Intelligent Motion Control and Machine Vision

Features
- Motion Studio: Rapid application development tool
- Programmable with BASIC language
- 8-axis motion controller with 32-ch digital I/O
- RS-232 and TCP/IP support
- Quick configuration user interface
- Programmable encryption to protect intellectual property
- Built-in quick programming assistant
- C-integration: External DLL interface
- 2/3-axis linear, 2/3-axis circular, and helical interpolation
- 2-axis position comparison trigger, high-speed latch

Introduction
The MAS-5282-EG is a PC-based Programmable motion controller based on the Motion Studio software development tool. It features a range of built-in debugging tools and can be programmed using BASIC programming language. The unit is suitable for various applications and can greatly shorten the equipment development cycle.

The MAS-5282-EG is integrated with a high-performance digital signal processor and field-programmable gate array. It can easily calculate trajectories, perform real-time motion control, and provide I/O processing support functions such as linear, circular, and helical interpolation. Other features include a multiaxis comparison trigger, high-speed position latch, and T/S-curve acceleration/deceleration support. Additionally, with Motion Studio, users can easily complete system configuration and diagnosis, enabling the simple and fast realization of complex motion control functions.

Specifications

General
- Dimensions (W x H x D): 232 x 90 x 232 mm (9.13" x 3.54" x 9.13")
- Power Requirements: 100 ~ 240 VAC
- Weight: 5 kg
- OS: Win7 Embedded x86/x64

System Hardware
- CPU: 4th Generation Intel® Core™ i3 (LGA1150)
- Memory: 4GB DDR3
- Storage: 500GB

I/O Interface
- Serial Ports: 2 x RS-232
- LAN: 2 x 10/100/1000M (RJ45)
- USB Ports: 4 x USB 2.0
- PCI Express: 1 x PCIe x4

Motion Control
- Number of Axes: 8
- Interpolation: 2/3-axis linear, 2/3-axis circular, and helical
- Comparison Trigger: 2/3-axis position
- High-Speed Latch: 8-ch
- Handwheel/JOG: 8-ch
- Max. Output Speed: 5 Mpps
- Pulse Output Type: CW/CCW or pulse/direction
- Encoder Interface: 8-ch, quadrature (A/B phase) or up/down
- Velocity Profiles: T/S-curve
- Local I/O: LMT+, LMT-, ORG, ALM, INP, CMP, LTC
- General Inputs: 32
- General Outputs: 32

Supports I/O Expansion Cards
- PCIE-1730-AE: 16-ch isolated digital I/O card
- PCIE-1756-AE: 32-ch isolated digital I/O card

Motion Studio Software Development Tool
- Programming Language: MAS BASIC
- Number of Tasks: Up to 10 tasks can be executed independently or simultaneously
- Communication Protocols: Modbus RTU/TCP, RS232, RS485, and TCP/IP
- Debugging Tools: Terminal, watch, I/O Viewer, motion test tool, parameter viewer, VR viewer breakpoint operation, single step debugging, C-integration
- Other Functions: Programmable encryption, virtual controller, programming assistant, remote monitoring and diagnosis

Ordering Information
- MAS-5282-EG50003: 8-axis extended-type motion controller with 32-ch digital I/O

Accessories
- PCL-101100SB-1E2E3E: 100-pin mini SCSI cable, 1/2/3 m
- ADAM-3956-AE: 100-pin DIN rail SCSI 4-axis motion wiring board
- PCL-10153PA5-2E: 50-pin cable to Panasonic A4A5 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
- 96PD-S1P0-SYSE: License for WebAccess/HMI Runtime with 500 tags
- PCIE-1730-AE: 16-ch isolated digital I/O card
- PCIE-1756-AE: 32-ch isolated digital I/O card