

MVP Aurora

Automated Inspection And Metrology For Packaged ICs, BGAs, And Leaded Devices

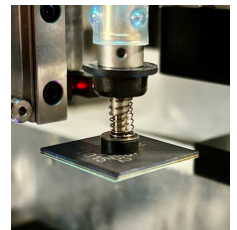
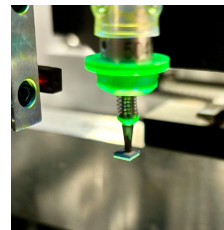


MVP Aurora

MVP's Aurora platform takes package inspection to the next level. Key features include; Top and bottom side inspection, Automated tray loading, Automated part sorting. Part marking and surface inspection, Pin/ball Position, Height, and Coplanarity measurements. Additionally, MVP's Aurora uses the latest advanced 3D optics and high-resolution imaging to provide inspection and measurement capabilities for today's most demanding devices and packages.

Key Features

- Top-Side Package and Marking Inspection
- Bottom-Side Height, Position and Coplanarity Measurements
- Fully Automated JEDEC Tray Handling
 - Sorting to Defect Tray, Stack Only has Good Parts
 - Load Stacks of 30 Thin or 20 Thick Trays
 - Automated Pick for Inspection
 - Interchangeable Vacuum Nozzles for Large and Small Packages
- Small Footprint



MVP Aurora

MVP “AOI Elevated”

Model	MVP Aurora		
Performance			
Package 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	Side 1: Surface and part marking inspection other components including SMT, die surface, bumps, lands and leads. Side 2: Coplanarity, ball/Pin presence, position, offset, pitch, extra ball, discolored balls, body width, tip-to-tip, lead width, ball damage, surface dents and SMT.		
Sorting	Tray to Tray		
Loading	20 thick or 30 thin JEDEC trays (standards 95-1 & IEC 60286-5) max. stack weight 9 kg, optional 18 kg max. tray weight 1000 g		
Top Side Optics			
Optics Camera	Options between 2.5um to 20um		
3D Optics Options			
3D FOV	24.1mm	60mm	Standard Optics
3D Coplanarity Accuracy	1.5um	3um	
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	Xeon Processor Based Fast 1TB SSD Hard Drive - 64GB Memory		
Operating System	Linux based Multi-Threading Ubuntu 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	1433mm (56.42") W x 1193mm (46.97") D x 1684mm (66.3") H		
Power	208-240VAC 50/60Hz, 10A (Optional 110V)		
Air	60 PSI, 1CFM		
Vacuum	20kPa or Optional Vacuum Ejector		
Weight	Approximately 726 kgs (1600 lbs.)		
Compliance	CE - (UL Optional)		

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

The Aurora system automates the packaging inspection process while retaining the highest level of inspection quality. Packages in JEDEC Trays are loaded as a stack in the inspection area and empty trays loaded for defect parts.



High resolution optics are used for topside inspection and 3D optics used for ball/Pin inspection.



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

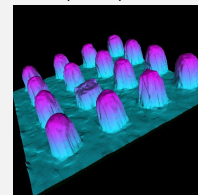


For data integration the MVP Aurora system uses the optional SECS/GEM, E142 e-Maps and ELSRs to provide accurate manufacturing data.

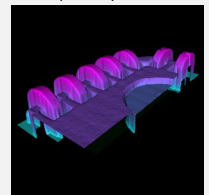
MVPs optional AutoData system provides SQL database integration for full traceability and image archiving for all devices.

Defect Examples

Coplanarity – BGA

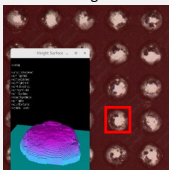


Coplanarity - Leaded

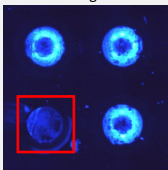


Defect Examples

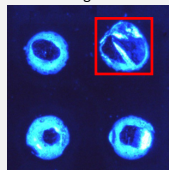
Height



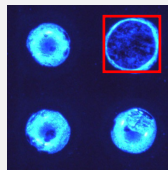
Missing Ball



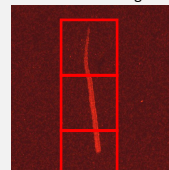
Damaged Ball



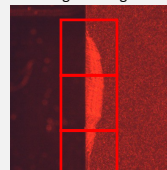
Coined



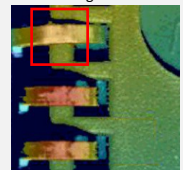
Surface Damage



Edge Damage



Damaged Lead



Note: Defects examples shown use the range of optics packages available on the Aurora



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