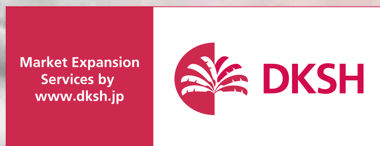
4See Series

MODULAR PLATFORM FOR ALL SURFACE INSPECTION

TOP, BOTTOM, EDGE



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The 4See Series is a high-performance module-based platform for all-surface wafer inspection.

Incorporating multiple state-of-the-art defect detection and 3D metrology technologies, the 4See Series can inspect wafer frontside, backside, and edge and be configured for both wafer and wafer on frame.

With the flexible 4See Series architecture, each system can be configured to meet demanding high volume manufacturing needs for multiple applications for process control, 3D metrology and quality control.

Main applications	
Wafer thinning and back side metallization	µ-bumping
Substrates	RDL & Interconnect
MEMS	Post dicing

Technology	
Phase Shift Deflectometry	Unpatterned frontside and backside wafer inspection
2D & 3D Line Scan Confocal Chromatic	Patterned frontside and wafer edge inspection
Darkfield	Unpatterned frontside and backside wafer inspection

Capability		
LineScan		
2D	Low resolution : ▪ 1.8µm/pixel ▪ Depth of focus: 250µm	High resolution : ▪ 0.9µm/pixel ▪ Depth of focus: 100µm
3D	Low resolution ▪ Lateral : 10µm ▪ Vertical : 0.3µm ▪ Depth of focus : 1000µm	High resolution ▪ Lateral : 5µm ▪ Vertical : 0.08µm ▪ Depth of focus : 200µm
Edge	1.8µm/pixel Depth of focus: Up to 400µm	
Deflector	Vertical sensitivity: Down to a 2nm Lateral resolution: Down to 50µm	
Darkfield	Defect size: Down to 90nm on silicon	
System configuration	Up to 12'', multi wafer size capable in a single platform Manual, semi-automatic, fully-automatic SEMI standard compliant	

LineScan module

- High depth of focus
- High resolution
- Multi line scan
- High topography
- No shadow effect
- Low sensitivity to bow/warp
- Passive autofocus by design

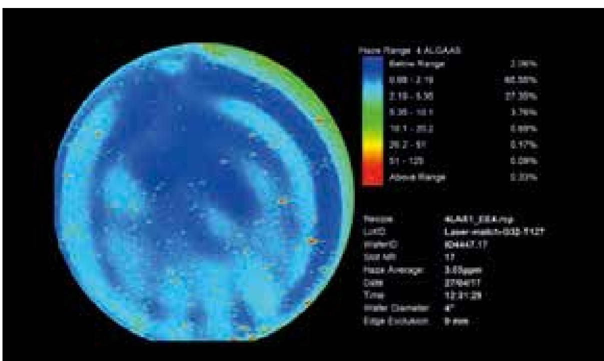
Deflector module

- Full wafer surface inspection
- Nanometer range vertical sensitivity with full field of view
- High throughput
- Simultaneous double side inspection
- Surface wafer topography characterization

Edge module

- Full wafer edge surface inspection at high speed
- Top surface, top bevel, APEX, bottom bevel, bottom surface

Darkfield module



- High speed
- Particle detection and surface morphology
- Frontside and Backside inspection simultaneously
- Low CoO

About UnitySC

UnitySC is recognized worldwide as a key player in inspection and metrology, combining leading edge technologies in automated optical inspection and 3D imaging with microscopy, temporal mode interferometry, and spectrometry, which enables customers to deliver higher yields and faster time to market. Customers include the largest foundries, IDMs, OSATs, and R&D centers.

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2018/12