HALIOS® MULTI-PURPOSE OPTICAL SENSOR WITH HIGH LIGHT IMMUNITY E909.05

Features

- Up to 4 emitters and 1 compensator
- Automatic calibration of all relevant values
- Optical principle with no mechanics
- SPI and I²C communication interfaces available
- 16bit microcontroller with typ. 8MHz
- 32kByte Flash and 3kByte SRAM memory
- 50µA standby current
- 2.5mA circuit operating current
- Supply voltage range
  Core 2.25V to 2.75V / IO 1.50V to 2.8V
- Operating temperature range -40°C to +85°C
- QFN 5x5 32Ld package

Applications

- Highly intuitive input devices (e.g. handheld devices, HMI steering wheel, 3D MMIs, etc.)
- In combination with suitable optics and additional software, real x, y, z coordinates (64 x 64 x 16 positions) are possible
- Navigation keys, rotary switches, sliders, proximity sensors and optical switches are possible
- Multi-key applications for rough environmental conditions
- Far range (up to 3m) proximity & motion detection

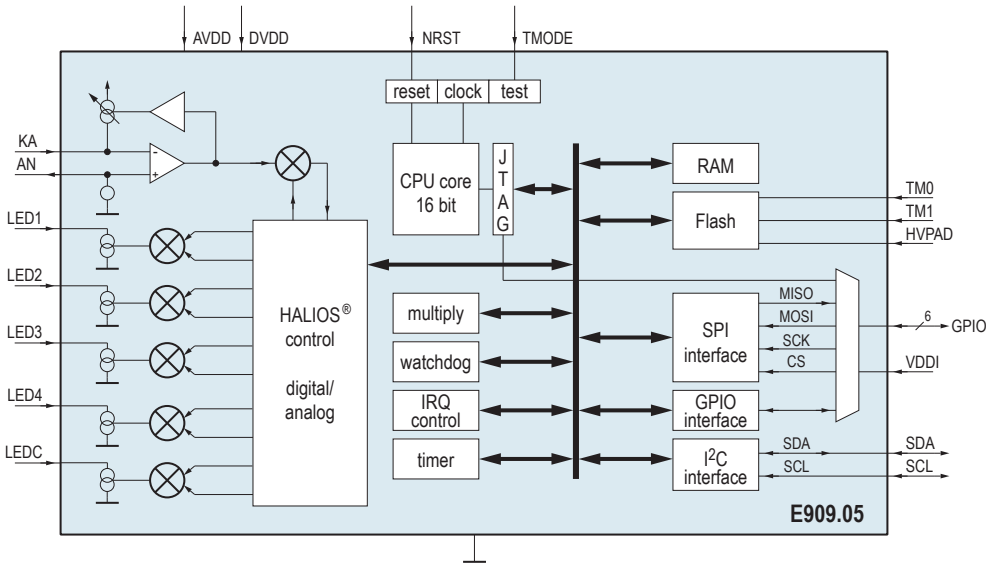
General Description

The HALIOS® multi purpose optical sensor is based on an optical bridge which provides a non mechanical detection of gestures (e.g. movement of a finger). The IC E909.05 prepares data from optical reflections of an object in front of the sensor using a system called HALIOS® (High Ambient Light Independent Optical System).

HALIOS® is highly efficient suppressing ambient light and also has an inherent self calibration capability to eliminate disturbances caused by housing reflections such as dirt.

New intuitive user interfaces are possible with this unique input device. All data are analyzed and evaluated internally with a high performance microprocessor and the data output can be easily customized.

HALIOS® devices can be applied behind closed surfaces so you are given the freedom of a very flexible design. HALIOS® firmware provides all necessary algorithms and software based filters; furthermore, the software is highly flexible and can be expanded for many applications.



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