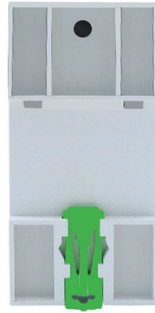


Fiber optic transceiver connected to 2 switches



Overview

If there is no link light when you connect the fiber port, you have most likely a physical layer issue.

Key Takeaways

To connect a fiber optic transceiver between two switches, use duplex fiber with LC connectors, ensure send/receive pairs are crossed, and select compatible SFP modules for the fiber type and bandwidth. Step 1: Choose the Correct SFP Transceivers

Select SFP or SFP+ modules that match the fiber type (single-mode OS2 or multimode OM3/OM4) and the network speed (1G, 10G, or higher) of your switches . Ensure both switches use compatible transceivers with the same wavelength and optical power range .

Step 2: Use Duplex Fiber Cabling

Most SFP modules require duplex fiber, meaning two strands: one for transmitting (TX) and one for receiving (RX), . Pre-terminated LC-LC fiber patch cables are recommended for simplicity and reliability . If using bulk fiber, terminate both ends with LC connectors and verify polarity.

Step 3: Connect the Fiber Correctly



When connecting the duplex fiber between switches, cross the connections: the TX of switch A goes to the RX of switch B, and vice versa . This ensures proper signal transmission. For multi-strand cables, each pair should follow this principle.

Step 4: Configure Switch Ports

- Insert the SFP modules into the fiber ports of each switch.
- Enable the interface if necessary (e.g., no shutdown on Cisco switches) to activate the port .
- Assign VLANs if required to allow devices on both switches to communicate.

Step 5: Verify the Link

Check the link lights on the SFP ports and use commands like show interface status or show ip interface brief to confirm the connection is active . If the link does not come up, verify SFP compatibility, fiber type, polarity, and port configuration.

Additional Tips

- For multiple switches, consider star or daisy-chain topologies depending on network design .
- Avoid cascading too many switches in series; typically, no more than four layers are recommended .
- Ensure all optical modules have matching wavelengths, power, and sensitivity to prevent link issues . By following these steps, you can reliably connect a fiber optic transceiver between two switches, enabling high-speed, low-latency communication across your network.

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If there is no link light when you connect the fiber port, you have most likely a physical layer issue. So, check to see if

004_TLN_AppBro_FiberReadyNetSwitch

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SFP transceiver modules are specific to the type of fiber being connected (either single mode or multimode). Choose an SFP module

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