PCI-7856

Master-Slave Distributed Motion & I/O Master Controller

Introduction

The PCI-7856 is a PCI interface card which offers two ports for Motionnet and HSL systems for distributed motion and I/O in machine automation applications.

HSL technology allows thousands of I/O points to be scanned at the millisecond-level in real time by using mater-slave architecture. Commercial Ethernet cables with RJ45 connector are used for simplified setup of the HSL slaves modules as close as possible to sensor devices which results in a dramatic reduction of wiring. System integrators can benefit from HSL network because it integrates discrete I/O and analog I/O modules. This local network features rapid response, real-time scanning.

Features

- **Connect I/O points up to 2,016 points**
- **Connect motion axis up to 256 axes**
- **Programmable timer interrupt**
- **RJ-45 jack for easy installation**
- **Software selectable transmission speed: 3/6/12 Mbps for HSL**
- **Software selectable transmission speed: 2.5/5/10/20 Mbps for Motionnet**
- **Non-volatility RAM onboard**

Software Support

OS Information

- Windows® 8/7/XP
- RTX 5.x/6.x/8.1a

Software Compatibility

- VB/VC++/BCB/Delphi
- Various sample programs with source codes

Software Recommendations

- MotionCreatorPro2

Ordering Information

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Specifications

Bus	PCI local bus specification Rev. 2.1 compliant
Master Controller	• Dedicated Motion Controller: Motionnet ASIC master control (80 MHz external clock)
	• Dedicated I/O Controller: HSL ASIC master control (48 MHz external Clock)
Interface	**Motionnet** • RS-485 with transformer isolation
	• Half duplex communication
	• 2.5/5/10/20 Mbps transmission rate can be set by software (20 Mbps default)
	HSL • RS-485 with transformer isolation
	• Full duplex communication
	• 3/6/12 Mbps transmission rate can be set by software (6 Mbps default)
Connector	RJ45 connector x 4 (MRJ45 connector for Motionnet; HRJ45 connector for HSL)
Interrupt	Status read back
LED Indicator	Link status (Red for Motionnet Link status; Green for HSL Link status)
Storage Temperature	-20°C to +80°C (-4°F to 176°F)
Power Consumption	+3.3 V @ 1.2 A (typical)
	+5 V @ 1.5 A (typical)
Dimensions	119.5 mm x 100.2 mm (L x W) (4.66" x 3.9")

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