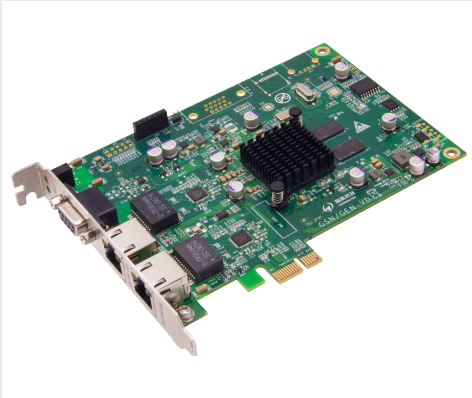


GEN Series

EtherCAT Fieldbus Motion Control Card



GEN series multi-axis motion control card is a plug-in motion controller that is based on EtherCAT fieldbus. It integrates EtherCAT master solutions to realize synchronous motion control of up to 64 axes. It supports module extension of gLink-I IO and EtherCAT IO to provide users with motion control solutions of multi-axis and multi-IO. GEN series motion control card can realize multi-axis interpolation, advanced S-curve acceleration/deceleration, electronic gear and electronic cam with high-performance motion control algorithm.

GEN series EtherCAT multi-axis motion control card is ideal for 3C manufacturing and assembling, lithium battery packaging, textile, printing, semiconductor and other industrial applications.

Features

- ◆ Supports up to 64-axis synchronous motion control
- ◆ Supports standard EtherCAT protocol and compatible with various types of CoE slave station
- ◆ Supports interpolation motion with advanced S-Curve acceleration/deceleration
- ◆ Multi-axis interpolation with look-ahead planning algorithm
- ◆ Supports spatial circular arc interpolation, helix interpolation, electronic gear and electronic cam
- ◆ Supports user-defined velocity planning and embedded motion program
- ◆ 2 types of IO connection mode: EtherCAT and gLink-I (proprietary)
- ◆ PCI-e (x1) interface

