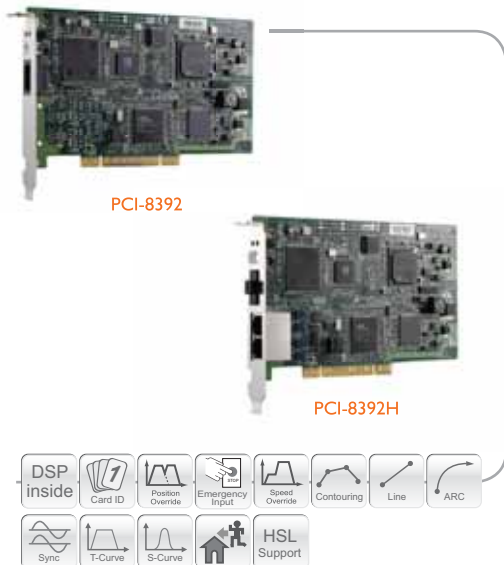


PCI-8392 / PCI-8392H

DSP-based 16-axis SSCNET III Motion Control Cards



Introduction

ADLINK's PCI-8392/PCI-8392H are advanced 16-axis motion controller based on the PCI bus which features plug-and-play function and supports a maximum installation of up to 12 cards in one system.

Advantages:

- Easy wiring and time-deterministic servo updates
- Command synchronization
- Easy maintenance
- Meets maximum motor speed and maximum resolution (20-bit) simultaneously
- Parameter setting and tuning via software
- Absolute encoder control

Additional advantages for PCI-8392H users

- One card to simultaneously meet the servo network and distributed I/O configuration
- High cost/performance
- Distributed I/Os are up to 2016 points and refreshed within 1 ms
- Reduced controller size. (large backplane to install multiple cards no longer required)

Board Features

- 32-bit PCI bus, Rev 2.2, 33 MHz
- Servo Interface: SSCNET 3 protocol
- Controllable axes up to 16 axes
- High speed network communication bus up to 50 Mbps
- Servo update rate: 0.444 ms for 8 axes, 0.888 ms for 16 axes
- On-board DSP: TI TMS320C6711 250 MHz to process the synchronization
- Fiber cable connection ensure the best communication quality
- Easy wiring up to 50 meters between servo drivers (POF/HPCF fiber cable)
- 32-bit position command resolution

Function Features

- No command frequency limitation
- Runtime data sampling for motion analysis
- On-line servo tuning and full servo parameter management
- High speed servo information logging
- Excellent performance in axis synchronous control
- Programmable acceleration rate for T/S-curve profile
- Any 4 axes linear interpolation positioning
- Any 2 axes circular interpolation positioning velocity moving function
- Jogging function
- Absolute positioning system
- Speed override and position override function
- Programmable interrupt events
- Board ID switch selection from 0 to 15
- Watch dog timer for safety
- External emergency input pin (jumper selected)
- One HSL bus is available for PCI-8392H
- Supports up to 16 boards in one system

Specifications

Motion Control	Cycle time: 0.888 ms for 16 axes; 0.444 ms for 8 axes Maximum number of controllable axes: Up to 16 Maximum number of cards in one system: 12 Connection: Via FBI with fiber
Emergency Control (EMG1)	Normal close Stop controlling once the EMG to be open
LED Indicator (LED)	Red & green light to indicate the communication status of SSCNET III and HSL bus
Board ID Selection	DIP switch selection ID is available from 0 to 15
HSL bus	Only available for PCI-8392H version For HSL bus, please refer to Chapter 7, Distributed I/O Section
General Specifications	Operating Temperature: 0°C to +50°C Storage Temperature: -20°C to +80°C Humidity: 5% to 85%, non-condensing

Software Support

MotionCreatorPro 2™

MotionCreatorPro 2™ is a Windows-based application development software package that included with the PCI-8392/PCI-8392H. MotionCreatorPro 2™ is useful for debugging a motion control system during the design phase of a project. An on-screen display lists all installed axes information and I/O signal status of the PCI-8392/PCI-8392H. By using this utility, you can easy tune the axis parameter and servo gain. Furthermore, the sampling windows makes more accurate in motion data analysis, moreover, integrates with axis parameter, thus, the PCI-8392/PCI-8392H provides precise positioning control with less effort.

(See page 1-23 for more information on MotionCreatorPro 2.)

Windows® Platform

- Available for Windows Vista (32-bit)/XP/2000
- Recommended programming environments: VB/VC++/BCB/Delphi

Ordering Information

PCI-8392

DSP-based 16-axis SSCNET III motion control card

PCI-8392H

DSP-based 16-axis SSCNET III motion control card with HSL

Accessories

See section 14 for more information on Accessories.

