



Camtek
See Beyond

HAWK

Cutting Edge Inspection & Metrology

Developed on an innovative platform, the Hawk provides superior inspection and metrology for high-end applications like hybrid bonding and HBM at unparalleled throughput.

Camtek delivers cutting-edge inspection, metrology, and software solutions designed to optimize production processes and enhance yield in the semiconductor industry, covering front-end, mid-end, and back-end process steps.

The **HAWK** product line, our latest innovation, is a result of many years of dedicated research and development. The Hawk is tailored to meet the growing demands for inspection and metrology, from R&D to high-volume production.

With thousands of systems installed worldwide, Camtek remains a trusted leader in inspection and metrology solutions for the semiconductor industry.



< Detection
down to 150nm
defects

- > New optical design
- > Real time focus correction
- > High power LED illumination with dual angle dark field (DFLR)
- > 360°Scan for wafer edge defects (Optional Module)
- > Backside defect inspection (Optional Module)

Designed
for very small
pitch bumps

- > Huge number of bumps (>500M)
- > Superior resolution for bump CD smaller than 4um at smaller than 5um pitch
- > Full wafer, high-volume-manufacturing at unparalleled throughput

2D Inspection and Measurement

Detection Sensitivity	150 nanometer
Resolution	Multiple magnifications down to 0.3um pixel size for optimized sensitivity
Real time auto-focus	Enables in-focus image grabbing during full wafer scan with very high magnifications down to 0.3um pixel size
Wafer-less recipe setup	CAD based recipe to optimize recipe setup time
Multi Recipe	Enables running successive scans in one cycle with different focus, magnification, illumination, sensitivity and detection engines
EDC	Enhanced Detection Capabilities for better detection accuracy and performance
Tool Matching	Simple recipe transfer from system to system
Overlay and CD measurement	Sub-pixel accuracy and repeatability

3D Measurement

Bump types	Micro-bumps, copper pillar, solder, gold bumps
Capabilities	Measurement of bump height, co-planarity, PR/PI thickness and via opening depth and surface-to-surface metrology
CTS Gen. 9 - Camtek Triangulation Sensor: High speed 3D scan	
Height Accuracy	0.1um
Height Repeatability	1% of bump height at 3 σ
Measurement Capacity	More than 500M bumps per wafer
Bump Height Range	2-200um
Bump Pitch	Down to 5 um
Bump CD	Down to 4 um