

# Global GaN Semiconductor Devices Market Size study, by Device Type (Opto-semiconductors, Power Semiconductors, RF Semiconductors), by Application (Consumer and Enterprises, Industrial, Telecommunications, Automotive, Others), and Regional Forecasts 2021-2027

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## Abstracts

Global GaN Semiconductor Devices Market is valued at approximately USD 18.4 billion in 2020 and is anticipated to grow with a healthy growth rate of more than 5.2% over the forecast period 2021-2027. GaN shines out in RF applications for a variety of reasons, including their strong breakdown field, high saturation velocity, and superior thermal qualities, which have helped them carry signals over long distances or at high-end power levels. Potential use of GaN in 5G infrastructure development is propelling the market growth over the estimated period. The broad availability of 5G infrastructure will enable smart manufacturing, smart cities, autonomous vehicles, and linked transportation. By 2022, roughly 12% of worldwide mobile traffic is predicted to be on 5G cellular connectivity, according to the Cisco Visual Networking Index. 5G wireless base stations must include technologies that are efficient, perform well, and are cost effective. GaN solutions are essential for delivering these qualities. GaN-on-SiC delivers considerable increases in 5G base station efficiency and performance when compared to laterally diffused metal-oxide semiconductor (LDMOS). Furthermore, technological advancements have resulted in the expansion of convertible laptops, ultra HD or 4K television sets, and other wireless gadgets, which has increased demand for RF GaN semiconductor in the consumer electronics market. The semiconductor business directly employs roughly a quarter of a million people in the United States, according to the Semiconductor Industry Association (SIA) and World Semiconductor Trade Statistics, and US semiconductor companies' sales totaled USD 8.05 billion in January

2021. However, higher efficacy of alternative such as Silicon Carbide (SiC) for high-voltage semiconductor applications may impede the market growth over the forecast years.

The regional analysis of the global GaN Semiconductor Devices Market is segmented for the key regions such as North America, Europe, Asia Pacific, Latin America, and Rest of the World (ROW). Asia Pacific is the dominating region across the world in terms of market share due to the rising semiconductor industry in numerous application categories, such as consumer and enterprise, telecommunications, automotive, and industrial, it is gradually displacing silicon counterparts across the region. Whereas North America is also anticipated to exhibit the highest growth rate over the forecast period 2021-2027, due to the propelling defense sector with wider utilization of GaN-based transistors across military applications.

Major market player included in this report are:

GaN Systems  
NXP Semiconductors  
Qorvo Inc.  
Wolfspeed Inc.(A CREE Company)  
Broadcom Inc.  
Efficient Power Conversion  
Fujitsu Semiconductor  
NTT Advanced Technology  
Texas Instruments  
MACOM

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values to the coming eight years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within each of the regions and countries involved in the study. Furthermore, the report also caters the detailed information about the crucial aspects such as driving factors & challenges which will define the future growth of the market. Additionally, the report shall also incorporate available opportunities in micro markets for stakeholders to invest along with the detailed analysis of competitive landscape and product offerings of key players. The detailed segments and sub-segment of the market are explained below:

By Device Type:

Opto-semiconductors  
Power Semiconductors

RF Semiconductors

By Application:

Consumer and Enterprises

Industrial

Telecommunications

Automotive

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

Rest of the World

Furthermore, years considered for the study are as follows:

Historical year – 2017, 2018-19

Base year – 2019-2020

Forecast period – 2021 to 2027.

Target Audience of the Global GaN Semiconductor Devices Market in Market Study:

*Global GaN Semiconductor Devices Market Size study, by Device Type (Opto-semiconductors, Power Semiconductors,...*

Key Consulting Companies & Advisors  
Large, medium-sized, and small enterprises  
Venture capitalists  
Value-Added Resellers (VARs)  
Third-party knowledge providers  
Investment bankers  
Investors

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