

## **Global Market of ADAS (Advanced Driving Assistant Systems) Key Devices/Components: Key Research Findings 2014**

### ◆ Research Outline

**Yano Research Institute has conducted a study on the global market of key devices/components for ADAS with the following conditions:**

1. Research period: From June to September, 2014
2. Research targets: Manufacturers of semiconductors, car electronics, and automobiles
3. Research methodologies: Face-to-face interviews, surveys via telephone/email, and literature research

#### **What are Key Devices/Components for ADAS (Advanced Driving Assistant Systems)?**

ADAS (Advanced Driving Assistant Systems) are the systems that are designed to avoid car accidents by sensing the surrounding environment of a car through sensor devices installed in front, side and/or rear parts of the car body. Several advanced driving assistant functions have been developed, which include LDW (Lane Departure Warning), LKS (Lane Keeping Support), ACC (Adaptive Cruise Control), AEB (Automatic Emergency Braking).

Key devices/components for ADAS in this research indicate infrared laser, night visions, and a variety of sensor units equipped in front, side and/or rear parts of car body. The sensor units include; millimeter-wave radar systems on 76/77GHz frequency band; near- millimeter-wave radar systems on 24/25GHz frequency band; and cameras (CCD/CMOS sensors). Note that the night visions include infrared cameras and ECUs/displays for night visions. All such devices and components are assumed to be equipped in passenger cars or commercial vehicles weighing 3.5 tons or less.

### ◆ Key Findings

#### ■ **Size of Global Market of ADAS Key Devices/Components in 2013 Attained 187.1 Billion Yen**

Size of the global market of key devices/ components for ADAS achieved 187.1 billion yen, based on the shipment value of car-parts manufacturers (Tier1). Due to rapid increase of ADAS-equipped car models in U.S., Europe, and Japan, the market is likely to enter expanding phase from 2014. The projected market size in 2014 rises by 40.5% to attain 262.9 billion yen.

#### ■ **CAGR of Global Market of ADAS Key Devices/Components from 2013 to 2020 Expected to be 25.2%, Market Size to be 903.8 Billion Yen by 2020**

With Euro NCAP (New Car Assessment Program) starting the assessment of ADAS in 2014, the counterparts of U.S. and Japan are considering adding more evaluation points for assessing safety of new cars produced. Such moves have driven the automakers to actively

introduce ADAS in their vehicles and are expected to raise demands for key devices/components of ADAS in the period between 2015 and 2016. The global market of ADAS key devices/components is projected to attain 903.8 billion yen by 2020, based on the shipment value of car-parts manufacturers (Tier1).

■ **CAGR of Camera Units for ADAS from 2013 to 2020 Expected to be 37.1%, Global Market Size to Expand to 334.7 Billion Yen**

Among various key devices and components for ADAS, the one that shows the highest growth rate is cameras for ADAS. Because cameras are able to acknowledge and identify the difference between car bodies and humans, the manufacturers are developing products that enable pedestrian protection, the detailed assessment of which are planned to start by Euro NCAP in 2016. Such trends have reduced costs when producing camera units. The global market size of camera units for ADAS is projected to expand to 334.7 billion yen, based on the shipment value of car-parts manufacturers (Tier1).

◆ **Report format:**

Published report: “ADAS (Advanced Driving Assistant System) Device/Components Market 2014”

Issued on: October 8, 2014

Language: Japanese

Format: 132 pages in A4 format

Price: 130,000 yen (The consumption tax shall additionally be charged for the sales in Japan.)

