The era of TV 8K is coming, what do you know about 8K technology?

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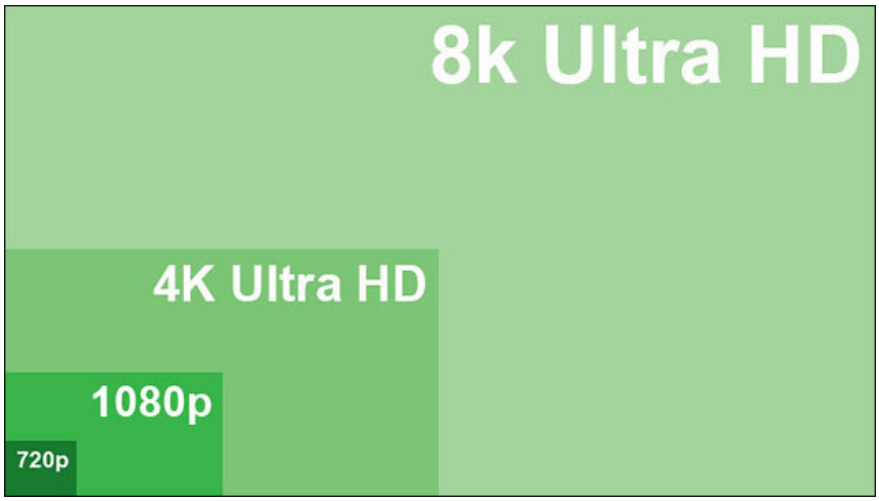
These are all practical questions, and the answers for them are here.In this article, you will know everything you need to know about 8K, and why the presence of 8K is not as impracticable as what people think.

1. Invite to see the giant curved screen made from LG's OLED TVs

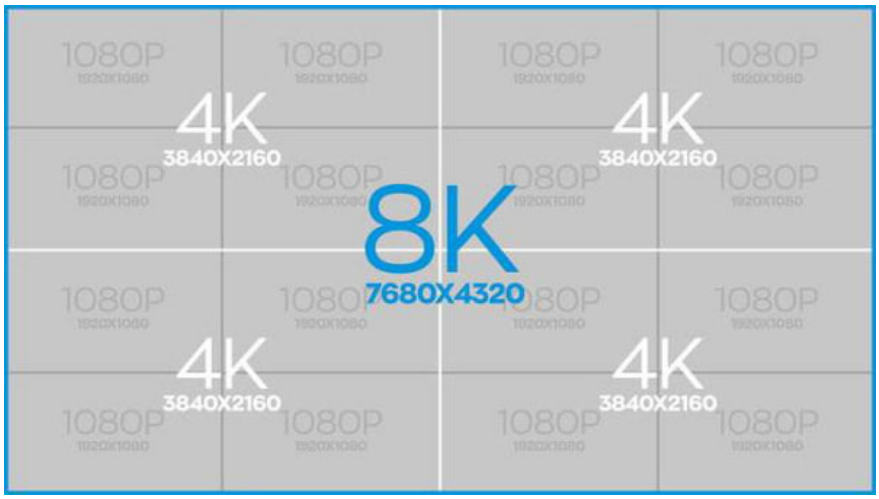
What is 8k? What advantages and disadvantages does it have when compared to 4K and FHD?



Many people may think that 8K TVs will have twice the resolution of 4K TVs, just like 4K twice as much as 2K, but because of the complicated resolution measurement method, this is not entirely accurate.The term 8K refers to the horizontal resolution of the TV, which means how many pixels run on the screen from left to right.8K TVs have twice as many pixels as 4K TVs, but they have four times the total number of pixels compared to 4K and 16 times that of 1080p when you look at the entire surface area.More specifically, the 8K resolution is equivalent to 7,680 x 4,320, or 33 million pixels (exactly 33,117,600) instead of 3,840 x 2,160 (8,294,400 pixels) of 4K.There will be a lot of pixels, can confirm so!

Other terms may be confusing:

1. 720p (or HD) TV is measured at 1280 pixels wide, 720 pixels high.
2. 1080p TV (also known as Full HD or FHD) is measured at 1920 pixels wide by 1080 pixels high.
3. 4K TVs (also known as Ultra HD or UHD) are measured in 3840 pixels wide by × 2160 pixels high.
4. The 8K TV is measured at 7680 pixels wide by × 4320 pixels high.



One thing that we can easily recognize with these resolutions is after 720p onwards, with each new standard, both the number of horizontal and vertical pixels will double.Because we are talking about two-dimensional space, including horizontal and vertical lines, this increase will lead to a leap in total pixels.

Should I buy an 8K TV?

Short answer: No! At least at this time.

