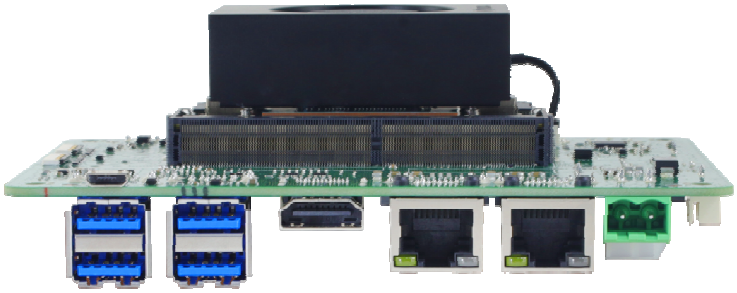
Jetson Orin Platform



Feature:

- Support nVidia Jetson Orin NX/NANO series
- HDMI® 2.1 (NX)/1.4 (NANO)
- 2 x MISI CSI connector
- 1 x GbE (POE opt.) & 1 x 2.5GbE (POE opt.)
- 1x M.2 Key-M & 1 x M.2 Key-E & 1 x M.2 Key-B
- 4 x 3.2 USB type A
- 1 x RS232/CAN & 1 x RS232/422/485
- Linux, JetPack 6.2

Specification:

Model Name	AI-NONXS			
nVidia Module	Jetson Orin NX 16GB	Jetson Orin NX 8GB	Jetson Orin Nano 8GB	Jetson Orin Nano 4GB
AI Performance	100 TOPS	70 TOPS	40 TOPS	20 TOPS
GPU	1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores		1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores	512-core NVIDIA Ampere architecture GPU with 16 Tensor Cores
CPU	8-core Arm® Cortex®-A78AE v8.2 64-bit CPU	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU	
Memory	16GB 128-bit LPDDR5 102.4GB/s	8GB 128-bit LPDDR5 102.4GB/s	8GB 128-bit LPDDR5 68GB/s	4GB 64-bit LPDDR5 34GB/s
HDMI®	2.1		1.4	
Audio	1 x 3.5mm Headset jack with Line-out/MIC-In 1 x digital MIC pin header, 1 x speaker out pin header			
MIPI Camera	2 x 4-lane MIPI CSI with 22-pin connector			
Ethernet	1 x GbE (POE opt.), 1 x 2.5GbE (POE opt.)			
USB	4 x USB 3.2 type A & 1 x Micro USB (for OS flash)			
Storage	1 x M.2 Key-M PCIe Gen.4 x4 2242/2260/2280 NVMe SSD		1 x M.2 Key-M PCIe Gen.3 x4 2242/2260/2280 NVMe SSD	
Expansion	1 x M.2 Key-E for 2230 Wi-Fi & BT module 1 x M.2 Key-B for 3042/3052 4G LTE/5G module 1 x Nano SIM slot			
Serial Port	1 x RS232/CAN & 1 x RS232/422/485			
Expansion I/O	1 x 14-pin header: SPI, I2C, GND, 3.3V, 5V			
Others	1 x 12-pin header: LED, 5V, UART, LATCH (AT/ATX mode switch), GND, RST, RCV, PWR			
Fan	1 x 4-pin header			
RTC	1 x 2pin header			
Security	TPM 2.0			
Button	1 x Power On button , 1 x Recovery button, 1 x Reset button			
Power Input Connector	1 x DC Power Jack for 12V~20V 1 x 2-pin internal power connector			
Dimension	130mm x 100mm			
Operation Temp.	-20~60 ℃			
OS	Linux, JetPack 6.2 Support Jetson Orin NX/Nano modules (Super Mode-enabled)			

Jetson Orin module with Super mode performance:

Jetson Commercial Modules Performance With Super Mode

	ORIN NANO 4GB	ORIN NANO 4GB (SUPER)	ORIN NANO 8GB	ORIN NANO 8GB (SUPER)	ORIN NX 8GB	ORIN NX 8GB (SUPER)	ORIN NX 16GB	ORIN NX 16GB (SUPER)
GPU CORES	512 CUDA Cores 16 Tensor Cores	512 CUDA Cores 16 Tensor Cores	1024 CUDA Cores 32 Tensor Cores	1024 CUDA Cores 32 Tensor Cores	1024 CUDA Cores 32 Tensor Cores	1024 CUDA Cores 32 Tensor Cores	1024 CUDA Cores 32 Tensor Cores	1024 CUDA Cores 32 Tensor Cores
GPU Max Frequency	625 MHz	1020 MHz	625 MHz	1020 MHz	765 MHz	1173 MHz	918 MHz	1173 MHz
PEAK AI PERF INT8	20 TOPS (Sparse) 10 TOPS (Dense)	34 TOPS (Sparse) 17 TOPS (Dense)	40 TOPS (Sparse) 20 TOPS (Dense)	67 TOPS (Sparse) 33 TOPS (Dense)	70 TOPS (Sparse) 35 TOPS (Dense)	117 TOPS (Sparse) 58 TOPS (Dense)	100 TOPS (Sparse) 50 TOPS (Dense)	157 TOPS (Sparse) 78 TOPS (Dense)
GPU Perf (S/D)	20/10 TOPs	34/17 TOPs	40/20 TOPs	67/33 TOPs	50/25 TOPs	77/38 TOPs	60/30 TOPs	77/38 TOPs
CPU	6X A78 1.5 GHz	6X A78 1.7 GHz	6X A78 1.5 GHz	6X A78 1.7 GHz	6X A78 2.0 GHz	8X A78 2.0 GHz	8X A78 2.0 GHz	8X A78 2.0 GHz
SPEC int rate	106	118	106	118	130	167	167	167
DLA Perf (S/D)	NA	NA	NA	NA	20/10 TOPs	40/20 TOPs	40/20 TOPs	80/40 TOPs
DRAM BW	34 GB/s	51 GB/s	68 GB/s	102 GB/s	102 GB/s	102 GB/s	102 GB/s	102 GB/s
MECHANICAL	70x45 mm 260 pins	70x45 mm 260 pins	70x45 mm 260 pins	70x45 mm 260 pins	70x45 mm 260 pins	70x45 mm 260 pins	70x45 mm 260 pins	70x45 mm 260 pins
MODULE POWER	7W | 10W	7W | 10W | 25W	7W | 15W	7W | 15W | 25W	10W | 15W | 20W	10W | 15W | 25W | 40W	10W | 15W | 25W	10W | 15W | 25W | 40W

I/O Information: