

# Global and China Automotive Semiconductor Industry Report, 2014-2015

<https://marketpublishers.com/r/GB20A36A745EN.html>

Date: September 2015

Pages: 114

Price: US\$ 2,200.00 (Single User License)

ID: GB20A36A745EN

## Abstracts

Global and China Automotive Semiconductor Industry Report, 2014-2015 mainly focuses on the following:

1. Global automotive market and industry;
2. China's automotive market and industry;
3. Automotive semiconductor industry and market;
4. Fifteen major automotive semiconductor companies

In 2014, the global automotive semiconductor market size approximated USD28 billion, up 7.3% from 2013. It is predicted that in 2015 the market size will amount to USD29.6 billion, up 5.7% from a year earlier, and that by 2016 the growth rate will continue to decline, to only 3.7%. That was mainly attributed to the following two factors: first, remarkable deflation globally, which resulted in a substantial depreciation of the Japanese yen and the euro against the dollar; second, China, the world's largest auto market, is very likely to go into decline. In 2015, China's auto market is expected to edge up merely 1%, but may slide by 2% in 2016.

Automotive semiconductor falls into five categories: power semiconductor, sensor semiconductor, processor (main for MCU) semiconductor, ASSP (principally Connectivity and Amplifier) semiconductor, and logic semiconductor. In the field of traditional automobiles, the semiconductor costs for each unit approximate USD320, of which power occupies 26% and sensor 16%. In HEV, however, this figure is USD690, of which power represents as much as 75%. In EV, the semiconductor costs come to USD700, of which power accounts for 55%. But due to ongoing depressed oil prices, the market space of HEV/EV has been considerably squeezed. If the oil price returns back more than USD100, then the automotive semiconductor market will increase

significantly.

In 2015, the market size of automotive sensors would reach about USD4.7 billion. Automotive sensors consist of CMOS Image Sensor, Pressure, Acceleration, Speed and Position, Magnetic (Hall effect), and Angle, among which CMOS Image Sensor mainly involves ON Semiconductor and OVT. The largest pressure sensor player is Sensata, which is also the biggest auto sensor maker worldwide. Moreover, Sensata is adept at Speed and Position. As the world's second largest auto sensor company, Bosch specializes in Acceleration and Angle. ON Semiconductor is the world's third largest sensor company. Infineon, the fourth largest sensor player in the world, mainly operates Magnetic (Hall effect) and Acceleration. Allegro, the world's fifth sensor player under Sanken, is good at Magnetic (Hall effect) and Acceleration. In addition, other large auto sensor companies include Analog Devices, Melexis, Micronas, NXP, and STMicroelectronics.

In 2015, the market size of automotive processors, including MCU, DSP, and GPU, totaled some USD7 billion. In MCU market, Renesas takes absolutely the first place, with a market share of 40%, in contrast to 22% for Freescale. In the 32-Bit MCU market, Freescale accounts for the largest portion, Infineon and TI follows with 13% and 8% share, respectively. Other large players include STMicroelectronics and Spansion (Cypress).

Automotive power semiconductor mainly involves Power Management ICs, MOSFET, IGBT, and Diodes (Fast Recovery, Schottky, and High Voltage). HEV/EV needs a large quantity of IGBT, whose price is very high, thus leading to a sharp increase in costs of power semiconductor. Low-power circuit typically uses MOSFET while high-power and high-current circuit needs IGBT. SiC MOSFET is the most efficient, with high temperature resistance, far lower price than that of GaN, and more mature technology. So, it has good prospects in the future.

Automotive power semiconductor market has a low concentration, which provides a living space to some small companies. It is worth noting that to develop hybrid electric vehicle, Toyota ventured into the field of power semiconductor, so that its strength in IGBT is not inferior to specialized IGBT companies. Besides, Toyota is also not dwarfed by specialized automotive power semiconductor players in SiC MOSFET field.

Infineon, the largest automotive power semiconductor vendor, acquired IR, a move that helped bridge the gap in LV MOSFET, with the market share rising to 24%. STMicroelectronics, which specializes in Power Management, ranks second. What

comes next is Renesas, Fuji Electric, and Bosch.

