XCT-1000 High Power setup

Sensors | Subassemblies (Automotive) | Batteries | Medical Implants

High resolution AXI system with CT technology

The XCT-1000 platform features both volume analyzing and automatic processing of the slices. 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 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. The XCT-1000 HP applications range from electronic power devices and power hybrids (multilayer void inspection) to dedicated high-power battery inspection (CT-AXI) for lithium-ion batteries for consumer markets.

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 with customized algorithms for transmission and volume (slice) analyzing
- 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

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Applications

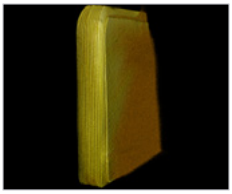
The XCT-1000 system is ideal for non-destructive testing, materials investigations and in particular for dimensional measurements for internal structures, undercuts and free form surfaces.

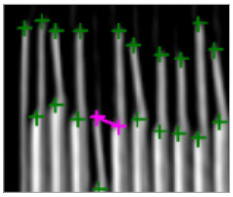
Inspection strategy and defect types by batteries:
Locating the end of anodes and cathodes to measure overhangs

- Identify too short and too long overhangs

Determining the number of layers

- Detect insufficient number of layers





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 Power Setup 150 kV/75 W
Object resolution (Voxel size)	down to 14 µm/pixel
Grey resolution	up to 16 Bit
Detector Type	
Flatpanel Detector	100/200 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	150 mm x 150 mm
Max. inspection area	150 mm x 150 mm
FDD (focus detector distance)	130 - 700 mm
FOD (focus object distance)	54 - 650mm
Max. sample weight:	5 kg

Options
Barcodereader
Volume Graphics software licence
Custom fixtures

For more information, speak with your Nordson representative or contact your Nordson regional office

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