

AMAX-3285IO

Advanced 8-axis EtherCAT Motion Slave Modules with 16DI/16DO Expansion



Features

- Max. 5 MHz, 8-axis pulse output
- Encoder input is 10 MHz for 4xAB mode, 2.5 MHz for CW/CCW mode
- BoardID is switchable
- Easily visible LED indicators on board to do diagnosis
- Direct wire to servo drive to save terminal board space while installation
- Horizontal installation for servo or stepping motor driver
- Suitable for DIN-rail mounting
- Programmable interrupt
- Memory buffer (10K points) for trajectory planning which is designed in DSP
- 2-axis position compare triggering up to 100 KHz, and memory buffer is up to 100 K points
- Position latch
- Supports gantry mode by semi-closed loop pulse train control
- RDY/LTC-dedicated input channels & SVON/CMP/CAM-DO/ERC-dedicated
- Output channels are switchable for general input and output purposes

Introduction

AMAX-3285IO provides the ability to connect step motor drives and servo motor drives with CW/CCW and Pulse/Direction interfaces to EtherCAT networks controlled by Advantech EtherCAT master PCI-1203. AMAX-3285IO has open frame designs for horizontal placement and an interface connector mounted on the board. With a to-servo-drive transfer cable, it can be conveniently connected to Mitsubishi J3/J4, Yaskwa Sigma V/7, and Panasonic A4/A5 servos. AMAX-3285IO is an 8-axis EtherCAT motion slave module that supports motion interpolation, axes synchronization, and continuous contouring. 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

Pulse-Type Motion Control

▪ Motor Driver Support	Pulse-type servo
▪ Number of Axes	8
▪ Max. Output Speed	5 Mpps
▪ Step Count Range	±134, 217, 728
▪ Pulse Output Type	OUT/DIR, CW/CCW
▪ Position Counter	±134, 217, 728
▪ Home Modes	16 home mode + home motion defined by CiA402
▪ Velocity Profiles	T-Curve, S-Curve
▪ Local I/O	
General Input Signal	Input voltage: 24Vdc Max. Input delay: 100us Max. (isolation delay) Signal: EMG (emergency stop) ORG, LMT+, LMT- INPOS (in position signal) LTC (counter latch) RDY (servo ready) ALARM (servo alarm)
General Output Signal	Output voltage: Open collect 24Vdc Max Output delay: 100us Max. (isolation delay) Sink current: 100mA per channel Signal: CMP (position compare in range output) SVON (servo on) RALM (reset driver alarm) ERC (counter clear signal)
General Purpose I/O:	16DI/16DO (terminal block)

Encoder Interface

▪ Input Type	A/B phase, CW/CCW
▪ Counts per Enc. Cycle	x1, x2, x4 (AB phase only)
▪ Input Range	Low: 0 ~ 0.5V High: 3.5 ~ 7V
▪ Isolation Protection	2,500 V _{RMS}
▪ Max. Input Frequency	10 MHz @ 4xAB

General

▪ Bus Type	EtherCAT
▪ Certification	CE, FCC Class A
▪ Connectors	2 x RJ-45 for communication port 1 x Terminal block (4P) for power 1 x Terminal block (2P) for +5V output 8 x DB-26 connector by transfer cable to servo drives 8 x Terminal block (16P) for home, Limit, LTC, CMP and extra 16DI/16DO
▪ Dimensions (L x W x H)	255 x 141 x 60 mm (5.6 x 4.3 x 2.4")
▪ Power Consumption	15W MAX (625mA @ 24V)
▪ Power Input	24V _{dc} ± 10%
▪ Humidity	5 ~ 95% RH, non-condensing (IEC 60068-2-3)
▪ Operating Temperature	0 ~ 60°C (32 ~ 140°F)

Ordering Information

▪ AMAX-3285IO-AE	Advanced 8-axis EtherCAT Motion Slave Modules with 16DI/16DO Expansion
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Accessories

▪ PCL-20153PA5-S2E	50-pin cable to Panasonic A4/A5 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