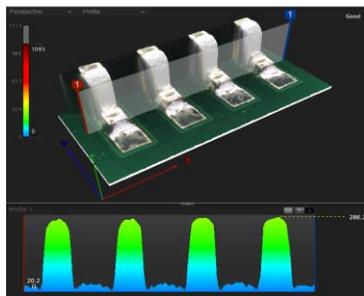
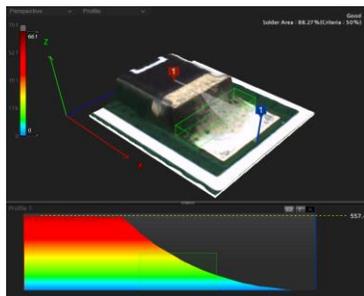


MV-6 OMNI 3D AOI Series

- ▶ Exclusive 15MP/25MP CoaXPress Camera System
- ▶ OMNI-VISION® 3D Digital Tri-Frequency Moiré Technology
- ▶ Leading-Edge 12 Projection **BLUE** DLP Design
- ▶ Precision Compound Telecentric Camera Lens
- ▶ Eight Phase Color Lighting System
- ▶ 18MP CoaXPress SIDE-VIEWER® Color Camera System
- ▶ Programmable Z-Axis Multi-Focus System
- ▶ Internal PCB Flipper Conveyor Option
- ▶ INTELLI-PRO® Automatic Programming Software
- ▶ Multi-Functional AOI-SPI Fusion Technology
- ▶ INTELLISYS® Industry 4.0 Factory Automation System



3D Lead Co-Planarity Inspection



3D Solder Fillet Inspection



MV-6 OMNI 3D AOI Series Specifications

Standard Features:

- ▶ Intel® Multi-Core PC, 32" Flat Screen LCD Monitor, Windows 11™ OS, HDD, Mouse & Keyboard, Network LAN Card.
- ▶ OMNI-VISION® 3D Digital Tri-Frequency Moiré / 12 Projection BLUE DLP Design.
- ▶ Single Stage High-Speed Conveyor System with Programmable Width Control and Automatic PCB Support.
- ▶ Advanced Eight (8) Phase Color LED Lighting System.
- ▶ Pre and Post Reflow Inspection Capability.
- ▶ Automatic Teach Tool (ATT) Software - Automatic Programming Using Centroid Data.
- ▶ Comprehensive Package Type Library - Provides Simple "Drag and Drop" Component Programming.
- ▶ Local System Software: Repair Plus Software, Statistical Process Control (SPC) Software.

Options:

- ▶ 15 Mega Pixel or 25 Mega Pixel CoaXPress Top-Down Color Camera System (See Specifications).
- ▶ SIDE-VIEWER® Camera System - Quantity (4) 18MP CoaXPress Side-Angle Color Cameras. (See Specifications).
- ▶ Programmable Z-Axis Multi-Focus System - Provides Optimal Focus Level for Taller Devices.
- ▶ MV-6 OMNI Top-Side PCB Clearance: Standard - 45mm (1.77 in.) / Option - 70mm (2.76 in.).
- ▶ CAD Import Software: Option 1 - ePM-AOI Gerber Import Software / Option 2 - Valor Gerber Import Software w/ ODB++
- ▶ AOI-SPI Fusion Technology - Provides Both AOI and SPI Capability in a Single Platform.
- ▶ MV-6 OMNI: Three (3) Stage High-Speed Conveyor / MV-6 OMNI XL / HV: Conveyor Rail Extension (See Specifications).
- ▶ 2D Bar Code Reader Options: Gun Type, Camera Type and External Mount.
- ▶ MV-6DL OMNI Shuttle Conveyor Options: Input Shuttle Conveyor, Output Shuttle Conveyor.
- ▶ Internal PCB Flipper Conveyor - Internal PCB Flipper Mechanism for Consecutive Top and Bottom PCB Inspection (MV-6 OMNI model).
- ▶ Remote PC - Software Purchased Separately.
- ▶ Remote Software: Repair System Software, Statistical Process Control (SPC) Software, Off-Line Teaching Software (OLTT).
- ▶ Total Remote Management Software (TRMS) - Requires Server Software for Remote PC and Client Software on All Machines.
- ▶ INTELLI-TRACK® Process Control Software - Requires Server Software for Remote PC and Client Software on All Machines.
- ▶ SVN Multi-System Version Control Software - Requires Separate PC Server.

System Specifications:

(Subject to change without prior notice)

PCB Inspection Area	
MV-6 OMNI	50 mm x 50 mm to 510 mm x 510 mm (2.0" x 2.0" to 20.1" x 20.1") w/ PCB Indexing Option: 760 mm x 510 mm (29.92" x 20.1") Three Stage Conveyor Option w/ PCB Indexing: 1,020 mm x 510 mm (40.2" x 20.1") PCB Flipper Conveyor Option: 50 mm x 50 mm to 450 mm x 400 mm (2.0" x 2.0" to 17.72" x 15.75")
MV-6DL OMNI (Dual Lane)	Single Lane: 50 mm x 50 mm to 460 mm x 590 mm (2.0" x 2.0" to 20.1" x 23.23") Dual Lane: 50 mm x 50 mm to 460 mm x 300 mm (2.0" x 2.0" to 20.1" x 11.81")
MV-6 OMNI XL / MV-6 OMNI XL HV	50 mm x 50 mm to 870 mm x 690 mm (2.0" x 2.0" to 34.25" x 27.17") / 1,200 mm x 690 mm (47.24" x 27.7") w/ PCB Indexing / 1,600 mm x 690 mm (63" x 27.7") w/ PCB Indexing and Optional Conveyor Extension
MV-6 OMNI XL DL	Single Lane: 50 mm x 50 mm to 870 mm x 555 mm (2.0" x 2.0" to 34.25" x 22.85") Dual Lane: 50 mm x 50 mm to 870 mm x 300 mm (2.0" x 2.0" to 34.25" x 11.81")

