

SUCCESSFUL APPLICATION: MEMS - 0317







Specific Requirements:

The customer wanted to test 150 mm silicon MEMS wafers in a fully automatic mode under vacuum. The wafers would be mounted in a single cassette into a material handling chamber with a load lock. The material handling unit would remove a wafer from the cassette and place it on a mechanically clamping chuck mounted on the probe system vacuum stage in the chamber. After the alignment, the device testing would be performed using a probe card or individual programmable manipulators with DC and High Frequency (HF) probe arms and probes. Everything within the chamber would need to be vacuum-compatible.

SemiProbe Solution:

- FA-6 fully automatic 150 mm probe system:
 - 150 mm programmable X, Y, Z and theta stage
 - o PILOT Software Suite Navigator, Wafer Map, Autoalign and MHU Modules
 - Vibration isolation table
- All components in the vacuum chamber rated to 10-6 torr
- Agilent turbo-molecular vacuum pump
- Probe card holder and probe card
- Four programmable three-axis manipulators with DC and HF probe arms, cables and probes
- Material handling unit (MHU): one 150 mm cassette, pre-aligner and end-effector
- Compound optics with CCTV system