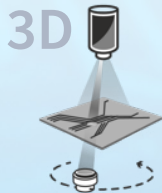
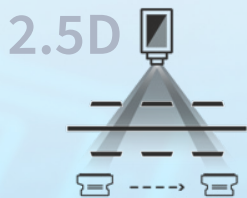


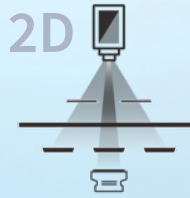
ACQUISITION MODES



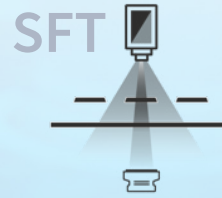
Dynamic Planar CT
The next generation of high-quality 3D inspection, employing high-speed detector motion (3 sec/FoV)



Off-Axis Oblique Angle
Off-axis inspection ($\leq 30^\circ$) via detector movement for high performance, oblique angle imaging



Transmission
Orthogonal two-dimensional imaging with moveable sample tray and a fixed detector position



Slice-Filter-Technique™
Patented inspection technique for golden sample comparison and background removal for analysis

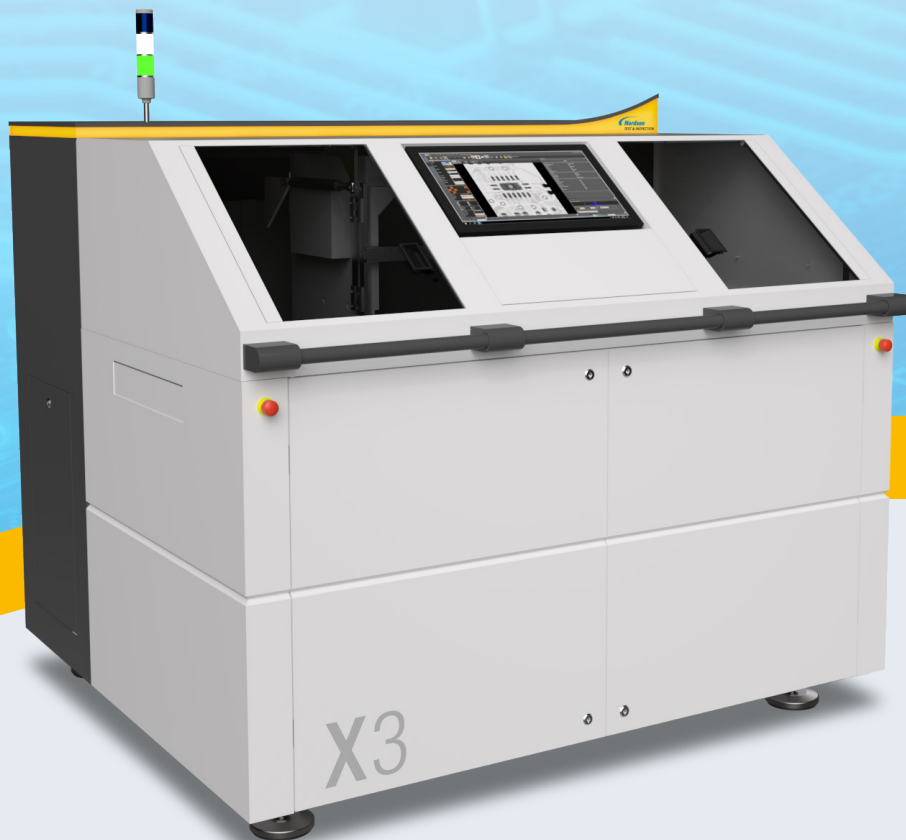


Solder Joint Inspection



PTH Inspection

AXI



X Series

Automated X-ray Inspection

The X Series provide an inline automated X-ray system platform, for a wide range of Automated X-ray Inspection (AXI) applications within the Surface Mount Technology (SMT) market. The X Series offers market leading inspection speed and is ideal for low-mix high-volume production environments.

The X Series platform is available with up to 4 advanced image acquisition modes, ensuring you have the optimal setup for all your applications and inspection requirements.



Test & Inspection

Features & Benefits

Advanced Hardware Technologies

- Maintenance free, sealed microfocus X-ray source
- 5-axis programmable motion system
- High-resolution, high-speed digital Flat Panel Detector
- Low dose radiation filters for dose sensitive devices

MIPS Software & Inspection Tools

- 16-bit image processing
- Automatic grey-level and geometric calibration
- Teach&Go for fast and easy inspection creation
- Proprietary advanced algorithm library
- Machine learning based defect classification
- Multi-layer slice extraction and analysis
- Software based warpage compensation available

Traceability and Connectivity

- Automatic barcode read and inspection selection
- Full traceability via MES and SECS/GEM interfaces
- IPC-CFX-2591, IPC-Hermes-9852 and Industry 4.0 ready

Applications

Our proprietary advanced algorithm library provides comprehensive inspection of all standard surface mount devices, including BGA, LGA, PTH, THT, POP, SIP, QFN, QFP and TSOP.

