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The 10 Best Wireless Routers

BY SAMARA LYNN JANUARY 30, 2014 4 COMMENTS

The top wireless routers we've tested have a balance of great throughput, good wireless coverage, plus easy, efficient setup and manageability. No matter if you are a networking newbie or power user, there is a router here for you.

4.7K SHARES

Name	Trendnet AC1750 Dual Band Wireless Router (TEW-812DRU)	ZyXel MWR102 Travel Router	Asus RT-AC66U Dual Band 3x3 802.11AC Gigabit Router	Linksys EA6900 AC1900 Smart Wi-Fi Wireless Router	Linksys Smart Wi-Fi AC 1750HD Video Pro EA6500	Netgear Nighthawk AC1900 Smart WiFi Router (R7000)	Skydog	Western Digital My Net N900	Apple AirPort Extreme Base Station (A1521)	Netgear N900 Wireless Dual Band Gigabit Router WNDR4500
Editor Rating	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Lowest Price	\$119.99	\$20.24	\$169.89	\$186.99	\$164.38	\$192.99	\$209.00	\$55.52	\$184.99	\$126.99
Chipset	Broadcom	Ralink	Broadcom	Broadcom	Broadcom	Broadcom	Atheros	Atheros	Broadcom	Broadcom
Wired Ports	4 (excluding WAN)	1 (excluding WAN)	4 (excluding WAN)	4 (excluding WAN)	4 (excluding WAN)	4 (excluding WAN)	4 (excluding WAN)	7 (excluding WAN)	4 (excluding WAN)	4 (excluding WAN)
Parental Controls	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
NAT	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stateful Packet Inspection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
IPv6 compatible	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Networking Options	802.11b, 802.11g, 802.11n (2.4+5 GHz Dualband), 802.11ac draft	802.11b, 802.11g, 802.11n (2.4 GHz only)	802.11b, 802.11g, 802.11n (2.4+5 GHz Dualband), 802.11ac draft	802.11ac draft	802.11b, 802.11g, 802.11n (2.4+5 GHz Dualband), 802.11ac draft	802.11b, 802.11g, 802.11n (2.4+5 GHz Dualband), 802.11ac draft	802.11n (2.4+5 GHz Dualband)	802.11b, 802.11g, 802.11n (2.4+5 GHz Dualband), 802.11ac draft	802.11b, 802.11g, 802.11n (2.4+5 GHz Dualband), 802.11ac draft	802.11b, 802.11g, 802.11n (2.4+5 GHz Dualband), 802.11ac draft
	Read the Review	Read the Review	Read the Review	Read the Review	Read the Review	Read the Review	Read the Review	Read the Review	Read the Review	Read the Review

How to Buy a Wireless Router

<http://www.pcmag.com/article2/0,2817,2347539,00.asp>

Choosing the right wireless router for your home or small-business network can be frustrating. You obviously want good performance and adequate wireless coverage, but you likely don't want to have to upgrade the router for the next few years.

Adding to this confusion are a lot of numbers and specs: 802.11N, AC1750, N900. What does it all mean? Here is some guidance on buying a wireless router and tips on what to take into consideration before making a router purchase.

First, ask yourself how high-end you want to go with a router. If you need nothing more than to create a wireless network, you can get away with a fairly cheap router—spending less than \$100 should do. If you want extras such as security, parental controls, and the ability to connect USB printer s and external storage drives for sharing data, you'll want to look at higher-priced premium routers. Many people turn to user reviews on retail sites such as Amazon before buying a router, but those reviews aren't necessarily going to give you pertinent information. While you can get a general feel for other customers' experiences with a particular router, Wi-Fi is so fickle and performance can vary dramatically from one home to another. Just because someone had a terrific (or miserable) experience with a particular router does not mean you'll have the same experience. Professional reviews in controlled environments, like those I perform in PCMag's Labs, are a better source for head-to-head comparison and ultimately deciding which router to buy.



