

THE QUALITY OF THE DISPLAYS

available in the TFO offer

All displays are packed in a cardboard box with positioning blisters.

Each panel is secured with foil, which is to protect the screen from damage.

The glass on the touch panel is highly durable, which makes it more resistant to scratches and cracks.

AAAA / AAA SERIES

AAAA SERIES

The AAAA series is a higher quality LCD screens compared to the AAA series. The products have better brightness and color reproduction.

AAA SERIES

The AAA series is the basic market quality of LCD displays.

Similar to the AAA series, AAAA products have small components mounted. **These are holders for sensors, loudspeakers and the camera as well as sponges on the tapes** that prevent too much bending and detachment of the tapes while using the phone.

Both the AAA and AAAA series are used in screens from the iPhone 5 series to the iPhone 8 series, including the iPhone SE models.

iPhone X / 11 / 12 / 13 SERIES

The screens of the iPhone X series (i.e. the iPhone X, iPhone XS and iPhone XS Max models) use both Soft OLED and Hard OLED screens.

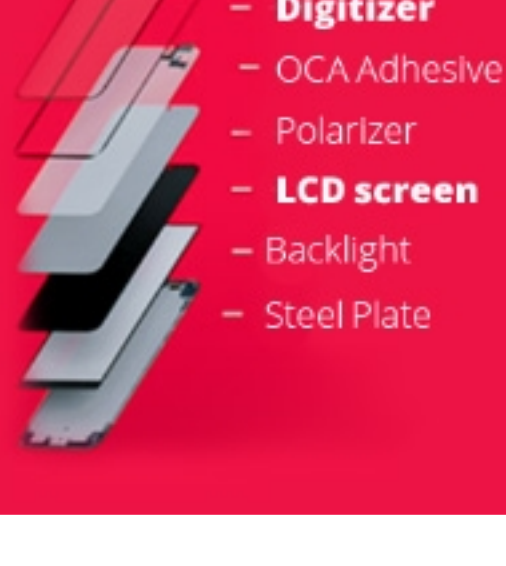
ONCELL

This is a basic variant of traditional LCD displays. The touch panel is not integrated into the screen making it thicker.

INCELL

It is a technology that allows the integration of a touch panel into the LCD display, making it possible to produce screens of less thickness. InCell also means a better quality of the displayed image, but they are more expensive than Oncell screens.

