

**Global and China Display IC Industry  
Report, 2014-2015**

**Jan. 2015**

## 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

The report contains the following aspects:

- 1, Development trends of LCD driver IC and touch IC
- 2, Analysis on downstream markets of LCD driver IC and touch IC
- 3, Analysis on LCD driver IC and touch IC Industries
- 4, Study on 10 LCD driver IC vendors
- 5, Study on 13 touch IC vendors and peripheral vendors

In the field of LCD driver IC and touch IC, two major acquisitions occurred in 2014. Synaptic took over the small and medium-sized driver IC business of Renesas; and FocalTech (the world's largest touch IC vendor by shipment) acquired Orise. Besides, the OGS touch giant Wintek went bankruptcy due to debt crisis.

Except 4K TV, LCD driver IC lacks highlights. Although the display resolution of mobile phones gets greatly improved, the ASP of LCD driver IC does not jump. After years of rapid growth, the mobile phone market has been saturated obviously, even the growth rate of smartphones has slowed considerably. Except first-tier brand vendors, second and third-tier brand vendors witness substantial decline in the mobile phone shipment.

**Ranking of Major Global Driver IC Vendors by Revenue, 2010-2014**

(USD mln)

	2010	2011	2012	2013	2014E
<b>RENESAS</b>	857	642	632	670	770
<b>NOVATEK</b>	957	1,035	1,044	1,140	1,338
<b>HIMAX</b>	591	553	634	645	621
<b>Ilitek</b>	184	308	356	323	334
<b>Raydium</b>	261	270	356	365	269
<b>Orise</b>	176	141	138	314	329
<b>Silicon Works</b>	215	275	331	296	258
<b>Sitronix</b>	169	155	175	212	252
<b>Magnachip</b>	308	340	303	286	240
<b>Rohm</b>	310	190	169	178	160
<b>Samsung</b>	970	1,079	1,141	1,380	1,293
<b>Sharp</b>	235	114	160	230	200
<b>Toshiba</b>	282	258	208	169	150
<b>Panasonic</b>	391	154	120	130	90
<b>Lusem</b>			277	350	330
<b>Fitipower</b>			77	127	175

In 2014, Chinese mobile phone market saw the first decline in the past 15 years, and the cumulative shipment decreased by 21.9% from 579 million in 2013 to 452 million, in which the shipment of handsets under domestic brands fell 23.3%. China's smartphone shipment amounted to 389 million in 2014, marking China was still the world's largest smartphone market, but this figure was 8.2% lower than 2013. The tablet PC shipment dropped for three consecutive quarters, and many Chinese small and medium-sized tablet PC vendors collapsed. The only bright spot is 4K TV. After experiencing the first replacement tide that LCD replaced CRT, the TV industry is confronted with the second wave of replacement. Larger screens, lower prices and more high-resolution program sources stimulate the TV market.

Touch IC experienced a painful year in 2014. The yield of In-CELL / On-Cell was improved significantly, while the price slumped. For example, FocalTech's touch IC ASP was NTD47.28 in 2011, NTD27.98 in 2013 and NTD18.15 in Q3 2014, representing the decline rate of 61.6 %.

It is a clear trend that In-CELL / On-Cell uses the combination of LCD driver IC and touch IC, which needs higher costs but intensifies performance apparently and shortens the supply chain. In 2018, the market share of In-CELL / On-Cell is expected to exceed 65%. In this case, touch IC vendors must conduct restructuring in advance, like Synaptic that took over the small and medium-sized driver IC business of Renesas as well as FocalTech that acquired Orise.

In order to retain customers and quickly open the market when launching new products, touch IC vendors have reduced prices to seize the market amid the sluggish mobile phone market, resulting in the sharp decline in their gross margin. The trend will continue in 2015, and ASP may flop by 20-30%.

Small Out-cell touch IC vendors will feel difficult to survive independently in the future, maybe acquired by LCD driver IC vendors or closed down. Touch IC vendors must avoid mobile phones and tablet PC filed, while industrial control and automotive fields are better options for them.

