

EPCIO-4000

PCI Interface 4-axis Motion Control Card

Features

- PCI Bus interface
- 4-axis servo positioning control
- 5-channel encoder input
- 4 channel 16-bit D/A Converters
- 13 dedicated input and 5 dedicated output
- 6 channel 12-bit A/D converter (Optional)
- 256 remote serial input/ output interfaces

Introduction

EPCIO-4000 adopted ITRI developed EPCIO ASIC realizing 4-axis servo positioning and synchronized control with DDA (Digital Differential Analyzer) manner delivers movement of each axis evenly. Close-Loop control is in P control rule drive speed type servo drive with $-10V$ to $10V$ signal, and can be applied to multi-axis precision servo control. At pulse output control, it can also read back motor encoder value via encoder input port, and allow stepping motor control. In the control of each axis, there is a set of sensor input points, including Home points, plus limit points and minus limit points. Further, there is inhibit signal output point, position ready output point and emergency stop input point. As to other input/ output points, this board uses ITRI patented remote wiring saving IO design. It can be expanded maximum to 128 points input and 128 points output. Additionally, the board reserves a set of 6-channel A/D conversion.



Specifications

- Size: 185mm x 109mm
- System Clock: 40 MHz
- Bus Interface: PCI
- Motion:
 - ◆ Positioning Axes: 4
 - ◆ Max. DDA Command : 2^{10-15} pulse
 - ◆ DDA Cycle: 25us ~3350ms Programmable
 - ◆ Velocity Command Range: +/- 10V
 - ◆ Pulse Output Format:
 - Pulse/Direction 、 CW/CCW 、 A/B Phase
 - ◆ Error Counter(For Output Pulse): 16 bits
- Remote IO: 128 IN/128 OUT Maximum
- D/A Converter : 4 channels 16 Bits Resolution
- A/D Converter : 6 channels 12bits Resolution with differential inputs(Optional)
- Encoder Input:
 - ◆ 5 Axes
 - ◆ Interface: Differential Input with Photo-Isolation
 - ◆ Input Format:
 - A/B/Z Phase 、 Pulse /Direction 、 CW/CCW
 - ◆ Decoder: x0,x1,x2,x4
 - Software programmable in A/B/Z phase input
 - ◆ Encoder Counter: 32 bits
 - ◆ Latch :15 trigger signals for each axis
- Local IO:
 - ◆ Home Sensor Signal Input:4
 - ◆ Positive Over Travel Signal Input:4
 - ◆ Negative Over Travel Signal Input:4
 - ◆ Inhibit Signal Output:4
 - ◆ Emergency Stop Input:1
 - ◆ Position Ready Output:1

Software Support

- Device driver for Windows 98se/2000/NT/XP/Vista
- Motion control library MCCL for Windows 98se/2000/NT/XP/Vista

Service Window : Armin Chen

Tel : 886-3-5915931

Fax : 886-3-5826594

Address : F400, MSL/ITRI

Bldg.11, 195, Sec.4, Chung Hsing Rd.
Chutung, Hsinchu, Taiwan 310, R.O.C.

http :// www.epcio.com.tw