

# NVIDIA® Jetson AGX 64GB Orin™ Developer Kit: smallest and most powerful AI edge computer-Seed Studio

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## Feature

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- **Most powerful AI computer for energy-efficient autonomous machines:** up to 275 TOPS, power configurable between 15W and 60W, supports multiple concurrent AI inference pipelines, plus high-speed interface support for multiple sensors.
- **Giant Leap forward compared to Jetson AGX Xavier:** 8 times AI performance in the same compact form-factor, built with new NVIDIA Ampere architecture with 2048 NVIDIA® CUDA® cores and 64 tensor cores, 12-core Arm Cortex-A78AE v8.2 64-bit CPU 3MB L2+6MB L3
- **Supports multiple concurrent AI inference pipelines** with onboard 64GB eMMC, 204 GB/s of memory bandwidth, and 64 GB of DRAM.
- **High-speed interface support for multiple sensors:** 22 lanes of PCIe Gen4, 1x 10GbE, a Display Port, 16 lanes of MIPI CSI-2, USB 3.2 interfaces, and a 40-pin header.

- **Support** [JetPack SDK | NVIDIA Developer](#) installs Ubuntu 20.04 and supports entire NVIDIA JetPack™ and use-case-specific software platforms including Isaac for robotics, and Metropolis for smart cities.

### Jetson AGX Orin series

	<b>NVIDIA® Jetson AGX Orin™ 64GB Developer Kit</b>	<b><u>NVIDIA® Jetson AGX Orin™ Developer Kit</u></b>
<b>AI Performance</b>	275 TOPS	
<b>GPU</b>	2048-core NVIDIA Ampere architecture GPU with 64 Tensor Cores	
<b>GPU Max Frequency</b>	1.3 GHz	
<b>CPU</b>	12-core Arm® Cortex®-A78AE v8.2 64-bit CPU 3MB L2 + 6MB L3	
<b>CPU Max Frequency</b>	2.2 GHz	
<b>DL Accelerator</b>	2x NVDLA v2	
<b>DLA Max Frequency</b>	1.6 GHz	
<b>Vision Accelerator</b>	1x PVA v2	
<b>Safety Cluster Engine</b>	-	
<b>Memory</b>	<b>64GB 256-bit LPDDR5</b> <b>204.8GB/s</b>	32GB 256-bit LPDDR5 204.8GB/s
<b>Storage</b>	64GB eMMC 5.1	

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**Video Encode** 2x 4K60 (H.265)  
4x 4K30 (H.265)  
8x 1080p60 (H.265)  
16x 1080p30 (H.265)

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**Video Decode** 1x 8K30 (H.265)  
3x 4K60 (H.265)  
7x 4K30 (H.265)  
11x 1080p60 (H.265)  
22x 1080p30 (H.265)

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**CSI Camera** 16-lane MIPI CSI-2 connector

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**PCIe** x16 PCIe slot supporting x8 PCIe Gen4  
M.2 Key M slot with x4 PCIe Gen4  
M.2 Key E slot with x1 PCIe Gen4

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**USB** USB Type-C connector: 2x USB 3.2 Gen2  
USB Type-A connector: 2x USB 3.2 Gen2, 2x USB 3.2 Gen1  
USB Micro-B connector: USB 2.0

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**Networking** RJ45 connector with up to 10 GbE

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**Display** 1x DisplayPort 1.4a (+MST) connector

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<b>Other I/O</b>	40-pin header (UART, SPI, I2S, I2C, CAN, PWM, DMIC, GPIO) 12-pin automation header 10-pin audio panel header 10-pin JTAG header 4-pin fan header 2-pin RTC batter backup connector microSD slot DC power jack Power, Force Recovery, and Reset buttons
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<b>Power</b>	15W - 60W
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<b>Mechanical</b>	110mm x 110mm x 71.65mm (Height includes feet, carrier board, module, and thermal solution)
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## Part List

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POWER ADAPTER AC Power Brick 90W	x1
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USB-C Cable	x1
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Type B (US, CA, JP) Power Cable	x1
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Type I (CN) Power Cable	x1
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Type B (TW) Power Cable	x1
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UPC Label	x1
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Quick Start and Support Guide	x1
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## ECCN/HTS

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HSCODE	8543709990
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USHSCODE 8543708800

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UPC

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EUHSCODE 8471707000

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COO CHINA

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EU DoC 1

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RoHS 1

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UKCA 1

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