

Is the SFP optical module an LC



AI Overview

An SFP optical module with an LC connector is a compact, hot-swappable transceiver used to connect network devices via fiber optic cables, supporting high-speed data transmission with minimal signal loss.

Overview An SFP (Small Form-factor Pluggable) module is a modular transceiver that allows network devices such as switches, routers, and NICs to connect to fiber optic networks. The LC (Lucent Connector) is the physical interface on the SFP module that terminates the fiber optic cable, providing a secure, low-loss connection. LC connectors are small, with a 1.25 mm ferrule, making them ideal for high-density networking environments where space is limited and multiple ports are required.

Key Features

- Hot-swappable:** SFP LC modules can be inserted or removed without powering down the network device, allowing easy upgrades and maintenance.
- High-density compatibility:** The small LC connector allows two LC ports to fit in the space of one SC port, enabling dense patch panel configurations.
- Low insertion loss:** Typically ≤ 0.2 dB, ensuring minimal signal degradation and maintaining high-quality optical transmission.
- Versatile fiber support:** Compatible with both single-mode (SMF) and multi-mode fibers (MMF), supporting various protocols such as Gigabit Ethernet, 10G Ethernet, Fiber Channel, and SONET/SDH.
- Secure latching mechanism:** Push-pull design ensures reliable connections and easy handling.

Applications SFP LC modules are widely used in:

- Data centers:** For high-speed interconnects between servers, switches, and storage devices.
- Enterprise LANs:** Connecting switches and routers across buildings or floors.
- Long-distance single-mode fiber links:** Modules like the Ruijie XG-SFP-LR-SM1310 support 10G transmission over distances up to 10 km with a 1310 nm wavelength.
- Telecommunications networks:** Providing scalable and reliable optical links for service providers.

Comparison with Other Connectors

- SC connectors:** Larger 2.5 mm ferrule, less suitable for high-density setups, mostly used in legacy or PON/...

Article Content

SC SFP vs LC SFP Module: Which one should you choose?

Although most SFP modules have an LC connector by default, very few SFPs provide an SC connector. This post will focus on LC SFP vs SC SFP and hopes to provide comprehensive

MikroTik 1G/2.5G Multi-Mode SFP Module 550m | Getic

The module uses the SFP format and is designed for compatible SFP ports. Its Duplex LC connector supports full-duplex fiber connectivity through a widely used LC interface, helping simplify integration

H3CSFP-XG-LX-SM1310-S 10G SFP+ Multi-mode Optical Module

High quality H3CSFP-XG-LX-SM1310-S 10G SFP+ Multi-mode Optical Module from China, China's leading product market Fibre Channel Switch product market, With strict quality control Fibre

Fiber Optic SFP Connector Types and Their Uses for

SFP modules are compatible with many connectors, such as lc, sc, and fc connector types. This flexibility makes them a popular choice for both new

Optical Transceiver: SFP vs SFP+ vs QSFP28 vs QSFP

This article provides a comprehensive comparison of mainstream optical transceivers, including SFP, SFP+, QSFP+, QSFP28, and QSFP-DD. It

LC vs SC Connector for BiDi SFP+ Modules: Which One Should You

When selecting a BiDi optical module, the connector type directly affects link compatibility, cabling structure, port density, and long-term network growth. There is no absolute

10G SFP+ Module Selection Guide for Short-Range Networks

10G optical networks have expanded beyond traditional data centers into enterprise campuses, security monitoring systems, edge computing environments, and industrial deployments.

SFP+ Optical Transceiver Modules (10G-SR/LR)

Amphenol SFP Optical Modules • SFP+ Optical Modules from Cables on Demand are Now Available in both Short Range (SR) Multimode and Long Range (LR)

SFP Optical Module Specifications: Standards & Performance

SFP (Small Form-factor Pluggable) optical modules are compact, hot-pluggable transceivers that enable network equipment to connect seamlessly to fiber and copper links. These

GIANTECH SFP+ Fiber Optical Module BIDI Simplex 10G LC 3.3V

GIANTECH SFP+ Fiber Optical Module BIDI Simplex 10G LC 3.3V 1270/1330nm 20KM 0~70C High Quality for 10GBASE-LR/LW Ethernet FTTH

Differences Between SC and LC Connectors | LC vs SC connector

While both SC SFP module and LC SFP module serve the same purpose of establishing a connection between the network device and fiber optic cable, they differ significantly in design,

Axiom Sfp-Gsx/Lc-Ae-Ax Network Transceiver Module Fiber Optic

1000BASE-SX SFP Transceiver for Advantech Axiom SFP-GSX/LC-AE-AX. SFP transceiver type: Fiber optic, Interface type: SFP, Fiber optic connector: LC Axiom SFP Transceiver Modules are 100%

SFP LC Connector: Everything You Need to Know

A: SFP LC Connectors are fiber optic transceiver modules that are plugged into network devices such as switches and media converters. They are

SFP Optical Transceiver Modules for Long Distance: A Complete

Discover everything you need to know about SFP optical transceiver modules for long-distance fiber transmission. Compare LX, EX, ZX models and choose the right module for your

1.25Gbps SFP Bi-Directional Transceiver, 20km LC Reach

SFP Transceiver Module 1.25gbps 20km LC Reach Tx1310nm/Rx1550nm Bi-Directional for Data Center FTTH FTTX Product Overview 1.25Gbps SFP Bi-Directional Transceiver, 20KM Reach The SFP

LC vs SC SFP Module: Key Differences & 2025 Buying Guide

If you are upgrading a network switch or deploying fiber to the home (FTTH), you will inevitably face the connector choice: LC vs SC. While both are proven fiber connectors, they are not interchangeable on

The Meaning of LC in SFP Optical Modules

Optical module interfaces are critical components in the fiber optic communication infrastructure, facilitating the connection between the optical fiber and the transceiver module. The two most

Small Form-factor Pluggable

SFP+ modules can be described as limiting or linear types; this describes the functionality of the inbuilt electronics. Limiting SFP+ modules include a signal amplifier to re-shape

SFP+ Cables

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

Gigabit SFP Transceiver 1.25G SMF 20km LC Single Fiber BiDi SFP Optical ...

This 1.25G BiDi SFP optical module is a hot-pluggable transceiver designed for single-mode single-fiber communication. It adopts a single LC port to transmit and receive signals simultaneously, using

10G BiDi SFP+ 20km Tx1270/Rx1330 | €16.33 | EDGE Optical Solutions

No. The BIDI-10G-SFP-20A uses a single LC simplex connector and runs transmit and receive over one fiber strand. A standard duplex 10G SFP+ uses an LC duplex connector and two separate fiber

What Is an SFP and How It Works Explained

For those getting started with SFP's, it is important to understand how frequently SFP modules can be used to bridge communications between devices. From there, it's just a matter of matching the SFP

Optical Module SFP-GE-SX-MM850 1.25G SFP Dual LC 55m

Optical Module SFP-GE-SX-MM850 1.25G SFP Dual LC 55m Multimode for Huawei/Cisco/H3C/Other AI Computing/HPC/Data Center

Axiom 1000Base-LH40 SFP Fiber Optic Transceiver Module

Module type: SFP Speed: 1000 Mbit/s Distance: 40000 m Wavelength: 1310 nm
Connector type: LC Fiber type: Fiber optic Built for IT teams and network administrators needing robust optical

Juniper EX-SFP-1FE-FX Fiber Optic Transceiver Module - TRINCOS

The Juniper EX-SFP-1FE-FX fiber optic transceiver module delivers 100 Mbit/s speed, enhancing network performance significantly. Designed for seamless integration, this module employs SFP

Contact Us

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