PCIE-1884

32-bit, 4-ch Encoder Counter with **Preload Position Compare FIFO PCI Express Card**



Features

- Four 32-bit programmable encoder counters
- Quadrature (X1, X2, X4), dual pulse (CW/CCW), signed pulse (OUT/DIR) modes
- Programmable trigger output (preload FIFO) for position comparison
- · Single-ended or differential inputs
- 2,500 V_{DC} isolation protection for all signals
- Digital filter with selectable values

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Introduction

The PCIE-1884 is a 4-ch encoder counter PCI Express card. It includes four 32-bit encoder counters with programmable trigger output (preload FIFO) for position comparison which is suitable for motor control and position monitoring applications. It also provides general counter functions such as frequency measurement, pulse width measurement, pulse output, and PWM output. All channels are protected by 2,500 Vpc isolation circuit.

Specifications

Encoder Counters

Channels

Max. Input Frequency 10 MHz (40 MHz for quadrature X4)

4

32 bits

- Max. Output Frequency 10 MHz
- Digital Filter
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 Digital Filter 	1.28 µs ~ 1.31 ms
Preload FIFO Size	1,024 values
Isolation Protection	2,500 V _{DC}
 Input Voltage 	Single-ended
	Logic 0: 0.8 V max.
	Logic 1: 2.8 V min. (12 V max.)
	Differential
	Logic 0: -0.5 V max. (-12 V min.)
	Logic 1: 0.5 V min. (12 V max.)
 Output Voltage 	0.8V max. @+24mA
	2V min. @-24mA
 Encoder Counter 	Quadrature (X1, X2, X4), dual pulse (CW/CCW), signed pulse (OUT/DIR), position compare output
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 General Counter 	Frequency measurement, pulse width measurement, pulse output, PWM output
Digital Input	

Channels

- 4 (shared with CNTn SCLK/L pins) Isolation Protection 2,500 V_{DC}
- Opto-isolator response 100 ns
- Input Voltage Logic 0 : 2V max. Logic 1 : 5V min. (50V max.)

Digital Output

- Channels
- Isolation Protection
- Opto-Isolator Response 100 ns
- Output Type 5V/TTL
- Sink/Source Current 24mA max.

General

- Form Factor PCI Express x1 37-pin D-sub female connector
- I/O Connector
- Dimensions (L x W) 167 x 100 mm (6.6" x 3.9")
- Operating Temperature 0 ~ 60 °C (32 ~ 140 °F) (refer to IEC 68-2-1, 2)

4 (shared with CNTn_OUT pins)

2,500 V_{DC}

- Storage Temperature -40 ~ 70 °C (-40 ~ 158 °F)
- Storage Humidity
- typical: 3.3V @ 290mA 12V @ 95mA Max.: 3.3V @ 360mA 12V @ 245mA

Ordering Information

PCIE-1884-AE

32-bit, 4-ch encoder counter with programmable trigger output PCI express card

Accessories

- PCL-10137H-1E
- PCL-10137H-3E
- ADAM-3937-BE
- High-speed DB37 cable, 1m High-speed DB37 cable. 3m DB37 DIN-rail wiring board

All product specifications are subject to change without notice.

- 5 ~ 95% RH non-condensing (refer to IEC 68-2-3)
- Board ID
- Power Consumption
- TM switch