From Localization to Nanoscale Insight

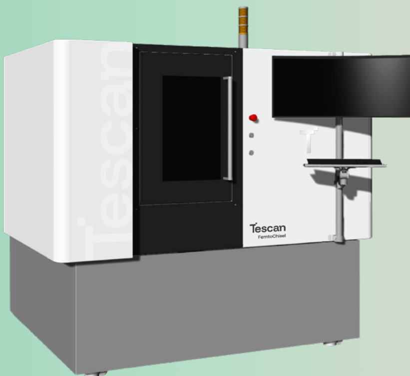
Tescan

Tescan UniTOM HR 2

In-Situ Micro-CT for Non-Destructive Semiconductor Warpage Analysis

- Analyze thermally induced displacement in semiconductor packaging
- Capture internal deformation mechanisms in full 3D
- Support reliability analysis for advanced and high-density devices
- Reveal structural changes beyond surface-level inspection methods

FemtoChisel™



Integrated Laser Processing for Semiconductor Failure Analysis

- Access buried structures faster with clean ultrafast laser processing
- Preserve surface integrity across heterogeneous s emiconductor packages
- Improve targeting confidence with correlative CT, SEM, and optical imaging
- Reduce downstream FIB polishing and accelerate final high-resolution analysis

Tescan SOLARIS X 2

FIB-SEM Sample Prep with Real-Time SEM Insight

- Prepare clean, large-area cross sections in complex IC packages
- Reduce curtaining with TRUE X-sectioning and Rocking Stage™
- Guide failure localization with SEM observation and live endpointing
- Reveal critical interfaces, delaminations, and hidden failure sites
- Connect package-level prep to final high-resolution analysis

Tescan TENSOR

Robust4D-STEM Analysis for Process Development

- Correlated STEM, 4D-STEM, and EDS insightfor advanced semiconductor devices
- Fast phase, orientation, strain, and composition analysis
- Reveal structural variations beyond conventional imaging
- Automated workflows for consistent,reproducible metrology results
- Support faster process optimization and next-generation device reliability

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