

Price List for Upgraded Active Optical Equipment for Data Center Interconnection



Overview

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, a.

Key Takeaways

Active optical modules for data center interconnect range from \$1,400 for short-reach 400G SR8 modules to over \$130,000 for OEM coherent ZR+ modules, with third-party alternatives offering significant savings.

- 400G Modules
 - SR8 (Short-Range, up to 100 meters): Typically priced \$1,400–\$1,800 from reputable third-party vendors, ideal for in-rack and cross-row connectivity .
 - DR4 (Direct Reach, up to 500 meters): Used for intra-campus links; third-party pricing is competitive, generally \$3,000–\$5,000 per module .
 - FR4 (Fiber Reach, up to 2 km): Duplex fiber variant for connecting different parts of a large AI cluster; OEM pricing can exceed \$10,000, while third-party options are lower .

- LR4 (Long Reach, up to 10 km): Suitable for data center interconnects without coherent optics; OEM modules often \$10,000+, third-party alternatives can reduce costs significantly .

800G Modules

- OSFP and QSFP-DD 800G: Primarily deployed for AI backend networks and high-density GPU clusters. Pricing varies widely depending on reach and vendor, with short-reach modules starting around \$5,000–\$8,000, while long-reach coherent modules can exceed \$50,000–\$100,000 per unit .

Coherent Optics for DCI

- ZR and ZR+ coherent modules: Designed for long-distance interconnects (40 km to 1,000+ km). OEM ZR+ modules can cost \$130,000+, whereas validated third-party modules with identical optical performance may be available for \$12,000–\$15,000, offering substantial savings without compromising quality .

- Cisco Routed Optical Networking: Uses pluggable coherent modules to simplify DCI, reduce footprint, and lower energy consumption by over 80%, which can indirectly reduce total cost of ownership .

Cables

- Direct Attach Copper (DAC): Cost-effective for in-rack connections under 3 meters, typically \$120–\$200 per cable .

- Active Optical Cables (AOC): Premium for extended intra-row reaches, generally \$500–\$1,500 depending on length and speed .

Key Considerations

- OEM vs Third-Party: Third-party modules often match OEM performance at a fraction of the cost, especially for coherent optics .
- Reach and Media Type: Select SR, DR, FR, or LR based on link distance to optimize cost and performance .
- Form Factor: QSFP-DD and OSFP modules must match switch port compatibility and thermal requirements .
- Total Cost of Ownership (TCO): Consider module cost, power consumption, cooling, and operational support when budgeting for large-scale deployments . This pricing overview provides a strategic framework for procurement, helping data center operators balance performance, reach, and cost while planning upgrades to 400G and 800G optical interconnects.

Article Content

400G Data Center Optics Upgrade Actually Cost

The catalog covers Data Center Optical Transceiver modules, AI Server Optical Modules for GPU cluster interconnects,

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Data Center Optical Interconnection Services between super and large data centers, such as data synchronization and service

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Price List for Low-Loss Optical Modules for Data Center Interconnection It includes historical shipment data and forecasts for units,

Transceiver Modules for Data Center Interconnect

Learn how and where to implement Cisco Optics solutions to gain the reach you need for connecting data centers across your metro

Price List for Low-Loss Active Optical Modules for Data Center ...

Price List for Low-Loss Active Optical Modules for Data Center Interconnection See practical price ranges for 1G-100G optical

Dac Vs Aoc Vs Optical Modules: Cost & Performance Comparison For

This comparison focuses on three dominant choices— DAC/AOC pairings (Direct Attach Copper and Active Optical Cables) and

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