Portwell Announces New COM Express® Type 10 Mini Module with the Latest Intel Atom® x6000E Series Processor

PCOM-BA02VGL Features -40°C to 85°C Wide Operating Temperature, Real-Time Capability via 2.5 GbE Port and BIOS Configurable In-Band ECC (IBECC) Memory

FREMONT, CA, UNITED STATES, July 1, 2021 /EINPresswire.com/ -- American Portwell Technology, Inc., (https://www.portwell.com) a wholly owned subsidiary of Portwell, Inc., a world-leading innovator in the Industrial PC (IPC) market and a Titanium member of Intel® Partner Alliance, announces the release of the

PCOM-BA02GL, a COM Express Type 10 Mini module (84mm x 55mm) based on the 10nm Intel Atom x6000E Series/Pentium/Celeron Processors (formerly Elkhart Lake platform), 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. The PCOM-BA02GL COM Express module includes a wide range of optional I/O flexibility like Gen 3 PCI-Express with a mature eco-system. The PCOM-BA02GL is designed to enable applications using Type 10 COM Express products to rapidly upgrade their systems without changing existing carrier boards or entire computer system and minimize the changes in the software. This latest offering provides a boost to the performance of customers' existing systems and prolongs service life for another 10+ years, maximizing their return on investment.

> "When designing the PCOM-BA02GL, we applied the successful modular computing concept of our COM Express form factor and came out with an even more compact, efficient and economical combination"
>
> *Maria Yang*

High Speed I/O for Fast Data Transmission

The PCOM-BA02GL COM Express module supports up to 8GB LPDDR4 3200MT/s SDRAM soldered onboard memory with integrated In-Band ECC (IBECC) feature that allows more affordable standard memory to be used instead of higher cost ECC memory (ECC or Non-ECC can be configured by BIOS) and up to 3.0 GHz in turbo mode, increasing cost-performance effectiveness. It also offers 2x USB 3.2 Gen 2 (10Gb/s), 2.5GbE LAN with the support of Intel Time Sensitive Networking (TSN) and Time Coordinated Computing (TCC) for real-time computing and control with low-latency capability, and 4 x PCI Express x1 Gen 3 (8.0GT/s) expansion interfaces. According to Maria Yang, Portwell's product marketing engineer describes, this is the first time PCIe

PCOM-BA02GL Products

Portwell Logo

Gen 3 available in the lower-power processors, and they could fulfill most applications that need great expandability and higher throughput such as Wi-Fi, Bluetooth, NVMe module and more. In addition, it also supports dual 4K high resolution display including DP/HDMI and LVDS/ eDP that delivers up to 2x faster graphics performance compared to previous generation.

Efficient Upgrade and Effective Energy Management

"When designing the PCOM-BA02GL, we applied the successful modular computing concept of our COM Express form factor and came out with an even more compact, efficient and economical combination," said by Maria Yang. "The ultra-low power Intel Atom processor x6000E family is housed on the PCOM-BA02GL module board. In this design," She explains, "we are able to maximize Computer-On-Module (COM) technology to produce a unit that not only outputs under 4.5W~12W for fan-less applications, but also supports a wide -40ºC to 85ºC industrial temperature range and wide voltage input from 4.75 to 20VDC. The PCOM-BA02GL conserves energy resources, minimizes carbon impact and keeps its energy budgets under control." Overall, the compact and rugged PCOM-BA02GL is ideal for mission critical application in harsh environments, and applications such as industrial automation, factory automation, process control, embedded system for IIoT, edge computing, manufacturing, intelligent gateway, transportation.

Design and Customization Services for Broad Applications
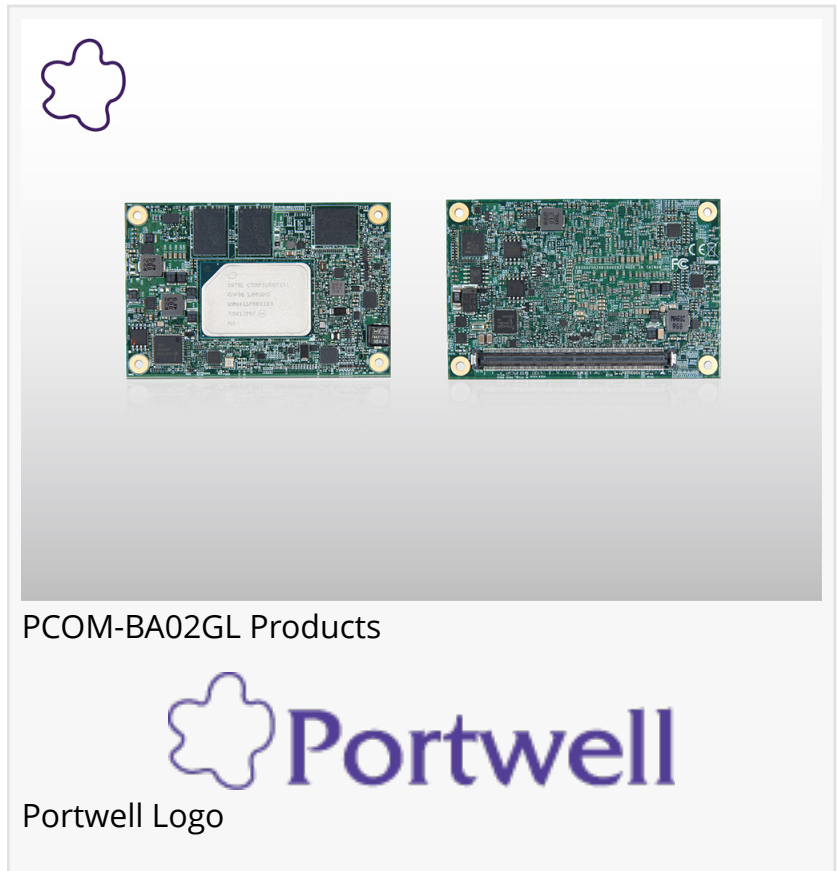
The Computer-on-module has been enhanced by Portwell in response to market demand for an even lower power platform to take advantage of the Intel Celeron/Pentium/Atom processors' compact design. Since its initial inception, Portwell's expanding Intel Atom processor-based COM portfolio has now grown to include industrial temperature range support. Portwell's versatile COM Express modules adapt to these changes by enabling designers to partition commodity host-processors from proprietary baseboards, thereby minimizing current and future design risks during the initial phase of development. This design of separating the CPU-upgradable module from system specific I/O carrier boards further safeguards development investments and lowers total cost of ownership. In addition, Portwell can also provide services to clients on the carrier board design and development, review schematics and BIOS customization. At Portwell, we strive to create superior products for our customers.

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