

# What is IPS?



In-Plane Switching (IPS) was developed to address the main limitation of Liquid Crystal Displays (LCDs), the Twisted Nematic (TN) field effect. TN's limitations included a relatively high response time, narrow viewing angles, and low-quality color reproduction. IPS arranges and switches the molecules of the liquid crystal layer between the glass substrates providing accurate color reproduction at wide viewing angles with faster response times.

## IPS Advantages

IPS technology accurately displays an image's quality and color at a 178° ultra wide viewing angle. There is no fall-off in color accuracy and no diversion in contrast ratio at wide angles. From bright sunlight to the most challenging lighting environments these displays are designed to reproduce and maintain the ultimate color temperature for lifelike images.



## Crystal-Clear Picture Quality

LG's IPS technology is based on the horizontal alignment of liquid crystal molecules to deliver clear viewing angles with fast response times.

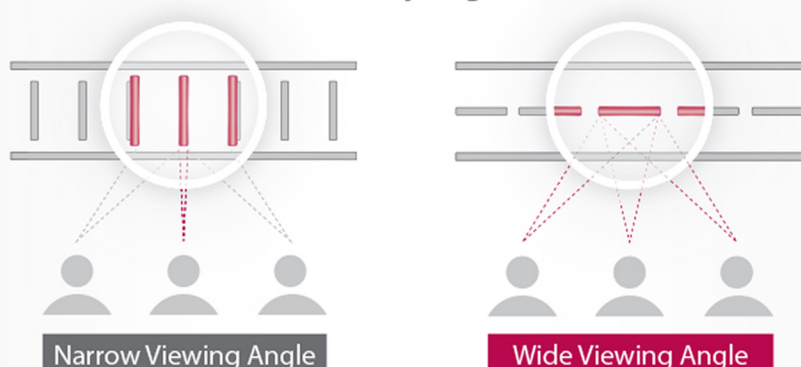
## Response Time

Measured in ms (milliseconds) response time refers to grey-to-grey transition time. Non-IPS displays have a slow response time leaving trailing pixels behind as an object moves across the screen.



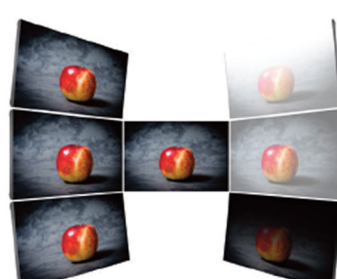
# The Technology

IPS panels are aligned in a horizontal direction resulting in superior picture quality and wider viewing angles to allow the best viewing from any angle.



## True Wide Viewing

Color shifts and distortions are eliminated from almost any viewing angle.



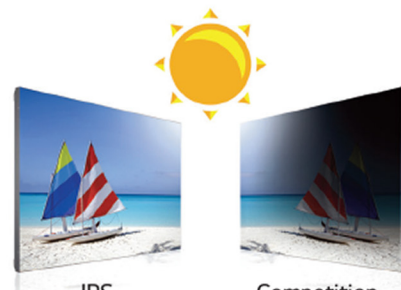
## Panel Stability

Minimizing image distortion and shows no tailing when external pressure is applied. There is no image distortion when external pressure is applied.



## No Blackening Defect

Display has a built-in temperature control that adjusts automatically to lighting conditions while eliminating dark or blackened areas.



## Low Power Consumption

IPS technology has high transmittance that provides high resolution at a lower power consumption.

# Examples of Solutions



## Retail

Shoppers will take notice of promotions and advertising before they are directly in front of the display.

**Transportation**  
As travelers pass by the display, they can read the entire message while keeping pace to their destination.



## Healthcare

Provide a comfortable environment for patients with IPS displays that can be viewed at wide angles.

**Corporate**  
As colleagues collaborate over work IPS monitors will show a clear image from almost all angles.



## Hospitality

Guests will appreciate watching clear images whether in bed or sitting at a desk.

# ROI

Increased Customer Engagement

Drive Impulse Buying

Content Easily Retained and Remembered

