

ZEISS Xradia Versa with FPX

Larger samples, higher throughput

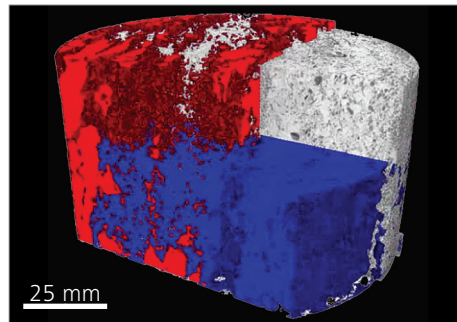
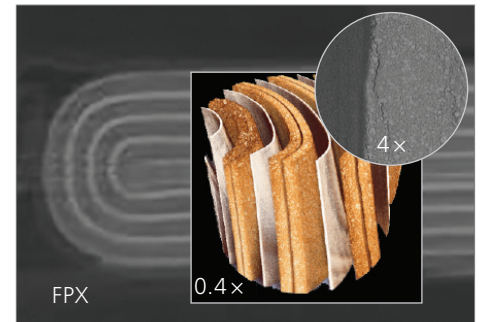


Image 4" whole core samples to classify rock into lithologies for mechanical sampling, upscaling and down-scaling



ZEISS FPX workflow: li-ion battery from macro to nano scale

ZEISS FPX: A world-class flat panel system for ZEISS Xradia Versa

FPX™ flat panel extension for the Xradia Versa 500-series of 3D X-ray microscopes delivers large-sample, high throughput scanning with ZEISS best-in-class image quality. Combined with the well-known high resolution of Xradia Versa X-ray microscopes (XRM), FPX expands your imaging flexibility and speed, providing workflow efficiencies in an all-in-one system whether your requirements are for industrial or academic research. R&D, process development or failure analysis, raw materials characterization, or multi-disciplinary central imaging labs will all benefit from an increased operating space for imaging that accommodates a greater variety of sample sizes.

Extend the Scout-and-Zoom workflow

The Scout-and-Zoom technique enabled by RaaD, or resolution at a distance, core technology of the Xradia Versa microscope, is broadened by the FPX system. Users can begin their exploration with a larger sample, performing a fast, full field of view, high quality scan to accurately locate the region of interest for further interrogation with a high-resolution RaaD objective.

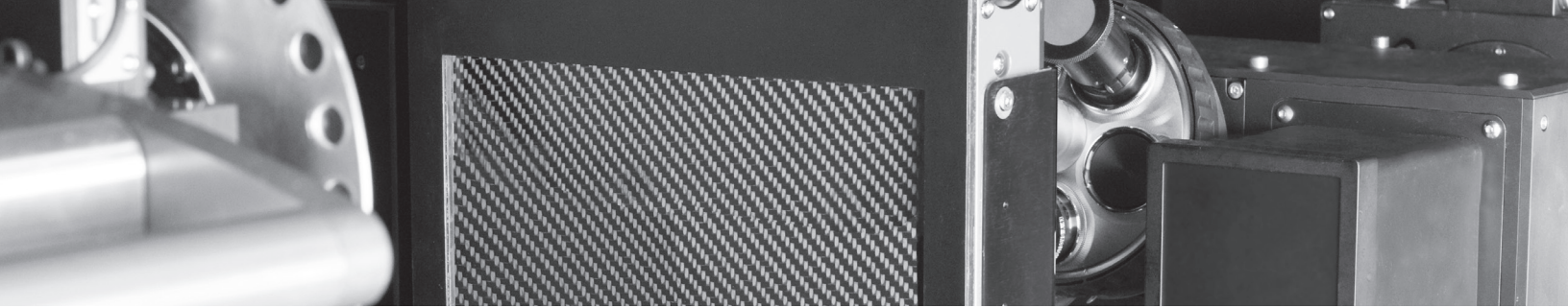
Perform large sample, high quality imaging

FPX employs a 3072 x 1944 pixel detector capable of scanning samples 140 mm wide and 165 mm high with vertical stitching, 93 mm high without. Precision stage controls allow the user to adjust source/sample/detector distances for optimal resolution and field of view. FPX increases the operating window of the Versa system for large samples while upholding the well-regarded ZEISS image quality.

More scans in less time

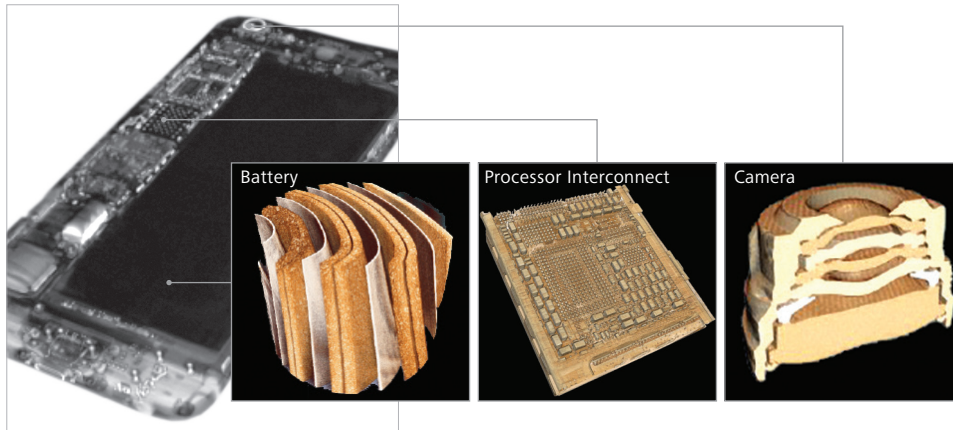
For heavily-loaded service labs or production-line quality inspection, FPX is configured for throughput. Imaging parameters may be adjusted to reduce scan times and still provide the image quality necessary to achieve your feature detection goals. Customers benefit by performing more scans in less time, reducing cost per scan and the total cost of ownership of their Xradia Versa 3D X-ray microscope.





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Larger samples, higher throughput



Oil & Gas, Mining & Other Raw Materials

Rapidly image large samples to knowledgeably define location for high resolution interior tomography. This enables a workflow that allows you to characterize heterogeneity, without mechanical sampling, at a level not previously possible. Characterize and model reservoir samples from 4" core to sub-micron scale with high throughput.

Materials Science

Non-destructively locate regions of interest, providing intelligent navigation for high resolution interior tomography. Your central imaging facility will benefit from higher throughput and an increased operating range for larger samples. FPX expands the capacity of Xradia Versa X-ray microscopes to accommodate a broad range of samples, serving both academic and industrial customers.

Life and Archival Sciences

Image entire intact specimens without physical sectioning by taking advantage of the increased sample size capability. Improve the richness and scope of your imaging data while reducing acquisition time for your precious samples.

FPX Specifications

Detector Pixel Array	3072 x 1944
Source Range	30 kV – 160 kV
Single Field of View	140 mm diameter 93 mm height
Maximum Field of View	140 mm diameter 165 mm height

Features

- Optional addition to 500-series Xradia Versa 3D X-ray microscopes: FPX complements high resolution Versa RaaD objectives
- Increased imaging range for larger samples: over 10x greater reconstruction volume
- Higher throughput: 2 – 5x greater
- Integrated into Scout-and-Scan™ control software for seamless objective exchange
- Broadening the Scout-and-Zoom™ macroscopic > nanoscopic imaging workflow

Applications

Electronics, Automotive & Medical Device Industries

Image fine details seamlessly from system to components with an all-in-one tool to enhance efficiency. Scan an entire intact device, then zoom to a processor or battery module, and finally to interconnect or material structure.



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