

■ Flat Panel Revenues Look Flat Over Long Term After 8 Years of Growth; OLED Revenues for TVs Expected to Increase at a 140% CAGR from 2008-2016

AUSTIN, TEXAS, July 9, 2009—After rising at a compound annual growth rate (CAGR) of 20% from 2000 to 2008, [flat panel display \(FPD\)](#) sales revenues may rise only 1% each year from 2008 to 2016, according to the latest results in the [DisplaySearch Quarterly Worldwide FPD Forecast Report](#). The Q2'09 forecast indicates FPD revenues will decline 20% from 2008 to 2009, as slack demand affects end-product markets in developed countries. Despite this, the outlook for 2010 is more positive, with an annual revenue growth of 13% in 2010.

“Despite the overall flat outlook for FPDs, there are some bright spots in the long-term for flat panel displays,” noted [David Barnes](#), Vice President of Strategic Analysis. “Hot applications such as OLED TV, eBook, mini-note PC (netbooks), digital picture frames and public displays are all driving demand. We expect electrophoretic and OLED technologies will experience more growth than other display technologies will over the long term.”

Flat panel revenue for the five FPD applications will provide strong growth opportunities for display manufacturers, as listed in Table 1. The [Quarterly Worldwide FPD Forecast Report](#) forecasts OLED revenues from TV applications will increase at a CAGR of 140% from 2008 to 2016. Demand for electronic books will lift revenue of electrophoretic and similar display technologies at a 49% CAGR. Several technologies, TFT LCD in particular, support public display applications such as out-of-home advertising, which is forecast to grow 20% a year—reaching almost \$3 billion in 2016. Mini-notes have become a hot new application, and DisplaySearch expects panel revenue for such products will rise 15% a year to more than \$2 billion in 2016. Digital picture frames became a hot market in 2007, and this application may still support revenue growth of 11% per year.

Table 1: Top Five FPD Applications by Revenue Growth (US\$ millions)

Application	CAGR 2008–2016	2009	2016
OLED TV	140%	\$2	\$2,371
e-Book	49%	\$246	\$1,684
Public Display	20%	\$784	\$2,994
Mini Note	15%	\$1,168	\$2,386
Digital Picture Frame	11%	\$359	\$1,300

Source: DisplaySearch [Quarterly Worldwide FPD Forecast Report](#)

From a technology standpoint, DisplaySearch research foresees an end to CRT shipments to desktop monitor makers this year. Some CRT monitor business may survive in emerging markets, but DisplaySearch sees little demand for such products after 2009. CRT revenues from TV applications will decline 34% each year from 2008 to 2016 as the price-performance of LCD and OLED TV sets improve.

Among FPD technologies, DisplaySearch forecasts panel revenues from LCD TV sets will not grow substantially from 2008 to 2016. Price declines and commodity demand for sets smaller than 50” will constrain sales, even though LCD TV will remain the most significant application for panel makers. Revenue for LCD and other technologies for mobile phone applications will become the second largest market, as shown in Table 2, which is forecast to 6% a year to more than \$20 billion in 2016. Conventional notebook PC displays will become a larger market than desktop displays by 2015, with panel revenue for conventional notebooks expected to rise 3% a year to almost \$15 billion in 2016. Panel revenue for desktop monitor and plasma TV applications may decline 6% and 7% a year, respectively, as these applications are replaced by other PC and TV products.

Table 2: Top Five FPD Applications by Annual Revenue (US\$ millions)

Application	CAGR 2008–2016	2009	2016
LCD TV	0%	\$33,585	\$37,117
Mobile Phone	6%	\$12,813	\$20,776
Notebook PC	3%	\$7,632	\$14,857
Desktop Monitor	-6%	\$13,601	\$12,429
Plasma TV	-7%	\$4,219	\$3,412
Total FPD Market	1%	\$82,599	\$111,451

Source: DisplaySearch [Quarterly Worldwide FPD Forecast Report](#)

The DisplaySearch Quarterly Worldwide FPD Forecast Report details shipments of 23 display technologies for 36 applications by quarter from 2007 through 2016. Pivot tables provide clients with measures of display area, units, prices and revenue for each combination. The summary report evaluates trends from 1998 onwards. For more information, contact Charles Camaroto at 1.888.436.7673 or 1.516.625.2452, e-mail contact@displaysearch.com or contact your regional DisplaySearch office in [China, Japan, Korea or Taiwan](#).

Register now for DisplaySearch's *Fall Conference Series*, taking place September 1-3 in San Jose, California. DisplaySearch will host three, one-day conferences covering the display industry's hottest market segments:

- [*Digital Signage Conference: Flat Panel Displays Go Out-of-Home*](#), Tuesday, September 1, 2009
- [*TV Ecosystem Conference: TV After the Digital Transition—Finding the Next Big Thing*](#), Wednesday, September 2, 2009
- [*Emerging Display Technologies Conference: Innovation for the Next Wave of Growth*](#), Thursday, September 3, 2009

For more information about these conferences and sponsorship opportunities, please contact Laura Castellano at 1.408.226.1101 or laura.castellano@displaysearch.com. Media interested in attending the conferences should contact Stacey Voorhees-Harmon at 1.925.336.9592 or stacey@savvypublicrelations.net.

About DisplaySearch

DisplaySearch, an NPD Group Company, has a core team of 57 employees, located in Europe, North America and Asia, who produce a valued suite of FPD-related market forecasts, technology assessments, surveys, studies and analyses. Visit the [DisplaySearch blog](#) to read about how our top analysts are interpreting up-to-the-minute issues that impact the display industry, and join us in this discussion about technology and the flat panel industry. The company also organizes influential [events](#) worldwide. Headquartered in Austin, Texas, DisplaySearch has regional operations in Chicago, Houston, Kyoto, London, San Diego, San Jose, Seoul, Shenzhen, Taipei and Tokyo, and the company is on the web at <http://www.displaysearch.com/>.

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Contact

To contact DisplaySearch, call 1.888.436.7673 or 1.516.625.2452 or email contact@displaysearch.com

Media contact Stacey Voorhees, 1.925.336.9592 or email media@displaysearch.com
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