## Contents

### **1 GLOBAL SEMICONDUCTOR INDUSTRY**

- 1.1 Market Status
- 1.2 Supply Chain
- 1.3 Industry Overview

### **2 GLOBAL AND CHINA AUTOMOBILE MARKET**

- 2.1 Global Automobile Market
- 2.2 Automobile Market Overview in China
- 2.3 Latest Development of Automobile Market in China

### **3 AUTOMOTIVE SEMICONDUCTOR MARKET AND INDUSTRY**

- 3.1 Automotive Semiconductor Market Size
- 3.2 Overview of Automotive Sensor
- 3.3 Automotive CMOS imaging sensor
- 3.4 Automotive Sensor Industry
- 3.5 Automotive Processor
- 3.6 Automotive Processor Industry
- 3.7 Automotive Power Semiconductor
- 3.8 HEV/EV Power Semiconductor
- 3.9 Automotive Power Semiconductor Industry
- 3.10 Distribution of ADAS, Infotainment, and Body Semiconductor
- 3.11 Ranking of Automotive Semiconductor by Revenue

### **4. AUTOMOTIVE SEMICONDUCTOR COMPANIES**

- 4.1 Infineon
- 4.2 Bosch Semiconductor
- 4.3 Rohm
- 4.4 ON SEMI
- 4.5 TI
- 4.6 STMicroelectronics
- 4.7 Renesas
- 4.8 Freescale
- 4.9 NXP

- 4.10 Melexis
- 4.11 Sensata
- 4.12 Fuji Electric
- 4.13 TDK
- 4.14 Murata
- 4.15 Allegro

## Selected Charts

### SELECTED CHARTS

Global Semiconductor Market Size, 2013-2019E  
Global Semiconductor Market Distribution by Product, 2013-2016E  
Growth Rate of Global Semiconductor Products, 2013-2016E  
Semiconductor Outsourced Supply Chain  
Semiconductor Company Systems  
Semiconductor Outsourced Supply Chain Example  
Food Chain IC CAD Design Industry  
Top 25 Semiconductor Sales Leaders, 1Q2014  
Top25 Semiconductor Sales Leaders, 1Q2015  
Global Automobile Sales Volume, 2010-2015  
Global Light Vehicle Output by Region, 2003-2015  
Automobile Sales Volume in China, 2005-2015  
Output YoY Growth of Vehicles in China by Model, 2008-2015  
Global Automotive Semiconductor Market Size, 2012-2018E  
Automotive Semiconductor Distribution by Product, 2014  
Automotive Semiconductor Distribution by Application, 2012-2018E  
Automotive Sensor Distribution  
Sensors in Powertrain Applications  
Sensors in Safety Applications  
Shipments of Automotive CMOS Imaging Sensors, 2009-2018E  
Market Share of Major Automotive CMOS Imaging Sensor Manufacturers, 2015  
Ranking of Automotive Sensor Player by Revenue, 2014-2015  
Ranking of Global MEMS Manufacturers by Revenue, 2013-2014  
Automotive Processor Market Size, 2012 vs 2019E  
Automotive Processor Per Vehicles, 2007 vs 2012 vs 2020E  
Market Share of Major Automotive MCU Manufacturers, 2015  
EV Vehicles Current Block Diagram  
Power Semiconductor Devices in Toyota Prius  
Power Semiconductor Devices in Toyota Lexus Ls600H  
Market Share of Major Power Semiconductor Companies, 2014  
ADAS Semiconductor by Type, 2013  
Infotainment Semiconductor by Type, 2013  
Body Semiconductor by Type, 2013  
Ranking of Top 20 Automotive Semiconductor Companies by Revenue, 2012-2015  
Infineon's Revenue vs Gross Margin, FY2010-FY2015

