Huawei Single-Mode Fiber Optic Module Models



Overview

Optical Modules in General-Purpose Computing ScenariosHuawei offers a comprehensive portfolio of pluggable StarryLink optical modules for data center netwo.

Key Takeaways

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

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. 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.

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It features a Class 1 laser and supports LC connectors. 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.

BID

I (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. FeaturesLong-distance transmission: Typically up to 10 km for standard single-mode modules, with some 10G ER modules capable of longer distances under specific conditions.

Hot-swappable: Modules can be installed or replaced without powering down the network device. Multi-vendor compatibility: MSA-compliant modules work with a wide range of switches and routers, including Huawei, Cisco, and Juniper devices. Digital Diagnostic Monitoring (DDM): Provides real-time monitoring of optical power, temperature, and transceiver health for improved network reliability.

Accessories: Compatible LC duplex fiber optic cables and SFP+ port converters are available for installation and connectivity.

Applications

Huawei single-mode fiber optic modules are ideal for: Data centers: High-speed 10G links between servers and switches. Enterprise networks: Long-distance connections between buildings or campus backbones. Carrier networks: Reliable fiber links for service providers.

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.

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Article Content

Optical Modules in General-Purpose Computing Scenarios

Huawei offers a comprehensive portfolio of pluggable StarryLink optical modules for data center networks, with various models providing flexible plug-and-play solutions tailored to diverse interface

10GE SFP+ Optical Modules

Single-fiber bidirectional (BIDI) optical modules must be used in pairs. For example, SFP-10G-BXU1 must be used with SFP-10G-BXD1.

Huawei PON SFP Modules | GPON XG-PON XGS-PON & 50G-PON

Huawei PON SFP modules are carrier-grade optical transceivers designed for GPON XG-PON XGS-PON & 50G-PON broadband access networks.

Huawei Optical Module Common Models

Optical modules are important devices in fiber optic communication systems. Huawei Optical Module is manufactured by Huawei Technologies Co. and originated in Shenzhen.

Huawei Data Center Switch Optical Transceiver Portfolio

Description 40GBase-iSR4 Optical Transceiver, QSFP+,40G,Multi-mode (850nm,0.15km,MPO) (connecting to one QSFP+ or four SFP+) 40GBase-eSR4 Optical Transceiver, QSFP+,40G,Multi

Huawei SFP-10G-LR Datasheet Overview

Quick Specs ... Product Details Huawei SFP-10G-LR provides these features: x/Rx Wavelength: 1310 nm. / 1310 nm. Media Type: Single-Mode iber (SMF) Optical Budget: 6 dB Max. Distance: 10 km

2025 Single-Mode vs Multimode Fiber: Distance, Cost & Choice

Compare single-mode (OS2) and multimode (OM3-OM5) fiber: reach tables, link-budget steps, MPO polarity, cost/TCO, and Cisco/Huawei/Ruijie optic examples.

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

Here''s the key takeaway: the ol100cl-04 is a gigabit sfp optical module, originally manufactured by fiberhome communication technology co., ltd. it supports a 1.25gbps rate, single

Understanding Optical Modules: Types and Troubleshooting Guide

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Working Principle of Optical Modules Optical Modules (also known as Optical Transceivers) are critical components in fiber optic communication systems. As the core optoelectronic devices operating at

Alternatives and similar models for CBO SFP-10G-BX-U 10G 1310nm ...

Summary description: CBO SFP-10G-BX-U is a 10 Gigabit fiber optic SFP transceiver operating at 1310 nm. Designed for high-speed single-fiber links, it provides 10G connectivity in compatible SFP ports.

Huawei SFP-10G-iLR Optical Transceiver Best price in Duba

Basic Information Module name SFP-10G-iLR Part Number 02311BJJ Model SFP-10G-iLR Form factor SFP+ Application standard 10GBASE-iLR (non-standard) Connector type LC Optical fiber type SMF

Efficient connection artifact! apesd mpo fiber patch cord ...

As a high-performance mpo fiber optic patch cord designed specifically for h3c and huawei switches by apesd, the performance of this product is truly remarkable.Adopting a 12-core

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5G Optical Module Market Research Report 2034

Single-mode fiber variants optimized for shorter transmission distances are creating specialized opportunities for optical module suppliers supporting metropolitan area network architectures.

Alcatel-Lucent (Nokia) 3HE00564CA 01 10GBASE-LR XFP Optical

This module features a standard XFP form factor, complies with IEEE 802.3ae 10GBASE-LR standards, and supports 10.3Gbps full-duplex data rate over single-mode fiber (SMF).

What Is an All-Optical Ethernet Switch?

All-optical Ethernet switches are a type of switch that provides optical uplink and downlink ports, making them an ideal choice for building an all-optical campus network. They can function as

Understanding Optics Module Trends and Growth Dynamics

The material science underpinning single mode modules centers on ultra-pure silica glass fibers with a small core diameter, typically 8 to 10 micrometers, ensuring only the fundamental

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Alternatives and similar models for CBO SFP-1G-LH SFP transceiver

Summary description: Compact SFP fiber optic transceiver CBO SFP-1G-LH providing 1 Gbps data rate at 1310 nm wavelength for single-mode fiber links. Designed for hot-pluggable SFP slots in switches,

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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