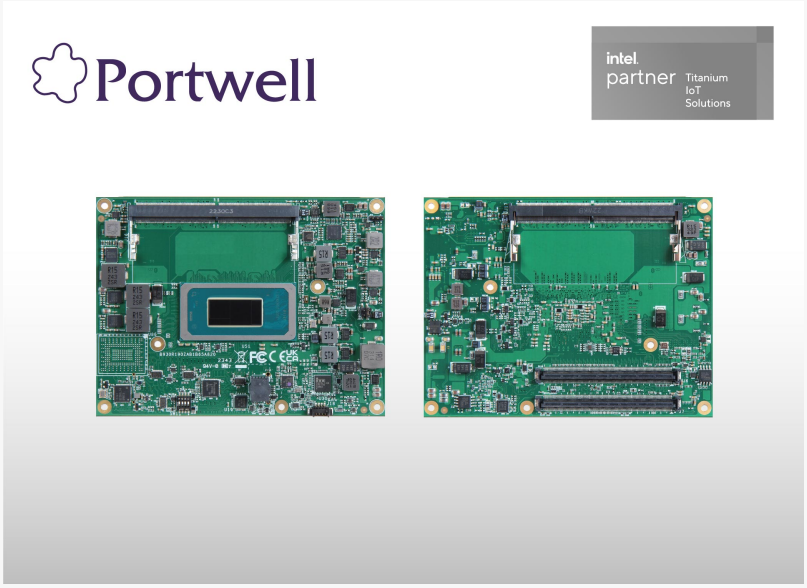
Portwell Launches COM Express Type 6 Basic Module Featuring Intel® Core™ Ultra Processors with Built-in AI Acceleration

PCOM-B65A enables diverse edge AI embedded computing use cases in medical devices, intelligent healthcare, industrial control, factory automation and smart city



FREMONT, CALIFORNIA, UNITED STATES, December 21, 2023 /EINPresswire.com/ -- American Portwell Technology, Inc., (https://www.portwell.com) a wholly owned subsidiary of Portwell, Inc., a world-leading innovator for Industrial PC (IPC) and embedded computing solutions, a Titanium Partner of Intel® Partner Alliance, launches PCOM-B65A, the latest addition to its ever-expanding computer-on-module (COM) family. This module is designed with the new generation Intel® Core™ Ultra processors, and is based on the COM Express Basic size form factor (125 mm x 95 mm).

The PCOM-B65A is Portwell's highly anticipated response to the increasingly high demand and requirements from the diverse edge AI computing applications to deliver optimized performance per watt, more advanced I/O interfaces, and enhanced memory and storage capacity. Built upon the well-recognized Computer-on-Module (COM) modular computing concept and the latest COM Express Module Base Specification Rev 3.1, the Portwell PCOM-B65A offers a new computer module solution that combines leading CPU technology with high-speed input/output interfaces enabling greater

upgradeability and configuration flexibility.

Intel's Brand New Processor Architecture and Cutting-Edge Manufacturing Process
The new Intel® Core™ Ultra processor series is the first processor built on the Intel® 4 process technology, and uses Foveros 3D advanced packaging technology delivering greater performance in a smaller footprint while optimizing for cost and power efficiency. More particularly, the Intel Core Ultra processor encompasses four tiles and a base die to form a complete processor chip: an SoC tile, a graphics tile (GPU), a compute tile (CPU) and an I/O tile. Furthermore, boosting compute performance to the next level with efficiency, the Intel Core Ultra processors provide three tiers of CPU cores offering up to 16 cores (six Performance-cores (P-cores), eight Efficient-cores (E-cores), two low-power Efficient-cores (LP E-cores)), and 22 threads. It also integrates an Intel® Arc™ GPU featuring up to eight Xe cores (128 EUs, or execution units), and AI-based Xe Super Sampling (XeSS), enhancing rapid and dynamic visual processing. Moreover, it includes Intel's newest NPU, the Intel® AI Boost, purpose-built to handle long/longer-running AI workloads at low power, and complementing AI capabilities handled on both the CPU and GPU, to enable more efficient AI inference capabilities for various power-constrained edge applications.

AI Is Everywhere Across the Network and Edge
Delivering advanced computing performance, power-efficient AI acceleration at the edge, and support for demanding visual workloads, the Intel® Core™ Ultra processor series leads innovation across the industry. The Portwell PCOM-B65A COM Express Type 6 Basic module, designed with the Intel Core Ultra processors, offers optimized value-performance balance, high scalability and configuration flexibility, to empower agile embedded computing solutions for diverse edge AI uses cases including, but not limited to, medical devices, intelligent healthcare, industrial control, factory automation and smart city.
And more specifically, PCOM-B65A can be designed as a driving force for edge servers, or a core computing component for high-performance embedded computers in a small footprint. For instance, the Portwell PCOM-B65A can support onboard PCIe NVMe SSD to reduce the need for additional storage deployment on the carrier board. This, in turn, helps optimize system configuration, while reducing the physical size to meet the challenging layout and space constraints in various edge computing use conditions.

Specialized Design and Manufacturing Services to Accelerate Time to Market
As a trusted partner in industrial and embedded computing solutions, Portwell has over 30 years of experience in providing comprehensive project support, including product design, design guidelines, schematic reviews, technical expertise, production, and certification processes. Portwell also provides customers with the latest product roadmaps to facilitate early planning for next-generation product upgrades and new projects.
The Portwell PCOM-B65A COM Express Type 6 Basic module is a high-performance and highly reliable computing module solution built on the advanced Intel® Core™ Ultra processors and long-standing COM Express standard that balances cost, functionality, and performance. It provides industrial-grade features that accelerate real-time performance and intelligence, and

offers highly scalable embedded computing design options for the now and ever-emerging “AI Everywhere” use cases. Not only that, but our customers also benefit from the peace of mind they get from the long life cycle support of 10+ years inherent with the Portwell PCOM-B65A.

Product details:
PCOM-B65A COM Express Type 6 Basic Size Module with Intel® Core™ Ultra Processors on Intel® 4 Process
https://portwell.com/products/detail.php?CUSTCHAR1=PCOM-B65A

About American Portwell Technology
American Portwell Technology, Inc., is a world-leading innovator in the embedded computing market, and a Titanium Partner of the Intel Partner 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://portwell.com/

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