

## Vertical Cavity Surface Emitting Laser Market Report: Trends, Forecast and Competitive Analysis to 2030

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### **Abstracts**

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Vertical Cavity Surface Emitting Laser Trends and Forecast

The future of the global vertical cavity surface emitting laser market looks promising with opportunities in the telecom, mobile and consumer, automotive, medical, and aerospace and defense sectors. The global vertical cavity surface emitting laser market is expected to reach an estimated \$4.6 billion by 2030 with a CAGR of 13.5% from 2024 to 2030. The major drivers for this market are widespread use of VCSEL as 3D sensor systems, introduction of world-facing time-of-flight (TOF) camera solutions, and growing application of VCSEL in data centers.

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

Vertical Cavity Surface Emitting Laser by Segment

The study includes a forecast for the global vertical cavity surface emitting laser by type, wavelength, application, end use industry, and region

Vertical Cavity Surface Emitting Laser Market by Type [Shipment Analysis by Value from 2018 to 2030]:

Multi-Mode VCSEL

Single-Mode VCSEL

Vertical Cavity Surface Emitting Laser Market Report: Trends, Forecast and Competitive Analysis to 2030



Vertical Cavity Surface Emitting Laser Market by Wavelength [Shipment Analysis by Value from 2018 to 2030]:

Red (650-750 nm)

Near-Infrared (750-1400 nm)

Shortwave-Infrared (1400-3000 nm)

Vertical Cavity Surface Emitting Laser Market by Application [Shipment Analysis by Value from 2018 to 2030]:

Sensing

Data Communication

Industrial Heating

Laser Printing

Lidar

Pulse Oximetry

Others

Vertical Cavity Surface Emitting Laser Market by End Use Industry [Shipment Analysis by Value from 2018 to 2030]:

Telecom

Mobile and Consumer

Automotive



Medical

Aerospace and Defense

Others

Vertical Cavity Surface Emitting Laser Market by Region [Shipment Analysis by Value from 2018 to 2030]:

North America

Europe

Asia Pacific

The Rest of the World

List of Vertical Cavity Surface Emitting Laser 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 vertical cavity surface emitting laser companies cater increasing demand, ensure competitive effectiveness, develop innovative products & technologies, reduce production costs, and expand their customer base. Some of the vertical cavity surface emitting laser companies cater increasing surface emitting laser companies profiled in this report include-

ams AG Broadcom II-VI Incorporated Inneos IQE



Leonardo Electronics

Lumentum Operations

Teledyne FLIR

The TRUMPF

**TT Electronics** 

Vertical Cavity Surface Emitting Laser Market Insights

Lucintel forecast that sensing is expected to witness highest growth over the forecast period due to increasing use of VCSEL in this technology to improve its efficiency and broaden their potential industrial applications.

Mobile and consumer will remain the largest segment due to substantial application of VCSEL in this sector to enable various revolutionary features, such as facial recognition systems, 3D sensing in augmented reality software, and reliable gesture identification, optimizing user experiences and device security.

APAC is expected to witness highest growth over the forecast period due to existence of major semiconductor manufacturing hubs, robust economic growth, and presence of key players in the region.

Features of the Global Vertical Cavity Surface Emitting Laser Market

Market Size Estimates: Vertical cavity surface emitting laser market size estimation in terms of value (\$B).

Trend and Forecast Analysis: Market trends (2018 to 2023) and forecast (2024 to 2030) by various segments and regions.

Segmentation Analysis: Vertical cavity surface emitting laser market size by various segments, such as by type, wavelength, application, end use industry, and region in terms of value (\$B).

Regional Analysis: Vertical cavity surface emitting laser market breakdown by North



America, Europe, Asia Pacific, and Rest of the World.

Growth Opportunities: Analysis of growth opportunities in different types, wavelengths, applications, end use industries, and regions for the vertical cavity surface emitting laser market.

Strategic Analysis: This includes M&A, new product development, and competitive landscape of the vertical cavity surface emitting laser market.

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

FAQ

Q.1 What is the vertical cavity surface emitting laser market size?

Answer: The global vertical cavity surface emitting laser market is expected to reach an estimated \$4.6 billion by 2030.

Q.2 What is the growth forecast for vertical cavity surface emitting laser market?

Answer: The global vertical cavity surface emitting laser market is expected to grow with a CAGR of 13.5% from 2024 to 2030.

Q.3 What are the major drivers influencing the growth of the vertical cavity surface emitting laser market?

Answer: The major drivers for this market are widespread use of VCSEL as 3D sensor systems, introduction of world-facing time-of-flight (TOF) camera solutions, and growing application of VCSEL in data centers.

Q4. What are the major segments for vertical cavity surface emitting laser market?

Answer: The future of the vertical cavity surface emitting laser market looks promising with opportunities in the telecom, mobile and consumer, automotive, medical, and aerospace and defense sectors.

Q5. Who are the key vertical cavity surface emitting laser market companies?

Answer: Some of the key vertical cavity surface emitting laser companies are as follows:



ams AG

Broadcom

II-VI Incorporated

Inneos

IQE

Leonardo Electronics

Lumentum Operations

**Teledyne FLIR** 

The TRUMPF

**TT Electronics** 

Q6. Which vertical cavity surface emitting laser market segment will be the largest in future?

Answer: Lucintel forecast that sensing is expected to witness highest growth over the forecast period due to increasing use of VCSEL in this technology to improve its efficiency and broaden their potential industrial applications.

Q7. In vertical cavity surface emitting laser market, which region is expected to be the largest in next 5 years?

Answer: APAC is expected to witness highest growth over the forecast period due to existence of major semiconductor manufacturing hubs, robust economic growth, and presence of key players in the region.

Q.8 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 vertical cavity surface emitting laser market by type (multi-mode VCSEL and single-mode VCSEL), wavelength (red (650-750 nm), near-infrared (750-1400 nm), and shortwave-infrared (1400-3000 nm)), application (sensing, data communication, industrial heating, laser printing, LiDAR, pulse oximetry, and others), end use industry (telecom, mobile and consumer, automotive, medical, aerospace and defense, 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 has occurred in the last 5 years and what has its impact been on the industry?

For any questions related to vertical cavity surface emitting laser market or related to vertical cavity surface emitting laser companies, vertical cavity surface emitting laser market size, vertical cavity surface emitting laser market share, vertical cavity surface emitting laser market share, vertical cavity surface emitting laser market research,



write Lucintel analyst at email: helpdesk@lucintel.com we will be glad to get back to you soon.



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