NVIDIA JETSON XAVIER NX DEVELOPER KIT

TAKE SUPERCOMPUTER PERFORMANCE TO THE EDGE.

The NVIDIA® Jetson Xavier™ NX developer kit includes a power-efficient, compact Jetson Xavier NX module for AI edge devices. It benefits from new cloud-native support and accelerates the NVIDIA software stack in as little as 10 W with more than 10X the performance of its widely adopted predecessor, Jetson TX2. The capability to develop and test power-efficient, small form-factor solutions with accurate, multi-modal AI inference opens the door for new breakthrough products.

Developers can now take advantage of cloud-native support to transform the experience of developing and deploying AI software to edge devices. Pre-trained AI models from NVIDIA NGC, together with the NVIDIA Transfer Learning Toolkit, provide a faster path to inference with optimized AI networks, while containerized deployment to Jetson devices allows flexible and seamless updates.

The developer kit is supported by the entire NVIDIA software stack, including accelerated SDKs and the latest NVIDIA tools for application development and optimization. When combined with Jetson Xavier NX, this powerful stack helps you create innovative solutions for manufacturing, logistics, retail, service, agriculture, smart city, healthcare and life sciences, and more.

Ease of development and speed of deployment—together with a unique combination of form-factor, performance, and power advantage—make Jetson Xavier NX the most flexible and scalable platform to get to market fast and continuously update 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
> 10/100/1000 Base-T Ethernet

Power Options

> DC jack (9 V~19 V)

I/O

> 4x USB 3.1 Gen2 Type A
> USB 2.0 Micro-B

> HDMI/DisplayPort
> M.2 Key E (WiFi/BT included)
> M.2. Key M (NVMe)
> Gigabit Ethernet
> 40-pin header (GPIOs, I2C, I2S, SPI, UART)
> 2x MIPI-CSI camera connector
> Fan connector

Kit Contents

> NVIDIA Jetson Xavier NX module and reference carrier board
> Quick Start Guide and Support Guide
> Power adapter: AC power brick and power cord

NVIDIA JETSON XAVIER NX DEVELOPER KIT
TECHNICAL SPECIFICATIONS

DEVELOPER KIT

GPU	**NVIDIA Volta architecture with 384 NVIDIA CUDA® cores and 48 Tensor Cores**
CPU	**6-core NVIDIA Carmel ARM®v8.2 64-bit CPU 6 MB L2 + 4 MB L3**
DL Accelerator	**2x NVDLA Engines**
Vision Accelerator	**7-Way VLIW Vision Processor**
Memory	**8 GB 128-bit LPDDR4x 51.2GB/s**
Storage	**microSD (card not included)**
Video Encode	**2x 4Kp30 | 6x 1080p60 | 14x 1080p30 (H.265/H.264)**
Video Decode	**2x 4Kp60 | 4x 4Kp30 | 12x 1080p60 | 32x 1080p30 (H.265)** **2x 4Kp30 | 6x 1080p60 | 16x 1080p30 (H.264)**
Camera	**2x MIPI CSI-2 D-PHY lanes**
Connectivity	**Gigabit Ethernet, M.2 Key E (WiFi/BT included), M.2 Key M (NVMe)**
Display	**HDMI and DP**
USB	**4x USB 3.1, USB 2.0 Micro-B**
Others	**GPIOs, I²C, I²S, SPI, UART**
Mechanical	**103 mm x 90.5 mm x 31 mm**

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