



ESTONE TECHNOLOGY

Your one-stop OEM/ODM service provider

NVIDIA Jetson Box PC

www.estonetech.com



NVIDIA Jetson family

For AI at the Edge and Autonomous Machines

JETSON Orin Nano 4GB
20 TOPs (INT8)



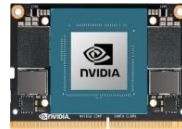
7 - 10W
\$199
45mm x 70mm

JETSON Orin Nano 8GB
40 TOPs (INT8)



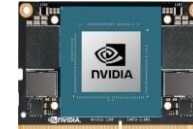
7 - 15W
\$299
45mm x 70mm

JETSON Orin NX 8GB
70 TOPs (INT8)



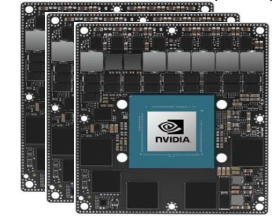
10 - 20W
\$399
45mm x 70mm

JETSON Orin NX 16GB
100 TOPs (INT8)



10 - 25W
\$599
45mm x 70mm

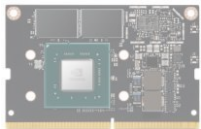
JETSON AGX Orin Series
200/275/248 TOPs (INT8)



15 - 60W***
32GB/64GB
\$899/\$1599/\$2149
100mm x 87mm

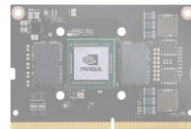
ENTRY

JETSON NANO
0.5 TFLOPS (FP16)



5 - 10W
\$99
45mm x 70mm

JETSON TX2 NX
1.33 TFLOPS (FP16)



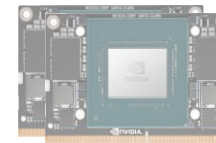
7.5 - 15W
\$149
45mm x 70mm

JETSON TX2 series
1.33 TFLOPS (FP16)



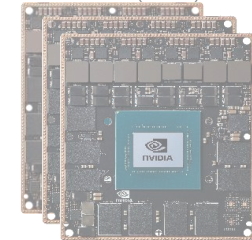
7.5 - 15W*
\$399
50mm x 87mm

JETSON Xavier NX series
21 TOPs (INT8)



10 - 20W
8GB/16GB
\$399/\$499
45mm x 70mm

JETSON AGX Xavier Series
32 TOPs (INT8)



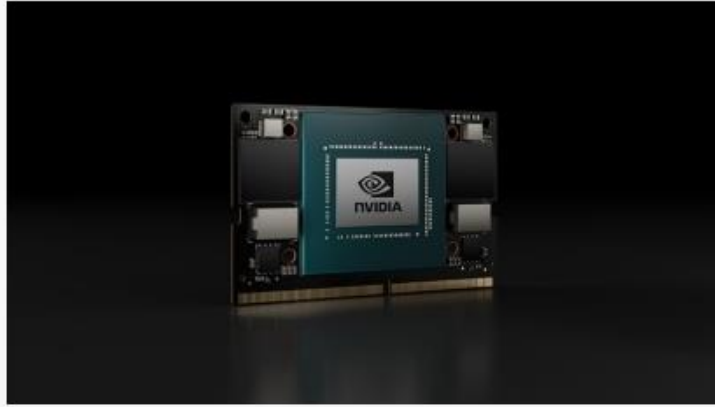
\$899/\$1299*
100mm x 87mm

NVIDIA Jetson Orin Series



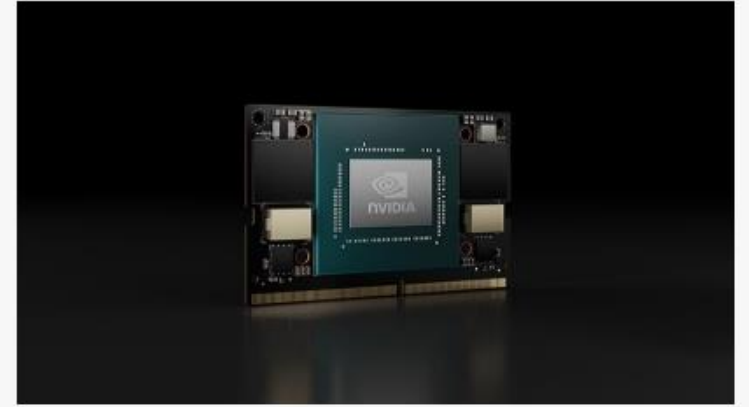
Jetson AGX Orin Series

Jetson AGX Orin modules deliver up to 275 TOPS of AI performance with power configurable between 15W and 60W. This gives you up to 8X the performance of Jetson AGX Xavier in the same compact form factor. Jetson AGX Orin is available in 64GB, 32GB, and Industrial versions.



Jetson Orin NX Series

Jetson Orin NX modules deliver up to 100 TOPS of AI performance in the smallest Jetson form factor, with power configurable between 10W and 25W. This gives you up to 3X the performance of Jetson AGX Xavier and up to 5X the performance of Jetson Xavier NX. Jetson Orin NX is available in 16GB and 8GB versions.



Jetson Orin Nano Series

Jetson Orin Nano series modules deliver up to 40 TOPS of AI performance in the smallest NVIDIA Jetson™ form-factor, with power options between 7W and 15W. This gives you up to 80X the performance of NVIDIA Jetson Nano. Jetson Orin Nano is available in 8GB and 4GB versions.

