

Optical Module Types and Prices



AI Overview

Optical module prices vary widely depending on speed, form factor, and technology, ranging from tens of dollars for standard SFP modules to several thousand dollars for high-speed 400G-800G modules.

Price Ranges by Module Type

- SFP (Small Form-factor Pluggable) Modules:** Typically used for 1G-10G connections, prices range from \$30 to \$200 depending on distance and vendor quality.
- SFP+ and QSFP+ Modules:** For 10G-40G speeds, prices generally range from \$100 to \$500, with longer-reach or multi-mode modules at the higher end.
- QSFP28 / OSFP Modules (100G):** These modules, supporting 100G Ethernet, usually cost \$400-\$1,200, depending on whether they are SR (short reach), LR (long reach), or AOC (active optical cable) types.
- 400G QSFP-DD / OSFP Modules:** High-speed modules for data centers and AI workloads can range from \$2,000 to \$5,000, influenced by power consumption, connector type, and vendor.
- 800G OSFP / QSFP-DD Modules:** Cutting-edge modules for hyperscale networks and AI clusters are priced at \$5,000+, reflecting advanced DSP chips, VCSEL/PD solutions, and OM4/OM5 fiber compatibility.

Factors Affecting Prices

- Raw Materials:** Lasers, silicon chips, and specialty semiconductors contribute significantly to cost.
- Manufacturing Complexity:** Precision cleanroom processes and quality control increase production costs.
- R&D and Innovation:** Newer high-speed modules carry premiums due to advanced engineering and testing.
- Supply Chain and Logistics:** Component shortages or shipping costs can temporarily raise prices.
- Market Demand:** Data center expansion, 5G deployment, and AI workloads drive demand for high-speed modules, influencing pricing.
- Procurement Considerations**
 - Technical Compatibility:** Ensure the module matches the required data rate and interface.
 - Vendor Reputation:** Choose reliable manufacturers with proven quality and support.
 - Total Cost of Ownership (TCO):** Consider power consumption, maintenance, and replacement costs, not just purchase price.
 - Future-Proofing:** Mod...

Article Content

A Complete Guide to New Optical Module Prices: Specifications,

Different types of optical modules are engineered to meet specific performance needs across data centers, enterprise networks, and long-haul communication systems.

Wiley Online Library

Hier sollte eine Beschreibung angezeigt werden, diese Seite lässt dies jedoch nicht zu.

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

Arista Optics Modules and Cables

Arista's Optical Modules and Cable portfolio offer a wide variety of high-density and low-power 800G (dual 400G), 400G, 200G, 100G, 50G, 40G, 25G, 10G, 1G, and 100M Ethernet connectivity options

HTF DWDM equipment, OTN Solution, QSFP28 OSFP

HTFuture offers industry-leading fiber optic products and WDM system solutions with global recognition for excellence and innovation.

Comprehensive Guide to Optical Transceiver

Systematic classification of optical modules by data rate, form factor, transmission distance, and fiber type.

Optical Transceiver Modules Prices & Specifications

What are the main types of optical transceiver modules? The main types include SFP (1G), SFP+ (10G), SFP28 (25G), QSFP+ (40G), QSFP28 (100G), QSFP56

Optical Modules

This report aims to provide a comprehensive presentation of the global market for Optical Modules, focusing on the total sales volume, sales

Types of Optical Modules Type of Optical SFP PRICE AND SPECS

Therefore, when using such optical modules, select optical fibers of an appropriate length to ensure that the actual receive power is smaller than the overload power. If the optical fibers

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.

Google's High-Speed Interconnect Architecture to Push

Google's next-generation TPU, Ironwood, integrates a 3D Torus network topology with the Apollo optical circuit switch (OCS) all-optical network,

Small Form-factor Pluggable

Small Form-factor Pluggable connected to a pair of fiber-optic cables Small Form-factor Pluggable (SFP) is a compact, hot-pluggable network interface module

What Is an Optical Module and Its FAQs (V200)

What Is an Optical Module and Its FAQs (V200) Describes what an optical module is and FAQs, including the fundamentals, appearance and structure, key performance counters, common types,

SHIMADZU CORPORATION

Since 1875, Shimadzu is pursuing leading-edge science and technologies in analytical and measuring instruments including chromatographs and mass

SFP Module (Optical Transceiver) Guide | Types,

SFP modules typically support data rates up to 1 Gbps, while SFP+ modules support up to 10 Gbps, making them ideal for high-speed networks. A detailed

How to Choose Optical Modules Correctly?

Optical modules are pivotal components in optical fiber communication systems, operating at the physical layer—the foundational level

Optical Module Procurement Guide

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

A complete list of common optical module types-ETU

Many partners do not know much about the packaging types of optical modules,so in this article,ETU-LINK introduces you to what are the

Deep Dive: Optical Module Market

Today, I'm excited to share an in-depth analysis of the global optical module market, an industry I find particularly compelling due to its critical role in data center networks for the

What is SFP Port? Everything You Need to Know

What is an SFP port? The SFP port also refers to a Small Form-factor Pluggable port. It is a compact mechanical slot that accepts an SFP

SFP Module (Optical Transceiver) Guide | Types,

SFP modules (1G/10G/100G) including types, compatibility. Cisco & Huawei compatible optical transceivers with factory pricing and fast delivery.

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

What types of optical modules are there?

With the continuous development of technology, optical modules will appear in more diverse types and specifications, providing more efficient and reliable solutions

The Ultimate Guide to SFP Modules (2026): Types, Speeds

Confused by SFP vs SFP+? Read the definitive 2026 guide on SFP modules. We explain Single Mode vs Multimode, DDM diagnostics, and how to choose the right transceiver for Cisco, Juniper, and more.

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

Cisco 10GBASE SFP+ Modules Data Sheet

The Cisco® 10GBASE SFP+ modules (Figure 1) give you a wide variety of 10 Gigabit Ethernet connectivity options for data center, enterprise

Optical Transceiver Pricing: Cost Ranges by Speed and

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

Contact Us

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