

# [How To Get a Better Wireless Signal and Reduce Wireless Network Interference](#)

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Like all sufficiently advanced technologies, Wi-Fi can feel like magic. But Wi-Fi isn't magic – it's radio waves. A variety of things can interfere with these radio waves, making your wireless connection weaker and more unreliable.

The main keys to improving your wireless network's signal are positioning your router properly — taking obstructions into account — and reducing interference from other wireless networks and household appliances.

Image Credit: [John Taylor on Flickr](#)

## **Wireless Router Positioning**

Your wireless router's positioning can greatly affect your coverage area and the strength of your signal. Follow these quick tips to position your router for the best signal:

- Place the router in the middle of your house. If you place the router in a room off to the side of your house, you won't get as strong a signal on the other side of your house.
- Position the router's antenna vertically, so that the antenna is standing straight up. Many antennas can be adjusted and lie horizontally, but standing straight up is generally the ideal position.

- Elevate your router away from floors. You'll get better reception if the router is on a desk, not on the floor.

You should also pay attention to the kinds of materials the router is near. For example, placing the router on a metal desk or up against a metal wall will cause problems. Signals can travel through a wood desk easily, but metal will obstruct the signals.

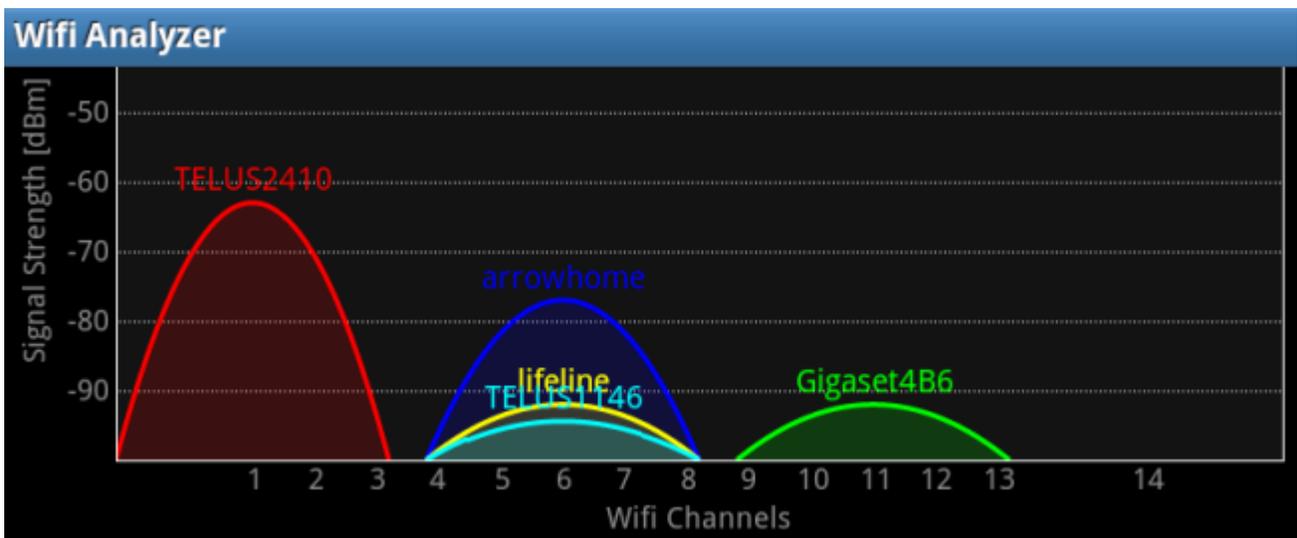


Other types of obstructions can also cause problems. For example, if there's a metal filing cabinet between your computer and the router, you may not receive a wireless signal. The same applies to other types of dense objects.