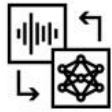
NVIDIA Jetson Orin Technical Specifications

Jetson AGX Orin series					Jetson Orin NX series		Jetson Orin Nano series		
	Jetson AGX Orin Developer Kit	Jetson AGX Orin 64GB	Jetson AGX Orin Industrial	Jetson AGX Orin 32GB	Jetson Orin NX 16GB	Jetson Orin NX 8GB	Jetson Orin Nano Developer Kit	Jetson Orin Nano 8GB	Jetson Orin Nano 4GB
AI Performance	275 TOPS		248 TOPS	200 TOPS	100 TOPS	70 TOPS	40 TOPS		20 TOPS
GPU	2048-core NVIDIA Ampere architecture GPU with 64 Tensor Cores			1792-core NVIDIA Ampere architecture GPU with 56 Tensor Cores	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
GPU Max Frequency	1.3 GHz		1.2GHz	930MHz	918MHz	765MHz	625MHz		
CPU	12-core Arm® Cortex®-A78AE v8.2 64-bit CPU 3MB L2 + 6MB L3			8-core Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3	8-core Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3		
CPU Max Frequency	2.2 GHz		2.0 GHz	2.2 GHz	2 GHz		1.5 GHz		
DL Accelerator	2x NVDLA v2					1x NVDLA v2	-		
DLA Max Frequency	1.6GHz		1.4GHz		614MHz		-		
Vision Accelerator	1x PVA v2						-		
Safety Cluster Engine	-					-	-		
Memory	64GB 256-bit LPDDR5 204.8GB/s		64GB 256-bit LPDDR5 (+ ECC) 204.8GB/s	32GB 256-bit LPDDR5 204.8GB/s	16GB 128-bit LPDDR5 102.4GB/s	8GB 128-bit LPDDR5 102.4GB/s	8GB 128-bit LPDDR5 68 GB/s		4GB 64-bit LPDDR5 34 GB/s
Storage	64GB eMMC 5.1				- (Supports external NVMe)		-(SD Card Slot & external NVMe via M.2 Key M)	- (Supports external NVMe)	

NVIDIA Jetson Software

AI MODEL DEVELOPMENT

Production-ready AI pre-trained models and toolkits to accelerate development by up to 10X

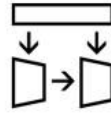


PRE-TRAINED
MODELS

NVIDIA Omniverse



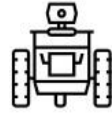
SYNTHETIC DATA
GENERATOR



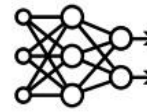
TAO
TOOLKIT

APPLICATION FRAMEWORKS

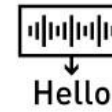
Easy-to-use libraries that accelerate run-time applications



ISAAC



DEEPSTREAM



RIVA

JETPACK SDK

A Comprehensive SDK for building an end-to-end accelerated AI pipeline

JETPACK SDK
Linux | RTOS

CUDA-X

Deep
Learning

Multimedia

Accelerated
Computing

Computer
Vision

Sensors

Estone NVIDIA Jetson Product Overview

AI Server Motherboard

6-7 Card Signal Slot



4 Card Dual Slot



8 Card Dual Slot



AI Server

2U7 Card



4U4 Card



5U8 Card



Edge AI BOX (Visual AI, Generative AI)

Orin Nano



Orin NX



AGX Orin



Industry Controller

Industrial/Medical machine vision model



Transportation C-V2X Roadside MEC



Robot Controller



E Series – Edge AI BOX

- Visual AI
- Generative AI



E608
ORIN NANO



E618
Orin NX



E6100
AGX Orin



PAS Series – Industry Controller

- Industry PAS-6101 machine vision controller
- Transportation PAS-6100 V2X Roadside MEC
- Robot PAS-6102 AMR/Robotic Arm/Low-speed Autonomous Vehicle
- Medical PAS-6101 Medical Imaging Inference Controller

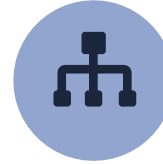
Edge Vision AI

Jetson Orin Edge Visual AI Box



■ E Series Edge AIBOX

Estone Edge AI Box is an industrial-grade intelligent analysis device developed for upgrading normal front-end cameras with AI capabilities. The Edge AI Box can perform intelligent analysis of video footage, generate abnormal event alerts, store and push events. It can also collaborate with cloud platforms, enabling video passthrough, event push, unified scheduling of edge-cloud computing power, and deep remote management and control of the Edge AI Box by the cloud platform.



Standardized access

Support video device access through RTSP and ONVIF protocols



Rich algorithm library Custom-made

Various AI analysis algorithms cover people, vehicles, special targets, and behaviors. It compatible with both proprietary and third-party algorithms, and can be customized by user scenarios.



Flexible deployment options

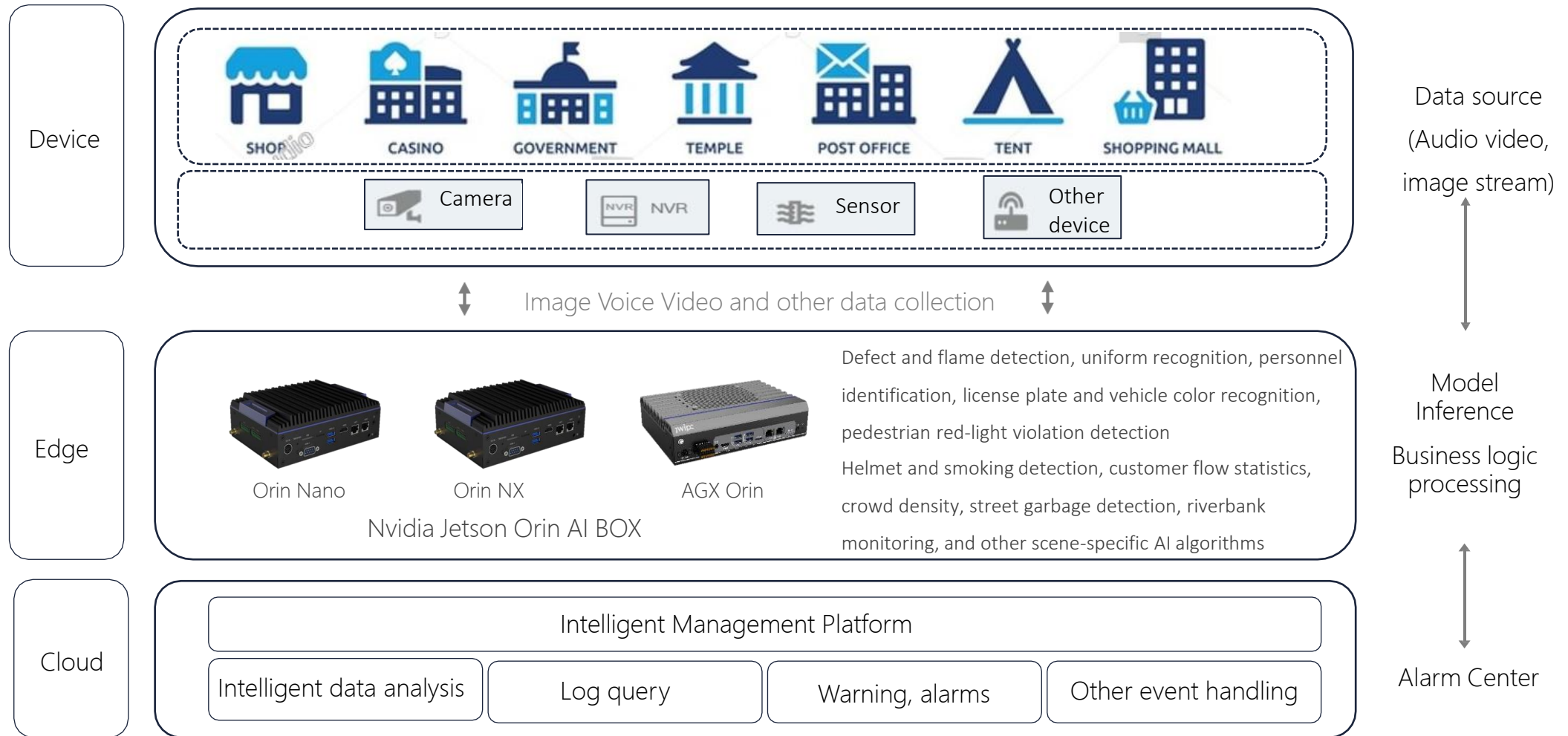
Support various specifications for different scenarios
Support edge or cloud deployment to facilitate on-site selection and edge-cloud collaboration.



