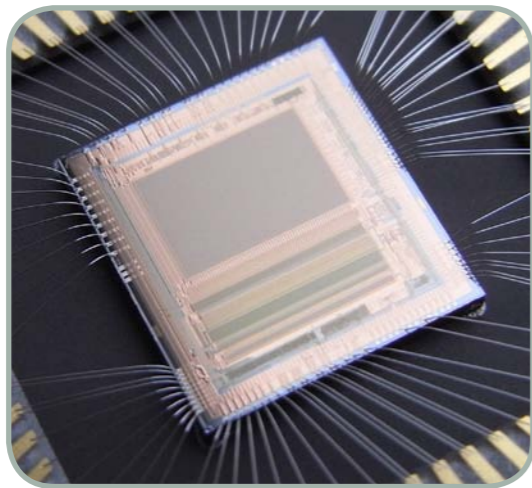


## **IEE Vision Sensing**

**Sophisticated mixed signal  
ASIC designs for  
innovative sensor applications**



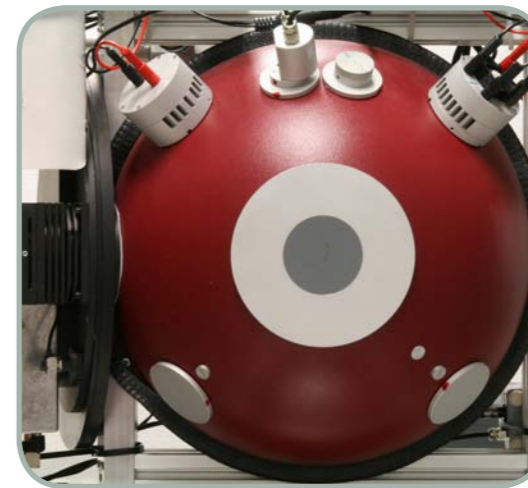
3D imager chip



3D automotive application



3D-MLI Sensor™ evaluation kit



Integrating sphere

## Services

**IEE Vision Sensing's core competence is the design of innovative and custom-made ASICs. We offer the following services:**

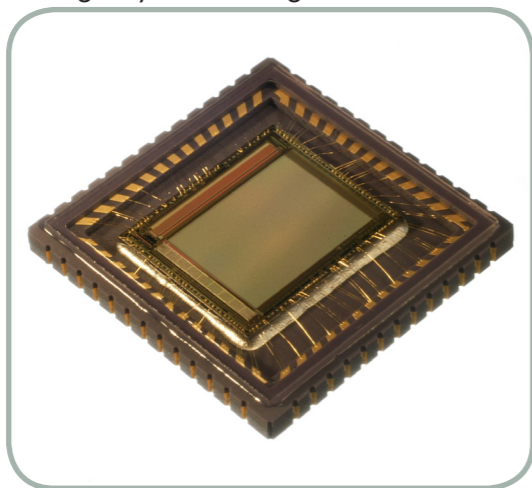
- Drafting design specifications in close cooperation with our customers
- Design of sophisticated ASICs, based on over 80 man-years of design experience and usage of state-of-the-art design tools (Cadence)
- Selecting a foundry and prototyping
- Development of test programs
- Supporting start of production
- Securing of appropriate qualifications for our customers' ASICs, expertise in AEC Q 100 based imager qualification

## Projects

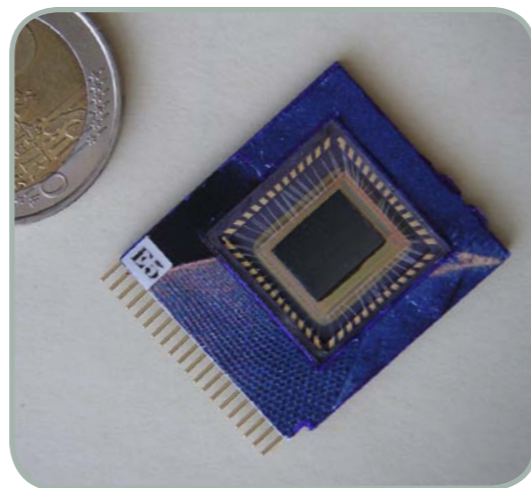
**Thanks to our long-year experience in the industry, we have been able to successfully realize a number of projects, such as:**

- Various sensor signal conditioners for industrial and automotive applications
- Thermopile signal conditioners
- Tilt sensors with very low power consumption
- Single photo diodes
- 2D high-dynamic image sensors with pre-processed digital output
- 3D image sensors with digital output
- Digital control and post-processing ASIC for 3D image sensors
- Transponder ASIC (similar to 125kHz RFID)

2D high-dynamic imager



Ultra-flat camera



## Evaluation System

**Our development environment is fully equipped with state-of-the-art tools in order to professionally evaluate our customers' designs:**

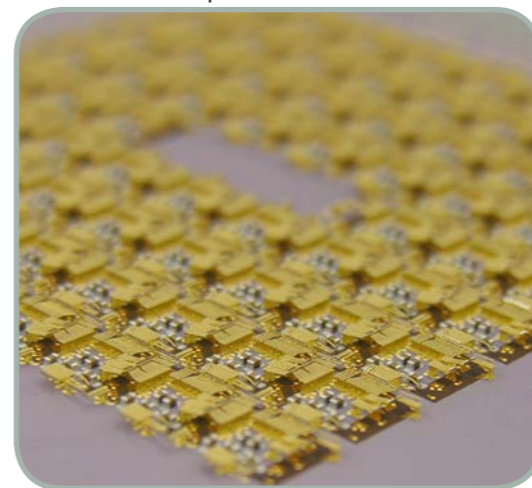
- Fully equipped electronic lab
- Wafer prober with
  - Thermo chuck (-30°C to 200°C)
  - LED-illuminator ( $\lambda = 550\text{nm}, 630\text{nm}, 850\text{nm}$ )
- Integrating sphere for homogenous illumination (full spectrum or LEDs with  $\lambda = 550\text{nm}, 630\text{nm}, 850\text{nm}$ )
- Thermostream (-45°C to 225°C)
- Image processing system (special hardware/software)

## Production System

**We have gained experience with high-volume production of customized designs and we use a production system, consisting of:**

- Agilent 93000, combined with an image processing system
- Probe station UF200 (dark option, low noise, temperature range -40°C to 200°C, integrated LED-illuminator)

Probecard for qualification



Tester prober system





### About IEE Vision Sensing

IEE Vision Sensing GmbH is a subsidiary of the internationally renowned Luxembourgish sensing specialist IEE S.A. We are a fabless design house, employing highly qualified designers to develop sophisticated and custom-made mixed signal ASICs.

### About IEE

IEE offers innovative sensing solutions, which enable people to lead a better, safer and easier life.

We are a global leader in automotive safety sensing systems. Our business unit LuSense develops sensing solutions for consumer electronics and medical equipment. We are also diversifying into other markets with solutions for Public and Commercial Infrastructure, Automation and Logistics, and Medical and Healthcare applications.

For more information, please visit [www.iee.lu](http://www.iee.lu).

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