

Eurotech announces CPU-161-19, a COM Express module with Intel® Atom® x6000 Series

Powered by Intel® Atom® x6000 Series and featuring the COM Express Type 6 Compact standard, the CPU-161-19 enables soft real time and simplifies the development of Edge systems

Amaro (Italy), October 15th, 2020 – Eurotech, a long-time leading provider of embedded systems and a global leader in Internet of Things (IoT) enablement, expands embedded module product portfolio with the [CPU-161-19](#), a rugged fanless module designed to provide efficient performance at the Edge.

The CPU-161-19 is a COM Express module that features the Intel® Atom® x6000 Series. It comes in two variants: one is 100% COM Express Type 6 compliant and the other has proprietary extensions. The proprietary extensions provide additional features that are mapped on unused pins and delivers a range of novel interfaces that can greatly simplify the design of the carrier board and reduce its cost.

Designed for fanless applications in harsh environments where long term reliability is a must, the CPU-161-19 delivers up to 4 CPU cores and up to 32 graphic execution units and in-band ECC RAM. It features an all-soldered down design to improve resilience and thermal coupling, and comes with a -40 to +85°C operating temperature. Both the CPU and the integrated GPU deliver great performance improvements compared to the previous Atom generation, while keeping the TDP at 12W or less.

The CPU-161-19 fully exploits a new capability of the Intel® Atom® x6000 Series: an embedded core provides an independent engine that manages a large number of native industrial interfaces, including Ethernet ports, ADCs, Quadrature Encoders, GPIOs, UARTs and CAN-FD.

The combination of the independent engine with Time Sensitive Networking (TSN) and Time Coordinated Computing (TCC) enables soft Real Time applications. TSN is an evolution of the Ethernet standard that provides time determinism to networked communications, while staying completely compatible with the existing Ethernet infrastructures. TCC bridges the synchronization of the internal clocks with the network to achieve microsecond accuracy.

“The Intel® Atom® x6000 Series brings unprecedented capabilities that are specifically targeting the needs of the Edge and embedded applications” commented Giuseppe Surace, Eurotech’s Chief Product & Marketing Officer. “The CPU-161-19 fully exploits the feature set of the Intel® Atom® x6000 Series and delivers them in the COM Express form factor to allow seamless migration for existing projects; at the same time

it is also available with additional extensions to accelerate system design and to bring substantial savings in development cost and time”.

Supported operating systems include Everyware Linux (based on Yocto) and Windows 10 IoT Enterprise; additionally, the CPU-161-19 supports [Everyware Software Framework \(ESF\)](#), a commercial, enterprise-ready edition of Eclipse Kura, the open source Java/OSGi middleware for IoT gateways.

Professional Services are available for the CPU-161-19, starting from BIOS personalization and including carrier board design, system development and production. Deep module customization, such as feature changes are also available.

The CPU-161-19 is offered in a range of configurations; additional personalization is available through Eurotech Professional Services.

CPU-161-19 availability: Q2'21. [Contact us](#) for further information.

About Eurotech

Eurotech (ETH:IM) is a multinational company that designs, develops and supplies Edge Computers and Internet of Things (IoT) solutions – complete with services, software and hardware – to system integrators and enterprises. By adopting Eurotech solutions, customers have access to IoT building blocks and software platforms, to Edge Gateway to enable asset monitoring and to High Performance Edge Computers (HPEC) conceived also for Artificial Intelligence (AI) applications. To offer increasingly complete solutions, Eurotech has activated partnerships with leading companies in their field of action, thus creating a global ecosystem that allows it to create "best in class" solutions for the Industrial Internet of Things. [Learn more](#)

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