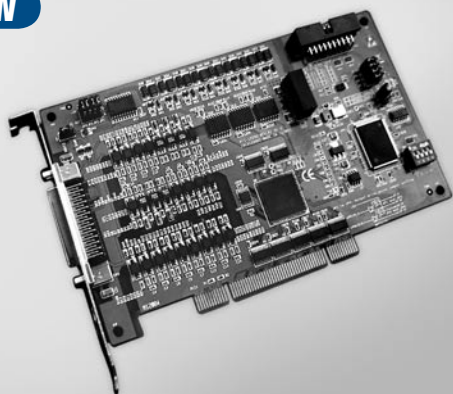


# PCI-1220U

## 2-axis Stepping and Servo Motor Control Universal PCI Card

NEW



### Features

- Independent 2-axis motion control
- Hand wheel and jog function
- 2-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's PCI-1220U is a 2-axis Universal PCI stepping/pulse-type servo motor control card. This card adopts NOVA MCX312 IC which supports 2-axis motion control with interpolations. Besides, functions like continuous interpolation, programmable T/S-curve acceleration/deceleration, constant speed control are also accomplished. For users that only need to drive two motors at most, PCI-1220U is a cost-effective solution than 4-axis motion control cards. The DLL driver for PCI-1220U together with the utility make it easy for users to test the functionalities of the card and to develop their own application.

### Specifications

#### Pulse Type Motion Control

- **Motor Driver Support** Pulse-type servo/stepping
- **Number of Axes** 2
- **Interpolation** 2-axis linear, 2-axis circular
- **Max. Output Speed** 4 Mpps
- **Step Count Range**  $\pm 2,147,483,646$  (32 bits)
- **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 2, MEL x 2, ORG x 2
  - Servo Driver Interfaces: ALM x 2, INP x 2
  - Position Compare I/O: CMP x 2
  - General Inputs: 6 (X\_IN0 ~ 2, Y\_IN0~2)
  - General Outputs: 8 (X\_OUT4 ~ 7, Y\_OUT4~7)

#### Encoder Interface

- **Input Type** Quadrature (A/B phase) or up/down
- **Counts per Enc. Cycle** x1, x2, x4 (A/B phase only)
- **Input Range** 0 ~ 2 V<sub>DC</sub> for low; 5 ~ 30 V<sub>DC</sub> for high
- **Isolation Protection** 2,500 V<sub>DC</sub>
- **Max. Input Frequency** 1 MHz

#### General

- **Bus Type** Universal PCI V2.2
- **Certifications** CE
- **Connectors** 1 x 50-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-1220U** 2-axis Stepping and Servo Motor Control PCI Card
- **ADAM-3952** 50-pin DIN-rail SCSI Wiring Board
- **PCL-10152-1** 50-pin SCSI Cable, 1 m
- **PCL-10152-3** 50-pin SCSI Cable, 3 m