

X#-series FATP setup



Final Assembly Test
(Consumer)

The X#-platform series is an inline automated X-ray system which covers a wide range of AXI applications. It is a flexible platform with very versatile fields of use depending on the application requirements. The FATP setup features high speed 2D Line Scan imaging combined with the unique Slice-Filter-Technique™, enlarging the contrast of failure structures.

The Nordson MATRIX system solutions present a modular inspection concept. The platforms feature up to 4 advanced technologies in one system: Transmission X-ray imaging (2D) with patented Slice-Filter-Technique™ (SFT), Off-Axis technology (2.5D) and 3D SART (Simultaneous Algebraic Reconstruction Technique).

The X#-series platform is available in the following configurations:

- X2#** **Transmission (2D) + SFT™**
- X2.5#** **Transmission (2D) + SFT™ + Off-Axis (2.5D)**
- X3#** **Transmission (2D) + SFT™ + Off-Axis (2.5D) + 3D SART**



Inspection & Process Software

- PC-Station with multi-core processor setup
- Windows 10 platform
- MIPS 5 Inspection Platform
 - Advanced algorithm library
 - CAD import for automatic inspection list generation
 - Simultaneous Algebraic Reconstruction Technique (3D SART; X3# only)
 - Automatic Tree Classification (ATC) for Auto-Rule-Generation
 - Offline programming for AXI program generation & simulation, tuning and defect reference catalogue
- Verification & Process control
 - MIPS Verify link with closed loop repair
 - MIPS Process with real time SPC

Features and Benefits

- Flexible AXI system for inline setups
- Microfocus X-ray tube (sealed tube / maintenance free)
- Multiple programmable motion system with servo drives
- Digital CMOS flatpanel detector
- Automatic grey-level and geometrical calibration
- Barcode scanner for serial number and product type selection
- Flexible setup for inline pass through configuration
- Full product traceability via various Industry 4.0 MES-Interfaces
- IPC-CFX ready

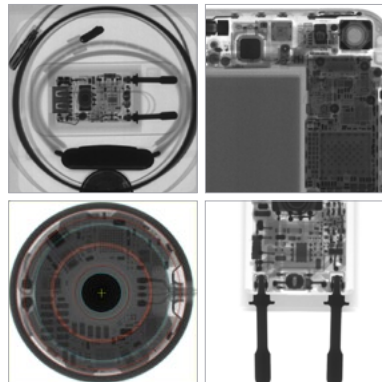
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Applications

Sub-assemblies & Final assemblies

A unique advanced algorithm library is available for inspection of special defects and features of assemblies:

- Loosen screws
- Missing modules
- Extra parts
- Foreign objects
- Cracks and other mechanical damages



Specifications

Facilities

Dimensions	1775 mm (H) x 3100 mm (W) x 1760 mm (D)
Adjustable conveyor height (SMEMA)	890 – 980 mm
Weight	2.800 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)	
Energy	FATP Setup 130 kV/40 W
Grey resolution	up to 12 Bit
Detector	
TDI Line Scan	48 µm pixel size

Inspection features

Max. sample size	510 mm x 400 mm
Max. inspection area	480 mm x 400 mm
Min. sample size	100 mm x 80 mm
Max. sample height	145 mm
Max. sample weight	10 kg
Resolution	5-30 µm

Inspection speed

Line Scan	up to 400 mm / s
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Motion System

Multiple axes programmable motion system

Installed axes	
x,y (linear drives)	sample table
z (servo)	magnification
u,v (optional)	detector movement
Conveyor setup	
pass through	single lane

Assembly clearance

Topside (incl. sample thickness)	100 mm
Bottom side (excl. sample thickness)	45 mm
Min. edge clearance for clamping	6 mm

Options

Barcodereader
Low-dose radiation filter
Auto BCR scanning station (x-y gantry)

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