Optical Transceiver Market by Form Factor (SFF and SFP; SFP+ and SFP28; XFP; CXP), Data Rate, Wavelength, Fiber Type (Single-mode Fiber; Multimode Fiber), Connector (LC; SC; MPO; and RJ-45), Protocol, Application and Region - Global Forecast to 2029

Market Report | 2024-03-26 | 344 pages | MarketsandMarkets

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Report description:

The optical transceiver market is valued at USD 13.6 billion in 2024 and is expected to reach USD 25.0 billion by 2029, growing at a CAGR of 13.0% from 2024 to 2029. Factors such as rising demand for compact and energy-efficient transceivers, and growing importance of mega data centers are likely to drive market growth during the forecast period. Organizations are demanding faster data transmission speeds due to the growing importance of mega data centers, resulting in the growth of optical transceivers.
"FTTx protocol segment to grow at the fastest CAGR during the forecast period."
The FTTx protocol facilitates the delivery of high-speed internet, video, and voice services over fiber optic networks, offering superior performance and reliability compared to traditional copper-based networks. As governments and service providers worldwide invest in expanding fiber optic infrastructures to meet the growing demand for faster internet speeds, the FTTx optical transceiver market will experience steady growth.
"850 nm wavelength segment to dominates the market during the forecast period."
850 nm transceivers support data rates ranging from 1 GbE to 100 GbE and beyond, making them essential for high-speed data transmission over short distances. This wavelength is particularly suited for data center interconnects, with relatively short distances between servers and switches. The 850 nm band is used for optical transceivers operating on multimode fibers. This market benefits from the affordability and versatility of multimode fiber optics. Multimode fibers offer cost-effective solutions for short-range applications, making them the preferred choice for many data centers and enterprise networks. 850 nm transceivers leverage the advantages of multimode fibers. providing reliable and high-speed connectivity.
"North America to dominate the optical transceiver market."

North America is one of the largest markets for optical transceivers, with a growing demand in various sectors, such as data center applications, telecommunications, consumer electronics (laptops, desktops, and smart televisions), internet connectivity, and enterprise applications. The demand for high data transfer rates; the increasing demand for communication devices like smartphones, tablets, and computers with 5G network connectivity; the growing market for smart devices (such as wearable devices, home assistants, IoT-based home security systems, and gaming consoles); the rise of several OTT platforms (such as Netflix and Amazon Prime); and the growing applicability of data centers are driving the growth of the optical transceiver market in North America.

The breakup of primaries conducted during the study is depicted below:
-By Company Type: Tier 1 - 55 %, Tier 2 - 25%, and Tier 3 -20%
-By Designation Directors - 50%, Managers - 30%, and Others - 20%
-By Region: North America- 40%, Europe - 35%, Asia Pacific - 20%, RoW - 5%
Research Coverage
The report segments the optical transceiver market and forecasts its size, by value and volume, based on Form Factor (SFF and SFP; SFP+, and SFP28; QSFP, QSFP+, QSFP-DD, QSFP28, and QSFP56; CFP, CFP2, CFP4, and CFP8; XFP; and CXP); Data Rate (Less Than 10 Gbps; 10 Gbps to 40 Gbps; 41 Gbps to 100 Gbps; and More Than 100 Gbps); Wavelength (850 nm Band; 1310 nm Band; 1550 nm Band; and Other Wavelengths (C-Band DWDM Fixed and C-Band DWDM Tunable)); Fiber Type(Single-mode fiber; and Multimode fiber); Connector (LC; SC; MPO; and RJ-45); Distance (Less than 1 Km; 1 Km to 10 Km; 11 Km to 100 Km; and More Than 100 Km); Protocol (Ethernet; Fiber Channels; CWDM/DWDM; FTTx; Other Protocols); Application (Telecommunication; Data Center; and Enterprise); and Region (North America; Europe; Asia Pacific; and RoW). The report also provides a comprehensive review of market drivers, restraints, opportunities, and challenges in the optical transceiver market. The report also covers qualitative aspects in addition to the quantitative aspects of these markets.

Reason to Buy Report
The report will help the market leaders/new entrants with information on the closest approximations of the revenue numbers for the overall optical transceiver market and the subsegments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. The report also helps stakeholders understand the market pulse and provides information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:
-Analysis of key drivers (increasing adoption of smart devices and rise in data traffic, growing demand for cloud-based services, rising demand for compact and energy-efficient transceivers, growing importance of mega data centers, and emerging focus on 5G networks), restraints (Increasing network complexity, and high cost of optical transceivers), opportunities (Advancements in optical technology, and expansion of telecom infrastructure in developing economies), and challenges (Changing customer demands for portable devices and better speeds, and minimizing power consumption)

-Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product launches in the optical transceiver market.

-Market Development: Comprehensive information about lucrative markets - the report analyses the optical transceiver market across varied regions.

-Market Diversification: Exhaustive information about new services, untapped geographies, recent developments, and investments in the optical transceiver market

-Competitive Assessment: In-depth assessment of market shares, growth strategies, and service offerings of leading players Coherent Corp. (US), INNOLIGHT (China), Accelink Technology Co. Ltd. (China), Cisco Systems, Inc. (US), and Hisense Broadband, Inc. (China) among others in the optical transceiver market

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