

10 Gigabit Server Optical Module



AI Overview

10 Gigabit optical modules, especially SFP+ transceivers, provide high-speed, low-latency, and flexible connectivity for modern networks. Overview 10 Gigabit optical modules, commonly referred to as 10G SFP+ modules, are compact, hot-pluggable transceivers that enable data transmission at speeds of up to 10 Gbps. They serve as the physical interface between network devices—such as switches, routers, and servers—and the transmission medium, which can be fiber optic cables or copper. These modules convert electrical signals into optical signals for fiber transmission and vice versa, allowing devices separated by meters or kilometers to communicate reliably at high speed. Types and Variants 10G optical modules come in several types based on distance, fiber type, and connector: SFP+ (Small Form-Factor Pluggable Plus): The most widely used due to its small size, low power consumption, and cost efficiency. XFP, X2, XENPAK: Older form factors largely replaced by SFP+. Fiber Options: Multimode Fiber (SR): Short-range, typically up to 300 meters. Single-mode Fiber (LR/ER/ZR): Long-range, from 10 km (LR) up to 80 km (ZR) depending on wavelength. Copper (DAC/AOC): Direct attach copper or active optical cables for short-range connections, usually up to 7–15 meters. Wavelength Variants: CWDM and DWDM modules for different wavelength multiplexing applications. Key Features High Bandwidth: Provides ten times the bandwidth of standard gigabit networks, supporting high-throughput applications like HD video, large database access, and data center interconnects. Low Power Consumption: SFP+ modules typically consume 1W or less, making them more efficient than older XFP or X2 modules. Hot-Pluggable: Can be inserted or removed without powering down the network device, simplifying maintenance and upgrades. Flexible and Compatible: Supports multiple protocols such as Ethernet, Fibre Channel, and SONET/SDH, and can be used in enterprise, telecom, and industrial networks. Scalability: Allows easy network upgrades to 10G...

Article Content

Gigabit Ethernet

Gigabit Ethernet was the next iteration, increasing the speed to 1000 Mbit/s. The initial standard for Gigabit Ethernet was produced by the IEEE in June 1998 as

Cisco SFP and SFP+ Transceiver Module Installation Notes

This installation note provides the installation instructions for the Cisco small form-factor pluggable (SFP) and SFP+ transceiver modules. These transceiver modules are hot-swappable

What is the difference between SFP+, XFP and SFP

SFP, GBIC, SFP, and XFP: What are they GBIC GBIC (Gigabit Interface Converter) is one of the earliest pluggable optical module standards. In

10 Gigabit Fiber SFP+ Optical Transceiver Module

The Intellinet Network Solutions 10 Gigabit Fiber SFP+ Optical Transceiver Module (model 507479) is fully hot-pluggable, and that allows you to install the module

Cisco 10GBASE SFP+ Modules Data Sheet

The Cisco ® 10GBASE SFP+ modules (Figure 1) give you a wide variety of 10 Gigabit Ethernet connectivity options for data center, enterprise wiring closet, and service provider transport

Cisco 40GBASE QSFP Modules Data Sheet

The Cisco® 40GBASE QSFP (Quad Small Form-Factor Pluggable) portfolio offers customers a wide variety of high-density and low-power 40

SFP+, XFP, QSFP+, DAC Twinax Cable 10Gtek Transceivers Co., Ltd

DAC Twinax Cable Maker. CE, FCC, RoHS, ISO9001 Certified. Professional Manufacturer focusing on SFP+ Cables, QSFP+ Cables, MiniSAS Cables, QSFP Cables, XFP Cables, CX4 Infiniband Cables

Products

Optical Products Fiber Optic Modules and Components An extensive portfolio of high-density, high-speed optical interconnects designed for wired networking

AOC, DAC, Fiber Optic Transceivers | One-Stop Shop for Datacenter

Online shopping. w/24h-delivery, 7Days & Refund Guarantee. CE, RoHS and ISO9001 Certified. SFP+ Cables, QSFP+ Cables, MiniSAS Cables, XFP Cables, CX4 Cables and Fiber Optic Transceivers.

10G SFP+ Optical Transceivers | Transceiver Module

FS 10GbE SFP+ module solutions provide a wide variety of 10 Gigabit Ethernet connectivity options for data centers, enterprise wiring closets, Internet Service

SFP Module 10G Cisco, Data Rate: 10 Gbps

Securewell Infratech - Offering SFP Module 10G Cisco, Data Rate: 10 Gbps at ₹ 2000/piece in New Delhi, Delhi. Get SFP Optical Transceiver at lowest price | ID: 2859466400933

10GbE SFP+ Transceivers

These compact, hot-swappable modules are engineered to support 10 Gbps data rates, making them ideal for a wide range of applications, from enterprise data centers to creative studios and research

Wholesale Optical Transceivers Module | 100G QSFP28, 40G QSFP

Shop high-speed optical transceivers from Unitekfiber. We offer 100% compatible 40G, 100G, and 400G QSFP-DD modules for data centers. Expert technical support & wholesale pricing.

1G SFP Mini GBIC | SFP Transceiver Modules

Cisco Compatible 1000BASE-SX SFP 1310nm 2km DDM LC SMF/MMF Optical Transceiver Module Cisco Extreme Networks Juniper 1G / Cisco / 2km / LC / MMF / SMF / SFP 5438 in real-time stock,

ICX7550 | RUCKUS ICX 7550 Switches | RUCKUS

The RUCKUS ® ICX ® 7550 series of midrange stackable switches are purpose-built to provide wired connectivity at the edge of the network for the latest

10GB SFP Module Guide: Types, Specs, and How to Choose

Learn everything about 10GB SFP modules, including types, specifications, compatibility, and how to choose the right 10G SFP+ transceiver for your network.

10 Gigabit SFP+ Fiber Optic Transceivers | High-Speed & Reliable

Whether you need to extend your local area network (LAN) or establish long-range fiber links, these modules are ideal for businesses and IT professionals seeking high-speed, dependable fiber optic

100GBASE QSFP-100G Modules Data Sheet

The Cisco® 100GBASE Quad Small Form-Factor Pluggable (QSFP) portfolio offers customers a wide variety of high-density and low-power 100 Gigabit Ethernet connectivity options for

StarTech PEX10000SFP PCI Express 10 Gigabit Ethernet Fiber

The PEX10000SFP 10 Gigabit Fiber Network Card is a cost-effective solution that delivers fast and reliable 10 Gbps network access at longer distances than copper-based networks. Using the SFP+

Cisco 10 Gigabit Modules

New optical transceivers enable cost-effective 10 Gigabit Ethernet LANs. Discover Cisco 10 Gigabit Ethernet Modules, offering high-speed, reliable connectivity to

ITPro Today, Network Computing, IoT World Today combine

ITPro Today, Network Computing and IoT World Today have combined with TechTarget . The page you are looking for may no longer exist.

What Is 10GBASE-SR? Complete Guide to 10G SFP+ SR Optics

A 10GBASE-SR SFP module is a small form-factor pluggable plus SFP+ optical transceiver that implements the IEEE 802.3ae 10GBASE-SR standard, enabling 10 Gigabit Ethernet (10GbE)

10 Gigabit Fiber SFP+ Optical Transceiver Module

Whether you need a fast connection to your 10-GbE-equipped server or NAS device, or if you simply want to connect two Gigabit switches in your data center

Contact Us

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