



I'm not robot



Continue

## Best pci wifi card for desktop

There are a number of ways to connect your desktop computer to your local network. These include via Ethernet cables (the most traditional and stable connection type), via wireless adapters and via PCI Wireless cards. Each of these methods has its own clear advantages and disadvantages, but today we will take a look at PCI & PCI-E Wireless cards. So, without further ado, let's take a look at the best wifi card for PCs. You can read more about these wireless cards below, or click on the links above to take you directly to the product on Amazon. This is a super fast adapter (with 802.11ac chipset) that can deliver transfer speeds of up to 1.3Gbps. It's dual band, great for online gaming or HD video streaming, and includes fully flexible external antennas so you're more likely to be able to keep a consistent connection, by angling them to your home aesthetics. If your computer is farther away from your router or wireless access point, this card also comes with an extendable external antenna (to maximize wireless line of sight) that can be perfect if you've struggled to get good connections with other cards. Much better to have your antennas as far away as possible from the back of your likely cramped PC. Contains a heatsink to help disperse high temperatures. This TP-Link Archer also uses the new 802.11ax (wifi 6) wireless standard which means you can theoretically get speeds of up to 3Gbps (over 5 & 2.4GHz wireless bands) using this adapter. Online players and HD video streaming junkies rejoice! It also uses Bluetooth 5.0 which could come handy for any gaming peripheral, like headphones, for example. Basically, this is a great PCI card for those who want to harness all the power from their Wi-Fi 6 router. It is also backward-compatible with Wireless AC and N you should have a really old router! Also contains a heat sink for enclosed cooling. This AX Dual Band Wireless adapter uses the 2.4GHz and 5GHz bands to give you theoretical speeds of up to 2.4 Gbps. Of course, it is compatible with AC and Wireless N standard routers/access points. This 2x2 MU-MIMO card also has a removable antenna, making it easier to capture the most wifi signal in your home. This wireless card from Rosewill is another high end product that uses the 800.11ax Wi-Fi standard. It therefore offers theoretical speeds of up to 2400Mbps on the 5GHz band and 570Mbps on the 2.4GHz band. OFDMA and MU-MIMO technologies help you get more out of your Wireless AX router. This is another card that supports Bluetooth 5.0 so you can connect your headset and speakers etc, with better coverage. PCE-AX58BT also works with older network technologies (AC&N). This card is less powerful than many on the list above (we're back to AC cards again) but still offers some great features that could make this a solid buy if it is on a budget. With theoretical top speed of 1.3Gbps (over two bands), it's still pretty decent. The antennas are removable and there is a 2 year warranty to provide peace of mind. Oh, and there's a heatsink to keep the temperature down. Asus PCE-AC88 is now the flagship desktop card from Asus, taking over from the still, highly credible, PCE-AC68 above. We kept ac68 at the number 1 spot, because it's still a solid wifi card, but now even greater value, due to its declining price. This 4x4 adapter (that's 4 receive of 4 broadcast antennas) is for those who will pay whatever cost, for the latest and best. The antennas are adjustable and connected via a cable, to give you more flexibility with placement correctly for optimal signal. This card is MU-MIMO supported, so you can have up to 4 wifi streams at once (as long as your router supports it). This will help with connection reliability, and you should see an increase in data throughput. Cute! Just like components (and peripherals), overheating can be a problem... bottlenecks and potential system crashes. In case pce-AC88 is getting hammered, Asus has included a custom heatsink, to keep cool. And so it is like this we reach 3.1Gbps in speed. Keep in mind, it's cumulative across both bands (2.1Gbps at 5GHz 802.11ac, and 1Gbps at 2.4GHz Wireless N). And yes, it's theoretical too.... but if your desktop is placed in an optimal position relative to your router, and you set the external antennas correctly, you should enjoy decent wifi speeds. Come on, let's go! The GC-WB867D-I from motherboard giant Gigabyte, is an 802.11ac offer. Ok, not really up there with asus AC cards, but this is still pretty powerful, with theoretical speeds up to 867Mbps. It is a double band (2.4 GHz & 5GHz) card. This card, like some others on our list, has detachable antennas (2x2) that are attached by a cable, allowing you to place the antennas in the best position for the aesthetics of your home. Also have the option of connecting via Bluetooth (4.2) for those who may want it. Desktops, which actually have a Bluetooth option, tend to have a relatively poor range. This should hopefully change things in that department. Another dual band wireless card, and again it's from Rosewill. This is again Wireless AC (Broadcom chipset), but with cumulative speeds of 1.3Gbps (867Mbps at 5GHz, and additional 400Mbps at 2.4GHz), so not as fast as the RNX-AC1900PCE AC1900 card above. It also has Beamforming technology for improved coverage. Note that the antennas are affixed to the card, so sadly no option to place in the best possible position for your PC. However, the antennas are adjustable. Ok, so last, but not least we have a basic Asus adapter. A small Wireless N card that will get Connected. Don't expect any magic to happen (online gaming enthusiasts, look elsewhere!) - with the other Asus cards above. The PCE-N15 is basically a no-frills card that gets you online at not-so-furious speeds... The antennas can be adjusted to your preferences, and you can use the WPS connect option for wireless pairing... although we do not recommend this method if you are safety conscious ... Although quite an old card, it