

NVIDIA Jetson Orin Nano Super Developer Kit 8GB



Features:

The NVIDIA Jetson Orin Nano Super Developer Kit is a compact yet powerful computer engineered to redefine generative AI for small edge devices. It delivers up to 67 TOPS of AI performance, offering a significant performance improvement over previous generations and enabling seamless execution of vision transformers, large language models, vision language models, and other advanced AI networks. The platform is optimized for high performance inference and supports multiple concurrent AI application pipelines for robotics, computer vision, and intelligent edge systems.

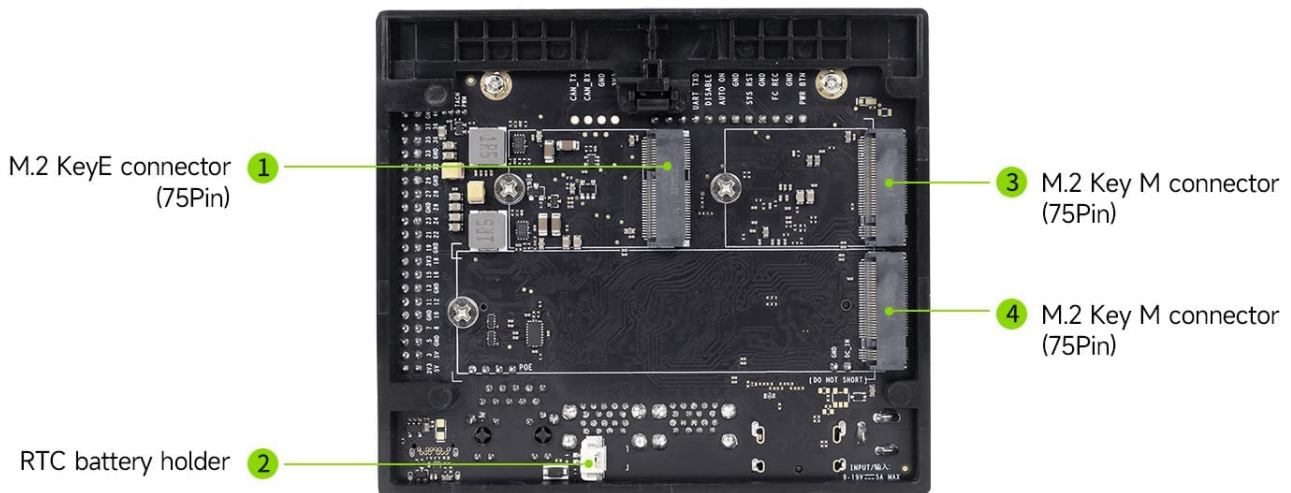
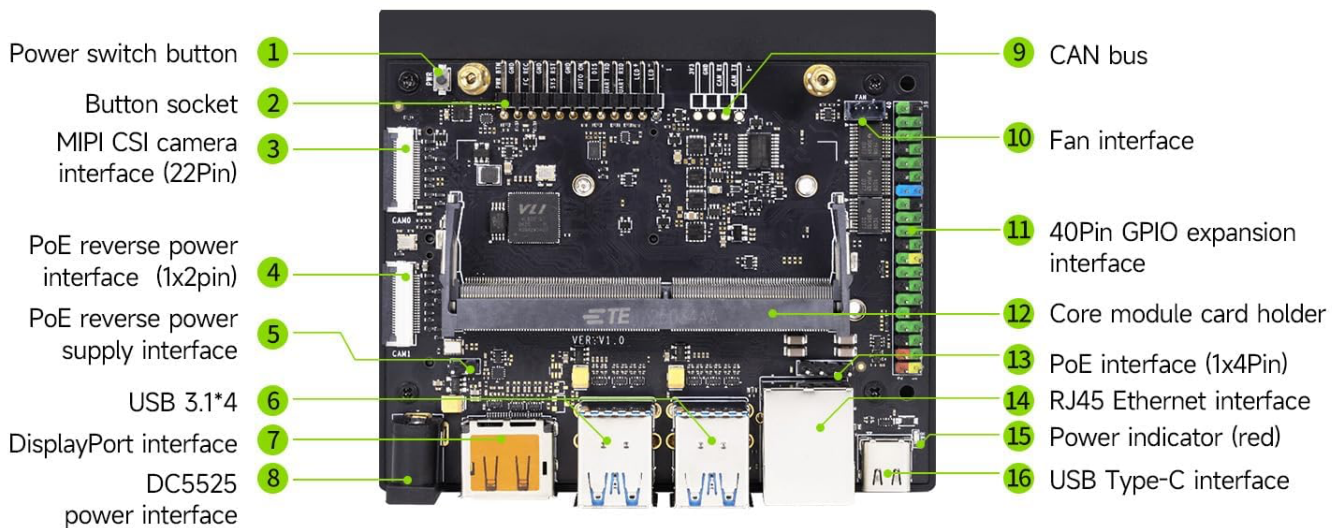
The developer kit includes the Jetson Orin Nano 8GB module paired with a reference carrier board designed to support all Orin Nano and NVIDIA Orin NX modules. The 8GB module integrates an NVIDIA Ampere architecture GPU with 1024 CUDA cores and 32 tensor cores, along with a 6 core Arm Cortex A78AE v8.2 64 bit CPU and 8GB 128 bit LPDDR5 memory delivering 102GB/s bandwidth. This architecture enables efficient processing for demanding AI workloads while maintaining excellent power efficiency for embedded and autonomous applications.

