PRESS RELEASE

Fraunhofer IIS, RoodMicrotec GmbH and EBV Elektronik GmbH announce cooperation

Nürnberg, Germany: Fraunhofer Institute for Integrated Circuits IIS gives access to new technologies using EBV Chips platform. Turnkey manufacturing services for chips will be performed by RoodMicrotec. Fraunhofer IIS has been developing various best-in-class solutions for over 30 years. Two of new technologies are RFicient® Basic, an Integrated Ultra-Low-Power WakeUp Receiver with low latency, and s-net®, a networking protocol for low power, self-organizing multi-hop communication. With this new cooperation, these solutions will be available for a broad range of applications.

RFicient®Basic, Ultra-Low-Power WakeUp Receiver

Applications in the field of the Internet of Things require low power consumption and rapid response capability with a minimal amount of maintenance. There is a strongly growing amount of connected mobile devices and wireless connectivity gains importance. However, wireless battery-powered IoT applications make sense only if the batteries do not have to be replaced or recharged regularly.

For this purpose, Fraunhofer IIS offers the adequate solution for numerous wireless applications: RFicient® boasts power consumption in the order of microwatts and reacts in milliseconds. The current consumption below 3 µA and the operation without a microcontroller make a service life of mobile applications of up to ten years possible.

The integrated receiver continuously monitors a radio channel and provides 24/7 connectivity. This is required for applications where the exact instant of an incoming radio message is unknown to the receiver. Having received a radio request, a quick reply is expected. Devices can go to sleep when not in use but wake up immediately to deliver services as needed. RFicient® is the only active component!

Additionally RFicient® provides single or simultaneous multiband operation for global and reliable wireless connectivity. Whether for industrial, logistics or consumer applications, RFicient® is the solution complementing existing standards in a perfect way.

More information available at: www.rficient.com

Head of Corporate Communications
Thoralf Dietz | Phone +49 9131 776-1630 | thoralf.dietz@iis.fraunhofer.de | Fraunhofer Institute for Integrated Circuits IIS | Am Wolfsmantel 33 | 91058 Erlangen, Germany | www.iis.fraunhofer.de

Editorial notes
Michael Geyer | Phone +49 9131 776-4406 | michael geyer@iis.fraunhofer.de | Fraunhofer Institute for Integrated Circuits IIS | www.iis.fraunhofer.de

s-net® wireless networking technology for IoT applications

s-net® lays the foundation for connecting and positioning things, machines and people, thus closing an information gap between IT and the real world. s-net® requires low power consumption and enables bi-directional data communication, it offers the best prerequisites for IoT (Internet of Things) applications in production, logistics and building automation.

Since 2019 the sensor networking technology is available as a commercial radio module at the international distributor EBV Elektronik. This module is specially developed to connect objects for IoT applications like the digitization of processes, condition monitoring or smart production. More information available at: www.s-net-info.com

Microelectronic and IT system solutions at Fraunhofer IIS

Fraunhofer IIS is one of the world's leading application-oriented research institutions for microelectronic and IT system solutions and services. Fraunhofer IIS develops, implements and optimizes processes, products and equipment until they are ready for use and for the market. Flexible interlinking of expertise and capacities enables the developers to meet extremely broad project requirements and complex system solutions.

EBV Elektronik
EBV Elektronik was founded in 1969 and is one of the leading specialists in European semiconductor distribution. As a semiconductor specialist, EBV is provide in-depth application support, value-added services and logistics solutions to a diverse customer base.

RoodMicrotec
RoodMicrotec provides full-turnkey ASIC services for complex microchips that are customised to handle specific applications for individual customers. RoodMicrotec's turnkey solution includes project management, wafer test, assembly, final test, qualification, logistics and failure analysis. Its flexible business model also allows customers to choose each service individually, based on their special needs. All services comply with the industrial and quality requirements of the high reliability, aerospace, automotive, healthcare and industrial sectors.

The Fraunhofer-Gesellschaft is the leading organization for applied research in Europe. Its research activities are conducted by 69 institutes and research units at locations throughout Germany. The Fraunhofer-Gesellschaft employs a staff of 24,500, who work with an annual research budget totaling more than 2.3 billion euros.

The **Fraunhofer Institute for Integrated Circuits IIS** is one of the world's leading application-oriented research institutions for microelectronic and IT system solutions and services. It is the largest of all Fraunhofer Institutes. Research at Fraunhofer IIS revolves around two guiding topics:

In the area of **"Audio and Media Technologies"**, the institute has been shaping the digitalization of media for more than 30 years now. Fraunhofer IIS was instrumental in the development of mp3 and AAC and played a significant role in the digitalization of the cinema. Current developments are opening up whole new sound worlds and are being used in virtual reality, automotive sound systems, mobile telephony, streaming and broadcasting.

In the context of **"cognitive sensor technologies"**, the institute researches technologies for sensor technology, data transmission technology, data analysis methods and the exploitation of data as part of data-driven services and their accompanying business models. This adds a cognitive component to the function of the conventional "smart" sensor.

970 employees conduct contract research for industry, the service sector and public authorities. Founded in 1985 in Erlangen, Fraunhofer IIS has now 14 locations in 11 cities: Erlangen (headquarters), Nuremberg, Fürth, Dresden, further in Bamberg, Waischenfeld, Coburg, Würzburg, Ilmenau, Deggendorf and Passau. The budget of 184 million euros is mainly financed by projects. 22 percent of the budget is subsidized by federal and state funds.

Detailed information on: www.iis.fraunhofer.de/en