

Gigabit optical module compatible with 100Mbps



Article Overview

A standard Gigabit SFP cannot be set to 100 Mbps, but specialized modules like Cisco GLC-GE-100FX allow a Gigabit port to carry a 100 Mbps optical link.

How It Works

Standard 1000BASE-SX or 1000BASE-LX SFPs are fixed at 1 Gbps and cannot be reconfigured to 100 Mbps because their optical PHY is designed for Gigabit speeds only . To connect a Gigabit Ethernet SFP port to a legacy 100 Mbps fiber link, you need a dual-rate or specialized 100BASE-FX SFP, such as the Cisco GLC-GE-100FX. This module presents a 1.25 Gbps SGMII signal to the host port while converting it internally to a 100 Mbps Fast Ethernet optical signal on the fiber side . This allows the Gigabit port to remain operational without renegotiating its line speed.

Configuration Considerations

- On Cisco devices, the GLC-GE-100FX module is hot-swappable and supports full-duplex 100 Mbps connectivity over multimode fiber up to 2 km .
- On Extreme Networks switches, 100 FX SFPs must have their speed explicitly configured to 100 Mbps, as autonegotiation alone may not suffice .
- On Juniper EX/QFX devices, when connecting a 100 Mbps link to a Gigabit SFP port, you must configure the link partner and the port speed to 100 Mbps and set duplex to full duplex if autonegotiation is disabled .

Practical Deployment

Article Content

SFP Modules

Moxa's small form-factor pluggable transceiver (SFP) Ethernet fiber modules provide 10 Gigabit, Gigabit, and Fast Ethernet in order

Cisco 10GBASE SFP+ Modules Data Sheet

The Cisco® 10GBASE SFP+ modules (Figure 1) give you a wide variety of 10 Gigabit

AFBR-89BDDZ: QSFP28 Pluggable, Fiber-Optics Module 100 Gigabit

The Broadcom® AFBR-89BDDZ is a four-channel, pluggable, multimode, fiber-optic QSFP28 transceiver for 100-Gigabit Ethernet

100M-4G SFP

The GIGALIGHT 100M-4G SFP pluggable optical transceiver modules support Fast Ethernet, Gigabit Ethernet, 1G/2G/4G Fibre

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

100BASE FX SFP remains a widely used solution for deploying 100Mbps fiber connectivity in industrial, enterprise, and legacy Fast

Cisco Fast Ethernet SFP Modules

Cisco 100BASE-LX10 SFP The Cisco 100BASE-LX10 SFP operates on ordinary single SFP modules – transceivers for 1/2/4G fibre channel

An SFP (Small Form-factor Pluggable) transceiver is a compact optical module designed for high-speed

Cisco 100 Gigabit Modules

Explore Cisco 100 Gigabit Ethernet Modules, designed to deliver ultra-high-speed connectivity, scalability, and performance for

The Knowledge 100G Optical Transceivers You Should Know

How should the correct 100G optical transceiver module be selected? This blog will introduce 100G optical transceiver

100GBASE QSFP-100G Modules Data Sheet

The Cisco 100GBASE-SR4-S QSFP Module supports link lengths of up to 70m over OM3

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

Learn what a gigabit SFP module is, how it works, main types, key specifications, and common use cases to choose the right 1G

What is a 100 Gigabit Singlemode SFP-FE-LX Optical Module?

The 100 Gigabit Singlemode Optical Module SFP-FE-LX is an optoelectronic converter module with SFP interface,

Comprehensive Guide to Optical Transceiver Classifications and

Classification by Data Rate Data rate determines the transmission capacity of optical modules: 100 Mbps: Suitable for

A Complete Guide to Selecting 100G QSFP28 Optical Transceivers:

Choose the best 100g qsfp28 optical transceiver for your network by comparing compatibility, distance, fiber type, and

100G QSFP28 Optical Transceiver Modules | FiberMall

The 100G QSFP28 optical module is suitable for 100G Ethernet, EDR Infiniband and 32G fibre channel. Generally, its size and panel

Gigabit Ethernet

Gigabit Ethernet was the next iteration, increasing the speed to 1000 Mbit/s. The initial standard for Gigabit

100G QSFP28 BiDi Optical Transceiver Module 100m

100G BIDI SR QSFP28 optical transceiver designed for high-speed 100 Gigabit Ethernet applications. Perfect for data centers and

MikroTik wired interface compatibility

While MikroTik cannot ensure full compatibility with modules from all manufacturers, as long as the other vendor

A Comprehensive Guide to 100G Optical Transceiver Module Form

Understand 100G optical transceiver form factors like QSFP28, CFP, CFP2, CFP4 and CXP. Learn how they

SFP Optical Transceiver | SFP Optical Module | Perle

For example, by simply replacing the pluggable optical transceiver, a media converter that was originally used in a multimode

Are 10G Optical Modules Compatible with Gigabit Optical Ports?

When it comes to compatibility between optical networking equipment and optical modules, it is critical to ensure a

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

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

Cisco Transceiver Modules

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

Cisco SFP Modules for Gigabit Ethernet Applications

This data sheet describes the benefits, specifications, and ordering information for the

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

SFP – small form factor – pluggable modules for various optical data communications such as Fast

Extreme Networks SFP Modules

Each module provides 100 Mbps or 1000 Mbps optical connections. The type of switch, router, or other component determines the

Contact Us

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