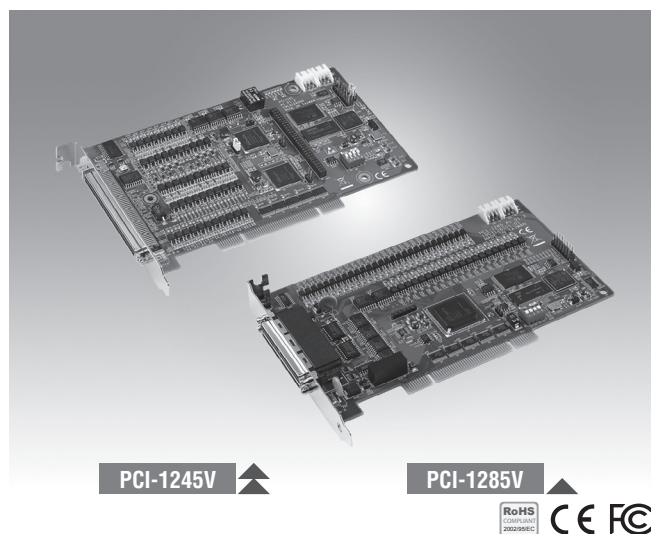


PCI-1245V PCI-1285V

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



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 & SVOIN/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 Mpps
- Step Count Range** $\pm 2, 147, 483, 646$
- 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_{oc}
- 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