

Recommended Optical Module Prices



Overview

QSFP-DD price guide with 400G/800G module costs, OEM vs third-party comparison, volume discounts, and 3-year TCO analysis for data center buyers.

Key Takeaways

Optical module prices typically range from \$5 for basic 1G SFPs to several hundred dollars for high-speed 400G/800G modules, depending on type, brand, and technology.

Typical Price Ranges¹

G SF

P Modules: Generic or compatible units can cost \$5-\$25, while OEM-branded modules (Cisco, HPE, Juniper) range from \$60-\$120 per unit, especially for industrial or extended temperature variants. 10G SFP+ Modules: Compatible 10G SR modules often sell for tens of dollars, whereas OEM or long-reach LR/ER modules can reach hundreds of dollars.

High-

Speed Modules (25G, 40G, 100G, 400G, 800G): Prices increase significantly with speed and technology. For example, 400G/800G modules for AI and cloud data centers are in high demand, reflecting premium pricing due to advanced engineering, R&D, and component costs.

Factors Influencing Prices

Raw Materials: Lasers, silicon chips, and specialty semiconductors contribute a major portion of the cost. **Manufacturing Complexity:** Precision cleanroom processes and strict quality control increase production costs.

R&

D and Innovation: Modules with higher speed, power efficiency, or advanced features carry a premium. **Supply Chain and Logistics:** Component availability, shipping, and tariffs can affect final prices. **Brand and Compatibility:** OEM-branded modules are generally more expensive than third-party or compatible units, but they offer verified compatibility and warranty support.

Procurement Considerations

Evaluate OE

M vs third-party modules based on reliability, coding compatibility, and failure rates. Consider volume discounts and frame contracts for large deployments. Use acceptance testing to ensure performance and avoid intermittent link issues.

Monitor market trends, as high-speed modules are increasingly critical for AI and cloud infrastructure, which can drive prices upward. In summary, recommended optical module prices vary widely depending on speed, type, and brand, with basic 1G modules starting at a few dollars and high-speed 400G/800G modules costing several hundred dollars. Strategic procurement, including evaluating third-party options and testing for compatibility, can optimize costs while maintaining network reliability.

Article Content

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 TCO analysis for data center buyers.

Optical Module Procurement Guide

Optical Module Procurement guide to pricing trends, OEM vs aftermarket insights, and strategic buying tactics to optimize costs, reliability, and total ownership.

Cost of optical module electronic chips | Weyland

In low-speed optical modules, their cost share is relatively low. However, in 400G, 800G, and future 1.6T optical modules, electronic chips can account for 20%–40% or more of total cost,

Optical Transceiver Pricing: Cost Ranges by Speed and Type

This article compares typical cost ranges across speeds and transceiver types, explains why prices vary, and gives practical guidance for choosing the right optics for a given budget and performance

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 interconnect applications - FiberMall

Optical Modules

This report aims to provide a comprehensive presentation of the global market for Optical Modules, focusing on the total sales volume, sales revenue, price, key companies market share and

800G Optical Module Cost Analysis | TCO Optimization Guide

Complete guide to 800G optical module costs and TCO optimization for AI data centers. Includes pricing analysis, cost comparison, vendor strategies, and ROI calculations for informed

Fiber Optic Transceiver Modules | Optoelectronics | DigiKey

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OPTICAL MODULE Price

Optical Protection Switching Module. ONS 15454 Optical Service Channel Module. ONS 15454 Enhanced Optical Booster Amplifier Module. ONS 15454 Optical Booster Amplifier Module. ONS

Best SFP Module Manufacturers 2025 | Price... | ABPTEL

You ask: Which third-party SFP module manufacturer is reliable—and how do I compare price vs. risk without breaking my network? This

Global AI Optical Transceiver Market to Reach US\$26

TrendForce's latest research indicates that the global market for AI-focused optical transceivers has entered a phase of rapid growth, with market

Select The Right Fiber Patch Cables For 1G/10G/25G Modules

Deploying optical modules requires the right fiber patch cable. It directly affects network connection stability, performance, and maintenance. This article will explain how to pick the right fiber

Sony IMX Camera Module Guide: IMX335, IMX678, IMX415, IMX219,

A practical guide to common Sony IMX camera modules, including parameters, public reference links, release timing, and retail price ranges for IMX335, IMX678, IMX415, IMX219,

How To Turn Off Alarms For Third-Party Modules On H3C Switches

By default, a large number of alarm messages will be generated if the module is verified as non-H3C original. H3C provides CLI commands to suppress these optical module alarm

WebProcure

WebProcure offers best-in-class functionality, reaching end-to-end from requester to procurement buyer to merchant, and all the way back! Designed specifically for the public sector.

Samsung Foundry Reportedly Wins Optical Module Order,

Samsung Foundry is reportedly stepping up its silicon photonics efforts. According to ZDNet, the company said in its 1Q26 earnings release that its foundry has secured orders from a

Solar Module Prices 2025: Complete Guide To Current Costs & Trends

Comprehensive guide to solar module prices in 2025. Current costs, market trends, buying strategies, and price forecasts. Updated with latest data.

The Most Comprehensive Guide Of Optical Modules

Explore the ultimate guide to optical modules. Learn types, functions, performance metrics & how to choose the right module for your fiber network.

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

