

# Global and China Advanced Driver Assistance System (ADAS) Industry Report, 2015-2019

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## Abstracts

Global and China Advanced Driver Assistance System (ADAS) Industry Report, 2015-2019 focuses on the following:

Overview of automotive ADAS, including classification of ADAS, laws, regulations and rating requirements in major countries, consumer cognition, functions and technical schemes of main ADASs.

Analysis on global ADAS industry chain, covering market size, technical features, companies of sensor, chip, system integration, etc.;

Analysis on global and China's ADAS application and competition pattern, involving installation ratio, market size, as well as market share of major system integrators in the world;

Analysis on major ADAS chip/solution suppliers and system integrators worldwide, including operation and financial conditions, ADAS technologies and relevant business.

ADAS, short for Advanced Driver Assistance System, is not only the basis of intelligent driving and automatic driving, but the concrete application of active safety technology. ADAS can be generally divided into two categories: safety assistance and convenience and comfort assistance, with some systems integrating the pair of them.

The application of ADAS can significantly reduce the number of traffic accidents and the severity of injuries. At present, the greatest motivation to develop and use ADAS comes

from more stringent requirements on safe driving from governments. Europe, the United States, Japan, and other developed countries have made provisions on ADAS configuration in new vehicles with respect to legislation and rating standard (NCAP), generally requiring ADAS to have functions of forward collision avoidance (FCA) and lane departure warning (LDW). The forerunner EU also put forward requirements on automatic emergency braking (AEB), lane keeping assistance (LKA) and even pedestrian detection system (PDS).

ADAS has been one of the fastest-growing sectors in automotive field and is expected to register a CAGR of 32% during 2014-2019. Currently, developed countries in Europe and America have had nearly 8% of new vehicles equipped with ADAS, in contrast to about 2% in emerging markets. It is predicted that over 25% of new vehicles will carry ADAS by 2019 globally.

ADAS consists mainly of sensors, chips (with signal processing and data computing chips as its core), algorithm software, etc. Sensors are usually developed and supplied by system integrators; chips and algorithm software are generally co-developed by semiconductor companies and system integrators, as well as complete vehicle makers when it comes to application in specific models. System integrators not only have the most direct and close relationship with complete vehicle makers, but also are the suppliers of integrated ADAS solutions.

In passenger vehicle field, ADAS integrators are large in number, mostly being large auto parts companies. At present, the leading companies are technologically developing toward combination and integration of active safety with passive safety and integration of multiple ADASs. These integrations, while improving intelligentization and safety, can reduce space used and costs. By region, Continental AG, Delphi and Denso Corporation are system integrators holding the highest market share in Europe, America and Asia, respectively. Globally, Continental AG boasts the largest market share, as well as No. 1 as concerns researchers and capital investment in ADAS and automated driving technology. The world's top 5 system integrators make up more than 65% of market share, with the remaining occupied by Valeo, TRW, Magna, Hella, Panasonic, Gentex, etc.

Compared with passenger vehicles, the system integrators that are supplying ADAS for commercial vehicles are highly concentrated, with WABCO, Continental AG and Bosch eyeing 60% global market share.

China's ADAS industry is also in rapid development over the years. Some companies

backed by colleges, universities and other research institutions have the research and development ability of core algorithm and have received market recognition. At the same time, some traditional auto parts manufacturers represented by INVO Automotive Electronics, Jinzhou Jinheng Automotive Safety System and HiRain Technologies are flooding into the ADAS market and have realized OEM installation by virtue of resources from the original vehicle manufacturers. In addition, the booming ADAS industry is also favored by capital market, some established or emerging companies such as INVO Automotive Electronics and Forward Innovation Corporation sold partial stake to listed companies. However, the technological gap is still obvious, with a majority of ADAS integration companies deficient of core algorithm or lagged far behind foreign rivals. With most products supplied to independent vehicle factories, it's rather difficult for them to enter the supply chain of joint venture factories at this stage.