Terminal Board

DIN-839-J3B

Terminal board for Mitsubishi MR-J3S-B servo amplifier

Cable

MR-J3BUS M

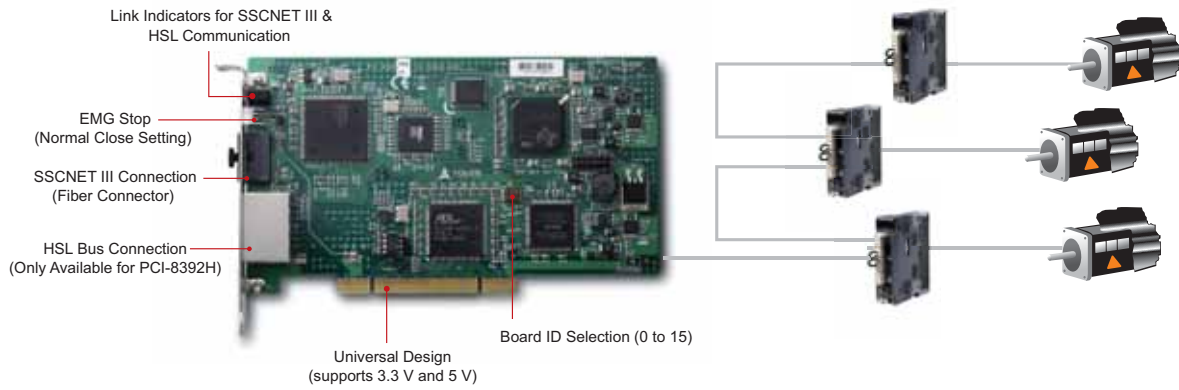
SSCNET III fiber cable

MR-J2HBUS M

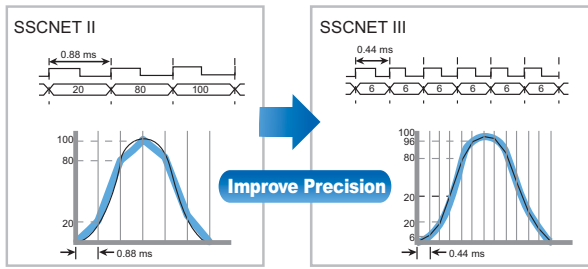
Controller to amplifier bus cable



PCI-8392/PCI-8392H Profile



SSCNET III

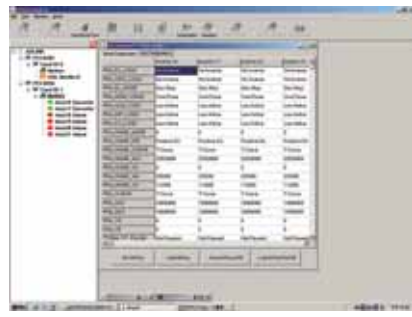


Source: Mitsubishi Electric Corporation

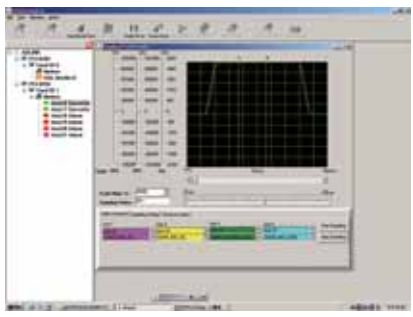
MotionCreatorPro 2™ (See page I-23 for more information on MotionCreatorPro 2.)



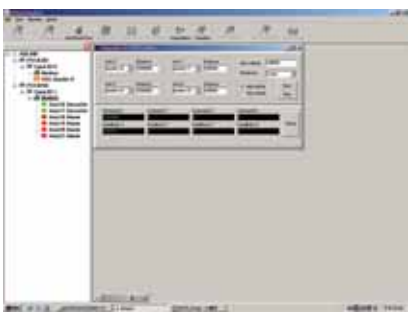
Single Axis Operations



Servo Driver Parameters



Servo Tuning



XY Move Operations

- 1 Software & Utilities
- 2 DAQ
- 3 PXI
- 4 Modular Instruments
- 5 GPIB & Bus Expansion
- 6 PAC
- 7 Motion
- 8 Real-time Distributed I/O
- 9 Remote I/O
- 10 Communications
- 11 Vision
- 12 Fanless I/O Platforms
- 13 cPCI & Industrial Computers
- 14 Accessories