



Ambarella and Longhorn Partner to Develop an Advanced Automatic Parking System (APS) Platform

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Ambarella's CV22AQ CVflow[®] computer vision processor and Longhorn's ultrasonic sensors and 360° panoramic systems deliver safe and efficient automatic parking

SHANGHAI--(BUSINESS WIRE)--Jun. 3, 2019-- Ambarella, Inc. (NASDAQ: AMBA), a leading developer of high-resolution video processing and computer vision semiconductors, and Longhorn Auto Co., Ltd., a supplier of driver assistance products based on vision, ultrasonic sensors, and microwave radar technology for global automotive OEMs, today announced that they are partnering to develop an advanced automatic parking system (APS) platform.

The new APS platform is based on Ambarella's CV22AQ CVflow[®] computer vision chip. Combined with Longhorn's production-proven ultrasonic sensors, 360° around view monitoring (AVM) technologies, and visual perception algorithms, the platform delivers rich and highly accurate computer vision features, including parking space detection, parking line recognition, lane departure warning, automatic emergency braking (AEB), vehicle identification, obstacle classification, and map construction.

"Longhorn has focused on the global automotive electronics industry for many years — paying attention to innovation and investment in advanced intelligent driving technology while accelerating sales of AVM, rearview, and ultrasonic sensors. Our intelligent driving products, currently being developed for mass production, have received positive feedback from leading OEMs," said Xiaoping Luo, general manager of Longhorn. "Longhorn appreciates Ambarella's market strategy and their investment in automotive visual perception, especially the introduction of the CV22 series. Its CVflow architecture supports high convolutional neural network (CNN) performance and meets the design requirements of Longhorn's APS hardware platform."

"We are pleased to partner with Longhorn to deliver a robust hardware platform for the next generation of automatic parking systems," said Fermi Wang, CEO of Ambarella. "Longhorn's advanced visual perception algorithms combined with our CV22AQ SoC offer a powerful and unique solution that fuses visual perception and ultrasonic technologies."

Manufactured using an advanced 10-nanometer process, the CV22AQ chip enables the design of compact, high-performance automotive systems with ultra-low power operation. The CV22AQ's CVflow architecture delivers computer vision processing at full 4K or 8-megapixel resolution at 30 frames per second (fps), while its image signal processor (ISP) provides outstanding imaging in low light conditions and high-contrast scenes, further enhancing the computer vision capabilities of the chip. The CV22AQ also includes a suite of advanced security features to protect against hacking, including secure boot, TrustZone™, I/O virtualization, and support for online upgrades over the air (OTA).

The URL for this news release and the related image is: <https://www.ambarella.com/news/ambarella-and-longhorn-aps-platform/>

About Longhorn Auto Co., Ltd.

Longhorn provides automotive environment perception sensors and advanced driver assistance systems (ADAS) products, focusing on the fusion of vision, ultrasonic sensors, and microwave radar in the automotive industry. In cooperation with automotive OEMs, Longhorn delivers ultrasonic sensors, microwave sensors, dash cameras, around view monitoring (AVM), eMirror, automatic parking, valet parking, pedestrian protection, driver monitoring systems (DMS), and other products. For more information, please visit: www.long-horn.com

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 robotic applications. Ambarella's low-power system-on-chips (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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