

Highly-sensitive CMOS Sensors

SPAD Arrays for Flash LiDAR

With the SPAD2L192, LASER COMPONENTS now also offers a solid-state CMOS sensor for Flash LiDAR applications. With a resolution of 192 x 2 pixels, the single photon avalanche diode (SPAD) array offers very high sensitivity and high temporal resolution. The noise is below 50 cps. The in-pixel time-to-digital converter, which features a temporal resolution of 312.5 ps and a scale value of 1.28 μ s, enables a nominal range of up to 192 m at a resolution of 4.7 cm. The distance measurement is based on the first-photon, direct ToF principle.

The arrays in Flash LiDAR applications do not capture just one point like they do in classic LiDAR. Each individual pixel provides position information. In the SPAD array presented here, the sensor and evaluation electronics have been mounted on the same chip for the first time, thus the array takes up very little space.

More Information

www.lasercomponents.com/us/product/flash-lidar-sensor/

Trade Shows

SPIE Photonics West, February 05 – 07, 2019, San Francisco, USA, **Booth 1751**
ATX West Automation, February 05 – 07, 2019, Anaheim, CA, USA, **Booth 4166**
US Hydro, March 19 – 21, 2019, Biloxi, MS, USA, **Booth 49**
BREKO Fiberdays, March 27 – 28, 2019, Wiesbaden, Germany, **Booth 520**
Automate, April 08 – 11, 2019, Chicago, IL, USA, **Booth 8536**
SPIE DCS, April 16 – 18, 2019, Baltimore, MD, USA, **Booth 524**
ANGACOM, June 04 – 06, 2019, Cologne, Germany
Photonex Glaskow, June 05, 2019, University of Strathclyde, UK, **Booth G25**
Sensors Expo & Conference, June 25 – 27, 2019, San Jose, CA, USA, **Booth 419**
LASER World of PHOTONICS, June 24 – 27, 2019, Munich, Germany, **Booth B3.303**
SPIE Optics+Photonics, August 13 – 15, 2019, San Diego, CA, USA, **Booth 425**
ECOC, September 22 – 26, 2019, Dublin, UK, **Booth 337**

The Company

LASER COMPONENTS specializes in the development, manufacture, and sale of components and services in the laser and optoelectronics industry. At LASER COMPONENTS, we have been serving customers since 1982 with sales branches in five different countries. We have been producing in house since 1986 with production facilities in Germany, Canada, and the United States. In-house production makes up approximately half of our sales revenue. A family-run business, we have more than 230 employees worldwide.