

# The Idaho Statesman

Article published Oct 25, 2005

<http://www.idahostatesman.com/apps/pbcs.dll/article?AID=/20051025/NEWS0202/510250327/1029/NEWS02>

Micron unveils auto-backup camera chip  
New technology could prevent children's deaths

Child auto safety advocate Janette Fennell calls it the "Bye-bye Syndrome": A youngster running to say goodbye to a loved one leaving in a car is struck or rolled over as the vehicle moves in reverse, the driver unable to see the child behind them.

The president of the Kansas City-based organization Kids and Cars hopes a new congressionally mandated study on auto backover death rates and avoidance technology will lead to a requirement that all new cars have on-board systems to alert drivers to rear hazards. Boise-based Micron Technology Inc., Idaho's largest private employer, is aiming to be a major supplier of the rear-imaging technology to automakers.

The third-largest computer memory chip maker in the world unveiled a new imaging chip today specifically designed for use in automotive digital video systems. The chip is targeted at automotive applications such as side- and rearview cameras that help drivers park or avoid children in their blind zone, and cockpit cameras that identify a car's authorized drivers — and take a video image of would-be thieves before disabling the vehicle's ignition.

"Other applications would include side-view cameras sticking out from the nose of a car to help drivers see oncoming traffic when emerging from a blind alley, a 360-degree view around the exterior of the car, or a kiddie cam, giving a driver the ability to see a child in the back seat," said Curtis Stith, director of marketing for emerging markets in Micron's Imaging Group.

The emerging markets division handles image sensor products that Micron has recently started developing, including image sensors for cars and the medical field, like sensors used in swallowable pill cameras.

Analysts say new cars may have as many as 20 image sensors per vehicle within 10 to 20 years, including processing chips that convert images into data to operate "smart" air-bag deployment speeds, collision avoidance cruise controls, driver drowsiness detection and lane-straying warning systems.

"We believe there is potential for somewhere between four and 10 cameras in one car by 2015," Stith said. "If you think about the fact that between the U.S. and Western Europe and Japan, there are about 35 to 40 million passenger vehicles manufactured each year, now you see why it is an interesting market for Micron."

Even though many cars will not use image sensors for another decade, Micron must get in the market now, Stith said. "The design timeline for a brand new car they are starting today is two to five years," he said. "So if you want to be there in 2009, you need to have started already."

Micron began making image sensors for cell phone cameras, digital cameras and other products in 2001 in an effort to diversify its product line and help level out the ups and downs of the DRAM market. DRAM — the dynamic random access memory chip that is Micron's main product — is used in several technological devices, mostly personal computers.

Micron first began researching sensors for the automobile industry three years ago, and put its first two chips into production earlier this summer, Stith said.

The latest chip is more advanced than Micron's first two because it combines digital and video capabilities in one chip and takes better pictures under more severe temperatures, Stith said.

Micron's first two chips will show up in more luxury vehicles hitting the market early next year, but Stith said he could not disclose which cars would carry the Micron chips.

"A lot of this technology will show up first in high-end cars, then you could expect it to be in more vehicles as the price comes down," said Morry Marshall, vice president of strategic technologies for Semico Research Corp. in Phoenix.

But applications are limited now because so few cars on the road have liquid crystal display screens, said Jon Erensen, semiconductor research analyst for Gartner, Inc., in Stamford, Conn.

"Right now, the applications are pretty limited to high-end cars that have built in GPS or in-dash entertainment systems," he said. "Micron and other makers of competing technology would love to see some kind of rear-vision mandate come forward."

Last month, the National Highway Traffic Safety Administration announced the agency had begun the rule-making process to require all trucks weighing over 10,000 pounds to have mirrors or video cameras to alert drivers to people directly behind the vehicles.

The \$286.5 billion surface transportation bill passed by Congress and signed into law by President Bush in August includes money for NHTSA to study ways of reducing backover deaths and analyze various prevention technologies.

Last year, the nonprofit Consumer's Union tested the rear blind zone on dozens of late-model vehicles to determine the distance at which a 5-foot 1-inch driver looking through the rear window could see a 28-inch-tall orange traffic cone placed behind the auto. The blind zone ranged from 10 feet back for a 2004 Chevrolet Aveo sedan to over 51 feet for a 2002 Chevrolet Avalanche pickup.

More than 90 children have been killed so far this year in backup accidents, according to Fennell's organization. A February report by the U.S. Centers for Disease Control and Prevention found nearly 2,500 injured children are taken to hospital emergency rooms every year after being struck by a car moving in reverse.

"There is no federal regulation requiring rear visibility standards, cars are getting bigger and children are being killed even though technology now exists to prevent this," said Fennell.

Idaho Statesman reporter Melissa McGrath and Christopher Smith of the Associated Press contributed to this report.