Huawei Switch Fiber Optic Interface Connection Method



Overview

Connect optical fibers to the optical modules on the device, matching the numbers on the optical fibers to those on the ports.

Key Takeaways

Huawei switch fiber optic interfaces can be connected using optical modules, fiber jumpers, or active optical cables (AOCs), with proper selection of fiber type, connector, and interface configuration. Types of Fiber Connections1. Active Optical Cables (AOCs): AOCs are fixed-length optical fibers with optical modules at both ends and can be directly connected to the optical ports of Huawei switches.

They are suitable for short-distance connections and can replace separate optical modules and fiber jumpers. 2. Fiber Jumpers: Fiber jumpers connect an optical module to a fiber terminal box.

The type of fiber jumper must match the optical module: use single-mode fiber jumpers for single-mode modules and multimode fiber jumpers for multimode modules. The length should be determined based on onsite cabling distance, and the connector type must match the interface type. 3.

Fiber Pigtails: Fiber pigtails are used to connect optical fibers to optical modules in fiber terminal boxes, typically for short-distance connections. They are available in single-mode and multimode types.

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Optical Module Considerations

Ensure compatibility between fiber type and optical module. Single-mode fibers cannot be used with multimode modules and vice versa. Do not use an optical module with a higher rate than the interface supports (e.g., avoid using a 10G module on a 1G port),.

Check the wavelength, received, and transmitted optical power using commands like display transceiver interface xgigabitethernet 0/0/2 verbose to ensure normal operation.

Combo Interface Configuration

Huawei switches with Combo interfaces allow a single logical interface to operate in either electrical or optical mode, but not both simultaneously. To switch to optical mode: Enter system view on the switch. Execute the command combo enable fiber to activate the optical interface.

Use undo combo enable fiber to revert to the electrical interface. Ensure the same configuration is applied on the peer device. After switching, insert a compatible GE SFP optical module to establish the connection.

Interface Split and High-

Bandwidth Connections

For high-bandwidth interfaces (e.g., 40GE on CX320 switches), the interface can be split into multiple low-bandwidth interfaces. Connections can be made using: 1-to-4 high-speed cables or 1-to-4 AOCs without optical modules. 1-to-4 optical modules and fiber for remote 10GE interfaces, ensuring wavelength compatibility.

Best Practices

Wear an anti-static wrist strap when handling optical modules. Verify that the fiber type, connector type, and module type match the switch interface. Perform a loopback test if the port does not light up to check for fiber or module issues.

For stacking switches using optical ports, follow the logical port connection rules (chain for two switches, ring for three or more),. By following these methods, Huawei switch fiber optic interfaces can be connected reliably, ensuring proper data transmission and network stability.

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Article Content

Connecting Optical Fibers

Connect optical fibers to the optical modules on the device, matching the numbers on the optical fibers to those on the ports. To connect them, align the fiber connector with the bores on the optical module

Optical Fiber

To connect a fiber, align the optical connector with the optical port and gently insert the optical fiber into the port. To remove a fiber, press the clip on the connector and pull the fiber out.

Optical Module Solutions for Huawei S5700/S5720 Series Switches

This article summarizes several solutions for using optical modules with switches and common problems encountered during usage, along with specific solutions.

OPTICAL MODULES FOR HUAWEI S SERIES SWITCHES

To determine whether optical modules delivered for Huawei switches before July 1, 2013 are certified ones, contact Huawei technical support. If your optical modules are delivered after July 1, 2013, use

Troubleshooting for Optical Modules on Huawei Switch

The optical modules used on both ends must have the same transmission speed, and the interface configurations on both ends must comply with related

How To Switch Optical/Electrical Mode On Huawei Router Combo Ports

The Combo electrical port and its corresponding optical port are logically multiplexed. Users can choose either port according to actual networking requirements, but the two cannot

Huawei S3700, S5700 and S6700 Switches Support Guide, Manuals

S3700&S5700&S6700 Series: Access product manuals, HedEx documents, product images and visio stencils.

How To View Optical Transceiver Information On Huawei Switches

Optical transceivers are widely applied in switches, network cards, routers and other communication devices. Checking transceiver parameters allows users to monitor real-time

Huawei Switches Viewing Optical Port Receiving and Sending

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

Fiber Optic Switch Guide: Definition, Connection Methods, Cabling ...

A practical B2B guide explaining what a fiber optic switch is, how to connect fiber optic cable to Ethernet switches, how to connect two switches with fiber, how to disconnect fiber safely,

Troubleshooting S Series Switch Port and Interface Problems

Troubleshooting S Series Switch Port and Interface Problems This document describes how to check the switch interface or port status and how to locate an interface physically down fault and restore the

Configuring Attributes for an Optical Interface

After the unidirectional single-fiber function is configured on interface 10 GE2/17/2, you only need to connect the TX end of the optical module on 10 GE2/17/2 to the RX end of the optical module on the

Campus Network Feature-Level Deployment Best Practices

Select stack cables before connecting them. For details about the stack cables that apply to different ports on different switch models, see Stack Support and Version Requirements in the product

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

Optical Fiber

A fiber adapter (also called a flange) is a fiber connection component. Two fiber connectors need to be connected using a fiber adapter. Fiber adapters are widely used in optical distribution frames (ODFs),

Interface Configuration

The Switch Combo page is displayed. Figure 4-20 Interface panel of a device with combo interfaces Select the working mode of the interface: optical mode or electrical mode. Click OK. Configure an Eth

Configuring Unidirectional Single-Fiber Communication

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40GE optical interfaces support unidirectional single-fiber communication only when no optical module is installed or 40GE optical modules are installed. When enabling unidirectional single-fiber

How to connect a new optic fibre to an ethernet switch

As we speak I just have optic fibre (Community Fibre) connected to my Huawei modem / Linksys Velop which will be connected to a new POE switch (need to identify the best model to be

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EU project coordination: Parque das Nações, Lisbon, Portugal

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

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