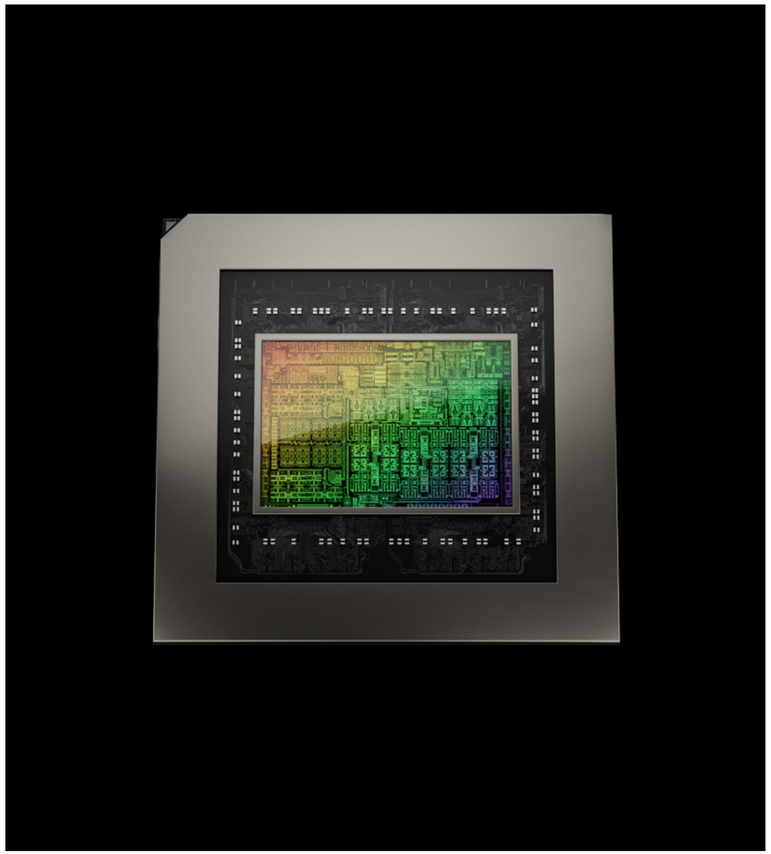
NVIDIA DRIVE AGX Thor Development Platform

