

Huawei Optical Module Classification



AI Overview

Huawei optical modules are classified by form factor, transmission rate, and application, including SFP, SFP+, SFP28, QSFP+, QSFP28, CFP, and PON classes like B+, C+, C+ Pro, and D. General Optical Module Classes Huawei optical modules are photoelectric converters that transmit and receive optical signals, supporting electrical/optical conversion in fiber networks. They are classified based on form factor and transmission rate:

- SFP (Small Form-Factor Pluggable):** Standard module supporting GE (Gigabit Ethernet) with LC fiber connectors.
- eSFP (Enhanced SFP):** SFP with monitoring capabilities for voltage, temperature, bias current, and optical power.
- SFP+:** High-speed SFP supporting 10GE transmission.
- SFP28:** Same interface as SFP+ but supports 25GE transmission.
- XFP:** 10 Gigabit module, larger than SFP+, supporting LC connectors.
- QSFP+ (Quad SFP+):** Supports 40GE, uses MPO fiber connectors, larger than SFP+.
- QSFP28:** Supports 100GE or 40GE, same interface as QSFP+.
- CFP (Centum Form-Factor Pluggable):** Large module for high-speed data communication, supporting 100GE and beyond.

All these modules are hot-swappable, allowing easy replacement without shutting down devices.

Huawei PON Optical Module Classes

For broadband access networks, Huawei provides PON SFP modules for GPON, XG-PON, XGS-PON, and 50G-PON technologies:

- Class B+:** Standard optical budget for typical GPON deployment.
- Class C+:** Higher optical budget for longer distances or higher splitter ratios.
- Class C+ Pro:** Enhanced performance for extended coverage and reliability.
- Class D:** Optimized for 50G-PON networks with high-speed transmission.

These PON modules support transmission distances from 20 km to 60 km, downstream rates up to 2.488 Gbps (GPON) or higher for XGS-PON, and are designed for carrier-grade reliability in FTTH and enterprise networks.

Advanced Features

Huawei optical modules in modern data centers and AI scenarios offer:

- Ultra-long transmission (Spanning)
- High reliability (Stable)
- Enhanced...

Article Content

What Are the Common Types of Optical Modules?

What Are the Common Types of Optical Modules? Classification by Transmission Rate
To meet various transmission rate requirements, optical modules with different rates are provided, including 400GE,

S310-48P4S

S200, S300, S500, and S600 Hardware Description This document describes all the configuration commands of the device, including the command function, format, parameters, views, default level,

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

The StarryLink optical module is a core component developed by Huawei for data center networks. It delivers ultra-long-distance transmission, exceptional reliability, and enhanced security,

Classification and Types of Optical Modules

In order to meet the needs of various transmission rates, optical modules with different rates are produced: FE optical module, GE optical module, 10GE optical module and 40GE optical

Understanding Pluggable Optical Modules

Optical Module Classification Optical modules are available in various types to meet diversified requirements.

Checking the Optical Module Type

When certifying an optical module, Huawei switches comprehensively verify optical module functions to ensure the optical module quality. The functions include the installation and removal, transmit and

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

With options ranging from Class B+ to Class D and advanced XG-PON Combo SFP+ modules, Huawei delivers scalable broadband solutions that support both current and future network

What Is an Optical Module and Its FAQs (V300)

Fundamentals of an Optical Module As an important part of fiber-optic communication, an optical module is a photoelectric converter which converts electrical signals into optical signals and

Types of Optical Modules

Multimode optical modules are used with multimode fibers. Multimode fibers have lower transmission performance than single-mode fibers because of modal dispersion, but their costs are also lower.

01-10 OPTICAL MODULES

Optical modules are available in various types to meet diversified requirements. Depending on transmission rates, optical modules are classified into 100GE, 40GE, 25GE, 10GE, FE, and GE

Huawei Optical Module Common Models

Optical modules are important devices in fiber optic communication systems. Huawei Optical Module is manufactured by Huawei Technologies Co. and originated in Shenzhen.

Displaying Optical Module Information

When certifying an optical module, Huawei comprehensively verifies the functions of the optical module to ensure the optical module quality. The functions include the installation and removal, transmit and

Huawei Class D Optical Module: Why it Matters?

For years, Class B+ and Class C+ were the most common. Recently, Class D modules appeared, and many OLT vendors such as Huawei now support Class D. At the same time, Class B+ is being ...

Introduction of Optical Modules on Huawei Switches

You may learn how to classify and check the optical modules from this article, thunder-link sales team will assist you for further questions about optical

Optical Components

Provides corporate revenue market share by end-market segment as well as the detailed market size for select optical components.

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

Huawei offers multiple GPON XG-PON XGS-PON & 50G-PON optical module options, including Class B+, Class C+, Class C+ Pro, and Class D optics. These modules support

How To View Optical Transceiver Information On Huawei Switches

Optical modules are commonly used in switches, network cards, routers and other communications equipment, in the process of using the optical module information can be read to

Types of Optical Modules

Huawei S series devices support optical modules of the following encapsulation types: CFP, QSFP+, QSFP28, XFP, SFP, eSFP, and SFP+. All optical modules are hot swappable.

Understanding Optical Modules

On an optical network, a sender needs to convert electrical signals into optical signals before sending them to a receiver, and the receiver needs to convert received optical signals into electrical signals.

Huawei 40G QSFP Switch Guide: CE6800 & CE12800 Specs

Compare Huawei CloudEngine 40G switches (CE6800, CE12800), QSFP+ module compatibility (SR4/LR4), and deployment guidance for AI-ready Ethernet fabrics.

Types of Optical Modules

Optical modules are encapsulated in different modes to provide different structures. Huawei routers support optical modules of the following encapsulation types: SFP, eSFP, SFP+, XFP, and QSFP+.

Huawei GPON Optical Module

Huawei MA5600T series only support GPON and XG-PON; MA5800 series supports GPON, XG-PON, XGS-PON, XG-PON& GPON Combo, XGS-PON& GPON Combo, this article

Understanding Pluggable Optical Modules

They are used for small-capacity, short-distance transmission. Single-mode optical modules are used with single-mode fibers. Single-mode fibers support a wide band and large transmission capacity,

WHAT IS AN OPTICAL MODULE AND ITS FAQS (V200)

If the value of Vendor Name is HUAWEI, the optical module has been certified for Huawei data center switches. If the value is not HUAWEI, the optical module is not certified for Huawei data center

The Ultimate Guide to SFP Modules (2026): Types,

Confused by SFP vs SFP+? Read the definitive 2026 guide on SFP modules. We explain Single Mode vs Multimode, DDM diagnostics, and how to choose the

Understanding Optical Modules

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

The Most Comprehensive Guide Of Optical Modules

Explore the ultimate guide to optical modules. Learn types, functions, performance metrics & how to choose the right module for your fiber network.

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