

Premio Releases JCO-1000-ORN: A Compact Fanless Rugged AI Edge Computer Powering the Demands for Physical AI

The JCO-1000-ORN completes Premio's standard off-the-shelf JCO Series with NVIDIA Jetson Orin modules for a scalable rugged edge AI PC Lineup.

LOS ANGELES, CA, UNITED STATES, September 15, 2025 /EINPresswire.com/ -- Premio Inc., a global leader in rugged edge AI computing solutions, today announced the release of the [JCO-1000-ORN](#) Series, an ultra-compact AI edge computer purpose-built for real-time inferencing in harsh and space-constrained environments. Powered by NVIDIA® Jetson Orin™ NX and Nano Super modules, the JCO-1000-ORN is engineered to accelerate the convergence of digital intelligence with physical systems for the next frontier in Physical AI. The JCO-1000-ORN completes Premio's portfolio of rugged edge AI pcs (JCO Series) that embeds NVIDIA's Jetson Orin modules and supports the Jetpack 6.2 SDK for AI development.

“

With the JCO-1000-ORN and NVIDIA Jetson Orin Modules, we're delivering a powerful edge AI solution in a ruggedized, deploy-anywhere form—empowering system integrators to bring real-time intelligence.”

Dustin Seetoo, VP of Product Marketing at Premio.

“Physical AI requires computing that is not only intelligent, but resilient and mobile as computing demands shift away from cloud resources to on-device requirements,” said Dustin Seetoo, VP of Product Marketing at Premio. “With the JCO-1000-ORN and NVIDIA Jetson Orin Modules, we're delivering a powerful edge AI solution in a ruggedized, deploy-anywhere form—empowering developers and system integrators to bring real-time intelligence closer to physical operations in their autonomous applications.”

Rugged Design Meets Real-Time Intelligence for Physical AI

The JCO-1000-ORN Series integrates high-performance and power efficient embedded NVIDIA Jetson Orin modules into a fanless, cableless, and shock-resistant aluminum chassis, offering up to 157 TOPS of AI performance in a footprint smaller than 1.5 liters. Built to withstand wide temperature ranges from -20°C up to 55°C and MIL-STD-810 shock (50G) and vibration (5Grms), this ruggedized edge AI pcs ensures uninterrupted operation in the field—from autonomous robotics and smart city infrastructure to mobile systems and remote industrial control.

As enterprises race to integrate artificial intelligence with real-world sensors, actuators, and machines, the JCO-1000-ORN serves as a physical AI bridge between cloud intelligence and edge computing autonomy. It enables next-gen applications in industrial automation, intelligent vision, autonomous mobility, and environmental sensing, where split-second decision-making is critical with multimodal AI models.

Key Features:

- NVIDIA Jetson Orin Super Modules: Choose from NX or Nano configurations with up to 1024 CUDA cores and integrated AI accelerators. Super Mode Supported
- Multiple I/O Configurations: High-speed USB 3.2 Gen 2, isolated digital I/O, CAN bus, HDMI 2.0 (4K60), GbE or 2.5GbE ports, and optional GMSL camera support.
- AI at the Edge: Supports NVIDIA JetPack SDK 6.2 for seamless deployment of real-time inferencing models on GPU, DLA, and CPU cores.
- Modular Expansion: M.2 slots for NVMe SSDs, 5G/4G cellular, Wi-Fi/Bluetooth.
- Remote Edge Management: Optional out-of-band (OOB) management via Allxon integration for remote recovery and updates.

The JCO-1000-ORN Series is available in two configurations—Model A and Model B—to meet diverse industrial and vision-centric deployment needs. Model A is optimized for general industrial applications, offering a single GbE port, four USB 3.2 Gen 2 ports, and broad I/O support in a compact, rugged form. In contrast, Model B is designed for high-bandwidth, camera-intensive environments such as transportation and smart infrastructure, featuring dual GbE (including 2.5GbE), support for up to four GMSL cameras, enhanced EMC certifications (including E-Mark for in-vehicle and EN 50121-3-2 for railway), and the same high-speed USB, legacy COM, and CAN Bus port options. This flexibility allows developers to tailor and scale their AI edge deployments based on connectivity, environmental, and real-time vision requirements with off-the-shelf edge computing hardware.

The JCO-1000-ORN Series enters the market at a pivotal time, as industries adopt AI-driven automation and computer vision to streamline operations, enhance safety, and improve efficiency. With its balance of performance, durability, and configurability, this palm-sized edge AI



The image is a promotional graphic for the JCO-1000-ORN. It features a dark background with a green diagonal stripe. At the top left is the 'premio' logo. At the top right are the 'NVIDIA' and 'Preferred Partner' logos. The text 'Press Release' is centered below the logos. The product name 'JCO-1000-ORN' is prominently displayed in large white letters, followed by 'Powered by NVIDIA Jetson Orin™ NX/Nano' in smaller text. Below this, it says 'Now Available!'. The bottom half of the image shows a green and black industrial module (the JCO-1000-ORN) and a white industrial machine with a camera and a blue ring light, both on a dark surface. Below the image, the text 'New-JCO-1000-ORN-A-NVIDA-Jetson-Orin-Computer' is written.

New-JCO-1000-ORN-A-NVIDA-Jetson-Orin-Computer

pc offers a scalable path to Physical AI for OEMs, ISVs, and industrial AI solution providers looking for a faster time-to-market.

Buy Now and Availability

The Premio JCO-1000-ORN Series [Model A is available now](#), including both Orin NX and Nano Super modules. The model B variant will be available later in Q4 2025. To schedule a demo, discuss customization options, or purchase a sample unit for development, visit www.premioinc.com or contact our edge computing experts directly at sales@premioinc.com.

Dustin Seetoo

Premio Inc.

+1 626-839-3100

[email us here](#)

Visit us on social media:

[LinkedIn](#)

[YouTube](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/848365401>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2025 Newsmatics Inc. All Right Reserved.