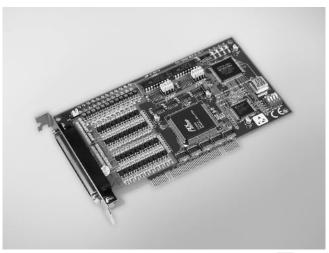
PCI-1240U

4-axis Stepping and Servo Motor Control Universal PCI Card



Features

- Independent 4-axis motion control
- Hand wheel and jog function
- 2/3-axis linear interpolation function
- 2-axis circular interpolation function
- Continuous interpolation function
- Programmable T/S-curve acceleration/deceleration rate
- Up to 4 Mpps output for each axis
- Two pulse output types: CW/CCW or pulse/direction
- Up to 1 MHz encoder input for each axis
- Two encoder pulse input types: A/B phase or up/down
- Constant speed control
- Position management and software limit switch function
- BoardID™ switch





Introduction

Advantech introduces the PCI-1240U 4-axis Universal PCI (supports both 3.3 V and 5 V signal slot) stepping/pulse-type servo motor control card designed for general-purpose extreme motion applications. The PCI-1240U is a high-speed 4-axis motion control card for the PCI bus that simplifies stepping and pulse-type servo motor control, giving you added performance from your motors. The card's intelligent NOVA® MCX314-motion ASIC builds in a variety of motion control functions, such as 2/3-axis linear interpolation, 2-axis circular interpolation, T/S-curve acceleration/deceleration rate and more. In addition, the PCI-1240U performs these motion control functions without processor loading during driving. For advanced applications, Advantech supplies Windows® DLL drivers and user-friendly examples to decrease your programming load. Moreover, through a free bundled PCI-1240U motion utility, you can complete configuration and diagnosis easily.

Specifications

Pulse Type Motion Control

Motor Driver Support Pulse-type servo/stepping

Number of Axes

Interpolation
 2-axis linear, 3-axis linear, 2-axis circular

Max. Output Speed 4 Mpps

■ **Step Count Range** ±2, 147, 483, 646

Pulse Output Type
 Pulse/direction (1-pulse, 1-direction type) or

CW/CCW (2-pulse type)

Position Counters
 Range of command and actual position

Velocity Profiles
 T-Curve, S-Curve

- Local I/O

Machine Interfaces: PEL x 4, MEL x 4, ORG x 4
Servo Driver Interfaces: ALM x 4, INP x 4

Position Compare I/O: ALIVI x 4,

General Inputs: 12 (INO ~ 2 of each axis)

General Outputs: 16 (OUT4 ~ 7 of each axis)

Encoder Interface

• Input Type Quadrature (A/B phase) or up/down

Counts per Enc. Cycle x1, x2, x4 (A/B phase only)

Input Range 5 ~ 25 V
 Isolation Protection 2,500 V_{DC}
 Max. Input Frequency 1 MHz

General

Bus Type Universal PCI V2.2

Certifications

Connectors 1 x 100-pin SCSI female connector
 Dimensions (L x H) 175 x 100 mm (6.9" x 3.9")
 Power Consumption Typical: 5 V @ 850 mA

Max.: 5 V @ 1 A

Humidity
 5 ~ 95% RH, non-condensing (IEC 68-2-3)

Operating Temperature 0 ~ 60° C (32 ~ 140° F)
 Storage Temperature -20 ~ 85° C (-4 ~ 185° F)

Ordering Information

PCI-1240U
 ADAM-3952
 4-axis Servo Motor Control PCI Card
 50-pin DIN-rail SCSI Wiring Board

PCL-101100M-1
 PCL-101100M-3
 PCL-10251-1
 100-pin SCSI Cable, 1 m
 100-pin SCSI Cable, 3 m
 100-pin SCSI to Two 50-pin SCSI to Tw

PCL-10251-1
 PCL-10251-2
 PCL-10251-3
 100-pin SCSI to Two 50-pin SCSI Cable, 1 m
 100-pin SCSI to Two 50-pin SCSI Cable, 2 m
 100-pin SCSI to Two 50-pin SCSI Cable, 3 m