

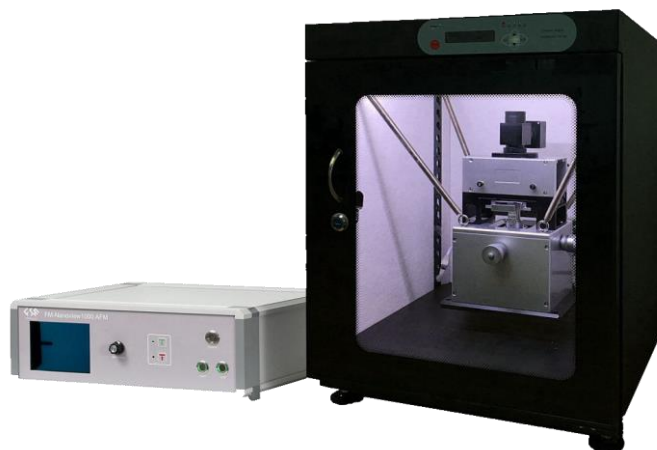
Atomic Force Microscope (AFM-1000) for General Education

AFM-1000 is a world class atomic force microscope (AFM), produced by Suzhou Flyingman Precision Instruments Co., Ltd. It is specially designed for general education, featuring:

- 1.Scan head and sample stage are designed together with strong anti-vibration performance.
- 2.Precision laser detection and probe alignment device make the laser adjustment simple and easy.
- 3.Adjusting servomotor to move the sample approaching tip manually or automatically in order to carry out precision positioning of the scanning area, as well as to avoid accidental cantilever crash.
- 4.The sample moving device with high-accuracy and large moving range allow to scan any area of the sample.
- 5.Optical observation system for the tip checking and the sample positioning.
- 6.Modular design of electronic system makes maintenance and further upgrade easy.
- 7.Suspended springs for vibration isolation with good performance.

Its powerful software's functions include;

- 1.Two kinds of sampling pixels for selection : 256×256 , 512×512
- 2.Choose any area of the sample
- 3.Scan sample in random angle at beginning
- 4.Adjust the laser spot detection system in real time
- 5.Choose and set different color of scanning image in palette
- 6.Support linear average and offset calibration in real time for the sample title
- 7.Support scanner sensitivity calibration and electronic controller auto-calibration
- 8.Support offline analysis and process of the sample image



Items	Technical Specifications
Operation modes	Contact mode, friction mode, extended modes of tapping, phase, MFM, EFM.
Sample size	$\Phi \leq 90\text{mm}$, $H \leq 20\text{mm}$
Max. scan range	X/Y: 20um, Z: 2 um
Resolution	X/Y: 0.2nm, Z: 0.05nm
Scan rate	0.6Hz~4.34Hz
Scan control	XY: 18-bit D/A, Z: 16-bit D/A
Data sampling	One 14-bit A/D and double 16-bit A/D multiple-channel simultaneously
PC connection	USB2.0
Scan angle	Random
Sample movement	$\pm 6.5\text{mm}$
Pulse width of approaching motor	$10 \pm 2\text{ms}$
Optical system	Magnification: 4X, resolution: 2.5 um
Data points	256×256, 512×512
Feedback type	DSP digital feedback
Feedback sampling rate	64.0KHz
Windows	Compatible with Windows98/2000/XP/7/8