

Global Automotive Power Management IC (PMIC) Market 2023

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Abstracts

The automotive power management integrated circuit (PMIC) market is projected to reach \$7.51 billion by 2029, growing at a CAGR of 7.3% from 2023-2029. This growth is driven by technological advancements and rising demand for advanced driver assistance systems (ADAS). Power management ICs control and regulate electrical power flow, with applications ranging from portable electronics to automobiles. The emergence of connected vehicles and implementation of 5G networks is creating demand for advanced PMICs to manage greater power requirements in cars.

Key factors fueling the automotive PMIC market growth include:

Increasing production of electric vehicles, which require sophisticated power management.

Rising adoption of ADAS, which depends on PMICs for functions like collision detection.

Growing 5G infrastructure, enabling new in-vehicle services and capabilities.

However, the COVID-19 pandemic disrupted automotive supply chains and dampened car production and sales. This created a temporary setback for the automotive PMIC market. Going forward, electric vehicle sales and ADAS adoption will drive robust demand growth. At the same time, thermal design challenges associated with advanced PMICs will need to be addressed.

Market Segmentation

The report analyzes the automotive PMIC market by studying key application segments, input voltage ranges, mounting styles, vehicle types, and regional markets.

Key applications for automotive PMICs covered in the report include: advanced driver assistance systems (ADAS) and safety; battery management systems; body electronics and infotainment systems; powertrain and chassis control systems; telematics; and

other applications.

By input voltage, the market is segmented into PMICs for below 6V, 6V to 32V, and above 32V systems in vehicles.

Based on mounting configuration, the automotive PMIC market is categorized into plated through hole (PTH) and surface mount (SMT) variants.

The market is also segmented by vehicle type, including PMIC applications in passenger cars, light commercial vehicles (LCVs), and heavy commercial vehicles (HCVs).

Major regional markets analyzed include North America, Europe, China, Asia-Pacific & Japan, South America, and the Middle East & Africa.

During the forecast period of 2023-2029, the ADAS and safety segment is projected to dominate the automotive power management IC market. This segment, driven by the growing demand for electric vehicles, holds a significant market share and is expected to witness a 7.7% CAGR. To facilitate EV adoption, developing countries are adopting public charging stations, leading to market growth. OEMs and EV network operators are investing in and deploying DC fast chargers in various locations such as parking facilities, highways, and gas stations. Collaborations with gas stations are being made to expedite the deployment of fast chargers. Notable companies leading in public charging infrastructure plans include IONITY, EVGo, Charge Point, and Tritium. Governments are offering tax rebates and subsidies to companies installing DC fast chargers and to EV customers.

Passenger cars are expected to dominate the automotive power management IC market, while the light commercial vehicle segment is projected to lead during 2023-2029. The increasing demand for battery-operated devices and rapid technological advancements contribute to the surge in power management integrated circuits (PMICs) usage. PMICs optimize power management, protect against faults, and perform control functions in light commercial vehicles. Automotive power management ICs with a power range of 6-32 V are expected to dominate the market, finding high demand in advanced driver assistance systems (ADAS) applications. The surface-mount (SMT) segment is expected to dominate the automotive power management IC market due to the increasing demand for surface mount ICs in vehicles, making it more efficient and cost-effective.

Europe generated the highest revenue of \$1.12 billion in 2022 due to increased sales of electric vehicles. The automotive power management IC market is attractive in Europe due to diverse market segments. Asia-Pacific and Japan are expected to experience significant growth, driven by rising demand for power management IC components. The

market's growth is fueled by numerous manufacturers focusing on meeting the requirements of automotive systems like ADAS.

Competitive Landscape

The automotive power management IC market is shaped by key players implementing strategies such as new product launches, business expansions, partnerships, and collaborations. Power management companies face long production lead times, up to a year, and chip shortages have caused factory shutdowns and halted production. Automotive power management IC manufacturers are increasing production capacity. Texas Instruments is building a new PMIC production facility. Private companies hold 30% market share, while public companies hold 70%. Key companies include Power Clinic Inc., Silergy Corp., Lion Semiconductor, TOREX USA Corp., Rantle East Electronic Trading Co., Limited, Texas Instruments Incorporated, SMIC, Analog Devices Inc., NXP Semiconductors B.V., Onsemi, Infineon Technologies AG, STMicroelectronics, Sanken Electric Co., Ltd., Allegro MicroSystems, Microchip Technology Incorporated, Renesas Electronics Corporation, Cypress Semiconductor Corporation, Qualcomm Technologies, Inc., and Rutronik Elektronische Bauelemente GmbH, Maxim Integrated.

Recent Industry Developments

In June 2022, Renesas Electronics Corporation launched the ISL78083, a PMIC simplifying power supply design for multiple HD camera modules, reducing development cycles, costs, and supply chain risks.

In June 2021, Microchip expanded its dsPIC33C DSCs by introducing the ISO 26262-compliant dsPIC33CK1024MP7xx family in June 2021, targeting the large memory segment. The family enables execution of automotive software and incorporates a high-performance CPU and specialized peripherals for automotive applications.

In April 2021, STMicroelectronics launched a fully integrated PMIC for AMOLED displays in April 2021, offering low quiescent current and enhanced flexibility for extended battery runtime.

Scope of the Report

To analyze and forecast the market size of the global automotive PMIC market.

To classify and forecast the global automotive PMIC market based on application, input voltage, mounting style, vehicle type, Region.

To identify drivers and challenges for the global automotive PMIC market.

To examine competitive developments such as mergers & acquisitions, agreements, collaborations and partnerships, etc., in the global automotive PMIC market.

To identify and analyze the profile of leading players operating in the global automotive PMIC market.

Why Choose This Report

Gain a reliable outlook of the global automotive PMIC market forecasts from 2023 to 2029 across scenarios.

Identify growth segments for investment.

Stay ahead of competitors through company profiles and market data.

The market estimate for ease of analysis across scenarios in Excel format.

Strategy consulting and research support for three months.

Print authentication provided for the single-user license.

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