

China Handset Display Industry Report, 2006-2007

https://marketpublishers.com/r/C4D76F3DA0BEN.html Date: June 2007 Pages: 172 Price: US\$ 1,800.00 (Single User License) ID: C4D76F3DA0BEN

Abstracts

Among all the handset non-semiconductor components, display shares the largest proportion in terms of cost.

OLED shares a negligible proportion, while TFT-LCD is absolutely prevailing with the proportion of over 60%. Furthermore, due to the sharp decline, the proportion of CSTN will drop to below 10% in 2007, and CSTN manufacturers will secede from the mobile phone field in 2008, the reason for this is quite simple: considering the equivalent prices but largely different performances of TFT-LCD and CSTN, manufacturers will choose TFT-LCD undoubtedly.

As for the black and white screen, it will be applied in some of the ultra-low price handsets with the proportion of about 8%, which will decline to about 5% in 2009, a lower speed than CSTN. In addition, considering the power consumption, the auxiliary display of mobile phones will still mainly apply Color STN.

Seemingly, OLED enjoys lots of advantages; however, it also has a fatal defect: TFT-LCD costs merely half or less compared with OLED of the same size. Without absolute advantages in performance, the sole merit of OLED is its thinness, yet at least 0.5 mm thinner than others, so comparatively speaking, the advantage isn't apparent. Additionally, in the year of 2006 when bar phone and slide phone dominated, the output of clamshell mobile phones descended remarkably. The originally prevailing auxiliary screen market of OLED also shrank a lot, which became another disaster of OLED; quite a few OLED manufacturers had to face bankruptcy and many small- and mediumsize enterprises stopped all the activities in OLED field as well.

TFT materials include traditional a-Si and LTPS which was widely used in recent years. To high-end products that have higher demand in definition, a-Si has an inborn drawback - relatively small aperture ratio caused by inferior carrier mobility, and this has



become a hard-to-break limitation. By contrast, thanks to the different recrystallization technology, LTPS is superior in carrier mobility and aperture ratio. However, the demand for LTPS handset panels is in small amount for the time being. According to the clients' product layout, LTPS module market may become heater from late 2006 to early 2007. Generally, LTPS module market mainly concentrates in PDA and DC fields, because the panel must be bright enough and have superior resolution so as to support outdoor reading; merely in recent years, LTPS was adopted by highend mobile phones.

In terms of manufacturers, Samsung SDI and Philips all declined largely, mainly attributed to the fact that they are lack of powerful support in TFT-LCD panel production line. Philips' TFT-LCD panel in Kobe doesn't exert its role seemingly, and it may be spurned or sold after being purchased by TPO which has its own LTPS TFT-LCD panel production lines.

As to the market, 2006 is a hard season. The conditions that supply exceeds demand remained for about a year, and the main products depreciated by 100% or more this year.

At the beginning of 2005, since a large amount of TFT-LCD Generation V production lines were put into operation, the production lines of Generation I-IV had to face the transformation, especially the Generation II and Generation III which would have no competence if continuing the large-size LCD panel production, so these manufacturers successively began to produce small-size LCD panels. In the second half of 2005, the supply volume of small-size LCD panels rose sharply, which caused an excessive supply; on the other hand, the display industry originally having large gross profit margin enjoys a space for depreciation, so the price declined continuously. By the end of 2006, the price had dropped to the lowest limit acceptable to manufacturers, while the market demand for large-size and high resolution handset display remained vigorous, so the overall price of display began to rebound.

The sales revenue of most handset display manufacturers decreased, especially for manufacturers in Taiwan and mainland China. WINTEK, Taiwan's largest handset display manufacturer, only realized sales revenue of NTD 32.6 billion, down by 59% over the RMB 52 billion in 2005; and the net profit before tax declined by over 100%. However, there were also rising manufacturers, such as AVIC Huatian (Chengdu) Science Co., Ltd. which made preparation in the second half of 2005 and put into operation in 2006 but earned profits from the sales of RMB 100 million in mid Dec 2006. Late comers strictly controlled the cost from the beginning, so they adapted well to the



rapid depreciation of products, while it takes time for old manufacturers to be regulated.

However, after the first quarter of 2007, the demand for high resolution panels increased a lot. Additionally, due to the unprosperous technical transformation of production lines from large-size to small-size panels, the supply began to fall short of the demand, so most manufacturers are intending to raise product prices.



