



The Leading Automated Nanometrology Tool for 300 mm Wafer Measurement and Analysis

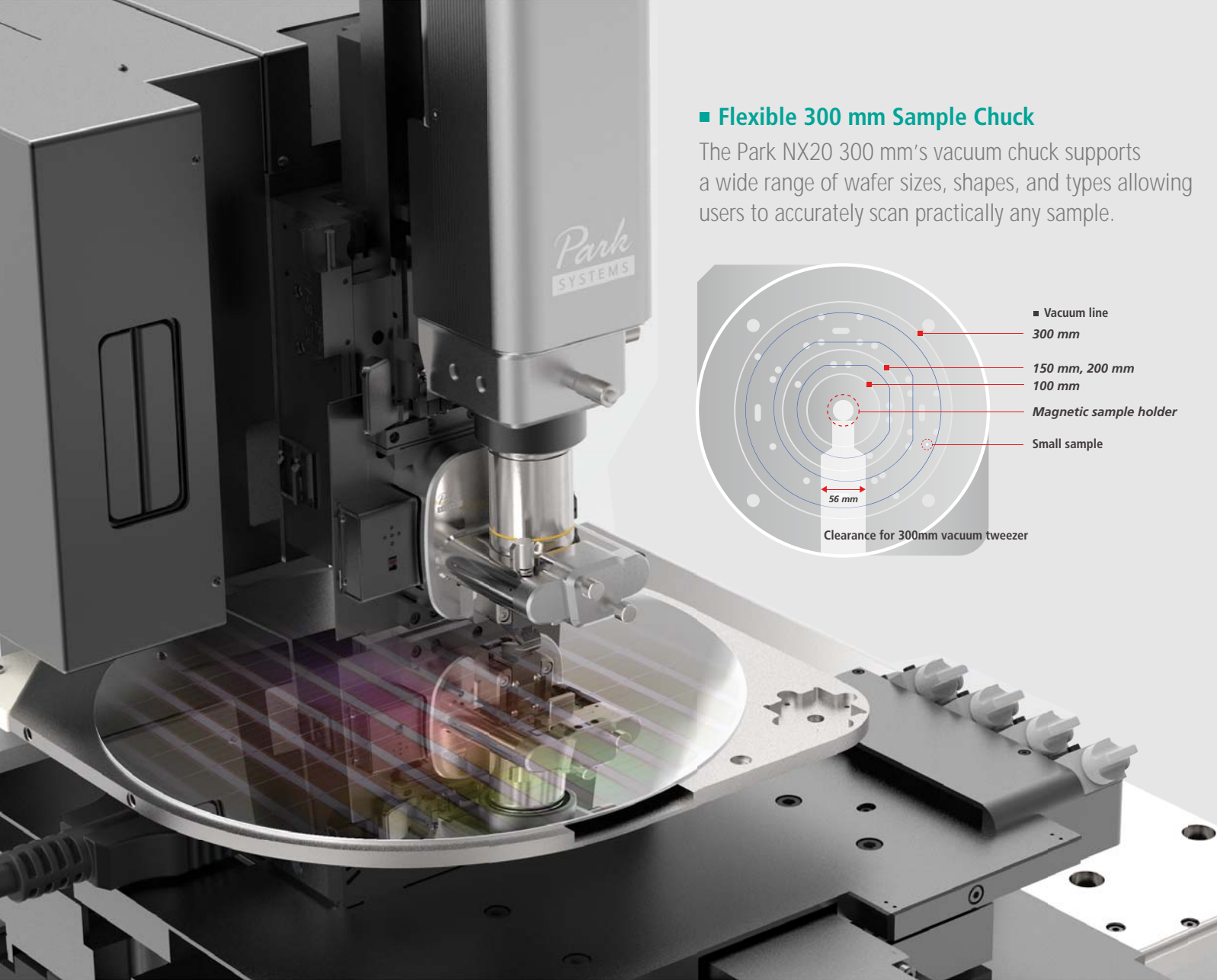
Park NX20 300mm

The Atomic Force Microscope of Choice for Failure Analysis, Quality Assurance and Quality Control

- The Park NX20 300mm is the industry's first large sample AFM that supports a fully motorized traveling range of 300 mm x 300 mm.
- Designed for failure analysis and quality control laboratories, the Park NX20 300mm can inspect an entire 300 mm wafer efficiently, without any need for cumbersome sample displacement.
- Proven AFM performance and Single Click-AFM automation eliminates any need for sample parameter adjustments and makes the Park NX20 scanning process as efficient and user-friendly as possible.
- With our SmartScan™ measurement interface, users can easily implement reliable and repeatable sequential multiple-site measurements over the entire 300 mm x 300 mm area.
- This makes the NX20 300mm the premiere choice for FA, QA, and QC engineers that need to scan large samples.

