

Brose unveils key innovations to power the future of the automotive industry



Global debut of Brose's Smart Cockpit System at Auto Shanghai 2025

Shanghai (21. dubna 2025) The automotive industry is undergoing a profound transformation. Electrification is accelerating, multiple technology paths are advancing in parallel, intelligent systems are rapidly being applied across diverse real-world scenarios. Consumers are demanding increasingly personalized features, and comfort is emerging as a key differentiator. Sustainability and low-carbon principles are driving the industry toward a greener future. Tapping into the pulse of these changes, Brose is showcasing its forward-looking vision under the theme "Excellence Inside" at Auto Shanghai 2025. By integrating mechatronic components with smart sensors and control software, Brose is delivering innovations that bring a powerful "core" to vehicles - enabling them to become smarter, greener, and more personalized.

In the realm of intelligent technology, Brose is unveiling - for the first time globally - its Smart Cockpit System, led and developed by the company's China team. This system draws on Brose's deep expertise in intelligent access and flexible interior. Combining ultra-wideband (UWB) and millimeter-wave radar technologies, it builds a seamless human-vehicle interface, showcasing Brose's forward-thinking approach to future mobility. The system includes a smart digital key that responds to user proximity with synchronized lighting and sound effects, enabling keyless entry and locking for a truly elevated, ceremonial travel experience. By repurposing in-vehicle UWB sensors, Brose also unlocks advanced functions like occupant detection and automatic tailgate operation, balancing cost and functionality.

As 48-volt architecture becomes a defining trend in new energy vehicle design, Brose is introducing a suite of 48V system solutions across multiple domains: door system, seat system, thermal management, and chassis motors. These technologies help OEMs optimize vehicle electrical systems and improve overall performance and efficiency. Notably, Brose's 48V cooling fan module and window regulator motor have already entered mass production and are featured in new energy vehicle.

To meet growing consumer demand for ultimate comfort, Brose - together with joint venture Brose Sitech - is presenting a comprehensive interior solution, covering from seat structures to complete seat. As a leader in high-end seat structures, Brose is redefining comfort and safety with its zero-gravity solution. Featuring a new slim Y-movement mechanism for flexible spatial layout and integrated haptic feedback for immersive entertainment, the design takes luxury to new levels. Additional features such as neck warmer, pneumatic massage, seat heating, and ambient lighting further enhance the in-car experience.

Sustainability is embedded in Brose's product development process. From the beginning, the company prioritizes waste reduction and the use of recyclable materials. On display at the show is a lightweight door module made from recycled materials - delivering durability and strength while supporting OEMs' sustainability goals. Brose is also working closely with its suppliers and has committed to offering carbon-neutral products across its entire supply chain by 2039.

"Innovation is the main engine driving Brose's development," said Liu Yinfeng, Vice President Development, Brose China. "Through our global development network and localized innovation system, we are accelerating the development of next-generation mobility solutions. Deepening local development capabilities and fostering ecosystem collaboration are key to our technology breakthroughs in the Chinese market."

In recent years, Brose's enhanced local development competence has led to the rapid launch of multiple new technologies. For example, the "PtoG" system, led by Brose China team and debut in China, integrates intelligent dimming, heating, and display functions in side window. The company's high-end latch combines features like power release, cinching, and ice-breaking, while its mechanical redundancy design ensures safe escape in emergencies. Brose also introduced an innovative sand-resistant cooling fan module that prevents sand accumulation and ensures stable vehicle operation.

Beyond in-house innovation, Brose is actively cultivating an automotive innovation ecosystem by collaborating with industry partners to co-create smart application scenarios. One such collaboration is with Joyson Safety Systems, where the two companies are jointly developing seating solutions that prioritize both safety and comfort.