

Fiber optic transceiver gigabit single-mode SC



AI Overview

Gigabit single-mode SFP transceivers with SC interfaces provide reliable long-distance fiber connectivity, supporting 1.25 Gbps data rates and distances from 2 km up to 180 km depending on the model.

Overview

A Gigabit single-mode SFP (Small Form-Factor Pluggable) transceiver is a hot-swappable module that connects network devices like switches, routers, and media converters to single-mode fiber networks. The SC interface is a standard connector type that ensures secure and low-loss optical connections. These transceivers are widely compatible with major networking brands such as Cisco, Nortel, D-Link, and Netgear.

Key Specifications

Data Rate: Typically 1.25 Gbps, suitable for Gigabit Ethernet, 1G Fiber Channel, and SDH applications.

Fiber Type: Single-mode fiber (SMF), optimized for long-distance transmission.

Connector Type: SC (single or duplex), with some models supporting LC connectors as well.

Transmission Distance: Ranges from 2 km to 180 km depending on the module type and wavelength. Standard modules often support 10–40 km, while high-performance or BiDi modules can reach up to 120–180 km.

Wavelength: Commonly 1310 nm or 1550 nm for long-distance single-mode links. BiDi modules use paired wavelengths (e.g., 1310/1550 nm) for single-strand operation.

Hot-Pluggable: Allows easy installation and replacement without powering down the device.

Compatibility: Works with 1000BASE-LX/LH, 1000BASE-EX, and 1000BASE-ZX standards for single-mode fiber.

BiDi (Single-Strand) SFP Modules

BiDi SFPs use Wavelength Division Multiplexing (WDM) to transmit and receive data over a single fiber strand, reducing cabling requirements. These modules require a complementary pair (A and B types) to function properly and are available for distances such as 20 km with SC connectors.

Applications

Long-distance Gigabit Ethernet links between b...

Article Content

SFP-GE-CS-SM 1.25Gbps 1310nm Single-mode

The transceiver consists of four sections: the LD driver, the limiting amplifier, the DFB laser and the PIN photo-detector. The optical output can be disabled by a

Fiber Connector Types

According to the estimating, there are hundreds of different fiber optic connection types on the market. However, the widely used types are about

Small Form-factor Pluggable

SFP transceivers are available with a variety of transmitter and receiver specifications, allowing users to select the appropriate transceiver for each link to

Fiber Optic Cable Supply | Buy Fiber Optic Products

Switches, Transceivers, Media Converters Full line of media conversion products for your copper-to-fiber network including 10/100 standalone converters, Industrial

SFP Gigabit Transceivers Singlemode Single-Strand

Discover SFP Gigabit single-strand BiDi modules for 20Km with SC connector.

Berns gigabit sfp transceiver ↗ Lc photoelectric conversion ...

Have you ever experienced: the network cable in the computer room suddenly breaks in the middle of pulling, and the fiber optic interface does not match and you stare blankly; temporary

DS-3D501T-A 20KM Gigabit Fiber Transceiver

20KM Gigabit Fiber Transceiver DS-3D501T-A is a gigabit single-mode single-fiber fiber optical transceiver developed by Hikvision. It provides one 10/100/1000 Mbps self-adaptive RJ45 port and

Xi'an FiberHome OL100CL 100Mbps/Gigabit Series Transceiver

OL100CL series 100Mbps fiber optic transceiver It is an independent, highly reliable, and low-cost Ethernet optical port converter launched by FiberHome, which efficiently converts between 1 channel

SC SFP – Optcore

Optcore offers a wide range of SC SFP BiDi modules at a great price. These bidirectional modules can transmit and receive signals using WDM technology

Startech Cisco SFP-10G-LR-40 Compatible SFP+ Module, 10GBASE

10 Gbps Single Mode Fiber LC 40 km (24.8 mi) Lifetime Warranty. The SFP-10G-LR-40-ST is a Cisco SFP-10G-LR-40 compatible fiber transceiver module that has been designed, programmed and

SFP Optical Transceiver | SFP Optical Module | Perle

Perle SFP Optical Transceivers are hot-swappable, compact media connectors that provide instant fiber connectivity for your networking gear. They are a cost

1 Gigabit Singlemode SFP Fiber Optic Transceivers

Our 1 Gigabit Singlemode SFP Transceivers offer high-performance, reliable connectivity for singlemode fiber optic networks. These transceivers are

Complete Guide to Fiber Optic Cables for Data Centers

Everything you need to know about fiber optic cables for data center deployments. Covers OS2, OM3, OM4, OM5 cable types, LC/SC/MPO connectors, and

1.25G 1310nm 20km 1x9 SC/ST/FC Optical Transceiver

They are suitable for Gigabit Ethernet and 1x Fibre channel long-reach applications. This series of 1x9 optical transceivers provide a 20km transmission distance

Singlemode 1310 nm Fiber Optic Transceivers - Mouser

Singlemode 1310 nm Fiber Optic Transceivers are available at Mouser Electronics. Mouser offers inventory, pricing, & datasheets for Singlemode 1310 nm Fiber Optic Transceivers.

fiber optic switch | Newegg

Gigabit SFP Media Converter - 2 SFP to 8 RJ45 Transceiver, 10/100/1000M Fiber Optic Switch with 3KM/20KM LC/SC SFP Module (1PCS & LC 20KM Kit) Model #: PEGXB0F4BZY41G

Fiber Optical Transceiver Module Manufacturer,

10G Transceiver BIDI SFP+ designed for bi-directional 10G serial optical data communications. CWDM SFP+ operating at 1270-1610nm CWDM wavelengths

Fiberhome ol100cl-04 optical transceiver module | gigabit ...

Tired of frustrating network cabling issues? dealing with alarm-triggering optical modules, sky-high packet loss, and endless incompatibility issues after three replacements? don't put up with it

Cisco SFP Modules for Gigabit Ethernet Applications

This data sheet describes the benefits, specifications, and ordering information for the Cisco SFP Modules for Gigabit Ethernet Applications.

Cisco Transceiver Modules

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

Fiber Optic Networking Products in Uganda

Fiber SFP 1.25g Transceiver Single Mode The 1.25G SFP LX Optical Transceiver is a hot-pluggable module designed for Gigabit Ethernet...

1G SFP Transceivers | Mini-GBIC SFP Modules

FS gigabit ethernet transceiver solutions provide fibre or copper options including 1000BASE-SX, 1000BASE-LX/LH, 1000BASE-T etc., from 100m to 160km, for

Contact Us

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