

PCI-8372/8366

PCI Bus SSCNet 12/6-Axis Motion Control Cards

Features

- 32-bit PCI, Rev2.2, 33 MHz
- Servo Interface: SSCNET II protocol
- On Board DSP: TI TMS320C6711
- Maximum control axes: 12/6 for PCI-8372/8366
- 32 bits command resolution
- On-line servo tuning and data monitoring
- Easy wiring up to 30 meters
- 2 Isolated DI/DO and 6 TTL digital outputs
- 3 external encoder/linear scale interface
- Multiple axes linear interpolation
- Any 2 axes circular interpolation
- Contour following
- On-the-fly position/velocity change
- Programmable interrupt sources
- Hardware synchronization between cards
- 2 axes analog output full-closed loop control
- 3 axes SSCNET full-closed loop control
- Easy-to-use function library
- MotionCreator utility for machine setup



Introduction

PCI Interface

The PCI-8372/66 is a 12/6-axis motion control cards based on PCI bus. The PCI interface provides plug-and-play feature that is the key to easy maintenance. The maximum number of cards in one system is 15 cards.

Motion Control Principle

The motion command is accomplished by the host PC and the DSP on PCI-8372/66. Motion profiles are split into several frames and transferred to the DSP via DPRAM. According to these frames, DSP calculates the absolute position of all axes in one control cycle and send each position to the individual driver via the SSCNET at the same cycle. The PCI-8372/66 can also collect data from the servo driver via the SSCNET at the same cycle including servo parameter, position, speed, torque etc. Each cycle time is 0.888 ms which is defined in SSCNET protocol.

Advantages

Easy-wiring; Command synchronization; Easy-maintenance; Unlimited command frequency; 32-bits command resolution; Up to 30 meters control distance; Parameter setting and tuning by software.

Control Modes

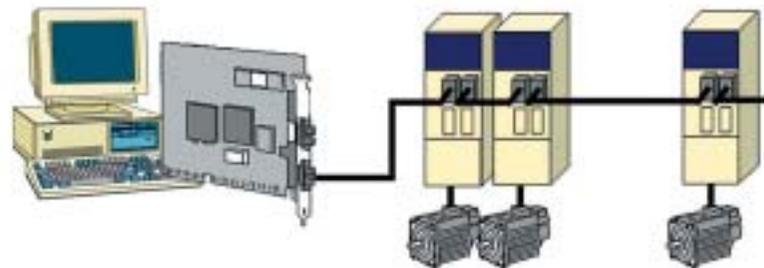
SSCNET open loop mode (up to 12 CH); SSCNET closed loop control mode (up to 3 CH); Analog output closed loop control mode (up to 2 CH).

Operation Modes

Single axis motion; Linear interpolation; Circular interpolation mode; multi-axis simultaneous start motion; contour motion; change speed/position on the fly; and home return modes

Mechanism Interface

Dedicated limit switch and origin input points for each axis.



General Purpose I/O

2 Isolated DI, 2 open collector output DO and 6 TTL outputs are included to provide general purpose I/O.

Interrupt Events

The hardware interrupts are transformed into software events or signals. An event driven applications under multi-tasking OS can be realized by this way.

Analog Outputs

There are three modes for analog: Direct 16 bits \pm 10 V output, velocity command monitoring, analog closed loop control output.

Hardware Synchronization

PCI-8372/66 can be synchronized via the CN4 connector between every card

Driver/Motor Support

PCI-8372 is designed for SSCNET Driver/Motor including MR-J2S-B and MR-J2M-B. Also it can control two analog input (speed command) type drivers

Application

- Applications
- Electric assembly
- LCD Test Equipment
- Semiconductor machinery
- Machine Tools

Software Support

- Supports Windows 2000/NT/XP/9x.
- More than 100 functions are available.
- MotionCreator utility for machine testing, parameter adjustment and gain turning without any programming efforts.