Here is a checklist and some information to help you in your search of the perfect router for your networking needs:

Do You Even Need A Wi-Fi Router?

A wireless router allows wireless devices (and wired devices) to connect to the Internet and communicate with other devices on your home network. Some people only work from one laptop or PC that may be directly connected to a cable or DSL modem. They may not have other users or devices in their home or office that need wireless connectivity. If this applies to you and you have no need to deviate from a fixed location from which you do your Internet surfing or computing, then you can don't need a wireless router. However, most people these days want and can to benefit from a wireless router. With a Wi-Fi router, browsing the Internet from an upstairs bedroom or sharing pictures and streaming music and video to all the devices in a home or office are all possible. If you want the capability to do these tasks, then yes, you need a router.

What Type of Network User Are You?

A single home user who just wants to surf the Web doesn't need the same kind of router as a heavy-duty gamer, a multimedia enthusiast, or a small business. A single-band router like the [Almond](#) is a basic, decent performer that would suit the needs of anyone looking for simple Wi-Fi connectivity and easy setup. Plus, it has the bonus of being the only touchscreen router currently on the market! In contrast, [Netgear's Nighthawk \\$192.99 at Amazon](#) or [Buffalo's AirStation Extreme AC 1750 Gigabit Dual Band Wireless Router \\$129.99 at Amazon](#) are excellent choices for those who want to perform bandwidth demanding tasks like high-definition video streaming or moving large files to and from NAS devices.

Single Band or Dual Band?

While researching routers, you will inevitably stumble across the term "bands." The 2.4 and 5 GHz bands are the frequencies in which wireless communications operate.

802.11 B and G devices use the 2.4 GHz band, while 802.11N can use either the 2.4 GHz or 5 GHz band. 802.11ac only uses 5 GHz.

A single-band, 2.4-GHz router—such as the \$65 [Asus RT-N11 EZ Wireless-N Router](#)—is geared toward simple wireless networks. On the other hand, a dual-band router like the [Western Digital My Net N900](#) operates on both the 2.4 and 5 GHz frequencies. The 5 GHz band is less crowded than the 2.4 GHz band; less equipment runs on 5 GHz. That's why it's better equipped for throughput-intensive work within your home network such as gaming and file-streaming. You will also get better internal network performance.

The one downside of 5 GHz is that it does not sustain signal at greater distances as well as the 2.4 GHz band. So, if you are looking for a dual-band router to take advantage of the 5 GHz bandwidth, you'll want to factor in distance when placing the router in your home or office.

One other thing to consider when it comes to Wi-Fi bands: Some of your devices may only work with a given band. For a guide to which gadgets require what Wi-Fi, see, [The Wi-Fi You Need for the Gadgets You Want](#).

300Mbps, 900Mbps, 1900Mbps...All Those Numbers!

When router shopping, you'll notice a three-digit number emblazoned on the box. A few years ago, 300Mbps was the standard speed of most Wi-Fi routers. The "clean room" with no interference, the router can achieve up to 300Mbps and 1900Mbps.

It's highly unlikely you'll ever see those actual speeds, though. Issues in your home or office will never reach these theoretical speeds touted by vendors. Wi-Fi speeds close to half of what a vendor says a router is capable of, that's with how fast your Internet connection is. A 300Mbps router won't make up for a slow Internet connection. What a faster speed router helps with is the performance.

The Fastest Wireless Routers

	Model	Speed	A few of the things we see at home or we see anything to do speed is, and so
Best Overall	NETGEAR Nighthawk X10	7,200 Mbps	
Best for Gaming	ASUS ROG Rapture GT-AC5300	5,334 Mbps	
Cheapest	TP-Link Archer C7	1,750 Mbps	

www.cabletv.com > Best Of

The 3 Fastest Wireless Routers in 2020 | CableTV.com

Do I Need 802.11n?

