

Huawei s supporting optical modules



Overview

Huawei switches support optical modules of the following encapsulation types: CFP, QSFP+, QSFP28, XFP, SFP, eSFP, and SFP+.

Key Takeaways

Huawei switches and devices require certified optical modules for reliable operation, including SFP, SFP+, 40G, 100G, and StarryLink modules. Certified Huawei Optical Modules

Huawei mandates that switches and other devices use certified optical or copper modules to ensure transmission reliability and service stability. Non-certified modules may cause link failures, performance degradation, or frequent port up/down issues, and Huawei does not provide support for problems caused by them. Certification for 10GE or lower modules began on July 1, 2013, and for 40GE/100GE modules on January 1, 2016. Certified modules are labeled with "HUAWEI" and can be verified using commands like `display transceiver` or `display elabel` on Huawei switches.

Module Types and Compatibility

- SFP (1G) and SFP+ (10G): Many Huawei switches, such as the S5735-S48T4X, support both 1G SFP and 10G SFP+ modules through auto-negotiation. SFP+ ports are downward-compatible with 1G SFP modules, but using the wrong module may reduce performance.
- 40G and 100G modules: These high-speed modules are used for aggregation and data center interconnects. Certification ensures proper operation with Huawei switches and high-speed cables.

- **Single-mode vs Multi-mode:** Modules must match the fiber type. Single-mode modules cannot reliably operate on multi-mode fiber and vice versa. Wavelength, transmit power, and receive power must also be compatible .
- **Third-party modules:** While some third-party modules follow the MSA (Multi-Source Agreement) standard, form-factor compatibility does not guarantee full operational reliability. Only Huawei-certified third-party modules are recommended .

StarryLink Optical Modules

Huawei's StarryLink optical modules, launched in 2025, are designed for high-performance AI and large-scale GPU clusters. They support ultra-long-distance transmission, high reliability, and enhanced security. StarryLink modules are compatible with various NICs and switches, making them suitable for AI training clusters requiring thousands of high-speed optical modules . These modules are particularly relevant for 200G and 400G interconnects in large-scale data centers.

Best Practices

- **Verify certification:** Always check the module label and switch command outputs to confirm Huawei certification.
- **Match fiber type and speed:** Ensure single-mode/multi-mode and interface speed compatibility.
- **Avoid non-certified modules:** Using uncertified modules can lead to instability and unsupported issues.
- **Monitor optical power:** Ensure transmit and receive power levels are within the normal range to prevent damage or link failures . By following these guidelines, you can ensure reliable network performance and compatibility with Huawei switches and high-speed interconnects.

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

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StarryLink Optical Module

In the AI era, Huawei provides a full range of GE to 800GE optical modules, featuring three major capabilities: Spanning (ultra-long

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Huawei PON SFP Modules | GPON XG-PON XGS-PON & 50G-PON

These modules support transmission distances up to 60 km, provide excellent optical budgets, and are optimized for

Huawei Optical Module Common Models

Optical modules are important devices in fiber optic communication systems. Huawei Optical Module is manufactured by Huawei

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Understanding Optical Modules

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Types of Optical Modules

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Optical Modules in Intelligent Computing Scenarios

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Replacing an Optical Module

Replacing an Optical Module Context Never look directly into an optical module or the ends of optical fibers. Optical modules and

Types of Optical Modules

Provides detailed information about different types of optical modules and their applications in Huawei products.

How to View Optical Module Parameters

Using a Command If an optical module is installed in a running device, you can run the display transceiver command

Optical Modules in General-Purpose Computing Scenarios

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Huawei Unveils StarryLink Optical Modules That Deliver Ultimate

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

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Software & Firmware Download of Enterprise Products

Directory of software & firmware for Huawei products of Enterprise Networking, IT, Unified Communications and Collaboration,

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Installing Optical Transceivers and Connecting Optical Fibers

The USG supports both 1 Gbit/s, 10 Gbit/s, and 40 Gbit/s optical modules. The optical modules at both ends are the same, including

10GE SFP+ Optical Modules

Fan Modules Installing a Power Surge Protector Pluggable Modules for Ports Understanding Optical Modules Understanding Copper

10 Gbit/s SFP+ Optical Modules

10 Gbit/s SFP+ optical modules apply to 10 GE optical ports. The wavelength can be 850 nm, 1310 nm, or 1550 nm, and the

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