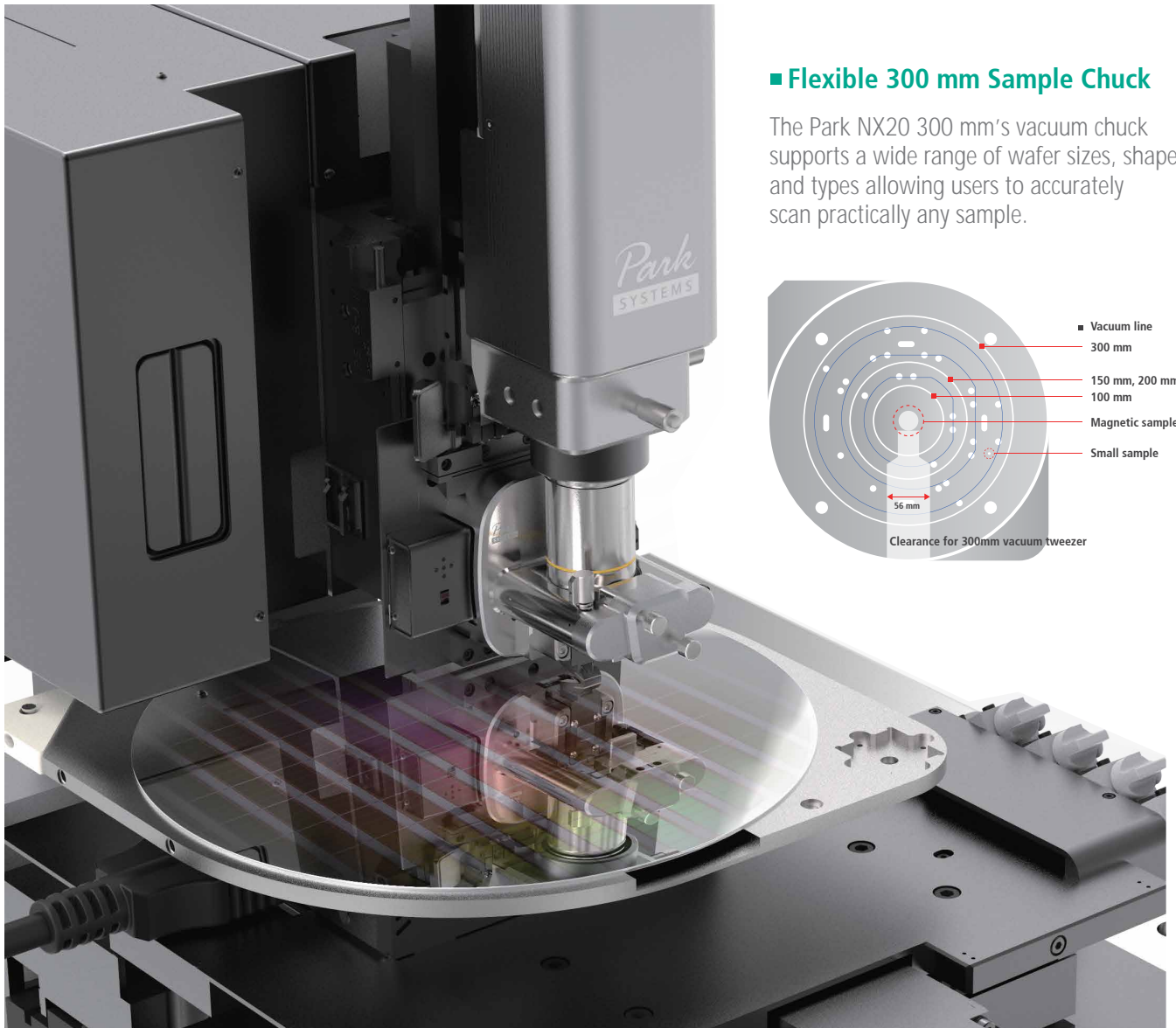


Park NX20 300 mm

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

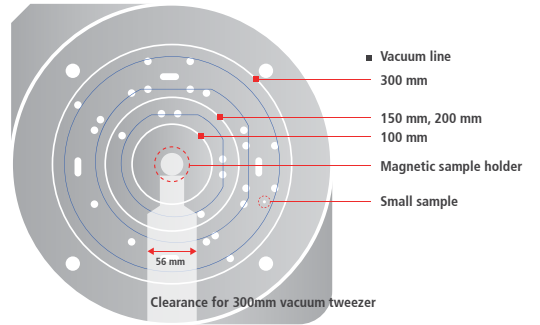
- The Park NX20 300mm is the industry's first large sample AFM that supports a fully motorized traveling range of 300 mm x 300 mm.
- Designed for failure analysis and quality control laboratories, the Park NX20 300mm can inspect an entire 300 mm wafer efficiently, without any need for cumbersome sample 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.





