

Article Overview

Huawei optical modules can be identified by their form factor, transmission rate, wavelength, distance, and vendor-specific part numbers, which are often encoded in the module label and accessible via switch commands.

Common Huawei Optical Module Types

Huawei optical modules are available in various form factors and speeds to meet different network requirements ():

- o SFP (Small Form-factor Pluggable): Supports 1G or 10G speeds, typically with LC fiber connectors.
- o eSFP (Enhanced SFP): SFP modules with monitoring capabilities for voltage, temperature, bias current, and optical power.
- o SFP+: High-speed SFP supporting 10G transmission.
- o SFP28: Same interface as SFP+, supports 25G transmission.
- o XFP: 10G modules, larger than SFP+, with LC connectors.
- o QSFP+: Quad SFP, supports 40G, uses MPO connectors.
- o QSFP28: Supports 100G, same interface size as QSFP+.
- o CFP: Centum form-factor pluggable, used for high-speed data communication, dimensions 144.75 mm x 82 mm x 13.6 mm. Modules are hot-swappable and encapsulated differently depending on speed and application ().

Reading Module Information on Huawei Switches

Huawei switches allow you to read module information to verify type, status, and diagnostics ():

- o Check interface information:
display interface This shows interface rate, module type, link status, and traffic statistics.
- o Basic module identification includes:
 - o Module type (e.g., 10GBASE_LR_SFP)
 - o Connector type (LC, MPO)
 - o Wavelength (nm)
 - o Transfer distance (m)
 - o Vendor name and part number
 - o Serial number and manufacturing date
- o Digital Diagnostic Monitoring (DDM) provides real-time parameters:
 - o Temperature, voltage, bias current

- o Transmit and receive optical power
- o Thresholds for safe operation This information helps ensure compatibility and troubleshoot link issues.

Huawei Optical Module Naming Conventions

Huawei modules often encode key specifications in the vendor part number ():

- o Speed: 1G, 10G, 25G, 40G, 100G
- o Form factor: SFP, SFP+, QSFP+, QSFP28, CFP
- o Wavelength: e.g., 1310 nm, 1550 nm
- o Distance: e.g., 10 km, 40 km, 80 km
- o Special features: DDM support, enhanced monitoring For example, a module labeled SFP-10G-LR indicates a 10G SFP module for long-range transmission.

Common Huawei Optical Module Models

Some widely used Huawei optical modules include ():

- o 100Gb SFP Optical Module
- o Gigabit SFP Optical Module
- o 10 Gigabit SFP+ Optical Module
- o 40G QSFP+ Optical Module
- o 100G QSFP28 Optical Module Selecting the correct module requires matching speed, distance, fiber type, and switch compatibility to avoid unsupported transceiver alarms and ensure reliable operation ().

Summary

To identify a Huawei optical module:

- o Check the physical label for part number, speed, wavelength, and distance.
- o Use switch commands to read module type, DDM data, and operational status.
- o Match form factor and specifications to the intended network application.
- o Refer to Huawei datasheets for common models and compatibility guidelines. This approach ensures proper deployment, reduces troubleshooting time, and maintains network reliability.

Huawei offers a comprehensive portfolio of pluggable StarryLink optical modules for data center networks, with various models

Fundamentals of an Optical Module As an important part of fiber-optic communication, an optical module is a

photoelectric converter

ZUSAMMENFASSUNG: Dieses Dokument bietet einen umfassenden technischen Überblick über den Huawei Optical Module Part

For details about the optical modules supported by optical ports on switches, see "Appearance and Structure" of a specific switch

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

Troubleshooting for Optical Modules on Huawei Switch Many friends feedback that one problems occurred when using optical

Procedure Check the optical module type. Generally, an optical module has a label attached, identifying the rate, center wavelength,

A GUIDE FOR FINDING YOUR PRODUCT MODEL NUMBER You can use the following methods to find the model number of any

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

A switch must use optical or copper modules that have been certified for use on Huawei S switches. Non-certified optical

Intelligent Optical Module OSC/OTDR Module Translation Favorite Download Update Date:2026-04-01 Document

Procedure Run the display interface interface-type interface-number transceiver [verbose] command to check optical module

You can check whether an optical module is officially delivered by Huawei using one of the following methods: Use

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

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

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

Web: <https://www.in-au.co.za>

