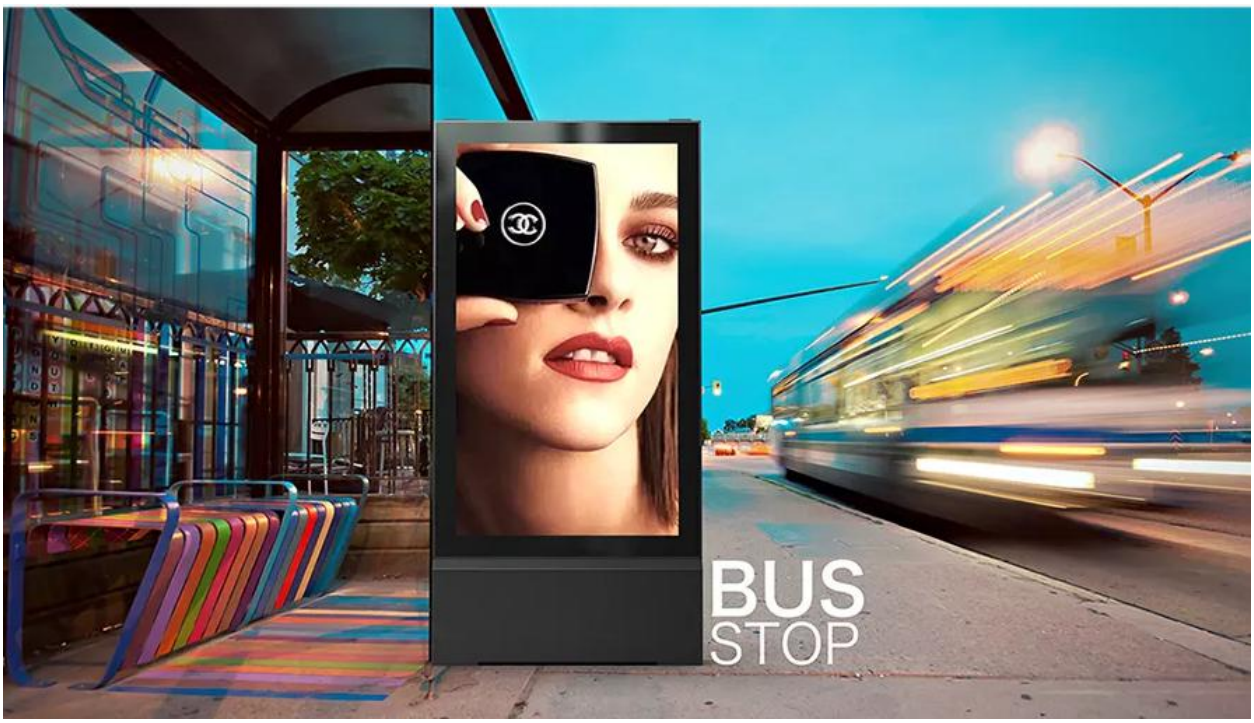
Top 10 Differences between LED Screen Display & LCD Screen Display

Technology has made considerable strides over the past few decades, which has made the world a global village. Electronic gadgets have become part of our daily lives thanks to the progress made in semiconductor chips and displays. Modern display technologies such as LED screen display have not only improved the output quality but also changed the way we used to interact with the output information. It is expected that the global market for micro-LED displays would reach $71.8 billion by 2027, and China's share of display production capacity will touch 60% of the global production.



Working Principle of LED and LCD

Display technologies, undoubtedly, are the backbone of modern electronic devices, but many users aren't even aware of what LCD and LED displays are and how they work. As the name suggests, LCD (liquid crystal display) is a type of display that relies on liquid crystals to form a picture. The special liquid crystals are illuminated by a backlight processed differently by each crystal, thus producing the final video result.

On the other hand, an LED screen display uses tiny light-emitting diodes that work individually based upon the input to deliver the final results. The diodes are so tiny and in such a large number that it is incredibly hard to notice them with a naked eye. It makes LED screen displays a far better technology than LCDs, which is why LED screen displays have replaced LCDs worldwide on most occasions.