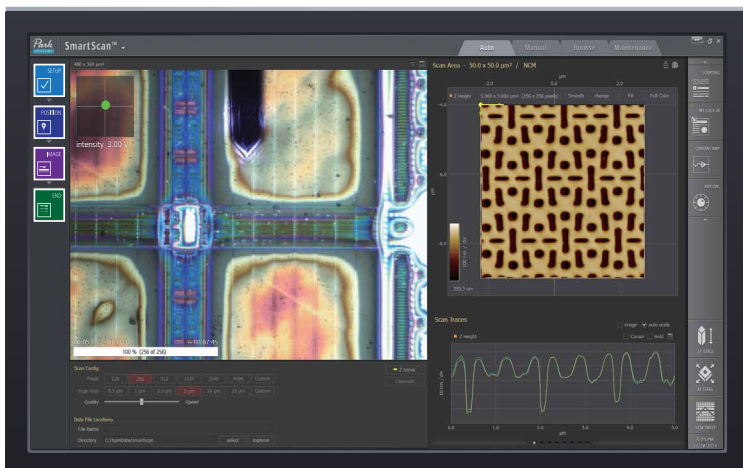
■ Flexible 300 mm Sample Chuck

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.



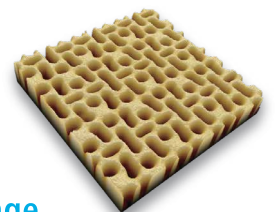
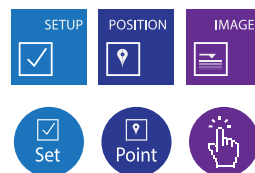
Park SmartScan™ Makes Accurate Measurement Simple

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.



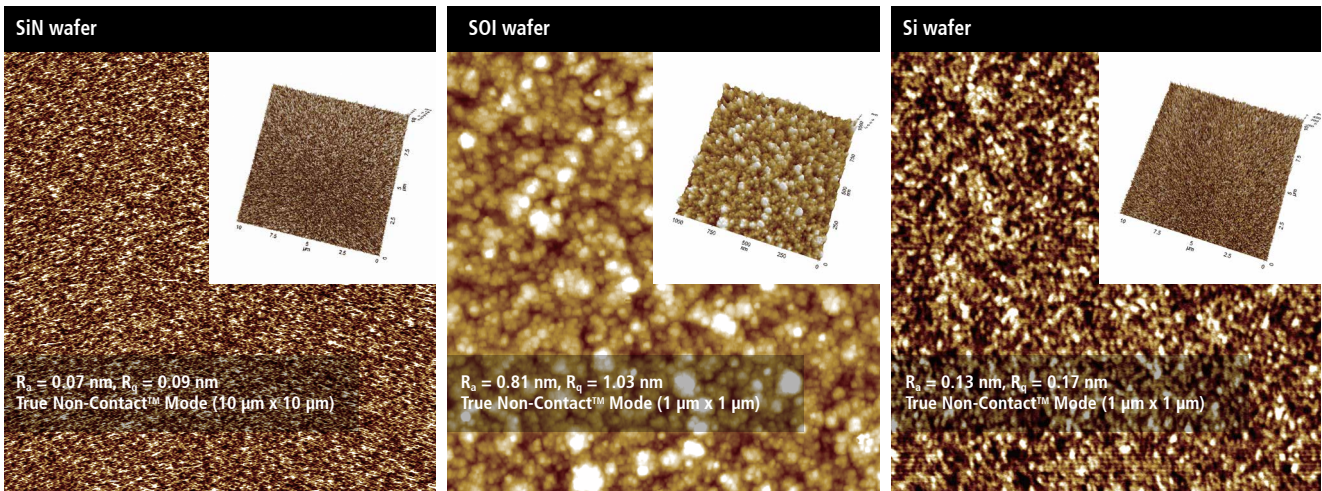
single click to image

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.