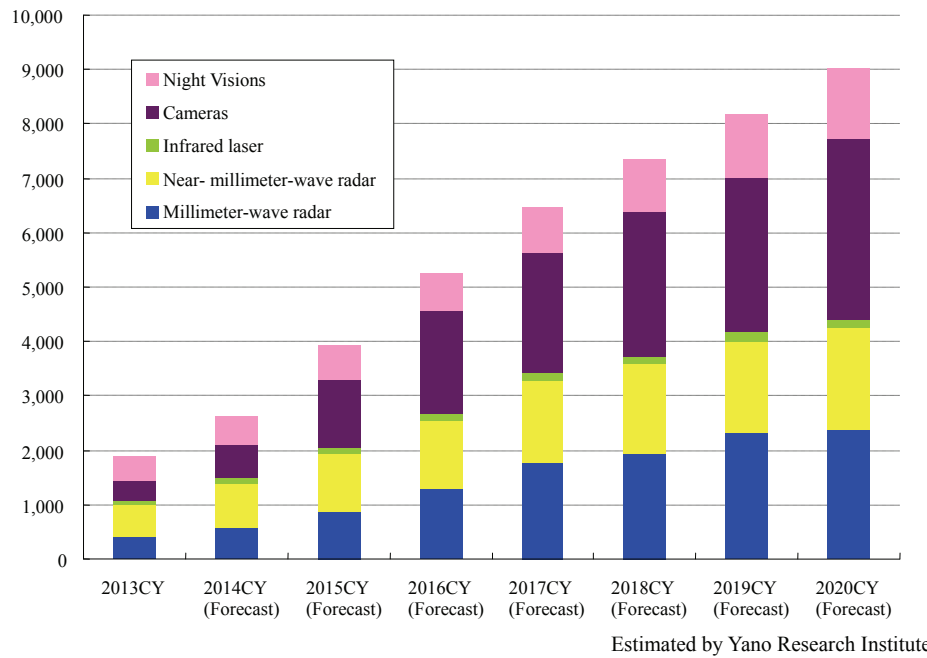
**Contacts:** Public Relations

**Yano Research Institute Ltd. (URL: <http://www.yanoresearch.com>)**

Phone: +81-3-5371-6912

E-mail: [press@yano.co.jp](mailto:press@yano.co.jp)

■ **Figure1: Forecast of Global Market Size of Key Devices/Components for ADAS**



|                             | 2013CY | 2014CY<br>(Forecast) | 2015CY<br>(Forecast) | 2016CY<br>(Forecast) | 2017CY<br>(Forecast) | 2018CY<br>(Forecast) | 2019CY<br>(Forecast) | 2020CY<br>(Forecast) | 2013~<br>2020<br>CAGR |
|-----------------------------|--------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|
| Millimeter-wave radar       | 418    | 581                  | 889                  | 1,296                | 1,757                | 1,944                | 2,333                | 2,372                |                       |
| Y-o-Y                       |        | 139.0%               | 153.0%               | 145.8%               | 135.6%               | 110.6%               | 120.0%               | 101.7%               | 28.2%                 |
| Near- millimeter-wave radar | 564    | 804                  | 1,048                | 1,244                | 1,523                | 1,634                | 1,686                | 1,870                |                       |
| Y-o-Y                       |        | 142.6%               | 130.3%               | 118.7%               | 122.4%               | 107.3%               | 103.2%               | 110.9%               | 18.7%                 |
| Infrared laser              | 82     | 106                  | 121                  | 129                  | 146                  | 149                  | 145                  | 144                  |                       |
| Y-o-Y                       |        | 129.3%               | 114.2%               | 106.6%               | 113.2%               | 102.1%               | 97.3%                | 99.3%                | 8.4%                  |
| Cameras                     | 368    | 605                  | 1,228                | 1,894                | 2,208                | 2,661                | 2,850                | 3,347                |                       |
| Y-o-Y                       |        | 164.4%               | 203.0%               | 154.2%               | 116.6%               | 120.5%               | 107.1%               | 117.4%               | 37.1%                 |
| Night Visions               | 439    | 533                  | 633                  | 676                  | 827                  | 953                  | 1,156                | 1,305                |                       |
| Y-o-Y                       |        | 121.4%               | 118.8%               | 106.8%               | 122.3%               | 115.2%               | 121.3%               | 112.9%               | 16.8%                 |
| TTL                         | 1,871  | 2,629                | 3,919                | 5,239                | 6,461                | 7,341                | 8,170                | 9,038                |                       |
| Y-o-Y                       |        | 140.5%               | 149.1%               | 133.7%               | 123.3%               | 113.6%               | 111.3%               | 110.6%               | 25.2%                 |

Estimated by Yano Research Institute

Notes:

1. The market size is based on the shipment value of automobile parts manufacturers (Tier1).
2. The numerical values in 2013 are actual; those in 2014 and beyond are forecast.
3. Key devices/components for ADAS in this research indicate infrared laser, night visions, and a variety of sensor units equipped in front, side and/or rear parts of car body. The sensor units include; millimeter-wave radar systems on 76/77GHz frequency band; near- millimeter-wave radar systems on 24/25GHz frequency band; and cameras (CCD/CMOS sensors). Note that the night visions include infrared cameras and ECUs/displays for night visions. All such devices and components are assumed to be equipped in passenger cars or commercial vehicles weighing 3.5 tons or less.
4. CAGR is the average annual growth rate from 2013 to 2020.