Which company CPU should I choose: Intel or AMD?

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CPU, the heart of every PC is the first choice when configuring the machine. With only two companies producing CPUs for consumers, the choice between Intel and AMD seems to be the easiest part to choose from. But the reality is probably not so.

CPU price

Both Intel and AMD offer products with prices that span almost all consumer segments. However, AMD has lower coverage, focusing more on the popular segment. The **cheapest AMD CPU** models like the Sempron, Athlon and A-Series dual-core models are sold for only $ **30** . While **Intel's cheapest CPU** , the dual-core Celeron G1820 **costs $ 45** .

Despite the same low-cost segment, the Celeron G1820 is still 1.5 times more expensive than direct competitors, but any of its money, the G1820 has a much higher performance-per-USD index than AMD. Basically most of Intel's CPUs give higher performance per dollar than competitors.

The quad core segment brings another interesting result. AMD's cheapest quad-core CPU, the A6-5400K is only priced at $ 45, while the Intel i5 quad-core is also priced at $ 180. If you can take advantage of all 4 cores of the CPU while being relatively narrow, AMD is a much better choice.

AMD CPUs are also often equipped with better integrated graphics than Intel when compared at the same price. AMD A10-7870K is capable of playing many games smoothly in low or medium settings with 1080p resolution. Intel HD Graphics will definitely have to run long to keep up with the performance of A10-7870K. If you only need to play LoL, AMD will be a much more economical option because you may not need to buy a discrete graphics card.

Ability to overclock the CPU

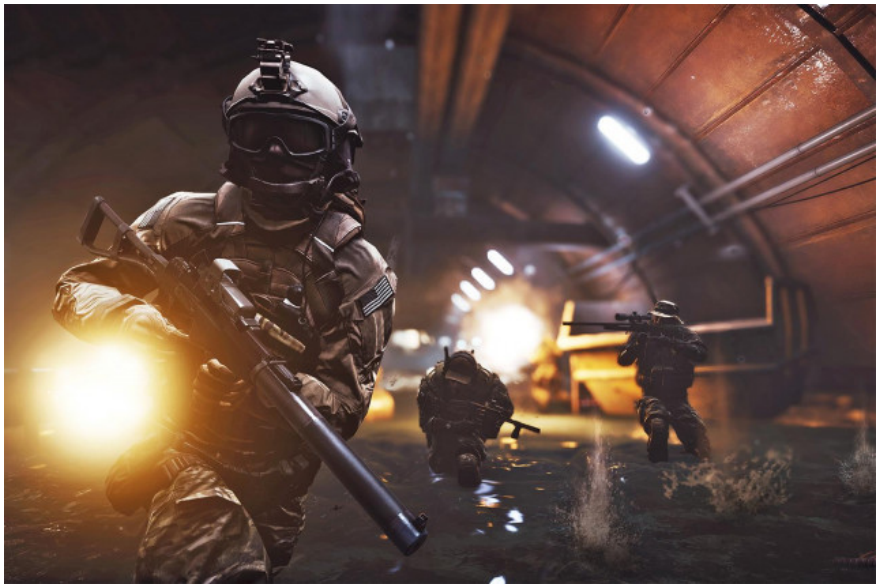
Basically, all CPUs sold on the market are placed at the clock rate that the manufacturer considers optimal and stable. A large number of users need to overclock the CPU to take the performance to a new level.

In two companies, AMD seems to support more overclocking. With the APU A-Series, you can overclock at a price of only 45 USD. AMD also has a lot of open multiplier CPUs at prices below $ 100. Intel, meanwhile, only $ 70 Pentium G3258 is an overclocked CPU at a price of under $ 100. However, the overclocking capability of G3258 is quite formidable when it can be easily overclocked from 3.2GHz to 4.5GHz.

In the mid-end segment, Intel has no CPU that has the ability to overclock except for the upcoming i3-7350K. Although AMD supports mid-range CPUs to overclock comfortably, their high-end CPUs have almost no comparison to Intel. Intel high-end CPUs can be equipped with up to 8 or 10 cores and extremely impressive overclocking capabilities. AMD is almost out of the high-end game, no matter how much their CPU can overclock.

If you are a consumer who is always aiming for the fastest, most powerful things, Intel will be the better choice when overclocking .

Gaming performance



Although AMD's APUs may have higher graphics performance than Intel's integrated graphics, their computing performance is significantly worse than their competitors. This will lead to bottlenecks when AMD's CPU is paired with high-end graphics cards to play AAA titles. When using a high-end graphics card, an Intel i3 or i5 CPU can deliver between 30 and 40 FPS more than an AMD-priced CPU.

So, **if you want to build a high-end gaming configuration, AMD is definitely not your choice** .

Electric used

AMD has been and still is trying to deliver the same performance as Intel's CPUs. However, this makes things worse when their CPU consumes far more power than their competitors.

Intel Pentium G3258 has power consumption at 53W. While direct competitors, AMD A6-7400K has 65W power consumption. And sadly, Intel's CPU has higher performance than its competitors.

Basically, the difference of 10W per hour on the desktop is negligible. However, AMD's problem is that their CPU will be hotter and the fan must spin faster, resulting in more noise.

Meanwhile, on laptops, a few W may also cause a big difference in battery life. Laptops using Intel CPUs have a higher battery life than AMD. The weakness of AMD's power and temperature management makes them nearly knocked out of the laptop market. AMD's APUs are still on the market but are nearly submerged and never integrated on laptops costing over $ 500. Even if it is " *lucky* " to find a laptop using an expensive AMD CPU, it is also not advisable to buy it.

Conclude

AMD and Intel have been competing for two decades now with victories in recent years completely belonging to Intel. Cheap Pentium and Core i CPUs have dealt a serious blow to AMD's long-standing advantage, low price.

If it is almost always, Intel is definitely the best choice. In the segment from Intel's cheapest quad-core Core i5, AMD has absolutely no chance of competition.

In the meantime, if it is still limited, AMD will always be the best choice for you. For those who don't have or don't want to spend $ 180 on an Intel quad-core CPU, AMD will give you something Intel hasn't done. AMD's quad-core APU with quad-core CPU and integrated graphics has superior performance compared to Intel HD Graphic always sold at extremely attractive prices.

In terms of performance, Intel CPUs have lower power consumption, cooler and less noise. These factors will be even more important on laptops when they are related to battery life. AMD has not done anything in recent years to improve the situation.

AMD fans should not worry too much when AMD still has Zen as the light at the end of the tunnel. With this new microarchitecture introduced in the beginning of the year, 2017 promises to be a good year for AMD. Let's wait and see how AMD's high-end solutions will be able to compete with Intel.

Overall, if you're still wondering, choose Intel. Unless you rarely fall into situations that could benefit from AMD, Intel is still the most secure and optimal option.

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