

Fraunhofer Institute for Microelectronic Circuits and Systems IMS

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Fraunhofer IMS@COMPAMED 2022, November 14 - 17, Messe Düsseldorf

The Fraunhofer Institute for Microelectronic Circuits and Systems IMS actively contributes to the prevention of diseases with its pressure sensor implants

Long-term monitoring of important physiological parameters of the brain, blood circulation or eye contributes enormously to prevention in the medical field. The pressure sensors from Fraunhofer IMS have shown a unique long-term stability and high accuracy in application environments over many years. In addition, they are predestined for telemetrically communicating implants due to their low energy requirements. Several of these medical devices have a CE approval. One of them even has already gone through the Medical Device Regulation (MDR) process.

Fraunhofer IMS develops semiconductor circuits (ASICs) for implants which are specifically adapted to the application requirements of our customers. The ASICs combine sensors as well as analog and digital interfaces. The sensor developments are realized by Fraunhofer IMS with recognized expertise and existing microsystem technology processes and customers are supported actively in the necessary steps up to approval and transfer to series production. Beyond sensor development, we offer a wide scope of more services. The range of services



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includes the development of hermetic thin-film encapsulations and consulting on assembly and interconnection technology as well as calibration procedures.

A field of growing importance includes closed-loop implants, which are intended to achieve autonomous control of processes such as the targeted delivery of drugs. In addition, research is being focused on electroceuticals to use electrical stimulation of a neuroimplant to regulate blood pressure even without any medication at all.

You can find out more about this at COMPAMED - the trade fair for high-tech solutions in medical technology. It will take place from November 14 to 17, 2022, parallel to MEDICA in Düsseldorf. You will find Fraunhofer IMS in Hall 8A on its booth with the number G 19.2.

Make an **appointment in advance to talk to Michael Görtz**, Product Group Manager at Fraunhofer IMS. Send an **Email to sales@ims.fraunhofer.de**.

Check out our **Eventpage**.

View press release online.

Business Unit Health

The <u>Business Unit Health</u> of the Fraunhofer Institute for Microelectronic Circuits and Systems IMS develops smart sensor systems for the next generations of medical devices. Our focus areas range from active implants to in-situ diagnostics and non-invasive healthcare applications.



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Fraunhofer IMS

For over 30 years scientists at Fraunhofer IMS in Duisburg have been dealing with the development of microelectronic circuits, electronic systems, microsystems and sensors. Because of its comprehensive know-how, the access to technology and the high-quality development work, the Institute is a globally recognized partner for the industry. In four business units and core competencies each, Fraunhofer IMS is dedicated to applied research, advance development for products and their applications. High-quality, efficient and marketable technologies and procedures that are used in a very wide range of branches take center stage in contract work.

www.ims.fraunhofer.de/en.html

Pictures and captions



Telemetrically readable pressure sensor implant for control of brain pressure control.

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