

Global Automotive Chip Market Size Study, by Product (Analog ICs, Microcontrollers & Microprocessors, Logic ICs), by Application (Body Electronics, Telematics & Infotainment, Powertrain, Safety System, Chassis), by Vehicle Type (Passenger Car, Commercial Vehicle), by Propulsion (ICE, BEVs, HEVs), and Regional Forecasts 2022-2032

<https://marketpublishers.com/r/G57764FA76F3EN.html>

Date: January 2025

Pages: 285

Price: US\$ 3,218.00 (Single User License)

ID: G57764FA76F3EN

Abstracts

The global automotive chip market is valued at approximately USD 50.74 billion in 2023 and is projected to grow at a remarkable CAGR of 10.66% during the forecast period 2024-2032. Automotive chips are critical components that enable a wide range of functionalities in modern vehicles, including enhanced safety, connectivity, and fuel efficiency. These advanced integrated circuits are integral to the operation of electronic systems in vehicles, from infotainment to autonomous driving. The market is experiencing unprecedented growth, fueled by the increasing adoption of electric vehicles (EVs) and the integration of advanced driver-assistance systems (ADAS) across automotive segments.

The proliferation of connected vehicles and the escalating consumer demand for feature-rich infotainment and telematics systems are major growth drivers. Analog ICs and microcontrollers, pivotal for managing power and processing tasks, dominate the product landscape. Moreover, the emergence of electric vehicles, coupled with stringent regulatory standards for emission control, has intensified the demand for specialized chips tailored for powertrain and battery management systems. However, the global semiconductor shortage and the high cost of research and development pose significant challenges, potentially hampering the market's expansion.

The rapid evolution of automotive technology has catalyzed substantial investments in chip innovation. Autonomous driving, characterized by its reliance on complex sensor systems and real-time processing capabilities, has emerged as a significant growth area. Furthermore, advancements in 5G networks are facilitating seamless vehicle-to-everything (V2X) communication, enhancing road safety and operational efficiency. Strategic partnerships between automakers and semiconductor manufacturers are accelerating the pace of innovation, fostering a competitive and collaborative market environment.

Regionally, Asia Pacific emerged as the largest market in 2023, driven by the region's robust automotive manufacturing base and increasing adoption of EVs. North America, characterized by high investments in autonomous vehicle technologies, represents another significant market. Meanwhile, Europe is witnessing robust growth due to stringent emissions regulations and the rising penetration of premium vehicles equipped with advanced electronic systems.

Major market players included in this report are:

NXP Semiconductors

Infineon Technologies AG

Texas Instruments Incorporated

Renesas Electronics Corporation

STMicroelectronics N.V.

Analog Devices, Inc.

Microchip Technology Inc.

Qualcomm Incorporated

NVIDIA Corporation

Broadcom Inc.

Intel Corporation

ON Semiconductor Corporation

Samsung Electronics Co., Ltd.

Toshiba Corporation

Marvell Technology Group Ltd.

The detailed segments and sub-segment of the market are explained below:

By Product:

Analog ICs

Microcontrollers & Microprocessors

Logic ICs

By Application:

Body Electronics

Telematics & Infotainment

Powertrain

Safety System

Chassis

By Vehicle Type:

Passenger Car

Commercial Vehicle

By Propulsion:

Internal Combustion Engine (ICE)

Battery Electric Vehicles (BEVs)

Hybrid Electric Vehicles (HEVs)

By Region:

North America:

U.S.

Canada

Europe:

UK

Germany

France

Spain

Italy

Rest of Europe

Asia Pacific:

China

India

Japan

Australia

South Korea

Rest of Asia Pacific

Latin America:

Brazil

Mexico

Rest of Latin America

Middle East & Africa:

Saudi Arabia

South Africa

Rest of Middle East & Africa

Years considered for the study are as follows:

Historical Year: 2022

Base Year: 2023

Forecast Period: 2024 to 2032

Key Takeaways:

Global Automotive Chip Market Size Study, by Product (Analog ICs, Microcontrollers & Microprocessors, Logic IC...

Detailed market forecasts and revenue estimates for a 10-year period.

In-depth regional analysis and insights into country-specific trends.

Strategic recommendations based on market dynamics and trends.

Competitive landscape analysis highlighting key players and their strategies.

Comprehensive evaluation of supply-demand factors driving market growth.

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