

# UMC-900 Series

## Intel® 8th Gen/11th Gen based Industrial Motion Controller

High-Performance Edge Computing for Precision Control and Factory Automation



IoT Solutions  
Alliance

Industrial Solution  
Builders Specialist

### Key Features

- Intel 8th Gen/11th Gen Processor with 128G SSD and 2\*4G DDR4 RAM
- 4DI/4DO, 2\*COM(1\*RS232, 1\*RS485), 3\*LAN (2EtherCAT, 1\*Ethernet port), 5\*USB
- Complaint with IEC 61131-3 and PLCopen standards, a EtherCAT solution with a PackML-based program template.
- Max. 256 axes synchronous operation at 2ms
- Support OPC UA, Modbus TCP, UDP, and Sockets for easy integration
- 128KB FeRAM, no external UPS is needed for power-down data retention
- Support Modbus master-slave and custom protocols
- Integrated start/stop PLC interface via external signals control
- 128MB PLC data and 128MB program storage, 5MB SRAM

# Maxtang®

MAXIMIZING YOUR COMPUTING PRODUCTIVITY

## Introduction

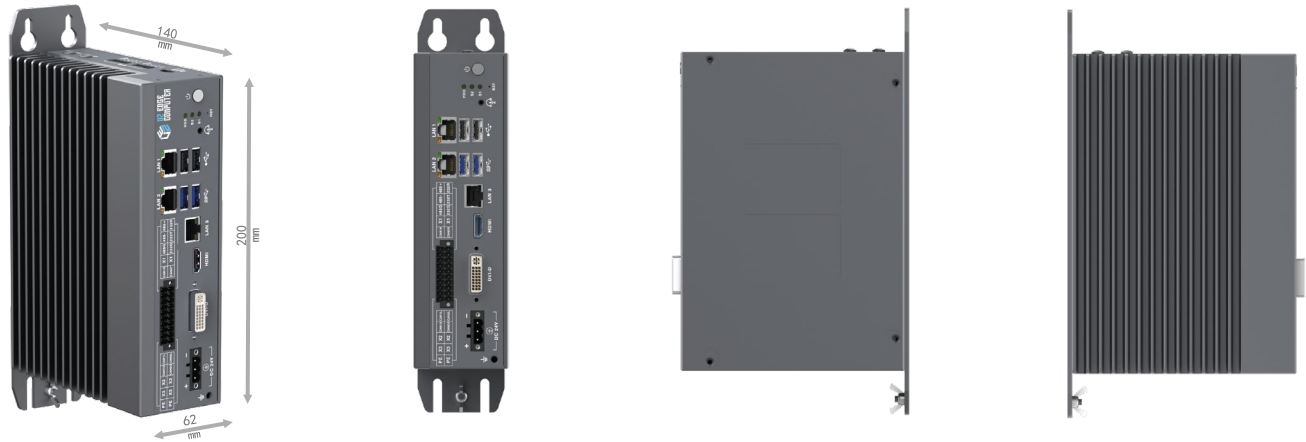
The Maxtang Edge Computing UMC-900 Series is a high-performance multi-axis motion controller based on the Intel X86 Platform, designed to streamline factory automation and digitization. Equipped with advanced industrial algorithms, it supports real-time control of up to 128 axes and over 10,000 I/O points, offering fast deployment and flexible configuration.

Powered by Intel 8th Gen/11th Gen processors, with 2\*4GB dual channel DDR4 memory and rich connectivity options, including 1 Ethernet port and 2 EtherCAT ports, 5 USB, 4DI/4DO, and 2 COM; the UMC series ensures seamless communication with reliable performance and control in harsh environments. Its wide operating temperature range, aluminum base heat sink, and support for IEC61131-3 programming languages make it an ideal solution for enhancing industrial operations and driving digital transformation.

