PCI-8134

Entry-level 4-axis Servo & Stepper Motion Controller





Specifications

Pulse Type Motion Control	
Number of Axes	4
Pulse Output Rate	0.03 pps to 2.4 Mpps programmable
Pulse Command Output	DIR/OUT, CW/CCW
Max. Acceleration Rate	91 Mpps[2]
Speed Resolution	16-bit
Encoder Input Rate	2.4 MHz @ 3 M cable
Encoder Counter Resolution	28-bit
Positioning Range	-134,217,728 to +134,217,727 pulses (28-bit)
Max. Number of Cards in One System	12
Motion Interface I/O Signals	
I/O Pin	Differential and 2500 VRMS optically isolated
Incremental Encoder Signals Input Pin	DIR/OUT, EA/EB
Encoder Index Signal Input	EZ
Mechanical Limit Switch Signal Input Pin	±EL, ±SD, and ORG
Servomotor Interface I/O Pin	INP, ALM, ERC
General DO Pin	SVON
General DI Pin	RDY
Pulser Signal Input	PA and PB
Simultaneous Start/Stop Signal I/O Pin	STA and STP

Features

- **32-bit PCI bus, Rev. 2.2, 33 MHz**
- **Pulse output rates up to 2.4 MHz**
- **Pulse output options: OUT/DIR, CW/CCW**
- **Encoder input frequency up to 2.4 MHz under 4 x AB mode**
- **2 axes linear interpolation**
- **Programmable acceleration and deceleration time**
- **Trapezoidal and S-curve velocity profiles**
- **Easy interface to any stepping motors, AC or DC servo, linear or rotary motors**
- **28-bit up/down counter for incremental encoder**
- **All digital inputs and outputs are 2500 VRMS isolated**
- **Change speed override**
- **Multi-axis, simultaneous start/stop**
- **Dedicated I/O interface for PEL, MEL, ORG, EZ, INP, ERC, ALM**
- **Programmable interrupt sources**
- **Manual pulser input interface**
- **Supports up to 12 cards in one system**
- **3 ASIC-based home return modes and 9 software-based home return modes**
- **More than 75 thread safe API functions**

Software Support

Windows® Platform

- Available for Windows 7/Vista (32-bit)/XP/2000
- Recommended programming environments: VB/VC++/BCB/Delphi
- Various sample programs with source codes
- Customized API functions are possible

LabVIEW® VIs

- Motion VIs of the PCI-8134 for LabVIEW are available.

Linux Platform

- Redhat 9, kernel 2.4.x
- Fedora Core 3, kernel 2.6.9
- Fedora Core 4, kernel 2.6.11
- Fedora Core 5, kernel 2.6.15

MotionCreatorPro™

MotionCreatorPro™ assists motion system developers in debugging any cabling problems and resolving complex system configuration before programming

Ordering Information

PCI-8134
Entry-level 4-axis servo& stepper motion controller

Accessories

For more information on terminal boards & cables, please refer to page 6-29.

Terminal Boards

DIN-100S-01
Terminal board with one 100-pin SCSI-II connector and DIN-rail mounting

DIN-814-GP
Terminal board for general purpose with 100-pin SCSI-II connector

DIN-814M0
Terminal board for Mitsubishi MR-J2S-A servo amplifier

DIN-814M-J3A0
Terminal board for Mitsubishi MR-J3S-A amplifier

DIN-814Y0
Terminal board for Yaskawa Sigma II/III/V amplifiers

DIN-814P-A40
Terminal board for Panasonic MINAS A4 amplifier

DIN-814PA0
Terminal board for Panasonic MINAS A servo amplifier

Cabling

ACL-102100-1
100-pin SCSI-II cable
(mating with AMP-787082-9), 1 M

Pin Assignment

PCI-8134 Pin Assignment of the 100-pin SCSI-type Connector

EX+5V	1	51	EX+5V
EXGND	2	52	EXGND
OUT 1+	3	53	OUT 3+
OUT 1-	4	54	OUT 3-
DIR 1+	5	55	DIR 3+
DIR 1-	6	56	DIR 3-
SVON1	7	57	SVON3
ERC1	8	58	ERC3
ALM1	9	59	ALM3
INP1	10	60	INP3
RDY1	11	61	RDY3
EXGND	12	62	EXGND
EA1+	13	63	EA3+
EA1-	14	64	EA3-
EB1+	15	65	EB3+
EB1-	16	66	EB3-
EZ1+	17	67	EZ3+
EZ1-	18	68	EZ3-
EX+5V	19	69	EX+5V
EXGND	20	70	EXGND
OUT2+	21	71	OUT4+
OUT2-	22	72	OUT4-
DIR2+	23	73	DIR4+
DIR2-	24	74	DIR4-
SVON2	25	75	SVON4
ERC2	26	76	ERC4
ALM2	27	77	ALM4
INP2	28	78	INP4
RDY2	29	79	RDY4
EXGND	30	80	EXGND
EA2+	31	81	EA4+
EA2-	32	82	EA4-
EB2+	33	83	EB4+
EB2-	34	84	EB4-
EZ2+	35	85	EZ4+
EZ2-	36	86	EZ4-
+EL1	37	87	EL3+
+EL1	38	88	EL3-
+SD1	39	89	SD3+
-SD1	40	90	SD3-
ORG1	41	91	ORG3
EXGND	42	92	EXGND
+EL2	43	93	EL4+
-EL2	44	94	EL4-
+SD2	45	95	SD4+
-SD2	46	96	SD4-
ORG2	47	97	ORG2
EXGND	48	98	EXGND
EXGND	49	99	EX+24V
EXGND	50	100	EX+24V

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