Industrial Edge AI Powered by Intel® Core™ Ultra Series 3



RUC-2000H

Half-Rack Rugged Fanless Edge AI System for Industrial Applications

ASUS RUC-2000H is a rugged, fanless 2U half-rack edge AI system purpose-built for mission-critical industrial deployments where space, reliability, and high-throughput inference matter most. Powered by Intel® Core™ Ultra Series 3 processors, it delivers up to 180 AI TOPS to run demanding edge workloads such as machine vision, IVA, automation AOI, and in-vehicle applications – without the size and cost penalties of always requiring a discrete GPU.

Designed to accelerate real-world integration, RUC-2000H features rich high-bandwidth I/O including up to eight-channel GMSL2 for multi-camera aggregation, 1 x 10GbE plus 5 x 2.5GbE for deterministic connectivity, wide-range 8-48V DC input with ignition power control, and industrial-grade durability with -25°C to 70°C operation and MIL-STD-810H validation.

Rugged modular design with multiple I/O support for* edge AI computing *applications

Intel Products and Technologies

Accelerating AI and Analytics at the Edge

Intel® Core™ Ultra Processors

Intel® Arc™ Graphics

Intel® Iris® Xᵉ Graphics

Intel® Ethernet

Key Features

Empowered by Intel.

- High-Performance AI Computing
- Multiple I/O including PoE, GMSL2 support
- Wide-Range DC-in and Operating Temperature
- Rugged & Modular Design

ASUS RUC-2000H





intel ai

Intel® AI Edge Systems

Product Specifications

CPU	Intel® Core™ Ultra X7 Processor 358H
Graphics	Intel® Arc™ B390 Graphics, Intel® Arc™ Pro B390 Graphics
Memory	2 x DDR5 SO-DIMM (up to 96GB)
Storage	1 x M.2 2280 PCIe Gen4x4, supports 128GB~2TB NVMe SSD
Wireless Network	Wifi, LTE, 5G support
LAN	1 x 10 GbE (RTL8127) 1 x 2.5 GbE (Intel® Ethernet Controller I226-IT) 4 x 2.5 GbE (Intel® i226-IT, IEEE 802.3 at, total 60w, optional)
Operating / Storage Temp.	-25°C ~ 70 °C / -40°C ~ 85 °C
Dimension (W x D x H)	220mm x 260mm x 85mm
Weight	5.24 kg
OS	Windows® 11 IoT Enterprise (64-bit) / Linux by Project support
I/O (Input/Output)	2 x RS-232/422/485 2 x CAN Bus 2.0B 4 x USB 3.2 Gen 2 (10Gbps) 2 x USB 2.0 2 x 4-ch GMSL2 (optional)

Learn More

ASUS RUC-2000H

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