LG and Ambarella Join Forces to Advance AI-Driven In-Cabin Vehicle Safety Solutions

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LG Sets New Standard in Accuracy and Reliability for In-Cabin Solutions with Ambarella-Powered Driver Monitoring System; Plans Demo During CES 2025

SEOUL, Korea and SANTA CLARA, Calif., Dec. 04, 2024 (GLOBE NEWSWIRE) -- **LG Electronics** (LG), a mobility sector technology leader, and **Ambarella, Inc.** (NASDAQ: AMBA), an edge AI semiconductor company, today announced that LG will showcase its latest in-cabin solution, developed in partnership with Ambarella, during CES 2025. Ambarella worked in close cooperation with LG to integrate its CV25 AI system-on-chip (SoC) into LG's Driver Monitoring System (DMS), which allows automotive OEMs to deliver safer vehicles. This DMS is already in production with a global automotive OEM.

With its industry-leading AI performance per watt, Ambarella's CV25 chipset enables LG's DMS to perform real time analysis of high-resolution video from in-vehicle cameras. In addition to accurate object recognition, this AI SoC supports smooth high-definition video processing and achieves high energy efficiency, making it ideal for integration with various in-vehicle sensors. The CV25, which is manufactured using 10-nanometer process technology, also facilitates high-quality, detailed imaging in low-light and over a high dynamic range, ensuring stable monitoring regardless of environment, weather or time of day.

Leveraging LG's VisionWare, a key part of the company's AlphaWare portfolio of mobility software, this new DMS can accurately detect subtle eye and head movements of the driver. The system employs AI to determine whether the driver is distracted or drowsy based on these movements. Equipped with the CV25, the DMS can recognize these cues irrespective of the driver's race, gender or age, and provides precise detection and analysis even if the driver is wearing sunglasses, a hat or other accessories.

LG's DMS solution is designed to fit seamlessly into a variety of software and hardware configurations, offering automotive OEMs considerable flexibility when developing new vehicle models. This flexibility extends to other Ambarella-based LG in-cabin solutions, including its Interior Monitoring System and its Driver and Interior Monitoring System. Additionally, LG is committed to expanding its partnership with Ambarella, as part of its efforts to continuously increase performance for the broad range of LG in-cabin solutions while taking the mobility experience to new heights.

LG and Ambarella are both dedicated to improving vehicle safety, and plan to continue working together and delivering solutions that enable OEMs to meet the New Car Assessment Program (NCAP) and General Safety Regulation (GSR) standards. Additionally, LG is an active partner in Ambarella's innovation ecosystem; bringing its considerable experience and expertise to this network of industry leaders in AI-based perception, fusion and planning for automotive systems.

"The combination of LG's highly accurate and reliable in-cabin solutions with the industry-leading AI performance per watt of our CVflow ® SoCs is enabling automotive OEMs to achieve the highest vehicle safety levels," said Fermi Wang, President and CEO of Ambarella. "Our CV25 SoC

combines high performance for processing LG's AI perception stack, along with great efficiency for low power consumption and reduced thermal management, resulting in compact, flexible form factors for vehicle interiors."

"Our collaboration with Ambarella represents a major step forward in the use of AI-driven technology to advance vehicle safety," said Eun Seok-hyun, president of LG Vehicle Solution Company. "By combining LG's in-cabin monitoring expertise with Ambarella's cutting-edge AI chipset, we're setting a new standard for in-cabin solutions and actively enhancing road safety."

About LG Electronics Vehicle Solution Company

The LG Vehicle Solution Company is bringing human-centric innovations to the automotive industry. Having secured its position as a trusted and innovative partner, the company continues to provide intelligent and environmentally responsible solutions including in-vehicle infotainment, display, connectivity, ADAS and software solutions for Software Defined Vehicles. Through its firm commitment to "Driving better future mobility," the company is diversifying its portfolio to further strengthen its capabilities with acquisitions including automotive lighting systems provider, ZKW Group and vehicle cybersecurity company Cybellum, as well as the joint venture, LG Magna e-Powertrain. For more news on LG, visit www.LG.com/global/mobility.

About Ambarella

Ambarella's products are used in a wide variety of human vision and edge AI applications, including video security, advanced driver assistance systems (ADAS), electronic mirror, drive recorder, driver/cabin monitoring, autonomous driving and robotics applications. Ambarella's low-power systems-on-chip (SoCs) offer high-resolution video compression, advanced image and radar processing, and powerful deep neural network processing to enable intelligent perception, fusion and planning. For more information, please visit www.ambarella.com.

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LG AND AMBARELLA JOIN FORCES TO ADVANCE AI-DRIVEN IN-CABIN VEHICLE SAFETY SOLUTIONS

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