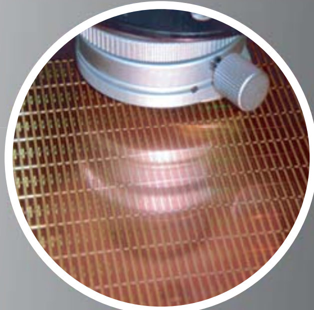
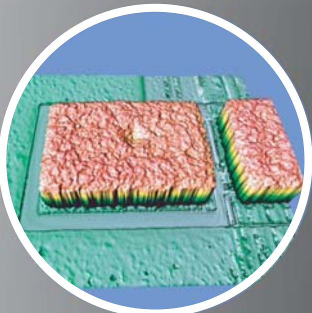
CYBERSURF 3D

Automatic and manual semiconductor process control

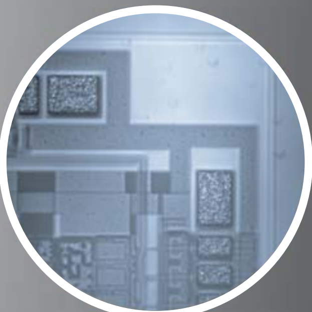
Cybersurf 3D, a new concept of machine for fully automated control on silicon wafers



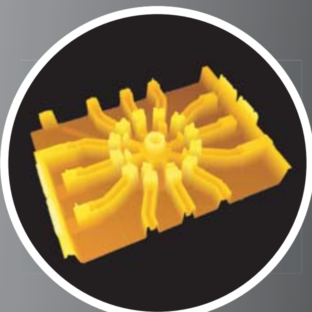
Fully automatic wafer alignement



3D bump measurement result



Automatic chip alignement



MEMS micromotor
static and dynamic characterization

- ***Automatic wafer load / unload***
- ***6" and 8" wafers, 12" on request***
- ***Auto alignement***
- ***Automatic measurement sequence :***
  - *. Bump dimensions*
  - *. Roughness (grinding, local stress)*
  - *. Step height*
  - *. Film thickness (photoresist, oxide,...)*
- ***Custom report format :***
  - *. Chip per chip statistics*
  - *. Wafer per wafer statistics*
  - *. Evolution of process parameter with time over months*

FOGALE
nanotech

Process metrology solution for wafer-level packaging

WAFER THINNING

> Flattness
> Radius of curvature
> Surface Roughness

FILM THICKNESS AND TOPOGRAPHY

> Photoresist, oxide, silicon nitride, ...
> Homogeneity across wafer surface
> Roughness
> Apertures size

BUMP CONTROL

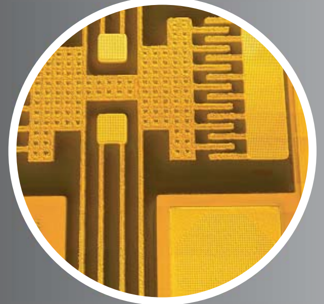
> Bump size (Length, width, height)
> Bump roughness
> Bump defects
> Wafer thickness measurement on individual or packaged chips

AUTOMATIC WAFER LOAD / UNLOAD

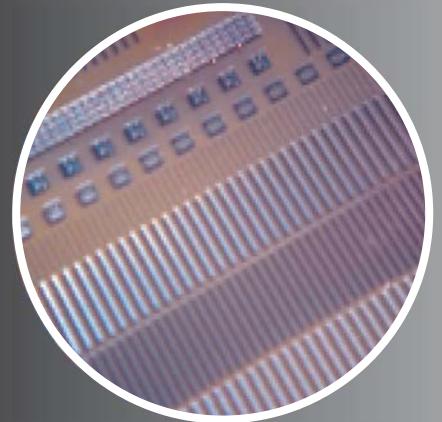
> Compatible with manual or automated wafer loading
> 6" and 8" compatible, automatic detection
> Automatic wafer alignement
> Wafer 12" (optional)
> FOUP capable (optional)

PERFORMANCE

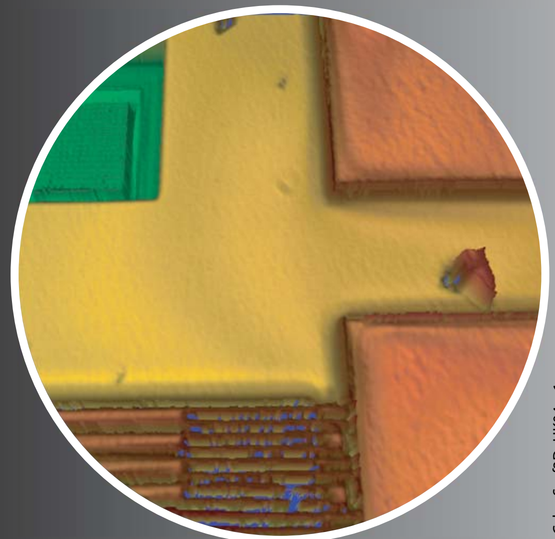
Vertical measurement range	0.1 nm to 500 µm standard
Vertical resolution	< 1Å
RMS repeatability	0.3 nm RMS
Lateral spatial sampling	0.1 to 9.3 µm
Field of view	7.2 mm to 80 µm
Reflectivity	1% to 100%



MEMS characterization



Structure size and defects characterisation, report sheet per chip and per wafer



Film thickness measurement

FP_PRO_CyberSurf3D_UK04_v1

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