

■ Area Demand for TFT LCD Optical Film to Grow 11% in 2010

AUSTIN, TEXAS, January 12, 2010—Price erosion and cost reduction pressure from TFT LCD makers are having strong impacts on the TFT LCD optical film market. In its recently-released [Quarterly Display Optical Film Report](#), DisplaySearch reports that demand for all TFT LCD optical films is expected to grow from 543 million square meters in 2009 to 606 million square meters in 2010, up 11% Y/Y. However, due to price declines, TFT LCD optical film revenues are expected to stay flat at \$9.1 billion. On the other hand, growing interest in green LCD TV panels and LED backlights are driving new backlight designs to add more prism films, reflective polarizers or micro-lens films, creating new opportunity for film makers who can provide improved technology.

DisplaySearch defines TFT LCD optical films to include polarizers, which linearly polarize the light in to and out of the LCD panel, and backlight optical films, which are films or sheets that improve optical efficiency, recycle light in the backlight system, or diffuse brightness for uniformity. Backlight optical film types include normal and multi-functional prism sheets, and micro-lens, reflective polarizer, diffuser and reflector films. While polarizers represent approximately one-third of total area, they account for approximately two-thirds of revenues, as shown in this table:

Table 1: TFT LCD Optical Films Shipments and Revenues (Millions of Square Meters, Millions of Dollars)

Film	Type	Shipments 2009	Shipments 2010	Y/Y	Revenues 2009	Revenues 2010	Y/Y
Polarizer Films		186.4	210.3	13%	\$6,336	\$6,458	2%
Backlight Films	Reflector	93.8	105.9	13%	\$346	\$352	2%
	Diffuser	121.4	130.4	7%	\$465	\$451	-3%
	Reflective Polarizer	18.5	20.0	8%	\$629	\$618	-2%
	Micro Lens	50.3	55.5	10%	\$357	\$296	-17%
	Multi-Function Prism	12.0	12.8	6%	\$181	\$173	-5%
	Normal Prism	61.4	71.1	16%	\$792	\$752	-5%
	Sub-Total		357.4	395.8	11%	\$2,770	\$2,643
Total		543.8	606.1	11%	\$9,106	\$9,101	0%

Source: Q4'09 [Quarterly Display Optical Film Report](#)

Increased demand in display area is leading polarizer and backlight films to grow by 13% and 11% Y/Y, respectively. But while polarizer revenues will benefit from LCD TV, resulting in 2% Y/Y growth, backlight films are facing price pressure and are expected to decline by 5% in 2010.

“Polarizers are essential for LCD panels, especially in wide viewing angle applications, while films that improve the brightness of the backlight and the LCD module are very important for cost reduction and green panel design; both grow with panel demand,” noted [Brian Chen](#), DisplaySearch TFT LCD & Materials Research Director and the author of the [Quarterly Display Optical Film Report](#). “However, cost pressure in the optical film market is limiting revenue growth. As this trend is likely to continue for the next few years, making technical improvements to reduce production and materials cost is the most critical focus for polarizer and backlight optical film suppliers.” Chen added, “Especially in LCD TV, where power consumption is a major focus of set design, panel makers need to reduce the number of lamps and LEDs, using prism sheets to maintain brightness. Prism sheets are gradually becoming a requirement in LCD TV panels, which will support increases in prism film average area price and help to reverse the revenue decline.”

The DisplaySearch [Quarterly Display Optical Film Report](#) is ideal for panel buyers, film makers and product planners interested in details of optical film technology and market dynamics. Polarizers, TAC, PVA, compensation films, surface treatment films, wide viewing angle films, prism sheets, micro-lens films, reflective polarizers, diffusers, and reflector films are covered in the report. The report covers basic introduction, technical evolutions, market forecast, capacity profiles, value chain relationships, as well as cost and price, for each of these films. For information on the DisplaySearch [Quarterly Display Optical Film Report](#), 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](#).

The DisplaySearch 12th Annual [USFPD Conference](#), called "Laying the Foundations for the Next Wave of Growth: Energy Efficient & Low Cost Alternatives Lead the Way" will be held March 2-3, 2010 at the Hilton San Diego Resort in San Diego, California. The event will focus on all major and

emerging flat panel display applications, as well as key components and materials related to the supply chain. To view the agenda and register, visit www.displaysearch.com/usfpd. Register by January 25, 2010 to receive the early bird discount and save \$400! Media interested in attending the *USFPD Conference* should contact Stacey Voorhees-Harmon at stacey@savvypublicrelations.net or call +1.925.336.9592.

About DisplaySearch

Since 1996, DisplaySearch has been recognized as a leading global market research and consulting firm specializing in the \$770 billion display supply chain, as well as the emerging photovoltaic/solar cell industries. DisplaySearch provides trend information, forecasts and analyses developed by a global team of experienced analysts with extensive industry knowledge and resources. In collaboration with the NPD Group, its parent company, DisplaySearch uniquely offers a true, end-to-end view of the display supply chain from materials and components to shipments of electronic devices with displays to sales of major consumer and commercial channels. For more information on DisplaySearch analysts, reports and industry events, visit us at <http://www.displaysearch.com/>. Read our blog at <http://www.displaysearchblog.com/> and follow us on Twitter at [@DisplaySearch](https://twitter.com/DisplaySearch).

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