

Fiber optic cable works but the switch does not

Article Overview

If the fiber optic cable is functional but the switch port is not connecting, the issue is often related to SFP modules, fiber polarity, or switch port configuration.

Check SFP Modules and Compatibility

Ensure that the SFP modules installed in the switch are compatible with the switch model and match the fiber type (single-mode or multimode) you are using. Using non-compatible or third-party SFPs can cause the port to remain inactive even if the fiber is fine . Swap the SFP with a known-good module to rule out a faulty transceiver.

Verify Fiber Polarity

Fiber links are full-duplex, requiring one fiber for transmit (Tx) and one for receive (Rx). If Tx is connected to Tx and Rx to Rx, the link will not establish. For duplex LC cables, try flipping one end of the fiber cable 180° to correct polarity. Only flip one end; flipping both ends returns the polarity to the original incorrect state .

Inspect Physical Connections

Check for loose connectors, bent fibers, or dirty ends. Clean the connectors with lint-free wipes and isopropyl alcohol. Even minor contamination can prevent the switch from detecting the link .

Test the Switch Port

- o Use commands like `show interface status` or `show interface transceiver` (on managed switches) to check if the port is administratively up and if the SFP is recognized .
- o Ensure the port is not shut down (no shutdown command).
- o If the switch is unmanaged, try connecting a device with a static IP to see if it can communicate, confirming whether the port is functional .

Additional Considerations

- o Check Tx/Rx mapping: For multimode fiber, ensure the transmit and receive fibers are correctly mapped.
- o Replace the fiber patch cord: Sometimes the cable itself may be defective even if the main fiber run is fine .
- o Restart the switch: Power cycling can resolve temporary glitches . By systematically verifying SFP compatibility, fiber polarity, physical connections, and switch port status, you can usually identify why the switch is not connecting despite a working fiber cable.

Fiber optic cable works but the switch does not

The switch does not know that the link ingress direction is bad (the port thinks that the link is up and works).
A broken

It could be that the cable length is operating near it's limits and accidentally works with the PC but not with the wifi

This document describes how to troubleshoot fiber optic interfaces by addressing some of the fiber optic module and

Hello. I am trying to get a Cisco 3750g and a Hirschman rs30 to communicate through fiber. For some reason I cannot

Learn how to fix SFP issues fast: no link light, link flapping, detection errors, compatibility problems, and optical power

Hi all, I've hit a dead end and need some help. We have a fibre run, SM, 650 meters, with Level1 dumb switches at

Make sure that the network cables or fiber connectors connected to the switch ports are securely plugged in without

Greetings! Other than connecting switches with fiber optic patch cables I'm a bit of a noob with long distance runs. I

Learn how to troubleshoot fiber networks. Identify common issues like high loss, dirty connectors, and signal drops,

10gig fiber link between two switches. one switch shows connected, other switch shows no sfp/link So i have a 10gig connection

Hello, Problem: Cat 6 cable DOES NOT work, nor light up, nor give any connection on any machine through switch,

We've got a DGS-1210-28P set up with two VLANs one for trusted, one for guest. The trusted connection from

Fiber-optic lines have revolutionized phone calls, cable TV and the internet. It's a really cool technology that

Fiber optic cable works but the switch does not

enables the long

An easy-to-understand introduction to fiber optics (fibre optics), the different kinds of fiber

There are also copper connections between the switches as trunks and running rstp; these connections working fine

Optical Cable Not Working? 6 Proven Ways to Fix It Optical cables, often referred to as fiber optic cables, have become integral to

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

