

# High-Speed AOI module for MatriX Inspection Systems



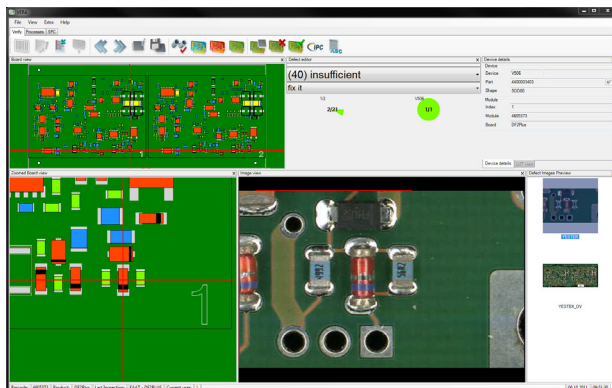
## MV-200C

High-Speed AOI Module for MatriX AXI Inspection Systems

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 200cm<sup>2</sup>/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.



### 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: AI<sup>2</sup> 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

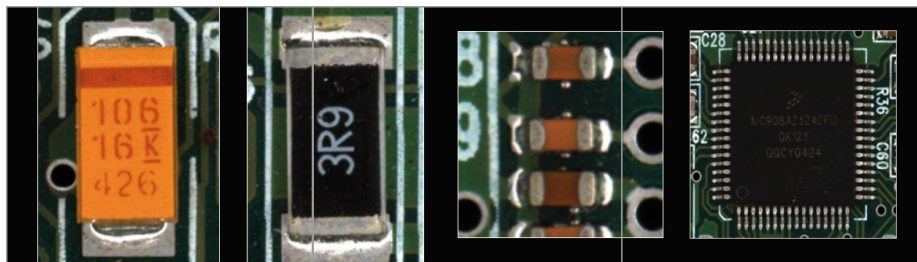
### Inspection & Process Software

- 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 cm<sup>2</sup>/s

**For more information, speak with your MatriX representative.**

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