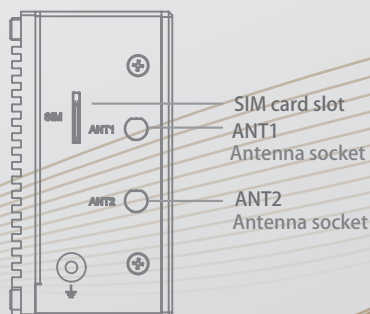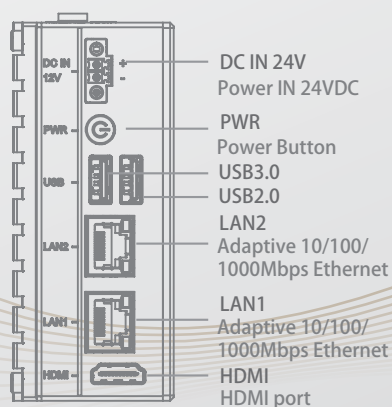# IDEABOX Plus series
Compact PAC
IBX-132

The IBX-132 controller owns the strong ability for high-speed, high-precision, synchronous multi-axis motion control. It uses an X86 quad-core processor that supports multi-core real-time control and has built in communication protocols such as EtherCAT, EtherNet-IP, Modbus RTU/TCP, Profinet and OPC UA.

The IDEABOX Plus series controller is based on the IEC61131-3 programming standard and supports PLCopen Motion Control Part1 and Part2. It can support custom process modules and is expandable with wireless interfaces, including WIFI 802.11 and 4G LTE. Its compact, fanless design makes it easy to install and suitable for use in harsh conditions.

IBX-132
Features

DC IN 24V
Power IN 24VDC

PWR
Power Button

USB3.0
USB2.0

LAN2
Adaptive 10/100/
1000Mbps Ethernet

LAN1
Adaptive 10/100/
1000Mbps Ethernet

HDMI
HDMI port

SIM card slot
ANT1
Antenna socket

ANT2
Antenna socket

DC IN 24V

PWR

USB

LAN2

LAN1

HDMI

Powerful Motion Control Capability

■ Synchronous motion control up to 64 axes；

■ Minimum cycle time 250us；

■ Support multi-axis interpolation motion,
point-to-point motion, Jog motion, Gear/
CAM motion

Various Fieldbus Interfaces

■ Support Modbus TCP, Ethernet, Ethernet/IP,
EtherCAT, Profinet

Easy to Adjust

■ The development platform fully supports
IEC61131-3 standard based OtoStudio V3
programming environment;
■ Support remote diagnostic services
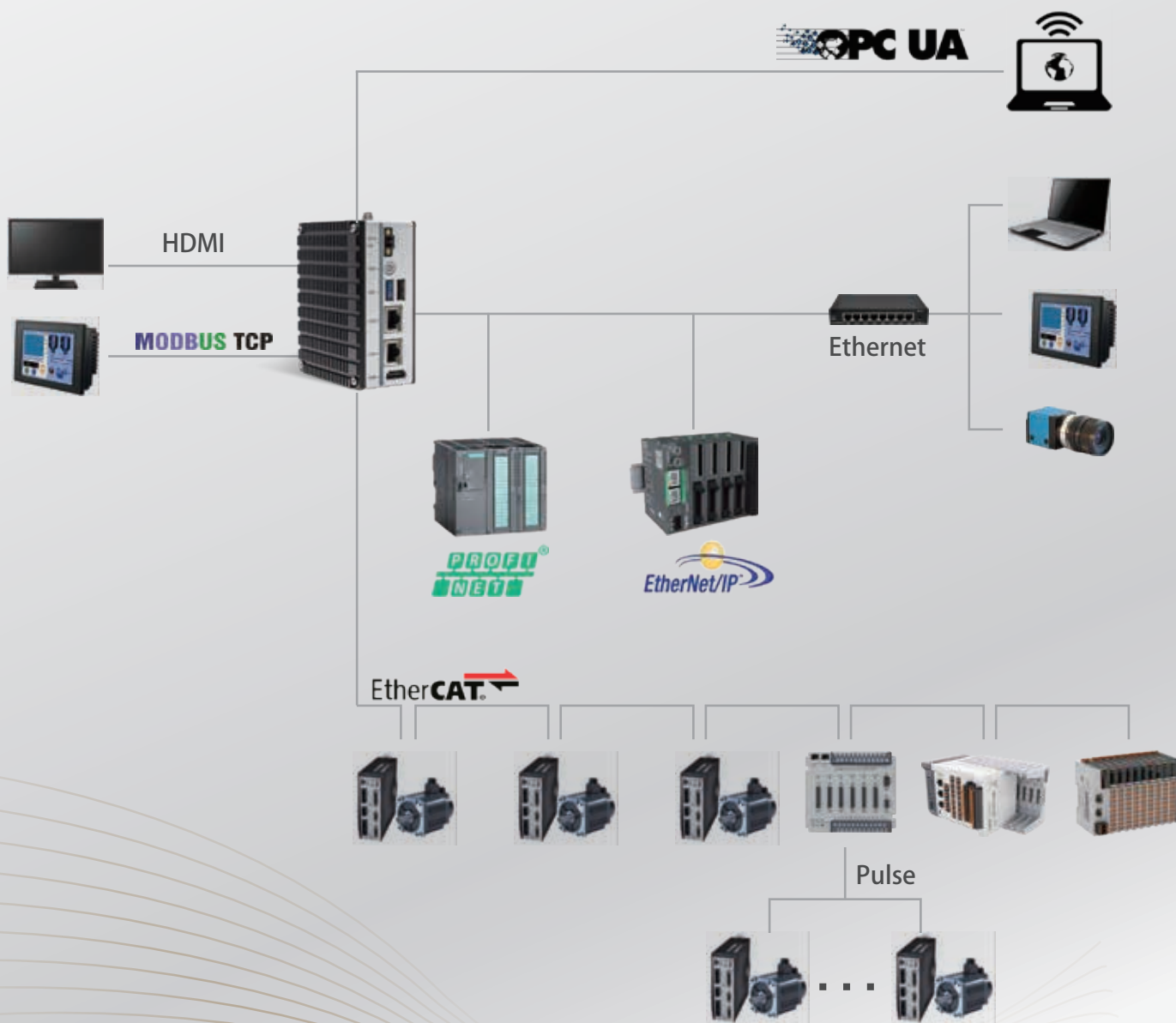
Data Protection

