

Spectra Series II

Large Format AOI for Automotive, EV, Solar and Backplane Inspection



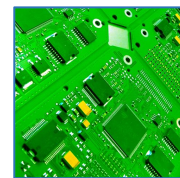
Key Features

- Standard System 35" x 35"
- Board Indexing Capabilities to 35" x 40"
- Available Laser Profiler & Projector Technologies
- Optional Paste and Pin-in-Hole Inspection
- Easy-To-Use Award Winning iPro and ePro Software
- Class Leading Performance and Yield Capability

MVP Spectra Series II

The Spectra Series II, system is MVP's large format AOI solution. The Spectra has a standard inspection area of 35 x 35 inches (890 x 890mm). The optional Spectra XL is configured with board indexing and will allow inspection of boards up to 35 x 40" (890 x 1016mm).

The Spectra and Spectra XL are the solutions for production lines inspecting large format products including; EV Batteries, Backplanes, Large Panels, Solar and Large PCBs.



Spectra Series II

MVP “AOI Elevated”

Model	Spectra Series II			
Version	Spectra	+ MP24	+ LP35	+ LP15
Performance				
Inspection Capability	Battery, Backplane, Paste, Pre-Reflow, Post-Reflow, Post Wave, Selective Solder, Metrology			
Programming	Off-Line Programming and ePro			
Motion System X and Y	Precision 3-axis stage with 0.5 micron positional resolution			
Optical Resolution	Options ² from 5-20um			
Optics				
Optics Camera	25mp or 12mp			
Optics Illumination	White or Quad Color			
3D Measurement System				
3D Measuring Principle	3D Lighting	Quad Moiré	Laser Profiler	Laser Profiler
3D Speed ¹ (CM ² /s)		4	16	2.6
3D Sensor X-Y Resolution (um)		7.8	12.5	5
3D Sensor Z Repeatability (um) ⁵		1	0.5	0.4
Max Component Height (mm)	35			
Software				
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	Automated Program Validation			
System				
Computer	Xeon Processor Based Fast 1TB SSD Hard Drive - 32-256GB Memory			
Operating System	Linux based Multi-Threading Ubuntu Operating System			
Networking	Full network integration (TCP/IP, NFS Protocol)			
Physical				
Inspection Envelope ³	890 x 890mm (35" x 35") or XL, 890 x 1016mm (35" x 40") ³			
Board Thickness ⁴	Dependent on Configuration - to 20cm			
Clearance	50.8mm (2")			
Conveyor Height	SMEMA			
Footprint	1496mm (58.9") W x 1642mm (64.6") D x 1602mm (63") H			
Conveyor Length	11600mm			
Power	208-240VAC 50/60Hz, 10A			
Air	60 PSI, 1CFM			
Weight	945kgs (2100 lbs.)			
Compliance	CE - (UL Optional)			

MVP Spectra Series II - Automotive, EV and Backplane Inspection.

The Spectra deploys the highest speed interfaces, computers, 2D cameras and 3D technologies to provide the fastest inspection times without compromising defect detection.

MVP's 3-Axis 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 Spectra systems complement MVP's wide range of award winning AOI products and allow for the inspection of large format products including:

- **EV Battery Cell and Wire Inspection**
- **Backplane Inspection**
- **Large PCB Inspection**
- **Solar Product Inspection**
- **Military Modules**
- **Displays**
- **HMI**

¹ Using maximum scan speed.

² Dependent on camera and lens configurations.

³ Please check final chosen configuration, some options can change inspectable area and board size.

⁴ Non-Rigid products will require fixturing.

⁵ Static repeatability using MVP calibration target.

MVP and the MVP logo are trademarks of Machine Vision Products, Inc. All other brand and product names are trademarks or registered © Machine Vision Products, Inc., 2025, All rights reserved.
SPE-11725



Worldwide Headquarters
Vista, California, USA.
+1 (760) 438-1138
sales@visionpro.com

European Headquarters
Fife, Scotland, UK.
+44 (0) 1383 842861
sales@visionpro.com

Asia-Pacific Headquarters,
Xuhui, Shanghai, PR China.
+86 172 059 60328
salesasia@visionpro.com

Machine Vision Products, Inc., 3270D Corporate View, Vista, CA 92081

phone +1 (760) 438-1138 - sales@visionpro.com - www.machinevisionproducts.com