802.11n is becoming the standard in wireless networking. If you're purchasing a new router, be it single or dual band, go with an 802.11n router. And not "802.11n draft," which is an older standard. 802.11n routers can run in "mixed mode" so that non-802.11n wireless devices can connect as well.

What About 802.11ac?

There are a host of new routers on the market that are being advertised as 802.11ac routers. 802.11ac is the latest 802.11x wireless networking standard. 11ac can provide up to almost 1Gbps throughput under ideal conditions in supported dual-band routers, or up to 500Mbps on a single-band. Increasing the limitation of up to 450Mbps on a single-band of 802.11n. Furthermore, 11ac is designed to provide better range than 802.11n currently does on the 5 GHz band. The tricky part of 11ac is that it's not yet finalized. The Wi-Fi Alliance is an organization that tests to make sure that networking products sold to customers do what manufacturers say they are supposed to do. Once tested, the Wi-Fi Alliance allows vendors to sell products as Wi-Fi Alliance certified. Since 802.11ac is yet to be finalized (also called ratified or drafted) there are no products on the market that are certified. That isn't stopping vendors from releasing pre-draft 802.11ac routers. You may remember years ago, seeing 11n pre-draft routers on the market before 802.11 became standardized. The pre-draft 11n routers were far below performance levels of later 802.11n routers that came out once the standard was ratified. The same thing is happening with 802.11ac. The 11ac routers we have tested are getting better and better and offering some gains over 802.11n as far as speed and range. However, there aren't really any compatible 802.11ac adapters yet, mostly only USB adapters (although Apple's new MacBooks do have built-in 11ac adapters). So, if you want a guaranteed future-proofed router, go with an 11ac router but be advised, there aren't a lot of wireless devices that can take advantage of 11ac speeds, just yet.



What Type of Security?

Most of the newer routers support the highest level of security, WPA2. If in the market for a new router, make sure it supports WPA2. If you have children, consider a router with **parental controls** such as the Nighthawk.

Other Considerations

If you are looking for a router that you don't want to upgrade anytime soon, consider going with one that supports IPv6. While conversion from IPv4 to IPv6 networking appears to still be some time coming, a router that supports IPv6 will help you keep your network intact when your ISP transitions over to IPv6 as well. Some routers also offer extras such as SD card slots, ([D-Link DIR-827](#) \$82.16 at Amazon, is an example) and USB ports for **printer sharing and external drive sharing, including** routers from Cisco, Belkin and Western Digital). If those are features you want in your network, look for routers that support those features. I hope this article has given you a little bit more confidence when it comes to choosing a router. Your next stop should be my [Ten Best Wireless Routers](#) article, which is chock full of highly-rated routers. Now that you are armed with the knowledge from this how to buy guide, you can review our favorite routers with a better understanding of which of them is right for you, your family, your home, or even your small business.

By [Samara Lynn](#)

Netgear's N900 Wireless Dual band Gigabit Router is the latest in a recent lineup of impressive dual-band routers from Netgear such as the [Netgear N600 Wireless Dual Band Gigabit Router \(WNDR3700\)](#) and the [N750 Wireless Dual Band Gigabit Router \(WNDR4000\)](#). The N900 is bigger than either of its predecessors, supports **450 Mbps on both bands** (Netgear's first router to market to do so), has dual USB ports and a CD-less setup. The best enhancement of all is that the upgraded hardware makes throughput at the 2.4 GHz band almost twice as fast as that of the N750. This is great news, since so many wireless devices, like iPhones, iPods, e-readers, and so on can only connect wirelessly at 2.4 GHz. The N900's 5 GHz throughput is still amazing, but it's not much different than the throughput of the N750 which already had 450 Mbps 5 GHz-capable hardware. So perhaps some people who purchased the N600 [\\$89.86 at Amazon](#) or N750 won't have to run out and buy the N900. But anyone who connects a significant numbers of devices to a home wireless network, especially legacy devices, and wants what is likely the beefiest and fastest (at both bands) router on the market will want to consider the N900 — despite a few small flaws. The N900 is especially suited for power gamers, frequent digital data streamers, home theatre media center enthusiasts or small business owners who do a lot of videoconferencing from a home network. Anyone with more modest home networking needs will probably suffer sticker shock at the street price of the N900—\$180 at most online retailers—about \$50 more expensive than the N750.

