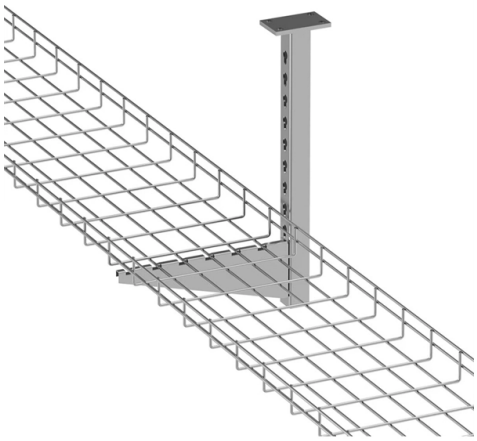
Huawei switch cannot receive optical signal



Overview

Check whether the optical modules are Huawei-certified ones. If not, contact the supplier of the optical modules. If possible, remove and reinstall the optical modules to check whether the fault is rectified.

Key Takeaways

A Huawei switch may fail to receive an optical signal due to module incompatibility, fiber mismatch, port shutdown, or abnormal transmit/receive power levels. Step 1: Verify Optical Module and Fiber CompatibilityEnsure that the optical module is Huawei-certified and compatible with the switch model. Non-certified modules can cause the port to remain Down.

Check that the module type matches the fiber type: single-mode modules (1310nm or 1550nm) require single-mode fiber, while multimode modules (850nm) require multimode fiber. Avoid mixing single-mode and multimode fibers or using modules with a higher rate than the interface supports. Step 2: Check Port Status and ConfigurationRun the command display interface to view the port status, link state, and module information.

If the port shows Administratively DOWN, execute undo shutdown to enable it. Confirm that auto-negotiation and other relevant configurations match the remote port settings. Step 3: Measure Optical PowerUse an optical power meter to check the received (RX) and transmitted (TX) power of the module.

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Low R

X power may indicate excessive distance, fiber breakage, or a faulty module.

High R

X power can occur if a long-distance module is used in a short link, potentially damaging the module.

Low T

X power suggests a defective module or contamination in the optical bores. Clean the module with a cotton swab and cover idle ports with dust plugs. Step 4: Perform Loopback or Cross-TestConnect the fiber jumper to the same module for a loopback test to verify if the port can go Up.

If no alarms appear but the port remains Down, replace the fiber or optical module to isolate the faulty component. Step 5: Reinstall or RestartRemove and reinstall the optical module, or power cycle the switch. If the issue persists, check the switch software version and consider upgrading to V100R006C01SPC100 or later.

Exercise caution on live networks, as these actions may temporarily disrupt services. Step 6: Contact Technical SupportIf all steps fail, contact Huawei technical support for further assistance, providing detailed logs and measurements of the optical module and port. By systematically checking module certification, fiber compatibility, port configuration, and optical power, most Huawei switch optical reception issues can be identified and resolved.

Article Content

Typical Troubleshooting Cases of Optical Module

Check whether the optical modules are Huawei-certified ones. If not, contact the supplier of the optical modules. If possible, remove and reinstall the optical modules to check whether the fault is rectified.

An Optical Module Does Not Send Optical Signals

Use an optical power meter to check whether the transmit optical power of the optical module is normal. If the transmit optical power is abnormal, replace the optical module. Remove and reinstall the optical

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.

Troubleshooting for Optical Modules on Huawei Switch

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Check whether the optical module is Huawei-certified. If it is not certified by Huawei, replace it with a Huawei certified one. Remove and reinstall the optical module. If this ...

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

How To Check If Interconnected Optical Ports Cannot Go Up?

If the problem is not caused by the optical modules, fibers, or intermediate device, connect the switch to another interface or replace the switch to check whether the problem ...

Common problems and solutions in the installation and use of optical ...

First, we need to confirm whether the type of optical fiber jumper and optical transceiver is correct, and second, whether the optical fiber jumper is connected to the wrong side.

Optical Module Application: Common Problems & Troubleshooting

Check optical link attenuation and received optical power. Ensure the received optical power at the far end falls within the module''s specified receive sensitivity range. If the received power

How to Troubleshoot transceiver issue in Huawei switch/router/devices

Sending power too high (Current TX Power > Default TX Power High Threshold): Sending signal is too strong, may burn the receiving end, may indicate sending transceiver is broken.

Optical Link Failure Troubleshooting: Switch-to-Switch (SMF/MMF)

Learn how to troubleshoot optical link failures between network switches. Essential guide covers checking optical modules, single-mode (SMF) vs. multimode (MMF) fiber integrity, and

Understanding Optical Modules

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

Optical Interface FAQ: Transceiver Compatibility Guidelines for Huawei

Q7: What is the optical module interoperability standard for different Huawei products? Broad interoperability between Huawei products, such as connecting an OSN to an S5700 switch, is

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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, appearance and structure, key performance counters, common types,

How Do I Check the Transmit and Receive Optical Power of an Optical ...

Run the display interface transceiver verbose command to check the transmit and receive optical power of an optical module. In the command output, Current RX Power (dBm) and Current TX Power (dBm)

Checking the Receive and Transmit Optical Power

If they are damaged, replace them. If the receive optical power is high (Current RX Power has a larger value than Default RX Power High Threshold), the transmit signal strength on the remote optical

Optical Module Troubleshooting

Fault Description A switch is connected to a remote device through optical interfaces and optical fibers. The two optical ports are Down and cannot communicate with each other.

Troubleshooting Interface Down Problems

An interface cannot be recovered from the error-down state when the configuration that triggers the interface to enter the error-down state is deleted. For details about possible causes of an interface

FAQ-How Do I View the Transmit and Receive Optical Power of an Optical ...

Fixed Switch V200R002&V200R003 The RX Power (dBM) field in the command output indicates the receive power of the optical module, and the TX Power (dBM) field indicates the

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This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

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