Advantages of LCD and LED Displays

Regardless of the technology used, both types of displays have some advantages. For example, in the same small size of the screen, LCD screens provide higher pixel quality. However, the narrower viewing angle and unsuitable use in bigger places of LCD screens inconvenience us. Conversely, whether indoor LED displays or outdoor, LED screen displays are quite energy-efficient displays and can essentially display a limitless range of colors. Not only that, LED screen displays tend to have long service life with low maintenance. Lastly, LED screen displays tend to have a seamless connection and are less tiring for people who watch for a long time. Thus, LED screens are considered a great choice for most occasions.

Differences between LCD and LED Displays

Now that we have discussed the working principles of both the LCD and LED displays and their benefits, it is time to go through their differences, making it clear which display has the lead over another. The following are the top 10 differences for your reference:

Differences	LCD	LED
Luminance	LCDs tend to have lower luminance levels than LEDs due to the usage of liquid crystals.	LEDs are visibly brighter and therefore support higher luminance levels thanks to the usage of thousands of tiny diodes.
	LCDs take a longer time to process the image. Thus there is a gap in	The LED screen display is intrinsically seamless and is better

Connection	connection, which is also referred to as display lag.	suited for games and other high-end video requirements.
Color gamut	An LCD monitor or a TV has a smaller color gamut no matter which color gamut you measure.	LEDs, on the other hand, cover a wider color gamut due to their advanced backlighting system.
Pixel	The pixel quality of the same size, especially used in a small place, LCD is better than an LED screen.	LED displays have relatively lower pixel quality than LCD in a small place, but LED is preferred when used in bigger places. Because LED is lit by thousands of diodes, it is more capable of delivering a rich quality picture when used outdoors.
Response time	Typical LCD response times vary around 10 milliseconds.	Even an entry-level LED display has a response time of around 2-3 milliseconds, which is way faster than any LCD available out there.
Switching time	LCD panels have a slower switching time which is one of their main drawbacks.	Modern LEDs, such as iDisplay's LEDs, have an ultra-fast response time while also featuring rich colors and deep blacks.
Material	LCD uses liquid crystals that are sandwiched in between glass electrodes.	LED displays use a PN-junction diode that emits light upon receiving current.
Viewing angle	LCDs have limited viewing angles that decrease the contrast and make it harder to view at some angles.	The LED screen display has better viewing angles, especially the latest versions, such as the products from iDisplay.

Power consumption	LCDs are power efficient, but they cannot match the efficiency of an LED display.	LED displays, despite being richer in quality, can be up to 20-40% more power-efficient than LCDs.
Display area	LCDs have a sufficient display area or display size, but they aren't as big as LED displays.	LED display screens are significantly bigger than LCD screens due to the usage of light-emitting diodes.

Choosing the Right LED display Manufacturer

In light of the above comparison, it is safe to say that LED display screens and panels are far superior to LCDs. This claim is further supported by the increasing usage of LEDs on almost all the electronic devices manufactured nowadays. The increasing demand for electronic devices has forced companies to secure reliable supplies, and better LED display manufacturers and suppliers.

It is worth mentioning that iDisplay, a professional LED display manufacturer, will surely provide you the best service and products. We have gained tremendous success in a short span of time and therefore become an exporter to several countries worldwide. Our LED screen displays are welcomed by people worldwide, especially in Europe and America.

We produce various indoor and outdoor LED displays that include displays for museums, theaters, meeting rooms, conference screens, and traffic signs every year. The export-oriented business model of our company allows us to remain competitive in the industry by offering better and cost-effective solutions to clients around the world.

To conclude, we, iDisplay, have got all that a successful LED commercial supplier should possess. Our capability allows us to position ourselves in a favorable spot to cater to the varying needs of customers around the world and prosper in challenging times. Take some time to hear how we may help you.