Samsung's 40-inch OLED goes full high-def

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Samsung SDI has been working on its prototype 40-inch OLED screen, already the largest OLED screen yet seen, and the latest model now offers full high definition.

The display was on show Wednesday at the FPD International exhibition in Japan alongside the 14-inch and 31-inch prototypes that Samsung displayed at the CES and IFA exhibitions earlier this year. Sporting a sign proclaiming "The world's 1st, world's largest," the display caught the eye of many show attendees and there was often a small crowd gathered around the family of prototypes.

Larger OLED (organic light-emitting diode) panels often attract people when on show because of the rich colors and bright, crisp images they can display. OLED technology is currently under development by companies like Samsung with an eye to it one day replacing LCD (liquid crystal display) as the screen of choice for televisions and other audio-visual displays.

In addition to their often-lauded picture quality, OLEDs have other advantages over current displays. The pixels in OLED screens contain an organic material that emits light when energized. That means an additional light source isn’t required, so the screens can be kept thin. It also helps reduce power consumption.

Samsung first announced development of a 40-inch OLED panel in 2005. At that time the
screen had a 1,280 pixel by 800 pixel resolution but the new panel has full high-def 1,920 pixels by 1,080 pixels, which in addition to being higher resolution than the previous model is also a TV panel resolution while the previous screen was a computer panel resolution.

Another change between the two models is a big jump in contrast ratio, from 5,000:1 on the previous prototype to 1 million:1 on the new screen.

There's no word on when any of these might make their way into commercial products.

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