First Sensor

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First Sensor Demonstrates LIDAR Expertise at Sensor + Test

Sensor specialist shows systems aptitude of its APDs in Infineon demonstrator

Starting today, the sensor industry is meeting at the measuring technology trade fair Sensor + Test and presenting its solutions for megatrends such as networked systems and autonomous driving. More than 8,000 visitors and 591 exhibitors from around the world are expected in Nuremberg. Sharing the spotlight is LIDAR technology for environment monitoring in autonomous machines and vehicles. At its trade fair stand, First Sensor AG, a developer and manufacturer of standard products and customer-specific sensor solutions, is making it possible to experience the system abilities of its avalanche photodiodes (APDs) with MEMS mirror scanning LIDAR demonstrator from Infineon.

"Manufacturers test the various current sensor technologies for LIDAR. We think that avalanche photodiodes come out on top. APDs connect a high level of sensitivity with cost benefits, among other things, and are therefore extremely well-suited to not only industry applications, but also to the automotive market," says Dr. Dirk Rothweiler, CEO of First Sensor. Equipped with an integrated amplification mechanism, the optical sensors recognize invisible light signals that the LIDAR scanners use to detect their environment.

Together with radar and networked camera systems, LIDAR technology aims to enable autonomous driving in the future. First Sensor is currently providing different companies with samples of a new generation of APDs to implement the automotive future and has recently announced the series production of the new "Blue Next" camera series. Self-driving cars are still in the pilot phase, but forecasts predict that as many as 54 million of these vehicles could be on the road by 2035.

LIDAR systems for automotive applications must be in a position to not only quickly and reliably identify their environment in detail, but also cover different ranges. At Sensor + Test, First Sensor contrasted selected sensor technologies for LIDAR in the white paper "Making Sense of Sensors - A LIDAR designer's guide to sensor technologies for automotive/mobility systems": silicon PIN diodes, silicon photomultipliers (SiPM) & single-photon avalanche photodiodes (SPAD), indium gallium arsenide photodiodes (InGaAs), APDs. You can find the white paper here as a free download (link).

About First Sensor AG

First Sensor is one of the world's leading suppliers in the field of sensor systems. Our company develops and produces standard products and customer-specific solutions for applications in the industrial, medical, and mobility growth markets. With over 900 employees, we are represented at six locations in Germany, and also operate sales and production sites in the US, Canada, China, UK, France, Denmark, Sweden and the Netherlands as

well as a global network of partners. First Sensor AG has been listed in the Prime Standard segment on the Frankfurt Stock Exchange since 1999. For more information please visit www.first-sensor.com.

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