ADAM-5000/ECAT
4-slot 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

RoHS COMPLIANT 2002/95/EC   CE   FCC

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** — 4-slot EtherCAT Distributed High Speed I/O System