

Face the most disappointing CPU models, 'don't take it', was created

Some of the names on this list are not so bad, but they are simply not accepted and appreciated by the market, so it can still be considered a failed product.

Everything has a good side and a bad side, as is the technology world. We often only take a lot of self-interest for the best products, the best prices, or the most powerful performance, but forget that the worst products sometimes play a rather important role in the distribution. general development of the technology world today.

Today's top chip manufacturers such as AMD or Intel are known for products that make people hook up immediately. That is correct, but before they produce such great products, they have been faced with numerous failures and criticisms of the market. What makes the success here is nothing more than knowing from the failures, so as not to stomp on the previous vehicle.

1. Samsung announced a 3nm process chip, saving more than 50% energy, 35% faster than 7nm chip



In order to get successful products, companies have experienced many failures

In this article, we will take a look at some of the most forgettable CPU models that have ever been created around the world. Of course some of the names on this list are not so bad, but they are simply not accepted and appreciated by the market, so it can still be considered a failed product. In addition, these chips may not be the worst among bad products, but in fact they have experienced 'quite a lot' of serious problems, or failed to address the requirements in Its main market segment.

For now, let's come to our list.

The most forgettable CPUs ever released

1. Intel Itanium
2. Intel Pentium 4 (Prescott)
3. AMD Bulldozer
4. Cyrix 6x86
5. Cyrix MediaGX
6. Texas Instruments TMS9900
7. Qualcomm Snapdragon 810 (exception)
8. IBM PowerPC G5
9. Pentium III 1.13GHz
10. Cell Broadband Engine

Intel Itanium

The Itanium product line can be considered as a radical effort by Intel to try to ease the hardware complexity into the software optimization process, but the reality seems to be not as expected. wait for this manufacturer. The biggest problem this chip encounters is the phenomenon of all the work to determine the parallel executable commands, in some ways, already processed by the compiler before the CPU runs a byte of code.



Intel Itanium compiler cannot extract the required performance level for each specific task

Previously, many market analysts predicted Itanium would conquer the world, but in fact it was in the opposite direction. The compiler cannot extract the level of performance required for a particular task, and the chip is not fully compatible with hardware devices and software appears before it launches. . Itanium has been expected by Intel to completely replace x86 and change the PC world, but the CPU has been 'scrambling' just a short time after its launch, lingering for years with a tight market. and was quickly forgotten.

1. AMD Ryzen 7 benchmark score 3800X crushed Intel i9 9900K rival

Intel Pentium 4 (Prescott)

On February 1, 2004, Intel introduced a new core for the previously released Pentium 4, codenamed "Prescott". This core is developed on the 90nm process. An Intel analyst described this as a "rebuild of Pentium 4 microarchitecture". Although considered as an overhaul, the performance of the chip with Prescott core is not consistent.



Prescott is one of the weakest desktop CPUs Intel has ever produced

Prescott basically doubled Pentium 4's already long pipeline, expanded it to nearly 40 floors (each floor was a block of CPU), while narrowing the Pentium 4 to 90nm, and that was a wrong decision. The new chip has been paralyzed because the pipelines are too long and even the new prediction unit branch cannot help. Intel Pentium 4 Prescott consumes too much power, while not being able to achieve the required clock level in many heavy tasks, and that is the main reason for this product's failure.

Prescott and his dual-core brother, Smithfield, are the weakest desktop CPU products Intel has ever produced, especially if compared to rival products of the time.

1. 5 websites compare the speed and CPU performance from the most accurate Benchmark point

AMD Bulldozer

AMD has unveiled a new microprocessor architecture, starting to be used in its CPU models since 2011, called Bulldozer and completely different from the AMD64 architecture that was previously released. long time.



Bulldozer cannot reach the clock rate according to AMD's original design

With this product, AMD is said to have enlisted ahead of Intel rival by cleverly sharing certain chip capabilities to improve performance and reduce overall size. AMD wants smaller cores, with higher clock speeds to compensate for any general design drawbacks, but in fact, what customers get is a disaster. Bulldozer was unable to achieve, and perhaps permanently, failed to reach the clock level according to AMD's design. This chip is 'terrible', while actual performance is only a fraction of what it needs to achieve, and should be achieved. Failure is inevitable.