www.parkAFM.com

Park
SYSTEMS



Flexible 300 mm Sample Chuck

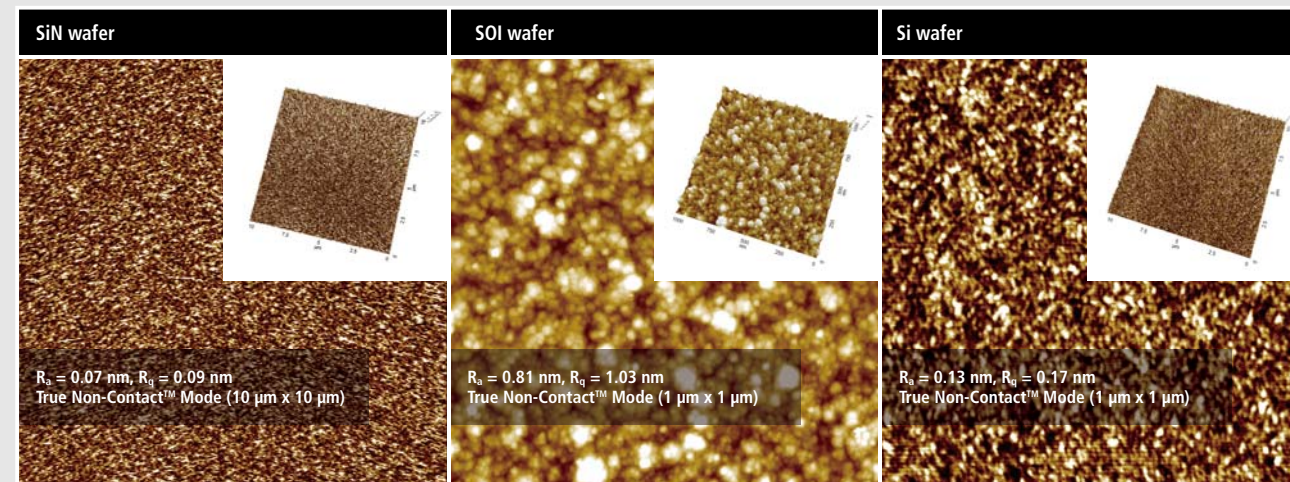
The Park NX20 300 mm's vacuum chuck supports a wide range of wafer sizes, shapes, and types allowing users to accurately scan practically any sample.

Specifically Built for Large Sample Wafer Inspection

The NX20 300mm was designed from the ground up to allow for optimal measurements of large samples. The entire 300 mm wafer area can be analyzed for low-noise AFM measurements. This opens up a whole new scope of measurement automation, allowing engineers to work faster, more simply, and with greater precision.

Proven NX20 Performance with a 300 mm Sample Stage

The NX20 is already the best choice for FA, QA, and QC engineers that need its unparalleled ease of use and automation without compromising on accuracy. With its enlarged platform that supports a 300 mm motorized XY stage, the NX20 300mm takes this a step further, allowing users to inspect larger samples easily and with extremely high accuracy.

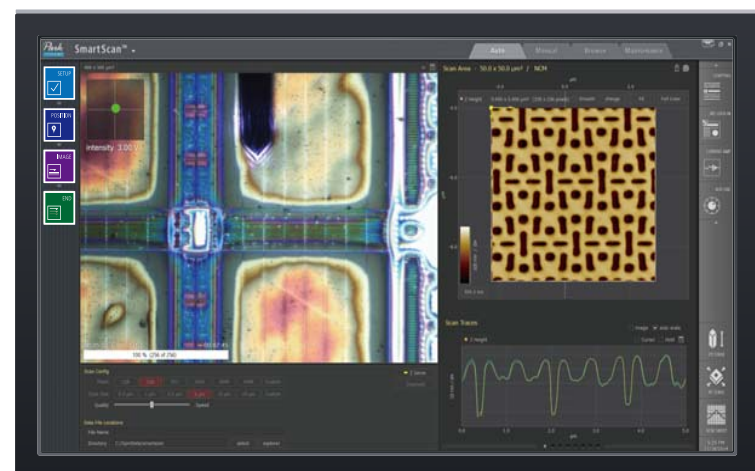


Scan Multiple Sites on the Entire 300 mm Wafer

SmartScan™ allows users to take automated sequential site measurements, compare surface morphologies, height, surface roughness from site-to-site and sample-to-sample using grid (a) and wafer (b) based modes. This can greatly improve user-convenience and productivity when scanning large samples.

