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Thread: [\[Tutorial\]Types of LCD, screens panels.](#)

Lufasu - October 29, 2016, 3:41 pm

Planning to purchase a screen soon? Debating whether to save money gaming screen? What Technology best today?

So here in the background to give you the types of screens, and different technologies today.

First of all, let's start LCD and LED terms:

LCD Screen

The main technology of the screens today, consisting of two sheets of glass with liquid crystal technology works showing colors

With light irradiation from the back of the screen for each pixel. In other words, the action of light projection toward the liquid crystal quality color results on a thin screen.

LED screens

LED screens are actually LCD screens only more technologically advanced because of the different lighting type that uses LEDs. In the back corners of the screen or LED bulbs installed.

This technology is better for two reasons: less use of energy and heat and color quality. In other words, less smell, clarity, high contrast, dynamically and Atomtim.

Of course, more expensive but can be found in the present agree with quality.

Types of panels

TN panel

The panel abundant and cheapest on the market - can display up to 16.2 million colors and a 6-bit color depth, the panel response times that are the most low from the rest of the panels (1ms ~ 5ms)

But their limited viewing angle and uncomfortable. Once you looked at the screen from the side and looked dark or black? This is a screen with a TN panel.

Because of the fast response time you will see most of the screens with refresh rates of 120 ~ 144hz using a TN panel.

What this refresh rate? Refresh rate - how many images in one second the screen can display. This means that if a computer game works on more than 100fps

Or even reaches 160 FPS, then agree with a refresh rate of 144hz (There are also 165) will run the game in a faster and cleaner.

Today the refresh rate is 60Hz standard.

IPS panel

The panel more innovative and higher quality, more expensive of course, but also IPS monitors can find good and cheap.

IPS panel is characterized by a 16.7 million color and 8-bit color depth, wider viewing angles and color accuracy significantly superior IPS panel response ratio less fast (5ms ~ 8ms)

IPS monitors are excellent for gaming and graphic works. (Can also be called S-IPS)

VA panel

VA panel is almost identical with only IPS panel here more narrow viewing angles, similar to TN. There is less use of this type of panel is therefore day war between TN against IPS.

The question is what is better? IPS or TN?

IPS panel is a better quality and more luxurious, but many gamers no matter if it's an IPS or TN, therefore choose to invest in TN reason is simple lower response time.

Because you can invest time response (large amounts) screens 144hz or 165hz 4K but this also requires investment in computer games capable of reaching over 120 frames per second. However, gamers with limited budget prefer to spend more on high-quality IPS screen and a 60Hz relatively cheap, does not prevent them something that leaves a path of motion blur.

So no matter of what is better, but how much money we have.

(picture taken from google)

[Video: <https://www.youtube.com/watch?v=zNc2fKuVnGU>]

If you have any question or you need any monitor suggest / help , feel free to ask me.

**Pink-Tshirt** - *October 31, 2016, 12:06 pm*

Ohh it looks cool tho.

Thank you for all those infos !

**SirAlex** - *November 3, 2016, 2:14 am*

IPS all the way for me. I haven't considered any other panel since. Nice post btw, very informative.