

MACRO INTELLIGENCE

*Insights for Increasing Yield
and Reliability through Smarter
Macro Defect Inspection* #7

A Technical Bulletin from Microtronic – the Industry Specialists in Macro Defect Inspection

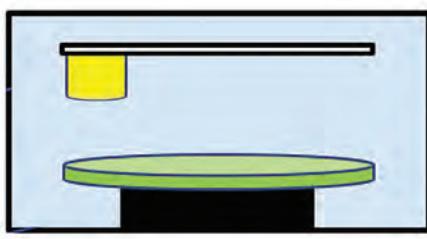
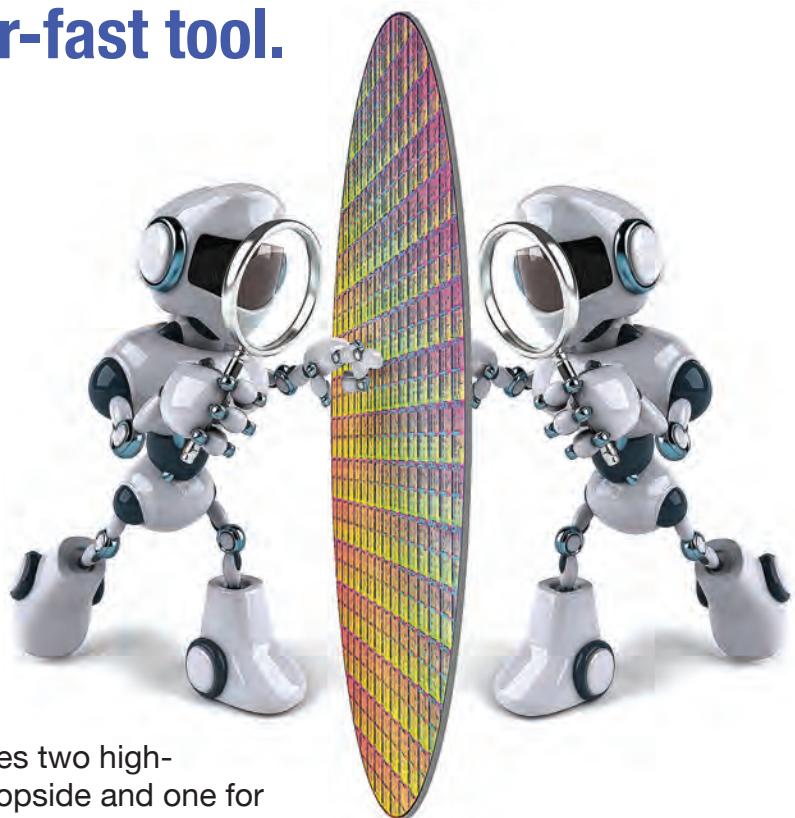
Now: Front and Backside Macro Defect Inspection. In one versatile, super-fast tool.

New EAGLEview 6 with BSI Backside Inspection

In recent years, the demand for back-side wafer inspection has increased dramatically. Especially for certain devices, backside defects like scratches, particles, resist problems, etc. can significantly impact device quality...

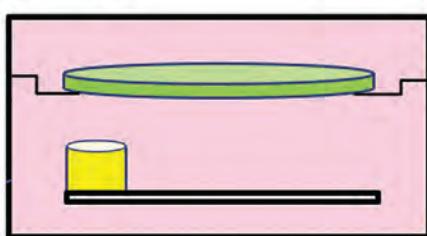
Now, Microtronic has developed an elegant solution: new EAGLEview 6 is able to deliver macro defect inspection on both the top and backside of wafers, quickly and efficiently, on a single tool.

A uniquely efficient system design provides two high-performance wafer imagers: one for the topside and one for the backside. So the wafer does not need to be turned over – which simplifies and speeds the inspection cycle.



