

## Global and China Automotive Safety System Industry Report, 2013-2014

Sep. 2014



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#### 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 costeffective 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.

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### Abstract

- Global and China Automotive Safety System Industry Report, 2013-2014 covers the followings:
- 1, Overview of automotive safety system
- 2, Status quo of global and Chinese automotive market
- 3, Automotive safety market analysis
- 4, Trends of emerging automotive safety technology
- 5, Analysis on automotive safety system industry
- 6, Study on 14 automotive safety system companies.

The global automotive safety system market size hit approximately USD24.3 billion in 2013, up 6.3% from 2012; the size is expected to grow 6.8% to USD26 billion in 2014. The main driver of market growth lies in the increase in automobile output and active safety system shipment. The global market will slow down with growth rate being merely 4.1% in 2015 because of slackening growth of Chinese automobile market (the world's largest) and falling ASP of active safety system.

In the field of automotive safety system, active safety system witnesses the highest growth, and is projected to value USD2.8 billion in 2016. Currently, automotive active safety system can be divided into three categories: radar-based system, CIS (CMOS Image Sensor)-based system and infrared sensing-based system. Radar is the most striking field. The core application of radar is adaptive cruise control (ACC) represented by the mainstream 24GHz and 79GHz millimeterwave radar.

The mainstream millimeter-wave radar material has gradually transferred from GaAs to SiGe, and will turn to be more affordable silicon by 2015. Also, foundries will help reduce production costs, which can significantly cut down price. In addition, the expansion of the frequency bandwidth used by millimeter-wave radar is expected to exert a remarkable effect. In the worldwide scope, millimeter-wave radar adopts 76G ~ 77GHz frequency band, but the bandwidth is only "0.5G ~ 1GHz", which cannot achieve high resolution required by pedestrian detection. However, ITU-R (International Telecommunications Union-Radio Communications Sector) may approve the worldwide application of 76G ~ 81GHz frequency band for automotive radar by 2015. By then, the available bandwidth will reach 1GHz or more, which enables millimeter-wave radar to detect pedestrians.

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The current automotive safety system uses 24GHz SRR and NB, as well as 77GHz LRR. In the future, 24GHz will be replaced by 79GHz; 79GHz MRR and SRR will substitute 24GHz SRR and NB to realize automotive adaptive cruise control without blind spots (including possible strike from the side) and broaden the detection range greatly. The front detection range hits up to 250 m, while the rear detection range is 90 m.

LIDAR will become the ultimate radar to meet all the requirements of autonomous driving.

In the security system industry, it is a big news that Chinese financial institutions intend to buy KSS. As we all know, none of local Chinese companies can step in the automotive safety system field whose threshold is exceedingly high, so the only way for them is acquisition. However, acquisition may not bring core technology.

In China, millimeter wave belongs to the military field instead of the civil field. Particularly, 77GHz or 79GHz is under the military control, and is forbidden to be applied to any non-military field, which means that automobile models sold in China shall remove 77GHz or 79GHz radar.

	2009	2010	2011	2012	2013	2014
Autoliv	5,121	7,171	8,232	8,267	8,803	9,368
Takata	3,774	4,456	4,787	5,008	5,608	5,690
TRW	2,904	3,557	3,752	3,519	3,724	3,968
Toyoda Gosei	1,547	1,630	1,721	1,987	2,018	2,020
Tokai Rika	868	789	794	838	890	916
KSS	1,008	1,120	e 1,280	1,020	1,120	1,218
Mobis	408	472	588	628	712	780
Nihon Plast	398	580	607	680	713	720

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