

Wi-Fi Tips & Recommendations

For

Small Business

Recommendation for wireless routers: Any gig speed router that has a fire wall, network encryption, MAC address filtering, 802.11ac routers or Wi-Fi 6, multiple antennas, and dual band. Always do a comparison of the product on websites such as Amazon.

Bandwidth comparison – 2.4 GHz vs. 5 GHz signal

Frequency	Theoretical Speed	Real-World Speed
2.4 GHz (802.11g)	54 Mbps	10 -29 Mbps
2.4 GHz (802.11n)	300 Mbps	150 Mbps
5 GHz (802.11a)	6-54 Mbps	3 - 32 Mbps
5 GHz (802.11ac)	433 Mbps - 1.7 Gbps	210 Mbps - 1 G

WIRELESS ROUTER TIPS

- The average wireless router covers about 2,500 square feet. If your location is larger than that, use a range extender or consider a mesh Wi-Fi system.
- If you want to connect computers or other devices directly to the router using an Ethernet cable, make sure your chosen model has sufficient LAN ports.
- Most wireless routers can be configured with a smartphone app. While you're shopping, compare app store reviews of different companion apps to get a sense of what your experience will be like.
- If your router has two external antennae, you'll get the best signal if one is pointed vertically and the other horizontally.
- 802.11n are the low end basic routers. It can handle slower speeds.
- 802.11ac routers are for faster speed.
- 802.11ax is also known as Wi-Fi 6 newer technology. It can handle 10Gbps speeds and higher performance on congested network.

WIRELESS ROUTER PRICES

The cost of a wireless router depends on the features and network standard.

- If you want a cheap router and you're not too concerned about speed, an 802.11n wireless router should cost between **\$20 and \$50**.
- A basic 802.11ac router that will provide fast wireless connection and not much else will cost **\$40 to \$80**.
- Expect to pay **\$80 to \$150** for a mid-range 802.11ac wireless router, with a few added extras like apps for remote access or Alexa compatibility.
- The price of a high-end 802.11ac wireless router is roughly **\$150 to \$350**. These models should have a range of extra features, like a boosted signal range, multi-stage protection, game acceleration, and more.

Securing your wireless network

There are a number of simple techniques that everyone should do to secure their wireless network, such as:

- Turning on wireless network encryption.
- Ensuring that your wireless router's firewall is turned on.
- Enabling MAC address filtering.
- Creating a custom name for your network.
- Setting your wireless router closer to the center of your business, so less of your Wi-Fi signal will be detected outside of your property.

Troubleshooting dropping Wi-Fi connection

If your wireless router isn't reliably emitting the Wi-Fi signal that it should be, there are a few quick fixes to test out:

- Reboot your wireless router. (Sometimes the simplest solutions are the best).
- Reposition your router.
- Ensure that all cables are securely inserted into the router.
- Update your wireless router's firmware.
- Call your internet provider.