1. See the benchmark of the extremely rare Intel Core i9-9990XE CPU, only auctioned to OEM

Cyrix 6x86



Compatibility is a "deadly" issue on Cyrix 6x86

Known as M1 at the time of its debut, Cyrix 6x86 is a chip that is quite compatible both with Intel's Pentium pins and voltage. However, it is not a Pentium clone product that was originally designed, so it definitely cannot be fully compatible with the Pentium.

In fact, Cyrix is one of the x86 manufacturers that no longer existed since the late 1990s (VIA currently holds their x86 license), and lousy products like 6x86 are one of the reasons. Basically, 6x86 is significantly faster than Intel's Pentium in integer code, even beyond Pentium chips that have overclocked, but its FPU is very bad and the chip cannot operate stably when paired with Socket 7 motherboards.

Later versions of 6x86 were renamed MII, emitting less heat, and having higher clock speeds. However, there is an inherent disadvantage that Cyrix still cannot handle, which is compatibility, because it requires non-standard bus speeds at 75MHz or 83MHz on 7-slot boards.

If you're a "conqueror" gamer around the end of the 1990s, you'll definitely have to stay away from this chip.

1. Discover the power of Kirin 980 - the world's first 7nm processor

Cyrix MediaGX



MediaGX is a product that contributes to the demise of Cyrix

Another name comes from Cyrix. MediaGX is said to be Cyrix's first significant effort to build a line of integrated SoC processors for desktops, with graphics, CPU, PCI bus and memory controller at the same time. More specifically, MediaGX includes SVGA graphics, sound blaster simulations, memory control on a Pentium-compatible single chip, allowing you to avoid using video cards and audio circuits. However, unfortunately for them that this idea came back in 1998, the limitations in manufacturing techniques have turned all those components into a horrible 'tiger'.

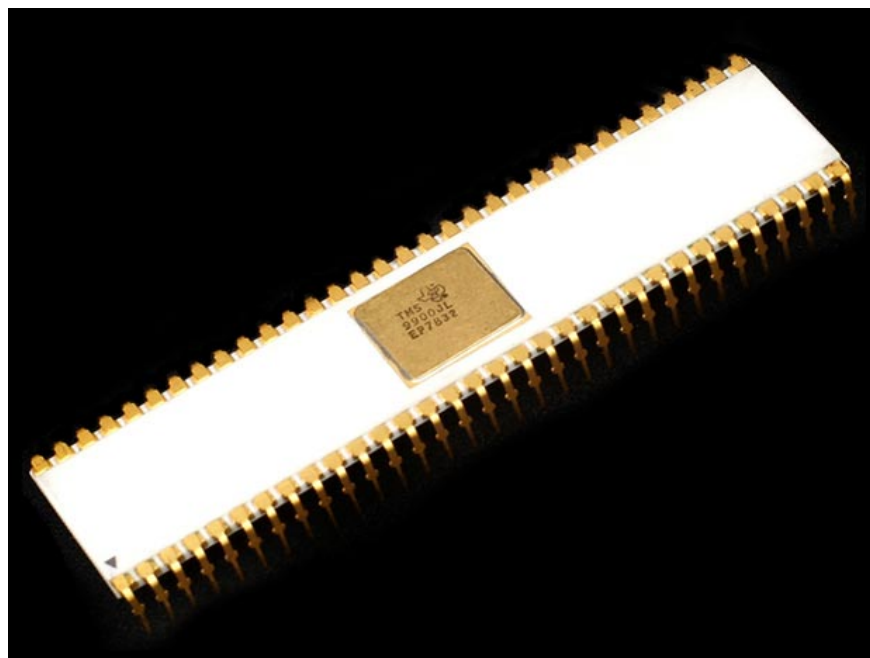
Motherboard compatibility is limited to 'incredible', while using the basic CPU architecture (Intel's Cyrix 5x86) is equivalent to 80486 making the CPU unable to connect to secondary L2 buffers. (off-die L2 cache - the only type of L2 cache previously available). In addition, all video and audio processing requirements are entrusted to the CPU. Therefore, despite running at 133MHz clock speed, this chip sometimes only achieved the same speed

as the Pentium 100MHz.