is supported within Windows 10, and offers easy installation. PCI Wireless cards are devices that are installed in your computer case using a free PCI expansion slot, and they allow you to connect to a nearby Wi-Fi network. Nowadays, as Wi-Fi is pretty much the most common way to establish an internet connection (via your router), it is generally quite important that your computer has Wi-Fi capabilities. A PCI Wireless card is therefore a way to connect a PC that doesn't already have wireless capabilities to the internet wirelessly. The most obvious reason to use a wireless network card is to allow a PC that doesn't already have a wireless connection. While an Ethernet cable is a fixed way to connect to a local area network and in some cases, for example, for high intensity online gaming, the best case, it is often not practical to have wires running throughout your house. A wireless network adapter, however, allows you to connect to your network, wirelessly from anywhere within range of your wireless router. There are some occasions where using a wireless card is not the best option though. For example, if your computer is a laptop. This is because laptops either don't allow you to connect a wireless card (well a pcie card, at least) or even if they do, the size and antennas contained in a wireless card would destroy a laptop's portability. Of course, your desktop computer may already have wifi capabilities. But if the radio is not very powerful, the wireless standard is a little older, or if the antennas are buried in the case, then it may be that you are not enjoying the best Wifi experience. One option is to use a free PCI slot on your mobo (mobo is short for motherboard - all geeks know that, hehe) for a Wifi card that is Wireless AC and has fully adjustable antennas with an extension cable for more position options. And don't worry, we'll show you how to get them up and running, for easy installation. Both wireless cards and USB adapters have their plus points and negative points. First let's take a look at USB adapters. If you want the easiest way possible to connect a computer without wireless capabilities (or to improve the devices built-in wifi) to a wireless network, then a wireless adapter is surely the way to go. The only setup generally involved is to connect the adapter to the computer (in one of the extra USB slots). The computer should then install all the correct files, with plug & play, and you will in be able to connect to a wireless network within seconds of connecting device. USB wireless adapters are also great for laptops. These smaller laptops don't have the space or features required to allow a PCI card (yes, the ones we're talking about today) to be installed so a wireless adapter is often the way to go. You can upgrade the internal card on some laptops. We wrote an article about this. There are some times though when wireless cards are the best choice to make. For example, if your computer is a little further away from your router and you struggle to get a consistent signal, the extra antennas on a PCI card mean that you will often get a much stronger signal that can increase the coverage distance. Of course, you also get the benefits of having an extra USB card slot if you use a wireless card. It's also worth noting the difference between USB 2.0 and USB 3.0 adapters. If you are using a USB 2.0 adapter a wireless card is likely to give you a much higher throughput and as such you should get a faster connection. However, the difference between the latest USB 3.0 adapters and a wireless card is less likely to be equally pronounced. Ok, that's fine, but what about the wireless card.... Well, they are often a more solid bet for desktop computers, as they often sit in the same position 100% of the time and often in dark remote corners of a room. Yes, USB sticks are great, but because of where the PC is physically placed, the PCI expansion option can often be more preferable. We will get into these special reasons more later. If you choose to use a wireless card to connect to wirelessly, you still need to choose between a PCI and a PCI-E (PCI Express) card. Sometimes called just a pcie card PCI-E is the newer standard and if you have a recently purchased pc you will likely have room for a PCI-E slot. PCI-E cards offer more bandwidth than PCI cards and because of this it may seem like a good idea to buy one of these cards. But before doing so, it should be noted that PCI-E cards often offer more than enough bandwidth that can be utilized for most users' internet speed, although nowadays, internet users offer internet connection speeds that challenge this theory. It may be worth buying a PCI-E card if you do a lot of local network file transfers but for public internet connection, it won't matter what type you use. Although, to be honest, the vast majority of cards sold these days are PCI-E, and it's most likely that's what your mobo will accept - unless you've resurrected a very old PCI. There are three different versions of PCI-E versions 1.0, 2.0 and yep, you guessed it... 3.0. Luckily, all versions are backward and forward compatible with each other. There are also the number of pins to consider, and the length. Well, you don't have to think too much about it, because they all will into a PCI-E slot. The 11th pin is always fixed and unused. After this pin pin can add a certain amount of pins. You can see the default number of pins and the lengths in the table below. When you are looking for the best pcie card, you will see a lot of acronyms. What do they mean? Well, here's a short list of the most common abbreviations you'll be coming across when searching for your next wireless adapter, and a basic explanation of what it is and does... PCI (Peripheral Component Interconnect) - Old schooner slots on a motherboard. A special way to connect PCI cards for networking, USB, TV cards, and everything else that was a popular connect around 10-15 years ago. PCI-E (Peripheral Component Interconnect Express) - A newer version of PCI, which has smaller pins, but much greater throughput (bus speed). Some graphics cards have also used PCIe over the years. 