

 **Folding Instructions:** This is a landscape A4 brochure that folds once in the middle.

Page 1: Back Cover (left) | Front Cover (right) • Page 2: Inside Left | Inside Right

"Metrology Inspection, Mission Impossible!"

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

 www.multiscale-instruments.com
 info@multiscale-instruments.com
whjhe@snu.ac.kr (SNU Startup)
 Tel +82 10 4607 1104
 313, 3/F, 298, Beotkkot-ro, Geumcheon-gu
Seoul, Republic of Korea

© 2026 Multiscale Instruments, Inc. All rights reserved



Innovative 3D Nano Metrology Solution

QTF-based AFM Architecture

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

"Seeing the invisible by feeling"

--- FLIP PAGE ---



MSI Jheus™

Research-Grade QTF Single-Head AFM

Entry-level high-precision single-head AFM system designed for academic and industrial research, offering exceptional stability and versatility across diverse environmental conditions.

Key Features

- Self-actuating & self-sensing Quartz-resonator based probe
- Ultra-small oscillation amplitudes < 0.5 nm
- Simple & Compact Unmatched scalability to multi-heads
- Multi-Environment From cryo/UHV/ambient to HVM Fabs

Technical Specifications

Scan Range (XY)	Scan Range (Z)	Resolution (XY)	Resolution (Z)
Up to 30 μm	Up to 15 μm	< 0.05 nm	< 0.01 nm

Software & Control

Core Infrastructure

- Proprietary Linux-based measurement and analysis software
- FPGA-based fully integrated control and acquisition system enabling compact and deterministic operation

Measurement & Control

- Integrated XY-control and Z-control
- Standard AM and PM modulation, with optional FM, KPFM, and other advanced modes available on request

Delivery & Support

- On-site training for software operation
- Comprehensive customer support

Application Fields

Semiconductors

Metrology and inspection for yield enhancement and process control

Nanomaterials

Nanoscale surface and structure characterization of advanced materials

Aerospace & Defense

Precision surface roughness and material evaluation for specialized applications

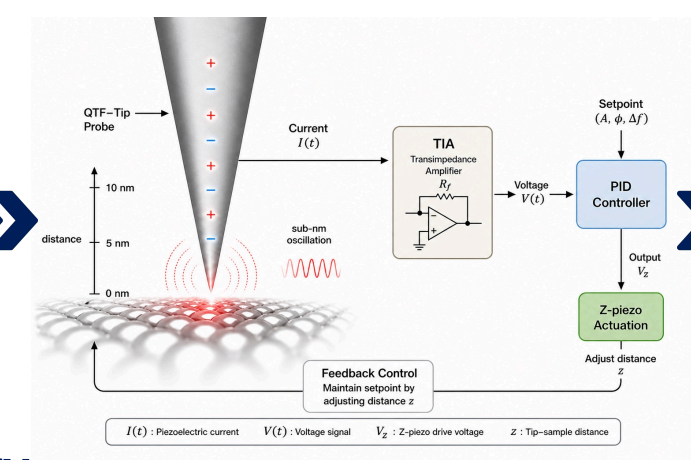
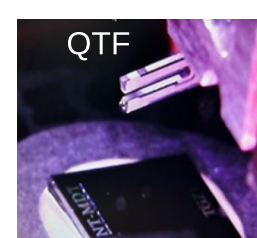
Life Sciences

Nanoscale imaging and analysis for biomedical and pharmaceutical research

Electronics & Display

Inspection and characterization of PCBs and electronic components

Quartz-based Resonator Technology



HS100MG 110 nm

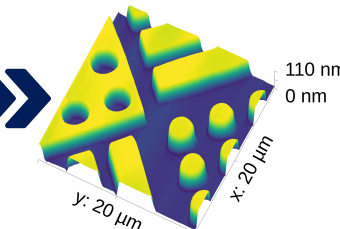
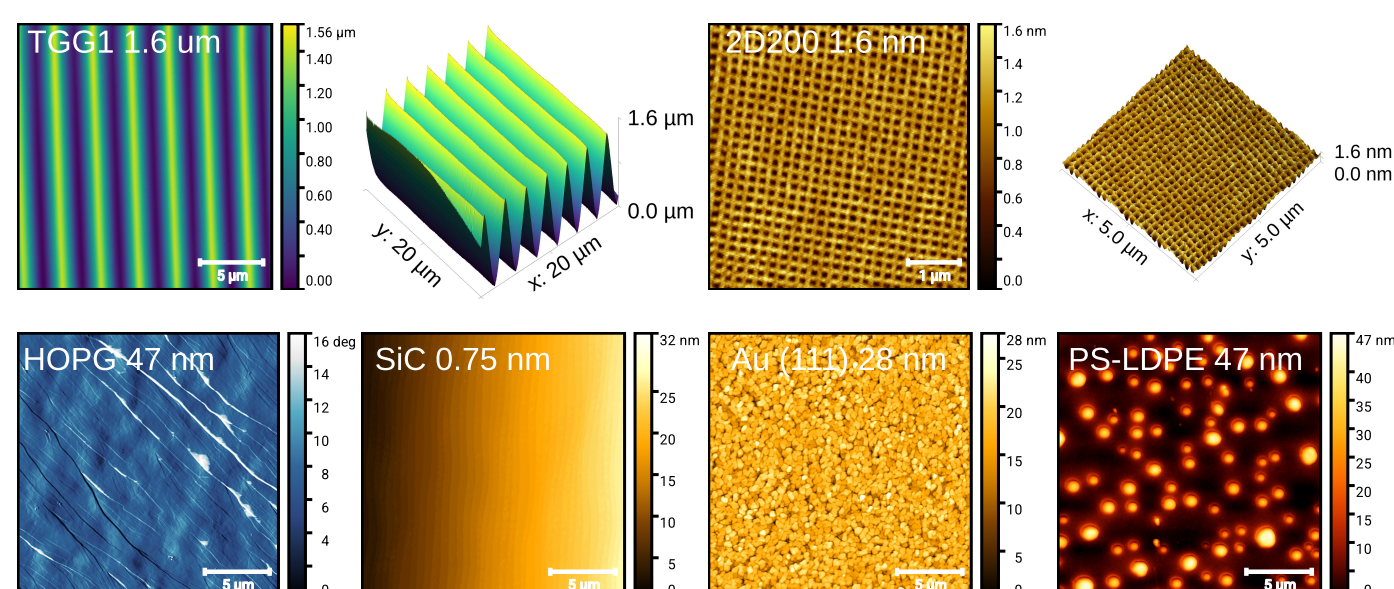
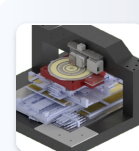


Image Gallery



Product Lineup



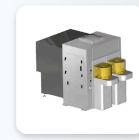
MSI Chronos™

Industrial-Grade Single-Head AFM for 12" Wafer
In Preparation for Market Entry



MSI Chronos V8™

Multi-head Platform for a High-throughput Solution (8-heads)
Scheduled in H1 2027



MSI Chronos HVX8™

Automated Inline Inspection System for High-volume Processes
Scheduled in H2 2027

© 2026 Multiscale Instruments, Inc. All rights reserved