

Power GaN Market: Global Industry Analysis, Trends, Market Size, and Forecasts up to 2032

Market Report | 2025-05-27 | 300 pages | Infinium Global Research and Consulting Solutions

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Report description:

The report on the global power GaN market provides qualitative and quantitative analysis for the period from 2022-2032. The global power GaN market was valued at USD 323.98 million in 2023 and is expected to reach USD 4793.57 million in 2032, with a CAGR of 35.92% during the forecast period 2024-2032. The study on power GaN market covers the analysis of the leading geographies such as North America, Europe, Asia Pacific, and RoW for the period of 2022-2032.

The report on power GaN market is a comprehensive study and presentation of drivers, restraints, opportunities, demand factors, market size, forecasts, and trends in the global power GaN market over the period of 2022-2032. Moreover, the report is a collective presentation of primary and secondary research findings.

Porter's five forces model in the report provides insights into the competitive rivalry, supplier and buyer positions in the market and opportunities for the new entrants in the global power GaN market over the period of 2022-2032. Further, IGR- Growth Matrix gave in the report brings an insight into the investment areas that existing or new market players can consider.

Report Findings

1) Drivers

- The power GaN market is being significantly influenced by the increasing demand for fast chargers and compact power supplies.
- The power GaN market is impacted by the shift towards energy efficiency, reduced emissions, and lightweight system architectures in the automotive industry.

2) Restraints

- Packaging limitations in the power GaN market hinder the full utilization of gallium nitride devices due to unoptimized packaging technologies.

3) Opportunities

- The increasing use of renewable energy systems presents an opportunity for the power GaN market.

Research Methodology

A) Primary Research

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Our primary research involves extensive interviews and analysis of the opinions provided by the primary respondents. The primary research starts with identifying and approaching the primary respondents, the primary respondents are approached include

1. Key Opinion Leaders associated with Infinium Global Research
2. Internal and External subject matter experts
3. Professionals and participants from the industry

Our primary research respondents typically include

1. Executives working with leading companies in the market under review
2. Product/brand/marketing managers
3. CXO level executives
4. Regional/zonal/ country managers
5. Vice President level executives.

B) Secondary Research

Secondary research involves extensive exploring through the secondary sources of information available in both the public domain and paid sources. At Infinium Global Research, each research study is based on over 500 hours of secondary research accompanied by primary research. The information obtained through the secondary sources is validated through the crosscheck on various data sources.

The secondary sources of the data typically include

1. Company reports and publications
2. Government/institutional publications
3. Trade and associations journals
4. Databases such as WTO, OECD, World Bank, and among others.
5. Websites and publications by research agencies

Segment Covered

The global power GaN market is segmented on the basis of device type, voltage range, application, and end-use industry.

The Global Power GaN Market by Device Type

- Discrete Power Devices
- Power Integrated Circuits (PICs)
- Modules

The Global Power GaN Market by Voltage Range

- <200V
- 200-600V
- >600V

The Global Power GaN Market by Application

- Power Drives
- Radio Frequency (RF) Devices
- Power Supplies
- Lighting and LASERs
- Electric Vehicles (EVs) and Hybrid (EVs)
- Solar PV Inverters
- 5G Base Stations

The Global Power GaN Market by End-use Industry

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- Automotive
- Consumer Electronics
- Industrial
- IT & Telecom
- Military & Aerospace
- Energy & Power

Company Profiles

The companies covered in the report include

- Infineon Technologies AG
- Navitas Semiconductor
- Efficient Power Conversion Corporation
- Texas Instruments Incorporated
- STMicroelectronics NV
- NXP Semiconductors N.V.
- Panasonic Industry Co., Ltd.
- TOSHIBA ELECTRONIC DEVICES & STORAGE CORPORATION
- ROHM Co., Ltd.
- MACOM Technology Solutions, Inc.

What does this Report Deliver?

1. Comprehensive analysis of the global as well as regional markets of the power GaN market.
2. Complete coverage of all the segments in the power GaN market to analyze the trends, developments in the global market and forecast of market size up to 2032.
3. Comprehensive analysis of the companies operating in the global power GaN market. The company profile includes analysis of product portfolio, revenue, SWOT analysis and latest developments of the company.
4. IGR- Growth Matrix presents an analysis of the product segments and geographies that market players should focus to invest, consolidate, expand and/or diversify.

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