

Optical module shortage



Overview

Prices for specialty optical fiber have surged tenfold; lead times for mainstream 1.6T optical modules are now locked in through 2028—with some customers required to pay substantial advance deposits just to secure a place in production queues; and industry leaders such as Accelebrics. 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 2025. Nvidia's efforts to shore up its own supply chain may just increase lead times for other companies, as reports suggest the chip giant has snapped up significant capacity of electro-absorption modulated lasers (EML). TrendForce reports that Nvidia has purchased EMLs for its own machinations to such. TrendForce has 800G+ optical transceiver shipments going from roughly 24M in 2025 to 63M in 2026 (2. TW), the largest GaAs/InP foundry, guided for a 2-3x increase in 1. Procurement teams relying on outdated 12-week forecasting models are hitting a wall. Spot-buying mixed batches introduces PAM4 firmware mismatches, causing uncorrectable FEC errors and RDMA latency spikes exceeding 50ms under. 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. Accelerated 1-2 year technology. 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.

Article Content

Single Mode Optical Modules Market 2026

Single Mode Optical Modules Market faces constraints from ongoing semiconductor shortages that impact production timelines. Specialized optical components like indium phosphide chips remain in

AI optical transceiver market to grow 57% to US\$26bn in 2026

AI optical transceiver market to grow 57% to US\$26bn in 2026 Market analyst firm TrendForce forecasts that the global AI-focused optical transceiver market will rise at more than 57%

AI Data Center Optical Transceiver Module Market 2025–2030

AI Data Center Optical Transceiver Module Market 2025–2030 Posted on Apr-03-2026 The AI data center optical transceiver market has entered a historic growth phase, driven by the exponential

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

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.

CPU Shortage Deepens, Optical Module Value Restructuring

In traditional data center interconnect (DCI) systems, optical modules held ~30% of total system value. That structure is reversing in 2026 — optical module value share is climbing toward...

Global AI Optical Transceiver Market to Reach US\$26 Billion in 2026 ...

Jukan (@jukan05). 220 likes 6 replies. Global AI Optical Transceiver Market to Reach US\$26 Billion in 2026; Component Shortages Identified as Primary Capacity Expansion Bottleneck

Optical Module Industry Statistics | 2026 Education Report

Navigating the optical module industry feels like playing a high-stakes game of Whac-A-Mole, where just as you invest billions to out-innovate the 70% Chinese market share, a

AI optical transceiver market to reach \$26b in 2026

Component shortages are primary capacity bottleneck, says TrendForce
TrendForce's latest research indicates that the global market for AI-focused optical transceivers has entered a

InP is the real chokepoint behind every 1.6T optical module shipping ...

TrendForce has 800G+ optical transceiver shipments going from roughly 24M in 2025 to 63M in 2026 (2.6x), with the AI optical transceiver market expanding from \$16.5B to \$26B. Win

Optical Communication Industry Trends 2026: AI, 800G/1.6T Optical ...

Explore optical communication industry trends in 2026, driven by AI infrastructure, 800G and 1.6T optical modules, silicon photonics, and next-generation data center connectivity solutions.

Optical Communication Supply Crunch: Specialty Fiber Prices Surge

The global optical communication supply chain is shifting from cyclical upgrades to structural bottlenecks—driven by AI demand. Specialty fiber capacity is fundamentally constrained, with prices

Optics Transceiver Module Market 2025

The optics transceiver module market is experiencing robust growth driven by the exponential rise in data center investments globally. Hyperscale data center operators are deploying 400G and 800G

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