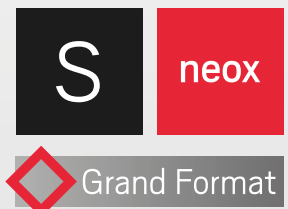


SENSOFAR

METROLOGY



High precision for
Large samples



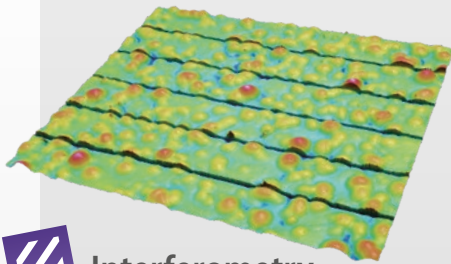


High precision for Large

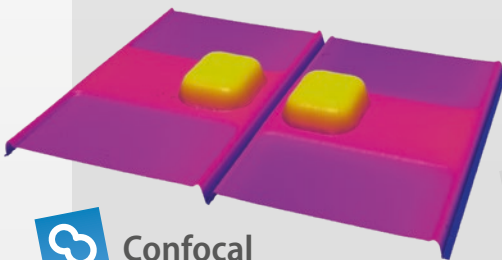
The S neox Grand Format is a complete solution from hardware to software, designed for 3D surface measurements of large panels in semiconductor, display and PCB industries.

Highest measurement versatility

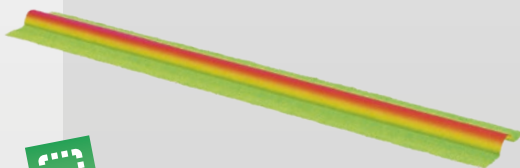
The measuring sensor, the S neox Cleanroom, provides three different optical technologies to image with the most suitable technology for each specific sample, achieving precision down to subnanometer levels.



 Interferometry



 Confocal



 Ai Focus Variation



Certified for semiconductor characterization

SEMI® S2 – SEMI® S8 –
SEMI® F47 – NFPA® 79
Certified by TÜV Rheinland



To learn more about the S neox Cleanroom capabilities, check out the following QR.

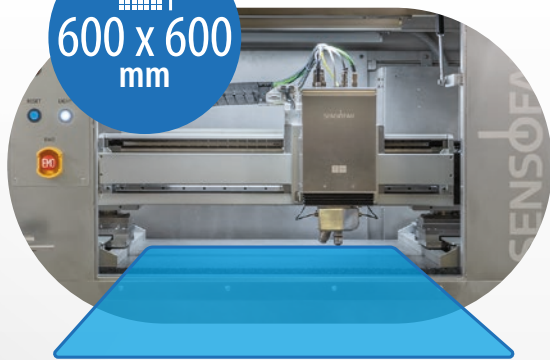


e samples



Expansive 600 x 600 mm travel range with an impressive speed up to one meter per second.

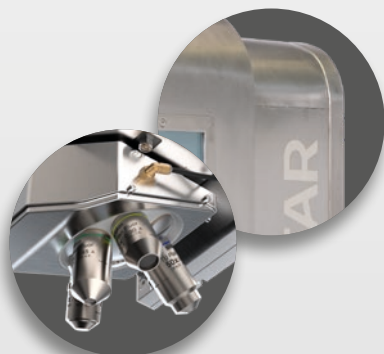

600 x 600 mm



Close-loop XY gantry design for consistent performance regardless of sample weight

Cleanroom-friendly
The measuring sensor is Class 1 compatible.

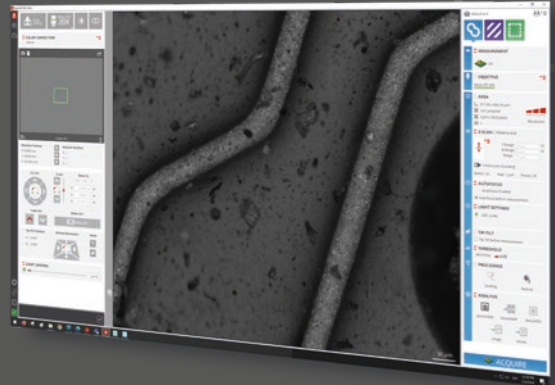
The enclosure is made of stainless steel, minimizing particle emissions.



