



# MicroXCT-200/400

VersaXRM Family of 3D X-ray Imaging Systems

## 3D True Spatial Resolution to $<1.0 \mu\text{m}$ for a broad array of samples sizes

The Xradia MicroXCT-200 and MicroXCT-400 are flexible, multi-purpose 3D X-ray microscopes (XRM) optimized for non-destructive imaging of complex internal structures. These systems enable detailed analysis of microstructures across a variety of applications:

- Advanced material characterization
- Life science research
- Semiconductor packaging development and failure analysis
- Rock microstructure modeling for oil and gas exploration

The Xradia MicroXCT systems provide the unique ability to reveal the internal structure of samples with full 3D imaging of features down to  $< 1.0$  micron, making them compelling analytical solutions for research and industry.

### Key Benefits

High resolution 3D X-ray imaging at large working distance on small to large samples

Non-destructive imaging of samples enables 4D (3D+time) studies

High contrast phase enhanced imaging for Low Z materials and biological samples

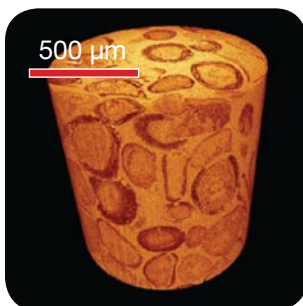
Broad sample size and weight capability to address a wide array of applications

### Applications

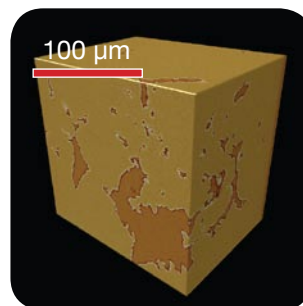
These systems provide a view into deeply buried microstructures that may be unobservable with current 2D surface imaging techniques such as optical microscopy, SEM and AFM without cross sectioning. In addition, these XRM enable ultra-fine analysis of the structure in a variety of applications: visualizing osteocyte lacunae in bone morphology, micro-cracks and voids in polymers and composite materials, defects such as BGA and bump cracks in semiconductor packages, and micro pores in rocks.

The Xradia MicroXCT-200 is a compact system with a two-door accessible sample stage that accommodates sample sizes up to 150 mm and 1 kg.

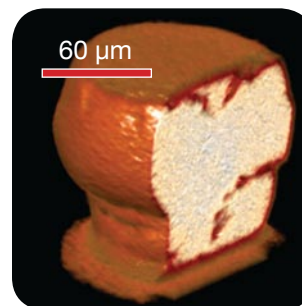
The MicroXCT-400 supports in-situ experimentation such as tensile/ compression and temperature variation tests while imaging. Flexible with a four-door fully accessible sample stage, it supports sample sizes up to 300 mm and 15 kg.



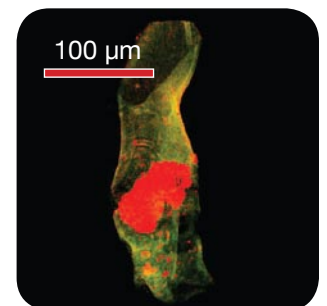
Geomaterial:  
Carbonate  
Virtual Core Analysis



Material Science:  
Polymer  
Imaging of Low Z Materials



Semiconductor:  
Bump Crack  
Failure Analysis



Life Science:  
Atherosclerotic Plaque  
Virtual Histology

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## Key Specifications

Spatial Resolution	<1 $\mu\text{m}$
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Systems		MicroXCT-200	MicroXCT-400
Sample Size Limit		150 mm	300 mm
Stage	Load Capacity	1 kg	15 kg
	X Travel	90 mm	45 mm
	Y Travel	50 mm	100 mm
	Z Travel	10 mm	50 mm
	Rotation	360°	360°
Detector Travel		120 mm	310 mm
Source Travel		85 mm	400 mm

Source Selection (Both Systems)		Standard	Optional
Source		90 kV	150 kV
Voltage Range		20 - 90 kV	40 - 150 kV
Maximum Power		8 W	10 W

All specifications subject to change. Please consult Xradia for current specifications.