Portwell Announces Embedded Qseven 2.1 Module With Latest Intel Atom® x6000E Series Processors (Formerly Elkhart Lake)

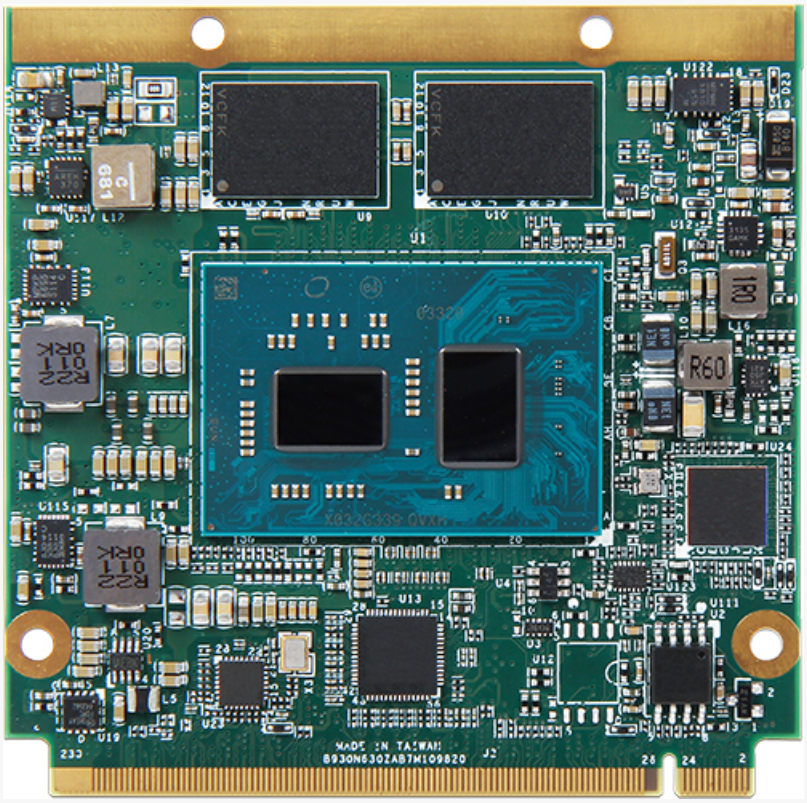
PQ7-M109 delivers up to 1.5x improvement in multi-thread computing performance and up to 2x faster graphics performance compared to the previous generation

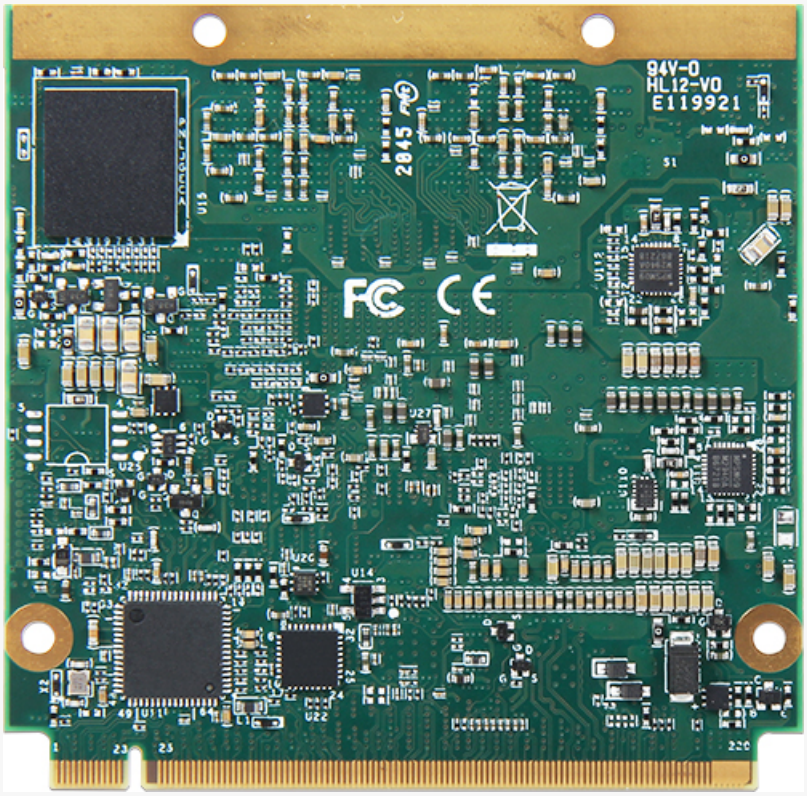
FREMONT, CA, UNITED STATES, November 23, 2020 / EINPresswire.com/ -- American Portwell Technology, Inc., (https://www.portwell.com), a world-leading innovator for Industrial PC (IPC) and embedded computing solutions, and an associate member of the Intel Internet of Things (IoT) Solutions Alliance, announces PQ7-M109, the latest addition to its portfolio of embedded Qseven solutions. According to Maria Yang, American Portwell Technology's product marketing engineer, the new PQ7-M109 is a Qseven 2.1 module with Intel Atom x6000E series/Celeron®/Pentium® processor (formerly Elkhart Lake platform) based on 10 nm technology, supports up to 4 cores with 4.5W—12W TDP and integrates the Intel Gen 11 UHD Graphics Engine with triple displays support in 4K resolution. Portwell's PQ7-M109 features onboard LPDDR4 3200 MT/s with In-Band ECC (IBECC) up to 8 GB which allows more affordable standard memory to be used instead of ECC memory (ECC or Non-ECC can be configured by BIOS) and can improve safety and reliability; onboard eMMC 5.1 up to 256GB; triple independent displays that include dual-channel LVDS up to 1920x1200 @60Hz, which can be swapped out for eDP, plus two other DDI options to either DisplayPort 1.4 or HDMI 2.0b up to 4K resolution; 2 x USB 3.2 Gen 1, 6 x USB 2.0, 2 x SATA III, 4 x PCIe Gen 3 x1; 1 x Gigabit Ethernet; Other I/O interfaces such as SDIO, I2C, HDA, JTAG, SMBus, LPC, CAN bus and

