

FSO & VLC/Li-Fi Market by FSO Component, FSO Application, FSO Vertical, VLC Component (LED, Photodetector, Microcontroller, Software), Transmission Type, VLC Application and Region (Americas, Europe, Asia Pacific and RoW) - Global Forecast to 2028

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Abstracts

The FSO & VLC/Li-Fi market is projected to grow from USD 3.3 billion in 2023 to USD 18.2 billion by 2028, registering a CAGR of 40.3% during the forecast period. Key factors fueling the growth of this market include the alternative solution to overburdened RF technology for outdoor networking, last-mile connectivity, faster and safer data transfer than other challenging technologies, and less energy consumption by LEDs. The demand for Li-Fi technology is increasing across the world to provide secure communications with high data bandwidth, and so on. Various applications such as healthcare, consumer electronics, defense, and commercial create a strong demand for FSO & VLC/Li-Fi market due to efficient industrial operations and thus drive the FSO & VLC/Li-Fi market growth. However, the high price of FSO is hindering the growth of the FSO & VLC/Li-Fi market.

'Market for healthcare and underwater communication applications to grow at higher CAGR during forecast period'

The FSO market for healthcare applications and the VLC market for underwater communication applications are expected to grow with the highest CAGR during the forecast period. FSOs are hugely deployed in healthcare applications where wireless communication through radio waves is not allowed due to potential health hazards. On the other hand, underwater communications rely on acoustic technologies that limit the

speeds to a fraction of terrestrial wireless systems. RF does not work underwater, but visible light can support high-speed data transmission over short distances in this environment. VLC can be a safe alternative to RF communication and serve the purpose of this untapped application area.

'Asia Pacific to witness highest growth among other regions during forecast period'

Asia Pacific is expected to dominate the FSO & VLC/Li-Fi market during the forecast period. The region is projected to account for the largest share of the FSO and VLC by 2025. The FSO and VLC market here is expected to grow at the highest CAGR during the forecast period. Increasing manufacturing facilities, advanced infrastructure, and the growing computer-aided design (CAD) industry are driving the FSO market here. Also, with the recent developments and increased expenditure on VLC-related R&D activities, the Asia Pacific region is expected to be the fastest-growing market for VLC during the forecast period. Similarly, end-user industries such as automotive, aerospace & defense, and consumer electronics are expected to create huge opportunities for VLC or Li-Fi solution providers.

In determining and verifying the market size for several segments and subsegments gathered through secondary research, extensive primary interviews have been conducted with key industry experts in the FSO & VLC/Li-Fi market. The break-up of primary participants for the report is as shown below:

By company type: Tier 1—45 %, Tier 2—30%, and Tier 3—25%

By designation: C-Level Executives—30%, Directors—25%, and Others—45%

By region: North America—45%, Europe—30%, Asia Pacific—25%, and RoW—5%

The report profiles key players in the FSO & VLC/Li-Fi market with their respective market ranking analyses. Prominent players profiled in this report include fSONA Networks Corp. (Canada), Wireless Excellence Limited (UK), Signify Holding (Netherlands), Oledcomm (France), Lucibel (France), pureLiFi Limited (UK), Acuity Brands (US), Panasonic Corporation (Japan), Fraunhofer HHI (Germany), and Trimble Hungary (Hungary), among others.

Research coverage

This research report categorizes the FSO & VLC/Li-Fi market based on component, transmission type, application, vertical, and region. The report describes the major drivers, restraints, challenges, and opportunities pertaining to the FSO & VLC/Li-Fi market and forecasts the same till 2028. The report also consists of leadership mapping and analysis of companies in the FSO & VLC/Li-Fi ecosystem.

Key benefits of buying report

The report will help market leaders/new entrants with information on the closest approximations of the revenue numbers for the FSO & VLC/Li-Fi market and the subsegments. This report will help stakeholders understand the competitive landscape and gain more insights to better position their businesses and plan suitable go-to-market strategies. The report also helps stakeholders understand the market's pulse and provides information on key market drivers, restraints, challenges, and opportunities.

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