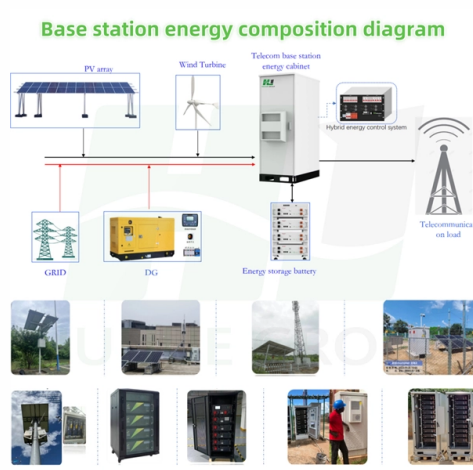


Optical module shipments fell short of expectations



Overview

Morgan Stanley responds to SemiAnalysis' informal report: agrees Morgan Stanley acknowledges that near-term CPO volume shipments have fallen short of expect.

Key Takeaways

Shipments of certain optical modules, particularly 1.6T units, fell short due to component shortages, supply chain bottlenecks, and mismatches in high-speed transceiver production.

Supply Chain Constraints

The shortfall in optical module shipments is largely driven by component shortages, especially in advanced 5nm and 3nm DSPs and constrained EML laser production. These components are critical for high-speed modules like 800G and 1.6T, and their scarcity has extended lead times beyond 40 weeks for 800G modules and delayed 1.6T deployments.

Procurement teams relying on legacy forecasting models are struggling to meet demand, and spot-buying from secondary suppliers introduces firmware mismatches and physical layer instability, further limiting usable shipments.

Product-



Specific Trends

While 800G optical modules have largely met demand and are experiencing rapid adoption in hyperscale data centers, 1.6T modules have seen initial commercial shipments but remain below expectations due to limited production capacity and ongoing component constraints. The 400G modules temporarily declined as customers transitioned to 800G, but demand is expected to rebound.

Technical Challenges High-speed modules are sensitive to firmware and DSP mismatches, which can cause PAM4 signal degradation, EEPROM mapping failures, and FEC errors. These technical issues mean that even when modules are shipped, not all units are immediately deployable, effectively reducing the net supply available to customers.

Market Impact

Despite strong overall demand from hyperscalers like Amazon, Meta, and Google, the shortage of critical components has constrained growth in transceiver sales, particularly for 1.6T modules. Vendors such as Coherent, Innolight, and Lumentum have reported strong revenue growth, but shipment volumes for the newest high-speed modules remain limited.

Outlook

Shipments of 1.6T modules are expected to gradually increase in the second and third quarters of 2026 as supply chain issues are addressed and production ramps up. Meanwhile, 800G modules continue to drive market growth, benefiting from a more mature supply chain and optimized power-to-performance ratios.

In summary, the shortfall in optical module shipments is a combination of component scarcity, technical deployment challenges, and transitional demand shifts, with recovery expected as production stabilizes and supply chains adapt.

Article Content

Morgan Stanley responds to SemiAnalysis' informal report: agrees

Morgan Stanley acknowledges that near-term CPO volume shipments have fallen short of expectations, forecasting optical engine shipments in 2027 to reach only 6–7 million units. However,

Holding Optical Stocks? Nvidia & SemiAnalysis Clash Over CPO

A SemiAnalysis report warned that 2027 CPO shipments could fall short of expectations, with large-scale mass production possibly slipping to 2028 or even 2029.

InnoLight: Large-Scale Deployment of 800G Optical Modules in 2025

Although shipments of 1.6T optical modules fell short of expectations, it is projected that they will gradually increase in the second to third quarters, with shipments already underway.

A Research Report Crashes Optical Module Stocks—What Did

Within a single day, the entire optoelectronics supply chain was brutally hammered. The trigger was a report issued by SemiAnalysis to institutional clients, bluntly titled “Power Down: 800V DC Delayed,

Morgan Stanley backs SemiAnalysis CPO delay, disputes 800V timeline

CPO's share of total optical shipments will remain small until 2028, when yields improve and hyperscaler adoption reaches critical mass. On the power architecture front, Morgan Stanley's

A SemiAnalysis report alleging delays in two key technologies

The report suggests that shipments of Nvidia's 800VDC power architecture will be delayed until 2028, while mass production of CPO (co-packaged optics) may be delayed until 2028

SemiAnalysis Report Claims Delay in Two Key Technologies, Triggers ...

The report suggests that NVIDIA's 800VDC power architecture shipments will be delayed until 2028, and the mass production of CPO (Co-Packaged Optics) may be postponed to 2028 or even 2029. The

Currency Loss Black Swan Crushes Quarterly Profit, Goldman Sachs

Eoptolink Technology Inc. (300502.SZ), a leading Chinese optical module maker, posted first-quarter revenue that more than doubled from a year earlier, but foreign-exchange losses ate into profits,

A single research report sent the CPO sector tumbling! NVIDIA

A single research report triggered a sell-off in the optical communications sector. On Wednesday, optical communications and CPO-related stocks listed on Hong Kong and A-share markets declined across

Optical module "Yi Zhongtian" has fallen! Demand relies on ...

Currently, industry demand for optical modules is outpacing the supply of raw materials, leading to tight supplies of some key raw materials and placing higher demands on the company's

CICC: AI industry accelerates demand for 1.6T optical modules

According to the CICC research report, the demand for 1.6T optical modules in 2025 was calculated based on scenario analysis, and after taking into account key variables on the supply and

SemiAnalysis Report Claims Delay in Two Key

A report from analysis firm SemiAnalysis, claiming significant delays in two key AI data center technologies, triggered a sharp sell-off in the photonics sector and

Lumentum's AI Optical Story Survives JPMorgan Skepticism-Because

- JPMorgan's skepticism highlights Lumentum's core challenge: supply constraints, not demand, limit AI optical shipments despite strong order visibility. - Market reaction to Q3 results

Demand for datacom optical modules reaches record levels in 1Q24 ...

Spending on Datacom optical components was up more than 90% YoY as AI applications of 400GbE and 800GbE optical modules for AI applications drove demand to record levels.

Optical Module Package Market 2025

Optical Module Package Market was valued at 8942 million in 2024 and is projected to reach US\$ 20220 million by 2032, at a CAGR of 12.7%

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 infrastructure investment.

Opinion: optical transceivers at the chokepoint of AI

As AI infrastructure accelerates at an unprecedented pace, optical connectivity has become one of the defining enablers and constraints of next

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

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