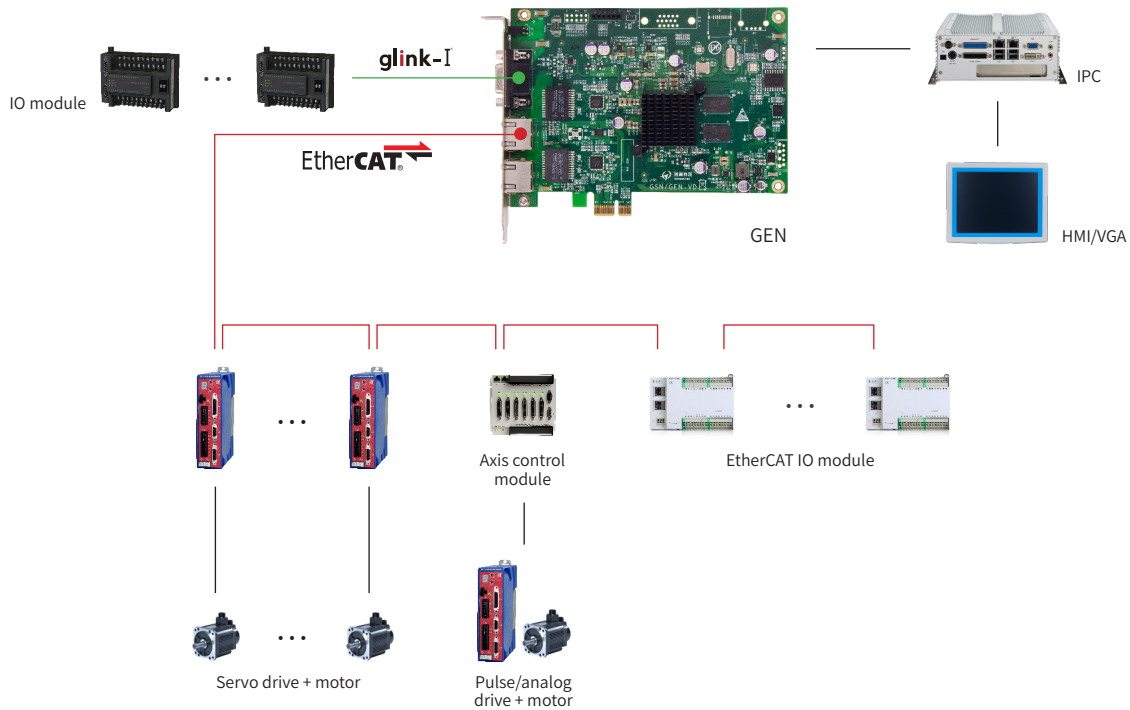
Specifications

Motion Control	
Number of axis	8/16/32/64 axes
Control cycle	250us~4ms (adjustable)
Motion mode	Point to point, Jog, electronic gear, electronic cam, PT, PVT, interpolation (linear, circular arc, helix, 8 coordinate systems), compensation algorithm, look-ahead preprocessing
IO extension	EtherCAT: general purpose EtherCAT IO module; gLink-I: gLink-I IO module (Googol proprietary)
Drive mode supported	CSP, CSV, PV, PT, Homing mode
Network Connection Configuration	
Connection mode	Cascade
EtherCAT connector	RJ45
EtherCAT cable	CAT5e STP (shielded twisted pair cable)
EtherCAT transmission speed	100Mbps
EtherCAT distance between adjacent stations	Maximum 100m
gLink-I connector & speed	DB9F, 6.25Mbps
EtherCAT servo slave station supported	Googoltech GSHD, ASDA A2; Inovance IS620N; Sanyo Denki RS2; Panasonic A5B; INVT DA200; Tsino A8, R6; LS L7N; Elmo Gold; Lenze i700; Phase Ax series, etc.
Development Environment	
OS supported	Windows XP / 7 / 8 / 10, Linux
Development language	C/C++, C#, VB.NET, VB

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Electric parameter	
Voltage	5VDC ± 10%
Current	2A (minimum)
Installation and usage	
Operating temperature	0-55° C
Humidity	5%-90%, non-condensing
Installation method	PCI-e interface
Dimension (mm)	161.4mm x 125.3mm

System architecture



Ordering information

Type	Item	Ordering No.	Description
Required	Motion Control Card	GEN-008-00	8-axis GEN motion control card
		GEN-016-00	16-axis GEN motion control card
		GEN-032-00	32-axis GEN motion control card
		GEN-064-00	64-axis GEN motion control card
Optional	Extension Module	HCB5-1616-DTD01	16DI/16DO, active-low input, transistor 0.5A drain output
		HCB5-1616-DTS01	16DI/16DO, active-low/active-high input, transistor 0.5A source output
		HCB5-3200-DXX01	32DI, active-low/active-high input, no output
		HCB5-0604-A1201	6AI/4AO, 12-bit resolution, input/output (0~5V, 0~10V, -5~5V, -10~10V, 0~20mA, 4~20mA)
		HCB5-0606-A1201	6AI/6AO, 12-bit resolution, input/output (0~5V, 0~10V, -5~5V, -10~10V, 0~20mA, 4~20mA)
		HCB5-1610-DRA01	16DI/10DO, active-low/active-high input, 2DO transistor output, 0.5A; 8DO NO relay switch, 2A
		HCS5-3216-DRA01	32DI/16DO, DO 2A relay
		RT133-1BL10-EA	16DI/16DO, transistor source output, EtherCAT fieldbus

Type	Item	Ordering No.	Description
Optional	Axis Module	GNME-401-00	4-axis, EtherCAT to pulse interface, connect servo drive /stepper motor drive with general pulse interface
		GNME-601-00	6-axis, EtherCAT to pulse interface, MPG, IO extension, EtherCAT fieldbus
	IO Extension Cable	DB9P F/M L=0.3m/1.5m	0.3m/1.5m, 1 for each IO extension module, customized to needs
	EtherCAT Cable	GN-RJ45-RJ45-0M2/0M3/0M5/0M6/0M7/1M0/3M0/5M0/10M/20M/30M/50M	CAT5e STP (shielded twisted pair cable), RJ45 crystal head, 0.2m/0.3m/0.5m/0.6m/0.7m/1.0m/3.0m/5.0m/10m/20m/30m/50m, customized to needs

Dimensions