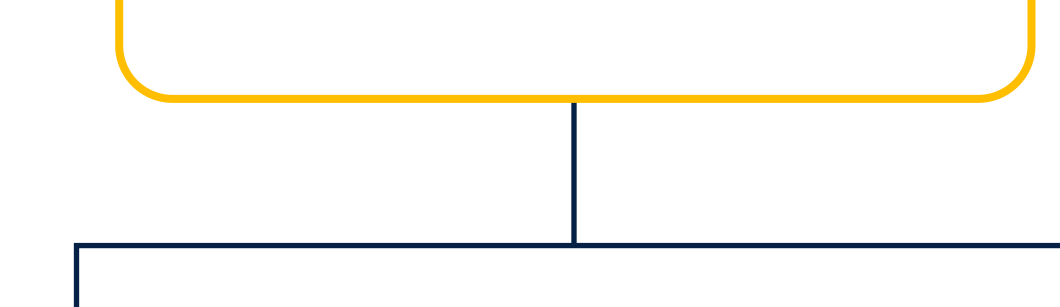
ONCELL



INCELL



HARD OLED

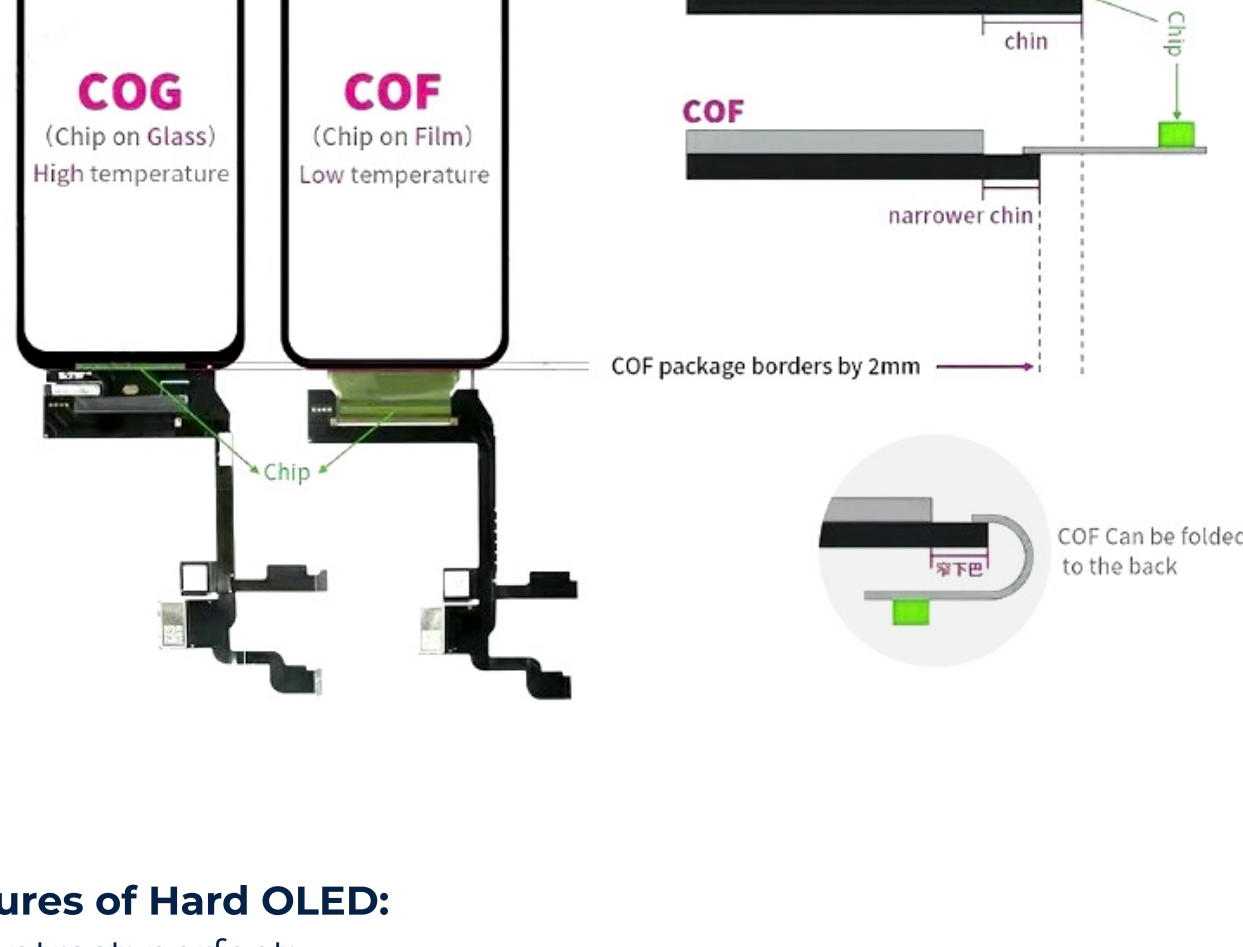


COG

Chip On Glass chip on glass is a method of putting the driver IC directly onto the glass substrate of the LCD screen.

COF

Chip On Flex is a control chip mounted on a flexible tape. This allows you to increase the ratio of the display size to the housing and reduce the bezels around the display by 1-2mm. Unfortunately, due to the difficulty and complexity of the production process, these displays are more expensive than those in the COG version.



Key features of Hard OLED:

- Color contrast: perfect;
- Color accuracy: good;
- Brightness: Excellent;
- Display Size: Smaller than the original (a thicker frame is used);
- Power consumption: equivalent to the original;
- Durability: Lower than original and Soft OLED;
- Price: lower than Soft OLED.

SOFT OLED

or flexible OLED

The original screens for the iPhone X series **have a soft OLED that allows the display to flex around the outer edges of the screen**. The flexible base provides it with greater durability by absorbing the energy of accidental hits on the screen surface.

Soft OLEDs are more expensive but match well with the iPhone X series display and **last longer compared to the quality of Hard OLED displays**.

The most important features of Soft OLED:

- Greater black depth and better contrast;
- High color display accuracy;
- Good screen brightness;
- Display size: equivalent to the original;
- Power consumption: equivalent to the original;
- Durability: equivalent to the original, higher than Hard OLED;
- The price is higher than Hard OLED

SERVICE PACK / SERVICE PACK +

Is refurbished original LCD or OLED display.

SERVICE PACK +

Is refurbished original LCD or OLED display. All elements are original except for the high-quality glass replacement.

SERVICE PACK

This means that, except for the display, all elements (touch panel, protective glass, small elements) are a high-quality replacement. Small elements are: camera holder, sensor holder, speaker plug and sponges on the tapes to prevent the tapes from bending too much and detaching when using the phone.

THE ORIGINAL

ORIGINAL

This is one hundred percent original product in the service package.

iPad Touch Panels

A high-quality glass is attached to the front. The whole panel is secured with a protective foil that protects the screen against possible scratches.

The Full Front Set information (in the product name) suggests that the kit contains all the necessary elements as for the original panel.

WHAT ARE LCD AND OLED TECHNOLOGIES?

There are two display technologies in smartphones - LCD (Liquid Crystal Display) and OLED (Organic Light Emitting Diode).

The main difference is that LCD screens do not emit their own light - the light source is the backlight, which is a separately foldable module attached to the LCD panel during the production process. **On the other hand, OLED displays emit their own light, do not require backlight and do not have it.** This is the most important difference compared to LCD technology, which makes it much better compared to LCD technology.

OLED

Advantages of OLED displays:

- Minimum thickness. Due to the fact that modern matrices do not have an LED backlight layer, they are thinner.
- Deep black color. The organic black LEDs are completely off and emit no light.
- Low energy consumption. OLED displays do not have LED backlight, which works continuously. This reduces the overall energy consumption of the matrix.
- Maximum viewing angles. Aligning the user with the display plane has no effect on the image quality.
- High contrast ratio. The possibility of obtaining deep blacks increases the contrast of the matrix.

The disadvantages include:

- High price. The technology of OLED displays is quite expensive, which is why they are usually assembled into more technologically advanced products.
- Burnout of organic light-emitting diodes - each diode in the OLED matrix emits light by itself, hence it has a limited life.
- Better viewing angles adversely affect whiteness. This one, depending on the case, can become blue or yellow.
- Power consumption is much higher than that of LCD technology.

LCD

Advantages of LCD displays:

- LCD screens are brighter than their OLED counterparts. This is indirectly related to the sharpness of the image - the edges are not so jagged.
- White is more natural.

Disadvantages of LCD displays:

- The disadvantages of LCD technology are a reversal of the advantages of OLED technology.
- The most important of them are: poor viewing angles, "gray black" and worse contrast.
- They are also thicker, which in the era of thinner smartphones is of great importance.