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OLED TVs Hit Prime Time

Sales of OLED (Organic Light Emitting Diode) TVs grew 60% in 2018 in the U.S. and are set to roughly do so again in 2019.

OLED Unit Shipments – U.S. Market

Year	2017	2018	2019	2020	2021	2022
Volume	532	850	1,350	1,850	2,500	3,000
Growth Year over Year		60%	59%	37%	35%	20%

Source: CTA Market Research

"OLED to many consumers is still a very new technology," says John Taylor, senior vice president at LG Electronics USA. OLED technology was originally invented by Kodak scientists in 1987. The technology was first introduced in televisions in 2008. "We're now in the 5th generation OLED," notes Taylor.

OLED has many advantages over today's dominant LCD technology.

Comparison to LCD

LCD TVs have three layers: backlighting, then the pixels and then a layer of shutters. The backlighting layer is on continuously and it illuminates the pixels in the second layer. When the image called for is black, the third layer of shutters come into play and shut. But some light will still seep through. Because there are three layers LCD TVs are thicker and heavier than OLEDs.

Superior Picture Quality

By contrast, OLED allows each individual pixel to be turned on and off. So, in a 4K TV that means all 8.1 million pixels can instantly be turned on or off. As a result, the blacks are blacker in an OLED TV because there is literally no light. It also means that the contrast is sharper and colors are brighter.

Ultra Thin and Lightweight

With only one layer, OLED panels are not only lighter, but ultra thin. At CES 2019, LG showed off its "Wallpaper" OLED TV that is only 2.57 mm thick (one tenth of an inch). In 2019 LG will be releasing a 65-inch rollable TV — that scrolls out of a box for viewing. Other brands selling OLEDs globally include Sony, Panasonic, Toshiba, Philips, Hisense and Bang & Olufsen.

Dramatic Price Drop

OLEDs are found in higher end TVs that are 55-inches and larger. OLED costs have been dropping dramatically. In 2013 OLED costs were 16 times greater than average sized LCDs. By 2022, the cost difference is predicted to be three times less, notes Steve Koenig, vice president of market research for CTA.

In the 55-inch TV category and larger, the price difference is slightly double that of LCDs and will remain so until 2022, says Koenig.

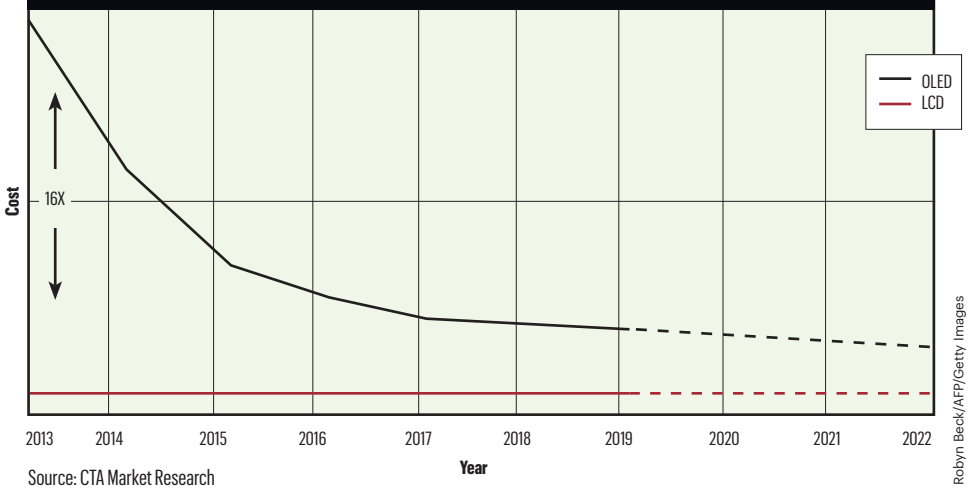
OLEDs will only make up 3% of the 42 million TVs that will be sold in 2019 in the U.S., but they will represent 10% of the total market revenue because they are the premium, large format TVs. By contrast LCDs are a mature, stable technology and sell in high volume accounting for 97% of the market.

By 2022 OLEDs are predicted to represent 8% of the unit volume of the U.S. TV market but will make up more than 20% of the total revenue, according to CTA.

The rapid growth of TV set sales is in TVs that are 55-inches and larger (both in the U.S. and globally). A staggering 33% of all TVs sold in 2025 will be 60-inch or larger according to IHS Markit. ■

Jim Harris is the author of Blindsided. *Follow him on Twitter @JimHarris or at jim@jimharris.com*

Digital Displays Cost



Source: CTA Market Research

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