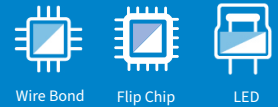




XS++ Dynamic Planar CT



High Speed Inline AXI Platform

The Nordson Test & Inspection's XS-series with Semi-Backend setup is an automated inspection system platform designed for sophisticated high-resolution and high-speed inspection of semiconductor-backend products on stripes or in Jedec trays (e.g. overlapping wires or wire dense areas).

The Nordson TEST & INSPECTION system solutions present a modular inspection concept. The platforms feature up to 5 advanced technologies in one system: Transmission X-ray imaging (2D) with patented Slice-Filter-Technique™ (SFT), Off-Axis technology (2.5D) and 3D SART (**S**imultaneous **A**lgebraic **R**econstruction **T**echnique), Dynamic Planar CT.

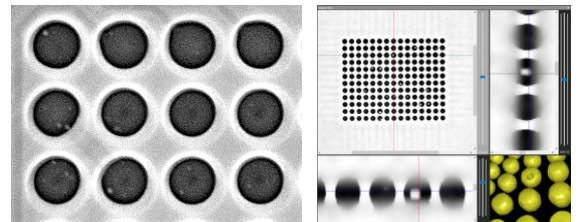
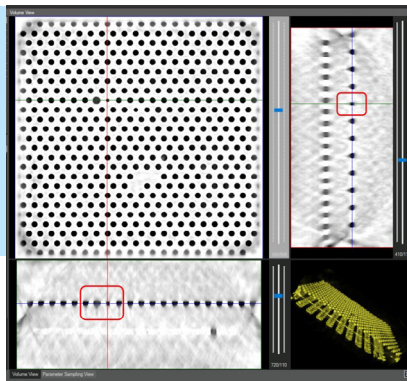
The XS-series configurations:

- XS-2.5++ Transmission (2D) + SFT™ + Off-Axis (2.5D)
- XS-3++ Transmission (2D) + SFT™ + Off-Axis (2.5D)
+ Dynamic Planar CT

Features and Benefits

- High speed with ultra-high resolution inline AXI system
- Inline and Island High Speed AXI system
- Microfocus X-ray tube (sealed tube/maintenance free)
- Submicron inspection resolution
- Multiple programmable motion system with linear motor axes
- Digital CMOS Flat Panel Detector
- Fast image acquisition with 16bit image processing
- Automatic grey-level and geometrical calibration
- MIPS5.5 with Teach&Go for fast and easy application creation
- Software based warpage compensation optional with hardware
- Unique in-house developed advanced algorithm library
- Machine learning based defect classification
- Barcode scanner for serial number and product type selection
- Full product traceability via MES and SECS/GEM Interfaces
- ISO6 and ISO7 clean room options
- SEMI S2/S8 certified
- IPC-CFX-2591, IPC-Hermes-9852, Industry 4.0 ready

Extreme details for inline ultra high-resolution inspection down to 1micron!



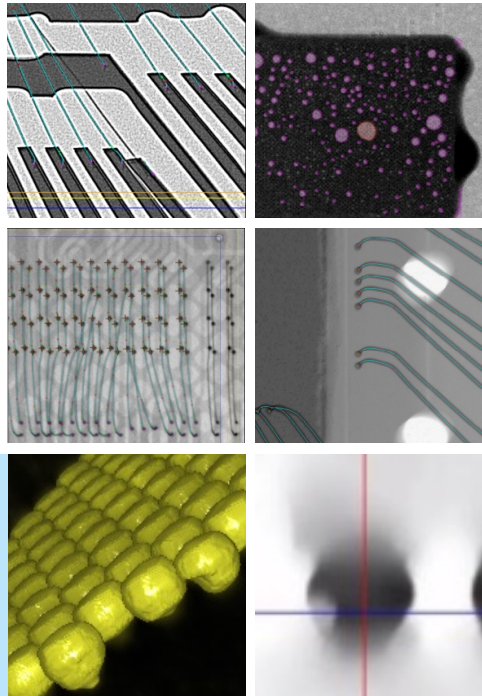
XS++ series Dynamic Planar CT

Applications

Semiconductor packages for wire, micro-BGA and flip chip bump inspection

A unique advanced algorithm library is available for the inspection of:

- QFN, TSOP, SSOP and memory chip gold or copper wire bonding (0.6mil) inspection
- Micro-BGA, flip chip bump inspection down to 40micron bump inspection including multi-die inspection for micro-voids.



Dynamic Planar CT Ultra high-resolution 3D inspection with incredible speed and quality

Specifications

Facilities

Dimensions	1760 mm (H) x 1300 mm (W) x 1600 mm (D)
Adjustable height (SMEMA)	950 mm ± 30mm
Weight	2.320 kg
Safe Operating Temperature	15°-28°C optimal 20°-25°C
Power Consumption:	max. 6 kW
Line Voltage:	400 VAC, 50/60 Hz 3 phase, 16 A 208 VAC, 50/60 Hz 3 phase, 25 A
Air	5-7 Bar, < 2 l/min, filtered (30µ), dry, oil free

X-ray Image Chain

X-ray Source (sealed tube)	100kV/160kV 20W
Grey resolution	14 Bit/16Bit
Detector	FPD (config. dependent)
Low-dose radiation filter	

Inspection features

Max. sample size	150 mm x 330 mm
Max. inspection area	145 mm x 300 mm
Min. sample size	25 mm x 80 mm
Sample thickness	>0.1mm
Max. sample weight	0.5 kg (setup)
Angle shot capability	up to 30 deg
Resolution	<1 µm/pix (setup)
Min. edge clearance for clamping:	1.5-3 mm (setup)
Barcode reader	SR-1000W

Inspection speed

Transmission	up to 6 views/s
Off-Axis	up to 5 views/s
Dynamic Planar CT	down to 3s/FoV

Motion System

Multiple axes programmable motion system	
<u>Installed axes</u>	
x,y (linear drives)	Sample table
z (servo)	Magnification
u,v (linear drives)	Detector movement
<u>Conveyor setup</u>	
Pass through	Single lane
In-out same side	Dual lane

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

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