

Maximum transmission speed of Huawei optical modules



Article Overview

Huawei optical modules currently support single-wavelength transmission speeds up to 1.2 Tbps, with single-fiber capacities reaching 96 Tbps.

Overview of Huawei Optical Module Speeds

Huawei offers a wide range of optical modules for different applications, including SFP, SFP+, SFP28, QSFP+, QSFP28, XFP, and CFP form factors, supporting transmission rates from 100 Mbps (FE) up to 100 Gbps (100GE) and beyond for data center and carrier networks . For broadband access, Huawei PON SFP modules support GPON downstream at 2.488 Gbps, XGS-PON at 10 Gbps, and 50G-PON asymmetric rates up to 50 Gbps .

High-Speed Optical Transport

For high-capacity backbone and long-haul networks, Huawei's OptiXtreme series supports adjustable single-wavelength rates from 100G to 600G, with spectrum efficiency of 8 bit/s/Hz . The OSN 9800 M24 flagship product extends this further, supporting single-wavelength transmission up to 1.2 Tbps and a single-fiber capacity of 96 Tbps, making it one of the highest-speed optical modules in the industry . Huawei's DC OptiXtrans DC908 modules provide single-wavelength 200G to 800G solutions for data center interconnects, with long-haul demonstrations achieving 800G transmission over 1,100 km . These modules leverage advanced technologies such as faster-than-Nyquist (FTN) algorithms, channel matching shaping (CMS), and AI-based real-time optimization to maximize transmission performance over long distances .

Article Content

Optical Module

Optical Communication Technologies Optical Components Optical Power Management
Ultra-High Speed Transmission

Understanding Pluggable Optical Modules

Classified by transmission rate Currently, the transmission rates of optical modules cover a wide range. According to different

Understanding Pluggable Optical Modules

Optical modules are available in various types to meet diversified requirements. Classified by transmission rates Currently, the

Understanding Optical Modules

Transmission distance Maximum distance over which optical signals can transmit. Optical signals sent from different types of sources

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

Huawei provided a 100G QSFP-BIDI multimode optical module solution, enabling reliable 150-meter transmission

Optical Modules for Huawei S Series Switches

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

Huawei Completes Industry's First Live Demo of a 600G Single

Today, Huawei announced the completion of the industry's first live demo of a 600G single-wavelength ultra-high

OMXD30000, Huawei SFP+ Optical Transceiver, 10G, Multi-mode,

Huawei OMXD30000 10G SFP+ multi-mode 850nm 0.3km LC module ensures stable short-reach data center and campus links.

Optical Interface Interconnection Is Abnormal on CE Switches ...

Depending on the transmit optical power and overload optical power, optical modules are classified into short

Optical Interface FAQ: Transceiver Compatibility Guidelines for

Overview & Thematic Scope Deciphering Huawei optical transceiver part numbers is essential for network engineers and

Types of Optical Modules

Optical modules are available in various types to meet diversified requirements. Classified by transmission rates Depending on

Huawei Optical Module Common Models

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

OptiX OSN 1800 OTN Platform

Huawei's OptiX OSN 1800 Multi-Service OTN Platform with integrated CWDM & DWDM communications over optical, 10 GE at 85

IP + Optical: The Mainstream Solution for the 400G Era

With the mature commercial use of 400G ZR+ optical modules, IP colored optical boards and gray optical boards have

Optical Fiber

The G.651 standard optical fibers are commonly used MMFs that can transmit between 800 nm to 900 nm or 1200 nm to 1350 nm

stc, Huawei claim first 2.4T trial on live optical network

Saudi telco stc and Chinese vendor Huawei have completed a live network trial of an optical transmission system

Huawei SFP-10G-LR Datasheet Overview

Overview to 10km with Standard Compatibility. This high-quality Huawei SFP-10G-LR Compatible 10GBASE LR SFP+ 1310nm 10km

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

Optical Transmission Basics 01

The transmission rate range of a single-fiber unidirectional optical module is 125 Mbit/s to 5 Gbit/s, and that of a single-fiber

10 Gbit/s SFP+ Optical Module

10 Gbit/s SFP+ Optical Module You can use different levels of 10 Gbit/s SFP+ optical modules only with 10 GE

Types of Optical Modules

Multimode optical modules are used with multimode fibers. Multimode fibers have lower transmission performance than single-mode

Introduction of Optical Modules on Huawei Switches

Check Optical Module Parameters: If an optical module is installed in a running switch, you can run the display transceiver command

Troubleshooting for Optical Modules on Huawei Switch

When this optical module uses OM3 multimode optical fibers, its transmission distance is 0.3 km. The optical modules used on both

Huawei Shipping Advanced 2 Tbps-Capable Coherent Wavelengths

Huawei has started shipping its next-generation high-performance coherent DSP in the first quarter of 2026 as an

OMXD30000, Huawei SFP+ Optical Transceiver, 10G, Multi-mode,

Supporting 10 Gbit/s over single-mode fiber at a 1310 nm center wavelength, it complies with the 10GBASE-iLR standard for reliable

Optical Modules in General-Purpose Computing Scenarios

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

Huawei Unveils StarryLink Optical Modules That ...

At MWC Barcelona 2025, Huawei introduced the StarryLink optical modules, aimed at creating a network experience

01-10 OPTICAL MODULES

Optical modules are available in various types to meet diversified requirements. Depending on transmission rates, optical modules

Contact Us

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