

# The display panel on the Galaxy S20 Ultra is the 'best ever made' panel, this is why

Samsung is the world's largest OLED manufacturer, and it's no surprise that they can make such excellent panels.

Samsung Galaxy S20 Ultra has just been officially launched at the Galaxy Unpacked 2020. In addition to the great upgrades in hardware configuration and camera technology, another factor on the S20 Ultra is also highly appreciated, that is the screen.

In fact, in recent years, the screen quality on Samsung Galaxy S and Note models has always been at the top of the smartphone world, and the S20 Ultra is no exception. Displaymate recently, a website that evaluates screen quality through various in-depth tests, has given an A + rating for the S20 Ultra's display quality, judging it to be a 'great platform' The best ever has been on a smartphone. '

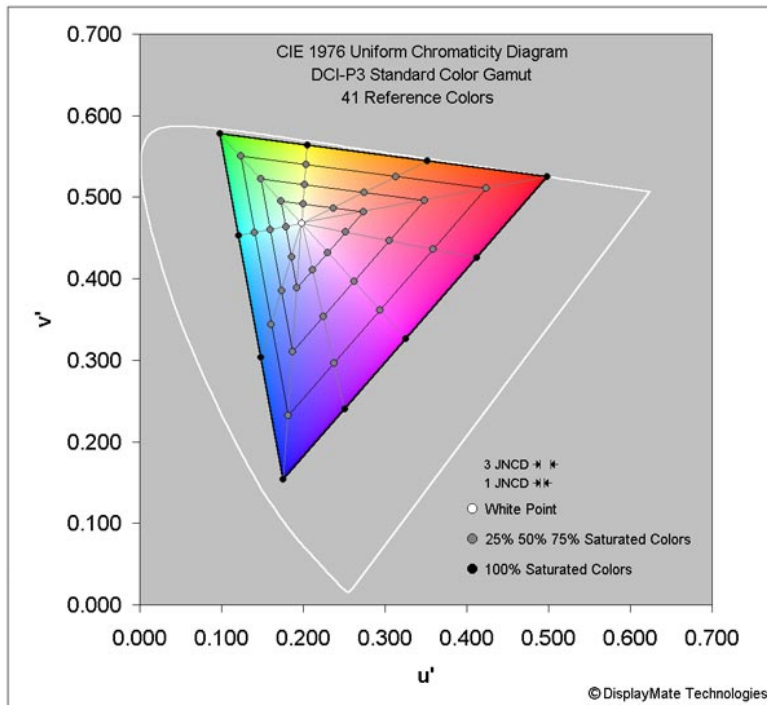
Galaxy S20 Ultra panel specifications:

1. Size: 6.9 inches
2. Type: Flexible OLED
3. Resolution: 3,200 x 1,440 pixels (3K Quad HD +)
4. Pixel density: 510ppi
5. Aspect ratio: 20: 9
6. Refresh rate: 120Hz

This panel broke Displaymate's test records of 12, including notably the highest peak brightness, highest contrast ratio and lowest screen reflectance - the core factors that determine the quality of the display. display amount of screen.

Also according to Displaymate, Samsung's latest flagship model has incredible color accuracy. Experts measured the screen's ability to reproduce colors using a spectrophotometer - a device that tests the wavelength and amplitude of the light waves emitted from the screen, compared to 41 reference colors, along with a Another reference model is called 1976 CIEity Chromaticity.

On this scale,  $\Delta E^*_{uv}$  = 0.0040 is equivalent to a specific Just Noticeable Difference (JNDC) - the difference between the color measured and the reference color. The Galaxy S20 Ultra panel has a JNDC of 0.5, which means the difference between the colors the display and the reference color is indistinguishable to the naked eye.



1976 CIEity Chromaticity scale.

In addition, the OLED screen of the Galaxy S20 Ultra also has an infinite contrast ratio. This is due to the way OLED works, allowing the panel to display a deeper black. The screen of the S20 Ultra can display the perfect black color at 0 lux.

To measure screen brightness, Displaymate used APL (Average Picture Level) scale, the results showed that the Galaxy S20 Ultra screen has a brightness that ranges from 823 nits to 1,342 nits, surpassing the smartphone models. Best screen brightness on the market today such as iPhone 11 (770 nits to 905 nits) or OnePlus 7 Pro (583 nits to 813 nits).

Samsung's new flagship also scores very low on the reflective scale, with a mirror reflection level of only 5.4% when measured with a spectrophotometer based on the reflection of a pencil beam off the screen. With such a low level of reflection, you can see exactly what is on the screen, rather than reflection under certain lighting conditions.

After all, Samsung is the world's largest OLED manufacturer, and it's no surprise they can make such excellent panels.

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