

Optical Module Forecast for 2021



Overview

Optical Communication Market forecast – April 2021
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Key Takeaways

The optical module market in 2021 experienced strong growth, driven by datacom demand, with total optical component revenue reaching \$14.5 billion and datacom modules alone growing 27% to \$4.7 billion. Market Overview

In 2021, the optical module market saw significant expansion, primarily fueled by hyperscale datacenter investments and the transition to higher-speed networks . Datacom optical components, including 400GbE modules, experienced record shipment levels, as cloud operators and enterprise customers upgraded from 100G to 400G speeds . Overall, optical component revenue across telecom, datacom, consumer, and industrial segments grew 15% to \$14.5 billion .

Technological Trends

- 25G/50G/100G/200G/400G Modules: The market shifted toward higher-speed modules, with 25G Ethernet becoming a cost-effective alternative to 10G, and 40G modules gradually declining in demand .
- 400GbE Adoption: 400G modules, including SR4, DR4, FR4, and LR4 interfaces, became increasingly popular, with 400ZR modules shipping despite supply limitations .
- 800G Modules: Emerging 800G modules leveraged 100G single-wavelength optics, with QSFP-DD and OSFP form factors enabling cost-effective implementation .

- Co-Packaged Optics (CPO): CPO technology began gaining attention as a solution to power and thermal challenges in high-speed pluggable optics, integrating optics closer to switch ASICs .

Market Drivers

- Datacenter Expansion: Cloud operators' capital expenditure drove the largest growth in datacom optical components, outpacing telecom, consumer, and industrial segments .

- 5G and Big Data: The acceleration of 5G networks and cloud computing increased demand for high-speed optical modules .

- China's Market Influence: Chinese manufacturers played a growing role in the global supply chain, with geopolitical factors affecting trade and technology adoption .

Segment Performance

- Datacom: Revenue grew 27% to \$4.7 billion, with 400GbE modules doubling in shipments .

- Telecom: Growth was limited by supply chain constraints but is forecasted to increase over 8% in 2022 .

- Consumer and Industrial: Consumer 3D sensing components remained flat, while industrial applications, such as welding and medical optics, grew 18% .

Key Takeaways

The 2021 optical module market was characterized by rapid adoption of higher-speed modules, strong datacom growth, and emerging technologies like CPO and 800G modules. Supply chain challenges and geopolitical factors influenced telecom and global manufacturing, but overall, the market demonstrated robust expansion and set the stage for continued growth in 2022 and beyond .

Article Content

Optical Module Market Size Analysis And Forecast to 2021

25G Optical Module Maturity Development40G Optical Modules Are Gaining Momentum100g Optical Modules Will Rise Soon400G Optical Modules Are The Mainstream of Next-Generation Data CentreFor data centres, 10G Ethernet is no longer sufficient to meet demand, so 40G Ethernet has emerged to alleviate network traffic bottlenecks. As the price of 40G optical modules has come down in recent years, some users have taken to deploying 40G Ethernet at the access and aggregation layers, as well as on the backbone of spine lobe architectures. ...See more on hilinktech QY Research

United States Data Center Optical Module Market Report & Forecast

As the core device to achieve photoelectric conversion, the Optical transceiver module is widely used in the data center.

OPTICAL TRANSCEIVERS FOR DATACOM & TELECOM

This growth is driven by high volume adoption of high data rate modules above 100G by big cloud service operators and national

LightCounting :: October 2021 Market Forecast

This report provides a detailed market demand forecast through 2026 for optical components and modules used in Ethernet, Fibre

Global Telecom Optical Module Market 2021 by Manufacturers,

Chapter 2, to profile the top manufacturers of Telecom Optical Module, with price, sales, revenue and global market share of

Global Data Center Optical Module Market 2021: By Key Players,

The Global data center optical module market is estimated to grow at a significant CAGR during the forecast period (2021-2027).

Optical component revenues hit US\$4.7B in 2021 – report

Cloud operator capex for hyperscale datacenter expansion drove datacom optical component revenue growth by 27%

Optical transceivers: co-packaged optics and Chinese players are ...

Many cloud providers and telecom operators are now looking to 800Gbps optical ecosystem to increase bandwidth capacity and

Optical Modules Market

Furthermore, the study assesses and compares all of the top players in the global optical modules market based on several

Active Optical Module Market Research Report 2034

Active Optical Module Market Outlook 2025-2034 The global active optical module market is valued at \$10.7 billion in 2025 and is

Optical Module Chip Market 2025

Optical Module Chip Market size was valued at US\$ 823 million in 2024 and is projected to reach US\$ 1.52 billion by 2032, at a

Global Optical Transceiver Modules Market Size, Growth Trends ...

Optical Transceiver Modules Market size is estimated to be USD 4.5 Billion in 2024 and is expected to reach USD

Optical Transceiver Market Size, Share and Report, 2030

Optical transceiver market is projected to reach \$27.25 billion by 2030, registering a CAGR of 15.1% during the forecast period 2021

Optical Module Package Market 2025

MARKET INSIGHTS The global Optical Module Package Market was valued at 8942 million in 2024 and is projected to reach US\$

06-Wilkinson

Datacom Optics Revenue Continues to Grow while \$/G Drops Module revenue growth slows, but continues to increase

Analysis and Forecast of the Optical Module Market in 2026

It is expected that LPO modules will become an important growth pole in the optical module market by 2026. CPO technology:

Coherent Optical Module Market Size | Trends & Forecast 2035

The Coherent Optical Module Market Size was valued at 5.72 USD Billion in 2024. The Coherent Optical Module Market is expected

Global 100G Optical Module Market Size, Industry Share, Growth

Delve into detailed insights on the 100G Optical Module Market, forecasted to expand from USD 3.2 billion in 2024 to USD 8.5 billion

Optical Modules Market Analysis 2026

Optical Modules Market Type Segment Analysis According to Cognitive Market Research, Optical Receiver Modules are likely to

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

