

The Full Spectrum of AOI Solutions

Portable Automated Optical Inspection - GEM III

The **GEM III** AOI is a feature rich, highly robust, yet portable AOI platform based on Machine Vision Product's existing high performance AOI solutions. The **GEM III** incorporates an 8MP camera and is fully certified for 01005 inspection with an 8 micron pixel size.

The **GEM III** features MVP's wizard driven ease-of-use database programming ePro and the Auto-Optimize wizard and is a cost effective, yet powerful solution for low volume, high mix production environments including New Product Introduction. By utilizing the same optics as inline AOI new inspection programs are equally portable between the **GEM III** and MVP's range of inline solutions,

- Portable AOI with In-line Performance
- 8 MP Camera with 8 μ m Pixel Resolution
- 430 x 430mm Inspectable Area
- Full Compatibility with Inline AOI
- Robust flying inspection based stage
- Certified to 01005 Components for Solder Joint Inspection
- Ideal for High Mix or NPI
- Easy-To-Use, Award Winning iPro Software



Discuss your SMT and Microelectronics inspection application with Machine Vision Products, Inc and discover your solution



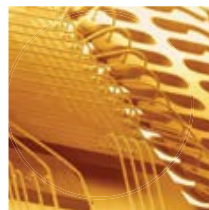
SMT AOI



3D Paste AOI



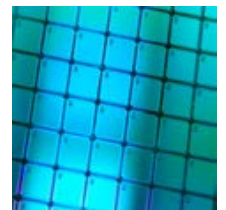
BGA AOI



Wire Bond AOI



Die and Epoxy AOI



Die Surface AOI



Comprehensive Defect Coverage Flexible Fast Inspection

MVP has created a new standard in the portable AOI market by bringing the key elements of high performance AOI; such as structured lighting, flying camera image acquisition, and rule based, library driven inspection software to the GEM III. Incorporating the key technical elements of MVP's existing in-line AOI tools and with a highly robust stage, the GEM III offers complete solder and component defect coverage certified to 01005, low false calls, and high speed usually only available on in-line systems

Key Features Include:

- Full Solder Joint Inspection and Measurement
- Complete Compatibility and Program Portability with MVP's In-line Inspection Systems
- Optimized Price Performance Ratio
- Proprietary Flying Camera Inspection Brings a New Dimension of Speed to the Portable AOI Market.

Defect Detection

Post Reflow Inspection

SMT and PTH parts for presence/absence, placement offset, polarity, bridging, solder opens, insufficient and excess solder, billboards, tombstones, lifted and bent leads, and OCV/OCR for wrong component detection & traceability. Full solder joint inspection to 01005 component size.



GEM Compact Technical Specification

Inspection Speed	<ul style="list-style-type: none"> • Acquisition Speed of 128 Megapixels per second with a Single 8 MP color camera • Up to 65 sq.cm per Second (10 sq.inches per second) Inspection Dependant on Board Layout, Density and Field of View
System Hardware	<ul style="list-style-type: none"> • State-of-the-art 8MP Format Color Camera • Proprietary "On-the-fly" Camera Acquisition • Programmable Variable LED Strobe Lighting
System Software	<ul style="list-style-type: none"> • CAD-driven, Library-based Programming Software • Proven High Performance, Adaptable Algorithms with Highest Detectability and Lowest PPM False Accept and False Reject Rates • Full Network Integration (TCP/IP, NFS Protocol) • Real-time SPC Package • Report Generation Utilities for Production Inspection Measurements • Inspection Program Change Tracking • 6th Generation Proven Inspection Software • Multi-pass Technology, Adjustable Lighting Intensity • MVP Dynamic Process Control Compatible
Physical Specification	<ul style="list-style-type: none"> • Size: Length 1000 x Width 940 x Height 944mm (39.4 x 37 x 37.1") • Weight 225kg (495 lbs) • Maximum Board Size 431 x 431 mm (17 x 17") • Power: 120VAC 50/60Hz, 1 Amp (max)
Options	<ul style="list-style-type: none"> • Portable Cart • Quad-color lighting • Barcode Reader Support • Black and White Camera • Ticket Printer • UPS

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