

PIO-821L/PIO-821H

PCI Bus, 16-ch 12-bit, 45 kS/s Multi-function Board



Features >>>

- PCI Bus (5 V) interface
- 12-bit, 45 kS/s A/D converter
- 16 S.E./8 Diff. analog inputs
- A/D trigger: software trigger, pacer trigger, external trigger
- 16-ch 5 V TTL D/I
- 16-ch 5 V TTL D/O
- Interrupt handling

Introduction

The PIO-821L/H is a high performance multifunction board for PC/AT compatible computers. The PIO-821L provides for low gain (1, 2, 4, 8); and the PIO-821H supports high gain (1, 10, 100, 1000). The PIO-821L/H contains a 12-bit ADC with up to 16 single-ended or 8 differential analog input channels. It also has a 12-bit DAC voltage output and 16 TTL-compatible digital input and digital output channels, respectively. The maximum sampling rate of the A/D converter reaches up to about 45K samples/sec.

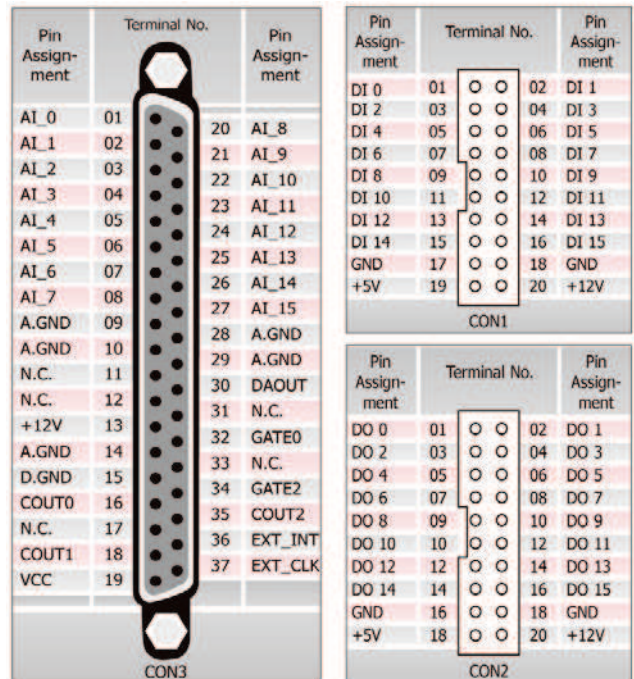
Software

- DOS Lib and TC 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	PIO-821L	PIO-821H
Analog Input		
Channels	12-bit, 16 S.E/8 Diff.	
Accuracy	0.01% of FSR ± 1 LSB @ 25 °C, ± 10 V	
FIFO Size	-	
Sampling Rate	45 kS/s	
Analog Output		
Channels	12-bit, 1-ch	
Accuracy	0.01% of FSR ± 1/2 LSB @ 25 °C, ± 10 V	
Output Range	Unipolar: 0~5V, 0~10 V, 0~Ext Ref	
Output Driving	± 5 mA	
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	1.2 MHz (Typical)	
Timer/Counter		
Channels	16-bit, 3-ch	
Input Frequency	10 MHz max.	
Reference Clock	Internal: 2 MHz	
General		
Bus Type	5 V PCI bus, 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



Ordering Information

PIO-821L	PCI bus, 16-ch 12-bit, 45 kS/s Low gain Multi-function Board.
PIO-821H	PCI bus, 16-ch 12-bit, 45 kS/s High gain Multi-function Board.