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 applications. 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 Rings2 (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
128 port DI (128 byte) / 128 port DO (128 byte)
128 channel AI (256 byte) and 128 channel AO

(256 byte) (based on ADAM-5000/ECAT)

Isolated Digital Input

Channels

• 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.
Storage Temp.
0 ~ 60°C (32 ~ 140°F)
-20 ~ 85°C (-4 ~ 185°F)

Ordering Information

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



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