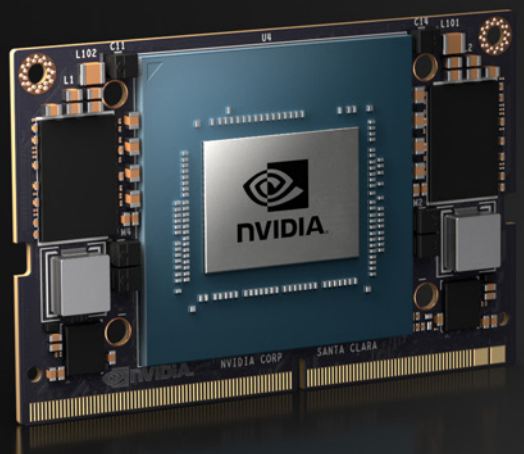

NVIDIA JETSON XAVIER NX

XAVIER PERFORMANCE. NANO SIZE.

The World's Smallest AI Supercomputer for Embedded and Edge Systems

The NVIDIA® Jetson Xavier™ NX brings supercomputer performance to the edge in a compact system-on-module (SOM) that is smaller than a credit card. The energy-efficient Jetson Xavier NX module delivers server-class performance—up to 14 TOPS at 10W or 21 TOPS at 15W. This unique combination of form-factor, performance, and power advantage opens the door for innovative edge devices in the fields of manufacturing, logistics, retail, service, agriculture, smart city and medical instruments.

The Jetson Xavier NX module benefits from new cloud-native support across the entire Jetson platform line-up, making it easier to build, manage, and deploy AI at the edge.

Pre-trained AI models from NVIDIA NGC together with the NVIDIA Transfer Learning Toolkit, provides a faster path to trained and optimized AI networks. Containerized deployment to Jetson devices also allows flexible and seamless updates.

NVIDIA JetPack™ SDK enables multi-modal AI application development for Jetson Xavier NX with accelerated libraries supporting all major AI frameworks, as well as computer vision, computer graphics, multimedia, and more. Together with the latest NVIDIA tools for application development and optimization, JetPack ensures fast time to market and reduced development costs.

Designed for ease of development and speed of deployment, Jetson is the most flexible and scalable platform to get to market and continuously update AI software over the lifetime of a product.

KEY FEATURES

Jetson Xavier NX module

- 384-core NVIDIA Volta™ GPU with 48 Tensor Cores
- 6-core NVIDIA Carmel ARM®v8.2 64-bit CPU
- 2x NVDLA Engines
- 7-Way VLIW Vision Processor
- 8 GB 128-bit LPDDR4x
- 16 GB eMMC 5.1
- 10/100/1000 Base-T Ethernet

Power

- Voltage Input: 5 V
- Module Power: 10 W - 15 W

NVIDIA® JETSON XAVIER™ NX MODULE
TECHNICAL SPECIFICATIONS

AI Performance	**21 TOPS (INT8)**
GPU	**NVIDIA Volta architecture with 384 NVIDIA CUDA® cores and 48 Tensor cores**
Max GPU Freq	**1100 MHz**
CPU	**6-core NVIDIA Carmel ARM®v8.2 64-bit CPU 6 MB L2 + 4 MB L3**
CPU Max Freq	**1.9 GHz**
Memory	**8 GB 128-bit LPDDR4x 51.2GB/s**
Storage	**16 GB eMMC 5.1**
Power	**10 W | 15 W**
PCIe	**1 x1 (PCIe Gen3) + 1 x4 (PCIe Gen4), total 144 GT/s ***
CSI Camera	**Up to 6 cameras (24 via virtual channels) 14 lanes (3x4 or 6x2) MIPI CSI-2 D-PHY 1.2 (up to 30 Gbps)**
Video Encode	**2x464 MP/sec (H.265) 2x 4K @ 30 | 6x 1080p @ 60 | 14x 1080p @ 30 (H.265/H.264)**
Video Decode	**2x690 MP/sec (H.265) 2x 4K @ 60 | 4x 4K @ 30 | 12x 1080p @ 60 | 32x 1080p @ 30 (H.265) 2x 4K @ 30 | 6x 1080p @ 60 | 16x 1080p @ 30 (H.264)**
Display	**2 multi-mode DP 1.4/eDP 1.4/HDMI 2.0**
DL Accelerator	**2x NVDLA Engines**
DLA Max Freq	**1100 MHz**
Vision Accelerator	**7-Way VLIW Vision Processor**
Networking	**10/100/1000 Base-T Ethernet**
USB	**1xUSB 3.1 (10 Gbps) | 3xUSB 2.0**
Other IOs	**1x SDIO / 2x SPI / 3x UART / 2x I2S / 4x I2C / 1x CAN / GPIOs**
Mechanical	**45 mm x 69.6 mm 260 pin SO-DIMM connector**

* Refer to the Software Features section of the latest NVIDIA Jetson Linux Developer Guide for a list of supported features

Learn more at **www.nvidia.com/Jetson**

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