Open interface, support customized development

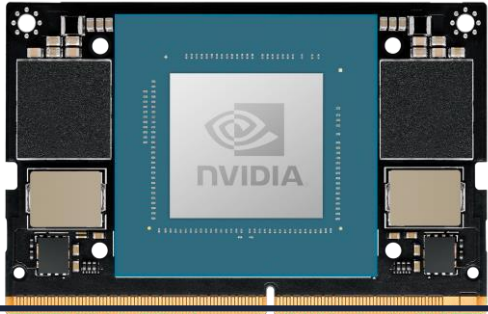
Offers a series of secondary development interfaces including resource management, algorithm configuration, and event linkage.

Edge Vision AI Box System Architecture



Edge Generative AI

NVIDIA Jetson Orin Edge Generative AI

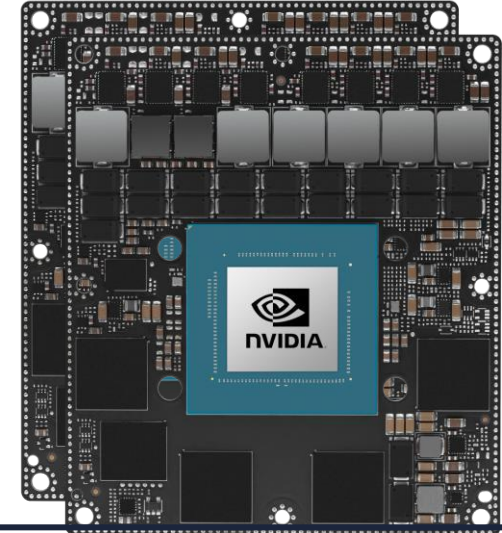
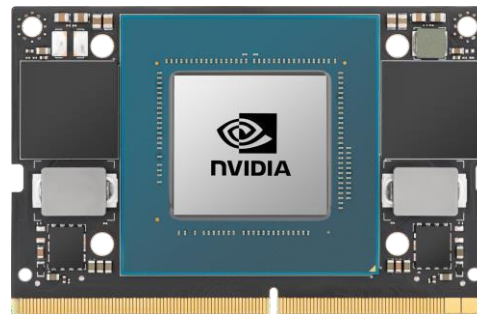


Jetson Orin Nano 8GB

Llama-7B
40 TOPS, 7-15W, \$299

Jetson Orin NX 16GB

Llama-13B
100 TOPS, 10-25W, \$599



Jetson AGX Orin 32GB

Llama-33B
200 TOPS, 15-40W, \$899

Jetson AGX Orin 64GB

Llama-70B
275 TOPS, 15-60W, \$1599

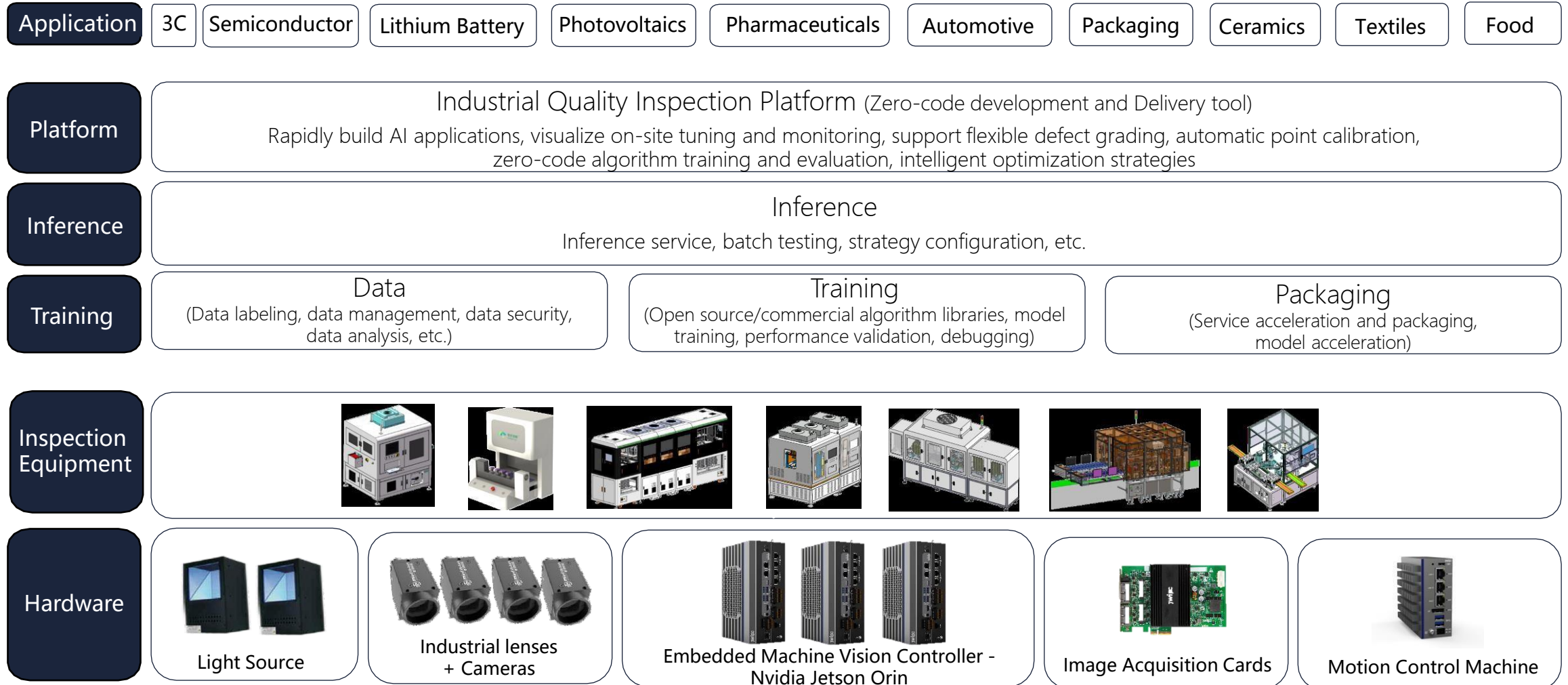
Jetson Orin - Edge Generative AI Product



