



STEP-200
ISA Bus, 2-axis High-speed
Stepper Motor Control Card
(Limited Functions and Economical)

Introduction

The **STEP-200** is a 2-axis, command-based stepper motor controller board for IBM PC/XT/AT bus-compatible devices. The board can also be used for pulse-type servo motor control (pulse input type). The board includes a built-in μ P that performs a variety of motion control commands and shares the loading of the host computer. A 2 KB FIFO is included as a command buffer, which provides a buffer time of 1360 ms. The hardware architecture of STEP-200 is ideal for the Windows operating system, and drivers for DOS and Windows are provided offering real-time motion control solutions for Windows systems.

If the PMDK is to be used for signal processing, users can refer to a range of samples provided by ICP DAS illustrating how to implement FFT, FIR and IIR, together with the resources provided by TI. In the future, ICP DAS will be providing a wider library of functions and examples that will further reduce the level of programming required by users in order to implement their custom applications. In summary, the PMDK is a highly cost-effective solution for users intending to develop custom applications for motion control, process control, I/O logic control, digital processing, and applications in a wide range of other domains.

Specifications

| Model | STEP-200 |
|--------------------------|------------------------------------|
| General | |
| Number of Axes | 2 |
| Slot Interface | ISA bus |
| Pulse Output Rate | 250 KHz (Max.) |
| Command Type | Pulse Command |
| Resolution | 32-bit |
| Servo Update Rate | - |
| Pulse Output Mode | CW/CCW, PULSE/DIR |
| Operation Mode | Open loop |
| Linear Interpolation | - |
| Circular Interpolation | - |
| Speed Curve Profile | T-curve |
| Synchronous Action | - |
| Ring Counter Mode | 32-bit |
| Position Control Mode | Incremental mode and absolute mode |
| Position Compare Trigger | 10 KHz |
| Encoder Interface | - |

Ordering Information

| | |
|-----------------|---|
| STEP-200 | ISA Bus, 2-axis High-speed Stepper Motor Control Card (Limited Functions and Economical) Includes: CA-PC25M (25-pin Male D-Sub Connector with Plastic Cover) |
|-----------------|---|

Accessories

| | |
|-------|---|
| DN-25 | I/O Connector Block with 25-pin/9-pin D-Sub Connector (DIN-Rail Mounting) |
|-------|---|

Features

- 2-axis independent, simultaneous stepper motor control/servo motor control (Pulse input type)
- Drivers for DOS, Windows 95/98/ME, Windows NT
- Embedded Microprocessor
- Command Type Interface
- Linear and circular interpolation
- Acceleration/deceleration:
Automatic trapezoidal acceleration/deceleration
- Output polarity can be programmable
- 5 optical isolated digital inputs per axis for limit switches



Software Support

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|-------------------------|------------------------|
| Windows Driver/DLL/Lib | Windows 95/98/ME/NT4.0 |
| DOS Library | DOS 6.2 |
| Labview Development Kit | - |
| Linux Library | - |

| Model | STEP-200 |
|----------------------------|------------------------------------|
| Encoder Counter | - |
| Encoder Counting Rate | - |
| I/O Isolation | 2500 Vrms optical isolation |
| Connector | 25-pin D-Sub |
| Motion Relative I/O | |
| Mechanical Switch Input | Home, forward, backward limit, EMG |
| Servo I/O Interface | Output: SVON |
| Digital Input | |
| Digital Input Channels | - |
| Digital Output | |
| Digital Output Channels | - |
| Power | |
| Power Consumption | +5 V @ 500 mA |
| Environmental | |
| Operating Temperature | 0 ~ +50°C |
| Storage Temperature | -20 ~ +70°C |
| Ambient Relative Humidity | 0 ~ 90% RH, non-condensing |