

How to view parameters on an optical module

Article Overview

You can view optical module parameters using device documentation or CLI commands to check wavelength, transmit/receive power, fiber type, and diagnostic data.

Using Hardware Documentation

If you know the model or type of an optical module, you can consult the hardware description or pluggable module section of the device manual. This provides key parameters such as center wavelength, transmission distance, supported fiber types, receive optical power, and transmit optical power. This method is useful for planning or verifying module specifications before installation (Huawei documentation) .

Using CLI Commands on Running Devices

Huawei Devices

- o Run the command: display interface transceiver on the relevant interface.
- o This displays center wavelength, transmission distance, fiber type, receive and transmit optical power for the installed module .

Cisco Devices

- o To check port status and transceiver details, use: show interface to view link status, negotiation speed, and traffic statistics.
- o Use show inventory to see module model, serial number, and EEPROM-stored specifications.
- o For detailed transceiver coding information: show idprom interface .

Extreme Networks Devices

- o Run: show port configuration to view interface speed, duplex mode, optical module type, and link status.
- o For detailed module identity and digital diagnostic monitoring (DDM) data: show ports transceiver information detail.
- o This provides real-time temperature, voltage, Tx/Rx optical power, and alarm thresholds .

Key Parameters to Monitor

- o Center Wavelength: The operating wavelength of the module.

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- o Transmit/Receive Optical Power: Indicates signal strength and link quality.
- o Fiber Type: Single-mode or multimode compatibility.
- o Temperature and Voltage: Ensures module operates within safe limits.
- o Link Status: Confirms connectivity and proper negotiation.
- o Module Identification: Model, vendor, and serial number for verification.

Tips

- o Ensure the module is properly seated and the device recognizes it.
- o Some high-speed modules (e.g., 40GE or 100GE) may not display full diagnostic information due to standard limitations.
- o Use vendor-specific commands for the most accurate and detailed monitoring.

By combining hardware documentation and CLI commands, you can effectively view and monitor all critical parameters of optical modules to maintain network performance and troubleshoot issues efficiently.

The following is an example to view the monitoring parameters using the observable-info keyword. Based on the

Run the `display transceiver diagnosis interface [ interface-type interface-number ]` command to view diagnostic information about a

Considering that some newcomers to optical modules may not understand the letters on the optical module or the

This guide provides complete, step-by-step CLI commands to view module type, DOM/DDM diagnostic data, vendor

The optical module is a core component in optical fiber communication systems, and its performance parameters

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

Explore the ultimate guide to optical modules. Learn types, functions, performance metrics

Viewing the Hardware Description If you know the model or type of an optical module, you can view the section

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In this Cisco Tech Talk, learn how to view the optical module status on a Cisco switch using the Command Line

Objective The Cisco Small Business Series Switches allow you to plug in a Small Form-factor Pluggable (SFP) transceiver in their

Explore the working principles, structures, and performance metrics of optical modules, essential components of

This document uses the Moduletek SFP-10G-LR-BIDI optical module installed on an Extreme X690-48x-2q-4c switch

Understand the key parameters of optical modules, including transmission rate, distance, wavelength, and fiber

Choosing the right optical module based on practical requirements involves a comprehensive consideration of the

This article provides instructions on how to view the Optical Module Status on your switch.

10GE SFP+ Copper Modules Accessories Understanding Optical Modules What Is an Optical Module Types of Optical Modules

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