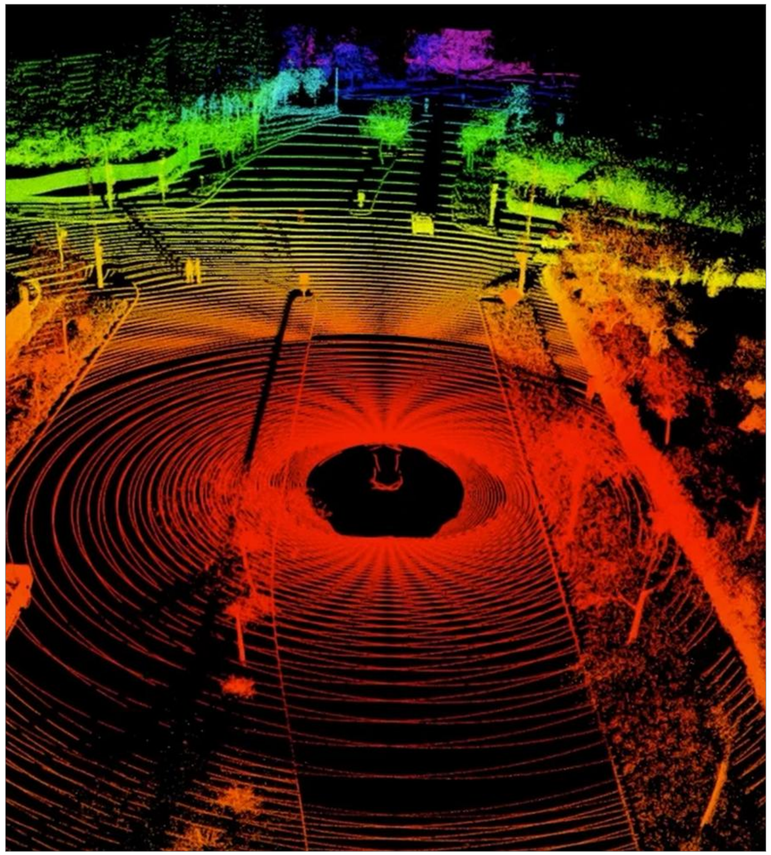
September 2025

NVIDIA DRIVE End-to-End Solutions for Autonomous Vehicles



DRIVE AGX Thor SoC
Most advanced automotive SoC based on Blackwell architecture

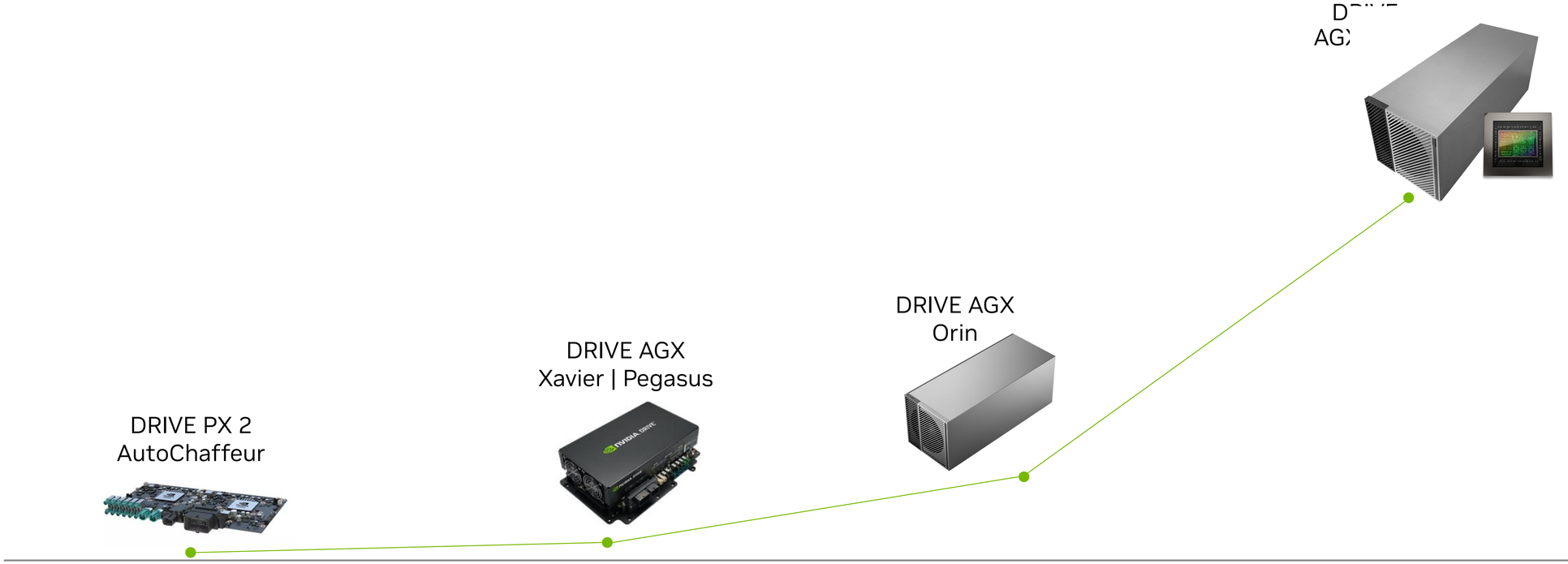
DRIVE AGX Thor DevKit
High-performance automotive software development platform



DriveOS
AV software foundation (NVIDIA OS, CUDA, and DriveWorks)

DRIVE Developer Kit Roadmap

Leaps in performance



NVIDIA DRIVE Thor-X SoC

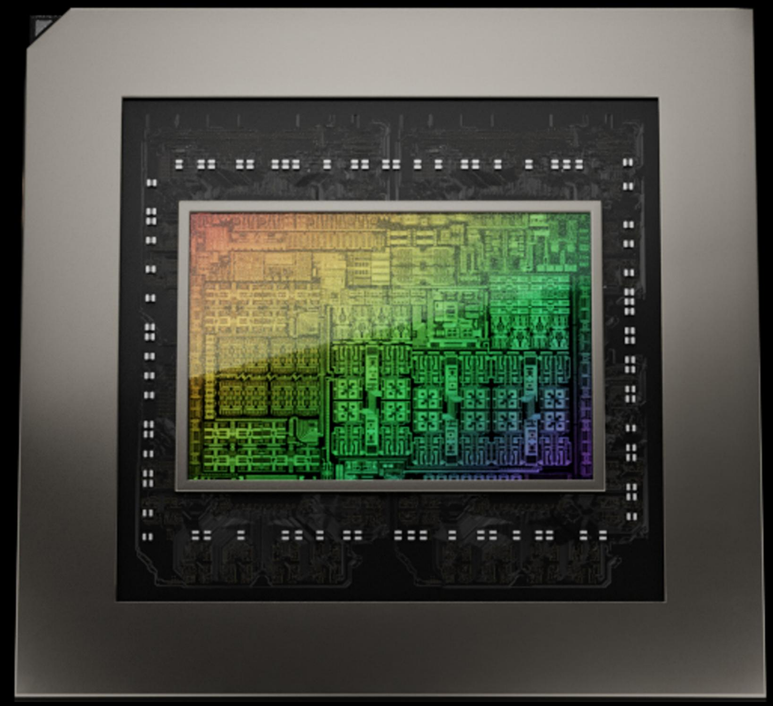
Autonomous driving and robotics processor optimized for generative AI

