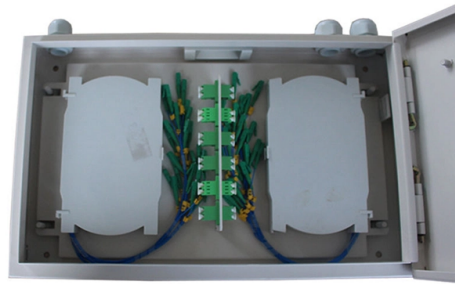


How to connect a router with a pluggable optical module



Overview

To connect an optical cable to an SFP module, use the appropriate patch cord (e.g., LC-LC, SC-LC, etc.).

Key Takeaways

You cannot plug a fiber optic cable directly into a standard router; it must first connect to an Optical Network Terminal (ONT) or compatible SFP port, which converts the optical signal into an electrical signal your router can use. Using an Optical Network Terminal (ONT)

- Locate the fiber entry point: The fiber optic line from your ISP terminates at a wall outlet or entry point in your home.
- Connect the fiber cable to the ONT: Remove protective caps from both the fiber cable and the ONT port. Align the connector carefully and push it in until it clicks securely. Handle the fiber by its plastic housing to avoid damage or contamination .
- Link the ONT to your router: Use a high-quality Ethernet cable (Cat6 or higher) to connect the ONT's LAN or Ethernet output port to the router's WAN or Internet port .



- **Power up devices:** First, plug in the ONT and wait for it to boot and establish a connection with your ISP. Once the ONT is stable, power on your router and verify the status lights indicate a successful connection .

Using an SFP Module

- **Check compatibility:** Ensure your router has an SFP or SFP+ port that supports the module type and speed you intend to use .
- **Insert the SFP module:** Align the module with the port and gently push it in until it clicks. Avoid forcing it to prevent damage. Some modules have a latch or pull tab for secure installation .
- **Connect the fiber cable:** Attach the fiber optic cable to the SFP module, ensuring the correct fiber type (single-mode or multi-mode) and connector type (SC, LC, etc.) are used .
- **Verify the link:** Check the router's interface or status LEDs to confirm the optical link is active and stable .

Best Practices

- Place the ONT and router in a dry, ventilated area near power outlets.
- Use surge protectors to safeguard your equipment.
- Avoid touching the fiber ends to prevent dirt or damage.
- Follow the correct power-up sequence: ONT first, then router. By following these steps, you ensure a reliable fiber-to-router connection, enabling high-speed internet with minimal signal loss .

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Small Form-factor Pluggable

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