

Optical Module Crisis



Overview

A Guosheng Securities report forecasts a "winner-take-all" consolidation in the optical communication sector despite an AI-driven boom. 6T modules is creating critical supply shortages in EML chips, DSPs from Broadcom and Marvell, and foundry capacity. A hyperscale network operator recently discovered that 12% of their 400G DR4 modules—all from an AVL-approved supplier—failed within 90 days of deployment. Accelerated 1-2 year technology. Has the crisis of optical module giant Coherent been resolved?

Recently, the financial report for the second quarter of 2026 released by Coherent, a giant in optical modules, has attracted market attention. In this Opinion Series, Yole Group explores how the optical transceiver ecosystem is evolving under the combined pressures of. Demand for optical connectivity remains strong, but component shortages hobbled growth in sales of optical transceivers in Q4 2024. The first half of 2025 will be impacted as well. An EML is a specialized, high-speed light source used in fiber optic.



Article Content

Supply Chain Resilience for Optical Modules: Failure Analysis

Every optical module datasheet specifies a maximum case temperature (Tc) – typically 70°C for commercial grade, 85°C for industrial. Yet modules routinely fail at 65°C in production. The

LightCounting :: Scale-up networks in AI Clusters is a

A surge in AI development created a new wave in demand for optical connectivity in 2023-2025 and it will sustain the market's growth through 2030. The Figure

Google's High-Speed Interconnect Architecture to Push

Google's next-generation TPU, Ironwood, integrates a 3D Torus network topology with the Apollo optical circuit switch (OCS) all-optical network,

Has the crisis of optical module giant Coherent been resolved?

Currently, the optical module industry is experiencing a competitive landscape characterized by "concentration at the top and the rise of newcomers". This includes not only the

Co-Packaged Optics (CPO) Market Trends 2026: AI Data Center Optical ...

Explore the future of co-packaged optics (CPO) in AI data centers. Learn how silicon photonics, optical I/O, and high-speed optical interconnect technologies are shaping next-generation

LightCounting :: Component shortages limit growth in transceiver sales

Demand for optical connectivity remains strong, but component shortages hobbled growth in sales of optical transceivers in Q4 2024. The first half of 2025 will be impacted as well.

SFP+ Optical Transceiver Modules (10G-SR/LR)

Amphenol SFP Optical Modules • SFP+ Optical Modules from Cables on Demand are Now Available in both Short Range (SR) Multimode and Long Range (LR)

Co-Packaged Optics (CPO)Co-Packaged Optics (CPO)

Traditional pluggable optical modules are increasingly constrained by signal loss, power consumption, and latency because they require long electrical traces

The Evolution of Optical Modules: Powering the Future

Enter optical modules, which leverage the power of light to transmit data efficiently over long distances, driving the next generation of technological

ITPro Today, Network Computing, IoT World Today combine

ITPro Today, Network Computing and IoT World Today have combined with TechTarget . The page you are looking for may no longer exist.

400G Optical Modules Explained: SR4 Vs. DR4 Vs.

Key differences between SR4, DR4, FR4, and LR4 400G optical modules. Expert advice from Asterfusion engineers to optimize your data center

Optical Modules Market Size, Growth Trends

Access detailed insights on the Optical Modules Market, forecasted to rise from USD 3.5 billion in 2024 to USD 8.2 billion by 2033, at a CAGR of

Optical Component Revenue Reaches Nearly \$25B in 2025

BOSTON (January 7, 2026) – AI-driven datacenter and transport builds will push the optical components market revenue to a record high in 2025, with datacom revenue forecast to exceed \$18 billion and

* Worldwide solar modules crisis ⚠ between overproduction and ...

Worldwide solar module crisis – between overproduction and innovation – challenges for the solar industry Online contact (Konrad Wolfenstein) Language selection ☐☐
Published on: February

Tower Semiconductor Teams with NVIDIA to Advance

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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 design resources | TI

View the TI Optical module block diagram, product recommendations, reference designs and start designing.

Nvidia's aggressive laser procurement spurs supply chain fears

TrendForce reports that Nvidia has purchased EMLs for its own machinations to such an extent that rival optical module makers could face wait times for components beyond 2027, in what

Optical stocks face 4 hurdles in AI-driven boom

A Guosheng Securities report details 4 "growing pains" for the optical communication sector, including supply chain shortages and technology risks, forecasting a winner-take-all market.

Optical Transceiver Supply Chain Risk: A Growing Network Risk for ...

In modern telecom infrastructure, optical transceivers play a critical role in network performance and reliability. Yet, they are still often treated as commodity components, sourced

South Korea's LetinAR raises \$18.5M to build the optics behind next ...

South Korean optics startup LetinAR raised \$18.5 million from investors including Korea Development Bank and Lotte Ventures, bringing total funding to \$41.7M and securing LG backing to

AI Data Centers Ignite a Laser Shortage Wave; Nvidia's Strategic

Optical module manufacturers and CSPs are now actively searching for secondary suppliers and alternative designs, changing the competitive landscape within the laser industry.

800GbE optics shipments to grow 60% in 2025 – report

The datacom optical component market will grow 60%+ to reach over US\$16 billion in revenue during 2025, based primarily on continued growth in

Co-Packaged Optics (CPO) Market Size to Hit USD

The global co-packaged optics (CPO) market size is evaluated at USD 95.04 million in 2025 and is predicted to hit around USD 1,055.11 million by

Opinion: optical transceivers at the chokepoint of AI growth and supply ...

As AI infrastructure accelerates at an unprecedented pace, optical connectivity has become one of the defining enablers and constraints of next-generation data centers. In this Opinion

Over 20 Million 400G & 800G Datacom Optical Module

BOSTON (January 7, 2025) – Total shipments of leading-edge datacom optical modules are projected to tally over \$9 billion for 2024, according to the latest

Optical Module Market Size, Competitors & Forecast to

The Optical Module Market, valued at USD 30.01B in 2026, is projected to reach USD 66.94B by 2032, growing at a 14.1% CAGR.

Contact Us

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