

iDEABOX Pro

Motion Control

PLC, IIOT, All in One



Integrated
Logic Control, Motion Control
and Internet Technology Intelligent Control System

G&S Intelligent Technology Co., Ltd.

TEL : 4006 300 321

QQ : 4006 300 321

E-mail : info@softlinkcloud.cn

WEB : www.softlinkcloud.cn

Wechat : Softlink_Googoltech

Googol Technology (HK) Ltd.

Unit 1008-09, 10/F, C-Bons Intl.Center,

108 Wai Yip Street, Kwun Tong, Kowloon, HK

Tel: +852-2358-1033

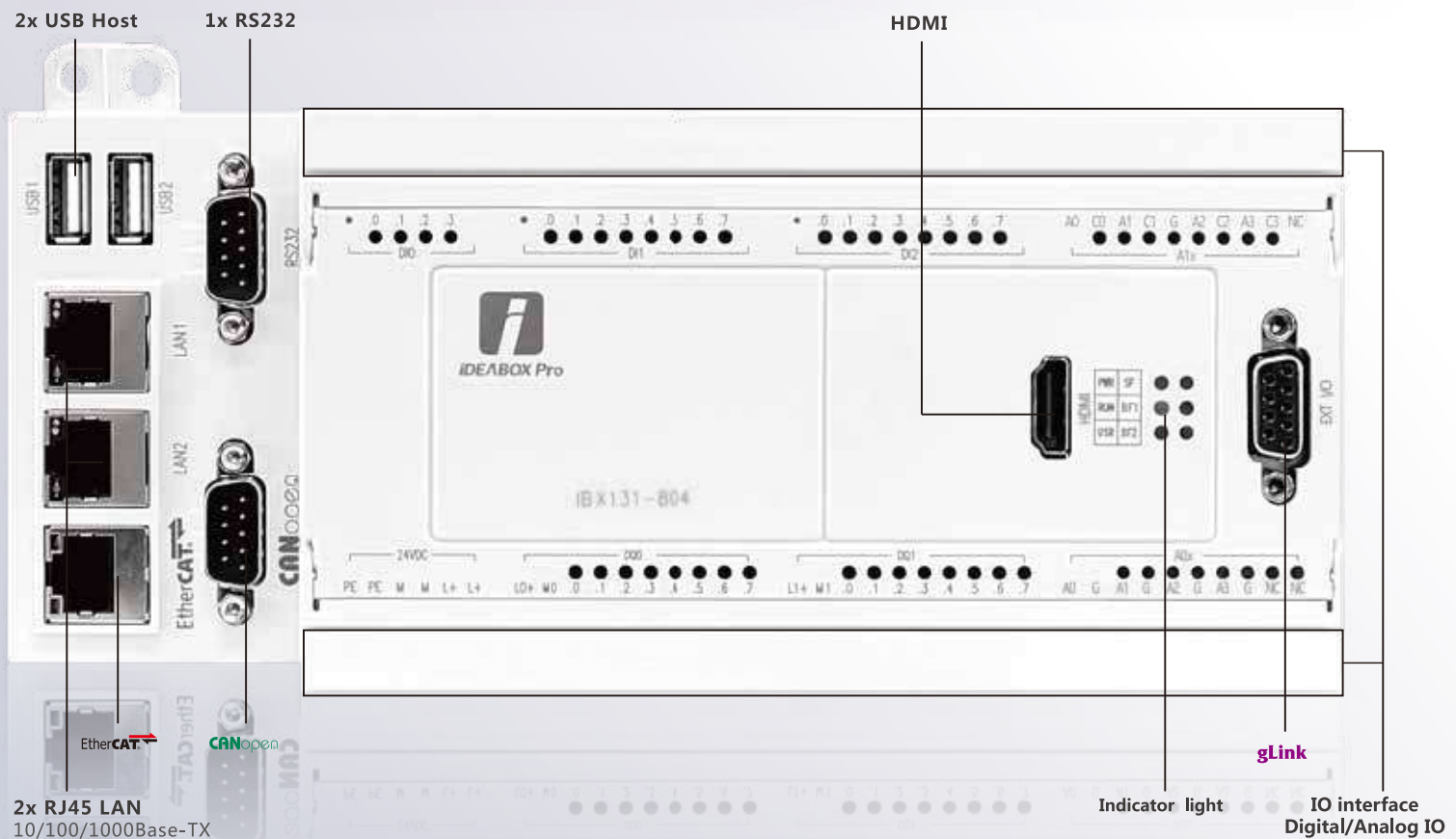
Fax: +852-2719-8399

Email: info@googoltech.com

www.googoltech.com

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iDEABOX Pro Intelligent Controller



