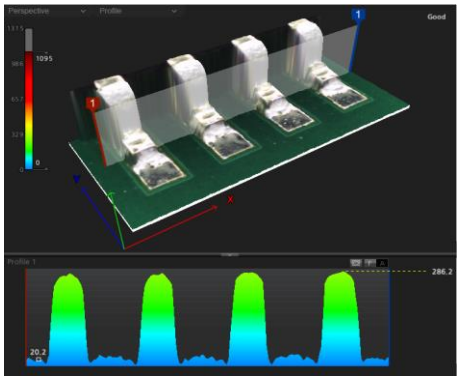
TECHNOLOGICALLY ADVANCED

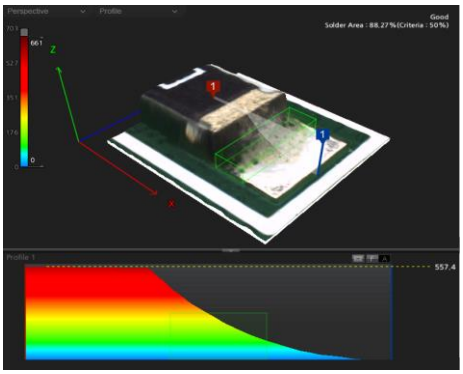
MV-3 OMNI
Desktop 3D AOI

MIRTEC
CoaXPress

- High-Performance **DESKTOP 3D AOI MACHINE**
- **FIFTEEN MEGA PIXEL** CoaXPress Camera Technology
- Advanced Eight Phase Coaxial Color Lighting System
- Ten Micron / Pixel Precision Telecentric Compound Lens
- Integrated Ten Mega Pixel **SIDE-VIEWER®** Camera System
- Precision Closed Loop AC Servo Drive Motor System
- Extremely Simple Programming and Operation



3D Co-Planarity Inspection - Gull Wing Device



3D Solder Fillet Inspection Capability

- Exclusive **OMNI-VISION®** 3D Inspection System
- Eight Projection **DIGITAL MULTI-FREQUENCY MOIRÉ** Technology
- Superior Lifted Lead Detection for Gull Wing Devices
- **FULL 3D** Co-Planarity and Solder Fillet Inspection Capability
- Superior Defect Detection, Absolute Lowest False Call Rate

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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")

Image Transfer Technology			
15 Mega Pixel	3,904 x 3,904 Pixels	CoaXpress	120 fps

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

3D Maximum Inspection Speed			
15 Mega Pixel Camera	Option 1	Pixel Resolution:15 um	4,260 mm^2/sec (6.6 in^2/sec)
	Option 2	Pixel Resolution:10 um	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 um
	Repeatability	±10 um
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.)