



Efficient wafer inspection

SCHOTT and MORITEX developed an innovative system for MEMS quality inspection

***Mainz (Germany), November 3, 2011* – SCHOTT and MORITEX are presenting an innovative inspection system for silicon wafers in MEMS manufacturing at VISION 2011. By using both visible and infrared light, the “IR-MEMS Inspector” not only checks the outer surface of the substrates, but also the internal quality of the wafer. Scanner and detection software provide a flexible and economical solution for MEMS and semiconductor fabrication.**

**SCHOTT and MORITEX
VISION 2011
Stuttgart, Germany
November 8 – 10, 2011
Hall 6, Booth 6B15**

Tiny machines, so-called microelectromechanical systems (MEMS) ease everyday life. In cars, these little helpers measure and report the acceleration and tire pressure and know where up and down is in mobile phones. MEMS are key devices for many innovative applications and, because of their low material and energy consumption, they are also highly cost-efficient. However, their assembly is quite a challenge due to the fine structures of the components.

Thereby the small electromechanical elements are applied to a substrate – mostly made of silicon – and then covered with a protective lid. If dust or micro-particles get into the interior during bonding however, the unit may get damaged. Quality assurance with the help of microscopes is time consuming and inaccurate, a fully automated inspection however is often prohibitive for many smaller companies.

Here, the “IR-MEMS Inspector” from MORITEX and SCHOTT provides a new perspective. “Our IR inspection system makes use of the fact that silicon transmits infrared light and can automatically check devices for defects“, explains Junya Inoue, Product Manager and Application Engineer at MORITEX in Tokyo. “The silicon wafer is entirely penetrated and inspected



for damage on the surface, bottom and internally in one single step.”

The “IR-MEMS Inspector” unites sub-micrometer accuracy and the advantages of automated inspection in a 730x625x705 mm sized, 85 kilograms light and competitive priced device. It is equipped with several zoom levels and abundant, user-friendly software. In addition, multiple illumination and measurement functions as well as automated loading of up to 8 inch wafers are optionally offered.

”This is a new type of inspection system which combines the advantages of a fully automated multi-spectral inspection system with the desire for flexibility and economic efficiency“, says Matthias Endig, Sales Manager Machine Vision Europe at SCHOTT in Mainz. The “IR-MEMS Inspector” is especially suitable for academic associations, bonding and MEMS device manufacturers. The system will be presented for the first time ever for the European market at VISION 2011 from November 8 to 10, 2011 in Stuttgart.

Number of characters: 2,726 (including spaces)

More information: www.schott.com/lightingimaging.

About SCHOTT and MORITEX

SCHOTT is an international technology group that sees its core purpose as the lasting improvement of living and working conditions. To this end, the company has been developing special materials, components, and systems for more than 125 years. The main areas of focus are the household appliances industry, pharmaceuticals, solar energy, electronics, optics, and the automotive industry. The SCHOTT Group is present in close proximity to its customers with production and sales companies in all its major markets. The Group's approximately 17,500 employees generated worldwide sales of approximately 2.9 billion Euros in the fiscal year 2009/2010. The company's technological and economic expertise is closely linked with its social and ecological responsibility. The SCHOTT AG is an affiliate of the Carl-Zeiss-Stiftung (Foundation). www.schott.comThe SCHOTT Lighting and Imaging division offers a broad range of lighting and image transmission solutions especially for customers in



the core industries automotive, aviation, medical, machine vision, security technology and architecture. Innovative lighting solutions and combinations of light and image transmission are being developed on the basis of LED technology and fiber optics.

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The international technology group SCHOTT, based in Mainz, Germany, acquired a majority interest of 70.8% in MORITEX Corporation, Tokyo, in November, 2008 as a result of the tender offer bid. Both companies have been cooperating since June 2007 in order to further extend their position as the world's leading manufacturers for specific types of imaging and lighting solutions.

MORITEX develops, manufactures and distributes lighting and imaging solutions and supplies optical components and systems for machine vision and digital imaging. As an established leader in machine vision systems with an impeccable track record of innovation, MORITEX is one of the few providers that can service all different levels from system design to integrated system solutions. Sales in the fiscal year which ended in September 2010 were 57.7 million Euros. Moritex Corporation is listed on the first section of the Tokyo Stock Exchange.

Download link to a ZIP file that contains the photograph in print quality:
<http://www.schott-pictures.net/presskit/136441.ir-mems-inspector>

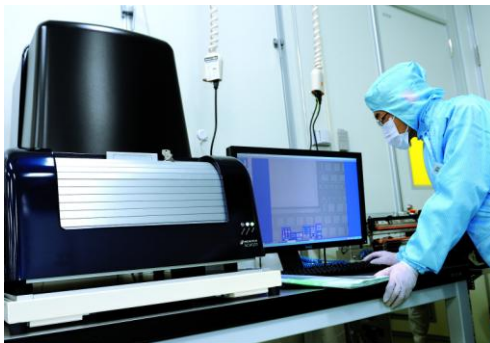


Photo ID No. 135890: The "IR-MEMS Inspector" from SCHOTT and MORITEX offers an innovative system for inspecting silicon wafers in MEMS production. In one single step, both surfaces and the internal quality of the wafer can be inspected by using infrared and visible light. Photo: SCHOTT and MORITEX.



More press photographs are available for downloading under:
www.schott-pictures.net

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