Global Automotive Chip Market to Reach $121.3 Bn by 2031 Driven by Rising EV & Smart Vehicle Demand

The automotive chip market is evolving rapidly, driven by EV adoption, autonomous systems, and connected vehicle technologies.

WILMINGTON, DE, UNITED STATES, October 6, 2025 /EINPresswire.com/ -- According to a new report published by Allied Market Research, titled, “Automotive Chip Market Size, Share, Competitive Landscape and Trend Analysis Report, by Product (Microcontrollers, Logic ICs, Analog ICs, Sensor, Others), by Application (Powertrain, Body Electronics, Safety Systems, Chassis, Telematics and Infotainment Systems), by Propulsion Type (ICE Vehicles, Electric Vehicles): Global Opportunity Analysis and Industry Forecast, 2021 - 2031" The global automotive chip market size was valued at $49.8 billion in 2021, and is projected to reach $121.3 billion by 2031, growing at a CAGR of 9.6% from 2022 to 2031.

The global automotive chip market is witnessing rapid growth due to the increasing adoption of advanced driver-assistance systems (ADAS), electric vehicles (EVs), and connected car technologies. These chips, which include microcontrollers, sensors, and power management ICs, are critical for enhancing vehicle safety, efficiency, and performance, driving significant demand across passenger and commercial vehicles.

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1. Growth of Electric Vehicles (EVs):
The shift towards EVs is fueling demand for automotive chips, especially power semiconductors and battery management ICs. EVs require sophisticated electronics to manage battery efficiency, regenerative braking, and motor control, making chips a key component in their ecosystem.

2. Rise of Advanced Driver-Assistance Systems (ADAS):
Increasing safety regulations and consumer demand for autonomous features are boosting the adoption of ADAS technologies. Chips like sensors, processors, and radar ICs are integral to features such as adaptive cruise control, lane-keeping assist, and collision avoidance.

3. Connected and Smart Vehicles:
The proliferation of connected cars and IoT-enabled vehicles is driving demand for

communication chips, microcontrollers, and infotainment processors. These components enable real-time vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communication, enhancing navigation, safety, and convenience.

4. Supply Chain Challenges and Semiconductor Shortage:
The automotive chip market is occasionally affected by global semiconductor shortages, impacting production schedules. Manufacturers are investing in robust supply chain management and diversifying suppliers to mitigate disruptions and maintain steady chip availability.

5. Technological Advancements:
Ongoing innovation in automotive electronics, such as AI-powered autonomous systems and energy-efficient semiconductors, is expanding the market. Companies are focusing on developing smaller, faster, and low-power chips to meet the growing complexity of modern vehicles.

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The automotive chip market is segmented by product type (microcontrollers, sensors, power semiconductors, memory, and processors), application (ADAS, infotainment, EV power management, and connectivity), and vehicle type (passenger cars, commercial vehicles, and two-wheelers). Microcontrollers and power semiconductors hold the largest share due to their critical role in EVs and ADAS systems.

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North America leads in technological adoption with significant investments in autonomous vehicles and smart transportation infrastructure, boosting chip demand. The presence of major automotive OEMs and semiconductor manufacturers further strengthens the market.

Asia-Pacific is the fastest-growing region due to the rapid EV adoption in China, India, and Japan. Government incentives, rising automotive production, and expanding local semiconductor manufacturing are key drivers of growth in the region.

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Key players in the automotive chip industry include NXP Semiconductors, Infineon Technologies, Texas Instruments, STMicroelectronics, Renesas Electronics, ON Semiconductor, Qualcomm, and Broadcom. Companies are investing in R&D, strategic partnerships, and mergers & acquisitions to expand their automotive chip portfolios and meet rising demand.

Competitive strategies are also focused on producing energy-efficient, high-performance chips

suitable for EVs, ADAS, and connected vehicles, positioning them strongly in the evolving automotive ecosystem.

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- Rapid growth of EVs is driving demand for power semiconductors and battery management ICs.
- ADAS adoption is increasing demand for sensors and processors.
- Connected car technologies are boosting communication and infotainment chip requirements.
- Asia-Pacific is the fastest-growing market, while North America dominates technologically.
- Semiconductor shortages remain a key challenge but drive supply chain innovations.

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