



## Automated Optical Inspection for SPI & SMT Inspection

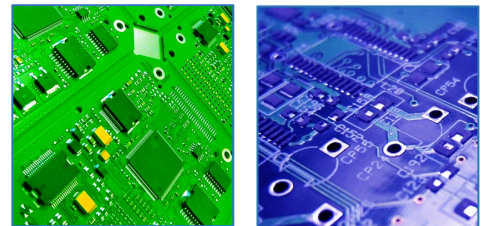


### Key Features

- SPI and SMT Inspection
- Versa
  - High Resolution Optics
- Versa Duo
  - High Resolution Optics and Laser Profiler
- Versa Pro
  - Projector Based
- Fast Easy-To-Use
- Measurement Based AOI
- High Throughput with Proven Reliable Hardware
- 01005 Solder Joint Inspection

### MVP Versa, Versa Duo and Versa Pro

The Versa platforms combine 3D technologies and MVP's advanced optic systems to allow user to benefit from the superb detection of complex defects using MVP's proprietary, advanced algorithms. Configured with multiple 3D options and standard metrology capability the Versa series of solutions are ultimately flexible for SPI, Pre-Reflow, Post-Reflow or Post-Wave inspection.



# Versa Series

# MVP “AOI Elevated”

Model	Versa Series			
Version	Versa	Versa Duo	Versa Pro	
<b>Performance</b>				
Inspection Capability	Paste, Pre-Reflow, Post-Reflow, Post-Wave, Selective Solder, BGA, Metrology based measurement tools			
Programming Speed	Standard SPI and AOI programs are generated in 10-30 mins			
Motion System X and Y	Precision X/Y stage with 0.5 micron positional resolution			
Optical Resolution	Options <sup>2</sup> from 5-20um			
<b>Optics</b>				
Optics Camera	25mp or 12mp		9.5mp	
Optics Illumination	White or Quad Color		Red, Blue, White	
<b>3D Measurement System</b>				
3D Measuring Principle	3D Lighting	Laser Profiler	Quad Moiré	
3D Speed <sup>1</sup> (CM <sup>2</sup> /s)		16	2.6	13.2
3D Sensor X-Y Resolution (um)		12.5	5	19.6
3D Sensor Z Repeatability (um) <sup>5</sup>		0.5	0.4	1
Max Component Clearance (mm)	35			
<b>Software</b>				
Offline Program Generation	ePro			
Program Debug Environment	iPro and Validate			
SPC and Reporting	AutoData DPC - Sql based data reporting ELSR - End Lot Summary Reporting Optional: AutoData, line integration to paste systems			
CAD and Gerber Inputs	Standard, Placement, Gerber and ODB++ data import			
Defect Review	In-Line or Off-Line defect review using iRepair			
Multi-Pass	Programmable heights and lighting per pass			
Validate <sup>7</sup>	Automated Program Validation			
<b>System</b>				
Computer	Xeon Processor - Multi-Threading 1TB SSD Hard Drive - 32GB Memory			
Operating System	Linux based Multi-Threading CentOS Operating System			
Networking	Full network integration (TCP/IP, NFS Protocol)			
<b>Physical</b>				
Inspection Envelope <sup>3</sup>	508mm (20") x 457mm (18") <sup>3</sup>			
Board Thickness <sup>4</sup>	0.254 - 12.5mm (0.01 - .5")			
Clearance	Top Side to 50.8mm (2")			
Conveyor Height	SMEMA			
Footprint	990mm (39") W x 1100mm (43") D x 1580mm (62") H			
Conveyor Length	996mm (39")			
Power	208-240VAC 50/60Hz, 10A (Optional 110V)			
Air	60 PSI, 1CFM			
Weight <sup>6</sup>	500 kgs (1100 lbs.)			
Compliance	CE - (UL Optional)			

<sup>1</sup> Using standard resolution, quarter range. Scan speed can be increased using larger profile steps.

<sup>2</sup> Dependent on camera and lens configurations.

<sup>3</sup> Please check final chosen configuration, some options can reduce board size.

<sup>4</sup> Flex Circuits, Non-Rigid boards will require fixturing. 12.5mm is an advisory for board thickness.

<sup>5</sup> Static repeatability using MVP calibration target.

<sup>6</sup> Base Versa System

<sup>7</sup> Program Dependant

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## MVP Versa, Versa Duo and Versa Pro - SPI and SMT inspection.

The Versa systems deploy the highest speed interfaces, computers, optics and 3D technologies to provide the fastest inspection times without compromising defect detection.

MVP's Flying Stage combined with Quad-Color and 3D technology and allows faster inspection cycle times while increasing inspection capabilities. Additionally, with enhanced defect coverage, false rejects are minimized.

The Versa series of AOI solutions complements MVP's wide range of award winning AOI products and allow for the introduction of versatile and flexible solutions with the capability to increase performance and speed metrics at the same time.

- MVP's Fastest AOI Platform
- Flexible, Reliable and Robust Hardware
- 3D Profilers and Projectors
- Combined 2D & 3D optics packages
- SPI, SMT & Hybrid Inspection
- Easy-To-Use Performance Based Programming
- 01005 Solder Joint Inspection

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