

SUCCESSFUL APPLICATION: OPTOELECTRONICS - 0118



Specific Requirements:

The European customer wanted a fully automatic probe system to test silicon photonic devices in wafer form that were manufactured using MEMS technology. Due to small pitches and tight tolerances the customer needed four programmable manipulators. Two manipulators were multi-axis hexapods and two were three-axis manipulators. The two hexapod manipulators had probe arms that could handle single and multi-mode fibers. The fiber needed to be placed within 10 um of the device surface so non-contact height measurement sensors were required and mounted to the fiber arms. The two three-axis manipulators used single DC or high frequency (HF) probe arms with the appropriate probe tips.

SemiProbe Solution:

- FA-6 Fully automatic 150 mm probe system:
 - 150 mm programmable X,Y,Z and theta stage
 - PILOT Software Suite – Navigator, Wafer Map and Autoalign
- Four programmable manipulators
 - Two multi-axis Smartacts for light input and output optimization
 - Two three axis manipulators with DC & HF probes HF, DC and Opto probe arms and probes
 - Non-Contact Height Measurement Sensor
- Material Handling Unit: two cassettes, pre-aligner, scanner, bar code reader
- Test Instrumentation Racks