

IC SOLUTIONS FOR GESTURE AND OBJECT RECOGNITION

- Worlwide No 1 IC supplier for gesture recognition
- Over 50 million ICs delivered
- More than 20 years of experience in optical IC solutions
- Pioneer for groundbreaking contactless display operation
- Static and dynamic gesture recognition
- Reliable and eco-friendly
- Presence and motion detection
- Rain and light sensing
- Smoke detection
- Development of LiDAR key components
- Highly efficient optical CMOS receivers
- LiDAR read-out ICs
- Best in class laser diode driver

Optical	Product	Portfolio
---------	---------	-----------

Proximity & Gesture	Blockage Sensing	LiDAR Components
E909.21-23 Optical sensor interface ICs with signal	E527.04 Highly reliable Rain and Light sensor interface	E527.50 Fully integrated 4 channel high speed laser driver IC
E527.31	E527.06	SPAD Imager
Cost effective ToF-sensor for gesture and object recognition	Best in class Rain and Light SOC highly integrated for best cost solution	Full digital optical direct-TOF sensor with 256x80 pixels
Sensorfusion demonstrator HALIOS® + ToF Evaluation and reference design kits available	Rain sensor demonstrator and evaluation kits available	Full solid state LiDAR camera demonstrator available Evaluation kit for Laser driver and SPAD Imager available





Elmos Semiconductor SE sales@elmos.com | www.elmos.com Optical sensor ICs for



elmos



HALIOS[®] Controller for Proximity and Gesture

Use Cases

- Touchless display control
- Hidden switches
- Advanced proximity functionalities

Key Features

- High immunity against ambient light (200klux), temperature and aging
- Low power consumption auto-mode
- Integrated PD and LED drivers (up to 200mA)
- Very fast measuring frequency (up to 1MHz)
- Interface for multiple IC chains
- I²C and SPI interface
- Automotive qualified (AEC-Q100)

Super dynamic gestures and proximity with high ambient light immunity. Cost efficient HALIOS® for gesture control up to 30cm due to low resolution.



LiDAR Components SPAD Imager and Laser Driver

Use Cases

- Low speed maneuvering
- Crossing traffic
- Advanced parking assistance
- Ostacle detection

Key Features SPAD Imager

- Sensitive SPAD technology
- 256 x 80 pixels max. resolution
- High depth resolution of 3mm
- Highly robust against ambient light
- Integrated data processing with point-cloud interface
- Automotive qualified (AEC-Q100)

Key Features Laser Driver

- Fully integrated multichip die-stack
- 1ns pulse width at 50A peak current/ 40V
- 4-channel laser driver IC
- Each channel individually addressable
- Usable with EELs and VCSELs
- Functional safety ready product
- Automotive qualified (AEC-Q100)

Rain and Light Sensor SOC for Blockage Sensing

Use Cases

- Rain sensor
- Ambient light sensor
- Dirt sensing

Key Features

- Superior system sensitivity
- Ambient light sensing down to 10pA
- Low power optimized
- Safety diagnosis on board
- Robust against flickering light and IR emitters
- Robust against ambient light, temperature and aging
- High integration level (ARM[®]-ECU, memory, LIN SBC, power supply on board)
- Low latency
- Functional safety and cyber security support
- Automotive qualified (AEC-Q100)