



HIGH-ACCURACY AUTOMATED OPTICAL INSPECTION (AOI) SYSTEMS

- Fully-automated 3D inspection and high-accuracy measurement systems.
- High-power, long working distance optics and high-resolution digital camera are perfect for high-magnification applications.
- These are full-color systems capable of high-accuracy measurements, defect detection and color verification.
- Extensive "Auto-Scan" toolset for defect detection applications.
- Built-in advanced auto-focus tool for fast, accurate & repeatable re-focusing.
- Standard configurations are available "off the shelf" and non-standard configurations can also easily be accommodated. We can configure a system to meet your specific requirements!
- Open-frame stage with glass insert allows for both transmitted and reflected illumination.
- Half-and full-bridge configurations are also available (for heavy loads and long travels).
- High-precision crossed-roller movements with 0.1 μm encoder feedback.
- Micro-stepping motor controller is capable of ultra-fine movements.
- All axes can be controlled using either the external (i.e. 3-axis, 3-speed) joystick or using the on-screen joystick controls.
- With VisionGauge® OnLine's intuitive "teach" mode, it is easy to create part programs.
- Programs can be saved and read-in from disk.
- These systems include programmable, computer-controlled illumination (for repeatable results)
- Very competitively priced



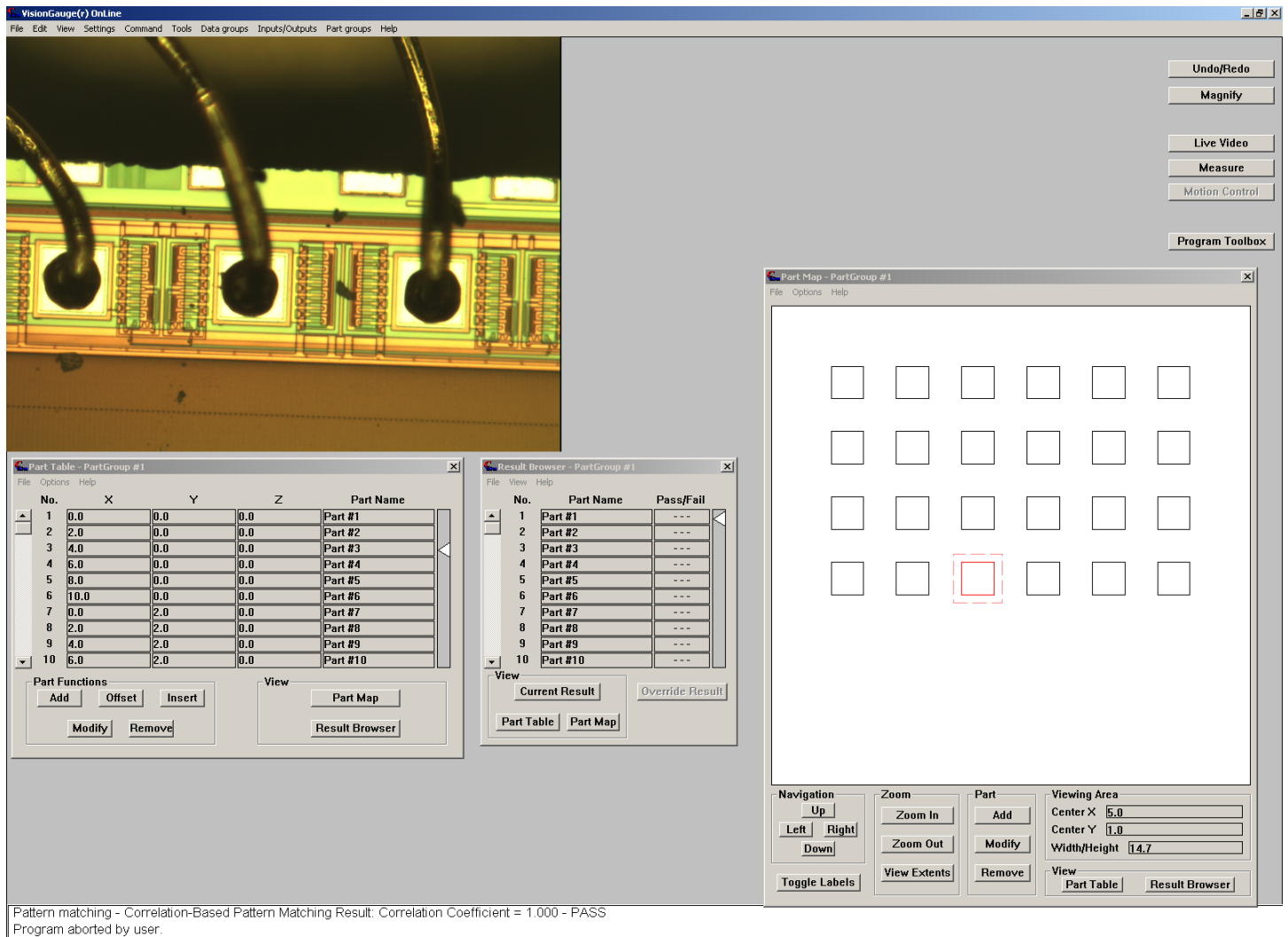
Many Different Configurations are Available!



