

14-inch high-definition touchscreen

Optical components

- Independently designed upper and lower microscope system
- Unique upper and lower focusing and centering optical technology
- Equipped with 4 sets of 2-megapixel high-definition digital cameras
- Precision pneumatic upper microscope structure ensures that alignment and needling are in the same area
- Each microscope has both high and low magnification to meet the requirements of high-precision alignment and needle recognition

Test interface

- Customized needle card carrier structure to accommodate different needle cards and test head interfaces
- Optional automatic needle card insertion function
- Option to dock from the side or rear
- Supports testing machine manipulators such as Hinge and Manipulator
- Supports direct docking and Pogo tower test docking methods

Prober internal structure

- Customized needle card carrier structure to accommodate different needle cards and test head interfaces
- Multi-directional environmental monitoring and compensation function to address changes in position accuracy due to temperature and humidity variations
- High-precision XYZR four-dimensional platform, with XYZ accuracy up to $\pm 1 \mu\text{m}$ and R accuracy up to 0.0001°
- $0.1 \mu\text{m}$ resolution grating ruler to ensure ultra-high precision motion performance
- High-precision imported screw guide rail structure
- Integral casting and long-term aging treatment of the machine base
- Square ceramic needle cleaning table structure
- Drawer-type electrical box structure for easy daily maintenance and equipment repair

Loader internal structure

- High-precision 6-axis robotic arm
- Upper and lower double fork arm structure for rapid wafer exchange
- 180-degree rotation with accuracy up to 0.001°
- Capable of simultaneously accommodating up to 3 different Clean Wafers

Pre-Alignment structure

- CCD image recognition for locating Notch position, angle, and Wafer center
- Angle accuracy up to ± 0.1 degrees
- Center deviation accuracy up to $\pm 0.1\text{mm}$
- Pre-Alignment performed before removing and inserting the Wafer

Wafer scanning structure

- High-speed scanning of Wafers, completing the scan of 25 layers of Wafer within 4 seconds
- Detection of anomalies such as stacking, misalignment, and remnants
- Precise detection of Wafer height position

Drawer-style wafer sample box

- Used for rapid access to individual test samples

Port structure

- Compatible with 12-inch and 8-inch cassettes
- Compatible with various cassette types, such as F0UP, F0SB, etc.
- Multiple In-Pos detection signals and safety protection signals for cassettes
- Vacuum suction mechanism for opening the cover of 12-inch cassettes, ensuring cleanliness inside the cassette.

Chuck structure

- Compatible with 8-inch and 12-inch Wafers
- Supports testing applications at high temperatures, with a maximum temperature of up to 250°C
- Supports multiple-ring groove suction and dense hole suction chuck
- Supports chip suction
- Optional gold-plated chuck to reduce surface contact resistance



Software functionalities

- Independently developed for stronger compatibility and richer functionalities
- Powerful wafer map editing feature, supporting offline and file import/export capabilities
- PMI needle mark detection function
- Wafer Alignment function
- Needle Alignment function
- Independent management of Device, Configuration, and Utility parameters
- High-resolution and high-precision temperature control
- Various accuracy compensation algorithms
- 32-bit BIN splitting function
- Supports testing machine communication protocols such as GPIB, TCP/IP, etc.
- Supports SECS/GEM communication protocol to meet factory MES communication requirements
- Wafer ID recognition function, supporting special characters such as dots, slashes, and dashes
- High-speed Autofocus function for images
- Support for different needle card Multi-Site Location, etc.

