

Gigabit Single-Mode Optical Module Interface Type



Article Overview

Gigabit single-mode optical modules typically use LC or SC interfaces and operate over single-mode fiber (SMF) for long-distance transmission.

Interface Type and Fiber Compatibility

Gigabit single-mode optical modules are designed to transmit data over single-mode fiber (SMF), which allows for long-distance communication, often up to 10 km or more depending on the module and fiber quality . The most common interface types for these modules are:

- LC (Lucent Connector): A small form-factor connector widely used in modern SFP modules for high-density networking.
- SC (Subscriber Connector): A larger connector type, sometimes used in older or specialized equipment . These connectors are used to physically connect the optical module to the fiber patch cord, ensuring proper alignment for efficient light transmission.

Transmission Characteristics

- Single fiber (simplex) modules: Use a single strand of fiber for both transmitting and receiving signals, often employing different wavelengths for each direction. This design is cost-effective for long-distance backbone or metropolitan area networks .
- Dual fiber (duplex) modules: Use two fibers, one for transmitting and one for recei...

Article Content

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Optic Modules Datasheet

These platforms support multiple interface types and technologies such as Ethernet, ATM, and SONET. Depending on the

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The Ultimate Guide to 1G SFP Modules

In this comprehensive guide, we delve into the world of 1G SFP modules, providing a complete understanding of their

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SFP modules – transceivers for 1/2/4G fibre channel

SFP – small form factor – pluggable modules for various optical data communications such as Fast Ethernet, Gigabit Ethernet, BiDi,

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Single-mode optical fiber

In fiber-optic communication, a single-mode optical fiber, also known as fundamental- or mono-mode, is an optical fiber designed

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Cisco SFP Modules for Gigabit Ethernet Applications

The 1000BASE-ZX SFP operates on standard single-mode fiber-optic link spans of up to approximately 70 km in length. The SFP

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Everything You Have to Learn About GBIC and SFP

The single-mode fiber SFP module supports transmission distances up to 120km, while the multimode fiber SFP

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What Are The Types Of Gigabit Optical Modules

The interface type of Gigabit single fiber optical module is LC& SC and the fiber type is single mode. It can be

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Gigabit SFP Module: A Complete Guide to 1G SFP Transceivers

A gigabit SFP module works by acting as the physical interface between a network device and the transmission medium, enabling

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Understanding Single-mode and Multi-mode SFP Optical Modules

As SFP single-mode optical modules and SFP multi-mode optical modules are incompatible. If you mix SFP single-mode optical

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Understanding Single-mode and Multi-mode Optical Modules and Optical ...

Conclusion: In conclusion, single-mode and multi-mode optical modules and fibers serve distinct purposes in sfp optical module

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Industrial Gigabit Fiber SFP Optical Transceiver

Also known as a mini-Gigabit Interface Converter (GBIC), this industrial SFP module's metal housing offers

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Installation and Maintenance Guide for Gigabit Optical Modules and 10 ...

Additionally, the appropriate fiber type and length should be selected according to the specifications of the optical

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Cisco MGE SFP Modules Cisco Small Business Network Accessories

easy-to-install modules that provide a simple way to add fiber connectivity or an extra Gigabit Ethernet port to your Cisco 100, 200,

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1000BASE-SX, 1000BASE-LX, 1000BASE-ZX& BX SFP: A Simple

1000BASE-LX SFP is a gigabit Ethernet standard over fiber optics for long reach. It operates on single-mode fiber

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Gigabit Fiber SFP Optical Transceiver Module

The new Intellinet Network Solutions Small Form Factor Pluggable (SFP) Transceiver provides the best

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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

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Gigabit interface converter

1000BASE-SX GBIC Gigabit interface converter (GBIC) is a standard for transceivers. First defined in 1995, it was used with Gigabit

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SFP Module: What's It and How to Choose It?

What Is SFP Module? SFP module is a compact, hot-pluggable optical transceiver module, which is widely used for

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SFP Single Mode LC Module (20km)

Each TEG-MGBS20 single mode fiber SFP is equipped with a duplex LC fiber connection interface, supports high-speed data rates

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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

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Comprehensive Guide to Optical Transceiver Classifications and Common Types

They are widely used in data centers, telecommunications networks, and industrial communication systems.

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Industrial Gigabit Fiber SFP Optical Transceiver

Compatibility in your network is everything, and this industrial SFP Transceiver Module delivers. Use it with

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Cisco Transceiver Modules

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

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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,

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Small Form-factor Pluggable

Small Form-factor Pluggable Small Form-factor Pluggable connected to a pair of fiber-optic cables Small Form-factor Pluggable

Contact Us

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