

Y.Cheetah

Experience the brilliance!



- Inspect easily and quickly
- 1-click operation
- Zoom +
- PowerDrive



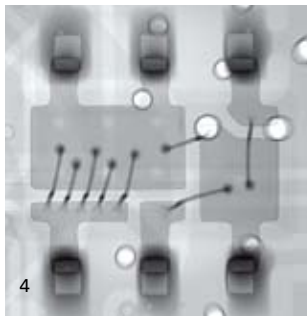
The microfocus X-ray inspection system Y.Cheetah was developed to meet the widest variety of inspection specifications and, as a result, offers companies a high degree of investment security. Its output and efficiency in both manual and automatic X-ray inspection have remained unmatched to date.

Y.Cheetah achieves its brilliant images due to tested and proven Feinfocus X-ray tube technology, an excellently controlled flat-panel detector, and a manipulator with cushioned, supported bearings.

In the case of manual inspection, '1-click operation' makes work that much easier. Tried-and-true functions such as Click & Center, Frame & Zoom, Click & Fly or Grid Inspection have been enhanced by Zoom+ and PowerDrive.

The optional, highly accurate CT axis enables CT images to be acquired in a short period of time that display a quality unattained until now.

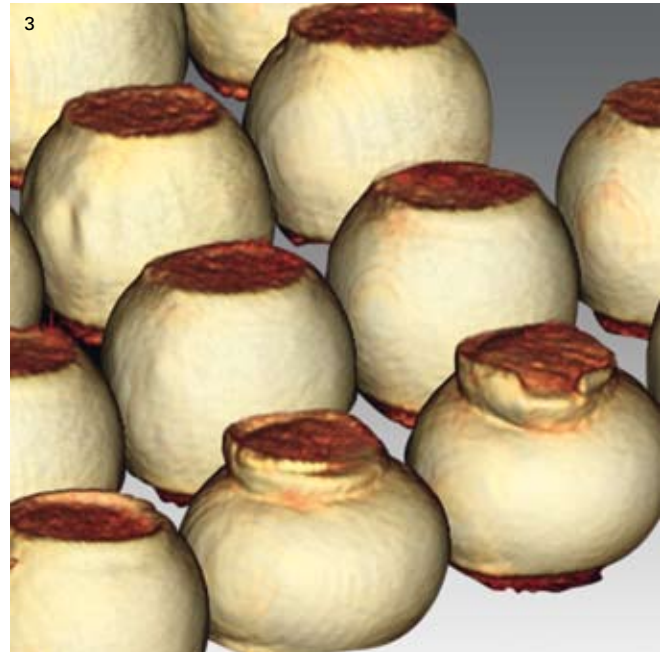
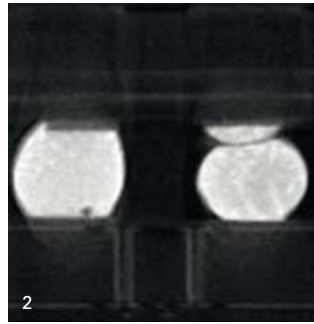
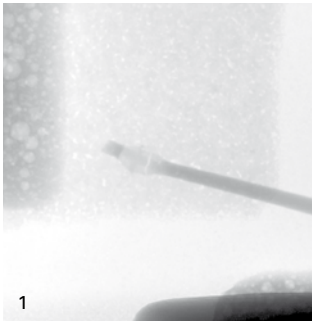
YXLON. X-ray technology at its best.



1 CT image of a sensor
 2 CT image of a medical component
 3 CT image of an electronic component
 4 X-ray image of component in Fig. 3

Configuration and Specifications

General Product Features		X-Ray Tube	
Time to first image (typ.)	~ 10 s	Tube type	Open microfocus tube
Reconfiguration time (typ.)	< 60 s	Target	Open multifocus tube (MFT)
μCT scan time (min.)	8 s	Target material	Transmissive
μCT reconstruction time (min.)	~ 90 s	Voltage range	Tungsten
Access for sample loading [mm]	Large autom. door (690 x 650)	Current range	25–160 kV
Visual interfaces	Large window (520 x 370 mm ²) Large 24" monitor (adjustable)	Max. tube power	0.01–1.0 mA
Zoom+	yes	Max. target power	64 W
PowerDrive	yes	Detail detectability	10 W
Power boost factor	33x	X-ray intensity control	< 1 μm, < 500 nm with MFT
Image stabilization	Air suspension		TXI
Manipulation		Physical Dimensions	
Manipulation control via	Mouse & joystick	Width/depth/height [mm]	~ 1,650/1,400/1,850
Inspection area (max.)	460 mm x 410 mm (18" x 16")	Weight	~2,200 kg
Sample size (max.)	800 mm x 500 mm (31" x 19")		
Sample tray axes	X, Y	Image Chain	
Oblique viewing	+/-70° (140°)	Geometric magnification (max.)	2,000x
CNC	yes	Total magnification (max.)	17,000x



