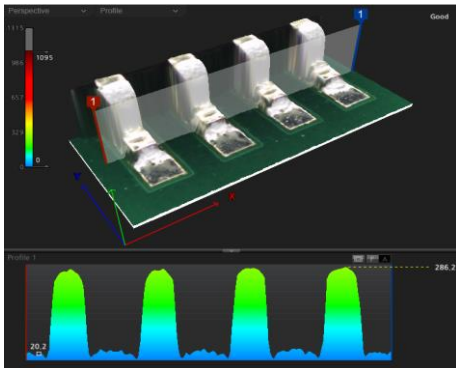


TECHNOLOGICALLY ADVANCED

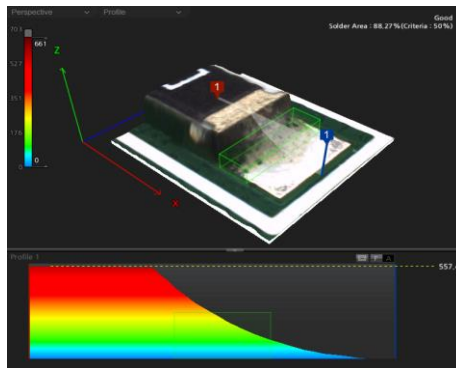
MV-7 OMNI 3D AOI Series



- High-Speed / High-Performance **3D AOI MACHINE**
- **FIFTEEN MEGA PIXEL** CoaXPress Camera Technology
- Advanced Eight Phase Color Lighting System
- 10 Micron / Pixel Precision Telecentric Compound Lens Design
- Integrated Ten Mega Pixel **SIDE-VIEWER®** Camera System
- High-Speed Three Stage Conveyor
- Automatic PCB Under Board Support System
- Extremely Simple Programming and Operation



3D Co-Planarity Inspection - Gull Wing Device



3D Solder Fillet Inspection Capability



- Exclusive **OMNI-VISION®** 3D Inspection Technology
- Quantum High Definition (2,048x1,536) Digital Multi-Frequency Moiré Option
- **FULL 3D** Co-Planarity and Solder Fillet Inspection Capability
- Superior Defect Detection, Absolute Lowest False Call Rate



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MV-7 OMNI Series Features and Specifications

Max PCB Size Range

MV-7 OMNI	50 mm x 50 mm to 510 mm x 460 mm (2.0" x 2.0" to 20.1" x 18.1")
MV-7U OMNI	60 mm x 60 mm to 660 mm x 610 mm (2.36" x 2.36" to 26.0" x 24.1")
MV-7DL OMNI (Dual Lane / Single Head)	50 mm x 50 mm to 330 mm x 250 mm (2.0" x 2.0" to 12.99" x 9.84")

Image Transfer Technology

15 MP Camera	3,904 x 3,904 Pixel	CoaXpress	120 fps
15 MP Camera	3,904 x 3,904 Pixel	Camera Link	45 fps

OMNI-VISION® QHD Inspection System

3D Inspection Technology	Option 1	SXGA - (1,280 x1,024) Digital Multi-Frequency Moiré
	Option 2	Quantum High Definition (QHD) - (2,048x1,536) Digital Multi-Frequency Moiré
2D Inspection Technology	15 Mega Pixel Vision System	
Height Accuracy	±3 um	
Inspection Item	2D Inspection	Missing Component, Wrong Component, Mis-Alignment, Skewed Component, Polarity, Tombstone, Bridge, Flipped, Solder Ball, Etc
	3D Inspection	Height, Position, Lifted Package, Lifted Lead, Solder Fillet, Excessive Solder, Insufficient Solder, Open Solder, Etc

Vision System (FOV Size)

15 Mega Pixel Camera	3,904 x 3,904 Pixels	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")

2D Maximum Inspection Speed

15 Mega Pixel Camera	CoaXpress @ 120 fps	Option 1	Pixel Resolution :15 um	0.32 sec / FOV	10,716 mm2/sec (16.6 in2/sec)
		Option 2	Pixel Resolution :10 um	0.30 sec / FOV	5,080 mm2/sec (7.87 in2/sec)
	Camera Link @ 45 fps	Option 1	Pixel Resolution :15 um	0.36 sec / FOV	9,526 mm2/sec (14.76 in2/sec)
		Option 2	Pixel Resolution :10 um	0.34 sec / FOV	4,482 mm2/sec (6.95 in2/sec)

3D Maximum Inspection Speed

15 Mega Pixel Camera	CoaXpress @ 120 fps	Option 1	Pixel Resolution :15 um	0.77 sec / FOV	4,454 mm2/sec (6.9 in2/sec)
		Option 2	Pixel Resolution :10 um	0.75 sec / FOV	2,032 mm2/sec (3.15 in2/sec)
	Camera Link @ 45 fps	Option 1	Pixel Resolution :15 um	1.35 sec / FOV	2,540 mm2/sec (3.94 in2/sec)
		Option 2	Pixel Resolution :10 um	1.21 sec / FOV	1,260 mm2/sec(1.95 in2/sec)

System Specifications

Lens Configuration	Precision Telecentric Compound Lens Design		
Lighting System	Eight (8) Phase Color Lighting		
SIDE-VIEWER® Camera System	Quantity Four - 10 Mega Pixel (3,664 x 2,736) Color Side Angle Cameras		
PCB Top Side Clearance	45 mm		
PCB Bottom Side Clearance	25 mm (Option : 50.8 mm)		
Maximum PCB Warpage	±3 mm		
Barcode System (Option)	1D or 2D Barcode Reader		
Built-in SPC	Statistical Process Control Software (Local)		
Built-in Repair	Repair Plus Software (Local)		
OLTT (Option)	Off-Line Teach Tool Software		
Minimum Component Inspection	15 Mega Pixel	Option 1 (15 um)	0603 Chip (mm) / 0201 Chip (in) / 0.4 Pitch (mm)
		Option 2 (10 um)	0402 Chip (mm) / 01005 Chip (in) / 0.3 Pitch (mm)
Robot Positioning System	X/Y Axis	Precision Closed Loop AC Servo Drive Motor System	
	Resolution	1 um	
	Repeatability	±10 um	
Power Requirements	MV-7 OMNI	Single Phase 200~240V 50~60Hz; 1.1 KW	
	MV-7U OMNI		
	MV-7DL OMNI		
Air Requirements	5 Kg/cm2 (0.5 Mpa); (71 PSI)		

Machine Dimensions and Weight

MV-7 OMNI	1,100 mm W x 1,500 mm D x 1,500 mm H (43.3" x 59" x 59")	1,000 Kg (2,204 lbs.)
MV-7U OMNI	1,270 mm W x 1,680 mm D x 1,500 mm H (50" x 66.14" x 59")	1,200 Kg (2,645 lbs.)
MV-7DL OMNI (Dual Lane / Single Head)	1,100 mm W x 1,500 mm D x 1,500 mm H (43.3" x 59" x 59")	1,200 Kg (2,645 lbs.)

