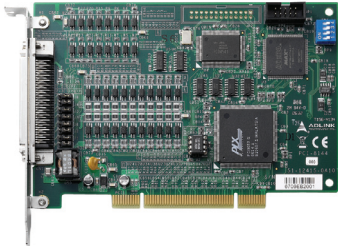


# PCI-8144

## 4-axis Stepper Motion Control Card



### Features

- 32-bit PCI bus, Rev. 2.2, 33 MHz
- Card index switch selection
- Pulse output rates up to 2.4 Mpps for stepper motor control
- Pulse output options: CW/CCW
- Speed change on-the-fly
- 3 home return modes
- Programmable acceleration and deceleration time
- Trapezoidal and S-curve velocity profile
- Simultaneously start/stop with external signal control (STA/STP)
- Programmable interrupt control
- Supports up to 12 cards in one system
- Security protection for user's program
- General purpose isolated I/O: 8 DI and 8 DO
- Emergency stop input via STP pin
- All digital I/O are 2500 V<sub>RMS</sub> isolated
- More than 30 thread safe API functions
- 2-phase stepping motor excitation optional

### Specifications

#### Pulse Type Motion Control

■ Number of Axes	4
■ Pulse Output Rate	0.5 pps to 2.4 Mpps
■ Max. Acceleration Rate	737 Mpps <sup>2</sup>
■ Speed Resolution	16-bit

#### Motion Interface I/O Signals

■ I/O Pin	Differential and 2500 V <sub>RMS</sub> optically isolated
■ End Limit Signal Pin	PEL and MEL
■ Slow Down Signal Pin	PSD and MSD
■ Home Sensor	ORG
■ GPIO	8 DI and 8 DO

#### General Specifications

■ Connector	68-pin SCSI-II-type connector
■ Operating Temperature	0°C to +50°C
■ Storage Temperature	-20°C to +80°C
■ Humidity	5% to 85%, non-condensing

#### Power Consumption

■ Power Supply (Input)	+24 Vdc ±5%
■ External Power Supply (Output)	+5 Vdc ±5%, 100 mA (max.)

### Software Support

#### Windows® Platform

- Available for Windows Vista (32-bit)/XP/2000
- Recommended programming environments: VB/VC++/BCB/Delphi
- Various sample programs with source code
- Customized API functions

#### MotionCreatorPro 2™

MotionCreatorPro 2 is a user-friendly Windows-based application development software package included with all distributed motion and I/O control modules.

MotionCreatorPro 2 provides simple configuration and real-time statuses of modules, in addition to precise positioning control with no effort.

(See page 1-23 for more information on MotionCreatorPro 2.)

### Ordering Information

#### ■ PCI-8144

4-axis stepper motion control card

### Accessories

See section 14 for more information on Accessories.

#### Terminal Board

##### ■ DIN-68S-01

Terminal board with 68-pin SCSI-II connector with DIN socket

#### Cabling

##### ■ ACL-10569-1

68-pin SCSI-II cable  
(mating with AMP-787082-7), 1 M

### Pin Assignment

VDD	1	35	VDD
EGND	2	36	EGND
CW+	3	37	CW+
CWCCW+	4	38	CWCCW+
CCWPEL0	5	39	CCWPEL2
MEL0	6	40	MEL2
PSD0	7	41	PSD2
MSD0	8	42	MSD2
ORG0	10	44	ORG2
EGND	11	45	EGND
CW+	12	46	CW+
CWCCW+	13	47	CWCCW+
CCWPEL1	14	48	CCWPEL3
MEL1	15	49	MEL3
PSD1	16	50	PSD3
MSD1	17	51	MSD3
ORG1	18	52	ORG3
STP/EMG	19	53	STA
DIN0	20	54	DOUT0
DIN1	21	55	DOUT1
DIN2	22	56	DOUT2
DIN3	23	57	DOUT3
DIN4	24	58	DOUT4
DIN5	25	59	DOUT5
DIN6	26	60	DOUT6
DIN7	27	61	DOUT7
VDD	28	62	DO_COM
VDD	29	63	DO_COM
EGND	30	64	EGND
EX +24V	31	65	EX +24V
	32	66	
	33	67	
	34	68	