What types of screens are Retina, LCD, AMOLED, OLED ...?

Currently, there are quite a lot of screen technologies that are commonly used on phones such as Retina, AMOLED, OLED ... So, which smartphone screen technology is good? Let's find out about the advantages and disadvantages of the common technology display standards in the article below to get an answer.

Along with the resolution and size, the screen technology also has a great influence on the display quality. Currently, there are quite a lot of screen technologies that are commonly used on phones such as Retina, AMOLED, OLED . So, which smartphone screen technology is good? Let's find out about the advantages and disadvantages of the common technology display standards in the article below to get an answer.

1. Retina display

This type of IPS-LCD screen has an extremely high pixel density, the human eye cannot distinguish each individual pixel at a normal viewing angle.

Depending on the device, the pixel density on the Retina screen is also different. For example, the iPhone 4S has a pixel density of up to 326 ppi while on the new iPad, a large screen with a pixel density of 264 ppi only.

2. AMOLED Screen - Active Matrix Organic Light Emitting Diode

AMOLED displays for more brilliant displays and lower power consumption, is expected to replace TFT screens.

Compared to TFT, AMOLED displays are more advanced, such as higher definition, ability to reproduce colors more vivid and clear, higher contrast and wider viewing angle, lighter.

However, AMOLED displays display images poorly in sunlight. This new display technology is now used for high-end smartphones from Samsung, HTC and Nokia.

1. What is POLED and AMOLED - Unsure about the difference between these two types of OLED technology

3. OLED screen

OLED (Organic Light Emitting Diode) is a light emitting diode (LED), in which the light emitting layer is made of an organic compound. An OLED screen does not require a backlight, so it reduces power consumption as well as a better black display and unlike LCDs. One of the advantages of OLED displays is vibrant colors, wider viewing angles, improved brightness and better energy efficiency.

4. Super AMOLED

The other version of AMOLED displays has a more prominent color than conventional AMOLED screens and better visibility under the sun. This screen technology was developed by Samsung by combining the touch panel (touch panel) and the top glass.

Samsung has applied this display technology to its high-end smartphones like the Galaxy S.

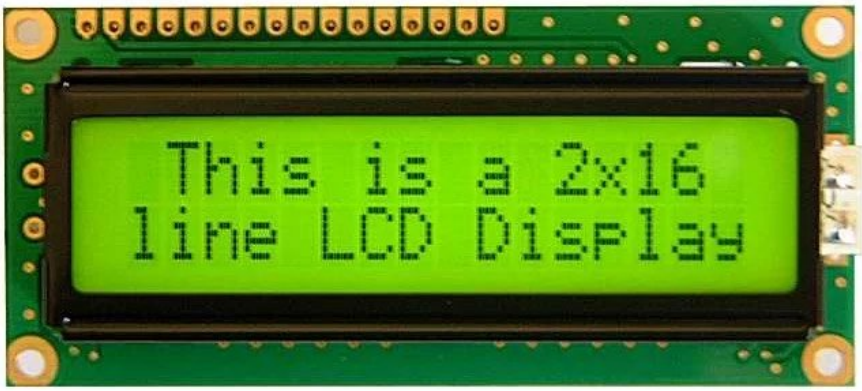
5. Super AMOLED Plus

Similar to LCD screens, Super AMOLED Plus also restructures the extra pixels to help the image display clearer and sharper. Samsung's Galaxy S II is the first smartphone to use this technology.

6. Super AMOLED HD

This is a term created by Samsung, which is simply a high resolution (720 x 1,280 pixels or higher) of the Super AMOLED screen. Currently, Samsung has abandoned the Super AMOLED Plus screen and returned to Super AMOLED technology and upgraded to HD. This type of display is used on the company's Galaxy Note and Galaxy S III.

7. LCD screen - Liquid Crystal Display: Liquid crystal display



The LCD screen must rely on the backlight to light up, not produce light itself. The LCD screen is very colorful in the sunlight, the viewing angle is very narrow due to the low screen density. The quality of the LCD screen depends on its manufacturing and usage.

Most monitors on cheap phones today use LCD technology.

8. TFT LCD Screen - Thin Film Transistor: Transistors thin film

TFT screen is developed based on LCD technology with many improvements for better color reproduction and higher resolution.

But the TFT-LCD screen has a quite high battery consumption, the viewing angle is not wide, the viewer must look directly at the screen to see the clear image.

9. Super LCD screen

Super LCD is a special upgraded version of TFT-LCD. This screen technology has better contrast, more vivid colors, better visibility under sunlight but more battery power and has lower brightness than AMOLED screens.

10. IPS LCD screen

The IPS screen provides a wide viewing angle of up to 178 degrees from the horizontal and reproduces colors well with a wider color gamut. This screen technology is often used in high-end devices, demanding rigorous display quality.

With IPS screen, users do not need to sit face to face can still experience the full quality of the image.

11. LED-backlit IPS LCD screen

LED-backlit IPS LCD is a technology that uses multiple pixels to compress on an LED-Blacklit screen. Thanks to the IPS panel (In-Plane Switching), this screen has a larger viewing angle. Currently, this technology is being used by many smartphone companies around the world, one of which is Apple with iPad mini 1,2,3, iPhone 6, iPhone 6 Plus.

12. IPS Quantum (quantum IPS screen)

IPS Quantum is a DCI (Digital Cinema Initiatives) display technology created by a major studio together. This technology creates the best display ratio by focusing on the display of red and blue, colors that are easily captured by the human eye.

A DCI compliant monitor costs over 6000USD.

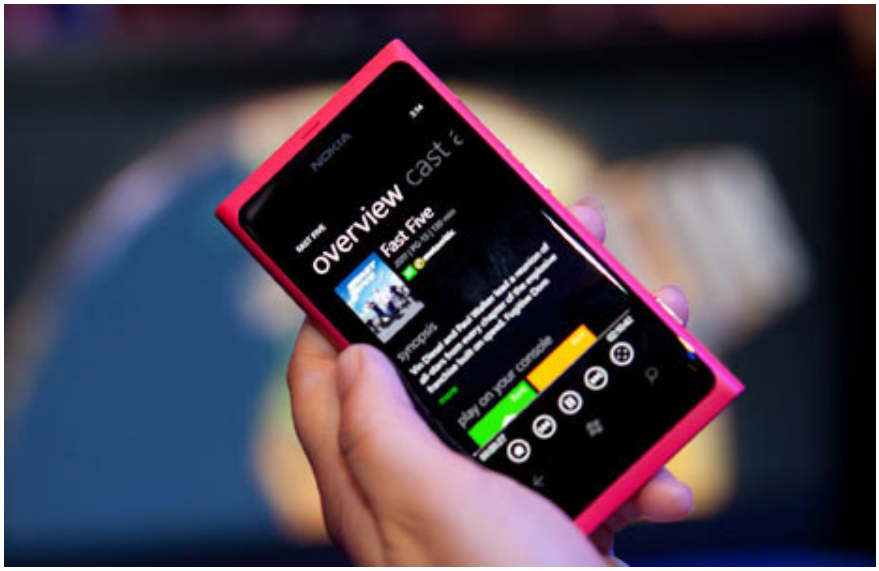
13. Mobile BRAVIA Engine

This screen technology is said to be specially designed to increase contrast, improve image and video quality, for the most natural color possible.

14. NOVA

It is also a variation of an LCD screen capable of extremely high brightness and power savings. This screen technology is used by LG on Optimus Black series.

15. ClearBlack



This is Nokia's screen technology. This screen provides better viewing angles and contrast.

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