

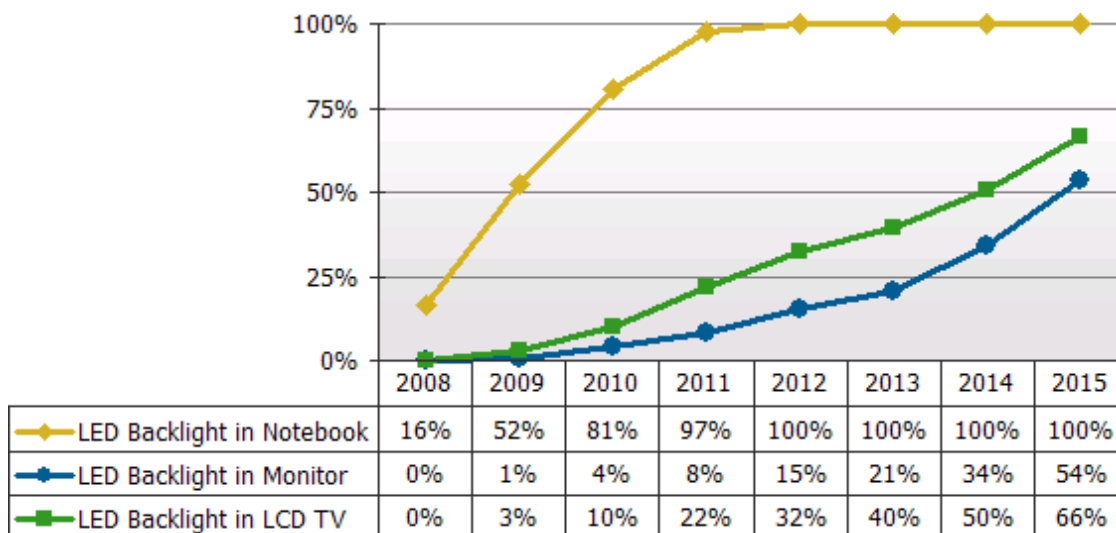
■ LED Backlight Penetration Rate in LCD TVs Expected to Grow to 40% in 2013 and Surpass CCFL Backlights in 2014; 100% of Notebooks Forecast to have LED Backlights by 2012

AUSTIN, TEXAS, July 29, 2009—The LED backlight market has rapidly emerged in the [TFT LCD industry](#) and is expected to continue growing for the next five years, according to DisplaySearch's latest [Quarterly LED & CCFL Backlight Report](#). Specifically, [DisplaySearch](#) forecasts the penetration rate of LED backlights for LCD TVs to grow from less than 3% in 2009 to 40% in 2013 and surpass CCFL backlights in 2014 with more than 50% penetration rate.

Meanwhile, large-area LED backlight shipments for all applications will grow from 84.9 million units in 2009 to 434.8 million units in 2013, when LED backlights will be used in 54.3% of 10"+ TFT LCD panels. Thus, LED backlights will become mainstream in the TFT LCD industry.

While LED backlights for LCD TVs are growing rapidly, notebook PCs are the leading application for large-area LED backlight units, and DisplaySearch forecasts that 100% of all new notebook models will have LED backlights by 2012. Figure 1 shows the large-area LED backlight penetration in each application.

Figure 1: Large Area LED Backlight Unit Penetration Rate by Application



Source: DisplaySearch Q2'09 *Quarterly LED & CCFL Backlight Report*

Backlight units for LCD TV are expected to be the next growth opportunity for the LED industry, with leading brands such as Samsung, LG, Sharp and Philips all expected to mass produce LED backlit LCD TVs in 2010. As a result, LED backlight units for TVs will grow to 3.6 million units in 2009 and 15.1 million units in 2010.

Companies like Samsung are focusing on the development of edge-lit LED backlights, which can reduce the bill of materials by 30-40% compared to direct-lit models. "Edge-lit LED backlight units for LCD TV are a temporary solution to drive costs down to open market acceptance for 'LED TV' as short-term marketing strategy," noted [Luke Yao](#), DisplaySearch Research Director. "Consumers want a low-cost solution with acceptable picture quality, but aren't always willing to pay a higher premium—making edge-lit LEDs an ideal near-term solution."

For the monitor segment, cost and performance remain bottlenecks for panel manufacturers creating LED backlit monitors. Taiwanese panel makers like AUO and Innolux have been the most aggressive in developing LED monitor panels. Because LED monitor panel sizes (18.5"W, 21.5"W, 23.6"W and 24"W) are also used for TV, DisplaySearch refreshed its forecasted penetration rate for LED monitor backlight units to 21% in 2013. Currently panel makers are putting efforts into shrinking the LED backlight premium to \$3-5 for 18.5"W panels. From 2010, we expect that LED backlight monitors will be developed and supported by brand name makers.

The DisplaySearch *Quarterly LED & CCFL Backlight Report* covers backlight unit capacity, backlight unit value chain, backlight unit cost structure by size, backlight unit shipment and revenue forecast by technology, CCFL capacity, CCFL supply chain, CCFL shipment and demand forecast, and LED technology introduction with its application in backlight unit. The report also provides an analysis of large-area LED backlight unit cost structure and cost trends for notebooks, monitors

and LCD TVs and an extensive overview of LED backlit TVs. For more information on the DisplaySearch *Quarterly LED & CCFL Backlight Report*, contact Charles Camaroto at 1.888.436.7673 or 1.516.625.2452, email contact@displaysearch.com, or contact your regional DisplaySearch office in [China, Japan, Korea or Taiwan](#).

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