

Optical module shortage which link is missing

Preview

Having already driven shortages in GPUs, high-bandwidth memory, and advanced packaging substrates, the relentless buildout of AI data centers has now produced a severe crunch in optical communications components -- the high-speed lasers, fiber optic cables, and transceivers. Having already driven shortages in GPUs, high-bandwidth memory, and advanced packaging substrates, the relentless buildout of AI data centers has now produced a severe crunch in optical communications components -- the high-speed lasers, fiber optic cables, and transceivers. However, the industry is facing a major challenge known as the "optical module chip shortage", particularly in high-end optical chips and core electrical chips. This has become a key bottleneck limiting capacity expansion and cost reduction. Importantly, the "chip shortage" does not simply refer to. A diagram of hardware components within an NVIDIA photonics co-packaged optics switch system showing optical sub-assemblies and switch ASIC. com The AI infrastructure boom has created its next supply chain crisis. Having already driven shortages in GPUs, high-bandwidth memory, and advanced. TrendForce's recent research indicates that high-speed optical interconnects are now central to performance and scalability, especially as AI data centers grow into large clusters. The report predicts that worldwide shipments of optical transceivers of 800G and higher will hit 24 million units in. On April 7, Samsung reported Q1 2026 operating profit of KRW 57. 8B) -- a 755% YoY jump, the highest single-quarter profit in South Korean corporate history. It exceeded Samsung's entire 2025 full-year result.

Optical module manufacturers and CSPs are now actively searching for secondary suppliers and alternative designs,

Discover how 2026 global logistics for optics and DSP lead times impact 800G data center deployments. Learn to

Discover what an Optical Link Module is, how it functions, and its key use cases in modern communication

Conclusion Overall, the optical module "chip shortage" is fundamentally a structural contradiction between the

Supply chain issues with optical transceivers threaten to stall the development of AI-era

Innolight and Eoptolink are estimated by industry sources to supply roughly 60% of NVIDIA's 800G volume, controlling

Global memory chip crisis forces tech giants to scramble for supplies as prices soar over 100%, threatening AI

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In traditional data center interconnect (DCI) systems, optical modules held ~30% of total system value. That structure is

What is causing the optical transceiver shortage in 2026? The core constraint is the electro-absorption modulated

Permitting--local municipalities may not work effectively to expedite permitting, and/ or understand the nature of the fiber install

Electronic component shortages are still disrupting supply chains in 2025. See what's

TrendForce reports that the surge in demand has caused a significant upstream bottleneck in laser light sources.

Demand for 400G, 800G, and even 1.6T optical modules continues to increase significantly. However, the industry is

The global AI optical module market is expanding at over 57% annually, but component shortages have become the

Pluggable optical transceivers are a prime example. These stick-shaped modules connect servers for high-speed

TrendForce points out that the massive demand for high-speed optical transceivers (800G and above) has created a

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