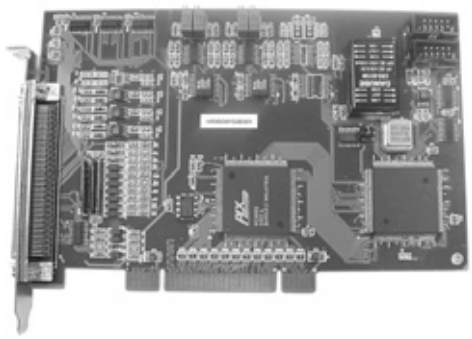
DASP-52504/52504L

4-axis Servo/Stepping Motion Card



Features

- Four, configurable, axes position control for servo or stepper
- Supports real-time RTX driver (option)
- The Linear DDA law is designed to do fine interpolation
- Output Interface can be analog or pulse train and direction
- PI plus feed forward control law
- 4 encoder channels with a 32-bit counter
- 4 DAC channels with a 16-bit resolution
- Encoder resolution can be amplifiered by x1, x2 or x4 rates
- 18 local I/O points
- Watchdog timer and one programmable timer
- Windows® 98/NT/2000/XP and Labview 6.0/7.0 driver supported
- Complete sample program- VB, VC, BCB, Delphi

Specifications

Data bus	16 bits
Interrupt source	83
Control axes	4
DDA cycle	25μs - 3.35 ms
D/A resolution	16 bits
Pulse command output	Pulse/Direction, CW/CCW, A/B phase
Encoder feedback signal	Pulse/Direction, CW/CCW, A/B phase
DAC	4 D/A, 16 bits, position loop output
Error counter	16 bits
Absolute position recorder	24 bits
Compensator	P, PI mode
Local I/O channels	13 D/I, 5 D/O
Local I/O type	general purpose, interrupt I/O
Remote I/O type	Output sink type (open collector) input source type
Interval timer channel	1
Timer interrupt	0.5μs - 33ms
Watchdog timer	16 bits
Power consumption	+5V @0.9A max.
Operating temperature	0-60˚C
Storage temperature	-20 to 70˚C
Humility	0 to 90%
Connector	SCSI-II 100P Pin-type
Dimensions	185mm x 122 mm

Introduction

The DASP-52504 is a PCI-bus, four axis motion control card. It's designed to control both servo and stepper motors. The most important feature of the DASP- 52504 is to support real-time RTX drivers, making it easy to develop and deploy high performance, mission-critical applications that run on Windows operating systems. The DASP-52504 has two operating modes: The first mode is to work with a velocity mode servo drive. The DASP-52504 compares the segmental movement commands from the Host PC and the encoder feedback from servo motor, calculates, via P controls, the analog output command, then sends the command to the velocity mode drive to control the servo motor. The second mode is to convert the segmental movement command into well behaved, from a frequency variance standpoint, pulse train and feed to either the use position mode servo drive or a stepper drive to control the motor.

Real-time Data Acquisition and Control: RTX Driver

RTX enhances Windows' universally adopted look and give developers real-time determinism, unmatched dependability, and ability. By offering a fully compliant Win32 API set, RTX application portability is simplified between various Windows operating systems. This portability permits the underlying Windows operating system to be upgraded transparently with no impact to the device drivers or real time applications.

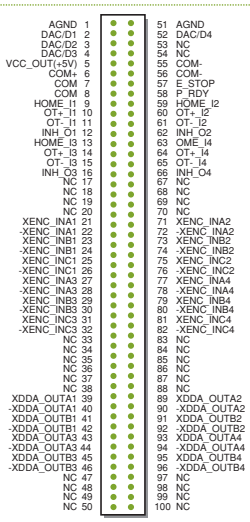
On-board Watchdog Timer

Users can set up time intervals for the timer. While the application programs within the time interval have not connected with DASP/DASA products, the DASP/DASA will be sending out a preset safety value to a devices linked to the DASP/DASA. This helps maintain a stable system.

Applications

- Digital I/O control
- Real time clock
- Process event counting
- Pulse generation
- Time-delay generation
- Test automation
- Laboratory automation
- PWM output
- Square wave output
- Pulse width measurement

Pin Assignment



Ordering Information

DASP-52504	4-axis servo / stepping motion card
DASP-52504L	DASP-52504 w/o analog output card
Daughter Board	
DB-87040	4-axis motion daughter board
Cable	
CB-89200-2	SCSI-II 100P pin type cable 2M
CB-89200-5	SCSI-II 100P pin type cable 5M

* All specifications and photos are subject to change without notice.