



# IDEABOX Intelligent Control System

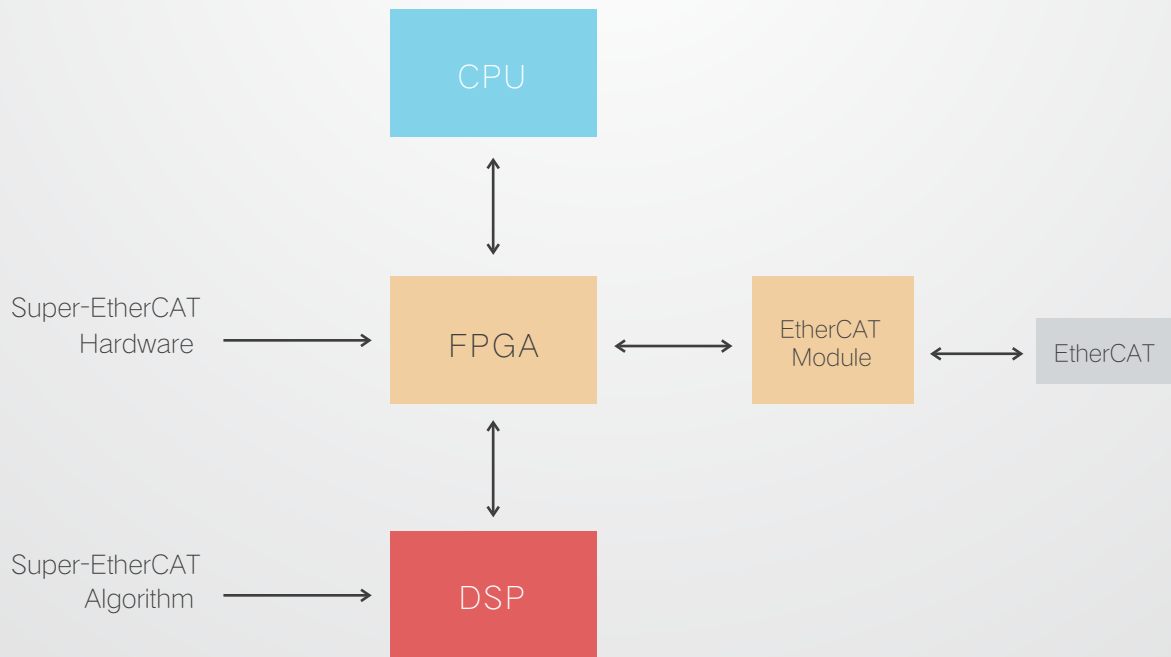
Integration of logic control, motion control and Internet technology

# FEATURES



## Super-EtherCAT

iDEABOX series control system realizes 8 to 64 axes hardware real-time motion control with a control cycle of 250us and support PT, Jog, electronic gear, electronic cam, 4-axis linear interpolation, 2D/3D circular interpolation, helical interpolation, cutter direction follow, speed foresight and other motion control functions. It has powerful I/O extension capability, supporting 65,535 I/O points



Super-EtherCAT achieves hard real-time EtherCAT communication via DSP and FPGA, with a control cycle of 250us.

## iClient

The iClient is embedded in IDEABOX controller, to quickly build an industrial private cloud platform.

- User-friendly program call, customers can interact with specified data and cloud platforms.
- The proprietary on-demand communication mechanisms to ensure maximum utilization of system resources and save costs.
- UUID addressing achieves data transmission from the controller to the cloud platform, completely unaffected from IP changes.
- Multiple encryption technology to ensure data security and reliability.
- API components provide convenient data exchange between controller, cloud platform and third-party software (ERP, MES).



