



# **Global and China CMOS Camera Modules Industry Report, 2013-2014**

**May 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 CMOS Camera Module Industry Report, 2013-2014 involves the followings:

- 1, Analysis on CMOS Image Sensor Industry
- 2, Analysis on Lens Industry
- 3, Analysis on CMOS Camera Module Industry
- 4, Development Trends of OIS
- 5, CMOS camera Module Downstream Market
- 6, Seven CIS Vendors
- 7, 15 Lens Vendors
- 8, 20 CMOS Camera Module Vendors

In Chinese mobile phone market, 8MP will be replaced by 13MP which has become the standard configuration of mobile phones priced at RMB1,000 or above in 2014. Chinese brands use 13MP more widely than foreign brands. The mobile phones made in China are always featured with high-end hardware configuration. 30% of the domestic mobile phones will be equipped with 13MP in the first half of 2014 and about 50% by the end of 2014 (exported ones are excluded). Both of rear and front cameras have higher and higher pixels. 5MP front cameras are the current mainstream, while the mobile phones with 13MP front cameras have been launched.

	2010	2011	2012	2013	2014E
<b>FOXCONN</b>	898	1,028	886	720	730
<b>SEMCO</b>	580	737	1,448	1,893	2,084
<b>SHARP</b>	660	786	790	910	1,080
<b>LG-INNOTEK</b>	508	1,098	1,475	2,304	2,388
<b>VISTA POINT</b>	208	188	210	200	180
<b>LITEON</b>	278	413	776	1,014	1,080
<b>BYD</b>	160	170	238	255	260
<b>TRULY</b>	98	108	151	292	308
<b>CHICONY</b>	366	425	437	355	380
<b>PRIMAX</b>	198	276	368	490	470
<b>TOSHIBA</b>	502	478	460	390	370
<b>STMICRO</b>	597	615	460	408	360
<b>Patron</b>	90	194	560	704	710
<b>SAMSUNG Fiberoptic</b>	310	320	362	350	330
<b>Sunny</b>	158	186	380	713	820
<b>KMOT</b>	160	140	267	10	
<b>Cowell</b>	70	123	310	770	968
<b>CAMMSYS</b>	124	167	233	345	406
<b>Powerlogic</b>	90	156	170	246	250
<b>MCNEX</b>	130	165	155	271	410
<b>O-FILM</b>				90	260

Source: Global and China CMOS Camera Modules Industry Report, 2013-2014  
ResearchInChina

In 2013, the CMOS image sensor shipment reached 3.26 billion units at an increase of 15.2%, and the market size hit approximately USD8.008 billion. The shipment is expected to rise by 16% to 3.782 billion units, and the market size will be USD8.698 billion or so in 2014. Camera modules are not only applied to photographing, but also motion sensing for postural control, which will propel the market.

Amazon's upcoming smartphone has not only a front camera and a rear camera, but also four VGA cameras which are used for gesture control, so that users can manipulate the phone without the touch screen. Microsoft's Kinect 2 also uses dual cameras to achieve 3D gesture control. Furthermore, HTC's M8 adopts two rear cameras in order to improve the picture quality. In 2013, the CMOS camera module market size attained approximately USD13.7 billion, up 18.9% from 2012; but in 2014, it will shrink greatly, up merely 6.7% to USD14.6 billion. The market competition became fiercer in 2013, especially the price wars; therefore, almost all of CMOS camera modules saw a decline of about 2 percentage points in gross margin. Japan Konica-Minolta is the first one that exits from the fields of CMOS camera modules and mobile phone cameras due to unbearable falling profits. O-film, a company in Mainland China, has invested RMB2 billion in CMOS camera modules. As the world's largest film-based touch screen vendor, O-film has extensive customer resources, and it intends to enter the CMOS camera module field with competitive prices in order to become the largest camera module company in Mainland China. O-film's gross margin was less than 6% in 2013.

South Korea Cowell performed most outstandingly in 2013 with the annual revenue growth rate of 148%. With the main production base located in Dongguan, China, Cowell acted as Apple's core supplier in 2013. Apple supported Cowell to reduce the dependence on Sharp and LG INNOTEK. In 2013, Cowell's revenue and profit surged. However, not every Apple's supplier was lucky. Primax specializing in Apple's low-end products witnessed dropping gross margin.

Largan nearly monopolizes the non-Korean 13MP camera market which is characterized with high technical threshold and high patent threshold, occupying an unparalleled position. The second-ranked Genius suffered losses in 2013. In 2014, Sunny acquired the assets of Konica-Minolta in Shanghai, so that its optical lens technology is expected to be greatly improved, but it still can not threaten Largan. Largan continues capacity expansion in 2014, but mainly in Taiwan, and it will cut down the capacity in Mainland China owing to labor costs. In 2014, OIS (Optical Image Stabilizer) is still a hot topic in the CMOS camera module field. Samsung AFA's core supplier JAHWA is not able to provide enough OIS capacity to meet the demand of Samsung, and Samsung is reluctant to commission non-core providers to offer OIS, because Samsung needs to master its supply chain perfectly. Samsung may not launch a large number of OIS mobile phones in future. Nevertheless, Apple may use OIS on iPhone6. The core OIS supplier Sharp is also Apple's core supplier in camera modules and screens. Another core OIS supplier LG INNOTEK is Apple's core supplier as well.

### **1 CMOS Camera Module Industry**

- 1.1 CMOS Camera Module Industry Chain
- 1.2 CMOS Image Sensor Industry
- 1.3 Image Sensor Market
- 1.4 Market Share of Image Sensor Vendors
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- 1.12 VCM Driver IC
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- 1.14 Market Share of Major Automotive Camera Module Vendors

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- 2.1 Global Mobile Phone Market
- 2.2 Smart Phone Market and Industry
- 2.3 China Mobile phone Market and Industry
- 2.4 Tablet PC Market
- 2.5 Laptop Computer Market

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- 3.2 Omnivision

- 3.3 APTINA
- 3.4 Sony
- 3.5 Toshiba
- 3.6 Galaxycore
- 3.7 SuperPix Micro Technology

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- 4.4 ZIPPY
- 4.5 Ability Opto-Electronics Technology
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- 4.7 Hitachi Maxell
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- 4.10 Korea Optical
- 4.11 FUJINON
- 4.12 Glorytek
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