MatriX offers the **MV-200C** high-speed AOI system as an enhancement to its X2/X2.5 platform of x-ray inspection systems. The AOI module features CyberOptics award-winning strobe inspection module (SIM) technology. SIM uses the strobe technology for on-the-fly area scanning inspection resulting in production speed rates of up to 200cm²/s. At the same time the quality of the captured image is excellent with high resolution. Main applications in combination with the MatriX high-speed AXI systems are component presence and polarity tests.

The **MV-200C** system can be linked with the MatriX proprietary **MIPS_Process** software environment for closed-loop verification and repair.

MIPS_Process also features statistic process tools for yield control, process analysis and report generation as well as tools for online statistics and process monitoring.

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**Features and Benefits**

- In-line high-speed AOI module based on SIM technology
- Dual fixed angle lighting
- Multicolor CMOS Camera System
- Multiple 5 Megapixel Color CMOS Cameras
- Image Transfer Protocol PCIE
- Resolution: 17µm pixel size
  (High-resolution setup: 12 µm pixel size)
- Image Processing: AI² Technology
- Simple on-line or off-line programming
- CAD Import: Any column separated text file
  (Standard information required – ref. designator, XY, Angle, Part no.)
- Compact, modular design for easy and space-saving integration into production line

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**Inspection & Process Software**

- MIPS_Verify link with closed-loop repair
- MIPS_SPC Real Time with real-time SPC
**MV200C High-Speed AOI Module for MatriX AXI Inspection Systems**

**Applications**

- **Components Types Inspected**: Standard SMT (chips, J-lead, gull-wing, etc.), through-hole, odd-form, clips, connectors, header pins, and others
- **Component Defect Categories**: Missing, polarity, tombstone, billboard, flipped, wrong part, gross body and lead damage, and others
- **Solder Joint Defects Categories**: Solder bridge, opens, lifted leads, wettability, excess and insufficient solder, debris, and others
- **Other Items Detected**: Gold-finger contamination, pin-in-hole, bent pins, debris and many others
- **Component Measurement Categories**: Component X, Y position and rotation

**Specifications**

**Facilities**

- **Dimensions**: 860 mm x 750 mm x 620 mm
- **Weight**: 65 kg (143.300 lbs.)
- **Power Requirements**: 100 – 120V 60Hz/ 220 -240V 50Hz/2 amp max.

**Hardware**

- **Processor**: Quad-core, dual processor computer
- **Application Software**: Windows-based custom application
- **Monitor**: 19" LCD display
- **Keyboard**: Standard Keyboard
- **Mouse**: Standard Optical Mouse
- **Communications**: RS232 & Ethernet

**X-ray Imaging**

- **Detector type**: 3" / 2" image intensifier
- **Camera**: 1028 x 1028 pixel, 10 bit
- **Video output**: Camera link interface
- **Video display**: High resolution 19" TFT

**Inspection features**

- **Inspection Area**: 320 mm x 320 mm
  - Optional: 510 mm
- **Component Size (min)**: 0402 (01005)
- **Lead Pitch**: 0.3 mm
- **Component Height Clearance (max)**: 30 mm
- **Board Edge Clearance (min)**: 3.0 mm (0.125 in.) – bottom side only
- **Resolution**: 17 micron
- **Lighting**: Strobe White Light
- **Scanning speed**: up to 200 cm²/s

For more information, speak with your MatriX representative.

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