Lasertec

PRESS RELEASE

Lasertec Corporation
2-10-1 Shin-yokohama, Kohoku-ku, Yokohama
(Code 6920 / Tokyo Stock Exchange, 1st Section)

Lasertec Launches New Maskblanks Inspection System MAGICS Series M8350/M8351

Yokohama, Japan, April 10, 2014 – **Lasertec Corporation** today announced MAGICS series M8350/M8351 ("M8350/51"), a new line of mask blank inspection system that meets the requirement of next-generation semiconductor photomasks at the technology nodes of 14 nm through 7 nm.

【Description】

The progress of photolithography is continuing while commercial application of EUV lithography is delayed. With photomasks being used for more advanced ICs, the quality of mask blanks must also be enhanced to meet the progress. An inspection system with higher sensitivity is crucial in this respect.

Newest in MAGICS series, M8350/51 is designed to meet next-generation inspection needs with high sensitivity suitable for such applications as inspection of quartz substrates for high-end blanks, inspection at various deposition processes, and inspection of resist-coated blanks.

Drawing on the core technology of MAGICS series, M8350/51 has achieved enhanced sensitivity by featuring a new 355nm laser light source as well as by incorporating state-of-the art inspection optics and detection circuitry. With maximum sensitivity of 35nm, M8350/51 has a significantly higher defect detection capability than previous models.

M8350/51 has already attracted inquiries from potential customers, to whom Lasertec plans to deliver multiple units in 2014. Lasertec is determined to contribute to quality enhancement of next-generation high-end mask blanks as well as to improvement of incoming inspection and process management at mask shops.

【Key Features】

- M8350/51 is one of the most advanced inspection systems featuring both high sensitivity suitable for next-generation mask blank inspection and high throughput necessary for outgoing and incoming inspection at production sites

- A new detection circuitry attuned to extremely small defects is incorporated into 31-beam scan confocal optics, one of the core technologies used on de facto standard of mask blank inspection systems, MAGICS.
- Blank qualification capability is enhanced thanks to significantly higher sensitivity to defects not only on quartz substrates but also on state-of-the art mask blanks for MoSi binary masks and phase-shift masks.
- The system accommodates multi-slot cassettes required by blank manufacturers and RSP, MRP and EUVL dual pod cassettes used at mask shops.
- M8351 meets the requirement of line & space monitor pattern inspection, offering a useful tool for managing various processes at mask shops.

【Applications】

- Inspection of quartz substrates, Cr layers, MoSi layers, half tone layers, EUV mask blanks (multilayer and absorber) and resist-coated blanks
- Defect reviews

【Specifications】

- Wavelength of inspection light: 355nm
- Sensitivity (maximum detection performance): 35nm
- Inspection time: 30 minutes per blank (142mm x 142mm)
- Applicable blank size: 6025

About MAGICS:

MAGICS stands for Multiple image Acquisition for Giga-bit pattern Inspection with Confocal System. MAGICS series has been widely used as de facto standard of mask blank inspection systems for many years. Its applications include whole lot inspections at blank manufacturers and incoming inspections and process management at mask shops.

About Lasertec:

Lasertec has been providing customers with inspection and metrology tools based on innovative and creative technologies in semiconductor, FPD and photovoltaic industries since 1962. Lasertec's global support infrastructure assures customers that Lasertec tools always contribute to R&D, pilot and/or mass production to make sure customers maximize the capital investment. For more information, go to: www.lasertec.co.jp.

Media Contact:
Hiroshi Asai, General Manager, Corporate Planning Office
Phone: +81-45-478-7127
http://www.lasertec.co.jp