

Why is my Huawei optical module not working

Article Overview

Huawei optical modules may fail due to compatibility issues, incorrect installation, fiber mismatches, or abnormal transmit/receive power levels.

Common Causes

- o **Module Compatibility:** The optical module may not be certified for Huawei switches. CE series and other Huawei switches require certified modules; uncertified modules may prevent the interface from going Up. Look for the Huawei logo on the module label to confirm certification .
- o **Fiber Type Mismatch:** Single-mode modules (1310 nm or 1550 nm) must use single-mode fiber (yellow), and multimode modules (850 nm) must use multimode fiber (orange). Mismatched fiber and module types can prevent connectivity .
- o **Improper Installation:** If the module is not fully inserted or the latch is not secured, the device may not recognize it. Contaminated optical receptacles can also reduce coupling efficiency or damage the fiber pin .
- o **Abnormal Optical Power:** Transmit or receive power that is too high or too low can trigger alarms and prevent the link from establishing. Overloading the module with high-power signals can permanently damage it .
- o **Port Configuration Issues:** Differences in working rate, duplex mode, or negotiation settings between the two ends of the optical interface can prevent the port from going Up. Combo ports must be configured correctly to operate as optical ports .

Troubleshooting Steps

- o **Verify Module Certification:** Ensure the module is Huawei-certified. Replace uncertified modules with certified ones if necessary .
- o **Check Fiber Compatibility:** Confirm that the fiber type matches the module type. Replace fiber or module if mismatched .
- o **Inspect Installation:** Remove and reinsert the module until a click is felt, ensuring the latch is secured. Clean the optical receptacle if contaminated .
- o **Check Alarms and Power Levels:** Use the commands `display interface transceiver` and `display interface transceiver verbose` to check for LOS alarms or abnormal transmit/receive power .
- o **Verify Port Status:** Run `display interface xgigabitethernet0/0/2` (replace with actual port) to check if the port is administratively down. Use `undo shutdown` to bring it Up .
- o **Perform Loopback Test:** Connect the fiber jumper to the same module to test the port. If the port works in loopback, the module and fiber are likely functional .
- o **Switch Ports if Needed:** If the fault persists, try another port to determine if the original port is faulty . By systematically checking module certification, fiber type, installation, power levels, and port configuration, most Huawei optical module issues can be identified and resolved.

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

The working temperature range of the optical module does not meet requirements, causing the optical power to be reduced at a high

Replace the optical module, and check whether the alarm is cleared. If so, the alarm handling ends. If not, collect alarms, logs, and

An Optical Module Does Not Send Optical Signals The Transmit Optical Power of an Optical Module Is Too Low Information About

Procedure Use an optical power meter to test whether the transmit power of the optical module is normal. If not,

Check whether the optical module is Huawei-certified. If it is not certified by Huawei, replace it with a

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Using Huawei's 400GE SR8 optical module as an example, with the lane downgrade technology of the optical

Troubleshooting Optical Module Issues Symptom An optical port cannot go Up. The optical module cannot be properly

Check whether the optical modules are Huawei-certified ones. If not, contact the vendor of the optical modules. If possible, remove

Use an optical fiber to perform a loopback test on the Huawei device. If the link goes Up, the Huawei device is working properly, and

Procedure Check whether the optical modules have been certified by Huawei. Devices must use optical modules certified by Huawei.

Some non-certified optical modules are not designed in compliance with EMC standards and have low anti-interference capability.

After an SFP-GE copper or optical module is installed on a GE or 10GE optical interface, or a high-speed cable is

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

Non-OEM SFP modules may not necessarily adhere to the vendor's specifications, which could lead to the module

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