

Check the optical power of a switch port

Article Overview

You can check the optical power of SFP ports on a switch using CLI commands to view TX (transmit) and RX (receive) power, typically via Digital Optical Monitoring (DOM) or DDM.

Step 1: Verify SFP Recognition

Before checking optical power, ensure the SFP module is recognized by the switch:

- o Run `show inventory` to confirm the SFP is detected, including part number, serial number, and vendor information .
- o Check link status with `show interfaces status` to ensure the port is up and the correct media type is used .

Step 2: Check Optical Power

For Cisco switches, the commands vary by platform: Catalyst / Enterprise Switches:

- o Use `show interfaces transceiver detail` or `show interface transceiver detail` to display TX and RX power in dBm, along with temperature, voltage, and bias current .
- o Example output includes:
 - o TX Power: Light leaving the switch (indicates laser health)
 - o RX Power: Light received from the remote device (common cause of link issues if low) Small Business Switches:
- o Use `show fiber-ports optical-transceiver` to view optical module status, including transmitted and received power, temperature, voltage, and loss-of-signal (LOS) indicators . Other Platforms (IOS-XR, NX-OS):
- o Commands like `show hw-module subslot transceiver` status or filtering with `| include dB` can display TX/RX power for troubleshooting .

Step 3: Interpret the Values

- o Compare TX and RX readings against the SFP's Low Warn and High Warn thresholds. Deviations may indicate:
 - o Misaligned fiber
 - o Dirty connectors
 - o Failing SFP module
- o Typical TX/RX ranges depend on the SFP type (e.g., 1G, 10G) and fiber distance .

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Step 4: Additional Checks

- o If the port is err-disabled due to unsupported transceivers, use `no errdisable detect cause gbic-invalid` (with caution) to allow third-party modules .
- o For detailed SFP info, including EEPROM data, run `show idprom interface` or `show idprom transceiver extended` . By following these steps, you can monitor optical power, detect signal degradation early, and troubleshoot fiber link issues without unnecessary hardware replacement.

Learn how to monitor SFP optical power on Cisco switches, interpret Tx/Rx levels, and troubleshoot fiber link issues. Step-by-step

We have shared transceiver query methods for mainstream switches such as Huawei, H3C and Cisco. Fortinet

Checking TX / RX optical power for Cisco IOS, IOS-XR, NX-OS For checking transmission links, it is good to know how to find out

Learn how to check SFP module health on Cisco switches. This guide covers essential CLI commands (`show inventory`, `DOM`), fixes

Output Fields Table 1 lists the output fields for the `show interfaces diagnostics optics` command. Output fields are listed in the

Check the SFP you are using. I tried GLC-SX-MMD and I am also unable to see any details when using `show int g0/1`

Objective The Cisco Small Business Series Switches allow you to plug in a Small Form-factor Pluggable (SFP) transceiver in their

Have 1000base-lx/lh SFP transceiver connected to Gi1/5 port. Need to check optical power of the same through command line. Show

Solved: Hi everyone, I have two new Cisco switches connected to each other with a fibre

For checking transmission links, it is good to know how to find out the optical power for troubleshooting and making sure the desired

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.

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How Do I Query the Optical Power of an Interface? You can run the display interface [interface-type interface-number

Typically both transmitters and receivers have receptacles for fiber optic connectors, so measuring the

Below is the CLI command to show only ports that are linked up and the respective optical received power:
All optical

By checking module health, compatibility, and digital diagnostics, you can quickly confirm correct installation, detect

Optical module identification and status monitoring are essential daily tasks for network engineers maintaining Cisco

Web: <https://www.kremgroup.co.za>

