

NVIDIA Jetson AGX Orin 32GB Production Modules Now Available; Partner Ecosystem Appliances and Servers Arrive

Nearly three dozen partners are offering feature-packed systems based on the new Jetson Orin module to help customers accelerate AI and robotics deployments.

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Bringing new AI and robotics applications and products to market, or supporting existing ones, can be challenging for developers and enterprises.

The NVIDIA Jetson AGX Orin 32GB production module — available now — is here to help.

Nearly three dozen technology providers in the NVIDIA Partner Network worldwide are offering commercially available products powered by the new module, which provides up to a 6x performance leap over the previous generation.

With a wide range of offerings from Jetson partners, developers can build and deploy feature-packed Orin-powered systems sporting cameras, sensors, software and connectivity suited for edge AI, robotics, AIoT and embedded applications.

Production-ready systems with options for peripherals enable customers to tackle challenges in industries from manufacturing, retail and construction to agriculture, logistics, healthcare, smart cities, last-mile delivery and more.

Traditionally, developers and engineers have been limited in their ability to handle multiple concurrent data streams for complex application environments. They've faced strict latency requirements, energy-efficiency constraints, and issues with high-bandwidth wireless connectivity. And they need to be able to easily manage over-the-air software updates.

They've also been forced to include multiple chips in their designs to harness the compute resources needed to process diverse, ever-growing amounts of data.

NVIDIA Jetson AGX Orin overcomes all of these challenges.

The Jetson AGX Orin developer kit, capable of up to 275 trillion operations per second, supports multiple concurrent AI application pipelines with an NVIDIA Ampere architecture GPU, next-generation deep learning and vision accelerators, high-speed I/O, and fast memory bandwidth.

With Jetson AGX Orin, customers can develop solutions using the largest and most complex AI models to solve problems such as natural language understanding, 3D perception and multi-sensor fusion.

The four Jetson Orin-based production modules, announced at GTC, offer customers a full range of server-class AI performance. The Jetson AGX Orin 32GB module is available to purchase now, while the 64GB version will be available in November. Two Orin NX production modules are coming later this year.

The production systems are supported by the NVIDIA Jetson software stack, which has enabled thousands of enterprises and millions of developers to build and deploy fully accelerated AI solutions on Jetson.

On top of JetPack SDK, which includes the NVIDIA CUDA-X accelerated stack, Jetson Orin supports multiple NVIDIA platforms and frameworks such as Isaac for robotics, DeepStream for computer vision,

Riva for natural language understanding, TAO Toolkit to accelerate model development with pretrained models, and Metropolis, an application framework, set of developer tools and partner ecosystem that brings visual data and AI together to improve operational efficiency and safety across industries.

Customers are bringing their next-generation edge AI and robotics applications to market much faster by first emulating any Jetson Orin-based production module on the Jetson AGX Orin developer kit.

More than 1 million developers and over 6,000 companies are building commercial products on the NVIDIA Jetson edge AI and robotics computing platform to create and deploy autonomous machines and edge AI applications.

With over 150 members, the growing Jetson ecosystem of partners offers a vast range of support, including from companies specialized in AI software, hardware and application design services, cameras, sensors and peripherals, developer tools and development systems.

Some 32 partners offer commercially available products, powered by the new Jetson AGX Orin module, that are packed with options to help support cutting-edge applications and accelerate time to market.

Developers looking for carrier boards and full hardware systems will find a range of options from AAeon, Auvideo, Connect Tech, MiiVii, Plink-AI, Realties and TZTEK to serve their needs.

Over 350 camera and sensor options are available from Allied Vision, Appropo, Basler AG, e-con Systems, Framos, Leopard Imaging, LIPS, Robosense, Shenzhen Sensing, Stereolabs, Thundersoft, Unicorecomm and Velodyne. These can support challenging indoor/outdoor lighting conditions, as well as capabilities like lidars for mapping, localization and navigation in robotics and autonomous machines.

For comprehensive software support like device management, operating systems (Yocto & Realtime OS), AI software and toolkits, developers can look to Allxon, Cogniteam, Concurrent Realtime, Deci AI, DriveU, Novauto, RidgeRun, and Sequitur Labs.

And for connectivity options, including WiFi 6/6E, LTE and 5G, developers can check out the product offerings from Telit, Quectel, Infineon and Silex.

The new NVIDIA Jetson AGX Orin 32GB production module is available in the Jetson store from retail and distribution partners worldwide.

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