

Converting a gigabit optical module to a 100 megabit



Summary of Content

You cannot convert a gigabit optical module to 100 megabits; optical transceivers operate only at their rated speed, so a dedicated 100 Mbps module is required.

Fixed-Speed Nature of Optical Modules

Optical transceivers, such as SFP, SFP+, QSFP, and others, are designed to operate at a specific data rate determined by their internal electro-optical components. A 1 Gbps (gigabit) SFP module cannot be downshifted to 100 Mbps because the module's laser, receiver, and signal processing circuitry are optimized for gigabit signaling and cannot reliably transmit or receive at a lower speed. Attempting to force a lower speed would result in link failure or signal errors.

Practical Solution

To connect a device that only supports 100 Mbps over fiber, you must use a 100 Mbps-compatible optical transceiver. For example:

- Cisco devices require modules like GLC-FE-100LX for 100 Mbps fiber connections.
- Ensure the module matches the fiber type (single-mode or multi-mode) and wavelength (850 nm, 1310 nm, or 1550 nm) of your existing network.

Additional Considerations

- Switch/Router Compatibility: Verify that the network device supports 100 Mbps SFP modules in the intended slot.

Article Content

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

Internet speed is Gigabit but I'm getting under 100

Hello, I've had this one issue now for years now where my internet speed is under 100mbps even though I pay for

Convert Gigabits to Megabits

Online calculator to convert Gigabits to Megabits (Gb to Mb) with formulas, examples, and tables. Our

I have tried everything from changing duplex from auto to 1gb and repairing the drivers for it. replacing cat cable and

The Most Comprehensive Guide Of Optical Modules

Explore the ultimate guide to optical modules. Learn types, functions, performance metrics

40G to 100G Migration: Data Center Upgrade Guide

Jennifer Chen thought that upgrading from 40G to 100G would be a simple module swap. In February 2025, her team

Gigabit/Hundred Gigabit/Core/PoE/Fiber Switch Selection Guide

The hardware includes 100 megabit/gigabit / 10-gigabit rate ports, electrical/optical/PoE port, port number, MAC

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

Distance Extension and Conversion Solutions for 100G

Arista Networks 7500E Series of switches deliver 100GbE connectivity with industry-leading density of up to 96 ports in a single

Hello my Ethernet status shows 100mbps because the motherboard's LAN port only support 100 Mbps. I want gigabit

How to configure a 100 mbps ethernet speed to 1 gigabit

My pc: Windows 10 Home, Asus z390 E gaming motherboard, i7 8700k cpu, CAT 8 ethernet cable, router: Verizon

Convert gigabit to megabit

More information from the unit converter How many gigabit in 1 megabit? The answer is 0.001. We assume you are converting

Arista Optics Modules and Cables

Arista's Optical Modules and Cable portfolio offer a wide variety of high-density and low-power 800G (dual 400G), 400G, 200G,

Support

Optical modules transmit signals over optical fibers. Optical transmission features low loss and is fit for long distance transmission.

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

Cisco Transceiver Modules

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

Cisco Transceiver Modules

Cisco 100 Gigabit Modules Cisco 40-Gigabit and 100-Gigabit CFP Transceiver Installation Note Cisco Optical Transceiver Handling

Fiber Network Upgrade to 10G/25G/100G Guide | Langzhi Technology

Complete guide for upgrading enterprise fiber networks from Gigabit to 10G, 25G or 100G. Upgrade paths, equipment

Cisco Transceiver Modules

Cisco Transceiver Modules - Some links below may open a new browser window to display the document you selected.

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