



SURFACE IMAGING SYSTEMS

## Product Information

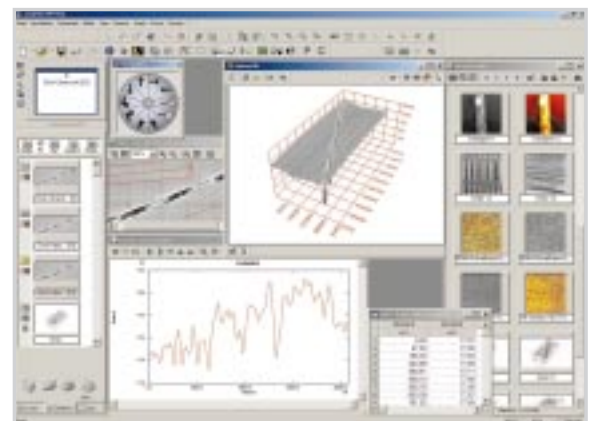
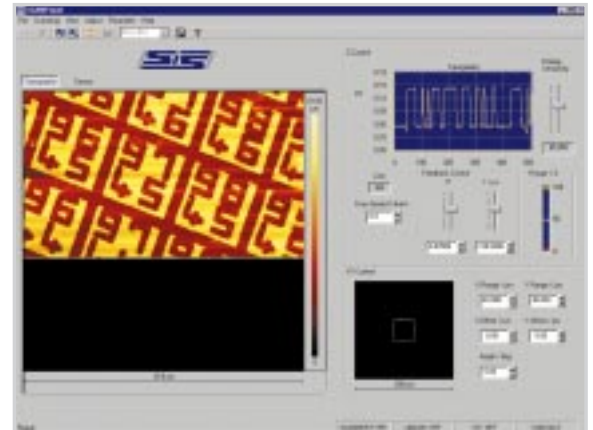
# The SCANControl C

The new generation of electronics for SPM

The SCANControl C is the latest improvement to the tried and trusted SCANControl electronics for the S.I.S. scanning probe measuring heads ("ULTRAObjective"). The modern circuit design and use of programmable logic makes the SCANControl C not only the most precise, but also the most versatile SPM controller. With contact mode as standard, the SCANControl C can be extended by a number of additional SPM measuring modes thanks to its modular design. Communication with the user is accomplished via the S/ScanPanel software (Windows 2000 compatible) that combines the complex functionality with user-friendly operation. The SCANControl C connects to the USB port on your PC, making data transfer fast and easy. Also included with SCANControl C is the evaluation software analysis, an extremely versatile program to evaluate and show the results of your measurements. The numerous measurement possibilities also include a statistical analysis of your data (e.g. roughness determination).



Large fig.: Rear view of the SCANControl C  
Small fig.: Front view of the SCANControl C



Top: The clearly arranged software S/ScanPanel to control the ULTRAObjective  
Bottom: The evaluation software analysis to show and analyze measured data

## Specifications of the SCANControl C

Noise level:	2 $\mu$ V rms in vertical direction (Z)	16 bit digital/analog converter of all channels (0.03 nm at 2 $\mu$ m Z-range, Z-range can be limited, maintaining the full 16 bit resolution)
Scan speed:	typ. 1 to 10 Hz	Low voltage output of all important signals can be measured at BNC connectors
Detection principle:	fiber optic interferometry, noise level < 0.01 nm rms	Low voltage output of the gating signals can be factory adjusted 0 V to 10 V or -10 V to +10 V
Digital input resolution:	16 bit A/D	Digital PI-controller for the Z-direction
Digital output resolution:	16 bit D/A	Digital PI-controller for the X- and Y-linearization (active linearization by path sensors)
Output voltage:	$\pm$ 165 V	Modular concept of the electronic device – therefore extensions are easily possible
Input channels:	max. 4 simultaneous	Non-contact module with amplitude and phase detection
Externe inputs:	max. 3 high speed with 16 bit resolution	Interferometer module with temperature stabilized semiconductor diode laser
Image size:	freely selectable, from 128 to 1024 pixels, even rectangular sizes	
Processing:	internal 32 bit DSP, typ. 50 MHz	
Computer interface:	USB (standard universal serial bus)	
Operating system:	MS-Windows 2000®	