

How to check the optical module on a Dell server



Overview

How To Check Port Status And Optical Transceiver Information On Taking ModuleTek QSFP-100G-LR4 transceiver connected to Dell Z9000-ON switch as an example.

Key Takeaways

You can check the optical module on a Dell server using iDRAC, Linux commands like ethtool, or Dell's hardware diagnostics tools to view module status, vendor info, and optical power. Using iDRAC to Monitor SFP Modules

Dell servers equipped with iDRAC can inventory and monitor SFP optical transceivers plugged into network ports. iDRAC provides diagnostic information such as transceiver type, vendor, operating temperature, and real-time transmit/receive optical power. Modules supporting Digital Diagnostic Monitoring (DDM) or Digital Optical Monitoring (DOM) allow iDRAC to display detailed sensor data. You can access this information through the iDRAC web interface or via NC-SI commands for automated monitoring .

Using Dell Hardware Diagnostics

Dell's Embedded System Diagnostics or UEFI ePSA Diagnostics can validate hardware including network interfaces. To run diagnostics:

- Power cycle the server and press F11 during boot.
- Select System Utilities → Launch Diagnostics.

- The diagnostics tool will detect all attached devices, including network cards and optical modules, and run tests to verify functionality .

Using Linux Commands

On Linux servers, you can check optical transceivers connected to network cards using the ethtool command:

ethtool

Replace with the network interface (e.g., eth0, p4p1). This command displays:

- Link status (Link detected = yes indicates normal operation)
- Port speed and duplex
- Transceiver type and vendor information
- Supported and advertised link modes
- Optical power readings if supported For example, you can see the vendor name, part number, wavelength, and supported distances for SFP modules, which helps verify compatibility and operational status .

Using Switch Commands (if applicable)

If the server is connected to a Dell switch, you can also query the optical module via the switch CLI:

show interface

This displays link status, transceiver type, transmit/receive power, and traffic statistics, helping detect faults or verify module operation .

Summary

- iDRAC: Best for remote monitoring and detailed diagnostics.
- Hardware Diagnostics: Useful for pre-OS testing and troubleshooting.
- Linux ethtool: Quick check of link status, vendor info, and optical power.
- Switch CLI: Monitors modules connected to network switches. Using these methods ensures your Dell server's optical modules are functioning correctly and provides detailed information for maintenance or troubleshooting.

Article Content

How To Check Port Status And Optical Transceiver Information On

Taking ModuleTek QSFP-100G-LR4 transceiver connected to Dell Z9000-ON switch as an example, we demonstrate

SFP Optical Transceiver Inventory and Monitoring using NC-SI

Summary: Hardware Diagnostics are embedded tools installed in the pre-OPERATING SYSTEM of your server to

SFP Troubleshooting: Fix No Link, Detection and Fiber Issues

Step-by-step SFP troubleshooting guide to fix no link, module detection failures, and fiber connectivity 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

Supported cables and optical connectors

While the MX5108n has four 10GBase-T copper interfaces, the focus is on optical connectors. The SFP+ media type is typically seen

How to Test Optical Transceiver Modules: Methods, Metrics & Best ...

Learn how to test optical transceiver modules using power meters, BERT testers, and DDM tools. Ensure

The Show fiber ports optical transceiver port detail command ...

The optical transceiver diagnostics process reads information from the SFP register and presents them. If the values in these

Dell Networking X Series Switches: How to View Transceiver Details

Viewing Dell Networking X series switch transceiver information using the webGUI. This shows information for the

Optical Module: Typical Optical Module Troubleshooting Procedure

Check the model of the faulty optical module. If it is not a Huawei-certified optical module, replace it with a Huawei-certified optical

R740 Fiber Module issue | DELL Technologies

R740 Fiber Module issue Just got a R740 server for a customer and found an issue when the server loses power. The

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How to easily assess Optical Received Power on all Force10 Ports ...

The following article describes how to quickly and easily assess the optical receive power from any transceiver

How to check sfp module in dell switch?

6. Verify the status of the new SFP module by checking the interface configuration and monitoring for any errors or warnings. It is

View the Optical Module Status on a Switch through the

Once the transceiver and fiber optic cable are plugged in properly in the switch optical module, you should be able to view the current

Live Optics: Complete an Optical Prime collection | Dell US

This article describes how to complete an Optical Prime collection using the Live Optics collector.

The Show fiber ports optical transceiver port detail command ...

The show fiber-ports optical-transceiver detailed command gives inconsistent results. When the show fiber-ports optical-transceiver

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

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