

# Scanning Probe Microscope (AFM/STM Modes, all in one system)

SPM series have gained worldwide popularity through its affordability, portability, and ease of use, with hundreds of systems currently in use. SPM is now united these three unique characteristics with a fully modular system design.

Featuring an innovational ergonomic design and improved electronics, this scientific microscope delivers atomic scale resolution at a remarkably affordable price, making it an ideal choice for education as well as research.

The SPM offers educators an exceptional opportunity to teach their students many powerful SPM/AFM-STM techniques.

## Features:

### AFM Mode:

- Contact Mode (Constant Force and Constant Height Available)
- Non contact Mode
- Semi contact Mode
- Force Spectroscopy
- Lithography (Chemical and Mechanical)
- LFM (Lateral Force Microscopy)
- MFM (Magnetic Force Microscopy)
- EFM (Electrostatic Force Microscopy)
- PDM (Phase Detection Microscopy)
- FMM (Force Modulation Microscopy)

### STM Mode:

- Constant Height
- Constant Current
- Lithography
- Spectroscopy

### Advantages:

- Cost-effective platform offers simple upgrade path
- Excellent educational instrument with course curriculum

## Application

- All kind of samples including biological and non-biological samples
- Atomic scale imaging of solid surfaces
- Atom and nano structure manipulation
- Spectroscopy of samples at desired point
- In almost all field of Nano technology, Optoelectronics, Surface Materials, Semiconductor and Chemistry, Solid state Physics, Biology, Medicine,...



SPECIFICATION	
Range of Scanning X,Y	30 $\mu$ m
Range of Scanning Z	5 $\mu$ m
Lateral Resolution	0.13 nm
Vertical Resolution	0.05 nm
Scanning Schema: Movable Sample Under Stationary Probe	
Scanner Type: Piezo ceramic	
Maximum Sample Size	20 mm
XY Micro Positioning stage	2.5 $\mu$ m
Embedded Video System: Visualization on a PC connector via USB port from top and side	
Scanner DAC/ADC Resolution	16 bit

