Edge AI Acceleration with Intel® Core™ Ultra Processors, NPU, and GPU

TANK-XM813

iEi × intel.

Fanless System with Modular Design for Scalable Edge AI

Modern industries demand reliable computing for real-time AI at the edge. The IEI TANK-XM813 addresses these challenges with a rugged, fanless design powered by Intel® Core™ Ultra processors (Series 2), integrating CPU, GPU, and NPU to accelerate diverse AI workloads.

Supporting up to 96GB of DDR5 memory, dual 2.5GbE LAN, and optional 8× 2.5GbE LAN via expansion modules, the system enables seamless data transmission and AI device integration. Its modular chassis supports up to six expansion slots, providing flexible GPU and I/O scalability.

Designed for harsh environments, the TANK-XM813 operates across a wide temperature range from -20°C to 60°C and supports 12–28V DC input for stable and reliable deployment. Compared with conventional embedded PCs, it delivers higher AI efficiency, lower latency, and reduced power consumption through heterogeneous computing—making it ideal for machine vision, industrial automation, and intelligent edge control.

Intel® Core™ Ultra processors **drives** *edge AI on TANK-XM813 with 8 PoE ports and scalable PCIe/GPU expansion.*
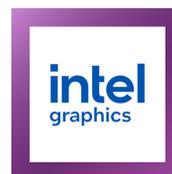
Intel Products and Technologies
Accelerating AI and Analytics at the Edge

intel CORE ULTRA

OpenVINO™

intel graphics

intel. ETHERNET

Intel® Core™ Ultra Processors

OpenVINO™ Toolkit

Intel® Graphics

Intel® Ethernet

Key Features

Empowered by Intel.

Heterogeneous AI Acceleration

Modular GPU / I/O Expansion

Rugged Fanless Design

Wide Temp & Voltage

IEI TANK-XM813

intel ai

Intel® AI Edge Systems

Product Specifications

CPU	Intel® Core™ Ultra 9 Processor 285T / Intel® Core™ Ultra 9 processor 285 Intel® Core™ Ultra 7 processor 265T / Intel® Core™ Ultra 7 processor 265 Intel® Core™ Ultra 5 processor 225T/ Intel® Core™ Ultra 5 processor 225
Graphics	Intel® Graphics (X^{e}LPG+)
Memory	2 x SO-DIMM DDR5 5600 (16GB pre-installed) up to 96GB
Storage	2 x 2.5" SATA 6Gb/s HDD/SSD bay (RAID 0/1 supported)
Wireless Network	IEEE 802.11a/b/g/n/ac/ax (by M.2)
LAN	1 x 2.5 GbE by Intel® Ethernet Controller I226-LM 1 x 2.5 GbE by Intel® Ethernet Controller I226-V
Operating/Storage Temp.	-20°C ~ 60°C (CPU TDP35W &SSD) -20°C ~ 50°C (CPU TDP65W &SSD) / -40°C ~ 85°C
Dimension (W x D x H)	230.6mm x 255mm x 68.7mm
Weight	3.24 kgs
OS	Windows® 10/11 IoT Enterprise/Linux
I/O Options (Input/Output)	GPOE-XM81-8P: 8 x 2.5G LAN with PoE TXIOB-XM81-A: 2 x M.2 B Key, 1 x M.2 A Key, 1 x PCIe Mini

Learn More

IEI TANK-XM813