

Router with 100m fiber optic cable only has 50m speed



Overview

Despite the fact that fiber is amazingly fast, it's not necessarily delivering the Internet speed it promises.

Key Takeaways

A fiber optic connection rated for 100 meters may only reach 50 Mbps due to router port limitations, cable quality, or network adapter settings. Common Causes

1. Router Port Limitations: Many routers, even if marketed for high-speed fiber, may have WAN or LAN ports limited to 10/100 Mbps. If your router only supports 100 Mbps, your connection cannot exceed this speed regardless of the fiber capability .
2. Ethernet Cable Quality: Using older or damaged cables (Cat5 instead of Cat5e/Cat6) can restrict speeds. Even with fiber, the connection from the router to your device must support gigabit speeds. Cat5e or Cat6 cables are recommended for 1 Gbps performance .
3. Network Adapter Settings: Computers may default to 100 Mbps due to auto-negotiation issues. Check your network adapter settings in Device Manager, ensure "Speed & Duplex" is set to 1 Gbps Full Duplex, and disable any power-saving options that may throttle speed .
4. Intermediate Devices: Switches or wall jacks between the fiber modem and your device can limit speed if they are not gigabit-capable. Direct connections to the router or modem are preferred for testing .
5. Firmware or Driver Issues: Outdated router firmware or network adapter drivers can cause speed drops. Updating both can resolve negotiation problems and restore full speed .

Troubleshooting Steps

- **Verify Router Specifications:** Ensure your router has gigabit WAN/LAN ports. If not, upgrade to a gigabit router .
- **Check Cables:** Replace any Cat5 cables with Cat5e or Cat6 and ensure they are not damaged .
- **Direct Connection Test:** Connect your computer directly to the fiber modem to confirm the maximum speed is achievable.
- **Adjust Network Adapter Settings:** Set speed to 1 Gbps Full Duplex and disable power-saving features .
- **Update Firmware and Drivers:** Ensure the router firmware and network adapter drivers are the latest versions .
- **Test with Another Device:** Sometimes the issue is device-specific; testing with another computer can help isolate the problem . By systematically checking these factors, you can identify why your 100m fiber optic connection is only achieving 50 Mbps and restore it to its full potential.

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This led me to discovering 2 cables only run at 100M remaining 10 or so all run at 1000M. Of the two 100M one runs

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I got a 100 Mbps Airtel fiber connection installed yesterday. I was getting a constant speed of 120 Mbps but as I was

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cat6 cable only getting 100mbps over larger distance

The type of cable I'm using is S/FTP cat6. The cable does not run anywhere near any other cables (except where it

Why is my CAT5e cable only giving off 100mbps

It will also tell you if your wire pairs are mixed up - the \$1.99 network cable tester with 8 lights on it only tells you if the cable is

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Why Your Fiber Internet Is Slow & How To Fix It Fast | EPB

Read this to figure out why your fiber internet is slow and how to fix it fast, along with the common causes and what to

I'm using both cables CAT6 and CAT5e and already try to change Wan Port Speed to 1000mbps, but no success.

Will a New Router Boost Your Internet? Is Your 100M Fiber Truly

For wired networks under 100M fiber, it's unnecessary—you won't see improved speeds. But for wireless performance, especially

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This article will help you troubleshoot slow speeds over Ethernet and provide additional information about the benefits of using

Why am I not getting the maximum speed that my router is capable of ...

To prevent your router from “bottlenecking” your network, we recommend using a router that's capable of faster speeds

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