How much does a gigabit optical module for low-voltage applications 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

Gigabit low-voltage optical modules (SFP/SFP+) typically cost between $10 and $50 per unit, depending on vendor, power efficiency, and certification.

Price Range and Factors

For low-power gigabit optical modules, such as SFP or SFP+ transceivers designed for energy efficiency, typical prices range from $10 to $50 per module. The cost depends on several factors: Vendor Type: OEM modules from brands like Cisco or Juniper often carry a 20–40% premium over reliable third-party modules due to rigorous quality control, extended warranties, and support infrastructure. Power Efficiency: Low-power modules reduce energy consumption by 20–35% compared to standard modules, which can slightly increase upfront cost but reduce operational expenses over time.

Technology and Standards: Modules compliant with mature standards benefit from production scale, keeping prices stable, whereas newer or specialized modules may have higher costs. Volume and Procurement Timing: Bulk purchases or planned procurement can reduce per-unit cost, while emergency or small-volume orders may be more expensive. Certification and Compatibility: Modules tested for interoperability with specific switches or network equipment may cost more but reduce integration issues and downtime.

© 2026 METRA FIBER MARKET - All rights reserved

Operational Cost ConsiderationsLow-voltage, low-power modules typically consume 0. 8–1. 5 W per port, compared to several watts for older or copper-based solutions.

This translates to annual energy savings of $0. 38–$0. 55 per port at typical electricity rates, which can scale significantly in large deployments.

Reduced heat also lowers cooling requirements and extends equipment life.

Summary

While the upfront cost of a gigabit low-voltage optical module is modest, selecting modules with low power consumption, vendor certification, and reliable support can reduce total cost of ownership and improve network sustainability. For most enterprise or data center applications, expect to pay $10–$50 per module, with OEM modules at the higher end and third-party low-power modules at the lower end.

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

1G SFP Optical Transceivers | Transceiver Modules

Store.QSFPTEK 1G SFP transceivers provide wide selection for various Gigabit Ethernet applications, such as 100+ vendors compatibility, copper/fiber, SMF/MMF, 100m to 80km.

SFP transceiver module (SFP & GBIC modules)

SFP''s come in a variety of data rates and different fiber coverages. The most used SFPs are the 1.25G Gigabit rate transceiver modules. This section also includes wider old format GBIC only transceivers

A Complete Guide to Sfp 1g Price: Specifications, Types, and

Optimized for 1Gbps Fiber Channel (FC) storage networks. Fully compatible with 1GbE but tuned for low-latency, high-reliability storage traffic. Price Range: $30–$80 (compatible),

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

© 2026 METRA FIBER MARKET - All rights reserved

Fiber Optic Transceivers | SFP, QSFP & GBIC | High-Performance

Shop SFP, QSFP, and GBIC transceivers for Gigabit Ethernet over multimode and singlemode fiber. Hot-pluggable, scalable, and available in industrial and WDM options.

Ultimate Guide to 1G SFP Module Selection

Learn how to choose the right 1G SFP module for your network. Our guide covers compatibility, distance, fiber type, cost, and vendor selection for optimal performance.

Networking Solutions for the Era of AI | NVIDIA

Networking Purpose-Built for the Era of AI Factories AI factories now span tens of thousands of GPUs—and soon, millions—operating as a single distributed computing engine. To keep

Gigabit Ethernet

Gigabit Ethernet was the next iteration, increasing the speed to 1000 Mbit/s. The initial standard for Gigabit Ethernet was produced by the IEEE in June 1998 as

Solid-state drive

However, SSDs are generally more expensive on a per-gigabyte basis and have a finite number of write cycles, which can lead to data loss over time. Despite

Google Fiber

Google has neither confirmed nor denied this claim. AT&T and other Internet service providers have launched their own gigabit services since Google Fiber was revealed. Some cable subscribers have

Making technology work for business – United Kingdom

Computerworld covers a range of technology topics, with a focus on these core areas of IT: generative AI, Windows, mobile, Apple/enterprise, office

Cisco SFP Modules for Gigabit Ethernet Applications

Cost-effective Small Form-Factor Pluggable (SFP) transceivers for Gigabit Ethernet applications Product overview The industry-standard Cisco

Cisco SFP Modules Price & Datasheet

Get 100% Brand New Cisco SFP modules with big discount, and check Cisco GLC modules & SFP Transceivers datasheet and price from router-switch .

Cisco Gigabit Ethernet GBIC/SFP Modules

© 2026 METRA FIBER MARKET - All rights reserved

Cisco offers a range of GBIC transceivers and Small Form-factor Pluggables (SFP) transceivers for Gigabit Ethernet and Fibre Channel appications. These small,

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.

Gigabit single-mode single-core fiber optic module

The general parameters and basic knowledge of Gigabit optical transceivers are difficult to master. The following will introduce the general parameters of the optical module and the basic

Designing a Module for High-Speed Optical Communication

The ultimate goal for all-optical connectivity with an ultra-high F5G bandwidth is to increase transmission rates. Optical modules — the foundation of optical communication networks — face the design

Contact Us

Continue your research online:

Website: https://metramarket.es
Technical inquiry: https://metramarket.es/contact.html

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

© 2026 METRA FIBER MARKET - All rights reserved