

PCI-8132

Entry-level 2-axis Servo & Stepper Motion Controller with 32-CH GPIO



Features

- 32-bit PCI bus, Rev 2.2, 33 MHz
- Pulse output rate 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 which have pulse train input mode
- 28-bit up/down counter for incremental encoder
- All digital inputs and outputs are 2500 V_{RMS} 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
- Hardware position compare and trigger pulse output
- 16-CH general purpose input/16-CH general purpose output
- 3 home return modes
- More than 100 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
- **LabVIEW® VIs**
 - Motion VIs of the PCI-8132 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.

Specifications

Pulse Type Motion Control

■ Number of Axes	2
■ 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

■ Position Latch Input Pin	LTC (1 kHz for continuous triggering)
■ I/O Pin	Differential and 2500 V _{RMS} 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

General-purpose I/O

- 16-CH input & 16-CH output

Ordering Information

■ PCI-8132

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Accessories

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

Terminal Boards

■ DIN-812M0

Terminal board for Mitsubishi MR-J2S-A servo amplifier

■ DIN-100S-01

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

Cabling

■ ACL-102100-1

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

Pin Assignment

PCI-8132 Pin Assignment of the 100-pin SCSI-type Connector

VPP+5V	1	51	DO COM+
EXGND	2	52	EXGND
OUT1+	3	53	DO0
OUT1-	4	54	DO1
DIR1	5	55	DO2
DIR1-	6	56	DO3
SVON1	7	57	DO4
ERC1	8	58	DO5
ALM1	9	59	DO6
INP1	10	60	DO7
RDY1	11	61	DO8
EXGND	12	62	DO9
EA1+	13	63	DO10
EA1-	14	64	DO11
EB1+	15	65	DO12
EB1-	16	66	DO13
EZ1+	17	67	DO14
EZ1-	18	68	DO15
VPP+5V	19	69	EXGND
EXGND	20	70	EXGND
OUT2+	21	71	D1 COM+
OUT2-	22	72	D1 COM-
DIR2+	23	73	D10
DIR2-	24	74	D11
SVON2	25	75	D12
ERC2	26	76	D13
ALM2	27	77	D14
INP2	28	78	D15
RDY2	29	79	D16
EXGND	30	80	D17
EA2+	31	81	D18
EA2-	32	82	D19
EB2+	33	83	D110
EB2-	34	84	D111
EZ2+	35	85	D112
EZ2-	36	86	D113
PEL1	37	87	D114
MEL1	38	88	D115
PSD1	39	89	EXGND
MSD1	40	90	EXGND
ORG1	41	91	PA+
EXGND	42	92	PA-
PEL2	43	93	PB+
MEL2	44	94	PB-
PSD2	45	95	EXGND
MSD2	46	96	CMP1
ORG2	47	97	CMP2
EXGND	48	98	EXGND
EXGND	49	99	VPP+24V
EXGND	50	100	VPP+24V