Overview

iDEABOX Pro intelligent controller is a high-performance product based on the X86 architecture, integrated motion control technology and PLC technology. This controller provides a rich computer interface, including USB ports, COM ports, LAN ports, digital/analog IO interface, EtherCAT interface, CAN interface and HDMI interface. In addition, extension modules such as digital module, analog module, and encoder can be accessed through the gLink-I bus interface. Its flexible scalability and excellent computing performance are very beneficial to the needs of today's Industry 4.0 for device data acquisition, processing and motion control. For example, high-speed industrial cameras are connected through Gigabit Ethernet ports, and various intelligent industrial applications with machine vision are realized in combination with motion control.

Main Features

Powerful Motion Control:

Up to 64-axis synchronous motion control;
The minimum control period can reach 250us;
Support multi-axis interpolation motion, point motion, Jog motion, electronic gear / cam Motion

Easy to Adjust:

The development platform fully supports the OtoStudio V3 programming environment of the IEC61131-3 standard.
remote diagnostic services
HMI (Human – Machine Interaction):
HMI supports HDMI interface

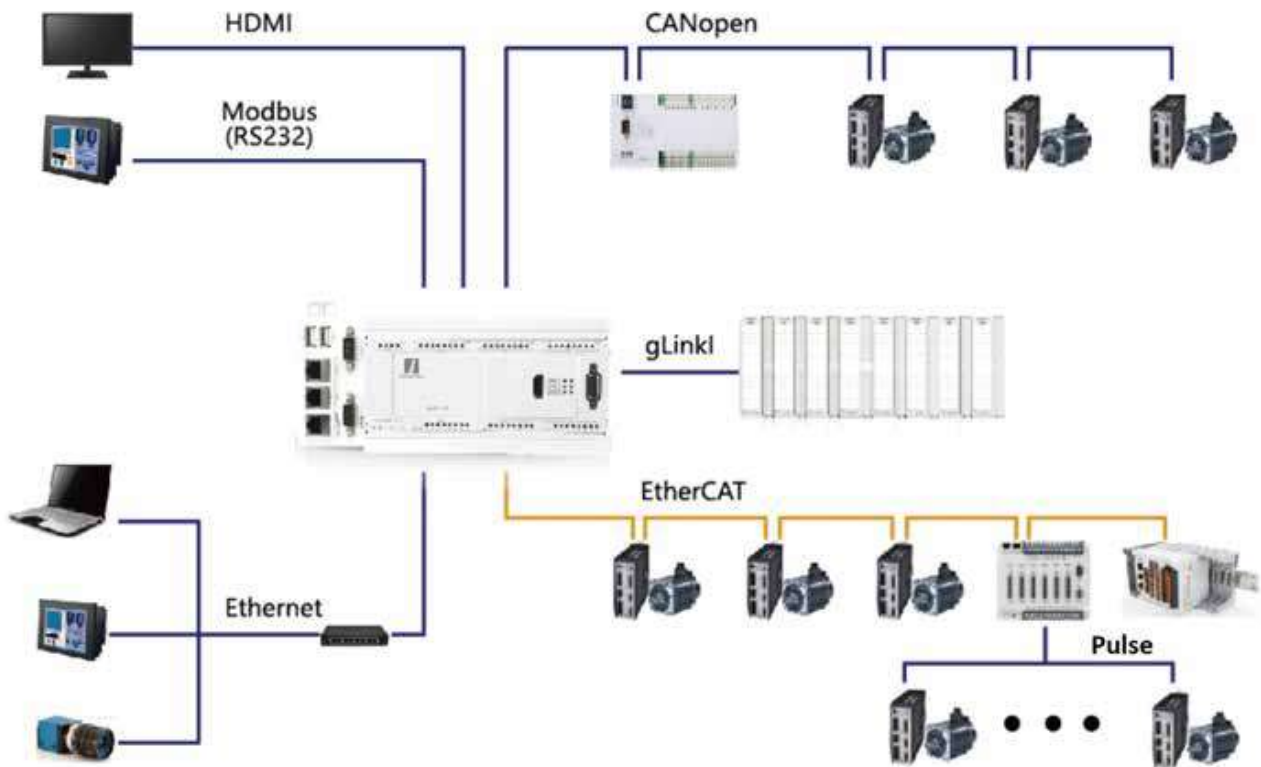
Property Protection:

