

Gigabit Multimode Optical Module Information



AI Overview

A gigabit multimode optical module is a compact transceiver that converts electrical signals into optical signals for 1 Gbps data transmission over multimode fiber.

Overview A gigabit multimode optical module is an optical transceiver designed to transmit data at 1 Gigabit per second (1 Gbps) using multimode fiber (MMF) as the transmission medium. It is commonly used in local area networks (LANs), enterprise networks, and data center interconnections where short-distance, high-speed communication is required.

Key Characteristics

- Form Factor:** Typically Small Form-factor Pluggable (SFP), allowing hot-swappable installation in switches, routers, or servers.
- Fiber Type:** Works with multimode fiber, which has a larger core diameter (50 μm or 62.5 μm) that supports multiple light modes.
- Wavelength:** Operates at 850 nm, optimized for cost-effective VCSEL (Vertical Cavity Surface Emitting Laser) light sources.
- Connector:** Usually LC duplex connectors for fiber connections.
- Distance:** Effective for short-range transmission, typically up to 550 meters on OM3 or OM4 multimode fiber.

How It Works The module converts electrical signals from network devices into optical signals, which then propagate through the multimode fiber. The larger core of multimode fiber allows multiple light paths, enabling high data throughput over short distances. The optical signals are received by a corresponding module at the other end, which converts them back into electrical signals for the receiving device.

Applications

- Building Backbones:** Connecting switches between floors or wings within a campus or office building.
- Data Center Rack-to-Rack Links:** Short connections between adjacent racks or within the same row.
- Enterprise Networks:** Cost-effective solution for internal network connectivity where long-distance single-mode fiber is unnecessary.

Advantages

- Cost-Effective:** Less expensive...

Article Content

K6097: Specifications of the Fiber Gigabit Ethernet SFP, XFP, SFP+ ...

Topic The following specifications are for the available Fiber Gigabit Ethernet modules and the platforms that support those modules. Important: The end user must ensure suitability of

Cisco Transceiver Modules

Cisco Transceiver Modules - Learn product details such as features and benefits, as well as hardware and software specifications.

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

SFP Optical Transceiver | SFP Optical Module | Perle

Multimode and single-mode fiber Gigabit Ethernet, Fast Ethernet, Fiber channel, ATM/SONET, SDH Hot-pluggable with durable metal enclosure Can be installed in any Cisco or MSA SFF-8472

39 NEW Cisco SFP10GSR 10 Base SFP Module

Genuine Cisco SFP-10G-SR 10Gb SFP+ Short Range optical transceiver module (P/N 10-2415-03). Supports 10 Gigabit Ethernet over multimode fiber using an LC duplex connector at

Huawei eSFP-GE-SX-MM850 Gigabit Optical Module Overview

The eSFP-GE-SX-MM850 optical module is a Huawei Gigabit multimode optical module with DOM/DDM support, which is packaged in an SFP package with a center wavelength of 850 nm.

Gigabit 6-port L2+ managed bypass industrial PoE switch

L2+ managed bypass industrial PoE fiber switch with 4*10/100/1000M RJ45 ports and 2*100/1000M uplink SFP fiber ports. Port 1-4 can support IEEE 802.3 af/at PoE standard. It can support dual DC

Optic Modules Datasheet

datasheet is intended to guide the user through the various options available when choosing an optic module for a given platform depending on the architecture. The following table lists the different

SFP-M Gigabit Fiber SFP Transceiver, Multi Mode 550M | Antaira

The SFP-M is a high performance and cost-effective module for serial optical data communication applications specified for multimode of 1.25 Gb/s. It operates on +3.3V power.

Cisco SFP Modules for Gigabit Ethernet Applications

This data sheet describes the benefits, specifications, and ordering information for the Cisco SFP Modules for Gigabit Ethernet Applications.

SFP-1G-SX Explained: The Essential Guide to 1G

Learn about its specifications (1000BASE-SX standard, 850nm wavelength), compatibility, typical applications, deployment best practices, and

Moxa SFP-1GSXLC-T Gigabit SFP 1000Base-SX LC Multi-Mode

The Moxa SFP-1GSXLC-T is a premium industrial-grade Small Form-factor Pluggable (SFP) transceiver module designed for demanding 1 Gigabit fiber optic networks in harsh industrial environments.

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

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.

Cisco Gigabit Ethernet Multi-Mode QSFP Transceiver Module,

About this product Cisco™ BiDi Short-reach transceiver module with LC duplex 40GBase-X interface transfers data at the rate of 40 Gb/s and is compatible with Cisco Nexus 9000 series switches.

4 Port 10/100/1000 RJ45 to Fiber Switch

Our ESW-2206 optical fiber switch has 2 Fiber Optic SFP Module ports and 4 X 10/100/1000 Base-TX copper RJ-45. Works Best with Fibertronics Cat6 6 or Cat 5e ethernet patch cables. It supports dual

AddOn Dell SFP+ Module

Add to Cart Description Warranty Information Shipping Policy Protection Plans Description AddOn Dell SFP+ Module - For Data Networking, Optical Network - 1 x LC 10GBase-SR Network - Optical Fiber -

Ubiquiti SFP+ Module UACC-OM-MM-10G-D-2

Ubiquiti SFP+ Module The 10 Gbps Multi-mode Optical Module is a duplex transceiver that delivers up to 10 Gbps speed over distances up to 300 meters. Enjoy flexibility and scalability with data transfer

100 Gigabit Ethernet

40 Gigabit Ethernet (40GbE) and 100 Gigabit Ethernet (100GbE) are groups of computer networking technologies for transmitting Ethernet frames at rates of 40 and 100 gigabits per second (Gbit/s),

Multi-mode optical fiber

Multi-mode optical fiber is a type of optical fiber mostly used for communication over short distances, such as within a building or on a campus. Multi-mode links can be used for data rates up to 800 Gbit/s.

Ubiquiti 25 Gbps Multi-mode Optical Module UACC-OM-SFP28-SR

Short-range, SFP28-compatible optical transceiver module. The 25 Gbps Multi-mode Optical Module is an optical transceiver capable of sustaining 25 Gbps throughput over a fiber connection. After

SFP-10G-LR-10 Avanis | europages

About this product 10/5/2.5 Gigabit Fiber LR SFP+ Module, TX: 1310nm, RX: 1310nm, with SM LC 10 km, DDM functionality, temperature range 0~70 °C

Cisco 40GBASE QSFP Modules Data Sheet

Cisco QSFP-40G-CSR4 Cisco 40GBASE-CSR4 QSFP Modules extend the reach of the IEEE 40GBASE-SR4 interface to 300 and 400 meters on laser-optimized OM3, and OM4/OM5

Top Optical Modules for POTN Deployment: SFP, QSFP, and OSFP

This in-depth guide explores the three major optical module standards—SFP, QSFP, and OSFP—highlighting their architecture, performance characteristics, and practical deployment roles in

4K Fiber KVM Extender up to 550m for Remote PC

Fiber Optic Transmission with Zero Latency With the advanced fiber optic technology, this 4K KVM extender provides anti-electromagnetic interference

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://adikor.eu>

Email: info@adikor.eu

Phone: +33 6 48 37 92 15

Address: 12 Rue de la Paix, 75002 Paris, France

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