



SEMIPROBE®

Test • Inspect • Innovate

SUCCESSFUL APPLICATION: OPTOELECTRONICS - 0918



Specific Requirements:

The customer wanted a 300 mm fully automatic double-sided probe (DSP) system for high volume silicon photonics testing in a production environment. The system had to provide the ability to bias the device with a probe card on the top while detecting light output from the bottom of the wafer. The system needed to provide low and high temperature capability from -40 °C to 200 °C in a frost-free and shielded environment. The system had to be able to operate 24 hours a day, 7 days a week. The system had to be tested and certified to SEMI, UL and other safety standards.

SemiProbe Solution:

- PS4L FA-12 Fully automatic 300 mm probe system:
 - 305 mm x 305 mm programmable coarse and fine X, Y, Z and theta stage with mount for backside detector
 - Double-sided 300 mm wafer carrier assembly
 - Localized environmental chamber and cover
 - PILOT Software Suite – Navigator, Wafer Map and Autoalign
- Compound microscope bridge and microscope movement (100 mm x 100 mm) with a pneumatic 50 mm Z lift
- Compound Optics and CCTV System
- Non-contact height measurement system
- Thermal system that can operate from -40 °C to 200 °C
- Material handling unit (MHU): two 300 mm FOUPS with AGV loading and unloading
- Fully certified SEMI system