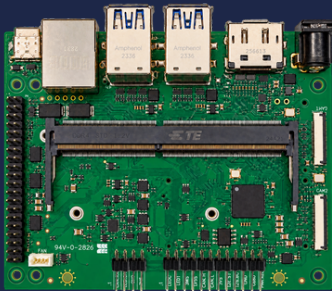
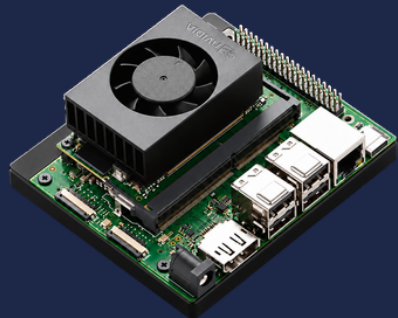


NEXUS N1 NX **AI Single Board** **Computer**



CARRIER BOARD



JETSON ORIN NX + ACTIVE COOLING

AI Single Board Computer for NVIDIA Jetson Orin NX

NEXUS N1 NX is a compact AI single board computer built around NVIDIA Jetson Orin NX module with an ElectraIC-designed carrier board. It combines camera, high-speed USB, PCIe/M.2 expansion, Gigabit Ethernet, DisplayPort and general-purpose I/O in a single integration-ready platform.

Designed for machine vision, robotics and intelligent embedded systems, NEXUS N1 NX supports rapid prototyping, system validation and product integration while retaining the flexibility required for custom AI applications.

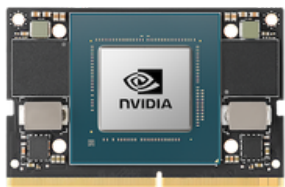
Why NEXUS N1 NX?

A compact, integration-ready Jetson carrier platform that brings high-speed I/O, camera connectivity, storage expansion and system-control interfaces together in one design. Built for rapid edge AI development, NEXUS N1 NX helps teams move efficiently from prototyping and model validation to real-world integration, testing and deployment across machine vision, robotics and intelligent embedded applications.



NEXUS N1 NX

SUPPORTED JETSON MODULE



JETSON ORIN NX

AI Performance	Up to 157 TOPS
Memory	8 GB / 16 GB LPDDR5
CPU	Up to 8-core Arm Cortex-A78AE
GPU	1024-core GPU, 32 Tensor Cores

PLATFORM HIGHLIGHTS

- Designed for NVIDIA Jetson Orin NX module
- High-bandwidth camera, storage, networking and USB connectivity for AI systems
- Flexible PCIe and M.2 expansion for NVMe storage and wireless modules
- Accessible 40-pin expansion I/O for rapid hardware integration and prototyping
- Integrated system control, cooling and recovery interfaces for embedded deployment

TARGET APPLICATIONS

- Machine vision and video analytics
- Robotics and autonomous systems
- Industrial AI and intelligent sensors
- Rapid AI prototyping and system validation

SYSTEM I/O & POWER

- **System Control:** Power, reset, forcerecovery, debug UART and auto-power-on control
- **I/O:** 1x CAN and optional RTC backup connector
- **Cooling:** 5 V fan connector with PWM control and tach feedback
- **Power Input:** 9-20 V DC jack; optional Ethernet PoE and back-power headers

KEY INTERFACES

MODULE CONNECTION

260-pin SO-DIMM for Jetson Orin NX

USB

4x USB 3.2 Gen 2x1 Type-A (host) + USB-C recovery interface

NETWORKING

1x Gigabit Ethernet (RJ45 with LEDs; optional PoE header)

DISPLAY

DisplayPort 1.2 (+MST) and eDP 1.4 support

CAMERA

2x 22-pin MIPI CSI-2 connectors; up to x4 + x2 lane configurations

M.2 KEY E

PCIe Gen3 x1 + USB 2.0; I2S, UART and I2C

M.2 KEY M

1x PCIe Gen3 x4 + 1x PCIe Gen3 x2

40-PIN EXPANSION

2x I2C, 2x SPI, UART, I2S, GPIO and PWM

- **Mechanical dimensions:** 103 x 90.5 x 34.77 mm*

**Overall height may vary with the installed thermal solution.*

PRODUCT CODES

EIE-10100200-NX1-16GB	Nexus-NVIDIA Jetson Orin NX-16GB Carrier + SOM
EIE-10100201-NX1-8GB	Nexus-nVIDIA Jetson Orin NX-8GB Carrier + SOM
EIE-10100202-NX1-16GB-WiFi	Nexus-nVIDIA Jetson Orin NX-16GB Carrier + SOM + WiFi
EIE-10100203-NX1-8GB-WiFi	Nexus-nVIDIA Jetson Orin NX-8GB Carrier + SOM + WiFi



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