Encryption chip design for user software protection and end user payment control (Optional)

Data Protection:

Power failure protection (Optional)

System Structure



Applications



Textile



Printing



3C Manufacturing



Lithium Battery Packaging



Factory Automation



Food Processing



Energy



Metallurgy

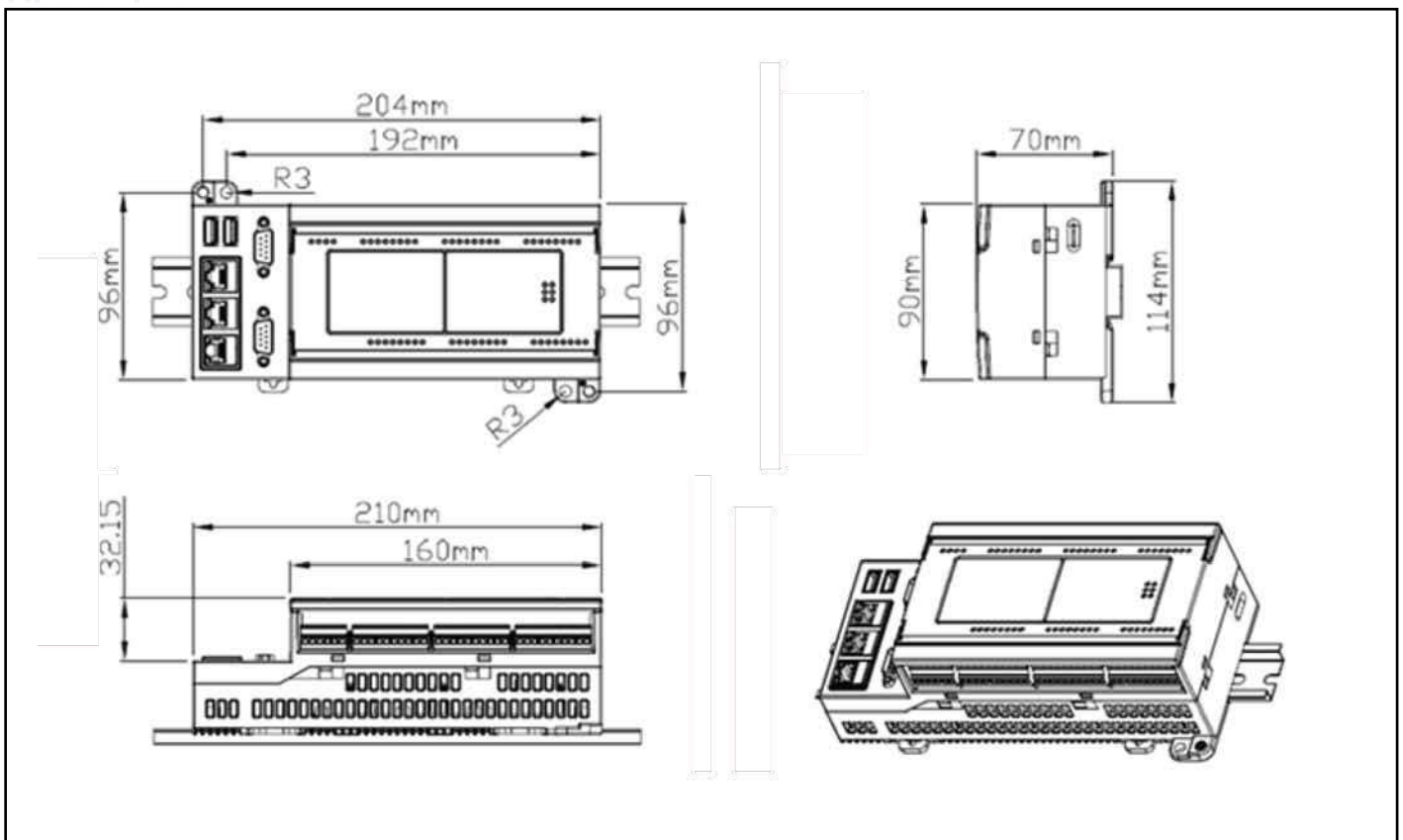


Wind Power

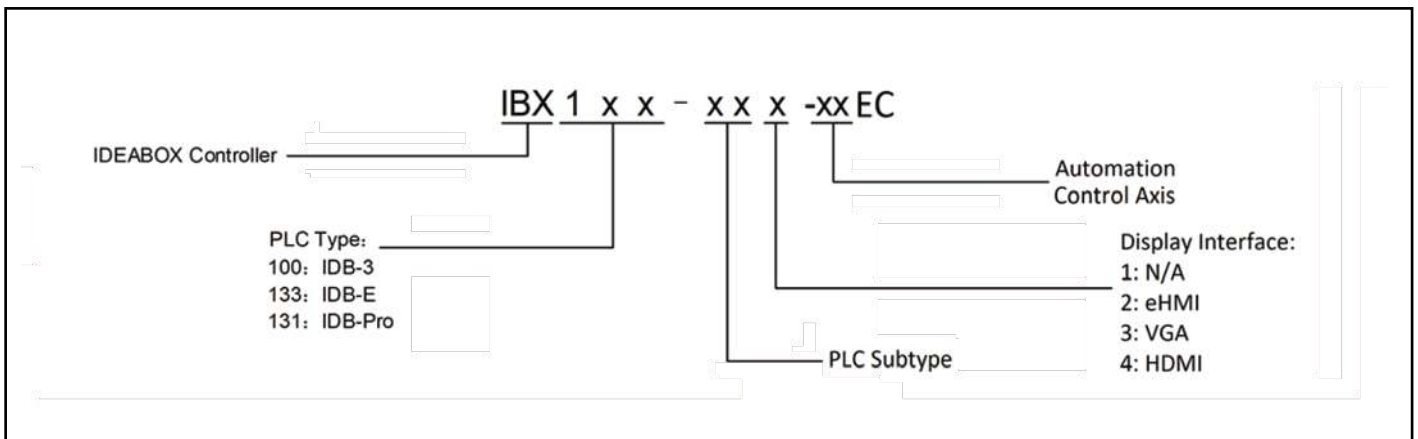
Specification

Item	Description	
System	CPU	Quad-Core Processor, 2.0GHz
	Storage	16GB (Default)
	Memory	DDR3, 2GB
	USB	2 x USB2.0
	Display Port	HDMI
	Ethernet	2 x RJ45, 10/100/1000 Mbps
	COM Port	1 x RS232
	OS Support	Linux
Communication Interface	EtherCAT	1 x RJ45, 100Mbps
	CANopen	1 x DB9M, 2Mbps
	gLink-I	1 x DB9F, 6.25Mbps
Automation Control	Development Environment	OtoStudio V3
	Motion Control Function	Point motion, Jog motion, PT/PVT motion, electronic gear, electronic cam, linear Interpolation, arc Interpolation, compensation Algorithm, data preprocessing
	PLC Function	IEC61131-3 control core, EtherCAT bus IO module extension, CANopen bus IO module extension, gLink-I bus IO module extension
	Minimum Control Period	16 – 64 Axis: 250us ~ 4ms
Built-in I/O	Digital I/O	DI: (Source/Sink), 20-channel normal input
		DO: (Sink), 16-channel universal output
	Analog I/O	AI: 4-channel (Voltage or current)
		AO: 4-channel (Voltage)
Power	Voltage	24VDC \pm 10%
	Current	3A (Minimum)
Environment	Operating Temperature	0°C - 55°C
	Operating Humidity	5% - 90% Relative humidity, non-condensing
Structure	Dimension (mm)	210 x 114 x 70
	Mounting	Panel mounting