802.11ac - also known as Wireless AC. A fairly new, and fast IEEE wireless standard, which uses 5GHz radio frequency to transmit and receive data. Wireless AC is backward compatible with older wireless standards, including the Wireless N802.11n - Also known as Wireless N. An older wireless standard, but uses both the 5GHz and 2.4 GHz bands. Dual Band - Devices that use both 2.4GHz and 5GHz radio frequencies. 5GHz - Wireless frequency range, within 5GHz. Faster than 2.4GHz, and less prone to interference that there are many non-overlapping channels to pick from. Range is not as good though... 2.4 GHz - Within the frequency range 2.4 GHz. Still the most widely used band. Wireless range is better/ longer than 5 GHz, but is limited by speed and interference problems, as there are only three non-overlapping channels. Gbps (Gigabits per second) - One unit of data transfer. The more, the better. Mbps (Megabits per second) - Same as Gbps, but less fast. N300 / AC3100 etc - N or AC refers to the wireless standard as explained above. The following numbers are the cumulative theoretical data speeds across all radios. So, now we know what PCI and PCIe cards are and why a wireless card has its advantages, what else is there to consider? More antennas mean the potential for more data streams (depending on your setting and devices) and faster Wifi. You want to try to adjust your antennas to 45 degrees of each other. Our best antenna article may explain this better, but if you angle them at 45 degrees (and if a third is available - leaving it completely vertical), then your chances of covering off any direction of wireless signal are increased. Remember that wireless signals can bounce off your furniture and walls, so by adjusting the angle of the antenna of each other, you have a much better chance of capturing wifi signal as efficiently as possible. Most wireless cards have the antennas screwed directly into the card. This means that there are no options for adjusting the height of the antennas. This can be a bit of a problem, especially if your pc is tucked away on during a one-year with the rear of the target tightly against a wall. Your wifi signals will likely need to cross the case, walls, desk or a combination of the three! Fortunately, some PCI-E cards have a cable that connects the antennas to the card itself. This means you can raise the height of the antennas, and place them away from your PC and any furniture that can lead to problems with wifi performance. Despite being harder than installing a USB adapter (I mean, you literally just plug in and play!), installing a wireless card isn't as hard as you might think. So yes, easy installation. However, that means opening up your computer so you should check out how it will affect your warranty before you do so. If you're not sure what to do, it's probably worth getting an expert to do it for you. Here is the simple process required to install a wireless network adapter. While it may seem obvious, this step is always mentioning that you can do your computer and yourself some real damage if you mess up with a computer without turning off the power. Most computers have a removable panel you can remove to get into your computer. It is worth checking your computer's manual before doing this to make sure you are not damaging your computer. This is where you need to install your wireless card. If you are unsure of its whereabouts again check the manual. Usually there will be a protective plate over the PCI slot. This can usually be removed by simply unwinding the plate. Make sure that all the important pieces are aligned and that the chips are facing the bottom of the case. After this simply push the card into the tray. Using the screws from the protective plate in step four, fix the wireless card pcie in place. Your wireless card should have come with some antennas. Now it's time to screw these into place. Here is a handy video showing how to install a PCI wifi card... Now your card is successfully installed, simply shut down your computer and turn the PC back on. The final step is to install the drivers on your PC operating system which will be an automatic process if you are using Windows 8 or higher. You may require a CD to install the drivers if you are using Windows 7, although we would be surprised if Windows 7 could not find the drivers for you. You should not use Windows 7 anymore! In summary, a threadcard can be a good way to connect a desktop computer to a Wi-Fi network. They offer fast speeds, good range and are relatively easy to mount if you don't mind doing some manual work. To get more flexibility with positioning, try getting one with an extension cable. This allows you to place the antennas in an optimal position, comparing to where your PC case is. Of the cards we have looked at today, each has a positive features and reasons for you to buy specific card. If you don't have any wireless connectivity on your desktop, and you just need really basic wifi, then a Wireless N N will probably be enough for you - for example, Asus PCE-N15. It will get you connected, and will use the 2.4GHz frequency band, which has a better coverage range. If you are looking for the best possible performance for your card, then the Archer TX3000E may well be the way to go. It has the top of the range features you may need such as 802.11ac, Beamforming technology and four external antennas, ranging from one cable. 4K video streaming and other high bandwidth, lower latency loving tasks, should work better with 802.11ac. Remember that you might just be fine going with a USB wifi adapter. Just keep in mind that you are losing one of your valuable USB ports, and you may not get the same wireless range that you can potentially get with the external antenna option of PCIe cards. Hopefully you've found this article helpful, if so please share it on your favorite social media channel or comment below. Below.