### **1 Introduction to Driver IC**

#### **1.1 Introduction to TFT-LCD Driver IC**

- 1.2 Driver IC Fabrication Process
- 1.3 Introduction to Touch IC
- 1.4 Touch IC Development Trend
- 1.5 Development Trend of Mobile Phone Touch Screen Technology
- 1.6 Development Trend of Medium-sized Touch Screen
- 1.7 Development Trend of Notebook Computer Touch Screen
- 1.8 AIO PC Touch Screen
- 1.9 Advantages of METAL MESH
- 1.10 METAL MESH Supply Chain
- 1.11 Silver Nanowires

### **2 Downstream Display Markets**

- 2.1 Touch Screen Market Size
- 2.2 Notebook Computer Market
- 2.3 Tablet PC Market
- 2.4 Global Mobile Phone Market
- 2.5 Global Smartphone Market
- 2.6 Chinese Mobile Phone Market
- 2.7 UHD-TV Market

### **3 Touch and Driver IC Industry**

- 3.1 Driver IC Industry Chain
- 3.2 Driver IC Development Trend

#### 3.3 Display Driver IC Market

#### 3.4 Display Driver IC Industry

#### 3.5 Chinese Small and Medium-sized Driver IC Market

#### 3.6 Global Mobile Phone Display Development Trend

#### 3.7 China's Mobile Phone Display Development Trend

#### 3.8 Global Mobile Phone Display Industry

#### 3.10 Ranking of Touch Screen Vendors

#### 3.11 Supply Relationship between Touch Screen Vendors and Customers

#### 3.12 Touch IC Market Trend

#### 3.13 Touch IC Market Size

#### 3.14 Touch IC Industry

### **4 Driver IC Vendors**

- 4.1 Renesas
- 4.2 Novatek
- 4.3 Himax
- 4.4 ILITEK
- 4.5 Raydium
- 4.6 Orise
- 4.7 Sitronix
- 4.8 Fitipower
- 4.9 SILICON WORKS
- 4.10 LUSEM
- 4.11 MAGNACHIP

### **5 Touch IC Design Houses**

- 5.1 MELFAS
- 5.2 FocalTech
- 5.3 Goodix
- 5.4 Elan Microelectronics
- 5.5 SYNAPTICS
- 5.6 CYPRESS
- 5.7 ATMEL
- 5.8 EETI
- 5.9 PIXCIR
- 5.10 MStar Semiconductor
- 5.11 Others
  - 5.11.1 Betterlife
  - 5.11.2 Awinic
  - 5.11.3 Sili Microelectronics

### **6 Driver IC Industry Chain Vendors**

- 6.1 ChipMOS
- 6.2 Chipbond
- 6.3 VIS

- Driver IC Manufacturing Process
- Development Trend of Global Smartphone Touch Technology, 2013-2017E
- Development Trend of Global Smartphone Display Technology, 2013-2017E
- Medium-sized Touch Screens by Technology, 2011-2015
- Laptop Computer Touch Screen Shipment by Technology, 2012-2016E
- AIO PC Touch Screen Shipment by Technology, 2012-2016E
- Supply Chain of Silver Nanowires
- Global Touch Screen Market Size, 2010-2016E
- Global Touch Screen Market Size (Shipment), 2010-2016E
- Laptop Computer Shipment, 2008-2015
- Shipment of World's Major Laptop ODM Vendors, 2010-2013
- Global Tablet PC Shipment, 2011-2016E
- Market Share of Main Tablet PC Brands, 2013
- Output of Global Tablet PC Vendors, 2012-2013
- Global Mobile Phone Shipment, 2007-2015E
- Global 3G / 4G Mobile Phone Shipment by Region, 2011-2014
- Worldwide Mobile Phone Sales to End Users by Vendor in 2013
- Worldwide Mobile Phone Sales to End Users by Vendor in Q3 2014
- Worldwide Smartphone Sales to End Users by Vendor in 2013
- Worldwide Smartphone Sales to End Users by Operating System in 2013
- Shipment of Global Top 13 Smartphone Vendors, 2013-2015E
- Worldwide Smartphone Sales to End Users by Vendor in Q3 2014
- Worldwide Smartphone Sales to End Users by Operating System in Q3 2014
- China's Monthly Mobile Phone Shipment, Jan-Nov 2014
- Market Share of Main Vendors in Chinese Smartphone Market, 2014

