GTN Series Motion Controller

-- Supports 24 axes without using network type servo drive

GOOGOL TECH

Overview

GTN series multi-axis motion controller is a network type, modular motion controller. The control card can implement motion planning, including pulse calculation and IOs control.

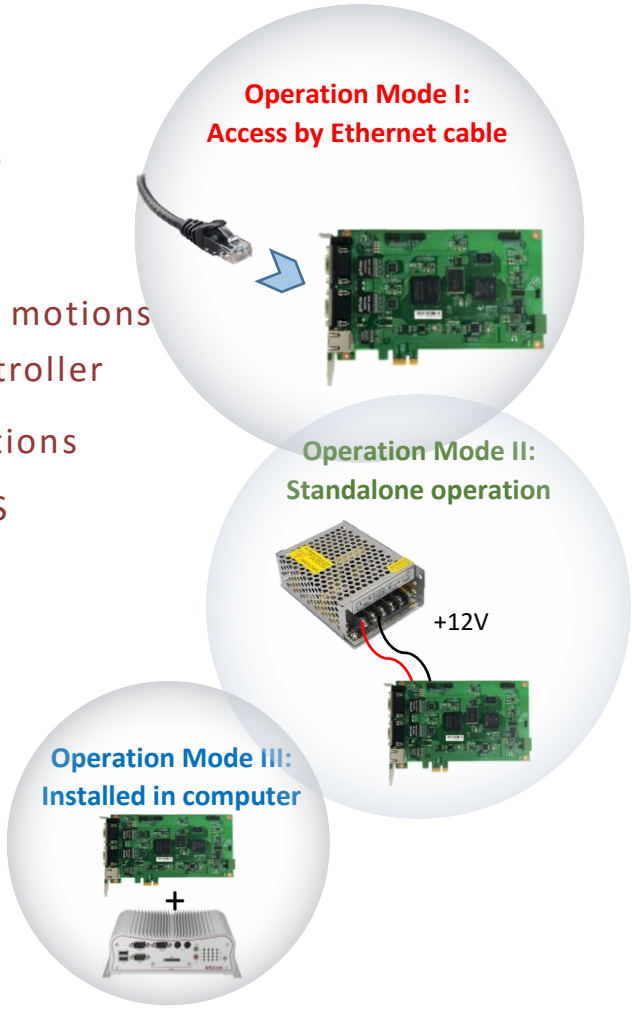
Through the new revolution of protocol gLink-II, user can control up to ***28*** axes[1] through the modules linked by gLink-II[2].

The motion card can do advanced motion planning such as PVT planning and interpolation motion, in which the card can meet most of the high demand application.

Since the motion control card is composed of FPGA and DSP, the computing speed is fast that can help to achieve a smooth motion curve and can fully utilized the capability of servo drive and motor sets.

What's the REVOLUTION??

- Operations through **Ethernet**/**Standalone**/**PCIe**
- Support up to **28 axes** Interpolation motion[3]
- Support different types of motions between **28 axes** in ***1*** controller
- With encrypt protected functions
- 100% compatible with GTS series controller



Remarks:
1, The controller can be attached maximum eight axis control modules. Core 1 can core 2 can each attaches 4 axis control module. The maximum axes layout is 12axes +16axes.
2, gLink-II is a new revolution protocol of Googol Technology. The protocol adopts gigabit Ethernet forming a looping network. It equips with data redundancy function. Signal will be detected if the loop network is broken.
3, The motion controller supports maximum 12 axes interpolation in a single coordinate system, 12 axes outside the coordinate system.