## Contents

### **1. OVERVIEW OF ADAS**

- 1.1 Classification
- 1.2 Development Prospect
  - 1.2.1 Promotion of Relevant Rating Requirements
  - 1.2.2 Requirements from Development of Automated Driving
- 1.3 Main ADASs
  - 1.3.1 ConsumerCognition
  - 1.3.2 Functions and Technical Schemes

### **2. GLOBAL ADAS INDUSTRY CHAIN**

- 2.1 Overview
- 2.2 Sensor
  - 2.2.1 Radar
  - 2.2.2 Lidar
  - 2.2.3 Camera
  - 2.2.4 Ultrasonic Sensor
  - 2.2.5 Comprehensive Application and Global Market Demand of Vehicle Sensor
- 2.3 System Solutions/Processing Chip/SOC
- 2.4 System Integration

### **3. GLOBAL AND CHINA ADAS APPLICATION AND COMPETITION PATTERN**

- 3.1 Global ADAS Market
  - 3.1.1 Market Size
  - 3.1.2 Market Segments
  - 3.1.3 Competition Pattern
- 3.2 China ADAS Market
  - 3.2.1 Market Size
  - 3.2.2 Market Segments

### **4. MAJOR GLOBAL ADAS CHIP/SOLUTIONS COMPANIES**

- 4.1 Mobileye
  - 4.1.1 Profile
  - 4.1.2 Operation

- 4.1.3 Revenue Structure
- 4.1.4 Advanced Technologies for ADAS
- 4.1.5 Customers and Suppliers
- 4.2 TI
  - 4.2.1 Profile
  - 4.2.2 Operation
  - 4.2.3 Revenue Structure
  - 4.2.4 ADAS Business
  - 4.2.5 Newly-released ADAS Applications
- 4.3 Renesas
  - 4.3.1 Profile
  - 4.3.2 Operation
  - 4.3.3 Revenue Structure
  - 4.3.4 ADAS Business
- 4.4 Freescale
  - 4.4.1 Profile
  - 4.4.2 Operation
  - 4.4.3 Revenue Structure
  - 4.4.4 ADAS Business
  - 4.4.5 Technological Cooperation on ADAS

## **5. MAJOR GLOBAL ADAS INTEGRATORS**

- 5.1 WABCO
  - 5.1.1 Profile
  - 5.1.2 Operation
  - 5.1.3 Revenue Structure
  - 5.1.4 Major Customers
  - 5.1.5 ADAS Business
- 5.2 Autoliv
  - 5.2.1 Profile
  - 5.2.2 Operation
  - 5.2.3 Revenue Structure
  - 5.2.4 Costs and Customer Structure
  - 5.2.5 ADAS Business
  - 5.2.6 Technological Development of ADAS
- 5.3 Continental AG
  - 5.3.1 Profile
  - 5.3.2 Operation

- 5.3.3 ADAS Business
- 5.3.4 Integration and New Technologies for ADAS
- 5.4 Robert Bosch
  - 5.4.1 Profile
  - 5.4.2 Operation
  - 5.4.3 Revenue Structure
  - 5.4.4 ADAS Business
- 5.5 Delphi
  - 5.5.1 Profile
  - 5.5.2 Operation
  - 5.5.3 Revenue Structure
  - 5.5.4 ADAS Business
  - 5.5.5 Integration and New Technologies of ADAS
- 5.6 Denso
  - 5.6.1 Profile
  - 5.6.2 Operation
  - 5.6.3 Revenue Structure
  - 5.6.4 ADAS Business
  - 5.6.5 ADAS Business Planning
- 5.7 Other Players
  - 5.7.1 Magna
  - 5.7.2 Valeo
  - 5.7.3 TRW

## **6 MAJOR CHINESE ADAS INTEGRATORS**

- 6.1 INVO Automotive Electronics
  - 6.1.1 Profile
  - 6.1.2 ADAS Business
- 6.2 Jinzhou Jinheng Automotive Safety System
  - 6.2.1 Profile
  - 6.2.2 ADAS Business
- 6.3 HiRain Technologies
  - 6.3.1 Profile
  - 6.3.2 ADAS Business
- 6.4 ZongMu Technology
  - 6.4.1 Profile
  - 6.4.2 ADAS Business
- 6.5 HuiChuang Electronic Technology

