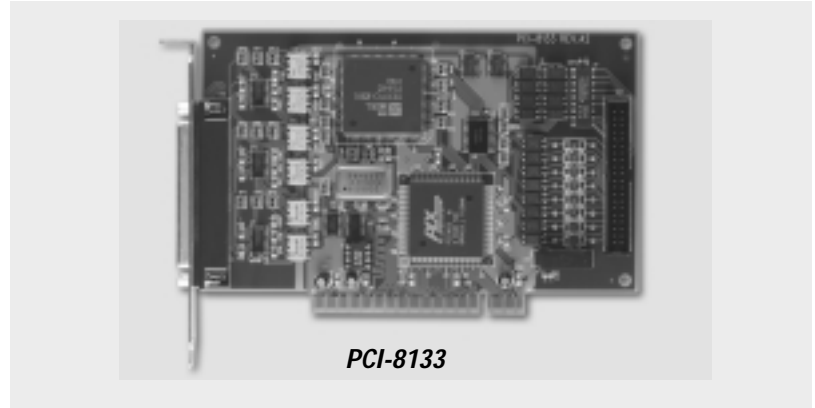


# PCI-8133

## 3-CH Counter for AB Phase Encoder and 3 PWM output Card

### Features

- 32-bit PCI Bus, Plug and Play
- Three 16-bit counters
- Counters for quadruple AB phase encoder or general purpose up down counter
- On-board 5000Vrms isolation circuits and digital de-glitch filters for every encoder input signal
- Programmable frequency for digital de-glitch filter
- Three PWM waveform generators
- 12-bit PWM signal resolution
- Isolated general purpose 8 DI & 8 DO
- Dual interrupt from two timer clock signals
- Compact, half-size PCB
- One 37-pin rugged connector for encoder signals, one 40-pin header connector for digital I/O expansion



PCI-8133

Motion Control

### Specifications

#### Counter of Encoder Input

- Number of channels: 3
- Counter resolution: 16-bit
- Encoder counter features
  - A, B phase and index input
  - Up-down counter
  - Digital filter for input signal
- Counter 1 input signal types
  - A, B phase decoder input
  - VCO (CCW/CW pulse) input
- Counter 2 input signal types
  - A, B phase decoder input
  - VCO (CCW/CW pulse) input
  - Pulse command input
- Counter 3 input signal types
  - A, B phase decoder input
- Counter status read back
- Filter type: 3-order digital filter
- Digital filter frequency: programmable 10MHz, 5MHz, 2.5MHz, 625KHz

#### PWM Signal Output

- Number of channels: 3
- Signal resolution: 12-bit
- Base frequency: 10MHz
- PWM cycle is synchronized with interrupt signal

#### Isolated Digital Output/Input

- Number of input channels: 8 DI
- Number of output channels: 8 DO
- Input voltage: 0-24V<sub>DC</sub>, differential input signal pairs
- Input resistance: 1.2KΩ@0.5W
- Digital output type: Darlington Transistors, open collector up to 40V<sub>DC</sub>
- Current sink: 200mA max.
- Isolated voltage: 5000Vrms

#### General Specifications

- Connector: one 37-pin D-type female and one 40-pin header connector
- Interrupt sources: (Dual Interrupt)
  - Internal Timer Clock A
  - Internal Timer Clock B
- Operating temperature: 0 ~ 55°C
- Storage temperature: -20 ~ 80°C
- Humidity: 0~95%, non-condensing
- Dimension: 162mm x 105mm

#### Termination Boards

- ACLD-9137
- ACLD-9188
- DIN-37D

### Ordering Information

#### PCI-8133

3-CH Counter/AB Phase Encoder and PWM Output Card.

Note: The above products are shipped with software development kit for DOS/Win-95/98/NT/2000.

#### Pin Assignments of the 37-pin Connectors

IGND (1)	○	(20) PHA1-
PHA1+ (2)	○	(21) PHB1-
PHB1+ (3)	○	(22) PHC1-
PHC1+ (4)	○	(23) PHA2-
PHA2+ (5)	○	(24) PHB2-
PHB2+ (6)	○	(25) PHC2-
PHC2+ (7)	○	(26) PHA3-
PHA3+ (8)	○	(27) PHB3-
PHB3+ (9)	○	(28) PHC3-
PHC3+ (10)	○	(29) PIN0-
PIN0+ (11)	○	(30) PIN1-
PIN1+ (12)	○	(31) PIN2-
PIN2+ (13)	○	(32) IGND
IGND (14)	○	(33) N.C.
GND (15)	○	(34) OENA
U+ (16)	○	(35) U-
V+ (17)	○	(36) V-
W+ (18)	○	(37) W-
+5V (19)	○	

Iso.+5V (1)	○	(20) Iso.+5V
Iso.+5V (2)	○	(21) Iso.+5V
IN0+ (3)	○	(22) IN0-
IN1+ (4)	○	(23) IN1-
IN2+ (5)	○	(24) IN2-
IN3+ (6)	○	(25) IN3-
IN4+ (7)	○	(26) IN4-
IN5+ (8)	○	(27) IN5-
IN6+ (9)	○	(28) IN6-
IN7+ (10)	○	(29) IN7-
VPP (11)	○	(30) VPP
OUT0+ (12)	○	(31) DO.GND
OUT1+ (13)	○	(32) DO.GND
OUT2+ (14)	○	(33) DO.GND
OUT3+ (15)	○	(34) DO.GND
OUT4+ (16)	○	(35) DO.GND
OUT5+ (17)	○	(36) DO.GND
OUT6+ (18)	○	(37) DO.GND
OUT7+ (19)	○	