MVP Aura

Automated In-Line Inspection And Metrology For Packaged ICs, BGAs, And Leaded Devices
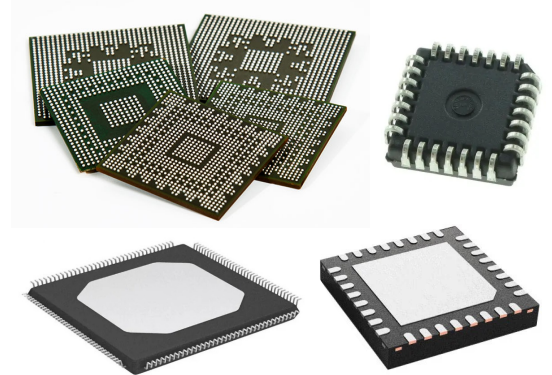
Key Features

- **Full Inspection: Height, Position, Metrology and Coplanarity Measurements**
- **In-Line JEDEC Tray Handling**
  - **Sorting to Defect Tray.**
  - **Interchangeable Vacuum Nozzles for Large and Small Packages**
- **Inspect Parts Independent of Camera FOV**
- **Single Sided Inspection**
- **Small Footprint**

Inspect Ball Grid Array (BGA), Quad Flatpacks (QFP), Quad Flatpacks No-Leads (QFN), Plastic Leaded Chip Carriers (PLCC), and More

MVP Aura

MVP's Aura platform takes in-line package inspection to the next level. Key features include; top side inspection, Automated in-line tray loading, Automated part sorting, Pin/ball Position, Height, and Coplanarity measurements. Additionally, MVP's Aura uses the latest advanced 3D high-resolution imaging to provide inspection and measurement capabilities for todays most demanding devices and packages.
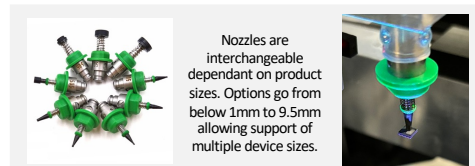
MVP
MACHINE VISION PRODUCTS

Model	MVP Aura	
Performance		
In-Line Handling From JEDEC Tray	Leaded, no-lead and array packages including: BGA, CGA, CSP, MCM, SiP, SGA, SOP, QFP, TSOP, LGA, QFN, MLF, LCC	
Inspection Capability	Coplanarity, ball/Pin presence, position, offset, pitch, extra ball, discolored balls, body width, tip-to-tip, lead width, ball damage, surface inspection and SMT.	
Sorting	Tray to Tray	
Loading	In-Line	
3D Optics Options		
3D FOV	24.1mm	60mm
3D Accuracy	+- 10um	+- 20um
Software		
Offline Program Generation	ePro	
Program Debug Environment	iPro and Validate	
SPC and Reporting	AutoData DPC - Sql based data reporting ELSR - End Lot Summary Reporting Optional: AutoData, line integration to paste systems	
CAD and Gerber Inputs	Standard, Placement, Gerber and ODB++ data import	
Defect Review	In-Line or Off-Line defect review using iRepair	
Multi-Pass	Programmable heights and lighting per pass	
System		
Computer	Dual Processor - Multi-Threading Fast SSD Hard Drive - 64GB Memory	
Operating System	Linux based Multi-Threading CentOS Operating System	
Data Integration Options	SECS/GEM, AutoData, DPC	
Networking	Full network integration (TCP/IP, NFS Protocol)	
Physical		
Tray Handling	JEDEC Standards 95-1 & IEC 60286-5	
Footprint	990mm (39") W x 1100mm (43") D x 1580mm (62") H	
Power	208-240VAC 50/60Hz, 10A (Optional 110V)	
Air	60 PSI, 1CFM	
Vacuum	20kPa	
Weight	Approximatly 500 kgs (1100 lbs.)	
Compliance	CE - (UL Optional)	

MVP Aura – Full Automated In-Line Inspection For BGA, Bumped, LGA, QFP, J-Lead And Custom Array Or Leaded Devices

The Aura system automates the in-line packaging inspection process while retaining the highest level of inspection quality. Packages in JEDEC Trays are loaded as an in-line process and Parts inspected in a Dead Bug* orientation. For defect sorting empty trays loaded for defect parts and our pick and place capability sorts defective parts to the empty tray.
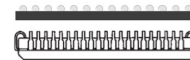
High resolution 3D optics are used ball/Pin, coplanarity, metrology and inspection.

Nozzles are interchangeable dependant on product sizes. Options go from below 1mm to 9.5mm allowing support of multiple device sizes.

For defect sorting, multiple nozzles and grippers can be used for part sorting. For data integration the MVP Aurora system uses the optional SECS/GEM, E142 e-Maps and ELSRs to provide accurate manufacturing data.
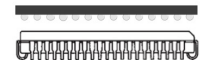
MVPs optional AutoData system provides SQL database integration for full traceability and image archiving for all devices.
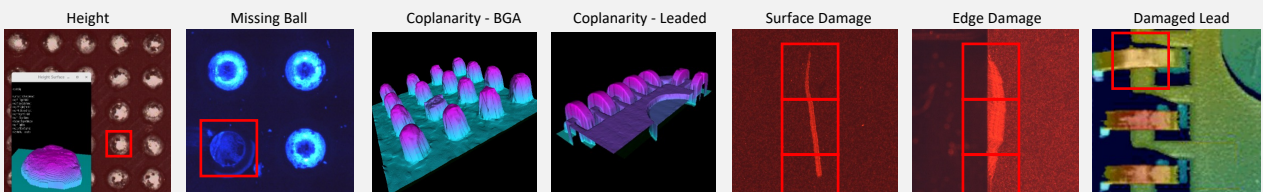

*Dead Bug
Aura

*Live Bug
Aurora

Defect Examples

Height | Missing Ball | Coplanarity - BGA | Coplanarity - Leaded | Surface Damage | Edge Damage | Damaged Lead

Provides Packaged IC and Component Inspection.
Use for Your Outgoing Quality Control (OQC) for all package types; Ball Grid Arrays (BGA), Quad Flat Packs (QFP), Thin Quad Flat Package (TQFP), Chip Scale Package (CSP), Wafer-Level Package (WLP), Quad Flatpack No-Leads (QFN), Bump Chip Carrier (BCC), Land Grid Array (LGA), Micro-Coil Spring Arrays and more…

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