At the present time, 4K TVs have finally begun to be widely used and more affordable.HDR technology may still be in a battle of standards, but more and more TVs offer both 4K and HDR options.In addition, HDR is still a separate element with resolution, so this technology will still depend on each manufacturer.Now, if you buy a new TV, it must be a 4K HDR.There is no reason to wait 8K.8K technology actually began to appear as soon as

the first 4K TVs were just launched.Although the 8K panels were revealed right from CES 2013, but at that time, few people were interested and not impressed with this technology because the eternal question 'what is the content of 8K?'.And after 6 years, this question is still valid.So waiting for 8K TVs is only possible for those who already own a 4K HDR model.

1. Not 4k, new HDR is something you need to pay special attention to when choosing to buy a TV

There are not many 8K content available, unless you are living in Japan

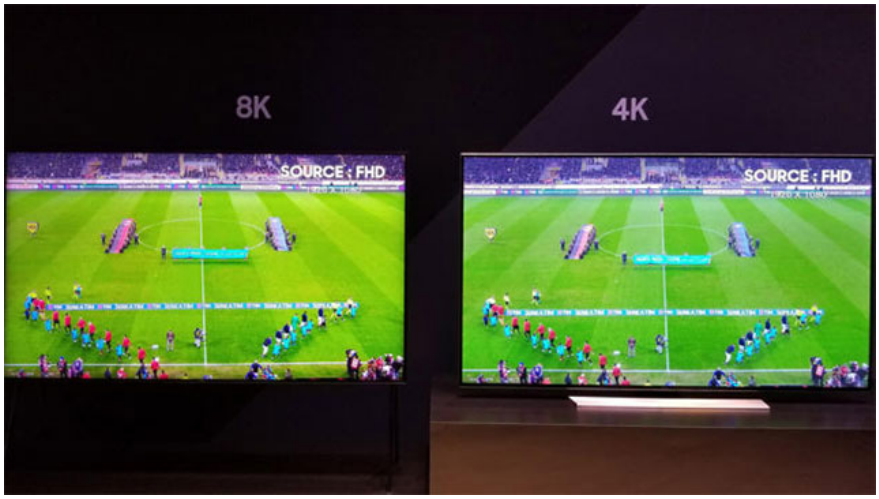
A bit deeper about the 'material' issue for 8K TVs.Just like with 4K TVs when they were first released (and to some extent until today), there are very few 8K content available for us to use, especially when platforms Big as Netflix and Amazon are still focusing on efforts to deploy more extensive 4K content.And currently, there is no agreed standard to provide 8K content for TV.

As time went by, other companies began to show off their own 8K-tested TVs.Japan has introduced a dedicated channel for 8K content and this gives us a more optimistic view of the early prospects of using this technology.Japanese broadcaster NHK launched the first 8K satellite broadcasts in 2016. Later that year, part of the 2016 Rio Olympics was filmed and broadcast at 8K resolution by NHK, however This super-high-resolution content is also available only for special theaters.

And conversely, to enjoy any 8K content, you'll need an 8K TV, a dedicated satellite to receive the line.All of these factors contribute to an investment that is too large for the average person.As for Japan, they are still pioneers in this technology with plans to broadcast the Olympics 2020 according to the 8K standard.

1. LG opened the giant TV race at CES 2018 with an 8K 8-inch OLED display

The display quality of non-8K content will also improve



It is worth noting that the 8K TV will be able to upgrade the display resolution of the content a bit lower, but overall, this will make a huge difference.Many 4K TVs have also done the same thing, which helps make 1080p content look better than when displayed on a standard FHD screen.This factor contributes to compensate for the lack of 4K content, and that's why you don't have to watch 1080p movies with four huge black edges surrounded as before.

To better understand, think about the case of smartphones.When large screen phones with high resolution started to appear, they were almost shocking about the display quality of the screen, smooth images, sharpness, and colors were much more vivid than phones. traditional.The normal apps look 'lethargic' on small, puffy 'screen' screens that suddenly look gorgeous.Or the same site like that but when you visit with iPhone 6 and iPhone XS Max will look completely different, even though the site does not have any edits.

And that's also what TV 8K will bring to users if they come with an upgrade algorithm.For example, Samsung's case.Specifically, Samsung's 8K TVs have the ability to 'stretch' content at lower resolutions to 8K, thereby creating huge differences in image sharpness.According to Samsung, they have developed a system called "on-device image processing with artificial intelligence" that allows Samsung 8K TVs to receive images from any source, from full HD, 2K to 4K , then 'upgrade' the image to 8K resolution.In addition, these TVs are also integrated with smart filters to ensure the best image quality, to help handle the jagged edges that appear when stretching images.Not only that, the contrast and brightness will also be adjusted accordingly.However, in fact, the previous feature was also found on some high-end 4K TVs, only that the models did not support 8K resolution at that time.Anyway, while the actual 8K content is still too scarce, upgrading the image from 4K to 8K can be considered a big step, helping early users have the opportunity to experience, continue. access to high quality display content.

