



Mobileye and Zeekr OTA Update Opens a New Chapter in Advanced Driver Assist

July 26, 2022

Unparalleled safety and comfort features delivered over-the-air, at the push of a button, to tens of thousands of Zeekr 001 electric vehicles.

Prof. Amnon Shashua

Last week, Mobileye and Zeekr delivered one of the world's most advanced highway assist packages over-the-air to tens of thousands of Zeekr 001 EV owners. Having already been equipped with seven 8-megapixel cameras (on top of four parking cameras) offering 360-degree surround perception, and two 7-nm EyeQ@5 High Systems-on-Chip, the hardware was already in place to enable a massive feature update, at the push of a button.

It's not just the future of safety, but a demonstration of how vehicles will gain new capabilities through software advancements. All this comes less than two years after we [announced](#) the Geely Group's choice of [Mobileye's SuperVision™ advanced driver-assistance system \(ADAS\)](#) for its Zeekr electric vehicles.

A More Human-Like Highway Assist

Those who follow the development of ADAS software will know that today, most systems for adaptive cruise control, highway assist, and similar systems meant to manage routine highway driving are designed based on one main input: the vehicle ahead of you. However, if you think about how humans drive, and many everyday driving scenarios, taking just the car ahead of you into account is not enough. Human drivers think about the broader scene around a vehicle before making a decision. A very common example is coming up on a traffic jam – the car immediately in front of you may not have decelerated yet, but a vigilant driver would notice that the cars up ahead have begun to slow or stop, and will come to a gradual and smooth stop.

Its 360° high-resolution surround-vision provided by seven 8-megapixel cameras and four parking cameras enables the Mobileye algorithm to consider the changing driving environment and intelligently react to numerous inputs and objects (in addition to the behavior of the lead vehicle). For example, the decision-making can account for cars ahead of the lead vehicle, or a vehicle on the shoulder with an open door (which requires a slight lateral maneuver), or even a [pedestrian](#) on the side of the road (which requires slowing down while passing by).

Combined with the ability to operate at up to 130 kph (81 mph) on any road with clear lane markings – while also taking road curvature into account, and offering the latest in camera-radar fusion capabilities – this update has provided [Zeekr 001](#) owners, overnight, with one of the most advanced highway-assist feature-sets available on the market today... and it's only the beginning.

The Next Era of ADAS

Silicon and software are the next frontiers at the heart of car design, architecture, and utility. Car companies will differentiate themselves not through horsepower, but through the quality of software and the architectural design around it. What started as a handful of driving assistance features has evolved into the essence of what will make a modern car; and with OTA updates becoming a routine reality, the speed of innovation for vehicles will only increase. Consumers will come to expect the latest features via regular software updates, just as they do with their smartphones.

With our deeply vertically integrated system with Zeekr – from the [SoC](#) and ECU hardware to the computer vision and fusion algorithms and integration of our driving policy applications – delivering new content over the air will become second nature over time. Upon the addition of [high-definition maps](#), set for our future update, even more [cloud-enhanced](#) features become possible – including full navigate-on-pilot, not to mention additional future roll outs including driving assist on urban roads and parking features.

To meet our goals with Zeekr, we have invested in extensive R&D, engineering, and testing capabilities in China. And we have moved quickly, delivering hardware, software, and services in less than two years – a feat possible only because we integrate the entire technology chain, from chip design to sensor integration, along with the smart content and applications that tie it all together. This is the beginning of a new era for ADAS, and we are proud to [partner with Zeekr](#) in blazing this trail together.