Dimension



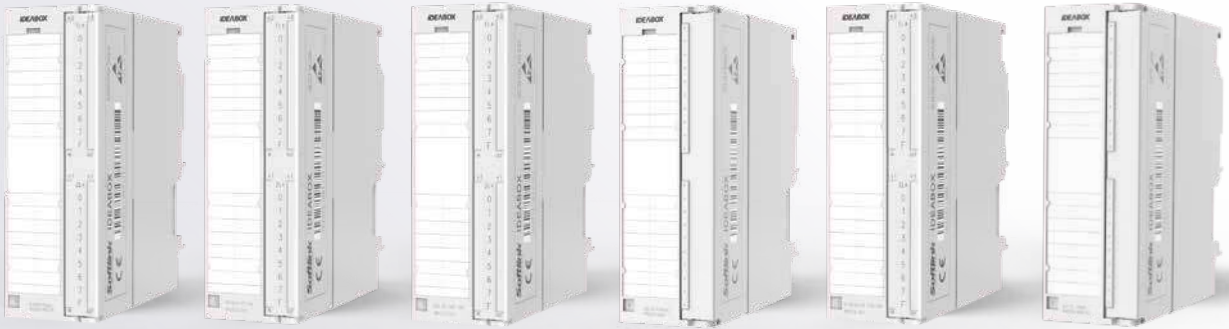
Selection Guide



Ordering Guide

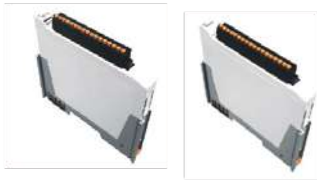
Ordering Number	Description
IBX131 -804-16EC	44-channel local I/O , including digital and analog I/O. EtherCAT 16 -axis synchronous motion control, with a HDMI port
IBX131 -804-32EC	44-channel local I/O, including digital and analog I/O. EtherCAT 32 -axis synchronous motion control, with a HDMI port
IBX131 -804-64EC	44-channel local I/O , including digital and analog I/O. EtherCAT 64 -axis synchronous motion control, with a HDMI port

300 Series I/O Module



Ordering Number	Description
IBM211-321	Digital input module, 32DI, source/sink type
IBM221-321	Digital output module, 32DO, transistor, source type
IBM221-162	Digital output module, 16DO, relay output
IBM231-321	Digital input/output module, 16DI, source /sink type,16DO, transistor, source type
IBM212-081-12	Analog input module, 8AI, 12 bit
IBM212-082-16	Analog output module, 8AI, 16 bit
IBM232-081-12	Analog input/output module, 4AI, 12 bit, 4AO, 12 bit
IBM235-041-M	4 axis motion control module, 4 channels pulse output(500KHZ), with origin and limit signal
IBM212-045-RT	Temperature measurement module, 4AI, 24bit, RTD resistance
IBM212-085-TC	Temperature measurement module, 8AI, 24bit, TC thermocouple
IBM205-001-GD	gLink signal repeater module, 24V power supply
IBM205-001-GT	gLink signal transmission module, 24V power supply
IBM205-001-GR	gLink signal receive module, 24V power supply
IBM236-041-RS	4 channels serial port module
IBM235-021-EC	2 channels pulse counter module
IBM205-001-EC	EtherCAT Coupler Module

iSpade Series Bus I/O Module



iModule Series Integrated Bus Module



iMotion Motion Control Module



Power Supply



iSpade Series Bus I/O Module

Ordering Number	Description
IBM311-160	Digital input module, 16DI, source/sink type
IBM321-160	Digital output module, 16DO, transistor, sink type
IBM321-161	Digital output module, 16DO, transistor, source type
IBM305-001-PS	Power supply module
IBM337-001-EC	EtherCAT Coupler Module
IBM312-041	Analog input module, 4AI, 16 bit
IBM322-041	Analog output module, 4AO, 12 bit
IBM312-042	Temperature measurement module, 4AI, 16bit, RTC/TC
IBM337-002-PN	Profinet coupler module

iModule Series Integrated Bus Module

Ordering Number	Description
RT133-1BL10-EA	Digital input/output module with EtherCAT Fieldbus, 16DI, source/sink type, 16DO source type
RT133-1BL00-PN	Digital input/output module with Profinet Fieldbus, 16DI, source/sink type, 16DO source type

iMotion Motion Control Module

Ordering Number	Description
IBX234-401-E1	6 channels motion control module with EtherCAT Fieldbus

Power Supply

Ordering Number	Description
IBX 307-1BA00	2.5A power supply
IBX 307-1EA00	5A power supply
IBX 307-1KA01	10A power supply



300 Series I/O Module Accessory

Ordering Number	Description
IBX 392-1AJ00	20 pins connectors
IBX 392-1AM00	40 pins connectors
IBX 390-1AB60	DIN rail (122mm*160mm)
IBX 390-1AD20	DIN rail (122mm*320mm)
IBX 390-1AE80	DIN rail (122mm*482mm)
IBX 390-1AF30	DIN rail (122mm*530mm)
IBX 390-1AJ30	DIN rail (122mm*830mm)

iSpade Blade Series Bus I/O Module Accessory

Ordering Number	Description
IBM3-BUS200	standard bus plate (35mm*200mm)
IBM3-BUS250	standard bus plate (35mm*250mm)
IBM3-BUS360	standard bus plate (35mm*360mm)
IBM3-DCP-01	Bus cover (50mm*79.5mm)

gLink Fieldbus Accessory

Ordering Number	Description
300972-GA1000	gLink Fieldbus Connector
300350-ST01	gLink Fieldbus Cable

EtherCAT Fieldbus Accessory

Ordering Number	Description
300 901-IBG10	90°EtherCAT Fieldbus Connector
300 901-1BB10	180°EtherCAT Fieldbus Connector
840-2AH10	EtherCAT Fieldbus Cable