Ext Ref
- External reference: +10V or -10V max
- Output driving: ±5 mA
- Settling time: 0.6 μs to 0.01% for full scale step

Digital I/O

- Inputs: 16-channel; TTL Levels
- Outputs: 16-channel; TTL levels

Timer

- Three 16-bit independent timer, 8MHz input clock
- Timer 0: Internal pacer trigger timer
- Timer 1: External pacer trigger
- Timer 2: Machine independent timer for settling time delay

General Specifications

- I/O connector: one 37-pin D-Sub female
  two 20-pin ribbon male
- Power requirements: +5V @ 960 mA
- Operating temperature: 0 ~ 60°C
- Operating humidity: 0 ~ 90% non-condensing
- Storage temperature: -20 ~ 70°C
- Dimensions: 165 mm x 105 mm

Ordering Information

Standard

PIO-821L: 16-channel 12-bit 45KS/s low gain multi-function board

PIO-821H: 16-channel 12-bit 45KS/s high gain multi-function board

PIO-821H/S: PIO-821H with DB-8225

PIO-821H/NDA: PIO-821H without D/A

PIO-821L/NDA: PIO-821L without D/A

PISO-813

32-channel 12-bit 10KS/s isolated analog input board

Features

- 32-bit +5V PCI Bus, Plug & Play
- 32 single-ended analog input channels
- 12-bit A/D converter
- 3,000VDC photo-isolation protection
- Analog input range
  Bipolar: +/-10V, +/-5V, +/-2.5V, +/-1.25V, +/-0.625V
  Unipolar: 0~10V, 0~5V, 0~2.5V, 0~1.25V, 0~0.625V
- Programmable gain control: 1, 2, 4, 8, 16
- 3000V isolated voltage for built-in DC/DC converter
- A/D trigger mode: software trigger
- A/D data transfer mode: polling

Functional Description

The PISO-813 is a bus-type isolated 12-bit A/D board fwith the PCI bus for IBM or compatible PC. It features a 10KHz data acquisition under DOS and Windows. The PISO-813 provides 32-channel single-ended analog input. The isolation range of PISO-813 can reach to 3000VDC. It is the most cost-effective isolated A/D board for the PCI Bus in the world.

Applications

- Data Acquisition
- Harsh Environment Operation
- Signal Isolation

Specifications

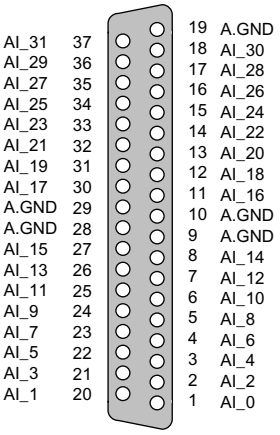
Analog Input

- Number of channels: 32 single-ended
- Resolution: 12-bit
- Sampling rate: 10KS/s max
- Input impedance: 10MΩ
- Over voltage protection: ±35V
- Accuracy: 0.01% of reading ±1-bit
- Linearity: ±1 bit
- On chip sample & hold
- Zero drift: ±25ppm/ °C of FS max

General Specifications

- I/O connector: one 37-pin D-sub female
- Power requirements: +5V @ 860 mA
- Operating temperature: 0 ~ 60°C
- Operating humidity: 0 ~ 90 % non-condensing
- Storage temperature: -20 ~ 70°C
- Dimensions: 180 mm x 105 mm

Pin Assignment



Ordering Information

Standard

PISO-813: 32-channel 12-bit 10KS/s isolated analog input board

PISO-813/S: PISO-813 with DB-8325

Optional

DB-8325: Daughter board with signal conditioning circuitry

DB-37: Directly connection terminal board

DN-37: DIN-rail mounting terminal board