滚滚长江东逝水
■ Power failure protection (Optional)

Property Protection

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

IBX-132　System Architecture

IDEABOX Plus series embedded motion controller can be used for equipments requiring high-speed and high-precision motion control, such as 3C equipment, die bonders, wire bonders, laser cutting, laser welding, packaging machinery, sheet metal equipment, woodworking machinery, and plasma/flame cutting.

	Order Number	Description
IBX132 series	IBX132-804-16EC	2* Ethernet（1000Mbps）, 2* USB port, EtherCAT 16 axis synchronous motion control；1* HDMI interfaces
	IBX132-804-32EC	2* Ethernet（1000Mbps）, 2* USB port, EtherCAT 32 axis synchronous motion control；1* HDMI interfaces
	IBX132-804-64EC	2* Ethernet（1000Mbps）, 2* USB port, EtherCAT 64 axis synchronous motion control；1* HDMI interfaces

IBX-132　Specification

Processor	CPU CPU BIOS	Intel® J1900 Celeron®，2.0GHz，quad-core processor Intel® HD Graphics for Intel Atom® Processor Z3700 Series AMI UEFI/legacy BIOS @ 64 Mb
RAM	Technology Max. Capability	Support DDR3L 1333 MHz 1 * SO-DIMM slot，Max. 8GB（Optional）
Display	HDMI	1 * HDMI，Maximum supported resolution 4096×2160 @ 60Hz
Ethernet	Controller Connecter（RJ45）	I211AT 2 * 10/100/1000 Mbps interfaces
I/O Interfaces	SPI fieldbus SIM card USB	Support Support 1 * USB3.0+1 * USB2.0
Expansion Interfaces	Mini PCI-E TTL/GPIO PCIE/TPM	USB2.0，support 4G，with 1 * nano-SIM card slot 6*TTL+16*GPIO+1*USB2.0+SW signal+Power LED signal+RST signal+3.3V/5V 2*PCIE1X+TPM+SATA+HDD LED signal+3.3V/5V/12V
Storage	M.2	M.2 2242 SATA
Software Environment	Microsoft Windows Linux	Windows 7/8/10 Linux
Power	Input Voltage	24VDC（with overcurrent, overvoltage and reverse-plug protection）
Consumption	Typical（idle） Maximum（full load）	10W 25W
Structure	Surface Mount Dimension (WxHxD)	Aluminum case DIN rail/wall mount 105×85×41.5mm
Environment	Operating Temperature Storage Temperature Relative Humidity Vibration	0～60°C -40～85°C (-40～185°F) 95% @ 40°C (non-condensing) With SSD：3 Grms，IEC60068-2-64，random，5~500 Hz，1h/axis（lift） With SSD：30 G，IEC-60068-2-27，non-chordal，11 ms lasting（lift）
Certification		ITS-CE