Introducing Portwell PNSR-4000 1U Network Appliance with Intel® Core™ Ultra Processors (Series 2) & 4x OCP NIC 3.0 Slots

FREMONT, CA, UNITED STATES, January 6, 2025 /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, is excited to announce the PNSR-4000, a leading-edge 1U network appliance designed to deliver exceptional performance, reliability, and scalability with enhanced security options. The PNSR-4000 is built on the latest Intel® Core™ Ultra Processors (codenamed Arrow Lake-S), which feature up to 24 cores, and paired with the advanced W880 and Q870 chipset series. Optimally engineered with the Intel Core Ultra processors'

disaggregated multi-layer architecture design that integrates CPU, GPU, and NPU for optimized performance and efficiency, the PNSR-4000 is ideal for diverse network applications in enterprise networks and data centers, facilitating workloads from edge to cloud.

Intel® Core™ Ultra Processors: Unlock Edge AI and Graphics Opportunities with Advanced Cores and Integrated Acceleration

Engineered for edge AI applications, Intel Core Ultra processors deliver significant performance enhancements alongside expanded memory capacity and broad I/O connectivity. With up to double the GPU Xe cores—increasing from two to four Xe cores—and the inclusion of Intel® AI Boost featuring an integrated neural processing unit (NPU), these processors have the potential to displace entry-level discrete GPUs, which can help to reduce solution costs and streamline designs. These advancements empower organizations to efficiently handle complex AI tasks, optimally support emerging applications, and stay competitive in the era of AI.

Advanced Performance, Maximum Versatility, and Optimized Security
The Portwell PNSR-4000 features a 1U 19" rackmount form factor and supports up to 24 cores with Intel Core Ultra Processors (Series 2), which offer a mix of Performance-cores (P-cores) and Efficiency-cores (E-cores) for high performance and improved power efficiency. It offers a wide range of memory options, with four DIMMs supporting up to 192GB of advanced DDR5 ECC memory, optimizing performance for AI workloads, Software-Defined Networking (SDN), and virtualization applications.

Engineered for optimal flexibility, the PNSR-4000 network system is equipped with four Open Compute Project (OCP) NIC 3.0 card slots, offering two PCIe Gen5 lanes from the CPU and two PCIe Gen4 lanes from the PCH. This optimized configuration supports the Portwell PNC series network interface cards up to 200GbE and OCP NIC 3.0 SFF cards up to 800GbE of Ethernet, while also providing the versatility to integrate AI capabilities directly through OCP 3.0 expansion modules, perfect for edge AI applications.

Offering seamless customization and effortless expansion, the PNSR-4000 is designed to meet dynamic and unique networking and storage needs. Ideal for businesses aiming to boost network throughput, enhance storage performance, and optimize overall operational efficiency, the PNSR-4000 offers the scalability and performance modern organizations demand.

Leveraging Intel® Threat Detection Technology (Intel® TDT) and Intel® Silicon Security Engine, the PNSR-4000 empowers an advanced, multi-layered security framework that proactively addresses and neutralizes modern threats, providing businesses with comprehensive protection, enhanced performance, and peace of mind.

Engineered for Modern Network Demands and Versatile Applications
Last but not least, the PNSR-4000 is engineered to meet the demanding needs of modern network environments, offering robust performance, extensive expansion capabilities, and enhanced security features. With support for the latest DDR5 memory and PCIe Gen5, this appliance ensures future-proof scalability and efficiency.

The Portwell PNSR-4000 1U network appliance is ideal for a wide range of applications, including network security, firewall, VPN, unified threat management (UTM), and artificial intelligence (AI). With its powerful processing capabilities and extensive memory support, it excels in AI workloads such as machine learning, data analytics, and real-time inference. Overall, it is well-equipped to transform data centers, enterprise networks, and cloud computing environments, delivering the performance and reliability needed to tackle the increasingly complex network infrastructure in this AI-driven age.

Product details:
PNSR-4000 1U Network Appliance with Intel Core Ultra Processors (Series 2) Featuring 4x OCP NIC 3.0 Slots
https://portwell.com/products/detail.php?CUSTCHAR1=PNSR-4000

Selection of the Portwell PNC Series OCP NIC 3.0 Network Interface Cards:
https://portwell.com/products/network-card.php?PCIe+Gold+Finger+Interface+Type=OCP_3p0

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