- Market Share of Main Vendors in Chinese 4G Mobile Phone Market, 2014
- UHD TV Shipment, 2013-2017E
- 55-inch UHD TV Price vs. FHD TV Price
- Shipment of Top 15 TV Vendors, 2014-2015
- Global Display Driver IC Market Size, 2009-2016E
- Global Display Driver IC Market Size by Type, 2009-2014
- Supply Relationship between Driver IC and Panel Vendors
- Ranking of Major Global Driver IC Vendors by Revenue, 2010-2014
- Operating Margin of Major Global Driver IC Vendors, 2012-2013
- Resolution Distribution of China's Small and Medium-sized Driver IC, 2010-2018E
- Ranking of Major Small and Medium-sized Driver IC Vendors in China by Revenue, 2011-2014
- Ranking of Major Small and Medium-sized Driver IC Vendors in China by Shipment, 2011-2014
- Development Trend of Global Smartphone Display Size, 2013-2017E
- Development Trend of Global Smartphone Touch Technology, 2013-2017E
- Development Trend of Global Smartphone Display Technology, 2013-2017E
- Development Trend of Global Smartphone Display Resolution, 2013-2017E
- Chinese Mobile Phone Market by Size, 2014
- Development Trend of China's Smartphone Display Size, 2013-2017E
- Chinese Smartphone Market by Resolution, 2014
- Development Trend of China's Smartphone Display Resolution, 2013-2017E
- Chinese Mobile Phone Market by PPI, 2014
- Development Trend of China's Smartphone Display Technology, 2013-2017E
- Shipment of Major Global Small and Medium-sized Display Vendors, 2013-2014
- Market Share of Major Mobile Phone Display Suppliers in China, 2014
- Ranking of Touch Screen Vendors by Revenue, 2010-2014


- Operating Margin of Touch Screen Vendors, 2012-2014
- Market Share of Samsung's Mobile Phone Touch Screen Suppliers, 2012-2013
- Market Share of Samsung's Tablet PC Touch Screen Suppliers, 2012-2013
- Proportion of Nokia's Major Touch Screen Suppliers, 2014
- Proportion of LG's Major Touch Screen Suppliers, 2012
- Proportion of HTC's Major Touch Screen Suppliers, 2012
- Touch IC Business Models
- Touch IC Market Size, 2011-2016E
- Touch IC Market by Application, 2012-2015
- Touch IC Industry Chain
- Revenue of Touch IC Design Houses (Only Including Touch IC Revenue), 2012-2013
- Revenue and Gross Margin of Renesas, Q2 2012-Q4 2013
- Organizational Structure of Renesas
- Revenue of Renesas by Division, FY2011-Q3 FY2014
- Novatek's Organization Chart
- Novatek's Revenue and Operating Margin, 2006-2015
- Novatek's Monthly Revenue and Growth Rate, Dec 2012- Dec 2014
- Novatek's Quarterly Revenue by Product, Q1 2012-Q3 2014
- Himax's Affiliated Companies
- Himax's Revenue and Operating Margin, 2006-2014
- Himax's Revenue and Gross Margin, 2007-2014
- Himax's Revenue by Product, 2006-2013
- Himax's Shipment, 2002-2014
- Himax's Gross Margin, 2007-2013
- Himax's OPEX, 2007-2013



- Himax's Quarterly Revenue by Product, Q3 2011-Q3 2014
- Himax's Quarterly Operating Expenses, Q1 2011-Q3 2014
- Himax's Quarterly Gross Margin, Q3 2011-Q3 2014
- Proportion of Himax's Key Customers, 2007-2013
- Himax's Products and Customer Distribution
- Himax's Supply Chain
- Himax's Subsidiaries
- Himax's Global Presence
- ILITEK's Revenue and Operating Margin, 2007-2014
- ILITEK's Monthly Revenue and Growth Rate, Dec 2012- Dec 2014
- ILITEK's Shipment, 2007-2014
- ILITEK's Shipment by Application, 2008-2013
- Raydium's Revenue and Operating Margin, 2007-2014
- Raydium's Monthly Revenue and Growth Rate, Dec 2012- Dec 2014
- Raydium's Output, Sales Volume and Output Value, 2011-2013
- Orise's Revenue and Operating Margin, 2007-2014
- Orise's Quarterly OPEX, Q1 2010-Q4 2013
- Orise's Revenue, Q1 2010-Q4 2013
- Orise's EBT, Q1 2010-Q4 2013
- Orise's Monthly Revenue and Growth Rate, Dec 2012- Dec 2014
- Orise's Output, 2008-2011
- Orise's Sales Volume, 2008-2013
- Orise's Revenue by Product, Q1 2009-Q4 2013
- Orise's Revenue by Customer, Q2 2012
- Orise's Revenue by Customer, Q4 2013