**Wafer Topside
Imager**

**Wafer Chuck
for Alignment
and Centering**



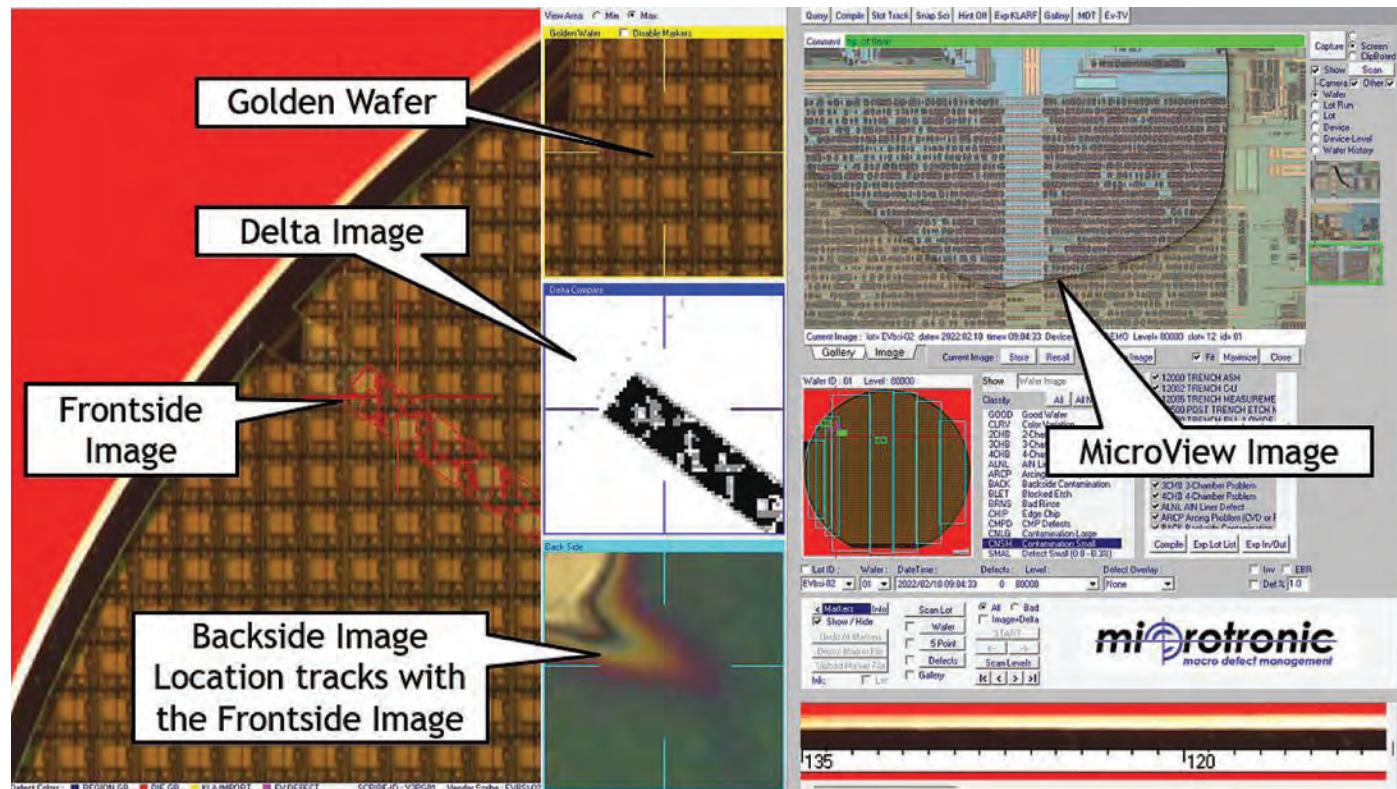
**Wafer Backside
Imager**

Also, having dual capabilities in a single tool means you don't need to buy a second system for backside inspection. Which reduces your expense and conserves floorspace.

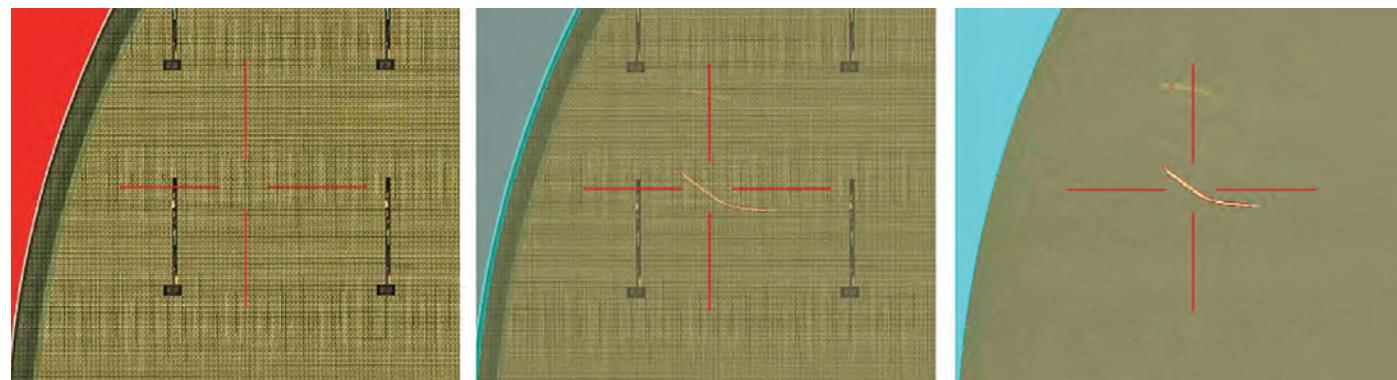
And because of its unique high-speed design, EAGLEview 6 can actually inspect both wafer sides almost as quickly as a single side. So, while it's gathering twice as much defect data, its throughput is only minimally affected.

Powerful ProcessGuard™ software correlates front and backside defect information

Backside inspection (BSI) is seamlessly integrated into Microtronic's powerful ProcessGuard software. It provides the same functionality for backside images as frontside images, including Zoom, Scan, Lot, etc.



