

Huawei Optical Module Distance Setting Tips

Article Overview

Huawei optical module distance is managed by selecting the appropriate module type and verifying fiber compatibility rather than manually setting a distance parameter.

Step 1: Verify Optical Module Type and Maximum Distance

Check the optical module's specifications to ensure it supports the required transmission distance. Each module has a maximum transmission distance, which depends on the wavelength and fiber type. For example, a 10GBASE-LR SFP module may support up to 10 km on single-mode fiber, while a 1000BASE-SX module may support 300 m on multimode fiber (50 μm) or 150 m (62.5 μm) . Using a module beyond its rated distance can cause signal loss or alarms.

Step 2: Confirm Fiber Type Compatibility

Ensure the fiber type matches the optical module:

- Single-mode fiber (yellow) → single-mode module
 - Multimode fiber (orange) → multimode module
- Two connected modules must also have the same wavelength . Mismatched fiber or wavelength can trigger low or high optical power alarms.

Step 3: Install the Optical Module Properly...

Article Content

Oct 08, 2025

Installing Optical Transceivers and Connecting Optical Fibers ...

If different optical modules are used at the two ends, the communication may fail. Huawei optical modules are recommended. The

Jul 31, 2025

What Is an Optical Module and Its FAQs (V200)

What Is an Optical Module and Its FAQs (V200) Describes what an optical module is and FAQs, including the fundamentals,

Oct 15, 2025

Installing Optical Transceivers and Connecting Optical Fibers

Installing Optical Transceivers and Connecting Optical Fibers This section describes how to install optical transceivers on the SFP or

Mar 23, 2026

Checking Whether the Optical Module Works Properly

If the receive power is too high or low: Replace the (local or remote) optical module or fiber. Check whether the transmission distance

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Installing Optical Modules and Connecting Optical Fibers

Select optical fibers of appropriate modes, quantity, and lengths according to the optical module types, number of ports to be

Dec 24, 2025

Optical Fiber

The transmission distances of MMFs depend on the interface type, center wavelength, and fiber class. Table 2 describes the

May 15, 2026

How Do I Ensure that the Transmit and Receive Optical Power of an ...

The diagnostic information of the optical module displays the current transmit and receive optical power values, as well as the default

Apr 05, 2026

Optical Modules in Intelligent Computing Scenarios

Huawei provides a full series of pluggable optical modules. A wide variety of modules give you flexible plug-and-play options for all

May 05, 2026

01-10 OPTICAL MODULES

Generally, an optical attenuator is required if an optical module supporting a transmission distance longer than 10 km is used

Jun 17, 2026

Introduction of Optical Modules on Huawei Switches

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

Sep 12, 2025

How To View Optical Transceiver Information On Huawei Switches

Optical transceivers are widely applied in switches, network cards, routers and other communication devices.

Aug 29, 2025

How to View Optical Module Parameters

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

May 14, 2026

WHAT IS AN OPTICAL MODULE AND ITS FAQS (V200)

An optical module works at the physical layer of the OSI model and is one of the core components in the fiber communication

Aug 22, 2025

Huawei Data Center Network Short-Distance Optical Module Portfolio

Home Huawei Data Center Network Short-Distance Optical Module Portfolio

Jan 30, 2026

Installing an Optical Module

Gently push the optical module into the optical port until you hear a click. When inserting an optical module to a port, hold the optical

Jul 16, 2026

A Guide to Huawei Optical Transceivers: OMXD30000

They can transmit data over distances of up to 80 kilometres, depending on the type of optical fibre used. This makes

Sep 16, 2025

Optical Module: Typical Optical Module Troubleshooting Procedure

Optical Module: Typical Optical Module Troubleshooting Procedure Check the model of the faulty optical module. If it is not a Huawei

Jul 11, 2026

40G QSFP+ Transceiver Modules | Optical Transceivers

FS 40G QSFP+ optical transceiver module solutions offer a full range of QSFP+ modules from 150m to 80km reach, and used for

Aug 31, 2025

Displaying Optical Module Information

When certifying an optical module, Huawei comprehensively verifies the functions of the optical module to ensure the optical module

Nov 03, 2025

Optical Module

Optical Module Names This topic describes the names of optical modules used by WDM products.

Feb 05, 2026

Checking Parameter Settings of the Optical Modules

Check the parameter settings such as rate, wavelength, and transmission distance of the interconnected optical modules. Using the

Jul 27, 2025

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

Aug 24, 2025

Installing Optical Fiber Communications Cables

The transmission distance supported by the 100M optical modules should be greater than or equal to 12 km, and the transmission

Feb 04, 2026

Huawei OptiX RTN 950 Commissioning and Configuration Guide

It is recommended to set the parameters for the 1+1 HSB/FD/SD protection as follows:
I Set Working Mode according

Mar 20, 2026

How to View Optical Module Parameters

If you know the model or type of an optical module, you can view the section "Pluggable Modules for Interfaces" in the Hardware

Jul 28, 2025

How to View Optical Module Parameters

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

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Transmission Distance of an Ethernet Module

Common distances are as follows: Table 3-1 Common transmission distance types ...
The number following the letter R indicates the

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How Do I Ensure that the Transmit Power and Receive Power of an Optical ...

An optical module's diagnostic information includes the current transmit and receive power values of the optical module, as well as

Jul 05, 2026

Optical Modules in General-Purpose Computing Scenarios

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

Nov 02, 2025

Typical Troubleshooting Cases of Optical Module

An Optical Module Has Normal Transmit Power but Many Packets Are Dropped on the Port Due to Bit Errors
Use an optical power

Apr 28, 2026

Transmission Distance of an Ethernet Module

100GBASE-SR10: The module rate is 100G, and 10 indicates 10 optical channels.

100GBASE-LR4: The module rate is 100G, and 4

Jun 09, 2026

Connecting Optical Modules and Optical Fibers

Non-Huawei-certified optical modules cannot ensure transmission reliability and may affect service stability. Huawei is not

Apr 28, 2026

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

Nov 25, 2025

Displaying Optical Module Information

The A0 registers of some non-Huawei-certified optical modules are set incorrectly. As a result, parameters and diagnostic information

Feb 15, 2026

How Do I Ensure that the Transmit and Receive Optical Power of an ...

You are advised to replace the optical module. To ensure normal communication between two optical interfaces, check for transmit

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Setting Optical Power Alarm Thresholds

Context You can set optical power alarm thresholds using commands. When the transmit or receive power of an optical module

Contact Us

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