# HALIOS® MULTI PURPOSE SENSOR FOR AUTOMOTIVE E909.06

**PRODUCTION DATA - NOV 16, 2011**

RoHS compliant

## Features

- Sensor IC based on HALIOS® technology
- Up to 4 sending channels, 1 compensation channel an 1 differential receiver input for various HALIOS® applications
- 16 bit micro controller 'EL16' with debug interface
- Up to 1.5K x 18 (3KByte) SRAM including 2 bit parity per 16 bit word and byte write support
- Up to 30K x 22 (60KByte) FLASH including 6 bit CRC checksum per 16 bit word
- SPI and I²C communication interface
- SCI interface incl. LIN support
- Watchdog, 32 bit timer, up to 8 GPIOs
- Multiply unit
- AEC-Q100 automotive qualification
- Supply voltage range 2.25V to 2.75V

## Applications

- Optical or capacitive input devices
- Proximity and gesture detection
- Compact HMI interfaces for one-dimensional up to three-dimensional input

## General Description

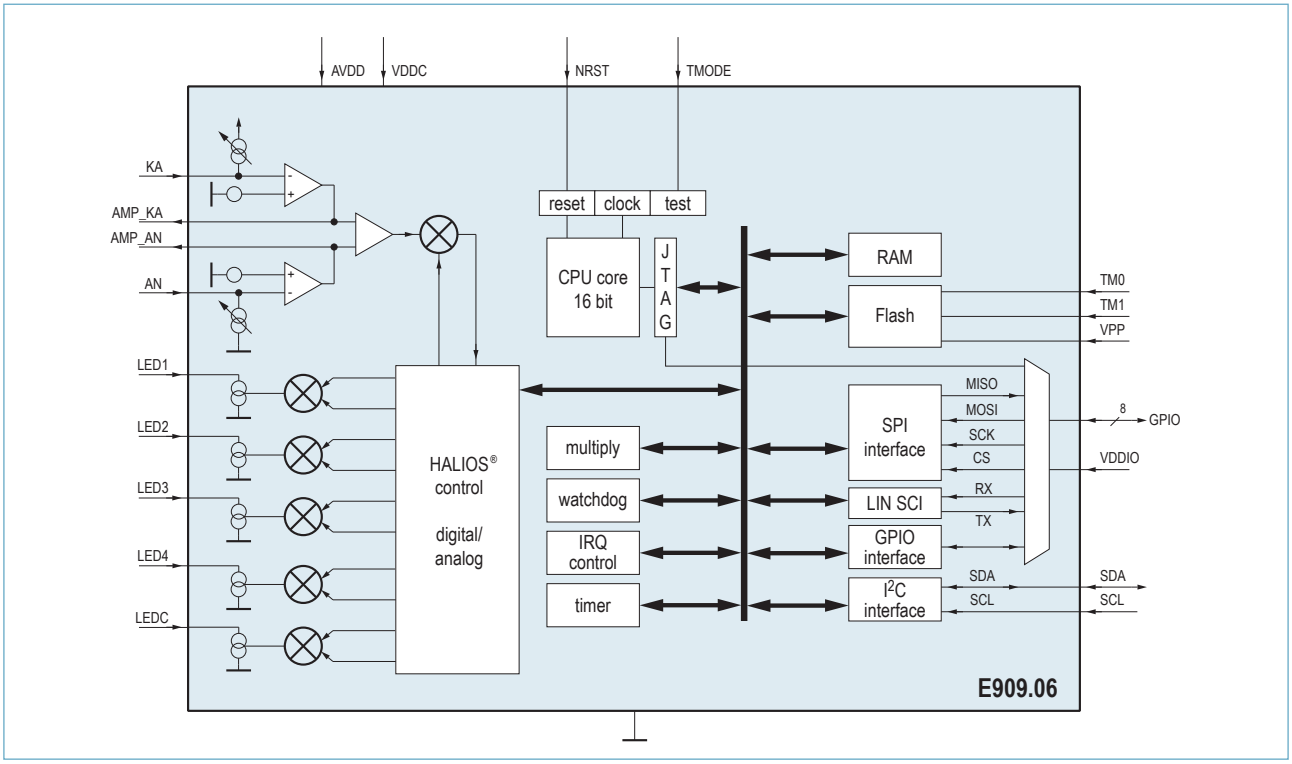
The IC is based on an optical bridge technology which provides a non-mechanical detection of movements.

The system detects the optical reflections of an object in front of the sensor by using a function principle called HALIOS® (High Ambient Light Independent Optical System) which is very effective in the suppression of ambient light and also has self calibration capability to eliminate disturbances caused by housing reflections and scratches.

In the same manner capacitive systems can be addressed by using the integrated charge amplifier.

## Ordering Information

| Product ID | Temp. Range | Package |
|---|---|---|
| E909.06 | -40°C to +85°C | QFN32L5 |

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