NVIDIA JETSON AGX XAVIER 8GB

AFFORDABLE ENGINE FOR AUTONOMOUS MACHINES

The NVIDIA® Jetson AGX Xavier™ 8GB delivers up to 20 TOPS of accelerated computing capability in a compact form factor consuming under 20 W.

This advanced system-on-module is powered by the NVIDIA Xavier SoC and designed for cost-effective and performance-driven autonomous machine applications. It features a heterogeneous accelerated computing architecture for advanced compute performance to do AI at the edge, integrated memory, storage, power management, and an innovative thermal design to enable faster time to market. Plus, it can run modern AI workloads to solve problems in optical inspection, manufacturing, robotics, logistics, retail, service, agriculture, smart cities, and healthcare.

Jetson AGX Xavier 8GB is supported by the NVIDIA JetPack™ SDK, which includes 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— delivering a complete toolkit for real-time situational awareness through intelligent video analytics (IVA)—and by the NVIDIA Isaac SDK, which delivers a software toolkit for robot development. These boost performance and accelerate software development while reducing development cost and effort.

Learn more at **https://developer.nvidia.com/jetson**

KEY FEATURES

Module

> 384-Core NVIDIA Volta™ GPU with Tensor Cores
> (2x) NVDLA Engines
> 6-Core ARM® v8.2 64-Bit Carmel CPU
> 8 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~20 W

Environment

> Operating Temperature: -25 C to 80 C Measured on the TTP Surface
> Storage Temperature: -25 C to 80 C
> Humidity: TBD (Non-Operational)
> Vibration: TBD (Random/ Sinusoidal)
> Shock: TBD

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TECHNICAL SPECIFICATIONS

GPU	**384-Core Volta GPU with Tensor Cores**
CPU	**6-Core ARM v8.2 64-Bit CPU, 6 MB L2 + 4 MB L3**
Memory	**8 GB 256-Bit LPDDR4x | 85.3 GB/s**
Storage	**32 GB eMMC 5.1**
Encoder/Decoder	**(2x) 4Kp30 HEVC| (2x) 4Kp60 HEVC**
CSI	**(16x) CSI-2 Lanes**
Connectivity	**Gigabit Ethernet**
Display	**HDMI 2.0, eDP 1.4, DP 1.2**
PCIE/SLVS/USB	**(8x) PCIe Gen3 / (8x) SLVS-EC**
USB	**(3x) USB 3.1**
DL Accelerator	**(2x) NVDLA Engines**
Vision Accelerator	**7-Way VLIW Vision Processor**
Other	**UART, SPI, CAN, I²C, I²S, DMIC, GPIOs**
Power	**10 W~20 W**
Size	**87 mm x 100 mm**
Mechanical	**699 pin Molex Mirror Mex Connector Integrated Thermal Transfer Plate**

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