Sept. 7th, 2016

Press Release

Pulsed Laser Diodes and Avalanche Photodiodes

These Components Are Used to Measure Speed

The measurement of speed is used by both athletes and the automobile industry in particular. Integrated into modern systems, the distance to the car ahead, for example, can be controlled, which significantly increases driving safety and comfort. This adaptive cruise control (ACC) is implemented using a light detection and ranging (LIDAR)-based sensor that calculates the position and speed of the car ahead via runtime measurements. The same technology is used by the police in speed traps that are carried out using a laser pistol.

The sensor consists of an emitter (pulsed laser diode, PLD) and a receiver (avalanche photodiode, APD).

As sender pulsed laser diodes are used. To make the beam invisible to the human eye, near infrared emitting PLDs are used. 905 PLDs are available with a peak power of up to 650 W; for distance and speed measurements in sports applications, low-cost versions with an output of a few tens of watts are completely sufficient. LASER COMPONENTS manufactures both versions in Canada.

The reflected signal is detected by a Si PIN or Si avalanche photodiode. LASER COMPONENTS' SARF500Fx series with integrated 905 nm bandpass filter is very popular for those applications as the filter suppresses all scattered light and sunlight.

More Information

www.lasercomponents.com/de-en/product/pulsed-laser-diodes-at-905-nm/

Trade Shows

ECOC 2016, September 19-21, 2016, Düsseldorf, **Booth 102**
The Future Photonics Hub Industry Day, September 13, 2016, Southampton, UK **Booth S14**
SPIE Security + Defence 2016, Semptember 27-28, 2016 Edinburgh,UK, **Booth 405**
Photonex Coventry 2016, October 1-13, 2016, Ricoh Arena UK, **Booth D15**
VISION 2016, November 08-10, 2016, Messe Stuttgart, **Booth 1C33**
Electronica 2016, November 08-11, 2016, Messe München, **Booth B1.306**

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 200 employees worldwide.

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