Price of Optical Modules for Communication Transmission Equipment



Overview

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

Key Takeaways

Optical module prices vary widely, typically ranging from $20–$200 for 1G–10G modules, $100–$500 for 25G–100G modules, and $1,000+ for 400G–800G high-speed modules. Price Ranges by Module Type1G–10G SFP/SFP+ modules: Usually cost $20–$200 depending on brand, distance (short-range vs long-range), and vendor compatibility. 25G–100G SFP28/QSFP28/CFP modules: Prices generally range from $100–$500, with higher-end modules supporting longer distances or advanced features like Digital Diagnostics Monitoring (DDM),.

200G–400G QSFP-DD/QSFP56 modules: These high-speed modules are typically priced $500–$1,500, depending on single-mode or multi-mode, vendor, and optical reach. 800G OSFP/QSFP112 modules: Cutting-edge modules for AI clusters or data centers can exceed $2,000–$3,000, reflecting advanced silicon photonics technology and high bandwidth requirements.

Factors Affecting Pricing

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Data Rate and Form Factor: Higher-speed modules (100G, 400G, 800G) and compact form factors (QSFP-DD, OSFP) are more expensive due to complex design and higher component costs. Distance and Fiber Type: Modules designed for long-distance single-mode fiber are costlier than short-range multi-mode modules. Vendor and Compatibility: OEM-branded modules (Cisco, Juniper, Arista) are typically more expensive than third-party MSA-compliant modules, which offer cost-effective alternatives.

Special Features: Modules with low power consumption, advanced diagnostics, or AI cluster optimization may carry a premium. Market Demand: High demand for data center and AI applications can drive prices up, especially for 400G–800G modules.

Purchasing Options

Wholesale suppliers: Companies like Unitekfiber and COBTEL provide bulk pricing for data centers and telecom operators. Distributors: DigiKey and FiberOptic marketplaces offer individual modules with immediate shipping, suitable for smaller deployments. Direct from manufacturers: For large-scale deployments, direct procurement from OEMs or MSA-compliant manufacturers can provide better pricing and support.

In summary, optical module prices are highly variable, influenced by speed, distance, vendor, and application. For typical enterprise or telecom use, expect $20–$500 for 1G–100G modules, while 400G–800G modules for AI or high-performance data centers can cost $1,000–$3,000 or more depending on specifications and vendor.

Article Content

Optical Transceiver Pricing: Cost Ranges by Speed and

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

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, HUAWEI Cisco SFP SFP+ QSFP

Deploy software configurable line rates and modulation schemes for long-reach amplified DWDM systems or dark fiber systems. Support line rates up to 400 Gbps over a single-fiber bidirectional

Wholesale Optical Transceivers Module | 100G QSFP28, 40G QSFP

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Shop high-speed optical transceivers from Unitekfiber. We offer 100% compatible 40G, 100G, and 400G QSFP-DD modules for data centers. Expert technical support & wholesale pricing.

SFP Module Price: Strategic Cost Analysis and TCO Factors

It also requires demystifying the physical parameters that dictate optical pricing—such as data transmission rates (e.g., 10GBASE-SR vs. 100GBASE-LR4), optical components (VCSEL vs. DFB

Optical Module Price, 2026 Optical Module Price Manufacturers ...

Enhance your Communication Module setup with our premium Optical Module Price.When seeking a communication module, prioritize factors such as compatibility with your system, speed & delivery,

Optics and Transceivers | Fiber Optical Transceivers

The fiber optic transceiver modules can work in any network architecture through professional capabilities and in-house lab test. Click to get your transceiver modules from nearby warehouses. 30

Optical Transceiver Market Size, Share, Industry Report – 2035

The market is projected to reach USD 15.4 billion in 2026, driven by increasing deployment of 400G and 800G optical modules, rapid expansion of hyperscale data centers, and rising bandwidth demand

Optical Module & Fiber Optic SFP Module Factory Manufacturer

We''re well-known as one of the leading optical modules manufacturers and suppliers in China. If you''re going to wholesale bulk high quality optical modules with competitive price, welcome to get pricelist

Wireless

Wireless communication (or just wireless, when the context allows) is the transfer of information (telecommunication) between two or more points without the use of

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Vocabulary list of GPT-4o (o200k_base) and GPT-4/GPT-3.5 (cl100k_base) tokenizers. Special tokens are excluded. - kaisugi/gpt4_vocab_list

Comprehensive Guide to Optical Transceiver Classifications and

Introduction Optical modules are critical components in fiber optic communications, enabling the conversion between electrical and optical signals. They are widely used in data centers,

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Optical Transceiver Modules Prices & Specifications

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

We are Nokia | Nokia

1977 Connecting Chicago The first Bell System optical telephone communication system is installed under the streets of Chicago, each fibre pair carries the

Understanding Optical Modules: Working Principles, Structures, and ...

Explore the working principles, structures, and performance metrics of optical modules, essential components of optical fiber communication systems. Learn about key indicators such as

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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Optical module

An optical module is a typically hot-pluggable optical transceiver used in high-bandwidth data communications applications. Optical modules typically have an electrical interface on the side that

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