Testing the Router's Features and Performance

Once connected to the router, the Genie interface detected that there was new firmware available. The process of firmware upgrade is excellent. I could download the firmware, install it, and reboot the router all from within the interface. I dislike when a network device finds new firmware only to force you to click a link to the vendor's external website to hunt for it and download it manually. The Netgear Genie interface has gotten a bit of a refresh. The interface opens up to a home page displaying router information such as Internet status, WLAN information (which scrolls across a pane in the interface and just looks cool), information on attached devices, parental control setup, ReadyShare for attached USB drive setup and guest network setup. Parental Controls are done through an external site (which users are directed to after clicking Parental Control setup in the Genie interface), Netgear's Live Parental Controls powered by OpenDNS. To use the controls a required download for Windows and Mac has to be installed. Double-clicking the downloaded file, kicks off Netgear's Live Parental Controls setup. As noted in the reviews of the N600 and N750, Netgear's Live Parental Controls are decent enough for blocking questionable content. Users can set restriction levels for all devices connected to the router, the most restrictive being High—which protects against all adult-related sites, illegal activity, social networking sites, video-sharing sites, phishing attacks and what Netgear deems as "general time wasters." The least restrictive setting is, of course, None, and there are several other levels in-between. These levels can be customized to only block certain categories of sites. You can also block by keyword, which works well as I discovered when blocking anything with the term "winter." I did not see a way to set restrictions on machines or individual users, although you can create or designate account to bypass the parental controls.

Since this is a router that's more likely to be embraced by the techie sort, there are plenty of techie features. It's easy to place this device into either bridge or repeater mode. Netgear also allows enabling wireless repeating at either band. The N900 supports port forwarding and triggering, dynamic DNS, static routing, remote management, UPnP and support for IPv6. A Traffic Meter will record the volume of traffic passing through the WAN port. Although I did not see settings in the interface, Netgear confirmed the router supports DMZ and VPN pass-through. The N900 really gets a performance boost at 2.4 GHz in both Mixed and Wireless N only modes, owed to the 450 Mbps capability at both bands. The device registered the highest dual-band router performance at the 2.4 GHz band tested in the lab, to date: [Click here for 2.4 GHz benchmarks](#). The router also has spectacular performance at the 5GHz band, although we've already witnessed similar results with the Editors' Choice-winning N750. Here are performance results compared to similarly competing dual-band routers with similar specs: [Click here for 5 GHz benchmarks](#). Performance is superb, but there's a concern that cropped up when testing this router that I did not encounter when testing the N750. While testing, I experienced connectivity drops on both a connected wireless client and on a wired client. While it's hard to lay blame on the router, the dropped connectivity is suspect because it happened to two different machines connected to the same router. I re-connected easily enough, but the dropped connections were a surprise.

Bottom Line

The N750 is another terrific dual-band router offering that's worth four stars, particularly for the incredible throughput at 2.4 GHz. This device is sure to please those with many legacy wireless devices. A couple of issues like not appearing to connect to the Internet right away after setup, the lack of flexibility in positioning, and the dropped connections I encountered during testing, keeps the N900 from dethrone Netgear's own N750 as our Editors' Choice dual-band router. But if you are looking for a powerful router that blazes at the 2.4 GHz band (the band on which many consumer electronic devices likely connect), the N900 will definitely get the job done.



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NETGEAR N750 Dual Band Wi-Fi Gigabit Router (WNDR4300) by Netgear

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