



Motional Selects Ambarella CVflow® AI Vision Processors for its Driverless Vehicles

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SANTA CLARA, Calif.--(BUSINESS WIRE)--Mar. 2, 2021-- Ambarella, Inc. (Nasdaq: AMBA), an AI vision silicon company, today announced that [Motional](#), a global leader in driverless technology, has selected Ambarella's CVflow® family of AI processors for its driverless vehicles. The processors work with Motional's network of LiDAR, camera, and radar sensors to enable the vehicles' safe operation in diverse and challenging road conditions.

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Ambarella's CVflow system on chips (SoCs) will be part of the central processing module in Motional's driverless vehicles, providing image and computer vision processing for cameras in the sensing suite, including the front-facing cameras. The CVflow AI engine will enable Motional AI algorithms to perform complex computer vision tasks, such as object detection, classification, and image segmentation, with industry-leading power efficiency. Ambarella's advanced image processing will allow the vehicles to operate in challenging lighting conditions, including low-light and high-contrast situations. The SoC's H.264 encoding will enable the efficient logging of video data from all cameras in the vehicle.

Motional is leading the industry in making driverless vehicles a reality; the company recently became among the first in the world to put [driverless vehicles on public](#)

[roads](#), and announced a [landmark agreement with Lyft](#) for the largest deployment of robotaxis on a major rideshare network. At the heart of these milestones is Motional's relentless commitment to safety. The company's driving record includes navigating more than 1.5 million miles in diverse environments, and providing more than 100,000 public rides with zero at-fault incidents. It has also led the establishment of industry-leading safety standards, having co-published the [Safety First for Automated Driving](#) white paper.

"We're at the forefront of commercializing robotaxis, and it's critical that our vehicle architecture allows us to scale, while maintaining the highest possible safety standards," said Joaquín Nuño-Whelan, vice president of hardware, Motional. "Ambarella's processors provide the AI performance, low power consumption, and advanced image processing necessary for the camera perception to perform well under all conditions. This supports the safe operation of our vehicles as we bring driverless technology to consumers worldwide."

"We are proud to partner with Motional, a leader in driverless vehicle technology," said Fermi Wang, CEO of Ambarella. "Motional's autonomous vehicle expertise, including advanced AI algorithms running on our CVflow SoCs, will enable driverless vehicles that combine safety with exceptional performance."

Ambarella's CVflow SoC family offers an open and programmable platform for differentiated high-performance automotive systems. It includes AEC-Q100 qualified processors, as well as processors enabling systems with ISO 26262 ASIL-B (D) functional safety levels. A complete set of tools is provided to accelerate the development and optimization of neural networks, with support for industry-standard training tools including Caffe™, ONNX, PyTorch, and TensorFlow™.

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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