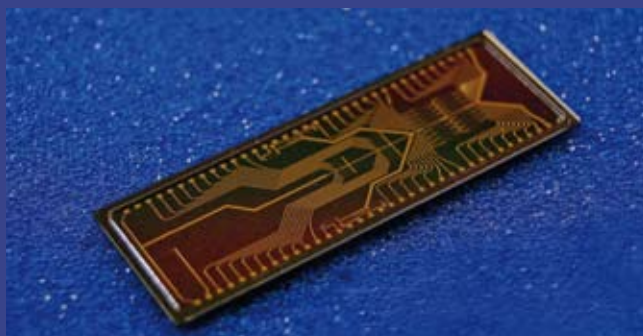


XiO Photonics - Making photonics simple

XiO Photonics is a young company (2008) with a strong competence in integrated optics or 'light on a chip'. XiO Photonics primarily focuses on the design and assembly of modules that incorporate the optical chips for products in visible light applications. The Integrated Laser-Beam Combiner is XiO Photonics' first product that offers the advantages of integrating optics on a chip for visible light applications.

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XiO Photonics is located in Enschede, the Netherlands, in close vicinity of foundries, research institutes and universities both in the Netherlands as well as in Germany, which allows the company to be state of the art in the field of integrated optics. XiO Photonics strives to be an important international supplier of integrated optical modules ('light on a chip') for laser technology in visible light applications. New photonic applications are enabled by removing the barriers imposed by the complexity and the intensive maintenance required of existing technology. Using XiO Photonics products makes laser photonics more simple and robust. Customer benefits include more compact, simpler and more efficient systems.



Example of an integrated optical chip.

Technology

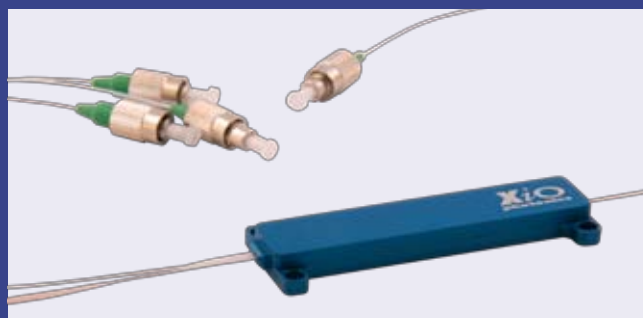
During the last decade, all the major companies that fabricate lasers have developed compact and robust solid-state lasers, to replace the large and complex gas laser systems. New applications became possible because of the lower prices and the increased ease of use of these new solid-state lasers. The latest generation of solid-state lasers will have a fiber-optic output that simplifies the means of light transportation.

XiO Photonics contributes to this trend of miniaturisation and integration, as it deals with one of the problems associated with lasers: combining different colours of light in a simple and robust manner. XiO Photonics products

are based on compact optical chips that integrate a number of complex functions in a single device. The technology is perfectly suited for exploiting the interesting domain of visible light applications. XiO Photonics has exclusive access to proprietary optical chip technology that enables the use of visible light. Based on integrated optical technology a filtering technology was developed that efficiently combines several laser wavelengths.

Integrated Laser-Beam Combiner

The first product of XiO Photonics is the Integrated Laser-Beam Combiner (ILBC), which combines up to eight visible wavelengths from fiber-pigtailed lasers into one single mode and polarisation maintaining fiber. The main applications for this product include confocal microscopy, flow cytometry and food sorting; all these applications require different visible laser colours to be combined, while the current solutions do not meet the requirements regarding compactness, robustness or polarisation behaviour. The ILBC opens up new markets for these applications, as it supports a more compact and highly stable device.



A 3-channel ILBC, for combining red, green and blue light.

Information

www.xiophotonics.com