Module		PAS-6100-A	PAS-6100-B
ORIN		Jetson AGX Orin 32GB	Jetson AGX Orin 64GB
	CPU	8-core A78, 2.2Ghz	12-core A78, 2.2Ghz
	NPU	200 TOPS@INT8	275 TOPS@INT8
	Memory	LPDDR5 32GB	LPDDR5 64GB
	GPU	Ampere,1792 CUDA Cores, 56 Tensor Cores,1185Mhz	Ampere,2048 CUDA Cores, 64 Tensor Cores,1300Mhz
	Storage	External NVMe Using x1 PCIe	
Specifications	Expansion Storage	Support 1 x M.2 2280 NVME SSD expansion, support 1 x TF expansion	
	Wired Network	2 x RJ45, 10/100/1000Mbps	
	Wireless Network	1 x M.2 Key-B, expandable with 4G/5G module 1 x M.2 Key-E, expandable with WIFI/BT module, optional WIFI5/WIFI6	
	Display	1 x HDMI Out, support up to 4k@30Hz	
	Audio	1 x 3.5mm Combo Jack (CTIA)	
	USB	4 x USB3.0 Type-A (1 x USB OTG)	
	COM	1 x 12pin Phoenix terminal for RS232+RS485+CAN (optocoupler isolated)	
	GPS	Onboard GPS module (optional)	
	TPM/TCM	TPM2.0	
	Power Input	9~36V DC-IN	
	Dimensions	230mm x 165mm x 75mm	
	OS	Linux Ubuntu OS (20.04/22.04)+ JetPack SDK(5.1.2/6.0)	

Machine Vision Controller

Jetson Orin Machine Vision System Architecture



Jetson Orin - Machine Vision Controller



Module		BPC-7913-A	BPC-7913-B
ORIN		Jetson AGX Orin 32GB	Jetson AGX Orin 64GB
	CPU	8-core A78, 2.2Ghz	12-core A78, 2.2Ghz
	NPU	200 TOPS@INT8	275 TOPS@INT8
	Memory	LPDDR5 32GB	LPDDR5 64GB
	GPU	Ampere,1792 CUDA Cores, 56 Tensor Cores,1185Mhz	Ampere,2048 CUDA Cores, 64 Tensor Cores,1300Mhz
	Storage	External NVMe Using x1 PCIe	
Specifications	Expansion Storage	Support 1 x M.2 2280 NVME SSD expansion, support 1 x TF expansion	
	Wired Network	2 x RJ45, 10/100/1000Mbps 4 x RJ45, 10/100/1000Mbps (Support POE)	
	Wireless Network	1 x M.2 Key-B, expandable with 4G/5G module 1 x M.2 Key-E, expandable with WIFI/BT module, optional WIFI5/WIFI6	
	Display	1 x HDMI Out, support up to 4k@30Hz	
	Audio	1 x 3.5mm Combo Jack (CTIA)	
	USB	4 x USB3.0 Type-A (1 x USB OTG)	
	COM	1 x RJ45 CAN bus 1 x 18pin Phoenix terminal for GPIO (optocoupler isolated) 1 x 12pin Phoenix terminal for RS232+RS485+CAN (optocoupler isolated) 1 x 12pin Phoenix terminal for RS232+RS422/RS485 (optocoupler isolated)	
	GPS	Onboard GPS module (optional)	
	TPM/TCM	TPM2.0	
	Power Input	9~36V DC-IN	
	Dimensions	230mm x 165mm x 75mm	
	OS	Linux Ubuntu OS (20.04/22.04)+ JetPack SDK(5.1.2/6.0)	

Robot Controller

Different Types of Robot



AMR Mobile Robot

AMR (Autonomous Mobile Robot) is a battery-powered mobile robot equipped with a control motherboard and automatic navigation modules such as electromagnetic, vision, and laser systems. It can travel autonomously based on instructions from a back-end robot control system or along a predefined route to reach specified locations and complete tasks such as transport, sorting, and assembly.



Industrial Robot

An industrial Robot is a multi-jointed mechanical arm or multi-degree-of-freedom robotic device used in industrial automation, capable of autonomously performing various tasks. It is widely used in manufacturing industries for applications such as welding, painting, assembly, handling, packaging, palletizing, and inspection.



Low-Speed Unmanned Vehicle

A low-speed unmanned vehicle is gradually transforming our modes of mobility. It serves as an integration platform for advanced technologies and represents the foundation for the next generation of intelligent ground vehicles. Low-speed unmanned vehicles have been commercially deployed in multiple fields, including logistics and delivery, sanitation and cleaning, security patrols, mobile retail, and rescue reconnaissance.