Infineon's Operation Margin and Net Margin, FY2010-FY2015  
Infineon's Assets and Liabilities, CY2015 H1  
Infineon's Employee by Region, CY2015 H1  
Infineon's Revenue by Region, FY2010-FY2015  
Infineon's Revenue by Segment, FY2011-FY2015  
Infineon's Operation Profit by Segment, FY2011-FY2015  
Infineon's Automotive Semiconductors Position  
Infineon's Automotive Segment Revenue by Region  
Infineon's Automotive Segment Revenue by Product  
Infineon's Automotive Segment Revenue by Application  
Infineon's Investments, FY2009-FY2015  
Rohm's Sales and Operation Margin, FY2011-FY2016  
Rohm's Sales by Segment, FY2011-FY2016  
Rohm's Operation Profit by Segment, FY2011-FY2016  
Rohm's Revenue by Application, FY2004-FY2016  
ON Semi's Revenue vs Operation Income, 2010-2015  
Revenue of ON Semi by Segment, 2010-2015  
Revenue Structure of ON Semi by Geographic Location, 2012-2014  
Revenue Structure of ON Semi by Application, 2012-2017E  
On Semi's Major Product Application and Customer  
On Semi's Automotive Semiconductor Focus, 2014  
On Semi's Major Products  
On Semi's SPG Segment by Application, 2014  
On Semi's Position  
On Semi's SSG Segment by Application, 2014  
ON SEMI's ISG Segment Milestone  
ON SEMI's APG Segment Automotive Revenue, 2012-2014  
TI's Revenue vs Gross Margin, 2010-2015  
TI's Revenue by Segment, 2010-2014  
TI's Operation Profit by Segment, 2010-2014  
TI's Revenue by Application, 2013-2015  
TI's Automotive Infotainment Block Diagram  
TI's Automotive Charging Spot  
STMicro Revenue vs Gross Margin, 2010-2015  
STMicro's Revenue by Region, 2014  
STMicro's Revenue by Product, 2014  
STMicro's APG Segment Revenue, 2005-2014  
STMicro's Automotive Semiconductor Market Position  
Renesas' Revenue vs Gross Margin, FY2011-FY2016

Renesas' Gross Margin, Q2/CY2013-Q2/CY2015  
Renesas' Operation Margin, Q2/CY2013-Q2/CY2015  
Renesas' Automotive Business Revenue, Q2/CY2013-Q2/CY2015  
Renesas' General-purpose Business Revenue, Q2/CY2013-Q2/CY2015  
Renesas Automotive Focus  
Renesas HEV/EV Automotive Focus  
Renesas HEV/EV Automotive MCU Roadmap  
Renesas Powertrain MCU Roadmap  
Renesas Chassis MCU Roadmap  
Renesas Airbag MCU Roadmap  
Renesas ADAS MCU Roadmap  
Renesas Instrument Cluster MCU Roadmap  
Renesas Car Audio MCU Roadmap  
Freescale's Revenue vs Operation Margin, 2007-2015  
Freescale's Revenue Breakdown by business, 2012-2015  
Freescale's Revenue Breakdown by customer, 2014  
Freescale's Revenue Breakdown by region, 2011 vs 2014  
Freescale's Major Product and Application  
Freescale ADAS  
Major Locations of Freescale  
NXP Revenue Vs Operation Margin, 2010-2015  
NXP Consolidated Balance Sheet Data, 2010-2014  
NXP Automotive Sales by Product, 2014  
NXP Automotive Sales by Region, 2014  
NXP Customers  
Major NXP Automotive Facilities  
Melexis' Financial Position, CY 2015H1  
Melexis' Revenue by Region, 2013-2014  
Sensata's Revenue vs Operation Income, 2010-2015  
Sensata's Capital Expenditures, 2004-2014  
Sensata's Revenue by Segment, 2012-2015  
Sensata's Revenue by Region, 2012-2014  
Sensata+CST's Revenue by Application  
Sensata's Sensor Revenue by Type, 2012-2014  
Structure of Fuji Electric Electronic Devices Segment  
Sales and Operation Income of Electronic Devices Segment, FY2013-FY2015  
Sales of Fuji Electric Electronic Devices Segment by Application, FY2013-FY2014  
New Products of Fuji Electric Electronic Devices Segment  
TDK's Net Sales, FY2006-FY2015



TDK's Sales by Segment, FY2014-FY2015  
TDK's Operation Income, FY2006-FY2015  
TDK's R&D Costs, FY2006-FY2015  
TDK's Capex, FY2006-FY2015  
TDK's Sales by application, FY2012-FY2015  
TDK's Passive Components Sales by Application, FY2012-FY2015  
Quarterly Sales of TDK by applications, 1Q/FY2015-1Q/FY2016  
Quarterly Sales of TDK For Automobiles, 1Q/FY2015-1Q/FY2016  
Murata's Sales and Operation Margin, FY2009-FY2016  
Murata's Sales by product, FY2013-FY2016  
Murata's Major Products  
Murata's sales by Application, FY2013-FY2016  
Murata's Operation Income Bridge, FY2014-FY2015  
Murata's Quarterly Sales, Order and Backlog, 2012Q2-2015Q1  
Murata's Sales by Region, FY2014-FY2015

## I would like to order

Product name: Global and China Automotive Semiconductor Industry Report, 2014-2015

Product link: <https://marketpublishers.com/r/GB20A36A745EN.html>

Price: US\$ 2,200.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/GB20A36A745EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970