Is the sensor vibration reduction technology unique, making Apple want to equip its new iPhone?

With new anti-shake technology, surely the new iPhone of 2020 will have more unique photographic capabilities.

It's no surprise that Apple shows it is working to improve camera quality on iPhones this year, but a new report shows how this effort is being made. According to a new note by the famous Apple analyst, Ming-Chi Kuo predicts that Apple will be equipped with sensor-shifft image stabilization on this year's latest iPhones.

If that's the case - and Kuo's predictions are often quite accurate - this could be the most significant change in the iPhone camera hardware Apple has ever made, since they added an iPhone camera. 7 Plus so far.

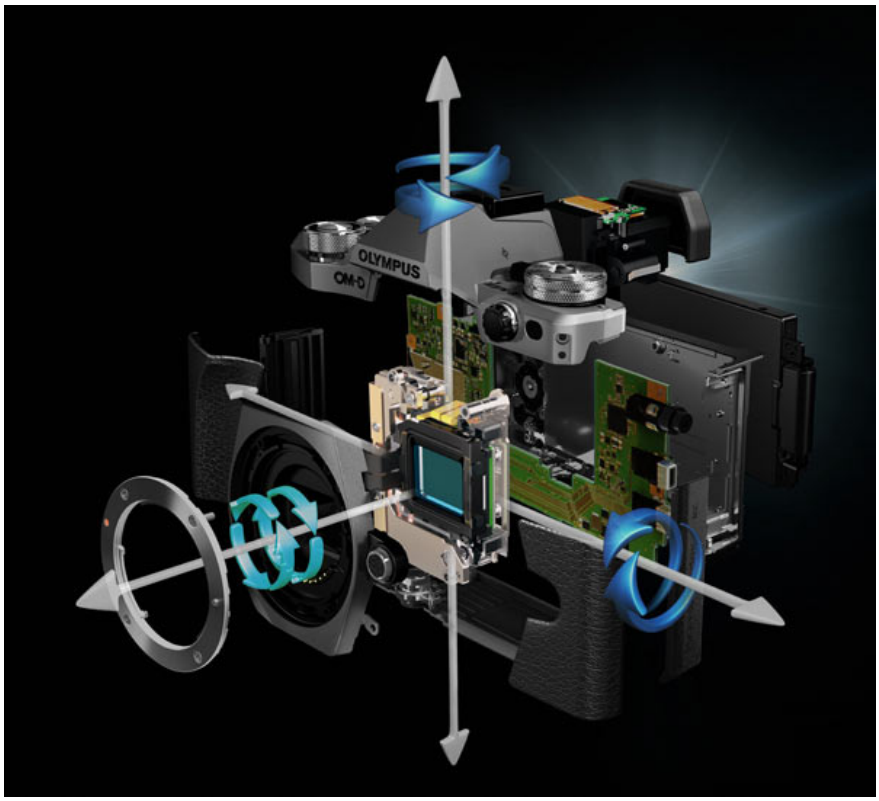
What is sensor shift stabilization?

Most optical image stabilization systems on smartphones now work by moving the lens in the opposite direction of the user's hand, to compensate for optical aberrations. It is also the image stabilization technology used on high-end cameras, such as those from Canon and Nikon DSLRs.

Meanwhile, sensor shift technology works by moving the sensor to take a picture, instead of a lens, in the opposite direction of the camera movement. For interchangeable-lens cameras, DSLR or mirrorless cameras, this technology is a significant advantage when it is possible to mount any lens into the camera and still be resistant to vibration when taking pictures.

But with a smartphone camera, this doesn't make much sense when each lens is always permanently attached to a camera sensor. Therefore, its advantages compared to the optical image stabilization technology commonly found on smartphones are not as obvious as before. So what makes Apple want to equip this technology for the

new iPhone?



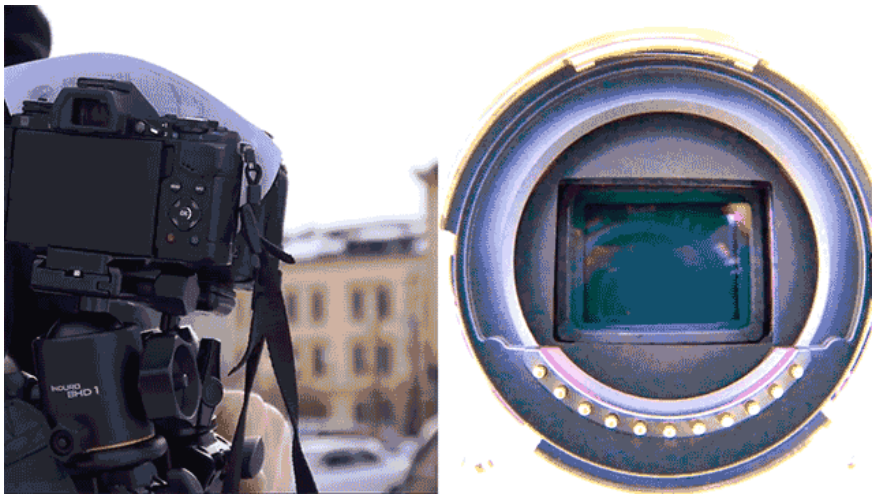
Olympus is one of the camera companies equipped with anti-shake technology to move sensor on its camera.

Apple equipped with this technology to do?

One of the possibilities leading to this technology may lie in the fact that image stabilizers tend to be more effective at optical systems against vibration. This will result in better low-light images as well as smoother video recording.

One of the interesting capabilities of this technology is the correction of images as the camera spins, a very interesting motion often made by filmmakers. Typically, lens-based image stabilization will not eliminate image blur as effectively as sensor-shift stabilization systems.

Another possibility that led to Apple's use of this technology may be similar to Olympus' High Res Mode (high-resolution photography mode with low-resolution sensors).



Olympus camera sensors automatically recalibrate as the camera swivels continuously.

In this shooting mode, the camera's sensor is controlled to move and capture multiple images continuously, after which the images will be stitched together to create a higher resolution image. , better dynamic range and more striking colors than shooting with a conventional small sensor.

This mode is similar to the Super Res Zoom feature on Google's Pixel - when taking advantage of the shaky hands to capture multiple photos and stitch them together to create a photo of resolution. higher resolution - but it is clear that the use of sensor shift stabilization will result in better image performance.

Similar to the way Apple has done with the iPhone 7 Plus before, most likely this new image stabilization technology will only be fitted to large-sized iPhones with a 6.7-inch screen. However, according to Kuo's report, it is likely that smaller screen versions will also be equipped with this technology by 2021.

Also in his report, Kuo also predicts that the iPhone of 2022 will be equipped with a periscope lens to increase the possibility of far zoom, but if compared to this technology with companies like Samsung, OPPO or Huawei. , Apple is far behind them.

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