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30 YEARS LASER COMPONENTS

Press Release

VBG® stabilized Laser Sources

Lasers for Raman Spectroscopy and SERDS

With the help of Raman spectroscopy, the material properties of semiconductors or pigments, for example, can be very precisely analyzed. As the ideal excitation source, LASER COMPONENTS now offers VBG®-stabilized laser sources from its partner PD-LD.

The laser wavelength of the LS-1 is stabilized by the use of a volume Bragg grating (VBG) at a precision of ±0.5 nm. Across an operating temperature range of 0°C to 40°C, a wavelength stability of ±0.005 nm can be achieved. At the same time, the optical full width half maximum is reduced to <0.1 nm.

The innovative laser source LS-2 delivers a SERDS laser line pair with a wavelength difference of $\Delta\lambda = \lambda 2 - \lambda 1 = 0{,}1..1{,}0$ nm. The wavelength tolerance here is also ±0.5 nm at a stability of ±0.005 nm. SERDS, shifted excitation Raman differential spectroscopy is a further development of the Raman spectroscopy to seperate Raman signals from the background noise. The SERDS principle is based on the excitation of the Raman effect with two wavelengths that are spectrally very close together at a distance of the full width half maximum of typical Raman lines.

The new LS-1 and LS-2 VBG-stabilized laser sources are available with the following standard wavelengths: 647 nm, 785 nm, 830 nm, and 1064 nm. Further wavelengths are available upon request. Coupling the laser beam with an optical power of up to 1 W is done using an FC/PC plug. The laser systems can be used immediately and are easy to operate. The parameters can be set either directly on the system or using a USB 2.0 interface.

More Information

http://www.lasercomponents.com/de-en/product/complete-high-power-laser-systems/

Trade Shows

Photonex 2012, October, 17-18 2012, Ricoh Arena, UK, **Booth D20**
Opto, October 23-25, 2012, Paris Expo, Porte de Versailles, France, **Hall 1**
Vision 2012, Nov, 06-08, 2012, Trade Fair Centre Stuttgart, Germany, **Booth 1F14**
electronica 2012, Nov, 13-17, 2012, Munich International Trade Fairs, Germany, **Booth A2.306**

The Company

LASER COMPONENTS is specialized in the development, manufacture, and sale of components and services for the laser and opto-electronics industries. With sales offices in four different countries, the company has served its customers since 1982. In-house production at six locations in Germany, Canada, and the USA began in 1986 and is meanwhile responsible for about half of its turnover. Currently, the family-run business employs more than 140 people worldwide.

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