Contents

- 1 Overview of handset display industry
- 1.1 Brief introduction to the industry chain
- 1.2 Process flow for handset display production
- 2 Status quo and development trend of handset display
- 2.1 Technology
- 2.2 Size and solution
- 2.3 Color fields
- 2.4 Trend of price
- 3 Overview of China handset industry
- 3.1 Status quo
- 3.2 Ranking of manufacturers in China handset industry
- 3.3 Ranking of major manufacturers in China handset market
- 4 Status quo and future trend of handset display industry
- 4.1 Market shares of major small- or medium-size display manufacturers
- 4.2 Analysis on competence
- 4.3 Status quo of TFT-LCD CELL supply in mainland China
- 4.4 Status quo of handset display industry in Taiwan
- 4.5 Status quo and future trend of handset display industry in mainland China
- 5 Brief introduction to China handset manufacturing industry
- 5.1 Status quo and future trend of China handset manufacturing industry
- 5.2 Development trend of grey market phone
- 6 Major manufacturers in handset display industry
- 6.1 Sharp
- 6.2 TMD
- 6.3 Epson Image Components
- 6.4 Samsung SDI
- 6.5 Samsung Electronics
- 6.6 Hitachi Display
- 6.7 Wintek
- 6.8 Truly
- 6.9 BYD
- 6.10 Giantplus



6.11 AUO

- 6.12 Tianma
- 6.13 Zhongshan Matrix Crystal Co., Ltd.
- 6.14 Lead Communications
- 6.15 Varitronix International
- 6.16 Chenxing Electronics
- 6.17 Space Display
- 6.18 Toppoly
- 7 Major handset manufacturers in mainland China
- 7.1 Bird
- 7.2 TCL Communication
- 7.3 Lenovo Mobile
- 7.4 Konka Mobile
- 7.5 Amoi
- 7.6 Haier
- 7.7 Compal Communications
- 7.8 Arima Communications
- 7.9 HTC
- 7.10 Flextronics
- 7.11 Elcoteq
- 7.12 Foxconn

Tables/Figures

Sketch map of handset TFT-LCD display industry chain

Business flow of handset display enterprises

Process flow of STN-LCD CELL sector

Process flow of CSTN-LCD

Process flow of COB LCM

Process flow of COG LCM

Process flow of TAB LCM

Income structure of handset display by technology, 2005Q1-2006Q4

Display distribution of newly-launched mobile phones in mainland China, Jan-Apr 2007 Color field distribution of newly-launched mobile phones in mainland China, Jan-Apr 2007

Statistics and forecast for display prices of 3 main mobile phones, 2005Q4-2007Q4 Market share of the world's major small- and medium-size display manufacturers,



2006Q4

Downstream application proportion of the world's small- and medium-size displays, 2006Q4 Market share of major TFT-LCD CELL providers in mainland China, 2006 Market share (by output) of major handset display manufacturers in mainland China, 2006 Variation in LCD production capacity of Sharp Systems Comparison between LCD and traditional LCD of Sharp Systems Organization structure of TMD Income structure of Epson, FY2006 Annual plan of Epson LCD division, 2007-2008 Organization structure of Epson Image Components Company List of Epson's handset display products Statistics and forecast for income structure of Samsung SDI products, 2000/2005/2010 Statistics for sales revenue and operation profit margin of Samsung SDI, 2005Q2-2007Q1 Output and average sales price of Samsung SDI small-size displays, 2005Q4-2007Q1 Product structure of Samsung SDI small-size displays, 2005Q4-2007Q1 Focus of Samsung SDI mobile display business Development plan of Samsung SDI's initiative OLED Income structure of Samsung by division, 2006Q4-2007Q1 Profit structure of Samsung by division, 2006 Quarterly small-size display output of Samsung, 2004Q2-2007Q1 Income and gross profit margin of Wintek, 2002-2006 Organization structure of Wintek Statistics and forecast for Truly's income and gross profit margin, 2002-2007 Gross profit margin, net profit margin and operation profit margin of Truly, 2001-2006 Income structure of Truly by region, 2006 Income structure of Truly by product, 2006 Cost structure of Truly, 2006 Organization structure of Truly Semiconductor Parameters of Truly's TFT-LCD module products Dimension structure of Truly's TFT-LCD modules, 2006 Income and gross profit margin of BYD, 2002-2006 Income structure of BYD by product, 2005-2006 Income structure of BYD by region, 2005-2006 Statistics and forecast of sales revenue and gross profit margin of Giantplus, 2002-2007 Proportion of AUO's small- and medium-size products applied in each field, 2006 Income structure of AUO's products applied in downstream, 2006Q1-2007Q1



