Top cheap gaming CPUs worth buying in 2023

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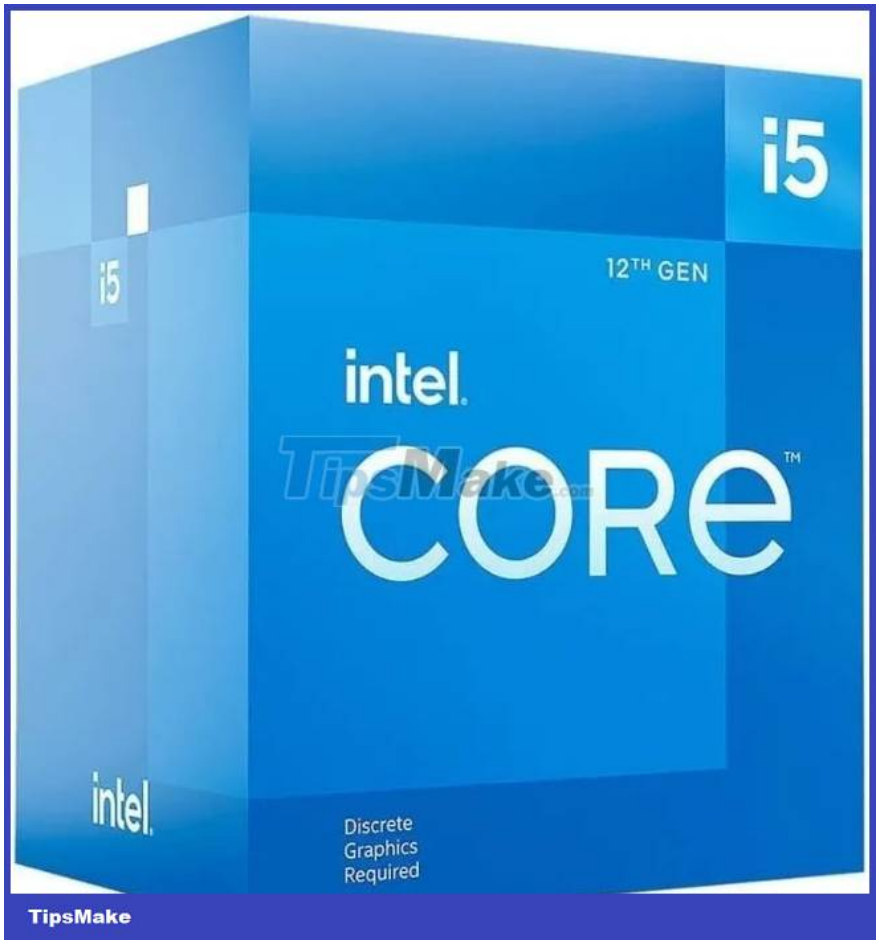
1. Intel Core i5-12400F

Intel Core i5-12400F, part of the previous generation Alder Lake family allows you to reduce the cost of this platform, while giving you nearly the same performance as Core i5-13600K, helping you achieve peak performance.

