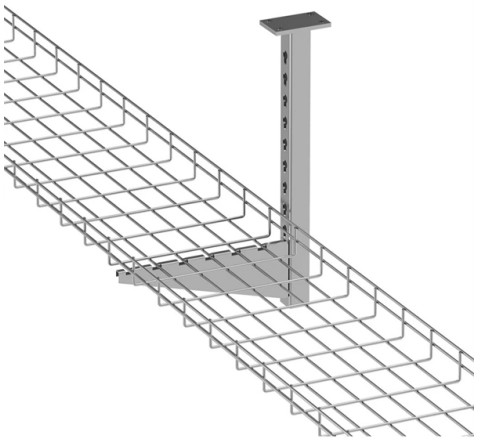
Huawei optical module parameter modification



Overview

How to View Optical Module Parameters If an optical module is installed in a running router, you can run the display transceiver command to view parameters.

Key Takeaways

Huawei optical module parameters cannot be directly modified; you can view and monitor them using specific commands to ensure proper operation and troubleshoot issues.

Viewing Optical Module Parameters

Huawei switches and routers allow you to query optical module parameters using the following commands: Display all transceivers: display transceiver – shows information for all optical ports, including module type, wavelength, transfer distance, and vendor details. Display a specific interface: display transceiver interface – provides detailed information for a particular port, including receive (RX) and transmit (TX) power, voltage, bias current, and temperature. Verbose mode: Adding the verbose parameter gives more detailed DDM (Digital Diagnostic Monitoring) data, useful for troubleshooting link issues.

Interface overview: display interface brief – helps identify interface types and numbers before querying transceiver information.

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Key Parameters You Can Monitor

Wavelength (nm): Center wavelength of the optical signal. Transfer distance (m): Maximum supported fiber length. Fiber type: Single-mode or multimode.

RX/TX power (dBm): Current receive and transmit optical power. Voltage (V) and Bias Current (mA): Electrical characteristics of the module. Temperature (°C): Operating temperature of the module.

Understanding DD

M InformationDDM provides real-time monitoring of optical module health. Typical parameters include: TX/RX power levels – ensure they are within the high/low thresholds. Bias current – indicates the laser drive current.

Temperature and voltage – help detect overheating or power issues.

Parameter Modification Considerations

Intrinsic parameters such as wavelength, maximum distance, and extinction ratio are factory-set and cannot be modified. Attempting to alter these may damage the module or void warranties. Operational settings like interface speed, duplex mode, or enabling/disabling ports can be configured on the switch but do not change the module's hardware characteristics.

For performance tuning, ensure the module is compatible with the fiber type, supported distance, and switch port configuration.

Best Practices

Always use genuine or certified optical modules to ensure accurate DDM readings and reliable operation. Regularly monitor RX/TX power and temperature to prevent link degradation. Use the display transceiver diagnosis command for troubleshooting abnormal readings.

Avoid inserting modules upside down; follow the correct orientation for QSFP/QSFP28 modules. In summary, while you cannot modify the hardware parameters of Huawei optical modules, you can monitor, interpret, and manage their operational status using Huawei CLI commands to maintain optimal network performance and troubleshoot issues effectively.

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Article Content

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 module, including the center wavelength, transmission distance, fiber

Optical Interface FAQ: Transceiver Compatibility Guidelines for

Overview & Thematic ScopeThis FAQ addresses one of the most critical operational decisions for network engineers managing Huawei OptiX OSN series equipment: the use of third-party ...

Huawei Optical Module Part Number Decoder

EXECUTIVE SUMMARYThis document provides a comprehensive technical overview of the Huawei Optical Module Part Number Decoder, an essential framework for understanding ...

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

Troubleshooting for Optical Modules on Huawei Switch

Check whether the optical module is Huawei-certified. If it is not certified by Huawei, replace it with a Huawei certified one. Remove and reinstall the optical module. ...

Optical Module Solutions for Huawei S5700/S5720 Series Switches

This article summarizes several solutions for using optical modules with switches and common problems encountered during usage, along with specific solutions.

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 modules cannot ensure transmission reliability and may affect service

ALM-3276800007 Indicates that Optical module Rx power is too low

Check whether the receive power of the optical module is within a usable range. If so, run the transceiver diagnosis threshold rx-power command to change the receive power lower threshold

Introduction of Optical Modules on Huawei Switches

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Check Optical Module Parameters: If an optical module is installed in a running switch, you can run the display transceiver command to view parameters of the optical module, including the center

Checking the Optical Module

Procedure Check whether the firewall supports the optical module based on the model of the optical module inserted into the interface and hardware description in the product documentation. The

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-certified optical module, replace it with a Huawei-certified optical module.

Troubleshooting Optical Module Issues

Troubleshooting Optical Module Issues Symptom An optical port cannot go Up. The optical module cannot be properly identified and optical module information cannot be obtained. After

Understanding Pluggable Optical Modules

The transmit power of a long-distance optical module is often larger than its overload power. Therefore, when using such optical modules, select optical fibers of an appropriate length to ensure that the

Understanding Optical Modules

If an optical module is installed in a running device, you can run the display transceiver command to view parameters of the optical module, including the center wavelength, transmission distance, fiber

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 Description to look up parameters of the optical module, including the

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 system. It mainly consists of optoelectronic devices (optical transmitter and

Checking the Optical Module Type

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The A0 registers of some non-certified optical modules are set incorrectly. As a result, parameters and diagnostic information cannot be read or incorrectly read by the data bus. Some non-certified optical

Setting Optical Power Alarm Thresholds

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 exceeds the alarm threshold,

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