- Orise's Quarterly Shipment, Q1 2009-Q2 2013
- Sitronix's Revenue and Operating Margin, 2006-2014
- Sitronix's Monthly Revenue and Growth Rate, Dec 2012- Dec 2014
- Sitronix's Revenue by Product, 2011-2014
- Fitipower's Monthly Revenue and Growth Rate, Dec 2011- Dec 2014
- Revenue and Operating Margin of Silicon Works, 2009-2014
- Revenue of Silicon Works by Product, 2009-2013
- Lusem's Organizational Structure
- Magnachip's Revenue and Gross Margin, 2004-2013
- Magnachip's Revenue by Business, 2004-2013
- Magnachip's Revenue by Region, 2009-2013
- Magnachip's Fabs
- Revenue and Operating Margin of Melfas, 2007-2014
- Revenue of Melfas by Product, 2007-2014
- Quarterly Revenue and Operating Margin of Melfas, Q1 2013-Q4 2014
- FocalTech's Revenue by Customer, 2013
- Goodix's Shareholder Structure
- Procurement Proportion of Goodix's Major Suppliers, 2013
- Revenue and Operating Margin of Elan Microelectronics, 2004-2014
- Monthly Revenue and Growth Rate of Elan Microelectronics, Dec 2012- Dec 2014
- Revenue of Elan Microelectronics by Product, Q1 2011-Q4 2013
- Revenue of Elan Microelectronics by Customer, 2010-2011
- Revenue and Operating Margin of Synaptics, FY2006-FY2015
- Revenue of Synaptics by Application, FY2004-FY2014
- Revenue of Synaptics by Region, FY2010-FY2014

- Revenue of Synaptics by Customer, 2014
- Product Lines of Synaptics
- Chinese Mobile Phones Using Products of Synaptics
- Revenue and Operating Margin of Cypress, 2007-2014
- Revenue of Cypress by Business, 2009-2014
- Revenue of Cypress by Region, 2009-2014
- ATMEL's Revenue and Operating Margin, 2006-2014
- ATMEL's Revenue by Business, 2008-2014
- ATMEL's Operating Profit Distribution, 2012-2013
- ATMEL's Revenue by Region, 2008-2014
- ATMEL's Touch Panel Control IC Roadmap
- EETI's Revenue and Operating Margin, 2008-2014
- EETI's Monthly Revenue, Dec 2012- Dec 2014
- Business Distribution of ChipMOS
- Revenue and Gross Margin of ChipMOS , 2003-2014
- Revenue of ChipMOS by Product, Q1-Q3 2014
- LCD Driver Segment Revenue of ChipMOS, 2010-2014
- LCD Driver Segment Capacity of ChipMOS, 2010-2014
- Roadmap of ChipMOS
- CAPEX of ChipMOS, 2010-2014
- Revenue of ChipMOS by Region, 2006-2013
- Customer Distribution of ChipMOS, 2013
- Category Distribution of Active Patents of ChipMOS
- Market Share of Global Graphic Driver IC Gold Bump Vendors, 2012
- Chipbond's Revenue and Operating Margin, 2006-2014

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- Chipbond's COG \ COF Capacity by Region
  - Chipbond's TAB Capacity Distribution
  - Chipbond's Monthly Revenue, Dec 2012- Dec 2014
  - Revenue and Operating Margin of VIS, 2005-2014
  - Monthly Revenue of VIS, Dec 2012- Dec 2014
  - Revenue and Gross Margin of VIS, Q1 2012-Q3 2014
  - Revenue of VIS by Node, Q1 2012-Q3 2014
  - Revenue of VIS by Application, Q1 2012-Q3 2014
  - Revenue of VIS by Product, Q1 2012-Q3 2014
  - Shipment and Capacity Utilization of VIS, Q1 2012-Q3 2014

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