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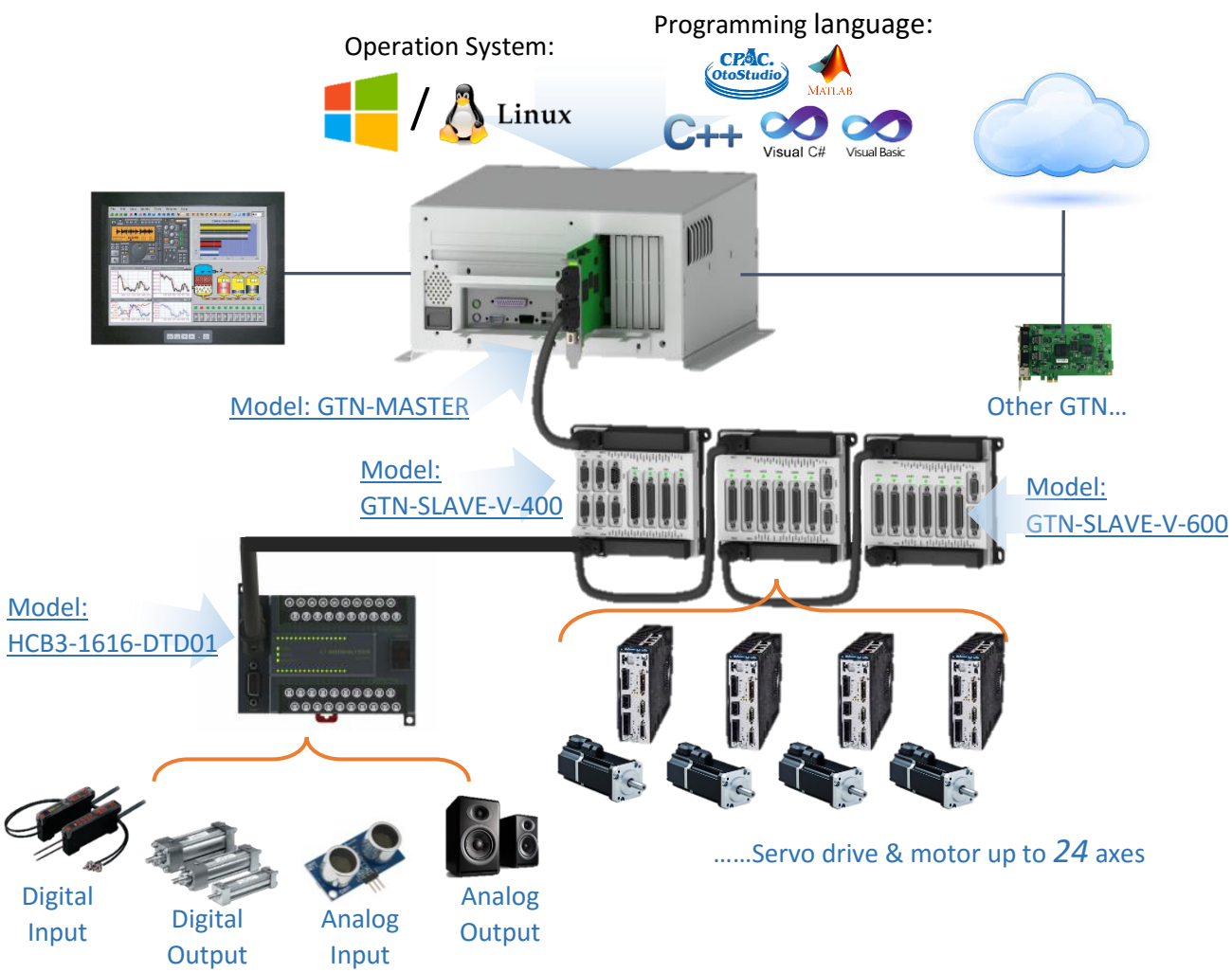
System layout example



Specifications:

	Description
Motion control	
No. of control axes	24 (max.)
Control cycle	250us
Basic motion function	T-curve, Jog motion, electronic gear mode, linear interpolation, circular interpolation, auto-homing, position comparison output
Optional function	PT/PVT motion, S-curve motion, electronic cam, continuous path pre-processing and feed-forward, galvanometic control
Encoder	Incremental/ absolute encoder
Support development environment	C, C++, C#, VB.NET, VB, Delphi, LabVIEW, Otostudio V3.5
Hardware	

No. of IO support	1024 DI/DO, 64AI/AO
Digital IO	10-14 channels, 24V
Analog IO	8 channels input, 12bit accuracy, ±10V
Dimension	121x181(mm)
Other	
OS	Windows 7 (32/64bit), Windows XP, Linux
Voltage	Control card on PCIe: DC 24V ±10% Control card standalone: DC 12V ±10% Axis control module: DC 24V ±10%
Current	Axis control module: 2A
Operating Temperature	0～55 °C
Working Humidity	0%～90%, Non-condensing

Ordering guide

Hardware	Model Number	Description	Appearance
Motion control card	GTN-MASTER	Motion control card	
Axis control module	GTN-SLAVE-300	3 axes, Pulse output, support galvanometers, laser function and extended IO module, auxiliary encoder, MPG	
	GTN-SLAVE-300-A	3 axes, Pulse/Analog output, support galvanometers, laser function and extended IO module, auxiliary encoder, MPG	
	GTN-SLAVE-400	4 axes, Pulse output, 16DI,14DO,MPG	
	GTN-SLAVE-400-A	4 axes, Pulse/Analog output, 16DI,14DO,MPG	
	GTN-SLAVE-600	6 axes, Pulse output, 16DI,14DO,MPG	
	GTN-SLAVE-600-A	6 axes, Pulse/Analog output, 16DI,14DO,MPG	
Cable	GTN-DB9-1M5	DB9 gigabit network cable, 1.5m, connecting control card and axis control modules	

Optional hardware

Hardware	Model Number	Description
Extension IO module	HCB3-1616-DTD01-B	16DI/14DO, active low input, sink output
Extension IO connection cable	DB9 F/M L=0.3m	Accompany with each extension IO module (1 pc) 0.3m
	DB9 F/M L=1.5m	Accompany with each extension IO module (1 pc) 1.5m
Drive connection cable	ACC5-D01005/10/15/20	Panasonic series drive connection cable, 0.5m/1m/1.5m/2m

	ACC5-D01005/10/15/20(brake)	Panasonic series drive connection cable with brake signal cable, 0.5m/1m/1.5m/2m
	ACC5-SP01015	Sanyo series drive connection cable, 1.5m
	ACC5-D03015/30	Yaskawa series drive connection cable 1.5/3m
	ACC5-D03015/30 (brake)	Yaskawa series drive connection cable with brake signal cable 1.5/3m
	HPCN36P/M+DB25P/M	GTHD series drive connection cable, 1.5m

Industrial applications

CMM

Packaging machine

Textile machine

3 axes machine

Laser cutting machine

CNC

Robot

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