



**Global and China TFT-LCD Industry  
Report, 2014-2015**

**Nov. 2014**

## STUDY GOAL AND OBJECTIVES

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

## REPORT OBJECTIVES

- ◆ To establish a comprehensive, factual, annually updated and cost-effective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- ◆ To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- ◆ To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- ◆ To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- ◆ To help company to succeed in a competitive market, and

## METHODOLOGY

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications.

Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

## INFORMATION SOURCES

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

## Abstract

Global and China TFT-LCD Industry Report, 2014-2015 contains the following aspects:

- 1, Introduction to TFT-LCD
- 2, Research on TFT-LCD upstream industries (glass substrate, backlight module, polarizer, driver IC)
- 3, Analysis on TFT-LCD market and industry
- 4, Study on 12 TFT-LCD vendors

The TFT-LCD industry touched the bottom in 2011, then has warmed up slowly since 2012 and is expected to reach its peak in early 2015, but it will fall into another lengthy decline stage by 2016. After the TFT-LCD industry slumped, TFT-LCD vendors in different countries chose varying countermeasures. South Korean vendors represented by Samsung strived to explore the OLED field. In Japan, Sharp transferred to be a small and medium-sized panel vendor, produced mobile phone panels with 8.5-generation lines and vigorously developed IGZO technology. Hitachi, Sony and Toshiba set up a joint venture ----- Japan Display (referred to as JDI) to develop LTPS technology. Taiwanese vendors developed 4K HD technology. Chinese mainland vendors promoted the construction of new production lines at low costs aggressively. As a result, Chinese mainland vendors are the most notable winners, followed by Taiwanese and Japanese counterparts, while Samsung is the biggest loser.

### Ranking of Global Major TFT-LCD Panel Vendors by Revenue, 2012-2014

USD mln

	2012	2013	2014E
AUO	12,638	13,370	13,308
INNOLUX	16,305	14,271	14,098
LG Display	25,998	24,688	24,690
CEC-Panda		556	602
BOE	4,084	5,456	5,618
CSOT	1,147	2,509	3,260
Sharp	10,585	9,980	9,820
Samsung	19,611	15,360	14,061
CPT	1,629	1,982	1,970
Hannstar	1,207	1,061	720
Tianma	1,820	1,710	1,640
Japan Display	5,718	6,218	7,280

South Korean vendors chose the wrong direction, because the current-based OLED can not replace the voltage-based LCD due to following factors. Firstly, OLED requires LTPS technology, which means its cost is much higher than LCD. Secondly, the resolution of current-based components is difficult to raise, but LCD has huge potentials in terms of resolution. Thirdly, OLED's quality is not steady for its employment of unstable chemical materials, and its luminous efficiency decays as time goes by, which is another fatal flaw. In the small and medium-sized field, Japanese vendors make advantage of LTPS and IGZO to occupy technical high grounds, and Taiwanese vendors lead the global LCD trend with 4K for the first time.

Samsung shows over-reliance on OLED, and its LCD business has gradually crept down. It not only lags behind INNOLUX under Taiwan's Hon Hai in shipment, but also will drop behind INNOLUX in terms of revenue in 2014. As for profitability, Samsung gets into trouble as well. Being overly optimistic on the Chinese mainland market, Samsung invested heavily in China's first foreign-funded 8.5-generation line in Suzhou. However, the production line brought the huge loss of KRW86.6 billion in the first half of 2014. Besides China, Samsung also witnessed loss in its overall LCD business in Q2 2014. Samsung has revealed that it will not launch any new OLED TV, even it may quit the OLED TV field in 2015.

Unlike Japanese and South Korean vendors who represent excess dependence on large customers such as Apple and Samsung, Taiwanese vendors take the initiative to reduce dependence on a single large customer. Therefore, the performance of Taiwanese vendors fluctuates slightly and their operating margin ascends faster, whereas Japanese and South Korean vendors who master first-class technology see falling profit owing to the considerable idle capacity during low seasons but have to give up some small customers in busy seasons.

Currently, the prices of 32 to 42-inch LCD-TV panels have stabilized and tend to rise marginally before the peak season, while the prices of 42 to 65-inch LCD-TV panels follow the downward trend as LG Display and Samsung put two 8.5-generation lines into operation in the first half of 2014. In 2015, CSOT's second 8.5-generation line, Chongqing BOE's second 8.5-generation line and CEC-Panda's first 8.5-generation line will target at the 46 to 65-inch TV market, but the output will not be high in the initial stage, so they will not influence the market significantly. On the whole, China will have five 8.5-generation lines in 2015.

As China enters the aging society increasingly, the economic growth has slowed down. In this case, the TV demand will drop down undoubtedly, and serious oversupply will arise in the second half of 2015, leading to the inevitable price war. High fixed costs and depreciation charges of new production lines will seriously erode the profits of vendors.

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- 1.1 TFT-LCD Structure
- 1.2 TFT-LCD Production Process
- 1.3 LTPS
- 1.4 Competition Analysis between LGZO and LTPS
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