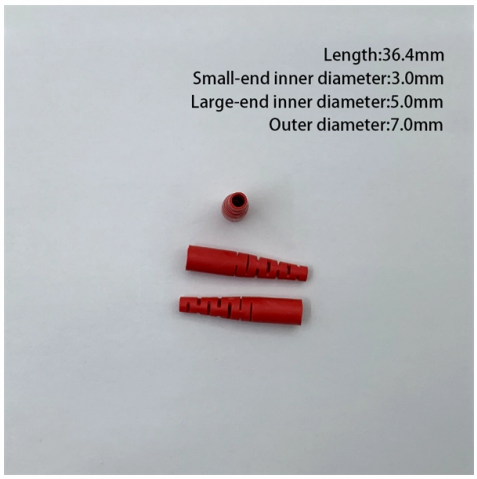
How much does a mobile optical module cost



Overview

Optical Transceiver Pricing: Cost Ranges by Speed and TypeThis article compares typical cost ranges across speeds and transceiver types, explains why price.

Key Takeaways

The cost of mobile optical modules varies widely, from as low as $5 for basic 1G SFPs to over $1,900 for high-end 800G modules, depending on speed, form factor, vendor, and reach.

Typical Price Ranges1

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P Modules: Generic or third-party modules can cost $5–$25, while OEM-branded modules (Cisco, HPE, Juniper) range from $60–$120+ depending on specifications and temperature tolerance. 10G SFP+ Modules: Compatible modules often sell for tens of dollars, whereas OEM or long-reach modules can cost hundreds of dollars. 100G QSFP28 Modules: Prices are influenced by engineering, BOM, production, and overhead costs, with typical market prices ranging from $200–$600+ depending on reach and vendor.

400G Modules: Costs can swing hundreds to thousands of dollars per unit, depending on form factor (QSFP-DD, OSFP), optical reach, and component quality. 800G Modules: High-performance modules for AI or hyperscale data centers range from $700–$1,900, with volume pricing for 1,000+ units lowering costs to $1,000–$1,400 for standard DR8 modules.

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Factors Affecting Cost

Vendor Tier: OEM modules command a 30–50% premium over third-party compatible modules. Form Factor and Compatibility: QSFP-DD, OSFP, and LPO designs have different tooling and thermal requirements, affecting price. Optical Reach and Technology: Long-reach, extended temperature, or DSP-enabled modules cost more due to complex optics and testing.

Volume Discounts: Large orders can reduce per-unit cost by 10–30%. Engineering and Production Costs: Design verification, reliability testing, BOM, and assembly contribute significantly to final pricing. Market Dynamics: Supply constraints, early-generation products, and custom specifications can increase prices by 20–60%.

Summary

The cost of mobile optical modules is highly variable and depends on speed, form factor, vendor, reach, and production scale. For low-speed enterprise links, modules can be very affordable, while high-speed modules for data centers or AI workloads can reach thousands of dollars per unit. Buyers should consider total cost of ownership, including compatibility, warranty, and operational requirements, when selecting modules.

Article Content

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

What factors influence 400G optical transceiver modules price

Discover the key factors that drive 400G optical transceiver pricing—from form-factor and component costs to market dynamics and sustainability.

Optical Module Procurement Guide

Shifts in pricing for optical modules will continue to be the result of technology advancements and changing market needs. The shift to higher-speed technologies (e.g., 100G or

100G QSFP28 Module Cost: Pricing Guide & Factors | Vitex

Discover 100G QSFP28 module pricing. Learn key cost factors, considerations, and real examples to make informed purchasing decisions for your network.

Cost structure of optical module chips | Weyland

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The overall cost of an optical module chip depends on material choices, design complexity, manufacturing processes, packaging, testing, and integration, all of which play a role in the final

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 Transceiver Modules Prices & Specifications

Optical Transceiver Modules/SFP, also called fiber optic transceiver or optical transceiver, is a typically hot-pluggable device used in high-bandwidth data communications applications.

SFP Module Price

Find competitive sfp module prices for various optical transceivers. Our range includes 1.25G, 10G, and 25G modules with different reach and compatibility.

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

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,

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.

100G QSFP28 Module Cost: Pricing Guide & Factors | Vitex

View the 100G QSFP28 > Let''s take a look at different factors that could affect 100G QSFP28 optical module cost. Engineering Development Considerations While optical transceiver

Analyze The Cost Structure Of Optical Transceivers: Understand The ...

Summary: This article analyzes the cost components of optical transceivers, including material costs, manufacturing costs, R&D costs, and market costs. Understanding the cost structure of optical

How Much Does It Cost to Build a Modular Home? (2026)

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Modular home prices are $80 to $160 per square foot on average. Prefab, manufactured, and modular homes cost $120,000

What is an Optical Module?

Explore the world of optical modules, essential components in optical fiber communication. Learn about the different types of optical modules, their functions, packaging, and key technical concepts like

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.

Optical Transceiver Pricing: Cost Ranges by Speed and Type

See practical price ranges for 1G–100G optical transceivers, DAC/AOC options, and why cost varies by speed, reach and technology — buying tips included.

Cost structure of optical module chips | Weyland

High-speed optical module chips (100G, 400G, 800G) are the most expensive components of optical networks due to R&D, material, and fabrication costs. With advances in silicon photonics,

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

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