

NVIDIA Jetson Nano&Jetson Xavier NX

Carrier Board

NVJ100AI/NVJ100AIX



NVJ100AI/NVJ100AIX equips NVIDIA Jetson NANO/Jetson Xavier NX, is a powerful AI development board, designed for entry-level AI applications and devices. Amazing new capabilities to bring millions of small, energy-efficient AI systems, opens up a new world of embedded IoT applications. Equipped with an NVIDIA Pascal™ GPU, up to 8 GB of memory, 59.7 GB/s of video memory bandwidth, and various standard hardware interfaces, complete NVIDIA JetPack™ SDK includes accelerated libraries for deep learning, computer vision, graphics, multimedia, and more, can help you quickly get started. can be used to include entry-level Network video recorders (NVRs), home robots, and intelligent gateways with full analytics capabilities.

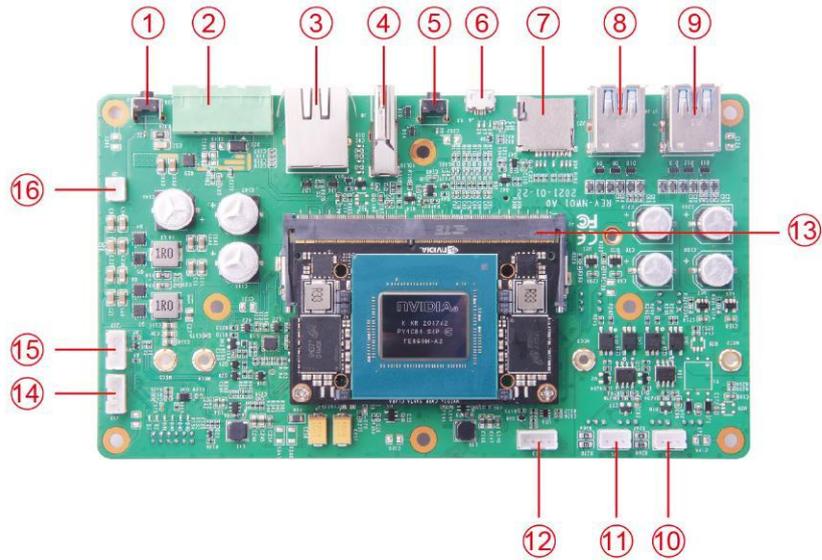
- High computing performance
Jetson Nano delivers 472 GFLOPs for taking on modern AI algorithms. It runs multiple neural networks in parallel and processes several high-resolution sensors simultaneously.
- Rich generic interfaces
Provides HDMI video output, network port, USB3.0, RS232, RS485 and M.2 ports, can support the latest 5G module
- Customization
• Hardware interface functions • Software functions. • Structure design
- High efficiency and low power consumption
NVJ100AI/NVJ100AIX can use 5 to 10 watts of power, running large deep neural networks on edge devices and achieving higher accuracy. ideal for applications that need to deal with bandwidth and latency issues in real-time,
- Easy to developmental
Provides NVIDIA JetPack™ CUDA-X™ software stack, These include NVIDIA DeepStream and Transfer Learning Toolkit for intelligent video analytics, NVIDIA Clara™ for healthcare imaging, genomics, and patient monitoring, and NVIDIA Isaac™ for robotics.
- Enterprise service
Provide comprehensive quality assurance, technical support and mass production services

