How to check optical attenuation on Huawei switches



Overview

Displaying Optical Module Information To determine whether optical modules delivered for Huawei switches before January 1, 2016 are certified ones, contact.

Key Takeaways

Use the display transceiver and display transceiver diagnosis commands to view optical attenuation and module diagnostics on Huawei switches.

Viewing Optical Module Information

To check optical attenuation and related parameters, Huawei switches provide commands that display both general and diagnostic information of the optical module: Basic Module Information Run the command:display transceiver [interface interface-type interface-number | slot slot-id] [verbose] This command shows the optical module type, vendor, wavelength, transfer distance, and current transmit (TX) and receive (RX) power levels. Using the verbose option provides detailed information including optical attenuation, voltage, current, and temperature readings. Diagnostic Monitoring (DDM) Information For real-time diagnostics, execute:display transceiver diagnosis interface [interface-type interface-number] This displays Digital Diagnostic Monitoring (DDM) data, including: TX Power (dBm) – current transmitted optical powerRX Power (dBm) – current received optical powerHigh/Low Thresholds – alarm limits for optical powerBias Current (mA) – laser drive currentVoltage (V) and Temperature (°C) – operational status of the module By comparing the TX and RX power values with the expected link budget, you can determine the optical attenuation and verify if it is within acceptable limits.

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Checking Optical Attenuation

Optical attenuation can be inferred from the difference between the transmit power of the sending module and the receive power of the receiving module. Huawei switches report these values in the DDM output.

If the R

X power is significantly lower than expected, it may indicate excessive attenuation due to fiber length, connectors, or inline attenuators.

Ensuring Module Certification

Huawei recommends using Huawei-certified optical modules to ensure accurate readings and reliable operation. Non-certified modules may not report correct DDM values, can cause data bus errors, or damage interfaces. Certified modules can be identified by: Vendor Name showing HUAWEI in display transceiver outputManufactured date later than 2013-07-01Switch software version V200R001C00 or later SummaryTo check optical attenuation on Huawei switches: Use display transceiver for general module info and optical power.

Use display transceiver diagnosis for detailed DDM parameters.

Compare TX and R

X power to calculate attenuation. Ensure modules are Huawei-certified for accurate readings and stable operation. These steps allow network administrators to monitor optical link performance, troubleshoot issues, and maintain reliable switch operation.

Article Content

Displaying Optical Module Information

To determine whether optical modules delivered for Huawei S switches before July 1, 2013 are certified ones, contact Huawei technical support. If your optical modules are delivered after July 1, 2013, use

Checking optical attenuation configuration on Huawei switches

The following uses the Moduletek SFP-10G-LR module connected to a Huawei S6700 switch as an example to introduce how to read information of the connected optical module on a Huawei switch.

Checking the optical attenuation of Huawei switches

Run the display transceiver [interface interface-type interface-number | slot slot-id], to view the information on the optical module interface. During use, reading optical module information helps

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How To View Optical Transceiver Information On Huawei Switches

Optical transceivers are widely applied in switches, network cards, routers and other communication devices. Checking transceiver parameters allows users to monitor real-time

Huawei Switches Viewing Optical Port Receiving and Sending

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

Huawei Switch Optical Attenuation Information

When using switches, we may encounter many confusions, such as what types of optical modules are needed for different models of Huawei switches, and how to resolve issues encountered

Checking TX / RX optical power for Huawei Switches and Routers

Here is an example on how to query or display optical power of an interface in a Huawei Router. This is tested using NetEngine40E Universal Service Router or NE40E running version 8.x OS.

Huawei Optical Switch View Optical Module Commands

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

How to Check SFP Power in Huawei Switch? Is Your Network

If your network feels sluggish or devices mysteriously disconnect, the culprit might be smaller than you think—buried inside your Huawei switch. SFP power levels (optical ...

Optical Power Loss And Calculation

Attenuation is the reduction in optical power caused by distance loss during long-distance transmission of optical cables. The following table shows the attenuation values per kilometer of different

WDM Optical Link Loss FAQ: Expert Answers to Technical

In a DWDM system, span loss is the total attenuation of an optical signal as it travels between two amplifiers or between an amplifier and a transceiver . It is a subset of the total link loss. The total link

Checking optical attenuation configuration on Huawei switches

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A switch must use optical or copper modules that have been certified for use on Huawei S switches. Non-certified optical or copper modules cannot ensure transmission reliability and may affect service

Huawei Switch Optical Attenuation Information

Setting Optical Power Alarm Thresholds Huawei-certified switch optical modules are recommended. If non-Huawei-certified switch optical modules are used, incorrect optical module information may be

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

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 right transceiver for Cisco, Juniper, and more.

Optical Interface Interconnection Is Abnormal on CE Switches ...

Procedure Check whether the optical module models at the two ends match. Run the display interface interface-type interface-number transceiver verbose command to check optical

Displaying Optical Module Information

The system may fail to obtain information about non-Huawei-certified switch optical modules or obtain incorrect information. You are advised to use Huawei-certified switch optical modules.

Checking the optical attenuation of Huawei switches

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Displaying Optical Module Information

A switch must use optical or copper modules that have been certified for use on Huawei S switches. Non-certified optical or copper modules cannot ensure transmission reliability and may

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