# Global and China CMOS Camera Module Industry Report, 2013

Nov. 2013

ResearchInChina
www.researchinchina.com

## 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

**This report involves the followings:**

1, Brief introduction to the CMOS camera module industry
2, CMOS camera module market research
3, Analysis on CMOS imager sensor vendors
4, Analysis on lens vendors
5, Analysis on CCM vendors

The growth rate of cell phone camera pixels slows down, or even declines in 2013. Apple's iPhone 5S still employs 8-megapixel, instead of 13-megapixel adopted by other top cell phone vendors. In addition, several Chinese star models such as MEIZU's MX3 and BBK's Vivo X3 also have the respective resolution of 8-megapixel, indicating that the competition may shift from pixel value to pixel size. MX3 is equipped with Sony IMX179 Sensor and has the pixel size of 1.4μm; Vivo X3 is installed with Samsung 3H7 Image Sensor and has the same pixel size as MX3.

HTC ONE utilizes ST's VD6869 sensor chip with the pixel size of 2.0μm which was called as Ultral Pixel. Unless a 13-megapixel sensor with a greater pixel size is launched, Apple may also adhere to 8-megapixel.

**Revenue of the World's Leading CMOS Camera Module Vendors, 2010-2013 (Unit: US$M)**

| | 2010 | 2011 | 2012 | 2013E |
|---|---|---|---|---|
| FOXCONN | 898 | 1028 | 886 | 720 |
| SEMCO | 580 | 737 | 1448 | 2078 |
| SHARP | 660 | 786 | 790 | 610 |
| LG-INNOTEK | 508 | 1098 | 1475 | 2316 |
| VISTA POINT | 208 | 188 | 210 | 220 |
| LITEON | 278 | 413 | 776 | 780 |
| BYD | 160 | 170 | 238 | 274 |
| TRULY | 98 | 108 | 151 | 250 |
| CHICONY | 366 | 425 | 473 | 480 |
| PRIMAX | 198 | 276 | 368 | 350 |
| TOSHIBA | 502 | 478 | 460 | 410 |
| STMICRO | 597 | 615 | 460 | 408 |
| Patron | 90 | 194 | 560 | 745 |
| SAMSUNG Fiberoptic | 310 | 320 | 362 | 360 |
| Sunny | 158 | 186 | 380 | 660 |
| KMOT | 160 | 140 | 267 | 10 |
| Cowell | 70 | 123 | 310 | 550 |
| CAMMSYS | 124 | 167 | 233 | 323 |
| Powerlogic | 90 | 156 | 170 | 294 |
| MCNEX | 130 | 165 | 155 | 260 |
| OTHERS | 1528 | 1368 | 1390 | 980 |

Sorce:ResearchInChina *Global and China CMOS Camera Module Industry Report, 2013*

Subject to the insufficient capacity of cell phone optical image stabilizers (OIS), Samsung does not launch OIS-enabled phones in 2013, but it will make S5 model equipped with OIS in 2014. HTC (one), SONY (Xperia ZU), LG (G2 flagship) and Google (Nexus5) are all installed with OIS. Samsung's S5 to be launched in 2014 will greatly accelerate the popularity of OIS, and Samsung's OIS provider HYSONIC expects to see the growth rate of over 300% in its revenue in 2014.

The Tablet PC shipment has shown the signs of touching the ceiling, and its future growth will be sluggish.

Mid-size and luxury cars are sold well in China, which makes the automotive CCM market become the most potential market. For example, KIA's K9 uses five sets of CCM. The automotive CCM shipment totaled 24,946,000 sets in 2012 and will grow by 56.4% year on year to 39,008,000 sets in 2013. The shipment is expected to maintain rapid growth, reaching 59,632,000 sets with the increase of 52.9% in 2014. The automotive CCM market is dominated by Panasonic, Sony, Magna, Valeo, MCNEX, Gentex, Fujitsu, Continetal and Autoliv.

Without taking DSC into account, CMOS camera modules generate the output value of about USD13 billion in 2013, up 28.7% from 2012. The output value is expected to hit USD15.9 billion in 2014, representing a year-on-year increase of 22.3%, mainly because of the adding of higher pixels and more complex features such as OIS.

