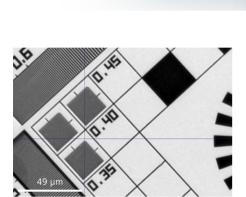
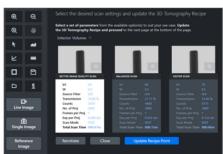
Perfect Tomographies. Every sample. Every user. Every time.

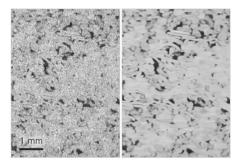
ZEISS VersaXRM 730



40x-P resolution of 450 nm collected at 30 kV source voltage



ZEN navx guides users through automated workflows with intelligent system insights to deliver results more easily and efficiently.



Use FAST Mode to rapidly acquire data and the AI based DeepRecon Pro to improve image quality. Sandstone captured in 39 seconds, reconstruction showing standard FDK (left) and AI (right) comparison.

Optimize visibility with higher resolution & performance

Resolution performance is about more than just highest specified resolution. With today's dynamic research demands, you want to achieve high-resolution 3D imaging across the widest range of sample types. ZEISS VersaXRM® 730 with the exclusive 40x-Prime (40x-P) objective, enables you to push the limits of submicron imaging with unparalleled resolution performance of 450-500 nm across the full range of source voltage, from 30 kV to 160 kV. AI allows you to gain deeper insights and extend your capabilities by improving image quality and expanding your field of view.

Improve productivity & accessibility with human-centered design

The physics of X-ray imaging can be complex, so ZEISS XRM researchers studied user habits, dove into their challenges and employed human-centered design (HCD) principles to develop the award-winning ZEN navx[™] guidance and control system for VersaXRM. ZEN navx enables even the newest user in a busy environment to be immediately productive doing advanced 3D X-ray microscopy, greatly reducing the burden of training. It also allows your experienced users to explore the full versatility of the platform. ZEN navx File Transfer Utility (FTU) automatically transfers data from the microscope to where you need it, when you need it.

Achieve efficient, fast targeting with end-to-end 3D navigation

With VersaXRM 730, you can now navigate in 3D, image in 3D, and analyze in 3D with an innovative and immersive end-to-end experience. Innovation in throughput and image quality performance across both hardware and software help you achieve maximum impact with your research.

- Acquire more data in less system time
- Get the right data the first time with the intuitive ZEN navx interface
- Achieve rapid turnaround on imaging or sample inspection with one-minute tomographies using FAST Mode and Flat Panel Extension (FPX)
- Pinpoint images with confidence using
 Volume Scout for true 3D feature targeting



Countries publishing Versa XRM papers

On average, new ZEISS Versa XRM publications every day

Versa XRM publications and counting...

Unique institutions listed as authors or co-authors



| Imaging | ZEISS VersaXRM 730 | ZEISS VersaXRM 615 | ZEISS Xradia 515 Versa |
|--|--|-------------------------|--|
| Spatial Resolution ^[a] | 450 nm | 500 nm | 500 nm |
| Resolution Performance (No. (ZEISS Resolution Target at 160 kV/LE6, equivalent to 1.3 mm Al and 40x-P objective) | 500 nm | | |
| Resolution at a Distance (RaaD) ^[c] (50 mm working distance) | | 1.0 µm | 1.0 µm |
| Resolution Performance at a Distance (ZEISS Resolution Target at 140 kV/LE4, equivalent to 0.6 mm Al) | 700 nm @ 50 mm 750 nm @ 100 mm | | |
| Minimum Achievable Voxel [d] (Voxel size at sample at maximum magnification) | 40 nm | 40 nm | 40 nm |
| X-ray Source | | | |
| Andrew | Control to a control of the form of the control of the | 6 - I - I I i - i f i i | Control to the Control of the Contro |

| Architecture | Sealed transmission, fast activation | Sealed transmission, fast activation | Sealed transmission, fast activation |
|----------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Voltage Range | 30 – 160 kV | 30 – 160 kV | 30 – 160 kV |
| Maximum Output | 25 W | 25 W | 10 W |

Detector System

ZEISS X-ray microscopes feature an innovative detector turret with multiple objectives at different magnifications. Each objective features optimized scintillators that deliver the highest absorption contrast details. Standard Objectives 0.4×, 4×, 20× 0.4×, 4×, 20× 0.4×, 4×, 20× Optional Objectives 40×-P, Flat Panel Extension (FPX) 40×, Flat Panel Extension (FPX) 40×, Flat Panel Extension (FPX)

Sample stage load capacity, 25 kg; travel (x-50 mm, y-100mm, z-50 mm)

Features

| Control System | ZEN navx | ZEN navx | Scout-and-Scan |
|---|--|---------------------------------|---------------------------------------|
| Scout-and-Zoom | Volume Scout in ZEN navx | Volume Scout in ZEN navx | Manual or with 3D World ZEISS edition |
| lat Panel Extension (FPX) | Optional FPX: FAST or STEP mode | Optional FPX: FAST or STEP mode | Optional FPX: STEP Mode only |
| Vide Field Mode | 4× | | |
| ertical Stitch | • | • | • |
| (RM Python API | | • | |
| EISS SmartShield | SmartShield, SmartShield Lite | SmartShield, SmartShield Lite | SmartShield |
| ource Filters | Automated Filter Changer (AFC) 24-filter capacity, 12 standard filters included | Single manual filter holder, | 12 standard filters included |
| ligh Aspect Ratio Tomography (HART) | • | | |
| ual Scan Contrast Visualizer (DSCoVer) | | | |
| EISS LabDCT for Diffraction Contrast Tomography | Optional | | |
| FPU CUDA-based Reconstruction | Dual | Dual | Dual |
| econdary High Performance Workstation | • | • | Optional 1 year or perpetual license |
| EISS Autoloader | Optional | Optional | Optional |
| EISS Versa In Situ Interface Kit | Optional | Optional | Optional |
| EISS DeepRecon Pro | Included with 2-year license | Included with 2-year license | Optional |
| EISS DeepScout | Optional | Optional | Optional |
| EISS PhaseEvolve | Optional | Optional | Optional |
| EISS MARS | Optional | Optional | Optional |
| EISS OptiRecon | Optional | Optional | Optional |
| EN AI Toolkit with Intellesis | Optional | Optional | Optional |
| D World ZEISS edition from Dragonfly | Optional | Optional | Optional |
| | | | |

[a] Spatial resolution measured with ZEISS XRM 2D resolution target, normal field mode, optional 40x-P (730) or 40x (615, 515).
[b] Resolution performance measured with ZEISS XRM 2D resolution target, normal field mode, optional 40x-P objective
[c] RaaD working distance is defined as clearance around axis of rotation (sample radius). Resolution is measured with ZEISS 2D resolution target.
[d] 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 for Versa XRM, the true overall measurement of instrument resolution.