Blackwell GPU With Generative AI Engine

- FP32, 16, 8, and now 4-bit floating point AI support
- Quantization aware training and deployment with 4-bit computation
- Up to 1,000 INT8 TOPS raw deep learning performance
- Up to 2,000 FP4 TFLOPS. >20x peak Floating Point throughput vs. Orin, enabling high-throughput LLM inference

High-Performance ARM Neoverse V3AE CPU

- High single-thread performance necessary for decision and control
- 2.3x performance SPECrate®2017_int_base vs Orin (est.)



Automotive Hardware and Software Development Kit

Open and scalable platform purpose-built for automotive

Rich IO for Development, Sensors, and Vehicle Bus

- Vehicle Bus, GMSL 2 & 3, Ethernet, PCIe, USB, DisplayPort
- ISO 26262-compliant sensors supported through partners

Software Included

- DriveOS with DriveWorks
- Middleware, tools, and algorithms
- ISO 26262 safety certifiable DriveOS
- QNX, drivers, and platform APIs

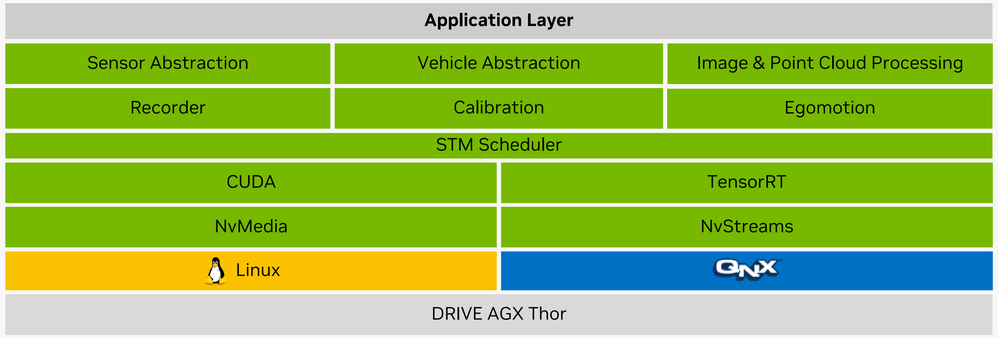
Safe and Performant Compute Platform

- DRIVE Thor SoC with CUDA Tensor Core GPU and Neoverse V3AE ARM64 CPU
- Architected for safety with production boards available through Tier1s

DRIVE AGX Thor DevKit

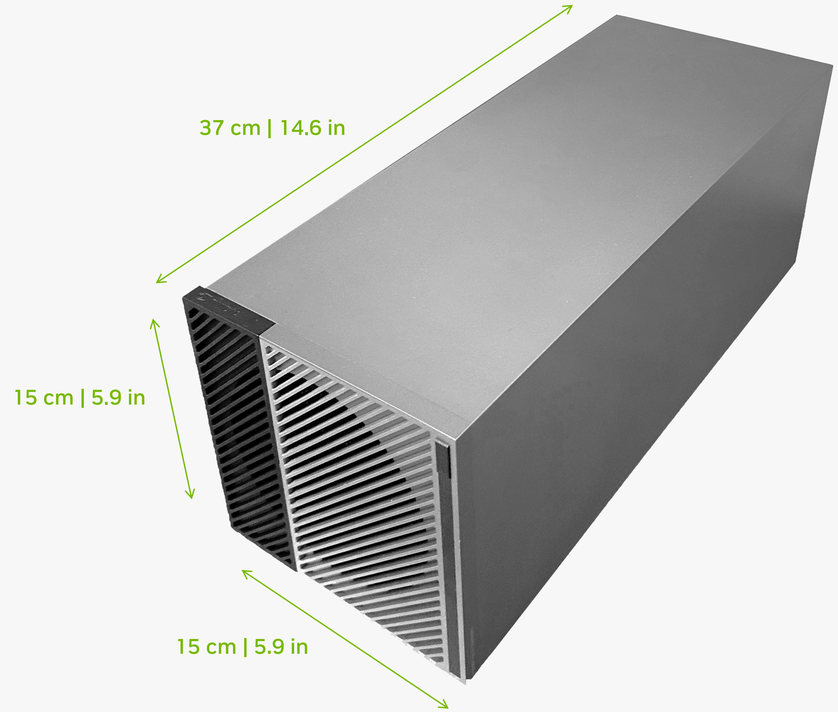
DriveOS—Automotive System Software
Auto-grade Silicon and IO
Up to 1000 INT8 TOPS | 350 W

