# elmos

## HALIOS<sup>®</sup> Signal Conditioner for Proximity and Gesture Recognition E909.22

Preliminary Information - Mar 12, 2019



#### Features

- Patented HALIOS<sup>®</sup> (High Ambient Light Independent Optical System) control loop
- 4 LED Sending Channels, 100mA per channel
- 2 Receiving Channels
- 1 Compensator Channel
- Scalable HALIOS<sup>®</sup> frequency up to 1MHz
- SSI serial sensor interface
- Ambient light immunity up to 200.000 lux
- Temperature Range -40°C to +105°C
- AEC-Q100 automotive qualified
- Package QFN20L4

#### Applications

- Proximity and gesture recognition for automotive touch displays
- Driver and passenger detection
- Wake-up function for displays
- Touchless control in harsh environments (e.g. explosion protected areas)

#### General Description

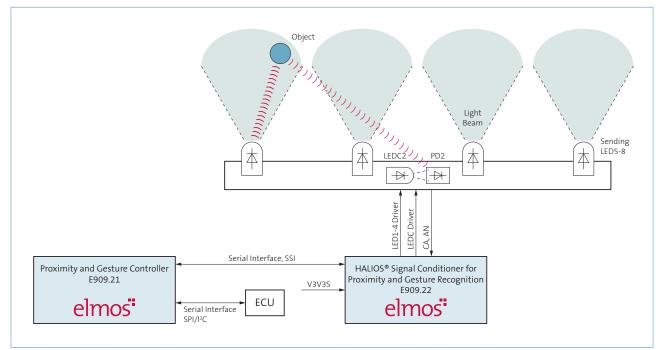
The E909.22 together with the E909.21 controller for proximity and gesture recognition is a dedicated HALIOS<sup>®</sup> system for gesture control applications and optimized for the use for automotive touch displays.

The function principle is based on comparing the light beam, which is reflected by the object to be detected with a reference light beam for most robust object detection. As a result, the device offers best immunity against ambient light, improved sensitivity and automatic calibration over vehicle lifetime.

#### Ordering Information

C	Ordering-No.	Temp Range	Package
E	90922A52C	-40°C to +105°C	QFN20L4

## Typical Application Circuit



This document contains information on a pre-production product. Elmos Semiconductor AG reserves the right to change specifications and information herein without notice.

# **Elmos Support**

Headquarters Elmos Semiconductor AG Heinrich-Hertz-Str. 1 44227 Dortmund (Germany) Phone: +49 (0) 231 / 75 49-100 Fax: +49 (0) 231 / 75 49-149 sales-germany@elmos.com www.elmos.com

Sales and Application Support Office North America Elmos NA. Inc. sales-usa@elmos.com

Sales and Application Support Office China Elmos Semiconductor Technology (Shanghai) Co., Ltd. sales-china@elmos.com

Sales and Application Support Office Korea Elmos Korea sales-korea@elmos.com

Sales and Application Support Office Japan Elmos Japan K.K. sales-japan@elmos.com

Sales and Application Support Office Singapore Elmos Semiconductor Singapore Pte Ltd. sales-singapore@elmos.com

Note: Elmos Semiconductor AG (below Elmos) reserves the right to make changes to the product contained in this publication without notice. Elmos assumes no responsibility for the use of any circuits described herein, conveys no licence under any patent or other right, and makes no representation that the circuits are free of patent infringement. While the information in this publication has been checked, no responsibility, however, is assumed for inaccuracies. Elmos does not recommend the use of any of its products in life support applications where the failure or malfunction of the product can reasonably be expected to cause failure of a life-support system or to significantly affect its safety or effectiveness. Products are not authorized for use in such applications.