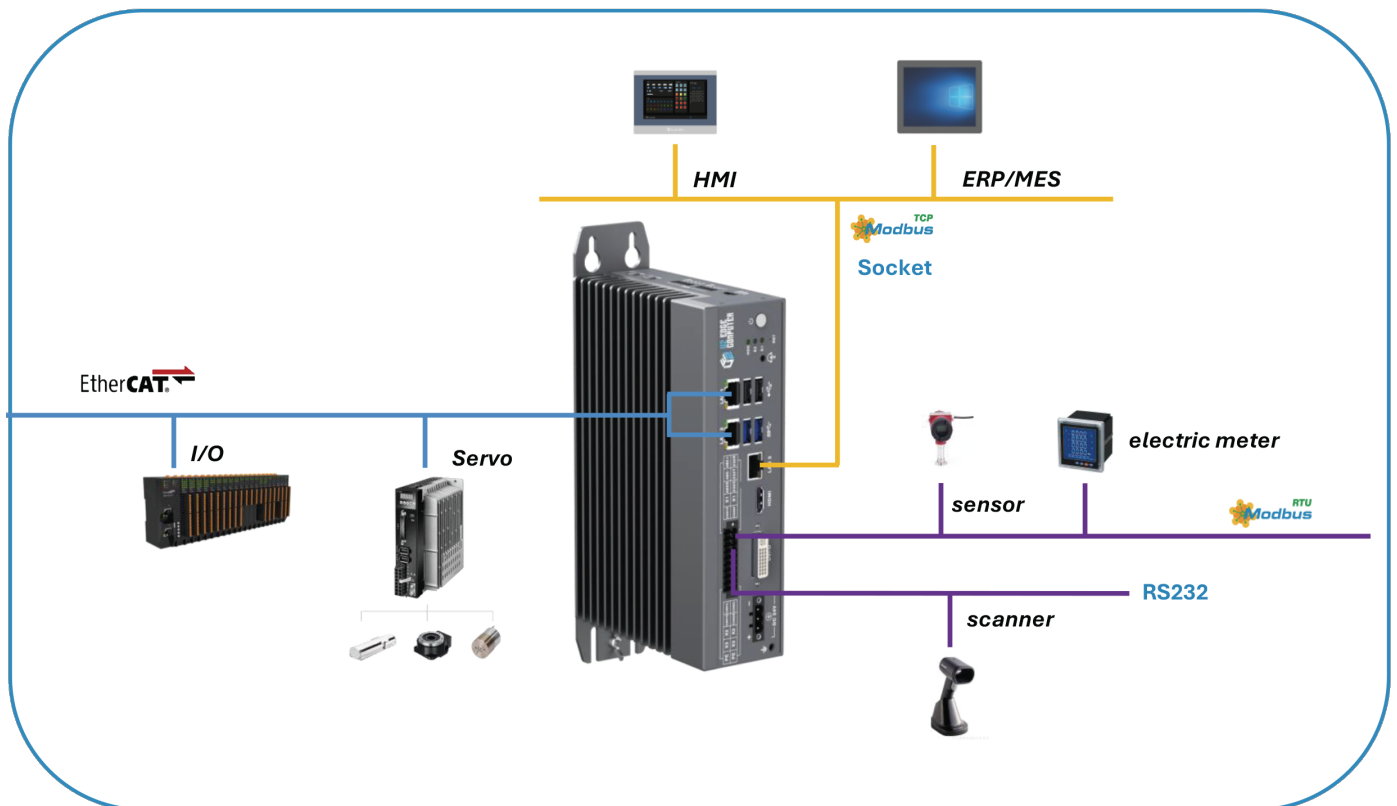
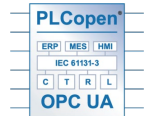
## Technical Specifications

