V2X Use Case Demonstrator

For a number of years, governments around the world have been sponsoring research on the topics of Vehicle to Vehicle (V2V) and Vehicle to Infrastructure (V2I) communications. Collectively, these technologies (V2X) are poised to make the driving experience safer and more convenient for consumers in the very near future.

Visteon has combined its strength in driver information display integration, human-machine interaction (HMI) design and V2X technology to develop a demonstration that shows the benefits of V2X without having to take a drive on a closed course. Visteon demonstrates a series of V2X use cases via model cars and a driver information display that represents the cluster inside one of the cars.

Benefits

- Allows for experimentation with respect to V2X use cases without requiring a live fleet of vehicles
- Offers potential for significant improvements in driver awareness including collision, hazardous road and curve speed warnings and traffic flow information
- Demonstrates an automotive cluster interface and associated HMI for various V2X use cases

Status

- ☑️ Production
- ☐ Application Ready
- ☑️ Advanced Development

Consumer Insight: Preference for use cases varies greatly by region; however, “forward collision warning” ranks among the most popular in every region.
Technical Features

- Front Collision Warning
  - Warns drivers about the high probability of a front end collision

- Emergency Break Light Warning
  - Alerts trailing drivers of stopping traffic much quicker than having to wait to see break light illumination of the vehicle immediately in front of the driver

- Local Road Condition Alert and Reporting
  - Alerts other drivers of adverse road conditions sensed by one or more vehicles

- Traffic Light Timing and In-Vehicle Duplication
  - Assists drivers whose view of a traffic light is physically obstructed by a large vehicle or hampered by lighting conditions
  - Informs the driver of the time remaining before the light changes

- Disabled Car Warning
  - Warns drivers approaching that there is a disabled car ahead and should be alerted of potential slowdown and alerted to increase safety of others

- Traffic Jam Assist
  - Warns drivers approaching there is a traffic slow down and an alternative route is advised
  - Relies on “real time” vehicle data instead of an Internet connected navigation solution

- Points of Interest Communication
  - Communicates or advertises location-specific information to the vehicle
  - Examples of such communication could be lunch specials, hours of operations, recommended speed, parking information, etc.