

Reduce Driver Distraction with Automotive-Qualified 3D Gesture Recognition Controller

Decrease automotive 3D HMI design costs with Microchip's new gesture controller

CHANDLER, Ariz., July 10, 2018 (GLOBE NEWSWIRE) -- Car manufacturers are increasingly seeking ways to reduce driver distraction through implementing functional safety technology in vehicles. Many Human Machine Interface (HMI) designers are turning to gesture recognition as a solution to improve driver and vehicle safety without sacrificing interior design, adding features that allow drivers to easily control everything from switching on lights to answering phone calls while focusing on the road. Microchip Technology Inc. (NASDAQ:MCHP) today announced a new three-dimensional (3D) gesture recognition controller that offers the lowest system cost in the automotive industry, providing a durable single-chip solution for advanced automotive HMI designs. The MGC3140 joins Microchip's family of easy-to-use 3D gesture controllers as the first qualified for automotive use.

Suited for a range for applications that limit driver distraction and add convenience to vehicles, Microchip's new capacitive technology-based air gesture controller is ideal for navigating infotainment systems, sun shade operation, interior lighting and other applications. The technology also supports the opening of foot-activated rear liftgates and any other features a manufacturer wishes to incorporate with a simple gesture action. The MGC3140 is Automotive Electronics Council AEC-Q100 qualified with an operating temperature range of -40 to +125 degrees Celsius, and it meets the strict electromagnetic interference (EMI) and electromagnetic compatibility (EMC) requirements of automotive system designs. Each 3D gesture system consists of a sensor that can be constructed from any conductive material, as well as the Microchip gesture controller tuned for each individual application.

"With the MGC3140, we're bringing a proven gesture technology that provides an intuitive human interface to reduce driver distraction in vehicles," said Fanie Duvenhage, vice president of Microchip's Human Machine Interface business unit. "Microchip is committed to supporting the automotive market with a growing portfolio of touch and gesture controllers alongside leading technical support. This device gives customers a cost-effective gesture solution without compromising on the interior design of a vehicle."

While existing solutions such as infrared and time-of-flight technologies can be costly and operate poorly in bright or direct sunlight, the MGC3140 offers reliable sensing in full sunlight and harsh environments. Other solutions on the market also come with physical constraints and require significant infrastructure and space to be integrated in a vehicle. The MGC3140 is compatible with ergonomic interior designs and enables HMI designers to innovate with fewer physical constraints, as the sensor can be any conductive material and hidden from view.

Development Tools

The Emerald evaluation kit provides a convenient evaluation platform for the 3D gesture recognition controller. The kit includes a reference Printed Circuit Board (PCB) with the MGC3140 controller, a PCB-based sensor to recognize gestures, as well as all needed cables, software and documentation to support an easy-to-use user experience. All parts are compatible with Microchip's Aurea software development environment which supports all Microchip 3D gesture controllers.

Pricing and Availability

The MGC3140 is available now in sampling and volume production quantities. Pricing is available upon request. For additional information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's website.

Resources

High-res images available through Flickr or editorial contact (feel free to publish):

- Application graphic: https://www.flickr.com/photos/microchiptechnology/41480811232/
- Chip graphic: https://www.flickr.com/photos/microchiptechnology/40808894064
- Block diagram: https://www.flickr.com/photos/microchiptechnology/41480810662

About Microchip Technology

Microchip Technology Inc. (NASDAQ:MCHP) is a leading provider of microcontroller, mixed-signal, analog and Flash-IP solutions, providing low-risk product development, lower total system cost and faster time to market for thousands of diverse customer applications worldwide. Headquartered in Chandler, Arizona, Microchip offers outstanding technical support along with dependable delivery and quality. For more information, visit the Microchip website at www.microchip.com.

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