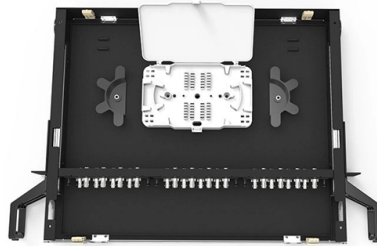


# Will the supply of optical modules be cut off



## Overview

To move the massive amounts of data required for AI training and inferencing, hyperscalers and other data center operators need increased access to optical transceivers capable of rates of 800 gigabits per second (Gbps) or even 1.6 terabits (Tbps) per second and higher. But these. The current demand is exceeding supply by 30%, but the shortages should be going away by the end of 2026. How can players boost supply and seize growth opportunities, especially in high-bandwidth transceivers?

Networking optics are mission-critical components in advancing AI and data center infrastructure. Data centers accounted for 45% of global optical module revenue in 2022, driven by rising cloud computing and AI workloads. The automotive industry's demand for optical. Optical Module and DCI by Application (Communication Service Provider, Internet Content and Carrier Neutral Provider, Government/Research and Education, Other), by Types (Optical Transport Network, Data Center Core Network, WAN), by North America (United States, Canada, Mexico), by South America. The Optical Modules Market encompasses the design, manufacturing, and deployment of compact, high-performance devices that facilitate the transmission and reception of optical signals over fiber optic networks. These modules serve as critical interfaces between optical fibers and electronic. 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 CAGR of 8.

## Article Content

The need for current sensing in optical modules for 100G and beyond

Industry pundits have recently speculated that demand for 100G/400G switches may take off in 2019, prompting optical transceiver module vendors to sample data center switches with high data

Optical Module Chip Market 2025

The optical module chip market faces significant headwinds from global supply chain disruptions. The highly specialized semiconductor manufacturing process for optical components creates bottlenecks,

What will be hot in 2024: Optical innovation as an

However, I predict that optical innovation will be the skeleton key to telecom's economic struggles, helping us unlock our networks' full potential while

The Rise of Co-Packaged Optics: A Deep Dive into CPO

A CPO optical module integrates optical and electronic components to boost data center speed, efficiency, and bandwidth while reducing power use.

LightCounting :: Demand for optical connectivity continues to surprise

The current demand is exceeding supply by 30%, but the shortages should be going away by the end of 2026. Production of GPUs and other types of accelerators (XPU's) is a more critical bottleneck for the

U.S. Fiber Optic Shortage Threatens National Security and Broadband ...

The U.S. faces a real challenge in expanding digital connectivity. Right now, it produces only about 53% of the optical fiber it uses. With tariffs driving up the cost of imported fiber optic

Data center networking optics supply shortages | McKinsey

Networking optics are mission critical to advance AI and data center infrastructure and are facing imminent supply shortages.

2025 Optical Module Market Share and Demand Report

The 2025 optical communication industry is driven by AI data centers (AIDCs) and 5G rollouts, with high-speed optical modules (400G/800G/1.6T)

Chip shortage: how the semiconductor industry is

Chip shortage - less supply, more demand A confluence of problems led to the semiconductor shortage. In addition to long-standing issues within the

Optical Modules Market Size, Trends & Forecast 2025-2035 | Core

Discover Optical Modules Market trends, growth analysis, key segments, and regional insights. Forecast 2025-2035. Explore industry opportunities now!

McKinsey Direct Opportunities in networking optics: Boosting supply

Opportunities in networking optics: Boosting supply for data centers Potential shortfalls in networking optics supply could hinder data center and AI expansion. How can players boost supply and seize

Impact of Active Electrical Cables (AEC) on Optical

Limited Impact on Optical Modules The connections within the cabinet are not long-distance, so this is not the primary battlefield for optical modules;

in the Current Fiber Broadband Supply Chain UPDATE

However, the pandemic also had negative impacts on the operation of the global supply chain, restricting access to and raising costs for all facets of a fiber broadband build. Raw materials, finished

Supply chain ghosts haunt North America's optical

Previous supply chain issues are still casting a shadow over North America's optical transport market. A new report from Dell'Oro showed that the

How AI Revolutionizes the Optical Module Industry

AI-driven demand fuels global optical module industry growth, with Chinese firms leading innovation and market share expansion.

Demand for Datacom Optical Modules Reaches Record

Spending on Datacom optical components was up more than 90% YoY as AI applications of 400GbE and 800GbE optical modules for AI

Optical Module Industry Statistics 2026

Supply chain disruptions in 2022 caused a 15% delay in delivering high-speed optical modules to data center clients, primarily due to semiconductor shortages. Global R&D spending in

Optical Module Package Market 2025

The optical module industry faces persistent supply chain challenges, particularly for specialized components like high-performance laser diodes and photodetectors.

Comprehensive Overview of Optical Module and DCI Trends: 2026-2034

Initial capital outlay for advanced optical technologies and potential supply chain vulnerabilities present ongoing challenges. The long-term outlook for the optical module and DCI

Optical Module Market Size, Competitors & Forecast to

Long-term advantage in the optical module market depends on integrating technical innovation with validation discipline and resilient, adaptable supply models.

### Optics in the Age of AI: A Market Update

Conclusions AI is driving unprecedented growth optics shipments and revenue Growth is across all speeds, but mostly in 800GbE right now 1.6T can't come fast enough Bandwidth and

### Global AI Optical Transceiver Market to Reach US\$26 Billion in 2026 ...

TrendForce's latest research indicates that the global market for AI-focused optical transceivers has entered a phase of rapid growth, with market size projected to expand from

### 800G Optical Modules Drive Market Recovery in 2025

800G modules drive optical market recovery in Q2 2025, with initial 1.6T shipments. This article highlights key trends in data center optics and AI

### Optical Modules Market Size, Future Growth and Forecast 2033

The global optical modules market is projected to reach a valuation of USD 15.8 billion by 2033, growing at a compound annual growth rate (CAGR) of 7.5% from 2025 to 2033.

### Optical Modules Market Size, Growth Trends & Forecast

Emerging innovations, including silicon photonics, integrated photonic chips, and coherent optics, are transforming the landscape of optical modules.

### Optical Modules Market Research Report 2034

The global optical modules market exhibited a moderately fragmented competitive structure in 2025, characterized by the presence of a small number of large

### Illuminating the Future: What 2024 will bring for optical

Expanding the optical highway - adding fiber capacity in the era of Shannon Another significant trend in 2024 is a shift in direction for increasing fiber capacity.

### How and When the Chip Shortage Will End, in 4 Charts

The supply relief will not be coming from the big, national investments in the works right now by South Korea, the United States, and Europe but from

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