At the image sensor market, Omnivision, Samsung and Sony compete with each other fiercely. Sony firmly occupies the high-end market, especially the market of 13MP and bigger pixel size; Omnivision's revenue in FY2013 surged by 56.8% from the figure in FY2012 by virtue of low prices, but with profit sacrifice. Aptina transfers to less competitive non-handset markets, and sold all assets of Italy Avezzano Semiconductor Plant.

As for the lens field, Largan ranks first, far ahead of the second follower. Largan almost monopolizes the beyond-8-megapixel lens market. Its gross margin and operating margin jump from 2012 and the revenue is approaching USD1 billion. The revenue of the second-ranked GSEO falls to less than USD350 million in 2013.

In the field of modules, Nokia's shipment decline has made its suppliers suffer from income losses, including Foxconn, Sharp, STMICRO and KMOT. KMOT has contracted the module business and may exit from this area. Taiwanese vendors LITEON, PRIMAX and CHICONY are facing weak growth. However, Chinese and South Korean vendors are developing triumphantly, especially South Korea ones. LG INNOTEK has achieved the world's first laureate again, mainly serving Apple whose at least 70% CCM comes from LG INNOTEK. Taiwanese vendors can only snatch Apple's orders for low-end products. SEMCO's revenue soars thanks to Samsung's handset shipment surge; by profit, SEMCO acts as the world's largest CCM vendor.

Among Chinese mainland vendors, SUNNY witnesses the strongest growth, and its shipment in 2013 is expected to reach 136 million units, doubling that in 2012. Besides, South Korean vendors also push aggressively into Chinese market, for instance, MCNEX is ZTE's largest supplier and Cowell acts as Lenovo's supplier.

ResearchInChina

The Vertical Portal for China Business Intelligence

# Table of contents




**Room 502, Block 3, Tower C, Changyuan Tiandi Building, No. 18, Suzhou Street, Haidian District, Beijing, China 100080**
**Phone: +86 10 82600828 ● Fax: +86 10 82601570 ● www.researchinchina.com ● report@researchinchina.com**

## Selected Charts

- CMOS Camera Module Industry Chain
- Supply Chain of Image Sensor vendors
- Market Share of Major Global CMOS Image Sensor Vendors, 2010
- Market Share of Major Global CMOS Image Sensor Vendors, 2011
- Market Share of Major Global CMOS Image Sensor Vendors, 2012
- Market Share of Major Global CMOS Image Sensor Vendors by Volume, 2012
- Market Share of Major Global CMOS Image Sensor Vendors in PC Field by Volume, 2012
- Ranking of Major Global CMOS Camera Optical Lens Vendors by Revenue, 2011-2013
- Nokia's Mobile Phone Camera Optical Lens Suppliers, 2012
- Samsung's Optical Lens Suppliers, 2012
- Apple's Optical Lens Suppliers, 2012
- Revenue of the World's Leading CMOS Camera Module Vendors, 2010-2013
- Nokia's Camera Module Suppliers, 2013
- Samsung's Camera Module Suppliers, 2013
- Apple's Camera Module Suppliers, 2013
- LG's Camera Module Suppliers, 2012
- ZTE's Camera Module Suppliers, 2013
- Huawei's Camera Module Suppliers, 2013
- Lenovo's Camera Module Suppliers, 2013
- VCM Visual View
- VCM Sectional View
- Relationship between AFA and Camera Module Vendors
- Market share of Major Global AFA Vendors, 2012
- LiteOn's 8M OIS Module
- LiteOn's 13M OIS Module

