



AMS/KMS Family of Mask Metrology Systems

AMS Mask Metrology Systems

AMS Metrology Systems are designed specifically for the inspection and measurement of incoming photomasks, magnetic heads and wafers. They can be configured to provide the proper magnification range and working distance even for pelliclized masks. Superior resolution, repeatability and linearity make AMS Metrology Systems ideal for measuring critical X-Y axis dimensions and in verifying quality standards.

Features Include:

- Automatic measurement
- Automatic focus and illumination control
- Transmitted or brightfield reflected illumination modes
- Single-point and multi-point calibration algorithm
- CD measurements are correlated to NIST Standard or to User Standard
- System-to-system correlation provides best linear fit to customer standard
- Digital image calibration with standard 0.05 μm pixel size at 100x

KMS Advanced Metrology Systems

KMS Metrology Systems help semiconductor manufacturers meet the most stringent process control demands. No other metrology system measure photomask structures at develop, etch and pelliclized process steps. For OPC, PSM and binary masks, KMS Systems provide superior resolution, repeatability and linearity. These capabilities and the modularity of the KMS Group can provide solutions for other CD-intensive applications such as flat panels, magnetic heads and wafer quality control. By combining dimensional metrology with through-focus 3D confocal imaging, KMS Metrology Systems set new standards for accuracy, repeatability and high throughput.



KMS Metrology Systems Feature:

- Automated alignment routine
- Planarization of mask top surface
- Regular or random dense array pattern recognition
- CD-X, CD-Y or line-width measurement at any angle
- Automatic focus and illumination modes
- CD measurements correlated at all process steps
- Multi-point calibration algorithm

- Excellent system-to-system correlation
- Digital image calibration with 0.05 μm pixel size
- Best linear fit calibration to customer standard
- E,G, and I-Line Illumination
- Measurements in three axes
- Measurements to three-sigma standard deviation of 0.004 microns
- Data collection easily custom-configured and interface with most networks
- Powerful, user-friendly software is menu and script-file driven to quickly and easily create programs

Accessories:

- 3-D image reconstruction hardware and software
- Aerial intensity mapping via math-cad software
- Host communication capabilities
- VGA-compatible color printers
- TINT Virtual Stepper Defect Printability analysis
- Automated KLA inspection defect file review

Learn More About It . . .

Click on the appropriate link below to obtain a pdf file of informative literature.

[PDF](#) Data sheet for the AMS System (113 k, <1 minute@28.8 kbps)



Note: Adobe Acrobat Reader software is required to view and print pdf files. It is available for most computer platforms, and it's free! You can download it now by clicking the pdf icon at left.

For more information on how the AMS/KMS family of metrology, defect inspection, and review systems can improve your process and increase your yield, click on the "Talk to Zygo" link below.

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