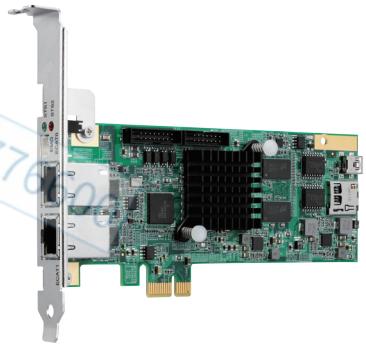
# PCIe-8332/PCIe-8334/PCIe-8338

*16/32/64-axis PCIe EtherCAT Master Motion Controller*

## Features



- PCI Express® x 1 compliant
- Up to 64-axis motion control & 10,000 I/O point control via EtherCAT
- EtherCAT cycle times up to 250μs
- Broad range of compatible EtherCAT slaves
- Dedicated emergency stop input
- 4CH isolated digital input/4CH isolated digital output
- 1CH pulsar input
- Point-table functions for contouring application
- Support for up to 16D linear interpolation, 3D circular and 3D spiral interpolation
- 8 program tasks downloadable for standalone application
- Card ID selection

## Introduction

ADLINK PCIe-8332/PCIe-8334/PCIe-8338 is a hardware-based EtherCAT motion controller able to support up to 64 synchronized axes and over 10,000 points simultaneously. The PCIe-8332/PCIe-8334/PCIe-8338 features dedicated isolated emergency stop input (EMG), and configurable isolated high-speed digital input as not only generic sensor input but also pulsar input, with up to 1MHz input frequency.

Optimum jitter control is provided in minimal cycles of 250μs to optimize synchronous I/O performance for vertical automation applications in semiconductor, electronic manufacturing, and others.

The PCIe-8332/PCIe-8334/PCIe-8338 provides an out-of-shell application-ready (APS) function library to generate multi-dimensional, highly synchronized, time-deterministic event-triggered motion & I/O control. A wide range of compatible 3rd party slaves are easily designed with ADLINK's APS function library. ADLINK's MotionCreatorPro 2™ utility is fully compliant with the Microsoft® Windows™ environment, that allows complete EtherCAT motion and I/O configuration and function evaluation as well as compiling program download functions.

## Software Support

- **OS Information**
  Windows 7/10 32/64-bit
- **Library**
  - APS function library for Motion & I/O Control
  - VS C#, VS VB.NET, and VS C++ compatible
- **Utility**
  MotionCreatorPro 2™

## Ordering Information

- **PCIe-8332**
  16-axis PCIe EtherCAT Master Motion Controller
- **PCIe-8334**
  32-axis PCIe EtherCAT Master Motion Controller
- **PCIe-8338**
  64-axis PCIe EtherCAT Master Motion Controller

## Specifications

| | PCIe-8332 | PCIe-8334 | PCIe-8338 |
|---|---|---|---|
| **EtherCAT Communication** | | | |
| EtherCAT Cycle Time | 1CH @ 250μs / 500μs / 1000μs / 2000μs | | |
| Max. Number of Axes | 16 | 32 | 64 |
| **Motion I/O Interface Signals** | | | |
| Emergency Stop In | 1CH | | |
| **Isolated I/O Signals** | | | |
| Digital Input | 4CH<br>(2CH configured as Pulsar Input) | | |
| Pulsar Input Mode | CW/CCW; 1x/2x/4x AB Phases | | |
| Pulsar Input Frequency | Up to 1MHz | | |
| Digital Input Voltage | 24Vdc (typ.) / 5Vdc for pulsar connection | | |
| Digital Input Type | Sourcing type | | |
| Digital Output | 4CH, Isolated | | |
| Digital Output Voltage | 24V (typ.) | | |
| Digital Output Type | 90mA, NPN sinking type | | |
| **General Specification** | | | |
| Operating Temp | 0˚C to +60˚C (32˚F to 140˚F) | | |
| Humidity | 5% to 95%, non-condensing | | |
| **Environmental Specification** | | | |
| Safety compliance | CE/FCC, RoHS | | |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