The reference carrier board provides extensive connectivity for rapid prototyping and deployment. It features dual MIPI CSI 2 22 pin camera connectors supporting 2 lane and 4 lane cameras, dual M.2 Key M slots and M.2 Key E expansion, four USB 3.2 Gen2 Type A ports, USB Type C UFP, Gigabit Ethernet, DisplayPort output, and a 40 pin expansion header supporting UART, SPI, I2S, I2C and GPIO. The platform runs the NVIDIA AI software stack and supports frameworks such as NVIDIA Isaac for robotics, NVIDIA Metropolis for vision AI, NVIDIA Holoscan for sensor processing, NVIDIA Omniverse Replicator for synthetic data generation, and NVIDIA TAO Toolkit for fine tuning pretrained AI models, enabling accelerated development and faster time to market.

| Specifications | |
|------------------|--|
| Product Name | NVIDIA Jetson Orin Nano Super Developer Kit 8GB |
| AI Performance | Up to 67 TOPS |
| GPU Architecture | NVIDIA Ampere |
| CUDA Cores | 1024 |
| Tensor Cores | 32 |
| CPU | 6 core Arm Cortex A78AE v8.2 64 bit |
| Memory | 8GB 128 bit LPDDR5 |
| Memory Bandwidth | 102GB/s |
| Storage Support | External NVMe supported |
| Power Range | 7W to 25W |
| Video Encode | 1080p30 supported by 1 to 2 CPU cores |
| Video Decode | 1x 4K60 H.265, 2x 4K30 H.265, 5x 1080p60 H.265, 11x 1080p30 H.265 |
| Included Items | Jetson Orin Nano 8GB module, power adapter, antenna, M.2 to USB3.0/3.1 Type C SSD case |
| Usage | Edge AI, robotics, vision AI, generative AI prototyping |

| Reference Carrier Board | |
|-------------------------|---|
| Camera | 2x MIPI CSI 2 22 pin connectors |
| PCIe | M.2 Key M x4 PCIe Gen3, M.2 Key M x2 PCIe Gen3, M.2 Key E |
| USB | 4x USB 3.2 Gen2 Type A, 1x USB Type C UFP |
| Networking | 1x Gigabit Ethernet |
| Display | 1x DisplayPort 1.2 with MST |
| Expansion | 40 pin expansion header UART SPI I2S I2C GPIO |
| Other I O | 12 pin button header, 4 pin fan header, DC power jack |
| Mechanical | 103mm x 90.5mm x 34.77mm |

Function Distribution:



Product Pictures:

