

Advantech Launches USM-600 Dual-Board Workstations for Advanced Edge Computing

October 2021, Germany, Germering - Advantech, a leading provider of intelligent computing systems and services, is pleased to announce its USM-600 dual-board workstation. Developed in collaboration with Intel, USM-600 features an Intel® Modular Edge Compute Architecture (MECA) modular baseboard that supports multiple CPU boards in a single unit. This breakthrough architecture enables numerous edge AI tasks to be processed simultaneously, providing the capabilities to scale up edge computing. Moreover, with the provision of multiple I/O, including up to three PCIe slots, USM-600 can be integrated with various expansion modules and cards, such as an Intel® Movidius™ module and/or graphics card, to support machine vision and AI-based video/image processing. Thus, USM-600 provides a high-performance solution for implementing people counting applications in diverse retail and hospitality environments, public facilities, and office buildings.

Intel® MECA Dual-Board Workstation

In collaboration with Intel, Advantech built the USM-600 workstation on an Intel® MECA baseboard with the capacity to support more than one CPU board. Accordingly, USM-600 features two CPU boards connected to a single baseboard. These CPU boards serve as two independent systems that can be equipped with Windows or Android operating systems, enabling each USM-600 workstation to support dual OS. This allows multiple edge AI tasks to be processed simultaneously for accelerated edge computing.

High Expandability for Flexible Edge Deployments

To support the integration of expansion cards for enhanced functionality and performance, the USM-600 workstation features up to three PCIe slots – one PCIe x16 slot on CPU board 1 and two PCIe x8 slots or one PCIe x16 slot on CPU board 2. This allows USM-600 to be equipped with the Intel™ Movidius™ X AI module and advanced graphics cards to upgrade the hardware for machine learning and multi-video stream-based edge inference. Furthermore, each CPU board features one M.2 SSD and two SATA HDDs that support RAID 0, 1, and 5 for enhanced performance, fault tolerance, and data redundancy, allowing USM-600 to be flexibly configured for a wide range of edge deployments.

Dual CPUs Enable Multi-Task Edge AI Processing

Equipped with two CPU boards that serve as two independent systems, USM-600 can support multi-task edge AI processing. This enables customers to conduct various data management, communication, and image/video processes simultaneously via a single platform. Therefore, USM-600 eliminates the need for multiple systems, reduces deployment costs, and saves installation space. For most industries, including retail, hospitality, and even healthcare, the USM-600 dual-board workstation's upgraded capabilities can increase throughput and facilitate the scaling up of intelligent edge computing.

Key Features

- 9 gen Intel® Core™ i3-9100TE /i5-9500TE /i7-9700TE/ Pentium G5400/G5400T processors
- Dual CPU board workstation with Intel® MECA modular baseboard
- 3 x LAN, 2 x USB 3.1 Gen 1, and 2 x HDMI per CPU board
- 1 x USB 3.1 Gen 1 in front panel per CPU board
- 1 x M.2 SSD and 2 x SATA HDDs per CPU board
- Up to 3 x PCIe expansion slots - 1 x PCIe x16 for CPU board 1 and 2 x PCIe x8 or 1 x PCIe x16 for CPU board 2
- 1 x M.2 B-key and 1 x M.2 E-key per CPU board

About Advantech Service-IoT GmbH

As a global player in intelligent IoT systems and embedded platforms, Advantech Service-IoT GmbH is part of Advantech Co., Ltd., founded in 1983 in Taiwan.

Advantech promotes IoT hardware and software solutions to drive IoT, Big Data, and Artificial Intelligence. It also supports business partners and customers in connecting industrial value chains. To help shape corporate ecosystems and accelerate the realization of industrial intelligence, Advantech leverages its ever-expanding networks of partners.

Within the support, sales and marketing network, more than 8,600 Advantech employees worldwide are committed to rapid time-to-market services.

The trade name Advantech-DLoG, which was introduced in 2010, will continue to exist as a product brand after the name change. The brand name originated from the former DLoG GmbH, has now been renamed Advantech Service-IoT GmbH and has been fully integrated into the Advantech Group.

About Advantech

Advantech's corporate vision is to enable an intelligent planet. The company is a global leader in the fields of IoT intelligent systems and embedded platforms. To embrace the trends of IoT, big data, and artificial intelligence, Advantech promotes IoT hardware and software solutions with the Edge Intelligence WISE-PaaS core to assist business partners and clients in connecting their industrial chains. Advantech is also working with business partners to co-create business ecosystems that accelerate the goal of industrial intelligence.

More Information: <https://advantech-service-iot.eu/>

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