PCI-1245V
PCI-1285V

Value DSP-Based 4/8-Axis Stepping and Servo Motor Control Universal PCI Card

PCI-1245V ▲   PCI-1285V ▲

RoHS COMPLIANT 2002/95/EC   CE   FC
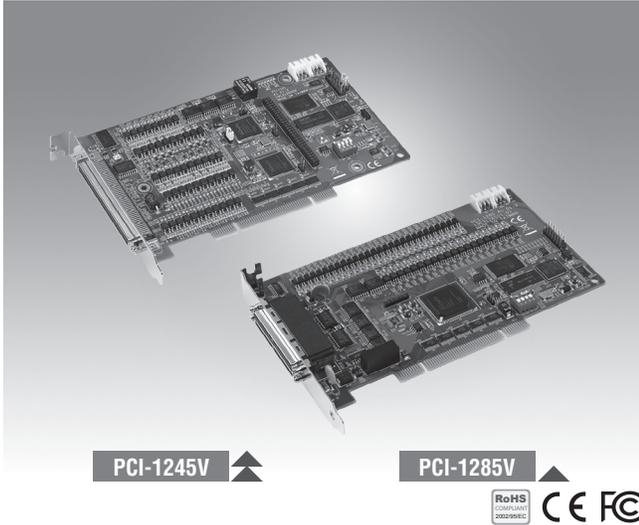
Features

- Encoder input is 10 MHz for 4xAB mode, 2.5 MHz for CW/CCW mode
- Pulse output up to 5 Mpps
- Supports linear and circular interpolation
- Hardware emergency input
- Supports E-Gear
- Supports programmable acceleration/deceleration rate
- Memory buffer (up to 10K points) for trajectory planning which is designed in DSP(Auto-blending is not supported)
- Position compares triggering up to 100 KHz, and memory buffer is up to 100 K points in DSP
- Position latch
- Programmable interrupt and watchdog timer
- RDY/LTC-dedicated input channels & SVON/CMP/CAM-DO/ERC-dedicated output channels are switchable for general input and output purposes

Introduction

The PCI-1245V is a 4-axis universal PCI (supporting both 3.3 V and 5 V signal slot) stepping/pulse-type servo motor control card designed for applications which need to control interpolation, synchronization among multiple axes, and continuous contouring. The PCI-1245V utilizes high-performance DSP and FPGA to calculate the motion trajectories, synchronization timing control for multiple axes, and input/output handling to offer functionality, such as linear interpolation, 2/3- axis circular interpolation, compare triggers, T/S-curve acceleration/deceleration rates, and so on. In addition, Advantech supplies a Common Motion API library, graphical utility and user-friendly examples to decrease programming workloads.

Specifications

Pulse Type Motion Control

- **Motor Driver Support**   Pulse-type servo/stepping
- **Number of Axes**   4/8
- **Interpolation**   Linear, 2/3-axis circular interpolation
- **Max. Output Speed**   5 Mbps
- **Step Count Range**   ±2, 147, 483, 646
- **Pulse Output Type**   Pulse/direction (1-pulse, 1-direction type) , CW/CCW (2-pulse type)
- **Position Counters**   Range of command and actual position
- **Velocity Profiles**   T-Curve, S-Curve
- **Local I/O**
  Machine Interfaces: LMT+, LMT-, ORG
  Servo Driver Interfaces: ALM, INP
- **Position Compare I/O**   CMP

Encoder Interface

- **Input Type**   Quadrature (A/B phase) or up/down
- **Counts per Enc. Cycle**   x1, x2, x4 (A/B phase only)
- **Input Range**   0~10 V
- **Isolation Protection**   2,500 V_{DC}
- **Max. Input Frequency**   10 MHz under 4xAB mode

General

- **Bus Type**   Universal PCI V2.2
- **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 60068-2-3)
- **Operating Temperature**   0 ~ 60°C (32 ~ 140°F)
- **Storage Temperature**   -20 ~ 85°C (-4 ~ 185°F)

Ordering Information

- **PCI-1245V-A**   Value 4-axis Stepping/Pulse-type Servo Motor Control Universal PCI Card
- **PCI-1285V-A**   Value 8-axis Stepping/Pulse-type Servo Motor Control Universal PCI Card

Accessories

- **ADAM-3956-AE**   100-pin DIN-rail SCSI 4-axis Motion Wiring Board
- **ADAM-3955-BE**   50-pin DIN-rail SCSI 2-axis Motion Wiring Board
- **ADAM-3952-AE**   50-pin DIN-rail SCSI and Box Header Board
- **PCL-101100M-1E/2E/3E**   100-pin SCSI Cable, 1m/2m/3m for PCI-1245V
- **PCL-101100SB-1E/2E/3E**   100-pin SCSI Cable, 1m/2m/3m for PCI-1285V
- **PCL-10251-1E/2E/3E**   100-pin SCSI to Two 50-pin SCSI Cable, 1m/2m/3m
- **PCL-20153PA5-S2E**   50-pin Cable to Panasonic A4/A5/A6 Servo, 2 m
- **PCL-20153YS5-S2E**   50-pin Cable to Yaskawa Sigma V/7 Servo, 2 m
- **PCL-20153MJ3-S2E**   50-pin Cable to Mitsubishi J3/J4 Servo, 2 m
- **PCL-20153DA2-S2E**   50-pin Cable to Delta A2 Servo, 2 m

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All product specifications are subject to change without notice.   Last updated: 9-Dec-2019