



# NVIDIA JETSON AGX XAVIER MODULE

## A NEW AI MILESTONE FOR AUTONOMOUS MACHINES

### Server-class performance in the palm of your hand.

The NVIDIA® Jetson AGX Xavier™ module delivers up to 32 TOPS of accelerated computing capability in a compact form factor consuming under 30 Watts. This gives you more than 20X the performance and 10X the energy efficiency of its predecessor, the NVIDIA Jetson™ TX2.

This advanced system-on-module is powered by the NVIDIA Xavier SoC and designed specifically for autonomous machines. Heterogeneous accelerated computing architecture delivers advanced edge capabilities. Plus, it comes with integrated memory, storage, power management, and an innovative thermal design to enable faster time to market. Run modern AI workloads and solve problems in areas like manufacturing, logistics, retail, service, agriculture, smart cities, and healthcare.

Jetson AGX Xavier is supported by NVIDIA JetPack, which includes a board support package (BSP), Linux OS, NVIDIA CUDA®, cuDNN, and TensorRT™ software libraries for deep learning, computer vision, GPU computing, multimedia processing, and much more. It's also supported by the NVIDIA DeepStream SDK, which delivers a complete toolkit for real-time situational awareness through intelligent video analytics (IVA). This helps you boost performance and accelerate software development, while reducing development cost and effort.

Learn more at [www.developer.nvidia.com/jetson-agx-xavier](http://www.developer.nvidia.com/jetson-agx-xavier).

### KEY FEATURES

#### Module

- > 512-Core NVIDIA Volta™ GPU with Tensor Cores
- > (2x) NVDLA Engines
- > 8-Core ARM® v8.2 64-Bit Carmel CPU
- > 16 GB 256-Bit LPDDR4x
- > 32 GB eMMC 5.1 Flash Storage
- > 7-Way VLIW Vision Accelerator Processor

#### Power

- > Voltage Input 5 V, 9 V-20 V
- > Module Power: 10 W-30 W

#### Environment

- > Operating Temperature: -25°C to 80°C measured on the TTP surface
- > Storage Temperature: -25°C to 80°C
- > Humidity: 95% RH, -10°C to 65°C (non-operational)
- > Vibration: 5 G RMS 10 to 500 Hz (random/ sinusoidal)
- > Shock: 50 G, half sine 11 ms duration

# NVIDIA JETSON AGX XAVIER

## TECHNICAL SPECIFICATIONS

GPU	<b>512-Core Volta GPU with Tensor Cores</b>
DL Accelerator	<b>(2x) NVDLA Engines</b>
CPU	<b>8-Core ARM v8.2 64-Bit CPU, 8 MB L2 + 4 MB L3</b>
Memory	<b>16 GB 256-Bit LPDDR4x   137 GB/s</b>
Display	<b>HDMI 2.0, eDP1.4, DP HBR3</b>
Storage	<b>32 GB eMMC 5.1</b>
Vision Accelerator	<b>7-Way VLIW Vision Processor</b>
Encoder/Decoder	<b>(2x) 4Kp60   HEVC/(2x) 8Kp30   12-Bit Support</b>
CSI	<b>(16x) CSI-2 Lanes</b>
PCIE/SLVS/USB/UFS	<b>(8x) PCIe Gen4 / (8x) SLVS-EC (3x) USB 3.1 Single Lane UFS</b>
Other	<b>UART, SPI, CAN, I<sup>2</sup>C, I<sup>2</sup>S, DMIC, GPIOs</b>
Connectivity	<b>Gigabit Ethernet</b>
Power	<b>10 W~30 W</b>
Size	<b>87 mm x 100 mm</b>
Mechanical	<b>699 pin Molex Mirror Mex Connector Integrated Thermal Transfer Plate</b>

Visit [www.developer.nvidia.com/jetson-agx-xavier](http://www.developer.nvidia.com/jetson-agx-xavier) to learn more.

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