Chips like the Cyrix 6x86 above have problems, but at least it can somehow make it competitive on the market, but not with MediaGX.

1. What are the signs that your CPU is about to "die"?

Texas Instruments TMS9900



Texas Instruments TMS9900

Texas Instruments was once a big name in the computer CPU market, but that was the past, and one of the reasons for its failure was products like TMS9900.

TMS9900 is a 'bitter' failure of Texas Instruments stemming from a rather unexpected reason. At the time of 1975-1976, IBM was looking for a suitable chip to solve computing problems on their first PC model, they had two basic options to meet the time. Expected delivery time: Texas Instruments TMS9900 and Intel 8086/8088 (Motorola 68K was also developed but not ready for production on a commercial scale). Meanwhile, the Instruments TMS9900 was introduced in June 1976, and is one of the rare single 16-bit processors available on the market, and is cheaper than Intel 8086/8088 - which is almost convinced IBM. However, the wrong decisions of Texas Instruments began for a pity afterwards.

TMS9900 only has 16 bits of address space, while 8086 has 20. That makes the difference between solving 1MB RAM and only 64KB. Texas Instruments also ignored the development of a 16-bit peripheral chip, making their CPUs incompatible with 8-bit peripherals, leading to severe paralysis performance in many cases. At the same time, TMS9900 also has no general purpose registers on the chip, its 16-bit registers are stored in the main memory. Texas Instruments has encountered a lot of difficulties in sourcing second supplies and when IBM had to choose, they chose Intel.

1. This is why you will choose AMD's latest 3rd generation Ryzen CPU instead of Intel chips

Qualcomm Snapdragon 810 (exception)



Snapdragon 810 - The disaster Qualcomm used to create

This is a mobile chip, although many fame and unfortunate failures make this product also accessible here. Snapdragon 810 is Qualcomm's flagship chip, launched in 2014 in hopes of creating a drastic change in the high-end smartphone segment, while helping top-class Android smartphones compete better with Apple iPhone. However what Snapdragon 810 brings is just a disappointment, at the same time pulling the failure of products equipped with this chip.

The Snapdragon 810 is Qualcomm's first attempt at planning to build the CPU line according to the big.Little kernel structure, and based on the 20nm process, which only existed briefly in TSMC. But after only a few months of launch, the SoC quickly took the title of the most disappointing high-end chip in Qualcomm's history. Samsung - the world's largest smartphone maker has skipped Snapdragon 810 completely, while other companies have serious problems with the product equipped with this chip.

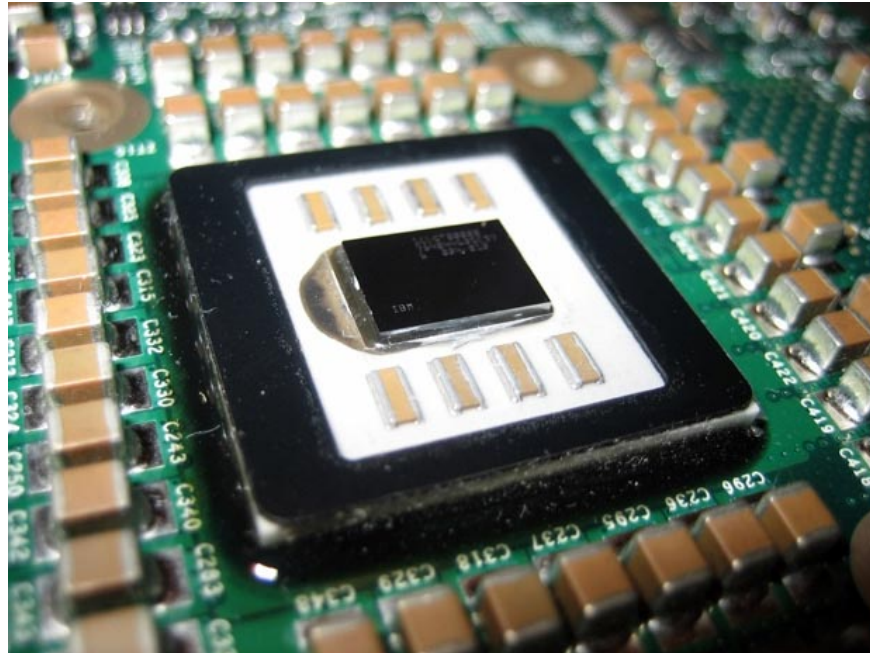
The problem of the Snapdragon 810 is not really the processing power, but the heat that it emits during operation. However, the overheating of the chip leads to performance that is seriously affected and failure is inevitable. All CPUs in the world are warming up after a continuous period of use, depending on the specific task, hot processes of the Snapdragon 810 happen too fast, to the point of absurdity, and at the same time heat dissipation It is so hot that the user has to pull away when accidentally touching, while running only on relatively light tasks such as listening to music, or surfing the web to read news.

