

MV-3 OMNI Desktop 3D AOI Features and Specifications

Max PCB Size Range

MV-3 OMNI	50 mm x 50 mm to 450 mm x 400 mm (2.0" x 2.0" to 17.72" x 15.75")
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Image Transfer Technology

15 Mega Pixel	3,904 x 3,904 Pixels	CoaXpress	120 fps
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OMNI-VISION® Inspection System

3D Inspection Technology	8 Projection Digital Multi-Frequency Quad Moiré Technology		
2D Inspection Technology	15 Mega Pixel CoaXPress Camera System		
Height Accuracy	±3 µm		
Inspection Item	2D Inspection	Missing Component, Wrong Component, Mis-Alignment, Skewed Component, Polarity, Tombstone, Bridge, Flipped, Solder Ball, Etc	
	3D Inspection	Component/Lead Length, Width, Height, Co-Planarity and Position. 3D Solder Inspection for Discrete and Leaded SMT Devices as well as QFNs and DFNs.	

Vision System (FOV Size)

15 Mega Pixel Camera	Option 1	Pixel Resolution:15 µm	58.56 mm x 58.56 mm (2.31" x 2.31")
	Option 2	Pixel Resolution:10 µm	39.04 mm x 39.04 mm (1.54" x 1.54")

2D Maximum Inspection Speed

15 Mega Pixel Camera	Option 1	Pixel Resolution:15 µm	10,716 mm ² /sec (16.6 in ² /sec)
	Option 2	Pixel Resolution:10 µm	5,080 mm ² /sec (7.87 in ² /sec)

3D Maximum Inspection Speed

15 Mega Pixel Camera	Option 1	Pixel Resolution:15 µm	4,260 mm ² /sec (6.6 in ² /sec)
	Option 2	Pixel Resolution:10 µm	1,890 mm ² /sec (2.93 in ² /sec)

System Specifications

Lens Configuration	Precision Telecentric Compound Lens Design		
Lighting System	Eight Phase Coaxial Color Lighting		
SIDE-VIEWER® Camera System	Quantity Four - 10 Mega Pixel Color Side Angle Cameras		
PCB Top Side Clearance	45 mm		
PCB Bottom Side Clearance	45 mm from bottom of PCB surface / 30 mm with PCB Support System		
Maximum PCB Warpage	±2 mm (Without PCB Support System)		
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	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 µm	
	Repeatability	±10 µm	
Power Requirements	Single Phase 100~240V 50~60Hz; 1.1 KW		
Air Requirements	N/A		

Machine Dimensions and Weight Including Worktable

MV-3 OMNI	990 mm W x 1,430 mm D x 1,535 mm H (38.97" x 56.30" x 60.43")	600 kg (1,322.8 lbs.)
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