SMD Solder Joint Inspection

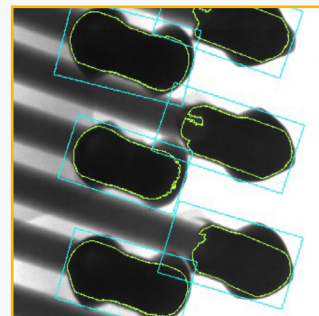
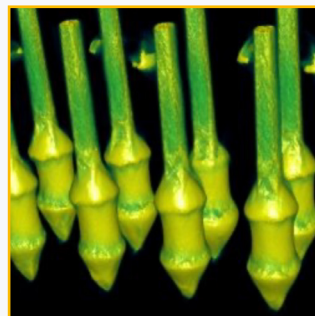
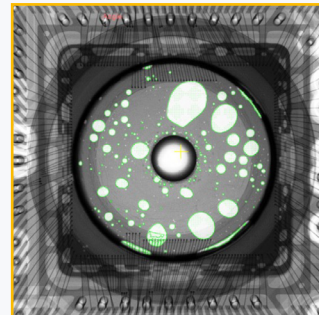
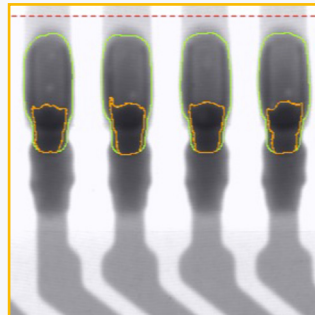
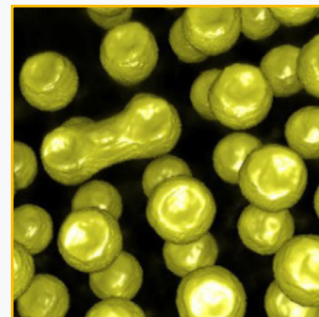
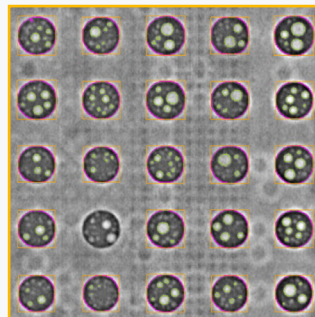
Our sophisticated SMD inspections include solder coverage defect analysis for voiding, bridging, insufficient, missing, head-in-pillow, inside/outside meniscus, non-wetting, lifted lead, heel and toe, foreign material and shorting.

PTH Inspection

Our advanced algorithms also provide dedicated PTH defect inspection, including barrel fill, voiding, bridging, solder splash, bent pin and pin plugging.

Dynamic Planar CT

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



| Installation | |
|---------------------------------------|--|
| System Dimensions (H, W, D) | 1630 × 1800 × 1575 mm |
| Conveyor Height (SMEMA) | 950 mm ± 30 mm |
| System Mass | 2800 kg |
| Safe Operating Temperature Range | 15-32°C, optimal 20-25°C |
| Max. Power Consumption | 2 kVA |
| Air Supply | 5-7 Bar, <2 l/min, filtered (30 µ), dry, oil free |
| Line Voltage | 400 VAC, 50/60 Hz 3 Phase, 16 A208 VAC, 50/60 Hz 3 Phase, 25 A |
| X-ray Imaging Chain | |
| Microfocus X-ray Source (sealed tube) | 130 kV, 39 W |
| Detector | Aspire CMOS FPD |
| Detector Pixel Pitch | 50 µm |
| Detector Active Area | 120 × 140 mm, 2400 × 2782 pix |
| Detector Max. Frame Rate | 25 fps |
| Detector Bit Depth | 14-bit / 16-bit |
| Max. Inspection Speed | |
| Transmission (2D) | 6 views/sec |
| Off-Axis (2.5D) | 5 views/sec |
| Dynamic Planar CT (3D) | 3 sec/FoV |

| Inspection Parameters | |
|----------------------------------|--------------|
| Max. Sample Size (L × W) | 460 × 360 mm |
| Max. Inspection Area (L × W) | 460 × 360 mm |
| Min. Sample Size (L × W) | 80 × 80 mm |
| Max. Sample Mass | 5 kg |
| Max. Inspection Angle | 42° |
| Max. Resolution | 5 µm/pix |
| Assembly Clearances | |
| Top (incl. sample thickness) | 35/50 mm |
| Bottom (excl. sample thickness) | 35/10 mm |
| Min. Edge Clearance for Clamping | 3 mm |
| Max. Assembly Thickness | 10 mm |

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

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