

Huawei Fiber Optic Module Single Mode Single Fiber

Article Overview

Huawei single-mode fiber optic modules provide reliable long-distance connectivity for enterprise and data center networks, supporting 1 Gbps to 10 Gbps transmission over single-mode fiber.

Overview

Huawei single-mode fiber optic modules are designed for long-distance, high-performance optical communication using single-mode fiber (SMF). They come in various form factors, including SFP (1 Gbps) and SFP+ (10 Gbps), and operate at wavelengths typically around 1310 nm or 1550 nm, depending on the module type. These modules are widely used in enterprise networks, data centers, campus backbones, and building-to-building links.

Key Types and Specifications

- o Huawei SFP-10G-LR: A 10G SFP+ module for single-mode fiber, operating at 1310 nm with a 10 km transmission range. It is suitable for high-speed data center and enterprise network connections and is compatible with multi-vendor environments.
- o Huawei SFP-GE-LX-SM1310-A: A 1 Gbps SFP module with 1310 nm wavelength and 10 km range, compliant with MSA standards, ensuring compatibility across platforms. It features a Class 1 laser and supports LC connectors.
- o Huawei eSFP GE Single-Mode Module: Provides 1 Gbps connectivity over single-mode fiber with 10 km reach, supports Digital Diagnostic Monitoring (DDM) for real-time performance monitoring, and is hot-swappable for easy installation.
- o BIDI (Bidirectional) Modules: Single-fiber BIDI modules, such as SFP-10G-BXD1/SFP-10G-BXU1, transmit and receive data over a single fiber using different wavelengths. These must be used in pairs to function correctly.

Features

- o Long-distance transmission: Typically up to 10 km for standard single-mode modules, with some 10G ER modules capable of longer distances under specific conditions.
- o Hot-swappable: Modules can be installed or replaced without powering down the network device.
- o Multi-vendor compatibility: MSA-compliant modules work with a wide range of switches and routers, including Huawei, Cisco, and Juniper devices.
- o Digital Diagnostic Monitoring (DDM): Provides real-time monitoring of optical power, temperature, and transceiver health for improved network reliability.
- o Accessories: Compatible LC duplex fiber optic cables and SFP+ port converters are available for installation.



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and connectivity .

Applications

Huawei single-mode fiber optic modules are ideal for:

- o Data centers: High-speed 10G links between servers and switches.
- o Enterprise networks: Long-distance connections between buildings or campus backbones.
- o Carrier networks: Reliable fiber links for service providers.
- o Multi-vendor environments: Interoperable with other MSA-compliant devices.

Summary

Huawei single-mode fiber optic modules offer robust, long-range, and reliable optical connectivity for both 1 Gbps and 10 Gbps networks. They support BIDI configurations, DDM monitoring, and hot-swappable installation, making them suitable for enterprise, data center, and carrier applications. Proper selection of wavelength, distance, and module type ensures optimal network performance and compatibility .

Description Determine the type and number of optical fibers based on the optical modules used: Single-mode optical modules must

The Huawei eSFP GE Single-Mode Module 1310 nm 10 km LC delivers reliable 1 Gbps fiber connectivity for long-distance networks.

Compatible 1000Base-LX/LH Singlemode 10km 1310nm SFP Transceiver for

The USG supports both 1 Gbit/s, 10 Gbit/s, and 40 Gbit/s optical modules. The optical modules at both ends are the same, including

A fiber that has a core diameter in the same order of magnitude as optical wavelengths and permits only one transmission mode

10GE-CWDM SFP+ Optical Modules 10GE-DWDM SFP+ Optical Modules 40GE QSFP+ Optical Modules Industrial Optical Modules

TRENDnet's single mode fiber SFP, model TEG-MGBS20, features a duplex LC fiber interface, supporting high-speed data rates for

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The Huawei S-SFP-GE-LH80-SM1550 is a high-performance, compact 1Gbps single-mode fiber optic transceiver module designed

02310KVU - Genuine Huawei LE2MGSC40ED0 Optical Transeiver, eSFP, GE, BIDI Single-mode Module (TX1490/RX1310, 40km,

This document provides technical details about 1Gbps eSFP Optical Modules, including specifications and support information.

The Huawei SFP-GE-LX-SM1310 is a carrier-grade optical transceiver designed for Gigabit Ethernet over single-mode fiber.

When cabling a network using fibre, what is the difference between single-mode and multi-mode fibre? When should I

When using optical modules and optical fibers, pay attention to the following to ensure proper communication between devices: Use

PON optical modules must be used with 1SC/PC-1SC/PC single-mode optical fibers. Each optical module with separate Tx and Rx

In Single-Fiber bidirectional mode, multi-wavelength optical signals are transmitted through only one fiber is both

Optical fibers can be classified based on their optical transmission modes into multimode fibers (MMFs) and single-mode fibers

Web: <https://bssoda.pl>

