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# Kontron 3.5”-SBC-EKL is Ideal for Low-power, Real-time Edge-IoT Systems

## *Highly Capable Edge Processing for a Wide Variety of Commercial and Industrial IoT Applications*

**Taipei, Taiwan, June 29, 2023 *–*** Kontron, a leading global provider of IoT and Embedded Computing Technology (ECT), announces the general availability of its [3.5”-SBC-EKL](https://www.kontron.com/en/products/3.5--sbc-ekl/p162920), designed for commercial and industrial IoT applications that require highly capable edge processing. Available in four variants, this 3.5-inch single board computer (SBC) is powered by the latest Intel® Atom® x6000E Series, Celeron® J6000 / N6000 Series, or Pentium® J6000 / N6000 Series Processors (codenamed Elkhart Lake), including industrial-grade Intel® Atom® x6212RE / x6425RE, embedded Intel® Atom® x6211E, and commercial-grade Intel® Celeron® J6413. More variants using other Intel SoC options be offered later. The board is designed to allow industrial and commercial system developers build a low-power, compact IoT edge devices that meet the demands of enhanced or real-time computing, graphics performance, and hardened security, with remote device manageability ready for industrial automation, retail applications, smart city, healthcare devices, and other similar applications.

### Computing, Graphics and AI Processing Performance Enhancement

3.5”-SBC-EKL delivers upgraded CPU performance and up to 2X graphics performance in comparison with previous-generation Intel SoCs. The improved GPU performance accelerates AI and computer vision (CV) tasks, while also offering improvements in energy efficiency. The SBC offers two DisplayPort connectors on the rear panel that can support dual 4K60 displays, ready for retail and advertising, public terminals, or HMI applications.

### Lower Latency Over Multiple Network Hops

3.5”-SBC-EKL is equipped with several new-generation features including dual-channel DDR4 SO-DIMM memory sockets with in-band ECC support, two 2.5 GbE LAN ports, four USB 3.2 Gen-2 connectors, one SATA 3.0 port for SSD or HDD storage. Models are also available with support for Intel® Time Coordinated Computing (TCC) technology, as well as Time-Sensitive Networking (TSN) protocol, which can provide ultra-reliable low-latency Ethernet communication with an accuracy of up to 1 microsecond.

### More Responsive to ARM® Based Edge IoT Devices

3.5”-SBC-EKL supports Intel® Programmable Services Engine (PSE), which uses a dedicated ARM® Cortex®-M7 based microcontroller integrated within the PCH. The microcontroller works independently and is routed directly to two CAN bus interfaces on the board. Thus, the interfaces support CAN FD (CAN with Flexible Data Rate) transmission with a speed of up to 5 Mb/s and can provide real-time and responsive communication with ARM® based edge IoT devices, such as sensors, actuators, and controllers.

### Greater Scalability in I/O Ports and Functionality

Three M.2 expansion slots include Key B, Key E and Key M interfaces, respectively for SSD, WLAN, Bluetooth, WWAN and other M.2 expansion options. 3.5”-SBC-EKL is also equipped with a board-to-board connector and allows system developers to stack a Kontron 3.5”-eIO Series daughter board for additional I/O ports or functions, according to the requirements and applications they address.

### Higher Security Against Malware and Sophisticated Cyberattacks

In addition to the integrated security features offered by the processor, such as Intel® Platform Trust Technology (Intel® PTT), Intel® AES New Instructions (Intel® AES-NI), Intel® SHA Extensions, Intel® Secure Key and Intel® Boot Guard, 3.5”-SBC-EKL integrates another TPM 2.0 security chip on the board that can provide a more secure, hardware-based approach to managing user authentication, network access and data protection.

### Wide Temperature Support

3.5”-SBC-EKL is available as industrial-grade variants with support for wide operating temperatures from -40 °C to 85 °C, while standard variants support a temperature range from 0 °C to 60 °C.  
  
For more information, please refer to <https://www.kontron.com/en/products/3.5--sbc-ekl/p162920> or reach the Kontron Asia Sales team at [SalesAsia@kontron.com](mailto:SalesAsia@kontron.com)

### About Kontron

Kontron is a global leader in IoT / Embedded Computing Technology (ECT) and offers individual solutions in the areas of Internet of Things (IoT) and Industry 4.0 through a combined portfolio of hardware, software and services. With its standard and customized products based on highly reliable state-of-the-art technologies, Kontron provides secure and innovative applications for a wide variety of industries. As a result, customers benefit from accelerated time-to-market, lower total cost of ownership, extended product lifecycles and the best fully integrated applications. For more information at [https://www.kontron.com](https://www.kontron.com/)