

Gigabit optical port 100Mbps module



Overview

100BASE FX SFP: Complete Guide to 100Mbps Fiber Transceivers
Gigabit SFP ports generally do not support 100Mbps modules unless explicitly dual-rate. Upgrade.

Key Takeaways

Yes, a Gigabit Ethernet optical port can operate at 100Mbps using a specialized 100BASE-FX SFP module like Cisco GLC-GE-100FX.

How It Works

Standard Gigabit SF

P modules (1000BASE-SX/LX) are fixed at 1 Gbps and cannot natively run at 100 Mbps. To connect a legacy 100 Mbps fiber link to a modern Gigabit Ethernet port, you need a 100BASE-FX SFP module designed for this purpose. The Cisco GLC-GE-100FX module, for example, presents a 1 Gbps SGMII interface to the host port while converting the signal to 100 Mbps Fast Ethernet on the optical side.

This allows the Gigabit port to communicate with 100 Mbps fiber without requiring the host port to renegotiate its line speed.

Key Features

Host Interface: SGMII (Serial Gigabit Media-Independent Interface) at 1.25 Gbps, compatible with standard Gigabit SFP cages. Optical Interface: 100BASE-FX over duplex LC fiber, supporting legacy 100 Mbps fiber links.

Use Case: Ideal for connecting older 100 Mbps fiber infrastructure to modern switches or routers that only have Gigabit SFP ports.

Hot-

Pluggable: Can be inserted or removed without powering down the switch.

Practical Considerations

Ensure the switch or router supports 100BASE-FX SFP modules; not all Gigabit SFP ports automatically support 100 Mbps operation. The module is typically used in enterprise or campus networks where older fiber links exist. For multi-lane high-speed ports (like QSFP28 100G), breakout functionality is used to split lanes into lower-speed connections, but this is generally for 10G or 25G lanes, not 100 Mbps.

Summary

To use a Gigabit optical port with a 100 Mbps fiber link, you cannot simply use a standard 1G SFP. You need a dedicated 100BASE-FX SFP module such as Cisco GLC-GE-100FX, which converts the Gigabit host interface to a 100 Mbps optical signal, enabling seamless connectivity between modern Gigabit ports and legacy 100 Mbps fiber infrastructure.

Article Content

100BASE FX SFP: Complete Guide to 100Mbps Fiber Transceivers

Gigabit SFP ports generally do not support 100Mbps modules unless explicitly dual-rate. Upgrading to 1Gbps may require replacing both modules and switching hardware.

100GBASE QSFP-100G Modules Data Sheet

Hot-swappable input/output device that plugs into a 100G Gigabit Ethernet Cisco QSFP port. Interoperable with other IEEE-compliant 100GBASE

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.

Cisco GLC-GE-100FX: 100BASE-FX SFP for Gigabit Ports

GLC-GE-100FX is a Cisco SFP module that lets a Gigabit Ethernet port on a Cisco switch or router carry a 100BASE-FX optical link. A standard 1000BASE-SX or 1000BASE-LX SFP cannot

100M SFP Transceiver Modules Data Sheet | FS

Featuring low power consumption, this industrial optic transceiver provides 100BASE Ethernet connectivity options for Fast Ethernet and Data Centers, suitable for both outdoor and

Breakout-Capable 100G Optical Modules: Everything You Need to Know

Breakout-capable 100G modules are optical transceivers or cables designed to split a single 100Gbps port into multiple lower-speed channels, typically four 25Gbps or 10Gbps links.

100 Gigabit QSFP28 Fiber Optic Transceivers | High

The 100 Gigabit QSFP28 Transceivers are designed to meet the needs of modern, high-speed network environments. Whether you're operating a data center, small form factor pluggable module 100g

The SULITON fiber optic sfp 100g provides an excellent solution for high reliability, lower power consumption and excellent EMI performance allow system design

QSFP28 100G SR4 850nm 100m Optical Transceiver Module

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1Mbps Optical Transceiver Differences Compared with 100Mbps Optical Modules

Explore the applications of 1Mbps optical transceivers and the key differences between 1Mbps and 100Mbps optical modules. Learn how C-LIGHT provides reliable low-speed industrial optical

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SFP Module Transceivers, Manufacturer & Supplier

Dual-fiber SFP optical modules are a common type of 1G SFP optical module. They employ a bidirectional transmission mechanism, with two independent channels or ports for data transmission

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

Cisco Transceiver Modules

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

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