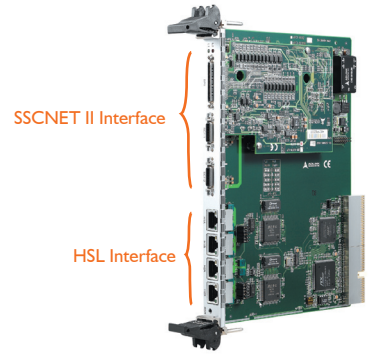
cPCI-8312H

Advanced 6U CompactPCI SSCNET II 12-axis Motion Control Card with HSL Network



Features

SSCNET II Part

- 32-bit CompactPCI, PICMG 2.0 Rev. 2.1
- Servo interface: SSCNET II protocol
- On-board DSP: TI TMS320C6711 200 MHz
- Maximum controllable axes: 12
- 32-bit position command resolution
- On-line servo tuning and data monitoring
- Easy wiring up to 30 meters
- 2 isolated DO channels
- 2 analog input and 2 analog output channels
- 2 pulse train output channels support, connecting pulse train type servo amplifiers
- 2 external encoder/linear scale interface
- Multiple axes linear interpolation
- Any 2 axes circular interpolation
- Contour following motion
- On-the-fly velocity change
- Programmable interrupt sources
- Easy-to-use function library
- Sequence Motion Control for speed profile timing chart between axes
- Absolute encoder access

HSL Part

- Dual independent network operation
- One network port with 2 separate connectors
- Max. 300 m x 2 communication distance at 3 Mbps
- Jumper selectable transmission rate: 3/6/12 Mbps
- Jumper selectable transmission mode: full/half duplex on-board memory
- Programmable timer interrupt
- RJ45 phone jack for easy installation
- More than 400 thread safe API functions

Specifications

SSCNET Distributed Motion Control	
Cycle Time	0.888 ms
Number of Controllable Axes	12
Max. Number of Cards in One System	12
Encoder Feedback	3-CH, 32-bit, up/down counter up to 5 MHz
Motion Interface I/O Signals	
External Encoder Signals Input Pin	EA and EB
Encoder Index Signal Input	EZ
Mechanical Limit Seitch and Origin Signal Input Pin	±EL and ORG
General-purpose I/O	
2 channels isolated digital inputs	
Sink Current	4 mA
Bandwidth	10 kHz
Analog Input (AI)	
Auto-calibration	
Resolution	16-bit
Programmable Input Range	±10 V, ±5 V, ±2.5 V
Sampling Rate	250 ks/sec
Analog Output (D/A)	
Resolution	16-bit
Output Channel	2 single-ended channels
Output Range	±10 V, bipolar
Setting Time	10 μs
Output Driving	±5 mA
Pulse Train Output	
Pulse Command Type	OUT/DIR, CW/CCW AB phase selectable
Max. Output Frequency	4.16 MHz
Isolated Voltage	500 VRMS

Software Support

Windows® Platform

- Available for Windows Vista (32-bit)/XP/2000
- Recommended programming environments: VB/VC++/BCB/Delphi

MotionCreatorPro™

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

Ordering Information

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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-10568-1
68-pin SCSI-VHDCI cable
(mating with AMP-787082-7), 1 M

Pin Assignment

DO_COM	1	35	DO1
PEL1	2	36	DO2
MEL1	3	37	PEL2
ORG1	4	38	MEL2
PEL3	5	39	ORG2
MEL3	6	40	PEL4
ORG3	7	41	MEL4
PEL5	8	42	ORG4
MEL5	9	43	PEL6
ORG5	10	44	MEL6
IPT_COM/EMG_COM	11	45	ORG6
EA1+	12	46	EA2+
EA1 -	13	47	EA2-
EB1+	14	48	EB2+
EB1 -	15	49	EB2-
EZ1+	16	50	EZ2+
EZ1 -	17	51	EZ2-
PEL7	18	52	PEL8
MEL7	19	53	MEL8
ORG7	20	54	ORG8
PEL9	21	55	PEL10
MEL9	22	56	MEL10
ORG9	23	57	ORG10
PEL11	24	58	PEL12
MEL11	25	59	MEL12
ORG11	26	60	ORG12
IPT_COM/EMG_COM	27	61	EMG
P_GND	28	62	AD1
OUT1+	29	63	DIR1+
OUT1 -	30	64	AD2
OUT2+	31	65	DIR1-
OUT2 -	32	66	DA1
DIR2+	33	67	DA2
DIR2 -	34	68	A_COM