Vision System (FOV Size)			
15MP CoaXPress: (3,904 x 3,904 @ 120 fps)	Option 1	Pixel Resolution: 15 um	58.56 mm x 58.56 mm (2.31" x 2.31")
	Option 2	Pixel Resolution: 10 um	39.04 mm x 39.04 mm (1.54" x 1.54")
25MP CoaXPress: (5,120 x 5,120 @ 72 fps)	Option 1	Pixel Resolution: 7.7 um	39.42 mm x 39.42 mm (1.55" x 1.55")

OMNI-VISION® Inspection Technology	
3D Inspection Technology	OMNI-VISION® 3D Digital Tri-Frequency Moiré / 12 Projection BLUE DLP Design
2D Inspection Technology	15MP / 25MP CoaXPress Camera System
Maximum 3D Inspection Height	15MP / 15 um 25 mm (0.984") @ ±3 um / 45 mm (1.77") @ ±3 um with Z-Axis and GPU 15MP / 10 um & 25MP / 7.7 um 20 mm (0.79") @ ±3 um / 40 mm (1.575") @ ±3 um with Z-Axis and GPU
2D Inspection Item	Missing Component, Wrong Component, Mis-Alignment, Skewed Component, Polarity, Tombstone, Solder Bridge, Flipped Device, Solder Ball, Etc.
3D Inspection Item	Component Height, Position, Lifted Package, Lifted Lead, Solder Fillet, Excessive Solder, Insufficient Solder, Solder Bridge, Open Solder, Etc.

Additional Specifications	
Lens Configuration	Precision Telecentric Compound Lens Design
Lighting System	Eight (8) Phase Color Lighting
SIDE-VIEWER® Camera System	Quantity Four (4) - 18MP CoaXPress Side-Angle Color Cameras
PCB Top-Side Clearance	MV-6 OMNI: 45 mm (1.77") ; Option: 70 mm (2.76") / MV-6 OMNI XL: 45 mm (1.77") / MV-6 OMNI XL HV: 45 mm (1.77")
PCB Bottom-Side Clearance	MV-6 OMNI: 50 mm (1.97") ; w/ Flipper: 70 mm (2.76") / MV-6 OMNI XL: 50 mm (1.97") / MV-6 OMNI XL HV: 43 mm (1.69")
PCB Top-Edge Clearance	MV-6 OMNI: 3 mm / MV-6 OMNI XL: 3 mm / MV-6 OMNI XL HV: 5 mm
PCB Bottom-Edge Clearance	MV-6 OMNI: 3.5 mm / MV-6 OMNI XL: 3.5 mm / MV-6 OMNI XL HV: 12 mm
Maximum PCB Warpage	±5 mm
Maximum PCB Weight	MV-6 OMNI: 4 Kg (8.82 lbs) ; w/ Flipper: 2 Kg (4.41 lbs) / MV-6 OMNI XL: 7 Kg (15.43 lbs) / MV-6 OMNI XL HV: 5 Kg (55.12 lbs)
PCB Thickness Range	MV-6 OMNI: 0.5 mm - 5 mm ; w/ Flipper: 0.8 mm - 3 mm / MV-6 OMNI XL: 1 mm - 5 mm / MV-6 OMNI XL HV: 1 mm - 5 mm
Minimum Component Inspection	0402 Chip (mm) / 01005 Chip (in) / 0.3 Pitch (mm)
Robot Positioning System	Precision Closed Loop AC Servo Drive, Resolution: 1 um / Repeatability: ±10 um
Power Requirements	Single Phase 200~240V 50~60Hz; 1.1 KW, Breaker Capacity: 25 Amp
Air Requirements	5 Kgf / cm² (0.5 Mpa); (71 PSI)

Machine Dimensions and Weight		
MV-6 OMNI	Single Stage.: 1,080 mm L x 1,470 mm W x 1,610 mm H (42.5" x 57.87" x 63.39") Three Stage.: 1,630 mm L x 1,470 mm W x 1,610 mm H (64.17" x 57.87" x 63.39")	950 Kg (2,094 lbs.)
MV-6DL OMNI	1,080 mm L x 1,610 mm W x 1,610 mm H (42.5" x 63.39" x 63.39")	1,030 Kg (2,270.76 lbs)
MV-6 OMNI XL / DL / HV (Extended Conveyor not available w/ DL)	1,600 mm L x 1,580 mm W x 1,660 mm H (63" x 62.2" x 65.35") Standard Conveyor: 1,700 mm (66.93") / Extended - 2,400 mm (94.49")	1,700 Kg (3,747.86 lbs)