NewPre3101 Smart Controller



Highly reliable industrial design

- Exclusive Thermal Design: Utilizing premium conductive materials and a fanless architecture to ensure an industrial wide-temperature range of -40 to 60°C.
- Compliance and Protection: Meets EMC standards and offers an IP40 protection rating, suitable for demanding industrial applications.

Powerful and scalable system

- Processor: Powered by Intel's high-performance eighth/ninth-generation Core processors and compatible with Xeon E-series processors
- Graphics Support: Accommodates high-performance standalone graphics cards, with a maximum power support of 300W and a maximum card length of 240mm. Compatible with most low, medium, and high-end graphics cards available on the market.
- I/O Interface: Includes 4 x 100/1000BASE-T(X) RJ45, HDMI, VGA, DP, 8 x USB3.0, 2 x RS232, 2 x RS232/485/422, 2 x CAN, 8 x DI, and 8 x DO.
- Expandability: Provides PCIe x16 and PCIe x1 expansion slots, supports 4G/5G/WIFI expansion, and meets various connectivity requirements.

Industrial Control

- Development Platform: The pre-installed graphical control development platform, MaVIEW, supports IEC61131-3, as well as C++ and Python.
- Real-Time and Motion Control: Offers a strong real-time guarantee, supports motion control, and is compatible with CANopen, Modbus RTU, Modbus TCP, EtherCAT, EtherNet/IP, Profinet, AUTBUS*1, as well as custom serial port/CAN/TCP protocols and commonly used industrial communication protocols like OPC UA and MQTT.

Video Monitoring

- Camera Support: Provides compatibility for connecting to network cameras that comply with ONVIF and RTSP protocols, and supports up to 64 high-definition network videos simultaneously.
- NVR Software: Through NVR software, the system supports the preview, storage, and playback of 4 x 4K high-definition network videos and offers 4K/8K high-definition resolution output.

Visual Analytics

- Industrial Video: Supports up to 12 x industrial GigE Vision videos.
- Deep Integration: The platform allows for the deep integration of visual analysis and control services, unifying the machine vision algorithm with the control development platform as a standard function library. This ensures the real-time performance and stability of data communication.

Edge Computing

- Big Data Support: Supports big data processing capabilities, including data collection, storage, and model analysis. The system is compatible with third-party applications on Windows/Linux and supports edge micro-cloud and edge-cloud collaboration.

Note: *1 Compatible with AUTBUS conversion module, model ANY3311.