Humanoid Robot

Embodied intelligence represents a new paradigm in AI, emerging from the convergence of AI with other disciplines. It refers to "embodied + intelligence," where AI is given a "body" to interact with the physical world. This advancement moves AI from purely digital software algorithms into the real physical world, enabling it to exhibit or even surpass human-like intelligence within physical environments.

Jetson Orin – Robot Controller



Module		PAS-6102-A	PAS-6102-B
ORIN		Jetson AGX Orin 32GB	Jetson AGX Orin 64GB
	CPU	8-core A78, 2.2Ghz	12-core A78, 2.2Ghz
	NPU	200 TOPS@INT8	275 TOPS@INT8
	Memory	LPDDR5 32GB	LPDDR5 64GB
	GPU	Ampere,1792 CUDA Cores, 56 Tensor Cores,1185Mhz	Ampere,2048 CUDA Cores, 64 Tensor Cores,1300Mhz
	Storage	External NVMe Using x1 PCIe	
Specifications	Expansion Storage	Support 1 x M.2 2280 NVME SSD expansion, support 1 x TF expansion	
	Wired Network	2 x RJ45, 10/100/1000Mbps 2 x M12 aviation connector, 8-pin A-type, 10/100/1000Mbps	
	Wireless Network	1 x M.2 Key-B, expandable with 4G/5G module 1 x M.2 Key-E, expandable with WIFI/BT module, optional WIFI5/WIFI6	
	Display	1 x HDMI Out, support up to 4k@30Hz 8* FAKRA single-channel GMSL/GMSL2 interface	
	Audio	1 x 3.5mm Combo Jack (CTIA)	
	USB	4 x USB3.0 Type-A (1 x USB OTG)	
	COM	1 x M12 CAN bus 1 x 12 pin Phoenix terminal RS232+RS485+CAN (optocoupler isolated)	
	GPS	Onboard GPS module (optional)	
	TPM/TCM	TPM2.0	
	Power Input	9~36V DC-IN	
	Dimensions	230mm x 165mm x 75mm	
	OS	Linux Ubuntu OS (20.04/22.04)+ JetPack SDK(5.1.2/6.0)	

Medical Imaging & Therapy Controller

Medical Imaging & Treatment



AI + CT/DR/MRI

X-ray Computed Tomography (CT)
X-ray imaging (DR)
Magnetic Resonance Imaging (MRI)
Equipment that applies signals, including X-rays and strong magnetic fields, to the human body for the purpose of diagnostic or therapeutic guidance, recording the distribution of signal intensity and lesion information based on the body's responses



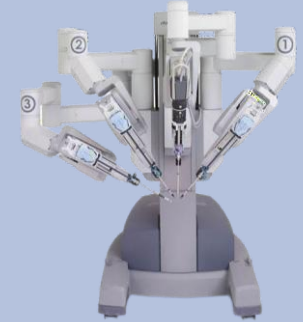
AI + Endoscope

An endoscope is commonly used in departments such as general surgery, urology, otorhinolaryngology, orthopedics, and gynecology for diagnostics and surgery. By entering the body with an imaging sensor, an endoscope allows visualization of lesions that cannot be displayed with X-rays.



AI + Ultrasound

Ultrasound Imaging (US)
Compared to CT and MRI, ultrasound imaging offers several advantages: non-invasive, radiation-free, with fewer usage restrictions, low equipment cost, operational flexibility, and broad applicability. It plays an essential role in clinical diagnosis for various diseases, especially for large-scale early disease screening, detection, and treatment.



Surgical Robot

A surgical robot is an advanced medical device developed from minimally invasive surgery and related foundational technologies. It enables precise control of surgical instruments beyond human capability, particularly in the field of minimally invasive surgery.

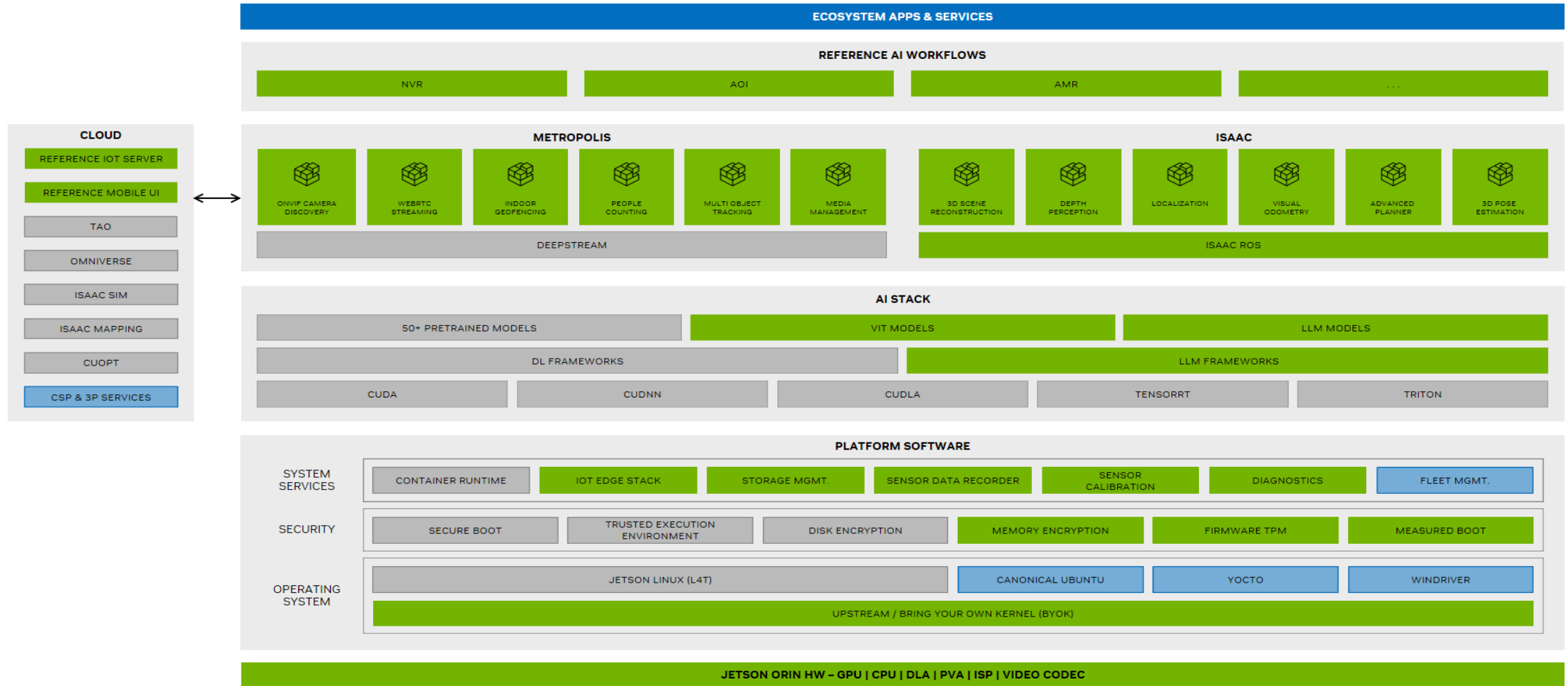
Jetson Orin - Medical Imaging & Therapy Controller



