

Function of Huawei Single-Mode Optical Module

Article Overview

Huawei single-mode optical modules are primarily used for long-distance, high-speed network transmission in data centers, enterprise networks, 5G communications, and multi-location interconnections.

Key Applications

1. Network Interconnection Huawei single-mode optical modules are widely used to interconnect different networks, including enterprise networks, data centers, and computer rooms. They provide high bandwidth and long-distance transmission capabilities, ensuring efficient and reliable communication between multiple network locations . 2. Data Centers In data centers, these modules connect servers, storage devices, and other network equipment. They support high-speed computing, storage, and interconnection needs, enabling large-scale data processing and transmission while maintaining low latency and high reliability . 3. 5G Communications With the growth of 5G networks, Huawei single-mode optical modules facilitate high-bandwidth, low-latency connections required for 5G infrastructure. They are suitable for backhaul and fronthaul links, supporting the increasing demand for fast and stable data transmission . 4. Multi-Location and Enterprise Network Interconnection These modules are ideal for connecting multiple office locations or branch offices to a central network. They ensure consistent performance over long distances, making them suitable for enterprise-wide network deployment .

Technical Features Supporting These Uses

- o Interface Type: SFP+ (10 Gigabit Small Form-factor Pluggable)
- o Transmission Standard: 10GBASE-LR
- o Fiber Type: Single-mode fiber (SMF)
- o Transmission Distance: Up to 10 km
- o Operating Temperature: 0°C to 70°C
- o Digital Diagnostics: Supports monitoring of transmit and receive optical power, temperature, and voltage

Advantages

- o Long-Distance Transmission: Supports up to 10 km, suitable for inter-building or campus networks.
- o High Compatibility: Works with Huawei-certified switches and network devices, ensuring stable and reliable operation .
- o Easy Installation: Hot-swappable design allows for quick deployment and maintenance.
- o High-Speed Performance: Supports 10 Gbit/s transmission, meeting the demands of modern high-speed networks . Huawei single-mode optical modules are essential components for enterprises and service providers that require reliable, high-speed, and long-distance optical connectivity across various network environments.

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Basic Information Module name: SFP-GE-LX-SM1310 Part Number: 02315200 Model: SFP-GE-LX-SM1310 Form factor: eSFP

Fiber loss Optical Fiber Connectors Optical fiber connectors are required when fibers need to be connected to optical modules.

Explore the ultimate guide to optical modules. Learn types, functions, performance metrics

Huawei SFP-GE-LX-SM1310 1GE 1310nm 10km single-mode SFP module for Huawei switches and routers. Check real-time price,

Mode indicates the transmission path of optical signals that enter a fiber at a certain angular velocity. A fiber supports as many

When certifying an optical module, Huawei comprehensively verifies the functions of the optical module to ensure the optical module

This document provides an overall description of the CE12800 series switches hardware, helping you obtain detailed information

Basic Information Module name: OSX010000 Part Number: 02318170 Model: OSX010000 Form factor: SFP+

Fundamentals of an Optical Module As an important part of fiber-optic communication, an optical module is a

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

Multi-mode optical modules are applicable to short-distance transmission, while single-mode optical modules are applicable to long

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

Single-mode optical modules are used with single-mode fibers. Single-mode fibers support a wide band and large transmission

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On an optical network, a sender needs to convert electrical signals into optical signals before sending them to a receiver, and the

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

If optical splitters must be used for special scenarios or requirements, strictly follow the link budget and insertion loss specifications of

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