Qualcomm claims that problems with this chip stem from OEM's poor energy management capabilities, but is the problem related to TSMC's 20nm process? After all, despite the mistakes that appear in Qualcomm's ability to deploy or the level of optimization from OEMs, the end result remains the same: A super-hot chip, along with a complete set of failure and prestige. credit declined in the eyes of consumers with Snapdragon brand many

years later.

1. Snapdragon 855 Plus will be a high-end chip, "special treatment" with very noticeable improvements

IBM PowerPC G5



IBM PowerPC G5 consumes too much power

The strategic partnership between Apple and IBM in the PowerPC 970 project (called G5 by Apple) in 2002 is said to be a turning point for both companies. The cooperation seems to be able to give 'sweet fruit' at the event of the announcement of the first G5 products, Apple promised to launch a 3GHz chip within a year. However, their partner - IBM - failed to provide the parts that helped achieve this clock at reasonable power consumption, and therefore, G5 was unable to replace the predecessor G4 in the machine. laptop because the power level it consumes is too large.

Although unfortunately, Apple was later forced to look for other partners, Intel (x86) in the laptop segment, as well as in the plan to improve the performance of its desktop models.

1. Intel launches a new AI chip that is 1,000 times faster than CPU

Pentium III 1.13GHz



Pentium III can provide stable performance

Pentium III itself is a pretty good architecture. But in the race to 1GHz with AMD, Intel was almost desperate to try to maintain its leadership in processing performance, even their high-end shipments could not only help save the situation. but also makes things worse. There was a time when AMD was supposed to possess a competitive advantage completely over Intel when they actually held products that reached 1GHz level earlier than their rivals.

In a final attempt to regain the leading position in performance that is specifically CPU clock, Intel tried to push the Pentium III 180nm chip to 1.13GHz, and it was obviously a gamble. Mistakes make them pay dearly. The Pentium III 1.13GHz project failed in its entirety. The chip basically didn't give stable performance and Intel eventually had to recall the entire batch of products and apologize to customers.

1. Intel launches automatic CPU overclocking tool with one click

Cell Broadband Engine



Cell Broadband Engine is a failed multi-core processor architecture

Cell (briefly referred to by Cell Broadband Engine) is a multi-core processor architecture, with the ability to combine a versatile PowerPC core with modest performance with more appropriate processing elements, greatly accelerating including applications for vector and multimedia processing, as well as many other types of specialized calculations.

Cell is a great example of how a chip can be theoretically extremely good, but in practice it is very disappointing, to the point that it is almost impossible to give good performance in practice. Sony had planned to use Cell as a general processor for the PS3, but the chip showed that it was much more capable of handling multimedia and vectors than having to handle the workload for General purpose (Cell's design appeared since Sony once intended to handle both the CPU and GPU workload with the same processor architecture).

1. These factors determine the speed of the computer

In fact, it is difficult for multithreaded CPUs to take advantage of SPEs (synergistic processing elements), and it has very few similarities to any other architecture.

The above is a list of the most disappointing chips ever introduced. Many people will come up with Pentium FDIV errors here, but the reason it does not appear on this list is simple: Despite being a major marketing failure for Intel and costing the manufacturer a lot of money. This output, but in fact this error is not too serious and the consequences it caused to the user is not too large. The main reason why the case is repeated until today is in Intel's "pathetic" approach to error handling, not because of any overarching issues in Pentium microarchitecture.

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