

Article Overview

Huawei optical modules support a wide range of pluggable interfaces and transmission rates, and interconnection with third-party modules like Huijue depends on matching interface types, transmission standards, and fiber specifications.

Huawei Optical Modules Overview

Huawei offers a comprehensive portfolio of optical modules for data center and enterprise networks, including SFP, eSFP, SFP+, SFP28, XFP, QSFP+, QSFP28, and CFP types, supporting transmission rates from GE to 800GE . These modules are designed for plug-and-play deployment, with strict performance specifications to ensure long-term stability, high reliability, and secure operation in data center networks . Huawei modules also feature channel loss resistance and contamination detection to improve reliability by up to 10x .

Interconnection Principles

To interconnect Huawei modules with third-party modules such as Huijue, the following factors must be considered:

- o Interface Compatibility: Both modules must use the same physical interface type (e.g., SFP+, QSFP28) and connector type (LC or MPO) to ensure proper electrical/optical signal conversion .
- o Transmission Rate Matching: The module's data rate must match the port's supported rate. For example, a 10G SFP+ module cannot operate on a 100G QSFP28 port .
- o Fiber Type: Single-mode and multi-mode fibers are not interchangeable. Both modules must support the same fiber type to avoid signal loss or connection failure .
- o Wavelength and Power Levels: The transmitting and receiving wavelengths, as well as optical power levels, must be compatible to maintain signal integrity .
- o Hot-Swap and Monitoring: Huawei eSFP modules support monitoring of voltage, temperature, bias current, and optical power, which may not be fully compatible with third-party modules lacking similar monitoring capabilities .

Practical Deployment Considerations

- o Loopback Testing: Before full deployment, perform a loopback test to verify that the Huawei and Huijue modules can communicate without errors .
- o Firmware and Vendor Lock: Some Huawei devices may enforce vendor checks. Ensure that the switch or router firmware allows third-party module operation or consider using modules certified for Huawei devices.
- o Stacking and Network Topology: When connecting multiple switches or devices, ensure logical port



Huawei and Huijue Optical Module Interconnection

configurations and stacking methods are compatible with the optical modules used .

Conclusion

Huawei optical modules are highly versatile and support a wide range of data rates and interfaces. Interconnection with Huijue modules is feasible if interface type, transmission rate, fiber type, and optical power specifications are matched. Proper testing and configuration are essential to ensure reliable operation and maintain the high performance expected in data center or enterprise networks .

Procedure Check the optical module type. Generally, an optical module has a label attached, identifying the rate, center wavelength,

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

Huawei's intelligent OptiX network strategy aims to build intelligent, simplified, ultra-broadband, and ubiquitous next generation all

This document explains optical modules, their types, and applications, providing a comprehensive understanding of their functionality

Use the OptiModule Compatibility Finder to search Cisco, Juniper, Arista, Dell, Huawei and HPE compatible optical transceivers.

Optical Module: Typical Optical Module Troubleshooting Procedure Check the model of the faulty optical module. If it is not a Huawei

Pluggable Modules Specifications Appendix Understanding Optical Modules Optical Module Appearance and Structure Types of

How to use the optical port on a Huijue switch This article summarizes several solutions for using optical modules with switches and

Huijue Huawei optical module compatibility When using switches, we may encounter many confusions, such as what types of optical

Huawei provides a full series of pluggable optical modules. A wide variety of modules give you flexible plug-and-play options for all



Huawei and Huijue Optical Module Interconnection

Data Center Optical Interconnection Services between super and large data centers, such as data synchronization and service

Huawei Campus Optical Module Portfolio

View results and find huijue optical cross-connection for optical module inspection datasheets and circuit and application notes in pdf

Looking ahead, Huawei aims to collaborate with industry partners to further research and innovate in data center

The Huawei-developed optical modules of CE series switches support two types of optical connectors: lucent connectors or local

BARCELONA, Spain, March 6, 2025 /PRNewswire/ -- At the Mobile World Congress 2025 (MWC 2025), Huawei launched the

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