ProcessGuard also integrates and correlates front and backside images so it can show front, back and front/back composite images. Plus, a yellow crosshair can show the identical position on both sides of the wafer. In addition, the same position can be displayed for the reference wafer while the Delta Image shows the difference between the current and reference wafer.



Wafer Frontside

Front and Back Overlaid

Wafer Backside

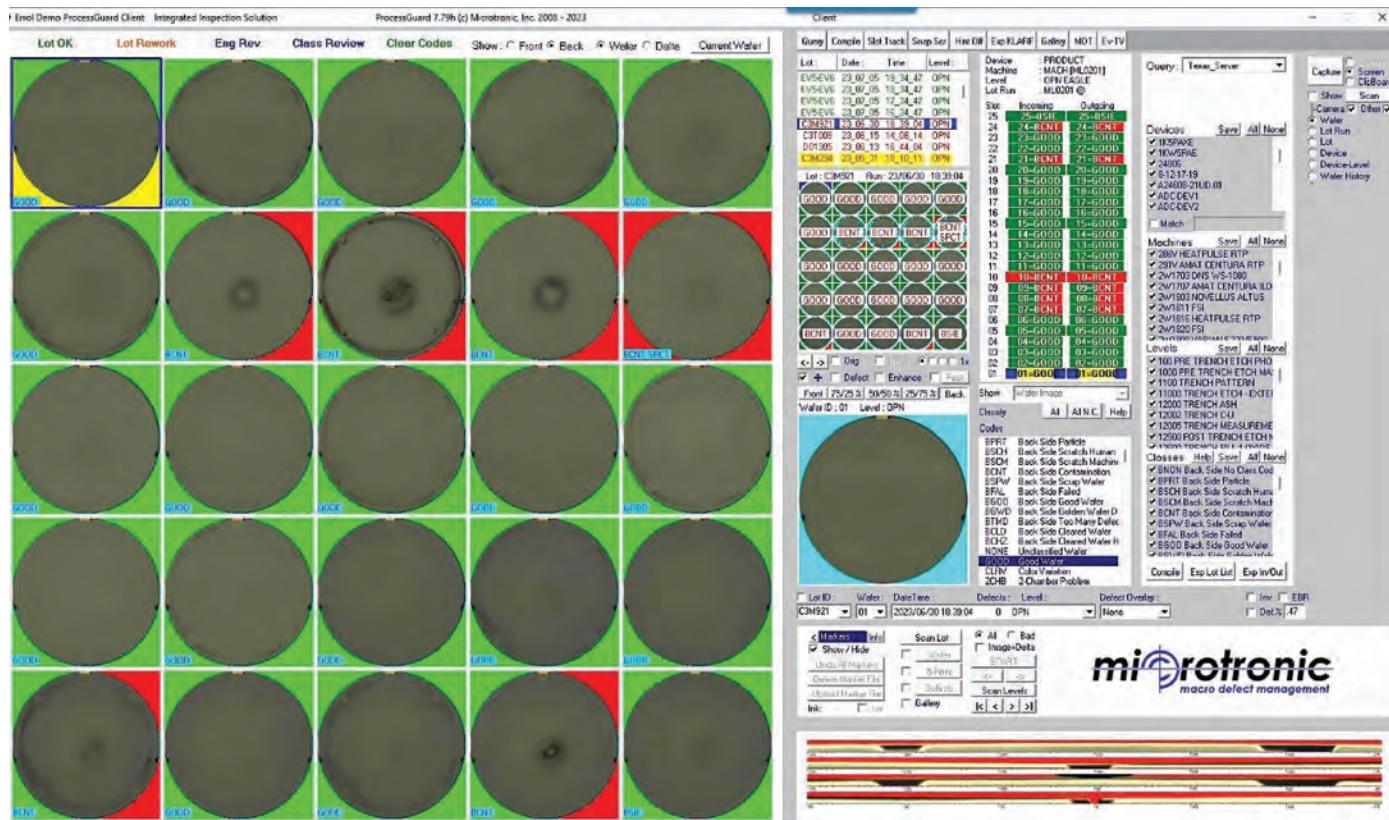
The backside inspection option can be ordered on new EAGLEview 6 tools and also can be field-retrofitted for existing EAGLEview tools.

EAGLEview inspects 100% of every wafer – front and back

One major EAGLEview advantage is its ultra-high speed: over 3000 wafers/day. This enables it to macro-inspect 100% of every wafer, front and back, edge to edge, in every lot. By comparison, most other tools can only sample a small area on a small number of wafers per batch.

But with its high speed, EAGLEview can see a great deal more – and see it earlier in the overall process. This lets you take care of any needed rework earlier, which reduces your scrap. And it lets far fewer defects get through to become end-product quality problems.

ProcessGuard Software: Backside Macro Defect Information for Every Wafer



For more on backside inspection, contact us at info@microtronic.com or call (877) 642-7687. And be sure to subscribe to our tech bulletins to stay informed on all our latestst developments.

**The MACRO
Specialists**

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Microtronic, 171 Brady Avenue, Hawthorne, NY 10532 • Microtronic.com