6.5.1 Profile

6.5.2 ADAS Business

6.6 Forward Innovation Corporation

6.6.1 Profile

6.6.2 ADAS Business

## List Of Charts

### LIST OF CHARTS

Weight Coefficients of Euro NCAP in Various Fields  
Relevant Requirements on ADAS Configuration by NCAP Organizations in Various Countries  
Number of Models Carrying LDW/FCW in USA, 2011-2013  
Relevant Laws and Regulations on Trucks and Buses in Various Countries (Safety and Energy Efficiency)  
Survey on Global Consumers' Intension to Use Automated Driving  
Percentage of Drivers with Traffic Accidents in China, Japan, Germany and USA  
Survey on Vehicle Owners: Increased Traffic Volume Adds Pressure to Driving  
Survey on Vehicle Owners: Acceptability of ADAS  
Functions of Main ADASs  
Technical Schemes of Main ADASs  
Key Sensors of ADAS  
Major ADAS Sensor Types and Typical Vehicle Positions  
Detection Range of Various Radars and Application Types of ADAS  
Sensors and Detection Ranges of Audi A8  
Significant Milestones in Camera-based Applications  
Comparison between Stereoscopic Camera and Mono-camera Solutions  
Ultrasonic Sensor's Detection of Barriers  
ADAS Applications for Ultrasonic Sensors  
Global ADAS Sensor Demand, 2010-2019E  
Global ADAS Semiconductor Device Market Size, 2010-2019E  
Example of ADAS Vision Processing  
Solutions/Chip Companies Layout  
Composition and Working Procedures of ADAS  
Two Types of Output of Decision System  
Global ADAS Market Size, 2011-2019E  
Global Penetration Rate of Main ADASs, 2010-2019E  
Global Shipments of Vehicles with ADAS, 2010-2019E  
Proportion of Global Vehicles with ADAS in Overall Shipments of Passenger Vehicles, 2010-2019E  
Share of Global Automotive ADAS Market Segments, 2014 VS 2019  
Global Shipments of Adaptive Cruise Control (ACC), 2010-2019E  
Global Shipments of Adaptive Forward Lighting (AFL), 2010-2019E  
Global Shipments of Blind Spot Monitoring (BSM), 2010-2019E



Global Shipments of Driver Monitoring System (DMS), 2010-2019E  
Global Shipments of Collision Avoidance System (CAS), 2010-2019E  
Global Shipments of Head-up Display (HUD)  
Global Shipments of Intelligent Speed Adaptation (ISA), 2010-2019E  
Global Shipments of Lane Departure Warning / Lane Keeping System (LDW/LKS), 2010-2019E  
Global Shipments of Night Vision System (NVS), 2010-2019E  
Global Shipments of Automatic Parking (AP), 2010-2019E  
Global Shipments of Pedestrian Detection System (PDS), 2010-2019E  
Global Shipments of Road Sign Recognition (RSR), 2010-2019E  
Global Shipments of SVC, 2010-2019E  
Global Shipments of V2V/V2X, 2010-2019E  
Major Global Sensor-based ADAS Integrators  
Top 3 ADAS Integrators and Their Market Shares in Europe  
Top 3 ADAS Integrators and Their Market Shares in North America  
Top 3 ADAS Integrators and Their Market Shares in Asia Pacific  
Global Top 5 ADAS Integrators and Their Market Shares  
Market Size of Chinese ADAS Market, 2011-2019E  
Main ADAS Configurations for Cars Sold in China, Jan-Apr 2015  
Penetration Rate of Main ADASs in the Chinese Market, Jan-Apr 2015  
BSM Configuration for Passenger Cars Sold in China, Apr 2015  
BSM Pre-installation of Passenger Car Factories in China, Jan-Apr 2015  
BSM Configuration for New Cars in China, Apr 2015  
LDW Configuration for Passenger Cars Sold in China, Apr 2015  
LDW Pre-installation of Passenger Car Factories in China, Jan-Apr 2015  
LDW Configuration for New Cars in China, Apr 2015  
LKS Configuration for Passenger Cars Sold in China, Apr 2015  
LKS Pre-installation of Passenger Car Factories in China, Jan-Apr 2015  
LKS Configuration for New Cars in China, Apr 2015  
SVC Configuration for Passenger Cars Sold in China, Apr 2015  
SVC Pre-installation of Passenger Car Factories in China, Jan-Apr 2015  
SVC Configuration for New Cars in China, Apr 2015  
AP Configuration for Passenger Cars Sold in China, Apr 2015  
AP Pre-installation of Passenger Car Factories in China, Jan-Apr 2015  
AP Configuration for New Cars in China, Apr 2015  
ACC Configuration for Passenger Cars Sold in China, Apr 2015  
ACC Pre-installation of Passenger Car Factories in China, Jan-Apr 2015  
ACC Configuration for New Cars in China, Apr 2015  
AEB Configuration for Passenger Cars Sold in China, Apr 2015