Product information

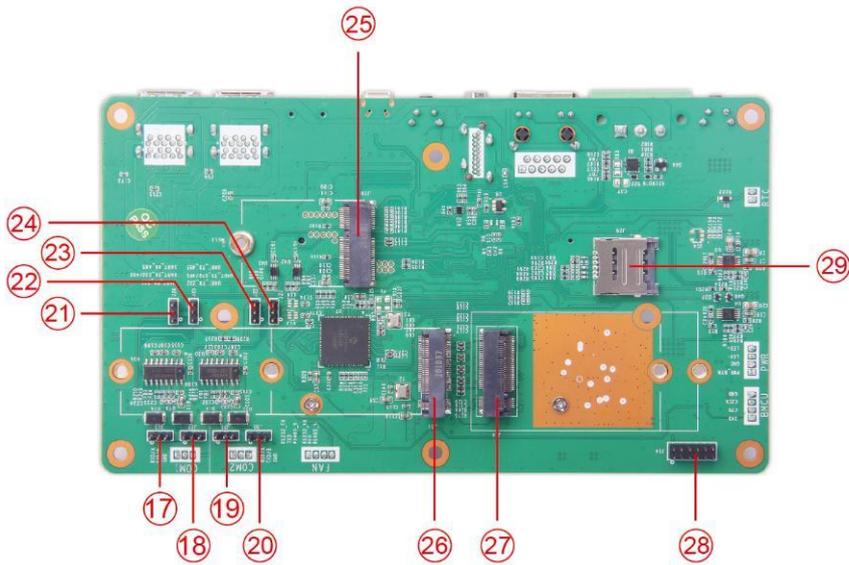


Model	NVJ100AI	NVJ100AIX
NVIDIA GPU SoC Module Compatibility	NVIDIA® Jetson Nano™	NVIDIA® Jetson Xavier NX
CPU	Quad Core ARM Cortex A57 MPCore Processor (Maximum frequency : 1.43GHz)	6-core NVIDIA Carmel ARMv8.2 64-bit CPU 6MB L2 + 4MB L3
GPU	Maxwell GPU, 128 CUDA core up to 512 GFLOPS (FP16) (Maximum frequency : 921MHz)	384-core NVIDIA Volta™ GPU with 48 Tensor Cores
Memory	4GB LPDDR4	8GB LPDDR4
Flash	16G of eMMC	16GB of eMMC
AI Performance	472 GFLOPS	21 TOPS
Power consumption	5-10w	10-15W
Video Encode	1x 4K @ 30 (HEVC) 2x 1080p @ 60 (HEVC)	2x 4K @ 30 (HEVC) 6x 1080p @ 60 (HEVC)
Video Decode	1x 4K @ 60 (HEVC) 4x 1080p @ 60 (HEVC)	2x 4K @ 60 (HEVC) 12x 1080p @ 60 (HEVC) 32x 1080p @ 30 (HEVC)
Networking	1*GbE RJ-45	
Display Output	3840 x 2160@60Hz	
USB	1*USB2.0 Micro C 4*USB3.0 Type-A	
Storage	1*Micro-SD Card slot	
RS232	x 4	
RS485	x 4	
M.2	x 3	
Buttons	1xReset / 1xRecovery	
Power Cord	12V1.5A	
Fan interface	x 1	
RTC	Support RTC battery Monitoring by MCU	
Electronics Mechanical info	L:170mm*W:97mm Weight: 150g	
Certifications	CE,FCC	

Carrier Interface Specification



Pin No	Symbol	Function	Pin No	Symbol	Function
1	K2	Recovery	9	J6	USB3.0
2	J36	DC Input	10	J4	RS485
3	J28	LAN GbE RJ-45	11	J1	RS485
4	J8	HDMI Out	12	J13	FAN
5	K3	Reset	13	J2	SODIMM260_JETSON_NANO
6	J5	MicroUSB	14	J35	BMCU
7	J27	Micro-SD Card slot	15	J37	PWR Button and PWR LED
8	J7	USB3.0	16	J3	RTC



Pin No	Symbol	Function	Pin No	Symbol	Function
17	J33	RS232	24	J23	RS232
18	J32	RS232	25	J10	M.2 KEY-E (WIFI/BT)
19	J31	RS232/RS485	26	J11	M.2 KEY-M (NVME)
20	J30	RS232/RS485	27	J34	M.2 KEY B
21	J24	RS232/RS485	28	J14	Automation Pin
22	J25	RS232/RS485	29	J29	SIM_CARD
23	J22	RS232			