

NeoEdge NG4500
Edge AI Box

Powered by NVIDIA®
Jetson Orin™ Platform



Introduction

CamThink NeoEdge NG4500 series is a high-performance edge AI box capable of powerful edge computation with the integration of NVIDIA® Jetson Orin™ NX/Nano core modules while being compatible with the NVIDIA® Super Developer Kit, achieving up to 1.7x performance boost. Featuring a fanless chassis design and an extensive range of I/Os, the NG4500 is an ideal solution for diverse AIoT deployments. With NVIDIA® JetPack 6.0+ and 12-36V DC-in support, it streamlines the adoption of mainstream VLMs, LLMs, and deep learning AI models.



Powerful AI at the Edge: Powered by NVIDIA® Jetson Orin™ Platform, delivering up to 157 TOPS computation power.



Simplified Integration: Offering hardware development toolkits for the implementation of mainstream LLMs, VLMs, MLLMs AI models, etc.



Ultra-compact and Industrial-grade Hardware Design: Durable and scalable for rapid PoC implementation, fanless design with wide operating temperature range from -25°C to 60°C.



Diverse AI-powered Scenarios: Ideal for Smart Manufacturing, Robotic Systems, Healthcare, Smart Cities, etc.

Compatible with Mainstream AI frameworks

AI Models:



Open AI



DeepSeek



Gemini



Ollama



Meta/Llama



Azure(SpeechT5)



Qwen-VL

AI Frameworks:



Mistral AI



TensorFlow



PyTorch



Open CV



Specifications

Model Name	NG4510	NG4511	NG4520	NG4521
System Core				
Module	Jetson Orin™ Nano 4GB	Jetson Orin™ Nano 8GB	Jetson Orin™ NX 8GB	Jetson Orin™ NX 16GB
Computation	20TOPS	40TOPS	70TOPS	100TOPS
Computation (Super Mode)	34TOPS	67TOPS	117TOPS	157TOPS
GPU	512 NVIDIA® CUDA® cores 16 Tensor cores		1024 NVIDIA® CUDA® cores 32 Tensor cores	
CPU	6-core Arm® Cortex® A78AE (64-bit) HMP 2x Clusters		8-core Arm® Cortex® A78AE v8.2 (64-bit) HMP 2x Clusters	
Memory	4G	8G	8G	16G
DRAM Bandwidth	64-bit LPDDR5 DRAM 34 GB/s 51 GB/s		128-bit LPDDR5 DRAM 3200 MHz 102 GB/s	
Network connection				
Wired	Ethernet 2 x RJ45 (1000Mbps Ethernet)			
Wireless	Optional Wi-Fi Halow/4G/5G			
Bluetooth	Bluetooth 5.0			
Interfaces				
USB	4 x USB3.1, 1 x Type-C 4x Type-A(USB3.1), 1x Type-C(USB3.2)			
I/O Connector	4 x DI, 4 x DO, 4 x GND_DI, 4 x GND_DO, 1 x CAN, 1 x RS232, 1 x RS485, 1 x DC 5V Power			
HDMI	x 1			
Audio	1 x Audio Jack (Mic Input + Audio L/R output)			
SIM	1 x Nano SIM Slot			
Storage	1 x M.2 Key M PCIe4_Gen3 SSD (NVMe 2280 SSD 256G included)			
Operating System	Linux (Supports JetPack 6.2 Super Developer Kit)			
Indicator	1 x Power LED, 1 x Wi-Fi LED 1 x 4G LED, 1 x Ethernet LED			
Power Supply				
Power	DC input 12V-36V, Peak Power 120W			
Operation				
Temperature	-25° C to 60° C			
Storage	-40° C to 85° C			
Dimension and Installation				
Dimension & Weight	160 x 125 x 75 mm, metal housing, 1.9 KG			
Installation	Desk, Wall mounting, DIN frame			
Certifications	CE/FCC/RoHs			



Standard Accessories

SKU	Item	Quan.	Description
73.002.000027	Power Adapter	1	20V@5A, 120W, Available separately
Part of Standard Kit	Industrial Terminal Blocks	2	16-pin male terminal, 8-pin male terminal
Part of Standard Kit	Mounting Brackets	2	Wall mounting bracket Din-rail mounting bracket

Optional Accessories

SKU	Item	Quan.	Description
73.002.000004 73.002.000013 73.002.000014	SSD (Selective)	1	SSD PCIe Gen3.0x4, 256GB SSD PCIe Gen3.0x4, 512GB SSD PCIe Gen3.0x4, 1T
73.002.000012	Wi-Fi Module	1	6221M-PUC dual-band Wi-Fi and Bluetooth 5.0 module
73.002.000010	4G Module	1	Quectel EM05 EM05-G 4G M.2 module, compatible with Europe, USA, China, Japan, Australia, and other major regions
73.002.000011	5G Module	1	Quectel RM520N-GL 5G M.2 module, compatible with major global regions
73.002.000000	Cooling Fan	1	Cooling fan kit, compatible with NG45XX carrier board
73.002.000001	Raspberry Pi IMX219	1	SONY IMX219 3280*2464 1/4' 1.12um
73.002.000002	Raspberry Pi IMX477	1	SC0870 Raspberry Pi M12 High Quality Camera
73.002.000022	Power Cable (Selective)	1	Standard 3-core power cable 1.5m. Default EU power cord; UK/AU/US versions available separately.

