



Decenta S25-ARLS-WA02: Intel® Core™ Ultra Processors for High-Performance Edge Computing

Written by Decenta Team

Plagued by high data security risks, severe network latency and steep computing costs, traditional cloud AI solutions hit a bottleneck—making edge AI all-in-ones the key breakthrough.

The global AI edge computing market is set to exceed \$30 billion in 2025, driven by intelligent upgrading. Industries like education, finance and healthcare are accelerating AI + local deployment: education needs personalized courseware and smart teaching tools; finance requires real-time risk control and smart customer service computing power; and scenarios such as community security and industrial inspection rely on local AI inference.

As the hardware backbone of “intelligent agents”, Decenta AI Tower-swap ALL-in-One computing machine has become the “new infrastructure” for SMEs’ digital transformation, boasting flexible deployment, cost-effectiveness and data security.

Based on the Intel® Q870 Chipset and supporting Intel® Core™ Ultra processors, Decenta S25-ARLS-WA02 delivers strong computing performance. Energy-efficiency optimization ensures ultra-fast real-time decision-making in edge computing scenarios.

With outstanding customizability, the device features two PCIe 5.0×16 slots and multiple PCIe 4.0×4 slots, enabling enterprise-grade storage and compute expansion to meet high-throughput storage requirements. For AI capabilities, it supports up to two high-performance AI accelerator cards with 48GB GDDR6 graphics memory, delivering up to 394 TOPS (INT8) to efficiently power AI development, LLM inference, complex rendering, high-resolution processing, and memory-intensive simulation.

Engineered for cross-sector versatility, the S25-ARLS-WA02 supports standard 4U rack mounting, balancing ease of use and reliability. Compatible with the CUDA/OpenCL ecosystems, it seamlessly integrates with mainstream AI frameworks like PyTorch to slash algorithm migration costs. It also supports dual Windows/Linux systems, eliminating the need for code reconstruction.

Full specifications include:

- Intel® Core™ Ultra processors (Series 2)
- OpenVINO™ toolkit
- Intel® oneAPI Toolkit
- Intel® Arc™ graphics
- Intel® Xe LPG Graphics
- M.2_1: M-Key 2242/2280 Slot, Support PCIe 5.0X4(NVMe) mode
- M.2_2: M-Key 2242/2280 Slot, Support PCIe 4.0X4(NVMe) & SATA mode
- 1xM.2 E-Key 2230 Slot for Wi-Fi7&BT 5.4, Support PCIe 4.0 mode
- HDMI® Out and DP with resolution of 4K@60Hz, VGA with resolution of 1080P
- 500mm × 435mm × 175mm
- Weight: 20kg

To further expand the boundaries of edge computing capabilities, Decenta also unveils the AI Edge Tower-Rack S25-RPLS-WA03—engineered to deliver fast, high-performance computing (HPC) tailored for intelligent edge scenarios such as real-time data analytics, on-site decision-making, and resource-intensive edge workloads. Powered by the reliable Intel® Q670 Chipset, the platform supports 12th-14th Gen Intel® Core™ processors as well as Pentium®/Celeron® processors, offering flexible computing scalability to meet diverse performance requirements across enterprise operations, industrial control, medical devices, smart traffic management, and beyond.

Through its comprehensive portfolio of tower-rack edge computing solutions, Decenta is making edge intelligence more accessible while maintaining robust performance—empowering education, video conferencing, healthcare, and nearly every other vertical with easy-to-deploy, high-performance edge computing capabilities.

Partner Name

Shenzhen Decenta
Technology Co., LTD

Booth Info

5K750

