Checking Optical Attenuation on Huawei CE Switches



Overview

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.

Key Takeaways

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

Viewing Optical Module Information

To check optical attenuation, you first need to view the optical module's transmit (Tx) and receive (Rx) power: Command for all ports: display transceiver This shows basic information for all optical modules, including type, wavelength, and DDM support. Command for a specific interface: display transceiver interface This provides detailed information for a specific port, including Tx and Rx power, module type, connector type, wavelength, and transfer distance. Verbose output for power details: display transceiver interface verbose This displays the actual transmit and receive power values, high/low thresholds, and other diagnostic parameters.

Using Digital Diagnostic Monitoring (DDM)Huawei optical modules support DDM, which allows real-time monitoring of: Transmit power (Tx)Receive power (Rx)TemperatureVoltageBias current To view DDM data, use: display transceiver diagnosis interface This command provides the digital diagnostic monitoring information, which is essential for calculating optical attenuation and verifying that the module operates within safe limits.

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Interpreting Optical Attenuation

Optical attenuation can be inferred by comparing the transmit power of the local module with the receive power at the remote module: Attenuation (dB) = Tx power (dBm) - Rx power (dBm)If the Rx power is below the low threshold, the fiber may be too long, or the fiber attenuation is high. If the Rx power is above the high threshold, the module may be overloaded or the fiber is too short.

Additional Considerations

Ensure that local and remote modules match in type, wavelength, and rate; mismatched modules can prevent the link from coming up. Check that the fiber type and length are within the module's supported transmission distance. For example, 850 nm multimode modules are typically short-distance, while 1310 nm single-mode modules support medium to long distances.

Use Huawei-certified optical modules to avoid abnormal power readings or interface issues. By following these steps, you can accurately monitor optical attenuation, verify link quality, and troubleshoot CE switch optical interfaces effectively.

Article Content

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 Whether the Optical Fiber and Optical Module

Install an optical module on an interface of the matching type, and then run the display interface transceiver command to check optical module information.

Checking the Optical Module Type

When certifying an optical module, Huawei switches comprehensively verify optical module functions to ensure the optical module quality.

Checking the optical attenuation of Huawei switches

Troubleshooting for Optical Modules on Huawei Switch If the transmit power remains low, replace the optical module or install it in another optical port to check whether it is faulty.

How To View Optical Transceiver Information On Huawei Switches

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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

How Huawei CE & S Series Switches Handle Non-Certified Optical

Huawei CE and S series switches both incorporate an optical module authentication mechanism. On S series switches, authentication is strict and alarm notifications ...

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 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

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. If ...

Cisco Command to Check SFP Module Details

Introduction - Why Checking SFP Status Matters In every enterprise network, Small Form-factor Pluggable (SFP) modules play a critical role. They

Checking the Receive and Transmit Optical Power

Run the display interface interface-type interface-number transceiver verbose command to check whether the receive optical power and transmit optical power are normal.

Checking Optical Attenuation on Huijue Optical Switches

Optical Signal Attenuation is the single greatest factor limiting the distance and performance of your network. Check whether the optical module is a Huawei-certified one.

Checking the optical attenuation of Huawei switches

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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,

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

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

This page provides a guide on checking the transmit and receive optical power of an optical module for Huawei devices.

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

How To Check If Interconnected Optical Ports Cannot

1. Checking the Optical Module Type Log in to the switch through Telnet or console port to check the switch model. Run the display device command to check the

Contact Us

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

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