***Half- and Full-Bridge Configuration are also Available,
with a Wide Range of Stage Travels & Optical & Illumination Configurations.***

These Systems are Built Around the Power & Easy-to-Use VisionGauge® OnLine AOI software:

- Using the powerful and easy-to-use VisionGauge® OnLine software package, these systems have a simple and intuitive Windows™ interface and include a wide range of fully-integrated tools for imaging, automated optical inspection (i.e. AOI) measurements, qualitative Pass/Fail inspection, pattern matching, Optical Character Recognition & Verification (i.e. OCR & OCV) statistics, databasing, reporting and much, much more!
- Advanced software tools include: robust and very accurate auto-focus, wide range of advanced edge-detection-based sub-pixel-accurate measurement tools, automatic registration tools, powerful, rotation-independent pattern matching tools, color verification tools, "Counting & Sizing" (i.e. "blob analysis") tools, robust and accurate Auto-Focus, power zoom and programmable computer-controlled illumination,.
- These systems include a wide range of analysis and measurement tools to allow you to successfully solve a wide range of inspection and measurement applications
- These systems are very easy to program. Everything is done using the mouse & joystick, through VisionGauge's® intuitive graphical user interface.
- Quickly and easily review results, view images of "pass" or "fail" parts, export data to Excel or any other application, built-in SPC (with graphs as well as numerical & pass/fail statistics), etc...



VisionGauge® OnLine AOI software has a very simple and intuitive graphical user interface

Specifications:

Standard XY Stage travels (other travels available as "non-standard" orders)	4"x4", 8"x8", 12"x12" and 18"x18"
Number of motorized axes	3 axes (i.e. XYZ) standard (up to 20 axis of motion available in "non-standard" configurations)
XY encoder resolution	0.1 μ m
Standard Z axis travel (other travels available as "non-standard" orders)	6"
Z encoder resolution	0.1 μ m
Stage movement	High-accuracy crossed roller movement
Motion parameters (i.e. speed, convergence criteria, etc...)	User-selectable
Camera	High-resolution color digital camera (progressive scan)
Illumination	Programmable, computer-controlled
Optics	High-power, long working distance
Power zoom	Available as an option
External joystick	Yes (3-speed, 3-axis)
On-screen joystick	Yes (3-speed, 3-axis)
Software	VisionGauge® OnLine
Software Interface	Graphical (i.e. "point & click")
Built-in SPC software with automatic numerical charts & Pass / Fail graphs	Yes
Automatic data export to Excel™	Yes
Automatic data export to other applications	Yes (through Windows™ DDE or other mechanisms)
Built-in Dynamic Data Exchange (DDE) support	Yes
Easy file data import & export	Yes
Programming	All done with mouse & joystick, through the software's Graphical User Interface, and through the software's "teach" mode
Pattern matching tools	Yes
Optical Character Recognition & Verification (OCR / OCV) tools	Yes
OCR / OCV character library	No limitations (i.e. the system is "trainable")
Color verification tools	Yes
Measurement tools	Wide range of edge-detection based sub-pixel accurate 3D measurement tools
Image analysis tools	Yes
Image manipulation & image processing tools	Yes
Counting & Sizing (i.e. "blob analysis) tools	Yes
Automatic registration tools (i.e. to correct for variations of both translation & rotation)	Yes
Auto-Focus	Very robust and accurate, with user-selectable region-of-interest and search range
Non-destructive live image overlays	Yes (user-selectable)
Auto-Scan tool (for automatic defect detection on large samples)	Yes
Ability to automatically save image of defects	Yes
Post-analysis Pass / Fail summary report (to allow the operator review & override results)	Yes
Built-in ability to interface to other (external) equipment & machinery	Yes
Built-in password supervisor-level / operator-level protection	Yes
Calibration	NIST-traceable
Built-in "F1 Help"	Included
Clear and easy-to-use documentation (both printed and "pdf" format)	Included
Support (by phone, fax & email)	Included for a full year
Warranty	1 year (complete)

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