## Selected Charts

- Global Shipment of Automotive Camera Modules, 2009-2016E
- Market Share of Major Automotive Camera Module Vendors, 2009
- Market Share of Major Automotive Camera Module Vendors, 2010
- Market Share of Major Automotive Camera Module Vendors, 2011
- Market Share of Major Automotive Camera Module Vendors, 2012
- Global Shipment and Value of CMOS Camera Modules, 2010-2015E
- Downstream Distribution of Global Shipment of CMOS Camera Modules, 2010-2015E
- Global Shipment of CMOS Camera Modules by Pixel, 2010-2015E
- Global Shipment of Mobile Phone-used CMOS Camera (MAIN CAMERA) Modules by Pixel, 2010-2015E
- Global Mobile Phone Shipment, Q1 2011-Q3 2013
- Global Mobile Phone Shipment, 2007-2014E
- Global CDMA / WCDMA Mobile Phone Shipment by Region, 2010-2013
- Shipment and Market Share of Top 5 Smartphone Vendors, Q3 2013
- Shipment and Market Share of Smartphone Operating Systems, Q2 2013
- Shipment and Market Share of Major Android Phone Vendors, Q2 2013
- Shipment and Market Share of major Windows Phone Vendors, Q2 2013
- Shipment of Major Smartphone Vendors in China, 2011-2013
- Market Share of Major Mobile Phone Vendors in China, 2013
- Shipment of Major Laptop Brands, 2010-2013
- Market Share of Major Laptop OEMs, 2006 vs 2008
- Relationship between Global Laptop Brands and OEMs as well as Shipment Proportion, 2010
- Relationship between Global Laptop Brands and OEMs as well as Shipment Proportion, 2011
- Relationship between Global Laptop Brands and OEMs as well as Shipment Proportion, 2012-2013
- Global Tablet PC Shipment, 2011-2016E
- Quarterly Shipment of Tablet PC, Q4 2011-Q4 2013

## Selected Charts

- Shipment of Major Tablet PC Vendors, Q1 2012-Q3 2013
- Output of Major Tablet PC Vendors, 2012-2013
- China's Laptop Output (including Tablet PC), 2004-2012
- China's Laptop Output (including Tablet PC) by Region, 2010-2012
- Samsung's CMOS Image Sensor Products
- OMNINVISION's Revenue and Gross Margin, FY2005-2014E
- OMNINVISION's Revenue and Operating Margin, FY2005-2014E
- OMNINVISION's Shipment, FY2002-2013
- OMNINVISION's Revenue by Region, FY2009-2012
- OMNINVISION's Assets by Region, FY2009-2013
- OMNINVISION's Revenue by Application, FY2013
- OMNINVISION's Revenue by Resolution, FY2013
- OMNINVISION's Supply Chain
- APTINA's Products
- Organizational Structure of Sony's Semiconductor Division
- Sony's Image Sensor Capacity Expansion Plan
- Largan's Revenue and Gross Margin, 2006-2014E
- Largan's Revenue and Operating Profit Margin, 2006-2014E
- Largan's Quarterly Revenue and Net Profit Margin, Q1 2011-Q3 2013
- Largan's Monthly Revenue, Oct 2011-Oct 2013
- Largan's Quarterly Revenue by Pixel, Q1 2011-Q1 2013 Largan's Revenue by Client, 2010-2012
- Financial Data of Largan's Subsidiaries in Mainland China, 2012
- GSEO's Revenue and Gross Margin, 2005-2013
- GSEO's Revenue and Operating Profit Margin, 2005-2013
- GSEO's Monthly Revenue, Oct 2011-Oct 2013

## Selected Charts

- GSEO's Revenue by Product, 2012
- Revenue and Gross Margin of Asia Optical, 2004-2013
- Revenue and Operating Profit Margin of Asia Optical, 2004-2013
- Revenue by Product of Asia Optical, 2007-2012
- Mobile Phone Camera Module Products of Asia Optical
- Newmax's Revenue and Gross Margin, 2007-2013
- Newmax's Monthly Revenue, Oct 2011-Oct 2013
- Revenue and Gross Margin of Ability Opto-Electronics Technology, 2006-2013
- Monthly Revenue of Ability Opto-Electronics Technology, Oct 2011-Oct 2013
- KANTATSU's Mobile Phone Camera Module Products
- DIOSTECH's Organizational Structure
- DIOSTECH's Production Lines
- DIOSTECH's Clients
- DIOSTECH's Revenue by Pixel, 2012
- SEKONIX's Revenue and Operating Profit Margin, 2002-2014E
- SEKONIX's Revenue by Product, 2009-2014E
- SEKONIX's Handset Lens Revenue by Pixel, 2009-2014E
- SEKONIX's Handset Lens Shipment and Revenue by Pixel, 2009-2014E
- SEKNOIX's Mobile Phone Camera Module Products
- Revenue and Operating Profit Margin of Korea Optical, 2007-2013
- Roadmap of Korea Optical
- Revenue and Operating Profit Margin of Optivision Technology, 2006-2013
- Monthly Revenue of Optivision Technology, Sep 2011-Sep 2013
- Hokuang's Revenue and Gross Margin, 2006-2013
- Hokuang's Monthly Revenue , Sep 2011-Sep 2013

