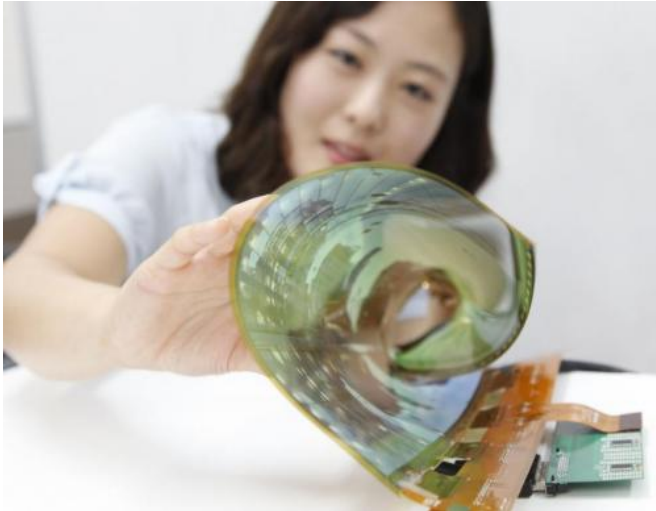


Roll-up TV is 18-incher, expect 60-inch plus by 2017

10 July 2014, by Nancy Owano



Credit: LG Display

Mention "new curved or flexible displays" and that is quite enough to get all the media dogs barking. Thursday's news went further. LG Display announced two new 18-inch OLED panels: the first is a transparent display, while the second can be rolled up into a tube.

The press release stated, "LG Display, the world's leading innovator of display technologies, announced today that it has developed a 18-inch flexible OLED panel that is rollable as well as a 18-inch transparent OLED panel. "The company's 18-incher has a level of flexibility where, yes, one can roll it up into a tube. The flexible OLED panel has a high-definition class resolution of 1200 X 810 with almost 1 million mega-pixels. The panel's curvature radius is 30R. Darren Quick of Gizmag commented on the numbers: "Unlike the aforementioned 77-inch flexible TV that has a fairly limited range of changeable curvature, LG Display's latest flexible OLED panel boasts a curvature radius of 30R. This means the 18-inch panel can be rolled up into a cylinder with a radius

of 3 cm (1.18 in) without the [function](#) of the 1,200 x 810 pixel display being affected."

A key material leading to LG's accomplishments has been its use of a "high molecular substance-based polyimide film" which LG chose to serve as the backplane of the [flexible panel](#) instead of conventional plastic, to achieve the maximum curvature radius. The polyimide film, said LG, helped reduce the panel's thickness and improve its flexibility.

As for Thursday's announcement of the transparent panel, expect better-looking pictures which will be less hazy. LG Display said it lowered the haze of the panel which is generated by using circuit devices and film components to a level of 2 percent.



Credit: LG Display

"Considering that the transmittance of existing transparent LCD panels is around 10 percent, this new panel offers significantly improved transmittance," said the company. The transparent OLED panel has 30 percent transmittance.

While 18 inches is not super-sized, the flexible panels prove, said LG Display, that it has the technology eventually to bring rollable TVs with screens in excess of 50 inches to market. The company wants the world to know that it is on track for larger, flexible screens in the future.

That LG Display keeps a trained focus on making news in display technology is already clear. Mike Wheatley commented in HDTVTest that "LG is the undisputed leader in the fledging [OLED](#) TV market, being the only manufacturer at this point in time to launch such products in 2014."

In fact, the company stated it is confident it will produce a 60in (152cm) Ultra HD rollable TV by 2017. "We are confident that by 2017, we will successfully develop an Ultra HD flexible and [transparent](#) OLED panel of more than 60 inches, which will have transmittance of more than 40 percent and a curvature radius of 100R, thereby leading the future display market." said In-Byung Kang, senior vice president and head of the R&D center at LG Display.

More information: *

[www.koreaitimes.com/story/387 ... nsparent-oled-panels](http://www.koreaitimes.com/story/387...nsparent-oled-panels)

* www.lgdisplay.com/

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