

Global Intelligent Power Module Market Size Study & Forecast, by Type (IGBT, MOSFET) by Application (Consumer Electronics, Servo Drives, Transportation, Renewable Energy, Others) and Regional Analysis, 2023-2030

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Abstracts

Global Intelligent Power Module Market is valued at approximately USD XX billion in 2022 and is anticipated to grow with a healthy growth rate of more than XX% over the forecast period 2023-2030. An Intelligent Power Module (IPM) is a semiconductor device that integrates several power components such as insulated gate bipolar transistors (IGBTs), diodes, and protection circuitry into a single package. The integration of these components allows for higher power density, improved efficiency, and enhanced functionality in power electronic systems. IPMs are commonly used in various applications where efficient power conversion and control are required, such as motor drives, renewable energy systems, industrial automation, and electric vehicles. Moreover, the rising demand for energy-efficient solutions, increasing adoption of electric and hybrid vehicles, growing renewable energy installations, and expansion of industrial automation and robotics that anticipated to create a lucrative demand for the market during the forecast period 2023-2030.

The increasing adoption of electric and hybrid vehicles worldwide is driving the demand for power electronics solutions such as IPMs for motor control and battery management. IPMs offer compact and efficient power conversion solutions for electric vehicle powertrains, contributing to the growth of the market. According to The International Energy Agency, in 2019, the number of Battery Electric Vehicles (BEV) and Plug-in Hybrid Vehicles (PHEV) sold was 580,000 and 1,500,000, respectively. In 2022, the numbers reached 2,900,000 and 7,300,000, respectively. As a result, the growing demand for EVs is anticipated to propel lucrative opportunities for the market. Moreover,

the advancements in semiconductor technology create a lucrative opportunity for the market. However, the complexity of product manufacturing stifles market growth throughout the forecast period of 2023-2030.

The key regions considered for the Global Intelligent Power Module Market study include Asia Pacific, North America, Europe, Latin America, and Middle East & Africa. North America dominated the market in 2022 owing to the rise in the adoption of electric and hybrid vehicles due to environmental concerns, government incentives, advancements in battery technology, growing industrial automation, rising demand for renewable energy, and expansion of industrial infrastructure. Moreover, the Asia Pacific is expected to grow with the fastest growth rate during the forecast period, owing to factors such as rapid industrialization, increasing demand for energy efficiency, expansion of renewable energy infrastructure, growing automotive sector, and advancements in industrial automation.

Major market players included in this report are:

Renesas Electronics Corporation

Fuji Electric Co. Ltd.

Texas Instruments Incorporated

Infineon Technologies AG

Mitsubishi Electric Corporation

Toshiba Electronic Devices & Storage Corporation

STMicroelectronics N.V.

Microchip Technology Inc.

Silan Semiconductor Manufacturing Group

Rohm Co. Ltd.

Recent Developments in the Market:

In May 2022, Siemens Mobility and Mitsubishi Electric Europe B.V. entered into a collaborative agreement aimed at harnessing SiC intelligent power module (IPM) technology. This partnership seeks to advance efficient and sustainable mobility solutions while promoting energy savings in the transportation sector. The partnership between Siemens Mobility and Mitsubishi Electric Europe B.V. in harnessing SiC intelligent power module technology demonstrates a commitment to advancing efficient and sustainable mobility solutions, which in turn supports the growth of the Commercial Intelligent Power Module Market by expanding its application scope and enhancing its value proposition.

Global Intelligent Power Module Market Report Scope:

Historical Data – 2020 - 2021

Base Year for Estimation – 2022

Forecast period - 2023-2030

Report Coverage - Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Segments Covered – Type, Application, Region

Regional Scope - North America; Europe; Asia Pacific; Latin America; Middle East & Africa

Customization Scope - Free report customization (equivalent to up to 8 analysts' working hours) with purchase. Addition or alteration to country, regional & segment scope*

The objective of the study is to define the market sizes of different segments & countries in recent years and to forecast the values for the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within countries involved in the study.

The report also caters to detailed information about the crucial aspects such as driving factors & challenges that will define the future growth of the market. Additionally, it also

incorporates potential opportunities in micro markets for stakeholders to invest along with a detailed analysis of the competitive landscape and product offerings of key players. The detailed segments and sub-segment of the market are explained below:

By Type:

IGBT

MOSFET

By Application:

Consumer Electronics

Servo Drives

Transportation

Renewable Energy

Others

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

Middle East & Africa

Saudi Arabia

South Africa

Rest of Middle East & Africa

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