1. Samsung launched the biggest 8K TV on the planet, 98 inches, yet any television content reached a great definition for projection

Broadcasting 8K content will be difficult

Not to mention 8K, at the moment, the transmission of 4K content is already very difficult.Normally, you must have at least one 20Mbps connection to stream 4K content, which is very expensive.As for the 8K standard, with the number of pixels multiplied by four times, the transmission requirement will be even higher.Early tests have shown that to transmit an 8K video would require a minimum of a 50Mbps connection - a number that is too large, even in countries with good bandwidth speeds that are difficult to meet. mass scale.If you need to stream multiple 8K streams simultaneously, even a gigabit connection will be difficult to fully meet.

Even if you have a strong gigabit connection on hand, you may need to worry more about data limits.An hour of broadcasting 8K content will burn 75.2GB of data (this is an estimate, the actual situation will depend on compression and other factors) - not easy to play at all.

At the present time, Netflix, Amazon and other streaming providers still have a long way to deliver 4K content to users, so the concept of offering 8K streams seems Still a long story of the future.Technology we already have, but how to apply on a mass scale is difficult.Industry leaders will introduce their own solutions, from the technology needed to stream to the ISP's limit.Japan's current solution is not even operating on a ground-based setup, but instead requires a complex satellite infrastructure.

8K TV models will be very expensive

As an immutable rule has existed for decades, new TV technologies are always very expensive at the time of launch and rapid discounts over time.When the first 4K TVs appeared on the market in 2012, they are usually in the $ 20,000 price range, but until the last 2018, you can easily find 4K-sized TVs 85- The inch is priced at under $ 5,000, while the 50- and 55-inch models only cost less than $ 1,000.The good news is that 8K TV models are not as expensive as in the case of 4K, the bad news is they won't be cheaper than $ 15,000.Therefore, if you have $ 15,000 to invest in TV, the smart solution would be to buy a genuine 4K (or two) TV, but where to invest in the sound system, for the experience. Much better entertainment.

However, do not rush to blame the manufacturers why raise prices so high and then let it fall dramatically after only a few years.Simply because all new technologies are difficult to produce at the commercial scale at first, in other words, the initial investment cost for a chain system, research and development stages is very great.Over time, when the production process has improved and entered the process, the cost will also have to be reduced accordingly.In the near future, TV will be like a smartphone in that screen technology will be one of the factors that users are most interested in, and determine the success or failure of a product.

With the above price issues, we still recommend you to buy 4K TVs, at least for the next few years.

In short, what are the benefits of 8K technology?

Ironically, the people who benefit most from 8K TV are probably not wealthy individuals, can spend $ 15,000 to buy a TV, which will be those who live in apartments or Old house with a narrower living room.The benefit of higher resolution is that it allows you to sit closer to the screen but still see the image smoothly, without being

"pitted", especially when the screen size increases.

The image is displayed on a very large 1080p screen (assuming 70 inches) that will look bad if you sit near it.You will need to sit quite far away to at least see the pixels.4K TV will improve this, but if you have a 70-inch 4K TV, you should still sit at least 3m away from the screen to get the best picture experience.

If you're in an old house with a small living room area and a traditional layout, 70-inch 8K TVs will help solve the problem.In this case, 8K technology will allow you to sit closer to the TV and still see the image in detail, rich, smooth.Moreover, this 'intimacy' will also give you a much better viewing experience for television.

But even with such a scenario, the advice here is that you should still buy a smaller 4K HDR TV.It will have a much lower price, while the benefits are not inferior.If you can spend more, look for a TV that supports both HDR standards and has good handling capabilities.Also consider OLED if you have a high demand for true levels of color bands.If the TV you are using is one of the best products on the market today, there are enough compelling reasons to wait for 8K TVs.

8K models will also be equipped with the best screen technologies.Sony is currently demonstrating an 8K TV that can reach 10,000 nits of brightness.Nits is a brightness measurement and for quick comparison, the best brightness TVs available on the market are currently stopping at about 4,000 nits.At the same time, this TV is also an OLED, so while being able to achieve the best brightness, it can also show the darkest parts of the dark.The scope of this ultra-wide image will flood into color and provide a much more vivid and realistic experience.

Samsung products can also bring similar advantages to Sony's, while deploying new upgrade techniques mentioned earlier.It will include additional features such as the Ambient mode that adjusts the screen to the light in the room or allows the device to 'mix' into the wall when not in use.This is similar to a feature found in the Google Home Hub, but is up to 85 inches in size.

8K is not just a new display technology, it is also a step forward in features, capabilities and even changes in the development trend of the screen market in the future.8K TV really delivers the best picture quality, even if you don't watch 8K videos.But for the average consumer, these benefits are hard to compensate for the selling price and related costs, so the current 8K is still the technology of the future.

See more:

1. LG's future TV: Can be rolled in a box and will be sold in 2019
2. CES 2019: Is there anything to look forward to in the world's biggest 'catwalk' this year?
3. Improved iPhone screen of former Apple engineer makes Apple also 'crave'
4. Download Blacker, the app provides a black wallpaper for AMOLED monitors, completely free