

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

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At the IFA event in August, Huawei announced the use of a 7nm chip in its device, taking the lead in manufacturing 7nm process chips.

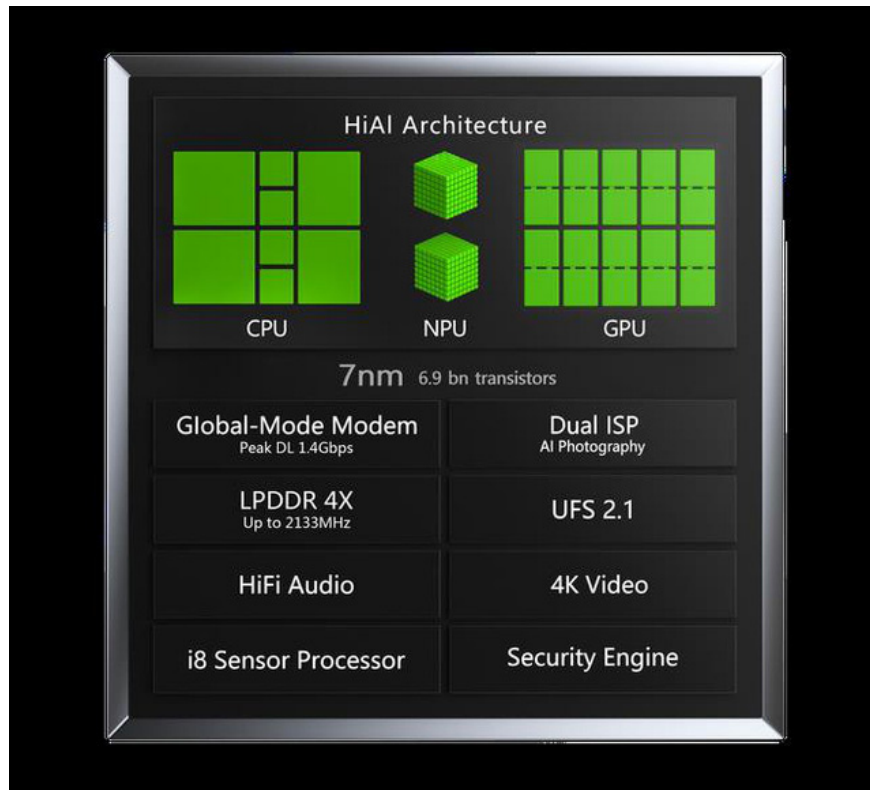
According to information revealed by Huawei, the company had to spend up to \$ 300 million to research and develop the 7nm chip. So, what progress does this process do that not only huawei but also other technology companies in the world are trying to pursue?



The 7nm process is a production process to create 7nm-sized transistors on the processor. Smaller transistors will help the transistor density on a large semiconductor, increasing processing speed.

Kirin 980 with 7nm process has 6.9 billion transistors on 1cm² area of a semiconductor, 1.6 times more than the 10nm process commonly used on current mobile chips to help improve 20% higher efficiency and energy efficiency 40%.

With the huge number of transistors inside, the Kirin 980 is capable of equipping powerful CPUs, ISP processors, GPUs and modems that are powerful but energy efficient.



The Kirin 980 is equipped with 2 cores Cortex-A76 with 1.92 GHz long-term performance, 2 Cortex-A76 cores with maximum performance of 2.6 GHz and 4 Cortex-A55 cores with 1.55 GHz high energy efficiency. These cores will be allocated in accordance with the tasks required by Flex-Scheduling technology. As a result, Kirin 980 allows applications to launch faster, smoother but still ensure better battery life.

The most important breakthrough of the 7nm process on the Kirin 980 is to help make the AI experience more powerful and smarter right on the device. Dual-NPU dual artificial neuro-processor with the ability to learn the user's habits has contributed significantly to allocating CPU cores for appropriate tasks to increase battery management capacity, extend time The battery still ensures the best user experience.

In addition, AI on the Kirin 980 is also capable of identifying up to 4,500 images per minute, assisting in predicting human movement and helping to accurately identify 97.4% of human and object movements when taking photos to create sharper photos.

The new ISP on the Kirin 980 has a data bandwidth of up to 46%, which can better support multi-lens camera configurations, up to 3 lenses as on the Huawei P20 Pro.



The Kirin 980 is also equipped with Mali-G76 with 18 GPU cores, one of the leading good GPUs today (being equipped for the P20 Pro), allowing users to play AAA-heavy games smoothly with frame rate 60 fps picture. In addition, with LTE Category 21 modems that have download speeds of up to 1.4 Gbp and Wi-Fi chips with a maximum bandwidth of 160Mb, Huawei's Kirin 980 chip can also provide high-speed, reduced connectivity. Maximum latency when playing online games.

The Kirin 980 is equipped for Huawei Mate 20 and Mate 20 Pro, which will be released in October 2018.

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