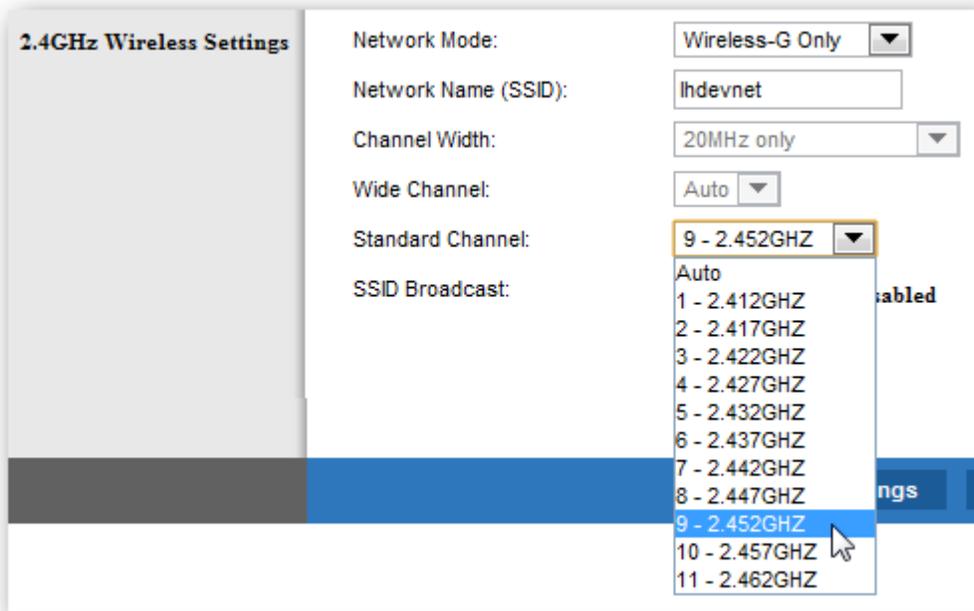
Image Credit: [butkaj.com](http://butkaj.com) on Flickr

## **Interference From Other Wireless Networks**

Interference from other wireless networks in the area can cause issues with your wireless signal. To determine whether interference is occurring, you can use an app like [Wi-Fi Analyzer for Android](#). It will show you the wireless channels nearby networks are using and recommend the ideal network for you to use — one that isn't being used by as many networks. This app will also allow you to walk around the area and see where you get the best signal and where the signal is weakest – you can do this with any other device, too.



If multiple wireless networks are competing for the same channel, this can cause problems. To fix this, you can [change the wireless channel in your router's web interface](#). You can do this even if you don't have access to a wireless-analyzing app – change the signal to a different channel and then see if your wireless connection improves.



## Interference From Household Appliances

A variety of household appliances can cause wireless interference, including cordless phones, baby monitors, and microwave ovens. Depending on the positioning of your wireless router, your networked device, and the appliance, you may even have the wireless network cut out when the microwave or cordless phone is in use.

Problems with cordless phones can be solved by replacing your phones with phones that operate on a different frequency, such as 900 MHz or 1.9 GHz. Cordless phones using the 2.4 GHz frequency will interfere with wireless networks.



Problems with microwaves can often be solved by positioning the your devices such that the microwave isn't between your router and the device. it's also possible that a new microwave will help, if the new microwave has better shielding.

Other devices can also cause problems. For example, older Bluetooth devices can interfere with nearby Wi-Fi signals, although newer Bluetooth devices don't.

Image Credit: [Kai Hendry on Flickr](#)

## **Repeaters, Antennas, and Reflectors**

If you need to cover a large area with a wireless signal and your router just isn't cutting it, you can buy a wireless repeater or range extender. These devices repeat the wireless signal, extending its area. You don't even need special devices for this – if you have some old routers around, you can [use multiple routers to extend your Wi-Fi network](#).



Depending on your router, you may be able to attach an [improved antenna](#) that gives your signal additional range. You can also try [building a Wi-Fi reflector](#) that reflects the signal in a specific direction.

Image Credit: [Jacob Bøtter on Flickr](#)

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While Wi-Fi may feel like the future, wired network connections still have a lot of advantages. If you want a more reliable connection with faster speed and no interference problems, a wired network connection is still the most reliable option out there.