MVP-3245

4-Axis PC-Based Motion Controller with 32-Channel Digital I/O



Features

- Intel Celeron J1900 @1.99GHz Processor
- Encoder input is 10 MHz for 4xAB mode and 2.5 MHz for CW/CCW mode
- Pulse output of up to 5 Mpps
- Equipped with a memory buffer (10K points) for trajectory planning
- Supports E-Gear and helical interpolation
- Supports E-CAM and provides 256 points for describing CAM profiles
- 2-axis position comparison trigger
- 3-axis arc interpolation
- 16-channel isolated digital input
- 16-channel isolated digital output









Introduction

MVP-3245 is a PC-Based motion controller with the Inter Celeron J1900 processo and SoftMotion technology and aimed at machinery applications that require compact platform with a slim form factor. To satisfy demands for industrial automation, MVP-3245 offers a variety of basic motion control functions, such as linear, circular and helical interpolation, T/S-curve speed profiles, as well as advanced motion functions, such as E-Gear, E-CAM, and Tangential Following.

MVP-3245 also features specific SoftMotion functions for sector applications, such as 2D comparison trigger, Path DO, and 3D arc move. Moreover, this controller supports serial communication ports and several other networking interfaces. Advantech also provides a common motion API library, graphical utility, and user-friendly examples to reduce the programming load and facilitate easy configuration and diagnosis.

Specifications

General

Dimensions (W x D x H) 250 x 160 x 85 mm (9.8" x 6.3" x 3.3")

Power Consumption 24 W (typical)

Power Requirements 10 ~ 30 V_{DC} (e.g 24 V @ 1 A) (Min. 48 W), AT

Weight 2.4 kg (typical) OS Support Windows XP/7/8

System Hardware

- CPU Intel Celeron J1900 @1.99GHz Processor

Memory 4GB DDR3 Storage mSATA 32GR

I/O Interface

Serial Ports 2 x COM RS-232/422/485 Serial Port Speed 50 ~ 115.2 kbps 2 x 10/100/1000M (RJ45) LAN USB Ports 4 x USB 2.0, 1 x USB 3.0

Pulse-Type Motion Control

Number of Axes

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

Max. Output Speed 5 Mpps ±2, 147, 483, 646 **Step Count Range**

Pulse Output Type CW/CCW or pulse/direction

Velocity Profiles T-curve, S-curve

LMT+, LMT-, ORG, ALM, INP, CMP, LTC Local I/O

General Inputs 16 General Outputs 16

Encoder Interface

Quadrature (A/B phase) or up/down Input Type Counts per Enc. Cycle x1, x2, x4 (A/B phase only)

Input Range 5 ~ 15 V **Isolation Protection** $2,500 V_{DC}$

Max. Input Frequency 10 MHz under 4xAB mode

Isolated Digital Input

Channels

Input Voltage Logic 0: 2 V max.; Logic 1: 5 V min. (24 V max.)

Isolation Protection 1,000 V_{DC}

Isolated Digital Output

Channels

Output Type Sink type (NPN) **Output Voltage** 5 ~ 30 V max.

Sink Current 200 mA max. per channel

Isolation Protection 1,000 V_{DC}

Environment

Humidity 5 ~ 95% RH, non-condensing (IEC 60068-2-3) **Operating Temperature** -10 ~ 50°C (14 ~ 122°F) @ 5 ~ 85% RH

Ordering Information

MVP-3245-AJ 4-axis PC-Based motion controller with 32-ch digital

Accessories

PCL-101100M-1E/2E/3E 100-pin SCSI cable, 1/2/3 m

PCL-10251-1E/2E/3E 3E 100-pin SCSI to two 50-pin SCSI cable, 1/2/3 m

PCL-10137-1E/3E DB37 cable, 1/3 m

ADAM-3956-AE 100-pin DIN rail SCSI 4-axes motion wiring board ADAM-3955-AE 50-pin DIN rail SCSI 2-axes motion wiring board ADAM-3952-AE 50-pin DIN rail SCSI and box header board

DB37 DIN rail wiring board ADAM-3937-BE

PCL-10153PA5-2E 50-pin cable to Panasonic A4/A5 servo, 2 m PCL-10153YS5-2E 50-pin cable to Yaskawa Sigma V/7 servo, 2 m PCL-10153MJ3-2E 50-pin cable to Mitsubishi J3/J4 servo, 2 m

PCL-10153DA2-2E 50-pin cable to Delta A2 servo, 2 m