

# DASP-52506/52506L

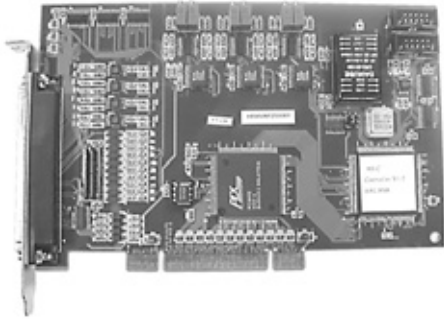
6-axis Servo/Stepping Motion Card



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## Specifications

Data bus	16 bits
Interrupt source	83
Control axes	6
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	6 D/A, 16 bits, position loop output
Error counter	16 bits
Absolute position recorder	24 bits
Compensator	P, PI mode
Local I/O channels	26
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 @1.0A max.
Operating temperature	0-60°C
Storage temperature	-20 to 70°C
Humidity	0 to 90%
Connector	SCSI-II 100P Pin-type
Dimensions	185mm x 122 mm

## 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

## Ordering Information

DASP-52506	6-axis servo / stepping motion card
DASP-52506L	DASP-52506 w/o analog output card
<b>Daughter Board</b>	
DB-87060	6-axis motion daughter board
<b>Cable</b>	
CB-89200-2	SCSI-II 100P pin type cable 2M
CB-89200-5	SCSI-II 100P pin type cable 5M

## Features

- ▶ Six ,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
- ▶ 6 encoder channels with a 32-bit counter
- ▶ 6 DAC channels with a 16-bit resolution
- ▶ Encoder resolution can be amplified by x1, x2 or x4 rates
- ▶ 26 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

## Introduction

The DASP-52506 is a PCI-bus, six axis motion control card. It's designed to control both servo and stepper motor. The most important feature of the DASP- 52506 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-52506 has two operation modes: The first mode is to work with a velocity mode servo drive. The DASP-52506 compares the segmental movement commands from the Host PC and the encoder feedback from the 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.

## Pin Assignment

AGND	1	51	AGND
DAC/D1	2	52	DAC/D4
DAC/D2	3	53	DAC/D5
DAC/D3	4	54	DAC/D6
VCC_OUT(+5V)	5	55	COM-
COM	6	56	COM+
COM	7	57	E_STOP
COM	8	58	F_FREE
HOME_I1	9	59	HOME_I2
OT+_I1	10	60	OT-_I2
OT+_I11	11	61	OT-_I2
INH_O1	12	62	INH_O2
HOME_I3	13	63	HOME_I4
OT+_I3	14	64	OT-_I4
OT+_I3	15	65	OT-_I4
INH_O3	16	66	INH_O4
HOME_I5	17	67	HOME_I6
OT+_I5	18	68	OT-_I6
OT+_I5	19	69	OT-_I6
INH_O5	20	70	INH_O6
XENC_INA1	21	71	XENC_INA2
XENC_INA1	22	72	XENC_INA2
XENC_INB1	23	73	XENC_INB2
XENC_INB1	24	74	XENC_INB2
XENC_INC1	25	75	XENC_INC2
XENC_INC1	26	76	XENC_INC2
XENC_INA3	27	77	XENC_INA4
XENC_INA3	28	78	XENC_INA4
XENC_INB3	29	79	XENC_INB4
XENC_INB3	30	80	XENC_INB4
XENC_INC3	31	81	XENC_INC4
XENC_INC3	32	82	XENC_INC4
XENC_INA5	33	83	XENC_INA6
XENC_INA5	34	84	XENC_INA6
XENC_INB5	35	85	XENC_INB6
XENC_INB5	36	86	XENC_INB6
XENC_INC5	37	87	XENC_INC6
XENC_INC5	38	88	XENC_INC6
XDDA_OUTA1	39	89	XDDA_OUTA2
XDDA_OUTA1	40	90	XDDA_OUTA2
XDDA_OUTB1	41	91	XDDA_OUTB2
XDDA_OUTB1	42	92	XDDA_OUTB2
XDDA_OUTA3	43	93	XDDA_OUTA4
XDDA_OUTA3	44	94	XDDA_OUTA4
XDDA_OUTB3	45	95	XDDA_OUTB4
XDDA_OUTB3	46	96	XDDA_OUTB4
XDDA_OUTA5	47	97	XDDA_OUTA6
XDDA_OUTA5	48	98	XDDA_OUTA6
XDDA_OUTB5	49	99	XDDA_OUTB6
XDDA_OUTB5	50	100	XDDA_OUTB6

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