

Global demand for optical modules declines



AI Overview

Demand for optical modules has experienced fluctuations, with recent declines due to supply chain constraints and inventory adjustments, but AI and cloud growth are expected to drive recovery and long-term expansion. Recent Decline in Demand The optical module market saw a decline starting in the second half of 2022, primarily due to oversupply and inventory buildup in the supply chain, which led to reduced orders from data centers and cloud providers. Performance declines were reported by leading manufacturers, reflecting a temporary downturn in the market.

Additionally, capacity bottlenecks in critical components, such as electro-absorption modulated lasers (EMLs), limited production and contributed to short-term demand suppression. Supply Chain and Market Dynamics Several factors have influenced the demand trajectory:

GPU and AI hardware dependencies: Optical module demand is closely tied to AI cluster deployments. Shortages or delays in GPUs and high-power infrastructure can constrain purchases of high-speed modules like 800G and 1.6T.

Inventory adjustments: Early surges in orders during shortages led to double ordering, which later normalized as supply increased, temporarily reducing demand.

Regional and geopolitical factors: North America leads in high-speed module shipments, while Asia-Pacific is growing rapidly. Tariffs and factory relocations have added uncertainty to supply and demand forecasts.

AI and Cloud-Driven Recovery Despite short-term declines, AI and cloud investments are driving renewed demand: Hyperscale data centers in North America are expanding GPU and AI server deployments, boosting procurement of 400G, 800G, and AOC optical modules.

Forecasts suggest global optical module shipments will grow at a 16% CAGR over the next five years, with AI-related applications supporting high-speed transceiver dem...

Article Content

Report: In 2029, 800G Optical Modules Will Occupy

A recent report released by McKinsey, an internationally renowned research organization, pointed out that the supply chain bottleneck of optical transceivers is a Trillion

The most fundamental variable is the pace of global AI data center construction. The demand for optoelectronic modules mainly comes from the expansion of computing power clusters

Optical Module Market Size, Competitors & Forecast to

The optical module market is navigating transformative shifts in technology, procurement, and network architecture, positioning itself at the heart of evolving

Annual Global IC Fabs And Facilities Report

Companies and governments invested heavily in onshoring fabs and facilities over the past 12 months as tariffs threatened to upset the global supply

GCS Targets 2026 Surge in 200G Optical Components as AI-Fueled Demand ...

Driven by AI workloads, global data traffic is expanding rapidly. Compound semiconductor firm said the optical module market remains undersupplied, with cloud service providers (CSPs) accelerating

Understanding Optics Module Trends and Growth

The global Optics Module market is projected to reach USD 42 billion by 2033, exhibiting a compound annual growth rate (CAGR) of 12%. This

Global Optics Module Market Size, Share, Trends & Forecast 2026-2034

As the demand for faster, more reliable optical communication and sensing solutions escalates, the market's evolution reflects a convergence of technological innovation, regulatory

Taiwan's Largan Precision Declines to Increase iPhone Lens Orders,

As the demands for network bandwidth and energy efficiency for large language model (LLM) training and inference grow exponentially, traditional pluggable optical modules are

Prismark Discovery

2024 PCB Market Overview Despite the headwinds, the global PCB market grew by 5.8% in 2024. The HDI segment was a standout, expanding by 18.8% on robust demand from AI servers, optical

Optical Transceiver Market Size, Share, Industry Report

Optical Transceiver Market Size The global optical transceiver market was valued at USD 13.4 billion in 2025. The market is expected to grow from USD 15.4 billion in

Global AI Optical Transceiver Market to Reach US\$26

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

Optical Module Industry Statistics 2026

Data centers will keep dominating optical module demand as AI and cloud drive revenue growth through 2030. Optical module demand is being

2025 Optical Module Market Share and Demand Report

Overview of the optical communication module market demand and supply chain, and production capacity in various regions in 2025

2025 Optical Module Market Share and Demand Report

Market Scale & Demand Reality Global AIDC CAPEX is projected at \$400-480 billion in 2025, with optical modules accounting for 3% of total costs,

LightCounting :: Demand for optical connectivity in AI clusters propels ...

All other suppliers of optical components and modules (tracked by LightCounting) reported declines in revenues for 2023 and none of them are working with Nvidia, at least not yet.

Data Center Optical Transceiver Market Size, Share, Trends

The global data center optical transceiver market was valued at USD 9.2 billion in 2025 and is projected to reach USD 21.3 billion by 2032, advancing at a compound annual growth rate (CAGR) of 12.9%

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 projected to expand to \$35.6

Overview of 400G Optical Modules

The demand for Ethernet standardization and optical parallelization will significantly promote the development of photonic integration technologies.

Optical Transceiver Market Size, Growth Drivers

Optical Transceiver Market Analysis by Mordor Intelligence The optical transceiver market size reached USD 15.42 billion in 2026 and is

Deep Dive: Optical Module Market

Today, I'm excited to share an in-depth analysis of the global optical module market, an industry I find particularly compelling due to its critical role in data center networks for the

Optical Module Chip Market 2025

This market research report provides a comprehensive analysis of the global and regional Optical Module Chip markets, covering the forecast period 2025–2032. It offers detailed insights into market

Optical Modules

This report aims to provide a comprehensive presentation of the global market for Optical Modules, focusing on the total sales volume, sales

Optical Modules

The global market for Optical Modules was estimated to be worth US\$ 17590 million in 2024 and is forecast to a readjusted size of US\$ 56786

Optical Modules Market Research Report 2034

Optical module demand is reshaping faster than most forecasts, with 2026 growth pointing to a clear change in where capacity is being built and what

TVS (Transient Voltage Suppressor) diodes Market Latest Analysis ...

TVS (Transient Voltage Suppressor) Diodes Market Production Expands with Automotive Electronics, High-Speed Interfaces, and Industrial Power Protection Demand Global output of TVS (Transient

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