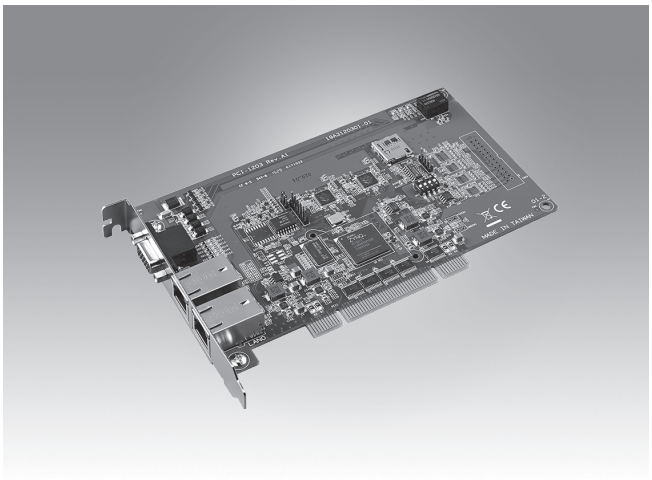
PCI-1203

2-Port EtherCAT Universal PCI Master Card



Features

- 650MHz dual-core ARM processor
- 2 x EtherCAT ports for high-performance of motion and I/O applications
- Supports common motion SDK for rapid application development
- Up to 32 axes support for motion control
- Supports a maximum of 6 motion groups and 8 axes per group
- Supports on board 8-CH isolated DI and 4-CH isolated DO
- Diagnostics for fast error handling can trace command and error message

Introduction

The PCI-1203 is a 2-port EtherCAT PCI Universal card. It is a ready-to-use EtherCAT development platform for all PC-based industrial automation. The EtherCAT protocol stack is executed autonomously on the PCI card. It allows the host to handle up to two EtherCAT networks with extremely short cycle time for Motion and pure I/O applictions. For EtherCAT motion port, communication cycle time is no more than 500 µs for connecting 32 axes of servo motors and for fast I/O ports the cycle time is no more than 200us in a high speed I/O system.. There are 4 - channel isolated digital outputs and 8 - channel isolated inputs on the PCI-1203 to meet the extra high speed I/O requirements. Real-time and high-precision capability are features of PCI-1203. In addition, all Advantech motion controllers use the "Common Motion API" architecture which is a unified user programming interface and graphical utility. This architecture saves application maintenance and upgrades. Programmers can benefit from using any Advantech SoftMotion controller without changing large amounts of the application code. User-friendly examples decrease programming load, helping users complete configuration and diagnosis easily.

Specifications

EtherCAT

Number of Rings	2 (Motion x 1, I/O x 1)
Cable Type	CAT5 UTP/STP Ethernet cable and above
Cycle Time	Motion: 500 us I/O: 200 us
Communication Motion Slave	32 Servo Drive Max.(eq. Panasonic A5B)
Communication IO Slave	1024-CH DI and 1024-CH DO 128-CH AI and 128-CH AO

Isolated Digital Input

Channels	8
Input Voltage	Logic 0: 5 V max. Logic 1: 6 V min. (24V max.) Needs 24V_{DC} external power
Isolation Protection	1,000 V_{DC}
Input Resistance	8.4 k Ω

Isolated Digital Output

Channels	4
Output Type	Sink
Isolation Protection	1,000 V_{DC}
Output Voltage	12 ~ 24 V_{DC}
Sink Current	Max: 300 mA CH

General

Bus Type	Universal PCI V2.2
Certification	CE, FCC Class A
Connectors	2 x RJ45, 1 x D-sub 15
Dimensions (L x H)	175 x 100 mm (6.9" x 3.9")
Power Consumption	5 V_{DC} @ 0.5 A typical
Humidity	5 ~ 95% RH, non-condensing (IEC 60068-2-3)
Operating Temp.	0 ~ 60°C (32 ~ 140°F)
Storage Temp.	-20 ~ 85°C (-4 ~ 185°F)

Ordering Information

PCI-1203-06AE	2-port EtherCAT 6-axis Universal PCI Master Card
PCI-1203-10AE	2-port EtherCAT 10-axis Universal PCI Master Card
PCI-1203-16AE	2-port EtherCAT 16-axis Universal PCI Master Card
PCI-1203-32AE	2-port EtherCAT 32-axis Universal PCI Master Card

All product specifications are subject to change without notice.