The P300A probe station is the most stable, intuitive, and space efficient 300mm semi-automatic analytical probe station available today. Designed for low current, sub-micron positioning applications, the P300A comes standard with features such as single-point ground, dry/dark environment, and integrated thermal chuck plumbing. Built for reliability as well as precision, the P300A features closed-loop operation with massive stage and platen drives, a robust chuck mount and a harmonic theta drive.

The P300A uses netProbe™, Micromanipulator’s revolutionary prober control software. Navigator, Inter-active Video, Memory List, Wafer Map and Setup modules provide full functionality with a wealth of high level features including Video Positioning and Snap Alignment, Die to Die and In-Die stepping, and a prober interface that can emulate other station commands.

Motorized controls placed conveniently at the front of the station allow simple manual control of this semi-automatic station when programmability is not required. Both joystick and MicroTouch™ controls intuitively operate the station stage, platen (Z), and theta as well as the microscope X-Y and Z drives. A local touch-screen display also provides setup and operational programmability locally to the probe station hardware.
**P300A Control Features and Software Modules:**

- **Navigator module:** Provides complete interactive navigation control of stage, platen, theta and microscope.

- **Wafer Map module:** Provides wafer map programming and step and repeat functions. Complete edit functions for the map are provided including choice of coordinate orientation. Stepping through the Wafer Map may be triggered by software or an external trigger pulse. For small die, a Zoom Window is provided which shows the die immediately adjacent to the current location.

- **Memory module:** Stores locations by coordinates or by find and save function. The Memory List allows movement to a location with a simple click or programmability to step through all listed locations. Coordinate Memory List stepping programs with Wafer Map to provide Die + In-Die stepping capability.

- **Pattern Recognition** function recognizes a sample pattern and aligns to it after each programmed move. Using advanced edge sensing, the module is not “fooled” by contrast alterations or even full light / dark reversals.

- **Local control** of the station programming is provided by a high resolution touch-screen. Navigation and setup functions are available with the touch-screen. Data entry is simplified through a pop-up keypad that appears when needed.

**Station specifications:**

- **0.1 micron resolution** stage, platen, and microscope drive: Supports probing of the smallest targets

- **Stage** 300 x 300mm (X-Y), x 150mm (Z - platen) drive range: Supports wafers / samples up to 300mm

- **Microscope** 100 x 100mm (X-Y), x 200mm (Z) drive range: Supports large die and multi-site probe cards

- **Stainless steel platen** with 4-point platen leadscrew drive: Supports both magnetic and vacuum base manipulators

- **Integrated dry/dark enclosure:** Provides EMF shield and enclosure for low temperature chuck dryness

- **Vacuum quick disconnect and Triaxial strain relief brackets:** Provide convenient, strain relieved connections.

**Full range of accessories and options available including:**

- Probe card holders, Light Tight Enclosures, Thermal Chucks, Video accessories, Manual/Motorized manipulators.

Specifications subject to change without notice.