PRODUCT SPECIFICATIONS

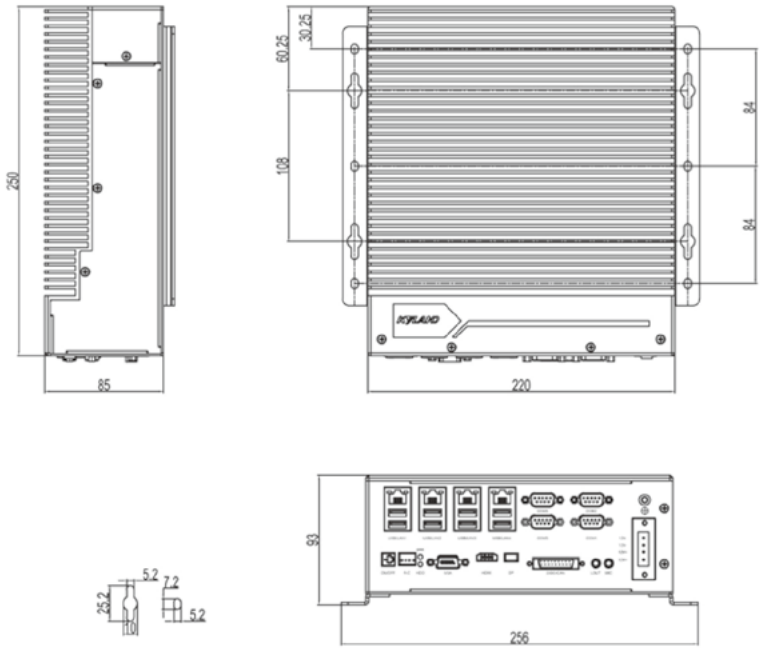
		NewPre3101	NewPre3102
Main System	CPU	Intel Core™ 8th/9th Gen or Socket-based (LGA1151)	
	Memory	Dual-slot design, supporting up to 64GB DDR4	
	Storage	1 x mSATA SSD available 1 x SATA 2.5-inch removable HDD expansion 1 x M.2 (NVMe) HDD expansion	
	Onboard GPU	Standard Intel® UHD Graphics 630	
Interface	Network interface	4 x 100/1000BASE-T(X),RJ45,supports PCIe module expansion	
	USB	8 x USB3.0,supports PCIe module expansion	
	Serial port	4 x DB9,(2 x RS-232,2 x RS232/485/422),isolated, supports PCIe module expansion	
	CAN (Optional)	2 CAN, supports PCIe module expansion	
	I/O (Optional)	8 x DI/8 x DO,isolated, 24V NPN/PNP input, NPN output	
	Display interface	Onboard 1 x HDMI, 1 x VGA, 1 x mini DP	
	Audio interface	1 x Mic in,1 x Line out	
	Extension slot	1 x mini PCIe slot, supporting 4G/WIFI/mSATA 1 x M.2 slot, supporting 5G 1 x M.2 slot, supporting NVME/SATA	1 x PCIe x16 slot, 1 x PCIe x4 slot 1 x M.2 slot, supporting 5G 1 x M.2 slot, supporting NVME/SATA 1 x PCIe x16 slot, 1 x PCIe x4 slot
GPU Extension	Graphics card	None	Max Length 240mm supports up to 300W graphics card
Power Supply	Input Voltage	12VDC	
	Terminal Connection	4-pin 5.08mm pitch plug-in terminal	
	Power Consumption	Main unit consumption < 80W, independent GPU power supply	
Mechanical Structure	Enclosure	Metal	
	Cooling Method	Passive cooling, fanless for the main unit, GPU fan cooling	Main UnitNone fan,Graphics Card fan Cooling
	Protection Level	IP40 (MAIN UNIT)	
	Dimensions (mm)	220x85x250(W x H x D)	220x185x320(W x H x D)
	Total Weight	5.7Kg	9.5Kg
	Mounting Method	Flat surface mounting, wall-mounted	
Environment	Working temperature	-40 ~ 60°C (main Unit)	
	Storage temperature	-40 ~ 85°C	
	Humidity	5 ~ 95% Non-condensing	
Standard	EMI	FCC CFR47 Part 15, EN55022/CISPR22, Class A	
	EMC	IEC 61000-4-2 (ESD), Air: ±8KV;Contact: ±6kV IEC 61000-4-3 (RS), 10V/m(80MHz ~ 2GHz) IEC 61000-4-4 (EFT), DC Power Port:±2kV,Singal Port:±2kV IEC 61000-4-5 (Surge), Power Port:±1kV/DM,±2kV/CM, Singal Port:±1kV (line to line),Singal Port:±2kV (line to earth) IEC 61000-4-6 (CS), Signal ports: 0.15-80MHz at 10V/m, Powerports: 0.15-80MHz at 10V/m	
	Mechanical	IEC60068-2-6 (VIBRATION), IEC60068-2-27 (SHOCK), IEC60068-2-32 (FREE FALL)	

ORDERING INFORMATION

Part Number	Description
NewPre3101-i7-9700-M5D3W0-0404A	i7 9700/32GB DDR4/1T 2.5"SSD/USB3.0 x8/LAN x4
NewPre3101-i7-9700TE-M5D3W0-0404E	i7 9700TE/32GB DDR4/1T 2.5"SSD/USB3.0 x8/LAN x4 1350
NewPre3101-i7-8700T-M5D3W0-0404A	i7 8700T/32GB DDR4/1T 2.5"SSD/USB3.0 x8/LAN x4
NewPre3101-i7-8700T-M5D3W5-0404A	i7 8700T/32GB DDR4/1T 2.5"SSD/USB3.0 x8/LAN x4/5G
NewPre3101-i7-8700T-M5D3W0-0404C2A16DIO	i7-8700T/32GB DDR4/1T2.5" SSD/LAN x4/CAN x2/DI x8/DO x8

Part Number	Description
NM-4ETH	4x100/1000BASE-T(X),RJ45,PCIex1
NM-GTX1050Ti	GPU expansion card,GTX1050TI, PCIex16
NM-G2	GPU expansion card, RTX2060super, PCIex16
NM-G3	GPU expansion card,RTX2080super, PCIex16
NM-RTX3060	GPU expansion card,RTX3060, PCIex16
NM-G3+	GPU expansion card,RTX3070.PCIex16
NM-G4	GPU expansion card,RTX3080.PCIex16

DIMENSIONS



DIMENSION DIAGRAM

