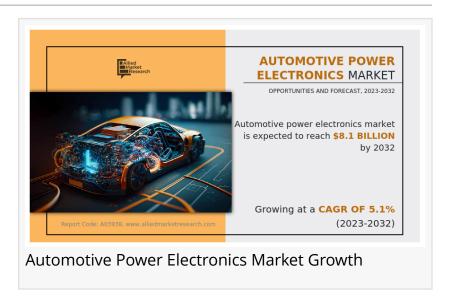


Automotive Power Electronics Market Trend, Growth, Size, Key Players and Competitive Landscape Research Report by 2032

Automotive power electronics became an increasingly important as automotive industry is gradually shifting toward electric and hybrid vehicles.

WILMINGTON, NEW CASTLE, DE, UNITED STATES, November 26, 2024 /EINPresswire.com/ -- According to a new report published by Allied Market Research, titled, "Automotive Power Electronics Market," The automotive power electronics market was valued at \$5 billion in 2022, and is estimated



to reach \$8.1 billion by 2032, growing at a CAGR of 5.1% from 2023 to 2032.

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Automotive power electronics is a part of electrical and electronic systems used in automobiles for controlling, converting, and distributing electrical power supply within a vehicle. Application of power electronic component used in a vehicle ensures effective transfer of electric energy to all the necessary components of an automobile along with ensuring that all the associated components are operating in an efficient manner. In addition, with the introduction of suitable power electronics to be used in vehicles, the demand for smarter & efficient automotive components has increased which has created a wider scope for the growth of the market across the globe. In addition, automotive components such as semiconductors, ICs, safety components & others operate on power electronics which also proves to be a factor supplementing the growth of the automotive power electronics market across the globe.

Power electronics includes the structure, and implementation of numerous electronic components and systems, such as AC/DC converters, inverters, vehicle motors, vehicle battery management systems, and other electrical control units, which finds an increased application of power electronics. The power electronic system used in vehicle helps in optimizing the performance of the vehicle trough proper battery management & consumption along with

ensuring efficient electric propulsion & at the same time maintaining proper vehicle safety.

With the advancement in technology, the global automotive industry has experiences an increased support for developing effective automotive components. This has enabled numerous companies to develop & offer components to be used in automotive industry thus supplementing the growth of the market across the globe. Nations heavily reliant on crude oil imports, which represent a substantial portion of their expenditures, are now observing a remarkable surge in the adoption of electric vehicles. Moreover, electric vehicles utilize electricity as a cleaner energy source, making them an attractive and sustainable transportation solution for countries grappling with both dependence on imported crude oil and the challenges posed by escalating carbon emissions. Owning to the rising demands of electric vehicles, key market players are expanding their business presence to meet these demands. For instance, in February 2023, Infineon Technologies AG announced that it was starting the construction of its new plant in Dresden, Germany. The plant specialized in the manufacturing of analog/mixed-signal technologies and power semiconductors. Furthermore, the plant was to begin production by 2026. This allowed Infineon to strengthen their capabilities and product presence in the automotive power electronics market size.

BorgWarner Inc.
Continental AG
Danfoss A/S
Denso Corporation
Infineon Technologies AG
Mitsubishi Electric Corporation
NXP Semiconductors
ON Semiconductors
Renesas Electronics Corporation
Robert Bosch

Based on device, the power IC segment held the highest market share in 2022, accounting for nearly two-thirds of the global automotive power electronics market revenue, and is estimated to maintain its leadership status throughout the forecast period. The power integrated circuits (ICs) play a vital role in automotive applications since they are used for a variety of power control and management tasks. Power integrated circuits (ICs) are used in the automotive industry to manage motor control, power distribution, and other related tasks. Significant breakthroughs in automotive applications include the use of wide bandgap semiconductors such as gallium nitride and silicon carbide. These materials are better at monitoring and minimizing power losses, changing speeds, and providing greater thermal tolerances. However, the module/discrete

segment is projected to manifest the highest CAGR of 6.3% from 2022 to 2031.

Based on application, the others segment held the highest market share in 2022, accounting for nearly half of the global automotive power electronics market revenue and is estimated to maintain its leadership status throughout the forecast period. Companies operating in the industry have been inclined towards offering an increased product range of automotive power electronic components in vehicles which created a wider scope for the growth of the market across the globe. Developments have been carried out by the key players operating in the industry which creates a wider scope for the growth of the market across the globe. However, the infotainment and telematics segment is projected to manifest the highest CAGR of 6.8% from 2022 to 2031.

Based on drive type, the ICE vehicle segment held the highest market share in 2022, accounting for around two-thirds of the global automotive power electronics market revenue and is estimated to maintain its leadership status throughout the forecast period. Power electronics are used in almost every system in one form or another. Power electronics drives any device that requires an electrical power input, converting one form of electric energy - whether AC or DC - into another. A variety of power systems have been created and developed to meet the voltage, power, and reliability needs of various applications. MOSFETs, for example, are employed in a variety of applications such as switching power supply, power converters, motor control, and voltage regulators. Modern IC engine vehicles often employ electronic fuel injection systems for precise fuel delivery. However, the electric vehicle segment is projected to manifest the highest CAGR of 7.6% from 2022 to 2031.

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https://www.alliedmarketresearch.com/automotive-power-electronics-market/purchase-options

Based on region, North America held the highest market share in terms of revenue in 2022, accounting for more than one-third of the global automotive power electronics market revenue and is estimated to maintain its leadership status throughout the forecast period. The North American region is expected to <a href="https://snar.google.com/snar.googl

market in the North American region. The region is known to be the home for automotive developments. Tesla Inc., a company which primary deals in the design and manufacturing of electric vehicles was founded in this region. It is also home to market players such as BorgWarner Inc., which is on the forefront in acquiring businesses to expand their market presence. However, the LAMEA region is expected to witness the fastest CAGR of 8.1% from 2022 to 2031.

https://www.alliedmarketresearch.com/automotive-transceivers-market - Automotive Transceivers Market Size, Share, Competitive Landscape and Trend Analysis Report, by Protocol, Application and Vehicle Type: Global Opportunity Analysis and Industry Forecast, 2018-2025

https://www.alliedmarketresearch.com/automotive-hypervisor-market-A11740 - Automotive Hypervisor Market Size, Share, Competitive Landscape and Trend Analysis Report, by Vehicle Type, Type, Level of Automation and Vehicle Class: Global Opportunity Analysis and Industry Forecast, 2021-2030

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