iClient

## Softpro

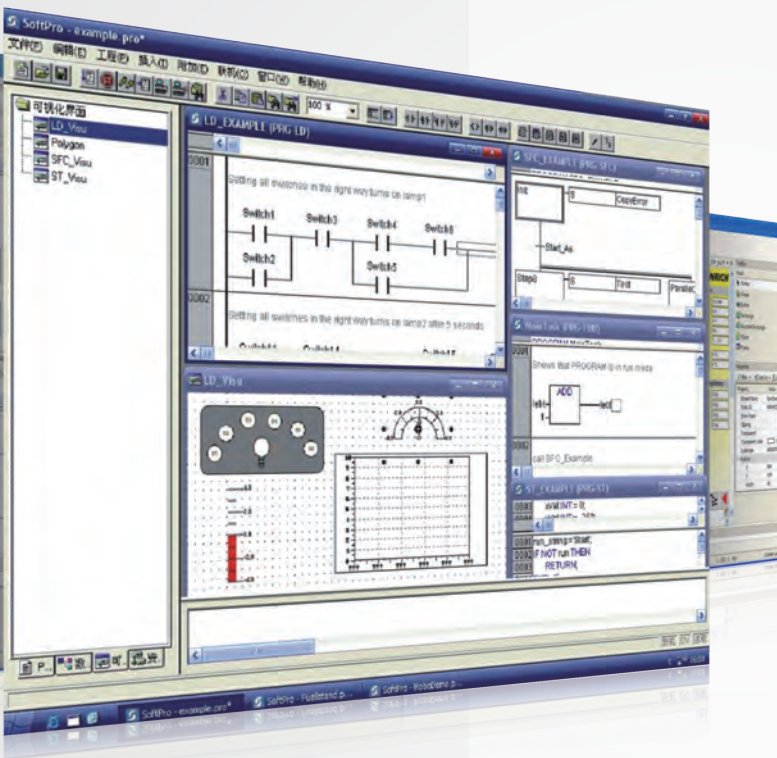
Softpro, the programming software, is fully compliant with IEC61131-3 international standards and provides customers with a wealth of function library files.

It has a rich industrial motion control library, including interpolation function library, Electronic cam function library, rotary cutting function library, robot function library and etc., which greatly reduce the time customers need for secondary development.

6 programming languages are available: Structured Text (ST), Instruction List (IL), Sequential Function Chart (SFC), Function Block Diagram (FBD), Ladder Diagram (LD) and Continuous Functional Chart (CFC)



Softpro



# IDEABOX 3



## Technical Parameters

Order No.	Description
IBX100-001-EM	CPU, EtherCAT/gLink Master Station
System Configuration	
CPU	X86 + FPGA+DSP, CPU Frequency 1GHz
Hardware	4GB Flash DOM
RAM	DDR2, 512 MB
System	WinCE 6.0 Standard IEC61131-3 Softpro development environment
Communication Interface	
EtherCAT	1 x EtherCAT 100Mbit/s
USB	1 x USB2.0
Ethernet	1 X 10M/100M Adaptive
RS232	1 x RS-232
Motion Control	
Local Motion Control	4 high-speed synchronous axes with a control cycle of 250us via local 4-axis Motion Control Module Support PT, Jog, electronic gear, electronic cam, 4-axis linear interpolation, 2D/3D circular interpolation, helical interpolation, cutter direction follow, speed foresight and etc.
Bus Motion Control	Standard PLCopen and CIA 402 8 high-speed synchronous axes with a control cycle of 250us via EtherCAT Support PT, Jog, electronic gear, electronic cam, 4-axis linear interpolation, 2D/3D circular interpolation, helical interpolation, cutter direction follow, speed foresight and other motion control functions
IO Extension	
	Support up to 65,535 points by EtherCAT Support up to 2048 points by gLink
Power Supply	
Voltage	24VDC $\pm$ 10%
Working Environment	
Working Temperature	0 - 55 C
Humidity	< 95%, No condensation
Vibration Conditions	IEC 60068-2-X
EMC Conditions	IEC 61000-4-X
Levels of Protection	IP20
Structure	
Dimension (mm)W*H*D	80*125*115

# Matching Products

## iDEABOX Series Modularized I/O

Suitable for high-speed high-precision control of factory automation and machine automation, iDEABOX series I/Os can realize networking based on EtherCAT network and gLink network. In addition to digital I/Os and analog I/Os, there are 17 I/O modules available, such as pulse input, axis control module and temperature input.



## iModule Series Integrated I/O

- Compact design, vibration resistance
- Spring terminals, realizing a reliable connection
- Two layers terminals, saving wiring space
- Unique internal power supply design, saving installation space
- Decimal button, flexible switching between 0-99 stations

## iMetal Series All-Metal Fieldbus Connectors

Compatible with Profinet, Ethercat, and CANopen cables, iMetal series of RJ45 connector enable a fast and easily connection, even in the harsh environment.

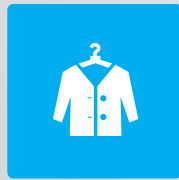
- Quick-connect technology, easily connected with quad twisted pair
- Transparent cap and colorful blade terminal to prevent wiring errors
- Industrial grade aluminum metal shell, safe and reliable  
Rotary locking design, without screws  
Transfer rate up to 100M



# Applications

Softlink is committed to providing customers with a full range of solutions, from industrial private clouds to Fieldbus IO, from a single machine to unmanned factories, and from logic operations to complex space trajectory planning.

Softlink can provide customers with tailored industrial solutions suitable for various automatic control fields such as electronics, medical care, semiconductor, packaging, printing, measurement, plastic, metallurgy, textile, clothing and robot.



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