AEB Pre-installation of Passenger Car Factories in China, Jan-Apr 2015  
AEB Configuration for New Cars in China, Apr 2015  
FCW Configuration for Passenger Cars Sold in China, Apr 2015  
FCW Pre-installation of Passenger Car Factories in China, Jan-Apr 2015  
Number of Models Carrying Mobileye's ADAS, 2007-2016E  
Revenue and Net Income of Mobileye, 2011-2015Q1  
Gross Margin of Mobileye, 2011-2015Q1  
ADAS Products Provided by Mobileye  
Revenue Breakdown of Mobileye by Division, 2011-2015Q1  
Operating Profit Breakdown of Mobileye by Division, 2011-2015Q1  
Composition of Mobileye EyeQ?  
Cooperative Companies of Mobileye in OEM Market and Procedures  
Customers Accounting for More Than 10% of Mobileye's OEM Revenue, 2012-2014  
Revenue and Net Income of TI, 2010-2015Q1  
Gross Margin of TI, 2010-2015Q1  
Revenue Structure of TI by Division, 2010-2014H1  
Operating Profit Breakdown of TI by Division, 2010-2014  
Revenue Structure of TI by Region, 2010-2014  
Application of TI's Products in Automotive Sector  
Application of TI's Analog and Embedded Processors in ADAS

## **TI AFE5401**

Block Diagram for TDA2x SoC  
TDA2x Evaluation Module  
Three Categories of Products and Their Application Fields of Renesas  
Revenue and Operating Profit of Renesas, FY2011-FY2015  
Net Income of Renesas, FY2011-FY2015  
Products and Organization Evolution of Renesas  
Proportion of Semiconductor Revenue to Total Revenue of Renesas, FY2011-FY2015  
Semiconductor Revenue Structure of Renesas by Product, FY2012-FY2014  
MCU Revenue Breakdown of Renesas by Application Field, FY2012-FY2014  
Analog and Power Devices Revenue Breakdown of Renesas by Application Field, FY2012-FY2014  
SoC Revenue Breakdown of Renesas by Application Field, FY2012-FY2014  
Statistics Changes in Sales Data of Renesas, FY2015  
Auto Sales (Semiconductor Part) of Renesas, FY2014-FY2015  
General-Purpose Sales (Semiconductor Part) of Renesas, FY2014-FY2015  
General-Purpose Revenue Structure of Renesas by Application, FY2014-FY2015

Semiconductor Revenue Structure of Renesas by Application Field, FY2015  
Automotive Revenue Structure of Renesas by Application, FY2015Q1  
General-Purpose Revenue Structure of Renesas by Application, FY2015Q1  
R-Car V2H SoC of Renesas  
Block Diagram for Renesas Sensor Fusion  
Recommended Products of Renesas ADAS Solutions  
Roadmap for Renesas ADAS Products  
Revenue and Net Income of Freescale, 2010-2015Q1  
Gross Margin of Freescale, 2010-2015Q1  
Revenue Structure of Freescale by Product, 2011-2015Q1  
Revenue Structure of Freescale by Region, 2014  
Applications of Freescale's ADAS  
Four Generation Products of Freescale ADAS MCU