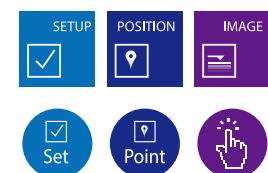
Park SmartScan™ Makes Accurate Measurement Simple

The Park NX20 is equipped with our SmartScan Operating Software, making it one of the easiest to use AFMs on the market. With an intuitive but extremely powerful interface, even untrained users can quickly scan a large sample without supervision. This lets senior engineers focus their experience on solving bigger problems and developing better solutions.

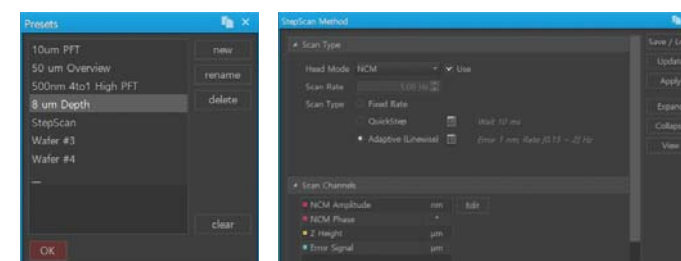
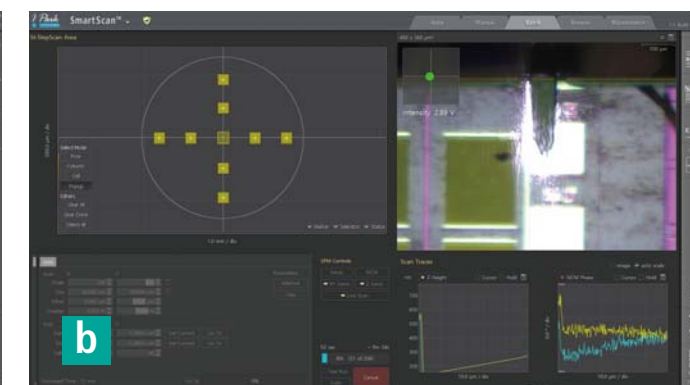
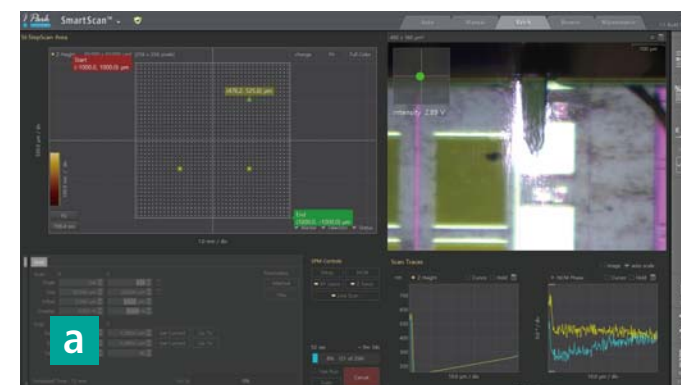
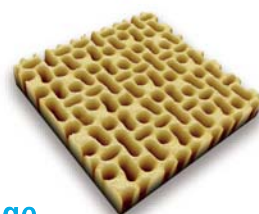


Scan with the click of a button

Park SmartScan automatically generates expert quality 3D images, so all you have to do is place the sample, and point and click. This makes faster measurements, simple enough for untrained users.