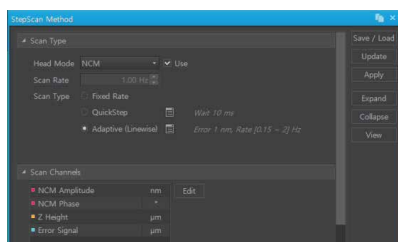
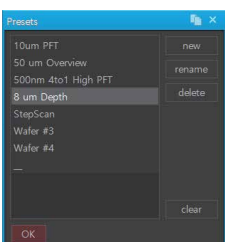
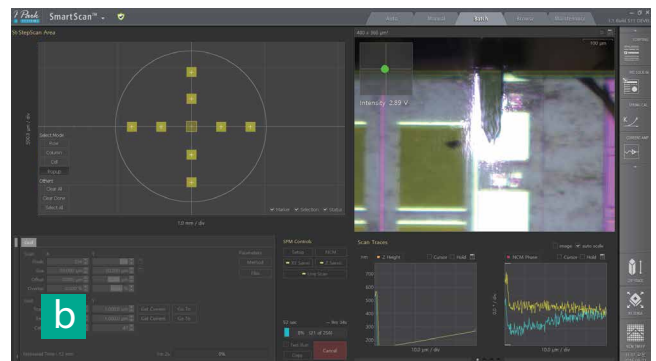
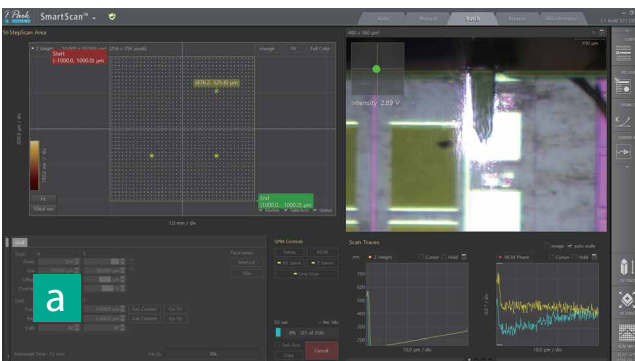
Proven NX20 Performance with a 300 mm Sample Stage

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.



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

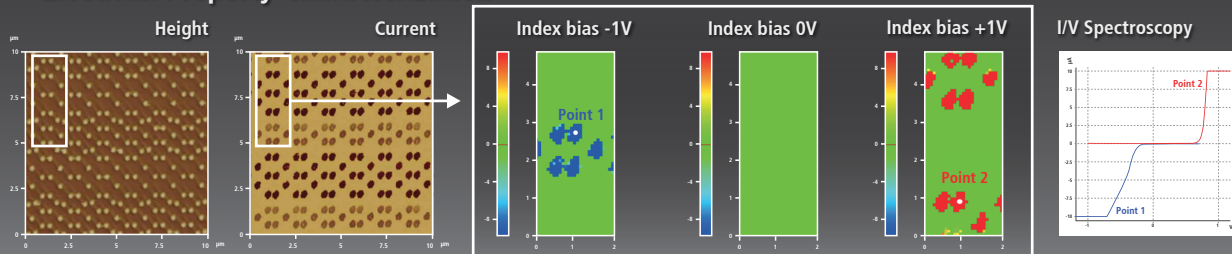
The NX20 300mm provides recipe-automated AFM measurement for numerous applications providing advanced measurements and analysis of samples at the nanoscale. With the ability to measure roughness, height and depth, perform defect reviews, electrical and magnetic failure analyses, thermal property characterization, 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.



Functionality optimized to work on:

- Semiconductors
- Polymers and Thin films
- MEMS
- Solar cell materials
- LEDs
- Data storage

▪ Electrical Property Characterization



Scanner

XY scanner range: 100 μm \times 100 μm
Z scanner range: 15 μm , (optional 30 μm)

Stage

XY stage travel range: 300 mm x 300 mm (motorized)
Z stage range: 25 mm (motorized)
Focus travel range: 8 mm (motorized)
Precision encoder for all axes* (optional)

Physical Information

Dimension (enhanced acoustic enclosure):
1220 mm (W) \times 1170 mm (D) \times 1470 mm (H)

Sample Mount & Size

Vacuum groove holder: 100, 150, 200, 300 mm wafers,
small sample Magnetic sample holder, thickness up to 20 mm

Options/Modes*

Various options are available for wide range applications

Optics

Direct on-axis vision of sample surface and cantilever
10x objective lens (20x optional)*
Field-of-view:
840 μm x 630 μm (with 10x objective lens)
Camera: 5 M Pixel

Software

SmartScan™
Dedicated system control and data acquisition software
Auto mode, Manual mode, Program mode for
recipe-automated, sequential multiple-site
measurement AFM operation

XEI

AFM data analysis software



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