# 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 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

### Accessories

- **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



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