Dongfeng Motor Group and Ambarella Partner on Driver Monitoring System for Yixuan Max Mass-Production Vehicle

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SANTA CLARA, Calif., Sept. 22, 2021 (GLOBE NEWSWIRE) -- Ambarella, Inc. (NASDAQ: AMBA), an AI vision silicon company, today announced that it partnered with Dongfeng Fengshen (Aeolus), a mid-to-high-end brand of the Dongfeng Motor Group, to build a Driver Monitoring System (DMS) based on Ambarella's CV25 AI vision SoC and development platform. The first mass-production application of this system is in the Dongfeng Fengshen Yixuan Max, which launched on September 1st.

Dongfeng Fengshen is the flagship product from Dongfeng Passenger Vehicles. Yixuan Max adopts Dongfeng's new Mach Power, a new engine brand from Dongfeng Motor. Yixuan Max is also the first compact HEV sports vehicle based on DSMA, a framework that was independently designed and developed. Additionally, Yixuan Max is expected to be a star product in Dongfeng Fengshen's strategic transformation.

Its speedy, streamlined design, along with Yixuan Max's dynamic modeling, reflects the aesthetics of the word "express" in its slogan. The complete slogan is "My Sedan, My Express!" This vehicle's cutting-edge technology includes a high-definition intelligent camera and millimeter-wave radar. Additionally, its intelligent recognition can reach up to 210 meters in front and provides 360° full coverage around the vehicle, assisting with multi-dimensional safe driving in a variety of scenarios, such as intersections, changing lanes, driving at high speeds, parking, etc.

In particular, this vehicle's DMS, also known as a Fatigue Alarm System—which is powered by the Ambarella CV25 AI vision automotive-grade SoC—promotes driving safety, reduces the possibility of car accidents, and protects the safety of the driver and their property. Based on computer vision imaging and deep learning AI technology, this DMS detects the driver's behavior and physiological state via eye-tracking and object detection, which allows this computer vision system to understand the driver's cognitive and physical state, among other indicators. When the driver is driving dangerously, including while distracted, fatigued, dozing, smoking, talking on the telephone and other unsafe behaviors, the DMS will warn the driver within the predetermined time set in the system. Europe will begin to require DMS in vehicles manufactured from 2025 onward. With its DMS, the Dongfeng Fengshen Yixuan Max meets this requirement well in advance of that date.

"This DMS safety system is the latest example of the practical, intelligent automotive technology solutions that Ambarella and Dongfeng Fengshen have cooperated on to achieve mass production," said Fermi Wang, CEO of Ambarella. "We plan to continue this partnership, to help Dongfeng commercialize additional intelligent systems for its world-class vehicles."

The high-performance, low-power Ambarella CV25 family of SoCs integrates Ambarella's CVflow ® AI engine to accelerate various neural network algorithms. Additionally, this SoC's high-quality image signal processing unit, professional image processing algorithms, and optimization for specific camera modules and user scenarios ensure excellent image quality.

The Ambarella CV25 SoC also provides stable and reliable encoding of multi-channel high-quality video, complies with the automotive Ethernet AVB protocol, and has passed the automotive TC8 conformance testing. Additionally, it has a built-in cybersecurity hardware engine.

Dongfeng Fengshen's AI-based multi-channel smart cabin solution also adopts Ambarella's unique exposure control technology, which can avoid interference from multiple cameras with light sources that are using the same frequency. This DMS also conforms to the Euro NCAP 2025 standard specification, enabling it to implement visual processing under complex lighting conditions, which plays a key role in safe, intelligent driving.

About Ambarella
Ambarella's products are used in a wide variety of human and computer vision 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 processing and powerful deep neural network processing to enable intelligent cameras to extract valuable data from high-resolution video streams. For more information, please visit www.ambarella.com

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A photo accompanying this announcement is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/16ef6291-759f-4924-b399-2fe905381ef5

Dongfeng Motor Group and Ambarella Partner on Driver Monitoring System for Yixuan Max Mass-Production Vehicle

Dongfeng Motor Group selected Ambarella's CV25 AI vision SoC for the Driver Monitoring System (DMS) in its new Dongfeng Fengshen Yixuan Max mass-production Vehicle.