General access target Q4 2025
Pre-Order Now



Spec Overview

Components		
Thor SoC	GPU	Integrated Blackwell CUDA Tensor Core GPU
	Accelerators	Programmable Vision Accelerator (PVA) Optical Flow Accelerator (OFA)
	CPU	ARM Neoverse V3AE. Arm64 (v9.2-A), SMP
Safety MCU		Renesas U2A16
Storage		256 GB UFS
Power Supply		Built-In
Vehicle Wiring Harness		Additional Accessory
Performance		
DL Inference		Up to 1,000 INT8 TOPS | 2,000 FP4 FLOPS
Memory Bandwidth		273 GB/s
System RAM		64 GB LPDDR5X at 4266 MHz
Operating Parameters		
Temperature		0 to 35°C (SKU10) | 0 to 45°C (SKU12)
System Power		350 W
Voltage		9 V to 16 V (Static), 7 V to 32 V (Transient)



System weight: ~6.2 kg | ~14 lbs

Bench and In-Vehicle Developer Kit

SKU10 and SKU12

Bench DevKit
SKU10

AC Power Supply in Chassis
110 ~ 240 V input

Power cords and vehicle harnesses available separately for CAN, audio, etc. bench development

In-Vehicle DevKit
SKU12

DC Power Connector
9 ~ 16 V input
Direct supply from vehicle main battery

Vehicle harnesses and mounting plate included for in-vehicle installation

Cables, Splitters, and Adapters

To learn more, see DRIVE AGX Autonomous Vehicle Development Platform

Two DRIVE AGX Thor DevKits will be available for order:

- Bench DevKit (SKU10) is for lab use with built-in power supply for AC; regional power cords are available for purchase separately
- In-Vehicle DevKit (SKU12) is for installation in the vehicle; comes with DC power connector and vehicle harnesses
- Specific accessories are available for purchase separately (power cords, vehicle harness, 10 GbE NIC adapter)

Pictures shown may not be the final product

Auto-Grade and Development Interfaces

Ethernet	2x	100/1000/10G-T1	4-port H-MTD[1]
	3x	100/1000/10G-T1	6-port H-MTD[1]
Camera	3x	GMSL2 MAX96724	Quad Fakra[1]
	1x	GMSL2 MAX96712	Quad Fakra[1]
	1x	GMSL3 MAX96792[2]	Quad Fakra[1]
USB	1x	USB 3.2 (U1 for data)	USB-C
	1x	USB 3.2 (U2 for flashing)	USB-C
	1x	USB 2.0 (U3 for data)	USB-C
	1x	USB 2.0 (Debug)	USB-C
Display	2x	GMSL3 MAX96851/96861	Quad Fakra[1]
	1x	DisplayPort out, up to 4K@60Hz	DisplayPort
PCIe	2x 1x	PCIe x2 or PCIe x4	MiniSAS HD
Wiring Harness	2x	4x CAN, 1x FlexRay, 1x LIN, 2+1x A2B, 2x USS	Vehicle Harness Connector[1,3]

[1]Auto-grade connectors
[2]Only 2 of 4 ports available
[3]Vehicle harness connector not compatible with DRIVE AGX Orin DevKit

Frequently Asked Questions

Questions	Answer
Can I still purchase a DRIVE AGX Orin DevKit?	Yes, DRIVE AGX Orin DevKits will still be available for purchase. See DRIVE AGX Autonomous Vehicle Development Platform | NVIDIA Developer for more details.
When can I purchase a DRIVE AGX Thor DevKit?	You may order DRIVE AGX Thor DevKits, SKU10 for bench and SKU12 for in-vehicle. Lead time is 10 weeks.
Where can I purchase a DRIVE AGX Thor DevKit?	DRIVE AGX Thor General Access DevKits, SKU10 for bench and SKU12 for in-vehicle, may be ordered from one of our authorized distributors. See DRIVE AGX Autonomous Vehicle Development Platform | NVIDIA Developer for more details.
Will I be able to purchase a vehicle accessory kit (that was available for DRIVE AGX Orin) for DRIVE AGX Thor SKU10 for bench?	No, we will not separately sell a vehicle accessory kit. DRIVE AGX Thor SKU12 for in-vehicle should be used in the vehicle.