

Price of 400G Long-Distance Optical Transceivers for Data Center Interconnection



Article Overview

400G long-distance transceivers such as LR4, ZR, and ZR+ range from approximately \$10,000 to over \$130,000 depending on vendor and reach.

Price Overview

- LR4 (Long Reach 4): Supports up to 10 km over single-mode fiber. OEM modules typically cost over \$10,000, while third-party alternatives may offer lower pricing depending on volume and vendor .
- ZR (Zero-Dispersion Reach) and ZR+: Designed for ultra-long DCI links, often exceeding 80 km. Prices can exceed \$130,000 for OEM modules, reflecting the complexity of coherent optics and high-performance DSP integration .
- Volume Discounts: Many vendors offer tiered pricing for bulk purchases, which can significantly reduce the per-unit cost for large-scale deployments .

Module Types and Reach

Module	Typical Reach	Fiber Type	Notes
LR4	Up to 10 km	Single-mode	Standard long-distance DCI
ZR	80+ km	Single-mode	Coherent optics for metro and intercity links
ZR+	80-120 km	Single-mode	Enhanced coherent optics for extended DCI

Vendor Considerations...

Article Content

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Explore the diverse range of 400G transceivers addressing the growing bandwidth demands of long-distance

400G Transceivers — Transceiver USA

Transceiver USA's optical QSFP and OSFP modules are used in enterprise and datacenter networks. View price, stock and buy

40G QSFP+ Optical Transceivers Complete Guide | Fibrecross

40G optical transceivers use fiber optic cables and offer longer reach (up to 40km) and higher flexibility in routing and distance. In

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Scientists have first analyzed and compared the cost evolution and power consumption of different 400-gigabit-per

400G Optical Transceiver Market Research Report 2034

The global 400G optical transceiver market was valued at \$6.87 billion in 2025 and is projected to reach \$31.82 billion by 2034,

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Building the foundation for future data center transceivers In summary, data centers are leading the migration to 400G

Understanding LPO Transceivers in Modern Data Centers

LPO transceivers cut power use, lower latency, and boost reliability in data centers, making them ideal for high-speed,

400G QSFP-DD/OSFP SR4 Transceivers – MMF Data Center

Designed for modern data center architectures, this SR4 module enables 400G high-speed transmission using parallel optics. It

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QSFP-DD Price Guide 2026: 400G/800G Costs & TCO Analysis

QSFP-DD price guide with 400G/800G module costs, OEM vs third-party comparison, volume discounts, and 3-year

200G/400G/800G Optical Transceiver Modules | FiberMall

200G/400G/800G optical module features up to 40km transmission distances using QSFP56/QSFP-DD footprints for data center

FS 400G Transceivers for Multi-Distance Data Center Networks

FS 400G transceiver solutions support Ethernet deployments across different distances, combining optical modules

LightCounting :: March 2025 Ethernet Optics

This report analyzes the impact of growing data traffic and the changing architecture of data centers on the market forecast for

400G DR4/FR4/VR4 Transceivers – SMF Data Center Links

The 400G DR4 / FR4 / VR4 optical transceivers are designed for medium and long-distance transmission over single-mode fiber.

Data Center Transceivers & Cables

Arista's transceivers and cables offer customers a wide variety of connectivity options over copper or fiber for data center and HPC

HTF 400G Muxponder: Ultra-Long-Distance Optical

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Contact Us

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