

# Different Type Of Smartphone Displays In The Market

There are many different types of mobile phones with touch screens in the range of smartphones and it is important to know about them before buying one. In the past year, smartphones with large screens and touch screens have become really popular. In this article, we will try to explain the different types of **cell phone LCD** touchscreen displays and their advantages and disadvantages. So let us not waste any more time and get right to it.

#### TFT-LCD

TFT stands for Thin Film Transistor technology. A TFT LCD screen is the most common type of display used in mobile phones. TFT LCDs offer better image quality and higher resolution compared to previous generation LCDs, but their limitations are narrow viewing angles and poor visibility in direct light or sunlight.

Larger TFT screens consume more power so they are not compatible with batteries. But since these are manufactured more cheaply, they are found in budget phones, feature phones, and low-end phones. You can easily find a TFT LCD at any wholesale LCD screens distributor in UK.

#### **IPS-LCD**

IPS stands for In-Place. If you compare TFT to IPS, IPS LCDs are superior to normal TFT LCDs with wider viewing angles and lower power consumption, which improves battery life. IPS LCDs are more expensive than normal TFT LCDs, so they are only found in high-end phones. A high resolution version (640 x 960 pixels) of the IPS LCD display is used in the Apple iPhone 4 and is called the Retina Display because of its bright image quality.

#### **LCD Touch Screen**

Touchscreen LCDs come in two types: resistive and capacitive. A resistive touch screen consists of two layers of conductive material with a small gap between them that acts as a resistor. When the touch screen is touched with a finger (or stylus), the two layers meet at the contact point, creating a circuit at the contact point. This information is recognized by the mobile processor/chip and transmitted to the mobile operating system, thereby triggering events/actions at the touch point.

Resistive touch screens are not as responsive as capacitive touch screens and often require a stylus to accurately detect contact points. These are used only in low end smart devices and mobile phones.

#### **Capacitive Touchscreen LCD**

Capacitive touch technology consists of a layer of glass coated with a conductive material (such as indium tin oxide). When a person (finger) touches the capacitive

touchscreen, a break is created in the electrostatic field of the screen (measured as a change in capacitance) which is detected by the phone's design or chip and which determines the gesture and commands the phone to operate accordingly. Capacitive touch screen is very comfortable and responsive to human touch as compared to the opposite touch screen and hence the user experience for touch is better than in capacitive touchscreens. Capacitive touch screens are used in many high-end phones.

## **OLED Display**

OLED stands for Organic Light Emitting Diode and is a new technology for mobile type screens and display. In OLED technology, an organic layer (carbon-based) is used between two conductive sheets (anode and cathode), which is placed between the plates on the glass (label) and small glass (substrate). When electricity is applied to two conductive sheets, electroluminescent light is produced directly from the organic material sandwiched between them. Light intensity and color may vary depending on the electrical current.

OLEDs are superior to LCDs due to their exceptional color reproduction, fast response time, wide viewing angle, high brightness, and lightweight design.

## **AMOLED Display**

Full AMOLED stands for Active-Matrix Organic Light-Emitting Diode. So what is an AMOLED screen? AMOLED screens are a type of mobile OLED screen and are quickly gaining popularity in the high-end smartphone segment. AMOLED displays have all the features of OLED displays such as brighter color reproduction, lighter weight, better battery life, higher brightness and sharpness, and a lighter design. AMOLED displays are now entering the mainstream and many of the latest high-end smartphones such as the Nokia N8 come with AMOLED displays. If you can spare a bit, our advice is to go with AMOLEDs rather than TFT LCDs. If you look at the list of the best camera phones under 20,000, most are AMOLED displays.

### **Super AMOLED Display**

So which is better — AMOLED vs Super AMOLED? The Super AMOLED screen is a high quality AMOLED screen developed by Samsung. You can find these types of LCD screens at **Samsung LCD screen supplier** very easily. A Super AMOLED display is built from a touch sensor on the screen itself, instead of creating a separate touch layer (as in capacitive touch screens). This makes it the most important display technology in the market. Super AMOLED displays are also more responsive than other AMOLED displays. Samsung's latest high-end phone, the Samsung Galaxy S 19000, comes with Super AMOLED.

# **Retinal Exposure**

Retina display is the term Apple uses for their high resolution IPS LCD (with LED backlit) and OLED displays that they use on the Apple Watch, iPhone, iPad, Macbook and iMac. They call it a Retina display because the human eye cannot recognize its individual pixels, making the display very sharp and bright. Retina display started with iPhone 4. Apple now sells devices with different screens such as Retina display, Retina HD display, Liquid Retina HD display, Super Retina XDR display, Super Retina HD display or Retina 4K/5K display.

Now, the Retina 5K display can be seen on the 27-inch iMac Pro with a screen resolution of  $5120 \times 2880$ . The top display is the Retina 6K display found in the Pro Display XDr with a resolution of  $6016 \times 3384$ .

# **Haptic / Touch Screen**

Blackberry and Nokia have used Haptic technology for their mobile phones which are aimed at the business market. This technology provides tactile feedback and touch on the screen, giving the user instant and unmistakable confirmation. Haptic technology has been proven to improve efficiency, accuracy and user satisfaction when writing on a touch screen.

#### **Gorilla Glass**

Gorilla Glass is a special alkali-aluminosilicate glass screen with exceptional damage resistance that helps protect the mobile screen from scratches, bumps and scratches of daily use. Many mobile phone companies like Samsung, Xiaomi, Oppo, Vivo and Nokia use Gorilla Glass to make their phone displays durable and reliable. It is best to choose a phone with Gorilla Glass for the safety and peace of mind. The latest version is Corning Gorilla Glass 6, which claims to be the best protective glass to protect your mobile device from scratches.

# **Bottom Line**

This was the article and we hope it covered everything you needed to know. So the next time someone asks you about TFT vs IPS capacitive touchscreen or asks for advice on what kind of phone display, now you'll know better. There is one more piece of advice that you should keep in mind. Whenever you are looking to buy LCD screens for yourself, find a place where you can buy wholesale LCD screens in bulk. There you will be able to get the best products on the best deals as well.