

Sigma W8

Automatic wafer loader



Bond tester for 8 inch wafers

- Bond tester for wafers or at wafer level 4 - 8 inches (up to 200 mm)
- Fully automatic wafer bond tester
- X/Y stages X: 370 mm, Y: 370 mm
- Force range from 1 gf - 10 kgf
- Bump pitch down to 50 μ m



Full automation

All Sigma bond testers are modular by design and come with game-changing automation capabilities for automatic loading, testing and analyzing. The Revolving Measurement Unit (RMU) houses up to 6 sensors that enable continuous testing. The software includes vision and deep learning technology to eliminate human errors.



Wafer loader

Integrate the Sigma W8 with an independent wafer (un)loader for hands-free bond testing. The wafer handler automatically loads, aligns and transfers the wafers from the cassette onto the bond tester. The cassette mapper detects empty slots and ensures safe wafer handling.



Upgrade to Sigma W12

The Sigma W8 is upgradeable to the market-leading Sigma W12 bond tester, which can test wafers up to 12 inches (300 mm) fully automatically. The Sigma W12 comes with a 600 mm X stage to test bumps down to 20 μ m. The upgrade possibility makes the Sigma W8 a future-proof investment.

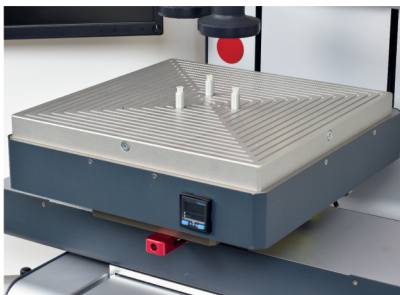
Sigma W12

Wafer bond tester



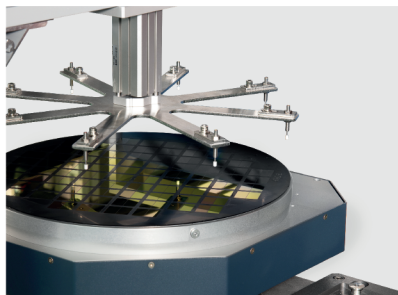
Bond tester for wafers 2 - 12 inch

- Wafers or at wafer level 2" - 12" (up to 300 mm)
- Precise testing and Cold Bump Pull (CBP) testing
- Large X/Y stages X: 600mm, Y: 370 mm
- Force range from 1 gf - 10 kgf
- Bump pitch down to 20 μ m



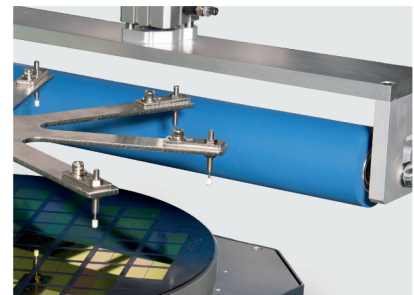
Panel chuck work holder

Vacuum work holder for panels or wafers up to 300 mm. Easily reach 100% of a 300 mm panel without repositioning your sample on the chuck.



Wafer pusher

In cases of extreme warpage, an optional wafer pusher ensures precise clamping.



Wafer cleaning unit

Keep test debris away from the wafer or the wafer chuck with a blower and vacuum cleaner or a roller with sticky foil, for pre- and post-cleaning.

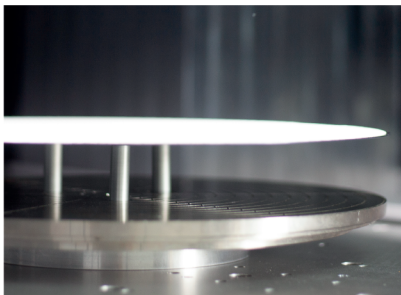
Sigma EFEM

Wafer/panel handler



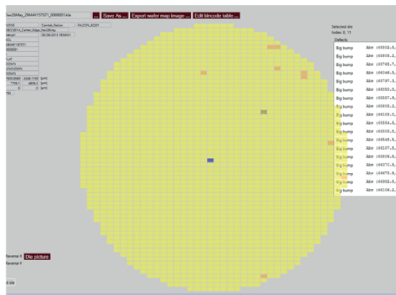
Chosen by the world's top 4 semiconductor packaging houses

Integration transforms the bond tester into a fully automated system. We offer various types of wafer and panel handlers (Equipment Front End Module), for operator-free bond testing.



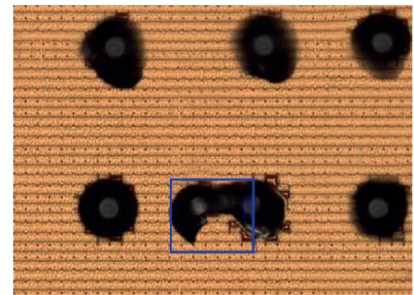
Intelligent lift pins

The system gently secures flat and warped wafers with the soft, flexible tips on the PID controlled wafer lift pins.



Substrate wafer map import

Easily import and export multiple file formats for wafer maps such as KLARF, (S)INF, G85, and others for full traceability. Defects or test positions are shown in an overview and are directly accessible for testing or analysis.



Big bump removal

Automatically shear the big bumps and clean the debris to prepare for wafer probing. Fully programmable vision algorithms can check if the removal of big bumps was successful.