# Atomic Force Microscopy (AFM)

MANUFACTURER : Park Systems

MODEL : XE-150

## Samples

- Samples sizes: Samples size: 150 mm (6 in) maximum
- Thickness: 25 mm (1 kg) maximum

## Analysis

- Types : contact mode and non-contact mode
- Mainly used for non-destructive metrology on samples (etch and lithography) and characterization of thin films micro-roughness

## Characteristics

- Lateral resolution: 1.5 nm (closed-loop), 0.01 nm (open-loop)
- Mapping available
- XY scanning with closed-loop feedback control
- XY scan dimensions: 100 x 100 $\mu m^2$ – Vertical scan: 12 µm
- Z scan noise level: 0.05 nm (maximum)
- Motorized stage with maximum displacement of 225 × 150 mm (resolution: 0.5 µm)
- Programmable multiple points data acquisition
- CCD high resolution camera (Mpx) – maximum field of view 1680 x 1260 µm
- Anti-vibration table and acoustic chamber
- Very sharp tips for the metrology of high aspect ratio nanostructures

CHARACTERIZATION