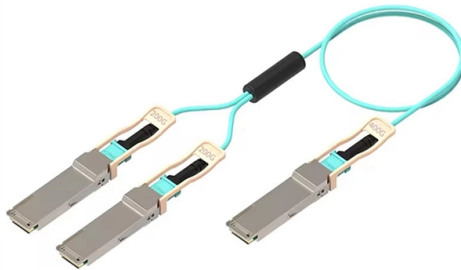


Cost-effective pluggable optical module 16T



AI Overview

The average global price of a 1.6T pluggable optical module is approximately US\$2,660 per unit, with supplier-specific prices varying based on form factor and features.

Market Overview 1.6T pluggable optical modules are high-speed transceivers designed for data center switches, routers, and AI cluster interconnects, capable of transmitting data at 1.6 terabits per second. In 2024, global production reached around 17,700 units, with an average market price of US\$2,660 per unit and typical gross profit margins between 20% and 35%. The market is projected to grow steadily, reaching US\$85.84 million by 2031, driven by cloud computing, AI workloads, and hyperscale data center expansion.

Supplier Pricing Examples NADDOD offers 1.6T OSFP224 transceivers, including 2xDR4 and 2xFR4 modules, with options for DAC, ACC, and AEC cables. Prices vary depending on the module type and configuration.

Shenzhen Topstar provides 1.6T OSFP modules starting at competitive prices for B2B procurement, suitable for high-density AI/ML clusters.

FiberMall lists 1.6T OSFP-XD DR8 PAM4 optical transceivers with a maximum transmission distance of 2 km, targeting high-bandwidth applications. Pricing is influenced by quality certifications and compatibility testing.

Factors Affecting Price

Form factor: OSFP modules generally cost more than QSFP-DD due to enhanced thermal management and higher density interfaces.

Laser type and design: DR4 vs. FR4, VCSEL vs. other lasers, and MPO connector configurations impact cost.

Volume and MOQ: Suppliers often offer lower prices for bulk orders, while single-unit purchases may be higher.

Regional supply and tariffs: U.S. tariff policies and global supply chain adjustments can influence pricing.

Summary For a single 1.6T pluggable optical module, expect prices around US\$2,600–3,000, depending on the supplier, module type, and technical specifications.

Article Content

Optical Transceiver Market Size, Share, Industry Report

Optical Transceiver Market Size The global optical transceiver market was valued at USD 13.4 billion in 2025. The market is expected to grow from USD 15.4 billion in

1.6T Transceivers Explained: Advantages, Types & FS

With more efficient optical integration and higher electrical lane speeds, 1.6T modules can reduce power consumption per transmitted bit

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Coherent demonstrates industry first 400G/lane in Si

Coherent showcased its latest innovations at OFC 2026, highlighting how its broad and deep vertical technology stack, spanning materials, devices, modules and

FiberMall's 1.6T Optical Module Roadmap

The 1.6T optical module, based on the 16x100G OSFP-XD1600 solution, is targeted to drive the industry chain to be at the node of technology

1.6T OSFP 2xDR4/DR8, 1310nm, 500m, DDM, CDR,

The MJ-OSFP1.6TB-DR8 is a cost-effective, high-performance OSFP module tailored for AI datacenter applications, delivering an aggregate throughput of 1.6

Linear Drive Pluggable (LPO) Early Adoption: 800G Engineering

What Is Linear Drive Pluggable (LPO)? Linear Drive Pluggable (LPO) is a DSP-less optical transceiver architecture designed for 800G and future 1.6T Ethernet networks. Unlike

800G Client Optics in the Data Center

The QSFP-DD form factor is widely deployed in 400G connected data centers and has been a critical factor in delivering cost-effective 400G optical modules with 50G PAM4 lanes.

Pluggable Optical Modules: Transceivers for the Cisco

Cisco offers a comprehensive range of pluggable optical modules for the Cisco ONS family of multiservice platforms. The wide variety of modules

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For data center architects and AI infrastructure builders, the smartest strategy is clear: deploy pluggable 1.6T optical modules today while keeping a

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To address these challenges, Arista Networks, together with an ecosystem of more than 45 industry partners, introduces eXtra-dense Pluggable Optics (XPO) . XPO represents a new class of optical

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Technologically, the industry is embroiled in a debate between Digital Signal Processor (DSP)-based retimed optics, which remain the standard for

1.6T Switch Era: Choosing Between CPO, NPO, and

Linear Pluggable Optics (LPO) is an evolution of the traditional pluggable optical module, designed to slash power consumption and streamline

Linear Pluggable Optics – An Overview

Comparison to CPO g the need for a standalone module. Although CPO is becoming increasingly popular, LPO is seen as a natural evolutionary path for pluggables, offering lower risk compared to

Technology from 400G to 800G to 1.6T Transceivers

The 1.6T-OSFP (8x200G channels) is a high-speed optical module that provides eight 200G channels of optical signals on a single OSFP interface

Pluggable Optical Modules Market : Global Industry Analysis and ...

Explore the global Pluggable Optical Modules market with expert analysis on growth drivers, trends, key insights, and forecast outlook to 2036.

Optical Interconnect Technology Analysis: LPO, NPO,

NADDOD also offers a 2 km version of the 1.6T 2xDR4 OSFP224 optical transceiver to accommodate different network deployment requirements.

The Evolution of 400G, 800G, and 1.6T Optical Modules

With the rapid advancement of AI, HPC, and cloud computing, the demand for high-speed optical modules such as 400G, 800G, and even 1.6T is

PW Consulting Forecasts Coherent Optical Module Market to Grow at

Carrier metro densification — phased deployment scenario that balances line-card replacement cycles against pluggable upgrades to maximize margin recovery.
Enterprise campus refresh —

LPO vs. NPO vs. CPO: Next-Gen 1.6T Optical

Explore how LPO, NPO, and CPO technologies solve power and latency bottlenecks in 1.6T optical modules. Learn the key advantages of DSP-free architectures for

CPO vs Pluggable Optics: Choosing the Right 1.6T Optical

Explore the key differences between CPO and pluggable optics at 1.6T. Learn which optical architecture is better suited for XDR networks and AI data center deployments.

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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The technology shifts reducing AI inference costs | McKinsey

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AI Data Center Optical Transceiver Module Market

The AI data center optical transceiver market is undergoing the most significant growth phase in its history, driven by the convergence of exponential AI workload

Co-Packaged Optics (CPO) Market Trends 2026: AI Data Center Optical ...

Explore the future of co-packaged optics (CPO) in AI data centers. Learn how silicon photonics, optical I/O, and high-speed optical interconnect technologies are shaping next-generation

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