Plug a gigabit optical module into a 100 Mbps port



Overview

GLC-GE-100FX goes into a Gigabit Ethernet (GE) SFP port and uses SGMII on the host side to bridge the GE host PHY down to a 100 Mbps optical lane.

Key Takeaways

No, a standard gigabit optical module cannot operate in a 100Mbps port because the port cannot support the higher-speed signaling required.

Detailed Explanation

Physical Fit vs. Electrical Compatibility While a gigabit SFP module may physically fit into a 100Mbps SFP port, the link will not establish because the 100Mbps port cannot handle the 1Gbps signaling of the module. Optical transceivers are designed to operate at specific speeds, and standard gigabit SFPs are fixed at 1Gbps, whereas 100BASE-FX SFPs are fixed at 100Mbps.

The port and module must match in both speed and signaling for communication to occur. Fiber Type and Wavelength Considerations Even if the fiber type and connector match, the modulation and wavelength used by gigabit modules differ from 100Mbps modules. For example, a 1000BASE-BX10-D module uses a different center wavelength than a 100BASE-FX or 100BASE-BX10 module, making them incompatible over the same fiber link.

Exceptions and Special CasesDual-rate SFPs: Some SFP+ fiber modules support both 1Gbps and 10Gbps, but there are no standard dual-rate modules that support both 100Mbps and 1Gbps over fiber.

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Copper SF

Ps with auto-negotiation: In copper-based SFPs (10GBASE-T), auto-negotiation allows a 10G SFP+ module to operate at 100/1000Mbps, but this does not apply to optical modules. Conclusion To connect a 100Mbps port, you must use a 100BASE-FX SFP transceiver. Using a gigabit optical module in a 100Mbps port will fail to establish a link, regardless of fiber type or connector compatibility.

Frequently Asked Questions

Installing SFP and SFP+ Transceiver Modules

SFP transceiver modules can have three types of latching devices to secure an SFP transceiver module in a port socket: •Figure 4 shows an SFP trans...

Removing SFP and SFP+ Transceiver Modules

If you are removing an SFP or SFP+ transceiver module, follow these steps: Step 1 Attach an ESD-preventive wrist strap to your wrist and to the ESD...

Obtaining Documentation and Submitting A Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly What's New in Cisco...

Article Content

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

GLC-GE-100FX goes into a Gigabit Ethernet (GE) SFP port and uses SGMII on the host side to bridge the GE host PHY down to a 100 Mbps optical lane. GLC-FE-100FX goes into a Fast

SFP vs SFP+: A Complete Guide to Compatibility and SFP+ Modules

Explore the ultimate guide to SFP vs SFP+ compatibility, covering interoperability and backward compatibility of SFP+ modules for seamless high-speed network deployment.

Cisco SFP and SFP+ Transceiver Module Installation Notes

These transceiver modules are hot-swappable input/output (I/O) devices that plug into 100BASE, 1000BASE and 10GBASE ports (for SFP+), which connect the module port with the fiber

100mb SFP Module in Gigabit Cisco 3850

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While compatible with your 12-fiber-port Catalyst 3850, it is not a general purpose transceiver that''s interoperable with just any other 1 Gbps transceiver. It is specialized for use with

Understanding SFP to SFP+ Compatibility: A

The Small Form-factor Pluggable (SFP) port enables a gigabit switch to achieve fiber uplink over longer distances or short-range copper uplinks by

Is SFP Compatible With SFP+? Can 10G SFP+ Run at 1G SFP Port?

SFP port (electrical port and optical port) enables a gigabit switch to achieve fiber uplink over longer distances or short-range copper uplinks by inserting the corresponding SFP module

Can SFP+ run at 1G□

Yes, SFP+ (Small Form-Factor Pluggable Plus) modules are backward compatible with 1 Gigabit Ethernet (1G) networks. While SFP+ is primarily designed for 10 Gigabit Ethernet (10G)

Understanding SFP to SFP+ Compatibility: A Comprehensive Guide

The Small Form-factor Pluggable (SFP) port enables a gigabit switch to achieve fiber uplink over longer distances or short-range copper uplinks by inserting the corresponding SFP

SFP SFP Plus QSFP Modules: Practical Network Cabling Guide

The Pluggable Module Family SFP, SFP+, and QSFP modules are hot-swappable transceiver modules that plug into matching cages on switches, routers, network cards, and storage controllers. They

Extreme Networks SFP Modules

The type of switch, router, or other component determines the compatible type of SFP module. Use only Extreme Networks-certified SFP, SFP+, and SFP28 modules in the SFP port on the hardware.

StarTech US100A20SFP USB to Fiber Optic Converter

Get up and running quickly. The USB to fiber-optic converter supports certified drivers for Windows and Linux®. When you plug the adapter into a USB port, you simply install the drivers and the adapter is

B850 AORUS ELITE WIFI7 ICE

Save the latest BIOS on a USB thumb drive and plug it into the dedicated port, and then you can now flash the BIOS automatically by simply pressing the Q-Flash Plus button.

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A Comprehensive Guide to 100G Optical Transceiver Module Form

However, selecting the right form factor for your 100G optical transceiver modules can be challenging due to the variety of packaging options available. This guide explores the key 100G

USRP Hardware Driver and Device Manual: USRP X3x0 Series

Hardware Setup Gigabit Ethernet (1 GigE) Prior to installing the module, the host PC can remain powered on. Plug a 1 Gigabit SFP Transceiver into Ethernet Port 0 on the USRP X300/X310 device.

8 port Fiber Optic SFP Switch

RJ45 ports are for data in or out, and SFP fiber port is for fiber optic signal in or out 2. It works with any fiber media converter or fiber switch. 3. Plug two suitable SFP fiber modules into two SFP slots at

SFP transceiver BlueOptics 500SSM91 R0001-BO | AiO.lv

Product information Description The BlueOptics 500SSM91 R0001-BO 1250 Mbit/s SFP transceiver module is a compact plug-in optical module designed for use in SFP ports of network switches,

Configure and Verify Ethernet 10/100/1000Mb Half/Full Duplex ...

Note: The Catalyst switches/modules, such as the Catalyst 6500/6000, 4500/4000, 3550, and 2950, support 10/100/1000 Mbps negotiated Ethernet interfaces or ports.

Why is the Gigabit Switch Only 100Mbps? How to Solve It?

When these devices connect, the switch ports will negotiate the maximum speed the device can handle. If the switch port itself is faulty or the switch is low-quality or aging, it might fail to

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