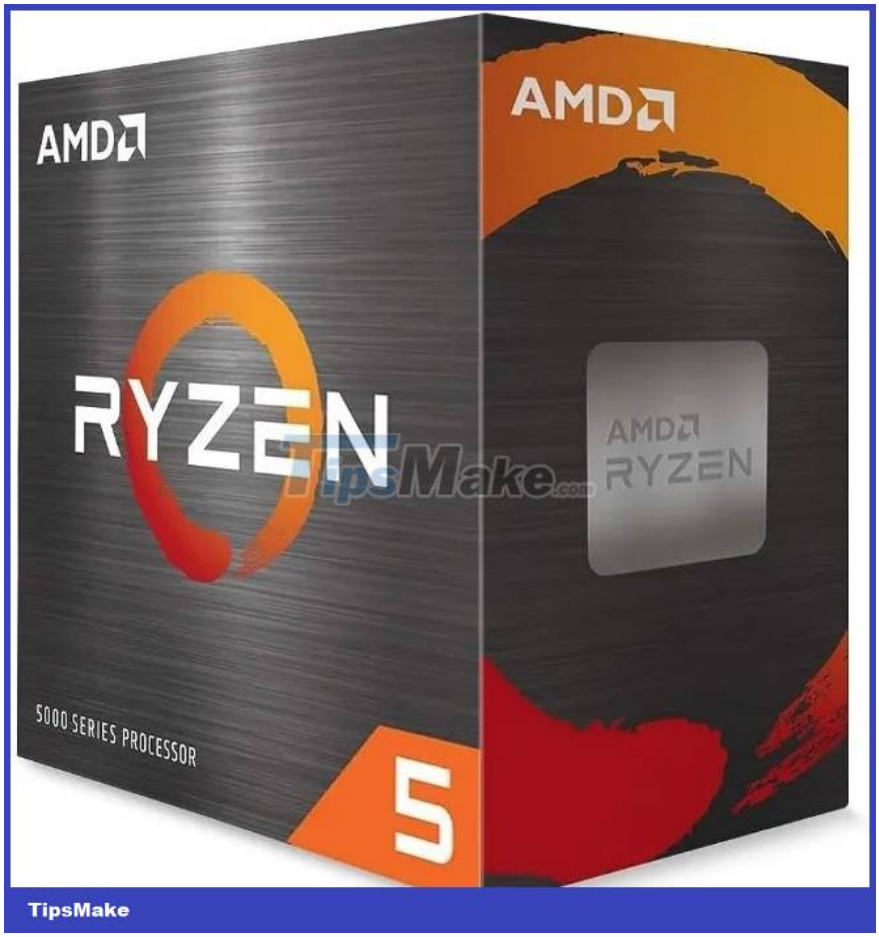


Intel's 12th and 13th generation CPUs are compatible with both DDR4 and DDR5 RAM, allowing you to build with cheaper DDR4 RAM and motherboards. Whether you're targeting high refresh rate 1080p gaming or even Ultra 1440p 60+ FPS gaming, this 6-core processor is one of Intel's best CPUs for the money. Platform longevity needs to be carefully considered when building a PC, and the 12400F provides you with a suitable upgrade path, as you can equip a more powerful 13th generation CPU without changing the motherboard.

Despite its solid gaming performance, the 12400F only consumes a maximum of 65W, so even a stock CPU cooler will work well for most users. If you want to reduce noise, you can choose a CPU cooler that fits your budget.

2. Ryzen 5 5600X

The AMD Ryzen 5 5600X easily takes this spot as it is known for providing more CPU performance than you need for gaming. Considered by many to be one of the best gaming CPUs among the Ryzen 5000 CPUs, you can comfortably pair this budget 6-core, 12-thread processor with the best graphics cards on the market without any hassle. Don't worry about bottlenecks.



AMD's 5000 series is the last on AMD's previous AM4 socket, so you can't seamlessly upgrade to an AM5-based AMDRyzen 7000 processor – you'll need to buy one of the newer AMD gaming motherboards , as well as more expensive DDR5 RAM for your gaming PC. Despite this shortcoming, you won't lack any gaming performance and can easily make this AM4 system last another 2 to 3 years. Plus, the option to upgrade to the high-end AMD Ryzen 7 5800X3D is available.

Its 65W TDP makes the 5600x an attractive choice in terms of thermals, and the stock cooler is great if you're not overclocking your CPU. Even though it's 3 years old, the AMD 5 5600X still makes the AMD platform great for gaming with its outstanding performance at an affordable price.

3. Ryzen 5 5600G

You'll definitely need a discrete GPU to pair with every other CPU on this list, but the AMD 5 5600G itself delivers excellent gaming performance. This APU features AMD's integrated Vega graphics and allows you to skip buying a GPU if you're having trouble finding one at a good price or waiting for the next generation to launch.

The 5600G's integrated graphics are capable of 1080p gaming at medium to high settings. Sure, you won't get the performance that a graphics card offers, but it works as a great temporary solution while you wait to build a valuable gaming PC in the future.

APUs work best for gamers who primarily play multiplayer online games or less demanding casual games that don't need the power of a discrete graphics card. You can also spot the Ryzen 5 5600G for around $120 (nearly 3 million VND). At that price, it is definitely one of the best CPUs for gaming in terms of integrated graphics.

4. Ryzen 5 5500

AMD released the low-end Ryzen 5 5500 CPU in the final year of the AM4's life cycle. This processor aims to offer performance roughly equivalent to the excellent Ryzen 5 5600 (essentially the 5600X with slightly lower clocks) at a significant price reduction. And luckily, the 6-core Ryzen 5 5500 gives you almost 90% the performance of its more expensive sibling.

The 5500 is a great choice for PC builders on a budget who still want to build on a relatively new platform. With a good base and boost clocks, it offers good value and decent gaming performance for the price. One notable difference when compared to the 5600 is that the 5500 is based on a different CPU design. It's the 5600G with the iGPU removed. This is limited to PCIe 3.0, so you won't get the full speed of a Gen4 gaming SSD. Keep this in mind when purchasing an SSD for your gaming PC.

If you're already on the AM4 platform and have an older quad-core chip, like the Ryzen 3 1200 or Ryzen 3 3100, this CPU could be a worthy upgrade. For the rest of you, the other CPUs on this list will be a better choice.

5. Intel Core i3-12100F

While AMD may be looking lackluster in the budget segment, Intel is pulling ahead with the Core i3-12100F. The 12100F delivers similar performance for about 20% less money. This Alder Lake CPU is a great performer and is only about 10% to 12% slower than the Core i5-12400F.

This 4-core, 8-thread CPU may seem outdated by today's standards, but despite being a quad-core chip, it delivers surprisingly strong gaming performance, on par with some processors. Older 8 cores from AMD (e.g. Ryzen 7 3700X). With extremely low power consumption and temperatures, the 12100F easily outperforms competing options from AMD, like the Ryzen 5 5500 - thanks in part to PCIe 5.0 support.

If you're building an entry-level build in 2023, the Core i3-12100F is probably the best budget CPU for gaming, considering the value and features you're getting. Plus, you get a clear upgrade path to any of the more powerful 12th and 13th generation Intel chips.