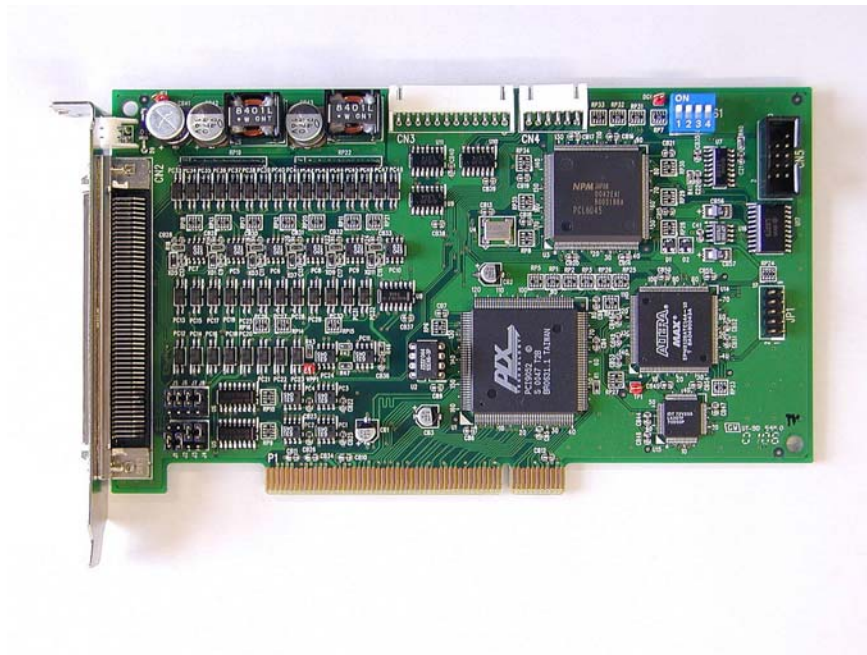


**NPM**

**NIPPON PULSE MOTOR CO. LTD.**

**PCI-bus 4-Axis Motion Control Card**

# **PPCI7443**



The PPCI7443 is an advanced PCI-bus 4-axis motion control card that allows control of stepper motors or servomotors offering a 32-bit PCI-bus plug and play capability, and features a maximum output frequency of 6.55 Mpps, trapezoidal and S-curve motion profile capability, and the ability to change speed and position "on the fly". Any combination of two of the four axes can be used for circular interpolation, or two, three, or four of the axes can be used in linear interpolation. The PPCI7443 also offers thirteen home return modes, a 28-bit up/down counter for incremental encoder feedback, and simultaneous start/stop motion on multiple axes. Also available is user-friendly software that incorporates MS-DOS, C/C++ programming library; Windows 95/98/ME/NT/2000 DLL; and a test monitor. The software allows for easy set-up and supports up to a maximum of twelve PPCI7443 cards, allowing operation of up to forty-eight axes.

***NIPPON PULSE MOTOR CO. LTD.***

*No.16-13, 2-CHOME, HONGO, BUNKYO-KU TOKYO 113, JAPAN*

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*FAX:81-3-3813-2940*

*<http://www.nipponpulse.com/>*

*E-mail: [int-1@npm.co.jp](mailto:int-1@npm.co.jp)*

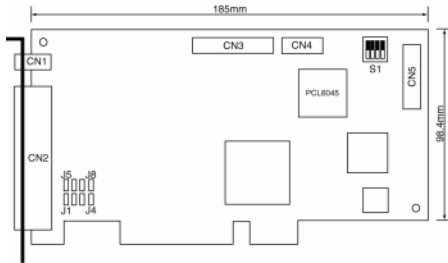
# CONTROLLERS

## PPCI7443

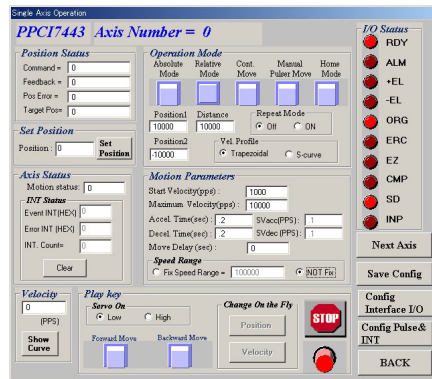
### Features

- 32 Bit PCI-bus plug and play
- 4 axes control for stepper and servo
- Maximum output frequency of 6.55 Mpps
- Pulse output options: out/dir or CW/CCW
- Programmable acceleration and deceleration time
- Trapezoidal and S-curve motion profiles
- Any 2 axes circular interpolation
- 2 to 4 axes linear interpolation
- Continuous interpolation
- Change position and speed on the fly
- Change speed by compare trigger
- 13 home return modes
- Hardware backlash compensator and vibration suppression
- Software limit function
- 28-bit up/down counter for incremental encoder feedback
- Home switch, index signal, positive and negative limit switches interface
- 2 axes high speed position latch input
- 2 axes position compare trigger output with 4KFIFO auto-loading
- Programmable interrupt sources
- Simultaneous start/stop

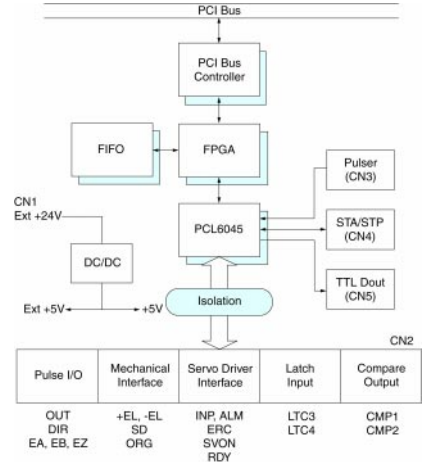
### Outline Dimension Drawing



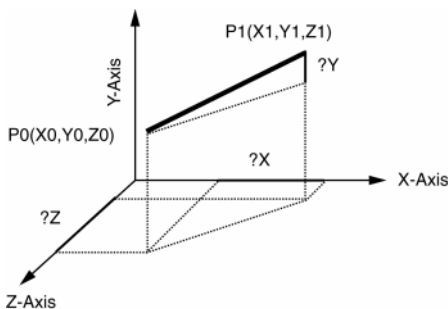
### Software - Operation



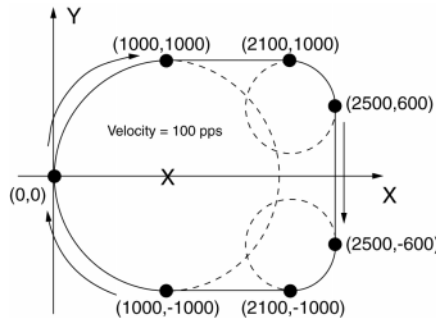
### Block Diagram



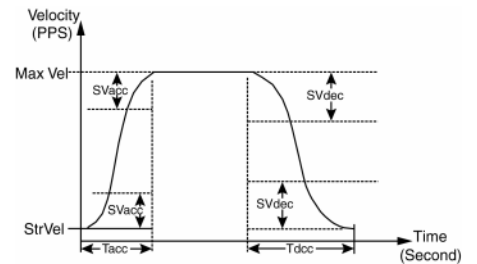
### Linear Interpolation



### Circular Interpolation



### S-Curve Motion Profile



Option: Junction board and 2 meter cable available for use with PPCI7443 (Order part number DIN-100S-2M).

Dimensions in MM. Inches = MM\*0.04