

Efficient, Cost-Effective Performance for Industrial Use Cases



About AAEON

AAEON is one of the leading designers and manufacturers of advanced industrial and embedded computing platforms today.

UP – Bridge the Gap is a brand within AAEON that provides innovative and reliable Single-board computers (SBCs) and solution kits for professional developers with the latest Intel® technology and customization expertise helping them to bring their ideas to fruition.

Accessible AI Inference at the Edge

Finding the right balance of performance, power consumption, and cost can be a barrier to bringing AI-enabled or graphics-intensive applications online at the edge. AAEON designed the UP Squared Pro 7000/7100 single-board computer (SBC) to help developers find this balance. With this new addition to the UP – Bridge the Gap brand, users can access powerful performance in a compact and affordable package.

The UP Squared Pro 7000/7100 is ideally suited to enable a wide range of applications including the development of new products like AI boxes or Autonomous Mobile Robots (AMR) which require optimized AI inference. It also caters to the creation of POS and KIOSK systems, digital signages, and medical devices where powerful graphics capabilities and flexible I/O connectivity are essential.

Improved Features for the Next Generation of UP Squared Pro

UP Squared Pro 7000/7100 inherits 90% of the rear input and output interfaces from the previous UP Squared 6000, along with LPDDR5 and eMMC memory support onboard. Improvements made for the UP Squared 7100 also include the addition of two RS232, 422, or 485, and HDMI 2.0 in the same 101x101 sized board as UP Squared 6000 to provide upgrade compatibility for existing users while adding increased CPU performance and memory down.

This SBC is able to deliver high performance levels in its compact size due to Intel® UHD Graphics and an Intel Atom® processor equipped with up to 8 cores, onboard memory, and storage. It also boasts Intel® Time Coordinated Computing and Time-Sensitive Networking support and three 4K60P displays.

Essential Capabilities at a Competitive Cost

The UP Squared Pro 7000/7100 is the perfect fit for those seeking an entry level SBC for core industrial use cases. As the successor of UP Squared 6000, UP Squared Pro 7000/7100 is a cost-effective, yet powerful, Intel Atom® processor-based product, suitable for efficient solutions at the edge, such as visual and transactional retail, education, and office automation. Combined with industrial features such as Time-Sensitive Networking (TSN), Time-Coordinated Computing (TCC)*, in-band ECC*, and onboard TPM 2.0, the UP Squared Pro 7000 is also built for automation, robotics, and industrial applications.

Intel Ingredients



**Intel® Core™
i3-N305 Processors**



**Intel Atom® Processors
x7000E and x7000RE Series**



**Intel® Celeron®
Processor N Series**

These power efficient processors feature expanded IoT edge capabilities for AI, 4K media, and real-time computing that blend efficiency, performance, deep-learning inference accelerators, and built-in Intel® UHD graphics for edge applications. Multiple compatible options offer the choice for more ruggedized durability or efficient multitasking, enabling you to choose which high performance processor best supports your desired application.

Learn More

- [Intel® Foundational Developer Kits](#)
- [UP Squared Pro 7000 - UP Bridge the Gap - Edge AI](#)

Intel® Foundational Developer Kits allow you to get started on your targeted application development with a superior out-of-the-box experience. Deploy your application at scale by building customized systems via Intel ecosystem partners.



¹ For workloads and configurations visit www.intel.com/PerformanceIndex. Results may vary

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0624/DC/SPUR/PDF