

Bosch To Integrate NVIDIA DRIVE AGX Thor Into Next-Generation ADAS and Software-Defined Vehicle Architectures

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Strategic collaboration brings scalable, AI-powered computing and Bosch safety expertise to future mobility

- ▶ Bosch to integrate DRIVE AGX Thor into the Bosch ADAS compute platform
- ▶ Bosch adds safety expertise, and in-depth know-how on high-performance ECUs and ADAS systems for production-ready deployment
- ▶ Combined solution enables scalable, intelligent and safer mobility for highly assisted and automated driving

Farmington Hills, Mich. – Bosch today announced a strategic initiative to integrate the next-generation NVIDIA DRIVE AGX Thor centralized, high-performance compute platform into Bosch's future compute and electronic control unit (ECU) architectures. This effort reinforces Bosch's commitment to deliver cutting-edge, AI-driven solutions for software-defined vehicles (SDVs).

As global automakers accelerate their shift to SDVs, demand is growing for centralized computing platforms that can handle both safety-critical driving tasks and increasingly complex AI workloads. Analysts forecast that by 2030, more than half of new vehicles sold will feature centralized, high-performance compute architectures, which allows for more comfort driving features and helps reduce system complexity. Combining the Bosch global ADAS footprint and high-performance computing expertise with NVIDIA's leading AI solutions will allow automakers to bring advanced systems for assisted and highly automated driving into series production.

The integration of NVIDIA DRIVE AGX Thor into Bosch's ADAS compute platform helps to create an easier implementation for the OEMs, can reduce additional development efforts and helps enable a faster time-to-market product launch. Furthermore, this architectural platform is open and flexible for any kind of ADAS/AD software stack.

“This collaboration further positions Bosch and NVIDIA at the forefront of the software-defined vehicle transformation, helping automakers deploy scalable platforms that meet rising performance demands while maintaining safety and reliability standards,” said Stefan Buerkle, regional president, Cross-Domain Computing Solutions, Bosch Mobility Americas. “By pairing NVIDIA’s advanced AI compute with our domain expertise in safety, system integration and sensors, we’re enabling automakers to deliver the next generation of personalized and reliable mobility experiences.”

Technology Highlights

NVIDIA DRIVE AGX Thor is built on the [NVIDIA Blackwell architecture](#), optimized for advanced transformer models, large language models and generative AI workloads. With performance of up to 2,000 FP4 TFLOPS, the platform enables high-speed processing for complex driving and in-vehicle experience tasks. It runs the safety-certified NVIDIA DriveOS, leveraging the NVIDIA Halos comprehensive safety system.

Bosch deploys NVIDIA’s powerful compute into production-ready vehicle computers designed to handle vast amounts of high-speed signals, manage thermal performance and meet high safety standards. Leveraging decades of ECU design expertise, Bosch delivers the system integration, validation and engineering know-how required to deploy advanced driver assistance and automated driving technologies at scale. The long-standing leadership Bosch has in functional safety along with the advanced safety features of DRIVE Thor platforms will enable customers to deploy production ready systems with safety and reliability at their core. The Bosch SDV strategy aligns with DRIVE AGX Thor’s unified architecture to reduce system complexity and enable faster software iteration for automakers.

Customer Impact

For automakers, the combined solution enables the delivery of intelligent, personalized and safer mobility experiences that drivers increasingly expect. The platform’s performance also facilitates the introduction of next-generation AI models into the demanding automotive environment, unlocking new possibilities for driver assistance and in-vehicle intelligence. Designed initially for premium passenger vehicles (L2+/- L4), the solution offers a clear path to scalability, supporting the industry’s transition toward more automated, connected and user-centric mobility.

“As the auto industry moves toward smarter, safer mobility accelerated by autonomous driving, our work with Bosch reflects a key step in delivering safety-certified AI and accelerated computing directly into vehicles,” said Ali Kani,

NVIDIA's Vice President of Automotive. "Together, NVIDIA's core technologies and Bosch's proven integration know-how can help redefine how transportation evolves."

By integrating NVIDIA DRIVE AGX Thor into its portfolio, Bosch reinforces its role as a systems integrator capable of turning advanced compute into safer, validated automotive platforms, supporting OEMs as they navigate the shift to software-defined and AI-enabled vehicles.

Press photos and infocharts are available on the Bosch Media Service at us.bosch-press.com.

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About Bosch

Having established a presence in North America in 1906, today the Bosch Group employs more than 41,000 associates in more than 100 locations in the North American region (as of Dec. 31, 2024). In 2024, Bosch generated consolidated sales of \$17.3 billion in the U.S., Mexico and Canada. For more information visit www.bosch.us, www.bosch.mx and www.bosch.ca.

The Bosch Group is a leading global supplier of technology and services. It employs roughly 418,000 associates worldwide (as of December 31, 2024). The company generated sales of 90.3 billion euros (\$97.7 billion USD) in 2024. Its operations are divided into four business sectors: Mobility, Industrial Technology, Consumer Goods, and Energy and Building Technology. With its business activities, the company aims to use technology to help shape universal trends such as automation, electrification, digitalization, connectivity, and an orientation to sustainability. In this context, Bosch's broad diversification across regions and industries strengthens its innovativeness and robustness. Bosch uses its proven expertise in sensor technology, software, and services to offer customers cross-domain solutions from a single source. It also applies its expertise in connectivity and artificial intelligence in order to develop and manufacture user-friendly, sustainable products. With technology that is "Invented for life," Bosch wants to help improve quality of life and conserve natural resources. The Bosch Group comprises Robert Bosch GmbH and its roughly 490 subsidiary and regional companies in over 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. Bosch's innovative strength is key to the company's further development. At 136 locations across the globe, Bosch employs some 87,000 associates in research and development. The company was set up in Stuttgart in 1886 by Robert Bosch (1861–1942) as "Workshop for Precision Mechanics and Electrical Engineering." The special ownership structure of Robert Bosch GmbH guarantees the entrepreneurial freedom of the Bosch Group, making it possible for the company to plan over the long term and to undertake significant upfront investments in the safeguarding of its future. Ninety-four percent of the share capital of Robert Bosch GmbH is held by Robert Bosch Stiftung GmbH, a limited liability company with a charitable purpose. The remaining shares are held by Robert Bosch GmbH and by a company owned by the Bosch family. The majority of voting rights are held by Robert Bosch Industrietreuhand KG. It is entrusted with the task of safeguarding the company's long-term existence and in particular its financial independence – in line with the mission handed down in the will of the company's founder, Robert Bosch.

Additional information is available online at www.bosch.com, www.bosch-press.com.

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