

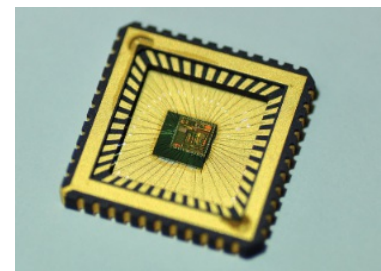


IMS CAP51 | Project EnABLES | Realraum Innovations Laboratory | LiDAR | Infrared line sensors

ASICs

IMS-CAP51

As part of a project, a readout ASIC for sensor systems based on capacitive, micromechanical sensor elements was developed, which on the one hand meets the required noise specifications and on the other hand enables cost-effective mass production in established, CMOS-compatible manufacturing processes. The result is the IMS-CAP51. The flexible interface allows use as a frontend for a wide range of capacitive sensors such as accelerometers or pressure sensors. Depending on the measuring range and application, the input-related noise achieved is less than $50 \text{ zF} / \sqrt{\text{Hz}}$.



MORE INFO

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Wireless and Transponder Systems

Project EnABLES



Is a research infrastructure project to develop energy solutions based on energy harvesting, storage, micro power management and system integration activities to strengthen

the Internet of Things.

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Electronic Assistance Systems

Realraum Innovations Laboratory

Improving supply quality, relieving hospital staff and using subsidies more efficiently – those are the common goals of a project between Helios university hospital Wuppertal and the Fraunhofer-inHaus-Center in Duisburg.

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CMOS Image Sensors

LiDAR for human-robot collaboration (HRC)



The development of robots will be shaped in the next few years by the need for close cooperation with humans. This requires new security concepts. LiDAR (Light Detection and Ranging) is the technology that enables humans and robots to work hand-in-hand in production. Similar to autonomous driving, the environment of the robot is detected and monitored three-dimensionally by LiDAR.

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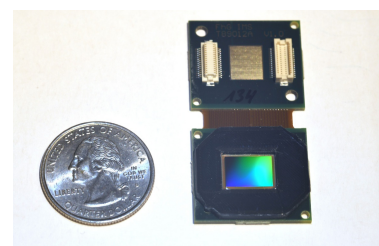
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IR Imagers

The world's only infrared line sensor

Fast thermal signatures and infrared spectroscopy can now be implemented with the innovative infrared line sensor from Fraunhofer IMS. This is made possible by the latest generation of highly sensitive non-cooled infrared sensors with 340 pixels per line for the LWIR and MWIR ranges. The number of lines can be adjusted digitally from 2 to 256 depending on the customer's request. Line frequencies up to the kHz range characterize the new sensor in addition to its high temperature sensitivity and scene dynamics.



[MORE INFO](#)[TO OUR INFRARED SENSORS](#)

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Events | Fairs

5.10 – 7.10 at Fraunhofer-inHaus-Zentrum

Techstars Startup Weekend Duisburg



Experience startup reality, build your own startup and test your ideas!

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Save the Date

Techstars Startup Weekend Duisburg

Techstar's Startup Weekend is a 54-hour event where you start your own startup. The program is already carried out worldwide, we bring it for you to Duisburg!

Oct 5th. - Oct 7th 2018
at the Fraunhofer inHaus Center

→ [Outlook](#)

06.-08.11.2018 in Stuttgart,

Booth 1D73

VISION



Robust 3-dimensional object recognition for vehicles and industrial applications based on the Fraunhofer IMS LIDAR

13.-16.11.2018 in Munich,

Booth C3-409

Electronica



Growing connectivity in the industrial sector calls for increased data security and protection. The "Physically Unclonable Functions" (PUF) from Fraunhofer IMS offers you a solution. Furthermore, we present complex and

27.-29.11.2018 in

Nuremberg, **Booth 7A-301**

SPS IPC Drives



Complex and High-Precision readout ASICs for inductive and capacitive sensors and wireless applications are opening new opportunities for Industry 4.0. The associated increasing

Fraunhofer IMS LIDAR sensors can be examined at our booth. In addition, we show how uncooled infrared sensors (microbolometers) can be used to efficiently record and count objects and people.

[MORE INFO](#)

high precision readout ASICs for inductive and capacitive sensors. In order to remain "cool" even at ambient temperatures of up to 300 ° C, the IMS high-temperature process for smart high-temperature mixed signal ASICs is available.

[MORE INFO](#)

connectivity in the industrial sector calls for increased data security and protection. The "Physically Unclonable Functions" (PUF) from Fraunhofer IMS offers you a solution.

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Fraunhofer IMS

Annual Report 2017

We would like to invite you to take a look at our annual report. Here you will find interesting information about our 8 divisions and selected projects as well as a list of our publications and scientific theses that you should not miss.

→ [Download can be found here](#)



Contact



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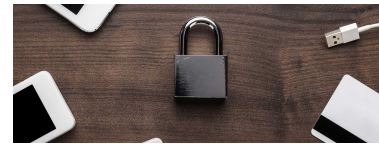
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New privacy policy

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