

RayScan Nano®

With RayScan Nano® Computed tomography exploring the nano world becomes possible. The RayScan Nano® is a powerful tool for fully 3D, non-destructive structural and chemical characterisation with highest spatial resolution.

The system includes a novel X-ray tube which provides ultra-small focal spots of highest luminosity and performance ($\varnothing < 150 \text{ nm}$). Combined with a super-precise object manipulation system and a photon counting, energy-sensitive flat panel detector this system allows spatial sampling from below 60 nm up to 10 μm .

RayScan Nano® is perfectly suitable for the development, characterisation and analysis of new materials in nanometer scale – e.g. integrated circuits, chips and samples from bio-engineering. But also for classical metallurgic characterisations and for the optimisation of manufacturing processes this system provides significantly improved results compared to recently available CT products.

Technical Data*

X-ray source	Nano focus 10 - 80 kV
Focal spot	0.15 μm - 1 μm
Size of objects (CT)	< 0.1 mm – 100 mm
Field of view (horizontal)	200 μm - 35 mm
Detector's active area	30 mm x 185 mm
Number of detector-pixels	512 x 3072
Digitising	Photon counting
Resolution of detail	< 60 nm
Modes of operation	3D CT, Region-of-Interest CT (ROI CT) and Radioscopy

* Guide only, actual figures depend on material, maximum wall thickness, detector and source options. Technical design and choice of components will be customised. Errors excepted. Subject to change without notice.

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Range of Products

RayScan Nano®	Analysis in nanometer scale
RayScan 100	Minifocus 3D CT
RayScan 150	Sub-Microfocus 3D CT
Modular Systems:	
RayScan 200	Microfocus 3D CT
RayScan 200 XE	Microfocus 3D CT and ROI CT
RayScan 250	Microfocus and minifocus 3D CT
RayScan 600	Minifocus 3D CT and 2D CT
RayScan Mobile	Movable 3D CT
RayCheck	Automatic evaluation software
RayView®	Automatic in-line testing
RayWare®	Computed Tomography software package

