Switch optical attenuation check command



Overview

Overview In the Privileged EXEC mode of the switch, use the show fiber-ports-optical-transceiver command by entering the following: interface interface-id - (Optional) Specify an Ethernet port ID.

Key Takeaways

To check optical attenuation on a switch, use commands that display the SFP module's transmit (Tx) and receive (Rx) power, such as show interfaces transceiver detail on Cisco switches or display transceiver diagnosis on Huawei switches.

Cisco Switches

Verify SF

P recognition: CodeCopyshow inventory This lists installed SFP modules with part numbers, serial numbers, and vendor info. Check interface status: CodeCopyshow interface status Confirms the port is up and connected. View optical power and DOM values: CodeCopyshow interfaces transceiver detail or for SMB switches: CodeCopyshow fiber-ports optical-transceiver This displays: Tx Power: transmitted optical power (dBm)Rx Power: received optical power (dBm)Temperature, Voltage, Bias Current: SFP electrical/thermal healthLoss of Signal (LOS): indicates signal loss Interpret attenuation: Optical attenuation can be calculated as the difference between Tx and Rx power.

Compare the Rx power to the SFP datasheet specifications to determine if the link is within acceptable limits.

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Huawei Switches

Display optical module information: CodeCopydisplay transceiver [interface interface-type interface-number | slot slot-id] [verbose] Check diagnostic information: CodeCopydisplay transceiver diagnosis interface This shows digital diagnostic monitoring (DDM) values including Tx/Rx power, which can be used to assess optical attenuation.

Notes and Best Practices

Always ensure the SFP supports DOM; otherwise, optical power readings may not be available. Compare measured Tx/Rx values with the SFP datasheet to verify proper operation and acceptable attenuation levels. For high-power or long-distance optics, use attenuators if testing short distances to avoid damaging the receiver.

If the Rx power is significantly lower than expected, check fiber connectors, patch cables, and consider using an optical power meter for precise measurement. By following these commands, you can effectively monitor optical attenuation and overall SFP health on both Cisco and Huawei switches.

Article Content

Checking optical attenuation at ports on a Cisco switch

Overview In the Privileged EXEC mode of the switch, use the show fiber-ports-optical-transceiver command by entering the following: interface interface-id - (Optional) Specify an Ethernet port ID.

View the Optical Module Status on a Switch through the Command

This article provides instructions on how to view the Optical Module Status on your switch through the Command Line Interface (CLI). The Cisco Small Business Series Switches allow you to plug in a

Checking optical attenuation at ports on a Cisco switch

When optical modules operate on a switch, it is usually necessary to read the module''s internal information to understand its working status—such as connection status and real-time metrics like

Cisco SFP Commands Cheat Sheet: Check Status & Troubleshoot

Learn how to check SFP module health on Cisco switches. This guide covers essential CLI commands (show inventory, DOM), fixes for "unsupported transceiver" errors, and interpreting optical power levels.

Displaying Optical Module Information

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Run the display transceiver diagnosis interface [interface-type interface-number] command to view diagnostic information about a specified optical module. This command displays the digital diagnostic

How to Check SFP Optical Power Levels on Cisco Switches

Learn how to monitor SFP optical power on Cisco switches, interpret Tx/Rx levels, and troubleshoot fiber link issues. Step-by-step CLI commands, model-specific guidance, and best practices included.

How To View Port Status And Optical Module Information On Cisco

By reading internal parameters of optical transceivers on switches, users can monitor link status, real-time transmit/receive power, operating temperature and other data. It also verifies coding

Mastering Cisco Optics: Understanding TX/RX Light Levels

In this guide, we will explain what optical signal strength is, how to check it on Cisco IOS using the command line, and how to troubleshoot common light level issues.

How To View Optical Transceiver Information On Network

Special commands are applied to check transceiver data on switches, and Linux systems also support reading transceiver information on network cards. We connect Moduletek SFP-10G-LR

Determining Real-time Optical Power Loss using "show interface ...

Reading through the various topics here, I haven''t seen this question directly addressed, so here goes. For the sake of discussion, I have two Cisco switches, Switch1 and Switch2. I run the

Cisco Router Fiber Optic Levels

Below is a way to check the Tx/Rx Optical power levels on a Cisco router. I have a post on how to check these on Cisco switches. These are the levels you''re look for: Tx Power Level: Within 6dB Range

View the Optical Module Status on a Switch through the Command

Once the transceiver and fiber optic cable are plugged in properly in the switch optical module, you should be able to view the current information for the optical connection, which helps you manage

Understanding Optical Modules: Types and Troubleshooting Guide

CloudEngine series switches can use the display interface transceiver verbose command to view the general, manufacturing, alarm, and diagnostic information of the optical module on a specified

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How to check fiber cable in cisco switch?

Additional Considerations 1. Check SFP Modules SFP Health: If the fiber optic cable is connected via an SFP (Small Form-factor Pluggable) module, check the status of the SFP module itself. Use the

Optical Transceiver Manufacturer,How To Check Optical Module ...

Optical module identification and status monitoring are essential daily tasks for network engineers maintaining Cisco switching systems. This guide provides complete, step-by-step CLI

Solved: Testing fibre cables from a switch

Solved: Hi everyone, I have two new Cisco switches connected to each other with a fibre cable. Does anyone know any CLI commands to test the

How Do I Query the Optical Power of an Interface?

How Do I Query the Optical Power of an Interface? You can run the display interface [interface-type interface-number | slot slot-id] transceiver verbose command to check the optical

Solved: Fiber optic cable check command

I know that "show cable-diag tdr int [slot/port]" command can check 10/100/1000 etherent link. For example WS-X6748-GE-TX... etc. But I can find any command to check gigabit only

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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