



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), an Ubuntu 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.

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

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TECHNICAL SPECIFICATIONS

GPU	512-Core Volta GPU with Tensor Cores
DL Accelerator	(2x) NVDLA Engines
CPU	8-Core ARM v8.2 64-Bit CPU, 8 MB L2 + 4 MB L3
Memory	16 GB 256-Bit LPDDR4x 137 GB/s
Display	HDMI 2.0, eDP1.4, DP HBR3
Storage	32 GB eMMC 5.1
Vision Accelerator	7-Way VLIW Vision Processor
Encoder/Decoder	(2x) 4Kp60 HEVC/(2x) 8Kp30 12-Bit Support
CSI	(16x) CSI-2 Lanes
PCIE/SLVS/USB/UFS	(8x) PCIe Gen4 / (8x) SLVS-EC (3x) USB 3.1 Single Lane UFS
Other	UART, SPI, CAN, I²C, I²S, DMIC, GPIOs
Connectivity	Gigabit Ethernet
Power	10 W~30 W
Size	87 mm x 100 mm
Mechanical	699 pin Molex Mirror Mex Connector Integrated Thermal Transfer Plate

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