Avalue Launches EPI-ARLS, EPIC SBC, to Empower Edge Computing and Smart Application Integration

Avalue's EPI-ARLS is tailored to meet the demanding requirements of smart manufacturing, healthcare monitoring, edge computing, and precision agriculture.

NEW TAIPEI CITY, TAIWAN, June 26, 2025 /EINPresswire.com/ -- Avalue Technology Inc. (TPEx: 3479.TWO), a global leader in industrial computing solutions, proudly introduces the EPI-ARLS, a compact EPIC SBC designed specifically for industrial and embedded applications. Combining small form factor, high-performance computing, rich I/O connectivity, and versatile expansion, EPI-ARLS is tailored to meet the demanding requirements of smart manufacturing, healthcare monitoring, edge computing, and precision agriculture.

Powered by Intel® Core™ Ultra processors based on the Intel® Arrow Lake-S architecture, the EPI-ARLS supports up to 35W TDP, delivering a powerful yet energy-efficient performance—ideal for space-constrained environments requiring real-time data processing. With its compact 165 x 115 mm EPIC form factor and a single 262-pin SO-DIMM slot supporting up to 48GB DDR5 5600/6400MHz dual-channel memory, the EPI-ARLS ensures high-speed data analysis and AI inference while simplifying system integration and space optimization.

For expandability, the EPI-ARLS is equipped with one M.2 Key-E slot and two M.2 Key-M slots (the Q870 version exclusively supports dual Key-M), accommodating wireless modules, NVMe SSDs, and SATA devices. It also offers comprehensive I/O options, including up to three 2.5GbE LAN ports (three on the Q870, two on the H810), four USB 3.2, four USB 2.0, and four COM ports (2 x RS-232/422/485 + 2 x RS-232), as well as 1 x 16-bit GPIO and TPM 2.0 for secure and versatile industrial connectivity.

In terms of display, the EPI-ARLS supports triple display output via DP 2.0, HDMI 2.0, and LVDS/eDP interfaces, with resolutions up to 8K—making it a robust platform for industrial

imaging, multi-screen control, and visual edge applications.

Versatile Application Domains:
• Smart Agriculture: Integrates sensor data, vision analysis, and device control to enable precision farming and remote operations.
• Healthcare Monitoring: Supports real-time processing and integration of multiple physiological signals, improving patient care quality and clinical efficiency.
• Edge Computing: Enables localized data processing and analysis to reduce latency and offload network traffic, ideal for transportation, logistics, and retail environments.
• Industrial Automation: Integrates with PLCs, sensors, and control systems via high-speed I/O and multiple communication interfaces to ensure stable and reliable process control.

Compared to Mini-ITX platforms (170mm x 170mm), the EPI-ARLS's EPIC form factor (165mm x 115mm) offers both space-saving design and sufficient expandability, making it well-suited for integration into size-sensitive, high-performance systems such as robotic arms, high-speed imaging modules, and laser cutting devices. Available in both Q870 and H810 chipset versions, the Q870 variant emphasizes comprehensive I/O and triple LAN support for highly integrated systems, while the H810 targets cost-efficiency and streamlined architectures for large-scale deployments and long-life cycle product planning. With modular design and flexible configuration, the EPI-ARLS expands the deployment depth and application breadth of EPIC SBCs in the smart edge landscape.

As a leader in embedded computing, Avalue Technology continues to drive innovation in platform modularization and vertical solution integration. The EPI-ARLS is more than a high-performance SBC—it reflects Avalue's deep insights into smart application trends and steadfast commitment to industrial innovation.

Main Features of EPI-ARLS:
- Top Layer Soldered Socket
- Intel® Core™ Ultra Processors supports LGA 1851 CPU Up to 35W Max
- Intel® Q870/H810 chipsets
- Single DDR5 6400MHz SO-DIMM socket, support up to 48GB
- Triple Display: 1 x DP, 1 x HDMI, 1 x 2CH LVDS or 1x eDP (Default LVDS)
- Expansion Slot: M.2 Key-E, M.2 Key-M
- Dual 2.5G Gigabit Ethernet
- 2 x RS-232/422/485, 2 x RS-232
- DC in +12V

For more information, visit Avalue Website, or contact us using our online contact form.

About Avalue Technology
Avalue Technology was founded in 2000 and is a global leader in industrial computer solutions. Avalue Technology has a proven track record of success in the industrial control industry, and we

leverage that experience to provide reliable and trustworthy customized products and services. Our primary products are embedded and industrial computer solutions, with a focus on smart healthcare, smart manufacturing, smart transportation, smart retail, and Internet of Things (IoT) applications. Avalue is committed to the sustainable growth of our company. We are guided by the business philosophy of "stability, innovation, diligence, and enthusiasm, and enjoyment of work and life." We are dedicated to leveraging the power of intelligence and sustainability to disrupt the future of digital blueprints and to drive positive, long-term change in the smart industry.

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