Increase your profitability and productivity with class-leading performance

ZEISS Xradia Context microCT

Best-in-Class MicroCT for High Quality, High Resolution Imaging

ZEISS Xradia Context is a large field-of-view, non-destructive 3D X-ray micro-computed tomography system. With a robust stage and flexible software-controlled source/detector positioning, you can image large, heavy (25 kg), and tall samples in their full 3D context. A high pixel density detector (six megapixels) enables you to resolve fine detail even within relatively large imaging volumes (up to 140 x 164 mm field of view). Rapid sample mounting and alignment, a streamlined acquisition workflow, fast exposure and data reconstruction times, and an optional autoloader make Xradia Context a high throughput imaging instrument to meet a wide range of 3D imaging and characterization needs.

Guaranteed Data Quality Based on Proven Xradia Platform

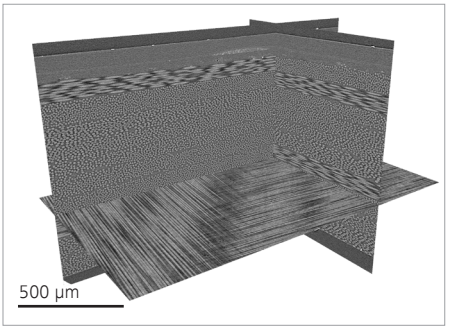
ZEISS Xradia Context is built on time-tested and well-regarded ZEISS Xradia technology, reaping crossover benefits of years of platform advancements and ensuring robust and consistent image quality through superb system stability, usability, and image optimization. Operating the instrument with the user-friendly Scout-and-Scan control system provides you with an efficient workflow environment, enabling you to quickly position your region of interest and specify scanning parameters with recipe-based acquisition. Expand your system with Autoloader for automated handling and sequential scanning of up to 14 samples while alerts to your smart device free you from the lab. Or perform 4D studies by integrating the *in situ* interface kit and load stages or environmental cells to measure changes in the microstructure of materials under varying conditions.

Your X-ray System for Today with Assurance for Tomorrow

ZEISS Xradia Context provides high quality tomographic imaging that's ready to grow when you are. It is the only microCT that can be converted in the field to a ZEISS Xradia Versa X-ray microscope, the instrument that set a new standard in laboratory X-ray imaging with its high resolution at large working distance (RaaD) technology.

Providing guaranteed investment protection, your Xradia Context can be converted at any time to ZEISS Xradia Versa with FPX 3D X-ray microscope (XRM) with all of the features and options that make the Xradia Versa family outstanding in its field.

ZEISS continues to extend the capabilities of its X-ray microscope products in the field with newly offered functionality and modules to meet your evolving needs. Xradia Context joins this family and inherits this same commitment to extendibility that ensures your initial investment will be protected well into the future.



Carbon fiber-reinforced polymer composite sample imaged to analyze fiber distribution as well as defects and voids.

Whole mouse embryo embedded in paraffin.

ZEISS

Seeing beyond

ZEISS Xradia Context microCT

Your X-ray System for Today with Assurance for Tomorrow

Convert to ZEISS Xradia Versa

Complete system conversion to a feature-rich, multi-objective, Resolution-at-a-Distance (RaaD) ZEISS Xradia Versa XRM with FPX

Applications

- Obtain full context and non-destructive 3D data of large intact devices including functioning batteries and electronic components, large raw materials samples such as whole cores and biological specimens.
- Characterize porosity, cracks, or other details in structural and raw materials including heterogeneous rock types, additive manufactured parts, composites, protective coatings, concrete, or mineralized tissue.
- Explore a wide variety of life science samples from single bones to whole organisms for non-destructive examination of internal structure and localization of regions for further imaging or analysis.
- Perform 4D evolutionary studies, through *ex situ* treatment or *in situ* sample manipulation, to understand phenomena like corrosion, material deformation, fluid flow, or electrochemical cycling.

Own Your Investigation

- Proven ZEISS image quality and resolution
- Scout and Scan intuitive software control
- 6MP high-speed large-array detector
- 30-160 kV spot size stable X-ray source
- Optimized contrast high purity filter set
- Smart positioning sample navigation stage
- 25 kg sample capacity
- Long-object vertical stitching
- MultiGPU fast reconstruction
- Temperature-controlled enclosure

Upgrade and Grow Your Lab

- Autoloader: 14-station sample handler
- *In situ* interface and load / temperature cells
- OptiRecon Iterative reconstruction module for up to 4X throughput or improved image quality
- DeepRecon Pro Artificial intelligence-based reconstruction module for up to 10X throughput or image quality enhancement

Specifications	
Spatial Resolution [a]	0.95 µm
Minimum Achievable Voxel [b] (Voxel size at sample at maximum magnification)	0.5 µm
Achievable Voxel at Working Distance [b,c]	0.5 µm / 0.5 mm 0.8 µm / 2.5 mm 2.5 µm / 12.5 mm 4.0 µm / 25 mm 12.1 µm / 100 mm
Tube Voltage / Power Range	Spot stabilized 30-160 kV / 10 W
High Speed, Large Array CMOS Flat Panel	3072 x 1944 pixels
Single Field of View (diameter / height)	140 mm / 93 mm
Maximum Field of View [d] (diameter / height)	140 mm / 165 mm

[a] Spatial resolution measured with ZEISS Xradia 2D resolution target.

[b] Voxel is a geometric term that contributes to but does not determine resolution, and is provided here only for comparison. ZEISS specifies resolution via spatial resolution, the true overall measurement of instrument resolution.

[c] Working distance defined as clearance around axis of rotation. This value can be interpreted as the radius of the sample.

[d] Maximum Field of View uses the Vertical Stitching software feature to extend the total reconstructed volume.

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