Disable function in optical modules



Overview

How to disable the optical module This feature provides the ability to disable and re-enable an optical module through CLI, which simulates online insertio.

Key Takeaways

You can disable an optical module either manually or automatically to stop laser emission or transmission, using device-specific commands or settings.

Manual Laser or Transmission Disable

Huawei Devices: To manually disable the optical module laser, access the system interface and run the command laser turn-off. This immediately stops the laser but will interrupt services on the interface, so it should only be done when the interface is not actively transmitting data. Manual enabling can be done later with laser turn-on to check service recovery.

Intel X710/XL710/X722 SFP Modules: On Linux systems using the i40e driver, you can disable the TX port (laser transmission) by first setting the NIC down with ifconfig down and ensuring the SFP module supports TX disable. Additionally, set the private flag link-down-on-close to ON to maintain the TX-disabled state after reboot.

Automatic Laser Disable

Huawei Devices: You can configure the optical module to automatically disable the laser when a link failure is detected using the command laser autoshutdown enable. Optionally, you can set intervals for automatic checks with laser auto-shutdown-interval { open open-value | close close-value }. This prevents accidental exposure to the laser during troubleshooting.

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Safety Precautions

Always power on the device and ensure it passes self-checks before disabling the module. Avoid looking directly into active fiber ports, even if the module is low-power or Class 1. Disabling the laser or TX port interrupts network services, so plan maintenance accordingly.

Managing Alerts

On some devices, such as F5 BIG-IP, disabling an optical module may trigger alerts like “Unsupported Optic.” You can suppress these alerts by editing the alert configuration file (/etc/alertd/alert.conf) and backing up the original configuration. By following these steps, you can safely disable an optical module for maintenance, troubleshooting, or compliance with safety protocols while minimizing network disruption.

Article Content

How to disable the optical module

This feature provides the ability to disable and re-enable an optical module through CLI, which simulates online insertion and removal (OIR) by disabling power to the transceiver port.

Disabling the Optical Module Alarm Function

You can disable the alarm function for an optical module to prevent the optical module from reporting alarms when its optical power exceeds the threshold. The system automatically obtains the vendor

How to set X710, XL710, X722 SFP Port Tx disable function

Run the laser turn-off command to disable the optical module laser. Run the laser autoshutdown enable command to configure the optical module to disable the laser automatically if it detects a link failure.

How to set NMC-6003 & FWA-6003L (chip:E810) QSFP Port Tx

When remote system''s needs to enable NMC-6003/6003L (Chip: E810) TX disable function, it has to check following items. 2.1 Please install NMC-6003/6003L approved QSFP module, and QSFP

How To Turn Off Alarms For Third-Party Modules On H3C Switches

By default, a large number of alarm messages will be generated if the module is verified as non-H3C original. H3C provides CLI commands to suppress these optical module alarm

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Configuration Guide for Cisco NCS 1001, IOS XR Release 7.1.1

In the ILA mode, the LINE-RX and COM-TX ports of the optical amplifier module are enabled whereas the LINE-TX and COM-RX ports of the optical amplifier module are disabled.

How To Turn Off Alarms For Third-Party Modules On Huawei Switches

By default, numerous alarm messages will be generated when a non-original Huawei module is used. Huawei provides dedicated commands to disable alarms triggered by uncertified

The Most Comprehensive Guide Of Optical Modules

Overloading of optical power, also known as saturated optical power, refers to the maximum allowable optical power that the optical module can withstand without causing signal

Disabling the Alarm Function for Optical Modules That Are Not

This facilitates optical module management and maintenance. To avoid these alarms, disable the alarm function for optical modules that are not certified for Huawei data center switches. For 10GE optical

Enabling or Disabling the Optical Module Laser

The laser can also be disabled manually. If the optical module is configured to disable the laser automatically, the laser is not immediately re-enabled when the link failure is cleared. However,

How Can I Disable the Alarm Function for Optical Modules That Are

Run the transceiver non-certified-alarm disable command to disable the alarm function for optical modules that are not certified for Huawei Ethernet switches.

Disabling the Function of Generating Alarms for Non-Huawei-Certified ...

If non-Huawei-certified optical modules are used on a device, to facilitate optical module management and maintenance, the device will generate a large number of alarms to prompt users to replace these

How to set NMC-6003 & FWA-6003L (chip:E810) QSFP Port Tx disable function

Purpose: It list How to enable E810 QSFP TX_disabled function by Linux ice driver for customer reference, Target Audience: For Advantech TSE, RBU AE, outsourcing service engineer (s) and End

Configuring the Alarm Function for Non-Huawei-Certified Optical Modules ...

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When these optical modules are used on devices, the devices will also generate non-Huawei-certified optical module alarms. To protect user resources and ensure that these early delivered optical

Everything You Need to Know About Optical Modules

Optical modules are electronic devices used in communication systems to transmit optical signals. These modules convert electrical signals into optical

Configuring the Alarm Function for Non-Huawei-Certified Optical Modules ...

In addition, older optical modules may not record vendor information, resulting in the same alarms being generated. To continue using these optical modules without generating the associated alarms, you

Disabling the Optical Module Alarm Function

The device has two types of optical module power alarms: warning and alarm. A warning is reported when the difference between the actual power and vendor-defined threshold is not great. It can also

Configuring the Alarm Function for Non-Huawei-Certified Switch Optical ...

These optical modules can still be used to protect customer investment. In this case, you can disable the alarm function for non-Huawei-certified switch optical modules.

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

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