The **XT-1300** is an automatic x-ray inspection system, especially designed for the fully automatic inspection of high modules and complete assemblies. The system is equipped with a maintenance-free 130kV microfocus x-ray tube and a flexible carrier system that can be easily adapted to customer specific applications. The integrated test library includes algorithms for standard SMD joint inspection as well as for the inspection of joints on flexible circuit boards.

**MIPS_Tune** is an off-line programming software package for test program generation with automatic CAD import or alternatively without CAD data. The software supports automatic inspection list generation based on an advanced algorithm library for transmission and off-axis joint inspection. The integrated rule generation feature allows manual and automatic creation of reliable rules. The **MIPS_Verify** module with its closed-loop repair concept is capable for in-line or off-line verification using a graphical board layout display and X-ray image with defect marking. **MIPS_Verify** can be linked to combined AOI inspection platforms. The **MIPS_SPC Real Time** module provides real-time process control with immediate production line feedback.

### Features and Benefits
- Transmission X-RAY & 3D Slice-Filter Technology
- 130 kV/40 W Microfocus X-RAY Tube (sealed)
  - optional: 150KV/75W Microfocus X-RAY Tube (sealed)
- Digital Flat Panel Detector (1,5k x 1,5k)
- Efficient Board Handling with conveyor system and programmable XY Table
- Flexible, sample fixture carrier, that can be easily adapted to customer specific applications
- Automatic grey-level and geometrical Barcode Scanner (1D/2D)
- Single-side load/unload or alternatively pass through setup
- Optional: detector motion system for off-axis images

### Inspection & Process Software
**MIPS Hardware**
- PC-Station with multi-core processor setup
- Windows 7 or Windows 10 platform

**MIPS-Inspection Platform**
- Advanced Algorithm Inspection Library for solder joint and component inspection
- Slice-Filter-Technique (SFT) for double-sided boards
- Automatic-Tree Classification (ATC) with Auto-Rule-Generation auto program generation

**Verification & Process Control**
- MIPS_Verify link with closed-loop repair
- MIPS_SPC Real Tim with real-time SPC
Applications

APPLICATIONS
Inspection of big and high modules or assembled devices
- All standard SMD and THF/PTH components
- Specific BGA and QFN algorithm
- Advanced PTH/THF algorithms with
  Filling level check (OA setup)
- Cooling plates/
  heatsink void inspection
- Plus inspection of flexible printed circuit boards:
  - Voids
  - Soldering defects
  - Splash & solder balls

Specifications

Facilities
Dimensions:
2100 mm(H) x 1850 mm(D) x 1835 mm(W)
Conveyor system:
1050 mm(D) x 1670 mm + 750 mm(W)
Weight:
3.000 kg
Safe Operating Temperature:
15° - 32 °C, optimal 20° - 25 °C
Line Voltage:
400V, 50/60 Hz, 10A avg., 32 A max, 3 phase
Part Handling / Motion
Programmable X-Y Sample Table
Driving Distance: 500 x 770 mm
Position Repeatability: +/- 25 µm
Z-Drive: X-Ray Tube
Z-Axis Driving Distance: 220 mm
Z-Movement with continuous magnification for every FOV change
Optional: Angle Shot Capability: programmable u, v detector axes
X-Ray Imaging
Detector Type: CMOS Detector (1,5k x 1,5k)
Active Inspection Area: 115 x 115 mm
Grey Value Resolution: 14 bit
Video Output: Camera Link Interface
Video Display: High Resolution 22" TFT
Inspection features
Max. Inspection Area: 570 mm x 250 mm
FOV & Resolution
Field-of-View: 15 mm to 35 mm

For more information, speak with your Matrix representative.

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