Mobileye® 8 Connect™ FAQ

How does Mobileye® 8 Connect™ work?

Just like when we drive using our vision to scan the road, judging how far we are from obstacles and what potential dangers they pose, a camera can also scan the way ahead – with the advantage of never becoming bored or distracted. But the key element is in the ability of our system to mimic how people understand these images. This is where Mobileye's EyeQ® chip and our leading role in developing artificial intelligence come into play.

Images captured by the camera are collected by the EyeQ® chip's SoC (system-on-chip) and each object is recognized by the chip's AI. This AI then uses changes in perspective, shading and other data to determine if an object poses a danger. If it does, the system notifies the driver with an audio and/or a visual alert. Of course, this entire process must take place at an extraordinary speed – the EyeQ4 chip built into Mobileye 8 Connect can conduct an almost unfathomable 2.5 trillion operations per second.

The AI making these determinations is based on two decades of experience, stress-testing Mobileye algorithms against real-life driving situations derived from over 200 million miles of high-resolution video from automaker pre-production testing. Building on this historical knowledge, the AI's deep learning capabilities allow it to develop its own algorithms, training itself with no human intervention.

What are the components of Mobileye 8 Connect?:

A camera unit containing the camera, EyeQ® chip, SIM card, modem, gyro and G-sensor (for detecting harsh braking, accelerating and cornering) and speaker

An antenna for communication

A GPS unit

An EyeWatch™ display for visual alerts

What does "Connect" mean in Mobileye 8 Connect?

The "Connect" in Mobileye 8 Connect indicates that the system is able to both receive information from and send information to the cloud. This allows for implementation of features such as OTA.

What is OTA?

OTA stands for 'over-the-air' and is an important feature of Mobileye 8 Connect whereby Mobileye can update the software via the cloud, so the system is kept up-to-date with the latest improvements and features.

What data does the Mobileye 8 Connect device record about my driving?

Mobileye 8 Connect is able to record alerts issued by the system in addition to incidents of harsh (sudden) braking, accelerating and cornering. For fleets using Mobileye's optional (subscription) fleet management system, alert and incident data is made available for the fleet's records. This gives fleet managers clear information on their drivers' driving habits.

Why does the Mobileye Eyewatch™ show symbols when no warning or danger exists?

Symbols appear on the EyeWatch to indicate that the system has detected cars, lanes, pedestrians, etc., even if no alerts are necessary. This is to confirm that the system is active.

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Why does the system warn me when there doesn't appear to be any danger?

The Mobileye 8 Connect device is constantly calculating and reevaluating distance, speed, and trajectory at a rate far faster than humans are capable of. Therefore, the system sometimes realizes, before the driver does, that there is a potential danger and issues an alert.

Will Mobileye 8 Connect automatically brake or keep me in lane?

Mobileye 8 Connect is an alert system only, and does not intervene in vehicle operation.

Does Mobileye 8 Connect detect pedestrians and cyclists at night?

One of Mobileye 8 Connect's new features is the ability to detect pedestrians and cyclists at night. (This feature works in very low light but not in total darkness.)

What are the five lifesaving alerts provided by Mobileye 8 Connect ?

The Mobileye 8 Connect provides the following five alerts:

Forward Collision Warnings (FCW) - FCW warns drivers of an imminent rear-end collision with a car, truck, or motorcycle ahead.

Headway Monitoring Warning (HMW) - HMW helps drivers maintain a safe following distance from the vehicle ahead of them by providing visual and audio alerts if the distance becomes unsafe. The HMW displays the distance, in seconds, to the vehicle in front.

Lane Departure Warning (LDW) - LDW warns of deviation from the driving lane without the use of turn signals. (Absence of turn signal suggests deviation is unintentional.)

Pedestrians and Cyclist Warning (PCW) - PCW warns of imminent collision with a pedestrian or cyclist ahead.

Speed Limit Indicator (SLI) - SLI notifies of a new speed limit and when the driver exceeds it. It detects and classifies various visible speed limit signs and provides visual indication when the vehicle's speed exceeds the posted speed limit by flashing a speed limit sign. The SLI is based on the most recent speed limit sign detected by the system.

What is the maximum range of detection?

Mobileye 8 Connect can detect vehicles up to 200 meters (650 feet) ahead, motorcycles up to 100 meters (325 feet) ahead, and pedestrians at up to 70 meters (230 feet) ahead.

Got a question we haven't answered?
Tech support is only a phone call away at (877) 867 – 2340.