Why are optical modules out of stock

AI Overview

High-speed 800G and 1.6T optical modules are currently in limited supply, with 1.6T modules particularly constrained due to upstream component shortages.Modules in Short SupplyThe optical module market is experiencing critical shortages in 1.6T modules, which are entering low-volume shipments and are constrained by limited production capacity and supply chain bottlenecks for key components such as EML chips, DSPs from Broadcom and Marvell, and foundry capacity . While 800G modules are in mass deployment, their supply is also tight due to surging demand from AI data centers and hyperscale cloud providers .Causes of ShortagesAI Infrastructure Demand: Generative AI clusters require significantly more fiber transceivers per GPU, driving exponential demand for high-speed optical modules .Upstream Component Constraints: Shortages of EML chips, DSPs, and silicon photonic components are limiting production of 1.6T modules .Transition to Next-Gen Technology: The shift from 400G to 800G and 1.6T modules is accelerating, creating temporary supply gaps as manufacturers scale production .Co-Packaged Optics (CPO) Adoption: New architectures like Nvidia's CPO roadmap are increasing demand for integrated 1.6T silicon photonics engines, further straining supply .Market Impact400G modules are expected to decline in shipment volume as hyperscalers upgrade to 800G and 1.6T solutions .1.6T modules remain in initial production, with shipments below one million units in 2025, making them the most constrained segment .Companies with strong vertical integration, such as Coherent and Lumentum, are better positioned to meet demand, while smaller firms face existential risks due to supply chain limitations .Recommendations for BuyersPlan orders well in advance, especially for 1.6T modules, as lead times are extended and supply is limited .Establish supplier relationships proactively for optical transceivers, silicon photonic chips, DSP chips, and fiber connectors to mitigate shortages .Monitor market trends for 800G and 1.6...

Article Content

Shortage of chips for optical modules | Weyland

Demand for 400G, 800G, and even 1.6T optical modules continues to increase significantly. However, the industry is facing a major challenge known as the “optical module chip

Deep Dive: Optical Module Market

Powering next-gen connectivity: How optical modules enable fast, reliable data transfer, and What are the opportunities for investors?

Shortage of chips for optical modules | Weyland

Conclusion Overall, the optical module “chip shortage” is fundamentally a structural contradiction between the technological limitations of high-end optical chips and the explosive

AI Data Center Optical Component Shortage: Nvidia''s

What is causing the optical transceiver shortage in 2026? The core constraint is the electro-absorption modulated laser, a precision component

China''s Dominance in AI Optical Chips and Modules

China secures control over AI data arteries via optical modules. Explore the geopolitical impact on the global semiconductor market. Read the full analysis.

Optical Modules Market Research Report 2034

Optical Modules Market Outlook 2025-2034 The global optical modules market was valued at $14.8 billion in 2025 and is projected to reach $39.6 billion by 2034,

In-Depth Review of the CPO Delay Controversy: Why a Single

On June 9, 2026, a client-only report from SemiAnalysis claiming that the large-scale commercialization of CPO (Co-Packaged Optics) would be delayed triggered a sharp, single-day

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Chinese Optical Modules Own 7 of the Top 10 Seats. So Why Are

Innolight and Eoptolink are estimated by industry sources to supply roughly 60% of NVIDIA''s 800G volume, controlling the critical plumbing of AI data center optical interconnects. Yet

Supply chain disruption! Ranking of upstream shortages in optical ...

Optical module supply disruptions, factory shutdowns due to wafer shortages, and atomic arrangement bottlenecks hindering AI computing power. In May 2026, life was tough for those

Telephoto Lens for iPhone: Why 105mm & 200mm Optical Lenses

Wondering how a telephoto lens for iPhone improves mobile photography? We break down how Telesin''s 105mm portrait & 200mm tele kit upgrades iPhone 16/17 Pro Max optics beyond

G657A2 at US$22/km: Understanding the Optical Fiber

As one analysis notes, "G657A2 is severely out of stock, with single-mode out of stock" . The optical fiber (loose fiber) market shows particular stress,

AI photonics selloff sparks bullish calls on SIVE and AAOI

AI optics stocks AAOI (-13.9%), Coherent (-10.4%), Lumentum (-7.4%), and Sivers (-8.7%) slumped amid a broader semiconductor selloff, not company-specific issues. AI analyst

CPU Shortage Deepens, Optical Module Value Restructuring

□□ Optical Modules / Interconnect — Medium-High (Rising) DCI value share shifting 30% → 60–70%. 800G mass deployment underway. Build position before the shortage narrative fully forms.

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Optical Module Chip Market 2025

The optical module chip market exhibits a fragmented yet competitive structure with global technology providers, semiconductor manufacturers, and specialized

Which Optics Stock Has Dominated in 2026: Applied

The optics complex has been one of 2026''s most rewarding corners of the AI infrastructure trade, and the spread among the three leaders is

SemiAnalysis report triggers optical module stock selloff

U.S.-listed optical module companies dropped sharply after a report from SemiAnalysis challenged key assumptions around costs and growth tied to AI data centers, triggering a rapid

Inside Nvidia''s $4B Optical Strategy—and Why CPO

Co-Packaged Optics as a Structural Shift for Nvidia''s Stock With pod sizes and bandwidth only increasing, the transition from copper to optics in scale

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Why Are Used Optical Modules Returning to the

In the optical communication industry, the resale of used optical modules is no secret. Data centers, large enterprises, and operators are all

CPO Technology Nvidia: Death of Optical Modules and

Nvidia has started mass production of Spectrum-X CPO switches, which leads to the destruction of the traditional optical modules market. The

Why Are Used Optical Modules Returning To The Market? —

The following analysis examines the inevitability of the resale of used optical modules from three core scenarios, drawing an analogy to the used mobile phone market to help you better

Why Is the Whole World Betting on Optical Modules: From Wall Street

Some of you may wonder why NVIDIA didn''t directly talk to optical module manufacturers but instead reached out to upstream laser manufacturers? Because what NVIDIA really values is not

Understanding Optics Module Trends and Growth

The Optics Module market is expanding rapidly, driven by data center proliferation and 5G deployment. Analyze the 12% CAGR to $42 billion by

Google places additional order for 1.6T optical modules ...

In the late autumn of 2025, a market rumor exploded like a thunderclap: Google had placed an additional order for 1.6T optical modules with InnoLight Technology, locking in the

Chinese Optical Modules Own 7 of the Top 10 Seats. So Why Are

Chinese Optical Modules Own 7 of the Top 10 Seats. So Why Are Chip Companies Still Making the Money? Assembly Powerhouse, Chip Desert: The Structural Limits of China''s Optical

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