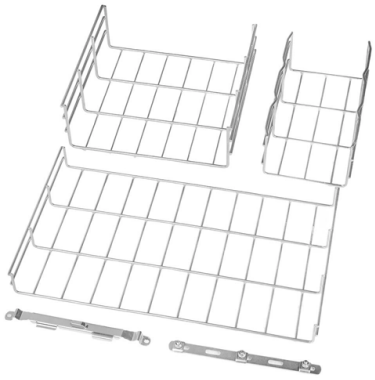
800G optical module DML delivery date 2025



Overview

Furthermore, driven by escalating demands from AI technology, shipments of 800G optical transceivers are projected to grow by 100% year-over-year in 2025.

Key Takeaways

800G optical modules, including DML types, are expected to achieve large-scale deployment throughout 2025, with volume production already established by 2024.

Commercialization and Deployment Timeline800

G optical modules have been in volume production since 2024, with multiple vendors offering compatible products. Prices have been declining steadily, from over $2,000 per module in early 2022 to an expected $800–$1,000 range by 2025 as manufacturing yields improve and production scales up (LuxOptx). Large-scale deployment is anticipated across AI training clusters, hyperscale data centers, and cloud infrastructure, where 800G modules are becoming the standard for high-bandwidth interconnects (Ascent Optics).

DML-Specific ConsiderationsDirectly Modulated Laser (DML) 800G modules are part of the mainstream 800G ecosystem, particularly for short-reach applications such as top-of-rack (TOR) to leaf switch connections, typically spanning tens to hundreds of meters. These modules are suitable for high-density data center environments and are expected to be widely available for procurement and deployment in 2025 (Ethernet Alliance, Ascent Optics).

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Market and Production Outlook

The 800G optical transceiver market is projected to grow rapidly in 2025, with shipments expected to double year-over-year due to AI-driven demand and data center expansion. Leading suppliers include Innolight, Coherent, Eoptolink, Broadcom, and Lumentum, ensuring a robust supply chain for 800G DML modules (Cignal AI, Coherent-Lite). By the second half of 2025, operators are also beginning the transition to 1.6T optics, but this will not significantly impact 800G module availability in the same year (Cignal AI).

Summary

Volume production: Already underway since 2024Large-scale deployment: Expected throughout 2025Applications: Short-reach data center interconnects (TOR-to-leaf, leaf-to-spine), AI clusters, hyperscale cloud networksVendors: Innolight, Coherent, Eoptolink, Broadcom, LumentumPrice trend: $800–$1,000 per module by 2025 In conclusion, 800G DML optical modules are commercially available and expected to be widely delivered and deployed across data centers and AI infrastructure throughout 2025, making them a viable option for network upgrades and high-bandwidth applications.

Article Content

AI Drives Doubling of 800G Optical Transceiver Shipments in 2025

Furthermore, driven by escalating demands from AI technology, shipments of 800G optical transceivers are projected to grow by 100% year-over-year in 2025. The market will also see the initial shipments

AI Reshapes the Global Optical Communications Market,800G

More notably, shipments of 800G optical transceivers are expected to achieve a year-on-year increase of 100% in 2025. Meanwhile, 1.6T products are beginning to enter the market, and 3.2T technology is

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.

Explore the 2025 Trend of 800G Optical Modules Driven by AI and ...

Industry research and vendor roadmaps show that 800G optics will dominate new deployments in AI clusters and large data centers around 2025, especially in OSFP and QSFP-DD form factors.

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POET Technologies Receives $5 Million Production Order for 800G

The production order represents further proof of the commercial viability and scalability of its technology that is built to power AI connectivity and meet the demand of hyperscale datacenters.

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

Notably, the demand for 800G optical modules met expectations, and their large-scale deployment in 2025 stands out as a pivotal highlight.

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

The transition to 1.6T Datacom optics begins in 2025, but it will not affect the growth rate of 400/800G technology until 2026. Also, no material impact to pluggable shipments is expected in

800G OpenZR+

In March 2025, version 8.00 of the optical specification was released which added specifications for Transceiver Direct Attach (TDA) application.

AscentOptics Achieves Volume Delivery of 400G and 800G Optical

AscentOptics begins mass delivery of 400G and 800G optical modules, supporting global CSPs and AI infrastructure with high-bandwidth connectivity.

Heavy Reading White Paper: 800G Client Optics in the Data Center

Developments in three distinct areas are needed for 800G deployment: optical modules and direct attach copper (DAC) cables, switch ASICs, and 800GE standardization. Not all these need to be fully

Exploring 800G Optical Transceiver Technologies and Applications

Discover the latest trends and applications of 800G optical transceivers, from short-reach to long-haul scenarios, and learn about advancements in interface architectures and optical

EML vs DML: What Are the Differences?

EML and DML are two essential laser technologies used in 100G/200G/400G/800G transceivers. The key differences between EML and DML will be illustrated in this article.

The Evolution of Optical Modules: 400G → 800G → 1.6T – A Strategic ...

Discover the evolution from 400G to 800G and 1.6T optical modules. Learn key technologies, CPO vs pluggable, and upgrade strategies for future-ready data centers.

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Embracing the Future: The 800G Technology Revolution in Data Centers

Discover the key technological and standardization factors propelling 800G evolution, and explore three practical application scenarios for 800G optical modules in data centers.

AscentOptics Achieves Volume Delivery of 400G and 800G Optical Modules ...

Shenzhen, China-- (Newsfile Corp. - January 26, 2026) - AscentOptics, a leading provider of optical transceiver solutions, today announced that its 400G and 800G AI optical modules

800G Optical Module Market Research Report 2034

The 800G optical module market was valued at $4.8 billion in 2025 and is projected to reach $28.6 billion by 2034, growing at a CAGR of 22.1%.

800G Client Optics in the Data Center

The next key development is 800G, and the industry is already gearing up to deploy this next generation of client optics in hyperscale data centers. Developments in three distinct areas are needed for 800G

AI drives ramp-up in datacom optics – report

Total shipments of leading-edge datacom optical modules are projected to tally over US$9 billion for 2024, according to the latest Optical

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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