Model No.		UMC-900-L32
Processor	CPU	Intel Celeron 4205U, 2M Cache, 1.80 GHz
Display	GPU	Integrated Intel UHD Graphics
	Interface	DVI-D, HDMI (Reserved)
Memory	Type	2x SO-DIMM DDR4
	Max.Capacity	2*4GB
Storage	SSD	128GB
Programme Capacity		128MB
User Data		128MB
Data Retention (Power-down)	FeRAM(built-in)	128KB FeRAM (Ferroelectric RAM), without external UPS;
	SRAM	5MB SRAM, requires external UPS.
Ethernet	LAN	1xLAN, configurable with OPC UA, ModbusTCP, UDP, Socket, etc.
EtherCAT	Bus	2xLAN EtherCAT Master Ports, supports Ring Network Topology
Axes Capability		Maximum 128 axes
	Synchronization Cycle	Minimum synchronization period of 250µs; 1ms real-time jitter 20µs (16 axes)
Digital Input/Output		4DI/4DO, NPN type
	USB Ports	2x USB 3.0, 3x USB 2.0
	Serial Ports	1x RS485, 1x RS232
Power Supply		24V DC-IN (-25%~20%), 2.5A
	Operating Temp.	-20°C to 60°C
	Storage Temp.	-40°C to 85°C
	Cooling Method	Passive. Aluminum base heat sink.
Programming Language		IEC 61131-3 standard (ST/LD/CFC/SFC/FBD/IL)

## Product Details



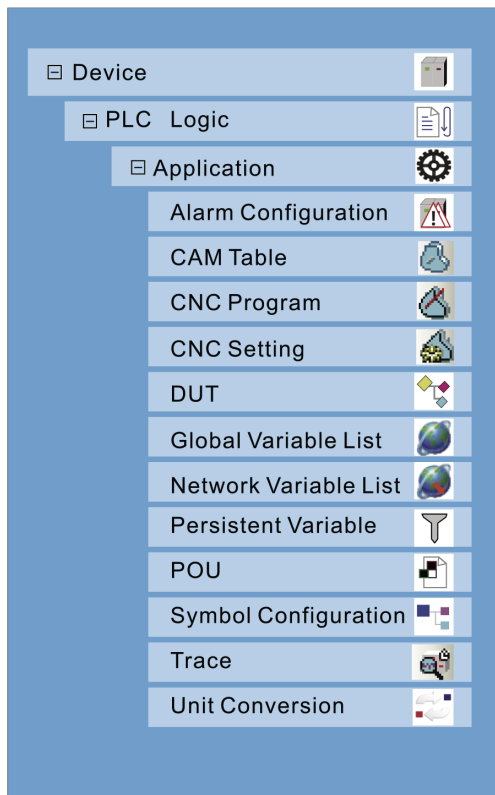
The UMC-900 industrial edge controller is compliant with the PLCopen specification. It enables multi-axis servo control using the EtherCAT bus, making it suitable for high-speed production and large-scale equipment in advanced manufacturing industries.



## Software Support



**CODESYS** is a software platform for industrial automation technology that allows users to create automation applications for industrial controllers. It enables quick and safe execution of control functions, making it easy to learn and highly efficient.



### Programming

- Supports standard (BOOL, integer, real, time) and IEC extended data types (union, reference, pointer), plus user-defined types (arrays, structures, enumerations).
- Complies with IEC61131-3, supporting CFC, FBD, LD, IL, ST, and SFC languages for multi-language programs.
- Enables multi-task programming with control over task execution and priority.
- Features syntax error checking with color highlighting for variables and symbols.
- Supports online programming for uninterrupted debugging.

### Motion Control

- PLCopen-compliant motion control function blocks.
- CAM editor for fast electronic cam configuration with real-time modifications, supporting 6-axis linkage.
- CNC functions follow DIN 66025 standards for reliable CNC operations.

### Graphical Interface

- Path view shows G-code trajectories.
- Real-time trace function displays multiple variables.
- Drag-and-drop cam configuration directly from the CAM table.

### Security and Diagnostics

- Multiple access levels to protect intellectual property.
- Vendor ID check at startup for verification.
- Full system diagnostics and exception handling ensure reliable operation.

