

Price list for low-noise tunable optical modules for data center interconnects



Summary of Content

Low-noise, low-power active optical modules for data center interconnects typically range from \$200–\$1,500 per module depending on speed, reach, and form factor, with LPO modules offering the lowest power consumption at 3–5W per 400G/800G module.

Overview of Low-Power Active Optical Modules

Linear Pluggable Optics (LPO) are designed for energy-efficient, high-speed interconnects in hyperscale and AI/ML data centers. LPO modules eliminate onboard DSPs, relying on switch ASICs for signal processing, which reduces power consumption by up to 50% compared to traditional DSP-based optics. Typical power draw for 400G/800G LPO modules is 3–5W, compared to 8–12W for conventional DSP optics, making them ideal for dense rack-to-rack or pod-to-pod interconnects within the same facility (VitexTech). Cisco Coherent Pluggable Optics provide low-noise, long-reach connectivity for data center interconnects over distances from 40 km to over 1,000 km. These modules integrate silicon photonics and low-power DSP ASICs to reduce energy use, cooling, and footprint by over 80%, while supporting 400G signals in QSFP-DD form factors (Cisco). Standard Active Optical Modules (AOC) and optical transceivers (SFP28, QSFP28, QSFP-DD, OSFP) are available for short- to medium-range links (1–30 m for AOCs, 100 m to multi-km for fiber-based modules). Prices vary by speed and reach:

- 100G QSFP28 AOC: ~\$200–\$400 per module
- 400G QSFP-DD LPO: ~\$800–\$1,200 per module

Article Content

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

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Sandra's procurement team had a \$200,000 annual budget for optical transceivers. Her first purchase order went to

Tunable SFP+ Optical Transceiver Zero Chirp

The module supports data rates from 9.95 Gbps to 11.3 Gbps and is provided in an SFP+, MSA-compliant package. The optical

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