

# NanoScan

## SCANNING NANOMECHANICAL INSTRUMENT SERIES

### NanoScan-Compact Nanoindentation / Nanomechanical Tester

Quantitative Characterization of Nanomechanical, Nanoindentation, Force Spectroscopy & Electrical properties in a compact cost-effective footprint

#### Measurement Modes

- Imaging in contact dynamic scanning mode (topography / modulus mapping)..
- NanoIndentation / nanoscratch
- Force spectroscopy
- Mapping local conductivity simultaneously with surface topography and modulus mapping
- Measuring Current during instrumented nanoindentation and nanoscratch-test
- Measuring C-V curves at the predefined normal load/indentation penetration of the nanoindenter

#### SPM imaging module specification

- XY imaging range: 100um x 100um or larger
- Z imaging range: 10um or larger
- Displacement nonlinearity: 1 % or less

#### Samples stage specification

- Maximum space for samples: 100mm x 100mm x 60mm (please inquire for larger platforms)
- Maximum weight of samples: 3 kg
- XY positioning range: 50mm x 50mm (manual)

#### Measuring Head specifications

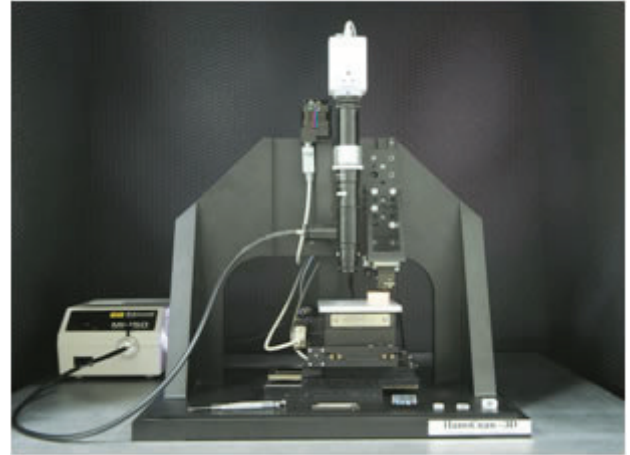
- Peak load for low-range sensor: 30mN
- Maximum indentation displacement: 10 um

#### Software

- Full set of software necessary for device setup and operation, as well as data acquisition and analysis.
- User manual

#### Accessories

- Probe sensor with mounted diamond indenter (2 pcs.)
- Linear calibration grating TGZ02
- Hardness reference block (fused quartz)



#### PC workstation

- IBM compatible personal computer.
- Operating system: Windows 7
- LCD display

#### Electronics

- Interface to PC: USB 2.0 compatible

#### Acoustic enclosure

- Outside dimensions: 700mm x 680mm x 820mm
- Inside dimensions: 600mm x 550mm x 700mm
- Passive from noise and thermal effects