

XT-6/ XT-6A SMT setup

Universal AXI system with Hexaglide motion concept



The XT-6/XT-6A platform is a highly flexible automated X-ray inspection system with minimum footprint and a parallel-kinematic Hexaglide manipulation unit for extreme-angle off-axis image acquisition with high resolution. It is suitable for high quality X-ray analysis of electronic assemblies and material analysis of parts that require flexible part manipulation with multiple inspection angles.

For batch modes and volume inspection the XT-6 can be equipped with a single-sided conveyor setup and magazine load/unload station (XT-6A).

The **XT-6/XT-6A platform** is available in the following configurations:

XT-6/XT-6A Transmission (2D) + SFT™ + Off-Axis (2.5D)



Features and Benefits

- Flexible AXI system for manual load and island of automation configurations
- 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
- Full product traceability via customized MES-Interface

Inspection & Process Software

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

MIPS Inspection Platform

- Advanced algorithm library
- CAD import for automatic inspection list generation
- Automatic Tree Classification (ATC) for Auto-Rule-Generation
- Off-line programming for AXI program generation & simulation, tuning and defect reference catalogue

Verification & process control

- MIPS Verify link with closed loop repair
- MIPS Proces with real time SPC

Applications

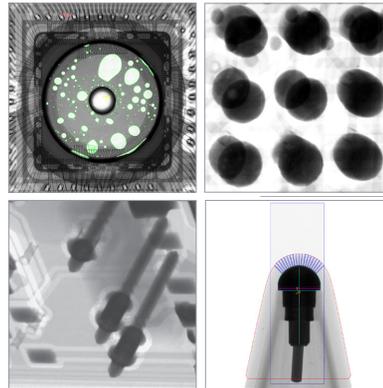
A unique advanced algorithm library is available for electronic and medical applications, specifically for module, component and solder-joint inspection.

All standard SMD and THT/PTH components

- BGA & dedicated off-axis head-in-pillow (HIP) algorithm
- Comprehensive QFN & gullwing algorithm
- Robust solder surface / heatsink void inspection
- Pin in paste barrel fill measurement
- Discrete down to 1005 pitches

For small casting parts, medical implants or small automotive parts:

- Inclusions
- Assembly Test
- Metrology



Specifications

Facilities		
	XT-6	XT-6A
Dimensions:	1940 mm (H) x 1400 mm (W) x 1610 mm (D)	1940 mm (H) x 2250 mm (W) x 1610 mm (D)
Weight:	1.700 kg	2.000 kg
Safe Operating Temperature:	15° - 28 °C optimal 20° - 25° C	15° - 28 °C optimal 20° - 25° C
Power Consumption:	max. 6 kW	max. 6 kW
Line Voltage:	220 VAC, single phase, 16 A	220 VAC, single phase, 16 A
Air:	5-7 Bar, < 2 l/min, filtered (30µ), dry, oil free	5-7 Bar, < 2 l/min, filtered (30µ), dry, oil free

X-ray Image Chain	
X-ray Source (sealed tube)	
Energy:	SMT-Setup 130 kV/40 W 100 kV 20 W
Focal Spot Size:	5 microns
Grey resolution:	up to 14 Bit
CMOS Flatpanel Detector	50 µm pixel size (5 MPix) 75 µm pixel size (3 MPix)

Inspection features	
Max. sample size:	400 mm x 350 mm
Max. inspection area:	400 mm x 350 mm
Min. sample size	100 mm x 50 mm
Sample thickness	0,8 - 10 mm
Max. sample weight:	5 kg
Angle shot capability:	0 - 65 dgr
Resolution	down to 3 µm / pix

Inspection speed	
Transmission	up to 2 images /s
Off-Axis	up to 2 images /s

Motion System	
Parallel-kinematic Hexaglidle unit with 6 axes	
Position repeatability	+/- 5 µm
X-ray tube (sealed):	Z-drive
Handling	
XT-6	manual load
XT-6A	single lane, in-out same side

Assembly clearance	
Topside (incl. sample thickness):	160 mm
Bottom side (excl. sample thickness):	35 mm
Min. edge clearance for clamping:	3 mm

Options	
Barcodereader	
Heavy duty transport system	

For more information, speak with your Nordson MATRIX representative.

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