

“Metrology Inspection, Mission Impossible!”

Providing Disruptive Innovations on the high-yield measurement platforms
for next-generation AI-era advanced materials manufacturing

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3D Nano Metrology Solution

QTF-based AFM Technology

Next-generation atomic force microscopy with
Stable Contactless™ proximity imaging

“Seeing the invisible by feeling”

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MSI Jheus-X

High-Precision QTF-AFM for Research & Industrial Metrology
One Platform. From Research Samples to 8”/12” Full-Wafer Metrology

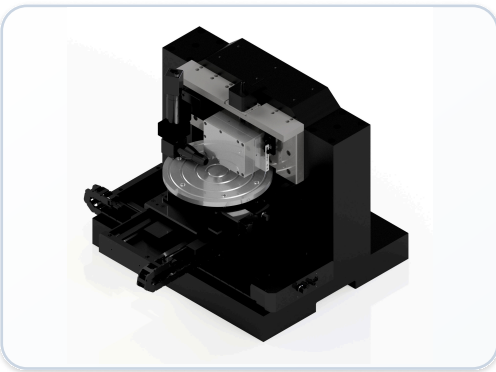


All the capabilities of Jheus™, now extended to full-wafer metrology. From small research samples to 8”/12” full wafers, Jheus-X delivers sub-angstrom-scale measurement with exceptional precision, stability, and versatility for both advanced research and industrial metrology.

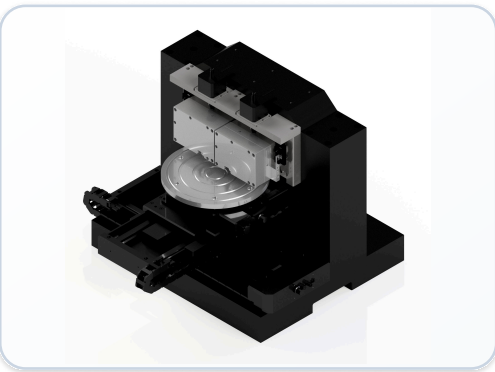
Key Features

- ✓ Self-actuating & self-sensing QTF probe
- ✓ Repeatable. Operator-Independent.
- ✓ No manual alignment required
- ✓ Place. Click. Measure.

Scalable QTF-AFM Platform for Advanced Metrology



- Additional XYθ Wafer Positioning Stage**
- Full 8/12-inch Wafer Coverage
 - Full-Wafer Site Access
 - High-Precision Closed-Loop Positioning



- Premium Dual-Head System**
- Two Fully Independent QTF-AFM Heads
 - Fully Independent Parallel FPGA-Based Control
 - Simultaneous Measurement

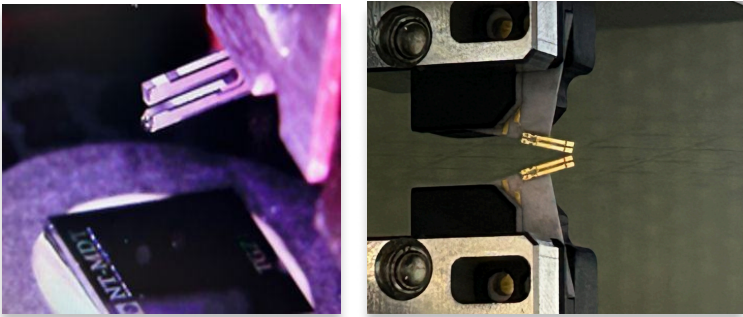
Technical Specifications

Scan Range (XY)	Scan Range (Z)	Resolution (XY)	Resolution (Z)
Up to 25 μm	Up to 7 μm	< 0.05 nm	< 0.01 nm

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Quartz Tuning Fork (QTF) Technology

Self-Actuating & Self-Sensing / Stable Contactless™ imaging

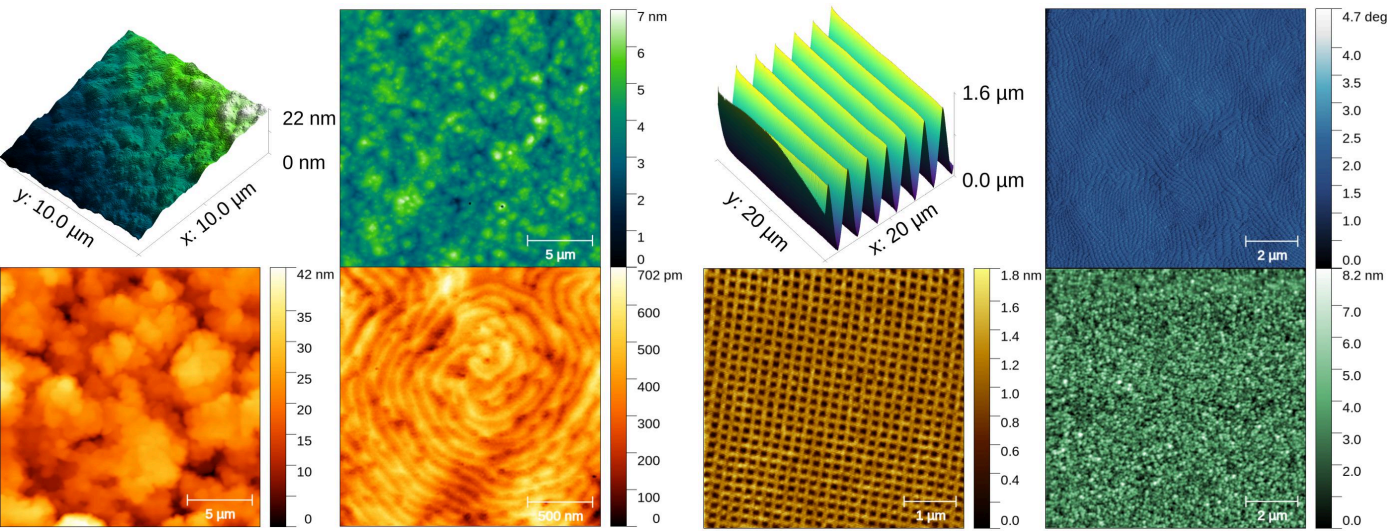


Multi-Environment

Cryo · UHV · Ambient · HVM

Simple & Compact

Single · Dual · Multi-head



Software & Control

- Core Infrastructure**
- Linux (Ubuntu) / USB laptop control
 - CMOS Vision camera for signal stability
 - Click-to-Move GUI navigation
- Measurement & Control**
- Integrated XY-scan and Z-scan
 - Feedback control prevents probe damage
- Delivery & Support**
- On-site training for software operation

Application Fields

- Semiconductor & Electronics**
- Wafer metrology · Process R&D · Device inspection
- Research Institutes & Universities**
- Nanotechnology · Materials science · Fundamental research
- Advanced Materials & Precision Engineering**
- Surface metrology · Nanostructures · Precision surfaces
- Biomedical & Pharmaceutical**
- Medical diagnostics · Nano-bio research