> "It provides an optimized balance of thermal and computing performance that is 1.5 times better than its predecessor; an outstanding graphics performance that is twice as fast as its predecessor."
>
> *Robert Feng*

UART; supports ACPI 5.0 power management and Fully Integrated Voltage Regulator (FIVR); and supports wide operating temperature range from -40° to 85°C; and onboard TPM 2.0 for security.

“In addition,” Yang states, “our new PQ7-M109 module supports new advanced features that boost IoT designs from the edge to the Cloud, including Enhanced Integration with Intel Programmable Service Engine (PSE), an ARM™ Cortex™ M7-based management engine/co-processor to reduce CPU load and provide IoT functions such as remote out-of-band (OOB) device management that provides access/power control to edge devices even when they are powered down or the OS is unresponsive. What’s more,” Yang adds, “these new advanced features also include the fully-integrated voltage regulator (FIVR) for power management with simplified design, plus the support of Intel OpenVino™ toolkit and Media SDK to improve performance and accelerate video inferencing workload.”


PQ7-M109-Front


PQ7-M109-Back

Built with qualified industrial grade components, Portwell’s PQ7-M109 module is ideal for edge devices that need high performance and low power consumption (=/< 12W) and especially for applications such as industrial automation, factory automation, process control, embedded system for IIoT, edge computing, medical/healthcare equipment, manufacturing, intelligent gateway, and transportation. It also suitable for graphic-intensive applications including gaming, digital signage, smart retail and much more.

Significantly Improved Performance and Lower Power Consumption

"We are proud to launch our PQ7-M109 module," says Robert Feng, senior product marketing director for American Portwell Technology, Inc. "Its features and benefits cement Portwell as a leading Qseven solution provider for the embedded systems market. Its small form factor is suitable for compact systems where space is at a premium. It provides an optimized balance of thermal and computing performance that is 1.5 times better than its predecessor; an outstanding graphics performance that is twice as fast as its predecessor; triple independent displays with selectable options that support up to 4K resolution; and flexible I/O interfaces. What's more," Feng continues, "because PQ7-M109 supports the latest Intel Atom x6000E series/Celeron/Pentium processors with double cache, higher memory bandwidth and In-Band ECC feature, larger eMMC capacity, more USB ports and PCIe Gen 3 lanes. In fact," Feng confirms, "this is the first time PCIe Gen 3 is available in the lower-power processors.

"We have also made it easy for existing customers to upgrade from the previous Qseven module so they can quickly and easily take advantage of the higher performance and lower power consumption of the new PQ7-M109. In short," Feng states, "with the launch of the improved PQ7-M109, our customers not only benefit from the most up-to-date technology and features, and faster time-to-market for their end product, but they also gain peace of mind from the long product life span (10+ years) inherent with every Portwell product."

# # #

About American Portwell Technology

American Portwell Technology, Inc., is a world-leading innovator in the embedded computing market and an Associate member of the Intel Internet of Things Solutions Alliance. American Portwell Technology designs, manufactures and markets a complete range of PICMG computer boards, embedded computer boards and systems, rackmount systems and network communication appliances for both OEMs and ODMs. American Portwell is an ISO 9001, ISO 13485, ISO 14001 and TL 9000 certified company. The company is located in Fremont, California. For more information about American Portwell's extensive turnkey solutions and private-label branding service, call 1-877-APT-8899, email info@portwell.com or visit us at https://www.portwell.com.

Maria Yang
American Portwell Technology
+1 510-403-3375
mariay@portwell.com
Visit us on social media:
Facebook

Twitter
LinkedIn
