

Huawei optical module pairing



Overview

Check whether the optical fiber matches the optical module. If not, replace the optical fiber with a matching one.

Key Takeaways

Proper Huawei optical module pairing requires matching module type, transmission rate, fiber type, and certification to ensure stable network operation.

Key Considerations for Pairing

-

Module Type and Form Factor: Huawei optical modules come in various types such as SFP, SFP+, SFP28, QSFP+, QSFP28, QSFP-DD, XFP, CFP, and CXP, each supporting different transmission rates and connector types. Ensure that the module type matches the port on your Huawei device. For example, a QSFP28 module cannot be inserted into an SFP+ port.

-

Transmission Rate Compatibility: Optical modules must match the interface speed. Using a 10G module on a 1G port or vice versa can prevent the port from coming up. Check the device interface and module specifications before pairing.

-

Fiber Type Matching: Single-mode modules require single-mode fiber, and multimode modules require multimode fiber. Mixing fiber types with incompatible modules will prevent the link from establishing .

-

Wavelength and Optical Power: Ensure that the transmit and receive wavelengths and optical power levels of the paired modules are compatible. Mismatched optical power can cause FCS or CRC errors and unstable connections .

-

Certification: Use Huawei-certified optical modules whenever possible. Non-certified modules may work but can compromise reliability and stability. You can verify certification using the `display esn interface` command; the Certified field should display YES . Certified modules also have a specific silkscreen label above the barcode.

Installation Steps

- Remove dust caps from both the optical module and fiber cable .
- Insert the optical module horizontally into the designated port until it snaps into place .
- Connect the optical fiber to the module, ensuring proper alignment of transmit and receive ends .
- Verify the port status using commands like `display interface xgigabitethernet0/0/2` and `display transceiver interface xgigabitethernet 0/0/2 verbose` to check for errors or abnormal conditions .

Troubleshooting Tips

- Perform a loopback test by connecting the fiber jumper to the same module to check port functionality .
- Ensure that duplex mode, negotiation mode, and working rate are consistent on both ends of the link .
- Replace any non-certified or incompatible modules and fibers to resolve connectivity issues .
- For combo ports, configure the port to operate as an optical port if necessary .

By carefully matching module type, transmission rate, fiber type, and certification, and following proper installation procedures, Huawei optical modules can be paired effectively to ensure stable and high-performance network links.

Article Content

Troubleshooting Optical Module Issues

Check whether the optical fiber matches the optical module. If not, replace the optical fiber with a matching one.

Optical Modules for Huawei S Series Switches

A switch must use optical or copper modules that have been certified for use on Huawei switches. Non-certified optical or copper

What Is StarryLink Optical Module? Why Do We Need It?

The StarryLink optical module is a core component developed by Huawei for data center networks. It delivers ultra

Huawei Switches Viewing Optical Port Receiving and Sending

Use the command display transceiver to view the optical module information of all optical ports, and use the command

Optical Modules in General-Purpose Computing Scenarios

Huawei offers a comprehensive portfolio of pluggable StarryLink optical modules for data center networks, with various models

Checking the Optical Module

Check whether the transmission distance and fiber type of the optical module meet the requirements. Use an optical power meter to

Optical Module Solutions for Huawei S5700/S5720 Series Switches

This article summarizes several solutions for using optical modules with switches and common problems encountered

What Is an Optical Module and Its FAQs (V200)

What Is an Optical Module and Its FAQs (V200) Describes what an optical module is and FAQs, including the fundamentals,

Connecting Optical Modules and Optical Fibers

A router must use Huawei-certified optical modules. Non-Huawei-certified optical modules cannot ensure transmission reliability and

Troubleshooting Optical Module Issues

The Huawei-certified optical module has a silkscreen label of five lines printed above the barcode, and the silkscreen

Displaying Optical Module Information

Displaying Optical Module Information You can use the display commands to view information about the optical module on an

Understanding Optical Modules

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

StarryLink Optical Module

Huawei's StarryLink optical modules for data center networks offer seamless interconnection from GE to 800GE across all scenarios,

Replacing an Optical Module

Follow these guidelines when replacing an optical module: Wear an ESD wrist strap or gloves when replacing the cables. Ensure

Checking the Optical Module Type

When certifying an optical module, Huawei switches comprehensively verify optical module functions to ensure the optical module

Optical Modules in Intelligent Computing Scenarios

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

Guide to Using Pluggable Modules

The system may fail to obtain information about non-Huawei-certified optical modules or obtain incorrect information. You are

Installing Optical Modules and Connecting Optical Fibers

Select optical fibers of appropriate modes, quantity, and lengths according to the optical module types, number of ports to be

Contact Us

Continue your research online:

Website: <https://thegalleryselfcatering.co.za>

Technical inquiry: <https://thegalleryselfcatering.co.za/contact.html>

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

