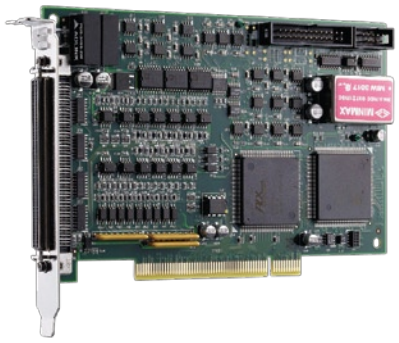
PCI-8136

6-CH Quadrature Encoder and Multi-Function I/O Card



Features

- **32-bit PCI bus, plug & play**
- **6-CH 32-bit industrial counter for 3 kinds of differential pulse trains:**
  - **A/B phase**
  - **CW/CCW**
  - **Pulse/Direction**
- **6-CH differential pulse generators up to 500 kHz**
- **6-CH 32-bit position compare with interrupt function**
- **6-CH 16-bit ±10 V analog output**
- **6-CH 12-bit 133 kHz analog single-ended input**
- **19-CH opto-isolated DI, 7-CH open collector DO**
- **Digital I/Os and counters are 2500 VDC opto-isolated**
- **One 24-bit programmable timer with interrupt**
- **Auto-calibration for analog I/O**
- **More than 50 thread safe API functions**

Software Support

Windows® Platform

- Available for Windows 7/Vista (32-bit)/XP/2000
- Recommended programming environments: VB/VC++/BCB/Delphi

Linux Platform

- Redhat 9, kernel 2.4.x
- Fedora Core 3, kernel 2.6.9
- Fedora Core 4, kernel 2.6.11
- Fedora Core 5, kernel 2.6.15

Ordering Information

PCI-8136
6-CH quadrature encoder and multi-function I/O card

Accessories

For more information on terminal boards & cables, please refer to page 6-29.

Terminal Board

DIN-100S-01
Terminal board with one 100-pin SCSI-II connector and DIN-rail mounting

Cabling

ACL-102100-1
100-pin SCSI-II cable
(mating with AMP-787082-9), 1 M

Specifications

General Specifications	
Connectors	100-pin SCSI-type connector
	DB25 female connector
	DB9 male connector
Operating Temperature	0°C to +50°C
Storage Temperature	-20°C to +80°C
Humidity	5% to 85%, non-condensing
Power Consumption	Slot power supply (input): to ±5%, 900 mA (max.)
	External power supply (input): +5 VDC ±5%, 500 mA (max.)
	External power supply (output): +5 VDC ±5%, 500 mA (max.)
Dimension	164 x 98.4 mm (L x H)
Pulse Input (Industrial Counter)	
Number of Input Channel	6, differential type
Pulse Command Type	32-bit counter for AB-phase, CW/CCW, Pulse/Direction
Max. Counter Speed	3 MHz, 2500 VDC optical isolation
Pulse Output (Industrial Generator)	
Number of Output Channel	6, differential type
Pulse Command Type	CW/CCW, Puls /Direction, A/B Phase
Max. Pulse Rate	500 kHz
Analog Input	
Number of Channels	6 differential/single-end input channels
Input Range	Voltage: ±10 V
Sink Current Capability	0 to 20 mA
Resolution	12-bit ADC with 1-bit non-linearity
Input Impedance	Approximately 440 KΩ (Voltage), 120 Ω (Current)
Sampling Rate	133 kHz multiplexing
Analog Output	
Number of Channels	6 output channels
Output Range	±10 V; bipolar
Sink Current Capability	0 to 20 mA
Resolution	16-bit DAC resolution, 14-bit accuracy guarantee
Setting Time	2 μs
Digital Output	
Number of Channels	7 output channels
Output Type	Open collector
Sink Current	100 mA/CH (typical); 268 mA/CH (max.); 500 mA/total
Isolated Voltage	2500 VRMS
Throughput	10 kHz (0.1 ms)
Timer	
One programmable timer interrupt	
Base Clock	33 MHz by PCI bus
Timer Range	24-bit