

Gigabit Ethernet Port for Optical Module



Article Overview

You can connect an optical module to a Gigabit Ethernet port using SFP transceivers or fiber-to-Ethernet media converters, which convert optical signals to standard RJ-45 Ethernet.

Using SFP Optical Modules

SFP (Small Form-Factor Pluggable) transceivers are compact, hot-swappable devices that plug directly into a Gigabit Ethernet port on switches or routers, enabling fiber connectivity . They support various standards such as 1000BASE-SX, 1000BASE-LX/LH, 1000BASE-EX, and 1000BASE-ZX, allowing operation over multimode or single-mode fiber with distances ranging from 220 meters to 80 kilometers . Cisco and other MSA-compliant SFPs can be intermixed on a port-by-port basis, providing flexibility for network upgrades . Some SFPs, like the Cisco GLC-GE-100FX, allow a Gigabit Ethernet port to carry 100 Mbps Fast Ethernet over fiber, converting the host SGMII signal to the optical link .

Using Fiber-to-Ethernet Media Converters

Media converters are standalone devices that bridge fiber optic links to standard RJ-45 Ethernet ports. They are ideal when a switch or router does not have SFP slots or when connecting legacy fiber networks . For example, a 1000BASE-SX SFP module can be paired with a media converter to convert LC fiber to 10/100/1000 Mbps copper Ethernet. These converters often support auto-negotiation, Auto-MDI/MDIX, and full/half-duplex modes, and can extend fiber links up to 550 meters over multimode fiber . Many kits are plug-and-play, requiring no software configuration, and include hot-swappable SFP modules for easy installation.

Key Considerations

Article Content

Small Form-factor Pluggable

SFP+ supports 8 Gbit/s Fibre Channel, 10 Gigabit Ethernet and Optical Transport Network standard OTU2.

Cisco SFP Modules for Gigabit Ethernet Applications Data Sheet

Cost-effective Small Form-factor Pluggable (SFP) transceivers for Gigabit Ethernet applications Product overview The

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

A gigabit SFP module (1G SFP module) is a Small Form-factor Pluggable (SFP) transceiver designed to support 1Gbps Ethernet

Fiber Optic Connector vs Ethernet port, what is the difference?

To use the switch's 10-Gigabit optical port, you need to plug in SFP+ 10-Gigabit optical module. The 10-Gigabit dual

Cisco MGE SFP Modules Cisco Small Business Network Accessories

Cisco ® MGE Small Form-Factor Pluggable (SFP) or mini Gigabit Interface Converter (mini-GBIC) transceivers are

Cisco Catalyst 6900 Series 40 Gigabit Ethernet Interface Module for ...

Product Overview Cisco ® Catalyst ® 6500 Series Switches offer a variety of Ethernet modules to serve different

SFP Optical Transceiver | SFP Optical Module | Perle

Multimode and single-mode fiber Gigabit Ethernet, Fast Ethernet, Fiber channel,

Cisco SFP Modules for Gigabit Ethernet Applications

Table 1 provides cabling specifications for the SFPs that you install in the Gigabit Ethernet port. Note that all SFP ports have LC-type

An introduction to SFP ports on a Gigabit switch

An introduction to SFP ports on a Gigabit switch SFP ports enable Gigabit switches to connect to a variety of fiber and

Cisco Gigabit Ethernet GBIC/SFP Modules

Cisco offers a range of GBIC transceivers and Small Form-factor Pluggables (SFP) transceivers for Gigabit

Cisco SFP Modules for Gigabit Ethernet Applications

Optical and copper models can be used on a wide variety of Cisco products and intermixed in combinations of 1000BASE-T,

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

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

Arista Optics Modules and Cables

25 Gigabit Ethernet SFP25 Optical Specifications ... When connecting 25G-MR-XSR/LR optics to legacy fixed rate 10G optics,

Cisco SFP Modules for Gigabit Ethernet Applications

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

SFP-1GLXLC

Moxa's small form-factor pluggable transceiver (SFP) Ethernet fiber modules for Gigabit Ethernet provide

Fiber Optic Network Switches | Ethernet to Fiber Switches

VERSITRON manufactures a wide range of fiber optic switches that provide links for your 10Base, 100Base, 1000Base Gigabit, and

SFP Optical Transceiver | SFP Optical Module | Perle

Multimode and single-mode fiber Gigabit Ethernet, Fast Ethernet, Fiber channel, ATM/SONET, SDH Hot-pluggable with durable

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

What is GBIC? Everything You Need to Know (2024)

What is GBIC? GBIC stands for Gigabit Interface Converter, sometimes also called GBIC

Cisco SFP Modules for Gigabit Ethernet Applications

Product overview The industry-standard Cisco Small Form-Factor Pluggable (SFP) Gigabit Interface Converter (Figure 1) links your

Gigabit Ethernet SFP Modules

Shop Dell Gigabit Ethernet SFP Modules for fast, reliable network connectivity. Upgrade your network with quality SFP modules from

Cisco 40 Gigabit Modules

Cisco 40 Gigabit Modules Broad 40 Gigabit Ethernet Connectivity Options Cisco offers a broad range of 40 Gigabit Ethernet

Fiber Optic vs Ethernet Port Differences: Connectors

Learn key differences between fiber optic connectors (SC, ST, SFP+) and Ethernet ports. Fiber supports

Optic Modules Datasheet

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

How to interconnect the Gigabit RJ45 port with the SFP optical port ...

The SFP port is a built-in optical port of a Gigabit Ethernet switch, so it cannot be directly connected with a twisted

Amazon : Fiber To Ethernet Converter

Discover fiber to ethernet converters for extending your network. Find gigabit media converters with reliable performance on Amazon.

Selecting the right modules for gigabit, multi-gigabit networks

This gives the designer much greater flexibility for product selection and customization. Within the network, Gigabit Ethernet optical

Gigabit interface converter

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

Optical PHY PCB Layout for Gigabit and Faster Ethernet

Routing between the host/controller, PHY, and optical transceiver module is accomplished with differential pairs. The

Contact Us

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