



Press Release

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Marelli highlights next-generation in-cabin innovations for the software-defined vehicle at Auto China 2026

- **Unified in-cabin experience:** *The convergence of electronics and interiors enables a seamless cockpit, combining computing, AI, high-performance MiniLED FALD, HorizonView pillar-to-pillar displays, and advanced interior technologies*
- **Production-ready zonal and connectivity innovations:** *MCU-free modules and zonal audio enable scalable, cost-efficient global platforms, supported by streamlined 5G RedCap connectivity.*

Marelli, a global technology partner to the automotive industry, will showcase at **Auto China 2026** in Beijing (April 24–May 3) its latest **in-cabin innovations**, demonstrating how the deeper integration of electronics and interiors elevates comfort and functionality while enabling smart, immersive experiences – affordably – in the era of **software-defined vehicles** (SDVs).

As vehicle standardization increases across many areas, advanced technologies that shape both the digital and physical cabin environment are becoming essential for brand differentiation.

Through the integration of software-defined solutions, interactive devices and strategic use of surfaces and space, Marelli enables **intelligent delivery of information and entertainment**, providing them precisely when and where needed by drivers and passengers. This enhances user interaction, expands design freedom for carmakers and supports vehicle distinctiveness.

“In the cabin of the future, technology must feel human – intuitive, responsive, and seamlessly integrated,” said Joachim Fetzter, Chief Technology and Innovation Officer of Marelli. *“At Auto China, we will demonstrate how Marelli unifies compute, display, audio, and interior design into a coherent, software-defined experience enabled by deep local engineering and strong partnerships.”*

Software-defined cockpit experience: unified intelligence powering displays, AI and interior design

At the core of Marelli’s in-cabin showcase is a **unified software-defined cockpit experience** that combines cockpit computing, artificial intelligence (AI), graphics, and human–machine interface (HMI) functions in one intelligent system. Built on a QNX real-time operating system (RTOS) based architecture, it safely manages mixed criticality domains – from in-vehicle infotainment (IVI) and cluster visualization to cabin intelligence. These deliver smoother interaction, faster responses and a consistent user experience across all cockpit functions.

Marelli’s unified software-defined cockpit enables advanced display technologies for seamless integration within the broader in-cabin experience. The ultrathin **MiniLED Full Array Local Dimming (FALD) display** provides high-performance local dimming for exceptional contrast, vivid colors and strong sunlight readability, while its slim form factor supports curved and pillar-to-pillar cockpit configurations.



For a panoramic, immersive HMI, the **HorizonView pillar-to-pillar display** projects a continuous 44.8-inch image across the base of the windshield powered by a high-brightness LCD MiniLED FALD Picture Generation Unit (PGU) capable of up to 12,000 nits. The extended visual field ensures clarity in all lighting conditions for all vehicle occupants and helps reduce driver distraction by presenting information in a wide, intuitive, and integrated viewing area.

Affordable Architecture: zonal foundations for cost reduction, performance and scalability

This cockpit experience is enabled by Marelli's zonal electrical/electronic (E/E) architecture, which centralizes intelligence and simplifies wire harness. The zonal approach reduces the number of Electronic Control Units (ECUs), lowers system cost, and accelerates development.

Two Marelli products, based on an edge node strategy, will illustrate the shift: the **MCU-Free Door Module** and **MCU-Free Seat Module** remove the local microcontroller unit (MCU), moving key window, mirror, seat and safety functions – including anti-pinch protection – into the Zone Control Unit (ZCU) or central compute unit via a low-latency remote control protocol.

The audio experience also benefits significantly from the shift to zonal architecture. Where audio-video bridging (AVB) is enabled at the zonal level, premium multizone audio distribution can be managed directly in the Zone Control Unit, reducing wiring complexity and improving system integration. Marelli also offers a distributed **Audio Amplifier over Ethernet**, a high-efficiency solution based on class-D technology, designed to deliver high-fidelity sound across the vehicle without a local digital signal processor (DSP) or microcontroller unit (MCU). Together, these solutions give vehicle makers flexible, scalable options for advanced in-cabin audio experiences suited to different E/E architectures and vehicle segments.

Affordable 5G RedCap: streamlined telematics for reliable connectivity

Marelli will also showcase its **Affordable 5G RedCap** (Reduced Capability) connectivity – a streamlined 5G telematics solution optimized for automotive use. It delivers 50% higher data rates and 2.5× lower latency than 4G at a comparable cost. The platform supports over-the-air (OTA) updates, remote diagnostics, real-time navigation, seamless transition from 4G to 5G, and dual-frequency Global Navigation Satellite System (GNSS) positioning, enabling reliable and affordable connectivity across global platforms.

Innovative interiors elevating the in-cabin experience: enhanced comfort, customization and styling

A suite of **innovative interior solutions** further defines the next evolution of the in-cabin experience at Marelli's booth. These are presented via two dedicated demonstrators focusing on **instrument panel and center console features** that enhance comfort, personalization and brand distinction while leveraging lightweight and low-carbon materials.

The first demonstrator integrates distinctive functionalities for the cockpit area with the latest ambient lighting technologies to create engaging, user-centric environments for drivers and passengers. Key features include the compact **Swivel Motorized Speaker**, which allows users to direct sound for immersive audio experiences, ensuring high-quality sound, durability, style and seamless integration with external audio systems. **Customizable ambient lighting effects** – applicable to instrument panels, door panels or consoles – contribute to a premium cabin atmosphere by adapting illumination to user preferences and driving conditions.



Comfort is further improved by the new **Motorized Vent**, which delivers clean air and optimized climate management within the cabin with reduced power consumption. In addition, the stylish **Retractable Table** enables versatile use for work or leisure, while keeping the cabin clean and functional when not in use.

Functionality and design also drive innovation in the **center console**, with solutions that enable flexible space configuration and easy access, improving everyday usability for vehicle occupants. These include the **Multi-Access Console Lid**, which opens from three sides, the **Detachable Display Mechanism** that provides rear-seat passengers with easy access to entertainment, controls and personalized features on demand, and a **Removable Module** integrated into the center console, that adds extra storage space.

All solutions presented by Marelli at Auto China 2026 reflect the theme “**Rooted in innovation, everywhere**”, highlighting an approach that combines strong local engineering capabilities and supply chains with global coordination. This model enables rapid delivery of localized innovation in China and across global markets, accelerating time-to-market. Marelli’s latest solutions in electronics, interiors, and other technology domains will be showcased at the Beijing International Automotive Exhibition, booth **W2B08**, Hall **W2**, New China International Exhibition Center (NCIEC), Beijing.

About Marelli

Marelli is a global mobility technology supplier to the automotive industry. With a strong and established track record in innovation and manufacturing excellence, our mission is to transform the future of mobility through working with customers and partners to create a safer, greener, and better-connected world. With around 40,000 employees worldwide, the Marelli footprint includes over 150 sites globally.