Output and income of AUO's small- and medium-size products, 2006Q1-2007Q1 Organization structure of Zhongshan Matrix Organization structure of Lead Communications Income and operation profit margin of Varitronix International, 2002-2006 Income structure of Varitronix International by region, 2005-2006 Dimension structure of Varitronix International TFT-LCM products, 2006 Resolution structure of Varitronix International TFT-LCM products, 2006 Organization structure of Varitronix Pengyuan Company Parameters of Varitronix Pengyuan TFT-LCM products Income structure of SIM Technology, 2005-2006 Structure of Bird Staff structure of Bird by division Sales volume of Bird mobile phones, 2000-2006 Organization structure of TCL Communications Income and gross profit margin of TCL Communications, 2001-2005 Expenditure on R&D, marketing and administration of TCL Communications, 2001-2005 Organization structure of Compal Income and gross profit margin of Compal, 2001-2006 Organization structure of Arima Communications Global distribution of Arima Product routes of Arima Communications Statistics and forecast of income and gross profit margin of Arima, 2001-2006 Client structure of Arima, 2006Q1-2007Q4 Client structure of Arima, 2006-2008 Output and average sales prices of Arima Communications, 2005Q1-2006Q4 Structure of Arima's investment in mainland China Statistics and forecast for HTC's income structure, 2006Q1-2007Q4 Income and gross profit margin of HTC, 2000-2006 Income of Flextronix, 2005Q4-2006Q4 Income structure of Flextronix by region, 2005Q4-2006Q4 Income structure of Flextronix by product, 2005Q4-2006Q4 Core strategies of Flextronix Sales revenue of ELCOTEQ, 1997-2006 Sales revenue of ELCOTEQ, 2004Q1-2006Q4 Elocteg's guarterly income from terminal business, 2004Q1-2006Q4 Elocteq's quarterly operation profit, 2004Q1-2006Q4 Elocteq's quarterly income structure by region, 2004Q1-2006Q4 Viewpoints and strategies of Elocted 7C strategies of Elocteq



Business flow of Elocteg Income structure of Foxconn by region, 2005-2006 Income and gross profit margin of FIH, 2001-2006H1 Product development flow of FIH Statistics for mobile phone production and exportation, 2000-2006 Mobile phone output of China's top 20 manufacturers, 2006 Export volume of China's top 22 export-oriented enterprises, 2006 Sales volume of China's top 13 manufacturers Output of Taiwan's small- and medium-size displays, 2005Q1-2006Q3 List of TMD TFT-LCD panel production lines List of Samsung mobile phone display products Brief introduction to TFT-LCD panel production lines of Hitachi Display Parameters of Hitachi Display's products applied in mobile phones TFT-LCM module products of Wintek Financial status of United Win Technology (Suzhou) and Dongguan Masstop, FY2006 Mobile phone LCM products of BYD Brief introduction to BYD production lines Production capacity distribution of Giantplus, 2007 Main clients and product application structure of Giantplus Brief introduction to AUO's 12 TFT-LCD panel production lines, 2007Q1 List of AUO Transmissive TFT-LCD handset-purpose products List of AUO LTPS TFT-LCD products Income and operation profit of Tianma, 2006Q2-2007Q1 List of Tianma TFT-LCM products Parameters of Zhongshan Matrix LCM products **TFT-LCM** output of Zhongshan Matrix List of Lead Communications TFT-LCM products Parameters for major products of Space Display List of Toppoly handset display products Sales volume, sales revenue and average price of Bird, 2005-2006 Brief introduction to subsidiaries of Bird and achievements, 2006 Major component suppliers of Bird's subsidiaries Mobile phone sales volume & revenue of TCL Communications, 2005Q2-2006Q4 Major handset component suppliers of TCL Communications Mobile phone output and sales revenue of Lenovo Mobile, 2005Q2-2006Q4 Major handset component suppliers of Konka List of Amoi's affiliated companies Major component suppliers of Amoi mobile phones Major raw material suppliers of Arima Communications



Statistics and forecast for Arima's production capacity, 2004-2007 Finicial status of Arima's enterprises in mainland China, 2005 Function of HTC's divisions List of Flextronix manufacturing bases in China

List of Elocteq manufacturing bases



I would like to order

Product name: China Handset Display Industry Report, 2006-2007

Product link: <u>https://marketpublishers.com/r/C4D76F3DA0BEN.html</u>

Price: US\$ 1,800.00 (Single User License / Electronic Delivery) If you want to order Corporate License or Hard Copy, please, contact our Customer Service: <u>info@marketpublishers.com</u>

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <u>https://marketpublishers.com/r/C4D76F3DA0BEN.html</u>