

Article Overview

Huawei optical modules can be identified by their form factor, transmission rate, wavelength, and naming conventions, which indicate their type, application, and compatibility.

Key Features of Huawei Optical Modules

Huawei optical modules are photoelectric converters that transform electrical signals into optical signals and vice versa, operating at the physical layer of the OSI model . They consist of an optical transmitter, receiver, functional circuits, and a protective shell. Key performance parameters include average transmit power, extinction ratio, and receiver sensitivity, which help assess module efficiency and signal quality .

Common Form Factors and Types

Huawei modules come in various form factors to meet different network requirements :

- o SFP (Small Form-factor Pluggable): Supports LC fiber connectors, typically for 1G or 100M networks.
- o eSFP (Enhanced SFP): Monitors voltage, temperature, bias current, and optical power; often used interchangeably with SFP.
- o SFP+: Higher-speed SFP, commonly for 10G networks.
- o SFP28: Same interface as SFP+, supports 25G transmission.
- o XFP: 10G modules, larger than SFP+.
- o QSFP+: Quad SFP, supports MPO connectors, used for 40G networks.
- o QSFP28: Supports 100G transmission, same interface as QSFP+.
- o CFP: Centum form-factor pluggable, used for high-speed data communication. Modules may also be DWDM or CWDM for long-distance transmission, requiring careful selection of fiber length and sometimes optical attenuators to prevent damage .

Naming Conventions

Huawei optical module names encode key specifications :

- o SFP-FE-SX-MM1310:
 - o SFP: Form factor
 - o FE: Fast Ethernet (100M)
 - o SX: Short wavelength, multi-mode
 - o MM1310: Multi-mode, 1310 nm wavelength
- o eSFP-FE-LX-SM1310:

How to identify Huawei optical modules

- o eSFP: Enhanced SFP
- o LX: Long wavelength, single-mode
- o SM1310: Single-mode, 1310 nm wavelength

- o S-SFP-FE-LH40-SM1310:
- o LH40: Long haul, 40 km transmission distance

- o BIDI modules indicate bidirectional transmission, e.g., TX1310nm/RX1550nm.

Identifying Modules on Huawei Switches

Huawei switches provide commands to view module details, including:

- o Transceiver type (e.g., 1000_BASE_SX_SFP)
- o Connector type (LC, MPO)
- o Wavelength (nm)
- o Transfer distance (m)
- o Digital diagnostic monitoring (voltage, temperature, bias current, RX/TX power)
- o Vendor and part number These parameters help confirm the module's type, compatibility, and operational status.

Practical Tips

- o Check the label on the module for part number, wavelength, and distance.
- o Use switch commands to verify module type and diagnostics.
- o Match module type to network requirements (speed, distance, fiber type).
- o Avoid mixing incompatible modules to prevent communication failures. By combining form factor, naming conventions, and switch diagnostics, Huawei optical modules can be accurately identified and deployed in fiber-optic networks .

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

Identify the Huawei-certified optical modules, the first thing you should confirm as below: Huawei switches must use Huawei-certified

HUAWEI S Series Switch-Identify a Huawei-Certified Optical Module video demonstrates how to identify a Huawei

Huawei S series devices support optical modules of the following encapsulation types: CFP, QSFP+, QSFP28,

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XFP, SFP, eSFP,

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

EXECUTIVE SUMMARY This document provides a comprehensive technical overview of the Huawei Optical Module Part Number

If an optical module is installed in a running device, you can run the display transceiver command to view parameters of the optical

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

Taking the Huawei 5700 series switches as an example, the commands to view optical module information are as

This document describes hardware components of the AR, including the cabinet, chassis, power supply facilities, fan modules, cards,

The inventory information such as serial number, product code, optical module, device, power, voltage, temperature, fan, CPU and

How to Identify Huawei-Certified Optical Modules Huawei routers must use Huawei-certified optical modules. Non-Huawei-certified

1. Transceiver identity information: model, wavelength, transmission distance, SN, manufacturer data stored in

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

Hier sollte eine Beschreibung angezeigt werden, diese Seite lässt dies jedoch nicht zu.

Huawei routers must use Huawei-certified optical modules. Non-Huawei-certified optical modules cannot ensure transmission

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