

### Features

- PCI Bus interface
- 6-axis servo positioning control
- 6-axis encoder input
- 6 channel 16-bit D/A Converters
- 19 dedicated input and 7 dedicated output
- 8 channel 12-bit A/D converter <optional>
- 256 remote serial input/ output interfaces



### Introduction

EPCIO-6000 adopted ITRI developed EPCIO ASIC realizing 6-axis servo positioning and synchronized control with DDA (Digital Differential Analyzer) manner delivers movement of each axis evenly. Close circuit 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 end, and allow stepping motor control. IN the control of each axis, there is a set of sensor input points, including Home points, upper stroke ultimate points and lower stroke ultimate points. Further, there is prohibit 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 8-channel A/D conversion .

### Specifications

- Size:185mm x 109mm
- System Clock:40 MHz
- Bus Interface: PCI
- Motion:
  - ◆ Positioning Axes:6
  - ◆ 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: 6 channels 16 Bits Resolution
- A/D Converter :8 channels 12bits Resolution with differential inputs <optional>

- Encoder Input:
  - ◆ 6 Axes
  - ◆ Interface: Line Driver
  - ◆ Input Format:
    - A/B/Z Phase · Pulse /Direction · CW/CCW
  - ◆ Decoder:x0,x1,x2,x4
    - Software programmable in A/B/Z phase input
  - ◆ Position Counter: 32 bits
  - ◆ Latch :15 trigger signals for each axis
- Local IO:
  - ◆ Home Sensor Signal Input:6
  - ◆ Positive Over Travel Signal Input:6
  - ◆ Negative Over Travel Signal Input:6
  - ◆ Inhibit Signal Output:6
  - ◆ Emergency Stop Input:1
  - ◆ Position Ready Output:1

### Software Support

- Device driver for  
Windows 98se/2000/NT/XP/Vista
- Motion control library MCCL for  
Windows98se/2000/NT/XP/Vista

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