Technology Overview



North American International Auto Show 2015

Contact: Bridgette LaRose
DENSO International America, Inc.
(248) 372-8266
bridgette larose@denso-diam.com

DENSO's Talking Car Technology

--Be Connected, Be Safe, Be Green--

- In August 2014, the U.S. Transportation Department moved forward on writing rules that may
 mandate automakers' use of talking-car technology, saying more than a thousand lives a year
 might be saved on the nation's roadways
- DENSO is the leading supplier of vehicle-to-vehicle and vehicle-to-infrastructure or V2X technology, which will allow your car or truck to communicate or "talk" with other equipped vehicles and roadway infrastructure like traffic signals
- DENSO has been globally working on V2X technology since 2003
- DENSO is participating in V2X field tests around the world, including the United States
- NHTSA is due to make a decision in Fall 2013, whether to standardize it on future cars and trucks
- DENSO fully supports V2X technology and expects deployment in the U.S. in the next few years

How does V2X technology work?

- The technology is called Dedicated Short-Range Communications (DSRC) devices.
- DSRC is a two-way, short-range wireless communications technology designed for the auto industry – Basically, it's Wi-Fi technology specifically for auto, allowing cars to wirelessly exchange data with other cars and traffic signals.
- The DSRC's primary function is to assess the surrounding environment based on precise data exchanges with other DSRC-equipped vehicles and roadside hotspots.

Vehicle-to-vehicle (V2V): Crash Prevention

- The more vehicles equipped with DSRC devices, the more effective the technology.
- When all cars have V2X, it creates a 360-degree situational awareness for each vehicle's surroundings.
- The embedded computing device on each car can use information about nearby vehicles to calculate its current and future positions, which can help predict hazardous situations and alert drivers of precautions to avoid crashes.

Vehicle-to-infrastructure (V2I): Easing Congestion and Improving Fuel Efficiency

- V2X can also support enhanced mobility and environmental responsibility.
- This same DSRC technology can provide advisories to in-vehicle systems on the timing of traffic signals to optimize fuel efficiency and time-saving driving habits.
- The DSRC will be able to "talk" with the signal to tell you how many seconds you have left at a red light or green light.
- It can also tell you what speed to drive (under the safest limit of course) to make all the green lights.

Testing the Technology

Right now, DENSO's demonstration vehicles equipped with DSRC technology can
communicate with traffic signals at select intersections in Michigan, including a six-mile
stretch of Telegraph Road right outside DENSO's North American regional headquarters in
Southfield, Michigan. Similar test beds also exist in California, New York and Florida, and in
Europe and China.