## **77GHZ RADAR SYSTEM OF FREESCALE**

Radar System Solutions and Target Application of Freescale  
Power Architecture?-based Qorivva 32-bit MCUs of Freescale  
Vision System Solutions of Freescale  
Two Goals of WABCO's Products  
Revenue and Operating Profit of WABCO, 2010-2015Q1  
Gross Margin of WABCO, 2010-2015Q1  
Global Factories of WABCO  
Revenue Structure of WABCO by Product Segments, 2011  
Revenue Structure of WABCO by End Market, 2011-2014  
Revenue Structure of WABCO by Region, 2011-2014  
Major Customers of WABCO in Various Markets  
WABCO's ADAS Products  
Roadmap for WABCO's ADAS Products  
WABCO's OptiPace?  
Autoliv in Numbers  
Autoliv Milestone  
Autoliv's Automotive Safety System Products  
Revenue and Operating Profit of Autoliv, 2010-2015Q1  
Gross Margin of Autoliv, 2010-2014  
Global Factories of Autoliv  
Revenue Structure of Autoliv by Product, 2011-2015Q1  
Output of Autoliv's Products, 2013Q1-2015Q1  
Output of Autoliv's Products, 2009-2014

Revenue Structure of Autoliv by Region, 2009-2014  
Autoliv's Cost Structure and Changes  
Customers Contributing More Than 10% of Autoliv's Revenue, 2011-2014  
Autoliv's Major Customers and % of Revenue, 2014  
Autoliv's Active Safety Development Path and Strategy  
Shipments of and Number of Models Carrying Autoliv's Active Safety Products, 2009-2013  
Major Customers of Autoliv's Active Safety  
Autoliv's Revenue from Active Safety Products, 2009-2013  
Functions of Autoliv's Active Safety System  
Autoliv's Active Safety System Products and Their Applications  
Dynamic Spot Light Function of Autoliv's Night Vision System  
Revenue and EBIT of Continental, 2009-2015Q1  
Revenue Structure of Continental by Division, 2011-2015Q1  
Revenue Structure of Continental by Region, 2011-2014  
Continental's Revenue from Chassis & Safety Division, 2011-2015Q1  
Revenue CAGR in Sector Segments of Continental, 2013-2018E  
ADAS Products Sales Volume and Growth Rate of Continental, 2011-2014  
Global ADAS Production Bases and R&D Centers of Continental  
Roadmap for Automated Driving of Continental  
ContiGuard Integrating Active and Passive Safety Systems  
Continental's Integrated Safety Algorithm (ISA)  
Sales & EBIT of Bosch Mobile Solutions, 2012-2014  
Business Scope of Bosch's Automotive Chassis Control System Division  
Revenue Structure of Bosch by Division, 2012-2014  
Revenue Structure of Bosch by Region, 2012-2014  
Products of Bosch's Automotive Chassis Control System Division  
Bosch's Emergency Braking Systems (Two Types)  
Bosch's Driver Drowsiness Detection System  
Bosch's ACC Systems (Two Types)  
Applications of Bosch's Sensor System and ADAS  
Revenue and Operating Profit of Delphi, 2010-2015Q1  
Main Growth Areas of Delphi's Divisions, 2013-2016  
Major Customers and Regional Distribution of Delphi  
Revenue Structure of Delphi by Customer, 2014  
Revenue Structure of Delphi by Division, 2012-2015Q1  
Revenue Breakdown of Delphi by Region, 2011-2014  
Growth of Delphi's Active Safety Business, 2014-2017E  
Customers of Delphi's Active Safety Products as of 2013

Applications of Delphi's Sensor System and ADAS  
Delphi's Integrated Safety and Networking Technology Solutions  
Delphi's Roadmap for Intelligent Driving  
Revenue of Denso, FY2011-FY2015  
Operating Profit and Net Income of Denso, FY2011-FY2015  
Revenue Structure of Denso by Division, FY2011-FY2015  
Auto Sales of Denso by Division, FY2011-FY2015  
Revenue Structure of Denso by Region, FY2011-FY2015  
Revenue Breakdown of Denso by Customer, FY2010-FY2014  
Denso's Technology Roadmap for Safe Driving  
Denso's Driver Status Monitor System  
Denso's Lane Keeping Assist System  
Denso's Pre-Crash Safety System  
Applications of Delphi's Sensor System and ADAS  
Safety Functions and Products Supplied by Denso under Various Driving Situations  
Three Levels (Entry, Standard, Advanced) of ADAS Products Suites of Denso  
Major Partners of INVO Automotive Electronics  
Global Distribution of HiRain Technologies  
AFS of HiRain Technologies  
SVC System Architecture of ZongMu Technology  
Main Functions of ZongMu Technology  
ADAS Products of HuiChuang Electronic Technology

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