- 1 Broken wire
- 2 Tomogram of a defective BGA component
- 3 CT image of a defective BGA component

Y.Cheetah Microfocus X-Ray Solution

The microfocus X-ray inspection system Y.Cheetah was developed to meet the widest variety of inspection specifications in the electronics, telecommunications and automotive industries, as well as in the fields of aviation, safety and medical technology. This multifaceted system offers previously unachieved output and efficiency in both manual and automatic X-ray inspection. As a microfocus X-ray inspection system, Y.Cheetah design is marked by years of experience on the part of Feinfocus, the pioneer in microfocus X-ray technology with more than 2500 systems installed worldwide.

Y.Cheetah can be flexibly adapted to fulfill new inspection requirements, resulting in a high degree of investment security for companies. Clever '1-click operation' enhances the innovative manipulation concept. This system provides the greatest image quality, making it the most efficient and highest-performance solution for rapid real-time micro-focus inspection – from manual single-part inspection all the way to automated series inspection.

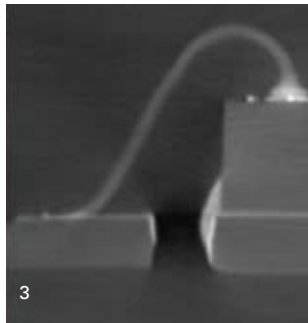
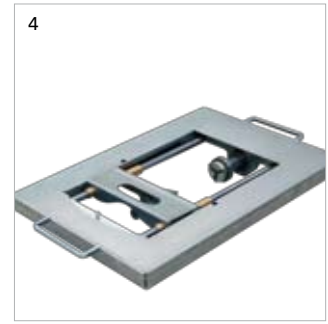
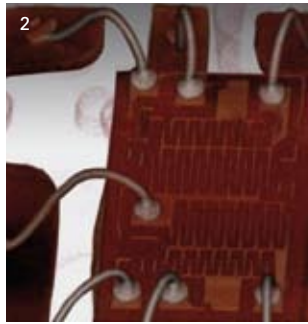
Flexibility and Diversity

Y.Cheetah offers the widest variety of configurations. Diverse inspection modules which can be supplemented afterward allow for solutions specific to the customer while preparing for future requirements. Among other areas, the system enables fast 2D inspections and 3D microfocus computed tomographs (μ CT) in the sectors:

- Flaw analysis, research & development
- Process and quality control
- Batch, series and product inspection

Applications

- Printed circuit boards
- Semiconductor packaging and interconnects
- Electronic and mechanical modules
- Electromechanical components and plugs
- Molded components and modules
- Microsystems, sensors, actuators, MEMS and MOEMS
- Medical technology, pharmaceutical and optical subassemblies



1 Defective BGA
2 Bond wires in a CT image
3 Tomogram
4 CT axis

Y.μCT Module with Y.QuickScan® Option

The Y.μCT module allows an in-depth look into the inner, three-dimensional construction of inspection items via virtual cross-sections and layers. The Y.μCT module is obtainable for Y.Cheetah and includes the following components:

- μCT manipulator with highly accurate rotation axis
- User-friendly scan and reconstruction software
- Workstation for reconstruction and visualization
- Y.QuickScan® for μCT scans within seconds and reconstructions in less than 2 minutes (optional)

Inspection Workflow

Systems with the Y.μCT module are particularly suited for high-resolution volumetric scans. Tube settings and positioning can be carried out within seconds or loaded via pre-deposited inspection workflows.

A sequence of projections is acquired during 360° sample rotation and fed on for reconstruction. The visualization software using an interface similar to CAD enables the detailed analysis of virtual cross-sections, layers and a lot more.

YXLON

Technology with Passion

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