

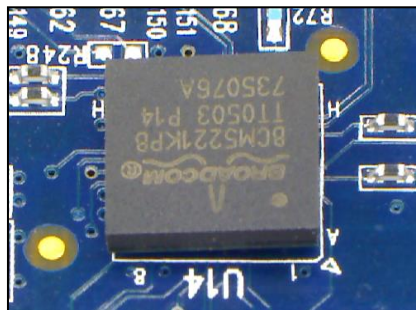
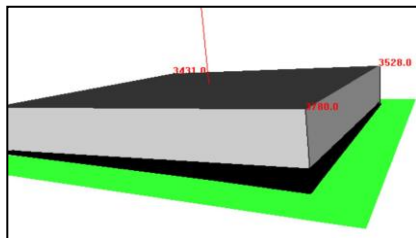
## MV-3

### Desktop 2D/3D AOI Series

- ▶ Exclusive 10MP/18MP Camera System
- ▶ Precision Compound Telecentric Camera Lens
- ▶ Eight Phase Color Lighting System
- ▶ 10MP/18MP SIDE-VIEWER® Camera System
- ▶ Precision Compound Telecentric Camera Lens
- ▶ Eight Phase Color Lighting System
- ▶ Integrated INTELLI-BEAM® Laser Inspection System
- ▶ 3D Co-Planarity Inspection of BGA and CSP Devices
- ▶ Enhanced 3D Solder Paste Height Measurement Capability
- ▶ INTELLISYS® Industry 4.0 Intelligent Factory Automation System

#### INTELLI-BEAM®

Laser 3D Inspection System



# MV-3L Desktop 2D/3D AOI Series Specifications

## Standard Features:

- ▶ Intel® Multi-Core PC, 32" Flat Screen LCD Monitor, Windows 10™ OS, HDD, Mouse & Keyboard, Network LAN Card.
- ▶ Adjustable PCB Work Fixture with Safety Light Curtain.
- ▶ 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:

- ▶ 5MP/10MP CameraLink or 18MP CoaXPress Top-Down Color Camera System (See Specifications).
- ▶ SIDE-VIEWER® Camera System - Quantity (4) 10MP or 18MP CXP Side-Angle Digital Color Cameras. (See Specifications).
- ▶ ePM-AOI CAD Import Software. ODB++ Import Module Sold Separately (Requires ePM AOI).
- ▶ INTELLI-BEAM® Laser 3D Inspection System for Co-Planarity Inspection of BGA and CSP Devices.
- ▶ 2D Bar Code Reader Options: Gun Type and Camera Type.
- ▶ 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-3L	50 mm x 50 mm to 450 mm x 400 mm (2.0" x 2.0" to 17.2" x 15.75")
MV-3U	50 mm x 50 mm to 660 mm x 510 mm (2.0" x 2.0" to 25.98" x 20.08")

Vision System (FOV Size)			
5MP CameraLink: (2,624 x 1,920 @ 30 fps)	Option 1	Pixel Resolution: 13.4 um	35.16 mm x 25.73 mm (1.38" x 1.01")
	Option 2	Pixel Resolution: 9.8 um	25.72 mm x 18.82 mm (1.01" x 0.74")
10MP CameraLink: (3,664 x 2,736 @ 15 fps)	Option 1	Pixel Resolution: 13.4 um	49.09 mm x 36.66 mm (1.93" x 1.44")
	Option 2	Pixel Resolution: 9.8 um	35.90 mm x 26.81 mm (1.38" x 1.06")
18MP CoaXPress: (4,912 x 3,684 @ 24 fps)	Option 1	Pixel Resolution: 9.8 um	48.13 mm x 36.10 mm (1.89" x 1.42")
	Option 1	Pixel Resolution: 7.3 um	36.03 mm x 27.02 mm (1.42" x 1.06")

Inspection Technology	
2D Inspection Technology	5MP/10MP CameraLink / 18MP CoaXPress Top-Down Camera System
3D Inspection Technology	INTELLI-BEAM® Laser 3D Inspection System: (8 um/Point)
Maximum 3D Inspection Height	10 mm @ ±20 um
2D Inspection Item	Missing Component, Wrong Component, Mis-Alignment, Skewed Component, Polarity, Tombstone, Solder Joint, Solder Bridge, Flipped Device, Solder Ball, Etc
3D Inspection Item	Four (4) Point 3D Laser Height Inspection for Co-Planarity of BGA and CSP Devices

Additional Specifications	
Lens Configuration	Precision Telecentric Compound Lens Design
Lighting System	Eight (8) Phase Color LED / Three (3) Phase White Lighting
SIDE-VIEWER® Camera System	Quantity Four - 10MP Color Side-Angle Cameras
	Quantity Four - 18MP CoaXPress Color Side-Angle Cameras
PCB Surface Clearance	Top-Side Clearance: 45 mm / Bottom-Side Clearance: 45 mm
PCB Edge Clearance	Top-Edge Clearance: 3 mm / Bottom-Edge Clearance: 3.5 mm
Maximum PCB Warpage	±2 mm
Maximum PCB Weight	Standard: 3 Kg (6.61 Lbs.)
PCB Thickness Range	Standard: 0.5 mm - 3 mm / Optional: 0.5 mm - 5 mm
Minimum Component Inspection	0402 Chip (mm) / 01005 Chip (in) / 0.3 Pitch (mm)
Robot Positioning System	Precision Closed Loop Stepper Motor System, Resolution: 3.7 um / Repeatability: ±20 um
Power Requirements	Single Phase 100~240V 50~60Hz; 1.1 KW, Breaker Capacity: 7 Amp

Machine Dimensions and Weight		
MV-3L	975 mm L x 1,200 mm W x 655 mm H (38.39" x 47.24" x 25.79")	160 Kg (352.74 lbs.)
MV-3U	1,185 mm L x 1,455 mm W x 690 mm H (46.65" x 57.28" x 27.17")	300 Kg (661.39 lbs.)