

Next-Generation Power Devices Market 2032 Detailed Analysis Focusing on Application, Types and Regional Outlook

The current SiC GaN power semiconductor market forecast is quantitatively analyzed from 2020 to 2028 to benchmark the financial competency.

“

Silicon Carbide (SiC) and Gallium Nitride (GaN) are vital sources to power semiconductor device. One of the major factors accelerating the market growth include increase in demand for renewable energy”

Allied Market Research

WILMINGTON, NEW CASTLE, DE, UNITED STATES, February 18, 2025 /EINPresswire.com/ -- According to a new report published by Allied Market Research, titled, "[Global Power Semiconductor Market 2032](#)" by Material, Product, Application, And Industry Vertical: Global Opportunity Analysis and Industry Forecast, 2021-2030," the global SiC GaN power semiconductor market size was valued at \$0.79 billion in 2020, and is projected to reach \$7.05 billion by 2030, registering a CAGR of 27.1% from 2021 to 2030.

For more information, please contact Allied Market Research & visit :
<https://www.alliedmarketresearch.com/request-sample/A14224>

Power semiconductors are components used to convert energy from one form to another at various stages between the points of energy generation and energy consumption. Traditionally, silicon-based devices have been predominantly used for high-voltage applications, however, new materials such as silicon carbide (SiC) and gallium nitrate (GaN) for power applications are gaining popularity to take advantage of superior material properties. Silicon carbide (SiC) and gallium nitride (GaN) have higher band gap energies than silicon as well as other attributed benefits to power semiconductors devices. The higher band gap energies lead to reduced leakage current and are also favorable for another common power device, the Schottky Barrier Diode. Other advantageous material properties of SiC and GaN over traditional silicon include better heat conduction and lower resistance in bulk structures. These attributes to gain in momentum of the SiC GaN power semiconductor market.

Significant factors that impact growth of the SiC GaN power semiconductor market include increase in demand for power electronics modules across various industry verticals, advantages

of compound semiconductors (SiC) over silicon-based technology, rise in installation of solar photovoltaic panels for electricity generation, decrease in prices of GaN semiconductor, rise in demand for GaN power semiconductor for wireless charging, and increase in requirement of GaN devices for commercial RF applications. However, lack of availability of GaN material, high wafer cost of SiC semiconductors, and complexity in supply chain and designing process of SiC semiconductor technology hampers the SiC GaN power semiconductor market growth. On the contrary, advent of 5G communication, and government initiatives in HVDC and smart grid are expected to offer [lucrative opportunities](#) for the SiC GaN power semiconductor market analysis during the [forecast period](#).

□□□□□□ □□ □□□□□□□□□□ @ <https://www.alliedmarketresearch.com/request-for-customization/A14224>

Region wise, Asia-Pacific holds a significant share in the global SiC GaN power semiconductor market. China dominates the market share in this region, owing to presence of several leading manufacturers in the region. Besides, increasing demand for consumer electronics and rise in infrastructure development have also contributed to the growth of SiC GaN power semiconductor in the region.

□□□ □□□□□□□□ □□ □□□ □□□□□:

In 2020, the SiC segment accounted for maximum revenue and is projected to grow at a notable CAGR of 27.3% during the forecast period.

The power MOSFET and IGBT segments together accounted for more than 25.0% of the SiC GaN power semiconductor market share in 2020.

The automotive segment of the SiC GaN power semiconductor market is projected to grow at a CAGR of 30.5% during the forecast period.

Asia-Pacific contributed major share in the SiC GaN power semiconductor market, accounting for more than 45.0% share in 2020.

The key players profiled in the report include Fujitsu Limited, Infineon Technologies, Maxim Integrated, Microchip Technology, NXP Semiconductors, ON Semiconductor Corporation, Renesas Electronics Corporation, STMicroelectronics, Texas Instruments, and Toshiba Corporation. Market players have adopted various strategies, such as product launch, collaboration & partnership, joint venture, and acquisition to expand their foothold in the SiC GaN power semiconductor market.

□□□□□□ □□□□□□ □□□□□□ : <https://www.alliedmarketresearch.com/purchase-enquiry/A14224>

□□□□□ □□ :

Allied Market Research (AMR) is a full-service market research and business-consulting wing of Allied Analytics LLP based in Wilmington, Delaware. Allied Market Research provides global enterprises as well as medium and small businesses with unmatched quality of "Market Research Reports" and "Business Intelligence Solutions." AMR has a targeted view to provide business insights and consulting to assist its clients to make strategic business decisions and achieve sustainable growth in their respective market domain.

We are in professional corporate relations with various companies, and this helps us in digging out market data that helps us generate accurate research data tables and confirms utmost accuracy in our market forecasting. Each and every data presented in the reports published by us is extracted through primary interviews with top officials from leading companies of domain concerned. Our secondary data procurement methodology includes deep online and offline research and discussion with knowledgeable professionals and analysts in the industry.

□□□□ □□□□ □□□□□□□□ :

<https://pawarrishika08.medium.com/iris-scanners-the-future-of-secure-and-contactless-identification-b872d78a3c4c>

<https://marketresearchreports27.blogspot.com/2024/12/from-photography-to-medicine.html>

<https://www.quora.com/profile/Pawar-Rishika/Advancing-Machine-Control-Systems-with-Industry-4-0-Technologies>

<https://marketresearchreports27.blogspot.com/2025/02/how-is-artificial-intelligence.html>

David Correa

Allied Market Research

+ + 1 800-792-5285

[email us here](#)

Visit us on social media:

[Facebook](#)

[X](#)

[LinkedIn](#)

[YouTube](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/787007360>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