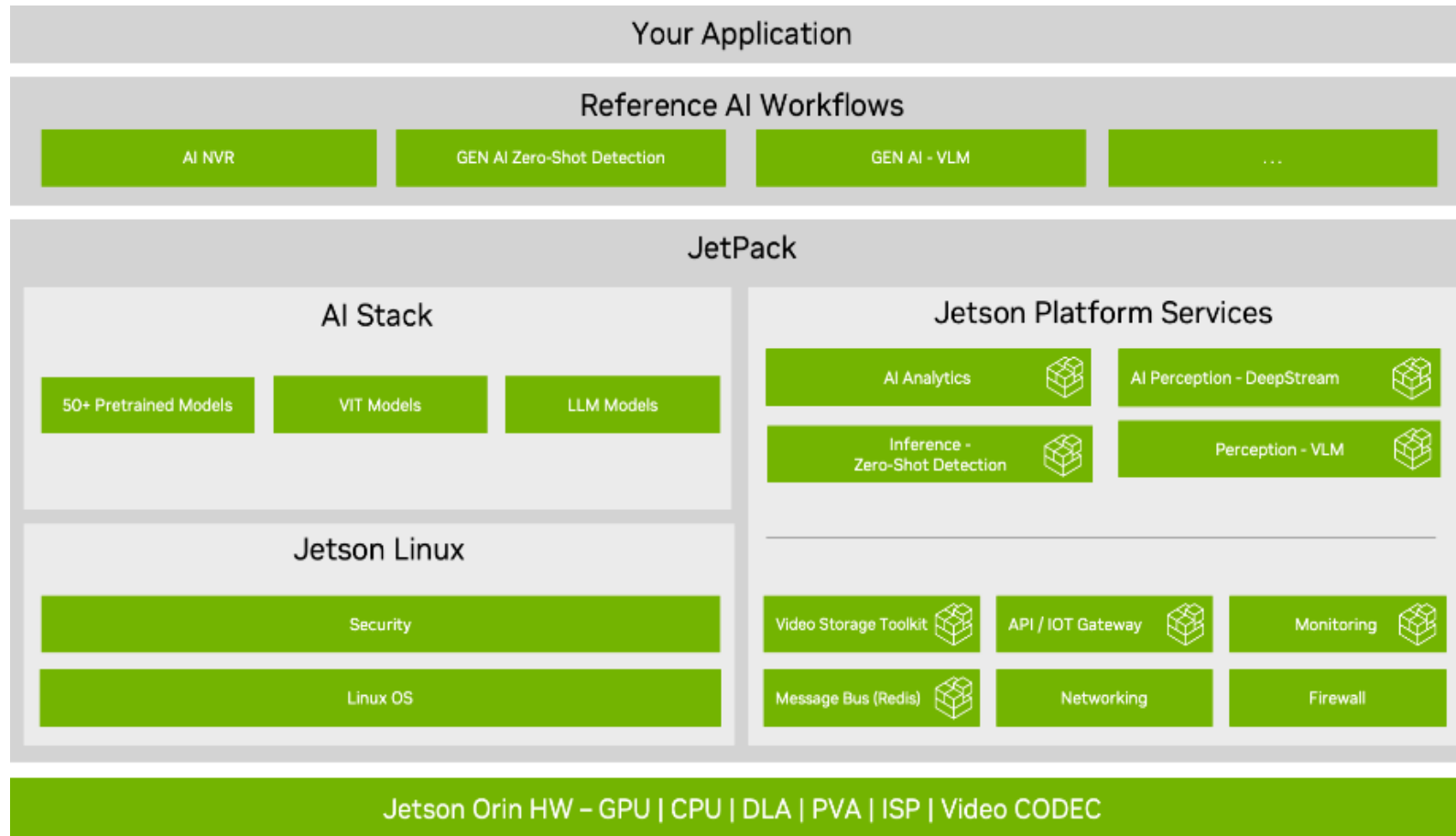
Module		BPC-7913-A	BPC-7913-B
ORIN		Jetson AGX Orin 32GB	Jetson AGX Orin 64GB
	CPU	8-core A78, 2.2Ghz	12-core A78, 2.2Ghz
	NPU	200 TOPS@INT8	275 TOPS@INT8
	Memory	LPDDR5 32GB	LPDDR5 64GB
	GPU	Ampere,1792 CUDA Cores, 56 Tensor Cores,1185Mhz	Ampere,2048 CUDA Cores, 64 Tensor Cores,1300Mhz
	Storage	External NVMe Using x1 PCIe	
Specifications	Expansion Storage	Support 1 x M.2 2280 NVME SSD expansion, support 1 x TF expansion	
	Wired Network	2 x RJ45, 10/100/1000Mbps 4 x RJ45, 10/100/1000Mbps (Support POE)	
	Wireless Network	1 x M.2 Key-B, expandable with 4G/5G module 1 x M.2 Key-E, expandable with WIFI/BT module, optional WIFI5/WIFI6	
	Display	1 x HDMI Out, support up to 4k@30Hz	
	Audio	1 x 3.5mm Combo Jack (CTIA)	
	USB	4 x USB3.0 Type-A (1 x USB OTG)	
	COM	1 x RJ45 CAN bus 1 x 18pin Phoenix terminal for GPIO (optocoupler isolated) 1 x 12pin Phoenix terminal for RS232+RS485+CAN (optocoupler isolated) 1 x 12pin Phoenix terminal for RS232+RS422/RS485 (optocoupler isolated)	
	GPS	Onboard GPS module (optional)	
	TPM/TCM	TPM2.0	
	Power Input	9~36V DC-IN	
	Dimensions	230mm x 165mm x 75mm	
	OS	Linux Ubuntu OS (20.04/22.04)+ JetPack SDK(5.1.2/6.0)	

