

Power Semiconductors in the Global EV Market Report: Trends, Forecast and Competitive Analysis

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Abstracts

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The future of power semiconductors in the global EV market looks promising with opportunities in the hybrid electric vehicle (HEV), plugin hybrid electric vehicle (PHEV), and battery electric vehicle (BEV) markets. The use of power semiconductors in the global EV market is expected to grow with a CAGR of 22%-25% from 2022 to 2027. The major drivers for this market are increasing adoption of electric vehicles, initiatives of governments to reduce environmental pollution and vehicle emission, and development of interest towards the usage of electric vehicles.

A more than 150 page report has been developed to help in your business decisions. Sample figures with some insights are shown below. To learn the scope of, benefits, companies researched and other details of power semiconductor for EV market report, download the report brochure.

The study includes trends and forecast for power semiconductor in the global EV market by device type, application, vehicle type, and region as follows:

By Device Type [\$M shipment analysis for 2016 - 2027]:

SiC Discrete

SiC Power Module

GaN Discrete



GaN Power Module

IGBT Module

IGBT Discrete

SJ MOSFET

LV MOSFET

By Application [\$M shipment analysis for 2016 – 2027]:

On-Board Chargers

DC-DC Converters

Inverters

Others

By Vehicle Type [\$M shipment analysis for 2016 – 2027]:

 HEV

PHEV

BEV

By Region [\$M shipment analysis for 2016 – 2027]:

North America

Europe

Asia Pacific

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The Rest of the World

Some of the power semiconductor companies for EV application profiled in this report include Infineon Technologies, Texas Instrument, STMicroelectronics, NXP semiconductors, ON Semiconductor, Mitsubishi Electric, Robert Bosch, Hitachi Automotive Systems, Denso, and others.

Lucintel forecasts that IGBT module will remain the largest device type segment over the forecast period due to its lower cost than SiC power module.

Inverter will remain the largest application segment due to the higher power level, leading to the increasing number of higher content of power semiconductors.

APAC is expected to grow at the highest CAGR during the forecast period due to growing R&D activities, development in technologies in battery vehicles, and increasing production of electric vehicles in countries, such as India, China, Japan, and South Korea.

Features of Power Semiconductors in the EV Market

Market Size Estimates:Power semiconductors in the EV market size estimation in terms of value (\$M)

Trend And Forecast Analysis:Market trends (2016-2021) and forecast (2022-2027) by various segments and regions.

Segmentation Analysis:Market size by device type, application, and vehicle type.

Regional Analysis: Power semiconductors in the EV market breakdown by North America, Europe, Asia Pacific, and the Rest of the World.

Growth Opportunities: Analysis of growth opportunities in different device types, applications, vehicle types, and regions for power semiconductors in the EV market.

Strategic Analysis: This includes M&A, new product development, and competitive landscape for power semiconductors in the EV market.



Analysis of competitive intensity of the industry based on Porter's Five Forces model.

This report answers following 11 key questions

Q.1 What are some of the most promising potential, high-growth opportunities for power semiconductors in the global EV market by device type (SiC discrete, SiC power module, GaN discrete, GaN power module, IGBT module, IGBT discrete, SJ MOSFET, and LV MOSFET), application (on-board charger, DC-DC converter, inverters, and others), vehicle type (HEV, PHEV, and BEV), and region (North America, Europe, Asia Pacific, and the Rest of the World)?

Q.2 Which segments will grow at a faster pace and why?

Q.3 Which regions will grow at a faster pace and why?

Q.4 What are the key factors affecting market dynamics? What are the drivers and challenges of power semiconductors in the global EV market?

Q.5 What are the business risks and threats to power semiconductors in the global EV market?

Q.6 What are emerging trends in power semiconductors in the global EV market and the reasons behind them?

Q.7 What are some changing demands of customers in power semiconductors in the global EV market?

Q.8 What are the new developments in power semiconductors for the global EV market? Which companies are leading these developments?

Q.9 Who are the major power semiconductor players for EV market? What strategic initiatives are being implemented by key players for business growth?

Q.10 What are some of the competitive products and processes for power semiconductors in the global EV market, and how big of a threat do they pose for loss of market share via material or product substitution?



Q.11 What M&A activities did take place in the last five years for power semiconductors in the global EV market?



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