XCT-1000 High Resolution setup

Sensors   Subassemblies (Automotive)   Medical Implants

High resolution AXI system with CT technology

The XCT-1000 platform features both volume analyzing and automatic processing of the slices. The XCT-1000 system is capable of processing the Siemens CERA-TXR technique with exact volume reconstruction by using the latest CMP-technology for automatic geometrical correction and calibration. It is especially suitable for the inspection of small to medium production volumes or for the use in laboratory environments, production sampling or failure analysis. The XCT-1000 HR applications range from Semi-Backend component level inspection for wire bonds, µ-bumps and die-attach voiding to super high resolution solder-joint inspection for PCB's, sensors and LED's.

SYSTEM CONCEPT
- Horizontal X-ray beam and vertical rotation axis to avoid gravitation influences
- Adjustable detector mounting for various types of flat panel detectors
- Configurable X-ray tube mounting

The XCT-1000 platform is available in the following configurations:

XCT-1000   Transmission (2D) + CT-Analyzer + CT-AXI

Features and Benefits

- Flexible AXI CT system for offline setups
- Microfocus X-ray tube: sealed tube / maintenance free
- Digital flat panel detector
- Adjustable sample rotation table with up to 5 axes motion system
- Transmission mode for high-speed manual and automated analyzing
- Real-time CT volume reconstruction
- CERA (Siemens) core reconstruction with high speed CT functionality
- CMP (Siemens) CT calibration software with automated correction/compensation of geometrical motion parameters
- AXI algorithm library for transmission and volume (slice) analyzing (wire-bond, µbumps, die-attach-voiding,..)
- Optional: Customized sample holder

Inspection & Process Software

- PC-Station with multi-core processor setup
- Windows 10 platform

MIPS Inspection Platform

- MIPS_NDT control software and GUI for manual and automatic X-ray analyzing and automatic classification
- MIPS_CT volume reconstruction and volume (slice) analyzing including CERA and CMP software tools

Nordson
TEST & INSPECTION

XCT-1000 High Resolution setup

Applications

The XCT-1000 system is ideal for non-destructive testing, materials investigations and in particular for dimensional measurements for internal structures, undercuts and free form surfaces.

Inspection of electronic connectors

- Inspection in 2D - in case of failure verification in 3D
- Inspection of joints under pins

Battery inspection

- Inspection of jelly roll batteries - measurement of overhangs and number of layers
- Inspection in 2D - in case of failure verification in 3D
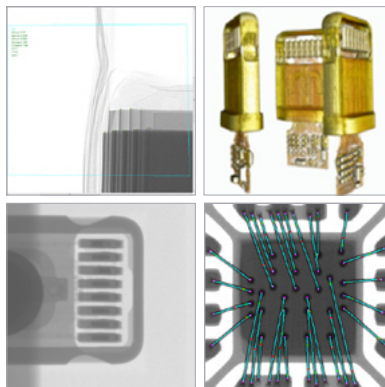
Specifications

Facilities	
Dimensions	1735 mm (H) x 1620 mm (W) x 820 mm (D)
Weight	1.500 kg
Safe Operating Temperature	15° - 28 °C optimal 20° - 25° C
Power Consumption:	max. 6 kW
Line Voltage:	220 VAC, single phase, 16 A

X-ray Image Chain		
X-ray Source (sealed tube)		
Energy	High Resolution Setup 130 kV/40 W	Super High Resolution Setup 160 kV/20 W
Focal Spot	down to 5 µm spot	down to 1 µm spot
Grey resolution	14 Bit	14 Bit
Detector Type		
Flatpanel Detector	50/75 µm pixel size	50 µm pixel size

Motion System	
CT multi axes motion system with rotating sample table	
Programmable motion system:	x1, x2, z, rotation and holder axis

Inspection features	
Max. sample size	90 mm x 120 mm
Max. inspection area:	90 mm x 120 mm
FDD (focus detector distance)	130 - 700 mm
FOD (focus object distance)	50 - 650 mm
Max. sample weight	5 kg

Options
Barcodereader
Volume Graphics software licence
Custom fixtures

www.nordson.com/TestInspect

Specifications subject to change without notice

Nordson
TEST & INSPECTION