## Selected Charts

- Revenue of KMOT's Mobile Phone-used Optical Units, FY2011-FY2012
- Revenue and Operating Profit Margin of DIGITAL OPTICS, 2007-2014E
- Revenue of DIGITAL OPTICS by Pixel, 2010-2013
- Shipment of DIGITAL OPTICS by Pixel, 2009-2013
- DIGITAL OPTICS CAPEX, 2009-2013
- Capacity of DIGITAL OPTICS, 2009-2013
- OPTRONTEC's Organizational Structure
- OPTRONTEC's Revenue and Operating Profit Margin, 2010-2014E
- Blue Filter Manufacturing Process
- OPTRONTEC's Blue Filter Output
- OPTRONTEC's Revenue by Product, Q1 2010-Q4 2012
- OPTRONTEC's Revenue by Product, 2011-2014E
- Chicony's Revenue and Gross Margin, 2005-2013
- Chicony's Revenue and Operating Margin, 2005-2013
- Chicony's Monthly Revenue, Oct 2011-Oct 2013
- Chicony's Revenue by Product, 2011\2012
- Financial Data of Chicony's Subsidiaries in Mainland China, 2010
- Financial Data of Chicony's Major Subsidiaries in Mainland China, 2011
- Financial Data of Chicony's Major Subsidiaries in Mainland China, 2012
- Financial Data of Foxconn 's Major Optical Subsidiaries, 2010
- Financial Data of Foxconn 's Major Optical Subsidiaries, 2011
- Financial Data of Foxconn 's Major Optical Subsidiaries, 2012
- Revenue and Operating Margin of LG INNOTEK, 2006-2014E
- Revenue and Operating Margin of LG INNOTEK, Q1 2011-Q4 2013
- Revenue of LG INNOTEK by Business, 2011-2014E

## Selected Charts

- Operating Profit of LG INNOTEK by Business, 2011-2013
- Quarterly Revenue of LG INNOTEK OPTICAL, Q1 2011-Q3 2013
- CCM of LG INNOTEK by Pixel, Q3 2012-Q3 2013
- Revenue and Operating Margin of Mitsumi Electric, FY2006-2013
- Revenue of Mitsumi Electric by Product, FY2006-2013
- Brief Financial Data of Chinese Subsidiaries of Mitsumi Electric, 2008
- Revenue of Truly Semiconductors by Business, 2012
- Revenue by Product of Truly International, 2013
- Capacity of Truly Opto-Electronics
- CSP Capacity of Truly Opto-Electronics
- COB Capacity of Truly Opto-Electronics
- Mobile Phone Camera Module Roadmap of Truly Opto-Electronics
- Laptop Camera Module Roadmap of Truly Opto-Electronics
- Roadmap of Automotive CMOS Camera Module Products of Truly Opto-Electronics
- BYD's Camera Module Products
- LiteOn Group
- LiteOn's Revenue by Business
- LiteOn's Guangzhou Science and Technology Park
- LiteOn's CCM Shipment, 2003-2013
- LiteOn's CCM Capacity Expansion Plan, Q3 2011-Q4 2013
- LiteOn's AF /FF CCM Proportion
- LiteOn's CCM Technology Roadmap
- LiteOn's OIS Concept
- LiteOn's Revenue and Operating Margin, 2005-2013
- Primax's KEY MILESTONE

## Selected Charts

- Primax's Revenue and Operating Margin, 2008-2013
- Primax's Revenue by Division, 2007-2012
- Primax's Monthly Revenue, Oct 2011-Oct 2013
- Primax's Global Distribution
- Primax's Product Range
- SEMCO's Revenue by Division, 2010-2014E
- SEMCO's Operating Profit by Division, 2010-2014E
- SEMCO's CCM Operating Margin, Q1 2011-Q4 2013
- SEMCO's Camera Module Revenue by Pixel, 2010-2014E
- SEMCO's Camera Module ASP , Q1 2010-Q4 2013
- PARTRON's Revenue and Operating Margin, 2007-2014E
- PARTRON's Revenue by Product, Q1 2012-Q4 2013
- PARTRON's CCM Shipment by Pixel, 2012-2014E
- Sunny's Revenue and Gross Margin, 2004-2014E
- Sunny's Major Clients
- Sunny's Shipment by Product, Jan-Sep 2013
- Sunny's Revenue by Division, 2010-2013
- Downstream Distribution of Sunny's Revenue by Division, 2010-2013
- Sunny's Camera Module Shipment by Pixel
- Sunny's Gross Margin by Division, 2010-2012
- Sunny's Factory Distribution
- Organizational Structure of CAMMSYS
- Revenue and Operating Margin of CAMMSYS, 2009-2014E
- POWERLOGIC's CCM Revenue, 2008-2013
- MCNEX's Revenue and Operating Profit, 2009-2014E

