

5 things to know about Qualcomm Snapdragon 845 chip

Qualcomm announced the Snapdragon 845 at the Hawaii Tech Summit but it wasn't until yesterday that they released details about the new chip.

Although going from version 835 to 845 is not a big step, there are some remarkable things on this new generation chip from Qualcomm.

Faster, not only at processing speed

It is clear that all of the following processors are faster than before but it seems that Qualcomm is less focused on CPU speed but focuses on aspects of a 'platform' such as GPU or AI. Adreno 630 graphics chip 30% faster and 30% higher performance. Qualcomm also said that the Snapdragon 845 handles AI-related tasks three times more efficiently than its predecessor.

That does not mean that the CPU does not improve. Kryo 385 core is 25% faster while saving 15% of electricity. That means you will have a longer battery life or still with that amount of time with faster speed.

It seems that 845 has not caught up with Apple's A11 Bionic at processing speed, but with smartphone chipsets the CPU speed is not all.

Many camera improvements, especially video recording

Now with hardware support for rotating Ultra HD Premium - 4K HDR standard - at 60 fps, which means you can shoot 4K slow-mo videos. Technically, it also supports static 16MP shooting at 60 fps, if the camera's hardware can support it. If you want, Snapdragon 845 also records 720p video at super slow speed of 480 fps.

See also: [Upcoming Android phones will record 4K HDR video](#)

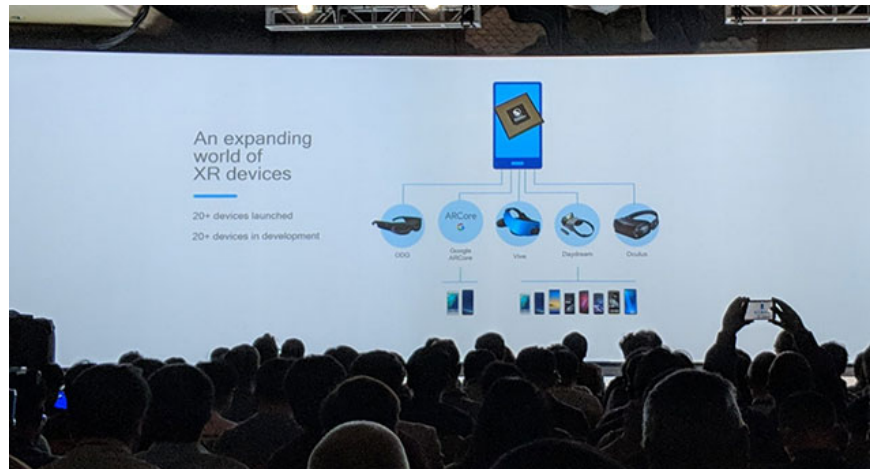
Low light shots are also better with new anti-shake and new algorithms to keep image details when applying image noise reduction tools. The AI ??also came into play when the Snapdragon 845 supported a single camera portrait mode - although Google tried to put it in 835. It is not yet effective but at least can use portrait mode with other negative lengths. each other on phones using multiple cameras.

The good point is that 845 also supports Cinemagraphs, animation in which a part of the image moves.

The best smartphone photography in 2017

VR comes closer to the high-tech headset

The graphics processing speed on Snapdragon 845 supports a lot of VR applications, supports Room-Scale VR. Meaning like HoloLens, you can go around a virtual land simulating a room, not some random space.



Chips for the ability to use VR, AR as high-end headsets

Adreno Foveation follows the eye to help bring a better graphic image. This feature is already available on high-end headsets like the Oculus Rift, but here, only one area of the image is sharpened, so it will appear sharper. The chip also monitors eye-tracking for headset VR render details of the image area.

The Snapdragon 845 is still hand-tracking to perform movements - like on Kinect - without controls. Image quality is also improved thanks to the ability to support a maximum resolution of 2400 x 2400 at 120 fps.

See also: Qualcomm adds the same depth sensor Kinect to all high-end phones next year

Wireless

With the new X20 modem, the Snapdragon 845 will have maximum speed and the average speed of LTE is 20% higher, up to 1.2 GBps or 3GB movie download in just 3 minutes. Qualcomm said Wi-Fi speeds also improved, especially when the network had many users.

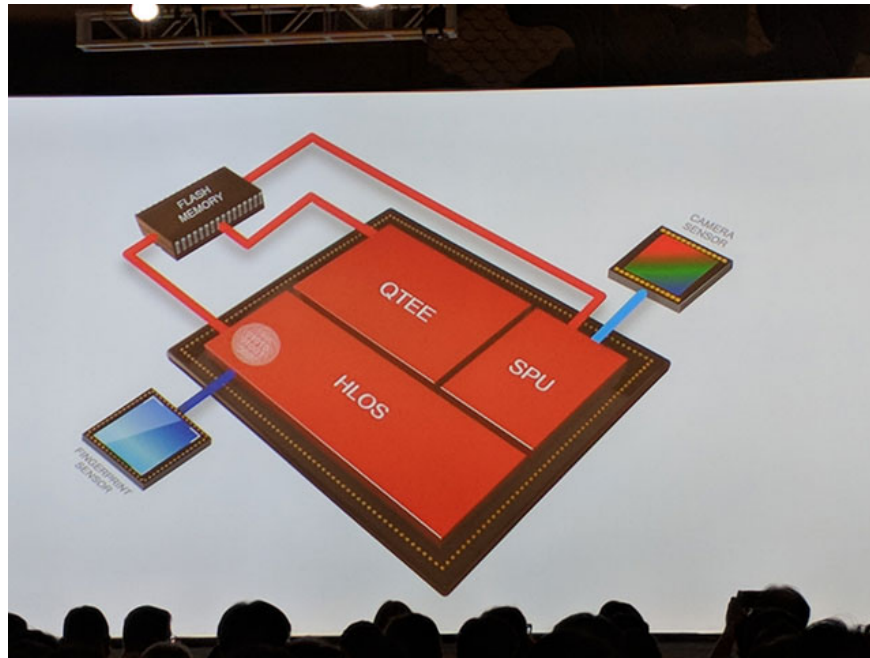
But perhaps the most practical is with Bluetooth headphones. Normally Bluetooth audio requires to send signals to the headset and then transfer the information to the earbud. This is very battery consuming but the 5-hour Bluetooth headphone can transfer audio straight to earbud and increase the battery life by 50%.

See also: Sony XB950BT Bluetooth Headset: Add an ideal choice for bass addict

Mostly, wireless headsets still use Bluetooth 4.x now, but it will be fine anyway.

Safer

The Snapdragon 845 has a completely new Secure Processing Unit, essentially operating as a separate repository, processing sensitive information such as biometric authentication. It has microprocessor, memory, random number generation, encryption, separate from the chipset.



Private SPU to ensure the safety of sensitive data

Theoretically, even if the phone is hacked on software or hardware, Secure Processing Unit still has no effect, of course, the manufacturer must support it first.

Although the changes of the Snapdragon 845 sound great, the reality of how to use it is to see how producers can take advantage of it. Please wait for the device of 2018.

See also: Apple considers putting Qualcomm chips on iPhones and iPads next year

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