



Ambarella and Smart Eye Partner to Deliver Next Generation AI-based Driver Monitoring

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Ambarella CV22AQ CVflow™ computer vision processor and Smart Eye tracking technology enable driver and in-cabin monitoring systems with advanced features

SANTA CLARA, Calif.--(BUSINESS WIRE)--Jan. 7, 2019-- Ambarella, Inc. (NASDAQ: AMBA), a leading developer of high-resolution video processing and computer vision semiconductors, and Smart Eye, a world leader in developing Artificial Intelligence (AI) powered eye, mouth, and head tracking technology, today announced they are partnering to deliver a Driver Monitoring System (DMS) platform that tracks driver actions and intentions. The platform is based on Ambarella's CV22AQ CVflow™ computer vision processor, which offers best-in-class image processing and high-performance AI computing at low power consumption, typically below 2.5 watts. Smart Eye AI software running on CV22AQ will make it possible for automotive OEMs and tier-1s to deploy a new generation of driver and in-cabin monitoring systems with advanced AI features, increasing safety and convenience for drivers and passengers.

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"We are very pleased to be working with Ambarella to enable advanced AI in the next generation of compact driver and in-cabin monitoring camera designs," said Martin Krantz, CEO of Smart Eye. "The pairing of Ambarella's CVflow high-performance, low power consumption computer vision processing with Smart Eye's growing array of high-accuracy and AI-based driver monitoring algorithms offers a highly-effective, scalable solution for Smart Eye's OEM and tier-1 customers. With the Ambarella CV22AQ, Smart Eye is able to provide high-resolution, high-precision head pose, gaze, eyelid and mouth tracking in 60Hz paired with concurrent execution of our growing portfolio of AI-based interior sensing algorithms."

"We are seeing significantly increased demand for both driver and in-cabin monitoring cameras," said Fermi Wang, President and CEO of Ambarella. "Powered by CV22AQ, this joint platform will allow system designers to fully optimize Smart Eye's innovative tracking technology in high performance, low power system designs."

The Ambarella CV22AQ offers support for both global shutter and rolling shutter CMOS sensors, both of which are required for in-cabin applications. The processor's powerful Image Signal Pipeline (ISP), with support for RGB-IR color filter arrays, enables high-accuracy detection and monitoring, even in low-light in-cabin environments. Its High Dynamic Range (HDR) processing extracts maximum image detail in high-contrast scenes, further enhancing the computer vision capabilities of the chip and performance potential of Smart Eye algorithms. The CV22AQ CVflow architecture provides the computational power necessary for multi-camera monitoring system designs, running multiple AI algorithms on each video stream. CV22AQ includes a suite of advanced security features, including secure boot, TrustZone™, and I/O virtualization to protect against hacking.

The URL for this news release is www.ambarella.com/about/news-events.html.

The URL for the related image is <https://www.ambarella.com/about/news-events/press-images/CV22AQ-press-image>.

About Smart Eye

Bridging the gap between man and machine since 1999. Smart Eye develops artificial intelligence (AI) powered eye tracking technology that understands, assists and predicts human intentions and actions. By studying a person's eye, face and head movements, Smart Eye technology can draw conclusions about an individual's alertness, attention and focus as well as gain insights into a person's awareness and mental status. Today, Smart Eye eye tracking technology is embedded in the next generation of vehicles, helping the automotive industry take another step towards safer and more eco-friendly transportation. Smart Eye research instruments offer unparalleled performance in complex, real-world situations, paving the way for new insights in aerospace, aviation, psychology, neuroscience, medical and clinical research.

Smart Eye is headquartered in Gothenburg, Sweden and has offices in Michigan, USA, Tokyo, Japan and Chongqing, China, as well as having partners, resellers and distributors in Europe, USA and APAC. Its solutions are used by more than 700 clients all over the world by leading research groups, brands and labs such as US Air Force, NASA, BMW, Lockheed Martin, Audi, Boeing, Volvo, GM, and many more. For more information, please visit <http://smarteeye.ai>.

About Ambarella

Ambarella's products are used in a wide variety of human and computer vision applications, including surveillance, Advanced Driver Assistance Systems (ADAS), electronic mirror, drive recorder, driver/cabin monitoring, autonomous driving, and robotic applications. Ambarella's low-power and high-resolution video compression, image processing, and deep neural network processors and software enable cameras to become more intelligent by extracting valuable data from high-resolution video streams. For more information, please visit www.ambarella.com.

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