## Selected Charts

- MCNEX's Revenue by Client, 2013
- MCNEX's Revenue by Pixel, 2009-2011
- MCNEX's Capacity by Region
- Revenue and Number of Employees of Dongguan COWELL, 2005-2013
- HYSONIC's Structure
- HYSONIC's Revenue and Operating Profit, 2006-2014E
- HYSONIC's Revenue by End Client, 2012-2013
- HYSONIC's Revenue by Client, 2012
- JAHWA's Revenue and Operating Margin, 2005-2013
- JAHWA's Revenue by Product, 2008-2013
- JAHWA's AFA Revenue by Pixel, Q1 2012-Q4 2013
- JAHWA's Overseas Subsidiaries

ResearchInChina

The Vertical Portal for China Business Intelligence

# How to Buy

**You can place your order in the following alternative ways:**

1.Order online at www.researchinchina.com

2.Fax order sheet to us at fax number:+86 10 82601570

3. Email your order to: report@researchinchina.com

4. Phone us at +86 10 82600828/ 82601561

| **Party A:** | | | |
|---|---|---|---|
| Name: | | | |
| Address: | | | |
| Contact Person: | | Tel | |
| E-mail: | | Fax | |

| **Party B:** | | | |
|---|---|---|---|
| Name: | Beijing Waterwood Technologies Co., Ltd (ResearchInChina) | | |
| Address: | Room 502, Block 3, Tower C, Changyuan Tiandi Building, No. 18, Suzhou Street, Haidian District, Beijing, China 100080 | | |
| Contact Person: | Liao Yan | Phone: | 86-10-82600828 |
| E-mail: | report@researchinchina.com | Fax: | 86-10-82601570 |
| Bank details: | Beneficial Name: Beijing Waterwood Technologies Co., Ltd<br>Bank Name: Bank of Communications, Beijing Branch<br>Bank Address: NO.1 jinxiyuan shijicheng,Landianchang,Haidian District,Beijing<br>Bank Account No #: 110060668012015061217<br>Routing No # : 332906<br>Bank SWIFT Code: COMMCNSHBJG | | |

| Title | Format | Cost |
|---|---|---|
| | | |
| *Total* | | |

**Choose type of format**

PDF (Single user license) ……..2,650 USD

Hard copy …….. 2,750 USD

PDF (Enterprisewide license)…..... 4,050 USD

**※ Reports will be dispatched immediately once full payment has been received. Payment may be made by wire transfer or credit card via PayPal.**

ResearchInChina

www.researchinchina.com

## RICDB service

**About ResearchInChina**

ResearchInChina (www.researchinchina.com) is a leading independent provider of China business intelligence. Our research is designed to meet the diverse planning and information needs of businesses, institutions, and professional investors worldwide. Our services are used in a variety of ways, including strategic planning, product and sales forecasting, risk and sensitivity management, and as investment research.

**Our Major Activities**

- ***Multi-users market reports***
- ***Database-RICDB***
- ***Custom Research***
- ***Company Search***

**RICDB** (http://www.researchinchina.com/data/database.html ), is a visible financial data base presented by map and graph covering global and China macroeconomic data, industry data, and company data. It has included nearly 500,000 indices (based on time series), and is continuing to update and increase. The most significant feature of this base is that the vast majority of indices (about 400,000) can be displayed in map.

After purchase of our report, you will be automatically granted to enjoy 2 weeks trial service of RICDB for free.

After trial, you can decide to become our formal member or not. We will try our best to meet your demand. For more information, please find at www.researchinchina.com

For any problems, please contact our service team at:

Room 502, Block 3, Tower C, Changyuan Tiandi Building, No. 18, Suzhou Street, Haidian District, Beijing, China 100080
Phone: +86 10 82600828 ● Fax: +86 10 82601570 ● www.researchinchina.com ● report@researchinchina.com