

ADAM-5000/ECAT

4-Port Distributed High Speed I/O System for EtherCAT



Features

- 32-bit ARM RISC Processor
- 4 slots with various digital and analog I/O modules is just a single EtherCAT node on the network.
- Supports EtherCAT Distributed Clock (DC) mode and SyncManager mode
- Supports the Modular Device Profile (MDP) when all modules are a pure I/O function
- Configure I/O module parameters and upgrade via a utility
- Node addresses can be fixed by rotary switches, or set by software.
- Compatible with Advantech Common Motion SDK or other EtherCAT master through ENI file generation
- 8-bit DIP switch for Mode setting and three rotate switch for up to 4,096 slave IDs (x1, x10, x100)

* I/O modules are optional

Introduction

The ADAM-5000/ECAT 4-slot distributed flexible system can provide high-speed, high-precision remote I/O for EtherCAT. It is the link between the EtherCAT automation control network and the EtherCAT I/O modules ranging from basic DI/O's to high-speed AI/O models for different application scenarios. All our EtherCAT devices have been designed and tested to meet Advantech's stringent requirements on noise immunity. Fast, accurate, highly-efficient data transmission and easy remote configuration make ADAM-5000/ECAT the perfect match in industrial automation architecture.

Specifications

Control System

- CPU 32-bit ARM RISC Processor
- I/O Slots 4
- Memory Flash ROM: 64M SPI
RAM: 4G DDR3
- LED Indicators Power LED
System status LED
EtherCAT RUN LED
EtherCAT ERROR LED
EtherCAT Port 0 LINK LED
EtherCAT Port 1 LINK LED

Communications

- Data Transfer Rate Up to 100 Mbps
- Communication Cycle Time 100 us
- Interface 2 x RJ-45
- Wiring UTP, category 5 or greater

Power

- Power Consumption 2.5 W @ 24 V_{DC}
(not including I/O modules)
- Power Input 10 ~ 30 V_{DC}

Software

- API Advantech Common Motion Library
- Windows Utility Network setting, I/O configuration

Protection

- I/O Module Isolation 3.000 V_{DC}
- LAN Communication 1.500 V_{DC}
- Overvoltage Protection Yes
- Power Reversal Protection Yes

General

- Certification CE, FCC class A
- Connectors 1 x Screw-terminal for RS-485 (communication)
1 x DB9-M for RS-232 (internal use)
1 x Screw-terminal for power input
2 x RJ-45 for LAN
- Dimensions (W x H x D) 231 x 110 x 75 mm
- Mounting DIN-rail, wall

Environment

- Operating Humidity 5 ~ 95%, non-condensing
- Operating Temperature - 10 ~ 70°C (14 ~ 158°F)
- Storage Temperature - 25 ~ 85°C (-13 ~ 185°F)

Ordering Information

- ADAM-5000/ECAT-AE 4-slot EtherCAT Distributed High Speed I/O System