Jetson Software Ecosystem

Jetson Software Ecosystem



JetPack 6.0

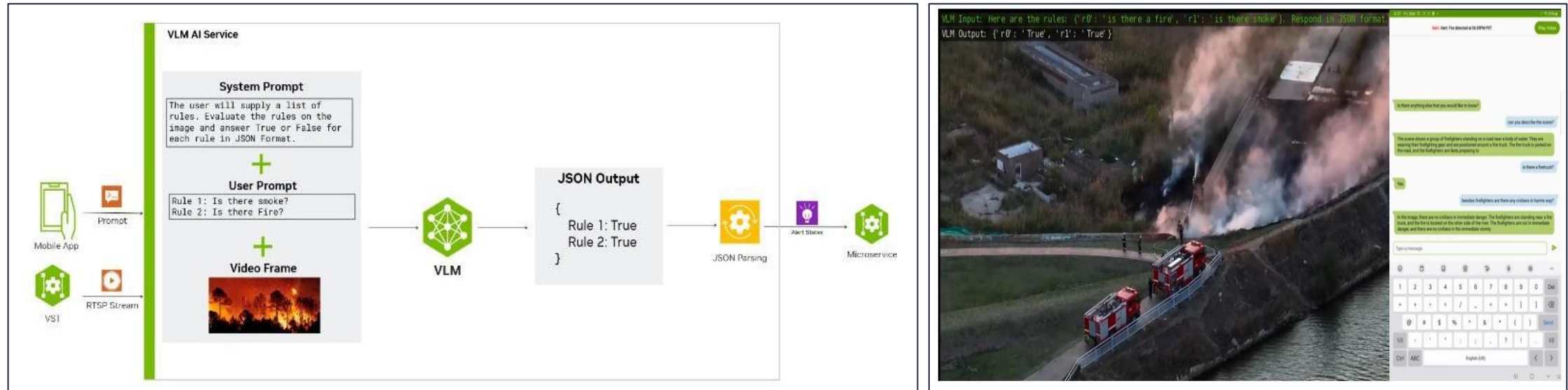


NVIDIA JetPack 6.0 highlight:

- Enables an expanding array of Linux-based distributions, including Ubuntu server from Canonical, RHEL 9.4 by Redhat, SUSE, Wind River Linux, Redhawk Real Time OS, and various Yocto-based distributions.
- Provides a modular architecture with a large collection of customizable software and reusable microservices for building vision AI applications. Include Video Storage Toolkit (VST), AI perception service based on NVIDIA DeepStream, generative AI inference service, analytics service.
- AI services provides optimized video processing and AI inference capabilities leveraging a combination of AI models, multi-object tracking, and streaming analytics techniques, can be integrated into an end application, as illustrated with the reference workflows.
- Generative AI-powered alerts at the edge and Zero-shot detection using generative AI

Visual Language Mode (VLM)

Vision Language Models (VLMs)—offers a more dynamic and flexible method for video analysis. VLMs enable users to interact with image and video input using natural language, making the technology more accessible and adaptable. These models can run on the NVIDIA Jetson Orin edge AI platform or discrete GPUs through NIMs.