single click to image

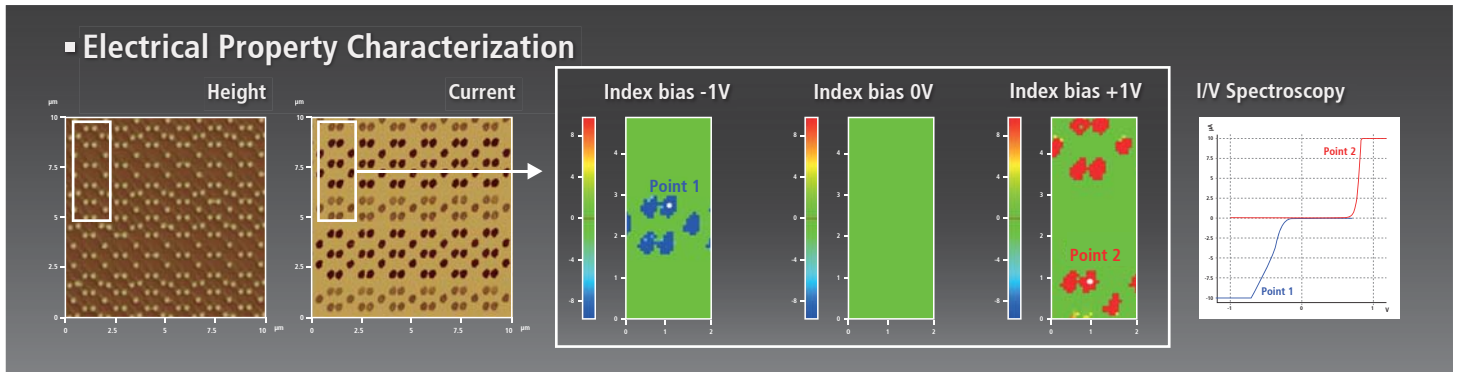
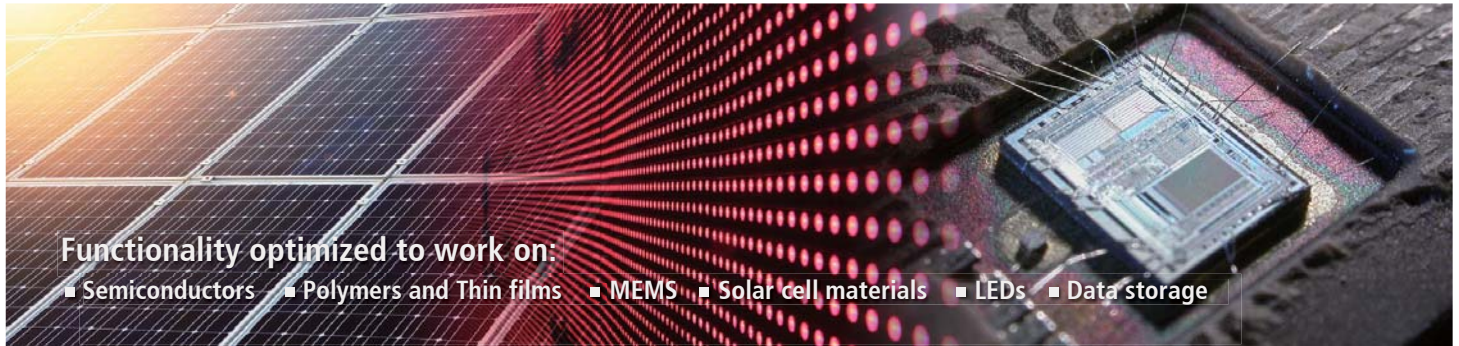


Powerful Job Creation

Our simple recipe creation process allows engineers to set presets defined by location, name, number and type on each batch.

Optimized for Wide Range of Applications

The NX20 300mm provides recipe-automated AFM measurement for numerous applications providing advanced measurements and analysis of samples at the nanoscale. With the ability to measure roughness, height and depth, perform defect reviews, electrical and magnetic failure analyses, thermal property characterization, and nanomechanical property imaging, the AFM is ideally suited to a wide range of tasks performed by FA, QA, and QC engineers that work with large samples.



SPECIFICATION

| Scanner | Stage | Physical Information |
|---|--|--|
| XY scanner range: 100 μm \times 100 μm Z scanner range: 15 μm , (30 μm optional)* | XY travel range: 300 mm \times 300 mm Z travel range: 25 mm Focus travel range: 8 mm Precision encoder for all axes* (optional) | Dimension (enhanced acoustic enclosure): 1220 mm (W) \times 1170 mm (D) \times 1470 mm (H) |
| Electronics ADC: 18 channels 4 high-speed ADC channels (50 MSPS) 24-bit ADCs for X, Y, and Z position sensor DAC: 12 channels 2 high-speed DAC channels (50 MSPS) 20-bit DACs for X, Y, and Z positioning 3 channels of integrated lock-in amplifier | Sample Mount & Size Vacuum groove holder: 100, 150, 200, 300 mm wafers, small sample Magnetic sample holder Up to 20 mm thickness | |
| Vision Direct on-axis vision of sample and cantilever 10x objective lens (20x optional)* - Field of view: 840 μm \times 630 μm (420 μm \times 315 μm with 20x option) - CCD pixel: Up to 5M pixel | Options/Modes* Various options are available for wide range applications | |
| | Software - Park SmartScan AFM system control and data acquisition software Auto mode, Manual mode Batch mode for recipe-automated, sequential multiple-site measurement AFM operation | |

If you want to learn more about **Park NX20 300mm**, please visit us at www.parkafm.com or contact one of our representatives today.

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*Please consult ParkSystems for details

Note: All specifications are subject to change without notice. Please visit our website for the most up-to-date specifications.

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