

# Compound Semiconductor Market: Trends, Opportunities and Competitive Analysis [2023-2028]

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## Abstracts

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### Compound Semiconductor Market Trends and Forecast

The future of the global compound semiconductor market looks promising with opportunities in general lighting, telecommunication, military, defense and aerospace, automotive, power supply, datacom, consumer display, commercial, and consumer device markets. The global compound semiconductor market is expected to reach an estimated \$98.1 billion by 2028 with a CAGR of 7.0% from 2023 to 2028. The major drivers for this market are increasing demand for SiC devices in power electronics, and growing usage of compound semiconductors in light-emitting diodes (LED) applications, along with rising demand for high-speed and advanced devices in datacom applications.

A more than 150-page report is developed to help in your business decisions. Sample figures with some insights are shown below.

### Compound Semiconductor Market by Segment

The study includes a forecast for the global compound semiconductor market by product, type, deposition technology, application, and region, as follows:

Compound Semiconductor Market by Product [Value (\$B) Shipment Analysis from 2017 to 2028]:

LED

Optoelectronics

RF Devices

Power Electronics

Others

Compound Semiconductor Market by Type [Value (\$B) Shipment Analysis from 2017 to 2028]:

Gallium Nitride (GaN)

Gallium Arsenide (GaAs)

Silicon Carbide (SiC)

Indium Phosphide (InP)

Silicon Germanium (SiGe)

Gallium Phosphide (GaP)

Others

Compound Semiconductor Market by Deposition Technology [Value (\$B) Shipment Analysis from 2017 to 2028]:

Chemical Vapor Deposition (CVD)

Molecular Beam Epitaxy

Hydride Vapor Phase Epitaxy (HVPE)

Ammonothermal

Liquid Phase Epitaxy

Atomic Layer Deposition (ALD)

Others

Compound Semiconductor Market by Application [Value (\$B) Shipment Analysis from 2017 to 2028]:

General Lighting

Telecommunication

Military, Defense, and Aerospace

Automotive

Power Supply

Datacom

Consumer Display

Commercial

Consumer Devices

Others

Compound Semiconductor Market by Region [Value (\$B) Shipment Analysis from 2017 to 2028]:

North America

Europe

Asia Pacific

## The Rest of the World

### List of Compound Semiconductor Companies

Companies in the market compete on the basis of product quality offered. Major players in this market focus on expanding their manufacturing facilities, R&D investments, infrastructural development, and leverage integration opportunities across the value chain. With these strategies compound semiconductor companies cater increasing demand, ensure competitive effectiveness, develop innovative products & technologies, reduce production costs, and expand their customer base. Some of the compound semiconductor companies profiled in this report include.

LM Ericsson

Sumitomo Electric Industries

Taiwan Semiconductor Manufacturing Company

Broadcom

NXP Semiconductors

Skyworks Solutions

Qorvo

IQE PLC

### Compound Semiconductor Market Insights

Lucintel forecast that gallium nitride (GAN) will remain the largest segment over the forecast period due to its ability to deliver improved performance across variety of applications, while requiring lesser physical space and energy as compared to silicon technologies.

Within this market, telecommunication is projected to record the highest growth from 2023 to 2028 due to growing demand of radio frequency semiconductor

device and increasing penetration of semiconductor elements in wireless and mobile communications.

Asia Pacific region is expected to witness the highest growth during the forecast period due to rapid industrialization, increasing demand for consumer electronics and rising adoption of wireless communication technologies in this region.

## Features of the Compound Semiconductor Market

**Market Size Estimates:** Compound semiconductor market size estimation in terms of value (\$B)

**Trend and Forecast Analysis:** Market trends (2017-2022) and forecast (2023-2028) by various segments and regions.

**Segmentation Analysis:** Compound semiconductor market size by various segments, such as by product, type, deposition technology, application, and region

**Regional Analysis:** Compound semiconductor market breakdown by North America, Europe, Asia Pacific, and the Rest of the World.

**Growth Opportunities:** Analysis on growth opportunities in different by product, type, deposition technology, application, and regions for the compound semiconductor market.

**Strategic Analysis:** This includes M&A, new product development, and competitive landscape for the compound semiconductor market.

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

## FAQ

Q1. What is the compound semiconductor market size?

Answer: The global compound semiconductor market is expected to reach an estimated \$98.1 billion by 2028.

Q2. What is the growth forecast for compound semiconductor market?

Answer: The global compound semiconductor market is expected to grow with a CAGR of 7.0% from 2023 to 2028.

Q3. What are the major drivers influencing the growth of the compound semiconductor market?

Answer: The major drivers for this market are increasing demand for SiC devices in power electronics, and growing usage of compound semiconductors in light-emitting diodes (LED) applications, along with rising demand for high-speed and advanced devices in datacom applications.

Q4. What are the major segments for compound semiconductor market?

Answer: The future of the global compound semiconductor market looks promising with opportunities in general lighting, telecommunication, military, defense and aerospace, automotive, power supply, datacom, consumer display, commercial, and consumer device markets.

Q5. Who are the key compound semiconductor companies?

Answer: Some of the key compound semiconductor companies are as follows:

LM Ericsson

Sumitomo Electric Industries

Taiwan Semiconductor Manufacturing Company

Broadcom

NXP Semiconductors

Skyworks Solutions

Qorvo

IQE PLC

Q6. Which compound semiconductor segment will be the largest in future?

Answer: Lucintel forecast that gallium nitride (GAN) will remain the largest segment over the forecast period due to its ability to deliver improved performance across variety of applications, while requiring lesser physical space and energy as compared to silicon technologies.

Q7. In compound semiconductor market, which region is expected to be the largest in next 5 years?

Answer: Asia Pacific region is expected to witness the highest growth during the forecast period due to rapid industrialization, increasing demand for consumer electronics and rising adoption of wireless communication technologies in this region.

Q8. Do we receive customization in this report?

Answer: Yes, Lucintel provides 10% Customization Without any Additional Cost.

This report answers following 11 key questions

Q.1. What are some of the most promising, high-growth opportunities for the compound semiconductor market by deposition technology (chemical vapor deposition (CVD), molecular beam epitaxy, hydride vapor phase epitaxy (HVPE), ammonothermal, liquid phase epitaxy, atomic layer deposition (ALD), and others), type (gallium nitride (GaN), gallium arsenide (GaAs), silicon carbide (SiC), indium phosphide (InP), silicon germanium (SiGe), gallium phosphide (GaP), and others), product (LED, optoelectronics, RF devices, and power electronics), application (general lighting, telecommunication, military, defense, and aerospace, automotive, power supply, datacom, consumer display, commercial, consumer devices, and others), 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 region will grow at a faster pace and why?

Q.4. What are the key factors affecting market dynamics? What are the key challenges and business risks in this market?

- Q.5. What are the business risks and competitive threats in this market?
- Q.6. What are the emerging trends in this market and the reasons behind them?
- Q.7. What are some of the changing demands of customers in the market?
- Q.8. What are the new developments in the market? Which companies are leading these developments?
- Q.9. Who are the major players in this market? What strategic initiatives are key players pursuing for business growth?
- Q.10. What are some of the competing products in this market and how big of a threat do they pose for loss of market share by material or product substitution?
- Q.11. What M&A activity did occur in the last five years and how did they impact the industry?

For any questions related to compound semiconductor market or related to compound semiconductor companies, compound semiconductor market size, compound semiconductor market share, compound semiconductor analysis, write Lucintel analyst at email: [helpdesk@lucintel.com](mailto:helpdesk@lucintel.com) we will be glad to get back to you soon.



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