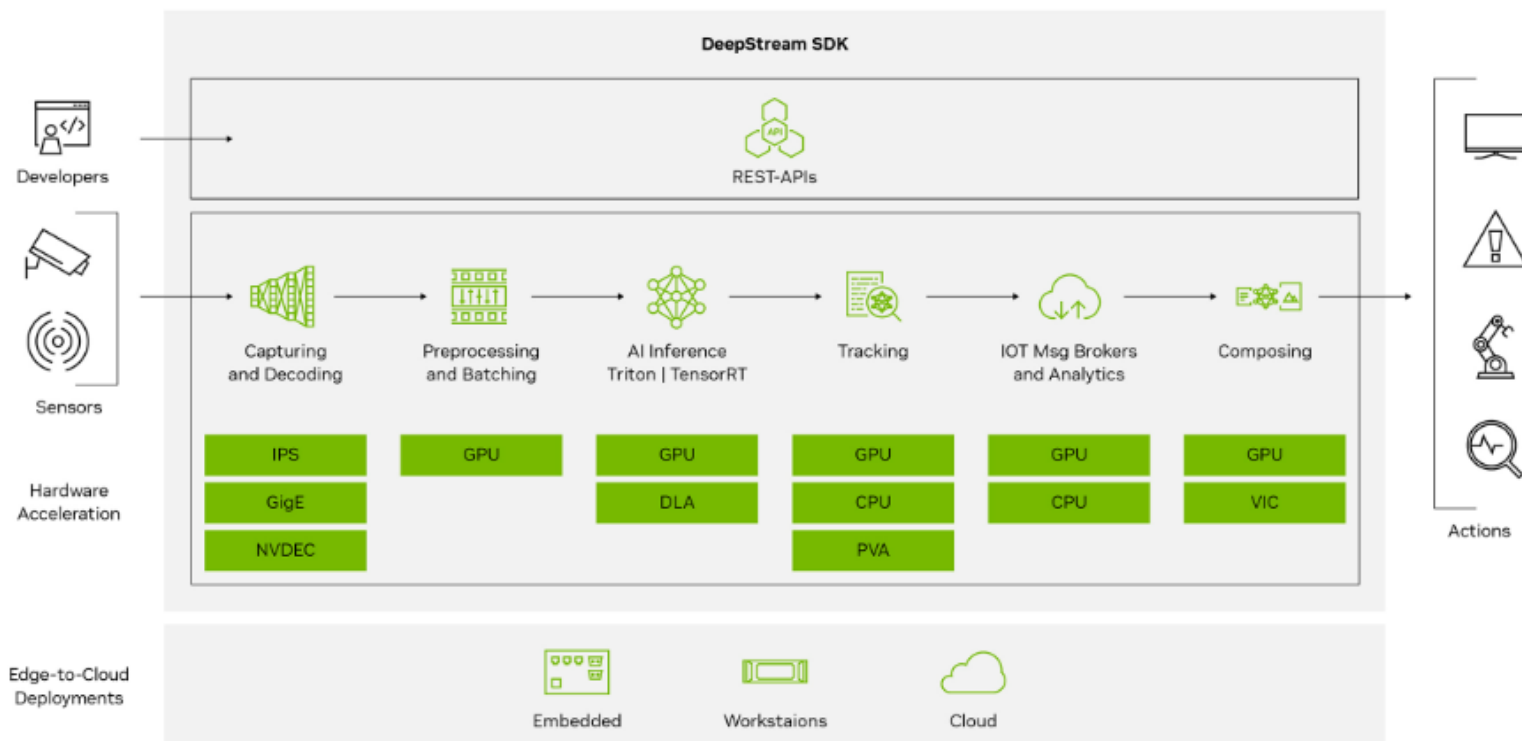


A visual AI agent is powered by a VLM where you can ask a broad range of questions in natural language and get insights that reflect true intent and context in a recorded or live video. VLMs combine a large language model with a vision transformer, enabling complex reasoning on text and visual input. This flexibility enables VLMs to be used for a variety of use cases and can be adapted on the fly by adjusting the prompts.

NVIDIA DeepStream

NVIDIA's DeepStream SDK is a complete streaming analytics toolkit based on GStreamer for AI-based multi-sensor processing, video, audio, and image understanding. It's ideal for vision AI developers, software partners, startups, and OEMs building IVA apps and services.

You can now create stream-processing pipelines that incorporate neural networks and other complex processing tasks like tracking, video encoding/decoding, and video rendering. These pipelines enable real-time analytics on video, image, and sensor data.



NVIDIA Riva

NVIDIA® Riva is a set of GPU-accelerated multilingual speech and translation microservices for building fully customizable, real-time conversational AI pipelines.



Accurate Multilingual Transcriptions and Expressive Voices

Achieve high multilingual transcription and translation accuracy, and provide out-of-the-box, expressive, professional female and male voices with state-of-the-art models pretrained on thousands of hours of audio on NVIDIA supercomputers.



Fully Customizable

Customize across ASR pipelines for different languages, accents, domains, vocabulary, and context for the best possible accuracy for your use case and across TTS pipelines for the brand voice and intonation you want.



Flexible Deployments

Provide consistent experiences to hundreds of thousands of concurrent users with higher inference performance than existing technology, and deploy anywhere—in data centers, on premises, in the cloud, at the edge, or in embedded devices.



Enterprise-Grade AI

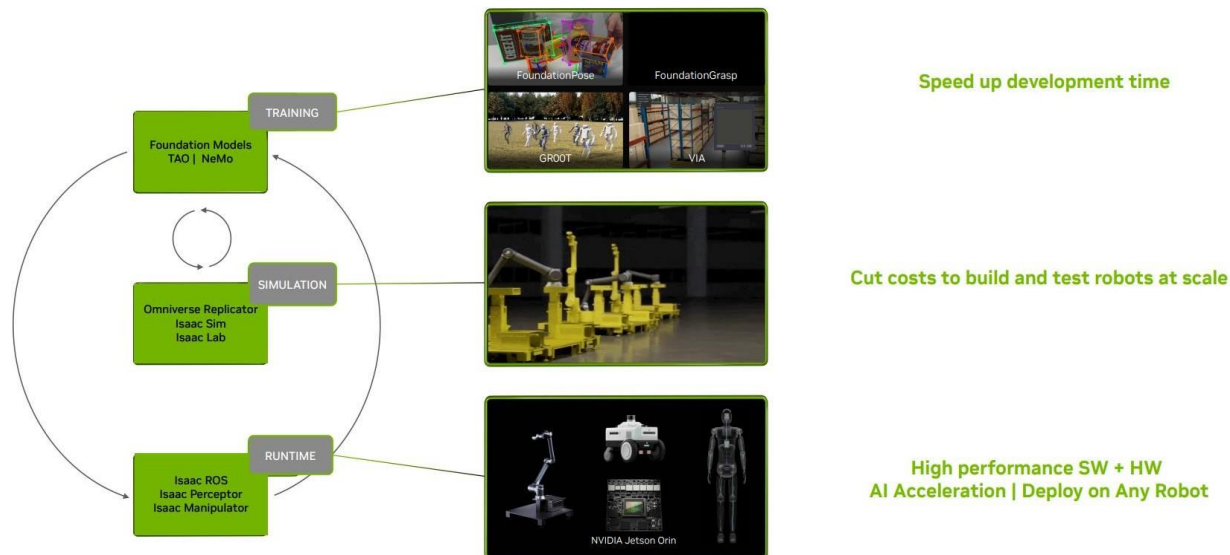
Accelerate the development and deployment of production-grade, multilingual, voice-enabled AI applications with NVIDIA AI Enterprise, an end-to-end, cloud-native software platform for enterprise-grade secure and stable generative AI.

NVIDIA Isaac

The NVIDIA Isaac™ AI robot development platform consists of NVIDIA-accelerated libraries, application frameworks, and AI models that accelerate the development of AI robots such as autonomous mobile robots (AMRs), arms and manipulators, and humanoids.

NVIDIA Isaac Robotics Platform

E2E AI Acceleration for Robotics Use-Cases



NVIDIA Isaac ROS

Isaac ROS is built on the open-source ROS 2 (Robot Operating System) software framework. This means the millions of developers in the ROS community can easily take advantage of NVIDIA-accelerated libraries and AI models to accelerate their AI robot development and deployment workflows.

NVIDIA Isaac Manipulator

The Isaac Manipulator workflow is built on Isaac ROS, letting you build AI-enabled robot arms—or manipulators—that can seamlessly perceive, understand, and interact with their environments.

NVIDIA Isaac Perceptor

Isaac Perceptor is a workflow built on Isaac ROS that lets you quickly build robust autonomous mobile robots (AMRs) that can perceive, localize, and operate in unstructured environments like warehouses or factories.

NVIDIA Isaac Sim

The NVIDIA Isaac Sim™, built on NVIDIA Omniverse™, helps you design, simulate, test, and train AI-based robots and autonomous machines in a physically based virtual environment.