



NXP, LG Electronics and HELLA Collaborate on Automotive Vision Platform

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Automotive Vision Platform takes aim at conventional, proprietary vision platforms that limit the choices of traditional and new disruptive carmakers

LAS VEGAS, Jan. 10, 2018 (GLOBE NEWSWIRE) -- NXP Semiconductors N.V. (NASDAQ:NXPI), LG Electronics and HELLA Aglaia have announced a strategic collaboration for automotive vision applications. The three powerhouses of automotive advanced driver assistance systems (ADAS) have created a new vision platform that will be made available to all automakers to promote best-in-class detection and classification of vulnerable road users to save lives. Already adopted by a major European OEM, the new vision platform takes aim at conventional, proprietary vision platforms that limit the choices of traditional and new disruptive carmakers. This effort is designed to bring rapid innovation to a crucial area of autonomous development and will help the industry meet the ambitious plans of global NCAP standards bodies.

Many of today's automotive vision platforms are proprietary, inflexible and provide little room for automakers to differentiate in the global marketplace. They also inhibit further software integration and innovation and generally lock out the ability to combine the best available sensing technology and software sources in the market. The collaborators' joint development work, led by LG Electronics, is based on the conviction that vision platforms must be open and safe to meet NCAP guidelines and to pave the way for level 3 to 5 automated driving.

The camera-based vision system, developed by LG Electronics together with NXP and HELLA Aglaia, is designed to detect and classify vulnerable road users such as pedestrians and cyclists and activate auto emergency braking (AEB). The cameras can be attached to the windshield behind a car's rear-view mirror.

Additionally, the system is designed to detect traffic signs, notify the driver of speed limits, monitor lane keeping and facilitate steering correction in case of unintentional drift. NXP's accelerated vision processing IP, together with algorithm expertise from HELLA Aglaia and LG allow such applications to run at very low latency and within a market leading power envelope.

The Platform, Automakers and Future Drivers

The new vision platform aims to provide automakers and suppliers with the technology they need to compete in NCAP 2020 testing scenarios. The solution's goals are to strengthen the detection and classification of vulnerable road users with less delay, trigger emergency braking and emergency collision avoidance and to bring predictive sensing of hazardous conditions such as low light and obstructed view. The vision platform will also pave the way for advanced new features to augment self-driving tasks and smart AI networks.

Vision Platform Contributions

LG Electronics is a leader in next-generation vision processing solutions for camera systems, a critical component of the autonomous vehicles and ADAS market. LG Electronics brings its extensive experience and comprehensive R&D capacity in camera systems, computer vision algorithms and electronic technologies to elevate existing ADAS systems to the next level. As a leading tier one, LG has integrated the various vision SoCs and software from HELLA and NXP as well as the IP components so that automakers have a rich solution readily available.

HELLA is a leading automotive supplier operating on the international stage. The HELLA Group develops and manufactures lighting and electronic products for the automotive industry. Their Berlin subsidiary HELLA Aglaia is a global leader in the development of intelligent visual sensor systems with long-standing expertise in mono- and stereo-camera systems, image processing and software programming. The company specializes in the development of innovative industrial solutions and highly effective products for driver assistance systems, electromobility and people counting.

NXP's vision processing capability, together with its safety, security and quality leadership makes it an ideal partner in the car vision space. Its S32V family of vision processors offers powerful GPU for surround view image stitching and offloads advanced vision processing and machine learning algorithms to APEX-D engines. It also has high-performance per power envelope (GHz/mW) for low power ADAS vision processing. This adds additional capabilities within the same system environment and gives carmakers and suppliers an opportunity to reduce road fatalities by deploying advanced detection algorithms on a safe, secure and certified automotive ISO26262 foundation. NXP's SoC platforms are built on open software standards to enable suppliers and OEMs to implement their own differentiating ADAS technologies.

Open Vision Partners at CES

Witness the power of NXP/LG based vision and radar systems at CES 2018, booth #CP-25 in the Central Plaza.

Quotes



Lee Woo-jong, president of LG's Vehicle Components Company and Kurt Sievers, executive vice president and general manager of NXP's automotive business at CES 2018 Automotive Vision Meeting.

"Openness and collaboration empower innovation. Now is the time for partners such as LG Electronics, NXP and HELLA Aglaia to combine resources in an open vision system for the safety of this generation and generations to come," said Lee Woo-jong, president of LG's Vehicle Components Company. "We look forward to working with NXP and HELLA Aglaia on our camera-based vision system, one that carmakers around the world will use to help bring about the autonomous revolution."

"NXP is delighted to announce this strategic partnership with LG and HELLA Aglaia," said Kurt Sievers, executive vice president and general manager of NXP's automotive business. "At a time when global road fatalities still capture headlines across the globe it is important that innovators come together and contribute their own expertise to solving safety challenges. NXP's S32V family of processors are uniquely positioned to accelerate detection algorithms and make safety decisions in a secure, redundant, fully automotive SoC platform."

"We aim to drive the trend toward autonomous driving and the collaboration with LG and NXP further supports our ambition," said Kay Talmi, managing director of HELLA Aglaia. "Partnerships like this one help strengthen our market position and provide us with all the prerequisites to further roll out our new business model: a complete set of front-camera software functions under an open and transparent licensing model. This allows a cost-efficient implementation of functions for individual Euro NCAP requirements as well as scaling to future systems for highly automated driving."

About NXP Semiconductors

NXP Semiconductors N.V. (NASDAQ:NXPI) enables secure connections and infrastructure for a smarter world, advancing solutions that make lives easier, better and safer. As the world leader in secure connectivity solutions for embedded applications, NXP is driving innovation in the secure connected vehicle, end-to-end security & privacy and smart connected solutions markets. Built on more than 60 years of combined experience and expertise, the company has 30,000 employees in more than 35 countries and posted revenue of \$9.5 billion in 2016. Find out more at www.nxp.com.

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