

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.

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