

PRESS RELEASE

Lasertec Corporation

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(Code 6920 / Tokyo Stock Exchange 1st Section)

Lasertec releases new FPD mask phase-shift measurement system MPM365gh

Yokohama, Japan, March 30, 2016 – **Lasertec Corporation** today announced the release of MPM365gh, a system that accurately measures the phase shift and the transmittance of photomasks used in the production of flat panel displays (FPDs). Lasertec will introduce the new product at Photomask Japan 2016 Technical Exhibition scheduled for April 7 to 8, 2016, at Pacifico Yokohama.

The FPD industry is accelerating the pace of introducing higher resolution displays in recent years driven by the rapidly growing smartphone usage and technical progress. It is anticipated that FPDs will soon feature pixel densities as high as 1,000 pixels per inch. Pixels per inch is a specification of display resolution measured in the number of pixels fit in a unit dimension.

Photomasks play an important role in enabling FPD manufacturers to produce higher resolution displays. It is becoming a common practice that manufacturers not only shrink patterns on photomask but also use half-tone films that reverse the phase of exposure light to print narrower patterns more closely together. The phase shift and the transmittance of half-tone films are now important factors in achieving smaller and narrower-pitched patterns and must be controlled properly during the production of photomasks.

Lasertec has launched MPM365gh to address the need by adapting the dual-beam interference technology of the MPM series, a de facto standard measurement tool in the semiconductor industry, to the phase shift and transmittance measurement at i-line, g-line and h-line, the spectral lines used in FPD production. MPM365gh meets the customer requirements for a variety of applications including periodic monitors of production lines and analysis of new processes under development.

Lasertec will continue to support the FPD industry's efforts to increase yields and productivity by offering unique solutions based on its core technologies.

【Applications】

- Phase shift measurement for phase shift mask
- Transmittance measurement for half-tone phase shift mask

【Specifications】

Wavelength of measurement	MPM365gh: 365nm (i-line), 436nm (g-line), 405nm (h-line) MPM365g: 365nm (i-line), 436nm (g-line) MPM365: 365nm (i-line)
Measurement repeatability	Phase shift measurement (3σ) $\leq 0.5^\circ$ Transmittance measurement (3σ) $\leq 0.2 \%$
Mask size	6 inch (Larger masks supportable at customer's request)
Dimensions	W 930mm x D 780mm x H 1,330mm

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