

What does GPIC optical module mean



Article Overview

A GPIC optical module is essentially a hot-pluggable transceiver, similar to a GBIC, that converts electrical signals into optical signals for fiber-optic network communication.

Overview

A GPIC (likely referring to a GBIC, or Gigabit Interface Converter) is a modular optical transceiver used in networking equipment such as switches, routers, and network interface cards. Its primary function is to convert electrical signals from the network device into optical signals for transmission over fiber-optic cables, and vice versa, enabling high-speed data communication over long distances .

Key Features

- **Hot-swappable:** Can be inserted or removed without powering down the network device, allowing flexible network upgrades or maintenance .
- **Data Rates:** Typically supports 1 Gbps for Gigabit Ethernet, though some variants can handle higher speeds depending on the module type .
- **Connector Types:** Commonly uses SC duplex connectors, though other types like LC may also be supported .
- **Fiber Compatibility:** Available for single-mode fiber (long-range, up to tens of kilometers) and multimode fiber (short-range, hundreds of meters) applications .
- **Protocol Support:** Compatible with Gigabit Ethernet, Fiber Channel, SONET, and other communication standards

Article Content

GBIC Explained: The Vintage Workhorse of Fiber Optic Networking

A GBIC is a hot-swappable, modular optical transceiver that interfaces a network device (like a switch or router) with

Cisco SFP vs GBIC vs XFP vs SFP+: A Practical Comparison Guide

Choosing the wrong module can lead to costly mismatches, link instability, or wasted budget. This guide provides a clear, practical

SFP vs. GBIC: what's the difference?

The GBIC standard, first defined in 1995, was the earliest hot-pluggable form factor in the optical transceiver industry. GBIC modules

Definition of GBIC | PCMag

The GBIC converts the serial electrical signals to serial optical signals and vice versa. GBIC modules are hot swappable and contain

SFP vs GBIC Understanding the Key Differences

Understanding the building blocks of your network infrastructure is crucial. When dealing with fiber optic connections,

Cisco SFP vs. GBIC vs. XFP vs. SFP Plus

Both modules can provide you greater signal strength in your computer network, and telecommunication links. SFP vs. GBIC

SFP or GBIC – Why, when, and which one should you use?

The fiber optic market is filled with options that will improve your connectivity in a matter of seconds. When it comes

What Is an SFP and How It Works Explained

What is SFP? SFP meaning refers to “small form-factor pluggable,” a compact, hot-swappable device used in modern networks.

Different types of transceivers(GBIC, SFP, SFP+, SFP28, QSFP,

GBIC modules allow technicians to easily configure and upgrade electro-optical communications networks. The typical

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

The GBIC transceiver, or GBIC module, is a hot-pluggable device that converts electrical signals into optical signals

What is a Gigabit Interface Converter (GBIC)?

Gigabit Interface Converter (GBIC) is a transceiver that provides the interface between networking devices

SFP Module: What's It and How to Choose It?

SFP module is a compact, hot-pluggable optical transceiver module widely used for telecommunication and data

GBIC Fiber Optic Transceiver Basics | Cables Plus USA

Our complete guide to GBIC fiber optic transceiver basics covers everything you need to know. From installation to troubleshooting,

A Beginner's Guide: What is GBIC?

GBIC, short for Gigabit Interface Converter, is a versatile optical transceiver that converts serial electric signals into

GBIC vs SFP Modules: Understanding the Key Differences and How

Discover the key differences between GBIC and SFP modules, including size, port density, and more. Find out how to

Optical module

Optical modules typically have an electrical interface on the side that connects to the inside of the system and an optical interface on

The Most Comprehensive Guide Of Optical Modules

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

What is Optical Transceiver: A Beginner Guide (2024)

What is an Optical Transceiver? An optical transceiver, also known as a fiber optic transceiver or optical module, is a

What is GBIC Module?

What is GBIC? Short for gigabit interface converter, GBIC module is a transceiver which converts electric currents to

GBIC vs SFP vs Mini GBIC: What is the difference?

The main difference between GBIC vs SFP vs Mini GBIC is size, port density, and popularity. This post makes a

Small Form-factor Pluggable

Small Form-factor Pluggable Small Form-factor Pluggable connected to a pair of fiber-optic cables Small Form-factor Pluggable

Gigabit interface converter

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

A Beginner's Guide: What is GBIC?

GBIC Transceiver: Communication Enabler GBIC transceiver, also called GBIC module, it

GBIC vs SFP --

Gigabit optical interface modules are fundamental components in modern fiber optic

GBIC vs Mini GBIC (SFP): Differences and Choose Guide

GBIC modules and SFP modules are input/output (I/O) devices for plugging into network switches or routers with

What is Optical Link Module?

Explore the world of optical link modules, essential components in optical fiber communication. Learn about the different types of

Installing the GBIC, SFP, SFP+, QSFP, XFP, CXP, CFP, and CPAK

The GBICs, SFP, SFP+, XFP, CXP, CFP, and CPAK optics modules are hot-swappable I/O devices that plug into a

Optical Module Package Types Overview

Optical transceiver module (optical transceiver), referred to as optical module, is an

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