

Delphi Integrated Radar and Camera System

Delphi's industry-first, integrated Radar and Camera System (RACam) combines radar sensing, vision sensing and data fusion in a single sophisticated module. The technology integration is helping to provide optimum value to vehicle manufacturers by enabling a suite of active safety features that includes adaptive cruise control, lane departure warning, forward collision warning, low speed collision mitigation, and autonomous braking for pedestrians and vehicles.

Delphi's patent-pending RACam uses data fusion algorithms to combine inputs from the radar and camera to reduce the potential for accidents, injury and costly property damage.

▶ Benefits

As more active safety features move from optional content to standard fit, sensor fusion systems will help to keep cost down and are likely to become more prevalent in the market. RACam's small package size, 123mm x 68mm x 38mm, simplifies vehicle integration and allows for application on the windshield side of the rear view mirror, removing the sensor from the vehicle's crush zone and helping to reduce repair costs in the event of a frontal impact.

▶ Features

- Full-speed Adaptive Cruise Control
- Lane Departure Warning / Lane Keeping
- Headway Alert
- Forward Collision Warning
- Pre-crash Collision Mitigation
- Full Autonomous Braking
- Pedestrian Detection
- Enhanced Object Detection
- Headlight Control
- Traffic Sign Recognition

▶ Market Trends

- The National Highway Traffic Safety Administration (NHTSA) recommends that 2011 vehicles sold in the U.S. highlight availability of Forward Collision Warning and Lane Departure Warning systems on the sticker
- The Insurance Institute of Highway Safety (IIHS) recognizes the benefits of Advanced Driver Assistance Systems such as Lane Departure Warning, Forward Collision Warning, Autonomous Braking for Pedestrians and supports system deployment
- Analysts forecast that application rates for adaptive cruise control will grow to nearly 20% by 2017
- Analysts forecast that application rates for lane departure warning will grow beyond 10% by 2017



An industry first, the Delphi RACam combines radar and vision sensing in a single module to enable multiple safety features at lower cost.