Integrated software solutions

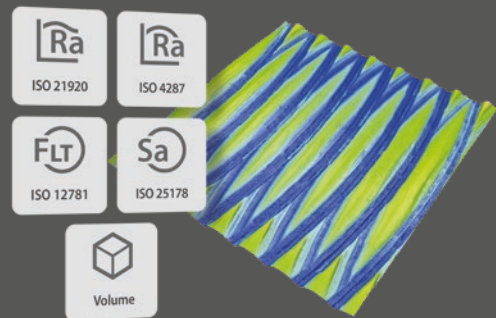
BUILT-IN ACQUISITION SOFTWARE

This advanced metrology tool is fully controlled by the easy-to-use SensoSCAN, which offers enhanced features for measurement automation.



GENERAL SURFACE ANALYSIS

SensoVIEW offers vivid data visualization and a comprehensive toolkit for analyzing 3D and 2D measurements, providing roughness, flatness, volume, and critical dimensions.



RAPID QUALITY CONTROL

SensoPRO is a plugin-based software that identifies specific features and efficiently handles large volumes of data. We have provided a range of custom plugins to meet the requirements of analysis automation in the consumer electronics sector.

36
PCBs

27
Semiconductors

9
Display

 **SensoPRO Plugin**

System specifications

Measuring principles	Confocal, PSI, ePSI, CSI, Ai Focus Variation and Thin Film
Measurement types	Image, 3D, 3D thickness, profiles and coordinates
Camera	5 Mpx: 2448x2048 px (150 fps)
Range of magnifications	Brightfield: 2.5X - 150X Interferometry: 2.5X - 100X
Field of view	From 0.11 to 6.7 mm (single shot)
Vertical scan range	Linear stage: 40 mm; Piezoelectric scanner: 200 µm (optional)
Measurement noise ¹	Down to 0.01 nm
Optical resolution ²	Down to 148 nm
Accuracy ³	<0.7%
Repeatability ⁴	<0.02%
LED light sources	Red (630 nm); green (530 nm); blue (460 nm); white (575 nm; center)
Nosepiece	6-position fully motorized
Sample weight	Up to 500 kg
Sample height	28-68mm (customizable)
User management rights	Administrator, supervisor, advanced operator, operator
Advanced software analysis	Inc: SensoVIEW; Op: SensoPRO, SensoMAP
Computer	Latest INTEL processor; 3840x2160 pixels resolution (4K) (27")
Operating system	Microsoft Windows 10, 64-bit
Dimensions ⁵	1600x1500x1500 mm
Power ⁶	Option 1: 230VAC phase to neutral. 50/60 Hz single-phase (1P+N+PE) Option 2: 208VAC phase to phase. 50/60 Hz three-phase (3P+N+PE)
Environment	Temperature 10 °C to 35 °C; Humidity <80 % RH; Altitude <1000 m

Gantry XY stage

Positioning system	Two axes gantry: XY translation of the head
Control type	Linear close loop
Travel range	600x600 mm
Accuracy	3 µm
Repeatability	0.21 µm
Travel speed	Max. 1m/s
Deceleration speed	200 ms

Dimensions

mm (inch)



Since 2007, Sensofar has been member of the Technical Committee of the International Organization for Standardization (ISO/TC213 WG16).



¹ L&S: Line and Space. Values for blue LED and 150X 0.95NA. ² Values for PSI and piezo. ³ Values performed with piezo and 50X magnification for a step height of 48600 µm. ⁴ Values performed with piezo and 50X magnification for a step height of 48600 µm. ⁵ Dimensions of the space occupied by the cabin. Contact sales@sensofar.com for the required clearance space for optimal operation and maintenance access. ⁶ Option 1 fulfills EN 60204-1:2018; Option 2, NFPA 79:2021.

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METROLOGY

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