



IAA 2017: HELLA Presents Radar and Camera Functions for Highly Automated Driving

Flexible and high-resolution radar sensors based on 77 GHz technology and camera software components

Lippstadt, September 12, 2017. Driver assistance systems including radar sensors and camera software are of increasing importance in the automotive industry. One of the most important measures of vehicle safety is Euro NCAP (New Car Assessment Program). In the coming years, Euro NCAP will increasingly require reliable and cost-efficient sensor solutions for front-side environment detection, in order to avoid collisions. In addition to camera systems, especially radar sensors play a decisive role in the implementation of Euro NCAP as well as other safety and comfort functions, among other reasons, because they deliver reliable, robust results, independent of weather and light influences.

As one of the highlights at the IAA 2017, the lighting and electronics expert HELLA is presenting its 77 GHz radar sensors. The centerpiece of the sensors is the Radar System Chip, which is based on RF-CMOS technology. The architecture of the sensor makes it possible to integrate the signaling function blocks as well as the self-diagnosis features in one single chip. In this way, not only is a compact design possible, also malfunctions and loss of information will be reduced, as it can occur with discrete components. The system for self-diagnosis also monitors all functions at any time – an important prerequisite for highly automated driving.

The compact sensor design opens up new possibilities for integration, such as in the side of the vehicle. Therefore, the sensor allows a 360° environment detection for identification of moving objects (object detection) – from cars to bicyclists to pedestrians – all around the vehicle. This is especially necessary for example for automated parking.

On the path from assisted to autonomous driving, detection functions based on cameras also play an important role. The software experts from the Berlin subsidiary Hella Aglaia have been working intensively with camera-based driver assistance systems

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since its foundation in 1998. Currently, the company is working both on software components for traffic sign detection, light control and lane detection as well as on an implementation of pedestrian and vehicle detection. The corresponding software is developed in individual modules which can run on the chips of various manufacturers.

The flexible software components and open hardware platforms make possible a cost-efficient implementation of functions for individual Euro NCAP requirements and scaling to future systems for highly automated driving.

At the IAA in Frankfurt on the Main, interested visitors can experience various radar- and camera-based functions up close on the vehicle at the HELLA fair booth in the New Mobility World (Hall 3.1, booth B31) from September 12th to 17th, 2017.

Please note:

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HELLA KGaA Hueck & Co., Lippstadt: HELLA is a family-owned, listed company operating on the international stage and currently employing approximately 38,000 members of staff at more than 125 locations in about 35 countries around the world. The HELLA Group develops and manufactures lighting technology and electronics products for the automotive industry and also has one of the largest retail organisations for automotive parts, accessories, diagnostics, and services within Europe. With nearly 7,000 people working in research and development, HELLA is one of the most important innovation drivers on the market. In addition, the HELLA Group is one of the top 40 automotive suppliers in the world and one of the 100 largest German industrial companies. It achieved sales of approx. € 6.6 billion in the fiscal year 2016/2017.

Hella Aglaia Mobile Vision GmbH, Berlin: Hella Aglaia Mobile Vision GmbH is a wholly-owned subsidiary of HELLA KGaA Hueck & Co and is among the world's leading developers of intelligent, visual sensor systems. In addition to software and services (development and test) for driver assistance systems, the product portfolio also includes solutions for energy management in electric and hybrid vehicles. Additionally, HELLA Aglaia, with the „People Counter“, has developed an independent product, in order to use the expertise acquired in the automotive area in other areas as well. The 3D counting system records and analyzes visitor flows in retail, for instance, or in local public transportation.

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