

Global VCSEL Market Size study, by Type (Single-Mode, Multimode), by Application (Sensing, Data Communication, Industrial Heating & Laser Printing, Emerging & Other Applications), by End use (Consumer Electronics, Data Center, Automotive, Commercial & Industrial, Healthcare, Military, Other) and Regional Forecasts 2021-2027

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Abstracts

Global VCSEL Market is valued at approximately USD 1.2 billion in 2020 and is anticipated to grow with a healthy growth rate of more than 18.8 % over the forecast period 2021-2027. Vertical Cavity Surface Emitting Laser (VCSEL) is a semiconductor-based laser diode containing a monolithic laser resonator. It holds electro-optical properties that makes it suitable for many end-user industries such as consumer electronics, military automotive, and others. VCSEL also enables modulation of frequencies till a certain value. VCSEL is broadly used for device fabrication as it consumes less power and is proving to be a cost-efficient technology. Growing adaptation of 3D sensing applications in smartphones is also expected to fuel the VCSEL market. For instance, Apple's (US) addition of VCSELs into its smartphones for 3D sensing applications has given a raise in demand for the technology keeping in note the competitors. Moreover several key players are taking strategic initiatives to expand their presence in the market for instance,

- In March 2021, Lumentum announced the launch of five and six junction VCSEL array products for advanced consumer, automotive and other 3D sensing applications.
- In February 2021, II-VI incorporated launched its VCSEL flood illuminator modules for driver and occupancy monitoring systems in vehicles. The VCSEL flood illumination modules integrated VCSEL chips, photodiodes, and diffuser optics to achieve a greater degree of vertical integration and value for customer.

However, limited data transmission rate may impede market growth over the forecast period of 2021-2027. Furthermore, adoption of VCSELs in LiDAR systems for automation applications will provide new opportunities to the market in coming years.

The regional analysis of the global VCSEL Market is considered for the key regions such as Asia Pacific, North America, Europe, Latin America, and Rest of the World (ROW). North America dominates the VCSEL market. Rising adoption of gesture recognition technology is attributable to the dominance of this region in the global VCSEL market. Asia-Pacific on the other hand is forecasted to display the highest CAGR over the forecast period owing to the penetration of mobility and cloud-based deployment services especially by small and medium sized enterprises.

Major market player included in this report are:

Lumentum
II-VI Incorporated
ams.
TRUMPF.
Broadcom.
Vertilite
Coherent
Alight Technologies
Connector Optics
VERTILAS

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 Type:
Single-Mode,
Multimode

By Application:

Sensing

Data Communication

Industrial Heating & Laser Printing

Emerging & Other Applications

By End use:

Consumer Electronics

Data Center

Automotive

Commercial & Industrial

Healthcare

Military

Other

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 VCSELMarket in Market Study:

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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