Viewing the optical module in Linux



Overview

How To View Optical Transceiver Information On Network Cards In Special commands are applied to check transceiver data on switches, and Linux systems also.

Key Takeaways

You can view optical module details in Linux using ethtool, sysfs paths, or specialized tools like the OOM Python library for EEPROM access. Using ethtool for Network Interface Cardsethtool is the standard Linux utility to query network interfaces and attached optical transceivers: Check link status and port details: BashCopyethtool Replace with your network interface name (e.g., eth0, p4p1). This shows link speed, duplex, port type, and whether the link is active.

View SFP/QSFP module information: BashCopyethtool -m This command displays module-specific details such as transceiver type, connector type, vendor name, serial number, laser wavelength, and supported distances. If the module supports Digital Optical Monitoring (DOM), it also shows real-time Tx/Rx power, temperature, and voltage. Example output: CodeCopyIdentifier: 0x03 (SFP)Connector: 0x07 (LC)Transceiver type: 10GBASE-SRVendor name: FINISAR CORP.

Laser wavelength: 850nmLength (OM3): 300m Accessing Fibre Channel HBAsFor Fibre Channel adapters, you can check module and HBA details via sysfs and Linux commands: List PCI devices: BashCopylspci | grep -i fibre Check loaded drivers: BashCopylsmod | grep Detailed HBA info: BashCopysystool -c fc_host -v This provides vendor, model, firmware, and link status. Programmatic Access with OOMThe Open Compute Project OOM library allows Python access to optical module EEPROMs: Install and use the library to read/write module keys such as serial number, module type, temperature, and transmit power. Supports both Python 2.

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7 and 3.x, and works with CMIS and standard SFP/QSFP devices. Example usage: PythonCopyfrom oom import optoemodule = optoe.get_module(port=1)print(module.get('serial_number'))print(module.get('tx_power')) This is useful for automated monitoring or integration with network management scripts.

Additional Tips

Ensure your network card or switch supports DOM if you want real-time optical power readings. Use ip link or ifconfig to identify interface names before using ethtool. For advanced diagnostics, check /sys/class/net//device/ for additional module attributes.

By combining ethtool, sysfs inspection, and libraries like OOM, Linux provides comprehensive ways to monitor and manage optical transceivers across network and storage interfaces.

Article Content

How To View Optical Transceiver Information On Network Cards In

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

Viewing optical modules in Linux

Learn everything about monitoring & troubleshooting Optical Modules, what metrics are important to monitor and why, and how to monitor Optical Modules with Netdata. This quick tutorial explains how

opticsmon

jq -r filters the JSON to select the base64-encoded raw module data fields, without surrounding quotes. base64 -d (or --decode) transforms the base64 data from jq back into binary format. hexdump -C

Viewing optical modules in Linux

For optical modules used on switches, we read their information via brand-specific terminal commands. This example uses the Moduletek SFP-10G-LR module connected to an Intel X520.

How to check SFP Module transceiver, Vendor name & power check

To check the details of an SFP module in Red Hat Enterprise Linux (RHEL), you can use the ethtool command. Use the following command to check the SFP module details for a specific network interface.

Monitoring Interfaces and Transceivers Using ethtool

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The ethtool command enables you to query or control the network driver and hardware settings. It takes the device name (like swp1) as an argument. When the device name is the only argument to ethtool,

Monitoring Interfaces and Transceivers with ethtool | Cumulus Linux 5.9

The ethtool command enables you to query or control the network driver and hardware settings and takes the device name, such as swp1, as an argument. When the device name is the only argument,

How To View Port Status And Optical Module Information On Extreme ...

This document uses the Moduletek SFP-10G-LR-BIDI optical module installed on an Extreme X690-48x-2q-4c switch as an example to demonstrate how to view port status and optical

Optical Modules Monitoring | Netdata

Learn everything about monitoring & troubleshooting Optical Modules, what metrics are important to monitor and why, and how to monitor Optical Modules with Netdata.

How to view the optical module DDM information?

DDM provides detailed information about the optical module''s performance and status, allowing network administrators to monitor and troubleshoot network issues. In this article, we will

RHEL 6 ethtool does not show SFP laser optical diagnostics

Our Juniper switch shows SFP laser diagnostics like: > show interfaces diagnostics optics ge-7/3/0 Physical interface: ge-7/3/0 Laser bias current : 18.604 mA Laser output power : 0.2290 mW / -6.40

48MP USB Camera Module with Sony IMX586 Sensor

Built around the industry-leading Sony IMX586 sensor, this module delivers unparalleled image quality with stunning detail and clarity. The plug-and-play USB-UVC compatibility ensures seamless

view optical media and optical drive information in CLI

I have an optical media in an optical drive in a remote headless server. Is it possible to view: 1) optical media capabilities (is it a CD-R, CD-RW,

How to check SFP Module transceiver, Vendor name & power check

SFP modules are commonly used in networking equipment, such as switches, routers, and network interface cards, to provide flexibility in connecting different types of optical and electrical interfaces.

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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

Best Camera For Shooting Golf Swing [Updated:July 2026]

The landscape for shooting golf swings changed dramatically when high-speed cameras with global shutters entered the picture. I''ve tested several, and believe me, capturing that perfect

Managing Optics Using Open Standard Software

What is the Open Optical Monitoring (OOM) decode library? OOM is a Python package, providing a standard API to read/write optical transceiver modules. • EEPROM data encoded/decoded in

NADDOD Juniper Compatible 200G QSFP-DD 2xLR4 1310nm 10km SMF Optical ...

Juniper QDD-2X100G-LR4 Compatible 200GBASE-2xLR4 QSFP-DD 8x25G NRZ 1310nm 10km SMF DOM Dual CS Duplex Optical Transceiver Module The QDD-200G-2xLR4 transceiver module is

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

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