

Fantastic Design with One IC.

Benefits

- Output current capability up to 40mA per channel
- SOIC8EP package with internal heat slug
- Advanced ESD and ISO pulse robustness
- Internal LIN transceiver with LIN auto addressing

Key Features

- Battery supply voltage 5V to 28V
- 3 high-precision current mode LED driver
- 4 independent PWM generators
- 16 bit resolution and 48MHz clock
- JTAG debug interface usable as GPIO and/or analog input
- Integrated 16 bit microcontroller
- Different internal memory structures: EEPROM, RAM and SysROM
- Different diagnostic features

Design a New Experience.
Position Detection, High Flexibility and LIN Interface.



EVERY IC GETS
AUTOMATICALLY CONFIGURED



Overview E521.36

The E521.36 is a one chip solution for RGB ambient light application. It provides an integrated 16-bit microcontroller with 32kByte memory, EEPROM, a LIN transceiver supporting LIN autoaddressing.

The integrated current sources can be controlled by a 16bit PWM with a 48MHz clock. This enables PWM cycle frequencies up to 700Hz with full resolution. Each driver can be used to drive external loads with currents up to 40mA.

For power management and temperature compensation the device provides an integrated temperature sensor as well as an supply voltage sensing circuitry. Furthermore, with the ADC in the measurement system and the differential measurement of the forward voltage an effective compensation for ageing and temperature can be implemented.

LIN Auto-Addressing

Elmos could successfully implement the established method of auto-addressing for RGB LIN Controller.

The device supports an auto-addressing feature using the bus shunt method (BSM). The auto-addressing feature added to the normal LIN bus functionality allows slave devices to detect their relative position within a bus system.



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Million-times proven reliability and quality

Key features

- Real time measurement results
- Proximity and gesture recognition
- Immunity against ambient light
- Scalable solutions for different display sizes
- Outstanding sunlight immunity

Profit from our experience

- Worldwide #1 supplier for gesture ICs
- More than 40 million ICs are in the field
- More than 10 years of experience
- Ready for super flat and small PCB designs
- Easy to use demonstrators and evaluation kits for all devices

Innovation in Gesture Control
Leading in HMI and User Experience (UX)



HALIOS®: #1 in Automotive
Gesture Control

GET YOUR ELMOS HALIOS® IC



Reduction of PCB size



Scalable solution



Based on HALIOS® technology
>50 Million ICs already in the field

*How to make a lot happen
with a small gesture.*



Our solutions - Your benefits

- Proximity detection
- Gesture control
- Covers both near and far field
- Easy interaction with touch displays
- Higher flexibility
- Self calibration
- Highest robustness
- Easy to design detection areas
- Low current consumption
- High reliability in harsh automotive environment
- Fast response time
- Excellent cost-benefit ratio
- Unique IR-based scalable solutions

Elmos HALIOS® advantages

- Sensing up to 2 photo diodes
- Embedded LED drivers
- Reduction of required assembly (pick and place handling)
- Reduction of PCB size enables small design areas
- Intuitive touchless interaction
- Automotive qualified (AEC-Q100)

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Intuitive Touchless Interaction:
New Optical HMI Solutions by Elmos

■ E909.21 Halios® Gesture Sensor
(to control light and sun roof)

■ E527.04 Halios® RAIN and LIGHT Sensor
(to control the wiping system)

■ E909.21+E909.22 Halios® gesture Sensor
(to interact with the display GUI)



Simplify your System:
One IC, manifold applications, always fantastic performance

- **AMBIENT LIGHT** E521.31 | E521.36
- **READING LAMP** E522.80-87 | E522.90-93 | E522.10
- **FLOOR LIGHT** E522.80-87 | E522.90-93
- **ENTRANCE LIGHT** E522.80-87 | E522.90-93

- **REAR LIGHT** E522.48-49 | E522.80-87 | E522.90-93
- **BRAKE LAMP** E522.80-87 | E522.90-93
- **BACK UP LIGHT** E522.80-87 | E522.90-93
- **REAR FOG LIGHT** E522.80-87 | E522.90-93 | E522.01-10
- **DIRECTION INDICATOR LIGHT** E522.80-87 | E522.90-93

- **TRUNK LIGHT** E522.80-87 | E522.10 | E522.90-93
- **TRUNK OPENER** HALIOS® E909.06
- **LICENSE PLATE LAMP** E522.80-87 | E522.90-93

- **THIRD BRAKE LAMP** E522.80-87 | E522.90-93

- **FOG LIGHT** E522.80-87 | E522.90-93 | E522.01-10

- **LOW BEAM LIGHT** E522.31-34 | E522.10
- **HIGH BEAM LIGHT** E522.31-34 | E522.10
- **CURVE LIGHT** E522.80-87 | E522.90-93 | E522.01-10
- **SIDE LIGHT** E522.80-87 | E522.90-93
- **DIRECTION INDICATOR LIGHT** E522.80-87 | E522.90-93
- **HEADLIGHT ADJUST** E523.30

■ Ambient LED Controller
■ Other LED Applications

